CHAPTER 2

THE MILITARY FREE-FALL RAM-AIR PARACHUTE SYSTEM

The evolution of the parachute used in MFF has been considerable over the years. New technology and advances continue to bring about changes, This chapter identifies the RAPS' components (Figures 2-1 to 2-13). Technical Manual (TM) l0-1670-288-23&P and NAVAIR 131-21 (MTI-XS/SL) contain information on repairing and maintaining this parachute.

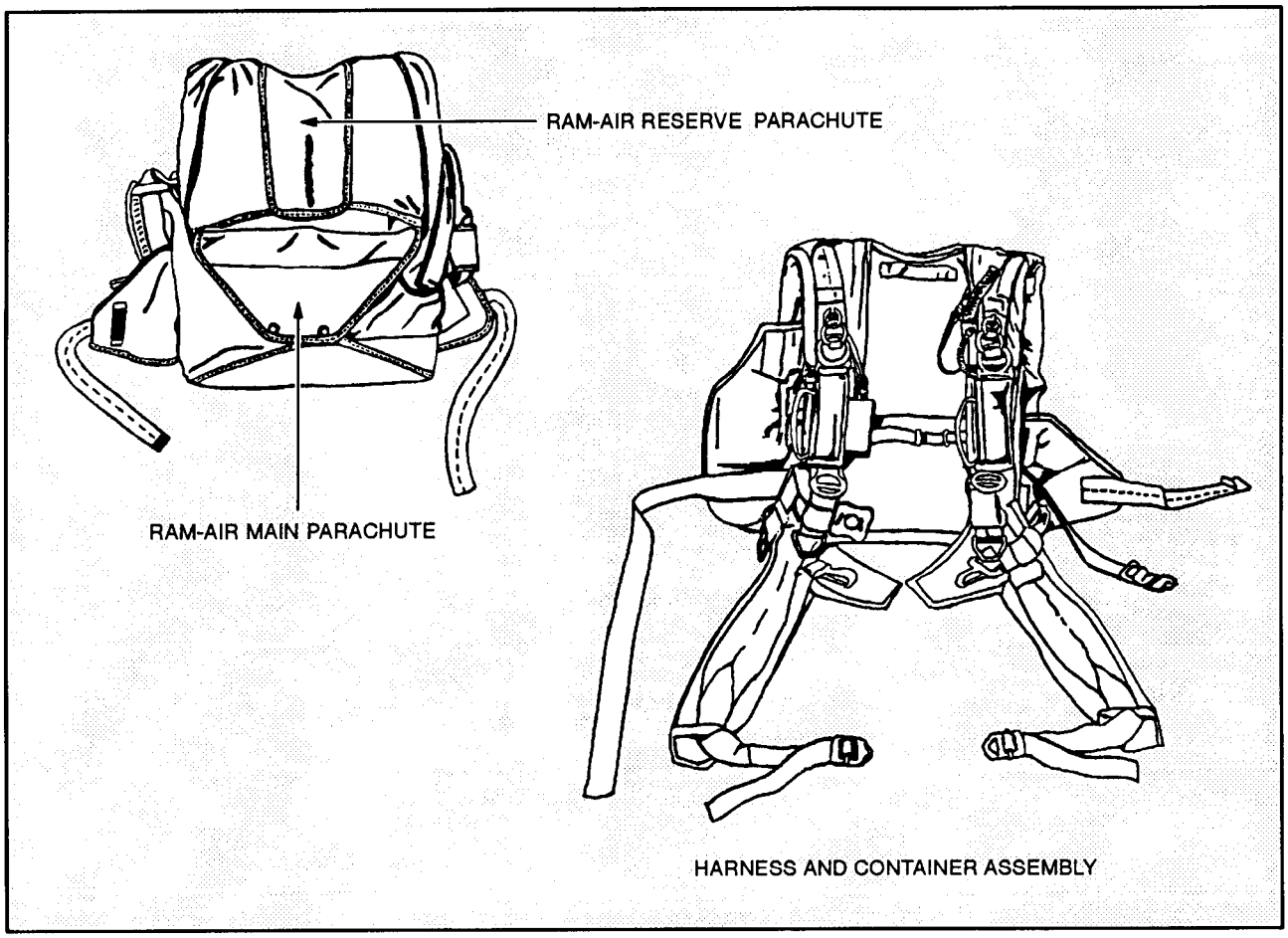


Figure 2-1. The RAPS' components.

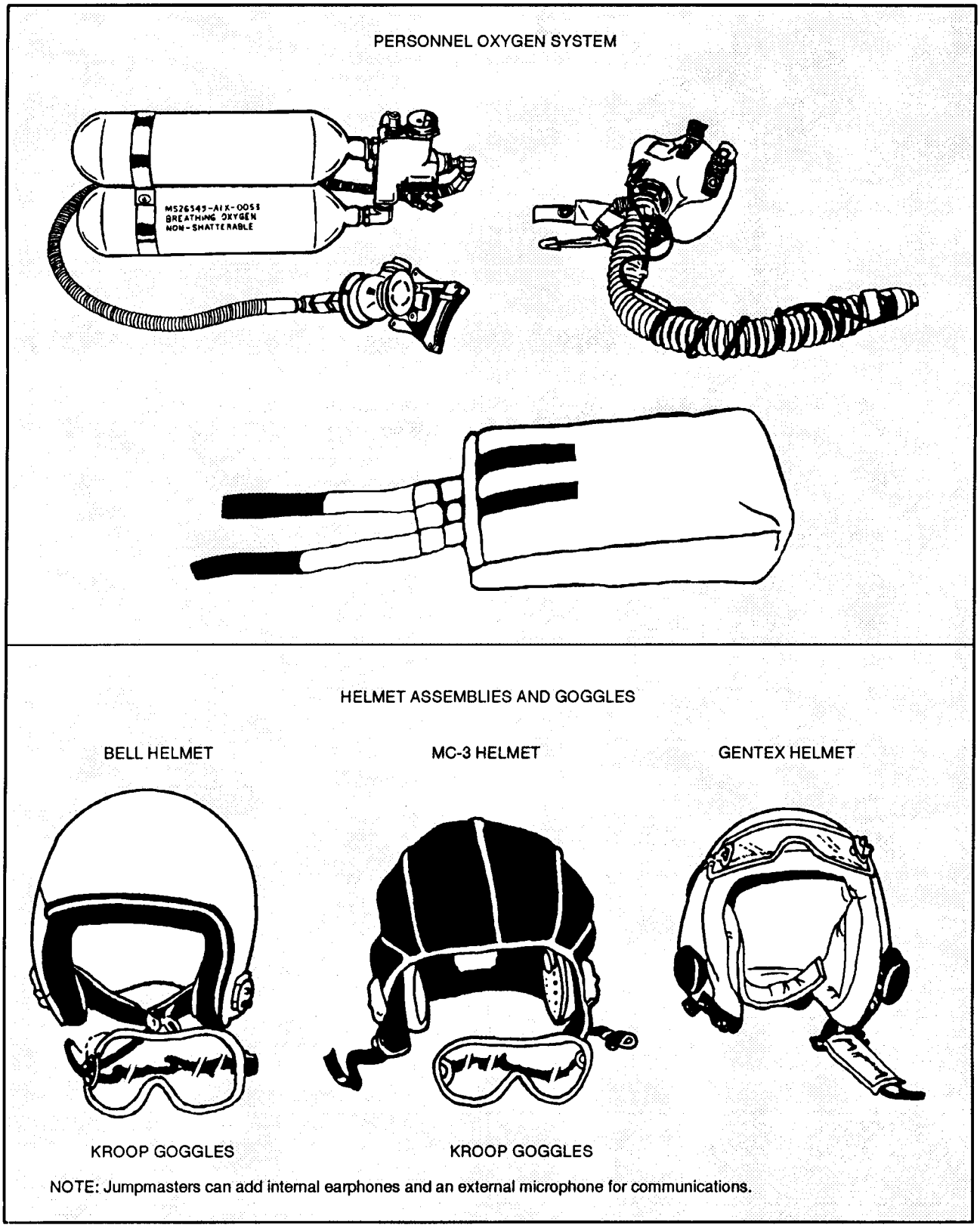


Figure 2-1. The RAPS' components (continued).

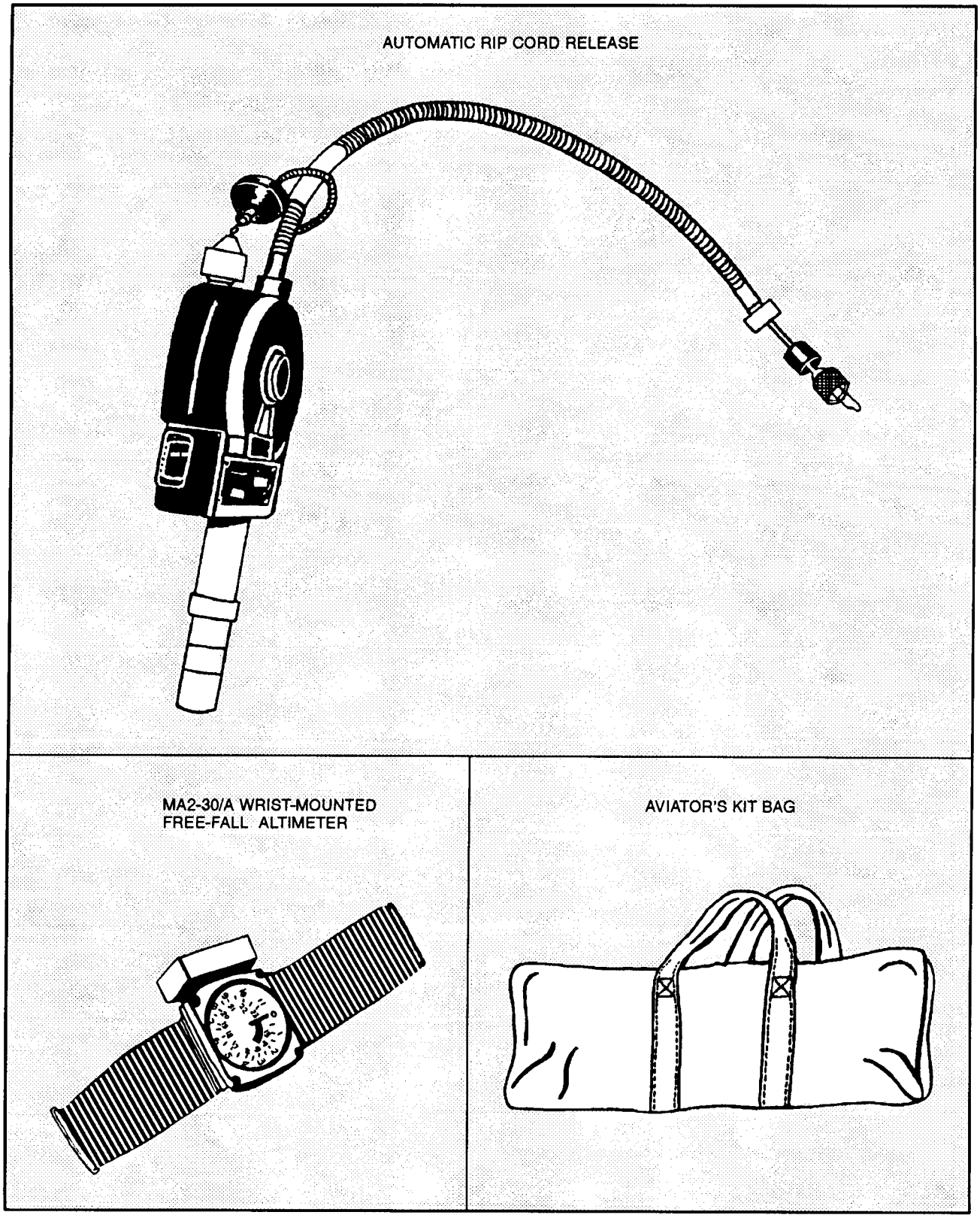
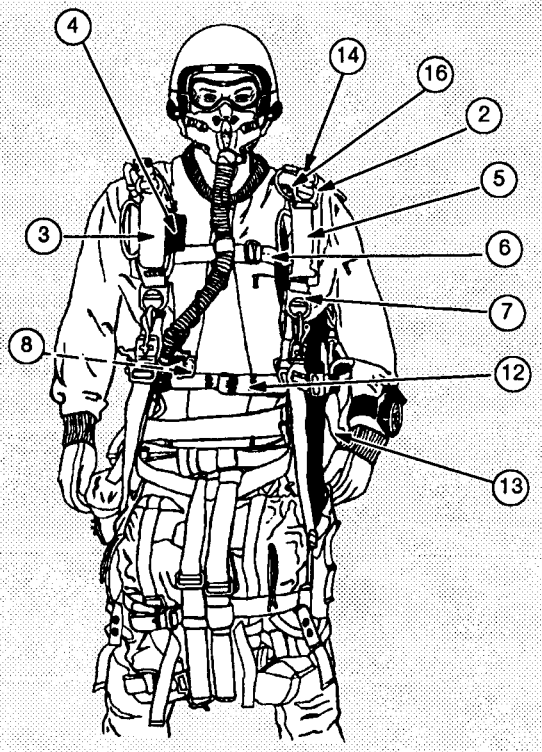


Figure 2-1. The RAPS' components (continued).

HARNESS AND CONTAINER ASSEMBLY BREAKDOWN

1. Integral harness and parachute containers
2. Base ring of the three-ring canopy releases (Figure 2-4)
3. Main rip cord assembly and elastic pocket (Figure 2-5)
4. Cutaway handle for the three-ring canopy releases (Figure 2-5)
5. Reserve rip cord assembly and elastic pocket (Figure 2-6)
6. Chest strap (Figure 2-6)
7. Large equipment attachment rings (Figures 2-6 and 2-7)
8. Oxygen fitting block (Figure 2-7)
9. Equipment lowering line attachment V-rings (Figure 2-7)
10. Leg straps with split saddle (Figure 2-9)
11. Wing flap and pouch for attachment of the ARR (Figure 2-9)
12. Waistband (Figure 2-9)
13. Wing flap for securing bailout oxygen system (Figure 2-9)
14. Weapon tie-down loop (Figure 2-10)
15. Reserve parachute risers (Figure 2-10)
16. Reserve static line attached

NOTE: Dashed lines indicate items hidden from view.



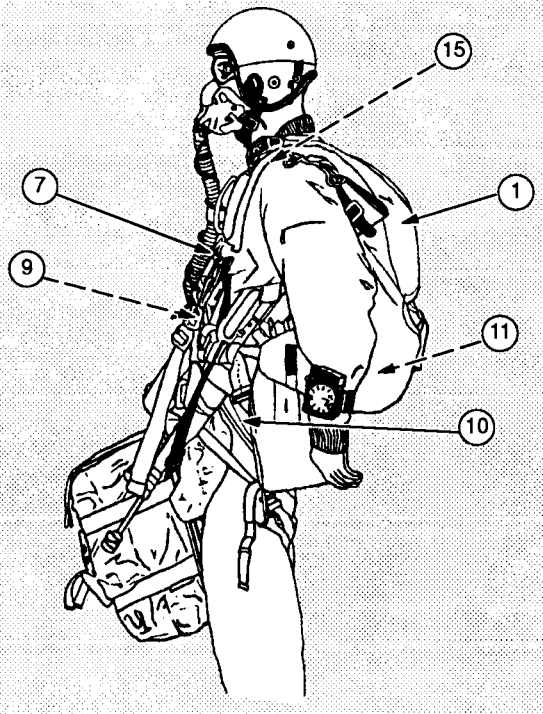


Figure 2-2. The RAPS' harness and container assembly components.

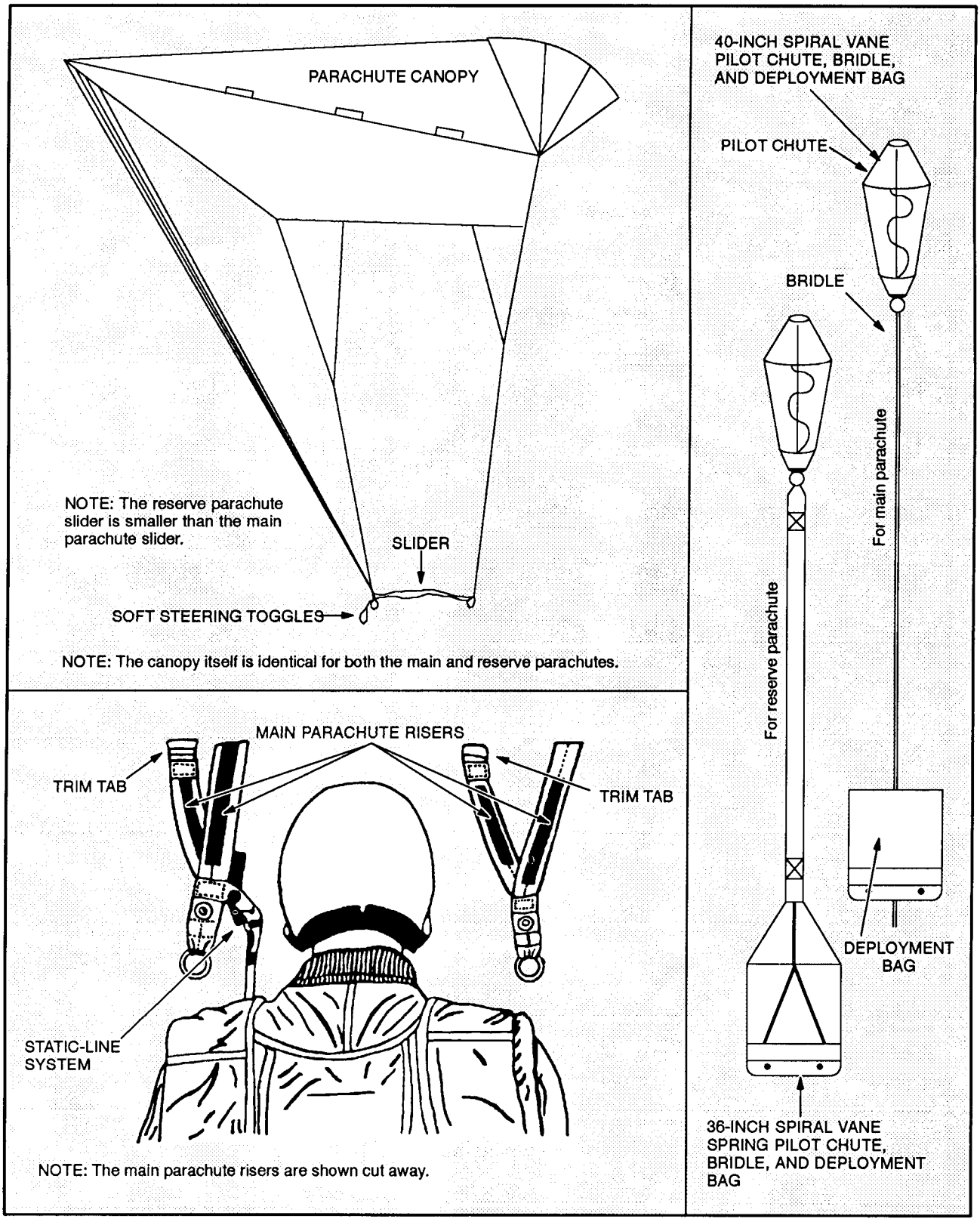


Figure 2-3. The RAPS' assembly components.

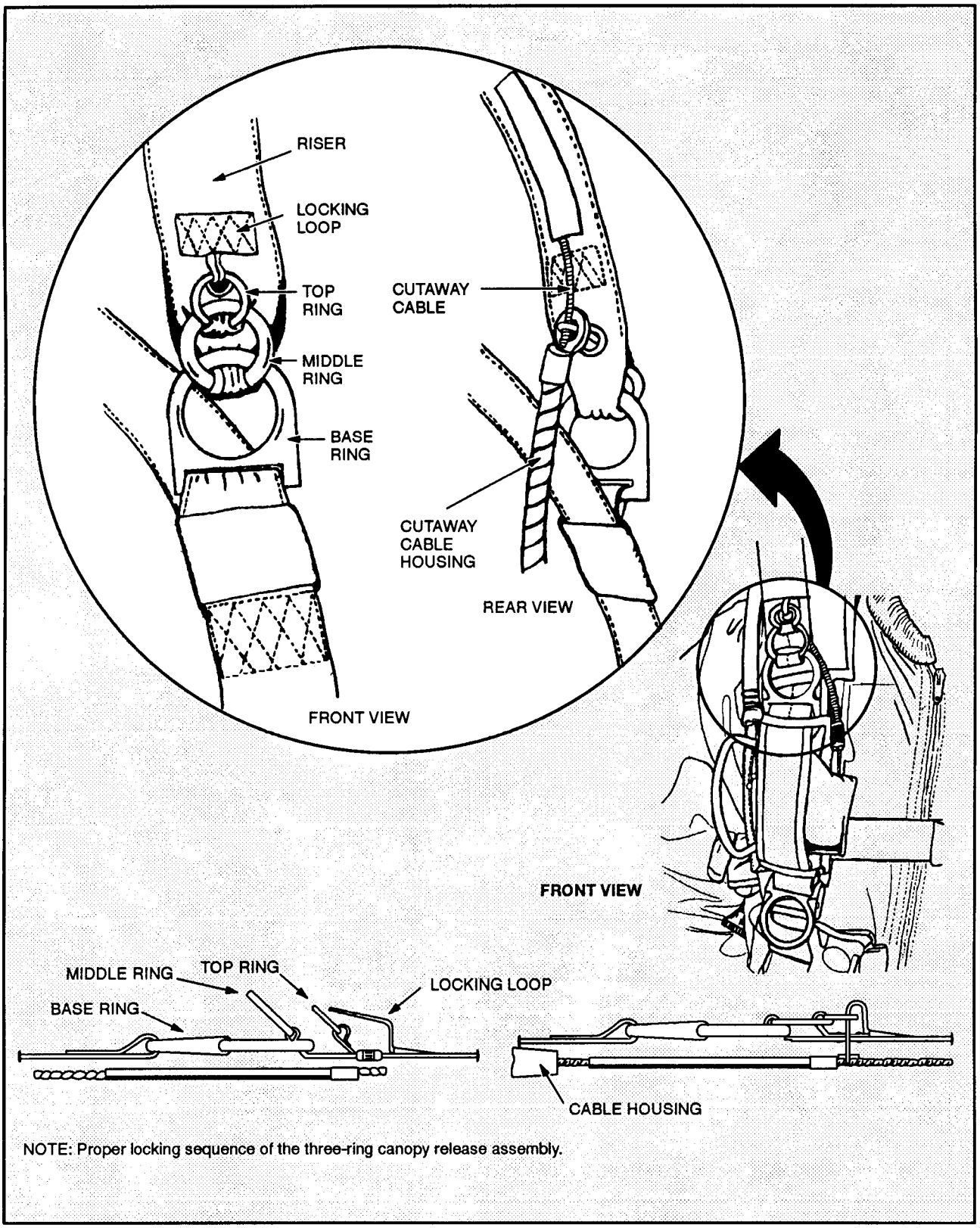


Figure 2-4. Location and locking sequence of the three-ring canopy release assembly.

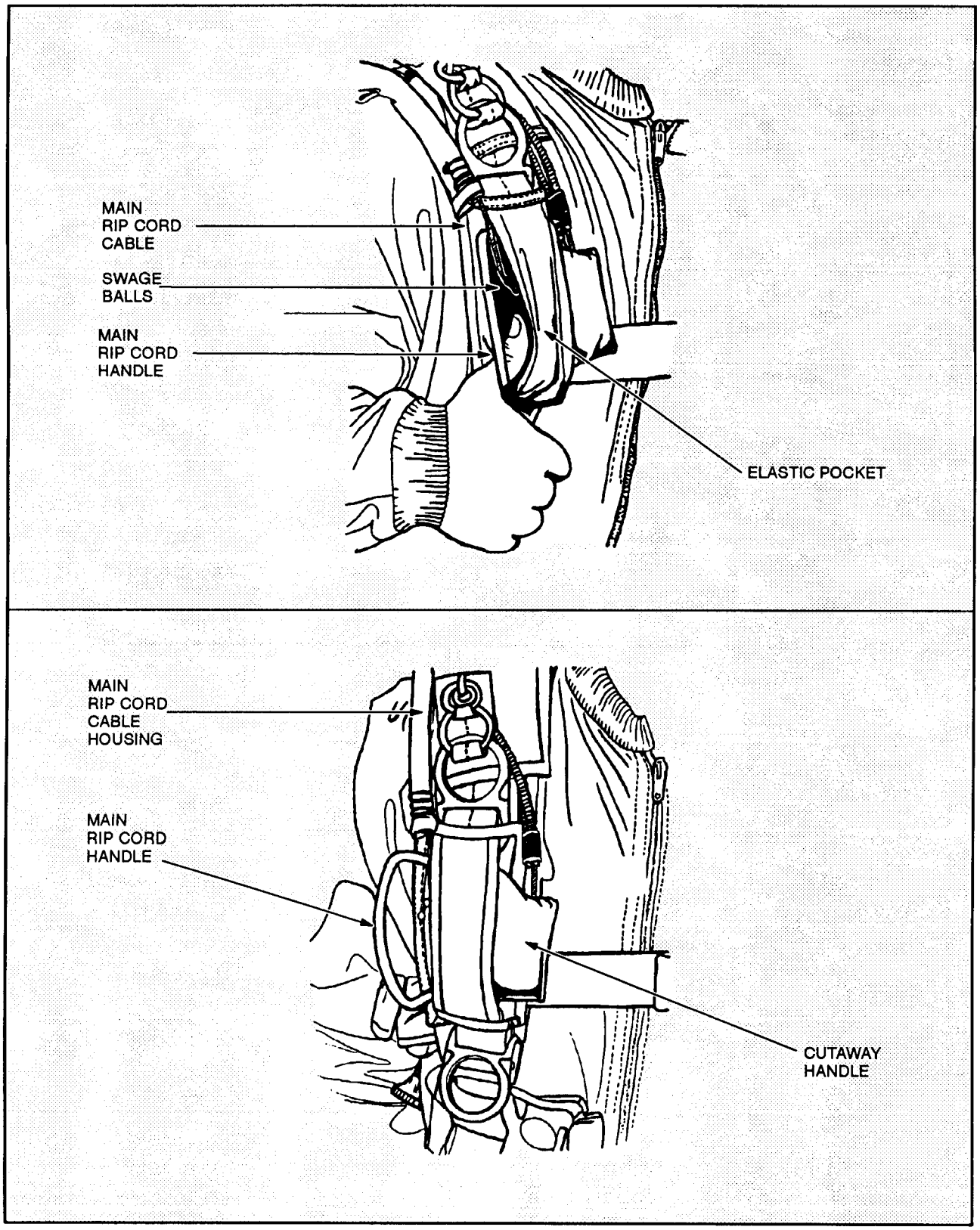


Figure 2-5. Location of the main rip cord handle and cutaway handle (front view).

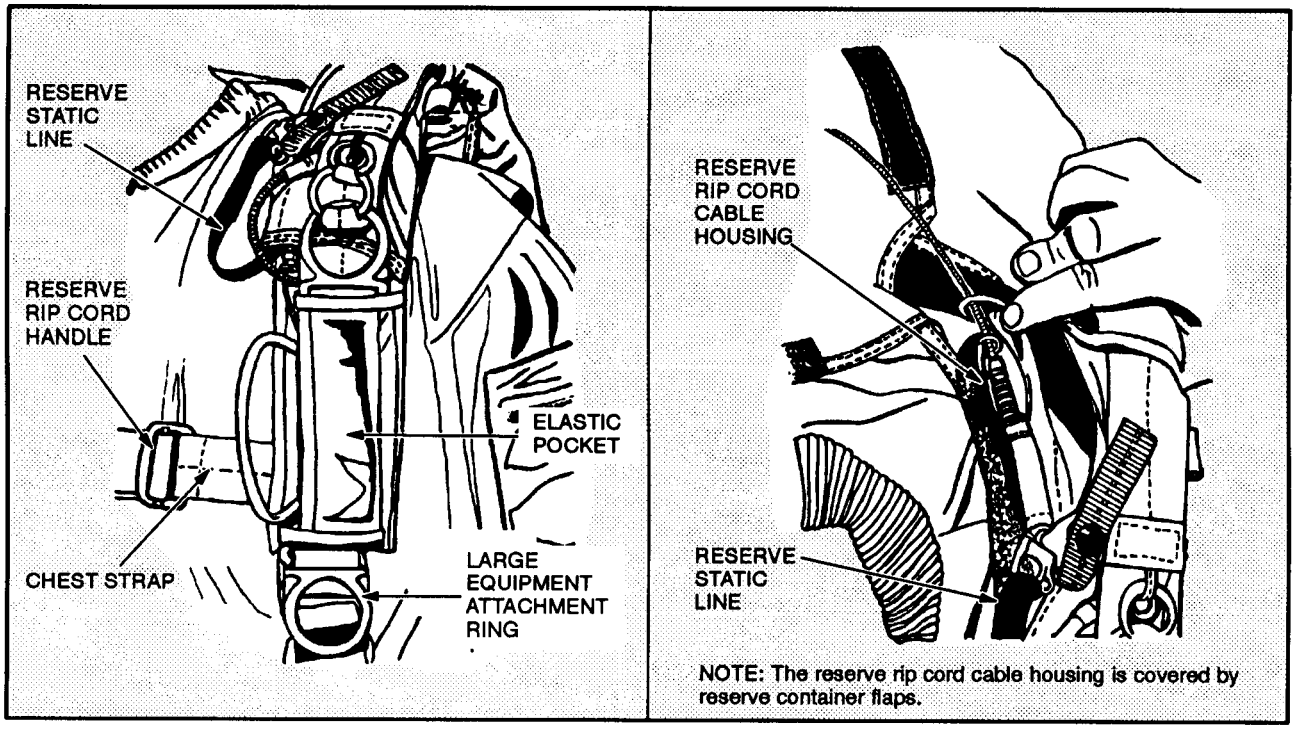


Figure 2-6. Location of the chest strap, reserve rip cord handle, large equipment attachment ring, and reserve rip cord cable housing (front view).

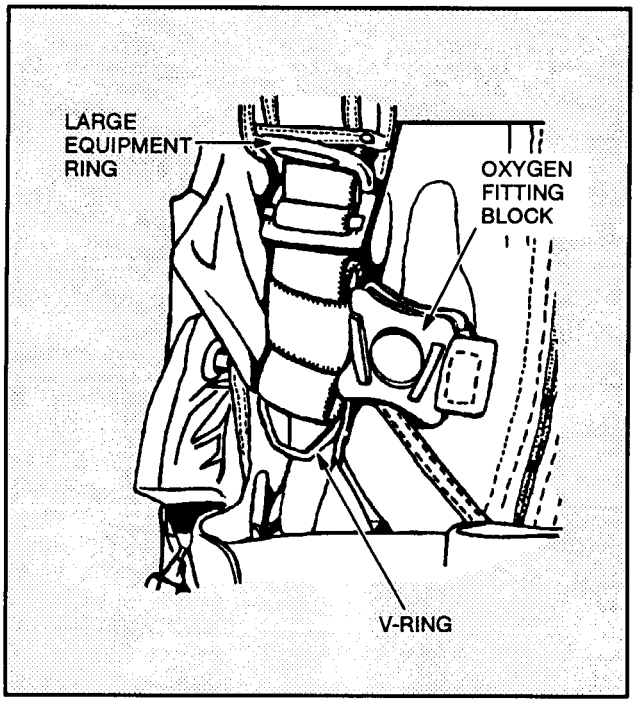


Figure 2-7. Location of oxygen fitting block and equipment lowering line attachment V-rings (front view).

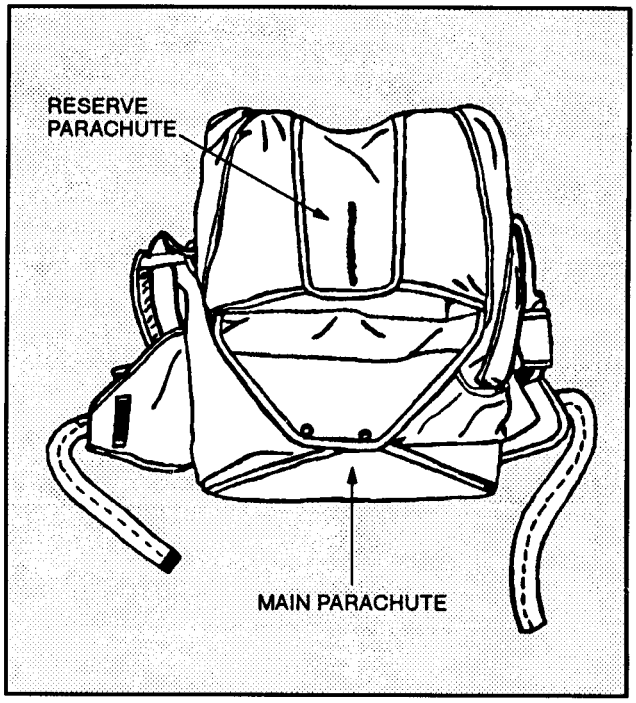


Figure 2-8. Location of the main and reserve parachutes in the container.

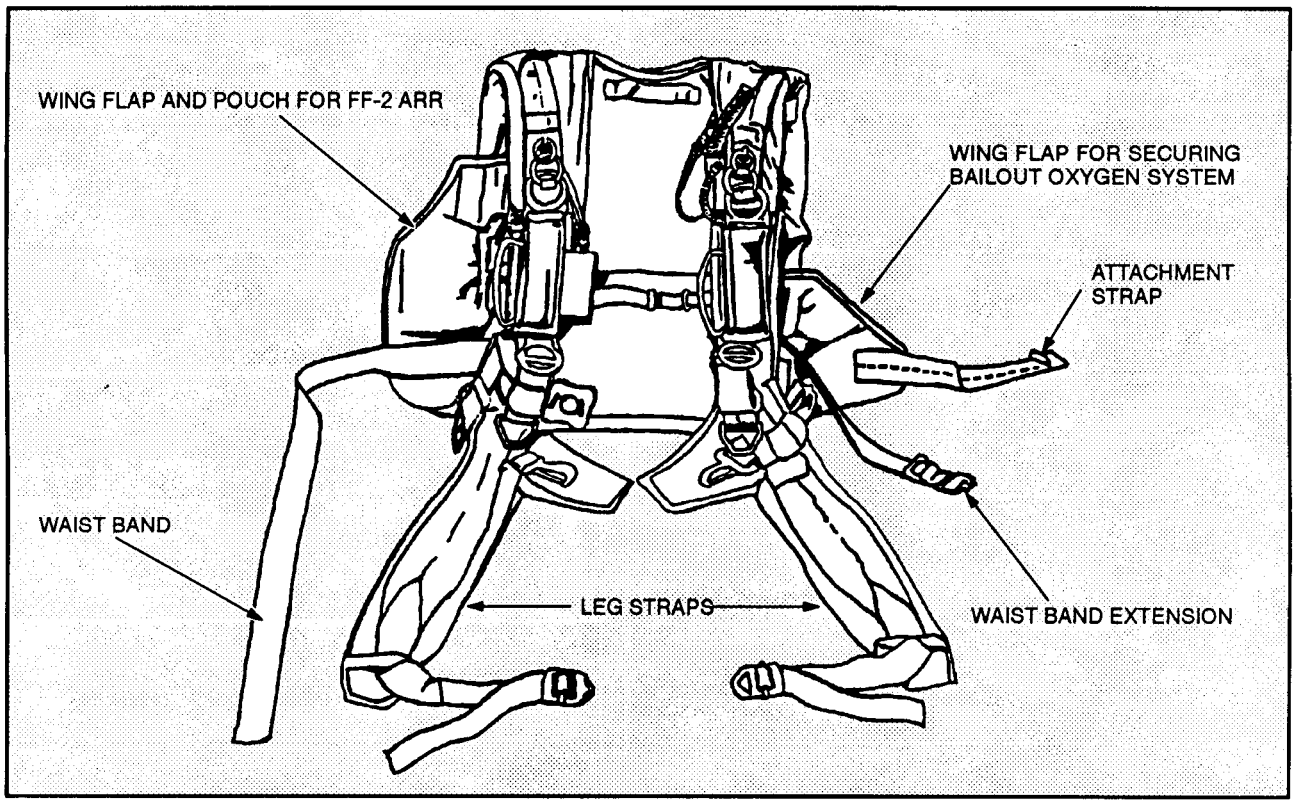


Figure 2-9. Location of straps (front view).

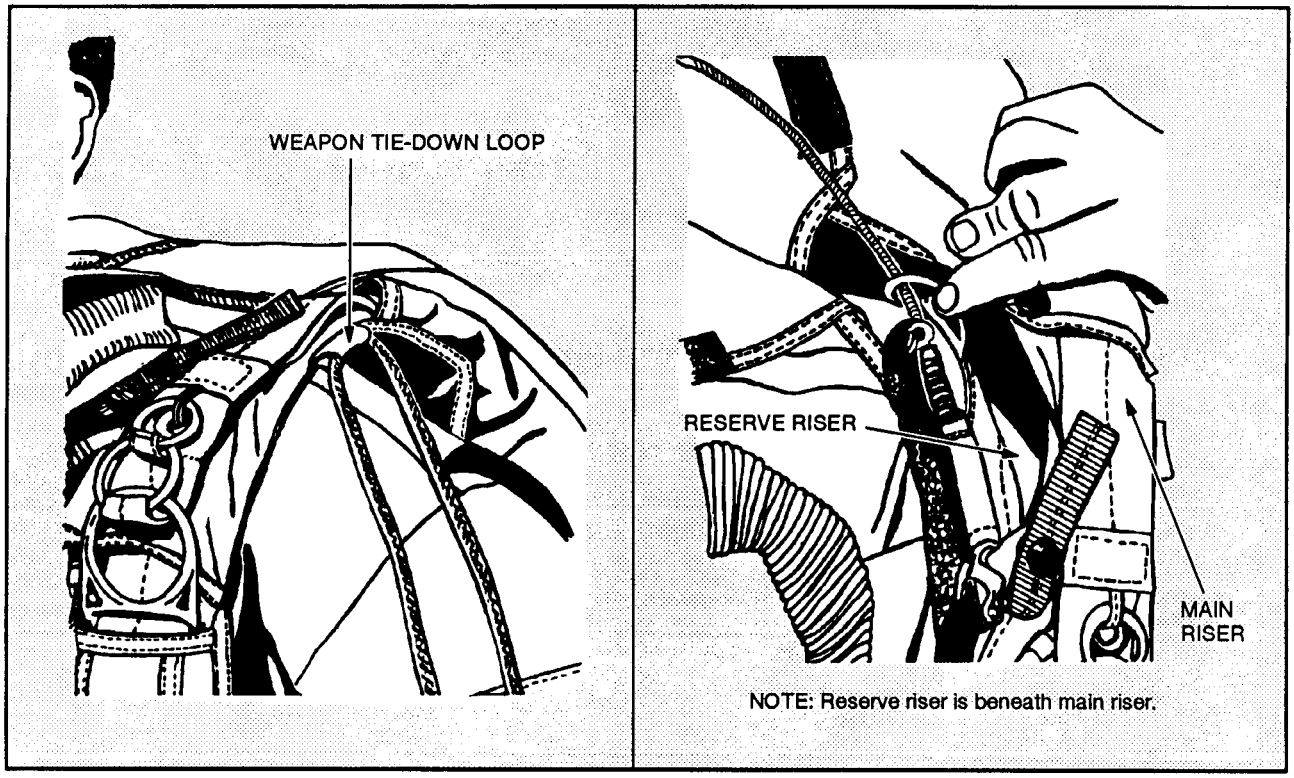


Figure 2-10. Location of the weapon tie-down loop and reserve risers (front-side view).

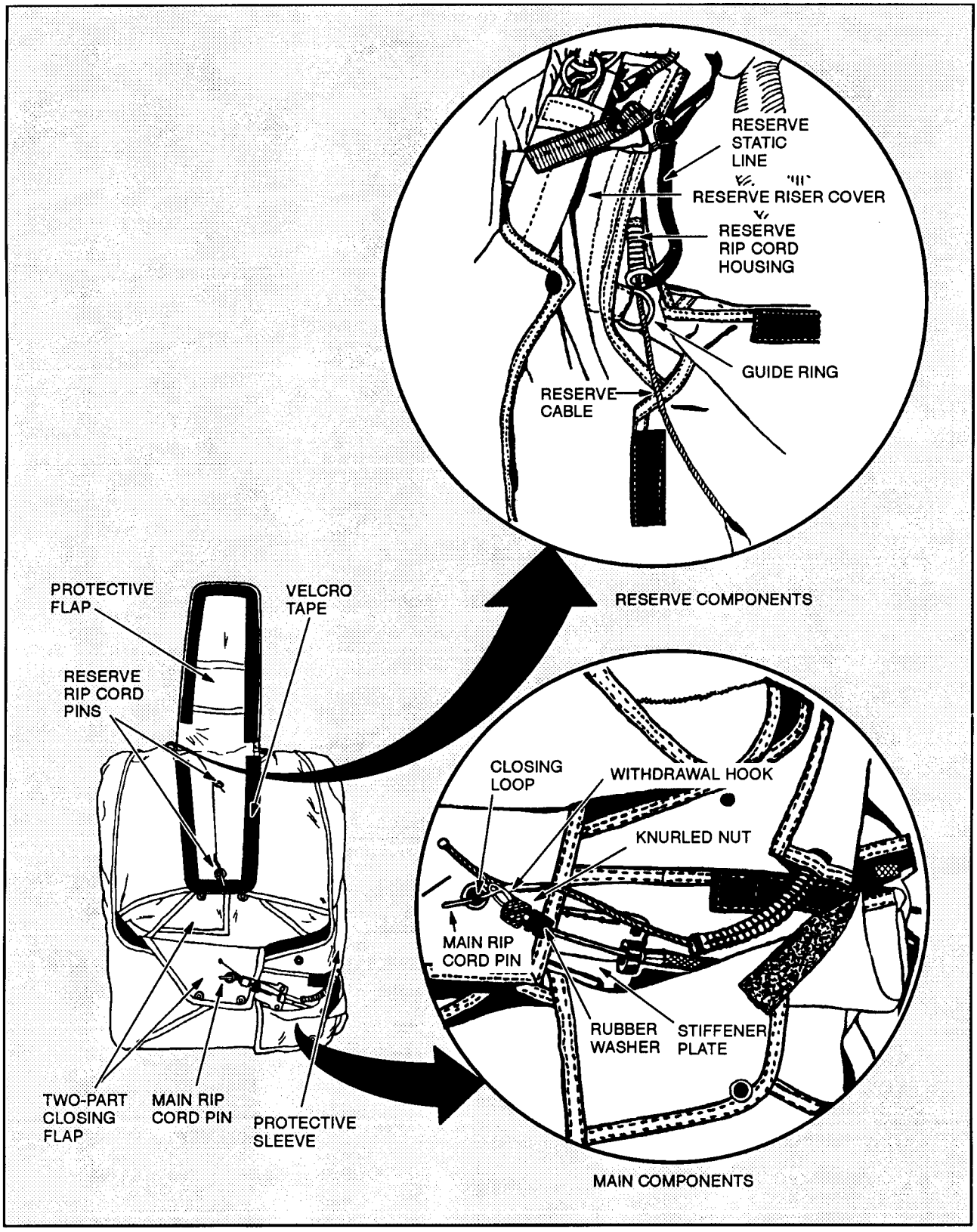


Figure 2-11. Location of main and reserve components.

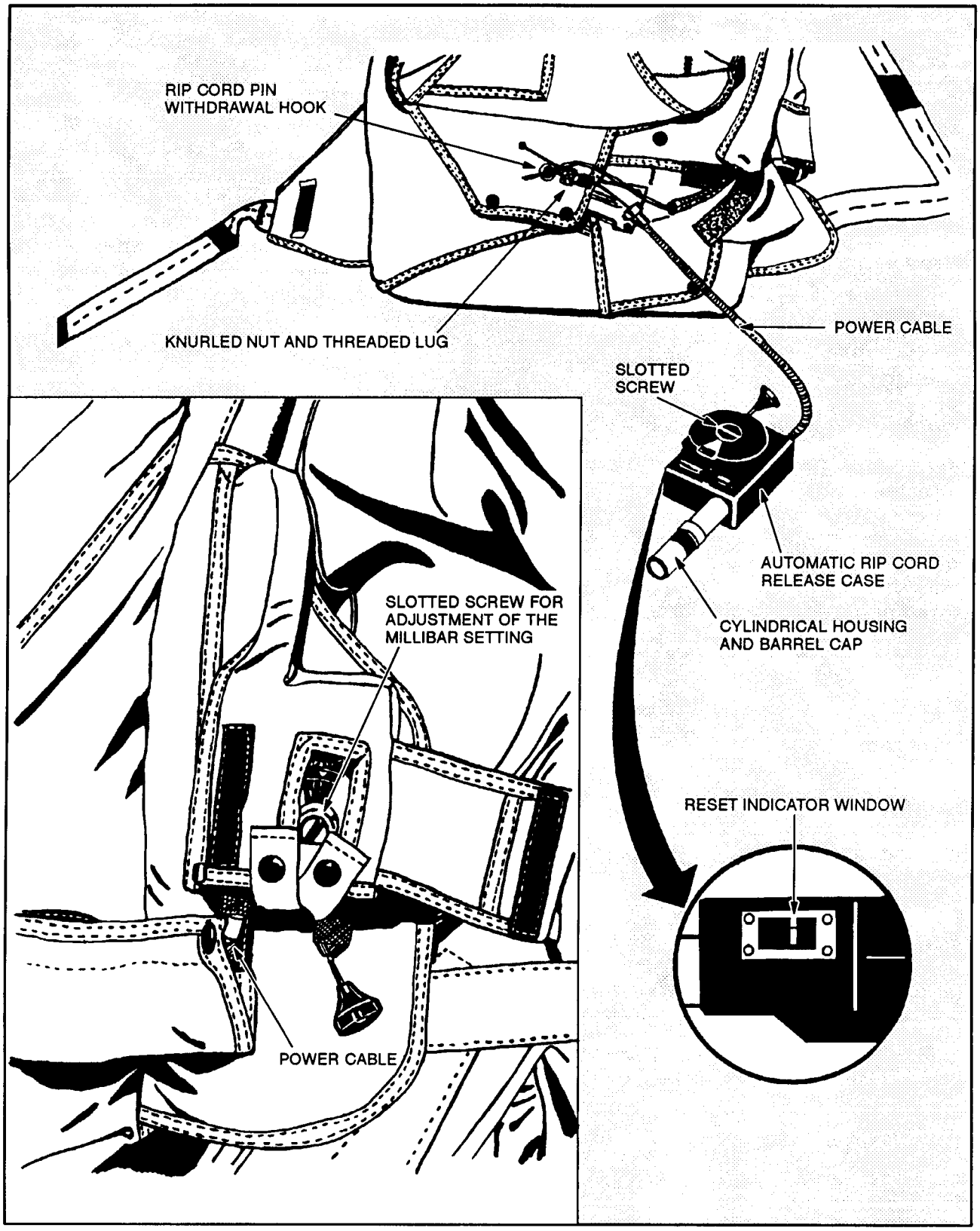


Figure 2-12. ARR assembly components.

Helmet Assembly

The MFF parachutist uses the MC-3 helmet ("bunny"), which is a semirigid, padded leather helmet and the Gentex and Bell helmets (see Figure 2-l). These helmets have bayonet receptacles used to attach the oxygen mask. When the jumpmasters use these helmets, they modify them to include internal earphones and an external microphone for communications.

WARNING

The parachutist should ensure the MFF parachutist helmet has been modified for compatibility with and the proper fit of the oxygen mask.

Standard driving goggles were issued with the semirigid leather (MC-3) parachutist helmet, However, they are not recommended for use because they can limit the parachutist's field of vision. This potential problem increases when the oxygen mask is worn. Only the clear lens should be used. The lens should be relatively free of scratches that might obstruct the vision, Commercial goggles (Kroop), also issued, provide a wider field of vision and come in two sizes, regular and a larger, boxier design that will fit over standard military eyeglasses.

Other helmets approved for use and issued include the Gentex (HGU-55/P) lightweight parachutist helmet and the Bell motorcycle helmet (not full face). The Bell motorcycle helmet must have bayonet receptacles installed for the attachment of the oxygen mask. The technical bulletin referenced in the WARNING, above, describes the procedure to emplace the bayonet receptacles.

MA2-30/A Free-Fall Altimeter

The parachutist wears the MA2-30/A altimeter on his left wrist (Figure 2-13). The altimeter shows his altitude above the ground during free-faill. It permits him to determine when he has reached the proper altitude for deploying the main parachute. The altimeter must be transported and stored with care. It must be chamber tested for accuracy IAW TM 10-1670-264-13&P. It must be rechecked after an unusually hard landing and after accidentally dropping it. An altimeter that was submerged in water must be replaced.

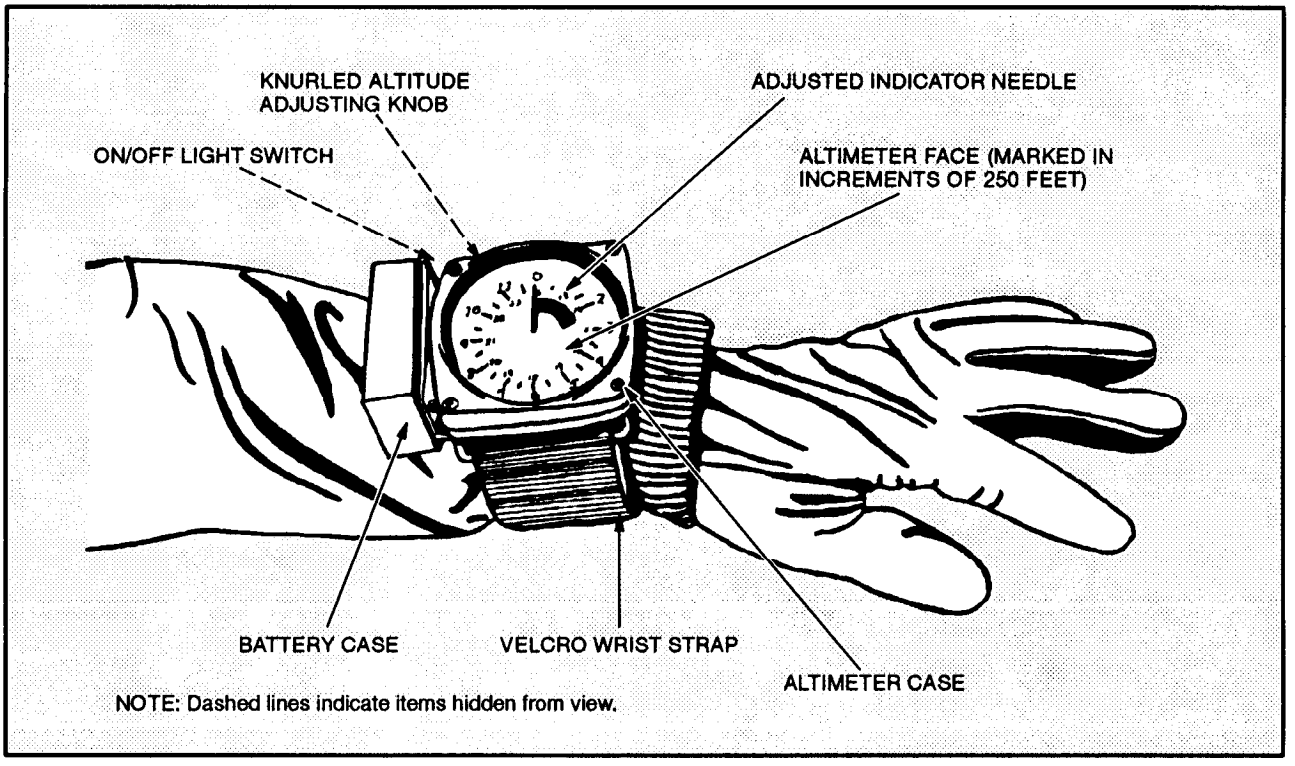


Figure 2-13. MA2-30/A free-fall altimeter.

Other Recommended Items

Gloves, boots (without speed lacing hooks), and jumpsuits are not RAPS' components; however, they are considered mandatory safety equipment. Different types of gloves, boots, and jumpsuits may be necessary depending upon the degree of environmental protection required.