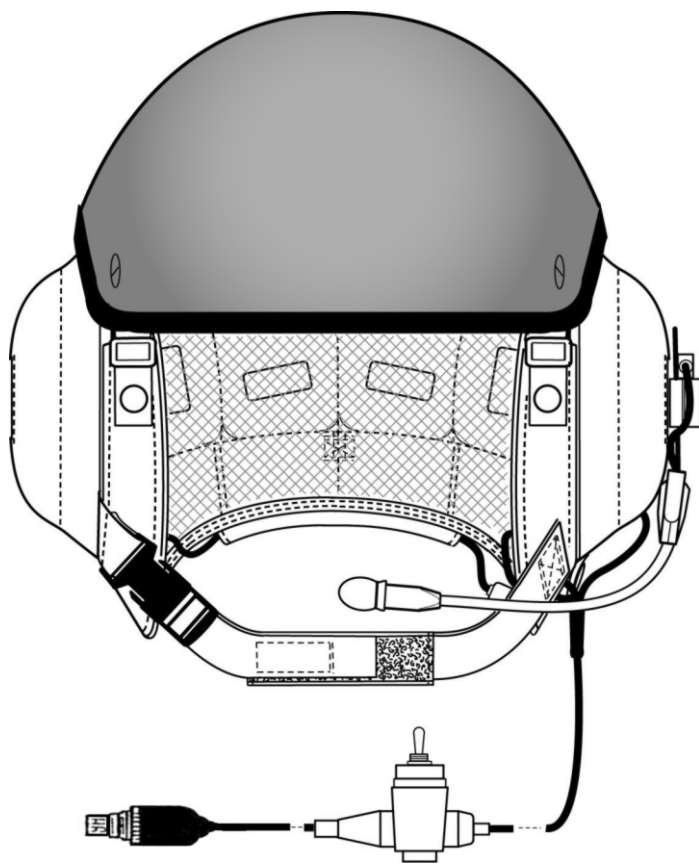


TACTICAL COMMUNICATIONS HELMET (TCH)

Fitting Instructions
with Illustrated Parts List



WARNING

Proper strap adjustment is crucial for helmet stability and sound attenuation. You must ensure that the chin strap, nape strap, and both top adjustment straps are correctly adjusted at all times when the TCH is worn.

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DESCRIPTION

The Tactical Communications Helmet (TCH), shown in **Figure 1**, is a close-fitting helmet providing ballistic and bump protection, communications, ventilation, comfort, and a secure fit. The speaker-equipped earcups, microphone assembly, and inner helmet will remain in position when properly adjusted. In addition, the helmet features the following:

- Snug-fitting inner helmet: ventilated for comfort, machine-washable to maintain hygienic cleanliness

- Minimum weight

- Microphone can be worn on either right or left side

- Helmet can be worn with one or both earcups

- Easy-to-remove communications assembly (no tools needed), with a choice of upper cords with or without a push-to-talk (PTT) switch

- Quick donning, doffing, and adjustment

- Easy-to-replace components

- Sound attenuation

- Ballistic helmet shell with protection V_{50} of 1400 feet per second when tested in accordance with MIL-STD-662 (Optional helmet shell with protection V_{50} or 2150 feet per second also available)*

- Bump protection*

- Earcups with ballistic fragmentation protection V_{50} of 800 feet per second when tested in accordance with MIL-STD 662

* This feature only provided when the shell is used with the inner helmet.

This booklet provides instructions for fitting and using the helmet, as well as an illustrated parts list.

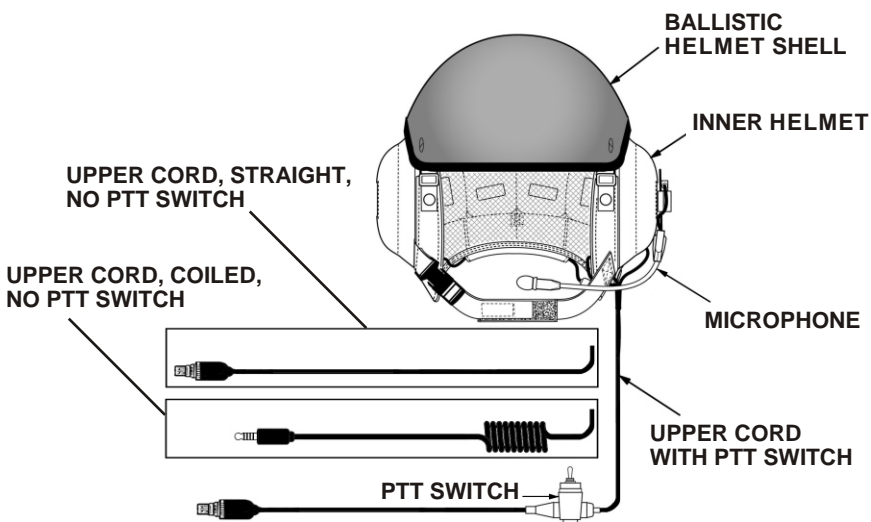


Figure 1. Tactical Communications Helmet

HELMET FITTING

Helmet fitting consists of (1) size selection, (2) adjustment of components as needed to fit the wearer's head, and (3) attachment/adjustment of the helmet shell.

Size Selection (Figure 2)

Size selection is based on the wearer's hat size OR head circumference. To determine head circumference, wrap a measuring tape around the wearer's head approximately ½ inch above the ears and note the measurement. Sizing parameters are shown below.

NOTE

If the optional absorbent liner (provided with each helmet) is to be worn, add 1/8 inch to the head circumference measurement.

HELMET SIZE	HEAD CIRCUMFERENCE (Inches)	HAT SIZE
Small	21-1/4 or less	6-3/4 or less
Medium/Large	21-1/4 or greater	6-3/4 or greater

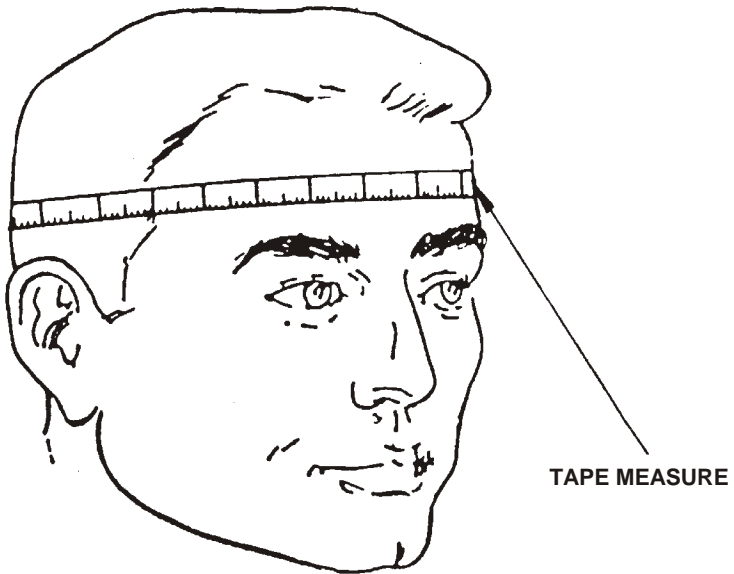


Figure 2. Measuring Head Circumference

Adjustment of Components (Figures 3, 4, 5, and 6)

WARNING

Proper strap adjustment is crucial for helmet stability and sound attenuation. You must ensure that the chin strap, nape strap, and both top adjustment straps are correctly adjusted at all times when the TCH is worn.

1. Remove the helmet shell; don the inner helmet.
2. Slide the buckles on the earcup adjustment straps (**Figure 3**) as necessary so that the earcups are centered over your ears.

NOTE

If you have difficulty centering both earcups over your ears after you have adjusted the earcup adjustment straps, remove the inner helmet and reposition the earcups within the inner helmet pockets, shown in **Figure 3**. (The earcups are attached inside the pockets with hook and pile fasteners.) Don the inner helmet again and check earcup centering. Continue in this manner until you are satisfied with the position of both earcups.

3. Adjust and fasten the nape strap (**Figure 4**) for a snug, secure fit at the nape.
4. Attach the chin strap side-release buckle (**Figure 4**). Adjust the chin strap for a snug secure fit, and slide the chin pad until it is centered under your chin.

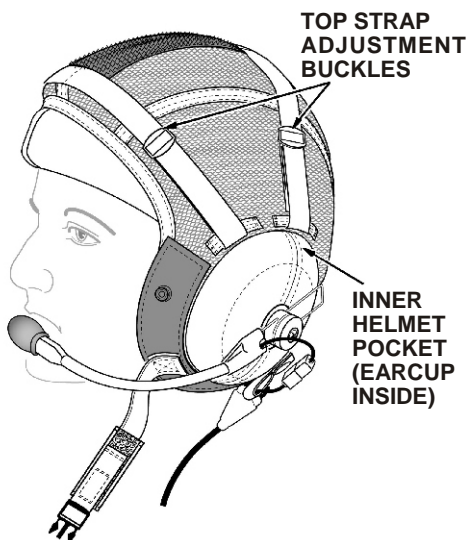
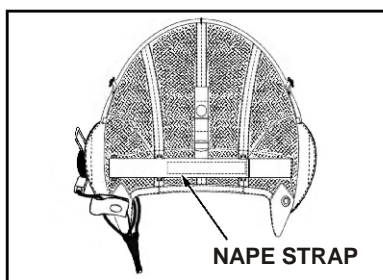


Figure 3. Inner Helmet



REAR VIEW

RIGHT-SIDE VIEW

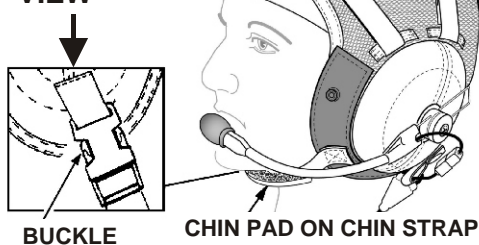


Figure 4. Chin Strap and Nape Strap

5. Check the earseal compression against the ears. For optimum sound attenuation, the earseals should be evenly compressed as much as possible without causing discomfort. If needed, remove the inner helmet, remove the earcups from the inner helmet pockets, and attach earcup spacer pads (**Figure 5**) to the backs of the earcups. Reinstall the earcups inside the inner helmet pockets. Don the inner helmet and recheck the earseal compression. Continue in this manner until earseal compression is satisfactory.

NOTE

Spacer pads may be installed whole or cut into any shape needed to balance earcup compression.

6. Referring to **Figure 6**, loosen the adjustment nut on the swivel. Adjust the boom and microphone to the proper position, and re-tighten the nut.

NOTE

If the microphone cannot be properly positioned in front of the lips, it may be necessary to slightly bend the wire portion of the boom near the swivel. Be careful not to break the wire.

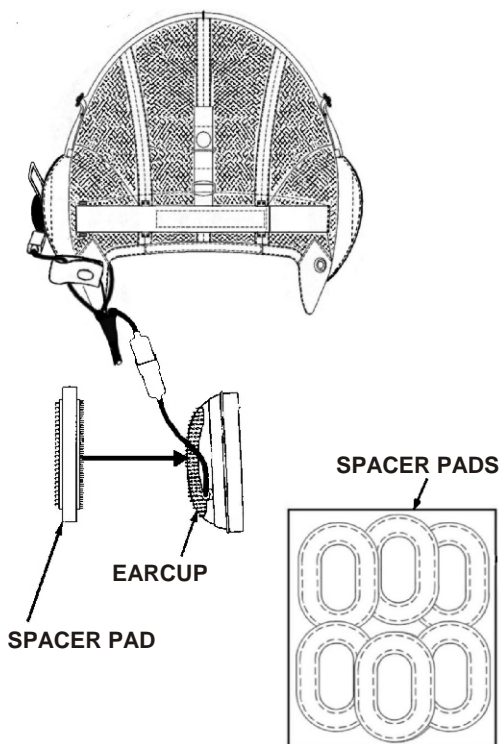


Figure 5. Earcup and Spacer Pads

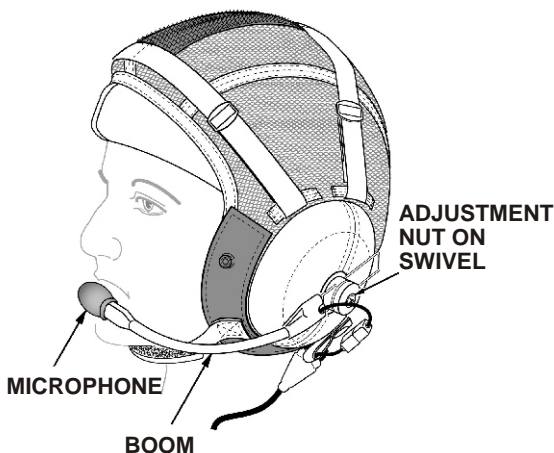


Figure 6. Microphone

Attachment of Helmet Shell (Figure 7)

1. Unfasten the chin strap; have the crewmember remove the inner helmet.
2. Referring to **Figure 7**, attach the helmet shell to the inner helmet as follows:
 - a. Place the inner helmet inside the helmet shell. Ensure that the hook fastener on the inner helmet is firmly attached to the pile fastener on the inside of the helmet shell.
 - b. Attach the front tabs on the helmet shell to the front snaps on the inner helmet.
 - c. Attach the rear tab on the inner helmet to the rear snap on the helmet shell.
3. Have the crewmember don the helmet and fasten the chin strap; readjust the chin strap as necessary.
4. Adjust the slide buckles on the front and rear tabs as needed. Don the helmet; tighten the nape strap and the chin strap. Ensure that the nape strap is not pulled away from the crewmember's nape. Readjust the nape strap and the rear tab as necessary to ensure a snug fit and effective retention.

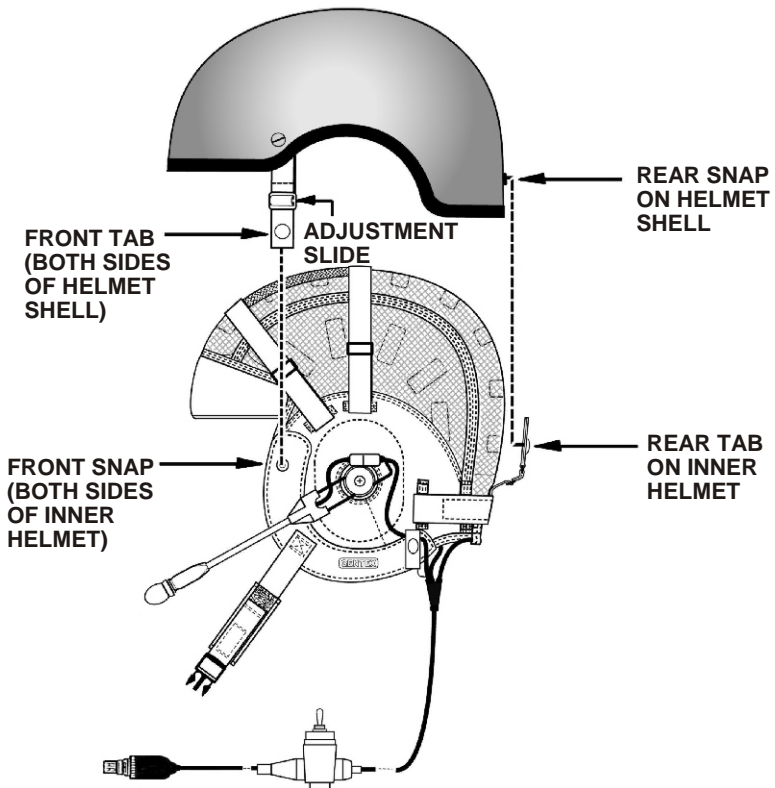


Figure 7. Helmet Shell

HELMET OPERATION

1. Move the microphone aside; grasp the helmet below each earcup.
2. Spread the earcups slightly and pull the helmet down onto the head.
3. Press the top of the helmet down to seat the helmet properly.
4. Adjust the nape strap and the earcups as required. Fasten the chin strap and adjust it for snug fit.
5. Position the microphone as desired by flexing the boom.
6. Connect the upper cord to the lower cord as shown in the inset in **Figure 8**.
7. Connect the lower cord to the intercom system.
8. If the upper cord has a PTT switch, operate the switch as follows:
 - a. For the radio, push the switch to the momentary position.
 - b. For the intercom, push the switch to the locked position.
 - c. To listen only, push the switch to the center position.

NOTE

The user can remove one earcup if needed for ambient hearing. Retain the earcup for future use.

9. To remove one earcup, do the following:
 - a. Referring to **Figure 8**, disconnect the earphone cord connector.
 - b. Remove the earcup that is **not** connected to the microphone boom.
 - c. Don the inner helmet and check the fit. Readjust the inner helmet straps as necessary.
10. To switch the microphone to the other side of the helmet, do the following:
 - a. Remove both earcups from the inner helmet pockets.
 - b. Perform Steps 2b through 2e on Page 8.
 - c. From inside the inner helmet, push the microphone through the opening on the **opposite** side of the helmet, and insert the microphone-side earcup into the inner helmet pocket.
 - d. Perform Steps 4b through 4f on Page 8.
 - e. Don the inner helmet and check the fit. Readjust the inner helmet straps as necessary.

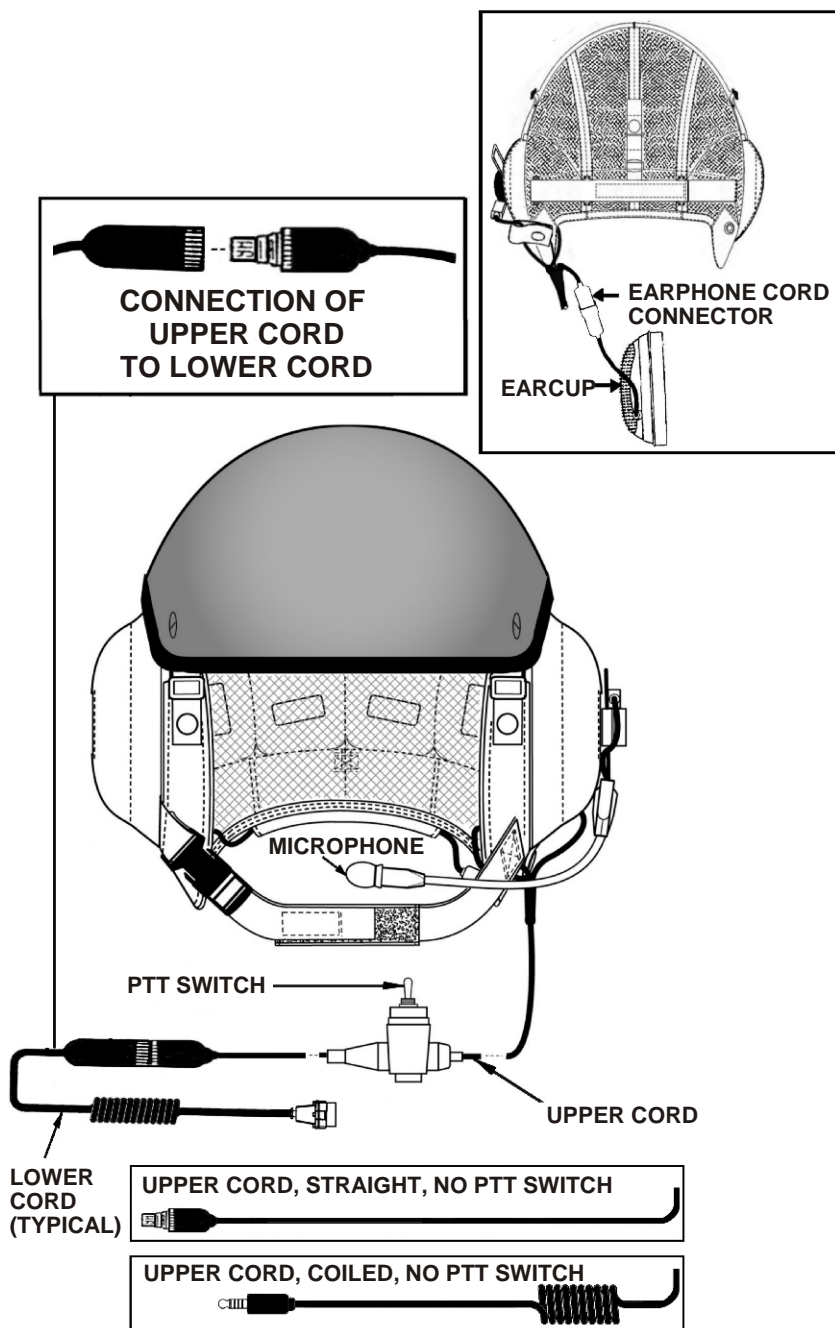


Figure 8. Helmet Operation Points

CLEANING INNER HELMET

1. Unsnap the helmet shell from the inner helmet.
2. Referring to **Figure 9**, remove the communications assembly from the inner helmet as follows:
 - a. Remove the right earcup (as worn) from the inner helmet pocket.
 - b. Open the inside rear bottom flap, and withdraw the communications cord from the enclosure.
 - c. Unfasten the retainer snap that attaches the communications cord to the back of the inner helmet.
 - d. Unplug the microphone from the connector.
 - e. Loosen the microphone swivel assembly. Slide the boom forward until the rear of the boom contacts the swivel, and re-tighten the swivel. Push the boom/microphone into the inner helmet opening as shown, and remove the left earcup (as worn) from the inner helmet pocket.

CAUTION

Do not wash the inner helmet in hot water; shrinkage and puckering will occur if you do. Use lukewarm or cold water only.

3. Machine-wash the inner helmet in lukewarm or cold water with mild detergent (no bleach). Allow to air-dry.
4. Reinstall the communications assembly as follows:
 - a. From inside the inner helmet, push the boom/microphone through the opening from which it was removed, and reinsert the left earcup into the inner helmet pocket.
 - b. Loosen the knurled nut of the boom swivel as much as possible, ensuring that the boom support wires are aligned within the grooves of the boom swivel. Slide the locking plate into the boom clip until you hear a click. Tighten the knurled nut to secure the boom support in the desired position.
 - c. Plug the microphone and headband cord, if removed, into the connector from which they were removed, and reseal the rubber boots.
 - d. Fasten the communications cord retainer snap to the inner helmet.
 - e. Route the communications cord along the inside bottom of edge, and close the flap over the cord.
 - f. Reinsert the right earcup and spacer pads into the inner helmet pocket.
5. Don the inner helmet and check the fit. Adjust as necessary.

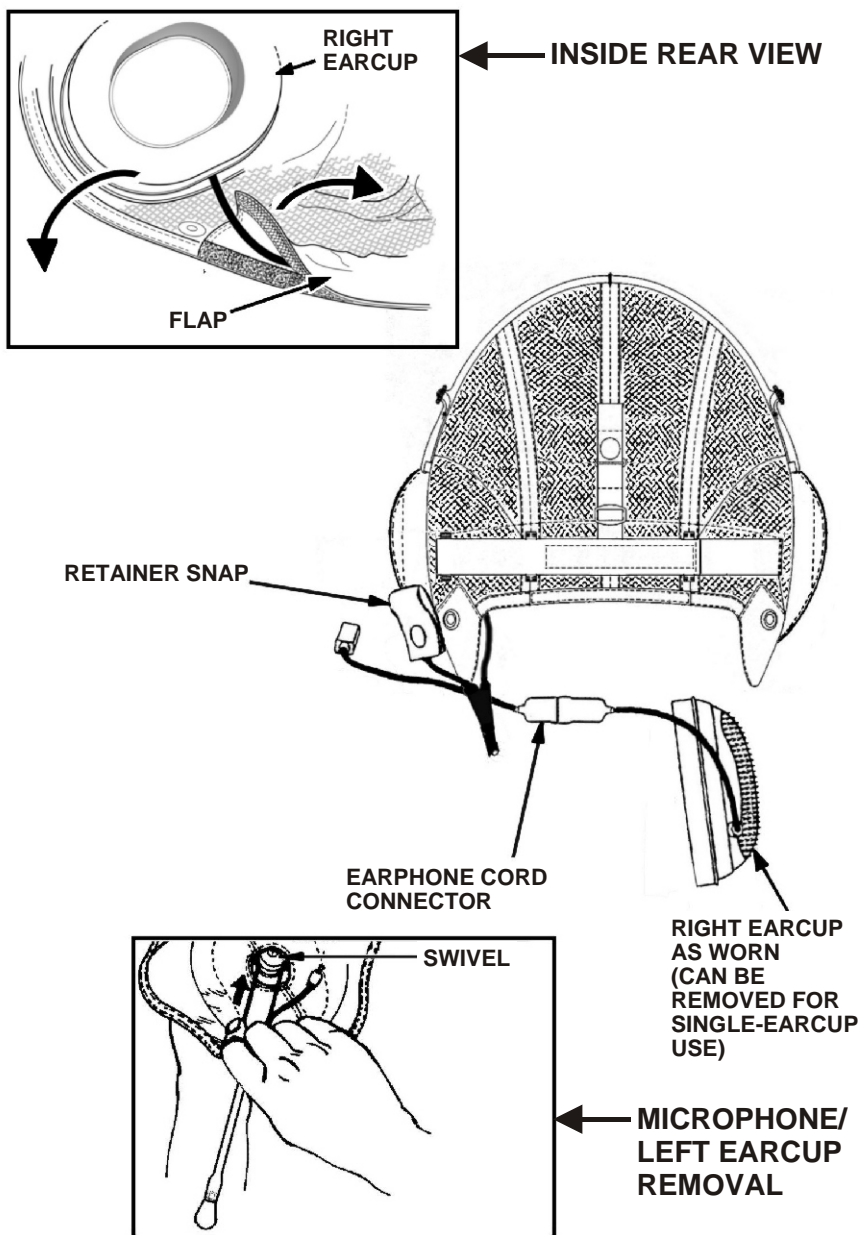


Figure 9. Communications Assembly Removal

REPLACEMENT PARTS LISTS

On Pages 11 and 12 are four parts lists for the TCH Helmet. These parts lists are organized as follows:

First list (part numbers **02C11595-1** and **02C11595-2**): configured for **LVIS (upper cord with PTT switch)**

Second list (part numbers **02C11595-3** and **02C11595-4**): configured for **VIS (upper cord with PTT switch)**

Third list (part numbers **02C11595-5** and **02C11595-6**): configured for **LVIS Dual Radio (coiled upper cord, no PTT switch)**

Fourth list (part numbers **02C11595-7** and **02C11595-8**): configured for use with **lower cords that have the PTT switch (straight upper cord, no PTT switch)**.

Items numbered 1-5 in **Figure 10** correspond with items shown in each of the four parts lists. For more information, contact:

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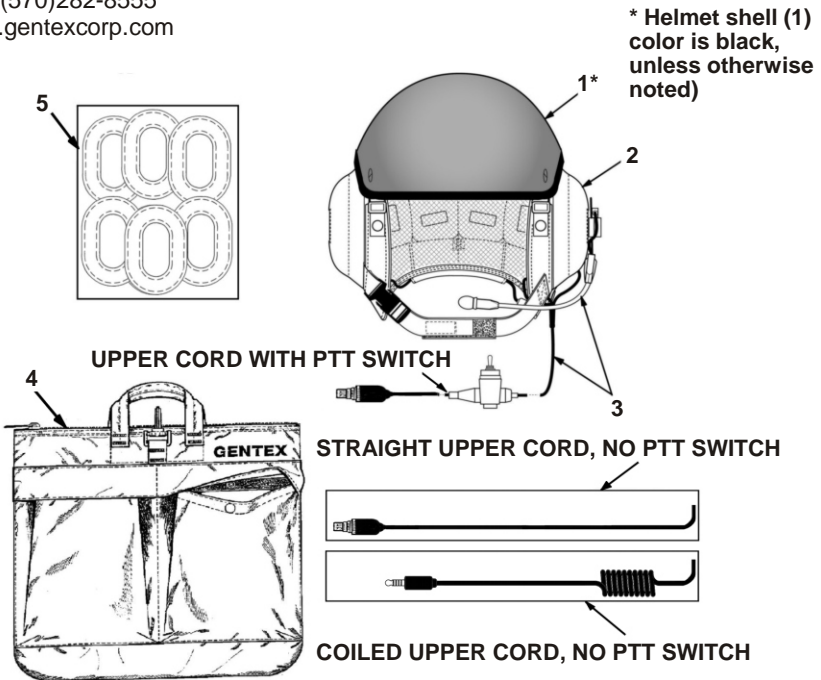


Figure 10. TCH

ITEM NO.	TCH, LVIS, SMALL 02C11595-1	TCH, LVIS, MEDIUM/LARGE 02C11595-2
1	Helmet Shell, 1400 FPS, Small 93D8466-7 1 ea.	Helmet Shell, 1400 FPS, Medium/Large 93D8466-8 1 ea.
2	Inner Helmet, Small 02D11601-1 1 ea.	Inner Helmet, Medium/Large 02D11601-2 1 ea.
3	Communications Assembly, LVIS 02D11600-07F01 1 ea.	Communications Assembly, LVIS 02D11600-07F01 1 ea.
4	Helmet Carrying Bag 93A8445-2 1 ea.	Helmet Carrying Bag 93A8445-2 1 ea.
5	Earcup Spacer Pad Kit 78A4162-10 1 ea.	Earcup Spacer Pad Kit 78A4162-10 1 ea.
	Padset, Inner Helmet (Not Shown) 94C8882-2 1 ea.	Padset, Inner Helmet (Not Shown) 94C8882-4 1 ea.
	Instruction Manual TP0238 1 ea.	Instruction Manual TP0238 1 ea.

ITEM NO.	TCH, VIS, SMALL 02C11595-3	TCH, VIS, MEDIUM/LARGE 02C11595-4
1	Helmet Shell, 1400 FPS, Small 93D8466-7 1 ea.	Helmet Shell, 1400 FPS, Medium/Large 93D8466-8 1 ea.
2	Inner Helmet, Small 02D11601-1 1 ea.	Inner Helmet, Medium/Large 02D11601-2 1 ea.
3	Communications Assembly, VIS 02D11600-08A12 1 ea.	Communications Assembly, VIS 02D11600-08A12 1 ea.
4	Helmet Carrying Bag 93A8445-2 1 ea.	Helmet Carrying Bag 93A8445-2 1 ea.
5	Earcup Spacer Pad Kit 78A4162-10 1 ea.	Earcup Spacer Pad Kit 78A4162-10 1 ea.
	Padset, Inner Helmet (Not Shown) 94C8882-2 1 ea.	Padset, Inner Helmet (Not Shown) 94C8882-4 1 ea.
	Instruction Manual TP0238 1 ea.	Instruction Manual TP0238 1 ea.

ITEM NO.	TCH, LVIS DUAL, SMALL 02C11595-5	TCH, LVIS DUAL, MEDIUM/LARGE 02C11595-6
1	Helmet Shell, 1400 FPS, Small 93D8466-7 1 ea.	Helmet Shell, 1400 FPS, Medium/Large 93D8466-8 1 ea.
2	Inner Helmet, Small 02D11601-1 1 ea.	Inner Helmet, Medium/Large 02D11601-2 1 ea.
3	Communications Assembly, LVIS Dual, 02D11600-09D12 1 ea.	Communications Assembly, LVIS Dual 02D11600-09D12 1 ea.
4	Helmet Carrying Bag 93A8445-2 1 ea.	Helmet Carrying Bag 93A8445-2 1 ea.
5	Earcup Spacer Pad Kit 78A4162-10 1 ea.	Earcup Spacer Pad Kit 78A4162-10 1 ea.
	Padset, Inner Helmet (Not Shown) 94C8882-2 1 ea.	Padset, Inner Helmet (Not Shown) 94C8882-4 1 ea.
	Instruction Manual TP0238 1 ea.	Instruction Manual TP0238 1 ea.

ITEM NO.	TCH, MEDIUM/LARGE 02C11595-7	TCH, MEDIUM/LARGE 02C11595-8
1	Helmet Shell, 1400 FPS, Medium/Large Desert Tan 93D8466-7 1 ea.	Helmet Shell, 1400 FPS, Medium/Large 93D8466-8 1 ea.
2	Inner Helmet, Small 02D11601-1 1 ea.	Inner Helmet, Medium/Large 02D11601-2 1 ea.
3	Communications Assembly (Use with Lower Cable with PTT) 02D11600-10F01 1 ea.	Communications Assembly (Use with Lower Cable with PTT) 02D11600-10F01 1 ea.
4	Helmet Carrying Bag 93A8445-2 1 ea.	Helmet Carrying Bag 93A8445-2 1 ea.
5	Earcup Spacer Pad Kit 78A4162-10 1 ea.	Earcup Spacer Pad Kit 78A4162-10 1 ea.
	Padset, Inner Helmet (Not Shown) 94C8882-2 1 ea.	Padset, Inner Helmet (Not Shown) 94C8882-4 1 ea.
	Instruction Manual TP0238 1 ea.	Instruction Manual TP0238 1 ea.

NOTES

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