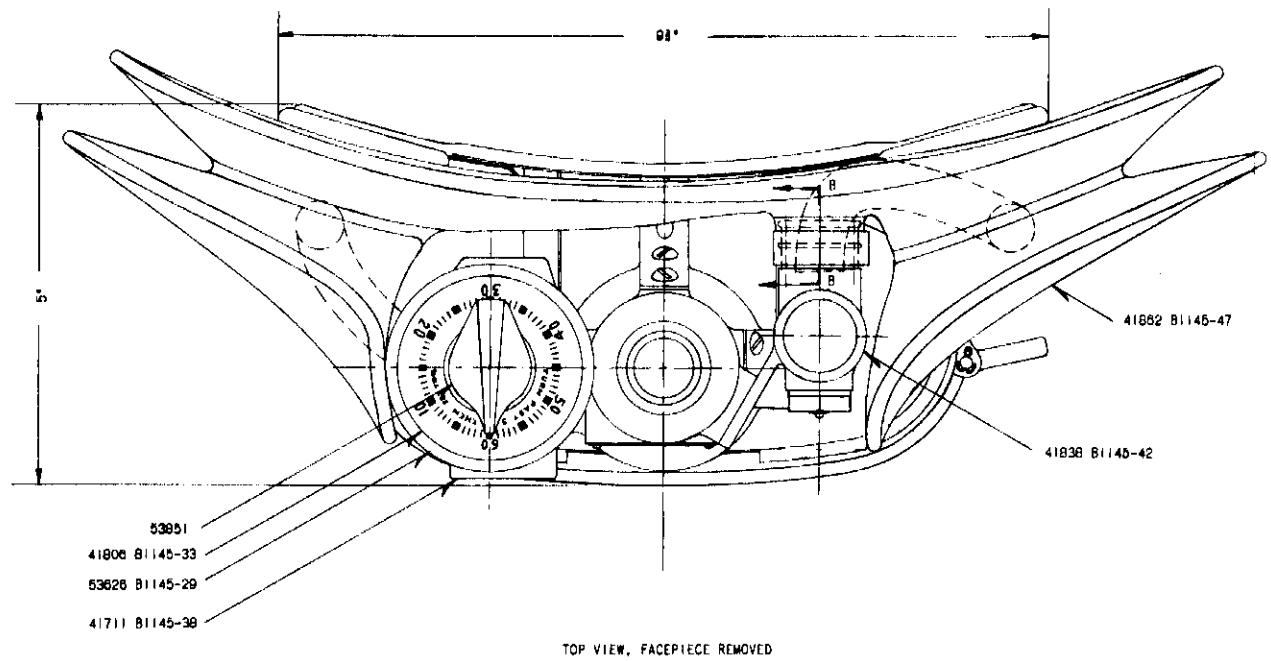
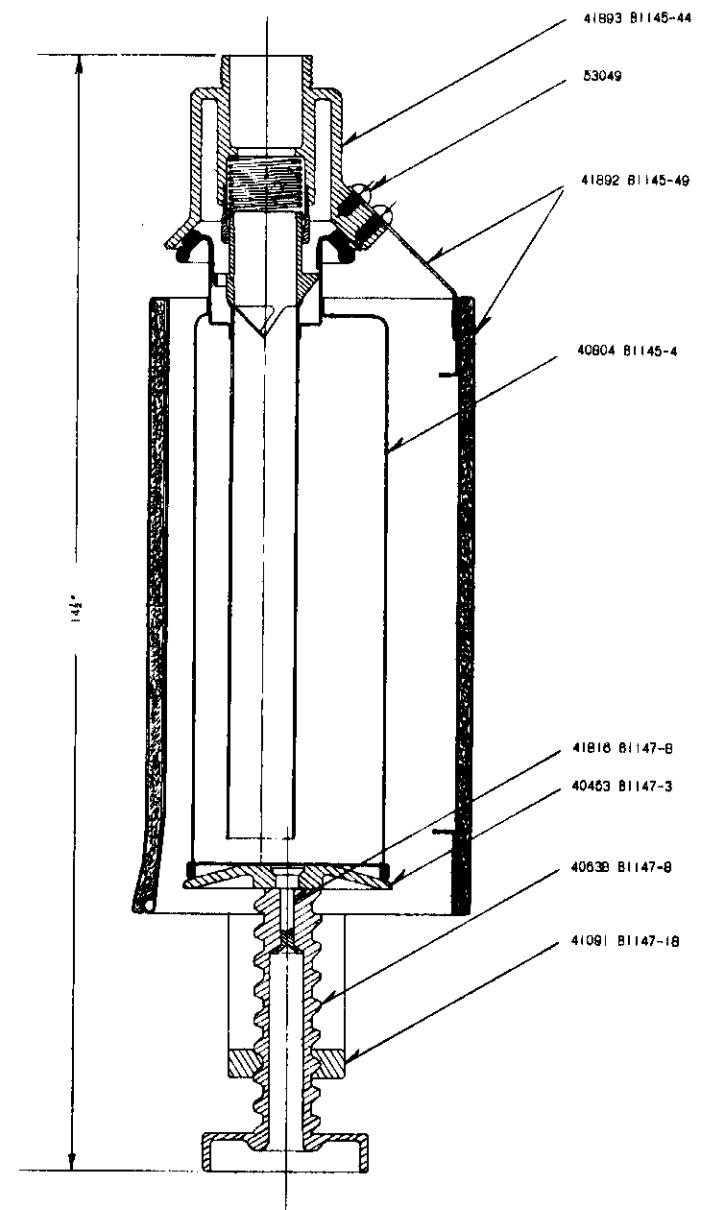
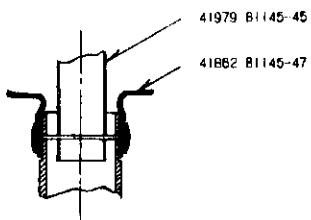


Note:- Part Numbers shown on this page are for reference only. Do not use for ordering spare parts. Use parts list, Pages 39, 40 and 41.

ASSEMBLY DRAWING OF COMPLETE TYPE A-1 APPARATUS  
(WITH CANISTER) SHOWING VARIOUS PARTS

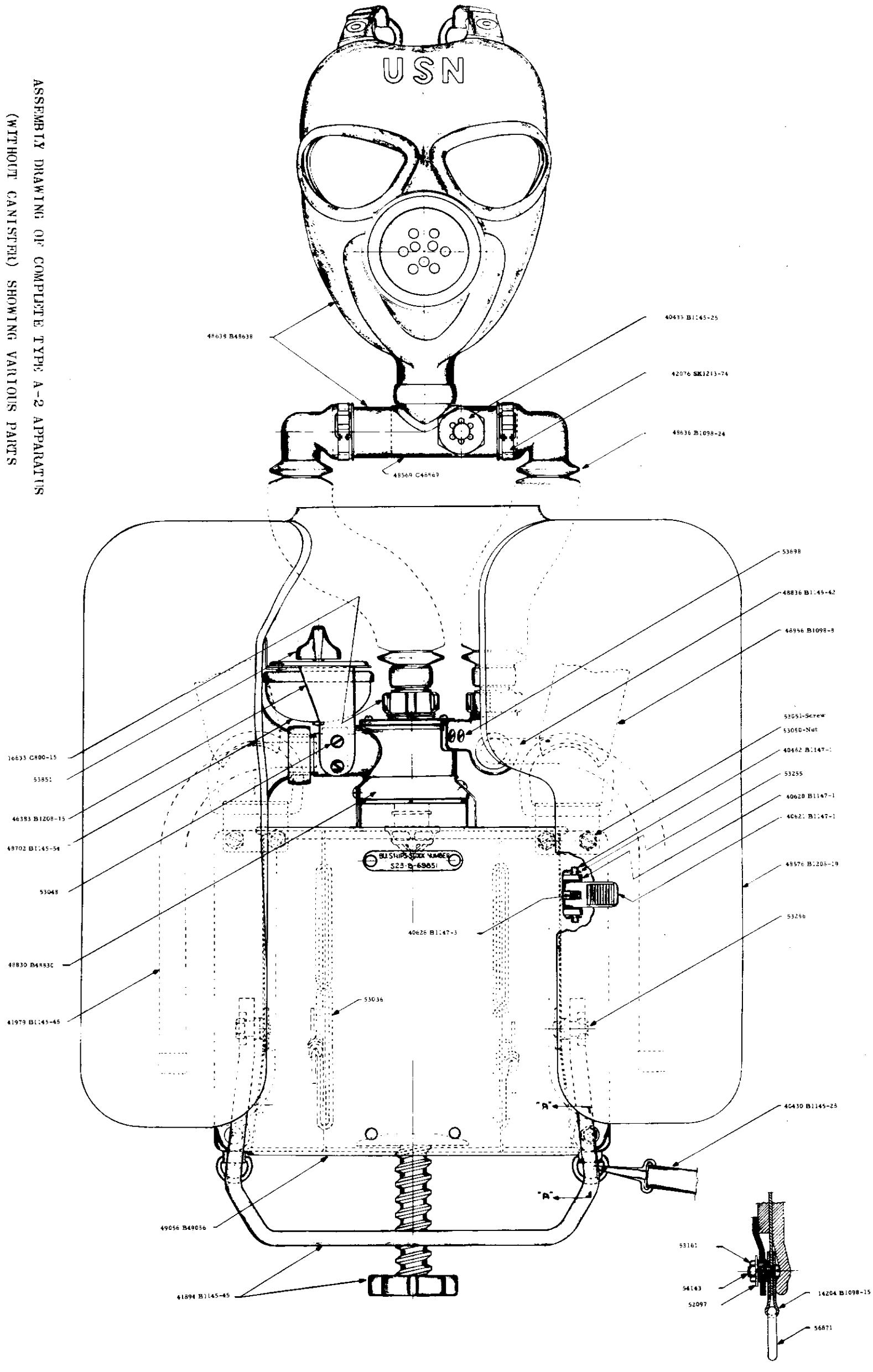


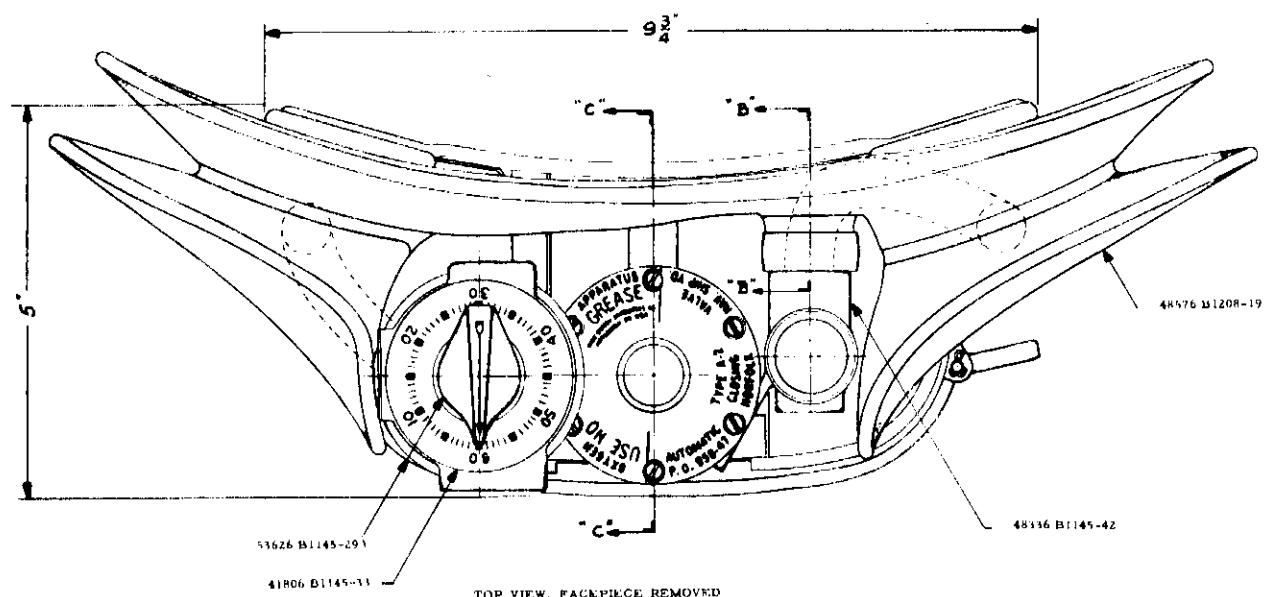
Note:- Part Numbers shown on this page for reference only. Do not use for ordering spare parts. Use parts list Pages 39, 40 and 41.



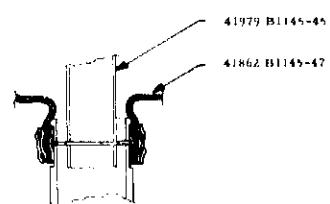
ASSEMBLY DRAWING OF COMPLETE TYPE A-1 APPARATUS  
(WITH CANISTER) SHOWING VARIOUS PARTS

ASSEMBLY DRAWING OF COMPLETE TYPE A-2 APPARATUS  
(WITHOUT CANISTER) SHOWING VARIOUS PARTS

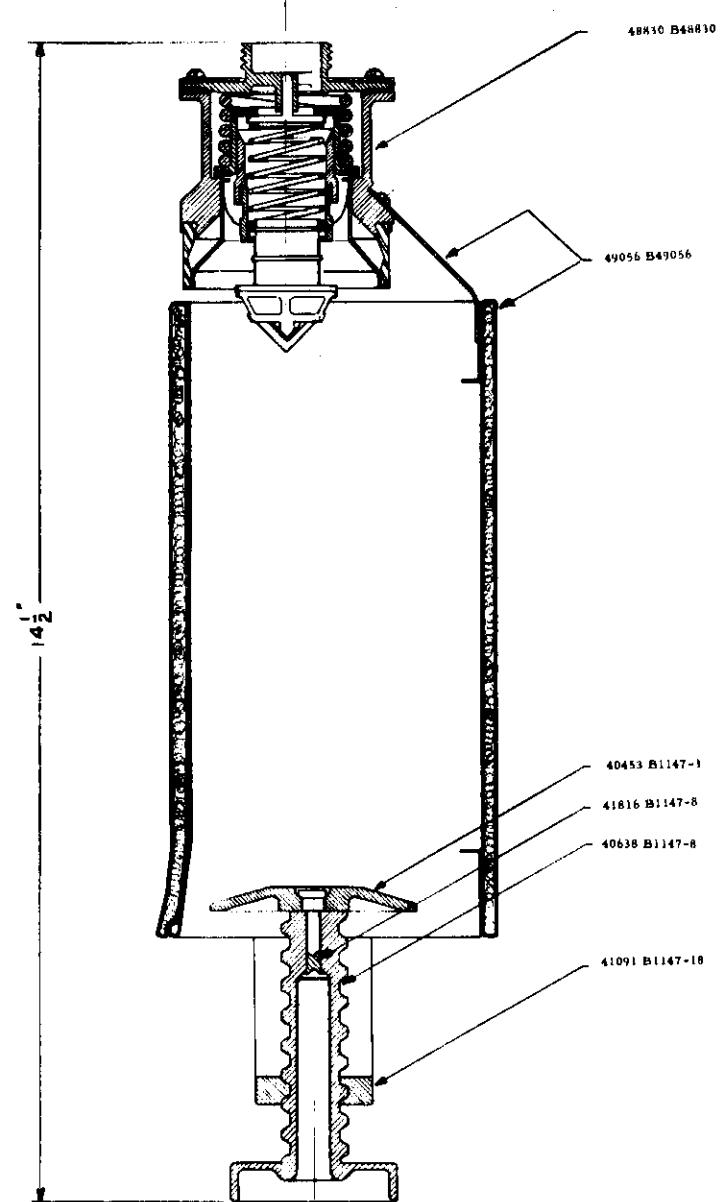




TOP VIEW, FACEPIECE REMOVED



SECTION "B-B"  
(THRU BAG CONNECTION)



SECTION "C-C"

ASSEMBLY DRAWING OF COMPLETE TYPE A-2 APPARATUS (WITHOUT CANISTER) SHOWING VARIOUS PARTS

PARTS LIST FOR OXYGEN  
BREATHING APPARATUS-NAVY TYPE A-1 & A-2

M.S.A. Part Number	SPSS Stock Number	Description
3532	H23-MS-30020	Breathing Tube Coupling Rubber Gasket
8376	H23-MS-30021	Starter Valve Rubber Gasket
16528	H23-MS-30006	Speaking Diaphragm Retainer
16529	H23-MS-30004	Speaking Diaphragm Guard
16530	H23-MS-30027	Diaphragm, 4 Ply
16531	H23-MS-30003	Speaking Diaphragm Gasket
16532	H23-MS-30007	Speaking Diaphragm Spacer
16533	H23-MS-30005	Rubber Mouthpiece
16633	H23-MS-30099	Breathing Tube Coupling Nut
16726	H23-MS-30106	Spanner Wrench for Breathing Tube Couplings
17548	H23-MS-30098	Starter Valve Spring
17554	H23-MS-30026	Breathing Tube Coupling Insert
40430	H23-MS-30034	Waist Strap (Complete)
40433	H23-MS-30041	Starter Valve Housing And Stem (Complete)
40441	H23-MS-30016	Speaking Diaphragm (Complete)
40448	H23-MS-30069	Insert, Diaphragm Body
40453	H23-MS-30031	Pressure Plate
40470	H23-MS-30014	Clamp, Diaphragm
40482	H23-MS-30100	Canister Stop Lever Pin
40620	H23-MS-30011	Canister Stop Base
40621	H23-MS-30030	Canister Stop Lever
40628	H23-MS-30097	Canister Stop Lever Spring
40638	H23-MS-30032	Spindle

M.S.A. Part Number	SPSS Stock Number	
40804	S23-C-1810 #	Canister
41091	H23-MS-30009	Bail
41806	H23-MS-30015	Timer Dial
41816	H23-MS-30028	Pressure PI
41892	H23-MS-30022	Guard & Bret
41893	H23-MS-30025	Main Valve As:
41894	H23-MS-30010	Bail, Complete
41897	H23-MS-30024	Headharness, Complete
41979	H23-MS-30037	Woven Wire Tube
42076	H23-MS-30107	Breathing Tube Clamp
46383		Timer Bracket with Guard
46405	H23-MS-30038	Removable Exhalation Valve, Complete
46409	H23-MS-30040	Removable Inhalation Valve, Complete
48834	H23-MS-30071	Facepiece Valve, less Inhalation and Exhalation Valves
48569	H23-MS-30039	Facepiece Valve, Complete With Removable Valves
48576	H23-MS-30111	Breathing Bag, Type A, A-1 or A-2
48636	H23-MS-30036	Breathing Tubes (Separate)
48638	H23-MS-30018	Facepiece, Complete With Breathing Tubes, Headharness, and Valve Ass'y.
48702	H23-MS-30035	Timer, Complete With Bracket
48829	H23-MS-30019	Speaking Diaphragm Type Facepiece Less Head Harness and Breathing Tubes
48830	H23-MS-30112	Main Valve Assembly Type A-2, Complete With Mounting Screws (Gov. furnished)
48836	H23-MS-30017	Inhalation Elbow
48956	H23-MS-30023	Harness (Complete)

M.S.A. Part Number	SPSS Stock Number	
49075	37-K-380*	Anti-Foggi
53036	H23-MS-30131	Thong, Le
53048		Screw Rd. 1/4" Brass
53049		Main Valve 3/16" Brass
53050		Nut for Harn.
53051		Screw for Harness Cad. Plated
53255		Canister Stop Cotterpi.
53256		1/4" x 20 NC 1 Stainless S.
53698		Screw Flat Head For Inhalation #10-24 x 5/16" Brass Cad. Plated
53851	H23-MS-30123	Timer Knob
54143		Screw for Waist Strap Dee Ring, #6-32 x 1/2
55127	H23-MS-30012	Timer Bell
55797	H23-MS-30070	Timer Compt. less Bracket
57026	H23-MS-30108	Timer Main Spring

\* General Stores Stock Number

# Bu Ship Special Material Stock Number



40621



40628



40620

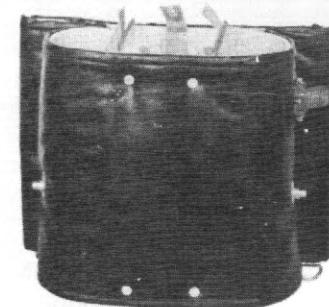


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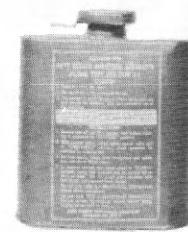
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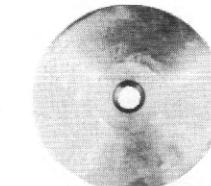
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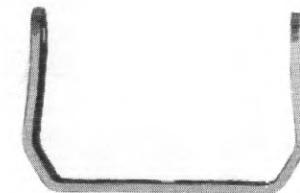
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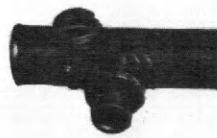
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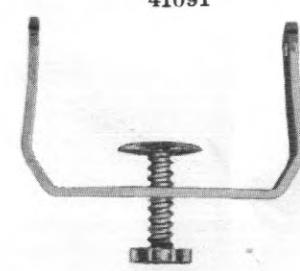
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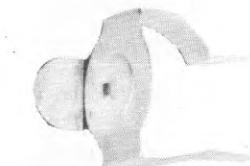
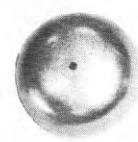
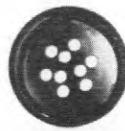
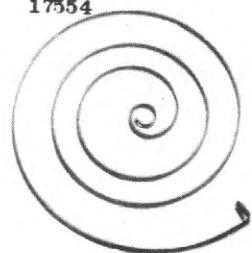
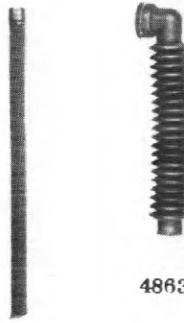
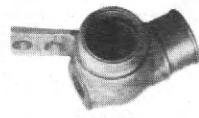
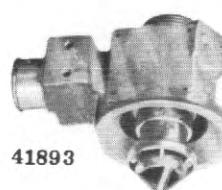
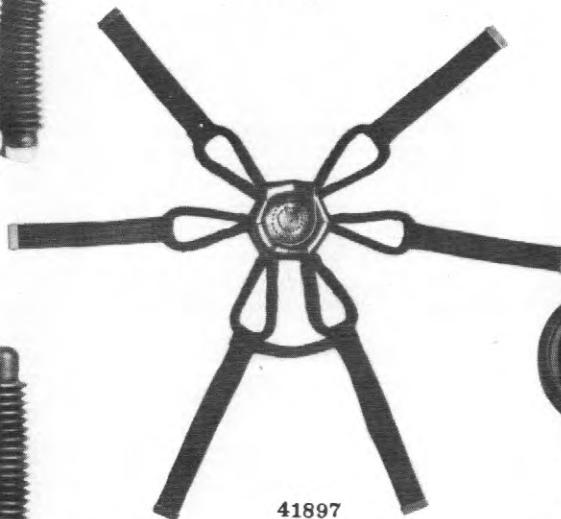
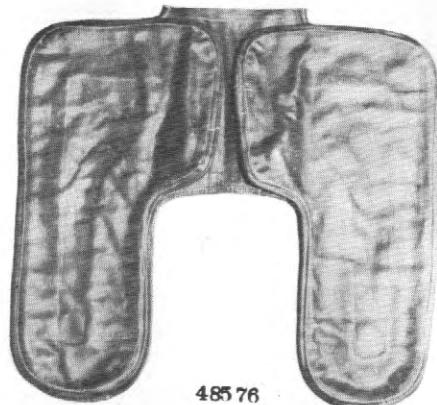
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SUMMARIZED OPERATING INSTRUCTIONS

1. Before donning apparatus, unfasten and straighten all harness straps.
2. Grasp apparatus with one hand by central casting dropping facepiece over



hand holding apparatus, with other hand grasp D-Ring assembly with breathing tubes hanging forward. Put breast plate on chest and head through v-shaped opening formed by the crossing of two straps attached to breast plate.

3. Hold apparatus on chest with one hand and with other reach around to rear at one side grasping free end of harness strap passing over

the opposite shoulder. Bring end of strap beneath armpit and snap into metal D-Ring on top side of breast plate. This is same D-Ring to which is attached other end of opposite strap. Repeat procedure for other strap.

4. Adjust position of apparatus on body by metal slides located on harness straps. Position of apparatus on body should be such that when facepiece is placed on face, breathing tubes will permit the wearer to look up or down without having the facepiece shift or catch on the timer or main valve housing.
5. Attach waist strap to small D-Ring on lower side corners of breast plate and adjust to hold apparatus snugly to body.
6. To place canister in apparatus, remove metal protective cap, metal and cardboard discs and expose the metallic foil seal in neck by pulling metal tab straight out and then straight back across top of cap pulling off cap. With handwheel in extreme "DOWN" position, swing bail outward and insert canister in guard against canister stop. Place bail under canister and

Lock canister in place by turning handwheel clockwise. Apparatus is now ready for "STAND-BY" service. Before inserting canister make sure the protective tear-off cap, metal and cardboard discs have been removed.

7. "OPERATING" position is obtained by releasing handwheel one half turn, pushing in canister stop and turning handwheel up until tight contact of the canister gasket against the main valve housing has been made.



8. Slip on facepiece and adjust head straps to fit face and head size of individual.



9. To obtain firm and comfortable fit against face at all points adjust headbands as follows:

- (a) See that straps lie flat against head.
- (b) Tighten lower or "Neck" straps.
- (c) Tighten "Side" straps. (Don't touch "Front" straps).
- (d) Place both hands on headband and push toward neck.
- (e) Repeat operations (b) and (c).
- (f) Tighten forehead or "Front" straps.
- (g) Test for tightness of facepiece by squeezing breathing tubes and inhaling slowly. A tight facepiece will collapse against face and remain there.

10. With the facepiece of either the type A-1 or type A-2 apparatus adjusted and checked for an airtight fit, grasp both breathing tubes with one hand, squeeze tightly, depress starter valve and inhale deeply, release starter valve and tubes and exhale into apparatus.

Repeat for 3 or 4 breaths or until breathing bag is fully inflated.

Lift side of facepiece and deflate breathing bag.

Repeat inflation and deflation until bottom of canister feels warm, then proceed with work to be done.

If canister has been chilled in temperatures below 50° F. repeat starting procedure until bottom and top feel warm, then proceed with work to be done.

When changing canisters in a toxic or smoke filled atmosphere while wearing the type A-2 apparatus, BE SURE the new canister is ready to be inserted before removing the used one.

Catch the used one as it slides out and set it in a safe place or hand it to the messenger.

Insert the new canister, be sure to depress the canister stop so the canister can be seated properly.

Remain standing still and take slow deep breaths until the bottom of the canister begins to feel warm or until 10 breaths have been taken.

Remember that the air contained in the apparatus is used for starting the canister, DO NOT use the starter valve.

If canister does not begin to feel warm by the time 10 breaths have been taken, go to a compartment where fresh air is available.

Always make sure that the used canister is placed where oil or oil and water cannot come in contact with the chemical.

THE TYPE A-1 APPARATUS IS NOT CONSTRUCTED TO PERMIT CHANGING OF CANISTERS IN A TOXIC OR SMOKE FILLED ATMOSPHERE.

11. Immediately upon inflating bag turn pointer on timer dial clockwise to number 30, and proceed with work. As apparatus is used pointer will return to zero at which point bell will sound.
12. Upon sounding of timer bell, indicating canister has been in use 30 or 45 minutes, in case of excessive fogging of facepiece lens, or when it becomes an effort to exhale and test indicates that resistance is not due to over-inflation of breathing bags, immediately return to fresh air or insert new canister. Remember the approximate life of a canister in continuous use is 45 minutes.



CAUTION: DO NOT ALLOW ANY LIQUID, ESPECIALLY OIL, GREASE OR GASOLINE, ETC., TO ENTER OPENING OF USED CANISTER AND DO NOT HOLD FACE OVER CANISTER OPENING.  
SHOULD THE CANISTER BE OPENED DO NOT HANDLE CHEMICAL WITHOUT SUITABLE CARE AND PROTECTION TO HANDS AND BODY, AS CHEMICAL IS CAUSTIC AND IS INJURIOUS TO THE SKIN, AND SHOULD NOT BE PERMITTED TO COME IN CONTACT WITH THE PERSON. DO NOT ALLOW UNEXPENDED OR EXPENDED CHEMICALS TO SPILL ON DECK. IF ACCIDENTALLY SPILLED, CLEAN UP IMMEDIATELY AND DUMP OVERBOARD USING A METAL OR NON-INFLAMMABLE MATERIAL FOR SCOOP. THIS CHEMICAL, DUE TO THE LARGE PERCENTAGE OF OXYGEN IT CONTAINS, WILL CAUSE COMBUSTION OF ANY INFLAMMABLE MATERIALS WITH WHICH IT IS BROUGHT INTO DIRECT CONTACT ESPECIALLY IF SUCH MATERIALS ARE MOIST. EXPENDED CANISTERS SHOULD BE DUMPED OVERBOARD.

OIL, GASOLINE OR SIMILAR MATERIALS COMING IN CONTACT WITH THE CHEMICAL IN EITHER THE UNEXPENDED OR THE EXPENDED CANISTERS WILL CAUSE AN EXPLOSION. CANISTERS SHOULD NOT BE DUMPED OVERBOARD WHERE THERE IS AN OIL SLICK PRESENT ON THE WATER. DISPOSAL OVERBOARD SHOULD NOT BE MADE UNTIL THE VESSEL IS UNDERWAY. DO NOT THROW SPENT CANISTERS IN BILGES OR ANY SPACE WHICH MAY CONTAIN OIL OR OIL AND WATER.