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DEPARTMENT OF THE ARMY TECHNICAL MANUAL

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INCORPORATED

OPERATOR'S MANUAL

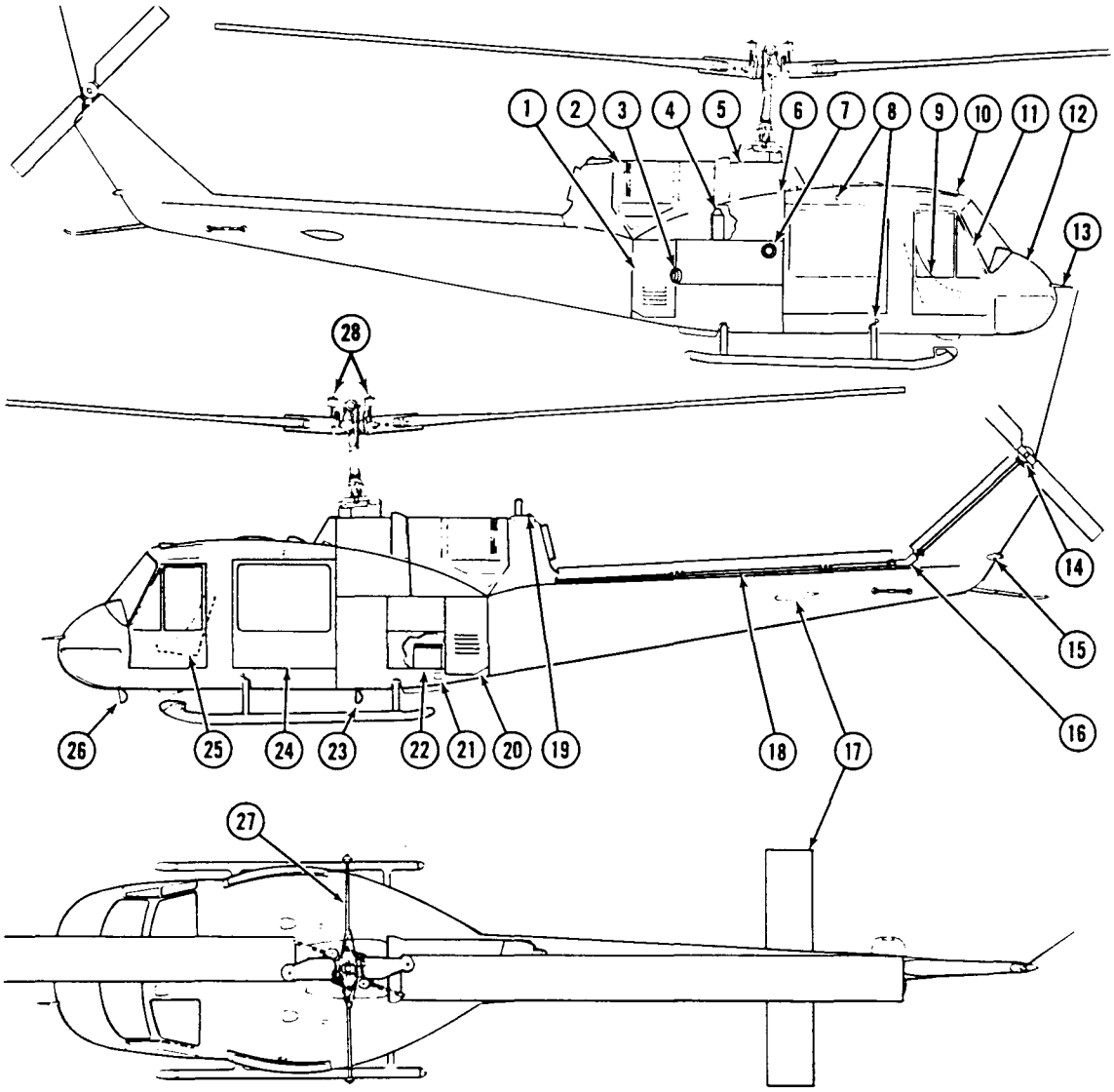
ARMY MODEL UH-1B HELICOPTER

This copy is a reprint which includes current pages from Changes 1 and 2.

HEADQUARTERS, DEPARTMENT OF THE ARMY

JANUARY 1969

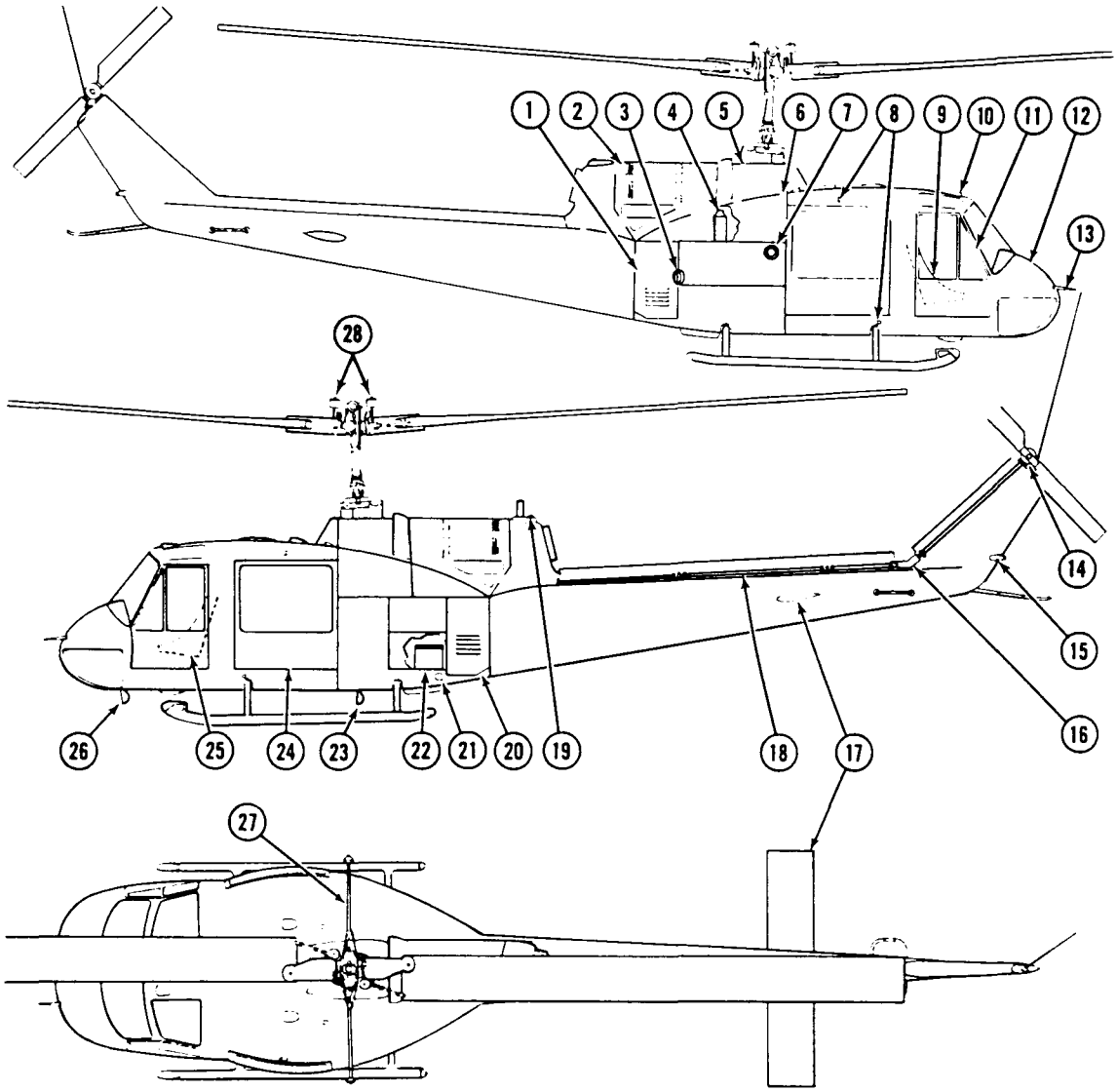
MASTER



1. Aft Cargo
2. Engine Compartment
3. Heating Burner & Blower Unit
4. Oil Reservoir
5. Transmission
6. Hydraulic Oil Reservoir
7. Fuel Tank Filler
8. Navigation Light (4)
9. Pilot's Station
10. Cabin Ventilator (4)
11. Pilot's Entrance Door
12. Electronic Equipment Compartment
13. Pitot Tube
14. Tail Rotor (90°) Gear Box
15. Aft Navigation Light
16. Tail Rotor Intermediate (42°) Gear Box
17. Synchronized Elevator
18. Tail Rotor Drive Shaft
19. Anti-Collision Light
20. Electrical Equipment Compartment
21. External Power Receptacle
22. Battery
23. Landing Light
24. Cargo-Passenger Compartment
25. Copilot's Station
26. Search Light
27. Stabilizer Bar
28. Collective Counterweights

AV 005882

Figure 2-2. General arrangement



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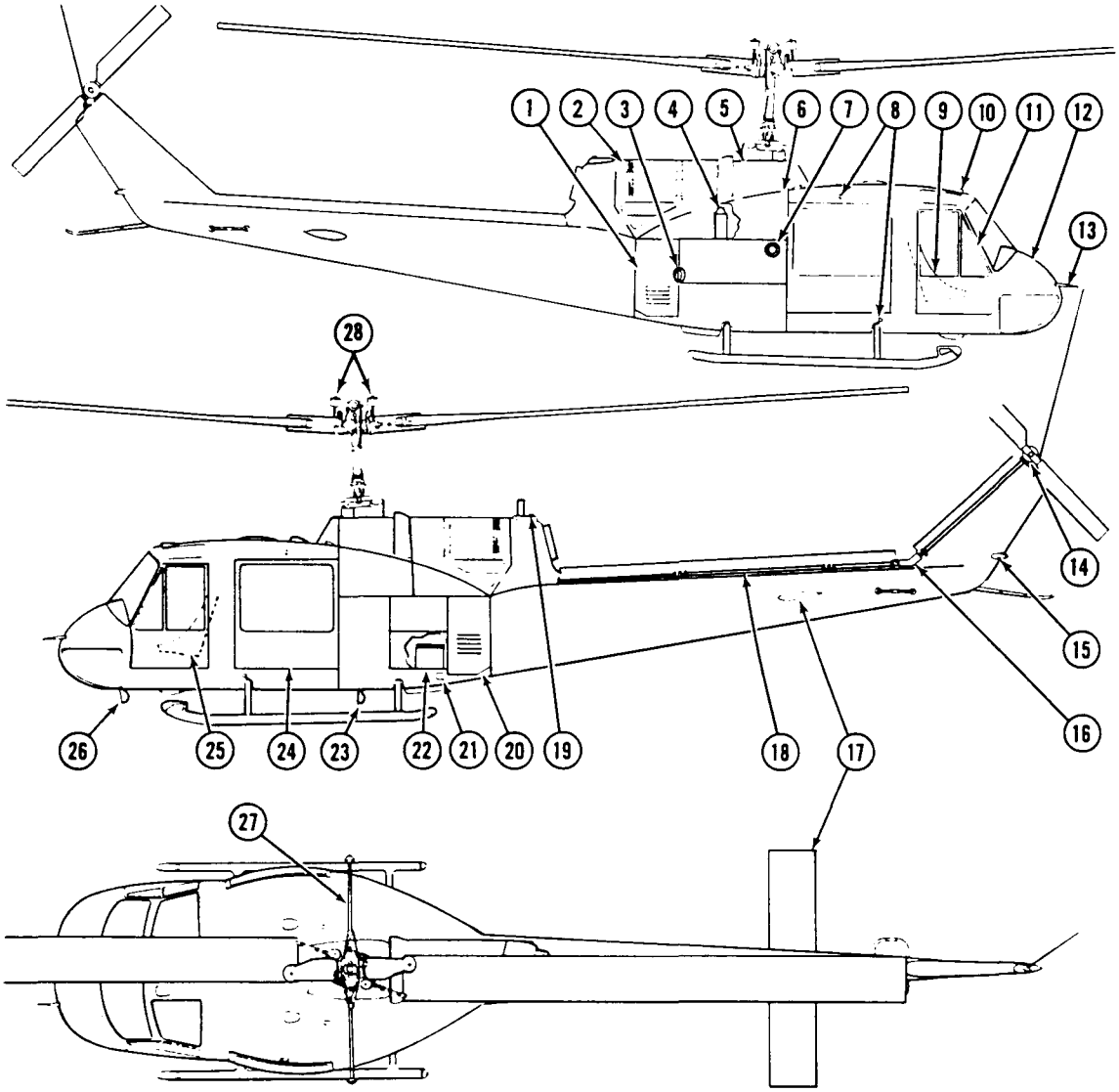

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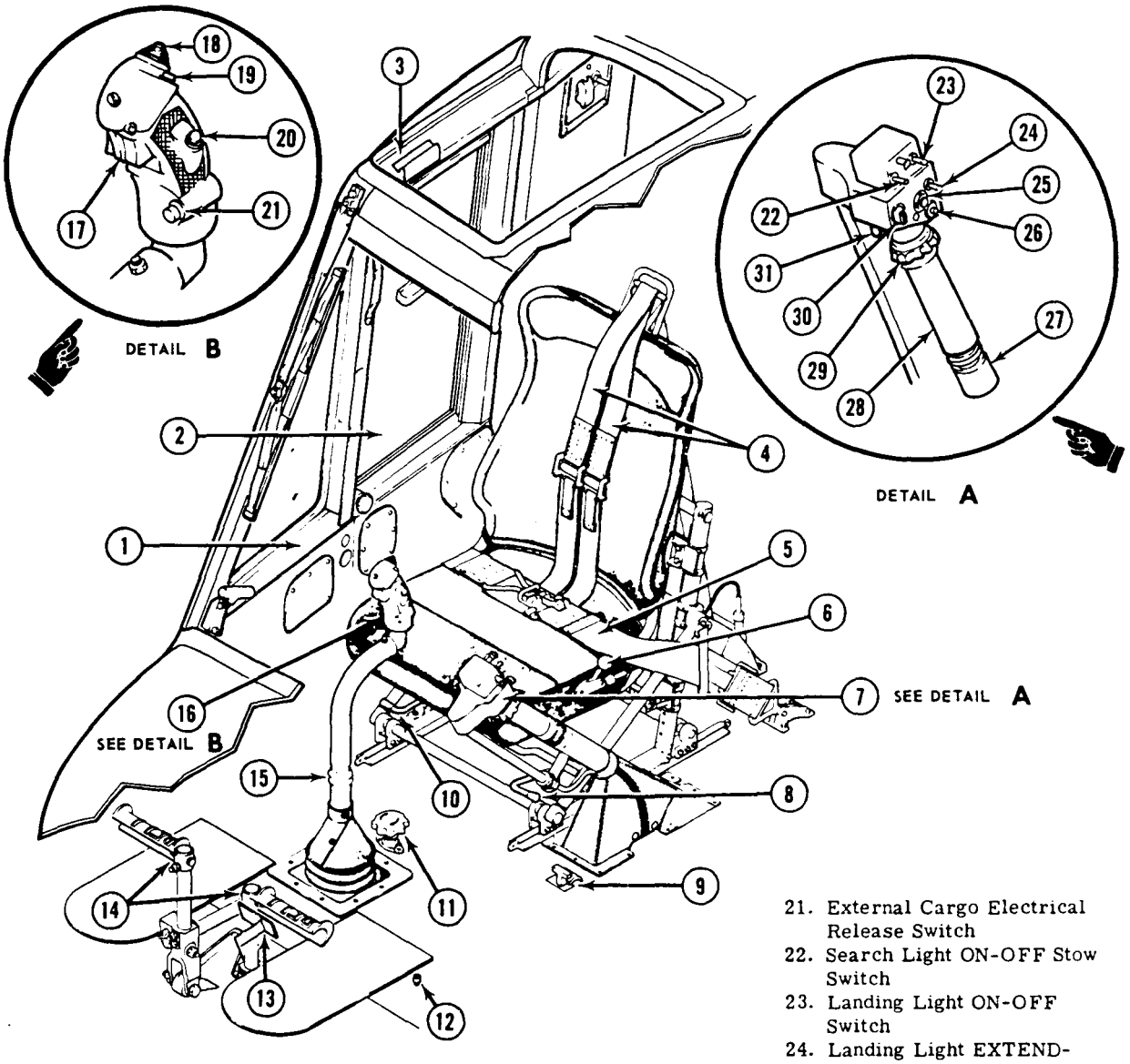
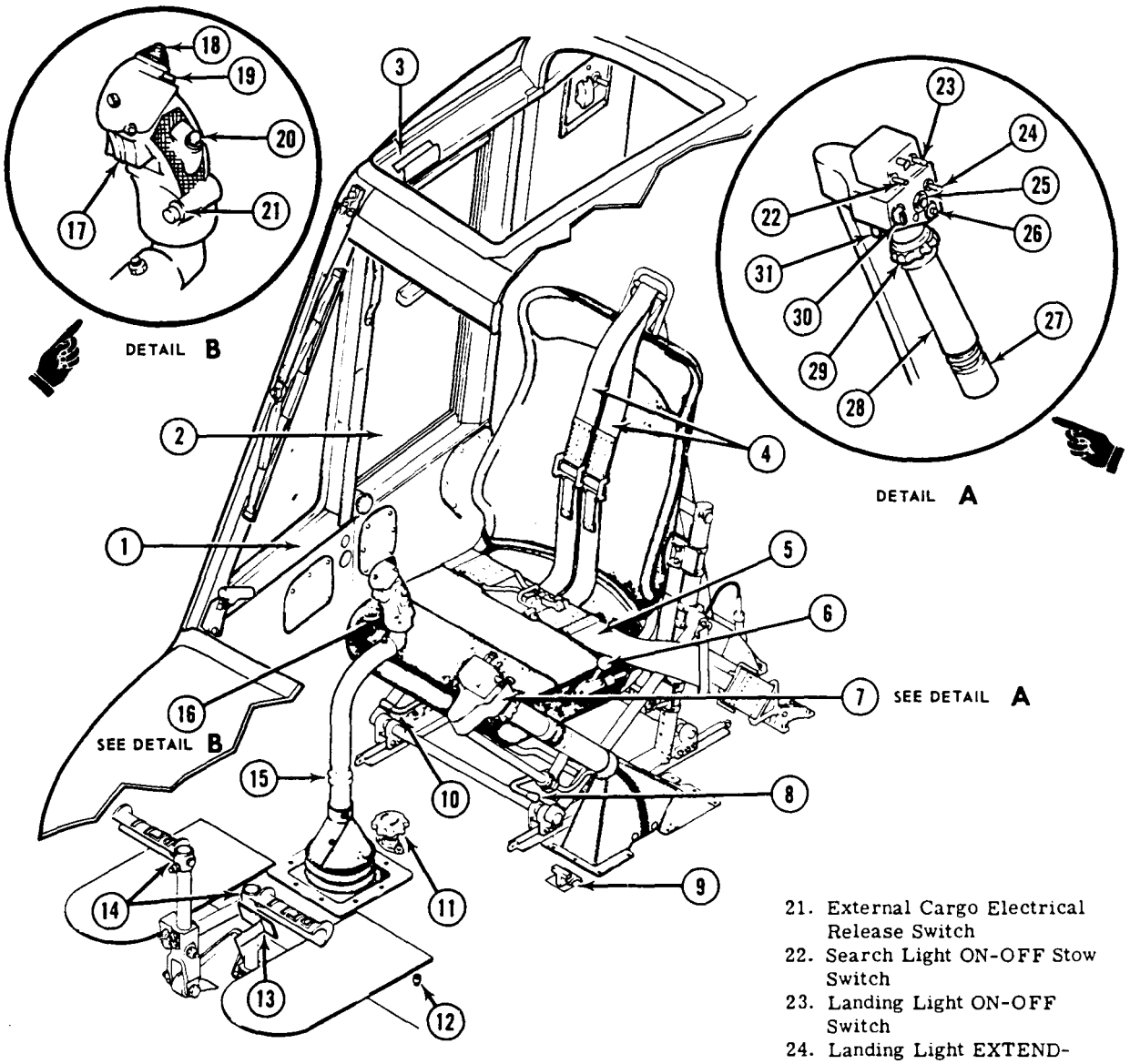


1. Pilot's Entrance Door
2. Sliding Window Panel
3. Hand Hold
4. Shoulder Harness
5. Seat Belt
6. Shoulder Harness Lock-Unlock Control
7. Collective Pitch Control Lever
8. Seat Adjustment Fore and Aft
9. Collective Pitch Down Lock
10. Seat Adjustment Vertical
11. Directional Control Pedal Adjuster
12. Microphone Foot Switch
13. External Cargo Mechanical Release
14. Directional Control Pedals
15. Cyclic Control Friction Adjuster
16. Cyclic Control Stick
17. Microphone Trigger Switch
18. Hoist Switch
19. Force Trim Switch
20. Armament Fire Control Switch
21. External Cargo Electrical Release Switch
22. Search Light ON-OFF Stow Switch
23. Landing Light ON-OFF Switch
24. Landing Light EXTEND-RETRACT Switch
25. Search Light EXTEND-RETRACT LEFT-RIGHT Control Switch
26. Engine Idle Release Switch
27. Collective Pitch Control Friction Adjuster
28. Throttle Twist Grip
29. Throttle Friction Adjuster
30. Governor RPM INCREASE-DECREASE Switch
31. Starter Ignition Trigger Switch

Figure 2-3. Pilot's station – typical



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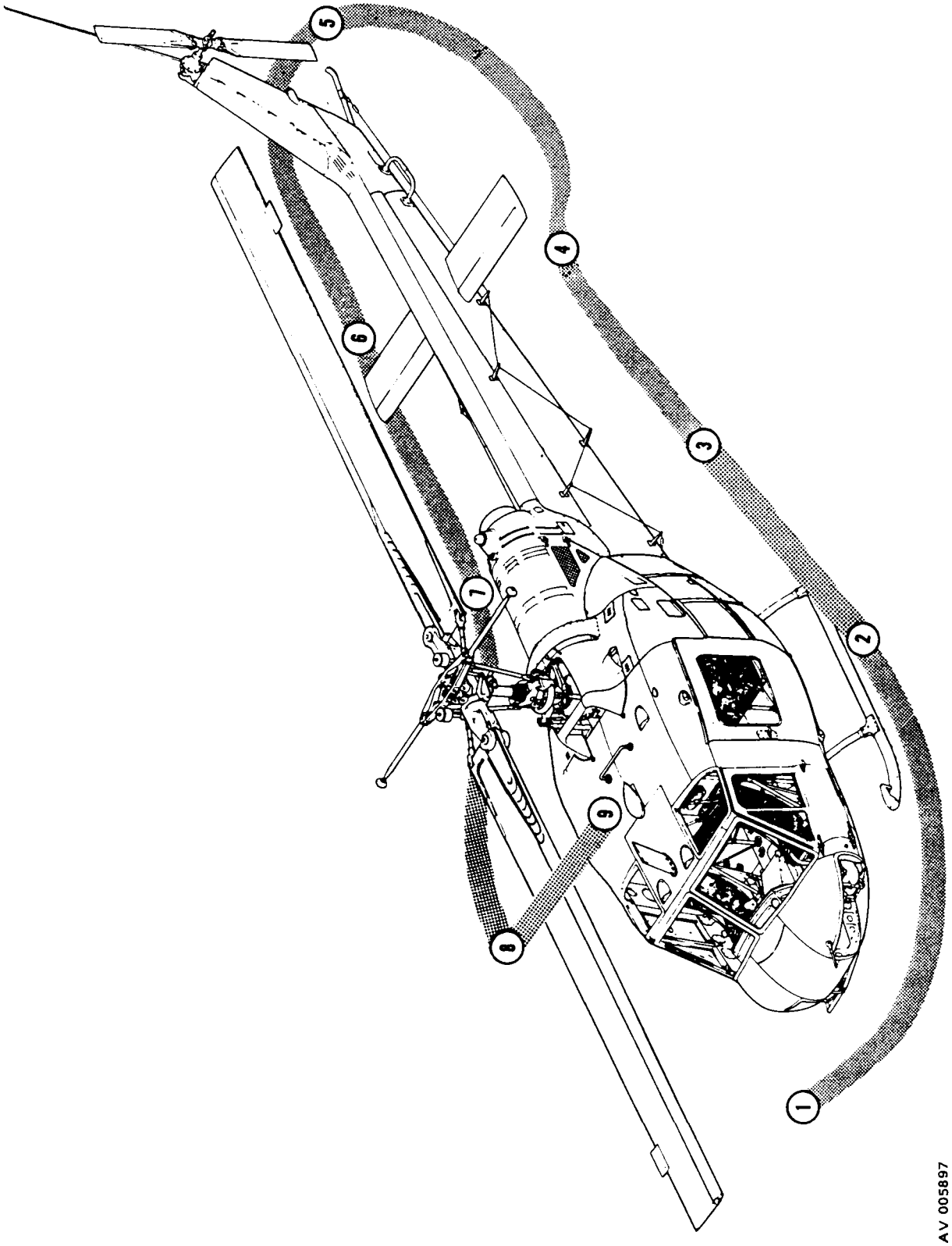
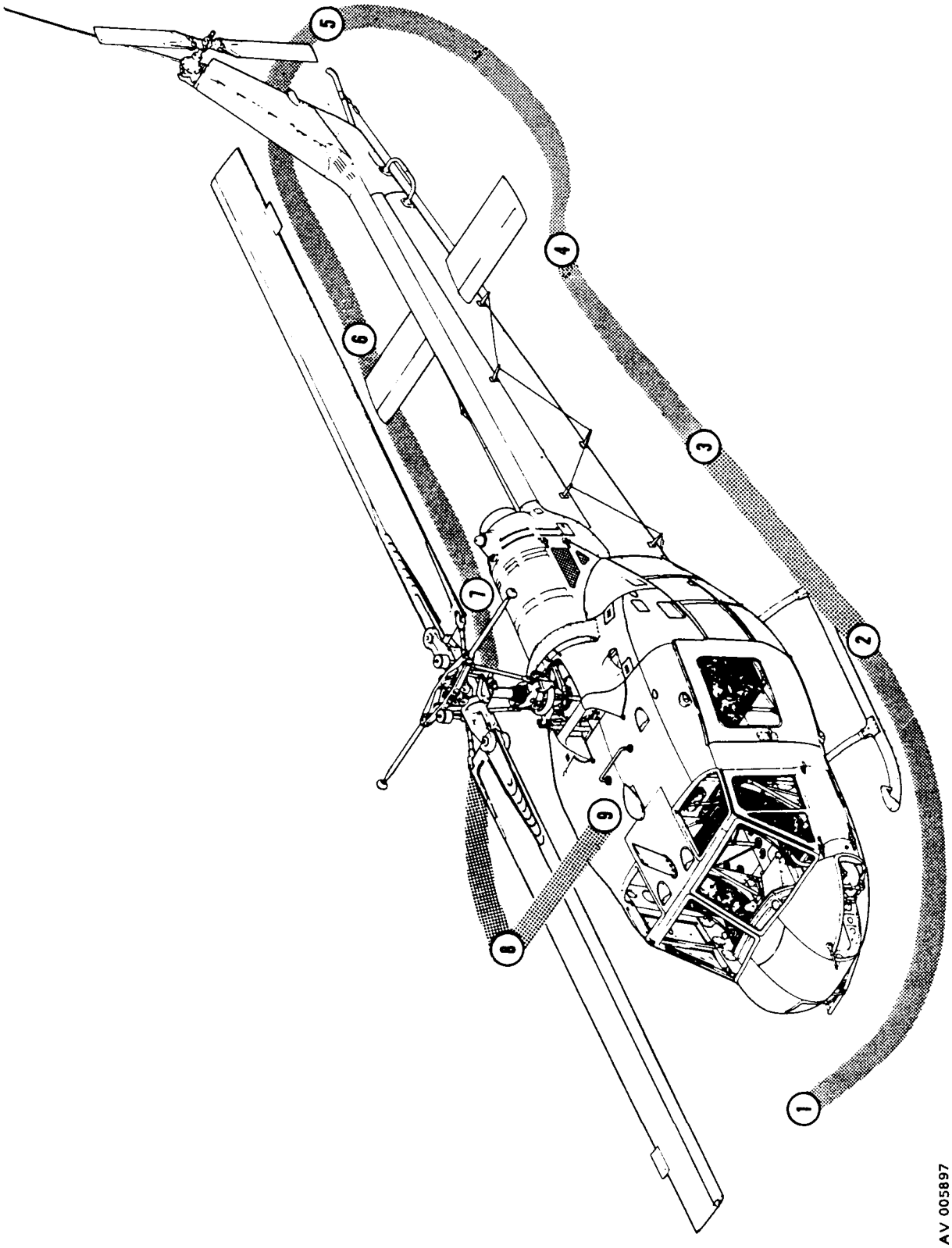


Figure 3-1. Exterior check diagram



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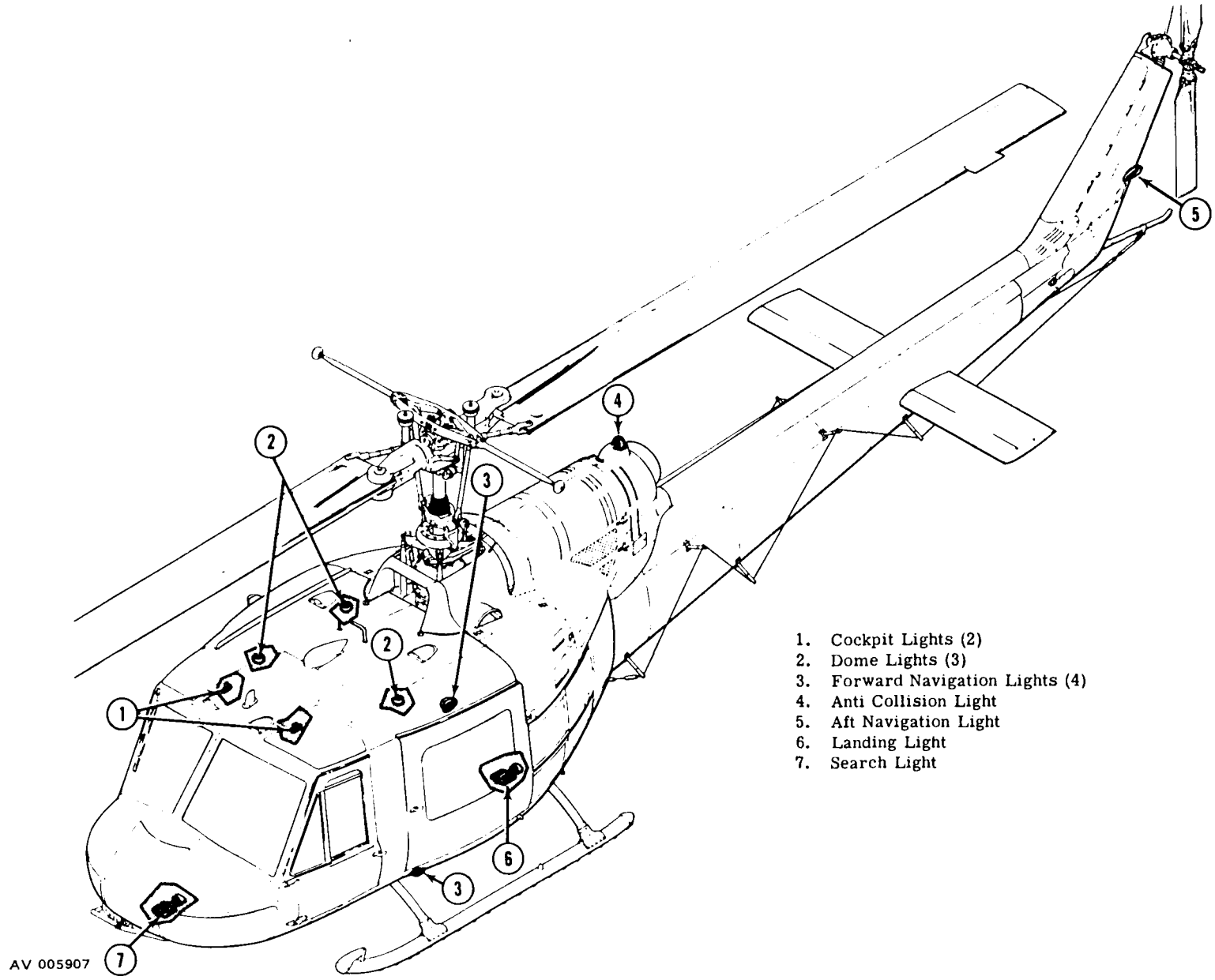

1. Cockpit Lights (2)
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3. Forward Navigation Lights (4)
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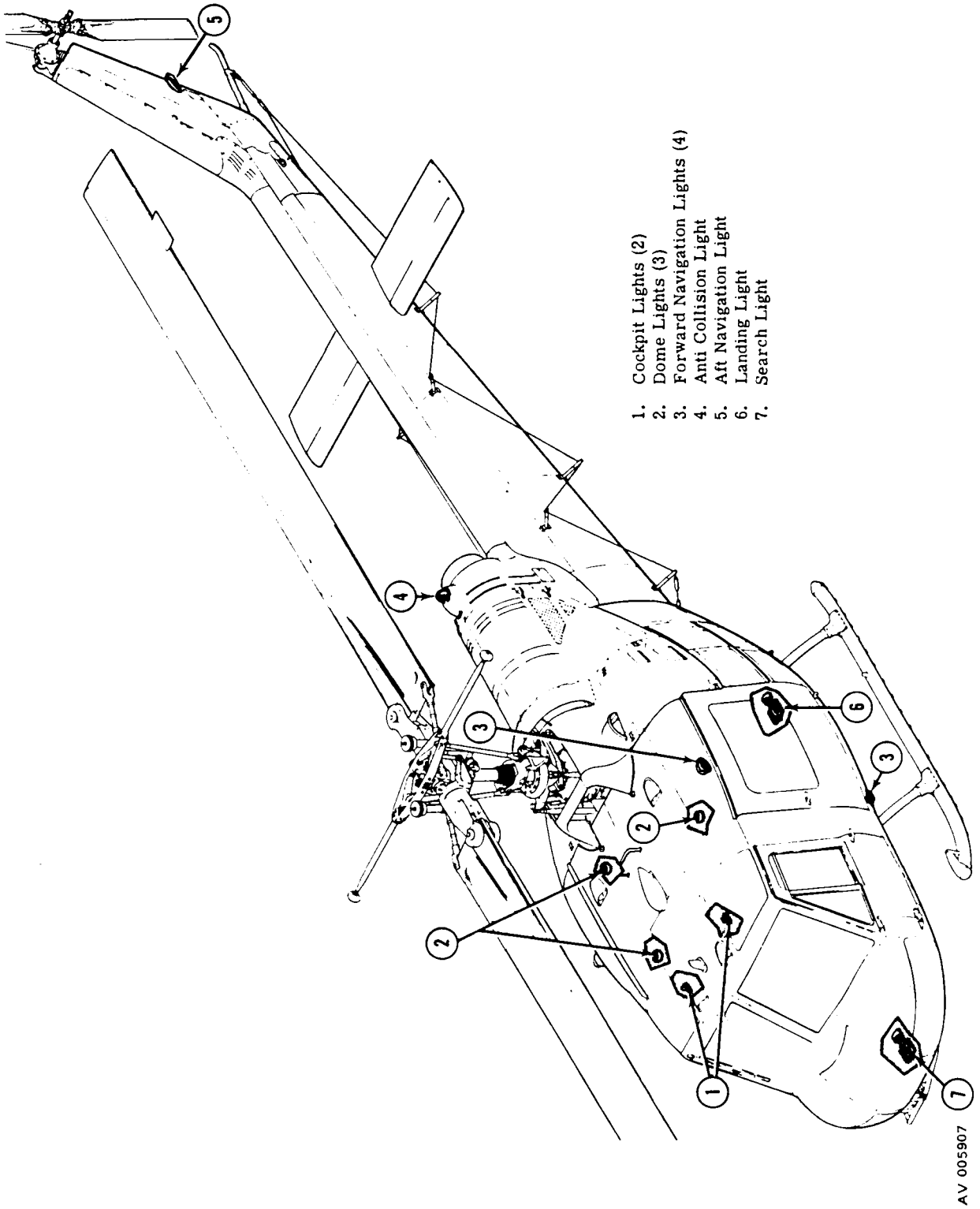
5. Aft Navigation Light
6. Landing Light
7. Search Light

Figure 6-2. Lighting equipment diagram



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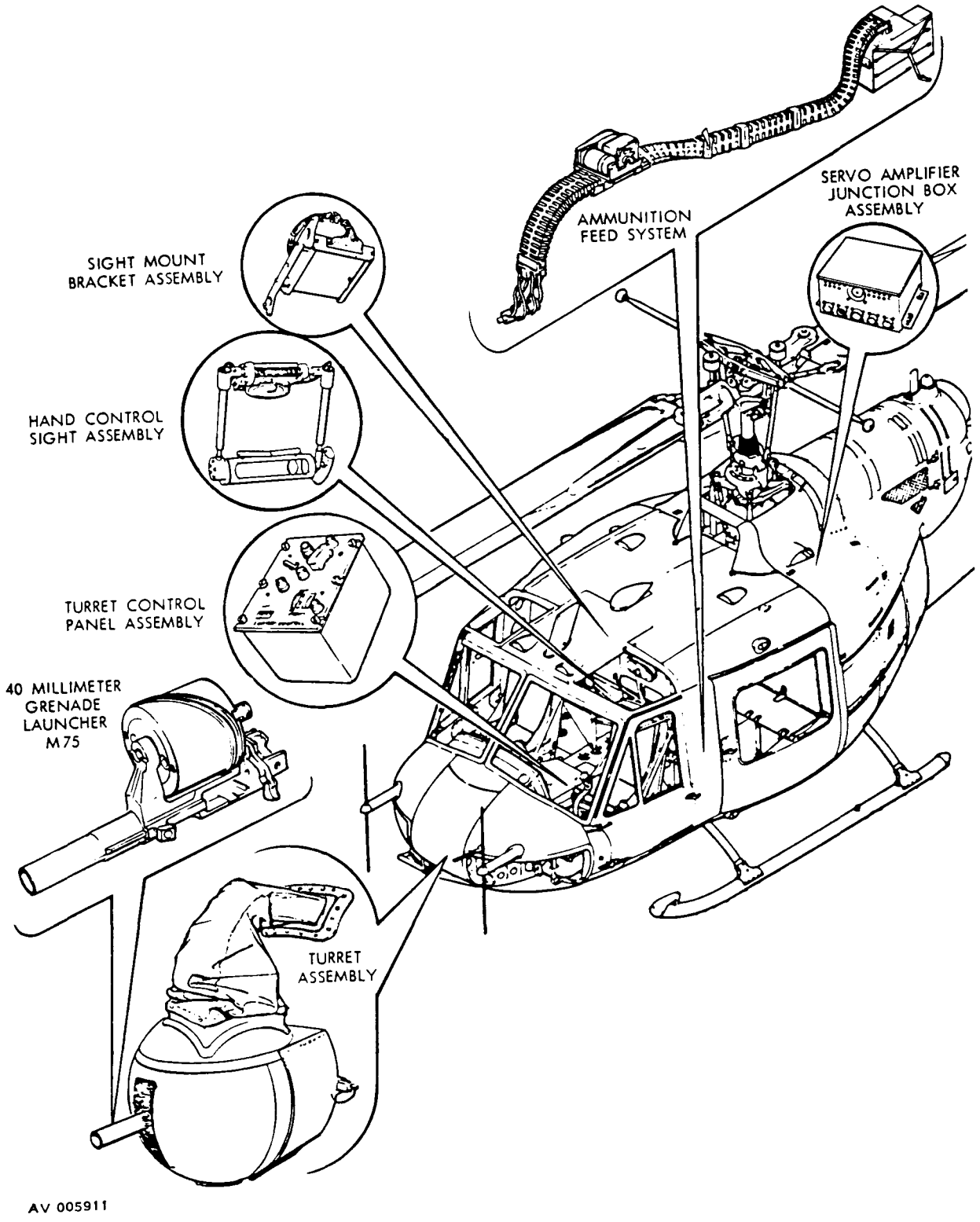
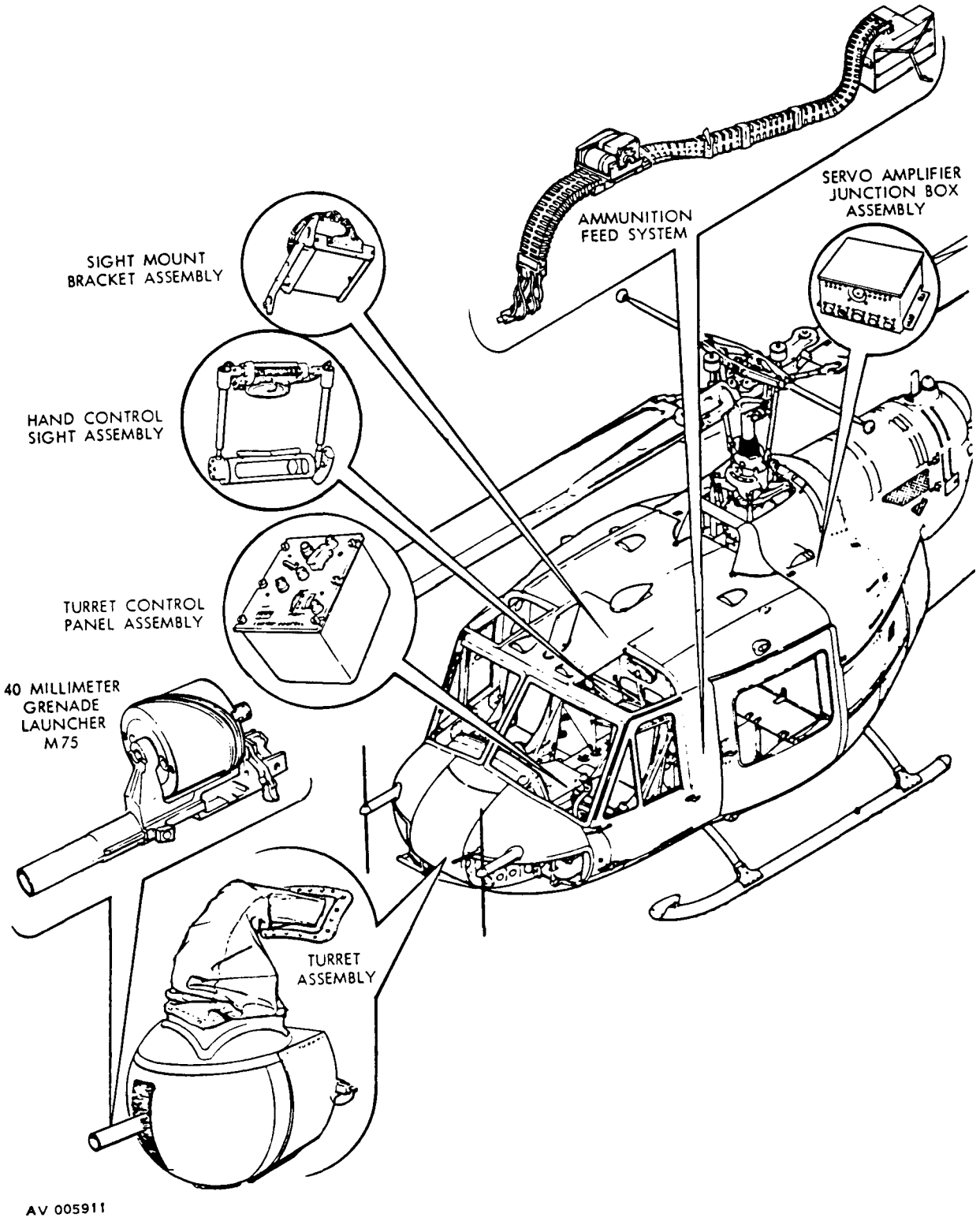


Figure 6-32. M5 armament subsystem components



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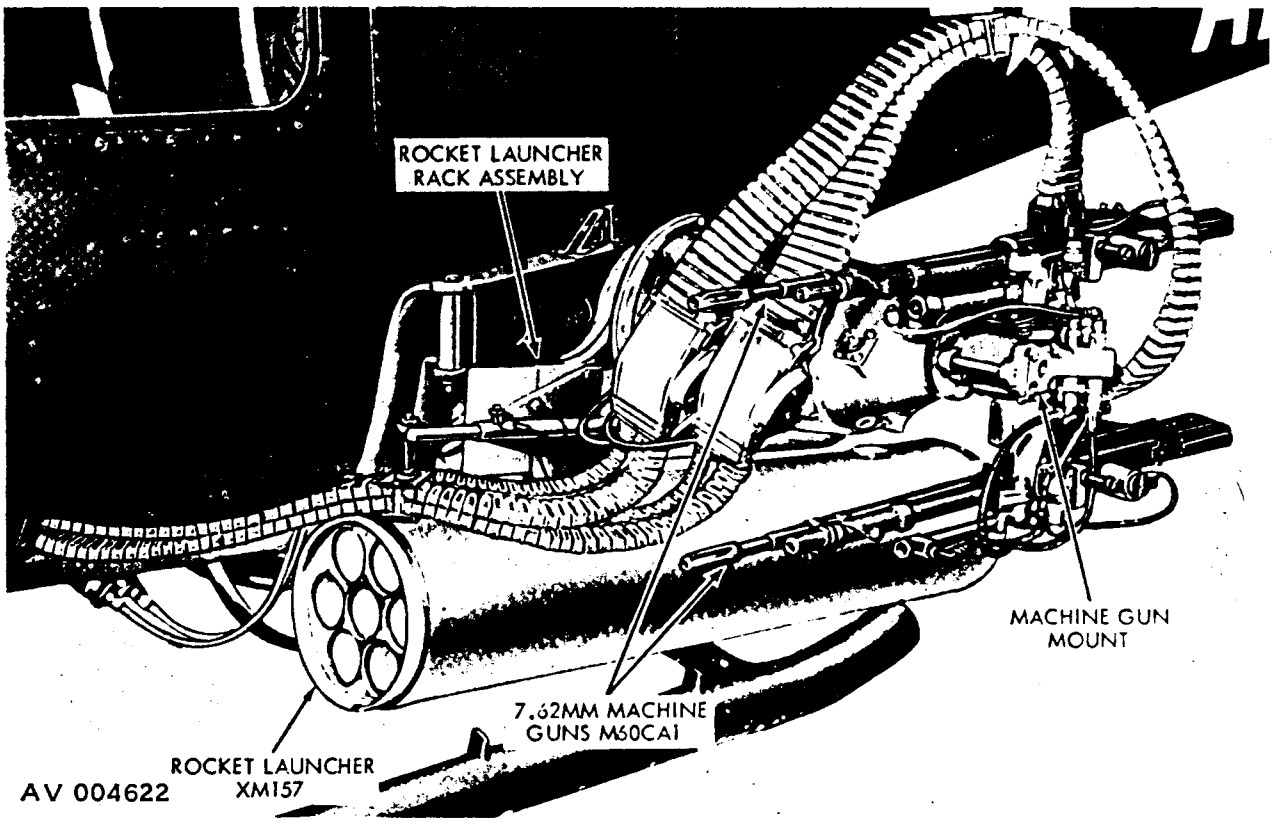


Figure 6-38. M16 armament subsystem components

f. Rack and Support Assembly (Less Step Switch)

Length	31.75 in.
Height	16.25 in.
Width	8.50 in.
Weight	32.75 lb.
Ground Clearance	23 in.
No. Units Required	2 each

g. Intervalometer Control Panel.

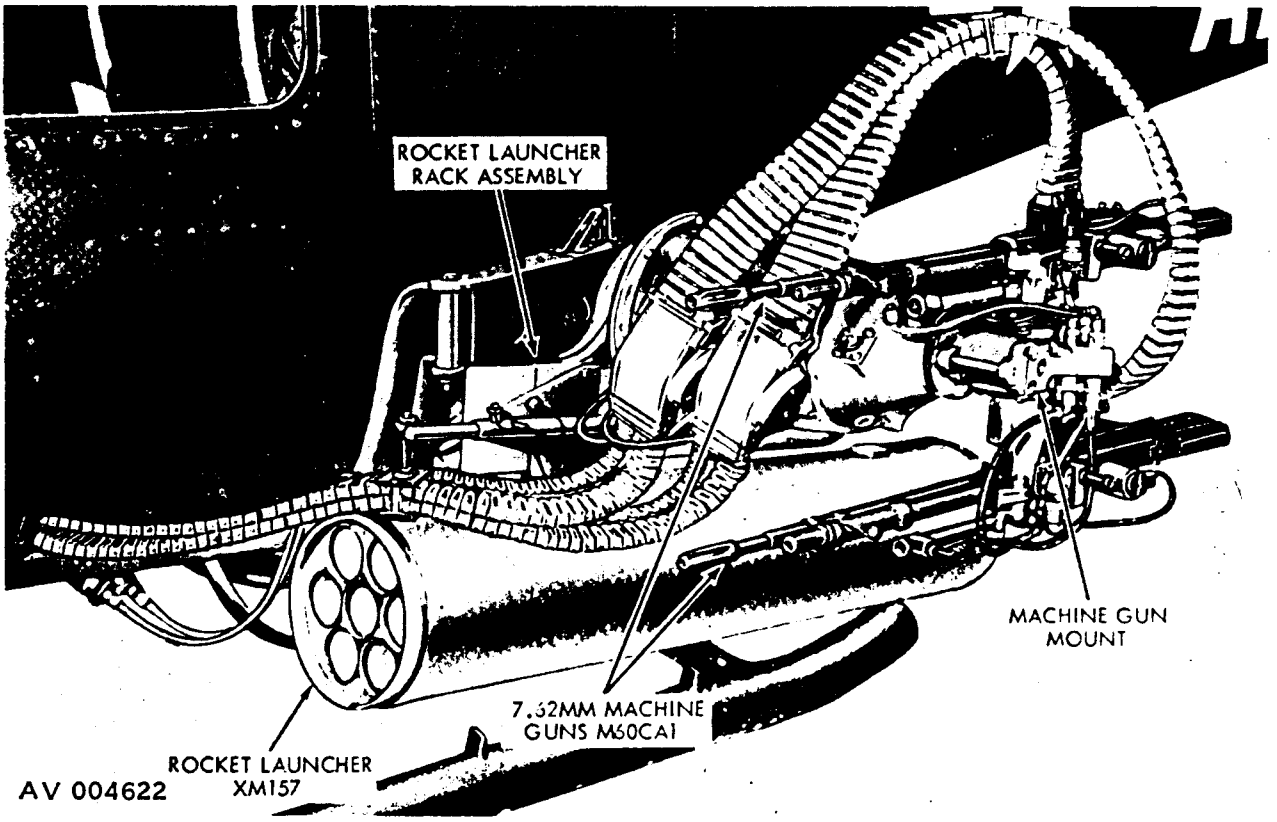
Length	5.65 in.
Height	5.87 in.
Width	2.12 in.
Weight	2.38 lb
No. Units Required	1. each

6-212. OPERATION.

6-213. OPERATION OF ROCKET/GUNS SWITCH. The Rockets/Guns switch (7.62 MM/2.75 inch) is near the left side of the control panel. In the Guns (7.62 MM) position, the system operates in the normal manner. In the Rockets (2.75 inch) position, rocket firing is the primary mode of operation of the M16 subsystem. Pressing either cyclic stick firing switch will fire the selected number of rocket pairs, whether or not the guns are being fired from the hand control.

6-214. OPERATION OF JETTISON SWITCH. The jettison switch is under the red guard on the right side of the panel. Solenoids in the MA-4A racks simultaneously drop both pods when the guard is lifted and the toggle is moved to the ON position. A manual jettison lever is on the right side of the pedestal for use should the electrical jettison fail.

6-215. OPERATION OF ROCKET PAIR SELECTOR SWITCH. The Rocket Pair Selector switch has positions of 0, 1, 2, 3, 4, 5, 6, and 7. The selected position determines the rocket pairs to be fired per burst. However, if the cyclic stick firing switch is released



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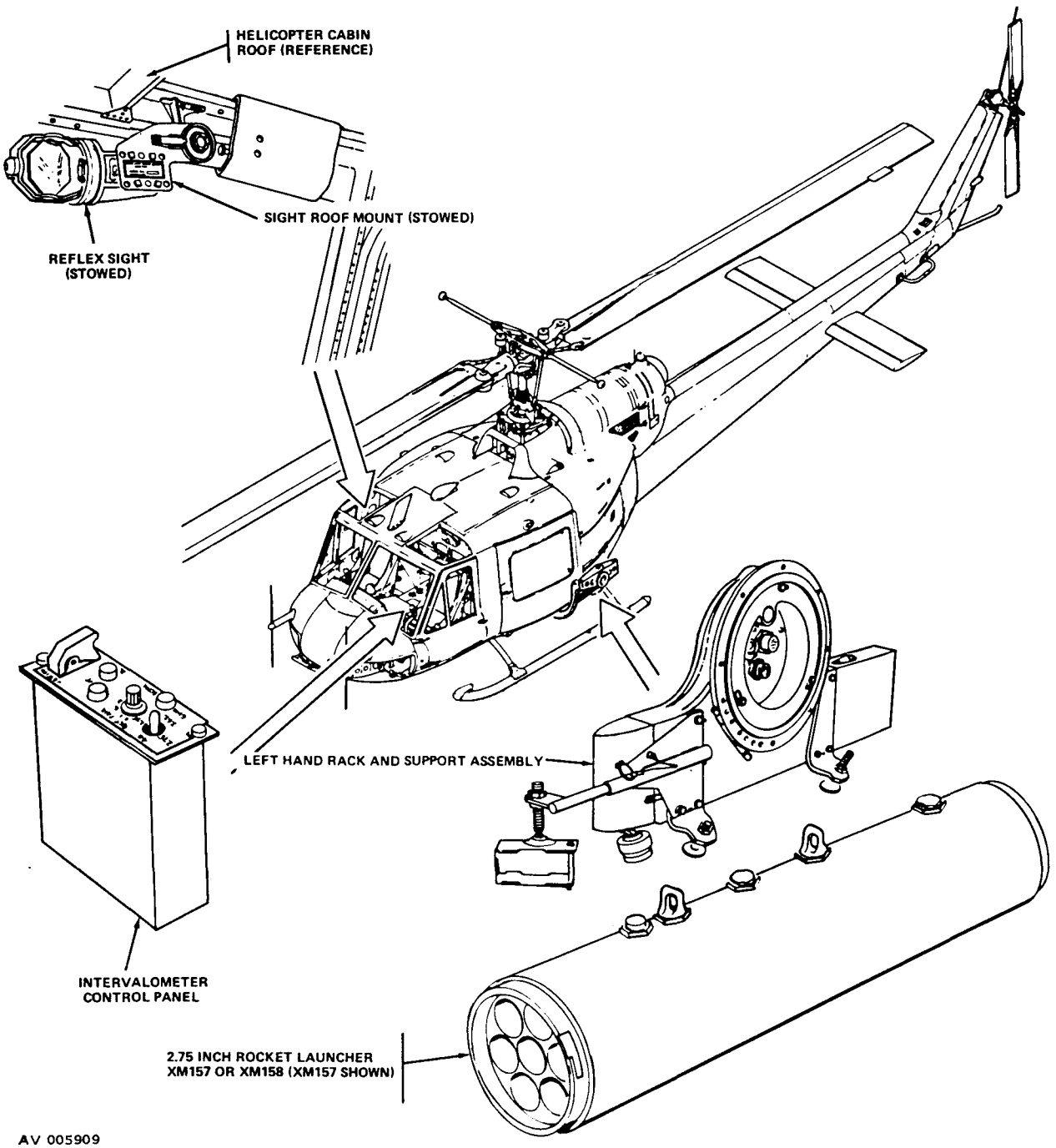
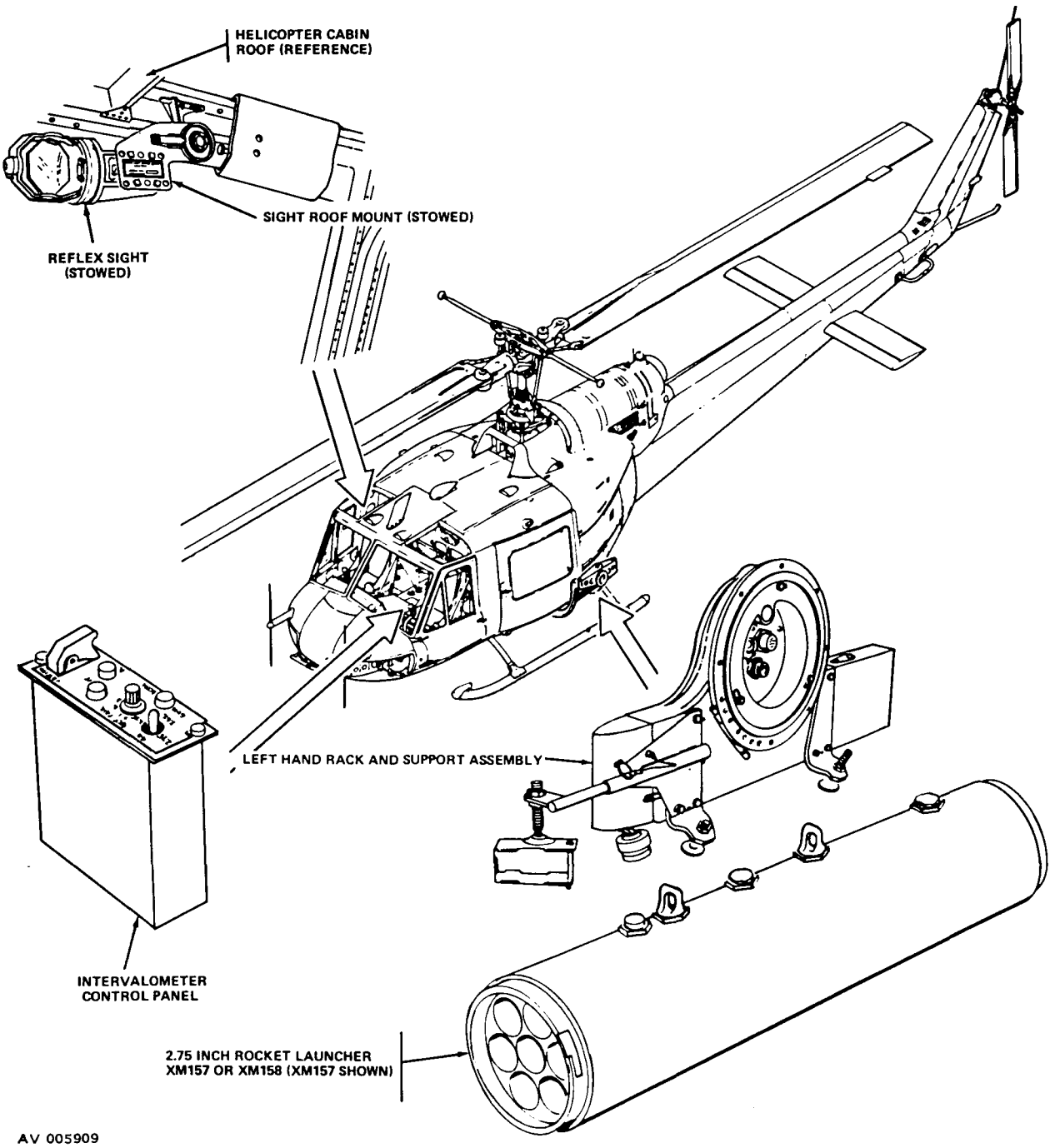


Figure 6-40. M16 armament subsystem components– controls



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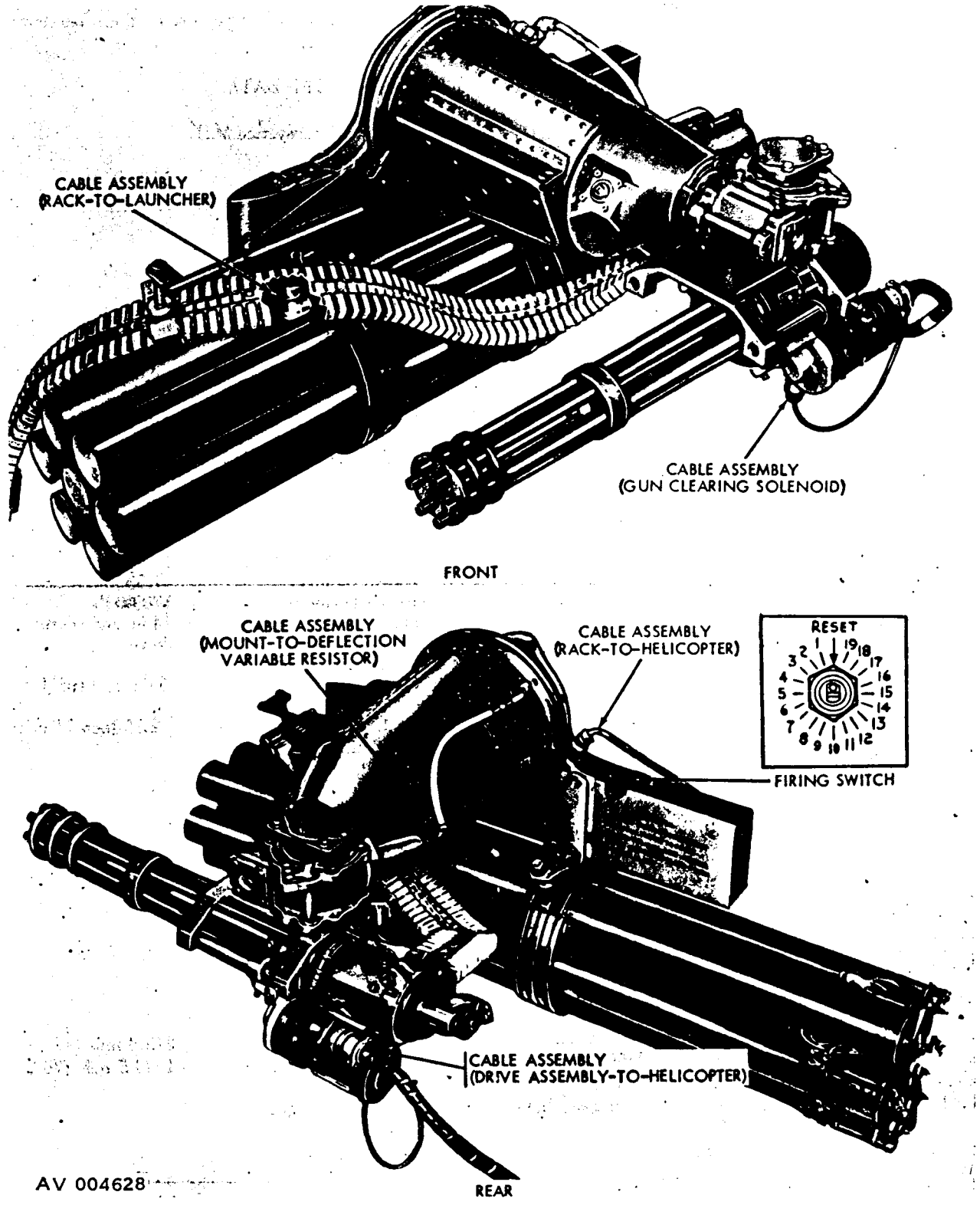
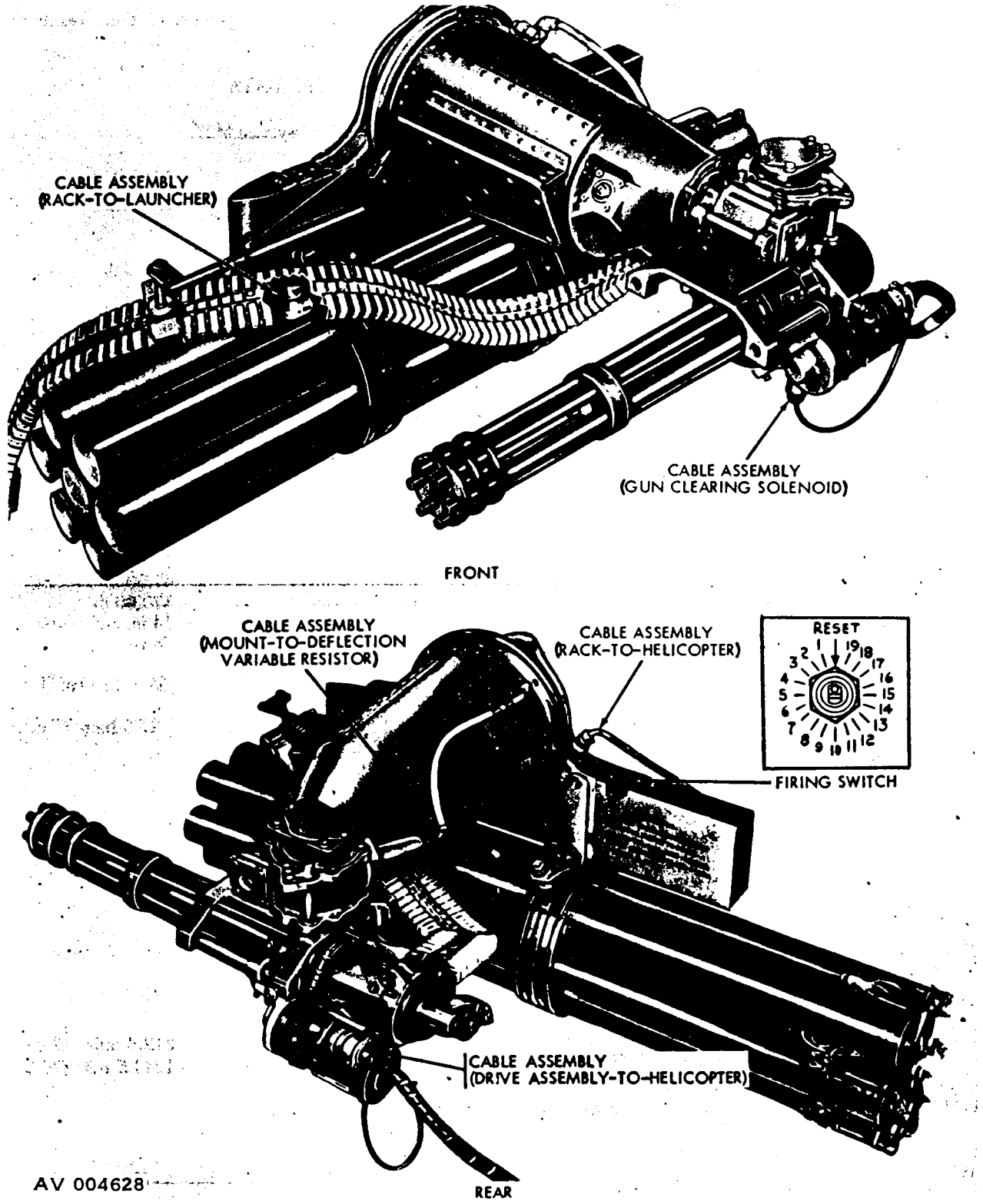


Figure 6-44. M21 armament subsystem-left side front and rear view



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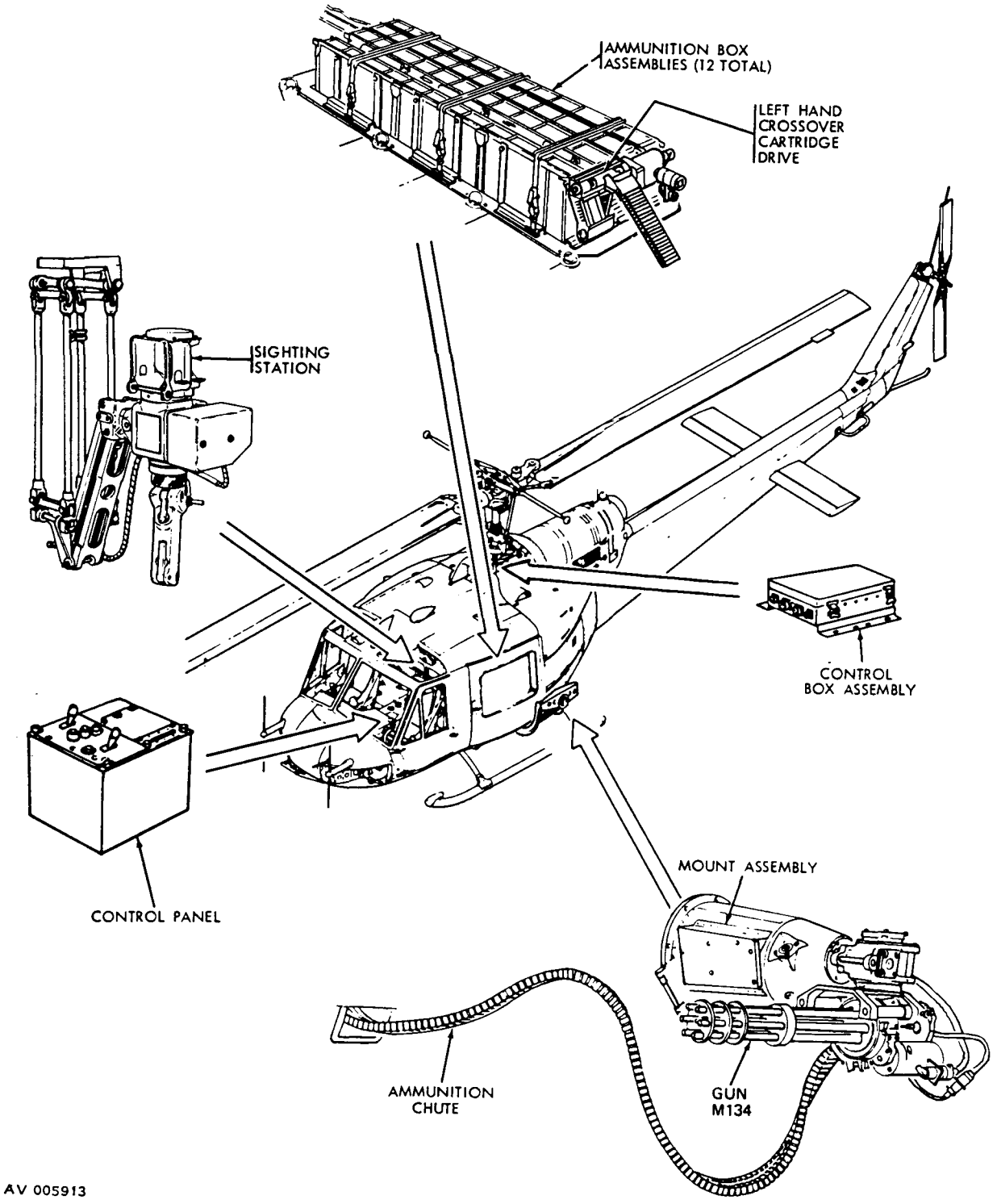
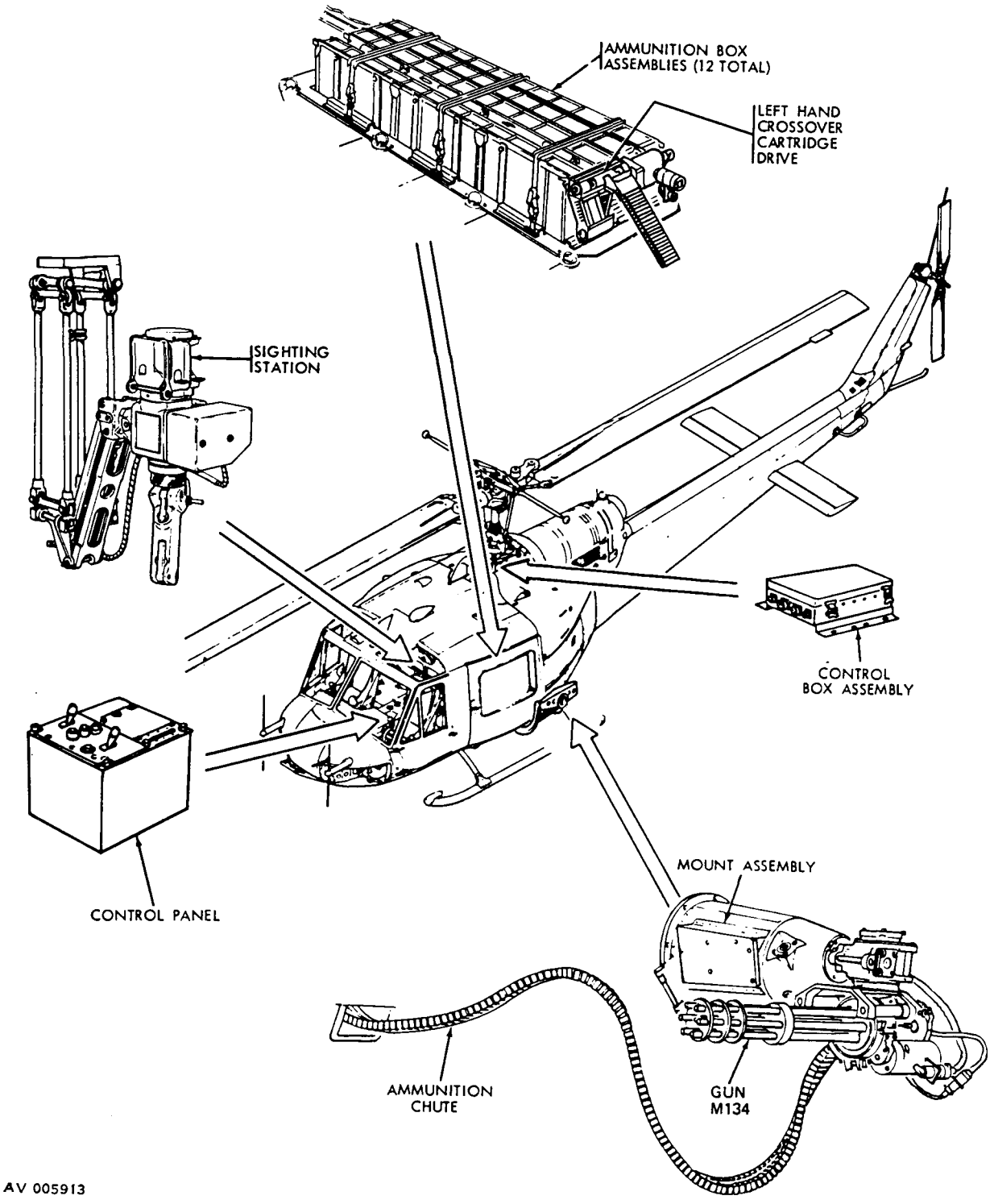


Figure 6-45. M21 subsystem components



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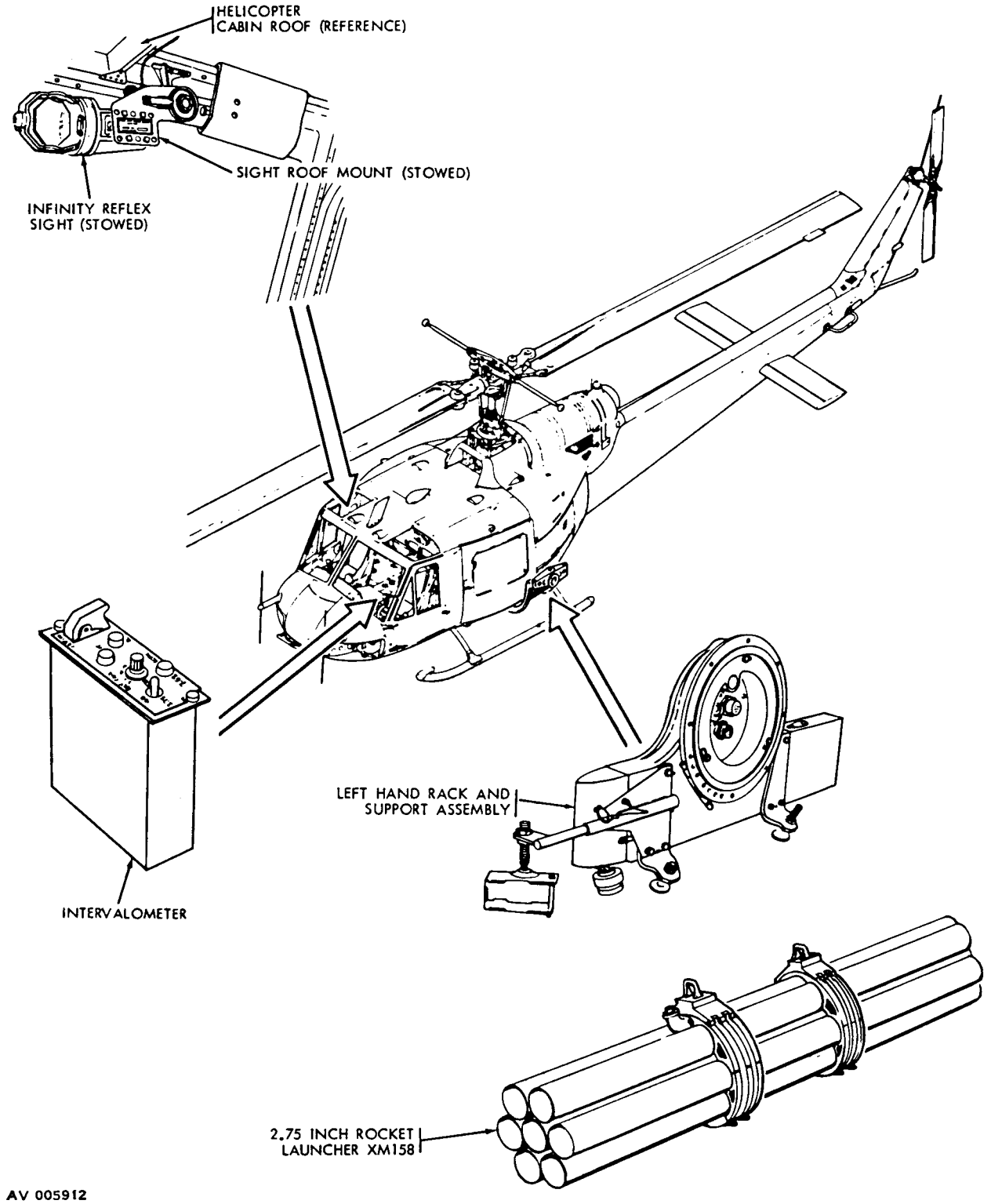
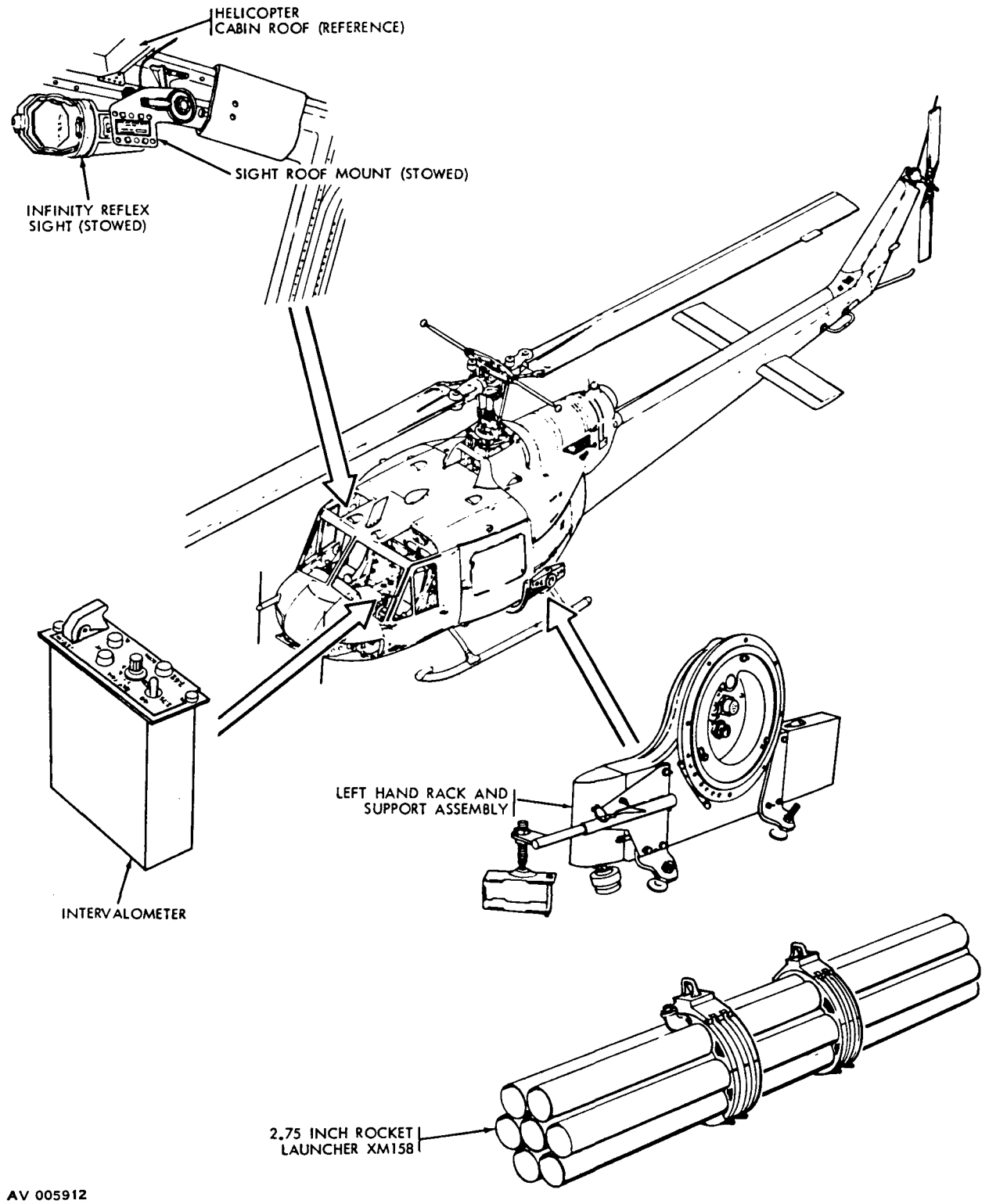


Figure 6-47. Components of 2.75 inch rocket launcher



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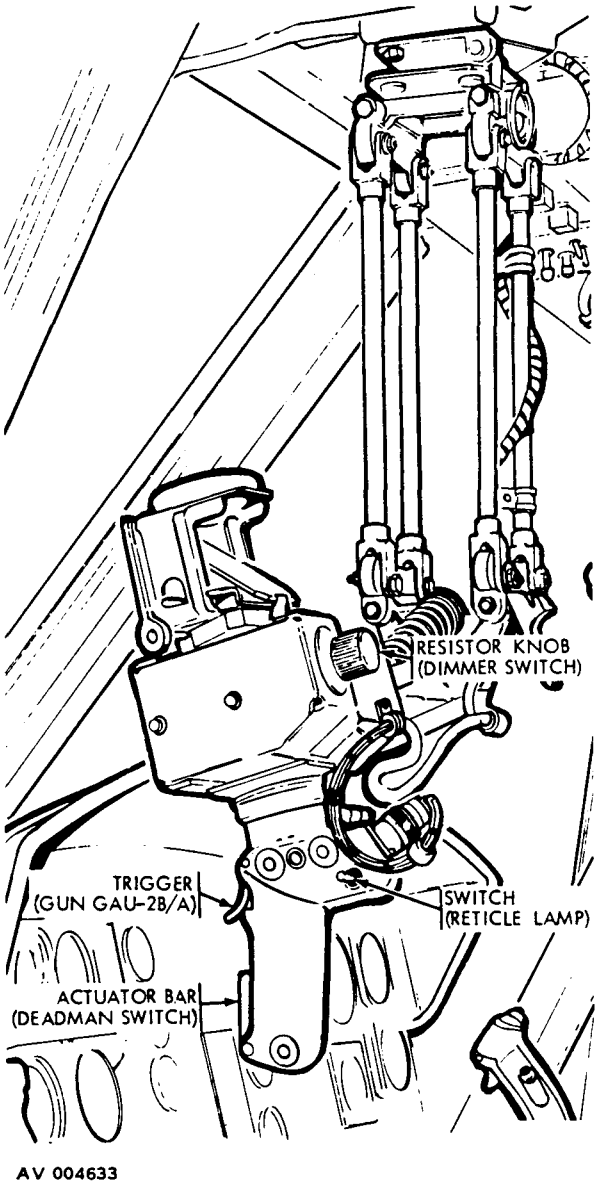


Figure 6-49. Sighting station controls

6-272. REFLEX SIGHT XM60 AND RETICLE PATTERN.

6-273. RETICLE LAMP SWITCH.

6-274. The reticle lamp switch is a three-position toggle switch on top of the sight (figure 6-49). When moved to either ON position, reticle pattern is illuminated.

6-275. RHEOSTAT KNOB.

6-276. The rheostat knob is on the upper left side of the sight. Clockwise rotation of the knob increases reticle illumination intensity.

6-277. ELEVATION/DEPRESSION KNOB.

6-278. The elevation/depression knob is centrally located on the left side of the sight. Clockwise rotation (white graduations and numerals) of knob elevates reticle image; counterclockwise rotation (red graduation and numerals) of knob depresses reticle image. As knob is rotated, a click is audible as each graduation mark passes index mark. To bypass individual graduation marks, press in when rotating knob.

6-279. AMMUNITION.

a. 7.62-Millimeter Ammunition. (See table 6-15.)

Caution

Do not use fluted case dummy cartridges.

b. 2.75-Inch FFAR Rockets. (See table 6-1.)

6-280. OPERATION – PREFLIGHT CHECK.

Warning

When preflighting the XM-134 high rate machinegun, if ammunition is present in the system the gun will fire if rotated by hand. DO NOT attempt to perform operational checks with ammunition present in the system. If operation of the weapon is in doubt, contact qualified armament personnel for safe clearing procedures.

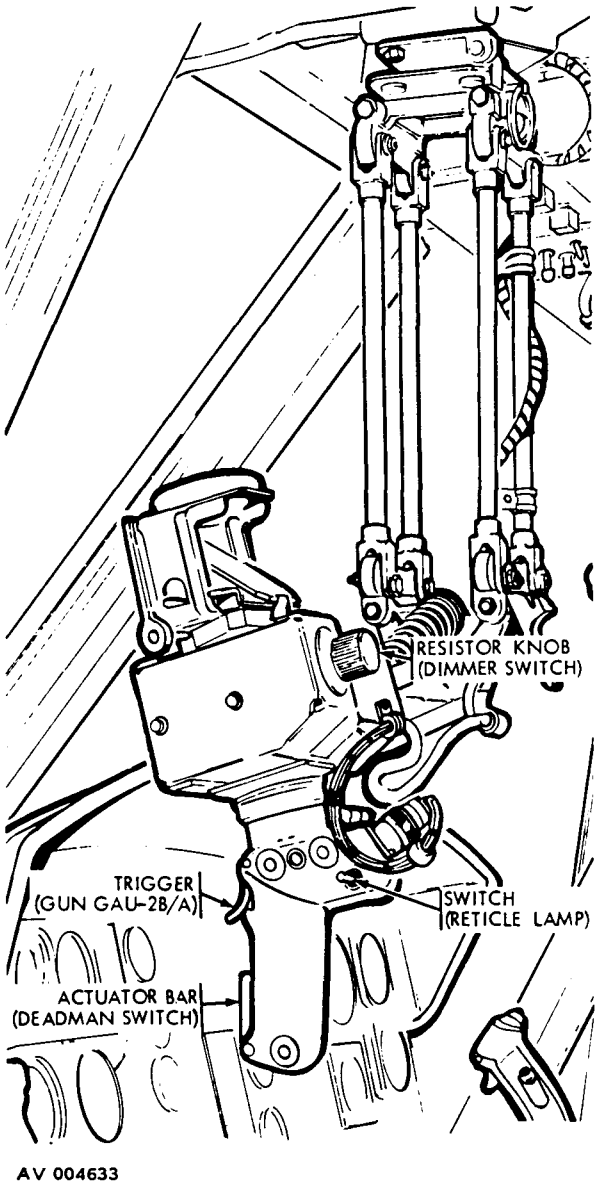
6-281. EXTERIOR.

a. 7.62 millimeter machinegun - 2.75-inch rocket launcher.

(1) Rack-to-helicopter cable assembly – Connected.

(2) Firing switch (rack) – RESET position.

(3) Mount-to-deflection variable resistor cable assembly – Connected.



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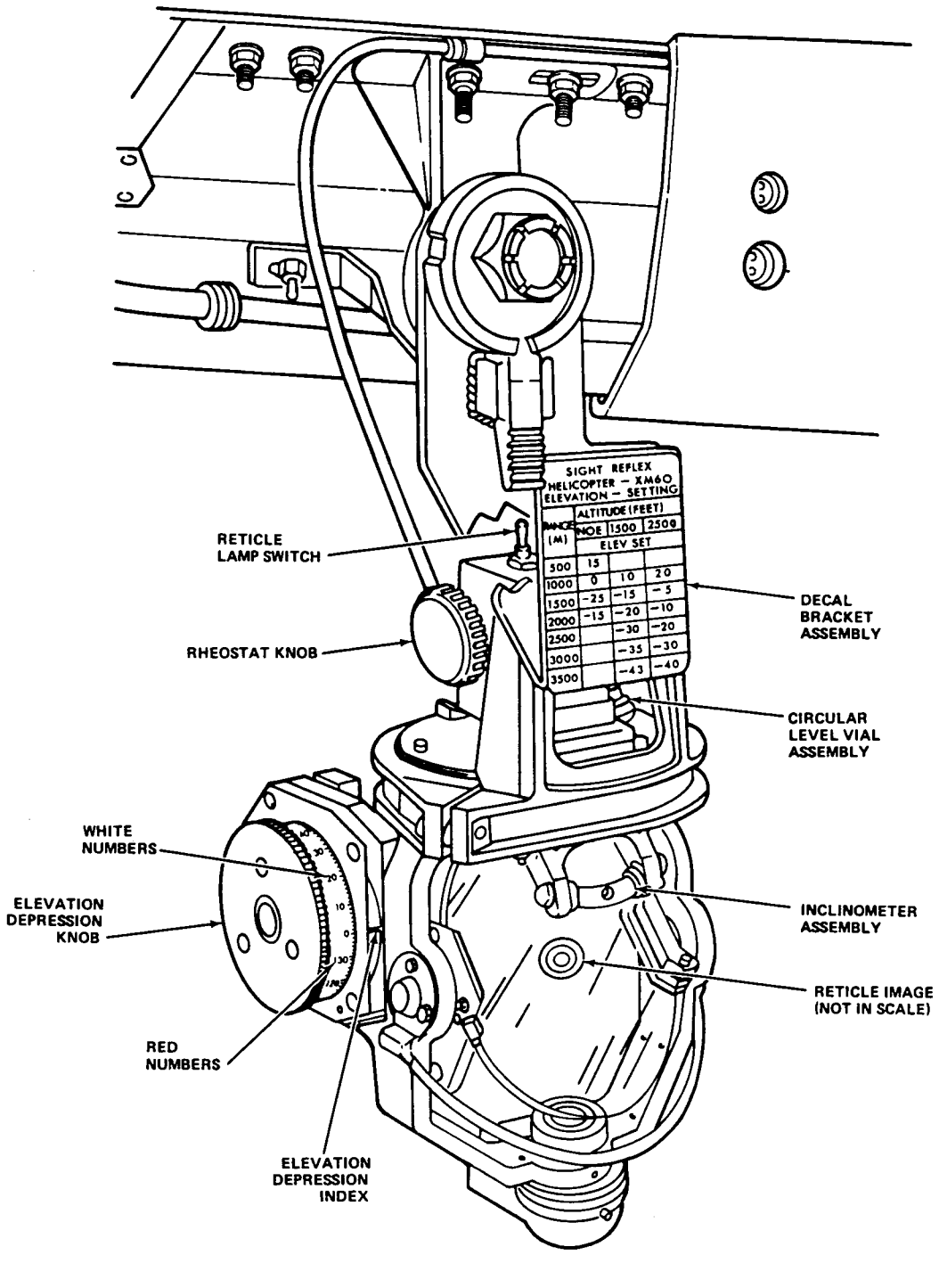
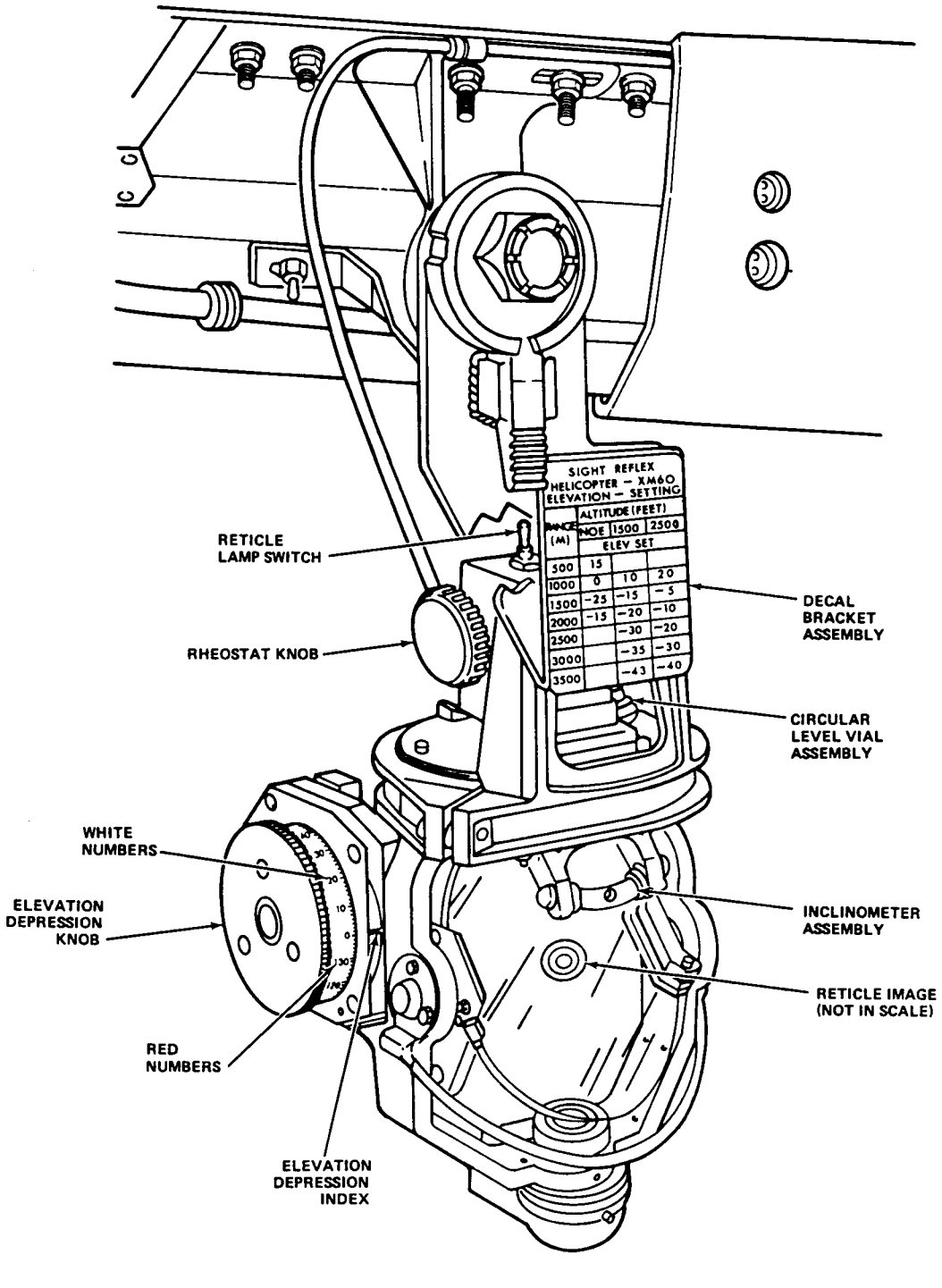


Figure 6-58. Reflex sight XM60 and decal bracket assembly controls



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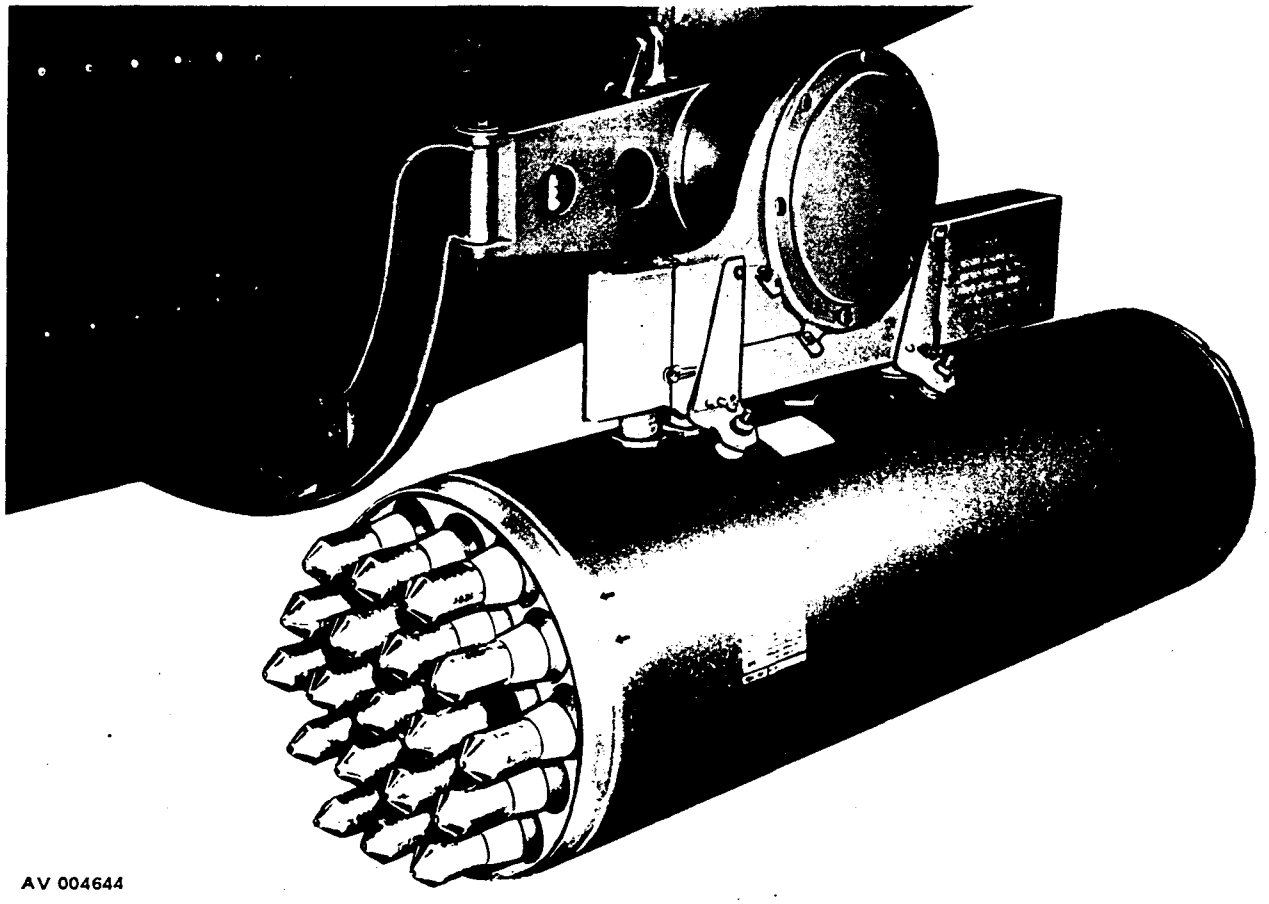


Figure 6-62. 2.75 inch rocket launcher XM159 (nineteen tubes)–left front view

6-354. ROCKET CIRCUIT RESET SWITCH.

6-355. The rocket circuit reset switch is located in the right center of the intervalometer. Pressing this switch with the OFF-SAFE-ARMED switch in the SAFE position, automatically resets the firing switches in the rack and support assemblies.

6-356. LAUNCHER JETTISON SWITCH.

Note

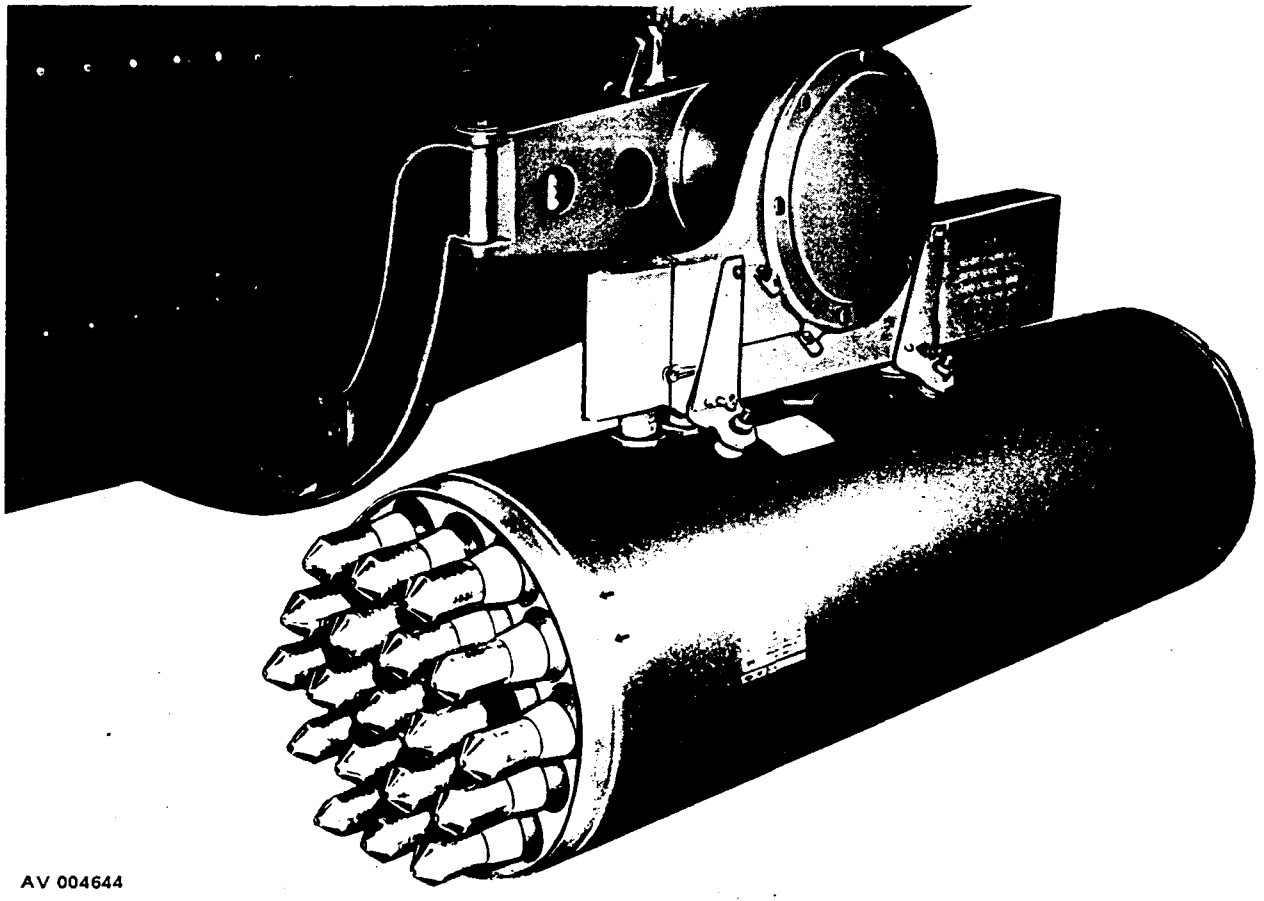
The launcher jettison switch and its jettison circuits are electrically independent of other intervalometer controls or other mount components. When the helicopter electric power is ON and the jettison circuit breaker is pushed in, operating the launcher jettison switch will release any stores carried by the mount.

6-357. The launcher jettison switch is under the safetywired red switch guard on the right side of the intervalometer. When the safetywire is broken, the guard lifted, and the toggle switch moved to the ON position, solenoids in the bomb racks of the rack and support assemblies automatically release the rocket launchers or other stores carried by the mount.

6-358. ARMING PANEL.

6-359. OFF-SAFE-ARMED SWITCH.

6-360. The OFF-SAFE-ARMED switch (figure 6-63) is a three-position toggle switch on the right side of the arming panel. The toggle of the switch must be pulled away from the arming panel before the switch can be moved from one position to another. When the switch is in the OFF position, all electrical power is removed from mount circuits. When the switch is in the SAFE position,



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6-360. The OFF-SAFE-ARMED switch (figure 6-63) is a three-position toggle switch on the right side of the arming panel. The toggle of the switch must be pulled away from the arming panel before the switch can be moved from one position to another. When the switch is in the OFF position, all electrical power is removed from mount circuits. When the switch is in the SAFE position,

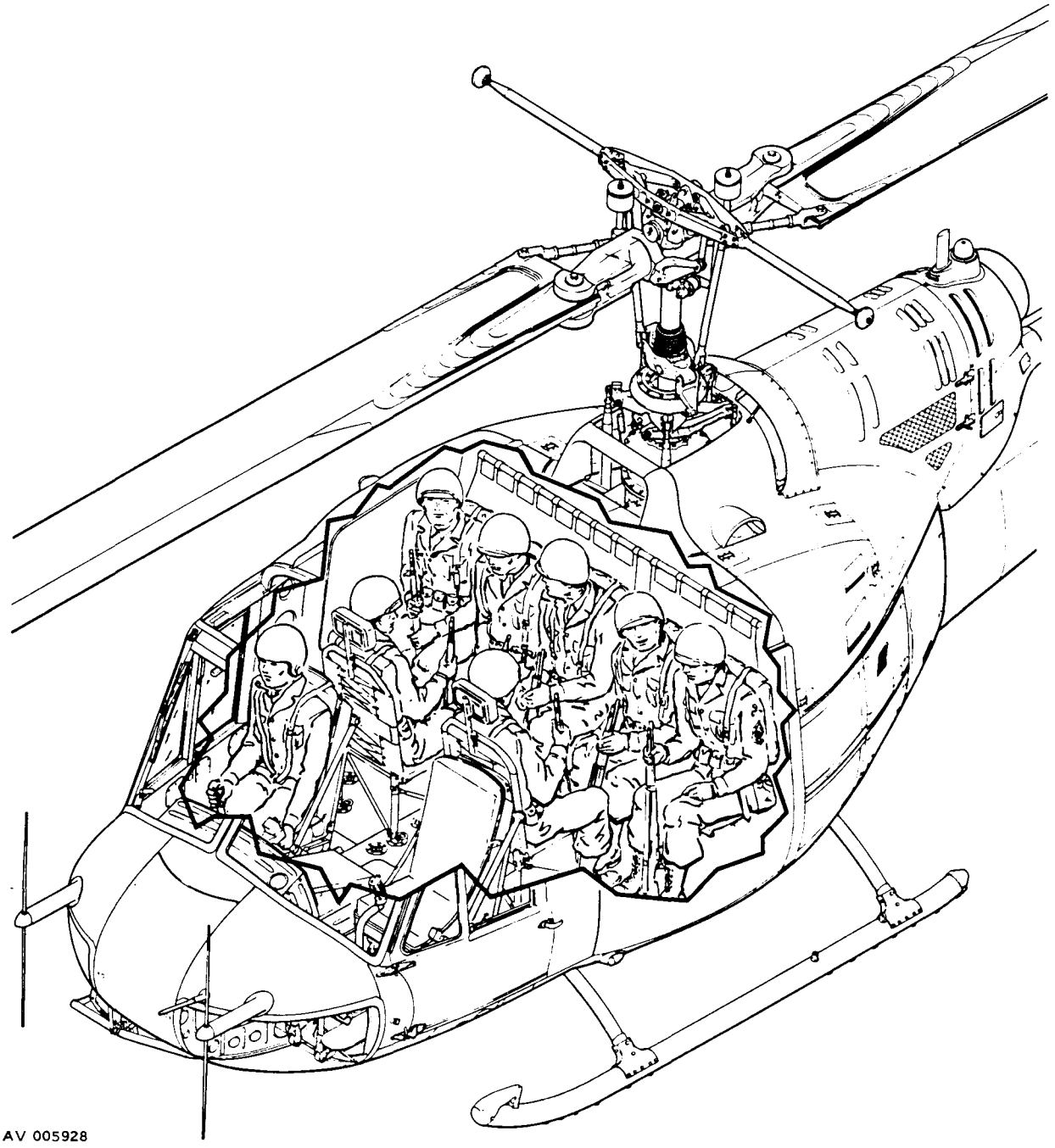

Figure 13-2. Troop seating