

# GENTEX<sup>®</sup>

## CVC M9

### OPERATION AND MAINTENANCE MANUAL



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# TABLE OF CONTENTS

Introduction	4
Helmet Features	5
Helmet Fitting	6-8
Headset Operation	9-11
Maintenance	12
Headset Troubleshooting	13
Operator Notes	14
Warning & Warranty	15

# INTRODUCTION

The CVC-M9 helmet assembly affords impact protection, superior retention, a close fit, optimum comfort, sound attenuation, and active noise reduction (ANR). This manual provides a description of the helmet and instructions for fitting, wearing, and cleaning.



Helmet Bag

# HELMET FEATURES

## Ballistic Helmet Shell

Two adjustable hanger tabs at the front of the shell facilitate attachment of the inner helmet and allow for fitting adjustments. A snap on the back of the helmet permits the attachment of the adjustable rear hanger tab on the inner helmet.

## Inner Helmet

The inner helmet affords optimum fit, comfort, and stability. It consists of energy-absorbing foam pads enclosed in Nomex® mesh fabric. The energy-absorbing pads feature a ventilated surface that makes the helmet more comfortable for extended wear. A Nomex Simplex front brow pad cover enhances comfort at the upper forehead area. The inner helmet offers the following adjustment features:

**Top adjustment strap** – This allows for adjustment of crown width and earcup height.

**Rear attachment tab** – This facilitates attachment of the inner helmet to the snap on the rear of the helmet shell and prevents forward rotation of the helmet.

**Nape strap with hook-and-pile closure** – This affords a snug fit in the nape area.

## Chinstrap

Attached to the inner helmet via snap fasteners, the chinstrap is constructed of woven Nomex webbing with an adjustment buckle. A Nomex-covered chinpad enhances comfort.

## Sound-Attenuating Earcups

The contoured, rotatable earcups are designed for a secure fit and optimum sound attenuation. The earcups can be adjusted vertically via the adjustment straps on the inner helmet. A tension spring adjusts the earcups snugly to the crewmember's head. A raised ring on each padded, non-hardening, polyurethane earseal further enhances fit and sound attenuation.

## Lower Cord

Designed to interface with Comms system.

## Helmet Bag

The helmet bag includes a main compartment (with zipper closure) for storage of the helmet and two front pockets (with snap closures) for storage of other items.

# HELMET FITTING

## ⚠ WARNING

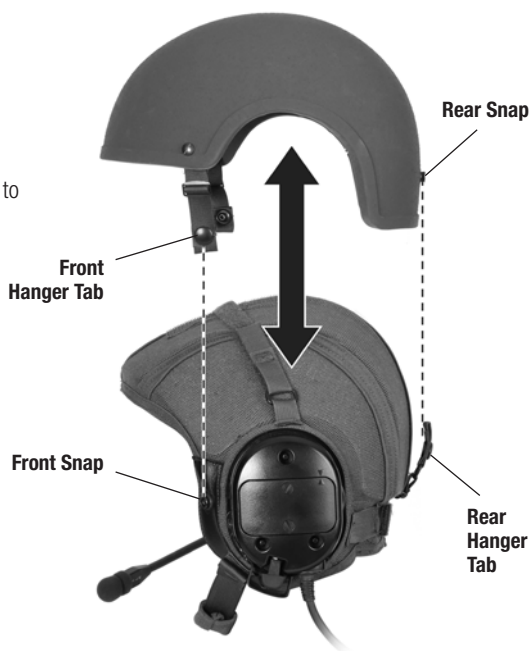
Always wear the helmet with the ballistic shell attached during missions. Failure to do so will decrease bump protection.

Fitting must be performed by a qualified maintenance technician.

**NOTE:** This helmet is fitted with the ballistic shell removed.

## 1 REMOVE BALLISTIC SHELL

Unfasten the front and rear snaps to remove the ballistic shell from the inner helmet.



## 2 DON THE INNER HELMET

Have the crewmember don the inner helmet.



### 3 ADJUST THE WIDTH/ HEIGHT

Adjust the top width/height adjustment strap so that the crown of the liner is snug and the earcups are properly aligned with the ears.



### 4 ADJUST THE NAPE STRAP

Adjust the nape strap for a snug, secure fit at the nape.



### 5 FASTEN/ADJUST CHINSTRAP

Fasten and adjust the chinstrap for a snug, secure fit.



### 6 DOFF THE INNER HELMET

Unfasten the chinstrap and have the crewmember remove the inner helmet.

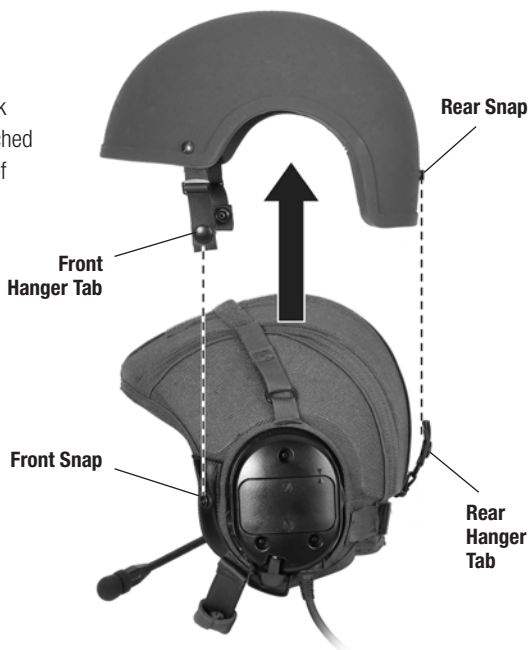
**NOTE:** The inner helmet is designed to fit most heads. However, if the brow pad is too loose, it may be tucked and sewn on both sides. Please refer to the technical manual for more information.

## 7 REATTACH BALLISTIC SHELL

**A.** Place the inner helmet inside the ballistic shell; ensure that the hook fastener on the liner is firmly attached to the pile fastener on the inside of the shell.

**B.** Attach the front hanger tabs on the ballistic shell to the inner helmet by fastening the snaps on both sides.

**C.** Attach the rear hanger tab on the inner helmet to the rear of the ballistic shell by fastening the rear snap.



## 8 DON THE HELMET AND READJUST

Have the crewmember don the helmet and fasten the chinstrap.

**A.** Readjust the chinstrap as necessary.

**B.** Adjust the rear hanger tab as necessary by sliding the buckles up and down.

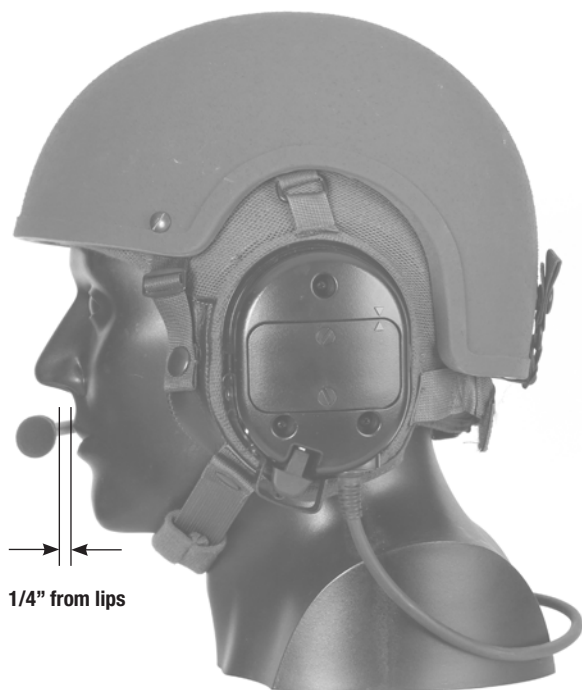
**C.** Ensure that the nape strap is not pulled away from the crewmember's nape; readjust the nape strap and/or the rear hanger tab as necessary to ensure that the helmet fits snugly and is stable on the head.



# HEADSET OPERATION

This section covers the basic operation of the headset. To begin, don the helmet and place the microphone directly in front of the mouth,  $\frac{1}{4}$ " from the lips.

**NOTE:** The microphone must be close to your lips for effective communication.

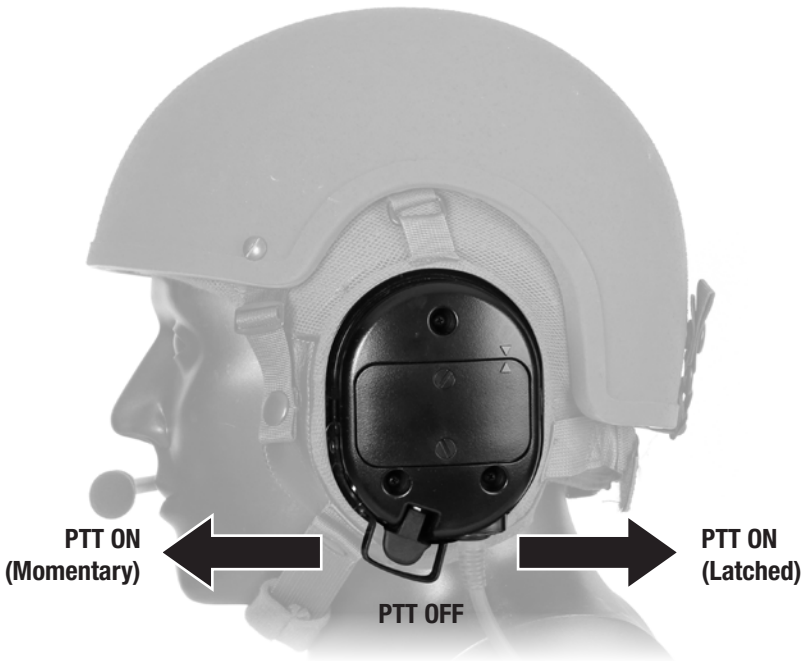


Passive noise reduction is provided by the earcups and ear cushions and the seal between the ear cushions and the head.



## Communication

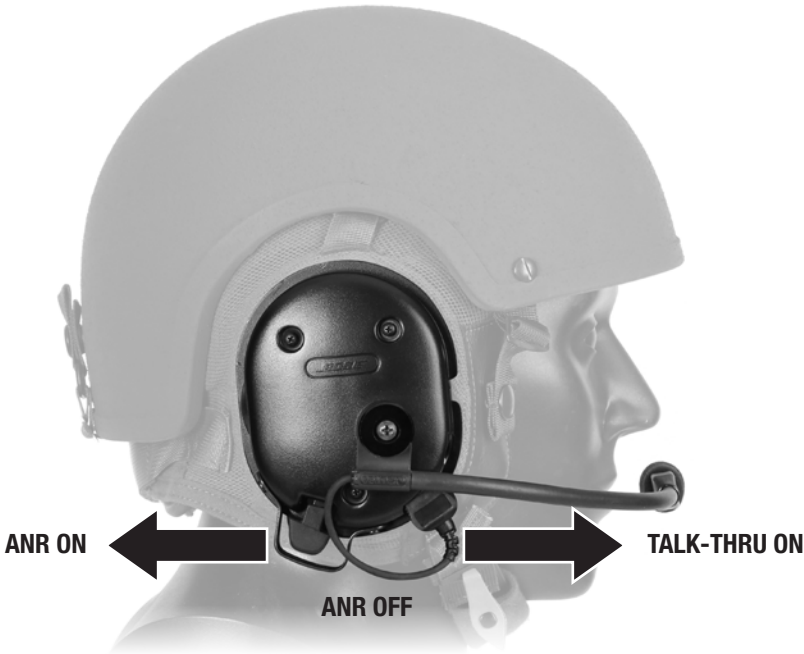
Communication is enabled by a Push-to-Talk (PTT) switch in the Left earcup. This switch turns the boom microphone on and off and connects separate PTT control lines to activate communication separately through the intercom and to the radio. The PTT switch operates as follows:



Switch Position	Operation
Rear (latching) position	Boom microphone and PTT Intercom line connected to intercom
Center position	Boom microphone and both PTT lines disconnected
Forward (momentary) position	Boom microphone and PTT Radio line connected to intercom

# Active Noise Reduction (ANR)

Active noise reduction is provided by circuitry in the earcups that generates counterwaves to external noise. Active noise reduction is enabled by an ANR switch in the Right earcup. The ANR switch operates as follows:



Switch Position	Operation
Rear position	ANR enabled
Center position	ANR disabled
Forward position	Talk-thru enabled

# MAINTENANCE

## PREVENTIVE MAINTENANCE CHECKS

The wearer should inspect the helmet to ensure that it is in good working order. Soiled components should be cleaned, and defective components should be replaced. The table below lists the preventive maintenance procedures.

Component	Inspect for	Action
Ballistic Shell	Holes, cracks	Replace
	Dirt	Clean in accordance with table below
Inner Helmet / Nape Strap	Torn or frayed fabric	Replace
	Worn energy-absorbing pads	Replace pads
	Dirt	Clean in accordance with table below
Chinstrap / Chinpad	Torn or frayed fabric	Replace
	Dirt	Clean in accordance with table below

## CLEANING

Once the helmet is disassembled, components can be cleaned. The table below lists the cleaning process for each component.

Component	Cleaning Procedure
Ballistic Shell	Use clean cloth dampened with mild soap solution.
Inner helmet (with Chinstrap, Nape Strap, and Foam Pads instilled)	<ol style="list-style-type: none"><li>1. Turn the liner inside out, and tuck the chinstrap into the inner helmet. Place the inner helmet inside a nylon mesh bag.</li><li>2. Machine-wash the inner helmet on the normal or cotton sturdy cycle at 60° ± 3°C (140° ± 5°F).</li><li>3. Tumble-dry the inner helmet on the permanent press or cotton sturdy setting at (150° ± 5°F)</li></ol>
Headset Assembly	<ol style="list-style-type: none"><li>1. Use compressed air to blow off dust.</li><li>2. Wipe with damp cloth.</li></ol>
Cords and Connectors	Wipe with a damp cloth.
Clothing Clip	Use clean cloth dampened with mild soap solution.

# **HEADSET TROUBLESHOOTING**

**FOR HEADSET TROUBLESHOOTING PLEASE REFER TO  
TECHNICAL MANUAL TP-0407**

#### OPERATOR NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

# WARNING & WARRANTY

## **⚠ WARNING**

Inspect the helmet before each use. Make sure the helmet system components are not damaged, cracked, deformed, loose, or showing signs of excessive wear. Do not remove or alter the helmet pads or modify any or the original component parts of the helmet, other than as specified by the manufacturer. The helmet system should not be modified for the purpose of fitting attachments in any way which is not specified by the manufacturer. Do not apply paint, solvents, adhesives, or self-adhesive labels except in accordance with instructions from the manufacturer as they could degrade helmet integrity and resulting performance. Clean shell with soap and lukewarm water. Internal comfort pads may be hand washed and air dried.

This helmet system is meant for professional users. It is the responsibility of the user to determine whether the manufacturer's specifications will provide an adequate level of protection for the intended use. This helmet system provides limited ballistic and impact protection for the head as indicated by the product specification, and does not offer any protection against neck, spinal, or certain types of brain injuries including those caused by rotational forces. Some hazards can exceed this helmet's ability to provide protection and could cause severe head, brain, or spinal injuries including paralysis or death. This helmet must be fitted properly to provide the protection indicated in the product specification. This helmet system is designed to absorb the energy of an impact by partial destruction or damage to the shell, liner and the harness, and even though such damage may not be readily apparent, any helmet subjected to a substantial impact should be replaced. Misuse or failure to follow instructions associated with this helmet system may result in serious injury or death.

## **WARRANTY**

Unless an individual product is covered by a separately issued warranty, Gentex warrants that all ballistic helmet shells will be free from defects in material or workmanship under normal use and service for a period of five (5) years from the date of delivery. Unless an individual product is covered by a separately issued warranty, Gentex warrants that all helmet components, accessories, peripherals, and parts will be free from defects in material or workmanship under normal use and service for a period one (1) year from the date of delivery. All repair covered by this warranty shall be performed at Gentex's factory, or other such warranty repair facilities of Gentex as designated by Gentex unless Gentex specifically directs that repair services be performed at another location. Any defect corrected and found to be within this scope of the warranty will be repaired by Gentex and all charges for labor and material will be borne by Gentex. If it is determined that either no fault exists in Gentex, or the damage to be repaired was caused by negligence of the user, its agents, employees or customers, you agree to pay all charges associated with each such repair. No statement, recommendation or assistance made or offered by Gentex through its representatives to the user, its agents, employees, or customers in connection with the purpose or intended use of any Gentex's product shall be or constitute a waiver by Gentex of any of the provisions of this warranty or change Gentex's liability under this warranty.

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Any tampering, misuse or negligence in handling or use of the product renders the warranty void. Further, the warranty is void if, at any time, the user, its agents, employees or customers attempts to make any internal changes to any of the components of a product; if at any time the power supplied to any part of the product exceeds the rated tolerance; if any external device attached by the user, its agents, employees or customers creates conditions exceeding the tolerance of the product; or if any time the serial number plate is removed or defaced. OPERATION OF THE PRODUCTS THAT RENDER THIS WARRANTY VOID WILL BE DEFINED TO INCLUDE ALL OF THE POSSIBILITIES DESCRIBED IN THIS SECTION, TOGETHER WITH ANY PRACTICE THAT RESULTS IN CONDITIONS EXCEEDING THE DESIGN TOLERANCE OF THE PRODUCTS.

