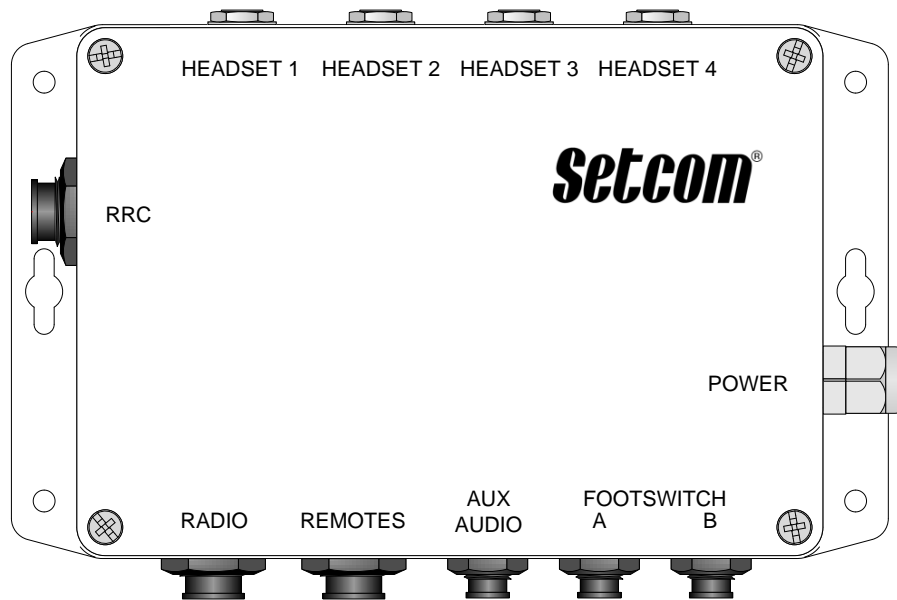


# IM-950

## INSTALLATION AND USERS GUIDE



*Questions or technical issues? Please call:*

**TECH SUPPORT: 650-965-8020 ext. 703**

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CORPORATION

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Phone: (650) 965-8020

The IM-950 is a Radio Interface and full-duplex Intercom with the following features:

- Single Radio Interface, Fully Adjustable RX/TX levels, use with RC or RCB cable types
- 4 Radio Transmit Circuits, TRS Headset Jacks (extension TX station ES-900-xx (xx denotes cable length) is available)
- Remotes Port for Up to 4 Intercom-Only Positions
- 2 PTT Footswitch or Pushbutton Station Ports:  
A: assignable to HS1 or HS2  
B: assignable to HS3 or HS4  
(Footswitch is FS-950, Pushbutton is PBS-950)
- AUX Audio Input (requires 25-0088-ISO cable) (see notes on page 3)
- Automatic AUX Muting on PTT or Radio RX, 3-second delayed recovery from AUX Mute (either PTT or RX mute function can be turned off)
- Fully Isolated DC Power for Noise Immunity, operates on 12 to 24 Volts DC
- TX Audio PTT Lockout, only 1 user can transmit at any time, and only that users' voice is sent to radio
- Can connect to 2 radios with RRC-950 (requires 25-0108 cable)

## IM-950 Typical Installation

### Radio, Headsets, and Power

Refer to the 900W4-BASE instructions for more information on that product, such as required cables and general installation notes.

If 2 radios are required, a Setcom RRC-950 can be connected to the RRC Jack. Refer to the RRC-950 User Guide for more information.

Mount the IM-950 using the 4 small mounting holes or the 2 larger holes on the enclosure flanges. Mounting screws are supplied by user. See pg.13 for Basic Dimensions

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TX Headsets can be plugged into any of the headset jacks. A 900W4-BASE (wireless base station), or an ES-900-xx Remote Transmit Station, can also be plugged in to any of the headset jacks.

CSB-900x or  
other TX  
Headset with  
TRS plug

DC Power Cable  
RED = +V  
GREEN = GROUND

Connect the DC Power cable to a 12 to 24 VDC power connection. The IM-950 has an internal 1A ATO fuse, but it is recommended to connect the unit to a fused power source.

RC or RCB  
Radio Cable

Mobile Radio

Radio Cable part number is determined by radio manufacturer, model number, and length of cable. See <https://setcomcorp.com/cr/radio.php> for more info

## IM-950 Typical Installation

Remotes, Aux Audio, and PTT  
Footswitches

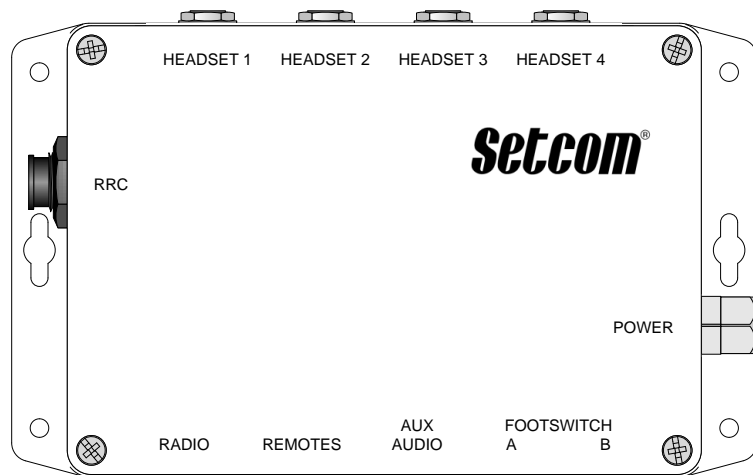
CSB-901x or  
other Intercom  
Headset with  
TRS plug



For two Intercom Headset  
positions, a JS-900-xx is used  
(xx denotes cable length), if more  
Intercom Headsets are required, a  
JS-900-xx unit can be connected  
through a JS-901-xx unit to allow  
up to 4 Intercom Headsets.



JS-900-xx



1 or 2 Footswitches or  
Pushbutton PTT stations can  
be connected to the IM-950.

Footswitch input A can control either  
HEADSET 1 or HEADSET 2, and input B can  
control either HEADSET 3 or HEADSET 4.  
(factory defaults are input A set to Headset 1  
and input B set to HEADSET 3).

25-0088-ISO  
Cable

FS-950 PTT Footswitch  
PBS-950 PTT Pushbutton  
switch options are available

### NOTE:

The AUX AUDIO input is not intended for  
use as an additional radio receive input, it  
will not support BTL-type (Balanced)  
speaker outputs from radios.

It will support mono or stereo Single-  
Ended line level audio such as that from  
an audio device headphone output, or  
certain types of radios with Single-Ended  
audio out such as a scanner.

If there are questions, consult Setcom  
Tech Support.

Questions or technical issues? Please call:

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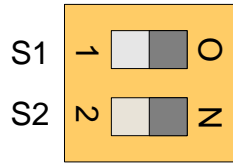
An Auxiliary Audio source such as an MP3 player or  
a portable CD player can be connected to the IM-  
950 through use of the 25-0088-ISO Cable and a  
3.5mm male-to-male patch cable (user supplied).  
Volume is controlled by the Audio source.

## IM-950 Adjustments

### RX Audio, Muting Control

**Loosen top cover screws and carefully  
remove cover to make adjustments**

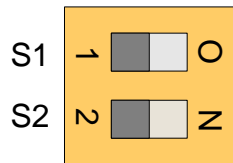
RX RANGE  
SW4  
(shown enlarged)



OFF  $\longleftrightarrow$  ON

- To increase RX Level, set S1 to ON
- To decrease RX level, set S2 to ON
- Do not set both sections to ON, use only one section or the other

MUTING CONTROL  
SW2  
(shown enlarged)



OFF  $\longleftrightarrow$  ON

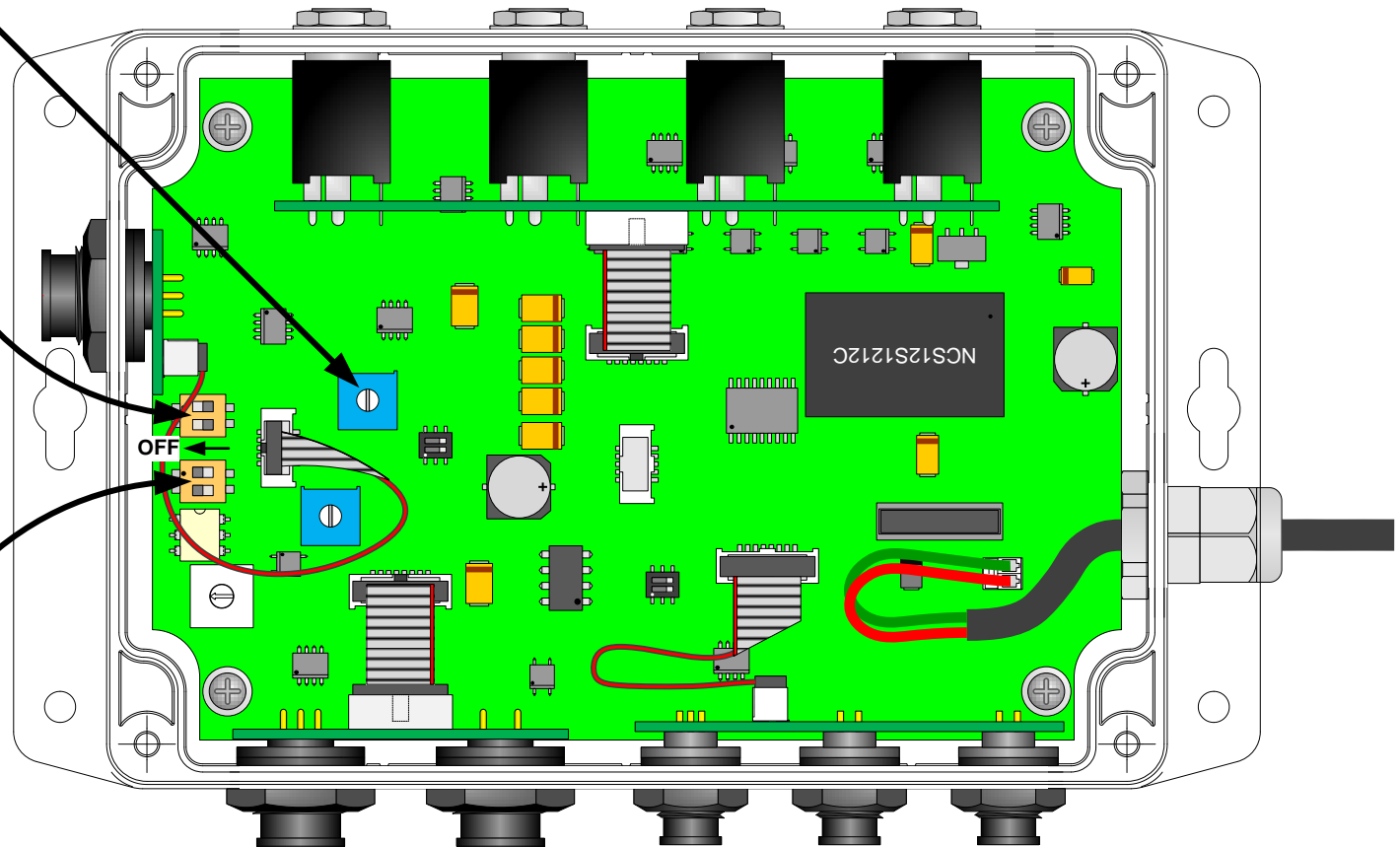
Normally, muting control is factory preset to mute Aux Audio when either a PTT button is pressed, or when RX audio from a radio is detected.

- To turn off RX muting set S1 to OFF
- To turn off PTT muting set S2 to OFF

RX LEVEL  
VR1

RX RANGE  
SW4

MUTING  
CONTROL  
SW2



RX Audio level is normally set by the volume control on the mobile radio.  
If further adjustment is needed, RX LEVEL control VR1 can be used to adjust RX volume.

If more adjustment range is needed, the RX RANGE switch SW4 can be set to allow higher or lower level settings.

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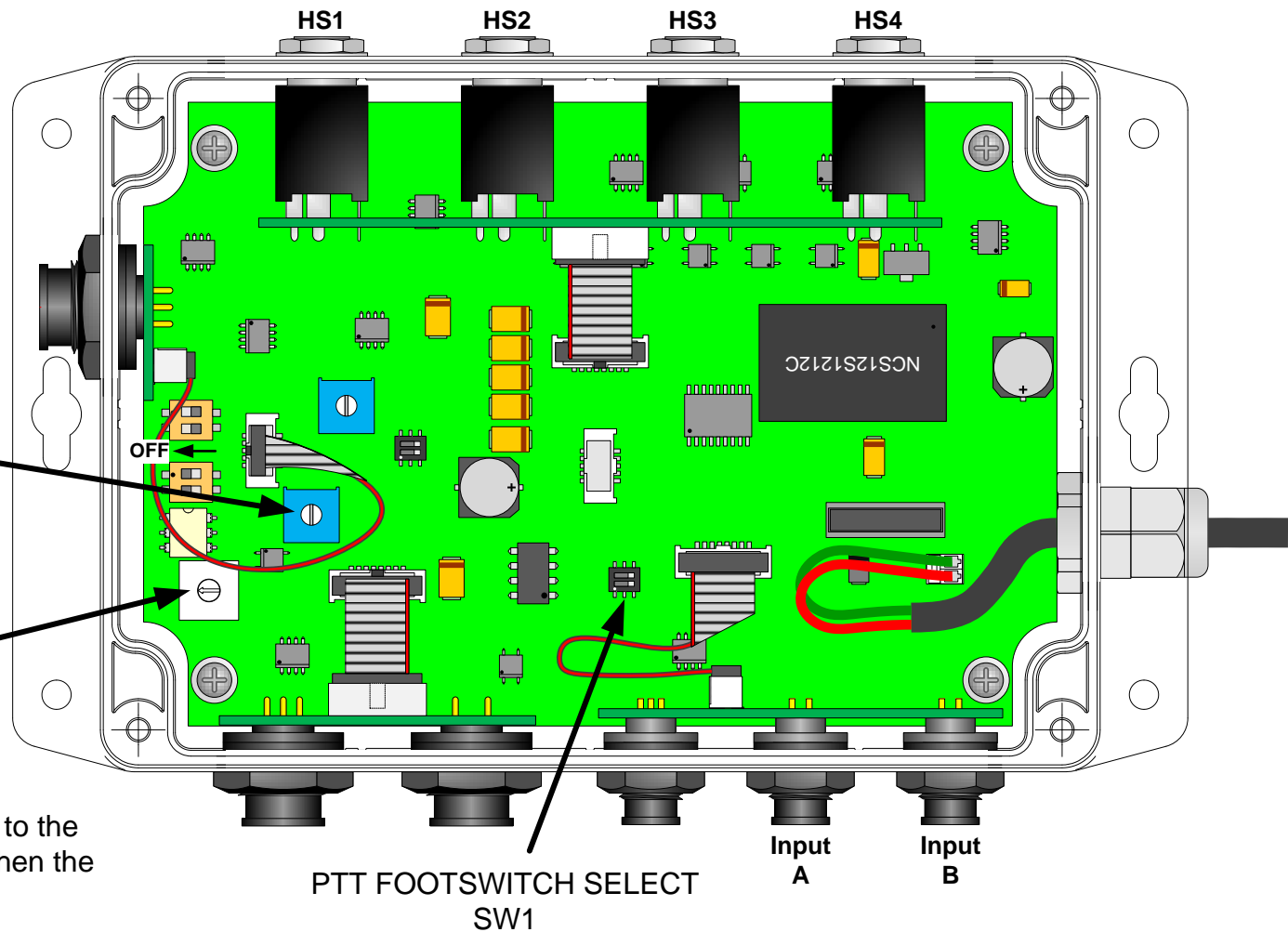
## IM-950 Adjustments

TX Level, PTT Footswitch Control

*Loosen top cover screws and carefully remove cover to make adjustments*

For Factory Calibration  
DO NOT ADJUST

TX LEVEL  
SW5

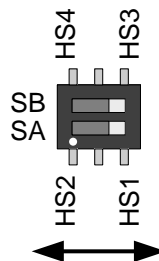


TX Audio level is normally factory-preset to the correct level for the radio type specified when the IM-950 is ordered.

If a different TX level is required, the TX LEVEL SW5 can be set from 0 (highest) to F (lowest) to accommodate various radios.

Call Setcom Tech Support for assistance if needed.

FOOTSWITCH SELECT  
SW1  
(shown enlarged)



PTT Footswitch assignment can be set using SW1. The factory default is to assign input A to HEADSET 1 and input B to HEADSET 3.

These settings can be changed as follows:

- Input A can be changed to HEADSET 2 by setting SA to HS2
- Input B can be changed to HEADSET 4 by setting SB to HS4

Questions or technical issues? Please call:

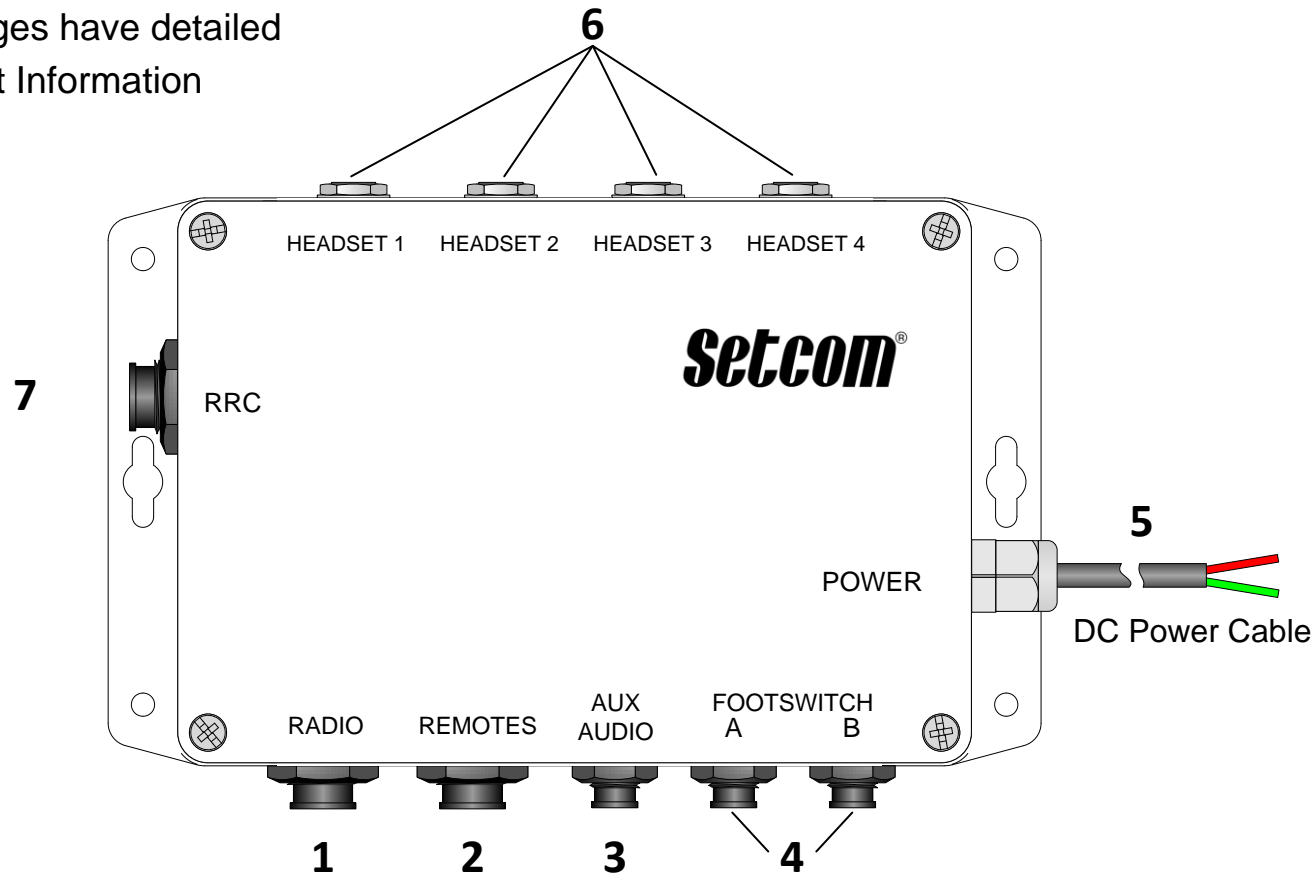
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# IM-950

The following pages have detailed  
Connector Pinout Information



*Questions or technical issues? Please call:*

**TECH SUPPORT: 650-965-8020 ext. 703**

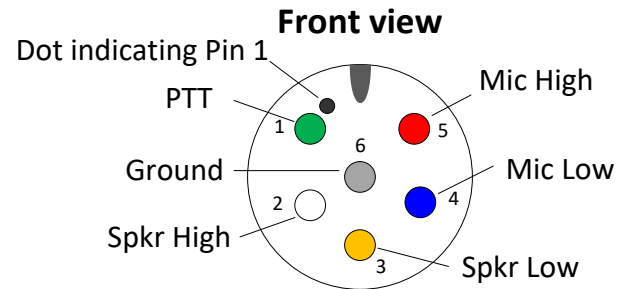
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- **1. RADIO –**

Works with any Setcom RC or RCB Radio cable – see <https://setcomcorp.com/cr/radio.php>

Mating Connector is Conxall PN 6282-6SG-519 (Setcom PN 11-7032) Mini-Con-X 6-position Cable End



Pin No.	Pin Name	Pin Function	
1	PTT	Active Low	Output
2	Spkr High	Speaker +	Input
3	Spkr Low	Speaker -	Input
4	Mic Low	Audio Ground	Reference
5	Mic High	Level - * Radio Specific	Output
6	Ground	Power Ground	Reference

\* Default Level = 80mVrms output when TX LEVEL Setting is set to "5"  
with a 80mVrms input from a headset jack input (1 -4)

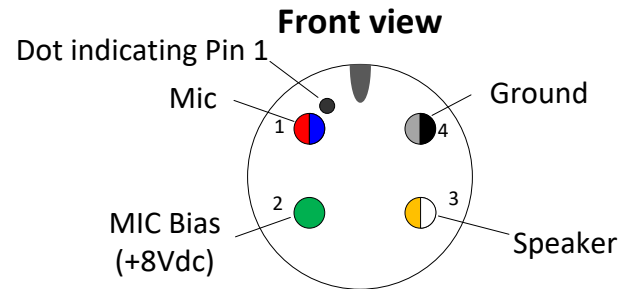
Note: The Mic Output pins on the Radio port and the RRC port are "gated".  
TX audio will only appear on these pins when PTT is active.

*Questions or technical issues? Please call:*

**TECH SUPPORT: 650-965-8020 ext. 703**

- **2. REMOTES –**

Up to 4 Intercom-Only Positions



Pin No.	Pin Name	Pin Function	
1	Mic	Intercom audio	Input
2	Mic Bias	+8Vdc	Bias V
3	Speaker	Radio Receive/ Intercom audio	output
4	Ground	Ground	Reference

*Questions or technical issues? Please call:*

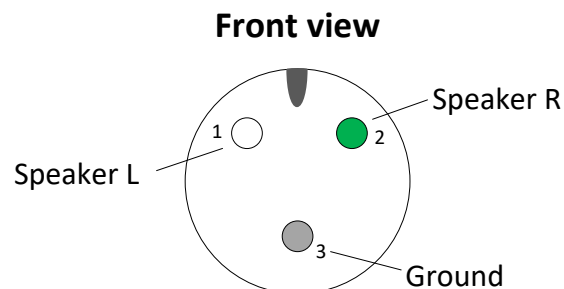
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- **3. AUX AUDIO** - (requires 25-0088-ISO cable) An Auxiliary Audio source such as an MP3 player or a portable CD player can be connected to the IM-950 through use of the 25-0088-ISO Cable and a 3.5mm male-to-male patch cable (user supplied). Volume is controlled by the Audio source. Note: the 25-0088-ISO is Transformer Isolated, this is to help eliminate possible ground loop noise.



Pin No.	Pin Name	Pin Function	
1	Speaker L	line level audio	Input
2	Speaker R	line level audio	Input
3	Ground	Ground	Reference

**NOTE:**

The AUX AUDIO input is not intended for use as an additional radio receive input, it will not support BTL-type (Balanced) speaker outputs from radios.

It will support mono or stereo Single-Ended line level audio such as that from an audio device headphone output, or certain types of radios with Single-Ended audio out such as a scanner.

Stereo input signal is summed to mono, as the system and headsets do not support stereo audio.

*Questions or technical issues? Please call:*

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- **4. Footswitch A/B -**

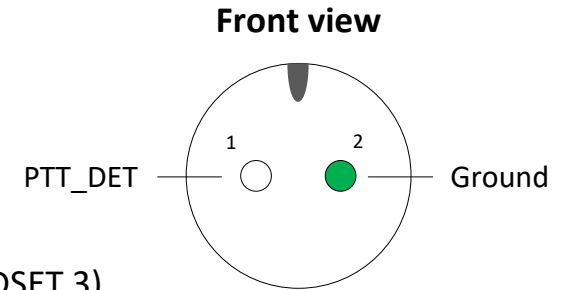
2 PTT Footswitch or Pushbutton Station Ports:

A: Assignable to HS1 or HS2

B: Assignable to HS3 or HS4

(Footswitch is FS-950, Pushbutton is PBS-950)

(factory defaults are input A set to Headset 1 and input B set to HEADSET 3).

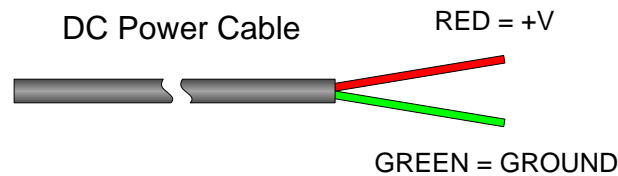


Pin No.	Pin Name	Pin Function	
1	PTT_DET	Signal	Input
2	Ground	Ground	Reference

- **5. Power -**

Connect the DC Power cable to a 12 to 24 VDC power connection.

The IM-950 has an internal 1A ATO fuse, however it is recommended to connect the unit to a fused power source.



*Questions or technical issues? Please call:*

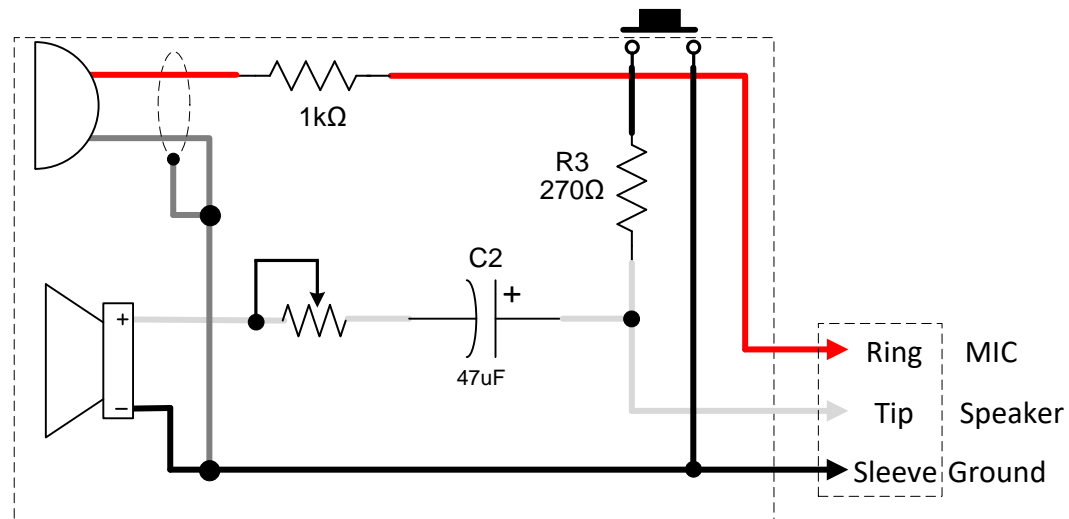
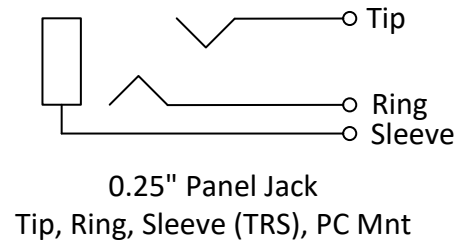
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- **6. Headset 1 - 4 (IM-950)**

Any System 900 Radio Transmit (RT) Headset can be plugged into any of the IM-950 headset jacks 1 - 4.



Sample Wiring of a 900 RT headset

*Questions or technical issues? Please call:*

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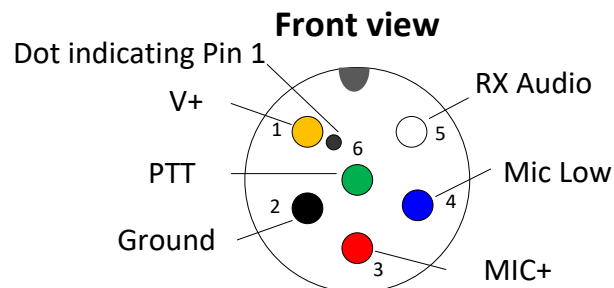
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- **7. RRC (Radio Routing Controller) –**

Switches host between 2 radios, Speaker Audio switching is selectable: Summed or Switched. Individual Speaker Audio Level control. Individual TX Audio level control. Does not require external power. Uses 25-0108 RRC Cable to connect to host. Accepts RC or RCB Radio Cables. Set IM-950 TX out at switch position 7

- Mating Connector is Conxall PN 6282-6SG-519 (Setcom PN 11-7032) Mini-Con-X 6-position Cable End



Pin No.	Pin Name	Pin Function	
1	V+	+12Vdc	Output
2	Power Ground	Ground	Reference
3	Mic +	Level - * Radio Specific	Output
4	Mic Low	Audio Ground	Reference
5	RX Audio	Receive audio	Input
6	PTT	Active Low	Output

\* Default Level = 70mVrms output when TX LEVEL Setting is set to "7"  
with a 80mVrms input from a headset jack input (1 -4)

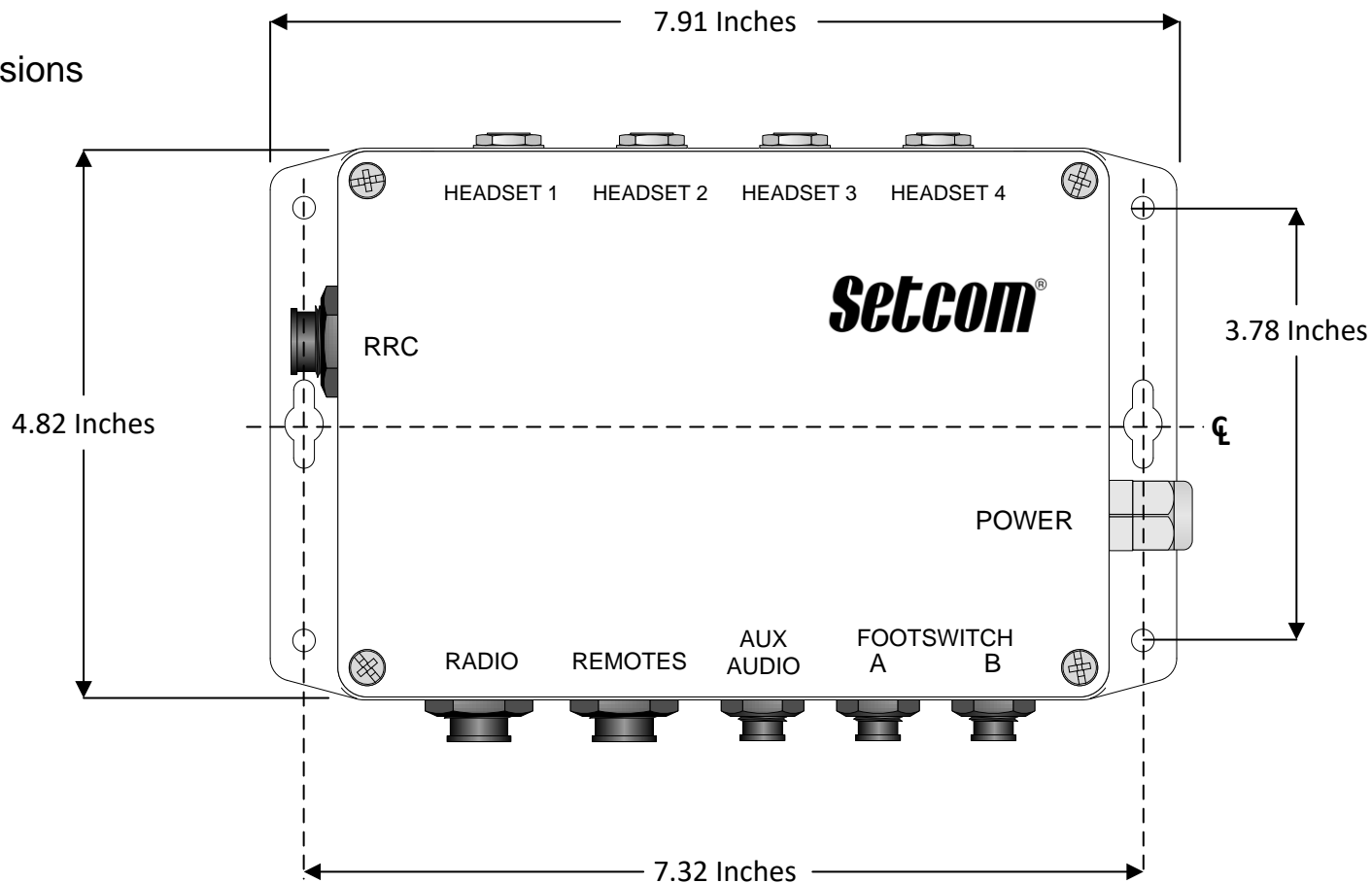
Note: The Mic Output pins on the Radio port and the RRC port are "gated".  
TX audio will only appear on these pins when PTT is active.

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# IM-950

## Basic Dimensions



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