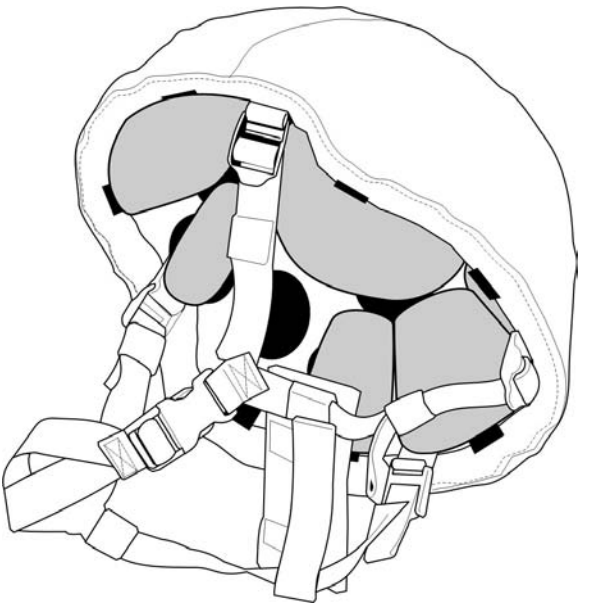
TECHNICAL MANUAL

OPERATOR'S MANUAL FOR ADVANCED COMBAT HELMET (ACH)



* TM 10-8470-204-10, dated 30 September 2005, superseded TM 10-8470-204-10 dated 31 May 2004, including all changes.

HEADQUARTERS, DEPARTMENT OF THE ARMY

30 SEPTEMBER 2005

WARNING SUMMARY

This warning summary contains general safety warnings and hazardous materials warnings that must be understood and applied during operation and maintenance of this equipment. Failure to observe these precautions could result in serious injury or death to personnel.

WARNING

For first aid treatments, refer to FM 4-25.11.

WARNING

All seven helmet pads must be worn during airborne operations and should be worn during other high-risk operations such as air assault and rappelling/mountaineering. Failure to observe this precaution could result in serious injury or death because all seven pads provide maximum impact protection.

WARNING

The hardware for the ACH helmets–where the chin strap retention system webbing attaches to the helmet shell–must be covered by padding during airborne and other high risk operations such as air assault and rappelling/mountaineering. The oblong/oval pads must be placed flush with the rim (edge) of the helmet and completely cover the hardware (WP 0006, Figures 1–3, Front; Figures 4–6, Rear). Failure to observe this precaution could result in serious injury or death to personnel because a hard-point could contact the Soldier's head.

WARNING

To maximize ventilation, the five-pad configuration is the maximum pad reduction authorized in non-risk situations.

WARNING

If you experience fit problems, tightness or looseness, or helmet profile is too high or too low refer to Sizing and Fitting Troubleshooting guidelines.

WARNING

When donning the helmet for the first time in a cold environment, it is necessary to wear the helmet for a few minutes or otherwise warm the pads, such as by placing in pockets, so that the pads will conform to the shape of your head. As the pads warm up and conform to the shape of your head, it may be necessary to retighten the chin strap retention system.

WARNING

If you pull too tightly on any strap during steps 3 and 4 (WP 0008) or if you don't position helmet on head and hold in place with one hand on top of helmet for initial adjustment as instructed in step 2 the helmet may become uncomfortable and tilted on your head and chin cup may become un-centered.

WARNING

The rear trapezoidal pad must be placed flush with the rim (edge) of the helmet for airborne operations. If you experience helmet rotation during airborne operations, the rear trapezoidal pad can be placed so that it extends ½" beyond the rim of the helmet. Placement of the rear trapezoidal pad flush or beyond the rim (edge) of the helmet prevents the hard shell from hitting your neck (WP 0013, Front, Figures 1, 2 and 3; Rear, Figures 4, 5, and 6).

LIST OF EFFECTIVE PAGES/WORK PACKAGES

NOTE: This manual supersedes TM 10-8470-204-10 dated 31 May 2004. Zero in "Change No." column indicates an original page or work package.

Date of issue for revision is:

Original 30 September 2005

TOTAL NUMBER OF PAGES FOR FRONT AND REAR MATTER IS 20 AND TOTAL NUMBER OF WORK PACKAGES IS 24, CONSISTING OF THE FOLLOWING:

Page/WP No.	Change No.	Page/WP No.	Change No.
Front Cover	**0**	WP 0013 (8 pgs)	**0**
Warning	**0**	Chp 3 title page	**0**
i-viii	**0**	WP 0014 (2 pgs)	**0**
Chp 1 title page	**0**	Chp 4 title page	**0**
WP 0001 (2 pgs)	**0**	WP 0015 (4 pgs)	**0**
WP 0002 (14 pgs)	**0**	WP 0016 (2 pgs)	**0**
WP 0003 (2 pgs)	**0**	WP 0017 (2 pgs)	**0**
Chp 2 title page	**0**	WP 0018 (4 pgs)	**0**
WP 0004 (4 pgs)	**0**	Chp 5 title page	**0**
WP 0005 (6 pgs)	**0**	WP 0019 (2 pgs)	**0**
WP 0006 (8 pgs)	**0**	WP 0020 (8 pgs)	**0**
WP 0007 (6 pgs)	**0**	WP 0021 (2 pgs)	**0**
WP 0008 (8 pgs)	**0**	WP 0022 (6 pgs)	**0**
WP 0009 (6 pgs)	**0**	WP 0023 (2 pgs)	**0**
WP 0010 (6 pgs)	**0**	WP 0024 (2 pgs)	**0**
WP 0011 (4 pgs)	**0**	Back Cover	**0**
WP 0012 (10 pgs)	**0**		

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 30 SEPTEMBER 2005

TECHNICAL MANUAL

OPERATOR'S MANUAL
FOR

ADVANCED COMBAT HELMET (ACH)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: Commander, U.S. Army Tank-automotive and Armament Command, ATTN: AMSTA-LC-CECT, Kansas St., Natick, MA 01760. You may also send in your recommended changes via electronic mail or by fax. Our fax number is (DSN 256-5205, and commercial number 508-233-5205). Our e-mail address is amssbriml@natick.army.mil. A reply will be furnished to you.

* TM 10-8470-204-10, dated 30 September 2005, superseded TM 10-8470-204-10 dated 31 May 2004, including all changes.

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HOW TO USE THIS MANUAL

OVERVIEW

This manual contains operating instructions and maintenance procedures for the Advanced Combat Helmet (ACH).

This manual is divided into the following major sections:

Front Cover. Provides information about the equipment covered by the TM.

Warning Summary. Provides a summary of all warnings that apply throughout the manual.

Table of Contents. Lists chapters and work packages in order of appearance.

Chapter 1. General Information, Equipment Description and Data and Theory of Operation. Provides descriptions, equipment data, and theory of operation information.

Chapter 2. Operator Instructions. Provides sizing information, donning information, and operating instructions in both usual and unusual conditions.

Chapter 3. Troubleshooting Procedures. Provides troubleshooting procedures for the ACH.

Chapter 4. Operator Maintenance Instructions. Provides instructions on hardware replacement, pad suspension replacement, cleaning the ACH, and PMCS.

Chapter 5. Supporting Information. Provides reference information, Components of End Items (COEI)/Basic Issue Items (BII) Lists, Associated and Repair Items List, Expendable and Durable Items List and Additional Information for the ACH.

NAVIGATION

This TM is in work package format. All of the work packages contained within the TM are listed in the table of contents in the order they appear by chapters. The work package sequence number (e.g. WP 0001) is listed for each work package in the table of contents. The work package sequence number is at the top of each page of the work package and is also a part of the page number for each work package (e.g., 0001-1). The page numbers appear at the bottom of each page.

OPERATION AND MAINTENANCE

Before you use the Advanced Combat Helmet (ACH) familiarize yourself with the assembly and fitting instructions and the operating instructions (Chapter 2). Perform maintenance procedures (Chapter 3) on a regular basis. Always follow the WARNINGS and CAUTIONS.

CHAPTER 1

GENERAL INFORMATION, EQUIPMENT DESCRIPTION AND DATA, AND THEORY OF OPERATION FOR ADVANCED COMBAT HELMET (ACH)

SCOPE

This manual covers the basic fitting and use instructions for the Advanced Combat Helmet (ACH), hereafter referred to as the ACH or the helmet.

MAINTENANCE FORMS, RECORDS, AND REPORTS

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)

If your ACH needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. If you have Internet access, the easiest and fastest way to report problems or suggestions is to go to
https: //aeps.ria.army.mil/aepspublic.cfm (scroll down and choose the “Submit Quality Deficiency Report” bar). The Internet form lets you choose to submit an Equipment Improvement Recommendation (EIR), a Product Quality Deficiency Report (PQDR) or a Warranty Claim Action (WCA). You may also submit your information using an SF 368 (Product Quality Deficiency Report). You can send your SF 368 via e-mail, regular mail, or facsimile using the addresses/facsimile numbers specified in DA PAM 750-8 The Army Maintenance Management System (TAMMS) Users Manual.

CORROSION PREVENTION AND CONTROL (CPC)

Corrosion Prevention and Control (CPC) of Army materiel is a continuing concern. It is important that any corrosion or degradation problems with this item be reported so that the problem can be corrected and improvements can be made to prevent the problem in future items. Corrosion specifically occurs with metals. It is an electrochemical process that causes the degradation of metals. It is commonly caused by exposure to moisture, acids, bases, or salts. An example is the rusting of iron. Corrosion damage in metals can be seen, depending on the metal, as tarnishing, pitting, fogging, surface residue, and/or cracking. Plastics, composites, and rubbers can also degrade. Degradation is caused by thermal (heat), oxidation (oxygen), solvation (solvents), or photolytic (light, typically UV) processes. The most common exposures are excessive heat or light. Damage from these processes will appear as cracking, softening, swelling, and/or breaking.

SF Form 368, Product Quality Deficiency Report should be submitted to the address specified in DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual. We will send you a reply.

DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE

Not Applicable to the ACH

PREPARATION FOR STORAGE OR SHIPMENT

To prepare the ACH for shipment or storage, tag it and place it in its original container or a suitable box.

MOST CURRENT VERSION OF THIS MANUAL

The most current version of this manual may be found at https://www.logsa.army.mil/etms/online.htm

LIST OF ABBREVIATIONS/ACRONYMS

Components of End Item	COEI
Basic Issue Items	BII
Advanced Combat Helmet	ACH
Corrosion Prevention Control	CPC
Night Vision Devices	NVD
Nuclear, Biological, Chemical	NBC
National Stock Numbers	NSN
Equipment Improvement Report	EIR
Preventive Maintenance Checks and Services	PMCS

END OF WORK PACKAGE

EQUIPMENT CHARACTERISTICS, CAPABILITIES AND FEATURES

The ACH is a helmet system that provides ballistic and impact protection. This system is compatible with the current night vision devices (NVDs), communications packages, and Nuclear, Biological and Chemical (NBC) defense equipment and body armor.

The ACH provides ballistic protection within the full spectrum of operational environments.

The ACH allows maximum sensory and situational awareness for the operator. This includes an unobstructed field of view and increased ambient hearing capabilities.

The ACH's chin strap retention systems and pad suspension system provide unsurpassed balance, stability and comfort. The systems provide for proper size, fit and ventilation.

The ACH’s pad suspension system provides impact protection throughout all operational scenarios, including static-line airborne operations.

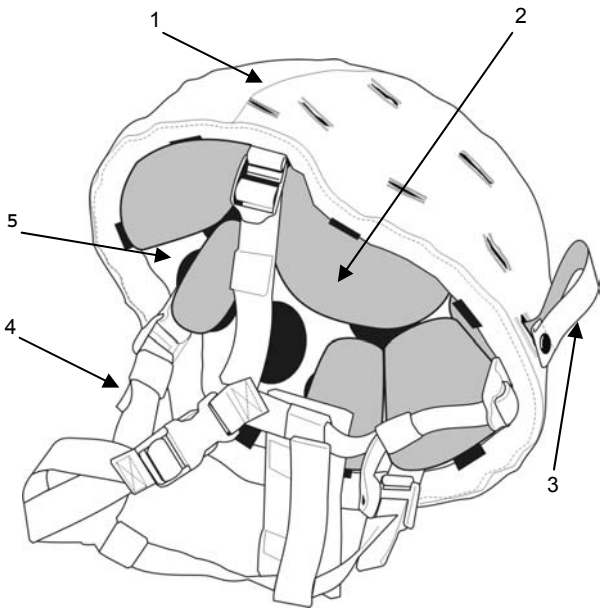
This work package provides descriptions and data of the MSA TC2000, SDS Warrior and the Gentex TBH-II helmets.

NOTE

Throughout this manual, some illustrations of the helmet show a hole in the front of the helmet shell. Where shown, this hole is for mounting the Night Vision Device (NVD) front bracket. This bracket should be mounted on the helmet or the hole should be plugged with screw and post (see WP 0022 for parts information) at all times. At no time should the hole be left empty.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (MSA TC2000 AND SDS WARRIOR)

The MSA TC2000 and SDS Warrior Advanced Combat Helmets are made up of the following major components which are illustrated below:



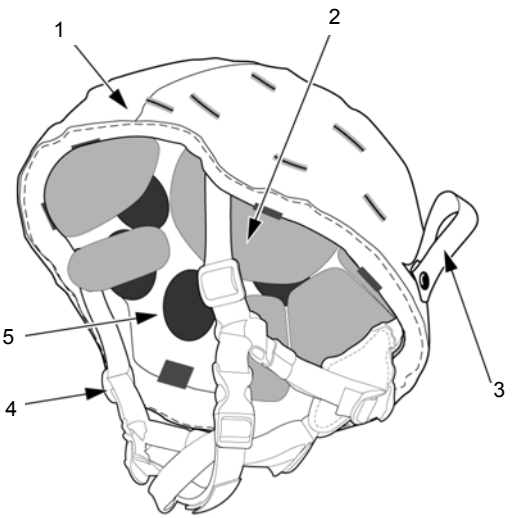
LEGEND

1. Helmet Cover
2. Pad Suspension System
3. Eyewear Retention Strap
4. Chin Strap Retention System with Hardware
5. Helmet Shell

Figure 1. Major Components (MSA TC2000 and SDS Warrior).

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (GENTEX TBH-II)

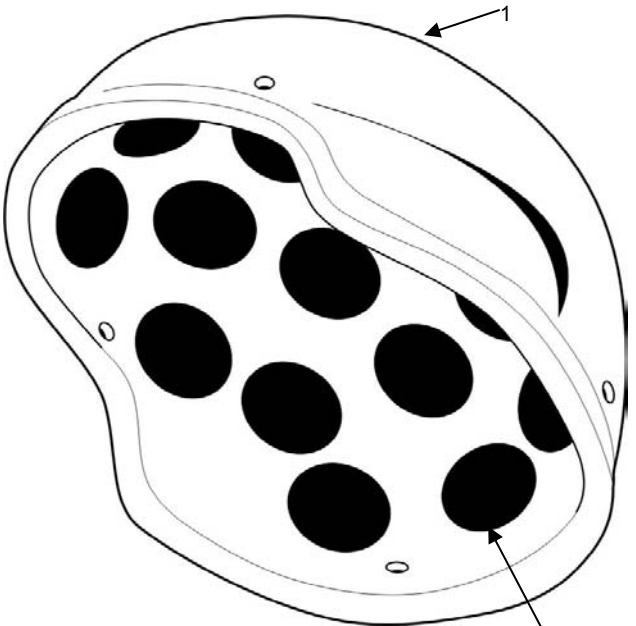
The Gentex (TBH-II) Advanced Combat Helmet is made up of the following major components which are illustrated below:



LEGEND

1. Helmet Cover
2. Pad Suspension System
3. Eyewear Retention Strap
4. Chin Strap Retention System with Hardware
5. Helmet Shell

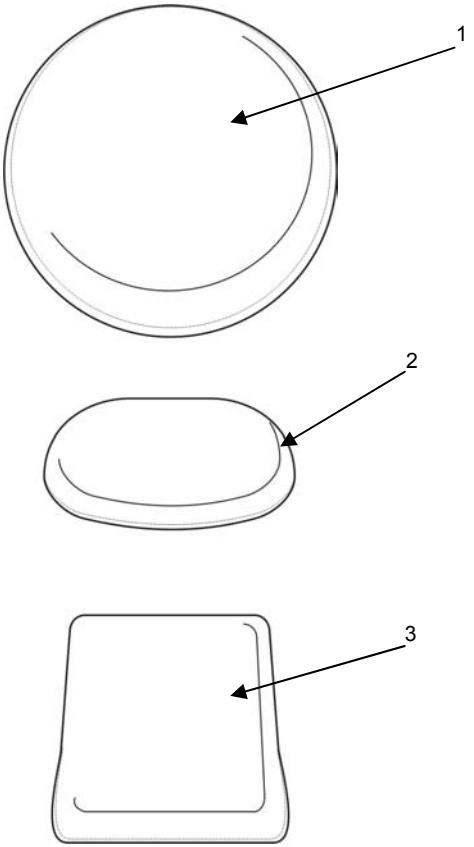
Figure 2. Major Components (Gentex TBH-II).



LEGEND

1. Helmet Shell
2. Hook Disks

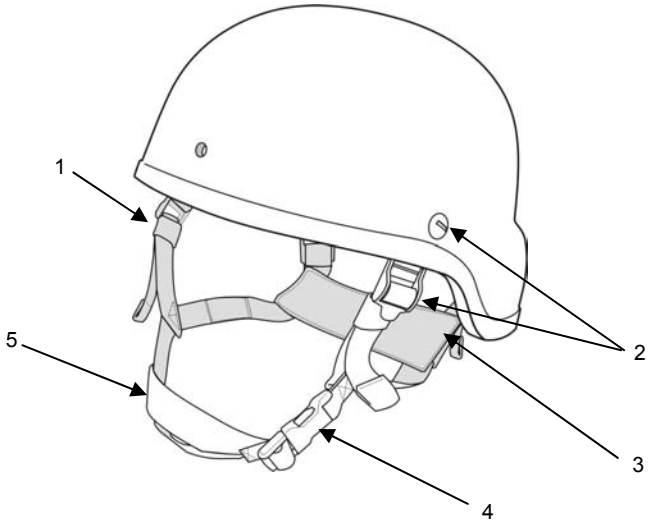
Figure 3. Helmet Shell (All Models).



LEGEND

1. Circular Crown Pad (1 per helmet)
2. Oblong/Oval Pad (4 per helmet)
3. Trapezoidal Pad (2 per helmet)

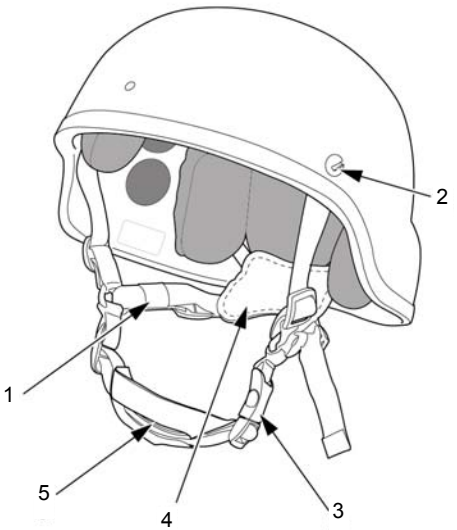
Figure 4. Pad Suspension System (All Models).



LEGEND

1. Elastic Band
2. Hardware
3. Nape Pad
4. Buckle
5. Chin Cup

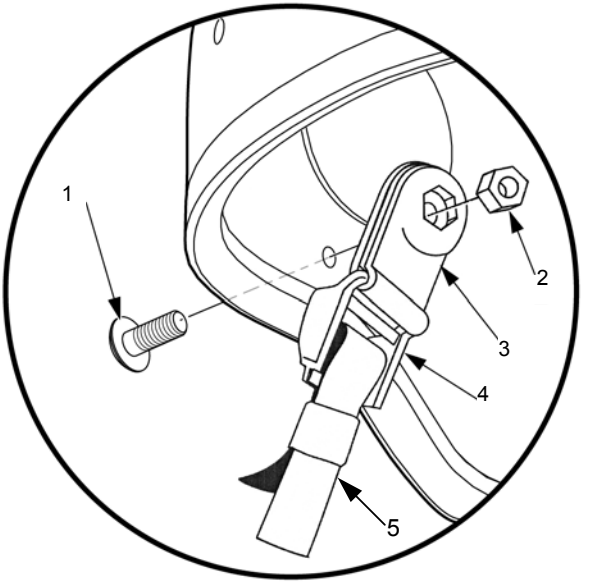
Figure 5. Chin Strap Retention System with Hardware (MSA TC2000 and SDS Warrior).



LEGEND

1. Elastic Band
2. Hardware
3. Buckle
4. Nape Pad
5. Chin Cup

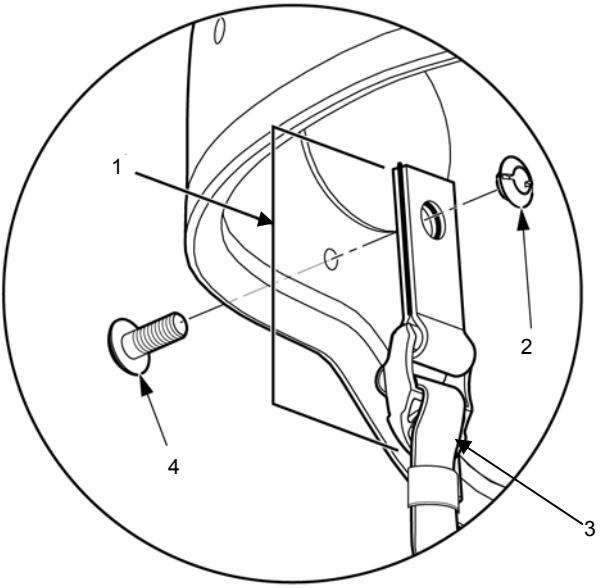
Figure 6. Chin Strap Retention System with Hardware (Gentex TBH-II).



LEGEND

1. Screw
2. Nut
3. P-Clamp
4. Ladder Lock
5. Webbing

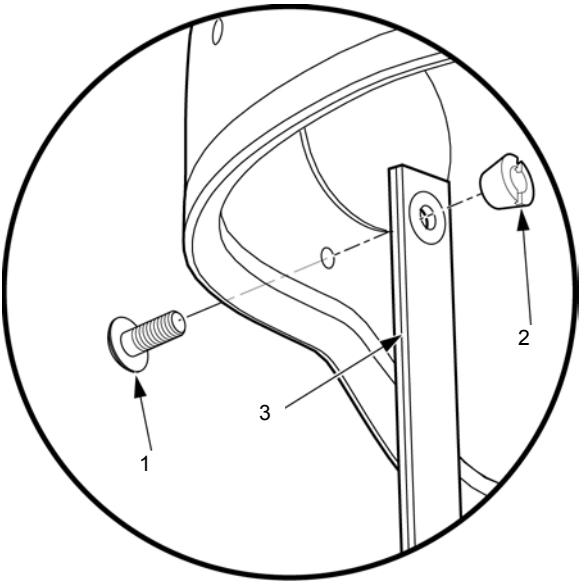
Figure 7. Hardware (MSA TC2000).



LEGEND

1. Attachment Tab
2. Post
3. Webbing
4. Screw

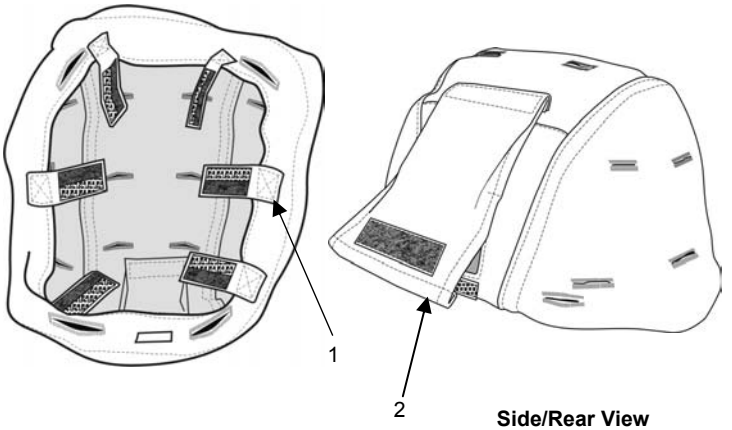
Figure 8. Hardware (SDS Warrior).



LEGEND

1. Screw
2. Conical Nut
3. Webbing

Figure 9. Hardware (Gentex TBH-II).

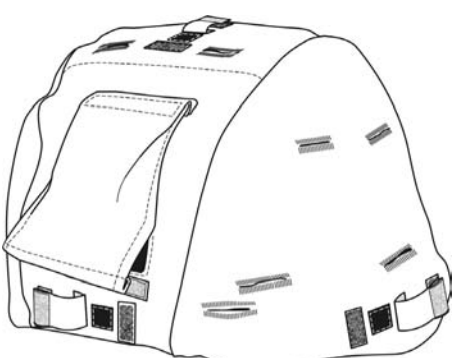


Side/Rear View

LEGEND

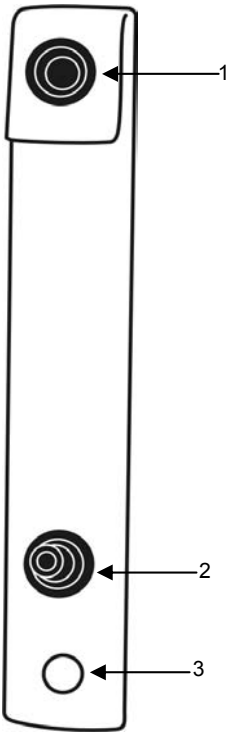
1. Cover Retaining Tab
2. Communications Flap

Figure 10. Reversible Helmet Cover (Woodland/Desert, All Models).



Side/Rear View

Figure 11. Non-Reversible Helmet Cover (White and Universal Camouflage, All Models).



LEGEND

1. Snap (Socket)
2. Snap (Stud)
3. Hole to Mount to Helmet Shell

Figure 12. Eyewear Retention Strap (All Models).

The following items are used in certain operations:

chemical protective cover,
helmet band

.

DIFFERENCES BETWEEN MODELS

There are presently three suppliers of the ACH. They include MSA (the TC2000 helmet), SDS (the Warrior helmet), and Gentex (the TBH-II helmet). The helmet has a label identifying the manufacturer. All employ a four-point chin strap retention system design. The helmets are similar; however, the primary difference is in the chin strap retention system. The MSA and the SDS helmets are very similar. The primary difference between the two is the means to which the chin strap webbing attaches to the helmet shell. The MSA helmet uses a screw, a nut, a p-clamp, and a ladder-lock. The SDS helmet uses a screw, a post (nut), and an attachment tab (includes the ladder-lock). The chin straps on the MSA and SDS are the same. They are composed of three basic elements: a “Y” shaped right side element, a “V” shaped left side element, a foam nape pad joining the two side elements. The nape pad is adjustable side-to-side and along the legs of the chin strap. This allows the Soldier an additional adjustment point. The Gentex helmet uses a similar four point design; however, the rear nape pad is not adjustable. However, the Gentex design has an adjustment in the center section of the chin strap, where the chin cup is located. Lastly, the Gentex design bolts the webbing directly to the shell using a screw and nut, not requiring the use of a ladder-lock at the shell; the adjustment point is elsewhere in the chin strap.

The ACH currently comes in four helmet/shell sizes, small, medium, large and extra large. Pad sizes are 6 (3/4" thick) and 8 (1" thick).

EQUIPMENT DATA

The following table provides information pertaining to the mechanical data for the three models of ACH:

Table 1. Mechanical Data for the ACH (Maximum Values for All Models).

Helmet Shell Size	Length (inches)	Width (inches)	Height (inches)	Weight (ounces)
Small	9.7	9.1	7.0	48.5
Medium	10.3	9.3	7.0	51.0
Large	10.5	9.5	7.0	54.0
X-large	11.0	10.1	7.0	62.0

Weight includes shell, retention system, and suspension system only. Does not include cover or eyewear retention system.

Dimensions (Length, Width, and Height) are overall exterior dimensions.

END OF WORK PACKAGE

THEORY OF OPERATION

This work package discusses theory of operation and protective qualities of the ACH.

The ACH is designed to provide the Soldier with ballistic and impact protection. It is compatible with night vision, communications and Nuclear, Biological and Chemical (NBC) equipment. The ACH weighs approximately 3.0 pounds for the small size, 3.2 pounds for the medium size, 3.4 pounds for the large size and 3.9 pounds for the extra large size.

The edge cut of the shell has been reduced when compared to the Helmet, Ground Troops and Parachutists. This design enables better situational awareness through improved field of view and hearing.

The shell provides ballistic protection. The pads act as a suspension system providing sizing and fitting. In conjunction with the shell, the pad suspension system provides impact protection.

The chin strap retention system is a four point design, attaching to the shell at four locations. In conjunction with the pad suspension system, it provides improved stability.

END OF WORK PACKAGE

CHAPTER 2

OPERATOR INSTRUCTIONS

FOR

ADVANCED COMBAT HELMET (ACH)

INITIAL SETUP: **Not Applicable**

OPERATING PROCEDURES

This work package provides instructions for choosing the proper size ACH.

If other equipment is to be used with the helmet, such as a headset/microphone, evaluate helmet shell and pad size with that equipment.

ACH Shell Sizing

Head Measuring Procedure

Use tape measure and caliper to make the following measurements. See WP 0023, Additional Information, for appropriate National Stock Numbers (NSN).

1. Subject *must* be seated in upright position.

2. Measure the maximum head length between the browridge and the back of the head. Measurement is best made with a caliper. If caliper is not available, an approximate measurement can be made using a tape measure aligned with the front and back of head as shown. Record size measured.

NOTE

Arrows denote the proper alignment of the caliper or tape measure.

Figure 1. Head Length.

3. Measure the maximum head width above the ears from the widest point between the left and right side of head. Measurement is best made with a caliper. If no caliper is available, an approximate measurement can be made using a tape measure aligned with each side of head as shown. Record size measured.

NOTE

Arrows denote the proper alignment of the caliper or tape measure.

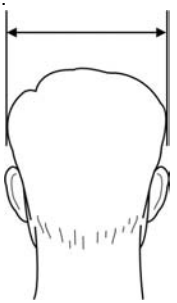


Figure 2. Head Width.

4. Measure the maximum head circumference. Record size measured.

NOTE

Subject sits erect with head level. Measure circumference by passing tape measure just above the bony eyebrow ridges of the forehead and above both ears. The tape measure must be pulled tight.

Figure 3. Head Circumference.

5. Using Table 1, select the helmet shell size based on the largest of the three measurements. If a measurement falls on the dividing line between two sizes, select the larger size. The helmet shell size selected in this step will be used as the starting point for pad evaluation in the next procedure.

NOTE

If any measurement falls on the dividing line between sizes, select the larger size.

Table 1. Head/Shell Sizing.

Helmet Shell	Head Length	Head Breadth (Width)	Head Circumference
Small Helmet Shell	Up to 7 ¼ inches (184 mm)	Up to 6 ½ inches (162 mm)	Up to 21 ¼ inches (538 mm)
Medium Helmet Shell	From 7 ¼ inches (184 mm) up to 7 ¾ inches (198 mm)	Up to 6 ½ inches (162 mm)	From 21 ¼ inches (538 mm) up to 22 ½ inches (573 mm)
Large Helmet Shell	From 7 ¾ inches (198 mm) up to 8 ¼ inches (210 mm)	Up to 6 ½ inches (162 mm)	From 22 ½ inches (573 mm) up to 23 ½ inches (597 mm)
Extra-Large Helmet Shell	8 ¼ inches (210 mm) and over	6 ½ inches (162 mm) and over	23 ½ inches (597 mm) and over

END OF TASK

ACH Pad Sizing (Evaluation of Sizing)

The sizes of pads available are as follows:
¾" thick (also referred to as size 6).
1" thick (also referred to as size 8).

To select pad size:

1. Assemble helmet in standard pad configuration with size 6 pads (¾" thick) (see WP 0005).

2. Try on helmet and evaluate fit. Proper fit is achieved when the helmet does not sit too high (crown pad does not contact head or too much of forehead is exposed) or too low (too low on brow or not compatible with eyewear, etc.) and is not too tight or too loose (see WP 0007). Shake head rapidly from side to side to check for stability. Helmet should not rotate from side to side when head is shaken. While evaluating fit, be sure to have the chin strap retention system cinched down.

3. The ACH should fit so that the front rim is no more than ½ " above the eyebrows. A properly sized and fitted ACH will sit level on the Soldier's head (side to side), with the lower edge of the front rim being level to the ground or slightly inclined with respect to the ground. While looking upward by moving only the eyes, the Soldier can test for proper fit by observing that the edge of the rim is just in view. All ACH's should be fitted with the thinner size 6 crown pad (¾" thick) in the top of the helmet. The Soldier should feel the crown pad touch the top of his head. Fit can be adjusted by adjusting the pad positions inside the helmet, tightening the retention straps, or exchanging the helmet shell for a larger size. A quick evaluation of the height of the ACH can be made by looking at the height of the ACH relative to the ear canal openings. The bottom of the ACH should come to the top of the Soldier's ear canal opening.

4. If no small-sized ACH is available, Soldiers will best be accommodated in a medium-sized ACH shell with size 8 (1" thick) pads or a correctly fitted PASGT helmet.

END OF WORK PACKAGE

INITIAL SETUP: Not Applicable

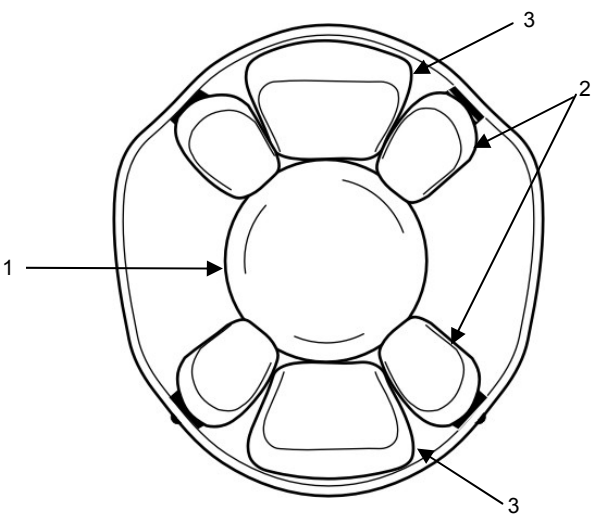
This work package provides instructions for different pad configurations.

NOTE

This section pertains to all models of the ACH.

Standard Pad Configuration

All seven pads are worn when first trying on the helmet for sizing and fitting and for airborne and other high-risk operations (see WP 0013).



LEGEND

1. Circular crown pad (1)
2. Oval/oblong pads (4)
3. Trapezoidal pads (2)

Figure 1. Standard Pad Configuration.

Alternate Pad Configurations

Alternate pad configurations are allowed to obtain a better fit or more comfort.

Pads can be placed in vertical or horizontal directions (as shown in illustrations) or a combination or at an angle between horizontal and vertical (diagonal).

Up to two pads (oblong/oval or trapezoidal) can be removed in non-risk situations. The circular crown pad must always remain in the helmet.

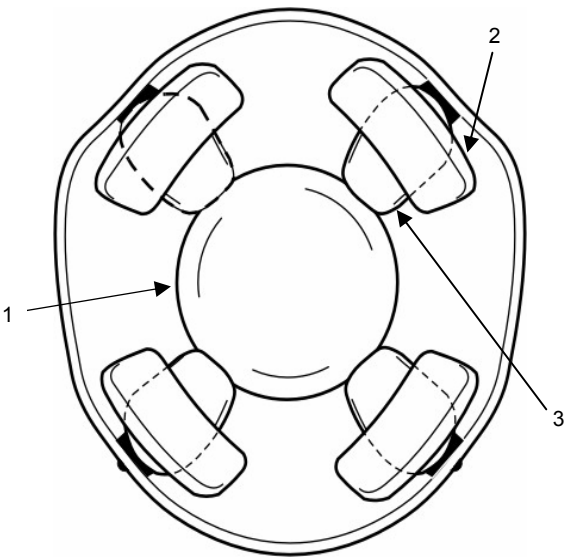
Pads should be placed around the inside of the helmet to provide optimum comfort and stability.

It is best to cover hardware with pads in all situations. However, hardware **MUST** be covered with pads in high-risk situations.

NOTE

The following illustrations show alternate configurations. For reasons of clarity only, each of the illustrations shows pads in either horizontal or vertical positions but not in diagonal positions. However, the pads can be placed diagonally, at any angle.

Front of Helmet



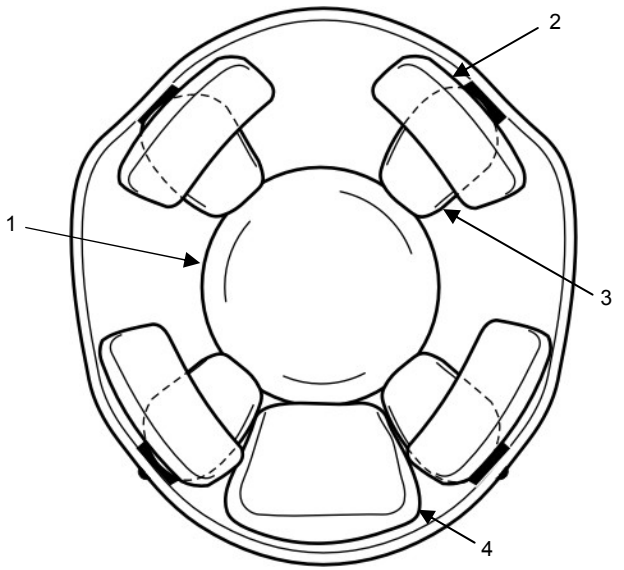
LEGEND

1. Circular crown pad
2. Oblong/Oval pad (Horizontal direction)
3. Oblong/Oval pad (Vertical direction)

Figure 2. Five-Pad Configuration.

The five-pad configuration is useful in hot climates.

Front of Helmet

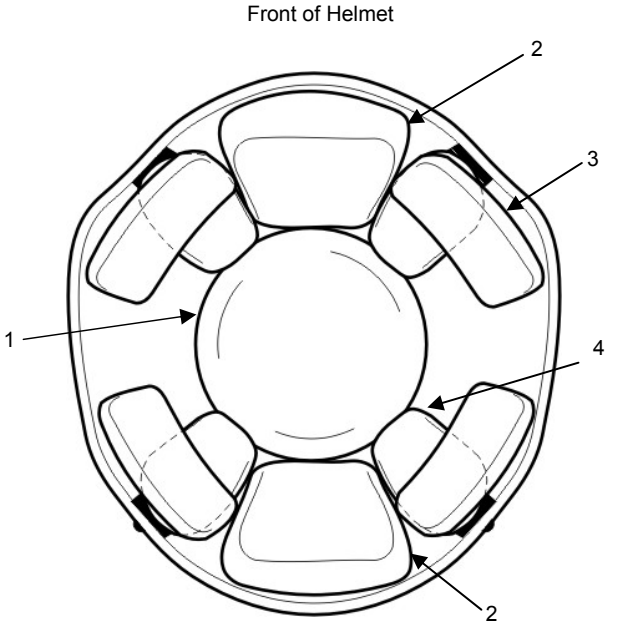


LEGEND

1. Circular crown pad
2. Oblong/Oval pad (Horizontal direction)
3. Oblong/Oval pad (Vertical direction)
4. Trapezoidal pad

Figure 3. Six-Pad Configuration.

The six-pad configuration is useful for Soldiers who have long heads or when wearing protective masks.



LEGEND

1. Circular crown pad
2. Trapezoidal pad
3. Oblong/Oval pad (Horizontal direction)
4. Oblong/Oval pad (Vertical direction)

Figure 4. Seven-Pad Configuration.

The seven-pad configuration is the standard configuration and offers the most impact protection and is required for airborne operations and other high-risk operations.

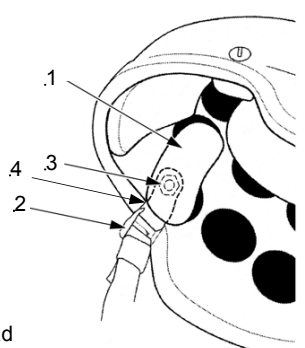
END OF WORK PACKAGE

INITIAL SETUP: Not applicable

This work package provides information about the adjusting the pad suspension system. This unique suspension system is fully adjustable. The system has the following requirements and restrictions:

WARNING

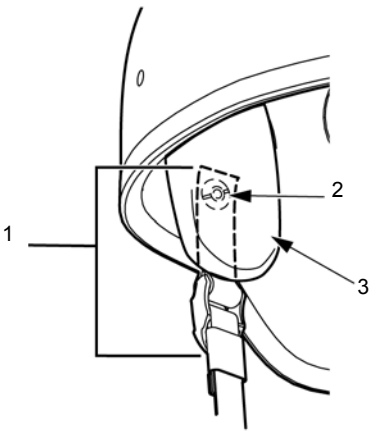
The hardware for the ACH helmets–where the chin strap retention system webbing attaches to the helmet shell–must be covered by padding during airborne and other high risk operations such as air assault and rappelling/mountaineering. The oblong/oval pads must be placed flush with the rim (edge) of the helmet and completely cover the hardware (Figures 1–3) (Front) (Figures 4–6) (Rear). Failure to observe this precaution could result in serious injury or death to personnel because a hard-point could contact the Soldier's head.



LEGEND

1. Oblong/Oval Pad
2. Ladder Lock
3. Screw/Nut
4. P-Clamp

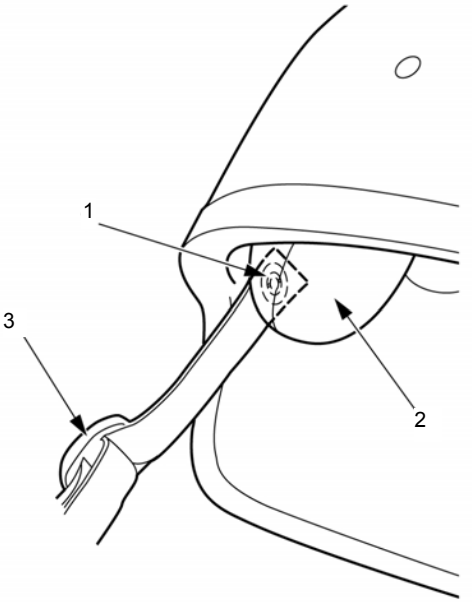
Figure 1. Pad Placement over Hardware (Front) (MSA TC2000).



LEGEND

1. Attachment Tab
2. Screw/Post
3. Oblong/Oval Pad

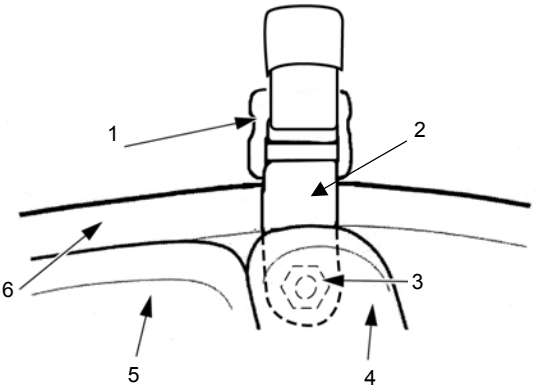
Figure 2. Pad Placement over Hardware (Front) (SDS Warrior).



LEGEND

1. Screw/Conical Nut
2. Oblong/Oval Pad
3. Buckle

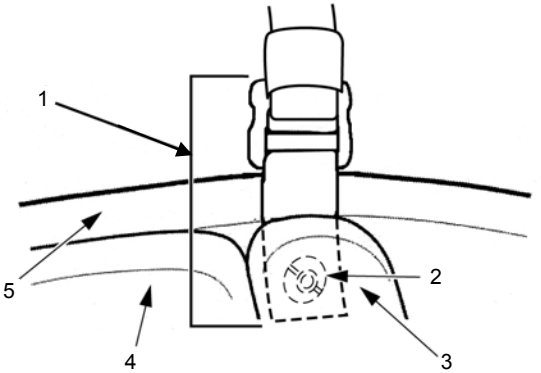
Figure 3. Pad Placement over Hardware (Front) (Gentex TBH-II).



LEGEND

1. Ladder Lock
2. P-Clamp
3. Screw/Nut
4. Oblong/Oval Pad
5. Trapezoidal Pad
6. Rim (edge) of Helmet

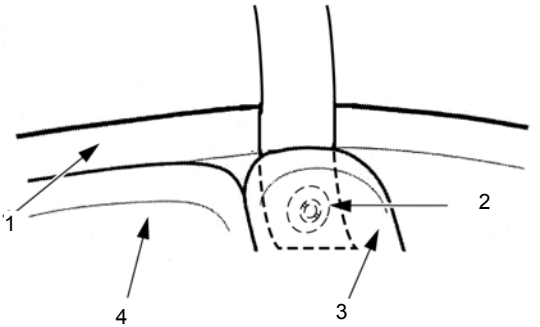
Figure 4. Pad Placement over Hardware (Rear) (MSA TC2000).



LEGEND

1. Attachment Tab
2. Screw/Post
3. Oblong/Oval Pad
4. Trapezoidal Pad
5. Rim (edge) of Helmet

Figure 5. Pad Placement over Hardware (Rear) (SDS Warrior).



LEGEND

1. Rim (edge) of Helmet
2. Screw/Conical Nut
3. Oblong/Oval Pad
4. Trapezoidal Pad

Figure 6. Pad Placement over Hardware (Rear) (Gentex TBH-II).

WARNING

All seven helmet pads must be worn during airborne operations and should be worn during other high-risk operations such as air assault and rappelling/mountaineering. Failure to observe this precaution could result in serious injury or death because all seven pads provide maximum impact protection.

NOTE

If you experience fit problems, tightness or looseness, or helmet profile is too high or too low, refer to Sizing and Fitting Troubleshooting guidelines (WP 0007).

NOTE

When donning the helmet for the first time in a cold environment, it may be necessary to wear the helmet for a few minutes or otherwise warm the pads, such as by placing in pockets, so that the pads will conform to the shape of your head. As the pads warm up and conform to the shape of your head, it may be necessary to retighten the chin strap retention system.

NOTE

To maximize ventilation, the five pad configuration is the maximum pad reduction authorized in non-risk conditions.

NOTE

If you experience hot spots or discomfort, try rearranging the pad suspension system to accommodate a more comfortable fit. If discomfort persists, try resizing your shell (see WP 0004 and WP 0007).

The direction of the oblong/oval pads may be changed to maximize comfort. These pads may be routed vertically from bolt to crown. This configuration maximizes airflow for better temperature regulation. These pads may be routed horizontally to make a seal around the user's head. This configuration is better suited for cold weather environments (see WP 0005).

END OF WORK PACKAGE

INITIAL SETUP: Not applicable

This work package provides sizing and fitting troubleshooting techniques. For additional information refer to GTA 07-08-001.

NOTE

The illustrations in this WP are generic and represent all three helmet models.

If helmet is too tight (Figure 1):

1. Rearrange oblong/oval pads in an alternate direction, horizontal, vertical or diagonal (see WP 0005).
2. If rearranging the pads does not alleviate the tightness, try the next smaller (thinner) pad size.
3. Try removing front pad and/or rear pad and rearranging oblong/oval pads to create space in the area you felt tightness (see WP 0005).
4. Try the next larger shell size.

Figure 1. Helmet Too Tight.

END OF TASK

If helmet is too loose:

If helmet slides on the head while shaking the head side to side, helmet is too loose (Figure 2).

NOTE

Leaders need to periodically check the suspension pads assembly and chin strap retention system for serviceability. If any of the components are broken or worn out, they may be replaced with the items listed in WP 0022.

1. Tighten the chin strap retention system. Soldiers may also find that over time, the pads compress and the retention straps may need to be adjusted to compensate. Periodically, the ACH pads should be inspected for wear and deterioration. This is done by squeezing the pads.

2. Rearrange side pads in an alternate direction (horizontal, vertical or diagonal (see WP 0005).

3. Try the next larger (thicker) pad set.

4. Increase the number of pads in shell.

5. Try the next smaller shell size.

Figure 2. Helmet Too Loose.

END OF TASK

If helmet is too high:

If helmet is too high (i.e., too much forehead exposed) (Figure 3), crown does not touch top of head (Figure 4) or Soldier does not see rim of helmet (Figure 5):

1. Try the next smaller (thinner) pad set.

2. Try rearranging pads, horizontal, vertical or diagonal (see WP 0005).

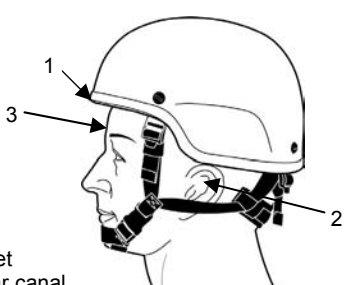
3. Try the next larger shell size.

NOTE

It is extremely important that the helmet not be sized and fitted to sit too high on the head. Here are some things to look for:

The ACH should fit so that the front rim of helmet (Figure 3) is not more than ½ " above the eyebrows.

A quick evaluation of the height of the ACH can be made by looking at the height of the ACH relative to the ear canal opening. Proper fit is achieved when the portion of ear at or above ear canal is covered.



LEGEND

1. Rim of Helmet
2. Too much ear canal exposed
3. Too much forehead exposed

Figure 3. Helmet Too High (Too Much Forehead and Ear Canal Exposed).

END OF TASK

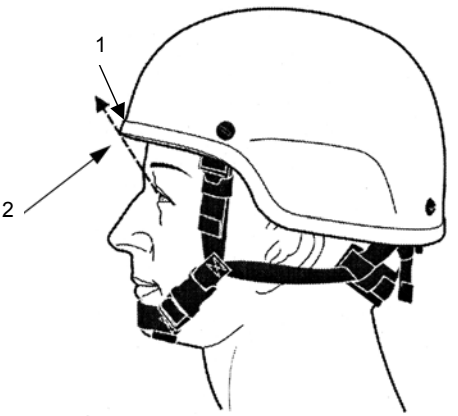
If crown pad does not touch head, (Soldier cannot feel pad), then the helmet is too high.

LEGEND

1. Space between pad and head

Figure 4. Helmet Too High (Crown Pad not Touching Head).

When fitting, have subject look upward by moving eyes, without moving head. If subject cannot see the rim of the helmet, then the helmet is too high.



LEGEND

1. Rim of Helmet
2. Soldier cannot see Rim

Figure 5. Helmet Too High (Looking Past Rim).

END OF TASK

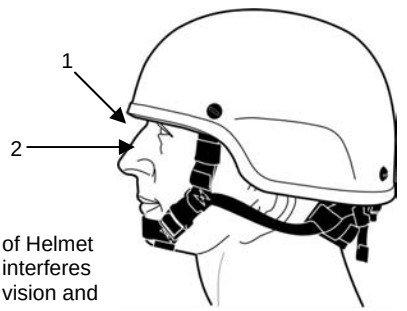
If helmet is too low:

If helmet is too low (i.e. too low on brow, not compatible with eyewear, or has other similar compatibility issues):

1. Try the next larger (thicker) pad set.

2. Try rearranging pads horizontal or diagonal (see WP 0005).

3. Try the next smaller shell size.



LEGEND

1. Rim of Helmet
2. Rim interferes with vision and eyewear

Figure 6. Helmet Too Low (Interferes With Vision).

END OF TASK

Inspection and Fit of the ACH

Some quick visual evaluations can be made to check for proper fit. They are in addition to information found in previous sections. They are as follows:

1. Push down on top of helmet. You should find no movement.

2. Ear canal coverage. The bottom of the helmet should come to the top of the ear canal opening.

3. Front look check. The helmet should be level side to side.

4. Side look check. The helmet should be level front-to-back– look at the part of helmet by the ear.

END OF TASK
END OF WORK PACKAGE

OPERATION UNDER USUAL CONDITIONS
DONNING AND DOFFING THE ADVANCED COMBAT HELMET

INITIAL SETUP: Not applicable

This work package provides instructions for donning and doffing the helmet, including adjusting the chin strap to optimize fit and comfort.

NOTE

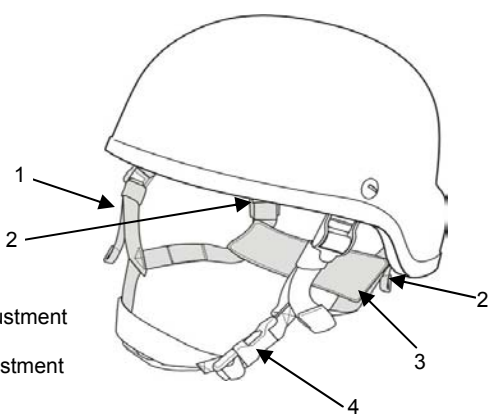
This section pertains to the MSA TC2000 and SDS Warrior.

WARNING

Ensure that all helmet adjustment mechanisms are properly adjusted for a snug, secure fit at all times when the helmet is worn. Failure to do so can result in an unstable helmet that will reduce protection to the Soldier

Donning: To Don (Put On) the Helmet (MSA TC 2000 and SDS Warrior):

1. Check number and placement of pads (see WP 0005).
2. Prior to donning helmet, loosen all adjustment straps (Figure1). Ensure chin strap is unbuckled (Figure 1).



LEGEND

1. Front Adjustment Straps
2. Rear Adjustment Straps
3. Nape Pad
4. Chin Strap Buckle

Figure 1. Helmet Adjustment Locations (MSA TC2000 and SDS Warrior).

3. Position helmet on head and buckle chin strap (Figure 1). Hold helmet in place with one hand on top of helmet for initial adjustment (Figure 2).

Figure 2. Place Hand on Top of Helmet (MSA TC2000 and SDS Warrior).

WARNING

If you pull too tightly on any strap during steps 3 and 4 or if you don't position helmet on head and hold in place with one hand on top of helmet for initial adjustment as instructed in Step 2 the helmet may become uncomfortable and tilted on your head and chin cup may become un-centered.

4. Partially tighten two rear adjustment straps (Figure 3) one side at a time.

Figure 3. Tighten Rear Adjustment Straps (MSA TC2000 and SDS Warrior).

5. Partially tighten two front adjustment straps (Figure 4) one side at a time.

Figure 4. Tighten Front Adjustment Straps (MSA TC2000 and SDS Warrior).

6. With both hands fully tighten front and rear adjustment straps (Figure 5).

Figure 5. Tighten Front and Rear Adjustment Straps (MSA TC2000 and SDS Warrior).

7. The nape pad (Figure 6) can be slid up and down along the rear legs of the chin strap. It can be positioned according to personal comfort. When tightened (Figure 6) against the nape by pulling on end of webbing, the nape pad adds additional stability to the helmet such as when wearing NVDs. Keep the nape pad away from the ladder-locks while adjusting the chin strap to prevent jamming.

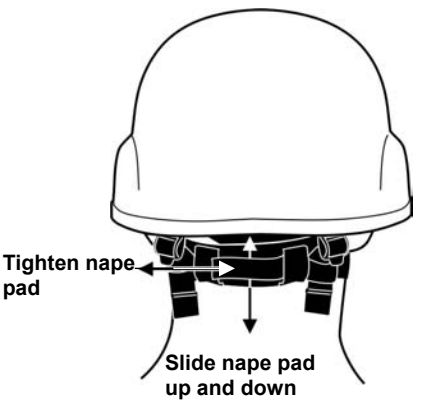


Figure 6. Tighten/Adjust Nape Pad (MSA TC2000 and SDS Warrior).

END OF TASK

Doffing: To Doff (Remove) the Helmet:

1. To doff the helmet, press the sides of the center section of the chin strap buckle on the chin strap retention system inward. Once the buckle releases, remove the helmet. To just loosen the chin strap, push up on the Ladder Lock (MSA) or the Attachment Tab Buckle (SDS Warrior).

END OF TASK

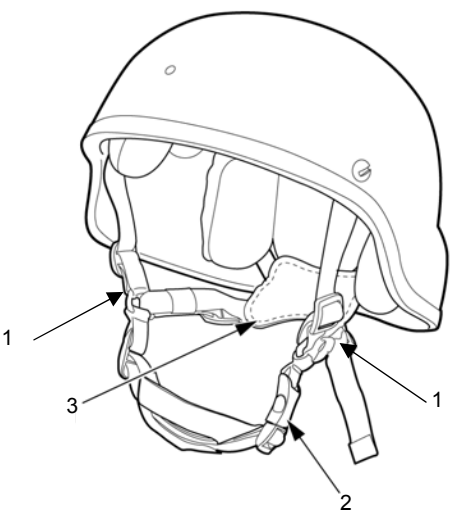
NOTE

This section pertains to the Gentex (TBH-II) helmet.

Donning: To Don (Put On) the Helmet (Gentex TBH-II):

1. Check number and placement of pads (WP 0005).

2. Position helmet on head and buckle chin strap (Figure 7). Hold helmet in place with one hand on top of helmet for initial adjustment (Figure 8).



LEGEND

1. Adjustment Straps
2. Chin strap Buckle
3. Nape Pad

Figure 7. Helmet Adjustment Locations (Gentex TBH-II).

Figure 8. Place Hand on Top of Helmet (Gentex TBH-II).

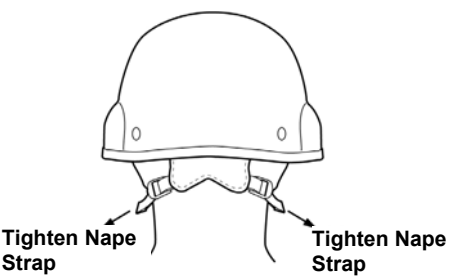


Figure 9. Tighten Nape Straps (Gentex TBH-II).

3. Tighten the nape strap for a snug, secure, comfortable fit (Figure 9).

4. Tighten the chin cup chin strap by loosening the hook and loop fasteners (Figure 10) and pulling on the ends until the fit is snug, secure and comfortable. Reattach the ends to the loop fastener when the desired fit is attained.

5. Check the helmet stability by attempting to rock the helmet back and forth on the head. If the helmet rocks back and forth, it is not stable. Adjust further until the helmet is stable.

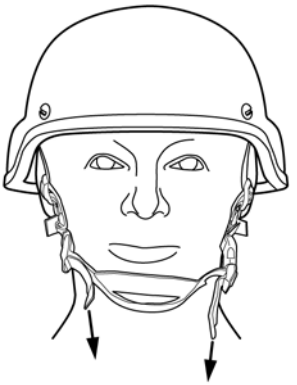


Figure 10. Tightening Chin Cup Chin Strap.

END OF TASK

Doffing: To Doff (Remove) the Helmet:

To doff the helmet, press the sides of the center section on the chin strap buckle inward. Once the buckle releases, remove the helmet. To just loosen the helmet, unhook the loop chin cup chin straps and push up on buckles.

END OF TASK
END OF WORK PACKAGE

OPERATION UNDER USUAL CONDITIONS
REMOVING AND REPLACING CHIN STRAP RETENTION SYSTEM

INITIAL SETUP: Not applicable

This work package provides instructions for replacing the chin strap retention systems.

NOTE

There are three models of the ACH and they each come with a different chin strap retention system. The replacement NSN is 8470-01-530-0885 (camouflage green/tan) and 8470-01-530-0868 (foliage green). This NSN will fit all models.

MSA TC2000

1. Unthread and remove the chin strap retention system webbing from the ladder-lock.
2. Lay the helmet on its crown with the front of the helmet away from you. Drape the replacement chin strap retention system over the helmet with the nape-strap pad facing down on the back/rear of the helmet (Figure 1).

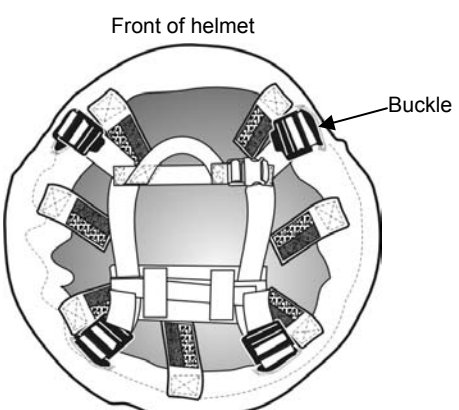


Figure 1. Chin Strap Retention System Orientation (MSA TC2000).

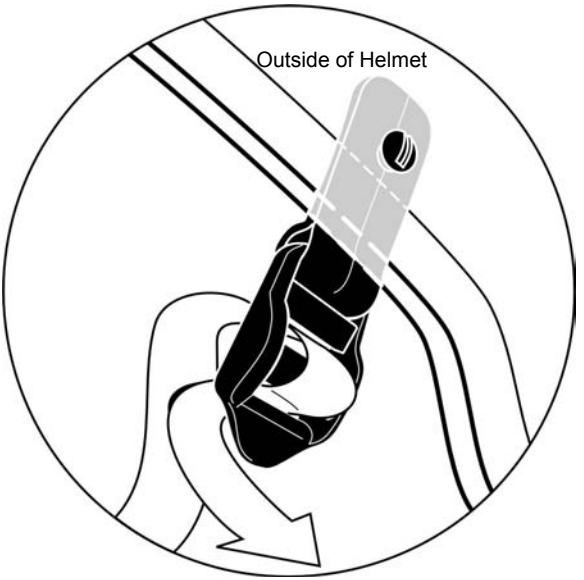


Figure 2. Routing of Chin Strap Webbing through Ladder Lock (MSA TC2000).

3. Insert and thread the four legs of the chin strap into their corresponding ladder locks. For illustration of entire assembled helmet with chin strap retention and hardware, see WP 0002. Take care to ensure that webbing is not twisted.
4. Slide elastic band over loose ends of webbing.

END OF TASK

SDS Warrior

1. Unthread and remove the chin strap retention system webbing from the attachment tab.

2. Lay the helmet on its crown with the front of the helmet away from you (buckle is located on right side of helmet). Drape the replacement chin strap retention system over the helmet with the nape-strap pad facing down on the back/rear of the helmet (Figure 3).

Front of helmet

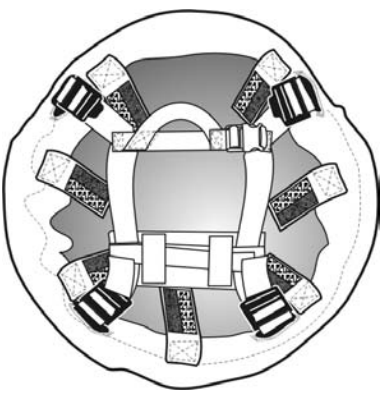


Figure 3. Chin Strap Retention System Orientation (SDS Warrior).

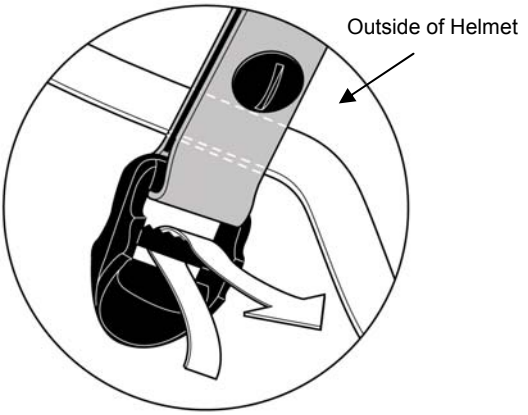


Figure 4. Routing of Chin Strap Webbing through Attachment Tab (SDS Warrior).

3. Insert and thread the four legs of the chin strap into their corresponding attachment tabs (Figure 4). For illustration of entire assembled helmet with chin strap retention and hardware, see WP 0002. Take care to ensure that webbing is not twisted.

4. Slide elastic band over loose ends of webbing.

END OF TASK

Gentex TBH-II

1. Remove the chin strap retention system webbing from the helmet by unscrewing the screw and conical nut.

2. Lay the helmet on its crown with the front of the helmet away from you (buckle is located on right side of helmet). Drape the replacement chin strap retention system over the helmet with the nape-strap pad facing down on the back/rear of the helmet (Figure 5) and attach new chin strap retention system using the hardware.

3. For illustration of entire assembled helmet with chin strap retention and hardware, see WP 0002. Take care to ensure that webbing is not twisted.

4. Slide elastic band over loose ends of webbing.

Front of helmet

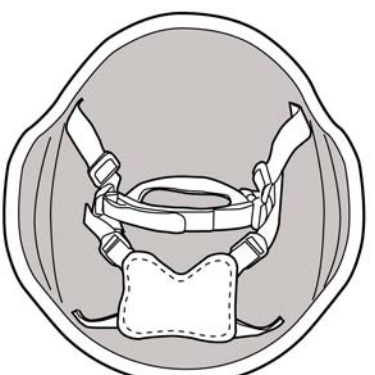


Figure 5. Chin Strap Retention System Orientation (Gentex TBH-II).

END OF TASK
END OF WORK PACKAGE

INITIAL SETUP: Not applicable

This work package provides instructions for attaching the camouflage helmet cover to the ACH.

There are three covers available for the ACH: a reversible woodland/desert cover, a non-reversible white (artic) cover, and the non-reversible universal camouflage cover. Also, covers are available with and without the communications flap (see WP 0022 for NSNs).

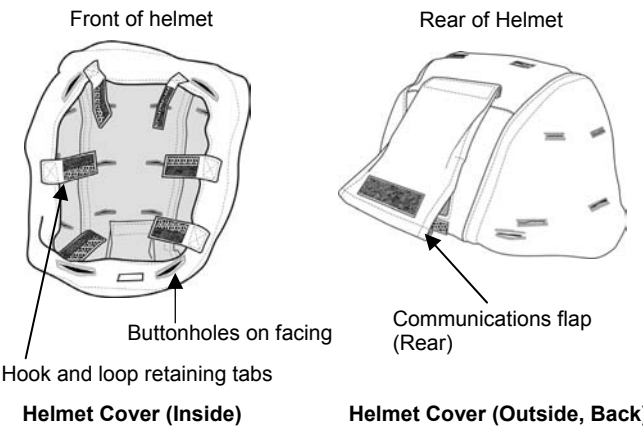


Figure 1. Reversible Helmet Cover (Woodland/Desert, All Models).

Figure 2. Non-Reversible Helmet Cover (White and Universal Camouflage, All Models).

NOTE

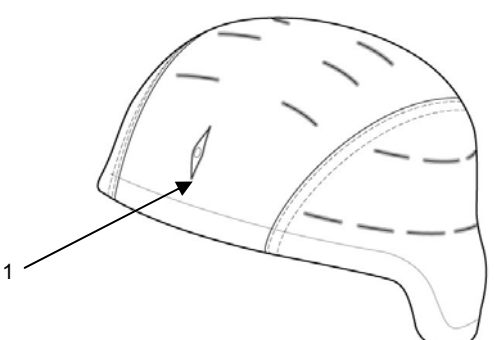
This section pertains to the MSA TC2000 and SDS Warrior

1. Remove the suspension pads from the inside of the helmet shell.

2. Remove the chin strap retention system webbing (see WP 0009). Leave the hardware for the MSA (P-Clamps) or SDS Warrior, (attachment tabs) attached to the shell.

3. Select the camouflage pattern to be worn (if using reversible cover) and orient the cover so that the desired pattern is on the outside.

4. Helmet covers without communications flaps will be aligned by the front of the helmet cover to the front of the helmet. The front of the helmet cover has a single 1 ¼" long button hole aligned in the front to back direction (Figure 3). Helmet covers with communications flaps will be aligned with the communications flap towards the rear of the helmet (Figure 2).

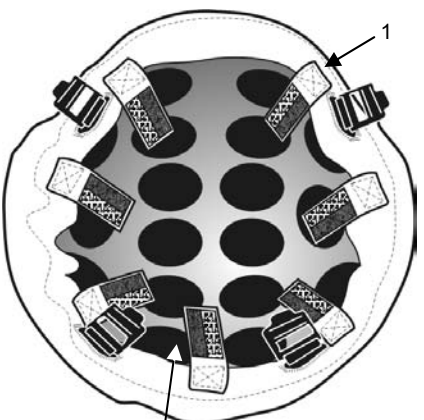


LEGEND

1. 1 ¼" Button Hole

Figure 3. 1 ¼" Button Hole (Front) (All Models).

5. Pull the cover over the back and sides of helmet shell.
6. Thread each ladder-lock (MSA) or attachment tab (SDS) through the corresponding buttonhole in the cover.
7. Pull the cover retaining tabs down and attach tabs to hook disks inside helmet shell. Ensure tight smooth fit of cover by pulling the retaining tabs until tight.
8. Replace chin strap retention system webbing (see WP 0009).
9. Place suspension pads back into shell (see WP 0005).



LEGEND

1. Cover retaining tabs
2. Hook disk

Figure 4. Helmet Cover Installed (MSA TC2000 and SDS Warrior).

The communications flap is used to store cables from the headset-microphone that is sometimes used with the helmet.

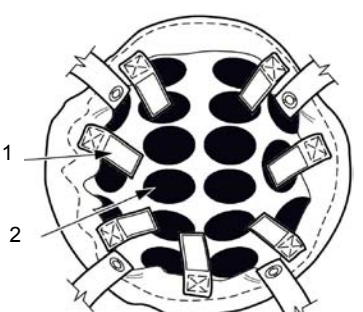
The flap can also be used to secure goggle straps if no eyewear retention straps are available. Lift the flap and place the goggle strap under the flap. Re-secure the flap by pressing the hook and loop together.

END OF TASK

NOTE

This section pertains to the Gentex (TBH-II).

1. Remove the suspension pads from the inside of the helmet shell.
2. Select the camouflage pattern to be worn (if using reversible cover) and orient the cover so that the desired pattern is on the outside if using the reversible cover.
3. Helmet covers without communications flaps will be aligned by the front of the helmet cover to the front of the helmet. The front of the helmet cover has a single 1 ¼" (Figure 3) long button hole aligned in the front to back direction. Helmet covers with communications flaps will be aligned with the communications flap towards the rear of the helmet (Figure 2).
4. Pull the cover over the back and sides of the helmet shell.
5. Pull the cover retaining tabs down and attach tabs to hook disks inside helmet shell. Ensure tight smooth fit of cover by pulling the retaining tabs until tight. The cover goes around the chin strap webbing and sits between the shell and webbing (chin strap not removed, Figure 4).
6. Place suspension pads back into shell (see WP 0005).



LEGEND

1. Cover retaining tabs
2. Hook disk

Figure 5. Helmet Cover Installed (Gentex TBH-II).

The communications flap is used to store cables from the headset-microphone that is sometimes used with the helmet.

The flap can also be used to secure goggle straps if no eyewear retention straps are available. Lift the flap and place the goggle strap under the flap. Re-secure the flap by pressing the hook and loop together.

END OF TASK
END OF WORK PACKAGE

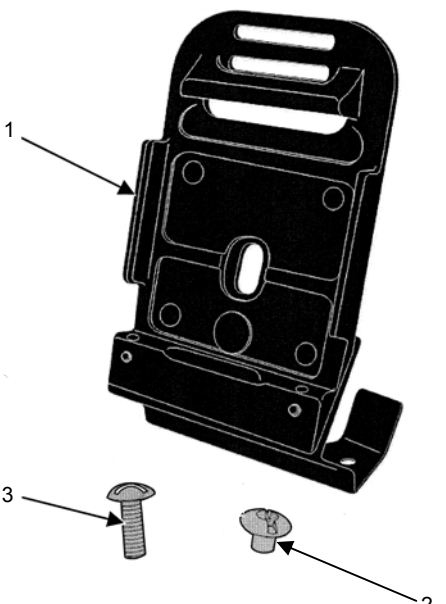
OPERATIONS UNDER USUAL CONDITIONS
FRONT BRACKET ASSEMBLY INSTALLATION

INITIAL SETUP: Not applicable

This work package provides instructions for installing the front bracket assembly on the ACH.

1. Make sure that the front bracket assembly kit has all the components. You should have a front bracket assembly, a screw, and a threaded post (Figure 1). See WP 0022, Associated and Repair Items List, for appropriate NSN.

2. Install the helmet cover on your helmet (see WP 0010).



LEGEND

1. Front bracket assembly
2. Threaded post
3. Screw

Figure 1. Front Bracket Assembly Kit Contents.

3. Place the front bracket assembly on the helmet over the helmet cover. Line up the hole in the plate, the front buttonhole in the cover and the hole in the helmet shell (Figure 2).

4. Insert the screw through the front bracket assembly, cover and into shell from the outside of the helmet. Insert the threaded post from inside the helmet. Slightly tighten the screw and threaded post (Figure 2).

CAUTION

Do not over tighten the screw or the front bracket assembly may break.

5. Before completely tightening the screw, ensure that the cleat of front bracket assembly is tight against the rim of the helmet (Figure 2). Push the bracket up so that the cleat is tight against the rim (edge) of the helmet while tightening the screw and post. It may be helpful to have another person assist with this step.

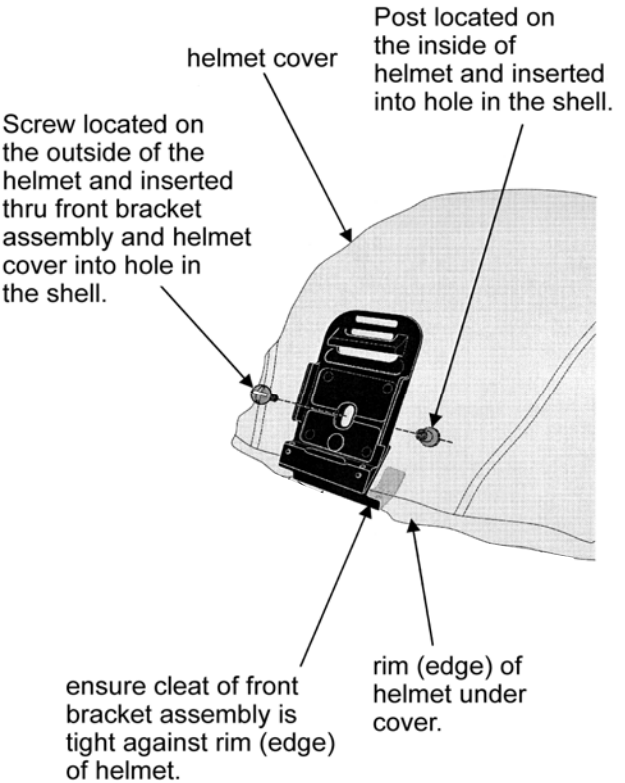


Figure 2. Front Bracket Assembly Positioned on Helmet.

NOTE

If no NVD Front Bracket is used—and the helmet has hole for front bracket, plug hole with 8-32 x 3/8 inch long screw and post (see WP 0022).

END OF TASK
END OF WORK PACKAGE

OPERATIONS UNDER USUAL CONDITIONS
EYEWEAR RETENTION STRAP INSTALLATION

INITIAL SETUP: Not applicable

This work package provides instructions for installing the eyewear retention straps.

MSA TC2000

1. Make sure you have a pair of eyewear retention straps (see WP 0022).

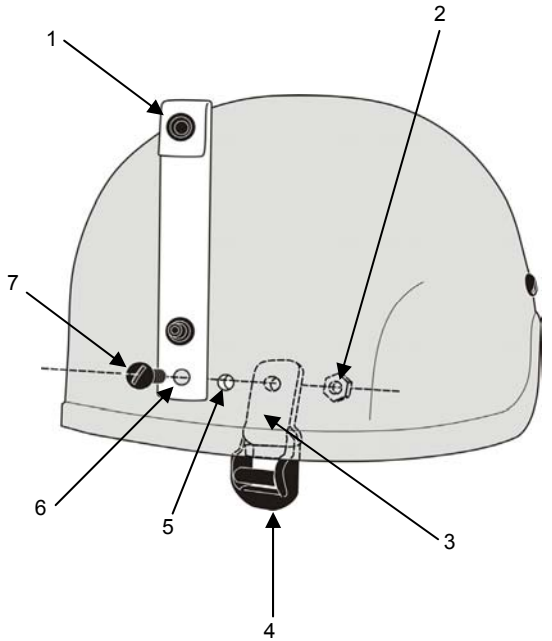
2. If the helmet cover is installed, unfasten the rear cover retaining tabs and slide the rear half of the cover up to expose the two rear screws. You can also remove the cover completely (see WP 0010).

3. Remove the two rear screws and place an eyewear retention strap over the barrel (shaft) of each of the two screws with the snap socket and stud facing away from the helmet (Figure 1). A strap is installed on each of the two rear screws.

4. Insert the screws with eyewear retention straps attached into holes in helmet.

5. Place p-clamps and nuts on the screws and tighten.

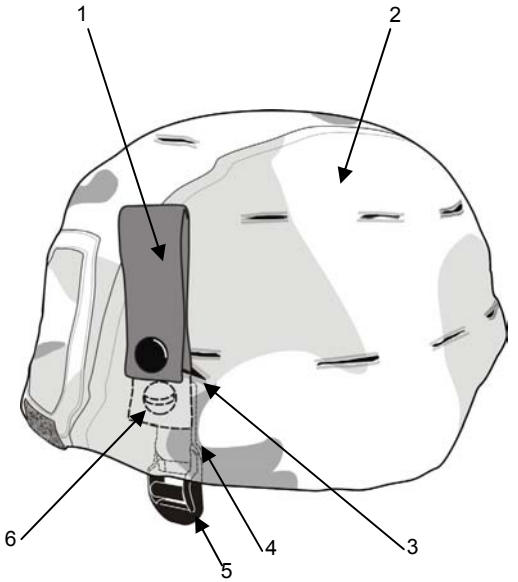
6. Install the helmet cover. While installing the cover, thread eyewear retention strap through lower most rear buttonhole on cover (Figure 2)(see WP 0010).



LEGEND

1. Eyewear retention strap
2. Nut
3. P-clamp
4. Ladder Lock
5. Hole in helmet shell
6. Hole in eyewear retention strap
7. Screw

Figure 1. Eyewear Retention Strap and Screw Assembly (MSA TC2000).



LEGEND

1. Eyewear retention strap
2. Helmet cover
3. Lower most rear buttonhole
4. P-Clamp
5. Ladder Lock
6. Screw (shown under cover)

Figure 2. Helmet with Eyewear Retention Strap Installed (MSA TC2000).

END OF TASK

SDS Warrior

1. Make sure you have a pair of eyewear retention straps (see WP 0022).

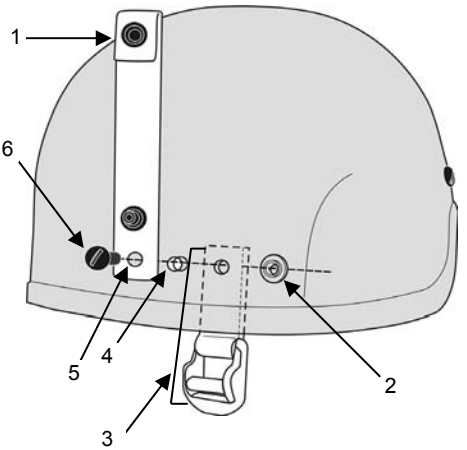
2. If the helmet cover is installed, unfasten the rear cover retaining tabs and slide the rear half of the cover up to expose the two rear screws. You can also remove the cover completely (see WP 0010).

3. Remove the two rear screws and place an eyewear retention strap over the barrel (shaft) of each of the two screws with the snap socket and stud facing away from the helmet (Figure 3). A strap is installed on each of the two rear screws.

4. Insert the screws with eyewear retention straps attached into holes in helmet.

5. Place the attachment tabs and posts on the screws and tighten.

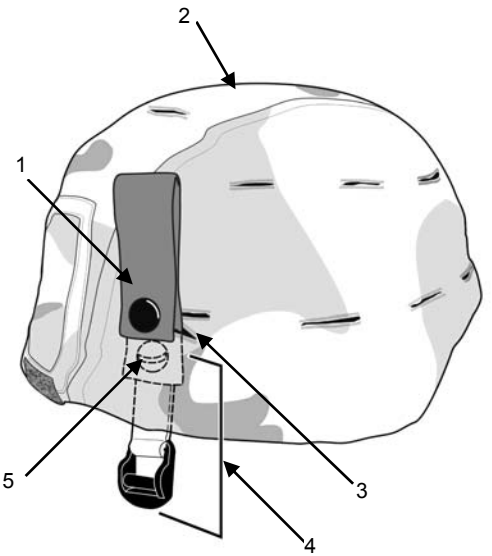
6. Install the helmet cover. While installing the cover, thread eyewear retention strap through lower most rear buttonhole on cover (Figure 4) (see WP 0010).



LEGEND

1. Eyewear Retention Strap
2. Post
3. Attachment tab
4. Hole in helmet shell
5. Hole in eyewear retention strap
6. Screw

Figure 3. Eyewear Retention Strap and Screw Assembly (SDS Warrior).



LEGEND

1. Eyewear retention strap
2. Helmet cover
3. Lower most rear buttonhole
4. Attachment Tab
5. Screw (shown under cover)

Figure 4. Helmet with Eyewear Retention Strap Installed (SDS Warrior).

END OF TASK

Gentex TBH-II

1. Make sure you have a pair of eyewear retention straps (see WP 0022).

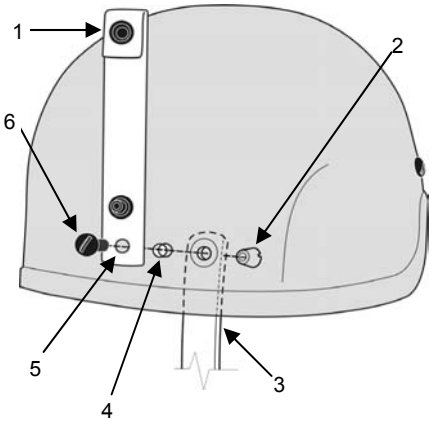
2. If the helmet cover is installed, unfasten the rear cover retaining tabs and slide the rear half of the cover up to expose the two rear screws. You can also remove the cover completely (see WP 0010).

3. Remove the two rear screws and place an eyewear retention strap over the barrel (shaft) of each of the two screws with the snap socket and stud facing away from the helmet (Figure 5). A strap is installed on each of the two rear screws.

4. Insert the screws with eyewear retention straps attached into holes in helmet.

5. Place the webbing and conical nuts on the screws and tighten (see WP 0015).

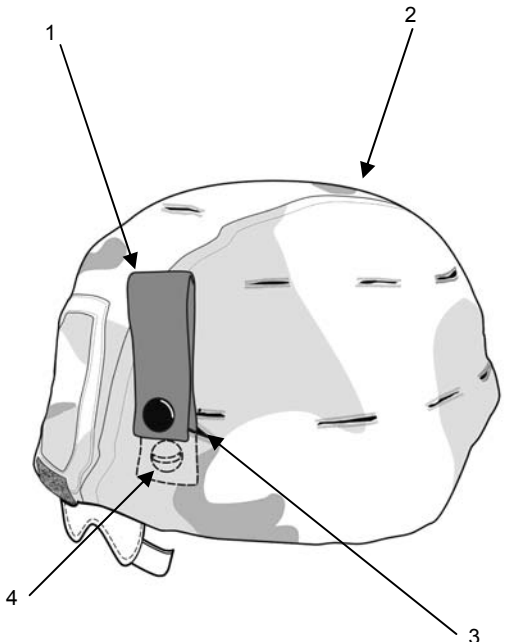
6. Install the helmet cover. While installing the cover, thread eyewear retention strap through lower most rear buttonhole on cover (Figure 6).



LEGEND

1. Eyewear Retention Strap
2. Conical Nut
3. Webbing
4. Hole in helmet shell
5. Hole in eyewear retention strap
6. Screw

Figure 5. Eyewear Retention Strap and Screw Assembly (Gentex TBH-II).



LEGEND

1. Eyewear retention strap
2. Helmet cover
3. Lower most rear buttonhole
4. Screw (shown under cover)

Figure 6. Helmet with Eyewear Retention Strap Installed (Gentex TBH-II).

END OF TASK
END OF WORK PACKAGE

OPERATION UNDER UNUSUAL CONDITIONS CONFIGURATION FOR AIRBORNE OPERATIONS

INITIAL SETUP: Not applicable

This work package provides instructions for configuring the ACH for airborne operations as well as other high-risk operations such as air assault and rappelling/mountaineering. No additional parts or components are required for airborne use of the helmet.

WARNING

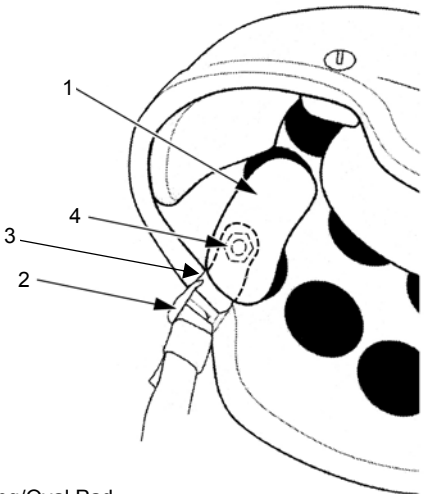
The hardware for the ACH helmets–where the chin strap retention system webbing attaches to the helmet shell–must be covered by padding during airborne and other high risk operations such as air assault and rappelling/mountaineering. The oblong/oval pads must be placed flush with the rim (edge) of the helmet and completely cover the hardware (Figures 1–3) (Front) (Figures 4–6) (Rear). Failure to observe this precaution could result in serious injury or death to personnel because a hard-point could contact the Soldier's head.

WARNING

All seven helmet pads must be worn during airborne operations and high-risk operations such as air assault and rappelling/mountaineering. Failure to observe this precaution could result in serious injury or death because all seven pads provide maximum impact protection.

WARNING

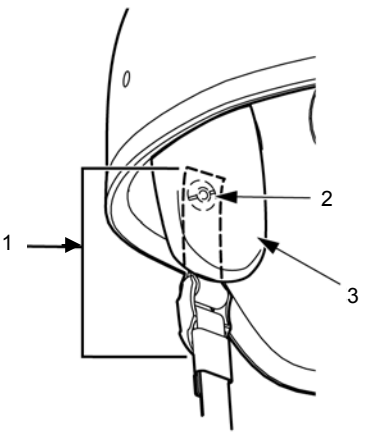
The rear trapezoidal pad must be placed flush with the rim (edge) of the helmet for airborne operations. If you experience helmet rotation during airborne operations the rear trapezoidal pad can be placed so that it extends ½" beyond the rim of the helmet. Placement of the rear trapezoidal pad flush or beyond the rim (edge) of the helmet prevents the hard shell from hitting your neck. (Front) (Figures 2 and 3) (Rear) (Figures 4, 5, and 6).



LEGEND

1. Oblong/Oval Pad
2. Ladder Lock
3. P-Clamp
4. Screw/Nut

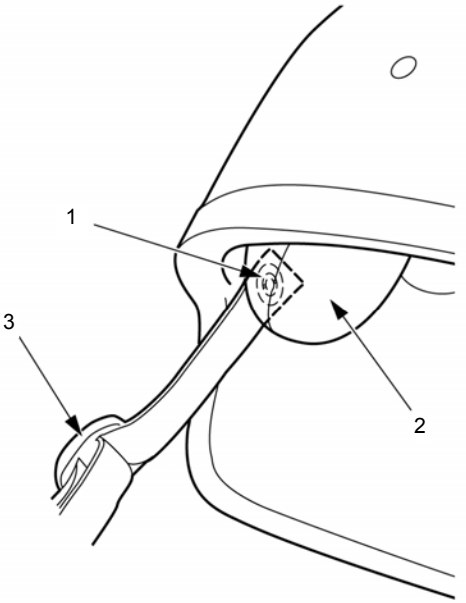
Figure 1. Pad Placement over Hardware (Front) (MSA TC2000).



LEGEND

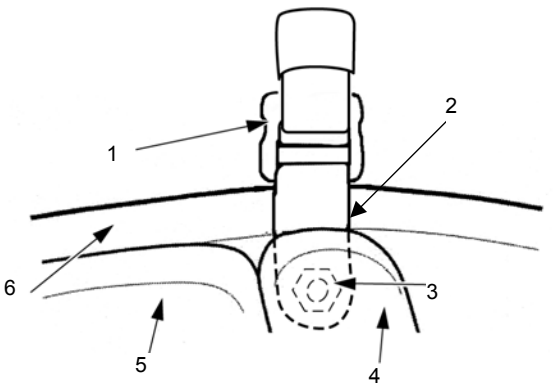
1. Attachment Tab
2. Screw/Post
3. Oblong/Oval Pad

Figure 2. Pad Placement over Hardware (Front) (SDS Warrior).



LEGEND
1. Screw/Conical Nut
2. Oblong/Oval Pad
3. Buckle

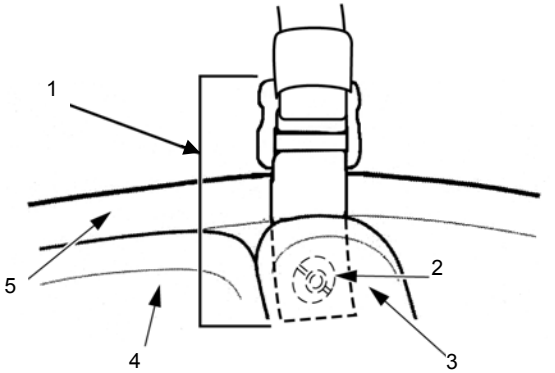
Figure 3. Pad Placement over Hardware (Front) (Gentex TBH-II).



LEGEND

1. Ladder Lock
2. P-Clamp
3. Screw/Nut
4. Oblong/Oval Pad
5. Trapezoidal Pad
6. Rim of Helmet

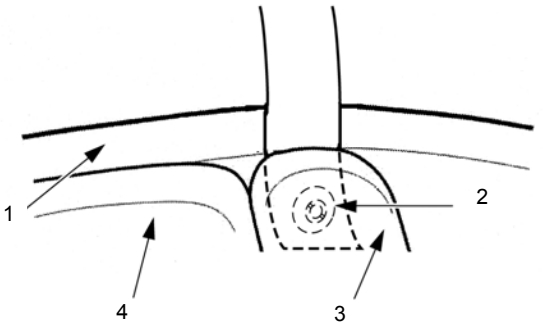
Figure 4. Pad Placement over Hardware (Rear) (MSA TC2000).



LEGEND

1. Attachment Tab
2. Screw/Post
3. Oblong/Oval Pad
4. Trapezoidal Pad
5. Rim of Helmet

Figure 5. Pad Placement over Hardware (Rear) (SDS Warrior).



LEGEND

1. Rim of Helmet
2. Screw/Conical Nut
3. Oblong/Oval Pad
4. Trapezoidal Pad

Figure 6. Pad Placement over Hardware (Rear) (Gentex TBH-II).

END OF TASK
END OF WORK PACKAGE

CHAPTER 3

TROUBLESHOOTING PROCEDURES

FOR

ADVANCED COMBAT HELMET (ACH)

INITIAL SETUP: Not applicable

This work package lists troubleshooting tasks for each component of the ACH, along with the appropriate repair procedure.

TROUBLESHOOTING PROCEDURE
ADVANCED COMBAT HELMET

SYMPTOM
Unable to fasten chin strap retention system.
MALFUNCTION
Chin strap buckle is broken.
CORRECTIVE ACTION
Replace chin strap retention system (see WP 0009).
END OF TASK

SYMPTOM
Unable to attain or maintain helmet stability.
MALFUNCTION
Chin strap retention system webbing is torn/frayed.
CORRECTIVE ACTION
Replace chin strap retention system (see WP 0009).
END OF TASK

SYMPTOM
Unable to attain or maintain helmet stability
MALFUNCTION
Pad suspension system is worn
CORRECTIVE ACTION
Replace pad suspension system (see WP 0006).
END OF TASK

SYMPTOM
ACH shell will not provide adequate protection.
MALFUNCTION
Helmet shell is cracked or has holes in it.
CORRECTIVE ACTION
Turn ACH in for replacement.

END OF TASK
END OF WORK PACKAGE

CHAPTER 4

OPERATOR MAINTENANCE INSTRUCTIONS

FOR

ADVANCED COMBAT HELMET (ACH)

This work package provides instructions for replacing the hardware in the ACH.

NOTE

To replace hardware, use a standard flathead screwdriver.

MSA TC2000

1. Remove the chinstrap retention system (see WP 0009).

2. Remove the screw with a standard flathead screwdriver and lift the ladder lock and p-clamp out (Figure 1).

3. Replace the necessary portion (ladder-lock or p-clamp). Replace screw and nut. Ensure the proper orientation of the ladder locks by seating the nut in the recessed portion of the p-clamp (Figure 1). Tighten the screw.

4. Inspect the screws to ensure tightness. If loosening persists, use the sealing compound (thread-locking compound) (see WP 0021). Follow directions on container.

Figure 1. Hardware Installation (MSA TC2000).

END OF TASK

SDS WARRIOR

NOTE

To replace hardware, use two standard flathead screwdrivers.

1. Remove the screw and post with two standard flathead screwdrivers and lift the attachment tab out (Figure 2).
2. Replace the attachment tab. Replace screw and post. Tighten the screw and post (Figure 2).
3. Inspect the screws to ensure tightness. If loosening persists, use the sealing compound (see WP 0021). Follow directions on container.

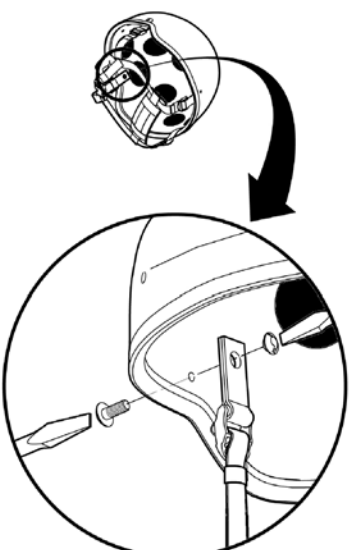


Figure 2. Hardware Installation (SDS Warrior).

END OF TASK

Gentex TBH-II

NOTE

To replace hardware, use two standard flathead screwdrivers.

1. Remove the screw and conical nut with two standard flathead screwdrivers (Figure 3) and lift the webbing out.
2. Replace the webbing. Replace screw and conical nut. Tighten the screw and conical nut (Figure 3).
3. Inspect the screws to ensure tightness. If loosening persists, use the sealing compound (see WP 0021). Follow directions on container.

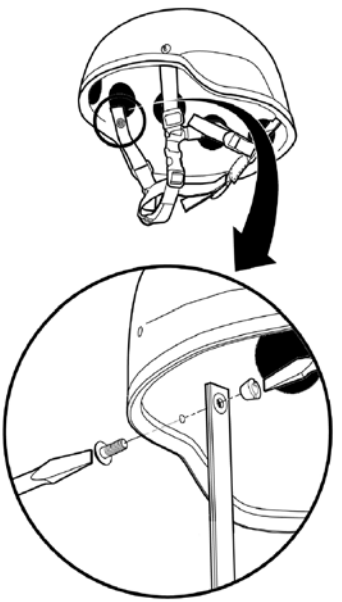


Figure 3. Hardware Installation (Gentex TBH-II).

END OF TASK
END OF WORK PACKAGE

OPERATOR MAINTENANCE INSTRUCTION
REPLACING THE PAD SUSPENSION

This work package provides information on replacing the pad suspension.

Replacing Pad Suspension

NOTE

On one side, the pads are covered with a loop material. On the other side, the pads are covered by moisture-wicking fabric. ONLY THE LOOP SIDE OF THE PAD WILL ATTACH TO THE HOOK DISKS ON THE HELMET SHELL. Press the pad against the hook disks. The loop side of the pad is green.

1. Pull the individual pads off the inner helmet hook disks.

2. Reattach suspension pads as needed (see WP 0005 and WP 0006).

END OF TASK
END OF WORK PACKAGE

OPERATOR MAINTENANCE INSTRUCTIONS
CLEANING THE ADVANCED COMBAT HELMET

This work package provides instructions for cleaning the ACH.

Helmet Shell

1. Clean with mild soap and water. Use a soft brush or cloth.

2. Allow to air dry.

A small brush is useful in removing dirt from the hook disks on the inside of the shell.

END OF TASK

Chinstrap, Helmet Cover, and Pad Suspension

1. Clean with mild soap and water. Wash by hand or in machine in the gentle cycle, cold water.

2. Allow to air dry. DO NOT MACHINE DRY.

Keeping the hook and loop clean will help to maintain their ability to stick together.

END OF TASK
END OF WORK PACKAGE

INTRODUCTION

General

Preventive maintenance checks and services (PMCS) are performed to keep the ACH in operating condition. The checks are used to find, correct, and report problems. The operator is to do the PMCS tasks shown in PMCS Table 1. PMCS is to be done before, during, and after use of the ACH.

Before you use the ACH, perform PMCS.

During use of the ACH, periodically perform PMCS.

After you have used the ACH, perform PMCS.

PMCS Column Description

Column (1) ITEM NO. The order the PMCS should be performed.

Column (2) INTERVAL. Tells when the check should be performed.

Column (3) ITEM TO BE CHECKED OR SERVICED. Tells which items to perform the PMCS procedure on.

Column (4) PROCEDURE. Tells which procedure is to be performed. If item cannot be repaired, it must be replaced.

Column (5) EQUIPMENT NOT READY/AVAILABLE IF. Tells what conditions render the ACH unfit to perform the mission.

Table 1. Preventive Maintenance Checks and Services.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF
1	Before	Chin Strap Retention System	1. Check for cuts, frays or other damage or loose or damaged stitching in the webbing. If webbing is frayed more than ½" or has a discernable cut, or loose or damaged stitching, refer to higher level maintenance for repair.	Chin strap webbing has cuts, frays, or other damage.
			2. Check for cracked, worn, or damaged hardware MSA TC2000 (p-clamp, ladder-lock, nut, screw), SDS Warrior (attachment tab, post, screw), and Gentex TBH-II (conical nut and screw) and buckle. Refer to higher level maintenance for repair.	Hardware or buckle is cracked, worn, or damaged.
			3. Check for loose screws. Tighten screws or refer to higher level maintenance if loose.	Screws loose.

Table 1. Preventive Maintenance Checks and Services—Continued.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF
2	Before	Pad Suspension System	1. Check for cuts, tears or other damage to outer fabric or inner foam.	Pads torn, cut, or otherwise damaged.
			2. Check pads for compressibility. Pads in service should resist compression the same as new pads when squeezed with hands. If pads are torn or cut exposing the inner padding material, or if pads have lost compressibility, replace.	
3	Before	Shell	1. Check for gouges, scrapes, cracks, delamination or other damage to shell. If gouges, scrapes, or damage extends below the surface (below the paint), refer to higher level maintenance for repair.	Gouges, scrapes, cracks, delamination or other damage extends below the surface (below the paint).
			2. Check for loose or damaged edging. Refer to higher level maintenance for repair.	Edging is excessively loose or damaged.

Table 1. Preventive Maintenance Checks and Services—Continued.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF
4	Before	Cover	1. Check for cuts, frays or other damage to the fabric or cut or frayed stitching. Refer to higher level maintenance for repair.	Excessive cuts, frays, or other damage to the fabric or cut or frayed stitching.
5	Before	Eyewear Retention Straps	1. Check for cuts frays or other damage to the webbing.	Excessive cuts, frays, to the webbing.
			2. Check for broken snaps or studs. Refer to higher level maintenance for repair.	Snaps or studs bent or broken.
6	Before	Front Bracket Assembly	1. Check for cracked bracket.	Bracket is cracked.
			2. Check for loose or missing screw. Refer to higher level of maintenance for repair.	Screw is loose or missing.
7	During	Chin Strap Retention System	1. Inspect for damaged components (see Item 1)	Chin strap components are damaged.
8	After	Chin Strap Retention System, Hardware, Pad Suspension System, Shell	1. Perform all PMCS steps in Items 1-6 after use.	See above.

END OF WORK PACKAGE

CHAPTER 5

SUPPORTING INFORMATION

FOR

ADVANCED COMBAT HELMET (ACH)

SUPPORTING INFORMATION
REFERENCES

This work package lists related field manuals, forms, technical manuals, and miscellaneous publications.

FIELD MANUALS

FM 3-5	NBC Decontamination
FM 4-25.11	First Aid
FM 3-21.220	Static Line Parachuting Techniques and Training

FORMS

DA Form 2028	Recommended changes to Publications and Blank Forms
SF 368	Product Quality Deficiency Report

TECHNICAL MANUALS

TM 10-8400-203-23	Unit and Direct Support Maintenance Manual for General Repair Procedures for Individual Equipment
TM 11-5855-262-10-2	Night Vision Goggles AN/PVS-7B (NSN 5855-01-228-0937) (EIC: IPS) and AN/PVS-7D (NSN 5855-01-422- 54) (EIC: N/A) (TO 12S10-2PVS7-11; TM 09500A-10/1A; NAVSEA SW215-AT
TM 11-5855-306-10	Monocular Night Vision Device AN/PVS-14 (NSN 5855-01-432-0524) (EIC: N/A) (TM 10271A-10/1)

MISCELLANEOUS PUBS

DA PAM 750-8	The Army Maintenance Management System (TAMMS) Users Manual
GTA 07-08-001	PASGT and ACH Proper Wear and Adjustment

END OF WORK PACKAGE

SUPPORTING INFORMATION
COMPONENTS OF END ITEMS (COEI) AND BASIC ISSUE ITEMS (BII) LISTS

INTRODUCTION

Scope

This work package lists COEI and BII for the ACH to help you inventory items for safe and efficient operation of the equipment.

General

The COEI and BII information is divided into the following lists:

Components of End Item (COEI). This list is for information purposes only and is not authority to requisition replacements. These items are part of the ACH. As part of the end item, these items must be with the end item whenever it is issued or transferred between property accounts. Items of COEI are removed and separately packaged for transportation or shipment only when necessary. Illustrations are furnished to help you find and identify the items.

Basic Issue Items (BII). These essential items are required to place the ACH in operation, operate it and to do emergency repairs. Although shipped separately packaged, BII must be with the ACH during operation and when it is transferred between property accounts. Listing these items is your authority to request/requisition them for replacement based on authorization of the end item by the TOE/MTOE. Illustrations are furnished to help you find and identify the items.

Explanation of Columns in the COEI List and BII List

Column (1) Illus Number. Gives you the number of the item illustrated.

Column (2) National Stock Number (NSN). Identifies the stock number of the item to be used for requisitioning purposes.

Column (3) Description, CAGEC, and Part Number. Identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The stowage location of COEI and BII is also included in this column. The last line below the description is the part number and the Commerical and Government Entity Code (CAGEC) (in parentheses) and the part number.

Column (4) Usable On Code. When applicable, gives you a code if the item you need is not the same for different models of equipment.

Column (5) Unit of Issue (U/I). Indicates the physical measurement or count of the item as issued per the National Stock Number shown in column (2).

Column (6) Qty Rqr. Indicates the quantity required.

Table 1. Components of End Item List (COEI).

(1) Illus Number	(2) National Stock Number (NSN)	(3) Description, Part Number/(CAGEC)	(4) Usable on Code	(5) U/I	(6) Qty Rqr
1	8415-01-524-5842	BAND, HELMET, CAMOUFLAGE, Foliage green MIL-B-1851 (81349)	N/A	ea	1
1	8415-01-110-9981	BAND, HELMET, CAMOUFLAGE, Camoflage Green MIL-B-1851 (81349)	N/A	ea	1
1	8415-01-495-6714	BAND, HELMET, CAMOUFLAGE, Tan MIL-B-1851 (81349)	N/A	ea	1
2	8470-01-476-5643	PAD SET, SUSPENSION, ACH, set of size 6 pads (3/4") 8470-01-F01-0477 (81337)	N/A	se	1
2	8470-01-476-5648	PAD SET, SUSPENSION, ACH, set of size 8 pads (1") 8470-01-F01-0479 (81337)	N/A	se	1
3	8470-01-530-0885	STRAP ASSEMBLY, CHIN, Tan/Green CO/PD 05-04 (81337)	N/A	ea	1
3	8470-01-530-0868	STRAP ASSEMBLY, CHIN, Foliage green CO/PD 05-04 (81337)	N/A	ea	1
4	8415-01-521-8802	STRAP, EYEWEAR RETENTION, Foliage green MIL-DTL-32134 (81337)	N/A	pr	1
4	8415-01-521-8801	STRAP, EYEWEAR RETENTION, Tan MIL-DTL-32134 (81337)	N/A	pr	1
4	8415-01-487-1605	STRAP, EYEWEAR RETENTION, Camouflage Green MIL-DTL-32134 (81337)	N/A	pr	1
5	8470-01-523-0068	HELMET, ADVANCED COMBAT, Foliage Green, Size Small (Shell Only) 600-04 (81337)	N/A	ea	1
5	8470-01-523-0070	HELMET, ADVANCED COMBAT, Foliage Green, Size Medium (Shell Only) 600-04 (81337)	N/A	ea	1
5	8470-01-523-0071	HELMET, ADVANCED COMBAT, Foliage Green, Size Large (Shell Only) 600-04 (81337)	N/A	ea	1
5	8470-01-523-0075	HELMET, ADVANCED COMBAT, Foliage Green, Size X-Large (Shell Only) 600-04 (81337)	N/A	ea	1

Table 2. Basic Issue Items List (BII).

(1) Illus Number	(2) National Stock Number	(3) Description, Part Number/(CAGEC)	(4) Usable on Code	(5) U/I	(6) QTY Rqr
1	8415-01-515-4662	COVER, HELMET, REVERSIBLE, woodland/desert with communication flap, size S/M 84-01 (81337)	N/A	ea	1
1	8415-01-515-4663	COVER, HELMET, REVERSIBLE, woodland/desert with communication flap, size L/XL 84-01 (81337)	N/A	ea	1
2	8415-01-515-4286	COVER, HELMET, Non-reversible, white, with communication flap, size S/M 85-04 (81337)	N/A	ea	1
2	8415-01-515-4288	COVER, HELMET, Non-reversible, white, with communication flap, size L/XL 85-04 (81337)	N/A	ea	1
3	8415-01-515-4671	COVER, HELMET, REVERSIBLE, woodland/desert, without communication flap, size S/M 86-01 (81337)	N/A	ea	1
3	8415-01-515-4674	COVER, HELMET, REVERSIBLE, woodland/desert, without communication flap, size L/XL 86-01 (81337)	N/A	ea	1
4	8415-01-515-4289	COVER, HELMET, Non-reversible white, without communication flap, size S/M 87-04 (81337)	N/A	ea	1
4	8415-01-515-4290	COVER, HELMET, Non-reversible, white, without communication flap, size L/XL 87-04 (81337)	N/A	ea	1

0020-6

Table 2. Basic Issue Items (BII)—Continued.

(1) Illus Number	(2) National Stock Number	(3) Description, Part Number/(CAGEC)	(4) Usable on Code	(5) U/I	(6) QTY Rqr
5	8415-01-521-8806	COVER, HELMET, CAMOUFLAGE PATTERN, Non-reversible, with communication flap, universal pattern, size S/M 552-04-SMALL/MEDIUM (81337)	N/A	ea	1
5	8415-01-521-8808	COVER, HELMET, CAMOUFLAGE PATTERN, Non-reversible, with communication flap, universal pattern, size L/XL 552-04-LARGE/XLARGE (81337)	N/A	ea	1
6	8415-01-521-8357	COVER, HELMET, CAMOUFLAGE PATTERN, Non-reversible, without communication flap, universal pattern, size S/M 553-04-SMM/MED (81337)	N/A	ea	1
6	8415-01-521-8360	COVER, HELMET, CAMOUFLAGE PATTERN, Non-reversible, without communication flap, universal pattern, size L/XL 533-04-LRG/XLRG (81337)	N/A	ea	1

END OF WORK PACKAGE

INTRODUCTION

Scope

This work package lists expendable and durable items that you will need to operate and maintain the Advanced Combat Helmet. This list is for information only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, Expendable/Durable Items (Except Medical, Class V Repair Parts, and Heraldic Items), CTA 50-909, Field and Garrison Furnishings and Equipment or CTA 8-100, Army Medical Department Expendable/Durable Items.

Explanation of Columns in the Expendable/Durable Items List

Column (1) Item No. This number is assigned to the entry in the list and is referenced in the narrative instructions to identify the item (e.g., “Use brake fluid (item 5, WP 0098)).

Column (2) Level. This column identifies the lowest level of maintenance that requires the listed item (C = Operator/Crew).

Column (3) National Stock Number (NSN). This is the NSN assigned to the item which you can use to requisition it.

Column (4) Item Name, Description, Part Number/(CAGEC). This column provides the other information you need to identify the item. The last line below the description is the part number and the Commercial and Government Entity Code (CAGEC) (in parentheses).

Column (5) U/I. Unit of Issue (U/I) code shows the physical measurement or count of an item, such as gallon, dozen, gross, etc.

Table 1. Expendable and Durable Items List.

(1) Item No.	(2) Level	(3) National Stock Number (NSN)	(4) Item Name, Description, Part Number/(CAGEC)	(5) U/I
1	C	8040-01-388-0735	ADHESIVE, adhesive for edging 40640(05972)	CO
2	C	6850-01-228-7266	CLEANING COMPOUND, SOLVENT, clean up for adhesive 76820(05972)	BT
3	C		Cloth	EA
4	C		Mild Soap	EA
5	C	8030-01-104-5392	SEALING COMPOUND, thread locking compound 24221(05972)	BX
6	C		Soft Brush	EA

END OF WORK PACKAGE

ASSOCIATED AND REPAIR ITEMS LIST

This work package lists the associated and repair items you will need to operate and maintain the Advanced Combat Helmet (ACH). This list is for information purposes only and is not authority to requisition replacements.

Table 1. Associated and Repair Items List.

(1) Item No.	(2) Description, Part Number/(CAGEC)	(3) U/I	(4) National Stock Number
1	BRACKET, LEVER, NVD front bracket assembly A3297307 (80063)	ea	5340-01-509-1467
2	STRAP, CHIN, ATTACHMENT, Tab Foliage green 2426 (3T951)	bx	8470-01-531-3897
3	CHIN STRAP, ADVANCED COMBAT HELMET, Foliage green, 2418 (3T951)	ea	8470-01-531-3351
4	COVER, HELMET, REVERSIBLE, Woodland/desert, with communication flap, size S/M 84-01 (81337)	ea	8415-01-515-4662
5	COVER, HELMET, REVERSIBLE, Woodland/desert, with communication flap, size L/XL 84-01 (81337)	ea	8415-01-515-4663
6	COVER, HELMET, Non-reversible, white, with communication flap, size S/M 85-04 (81337)	ea	8415-01-515-4286
7	COVER, HELMET, Non-reversible, white, with communication flap, size L/XL 85-04 (81337)	ea	8415-01-515-4288
8	COVER, HELMET REVERSIBLE, Woodland/desert, without communication flap, size S/M 86-01 (81337)	ea	8415-01-515-4671
9	COVER, HELMET REVERSIBLE, Woodland/desert, without communication flap, size L/XL 86-01 (81337)	ea	8415-01-515-4674

Table 1. Associated and Repair Items List—Continued.

(1) Item No.	(2) Description, Part Number/(CAGEC)	(3) U/I	(4) National Stock Number
10	COVER, HELMET, Non-reversible, white, without communication flap, size S/M 87-04 (81337)	ea	8415-01-515-4289
11	COVER, HELMET, Non-reversible, white, without communication flap, size L/XL 87-04 (81337)	ea	8415-01-515-4290
12	FASTENER TAPE, HOOK, Hook disks 246-03 (81337)	ro	8470-01-506-6742
13	HELMET, ADVANCED COMBAT, Camouflage green with one NVD mounting hole, size small shell, size 6 pads (3/4” thick) 441-04A (81337)	ea	8470-01-519-8406
14	HELMET, ADVANCED COMBAT, Camouflage green with one NVD mounting hole, size small shell, size 8 pads (1” thick) 441-04B (81337)	ea	8470-01-519-8409
15	HELMET, ADVANCED COMBAT, Foliage green with one NVD mounting hole, size small shell, size 6 pads (3/4” thick) 268-05 268-05 (81337)	ea	8470-01-529-6302
16	HELMET, ADVANCED COMBAT, Camouflage Green with one NVD mounting hole, size medium shell, size 6 pads (3/4” thick) 240-03 (81337)	ea	8470-01-506-6369
17	HELMET, ADVANCED COMBAT, Camouflage Green with one NVD mounting hole, size medium shell, size 8 pads (1” thick) 240-03 (81337)	ea	8470-01-506-6373

Table 1. Associated and Repair Items List—Continued.

(1) Item No.	(2) Description, Part Number/(CAGEC)	(3) U/I	(4) National Stock Number
18	HELMET, ADVANCED COMBAT, Camouflage Green with one NVD mounting hole, size large shell, size 6 pads (3/4” thick) 240-03 (81337)	ea	8470-01-506-6375
19	HELMET, ADVANCED COMBAT, Camouflage Green with one NVD mounting hole, size large shell, size 8 pads (1” thick) 240-03 (81337)	ea	8470-01-506-6377
20	HELMET, ADVANCED COMBAT, Camouflage Green with one NVD mounting hole, size x-large shell, size 6 pads (3/4” thick) 99D10674-9 (81337)	ea	8470-01-513-6411
21	HELMET, ADVANCED COMBAT, Camouflage Green with one NVD mounting hole, size x-large shell, size 8 pads (1” thick) 99D10674-10 (81337)	ea	8470-01-513-6414
22	HELMET, ADVANCED COMBAT, Foliage green with one NVD mounting hole, size medium shell, size 6 pads (3/4” thick) 268-05 (81337)	ea	8470-01-529-6329
23	HELMET, ADVANCED COMBAT, Foliage green with one NVD mounting hole, size large shell, size 6 pads (3/4” thick) 268-05 (81337)	ea	8470-01-529-6344
24	HELMET, ADVANCED COMBAT, Foliage green with one NVD mounting hole, size x-large shell, size 6 pads (3/4” thick) 268-05 (81337)	ea	8470-01-529-6365
25	PAD SET, SUSPENSION, ACH, set of size 6 pads (3/4” thick) 8470-01-F01-0477 (81337)	se	8470-01-476-5643

Table 1. Associated and Repair Items List—Continued.

(1) Item No.	(2) Description, Part Number/(CAGEC)	(3) U/I	(4) National Stock Number
26	PAD SET, SUSPENSION, ACH, set of size 8 pads (1” thick) 8470-01-F01-0479 (81337)	se	8470-01-476-5648
27	PAD, HELMET, ADVANCED COMBAT, circular crown pad, size 6 (3/4” thick) 252-03 (81337)	ea	8470-01-506-6626
28	PAD, HELMET, ADVANCED COMBAT, oblong/oval pad, size 6 (3/4” thick) 251-03 (81337)	ea	8470-01-506-6454
29	PAD, HELMET, ADVANCED COMBAT, oblong/oval pad, size 8 (1” thick) 251-03 (81337)	ea	8470-01-506-6456
30	PAD, HELMET, ADVANCED COMBAT, trapezoidal pad, size 6 253-03 (81337)	ea	8470-01-506-6851
31	PAD, HELMET, ADVANCED COMBAT, trapezoidal pad, size 8 253-03 (81337)	ea	8470-01-506-6855
32	POST, HELMET, For mounting BRACKET, LEVER on ACH 8-2-647 (81337)	bx	8470-01-144-5367
33	POST, HELMET, Mounting post for STRAP ASSEMBLY, CHIN 2424 (3T951)	bx	8470-01-531-4284
34	SCREW, MACHINE, 8-32 x 3/8 in long screw for plugging hole in front of ACH if no NVD used MS51957-43B (96906)	hd	5305-00-182-9265
35	SCREW, HELMET, Mounting screw for STRAP ASSEMBLY, CHIN 2423 (3T951)	bx	8470-01-531-4268

Table 1. Associated and Repair Items List—Continued.

(1) Item No.	(2) Description, Part Number/(CAGEC)	(3) U/I	(4) National Stock Number
36	STRAP, EYEWEAR RETENTION, Foliage green MIL-DTL-32134 (81337)	pr	8415-01-521-8802
37	STRAP, EYEWEAR RETENTION, Tan MIL-DTL-32134 (81337)	pr	8415-01-521-8801
38	STRAP, EYEWEAR RETENTION, Camouflage Green MIL-DTL-32134 (81337)	pr	8415-01-487-1605

END OF WORK PACKAGE

ADDITIONAL INFORMATION

This work package lists items you will need to operate and maintain the Advanced Combat Helmet (ACH). This list is for information purposes only and is not authority to requisition replacements.

Table 1. Additional Items List.

(1) Item No.	(2) Description, Part Number/(CAGEC)	(3) U/I	(4) National Stock Number (NSN)
1	CALIPER, OUTSIDE 452-12 (73792)	ea	5210-01-434-9493
2	TAPE, MEASURING A-A-1666 (58536)	ea	8315-00-782-3520
3	Screwdriver	ea	

END OF WORK PACKAGE

OPERATOR RECORD OF HIT

Name: _____

Rank: _____

Unit: _____

Phone: _____ E-Mail: _____

HELMET Size: _____ Date of Issue: _ _/_ _/_ _

Duty Being Performed When Hit: _____
_____
_____

Hit Caused by (circle): Fragmentation (Mine, Grenade, Booby Trap Artillery, Other)

Date of Hit: _ _/_ _/_ _

Estimated range from point of detonation: _____

Location of Hit(s) on Advanced Combat Helmet:
_____
_____

Continued to Perform Mission (circle one)?: Yes No

Was Personal Injury Sustained (circle one)?: Yes No

Description of Injury: _____
_____

OPERATOR RECORD OF HIT--Continued

Mail Record of Hit to postal address or responses to electronic mail address:

Postal Address:

Commander
U.S. Army Soldier and Biological Chemical Command
ATTN: AMSRD-NSC-IP-A Kansas Street Natick, MA 01760

Electronic Mail Address:

http://www.sbccom.army.mil/feedback/index.htm

END OF WORK PACKAGE

These are the instructions for sending an electronic 2028

The following format must be used if submitting an electronic 2028.
The subject line must be exactly the same and all fields must be included; however only the following fields are mandatory: 1, 3, 4, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17, and 27.

From: “Whomever” <whomever@avma27.army.mil>
To: amssbriml@natick.army.mil
Subject: DA Form 2028
1. ***From:*** Joe Smith
2. *Unit:* home
3. ***Address:*** 4300 Park
4. ***City:*** Hometown
5. ***St:*** MO
6. ***Zip:*** 77777
7. ***Date Sent:*** 19--OCT--93
8. ***Pub no:*** 55--2840--229--23
9. ***Pub Title:*** TM
10. ***Publication Date:*** 04--JUL--85
11. *Change Number:* 7
12. *Submitter Rank:* MSG
13. ***Submitter FName:*** Joe
14. *Submitter MName:* T
15. ***Submitter LName:*** Smith
16. ***Submitter Phone:*** 123--123--1234
17. ***Problem:*** **1**
18. *Page:* 2
19. *Paragraph:* 3
20. *Line:* 4
21. *NSN:* 5
22. *Reference:* 6
23. *Figure:* 7
24. *Table:* 8
25. *Item:* 9
26. *Total:* 123
27. ***Text:***

This is the text for the problem below line 27.

By Order of the Secretary of the Army:

PETER J. SCHOOMAKER
General, United States Army
Chief of Staff

Official:

SANDRA R. RILEY
Administrative Assistant to the
Secretary of the Army
0526502

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