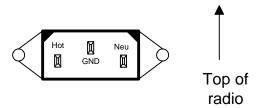
Adding 3-Wire Power to a CX7

TN2

The 14 pin CX7 power connector is fairly fragile and can be damaged or ruined by disconnecting the cord while the radio is on. Fortunately, Paul Kollar has come up with a procedure for replacing the CX7 power connector with a standard 3-wire connector. While you might not want to just replace this connector on its own, it might be a good idea while combined with repairing a power supply board, or replacing the thermal compound on the tube heat sink.



Step	Procedure
1.	Remove the tube and rear heat sink. Remove the screws on the power supply board A3 and move to an upright position.
2.	Remove the two 3-48 screws that hold the 4 pin power jack. One screw holds a standoff at the left with two wires.
3.	Remove the fuse from the fuse holder and unsolder W-227 from the end of the fuse holder. This is the hot line and it goes to pin #7 of the power connector.
4.	Unsolder W-446 from the blue standoff at the left of the <i>Accessory</i> plug. This has a green wire, which remains connected. W-446 goes to pin #8 of the power connector.
5.	Unsolder W-445 from the blue standoff at the right of the <i>Accessory</i> plug. This has a .01 µf capacitor and a heavy wire remaining. W-445 goes to the neutral of the power connector.
6.	Unsolder W-444 from the loose standoff at the left of the power plug. Unsolder the heavy white wire from this standoff, remove standoff, and connect the heavy white wire to the upper left standoff on the <i>Accessory</i> plug with the green wire.
7.	Pull power connector out of the chassis and cut the remaining 9 wires as close to the connector as possible.
8.	Splice together the orange wire #61 and orange wire #120. Place shrink tubing over the splices.
9.	Splice together the white wire #14 and blue wire #382. Place shrink tubing over the splices.
10.	Individually insulate the 5 remaining wires with shrink tubing.

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Step	Procedure
11.	Remove the high voltage jack from the rear of the chassis (if you haven't done so previously). Remove W-195, the heavy red wire for safety. This will provide a hole for the power ground to chassis. Remove the "HV" lettering from the chassis.
12.	 Viewing the rear of the chassis, with the bottom up: File top of hole, toward lettering, slightly. Enlarge hold down 1/8" to total of 3/4". Enlarge hole to right only, to 1 1/16", or just to edge of hole there. Use a nibbler tool and round file in corners to fit the new jack.
13.	Drill a new hole at the right side with a #19 bit for #8 screw. Drill a new hole at the left or enlarge the existing hole with a file, about 3/16" down.
14.	Prepare the new socket. Solder three #18 solid bare wires, 3 inches long to the socket. Cover the wires with 2" of insulating tubing. Attach long size, large hold, ground lug 2 1/4" from socket body for center ground wire.
15.	Mount the new socket with two #6 x 1/2" screws and stop nuts.
16.	Fasten the ground lug at the hole where the HV jack was removed with a #10 x ½" screw, lockwasher and nut.
17.	Solder the right (hot line) lead to the end of the fuse holder.
18.	Solder left (neutral) lead to standoff at the right of the Accessory plug where the .01 µf capacitor and white wire are.
19.	Reassemble radio: Restore power board A3 to original position. Clean and renew heat sink compound on beryllium block. Replace rear heat sink. Put heat sink compound on tube and replace. Replace fuse.

W8CXS

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