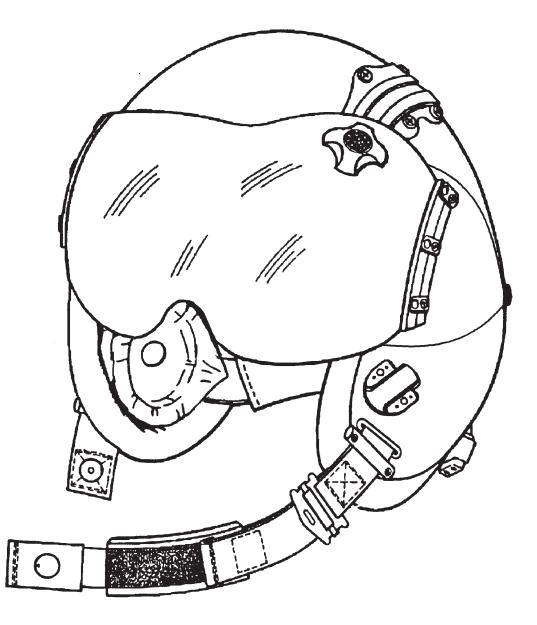
OPERATION AND MAINTENANCE MANUAL WITH ILLUSTRATED PARTS BREAKDOWN

HGU-68/P HELMET ASSEMBLY



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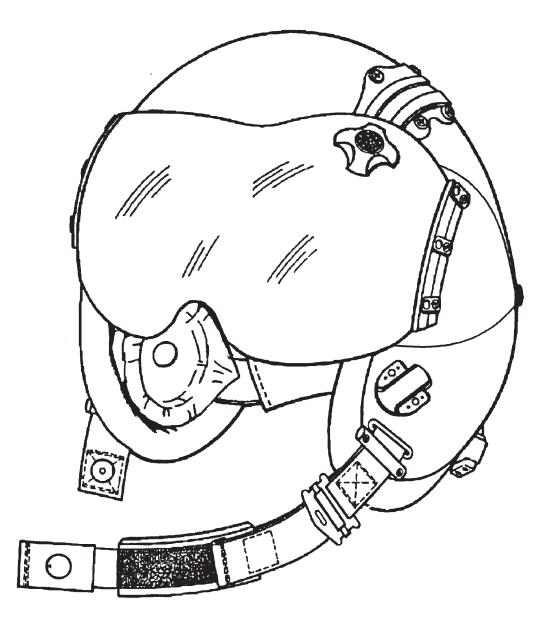


Figure 1-1. HGU-68/P Helmet Assembly

CHAPTER 1

INTRODUCTION AND GENERAL INFORMATION

1-1 INTRODUCTION

The HGU-68/P helmet assembly has a lightweight helmet shell constructed of graphite, ballistic nylon, fiberglass, and epoxy resin. The helmet assembly is form-fit, and an integrated chin/nape strap assembly enhances stability. The lightweight helmet assembly is designed to provide face, eye, aural, and head protection when properly assembled and fitted to the aircrew member. The helmet assembly also houses the headset communications and allows for the use of a single visor assembly.

1-2 SCOPE

This manual contains a description of the HGU-68/P Helmet Assembly as well as the sizing, fitting, and maintenance instructions required to outfit aircrew members successfully and to subsequently maintain the equipment.

1-3 SYSTEM DESCRIPTION

1-3.1 HGU-68/P HELMET ASSEMBLY

The HGU-68/P is a single-lens helmet assembly for use in aircraft where an oxygen mask is used. The CX-4708A/AIC cable assembly is used for communication. See Chapter 4.

1-3.2 HELMET SHELL ASSEMBLY (Figure 1-2)

The helmet shell assembly is intended to provide head protection during in-flight buffeting and emergency situations such as ejection, bailout, or crash landings. It has a polystyrene energy-absorbing liner and a fitted leather edgeroll installed. The helmet shell assembly is the platform for other components such as the EEU-7/P single lens visor assembly, communication devices, and the oxygen mask. A chin/nape strap assembly and a thermoplastic liner assembly are added to the helmet shell assembly to provide a better fit and increase stability.

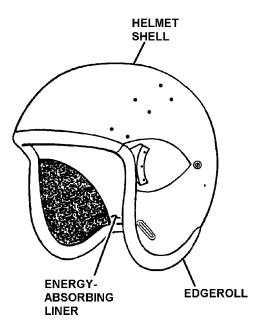


Figure 1-2. Helmet Shell Assembly

1-3.3 THERMOPLASTIC LINER (TPL) ASSEMBLY (Figure 1-3)

The TPL assembly, used in conjunction with the energyabsorbing liner installed in the helmet shell assembly, provides helmet stability and comfort. The TPL assembly consists of a preformed TPL layer assembly and a TPL cover assembly. The TPL assembly comes in three sizes: medium, large, and extra large.

1-3.4 EEU-7/P VISOR ASSEMBLY, SINGLE LENS (Figure 1-4)

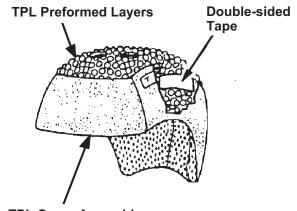
The EEU-7/P is a single-lens helmet visor assembly. When installed, the EEU-7/P provides face and eye protection from impact, projectile penetration, sun glare, dust, windblast, and fire. Each assembly comes with interchangeable clear and neutral lenses.

1-3.5 COMMUNICATION CABLE ASSEMBLIES

Each of the helmet assemblies is outfitted with the appropriate communication components for operation with aircraft. See Chapter 4.

1-3.6 BAYONET RECEIVER ASSEMBLY (Figure 1-5)

The bayonet receiver assembly allows for the use of an oxygen mask. The receivers are individually fitted.



TPL Cover Assembly

Figure 1-3. TPL Assembly

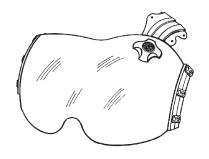


Figure 1-4. Visor Assembly

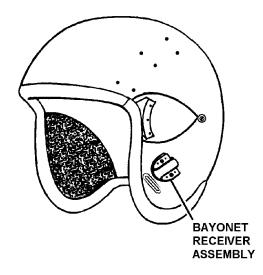


Figure 1-5. Bayonet Receiver Assembly

1-4 GROUND SUPPORT EQUIPMENT

1-4.1 Flyer's Helmet Bag (Optional)

The flyer's helmet bag is a nylon fabricated bag and is used for holding the aircrew member's helmet and auxiliary equipment.

1-5. REFERENCE NUMBERS, ITEMS, AND SUPPLY DATA

The Illustrated Parts Breakdown in Chapter 4 contains information on each assembly, subassembly, and component part of this series of helmet assemblies. It also contains figure and index numbers, reference or part numbers, description, and units per assembly.

CHAPTER 2

HELMET SIZING AND FITTING

2-1 SIZING

To select the proper size helmet shell assembly for the aircrew member, proceed as follows :

NOTE

Ideally, aircrew members will wear the same size helmets as in previous designations. However, if a good fit is not possible, additional sizing procedures may be required.

1. If helmets are available, the aircrew member should trial fit to determine the correct size to be ordered. If helmets are not available, measure the circumference of the head, at the hatband line, with a tape measure. Refer to Table 2.1 as a guide for sizing.

NOTE

Sizing instructions are provided only as a general guidance. Because of the wide variation in head shapes likely to be encountered, it is not possible to present detailed guidance. The helmet is designed to provide lightweight head protection and should fit close to the head. For this reason, aircrew members should be fitted with the smallest helmet size that provides an acceptable fit.

2. Once the correct size has been determined, requisition the helmet shell assembly through normal supply channels.

| CIRCUMFERENCE (INCHES) | SHELL AND LINER SIZE REQUIRED |
|------------------------|-------------------------------|
| 22.4 or less | Medium |
| 22.5 - 24 | Large |
| 24 or more | X-Large |

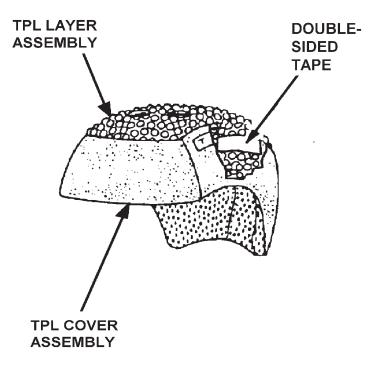
2-2 FITTING OF TPL ASSEMBLY

| QUANTITY | DESCRIPTION | REFERENCE NUMBER |
|-------------|--|----------------------------|
| - | Fastener tape, hook, pressure sensitive | 85B7027 |
| As required | Tape, double coated, vinyl, 1 inch x 2 inches (approximately) | No. 419 (3M) or equivalent |

MATERIALS REQUIRED

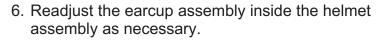
To fit the TPL assembly in the helmet shell assembly, proceed as follows:

- If four 1-inch x 2-inch pressure-sensitive hook fastener tabs are not present on the inside surface of the energy-absorbing liner, installation is required. Install two tabs vertically on the front of the energy-absorbing liner, and two tabs in the rear approximately 1-1/2 inches left and right from the center and approximately 1/4 inch from the bottom edges.
- 2. Ensure that the TPL cover assembly is secured to the TPL preformed layer assembly using two approximately 1-inch x 2-inch pieces of double-sided tape (one on each side) as shown in Figure 2-1.





- 3. Referring to Figure 2-2, place the TPL assembly inside the helmet shell assembly by squeezing the TPL assembly sides together in order to clear the earcup assembly and ensuring that the large holes in the TPL assembly (wide end) are toward the front of the helmet assembly.
- 4. Ensure that the front edge of TPL assembly is aligned with the front edge of the energyabsorbing liner inside the helmet assembly, and that the TPL assembly is centered in the helmet assembly.
- 5. Referring to Figure 2-3, have the aircrew member don the helmet assembly with TPL assembly by placing the front edgeroll on the forehead and rotating the helmet assembly rearward down onto the head. Proper eye offset is achieved by having the aircrew member rotate the helmet assembly forward to the position on the forehead that will allow aircrew member to initially sight the front edgeroll of the helmet assembly while looking upward.



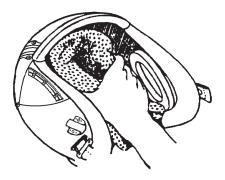


Figure 2-2. Installing TPL

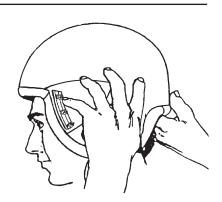


Figure 2-3. Donning Helmet

- 7. Adjust the chin/nape strap assembly, without disturbing the eye offset. The nape strap pad should fit snug against the nape area of the aircrew member's head.
- 8. Ensure that the helmet assembly fits properly without hot spots or pressure points on the aircrew member's head. If the helmet assembly fit is too tight and/or hot spots and pressure points exist, proceed as follows:
 - a. Remove TPL assembly from helmet assembly.

The TPL assembly requires a minimum of two layers and a maximum of five layers to provide proper fit and protection.

b. Remove up to, but no more than, three plastic layers from the TPL assembly. Remove layers one at a time from the inside of the liner. Check for proper fit after each plastic layer is removed.

- 9. After following the procedures listed above, if a safe, stable fit cannot be obtained, then the TPL may be heat softened and reformed to aircrew member's head dimensions. To reform the TPL, proceed as follows:
 - a. Set the oven rack to the lowest position, and heat the oven to 200° 5°F. Place the thermometer on the rack in a position where it may be observed throughout the entire heating process.
 - b. Thoroughly brief the aircrew member on the fitting procedures, emphasizing those to be accomplished by the wearer.
 - c. Remove the TPL assembly from the helmet. Do not remove the cloth cover. The TPL is heated as a unit.

CAUTION

Do not attempt to heat the TPL in a microwave or toaster oven, as permanent damage to the liner will result.

d. After 15 minutes, ensure the oven is stabilized at the pre-set temperature, and place the TPL onto the center of the oven rack with the fabric side down. Set the timing device for 8 minutes.

NOTE

Heating characteristics of ovens vary. This should be taken into account during the TPL heating process. The time stated above is for reference only and is not a rule. The length of time required to soften the liner will vary based on the number of TPL layers being heated (e.g., fewer layers will require less time to soften.)

- e. Check oven temperature every two to three minutes to avoid overheating. Do not leave the TPL unattended while heating.
- f. As an aid to allow easy positioning of the heated liner into the helmet, place masking tape over the rear hook fastener tapes.

NOTE

The following steps are to be performed by the aircrew member assisted by the Aircrew Survival Equipment Person, and should be accomplished within 30 seconds of removal of the heated liner from the oven.

The TPL plastic layers will be hot. When removing the TPL from the oven, touch only the fabric-covered portion to avoid burning your hands.

- g. Remove the TPL from the oven, touching only the fabric-covered portion. Squeeze in the sides of the TPL in order to clear the earcup assemblies, and insert the heated liner into the helmet with the wide end toward the front of the helmet.
- h. With the TPL centered in the helmet, have the aircrew member hook his/her thumbs over the edgeroll, spread the helmet slightly, place the front of the helmet against the brow, and rotate the helmet rearward and downward to don. The Aircrew Survival Equipment Person should hold the rear portion of the TPL tightly against the energy-absorbing liner during donning to ensure that the TPL does not bunch up in the rear.
- i. With the palms of the hands placed on top of the helmet, have the aircrew member apply downward pressure until the ears are centered in the earcup assemblies and the eye offset is correct. (See Step 5.) Maintain this pressure for 5 minutes.
- j. Release downward pressure at the end of 5 minutes and check the helmet fit. If required, steps a through i may be repeated until a satisfactory fit is achieved.
- k. Once a satisfactory fit is achieved, have the aircrew member doff the helmet. Lift the rear portion of the TPL away from the energy-absorbing liner, and remove masking tape from the hook fastener tapes.

CAUTION

To avoid damage to the TPL plastic layers from excessive heat, do not store the helmet in a closed cockpit or automobile. The temperature in these closed areas can exceed 200° F (93.3°C) on an 85°F (30°C) day.

NOTE

The TPL cover can be laundered or dry-cleaned. After each laundering, replace the double-sided tape that attaches the TPL layer assembly to the TPL cover assembly.

2-3. FITTING OF BAYONET RECEIVER ASSEMBLY

| QUANTITY | DESCRIPTION | REFERENCE NUMBER |
|-------------|---------------------------|--------------------------------|
| 1 | Bayonet Receiver Assembly | 93A8514 |
| As required | | MIL-A-5540 NIIN 00-515-2245 |

Materials Required

CAUTION

Before drilling holes in the helmet shell, ensure that the TPL assembly and the chin/nape strap assembly are properly fitted and adjusted to the aircrew member's head. (Fitting instructions are in paragraph 2-2.) Location/alignment of the bayonet receiver assembly is critical, since the bayonet receivers are not adjustable.

- 1. Have the aircrew member don the properly fitted helmet.
- 2. Insert each oxygen mask bayonet into a jaw receiver to the third locking position. The projections on the jaw receiver should be positioned toward the tip of the bayonet.
- 3. Referring to Figure 2-4, have the aircrew member hold the properly adjusted oxygen mask against his/her face. Ensure that the oxygen mask straps have equal tension.

NOTE

Ensure that the jaw receivers are placed no closer than 1/2 inch from the edge of the helmet shell.

4. Hold each jaw receiver firmly against the helmet, ensuring that each offset bayonet is flush with and parallel to the edgeroll. Then use a lead pencil to trace the outline of each jaw receiver assembly onto the helmet. Do not use marker or grease pencil.



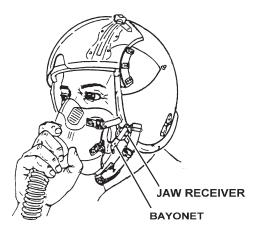


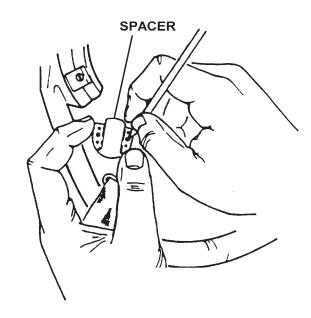
Figure 2-4. Oxygen Mask Against Crewmember's Face 5. While holding only the bayonet receiver spacers against the helmet at the marked positions, use a lead pencil to mark the screw holes onto the helmet shell.

CAUTION

When drilling holes in the helmet shell, hold the drill perpendicular to the shell to prevent damage to the shell.

 Remove the earcup assembly on one side. Referring to Figure 2-6, pull back the earcup pile fastener fabric inside the helmet shell on the same side. Using a #25 drill bit, drill the marked hole locations. Repeat for the other side.

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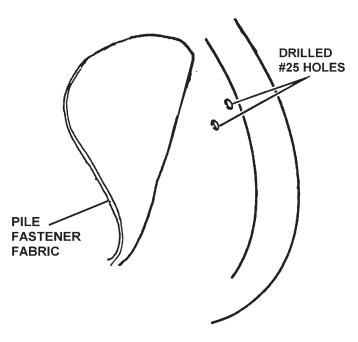


Figure 2-6. Pile Fastener Fabric Pulled Back

NOTE

You may apply a small amount of thread locking adhesive to each screw before you add the lock washer and backplate.

You should fit each spacer against the riveted side of the jaw receiver.

- 7. Hold the pile fastener fabric away from the helmet shell. Referring to Figure 2-7, insert the screws with the lock washers through the backplate and the inside of the helmet shell. Attach the spacers and receivers to the outside of the helmet shell. Ensure that the jaw receiver projections point to the rear of the helmet.
- 8. Tighten all screws so that the jaw receivers and spacers are firmly attached to the helmet.
- 9. Cement the earcup pile fastener fabric to the inside of the helmet shell. Cut an "X" pattern into the fabric across each screw head to facilitate inspection and tightening.
- 10. Reinstall the earcup assembly.

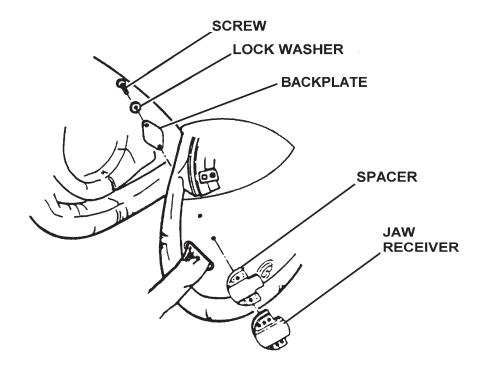


Figure 2-7. Bayonet Receiver Assembly

CHAPTER 3

MAINTENANCE

3-1 GENERAL

Proper care and use of the HGU-68/P helmet assembly is essential to ensure optimum performance during emergencies and outline operations. Repairs or other maintenance action required shall be performed by organizational level or above upon issue and at least every 90 days thereafter.

3-2 INSPECTION

Preflight/Postflight Inspection. The Preflight and Postflight Inspection is a visual inspection performed by the aircrew member to whom the helmet assembly is issued before/after each flight. To perform the helmet assembly inspection, visually inspect for the general overall condition of the helmet assembly. Refer to paragraph 3-2.2.

NOTE

Defects or questionable areas noted during this inspection shall be referred to the proper maintenance activity for required corrective action.

3-2.1 Calendar Inspection

The Calendar Inspection shall be conducted every 90 days at the organizational level and shall consist of a visual inspection, a functional check, and a thorough cleaning of the helmet assembly.

3-2.2 Visual Inspection

To visually inspect the helmet assembly, proceed as follows:

- 1. Inspect the chin/nape strap assembly for loose or broken stitching, snap fastener retention, and fraying.
- 2. Inspect the helmet shell assembly for splits, cracks, chips, and delamination.
- 3. Inspect the MK-634/AIC cable clip (if used) for security to the helmet. See Figure 3-1 on Page 3-6.
- 4. Inspect the visor assembly components for cracks, splits, and chips; inspect the lenses for scratches and cracks.
- 5. Inspect the edgeroll for rips, tears, splits, or loosening from the helmet shell.
- 6. Inspect the communication cables and cordsets for cut, split, or abraded insulation.
- 7. Inspect the earcups for proper installation in the earpads.
- 8. Inspect the earpads for pliability.
- 9. Inspect all hardware for damage and security of attachment. Tighten or replace as necessary.
- 10. Inspect the oxygen mask receivers for proper function and retention to the helmet shell assembly.

NOTE

Defects determined from this inspection shall be referred to the proper maintenance activity for required corrective action.

3-3 CLEANING

To clean the various parts of this helmet assembly, proceed as follows:

| QUANTITY | DESCRIPTION | REFERENCE NUMBER |
|-------------|--------------------|--|
| As required | Detergent, laundry | Commercial |
| As required | Plastic polish | P-P-560 TY1 NIIN 00-935-3794 or equivalent |
| As required | Cloth, lint-free | MIL-C-85043 NIIN 00-165-7195P or equivalent |

MATERIALS REQUIRED

- 1. *Helmet Shell Assemblies.* Clean the helmet shell assemblies as follows:
 - a. Clean the helmet shell assembly using a mild detergent and a lint-free cloth dampened with water. Mild abrasive scouring powder may be used to remove stains or scuff marks.
 - b. Wipe the helmet shell assembly clean using a water-dampened cloth to remove detergents.
- 2. *Chin/Nape Strap Assembly and Fitting Pads.* Clean the chin/nape strap assembly and fitting pads as follows:
 - a. Clean by lightly sponging with a mild solution of detergent and water.
 - b. Wipe with a damp, lint-free cloth.
- 3. TPL Assembly. Clean the TPL assembly as follows:
 - a. Remove the cover assembly from TPL assembly.
 - b. Clean the cover assembly by hand-washing with a mild solution of detergent and water.
 - c. Thoroughly rinse in clear water and air-dry.
 - d. Apply new double-sided tape to the cover assembly, and reassemble the TPL assembly.

4. Skull Cap. Laundering of the skull cap is the responsibility of the aircrew member.

CAUTION

Handle the visors by the edges only.

Avoid scratching the visors with rings, watches, buckles, and other metal or glass objects.

Do not spray or splash cleaner directly onto the visor or submerge the visor in any liquid.

5. *Visor Assemblies.* Clean the visor assemblies with a soft, lint-free cloth dampened with a 70 percent isopropyl alcohol solution or equal.

3-4. SERVICING THE HELMET

3-4.1 INSPECTION UPON RECEIPT

Once the basic helmet shell assembly and components are received, carefully inspect the shipping containers for evidence of damage or signs of abuse. Open each container, and verify that all the required items have been included. If any parts are defective, damaged, or missing, replace all parts in the shipping container, prepare a Quality Deficiency Report (QDR), and notify the proper authority.

3-4.2 REPLACEMENT OF COMPONENTS FOR HGU-68/P

Order of Assembly. Refer to Table 3-1 for components and order of assembly. Fabricated components and parts shall be installed on the helmet shell assembly in accordance with and in the order shown in the appropriate tables.

NOTE

For clarification in determining the right and left side of the helmet assembly during build-up, assume the helmet to be donned by the aircrew member and determine helmet sides relative to the aircrew member's right and left sides.

| ORDER OF ASSEMBLY | COMPONENT / ASSEMBLY TO BE REPLACED | PARAGRAPH REFERENCE |
|----------------------|--|------------------------|
| 1 | Replacement of CX-4708A/AIC Cable Assembly, H-87B/U Earphones, and Earcup Assembly | 3-4.2.1 |
| 2 | Replacement of CX-4708A/AIC Cable Assembly and Cable Clip | 3-4.2.2 |
| 3 | Replacement of EEU-7/P Single Visor Assembly | 3-4.2.3 |
| 4 | Replacement of EEU-7/P Single Visor Lens | 3-4.2.4 |
| 5 | Replacement of EEU-7/P Visor Lock Assembly | 3-4.2.5 |
| 6 | Replacement of TPL Assembly Components | 3-4.2.6 |
| 7 | Replacement of Energy-Absorbing Liner | 3-4.2.7 |
| 8 | Replacement of Earcup Assembly Components | 3-4.2.8 |
| 9 | Replacement of Chin/Nape Strap Assembly | 3-4.2.9 |
| 10 | Replacement of Chin Strap and Chinpad | 3-4.2.10 |
| 11 | Replacement of Bayonet Receiver Assembly | 3-4.2.11 |

Table 3-1. HGU-68/P Assembly of Components

3-4.2.1 Replacement of CX-4708A/AIC Cable Assembly, H-87B/U Earphones, and Earcup Assembly

| QUANTITY | DESCRIPTION | REFERENCE NUMBER |
|----------|---------------------------------------|------------------------------|
| 1 | Cable Assembly, CX-4708A/AIC (MOD) | CX-4708A/AIC(MOD) 89B7742 |
| 1 | Cable Clip, MK-634/AIC (See note) | NIIN 00-864-8047 |
| 2 | Earphones, H-87B/U | NIIN 01-056-7225 |
| 1 | Earcup Assembly | 89C7735-1 |

MATERIALS REQUIRED

To replace the CX-4708A/AIC cable assembly, H-87B/U earphones, earcup assembly, or cordset, proceed as follows:

- 1. Pass two CX-4708A/AIC cable leads with earphone contacts through the large hole in the bottom rear of the helmet shell assembly. Press the large grommet encircling the cable assembly into the large hole and secure.
- (Optional) Secure the CX-4708A/AIC cable assembly connector (U-179A/U) to the helmet shell assembly, using the MK-634/AIC cable clip as shown in Figure 3-1.

NOTE

The longer earphone leads must be positioned leading to the right earphone.

The left-hand earpad can be distinguished from the right-hand earpad by ensuring that the communication cord hole faces the rear of the helmet assembly.

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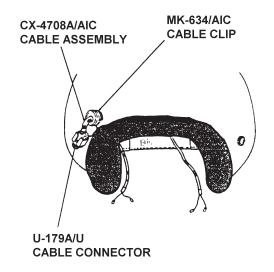
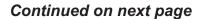


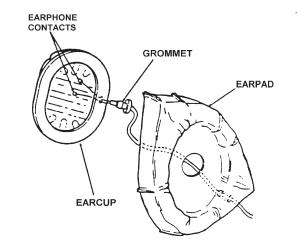
Figure 3-1. CX-4708A/AIC Cable Assembly Connector Secured to Helmet Assembly 3. Insert the left-hand and right-hand earphone leads through the holes in the left-hand and right-hand earpads.

NOTE

The left-hand earcup can be distinguished from the right-hand earcup by the positioning of the earcups inside the helmet assembly. The tapered ends of the earcups should face down, and the communication cord hole should face to the rear of the helmet assembly.

- Insert the earphone contacts and small grommets into the holes of the left-hand and right-hand earcups as shown in Figure 3-2. Secure the grommets.
- 5. Insert earphone contacts into earphones as shown in Figure 3-3, and tighten setscrews.
- 6. Insert earphones into cavity of earphone holders as shown in Figure 3-4.







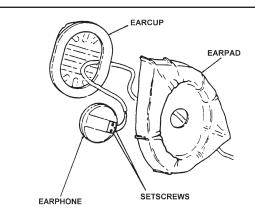
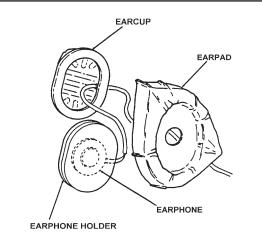
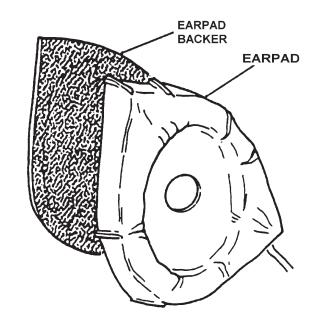


Figure 3-3. Earphones Contacts Inserted into Earphones





- 7. Position the earphone holders with the enclosed earphones into the left-hand and right-hand earcups. Smooth the earphone holders inside the left-hand and right-hand earcups to eliminate bunching.
- 8. Referring to Figure 3-5, position the left-hand and right-hand earcups into the earpads and cover with the earpad backers (optional).





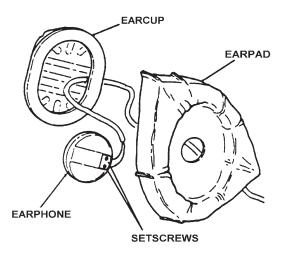
NOTE

Proper fitting of the earcup assembly inside the helmet assembly is not required at this time.

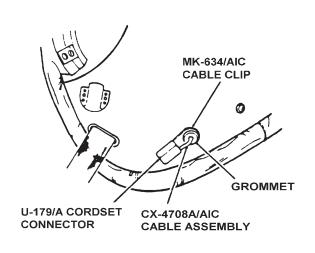
9. Attach the earcup assembly to the pile sections of the left-hand and right-hand sides of the interior helmet assembly.

3-4.2.2 Replacement of CX-4708A/AIC Cable Assembly and Cable Clip

- 1. If only the MK-634/AIC cable clip is defective:
 - a. Remove the U-179A/U connector from the cable clip.
 - b. Remove the cable clip by rotating it clockwise and pulling it away from the large grommet.
 - c. Replace the MK-634/AIC cable clip by pressing it against the large grommet and rotating it counterclockwise.
 - d. Reinsert the U-179A connector into the cable clip.
- 2. If only the CX-4708A/AIC cable assembly is defective, remove it along with the MK-634/AIC cable clip.
 - a. Disconnect the mask cordset from the U-179A/U connector on the CX-4708/AIC cable assembly.
 - b. Remove the earcup assembly from the helmet shell assembly.
 - c. Remove the earpad backers from the left-hand and right-hand earpads.
 - d. Remove the earphones from the earphone holders located inside the now exposed left-hand and right-hand earcups.
 - e. Referring to Figure 3-6, loosen the two setscrews, and remove the earphone contacts from the left-hand and right-hand earphones.
 - f. Remove the left-hand and right-hand earphone leads and grommets from the left-hand and right-hand earcups and earpads.
 - g. Referring to Figure 3-7, remove the U-179A/U cordset connector from the MK-634/AIC cable clip.









- h. Remove the large grommet encircling the cable from the helmet assembly.
- i. Discard the defective CX-4708A/AIC cable assembly.
- 3. Replace the CX-4708A/AIC cable assembly and the MK-634/AIC cable clip.
 - a. Pass two CX-4708A/AIC cable leads with earphone contacts through large hole in the bottom rear of the helmet assembly. Press the large grommet encircling the cable assembly into the large hole and secure it.
 - b. Secure the CX-4708A/AIC cable assembly connector (U-179A/U) to the helmet shell assembly, using the MK-634/AIC cable clip.

NOTE

The longer earphone leads must be positioned leading to the right earphone.

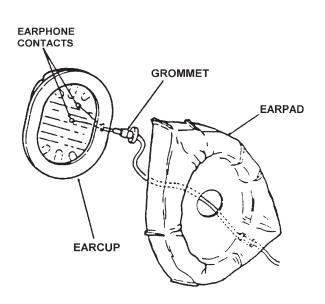
The left-hand earpad can be distinguished from the right-hand earpad by ensuring that the communication cord holes face the rear of the helmet assembly when placed inside the helmet assembly.

c. Insert the left-hand and right-hand earphone leads through the holes in the left-hand and right-hand earpads.

NOTE

The left-hand earcup can be distinguished from the right-hand earcup by their positioning inside the helmet assembly. The tapered ends of the earcups should face down, and the communication cord holes should face the rear of the helmet assembly.

> d. Referring to Figure 3-8, insert the earphone contacts and small grommets into the holes of the left-hand and right-hand earcups. Secure the grommets.



Continued on next page

Figure 3-8. Earphone Contacts Inserted into Earcup

- e. Referring to Figure 3-9, insert the earphone contacts into the earphones and tighten the setscrews.
- f. Referring to Figure 3-10, insert the earphones into the cavity of the earphone holders.
- g. Position the earphone holders with the enclosed earphones into the left-hand and right-hand earcups. Smooth the earphone holders inside the left-hand and right-hand earcups to eliminate bunching.
- h. Referring to Figure 3-11, position the left-hand and right-hand earcups into the earpads and cover with the earpad backers (optional).
- i. Have the aircrew member don the helmet; check the helmet fit.

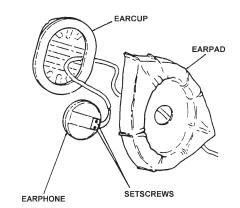


Figure 3-9. Earphone Contacts Inserted into Earphone

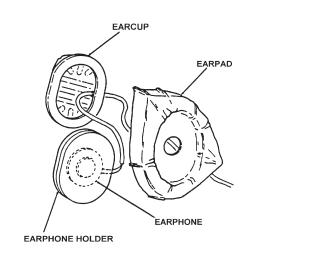


Figure 3-10. Earphone Inserted into Earphone Holder

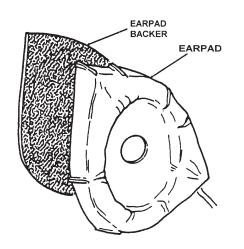


Figure 3-11. Earpad and Backer

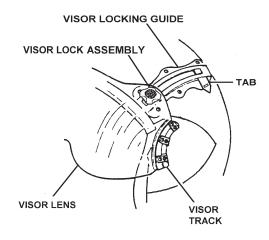
3-4.2.3 Replacement OF EEU-7/P Single Visor Assembly

| QUANTITY | REFERENCE NUMBER | |
|-------------|--------------------------------------|-------------------------|
| 1 | Visor Assembly, Single LWT, 600 Knot | 88B7586-2 |
| As required | Adhesive, Silicone | RTV102 NIIN 00-225-4548 |

MATERIALS REQUIRED

To replace the EEU-7/P single visor assembly on the PRU-55/P helmet shell assembly, proceed as follows:

- 1. Remove EEU-7/P single visor assembly.
 - a. Referring to Figure 3-12, remove the visor lock assembly by unsnapping the tab on visor locking guide, sliding the tab out as far as possible, moving the lock all the way back to the tab opening, and rotating the lock until the bottom key aligns with the slot and the lock can be lifted out.
 - b. Slide the visor lens rearward out of the tracks.
 - c. Referring to Figure 4-13, remove six screws (three on each side) from the left-hand and right-hand retainers.
 - d. Remove the left-hand and right-hand retainers.
 - e. Remove the left-hand and right-hand visor tracks and the post retainer.





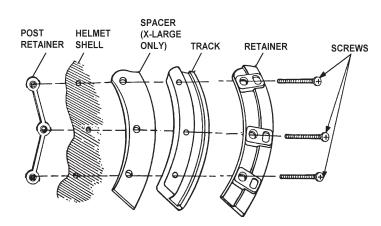
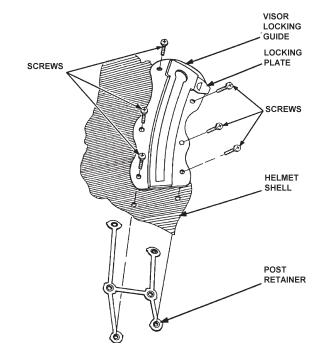


Figure 3-13. Visor Track, Retainer, Post, and Screw

- f. Remove six screws securing the visor locking guide to the helmet shell assembly. Lift the visor locking guide away from the helmet shell assembly. Remove the post retainer.
- g. Keep all serviceable components of the visor assembly for possible reuse.
- 2. Referring to Figure 3-14, secure the visor locking guide to the helmet shell assembly with six screws.
- 3. Referring to Figure 3-15, attach the left-hand and right-hand visor tracks and retainers to the left and right sides of the helmet shell assembly.
 - Apply a single drop of silicone adhesive to the flat sides of the left-hand and right-hand visor tracks to provide stability.
 - Align the holes in the left-hand and right-hand visor tracks with the predrilled holes and enclosed posts on the left and right sides of the helmet shell assembly. Apply silicone adhesive to the screws prior to installation.
 - c. Attach the left-hand and right-hand retainers to the visor tracks with three screws.





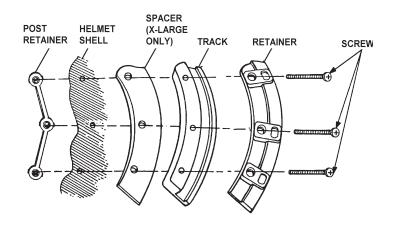


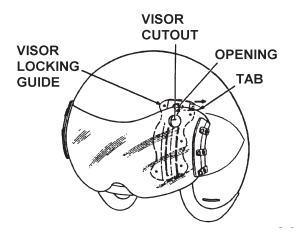
Figure 3-15. Visor Track, Retainer, Screw, and Post

4. Unsnap the tab on visor locking guide, and slide the tab out as far as possible.

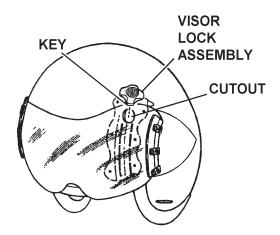
NOTE

When performing Steps 5-8, try a clear lens first to ensure proper engagement of the key in the slot.

- 5. Place the sides of lens into grooves of left-hand and right-hand visor tracks. Referring to Figure 3-16, slide the lens as far back as possible so that the lens cutout is aligned with the opening at the top of the visor locking guide.
- Referring to Figure 3-17, insert the visor lock assembly (with the key turned lengthwise) through the visor cutout and into the opening at the top of the visor locking guide.
- 7. Rotate the visor lock assembly a quarter turn counterclockwise to engage the key in the slot.
- 8. Lower the visor, slide the tab back into the visor locking guide, and snap the tab into place.
- 9. Check visor function.
 - a. Move the visor to various positions and check for proper movement and locking.
 - Adjust the visor guide or visor tracks as necessary by loosening the screws, repositioning the guide or tracks as necessary, and re-tightening the screws until proper function has been attained.









3-4.2.4 Replacement of EEU-7/P Single Visor Lens MATERIALS REQUIRED

| QUANTITY | DESCRIPTION | REFERENCE NUMBER |
|----------|---------------------|------------------|
| 1 | Visor lens, neutral | 90D7972-1 |
| 1 | Visor lens, clear | 90D7972-2 |

To replace the EEU-7/P single visor lens, proceed as follows :

- 1. Remove EEU-7/P single visor lens.
 - a. Referring to Figure 3-18, remove the visor lock assembly by unsnapping the tab on the visor locking guide, sliding the tab out as far as possible, sliding the visor lock assembly all the way back to the tab opening, and rotating the lock until the bottom key aligns with the slot. Lift the lock out.
 - b. Slide the lens rearward out of the tracks.
 - c. Discard the defective visor lens.

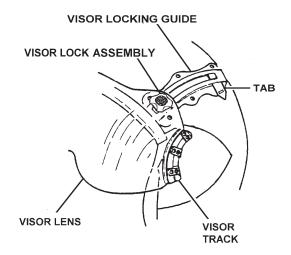


Figure 3-18. Visor Assembly

NOTE

When performing Step 2, try a clear lens first to ensure proper engagement of the key in the slot.

- 2. Replace the EEU-7/P single visor lens.
 - a. Referring to Figure 3-19, ensure that the tab has been moved as far as possible out of the visor locking guide.
 - b. Place the sides of lens into the grooves of the left-hand and right-hand visor tracks. Referring to Figure 3-19, slide the lens as far back as possible so that the lens cutout is aligned with the opening at the top of the visor locking guide.
 - c. Referring to Figure 3-20, insert the visor lock assembly (with the key turned lengthwise) through the visor cutout and into the rounded opening at the top of the visor locking guide.
 - d. Rotate the visor lock assembly a quarter turn counterclockwise to engage the key in the slot.
 - e. Lower the visor, slide the tab back into the visor locking guide, and snap the tab into place.
- 3. Check visor function.
 - a. Move the visor to various positions and check for proper movement and locking.
 - b. Adjust the visor guide or visor tracks as necessary by loosening the screws, repositioning the guide or tracks as necessary, and re-tightening the screws until proper function has been attained.

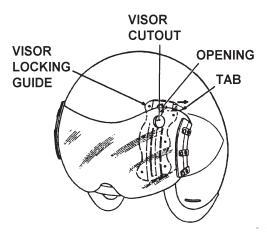
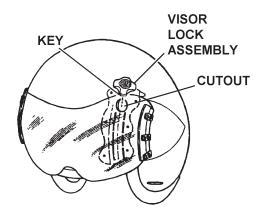


Figure 3-19. Visor Locking Guide and Visor





3-4.2.5 Replacement of EEU-7/P Visor Lock Assembly MATERIALS REQUIRED

| QUANTITY | DESCRIPTION | REFERENCE NUMBER |
|-------------|---------------------|-----------------------------|
| 1 | Visor lock assembly | 96B9367 |
| As required | Adhesive, silicone | RTV 102 NIIN 00-225-4548 |

To replace the EEU-7/P visor lock assembly, proceed as follows:

- 1. Remove the EEU-7/P visor lock assembly.
 - a. Referring to Figure 3-21, unsnap the tab on the visor locking guide, sliding the tab out as far as possible.
 - b. Slide the visor lock assembly all the way back to the tab opening.
 - c. Rotate the lock until the bottom key aligns with the slot. Lift the lock out.

NOTE

When performing Step 2, try a clear lens first to ensure proper engagement of the key in the slot.

- 2. Replace the EEU-7/P visor lock assembly.
 - a. Referring to Figure 3-22, insert the visor lock assembly (with the key turned lengthwise) through the visor cutout and into the opening at the top of the visor locking guide.
 - b. Rotate the visor lock assembly a quarter turn counterclockwise to engage the key in the slot.
 - c. Lower the visor, slide the tab back into the visor locking guide, and snap the tab into place.

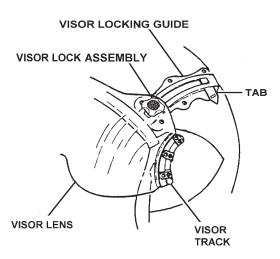


Figure 3-21. Visor Lock Assembly

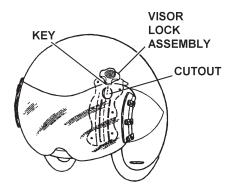


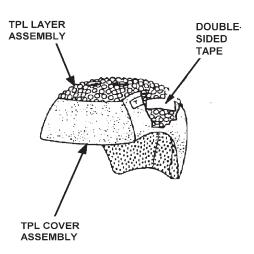
Figure 3-22. Installing Visor Lock Assembly

| MATERIALS REQUIRED | | | |
|--------------------|---|-------------------------------|--|
| QUANTITY | DESCRIPTION | REFERENCE NUMBER | |
| 1 | Cover assembly, medium or | 85D7088-1 | |
| 1 | Cover assembly, large or | 85D7088-2 | |
| 1 | Cover assembly, X-large or | 85D7088-3 | |
| 1 | Layer assembly, medium or | 85D7518-1 | |
| 1 | Layer assembly, large or | 85D7518-2 | |
| 1 | Layer assembly, X-large | 85D7518-3 | |
| As required | Tape, double-coated, vinyl, 1 inch x 2 inches (approximately) | No. 419 (3M) or equivalent | |

3-4.2.6 Replacement of TPL Assembly Components.

If components of the TPL must be replaced, proceed as follows :

- 1. Remove the TPL from the helmet shell assembly.
- 2. Separate the TPL cover assembly from the layer assembly.
- 3. Discard the defective assembly.
- 4. Remove any double-sided tape from the serviceable component.
- 5. Referring to Figure 3-23, install new double-sided tape on the layer assembly.
- 6. Insert the layer assembly into the cover assembly. The end of the layer assembly with the large holes is inserted into the wide end of the cover assembly.
- 7. Secure the cover and layer assemblies together with the double-sided tape.
- 8. Replace TPL in the helmet shell assembly with the wide end positioned toward the front of the helmet.





3-4.2.7 Replacement of Energy-Absorbing Liner.

MATERIALS REQUIRED

| QUANTITY | DESCRIPTION | REFERENCE NUMBER |
|----------|---|------------------|
| 1 | Energy-absorbing liner (medium) or | 90C8006-1 |
| 1 | Energy-absorbing liner (large) or | 90C8006-2 |
| 1 | Energy-absorbing liner (extra large) | 90C8006-3 |

If the energy-absorbing liner must be replaced, proceed as follows:

1. Remove the energy-absorbing liner.

NOTE

Removal of the energy-absorbing liner requires considerable care and effort to avoid damage to the liner.

- a. Invert the helmet and remove the TPL to expose the energy-absorbing liner.
- b. Detach the right and left earcup assemblies from the pile fastener fabric in the helmet shell earcup cavity and position the earcups clear of work area.
- c. Remove the pan-head screws, flat washers, lock washers and flanged nuts securing the chin/nape strap to the rear of the helmet shell.
- d. With the helmet inverted on the work surface, position the helmet brow area toward you. Insert a thin, flexible metal spatula or a 12-inch x 1-inch metal rule between the inner surface of the helmet shell and the energy-absorbing liner at the rear of the helmet.
- e. With the spatula at the center rear of the liner, gently pry inward and upward on the energy-absorbing liner to obtain sufficient clearance to permit grasping the liner with the free hand.
- f. Maintain upward pressure and continue to withdraw the liner from the interior of the helmet shell. Rotate the liner 90 degrees to the right or left to clear the helmet earcup cavities.

Continued on next page

2. Install the replacement liner.

NOTE

Prior to installing the replacement liner, ensure all attaching hardware for visor configuration which will be covered by liner is in place.

- a. Rotate the liner 90 degrees and place it into helmet shell.
- b. Reverse rotation and place the front edge of the energy-absorbing liner firmly against the inside surface of the front helmet shell edgeroll. Ensure that the liner is centered within the helmet.
- c. Press the rear portion of the liner into place, ensuring that the rear edgeroll is not pinched or curled under the liner.
- d. On the inside surface of the energy-absorbing liner, install front and rear hook fastener tapes. All four fasteners should be vertically installed approximately 1-1/2 inches to the left and right of the liner centerline and approximately 1/4 inch from the edge to avoid pressure points.
- 3. Ensure that the chin/nape straps have remained routed through the nape pad and no twists are present.
- 4. Reconnect the nape pad and chin/nape strap grommets to the rear attachment points by reinstalling the pan-head screws, flat washers, lock washers and flanged nuts.
- 5. Attach the earcup assemblies to the pile fastener fabric in the helmet shell earcup cavities, and route the communications cord for the right earcup between the energy-absorbing liner and the rear edgeroll as required.
- 6. Reattach the TPL to the energy-absorbing liner.
- 7. Have the aircrew member don the helmet; check the fit.

3-4.2.8 Replacement of Earcup Assembly Components

MATERIALS REQUIRED

| QUANTITY | DESCRIPTION | REFERENCE NUMBER |
|----------|------------------|------------------|
| 1 | Earcup assembly | 89C7735-1 |
| 1 | or Earpad set | 88D7554-1 |
| | or | |
| 1 | Earphone | 76A3242 |

To replace an earcup, earpad set, or earphone, proceed as follows:

- 1. Remove and disassemble the earcup assembly.
 - a. Remove the earcup assembly from the pile fabric of the interior helmet shell assembly.
 - b. Remove the earpad backer (not shown) from the left-hand and right-hand earpads.
 - c. Lift the earcup with the enclosed earphone holder from the earpad.
 - d. Referring to Figure 3-24, remove the earphone holder and the enclosed earphone from the earcup.
 - e. Remove the earphone from the earphone holder.
 - f. Referring to Figure 3-25, loosen the two setscrews and remove earphone contacts from the earphone.
 - g. Referring to Figure 3-26, remove the earphone contacts and the grommets from the earcup shell and the earpad.

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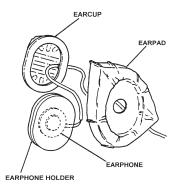


Figure 3-24. Earphone and Holder

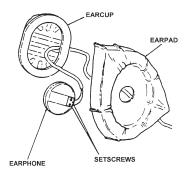


Figure 3-25. Earphone and Setscrews

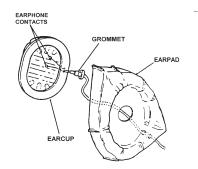


Figure 3-26. Earphone Contacts and Grommets

2. Replace the earcup, the earpad, or the earphone as applicable, and reassemble the components as follows:

NOTE

The left-hand earpad can be distinguished from the right-hand earpad by ensuring that the communication cord holes face the rear of the helmet shell assembly when placed inside the helmet shell assembly.

 Insert the left-hand and right-hand earphone leads through the holes in the left-hand and right-hand earpads.

NOTE

The left-hand earcup can be distinguished from the right-hand earcup by their positioning inside the helmet shell assembly. The tapered ends of the earcups should face down and the communication cord holes should face the rear of the helmet shell assembly.

- Referring to Figure 3-27, insert the earphone contacts and small grommets into the holes of the left-hand and right-hand earcups. Secure the grommets.
- c. Referring to Figure 3-28, insert the earphone contacts into the earphones and tighten the setscrews.

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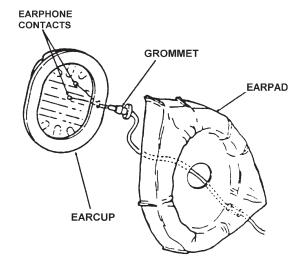
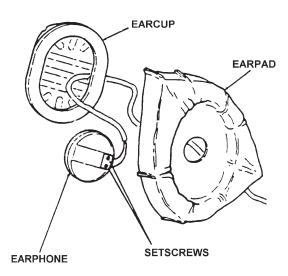
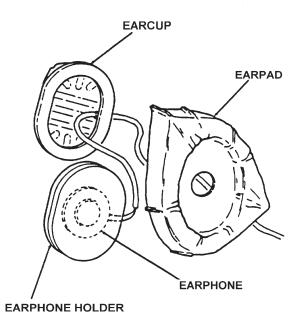


Figure 3-27. Earphone Grommet and Contacts





- d. Refering to Figure 3-29, insert the earphones into the cavity of the earphone holders.
- e. Position the earphone holders with the enclosed earphones into the left-hand and right-hand earcups. Smooth the earphone holders inside the left-hand and right-hand earcups to eliminate bunching.
- f. Position the left-hand and right-hand earcups into the earpads.
- g. Referring to Figure 4-30, cover the earpads with the earpad backers (optional).
- Install the earcup assembly onto the pile section of the left-hand and right-hand sides of the interior helmet shell assembly.
- i. Have the aircrew member don the helmet; check the fit.





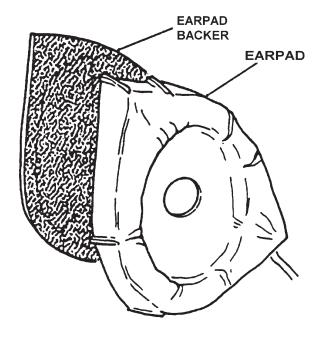


Figure 3-30. Earpad and Backer

3-4.2.9 Replacement of Chin/Nape Strap Assembly MATERIALS REQUIRED

| QUANTITY | DESCRIPTION | REFERENCE NUMBER |
|----------|-----------------------------------|------------------|
| 1 | Chin/Nape Strap Assembly, Medium | 90D7916-1 |
| 1 | Chin/Nape Strap Assembly, Large | 90D7916-2 |
| 1 | Chin/Nape Strap Assembly, X-Large | 90D7916-3 |
| 1 | Nape strap pad, Medium | 84D6899-1 |
| 1 | Nape strap pad, Large | 84D6899-2 |
| 1 | Nape strap pad, X-Large | 84D6899-3 |
| 1 | Nape strap pad, X-Large | 89B7729-1 |
| 1 | Nape strap, Medium | 89B7730-1 |
| 1 | Nape strap Large and X-Large | 89B7730-2 |

* Sliding clamp is optional.

To replace the chin/nape strap assembly, proceed as follows:

- 1. Remove the chin/nape strap assembly.
 - a. Remove the earcup assembly from the interior of the left-hand and right-hand helmet shell assembly.
 - b. Remove the screws, flat washers, lockwashers, and flanged nuts from the back of helmet shell assembly, securing the nape strap to the helmet shell assembly.
 - c. Pull the nape straps out from the nape strap pad and the helmet shell assembly.
 - d. Discard defective chin/nape strap assembly component(s). Retain serviceable components for re-assembly.

Continued on next page

2. Replace the chin/nape strap assembly.

NOTE

The top of the chin/nape strap pad is the side from which the straps with grommets protrude.

- a. Referring to Figure 3-31, insert the grommeted end of the nape strap (with the snap fastener at the opposite end) from the outside through the slot located on the bottom right of the helmet shell assembly. Ensure that the snap fastener is facing outward.
- b. Insert the grommeted end of the nape strap (with buckle at opposite end) through the slot located on the bottom left outside of the helmet shell assembly.

NOTE

A hook made from a coat hanger may make it easier to pull the straps through the nape pad.

- c. Orient the nape strap pad so that its padded side faces toward the inside of the helmet shell, and feed each nape strap (grommeted ends), now located within the helmet shell assembly, through the bottom openings of the nape strap pad.
- d. Cross the nape straps through the inside of the nape strap pad.
- e. Attach one nape strap and associated strap from the nape strap pad to the helmet shell with the screw and flat washer (outside) through the helmet into the lock washer and flanged nut (inside). Repeat for the other nape strap. Ensure that any cable assembly required to be secured to the left nape strap screw is attached with a cable clip between the washer and the helmet shell.
- f. Snap the chin strap to the snap fastener on the right nape strap. Feed the opposite end of the chin strap through the buckle on left nape strap. Secure with hook and pile fastener.
- g. Install the earcups.
- h. Have the aircrew member don the helmet; check the fit.

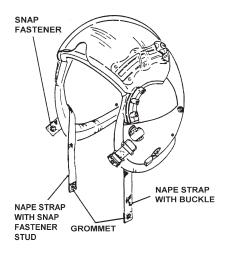


Figure 3-31. Nape Straps

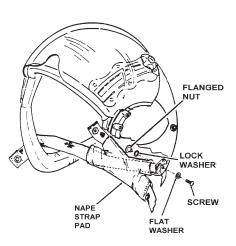


Figure 3-32. Nape Strap Pad

3-4.2.10 Replacement of Chin Strap and Chin Pad

| QUANTITY | DESCRIPTION | REFERENCE NUMBER |
|----------|---------------------|------------------|
| 1 | Chin strap assembly | 84C6708 |
| 1 | Chin pad, black | 89C7764-1 |

MATERIALS REQUIRED

To replace the chin strap or chin pad, proceed as follows :

- 1. Remove the chin strap assembly and the chin pad.
 - a. Unsnap the chin strap snap fastener from the nape strap, if required.
 - b. Remove the chin strap assembly by separating the hook and pile fastener tape and unthreading the chin strap from nape strap buckle.
 - c. Slide the chin pad off of the chin strap.
 - d. Discard unserviceable components.
- 2. Replace the chin strap assembly and the chin pad.
 - a. Snap the chin strap to the snap fastener on the right side nape strap.
 - b. Slide the chin pad onto the chin strap with the hook tape on the chin pad facing downward.
 - c. Feed the chin strap through the buckle on the left side nape strap.
 - d. Secure the chin strap with hook and pile fastener.

NOTE

The top of chin/nape strap pad is the side from which the straps with grommets protrude.

3-4.2.11 Replacement Of Bayonet Receiver Assembly

| QUANTITY | DESCRIPTION | REFERENCE NUMBER |
|-------------|---------------------------|-----------------------------|
| 1 | Bayonet Receiver Assembly | 93A8514 (CAGE 97427) |
| As required | Adhesive | MIL-A-5540 NIIN 00-515-2246 |

MATERIALS REQUIRED

To replace the bayonet receiver assembly, proceed as follows :

- 1. Remove the bayonet receiver assembly.
 - a. Remove the earcup assembly from the left-hand and right-hand side of the interior helmet shell assembly.
 - b. Pull the pile fastener fabric inside the helmet shell assembly away from the areas where the earcup assembly was removed.
 - c. Remove the four screws located inside the helmet shell assembly that attach the bayonet receiver assembly to the left-hand and right-hand sides of the exterior helmet shell assembly.
 - d. Discard the defective bayonet receiver assembly.
- 2. Replace the bayonet receiver assembly.

NOTE

Each spacer should be fitted against riveted side of jaw receiver.

A small amount of adhesive may be applied to each screw before adding lock washer and backplate.

- a. Hold the pile fabric fastener away from the interior helmet shell assembly. Referring to Figure 3-33, insert screws with lockwashers through the backplate from the inside of the helmet shell assembly. Attach jaw receivers and spacers to outside of the helmet shell assembly. Ensure that projections on jaw receivers are pointing to the rear of the helmet shell assembly.
- b. Tighten all screws so that the jaw receivers and spacers are firmly attached to the helmet shell assembly.
- c. Cement pile fastener fabric to the interior of the helmet shell assembly. Cut an "X" pattern in the fabric, across the screw heads, to facilitate inspection and tightening.

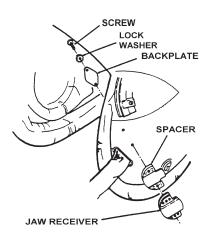


Figure 3-33. Bayonet Receiver Assembly

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CHAPTER 4

ILLUSTRATED PARTS BREAKDOWN

4-1 GENERAL

The Illustrated Parts Breakdown (IPB) lists and illustrates the procurable parts of the HGU-68/P Helmets. The IPB is intended for use in the identification, procurement, storing, and issuing of replacement parts. It also illustrates disassembly and assembly relationships. Replacement, operation, and maintenance of these helmets shall only be performed by authorized personnel utilizing the instructions set forth in the preceding sections.

4-2 PARTS LIST

The parts list contains illustrations and parts lists for each major assembly. These views and accompanying lists show how the major assemblies are disassembled into subassemblies and detail parts. Each item illustrated is numbered for identification purposes. Each illustration is accompanied by a parts list providing a part number, description, and quantity for each item. The list is arranged in disassembly order. Through the use of a system of indentation with bullets (), the relationship of the subassemblies to the main assemblies is shown.

4-2.1 Figure and Index Number Column

The figure and index number of each item shown on the corresponding illustration appears in the Figure and Index number column, with the exception of assemblies or subassemblies which are not illustrated in assembled form. In these cases, the assemblies or subassemblies are listed but not indexed. The component parts thereof are both listed and indexed.

4-2.2 Part Number Column

The column contains the contractor's part number Where the part number is controlled by a neutral specification, this specification number is listed in the Description Column.

4-2.3 Description Column

This column lists the item named plus those modifiers necessary to identify the item. When a separate exploded view is used to show the detail parts of an assembly or subassembly the Description Column contains an appropriate figure cross reference in parentheses following the description. This cross reference appears both in the listing in which the assembly is first described, and in the listing in which the assembly is broken down. In the latter case, the abbreviation REF will appear in the Units Per Assembly column. The caption "(ATTACHING PARTS)" is placed on the line immediately above the listing of attaching parts. Attaching parts are items used to attach parts or assemblies to each other and follow immediately after the part to be attached. The attaching parts have the same indentation as the part attached.

4-2.6 Units Per Assembly Column

This column shows the quantity of an item required in the next higher assembly. The abbreviation AR indicates the quantity is "As Required."

4-2.7 Usable On Code Column

Usable On Codes are utilized to indicate part usage. The code A refers to size Medium; B, to size Large; C, to size X-Large. Where no code is entered, the part is used on all units.

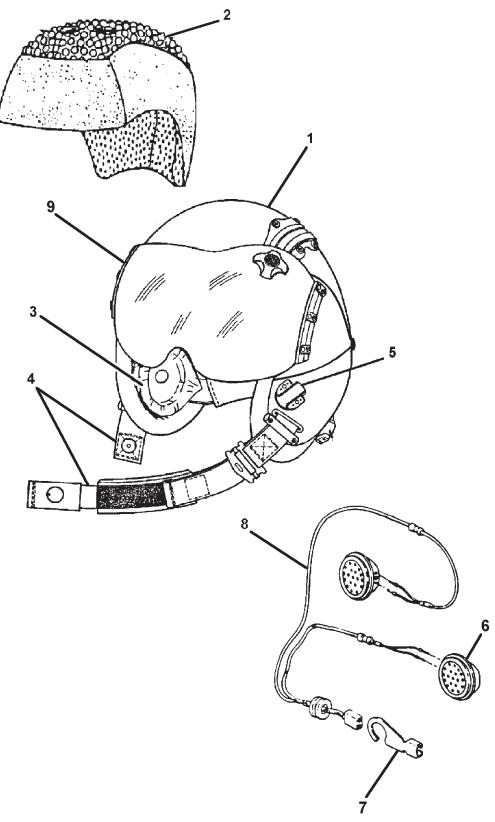


Figure 4-1. HGU-68/P Helmet Assembly

| FIGURE AND INDEX NUMBER | PART NUMBER | DESCRIPTION | UNITS PER ASSEMBLY | USABLE ON CODE |
|----------------------------------|----------------|---|-----------------------|-------------------|
| 4-1 | 89D7981-1 | HGU-68/P HELMET ASSY, Medium | 1 | A |
| | 89D7981-2 | HGU-68/P HELMET ASSY, Large | 1 | В |
| | 89D7981-3 | HGU-68/P HELMET ASSY, X-Large | 1 | С |
| -1 | 90A8045-1 | HELMET SHELL ASSY, Medium (See Figure 4-2 for breakdown) | 1 | A |
| | 90A8045-2 | HELMET SHELL ASSY, Large (See Figure 4-2 for breakdown) | 1 | В |
| | 90A8045-3 | HELMET SHELL ASSY, X-Large (See Figure 4-2 for breakdown) | 1 | С |
| -2 | 85D7087-1P | THERMOPLASTIC LINER (TPL) ASSY, Medium (See Figure 4-6 for breakdown) | 1 | A |
| | 85D7087-2P | THERMOPLASTIC LINER (TPL) ASSY, Large (See Figure 4-6 for breakdown) | 1 | В |
| | 85D7087-3P | THERMOPLASTIC LINER (TPL) ASSY, X-large (See Figure 4-6 for breakdown) | 1 | С |
| -3 | 89C7735-1 | EARCUP ASSY (See Figure 4-3 for breakdown) | 1 | |
| -4 | 90D7916-4 | CHIN/NAPE STRAP ASSY, Medium (See Figure 4-4 for breakdown) | 1 | A |
| | 90D7916-5 | CHIN/NAPE STRAP ASSY, Large (See Figure 4-4 for breakdown) | 1 | В |
| | 90D7916-6 | CHIN/NAPE STRAP ASSY, X-Large (See Figure 4-4 for breakdown) | 1 | С |
| -5 | 93A8514 | BAYONET RECEIVER ASSEMBLY | 1 | |
| -6 | 76A3242 | EARPHONE, H-87B/U | 2 | |
| -7 | 78B4170-1 | MK-634/AIC CABLE CLIP | 1 | |
| -8 | 89B7742 | COMMUNICATION CABLE, CX-4708A/AIC (mod) | 1 | |
| -9 | 88B7586-2 | EEU-7/P HELMET VISOR ASSY, Clear and neutral (See Figure 4-5 for breakdown) | 1 | |

Table 4-1. HGU-68/P Helmet Assembly

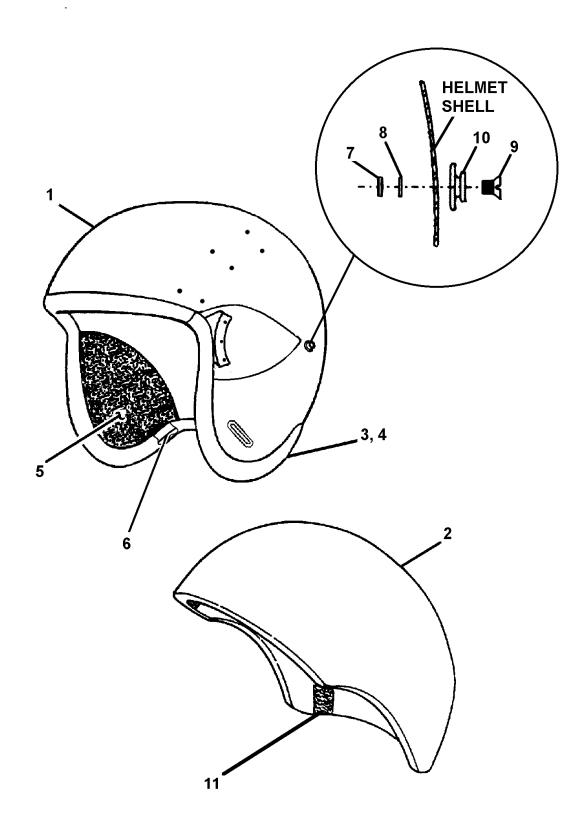


Figure 4-2. Helmet Shell Assembly

| FIGURE AND INDEX NUMBER | PART NUMBER | DESCRIPTION | UNITS PER ASSEMBLY | USABLE ON CODE |
|----------------------------------|----------------|---|-----------------------|-------------------|
| 4-2 | 90A8045-1 | HELMET SHELL ASSY, Medium | 1 | A |
| | 90A8045-2 | HELMET SHELL ASSY, Large | 1 | В |
| | 90A8045-3 | HELMET SHELL ASSY, X-Large | 1 | С |
| -1 | 90D7997-1 | HELMET SHELL, Medium, Single Visor | 1 | A |
| | 90D7998-1 | HELMET SHELL, Large, Single Visor | 1 | В |
| | 90D7999-1 | HELMET SHELL, X-large, Single Visor | 1 | С |
| -2 | 90C8006-1 | ENERGY ABSORBING LINER, Medium | 1 | А |
| | 90C8006-2 | ENERGY ABSORBING LINER, Large | 1 | В |
| | 90C8006-3 | ENERGY ABSORBING LINER, X-Large | 1 | С |
| -3 | 87B7481 | EDGEROLL FOAM | 1 | |
| -4 | 92D8240M | EDGEROLL LEATHER SET, Medium, Black | 1 | А |
| | 92D8240L | EDGEROLL LEATHER SET, Large, Black | 1 | В |
| | 92D8240XL | EDGEROLL LEATHER SET, X-Large, Black | 1 | С |
| -5 | 90C7968M | EARSHELL PILE FASTENER SET, Medium | 1 | A |
| | 90C7968L | EARSHELL PILE FASTENER SET, Large | 1 | В |
| | 90C7968XL | EARSHELL PILE FASTENER SET, X-large | 1 | С |
| -6 | 91B8150 | EDGE BEADING, 4-1/2-inch cut length | 2 | |
| -7 | MS35649-264B | NUT, HEX, 6-32, Black | 2 | |
| -8 | MS35335-58 | LOCKWASHER, EXTERNAL, 36 | 2 | |
| -9 | MS51959-28B | SCREW, FLAT-HEAD, 6-32 x 1/4 inch long | 2 | |
| -10 | MS27983-3 | SNAP FASTENER, Stud-style, #4 | 2 | |
| -11 | 85B7027 | HOOK FASTENER, 1 inch x 2 inch | 4 | |

Table 4-2. Helmet Shell Assembly

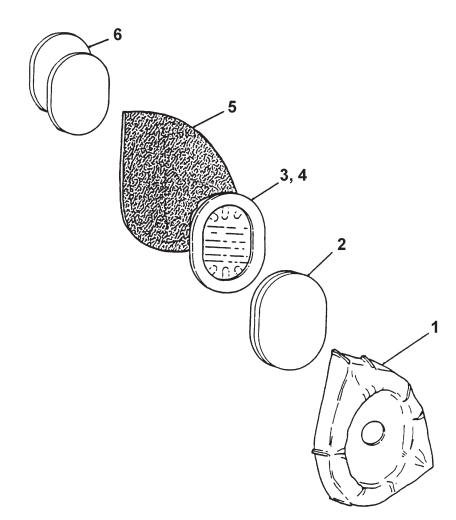


Figure 4-3. Earcup Assembly

| Table | 4-3 . | Earcup | Assembly |
|-------|--------------|--------|----------|
|-------|--------------|--------|----------|

| FIGURE AND INDEX NUMBER | PART NUMBER | DESCRIPTION | UNITS PER ASSEMBLY | USABLE ON CODE |
|----------------------------|----------------|-----------------------|-----------------------|----------------------|
| 4-3 | 89C7735-1 | EARCUP ASSEMBLY | 1 | |
| -1 | 88D7554-1 | EARPAD SET, LH and RH | 1 | |
| -2 | 79C4401 | EARPHONE HOLDER | 2 | |
| -3 | 88C7540-1 | EARCUP, LH | 1 | |
| -4 | 88C7540-2 | EARCUP, RH | 1 | |
| -5 | 90C8015 | EARPAD BACKER | 2 | |
| -6 | 67B1721-10 | FITTING PAD SET | 1 | |

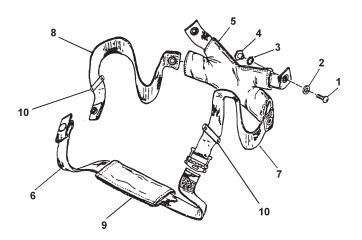


Figure 4-4. Chin/Nape Strap Assembly

| Table 4-4. Chin/Nape Stra | ap Assembly |
|---------------------------|-------------|
|---------------------------|-------------|

| FIGURE AND INDEX NUMBER | PART NUMBER | DESCRIPTION | UNITS PER ASSEMBLY | USABLE ON CODE |
|-------------------------------|----------------|--------------------------------|-----------------------|-------------------|
| 4-4 | 90D7916-4 | CHIN/NAPE STRAP ASSY,Medium | 1 | А |
| | 90D7916-5 | CHIN/NAPE STRAP ASSY, Large | 1 | В |
| | 90D7916-6 | CHIN/NAPE STRAP ASSY, X-Large | 1 | С |
| -1 | MS51958-61B | PAN HD, SCREW, 10-32 X 3/8 | 2 | |
| -2 | 77A3612-4 | FLAT WASHER, #10, Black | 2 | |
| -3 | MS35335-34 | LOCKWASHER, EXT. TOOTH, 5/16 | 2 | |
| -4 | 79A4436 | FLANGED NUT, 10-32 | 2 | |
| -5 | 84D6899-1 | NAPE STRAP PAD, Black, Medium | 1 | А |
| | 84D6899-2 | NAPE STRAP PAD, Black, Large | 1 | В |
| | 84D6899-3 | NAPE STRAP PAD, Black, X-Large | 1 | С |
| -6 | 84C6708 | CHIN STRAP ASSY | 1 | |
| -7 | 89B7729-1 | NAPE STRAP W/BUCKLE | 1 | |
| -8 | 89B7730-1 | NAPE STRAP, Medium | 1 | А |
| | 89B7730-2 | NAPE STRAP, Large and X-Large | 1 | B, C |
| -9 | 89C7764-1 | CHIN PAD, BLACK | 1 | |
| -10 | 93B8471 | CLAMP, SLIDING | 1 | |

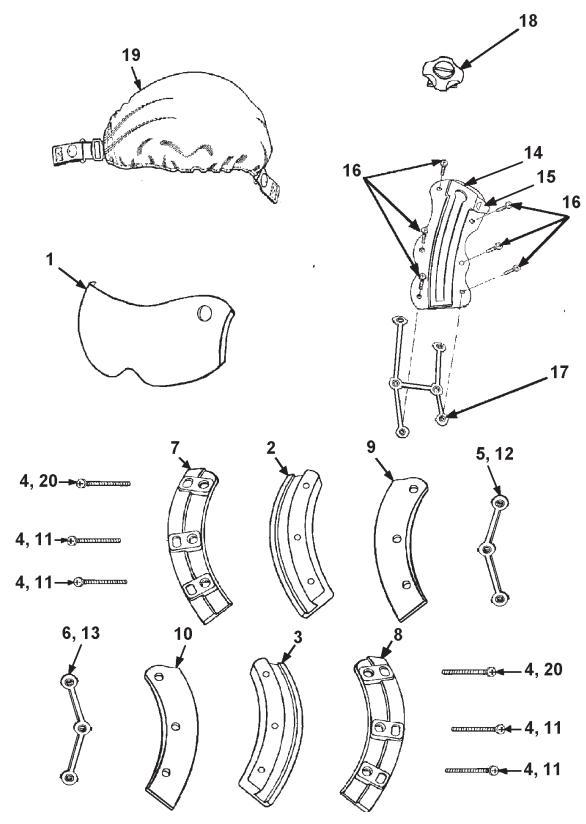


Figure 4-5. EEU-7/P Visor Assembly

| FIGURE AND INDEX NUMBER | PART NUMBER | DESCRIPTION | UNITS PER ASSEMBLY | USABLE ON CODE |
|-------------------------------|----------------|---|-----------------------|-------------------|
| 4-5 | 88B7586-2 | EEU-7/P HELMET VISOR ASSY, Medium | REF | |
| -1 | 90D7972-1 | VISOR LENS, Neutral | 1 | |
| | 90D7972-2 | VISOR LENS, Clear | 1 | |
| -2 | 93D8531-1 | VISOR TRACK, LH | 1 | |
| -3 | 93D8531-2 | VISOR TRACK, RH | 1 | |
| -4 | MS51957-31B | SCREW, PAN-HEAD, 6-32 x .625 | 6 | А, В |
| -5 | 94A8676-1L | RETAINER ASSEMBLY, TRACK, LH | 1 | А, В |
| -6 | 94A8676-1R | RETAINER ASSEMBLY, TRACK, RH | 1 | А, В |
| -7 | 90C7974-1 | RETAINER, LH | 1 | |
| -8 | 90C7974-2 | RETAINER, RH | 1 | |
| -9 | 93D8532-1 | SPACER, LEFT-HAND, X-Large | 1 | С |
| -10 | 93D8532-2 | SPACER, RIGHT-HAND, X-Large | 1 | С |
| -11 | 93A8479 | SCREW, PAN-HEAD, 6-32 x .846 (X-Large) | 4 | С |
| -12 | 94A8676-2L | RETAINER ASSEMBLY, TRACK, X-Large, LH | 1 | С |
| -13 | 94A8676-2R | RETAINER ASSEMBLY, TRACK, X-Large, RH | 1 | С |
| -14 | 90C7975 | VISOR LOCKING GUIDE (ATTACHING PARTS) | 1 | |
| -15 | 91B8152 | LOCKING PLATE | 1 | |
| -16 | 92A8241-1 | BIND SCREW | 6 | |
| -17 | 94A8675 | RETAINER ASSEMBLY, VISOR LOCKING GUIDE | 1 | |
| -18 | 96B9367 | VISOR LOCK ASSEMBLY | 1 | |
| -19 | 90D7985 | LENS COVER, Leather | 1 | |
| -20 | MS51957-32B | SCREW, PAN-HEAD, 6-32 x .750, X-Large | 2 | С |

Table 4-5. EEU-7/P Helmet Visor Assembly

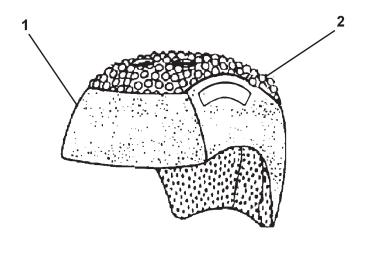


Figure 4-6. Thermoplastic Liner (TPL) Assembly

| FIGURE AND INDEX NUMBER | PART NUMBER | DESCRIPTION | UNITS PER ASSEMBLY | USABLE ON CODE |
|----------------------------------|----------------|-----------------------------------|-----------------------|-------------------|
| 4-6 | 85D7087-1P | THERMOPLASTIC LINER ASSY, Medium | 1 | А |
| | 85D7087-2P | THERMOPLASTIC LINER ASSY, Large | 1 | В |
| | 85D7087-3P | THERMOPLASTIC LINER ASSY, X-Large | 1 | С |
| -1 | 85D7088-1 | COVER ASSEMBLY, Medium | 1 | А |
| | 85D7088-2 | COVER ASSEMBLY, Large | 1 | В |
| | 85D7088-3 | COVER ASSEMBLY, X-Large | 1 | С |
| -2 | 88D7518-1 | LAYER ASSEMBLY, Medium | 1 | А |
| | 88D7518-2 | LAYER ASSEMBLY, Large | 1 | В |
| | 88D7518-3 | LAYER ASSEMBLY, X-Large | 1 | С |

 Table 4-6.
 Thermoplastic Liner Assembly



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