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 Discover the Power of Communications™  
**American Communication Systems**

BEIGE PART #	DESCRIPTION	BLACK PART #
C100733	Noise Attenuating ear/tube/earplug set, Qty 1	N/A
C101221-19	Quick Disconnect Acoustic Tube Assembly, Noise Attenuating Plugs, (Kit includes acoustic tube, adapter w/clip, foam ear/tube plug and foam earplug)	C101221-2
C806573-LM	Flexible Open Ear Inserts, Left medium	N/A
C806573-RM	Flexible Open Ear Inserts, Right medium	N/A

**REPLACEMENT PARTS**

**Information on Disposal of Old Electrical and Electronic Equipment (applicable for EU countries that have adopted separate waste collection systems)**



Products with the symbol (crossed-out wheeled bin) cannot be disposed as household waste. Old electrical and electronic equipment should be recycled at a facility capable of handling these items and their waste byproducts. Contact your local authority for details in locating a recycle facility nearest to you. Proper recycling and waste disposal will help conserve resources whilst preventing detrimental effects on our health and the environment.

For warranty information, customer service, or to order replacement parts, please contact:

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- The OTTO Surveillance Kits for Two-Way Radio communications provide remote monitoring and optional remote control of the push-to-talk function of the radio. They are designed for use in low to moderate noise environments to ensure discreet transmissions that are unnoticed by others. These kits feature:
- Lightweight earphone
- Low-profile, flexible, transparent, quick disconnect acoustic tube
- Flexible, high-grade cable for demanding applications
- Beige or black color options
- Various push-to-talk and microphone options

**SURVEILLANCE KITS**



Earphone Kit



2 Wire Palm Microphone



3 Wire Mini Lapel Microphone

Microphone gain is adjustable on some 2 wire and 3 wire kits that have a transition module between the cables to the earphone, microphone and push-to-talk and the cable to the radio connector. To access the adjustment, remove the two Torx head screws (size 6) and the transition module cover, (see transition module view). A gain control potentiometer is located on the circuit board closer to the microphone cable end of the transition module. Turn the gain control counter-clockwise to decrease microphone sensitivity in high back-ground noise environments. For increased microphone sensitivity in low back-ground noise environments, turn the gain control clockwise. Cable boots and crimps must be positioned with their largest flat facing upward before closing the transition module cover and re-installing the screws.

## HOW TO ADJUST MICROPHONE GAIN (NOT STANDARD ON ALL PRODUCTS)

Take the earplug or eartube between a thumb and finger. Gently squeeze and roll the earplug or eartube until small enough to fit within the ear canal. Position the earplug or eartube into the ear canal. The earplug or eartube will expand to fit firmly within the ear canal.

## HOW TO USE NOISE ATTENUATING KITS

## REPLACEMENT PARTS

DESCRIPTION	BEIGE PART #	BLACK PART #
Standard clear eartip, Qty 1	C800947	N/A
Standard clear eartip, Qty 10	C100569	N/A
Standard clear eartip, Qty 25	C101206	N/A
Quick disconnect acoustic tube adapter kit (includes tube, adapter with clip and eartip)	C101220-19	C101220-2
Quick disconnect adapter only with clip	C101222-19	C101222-2
Quick disconnect acoustic tube and eartip only (1 per pack)	C101199	N/A
Quick disconnect acoustic tube and eartip only (5 per pack)	C101199-05	N/A
Earphone Only	C101115-19	C101115-2
Replacement Earphone Kit with Acoustic Tube (Includes earphone, acoustic tube, adapter and clear eartip)	C101219-19	C101219-2

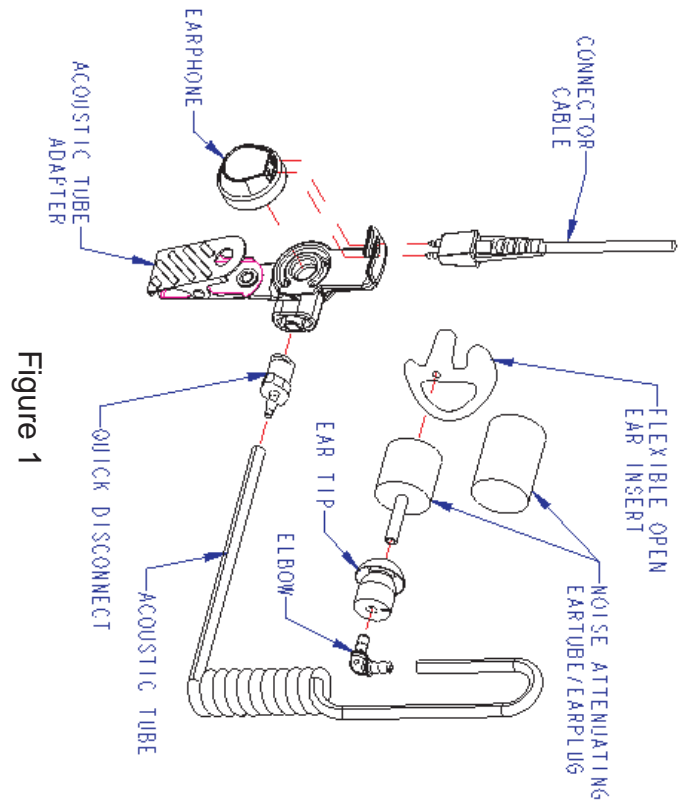


Figure 1

## PRODUCT DEFINITIONS

### Earphone Kit

The earphone kit consists of an earphone, standard size eartip, acoustic tube adapter, acoustic tube, and cable terminating into the radio accessory connector.

### 2 Wire Palm Mic Kit

The palm microphone kit consists of two cables: one that has an earphone, standard size eartip, acoustic tube adapter, and acoustic tube; and one that has a combined push-to-talk switch and microphone, both of which terminate in the radio accessory connector.

### 3 Wire Mini Lapel Mic Kit

The mini lapel microphone kit consists of three cables: one that has an earphone, standard size eartip, acoustic tube adapter, and acoustic tube; one that has a pendant push-to-talk switch; and one that has a low profile lapel microphone, all of which terminate in the radio accessory connector.

### Noise Attenuating Kit (Optional)

Recommended for high noise environments, a noise attenuating kit with a foam eartube can easily replace the standard size eartip on any of the kits mentioned above. See the replacement parts table for part number identification.

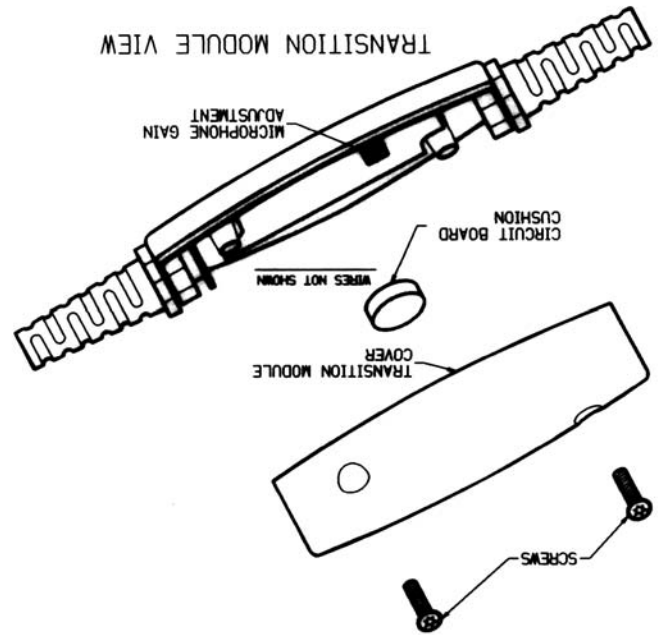
### Flexible Open Ear Inserts (Optional)

The Flexible Open Ear Inserts are molded from hypoallergenic plastic and designed to fit entirely inside the ear. It's open frame still allows the user to hear ambient noise. See the replacement parts table for part number identification.

b) **To change to a noise attenuating assembly** on an acoustic tube assembly or to change eartips on a noise attenuating assembly, detach the eartip or eartube piece from the elbow. Position the tube end of a new eartube piece from a noise attenuating plug kit over the elbow and press firmly on the eartube to secure.

c) **To replace an acoustic tube assembly**, simply grab the base of the unit and turn a 1/4 turn to the left and gently pull out the acoustic tube.

d) **To change eartips**, gently pry the acoustic tube adapter away from the earphone. Work the thin object around the circumference of the earphone to the free adapter. Detach the cable connector from the earphone. Reconnect the accessory cable connector to the new earphone by snapping firmly in place. Snap the acoustic tube adapter onto the earphone.



## INSTALLATION

- (1) Turn the radio off. Installation of the surveillance kit while the radio is on may cause the radio to transmit constantly, locking up your radio system. If this should happen, turn off the radio. The radio can then be turned back on, restoring normal operations.
- (2) Remove any dustcaps or covers from the radio accessory connector.
- (3) Attach the surveillance kit to the radio accessory connector.
- (4) Tighten mounting thumbscrew if required. Install radio accessory clamp if required

To change the surveillance component parts refer to the exploded view (see Figure 1) and proceed as follows:

a) **To change eartips** on an acoustic tube detach the eartip from the elbow. Position the replacement eartip over the elbow and press firmly on the eartip to secure.

## OPERATION

Turn the radio on and operate it as explained in the operating instructions supplied with the radio. Installing the surveillance kit bypasses the radio's speaker and routes the output to the earphone's speaker. When using the optional remote push-to-talk and microphone, the remote mic is enabled and on most radios, the radio's microphone is disabled.

## MAINTENANCE

OTTO recommends the periodic cleaning of the eartip with a mild soap and water solution to extend the life of the accessory. OTTO also recommends the proper storage of the accessory away from high temperature conditions to prolong the life of the accessory.

## HEARING PROTECTION WARNING

OTTO Communications products are designed to produce a specific audio output level at maximum rated power. Many countries now have regulations defining the amount of noise that an individual can be subjected to during a normal workday. The duration of exposure, the level of audio output and the level of ambient noise will affect compliance to these regulations. Compliance is application dependent and standards vary. It is the **SOLE RESPONSIBILITY** of the end user to determine applicability of and compliance to local hearing protection regulations.

In addition, if purchasing any OTTO accessories which use earphone kits, it is the **SOLE RESPONSIBILITY** of the user to determine proper fit. Always use caution when inserting any of the products into your ear.

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