IDENTIFYING YOUR HEADSET-TO-RADIO CABLES

The color of the shrink tubing at the Mic Connector identifies the cable application for all cables with the 8-Pin Foster Mic Connector (most desktop HF Radios) as well as the 8-Pin RJ-45 Mic Plug Cables for the small mobile/portable HF Radios as well as Yaesu VHF/UHF only radios with the 6-Pin RJ-25 Mic Connector.

RED - ICOM/ELAD
BLUE - Elecraft/Hilberling/Kenwood
YELLOW - FlexRadio/TenTec/Yaesu

By 2014 we learned that more than 60% of our users would be using their RS60CF headset across 2, 3 or more radios in their shack.

Since October 2014 our Headset-To-Radio cables support using an Electret-Condenser Mic on ANY Radio. There is an internal 2-Pole DIP Switch that enables Mic BIAS for Electret-Condenser Mics. This allows using the same Mic across ANY radio in your shack without ever needing to Swap Mics. Simply connect the Headset-To-Radio cables to each radio and move the headset between cables.

A thin RED Band on either the BLUE or YELLOW Cables indicates that the internal 2-Pole DIP Switch has been set to enable Mic BIAS for Electret-Condenser Mics on Kenwood (BLUE w/RED Band), or Yaesu (YELLOW w/RED Band).

Radios from Elecraft and FlexRadio support enabling Mic BIAS for Electret-Condenser Mics under software control, so the DEFAULT 2-Pole DIP Switch setting is all that is required.

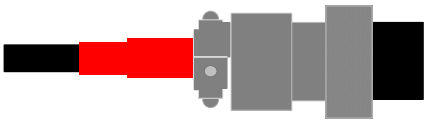
Note: ALL VHF/UHF Mobile/Portable radios and ALL Handheld radios use Electret-Condenser Mics.

All radiosport Headset-To-Radio Cables provide Balanced Mic leads to the radio. The termination of those two Mic leads at the Mic Preamp determines whether it is an unbalanced or balanced (differential Preamp input) Mic interface. This prevents the possibility of an Audio Ground-Loop if one side (the Mic-) lead were connected to any Ground including the Headphone Common Lead or the PTT Ground Return Lead.

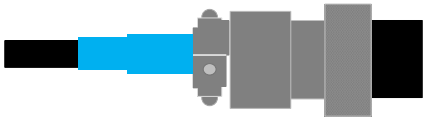
For radios currently in production for the Amateur Radio Market there are 5 unique Mic interface architectures. Each Headset-To-Radio is constructed to match the Mic interface architecture of the radio it is connected to, so that there are never issues with RFI or Audio Ground-Loops. No other headset manufacturer for Amateur Radio gear provides this assurance.

See the following pages for:

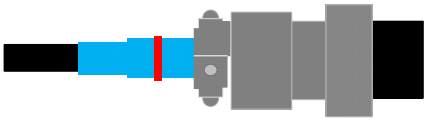
Identifying radiosport Headset-To-Radio cables with 8-Pin Foster style Mic Connectors



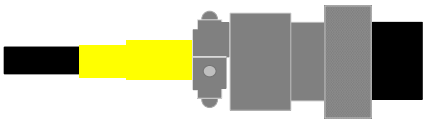
ICOM – **All ICOM radios use Electret Mics**



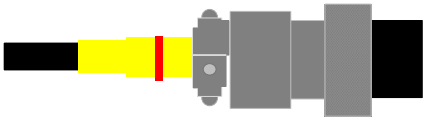
Elecraft - **with Dynamic or Electret Mic**
Kenwood – **with Dynamic Mic**



Kenwood – **with Electret Mic**



FlexRadio - **with Dynamic or Electret Mic**
Yaesu/TenTec* – **with Dynamic Mic**



Yaesu – **with Electret Mic**

* **The TenTec Orion II with Balanced Mic input may only use a Dynamic Mic as there is no ground return for Mic BIAS with a differential input.**

See our instructions for Enabling Mic BIAS for Electret-Condenser Mics on Page 4 of this document.

Identifying radiosport Headset-To-Radio Cables with RJ-xx Mic Connectors

8-Pin RJ-45 Mic Connectors

ICOM and ELAD Radios
All use Electret-Condenser Mics

Kenwood Radios
with Dynamic Mic

Kenwood Radios
with Electret-Condenser Mic

Yaesu Radios (includes HF/VHF/UHF models)
with Dynamic Mic
FlexRadio with Dynamic Mic (Maestro)

Yaesu Radios (includes HF/VHF/UHF models)
with Electret-Condenser Mic
FlexRadio with Electret-Condenser Mic (Maestro)

6-Pin RJ-25 Mic Connectors

Yaesu Radios (VHF/UHF only models)
All use Electret-Condenser Mics

See our instructions for Enabling Mic BIAS for Electret-Condenser Mics on Page 4 of this document.

Enabling Mic BIAS for Electret-Condenser Mics

If you have a Headset-To-Radio cable part number ending in -EM these settings have already been made and there will be a Red Stripe on the colored tubing at the Mic connector (Foster 8-Pin Mic connectors), or a Red Stripe near the colored Boot on an RJ-45 (or RJ-25) Mic Connector.

To enable Mic BIAS for Electret Condenser Mics please see the following instructions.
Please Note that ALL VHF/UHF portable/mobile radios use Electret-Condenser Mics and these settings should be in place for those model radios. Note Yaesu **HF**/VHF/UHF radios still use Dynamic Mics. These settings allow use of an Electret-Condenser Mic. **NOTE! ICOM all use Electret Mics and Default Switch settings!**

1) Turn over the Headset-To-Radio cable on to a thick soft cloth so the three screws that hold the cable "Y" housing together are visible.

2) Remove the two/three screws holding the "Y" housing together. Use caution not to damage the MONO/STEREO Slide Switch by placing too much force downward when removing these three screws.

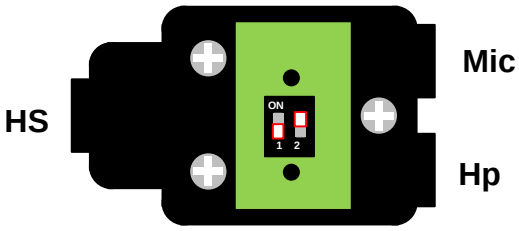
3) Lift the cover off the half opposite the Stereo/Mono Slide Switch to expose a 2-Pole DIP switch mounted on the internal PCB, being careful to keep the three (or four) cables in place in the opposite half.

Below are the possible settings of the DIP Switch:
Note: White is the DIP switch slider position.

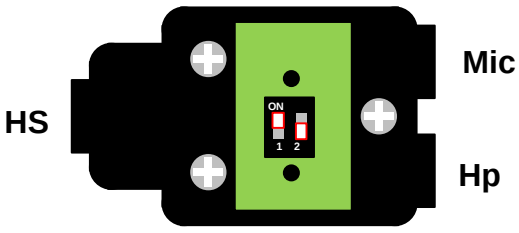
Base Cable RS-CS-4

Most cables with 8-Pin Foster Mic Conn.

DEFAULT DIP Switch Settings
S1 OFF, S2 ON



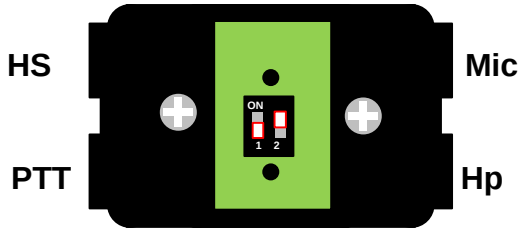
Mic BIAS for Electret Mics is enabled for radios designed for Dynamic Mic with S1 ON, S2 OFF



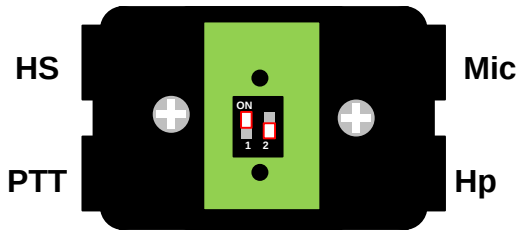
Base Cable RS-CS-4-PTT

Most cables with 8-Pin RJ-45 Mic Conn.

DEFAULT DIP Switch Settings
S1 OFF, S2 ON



Mic BIAS for Electret Mics is enabled for radios designed for Dynamic Mic with S1 ON, S2 OFF



4) The top drawing is the DEFAULT Switch settings. The lower drawing is the settings to enable Mic BIAS for Electret Condenser Mics. Please use these settings Switch 1 ON, Switch 2 OFF.

5) Carefully replace the cover being careful not to pinch any wires and reinstall the three screws. To insure long life of the plastic threads, rotate the screw head counter clockwise first until the screw drops into the threads and then turn the screw clockwise to snug them in place.

radiosport Headset-To-Radio Cable Part Numbers (Popular Radios)

HF Radios

	Mic	HTR Cable
ELAD		
FDM Duo	**Electret**	**CS6-IRJ-PTT**
Elecraft		
Model K3, K4	**Dynamic or Electret**	**CS6-ELK**
Rear Panel Interface	**Dynamic or Electret**	**CS6-ELE-RP**
FlexRadio		
Model 6300, 6500, 6700	**Dynamic or Electret**	**CS6-FTY**
Model 6400(M)/6600(M)	**Dynamic or Electret**	**CS6-FLX-PTT**
Maestro	**Dynamic or Electret**	**CS6-MAE**
ICOM		
Model IC-706/7000/7100	**Electret**	**CS6-IRJ-PTT**
Model IC-7200/7300		
IC-7600/7610		
IC-7700/7800/7850/7851	**Electret**	**CS6-ICM**
Kenwood		
TS-480	**Dynamic**	**CS6-KRJ-PTT**
	Electret	**CS6-KRJ-PTT-EM**
Model TS-870/TS-890/TS-990S		
TS-580SG/TS-2000	**Dynamic**	**CS6-ELK**
	Electret	**CS6-KEN-EM**
Yaesu		
Model FT-817/818/891/991/991A	**Dynamic**	**CS6-YRJ-PTT**
FTDX10	**Electret**	**CS6-YRJ-PTT-EM**
Model FT-1000/2000/3000/5000		
FTDX-101D/FTDX-101MP	**Dynamic**	**CS6-FTY**
	Electret	**CS6-YAE-EM**
FTDX-9000 (rear panel)	**Dynamic**	**CS6-FTY**
	Electret	**CS6-YAE-EM**
(front panel)	**Dynamic only**	**CS6-XLR**

Recommended Mics: **Dynamic M208 or Electret M350 (RS60CF) or M20 (RS60CF-10A)**

VHF/UHF Portable/Mobile Radios with RJ-45 Mic Connectors

Note: All VHF/UHF Portable/Mobile Radios use Electret-Condenser Mics
The recommended Mic is our M350 (RS60CF) or M20 (RS60CF-10A)

	Mic	HTR Cable
ICOM	**Electret**	**CS6-IRJ-PTT**
Kenwood	**Electret**	**CS6-KRJ-PTT-EM**

VHF/UHF Portable/Mobile Radios with RJ-25 Mic Connectors

Yaesu	**Electret**	**CS6-YRJ25-PTT-EM**