

TUBE ASSY PART NO.	FABRICATE FROM NSN	STOCK DIM			END FITTING				SYS- TEM
		O.D.	W.T.	L.	NUT NSN	QTY	SLEEVE NSN	QTY	
204-040-215-19	4710-00-278-8726	3/8	.035	12	4730-00-142-2167	2	4730-00-278-0070	2	Lub
204-040-215-27	4710-00-278-8726	3/8	.035	12	4730-00-142-2167	2	4730-00-278-6070	2	Lub
204-040-838-1	4710-00-278-8745	3/4	.035	23	4730-00-287-0285	2	4730-00-287-0067	2	Lub
209-030-311-1	4710-00-278-6402	3/8	.028	10	4730-00-142-2167	2	4730-00-278-6070	2	Fuel
209-030-312-1	4710-00-278-6402	3/8	.028	9	4730-00-142-2167	2	4730-00-278-6070	2	Fuel
209-030-661-1	4710-00-278-6402	3/8	.028	24	4730-00-142-2167	2	4730-00-278-6070	2	Drain
209-030-662-1	4710-00-287-6402	3/8	.028	11	4730-00-142-2167	2	4730-00-278-6070	2	Drain
209-030-663-1	4710-00-287-6402	3/8	.028	32	4730-00-142-2167	2	4730-00-278-6070	2	Drain
209-030-664-1	4710-00-287-6402	3/8	.028	21	4730-00-142-2167	2	4730-00-278-6070	2	Drain
209-030-665-1	4710-00-287-6402	3/8	.028	13	4730-00-142-2167	2	4730-00-278-6070	2	Drain
209-030-666-1	4710-00-287-6402	3/8	.028	14	4730-00-142-2167	2	4730-00-278-6070	2	Drain
209-040-211-1	4710-00-595-2416	5/8	.028	47	4730-00-287-0290	2	4730-00-277-5358	2	Lub
209-040-214-1	4710-00-595-2416	5/8	.028	37	4730-00-287-0290	2	4730-00-277-5358	2	Lub
209-040-215-1	4710-00-595-2416	5/8	.028	8	4739-00-287-0290	2	4730-00-277-5358	2	Lub
209-040-216-1	4710-00-278-6402	3/8	.028	11	4730-00-142-2167	1	4730-00-278-6070	1	Lub
209-040-511-1	4710-00-278-8726	3/8	.035	8	4730-00-142-2167	2	4730-00-278-6070	2	Lub
209-060-224-1	4710-00-278-8723	1	.035	21	4730-00-222-1915	1	4730-00-287-0065	1	Drain
209-060-427-1	4710-00-825-5894	1/4	.020	16	4730-01-096-7986	2	4730-00-278-0678	2	Pneu.
209-060-505-1	4710-00-278-8726	3/8	.035	6	4730-00-142-2167	2	4730-00-278-6070	2	Lub
209-060-506-1	4710-00-278-8726	3/8	.035	29	4730-00-142-2167	2	4730-00-278-6070	2	Lub
209-060-507-1	4710-00-278-8726	3/8	.035	29	4730-00-142-2167	2	4730-00-278-6070	2	Lub
209-060-537-1	4710-00-595-2416	5/8	.028	25	4730-00-287-0290	2	4730-00-277-5358	2	Lub
209-060-541-1	4710-00-595-2416	5/8	.028	33	4730-00-287-0290	2	4730-00-277-5358	2	Lub
209-060-544-1	4710-00-278-6398	1/4	.035	44	4730-00-287-0289	2	4730-00-302-8641	2	Lub
209-060-545-1	4710-00-278-6398	1/4	.035	11	4730-00-287-0289	1	4730-00-302-8641	1	Lub
209-060-558-1	4710-00-278-6402	3/8	.028	42	4730-00-142-2167	2	4730-00-278-6070	2	Lub
209-060-559-1	4710-00-278-6402	3/8	.028	11	4730-00-142-2167	2	4730-00-278-6070	2	Lub
209-060-560-1	4710-00-278-6402	3/8	.028	44	4730-00-142-2167	2	4730-00-278-6070	2	Lub
209-060-567-1	4710-00-278-6402	5/8	.028	20	4730-00-287-0290	2	4730-00-277-5358	2	Lub

Table D-1 (Sheet 1 of 7)

TUBE ASSY PART NO.	FABRICATE FROM NSN	STOCK DIM			END FITTING				SYS- TEM
		O.D.	W.T.	L.	NUT NSN	QTY	SLEEVE NSN	QTY	
209-060-568-1	4710-00-278-8745	3/4	.035	23	4730-00-287-0285	2	4730-00-287-0067	2	Lub
209-060-571-1	4710-00-278-6402	3/8	.028	13	4730-00-142-2167	2	4730-00-278-6070	2	Lub
209-060-572-1	4710-00-278-6402	3/8	.028	10	4730-00-142-2167	2	4730-00-278-6070	2	Lub
209-060-574-1	4710-00-595-2416	5/8	.028	13	4730-00-287-0290	2	4730-00-277-5358	2	Lub
209-060-575-1	4710-00-278-7954	3/4	.028	7	4730-00-287-0285	2	4730-00-287-0067	2	Lub
209-060-587-1	4710-00-541-4932	1/4	.028	10	4730-00-287-0289	2	4730-00-302-8641	2	Lub
209-060-608-1	4710-00-541-4932	1/4	.028	21	4730-00-287-0289	2	4730-00-302-8641	2	Fuel
209-060-610-1	4710-00-278-7954	3/4	.028	57	4730-00-287-0285	2	4730-00-287-0067	2	Fuel
209-060-611-1	4710-00-278-7954	3/4	.028	19	4730-00-287-0285	2	4730-00-287-0067	2	Fuel
209-060-614-1	4710-00-541-4932	1/4	.028	12	4730-00-287-0289	1	4730-00-302-8641	1	Fuel
209-060-615-1	4710-00-278-6402	3/8	.028	12	4730-00-142-2167	1	4730-00-278-6070	1	Fuel
209-060-616-1	4710-00-541-8621	1/4	.028	19	4730-00-222-1912	2	4730-00-278-0678	2	Fuel
209-060-617-1	4710-00-540-6725	5/8	.028	16	4730-00-287-0295	2	4730-00-277-5357	2	Fuel
209-060-618-1	4710-00-595-2416	5/8	.028	15	4730-00-287-0290	2	4730-00-277-5358	2	Fuel
209-060-619-1	4710-00-595-2416	5/8	.028	15	4730-00-287-0290	2	4730-00-277-5358	2	Fuel
209-060-620-1	4710-00-595-2416	5/8	.028	34	4730-00-287-0290	2	4730-00-277-5358	2	Fuel
209-060-621-1	4710-00-278-6402	3/8	.028	15	4730-00-142-2167	2	4730-00-278-6070	2	Fuel
209-060-622-1	4710-00-278-6402	3/8	.028	40	4730-00-142-2167	1	4730-00-278-6070	1	Fuel
209-060-624-1	4720-00-278-7954	3/4	.028	12	4730-00-287-0285	1	4730-00-287-0067	1	Fuel
209-060-625-1	4710-00-278-6402	3/8	.028	61	4730-00-142-2167	1	4730-00-278-6070	1	Fuel
209-060-634-1	4710-00-541-8621	1/4	.028	13	4730-00-287-0289	2	4730-00-302-8641	2	Fuel
209-060-635-1	4710-00-278-2858	1/4	.028	13	4730-00-287-0289	2	4730-00-302-8641	2	Fuel
209-060-636-1	4710-00-541-8621	1/4	.028	12	4730-00-287-0289	2	4730-00-302-8641	2	Lub
209-060-637-1	4710-00-541-4932	1/4	.028	11	4730-00-287-0289	2	4730-00-302-8641	2	Lub
209-060-638-1	4710-00-279-0195	1	.035	43	N/A	N/A	N/A	N/A	Pneu.
209-060-639-1	4710-00-541-4932	1/4	.028	8	4730-00-287-0289	2	4730-00-302-8641	2	Fuel
209-060-640-1	4710-00-541-4932	1/4	.028	8	4730-00-287-0289	2	4730-00-302-8641	2	Lub
209-060-643-1	4710-00-595-2416	5/8	.028	15	4730-00-287-0290	1	4730-00-277-5358	1	Fuel
209-060-646-1	4710-00-278-7954	3/4	.028	26	4730-00-287-0285	2	4730-00-287-0067	2	Fuel

Table D-1 (Sheet 2 of 7)

TUBE ASSY PART NO.	FABRICATE FROM NSN	STOCK DIM			END FITTING			QTY	SYS- TEM
		O.D.	W.T.	L	NUT NSN		SLEEVE NSN		
209-060-647-1	4710-00-595-2416	5/8	.028	23	4730-00-287-0290	2	4730-00-277-5358	2	Fuel
209-060-648-1	4710-00-278-7954	3/4	.028	17	4730-00-287-0285	2	4730-00-287-0067	2	Fuel
209-060-649-1	4710-00-278-7954	3/4	.028	30	4730-00-287-0285	2	4730-00-287-0067	2	Fuel
209-060-680-1	4710-00-541-8621	1/4	.028	13	4730-00-287-0285	1	4730-00-302-0678	1	Fuel
209-070-401-1	4710-00-278-8723	1	.035	32	N/A	N/A	N/A		Pneu.
209-070-447-1	4710-00-279-0195	1	.035	32	N/A	N/A	N/A	N/A	Pneu.
209-070-450-1	4710-00-278-7959	1	.028	14	4730-00-287-0063	1	4730-00-287-0065	1	Pneu.
209-070-487-1	4710-00-279-0195	1	.035	17	N/A	N/A	N/A	N/A	Pneu.
209-070-489-1	4710-00-278-6402	3/8	.028	31	4730-00-142-2167	2	4730-00-287-6070	2	Pneu.
209-070-497-1	4710-00-279-0195	1	.035	17	N/A	N/A	N/A	N/A	Pneu.
209-070-525-1	4710-00-279-0195	1	.035	26	N/A	N/A	N/A	N/A	Pneu.
209-070-527-1	4710-00-278-8723	1	.035	43	4730-00-287-0063	1	4730-00-287-0065	1	Pneu.
209-070-543-1	4710-00-279-0195	1	.035	11	N/A	N/A	N/A	N/A	Pneu.
209-070-565-1	4710-00-541-4932	1/4	.028	10	4730-00-287-0289	2	4730-00-302-8641	2	Pneu.
209-076-118-1	4710-00-287-1841	3/8	.035	18	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-119-1	4710-00-278-8726	3/8	.035	19	4730-00-142-2167 4730-00-554-7397	1 1	4730-00-278-6070 4730-00-554-7398	1 1	Hyd.
209-076-137-1	4710-00-142-3010	1/2	.035	46	4730-00-555-0595	2	4730-00-580-2120	2	Arm. Pyl.
209-076-138-1	4710-00-142-3010	1/2	.035	14	4730-00-555-0595	2	4730-00-580-2120	2	Arm. Pyl.
209-076-139-1	4710-00-142-3010	1/2	.035	24	4730-00-555-0595	2	4730-00-580-2120	2	Arm. Pyl.
209-076-140-1	4710-00-142-3010	1/2	.035	25	4730-00-555-0595	2	4730-00-580-2120	2	Arm. Pyl.
209-076-141-1	4710-00-142-3010	1/2	.035	16	4730-00-555-0595	2	4730-00-580-2120		Arm. Pyl.
209-076-142-1	4710-00-142-3010	1/4	.035	17	4730-00-555-8203	2	4730-00-289-8619	2	Arm. Pyl.

Table D-1 (Sheet 3 of 7)

TUBE ASSY PART NO.	FABRICATE FROM NSN	STOCK DIM			END FITTING			QTY	SYS- TEM
		O.D.	W.T.	L.	NUT NSN	QTY	SLEEVE NSN		
209-076-143-1	4710-00-142-3010	1/2	.035	25	4730-00-555-0595	2	4730-00-580-2120		Arm. Pyl.
209-076-144-1	4710-00-289-2788	1/4	.035	17	4730-00-555-8203	2	4730-00-289-8619	2	Arm. Pyl.
209-076-145-1	4710-00-287-1841	3/8	.035	25	4730-00-554-7397	2	4730-00-554-7398	2	Arm. Pyl.
209-076-146-1	4710-00-287-1841	3/8	.035	46	4730-00-554-7397	2	4730-00-554-7398	2	Arm. Pyl.
209-076-147-1	4710-00-267-1841	3/8	.035	26	4730-00-554-7397	2	4730-00-554-7398	2	Arm. Pyl.
209-076-148-1	4710-00-287-1841	3/8	.035	29	4730-00-554-7397	2	4730-00-554-7398	2	Arm. Pyl.
209-076-149-1	4710-00-287-1841	3/8	.035	14	4730-00-554-7397	2	4730-00-554-7398	2	Arm. Pyl.
209-076-150-1	4710-00-287-1841	3/8	.035	12	4730-00-554-7397	2	4730-00-554-7398	2	Arm. Pyl.
209-076-151-1	4710-00-287-1841	3/8	.035	13	4730-00-554-7397	2	4730-00-554-7398	2	Arm. Pyl.
209-076-152-1	4710-00-287-1841	3/8	.035	12	4730-00-554-7397	2	4730-00-554-7398	2	Arm. Pyl.
209-076-153-1	4710-00-287-1841	3/8	.035	24	4730-00-554-7397	2	4730-00-554-7398	2	Arm. Pyl.
209-076-154-1	4710-00-287-1841	3/8	.035	19	4730-00-554-7397	2	4730-00-554-7398	2	Arm. Pyl.
209-076-155-1	4710-00-287-1841	3/8	.035	19	4730-00-554-7397	2	4730-00-554-7398	2	Arm. Pyl.
209-076-156-1	4710-00-287-1841	3/8	.035	24	4730-00-554-7397	2	4730-00-554-7398	2	Arm. Pyl.
209-076-202-1	4710-00-142-3010	1/2	.035	23	4730-00-555-0595	2	4730-00-554-7398	2	Hyd.
209-076-205-1	4710-00-142-3010	1/2	.035	16	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-207-1	4710-00-142-3010	1/2	.035	22	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-208-1	4710-00-287-1841	3/8	.035	17	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-209-1	4710-00-289-2537	1	.049	12	4730-00-555-8196	2	4730-00-289-8623	2	Hyd.
209-076-211-1	4710-00-142-3010	1/2	.035	36	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-212-1	4710-00-142-3010	1/2	.035	52	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-213-1	4710-00-287-1841	3/8	.035	14	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-214-1	4710-00-142-3010	1/2	.035	40	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.

Table D-1 (Sheet 4 of 7)

TUBE ASSY PART NO.	FABRICATE FROM NSN	STOCK DIM			END FITTING			QTY	SYS- TEM
		O.D.	W.T.	L.	NUT NSN	QTY	SLEEVE NSN		
209-076-215-1	4710-00-142-3010	1/2	.035	30	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-216-1	4710-00-287-1841	3/8	.035	23	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-217-1	4710-00-287-1841	3/8	.035	15	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-219-1	4710-00-142-3010	1/2	.035	18	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-220-1	4710-00-142-3010	1/2	.035	29	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-221-1	4710-00-289-2781	1/4	.035	12	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-222-1	4710-00-287-1841	3/8	.035	34	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-223-1	4710-00-287-1841	3/8	.035	28	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-224-1	4710-00-289-2781	1/4	.035	21	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-225-1	4710-00-142-3009	5/16	.035	15	4730-00-555-8012	2	4730-00-289-8620	2	Hyd.
209-076-226-1	4710-00-289-2781	1/4	.035	9	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-227-1	4710-00-289-2781	1/4	.035	9	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-228-1	4710-00-289-2781	1/4	.035	14	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-229-1	4710-00-287-1841	3/8	.035	12	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-230-1	4710-00-287-1841	3/8	.035	16	4730-00-554-7397	2	4730-00-554-7399	2	Hyd.
209-076-231-1	4710-00-287-1841	3/8	.035	12	4730-00-534-7397	2	4730-00-554-7398	2	Hyd.
209-076-232-1	4710-00-142-3009	5/16	.035	8	4730-00-555-8012	2	4730-00-289-8620	2	Hyd.
209-076-234-1	4710-00-287-1841	3/8	.035	11	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-235-1	4710-00-289-2781	1/4	.035	17	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-236-1	4710-00-142-3010	1/2	.035	28	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-237-1	4710-00-289-2781	1/4	.035	14	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-238-1	4710-00-289-2781	1/4	.035	8	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-239-1	4710-00-289-2781	1/4	.035	8	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-240-1	4710-00-287-1841	3/8	.035	9	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-241-1	4710-00-289-2781	1/4	.035	36	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-242-1	4710-00-142-3009	5/16	.035	11	4730-00-555-8012	2	4730-00-289-8620	2	Hyd.
209-076-243-1	4710-00-289-2781	1/4	.035	11	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-244-1	4710-00-289-2781	1/4	.035	15	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-245-1	4710-00-142-3009	5/16	.035	13	4730-00-555-8012	2	4730-00-289-8620	2	Hyd.
209-076-246-1	4710-00-142-3009	5/16	.035	19	4730-00-555-8012	2	4730-00-289-8620	2	Hyd.

Table D-1 (Sheet 5 of 7)

TUBE ASSY PART NO.	FABRICATE FROM NSN	STOCK DIM			END FITTING			QTY	SYS- TEM
		O.D.	W.T.	L.	NUT NSN	QTY	SLEEVE NSN		
209-076-247-1	4710-00-289-2781	1/4	.035	22	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-248-1	4710-00-289-2781	1/4	.035	14	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-250-1	4710-00-142-3010	1/2	.035	48	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-251-1	4710-00-142-3010	1/2	.035	48	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-256-1	4710-00-142-3010	1/2	.035	18	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-258-1	4710-00-142-3010	1/2	.035	23	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-264-1	4710-00-289-2781	1/4	.035	15	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-265-1	4710-00-289-2781	1/4	.035	14	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-266-1	4710-00-289-2781	1/4	.035	25	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-267-1	4710-00-289-2781	1/4	.035	24	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-268-1	4710-00-287-1841	3/8	.035	29	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-269-1	4710-00-287-1841	3/8	.035	26	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-270-1	4710-00-287-1841	3/8	.035	18	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-271-1	4710-00-287-1841	3/8	.035	10	4730-00-554-7397	2	4730-00-554-8398	2	Hyd.
209-076-272-1	4710-00-287-1841	3/8	.035	19	4730-00-554-7397	2	4730-00-554-7399	2	Hyd.
209-076-273-1	4710-00-287-1841	3/8	.035	19	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-274-1	4710-00-287-1841	3/8	.035	9	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-276-1	4710-00-278-8726	3/8	.035	34	4730-00-142-2167	2	4730-00-278-6070	2	Hyd.
209-076-278-1	4710-00-289-2781	1/4	.035	23	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-279-1	4710-00-142-3009	5/16	.035	19	4730-00-555-8012	2	4730-00-289-8620	2	Hyd.
209-076-280-1	4710-00-142-3009	5/16	.035	16	4730-00-555-8012	2	4730-00-289-8620	2	Hyd.
209-076-285-1	4710-00-142-3010	1/2	.035	12	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-286-1	4710-00-142-3010	1/2	.035	29	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-291-1	4710-00-142-3010	1/2	.035	19	4730-00-555-0595	2	4730-00-581-2120	2	Hyd.
209-076-292-1	4710-00-278-6411	1/2	.068	6	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-295-1	4710-00-278-6411	1/2	.068	20	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-296-1	4710-00-278-6411	1/2	.068	12	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-297-1	4710-00-278-6411	1/2	.068	23	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-298-1	4710-00-289-2781	1/4	.035	13	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-299-1	4710-00-142-3010	1/2	.035	20	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.

Table D-1 (Sheet 6 of 7)

TUBE ASSY PART NO.	FABRICATE FROM NSN	STOCK DIM			END FITTING			QTY	SYS- TEM
		O.D.	W.T.	L.	NUT NSN		SLEEVE NSN		
209-076-300-1	4710-00-278-6411	1/2	.058	6	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-302-1	4710-00-142-3010	1/2	.035	12	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-303-1	4710-00-289-2786	1/2	.035	24	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-304-1	4710-00-289-2781	1/4	.035	24	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-305-1	4710-00-142-3009	5/16	.035	23	4730-00-555-8012	2	4730-00-289-8620	2	Hyd.
209-076-306-1	4710-00-289-2781	1/4	.035	9	4730-00-555-8203	2	4730-00-289-8619	2	Hyd.
209-076-307-1	4710-00-142-3009	5/16	.035	13	4730-00-555-8012	2	4730-00-289-8620	2	Hyd.
209-076-308-1	4710-00-142-3009	5/16	.035	19	4730-00-555-8012	2	4730-00-289-8620	2	Hyd.
209-076-309-1	4710-00-287-1841	3/8	.035	17	4730-00-142-2167	2	4730-00-278-6070	2	Hyd.
209-076-310-1	4710-00-142-3010	1/2	.035	46	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-312-1	4710-00-541-4949	1/2	.035	53	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-313-1	4710-00-142-3010	1/2	.035	54	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-314-1	4710-00-287-1841	3/8	.035	6	4730-00-142-2167	2	4730-00-278-6070	2	Hyd.
209-076-315-1	4710-00-287-1841	3/8	.035	17	4730-00-142-2167	2	4730-00-278-6070	2	Hyd.
209-076-316-1	4710-00-142-3010	1/2	.035	35	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-317-1	4710-00-287-1841	3/8	.035	21	4730-00-142-2167	2	4730-00-278-6070	2	Hyd.
209-076-318-1	4710-00-142-3010	1/2	.035	34	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-364-1	4710-00-287-1841	3/8	.035	29	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-366-1	4710-00-142-3010	1/2	.035	11	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-368-1	4710-00-287-1841	3/8	.035	33	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-370-1	4710-00-287-1841	3/8	.035	29	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-371-1	4710-00-142-3010	1/2	.035	17	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-381-1	4710-00-287-1841	3/8	.035	13	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-394-1	4710-00-287-1841	3/8	.035	13	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-395-1	4710-00-142-3010	1/2	.035	18	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-396-1	4710-00-287-1841	3/8	.035	28	4730-00-554-7397	2	4730-00-554-7398	2	Hyd.
209-076-397-1	4710-00-142-3010	1/2	.035	16	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-398-1	4710-00-142-3010	1/2	.035	23	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.
209-076-414-1	4710-00-142-3010	1/2	.035	18	4730-00-555-0595	2	4730-00-580-2120	2	Hyd.

Table D-1 (Sheet 7 of 7)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
204-040-215-19	1	2	15/16	0	90	Y - AN818-6D MS20819-6D X - AN818-6D MS20819-6D
	2	4 1/2	15/16	0	90	
		10 3/16	III	III	N/A	
204-040-215-27	1	2 7/8	15/16	0	90	Y - AN818-6D MS20819-6D X - AN818-6D MS20819-6D
	2	7	15/16	90	22	
		10 3/8	III	III	N/A	
204-040-733-1	1	1 1/8	1 3/4	0	60	Y - AN818-12D MS20819-12D X - AN818-12D MS20819-12D
		6 19/32	I	I	100 PSI	
204-040-838-1	1	5 11/16	1 3/4	0	91	Y - AN818-12D MS20819-12D X - AN818-12D MS20819-12D
	2	14 3/8	1 3/4	137	109	
		19 1/16	I	I	120 PSI	
209-030-311-1	1	1 1/16	1	0	90	Y - AN818-6D MS20819-6D X - AN818-6D MS20819-6D
		7 1/8	III	III	N/A	
209-030-312-1	1	1 1/4	1	0	90	Y - AN818-6D MS20819-6D X - AN818-6D MS20819-6D
		6 7/8	III	III	N/A	
209-030-661-1	1	1 1/4	1	0	78	Y - AN818-6D MS20819-6D X - AN818-6D MS20819-6D
	2	3 13/16	1	90	25	
	3	18 1/4	1	0	18	
		22 3/8	III	III	N/A	

Table D-2 (Sheet 1 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END DIMENSION "B"	BEND RADIUS TYPE END "Y"	DIAL SETTING TYPE END "X"	BEND ANGLE PRESSURE TEST	END FITTING AND NOTES
209-030-662-1	1	2 1/8	1	0	85	Y - AN818-6D MS20819-6D
	2	6 3/8	1	300	12	X - AN818-6D MS20819-6D
		9 1/4	III	III	N/A	
209-030-663-1	1	1 1/4	1	0	107	Y - AN818-6D MS20819-6D
	2	7 1/4	1	90	75	X - N/A
	3	19 1/2	1	145	75	
	4	22 13/16	1	60	35	
	5	25 7/16	1	335	82	
		30 7/16	III	IV	N/A	
209-030-664-1	1	1 5/16	1	0	122	Y - AN818-6D MS20819-6D
	2	4 15/16	1	180	34	X - AN818-6D MS20819-6D
	3	7 1/2	1	70	85	
	4	11 5/16	1	150	25	
		19 3/16	III	III	N/A	
209-030-665-1	1	1 1/8	1	0	120	Y - AN818-6D MS20819-6D
	2	4 1/2	1	130	35	X - AN818-6D MS20819-6D
	3	6 1/2	1	0	35	
	4	8 3/8	1	275	90	
		II	III	II	N/A	
209-030-666-1	1	1 5/8	1	0	25	Y - AN818-6D MS20819-6D
	2	3 5/8	1	175	28	X - AN818-6D MS20819-6D
		12 5/16	III	III	N/A	
209-040-211-1	1	1 3/16	1 1/2	0	80	Y - AN818-10D MS20819-10D
	2	8 5/16	1 1/2	178	76	X - AN818-10D MS20819-10D
	3	25 1/2	1 1/2	198	88	
	4	32 7/16	1 1/2	18	88	
	5	42 1/2	1 1/2	193	30	
		44 7/8	I	I	N/A	
209-040-214-1	1	2 1/8	1 1/2	0	84	Y - AN818-10D MS20819-10D
	2	9 3/8	1 1/2	180	82	X - AN818-10D MS20819-10D
	3	24 13/16	1 1/2	180	90	
	4	30 3/4	1 1/2	0	40	
		34 1/8	I	I	N/A	
209-040-215-1	1	1 13/16	1 1/2	0	37	Y - AN818-10D MS20819-10D
	2	4 7/16	1 1/2	180	13	X - AN818-10D MS20819-10D
		5 15/16	I	I	N/A	
209-040-216-1	1	2 1/2	1	0	18	Y - AN818-6D MS20819-6D
	2	4 1/2	1	180	15	X - N/A
		8 1/8	III	III	N/A	
209-040-511-1	1	1 3/8	1	0	88	Y - AN818-6D MS20819-6D
		5 1/8	III	III	N/A	X - AN818-6D MS20819-6D

Table D-2 (Sheet 2 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-060-223-1	1	30.75	3.0	0	81	Y - AN818-16D MS20819-16 X - AN818-16D MS20819-16
	2	24.69	3.0	190	89	
	3	13.87	30	60	14	
	4	8.87	3.0	260	43	
	5	3.94	3.0	80	40	
		31.81	1	1	NONE	
209-060-224-1	1	1	3	0	35	Y - AN818-16D MS20819-16D X - Scarf Dial Setting 191
	2	5	3	180	35	
	3	9 13/16	3	113	39	
	4	14 7/8	3	293	39	
		18 3/4	I	V	N/A	
209-060-410-1	1	1 1/4	9/16	0	87	Y - AN818-4 MS20819-4 X - AN818-4 MS20819-4
	2	12 3/16	9/16	122	77	
		13 15/16	I	I	100 PSI	
209-060-505-1	1	1 3/16	1	0	90	Y - AN818-6D MS20819-6D X - AN818-6D MS20819-6D
		3 15/16	III	III	N/A	
209-060-506-1	1	1 9/16	1	0	80	Y - AN818-6D MS20819-6D X - AN818-6D MS20819-6D
	2	7 5/8	1	255	100	
	3	18 7/8	1	190	75	
	4	22 1/8	1	92	25	
		26 5/8	III	III	N/A	
209-060-507-1	1	1 3/8	1	0	90	Y - AN818-6D MS20819-6D X - N/A
	2	7 3/4	1	270	11	
	3	16 3/8	1	180	80	
	4	19 1/8	1	250	80	
	5	22 1/4	1	80	82	
		26 1/2	III	IV	N/A	
209-060-537-1	1	2 1/16	1 1/2	0	35	Y - AN818-10D MS20819-10D X - AN818-10D MS20819-10D
	2	11 5/8	1 1/2	180	20	
		22 5/8	I	I	35 PSI	
209-060-541-1	1	2 9/16	1 1/2	0	88	Y - AN818-10D MS20819-10D X - AN818-10D MS20819-10D
	2	7 1/2	1 1/2	270	21	
	3	12	1 1/2	180	88	
	4	27 1/2	1 1/2	198	22	
		30 9/16	I	I	35 PSI	
209-060-544-1	1	1 3/4	9/16	0	90	Y - AN818-4D MS20819-4D X - AN818-4D MS20819-4D
	2	10 13/16	9/16	176	88	
	3	15 11/16	9/16	260	84	
	4	21 1/2	9/16	75	82	
	5	34 5/8	9/16	67	59	
	6	38 5/8	9/16	255	57	
		41 3/8	III	III	N/A	

Table D-2 (Sheet 3 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END DIMENSION "B"	BEND RADIUS TYPE END "Y"	DIAL SETTING TYPE END "X"	BEND ANGLE PRESSURE TEST	END FITTING AND NOTES
209-060-545-1	1	15/16	9/16	0	52	Y - AN818-4D MS20819-4D X - Scarf Dial Setting 335
	2	5 3/4	9/16	247	40	
		8 1/8	III	V	N/A	
209-060-558-1	1	1 3/16	1	0	86	Y - AN818-6D MS20819-6D X - AN818-6D MS20819-6D
	2	4	1	180	16	
	3	13 1/4	1	180	75	
	4	21	1	90	18	
	5	22 3/4	1	270	20	
	6	37 3/16	1	180	72	
		39 15/16	III	III	N/A	
209-060-559-1	1	1	1	0	109	Y - AN818-6D MS20819-6D X - AN818-6D MS20819-6D
	2	5 3/8	1	262	75	
		8 1/8	III	III	N/A	
209-060-560-1	1	1 3/4	1	0	25	Y - AN818-6D MS20819-6D X - AN818-6D MS20819-6D
	2	3 5/8	1	172	23	
	3	7 3/4	1	82	75	
	4	14 5/8	1	260	86	
	5	32	1	280	66	
		41 7/8	III	III	N/A	
209-060-567-1	1	1 1/4	1 1/2	0	129	Y - AN818-10D MS20819-10D X - AN818-10D MS20819-10D
	2	10 5/8	1 1/2	0	47	
		18	I	I	35 PSI	
209-060-568-1	1	1 13/16	1 3/4	0	132	Y - AN818-12D MS20819-12D X - AN818-12D MS20819-12D
	2	13	1 3/4	0	45	
		20 1/16	I	I	35 PSI	
209-060-571-1	1	1 3/8	1	0	87	Y - AN818-6D MS20819-6D X - AN818-6D MS20819-6D
	2	4 3/4	1	270	43	
	3	7 1/2	1	220	46	
		10 1/16	III	III	N/A	
209-060-572-1	1	1	1	0	89	Y - AN818-6D MS20819-6D X - AN818-6D MS20819-6D
	2	4 13/16	1	180	89	
		7 5/8	III	III	N/A	

Table D-2 (Sheet 4 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-060-574-1	1	1 1/2	1 1/2	0	10	Y - AN818-10D MS20819-10D X - AN818-10D MS20819-10D
	2	4 3/4	1 1/2	180	10	
	3	7 13/16	1 1/2	90	36	
		10 5/16	I	I	35 PSI	
209-060-575-1	N/A	(STRAIGHT TUBE)				Y - AN818-12D MS20819-12D X - AN818-12D MS20819-12D
		4 3/16	I	I	35 PSI	
209-060-587-1	1	13/16	9/16	0	160	Y - AN818-4D MS20819-4D X - AN818-4D MS20819-4D
	2	5 5/16	9/16	53	58	
		7 11/16	III	III	100 PSI	
209-060-608-1	1	3 1/4	9/16	0	83	Y - AN818-4D MS20819-4D X - AN818-4D MS20819-4D
	2	11 3/8	9/16	180	70	
	3	15 1/2	9/16	40	70	
		18 9/16	III	III	N/A	
209-060-610-1	1	2	1 3/4	0	40	Y - AN818-12D MS20819-12D X - AN818-12D MS20819-12D
	2	7 5/8	1 3/4	175	40	
	3	20 11/16	1 3/4	200	27	
	4	24	1 3/4	115	90	
	5	38 1/2	1 3/4	50	90	
		54 3/8	I	I	N/A	
209-060-611-1	1	2 5/8	1 3/4	0	128	Y - AN818-12D MS20819-12D X - AN818-12D MS20819-12D
	2	10 3/4	1 3/4	140	46	
		16 1/4	I	I	N/A	

Table D-2 (Sheet 5 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-060-614-1	1	3 5/8	9/16	0	32	Y - AN818-4D MS20819-4D X - Scarf Dial Setting 180
	2	7 1/8	9/16	180	30	
		9 1/2	III	V	N/A	
209-060-615-1	1	1 7/8	1	0	58	Y - AN818-6D MS20819-6D X - Scarf Dial Setting 312
	2	5 3/4	1	235	65	
	3	7 5/8	1	132	48	
		9 1/2	III	V	N/A	
209-060-616-1	1	1 1/16	9/16	0	90	Y - AN818-4 MS20819-4 X - AN818-4 MS20819-4
	2	7 9/16	9/16	10	37	
	3	12	9/16	187	78	
		16 3/16	I	I	N/A	
209-060-617-1	1	1 11/16	1 1/2	0	40	Y - AN818-10 MS20819-10 X - AN818-10 MS20819-10
	2	8 3/16	1 1/2	220	40	
		13 7/16	I	I	N/A	
209-060-618-1	1	1 15/16	1 1/2	0	90	Y - AN818-10D MS20819-10D X - AN818-10D MS20819-10D
	2	6 3/16	1 1/2	325	90	
		12 3/16	I	I	35 PSI	
209-060-619-1	1	3	1 1/2	0	56	Y - AN818-10D MS20819-10D X - AN818-10D MS20819-10D
	2	8 1/16	1 1/2	180	56	
		12 7/16	I	I	35 PSI	
209-060-620-1	1	2 3/8	1 1/2	0	65	Y - AN818-10D MS20819-10D X - AN818-10D MS20819-10D
	2	6 5/16	1 1/2	180	65	
	3	24 3/4	1 1/2	150	38	
	4	28 5/8	1 1/2	150	49	
		31 1/4	I	I	35 PSI	
209-060-621-1	1	1 5/16	1	0	57	Y - AN818-6D MS20819-6D X - AN818-6D MS20819-6D
	2	4 1/8	1	180	22	
	3	10 1/2	1	180	35	
		12 3/16	III	III	N/A	

Table D-2 (Sheet 6 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-060-622-1	1	1 7/16	1	0	90	Y - AN818-6D MS20819-6D X - N/A
	2	4 3/8	1	90	20	
	3	10 9/16	1	180	90	
	4	29 7/16	1	150	82	
	5	33 3/4	1	335	85	
		37 1/2	III	IV	N/A	
209-060-624-1	1	1 3/4	1 3/4	0	45	Y - AN818-12D MS20819-12D X - Scarf Dial Setting 90
	2	5 1/2	1 3/4	180	45	
		9 1/8	I	V	N/A	
209-060-625-1	1	2 1/2	1	0	90	Y - AN818-6D MS20819-6D X - N/A
	2	12 3/8	1	252	90	
	3	40	1	137	85	
	4	48 7/8	1	212	70	
	5	53 7/8	1	42	75	
		58 5/8	III	IV	N/A	
209-060-634-1	1	1 1/4	9/16	0	90	Y - AN818-4D MS20819-4D X - AN818-4D MS20819-4D
	2	7 3/8	9/16	90	50	
		10 3/4	III	III	N/A	
209-060-635-1	1	7/8	9/16	0	34	Y - AN818-4D MS20819-4D X - AN818-4D MS20819-4D
	2	7 11/16	9/16	163	40	
		10 1/16	III	III	N/A	
209-060-636-1	1	1 3/16	9/16	0	170	Y - AN818-4D MS20819-4D X - AN818-4D MS20819-4D
	2	7 1/2	9/16	325	42	
		9 3/8	III	III	100 PSI	
209-060-637-1	1	1 3/16	9/16	0	140	Y - AN818-4D MS20819-4D X - AN818-4D MS20819-4D
	2	5 7/16	9/16	30	27	
	3	7 1/16	9/16	135	67	
		9 7/8	III	III	100 PSI	
209-060-638-1	1	3 3/4	3	0	58	Y - N/A X - N/A
	2	13 3/16	3	305	33	
	3	20 5/8	3	85	41	
	4	28 1/8	3	310	42	
	5	37 5/8	3	125	35	
		40 3/4	II	II	100 PSI	

Table D-2 (Sheet 7 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-060-639-1	1	1 1/8	9/16	0	110	Y - AN818-4D MS20819-4D X - AN818-4D MS20819-4D
	2	3 3/8	9/16	0	70	
		6	III	III	100 PSI	
209-060-640-1	1	1 3/16	9/16	0	115	Y - AN818-4D MS20819-4D X - AN818-4D MS20819-4D
	2	3 3/8	9/16	0	65	
		6	III	III	100 PSI	
209-060-643-1	1	1 1/16	1 1/2	0	87	Y - AN818-10D MS20819-10D X - Scarf Dial Setting 302
	2	5 1/4	1 1/2	122	82	
	3	9 3/8	1 1/2	212	63	
		12 1/8	I	V	N/A	
209-060-646-1	1	6 5/16	1 3/4	0	89	Y - AN818-12D MS20819-12D X - AN818-12D MS20819-12D
	2	14 7/8	1 3/4	88	32	
	3	19 1/6	1 3/4	270	32	
		23 11/16	I	I	N/A	
209-060-647-1	1	4 5/8	1 1/2	0	27	Y - AN818-10D MS20819-10D X - AN818-10D MS20819-10D
	2	7 5/8	1 1/2	270	90	
		20 1/16	I	I	35 PSI	
209-060-648-1	1	4 5/16	1 3/4	0	83	Y - AN818-12D MS20819-12D X - AN818-12D MS20819-12D
	2	12 1/4	1 3/4	83	17	
		14 13/16	I	I	N/A	
209-060-649-1	1	2 1/16	1 3/4	0	81	Y - AN818-12D MS20819-12D X - AN818-12D MS20819-12D
	2	8 11/16	1 3/4	180	81	
	3	19 3/8	1 3/4	40	34	
	4	23 15/16	1 3/4	172	52	
		27 1/8	I	I	N/A	
209-060-680-1	1	9	1/2	0	54 1/2	Y - AN818-4D MS20819-4 X - 45° Cutoff
	2	3 3/8	1/2	180	54 1/2	
		11 1/2	2	5	N/A	
209-070-401-1	1	4 3/8	3	0	80	Y - N/A X - N/A
	2	11 3/4	3	0	3	
	3	18	3	263	78	
	4	25 1/8	3	73	8	
		29 1/4	II	II	N/A	
209-070-447-1	1	23 3/8	3	0	20	Y - N/A X - N/A
	2	26 5/8	3	180	20	
		29 13/16	II	II	N/A	

Table d-2 (Sheet 8 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-070-450-1	1	2 1/4	3	0	93	Y - AN818-16D MS20819-16D X - N/A
	2	8 13/16	3	180	8	
		11 3/16	I	II	N/A	
209-070-487-1	1	2	3	0	86	Y - N/A X - N/A
	2	8 1/2	3	90	93	
		14 1/2	II	II	N/A	
209-070-489-1	1	1 5/8	1	0	86	Y - AN818-6D MS20819-6D X - AN818-6D MS20819-6D
	2	12	1	180	86	
		28 13/16	III	III	150 PSI	
209-070-497-1	1	1 3/4	3	0	7	Y - N/A X - N/A
		14 3/16	II	II	N/A	
209-070-525-1	1	1 1/4	3	0	85	Y - N/A X - N/A
	2	10 3/8	3	92	49	
		23 3/8	II	II	N/A	
209-070-527-1	1	3 3/4	3	0	18	Y - AN818-16D MS20819-16D X - N/A
	2	6 3/16	3	180	18	
	3	27 15/16	3	175	22	
	4	33 1/4	3	355	22	
		40 1/2	II	I	N/A	

Table D-2 (Sheet 9 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-070-543-1	N/A	(STRAIGHT TUBE)				Y - N/A
		8 13 16	II	II	N/A	X - N/A
209-070-565-1	1	1 3 4	9 16	0	48	Y - AN818-4D MS20819-4D
	2	5 7 8	9 16	200	25	X - AN818-4D MS20819-4D
		7 15 16	III	III	150 PSI	
209-076-118-1	1	3 1 2	1	0	67	Y - MS21921-6D MS21922-6
	2	12 9 16	1	182	68	X - MS21921-6D MS21922-6
		15 13 16	IV	IV	3000 PSI	
209-076-119-1	1	1 1 2	1	0	117	Y - AN818-6D MS20819-6D
	2	4 5 8	1	180	26	X - MS21921-6D MS21922-6
	3	11 1 4	1	270	16	
		16 1 4	IV	III	1500 PSI	
209-076-137-1	1	10.50	1 1/4	0	64	Y - MS21921-8D MS21922-8
	2	23.44	1 1/4	180	58	X - MS21921-8D MS21922-8
		38.69	IV	IV	3000 psi	
209-076-138-1	1	1.47	1 1/4	0	45	Y - MS21921-8D MS21922-8
	2	4.15	1 1/4	37	54	X - MS21921-8D MS21922-8
		8.03	IV	IV	3000 psi	
209-076-139-1	1	3.94	1 1/4	0	88	Y - MS21921-8D MS21922-8
	2	13.12	1 1/4	180	90	X - MS21921-8D MS21922-8
		18.0	IV	IV	3000 psi	
209-076-140-1	1	2.25	1 1/4	0	44	Y - MS21921-8D MS21922-8
	2	4.87	1 1/4	158 1/2	43 1/2	X - MS21921-8D MS21922-8
	3	13.25	1 1/4	243 1/2	105	
		16.81	IV	IV	3000 psi	
209-076-141-1	1	2.56	1 1/4	0	87	Y - MS21921-8D MS21922-8
	2	5.56	1 1/4	183 1/2	87	X - MS21921-8D MS21922-8
		11.56	IV	IV	3000 psi	

Table D-2 (Sheet 10 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-076-142-1	1	1.31	0.56	0	91	Y - MS21921-4D MS21922-4 X - MS21921-4D MS21922-4
	2	3.62	0.56	102 1/2	46	
	3	4.81	0.56	287	46	
	4	7.0	0.56	208	21	
	5	9.06	0.56	214	161	
		11.81	IV	IV	3000 psi	
209-076-143-1	1	2.25	1 1/4	0	1	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	5.60	1 1/4	273 1/2	5	
	3	12.94	1 1/4	178	73	
	4	16.12	1 1/2	92 1/2	10	
		18.5	IV	IV	3000 psi	
209-076-144-1	1	1.06	0.56	0	56	Y - MS21921-4D MS21922-4 X - MS21921-4D MS21922-4
	2	3.0	0.56	276	17	
	3	9.87	0.56	356	121	
		12.75	IV	IV	3000 psi	
209-076-145-1	1	1.63	1.0	0	87	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	4.81	1.0	271	83	
	3	7.81	1.0	91 1/2	49	
	4	13.56	1.0	84 1/2	51	
	5	17.31	1.0	191	54	
	6	19.5	1.0	355	48	
		21.25	IV	IV	3000 psi	
209-076-146-1	1	1.66	1.0	0	41	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	4.13	1.0	177	39	
	3	8.57	1.0	134	17	
	4	9.94	1.0	302	40	
	5	12.19	1.0	110 1/2	22	
	6	24.19	1.0	32	86	
	7	33.50	1.0	291 1/2	46	
	8	36.18	1.0	206	52	
	9	38.44	1.0	27	65	
		40.69	IV	IV	3000 psi	
209-076-147-1	1	.94	1.0	0	55	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	3.19	1.0	179 1/2	51	
	3	5.81	1.0	279	46	
	4	9.06	1.0	16 1/2	91	
	5	13.87	1.0	228	44	
	6	15.81	1.0	50	40	
		22.75	IV	IV	3000 psi	

Table D-2 (Sheet 11 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-076-148-1	1	2.5	1.0	0	60	Y - MS21921-6D MS21922-6
	2	4.56	1.0	102	57	X - MS21921-6D MS21922-6
	3	10.62	1.0	316	85	
	4	18.56	1.0	224 1/2	11	
	5	20.69	1.0	42	30	
	6	22.87	1.0	225	28	
		25.31	IV	IV	3000 psi	
209-076-149-1	1	2.19	1.0	0	32 1/2	Y - MS21921-6D MS21922-6
	2	4.94	1.0	197	38	X - MS21921-6D MS21922-6
		8.88	IV	IV	3000 psi	
209-076-150-1	1	2.68	1.0	0	35	Y - MS21921-6D MS21922-6
	2	5.12	1.0	166 1/2	43	X - MS21921-6D MS21922-6
		8.62	IV	IV	3000 psi	
209-076-151-1	1	1.87	1.0	0	43 1/2	Y - MS21921-6D MS21922-6
	2	4.81	1.0	192	46	X - MS21921-6D MS21922-6
		9.25	IV	IV	3000 psi	
209-076-152-1	1	1.63	1.0	0	36	Y - MS21921-6D MS21922-6
	2	5.44	1.0	170	35	X - MS21921-6D MS21922-6
		8.94	IV	IV	3000 psi	
209-076-153-1	1	1.25	1.0	0	67	Y - MS21921-6D MS21922-6
	2	5.06	1.0	182	60	X - MS21921-6D MS21922-6
	3	11.31	1.0	213	69	
	4	15.94	1.0	42	68	
		18.56	IV	IV	3000 psi	

Table D-2 (Sheet 12 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-076-154-1	1	.87	1.0	0	72	Y - MS21921-6D MS21922-6 MS21921-6D MS21922-6
	2	3.75	1.0	184	67	
	3	12.19	1.0	165	36	
	4	14.25	1.0	348	30	
		15.75	IV	IV	3000 psi	
209-076-155-1	1	.87	1.0	0	77	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	3.87	1.0	178 1/2	68	
	3	12.37	1.0	211	34 1/2	
	4	14.43	1.0	35	28	
		16.12	IV	IV	3000 psi	
209-076-156-1	1	1.32	1.0	0	73	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	4.88	1.0	173	65	
	3	11.13	1.0	157	67	
	4	15.88	1.0	329 1/2	62 1/2	
		18.44	IV	IV	3000 psi	
209-076-202-1	1	1 9/16	1 1/4	0	114	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	7 11/16	1 1/4	184	23	
	3	14 7/16	1 1/4	94	26	
	4	17 1/4	1 1/4	271	39	
		20 5/16	IV	IV	3000 psi	

Table D-2 (Sheet 13 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	END "Y"	END "X"	PRESSURE TEST	
209-076-205-1	1	1	1 1/4	0	112	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	5 3/8	1 1/4	180	26	
	3	8 3/4	1 1/4	90	120	
		13 7/8	IV	IV	3000 PSI	
209-076-207-1	1	1 1/2	1 1/4	0	113	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	7 9/16	1 1/4	180	23	
	3	14 1/8	1 1/4	270	27	
	4	17	1 1/4	92	36	
		19 13/16	IV	IV	3000 PSI	
209-076-208-1	1	1 1/2	1	0	104	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	6 13/16	1	186	101	
	3	12 1/2	1	270	85	
		15	IV	IV	3000 PSI	
209-076-209-1	1	1 5/8	3	0	99	Y - MS21921-16D MS21922-16 X - MS21921-16D MS21922-16
		9 9/16	IV	IV	500 PSI	
209-076-211-1	1	4 1/8	1 1/4	0	63	Y - MS21921-8D MS21921-8 X - MS21921-8D MS21922-8
	2	10 11/16	1 1/4	3	59	
	3	14 15/16	1 1/4	183	56	
	4	23 5/16	1 1/4	277	40	
	5	26 7/16	1 1/4	102	37	
		33 3/8	IV	IV	3000 PSI	

Table D-2 (Sheet 14 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-076-212-1	1	1 1/8	1 1/4	0	88	Y - MS21921-8D MS21922-8
	2	5 11/16	1 1/4	180	90	
	3	21 1/4	1 1/4	183	70	
	4	33 1/2	1 1/4	3	64	X - MS21921-8D MS21921-8
		49 1/16	IV	IV	3000 PSI	
209-076-213-1	1	1 3/4	1	0	49	Y - MS21921-6D MS21922-6
	2	7 3/8	1	177	55	
		11 7/16	IV	IV	3000 PSI	X - MS21921-6D MS21922-6
209-076-214-1	1	4 13/16	1 1/4	0	71	Y - MS21921-8D MS21922-8
	2	23 1/8	1 1/4	328	23	
	3	27 5/8	1 1/4	148	29	X - MS21921-8D MS21922-8
		37 3/16	IV	IV	3000 PSI	
209-076-215-1	1	6 11/16	1 1/4	0	25	Y - MS21921-8D MS21922-8
	2	10 5/8	1 1/4	190	23	
	3	23 15/16	1 1/4	325	16	X - MS21921-8D MS21922-8
		27 13/16	IV	IV	3000 PSI	
209-076-216-1	1	4 7/8	1	0	61	Y - MS21921-6D MS21922-6
	2	18 5/8	1	300	50	
		20 3/4	IV	IV	3000 PSI	X - MS21921-6D MS21922-6
209-076-217-1	1	1 1/8	1	0	86	Y - MS21921-6D MS21922-6
		12 1/2	IV	IV	3000 PSI	
209-076-219-1	1	4 1/4	1 1/4	0	89	Y - MS21921-8D MS21922-8
		15 7/16	IV	IV		
209-076-220-1	1	3 1/2	1 1/4	0	22	Y - MS21921-8D MS21922-8
	2	9 3/8	1 1/4	91	33	
	3	11 3/8	1 1/4	271	29	
	4	16	1 1/4	274	93	X - MS21921-8D MS21922-8
		26 1/16	IV	IV	3000 PSI	

Table D-2 (Sheet 15 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-076-221-1	1	4 3/16	9/16	0	87	Y - MS21921-4D MS21922-4 X - MS21921-4D MS21922-4
	2	6 1/4	9 1/16	270	32	
		9 9/16	IV	IV	3000 PSI	
209-076-222-1	1	1	1	0	165	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	7 9/16	1	235	26	
	3	23 5/8	1	304	90	
	4	27	1	214	13	
	5	29 1/2	1	34	13	
		31 3/4	IV	IV	3000 PSI	
209-076-223-1	1	1 3/16	1	0	176	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	5 13/16	1	296	10	
	3	11 1/16	1	296	25	
	4	12 7/16	1	116	50	
	5	14	1	296	25	
	6	19 3/8	1	26	89	
	7	22 5/8	1	26	92	
		25 5/16	IV	IV	3000 PSI	
209-076-224-1	1	1 1/16	9/16	0	56	Y - MS21921-4D MS21922-4 X - MS21921-4D MS21922-4
	2	6 1/16	9/16	187	56	
		18 15/16	IV	IV	3000 PSI	
209-076-225-1	N/A	(STRAIGHT TUBE)				Y - MS21921-5D MS21922-5 X - MS21921-5D MS21922-5
		12 3/16	IV	IV	3000 PSI	
209-076-226-1	1	2 3/16	9/16	0	72	Y - MS21921-4D MS21922-4 X - MS21921-4D MS21922-4
	2	4 1/8	9/16	185	54	
		6 5/8	IV	IV	3000 PSI	
209-076-227-1	1	15/16	9/16	0	149	Y - MS21921-4D MS21922-4 X - MS21921-4D MS21922-4
	2	4 5/8	9/16	80	93	
		6 3/4	IV	IV	3000 PSI	
209-076-228-1	1	1	9/16	0	125	Y - MS21921-4D MS21922-4 X - MS21921-4D MS21922-4
	2	6	9/16	181	32	
	3	8 5/16	9/16	353	75	
		11 3/16	IV	IV	3000 PSI	

Table D-2 (Sheet 16 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-076-229-1	1	1 1/4	1	0	98	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	4 1/16	1	270	36	
	3	6 1/8	1	193	97	
		9 1/8	IV	IV	3000 PSI	
209-076-230-1	1	1 1/8	1	0	93	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	6 5/8	1	355	48	
	3	9 9/16	1	149	60	
		13 3/16	IV	IV	3000 PSI	
209-076-231-1	1	2 5/8	1	0	162	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	6 5/8	1	170	72	
		9 1/8	IV	IV	3000 PSI	
209-076-232-1	1	1 1/8	3/4	0	30	Y - MS21921-5D MS21922-5 X - MS21921-5D MS21922-5
	2	2 7/8	3/4	90	90	
		15 15/16	IV	IV	3000 PSI	
209-076-234-1	1	2 5/16	1	0	90	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
		8 15/16	IV	IV	3000 PSI	
209-076-235-1	1	5 1/8	9/16	0	90	Y - MS21921-4D MS21922-4 X - MS21921-4D MS21922-4
		14 1/8	IV	IV	3000 PSI	
209-076-236-1	1	1 1/4	1 1/4	0	87	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	7 3/4	1 1/4	2	84	
	3	16 7/8	1 1/4	267	8	
	4	21 5/8	1 1/4	190	83	
		25 7/8	IV	IV	3000 PSI	
209-076-237-1	1	2 3/16	9/16	0	90	Y - MS21921-4D MS21922-4 X - MS21921-4D MS21922-4
	2	8 1/16	9/16	270	7	
		11 3/8	IV	IV	3000 PSI	

Table D-2 (Sheet 17 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-076-238-1	1	1 7/16	9/16	0	88	Y - MS21921-4D MS21922-4
	2	3 1/16	9/16	90	37	
		5 5/16	IV	IV	3000 PSI	X - MS21921-4D MS21922-4
209-076-239-1	1	2 1/8	9/16	0	86	Y - MS21921-4D MS21922-4
	2	3 15/16	9/16	92	16	
		5 7/8	IV	IV	3000 PSI	X - MS21921-4D MS21922-4
209-076-240-1	1	1 7/16	1	0	112	Y - MS21921-6D MS21922-6
	2	4 7/16	1	177	23	
		6 11/16	IV	IV	3000 PSI	X - MS21921-6D MS21922-6
209-076-241-1	1	1 7/16	9/16	0	89	Y - MS21921-4D MS21922-4
	2	14 3/4	9/16	0	87	
	3	28 5/8	9/16	180	82	X - MS21921-4D MS21922-4
		33 5/8	IV	IV	3000 PSI	
209-076-242-1	1	1 1/2	3/4	0	90	Y - MS21921-5D MS21922-5
	2	5 11/16	3/4	0	90	
		8 1/4	IV	IV	3000 PSI	X - MS21921-5D MS21922-5
209-076-243-1	1	1 1/2	9/16	0	104	Y - MS21921-4D MS21922-4
	2	6 3/8	9/16	265	52	
		9	IV	IV	3000 PSI	X - MS21921-4D MS21922-4
209-076-244-1	1	1 3/4	9/16	0	85	Y - MS21921-4D MS21922-4
	2	7 1/4	9/16	0	24	
	3	9 3/4	9/16	268	70	X - MS21921-4D MS21922-4
		12 3/4	IV	IV	3000 PSI	
209-076-245-1	1	1 1/8	3/4	0	105	Y - MS21921-5D MS21922-5
	2	7 3/8	3/4	270	61	
		10 13/16	IV	IV	3000 PSI	X - MS21921-5D MS21922-5

Table D-2 (Sheet 18 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-076-246-1	1	1	3/4	0	119	Y - MS21921-5D MS21922-5
	2	3 7/8	3/4	193	34	
	3	10 5/8	3/4	183	82	
	4	12 7/8	3/4	345	90	X - MS21921-5D MS21922-5
		16 5/8	IV	IV	3000 PSI	
209-076-247-1	1	15/16	9/16	0	120	Y - MS21921-4D MS21922-4
	2	3 7/16	9/16	180	28	
	3	8 3/4	9/16	90	67	
	4	14 15/16	9/16	173	38	X - MS21921-4D MS21922-4
	5	17 1/4	9/16	283	67	
		19 3/8	IV	IV	3000 PSI	
209-076-248-1	1	1 1/4	9/16	0	87	Y - MS21921-4D MS21922-4
	2	3 1/16	9/16	90	91	
	3	7 3/8	9/16	92	92	
	4	9 7/16	9/16	3	89	X - MS21921-4D MS21922-4
		11 9/16	IV	IV	3000 PSI	
209-076-250-1	1	1 3/4	1 1/4	0	53	Y - MS21921-8D MS21922-8
	2	28 5/8	1 1/4	3	88	
	3	33 15/16	1 1/4	96	33	
	4	35 7/8	1 1/4	182	89	X - MS21921-8D MS21922-8
		45 3/8	IV	IV	3000 PSI	
209-076-251-1	1	1 1/2	1 1/4	0	50	Y - MS21921-8D MS21922-8
	2	27	1 1/4	2	92	
	3	31 15/16	1 1/4	92	34	
	4	34 7/16	1 1/4	182	94	X - MS21921-8D MS21922-8
		45 13/16	IV	IV	3000 PSI	
209-076-256-1	1	3	1 1/4	0	15	Y - MS21921-8D MS21922-8
	2	5 5/16	1 1/4	80	90	
	3	10 1/16	1 1/4	80	10	
	4	12	1 1/4	160	70	X - MS21921-8D MS21922-8
		15 5/8	IV	IV	3000 PSI	
209-076-258-1	1	2 1/8	1 1/4	0	10	Y - MS21921-8D MS21922-8
	2	4 1/8	1 1/4	90	90	
	3	13 3/8	1 1/4	160	15	
	4	15 5/8	1 1/4	65	90	X - MS21921-8D MS21922-8
		20 3/4	IV	IV	3000 PSI	

Table D-2 (Sheet 19 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-076-264-1	1	1	9/16	0	89	Y - MS21921-4D MS21922-4 X - MS21921-4D MS21922-4
	2	10 1/8	9/16	123	5	
		12 7/16	IV	IV	3000 PSI	
209-076-265-1	1	1	9/16	0	69	Y - MS21921-4D MS21922-4 X - MS21921-4D MS21922-4
	2	9 1/8	9/16	0	22	
		11 3/8	IV	IV	3000 PSI	
209-076-266-1	1	2 1/4	9/16	0	92	Y - MS21921-4D MS21922-4 X - MS21921-4D MS21922-4
	2	5 1/16	9/16	90	10	
	3	9 11/16	9/16	270	50	
	4	11 9/16	9/16	90	37	
	5	17 9/16	9/16	267	14	
	6	20 7/16	9/16	358	90	
		22 3/16	IV	IV	3000 PSI	
209-076-267-1	1	1	9/16	0	110	Y - MS21921-4D MS21922-4 X - MS21921-4D MS21922-4
	2	4 5/16	9/16	165	23	
	3	11 9/16	9/16	264	21	
	4	13 1/4	9/16	77	39	
	5	18 15/16	9/16	352	87	
		21 1/8	IV	IV	3000 PSI	
209-076-268-1	1	3	1	0	60	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	6 1/4	1	288	65	
	3	21 1/16	1	346	94	
		26 1/8	IV	IV	3000 PSI	
209-076-269-1	1	2	1	0	90	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	7 1/2	1	272	30	
	3	17 13/16	1	272	6	
	4	20 1/4	1	2	90	
		24	IV	IV	3000 PSI	
209-076-270-1	1	1 11/16	1	0	76	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	12 3/16	1	310	23	
		15 5/16	IV	IV	3000 PSI	

Table D-2 (Sheet 20 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-076-271-1	1	1 5/16	1	0	177	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
		7 5/16	IV	IV	3000 PSI	
209-076-272-1	1	1 3/16	1	0	178	Y - MS21921-6D MS21922-6
	2	6 7/8	1	95	4	
	3	13 1/2	1	185	115	X - MS21921-6D MS21922-6
		16 7/8	IV	IV	3000 PSI	
209-076-273-1	1	1	1	0	105	Y - MS21921-6D MS21922-6
	2	13 3/4	1	180	104	
		16 3/4	IV	IV	3000 PSI	X - MS21921-6D MS21922-6
209-076-274-1	1	2 3/8	1	0	108	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
		6 7/16	IV	IV	3000 PSI	
209-076-276-1	1	1 13/16	1	0	84	Y - AN818-6D MS20819-6D
	2	5 3/4	1	266	32	
	3	8	1	182	83	X - AN818-6D MS20819-6D
	4	15 1/4	1	171	41	
	5	17 1/4	1	351	41	
	6	20 1/8	1	261	87	
	7	26 5/8	1	344	6	
		31 1/8	III	III	1500 PSI	
209-076-278-1	1	2 13/16	9/16	0	93	Y - MS21921-4D MS21922-4
	2	10 1/8	9/16	90	52	
		20 5/8	IV	IV	3000 PSI	X - MS21921-4D MS21922-4
209-076-279-1	1	1 3/4	3/4	0	90	Y - MS21921-5D MS21922-5
	2	4 5/8	3/4	83	30	
		17 5/16	IV	IV	3000 PSI	X - MS21921-5D MS21922-5

Table D-2 (Sheet 21 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-076-280-1	1	1 1/16	3/4	0	127	Y - MS21921-5D MS21922-5 X - MS21921-5D MS21922-5
	2	8 3/8	3/4	8	51	
		13 15/16	IV	IV	3000 PSI	
209-076-285-1	1	1 1/2	1 1/4	0	114	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	7 11/16	1 1/4	223	34	
		9 13/16	IV	IV	3000 PSI	
209-076-286-1	1	3 1/16	1 1/4	0	28	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	5 3/4	1 1/4	90	90	
	3	10	1 1/4	180	57	
	4	14 1/4	1 1/4	2	57	
	5	22 1/2	1 1/4	326	13	
		26 7/16	IV	IV	3000 PSI	

Table D-2 (Sheet 22 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-076-291-1	1	3 1/4	1 1/4	0	29	Y - MS21921-8D MS21922-8
	2	6 1/8	1 1/4	75	90	
	3	9 1/2	1 1/4	160	57	X - MS21921-8D MS21922-8
	4	13 13/16	1 1/4	335	55	
		16 3/16	IV	IV	3000 PSI	
209-076-292-1	1	1 1/2	1 1/4	0	12	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
		4	IV	IV	6000 PSI	
209-076-295-1	1	1 3/8	1 1/4	0	95	Y - MS21921-8D MS21922-8
	2	11 1/2	1 1/4	270	90	
		17 7/16	IV	IV	6000 PSI	X - MS21921-8D MS21922-8
209-076-296-1	1	1 1/2	1 1/4	0	114	Y - MS21921-8D MS21922-8
	2	7 11/16	1 1/4	223	34	
		9 13/16	IV	IV	6000 PSI	X - MS21921-8D MS21922-8
209-076-297-1	1	1 3/8	1 1/4	0	10	Y - MS21921-8D MS21922-8
	2	4 1/4	1 1/4	90	90	
	3	13 3/8	1 1/4	160	15	X - MS21921-8D MS21922-8
	4	15 5/8	1 1/4	65	90	
		20 7/8	IV	IV	6000 PSI	

Table D-2 (Sheet 23 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-076-298-1	1	1 5/8	9/16	0	90	Y - MS21921-4D MS21922-4 X - MS21921-4D MS21922-4
	2	8	9/16	0	90	
		10 3/4	IV	IV	3000 PSI	
209-076-299-1	1	1 3/8	1 1/4	0	89	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	11 1/2	1 1/4	90	95	
		17 5/8	IV	IV	3000 PSI	
209-076-300-1	1	1 1/4	1 1/4	0	15	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
		3 15/16	IV	IV	6000 PSI	
209-076-302-1	1	1 1/8	1 1/4	0	115	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	6 3/8	1 1/4	120	40	
		9 3/4	IV	I	3000 PSI	
209-076-303-1	1	2	1 1/4	0	16	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	4 3/8	1 1/4	270	90	
	3	14 1/4	1 1/4	180	5	
	4	16 1/16	1 1/4	270	90	
		21 3/16	IV	IV	3000 PSI	
209-076-304-1	1	2 3/16	9/16	0	86	Y - MS21921-4D MS21922-4 X - MS21921-4D MS21922-4
		21 1/16	IV	IV	3000 PSI	
209-076-305-1	1	2	3/4	0	88	Y - MS21921-5D MS21922-5 X - MS21921-5D MS21922-5
		21	IV	IV	3000 PSI	
209-076-306-1	1	2 1/4	9/16	0	10	Y - MS21921-4D MS21922-4 X - MS21921-4D MS21922-4
	2	3 3/4	9/16	270	90	
		6 1/2	IV	IV	3000 PSI	
209-076-307-1	1	2 1/16	3/4	0	90	Y - MS21921-5D MS21922-5 X - MS21921-5D MS21922-5
	2	5 1/4	3/4	73	50	
	3	8 7/8	3/4	118	52	
		10 3/8	IV	IV	3000 PSI	

Table D-2 (Sheet 24 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-076-308-1	1	2 1/8	3/4	0	26	Y - MS21921-5D MS21922-5 X - MS21921-5D MS21922-5
	2	7 1/4	3/4	180	26	
		16 3/16	IV	IV	3000 PSI	
209-076-309-1	1	1	1	0	45	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	3 1/2	1	105	43	
	3	12 1/2	1	255	64	
		15	IV	IV	3000 PSI	
29-076-310-1	1	2 1/2	1 1/4	0	50	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21921-8
	2	7 3/8	1 1/4	224	42	
	3	28 5/8	1 1/4	51	40	
	4	37 7/8	1 1/4	317	22	
	5	39 3/4	1 1/4	127	20	
	6	41 5/8	1 1/4	217	46	
		43 7/8	IV	IV	3000 PSI	
209-076-312-1	1	4 3/8	1 1/4	0	34	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	14 5/8	1 1/4	295	73	
	3	35 3/16	1 1/4	320	43	
	4	43 11/16	1 1/4	240	24	
	5	45 1/2	1 1/4	52	28	
	6	48 7/16	1 1/4	142	42	
		51 1/2	IV	IV	6000 PSI	
209-076-313-1	1	4 3/8	1 1/4	0	34	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	14 5/8	1 1/4	295	73	
	3	35 3/16	1 1/4	320	43	
	4	43 11/16	1 1/4	240	24	
	5	45 1/2	1 1/4	52	28	
	6	48 7/16	1 1/4	142	42	
		51 1/2	IV	IV	3000 PSI	
209-076-314-1	N/A	(STRAIGHT TUBE) 3 5/8	IV	IV	3000 PSI	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
209-076-315-1	1	1 3/8	1	0	25	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	3 5/8	1	110	41	
	3	11 7/8	1	270	63	
		14 1/8	IV	IV	3000 PSI	

Table D-2 (Sheet 25 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-076-316-1	1	4	1 1/4	0	63	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	10 5/8	1 1/4	3	60	
	3	14 3/4	1 1/4	183	56	
	4	23	1 1/4	273	36	
	5	26 1/2	1 1/4	113	39	
		32 1/4	IV	IV	3000 PSI	
209-076-317-1	1	1 3/4	1	0	102	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	7	1	100	51	
	3	12 7/8	1	0	28	
	4	15 5/16	1	90	34	
		19	IV	IV	3000 PSI	
209-076-318-1	1	1	1 1/4	0	102	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	8 1/2	1 1/4	185	14	
	3	19 3/8	1 1/4	346	80	
	4	24 1/4	1 1/4	171	80	
		31 1/4	IV	IV	3000 PSI	
209-076-364-1	1	1	1	0	130	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	10	1	95	71	
	3	13 7/8	1	207	88	
	4	17 15/16	1	35	82	
	5	23 1/2	1	35	94	
		26 5/16	IV	IV	3000 PSI	
209-076-366-1	1	7/8	1 1/4	0	89	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	6 1/2	1 1/4	40	47	
		9	IV	IV	3000 PSI	
209-076-368-1	1	1	1	0	155	Y - MS21921-6D MS21922-8 X - MS21921-6D MS21922-6
	2	5 7/8	1	280	17	
	3	12 5/8	1	15	39	
	4	14 3/4	1	290	87	
	5	21 13/16	1	195	64	
	6	26 15/16	1	10	63	
		30 1/4	IV	IV	3000 PSI	

Table D-2 (Sheet 26 of 27)

PART NUMBER	BEND NO.	DIMENSION "A" FROM "Y" END	BEND RADIUS	DIAL SETTING	BEND ANGLE	END FITTING AND NOTES
		DIMENSION "B"	TYPE END "Y"	TYPE END "X"	PRESSURE TEST	
209-076-370-1	1	1	1	0	107	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	7 3/8	1	243	42	
	3	10 1/8	1	95	92	
	4	23	1	180	90	
		26 3/4	IV	IV	3000 PSI	
209-076-371-1	1	1	1 1/4	0	175	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	7 1/8	1 1/4	25	23	
	3	11 1/2	1 1/4	320	87	
		14 1/2	IV	IV	3000 PSI	
209-076-381-1	1	1 1/2	1	0	108	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	7 9/16	1	358	73	
		10 1/2	IV	IV	1500 PSI	
209-076-394-1	1	3 5/16	1	0	90	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	7 11/16	1	228	15	
	3	8 13/16	1	48	15	
		10 9/16	IV	IV	3000 PSI	
209-076-395-1	1	7/8	1 1/4	0	116	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	5 13/16	1 1/4	260	72	
	3	10 15/16	1 1/4	285	85	
		15 5/16	IV	IV	3000 PSI	
209-076-396-1	1	1 3/8	1	0	116	Y - MS21921-6D MS21922-6 X - MS21921-6D MS21922-6
	2	7	1	85	75	
	3	12 13/16	1	50	75	
	4	18 3/4	1	120	13	
	5	22 13/16	1	230	64	
		25 3/8	IV	IV	3000 PSI	
209-076-397-1	1	2	1 1/4	0	60	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	5 7/8	1 1/4	186	71	
		13 1/2	IV	IV	3000 PSI	
209-076-398-1	1	15/16	1 1/4	0	100	Y - MS21921-8D MS21922-8 X - MS21921-8D MS21922-8
	2	11	1 1/4	104	44	
	3	18 1/8	1 1/4	175	90	
		20 7/8	IV	IV	3000 PSI	
209-076-414-1	1	2 13/16	1 1/4	0	77	X - MS21921-8D MS21922-8 Y - MS21921-8D MS21922-8
	2	5 57/64	1 1/4	0	13	
	3	8 7/32	1 1/4	27	66	
	4	12	1 1/4	287	115	
		15 19/32	IV	IV	3000 PSI	

Table D-2 (Sheet 27 of 27)

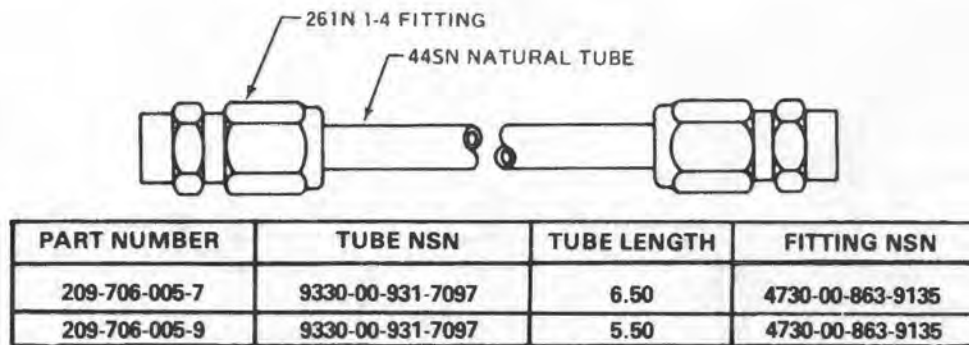
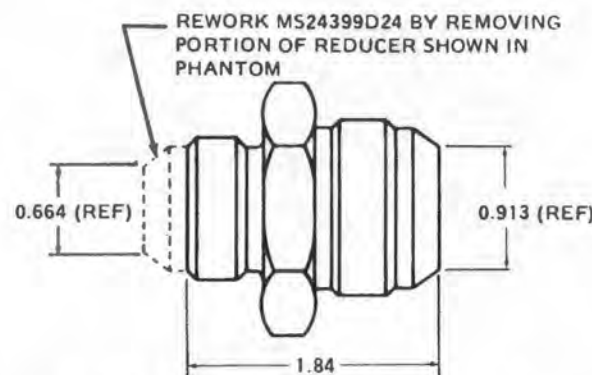
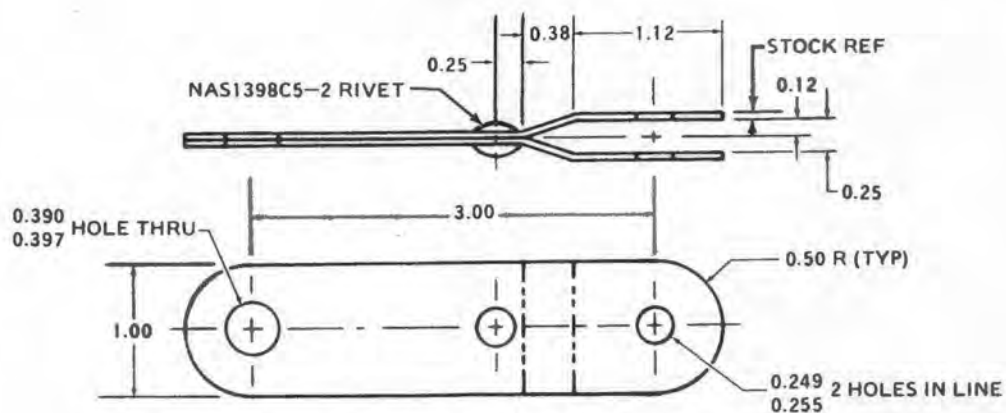


Figure D-132



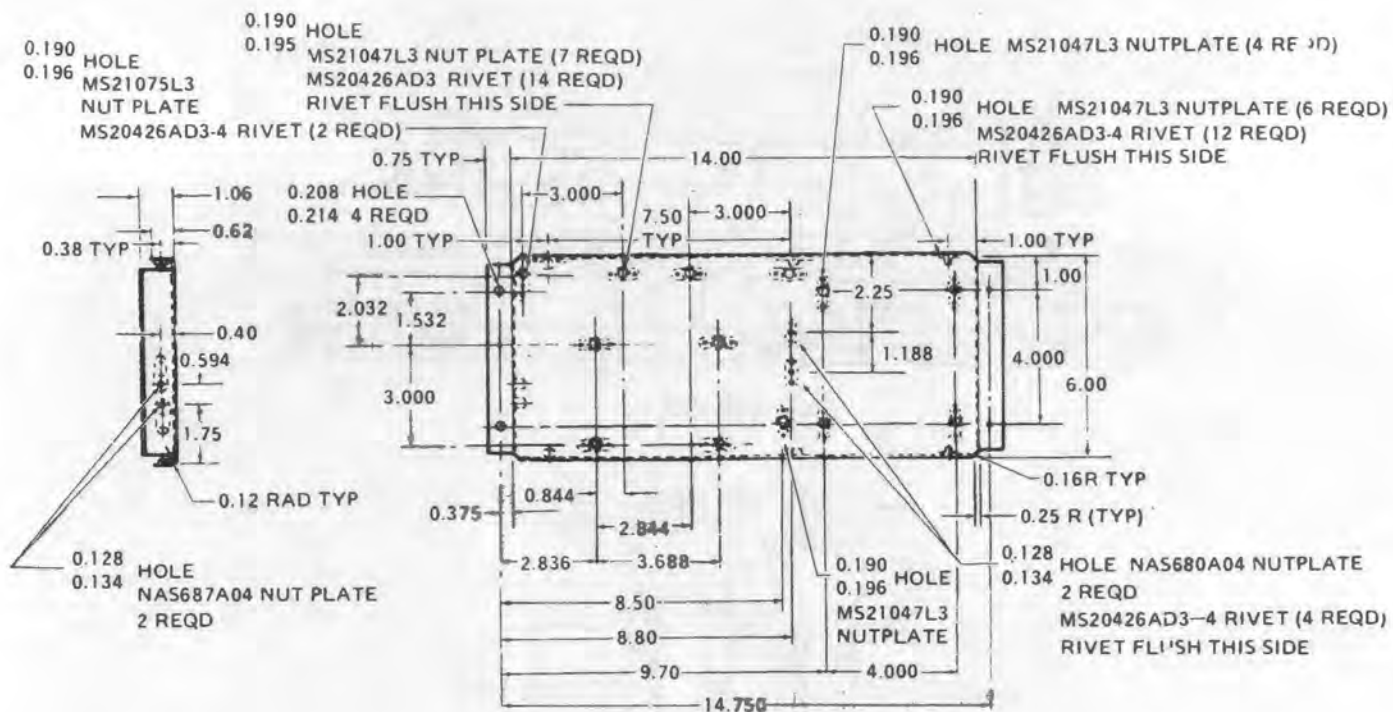
Part Number: 204-060-045-1 REDUCER
 Fabricate from: NSN 4730-00-684-7446
 Material: P/N MS 24399D24

Figure D-133



Part Number: 209-070-727-1 STRAP, Assy
 Fabricate from: NSN 9515-00-878-4332
 Material: .050 CRES 18-8 MIL-S-5059 Comp, 301 1-4 Hard
 0.050 inch thick, 1.5 inch wide, 4.5 inch long
 NAS 1398C5-2 Rivet

Figure D-134



209-075-214-1 BRACKET ASSEMBLY

Part Number: 209-075-214-3 BRACKET
Fabricate from: NSN 9535-00-086-9729
Material: 2024T3 Al Aly Sheet QQA250/5
0.032 inch thick, 7.8 inch wide, 18.4 inch long
Part Number: MS21047L3 NUTPLATE (18 Reqd)
Fabricate from: NSN 5310-00-764-7282
Part Number: MS21051L3 NUTPLATE
Fabricate from: NSN 5310-00-773-8635

Part Number: NAS680A04 NUTPLATE (3 Reqd)
Fabricate from: NSN 5310-00-822-8940
Part Number: NAS687A04 NUTPLATE (2 Reqd)
Fabricate from: NSN 5310-00-054-5725
Part Number: MS20426D3-4 RIVET (46 Reqd)
Fabricate from: NSN 5320-00-117-6938

Figure D-135

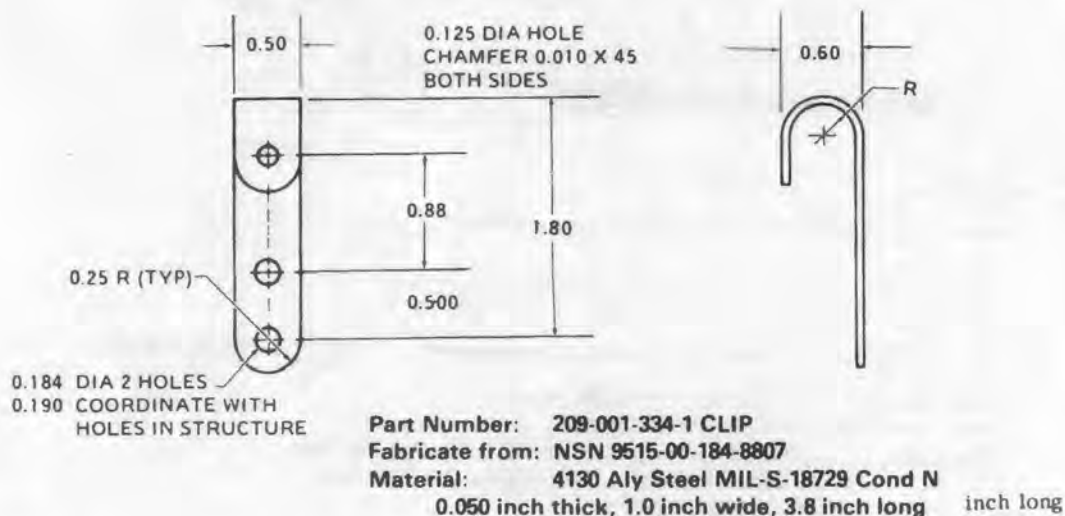
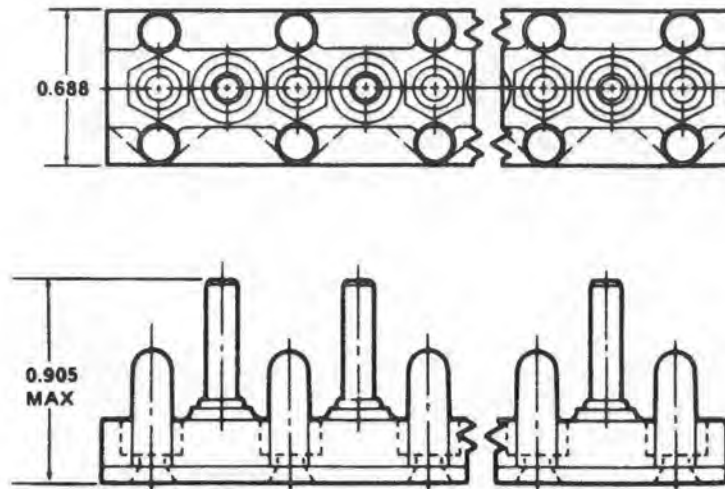


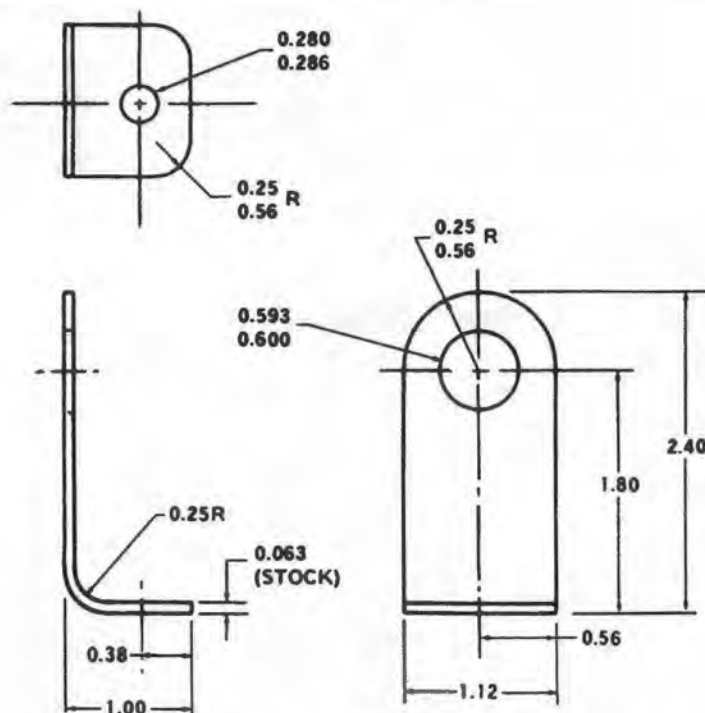
Figure D-136



LAST DASH NUMBER INDICATES NUMBER OF 6-32 UNC-2A STUDS IN ASSEMBLY

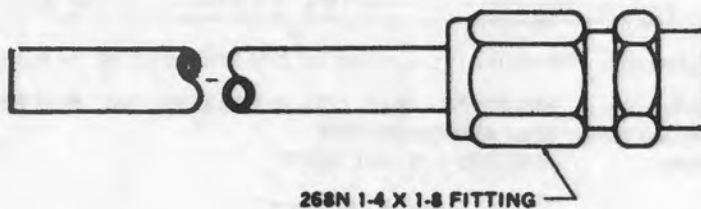
Part Number: MS27212-1-1 thru -1-7 and 1-11 TERMINAL BOARD
 Fabricate from: NSN 5940-00-950-1610
 Material: MS27212-1-20 FMC 96906

Figure D-137



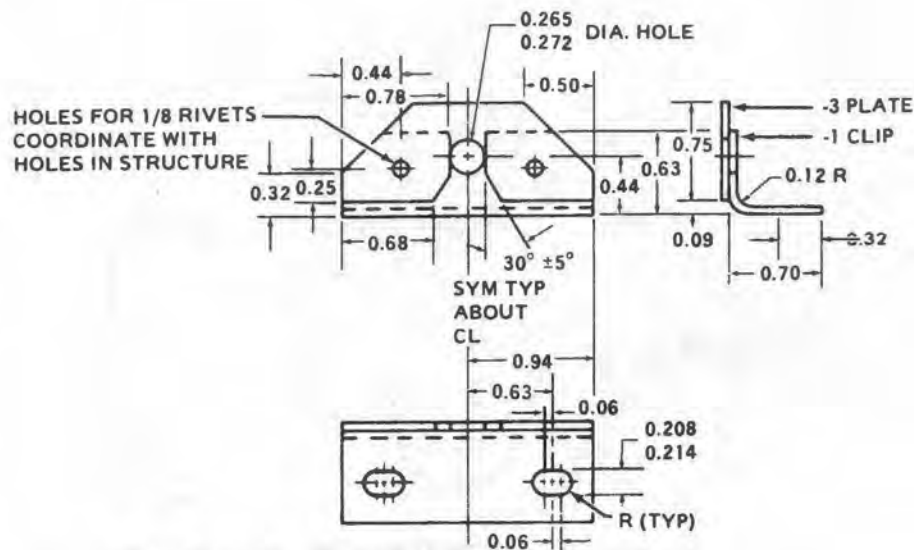
Part Number: 204-040-299-1 BRACKET
 Fabricate from: NSN 9535-00-232-0378
 Material: Al Aly Sheet 2024 QQA362
 0.063 inch thick, 1.3 inch wide, 3.7 inch long

Figure D-138



Part Number	LENGTH	TUBE	FITTING
209-071-026-15 TUBE	7.7	4720-00-916-7092 P5361-1	4730-00-975-0533 268N 1-4 X 1-8
209-071-026-17 TUBE	7.6	4720-00-916-7092 P5361-1	4730-00-975-0533 268N 1-4 X 1-8

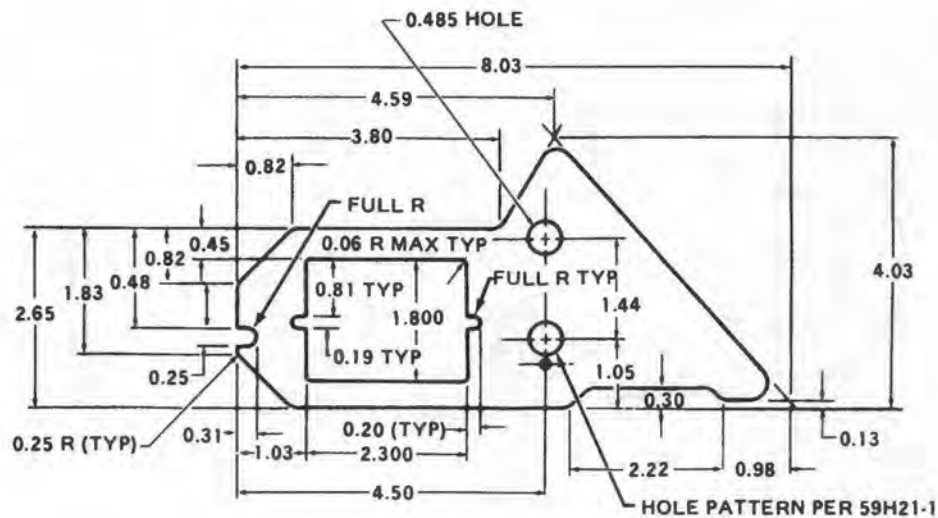
Figure D-139



Part Number: 209-030-646-1 CLIP
 Fabricate from: NSN 9535-00-232-0569
 Material: 2024T42 Al Aly QQA250/5
 0.050 inch thick, 1.6 inch wide, 2.5 inch long

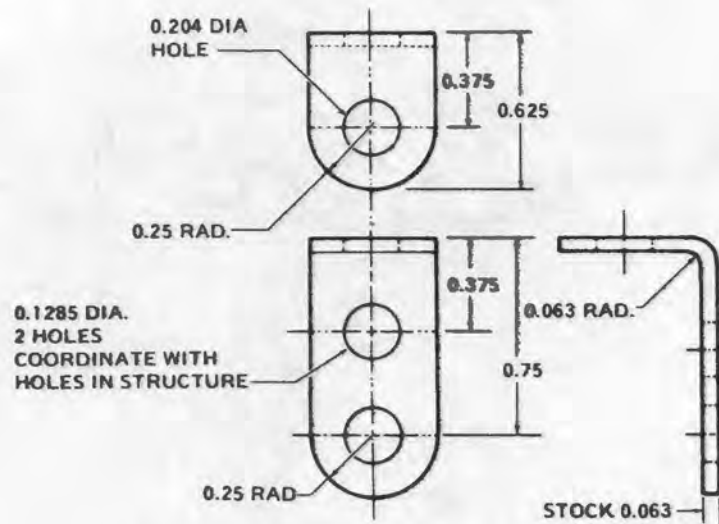
Part Number: 209-030-646-3 PLATE
 Fabricate from: NSN 9535-00-232-0569
 Material: 2024T3 Al Aly QQA250/5
 0.050 inch thick, 1.0 inch wide, 2.5 inch long

Figure D-140



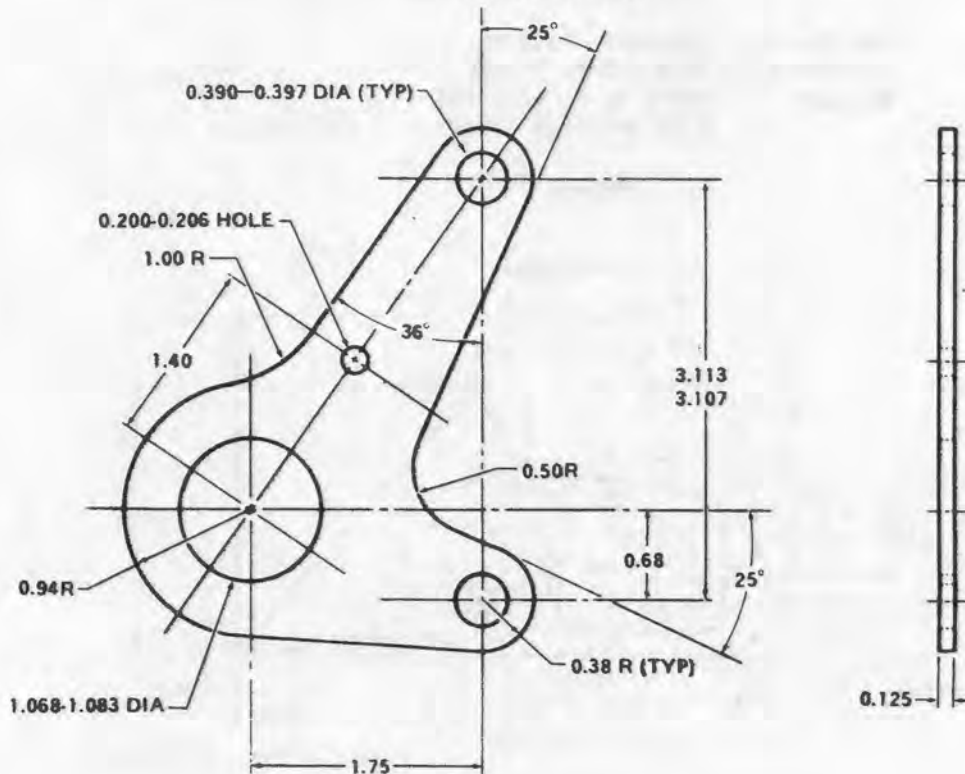
Part Number: 209-070-182-1 PANEL
 Fabricate from: NSN 9535-00-232-0378
 Material: 2024T3 Al Aly QQA250/5
 0.063 inch thick, 4.6 inch wide, 8.6 inch long

Figure D-141



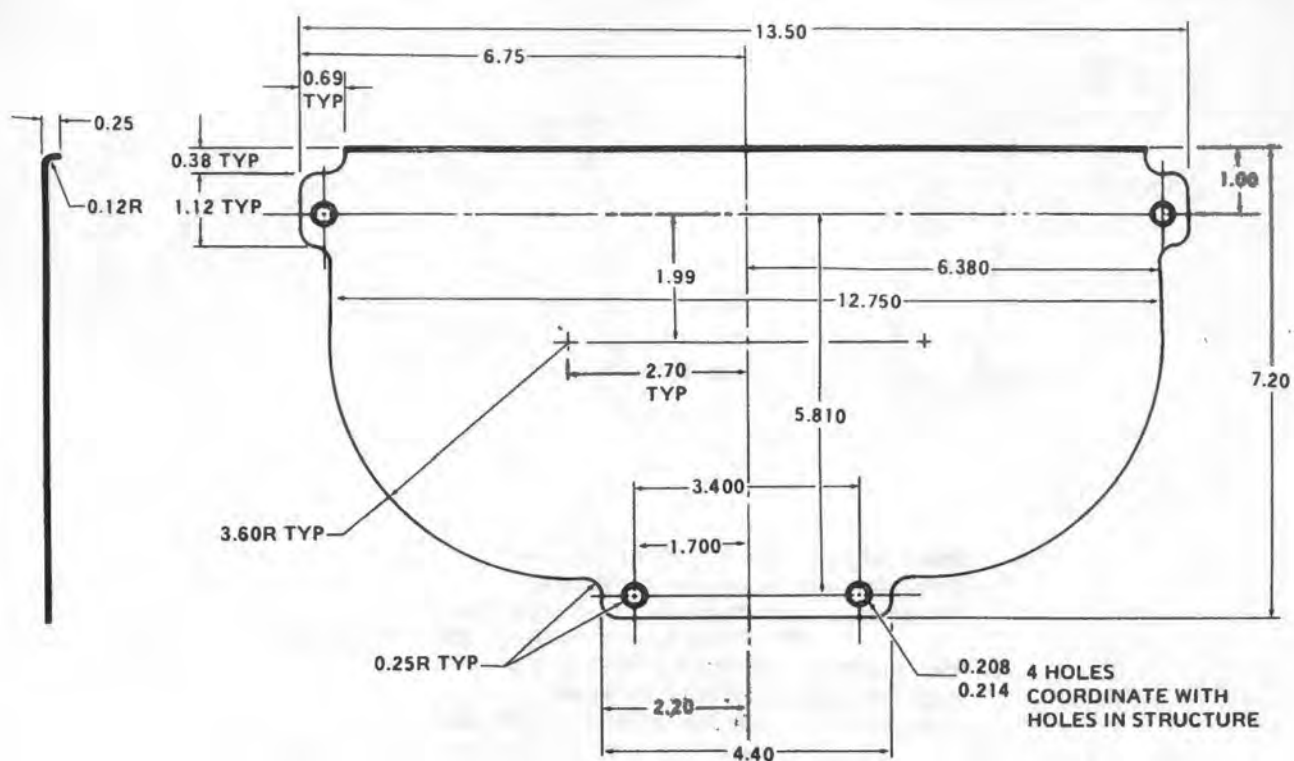
Part Number: AN743-13 BRACKET, Support Clamp
 Fabricate from: NSN 9535-00-232-0378
 Material: EA B620 FMC 81996

Figure D-142



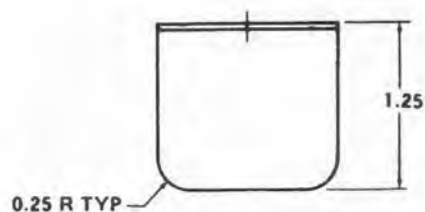
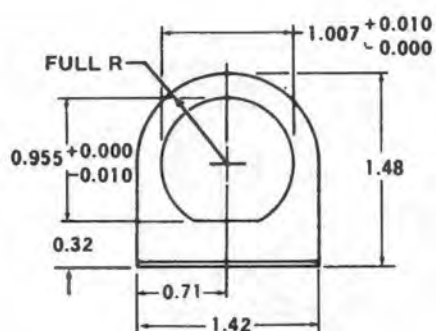
Part Number: 209-040-155-1 BRACKET
 Fabricate from: NSN 9535-00-232-0479
 Material: 2024T3 Al Aly QQA250/5
 0.125 inch thick, 3.5 inch wide, 4.5 inch long

Figure D-143



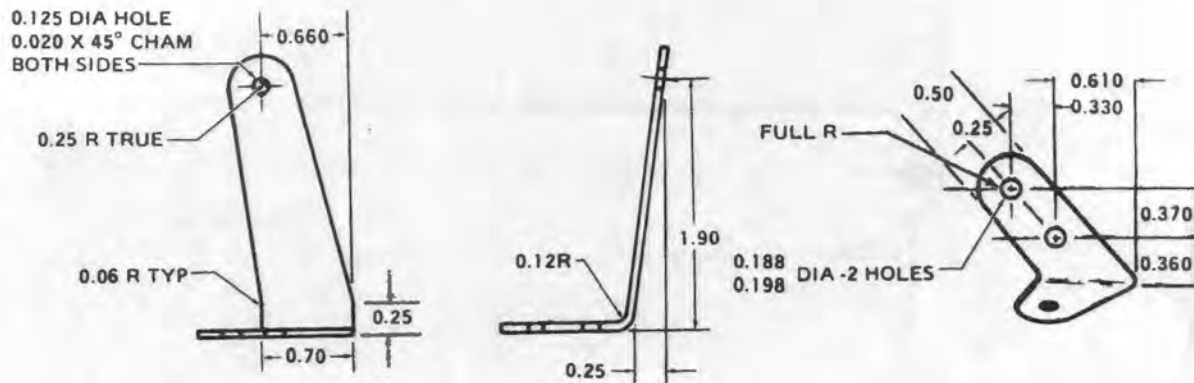
Part Number: 209-030-336-3 COVER
 Fabricate from: NSN 9535-00-086-9729
 Material: 2024T3 Al Aly QQ-A-250/5
 0.032 inch thick, 8.0 inch wide, 14.0 inch long

Figure D-144



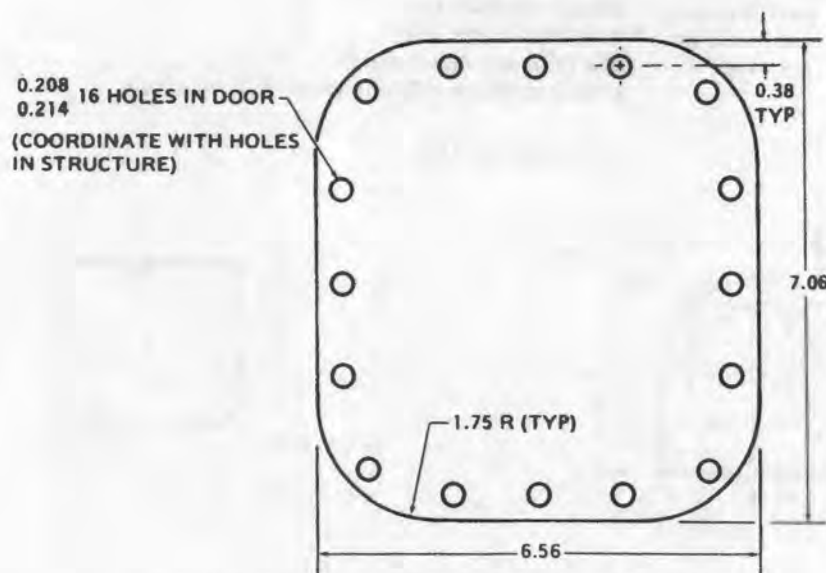
Part Number: 209-060-808-151 CLIP, Electrical
 Fabricate from: NSN 9535-00-167-2280
 Material: 2024T3 Al Aly QQA250/5
 0.040 inch thick, 1.9 inch wide, 2.7 inch long

Figure D-145



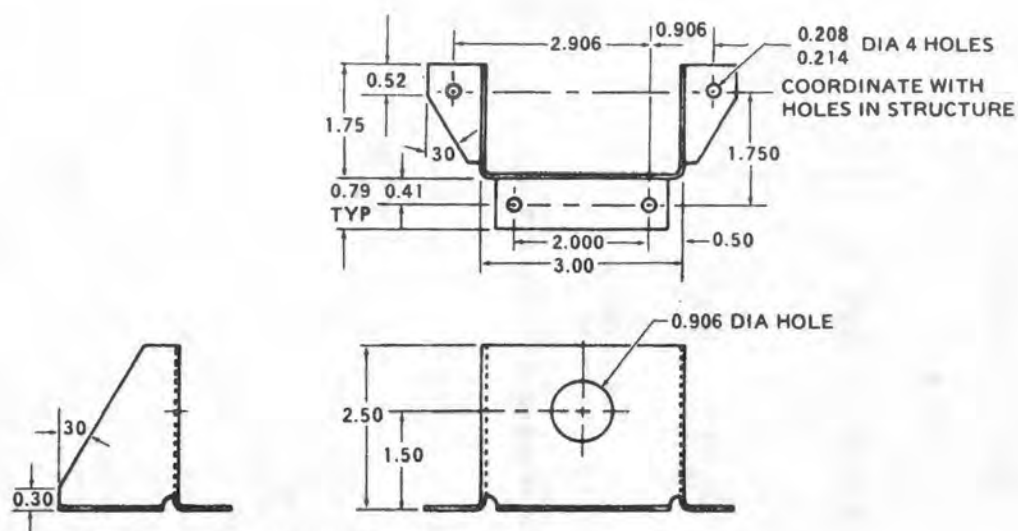
Part Number: 209-001-517-1 BRACKET
 Fabricate from: NSN 9515-00-184-8808
 Material: 4130 Aly Stl MIL-S-18729 Cond N
 0.063 inch thick, 3.0 inch wide, 4.5 inch long
 Part Number: 209-001-517-2 BRACKET
 Fabricate from: NSN 9515-00-184-8808
 Material: 4130 Aly Stl MIL-S-18729 Cond N
 0.063 inch thick, 3.0 inch wide, 4.5 inch long

Figure D-146



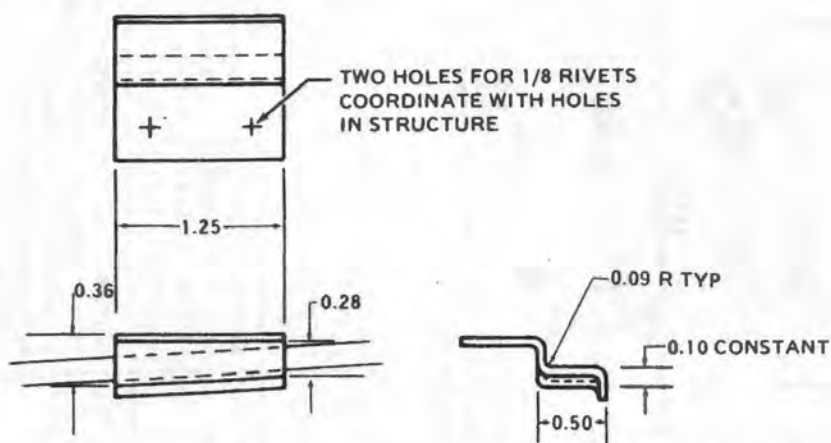
Part Number: 209-030-220-97 DOOR, Access
 Fabricate from: NSN 9535-00-086-9729
 Material: 2024T3 Al Aly QQA250/5
 0.032 inch thick, 6.8 inch wide, 7.3 inch long

Figure D-147



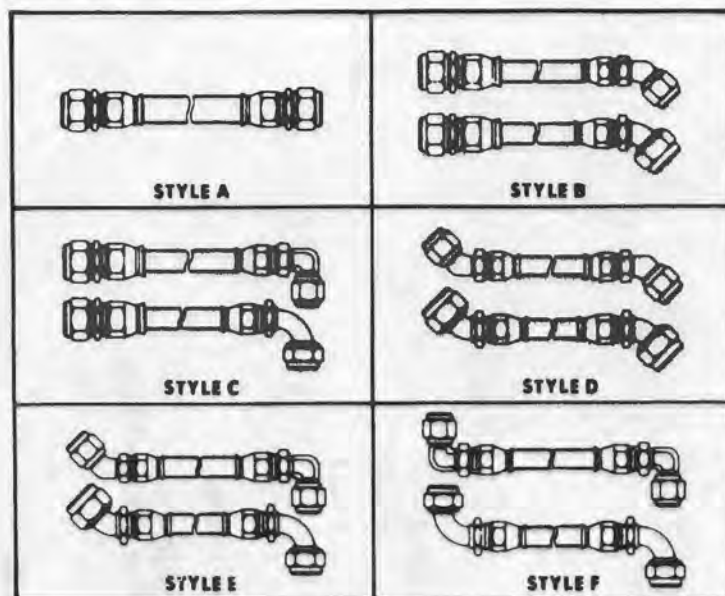
Part Number: 209-040-210-1 BRACKET
 Fabricate from: NSN 9535-00-167-2267
 Material: 2024T42 Al Aly Sheet QQA250/5
 0.040 inch thick, 3.9 inch wide, 7.0 inch long

Figure D-148

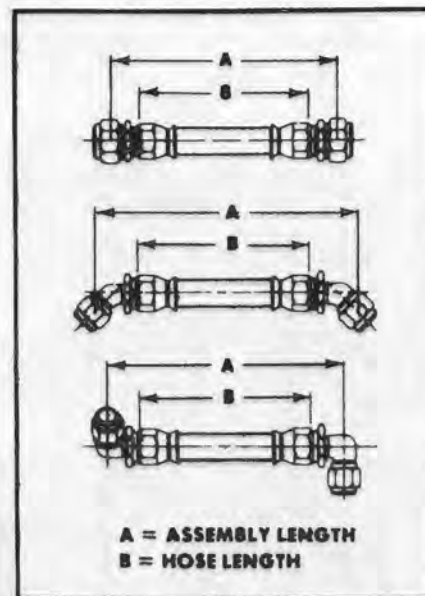


Part Number: 209-030-286-31 CLIP, Access Door
 Fabricate from: NSN 9535-00-086-9729
 Material: 2024T3 Al Aly Sheet QQA250/5
 0.032 inch thick, 1.8 inch wide, 2.0 inch long

Figure D-149



HOSE STYLES

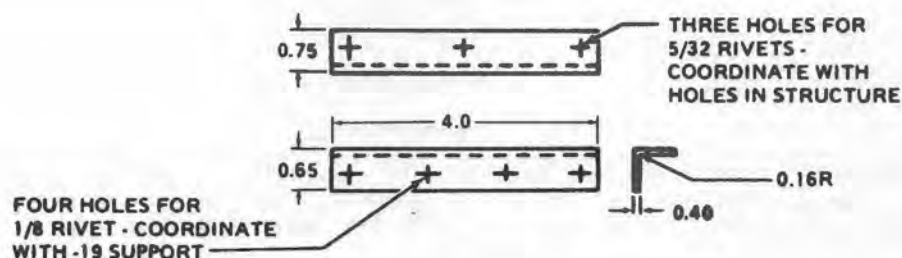


EXAMPLE OF HOSE AND HOSE ASSEMBLY LENGTH

PART NUMBER	HOSE STYLE	HOSE NSN & P/N	END 1 FITTING ASSEMBLY		END 2 FITTING ASSEMBLY		ASSEMBLY LENGTH	DUST PLUG NSN
			NSN	P/N	NSN	P/N		
T666035-4-0137	A	4720-00-857-1732 MIL-H-27267-4	4730-00-054-7650	MS27381-4C	4730-00-054-7650	MS27381-4C	13.875	5340-00-904-6633
			4730-00-910-8879	MS27386-4C	4730-00-910-8879	MS27386-4C		
			4730-00-967-9513	MS27069-4C	4730-00-967-9513	MS27069-4C		
			4730-00-967-9521	MS27070-4C	4730-00-967-9521	MS27070-4C		
T666035-6-0145	A	4720-00-857-1731 MIL-H-27267-6	4730-00-053-0379	MS27381-6C	4730-00-053-0379	MS27381-6C	14.625	5340-00-904-6634
			4930-01-008-0461	MS27386-6C	4730-01-008-0461	MS27386-6C		
			4730-00-951-9515	MS27069-6C	4730-00-967-9515	MS27069-6C		
			4730-00-967-9523	MS27070-6C	4730-00-967-9523	MS27070-6C		
T666319-8-0250	C	4720-00-815-6354 MIL-H-27267-8	4730-00-910-8881	G65018-8	4730-00-910-8875	G67113-8	25.00	5340-00-904-6635
			4730-00-967-9516	MS27069-8C	4730-00-967-9516	MS27069-8C		
			4730-00-967-9524	MS27070-8C	4730-00-967-9524	MS27070-8C		

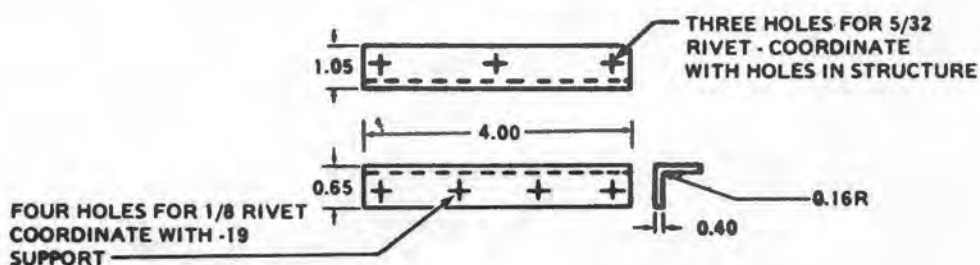
Figure D-150





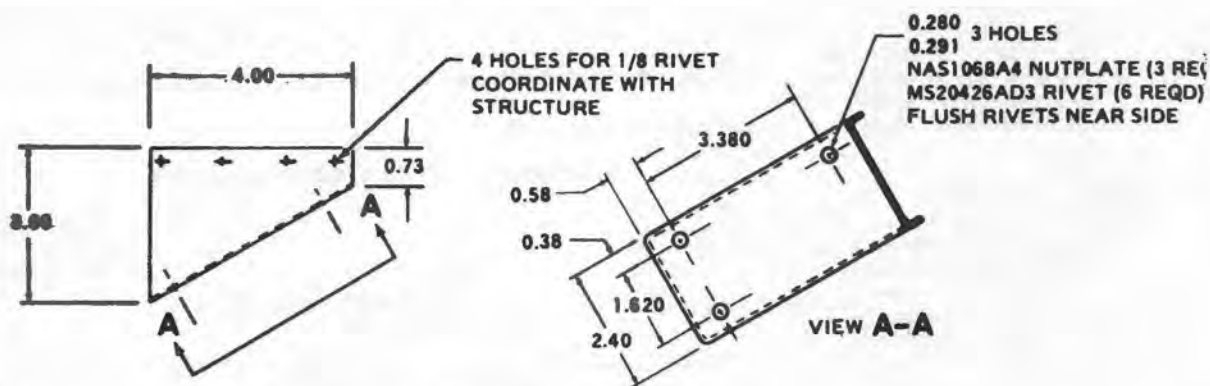
Part Number: 209-030-253-23 CLIP
 Fabricate from: NSN 9535-00-167-2280
 Material: 2024T3 Al Aly QQA250/5
 0.040 inch thick, 1.9 inch wide, 4.5 inch long

Figure D-151



Part Number: 209-030-253-21 CLIP
 Fabricate from: NSN 9535-00-167-2280
 Material: 2024T3 Al Aly QQA250/5
 0.040 inch thick, 2.2 inch wide, 4.5 inch long

Figure D-152



Part Number: 209-030-253-19 SUPPORT
 Fabricate from: NSN 9535-00-167-2280
 Material: 2024T42 Al Aly QQA250/5
 0.040 inch thick, 5.5 inch wide, 8.1 inch long

Figure D-153,

HOSE ASSEMBLY

Fabricated from

PART NO.	FAB. FROM NSN	END FITTING	SOCKET	SLEEVE	DUST PLUG
4720-EG006-12-0200-043	4720-00-857-1734	4730-00-017-8846 4730-00-017-8887	4730-00-967-9518	4730-00-967-9528	

FABRICATION NOTES AND INSTRUCTIONS

To maintain the correct Hose Assembly length, allowances must be made for the various end fittings and the bulk hose cut accordingly. To calculate the correct length of bulk hose (J) use Table. After the allowance (.) are obtained subtract the total from the hose assembly length (L) to obtain bulk hose length (J).

Example: P/N 4720EG007-4C0170 has an assembled length of 17 inches and would use the allowances found in Table under 4720EG007-. Hose Size 4 which is 1.92. Subtract 1.92 from 17 inches to obtain correct bulk hose length (J) of 15.08.

TABLE

Fitting Allowances									
P/Ns With Prefix 4720EG									
	HOSE SIZE								
	3	4	5	6	8	10	12	16	20
4720EG003	1.40	1.48	1.54	1.62	1.86	2.10	2.26	2.60	2.88
4720EG004	1.56	1.65	1.74	1.84	2.24	2.46	3.05	3.35	3.78
4720EG007	1.78	1.92	1.99	2.10	2.72	2.83	3.18	3.44	3.86
4720EG006	1.94	2.09	2.19	2.32	3.10	2.99	3.97	4.19	4.76

FABRICATION NOTES

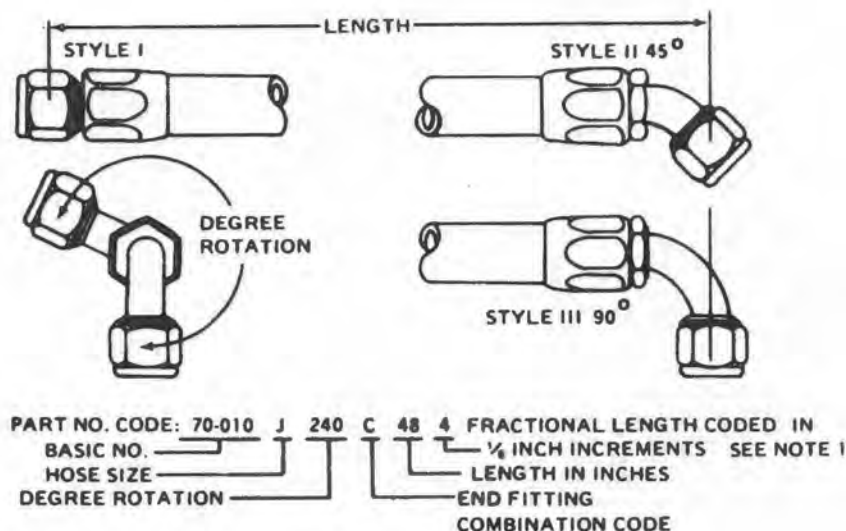
- To Specify A Required Angle A, Suffix Part No. With Angle In Degrees. Angle Measured Counter Clockwise From Lower Vertical Axis. If Angle Is Not Specified Elbows Shall Point Down At $0^\circ \pm 3^\circ$ On Lengths Up To 24 Inches and $\pm 5^\circ$ On Lengths 24 Inches Or Longer
- After Proof Testing In Accordance With MIL-H-25579, Flush With Dry Cleaning Solvent NSN 6950-00-284-9037, And Install Protective Plug In Each Fitting
- Permanent Stainless Steel Identification Band To List As Follows:
 NSN _____
 P/N _____
 OPERATING PRESSURE _____
 DATE OF PRESSURE TEST _____
- Assembly Length Tolerance Up to 9 Inches $\pm 1/16$
 9 Inches to 18 Inches $\pm 1/8$
 18 Inches to 36 Inches $\pm 1/4$
 36 Inches to 50 Inches $\pm 1/2$
 Over 50 Inches $\pm 1\%$ of Length
- Assembly Length Is Measured From Sealing Surface To Sealing Surface. On Elbow Fittings The Measuring Point Is the Intersection Of The Centerline Of The Elbow With The Face Of The Sealing Surface.

EXAMPLE OF LENGTH: P/N 472EG000-00-0000

INDICATES LENGTH IN INCHES

INDICATES LENGTH
in 1/8 INCH.
INCREMENTS

Figure D-154 (Sheet 1 of 3)



HOSE SIZE	3	4	5	6	8	10	12	16	20	24	32	= TUBING O.D. IN 1/16 IN. INCREMENTS
WITHOUT CHAFE GUARD	E	F	G	H	J	K	L	M	N	P	R	
WITH CHAFE GUARD SEE NOTE 2	S	T	U	V	W	X	Y	Z	A	B	C	

STYLES AND MATERIALS OF END FITTINGS (FLARED)				
COMBINA-TIONS CODE	MATERIAL	FITTING STYLE	MATERIAL	FITTING STYLE
A	Alum	I	Alum	I
B	Alum	II	Alum	II
C	Alum	III	Alum	III
D	Steel	I	Steel	I
E	Steel	II	Steel	II
F	Steel	III	Steel	III
G	Alum	I	Steel	III
H	Alum	I	Steel	II
T	Alum	I	Alum	II
V	Alum	I	Alum	III
W	Alum	II	Alum	III
X	Steel	I	Steel	II
Y	Steel	I	Steel	III
Z	Steel	II	Steel	III

Figure D-154 (Sheet 2 of 3)

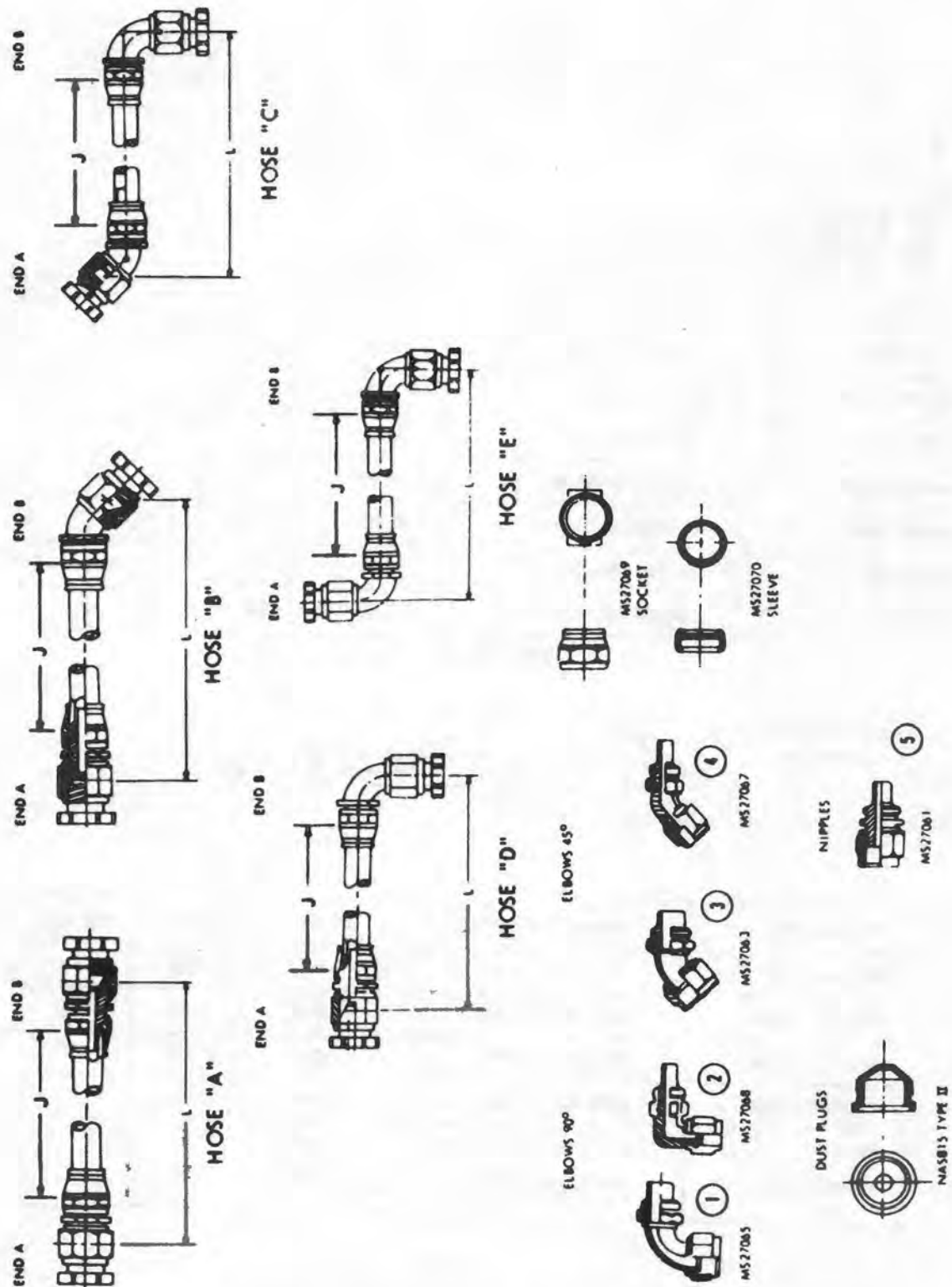
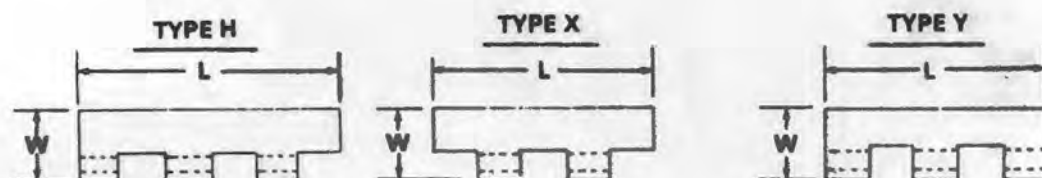


Figure D-154 (Sheet 3 of 3)

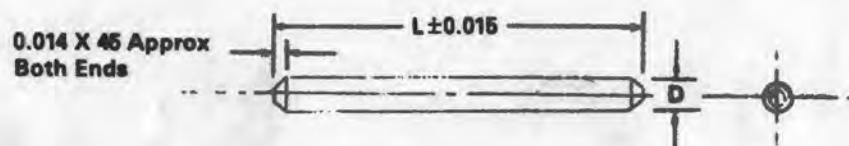


NOTES:

1. REMOVE CENTER LOOP.
2. CRIMP ENDS OF HINGE TO RETAIN HINGE PINS.
3. MOUNTING HOLES TO BE DRILLED AT TIME OF INSTALLATION.

Part Number	Fabricate From NSN	DIM "L"	DIM "W"	STYLE	NOTES
204-030-840-1	5340-00-993-1461	14.50	STOCK	H	3
209-030-139-17	5340-00-664-8140	2.50	STOCK	H	2,3
209-030-203-45	5340-00-664-8118	45.50	STOCK	H	1,3
209-030-203-46	5340-00-664-8118	45.50	STOCK	H	1,3
209-030-216-57	5340-00-664-8118	45.50	STOCK	Y	3
209-071-038-25	5340-00-250-4970	2.50	STOCK	H	2,3
209-071-041-15	5340-00-250-4970	2.50	.033	H	3

Figure D-155 HINGES



Part Number	Fabricate From NSN	DIM "L"	DIM "D"	NOTES
MS20253-1-82	5340-00-573-0779	0.82	0.062	
MS20253-2-190	5340-00-817-8688	1.90	0.089	
MS20253P2-300	5340-00-043-3723	3.00	0.089	
MS20253-2-7960	9505-00-596-1662	79.50	0.089	
209-961-014-45	5340-00-043-3724	22.50	0.179	
209-961-014-47	5340-00-043-3724	22.50	0.179	

Figure D-156 PIN, STRAIGHT HEADLESS

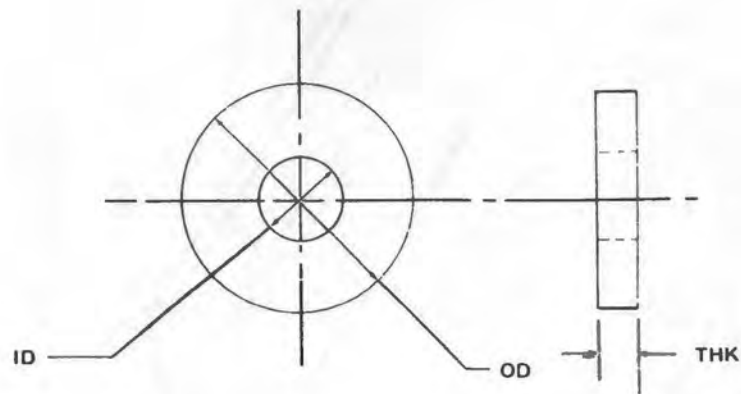
[illegible]

Figure D-157

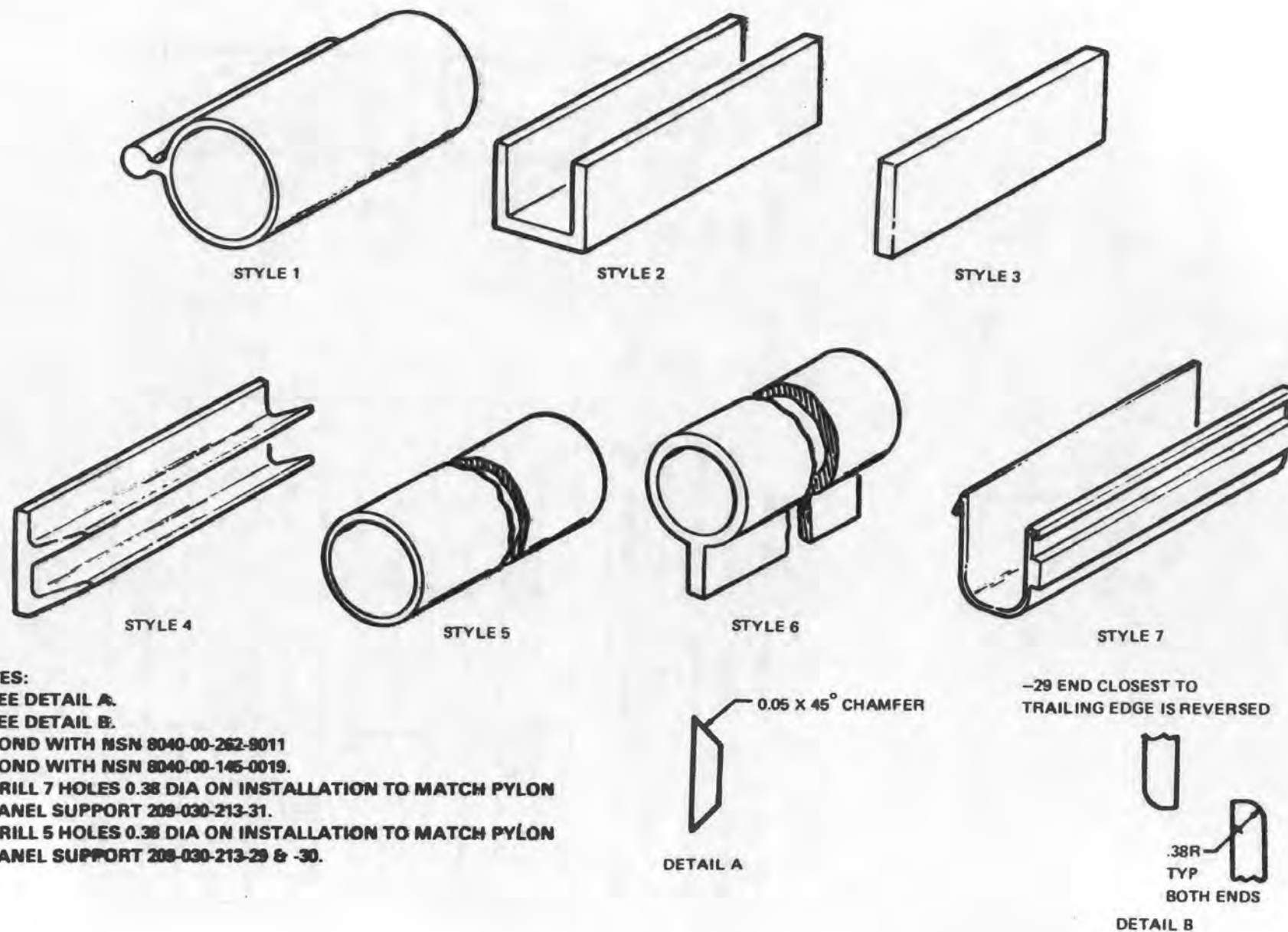


Figure D-158 (Sheet 1 of 4)

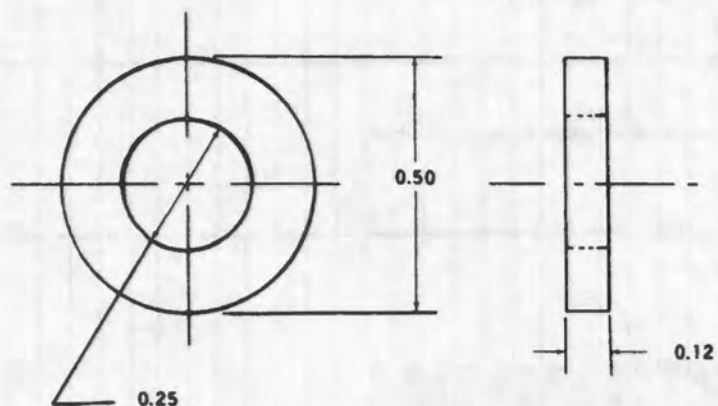
PART NUMBER	ITEM NAME	FABRICATE FROM NSN	STYLE	LENGTH	WIDTH	NOTES
NAS521-20-10	HOSE, AIR DUCT	4720-00-921-0649	5	2.500		
130-005-6-30	TUBE	5970-00-815-1295	5	15.000		
130-005-6-36	TUBE	5970-00-815-1295	5	18.000		
130-005-9-13	TUBE	5970-00-914-3118	5	6.500		
130-005-9-26	TUBE	5970-00-914-3118	5	13.000		
130-005-9-30	TUBE	5970-00-914-3118	5	15.000		
130-005-9-36	TUBE	5970-00-914-3118	5	18.000		
130-005-10-8	TUBE	5970-00-822-2775	5	4.000		
130-005-10-13	TUBE	5970-00-822-2775	5	6.500		
209-020-001-29	BUMPER	9390-00-103-0060	2	21.000		2,3
209-020-001-31	BUMPER	9390-00-103-0060	2	9.000		2,3
209-020-001-33	BUMPER	9390-00-103-0060	2	17.000		2,3
209-020-001-35	BUMPER	9390-00-103-0060	2	8.500		2,3
209-020-001-37	BUMPER	9390-00-103-0060	2	14.500		2,3
209-020-001-47	COVER, WING	9535-00-086-9729	3	16.500	14.500	
209-020-001-48	COVER	9535-00-086-9729	3	16.500	14.500	
209-030-002-21	SEAL	9330-00-089-8033	3	24.500	0.750	
209-030-002-23	SEAL	9330-00-089-8033	3	24.500	0.750	
209-030-128-17	VENT, BATTERY	4710-00-279-0955	5	4.000		
209-030-128-25	VENT, BATTERY	4710-00-279-0955	5	3.500		
209-030-128-27	VENT, BATTERY	4710-00-278-8010	5	3.000		
209-030-127-29	VENT, BATTERY	4710-00-278-8010	5	4.500		
209-030-210-17	BRUSH	7920-00-898-9088	7	3.300		4
209-030-210-31	BRUSH	7920-00-898-9088	7	10.900		4
209-030-210-33	BRUSH	7920-00-898-9088	7	2.400		4
209-030-216-137	STRIP PLATE	9535-00-640-2311	3	16.000	0.500	1
209-030-216-141	SHIM STRIP	9535-00-086-9729	3	16.000	0.400	
209-030-217-25	GASKET	9320-00-878-6507	3	120.00	0.750	
209-030-286-21	SEAL, PLAIN	9320-00-202-1846	3	22.000	0.062	
209-030-286-23	SEAL, PLAIN	9320-00-202-1846	3	23.000	0.062	
209-030-286-25	SEAL, PLAIN	9320-00-202-1846	3	22.500	0.062	
209-030-500-93	SEAL	9390-00-900-3214	1	54.000		
209-030-500-95	SEAL	9390-00-900-3214	1	16.000		
209-030-500-97	SEAL	9390-00-900-3214	1	46.000		
209-030-500-99	SEAL	9390-00-900-3214	1	67.000		
209-030-500-101	SEAL	9390-00-900-3214	1	46.00		
209-030-500-103	SEAL	9390-00-900-3214	1	12.00		
209-030-500-105	SEAL	9390-00-900-3214	1	13.00		
209-030-500-211	RUBBER, SPECIAL SHAPE	9390-00-142-6107	4	17.50		
209-030-500-229	RUBBER, SPECIAL SHAPE	9390-00-142-6107	4	53.00		
209-030-500-231	RUBBER, SPECIAL SHAPE	9390-00-142-6107	4	42.00		
209-030-503-15	FILLER	9535-00-232-0378	3	1.00	0.380	

Figure D-158 (Sheet 2 of 4)

PART NUMBER	ITEM NAME	FABRICATE FROM NSN	STYLE	LENGTH	WIDTH	NOTES
209-030-504-15	FILLER	9535-00-232-0378	3	1.25	0.380	
209-030-583-27	PAD	9320-00-232-2473	3	1.70	0.500	
209-030-803-17	TUBE INSULATION	9330-00-931-7097	5	17.00		
209-030-838-19	STRIP	8135-00-923-0591	3	40.00	0.800	
209-030-838-21	FILLER	9535-00-232-0546	3	1.56	0.750	
209-060-805-31	SEAL	9320-00-202-1846	3	21.00	0.750	
209-060-805-33	SEAL	9320-00-202-1846	3	18.00	0.750	
209-060-805-39	CHAFING STRIP	9390-00-103-0060	2	57.00		
209-060-810-13	SEAL, PLAIN	9390-00-851-9178	6	26.00		
209-060-810-39	SEAL	5330-00-938-1719	3	28.00	5.500	
209-060-810-111	GASKET	9320-00-404-6053	3	30.00	0.680	
209-060-811-113	GASKET	9320-00-404-6054	3	8.00	0.620	
209-060-811-41	SEAL, PYLON FAIRING	9320-00-202-1846	3	19.00	1.000	
209-060-811-51	SEAL, PYLON FAIRING	9320-00-202-1846	3	2.00	1.000	
209-060-811-65	SEAL, PYLON	9320-00-241-9742	3	35.60	1.000	
209-060-811-67	SEAL	9320-00-241-9740	3	4.50	1.000	
209-060-811-69	SEAL, PYLON	9320-00-241-9742	3	28.20	1.000	
209-060-811-71	SEAL	9320-00-241-9740	3	4.00	1.000	
209-060-811-91	SEAL, PYLON	9320-00-202-1846	3	80.00	0.500	
209-060-889-5	GASKET	9320-00-143-7111	3	10.00	0.750	
209-060-889-6	GASKET	9320-00-143-7111	3	10.00	0.750	
209-060-889-7	GASKET	9320-00-143-3711	3	36.00	5.000	
209-060-900-61	GASKET	5330-00-938-1719	3	102.00	0.800	
209-060-900-63	GASKET, FIREWALL	5330-00-938-1719	3	36.50	0.700	
209-060-900-67	SEAL, PLAIN	9390-00-851-9178	6	102.00		
209-060-900-119	SEAL, PLAIN	9390-00-851-9178	6	4.00		
209-060-900-120	SEAL, PLAIN	9390-00-851-9178	6	4.00		
209-060-902-49	GASKET	5330-00-938-1719	6	3.60	1.000	
209-060-902-51	SEAL, PLAIN	9390-00-851-9178	6	3.90		
209-060-903-35	SEAL, PLAIN	9390-00-851-9178	6	13.20		
209-060-903-37	SEAL, PLAIN	9390-00-851-9178	6	13.20		
209-060-903-39	SEAL	5330-00-938-1719	3	18.50	1.00	
209-060-903-41	SEAL	5330-00-938-1719	3	16.50	1.00	
209-060-903-43	SEAL	5330-00-938-1719	3	8.50	1.00	
209-060-903-45	SEAL	5330-00-938-1719	3	5.50	1.00	
209-060-903-47	SEAL	5330-00-938-1719	3	13.00	1.00	
209-060-903-49	SEAL	5330-00-938-1719	3	18.50	1.00	
209-070-102-3	TUBE	9330-00-931-7097	5	7.80		
209-070-102-15	TUBE	9330-00-931-7097	5	8.90		
209-070-102-17	TUBE	9330-00-931-7097	5	13.80		
209-070-102-19	TUBE	9330-00-931-7097	5	5.50		
209-070-102-21	TUBE	9330-00-931-7097	5	24.00		
209-070-102-23	TUBE	9330-00-931-7097	5	24.00		
209-070-102-29	TUBE	9330-00-931-7097	5	35.00		

Figure D-158 (Sheet 3 of 4)

[illegible]



Part Number: 209-060-894-5 BUMPER
Fabricate from: NSN 9390-00-988-8636
1/4 x 1/8 Wall Syn Rubber
Tubing MIL-R-6855 Class II
Grade 40

Figure D-159

**NOTES:**

1. Make from Tape 425 Aluminum 0.003 in thick and purchase from Minnesota Mining and Manufacturing Comp. Code Ident. 76381.
2. Alternate material Uralene 8450 Barrier Material 0.005 inch thick May be purchased from Furalene Plastics Inc., Los Angeles, Calif., Code Ident. 99384.

Part Number: 209-072-439-27 VAPOR BARRIER
Fabricate from: NSN 7510-00-720-7516
Material: Barrier Tape, Aluminum Foil, 0.003 in thk

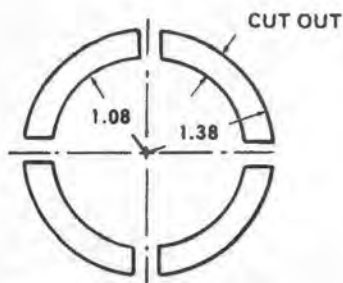
Figure D-159A



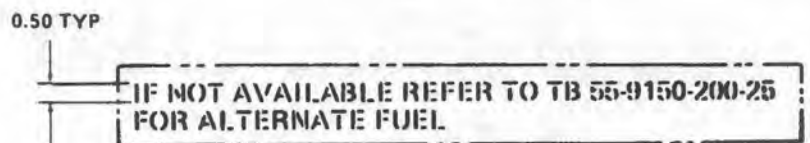
DETAIL A



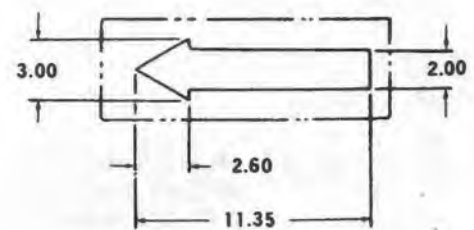
DETAIL E



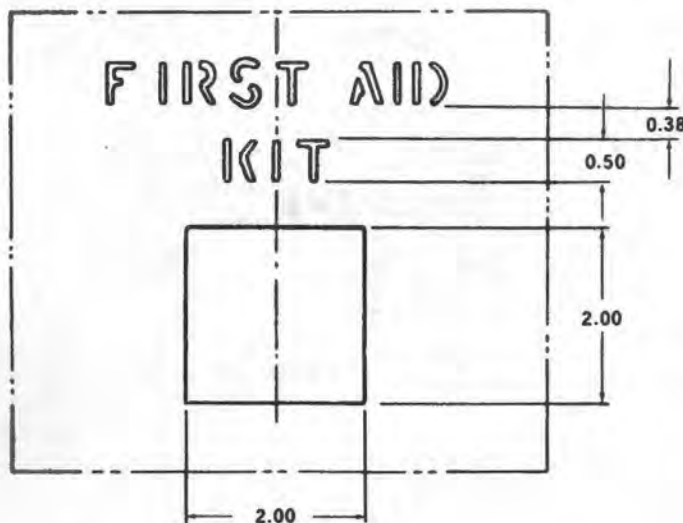
DETAIL B



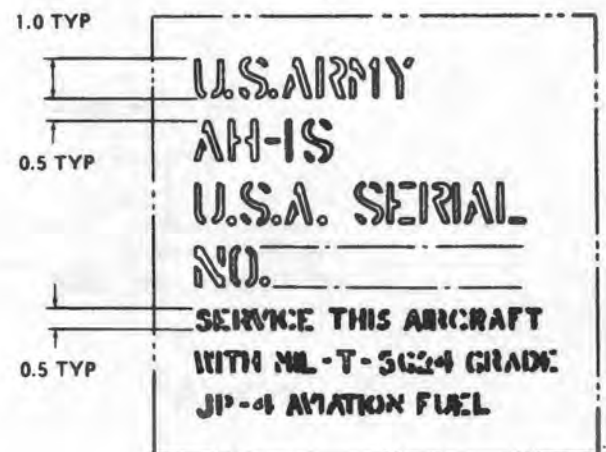
DETAIL F



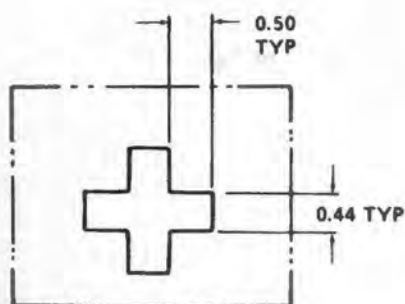
DETAIL G



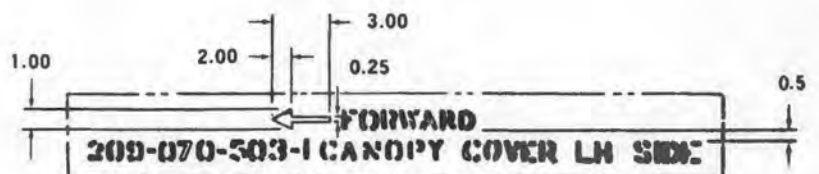
DETAIL C



DETAIL H



DETAIL D



DETAIL I

Figure D-160 STENCILS (Sheet 1 of 3)

TIEDOWN
ALLOWABLE LOAD
20000 LBS

0.25
(TYP)

0.15
TYP

DETAIL J

NO STEP

1.00

0.25
TYP

0.15
(TYP)

AIR TRANSPORT
WEIGHT 4205 LBS
C.G. STA 205.5

DETAIL K

0.20

0.40

0.75

FW

0.50

DETAIL N

3.00

2.00

0.25

FORWARD
CANOPY COVER IN SIDE

0.5

1.00

DETAIL L

0.25 TYP

0.18 TYP

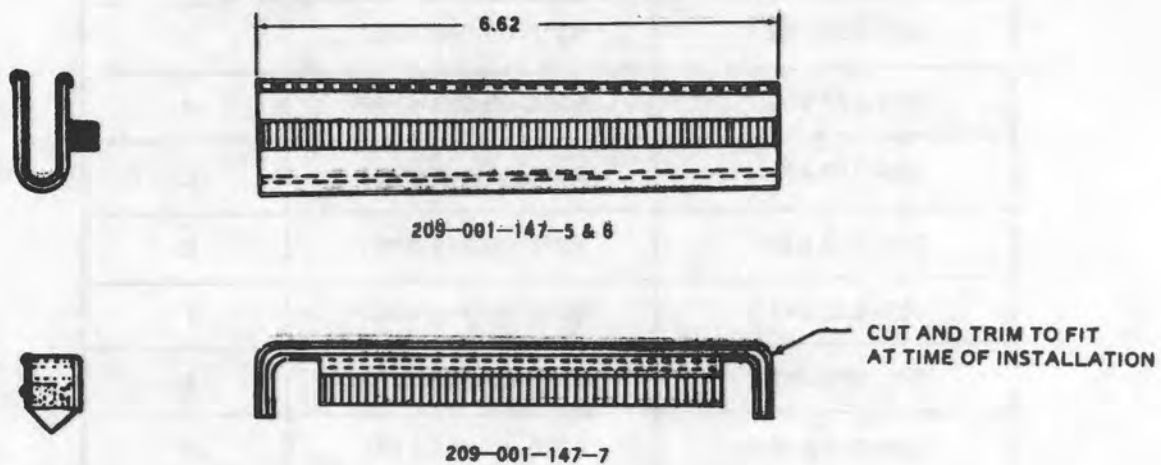
TIE DOWN FITTING
MAX. ALLOWABLE
LOAD 17000 LBS.

DETAIL O

Figure D-160 STENCILS (Sheet 2 of 3)

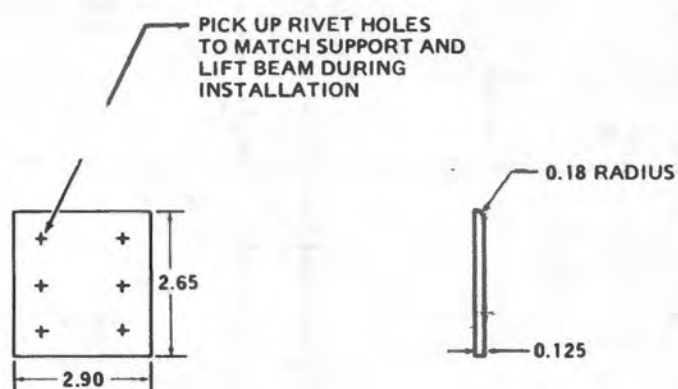
PART NUMBER	FABRICATE FROM NSN	DETAIL
204-030-159-1	9310-00-265-6797	A
204-070-806-3	9310-00-265-6797	B
204-070-838-1	9310-00-265-6797	C
204-070-839-1	9310-00-265-6797	D
205-070-801-1	9310-00-265-6797	F
209-070-603-1	9310-00-265-6797	E
209-070-603-3	9310-00-265-6797	G
209-070-698-1	9310-00-265-6797	H
209-070-611-1	9310-00-265-6797	I
209-070-611-3	9310-00-265-6797	L
209-070-616-1	9310-00-265-6797	J
209-070-617-1	9310-00-160-7858	K
209-070-623-1	9310-00-265-6797	M
209-070-630-1	9310-00-160-7858	N
209-078-031-1	9310-00-160-7858	O

Figure D-160 STENCILS (Sheet 3 of 3)



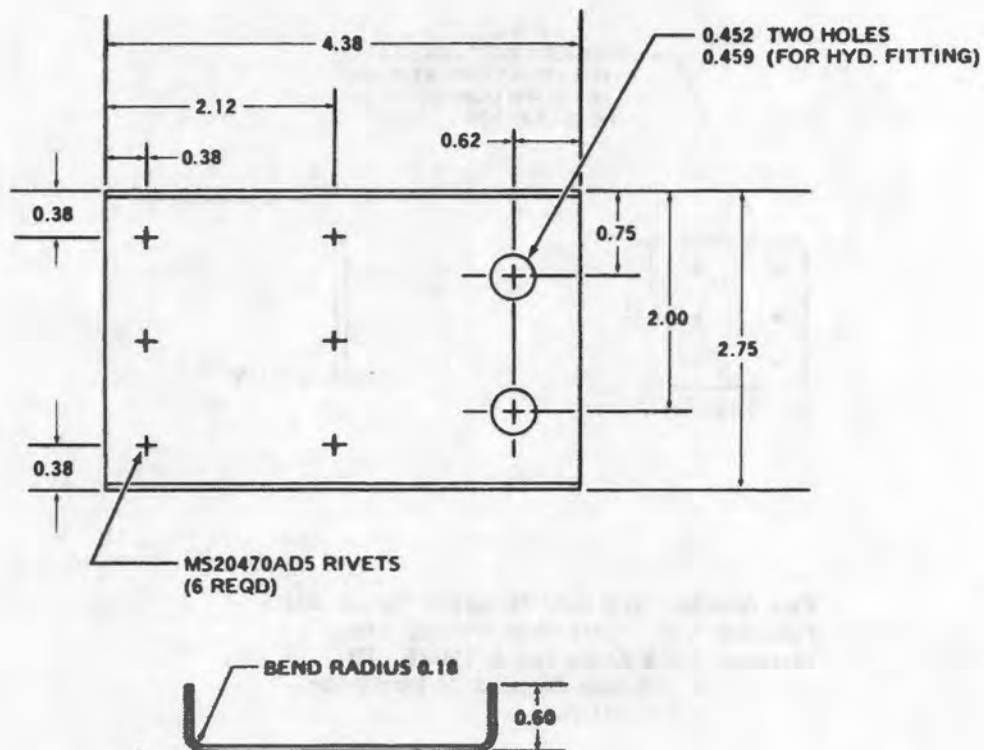
Part Numbers: 209-001-147-5, 6 & 7
Fabricate from: NSN 7920-00-898-9088

Figure D-161



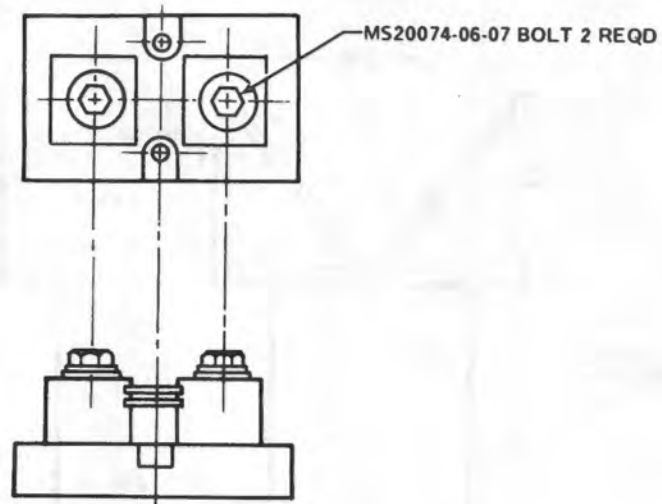
Part Number: 209-030-267-35 RADIUS, Block
Fabricate from: NSN 9535-00-232-418
Material: 2024 Al Aly QQ-A-250/5 T3
 0.125 Inch Thick, 2.75 Inch Wide,
 3.0 Inch Long

Figure D-162



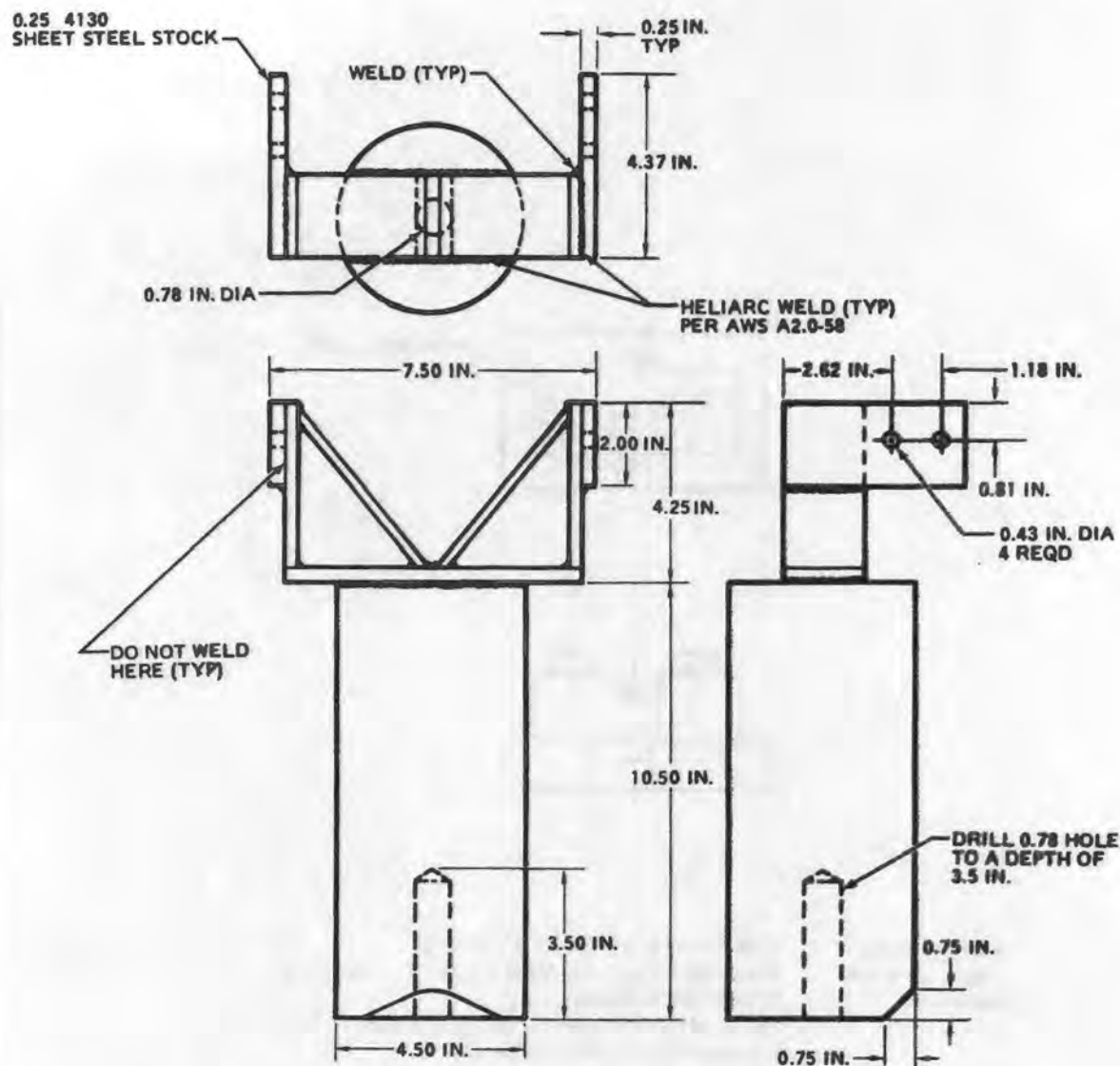
Part Number: 209-030-267-29 SUPPORT, Fitting
 Fabricate from: NSN 9535-00-232-418
 Material: 2024 Al Aly QQ-A-250/5 T3
 0.050 Inch Thick, 4.2 Inch Wide,
 4.6 Inch Long.

Figure D-163



Part Number: 204-075-152-3 Shunt Assembly
Fabricate from: MS91587-4 Shunt, NSN 6625-00-166-1005
Material: MS91587-4 Shunt
 Install MS20074-06-07 bolts in lieu of
 furnished bolts and washers.

Figure D-164.



COUNTERWEIGHT
1560-AH-1-082

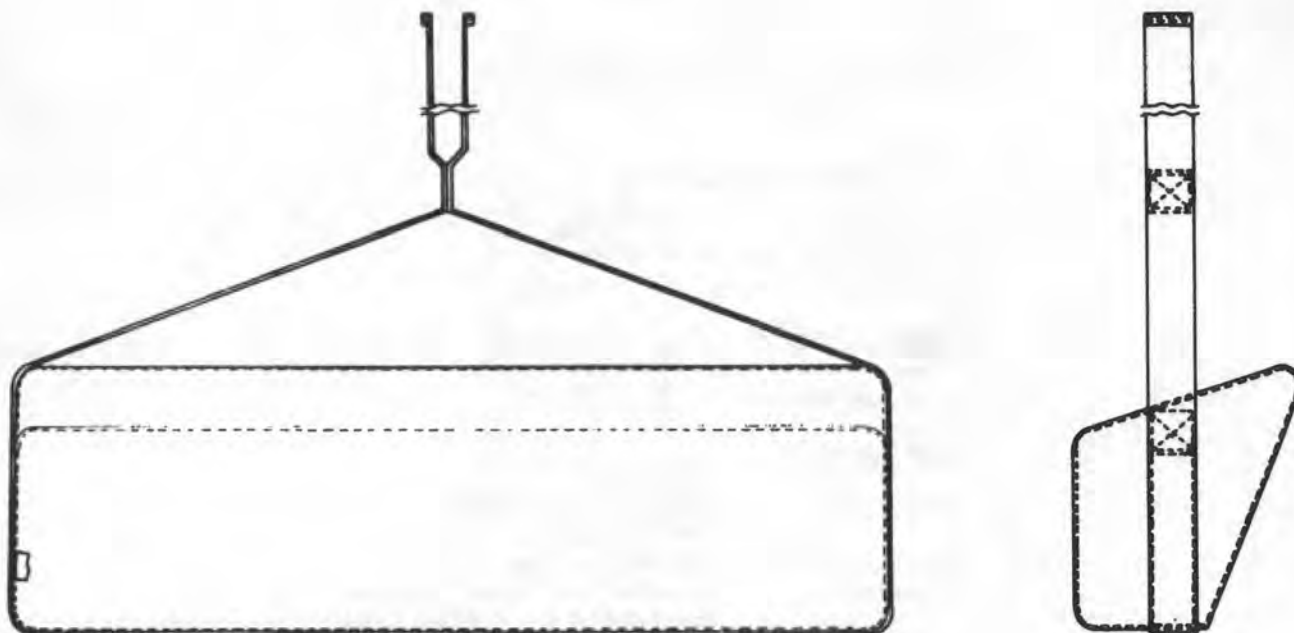
NOTES:

- *1. Braces 0.25 x 2.00, 4130 sheet steel stock.
- **2. Cylinder of counterweight, 4130 steel rod, 4.50 inch diameter.
3. Heliarc welded using heliarc weld rod, A5.18-69E70S1B.
4. Sandblast and paint O.D.
5. Two weights per helicopter 50 pounds each secured by quick release pins, MS17986C610, NSN 5340-00-904-6859.
6. Fillet welds per MIL-W-864.

COUNTERWEIGHT, NOSE

- * MIL-S-18729, 4130 sheet steel stock.
NSN 9515-234-7944, 0.250 inch.
- ** MIL-S-6758, 4130 steel rod.
NSN 9510-528-4990, 4.50 inch diameter.

Figure D-165.



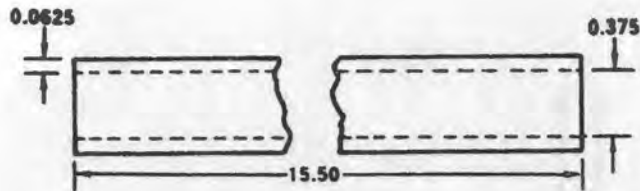
Part Number: 1560-AH1-061-5 SHIELD ASSEMBLY
(FSCM 81996)

Fabricate from: 8135-00-052-9070
8305-00-811-1617
8305-00-003-6179
8310-00-187-3920

Material: Cloth, Duck

- NOTES:**
1. Shield assembly P/N 1560AH1-061-5 is used in lieu of shield assemblies P/N 209-070-602-1 and P/N 209-070-632-1.
 2. Make all sewing Federal Standard 751, Stitch Type, 301, Seam Type LS-2.
 3. Shield assembly may be purchased from Bell Helicopter, Fort Worth, Texas.

Figure D-166



NOTE:

1. Make from Rubber Stock.

PART NO.	LENGTH
209-061-600-11	15.50
209-061-600-13	15.50
209-704-062-11	15.50
209-704-062-13	15.50

Part Number: 209-061-600-11 HOSE
 209-061-600-13 HOSE
 Fabricate from: NSN 4720-00-088-4495
 Material: Hose Synthetic Rubber, Federal
 Specification MIL-R-6855, Class I,
 Grade 40, 0.375 in ID, 0.0625 in Wall

Figure D-167



PART NUMBER	LENGTH
209-060-200-17	9.8
209-060-200-29	30.0
209-060-200-101	6.0
209-060-200-103	8.0

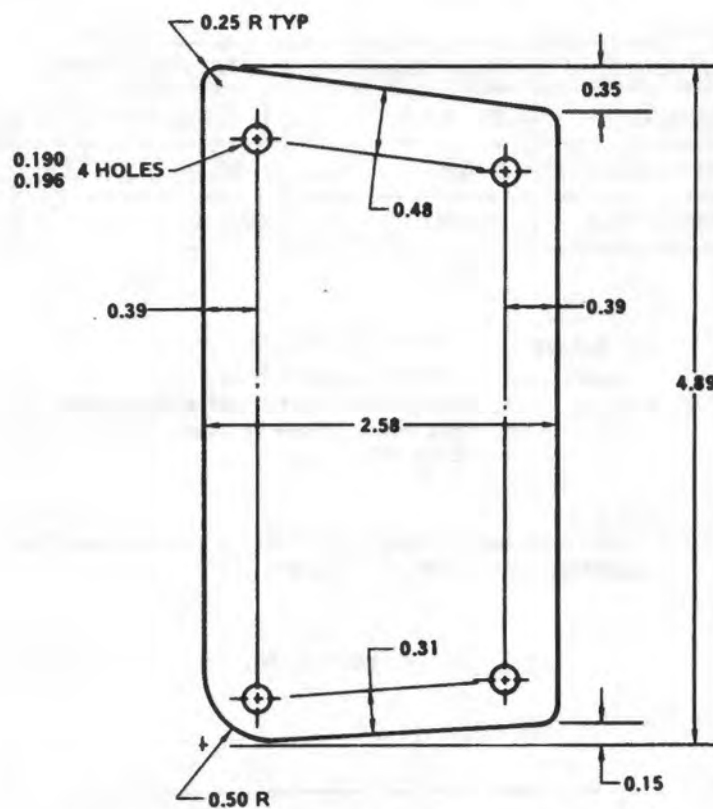
NOTES:

1. Make from extrusion no. X-982. Purchase from Atlantic India Rubber Co., Chicago, Ill. Code ident 70485

Part Number: 209-060-200-17
 209-060-200-29
 209-060-200-101
 209-060-200-103

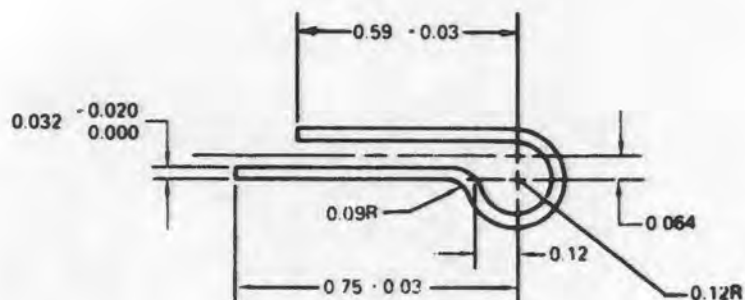
Fabricate from: NSN 9390-01-130-1886
 Material: Extrusion, BUNA-N Rubber

Figure D-168



Part Number: 209-030-113-27 COVER
Fabricate From: NSN 9535-00-086-9890
Material: 7075 Al Aly QQ-A-250/13 #T6
0.10 inch thick, 3.0 inch wide, 5.0 inch long

Figure D-169



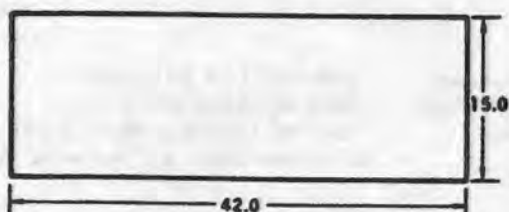
PART NO.	NOMENCLATURE	MAKE FROM NSN	LENGTH
209-071-037-25	EDGING	9390-01-057-9738	26.2
209-071-038-37	EDGING	9390-01-057-9738	16.0
209-071-039-29	EDGING	9390-01-057-9738	9.0

Part Number: (See chart) EDGING
 Fabricate from: NSN 9390-01-057-9738
 Material: Rubber Extrusion, Federal Specification
 MIL-R-6855, Class III, Grade 60, Synthetic,
 Color Black

NOTES:

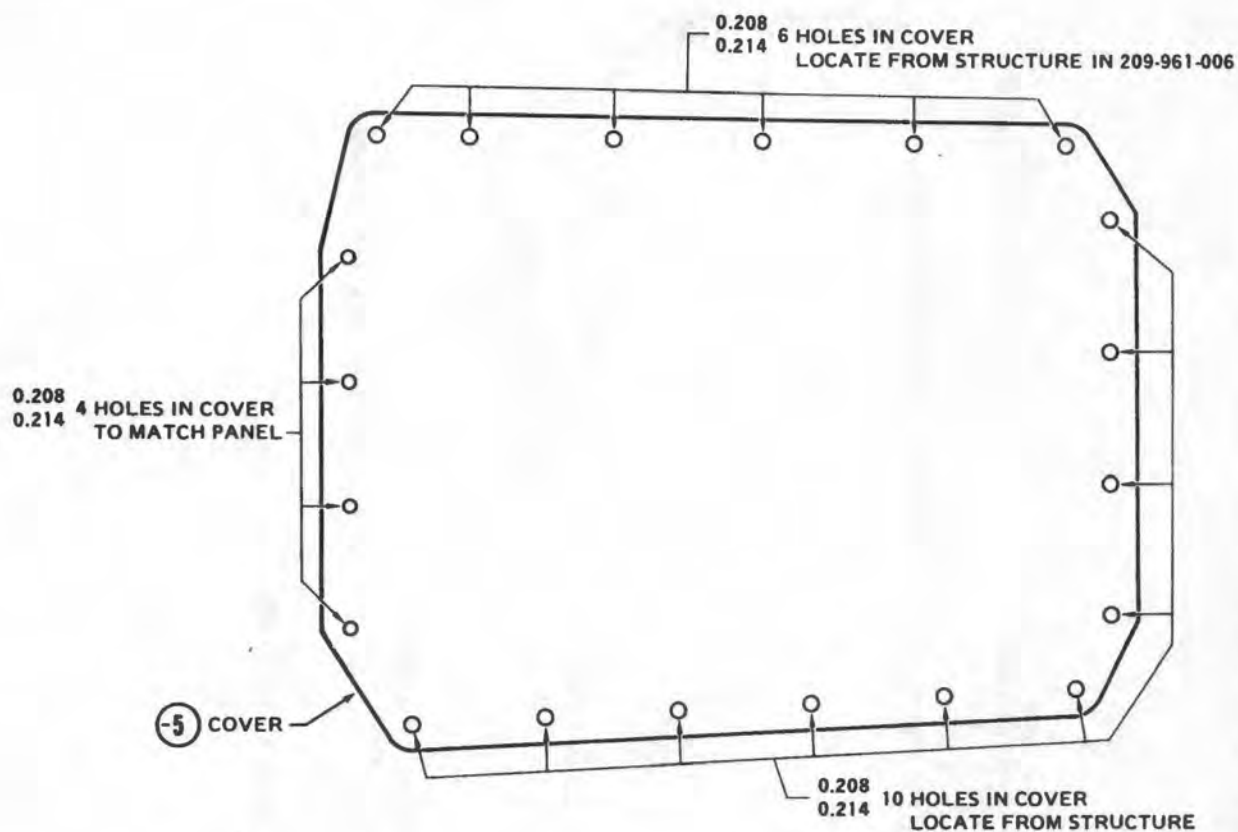
1. Make from Bell Standard 40-001 Stock and purchase from Bell Helicopter, Code Ident 97499.

Figure D-170.



Part Number: 1560-AH1-080-3 FOD SCREEN WIRE
 Fabricate from: NSN 5335-00-228-9829
 Material: Stainless Steel, MIL-S-25057A
 15.0 in. Wide, 42.0 in. Long

Figure D-171

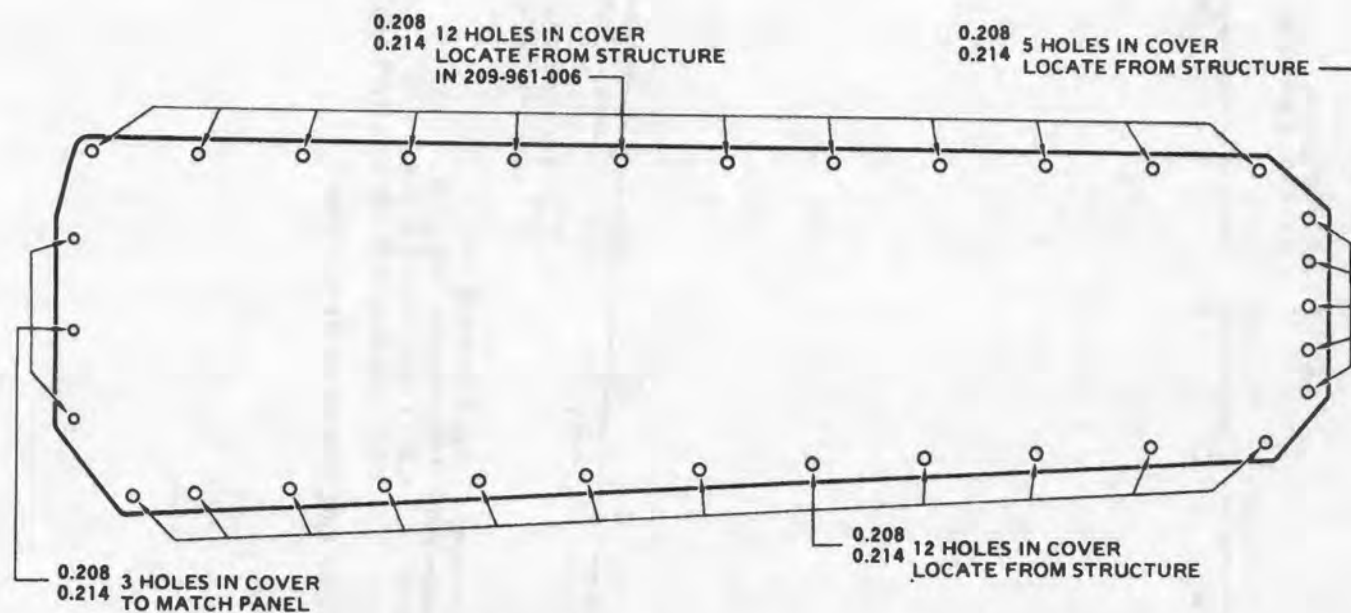


Part Number: 209-961-008-5
 Fabricate from: NSN 9535-00-232-0378
 Material: 2023 T3 Al Aly QQ-A-250/5
 0.63 inch thick, 9.9 inch wide, 12.9 inch long

NOTE: USE EXISTING PANEL AS PATTERN

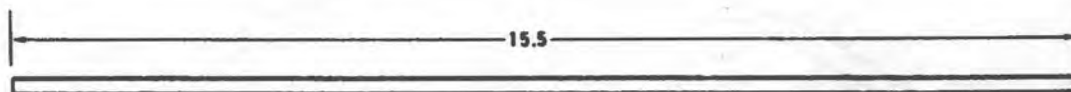
Figure D-172

Figure D-173



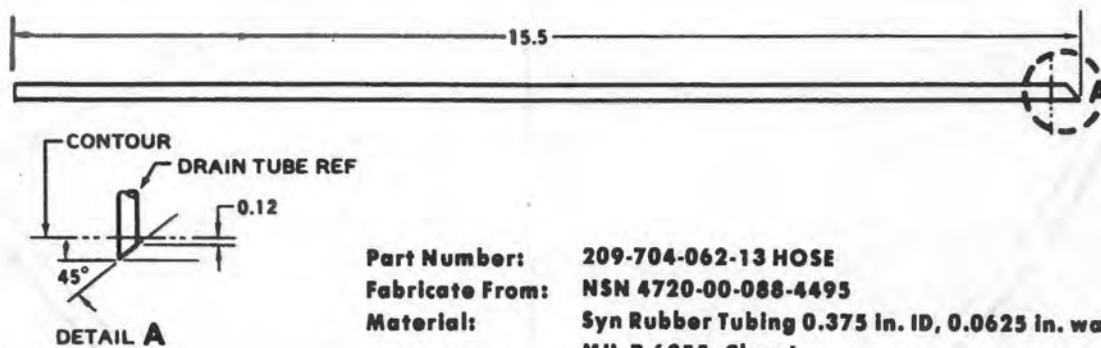
Part Number: 209-961-008-7 COVER
Fabricate from: NSN 9535-00-232-0569
Material: 2024 Al Aly, QQ-A-250/5, Temp. T3, 0.050 inch thick, 8.4 inch wide, 27.0 inch long

NOTE: USE EXISTING PANEL AS PATTERN



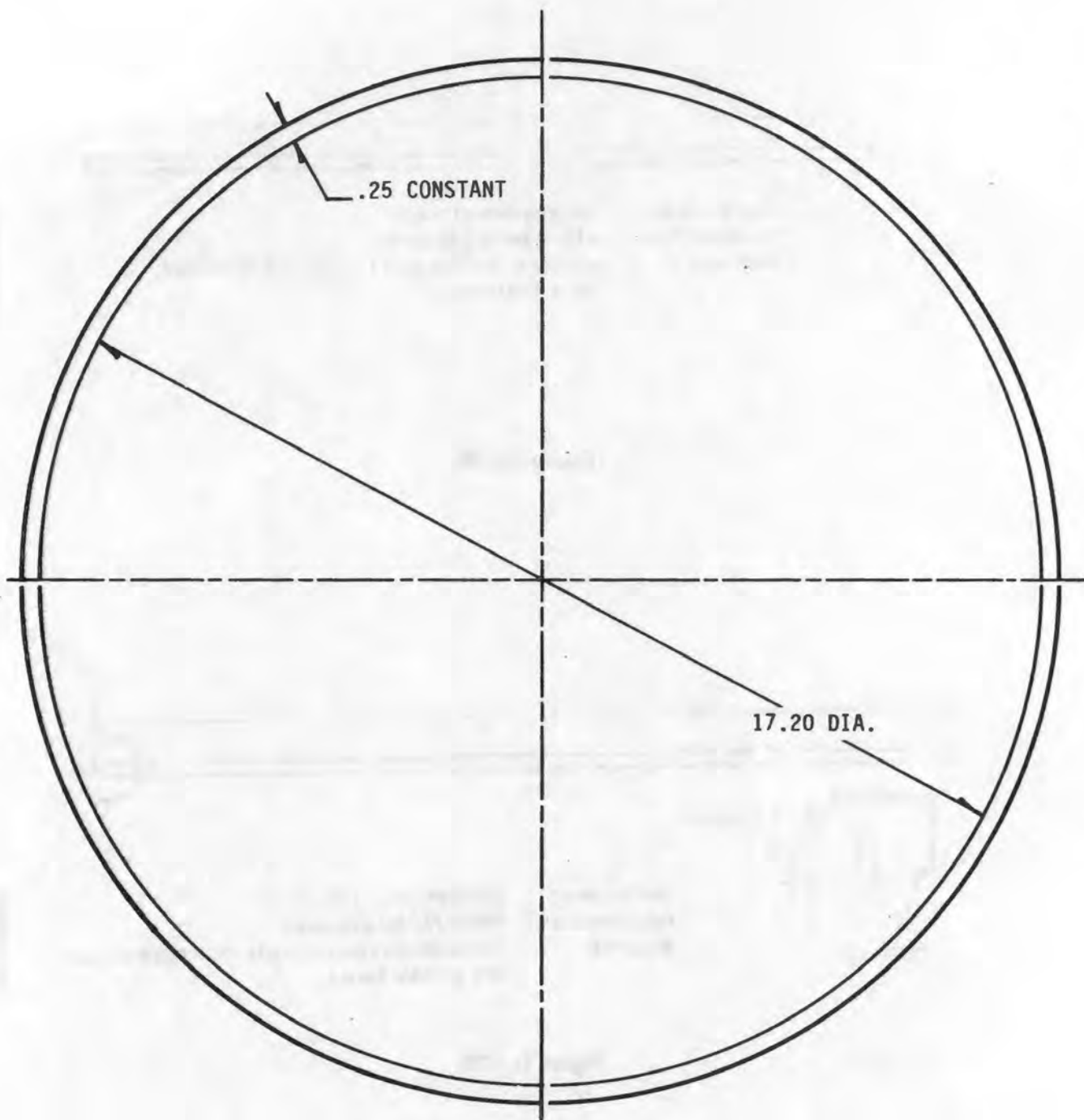
Part Number: 209-704-062-11 HOSE
 Fabricate From: NSN 4720-00-088-4493
 Material: Syn Rubber Tubing 0.375 in. ID, 0.0625 in. wall,
 MIL-R-6855, Class I

Figure D-174



Part Number: 209-704-062-13 HOSE
 Fabricate From: NSN 4720-00-088-4493
 Material: Syn Rubber Tubing 0.375 in. ID, 0.0625 in. wall,
 MIL-R-6855, Class I

Figure D-175



PART NUMBER: 1560-AH1-081-68 GASKET
FABRICATE FROM: NSN 5330-00-938-1719
MATERIAL: JM STYLE 89 3/64 IN. THK.

Figure D-176

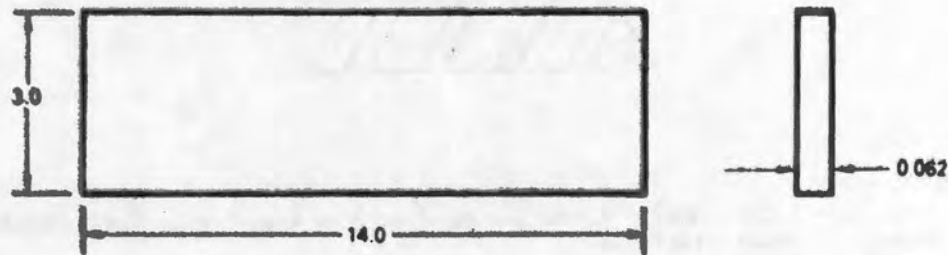


NOTES:

1. Make from X-224 by 1.0 LM Rubber and purchase from Atlantic India Rubber Works, Chicago, Ill., Code Ident 74084.
2. Length is 1.0 inch.

Part Number: 209-060-811-77 BUMPER
Fabricate from: NSN 9320-00-241-97 63
Material: Rubber, Federal Specification MIL-R-6855 CLD, Grade 60, Extrusion X-224, and 1.0 in long.

Figure D-177



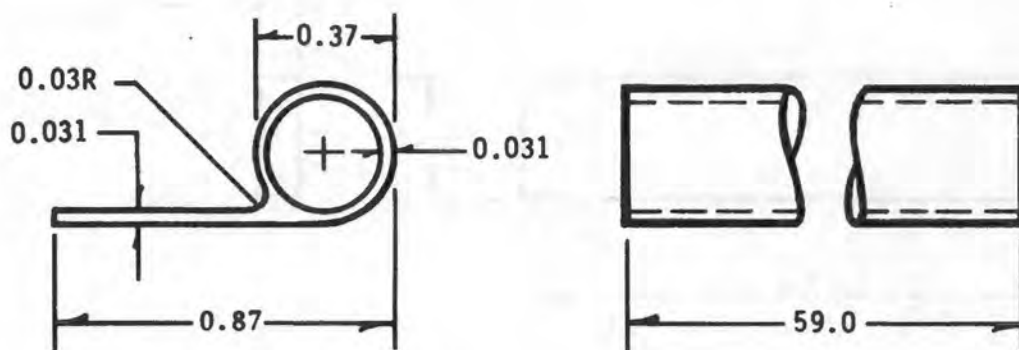
NOTES:

1. Make from Silicon Rubber.

PART NUMBER: 209-060-200-19 GASKET
209-060-200-21 GASKET

FABRICATE FROM: NSN 5330-00-871-7859
MATERIAL: RUBBER SHEET, SILICON, 0.063
IN. THICK, 3.0 IN. WIDE,
14.0 IN. LONG

Figure D-178.



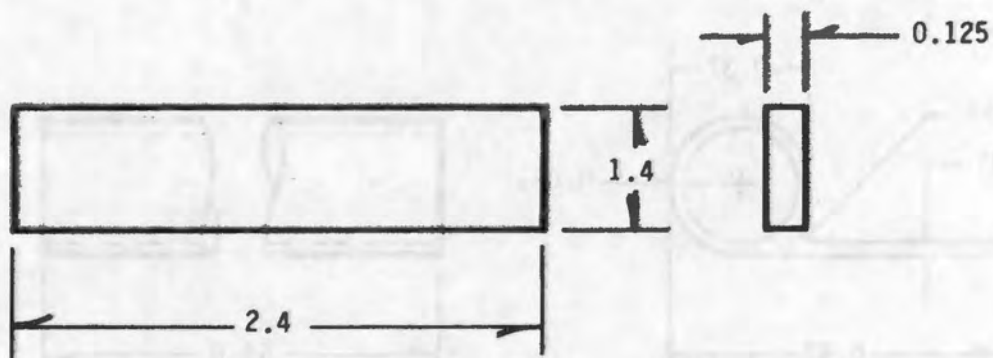
PART NUMBER: 209-060-525-15 RUBBER EXTRUSION

FABRICATE FROM: NSN 9390-00-027-3340

MATERIAL: SYNTHETIC: MIL-R-6855

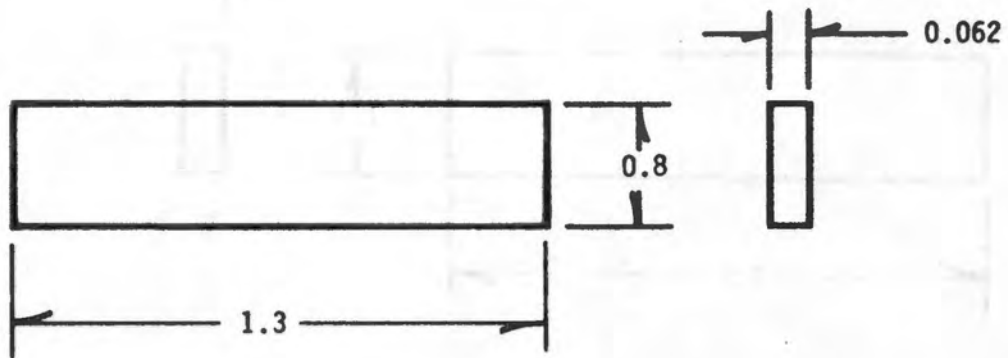
CLASS I, GRADE 60

Figure D-179



PART NUMBER: 209-033-148-69
FABRICATE FROM: NSN 9535-00-400-3622
MATERIAL: AMS 4013

Figure D-180

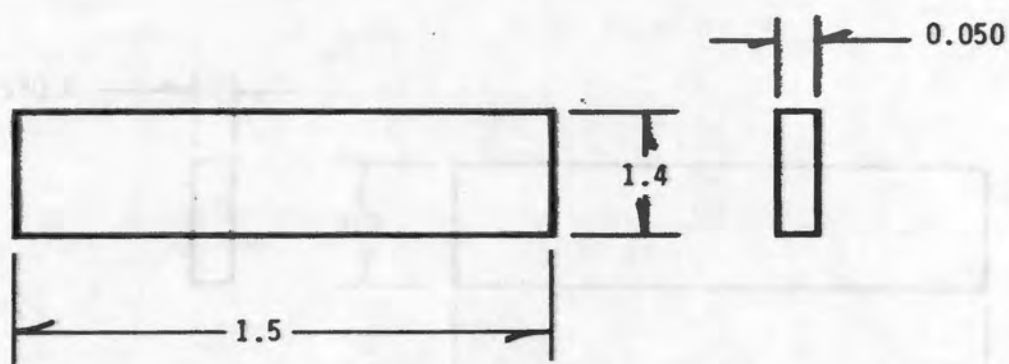


PART NUMBER: 209-030-242-3

FABRICATE FROM: NSN 9535-00-400-3622

MATERIAL: AMS 4013

Figure D-181

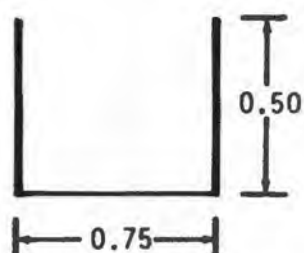


PART NUMBER: 209-030-224-17

FABRICATE FROM: NSN 9535-00-640-2311

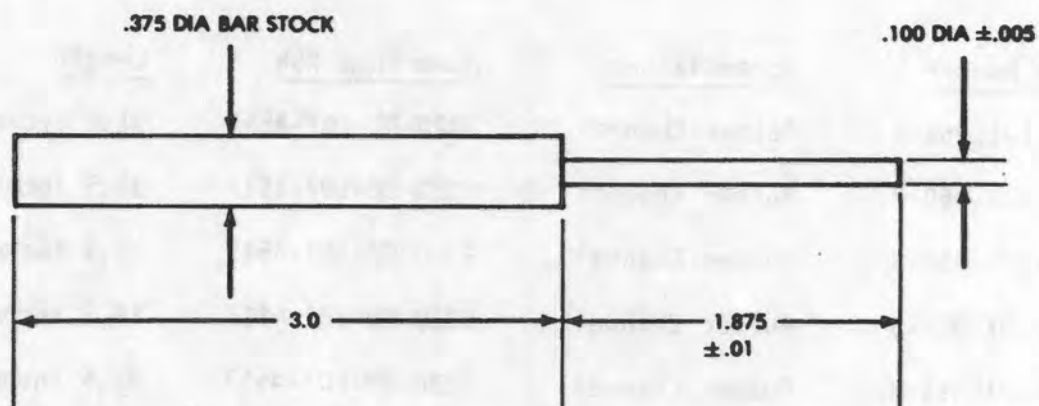
MATERIAL: 2024, T3 ALUMINUM ALLOY

Figure D-182



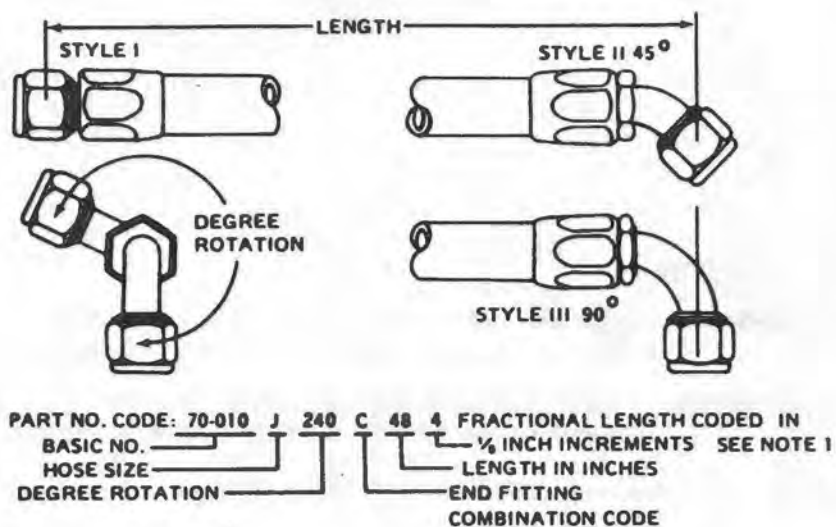
<u>Part Number</u>	<u>Nomenclature</u>	<u>Make From NSN</u>	<u>Length</u>
500-101-961-4	Rubber Channel	9320-00-107-4517	31.5 inches
500-101-960-3	Rubber Channel	9320-00-107-4517	31.5 inches
500-101-959-3	Rubber Channel	9320-00-107-4517	19.5 inches
500-101-958-3	Rubber Channel	9320-00-107-4517	19.5 inches
500-101-956-3	Rubber Channel	9320-00-107-4517	31.5 inches
500-101-955-3	Rubber Channel	9320-00-107-4517	29.5 inches
500-101-954-3	Rubber Channel	9320-00-107-4517	21.0 inches
500-101-953-3	Rubber Channel	9320-00-107-4517	21.0 inches

Figure D-183



PART NUMBER 5120-AH1-001 SWASHPLATE ALIGNMENT TOOL
 FABRICATE FROM NSN 9510-00-960-2463
 MATERIAL STEEL, ASTM A322, GRADE 4140

Figure D-184



HOSE SIZE	3	4	5	6	8	10	12	16	20	24	32	= TUBING O.D. IN 1/16 IN. INCREMENTS
WITHOUT CHAFE GUARD	E	F	G	H	J	K	L	M	N	P	R	
WITH CHAFE GUARD SEE NOTE 2	S	T	U	V	W	X	Y	Z	A	B	C	

STYLES AND MATERIALS OF END FITTINGS (FLARED)				
COMBINATIONS CODE	MATERIAL	FITTING STYLE	MATERIAL	FITTING STYLE
A	Alum	I	Alum	I
B	Alum	II	Alum	II
C	Alum	III	Alum	III
D	Steel	I	Steel	I
E	Steel	II	Steel	II
F	Steel	III	Steel	III
G	Alum	I	Steel	III
H	Alum	I	Steel	II
T	Alum	I	Alum	II
V	Alum	I	Alum	III
W	Alum	II	Alum	III
X	Steel	I	Steel	II
Y	Steel	I	Steel	III
Z	Steel	II	Steel	III

Figure D-185 (Sheet 1 of 2)

EXAMPLE OF CALLOUT:

70-010J240C484 : Hose assembly-non fire resistant, 0.5 inch O.D. 240° rotation, 90° aluminum fittings both ends, 48.5 inches long, without chafe guard.

70-010W000C480 : Hose assembly-non fire resistant, 0.5 inch O.D., 0° rotation, 90° aluminum fittings both ends, 48.0 inches long, with chafe guard.

Notes: 1. Fractional length hoses are in the following increments only:

(a) Under 18 inches long : 1/4 inch increments only. (2, 4, or 6 only)

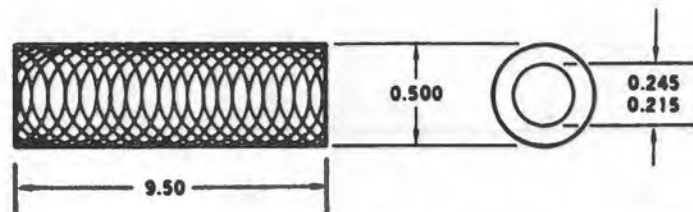
(b) Over 18 inches long : 1/2 inch only (4 only)

2. Chafe guard is translucent vinyl plastic per MIL-L-7444 type I. Ends of chafe guard must be within 0.19 inch of fittings.

HOSE ASSEMBLY, NON-FIRE RESISTANT

HOSE PART NUMBER	HOSE MATERIAL NSN	END FITTING NSN	END FITTING NSN
70-010F00CD200	4720-00-541-9281	4730-00-618-7378	4730-00-618-7378
70-010F000F190	4720-00-541-9281	4730-00-618-8862	4730-00-618-8862
70-010F000X060	4720-00-541-9281	4730-00-618-7378	4730-00-709-3887
70-010F000Y124	4720-00-541-9281	4730-00-618-7378	4730-00-618-8862
70-010F000Y196	4720-00-541-9281	4730-00-618-7378	4730-00-618-8862
70-010F180Z120	4720-00-541-9281	4730-00-709-3837	4730-00-618-8862
70-010F332F126	4720-00-541-9281	4730-00-618-8862	4730-00-618-8862
70-010H000T204	4720-00-611-2548	4730-00-541-8234	4730-00-613-1859
70-010H045W130	4720-00-611-2548	4730-00-541-8234	4730-00-720-1166
70-010K000A320	4720-00-541-8328	4730-00-541-9105	4730-00-541-9105
70-010K000A494	4720-00-541-8328	4730-00-541-9105	4730-00-541-9105
70-010K000V132	4720-00-541-8328	4730-00-541-9105	4730-00-919-6785
70-010L000A840	4720-00-555-3499	4730-00-541-1957	4730-00-541-1957
70-010L000V072	4720-00-555-3499	4730-00-541-1957	4730-00-238-5338
70-010L090B194	4720-00-555-3499	4730-00-618-7382	4730-00-618-7382
70-012H000A146	4720-00-857-1731	4330-00-053-0379	4330-00-053-0379
70-012J000A190	4720-00-815-6354	4730-00-053-0389	4730-00-053-0389

Figure D-185 (Sheet 2 of 2)



NOTES:

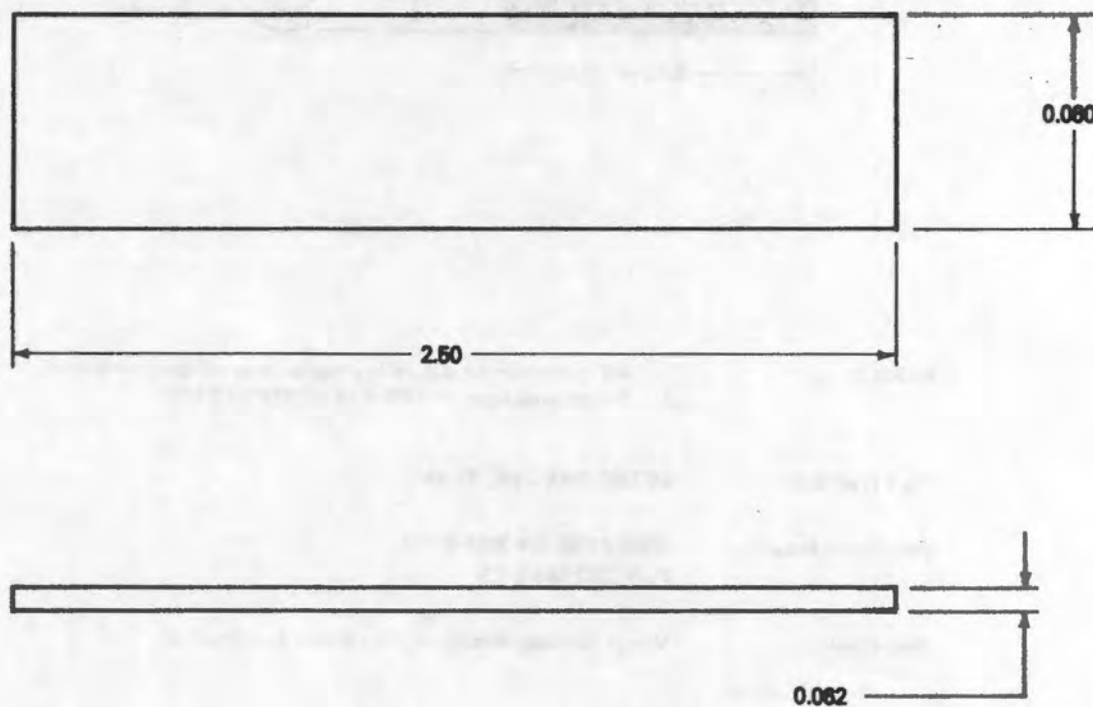
1. All dimensions are in inches unless otherwise noted.
2. Burst pressure — 150 PSI at 70°F (21°C)

Part Number: S9380-048094, Tube

Fabricate from: NSN 4720-01-201-8499
P/N 2201859-15

Material: Vinyl Tubing, Black, Nylon Braid Reinforced

Figure D-186



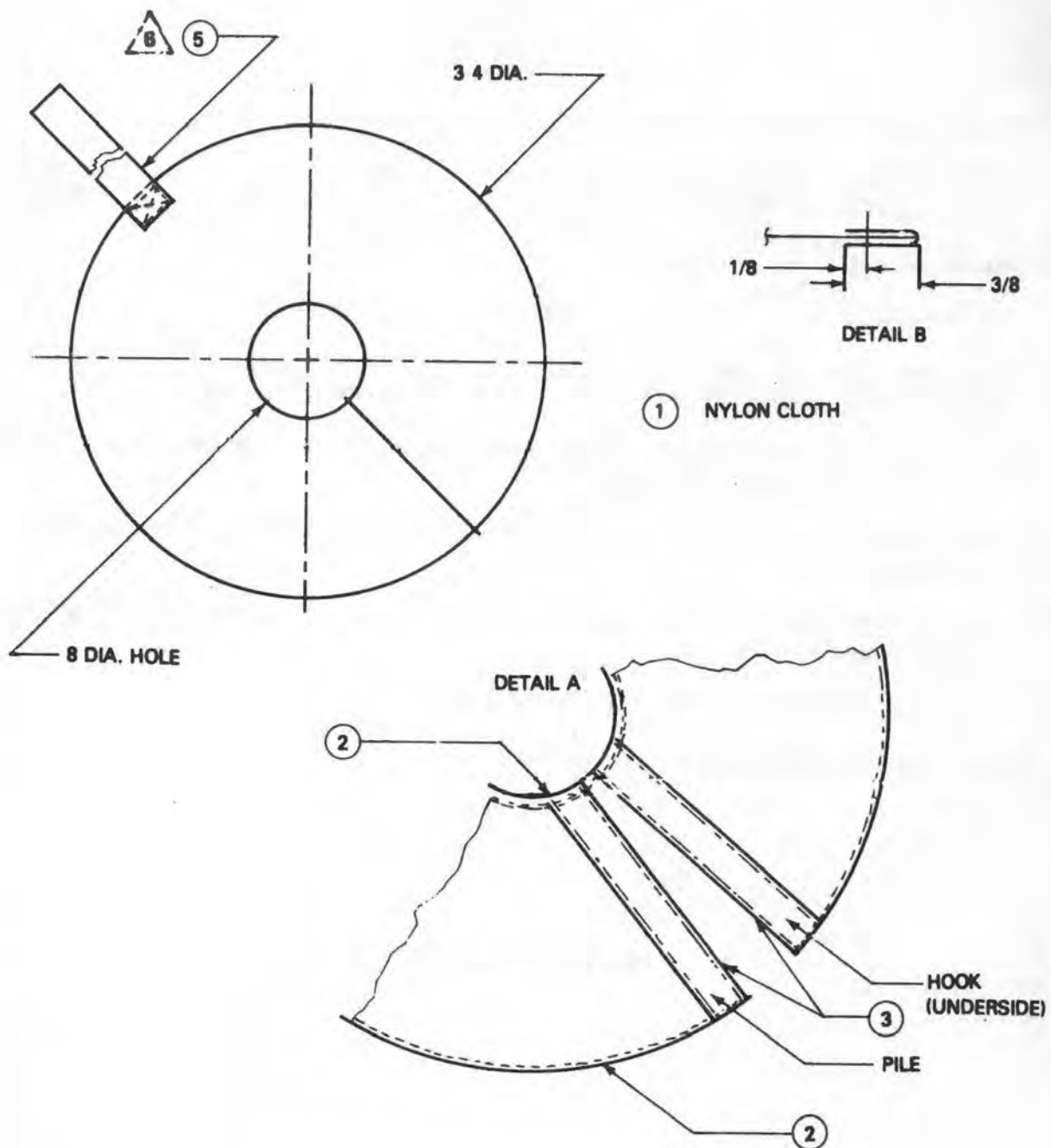
Part Number: 209-030-624-1 SHIM

Fabricate from: NSN 9535-00-400-3622

Material: Aluminum Alloy AMS4013

0.062 inch thick, 2.50 inch long,
0.60 inch wide

Figure D-187



Part Number: 1730-EG-026 Engine FOD Cover

Fabricate from: See Sheet 2

Material: See Sheet 2

Figure D-188 (Sheet 1 of 2)

NOTES:

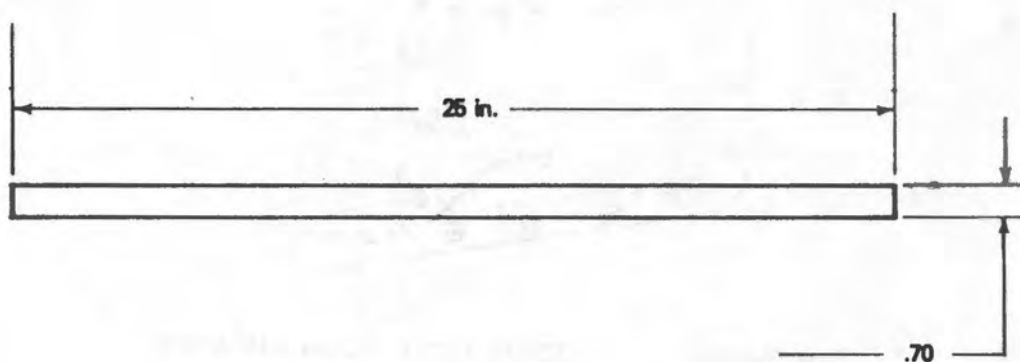
1. Part number 1730-EG-026 Engine FOD Cover consists of the following:

1	8305-01-052-9381	MIL-C-20696, Type II, Class 2	Cloth, Nyl'n	1 sq yd
2	8305-00-432-8179	MIL-W-5664, Type II, 3/4 in wide	Webbing, Textile, Elastic	2 yds
3	8315-00-926-4931	MIL-F-21840, Class 1, 2 in wide	Fastener, Hook	15 in.
3	8315-00-926-4930	MIL-F-21840, Class 1, 2 in wide	Fastener, Pile	15 in.
4	8310-00-204-3749	V-T-295, Type I, Class A	Thread, Nylon	As reqd
5	8345-01-137-4795	NAS-1756-12	Streamer, Warning	1

2. Sew velcro strip to 13 inch radial edge of cover as shown in detail A. Maintain 1/4 inch distance between stitching and edge of velcro strip.
3. Sew 56 inch strip of elastic around outer diameter as shown in detail A and B, gathering cover edge as necessary to fit.
4. Sew 12-1/2 inch strip of elastic around inner diameter as shown in detail A and B, gathering cover edge as necessary to fit.
5. All sewing in accordance with FED-STD-171, Type 301.

6. Sew warning streamer to cover as indicated.

Figure D-188 (Sheet 2 of 2)

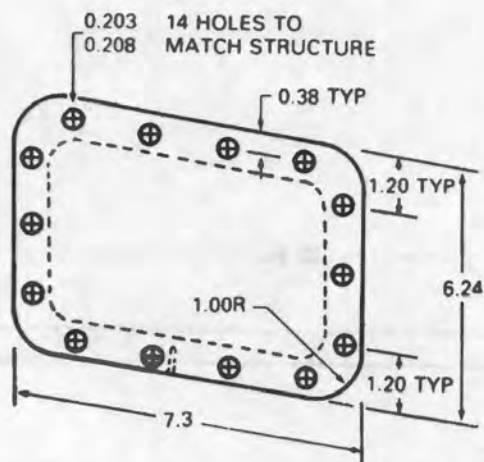


Part Number: 209-030-244-13 RUB STRIP

Fabricate from: NSN 9330-00-580-6886

Material: MIL-P-22241 Plastic Sheet

Figure D-189

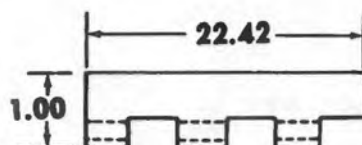


Part Number: 209-020-001-111 DOOR SHOWN
209-020-001-112 DOOR OPPOSITE

Fabricate from: NSN 9535-00-088-6599

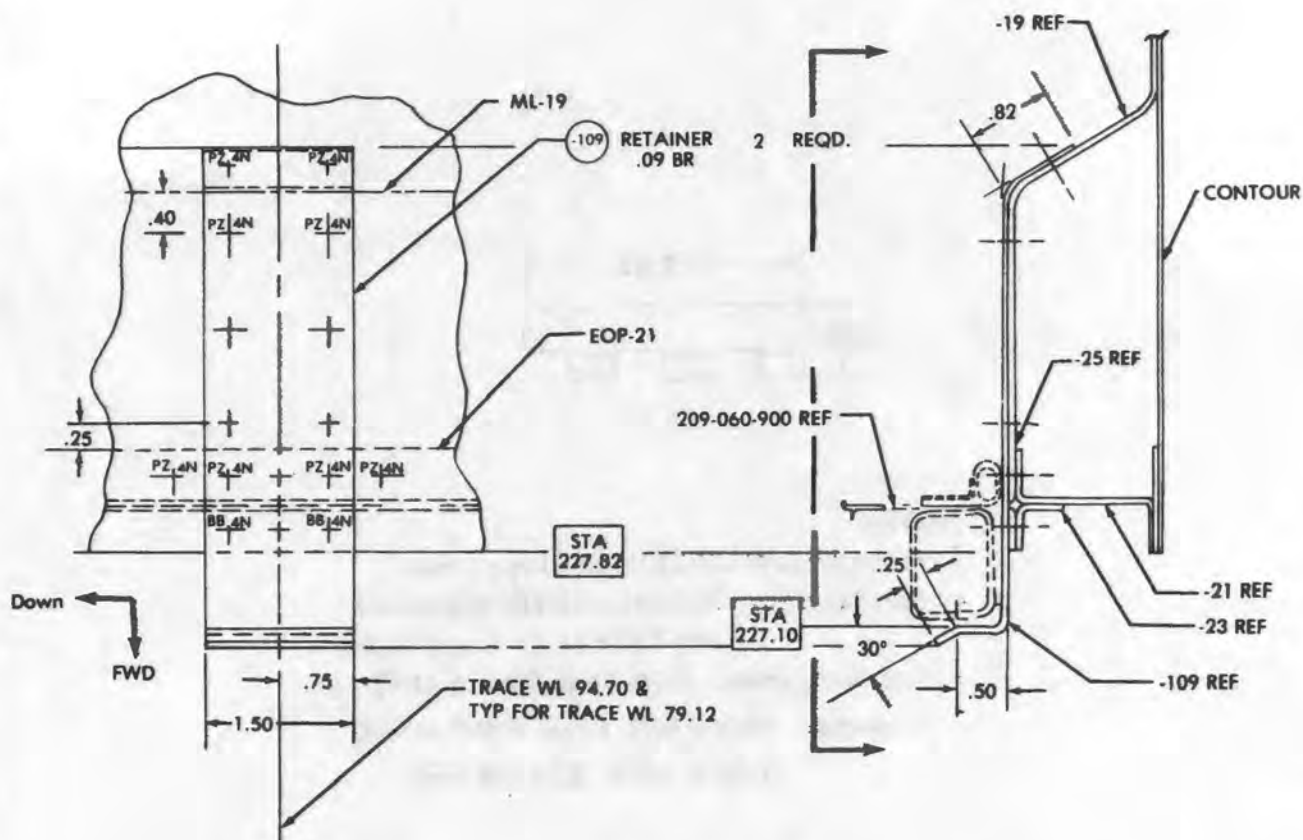
Material: Aluminum Alloy 7075,
Federal Specification QQ-A-250/13, T3,
0.063 In. Thk, 6.5 In. Wide, 8.1 In. Long

Figure D-190

**NOTES:**

1. Make from MS20257HC5 Hinge Stock
Part Number 209-030-836-25 Hinge Half
209-030-836-27 Hinge Half
Fabricate from: NSN 5340-00-616-4803
Material: Hinge Butt, Cres, 0.062 in thk,
1.00 in wide, 22.42 in long

Figure D-191

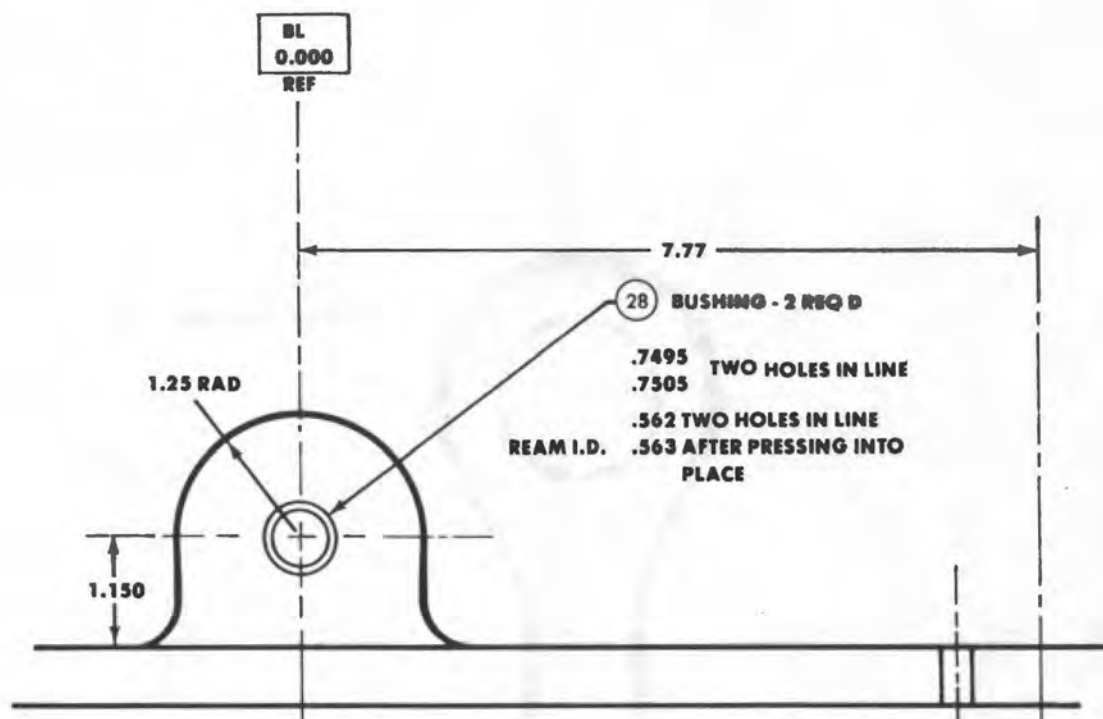


Part Number: 209-060-809-109 RETAINER

Fabricate From: NSN 9535-00-554-1417

**Material: Aluminum Alloy 2024 Fed Spec QQ-A-250/5,
0.063 in. thk, 2 in. wide, 6.5 in. long,
(Heat treat to T42)**

Figure D-192



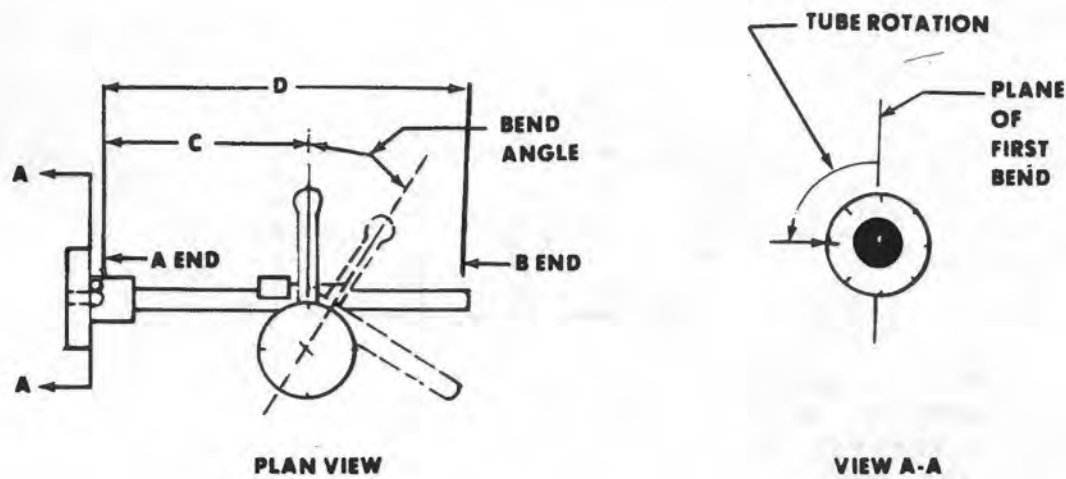
PART NUMBER: 20-012-35-31-28, BUSHING
FABRICATE FROM: NSN 4710-00-278-2373
MATERIAL: 7/16 OD ALLOY STEEL, CAD PLATED PER
QQ-P-416, TYPE II

Figure D-193



PART NUMBER: 2-323749-3, TERMINAL LUG
FABRICATE FROM: NSN 5940-00-878-5892

Figure D-194

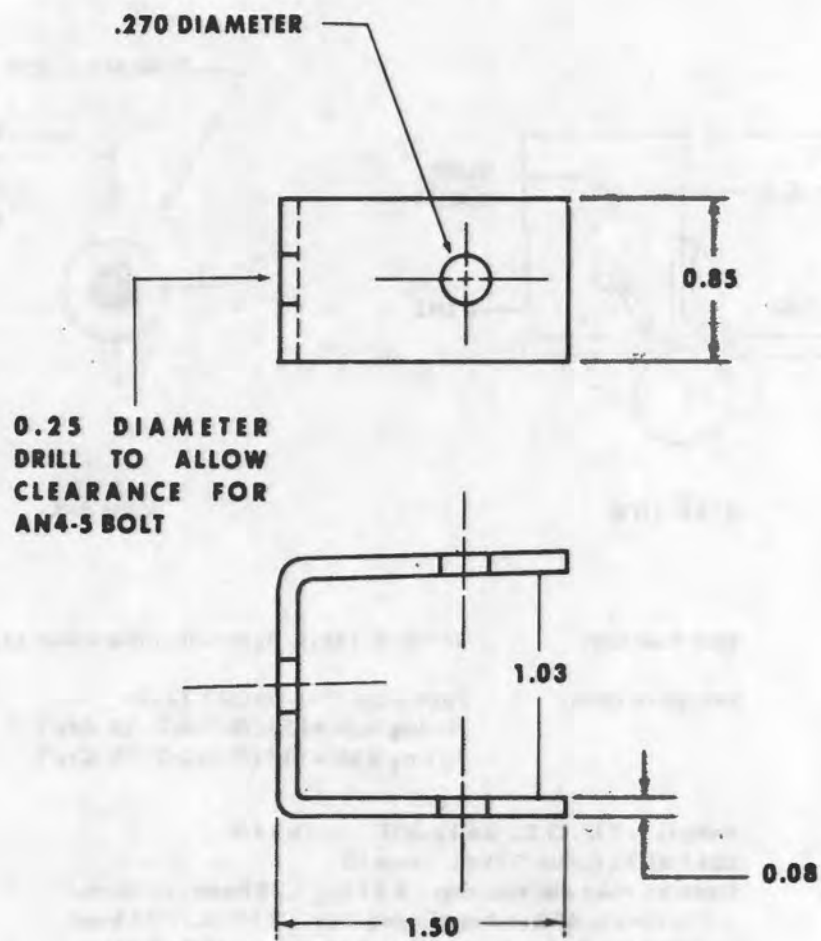


Part Number: 209-076-416-1, Hydraulic Tube Assembly

Fabricate from: Tube NSN 4710-00-289-2537
 Fitting NSN 4730-00-580-2120, Qty 2
 Fitting NSN 4730-00-555-0595, Qty 2

Tube is 1/2 in. O.D., wall 0.035, length 15.0
 6061 AL ALY, MIL-T-7081, Temp T6
 Finished tube dimensions: 6.81 in., 1.25 bend radius in.,
 0 rotation, 48 bend angle degrees. 2.69 in., 1.25 bend
 radius in., 311 tube rotation, 61 bend angle degrees.

Figure D-195

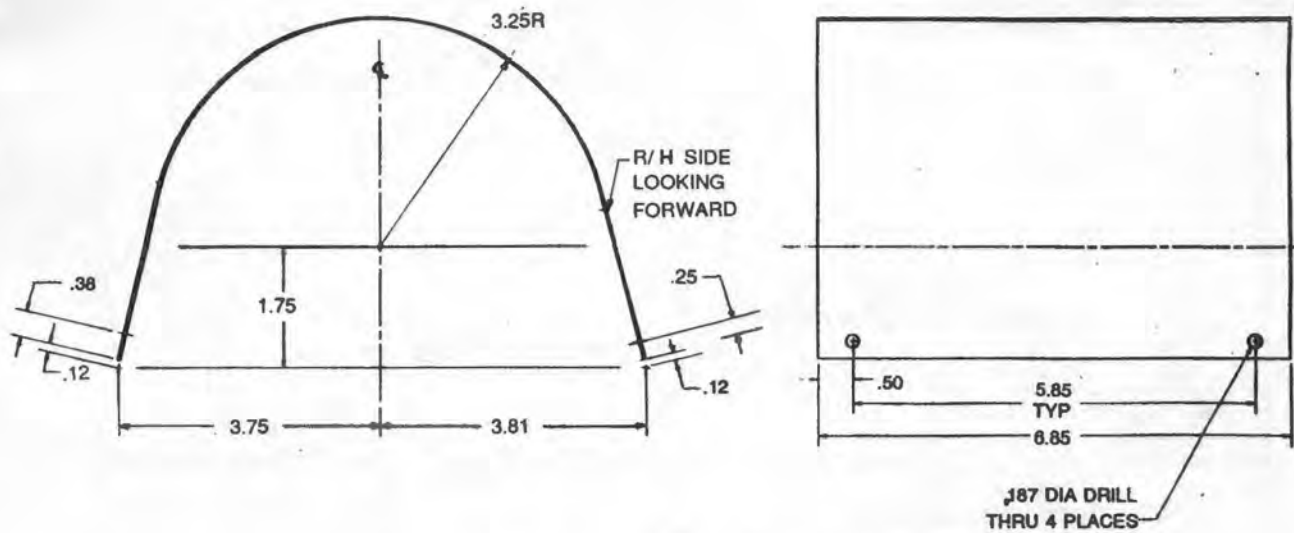


Part Number: EGD-0856-2, Bracket

Fabricate From: NSN 9515-00-006-2678

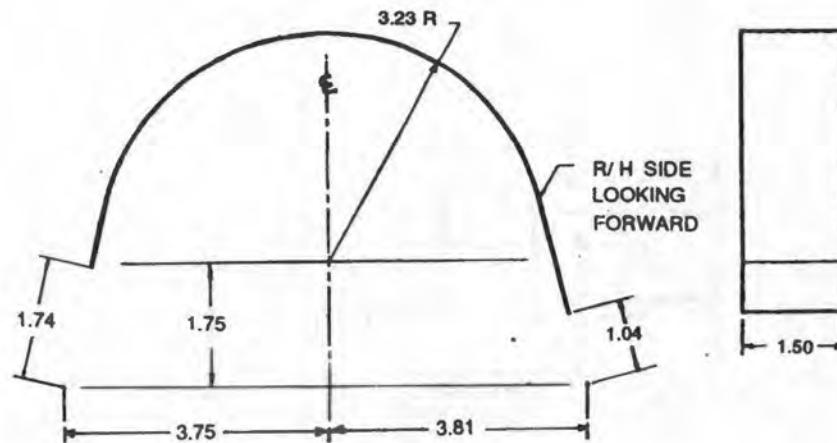
Material: MIL-S-5059 Stainless Steel
0.80 inch thick

Figure D-196



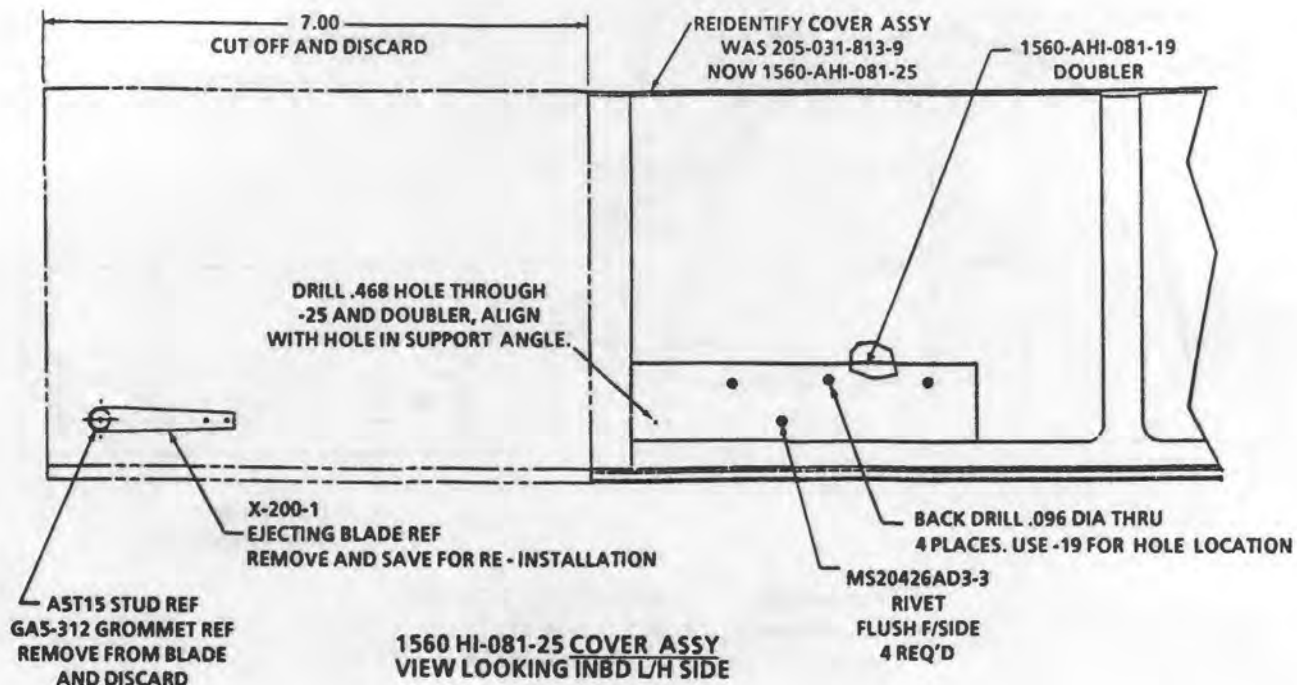
Part Number: 1560-AH1-081-17 COVER
 Fabricate from: NSN 9535-00-167-2267
 Material: 0.040 2024 ALUM. ALY.
 QQ-A-250/5, T3
 .040 x 6.85 x 13.72 inch

Figure D-197



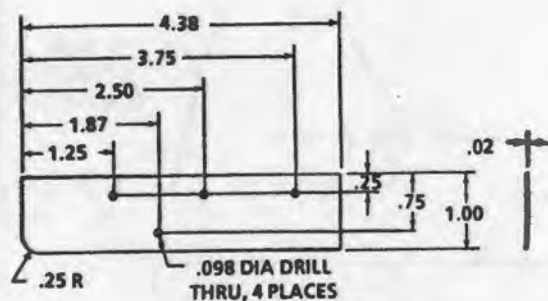
Part Number: 1560-AH1-081-18 LIP
 Fabricate from: NSN 9535-00-167-2277
 Material: 0.020 2024 ALUM. ALY.
 QQ-A-250/5, T3
 .020 x 1.50 x 11.07 inch

Figure D-198



Part Number: 1560-AH1-081-25
Fabricate from: NSN 1615-00-851-9168
Material: PN 205-031-813-9

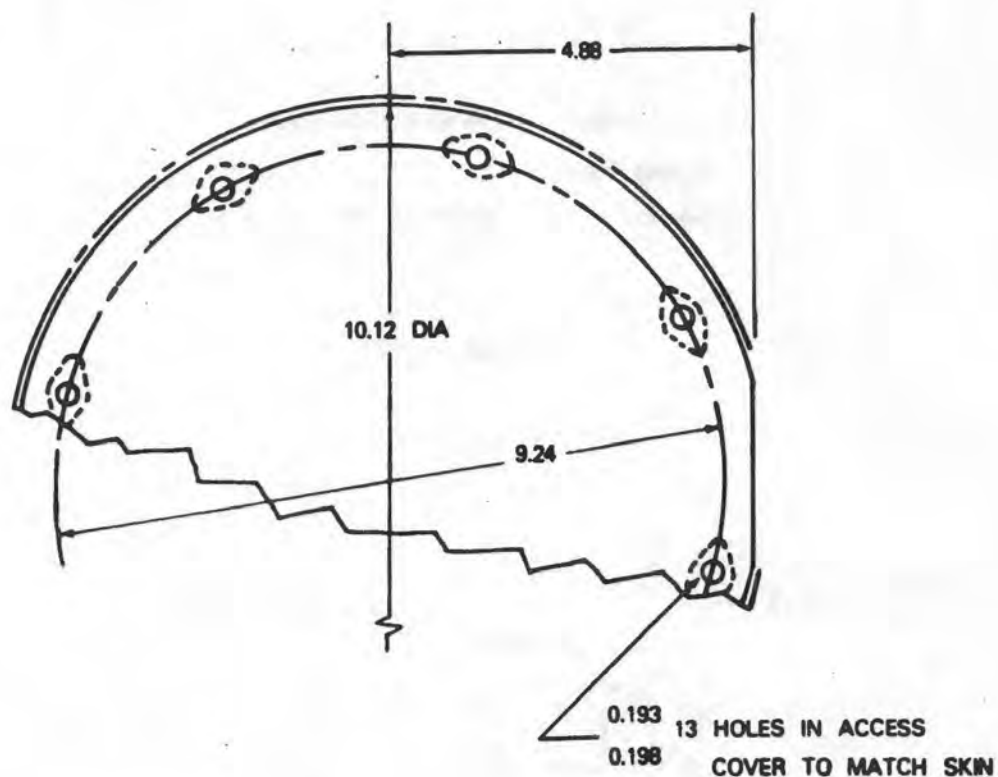
Figure D-199



1560-AHI-081-19 DOUBLER

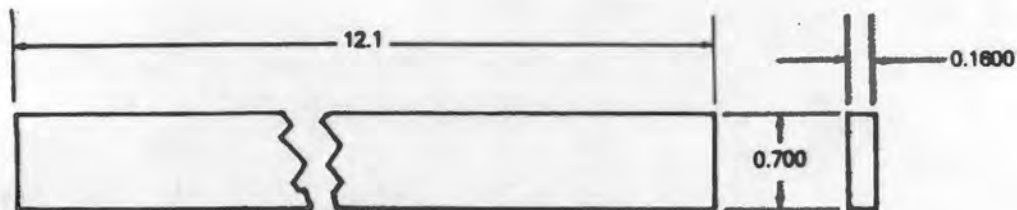
Part Number: 1560-AH1-081-19
Fabricate from: NSN 9535-00-167-2277
Material: 0.020 IN. 2024 ALUM. ALY.
QQ-A-250/5, T3
.020 x 1.00 x 4.38

Figure D-200



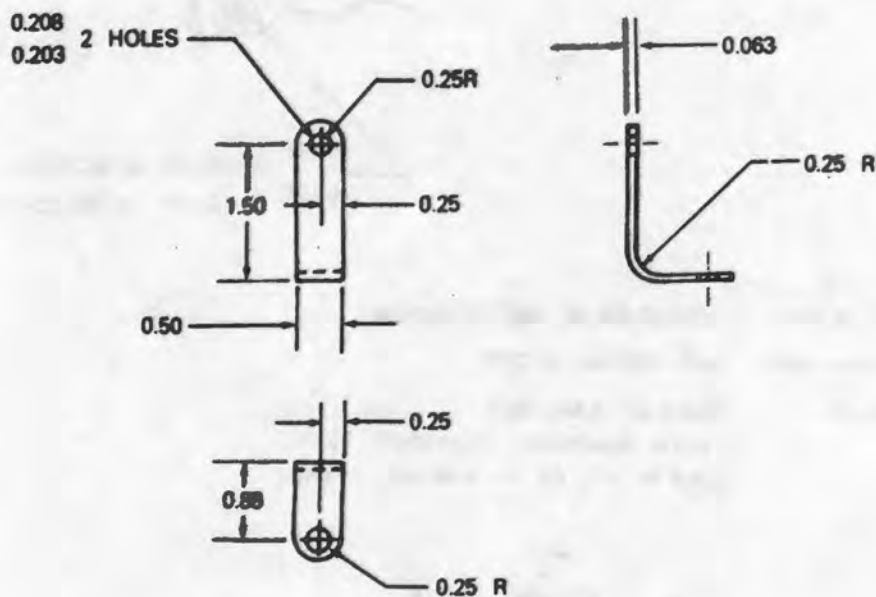
Part Number: 209-033-005-35 ACCESS COVER
Fabricate from: NSN 9535-00-232-0378
Material: Aluminum Alloy, 2024
Federal Specification QQ-A-250/5, T3
0.063 in. thk, 8.0 in. wide, 8.0 in long

Figure D-201



Part Number: 209-981-518-153 Spacer
 Fabricate from:
 Material: 2024-O. -AL-ALY., QQ-A-250/5
 0.1600 x 0.700 x 12.1

Figure D-202



Part Number: 209-577-002-107 Bracket
 Fabricate from: NSN 9535-00-232-0378
 Material: 2024, T4, ALALY., QQ-A-250/5
 0.0630-0.500-2.9

Figure D-203

APPENDIX E

STORAGE OF AIRCRAFT

Section I. GENERAL INFORMATION

E-1. Purpose

This appendix provides detailed preparation procedures to place an AH-1S in storage for a period of six months or less, inspection requirements during storage, and necessary depreservation procedures to activate the helicopter after storage. Categories of storage are:

a. Flyable Storage (no time limit). Flyable storage implies maintaining the helicopter in operable condition. It entails mooring the AH-1S, installing protective covers, a daily inspection every seven days and a ground runup every 14 days.

b. Short Term Storage (1-45 days). This type storage includes a ground runup, preservation of the engine, fuel system, oil system, and exposed helicopter components. It also requires removal of classified communications equipment, clock, fire extinguishers, and first aid kit. The AH-1S is moored, protective covers installed, and a daily inspection performed every seven days.

c. Intermediate Storage (46-180 days). Intermediate storage includes all requirements of Short Term Storage. In addition, the fuel system is preserved and a corrosion control program established.

E-2. Storage Responsibility

The local maintenance officer is responsible for processing the helicopter for storage, taking into consideration anticipated duration of storage and climatic conditions.

a. Records. The processing organization is responsible for performing a receiving check of the helicopter, and for record-keeping requirements during storage. Refer to TM 38-750, Army Equipment Record Procedures, for forms used for equipment inventory.

b. Removed Equipment. Equipment and Components removed from the helicopter as part

of storage procedures shall be stored, and records maintained in accordance with current supply directives.

NOTE

Do not preserve any component removed because of accident or material failure. Rather, ship in present condition.

c. Classified Equipment. Removal of classified equipment other than communications equipment is discretionary with the Commanding Officer. His decision will consider local storage procedures, climatic conditions affecting deterioration or corrosion, and manhours required to remove and reinstall such equipment. Take appropriate security measures for all classified equipment either removed or left installed.

E-3. Inspection of Stored Helicopter.

NOTE

Aircraft that are inactive for seven or more consecutive days must be placed in storage.

The aviation unit Maintenance officer is responsible for establishing an inspection program to ensure that the helicopter remains properly preserved. AH-1s in Flyable Storage require a daily inspection at least every seven days and an engine runup at least once every 14 days. Helicopters in Short Term or Intermediate Storage will be inspected for corrosion every 15 days where relative humidity exceeds 40 percent. Helicopters in any storage will be inspected for condition of protective covers whenever they experience high winds (exceeding 40 MPH). In addition, the following general inspection procedures apply to all types of storage:

a. Provide adequate helicopter ventilation and preservation. Determine cockpit temperature by thermometer. When in excess of 135 degrees F (57 degrees C), ventilate to prevent condensation, mildew, and corrosion.

b. Check that all fuselage, wings, center section, control surfaces, and empennage drains are open.

c. If covers are used, check that they are not accumulating water. Provide drains as necessary. Replace damaged or deteriorated covers.

d. Regularly inspect and treat the AH-1 for corrosion as necessary. Local humidity conditions will determine inspection frequency. Give close attention to areas where moisture does not evaporate readily. Evidence of corrosion is not as obvious on painted surfaces as on bare metal. However, corrosion can attack metal through paint, and is indicated by blisters or scaly appearance.

e. Inspect static ground wires, tiedown straps, and mooring devices (ropes, cables, rods, eyes) at regular intervals, and immediately after AH-1 is subjected to winds exceeding 40 mph. Replace ground wires, mooring devices or tiedown straps which are deformed or deteriorated.

f. Inspect communications equipment for fungus and corrosion. At the first indication of deterioration, remove, clean, preserve, and package any affected component in accordance with MIL-P-116. Stow these items in the helicopter from which removed.

g. Enter inspection data in the aircraft log book.

Section II — Flyable Storage

E-4. Inspection Prior to Flyable Storage

AH-1's in this storage category will be maintained in a serviceable condition. Perform a Daily Inspection (TM 55-1520-234-PMS) prior to performing the requirements of the following paragraphs. Enter the type and date of storage in the aircraft log book.

NOTE

General requirements in Section I form a part of this procedure.

E-5. Preservation

a. Power Train.

(1) Check the power train lubrication system, including sight gages. Service the system in accordance with Chapter I.

(2) The preservation runup prescribed in paragraph E-5.6. completes the preservation of transmission and gearboxes.

b. Engine.

WARNING

Solvent is flammable. Avoid breathing vapors. Avoid skin contact.

(1) Use every precaution to keep the engine and accessories clean. Keep the air intake duct, plenum chamber, and compressor inlet screens clean and free of any foreign materials. Use solvent (C124) to clean external surfaces.

(2) Start engine in accordance with TM 55-1520-234-10.

NOTE

This runup may be omitted if the helicopter was recently operated and known to be dry.

(3) Limit the run to that necessary to normalize engine temperatures.

(4) Shut down engine in accordance with TM 55-1520-234-10.

(5) After engine cools, install engine inlet and exhaust protective covers. If these are not available, seal the openings with barrier material (C30) and secure with tape (C136).

(6) Cover additional engine cowling openings with barrier material (C30) and secure with tape (C136).

(7) Record the date engines are placed in Flyable Storage in the aircraft log book.

*c. Hydraulic System.***CAUTION**

Do not mix hydraulic fluid (C73) with fire retardant hydraulic fluid (C73A). Refer to TB 55-1500-334-24.

Check hydraulic reservoirs, and fill as necessary with hydraulic fluid (C73).

d. Fuel System.

Service fuel tanks to normal capacity after each engine runup. Drain water from fuel tanks before adding fuel.

NOTE

Fuel tanks minimize fuel contamination by condensation. The maintenance officer will determine the interval of periodic drainage.

e. Battery.

- (1) Check that all cockpit switches are OFF.
- (2) Clean battery as necessary, but leave it in the helicopter unless the temperature is expected to be colder than -40°F.
- (3) Service battery in accordance with TM 11-6140-203-15-2.

f. Airframe.

- (1) Install pitot tube cover, or wrap pitot tube with barrier material (C30) and secure with tape (C136).
- (2) Close canopy.
- (3) Install static ground wire.

- (4) Install aircraft covers, if available, in accordance with instructions accompanying covers.

E-6. Maintenance of Preservation.

a. Inspect helicopters in Flyable Storage in accordance with local directives and requirements of paragraph E-3.

b. Perform a preventive maintenance daily inspection in accordance with TM 55-1500-220-PMD every seven days and an engine runup at least once every 14 days.

E-7. Depreservation After Storage.

a. Remove protective covers, clean, and return to storage.

WARNING

Solvent is flammable. Avoid breathing vapors. Avoid skin contact.

b. Remove all barrier material and tape. Remove tape residue with solvent (C124).

c. Clean helicopter as necessary, in accordance with Chapter I.

d. Open canopy for ventilation.

e. Remove all tiedowns.

f. Perform preventive maintenance daily inspection in accordance with TM 55-1500-220-PMD.

g. Remove and stow static ground wire.

h. Indicate on aircraft maintenance records that helicopter has been depreserved and removed from storage.

Section III SHORT TERM STORAGE**E-8. Inspection Prior to Storage.****NOTE**

General requirements of Section I form a part of this procedure.

a. Ensure that all removed components are preserved and stowed within the helicopter in suitable containers.

b. Record all removed or disconnected parts in the aircraft log book.

c. Coat bolts, washers, nuts, etc., which are removed during disassembly, with a light coat of corrosion preventive compound (C52). Reinstall as removed from the major component, unless otherwise specified.

d. Check fuel, oil, and hydraulic lines and hoses for leakage.

e. Lubricate the AH-1 for the 150-hour interval in accordance with Chapter 1.

f. Record the date and type of storage in the aircraft log book.

E-9. Preservation.

a. Power Train.

WARNING

Solvent is flammable. Avoid breathing vapors. Avoid skin contact.

(1) Clean exposed metal surfaces with a clean cloth dampened with solvent (C124). Coat with corrosion preventive compound (C52).

(2) Add corrosion preventative concentrate (C54) to gearboxes and engine in the quantity specified in TB 55-9150-200-24, para 14.d.

NOTE

Flushing engine and gearboxes is not required after adding concentrate (C54).

(3) Check power train lubrication levels, including sight gages and service in accordance with Chapter 1.

(4) Start the engine in accordance with TM 55-1520-234-10. Operate for approximately 10 minutes, or until normal operating temperature is reached.

(5) Shut down engine in accordance with TM 55-1520-234-10.

(6) Cover breather holes in transmission and gearboxes with barrier material (C30), and secure with tape (C136). This completes preservation of the transmission and gearbox.

(7) If engine is inoperable, preserve power train as follows:

(a) Remove main rotor blades in accordance with Chapter 5.

(b) Remove mast assembly in accordance with Chapter 5.

(c) Spray inside of transmission through top opening with one gallon of lubricating oil (C94). While spraying, manually rotate internal gears and bearings with input driver quill.

(d) Reinstall mast assembly in accordance with Chapter 5.

(e) Apply fingerprint remover (C55) to all unpainted surfaces of mast assembly. Remove residue with solvent (C124) on a clean lint-free cloth.

(f) Apply corrosion preventive compound (C52) to all unpainted surfaces.

(g) Reinstall main rotor in accordance with Chapter 5.

(h) Ensure that intermediate and tail rotor gearboxes are filled with lubricating oil (C94) to the proper operating level.

(i) Cover breather holes in transmission and gearboxes with barrier material (C30) and secure with tape (C136).

c. Operable Engine.

WARNING

Solvent is flammable. Avoid breathing vapors. Avoid skin contact.

(1) Use every precaution to keep the engine and its accessories clean. Keep the air intake ducts, plenum chambers, and compressor inlet screens clean and free of any foreign material. Use solvent (C124) for external cleaning.

(2) Check oil level; service as necessary in accordance with Chapter 1. Remove any lubricating oil spilled on painted surfaces with a clean cloth dampened with solvent (C124).

CAUTION

To prevent accidental firing of the engine, ensure that ignition system circuit breaker is OPEN (pulled out).

(3) Open ignition system circuit breaker and secure red tag stating: DO NOT CLOSE.

(4) Remove fuel inlet strainer and pump discharge strainer from fuel control. Clean with solvent (C124); reinstall. Replace servo supply filter.

(5) Disconnect main fuel hose from inlet side of starting fuel solenoid valve, and from main fuel flow divider at fuel control.

(6) Install temporary lines on ends of hoses to allow drainage into a suitable container.

(7) Connect hose from a source of lubricating oil (C91) to fuel control inlet fitting.

(8) When engine has cooled enough to prevent auto-ignition, set throttle arm to IDLE.

CAUTION

Do not operate starter in excess of operating limits: three runs of 40 seconds each during any 60 minute period is maximum. Three minutes cooling time between starts is required. Do not engage starter until engine comes to a complete stop.

(9) Motor engine with starter to pump lubricating oil into fuel system.

(10) Motor engine until fuel-free oil flows from start fuel hose.

(11) Cap start fuel hose and motor engine until fuel-free oil flows from main fuel hose.

(12) Disconnect lubricating oil hose from fuel control and connect fuel inlet line.

(13) Remove temporary lines from fuel hoses; connect main fuel hose to main fuel flow divider. Connect starting fuel hose to starting fuel solenoid valve.

(14) With engine stopped, spray power turbine rotor with sufficient corrosion preventive compound (C93, C94) to cover blades.

NOTE

Use only dehydrated air for spraying operation.

(15) Remove warning tag. Circuit breaker remains open.

(16) Install engine inlet and exhaust covers. If covers are not available, seal opening with barrier material (C30) and secure with tape (C136).

(17) Remove, disassemble, and clean oil filter. Immerse in operating lubricant, reassemble, and reinstall.

(18) Attach a tag to the controls stating: ENGINE PRESERVED: FUEL CONTROL PRESERVED WITH MIL-L-6081 OIL. FLUSH WITH STANDARD FUEL BEFORE PLACING IN SERVICE.

(19) Visually check entire engine to ensure that:

(a) All holes are plugged.

(b) All ports are capped.

(c) All external parts are complete and secure.

(d) All bare metal, including internal and external threads, is covered with a film of corrosion preventive compound (C49).

(20) Record date and extent of engine preservation in the engine historical records.

(21) Annotate records that a corrosion preventive concentrate has been added to engine transmission, and gearboxes, in accordance with TB 55-9150-200-25, and that flushing is not required during depreservation.

d. Inoperable Engine.

WARNING

Solvent is flammable. Avoid breathing vapors. Avoid skin contact.

(1) Use every precaution to keep engine and its accessories clean. Keep air intake ducts, plenum chambers, and compressor inlet screens clean and free of any foreign material. Use solvent (C124) for external cleaning.

CAUTION

To prevent accidental firing of the engine, ensure that ignition system circuit breaker is OPEN (pulled out).

(2) Open ignition system circuit breaker and secure red tag stating: DO NOT CLOSE.

(3) Disconnect fuel lines from fuel control inlet and outlet ports.

(4) Remove fuel control drain plug, and drain fuel from fuel control and hoses.

(5) Remove overspeed governor and drain fuel.

(6) Reconnect fuel hoses and replace drain plug.

(7) Lockwire throttle arm into closed position.

(8) Pour lubricating oil (C91) into openings made accessible by removal of overspeed governor, until fuel regulator is filled.

(9) Pour lubricating oil into overspeed governor, while rotating the driveshaft by hand.

(10) Pour excess oil from overspeed governor and reinstall.

(11) Install engine inlet and exhaust covers, or seal openings with barrier material (C30) and secure with tape (C136).

(12) Seal the gap between bleed band and compressor housing by encircling the engine with a narrow strip of barrier material (C30) and secure with tape (C136).

(13) Visually check entire engine to ensure that:

(a) All holes are plugged;

(b) All ports are capped;

(c) All external parts are complete and secure; and

(d) All bare metal, including internal and external threads, is covered with a film of corrosion preventive compound (C49).

(14) Attach a tag to controls stating: FUEL CONTROL PRESERVED WITH MIL-L-6081 OIL. FLUSH WITH STANDARD FUEL BEFORE PLACING IN SERVICE.

(15) Record date and extent of engine preservation in engine historical records.

e. Rotors and Controls.

WARNING

Solvent is flammable. Avoid breathing vapors. Avoid skin contact.

(1) Lubricate rotor system in accordance with Lubrication Order, Chapter 1.

(2) Apply fingerprint remover (C55) to all unpainted metal surfaces. Remove any residue with a cloth dampened with solvent (C124).

(3) Wipe all parts dry with a clean, lint-free cloth. Apply corrosion preventive compound (C52) on all unpainted metal surfaces not in contact with bearings.

(4) Clean surfaces of rotor blades with mild soap and water solution. Wipe blades completely dry with a lint-free cloth.

(5) Apply a light, even coat of wax (C149) to entire painted area of rotor blades.

f. Landing Gear.

(1) Place blocks or shoring under skid tubes to provide free air passage.

(2) Clean cross tubes and skid tubes. Treat for corrosion in accordance with TM 55-1500-204-25/1.

(3) Repaint any exposed metal surfaces. If paint cannot be touched up, coat bare metal surfaces with corrosion preventive compound (C52).

g. Hydraulic System:

CAUTION

Do not mix hydraulic fluid (C73) with fire retardant hydraulic fluid (C73A). Refer to TB 55-1500-334-25.

(1) Fill hydraulic reservoir with fluid (C73) or (C73A).

(2) Wipe exposed portions of hydraulic boost cylinder actuator pistons with lint-free cloth moistened with hydraulic preservative fluid (C74).

h. Avionic Equipment.

(1) Remove, attach condition tags, and turn in all head-sets and microphones to supply.

(2) Leave all unclassified avionic equipment installed in aircraft.

i. Fuel System. Maintain fuel tanks FULL for the duration of the storage period, to preclude fuel contamination. Drain any water from tanks before adding fuel. If tanks are required to be drained, refer to Intermediate Storage.

j. Battery.

(1) Disconnect battery, and turn in to battery shop.

(2) Clean battery compartment, quick disconnect plug, cables, battery shelf, and vent hoses with a solution of 5 ounces boric acid crystals dissolved in 1 gallon water. Rinse with clean water and allow to dry.

(3) Seal battery vent tubes and wrap quick disconnect with barrier material (C30), secured with tape (C136).

k. Airframe.

(1) Park and moor AH-1 with main and tail rotor tie-downs installed. (See Chapter 1.)

(2) Remove clock, fire extinguishers, and first aid kits. Tag for condition and transfer to Supply to prevent possible pilferage.

(3) Apply pitot tube cover, or cover pitot head and static ports with barrier material (C30) secured with tape (C136).

(4) Close canopy.

(5) Close all openings not already covered with barrier material (C30) secured with tape (C136).

(6) Install canopy cover, or cover canopy with barrier material (C30) secured with tape (C136).

(7) Install static ground wire.

(8) Install storage covers, if available, in accordance with the directions accompanying the covers.

(9) Annotate aircraft records to reflect date and type of storage.

E-10. Maintenance of Preservation.

a. Inspect AH-1's in accordance with local directives and those requirements outlined in paragraph E-3.

b. If conditions change so that the helicopter must remain in storage longer than 45 days, preserve it in accordance with Section IV.

NOTE

DO NOT RENEW SHORT TERM STORAGE.

E-11. Depreservation After Short Term Storage.

a. Airframe.

(1) Remove storage covers, clean, and return to Supply.

- (2) Remove static ground wire.
- (3) Remove, clean, and store windshield covers.

WARNING

Solvent is flammable. Avoid breathing vapors. Avoid skin contact.

- (4) Remove all barrier material and tape. Remove tape residue with solvent (C124).

- (5) Open canopy and compartment doors to ventilate helicopter.

- (6) Remove pitot tube cover; ensure that static ports are open and free of tape residue.

- (7) Replace clock, fire extinguisher, and first-aid kit.

- (8) Remove main and tail rotor tiedowns.

b. Battery.

- (1) Remove barrier material and tape from vent tubes and quick disconnect plug in battery compartment.

- (2) Ensure that all switches are OFF.

- (3) Install battery and connect quick disconnect plug.

c. Fuel System.

- (1) Check fuel tanks for water; drain as necessary.

- (2) Inspect fittings and clamps.

- (3) Fill fuel tanks as necessary, in accordance with Chapter 1.

d. Avionics. Obtain headsets and microphones from Supply; install in helicopter.

e. Hydraulic System.

- (1) Check reservoir level and inspect system for leaks.

- (2) Clean exposed portion of hydraulic boost cylinder actuator pistons with a clean cloth dampened with hydraulic fluid (C73).

- (3) Coat hydraulic pistons with a light coat of hydraulic fluid (C73).

f. Landing Gear. Remove blocks or shoring from under skid gear.

g. Rotors and Controls.

WARNING

Solvent is flammable. Avoid breathing vapors. Avoid skin contact.

- (1) Clean main and tail rotor assemblies with solvent (C124). Wipe dry with lint-free cloths.

- (2) Lubricate in accordance with Lubrication Order, Chapter 1.

h. Power Train.

WARNING

Solvent is flammable. Avoid breathing vapors. Avoid skin contact.

- (1) Use solvent (C124) to clean all surfaces coated with corrosion preventive compound. Wipe dry with a clean cloth.

- (2) Check sight gages for proper lubricant levels. Service as necessary in accordance with Chapter 1.

- (3) Check and clean transmission oil filters.

i. Engine.

- (1) Remove covers or barrier material from engine exhaust, inlet, and bleed band areas.

WARNING

Solvent is flammable. Avoid breathing vapors. Avoid skin contact.

(2) Inspect openings for foreign materials and corrosion. Wipe clean with solvent (C124).

(3) Remove chip detector from accessory drive gearbox and drain plugs from fuel control. Allow oil to drain. Clean and replace chip detector and plugs.

CAUTION

To prevent accidental engine firing, ensure that ignition system circuit breaker is OPEN (pulled out).

(4) Open ignition system circuit breaker and secure red tag to it stating: **DO NOT CLOSE**.

(5) Disconnect main fuel hose from main fuel flow divider; drain into a container of at least two-gallon capacity.

(6) Check oil level; service as necessary.

CAUTION

Do not exceed starter limitations.

(7) Operate aircraft boost pump to prime fuel system, then motor engine with starter.

(8) Move throttle arm to maximum open until a solid stream of fuel with no air bubbles flows into container. At least one gallon of fuel must flow into container.

NOTE

Engine lubrication system is fully primed when oil pressure gage shows a steady positive indication.

(9) Connect main fuel hose to main fuel flow divider, and inspect engine for leakage.

(10) Remove warning tag and close ignition system circuit breaker.

(11) Operate engine for approximately 10 minutes at a minimum N2 RPM of 5500. Restrict engine operations at IDLE position to a maximum of two minutes in each period. Check all

instruments for normal operation, and ensure that engine temperature has stabilized. (Refer to TM 55-1520-234-10.)

(12) Shut down engine.

(13) Remove oil filter, check for excessive condensation, clean and reinstall.

(14) Remove chip detector. Check for excessive contamination, clean and reinstall.

(15) Remove fuel inlet strainer and pump discharge strainer from fuel control, check for contamination; clean with solvent (C124); reinstall. Replace servo supply filter.

(16) If no contamination is evident, engine is ready for ground test.

(17) If there is slight contamination, drain oil and refill system with new oil. Repeat steps (11) through (16). Evidence of continued oil contamination requires a thorough investigation.

NOTE

If there are fewer than ten hours operating time on engine since new or last overhaul, repeat steps (11) through (14) until no contamination is evident or analysis of the contamination determines that engine must be replaced.

j. Miscellaneous.

(1) Clean AH-1 as necessary in accordance with Chapter 1.

(2) Check helicopter records for removed or disconnected components. Ensure that all have been replaced and connected.

(3) Ensure that all related systems have been properly depreserved and serviced before any system or component operational check is run.

(4) Perform daily inspection in accordance with Chapter 1.

(5) Record the date the AH-1 was prepared for service in the aircraft log book.

SECTION IV — INTERMEDIATE STORAGE

E-12. Inspection Prior to Storage.

NOTE

General requirements of Section I are a part of this procedure.

a. Ensure that all removed components are preserved and stowed either in the helicopter or at a designated location.

b. Ensure that all removed or disconnected components are entered in the aircraft records.

c. Check fuel, oil, and hydraulic lines and hoses for leakage.

d. Lubricate the helicopter for the 50- and 100-hour intervals, in accordance with Chapter 1.

e. Ensure that all bolts, washers, nuts, etc., removed during disassembly are coated with corrosion preventive compound (C52), and reinstalled exactly as removed from the major component unless otherwise specified.

f. Record the date and type of storage in the aircraft log book.

E-13. Preservation.

a. *Power Train.* Preserve power train in accordance with paragraph E-9.a.

b. *Engine.* Preserve operable/inoperable engines in accordance with paragraph E-9.b. and E-9.c.

c. *Rotors and Controls.*

(1) Preserve in accordance with paragraph E-9.d.

(2) Color code main rotor blades and hubs. Remove blades, clean with mild soap and water, place in blade containers, and store under cover.

(3) If storage covers are to be used, remove tail rotor blades and secure inside of cockpit.

d. *Landing Gear.* Process landing gear in accordance with paragraph E-9.e.

e. *Hydraulic System.* Preserve in accordance with paragraph E-9.f.

f. *Avionic Equipment.* Process in accordance with paragraph E-9.g.

g. *Fuel System.*

WARNING

Observe all safety precautions when purging fuel cells. Use only approved equipment and methods. Refer to TM 55-1500-204-25/1.

(1) Drain fuel tanks in accordance with Chapter 1.

(2) Add five gallons diesel fuel, and drain. This should remove any residual fuel puddled on the tank bottom.

(3) Open fuel line and activate boost pump to remove fuel at pump sump.

(4) Repeat steps (2) and (3) using lubricating oil (C91).

(5) Drain the oil and test tanks with a Combustible Gas Indicator. If a dangerous level of fumes exists, flush tanks with fresh lubricating oil until a safe reading is obtained.

(6) Spray inside of the tanks through the access opening with lubricating oil (C91).

(7) Tag fuel cap with: FUEL SYSTEM PRESERVED WITH MIL-L-6081 OIL. FLUSH WITH STANDARD FUEL BEFORE PLACING IN SERVICE.

h. *Damaged Fuel System.*

(1) Drain tanks in accordance with Chapter 1.

(2) Open fuel cells in accordance with Chapter 1. Ventilate tanks with rapidly moving

dry air until fumes are below the danger level when tested with a Combustible Gas Indicator.

(3) Spray inside of the tanks through the access opening with lubricating oil (C91).

(4) Tag fuel system with: TANKS PRESERVED WITH MIL-L-6081 OIL.

i. Battery. Preserve in accordance with paragraph E-9.i.

j. Airframe. Except for rotor blade removal, prepare airframe in accordance with paragraph E-9.j.

E-14. Maintenance of Preservation During Storage.

a. Inspect AH-1 in accordance with local directives and those requirements outlined in paragraph E-3.

b. Perform applicable portions of preventive maintenance daily inspection at least once every 30 days in accordance with TM 55-1500-220-PMD.

c. If conditions change so that the AH-1 must remain in storage for a longer period of time, represerve it at the end of 180 days.

E-15. Depreservation After Intermediate Storage.

a. Airframe. Depreserve AH-1 in accordance with paragraph E-11.a.

b. Battery. Prepare for flight in accordance with paragraph E-11.b.

c. Avionic Equipment. Prepare for flight in accordance with paragraph E-11.d.

d. Hydraulic System. Depreserve in accordance with paragraph E-11.e.

e. Landing Gear. Remove blocks or shoring from under skid tubes.

f. Rotors and Controls.

(1) Depreserve in accordance with paragraph E-11.g.

(2) Replace main (and tail, if applicable) rotor blades on hubs in same position as before removal.

g. Power Train. Depreserve in accordance with paragraph E-11.h.

h. Engine/Fuel System.

(1) Drain fuel tanks of any accumulated oil.

(2) Add 5 gallons operating fuel to flush tanks. Drain.

(3) Fill tanks with operating fuel. (Check for leaks.)

(4) Depreserve engine in accordance with paragraph E-11.i.

i. Miscellaneous.

(1) Clean helicopter as necessary in accordance with Chapter 1.

(2) Ensure that all removed and disconnected components have been reinstalled and connected.

(3) Check that all related systems are properly depreserved and serviced before performing any system or operational check.

(4) Perform any necessary inspection required by helicopter records in accordance with Chapter 1.

(5) Remove static ground wire.

(6) Ensure that all necessary entries are made in AH-1 records, indicating in the log book the date the helicopter was prepared for service.

Section V. STORAGE OF AIRCRAFT UNDERGOING MAINTENANCE.

E-16. Helicopters in this category require individual determination as to the degree of protection and inspection necessary while undergoing maintenance. Varying environmental conditions may justify an increase or decrease in the degree of protection needed. Some factors which should be considered are: humidity, temperature, actual location of aircraft (hangered or outside). Depending on the nature of the maintenance being performed certain inspections may not be necessary.

E-17. Preservation.

In general, when appropriate, the preservation requirement of aircraft in flyable storage are applicable to this storage category. Aircraft that are hangered are relieved from the ground run-up, installation of protective covers, and the requirement for full fuel tanks. If deemed appropriate, additional preservation measures from sections III and IV may be taken.

E-18. Maintenance of Preservation of Aircraft Undergoing Maintenance.

a. Daily inspections shall be scheduled at the discretion of the maintenance officer.

b. Helicopter shall be inspected in accordance with local directives and requirements of preceding paragraph E-3 when applicable.

E-19. Depreservation After Storage During Maintenance.

General maintenance procedures shall be followed for release of aircraft after maintenance action has been completed.

(2) Check and clean transmission oil filters.

(3) Clean drive shafts as necessary with solvent (C124).

k. Engine.

(1) Remove, if applicable, covers or barrier material from engine exhaust, inlet and bleed band area.

(2) Inspect openings for foreign material and corrosion. Wipe clean with solvent (C124).

(3) Remove chip detector from accessory drive gearbox and drain plugs from fuel control. Allow oil to drain. Clean and replace chip detector and plugs.

CAUTION

To prevent accidental firing of the engine make sure IGNITION SYSTEM CIRCUIT BREAKER is OPEN (Pulled out).

(4) Open IGNITION SYSTEM CIRCUIT BREAKER and secure red tag to it stating DO NOT CLOSE.

(5) Disconnect main fuel hose from main fuel flow divider and drain into a container of at least a two-gallon capacity.

(6) Check oil level; service if necessary.

(7) Operate aircraft boost pump to prime fuel system and motor engine with starter.

CAUTION

Do not exceed starter limitations.

(8) Move throttle arm to maximum until a solid stream of fuel with no air bubbles is observed flowing into container. At least one gallon of fuel must flow into container.

NOTE

Engine fuel system is fully primed when fuel pressure gage shows a steady positive indication.

(9) Connect main fuel hose to main fuel flow divider and inspect engine for leakage.

(10) Remove warning tag and close ignition system circuit breaker.

(11) Operate the engine for approximately 10 minutes as a minimum N2 RPM of 5500. Restrict the operation of the engine at flight idle position to a maximum to two minutes at each period. Check all instruments for normal operation and ensure that the engine temperature has stabilized (refer to TM 55-1520-234-10).

(12) Shut down engine.

(13) Remove air filter. Check for excessive contamination and replace.

(14) Remove chip detector. Check for excessive contamination, clean, and reinstall.

(15) Remove fuel inlet strainer and pump discharge strainer from fuel control, check for contamination, clean with solvent (C124) and reinstall. Replace servo supply filter.

(16) If no contamination is evident, the engine is ready for ground test.

(17) If oil system accumulation is slight, drain the oil and refill system with new oil.

(18) Repeat steps (11) through (14). Evidence of continued contamination in oil system requires a thorough investigation.

NOTE

If there is less than ten hours operating time on engine since new, or since last overhaul, repeat steps (11) through (14) until no contamination is evident, or analysis of the contamination determines engine shall be replaced.

1. Miscellaneous.

(1) Clean helicopter as necessary in accordance with Chapter 1.

(2) Ensure all removed components have been reinstalled on the aircraft. Check the aircraft log book for a record of components that have been removed or disconnected. Check for subsequent installation or connection.

(3) Ensure related systems have been properly depreserved and serviced before any

system or component operational check has been performed.

(4) Perform necessary inspection required by aircraft log book in accordance with Chapter 1.

(5) Remove static ground wire installed for storage.

(6) Record the date the helicopter was prepared for service in aircraft log book.

Section VI. Demolition

(Refer to TM 750-244-5 for demolition instructions.)

APPENDIX F

WIRING DIAGRAMS AND LOAD CHARTS

F-1. Wiring Diagrams and Load Charts.

This appendix contains wiring diagrams, load charts, and essential wiring information for all electrical systems and circuits.

F-2. Wiring Data.

a. *Wire Identification.* All wires on diagrams are identified by coded wire numbers exactly as they are marked in the helicopter. The coded wire numbers indicate circuit function wire number, wire segment letter, and wire size (gauge). (See figure F-1.)

NOTE

TM 9-1425-473-34 should be consulted for all material that is transcribed verbatim. Changes may have been accomplished in TM 9 that have not been accomplished in this TM.

b. *Abbreviations.* Abbreviations are in accordance with MIL-STD-12C and AR 310-50, except when the abbreviations depicts a marking or decal contained in or on the helicopter.

c. *Symbols.* Wiring diagram component symbols are drawn in accordance with ANSI Y14.15, Part 1. The symbols chart (figure F-2) illustrates electrical symbols used on the wiring diagrams.

F-3. Equipment Lists.

Tables F-1 and F-2 list each item of equipment shown on the electrical systems wiring diagrams and the armament master wiring diagram. Each item of equipment is identified by the reference designator, part number, and nomenclature. Table F-2 contains zone references for each item to aid in locating components on the multiple sheet armament systems master wiring diagram (figure F-7). Zones are indicated on figure F-7 vertically by letters (A, B, C, and D) and horizontally by numbers. Figure F-7 also contains zone references from sheet to sheet for continuity purposes.

F-4. XM65 Interconnection Wire List.

The wire list (table F-3) presents a tabular listing of XM65 interconnection wiring to aid in circuit tracing, continuity checks, and maintenance of XM65 interconnection wiring. The FROM column lists the origin of wire. Lower case alphabetical pin assignments are listed using the corresponding upper case letter preceded by a dash. The TO column lists of termination of the wire. The following termination points are explained; TSD 6A is terminal splice D6A; Test 1 is J330 (aft TSGMS connector); Test 2 is J332 (forward TSGMS connector); XK is relay socket; TB is terminal board; CB is circuit breaker; GND is ground; and NC is no connection. The WIRE IDENTIFICATION column lists the gage of the wire. Airframe wire identification numbers are listed for wires from the XM65 to airframe connectors and terminal boards. The CABLE NO. column lists a code number assigned to each twisted, shielded group of wires. The first digit in the code number indicates the number of wires within the shield. The SHIELD column lists the termination pin of each shielded wire and is preceded by the character @. The SHLD OR BDL CODE column lists the shield and bundle identification code. The NOMENCLATURE column lists the signal name.

F-5. Load Charts.

The ac and dc load charts (figures F-3 and F-4) list each electrical load, component nomenclature or part number, and individual load requirements in tabular form. The ac load chart also presents a computation of the total ac load supplied by the inverters and the dc load chart presents a computation of the total dc loads during typical flight regimes.

F-6. Wiring Diagram Index.

The following wiring diagrams are contained in this appendix:

<u>Title</u>	<u>Figure</u>
Ac power system	F-5
Anticollision and position lights systems	F-6
Armament systems	F-7

<u>Title</u>	<u>Figure</u>	<u>Title</u>	<u>Figure</u>
Attitude indicating system	F-8	Hydraulic control system	F-21
Battery system	F-9	Idle stop system	F-22
Caution lights system	F-10	Igniter system	F-23
Caution panel internal schematic	F-11	Interior lights system	F-24
Engine de-ice system	F-12	Pitot heater system	F-25
Environmental control system	F-13	Pressure indicating systems	F-26
External power system	F-14	Rpm limit warning system	F-27
Force trim system	F-15	Rpm test set schematic	F-28
Fuel valve and engine oil valve system	F-16	Searchlight system	F-29
Fuel boost system	F-17	Starter system	F-30
Fuel quantity indicating system	F-18	Tachometer indicating systems	F-31
Generator and dc bus system	F-19	Temperature indicating systems	F-32
Governor control system	F-20	TOW blower cooling system	F-33
		Turn and slip indicating system	F-34

Table F-1. Equipment list (electrical) (Cont)

Ref Des	Part Number	Nomenclature
A1	209-075-200-1	PNL, CONT - ELECT PWR, PILOTS
A2	209-075-206-3	PNL, CONT - ENGINE, PILOTS
A3	204-075-705-43	PNL, CAUTION - PILOTS
A4	209-075-203-1	PNL, CONT - LIGHTS PILOTS
A5	209-075-225-1	PNL, CONT - MISC, PILOTS
A7	209-075-217-3	PNL, MISC CONTROL, GUNNERS
A8	204-075-705-41	PNL, CAUTION - GUNNERS
A10	209-075-220-1	PNL, DC CKT BKR, PILOTS
B1	205-060-606-3	MOTOR, FUEL BOOST PUMP, FWD
B2	205-060-606-3	MOTOR, FUEL BOOST PUMP, AFT
B3	204-062-520-3	MOTOR, FUEL SHUTOFF VALVE
B5	AV23B1106B	MOTOR, BYPASS VALVE - OIL
B6	204-060-762-1	MOTOR, GOV RPM ACTUATOR
B7	MIL-T-26638, 318-100A	PRESS XMTR, ENG OIL
B8	MIL-T-26638, 318-100A	PRESS XMTR, XMSN OIL
B9	MS28005-1	PRESS XMTR, FUEL
B10	MIL-T-26638, 318-100A	PRESS XMTR, TORQUE, PILOT
B11	MIL-T-26638, 318-100A	PRESS XMTR, TORQUE, GNR
B16	SEE Z12 Δ	VALVE, TEMP SENSING
B17	M54218-1A	BLOWER, TOW
BT1	CA21H-1	BATTERY
C2	CP5381FB106K1	CAPACITOR, PF CORRECTION
C6	T6W1N	CAPACITOR, PF CORR
CB1	MS22073-5	CB, STARTER RELAY
CB2	MS22073-10	CB, IGNITION SYS SOL
CB3	MS25244-15	CB, GOV CONT
CB4	MS25244-20	CB, IDLE STOP SOL
CB5	MS25244-25	CB, FUEL AND OIL VALVE
CB6	MS22073-10	CB, FUEL BOOST FWD
CB7	MS22073-10	CB, FUEL BOOST AFT
CB8	MS22073-1	CB, INVERTER MAIN
CB9	MS22073-5	CB, ECU CONT
CB10	MS22073-5	CB, PITOT HTR
CB11	MS22073-5	CB, HYD CONT
CB12	MS26574-5	CB, ENG DE-ICE
CB14	MS22073-5	CB, FORCE TRIM
CB15	MS22073-5	CB, RPM WARN SYS
CB16	MS22073-5	CB, ENG AND XMSN TEMP IND
CB17	MS22073-5	CB, TURN AND SLIP IND
CB18	MS22073-5	CB, D.C. VOLT METER
CB19	MS22073-5	CB, GEN BUS RESET
CB20	MS22075-10	CB, GEN FIELD
CB21	MS22073-5	CB, GUNNERS INST LT
CB22	MS22073-5	CB, PILOTS INST LT
CB29	MS22073-5	CB, CAUTION LT
CB31	MS22073-5	CB, COCKPIT LT
CB32	MS25244-25	CB, SEARCH LT PWR
CB33	MS22073-5	CB, SEARCH LT CONT

Table F-1. Equipment list (electrical) (Cont)

Ref Des	Part Number	Nomenclature
CB34	MS22073-5	CB, POSITION LT
CB35	MS22073-5	CB, ANTI-COLL LT
CB39	MS22073-1	CB, INVERTER STBY
CB48	MS26574-1	CB, ENG VIB METER
CB50	MS26574-1	CB, PWR FACTORY CORR
CB51	MS26574-1	CB, 28 VAC INST XMFR
CB52	MS26574-1	CB, AC FAIL RELAY
CB53	MS26574-1	CB, FUEL QTY IND
CB54	MS26574-1	CB, SAS POWER
CB55	MS26574-1	CB, GYRO COMPASS IND
CB56	MS26574-1	CB, PILOT ATT IND
CB57	MS26574-1	CB, ADF RCVR
CB58	MS26574-1	CB, FUEL PRESS
CB59	MS26574-1	CB, ENG OIL PRESS
CB60	MS26574-1	CB, XMSN OIL PRESS
CB61	MS26574-1	CB, TORQUE PRESS
CB62	MS26574-1	CB, GUNNER ATT IND
CB63	MS26574-1	CB, COURSE IND
CB64	MS22073-10	CB, XMSN OIL LEVEL LT
CB66	MS26574-5	CB, SHUNT +
CB67	MS26574-5	CB, SHUNT -
CB68	MS25244-20	CB, UNSW PWR
CB73	MS26574-1	CB, SECU
CB76	30-052-2	CB, TOW
CB77	30-052-1	CB, REF XFMR
CB78	MS26574-1	CB, HSS
CB79	MS22073-1	CB, TOW BLO
CR1	30-037-1	DIODE ASSY, EXTERNAL PWR
CR2	IN2071	DIODE, CHIP DET TEST SW
CR3	30-037-1	DIODE ASSY, ENG BYPASS CAU
CR4	30-037-3	DIODE ASSY, BATTERY SEL
CR5	30-037-3	DIODE ASSY, BATTERY SEL
CR18	30-037-1	DIODE ASSY, K3 ARC SUPPR
CR19	30-037-1	DIODE ASSY, K44 ARC SUPPR
CR20	30-037-1	DIODE, ASSY, K50 ARC SUPPR
CR32	30-037-1	DIODE, ARC SUPPR
CR33	30-037-1	DIODE, ARC SUPPR
CR37	30-037-1	DIODE, ARC SUPPR
CR66	2N1850	DIODE, TOW OVHT SW
DS1	A-6750-24	LIGHT, PANEL AND INSTR
DS2	MS25027-2	LIGHT, XMSN OIL LEVEL
DS3	15-0007-43	LIGHT, COCKPIT - PILOTS
DS4	15-0007-43	LIGHT, COCKPIT - GUNNERS
DS6	204-075-705-37	LIGHT, MASTER CAUTION, PLT
DS7	204-075-705-39	LIGHT, ENG RPM WARNING, PLT
DS8	AN3033-12	LIGHT, NAV - LEFT
DS9	AN3033-13	LIGHT, NAV - RIGHT
DS11	68400-8-24	LIGHT, ANTI-COLLISION

Table F-1. Equipment list (electrical) (Cont)

Ref Des	Part Number	Nomenclature
DS12	TYPE MA-3 MIL-L-26998	LIGHT, SEARCH
DS13	205-074-001-001	CONT ASSY, ENG RPM WARNING
DS14	MS24577-2	FLASHER UNIT, NAV LIGHTS
DS15	2C212	LAMP ASSY, CHIP DETECTOR
DS18	204-075-527-3	LIGHT, TAIL POSITION
DS20	A-6815-24	LIGHT, PILOT COLLECTIVE STICK
DS26	A-6750-24	LIGHT, INSTR, TORQUE METER
DS27	A-6815-24	LIGHT, INSTR, DUAL TACH
DS28	A-6815-24	LIGHT, INSTR, DUAL TACH
DS29	B-6618	LIGHT, INSTR, ID-250
DS30	B-6618	LIGHT, INSTR, AIRSPEED
DS31	A-6750-24	LIGHT, INSTR, TGT
DS32	B-6619	LIGHT, INSTR, ALTIMETER
DS33	A-6750-24	LIGHT, INSTR, GAS PROD TACH
DS34	MS25010B11A327	LIGHT, EDGE, GUNNERS MISC PNL
DS35	MS25010B11A327	LIGHT, EDGE, GUNNERS MISC PNL
DS36	MS25010B11A327	LIGHT, EDGE, GUNNERS MISC PNL
DS37	A-6815-24	LIGHT, INSTR, DUAL TACH
DS38	A-6815-24	LIGHT, INSTR, DUAL TACH
DS39	B-6618	LIGHT, INSTR, AIRSPEED
DS40	A-6750-24	LIGHT, INSTR, FUEL PRESS
DS41	209-075-325-31	LIGHT, MASTER CAUTION, GNR
DS42	A-6750-24	LIGHT, INSTR, TORQUE METER
DS43	B-6618	LIGHT, INSTR, VERTICAL VELOCITY
DS44	B-6618	LIGHT, INSTR, ALTIMETER
DS45	B-6618	LIGHT, INSTR, VERTICAL VELOCITY
DS46	A-6815-24	LIGHT, INSTR, CLOCK
DS47	A-6750-24	LIGHT, INSTR, XMSN OIL PRESS
DS48	A-6750-24	LIGHT, INSTR, XMSN OIL TEMP
DS49	A-6750-24	LIGHT, INSTR, ENG OIL TEMP
DS50	A-6750-24	LIGHT, INSTR, ENG OIL PRESS
DS51	A-6750-24	LIGHT, INSTR, GAS PROD TACH
DS52	A-6750-24	LIGHT, INSTR, TGT
DS53	A-6815-24	LIGHT, INSTR, VOLT/LOAD METER
DS54	B-6618	LIGHT, INSTR, FM HOME IND
DS55	MS25010B11A327	LIGHT, EDGE, PLT LT CONT PNL
DS56	MS25010B11A327	LIGHT, EDGE, PLT LT CONT PNL
DS57	MS25010B11A327	LIGHT, EDGE, PLT LT CONT PNL
G1	204-060-200-15	GENERATOR, STARTER 28 VDC 300A
G2	MIL-G-26611 TYPE GEU-7/A	GENERATOR, TACH, GAS PRODUCER
G3	MIL-G-26611 TYPE GEU-7/A	GENERATOR, TACH, PWR TURBINE
G4	MIL-G-26611 TYPE GEU-7/A	GENERATOR, TACH, MAIN ROTOR
HR1	AN5813-1	HEATER, PITOT TUBE
J1	MS3124F14-15S	RCPT, PILOTS ELEC CONT PNL
J2	MS3124F16-26S	RCPT, PILOTS ENGINE CONT PNL
J3	SEE A3 ▲	RCPT, PILOTS CAUTION PNL
J4	MS3124F14-19S	RCPT, PILOTS LIGHTING CONT PNL
J5	MS3124F12-10S	RCPT, PILOTS MISC CONT PNL

Table F-1. Equipment list (electrical) (Cont)

Ref Des	Part Number	Nomenclature
J6	MS3124F14-5S	RCPT, PILOTS ELEC CONT PNL
J8	MS3124F18-32S	RCPT, PILOTS INSTR PNL DISC
J9	MS3124F14-19S	RCPT, GUNNERS INSTR PNL DISC
J10	MS3124F16-26S	RCPT, GUNNERS MISC CONT PNL
J11	SEE A8 Δ	RCPT, GUNNERS CAUTION PNL
J13	SEE M18 Δ	RCPT, PILOTS DUAL TACH IND - ROTOR
J14	SEE M18 Δ	RCPT, PILOTS DUAL TACH IND - TURB
J16	SEE M15 Δ	RCPT, PILOTS FUEL PRESS IND
J17	SEE M2 Δ	RCPT, PILOTS FUEL QTY IND
J18	SEE M16 Δ	RCPT, PILOTS TORQUE METER IND
J19	SEE M11 Δ	RCPT, PILOTS TURN AND SLIP IND
J20	SEE M3 Δ	RCPT, PILOTS ENG OIL PRESS IND
J21	SEE M5 Δ	RCPT, PILOTS ENG OIL TEMP IND
J22	SEE M12 Δ	RCPT, PILOTS GAS PROD TACH IND
J23	SEE M4 Δ	RCPT, PILOTS XMSN OIL PRESS IND
J24	SEE M6 Δ	RCPT, PILOTS XMSN OIL TEMP IND
J25	SEE M13 Δ	RCPT, GUNNERS GAS PROD TACH IND
J26	SEE M19 Δ	RCPT, GUNNERS DUAL TACH IND - ROTOR
J27	SEE M19 Δ	RCPT, GUNNERS DUAL TACH IND - TURB
J29	SEE M17 Δ	RCPT, GUNNERS TORQUE METER
J30	SEE M9 Δ	RCPT, GUNNERS STANDBY COMPASS
J32	SEE BT1 Δ	RCPT, BATTERY DISC
J34	MS3124F14-19S	RCPT, PILOTS CYCLIC STICK DISC
J35	SEE K18 Δ	RCPT, ANTI-TORQUE MAG BRAKE
J36	SEE M19 Δ	RCPT, FORE AND AFT MAG BRAKE
J37	SEE K20 Δ	RCPT, LATERAL MAG BRAKE
J38	SEE DS13 Δ	RCPT, ENG RPM WARNING CONT
J40	SEE S60 Δ	RCPT, ENG AIR PRESS SW
J42	FURNISHED WITH ENGINE Δ	RCPT, DEICING HOT AIR VALVE
J44	SEE K21 Δ	RCPT, BYPASS SOL-HYD SYS NO. 1
J45	SEE S28 Δ	RCPT, BYPASS SW-HYD SYS NO. 1
J46	SEE K22 Δ	RCPT, BYPASS SOL-HYD SYS NO. 2
J47	SEE S29 Δ	RCPT, PRESS SW-HYD SYS NO. 2
J48	SEE S34 Δ	RCPT, XMSN OIL PRESS SW
J49	SEE B8 Δ	RCPT, XMSN OIL PRESS XMTR
J50	SEE RT1 Δ	RCPT, XMSN OIL TEMP BULB
J51	SEE HR1 Δ	RCPT, PITOT TUBE HEATER
J52	SEE G4 Δ	RCPT, XMSN ROTOR TACH GEN
J53	SEE B3 Δ	RCPT, FUEL SHUT OFF VALVE
J54	209-060-602-1 OR -9	RCPT, FUEL QTY XMTR - FWD CELL
J55	209-060-602-1 OR -9	RCPT, FUEL QTY XMTR - FWD CELL
J56	209-060-602-9 OR -1	RCPT, FUEL QTY XMTR - FWD CELL
J57	209-060-602-3 OR -11	RCPT, FUEL QTY XMTR - AFT CELL
J58	209-060-602-11 OR -3	RCPT, FUEL QTY XMTR - AFT CELL
J59	SEE S33 Δ	RCPT, FUEL FILTER BYPASS PRESS SW
J60	SEE S32 Δ	RCPT, ENG OIL PRESS WARNING SW
J61	FURNISHED WITH ENGINE Δ	RCPT, ENG ACCESS DISC
J62	SEE B7 Δ	RCPT, ENG OIL PRESS XMTR

Table F-1. Equipment list (electrical) (Cont)

Ref Des	Part Number	Nomenclature
J63	SEE B10 Δ	RCPT, ENG TORQUE PRESS XMTR - PLT
J64	SEE B11 Δ	RCPT, ENG TORQUE PRESS XMTR - GNR
J65	CA20314-1998	RCPT, ENG STARTER - GEN DISC
J66	CA20312-3116	RCPT, ENG MAIN DISC
J67	SEE B9 Δ	RCPT, FUEL PRESS XMTR
J68	MS3124F12-10S	RCPT, PYLON DISC
J69	MS3124E14-5S	RCPT, LH COWL DISC
J70	SEE RT2 Δ	RCPT, ENG ACCESS OIL TEMP BULB
J71	SEE G3 Δ	RCPT, ENG ACCESS PWR TURB TACH
J72	SEE G2 Δ	RCPT, ENG ACCESS GAS PROD TACH
J73	SEE Z1 Δ	RCPT, ENG ACCESS IGNITION PACK
J74	SEE K13 Δ	RCPT, ENG ACCESS PRIMER VALVE
J75	SEE K14 Δ	RCPT, ENG ACCESS FUEL CONT VALVE
J76	SEE MG1 Δ	RCPT, MAIN INVERTER
J77	SEE MG3 Δ	RCPT, STANDBY INVERTER
J78	MS3124F16-26S	RCPT, PILOTS COLL STICK DISC
J79	SEE DS11 Δ	RCPT, ANTI-COLLISION LIGHT
J80	MS3120F10-6S	RCPT, ANTI-COLLISION LT DISC
J81	BTOOM-12S-51P	RCPT, ENG EXHAUST TEMP DISC
J82	MS25458-1	RCPT, GEN - FIELD RELAY
J83	MS3120F10-6P	RCPT, TAIL LT-CHIP DET DISC
J84	MS3120F20-39S	RCPT, LH WING BASE DISC
J85	MS3120F20-39S	RCPT, RH WING BASE DISC
J86	SEE B5 Δ	RCPT, BYPASS - OIL VALVE
J87	MS3124E-14-5S	RCPT, RH COWL DISC
J88	MS3124F14-5S	RCPT, GUNNERS MISC CONT PNL
J89	SEE VR1 Δ	RCPT, GEN VOLTAGE REGULATOR
J90	MS3124F14-12S	RCPT, PILOTS ENG CONT PNL
J91	MS3124F14-19S	RCPT, GUNNERS CYCLIC STK DISC
J92	SEE S36 Δ	RCPT, FUEL BOOST PRESS SW-FWD
J93	SEE S37 Δ	RCPT, FUEL BOOST PRESS SW-AFT
J94	SEE DS14 Δ	RCPT, FLASHER - NAV LIGHTS
J95	5256	RCPT, ENG VIBRATION METER
J97	AN2552-3A	RCPT, EXT PWR
J99	SEE K37	RCPT, EMER COLL HYD SOL
J100	MS3120E10-6P	RCPT, OIL LEVEL DISC
J195	MS3450W20-18P	RCPT, TAILBOOM
J237	MS3124E12-3S	RCPT, TSGMS TEST POWER
J244	MS3120E20-41P	RCPT, GNR CONT PNL
J246	MS3124E12-10S	RCPT, PITOT
J265	MS3120E20-41P	RCPT, PLT CONT PNL
J291	FURNISHED WITH ENGINE Δ	RCPT, TEMP SENSE VALVE
J293	FURNISHED WITH ENGINE Δ	RCPT, ECU
J294	FURNISHED WITH ENGINE Δ	RCPT, BLEED AIR VALVE
J422	FURNISHED WITH ENGINE Δ	RCPT, ATTITUDE GYRO
J423	FURNISHED WITH ENGINE Δ	RCPT, PILOTS ATTITUDE IND
J424	FURNISHED WITH ENGINE Δ	RCPT, RATE SWITCH
J425	FURNISHED WITH INDICATOR Δ	RCPT, GUNNERS ATTITUDE IND

Table F-1. Equipment list (electrical) (Cont)

Ref Des	Part Number	Nomenclature
K1	MS24183D1	RLY, EXT PWR
K2	MS21483D1	RLY, STARTER
K4	MS24182D1	RLY, NON-ESSENTIAL BUS
K5	205-075-642-1	RLY, REVERSE CURRENT
K6	MS25457D1	RLY, GEN FIELD
K7	MS24149D1	RLY, BUS CONT
K9	MS24149D1	RLY, INVERTER TRANSFER
K10	TYPE D-1 MIL-R-8373	RLY, AC FAILURE
K12	MS2414901	RLY, HEATER CONT
K13	FURNISHED Δ	SOLENOID, ENG PRIMER VALVE
K14	FURNISHED Δ	SOLENOID, ENG FUEL CONT VALVE
K16	FURNISHED WITH ENGINE Δ	SOLENOID, ENG HOT AIR DEICE VALVE
K17	L-2540	SOLENOID, IDLE STOP RELEASE
K18	R460M15-3	MAG BRAKE, ANTI-TORQUE FORCE TRIM
K19	R460M15-3	MAG BRAKE, FORE AND AFT FORCE TRIM
K20	P460M15-3	MAG BRAKE, LATERAL FORCE TRIM
K21	SEE S28 Δ	SOLENOID, HYD VALVE SYS NO. 1
K22	SEE S29 Δ	SOLENOID, HYD VALVE SYS NO. 2
K23	43070	SOLENOID, RAIN REMOVAL
K25	MHB-6D-26VDC	RLY, OIL BYPASS
K26	352791G200F-9	RLY, LOW LEVEL - FUEL
K32	209-076-023-1	SOLENOID, HYD VALVE-PITCH
K33	209-076-023-1	SOLENOID, HYD VALVE-ROLL
K34	209-076-023-1	SOLENOID, HYD VALVE-YAW
K37	209-076-439-1	RLY, EMER COLL HYD
K44	MS24183D1	RLY, BUS PWR
K50	MS24183D1	RLY, FEEDER POWER
K52	MS24181D1	RLY, MAIN INVTR CONT
K68	MS24181D1	RLY, TOW BLO
K69	MS24140D2	RLY, MAIN INVTR
K73	110-078D1	RLY, INVTR
K77	110-077D1	RLY, AC PWR CONT
L1	397580-1-1	VALVE, BLEED AIR
M2	209-060-602-5	IND, FUEL QTY
M3	MIL-I-25438, 217A-100A	IND, ENG OIL PRESS
M4	MIL-I-25438, 217A-100A	IND, XMSN OIL PRESS
M5	MIL-I-6669 MS28009-2	IND, ENG OIL TEMP
M6	MIL-I-6669 MS28009-2	IND, XMSN OIL PRESS
M9	MIL-C-36044 TYPE MB-1	IND, COMPASS, MAGNETIC STBY
M11	MIL-I-7805A MS28024-3	IND, TURN AND SLIP-PILOTS
M12	MIL-25623 TYPE MU-1	IND, TACH-GAS PROD-PLT
M13	MIL-25623 TYPE MU-1	IND, TACH-GAS PROD-GNR
M15	MS28010-1	IND, FUEL PRESS - PILOTS
M16	MIL-I-25438, 217A-100A	IND, TORQUE METER-PLT
M17	MIL-I-25438, 217A-100A	IND, TORQUE METER-GNR
M18	204-070-155-1	IND, DUAL TACH - PILOTS
M19	204-070-155-1	IND, DUAL TACH-GUNNERS
M20	TYPE MJ-2	IND, EXH GAS TEMP-PLT

Table F-1. Equipment list (electrical) (Cont)

Ref Des	Part Number	Nomenclature
M21	TYPE MJ-2	IND, EXH GAS TEMP-GNR
M26	260173 MODEL 832	METER, VOLT AMMETER-PLT
M35	4003AH	IND, ATTITUDE-PILOTS
M36	4003AH	IND, ATTITUDE-GUNNERS
MG1	MS17406-3	INVTR, STBY
MG3	209-075-213-3	INVTR, STBY
P1	MS3126F14-15P	PLUG, PILOTS ELEC CONT PNL
P2	MS3126F16-26P	PLUG, PILOTS ENG CONT PNL
P3	MS3126F16-26S	PLUG, PILOTS CAUTION PNL
P4	MS3126F14-19P	PLUG, PILOTS LIGHTING CONT PNL
P5	MS3126F12-10P	PLUG, PILOTS MISC CONT PNL
P6	MS3126F14-5P	PLUG, PILOTS ELEC CONT PNL
P8	MS3126F18-32P	PLUG, PILOTS INSTR PNL DISC
P9	MS3126F14-19P	PLUG, GUNNERS INSTR PNL DISC
P10	MS3126F16-26P	PLUG, GUNNERS MISC CONT PNL
P11	MS3126E16-26S	PLUG, GUNNERS CAUTION PNL
P13	MS3106R14S-7S	PLUG, PILOTS DUAL TACH IND - ROTOR
P14	MS3106R14S-7S	PLUG, PILOTS DUAL TACH IND - TURB
P16	MS3106R14S-2S	PLUG, PILOTS FUEL PRESS IND
P17	AMPHENOL 165-61-1008	PLUG, PILOTS FUEL QTY IND
P18	MS3106R10SL-3S	PLUG, PILOTS TORQUE METER IND
P19	MS3106R10SL-3S	PLUG, PILOTS TURN AND SLIP IND
P20	MS3106R10SL-3S	PLUG, PILOTS ENG OIL PRESS IND
P21	MS3106R14S-2S	PLUG, PILOTS ENG OIL TEMP IND
P22	MS3106R10SL-3S	PLUG, PILOTS GAS PROD TACH IND
P23	MS3106R10SL-3S	PLUG, PILOTS XMSN OIL PRESS IND
P24	MS3106R14S-2S	PLUG, PILOTS XMSN OIL TEMP IND
P25	MS3106R10SL-3S	PLUG, GUNNERS GAS PROD TACH IND
P26	MS3106R14S-7S	PLUG, GUNNERS DUAL TACH IND - ROTOR
P27	MS3106R14S-7S	PLUG, GUNNERS DUAL TACH IND - TURB
P29	MS3106R10SL-3S	PLUG, GUNNERS TORQUE METER
P30	AN3116-2	PLUG, GUNNERS STBY COMPASS
P32	E30130-1	PLUG, BATTERY DISC
P34	MS3126F14-19P	PLUG, PILOTS CYCLIC STICK DISC
P35	CA3108B14S-9S	PLUG, ANTI-TORQUE MAG BRAKE
P36	CA3108B14S-9S	PLUG, FORE AND AFT MAG BRAKE
P37	CA3108B14S-9S	PLUG, LATERAL MAG BRAKE
P38	MS3126F14-19S	PLUG, ENG RPM WARNING CONT
P40	MS3106R10SL-3S	PLUG, ENG AIR PRESS SW
P42	FURNISHED WITH ENGINE 	PLUG, DEICING HOT AIR VALVE
P44	SC 06P-10SL-4S	PLUG, BYPASS SOL HYD SYS NO. 1
P45	MS25183A10SL-3S	PLUG, PRESS SW HYD SYS NO. 1
P46	SC06P-10SL-4S	PLUG, BYPASS SOL HYD SYS NO. 2
P47	MS25183A10SL-3S	PLUG, PRESS SW HYD SYS NO. 2
P48	MS3106R12S-3S	PLUG, XMSN OIL PRESS SW
P49	MS3106R10SL-3S	PLUG, XMSN OIL PRESS XMTR
P50	MS3108R12S-3S	PLUG, XMSN OIL TEMP BULB
P51	AN3115-1	PLUG, PITOT TUBE HEATER
P52	MS3103R12S-3S	PLUG, XMSN ROTOR TACH GEN

Table F-1. Equipment list (electrical) (Cont)

Ref Des	Part Number	Nomenclature
P53	MS3106R14S-3S	PLUG, FUEL SHUT OFF VALVE
P54	PC-250-A	PLUG, FUEL QTY XMTR-FWD CELL
P55	PC-210-B	PLUG, FUEL QTY XMTR-FWD CELL
P56	PC-250-A	PLUG, FUEL QTY XMTR-FWD CELL SH
P57	PC-250-A	PLUG, FUEL QTY XMTR-AFT CELL
P58	PC-200-F	PLUG, FUEL QTY XMTR-AFT CELL SH
P59	PT06E8-2S	PLUG, FUEL FILTER BYPASS SW
P60	MS3108R12S-3S	PLUG, ENG OIL PRESS SW
P61	MS3108R22-14S	PLUG, ENG ACCESSORY DISC
P62	MS3106R10SL-3S	PLUG, ENG OIL PRESS XMTR
P63	MS3106R10SL-3S	PLUG, ENG TORQUE PRESS XMTR PLT
P64	MS3106R10SL-3S	PLUG, ENG TORQUE PRESS XMTR GNR
P65	MS3106R36-6P	PLUG, STARTER - GEN DISC
P66	MS3106R28-21P	PLUG, ENG MAIN DISC
P67	MS3106R10SL-3S	PLUG, FUEL PRESS XMTR
P68	MS3126F12-10P	PLUG, PYLON DISC
P69	MS3126F14-5P	PLUG, LH COWL DISC
P70	FURNISHED WITH ENGINE 	PLUG, ENG ACCESS-OIL TEMP BULB
P71	FURNISHED WITH ENGINE 	PLUG, ENG ACCESS-PWR TURBO TACH
P72	FURNISHED WITH ENGINE 	PLUG, ENG ACCESS-GAS PROD TACH
P73	FURNISHED WITH ENGINE 	PLUG, ENG ACCESS-IGNITION PACK
P74	FURNISHED WITH ENGINE 	PLUG, ENG ACCESS-PRIMER VALVE
P75	FURNISHED WITH ENGINE 	PLUG, ENG ACCESS-FUEL CONT VALVE
P76	MS3108R20-4S	PLUG, MAIN INVERTER
P77	MS3126E14-5S	PLUG, STANDBY INVERTER
P78	MS3126F16-26P	PLUG, PILOTS COLL STICK DISC
P79	MS3108R10SL-3S	PLUG, ANTI-COLLISION LIGHT
P80	MS3126F10-6P	PLUG, ANTI-COLLISION LIGHT DISC
P81	FURNISHED ON THERMOCOUPLE 	PLUG, ENG EXH TEMP DISC
P82	SEE K6 	PLUG, GEN FIELD RLY
P84	30-040F20-39P	PLUG, LH WING BASE DISC
P85	30-040F20-39P	PLUG, RH WING BASE DISC
P86	MS3106R14S-5S	PLUG, VALVE BYPASS-OIL
P87	MS3126F14-5P	PLUG, RH COWL DISC
P88	MS3126F14-5P	PLUG, GUNNERS MISC CONT PNL
P89	MS3126F14-5S	PLUG, GEN VOLTAGE REGULATOR
P90	MS3126F14-12P	PLUG, PILOTS ENG CONT PNL
P91	MS3126F14-19P	PLUG, GUNNERS CYCLIC STICK DISC
P92	MS3106R10SL-3S	PLUG, FUEL BOOST PRESS SW-FWD
P93	MS3106R10SL-3S	PLUG, FUEL BOOST PRESS SW-AFT
P94	MS3106R16S-8S	PLUG, FLASHER - NAV LIGHTS
P99	SC06P-10SL-4S	PLUG, EMER COLL HYD SOL
P100	MS3126E10-6S	PLUG, OIL LEVEL DISC
P114	MS3456W16-11S	PLUG, TOW BLO
P116	30-145-7S	PLUG, MAIN INVTR
P117	MS3456N22-5P	PLUG, MAIN INVTR
P121	M2874816-A10L1A	PLUG, GNR CA LT
P122	MS3126E14-19S	PLUG, REF XFMR

Table F-1. Equipment list (electrical) (Cont)

Ref Des	Part Number	Nomenclature
P195	MS3456W20-18S	PLUG, TAILBOOM
P244	MS3126E20-41S	PLUG, GNR CONT PNL
P246	MS3126E12-10P	PLUG, PITOT
P265	MS3126E20-41S	PLUG, PLT CONT PNL
P291	DM970D-75	PLUG, TEMP SENSE VALVE DISC
P293	MS3126F14-19S	PLUG, ECU DISC
P294	MS3137E7-50S	PLUG, BLEED AIR VALVE DISC
P422	MS3126E16-26S	PLUG, ATTITUDE GYRO
P423	KPSE08P14-19S	PLUG, PILOTS ATTITUDE IND
P424	MS3106R14S-5S	PLUG, RATE SWITCH
P425	MS3126E14-19S	PLUG, GUNNERS ATTITUDE IND
PS1	209-075-572-1	INVTR, MAIN
R1	MS91587-4MSB301	SHUNT, GEN AMMETER
R3	209-075-607-1	RHEO, GNR INSTR/PNL LT DIM
R4	209-075-607-1	RHEO, PLT INSTR LTS DIM
R5	209-075-607-1	RHEO, PLT CONSOLE LTS DIM
R6	(MIL-R-26)RW22G120	RES, NAV LTS DIM
R7	AN5534-2	RES, SPOOL-ENG EXH TEMP
R31	RV4NAYSD502A	RHEO, ECU TEMP CONT
RT1	MS28034-3	TEMP BULB, XMSN OIL
RT2	MS28034-1	TEMP BULB, ENG OIL
S1	MS35058-24	SW, BATTERY
S2	MS35059-31	SW, GEN RESET
S3	MS35059-21	SW, INVERTER MAIN-SPARE
S4	MS35058-23	SW, NON-ESSENTIAL BUS
S5	MS24660-23G	SW, FUEL
S6	MICRO 1TL144-3G	SW, GOVERNOR AUTO EMER
S7	MICRO 5ET1-S	SW, ENG RPM WARNING
S8	MS24658-27E	SW, HYD TEST SYS 1 AND 2
S9	MS35058-23	SW, FORCE TRIM PLT ENG PNL
S10	MS25201-4	SW, ENG DEICE PLT ENG PNL
S11	MS35059-21	SW, NAV LTS, STEADY-FLASH
S12	MS35058-23	SW, NAV LTS, DIM-BRIGHT
S13	MS35058-23	SW, ANTI-COLLISION LIGHT
S16	2D9	SW, CHIP DETECTOR
S17	1TL144-3G	SW, GOV AUTO-EMER
S18	13AT66	SW, ENG RPM-INCR-DECR
S19	MS25201-4	SW, ENG DE-ICE - GNR PNL
S20	MS35058-23	SW, FORCE TRIM - GNR PNL
S21	MS24659-23G	SW, ELEC PWR, EMER OFF
S22	W960-18	SW, XMSN OIL LEVEL LT
S24	MS25026-1	SW, EXT PWR RECP-DOOR
S25	H20078	SW, STARTER-PILOTS COLL
S26	MS25089-4C	SW, FUEL QTY TEST - PLT INSTR PNL
S27	MIL-S-8805	SW, FORCE TRIM-PLT CYC
S28	88700	SW, HYD PRESS SYS NO. 1
S29	88700	SW, HYD PRESS SYS NO. 2
S30	MIL-S-8805	SW, FORCE TRIM-GNR CYC

Table F-1. Equipment list (electrical) (Cont)

Ref Des	Part Number	Nomenclature
S31	MS35058-23	SW, PITOT HTR-PLT INSTR PNL
S32	204-062-542-1	SW, ENG OIL PRESS WARNING
S33	204-040-760-5	SW, FUEL FILTER BYPASS
S34	204-040-376-3	SW, XMSN OIL PRESS
S35	12411-2-250	SW, XMSN OIL HOT
S36	204-062-542-3	SW, FUEL BOOST PRESS-FWD
S37	204-062-542-3	SW, FUEL BOOST PRESS-AFT
S46	13A766	SW, INC-DEC RPM-PLT COLL
S47	C100E2-39	SW, IDLE STOP REL-PLT COLL
S48	X-646A	SW, SEARCH LIGHT-PLT COLL
S49	MS35058-21	SW, SEARCH LT STOW-PLT COLL
S50	FURNISHED WITH ENGINE 	SW, ENG FUEL PUMP PRESS
S51	FURNISHED WITH ENGINE 	SW, ENG FUEL PUMP PRESS
S52	8G344	SW, ENG OIL LOW LEVEL
S53	MS25069-46	SW, CHIP DET TEST
S54	MS35058-30	SW, IDLE STOP REL GRN
S56	7638	SW, XMSN OIL BYPASS
S57	MS35059-21	SW, HEATER
S59	21548-4-1-6	SW, HEATER OVERHEAT
S60	42D128	SW, ENG AIR PRESS
S61	B7669A	DETECTOR, MAG CHIP-XMSN
S62	B752G	DETECTOR, MAG CHIP-90° GR BOX
S63	B752G	DETECTOR, MAG CHIP-42° GR BOX
S64	FURNISHED WITH ENGINE 	DETECTOR, MAG CHIP-ENGINE
S67	F-74356	SW, LOW LEVEL-FWD
S68	F-74356	SW, LOW LEVEL-AFT
S69	MS35058-23	SW, ENG OIL BYPASS
S79	MS24523-23	SW, EMER COLL HYD-PLT
S80	MS24523-23	SW, EMER COLL HYD-GNR
S88	7235-1-35	SW, MAIN INVERTER CONT
S125	212-075-236-15	SW, TOW COMPT BLO
S126	212-075-236-17	SW, INVTR OVLD
S127	M24236/1-1470	SW, TOW COMPT OVHT
T1	9T39Y5	XFMR, 115V/28V-AC
T4	130-029-3	XFMR, REF PWR
TB2	MS27212-1-5	TB, GNR INSTR AND CSL LT
TB3	MS27212-1-8	TB, PLT INSTR PNL LT
TB4	MS27212-1-7	TB, PILOT INSTR GND
TB5	MS27212-1-7	TB, INSTR JUNCT PLT AND GNR
TB6	MS27212-1-4	TB, PLT CONSOLE LTS BUS
TB7	MS27212-1-1	TB, ENG TERMOCOUPLE
TB8	MS27212-1-3	TB, FUEL CELL JCT
TB9	MS27212-1-3	TB, FWD FUEL BST PUMP
TB10	MS27212-1-4	TB, AFT FUEL BST PUMP
TB11	MS27212-1-4	TB, ENG INSTR GRD BUS
TB12	MS27212-1-3	TB, NAV LT DIMMING BUS
TB13	MS27212-1-2	TB, THERMOCOUPLE WIRE JCT
TB14	MS27212-1-2	TB, OIL LEVEL FLOAT SW
TB16	MS27212-1-1	TB, GRD JCT AFT COMPT

Table F-1. Equipment list (electrical) (Cont)

Ref Des	Part Number	Nomenclature
TB17	MS27212-1-3	TB, BST PUMP PRESS SW JCT
TB18	MS27212-1-2	TB, EXT PWR DIODE MOUNT
TB19	MS27212-1-2	TB, TAIL LIGHT
TB26	209-075-252-3	TB, BATTERY RELAY
TB28	MS27212-1-6	TB, ROCKET FIRE DIODE MT
TB31	MS27212-1-4	TB, DIODE MOUNT
TB32	209-075-252-1	TB, FEEDER PWR RLY
TB44	MS27212-1-5	TB, TOW PWR
TC1	FURNISHED WITH ENGINE 	THERMOCOUPLE, EXHAUST
VR1	209-075-228-1	GEN, VOLTAGE REGULATOR
Z7	209-060-602-3	FUEL QTY XMTR, AFT FUEL CELL
Z8	209-060-602-1	FUEL QTY XMTR, FWD FUEL CELL
Z12	617528-1-1	ENVIRONMENTAL CONT UNIT

NOTES:

 Reference implies the part is attached and/or is a part of a component.

 Reference implies the part is supplied with engine.

Table F-2. Equipment list (armament)

Ref Des	Part Number	Nomenclature	Zone (Fig. F-7)
A10	209-075-220-1	PNL, DC CIRCUIT BREAKER	D/23
A11	C-1611()/AC	PRESSURE XDCR	D/19
A13	209-961-139-1	PNL - PLT W/S ARMT	C/16, D/25
A14	209-075-580-1	PNL - PLT ARMT	A-19
A21	209-075-315-1	PNL, SMOKE GRENADE CONTROL	D/24
A24	209-075-582-1	PNL, GNR ARMT	A/14
A26	209-001-010-3	GNR CYCLIC	C/10
A27	209-001-010-3	PLT CYCLIC	D10
A28	209-074-001-1	IFCU	A/8, D/43
A29	209-074-052-1	SECU	D/51
A30	209-071-121-1	UNIVAC INTFC UNIT	D/9
C5	209-075-285-3	CAPACITOR, DROP SIGNAL	B/24
CB23	MS22073-5	CB, WPN FIRE	D/23
CB24	MS25244-5	CB, TURRET PWR	C/23
CB25	MS22073-10	CB, W/S JETTISON	C/23
CB26	MS22073-10	CB, SMK GRE LH	D/23
CB27	MS22073-10	CB, SMK GRE RH	D/23
CB36	MS25244-15	CB, WG ST GUN LH	C/23
CB37	MS25244-15	CB, WG ST GUN RH	C/23
CB38	MS22073-7 1/2	CB, WG ST RKT	B/23
CB49	MS26574-1	CB, WPN AC PWR	D/19
CB61	MS26574-1	CB, TUR OVRL	A/1
CB65	MS22073-10	CB, WG ST JTSN	C/18
CB68	MS25244-20	CB, TUR OVRL	A/1
CB69	MS39065-4	CB, TUR OVRL	A/1
CB73	MS26574-1	CB, SECU PWR	D/48
CB76	30-052-1	CB, TOW PWR	D/48
CB78	MS26574-1	CB, HSS PWR	B/7
CB82	MS25244-35	CB, TOW PWR	C/46, D/74
CB105	MS25244-10	CB, TASTS PWR	C/46, D/74
CR8	1N2071	DIODE, ARC SUPR-TB25	D/13
CR9	1N2071	DIODE, ARC SUPR-TB25	D/13
CR15	1N2071	DIODE, ARC SUPR-TB28	C/16
CR16	1N2071	DIODE, ARC SUPR-TB28	C/16
CR22	30-124-4006	DIODE, ARC SUPR-M37	A/15, A/24
CR23	30-124-4006	DIODE, ARC SUPR-M38	A/15
CR35	30-037-1	DIODE, ARC SUPR-K31	C/15
CR36	30-124-4006	DIODE, ARC SUPR-K49	D/16
CR38	30-037-3	DIODE, LAUNCHER ACT	A/49
CR39	30-037-3	DIODE, LAUNCHER ACT	A/49
CR41	30-037-3	DIODE, ARMT BLOCKING	A/4
CR42	30-037-3	DIODE, FLEX MODE	A/4
CR43	30-124-4006	DIODE, LAUNCHER	A/35
CR44	30-124-4006	DIODE, ACTION	B/18
CR45	30-124-4006	DIODE, ACTIVATE	A/35
CR46	30-124-4006	DIODE, ACTIVATE	A/35
CR58	30-124-4006	DIODE, GNR ACQ	A/35
CR59	30-124-4006	DIODE, PLT ACQ	A/35
CR61	30-124-4006	DIODE, LOGIC	B/18

Table F-2. Equipment list (armament) (Cont)

Ref Des	Part Number	Nomenclature	Zone (Fig. F-7)
CR62	30-124-4006	DIODE, LOGIC	B/18
CR63	30-124-4006	DIODE, LOGIC	B/18
CR67	30-037-3	DIODE, PLT IN CONT	A/4
CR68	30-124-4006	DIODE, LOGIC	A/18
CR69	30-124-4006	DIODE, LOGIC	A/18
DS36	209-075-577-1	IND, PILOT ARM/STBY	A/21
DS37	209-075-955-1	IND, PILOT WPN SEL	B/20
DS38	209-075-577-1	IND, GNR ARM/STBY	B/15
DS39	209-075-955-1	IND, GNR WPN SEL	A/14
DS40	MS25041-10-327	IND, PILOT IN CONT	A/15
DS41	209-075-325-31	IND, GNR MASTER CAUT LT	B/16
J7	MS90335-3	RCPT - PLT ARMT PNL LT	A/19
J8	MS3124F18-32S	RCPT - PILOTS INSTR DISC	D/19
J9	MS3124F14-19S	RCPT - GUNNERS INSTR DISC	C/18
J12	MS90335-3	RCPT - GNR ARMT PNL LT	A/18
J34	MS3124F14-19S	RCPT - PILOTS CYCLIC DISC	D/10
J78	MS3124F16-26S	RCPT - PILOTS COLLECTIVE DISC	C/20
J84	MS3120F20-39S	RCPT, LH WING BASE DISC	D/27
J84A	FURNISHED Δ	RCPT, LH WING	D/26
J85	MS3120F20-39S	RCPT, RH WING BASE DISC	D/28
J85A	FURNISHED Δ	RCPT, RH WING	D/29
J91	MS3124F14-19S	RCPT, GUNNER CYCLIC DISC	C/10
J109	MS90335-3	RCPT, GUNNERS ARMT PNL LT	A/18
J195	MS3450W2C-18P	RCPT, TAILBOOM DISC	D/74
J209	FURNISHED Δ	RCPT, PLATE RETAINER	C/27
J210	FURNISHED Δ	RCPT, PLATE RETAINER	D/27
J211	FURNISHED Δ	RCPT, PLATE RETAINER	D/27
J213	MS3124E18-32S	RCPT, PILOTS ARMT PNL-WING STORES	C/16, D/25
J213A	FURNISHED Δ	RCPT, PLTS ARMT PNL-WG STRS	D/25
J215	MS3120F20-39S	RCPT, LH WING BASE DISC	D/33, B/53
J216	MS3124F10-6S	RCPT, RH WING JETTISON, OUTBD	A/29
J217	MS3124F10-6S	RCPT, RH WING JETTISON, INBD	B/35
J218	FURNISHED Δ	RCPT, RH WING INBD ROCKET POD	D/35
J221	FURNISHED Δ	RCPT, RH WING OUTBD ROCKET POD	D/29
J222	MS3120F20-39S	RCPT, RH WING BASE DISC	D/34, B/54
J223	MS3124F10-6S	RCPT, LH WING JETTISON, OUTBD	A/26
J224	MS3124F10-6S	RCPT, LH WING JETTISON, INBD	B/31
J225	MS3124F10-6S	RCPT, LH WING OUTBD ROCKET POD	D/26
J226	FURNISHED Δ	RCPT, ARMAMENT HYD SOL	D/19
J228	FURNISHED Δ	RCPT, RH WING XM-18, INBD	B/29
J229	FURNISHED Δ	RCPT, LH WING XM-18, INBD	B/26
J232	FURNISHED Δ	RCPT, LH WING INBD ROCKET POD	D/31
J237	MS3124E12-3S	RCPT, TSGMS TEST CONN POWER	C/46
J238	FURNISHED Δ	RCPT, PLATE RETAINER	D/33
J239	FURNISHED Δ	RCPT, PLATE RETAINER	D/33
J240	FURNISHED Δ	RCPT, PLATE RETAINER	D/33
J244	MS3120E20-41P	RCPT, GNR CONT PNL	B/13
J248	SEE K29 Δ	RCPT, RELAY TIME DELAY	B/4

Table F-2. Equipment list (armament) (Cont)

Ref Des	Part Number	Nomenclature	Zone (Fig. F-7)
J249	SEE K45 ▲	RCPT, RELAY XM28 CLEARING TD	D/17
J250	MS3120E18-32P	RCPT, XM-28 SIGHT	D/4
J251	MS3124F18-32PW	RCPT, GNR CONT PNL XM-28	D/4
J252	MS3124F22-55P	RCPT, XM-28 CONT UNIT	D/1
J253	MS3120F22-55S	RCPT, TURRET	C/1
J259	FURNISHED ▲	RCPT, SPEED CONT INTERCONNECT	A/2
J262	FURNISHED ▲	RCPT, SPEED CONT-RIGHT	A/2
J263	FURNISHED ▲	RCPT, LEFT AMMO BOX	A/3
J264	FURNISHED ▲	RCPT, RIGHT AMMO BOX	A/3
J265	MS3120E20-41P	RCPT, PLT ARMT PNL	B/19
J266	MS3124F22-55S	RCPT, XM-28 CONT UNIT	C/3
J267	MS3126F10-65W	RCPT, RANGE POT	C/4
J268	MS3126E10-6S	RCPT, SIGHT POT	D/4
J269	FURNISHED ▲	RCPT, SIGHT DISC RETICLE LT	D/3
J287	PT00E8-2F(SR)	RCPT, SIGHT DISC AUX LT	D/3
J288	MS3124E14-19P	RCPT, SMOKE GRENADE PANEL DISC	D/23
J289	MS3124E12-10S	RCPT, RH SMK GRENADE LCHR DISC	D/29
J290	MS3124E12-10S	RCPT, LH SMK GRENADE LCHR DISC	B/26
J291	MS90335-3	RCPT, INTEGRAL LIGHTING DISC	D/24
J297	FURNISHED ▲	RCPT, RCDS PROGRAMMER LH	D/30
J298	FURNISHED ▲	RCPT, RCDS PROGRAMMER RH	D/31
J315	MS3120E10-6S	RCPT, RESOLVER DISC	B/53
J316	MS3120E10-6S	RCPT, RESOLVER DISC	B-54
J321	MS3120E20-41S	RCPT, LH WING DISC	A/53, C/55
J322	MS3120E20-41S	RCPT, RH WING DISC	A/54, C/57
J323	MS3120E22-21S	RCPT, TAILBOOM DISC	A/61
J324	MS3120E24-61S	RCPT, TAILBOOM DISC	A/59
J325	MS3120E24-61SW	RCPT, TAILBOOM DISC	A/61
J326	MS3120E22-41SW	RCPT, TAILBOOM DISC	A/61, D/61
J327	MS3120E24-61SX	RCPT, TAILBOOM DISC	D/59
J328	MS3120E22-41S	RCPT, TAILBOOM DISC	D/62
J330	MS3120E20-39S	RCPT, TSGMS AFT TEST CONN (TEST 1)	D/71
J331	MS3120E22-55SW	RCPT, TSGMS SECU TEST CONN (TEST 3)	A/51
J332	MS3120E24-61S	RCPT, FWD TEST CONN (TEST 2)	C/46
JB255	TBF24-10PSW	RCPT, BHD LH SPEED CONT FEED THRU	B/1
JB256	TBF24-10PS	RCPT, BHD RH SPEED CONT FEED THRU	A/2
JB257	MS3119E-14-5	RCPT, BHD RH AMMO DRUM DRIVE	A/2
JB258	MS3119E-14-5	RCPT, BHD LH AMMO DRUM DRIVE	A/2
K29	2003-3	RLY, TIME DELAY	B/4
K31	MS24568-D1	RLY, MASTER ARM	D/15
K36	7-U-7464	SOLENOID, ARMT HYDR	D/19
K39	2045-1	RLY, SALVO JTSN TIME DELAY	D/21
K41	2045-1	RLY, SEL JETTISON DELAY	D/20
K42	MS24149-D1	RLY, OUTBD SEL JETTISON	D/22
K43	MS24149-D1	RLY, INBD SEL JETTISON	C/22
K45	92481	RLY, XM-28 CLEARING TIME DELAY	D/17
K49	MS27418-2B	RLY, MASTER ARM SAFE	D/16
K54	3S2791G200F-9	RLY, DROP SIGNAL	B/23

Table F-2. Equipment list (armament) (Cont)

Ref Des	Part Number	Nomenclature	Zone (Fig. F-7)
K55	MS24149-D1	RLY, SMOKE GRENADE SAFE	B/24
K56	MS24149-D1	RLY, FIRE CONTROL	B/26
K59	110-111-1	RLY, PLT/GNR CONT	D/13
K91	110-128-1	RLY, W/S JETTISON	D/48
K72	110-128-1	RLY, 40 MM TRIG ENBL	C/12
K74	FURNISHED Δ	SOLENOID, HYDR VALVE	A/50
K80	110-111-1	RLY, GNR PLT OVERRIDE	D/14
K81	110-127-1	RLY, FIXED/FWD	B/12
K82	209-075-370-1	RLY, PLT TRIG DSBL	C/11
K83	110-128-1	RLY, PLT ACTN DISC	C/5
K84	110-127-1	RLY, GNR ACTN DISC	B/5
K85	110-128-1	RLY, PLT TRIG, ACTN SW DISC	A/11
K86	110-128-1	RLY, PLT TRIG, ACTN SW ACTVT	A/10
K87	110-127-1	RLY, TOW/TURRET	D/11
K88	110-128-1	RLY, ACTN INTRPT	D/16
K89	110-128-1	RLY, WING STORES DSBL	D/12
K91	110-128-1	RLY, WING STORES JETTISON	D/48
M37	17680	COUNTER, LH ROUNDS	A/15
M38	17680	COUNTER, RH ROUNDS	A/15
P8	MS3126F18-32P	PLUG, PILOTS INSTR DISC	D/19
P8J	209-071-139-1	GUIDED MISSILE LAUNCHER (LH)	C/56
P8J01	JTP00RE20-41S	RCPT, WING TIP LH MSL	C/56
P9	MS3126F14-19P	PLUG, GUNNERS INSTR DISC	C/18
P34	MS3126F14-19P	PLUG, PLT CYCLIC DISC	D/10
P78	MS3126F16-26P	PLUG, PILOTS CLTV STICK DISC	C/20
P84	30-040F20-39P	PLUG, LH WING	D/26
P84A	FURNISHED Δ	PLUG, LH WING	D/27
P85	30-040F20-39P	PLUG, RH WING	D/29
P85A	FURNISHED Δ	PLUG, RH WING	D/28
P91	MS3126F14-19P	PLUG, GNR CYCLIC DISC	C/10
P120	SC06P-10SL-4S	PLUG, HYDR SOL VALVE	A/50
P122	MS3126E14-19S	PLUG, REF XFMR	C/9, D/47
P195	MS3456W20-18S	PLUG, TAILBOOM DISC	D/74
P201	MS3106R10SL-3S	PLUG, AIR DATA XDCR	D/9
P209	MS3126F14-12S	PLUG, PLATE RETAINING	C/27
P210	MS3126F14-19PX	PLUG, PLATE RETAINING	D/27
P211	MS3126F14-19P	PLUG, PLATE RETAINING	D/28
P213	MS3126F18-32P	PLUG, PLTS ARMT PNL (WG STRS)	C/16, D/25
P213A	FURNISHED Δ	PLUG, PLTS ARMT PNL (WG STRS)	D/25
P215	PT08SE20-39P(SR)	PLUG, LH WING BASE DISC	B/53, D/32
P216	SEE SQ3 Δ	PLUG, RH WING JETTISON OUTBD	A/29
P217	SEE SQ4 Δ	PLUG, RH WING JETTISON INBD	B/35
P218	30-039P16-26S	PLUG, RH WING INBD ROCKET POD	D/35
P221	30-039P16-26S	PLUG, RH WING OUTBD ROCKET POD	D/29
P222	PT08SE20-39P(SR)	PLUG, RH WING BASE DISC	B/54, D/34
P223	SEE SQ1 Δ	PLUG, LH WING JETTISON OUTBD	A/26
P224	SEE SQ2 Δ	PLUG, RH WING JETTISON INBD	B/31
P225	30-039P16-26S	PLUG, LH WING OUTBD ROCKET POD	D/26

Table F-2. Equipment list (armament) (Cont)

Ref Des	Part Number	Nomenclature	Zone (Fig. F-7)
P226	MS3106-10SL-4S	PLUG, ARMAMENT HYDR SOL	D/19
P228	30-043-1	PLUG, RH WING XM-18 INBD	B/29
P229	30-043-1	PLUG, LH WING XM-18 INBD	B/26
P232	30-039P16-26S	PLUG, LH WING INBD ROCKET POD	D/31
P238	MS3126F14-12S	PLUG, PLATE RETAINING	D/33
P239	MS3126F12-10S	PLUG, RELAY, XM-28 CLEARING TD	D/33
P240	MS3126F12-10S	PLUG, PLATE RETAINER	C/33
P244	MS3126F20-41S	PLUG, GNR CONT PNL	B/13
P245	MS3126E12-10S	PLUG, RLY HYDR SOL DISC	C/11
P247	30-165-1	PLUG, GNR HELMET DISC	B/6
P248	MS3126F12-10S	PLUG, RELAY TIME DELAY	B/4
P249	MS3126F12-10S	PLUG, RELAY XM-28 CLEARING TD	D/17
P250B	MS3126F18-32S	PLUG, XM-28 SIGHT	D/4
P251	MS3124F18-32SW	PLUG, GNR CONT PNL XM-28	D/4
P252	FURNISHED Δ	PLUG, XM-28 CONT UNIT	D/1
P253	MS3126F22-55P	PLUG, TURRET	B/1
P255A	MS3106A24-11S	PLUG, SPEED CONT TURRET LEFT	B/1
P255B	MS3106A24-11P	PLUG, SPEED CONT TURRET LEFT	B/1
P256A	MS3106A24-11S	PLUG, SPEED CONT TURRET RIGHT	B/2
P256B	MS3106A24-11P	PLUG, SPEED CONT TURRET RIGHT	B/2
P257A	FURNISHED Δ	PLUG, RH AMMO DRUM DRIVE	B/2
P257B	FURNISHED Δ	PLUG, RH AMMO DRUM DRIVE	B/2
P258A	FURNISHED Δ	PLUG, LH AMMO DRUM DRIVE	B/1
P258B	FURNISHED Δ	PLUG, LH AMMO DRUM DRIVE	B/1
P259	FURNISHED Δ	PLUG, SPEED CONT INTERCONNECT	A/2
P260	30-165-1	PLUG, PLT HELMET DISC	D/6
P261	MS3126E22-55S	PLUG, HSS INTFC BOX	C/9, D/9
P262	MS3126F16-26S	PLUG, SPEED CONT - RIGHT	A/2
P263	MS3126F12-10S	PLUG, LEFT AMMO BOX	A/3
P264	MS3126F12-10S	PLUG, RIGHT AMMO BOX	A/3
P265	MS3126E20-41S	PLUG, PLT ARMT CONT PNL	B/19
P266	FURNISHED Δ	PLUG, XM-28 CONT UNIT	C/3
P267	FURNISHED Δ	PLUG, RANGE POT	C/4
P268	FURNISHED Δ	PLUG, SIGHT POT	D/4
P269	FURNISHED Δ	PLUG, SIGHT POT	D/3
P287	FURNISHED Δ	PLUG, SIGHT SUPPORT	D/3
P288	MS3126F14-19S	PLUG, SMOKE GRENADE PANEL DISC	D/23
P289	FURNISHED Δ	PLUG, RH SMK GRENADE LCHR DISC	B/29
P290	FURNISHED Δ	PLUG, LH SMK GRENADE LCHR DISC	B/26
P291	FURNISHED Δ	PLUG, INTEGRAL LIGHTING DISC	B/24
P297	FURNISHED Δ	PLUG, PROGRAMMER LH	D/30
P298	FURNISHED Δ	PLUG, PROGRAMMER RH	D/31
P311	MS3126E22-55S	PLUG, BHC INTFC ASSY	D/7
P312	MS3126E20-41F	PLUG, BHC INTFC ASSY	D/8
P313	MS3126E20-41PW	PLUG, BHC INTFC ASSY	A/8, D/43
P314	MS3126E18-32SW	PLUG, SECU BOX, STBD	D/49
P315	MS3116F10-6P	PLUG, LH RESOLVER DISC	B/53

Table F-2. Equipment list (armament) (Cont)

Ref Des	Part Number	Nomenclature	Zone (Fig. F-7)
P316	MS3116F10-6P	PLUG, RH RESOLVER DISC	B/54
P317	DEJ-9MS	PLUG, LH ACCELEROMETER	A/53
P318	DEJ-9MS	PLUG, RH ACCELEROMETER	A/54
P319	MS3126E10-6S	PLUG, LH ACTUATOR	B/53
P320	MS3126E10-6S	PLUG, RH ACTUATOR	A/54
P321	MS3723-14R2041N	PLUG, LH WING DISC	A/53, C/55
P322	MS3723-14R2041N	PLUG, RH WING DISC	A/54, C/57
P323	MS3126E22-21P	PLUG, TAILBOOM DISC	A/61
P324	MS3126E24-61P	PLUG, TAILBOOM DISC	B/59
P325	MS3126E24-61PW	PLUG, TAILBOOM DISC	A/61
P326	MS3126E22-41PW	PLUG, TAILBOOM DISC	C/61
P327	MS3126E24-61PX	PLUG, TAILBOOM DISC	C/59
P328	MS3126E22-41P	PLUG, TAILBOOM DISC	C/62
P329	MS3126F18-32S	PLUG, SECU, PORT	D/51
R30	110-054E751JM	RHEO, PLT SIGHT LT DIM	D/3
R57	209-075-532-9	RES, DROP SIGNAL	B/24
R62	RA20NBSD101A	RHEO, GNR RET LT CONT	A/17
R63	RA20NBSD101A	RHEO, PLT RET LT CONT	A/22
S8J	209-071-139-1	GUIDED MSL LAUNCHER, RH	C/58
S8J01	JTP00RE20-41S	RCPT, WING TIP RH MSL	C/58
S38	SEE A26 AND A27 ⚠	SW, PLT CYCLIC TRIGGER	D/10
S40	SEE A26 AND A27 ⚠	SW, WING STORES	C/10
S42	SEE A26 AND A27 ⚠	SW, GUNNERS CYCLIC TRIGGER	C/10
S45	SEE A26 AND A27 ⚠	SW, WING STORES TRIGGER	B/10
S81	MS35059-21	SW, SALVO JETTISON - PILOTS	D/19
S82	MS24523-23	SW, SALVO JETTISON - GUNNERS	D/18
S83	MS35059-21	SW, PILOTS SIGHT LIGHT	D/3
S90	12TW1-3	SW, RH OUTBD ARMED	D/24
S91	12TW1-3	SW, RH INBD ARMED	D/24
S92	12TW1-3	SW, LH INBD ARMED	C/24
S93	12TW1-3	SW, LH OUTBD ARMED	C/24
S95	MS25089-4CR	SW, SMOKE GRENADE TRIGGER	C/20
S107	MS27408-1N	SW, PLT MASTER ARM	B/19
S108	MS27406-1	SW, WPN CONT	B/19
S109	MS27407-1	SW, PLT WPN SEL	B/20
S110	MS24523-23	SW, GNR COMPEN	A/15
S111	MS27407-1	SW, GNR WPN SEL	B/13
S112	MS24659-23F	SW, GNR'S PLT OVRD	A/16
S113	MS27407-1	SW, GNR RANGE	B/16
S114	SEE A26 AND A27 ⚠	SW, PLT ACTION	C/10
S115	SEE A26 AND A27 ⚠	SW, GNR ACTION	B/10
S118	MS24523-21	SW, GNR W/S SEL	A/13
S119	MS24523-30	SW, GNR RET LAMP TEST	A/17
S120	MS24523-30	SW, BIT INITIATE	A/17
S121	MS24523-23	SW, GUN DEPR LIMIT	A/17
S122	MS27718-26	SW, PLT RET LAMP TEST	B/22
S123	SEE R62 ⚠	SW, GNR RET LT CONT	A/17
S124	SEE R63 ⚠	SW, PLT RET LT CONT	A/22

Table F-2. Equipment list (armament) (Cont)

Ref Des	Part Number	Nomenclature	Zone (Fig. F-7)
S129	MS24658-21E	SW, LAUNCHER TEST	B/50
SQ1	863-1	SQUIB, LH WING OUTBD	A/26
SQ2	863-1	SQUIB, LH WING INBD	B/31
SQ3	863-1	SQUIB, RH WING OUTBD	A/29
SQ4	863-1	SQUIB, RH WING INBD	B/35
T4	130-029-3	XFMR, REFERENCE	D/9, D/47
TB2	MS27212-1-5	TB, GNR INSTR LT	C/17, C/40
TB6	MS27212-1-4	TB, PLT CSL LT	D/40
TB24	MS27212-1-3	TB, TURRET	C/13
TB25	MS27212-1-11	TB, GNR CONT BUS	A/4, D/13
TB27	MS27212-5-2	TB, TURRET	B/1
TB28	MS27212-1-6	TB, ROCKET FIRE	C/16, C/47
TB30	209-075-252-3	TB, ARMAMENT RELAY	A/1
TB37	MS27212-1-4	TB, DROP SIGNAL	C/24
TB40	MS27212-1-6	TB, PILOT ICS	C/21
TB44	MS27212-1-5	TB, TOW POWER	D/73
TB46	MS27212-1-12	TB, LAUNCHERS	A/50
TB51	M81714/2	TB, ARMAMENT	B/35, C/18
XK59	120-090-1	SKT, PLT GNR CONT RLY	D/14
XK72	120-070-3	SKT, 40MM TRIG ENBL RLY	C/12
XK80	120-090-1	SKT, GNR PLT OVRD RLY	D/14
XK81	120-088-1	SKT, FIXED/FWD RLY	B/12
XK83	120-076-3	SKT, PLT ACTN RLY	C/5
XK84	120-088-1	SKT, GNR ACTN RLY	B/5
XK85	120-076-3	SKT, PLT TRIG, ACT SW RLY	A/11
XK86	120-076-3	SKT, PLT TRIG, ACT SW ACTVT RLY	A/10
XK87	120-088-1	SKT, TOW/TURRET RLY	D/11
XK88	120-076-3	SKT, ACTN INTRP RLY	D/16
XK89	120-076-3	SKT, WING STORES DSBL RLY	D/12
XK91	120-076-3	SKT, W/S JETTISON RLY	C/48
Z10	FURNISHED 	SPEED CONT AND DYN BK, LH WPN	A/1
Z11	FURNISHED 	SPEED CONT AND DYN BK, RH WPN	A/2
Z13	FURNISHED 	PROGRAMMER, LH	C/30
Z14	FURNISHED 	PROGRAMMER, RH	C/31
Z15	FURNISHED 	PLATE RETAINING LH	D/27
Z16	FURNISHED 	PLATE RETAINING RH	D/33
Z17	209-075-933-1 	RLY ASSY	A/14, A/21
1P	209-071-128-1	TELESCOPIC SIGHT UNIT	A/38, A/46
2P	209-071-129-1	STABILIZATION CONT AMPL	D/64, D/68
4P	209-071-130-1	TOW CONT PANEL	D/38
5P	209-071-131-1	MISSILE COMMAND AMPL	A/68, A/73
6P	209-071-132-1	SIGHT HAND CONTROL	D/36
7P	209-071-133-1	ELECTRONIC PWR SUPPLY	A/61, A/64
10P	209-071-135-1	PILOT STEERING IND	A/36
15P	209-071-134-1	MISSILE STATUS PNL	D/42
16P	209-071-140-1	GNR ACCY CONT PNL	D/40
1J09	MS3126E18-32SW	PLUG, TSU	A/45
1P01	MS3126E22-55S	PLUG, TSU	A/39

Table F-2. Equipment list (armament) (Cont)

Ref Des	Part Number	Nomenclature	Zone (Fig. F-7)
1P02	MS3126E14-19SX	PLUG, TSU TEST CONN	A/47
1P03	MS3126E20-41S	PLUG, TSU	A/46
1P04	MS3126E22-55SX	PLUG, TSU	A/41
1P05	MS3126E20-41SW	PLUG, TSU	A/43
1P06	MS3126E22-55SX	PLUG, TSU	A/37
1P11	MS3456W16S-1S	PLUG, TSU	A/37
2P01	MS3723-13R2241W	PLUG, SCA	D/64
2P02	MS3723-13R2255N	PLUG, SCA	D/65
2P03	MS3723-14R2255N	PLUG, SCA	D/67
2P04	MS3723-13R2461W	PLUG, SCA	D/68
4P01	MS3126E20-39S	PLUG, TCP	D/37
4P02	MS3126E24-61P	PLUG, TCP	D/38
5P01	M83723-13R2241N	PLUG, MCA	A/70
5P02	M83723-14R2241N	PLUG, MCA	A/68
5P03	M83723-13R2461N	PLUG, MCA	A/71
5P04	M83723-14R2461X	PLUG, MCA	A/73
6P01	MS3126E18-32S	PLUG, SHC	D/35
7P01	M83723-13R2241X	PLUG, EPS	A/64
7P02	M83723-14R2241W	PLUG, EPS	A/65
7P03	M83723-14R2341X	PLUG, EPS	A/67
10P01	MS3126E14-19S	PLUG, PSI	A/36
15P01	MS3126E20-41SX	PLUG, MSP	D/41
16P01	MS3126E16-26S	PLUG, GACP	D/40

NOTE:

△ Reference implies the part is attached and/or is a part of a component.

Table F-3. XM65 Interconnection wire list

FROM		TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
1J			3234001-110			SIGHT UNIT, STABILIZED TELESCOPE
1J09			CONNECTOR			M83723-03F1832W M83723-15S18F
1J09	A	NC				SPARE
1J09	B	NC				SPARE
1J09	C	NC				SPARE
1J09	D	NC				SPARE
1J09	E	SHIELDS	22			CHASSIS GROUND
1J09	F	XK 87-D2	TG155A22			WEAPON TRIG 1ST DETENT
1J09	G	XK 87-C2	TG156A22			WEAPON TRIG 2ND DETENT
1J09	H	TS D 15A	TG157B22			TRIG ENABLE 1ST DETENT
1J09	J	TS D 15B	TG157C22			TRIG ENABLE 2ND DETENT
1J09	K	NC				GUN LIGHT
1J09	L	NC				SPARE
1J09	M	NC				SPARE
1J09	N	NC				SPARE
1J09	P	2P04 H	22	2020	@E	MAG LO SELECT-SCA
1J09	R	NC				LASER FLAG/LIGHT
1J09	S	NC				28V DC LASER ON
1J09	T	NC				LASER INTERLOCK 1
1J09	U	NC				LASER INTERLOCK 2
1J09	V	2P04 -S	22	2020	@E	MAG HI SELECT-SCA
1J09	W	1P05 N	22			WEAPON ACTION-TSU
1J09	X	2P01 P	22			WEAPON ACTION-SCA
1J09	Y	TS D 39B	22			WEAPON ACTION-BHC
1J09	Z	TS D 45A	TG159A22			WEAPON ACTION ENABLE
1J09	-A	1P03 A	22	2077	@E	28V MAG HI SELECT
1J09	-B	1P03 X	22	2077	@E	28V MAG LO SELECT
1J09	-C	NC				SPARE
1J09	-D	NC				SPARE
1J09	-E	2P03 -B	22		@E	GUN FLAG/LIGHT
1J09	-F	2P03 -C	22		@E	READY FLAG/LIGHT
1J09	-G	2P03 -D	22		@E	ATTACK FLAG/LIGHT

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
1J09	-H	7P03	-R	22	2076	@E	28V DC-TSU
1J09	-J	7P03	-E	22	2076	@E	28V DC RETURN
1P01				CONNECTOR			M83723-13F2255N
							M83723-15S22F
1P01	A	5P03	AA	22		@GG	AZ SAMPLE PULSE
1P01	B	2P03	-E	22		@GG	AZ MED. B/S ADJUST
1P01	C	NC					SPARE
1P01	D	NC					SPARE
1P01	E	NC					SPARE
1P01	F	NC					SPARE
1P01	G	NC					SPARE
1P01	H	2P03	GG	22		@GG	EL MED. B/S ADJUST
1P01	J	NC					SPARE
1P01	K	2P02	V	22		@GG	VS 1 RETURN
1P01	L	NC					SPARE
1P01	M	NC					EL BANDPASS INSTR
1P01	N	NC					SPARE
1P01	P	NC					SPARE
1P01	R	NC					SPARE
1P01	S	7P02	-S	22		@-G	10V DC
1P01	T	2P02	K	22	2085	@GG	AZ BANDPASS RETURN
1P01	U	2P02	J	22	2085	@GG	AZ BANDPASS
1P01	V	5P03	GG	22			K1 *T* INITIATE
1P01	W	5P03	BB	22		@GG	EL SAMPLE PULSE
1P01	X	NC					SPARE
1P01	Y	NC					SPARE
1P01	Z	NC					SPARE
1P01	-A	NC					SPARE
1P01	-B	NC					SPARE
1P01	-C	5P02	K	22			BIT 4
1P01	-D	NC					SPARE
1P01	-E	NC					SPARE
1P01	-F	16P01	U	22	3024	@GG	VS 1 RETURN
1P01	-G	SHIELDS		22			CHASSIS GROUND
1P01	-H	NC					AZ BANDPASS INSTR

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
1P01	-I	7P02	-P	22		@-G	20V DC
1P01	-J	7P02	W	20		@-G	DC RETURN-TSU
1P01	-K	7P02	-Q	22		@-G	20V DC
1P01	-M	2P02	M	22	2068	@GG	EL BANDPASS RETURN
1P01	-N	2P02	L	22	2068	@GG	EL BANDPASS
1P01	-P	NC					SPARE
1P01	-Q	TS D	34A	22			K1 *T* BIT PASS
1P01	-R	TS D	11A	22			BIT 3
1P01	-S	TS D	12A	22			BIT 5
1P01	-T	TS D	13A	22			BIT 6
1P01	-U	NC					LASER SYNC SIGNAL
1P01	-V	5P03	LL	22		@GG	K1 *T* CHANGE
1P01	-W	2P02	U	22		@GG	EL VS 1
1P01	-X	16P01	T	22	3024	@GG	EL VS 1
1P01	-Y	16P01	S	22	3024	@GG	AZ VS 1
1P01	-Z	2P02	X	22	2045	@GG	B/S POT. EXCIT MINUS
1P01	AA	2P02	W	22	2045	@GG	B/S POT. EXCIT PLUS
1P01	BB	5P03	NN	22		@GG	WIDE-MEDIUM SWITCH
1P01	CC	16P01	R	22		@GG	N FOV MAX GAIN
1P01	DD	5P03	EE	22			AGC CLAMP RELEASE
1P01	EE	5P03	KK	22		@GG	CARRIER FREQ CHANGE
1P01	FF	2P02	T	22		@GG	AZ VS 1
1P01	GG	SHIELDS		22			CHASSIS GROUND
1P01	HH	5P03	JJ	22		@GG	MEDIUM-NARROW SWITCH
1P02				CONNECTOR			M83723-13F1419X M83723-15S14F
1P02	A	TS D	1A	22		@M	AZ BANDPASS
1P02	B	TEST 2	N	22			15V DC
1P02	C	TEST 2	U	22			-15V DC
1P02	D	TEST 2	F	22		@M	AZ REF SINE WAVE
1P02	E	NC					SPARE
1P02	F	NC					SPARE

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
1P02	G	TEST 2	G	22			EL SAMPLE PULSE
1P02	H	TEST 2	H	22			AZ SAMPLE PULSE
1P02	J	TS D	3A	22		@M	EL VS 1
1P02	K	NC					SPARE
1P02	L	NC					SPARE
1P02	M	SHIELDS		22			CHASSIS GROUND
1P02	N	NC					AZ BANDPASS RETURN
1P02	P	TS D	2A	22		@M	EL BANDPASS
1P02	R	TS D	4A	22		@M	DC RETURN-TSU
1P02	S	TEST 2	S	22		@M	EL REF SINE WAVE
1P02	T	NC					VS 1 RETURN
1P02	U	NC					EL BANDPASS RETURN
1P02	V	TS D	5A	22		@M	AZ VS 1
1P03				CONNECTOR			M83723-13F2041N
							M83723-15S20F
1P03	A	1J09	-A	22	2077	@K	28V MAG HI SELECT
1P03	B	7P01	B	20	3004	@B	115V 400 HZ PH A
1P03	C	7P01	D	20	3004	@B	115V 400 HZ RTN *PH B*
1P03	D	SHIELDS		22			CHASSIS GROUND
1P03	E	4P02	-J	22		@D	TSU RETICLE ADJUST
1P03	F	7P03	A	20		@D	28V DC RTN-TSU
1P03	G	5P02	-C	22		@D	MANGIN MIRROR DRIVE
1P03	H	2P03	-I	20	3003	@B	N F DIODE DRIVE RTN
1P03	J	2P03	-H	20	3003	@B	DIODE DRIVE POWER
1P03	K	2P03	-G	20	3003	@B	W F DIODE DRIVE RTN
1P03	L	2P03	-M	22	2044	@M	BORESIGHT MTR REF RTN
1P03	M	NC					SPARE
1P03	N	NC					SPARE
1P03	P	NC					SPARE
1P03	R	NC					SPARE
1P03	S	NC					SPARE
1P03	T	NC					SPARE
1P03	U	NC					SPARE
1P03	V	NC					SPARE

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
1P03	W	NC				SPARE
1P03	X	1J09 -B	22	2077	@K	28V MAG LO SELECT
1P03	Y	NC				SPARE
1P03	Z	7P01 C	20	3004	@B	115V 400 HZ PH C
1P03	-A	NC				SPARE
1P03	-B	SHIELDS	22			CHASSIS GROUND
1P03	-C	2P03 -P	22	3010	@M	BORESIGHT DRIVE 2
1P03	-D	2P03 -K	22	2044	@M	BORESIGHT MTR REF
1P03	-E	NC				SPARE
1P03	-F	NC				SPARE
1P03	-G	NC				SPARE
1P03	-H	NC				SPARE
1P03	-I	NC				SPARE
1P03	-J	NC				SPARE
1P03	-K	SHIELDS	22			CHASSIS GROUND
1P03	-M	SHIELDS	22			CHASSIS GROUND
1P03	-N	2P03 -Q	22	3010	@M	BORESIGHT DRIVE RTN
1P03	-P	2P03 -N	22	3010	@M	BORESIGHT DRIVE 1
1P03	-Q	NC				SPARE
1P03	-R	NC				SPARE
1P03	-S	NC				SPARE
1P03	-T	NC				SPARE
1P04			CONNECTOR			M83723-13F2255X M83723-15S22F
1P04	A	NC				SPARE
1P04	B	NC				SPARE
1P04	C	NC				SPARE
1P04	D	NC				SPARE
1P04	E	2P03 -T	22	3013	@L	RHO COMP RES RETURN 1
1P04	F	2P02 S	22	2028	@L	RHO SERVO RETURN B

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
1P04	G	NC					11.8 COS ETA
1P04	H	NC					SPARE
1P04	J	2P02	DD	22	2027	@L	DEROT SERVO TACH
1P04	K	2P02	EE	22	2027	@L	DEROT SERVO TACH RTN
1P04	L	SHIELDS		22			CHASSIS GROUND
1P04	M	2P02	G	22	2291	@L	11.8 COS EPSILON
1P04	N	NC					SPARE
1P04	P	NC					SPARE
1P04	R	7P01	S	20	3054	@L	115V 400 HZ PH C
1P04	S	TS D	8A	22	3009	@L	10 SIN EPSILON SUB -G
1P04	T	TS D	6A	22	3009	@L	EPSILON SUB -G RTN
1P04	U	TS D	7A	22	3009	@L	10 COS EPSILON SUB -G
1P04	V	7P01	X	20	3054	@L	115V 400 HZ PH A
1P04	W	NC					SPARE
1P04	X	NC					SPARE
1P04	Y	NC					SPARE
1P04	Z	2P03	-S	22	3013	@L	- 11.8 TAN THETA
1P04	-A	2P02	R	22	2028	@L	11.8 SIN RHO
1P04	-B	2P02	C	22			WINDOW LIMIT SW A
1P04	-C	NC					11.8 COS ETA RTN
1P04	-D	2P02	-T	22	2029	@L	WINDOW SERVO TACH RTN
1P04	-E	2P03	EE	20	3005	@L	DEROT MOTOR DR B
1P04	-F	NC					SPARE
1P04	-G	2P02	H	22	2291	@L	11.8 COS EPSILON RTN
1P04	-H	2P02	-D	22	2043	@L	11.8 COS RHO
1P04	-I	NC					11.8 COS ETA RTN
1P04	-J	7P02	-N	22		@L	-40V DC
1P04	-K	NC					DEROT SERVO ERROR COS
1P04	-M	2P02	HH	22	2058	@L	DEROT SERVO ERROR RTN
1P04	-N	2P02	GG	22	2058	@L	DEROT SERVO ERROR SIN
1P04	-P	7P01	Y	20	3054	@L	115V 400 HZ RTN 'PH B'
1P04	-Q	2P03	CC	16	3007	@L	WINDOW MOTOR DR C.T.

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
1P04	-R	NC					SPARE
1P04	-S	2P03	-R	22	3013	@L	11.8 SIN PHI
1P04	-T	2P02	D	22			WINDOW LIMIT SW B
1P04	-U	2P02	-S	22	2029	@L	WINDOW SERVO TACH
1P04	-V	2P03	DD	20	3005	@L	DEROT MOTOR DR A
1P04	-W	2P02	-E	22	2043	@L	RHO SERVO RETURN A
1P04	-X	2P03	-V	22	2025	@L	RHO COMP RES RETURN Z
1P04	-Y	NC					11.8 COS ETA
1P04	-Z	7P02	-R	22		@L	40V DC
1P04	AA	NC					DEROT SERVO ERROR RTN
1P04	BB	P122	C	TG593F22 BLU	2059	@L	26V 400 HZ A PLUS 90
1P04	CC	2P03	AA	16	3007	@L	WINDOW MOTOR DR A
1P04	DD	2P03	BB	16	3007	@L	WINDOW MOTOR DR B
1P04	EE	2P03	FF	20	3005	@L	DEROT MOTOR DR C.T.
1P04	FF	2P03	-U	22	2025	@L	11.8 COS PHI
1P04	GG	NC					SPARE
1P04	HH	P122	P	TG591F22 WHT	2059	@L	26V 400 HZ A MINUS 90
1P05				CONNECTOR			M83723-13F2041W M83723-15S20F
1P05	A	TEST 2	D	22	3008	@W	10 COS ETA SUB -G
1P05	B	2P02	-Z	22	2037	@W	AZ SIGNAL GEN
1P05	C	2P02	AA	22	2037	@W	AZ SIGNAL GEN RETURN
1P05	D	2P02	-Q	22	2002	@W	WINDOW SERVO ERROR SIN
1P05	E	2P02	-R	22	2002	@W	WINDOW SERVO ERROR RTN
1P05	F	NC					SPARE
1P05	G	NC					SPARE
1P05	H	2P02	-J	22	3049	@W	10 SIN EPSILON SUB -G
1P05	J	NC					SPARE
1P05	K	7P03	W	20	2038	@W	28V DC-TSU
1P05	L	P329	-H	TG141B22 WHT	2030	@W	SIN EPSILON SUB -G RTN
1P05	M	7P03	X	20	2038	@W	28V DC RETURN
1P05	N	1J09	W	22			WEAPON ACTION-TSU
1P05	P	4P02	-K	22			WEAPON SELECT-TSU

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
1P05	R	TS D	9C	22	2289	@W	10V 400 HZ A PLUS 90
1P05	S	2P04	J	22			TEST 9 *H*
1P05	T	2P02	-X	22	3011	@W	A SUB E BUF OUTPUT
1P05	U	7P02	F	20		@W	DC RETURN-TSU
1P05	V	7P02	C	22		@W	20V DC
1P05	W	SHIELDS		22			CHASSIS GROUND
1P05	X	2P02	-H	22	3012	@W	10 COS ETA SUB -G
1P05	Y	2P02	BB	22	2036	@W	EL SIGNAL GEN
1P05	Z	2P02	CC	22	2036	@W	EL SIGNAL GEN RETURN
1P05	-A	2P02	-I	22	3049	@W	10 COS EPSILON SUB -G
1P05	-B	2P02	-K	22	3049	@W	EPSILON SUB -G RTN
1P05	-C	TS D	8C	22	3050	@W	10 SIN EPSILON SUB -G
1P05	-D	P329	-G	TG142B22 BLU	2030	@W	10 SIN EPSILON SUB -G
1P05	-E	P329	-F	TG145B22 WHT	2075	@W	COS EPSILON SUB -G RTN
1P05	-F	TS D	10C	22	2289	@W	10V 400 HZ RETURN
1P05	-G	2P02	B	22			5 VOLT LOGIC RTN
1P05	-H	2P02	-W	22	3011	@W	A SUB D BUF OUTPUT
1P05	-I	2P02	-Y	22	3011	@W	ACC BUF RETURN
1P05	-J	7P02	D	22		@W	-20V DC
1P05	-K	2P02	-G	22	3012	@W	ETA SUB -G RTN
1P05	-M	TS D	7C	22	3050	@W	10 COS EPSILON SUB -G
1P05	-N	TS D	6C	22	3050	@W	EPSILON SUB -G RTN
1P05	-P	P329	-E	TG146B22 BLU	2075	@W	10 COS EPSILON SUB -G
1P05	-Q	2P02	A	22			5 VOLT LOGIC
1P05	-R	TEST 2	GG	22	3008	@W	10 SIN ETA SUB -G
1P05	-S	TEST 2	HH	22	3008	@W	ETA SUB -G RTN
1P05	-T	2P02	-F	22	3012	@W	10 SIN ETA SUB -G
1P06		CONNECTOR					M83723-13F22557 M83723-15S22F
1P06	A	2P01	-C	16	2034	@K	EL MOTOR DRIVE A
1P06	B	7P03	E	22	2024	@K	20V RMS 4 KHZ
1P06	C	7P02	B	22		@K	40V DC
1P06	D	NC					SPARE
1P06	E	NC					SPARE

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO	WIRE IDENTIFICATION		CABLE NO.	SHIELD	NOMENCLATURE
1P06	F	NC					SPARE
1P06	G	NC					SPARE
1P06	H	2P03	-Y	22	2033	@K	EL GYRO TORQUER DR A
1P06	J	2P03	-Z	22	2033	@K	EL GYRO TORQUER DR B
1P06	K	SHIELDS		22			CHASSIS GROUND
1P06	L	2P02	-B	22	2074	@K	EL GUN ERROR BIT RTN
1P06	M	P313	-N	TG35A22 WHT	2040	@S	EL GUN COMMAND RETURN
1P06	N	TS D	23A	22	2035	@S	-J SUB -T RETURN
1P06	P	TS D	21A	22	2039	@S	-I SUB -T RETURN
1P06	R	TS D	25A	22	2021	@S	-K SUB -T RETURN
1P06	S	SHIELDS		22			CHASSIS GROUND
1P06	T	P313	X	TG43A22 WHT	2052	@K	-I SUB -G RETURN
1P06	U	P313	W	TG44A22 BLU	2052	@K	-I SUB-G
1P06	V	NC					SPARE
1P06	W	2P01	-E	16	2034	@K	EL MOTOR DRIVE B
1P06	X	7P03	-B	22	2024	@K	20V RMS 4 KHZ RETURN
1P06	Y	7P02	A	22		@K	-40V DC
1P06	Z	NC					SPARE
1P06	-A	NC					SPARE
1P06	-B	NC					SPARE
1P06	-C	2P03	-W	22	2031	@K	AZ GYRO TORQUER DR A
1P06	-D	2P03	-X	22	2031	@K	AZ GYRO TORQUER DR B
1P06	-E	NC					10V DC
1P06	-F	2P02	-A	22	2074	@K	EL GUN ERROR BIT
1P06	-G	2P02	Z	22	2073	@K	AZ GUN ERROR BIT RTN
1P06	-H	P313	-B	TG34A22 BLU	2040	@S	EL GUN COMMAND
1P06	-I	TS D	22A	22	2035	@S	-J SUB -T
1P06	-J	TS D	20A	22	2039	@S	-I SUB -T
1P06	-K	TS D	24A	22	2021	@S	-K SUB -T
1P06	-M	P313	F	TG45A22 WHT	2042	@K	AZ GUN COMMAND RTN
1P06	-N	P313	E	TG46A22 BLU	2042	@K	AZ GUN COMMAND
1P06	-P	2P01	Z	16	2032	@K	AZ MOTOR DRIVE A
1P06	-Q	NC					SPARE
1P06	-R	7P03	-F	16	3001	@K	7V 900 HZ PH A
1P06	-S	7P03	M	16	3001	@K	7V 900 HZ PH B
1P06	-T	7P03	N	16	3001	@K	7V 900 HZ RETURN

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
1P06	-U	NC					SPARE
1P06	-V	NC					MOTOR OVERHEAT
1P06	-W	2P02	Y	22	2073	@K	AZ GUN ERROR BIT
1P06	-X	P313	-J	TG47A22 WHT	2057	@K	-J SUB -G RETURN
1P06	-Y	P313	-I	TG49A22 WHT	2065	@K	-K SUB -G RETURN
1P06	-Z	P313	-Q	TG51A22 WHT	2055	@K	RANGE SELECT REF RTN
1P06	AA	P313	-P	TG52A22 BLU	2055	@K	RANGE SELECT REF
1P06	BB	2P01	-A	16	2032	@K	AZ MOTOR DRIVE B
1P06	CC	NC					SPARE
1P06	DD	NC					SPARE
1P06	EE	2P01	B	22	2019	@K	10V DC
1P06	FF	P313	V	TG48A22 BLU	2057	@K	-J SUB -G
1P06	GG	P313	U	TG50A22 BLU	2065	@K	-K SUB -G
1P06	HH	2P01	A	22	2019	@K	MOTOR OVERHEAT
1P11				CONNECTOR			M83723-23F1701N M83723-35S17F
1P11	A	7P03	-K	20	2083	@F	28V DC RETURN
1P11	B	7P03	-M	20	2083	@F	28V DC-CAMERA
1P11	C	4P02	-Q	22		@F	CAMERA START
1P11	D	4P02	-R	22		@F	BRIGHT
1P11	E	4P02	-S	22		@F	HAZY
1P11	F	4P02	-T	22		@F	DULL
1P11	G	NC					OPERATING INDICATION
2P				3234002-110			AMPLIFIER, ELECTRONIC CONTROL, STABILIZATION
2P01				CONNECTOR			M83723-13F2241W M83723-15S22F
2P01	A	1P06	HH	22	2019	@E	MOTOR OVERHEAT
2P01	B	1P06	EE	22	2019	@E	10V DC
2P01	C	NC					EL LASER ERROR
2P01	D	NC					EL LASER ERROR RTN

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
2P01	E	SHIELDS	22			CHASSIS GROUND
2P01	F	7P03	C 22	2060	@E	20V RMS 4 KHZ
2P01	G	7P03	D 22	2060	@E	20V RMS 4 KHZ RETURN
2P01	H	NC				SPARE
2P01	J	P327	E TG338B22 BLU	2064	@E	AIRSPPEED
2P01	K	P327	F TG339B22 WHT	2064	@E	AIRSPPEED RETURN
2P01	L	7P01	H 22	3022	@E	115V 400 HZ PH A
2P01	M	7P01	J 22	3022	@E	115V 400 HZ PH C
2P01	N	7P01	K 22	3022	@E	115V 400 HZ RTN *PH B*
2P01	P	1J09	X 22			WEAPON ACTION-SCA
2P01	R	J325	DD TG539D22 BLU	3002	@E	26V 400 HZ A PLUS 90
2P01	S	J325	EE TG591D22 ORN	3002	@E	26V 400 HZ A MINUS 90
2P01	T	J325	CC TG592D22 ORN	3002	@E	26V 400 HZ RETURN
2P01	U	NC				LASER ON
2P01	V	NC				AZ LASER ERROR
2P01	W	NC				AZ LASER ERROR RTN
2P01	X	7P03	K 22	2061	@E	7V 900 HZ PH A
2P01	Y	7P03	L 22	2061	@E	7V 900 HZ RETURN
2P01	Z	1P06	-P 16	2032	@E	AZ MOTOR DRIVE A
2P01	-A	1P06	BB 16	2032	@E	AZ MOTOR DRIVE B
2P01	-B	J325	NN TG366D22			PORT LAUNCH POS STATUS
2P01	-C	1P06	A 16	2034	@E	EL MOTOR DRIVE A
2P01	-D	J325	JJ TG367D22			STBD LAUNCH POS STATUS
2P01	-E	1P06	W 16	2034	@E	EL MOTOR DRIVE B
2P01	-F	6P01	Z 22			ACQUISITION
2P01	-G	7P03	-S 16	2026	@E	28V DC-SCA
2P01	-H	TS B	4A 22			STOW
2P01	-I	7P03	-I 16	2026	@E	28V DC RETURN
2P01	-J	P325	-Y TG337B22		@E	TURRET STATUS
2P01	-K	7P02	-G 22		@E	40V DC
2P01	-M	7P02	-E 20		@E	20V DC
2P01	-N	7P02	-C 20		@E	10V DC
2P01	-P	7P02	-I 16		@E	DC RETURN-SCA
2P01	-Q	7P02	-K 20		@E	-20V DC
2P01	-R	7P02	-M 22		@E	-40V DC
2P01	-S	7P03	-Q 16	2056	@E	28V DC-SCA

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
2P01	-T	7P03	-C	16	2056	@E	28V DC RETURN
2P02				CONNECTOR			M83723-13F2255N M83723-15S22F
2P02	A	1P05	-Q	22			5 VOLT LOGIC
2P02	B	1P05	-G	22			5 VOLTS LOGIC RTN
2P02	C	1P04	-B	22			WINDOW LIMIT SW A
2P02	D	1P04	-T	22			WINDOW LIMIT SW B
2P02	E	SHIELDS		22			CHASSIS GROUND
2P02	F	NC					SPARE
2P02	G	1P04	M	22	2291	@E	11.8 COS EPSILON
2P02	H	1P04	-G	22	2291	@E	11.8 COS EPSILON RTN
2P02	J	1P01	U	22	2085	@E	AZ BANDPASS
2P02	K	1P01	T	22	2085	@E	AZ BANDPASS RETURN
2P02	L	1P01	-N	22	2068	@E	EL BANDPASS
2P02	M	1P01	-M	22	2068	@E	EL BANDPASS RETURN
2P02	N	NC					SPARE
2P02	P	NC					SPARE
2P02	R	1P04	-A	22	2028	@E	11.8 SIN RHO
2P02	S	1P04	F	22	2028	@E	RHO SERVO RETURN B
2P02	T	1P01	FF	22		@E	AZ VS 1
2P02	U	1P01	-W	22		@E	EL VS 1
2P02	V	1P01	K	22		@E	VS 1 RETURN
2P02	W	1P01	AA	22	2045	@E	B/S POT. EXCIT PLUS
2P02	X	1P01	-Z	22	2045	@E	B/S POT. EXCIT MINUS
2P02	Y	1P06	-W	22	2073	@E	AZ GUN ERROR BIT
2P02	Z	1P06	-G	22	2073	@E	AZ GUN ERROR BIT RTN
2P02	-A	1P06	-F	22	2074	@E	EL GUN ERROT BIT
2P02	-B	1P06	L	22	2074	@E	EL GUN ERROR BIT RTN
2P02	-C	NC					SPARE
2P02	-D	1P04	-H	22	2043	@E	11.8 COS RHO
2P02	-E	1P04	-W	22	2043	@E	RHO SERVO RETURN A

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
2P02	-F	1P05	-T	22	3012	@E	10 SIN ETA SUB -G
2P02	-G	1P05	-K	22	3012	@E	ETA SUB -G RTN
2P02	-H	1P05	X	22	3012	@E	10 COS ETA SUB -G
2P02	-I	1P05	-A	22	3049	@E	10 COS EPSILON SUB -G
2P02	-J	1P05	H	22	3049	@E	10 SIN EPSILON SUB -G
2P02	-K	1P05	-B	22	3049	@E	EPSILON SUB -G RTN
2P02	-M	NC					SPARE
2P02	-N	NC					SPARE
2P02	-P	NC					SPARE
2P02	-Q	1P05	D	22	2002	@E	WINDOW SERVO ERROR SIN
2P02	-R	1P05	E	22	2002	@E	WINDOW SERVO ERROR RTN
2P02	-S	1P04	-U	22	2029	@E	WINDOW SERVO TACH
2P02	-T	1P04	-D	22	2029	@E	WINDOW SERVO TACH RTN
2P02	-U	NC					SPARE
2P02	-V	NC					SPARE
2P02	-W	1P05	-H	22	3011	@E	A SUB D BUF OUTPUT
2P02	-X	1P05	T	22	3011	@E	A SUB E BUF OUTPUT
2P02	-Y	1P05	-I	22	3011	@E	ACC BUF RETURN
2P02	-Z	1P05	B	22	2037	@E	AZ SIGNAL GEN
2P02	AA	1P05	C	22	2037	@E	AZ SIGNAL GEN RETURN
2P02	BB	1P05	Y	22	2036	@E	EL SIGNAL GEN
2P02	CC	1P05	Z	22	2036	@E	EL SIGNAL GEN RETURN
2P02	DD	1P04	J	22	2027	@E	DEROT SERVO TACH
2P02	EE	1P04	K	22	2027	@E	DEROT SERVO TACH RTN
2P02	FF	NC					SPARE
2P02	GG	1P04	-N	22	2058	@E	DEROT SERVO ERROR SIN
2P02	HH	1P04	-M	22	2058	@E	DEROT SERVO ERROR RTN
2P03				CONNECTOR			M83723-14F2255N M83723-15S22F
2P03	A	NC					SPARE
2P03	B	NC					SPARE

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO	WIRE IDENTIFICATION		CABLE NO.	SHIELD	NOMENCLATURE
2P03	C	NC					SPARE
2P03	D	NC					SPARE
2P03	E	SHIELDS		22			CHASSIS GROUND
2P03	F	NC		22			SPARE
2P03	G	NC					SPARE
2P03	H	NC					SPARE
2P03	J	J325	A	TG368F22			PORT LAUNCHER ACTIVATE
2P03	K	J323	B	TG369F22			STBD LAUNCHER ACTIVATE
2P03	L	5P02	X	22			SCA BIT PASS
2P03	M	5P01	-J	22			AIRSPED OVER 35 KNOTS
2P03	N	5P03	-Y	22		@E	YAW OPEN LOOP
2P03	P	NC					SPARE
2P03	R	5P03	-S	22		@E	PITCH LOS RATE
2P03	S	NC					SPARE
2P03	T	5P03	-U	22		@E	YAW LOS RATE
2P03	U	5P03	PP	22		@E	SIGMA Z GRTR THAN -3 D
2P03	V	5P03	-N	22		@E	PITCH ERROR
2P03	W	5P03	HH	22		@E	10 SIN SIGMA Z
2P03	X	5P03	-Q	22		@E	YAW ERROR
2P03	Y	5P03	-R	22		@E	ANALOG SIGNAL RETURN
2P03	Z	5P01	X	22			LAUNCH CONSTRAINTS
2P03	-A	NC					IRT POWER ON-EPS
2P03	-B	1J09	-E	22		@E	GUN FLAG/LIGHT
2P03	-C	1J09	-F	22		@E	READY FLAG/LIGHT
2P03	-D	1J09	-G	22		@E	ATTACK FLAG/LIGHT
2P03	-E	1P01	B	22		@E	AZ MED. B/S ADJUST
2P03	-F	NC					SPARE
2P03	-G	1P03	K	20	3003	@E	W F DIODE DRIVE RTN
2P03	-H	1P03	J	20	3003	@E	DIODE DRIVE POWER
2P03	-I	1P03	H	20	3003	@E	N F DIODE DRIVE RTN
2P03	-J	7P01	-J	22			IRT POWER ON-EPS
2P03	-K	1P03	-D	22	2044	@E	BORESIGHT MTR REF
2P03	-M	1P03	L	22	2044	@E	BORESIGHT MTR REF RTN
2P03	-N	1P03	-P	22	3010	@E	BORESIGHT DRIVE 1
2P03	-P	1P03	-C	22	3010	@E	BORESIGHT DRIVE 2
2P03	-Q	1P03	-N	22	3010	@E	BORESIGHT DRIVE RTN

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
2P03	-R	1P04	-S	22	3013	@E	11.8 SIN PHI
2P03	-S	1P04	Z	22	3013	@E	- 11.8 TAN THETA
2P03	-T	1P04	E	22	3013	@E	RHO COMP RES RETURN 1
2P03	-U	1P04	FF	22	2025	@E	11.8 COS PHI
2P03	-V	1P04	-X	22	2025	@E	RHO COMP RES RETURN 2
2P03	-W	1P06	-C	22	2031	@E	AZ GYRO TORQUER DR A
2P03	-X	1P06	-D	22	2031	@E	AZ GYRO TORQUER DR B
2P03	-Y	1P06	H	22	2033	@E	EL GYRO TORQUER DR A
2P03	-Z	1P06	J	22	2033	@E	EL GYRO TORQUER DR B
2P03	AA	1P04	CC	16	3007	@E	WINDOW MOTOR DR A
2P03	BB	1P04	DD	16	3007	@E	WINDOW MOTOR DR B
2P03	CC	1P04	-Q	16	3007	@E	WINDOW MOTOR DR C.T.
2P03	DD	1P04	-V	20	3005	@E	DEROT MOTOR DR A
2P03	EE	1P04	-E	20	3005	@E	DEROT MOTOR DR B
2P03	FF	1P04	EE	20	3005	@E	DEROT MOTOR DR C.T.
2P03	GG	1P01	H	22		@E	EL MED. B/S ADJUST
2P03	HH	NC					SPARE
2P04				CONNECTOR			M83723-13F2461W M83723-15S24F
2P04	A	NC					SPARE
2P04	B	NC					SPARE
2P04	C	NC					SPARE
2P04	D	7P01	M	22			REMOTE ON CMD INTLKD
2P04	E	SHIELDS					CHASSIS GROUND
2P04	F	10P01	U	22	3025	@E	ASCEND/DESCEND RETURN
2P04	G	J237	NN	TG271F20			REMOTE ON COMMAND
2P04	H	1J09	P	22	2020	@E	MAG LO SELECT-SCA
2P04	J	1P05	S	22			TEST 9 *H*
2P04	K	NC					AIRSPEED OVER 66 KNOTS
2P04	L	TS D	30A	22	2062	@E	AZ ACQUISITION CMD
2P04	M	TS D	31A	22	2062	@E	AZ ACQUISITION CMD RTN
2P04	N	TS D	32A	22	2063	@E	EL ACQUISITION CMD
2P04	P	TS D	33A	22	2063	@E	EL ACQUISITION CMD RTN

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
2P04	R	J327	-W	TG432B22 WHT	3020	@E	ROLL SYN RESOL PH A
2P04	S	J327	-X	TG433B22 BLU	3020	@E	ROLL SYN RESOL PH B
2P04	T	J327	-Y	TG434B22 ORN	3020	@E	ROLL SYN RESOL PH C
2P04	U	J327	-Z	TG435B22 WHT	3019	@E	PITCH SYN RESOL PH A
2P04	V	J327	AA	TG436B22 BLU	3019	@E	PITCH SYN RESOL PH B
2P04	W	J327	BB	TG437B22 ORN	3019	@E	PITCH SYN RESOL PH C
2P04	X	10P01	B	22	2080	@E	AZ BAR DRIVE
2P04	Y	10P01	A	22	2080	@E	AZ BAR DRIVE RETURN
2P04	Z	10P01	D	22	2046	@E	EL BAR DRIVE
2P04	-A	10P01	C	22	2046	@E	EL BAR DRIVE RETURN
2P04	-B	10P01	F	22			ATTACK PSI
2P04	-C	10P01	H	22			READY PSI
2P04	-D	10P01	K	22			FIRE PSI
2P04	-E	10P01	N	22	3025	@E	ASCEND
2P04	-F	10P01	P	22	3025	@E	DESCEND
2P04	-G	10P01	S	22	2082	@E	AZ POINTER DR
2P04	-H	10P01	R	22	2082	@E	AZ POINTER DR RETURN
2P04	-I	6P01	R	22	2078	@E	AZ RATE BIAS
2P04	-J	6P01	S	22	2078	@E	AZ RATE BIAS RETURN
2P04	-K	6P01	T	22	2079	@E	EL RATE BIAS
2P04	-M	6P01	U	22	2079	@E	EL RATE BIAS RETURN
2P04	-N	6P01	V	22	2071	@E	AZ TRACK STICK CMD
2P04	-P	6P01	W	22	2071	@E	AZ TRACK STICK CMD RTN
2P04	-Q	6P01	X	22	2072	@E	EL TRACK STICK CMD
2P04	-R	6P01	Y	22	2072	@E	EL TRACK STICK CMD RTN
2P04	-S	1J09	V	22	2020	@E	MAG HI SELECT-SCA
2P04	-T	4P02	Z	22			WEAPON SELECT-SCA
2P04	-U	4P02	-A	22			MSL PRESENT/SELECTED
2P04	-V	4P02	-B	22			INDICATOR TEST
2P04	-W	4P02	-C	22			PORT/STBD SELECT
2P04	-X	16P01	N	22		@E	MOTION COMP ENABLE
2P04	-Y	TS C	17B	22			BIT 4
2P04	-Z	TS C	18A	22			SYNTHETIC FIRST MOTION
2P04	AA	5P03	CC	22			D RHO CLUTCH ENGAGE
2P04	BB	5P01	R	22			DELTA RHO RESET
2P04	CC	5P02	S	22			SCA BITE LATCH

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
2P04	DD	5P02	M	22			SCA BITE RESET
2P04	EE	5P02	U	22			IN TEST-SCA
2P04	FF	TS C	1A	22			BIT 1
2P04	GG	TS C	2A	22			BIT 2
2P04	HH	5P02	C	22			BIT 3
2P04	JJ	5P02	D	22			BIT 5
2P04	KK	5P02	E	22			BIT 6
2P04	LL	TS C	4A	22			BIT 7
2P04	MM	TS C	5A	22			BIT 8
2P04	NN	TS C	6A	22			BIT 9
2P04	PP	TS C	7A	22			BIT 10
2P05				CONNECTOR			M83723-14F2461W M83723-15S24F
2P05	A	NC					SPARE
2P05	B	NC					11.8 SIN THETA
2P05	C	NC					SPARE
2P05	D	NC					SPARE
2P05	E	NC					CHASSIS GROUND
2P05	F	NC					COS THETA REF
2P05	G	NC					MOTION COMP SW
2P05	H	NC					EL TRACK STICK CMD
2P05	J	NC					AZ TRACK STICK CMD
2P05	K	NC					MANUAL
2P05	L	NC					AZ MANUAL CONTROL
2P05	M	NC					EL MANUAL CONTROL
2P05	N	NC					BIT COMPARATOR 1
2P05	P	NC					BIT COMPARATOR 2
2P05	R	NC					BIT COMPARATOR 3
2P05	S	NC					BIT COMPARATOR 4
2P05	T	NC					EL TORQUER DR BUFF
2P05	U	NC					AZ TORQUER DR BUFF
2P05	V	NC					EL TRACK CMD *100 D/S*
2P05	W	NC					AZ TRACK CMD *100 D/S*

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
2P05	X	NC				DEROT SERVO RATE
2P05	Y	NC				WINDOW SERVO RATE
2P05	Z	NC				AZ SIGNAL CUT
2P05	-A	NC				AZ SIGNAL IN
2P05	-B	NC				AZ ERROR
2P05	-C	NC				EL SIGNAL OUT
2P05	-D	NC				EL SIGNAL IN
2P05	-E	NC				EL ERROR
2P05	-F	NC				RHO SERVO ERROR
2P05	-G	NC				RHO SERVO RATE
2P05	-H	NC				CLUTCH ENGAGE
2P05	-I	NC				SCA TEST PASS
2P05	-J	NC				EL ACQUISITION CMD
2P05	-K	NC				AZ ACQUISITION CMD
2P05	-M	NC				28V DC RETURN
2P05	-N	NC				DEROT SERVO ERROR
2P05	-P	NC				SIGMA Z GRTR THAN -3 D
2P05	-Q	NC				EL GIMBAL ANGLE
2P05	-R	NC				DC RETURN
2P05	-S	NC				AZ GIMBAL ANGLE
2P05	-T	NC				EL MOTION COMP CMD
2P05	-U	NC				AZ MOTION COMP CMD
2P05	-V	NC				EL TORQUER CURRENT
2P05	-W	NC				AZ TORQUER CURRENT
2P05	-X	NC				YAW ERROR
2P05	-Y	NC				GYRO ALIGN
2P05	-Z	NC				PITCH ERROR
2P05	AA	NC				11.8 COS PHI
2P05	BB	NC				YAW LOS RATE
2P05	CC	NC				PITCH LOS RATE
2P05	DD	NC				YAW OPEN LOOP
2P05	EE	NC				ANALOG SIGNAL RETURN
2P05	FF	NC				AIRSPEED
2P05	GG	NC				LAUNCH CONSTRAINT
2P05	HH	NC				11.8 SIN PHI
2P05	JJ	NC				10 SIN SIGMA Z

Table F-3. XM65 Interconnection wire list (Cont)

FROM	TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
2P05 KK	NC				AZ TRACK CMD *50 MR/S*
2P05 LL	NC				EL TRACK CMD *50 MR/S*
2P05 MM	NC				WINDOW SERVO ERROR
2P05 NN	NC				11.8 COS RHO
2P05 PP	NC				11.8 SIN RHO
4P		3234004-110			CONTROL PANEL, TOW
4P01		CONNECTOR			M83723-13F2039N
					M83723-15S20F
4P01 A	NC				SPARE
4P01 B	NC				SPARE
4P01 C	NC				SPARE
4P01 D	NC				SPARE
4P01 E	SHIELDS	22			CHASSIS GROUND
4P01 F	NC				SPARE
4P01 G	NC				SPARE
4P01 H	NC				SPARE
4P01 J	NC				SPARE
4P01 K	NC				SPARE
4P01 L	NC				SPARE
4P01 M	P8J01 -G	22			MISSILE 1 PRESENT-TCP
4P01 N	P8J01 -I	22			MISSILE 3 PRESENT-TCP
4P01 P	TS D 41A	22			MISSILE 5 PRESENT-TCP
4P01 R	P8J01 -H	22			MISSILE 7 PRESENT-TCP
4P01 S	S8J01 -I	22			MISSILE 2 PRESENT-TCP
4P01 T	S8J01 -G	22			MISSILE 4 PRESENT-TCP
4P01 U	S8J01 -H	22			MISSILE 6 PRESENT-TCP
4P01 V	S8J01 -F	22			MISSILE 8 PRESENT-TCP
4P01 W	16P01 W	22			CAMERA
4P01 X	NC				SPARE
4P01 Y	TB 51-C1	TG234A22			TOW TRIGGER
4P01 Z	K80-F3	TG236A22			TMS POWER ON
4P01 -A	TS D 46A	TG235A22			ARMED-PILOT MASTER ARM
4P01 -B	TB 2-5	TG237A2 BLU	2091	@E	DIMMABLE POWER
4P01 -C	GND	TG238A22 WHT	2091	@E	DIMMABLE POWER RETURN

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
4P01	-D	15P01	D	20			SQUIB CONNECT/CAMERA 2
4P01	-E	5P02	V	22			IN TEST-TCP
4P01	-F	NC					SPARE
4P01	-G	5P02	-E	22			MCA BIT FAIL
4P01	-H	5P02	-H	22			SCA BIT FAIL
4P01	-I	7P01	F	22			EPS BIT FAIL
4P01	-J	5P02	-J	22			TSU BIT FAIL
4P01	-K	7P02	S	20		@E	10V DC
4P01	-M	7P03	-T	16	2090	@E	28V DC-TCP
4P01	-N	NC					SPARE
4P01	-P	7P02	-T	20		@E	DC RETURN-TCP
4P01	-Q	NC					SPARE
4P01	-R	7P03	-G	16	2090	@E	28V DC RETURN
4P02				CONNECTOR			M83723-14F2461N M83723-15S24F
4P02	A	NC					SPARE
4P02	B	TS D	37C	22			WEAPON SELECT
4P02	C	16P01	V	22			WEAPONS ARMED
4P02	D	NC					SPARE
4P02	E	SHIELDS		22			CHASSIS GROUND
4P02	F	15P01	G	22			M1 SELECT-MSP
4P02	G	15P01	H	22			M2 SELECT-MSP
4P02	H	15P01	J	22			M3 SELECT-MSP
4P02	J	15P01	K	22			M4 SELECT-MSP
4P02	K	15P01	L	22			M5 SELECT-MSP
4P02	L	15P01	M	22			M6 SELECT-MSP
4P02	M	15P01	N	22			M7 SELECT-MSP
4P02	N	15P01	P	22			M8 SELECT-MSP
4P02	P	P8J01	-K	22			M1 SELECT
4P02	R	P8J01	-N	22			M3 SELECT
4P02	S	P8J01	-J	22			M5 SELECT
4P02	T	P8J01	-M	22			M7 SELECT
4P02	U	S8J01	-N	22			M2 SELECT

Table F-3. XM65 Interconnection wire list (Cont)

FROM	TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
4P02 V	S8J01 -K	22			M4 SELECT
4P02 W	S8J01 -M	22			M6 SELECT
4P02 X	S8J01 -J	22			M8 SELECT
4P02 Y	P329 -C	TG271A20			REMOTE ON COMMAND
*4P02 Y	6P01 -B	TG215A22			SIGHT HAND CONTROL
4P02 Z	2P04 -T	22			WEAPON SELECT-SCA
4P02 -A	2P04 -U	22			MSL PRESENT/SELECTED
4P02 -B	2P04 -V	22			INDICATOR TEST
4P02 -C	2P04 -W	22			PORT/STBD SELECT
4P02 -D	5P01 V	22		@E	TOW TRIGGER ARMED
4P02 -E	NC				SPARE
4P02 -F	5P01 T	22			AUTO SELECT INTLK
4P02 -G	5P01 -B	20		@E	ARMED 28V DC
4P02 -H	5P02 L	22			BITE RESET
4P02 -I	TS D 42A	22		@E	MANUAL WIRE CUT-TOP
4P02 -J	1P03 E	22		@E	TSU RETICLE ADJUST
4P02 -K	1P05 P	22			WEAPON SELECT-TSU
4P02 -M	NC				SPARE
4P02 -N	NC				SPARE
4P02 -P	NC				SPARE
4P02 -Q	1P11 C	22		@E	CAMERA START
4P02 -R	1P11 D	22		@E	BRIGHT
4P02 -S	1P11 E	22		@E	HAZY
4P02 -T	1P11 F	22		@E	DULL
4P02 -U	NC				SPARE
4P02 -V	NC				SPARE
4P02 -W	NC				SPARE
4P02 -X	NC				SPARE
4P02 -Y	15P01 R	22			MISSILE 1 PRESENT-MSP
4P02 -Z	15P01 S	22			MISSILE 2 PRESENT-MSP
4P02 AA	15P01 T	22			MISSILE 3 PRESENT-MSP
4P02 BB	15P01 U	22			MISSILE 4 PRESENT-MSP
4P02 CC	15P01 V	22			MISSILE 5 PRESENT-MSP
4P02 DD	15P01 W	22			MISSILE 6 PRESENT-MSP
4P02 EE	15P01 X	22			MISSILE 7 PRESENT-MSP
4P02 FF	15P01 Y	22			MISSILE 8 PRESENT-MSP
4P02 GG	NC				SPARE

*After MWO 55-1500-220-30-2.

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
4P02	HH	NC					SPARE
4P02	JJ	NC					SPARE
4P02	KK	NC					SPARE
4P02	LL	NC					SPARE
4P02	MM	NC					SPARE
4P02	NN	NC					SPARE
4P02	PP	NC					SPARE
5P				3234005-110			AMPLIFIER, ELECTRONIC CONTROL, MISSILE CMD
5P01				CONNECTOR			M83723-13F2241N M83723-15S22F
5P01	A	7P01	P	22	2001	@Y	115V 400 HZ PH C
5P01	B	7P01	R	22	2001	@Y	115V 400 HZ RTN *PH B*
5P01	C	NC					SPARE
5P01	D	NC					SPARE
5P01	E	NC					SPARE
5P01	F	NC					SPARE
5P01	G	NC					SPARE
5P01	H	NC					SPARE
5P01	J	NC					SPARE
5P01	K	7P02	-J	22		@Y	-40V DC
5P01	L	7P02	-D	22		@Y	-20V DC
5P01	M	7P02	-H	22		@Y	20V DC
5P01	N	NC					SPARE
5P01	P	TS D	42B	22		@Y	MANUAL WIRE CUT-TCP
5P01	R	2P04	BB	22			DELTA RHO RESET
5P01	S	NC					SPARE
5P01	T	4P02	-F	22			AUTO SELECT INTLK
5P01	U	TS D	35A	20			SQUIB CONNECT/CAMERA 1
5P01	V	4P02	-D	22		@Y	TOW TRIGGER ARMED
5P01	W	TS B	4B	22			STOW
5P01	X	2P03	Z	22			LAUNCH CONSTRAINTS
5P01	Y	SHIELDS		22			CHASSIS GROUND

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
5P01	Z	NC					SPARE 16
5P01	-A	NC					SPARE 16
5P01	-B	4P02	-G	20		@Y	ARMED 28V DC
5P01	-C	NC					SPARE 16
5P01	-D	6P01	N	22			CONSTRAINTS OVERRIDE
5P01	-E	NC					SPARE 16
5P01	-F	7P02	-B	22		@Y	40V DC
5P01	-G	7P02	Z	16		@Y	DC RETURN-MCA
5P01	-H	NC					SPARE
5P01	-I	7P02	-A	22		@Y	10V DC
5P01	-J	2P03	M	22			AIRSPED OVER 35 KNOTS
5P01	-K	NC					SPARE 16
5P01	-M	NC					SPARE 16
5P01	-N	NC					SPARE 16
5P01	-P	NC					SPARE 16
5P01	-Q	7P03	-A	20	2003	@Y	28V DC RETURN
5P01	-R	7P03	-P	20	2003	@Y	28V DC-MCA
5P01	-S	TB 44-4		TG439A16 WHT	2004	@Y	28V DC SQUIB PWR RET
5P01	-T	TS C	8B	16	2004	@Y	28V DC SQUIB PWR
5P02				CONNECTOR			M83723-14F2241N
							M83723-15S22F
5P02	A	TS C	1B	22			BIT 1
5P02	B	TS C	2B	22			BIT 2
5P02	C	2P04	HH	22			BIT 3
5P02	D	2P04	JJ	22			BIT 5
5P02	E	2P04	KK	22			BIT 6
5P02	F	TS C	4B	22			BIT 7
5P02	G	TS C	5B	22			BIT 8
5P02	H	TS C	6B	22			BIT 9
5P02	J	TS C	7B	22			BIT 10
5P02	K	1P01	-C	22			BIT 4
5P02	L	4P02	-H	22			BITE RESET
5P02	M	2P04	DD	22			SCA BITE RESET

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
5P02	N	NC				SPARE
5P02	P	7P01 T	22			EPS BITE RESET
5P02	R	TS C 17A	22			BIT 4
5P02	S	2P04 CC	22			SCA BITE LATCH
5P02	T	NC				SPARE
5P02	U	2P04 EE	22			IN TEST-SCA
5P02	V	4P01 -E	22			IN TEST-TCP
5P02	W	TS D 34C	22			K1 *T* BIT PASS
5P02	X	2P03 L	22			SCA BIT PASS
5P02	Y	SHIELDS	22			CHASSIS GROUND
5P02	Z	TS A 1A	16	2005	@Y	PORT PREFIRE
5P02	-A	TS B 1A	16	2006	@Y	STBD PREFIRE
5P02	-B	TS D 11C	22			BIT 3
5P02	-C	1P03 G	22		@Y	MANGIN MIRROR DRIVE
5P02	-D	TS D 12C	22			BIT 5
5P02	-E	4P01 -G	22			MCA BIT FAIL
5P02	-F	TS D 13C	22			BIT 6
5P02	-G	S8J01 Z	16	2010	@Y	STBD WIRE CUT RETURN
5P02	-H	4P01 -H	22			SCA BIT FAIL
5P02	-I	P8J01 -B	16	2009	@Y	PORT FIRE RETURN
5P02	-J	4P01 -J	22			TSU BIT FAIL
5P02	-K	TS A 2A	16	2005	@Y	PORT PREFIRE RETURN
5P02	-M	TS B 2A	16	2006	@Y	STBD PREFIRE RETURN
5P02	-N	P8J01 Y	16	2007	@Y	PORT WIRE CUT
5P02	-P	P8J01 Z	16	2007	@Y	PORT WIRE CUT RETURN
5P02	-Q	S8J01 Y	16	2010	@Y	STBD WIRE CUT
5P02	-R	S8J01 -B	16	2008	@Y	STBD FIRE RETURN
5P02	-S	P8J01 -A	16	2009	@Y	PORT FIRE
5P02	-T	S8J01 -A	16	2008	@Y	STBD FIRE
5P03			CONNECTOR			M83723-13F2461N M83723-15S24F
5P03	A	NC				SPARE
5P03	B	NC				SPARE
5P03	C	NC				SPARE

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
5P03	D	NC				SPARE
5P03	E	NC				SPARE
5P03	F	NC				SPARE
5P03	G	NC				SPARE
5P03	H	NC				SPARE
5P03	J	NC				SPARE
5P03	K	NC				SPARE
5P03	L	NC				SPARE
5P03	M	NC				SPARE
5P03	N	NC				SPARE
5P03	P	NC				SPARE
5P03	R	NC				SPARE
5P03	S	NC				SPARE
5P03	T	NC				SPARE
5P03	U	NC				SPARE
5P03	V	NC				SPARE
5P03	W	NC				SPARE
5P03	X	NC				SPARE
5P03	Y	NC				SPARE
5P03	Z	SHIELDS	22			CHASSIS GROUND
5P03	-A	P8J01 W	22	2011	@Z	PORT WIRE COMMAND A
5P03	-B	P8J01 X	22	2011	@Z	PORT WIRE COMMAND B
5P03	-C	S8J01 W	22	2012	@Z	STBD WIRE COMMAND A
5P03	-D	S8J01 X	22	2012	@Z	STBD WIRE COMMAND B
5P03	-E	P8J01 S	22	2013	@Z	PORT PITCH SELF-BAL A
5P03	-F	P8J01 T	22	2013	@Z	PORT PITCH SELF-BAL B
5P03	-G	P8J01 U	22	2014	@Z	PORT YAW SELF-BAL A
5P03	-H	P8J01 V	22	2014	@Z	PORT YAW SELF-BAL B
5P03	-I	S8J01 S	22	2015	@Z	STBD PITCH SELF-BAL A
5P03	-J	S8J01 T	22	2015	@Z	STBD PITCH SELF-BAL B
5P03	-K	S8J01 U	22	2016	@Z	STBD YAW SELF-BAL A
5P03	-M	S8J01 V	22	2016	@Z	STBD YAW SELF-BAL B
5P03	-N	2P03 V	22		@Z	PITCH ERROR
5P03	-P	NC				SPARE
5P03	-Q	2P03 X	22		@Z	YAW ERROR
5P03	-R	2P03 Y	22		@Z	ANALOG SIGNAL RETURN

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
5P03	-S	2P03	R	22		@Z	PITCH LOS RATE
5P03	-T	NC					SPARE
5P03	-U	2P03	T	22		@Z	YAW LOS RATE
5P03	-V	NC					SPARE
5P03	-W	NC					SPARE
5P03	-X	NC					SPARE
5P03	-Y	2P03	N	22		@Z	YAW OPEN LOOP
5P03	-Z	NC					SPARE
5P03	AA	1P01	A	22		@Z	AZ SAMPLE PULSE
5P03	BB	1P01	W	22		@Z	EL SAMPLE PULSE
5P03	CC	2P04	AA	22			D RHO CLUTCH ENGAGE
5P03	DD	TS C	18B	22			SYNTHETIC FIRST MOTION
5P03	EE	1P01	DD	22			AGC CLAMP RELEASE
5P03	FF	NC					SPARE
5P03	GG	1P01	V	22			K1 *T* INITIATE
5P03	HH	2P03	W	22		@Z	10 SIN SIGMA Z
5P03	JJ	1P01	HH	22		@Z	MEDIUM-NARROW SWITCH
5P03	KK	1P01	EE	22		@Z	CARRIER FREQ CHANGE
5P03	LL	1P01	-V	22		@Z	K1 *T* CHANGE
5P03	MM	NC					WIDE-MEDIUM SWITCH
5P03	NN	1P01	BB	22		@Z	WIDE-MEDIUM SWITCH
5P03	PP	2P03	U	22		@Z	SIGMA Z GRTR THAN -3D
5P04				CONNECTOR			M83723-14F2461X M83723-15S24F
5P04	A	NC					SPARE
5P04	B	NC					PITCH ERROR OUTPUT SW
5P04	C	NC					YAW ERROR OUTPUT SW
5P04	D	NC					CVAC SWITCH DRIVE
5P04	E	SHIELDS		22			CHASSIS GROUND
5P04	F	NC					TIME -0.04
5P04	G	NC					TIME 0.43
5P04	H	NC					TIME 1.05

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
5P04	J	NC					TIME 17.92
5P04	K	TEST 1	S	22		@E	PITCH VCO DISABLE
5P04	L	TEST 1	T	22		@E	YAW VCO DISABLE
5P04	M	TS C	13A	22		@E	PITCH OUTPUT
5P04	N	TS C	14A	22		@E	YAW OUTPUT
5P04	P	TS C	15A	22		@E	PITCH LIM & SUM
5P04	R	TS C	16A	22		@E	YAW LIM & SUM
5P04	S	TEST 1	U	22			PITCH SELF BAL INTEG
5P04	T	TEST 1	V	22			YAW SELF BAL INTEG
5P04	U	TEST 1	-M	22			G-BIAS SUM AMP
5P04	V	TEST 1	-K	22			CVAC
5P04	W	TS C	19A	22			PROGRAMMER INTERRUPT
5P04	X	TEST 1	C	22			TIMER START
5P04	Y	TEST 1	D	22			TIME 00.00
5P04	Z	TEST 1	F	22			TIME 00.17
5P04	-A	NC					TIME 00.47
5P04	-B	TEST 1	H	22			TIME 00.79
5P04	-C	TEST 1	J	22			TIME 01.35
5P04	-D	TEST 1	K	22			TIME 02.34
5P04	-E	TEST 1	L	22			TIME 04.325
5P04	-F	NC					TIME 08.89
5P04	-G	TEST 1	X	22			TIME 13.48
5P04	-H	TEST 1	P	22			IN TEST
5P04	-I	NC					TEST 1 PASS
5P04	-J	NC					TEST 2 PASS
5P04	-K	NC					TEST 3 PASS
5P04	-M	NC					TEST 4 PASS
5P04	-N	NC					TEST 5 PASS
5P04	-P	NC					TEST 6 PASS
5P04	-Q	NC					TEST 7 PASS
5P04	-R	NC					TEST 8 PASS
5P04	-S	NC					TEST 9 PASS
5P04	-T	NC					TEST 10 PASS
5P04	-U	NC					PITCH BIT PASS
5P04	-V	NC					YAW BIT PASS
5P04	-W	NC					OUTPUT BIT PASS

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
5P04	-X	NC				G & C BIT PASS
5P04	-Y	NC				PROGRAMMER BIT PASS
5P04	-Z	TEST 1	-F 22			MCA BIT PASS
5P04	AA	TEST 1	-B 22			PREFIRE/FIRE/WIRE CUT
5P04	BB	NC				28V DC RETURN
5P04	CC	TS C	11A 22		@E	PROGRAMMER SEQUENCE
5P04	DD	TS C	12A 22		@E	DC RETURN-MCA
5P04	EE	INST	12 22	2098	@E	WIRE COMMAND A
5P04	FF	INST	13 22	2098	@E	WIRE COMMAND B
5P04	GG	NC				PITCH OUTPUT
5P04	HH	NC				YAW OUTPUT
5P04	JJ	NC				PITCH LIM & SUM
5P04	KK	NC				YAW LIM & SUM
5P04	LL	NC				PITCH SELF-BAL A
5P04	MM	NC				PITCH SELF-BAL B
5P04	NN	NC				YAW SELF-BAL A
5P04	PP	NC				YAW SELF-BAL B
6P			3234006-110			CONTROL, SIGHT UNIT, HAND
6P01			CONNECTOR			M83723-13F1832N M83723-15S18F
6P01	A	NC				SPARE
6P01	B	NC				SPARE
6P01	C	NC				SPARE
6P01	D	NC				SPARE
6P01	E	SHIELDS	22			CHASSIS GROUND
6P01	F	NC				SPARE
6P01	G	NC				SPARE
6P01	H	NC				SPARE
6P01	J	NC				SPARE
6P01	K	TS D	36A 22			TRACK MODE
6P01	L	TS D	38A 22			PILOT ACQUISITION
6P01	M	TB 51-G5	TG202B22			GUNNER ACQUISITION

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO	SHIELD	NOMENCLATURE
6P01	N	5P01	-D	22			CONSTRAINTS OVERRIDE
6P01	P	TS B	4C	22			STOW
6P01	R	2P04	-I	22	2078	@E	AZ RATE BIAS
6P01	S	2P04	-J	22	2078	@E	AZ RATE BIAS RETURN
6P01	T	2P04	-K	22	2079	@E	EL RATE BIAS
6P01	U	2P04	-M	22	2079	@E	EL RATE BIAS RETURN
6P01	V	2P04	-N	22	2071	@E	AZ TRACK STICK CMD
6P01	W	2P04	-P	22	2071	@E	AZ TRACK STICK CMD RTN
6P01	X	2P04	-Q	22	2072	@E	EL TRACK STICK CMD
6P01	Y	2P04	-R	22	2072	@E	EL TRACK STICK CMD RTN
6P01	Z	2P01	-F	22			ACQUISITION
6P01	-A	NC					SPARE
6P01	-B	7P03	R	CAPPED		@E	28V DC-SHC
*6P01	-B	4P02	Y	TG215A22			TCP
6P01	-C	NC					SPARE
6P01	-D	P122	C	TG593E22	BLU 2070	@E	26V 400 HZ PH A
6P01	-E	P122	R	TG592E22	WHT 2070	@E	26V 400 HZ RETURN
6P01	-F	TB 51-D6		TG199A22			STOW-BHC
6P01	-G	7P02	Y	22		@E	40V DC
6P01	-H	7P02	V	22		@E	DC RETURN-SHC
6P01	-J	7P02	M	22		@E	-40V DC
7P				3234007-110			POWER SUPPLY
7P01				CONNECTOR			ELECTRONIC
7P01	A	NC					M83723-13F2241X
7P01	B	1P03	B	20	3004	@-D	M83723-15S22
7P01	C	1P03	Z	20	3004	@-D	SPARE
7P01	D	1P03	C	20	3004	@-D	115V 400 HZ PH A
7P01	E	NC					115V 400 HZ PH C
7P01	F	4P01	I	22			115V 400 HZ PTN PH B
7P01	G	NC					SPARE
7P01	H	2P01	L	22	3022	@-D	EPS BH FAL
7P01	J	2P01	M	22	3022	@-D	SPARE
							115V 400 HZ PH A
							115V 400 HZ PH C

*After MWO 55-1500-220-30-2

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
7P01	K	2P01	N	22	3022	@-D	115V 400 HZ RTN *PH B*
7P01	L	NC					SPARE
7P01	M	2P04	D	22			REMOTE ON CMD INTLKD
7P01	N	NC					SPARE
7P01	P	5P01	A	22	2001	@-D	115V 400 HZ PH C
7P01	R	5P01	B	22	2001	@-D	115V 400 HZ RTN *PH B*
7P01	S	1P04	R	20	3054	@-D	115V 400 HZ PH C
7P01	T	5P02	P	22			EPS BITE RESET
7P01	U	NC					SPARE
7P01	V	NC					115V 400 HZ PH A
7P01	W	NC					115V 400 HZ PH B
7P01	X	1P04	V	20	3054	@-D	115V 400 HZ PH A
7P01	Y	1P04	-P	20	3054	@-D	115V 400 HZ RTN *PH B*
7P01	Z	TS C	3B	20	3026	@-D	115V 400 HZ PH A
7P01	-A	TS C	10B	20	3026	@-D	115V 400 HZ RTN *PH B*
7P01	-B	NC					SPARE
7P01	-C	NC					SPARE
7P01	-D	SHIELDS		22			CHASSIS GROUND
7P01	-E	TB 44-2		TG545A16 BLU	2106	@-D	28V DC
7P01	-F	NC					SPARE
7P01	-G	TB 44-4		TG546A16 WHT	2106	@-D	28V DC RETURN
7P01	-H	NC					MEDIUM-NARROW SWITCH
7P01	-I	TB 44-4		TG547A16 WHT	2107	@-D	28V DC RETURN
7P01	-J	2P03	-J	22			IRT POWER ON-EPS
7P01	-K	TS C	9B	20	3026	@-D	115V 400 HZ PH C
7P01	-M	P323	U	TG412H16N			CHASSIS GROUND
7P01	-N	P323	T	TG462H16N			CHASSIS GROUND
7P01	-P	TB 44-2		TG548A16 BLU	2107	@-D	28V DC
7P01	-Q	TB 44-2		TG549A16 BLU	2017	@-D	28V DC
7P01	-R	TB 44-5		TG550A16 WHT	2017	@-D	28V DC RETURN
7P01	-S	TB 44-5		TG551A16 WHT	2018	@-D	28V DC RETURN
7P01	-T	TB 44-3		TG552A16 BLU	2018	@-D	28V DC

Table F-3. XM65 Interconnection wire list (Cont)

FROM	TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
7P02		CONNECTOR			M83723-14F2241W M83723-15S22F
7P02	A	1P06 Y 22		@E	-40V DC
7P02	B	1P06 C 22		@E	40V DC
7P02	C	1P05 V 22		@E	20V DC
7P02	D	1P05 -J 22		@E	-20V DC
7P02	E	SHIELDS 22			CHASSIS GROUND
7P02	F	1P05 U 20		@E	DC RETURN-TSU
7P02	G	P8J01 -T 20		@E	AIRFRAME GROUND
7P02	H	NC			SPARE
7P02	J	15P01 -J 22		@E	10V DC
7P02	K	NC			DC RETURN
7P02	L	16P01 Z 22		@E	-20V DC
7P02	M	6P01 -J 22		@E	-40V DC
7P02	N	NC			-20V DC
7P02	P	NC			SPARE
7P02	R	S8J01 -T 20		@E	AIRFRAME GROUND
7P02	S	4P01 -K 20		@E	10V DC
7P02	T	NC			10V DC
7P02	U	16P01 -C 22		@E	DC RETURN-GACP
7P02	V	6P01 -H 22		@E	DC RETURN-SHC
7P02	W	1P01 -J 20		@E	DC RETURN-TSU
7P02	X	16P01 -B 22		@E	20V DC
7P02	Y	6P01 -G 22		@E	40V DC
7P02	Z	5P01 -G 16		@E	DC RETURN-MCA
7P02	-A	5P01 -I 22		@E	10V DC
7P02	-B	5P01 -F 22		@E	40V DC
7P02	-C	2P01 -N 20		@E	10V DC
7P02	-D	5P01 L 22		@E	-20V DC
7P02	-E	2P01 -M 20		@E	20V DC
7P02	-F	NC			20V DC
7P02	-G	2P01 -K 22		@E	40V DC
7P02	-H	5P01 M 22		@E	20V DC
7P02	-I	2P01 -P 16		@E	DC RETURN-SCA
7P02	-J	5P01 K 22		@E	-40V DC

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
7P02	-K	2P01	-Q	20		@E	-20V DC
7P02	-M	2P01	-R	22		@E	40V DC
7P02	-N	1P04	-J	22		@E	-40V DC
7P02	-P	1P01	-I	22		@E	-20V DC
7P02	-Q	1P01	-K	22		@E	20V DC
7P02	-R	1P04	-Z	22		@E	40V DC
7P02	-S	1P01	S	22		@E	10V DC
7P02	-T	4P01	-P	20		@E	DC RETURN-TCP
7P03				CONNECTOR			M83723-14F2241X M83723-15S22F
7P03	A	1P03	F	20		@D	28V DC RTN-TSU
7P03	B	NC					SPARE
7P03	C	2P01	F	22	2060	@D	20V RMS 4 KHZ
7P03	D	2P01	G	22	2060	@D	20V RMS 4 KHZ RETURN
7P03	E	1P06	B	22	2024	@D	20V RMS 4 KHZ
7P03	F	NC					SPARE
7P03	G	NC					40V 400 HZ
7P03	H	NC					40V 400 HZ RETURN
7P03	J	NC					SPARE
7P03	K	2P01	X	22	2061	@D	7V 900 HZ PH A
7P03	L	2P01	Y	22	2061	@D	7V 900 HZ RETURN
7P03	M	1P06	-S	16	3001	@D	7V 900 HZ PH B
7P03	N	1P06	-T	16	3001	@D	7V 900 HZ RETURN
7P03	P	NC					SPARE
7P03	R	6P01	-B	22		@D	28V DC-SHC
*7P03	R	P324	A	22			CAPPED SPARE
7P03	S	NC					28V DC
7P03	T	NC					SPARE
7P03	U	NC					SPARE
7P03	V	16P01	X	22	2081	@D	28V DC-GACP
7P03	W	1P05	K	20	2038	@D	28V DC-TSU
7P03	X	1P05	M	20	2038	@D	28V DC RETURN
7P03	Y	10P01	T	22			28V DC RETURN
7P03	Z	NC					28V DC RETURN
7P03	-A	5P01	-Q	20	2003	@D	28V DC RETURN

*After MV 5-1500-220-30-2

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
7P03	-B	1P06	X	22	2024	@D	20V RMS 4 KHZ RETURN
7P03	-C	2P01	-T	16	2056	@D	28V DC RETURN
7P03	-D	SHIELDS		22			CHASSIS GROUND
7P03	-E	1J09	-J	22	2076	@D	28V DC RETURN
7P03	-F	1P06	-R	16	3001	@D	7V 900 HZ PH A
7P03	-G	4P01	-R	16	2090	@D	28V DC RETURN
7P03	-H	NC					28V DC RETURN
7P03	-I	2P01	-I	16	2026	@D	28V DC RETURN
7P03	-J	16P01	Y	22	2081	@D	28V DC RETURN
7P03	-K	1P11	A	20	2083	@D	28V DC RETURN
7P03	-M	1P11	B	20	2083	@D	28V DC-CAMERA
7P03	-N	NC					28V DC
7P03	-P	5P01	-R	20	2003	@D	28V DC-MCA
7P03	-Q	2P01	-S	16	2056	@D	28V DC-SCA
7P03	-R	1J09	-H	22	2076	@D	28V DC-TSU
7P03	-S	2P01	-G	16	2026	@D	28V DC-SCA
7P03	-T	4P01	-M	16	2090	@D	28V DC-TCP
7P04				CONNECTOR			M83723-14F1626W M83723-15S16F
7P04	A	NC					SPARE
7P04	B	NC					SPARE
7P04	C	NC					SPARE
7P04	D	NC					SPARE
7P04	E	NC					CHASSIS GROUND
7P04	F	NC					20V RMS 4 KHZ
7P04	G	NC					SPARE
7P04	H	NC					7V 900 HZ PH A
7P04	J	NC					7V 900 HZ PH B
7P04	K	NC					40V 400 HZ/500 HZ
7P04	L	NC					-40V DC
7P04	M	NC					-20V DC
7P04	N	NC					DC RETURN
7P04	P	NC					10V DC

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO	WIRE IDENTIFICATION		CABLE NO.	SHIELD	NOMENCLATURE
7P04	R	NC					20V DC
7P04	S	NC					40V DC
7P04	T	NC					28V DC POWER ON
7P04	U	NC					28V DC
7P04	V	NC					28V DC RETURN
7P04	W	NC					SPARE
7P04	X	NC					SPARE
7P04	Y	NC					SPARE
7P04	Z	NC					SPARE
7P04	-A	NC					12V BIAS
7P04	-B	NC					- 12V BIAS
7P04	-C	NC					SPARE
P8J				3234008-110			LAUNCHER, GUIDED MISSILE
P8J01				CONNECTOR			JTPOORE-20-41S-SR
P8J01	A	P322	A	TG441B22			PORT LAUNCHER IDENT
P8J01	B	NC					UPPER LAUNCHER PRESENT
P8J01	C	P322	C	TG443F22			LOWER LAUNCHER PRESENT
P8J01	D	NC					SPARE
P8J01	E	NC					SPARE
P8J01	F	NC					SPARE
P8J01	G	NC					SPARE
P8J01	H	NC					SPARE
P8J01	J	SHIELDS		22			SHIELD GROUND
P8J01	K	TS A	1B	20	2092	@J	PORT PREFIRE
P8J01	L	TS A	2B	20	2092	@J	PORT PREFIRE RETURN
P8J01	M	TS A	1C	20	2093	@J	PORT PREFIRE
P8J01	N	TS A	2C	20	2093	@J	PORT PREFIRE RETURN
P8J01	P	TS A	1D	20	2094	@J	PORT PREFIRE
P8J01	R	TS A	2D	20	2094	@J	PORT PREFIRE RETURN
P8J01	S	5P03	-E	22	2013	@J	PORT PITCH SELF-BAL A
P8J01	T	5P03	-F	22	2013	@J	PORT PITCH SELF-BAL B
P8J01	U	5P03	-G	22	2014	@J	PORT YAW SELF-BAL A

Table F-3. XM85 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
P8J01	V	5P03	-H	22	2014	@J	PORT YAW SELF-BAL B
P8J01	W	5P03	-A	22	2011	@J	PORT WIRE COMMAND A
P8J01	X	5P03	-B	22	2011	@J	PORT WIRE COMMAND B
P8J01	Y	5P02	-N	16	2007	@J	PORT WIRE CUT
P8J01	Z	5P02	-P	16	2007	@J	PORT WIRE CUT RETURN
P8J01	-A	5P02	-S	16	2009	@J	PORT FIRE
P8J01	-B	5P02	-I	16	2009	@J	PORT FIRE RETURN
P8J01	-C	TS A	4C	20			MANUAL WIRE CUT
P8J01	-D	NC					SPARE
P8J01	-E	P321	B	TG583A20N		@J	28V DC RETURN
P8J01	-F	TS D	41B	22			MISSILE 5 PRESENT-TCP
P8J01	-G	4P01	M	22			MISSILE 1 PRESENT-TCP
P8J01	-H	4P01	R	22			MISSILE 7 PRESENT-TCP
P8J01	-I	4P01	N	22			MISSILE 3 PRESENT-TCP
P8J01	-J	4P02	S	22			M5 SELECT
P8J01	-K	4P02	P	22			M1 SELECT
P8J01	-M	4P02	T	22			M7 SELECT
P8J01	-N	4P02	R	22			M3 SELECT
P8J01	-P	TS D	14A	TG412C20N			M5 LNCHR CHASSIS GND
P8J01	-Q	TS D	14B	TG412D20N			M1 LNCHR CHASSIS GND
P8J01	-R	TS D	14C	TG412E20N			M7 LNCHR CHASSIS GND
P8J01	-S	TS D	14D	TG412F20N			M3 LNCHR CHASSIS GND
P8J01	-T	7P02	G	20		@J	AIRFRAME GROUND
S8J				3234008-110			LAUNCHER, GUIDED MISSILE
S8J01				CONNECTOR			JTP00RE-20-41S-SR
S8J01	A	P321	A	TG391B22			STBD LAUNCHER IDENT
S8J01	B	NC					UPPER LAUNCHER PRESENT
S8J01	C	P321	C	TG393F22			LOWER LAUNCHER PRESENT
S8J01	D	NC					SPARE
S8J01	E	NC					SPARE
S8J01	F	NC					SPARE
S8J01	G	NC					SPARE

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
S8J01	H	NC				SPARE
S8J01	J	SHIELDS	22			SHIELD GROUND
S8J01	K	TS B 1B	20	2095	@J	STBD PREFIRE
S8J01	L	TS B 2B	20	2095	@J	STBD PREFIRE RETURN
S8J01	M	TS B 1C	20	2096	@J	STBD PREFIRE
S8J01	N	TS B 2C	20	2096	@J	STBD PREFIRE RETURN
S8J01	P	TS B 1D	20	2097	@J	STBD PREFIRE
S8J01	R	TS B 2D	20	2097	@J	STBD PREFIRE RETURN
S8J01	S	5P03 -I	22	2015	@J	STBD PITCH SELF-BAL A
S8J01	T	5P03 -J	22	2015	@J	STBD PITCH SELF-BAL B
S8J01	U	5P03 -K	22	2016	@J	STBD YAW SELF-BAL A
S8J01	V	5P03 -M	22	2016	@J	STBD YAW SELF-BAL B
S8J01	W	5P03 -C	22	2012	@J	STBD WIRE COMMAND A
S8J01	X	5P03 -D	22	2012	@J	STBD WIRE COMMAND B
S8J01	Y	5P02 -Q	16	2010	@J	STBD WIRE CUT
S8J01	Z	5P02 -G	16	2010	@J	STBD WIRE CUT RETURN
S8J01	-A	5P02 -T	16	2008	@J	STBD FIRE
S8J01	-B	5P02 -R	16	2008	@J	STBD FIRE RETURN
S8J01	-C	TS A 4B	20			MANUAL WIRE CUT
S8J01	-D	NC				SPARE
S8J01	-E	P322 -F	TG231B22		@J	28V DC RETURN
S8J01	-F	4P01 V	22			MISSILE 8 PRESENT-TCP
S8J01	-G	4P01 T	22			MISSILE 4 PRESENT-TCP
S8J01	-H	4P01 U	22			MISSILE 6 PRESENT-TCP
S8J01	-I	4P01 S	22			MISSILE 2 PRESENT-TCP
S8J01	-J	4P02 X	22			M8 SELECT
S8J01	-K	4P02 V	22			M4 SELECT
S8J01	-M	4P02 W	22			M6 SELECT
S8J01	-N	4P02 U	22			M2 SELECT
S8J01	-P	TS D 44A	TG462C20N			M8 LNCHR CHASSIS GND
S8J01	-Q	TS D 44B	TG462D20N			M4 LNCHR CHASSIS GND

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
S8J01	-R	TS D	44C	TG462E20N			M6 LNCHR CHASSIS GND
S8J01	-S	TS D	44D	TG462F20N			M2 LNCHR CHASSIS GND
S8J01	-T	7P02	R	20		@J	AIRFRAME GROUND
10P				3234010-110			INDICATOR, PILOT STEERING
10P01				CONNECTOR			M83723-13F1419N M83723-15A14F
10P01	A	2P04	Y	22	2080	@V	AZ BAR DRIVE RETURN
10P01	B	2P04	X	22	2080	@V	AZ BAR DRIVE
10P01	C	2P04	-A	22	2046	@V	EL BAR DRIVE RETURN
10P01	D	2P04	Z	22	2046	@V	EL BAR DRIVE
10P01	E	NC					SPARE
10P01	F	2P04	-B	22			ATTACK PSI
10P01	G	NC					SPARE
10P01	H	2P04	-C	22			READY PSI
10P01	J	NC					SPARE
10P01	K	2P04	-D	22			FIRE PSI
10P01	L	TB 6	-1	TG312A22 BLU	2069	@V	DIMMABLE PWR
10P01	M	GND		TG313A22 WHT	2069	@V	DIMMABLE PWR RETURN
10P01	N	2P04	-E		3025	@V	ASCEND
10P01	P	2P04	-F	22	3025	@V	DESCEND
10P01	R	2P04	-H	22	2082	@V	AZ POINTER DR RETURN
10P01	S	2P04	-G	22	2082	@V	AZ POINTER DR
10P01	T	7P03	Y	22		@V	28V DC RETURN
10P01	U	2P04	F	22	3025	@V	ASCEND/DESCEND RETURN
10P01	V	SHIELDS		22			CHASSIS GROUND
15P				3234015-110			PANEL, MISSILE STATUS
15P01				CONNECTOR			M83723-13F2041X M83723-15S20F
15P01	A	TB 51	D4	A528R20			28V DC SQUIB
15P01	B	TS A	4A	20			MANUAL WIRE CUT

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
15P01	C	TS D	43A	20		SQUIB CONNECT/CAMERA 1
15P01	D	4P01	-D	20		SQUIB CONNECT/CAMERA 2
15P01	E	SHIELDS		22		CHASSIS GROUND
15P01	F	NC				SPARE
15P01	G	4P02	F	22		M1 SELECT-MSP
15P01	H	4P02	G	22		M2 SELECT-MSP
15P01	J	4P02	H	22		M3 SELECT-MSP
15P01	K	4P02	J	22		M4 SELECT-MSP
15P01	L	4P02	K	22		M5 SELECT-MSP
15P01	M	4P02	L	22		M6 SELECT-MSP
15P01	N	4P02	M	22		M7 SELECT-MSP
15P01	P	4P02	N	22		M8 SELECT-MSP
15P01	R	4P02	-Y	22		MISSILE 1 PRESENT-MSP
15P01	S	4P02	-Z	22		MISSILE 2 PRESENT-MSP
15P01	T	4P02	AA	22		MISSILE 3 PRESENT-MSP
15P01	U	4P02	BB	22		MISSILE 4 PRESENT-MSP
15P01	V	4P02	CC	22		MISSILE 5 PRESENT-MSP
15P01	W	4P02	DD	22		MISSILE 6 PRESENT-MSP
15P01	X	4P02	EE	22		MISSILE 7 PRESENT-MSP
15P01	Y	4P02	FF	22		MISSILE 8 PRESENT-MSP
15P01	Z	TB 6	3	TG327A22 BLU	2102 @E	DIMMABLE POWER
15P01	-A	GND		TG328A22 WHT	2102 @E	DIMMABLE POWER RETURN
15P01	-B	NC				SPARE
15P01	-C	NC				SPARE
15P01	-D	NC				SPARE
15P01	-E	NC				SPARE
15P01	-F	NC				SPARE
15P01	-G	NC				SPARE
15P01	-H	NC				SPARE
15P01	-I	NC				SPARE
15P01	-J	7P02	J	22	@E	10V DC
15P01	-K	NC				SPARE
15P01	-M	NC				SPARE
15P01	-N	NC				SPARE
15P01	-P	NC				SPARE
15P01	-Q	NC				SPARE

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
15P01	-R	NC				SPARE
15P01	-S	NC				SPARE
15P01	-T	NC				SPARE
16P			3234016-110			PANEL, GUNNER ACCY, CONT
16P01			CONNECTOR			M83723-13F1626N M83723-15S16F
16P01	A	NC				SPARE
16P01	B	TS C	19B 22			PROGRAMMER INTERRUPT
16P01	C	TS C	18C 22			SYNTHETIC FIRST MOTION
16P01	D	TS D	41C 22			MISSILE 5 PRESENT-TCP
16P01	E	SHIELDS	22			CHASSIS GROUND
16P01	F	TS D	43B 20			SQUIB CONNECT/CAMERA 1
16P01	G	TS D	42C 22		CE	MANUAL WIRE CUT-TCP
16P01	H	TB 6	2	TG316A22 BLU 2023	@E	DIMMABLE POWER
16P01	J	GND	T6317A22 WHT 2023		@E	DIMMABLE POWER RETURN
16P01	K	NC				SPARE
16P01	L	NC				SPARE
16P01	M	NC				SPARE
16P01	N	2P04	-X 22		@E	MOTION COMP ENABLE
16P01	P	NC				SPARE
16P01	R	1P01	CC 22		@E	N FOV MAX GAIN
16P01	S	1P01	-Y 22	3024	@E	AZ VS 1
16P01	T	1P01	-X 22	3024	@E	EL VS 1
16P01	U	1P01	-F 22	3024	@E	VS 1 RETURN
16P01	V	4P02	C 22			WEAPONS ARMED
16P01	W	4P01	W 22			CAMERA
16P01	X	7P03	V 22	2081	@E	28V DC-GACP
16P01	Y	7P03	J 22	2081	@E	28V DC RETURN
16P01	Z	7P02	L 22		@E	-20V DC

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
16P01	-A	NC					SPARE
16P01	-B	7P02	X	22		@E	20V DC
16P01	-C	7P02	U	22		@E	DC RETURN-GACP
INST							INSTRUMENTATION
INST	1	TS C	11C	22		@17	PROGRAMMER SEQUENCE
INST	2	TS C	12C	22		@17	DC RETURN-MCA
INST	3	TS C	13C	22		@17	PITCH OUTPUT
INST	4	TS C	14C	22		@17	YAW OUTPUT
INST	5	TS C	15C	22		@17	PITCH LIM & SUM
INST	6	TS C	16C	22		@17	YAW LIM & SUM
INST	7	TS D	1C	22		@17	AZ BANDPASS
INST	8	TS D	2C	22		@17	EL BANDPASS
INST	9	TS D	3C	22		@17	EL VS 1
INST	10	TS D	4C	22		@17	DC RETURN-TSU
INST	11	TS D	5C	22		@17	AZ VS 1
INST	12	5P04	EE	22	2098	F	WIRE COMMAND A
INST	13	5P04	FF	22	2098	F	WIRE COMMAND B
INST	14	NC				@17	28V DC
INST	15	NC				@17	AIRCRAFT GROUND
INST	16	NC				@17	115V 400 HZ PH C
INST	17	SHIELDS					CHASSIS GROUND
TEST 1							AFT TEST RECEPTACLE
TEST 1				CONNECTOR			MS3120E-20-39S
TEST 1	A	NC					SPARE
TEST 1	B	TS C	19C	22			PROGRAMMER INTERRUPT
TEST 1	C	5P04	X	22			TIMER START
TEST 1	D	5P04	Y	22			TIME 00.00
TEST 1	E	SHIELDS		22			CHASSIS GROUND
TEST 1	F	5P04	Z	22			TIME 00.17

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
TEST 1	G	NC				SPARE
TEST 1	H	5P04	-B	22		TIME 00.79
TEST 1	J	5P04	-C	22		TIME 01.35
TEST 1	K	5P04	-D	22		TIME 02.34
TEST 1	L	5P04	-F	22		TIME 04.325
TEST 1	M	NC				SPARE
TEST 1	N	TS C	1C	22		BIT 1
TEST 1	P	5P04	-H	22		IN TEST
TEST 1	R	TS C	2C	22		BIT 2
TEST 1	S	5P04	K	22	@E	PITCH VCO DISABLE
TEST 1	T	5P04	L	22	@E	YAW VCO DISABLE
TEST 1	U	5P04	S	22		PITCH SELF BAL INTEG
TEST 1	V	5P04	T	22		YAW SELF BAL INTEG
TEST 1	W	TS C	8C	22	@E	28V DC SQUIB PWR
TEST 1	X	5P04	-G	22		TIME 13.48
TEST 1	Y	TS C	3C	22	@E	115V 400 HZ PH A
TEST 1	Z	TS C	10C	22	@E	115V 400 HZ RTN *PH B*
TEST 1	-A	TS C	9C	22	@E	115V 400 HZ PH C
TEST 1	-B	5P04	AA	22		PREFIRE/FIRE/WIRE CUT
TEST 1	-C	TS C	11B	22	@E	PROGRAMMER SEQUENCE
TEST 1	-D	TS C	17C	22		BIT 4
TEST 1	-E	TS C	12B	22	@E	DC RETURN-MCA
TEST 1	-F	5P04	-Z	22		MCA BIT PASS
TEST 1	-G	TS C	13B	22	@E	PITCH OUTPUT
TEST 1	-H	TS C	14B	22	@E	YAW OUTPUT
TEST 1	-I	TS C	15B	22	@E	PITCH LIM & SUM
TEST 1	-J	TS C	16B	22	@E	YAW LIM & SUM
TEST 1	-K	5P04	V	22		CVAC
TEST 1	-M	5P04	U	22		G-BIAS SUM AMP
TEST 1	-N	TS C	4C	22		BIT 7
TEST 1	-P	TS C	5C	22		BIT 8
TEST 1	-Q	TS C	6C	22		BIT 9
TEST 1	-R	TS C	7C	22		BIT 10

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO	WIRE IDENTIFICATION		CABLE NO.	SHIELD	NOMENCLATURE
TEST 2							FWD TEST RECEPTACLE
TEST 2				CONNECTOR			MS3120E-24-61S
TEST 2	A	NC					SPARE
TEST 2	B	NC					SPARE
TEST 2	C	NC					SPARE
TEST 2	D	1P05	A	22	3008	@E	10 COS ETA SUB -G
TEST 2	E	SHIELD		22			CHASSIS GROUND
TEST 2	F	1P02	D	22		@E	AZ REF SINE WAVE
TEST 2	G	1P02	G	22			EL SAMPLE PULSE
TEST 2	H	1P02	H	22			AZ SAMPLE PULSE
TEST 2	J	TS D	3B	22		@E	EL VS 1
TEST 2	K	TS D	6B	22	3053	@E	EPSILON SUB -G RTN
TEST 2	L	TS D	7B	22	3053	@E	10 COS EPSILON SUB -G
TEST 2	M	TS D	8B	22	3053	@E	10 SIN EPSILON SUB -G
TEST 2	N	1P02	B	22			15V DC
TEST 2	P	TS D	1B	22		@E	AZ BANDPASS
TEST 2	R	TS D	4B	22		@E	DC RETURN-TSU
TEST 2	S	1P02	S	22		@E	EL REF SINE WAVE
TEST 2	T	TS D	2B	22		@E	EL BANDPASS
TEST 2	U	1P02	C	22			-15V DC
TEST 2	V	TS D	5B	22		@E	AZ VS 1
TEST 2	W	TS D	9B	22	2290	@E	10V 400 HZ A PLUS 90
TEST 2	X	TS D	10B	22	2290	@E	10V 400 HZ RETURN
TEST 2	Y	TS D	11B	22			BIT 3
TEST 2	Z	TS D	12B	22			BIT 5
TEST 2	-A	TS D	13B	22			BIT 6
TEST 2	-B	TS D	47A	A118B22	2084	@E	-I SUB -G
TEST 2	-C	TS D	48A	A120B22	2084	@E	-I SUB -G RETURN
TEST 2	-D	TS D	49A	A122B22	2087	@E	-J SUB -G
TEST 2	-E	TS D	50A	A124B22	2087	@E	-J SUB -G RETURN
TEST 2	-F	TS D	51A	A114B22	2282	@E	-K SUB -G
TEST 2	-G	TS D	52A	A116B22	2282	@E	-K SUB -G RETURN
TEST 2	-H	TS D	20B		2283	@E	-I SUB -T
TEST 2	-I	TS D	21B		2283	@E	-I SUB -T RETURN

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
TEST 2	J	TS D	22B	22	2285	@E	J SUB -T
TEST 2	-K	TS D	23B	22	2285	@E	J SUB -T RETURN
TEST 2	-M	TS D	24B	22	2286	@E	-K SUB -T
TEST 2	-N	TS D	25B	22	2286	@E	-K SUB -T RETURN
TEST 2	-P	TS D	53A	A101B22 BLU	2287	@E	AZ GUN COMMAND
TEST 2	-Q	TS D	54A	A102B22 WHT	2287	@E	AZ GUN COMMAND RTN
TEST 2	-R	TS D	55A	A103B22 BLU	2099	@E	EL GUN COMMAND
TEST 2	-S	TS D	56A	A104B22 WHT	2099	@E	EL GUN COMMAND RTN
TEST 2	-T	NC					SPARE
TEST 2	-U	NC					SPARE
TEST 2	-V	TS D	30B	22	2100	@E	AZ ACQUISITION CMD
TEST 2	-W	TS D	32B	22	2101	@E	EL ACQUISITION CMD
TEST 2	-X	TS D	31B	22	2100	@E	AZ ACQUISITION CMD RTN
TEST 2	-Y	TS D	33B	22	2101	@E	EL ACQUISITION CMD RTN
TEST 2	-Z	TS D	34B	22			K1 *T* BIT PASS
TEST 2	AA	TS D	40A	22			SQUIB CONNECT/CAMERA 1
TEST 2	BB	NC					SPARE
TEST 2	CC	NC					SPARE
TEST 2	DD	NC					SPARE
TEST 2	EE	TS D	36B	22			TRACK MODE
TEST 2	FF	TS D	37B	22			WEAPON SELECT
TEST 2	GG	1P05	-R	22	3008	@E	10 SIN ETA SUB -G
TEST 2	HH	1P05	-S	22	3008	@E	ETA SUB -G RTN
TEST 2	JJ	NC					SPARE
TEST 2	KK	NC					SPARE
TEST 2	LL	NC					SPARE
TEST 2	MM	J237	A	A440B18			28V DC
TEST 2	NN	TS D	39C	22			WEAPON ACTION-BHC
TEST 2	PP	TS D	38B	22			PILOT ACQUISITION
TS A							TERMINAL SPLICE
TS A	1A	5P02	Z	16	2005	@3	PORT PREFIRE
TS A	1B	P8J01	K	20	2092	@3	PORT PREFIRE
TS A	1C	P8J01	M	20	2093	@3	PORT PREFIRE
TS A	1D	P8J01	P	20	2094	@3	PORT PREFIRE

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
TS A	2A	5P02	-K	16	2005	@3	PORT PREFIRE RETURN
TS A	2B	P8J01	L	20	2092	@3	PORT PREFIRE RETURN
TS A	2C	P8J01	N	20	2093	@3	PORT PREFIRE RETURN
TS A	2D	P8J01	R	20	2094	@3	PORT PREFIRE RETURN
TS A	3A	SHIELD		22			SHIELD FROM TS A 1A,2A
TS A	3B	SHIELD		22			SHIELD FROM TS A 1B,2B
TS A	3C	SHIELD		22			SHIELD FROM TS A 1C,2C
TS A	3D	SHIELD		22			SHIELD FROM TS A 1D,2D
TS A	4A	15P01	B	20			MANUAL WIRE CUT
TS A	4B	S8J01	-C	20			MANUAL WIRE CUT
TS A	4C	P8J01	-C	20			MANUAL WIRE CUT
TS B							TERMINAL SPLICE
TS B	1A	5P02	-A	16	2006	@3	STBD PREFIRE
TS B	1B	28J01	K	20	2095	@3	STBD PREFIRE
TS B	1C	28J01	M	20	2096	@3	STBD PREFIRE
TS B	1D	28J01	P	20	2097	@3	STBD PREFIRE
TS B	2A	5P02	-M	16	2006	@3	STBD PREFIRE RETURN
TS B	2B	S8J01	L	20	2095	@3	STBD PREFIRE RETURN
TS B	2C	S8J01	N	20	2096	@3	STBD PREFIRE RETURN
TS B	2D	S8J01	R	20	2097	@3	STBD PREFIRE RETURN
TS B	3A	SHIELD		22			SHIELD FROM TS B 1A,2A
TS B	3B	SHIELD		22			SHIELD FROM TS B 1B,2B
TS B	3C	SHIELD		22			SHIELD FROM TS B 1C,2C
TS B	3D	SHIELD		22			SHIELD FROM TS B 1D,2D
TS B	4A	2P01	-H	22			STOW
TS B	4B	5P01	W	22			STOW
TS B	4C	6P01	P	22			STOW

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
TS C							TERMINAL SPLICE
TS C	1A	2P04	FF	22			BIT 1
TS C	1B	5P02	A	22			BIT 1
TS C	1C	TEST 1	N	22			BIT 1
TS C	2A	2P04	GG	22			BIT 2
TS C	2B	5P02	B	22			BIT 2
TS C	2C	TEST 1	R	22			BIT 2
TS C	3A	TOW PWR CB	76	TG429A22 BLU	3006	C	115V 400 HZ PH A
TS C	3B	7P01	Z	20	3026	C	115V 400 HZ PH A
TS C	3C	TEST 1	Y	22		C	115V 400 HZ PH A
TS C	4A	2P04	LL	22			BIT 7
TS C	4B	5P02	F	22			BIT 7
TS C	4C	TEST 1	-N	22			BIT 7
TS C	5A	2P04	MM	22			BIT 8
TS C	5B	5P02	G	22			BIT 8
TS C	5C	TEST 1	-P	22			BIT 8
TS C	6A	2P04	NN	22			BIT 9
TS C	6B	5P02	H	22			BIT 9
TS C	6C	TEST 1	-Q	22			BIT 9
TS C	7A	2P04	PP	22			BIT 10
TS C	7B	5P02	J	22			BIT 10
TS C	7C	TEST 1	-R	22			BIT 10
TS C	8A	TB44	2	TG438A16 BLU	2004	C	28V DC SQUIB PWR
TS C	8B	5P01	-T	16	2004	C	28V DC SQUIB PWR
TS C	8C	TEST 1	W	22		C	28V DC SQUIB PWR
TS C	9A	J234	-AA	TG430B20 ORN	3006	C	115V 400 HZ PH C
TS C	9B	7P01	-K	20	3026	C	115V 400 HZ PH C
TS C	9C	TEST 1	-A	22		C	115V 400 HZ PH C

Table F-3. XM65 Interconnection wire list (Cont)

FROM	TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
TS C 10A	J330 Z	TG431A22 WHT	3006	C	115V 400 HZ RTN *PH B*
TS C 10B	7P01 -A	20	3026	C	115V 400 HZ RTN *PH B*
TS C 10C	TEST 1 Z	22		C	115V 400 HZ RTN *PH B*
TS C 11A	5P04 CC	22		C	PROGRAMMER SEQUENCE
TS C 11B	TEST 1 -C	22		C	PROGRAMMER SEQUENCE
TS C 11C	INST 1	22		C	PROGRAMMER SEQUENCE
TS C 12A	5P04 DD	22		C	DC RETURN-MCA
TS C 12B	TEST 1 -E	22		C	DC RETURN-MCA
TS C 12C	INST 2	22		C	DC RETURN-MCA
TS C 13A	5P04 M	22		C	PITCH OUTPUT
TS C 13B	TEST 1 -G	22		C	PITCH OUTPUT
TS C 13C	INST 3	22		C	PITCH OUTPUT
TS C 14A	5P04 N	22		C	YAW OUTPUT
TS C 14B	TEST 1 -H	22		C	YAW OUTPUT
TS C 14C	INST 4	22		C	YAW OUTPUT
TS C 15A	5P04 P	22		C	PITCH LIM & SUM
TS C 15B	TEST 1 -I	22		C	PITCH LIM & SUM
TS C 15C	INST 5	22		C	PITCH LIM & SUM
TS C 16A	5P04 R	22		C	YAW LIM & SUM
TS C 16B	TEST 1 -J	22		C	YAW LIM & SUM
TS C 16C	INST 6	22		C	YAW LIM & SUM
TS C 17A	5P02 R	22			BIT 4
TS C 17B	2P04 -Y	22			BIT 4
TS C 17C	TEST 1 -D	22			BIT 4
TS C 18A	2P04 -Z	22			SYNTHETIC FIRST MOTION
TS C 18B	5P03 DD	22			SYNTHETIC FIRST MOTION
TS C 18C	16P01 C	22			SYNTHETIC FIRST MOTION

Table F-3. XM65 Interconnection wire list (Cont)

FROM			TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
TS C	19A	5P04	W		22			PROGRAMMER INTERRUPT
TS C	19B	16P01	B		22			PROGRAMMER INTERRUPT
TS C	19C	TEST 1	B		22			PROGRAMMER INTERRUPT
TS D								TERMINAL SPLICE
TS D	1A	1P02	A		22		C	AZ BANDPASS
TS D	1B	TEST 2	P		22		C	AZ BANDPASS
TS D	1C	INST	7		22		C	AZ BANDPASS
TS D	2A	1P02	P		22		C	EL BANDPASS
TS D	2B	TEST 2	T		22		C	EL BANDPASS
TS D	2C	INST	8		22		C	EL BANDPASS
TS D	3A	1P02	J		22		C	EL VS 1
TS D	3B	TEST 2	J		22		C	EL VS 1
TS D	3C	INST	9		22		C	EL VS 1
TS D	4A	1P02	R		22		C	DC RETURN-TSU
TS D	4B	TEST 2	R		22		C	DC RETURN-TSU
TS D	4C	INST	10		22		C	DC RETURN-TSU
TS D	5A	1P02	V		22		C	AZ VS 1
TS D	5B	TEST 2	V		22		C	AZ VS 1
TS D	5C	INST	11		22		C	AZ VS 1
TS D	6A	1P04	T		22	3009	C	EPSILON SUB -G RTN
TS D	6B	TEST 2	K		22	3053	C	EPSILON SUB -G RTN
TS D	6C	1P05	-N		22	3050	C	EPSILON SUB -G RTN
TS D	7A	1P04	U		22	3009	C	10 COS EPSILON SUB -G
TS D	7B	TEST 2	L		22	3053	C	10 COS EPSILON SUB -G
TS D	7C	1P05	-M		22	3050	C	10 COS EPSILON SUB -G
TS D	8A	1P04	S		22	3009	C	10 SIN EPSILON SUB -G
TS D	8B	TEST 2	M		22	3053	C	10 SIN EPSILON SUB -G
TS D	8C	1P05	-C		22	3050	C	10 SIN EPSILON SUB -G

Table F-3. XM65 Interconnection wire list (Cont)

FROM	TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
TS D 9A	P122 D	TG594A22	2041	C	10V 400 HZ A PLUS 90
TS D 9B	TEST 2 W	22	2290	C	10V 400 HZ A PLUS 90
TS D 9C	1P05 R	22	2289	C	10V 400 HZ A PLUS 90
TS D 10A	P122 E	TG595A22	2041	C	10V 400 HZ RETURN
TS D 10B	TEST 2 X	22	2290	C	10V 400 HZ RETURN
TS D 10C	1P05 -F	22	2289	C	10V 400 HZ RETURN
TS D 11A	1P01 -R	22			BIT 3
TS D 11B	TEST 2 Y	22			BIT 3
TS D 11C	5P02 -B	22			BIT 3
TS D 12A	1P01 -S	22			BIT 5
TS D 12B	TEST 2 Z	22			BIT 5
TS D 12C	5P02 -D	22			BIT 5
TS D 13A	1P01 -T	22			BIT 6
TS D 13B	TEST 2 -A	22			BIT 6
TS D 13C	5P02 -F	22			BIT 6
TS D 14A	P8J01 -P	TG412C20N			M5 LNCHR CHASSIS GND
TS D 14B	P8J01 -Q	TG412D20N			M1 LNCHR CHASSIS GND
TS D 14C	P8J01 -R	TG412E20N			M7 LNCHR CHASSIS GND
TS D 14D	P8J01 -S	TG412F20N			M3 LNCHR CHASSIS GND
TS D 14E	P321 -S	TG412B20N			RACK CHASSIS GND
TS D 15A	1J09 H	TG157B22			TRIG ENABLE 1ST DETENT
TS D 15B	1J09 J	TG157C22			TRIG ENABLE 2ND DETENT
TS D 15C	TS D 16A	TG157A22			TRIG ENABLE
TS D 16A	TS D 15C	TG157A22			TRIG ENABLE
TS D 16B	XK87 B2	A969F20			TRIG ENABLE
TS D 16C	XK80 D3	A969D20			TRIG ENABLE
TS D 17A					UNASSIGNED

Table F-3. XM65 Interconnection wire list (Cont)

FROM	TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
TS D 18A					UNASSIGNED
TS D 19A					UNASSIGNED
TS D 20A	1P06	-J 22	2039	C	-I SUB -T
TS D 20B	TEST 2	-H 22	2283	C	-I SUB -T
TS D 20C	P313	A TG39A22 BLU	2049	C	-I SUB -T
TS D 21A	1P06	P 22	2039	C	-I SUB -T RETURN
TS D 21B	TEST 2	-I 22	2283	C	-I SUB -T RETURN
TS D 21C	P313	B TG38A22 WHT	2049	C	-I SUB -T RETURN
TS D 22A	1P06	-I 22	2035	C	-J SUB -T
TS D 22B	TEST 2	-J 22	2285	C	-J SUB -T
TS D 22C	P313	C TG37A22 BLU	2050	C	-J SUB -T
TS D 23A	1P06	N 22	2035	C	-J SUB -T RETURN
TS D 23B	TEST 2	-K 22	2285	C	-J SUB -T RETURN
TS D 23C	P313	Y TG36A22 WHT	2050	C	-J SUB -T RETURN
TS D 24A	1P06	-K 22	2021	C	-K SUB -T
TS D 24B	TEST 2	-M 22	2286	C	-K SUB -T
TS D 24C	P313	D TG41A22 BLU	2051	C	-K SUB -T
TS D 25A	1P06	R 22	2021	C	-K SUB -T RETURN
TS D 25B	TEST 2	-N 22	2286	C	-K SUB -T RETURN
TS D 25C	P313	Z TG40A22 WHT	2051	C	-K SUB -T RETURN
TS D 26A					UNASSIGNED
TS D 27A					UNASSIGNED

Table F-3. XM65 Interconnection wire list (Cont)

FROM		TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
TS D	28A						UNASSIGNED
TS D	29A						UNASSIGNED
TS D	30A	2P04	L	22	2062	C	AZ ACQUISITION CMD
TS D	30B	TEST 2	-V	22	2100	C	AZ ACQUISITION CMD
TS D	30C	J327	-R	TG342D22 BLU	2066	C	AZ ACQUISITION CMD
TS D	31A	2P04	M	22	2062	C	AZ ACQUISITION CMD RTN
TS D	31B	TEST 2	-X	22	2100	C	AZ ACQUISITION CMD RTN
TS D	31C	J327	-S	TG343D22 WHT	2066	C	AZ ACQUISITION CMD RTN
TS D	32A	2P04	N	22	2063	C	EL ACQUISITION CMD
TS D	32B	TEST 2	-W	22	2101	C	EL ACQUISITION CMD
TS D	32C	J327	-P	TG340D22 BLU	2067	C	EL ACQUISITION CMD
TS D	33A	2P04	P	22	2063	C	EL ACQUISITION CMD RTN
TS D	33B	TEST 2	-Y	22	2101	C	EL ACQUISITION CMD RTN
TS D	33C	J327	-Q	TG341D22 WHT	2067	C	EL ACQUISITION CMD RTN
TS D	34A	1P01	-Q	22			K1 *T* BIT PASS
TS D	34B	TEST 2	-Z	22			K1 *T* BIT PASS
TS D	34C	5P02	W	22			K1 *T* BIT PASS
TS D	35A	5P01	U	20			SQUIB CONNECT/CAMERA 1
TS D	35B	TS D 40B		22			SQUIB CONNECT/CAMERA 1
TS D	35C	J326	C	TS239E20			SQUIB CONNECT/CAMERA 1
TS D	36A	6P01	K	22			TRACK MODE
TS D	36B	TEST 2	EE	22			TRACK MODE
TS D	36C	P313	N	TG200A22			TRACK MODE
TS D	37A	XK87	X1	TG251A22			WEAPON SELECT
TS D	37B	TEST 2	FF	22			WEAPON SELECT
TS D	37C	4P02	B	22			WEAPON SELECT

Table F-3. XM65 Interconnection wire list (Cont)

FROM			TO		WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
TS D	38A	6P01	L		22			PILOT ACQUISITION
TS D	38B	TEST 2	PP		22			PILOT ACQUISITION
TS D	38C	TB51	K5	TG201B22				PILOT ACQUISITION
TS D	39A	XK87	A2	TG158A22				WEAPON ACTION-BHC
TS D	39B	1J09	Y		22			WEAPON ACTION-BHC
TS D	39C	TEST 2	NN		22			WEAPON ACTION-BHC
TS D	40A	TEST 2	AA		22			SQUIB CONNECT/CAMERA 1
TS D	40B	TS D	35B		22			SQUIB CONNECT/CAMERA 1
TS D	40C	TS D	43C		20			SQUIB CONNECT/CAMERA 1
TS D	41A	4P01	P		22			MISSILE 5 PRESENT-TCP
TS D	41B	P8J01	-F		22			MISSILE 5 PRESENT-TCP
TS D	41C	16P01	D		22			MISSILE 5 PRESENT-TCP
TS D	42A	4P02	-I		22		C	MANUAL WIRE CUT-TCP
TS D	42B	5P01	P		22		C	MANUAL WIRE CUT-TCP
TS D	42C	16P01	G		22		C	MANUAL WIRE CUT-TCP
TS D	43A	15P01	C		20			SQUIB CONNECT/CAMERA 1
TS D	43B	16P01	F		20			SQUIB CONNECT/CAMERA 1
TS D	43C	TS D	40C		20			SQUIB CONNECT/CAMERA 1
TS D	44A	S8J01	-P	TG462C20N				M8 LNCHR CHASSIS GND
TS D	44B	S8J01	-Q	TG462D20N				M4 LNCHR CHASSIS GND
TS D	44C	S8J01	-R	TG462E20N				M6 LNCHR CHASSIS GND
TS D	44D	S8J01	-S	TG462F20N				M2 LNCHR CHASSIS GND
TS D	44E	P322	-S	TG462B20N				RACK CHASSIS GND
TS D	45A	1J09	Z	TG159A22				WEAPON ACTION ENABLE
TS D	45B	P265	-A	A970B22				WEAPON ACTION ENABLE
TS D	45C	XK86	A2	A970C22				WEAPON ACTION ENABLE

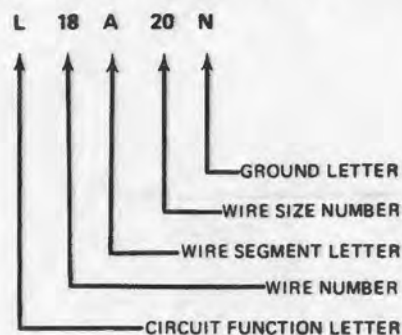
Table F-3. XM65 Interconnection wire list (Cont)

FROM	TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
TS D 46A	4P01 -A	TG235A22			ARMED-PILOT MASTER ARM
TS D 46B	XK82 K	A170B20			ARMED-PILOT MASTER ARM
TS D 46C	XK86 X1	A170C20			ARMED-PILOT MASTER ARM
TS D 47A	TEST 2 -B	A118B22 BLU			-I SUB-G
TS D 47B	P312 V	A118A22 BLU			-I SUB-G
TS D 47C	P262 B	A118C22 BLU			-I SUB-G
TS D 48A	TEST 2 -C	A120B22 WHT			-I SUB-G RETURN
TS D 48B	P132 -J	A120A22 WHT			-I SUB-G RETURN
TS D 48C	P261 X	A120C22 WHT			-I SUB-G RETURN
TS D 49A	TEST 2 -D	A122B22 BLU			-J SUB -G
TS D 49B	P312 U	A122A22 BLU			-J SUB -G
TS D 49C	P261 C	A122C22 BLU			-J SUB -G
TS D 50A	TEST 2 -E	A124B22 WHT			-J SUB -G RETURN
TS D 50B	P312 -I	A124A22 WHT			-J SUB -G RETURN
TS D 50C	P261 Y	A124C22 WHT			-J SUB -G RETURN
TS D 51A	TEST 2 -F	A114B22 BLU			-K SUB -G
TS D 51B	P312 W	A114A22 BLU			-K SUB -G
TS D 51C	P261 A	A114C22 BLU			-K SUB -G
TS D 52A	TEST 2 -G	A116B22 WHT			-K SUB -G RETURN
TS D 52B	P312 X	A116A22 WHT			-K SUB -G RETURN
TS D 52C	P261 W	A116C22 WHT			-K SUB -G RETURN
TS D 53A	TEST 2 -P	A101B22 BLU			AZ GUN COMMAND
TS D 53B	P311 T	A101C22 BLU			AZ GUN COMMAND
TS D 53C	J250 K	A101A22 BLU			AZ GUN COMMAND
TS D 54A	TEST 2 -Q	A102B22 WHT			AZ GUN COMMAND RTN
TS D 54B	P311 -M	A102C22 WHT			AZ GUN COMMAND RTN
TS D 54C	J250 J	A102A22 WHT			AZ GUN COMMAND RTN

Table F-3. XM65 Interconnection wire list (Cont)

FROM	TO	WIRE IDENTIFICATION	CABLE NO.	SHIELD	NOMENCLATURE
TS D 55A	TEST 2 -R	A103B22 BLU			EL GUN COMMAND
TS D 55B	P311 S	A103C22 BLU			EL GUN COMMAND
TS D 55C	J250 E	A103A22 BLU			EL GUN COMMAND
TS D 56A	TEST 2 -S	A104B22 WHT			EL GUN COMMAND RTN
TS D 56B	P311 -K	A104C22 WHT			EL GUN COMMAND RTN
TS D 56C	J250 D	A104A22 WHT			EL GUN COMMAND RTN

WIRING IDENTIFICATION CODE



CIRCUIT FUNCTIONS

<u>CODE</u>	<u>NOMENCLATURE</u>	<u>CODE</u>	<u>NOMENCLATURE</u>
A	ARMAMENT	M	MISCELLANEOUS ELECTRIC
C	CONTROL SURFACES	N	GROUND
D	INSTRUMENTS (OTHER THAN FLIGHT OR ENGINE)	P	DC POWER
E	ENGINE INSTRUMENTS	Q	FUEL AND OIL
F	FLIGHT INSTRUMENTS	TG	TOW GUIDANCE AND CONTROL
H	HEATING, VENTILATING AND DE-ICING	V	DC POWER AND DC CONTROL CABLES FOR AC SYSTEM
J	IGNITION	W	WARNING AND EMERGENCY
K	ENGINE CONTROL	X	AC POWER
L	LIGHTING		

209075-294

Figure F-1. Wiring identification code

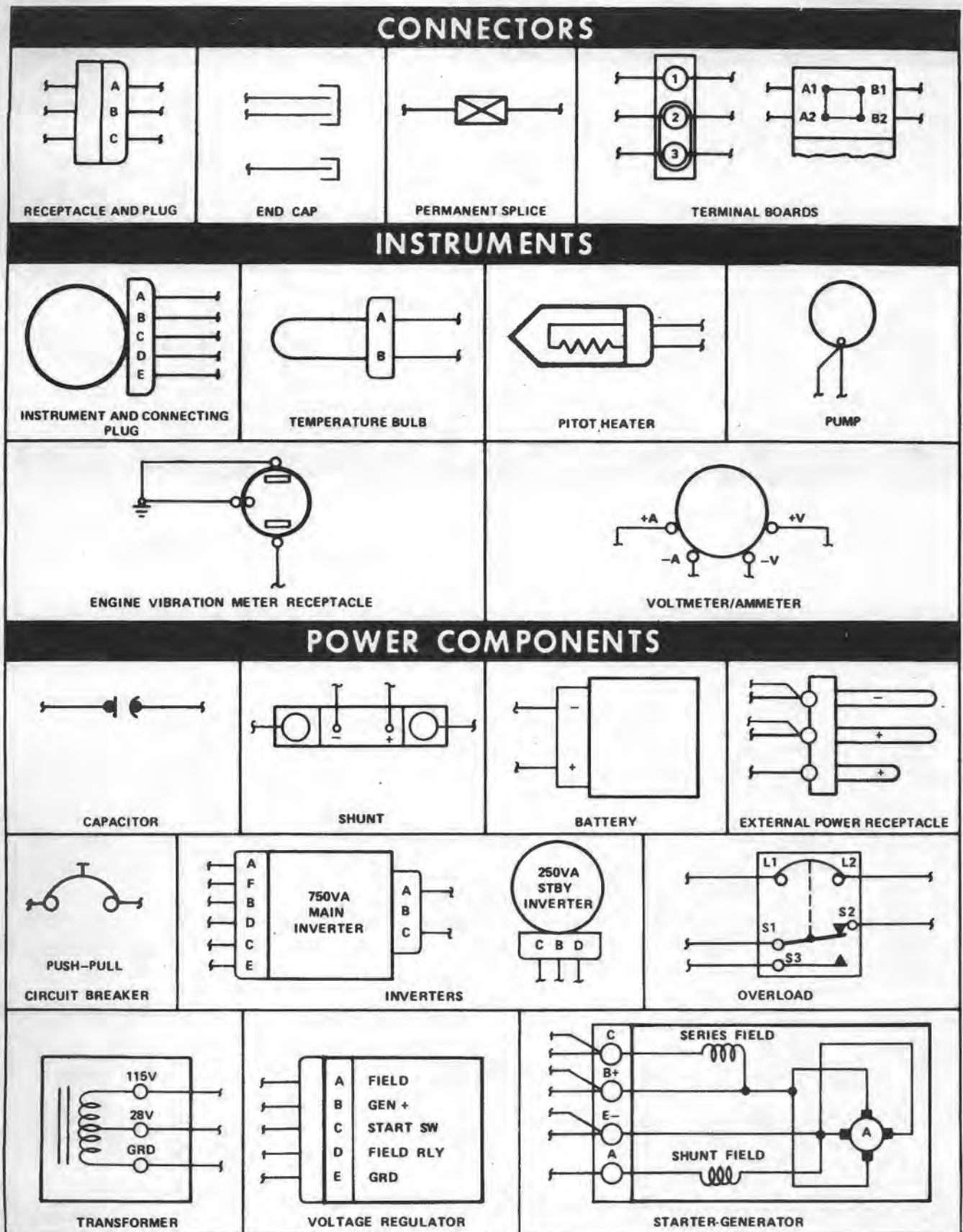
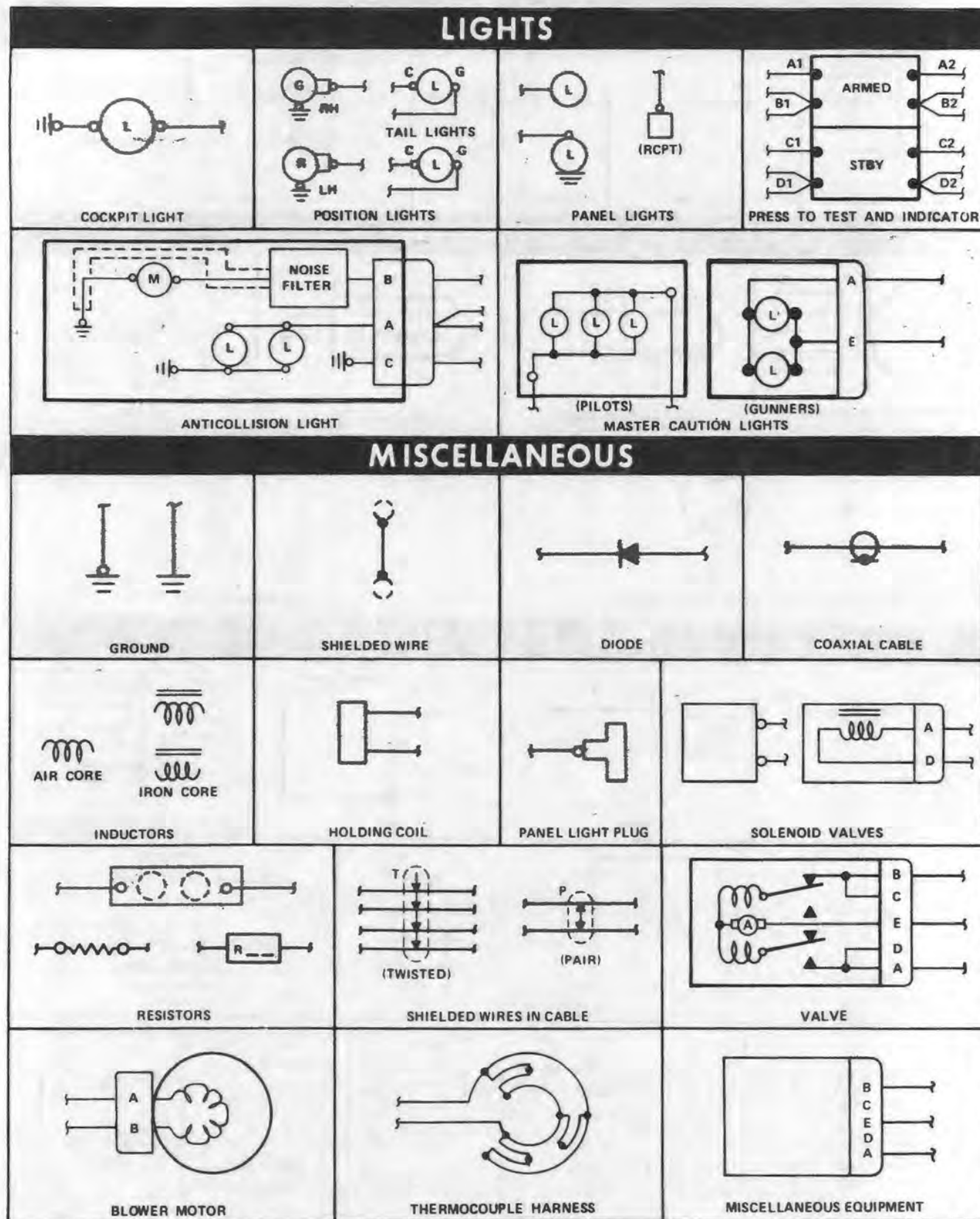


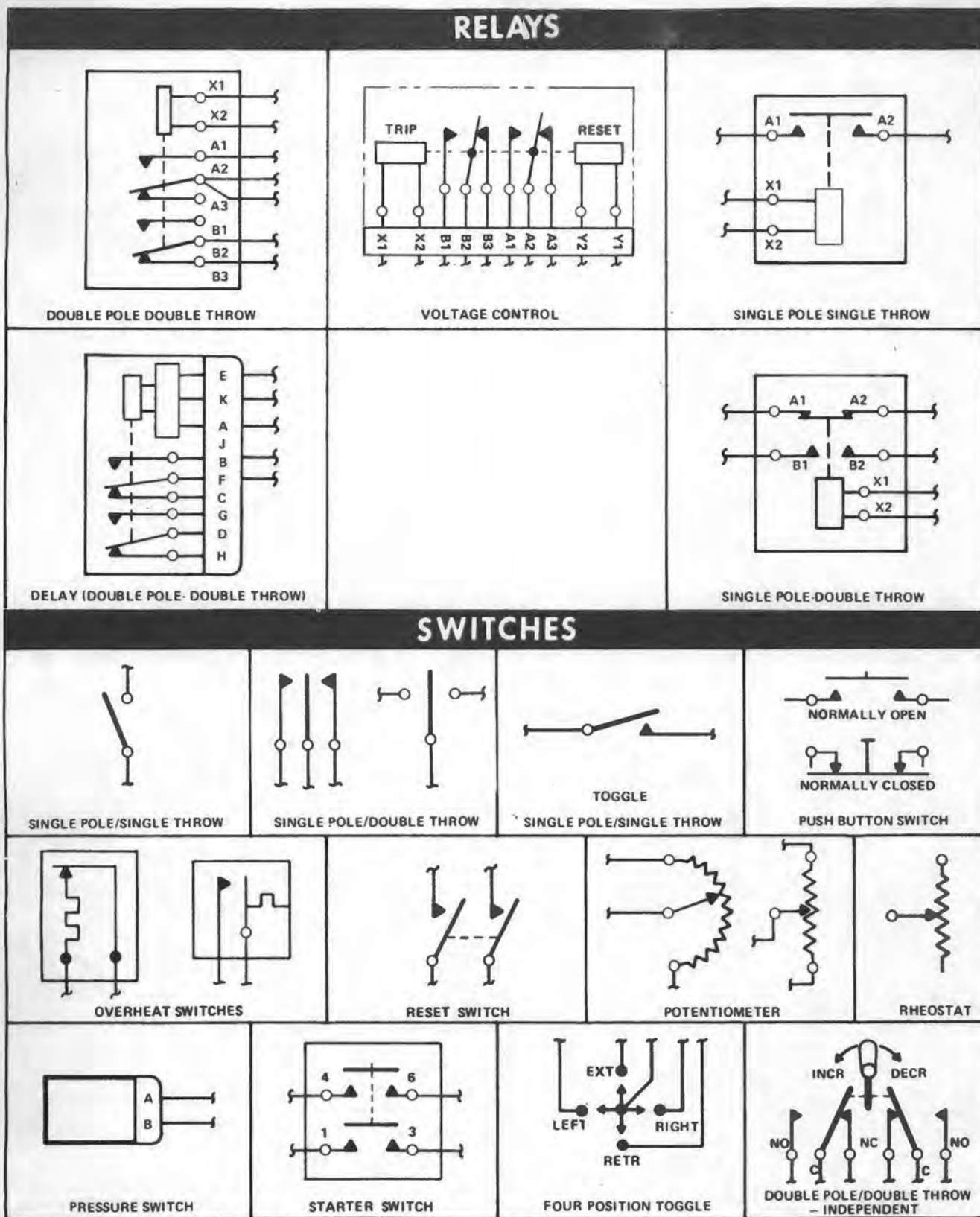
Figure F-2. Symbols chart (Sheet 1 of 3)

209475-361-1



209475-361-2

Figure F-2. Symbols chart (Sheet 2 of 3)



209475-361-3

Figure F-2. Symbols chart (Sheet 3 of 3)

AC LOAD ANALYSIS FOR MODEL AH-1S (MOD)

CODE NO.	EQUIPMENT	PART DESIGNATION	NO- TES	NO. OF UNITS	OPER. TIME MIN.	ELECTRICAL REQUIREMENTS PER UNIT												PWR SOR INF	PWR FACT	PHASE A TO B		CONNECTED LOADS PHASE B TO C		PHASE C TO A	
						115 VOLTS, 3 PHASE VA. WATTS VARS			115 VOLTS, 1 PHASE VA. WATTS VARS			26 VOLTS, 1 PHASE VA. WATTS VARS			VOLTAGE MIN MAX		FREQ MIN MAX			WATTS	VAR	WATTS	VAR	WATTS	VAR
AC BUS																									
26 VOLT																									
D012	INSTRUMENTS		D																						
	XMNOILPIND	EDISON217A-100AMI		1	15.00				1.68 0.30 1.65			24.5 27.5 360		440	MEA	0.180			0.30 1.65						
D013	XMNOILPXMR	EDISON318-100A-MI		1	15.00				2.44 0.44 2.40			24.5 27.5 360		440	MEA	0.180			0.44 2.40						
ENGINE INSTRUMENTS																									
E040	ENGOLPIND	EDISON217A-100AMI	E	1	15.00				1.68 0.30 1.65			24.5 27.5 360		440	MEA	0.180			0.30 1.65						
E041	ENGOLPXMR	EDISON318-100A-MI		1	15.00				2.44 0.44 2.40			24.5 27.5 360		440	MEA	0.180			0.44 2.40						
E042	FUELPREIND	MS28010-1		1	15.00				2.04 0.29 2.02			24.5 27.5 360		440	MEA	0.140			0.29 2.02						
E043	FUELPREXMR	MS28005-1		1	15.00				2.55 0.36 2.52			24.5 27.5 360		440	MEA	0.140			0.36 2.52						
E044	TOR PREIND	EDISON217A-100AMI		2	15.00				1.68 0.30 1.65			24.5 27.5 360		440	MEA	0.180			0.60 3.31						
E045	TOR PREXMR	EDISON318-100A-MI		2	15.00				2.44 0.44 2.40			24.5 27.5 360		440	MEA	0.180			0.88 4.80						
FLIGHT INSTRUMENTS																									
F016	PLT CORIND	ID-998()/ASN	F	1	15.00				16.73 3.91 16.27			24.5 27.5 360		440	MEA	0.234			3.91 16.27						
F017	CPLTCORIND	ID-250()/ASN		1	15.00				4.58 1.64 4.28			24.5 27.5 360		440	MEA	0.358			1.64 4.28						
RADIO NAV & COMM																									
R023	ADFRADCOMP	AN/ARN-83	R	1																					
R023A	ADFRECEIVR	R-1391/ARN-83		1	15.00				9.56 6.45 7.05			24.5 27.5 360		440	MEA	0.675			6.45 7.05						
R023B	ADF CONT	C-6899/ARN-83		1	15.00				5.47 1.60 5.23			24.5 27.5 360		440	MEA	0.292			1.60 5.23						
AC POWER																									
X008	PF COR CAP	CP53-B1-FB106K1	X	2	15.00				16.93 1.71 -16.84			24.5 27.5 360		440	MEA	-0.101			3.42 -33.69						
TOTAL 26 VOLT																						20.63 19.90			
																						28.66 VA AT			
																						0.720 PF LAG.			
115 VOLT																									
A003	ARMAMENT HELEMENT ST		A	1	15.00	13.35 13.35 0.0						108.0 118.0 360		440	MEA	1.000	13.35 0.0								
FLIGHT CONTROLS																									
C010	STARAUGSYS	570-947-001	C	1	15.00	16.59 15.21 6.62						108.0 118.0 380		420	MEA	0.917	15.21 6.62								
ENGINE INSTRUMENTS																									
E046	FUELQTSYS	209-060-602	E	1	15.00	2.92 2.91 0.26						108.0 118.0 360		440	MEA	0.996	2.91 0.26								
E046A	FUELQTYIND			1																					
E046B	FUELQTYXMR			2																					
FLIGHT INSTRUMENTS																									
F018	COMPASSSYS	AN/ASN-43	F	1																					
F018A	DIR GYRO	CN/998()/ANS-		1	15.00	16.39 15.36 5.73						108.0 118.0 380		420	MEA	0.937			15.36 5.73						
F018B	XMTR	T-611()/ASN /		1																					
F018C	SERVO AMP	AM-3209/ASN		1	15.00	12.32 12.00 -2.79						108.0 118.0 380		420	MEA	-0.974			12.00 -2.79						
AC POWER																									
X009	AC FAILRLY	TYPE D1 MIL-R8373	X	1	15.00	3.89 2.80 2.70						108.0 118.0 360		440	MEA	0.720	2.80 2.70								
TOTAL 115 VOLT																						34.27 9.58		27.36 2.93	
																						35.59 VA AT		27.51 VA AT	
																						0.963 PF LAG.		0.994 PF LAG.	
TOTAL/PER PHASE 26 VAC & 115 VAC AC BUS																						34.27 9.58		47.99 22.83	
																						35.59 VA AT		53.14 VA AT	
																						-0.963 PF LAG.		0.903 PF LAG.	
TOTAL/3 PHASE AC BUS																								82.26 32.41	
																								88.42 VA AT 0.930 PF LAGGING	

AC LOAD ANALYSIS FOR MODEL AH-1S (MOD)

						ELECTRICAL REQUIREMENTS PER UNIT																	
CODE NO.	EQUIPMENT	PART DESIGNATION	NO- TES	NO. OF UNITS	OPER. TIME MIN.	115 VOLTS, 3 PHASE VA. WATTS VARS			115 VOLTS, 1 PHASE VA. WATTS VARS			26 VOLTS, 1 PHASE VA. WATTS VARS			VOLTAGE MIN MAX		FREQ MIN MAX		PWR SOR INF	PWR FACT	PHASE A TO B WATTS VARS		CONM WAT
AC BUS OR REF XMFR TOW CONF																							
A004	115 VAC ARMAMENT TURRET ARM	XM-28	A	1	15.00				17.92	9.14	15.41				108.0	118.0	360	440	MEA	0.510	9.14	15.41	
F019	FLIGHT INSTRUMENTS ATT IND		F	2	15.00				9.53	8.93	3.33				108.0	118.0	360	440	MEA	0.937	17.86	6.66	
F022	ATT GYRO			1	15.00				17.92	15.93	8.21				108.0	118.0	380	420	MEA	0.889	15.93	8.21	
F023	RATESWGYRO			1	15.00				4.91	1.21	-4.76				-108.0	118.0	380	420	MEA	-0.247	1.21	-4.76	
TOTAL 115 VAC						44.14 25.52 50.99 VA AT 0.866 PF LAG.																	
TOTAL/3 PHASE AC BUS OR REF XMFR TOW CONF						44.14 50.99 VA AT																	
AC TOW RFF XMFR LOADS ONLY																							
A001	115 VOLT ARMAMENT TOW REF SI	XM-65	A	1	15.00	108.89	107.98	14.01							108.0	118.0	380	420	MEA	0.992	-51.54	13.72	66.33
TOTAL 115 VOLT						-51.54 13.72 63.33 VA AT -0.966 PF LAG.																	
TOTAL/3 PHASE AC TOW REF XMFR LOADS ONLY						107.98 108.89 VA AT																	
AC TOW LOADS																							
A002	115 VOLT ARMAMENT TOW MIS SY	XM-65	A	1	15.00	276.11	264.79	78.25							108.0	118.0	380	420	MEA	0.959	119.54	119.54	54.1
X010	AC POWER PF CDR CAP		X	1	15.00				33.48	3.38	-33.31				108.0	118.0	360	440	MEA	-0.101			3.38
TOTAL 115 VOLT						119.54 119.54 169.06 VA AT 0.707 PF LAG.																	
TOTAL/3 PHASE AC TOW LOADS						268.1 271.91 VA AT																	

Figure F-3. Ac load analysis chart

EL AH-1S (MOD)

RT ATION	NO- TES	NO. OF UNITS	OPER. TIME MIN.	ELECTRICAL REQUIREMENTS PER UNIT												PWR SOR INF	PWR FACT	CONNECTED LOADS					
				115 VOLTS, 3 PHASE			115 VOLTS, 1 PHASE			26 VOLTS, 1 PHASE			VOLTAGE		FREQ			PHASE A TO B		PHASE B TO C		PHASE C TO A	
				VA.	WATTS	VARs	VA.	WATTS	VARs	VA.	WATTS	VARs	MIN	MAX	MIN	MAX	WATTS	VARs	WATTS	VARs	WATTS	VARs	
TOW CONF																							
	A	1	15.00				17.92	9.14	15.41				108.0	118.0	360	440	MEA	0.510	9.14	15.41			
R4003AH R 9000C	F	2	15.00				9.53	8.93	3.33				108.0	118.0	360	440	MEA	0.937	17.86	6.66			
		1	15.00				17.92	15.93	8.21				108.0	118.0	380	420	MEA	0.889	15.93	8.21			
		1	15.00				4.91	1.21	-4.76				-108.0	118.0	380	420	MEA	-0.247	1.21	-4.76			
																		44.14 25.52 50.99 VA AT 0.866 PF LAG.					
																		44.14 25.52 50.99 VA AT 0.866 PF LAGGING					
CONF																							
ADS ONLY																							
	A	1	15.00	108.89	107.98	14.01							108.0	118.0	380	420	MEA	0.992	-51.54	13.72	66.26	-5.68	93.26 5.97
																		-51.54 13.72 66.26 -5.68 93.26 5.97 63.33 VA AT -0.966 PF LAG.					
																		107.98 14.01 108.89 VA AT 0.992 PF LAGGING					
S ONLY																							
S	A	1	15.00	276.11	264.79	78.25							108.0	118.0	380	420	MEA	0.959	119.54	119.54	54.85	-60.49	90.40 19.20
	X	1	15.00				33.48	3.38	-33.31				108.0	118.0	360	440	MEA	-0.101			3.38	-33.31	
																		119.54 119.54 54.85 -60.49 90.40 19.20 169.06 VA AT 0.707 PF LAG.					
																		58.23 -93.80 90.40 19.20 110.40 VA AT 0.527 PF LEAD.					
																		268.17 44.94 271.91 VA AT 0.986 PF LAGGING					
5KI																							

Figure F-3. Ac load analysis chart (Sheet 2 of 3)

AC LOAD ANALYSIS FOR MODEL AH-1S (MOD)																										
CODE NO.	EQUIPMENT	PART DESIGNATION	NO. OF TESTS	NO. OF UNITS	OPER. TIME MIN.	ELECTRICAL REQUIREMENTS PER UNIT										CONNECTED LOADS										
						115 VOLTS, 3 PHASE			115 VOLTS, 1 PHASE			26 VOLTS, 1 PHASE			VOLTAGE		FREQ.		PWR SOR	PWR	PHASE A TO B		PHASE B TO C		PHASE C TO A	
						VA	WATTS	VAR	VA	WATTS	VAR	VA	WATTS	VAR	MIN	MAX	MIN	MAX	INF	FACT	WATTS	VAR	WATTS	VAR	WATTS	VAR
TOW CONFIGURATION																										
26 VAC (WITH TOW ENERGIZED)																										
D012	INSTRUMENTS		D																							
	XMNOILPIND	EDISON217A-100AMI		1	15.00							1.68	0.30	1.65	24.5	27.5	360	440	MEA	0.180			0.30	1.65		
D013	XMNOILPXM	EDISON318-100A-MI		1	15.00							2.44	0.44	2.40	24.5	27.5	360	440	MEA	0.180			0.44	2.40		
E040	ENGINE INSTRUMENTS		E																							
	ENGOLPIND	EDISON217A-100AMI		1	15.00							1.68	0.30	1.65	24.5	27.5	360	440	MEA	0.180			0.30	1.65		
E041	ENGOLPXM	EDISON318-100A-MI		1	15.00							2.44	0.44	2.40	24.5	27.5	360	440	MEA	0.180			0.44	2.40		
E042	FUELPREIND	MS28010-1		1	15.00							2.04	0.29	2.02	24.5	27.5	360	440	MEA	0.140			0.29	2.02		
E043	FUELPREXM	MS28005-1		1	15.00							2.55	0.36	2.52	24.5	27.5	360	440	MEA	0.140			0.36	2.52		
E044	TOR PREIND	EDISON217A-100AMI		2	15.00							1.68	0.30	1.65	24.5	27.5	360	440	MEA	0.180			0.60	3.31		
E045	TOR PREXM	EDISON318-100A-MI		2	15.00							2.44	0.44	2.40	24.5	27.5	360	440	MEA	0.180			0.88	4.80		
F016	FLIGHT INSTRUMENTS		F																							
	PLT CORIND	ID-998()/ASN		1	15.00							16.73	3.91	16.27	24.5	27.5	360	440	MEA	0.234			3.91	16.27		
F017	CPLTCORIND	ID-250()/ASN		1	15.00							4.58	1.64	4.28	24.5	27.5	360	440	MEA	0.358			1.64	4.28		
R023	RADIO NAV & COMM		R																							
	ADFRADCOMP	AN/ARN-83		1																						
R023A	ADFRECEIVR	R-1391/ARN-83		1	15.00							9.56	6.45	7.05	24.5	27.5	380	420	MEA	0.675			6.45	7.05		
R023B	ADF CONT	C-6899/ARN-83		1	15.00							5.47	1.60	5.23	24.5	27.5	380	420	MEA	0.292			1.60	5.23		
X008	AC POWER		X																							
	PF COR CAP	CP53-81-FB106K1		2	15.00							16.93	1.71	16.84	24.5	27.5	360	440	MEA	0.101			3.42	33.69		
TOTAL 26 VAC (WITH TOW ENERGIZED)																										
115 VAC (WITH TOW ENERGIZED)																										
A001	ARMAMENT		A																							
	TOW REF SI	XM-65		1	15.00	108.89	107.98	14.01							108.0	118.0	380	420	MEA	0.992	51.54	13.72	66.26	5.68	93.26	5.97
A002	TOW MIS SY	XM-65		1	15.00	276.11	264.79	78.25							108.0	118.0	380	420	MEA	0.959	119.54	119.54	54.85	60.49	90.40	19.20
A005	TURRARM3PH	AM-28		1	15.00	17.81	9.21	15.24							108.0	118.0	360	440	MEA	0.517	3.07	5.08	3.07	5.08	3.07	5.08
C010	FLIGHT CONTROLS		C																							
	STARAUGSYS	570-947-001		1	15.00				16.59	15.21	6.62				108.0	118.0	380	420	MEA	0.917	15.21	6.62				
E046	ENGINE INSTRUMENTS		E																							
	FUELQTYSYS	209-060-602		1	15.00				2.92	2.91	0.26				108.0	118.0	360	440	MEA	0.996	2.91	0.26				
E046A	FUELQTYIND		1																							
E046B	FUELQTYXM		2																							
F018	FLIGHT INSTRUMENTS		F																							
	COMPASSSYS	AN/ASN-43		1																						
F018A	DIR GYRO	CH/998()/ANS		1	15.00				16.39	15.36	5.73				108.0	118.0	380	420	MEA	0.937			15.36	5.73		
F018B	XMTR	T-611()/ASN		1																						
F018C	SERVO AMP	AM-3209/ASN		1	15.00				12.32	12.00	2.79				108.0	118.0	380	420	MEA	0.974			12.00	2.79		
F024	ATT IND3PH	LEAR-SIGLER4003AH		2	15.00	9.52	8.94	3.27							108.0	118.0	360	440	MEA	0.939	5.96	2.18	5.96	2.18	5.96	2.18
F025	ATT GYRO	LEAR-SIGLER 9000C		1	15.00	17.94	15.93	8.25							108.0	118.0	380	420	MEA	0.888	5.31	2.75	5.31	2.75	5.31	2.75
F026	RATESWGYRO	TYPE MC-1		1	15.00	4.89	1.20	4.74							108.0	118.0	380	420	MEA	0.245	0.40	1.58	0.40	1.58	0.40	1.58
X009	AC POWER		X																							
	AC FAILRLY	TYPE D1 MIL-R8373		1	15.00				3.89	2.80	2.70				108.0	118.0	360	440	MEA	70.720	2.80	2.70				
X010	PF COR CAP	CQ7281EF105K1		3	15.00				33.48	3.38	11.31				108.0	118.0	360	440	MEA	-0.101			3.38	33.31		
TOTAL 115 VAC (WITH TOW ENERGIZED)																										
TOTAL/PER PHASE 26 VAC & 115 VAC TOW CONFIGURATION																										
TOTAL/3 PHASE TOW CONFIGURATION																										
TOTAL/PER PHASE (BASIC CONFIGURATION WITHOUT TOW ENERGIZED)																										
TOTAL/3 PHASE (BASIC CONFIGURATION WITHOUT TOW ENERGIZED)																										
20.63 19.90 28.66 VA AT 0.720 PF LAG																										
51.54 13.72 66.26 5.68 93.26 5.97 119.54 119.54 54.85 60.49 90.40 19.20 3.07 5.08 3.07 5.08 3.07 5.08																										
15.21 6.62 2.91 0.26 15.36 5.73 12.00 2.79 5.96 2.18 5.31 2.75 0.40 1.58																										
2.80 2.70 3.38 33.31 103.66 151.27 166.59 88.11 198.40 33.60 183.38 VA AT 188.46 VA AT 0200 201.23 VA AT 0.565 PF LAG 0.884 PF LEAD 0.986 PF LAG																										
103.66 151.27 187.22 68.22 198.40 33.60 183.38 VA AT 199.26 VA AT 201.23 VA AT 0.565 PF LAG 0.949 PF LEAD 0.986 PF LAG																										
489.28 116.65 503.00 VA AT 0.973 PF LAGGING																										
78.41 35.10 47.99 22.83 85.91 VA AT 53.14 VA AT 0.913 PF LAG 0.903 PF LAG																										
126.40 57.93 139.05 VA AT 0.909 PF LAGGING																										

Figure F-3. Ac load anlaysis chart (Sheet 3 of 3)

EQUIPMENT		PART DESIGNATION	NO- TES	NO. OF UNITS	AMPS PER UNIT	OPER TIME MIN.	MIN. VOLT	MAX. VOLT	PWR SOR INF	CONN LOAD	OPERATING CONDITIONS						OPERATING CONDITIONS						OPERATING CONDITIONS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
											START AND WARM-UP			5 SEC	TAKE-OFF		5 SEC	CRUISE 2 MIN	15 MIN	5 SEC	CRUISE 2 MIN	15 MIN	CRUISE - COMBAT			5 SEC	LAND		5 S																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
5 SEC	2 MIN	15 MIN	2 MIN	15 MIN	2 MIN	15 MIN	2 MIN	15 MIN	2 MIN	15 MIN	2 MIN	15 MIN	2 MIN		15 MIN	2 MIN							15 MIN	2 MIN	15 MIN		2 MIN	15 MIN																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
ESSENTIAL DC BUS WITHOUT APR-39																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
ARMAMENT			A																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											</

CONN LOAD	OPERATING CONDITIONS						OPERATING CONDITIONS						OPERATING CONDITIONS					
	START AND WARM-UP			TAKE-OFF			CRUISE			CRUISE - COMBAT			LAND			EMERGENCY		
	5 SEC	2 MIN	15 MIN	5 SEC	2 MIN	15 MIN	5 SEC	2 MIN	15 MIN	5 SEC	2 MIN	15 MIN	5 SEC	2 MIN	15 MIN	5 SEC	2 MIN	15 MIN
120.00 23.00										0.54 23.00	0.50 23.00	0.35 3.07						
2.00 0.0										2.00	0.25	0.03						
19.80 15.20 12.80 5.00										19.80 15.20	4.75 15.20	0.66 15.20						
0.92 4.40 0.06 1.05	0.92 0.06 1.05	0.92 0.06 1.05	0.92 0.06 1.05	0.92 0.06 1.05	0.92 0.06 1.05	0.92 0.06 1.05	0.92 0.06 1.05	0.92 0.06 1.05	0.92 0.06 1.05	0.92 0.06 1.05	0.92 0.06 1.05	0.92 0.06 1.05	0.92 0.06 1.05	0.92 0.06 1.05	0.92 0.06 1.05	0.92 0.06 1.05	0.92 0.06 1.05	0.92 0.06 1.05
0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
2.15																		
0.37 0.0 0.17																		
5.04 0.51	5.04 0.51	5.04 0.25	5.04 0.07	5.04 0.51	5.04 0.25	5.04 0.07	5.04 0.51	5.04 0.25	5.04 0.07	5.04 0.51	5.04 0.25	5.04 0.07	5.04 0.51	5.04 0.25	5.04 0.07	5.04 0.51	5.04 0.25	5.04 0.07
0.37 0.31 0.17 0.37	67.45 0.37 0.31 0.17 0.37	49.84 0.37 0.31 0.17 0.37	22.07 0.37 0.31 0.17 0.37	21.99 0.37 0.31 0.17 0.37	20.10 0.37 0.31 0.17 0.37	10.11 0.37 0.31 0.17 0.37	10.07 0.37 0.31 0.17 0.37	9.17 0.37 0.31 0.17 0.37	4.78 0.37 0.31 0.17 0.37	4.77 0.37 0.31 0.17 0.37	4.44 0.37 0.31 0.17 0.37	3.09 0.37 0.31 0.17 0.37	3.09 0.37 0.31 0.17 0.37	3.01 0.37 0.31 0.17 0.37	2.84 0.37 0.31 0.17 0.37	2.84 0.37 0.31 0.17 0.37	2.84 0.37 0.31 0.17 0.37	2.84 0.37 0.31 0.17 0.37
3.20 2.00 1.30 0.90 4.60 0.0 2.00 0.11	3.20 0.45 1.30 0.90 4.60 0.0 2.00 0.11	3.20 0.02 1.30 0.45 0.06	3.20 0.00 1.30 0.06	3.20 0.00 1.30	3.20 0.00 1.30	3.20 0.00 1.30	3.20 0.00 1.30	3.20 0.00 1.30	3.20 0.00 1.30	3.20 0.00 1.30	3.20 0.00 1.30	3.20 0.00 1.30	3.20 0.00 1.30	3.20 0.00 1.30	3.20 0.00 1.30	3.20 0.00 1.30	3.20 0.00 1.30	3.20 0.00 1.30
5.80 3.80 0.32	5.80 3.80 0.32	5.80 1.90 0.32	5.80 0.53 0.32	5.80 3.80 0.32	5.80 1.90 0.32	5.80 0.53 0.32	5.80 3.80 0.32	5.80 1.90 0.32	5.80 0.53 0.32	5.80 3.80 0.32	5.80 1.90 0.32	5.80 0.53 0.32	5.80 3.80 0.32	5.80 1.90 0.32	5.80 0.53 0.32	5.80 3.80 0.32	5.80 1.90 0.32	5.80 0.53 0.32

POWER SOURCE COMPONENT DATA

ITEM	STARTER- GENERATOR	BATTERY
No. Unit	1	1
Rating	300A(1)	22AH
Voltage	30V DC	24V DC
Frequency	—	—
Power Factor	—	—
Configuration	—	—
Manufacturer	—	—
Model No.	204-060-200-1	BB-649/A
Voltage Reg.	± 2%	—
Regulator P/N	209-075-228-1	—
Frequency Reg.	—	—

Derated to 200 amperes in this installation

ELECTRICAL LOAD ANALYSIS

NOTES:

- 1 THIS EQUIPMENT IS NORMALLY DEENERGIZED.
- 2 ONE MINUTE OPERATION OUT OF EACH TEN MINUTES.
- 3 ENERGIZED EXCEPT DURING DEICING.
- 4 BATTERY LOAD DURING STARTING.
- 5 BATTERY CHARGING VALUES CALCULATED.
- 6 BATTERY IS REMOVED FROM MAIN DC BUS DURING FIRING TO SUPPLY GUN DRIVE POWER.
- 7 SEVERAL WING STORFS CONFIGURATIONS ARE POSSIBLE. THIS ANALYSIS IS BASED ON THE CONFIGURATION RESULTING IN THE HIGHEST DC LOAD, THAT IS, 2XM-18 MINI GUNS ON INBOARD STATIONS AND 4 TOW MISSILES AT EACH OUTBOARD STATION.
- 8 PROVISIONS ONLY.
- 9 EITHER THE AN/ARC54 OR THE AN/ARC131 IS INSTALLED. THE HIGHEST LOAD IS SHOWN FOR THIS ANALYSIS.

Figure F-4. Dc load analysis chart (Sheet 1 of 2)

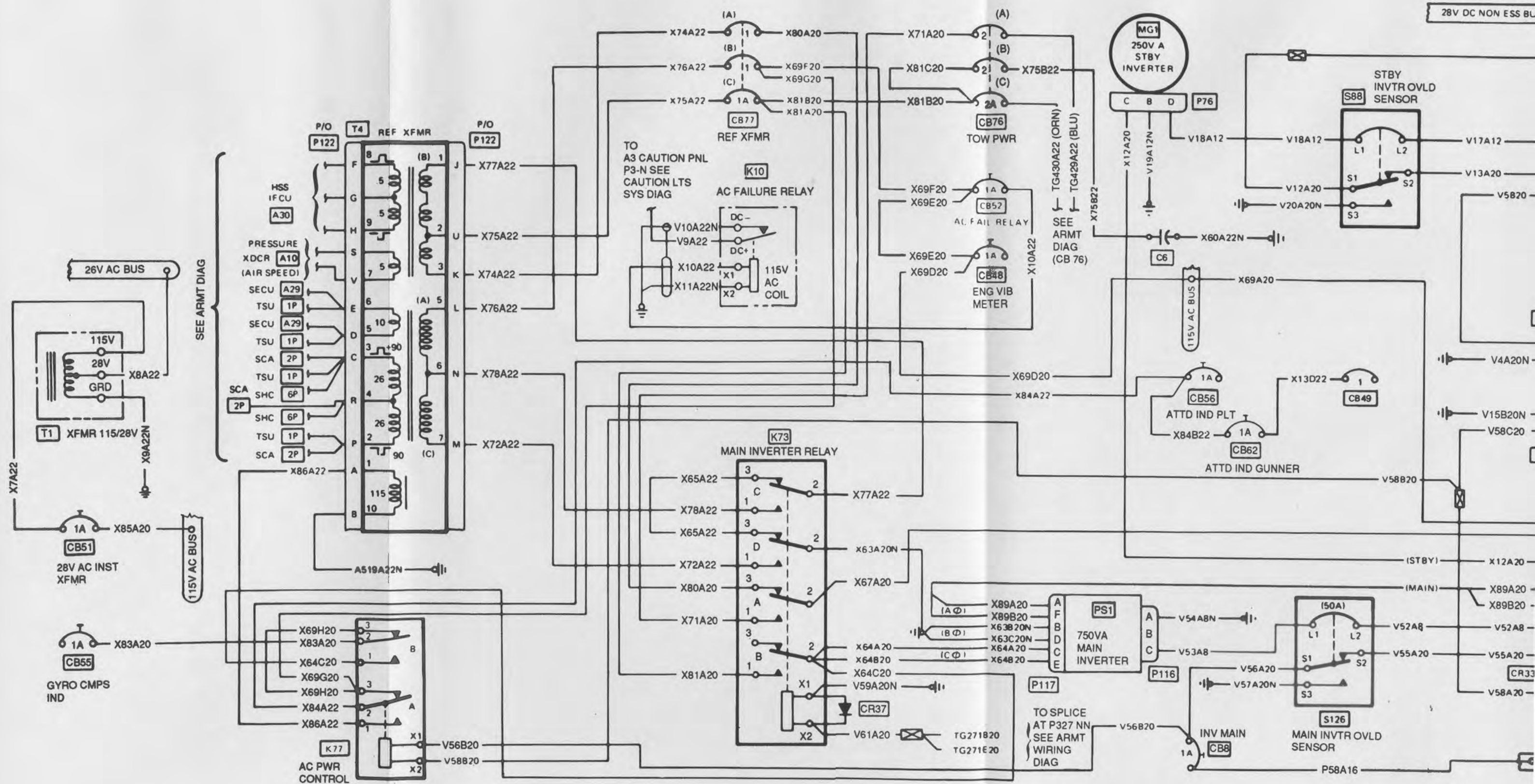
EQUIPMENT	PART DESIGNATION	NO. TES	NO. OF UNITS	AMPS PER UNIT	DECR. TIME MIN.	MIN. VOLT	MAX. VOLT	PWR SOR INF	CONN LOAD	OPERATING CONDITIONS						OPERATING CONDITIONS						OPERATING CONDITIONS			
										START AND WARM-UP			TAKE - OFF			CRUISE			CRUISE - COMBAT			LAND			
										5 SEC	2 MIN	15 MIN	5 SEC	2 MIN	15 MIN	5 SEC	2 MIN	15 MIN	5 SEC	2 MIN	15 MIN	5 SEC	2 MIN	15 MIN	5 SEC
S005	RADAR	S																							
S006	IFFTRANSPONDER		1	3.80	15.00	24.00	28.50	SPEC	3.50	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80
S007	TEST SET		1	0.70	15.00	24.00	28.50	SPEC	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
	COMPUTER KIT		1	1.10	15.00	24.00	28.50	SPEC	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
V012	INVERTER	V																							
V013	MAIN INVERTER		1		15.00	24.00	28.50	SPEC		8.45	8.45	8.45	8.45	8.45	8.45	8.45	8.45	8.45				8.45	8.45	8.45	8.45
V014	ADDTL TOW MAIN		1		15.00	24.00	28.50	SPEC											28.38	28.38	28.38				
V015	STBY INVERTER		1		0.0	24.00	28.50	SPEC		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MAINIVCONTRLY		1	0.40	15.00	24.00	28.50	SPEC	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
W013	WARNING & EMERGENCY	W																							
W021	CAUT LT PANEL		2	0.20	15.00	24.00	28.50	SPEC	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
	RPM LIMIT WARN		1	0.30	15.00	24.00	28.50	SPEC	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
TOTAL ESSENTIAL DC BUS WITHOUT APR-39										109.46	87.64	57.86	61.42	57.38	45.83	50.40	46.90	40.57	125.07	105.79	78.05	44.17	40.36	38.57	43.93
ESSENTIAL DC BUS -APR-39																									
S022	RADAR		1	1.10	15.00	24.00	28.50	SPEC	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
	RADAR WARNING																								
TOTAL ESSENTIAL DC BUS -APR-39										1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
TOTAL ESS DC BUS WITH APR-39										110.56	88.74	58.96	62.52	58.48	46.93	51.50	48.00	41.67	126.17	106.85	79.15	46.27	41.46	39.67	45.03
NON-ESSENTIAL DC BUS																									
F028	FLIGHT INSTRUMENTS	F																							
	PITOT HEATER		1	3.75	15.00	24.00	28.50	SPEC	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75
H027	HEATING	H																							
H026	ECU		1	0.30	15.00	24.00	28.50	SPEC	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
H029	BLEED AIR SOL		1	0.80	15.00	24.00	28.50	SPEC	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
H030	RAIN REMOV SOL		1	0.64	15.00	24.00	28.50	SPEC	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
H031	HTR CONT RELAY		1	0.20	0.0	24.00	28.50	SPEC	0.20																
H032	TOW BLOWER		1	28.00	15.00	24.00	28.50	SPEC	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00
	TOW BLOWER RLY		1	0.40	15.00	24.00	28.50	SPEC	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
L006	LIGHTING	L																							
L044	SIDEPOSITI LTS		2	0.80	15.00	24.00	28.50	SPEC	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60
L045	SEARCH LIGHT		1	16.70	5.00	24.00	28.50	SPEC	16.70							16.70	16.70	5.57	16.70	16.70	5.57	16.70	16.70	5.57	16.70
L046	ANTICOLLISIONLT		1	2.15	15.00	24.00	28.50	SPEC	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15
L047	TAIL POSITI LT		2	0.90	15.00	24.00	28.50	SPEC	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
	POS LTSFLASHER		1	0.40	15.00	24.00	28.50	MEA	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
O001	FUEL CONTROL	O																							
	FUEL BOOSTPUMP		1	3.20	15.00	24.00	28.50	MEA	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
R034	RADIO NAV & COMM	R																							
R034A	VHF XCFR SYS		1																						
R034B	VHF RECEIVE		1	2.00	15.00	24.00	28.50	SPEC	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
R035	VHF XMITER		1	5.30	1.00	24.00	28.50	SPEC	5.30	5.30	2.65	0.74	5.30	2.65	0.74	5.30	2.65	0.74	5.30	2.65	0.74	5.30	2.65	0.74	5.30
R035A	FM XCVR SYS		1																						
R035B	FM RECEIVE		1	2.30	15.00	24.00	28.50	SPEC	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30
R036	FM XMITER		1	3.45	1.00	24.00	28.50	SPEC	3.45	3.45	1.72	0.48	3.45	1.72	0.48	3.45	1.72	0.48	3.45	1.72	0.48	3.45	1.72	0.48	3.45
R036A	FM XCVR SYS		1																						
R036B	FM RECEIVE		2	2.46	0.0	24.00	28.50	SPEC	1.35																
R037	FM XMITER		1	2.22	0.0	24.00	28.50	SPEC	2.22																
R038	ADF RECEIVER		1	0.47	15.00	24.00	28.50	SPEC	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
	SCRAMBLER		1	2.00	15.00	24.00	28.50	SPEC	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
V016	INVERTER	V																							
V017	AC PWR CONTRLY		1	0.25	15.00	24.00	28.50	SPEC	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	TOWINVERTERRLY		1	0.50	15.00	24.00	28.50	SPEC	0.50										0.50	0.50	0.50				
TOTAL NON-ESSENTIAL DC BUS										58.81	54.43	51.28	58.81	54.43	51.28	75.51	71.13	56.89	59.21	54.93	51.78	75.51	71.13	56.85	
TOTAL ESS +N-ESS DC BUS WITHOUT APR-39										168.27	142.08	109.15	120.23	111.81	97.12	125.91	118.03	97.42	184.38	160.69	129.84	119.68	111.49	95.43	43.93
TOTAL ESS + N-ESS DC BUS WITH APR-39										169.37	143.18	110.25	121.33	112.91	98.22	127.01	119.13	98.52	165.48	161.79	130.94	120.78	112.59	96.53	45.03

Figure F-4. Dc load analysis chart (Sheet 2 of 2)

IDENTIFICATION	NOTES	NO. OF UNITS	AMPS PER UNIT	DECR TIME MIN.	MIN. VOLT	MAX. VOLT	PWR SOURCE INF	CONN LOAD	OPERATING CONDITIONS						OPERATING CONDITIONS						OPERATING CONDITIONS					
									START AND WARM-UP			TAKE - OFF			CRUISE			CRUISE - COMBAT			LAND			EMERGENCY		
									5 SEC	2 MIN	15 MIN	5 SEC	2 MIN	15 MIN	5 SEC	2 MIN	15 MIN	5 SEC	2 MIN	15 MIN	5 SEC	2 MIN	15 MIN	5 SEC	2 MIN	15 MIN
APX-72	S 	1	3.80	15.00	24.00	28.50	SPEC	3.50	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	3.80	
143/APX		1	0.70	15.00	24.00	28.50	SPEC	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70		
SEC MARK XII		1	1.10	15.00	24.00	28.50	SPEC	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10		
75-572	V 	1		15.00	24.00	28.50	SPEC		8.45	8.45	8.45	8.45	8.45	8.45	8.45				8.45	8.45	8.45	8.45	8.45	8.45	8.45	
75-572		1		15.00	24.00	28.50	SPEC									28.38	28.38	28.38								
PU-543(I)/A		1		0.0	24.00	28.50	SPEC		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
181D2		1	0.40	15.00	24.00	28.50	SPEC	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	
75-705	W	2	0.20	15.00	24.00	28.50	SPEC	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	
74-001		1	0.30	15.00	24.00	28.50	SPEC	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30		
BUS WITHOUT APR-39									109.46	87.64	57.86	61.42	57.38	45.83	50.40	46.90	40.57	125.07	105.79	78.05	44.17	40.36	38.57	43.93	40.19	38.57
BUS -APR-39																										
PR-39		1	1.10	15.00	24.00	28.50	SPEC	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	
DC BUS -APR-39									1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	
TIAL DC BUS									110.56	88.74	58.96	62.52	58.48	46.93	51.50	48.00	41.67	126.17	106.85	79.15	46.27	41.46	39.67	45.03	41.29	39.67
13-1	F	1	3.75	15.00	24.00	28.50	SPEC	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	
70-403	H 	1	0.30	15.00	24.00	28.50	SPEC	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	
10-1-1		1	0.80	15.00	24.00	28.50	SPEC	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	
ROL 43070		1	0.64	15.00	24.00	28.50	SPEC	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	
149D1		1	0.20	0.0	24.00	28.50	SPEC	0.20																		
73-115		1	28.00	15.00	24.00	28.50	SPEC	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	28.00	
181D1		1	0.40	15.00	24.00	28.50	SPEC	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	
18-12, -13	L	2	0.80	15.00	24.00	28.50	SPEC	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	1.60	
20-283-9767		1	16.70	5.00	24.00	28.50	SPEC	16.70						16.70	16.70	5.57				16.70	16.70	5.57				
58085		1	2.15	15.00	24.00	28.50	SPEC	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	2.15	
0003-15-1683		2	0.90	15.00	24.00	28.50	SPEC	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	
77-2		1	0.40	15.00	24.00	28.50	MEA	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	
10-606	O	1	3.20	15.00	24.00	28.50	MEA	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	
IC-134	R      	1																								
IC-134		1	2.00	15.00	24.00	28.50	SPEC	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
IC-134		1	5.30	1.00	24.00	28.50	SPEC	5.30	5.30	2.65	0.74	5.30	2.65	0.74	5.30	2.65	0.74	5.30	2.65	0.74	5.30	2.65	0.74	5.30	2.65	
IC-54		1																								
IC-54		1	2.30	15.00	24.00	28.50	SPEC	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	
C-54		1	3.45	1.00	24.00	28.50	SPEC	3.45	3.45	1.72	0.48	3.45	1.72	0.48	3.45	1.72	0.48	3.45	1.72	0.48	3.45	1.72	0.48	3.45	1.72	
C-131		1																								
C-131		2	2.46	0.0	24.00	28.50	SPEC	1.35																		
C-131		1	2.22	0.0	24.00	28.50	SPEC	2.22																		
N-83		1	0.47	15.00	24.00	28.50	SPEC	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	
		1	2.00	15.00	24.00	28.50	SPEC	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	
7D1	V	1	0.25	15.00	24.00	28.50	SPEC	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
9D1		1	0.50	15.00	24.00	28.50	SPEC	0.50										0.50	0.50	0.50						
									58.81	54.43	51.28	58.81	54.43	51.28	75.51	71.13	56.89	59.21	54.93	51.78	75.51	71.13	56.85			
1-39									168.27	142.08	109.15	120.23	111.81	97.12	125.91	118.03	97.42	184.38	160.69	129.84	119.68	111.49	95.43	43.93	40.19	38.57
									169.37	143.18	110.25	121.33	112.91	98.22	127.01	119.13	98.52	165.48	161.79	130.94	120.78	112.59	96.53	45.03	41.29	39.67

209099-27-2

Figure F-4. Dc load analysis chart (Sheet 2 of 2)



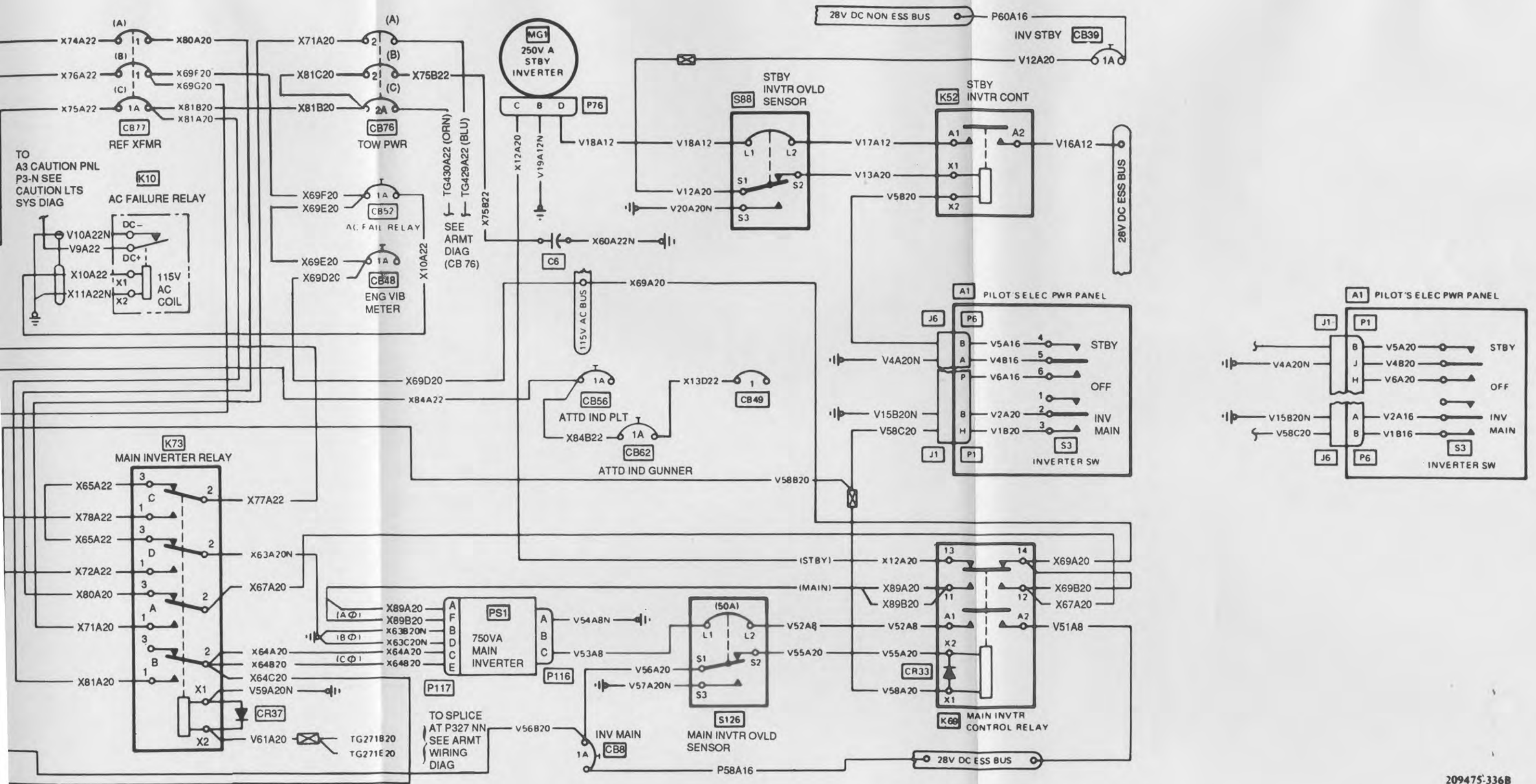


Figure F-5. Ac power system wiring diagram

209475-336B

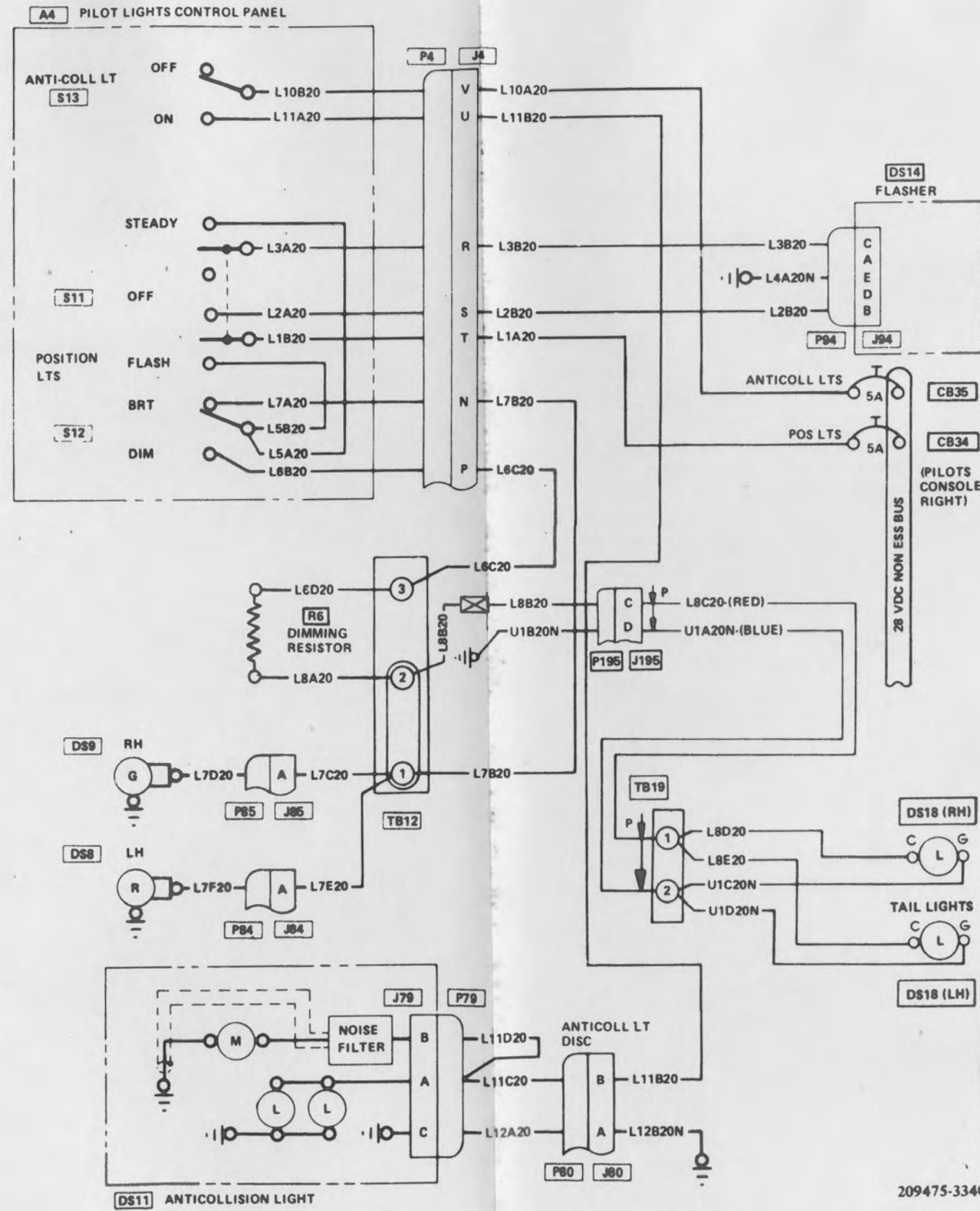


Figure F-6. Anticollision and position lights systems

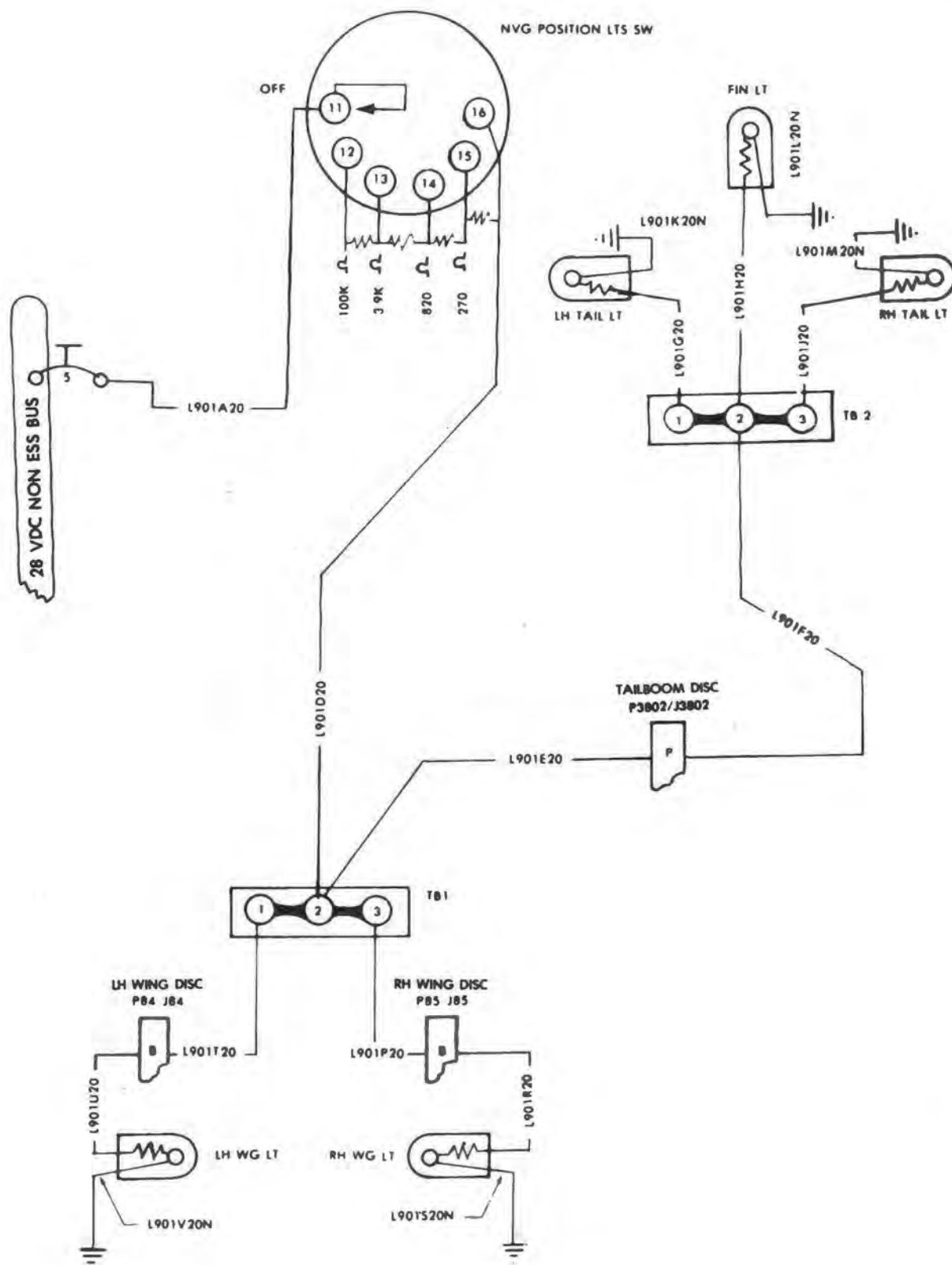


Figure F-6A. NVG Position Lights System

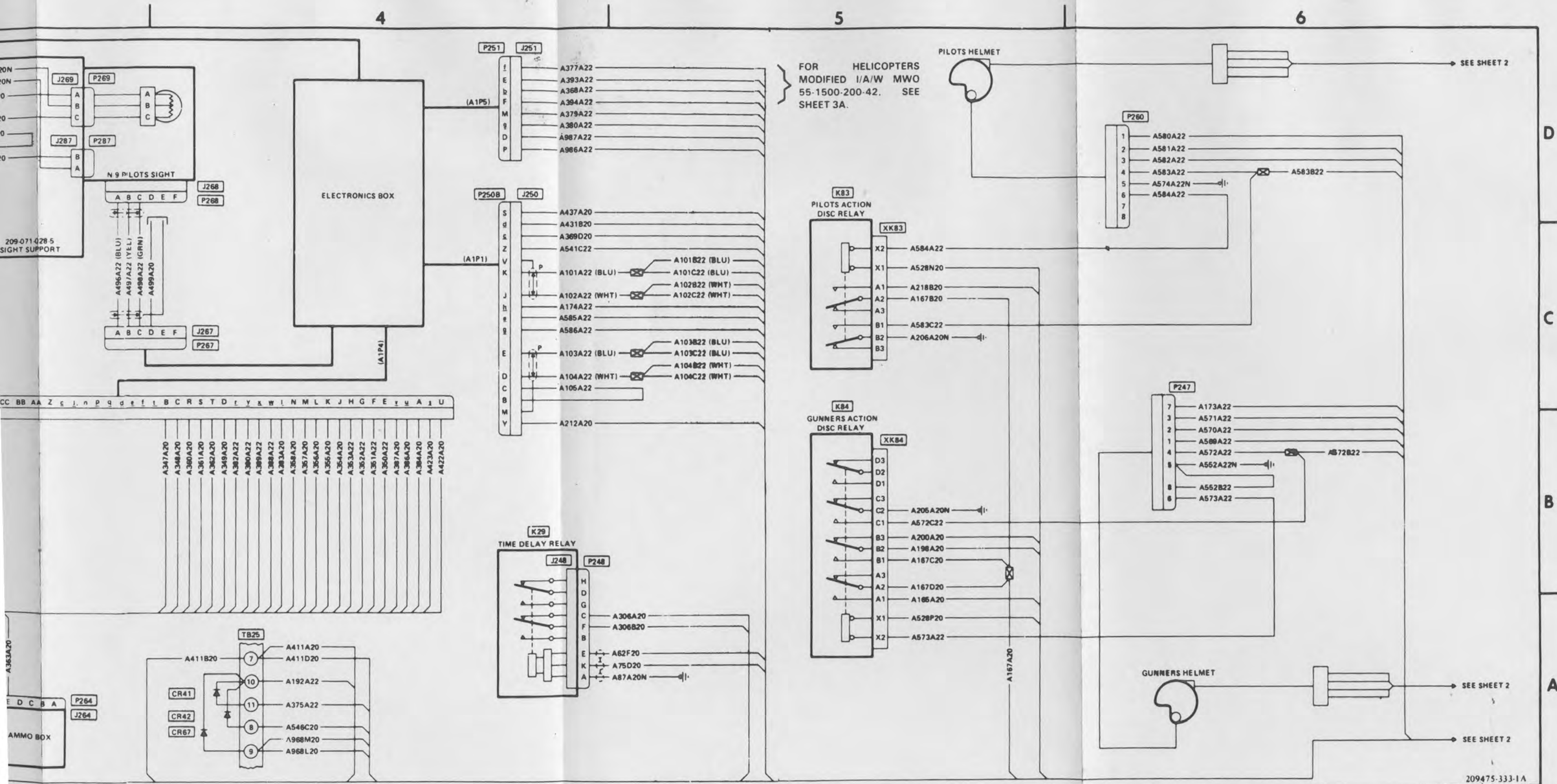


Figure F-7. Armament systems wiring diagram (Sheet 1 of 13)

7

8

9

SEE SHEET 1

D

C

B

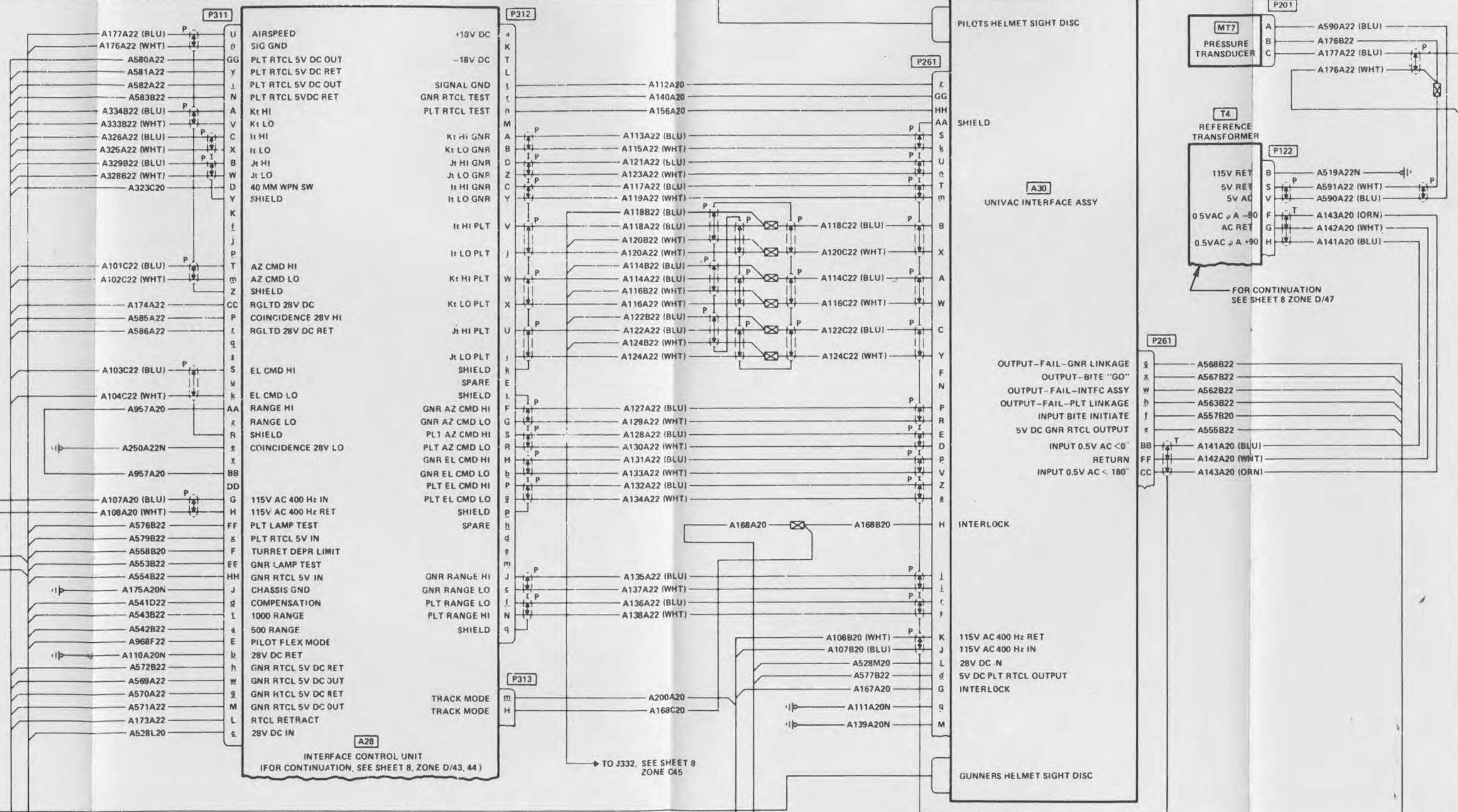
A

115V AC 400 Hz BUS

HSS PWR
CB78

SEE SHEET 1

SEE SHEET 1



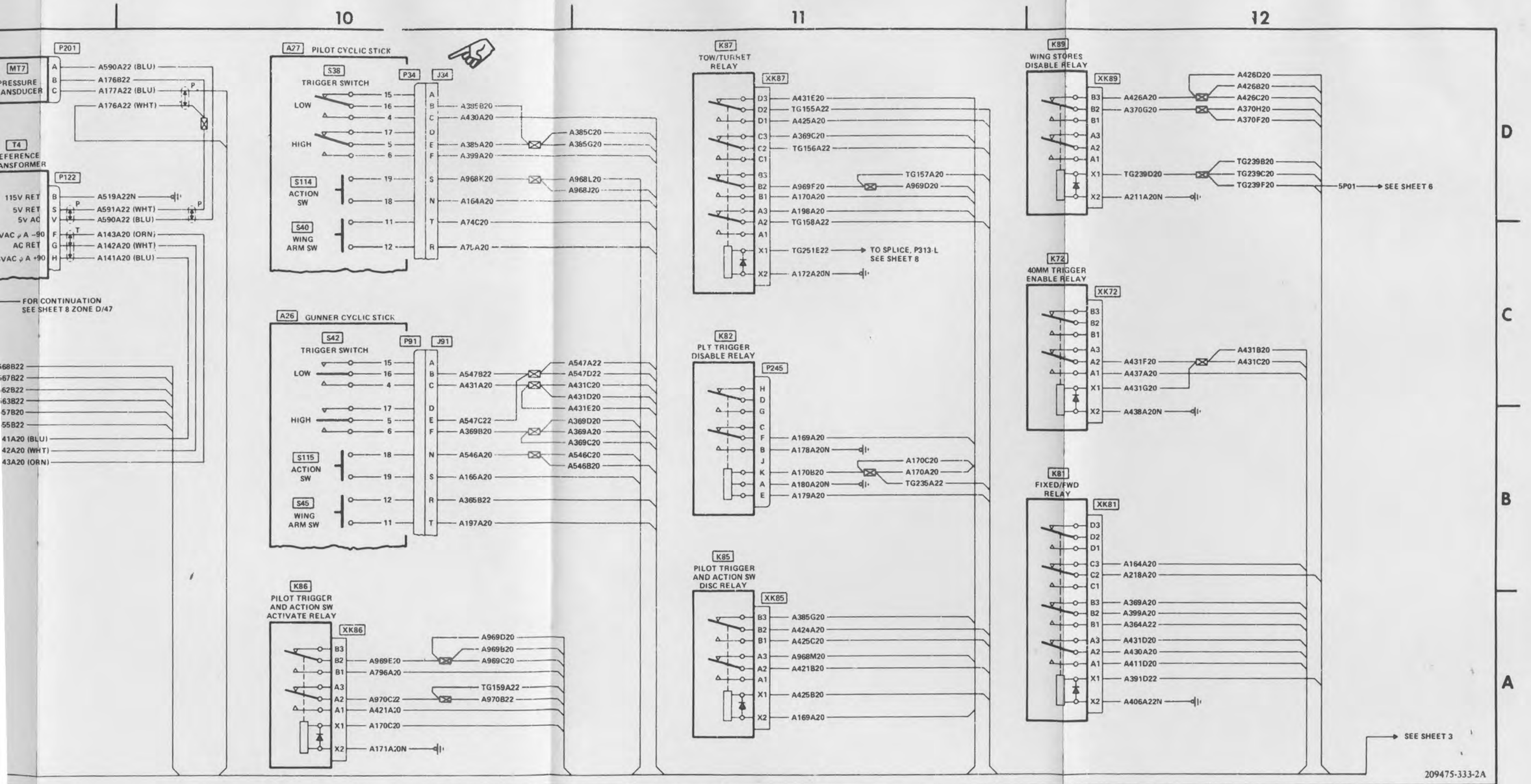


Figure F-7. Armament systems wiring diagram (Sheet 2 of 13)

13

14

15

D

C

B

A

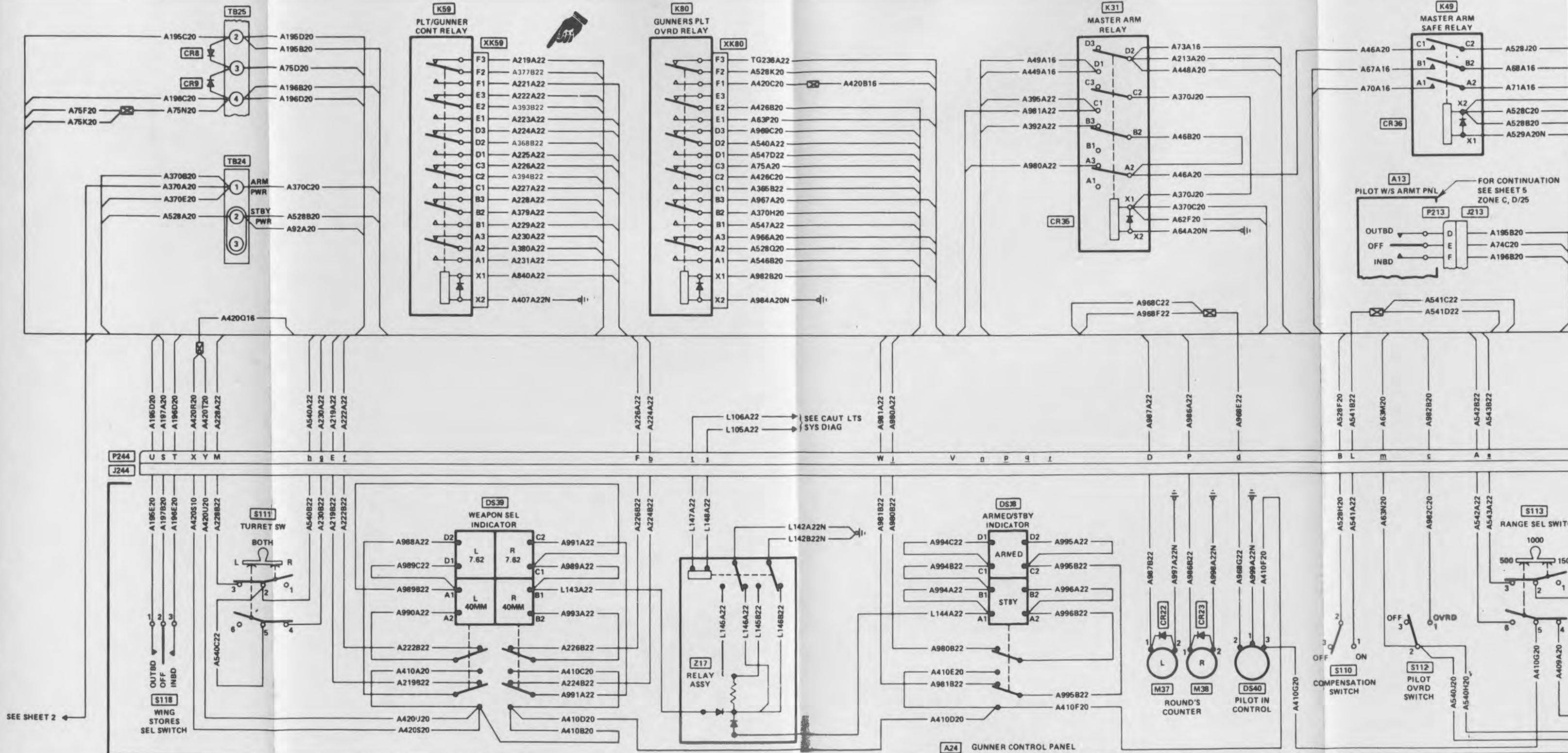


Figure F-7. Armament systems wiring diagram (Sheet 3 of 13)

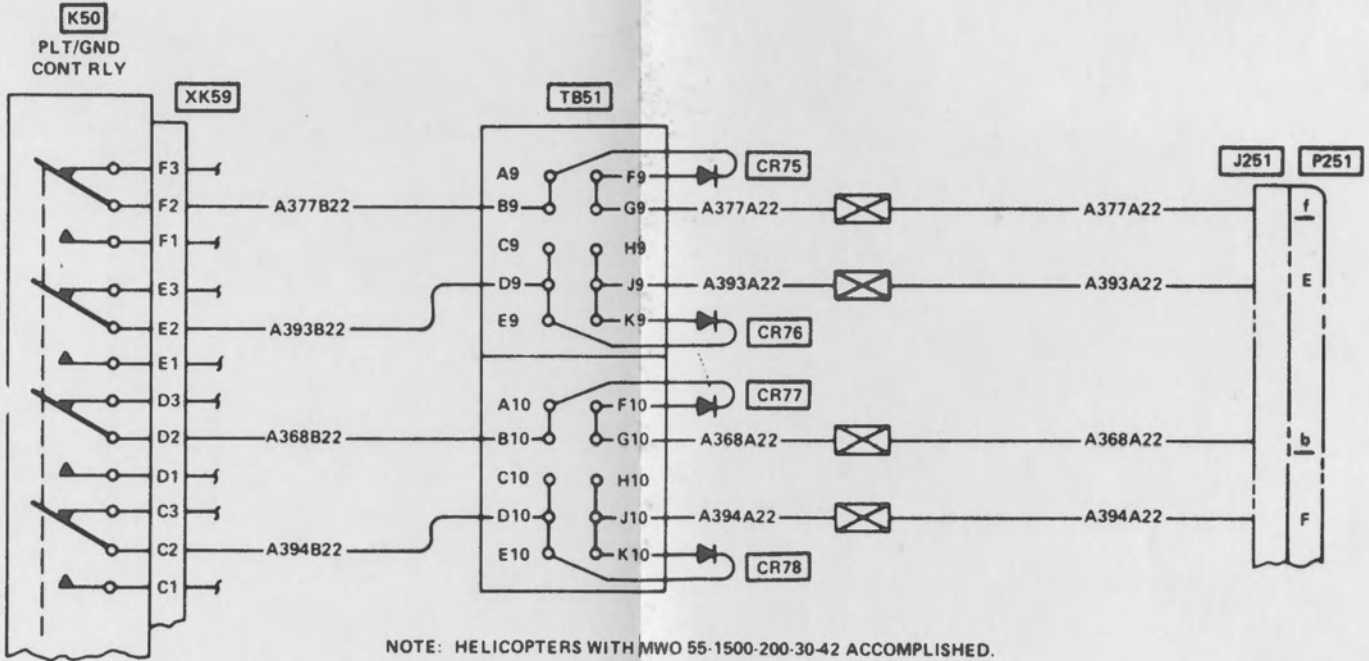
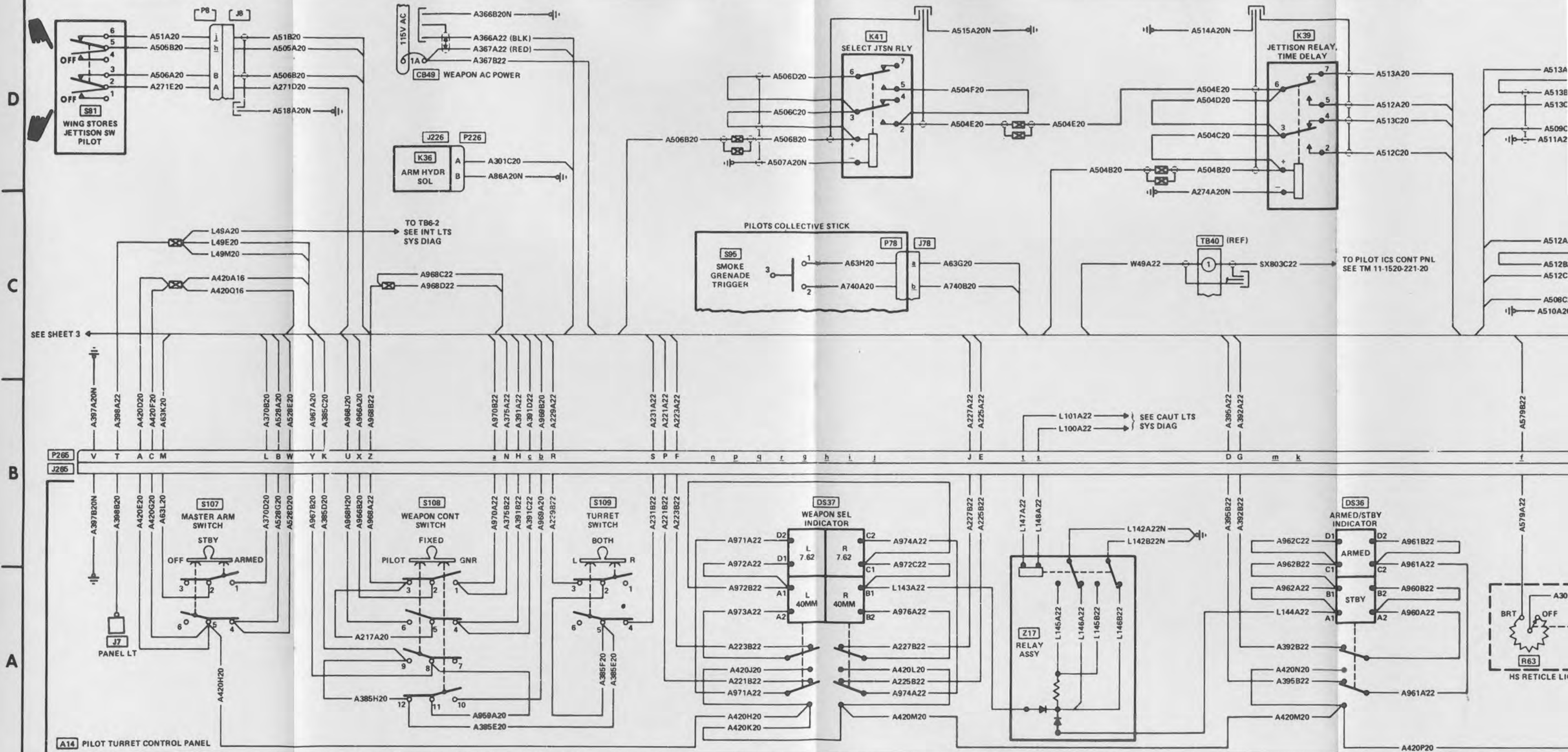


Figure F-7. Armament systems wiring diagram (Sheet 3A of 13)



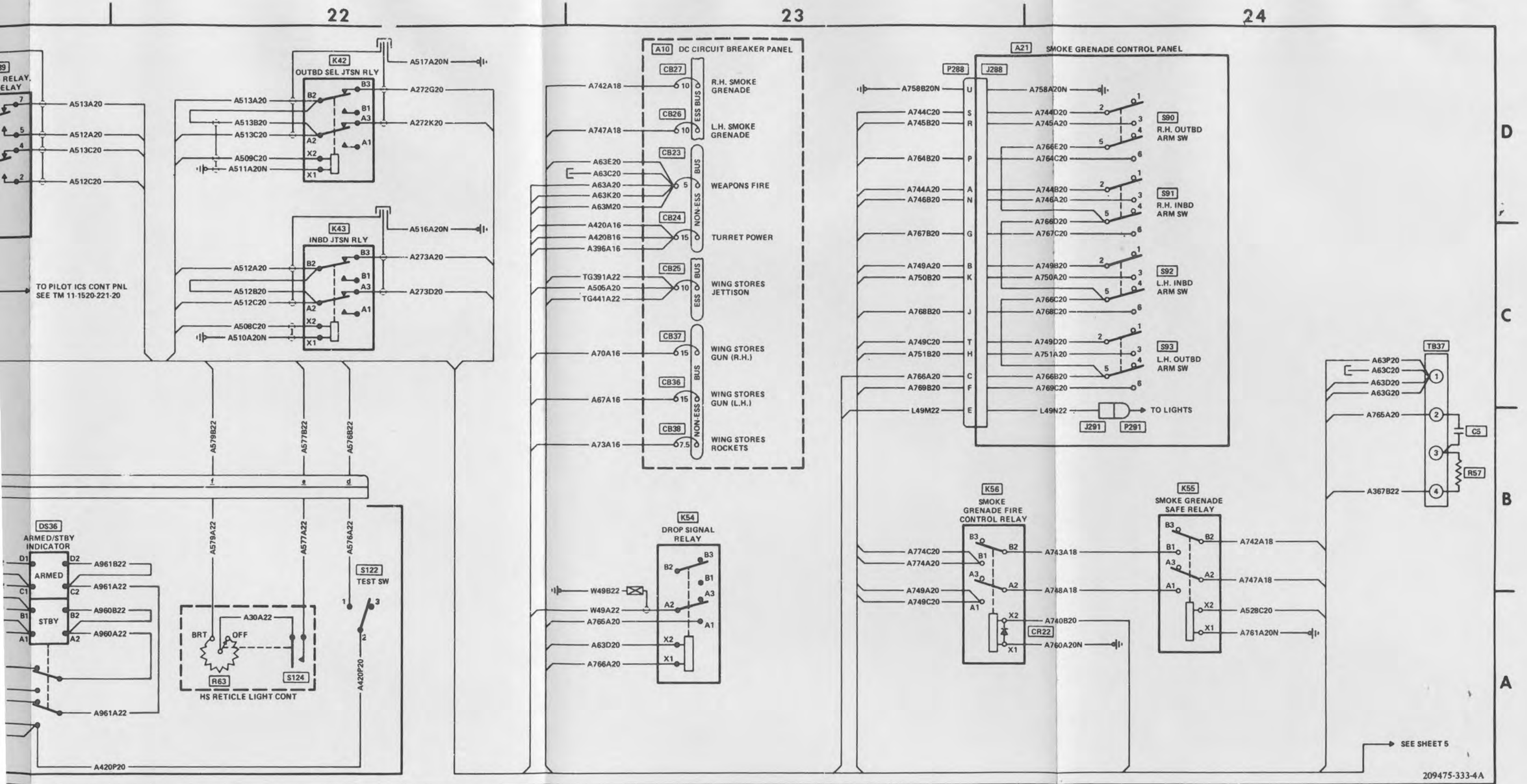
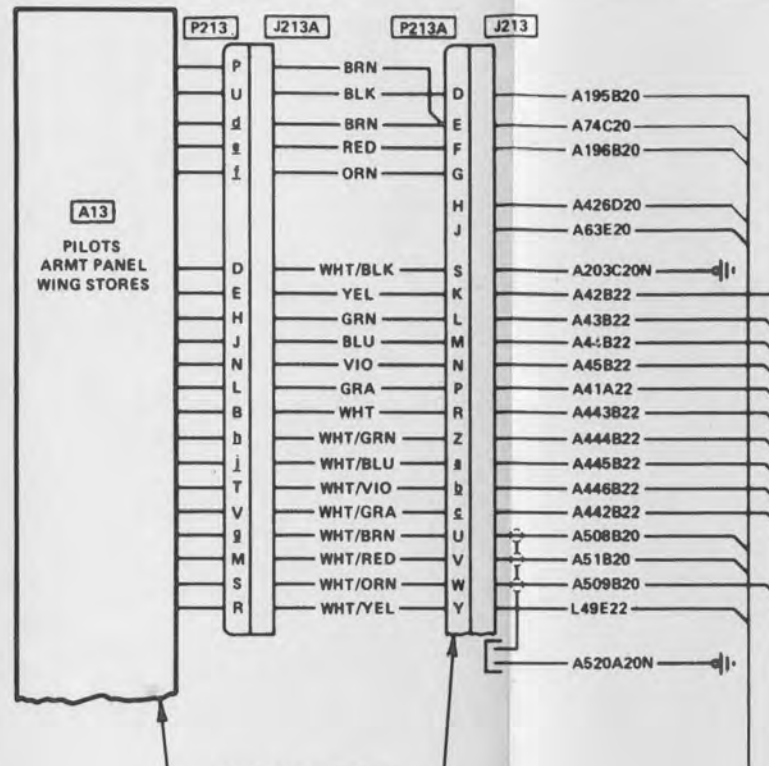
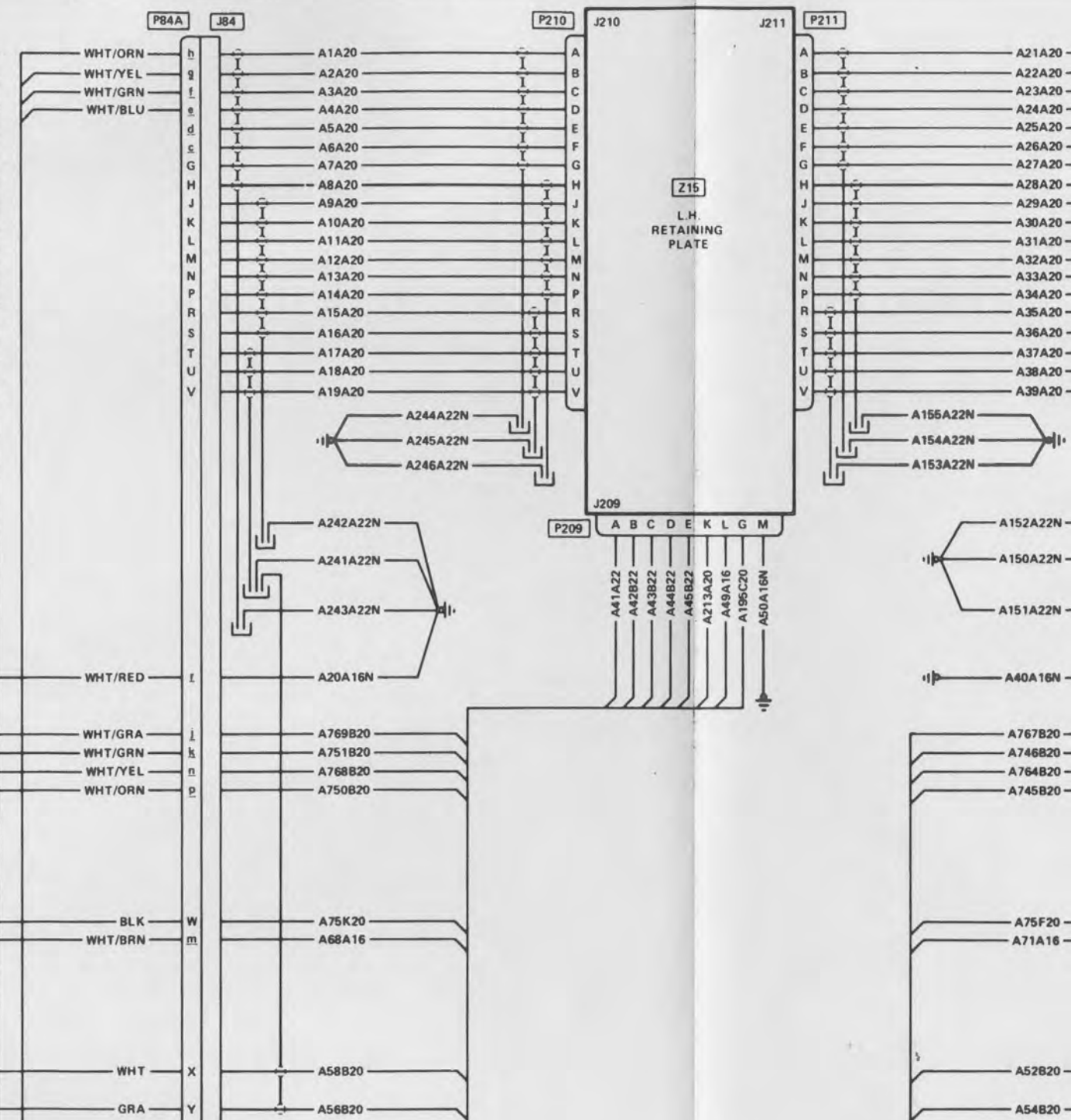
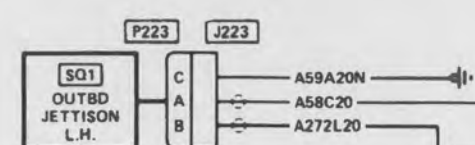
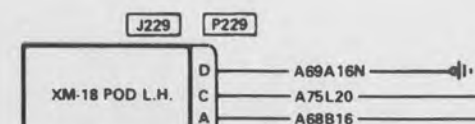
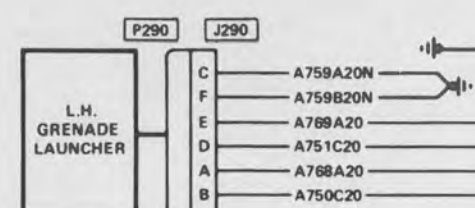
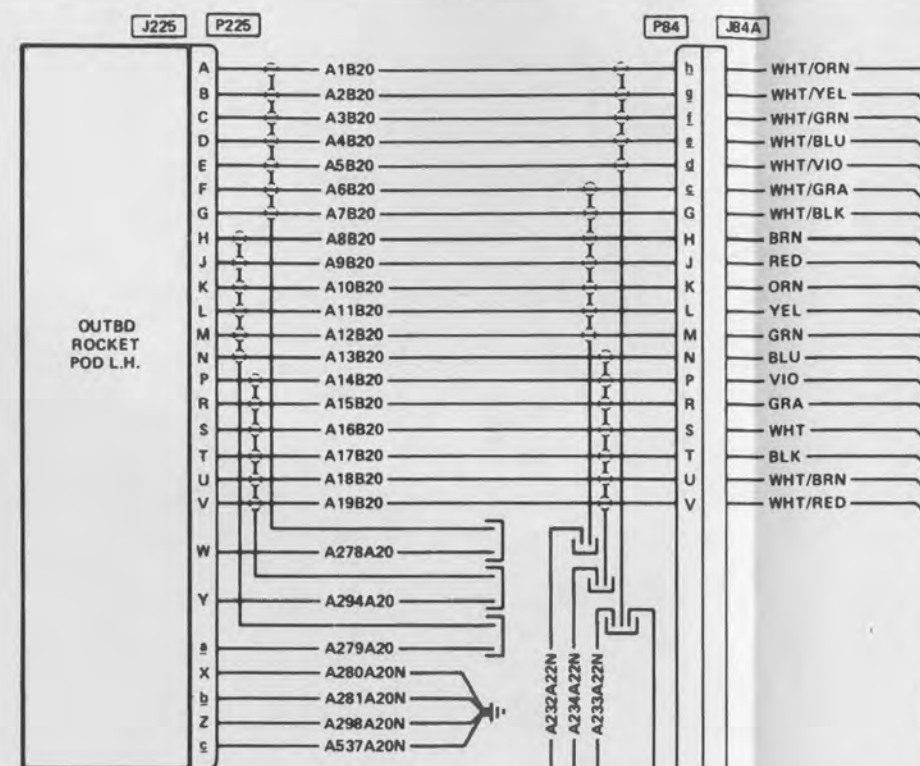


Figure F-7. Armament systems wiring diagram (Sheet 4 of 13)



FOR CONTINUATION
SEE SHEET 3, ZONE C/16



SEE SHEET 4

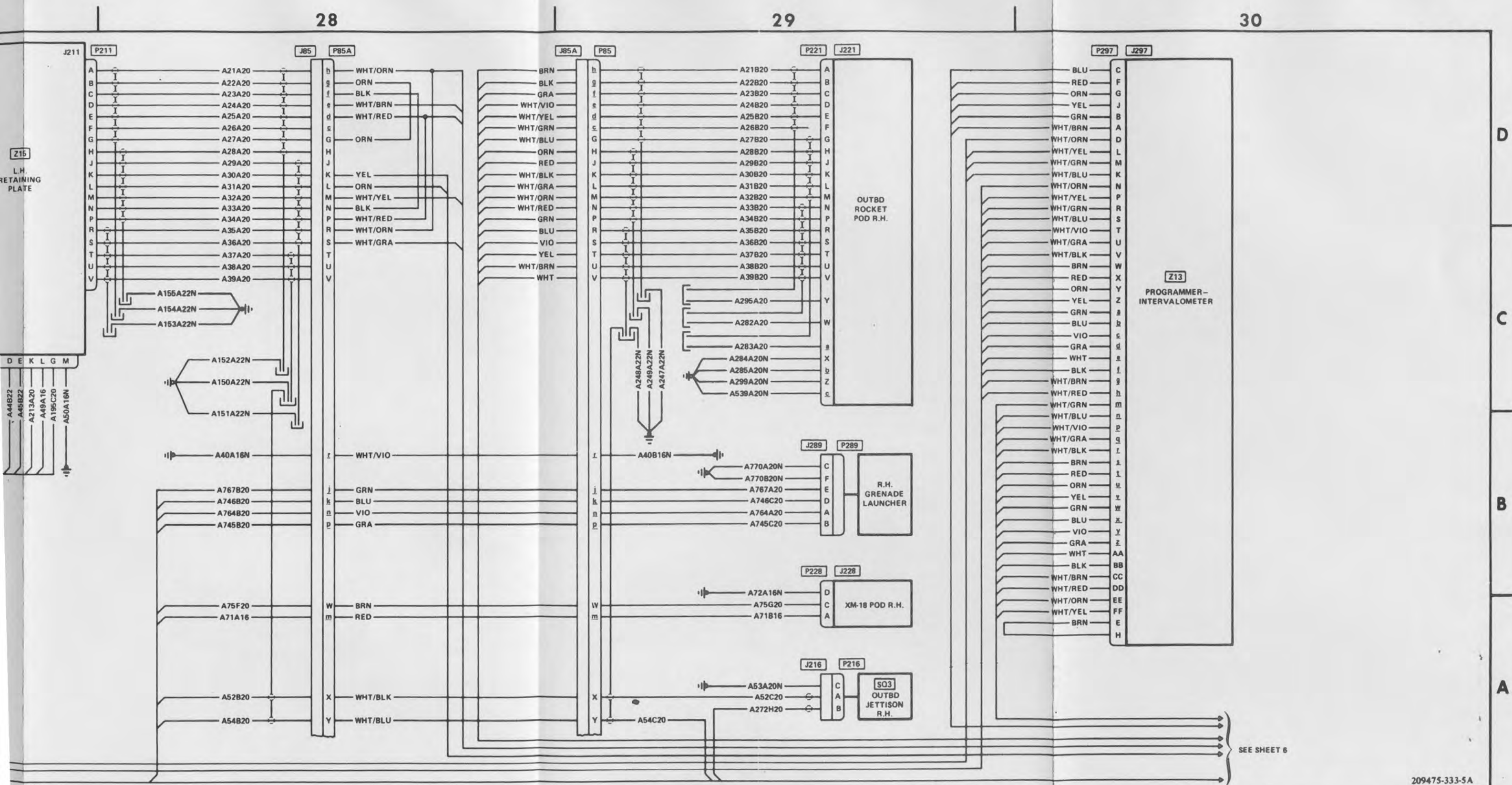
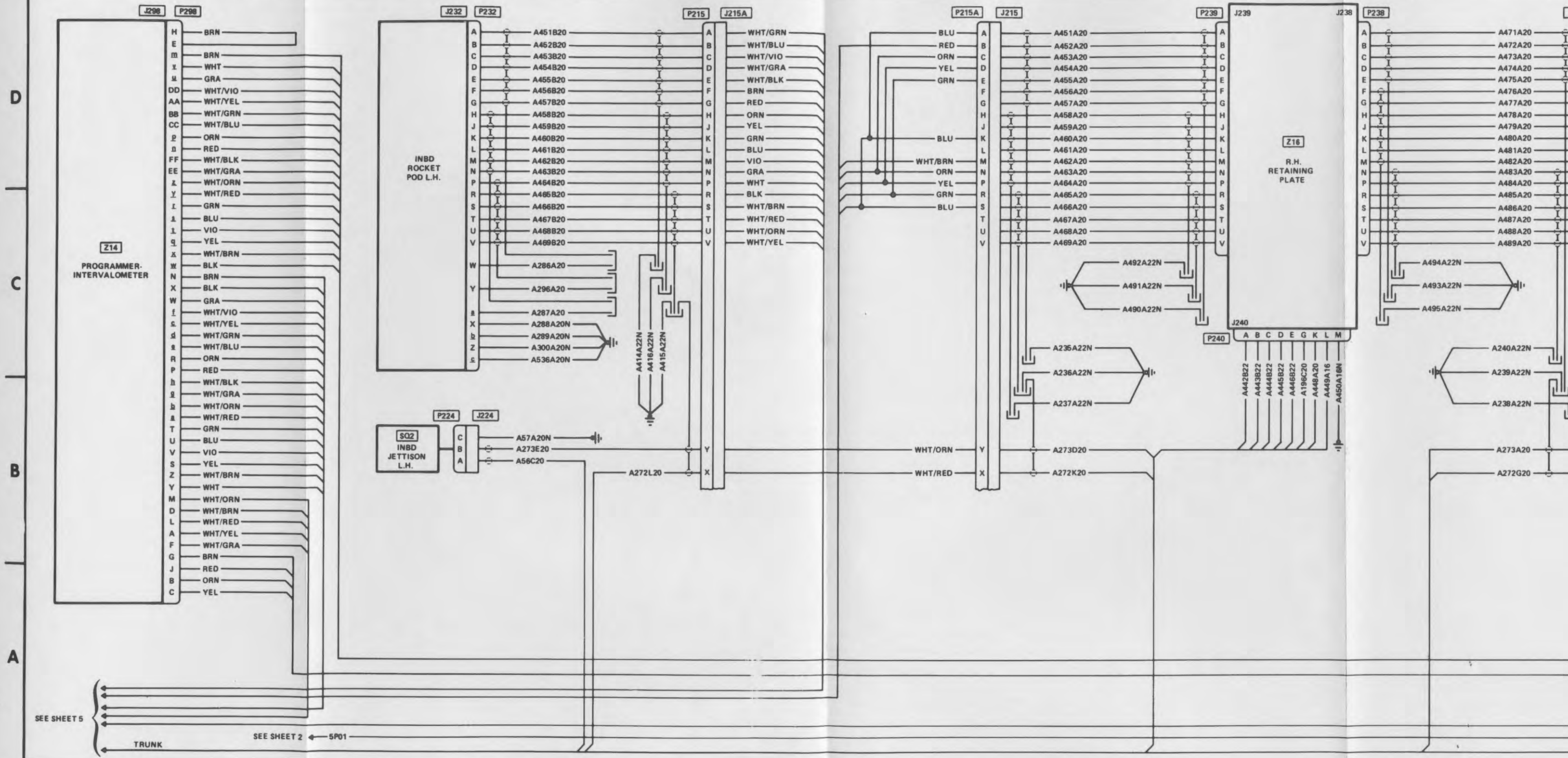


Figure F-7. Armament systems wiring diagram (Sheet 5 of 13)



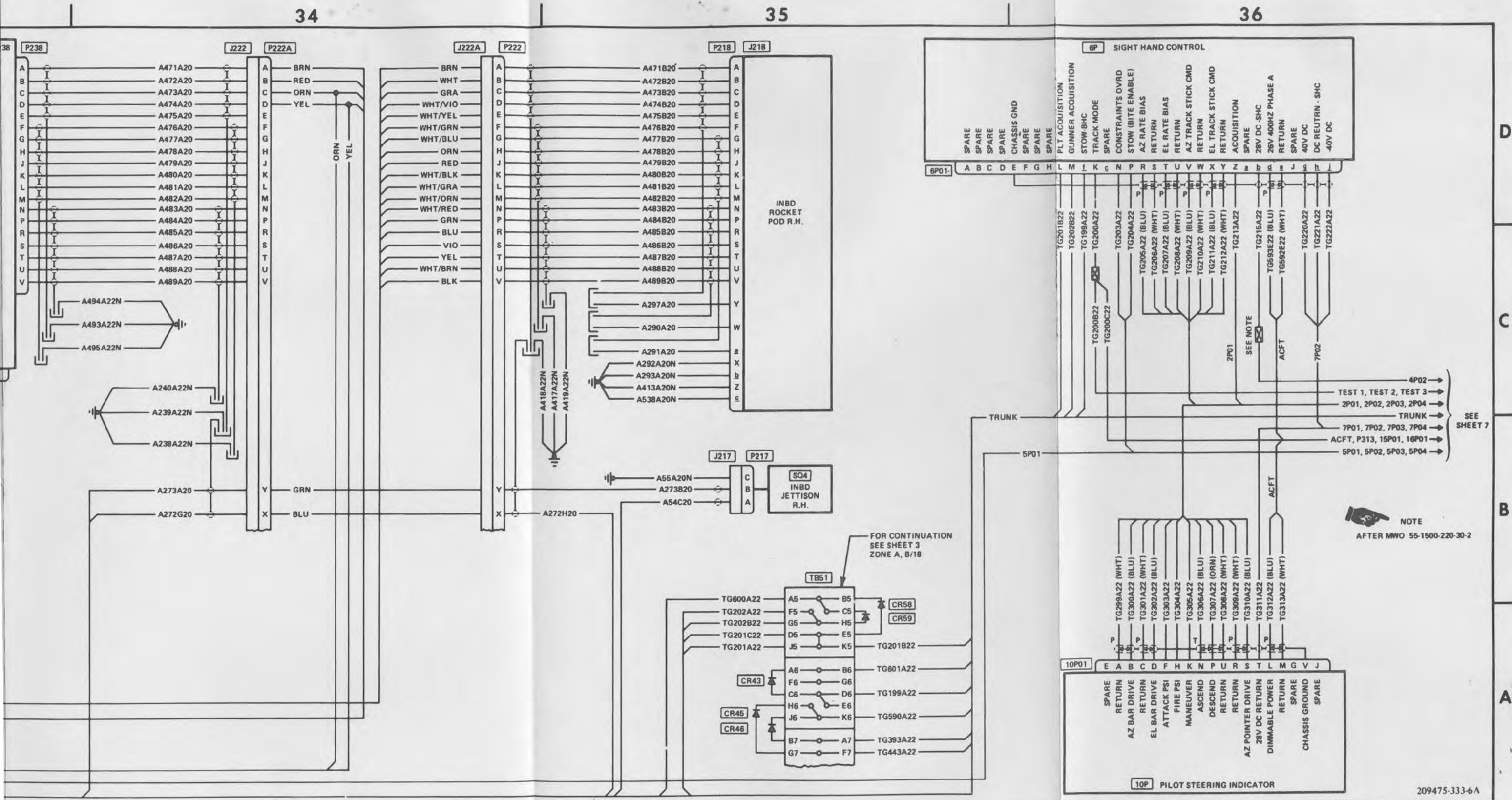
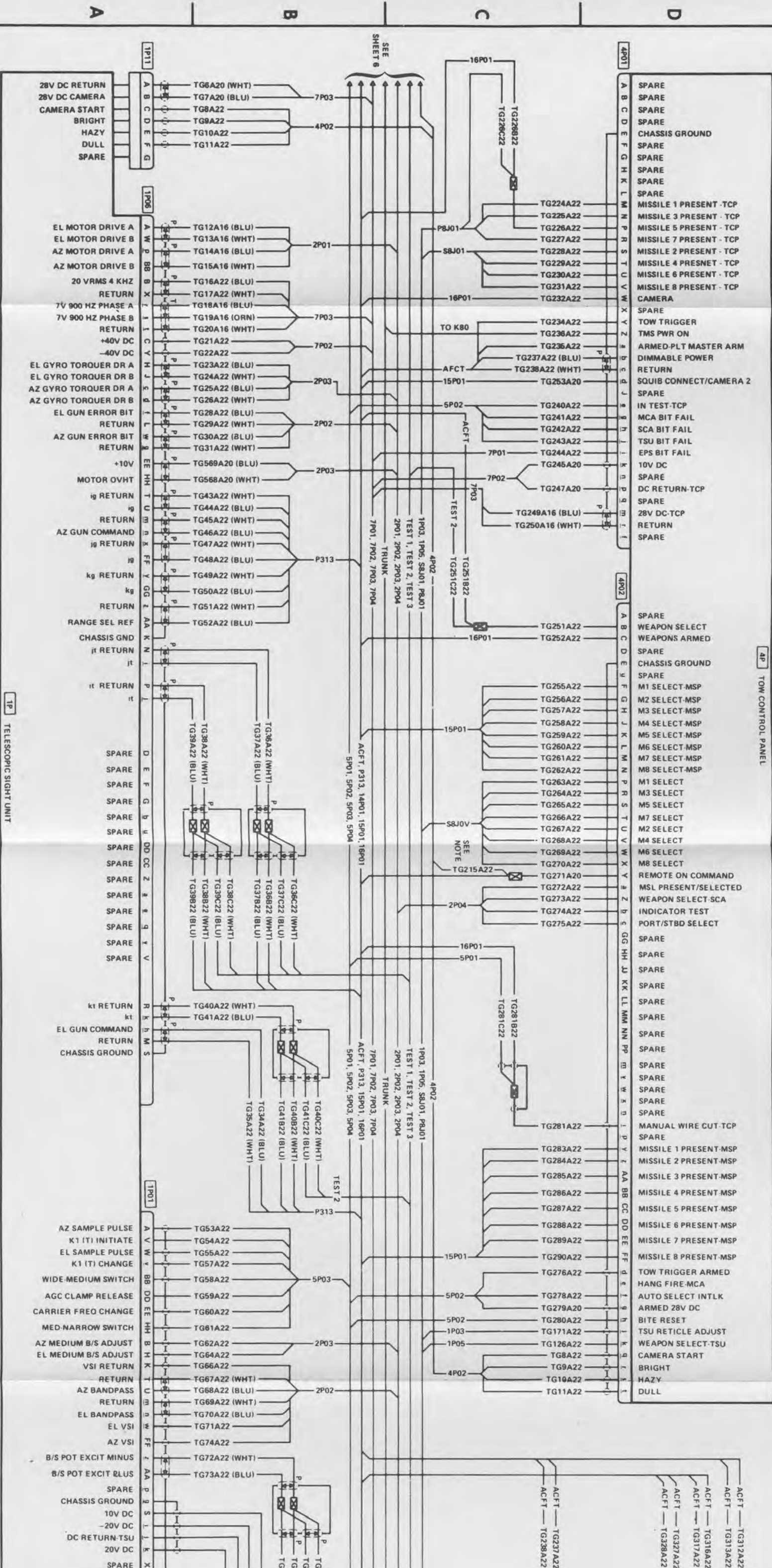
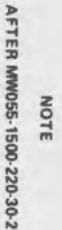
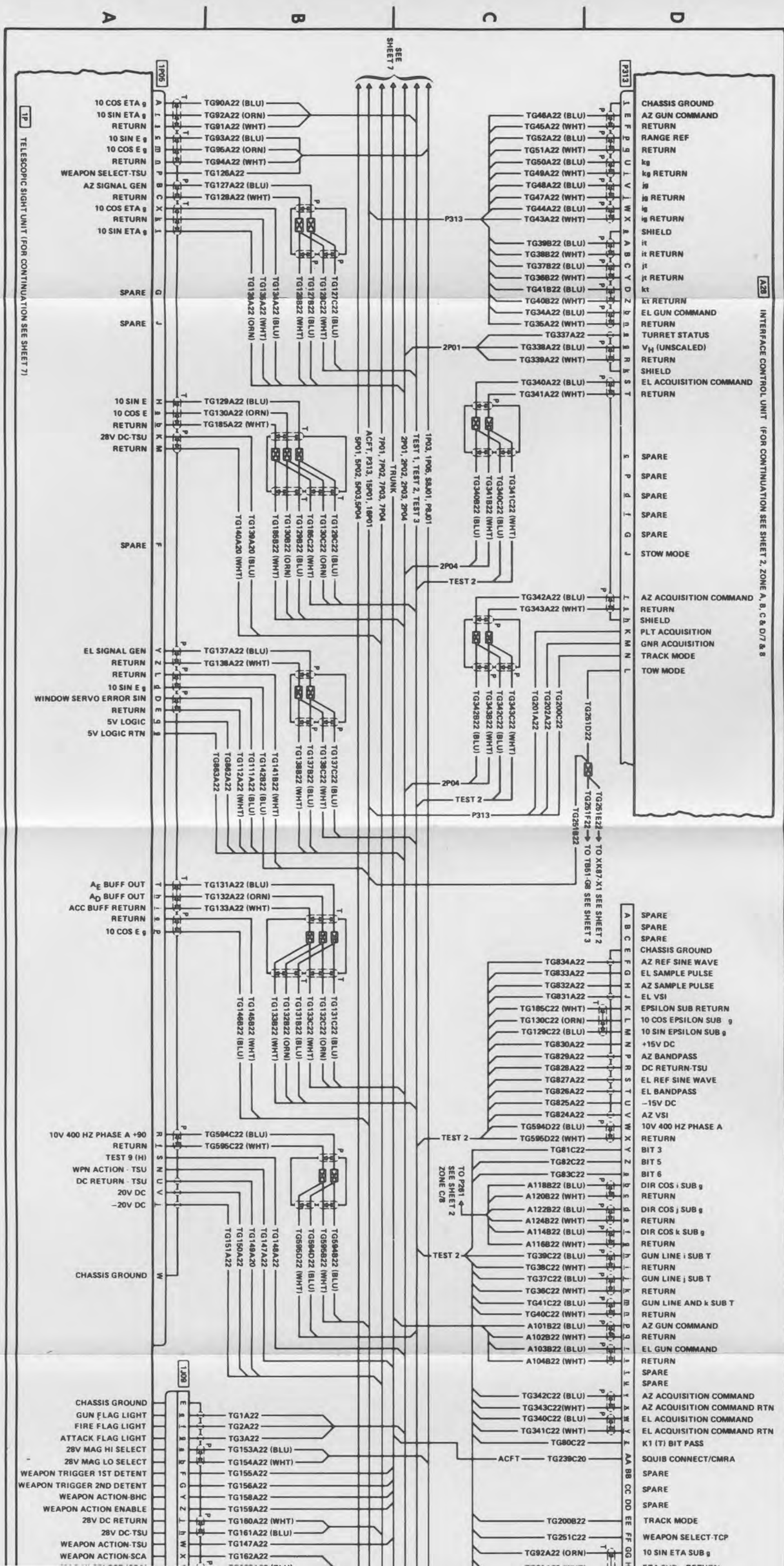


Figure F-7. Armament systems wiring diagram (Sheet 6 of 13)



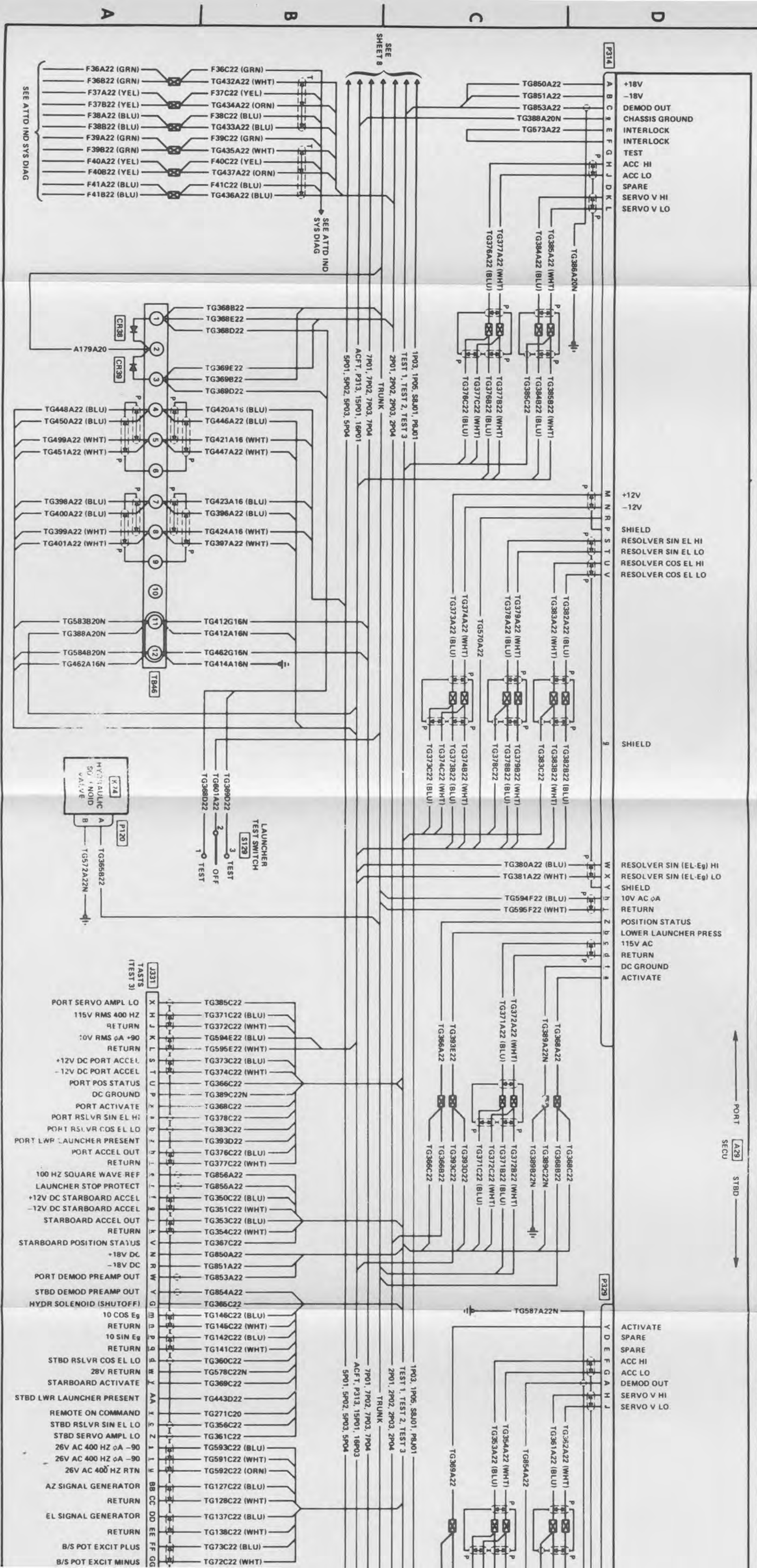


209475-333-7A



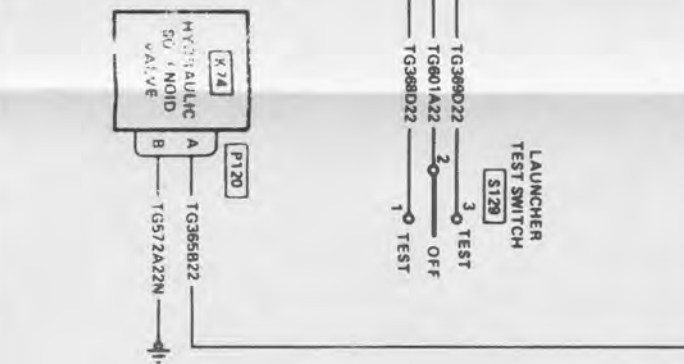


Change 4 F-103/(F-104 blank)



- SEE ATTD IND SYS DIAG
- F36A22 (GRN)
 - F36822 (GRN)
 - F37A22 (YEL)
 - F37B22 (YEL)
 - F38A22 (BLU)
 - F38B22 (BLU)
 - F39A22 (GRN)
 - F39B22 (GRN)
 - F40A22 (YEL)
 - F40B22 (YEL)
 - F41A22 (BLU)
 - F41B22 (BLU)
 - F36C22 (GRN)
 - TG432A22 (WHT)
 - F37C22 (YEL)
 - TG434A22 (ORN)
 - F38C22 (BLU)
 - TG433A22 (BLU)
 - F39C22 (GRN)
 - TG435A22 (WHT)
 - F40C22 (YEL)
 - TG437A22 (ORN)
 - F41C22 (BLU)
 - TG436A22 (BLU)

- SEE ATTD IND SYS DIAG
- TG368B22
 - TG368E22
 - TG368D22
 - TG369E22
 - TG369B22
 - TG369D22
 - TG420A16 (BLU)
 - TG446A22 (BLU)
 - TG421A16 (WHT)
 - TG447A22 (WHT)
 - TG423A16 (BLU)
 - TG396A22 (BLU)
 - TG424A16 (WHT)
 - TG397A22 (WHT)
 - TG412G16N
 - TG412A16N
 - TG462G16N
 - TG414A16N



- PORT SERVO AMPL LO
- 115V RMS 400 HZ
- RETURN
- 10V RMS 0A +90
- RETURN
- +12V DC PORT ACCEL
- 12V DC PORT ACCEL
- PORT POS STATUS
- DC GROUND
- PORT ACTIVATE
- PORT RSLVR SIN EL HI
- PORT RSLVR COS EL LO
- PORT LWR LAUNCHER PRESENT
- PORT ACCEL OUT
- RETURN
- 100 HZ SQUARE WAVE REF
- LAUNCHER STOP PROTECT
- +12V DC STARBOARD ACCEL
- 12V DC STARBOARD ACCEL
- STARBOARD ACCEL OUT
- RETURN
- STARBOARD POSITION STATUS
- +18V DC
- 18V DC
- PORT DEMOD PREAMP OUT
- STBD DEMOD PREAMP OUT
- HYDR SOLENOID (SHUTOFF)
- 10 COS E_g
- RETURN
- 10 SIN E_g
- RETURN
- STBD RSLVR COS EL LO
- 28V RETURN
- STARBOARD ACTIVATE
- STBD LWR LAUNCHER PRESENT
- REMOTE ON COMMAND
- STBD RSLVR SIN EL LO
- STBD SERVO AMPL LO
- 26V AC 400 HZ 0A -90
- 26V AC 400 HZ 0A -90
- 26V AC 400 HZ RTN
- AZ SIGNAL GENERATOR
- RETURN
- EL SIGNAL GENERATOR
- RETURN
- B/S POT EXCIT PLUS
- B/S POT EXCIT MINUS
- TG385C22
 - TG371C22 (BLU)
 - TG372C22 (WHT)
 - TG594E22 (BLU)
 - TG595E22 (WHT)
 - TG373C22 (BLU)
 - TG374C22 (WHT)
 - TG366C22
 - TG389C22N
 - TG368C22
 - TG378C22
 - TG383C22
 - TG393D22
 - TG376C22 (BLU)
 - TG377C22 (WHT)
 - TG856A22
 - TG856A22
 - TG350C22 (BLU)
 - TG351C22 (WHT)
 - TG353C22 (BLU)
 - TG354C22 (WHT)
 - TG367C22
 - TG850A22
 - TG851A22
 - TG853A22
 - TG854A22
 - TG365C22
 - TG146C22 (BLU)
 - TG146C22 (WHT)
 - TG142C22 (BLU)
 - TG141C22 (WHT)
 - TG360C22
 - TG578C22N
 - TG369C22
 - TG443D22
 - TG271C20
 - TG356C22
 - TG361C22
 - TG593C22 (BLU)
 - TG591C22 (WHT)
 - TG592C22 (ORN)
 - TG127C22 (BLU)
 - TG128C22 (WHT)
 - TG137C22 (BLU)
 - TG138C22 (WHT)
 - TG73C22 (BLU)
 - TG72C22 (WHT)

- P314
- +18V
 - 18V
 - DEMOUT
 - CHASSIS GROUND
 - INTERLOCK
 - INTERLOCK
 - TEST
 - ACC HI
 - ACC LO
 - SPARE
 - SERVO V HI
 - SERVO V LO
- M N R P S T U V
- +12V
 - 12V
 - SHIELD
 - RESOLVER SIN EL HI
 - RESOLVER SIN EL LO
 - RESOLVER COS EL HI
 - RESOLVER COS EL LO
- W X Y h i z b s d i a
- RESOLVER SIN (EL-E_g) HI
 - RESOLVER SIN (EL-E_g) LO
 - SHIELD
 - 10V AC 0A
 - RETURN
 - POSITION STATUS
 - LOWER LAUNCHER PRESS
 - 115V AC
 - RETURN
 - DC GROUND
 - ACTIVATE
- P329
- ACTIVATE
 - SPARE
 - SPARE
 - ACC HI
 - ACC LO
 - DEMOUT
 - SERVO V HI
 - SERVO V LO

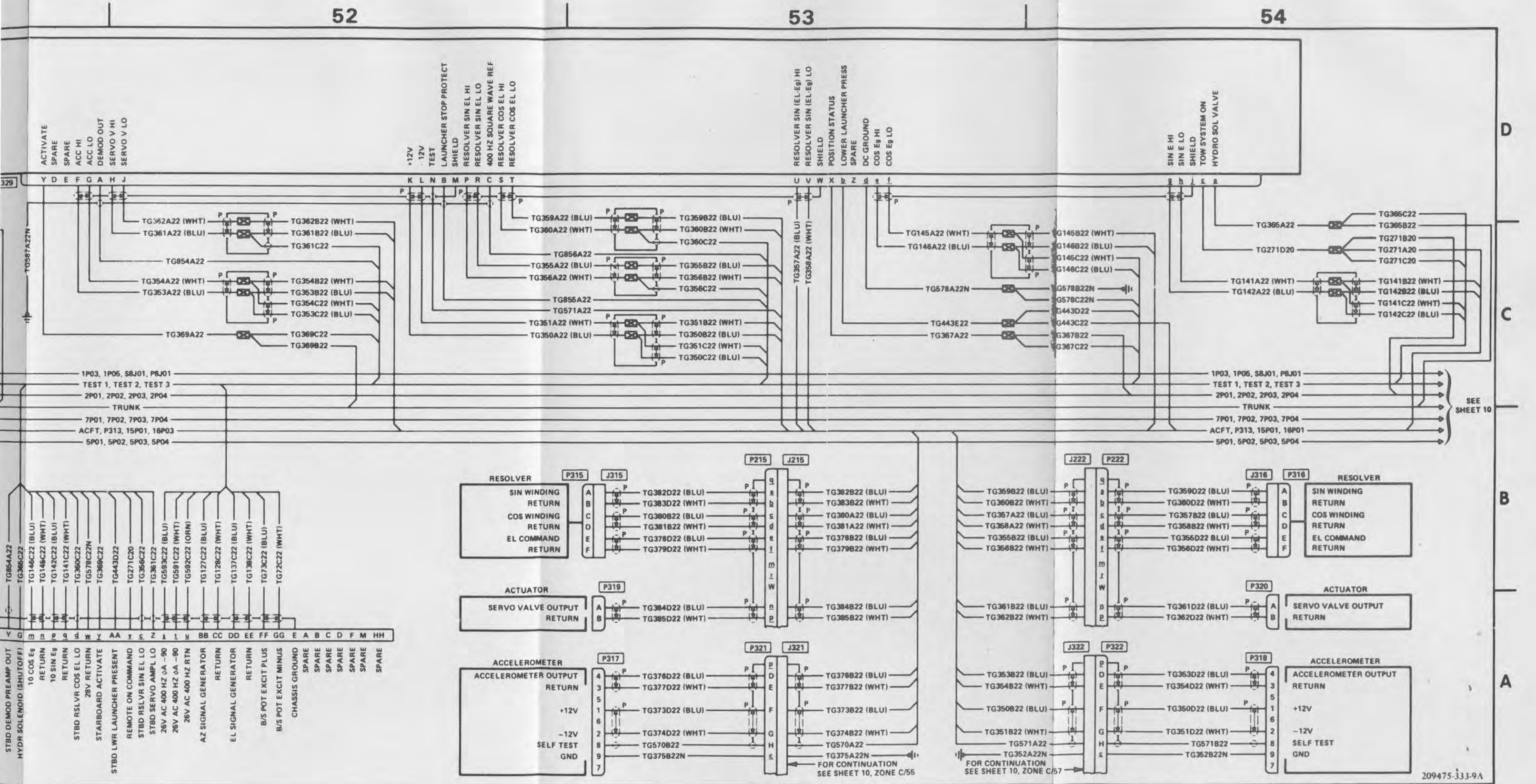


Figure F-7. Armament systems wiring diagram (Sheet 9 of 13)

55

56

57

1P03, 1P05, S8J01, P8J01
TEST 1, TEST 2, TEST 3
2P01, 2P02, 2P03, 2P04
TRUNK
7P01, 7P02, 7P03, 7P04
ACFT, P313, 15P01, 16P01
5P01, 5P02, 5P03, 5P04

TEST 1, TEST 2, TEST 3
2P01, 2P02, 2P03, 2P04
TRUNK
7P01, 7P02, 7P03, 7P04
5P01, 5P02, 5P03, 5P04

FOR CONTINUATION
SEE SHEET 9
ZONE A/53

FOR CONTINUATION
SEE SHEET 9
ZONE A/54

SEE
SHEET
9

P8J
LAUNCHER
GUIDED MISSILE

PORT LAUNCHER IDENT
LOWER LAUNCHER PRESS
SHIELD GROUND
PORT PREFIRE
PORT PREFIRE RETURN
PORT PREFIRE
PORT PREFIRE RETURN
PORT PREFIRE
PORT PREFIRE RETURN
PORT PITCH SELF BAL A
PORT PITCH SELF BAL B
PORT YAW SELF BAL A
PORT YAW SELF BAL B
PORT WIRE COMM A
PORT WIRE COMM B
PORT WIRE CUT
PORT WIRE CUT RETURN
PORT FIRE
PORT FIRE RETURN

AIRFRAME GROUND
28V RET
MSL 5 SEL
MSL 1 SEL
MSL 7 SEL
MSL 3 SEL
SPARE
SPARE
SPARE
SPARE
SPARE
MNL WIRE CUT

MISSILE 5 PRESENT - TCP
MISSILE 1 PRESENT TCP
MISSILE 7 PRESENT - TCP
MISSILE 3 PRESENT - TCP
RACK 5 CHASSIS GROUND
RACK 1 CHASSIS GROUND
RACK 7 CHASSIS GROUND
RACK 3 CHASSIS GROUND

J321

P321

P8J01

J322

P322

TG840C20
TG840A20

TG840B20
TG226C22
TG224A22
TG227A22
TG225A22

TG412A16N

TG412B20N

TG840E20
TG226D22
TG224B22
TG227B22
TG225B22
TG412C20N
TG412D20N
TG412E20N
TG412F20N

TG463B20
TG584B20N
TG270A22
TG268A22
TG269A22
TG267A22
TG231A22
TG229A22
TG230A22
TG228A22

TG462A16N

TG840C20

TG462B20N

TG441B20
TG443F20

TG443A22
TG443C22

TG446A22 (BLU)
TG447A22 (WHT)
TG448A22 (BLU)
TG449A22 (WHT)
TG450A22 (BLU)
TG451A22 (WHT)
TG452B22 (BLU)
TG453B22 (WHT)
TG454B22 (BLU)
TG455B22 (WHT)
TG456B22 (BLU)
TG457B22 (WHT)

TG458B16 (BLU)
TG459B16 (WHT)
TG460B16 (BLU)
TG461B16 (WHT)

TG458C20
TG459C20
TG460C20
TG461C20

TG458D16 (BLU)
TG459D16 (WHT)
TG460D16 (BLU)
TG461D16 (WHT)

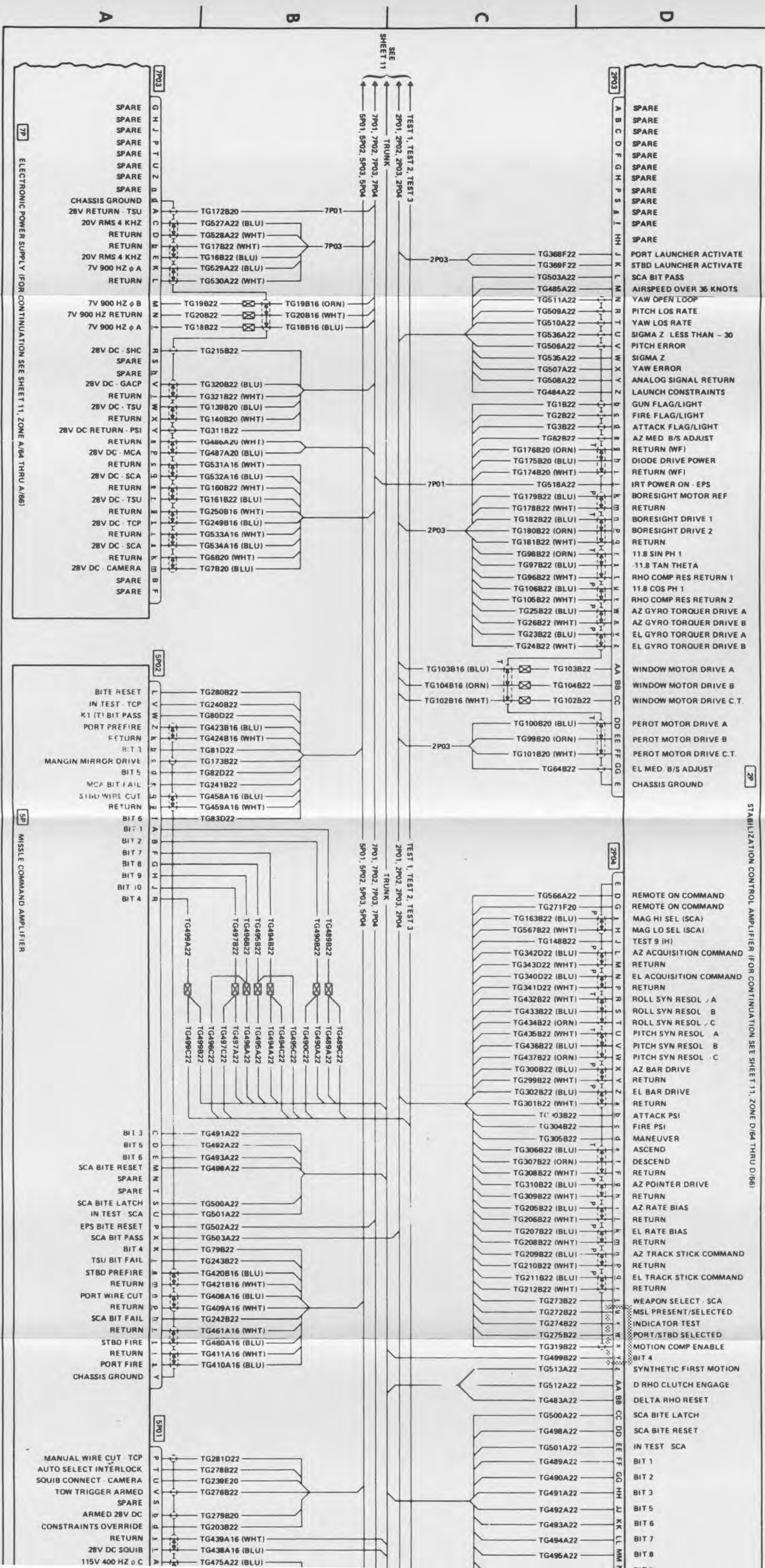
TG458E16 (BLU)
TG459E16 (WHT)
TG460E16 (BLU)
TG461E16 (WHT)

TG463A20
TG584A20
TG270E20
TG268E20
TG269E20
TG267E20
TG231E20
TG229E20
TG230E20
TG228E20
TG462C20
TG462D20
TG462E20
TG462F20
TG840C20

Change 4 F-107/(F-108 blank)



Change 4 F-109/(F-110 blank)



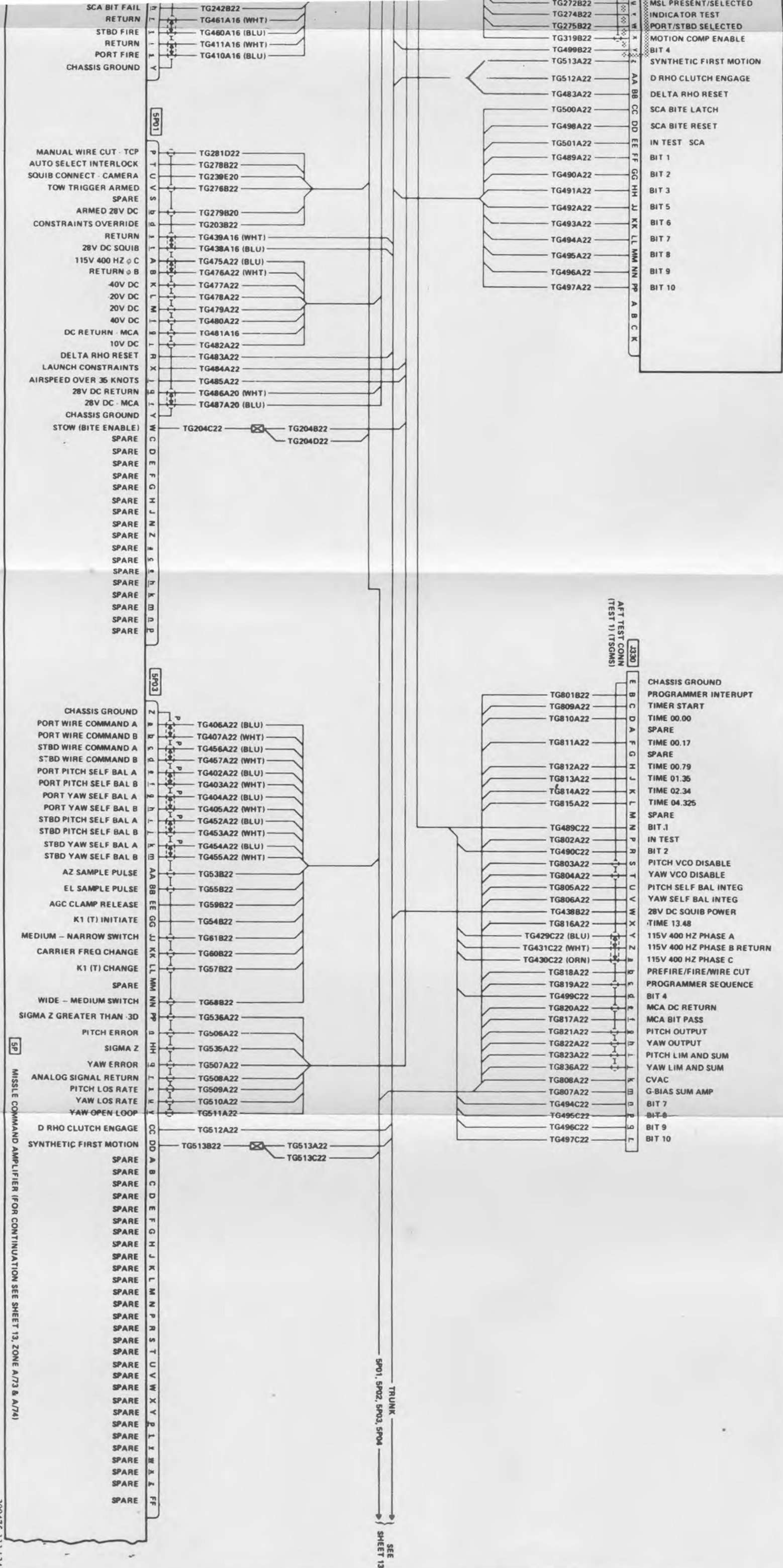


Figure F-7. Armament systems wiring diagram (Sheet 12 of 13)



Change 4 F-113/(F-114 blank)

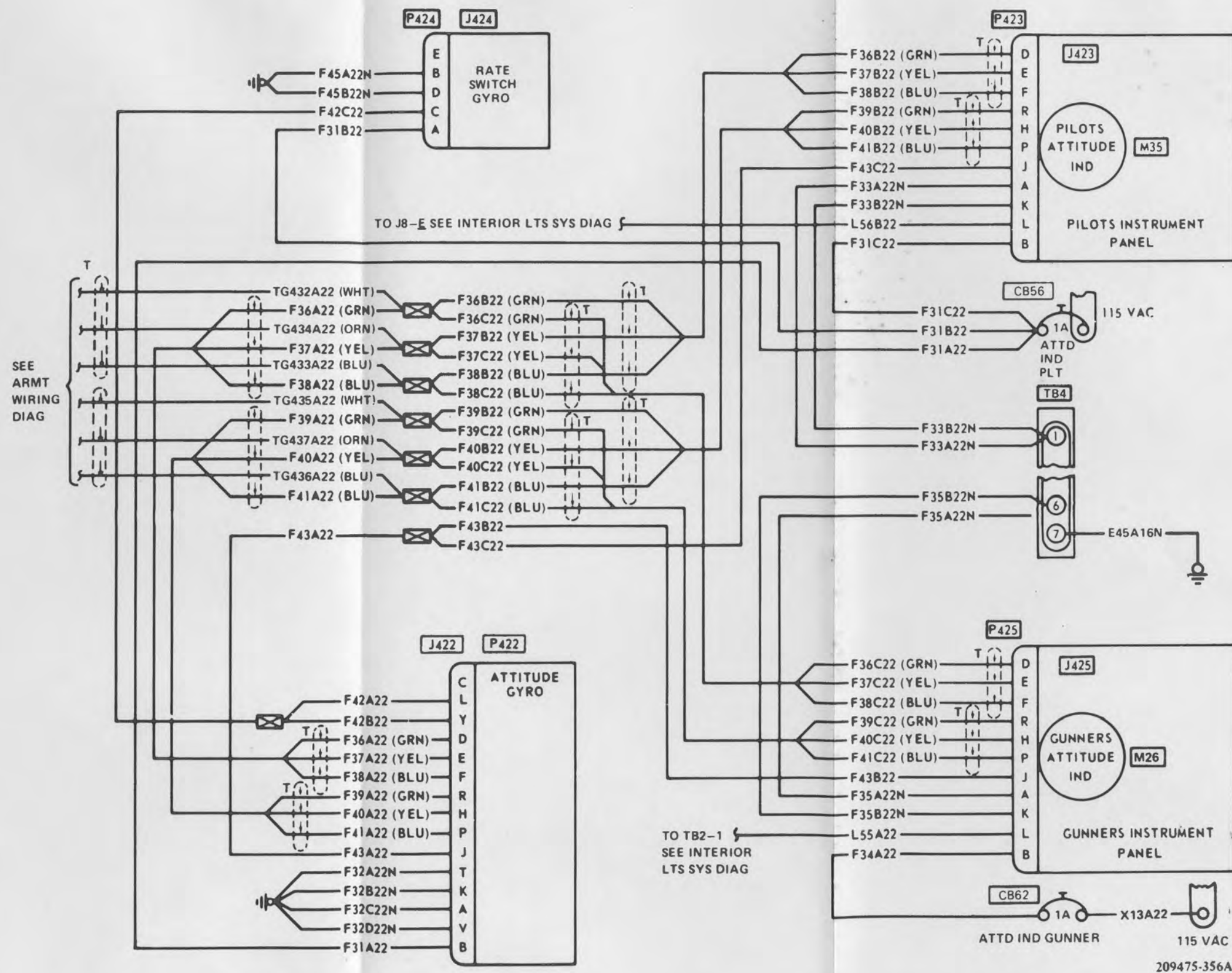


Figure F-8. Attitude indicating system wiring diagram

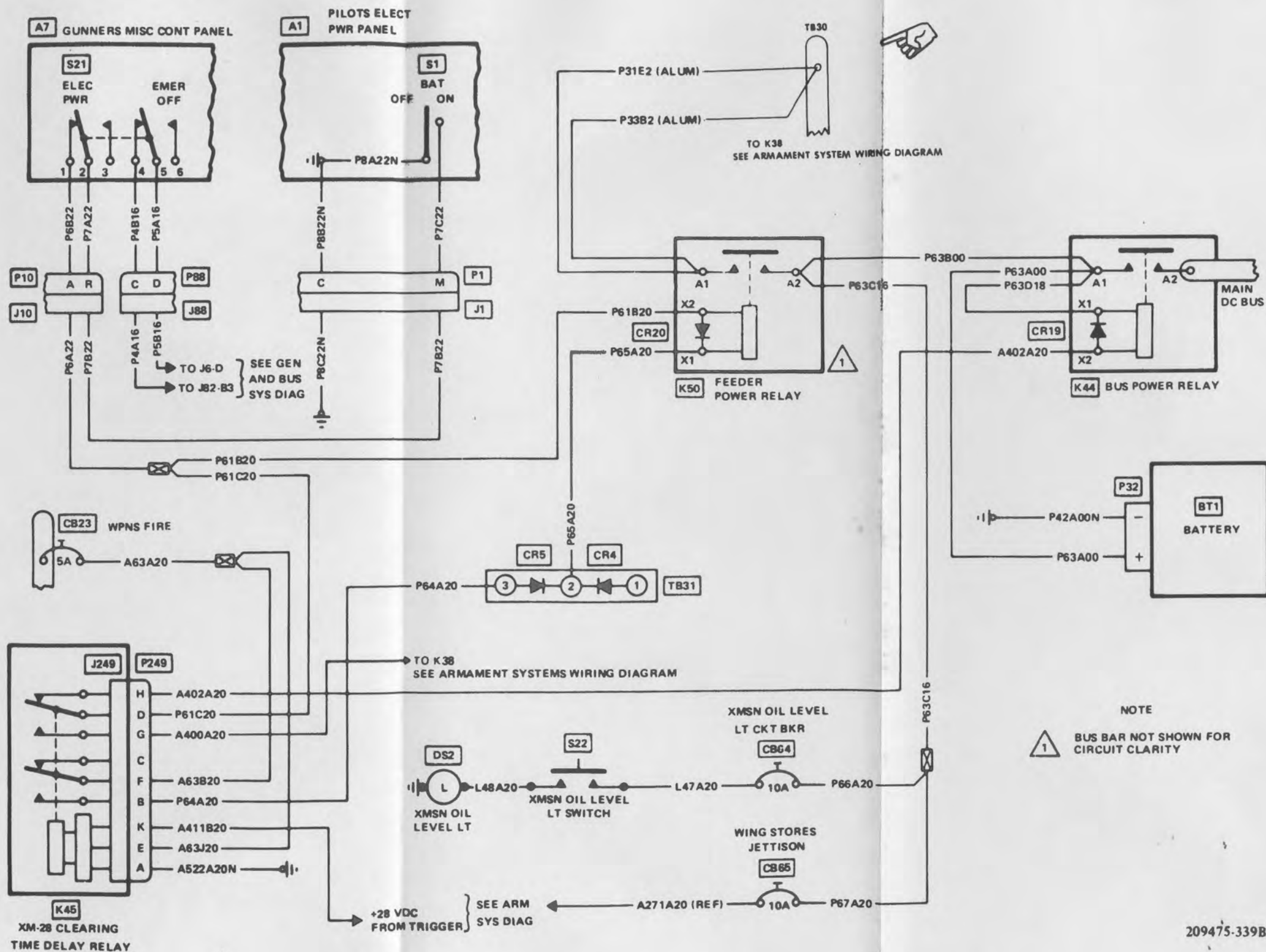
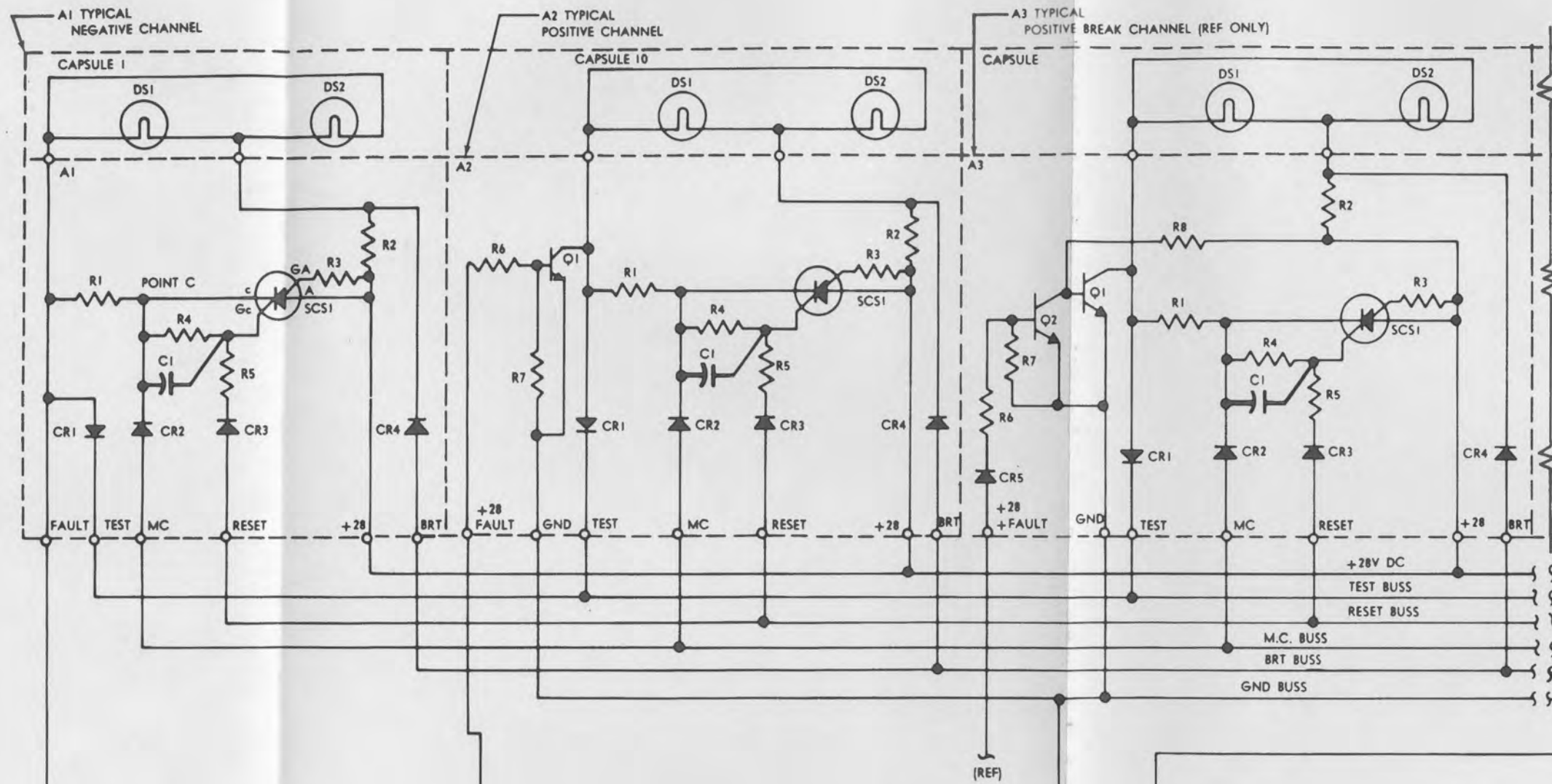
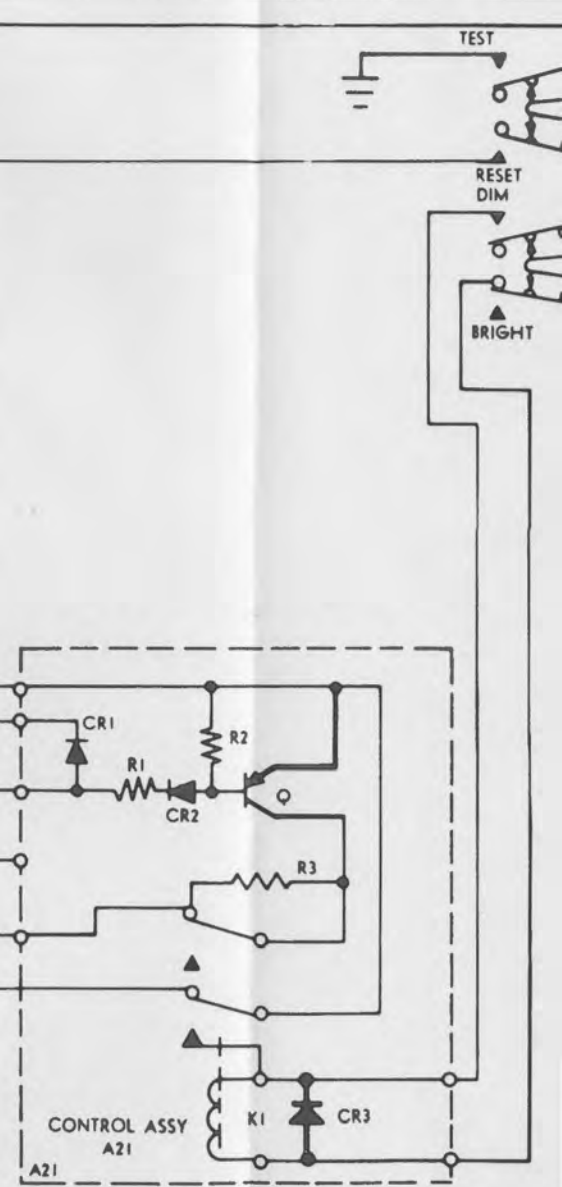
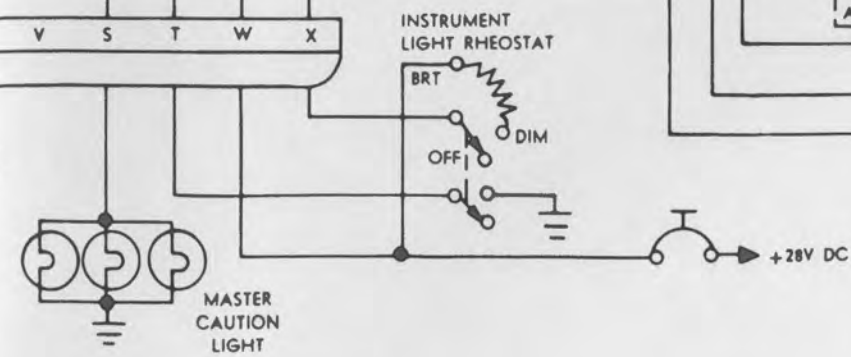
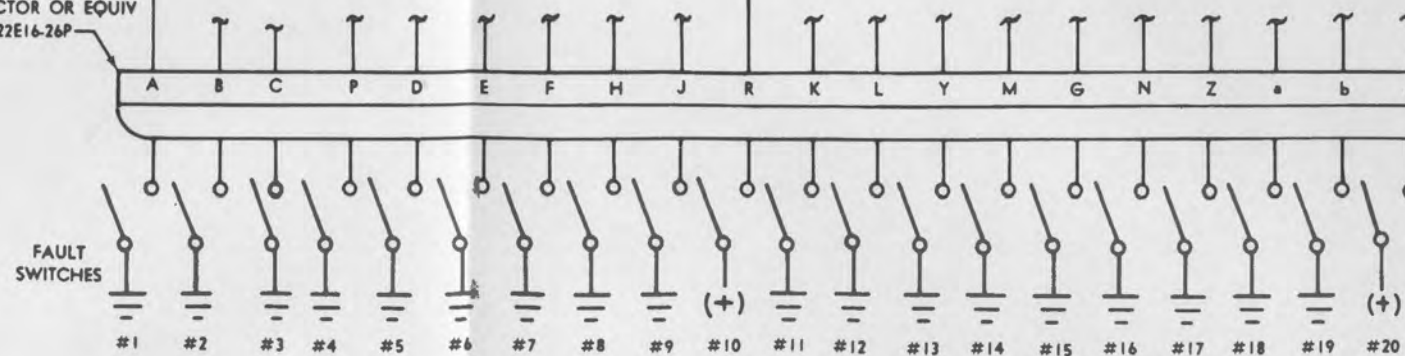


Figure F-9. Battery system wiring diagram





BENDIX CONNECTOR OR EQUIV
PART NO. MS3122E16-26P



PILOT'S

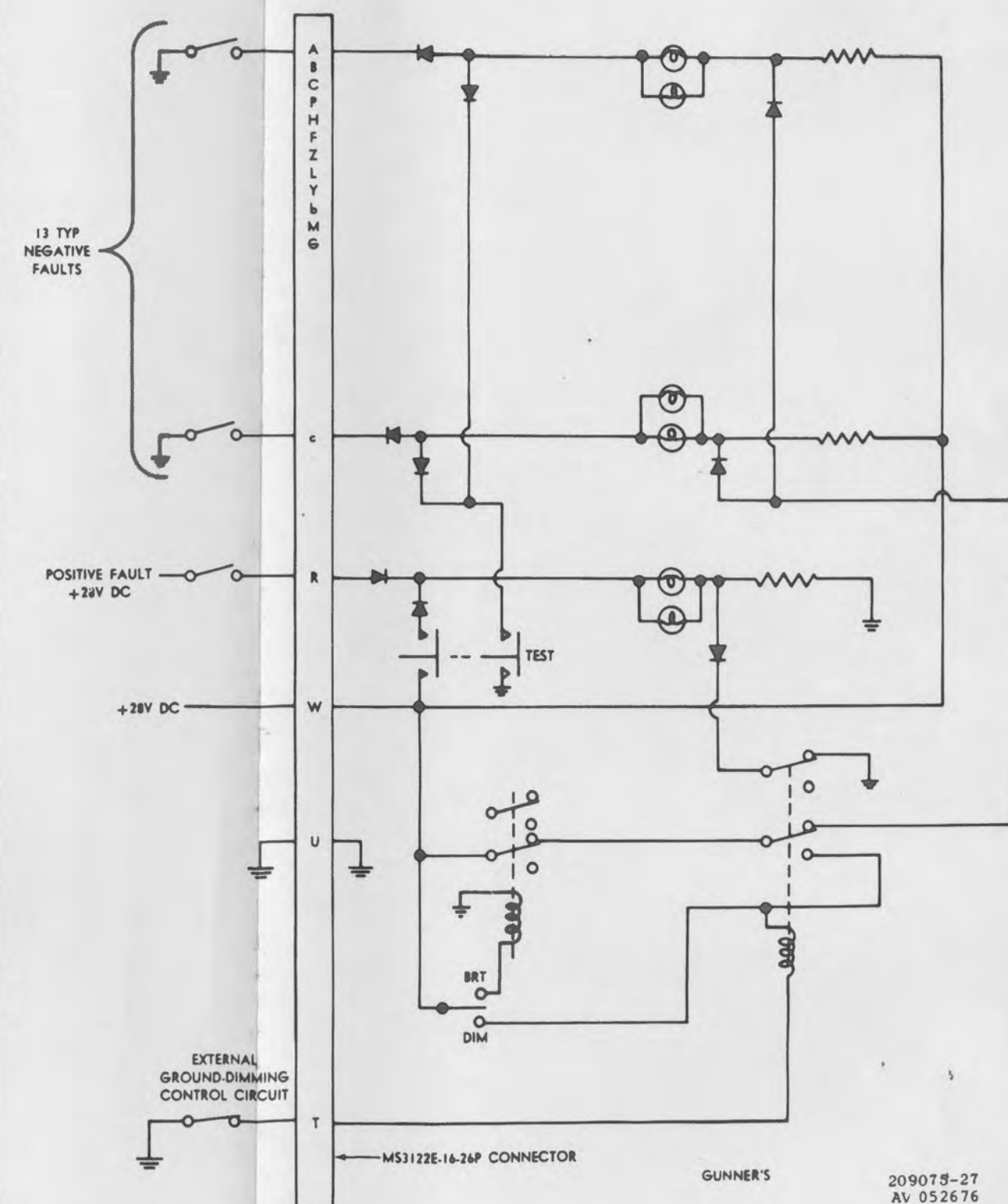
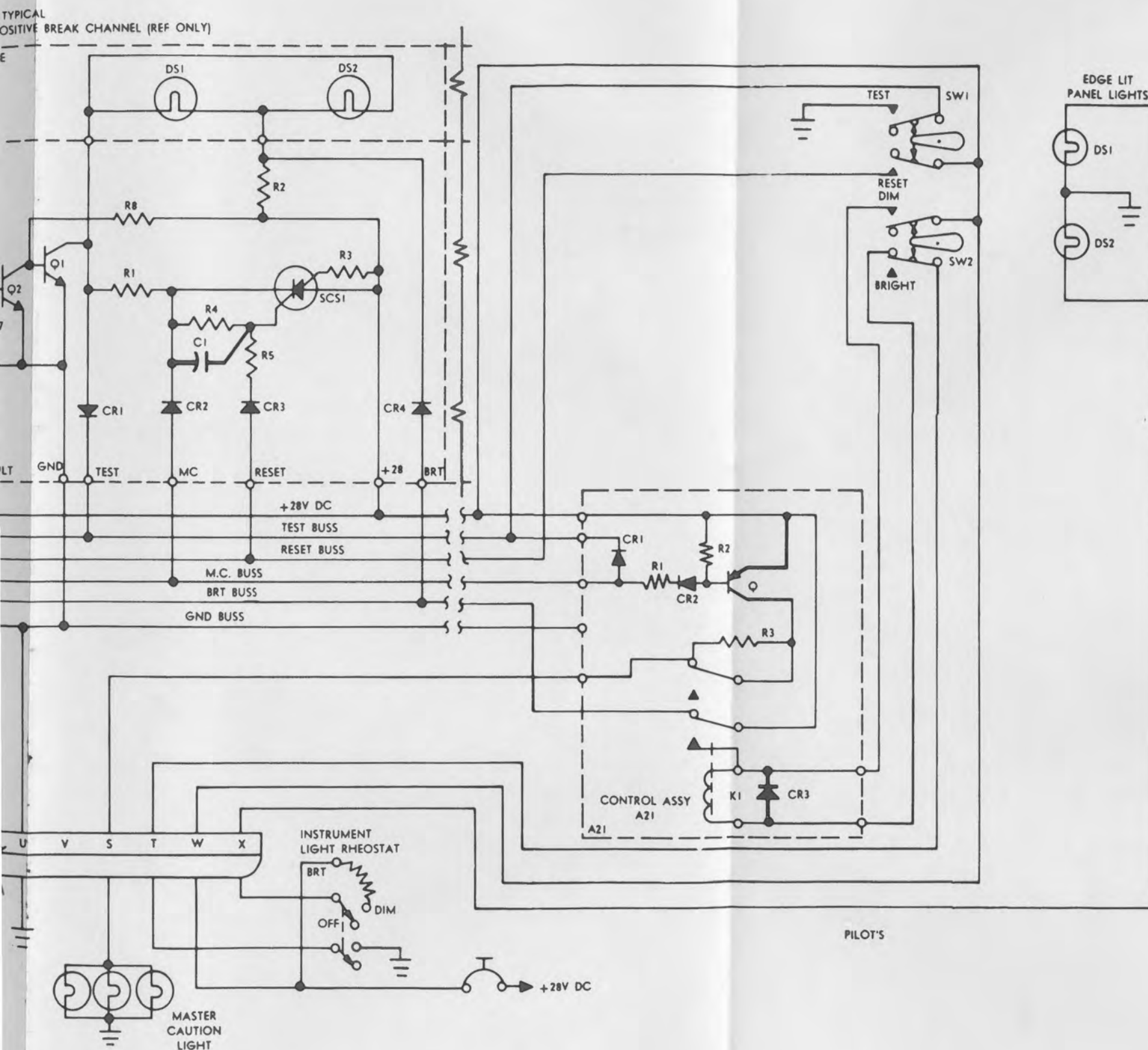
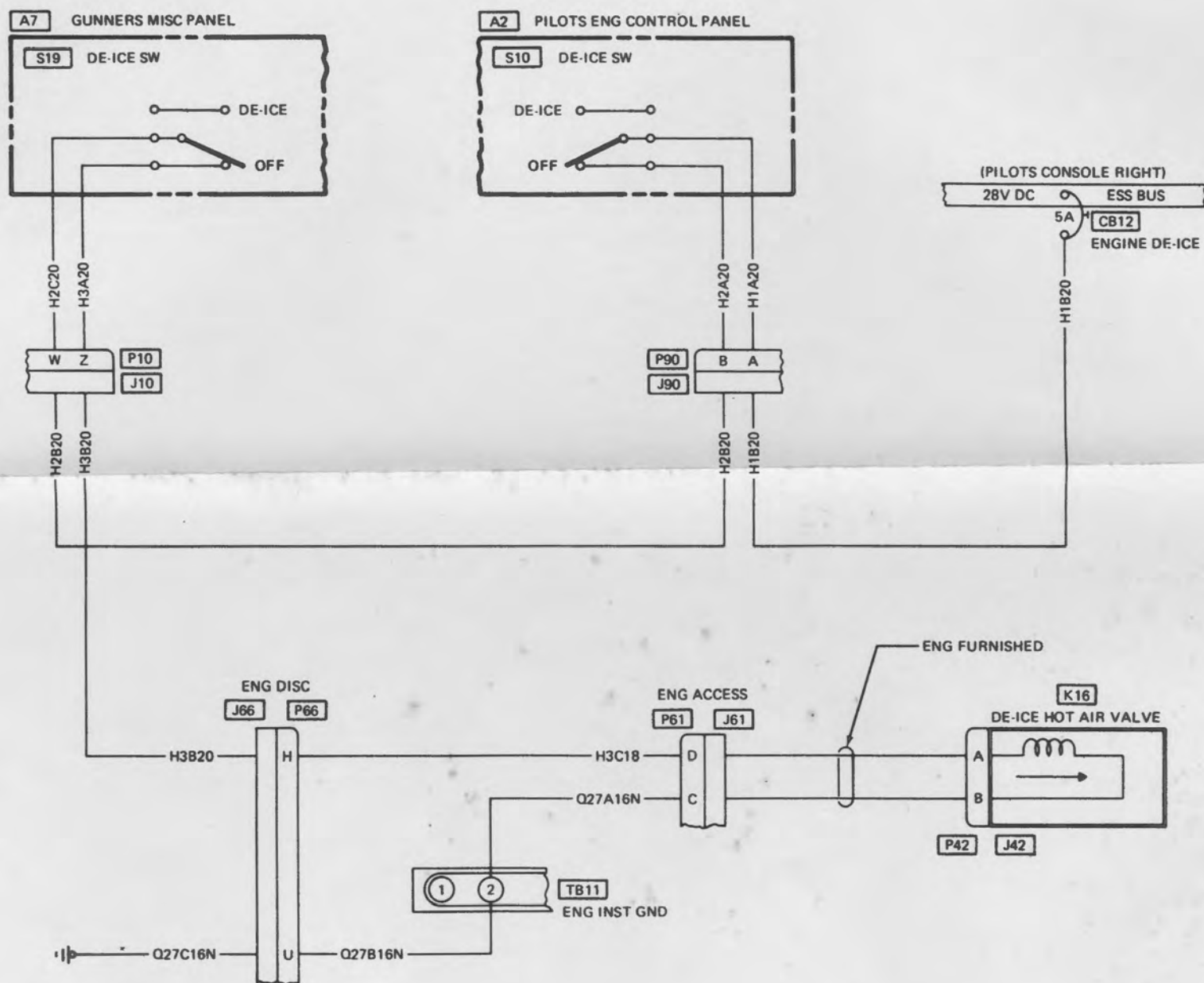
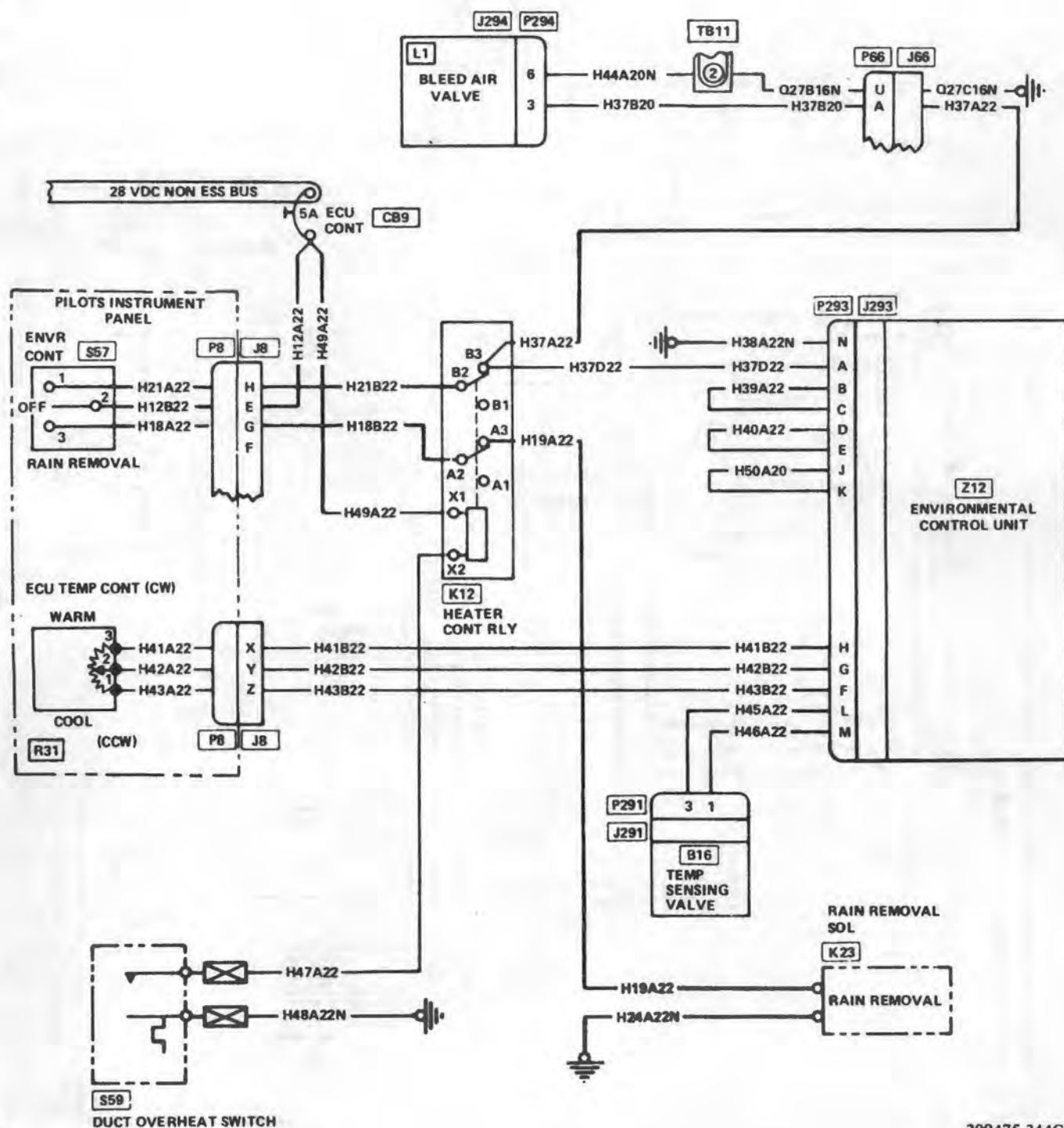


Figure F-11. Caution panel internal schematic diagram

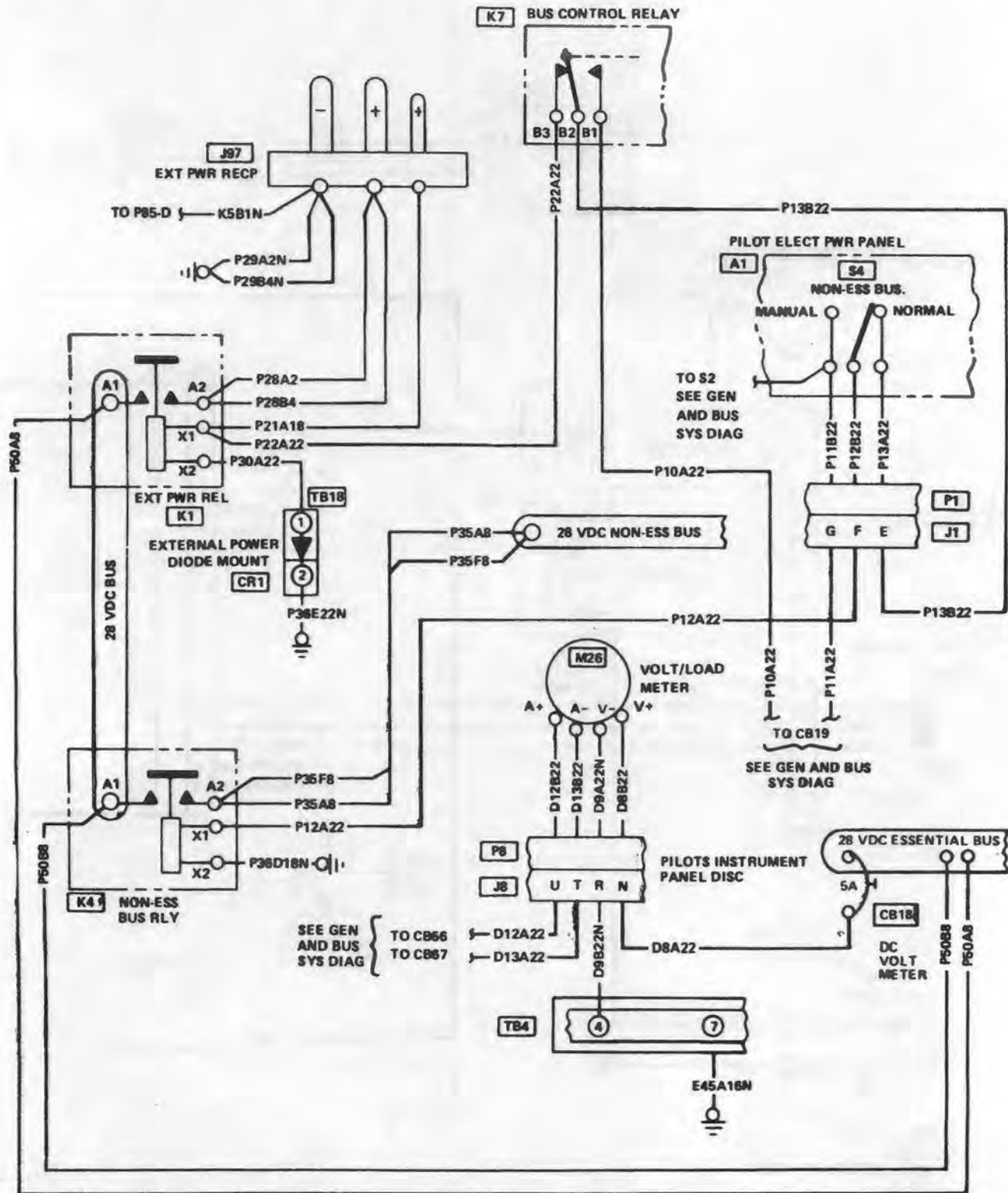
Figure F-12. Engine de-ice system wiring diagram





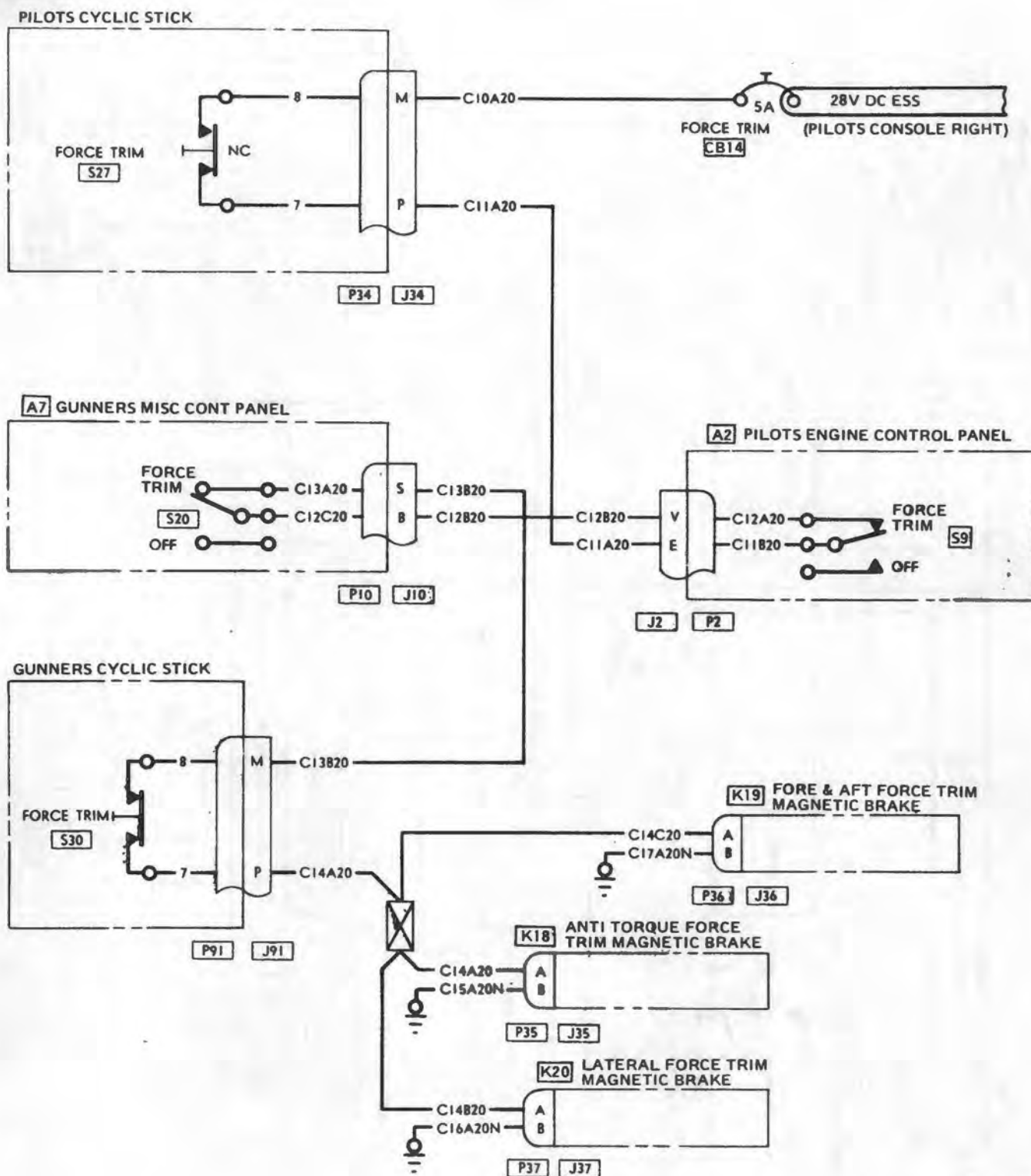
209475-344C

Figure F-13. Environmental control system wiring diagram



209475-351B

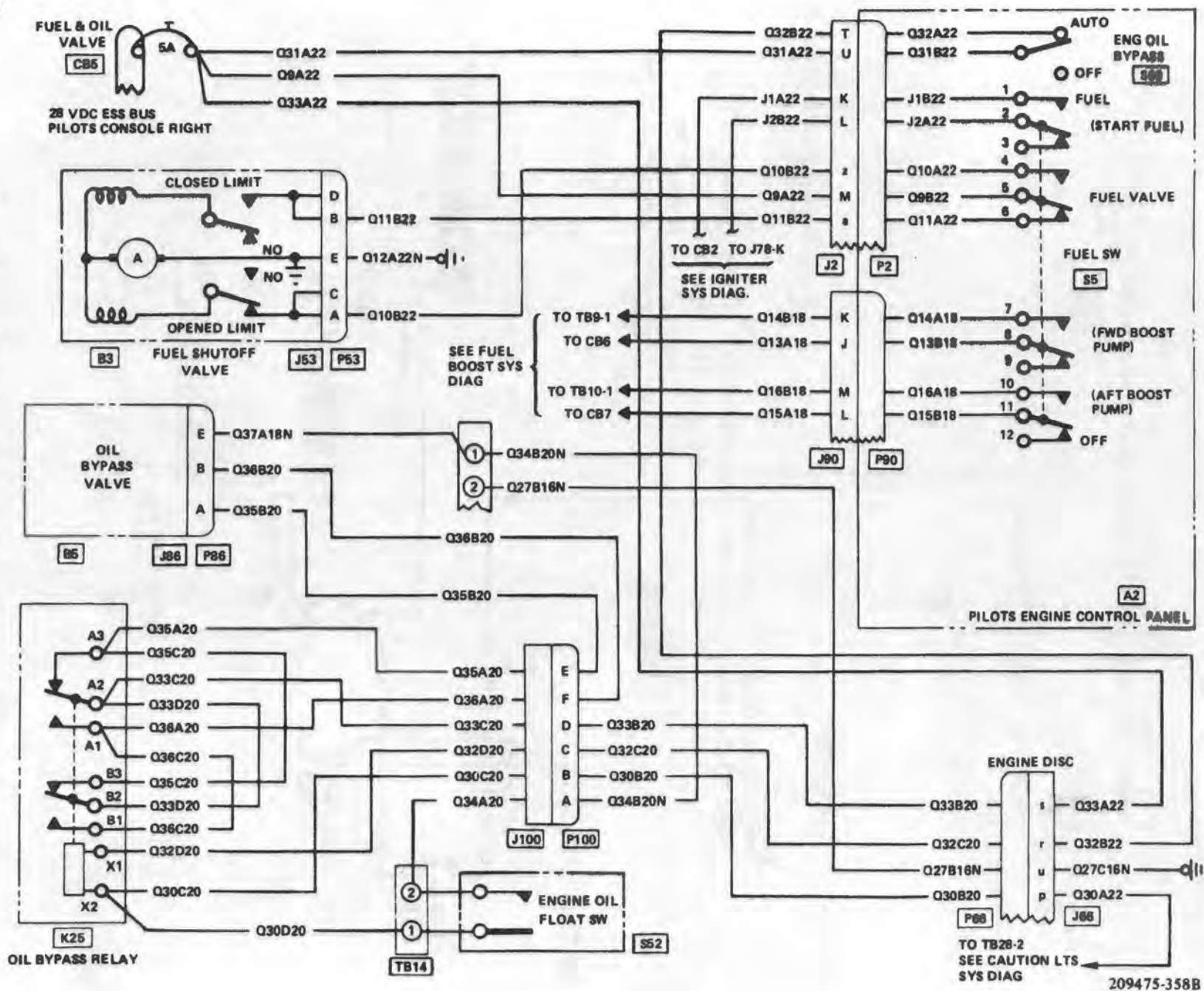
Figure F-14. External power system wiring diagram

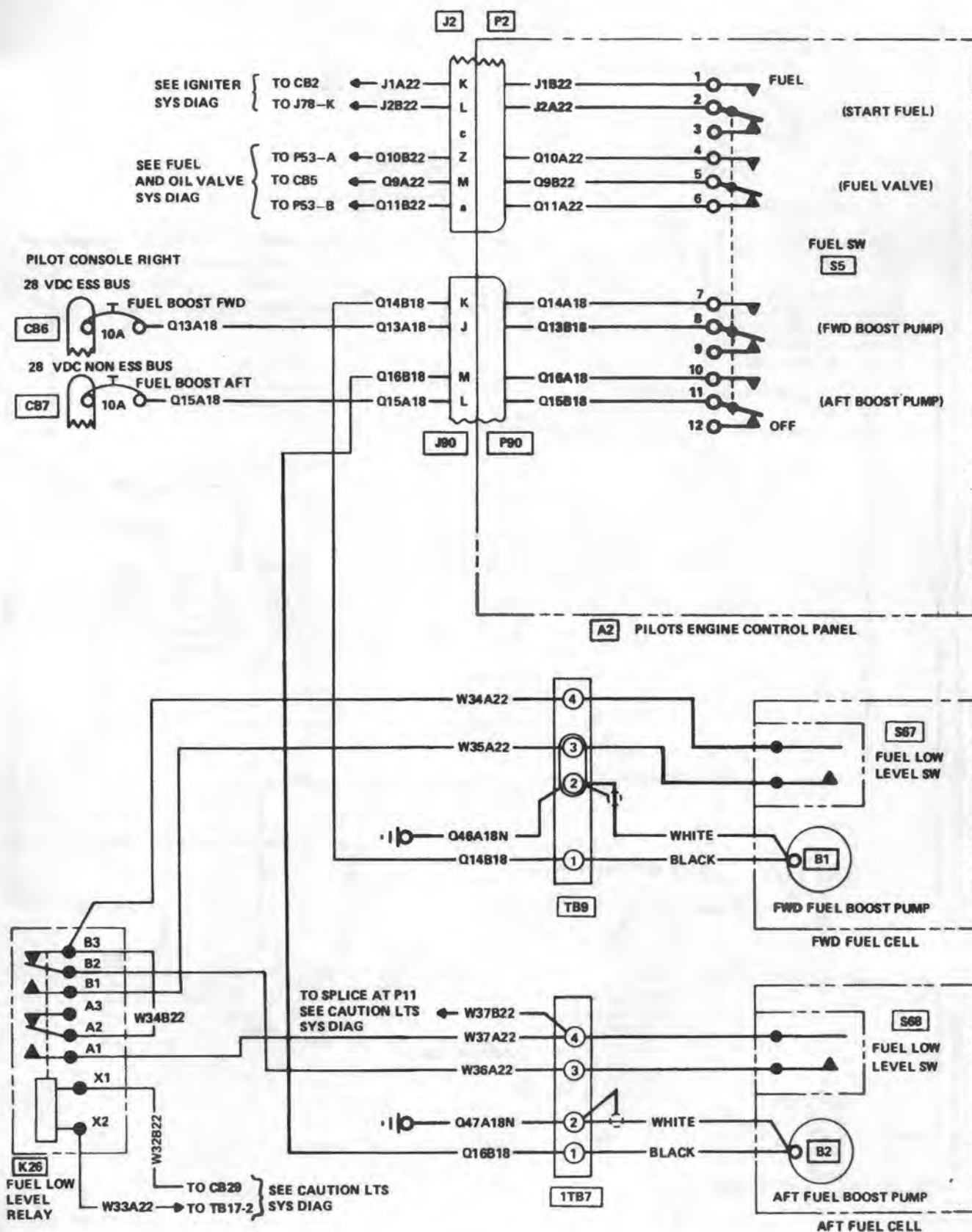


209475-348

Figure F-15. Force trim system wiring diagram

Figure F-16. Fuel valve and engine oil valve system wiring diagram





209475-359B

Figure F-17. Fuel boost system wiring diagram

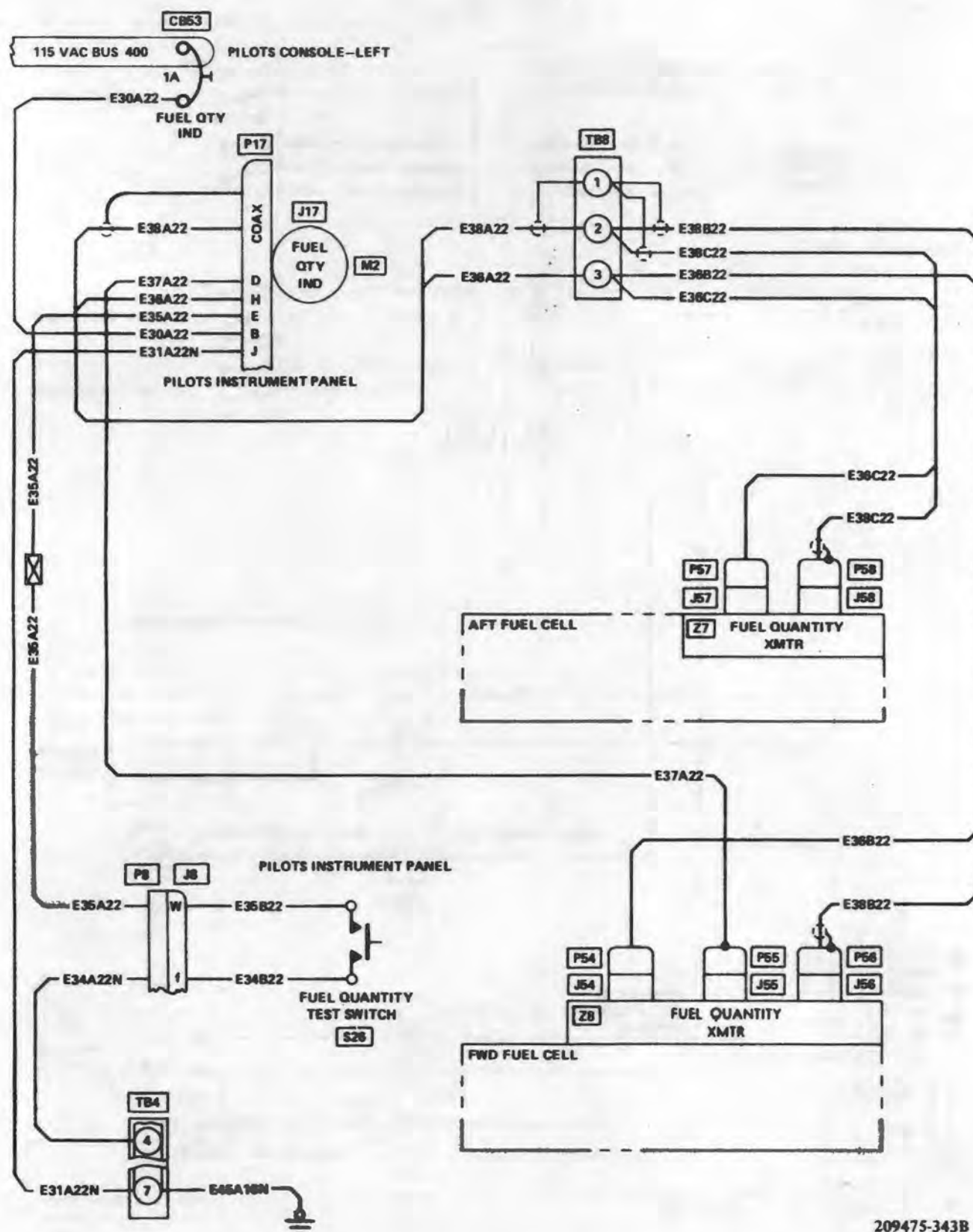


Figure F-18. Fuel quantity indicating system wiring diagram

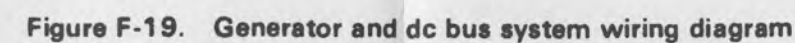
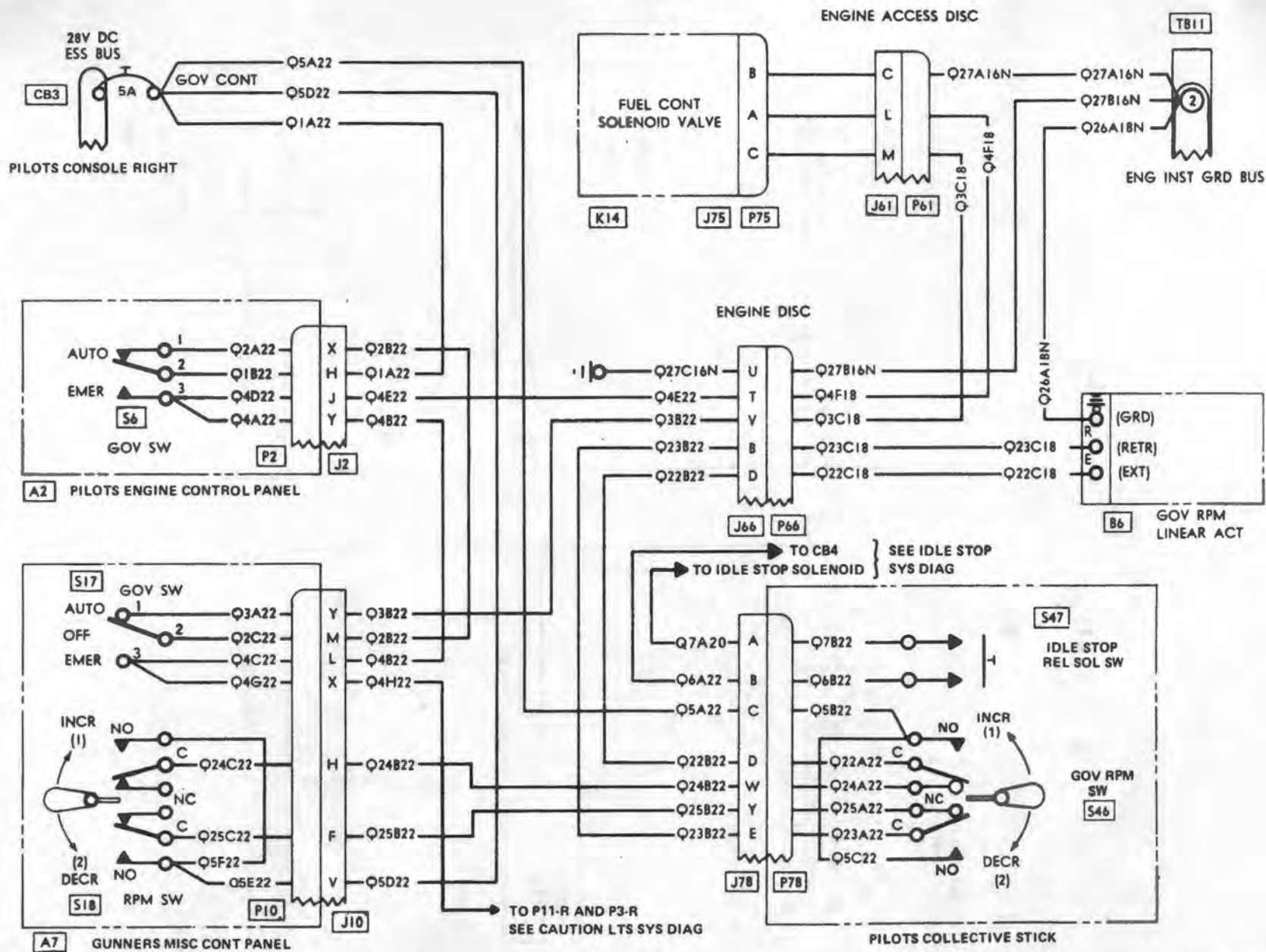
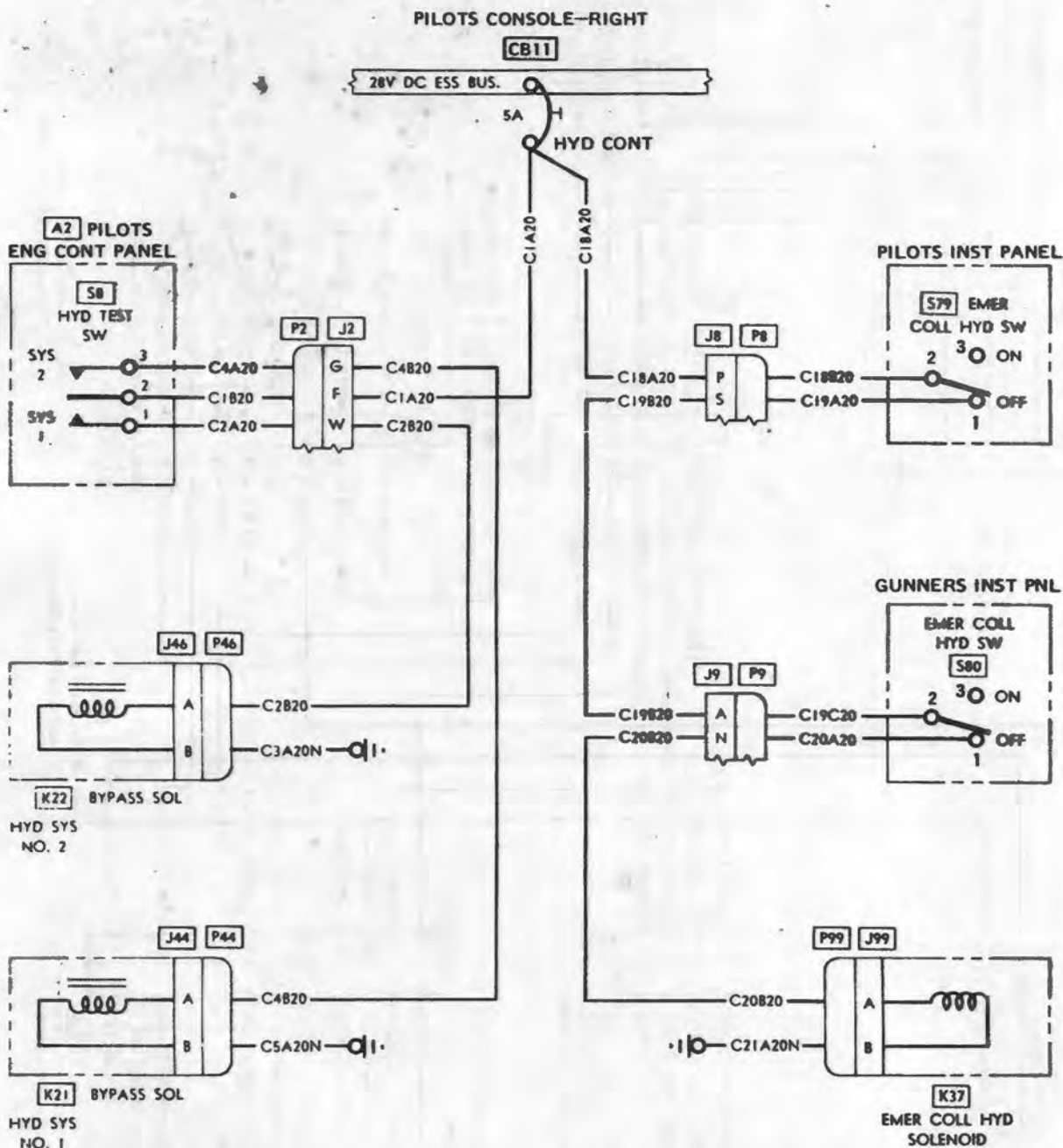


Figure F-20. Governor control system wiring diagram

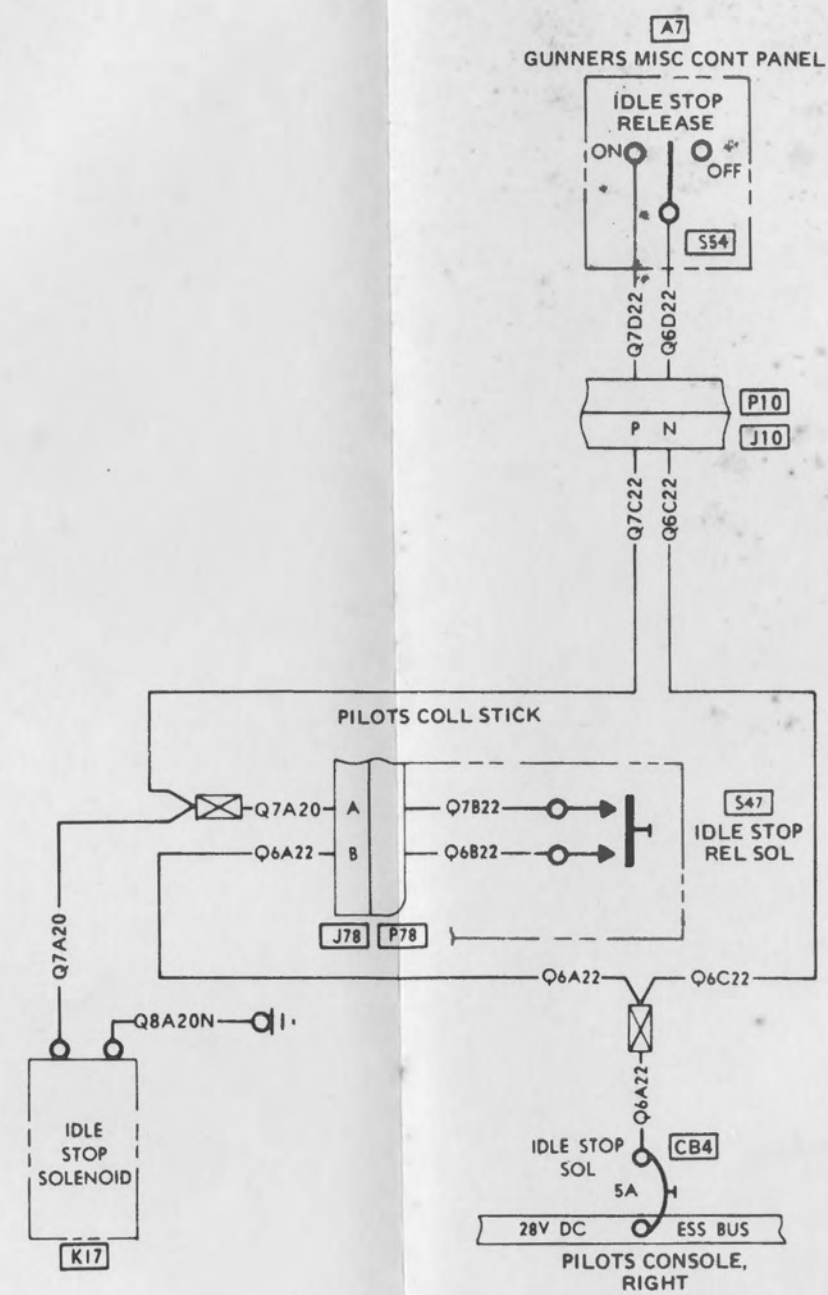


209475-338



209475-355

Figure F-21. Hydraulic control system wiring diagram



209475-354

Figure F-22. Idle stop system wiring diagram

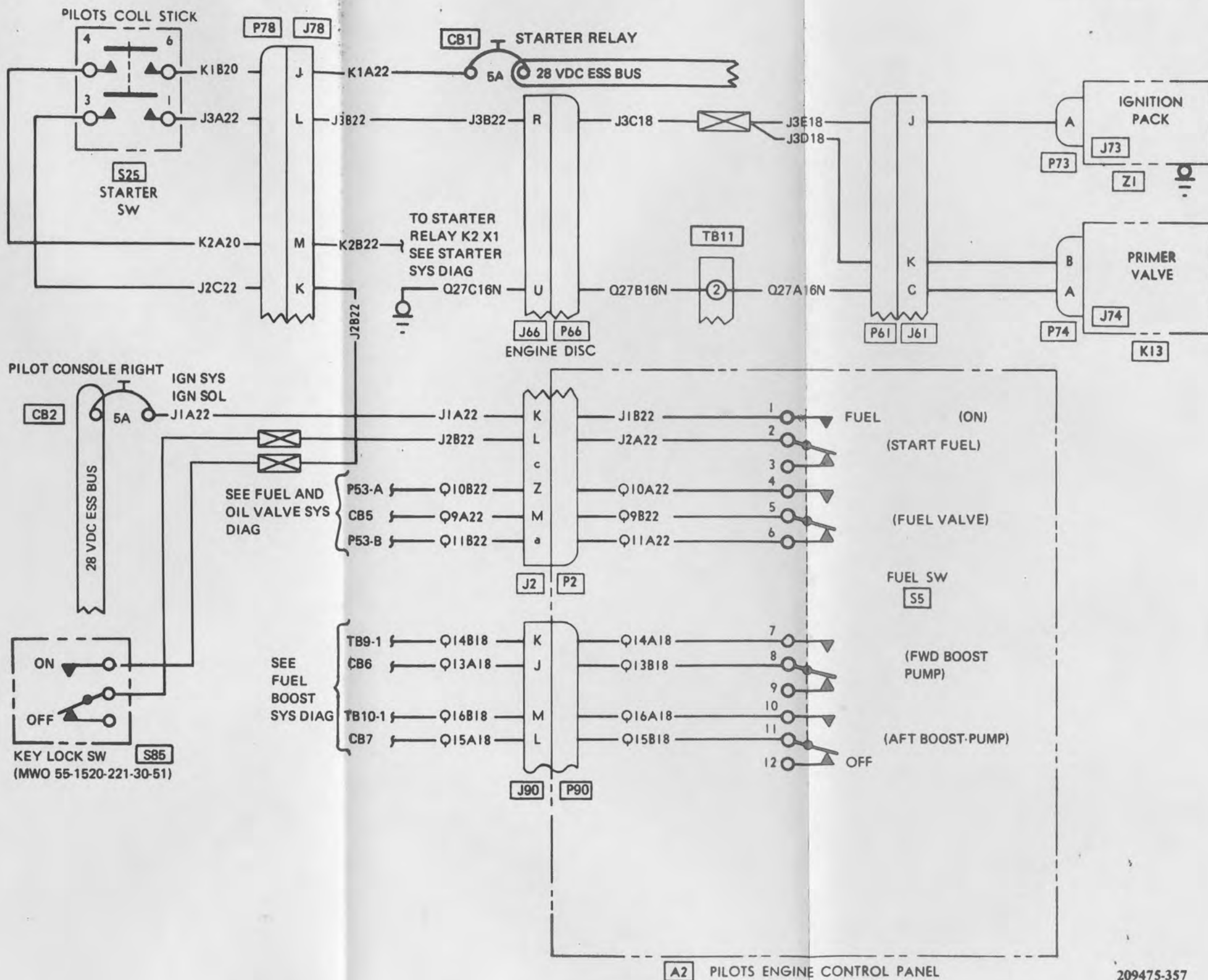
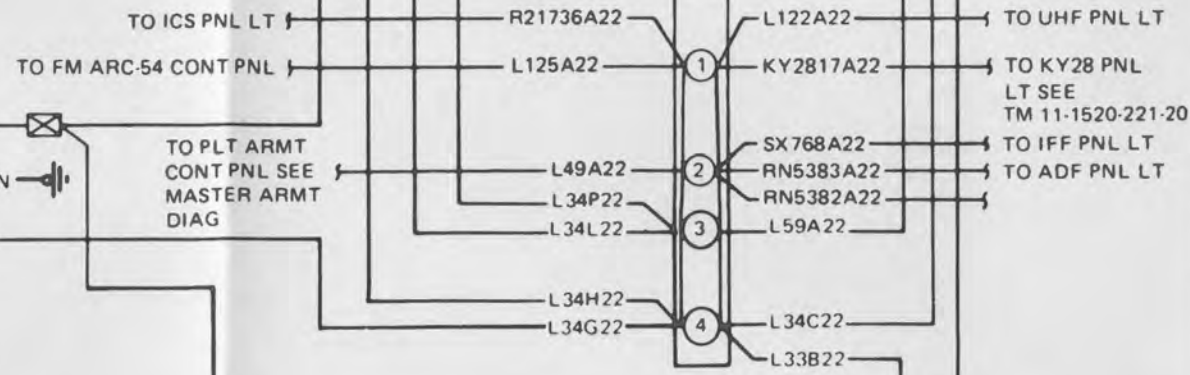
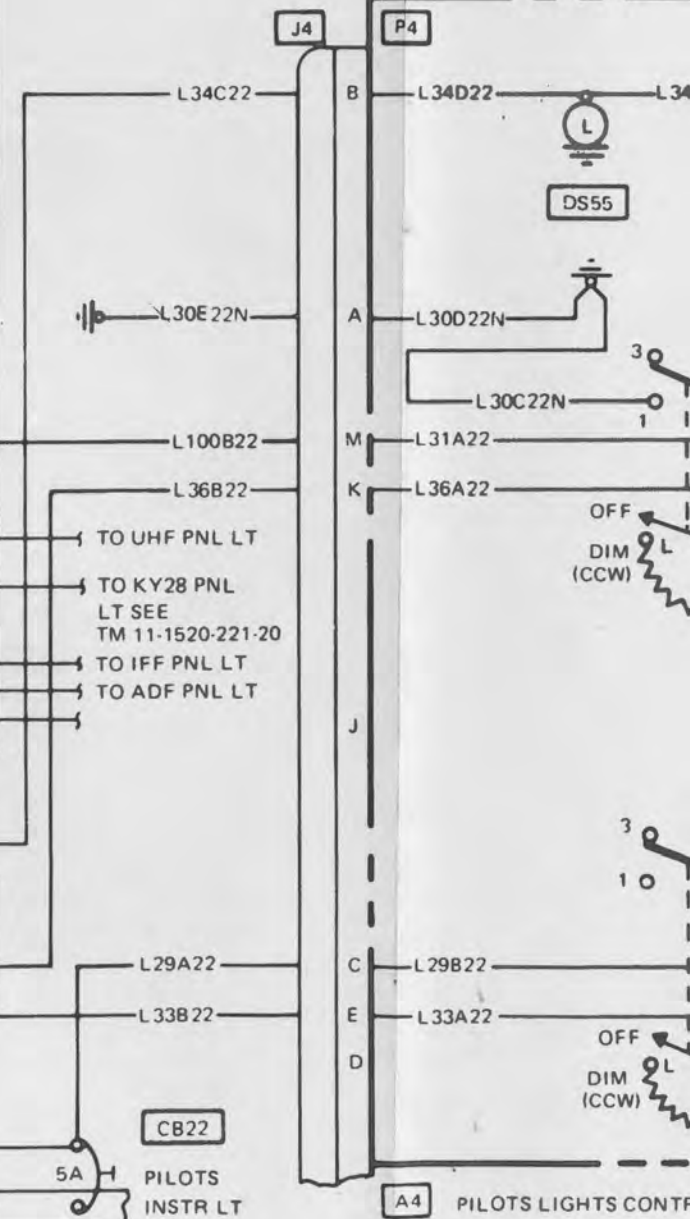
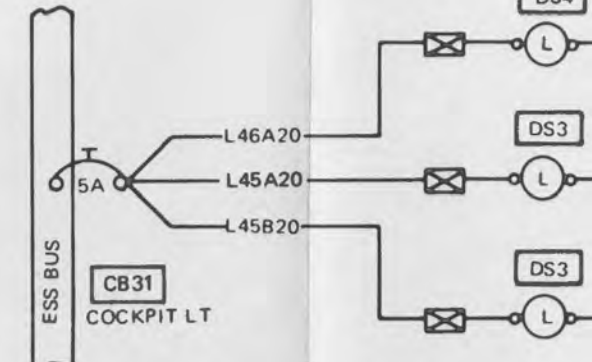
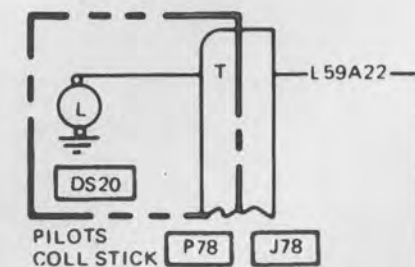
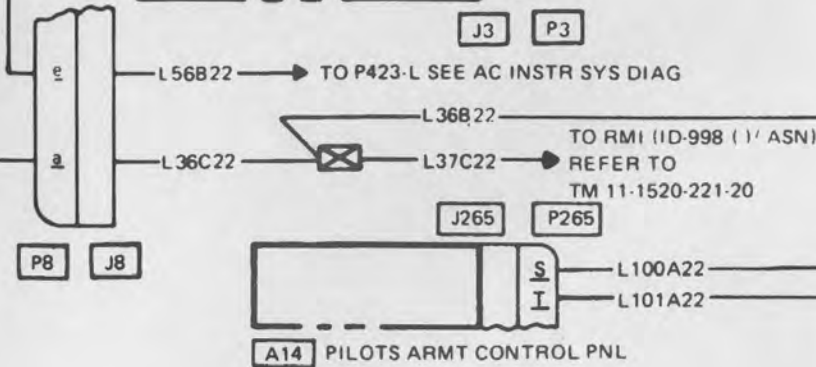
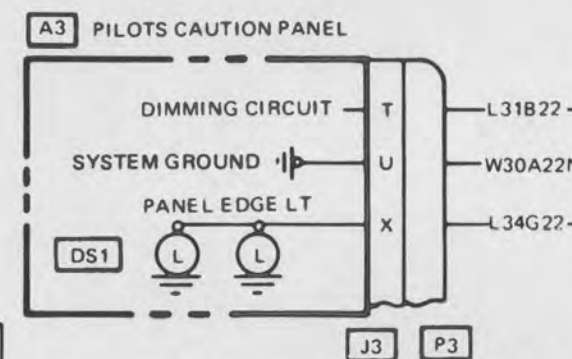
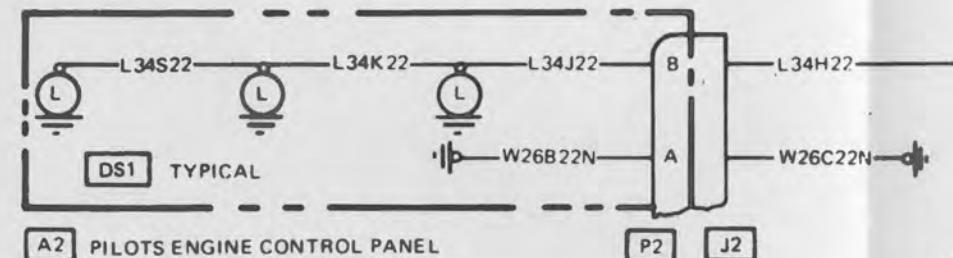
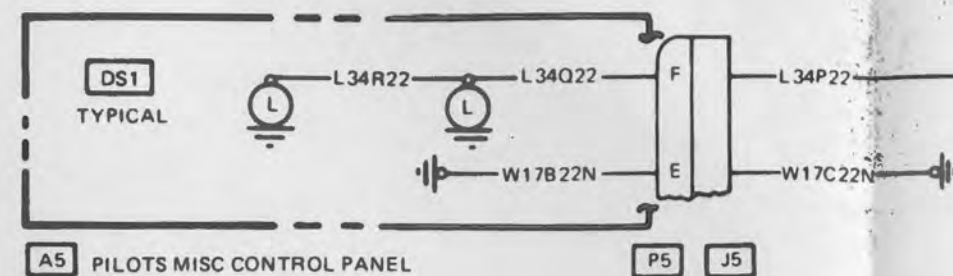
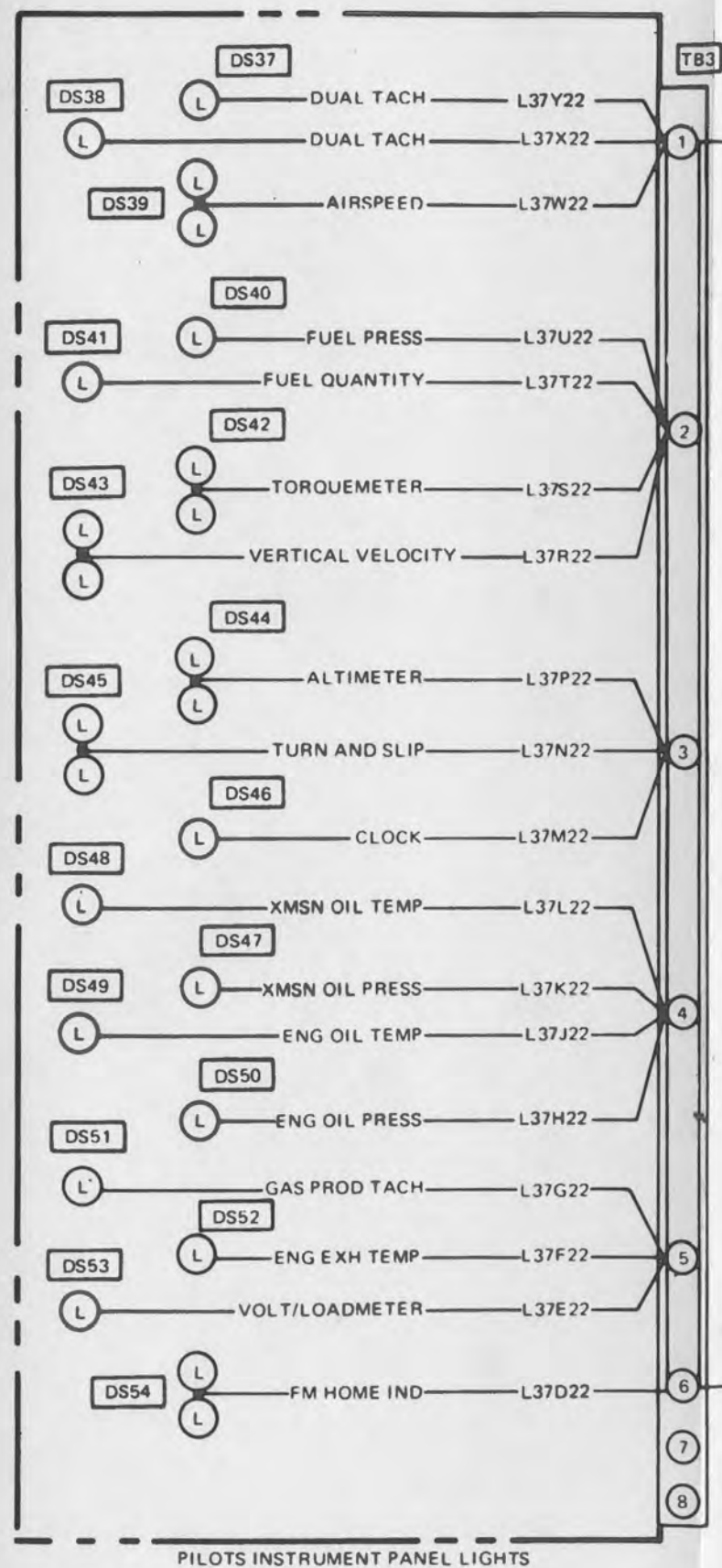
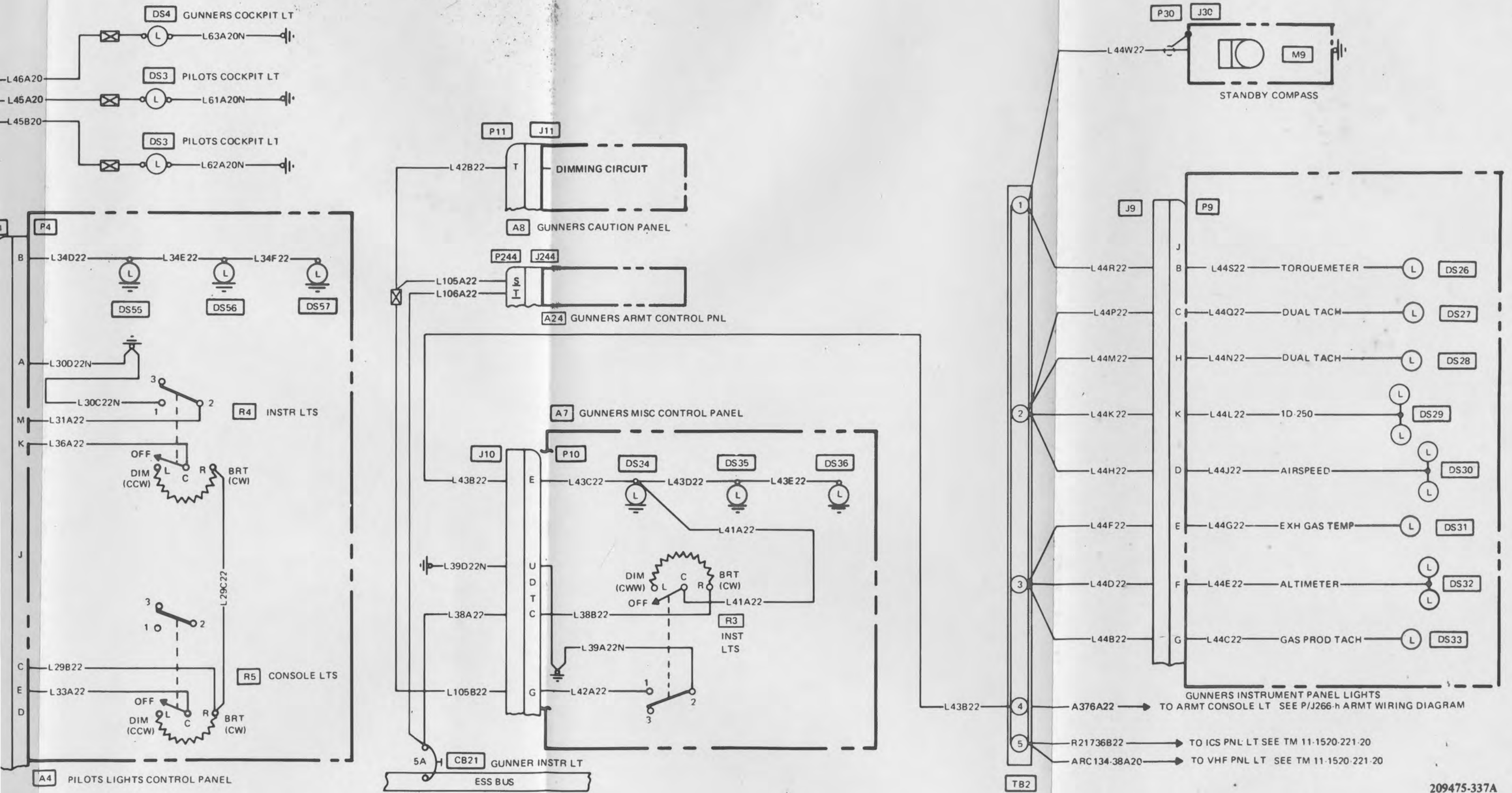


Figure F-23. Igniter system wiring diagram

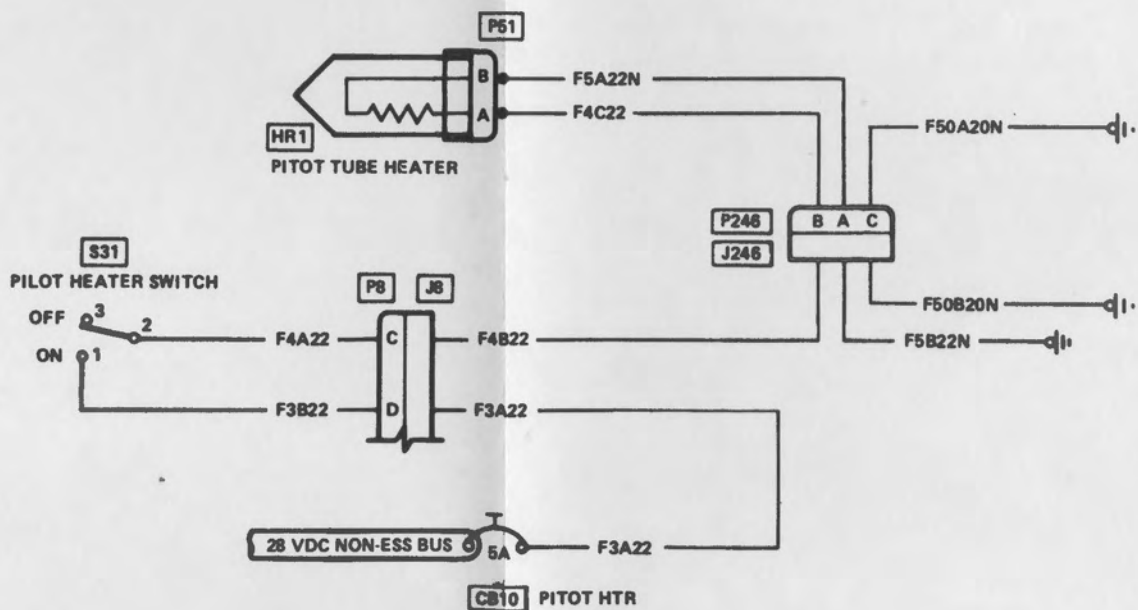
209475-357





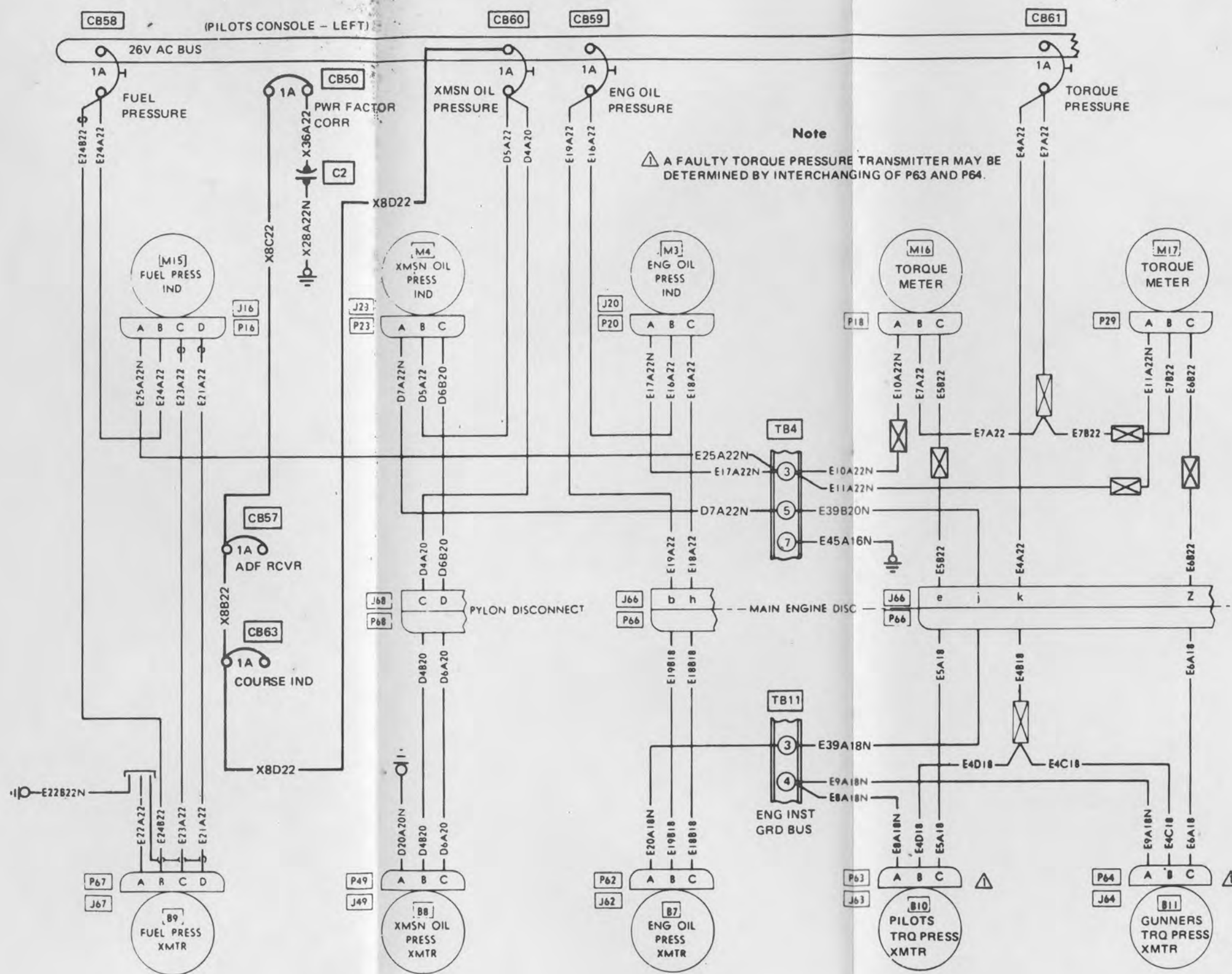
209475-337A

Figure F-24. Interior lights system wiring diagram



209475-342B

Figure F-25. Pilot heater system wiring diagram



209475-341A

Figure F-26. Pressure indicating systems wiring diagram

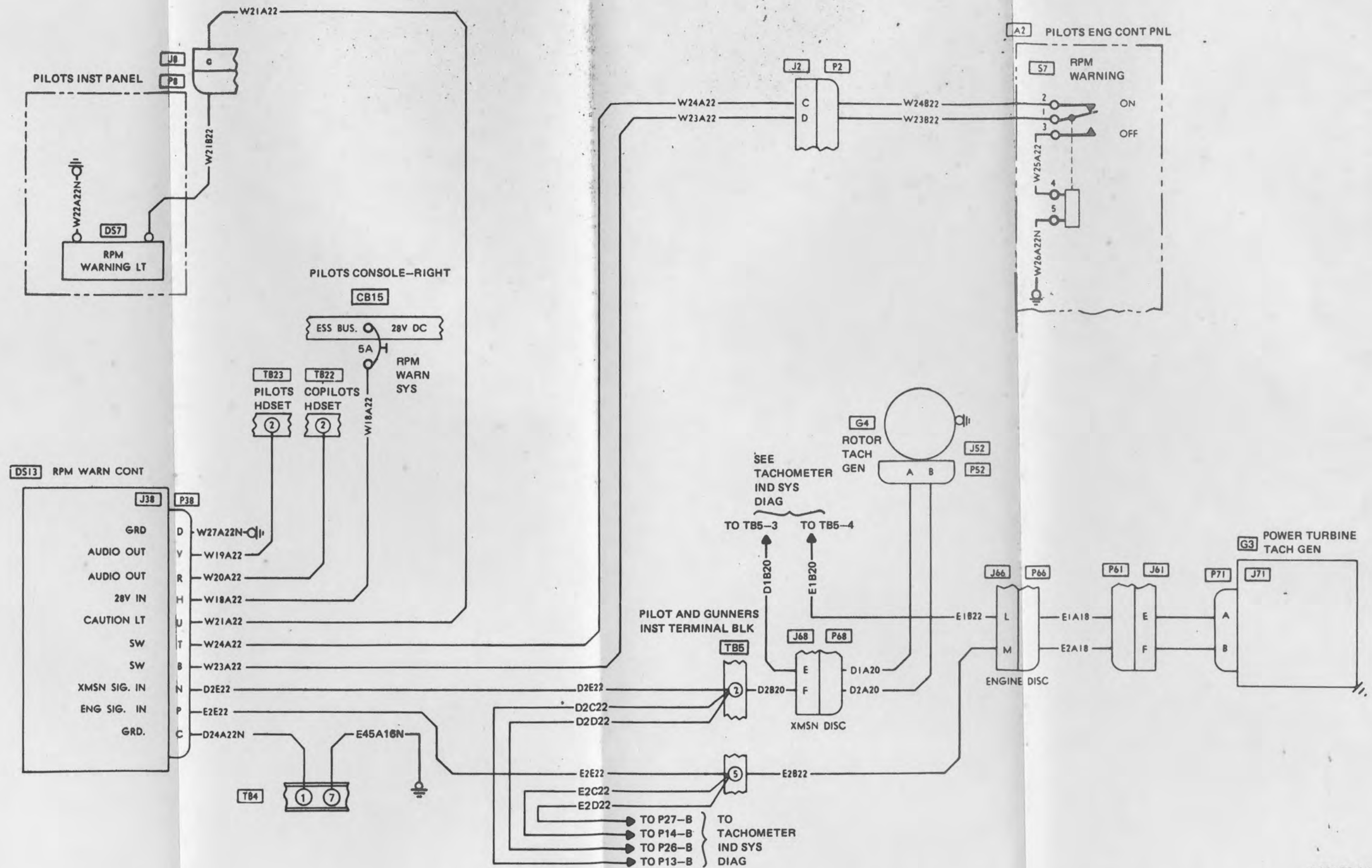
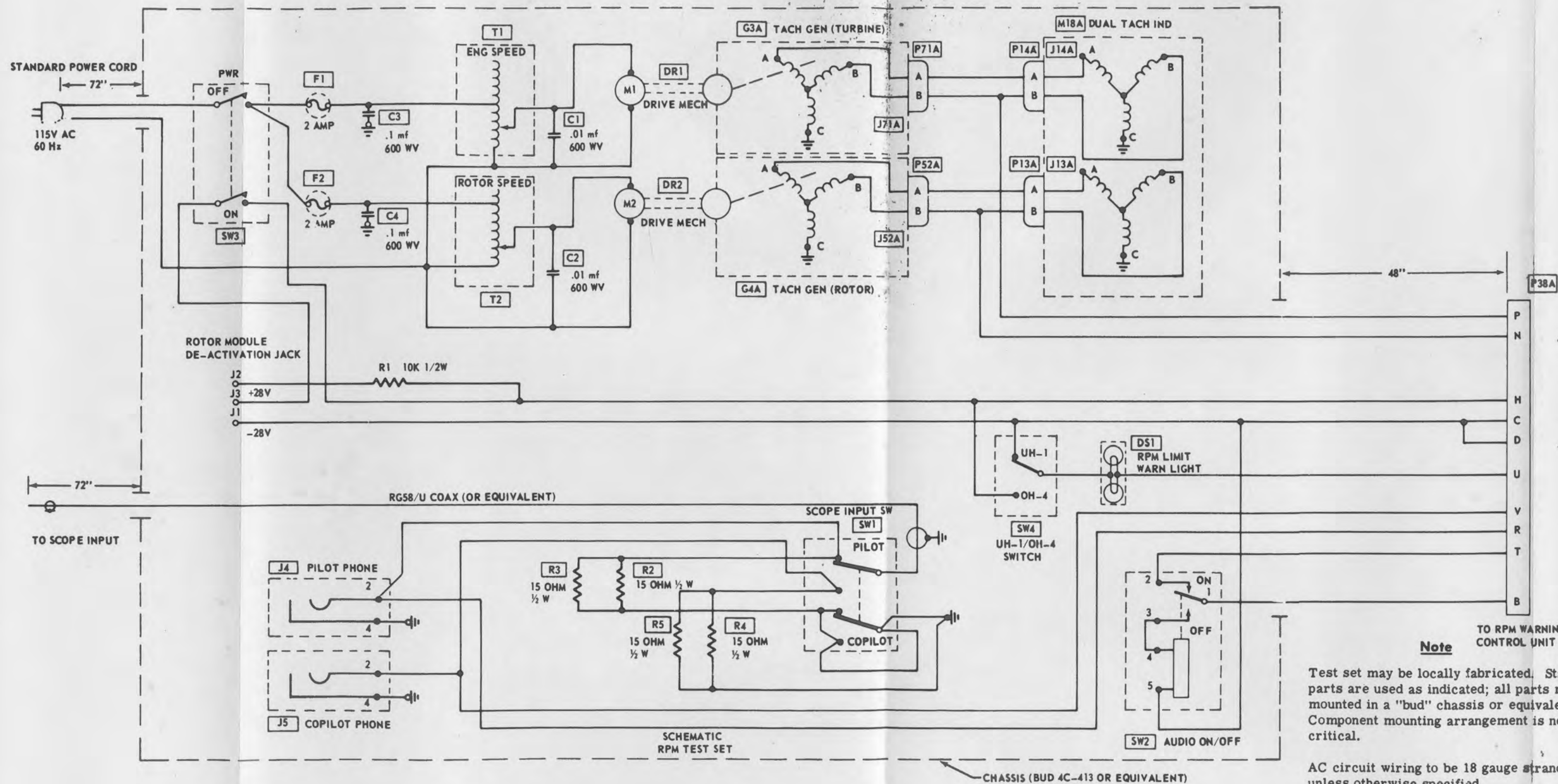


Figure F-27. Rpm limit warning system wiring diagram

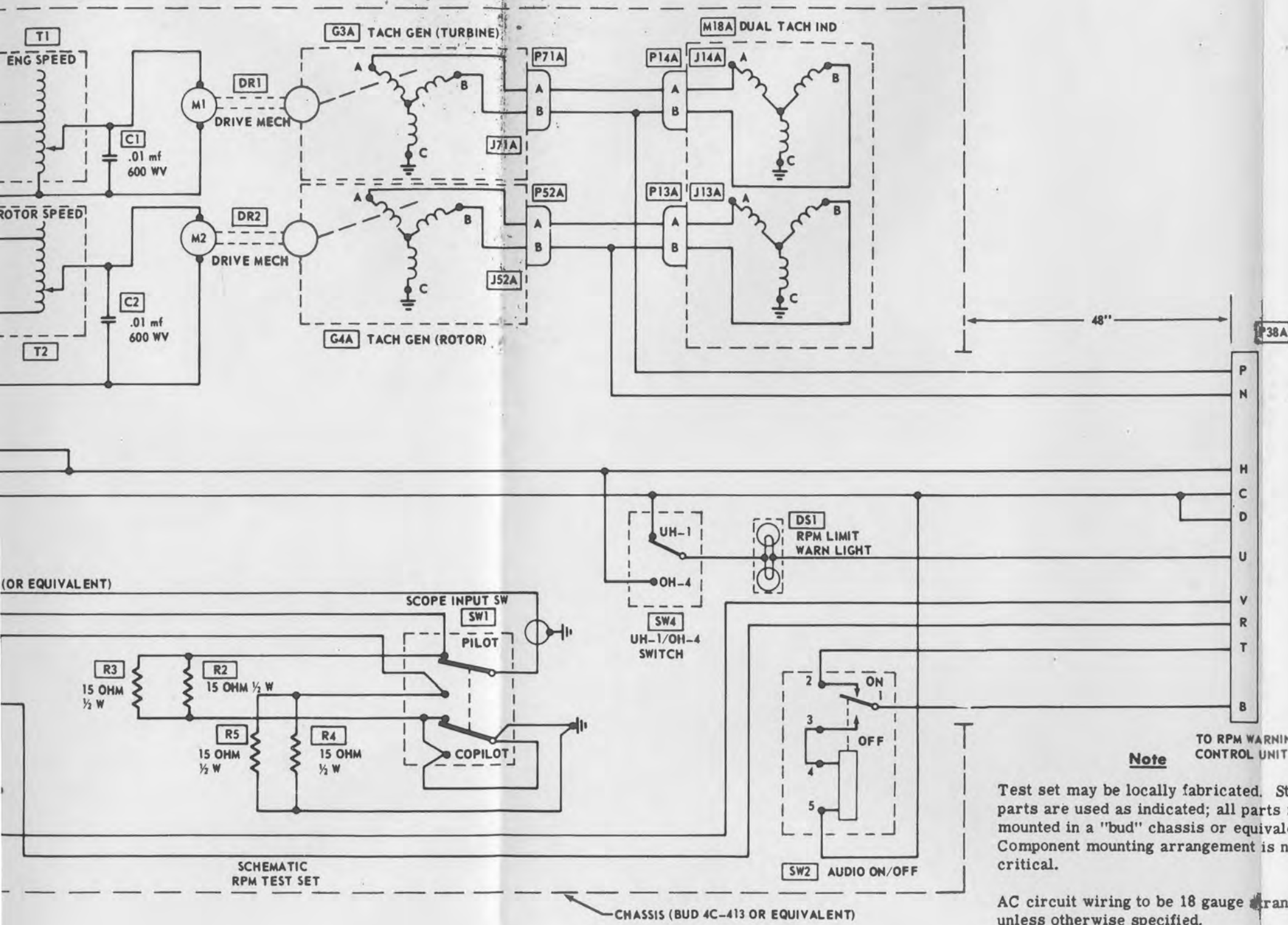


Note

Test set may be locally fabricated. Standard parts are used as indicated; all parts may be mounted in a "bud" chassis or equivalent. Component mounting arrangement is not critical.

AC circuit wiring to be 18 gauge stranded unless otherwise specified.

DC circuit wiring to be 22 gauge stranded unless otherwise specified.



PARTS LISTING		
ID CODE	NOMENCLATURE	PART NO.
C1, C2	Line Filter .01 mf. 600 WV	(Non Polarized)
C3, C4	Line Filter .1 mf. 600 WV	(Non Polarized)
DR1, DR2	Rubber Flex Tube	Rubber Hose 1/4" I.D.
DS1	Korry Light (033-0861-001)	(Bell 205-074-026-1)
F1, F2	Fuse Holder	HKP
G3A, G4A	Tach Generator (MIL-G26611)	Type GEU-7/A
J1, J2, J3	Banana Jack	Type GEU-7/A
J4, J5	Phone Jack	Standard
M1, M2	Tach Gen Drive Motor - Dayton Mod 2M037 - Ball Bearing 1/4" Shaft, 1/10 HP, 8000 RPM, 115V AC, 60 Hz	092 A/U
M18A	Dual Tach Indicator - GE 8DJ67FBC Sub 1	(Bell 204-070-055-1)
P13A	Plug, Dual Tach Indicator	MS3106R14S-7S
P14A	Plug, Dual Tach Indicator	MS3106R14S-7S
P38A	Plug, Eng RPM Warning Control	MS3126F14-19S
P52A	Plug, Tach Generator	MS3108R12S-3S
P71A	Plug, Tach Generator	MS3108R12S-3S
R1	Resistor, 10K OHM 1/2W Carbon	(Tol. 5%)
R2, R3	Resistor, 15 OHM 1/2W Carbon	(Tol. 5%)
R4, R5	Resistor, 15 OHM 1/2W Carbon	(Tol. 5%)
SW1	Switch, Scope Input	MS24659-23G
SW2	Switch, Audio On/Off (Micro)	5 ET1-S
SW3	Switch, Power On/Off	MS35059-22
SW4	Switch, UH-1/OH-4 Slect	MS35058-23
T1, T2	Speed Control - Power Stat, Superior Electric Co. (0-140VAC 60 Hz)	Type 10B

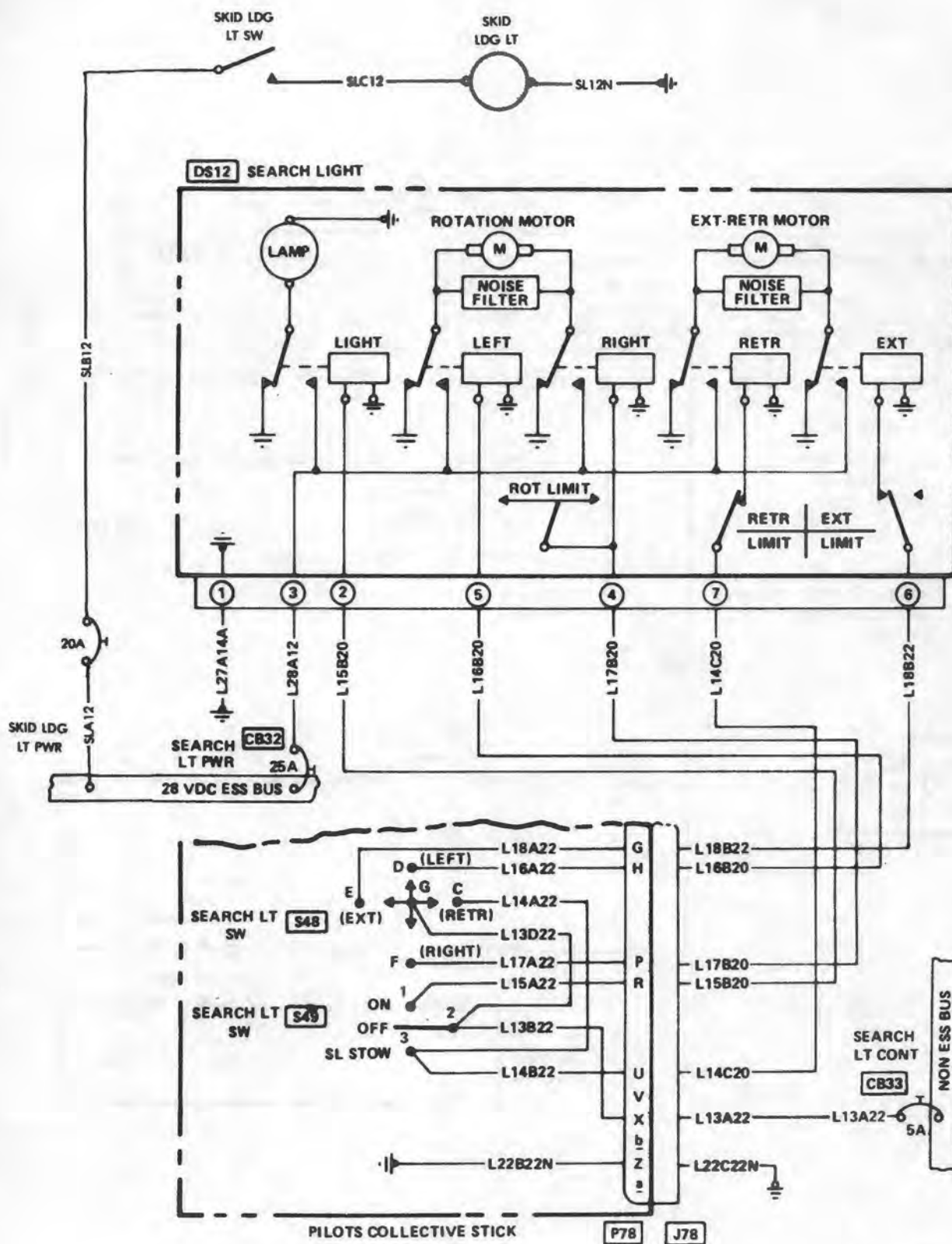
Note

Test set may be locally fabricated. Standard parts are used as indicated; all parts may be mounted in a "bud" chassis or equivalent. Component mounting arrangement is not critical.

AC circuit wiring to be 18 gauge stranded unless otherwise specified.

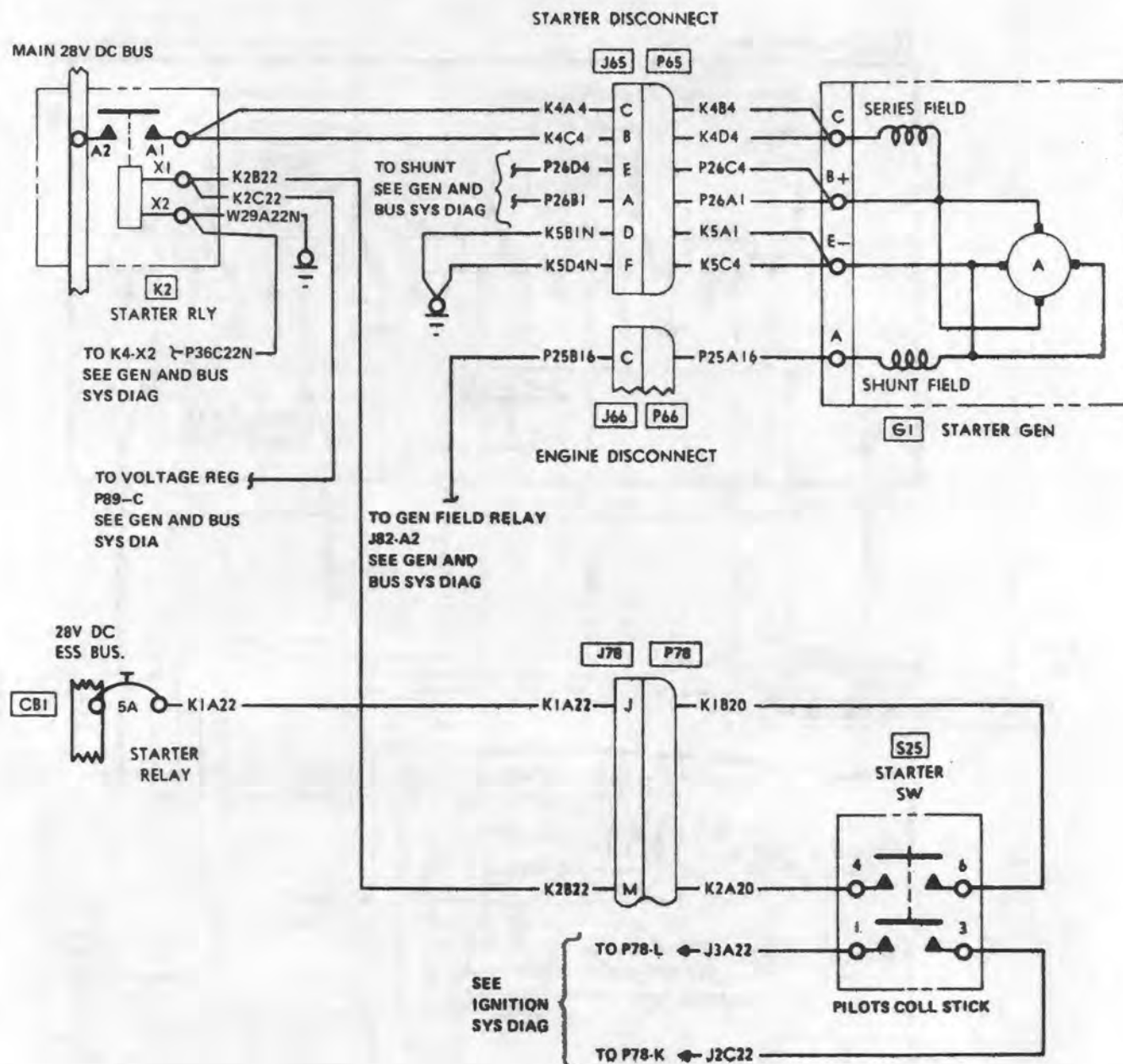
DC circuit wiring to be 22 gauge stranded unless otherwise specified.

Figure F-28. Rpm test set schematic diagram



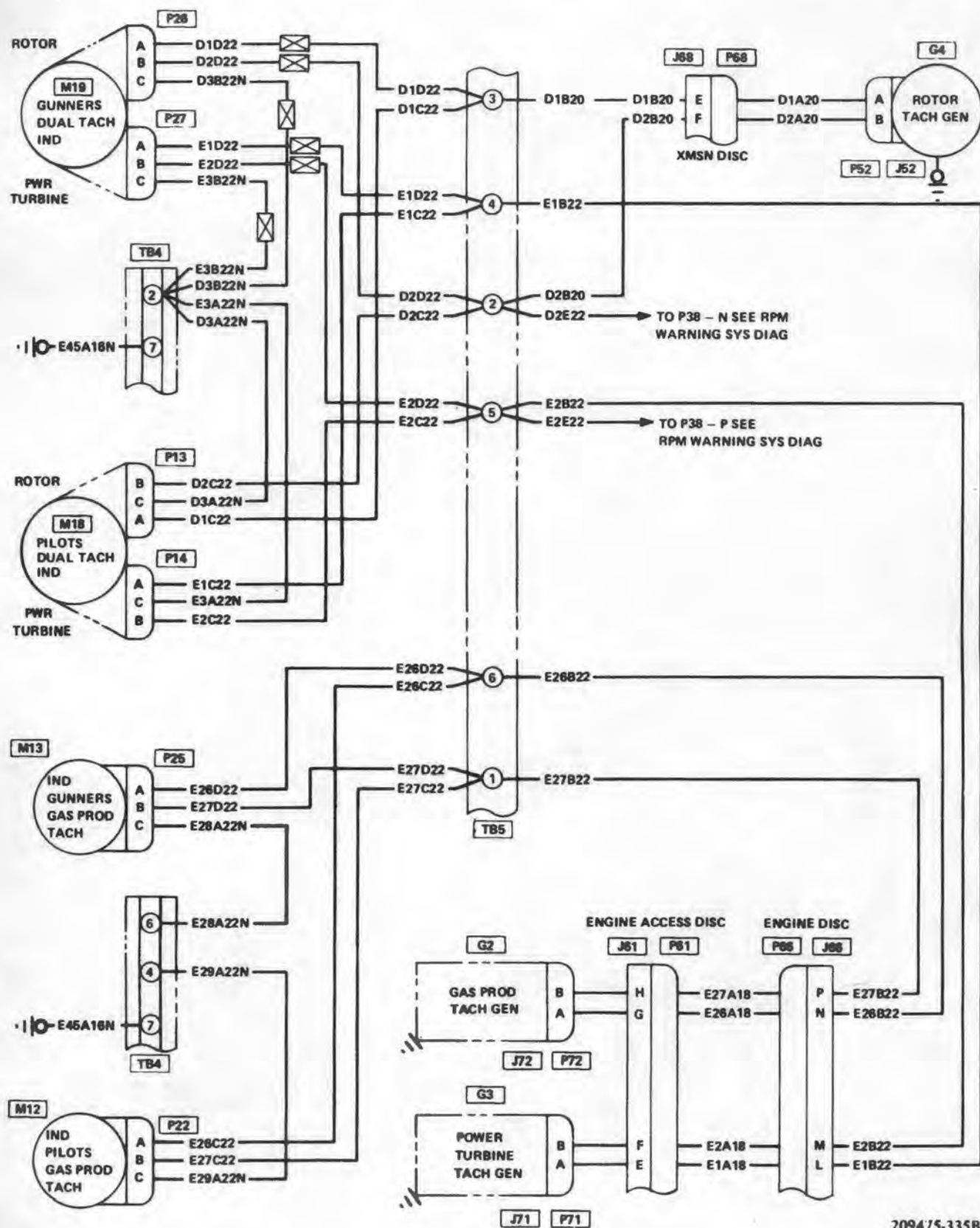
209475-345C

Figure F-29. Searchlight and Skid landing Light Systems



209475-352

Figure F-30. Starter system wiring diagram



209475-335B

Figure F-31. Tachometer indicating systems wiring diagram

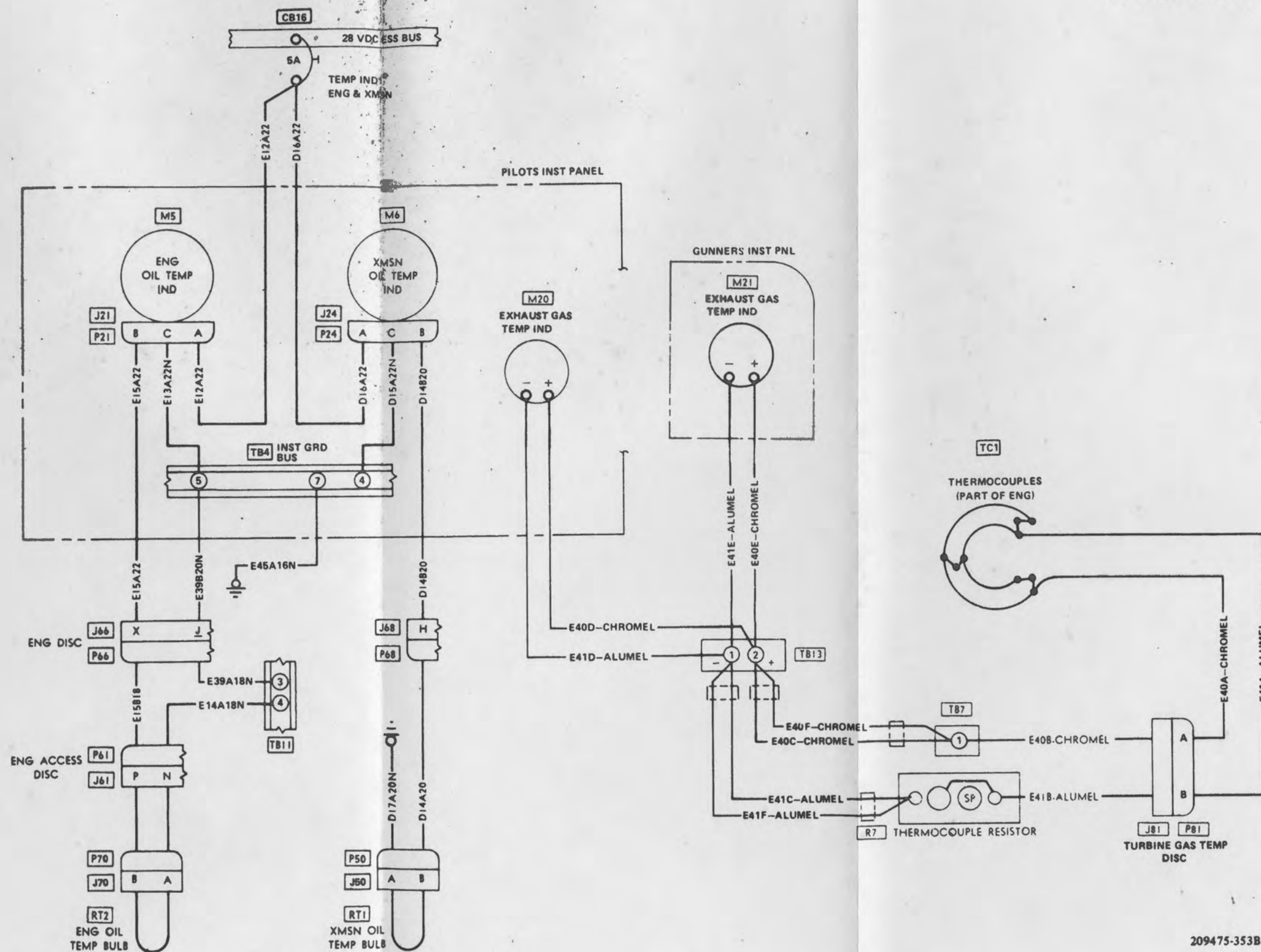
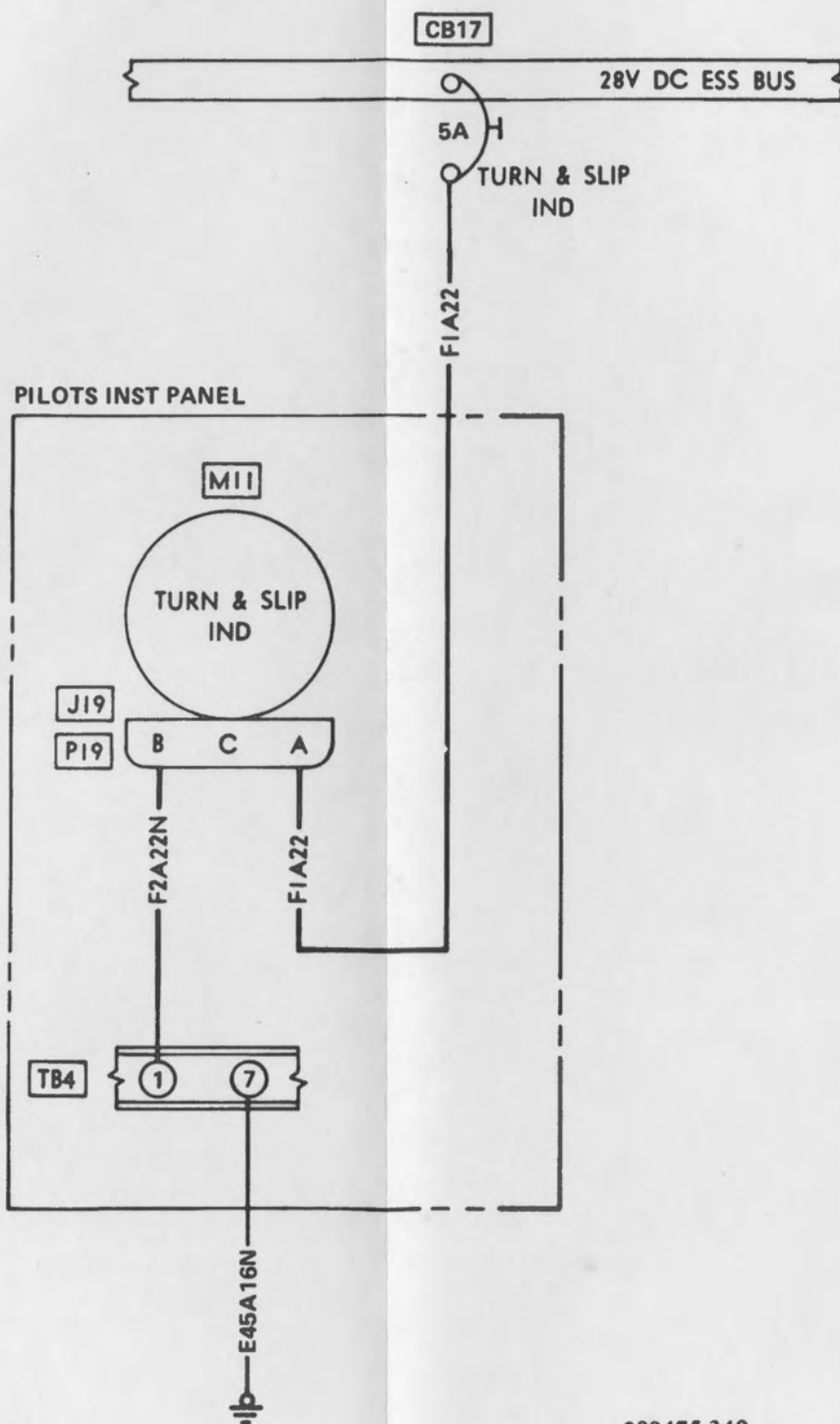


Figure F-32. Temperature indicating systems wiring diagram

Pages F-155/(F-156 Blank) Through F-171/(F-172 Blank) Deleted.

Change 13

F-153/(F-154 blank)



209475-340

Figure F-34. Turn and slip indicating system wiring diagram

INDEX

Subject	Paragraph, Figure, Table	Subject	Paragraph, Figure, Table
A			
Access Covers and Doors	2-19	Actuator, SCAS Servo — Solenoid Valves and Filters (Refer to SCAS Servo Actuators, Solenoid Valves and Filters)	
Access Panels, Doors and Fairings — Non-Structural	F2-3	Adjustment — Pitch Link	F5-6
Accessories and Engine Controls	9-61	Aft Bulkhead Rivet Removal	F2-37
Accumulator (Cyclic Controls)	F7-11A; 7-10	AH-1S Helicopter	FP-1
Cleaning	7-10b	Air Distribution Valve	13-4
Inspection	7-10c	Assembly	F13-5; 13-4g
Installation	7-10e	Characteristics	13-4a
Repair or Replace	7-10d	Cleaning	13-4d
Removal	7-10a	Disassembly	13-4c
Accumulator (Emergency Collective)	F7-10; F7-11; 7-9	Inspection	13-4e
Assembly	7-9l	Installation	13-4k
Charging	F7-9; 7-9d	Limits Chart	F13-6
Cleaning (After Disassembly)	7-9h	Removal	13-4b
Cleaning (External)	7-9a	Repair or Replacement	13-4f
Disassembly	7-9g	Test, Functional	13-4i
Inspection (After Disassembly)	7-9i	Test, Proof Pressure	13-4h
Inspection (External)	7-9b	Troubleshooting	T13-2; 13-4j
Installation	7-9o	Airframe	2-1
Lubrication	7-9k	Air Induction Area	F4-10
Maintenance of Valves	7-9e	Air Induction Baffle	F4-10; 4-10
Repair or Replacement (After Disassembly)	7-9j	Cleaning	4-10b
Repair or Replacement (Before Disassembly)	7-9c	Inspection	4-10c
Removal	7-9f	Installation	4-10e
Testing	7-9m	Removal	4-10a
Testing (Accumulator Drain Valve)	7-9n	Repair or Replacement	4-10d
Ac Power Control Relay	9-34	Air Induction System	4-7
Ac Transformer	9-36	Airframe External Components	F2-55
Cleaning	9-36a	Airspeed Indicators	8-29
Inspection	9-36b	Cleaning	8-29a
Installation	9-36e	Functional Test	8-29c
Removal	9-36c	Inspection	8-29b
Repair or Replacement	9-36d	Installation	8-29g
Actuating Mechanism (CRS) — (Refer to Canopy Removal System, Actuating Mechanism)		Removal	8-29e
Actuating Mechanism — Ground Handling Wheels (Refer to Ground Handling Wheels, Actuating Mechanism)		Repair or Replacement	8-29f
Actuator-Servo Pylon, Armament	F7-20; 7-19	Troubleshooting	T8-7; 8-29d
Assembly	F7-22; 7-19e	Alignment	
Cleaning	7-19a	Driveshaft	F6-7; F6-8; 6-8
Disassembly	F7-21; 7-19d	Driveshaft Hangers	6-24A
Inspection	F7-23; 7-19b	Ejector Rack	F16-7
Installation	7-19f	Main Rotor Hub and Blades — Tool Application	F5-17
Removal	7-19c	Alignment Test — Ejector Rack	16-7
		Alternating Current Power Distribution System	9-24
		Altimeters	8-30
		Cleaning	8-30a

Subject	Paragraph, Figure, Table
Functional Test	8-30c
Inspection	8-30b
Installation	8-30g
Removal	8-30e
Repair or Replacement	8-30f
Troubleshooting	T8-8; 8-30d
Ambient Air Blower (Refer to Blower, Ambient Air)	
Ammeter/Voltmeter	8-51
Cleaning	8-51a
Functional Test-Bench	F8-6; 8-51f
Inspection	8-51b
Installation	8-51g
Removal	8-51d
Repair or Replacement	8-51e
Troubleshooting	F-19; T8-17; 8-51c
Ammo Floor, Support Panels and Forward Fuel Cell Panel at Station 213.94	F2-14
Ammunition Compartment Doors (Refer to Doors, Ammunition Compartment)	
Ammunition Floor Honeycomb Panel ..	F2-33; 2-12
Anticollision Light	9-56
Cleaning	9-56a
Inspection	9-56b
Installation	9-56e
Removal	9-56c
Repair or Replacement	9-56d
Anticollision Light System	9-55
Functional Test	9-55a
Troubleshooting	F-6; T9-11; 9-55b
Anti-Torque System Magnetic Brake and Force Gradient	11-16
Cleaning	11-16c
Functional Check	11-16f
Inspection	11-16a
Installation	11-16e
Removal	11-16b
Repair	11-16d
Anti-Torque System Wear and Damage Limits	F11-1A
Application of External Power	1-28
Approved Fuels	T1-2
Armament Equipment Location	F9-13
Armament Hydraulic Provisions	7-16
Armament Pylon Servo Actuator (Refer to Actuator, Servo Pylon, Armament)	
Armament Systems Circuitry	9-77
Armament Systems Circuitry — Wing Stores	9-83
Functional Test	F9-14; F9-15; 9-84

Subject	Paragraph, Figure, Table
Troubleshooting	F-7; T9-25; T9-26; T9-27; 9-86
Armor — Protective	F2-52; 2-43
Inspection	2-43a
Installation	2-43d
Removal	2-43b
Repair	2-43c
Army Oil Analysis Program	6-5
Assembly	F5-11
Main Rotor Blade and Hub	
Attachment — Lift Link Supporting (Refer to Lift Link Supporting Attachment)	
Attitude Indicating System	8-31
Attitude Indicators	8-32
Cleaning	8-32a
Functional Test	8-32c
Inspection	8-32b
Installation	8-32g
Removal	8-32e
Repair or Replacement	8-32f
Troubleshooting	F-8; T8-9; 8-32d
Authority for Substitution	P-7

B

Baffle, Air Induction	F4-10; 4-10
Cleaning	4-10b
Inspection	4-10c
Installation	4-10e
Removal	4-10a
Repair or Replacement	4-10d
Balancing Main Rotor	
Hub Assembly	5-6A; F5-37; F5-38; F5-39
Balancer Indication — Interpretation	F5-39
Battery	9-9
Cleaning	9-9a
Condition	9-9c
Inspection	9-9b
Installation	9-9g
Removal	9-9e
Repair or Replacement	9-9f
Service	9-9d
Battery Servicing	1-9
Battery System	9-8
Battery Weapons Power System	9-8c
Description	9-8a
Function	9-8b
Functional Test	9-8d
Troubleshooting	F-9; T9-1; 9-8e

Subject	Paragraph, Figure, Table
Battery — Vent and Drain Lines (Refer to Vent and Drain Lines — Battery)	
Beam Panels, Left and Right — Station 250.0 to Boom Station 41.32	F2-13
Bearing Staking Tool	F5-65
Bearings — Cyclic, Collective, Anti-Torque, and Synchronized Elevator Systems	11-5
Inspection	11-5e; 11-5b
Removal	11-5a
Repair	11-5c
Bearings — Flight Control System	F11-1E
Bellcrank, Levers, and Walking Beams	
Flight Control Systems (Refer to Flight Controls — Bellcranks, Levers, and Walking Beams)	
Belts, Seat	2-41
Belts, Seat and Shoulder Harness	2-41
Inspection	2-41a
Installation	2-41c
Removal	2-41b
Bench Test — Oil Cooler Bypass Valve	F6-73
Blade Assembly, Main Rotor (Refer to Main Rotor Blade Assembly)	
Blanket, Soundproofing (Refer to Soundproofing Blanket)	
Blower — Ambient Air	F13-4; 13-3
Assembly	13-3f
Cleaning	13-3c
Disassembly	13-3b
Inspection	13-3d
Installation	13-3g
Removal	13-3a
Repair or Replacement	13-3e
Blower Cooling System — TOW	9-74
Description	9-74a
Function	9-74c
Functional Test	9-74d
Purpose	9-74b
Troubleshooting	F-33; T9-24; 9-74e
Blower — TOW	9-75
Cleaning	9-75a
Inspection	9-75b
Installation	9-75e
Removal	9-75c
Repair or Replacement	9-75d
Boost Pumps Circuitry — Fuel	9-65
Functional Test	9-65a
Troubleshooting	F-17; T9-17; 9-65b
Boost Pumps — Fuel	10-8
Inspection	10-8b

Subject	Paragraph, Figure, Table
Installation	10-8d
Removal	10-8a
Repair or Replace	10-8c
Brake, Magnetic, and Force Gradient — Cyclic Control System (Refer to Cyclic Control System — Magnetic Brake and Force Gradient System)	
Breakers — Circuit (Refer to Circuit Breakers)	
Bulb — Engine Oil Temperature (Refer to Engine Oil Temperature Bulb)	
Bulb — Transmission Oil Temperature	8-50
Cleaning	8-50a
Functional Test — Bench	8-50f
Inspection	8-50b
Installation	8-50g
Removal	8-50d
Repair or Replacement	8-50e
Troubleshooting	8-50c
Bulkhead — Boom Station 80.44	F2-61
Bulkhead — Boom Station 59.50	F2-60
Bulkhead — Station 93.0	F2-6
Bulkhead — Boom Station 101.38	F2-62
Bulkhead — Boom Station 122.33	F2-63
Bulkhead — Boom Station 143.28	F2-64
Bulkhead — Boom Station 164.23	F2-65
Bulkhead — Boom Station 185.18	F2-66
Bulkhead — Stations 148.5 and 171.61	F2-7
Bulkheads — Stations 184.5 and 213.94	F2-8
Bulkheads — Stations 250.0 and 268.5	F2-9
Bumpers — Wing	F2-74; 2-65
Bus Control Relay	9-22
Bushings	
Limits Chart	F2-75
Transmission Mount	2-56
Bus Power Relay	9-10
Bus Relay — Non-essential	9-23
Bus System — Generator and Dc (Refer to Generator and Dc Bus System)	
Bus Wiring Schematic — Simplified Electrical	F9-1
Bypass Circuitry — Engine Oil (Refer to Engine Oil Bypass Circuitry)	

C

Calibration	P-9
Canopy	2-24
Canopy Assembly Frames	F2-36; 2-25
Inspection	2-25a
Installation — Both Frames	F2-38; F2-39; F2-40; F2-41; 2-25g

Subject	Paragraph, Figure, Table
Installation — Left Frame	2-25c
Installation — Right Frame	2-25e
Removal — Both Frames	2-25f
Removal — Left Frame	F2-37; 2-25b
Removal — Right Frame	2-25d
Canopy Assembly Windows	2-26
Application — Rain Repellant	2-26b
Cleaning	2-26a
Inspection	2-26c
Installation	F2-43A; 2-26f
Removal	2-26e
Repair	F2-43; 2-26d
Canopy Removal System	17-1
Actuating Mechanism	17-3
Installation of Junction Manifolds and Arming/Firing Units	F17-6
Interconnections	F17-1
Window Cutting Assembly	17-2
Canopy Windows — Stress Loads	F2-42
Caps — Primary Structure	F2-4
Cartridges, Impulse — Outboard Ejector Rack (Refer to Ejector Rack Impulse Cartridges)	9-47
Caution and Warning Lights Systems	9-49
Caution Light Circuitry	9-49a
Functional Test	9-49a
Troubleshooting	F-10; 9-49b
Caution Panel	F9-6; 9-48
Cleaning	9-48a
Functional Test	9-48c
Inspection	9-48b
Installation	9-48g
Removal	9-48e
Repair or Replacement	9-48f
Troubleshooting	F-11; 9-48d
Cells — Fuel (Refer to Fuel Cells)	
Centering Measurement — Main Rotor Hub Trunnion	F5-34
Charts — Load	F-5
Check Valve — Fuel Manifold	10-5
Cleaning	10-5b
Inspection	10-5c
Installation	10-5e
Removal	10-5a
Repair or Replace	10-5d
Checking Driveshaft Alignment	F6-8
Chip Detector — Engine	4-20
Chip Detector — Transmission (Refer to Transmission Chip Detector)	
Circuit Arrangement and Adapter Cable for Fuel Quantity Adjustment Procedures on Installed System	F8-5

Subject	Paragraph, Figure, Table
Circuit Breakers	9-5
Cleaning	9-5a
Inspection	9-5b
Installation	9-5e
Removal	9-5c
Repair or Replacement	9-5d
Cleaning Helicopter	1-11
Canopy	1-11d
Exterior	1-11c
General	1-11a
Interior	1-11b
Rotor Blades	1-11e
Treatment of Aluminum Magnesium Alloy Corrosion	1-11f
Clock	8-40
Adjustment	8-40e
Cleaning	8-40a
Functional Test	8-40c
Inspection	8-40b
Installation	8-40h
Removal	8-40f
Repair or Replacement	8-40g
Troubleshooting	T8-13; 8-40d
Cockpit Air Blower Drive Quill	6-21
Inspection — Installed Quill	6-21a
Inspection — Removed Quill	6-21c
Installation	F6-37; 6-21e
Removal	6-21b
Replacement of Seals	F6-36; 6-21d
Cockpit Lights	9-45
Cleaning	9-45a
Functional Test	9-45c
Inspection	9-45b
Installation	9-45g
Removal	9-45e
Repair or Replacement	9-45f
Troubleshooting	F-24; T9-7; 9-45d
Collapsing Aft Fuel Cell	F10-4
Collapsing Forward Fuel Cell	F10-2
Collective Control System	F11-1; 11-6
Inspection — Installed System	11-6a
Rigging	11-6b
Wear and Damage Limits	F11-1c
Collective Stick — Gunner	F11-4; 11-8
Inspection	F11-4A; 11-8b
Installation	11-8d
Removal	11-8a
Repair	11-8c
Collective Stick — Pilot	F11-2; 11-7
Inspection	11-7b
Installation	F11-3; 11-7d
Removal	11-7a

Subject	Paragraph, Figure, Table
Repair	11-7c
Collector Lever Thrust Washer	
Wear Limits	F5-42
Common Electrical Components	9-3
Compass — Standby	8-38
Cleaning	8-38a
Compensation (Swinging)	8-38d
Inspection	8-38b
Installation	8-38g
Removal	8-38e
Repair or Replacement	8-38f
Troubleshooting	T8-12; 8-38c
Condenser, Heat Exchanger	
Reheater	13-9
Inspection	13-9a
Repair or Replacement	13-9b
Test	13-9c
Cones, Split, Corrosion and	
Damage Limits	F5-9
Connection of Hydraulic Cylinders	
to Swashplate	F7-17
Console Lights — Instrument Panel	
(Refer to Lights, Instrument Panel	
and Console)	
Consumable Maintenance Supplies	
& Materials	T1-3; 1-13
Contamination of Gearboxes —	
Metal Particles	6-3
Continuity Test — Wing Stores,	
Ejector Racks, Voltage	9-85
Control Augmentation System (SCAS),	9-76
Control Motion Transducers — Stability	
Control Augmentation System	11-23
Control Panel — Stability Control	
Augmentation System	11-24
Control Relay — Ac Power	9-34
Control Relay, Bus	9-22
Control Panels	9-6
Cleaning	9-6a
Inspection	9-6b
Installation	9-6e
Removal	9-6c
Repair or Replacement	9-6d
Control Panel — Stability Control	
Augmentation System	11-24
Functional Check	11-24e
Inspection	11-24a
Installation	11-24d
Removal	11-24b
Repair	11-24c
Control System Circuitry — Environmental	
Functional Test	9-72a

Subject	Paragraph, Figure, Table
Troubleshooting	F-13; T9-22; 9-72b
Control System Circuitry — Governor	9-66
Functional Test	9-66a
Troubleshooting	F-20; T9-18; 9-66b
Control System Circuitry — Hydraulic	9-70
Functional Test	9-70a
Troubleshooting	F-21; T9-21; 9-70b
Control System — Environmental (Refer	
to Environmental Control System)	
Control System — Collective (Refer	
to Collective Control System)	
Control System — Cyclic (Refer to	
Cyclic Control System)	
Control Systems (Electrical) — Flight	9-68
Control — Temperature Sensor (Refer	
to Sensor — Temperature Control)	
Control — Temperature Valve (Refer to	
Temperature Control Valve)	
Control Tubes — Flight Systems	11-4
Functional Check	11-4e
Inspection	11-4b
Installation	11-4d
Removal	11-4a
Repair	11-4c
Control Unit — Environmental (Refer	
to Environmental Control Unit)	
Control Unit (IFCU) — Interface (Refer	
to Interface Control Unit (IFCU)	
Control Unit — Servo Electronic	
(SECU) (Refer to Servo Electronic	
Control Unit (SECU))	
Controls	
Power	4-21
Power Turbine RPM	F4-22; 4-23
Controls and Accessories — Engine	
(Electrical)	9-61
Controls — Tail Rotor	F11-12; 11-13
Rigging	11-13a
Controls — Tail Rotor — Crosshead	
Weights, Links and Control Tubes	
(Refer to Tail Rotor Controls — Crosshead	
Weights, Links, and Control Tubes)	
Cooler — Engine Oil (Refer to	
Engine Oil Cooler)	
Cooler — Transmission Oil (Refer	
to Transmission Oil Cooler)	
Cooling and Heating Systems	
Circuitry	9-71
Cooling System	4-6
Engine External Cooling	4-6b

Subject	Paragraph, Figure, Table
Engine Internal Cooling	4-6a
Starter-Generator Cooling	4-6c
Cooling System — TOW Blower (Refer to Blower Cooling System — TOW)	
Cooling — Turbine Expansion (Refer to Turbine — Expansion Cooling)	
Corrosion	2-67
Electrolytic	2-67b
Hygroscopic	2-67e
Intergranular	2-67c
Stress	2-67d
Superficial	2-67a
Corrosion and Damage Limits —	
Split Cones	F5-9
Corrosion Control	2-67
Corrosion — Removal and Treatment	2-68
Coupling Teeth Wear Patterns	F6-44
Course Indicator (ID-48()/ARN)	8-36
Covers Diagram	F1-6
Cowl, Engine, and Tailpipe Fairing	2-16
Inspection	2-16a
Installation	2-16d
Removal	2-16b
Repair	2-16c
Cowl Assembly — Transmission	2-15
Inspection	2-15a
Installation	2-15d
Removal	2-15b
Repair	2-15c
Cowling and Fairing Panels —	
Sheet Metal	2-14
Inspection	2-14a
Installation	2-14d
Removal	2-14b
Repair	2-14c
Cowlings, Doors, and Fairings —	
Seals (Refer to Seals on Cowlings, Doors, and Fairings)	
Cradle Assemblies in Position for Installation on Rocket Launcher	F16-3
Cradle Assemblies in Stow Position for Installation on Outboard Rack	F16-2
Cross Tubes, Repair Limits	F3-3
Deflection Checks	F3-2
Current Relay, Reverse	9-21
Cyclic Control, Fore and Aft — Jackshaft (Refer to Jackshaft Fore and Aft Cyclic)	
Cyclic Control System Wear and Damage Limits	F11-1D

Subject	Paragraph, Figure, Table
Cyclic Controls Accumulator (Refer to Accumulator (Cyclic Controls)	
Cyclic Control System	F11-5; F11-6; 11-9
Inspection — Installed System	11-9a
Rigging	11-9b
Cyclic Control System Magnetic Brake and Force Gradient	11-15
Cleaning	11-15c
Functional Check	11-15f
Inspection	11-15a
Installation	11-15e
Removal	11-15b
Repair	11-15d
Cyclic Stick — Gunners	F11-11; 11-11
Assembly	11-11e
Disassembly	11-11b
Functional Check	11-11g
Inspection	11-11c
Installation	11-11f
Removal	11-11a
Repair	11-11d
Cyclic Stick — Pilots	11-10
Assembly	11-10e
Disassembly	11-10b
Friction Adjustment	F11-10
Inspection	11-10c
Installation	11-10f
Removal	11-10a
Repair	11-10d
Cylinders — Dual Hydraulic Servo	F7-3; F7-12; F7-14; F7-15; 7-11
Assembly	7-11i
Cleaning (External)	7-11a
Disassembly	7-11f
Inspection (After Disassembly)	7-11g
Inspection	7-11b
Installation	F7-16; F7-13; 7-11j
Intersystem Leakage Test	7-11k
Lubrication	7-11d
Repair or Replacement (After Disassembly)	7-11h
Repair or Replacement	7-11c
Removal	F7-13A; 7-11e
Cylinder, Tail Rotor Control and Support (Refer to Tail Rotor Control Cylinder and Support)	

D

Damage Area Locations, Tail Rotor Blade	F5-58
--	-------

Subject	Paragraph, Figure, Table	Subject	Paragraph, Figure, Table
Damage Limits .		Detector — Rpm Limit Warning (Refer to Rpm Limit Warning Detector)	F-28; F9-10; F9-11; F9-12
Collective Lever	F5-46	Diagonal Brace Tube	2-23
Collective Lever Idler Link	F5-47	Inspection	2-23a
Hydraulic Cylinder Bearing Housing	F7-13	Installation	F2-35; 2-23d
Elbow Fitting	F6-68	Removal	2-23b
Housing Assembly	F6-66	Repair	2-23c
Fifth Mount Support Fitting	F2-73	Diagram Index — Wiring	F-6
Inlet Fitting	F6-59	Dimensions and Tolerances	1-17
Flight Control Power Cylinder Supports	F2-72	Direct Current Power Distribution System	9-7
Hub, Sleeve, Scissors and Link	F5-44	Dispenser, Smoke Grenade — System Circuitry (Refer to Smoke Grenade Dispenser System Circuitry)	
Inlet Bypass Piston	F6-61	Dispenser, Smoke Grenade, Wing Mounted (Refer to Smoke Grenade Dispenser, Wing Mounted)	
Longeron	F2-66A	Door Assembly Frame, Pilot and Gunner	2-28
Main Rotor Mast	F6-28	Inspection	2-28a
Nozzles	F6-63	Repair	2-28b
Piston	F6-62	Door Assembly — Pilot and Gunners	F2-44; F2-45; F2-46; 2-27
Pitch Link Assembly	F5-52	Installation	2-27b
Plunger	F6-67	Removal	2-27a
Return Bypass Fitting	F6-60	Door Assembly Windows — Pilot and Gunners Doors	2-29
Sleeve	F6-64	Cleaning	2-29a
Split Cones	F5-9	Inspection	2-29b
Spline Plate	F5-45	Installation	2-29e
Swashplate and Support	F5-51	Removal	2-29d
Swashplate and Support Assembly	F5-49	Repair	2-29c
Swashplate Anti-Drive Link, Bellcrank, and Support	F5-50	Door Handles and Latches — Pilot and Gunners Doors	F2-47; 2-30
Tail Rotor Blade Pitch Horn	F5-61	Functional Check	2-30e
Tail Rotor Hub Trunnion Set	F5-64	Inspection	2-30a
Tail Rotor Hub Yoke	F5-63	Installation	2-30d
Tailboom Bulkhead	F2-66B	Removal	2-30b
Universal Fitting Bolt	F6-65	Repair	2-30c
Vertical Fin Honeycomb Panels	F2-68A	Door Hinges — Pilot and Gunners Doors	2-31
Tailboom Skin and Structure	T2-1	Functional Check	2-31e
		Inspection	2-31a
Dampers — Pylon	F6-21; 6-16	Installation	2-31d
Assembly	6-16e	Removal	2-31b
Cleaning and Inspection	6-16d	Repair	2-31c
Disassembly	6-16c	Door Latches and Handles — Pilot and Gunner	2-30
Inspection	6-16a	Functional Check	2-30e
Installation	F6-22; 6-16f	Inspection	2-30a
Removal	6-16b	Installation	2-30d
Dampers — Transmission Mount	2-55	Removal	2-30b
Data — Wiring (Refer to Wiring Data)			
Deck Installation, Engine — Station 213.94 to 298.75	F2-17		
De-ice Circuitry — Engine	9-62		
Functional Test	9-62a		
Troubleshooting	F-12; T9-14; 9-62b		
Description of Helicopter	P-3		
Destruction of Army Material to Prevent Enemy Use	P-5		

Subject	Paragraph, Figure, Table
Repair	2-30c
Door Striker — Pilot and Gunners Doors	2-33
Functional Check	2-33e
Inspection	2-33a
Installation	2-33d
Removal	2-33b
Repair	2-33c
Door Strut Assemblies — Pilot and Gunners Doors	F2-48; 2-32
Assembly	2-32f
Disassembly	2-32c
Functional Check	2-32h
Inspection	2-32a
Inspection — Disassembled	2-32d
Installation	2-32g
Removal	2-32b
Repair	2-32e
Doors — Ammunition Compartment	2-21
Inspection	2-21a
Installation	2-21d
Removal	2-21b
Repair	2-21c
Doors and Access Covers	2-19
Doors and Fairings, Non-Structural	F2-3
Doors, Couplings, and Wing Skins	F2-76
Doors, Cowlings and Fairings — Seals	2-3
Inspection	2-3a
Installation	2-3d
Removal	2-3b
Tests to Determine Seal Material	2-3c
Doors — Hydraulic Compartment	2-20
Inspection	2-20a
Installation	2-20d
Removal	2-20b
Repair	2-20c
Doors, Tailboom Assembly and Panels	2-47
Inspection	2-47a
Installation	2-47d
Removal	2-47b
Repair	2-47c
Doublers, Doors and Wing Skins	F2-76
Doubler for Inlet Vane Reinforcement	F4-7
Drain and Vent Installation — Fuel	F2-48A; 2-34
Inspection	2-34a
Installation	2-34d
Removal	2-34b
Repair	2-34c
Drain and Vent Installation — Battery	F2-48A; 2-37
Inspection	2-37a

Subject	Paragraph, Figure, Table
Installation	2-37d
Removal	2-37b
Repair	2-37c
Drain and Vent Installation Hydraulic	F2-48A; 2-36
Inspection	2-36a
Installation	2-36d
Removal	2-36b
Repair	2-36c
Drain and Vent Locations	F2-48A; 2-33A
Drive Plate Spline Wear	F5-41
Measurement — Tool Application Drive Quill Diagram — Transmission	F6-11
Driveshaft Alignment	6-8
Driveshaft Hanger Assemblies	6-24
Cleaning	6-24b
Inspection	6-24c
Installation	6-24g
Lubrication — Bearings	6-24d
Lubrication — Hanger Couplings	6-24e
Removal	6-24a
Repair or Replacement	6-24f
Driveshaft Hanger Support Alignment — Work Aid	F6-40B
Driveshaft — Main (Refer to Main Driveshaft) Driveshaft — Tail Rotor (Refer to Tail Rotor Driveshaft)	
Drive Train	F6-1; 6-1
Drive Train — Troubleshooting	T6-1; 6-2
Droop Compensator Lineage — Governor Actuator	F4-22; 4-24
Cleaning	4-24c
Inspection	4-24d
Installation — Cambox and Linkage	4-24f
Installation — Activator and Control Lever	4-24g
Removal — Actuator and Control Lever	4-24a
Removal — Cambox and Linkage	4-24b
Repair or Replacement	4-24e
Rigging	F4-23; 4-24h
Dual Hydraulic Cylinders (Refer to Cylinders Hydraulic — Dual) Dual Tachometers (Refer to Tachometers — Dual) Duct Assembly, Infrared Suppression	2-18
Ducts Ventilating (Refer to Ventilating Ducts)	

E

Ejection Mechanism — Crew Door	2-17
Ejector, Heatshield, Tailpipe	F4-11; 4-12
Cleaning	4-12b
Inspection	4-12c

Subject	Paragraph, Figure, Table	Subject	Paragraph, Figure, Table
Installation	4-12d	Emergency Ac Power	9-1c
Removal	4-12a	Emergency Dc Power	9-1b
Repair or Replacement	4-12e	Primary Electrical Power	9-1a
Ejector Rack — Alignment Test	F16-7; 16-7	Starting Power	9-1e
Alignment Procedures	16-7h	Electronic Interface Assembly —	
Circuit Breakers	16-7e	UNIVAC	9-81
Control Switch Positions	16-7c	Elevator Control System	F11-14; 11-17
Elastomeric Step Adjustment	16-7b	Inspection Installed System	11-17a
Electrical Power	16-7d	Rigging	11-17b
Hydraulic Power	16-7g	Wear and Damage Limits	F11-1B
Power Switch Positions	16-7f	Elevator — Synchronized	F2-68; 2-50
Test Preparations	16-7a	Inspection	2-50a
Ejector Rack		Installation	2-50d
Electrical Connections	F16-10	Removal	2-50b
Fairing	16-9	Repair	2-50c
Inboard, Installation	F16-8	Emergency Bypass Valve — Transmission	
Outboard, Exploded View	F16-9	Oil	F6-58; 6-38
Special Tools	F16-5	Assembly	6-38f
Ejector Racks	16-4	Cleaning	6-38c
Preparation for Maintenance	16-4b	Disassembly	6-38b
Troubleshooting	T16-1; 16-4a	Functional Test and Final	
Ejector Racks — Inboard	16-8	Adjustment	6-38g
Cleaning After Jettison	16-8e	Inspection	F6-59; F6-60; F6-61; F6-62; F6-63; F6-64; F6-65; F6-66; F6-67; F6-68; 6-38d
Inspection	16-8b	Installation	6-38h
Installation	16-8d	Removal	6-38a
Removal	16-8a	Repair or Replacement	6-38e
Repair or Replacement	16-8c	Emergency Collective Accumulator	
Ejector Rack, Impulse Cartridges	16-5	(Refer to Accumulator — Emergency	
Inspection	16-5b	Collective)	
Installation	16-5c	Engine Assembly	F4-3A; F4-1; 4-5
Removal	16-5a	Installation of Adapting Parts	4-5c
Ejector Racks — Outboard	16-6	Installation of Engine Assembly	4-5d
Alignment	16-6e	Removal of Adapting Parts	4-5b
Cleaning After Jettison	16-6f	Removal of Engine Assembly	4-5a
Inspection	16-6b	Engine Chip Detector	4-20
Installation	F16-6; 16-6d	Engine Controls and Accessories	
Removal	16-6a	(Electrical)	9-61
Repair or Replacement	16-6c	Engine Cowl and Tailpipe Fairing (Refer	
Ejector Racks, Voltage Continuity		to Cowl Engine and Tailpipe Fairing)	
Test — Wing Stores	9-85	Engine Deck and Firewall Sealing	F4-13
Elbow Fittings — Damage Limits	F6-68	Engine Deck Installations —	
Electrical Components	9-3	Station 213.94 to 298.75	F2-17
Electrical Components — Miscellaneous (Refer to		Engine De-ice Circuitry	9-62
Miscellaneous Electrical Components)		Functional Test	9-62a
Electrical Connections for Ejector Rack	F16-10	Troubleshooting	F-12; T9-14; 9-62b
Electronic Control Unit — Servo (SECU)		Engine Fire Detection System	F12-1; 12-1
(Refer to Servo Electronic Control Unit (SECU))		Inspection	12-1c
Electrical Systems Maintenance	9-1	Installation	12-1e
Control Panels	9-1f	Removal	12-1b
Electrical Bus Wiring Schematic	9-1d		

Subject	Paragraph, Figure, Table
Repair or Replacement	12-1d
Troubleshooting	T12-1; 12-1a
Engine Fuel Specifications	T1-1
Engine Instruments	8-3
Engine Maintenance	4-2
Engine Mounts	F2-53; 2-44, 4-3
Inspection	2-44a
Installation	F2-54; 2-44d
Removal	2-44b
Repair	2-44c
Engine Oil Bypass Valve	4-19
Cleaning	4-19b
Inspection	4-19c
Installation	4-19e
Removal	4-19a
Repair or Replacement	4-19d
Engine Oil Bypass Circuitry	9-63
Functional Test	9-63a
Troubleshooting	F-16; T9-15; 9-63b
Engine Oil Cooler	F4-16; 4-17
Cleaning	F4-17; 4-17b
Inspection	4-17c
Installation	4-17e
Preparation for Storage	4-17f
Removal	4-17a
Repair or Replacement	4-17d
Engine Oil Pressure Indicator	8-11
Cleaning	8-11a
Functional Test	8-11c
Inspection	8-11b
Installation	8-11g
Removal	8-11e
Repair or Replacement	8-11f
Troubleshooting	T8-2; F-26; 8-11d
Engine Oil Pressure Indicating System	8-10
Engine Oil Pressure Transmitter	8-12
Cleaning	8-12a
Functional Test	8-12c
Inspection	8-12b
Installation	8-12g
Removal	8-12e
Repair or Replacement	8-12f
Troubleshooting	F-26; T8-2; 8-12d
Engine Oil System Servicing	1-3
Engine Oil Tank	F4-16; 4-16
Cleaning	4-16b
Inspection	4-16c
Installation	4-16e
Removal	4-16a
Repair or Removal	4-16d

Subject	Paragraph, Figure, Table
Engine Oil Tank — Vent and Drain Lines	F2-48A; 2-35
Inspection	2-35a
Installation	2-35d
Removal	2-35b
Repair	2-35c
Engine Oil Temperature Bulb	8-15
Cleaning	8-15a
Functional Test — Bench	8-15f
Inspection	8-15b
Installation	8-15g
Removal	8-15d
Repair or Replacement	8-15e
Troubleshooting	F-32; T8-3; 8-15c
Engine Oil Temperature Indicator	8-14
Cleaning	8-14a
Functional Test	8-14g; 8-14c
Inspection	8-14b
Installation	8-14h
Removal	8-14e
Repair or Replacement	8-14f
Troubleshooting	F-32; T8-3; 8-14d
Engine Oil Temperature Indicating System	8-13
Engine Primer Solenoid Valve	9-43
Engine Vibration Meter Receptacle	9-37
Engine Vibration Tests (AVIM)	F4-3; 4-4
Environmental Control System	F13-1; 13-1
Schematic	F13-3
Theory of Operation	13-1a
Troubleshooting	T13-1; 13-1b
Environmental Control System Circuitry	9-72
Functional Test	9-72a
Troubleshooting	F-13; T9-22; 9-72b
Environmental Control Unit	F13-2; 13-2
Inspection	13-2a
Installation	13-2d
Removal	13-2c
Repair or Replace	13-2b
Equipment, Instrument Systems — Location	F8-1
Equipment Lists	F-3
Equipment Location — Armament	F9-13
Equipment Location (Electrical)	F9-2
Equipment Location — Gunners Section	F9-3
Equipment Location — Pilots Section	F9-4
Equipment — Miscellaneous	9-60
Errors — Reporting	P-4

Subject	Paragraph, Figure, Table	Subject	Paragraph, Figure, Table
Exchanger, Heat Reheater Condenser (Refer to Heat Exchanger Reheater Condenser)		Fairings, Doors and Cowlings — Seals (Refer to Doors, Cowlings and Fairings — Seals)	
Exhaust Suppression System,		Fairings — Honeycomb, Pylon	F2-31; 2-11
Infra-Red	F4-14; 4-13	Inspection	2-11a
Cleaning	4-13b	Repair	2-11b
Inspection	4-13c	Fan — Oil Cooling Turbine	F4-18; 4-18
Installation	4-13e	Assembly	4-18j
Removal	4-13A	Cleaning	4-18d
Repair or Replacement	T4-1; F4-15; 4-13d	Dimension Tolerance	T4-3
Exhaust System	F4-11; 4-11	Disassembly	4-18b
Expansion Cooling Turbine	13-13	Inspection	4-18f
Inspection	13-13b	Installation	4-18l
Installation	13-13d	Removal	4-18a
Removal	13-13a	Repair or Replacement	4-18h
Repair or Replace	13-13c	Fasteners, Injection Type — Installation in Honeycomb Panel	2-9
External Power, Application	1-28	Fasteners, (Insert) Grommet Type — Installation in Honeycomb Panel	2-10
External Power Receptacle	9-14	Fastener (Insert) in Fuselage Honeycomb Panels — Replacement	F2-30; F2-7
Cleaning	9-14a	Fasteners (Insert) In Vertical Fin Panel — Repair	2-5
Inspection	9-14b	Fastener (Insert) in Vertical Fin Panel — Replacement	F2-29, 2-6
Installation	9-14e	Fasteners (Inserts) — Potted-Type, Injection-Type, and Grommet-Type	F2-30
Removal	9-14c	Fasteners, Potted Type — Installation in Honeycomb Panels	2-8
Repair or Replacement	9-14d	Feeder Power Relay	9-11
External Power Relay	9-15	Field Relay — Generator	9-20
External Power System	9-13	Fifth Mount — Pylon	F6-19; 6-14
Functional Test	9-13a	Cleaning	6-14b
Troubleshooting	F-14; T9-2; 9-13b	Inspection	6-14c
Extinguisher — Fire	17-5	Installation	6-14e
Extrusions	F2-79; 2-66	Removal	6-14a
		Repair or Replacement	6-14d
		Fifth Mount Support Fitting	2-62
		Inspection	2-62a
		Installation	2-62d
		Removal	2-62b
		Repair	F2-73; 2-62c
		Filter — Transmission Primary Oil	F6-57; 6-31
		Cleaning	6-31b
		Installation	6-31c
		Removal	6-31a
		Filters — Fuel	10-3
		Cleaning	10-3c
		Inspection	10-3b
		Installation	10-3e
		Removal	10-3a

F

Fabrication — Hydraulic Lines	7-18
Failure Relay — Ac	9-35
Fairing and Cowling Panels — Sheet Metal (Refer to Cowling and Fairing Panels)	
Fairing and Cowling for Pylon, Transmission, Engine, and Tail Pipe	F2-31
Fairing, Ejector Rack	16-9
Fairing — Tailpipe Assembly	2-17
Inspection	2-17a
Removal	2-17b
Repair	2-17c
Installation	2-17d
Fairing, Tailpipe, and Engine Cowl	2-16
Inspection	2-16a
Installation	2-16d
Removal	2-16b
Repair	2-16c
Fairings and Doors, Non-Structural	F2-3

Subject	Paragraph, Figure, Table
Repair or Replace	10-3d
Filters — Module	F7-6; 7-7
Cleaning (Exterior)	7-7b
Cleaning (Filter Elements)	F7-7; F7-8; 7-7c
Installation	7-7d
Removal	7-7a
Filters — SCAS Servo Actuators, Solenoid Valves (Refer to SCAS Servo Actuators, Solenoid Valves, and Filters)	2-51
Fin — Tailboom	2-51a
Inspection	2-51a
Repair	2-51b
Fin, Vertical — Edge Repair	F2-28
Fire Detection System — Engine (Refer to Engine Fire Detection System)	17-5
Fire Extinguisher	17-4
First Aid Kit	2-57
Fittings and Supports	10-9
Fitting — Fifth Mount Support (Refer to Fifth Mount Support Fitting)	10-9b
Fittings — Fuel Cell	10-9a
Inspection	10-9a
Maintenance	2-49
Fitting, Gearbox Support — Tail Rotor Drive	F2-67
Damage Limits	2-49a
Inspection	2-49b
Repair	7-4
Fittings — Hoses and Tubing	7-4a
Fittings	7-4b
Hoses	7-4c
Tubes	F1-5
Fittings, Jacking and Mooring	2-60
Fittings — Pylon Dampers	2-60a
Inspection	2-60d
Installation	2-60b
Removal	F2-70; 2-60c
Repair	F6-69
Fittings — Repair	13-8
Flapper Valve	13-8b
Inspection	13-8d
Installation	13-8a
Removal	13-8c
Repair or Replacement	9-54
Flasher — Position Lights	9-54a
Cleaning	9-54b
Inspection	9-54e
Installation	9-54c
Removal	9-54d
Repair or Replacement	

Subject	Paragraph, Figure, Table
Flight Control Power Cylinder	
Support	2-61
Inspection	2-61a
Installation	2-61d
Removal	2-61b
Repair	F2-72; 2-61c
Flight Controls — Bellcranks, Levers, and Walking Beams	11-3
Functional Check	11-3e
Inspection	11-3b
Installation	11-3d
Removal	11-3a
Repair	11-3c
Flight Control Hydraulic System	F7-1; 7-1
Principles of Operation	7-1a
Special Function of System No. 1	F7-1A; 7-1b
Special Function of System No. 2	F7-2; 7-1c
Flight Control Systems —	
Bearings	F11-1; F11-1E; 11-5
Inspection	11-5e; 11-5g; 11-5b
Installation	11-5f
Removal	11-5d; 11-5a
Repair	11-5c
Flight Control Systems — Control Tubes (Refer to Control Tubes — Flight Control Systems)	11-1
Flight Controls	11-2
Troubleshooting	T11-1; 11-2
Flight Idle Stop Installation	F4-21
Flight Instruments	8-25
Floor, Gunners and Forward Fuel	
Cell, Right Side — Panels	F2-12
Fluid Connections — Torque Values	T7-3
Flushing Instructions — Hydraulic	7-17
Heavy Contamination	7-17a
Light to Moderate Contamination	7-17b
Flyable Storage	E-4
Force Trim System Circuitry	9-69
Functional Test	9-69a
Troubleshooting	F-15; T9-20; 9-69b
Fore-and-Aft Cyclic Controls	F11-5
Foreign Object Damage Screen	F4-8; 4-9
Cleaning	4-9b
Inspection	4-9c
Installation	F4-9; 4-9e
Removal	4-9a
Repair and Replacement	4-9d
Frame, Door Assembly — Pilot and Gunner	2-28
Inspection	2-28a
Repair	2-28b

Subject	Paragraph, Figure, Table	Subject	Paragraph, Figure, Table
Frames — Canopy Assembly (Refer to Canopy Assembly — Frames)		Fuel Pressure Indicator (Refer to Indicator Fuel Pressure)	
Free Air Temperature Gage	8-44	Fuel Pressure Indicating System	8-19
Cleaning	8-44a	Fuel Pressure Transmitter	8-21; 10-6
Functional Test	8-44c	Cleaning	8-26a
Inspection	8-44b	Functional Test	8-21c
Installation	8-44g	Inspection	8-21b
Removal	8-44e	Installation	8-21g
Repair or Replacement	8-48f	Removal	8-21e
Troubleshooting	8-44d	Repair or Replacement	8-21f
Fuel Boost Pumps	10-8	Troubleshooting	F-26; T8-5; 8-21d
Inspection	10-8b	Fuel Quantity Indicator (Refer to Indicator, Fuel Quantity)	
Installation	10-8d	Fuel Quantity Indicating System	8-41
Removal	10-8a	Fuel Quantity Transmitters	8-43; 10-7
Repair or Replace	10-8c	Cleaning	8-43a
Fuel Boost Pumps Circuitry	9-65	Inspection	8-43b
Functional Test	9-65a	Installation	8-43e
Troubleshooting	F-17; T9-17; 9-65b	Removal	8-43c
Fuel Cell Floor, Forward and		Repair or Replacement	8-43d
Lower Panel — Station 186.25 to 213.94 ..	F2-15	Fuel Shut-off Valve	10-4
Fuel Cell, Forward — and Gunners		Cleaning	10-4b
Floor Panels	F2-12	Inspection	10-4c
Fuel Cell Panel at Station 213.94,		Installation	10-4e
Ammo Floor and Support Panels	F2-14	Removal	10-4a
Fuel Cell Panel, Lower Aft, and		Repair or Replace	10-4d
Bottom Panel at Station 250.0 to Boom		Fuel Specifications, Engine	T1-1
Station 41.32	F2-16	Fuel Supply System — General	
Fuel Cell Panels, Forward, and Main		Maintenance	10-2
Beam Panels at Station 186.25		Fuel System	F10-1; 10-1
to 214.0	F2-18	Troubleshooting	T10-1; 10-1A
Fuel Cells	10-11	Fuel Tank Table of Limits	T8-15
Cleaning	10-11d	Fuel System Servicing	1-2
Collapsing Aft Fuel Cell	F10-4	Defueling	1-2c
Collapsing Forward Fuel Cell	F10-2	Fuel Requirements	1-2d
Inspection — Both Cells	10-11e	Fuel Types	1-2e
Inspection — Fwd Fuel Cell	10-11a	Gravity Refueling	1-2b
Installation — Aft Fuel Cell	10-11h	Refueling	1-2a
Installation — Fwd Fuel Cell	10-11g	Use of Fuels	1-2f
Installed Fwd Fuel Cell	F10-3	Fuel Valve Circuitry	9-64
Removal — Aft Fuel Cell	10-11c	Functional Test	9-64a
Removal — Fwd Fuel Cell	10-11b	Troubleshooting	F-16; T9-16; 9-64b
Fuel Cell Fittings	10-9	Fuels, Approved	T1-2
Inspection	10-9b	Functional Group	B-4
Maintenance	10-9a	Fuselage	F2-1; 2-2
Fuel — Drain and Vent Installation (Refer to Drain and Vent Installation — Fuel)			
Fuel Filters (Refer to Filters — Fuel)			
Fuel — Hose and Tubing	10-10		
Inspection	10-10a		
Repair or Replace	10-10b		

G

Gage — Outside Air Temperature	8-44
Cleaning	8-44a

Subject	Paragraph, Figure, Table
Functional Test	8-44c
Inspection	8-44b
Installation	8-44g
Removal	8-44e
Repair or Replacement	8-44f
Troubleshooting	T8-16; 8-44d
Gage — Transmission Oil Level Sight (Refer to Transmission Oil Level Sight Gage)	
Gas Producer Tachometer Generator	8-9
Cleaning	8-9a
Functional Test — Bench	8-9f
Inspection	8-9b
Installation	8-9g
Removal	8-9d
Repair or Replacement	8-9e
Troubleshooting	T8-1; 8-9c
Gas Producer Tachometers	8-8
Cleaning	8-8a
Functional Test — Bench	8-8f
Inspection	8-8b
Installation	8-8g
Removal	8-8d
Repair or Replacement	8-8e
Troubleshooting	T8-1; 8-8c
Gear Patterns	
Ninety Degree Gearbox	F6-50
Intermediate Gearbox	F6-45
Gear Tooth Terminology	F6-46
Gearboxes — Metal Particle Contamination	6-3
Gearbox — Intermediate (Refer to Intermediate Gearbox)	
Gearbox (42° and 90°) Servicing	1-5
Gearbox — Tail Rotor (Refer to Tail Rotor Gearbox)	
Gears — Scoring Damage	F6-42
General	P-1
General Information	1-29
General Maintenance — Fuel Supply System	10-2
General Maintenance Procedures	9-2
Continuity Trace	9-2c
General Repair Techniques	9-2d
Operational Checks — Electrical	9-2e
Visual Inspection — Electrical Equipment	9-2a
Voltage Measurements	9-2b
Generator	9-17
Cleaning	9-17a
Inspection	9-17b
Installation	9-17e
Removal	9-17c

Subject	Paragraph, Figure, Table
Repair or Replacement	9-17d
Generator and Dc Bus System	9-16
Functional Test	9-16a
Troubleshooting	F-19; T9-3; 9-16b
Generator Field Relay	9-20
Generator — Gas Producer Tachometer (Refer to Gas Producer Tachometer Generator)	
Generator — Power Turbine Tachometer	8-6
Cleaning	8-6a
Functional Test — Bench	8-6f
Inspection	8-6b
Installation	8-6g
Removal	8-6d
Repair or Replacement	8-6e
Troubleshooting	T8-1; 8-6c
Generator Shunt	9-18
Governor Actuator and Droop	F4-22; 4-24
Compensator Linkage	
Cleaning	4-24c
Inspection	4-24d
Installation — Cambox and Linkage	4-24f
Installation — Actuator and Control Lever	4-24g
Removal — Actuator and Control Lever	4-24a
Removal — Cambox and Linkage	4-24b
Repair or Replacement	4-24e
Rigging	F4-23; 4-24h
Governor Control System Circuitry	9-66
Functional Test	9-66a
Troubleshooting	F-20; T9-18; 9-66b
Grenade Dispenser, Smoke, Wing Mounted	
Inspection	16-3b
Installation	16-3d
Removal	16-3a
Repair or Replacement	16-3c
Troubleshooting	16-3e
Grenade Dispenser System Circuitry, Smoke	9-87
Functional Test	9-88
Troubleshooting	F-7; T9-28; 9-89
Grip Spacing Adjustment — Tool Application	F5-35
Grommet-Type Fastener (Insert) — Installation in Honeycomb Panel	2-10
Ground Handling	1-20
Ground Handling Diagram	F1-3
Ground Handling Gear Pump P/N HP-9902-41-10	F3-6A
Ground Handling Gear, Work Aid for Towing	F-4

Subject	Paragraph, Figure, Table
Ground Handling Wheel Actuating	
Mechanism	F3-5; 3-3
Assembly	F3-6; 3-3e
Bleeding — Hydraulic Pump	3-3f
Cleaning	3-3e
Disassembly	3-3a
Inspection	3-3c
Repair or Replacement	3-3d
Testing — Hydraulic Pump	3-3g
Testing — Hydraulic Ram	3-3h
Ground Handling Wheels Adjustment	
Dimensions	F3-7
Ground Handling Wheels Servicing	1-10
Gunner and Pilot Floor Panels	F2-5
Gunners Collective Stick (Refer to Collective Stick — Gunners)	
Gunners Cyclic Stick (Refer to Cyclic Stick — Gunners)	
Gunners Seat	F2-51; 2-39
Inspection	2-39a
Installation	2-39d
Removal	2-39b
Repair	2-39c
Gunners Section — Equipment Location	F9-3
Guns, Turret, Removal	16-10

H

Handles and Latches, Pilot and Gunners Doors (Refer to Door Handles and Latches, Pilot and Gunners Doors)	
Hanger Assemblies — Driveshaft (Refer to Driveshaft Hangar Assemblies)	
Harness, Shoulder and Seat Belts (Refer to Belts, Seat and Shoulder Harness)	
Harness Soak Temperature/ Resistance Chart	F8-1A
Head, Pitot Tube (Refer to Pitot Tube Head)	
Heat Exchanger Reheater Condenser	13-9
Inspection	13-9a
Repair or Replacement	13-9b
Test	13-9c
Heating and Cooling Systems Circuitry	9-71
Heating System Circuitry — Pitot	9-73
Functional Test	9-73a
Troubleshooting	F-25; T9-23; 9-73b
Heatshield Installation	F2-43A
Heatshield, Tailpipe, Ejector (Refer to Ejector Tailpipe Heatshield)	
Helicopter — AH-1S	FP-1

Subject	Paragraph, Figure, Table
Hinges — Pilot and Gunners Door (Refer to Door Hinges Pilot and Gunners Doors)	
Hoisting	1-25
Hoisting Helicopter	1-25a
Maintenance Hoist	F1-8; 1-25b
Honeycomb Construction Fuselage and Tailboom Fin Panels	2-4
Dent, Scratch, Void and Penetration	2-4c
Edge Repairs	2-4e
Inspection	2-4a
Standard Patch Repairs	2-4d
Honeycomb Construction Pylon	
Fairings	F2-30; 2-11
Inspection	2-11a
Repair	2-11b
Honeycomb, Fiberglass, Fairing Repair	F2-32
Honeycomb Panel — Ammo Floor	F2-33; 2-12
Honeycomb Panel — Edge Repair — Aluminum Alloy Skin Opposite Aluminum Alloy with Fiberglass Edging ..	F2-25
Honeycomb Panels — Edge Repair — Aluminum Alloy Skin Opposite Aluminum Alloy with Fiberglass Finish at Channel	F2-26
Honeycomb Panel, Edge Repair — Fiberglass Skin Opposite Titanium	F2-24
Honeycomb Panel — Installation of Grommet-Type Fasteners (Insert)	2-10
Honeycomb Panel — Installation of Potted-Type Fasteners (Insert)	2-8
Honeycomb Panel Removal Installation	2-13
Honeycomb Panels — Installation of Injection-Type Fasteners (Insert)	2-9
Honeycomb Panels — Replacement of Damaged Fasteners (Insert)	2-7
Honeycomb Panels — Vertical Fin	F2-19
Hose and Tubing — Fuel (Refer to Fuel — Hose and Tubing)	
Hose, Tubing and Fittings (Refer to Fittings, Hoses and Tubing)	
Housing Assembly — Damage Limits	F6-66
Hub and Blade Assembly — Main Rotor	F5-11; 5-4
Installation	5-4b
Removal	5-4a
Hub and Blade Assembly — Tail Rotor	F5-54; 5-12
Balancing	F5-55; 5-12b
Installation	5-12c
Removal	5-12a

Subject	Paragraph, Figure, Table
Hub Assembly — Main Rotor	F5-18; 5-19; 5-6
Assembly	F5-33; F5-34; F5-35; F5-36; 5-6f
Cleaning	5-6c
Disassembly	F5-31; F5-32; 5-6b
Inspection — Assembled Hub	5-6a
Inspection — Disassembled Hub	F5-20; F5-21; F5-22; F5-23; F5-24; F5-25; F5-26; F5-27; F5-28; F5-29; F5-30; 5-6d
Repair	5-6e
Hub Assembly — Tail Rotor	F5-62; 5-14
Assembly	5-14e
Cleaning	5-14b
Disassembly	5-14a
Inspection	5-14c
Repair	F5-64; F5-63; F5-65; F5-66; 5-14d
Hydraulic Compartment Doors (Refer to Doors — Hydraulic Compartment)	
Hydraulic Control System Circuitry	9-70
Functional Test	9-70a
Troubleshooting	F-21; T9-21; 9-70b
Hydraulic Cylinder Support	2-61
Hydraulic Filters — Module	F7-6; 7-7
Cleaning (Exterior)	7-7b
Cleaning (Filter Elements)	F7-7; F7-8; 7-7c
Installation	7-7d
Removal	7-7a
Hydraulic Fitting Supports	
Installation	F2-70
Hydraulic Flushing Instruction	7-17
Heavy Contamination	7-17a
Light or Moderate Contamination	7-17b
Hydraulic Line Fabrication	7-18
Hydraulic Provisions — Armament	7-16
Hydraulic Pumps	7-5
Inspection	7-5a
Installation	7-5c
Removal	7-5b
Hydraulic Pump and Tachometer	
Drive Quill	F6-35; 6-20
Inspection	6-20a
Inspection, Removed Quill	6-20c
Installation	6-20e
Removal	6-20b
Repair or Replacement	6-20d
Hydraulic Reservoirs	F7-8A; 7-8
Cleaning	7-8b
Inspection	7-8c
Installation	7-8e
Removal	7-8a
Repair or Replacement	7-8d

Subject	Paragraph, Figure, Table
Hydraulic System — Flight Control	F7-1; 7-1
Principles of Operation	7-1a
Special Function of System No. 1	F7-1A; 7-1b
Special Function of System No. 2	F7-2; 7-1c
Hydraulic System	
Leakage Rate	T7-2
Operational Check	7-3
Servicing	1-7
Troubleshooting	T7-1; 7-2
Hydraulic — Drain and Vent Installation (Refer to Drain and Vent Installation — Hydraulic)	F2-48A; 2-36
I	
ID-48()/ARN, Course Indicator	8-36
ID-250()/ARN and ID-998()/ASN, Radio	
Magnetic Indicators	8-37
ID-998()/ASN and ID-250()/ARN, Radio	
Magnetic Indicators	8-37
Identification of Metal Particles	F6-2; 6-4
Aluminum	6-4c
Bronze	6-4d
Copper	6-4d
Lead	6-4b
Magnesium	6-4d
Steel	6-4a
Tin	6-4b
Idle Stop Solenoid Circuitry	9-67
Functional Test	9-67a
Troubleshooting	F-22; T9-19; 9-67b
(IFCU), Interface Control Unit	9-82
Cleaning	9-82a
Inspection	9-82b
Installation	9-82e
Removal	9-82c
Repair or Replacement	9-82d
Igniter Pack	9-42
Ignition System	9-41
Functional Test	9-41a
Troubleshooting	T9-6; F-23; 9-41b
Inboard Ejector Racks (Refer to Ejector Rack — Inboard)	
Index — Wiring Diagram	F-6
Indicating System — Attitude	8-31
Indicating System — Engine Oil Pressure	8-10
Indicating System — Engine Oil Temperature	8-13
Indicating System — Fuel Pressure	8-19
Indicating System — Fuel Quantity	8-41
Indicating Systems — Tachometer	F-31; 8-4

Subject	Paragraph, Figure, Table
Indicating System — Torque Pressure	8-22
Indicating System — Transmission Oil Pressure	8-45
Indicating System — Transmission Oil Temperature	8-48
Indicating System — Turbine Gas Temperature	8-16
Indicator — Course (ID-48()/ARN)	8-36
Indicator — Engine Oil Pressure (Refer to Engine Oil Pressure Indicator)	
Indicator — Engine Oil Temperature	8-14
Cleaning	8-14a
Functional Test	8-14g; 8-14c
Inspection	8-14b
Installation	8-14h
Removal	8-14e
Repair or Replacement	8-14f
Troubleshooting	F-32; T8-3; 8-14d
Indicator — Fuel Pressure	8-20
Cleaning	8-20a
Functional Test	8-20c
Installation	8-20g
Inspection	8-20b
Removal	8-20e
Repair or Replacement	8-20f
Troubleshooting	F-26; T8-5; 8-20d
Indicator — Fuel Quantity	8-42
Cleaning	8-42a
Functional Test — Bench	F8-3; F8-4; F8-5; T8-14; 8-42e
Inspection	8-42b
Installation	8-42g
Removal	8-42d
Repair or Replacement	8-42f
Troubleshooting	F-18; T8-14; 8-42c
Indicator — Pilots Steering (PSI)	8-52
Cleaning	8-52a
Functional Test	8-52c
Inspection	8-52b
Installation	8-52g
Removal	8-52e
Repair or Replacement	8-52f
Troubleshooting	F-7; T8-18; 8-52d
Indicators — Airspeed	8-29
Cleaning	8-29a
Functional Test	8-29c
Inspection	8-29b
Installation	8-29g
Removal	8-29e
Repair or Replacement	8-29f
Troubleshooting	T8-7; 8-29d

Subject	Paragraph, Figure, Table
Indicators — Attitude	8-32
Cleaning	8-32a
Functional Test	8-32c
Inspection	8-32b
Installation	8-32g
Removal	8-32e
Repair or Replacement	8-32f
Troubleshooting	F-8; T8-9; 8-32d
Indicators — Radio Magnetic, (ID-998()/ASN and ID-250()/ARN)	8-37
Indicators — Torque Pressure	8-23
Cleaning	8-23a
Functional Test	8-23c
Inspection	8-23b
Installation	8-23g
Removal	8-23e
Repair or Replacement	8-23f
Troubleshooting	F-26; T8-6; 8-23d
Indicators — Turbine Gas Temperature	8-17
Cleaning	8-17a
Functional Test	8-17d; 8-17c
Inspection	8-17b
Installation	8-17i
Removal	8-17g
Repair or Replacement	8-17h
TGT Indicator and Circuit Calibration	8-17e
Troubleshooting	F-32; T8-4; 8-17f
Indicator System — Torque Pressure	8-22
Indicator — Transmission Oil Pressure	8-46
Cleaning	8-46a
Functional Test	8-46c
Inspection	8-46b
Installation	8-46g
Removal	8-46e
Repair or Replacement	8-46f
Troubleshooting	8-46d
Indicator — Transmission Oil Temperature	8-49
Cleaning	8-49a
Functional Test	8-49c
Inspection	8-49b
Installation	8-49g
Removal	8-49e
Repair or Replacement	8-49f
Troubleshooting	8-49d
Indicator — Turn and Slip	8-33
Cleaning	8-33a
Functional Test	8-33c
Inspection	8-33b
Installation	8-33g
Removal	8-33e
Repair or Replacement	8-33f

Subject	Paragraph, Figure, Table	Subject	Paragraph, Figure, Table
Troubleshooting	F-34; T8-10; 8-33d	Main Rotor	F5-1
Indicator — Vertical Velocity	8-34	Teflon Lip Seal on Poppet	F13-7
Cleaning	8-34a	Window Cutting Assembly in	
Functional Test	8-34c	Gunner Door	F17-4
Inspection	8-34b	Installation — Window Cutting Assembly	
Installation	8-34g	in Gunner Window	F17-2
Removal	8-34e	Window Cutting Assembly — Pilot Door ..	F17-5
Repair or Replacement	8-34f	Window Cutting Assembly in Pilot	
Troubleshooting	T8-11; 8-34d	Window	F17-3
Inertia Reel	2-40	Installed Forward Fuel Cell	F10-3
Inspection	2-40a	Instructions — Hydraulic Flushing	7-17
Installation	2-40d	Heavy Contamination	7-17a
Removal	2-40b	Light or Moderate Contamination	7-17b
Repair	2-40c	Instrument Maintenance	F8-1; 8-1
Infra-red Exhaust Suppression System		Cleaning	8-1a
(Refer to Exhaust Suppression System —		Inspection	8-1b
Infra-red)		Installation	8-1e
Infra-red Suppression Duct Assembly	2-18	Removal	8-1c
Inlet Bypass Piston — Damage Limits	F6-61	Repair or Replacement	8-1d
Inlet Fitting — Damage Limits	F6-59	Instrument Panels	8-53
Inlet Vane Reinforcement Doubler	F4-7	Cleaning	8-53a
Input Drive Quill (Refer to Quill —		Inspection	8-53b
Input Drive)		Installation	8-53e
Insert (Fastener), Grommet-type,		Removal	8-53c
Installation in Honeycomb Panel	2-10	Repair or Replacement	8-53d
Insert (Fastener), Injection-Type,		Instrument Panel and Console Lights	9-46
Installation in Honeycomb Panel	2-9	Cleaning	9-46a
Insert (Fastener) in Honeycomb Panels —		Functional Test	9-46c
Replacement	2-7	Inspection	9-46b
Insert (Fastener) in Vertical Fin Panel —		Installation	9-46g
Replacement	2-6	Removal	9-46e
Insert (Fastener) in Vertical Fin Panel —		Repair or Replacement	9-46f
Repair	2-5	Troubleshooting	F-24; T9-8; 9-46d
Insert (Fastener), Potted-Type,		Instrument Premaintenance Requirements	8-2
Installation in Honeycomb Panel	2-8	Instrument Systems Equipment Location	F8-1
Inspection		Instruments — Engine	8-3
General	1-29	Instruments — Flight	8-25
Mast Upper Bearing	F6-27	Instruments — Miscellaneous	8-39
Serviceability	1-30	Instruments — Navigation	8-35
Special	1-31	Interconnection Wire List — XM65	F-4
Inspection and Lubrication — Main		Interconnections, Canopy Removal System ..	F17-1
Driveshaft	F6-5	Interface Assembly — UNIVAC Electronic ..	9-81
Inspection Area Diagram	F1-9	Interface Control Unit (IFCU)	9-82
Installation		Cleaning	9-82a
Cradle Assemblies on Outboard		Inspection	9-82b
Rack	F16-2	Installation	9-82e
Cradle Assemblies on Rocket		Removal	9-82c
Launcher	F16-3	Repair or Replacement	9-82d
Inboard Ejection Rack	F16-8	Intermediate Gearbox	F6-41; 6-25
Junction Manifolds and Arming/Firing		Cleaning	6-25b
Units in Canopy Removal System	F17-6	Gear Patterns	F6-45

Subject	Paragraph, Figure, Table	Subject	Paragraph, Figure, Table
Inspection	F6-42; 6-25c	Leakage — Hydraulic System	T7-2
Installation	F6-43; 6-25e	Leveling	1-26
Lubrication	6-25f	Lift Link Supporting Attachment	F6-20; 6-15
Preparation for Shipment	6-25g	Cleaning	6-15b
Removal	6-25a	Inspection	6-15c
Repair or Replacement	6-25d	Installation	6-15e
Intermediate Gearbox Drive Quills	F6-43; 6-26	Removal	6-15a
Assembly	6-26e	Repair or Replacement	6-15d
Cleaning	6-26c	Lift Link — Transmission	6-13
Disassembly	6-26b	Inspection	6-13b
Inspection	F6-44; F6-45; F6-46; 6-26d	Installation	6-13d
Installation	6-26f	Removal	6-13a
Removal	6-26a	Repair or Replacement	6-13c
Intermediate Storage	E-12	Light — Anticollision (Refer to Anti-collision Light)	
Interpretation of Balancer Indication	F5-39	Light Circuitry — Caution (Refer to Caution Light Circuitry)	
Inverter Control Relay — Main	9-28	Lights, Flasher, Position (Refer to Flasher — Position Lights)	
Inverter Control Relay — Standby	9-29	Light System — Anticollision	9-55
Inverter — Main (Refer to Main Inverter)		Functional Test	9-55a
Inverter Overload Sensor — Main	9-30	Troubleshooting	F-6; T9-11; 9-55b
Inverter Overload Sensor — Standby	9-31	Light Systems, Caution and Warning	9-47
Inverter Relay — Main	9-32	Light — Transmission Oil Level (Refer to Transmission Oil Level Light)	
Inverter — Standby (Refer to Standby Inverter)		Lighting Provisions	9-44
Inverter System	9-25	Lights — Cockpit	9-45
Description	9-25a	Cleaning	9-45a
Functional Test	9-25c	Functional Test	9-45c
System Function	9-25b	Inspection	9-45b
Troubleshooting	F-5; T9-4; 9-25d	Installation	9-45g
J		Removal	9-45e
Jacking	1-22	Repair or Replacement	9-45f
Jacking and Mooring Fittings	F1-5	Troubleshooting	F-24; T9-7; 9-45d
Jackshaft — Fore and Aft		Lights — Instrument Panel and Console	9-46
Cyclic	F11-5; F11-11A; 11-12	Cleaning	9-46a
Inspection	11-12b	Functional Test	9-46c
Installation	11-12d	Inspection	9-46b
Removal	11-12a	Installation	9-46g
Repair	F11-11B; 11-12c	Removal	9-46e
K		Repair or Replacement	9-46f
Kit — First Aid	17-4	Troubleshooting	F-24; T9-8; 9-46d
L		Lights — Position (Refer to Position Lights)	
Landing Gear	F3-1; 3-1	Lights System — Position	9-52
Inspection	F3-2; 3-1b	Functional Test	9-52a
Installation	3-1d	Troubleshooting	F-6; T9-10; 9-52b
Removal	3-1a	Link Assembly, Pitch (Refer to Pitch Link Assembly)	
Repair or Replacement	F3-3; 3-1c	Linkage — Governor Actuator and Droop Compensator	F4-22; 4-24
Lateral Cyclic Controls	F11-6		
Lateral Vibration Correction Chart	F5-4		

Subject	Paragraph, Figure, Table
Cleaning	4-24c
Inspection	4-24d
Installation — Cambox and Linkage	4-24f
Installation — Actuator and Control Lever	4-24g
Removal — Actuator and Control Lever	4-24a
Removal — Cambox and Linkage	4-24b
Repair or Replacement	4-24e
Rigging	F4-23; 4-24h
Linkage, Power Lever Control	F4-20; 4-22
Cleaning	4-22b
Inspection	4-22c
Installation	4-22e
Removal	4-22a
Repair or Replacement	4-22d
Rigging	F4-21; 4-22f
Lists — Equipment	F-3
Load Charts	F-5
Load Charts and Wiring Diagrams	F-1
Longeron Damage Limits	F2-66A
Lubrication	1-18
Lubrication Chart	F1-12
Lubrication, Inspection — Main Driveshaft	F6-5

M

M28 Clearing Time Delay Relay	9-12
Magnetic Brake and Force Gradient Assemblies in Cyclic Control System (Refer to Cyclic Control System — Magnetic Brake and Force Gradient)	
Main Beam Panels — Right and Left — Station 148.5 to 186.25	F2-10
Main Beam Panels — Right and Left — Station 213.94 to 250.0	F2-11
Main Beam Panels — Station 186.25 to 214.0 and Forward Fuel Cell Panels	F2-18
Main Driveshaft	F6-3; F6-4; 6-7
Alignment	F6-7; F6-8; 6-8
Cleaning	6-7b
Inspection and Repair	F6-5; F6-6; 6-7d
Inspection, Lubrication of Couplings	6-7c
Installation	6-7e
Removal	6-7b
Preparation for Storage or Shipment	6-7f
Main Inverter	9-26
Adjustment	9-26c
Cleaning	9-26a
Inspection	9-26b
Installation	9-26f
Inspection	F6-42; 6-25c
Installation	F6-43; 6-25e
Lubrication	6-25f

Subject	Paragraph, Figure, Table
Main Inverter Overload Sensor	9-30
Main Inverter Relay	9-32
Main Mounts — Pylon Lift Link	F6-13
Main Rotor Blades, K7474	5-5A, F5-17A
Alignment	5-5AH
Application of Leading Edge Erosion Guard	5-5U
Application of Leading Edge Erosion Guard Patch	5-5T, F5-17T
Application of Sealant to Stainless Steel Guard	F5-17AC
Application of Skin Patch	5-5K, F5-17K
Application of Trailing Edge Doubler Patch	5-5N, F5-17P
Application of Vacuum Bagging Material and Placement of Erosion Guard	F5-17W
Balance Adjustment for Patches	F5-17H
Bonding of Leading Edge Erosion Guard Station 213.5 Outboard	5-5V
Changing -303 Blade to -303 Field Modified Blade	5-5Z
Changing -303 Field Modified Blade to -303 Blade	5-5AA
Classification of Damage	T5-1B, T5-1C
Cleaning	5-5D
Curing Patch with Blade Repair Fixture	F5-17L
Damage Limits - Drag Strut	F5-17E
Damage Limits - Root Fitting	F5-17D
Description	5-5B
Difference Between Models	T5-1A
External Appearance Changes to K747-003-205 Blades Resulting from Improved Weight Retention Features	F5-17B
Fiber Separation and Resin Resin Cracks - Trailing Edge Spline	5-5P
Improvised Mold for Casting a Small Section of Leading Edge Filler	F5-17Z
Inspection	5-5E
Inspection - Tip Weight Retention	5-5F
Inspection of K747-003-205, -209, and -303 Blade for Loss of Blade Weight Retention Integrity	F5-17F
Installation	5-5AG
Installation of Plug Patch	5-5L, F5-17M
Installation of Stainless Steel Erosion Guard	5-5Y
Internal Modifications Incorporated in K747-003-205, -209, and -303 Blades for Improved Weight Retention	F5-17C
Masking and Refinishing Leading Edge Erosion Guard	5-5AD

Subject	Paragraph, Figure, Table
Masking for Paint Touch-Up After Installation of Kit K747-206	F5-17AE
Placement of Erosion Guard Replacement Part and Method for Determining Current Boot Material and Thickness.....	F5-17U
Plug Patch Data.....	T5-1D
Polishing and Corrosion Treatment.....	5-5J
Preparation for Application of Sealant	F5-17AB
Preparation for Storage or Shipment.....	5-5AF
Proximity Limits for Patches	F5-17G
Rebonding Delaminated Leading Edge Erosion Guard.....	5-5Q, F5-17R
Refinishing Paint	5-5AG
Removal	5-5C
Removal and Replacement - Root Fitting ..	5-5H
Removal of Stainless Steel Erosion Guard.....	5-5X
Repair of Aft Tip Cap.....	5-5AE
Repair of Damaged Portion of Leading Edge Filler.....	5-5W
Repair of Estane Erosion Guard	5-5R
Repair of Fluorocarbon Erosion Guard	5-5S, F5-17S
Repair of Trailing Edge Filled Areas.....	5-5M
Repair or Replacement.....	5-5G
Repair Parts and Specimen Orientation	F5-17X
Repair Parts Orientation Used for Removal and Installation of Stainless Steel Erosion Guard	F5-17AA
Replacing Sections of Erosion Guard	5-5AB
Root Fitting Assembly.....	F5-17J
Spline Repair	F5-17Q
Stainless Steel Erosion Guard Holding Fixture	F5-17AD
Typical Double Plug Patch Repair.....	F5-17N
Uralite Repair.....	F5-17V
Vacuum Bagging for Installation of Erosion Guard Repair Kit.....	F5-17Y
Main Rotor Blade Assembly F5-11; F5-14; F5-16; 5-5	
Alignment	F5-17; 5-5h

Subject	Paragraph, Figure, Table
Cleaning	5-5b
Inspection	5-5c
Installation	5-5g
Preparation for Storage or Shipment	5-5f
Refinish	5-5e
Removal	F5-12; F5-13; 5-5a
Repair	F5-15; 5-5d
Main Rotor Blade — Authorized Patch Area	F5-15
Main Rotor Blade Trim Tab Installation	F5-16
Main Rotor Bolt Blade Removal, Work Aid	F5-12
Main Rotor Hub and Blade Assembly ..	F5-11; 5-4
Installation	5-4b
Removal	5-4a
Main Rotor Hub Assembly.....	F5-18; F5-19; 5-6
Assembly	F5-33; F5-34; F5-35; F5-36; 5-6f
Cleaning	5-6c
Disassembly	F5-31; F5-32; 5-6b
Inspection — Assembled Hub	5-6a
Inspection — Disassembled Hub ..	F5-20; F5-21; F5-22; F5-23; F5-24; F5-25; F5-26; F5-27; F5-28; F5-29; F5-30; 5-6d
Repair	5-6e
Main Rotor Hub Assembly — Balancing	F5-37; F5-39; 5-6A
Tool Application	F5-38
Main Rotor Hub — Grip Dust Seal to Radius Ring	F5-36
Main Rotor Hub Trunnion Centering Measurement	F5-34
Main Rotor Installation	F5-1
Main Rotor Mast	F5-26; 6-17
Assembly	F6-31; 6-17i
Cleaning	6-17f
Disassembly	6-17e
Inspection	F6-32; 6-17a
Inspection — Disassembled ..	F6-29; F6-30; 6-17g
Inspection — Mast Bearing	F6-27; 6-17d
Installation	6-17j
Preparation for Shipment	6-17k
Removal.....	6-17c
Repair or Replacement	F6-28; 6-17b; 6-17h

Subject	Paragraph, Figure, Table
Main Rotor Mast Nut, Tool Application	F5-8
Main Rotor System	5-2
Operational Check	5-3b
Troubleshooting	T5-1; 5-3a
Main Rotor Tracking	F5-5
Main Rotor Tracking Chart	F5-2
Maintenance Allocation Chart	B-1; B-6
Maintenance — Electrical Systems	9-1
Control Panels	9-1f
Electrical Bus Wiring Schematic	9-1d
Emergency Ac Power	9-1c
Emergency Dc Power	9-1b
Primary Electrical Power	9-1a
Starting Power	9-1e
Maintenance — Engine	4-2
Maintenance Hoist T101520	F1-8
Maintenance — Instrument	F8-1; 8-1
Cleaning	8-1a
Inspection	8-1b
Installation	8-1e
Removal	8-1c
Repair or Replacement	8-1d
Maintenance of Forms and Records	P-6
Maintenance Procedures — General	9-2
Continuity Trace	9-2c
General Repair Techniques	9-2d
Operational Checks — Electrical	9-2e
Visual Inspection — Electrical	
Equipment	9-2a
Voltage Measurements	9-2b
Maintenance Supplies and Materials,	
Consumable	T1-3; 1-13
Manifold Assembly — Transmission	
Oil	F6-57A; 6-33
Inspection	6-33a
Repair or Replacement	6-33b
Manifold, Fuel Check Valve	
(Refer to Check Valve — Fuel Manifold)	
Mast Controls Installation	F5-40
Mast — Main Rotor (Refer to Main	
Rotor Mast)	
Mast Sleeve Taper and Out of Round	F6-29
Materials — Structural Repair	T2-2
Maximum Allowable Leakage —	
Hydraulic System	T7-2
Mechanism, Ground Handling Wheel	
(Refer to Ground Handling Wheel	
Mechanism)	
Metal Particles Contamination of	
Gearboxes	F6-2; 6-3
Metal Particles Identification	F6-2; 6-4
Aluminum	6-4c

Subject	Paragraph, Figure, Table
Bronze	6-4d
Copper	6-4d
Lead	6-4b
Magnesium	6-4d
Steel	6-4a
Tin	6-4b
Metal Particles — Source	6-6
Intermediate Gearbox	6-6b
Tail Rotor Gearbox	6-6c
Transmission	6-6a
Miscellaneous Electrical Components	9-4
Cleaning	9-4a
Inspection	9-4b
Installation	9-4e
Removal	9-4c
Repair or Replacement	9-4d
Miscellaneous Equipment	9-60
Miscellaneous Instruments	8-39
Missile Subsystem Circuitry — XM65 TOW	9-90
Functional Test	9-91
Troubleshooting	F-7; 9-92
Module Filters (Refer to Filter Modules)	
Modules Unit (Hydraulic)	F7-4; F7-5; 7-6
Cleaning	7-6b
Inspection	7-6c
Installation	7-6e
Removal	7-6a
Repair or Replacement	7-6d
Mooring	F1-7; 1-24
Motor — Torque	13-12
Cleaning	13-12c
Inspection	13-12a
Inspection	13-12d
Installation	13-12f
Removal	13-12b
Repair or Replacement	13-12e
Mounts — Engine (Refer to	
Engine Mounts)	
Mounts — Pylon	F6-17; 6-12
Cleaning	6-12b
Inspection	6-12c
Installation	6-12e
Removal	F6-18; 6-12a
Repair or Replacement	6-12d
Mounts — Transmission	2-54
Mount Bushings — Transmission	2-56
Mount Dampers — Transmission	2-55

N

Navigation Instruments	8-35
------------------------	------

Subject	Paragraph, Figure, Table
Ninety Degree Gearbox Support	
Fitting	2-49
Damage Limits	F2-67
Inspection	2-49a
Repair	2-49b
Non-essential Bus Relay	9-23
Non-structural Access Panels,	
Doors and Fairings	F2-3
Nozzles — Damage Limits	F6-63
Nozzles — Rain Removal (Refer to Rain Removal Nozzles)	
Nozzles — Repair	F6-70
Nuts, Self-Locking, Reuse of	1-16
Application	1-16b
General	1-16a

O

Oil Analysis Program — Army	6-5
Oil Cooler — Transmission (Refer to Transmission Oil Cooler)	
Oil Cooling Turbine Fan (Refer to Fan — Oil Cooling Turbine)	
Oil Filter — Transmission External (Refer to Transmission External Oil Filter)	
Oil Filter — Transmission Primary (Refer to Transmission Primary Oil Filter)	
Oil Level Light — Transmission (Refer to Transmission Oil Level Light)	
Oil Manifold Assembly — Transmission (Refer to Transmission Oil Manifold Assembly)	
Oil Pump — Transmission (Refer to Transmission Oil Pump)	
Oil System	4-14
Oil System Servicing, Engine	1-3
Oil System — Transmission ... F6-55; F6-56; 6-30	
Servicing	1-4
Oil System — Troubleshooting	T4-2
Oils, Transmission and Gear Box, Procedure for Changing	1-6
Operational Check — Hydraulic and Pneumatic System	7-3
Outboard Ejector Rack Cartridges	16-5
Inspection	16-5b
Installation	16-5c
Removal	16-5a
Outboard Ejector Racks (Ejector Racks — Outboard)	
Overhaul and Retirement Schedule	1-32
Overload Sensor — Main Inverter	9-30
Overload Sensor — Standby Inverter	9-31

Subject	Paragraph, Figure, Table
---------	-----------------------------

P

Packing Nut Tool, (Ground Handling Pump)	F3-6B
Painting — Sub-Assembly (AVIM)	1-12
Dissimilar Metals	1-12d
Paint Refinish — Exterior — Low Reflective Acrylic Lacquer	1-12A1
Paint Refinishing — Cockpit Floor	1-12c
Paint Refinishing — Cockpit Interior	1-12b
Paint Refinishing — Exterior	1-12a
Procedure For Dissimilar Metals	1-12e
Panel, Control — Stability Control	
Augmentation System	11-24
Functional Check	11-24e
Inspection	11-24a
Installation	11-24d
Removal	11-24b
Repair	11-24c
Panel — Forward Fuel Cell at Right Side and Gunners Floor	F2-12
Panel, Lower at Station 186.25 to 213.94 and Forward Fuel Cell Floor	F2-15
Panel Repairs, Body — Type A	
Damage	F2-20
Type B Damage	F2-21
Type C Damage	F2-22
Type D Damage	F2-23
Panels — Ammo Floor, Support, and Forward Fuel Cell at Station 213.94	F2-14
Panels and Skin — Wing	F2-76; F2-77; 2-64
Inspection	2-64a
Repair	F2-78; 2-64b
Panels and Tailboom Assembly Doors (Refer to Doors, Tailboom Assembly and Panels)	
Panels — Control (Refer to Control Panels)	
Panels, Fairing and Cowling — Sheet Metal	2-14
Inspection	2-14a
Installation	2-14d
Removal	2-14b
Repair	2-14c
Panels — Forward Fuel Cell and Main Beam at Station 186.25 to 214.0	F2-18
Panels — Honeycomb Construction Fuselage and Tailboom Fin	2-4
Panels, Floor — Pilot and Gunner	F2-5
Panels — Honeycomb, Fuselage and Tailboom Fin	2-4

Subject	Paragraph, Figure, Table	Subject	Paragraph, Figure, Table
Panels — Honeycomb, Removal and Installation	2-13	Pilots Section — Equipment Location	F9-4
Panels, Honeycomb — Vertical Fin	F2-19	Pilot Steering Indicator (PSI) (Refer to Indicator — Pilots Steering)	
Panels — Instrument (Refer to Instrument Panel)		Piping and Fittings — Pitot-Static (Refer to Pitot Static Pippings and Fittings)	
Panels — Lower Aft Fuel Cell and Bottom at Station 250.0 to Boom Station 41.32	F2-16	Piston — Damage Limits	F6-62
Panels — Right and Left Main Beam Station 148.5 to 186.25	F2-10	Pitch Horn, Tool Application — Grip Lock	F5-7
Panels — Right and Left Main Beam — Station 213.94 to 250.0	F2-11	Pitch Link Assembly	F5-10; 5-9
Panels — Structural	F2-2	Adjustment	F5-6; 5-9d
Panels — Vertical Fin Honeycomb Panels — Damage Limits	F2-68A	Inspection	5-9b
Parking	1-23	Installation	5-9e
Particle Separator	F4-4; 4-8	Removal	5-9a
Airflow Diagram	F4-6	Repair	F5-52; 5-9c
Cleaning	4-6b	Pitch Link Assembly	F5-10
Exploded View	F4-5	Pitot Heating System Circuitry	9-73
Inspection	4-6c	Functional Test	9-73a
Installation	4-6e	Troubleshooting	F-25; T9-23; 9-73b
Removal	4-6a	Pitot-Static Piping and Fittings	8-27
Repair or Replacement	4-6d	Cleaning	8-27a
Servicing	1-8	Functional Test	8-27c
Patch Area — Main Rotor Blade	F5-15	Inspection	8-27b
Pedals — Tail Rotor	F11-13; 11-14	Installation	8-27g
Cleaning	11-14b	Removal	8-27e
Functional Check	11-14f	Repair or Replacement	8-27f
Inspection	11-14c	Troubleshooting	F8-2; 8-27d
Installation	11-14e	Pitot-static System	F8-2; 8-26
Removal	11-14a	Pitot Tube Head	8-28
Repair	11-14d	Cleaning	8-28a
Pilot and Gunners Floor Panels	F2-5	Inspection	8-28b
Pilot Collective Stick (Refer to Collective Stick, Pilots)		Installation	8-28e
Pilots Cyclic Stick (Refer to Cyclic Stick — Pilots)		Removal	8-28c
Pilots Reflex Sight	16-2	Repair or Replacement	8-28d
Inspection	16-2b	Plunger	
Installation	16-2d	Damage Limits	F6-67
Removal	16-2a	Repair	F6-71
Repair or Replacement	16-2c	Plunger and Piston — Work	
Pilots Seat	F2-49; F2-50; 2-38	Aid Application	F6-72
Assembly	2-38f	Position Lights	9-53
Disassembly	2-38c	Cleaning	9-53a
Inspection	2-38a	Inspection	9-53b
Inspection — Disassembled	2-38d	Installation	9-53e
Installation	2-38g	Removal	9-53c
Removal	2-38b	Repair or Replacement	9-53d
Repair	2-38e	Position Lights Flasher (Refer to Flasher — Position Lights)	
		Position Lights System	9-52
		Functional Test	9-52a
		Troubleshooting	F-6; T9-10; 9-52b
		Positioning Pylon with T101440 Jacks	F6-7

Subject	Paragraph, Figure, Table
Potted-Type Fastener (Insert)	
Installation in Honeycomb Panel	2-8
Power Application, External	1-28
Power Controls	4-21
Power Cylinder Support — Flight	
Control (Refer to Flight Control Panel	
Power Cylinder Support)	
Power Cylinder Support — Fore	
and Aft Cyclic System	F11-1G; 11-5B
Inspection	11-5Ba
Installation	11-5Bd
Removal	11-5Bb
Repair	11-5Bc
Power Cylinder Support — Lateral	
Cyclic and Collective Systems	F11-1F; 11-5A
Inspection	11-5Aa
Installation	11-5Ad
Removal	11-5Ab
Repair	11-5Ac
Power Distribution System, Alternating	
Current	9-24
Power Distribution System, Direct Current	9-7
Power Lever Control Linkage	F4-20; 4-22
Cleaning	4-22b
Inspection	4-22c
Installation	4-22e
Removal	4-22a
Repair or Replacement	4-22d
Rigging	F4-21; 4-22f
Power Plant	4-1
Installation	F4-1
Power Receptacle, External (Refer to	
External Power Receptacle)	
Power Relay, External	9-15
Power System — External (Refer to	
External Power System)	
Power Turbine Governor RPM	
Controls	F4-22; 4-23
Power Turbine Tachometer Generator	8-6
Cleaning	8-6a
Functional Test — Bench	8-6f
Inspection	8-6b
Installation	8-6g
Removal	8-6d
Repair or Replacement	8-6e
Troubleshooting	T8-1; 8-6c
Power Turbine Tachometer Generator	8-6
Cleaning	8-6a
Functional Test	8-6f
Inspection	8-6b
Installation	8-6g

Subject	Paragraph, Figure, Table
Removal	8-6d
Repair or Replacement	8-6e
Troubleshooting	8-6c
Premaintenance Requirements, Instrument	8-2
Preparation for Shipment, Transmission	6-11
Pressure Indicating System — Engine Oil	8-10
Pressure Indicating System — Fuel	8-19
Pressure Indicating System — Transmission	
Oil	8-45
Pressure Indicator — Engine Oil (Refer to	
Indicator — Engine Oil Pressure)	
Pressure Indicator — Fuel (Refer to	
Indicator — Fuel Pressure)	
Pressure Indicator System — Torque	8-22
Pressure Indicators — Torque (Refer to	
Indicator Torque Pressure)	
Pressure Indicator — Transmission Oil	
(Refer to Indicator Transmission Oil Pressure)	
Pressure Regulating and Shutoff Valve. (Refer to	
Valve Pressure Regulating and Shutoff)	
Pressure Regulating and Shutoff Valve, Relief	
(Refer to Valve, Relief Pressure	
Regulating and Shutoff)	
Pressure Regulating and Shutoff Valve —	
Solenoid (Refer to Valve — Pressure Regulating	
and Shutoff Solenoid)	
Pressure Transmitter and Switch	4-15
Pressure Transmitter Engine Oil (Refer	
to Transmitter Engine Oil Pressure)	
Pressure Transmitter — Fuel (Refer to	
Transmitter — Fuel Pressure)	
Pressure Transmitter — Torque (Refer to	
Transmitter — Torque Pressure)	
Pressure Transmitter — Transmission Oil	
(Refer to Transmitter Transmission Oil Pressure)	
Primary Structural Caps	F2-4
Procedure for Changing Transmission	
and Gearbox Oils	1-6
Protective Armor (Refer to Armor,	
Protective)	
Provisions — Armament Hydraulic	7-16
Provisions — Lighting	9-44
Pumps — Boost, Fuel (Refer to	
Boost Pumps — Fuel)	
Pumps Circuitry — Fuel Boost	9-65
Functional Test	9-65a
Troubleshooting	F-17; T9-17; 9-65b
Pumps — Hydraulic (Refer to	
Hydraulic Pumps)	
Pump — Transmission Oil	F6-14; 6-40
Assembly	6-40f

Subject	Paragraph, Figure, Table
Cleaning	6-40c
Disassembly	6-40b
Inspection	6-40d
Installation	6-40i
Removal	6-40a
Repair or Replacement	6-40e
Test Procedures	F6-75; 6-40g
Pylon Compensator Unit — Stability Control Augmentation System (Refer to Stability Control Augmentation System — Pylon Compensation Unit)	
Pylon Damper Fitting Supporting Structure — Repair	F2-71
Pylon Damper Fittings (Refer to Fittings, Pylon Dampers)	
Pylon Dampers (Refer to Dampers, Pylon)	
Pylon Dampers Seal Installation Tool	F6-22
Pylon Fifth Mount (Refer to Fifth Mount — Pylon)	
Pylon Honeycomb Fairings	2-11
Inspection	2-11a
Repairs	2-11b
Pylon Lift Link and Main Mounts	F6-13
Pylon Mounts (Refer to Mounts — Pylon)	
Pylon Support Access Hole	F6-18
Pylon Support	F2-69; F2-70; 2-58; 2-59
Inspection	2-58a; 2-59a
Installation	2-58d; 2-59d
Removal	2-58b; 2-59b
Repair	2-58c; 2-59c
Pylon Support Installation	2-53
Pylon, Wing Stores	F16-4

Q

Quality Assurance/Quality Control	P-2
Quill — Cockpit Air Blower Drive	6-21
Inspection — Installed Quill	6-21a
Inspection — Removed Quill	6-21c
Installation	F6-37; 6-21e
Removal	6-21b
Replacement of Seals	F6-36; 6-21d
Quill — Hydraulic Pump and Tachometer Drive	F6-35; 6-20
Inspection	6-20a
Inspection, Removed Quill	6-20c
Installation	6-20e
Removal	6-20b
Repair or Replacement	6-20d
Quill — Input Drive	F6-33; 6-19
Inspection	6-19a

Subject	Paragraph, Figure, Table
Installation	F6-34; 6-19d
Preparation for Shipment	6-19e
Removal	6-19b
Replacement of Seals	6-19c
Quill — Input Drive, Tail Rotor Gearbox	F6-48; 6-28
Assembly	6-28f
Disassembly for Replacement of Seals and Inspection of Couplings	F6-51; F6-52; F6-53; 6-28c
Inspection — Disassembled Quill ...	F6-50; 6-28d
Inspection Prior to Disassembly	6-28b
Installation	6-28g
Removal	6-28a
Repair and Replacement	6-28e
Quill — Tail Rotor Drive	F6-38; 6-22
Inspection — Installed Quill	6-22a
Inspection — Removed Quill	6-22d
Installation	6-22g
Lubrication	6-22b
Removal	6-22c
Repair or Replacement	6-22f
Seal Replacement	6-22e
Quills — Intermediate Gearbox	F6-43; 6-26
Assembly	6-26e
Cleaning	6-26c
Disassembly	6-26b
Inspection	F6-44; F6-45; F6-46; 6-26d
Installation	6-26f
Removal	6-26a
Quills — Transmission Drive	6-18
Quill — Tail Rotor Gearbox Output	6-29
Inspection	6-29b
Installation	6-29c
Removal	6-29a
Repair or Replacement	F6-54; 6-29d

R

Rack Ejector (Refer to Ejector Rack)	
Rack Ejector, Alignment Test (Refer to Ejector Rack — Alignment Test)	
Rack Ejector — Inboard (Refer to Ejector Rack — Inboard)	
Rack Ejector — Outboard (Refer to Ejector Rack — Outboard)	
Radar Warning System (AN/APR-39)	8-52A
Radio Magnetic Indicators (ID-998()/ASN and ID-250()/ARN)	8-37
Rain Removal Nozzle	F12-2; 12-3
Cleared Area Pattern	F12-3

Subject	Paragraph, Figure, Table
Inspection	12-3b
Installation	12-3d
Removal	12-3a
Repair or Replacement	12-3c
Rain Removal System	12-2
Receptacle — External Power (Refer to External Power Receptacle)	
Receptacle — Engine Vibration Meter	9-37
Reel — Inertia (Refer to Inertia Reel)	
Reference Transformer, TOW (Refer to Transformer, TOW Reference)	
Regulator — Voltage	9-19
Adjustment	9-19c
Cleaning	9-19a
Inspection	9-19b
Installation	9-19f
Removal	9-19d
Repair or Replacement	9-19e
Relay — Ac Failure	9-35
Ac Power Control	9-34
Bus Control	9-22
Bus Power	9-10
External Power	9-15
Feeder Power	9-11
Generator Field	9-20
Main Inverter	9-32
M28 Time Delay	9-12
Main Inverter Control Relay	9-28
Non-essential Bus	9-23
Reverse Current	9-21
Standby Inverter Control	9-29
Starter	9-40
Repair	
Butt Area, Tail Rotor Blade	F5-60
Channel Section — Typical River Pattern	F2-27
Edge — Honeycomb Panel with Aluminum Alloy Skin Opposite Aluminum Alloy	
with Fiberglass Edging	F2-25
Edge — Honeycomb Panel with Fiberglass Skin Opposite Titanium	F2-24
Edge — Honeycomb Panels with Aluminum Alloy Skin Opposite Aluminum Alloy with Fiberglass Finish	
at Channel	F2-26
Edge — Vertical Fin	F2-28
Fiberglass Honeycomb Fairing	F2-32
Fittings	F6-69
Nozzles	F6-70
Patch Type, Tail Rotor Blade	F5-59
Plunger	F6-71

Subject	Paragraph, Figure, Table
Pylon Damper Fitting Supporting Structure	F2-71
Wing Skin	F2-78
Body Panel — Type A Damage	F2-20
Body Panel — Type B Damage	F2-21
Body Panel — Type C Damage	F2-22
Body Panel — Type D Damage	F2-23
Replacing Studs — Transmission	6-10
Locked-in Studs or Inserts	6-10b
Standard Studs	6-10a
Replacing Valve — Dual Hydraulic Cylinders	7-12
Reporting of Errors	P-4
Reservoirs — Hydraulic (Refer to Hydraulic Reservoirs)	
Resistor — Turbine Temperature Thermocouple Lead Spool (Refer to Turbine Temperature Thermocouple and Spool Resistor)	
Return Bypass Fitting — Damage Limits	F6-60
Retirement Schedule	1-32
Retrieval of Disabled Helicopter	1-27
Reuse of Self-Locking Nuts	1-16
Application	1-16b
General	1-16a
Reverse Current Relay	9-21
Rigging Dimensions — Swashplate	F11-8
Right and Left Main Beam Panels — Station 148.5 to 186.25	F2-10
Right and Left Main Beam Panels — Station 213.94 to 250.0	F2-11
Rivet Pattern, Typical — Channel Section Repair	F2-27
Rivet Removal, Aft Bulkhead	F2-37
Roller Bearing Wear Patterns	F6-49
Rotor Balancing Kit	F5-37
Rotor Hub and Blade Assembly — Tail	F5-54; 5-12
Balancing	F5-55; 5-12b
Installation	5-12c
Removal	5-12a
Rotor System	5-1
Rotor Tachometer Generator	8-7
Cleaning	8-7a
Functional Test — Bench	8-7f
Inspection	8-7b
Installation	8-7g
Removal	8-7d
Repair or Replacement	8-7e
Troubleshooting	T8-1; 8-7c

Subject	Paragraph, Figure, Table
Rpm Limit Warning System	F9-7; F9-8; 9-50
Alignment of High Rotor Rpm	
Warning	F9-9; F9-10; 9-50d
Alignment of Low Rotor Rpm Warning	9-50c
Functional Test (High Rpm Warning)	9-50b
Functional Test (Low Rpm Warning)	9-50a
Troubleshooting	F9-27; T9-9; 9-50e
Rpm Limit Warning Detector	9-51
Bench Test and Adjustment	F9-10; F9-11; F9-12; F-28; 9-51c
Cleaning	9-51a
Inspection	9-51b
Installation	9-51f
Removal	9-51d
Repair or Replacement	9-51e

S

SCAS Servo Actuators, Solenoid	
Valves, and Filters	7-13
Cleaning	7-13b
Inspection	7-13c
Installation	F7-17; 7-13e
Repair or Replacement	F7-18; 7-13d
Replace SCAS Filters	7-13f
Removal	7-13a
(SCAS), Stability and Control	
Augmentation System	9-76
Schedule, Overhaul and Retirement	1-32
Scissors and Sleeve Assembly	F5-40; F5-43; 5-7
Assembly	5-7f
Cleaning	5-7c
Disassembly	5-7b
Inspection	F5-41; F5-42; 5-7d
Installation	5-7g
Removal	5-7a
Repair	F5-44; F5-45; F5-46; F5-47; 5-7e
Scoring Damage on Gears	F6-42
Screen, Foreign Object Damage	F4-8; 4-9
Cleaning	4-9b
Inspection	4-9c
Installation	F4-9; 4-9e
Removal	4-9a
Repair and Replacement	4-9d
Screen — Transmission Oil Pump (Refer to Transmission Oil Pump Screen)	
Scuff Doubler-Ammo Floor	F2-33
Sealing — Engine Deck and	
Firewall	F4-13
Seals on Doors, Cowling and Fairing	2-3
Inspection	2-3a

Subject	Paragraph, Figure, Table
Installation	2-3d
Removal	2-3b
Test to Determine Seal Material	2-3c
Searchlight	9-58
Cleaning	9-58a
Inspection	9-58b
Installation	9-58e
Removal	9-58c
Repair or Replacement	9-58d
Searchlight System	9-57
Functional Test	9-57a
Troubleshooting	F-29; T9-12; 9-57b
Seat Belts	2-41
Seat Belts and Shoulder Harness (Refer to Belts, Seat and Shoulder Harness)	
Seat — Gunners (Refer to Gunners Seat)	
Seat — Pilots (Refer to Pilots Seat)	
Sensor Amplifier Unit	11-20
Inspection	11-20a
Installation	11-20d
Removal	11-20b
Repair	11-20c
Test	11-20f
Troubleshooting	11-20e
Sensor — Temperature Control (Refer to Temperature Control Sensor)	
Sensor — Main Inverter Overload	9-30
Sensor — Standby Inverter Overload	9-31
Servicing — 42° and 90° Gearbox	1-5
Servicing — Particle Separator	1-8
Servicing — Battery	1-9
Servicing — Engine Oil System	1-3
Servicing — Fuel System	1-2
Defueling	1-2c
Fuel Requirements	1-2d
Fuel Types	1-2e
Gravity Refueling	1-2b
Refueling	1-2a
Use of Fuels	1-2f
Servicing — General	1-1
Servicing — Ground Handling Wheels	1-10
Servicing — Hydraulic System	1-7
Servicing Points Diagram	F1-1
Servicing — Transmission Oil System	1-4
Servo Electronic Control Unit (SECU)	9-93
Cleaning	9-93a
Inspection	9-93b
Installation	9-93e
Removal	9-93c
Repair or Replacement	9-93d

Subject	Paragraph, Figure, Table
Sheetmetal — Cowling, Panels and	
Fairing	2-14
Inspection	2-14a
Installation	2-14d
Removal	2-14b
Repair	2-14c
Shim Adjustment — Upper	
Mast Bearing	F6-31
Shim Replacement — Damper	
Barrel Assembly	F6-23
Damper Upper Shim	F6-24
Damper Lower Shim	F6-25
Short Time Storage	E-8
Shoulder Harness and Seat Belts	2-41
Inspection	2-41a
Installation	2-41c
Removal	2-41b
Shunt — Generator	9-18
Sight Gages — Transmission Oil Level (Refer to Transmission Oil Level Sight Gages)	
Sight — Reflex, Pilots (Refer to Pilots Reflex Sight)	
Simplified Electrical Bus Wiring	
Schematic	F9-1
Skid — Tailboom	2-52
Inspection	2-52a
Installation	2-52d
Removal	2-52b
Repair	2-52c
Skid Tube Repair	F3-4; 3-2
Damage Necessitating Replacement	3-2c
Damage Reparable by Insertion	3-2b
Damage Reparable by Patching	3-2a
Skin — Tailboom	F2-58; 2-46
Damage Classification	T2-1
Inspection	2-26a
Repair	2-26b
Skins and Panels — Wing	F2-76; F2-77; 2-64
Inspection	2-64a
Repair	F2-78; 2-64b
Sleeve — Damage Limits	F6-64
Smoke Grenade Dispenser System	
Circuitry	9-87
Functional Test	9-88
Troubleshooting	F-7; T9-28; 9-89
Smoke Grenade Dispenser — Wing	
Mounted	F16-1; 16-3
Inspection	16-3b
Installation	16-3d
Removal	16-3a
Repair or Replacement	16-3c

Subject	Paragraph, Figure, Table
Solenoid Circuitry — Idle Stop (Refer to Idle Stop Solenoid Circuitry)	
Solenoid Valve	7-15
Function, Check & Test	7-15b
Inspection	7-15a
Solenoid Valve and Filters, SCAS (Refer to Valves, Solenoid — SCAS Servo Actuators and Filters)	
Solenoid Valve — Engine Primer	9-43
Solenoid Valve — Pressure Regulating and Shutoff	F13-13; 13-15
Inspection	13-15a
Repair or Replacement	13-15b
Solenoid Valves — Stability Control Augmentation System	11-21
Solenoid Valve — TOW Shutoff	7-20
Soundproofing Blankets	2-42
Inspection	2-42a
Installation	2-42d
Removal	2-42b
Repair	2-42c
Source of Metal Particles	6-6
Intermediate Gearbox	6-6b
Tail Rotor Gearbox	6-6c
Transmission	6-6a
Special Inspection	1-31
Special Tools and Equipment	T1-4; P-8; 1-14
Stability and Control Augmentation System (SCAS)	9-76; 11-18
Troubleshooting	11-19
Stability Control Augmentation System — Pylon Compensator Unit	11-22
Functional Check	11-22e
Inspection	11-22a
Installation	11-22d
Removal	11-22b
Repair	11-22c
Stability Control Augmentation System — Control Motion Transducers	11-23
Functional Check	11-23e
Inspection	11-23a
Installation	11-23d
Removal	11-23b
Repair	11-23c
Stability Control Augmentation System — Control Panel	11-24
Functional Check	11-24e
Inspection	11-24a
Installation	11-24d
Removal	11-24b
Repair	11-24c

Subject	Paragraph, Figure, Table	Subject	Paragraph, Figure, Table
Stability Control Augmentation		Functional Test	F9-14; F9-15; 9-84
System — Solenoid Valves	11-21	Troubleshooting	F-7; T9-25; T9-26; 9-86
Functional Check	11-21e	Stress Loads — Canopy Windows	F2-42
Inspection	11-21a	Striker Assembly — Pilot and Gunners	
Installation	11-21d	Door (Refer to Door Striker — Pilot and	
Removal	11-21b	Gunners Door)	
Repair	11-21c	Structural Members	2-22
Standards of Serviceability	1-30	Inspection	2-22a
Standby Compass (Refer to Compass, Standby)		Repair	2-22b
Standby Inverter	9-27	Structural Panels	F2-2
Adjustment	F9-5; 9-27c	Structural Repair Materials	T2-2
Cleaning	9-27a	Structure, Tailboom (Refer to	
Inspection	9-27b	Tailboom Structure)	
Installation	9-27f	Structure, Pylon Damper Fitting	
Removal	9-27d	Supporting Structure — Repair	F2-71
Repair or Replacement	9-27e	Structure, Wing	F2-77
Standby Inverter Control Relay	9-25	Strut Assembly Pilot and Gunners	
Standby Inverter Overload Sensor	9-31	Door (Refer to Door Strut Assembly —	
Starter	9-39	Pilot and Gunners Door)	
Starter Relay	9-40	Sub-Assembly Painting (AVIM)	1-12
Starting System	9-38	Dissimilar Metals	1-12d
Functional Test	9-38a	Paint Refinishing — Cockpit Floor	1-12c
Troubleshooting	F-30; T9-5; 9-38b	Paint Refinishing — Cockpit Interior	1-12b
Station Diagram	F2-34	Paint Refinishing — Exterior	1-12a
Steering Indicator (PSI) — Pilots	8-52	Paint Refinishing — Exterior — Low	
Cleaning	8-52a	Reflective Acrylic Lacquer	1-12a.1
Functional Test	8-52c	Procedures for Dissimilar Metal	1-12e
Inspection	8-52b	Substitution Authority	P-7
Installation	8-52g	Support Fitting — Fifth Mount (Refer to	
Removal	8-52e	Fifth Mount Support Fitting)	
Repair or Replacement	8-52f	Support Fitting — Tail Rotor Drive	
Troubleshooting	F-7; T8-18; 8-52d	Gearbox (Refer to Fitting, Gearbox Support,	
Stick, Collective Gunner (Refer		Tail Rotor Drive)	
to Collective Stick, Gunner)		Support — Flight Control Power	
Stick, Collective — Pilot (Refer		Cylinder	2-61
to Collective Stick — Pilot)		Inspection	2-61a
Stick — Cyclic, Gunner (Refer to		Installation	2-61d
Collective Stick, Gunner)		Removal	2-61b
Stick — Cyclic, Pilot (Refer to		Repair	F2-72; 2-61c
Collective Stick, Pilot)		Support — Lift Link Attachment (Refer	
Stop Installation — Flight Idle	F4-21	to Lift Link Attachment — Support)	
Stop Solenoid Circuitry — Idle	9-67	Support, Power Cylinder	F11-1G; 11-5B
Functional Test	9-67a	Inspection	11-5Ba
Troubleshooting	F-22; T9-19; 9-67b	Installation	11-5Bc
Storage	P-10	Removal	11-5Bb
Storage — Flyable	E-4	Repair	11-5Bd
Storage — General Information	E-1	Support, Power Cylinder — Lateral	
Storage — Intermediate	E-12	Cyclic and Collective Systems	F11-1F; 11-5A.
Storage — Short Term	E-8	Inspection	11-5Aa
Stores, Wing — Armament		Installation	11-5Ad
Systems Circuitry	9-83	Removal	11-5Ab

Subject	Paragraph, Figure, Table
Repair	11-5Ac
Support — Pylon (Refer to Pylon Support)	
Support — Tail Rotor Control	
Cylinder	7-14
Assembly	7-14a.3
Cleaning	7-14a.2
Disassembly	F7-19A; 7-14a.1
Inspection	7-14b
Installation	F7-19; 7-14d
Removal	7-14a
Repair or Replacement	7-14c
Supports and Fittings	2-57
Swashplate and Support	F5-40; 5-8
Assembly	5-8g
Cleaning	5-8d
Disassembly	5-8c
Inspection — Disassembled	5-8e
Inspection — Prior to Disassembly	5-8b
Installation	5-8i
Removal	5-8a
Repair	F5-49; F5-50; F5-51; 5-8f
Swashplate — Connection of Hydraulic Cylinders	F7-17
Swashplate Rigging Dimensions	F11-8
Swashplate, Rigging — Work Aid	F11-7
Switch — Temperature Selector	13-5
Inspection	13-5a
Repair or Replacement	13-5b
Switch — Transmission Oil Emergency Bypass Valve (Refer to Transmission Oil Emergency Bypass Valve Switch)	
Symbols	B-8; B-5; 1-19
Synchronized Elevators (Refer to Elevators — Synchronized)	

T

Tachometer Generator — Gas Producer (Refer to Gas Producer Tachometer Generator)	
Tachometer Generator — Power Turbine (Refer to Generator Power Turbine Tachometer)	
Tachometer Generator — Rotor (Refer to Rotor Tachometer Generator)	
Tachometer Indicating Systems	F-31; 8-4
Tachometers — Dual	8-5
Cleaning	8-5a
Functional Test	8-5c
Inspection	8-5b
Installation	8-5g
Removal	8-5e

Subject	Paragraph, Figure, Table
Repair or Replacement	8-5f
Troubleshooting	T8-1; 8-5d
Tachometers — Gas Producer (Refer to Gas Producer Tachometer)	
Tail Rotor Blade Area Authorized for Patch-type Repair	F5-59
Tail Rotor Blade Assembly	F5-56; F5-57; 5-13
Cleaning	5-13b
Inspection	F5-58; F5-61; 5-13c
Installation	5-13e
Removal	5-13a
Repair	F5-59; F5-60; 5-13d
Tail Rotor Blade Butt Area Repair	F5-60
Tail Rotor Blade Station Diagram and Scratch-Type Damage Area Locations	F5-58
Tail Rotor Control Cylinder and Support	F7-19; F7-19A; 7-14
Assembly	17-14a.3
Cleaning	17-14a.2
Disassembly	17-14a.1
Inspection	7-14b
Installation	7-14d
Repair or Replacement	7-14c
Removal	7-14a
Tail Rotor Controls — Crosshead, Weights, Links and Control Tube	F5-67; 5-15
Assembly	5-15f
Cleaning	5-15c
Disassembly	5-15b
Inspection	5-15d
Installation	5-15g
Removal	5-15a
Repair	F5-68; F5-69; F5-70; F5-71; F5-72 F5-73; F5-74; F5-75; F5-76; 5-15e
Tail Rotor Controls System	F11-12; 11-3
Rigging	11-13a
Tail Rotor Drive Gearbox Support Fittino	2-49
Damage Limits	F2-67
Inspection	2-49a
Repair	2-49b
Tail Rotor Driveshaft Hanger	F6-40A
Tail Rotor Installation	F5-55
Tail Rotor Yoke — Tool Application	F5-66
Tail Rotor Drive Quill (Refer to Quill, Tail Rotor Drive)	
Tail Rotor Driveshaft	F6-39; 6-23
Cleaning	6-23b

Subject	Paragraph, Figure, Table	Subject	Paragraph, Figure, Table
Inspection	F6-4c; 6-23c	Tailboom Bulkhead Damage Limits	F2-66B
Inspection — Driveshaft Clamps	6-23d	Tailboom Fin (Refer to Fin — Tailboom)	
Installation	6-23f	Tailboom Skid (Refer to Skid — Tailboom)	
Removal	6-23a	Tailboom Skin (Refer to Skin — Tailboom)	
Repair or Replacement	6-23e	Tailboom Synchronized Elevator	F2-68; 2-50
Tail Rotor Gearbox	F6-47; 6-27	Inspection	2-50a
Cleaning	6-27b	Installation	2-50d
Inspection	6-27c	Removal	2-50b
Installation	6-27f	Repair	2-50c
Lubrication	6-27e	Tailpipe Assembly Fairing (Refer to Fairing — Tailpipe Assembly)	
Preparation for Shipment	6-27g	Tailpipe, Ejector & Heatshield	4-12
Removal	6-27a	Tailpipe Fairing and Engine Cowl (Refer to Fairing, Tailpipe, and Engine Cowl)	
Repair or Replacement	6-27d	Tailpipe, Ejector and Heatshield	F4-11; 4-12
Tail Rotor Gearbox Input Drive Quill (Refer to Quill, Tail Rotor Gearbox Input Drive)		Cleaning	4-12b
Tail Rotor Gearbox Output Quill (Refer to Quill, Tail Rotor Gearbox, Output)		Inspection	4-12c
Tail Rotor Hub and Blade Assembly	F5-54; 5-12	Installation	4-12d
Balancing	F5-55; 5-12b	Removal	4-12a
Installation	5-12c	Repair or Replacement	F4-12; 4-12e
Removal	5-12a	Tank — Engine Oil (Refer to Engine Oil Tank)	
Tail Rotor Hub Assembly	F5-62; 5-14	Tank, Engine Oil Vent and Drain Lines (Refer to Engine Oil Tank — Vent and Drain Lines)	
Assembly	5-14e	Temperature Bulb — Engine Oil (Refer to Engine Oil Temperature Bulb)	
Cleaning	5-14b	Temperature Bulb — Transmission Oil (Refer to Transmission Oil Temperature Bulb)	
Disassembly	5-14a	Temperature Control Sensor	13-10
Inspection	5-14c	Inspection	13-10b
Repair	F5-63; F5-64; F5-65; F5-66; 5-14d	Installation	13-10e
Tail Rotor Pedals	F11-13; 11-14	Removal	13-10a
Inspection	11-14c	Repair or Replacement	13-10c
Cleaning	11-14b	Test	13-10d
Functional Check	11-14f	Temperature Control Valve (Refer to Valve, Control Temperature)	
Installation	11-14e	Temperature Gage — Free Air	8-44
Removal	11-14a	Cleaning	8-44a
Repair	11-14d	Functional Test	8-44c
Tail Rotor System	5-10	Inspection	8-44b
Tracking	5-11b	Installation	8-44g
Troubleshooting	T5-2; 5-11a	Removal	8-44e
Tailboom Assembly	F2-56; F2-57; 2-45	Repair or Replacement	8-44f
Installation	2-45b	Troubleshooting	T8-16; 8-44d
Removal	2-45a	Temperature Indicating System — Engine Oil	8-13
Tailboom Assembly Doors and Panels (Refer to Doors, Tailboom Assembly and Panels)		Temperature Indicating System — Transmission Oil	8-48
Tailboom Assembly Structure	F2-59; 2-48	Temperature Indicating System — Turbine Gas	8-16
Inspection	2-48a		
Repair — General	2-48b		
Repair — Tailboom Bulkheads	2-48e		
Repair — Tailboom Longerons	2-48d		
Repair — Tailboom Stringers	2-48c		

Subject	Paragraph, Figure, Table	Subject	Paragraph, Figure, Table
Temperature Indicator — Engine Oil (Refer to Engine Oil Temperature Indicator)		Tolerances and Dimensions	1-17
Temperature Indicator — Transmission Oil (Refer to Indicator — Transmission Oil Temperature)		Tools and Equipment, Special	P-8; 1-14; T1-4
Temperature Indicators — Turbine Gas (Refer to Indicator — Turbine Gas Temperature)		Tool Application	
Time Delay Relay — M28	9-12	Alignment of Main Rotor Hub and Blades	F5-17
Torque Motor	13-12	Bearing and Seal Installation in Grip	F5-33
Cleaning	13-12c	Bearing Installation (Staking) in Tail Rotor Yoke	F5-66
Inspection	13-12a	Bearing Removal From Grip	F5-32
Inspection	13-12d	Bearing Removal From Housing	F5-31
Installation	13-12f	Drive Plate Spline Wear Adjustment	F5-41
Removal	13-12b	Grip Lock Installation on Pitch Horn	F5-7
Repair or Replacement	13-12e	Grip Spacing Adjustment	F5-35
Torque Pressure Indicators (Refer to Indicator — Torque Pressure)		Main Rotor Hub Balancing	F5-38
Troubleshooting	F-26; T8-6; 8-23d	Main Rotor Mast Nut	F5-8
Torque Pressure Indicator System	8-22	Retainer Bolt Removal and Installation	F6-52; F6-53
Torque Pressure Transmitters	8-24	Tail Rotor Hub and Assembly Balancing	F5-55
Cleaning	8-24a	Lip Seal Installation on Poppet	F13-7
Functional Test	8-24c	Tool, Bearing Staking	F5-65
Inspection	8-24b	Tool — Pylon Dampers Seal Installation	F6-22
Installation	8-24g	Tools, Special, for Ejector Rack	F16-5
Removal	8-24e	Torque Tables, Standard	T1-5
Repair or Replacement	8-24f	Torque Valves for Fluid Connections	T7-3
Troubleshooting	F-26; T-86; 8-24d	TOW Blower (Refer to Blower — TOW)	
Torque Procedures and Requirements	1-15	TOW Blower Cooling System (Refer to Blower Cooling System — TOW)	
Installation of Bolts — General	1-15e	TOW Missile Subsystem Circuitry — XM65	F9-16; 9-90
Installation of Bolts into Threaded Parts	1-15f	Functional Test	9-91
Installation of Castellated Nuts on Non-Rotating (Static) Parts	1-15b	Troubleshooting	F-7; 9-92
Installation of Castellated Nuts on Rotating (Dynamic) Parts	1-15c	TOW Reference Transformer (Refer to Transformer, TOW Reference)	
Installation of Self-Locking Tension and Steel Type Nuts	1-15d	TOW Solenoid Shutoff Valve	7-20
Requirements Governing Application of Torque Leads	1-15a	Inspection	7-20b
Temperature/Resistance Chart — Harness Soak	T8-1A	Installation	7-20c
Temperature Selector Switch	13-5	Removal	7-20a
Inspection	13-5a	Towing	1-21
Repair or Replacement	13-5b	Installation — Ground Handling Gear	1-21b
Test Circuit Setup for Fuel Quantity Indicator Bench Test	F8-4	Removal — Ground Handling Gear	1-21d
Test Circuit Setup for Fuel Tank Unit Capacitance and Resistance Tests	F8-3	Towing Procedure	1-21c
Test Setup — Transmission Oil Pump	F6-75	Work Aid for Ground Handling Gear	F1-4; 1-2a

Subject	Paragraph, Figure, Table	Subject	Paragraph, Figure, Table
Tracking Main Rotor	F5-5	Cleaning	6-37b
Tracking Tail Rotor	F5-53	Inspection	6-37c
Transducer Bracket Installation	F6-14	Installation	6-37e
Transducers, Control Motion — Stability Control Augmentation System	11-23	Removal	6-37a
Functional Check	11-23e	Repair or Replacement	6-37d
Inspection	11-23a	Transmission Oil Emergency Bypass	
Installation	11-23d	Valve Switch	6-39
Removal	11-23b	Installation	6-39b
Repair	11-23c	Removal	6-39a
Transformers — Ac (Refer to AC Transformer)		Transmission Oil Level Light	9-59
Transformer — TOW Reference	9-33	Functional Test	9-59a
Cleaning	9-33a	Troubleshooting	F-9; T9-13; 9-59b
Inspection	9-33b	Transmission Oil Level Sight Gages	6-36
Installation	9-33e	Inspection	6-36b
Removal	9-33c	Installation	6-36d
Repair or Replacement	9-33d	Removal	6-36a
Transmission	F6-9; F6-10; 6-9	Repair or Replacement	6-36c
Buildup	F6-15; F6-16	Transmission Oil Manifold Assembly F6-57A; 6-33	
Inspection	6-9c	Inspection	6-33a
Installation	F6-12; F6-13; F6-14; 6-9f	Repair or Replacement	6-33b
Installation — Adapting Parts	6-9e	Transmission Oil Pressure Indicator (Refer to Indicator — Transmission Oil Pressure)	
Left Side	F6-9	Transmission Oil Pressure Indicating System	8-45
Removal	F6-11; 6-9a	Transmission Oil Pressure Relief Valve	F6-57A
Removal — Adapting Parts	6-9b	Transmission Oil Pressure Transmitter	8-47
Repair or Replacement	6-9d	Cleaning	8-47a
Preparation for Shipment	F6-16; 6-11	Functional Test	8-47c
Right Side	F6-10	Inspection	8-47b
Transmission and Gear Box Oils, Procedure for Changing	1-6	Installation	8-47g
Transmission Chip Detector	6-35	Removal	8-47e
Inspection	6-35b	Repair or Replacement	8-47f
Installation	6-35c	Troubleshooting	8-47d
Removal	6-35a	Transmission Oil Pump	F6-74; 6-40
Transmission Cowl Assemblies (Refer to Cowl Assemblies, Transmission)		Assembly	6-40f
Transmission Drive Quills	F6-11; 6-18	Cleaning	6-40c
Transmission External Oil Filter	6-32	Disassembly	6-40b
Cleaning	6-32b	Inspection	6-40d
Inspection	6-32c	Installation	6-40i
Installation	6-32e	Removal	6-40a
Removal	6-32a	Repair or Replacement	6-40e
Repair or Replacement	6-32d	Test Procedures	F6-75; 6-40g
Transmission Lift Link (Refer to Lift Link Transmission)		Transmission Oil Pump Screen	6-34
Transmission Mount Bushings	2-56	Cleaning	6-34c
Transmission Mount Dampers	2-55	Inspection	6-34b
Transmission Mounts	2-54	Installation	6-34e
Transmission Oil Cooler	6-37	Removal	6-34a
		Repair or Replacement	6-34d
		Transmission Oil System	F6-55; F6-56; 6-30

Subject	Paragraph, Figure, Table
Transmission Oil System Servicing	1-4
Transmission Oil Temperature Bulb	8-50
Cleaning	8-50a
Functional Test — Bench	8-50f
Inspection	8-50b
Installation	8-50g
Removal	8-50d
Repair or Replacement	8-50e
Troubleshooting	8-50c
Transmission Oil Temperature Indicator (Refer to Indicator — Transmission Oil Temperature)	
Transmission Oil Temperature Indicating System	8-48
Transmission Primary Oil Filter	F6-57; 6-31
Cleaning	6-31b
Installation	6-31c
Removal	6-31a
Transmission Stud Replacement	6-10
Locked-in Studs of Inserts	6-10b
Standard Studs	6-10a
Transmission Top Case — Dimension Check	F6-32
Transmitter — Engine Oil Pressure (Refer to Engine Oil Pressure Transmitter)	
Repair or Replacement	8-12f
Troubleshooting	F-26; T8-2; 8-12d
Transmitter — Fuel Pressure (Refer to Fuel Pressure Transmitter)	
Transmitter — Transmission Oil Pressure	8-47
Cleaning	8-47a
Functional Test	8-47c
Inspection	8-47b
Installation	8-47g
Removal	8-47e
Repair or Replacement	8-47f
Troubleshooting	8-47d
Transmitters — Fuel Quantity (Refer to Fuel Quantity Transmitter)	
Transmitters — Torque Pressure (Refer to Torque Pressure Transmitter)	
Troubleshooting	F-26; T8-6; 8-24d
Trim System Circuitry Force	9-69
Functional Test	9-69a
Troubleshooting	F-15; T9-20; 9-69b
Troubleshooting	
Air Distribution Valve	T13-2
Airspeed Indicators	T8-7
Altimeters	T8-8
Anticollision Light System	T9-11
Attitude Indicator	T8-9

Subject	Paragraph, Figure, Table
Battery System	T9-1
Clock	T8-13
Cockpit Lights	T9-7
Dispenser, Smoke Grenade	16-3e
Drive Train	T6-1; 6-2
Dual and Gas Producer	
Tachometers	T8-1
Ejector Racks	T16-1
Engine De-ice Circuitry	T9-14
Engine Oil Bypass Circuitry	T9-15
Engine Oil Pressure Indicating System	T8-2
Engine Oil Temperature Indicator	T8-3
Environmental Control System	T13-1
Environmental Control System Circuitry	T9-22
External Power System	T9-2
Fire Detector System, Engine	T12-1
Flight Controls	T11-1; 11-2
Force Trim Circuitry	T9-20
Free Air Temperature Gage	T8-16
Fuel Boost Pump Circuitry	T9-17
Fuel Pressure Indicator	T8-5
Fuel Quantity Indicator	T8-14
Fuel System	T10-1; 10-1A
Fuel Valve Circuitry	T9-16
Generator and DC Bus System	T9-3
Governor Control System Circuitry	T9-18
Hydraulic and Pneumatic System	T7-1; 7-2
Hydraulic Control System Circuitry	T9-21
Idle Stop Solenoid Circuitry	T9-19
Ignition System	T9-6
Instrument Panel and Console Lights	T9-8
Inverter System	T9-4
Oil System	T4-2; 4-14A
Pilot Steering Indicator	T8-18
Pitot Heating System Circuitry	T9-23
Position Lights System	T9-10
Rocket Launcher Circuitry	T9-25
RPM Limit Warning System	T9-9
Searchlight System	T9-12
Smoke Grenade Dispenser	
System Circuitry	T9-28
Standby Compass	T8-12
Starting System	T9-5
Torque Pressure Indicator	T8-6
TOW Blower Cooling Systems	T9-24
Transmission Oil Level Light	T9-13
Turbine Gas Temperature Indicator	T8-4
Turn and Slip Indicator	T8-10

Subject	Paragraph, Figure, Table
Vertical Velocity Indicator	T8-11
Voltmeter/Ammeter	T8-17
Wing Stores Jettison Circuitry	T9-27
XM-18 Minigun Circuitry	T9-26
XM65 TOW Missile	
Subsystem Circuitry	9-99
Troubleshooting and Operational Check —	
Main Rotor System	5-3
Troubleshooting and Tracking —	
Tail Rotor System	T5-2; 5-11
Tube — Diagonal Brace	2-23
Inspection	2-23a
Installation	F2-35; 2-23d
Removal	2-23b
Repair	2-23c
Tube, Skid, Repair	F3-4
Tube — Pitot Head	8-28
Cleaning	8-28a
Inspection	8-28b
Installation	8-28e
Removal	8-28c
Repair or Replacement	8-28d
Tubing and Hose	10-10
Tubing — Hose and Fittings	7-4
Fittings	7-4a
Hoses	7-4b
Tubes	7-4c
Turbine — Expansion Cooling (Refer to Expansion Cooling Turbine)	
Turbine Gas Temperature Indicators	8-17
Cleaning	8-17a
Functional Test	8-17d; 8-17c
Inspection	8-17b
Installation	8-17i
Removal	8-17g
Repair or Replacement	8-17h
TGI Indicator and Circuit	
Calibration	8-17e
Troubleshooting	F-32; T8-4; 8-17f
Turbine Gas Temperature Indicating System	8-16
Turbine Temperature Thermocouple Lead	
Spool Resistor	8-18
Cleaning	8-18a
Functional Test	8-18c
Inspection	8-18b
Installation	8-18e
Removal	8-18d
Turn and Slip Indicator (Refer to Indicator — Turn and Slip)	
Turret Guns, Removal	16-10

Subject	Paragraph, Figure, Table
Turret System Circuitry	9-78
Functional Test	9-79
Troubleshooting	F-7; 9-80
Turret Weapons Subsystem	16-1
U	
UNIVAC Electronic Interface Assembly	9-81
Universal Fitting Bolt —	
Damage Limits	F6-65
V	
Valve Circuitry — Fuel (Refer to Fuel Valve Circuitry)	
Valve — Control Temperature	F13-11; 13-11
Inspection	13-11b
Installation	13-11e
Removal	13-11a
Repair or Replacement	13-11c
Schematic	F13-12
Testing	13-11d
Valve — Distribution Air	13-4
Assembly	F13-4; 13-4g
Characteristics	13-4a
Cleaning	13-4d
Disassembly	13-4c
Inspection	13-4e
Installation	13-4k
Limits Chart	F16-3
Removal	13-4b
Repair or Replacement	13-4f
Test, Functional	13-4i
Test, Proof Pressure	13-4h
Troubleshooting	T13-2; 13-4j
Valve — Engine Oil Bypass	4-19
Cleaning	4-19b
Inspection	4-19c
Installation	4-19e
Removal	4-19a
Repair or Replacement	4-19d
Valve — Emergency Bypass, Transmission	
Oil Cooler	6-38
Assembly	F6-58; 6-38f
Cleaning	6-38c
Disassembly	6-38b
Functional Test and Final Adjustment	F6-67; F6-68; F6-73; 6-38g
Inspection	F6-59; F6-60; F6-61; F6-62 F6-63; F6-64; F6-65; F6-66; 6-38d
Installation	6-38h

Subject	Paragraph, Figure, Table
Removal	6-38a
Repair or Replacement	F6-69; F6-70 F6-71; F6-72; 6-38e
Valve — Engine Primer Solenoid	9-43
Valve — Flapper (Refer to Flapper Valve)	
Valve, Fuel — Circuitry	9-64
Functional Test	9-64a
Troubleshooting	F-16; T9-16; 9-64b
Valve — Fuel Shutoff (Refer to Fuel Shut-Off Valve)	
Valve — Lockout — Accumulator (Cyclic Controls)	F7-11A; 7-10
Cleaning	7-10b
Inspection	7-10c
Installation	7-10e
Removal	7-10a
Repair or Replacement	7-10d
Valve — Oil Cooler Bypass — Bench Test	F6-73
Valve — Relief, Pressure Regulating and Shutoff Valve	F13-13; 13-16
Inspection	13-16a
Repair or Replace	13-16b
Valve — Shutoff, Pressure Regulating	F13-13; 13-14
Cleaning	13-14b
Inspection	13-14c
Installation	13-14f
Removal	13-14a
Repair and Replacement	13-14d
Schematic	F13-14
Testing	13-14e
Valve — Solenoid (Refer to Solenoid Valve)	
Valve Pressure Regulating and Shutoff Solenoid	F13-13; 13-15
Inspection	13-15a
Repair or Replace	13-15b
Valve — TOW Solenoid Shutoff	
Inspection	7-20b
Installation	7-20c
Removal	7-20a
Valve — Transmission Oil Pressure Relief	F6-97A
Valve — Ventilator	13-5
Assembly	F13-9; 13-5f
Cleaning	13-5c
Disassembly	13-5b
Inspection	13-5d
Installation	F13-8; 13-5h
Removal	13-5a
Repair or Replace	13-5e
Testing After Repair	F13-10; 13-5g

Subject	Paragraph, Figure, Table
Valves, Solenoid — SCAS Servo	
Actuators, and Filters	7-13
Cleaning	7-13b
Inspection	7-13c
Installation	F7-17; 7-13e
Repair or Replacement	F7-18; 7-13d
Replace SCAS Filters	7-13f
Removal	7-13a
Valves, Solenoid — Stability Control	
Augmentation System	11-21
Functional Test	11-21e
Inspection	11-21a
Installation	11-21d
Removal	11-21b
Repair	11-21c
Vent and Drain Installation —	
Battery	F2-48A; 2-37
Inspection	2-37a
Installation	2-37d
Removal	2-37b
Repair	2-37c
Vent and Drain Installation — Fuel	2-34
Inspection	2-34a
Installation	2-34d
Removal	2-34b
Repair	2-34c
Vent and Drain Installation —	
Hydraulic	F2-48A; 2-36
Inspection	2-36a
Installation	2-36d
Removal	2-36b
Repair	2-36c
Vent and Drain Line — Engine	
Oil Tank	F2-48A; 2-35
Inspection	2-35a
Installation	2-35d
Removal	2-35b
Repair	2-35c
Vent and Drain Locations	F2-48A; 2-33A
Ventilating Ducts	13-7
Inspection	13-7a
Installation	13-7d
Removal	13-7b
Repair or Replacement	13-7c
Ventilator Valve	13-5
Assembly	F13-9; 13-5f
Cleaning	13-5c
Disassembly	13-5b
Inspection	13-5d
Inspection	F13-8; 13-5h
Removal	13-5a
Repair or Replacement	13-5e

Subject	Paragraph, Figure, Table	Subject	Paragraph, Figure, Table
Testing After Repair	F13-10; 13-5g	Repair	F2-43; 2-26d
Vertical Fin Honeycomb Panels	F2-19	Windows, Canopy — Stress Loads	F2-42
Vertical Fin Honeycomb Panels Damage Limits	F2-68A	Windows, Door Assembly, Pilot and Gunners Doors (Refer to Door Assembly Windows, Pilot and Gunners Doors)	
Vertical Fin Panel — Damaged Fastener (Insert) Replacement	2-6	Wing	F2-74; 2-63
Vertical Fin Panel — Loose Fastener (Insert) Repair	2-5	Inspection	2-63b
Vertical Velocity Indicator (Refer to Indicator, Vertical Velocity)		Installation	2-63c
Vertical Vibration Correction Chart	F5-3	Removal	2-63a
Vibration Tests, Engine	F4-3; 4-4	Wing Bumpers	F2-74; 2-65
Voltage Continuity Test — Wing Stores Ejector Racks	9-85	Wing Mounted Smoke Grenade Dispenser	F16-1; 16-3
Voltage Regulator (Refer to Regulator, Voltage)		Inspection	16-3b
Voltmeter/Ammeter (Refer to Ammeter/Voltmeter)		Installation	16-3d
W		Removal	16-3a
Warning and Caution Lights Systems	9-47	Repair or Replacement	16-3c
Warning Detector — Rpm Limit (Refer to Rpm Limit Warning Detector)		Troubleshooting	16-3e
Warning System, Radar — (AN/APR-39)	8-52A	Wing Skins and Panels	F2-76; F2-77; 2-64
Warning System — RPM Limit (Refer to RPM Limit Warning System)		Inspection	2-64a
Wear and Damage Limits —		Repair	F2-78; 2-64b
Anti-Torque System	F11-1A	Wing Skins, Doors and Doublers	F2-76
Collective Control System	F11-1C	Wing Stores Armament Systems Circuitry	9-83
Cyclic Control System	F11-1D	Functional Test	F9-14; F9-15; 9-84
Elevator Control System	F11-1B	Troubleshooting	F-7; T9-25; T9-26 T9-27; 9-86
Gunner Collective Stick	F11-4A	Wing Stores Ejector Racks Voltage Continuity Test	9-85
Wear Criteria — Driveshaft Coupling	F6-6	Wing Stores Pylon	F16-4
Wear Limits — Collective Lever		Wire List, XM65 Interconnection	F-4
Thrust Washer	F5-42	Wire Strike Protection System	F 2-54A; 2-44A
Main Rotor Mast	F6-30	Wire Strike Channel and Insert Inspection	2-44Af.
Coupling Teeth	F6-44	Wire Strike Channel and Insert Installation	2-44Ah.
Roller Bearing	F6-49	Wire Strike Channel and Insert Removal	2-44Ae.
Window Cutting Assembly (WCA)	17-2	Wire Strike Channel and Insert Repair	2-44Ag.
Actuating Mechanism	17-3	Wire Strike Cutter (Lower) Inspection	2-44Ar.
Inspection	17-2a	Wire Strike Cutter (Lower) Installation	2-44At.
Installation	F17-2; F17-3; F17-4; F17-5; 17-2d	Wire Strike Cutter (Lower) Removal	2-44Aq.
Removal	17-2b	Wire Strike Cutter (Lower) Repair	2-44As.
Repair or Replacement	17-2c	Wire Strike Cutter (Nose) Inspection	2-44An.
Windows — Canopy Assembly	2-26	Wire Strike Cutter (Nose) Installation	2-44Ap.
Application of Rain Repellant	2-26b	Wire Strike Cutter (Nose) Removal	2-44Am.
Cleaning	2-26a	Wire Strike Cutter (Nose) Repair	2-44Ao.
Inspection	2-26c	Wire Strike Cutter (Upper) Inspection	2-44Ab.
Installation	F2-43A; 2-26f	Wire Strike Cutter (Upper) Installation	2-44Ad.
Removal	2-26e	Wire Strike Cutter (Upper) Removal	2-44Aa.
		Wire Strike Cutter (Upper) Repair	2-44Ac.
		Wire Strike Deflector (Nose) Inspection	2-44Av.
		Wire Strike Deflector (Nose) Installation	2-44Ax.
		Wire Strike Deflector (Nose) Removal	2-44Au.

Subject	Paragraph Figure, Table
Wire Strike Deflector (Nose) Repair	2-44Aw.
Wire Strike Nose Deflector, Right and Left Inspection	2-44Aj.
Wire Strike Nose Deflector, Right and Left Installation	2-44Al.
Wire Strike Nose Deflector, Right and Left Removal	2-44Ai.
Wire Strike Nose Deflector, Right and Left Repair	2-44Ak.
Wiring Data	F-2
Abbreviations	F-2b
Definitions	B-6; B-3
Symbols	F-2c
Wiring Diagrams and Load Charts	F-1
Wiring Diagram Index	F-6
Wiring Identification	F-2a
Wiring Schematic — Simplified Electrical Bus	F9-1
Work Aid Application — Plunger and Piston	F6-72
Removal of Main Rotor Blade Retaining Bolt	F5-13
Armament Pylon Actuator Assembly/Disassembly	F7-21
Cockpit Air Blower Drive Quill Installation	F6-37

Subject	Paragraph Figure, Table
Driveshaft Hanger Support Alignment	F6-40B
Engine Mount Bearing Installation	F2-54
Input Drive Quill Installation	F6-34
Main Rotor Blade Bolt Removal	F5-12
Rigging Swashplate	F11-7
Seal Installation on Armament Pylon Actuator	F7-22
Servo Cylinder Removal	F7-13A
Tailboom Support Stand	F2-56
Towing Ground Handling Gear	F1-4

X

XM65 Interconnection Wire List	F-4
XM65 TOW Missile Subsystem Circuitry	F9-16; 9-90
Functional Test	9-91
Troubleshooting	F-7; 9-92

Y

Z

This manual is published for the use of all concerned.

By Order of the Secretary of the Army:

Official:

PAUL T. SMITH

*Major General, United States Army
The Adjutant General*

FRED C. WEYAND

*General, United States Army
Chief of Staff*

DISTRIBUTION:

To be distributed in accordance with DA Form 12-31 (qty rqr block no. 272)
Organizational Maintenance Requirements for AH-1S aircraft.

☆ U.S. GOVERNMENT PRINTING OFFICE : 1993 - 342-421 (80868)

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS



THEN... JOT DOWN THE
DOPE ABOUT IT ON THIS
FORM. CAREFULLY TEAR IT
OUT, FOLD IT AND DROP IT
IN THE MAIL!

SOMETHING WRONG WITH THIS PUBLICATION?

FROM (PRINT YOUR UNIT'S COMPLETE ADDRESS)
CDR, 1st Br, 65th ADA
ATTN: SP4 J. Brown
Key West, FL 33040

DATE SENT
10 Jun 79

PUBLICATION NUMBER
TM 9-1430-550-34-1

PUBLICATION DATE
7 Sep 72 .

PUBLICATION TITLE Unit of Radar Set
AN/MPQ-50 Tested at the HFC

BE EXACT PIN-POINT WHERE IT IS

PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO
9-19		9-5	
21-2	step 1C	21-2	

SAMPLE

IN THIS SPACE TELL WHAT IS WRONG
AND WHAT SHOULD BE DONE ABOUT IT:

"B" Ready Relay K11 is shown with two #9 contacts. That contact which is wired to pin 8 of relay K16 should be changed to contact #10.

Reads: Multimeter B indicates 600 K ohms to 9000 K ohms.

Change to read: Multimeter B indicates 600 K ohms minimum.

Reason: Circuit being checked could measure infinity. Multimeter can read above 9000 K ohms and still be correct.

PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER

SP4 J.T. Brown, Jr.

SIGN HERE

SP4 James Brown, Jr.

DA FORM 2028-2
2 JUL 79

REPLACES DA FORM 2028-2, 1 APR 78 WHICH
WILL BE USED UNTIL EXHAUSTED

P.S.—IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR
RECOMMENDATION MAKE A CARBON COPY OF THIS
AND GIVE IT TO YOUR HEADQUARTERS.

REVERSE OF DA FORM 2026-2 Reverse of DRSTS-M Overprint 2,
1 Nov 88

FILL IN YOUR
UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

OFFICIAL BUSINESS

Commander
US Army Aviation Systems Command
ATTN: AMSAV-MC
4300 Goodfellow Boulevard
St. Louis, MO 63120-1798

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS



THEN... JOT DOWN THE
DOPE ABOUT IT ON THIS
FORM. CAREFULLY TEAR IT
OUT, FOLD IT AND DROP IT
IN THE MAIL!

SOMETHING WRONG WITH THIS PUBLICATION?

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER

TM 55-1520-234-23-2

PUBLICATION DATE

30 SEP 76

PUBLICATION TITLE

AVUM & AVIM AH-1S (MOD)

BE EXACT. PIN-POINT WHERE IT IS

PAGE
NO

PARA-
GRAPH

FIGURE
NO

TABLE
NO

IN THIS SPACE TELL WHAT IS WRONG
AND WHAT SHOULD BE DONE ABOUT IT:

PRINTED NAME GRADE OR TITLE AND TELEPHONE NUMBER

SIGN HERE

DA FORM 2028-2
1 JUL 79

PREVIOUS EDITIONS
ARE OBSOLETE

P.S. --IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR
RECOMMENDATION MAKE A CARBON COPY OF THIS
AND GIVE IT TO YOUR HEADQUARTERS

REVERSE OF DA FORM 2025-2 Reverse of DRSTSM Overprint 2,
1 Nov 80

FILL IN YOUR
UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

OFFICIAL BUSINESS

Commander
US Army Aviation Systems Command
ATTN: AMSAV-MC
4300 Goodfellow Boulevard
St. Louis, MO 63120-1798

THIS AREA PERFORATED LINE

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS					
<i>THEN... JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT. FOLD IT AND DROP IT IN THE MAIL!</i>		SOMETHING WRONG WITH THIS PUBLICATION?			
		FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)			
		DATE SENT			
PUBLICATION NUMBER TM 55-1520-234-23-2		PUBLICATION DATE 30 SEP 76		PUBLICATION TITLE AVUM & AVIM AH-1S (MOD)	
BE EXACT. PIN-POINT WHERE IT IS				IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:	
PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO		
PRINTED NAME GRADE OR TITLE AND TELEPHONE NUMBER				SIGN HERE	

DA FORM 2028-2
1 JUL 79

PREVIOUS EDITIONS
ARE OBSOLETE

P.S.-IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS

REVERSE OF DA FORM 2020-2 Reverse of DRSTM Overprint 2,
1 Nov 80

FILL IN YOUR
UNIT'S ADDRESS

FOLO BACK

DEPARTMENT OF THE ARMY

OFFICIAL BUSINESS

Commander
US Army Aviation Systems Command
ATTN: AMSAV-MC
4300 Goodfellow Boulevard
St. Louis, MO 63120-1798

TEAR ALONG PERFORATED LINE

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS



THEN... JOT DOWN THE
DOPE ABOUT IT ON THIS
FORM. CAREFULLY TEAR IT
OUT. FOLD IT AND DROP IT
IN THE MAIL!

SOMETHING WRONG WITH THIS PUBLICATION?

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER

TM 55-1520-234-23-2

PUBLICATION DATE

30 SEP 76

PUBLICATION TITLE

AVUM & AVIM AH-1S (MOD)

BE EXACT. PIN-POINT WHERE IT IS

PAGE
NO

PARA-
GRAPH

FIGURE
NO

TABLE
NO

IN THIS SPACE TELL WHAT IS WRONG
AND WHAT SHOULD BE DONE ABOUT IT:

PRINTED NAME GRADE OR TITLE AND TELEPHONE NUMBER

SIGN HERE

DA FORM 2028-2
1 JUL 79

PREVIOUS EDITIONS
ARE OBSOLETE

P.S. - IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR
RECOMMENDATION MAKE A CARBON COPY OF THIS
AND GIVE IT TO YOUR HEADQUARTERS

REVERSE OF DA FORM 2020-2 Reverse of DRSTSM Overprint 2,
1 Nov 80

FILL IN YOUR
UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

OFFICIAL BUSINESS

Commander
US Army Aviation Systems Command
ATTN: AMSAV-MC
4300 Goodfellow Boulevard
St. Louis, MO 63120-1798

TEAM ALONE - OPERATES LINE

