

3M COMBAT HELMET

SIZING INSTRUCTIONS

Proper helmet size, fit and stability are critical to your mission and safety.

If the helmet sits too low on the head, it interferes with your eyewear and field of vision. If it rides too high, you increase your risk of injury, and if it's loose and unstable, it's a constant bother and a nuisance.

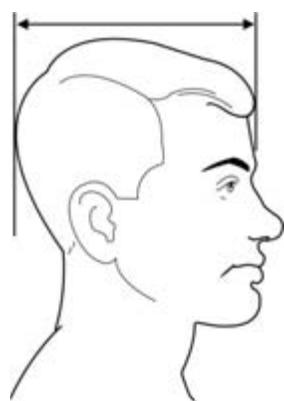
So before you select your helmet size, follow the sizing and fitting guidelines:

Shell Sizing Head Measuring Procedure

Use tape measure and caliper to make the following measurements.

1. Person must be seated in upright position.
2. Measure the maximum head length between the brow ridge and the back of the head (Figure 1). 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.

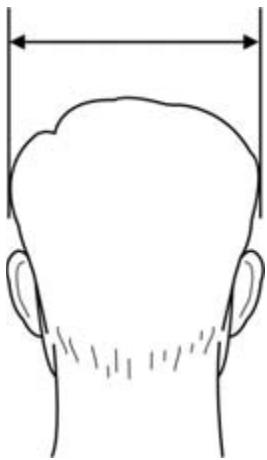
Figure 1. Head Length.



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

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

Figure 2. Head Width.



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

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

NOTE

Soldier 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. The helmet shell size selected in this step will be used as the starting point for pad evaluation in the next procedure.

Table 1. Head/Shell Sizing.

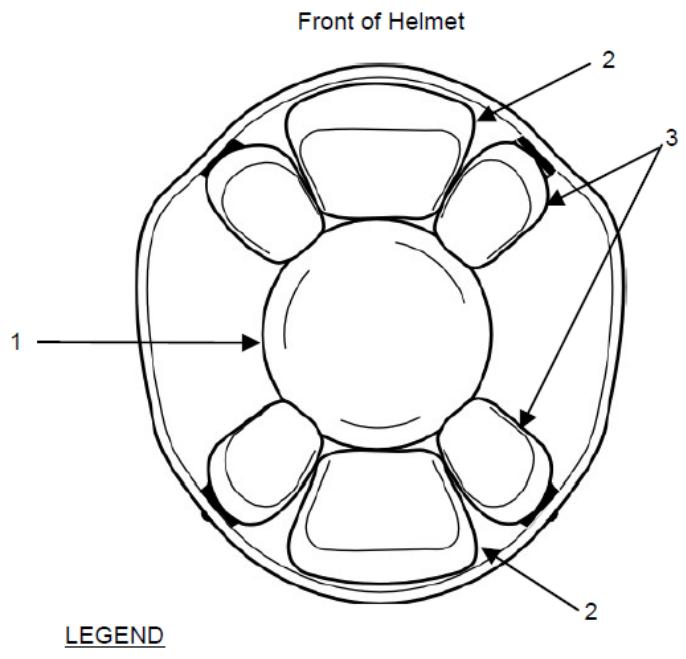
Helmet Shell	Head Length	Head Breadth (Width)	Head Circumference
Small Helmet Shell	Up to 7 $\frac{1}{4}$ inches (184 mm)	Up to 6 $\frac{1}{2}$ inches (162 mm)	Up to 21 $\frac{1}{4}$ inches (538 mm)
Medium Helmet Shell	From 7 $\frac{1}{4}$ inches (184 mm) up to 7 $\frac{3}{4}$ inches (198 mm)	Up to 6 $\frac{1}{2}$ inches (162 mm)	From 21 $\frac{1}{4}$ inches (538 mm) up to 22 $\frac{1}{2}$ inches (573 mm)
Large Helmet Shell	From 7 $\frac{3}{4}$ inches (198 mm) up to 8 $\frac{1}{4}$ inches (210 mm)	Up to 6 $\frac{1}{2}$ inches (162 mm)	From 22 $\frac{1}{2}$ inches (573 mm) up to 23 $\frac{1}{2}$ inches (597 mm)
Extra-Large Helmet Shell	8 $\frac{1}{4}$ inches (210 mm) and over	6 $\frac{1}{2}$ inches (162 mm) and over	23 $\frac{1}{2}$ inches (597 mm) and over

Figure 1. A Properly Fitted ACH.



STANDARD PAD CONFIGURATION

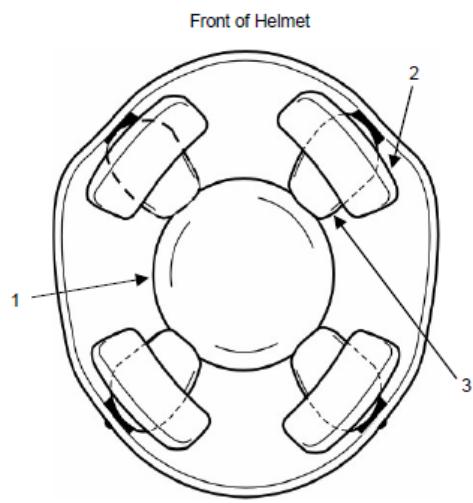
The helmet is tested for blunt impact protection in the **seven-pad configuration**. The seven pad configuration offers the most impact protection.



LEGEND

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

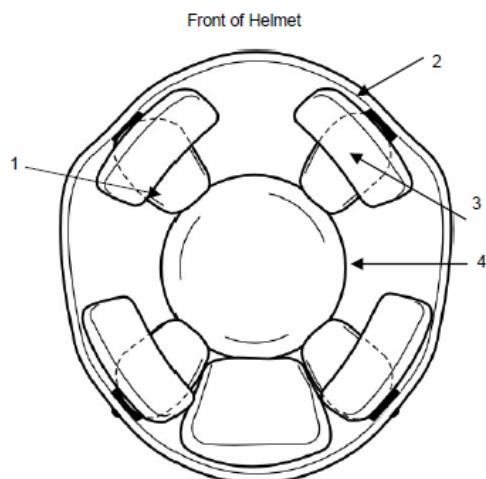
Figure 1. Standard Pad Configuration.



LEGEND

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

Figure 2. Five-Pad Configuration.



LEGEND

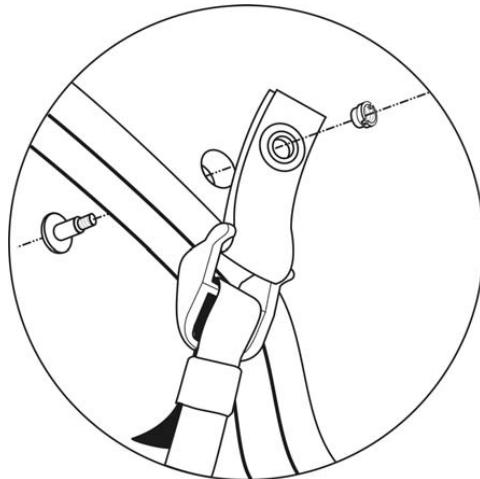
1. Circular crown pad
2. Oblong/Oval pad (Horizontal direction)
3. Oblong/Oval pad (Vertical direction)
4. Trapezoidal pad

Figure 3. Six-Pad Configuration.

Assessing Fit

Here's how to tell if you have a good fit:

- Tighten the four-point chin strap to see how the helmet and pads fit.
- The ACH is snug but not too tight.
- The crown pad touches the top of the head.
- Look up with your eyes only. You should just see the rim of the ACH. If you can't see the rim, the helmet sits too high.
- Shake your head up and down and from side to side. The helmet should remain stable.
- Ask a buddy to look at how your helmet fits. Here's what he should look for:
 - Viewed from the front, both sides of the ACH should be level.
 - Viewed from the side, the front and back should be level.
 - The bottom of the ACH should come to the top of the ear canal opening.
 - The front rim should rest about 1/2 inch above the eyebrows.

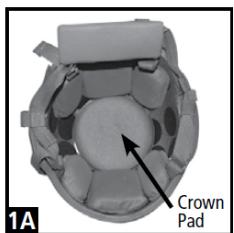


NOTE: The standard X-Back Retention for the 3M Combat Helmet retention system is a four point design, attaching to the shell at four locations. In conjunction with the pad suspension system, it provides improved stability. If shell sizes seems correct, but the chinstrap seems too loose or too tight, you may try adjusting by bolting the chinstrap to an alternative notch.

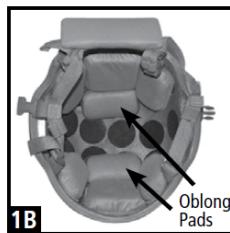
If you plan to wear other equipment with the helmet, such as a headset and microphone, make sure you wear them when you size the helmet.

Please See COMMS HEADSET INTEGRATION INSTRUCTION if using with a 3M PELTOR COMTAC

COMMS INTEGRATION



Step 1A: Remove Crown Pad.



1B: Replace with two oblong pads creating a channel for the headset headband.

Headband



Step 2: Lengthen the chinstrap to full extent so the strap will be able to go over the ear cup when donning.



Step 3: Put headset on first, followed by the helmet.

Back Band



Step 1: Hold the helmet in front of you with the backband below the ear cushions and towards the user.



Step 2: Bringing the helmet over the head, place the cushions over the ear with the backband resting at the base of the neck.



Step 3: Take the velcro straps attached to each headset and bring over the head and fasten together, ensuring each ear cushion remains over the ear and is supported by the head strap.
NOTE: The velcro strap can also be fitted over the top of the helmet.



Step 4A: Thread the boom mic through the chinstrap.



4B: Next, thread the down lead through the chinstrap.



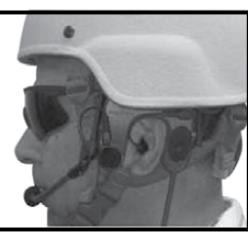
4C: Adjust chinstrap for tight fit.



NOTE: Donning the helmet with the headset can be awkward, have a team member ensure fit and help with any snags.



COMTAC 3



**FINAL
FIT**

COMTAC 4