

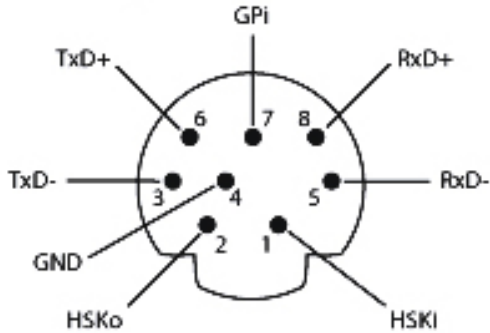
Earth Station Custom Cables

<u>Revision Number</u>	<u>Changes Made</u>	<u>Changes Made By</u>	<u>Date Changes Made</u>
0	Document Creation	Bryan Klofas	19 April 2005

Keyspan USA-28X ↔ Icom CT-17

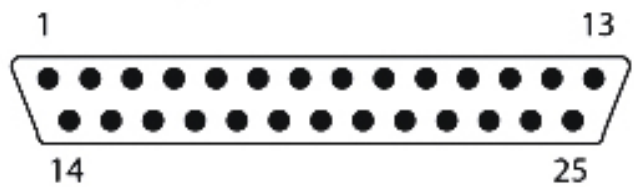
This is the pinout for the custom cable that goes between the Icom CT-17 and the Keyspan USA-28X USB-serial adapter. The connector on the Keyspan is a DIN-8 (the old school mac serial cable), and the jack on the CT-17 is a DB-25. I'm not sure why Icom used a DB-25, but that is what we must work with.

looking at male connector

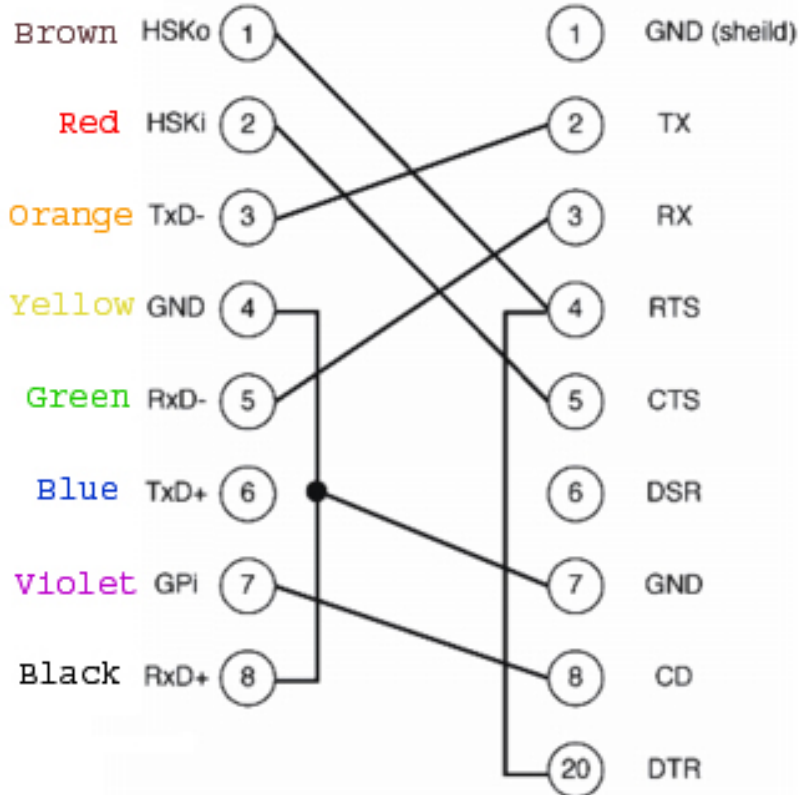


RS-422
DIN-8 Connector
to Keyspan

looking at male connector



RS-232 DCE
DB-25 Connector
to CT-17

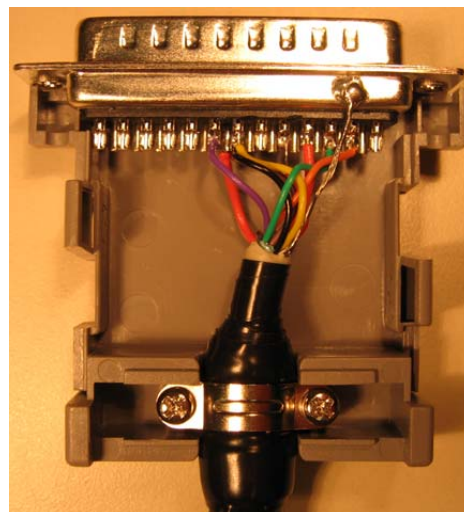
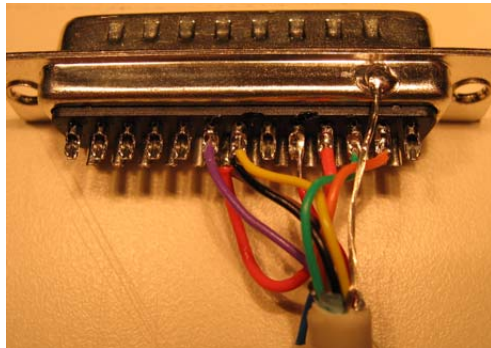


When soldering this cable, make sure to use rosin-core solder. I suggest that you cut a mac serial cable in half so you do not need to solder the DIN-8 connector; it is a pain. Tin both the wire and the DB-25, then heat up the DB-25 and press the wire into the cup. Do not try to add solder when holding the wire; you need at least three hands.

The color scheme above is the “standard” color scheme for cables. As always, check to see if your cable agrees with this color coding. Ensure that the cable you cut actually has 8 conductors in it; some standard DIN-8 to DB-9 cables only have 7 wires and two pins on the DIN-8 are shorted together. Make sure to use appropriate strain relief so that if the cable is pulled the wires will not disconnect.

This cable is actually a RS-422 to RS-232 converter. You cannot use a standard DIN-8 to DB-9 adapter because they do not take into account this issue. For those of you interested, the RS-422 standard differs from the RS-232 in many ways, the biggest being that two wires are used to transmit the data, which is good for long cables.

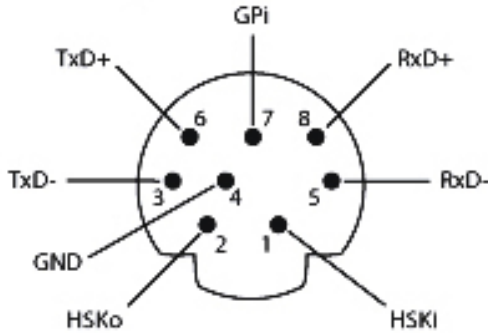
When connecting the CT-17 to the IC-910, make sure to set CI-addr to 60, CI-baud to 9600, and CI-trn to OFF in the menu. This allows the two devices to talk to each other.



Keyspan USA-28X ↔ Yaesu GS-232

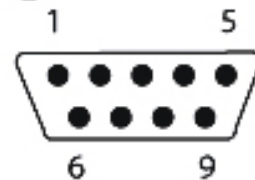
Here is the pinout for the cable that goes between the Keyspan USA-28X USB-serial adapter and the Yaesu GS-232 Computer Control Interface. The GS-232 controls the G-5500, which controls the rotors that are used to steer the directional antennas on the roof. This cable is very easy to make, and again I suggest that you cut a mac serial cable in half and solder on a DB-9 connector.

looking at male connector

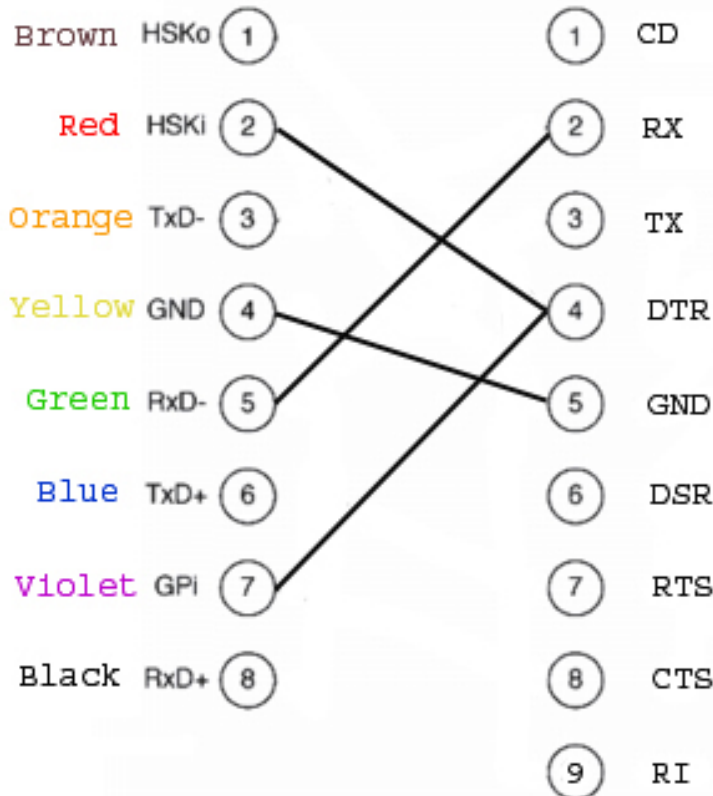


RS-422
DIN-8 Connector
to Keyspan

looking at male connector



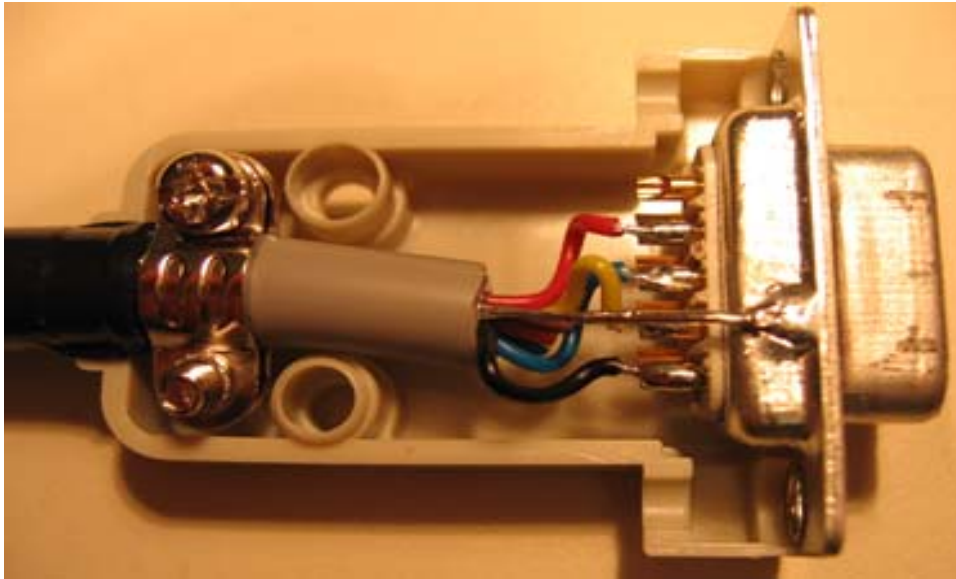
RS-232 DCE
DB-9 Connector
to GS-232



When soldering this cable, make sure to use rosin-core solder. I suggest that you cut a mac serial cable or DIN-8 to DB-9 adapter in half so you do not need to solder the DIN-8 connector; it is a pain. Tin both the wire and the DB-9, then heat up the DB-9 and press the wire into the cup. Do not try to add solder when holding the wire; you need at least three hands.

The color scheme above is the “standard” color scheme for cables. As always, check to see if your cable agrees with this color coding. Some standard DIN-8 to DB-9 cables only have 7 wires and two pins on the DIN-8 are shorted together; these cables are fine because pins 2 and 7 on the DIN-8 are shorted, and that’s OK. Make sure to use appropriate strain relief so that if the cable is pulled the wires will not disconnect.

As you can see in the following picture, this cable does not follow the “standard” coloring scheme. This was actually a DIN-8 to DB-9 cable that had the DB-9 connector chopped off.



References:

<http://www.biology.utah.edu/goldenberg/software/serial.html>

<http://francis.courtois.free.fr/jc1/serial/main.html>

<http://www.wam.umd.edu/~zben/mac/MacSerHard.html>

Credit:

Pictures and text by Bryan KF6ZEO

Most graphics taken from David P Goldenberg’s webpage; some were modified

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