

DCS Technical Team Repair/Installation Request



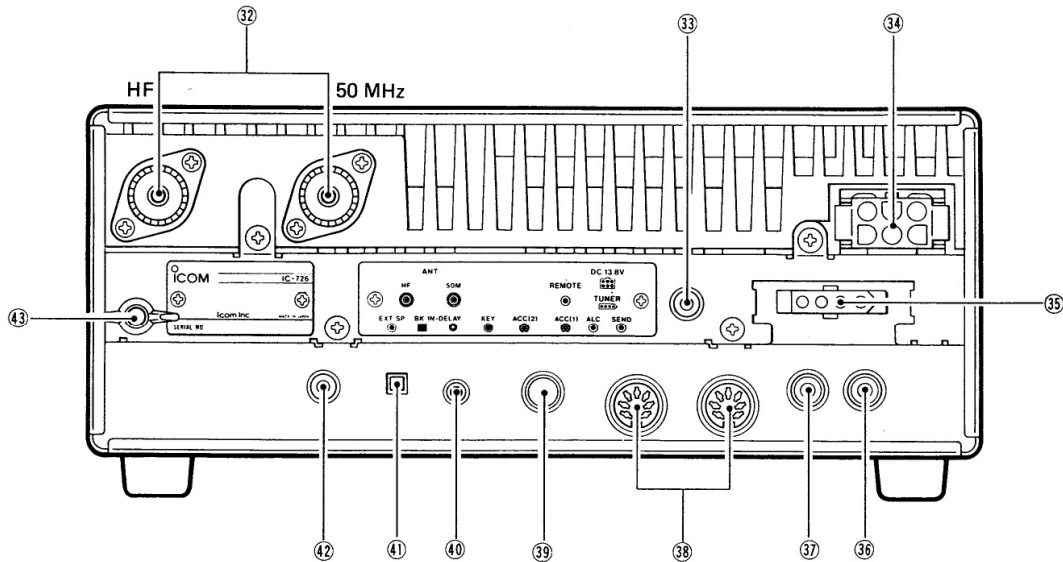
1.	Location(s)	Control #
	Santa Clarita Sheriff Station 6 DCS Room 23740 Magic Mountain Parkway, Santa Clarita, CA 91355	SCT-16-01 supersedes SCT-01b
2.	Statement of the Problem(s)	
	<p>A. HF Position 1 (Left side of room when entering the Radio Room). The existing radio an Icom IC-726/antenna is working but not functional. We have not been able to contact any local (LA county) stations.</p> <p>B. HF Position 2 (Far Right side of room when entering the Radio Room). The existing radio an Icom IC-726/antenna is working but not functional. We have not been able to contact any local (LA county) stations.</p> <p>Both radios have an ICOM AH-3 tuner improperly mounted next to the radio. This type of tuner is for a random wire antenna and should be mounted outside at the antenna feed point. Coax and a 4 conductor control cable from the radio connect to the tuner at the wire antenna feed point. Apparently these radios are connected to coax fed antennas with the coax center conductor connected where the wire antenna is supposed to be. See attached photos.</p>	
3.	Recommended Solution(s)	
	<p>A. HF Position 1 (Left side of room when entering the Radio Room). Assuming that the existing antennas are 6m and 10m ground planes, connect them to the IC-726 via two coax runs, the 10m antenna to the outboard HF port and the 6m antenna to the inboard 50 MHz port. Remove the tuner to CFMB stock. This radio would only be for 6m and 10m. Check performance at 29.50 MHz and 51.50 MHz FM. See diagram of the IC-726 rear panel attached.</p> <p>B. HF Position 2 (Far Right side of room when entering the Radio Room). Fabricate an appropriate length control cable and install a random wire antenna. Length should not be a half wave length (or multiple thereof) at any amateur frequency. Mount the tuner at the wire antenna feed point. Connect the control cable and coax to the radio HF port. This radio should support all amateur HF frequencies, including 10m. See attached diagrams.</p>	
4.	Concurrences	Date
	Technical Team Contact	Steve Ioerger, F-01, machiamist@aol.com
	DCO	Steve Ioerger, F-01, machiamist@aol.com
	Technical Ops Officer	Deane Bouvier, S-50, n5dq@arrl.net
5.	CFMB Approval	

Existing Improper Installations



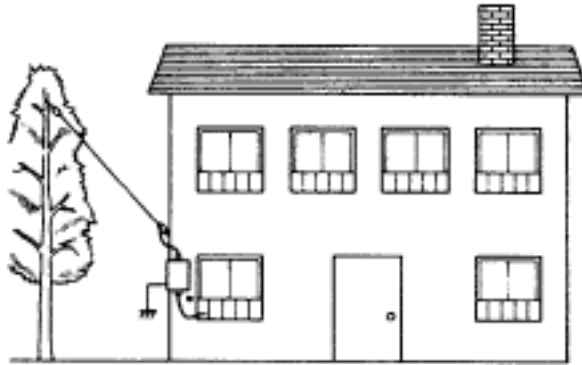
ICOM IC-726 Rear Panel

1-2 REAR PANEL



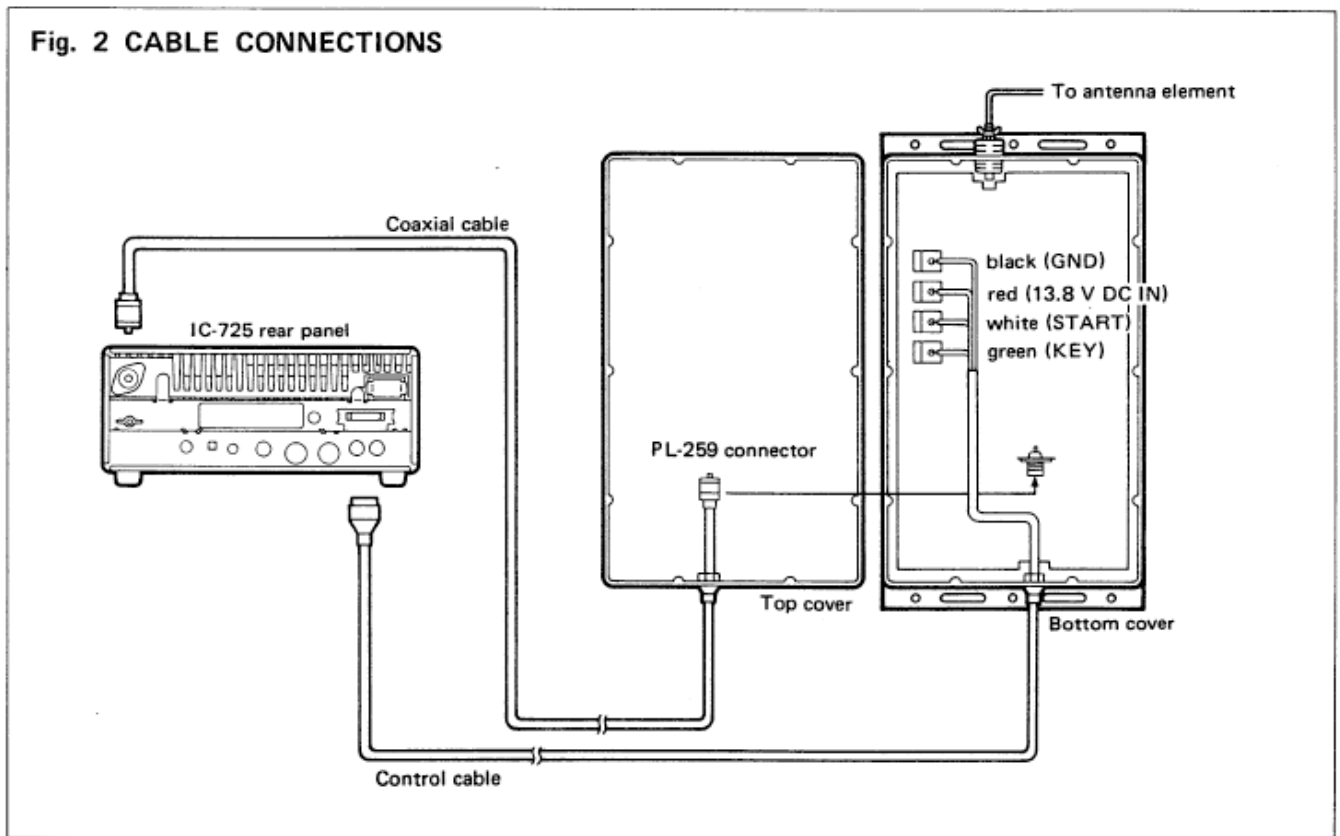
- 32 ANTENNA CONNECTORS** (pgs. 5, 6)
Connect a 50 Ω antenna with a PL-259 plug to each connector.
- 33 CI-V REMOTE CONTROL JACK** (p. 12)
Designed for use with a personal computer for remote operation of transceiver functions.
- 34 DC POWER SOCKET** (p. 7)
Accepts 13.8 V DC using the supplied DC cable.
- 35 TUNER CONTROL SOCKET** (p. 9)
Accepts the optional AH-3 HF AUTOMATIC ANTENNA TUNER control cable.
- 36 SEND CONTROL JACK** (p. 8)
Goes to ground when transmitting.
- 37 ALC INPUT JACK** (p. 8)
Connects to the ALC output jack of a non-Icom linear amplifier.
- 38 ACCESSORY SOCKETS** (p. 11)
Input and output connections for external equipment.
- 39 CW KEY JACK** (pgs. 6, 18)
Accepts a straight key or electronic keyer with a standard 1/4 inch 3-conductor plug.
- 40 CW BREAK-IN DELAY CONTROL** (p. 18)
Adjusts the transmit-to-receive switching delay time for CW semi break-in operation.
- 41 CW SEMI BREAK-IN SWITCH** (p. 18)
Turns ON and OFF the CW semi break-in operation.
- 42 EXTERNAL SPEAKER JACK** (p. 6)
Connect a 4 ~ 16 Ω speaker here, if required.
- 43 GROUND TERMINAL** (pgs. 5, 6)
To prevent electrical shocks, TVI, BCI and other problems, connect this terminal to ground.

Proper Installation of AH-3 External Tuner from ICOM User's Manual



Mounting Example

Random wire antenna is outside and the tuner is at the feed point. Coax and control cable connect the radio to the tuner. The tuner is also grounded.



Appropriate length four conductor control cable needs to be fabricated with a Molex plug on the radio end.