

3M Occupational Health & Environmental Safety Division  
3M™ Peltor™ Aviation

**PELTOR™**

The Sound Solution



Freedom  
at All Levels

**3M**

# Take your safety personally

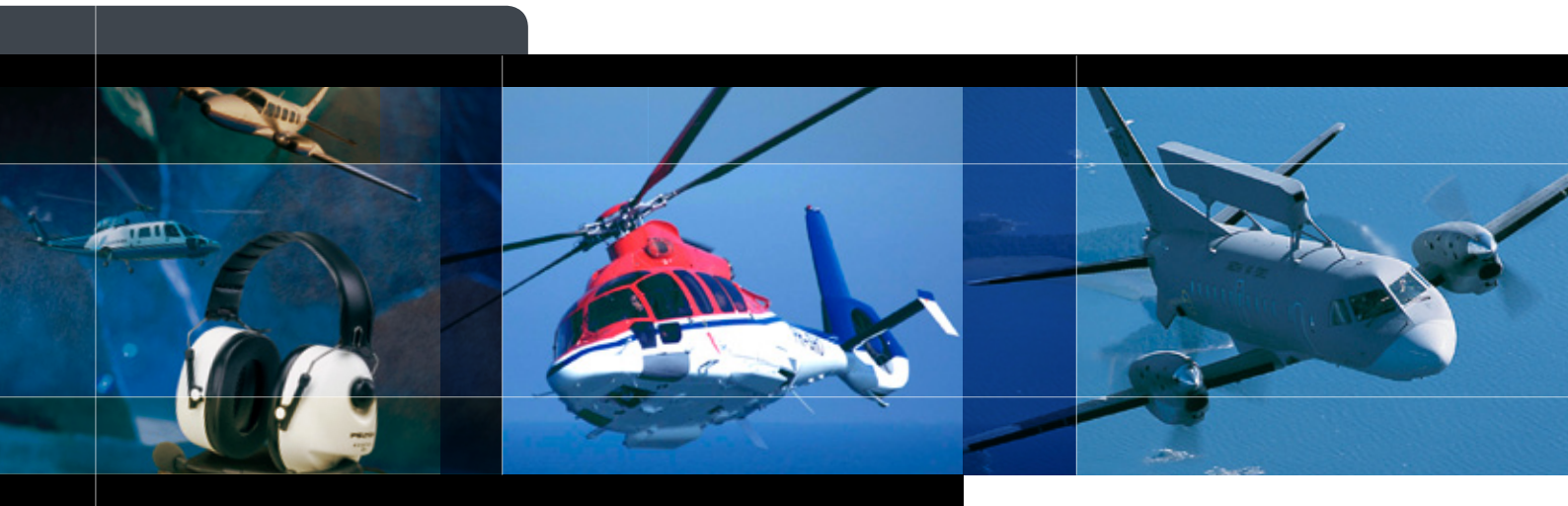
3M, the world's leader in safety and protective equipment, is proud to have the Peltor™ brand range as part of its product offering.

Peltor™ communication equipment as well as hearing, head & face protection products for noisy and hazardous environments are renowned world leaders. With more than 50 years of experience, the Peltor™ brand promises quality communication solutions that provide an optimal balance of comfort and protection.

It is our goal to ensure that we satisfy your needs through the provision of leadership, expertise, quality and service excellence.

With our global technology, manufacturing and knowledge network we do more than simply develop products that help your workforce to operate in safety and comfort.

The advanced engineering and technology inherent with the Peltor™ brand fits with the high standard of quality and innovation of a continuously evolving range of product solutions that you, our customers, come to expect from 3M.

**3M** PELTOR™


## A headset for high demands

When the ground is 32,000 feet below you, you can't afford to have anything go wrong. Reliable communication, convenient design, low weight and maximum comfort are essential requirements of a headset in a noisy aviation environment, in the air and on the ground.

## A challenge

Peltor has the knowledge, experience and enthusiasm to meet this challenge, having been developing headsets for military, civil, sport and helicopter aviation since the early 1950's.

## First class performance

Our headsets have no protruding parts which can snag. All contacts are encased and reinforced at bending points. The low profile of the headband ensures that the headset sits firmly on the head and minimizes the risk of bumping against obstacles.

The parallel connector means that each earphone works separately, so that if one fails, the other works as usual.

Our microphone arm features a securely encased cord. The small, sturdy design with four positions gives even more effective communication with its increased flexibility.

These small, carefully designed and extensively tested features are just some examples why Peltor headsets makes a difference. We've known the importance of this for more than 50 years!

# 3M™ Peltor™ Aviation 8000 series

Peltor Aviation 8000 series has a compact design. No protruding parts that can snag on obstacles and affect safety. The microphone cord is securely encased in the arm.

## Remarkable comfort

The broad liquid and foam filled, breathing ear cushions, gives minimal pressure distributed over the entire contact surface. The stainless sprung steel headbands maintain their resiliency and provide an even distribution of pressure over time and in different environments. Plenty of space for the ears and a very low weight!

## Individual volume control

The Aviation 8000 series has easily accessible controls with inset volume and balance controls in one. This solution lets you compensate for different noise situations and individual variations, such as poor hearing in one ear.

## Reliable communication

Effective noise attenuation through the entire speech frequency area combined with efficient noise cancelling speech microphones, ensure reliable communication even in very high noise environments. A special filter eliminates wind and breath noises.

## Aviation 8003

Peltor Aviation 8003 headset has an ambient-noise cancelling microphone, specially designed for aviation intercom systems. The microphone amplifier can be adjusted for output signals in the range of 300–600 mV. The frequency range is adjusted for good speech recognition. The earphones have a broad frequency range for good sound reproduction. Straight polyurethane cord, moulded connectors and a stereo/mono switch in the branching box. The earphones are connected with a 1/4" stereo connector and the microphone has a PJ068 connector.



8003 MT52H79F-04 VI

### Headset

|                       |             |
|-----------------------|-------------|
| Weight:               | 370g        |
| Microphone connector: | Type PJ068  |
| Earphone connector:   | 1/4" stereo |
| Cord length:          | 1,35m       |

### Earphone

|                    |                                   |
|--------------------|-----------------------------------|
| Type               | HTR-330                           |
| Impedance          | 165ohm<br>(2x 330ohm in parallel) |
| Frequency response | 200 – 3000Hz +-6dB                |
| Sensitivity        | 80dBA @ 0.5Vrms / 1kHz            |

### Microphone and amplifier

|                      |                                      |
|----------------------|--------------------------------------|
| Type                 | MT52 dynamic differential microphone |
| Frequency response   | 200 – 4000 Hz +-6dB                  |
| Supply voltage       | 8 – 30V                              |
| Connection impedance | 470 – 2000 ohm                       |

### Sensitivity over supply voltage and connection impedance

| Supply voltage | 470 ohm | 1000ohm | 2000ohm |
|----------------|---------|---------|---------|
| 8V             | 130mV   | 100mV   | 50mV    |
| 12V            | 130mV   | 130mV   | 130mV   |
| 16V            | 130mV   | 130mV   | 130mV   |
| 30V            | 130mV   | 130mV   | 130mV   |

Typical values at delivery gain setting, 114dB SPL, 150ohm AC load  
Gain set at min: typ. 100mV  
Gain set at max: typ. 220mV

Current consumption typ. 3mA @ 12V / 470 ohm  
Noise suppression 15 dB (average from all angles at 500Hz)

## Aviation 8006

Peltor Aviation 8006 headset has an ambient-noise cancelling electret differential microphone, specially designed for aviation intercom systems. The frequency range is adjusted for good speech recognition. The earphones have a broad frequency range for good sound reproduction. Straight polyurethane cord, moulded connectors and a stereo/mono switch in the branching box. The earphones are connected with a 1/4" stereo connector and the microphone has a PJ068 connector.



8006 MT51H79F-01 VI

### Headset

|                       |             |
|-----------------------|-------------|
| Weight:               | 360g        |
| Microphone connector: | Type PJ068  |
| Earphone connector:   | 1/4" stereo |
| Cord length:          | 1,35m       |

### Earphone

|                    |                                   |
|--------------------|-----------------------------------|
| Type               | HTR-330                           |
| Impedance          | 165ohm<br>(2x 330ohm in parallel) |
| Frequency response | 100 – 5000Hz +-6dB                |
| Sensitivity        | 77dBA @ 0.5Vrms / 1kHz            |

### Microphone and amplifier

|                      |   |
|----------------------|---|
| Type                 | MT51 electret differential microphone                 |
| Frequency response   | 200 – 4000 Hz +-6dB<br>(12V / 470ohm, 150ohm AC load) |
| Supply voltage       | 8 – 16V   |
| Connection impedance | 470 – 1000 ohm  |

### Sensitivity over supply voltage and connection impedance

| Supply voltage | 470 ohm | 1000ohm |
|----------------|---------|---------|
| 8V             | 400mV   | 250mV   |
| 12V            | 650mV   | 500mV   |
| 16V            | 900mV   | 650mV   |

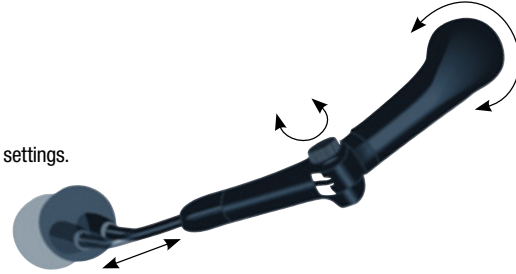
Typical values. 114dB SPL, 150ohm AC load

Current consumption typ. 13mA @ 12V / 470 ohm  
Noise suppression 15dB (average from all angles at 500Hz)



## Microphone MT51, MT52

- Small, lightweight and sturdy.
- Microphone arm twists 180 degrees, allowing both right- and left-mounting.
- 4-way adjustment with resistance settings – practically unlimited possibilities for individual settings.
- Quick Positioning – from speech to stand-by without changing the basic settings.



8103 MT52H79F-03

## Aviation 8103

Peltor Aviation 8103 helicopter headset has an ambient-noise cancelling differential microphone, specially designed for aviation intercom systems. The microphone amplifier is designed for intercom systems with 5Ω impedance. The frequency range is adjusted for good speech recognition. The earphones have a more limited frequency range, to give the best possible speech recognition in the ambient noise of a helicopter. Spiral polyurethane cable with moulded NATO-standard connector.

### Headset

Weight: 370g  
Connectors: Nexus TP-120 "European NATO"  
Cord length: 0,4-1m

### Microphone

Type MT52 dynamic differential microphone  
Output impedance 55ohm  
Frequency response 200 – 5000 Hz + -6dB  
Output signal typ. 0,5mV @ 114dBSPL  
Noise suppression 15dB (average from all angles at 500Hz)

### Earphone

Type HTSU-32  
Impedance 16ohm (2x 32ohm in parallel)  
Frequency response 200 – 8000Hz + -6dB  
Sensitivity 92dBA @ 0.5Vrms / 1kHz



8106 MT51H79F-02

## Aviation 8106

Peltor Aviation 8106 helicopter headset has an ambient-noise cancelling electret differential microphone. The earphones have a more limited frequency range, to give the best possible speech recognition in the ambient noise of a helicopter. Spiral polyurethane cable with moulded NATO-standard connector.

### Headset

Weight: 360g  
Connectors: Nexus TP-120 "European NATO"  
Cord length: 0,4-1m

### Microphone and amplifier

Type MT51 electret differential microphone  
Frequency response 200 – 4000 Hz + -6dB  
Supply voltage 8 – 16V  
Connection impedance 470 – 1000 ohm

### Sensitivity over supply voltage and connection impedance

| Supply voltage | 470 ohm | 1000ohm |
|----------------|---------|---------|
| 8V             | 300mV   | 200mV   |
| 12V            | 550mV   | 400mV   |
| 16V            | 750mV   | 550mV   |

Typical values. 114dBSPL, 150ohm AC load

Current consumption typ. 11mA @ 12V / 470 ohm  
Noise suppression 15dB (average from all angles at 500Hz)

### Earphone

Type HTS-230  
Impedance 115ohm (2x 230ohm in parallel)  
Frequency response 200 – 5000Hz + -6dB  
Sensitivity 82dBA @ 0.5Vrms / 1kHz

MT51H79F-\*\*-\*\* MT52H79F-\*\*-\*\*

Attenuations acc. to EN352-1:1993

| Frequency (Hz)          | 125  | 250  | 500  | 1000 | 2000 | 4000 | 8000 |
|-------------------------|------|------|------|------|------|------|------|
| Mean Attenuation (dB)   | 15.4 | 26.6 | 29.3 | 40   | 34.3 | 33   | 36.5 |
| Standard Deviation (dB) | 3.1  | 2.2  | 1.6  | 1.5  | 2.4  | 2.3  | 1.9  |
| Assumed Protection (dB) | 12.3 | 24.4 | 27.7 | 38.5 | 31.9 | 30.7 | 34.6 |

SNR=31dB H=33dB M=30dB L=21dB



# 3M™ Peltor™ Aviation 8000 series

## Twin Cup Helicopter Headset, "Hummingbird"

Twin Cup Hummingbird Headset is designed for connection to low impedance helicopter intercom systems. It has leather covered headband and individually sprung headband wires of stainless steel to provide best comfort and durability. Cable is coiled polyurethane with "European NATO" connected moulded plug.



- Highly attenuating headset for use in extremely noisy environments
- Noise cancelling microphone for clear and reliable communication
- All cables exit at the top of the cups to prevent snagging and allow for easy connection to an overhead intercom.
- The coiled cable has extra length to enable it to be connected to a console mounted intercom.
- Designed for low impedance intercom system of a helicopter

### MT72H540F-91

| Frequency (Hz)          | 125  | 250  | 500  | 1000 | 2000 | 4000 | 8000 |
|-------------------------|------|------|------|------|------|------|------|
| Mean Attenuation (dB)   | 18.9 | 24.4 | 32.7 | 35.3 | 33.3 | 41   | 39.4 |
| Standard Deviation (dB) | 2.3  | 1.8  | 1.7  | 2.6  | 2.7  | 3    | 3.2  |
| Assumed Protection (dB) | 16.6 | 22.6 | 31   | 32.7 | 30.6 | 38.1 | 36.2 |

SNR=33 H=33 M=31 L=24

### Earphone

Type: HTS-32  
 Impedance: 16ohm (2x 32ohm in parallel)  
 Frequency response: 200 – 4000Hz +-6dB  
 Sensitivity: 97dBA @ 0.5Vrms / 1kHz

### Microphone

Type: MT72 dynamic differential microphone  
 Output impedance: 55ohm  
 Frequency response: 200 – 5000 Hz +-6dB  
 Output signal: typ. 0.5mV @ 114dB SPL  
 Noise suppression: 15dB (average from all angles at 500Hz)

### Headset

Weight: 440g  
 Microphone Connector: Nexus TP-120 "European Nato"  
 Cord length: 0,5 – 1,2 m



## Aviation – accessories

A variety of accessories will help you enhance your Peltor product and enable you to benefit from its broad usage range in a daily use.

Accessories, spare parts and additional equipment are all developed and manufactured by the same people who designed our headsets. This guarantees adaptability and durable function.



### Accessories and spare parts

| Model:          | 8003, 8103 | 8006, 8106 | Twin Cup |
|-----------------|------------|------------|----------|
| Hygiene kit     | HY79       | HY79       | HY13     |
| Wind protection | M40/1      | M995       | M40/1    |
| Mike Protector  | HYM1000    | HYM1000    | HYM1000  |
| Headsetbag      | FP9007     | FP9007     | FP9007   |



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