

# TELEX

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## User Instructions



## Echelon 25XT Noise Reduction Headset

## **Uniform Limited Warranty**

Bosch branded products are warranted by Bosch Security Systems, Inc. against malfunction due to defects in materials and workmanship for a specified period, as noted in the individual product line statements below, beginning with the date of original purchase by the end-user. If such malfunction occurs during the specified period, the product will be repaired with new or remanufactured equivalent parts and products or replaced (at our option) without charge. The product will be returned to the customer postage prepaid.

### **Exclusions and Limitations**

The limited warranty does not apply to: (a) exterior finish or appearance; (b) certain specific items described in the individual product line statements below; (c) malfunction resulting from use or operation of the product other than as specified in the product data sheet or owner's manual; (d) malfunction resulting from misuse or abuse of the product, including accidents; (e) defects resulting from excess moisture, lightning or power surges; or (f) malfunction occurring at any time after repairs have been made to the product by anyone other than a Bosch Service Department employee or any of its authorized service representatives. The warranty is void if the label bearing the product serial number (if applicable) has been removed or defaced.

### **Other Express or Implied Warranties Excluded**

TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE WARRANTY SET FORTH HEREIN ARE IN LIEU OF, AND EXCLUSIVE OF, ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. SPECIFICALLY EXCLUDED, WITHOUT LIMITATION, ARE THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR USE OR FOR A PARTICULAR PURPOSE, AND WARRANTIES ARISING FROM COURSE OR DEALING OR USAGE OF TRADE OR ANY OTHER MATTER. IF, UNDER APPLICABLE LAW, IMPLIED WARRANTIES MAY NOT BE VALIDLY EXCLUDED, THE DURATION OF SUCH IMPLIED WARRANTIES IS LIMITED TO THE WARRANTY PERIOD.

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REPAIR OR REPLACEMENT OF DEFECTIVE PRODUCTS ARE THE SOLE AND EXCLUSIVE REMEDIES PROVIDED BY BOSCH TO THE CUSTOMER OR TO ANY OTHER PERSON AND SHALL CONSTITUTE FULL SATISFACTION OF ALL CLAIMS, WHETHER BASED ON CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE. BOSCH'S MAXIMUM LIABILITY SHALL NOT EXCEED THE ACTUAL PURCHASE PRICE PAID FOR THE PRODUCT BY THE CUSTOMER. BOSCH AND ITS SUBSIDIARIES SHALL NOT BE LIABLE FOR ANY INDIRECT, INCIDENTAL, PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES INCLUDING, WITHOUT LIMITATION, INJURY TO PERSONS OR PROPERTY OR LOSS OF USE. SOME STATES AND COUNTRIES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF CERTAIN DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. IN SUCH STATES AND COUNTRIES, BOSCH SHALL BE LIABLE FOR NO MORE THAN THE DIRECT DAMAGES FOR BODILY INJURY AND/OR REAL OR PERSONAL PROPERTY ARISING FROM THE NEGLIGENCE OF BOSCH.

### **Other Rights**

This warranty gives you specific legal rights, and you may also have other rights, depending upon where you live.

### **Obtaining Warranty Service**

To obtain warranty service, a customer must deliver the product, prepaid, to the appropriate Bosch Service Department listed below or any of its authorized service representatives together with proof of purchase of the product in the form of a bill of sale or invoice.

## Applicable Law

The validity, performance and construction of this limited warranty shall be governed by the laws of the State of Minnesota without reference to its choice of law principles. The Minnesota federal courts and/or the state courts located in Hennepin County, Minnesota, shall have exclusive personal and subject matter jurisdiction over, and the parties shall each submit to the jurisdiction of such courts and to venue in Minnesota with respect to any dispute concerning the product or pursuant to this limited warranty, and all objections to such jurisdiction or to such venue are hereby waived.

For additional warranty repair or service information, contact the Bosch Service Department listed below:

### USA, Canada, & Latin America

1720 E, 14th Street  
Glencoe, MN 55336  
Tel: 320-864-3177  
Fax: 320-864-3225

### Customer Service

For information or technical assistance, call or write Bosch at:

Customer Service Department  
Bosch Security Systems, Inc.

12000 Portland Ave. So.  
Burnsville, MN 55337 U.S.A  
(952) 884-4051

[www.telex.com/aircraft](http://www.telex.com/aircraft)

When returning equipment for repair, please enclose an explanation of the problem. And, if the equipment is covered under warranty, please enclose a copy of your proof of purchase. The equipment must be accompanied by documentation stating you name, return address, and telephone number.

Return equipment for factory repair to:

### Customer Service Department

#### Bosch Security Systems, Inc.

1720 East 14th St.  
Glencoe, MN 55336 U.S.A.  
(320) 864-3177

### Warranty Repairs

If in warranty, no charge will be made for the repairs. Equipment being returned for warranty repair must be sent prepaid and will be returned prepaid.

### Non-Warranty Repairs

Equipment that is not under warranty must be sent postage prepaid to Bosch. If requested, an estimate of repair costs will be issued prior to service. Once you approve repair, and repair of equipment is completed, the equipment will be returned on a collect on delivery basis. Collect charges may be avoided by sending a signed check for payment in full along with you signed estimate approval form (the estimate includes the shipping charge).

	Bosch Warranty Term Lengths					
	1 Month	3 Months	12 Months	36 Months	60 Months	Other
Aviation						
Echelon 25XT					X	
** Warranty subject to change without notice.						

# Ordering Information

<b>Parts List</b>		
<b>Part No.</b>	<b>Description</b>	<b>Qty</b>
800456022	Replacement Head Pad	1
590637000	Cord Clip	1
800136100	Microphone Element Assembly	1
800456021	Foam Ear Pads (set of 2)	1
800456000	Windscreen	1
CME000009000	Carrying Case	1
550216002	Cell Phone Accessory Cable	1
550216003	Auxillary Device Accessory Cable	1

# Table of Contents

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<i>Headband Size Adjustment</i> .....	4
<i>Headband Pressure Adjustment</i> .....	5
<i>Left or Right Side Microphone Placement</i> .....	6
<i>Connection</i> .....	7
<i>Stereo Mono Switch</i> .....	7
<i>Cell Phone/Audio Interface</i> .....	7
<i>Volume Adjustment</i> .....	8
<i>Microphone Gain Adjustment</i> .....	8
<i>Ear Cushion Replacement</i> .....	9
<i>Mic Element Removal</i> .....	10
<i>Specifications</i> .....	11



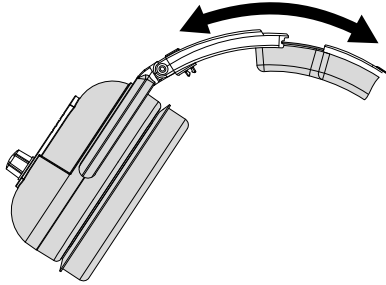


**FIGURE 1.** Echelon 25XT Noise Reduction Headset

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## Headband Size Adjustment

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**FIGURE 2.** Headband Size Adjustment

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To **adjust the headband size**, do the following:

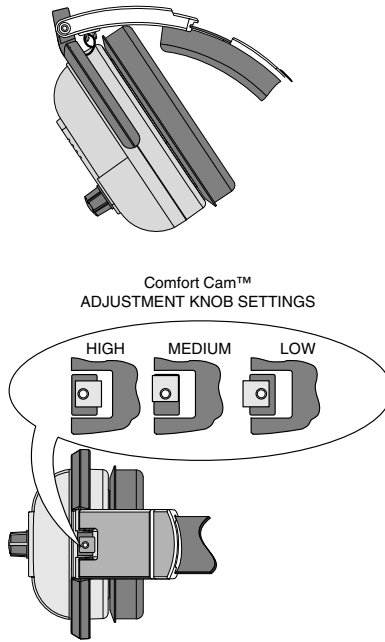
1. Move the **earcup sliders** up or down on the headband.  
*Size is properly adjusted when the earcups are centered over the ears. It is important to make the same adjustments to both sides of the headband to keep the headband and pad properly centered over the head.*



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## Headband Pressure Adjustment

There are three (3) pressure settings for headband comfort. Increasing the pressure improves the seal between the earcup and the head for greater noise reduction.



**FIGURE 3.** Headband Pressure Adjustment

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To **change the pressure setting**, do the following:

1. Remove the **headset**.
2. Fold the **earcup inward**, as shown in (Figure 3).
3. Rotate the **Comfort Cam adjustment knob** to the desired setting.
4. Repeat for **both earcups**.

*Both sides of the headband should be set to the same pressure setting to keep the headband properly centered on the head.*

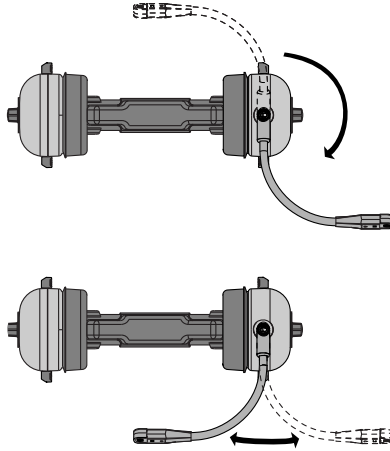
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## *Left or Right Side Microphone Placement*

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To **adjust the microphone to the left or right**, do the following:

1. Rotate the **boom**, as shown in Figure 4.



**FIGURE 4.** Rotating and Reshaping the Boom

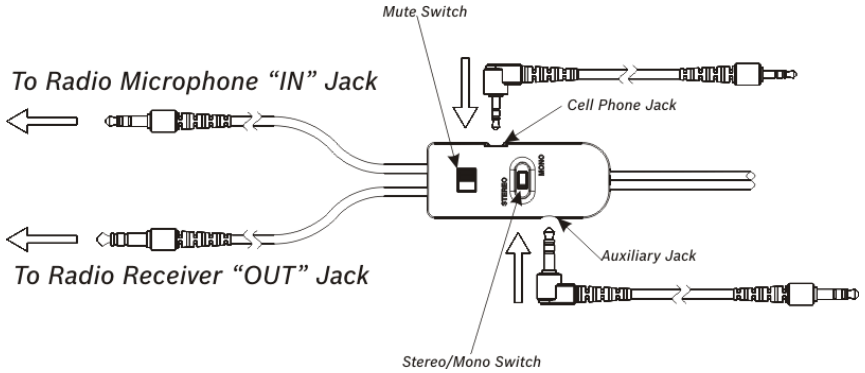
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2. Reshape the **boom** so the microphone is at the corner of the mouth.

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## Connection

Using the headset to the aircraft radio or intercom system as shown in Figure 5.



**FIGURE 5.** Echelon 25XT Connectors

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## Stereo Mono Switch

This switch is located on the Y-cord (Figure 5). Set the switch to stereo for aircraft with a stereo intercom system. Set the switch to mono for monaural intercom systems or for direct connection to the aircraft radio.

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## Cell Phone/Audio Interface

The Echelon 25XT includes a unique amplified interface allowing for the connection of a cellular telephone and an audio input simultaneously. This configuration allows the user to set up before take-off and eliminates the need to re-configure cords and equipment when operating the aircraft.

the other unique feature of this interface is the ability to obtain power from the aircraft's communications system. By amplifying the inputs, the Echelon 25XT allows the user to adjust volume level at the headset contributing to the ability to not need re-configuring while in flight.

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The Telex Echelon 25XT cell phone/audio interface has been designed to function with the widest array of cellular telephones and portable audio devices. There are cell phones and audio devices on the market not designed to industry physical and electrical standards. These devices are not guaranteed to function properly with the Echelon 25XT headset.

**NOTE:** Cell phone usage while in the air or under situations requiring full attention is not recommended.

For additional information, see the Bosch website

[www.telex.com/aircraft](http://www.telex.com/aircraft)

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## *Volume Adjustment*

When the microphone is worn on the left side, volume is increased by rotating the top of the volume controls clockwise. Control operation is reversed when the microphone is worn on the right side.

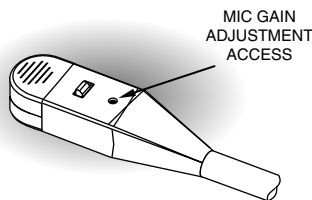
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## *Microphone Gain Adjustment*

The microphone gain has been factory-adjusted to the nominal level required for aircraft use and should normally not require readjustment. Readjustment by a qualified avionics technician is recommended.

To **access the gain trimmer**, do the following:

1. Insert a small flathead screwdriver through the access hole in the mic element.



**FIGURE 6.** Mic Gain Adjustment

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2. Turn the **gain pot** clockwise to increase gain.  
OR  
Turn the **gain pot** counter-clockwise to decrease gain.

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## *Ear Cushion Replacement*

To **remove an old ear cushion**, do the following:

- > Grasp the ear cushion and pull it off the earcup.

To **install a new ear cushion**, do the following:

1. Starting at the top of the earcup, place the **flap** on the back of the ear cushion over the lip along the top of the earcup.
2. Pull the **bottom of the ear cushion** down over the lip at the bottom of the earcup.

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## Mic Element Removal

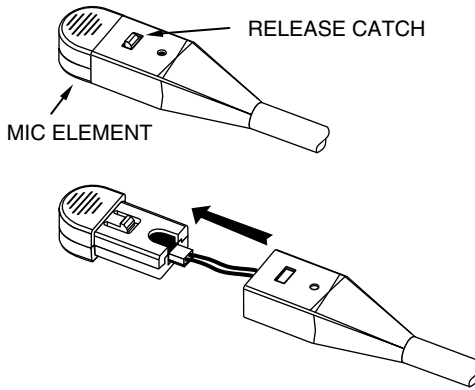
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To **remove the mic element**, do the following:

1. Press and release the **catch** on the microphone element.
2. Carefully pull out the **element**.

**NOTE:** Avoid pulling the microphone wires.

3. Pull the **plastic connector housing** to unplug the microphone element.



**FIGURE 7.** Mic Element Removal for Replacement

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# Specifications

## Receivers

Type: Dynamic

Impedance: accepts 150 Ohm (stereo) 300 Ohm (mono) source

Frequency Response: 350Hz -3.0 kHz  $\pm 6$ dB

Sensitivity: 90  $\pm 5$ dB SPL for 1mW, 1kHz input

Maximum Power Input: 30mW

## Microphone/Amplifier Assembly

Microphone Type: Noise-canceling electret condenser

Output Impedance: 50 Ohm

Frequency Response: 100Hz – 3.5kHz

Sensitivity: -50  $\pm 6$ dB (ref: 1V/ $\mu$ bar)

Operating Voltage: 8–16Vdc

## Cords and Plugs

Cord: 5.5ft (1.7m) “y” cord with stereo/mono selector switch

Receiver Plug: 1/4” stereo phone plug

Microphone Plug: PJ-068 equivalent

2.5mm 3 conductor audio jack for connection to cell phone connection

3.5mm 3 conductor audio jack for connection to auxiliary audio





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