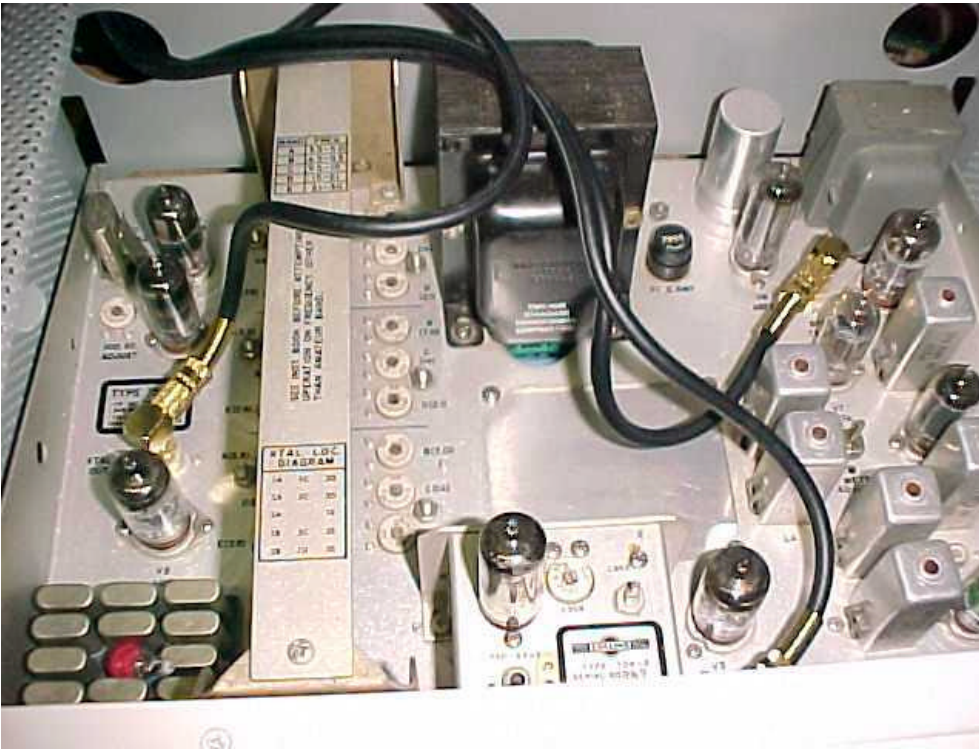


Collins S line



75S-1 Receivers

Connect a black cable from the BFO Test jack to the BFO input. .

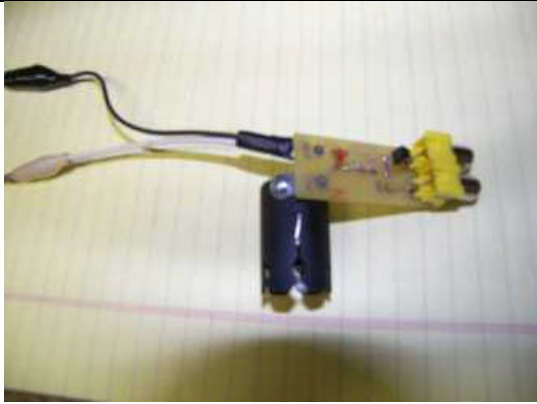
Connect a black cable from the VFO Output to the VFO input.

Connect the black cable from the XTAL Osc. Output to the HFO input.

Get 6.3VAC from pin 8 of the power connector and route it to the power input jack of the C75S. No ground is needed. A grey cable is provided if you wish to use it. **IMPORTANT: POWER SOURCE SHOULD BE OFF BEFORE CONNECTING TO DIGITAL DISPLAY OR IT COULD BE SHORTED.**

75S-2/3

Use tube shield probe for the BFO input. You can attach the probes power clip to the hot side of the pilot light socket and run an RCA cable to the C-75S



Using one of the probes, slip the tube shield over the crystal (V8) BFO oscillator tube.

Clip the ground wire to a nearby spot on the chassis

Connect a black cable from the RCA connector to the C75S/DFD2-S BFO input.

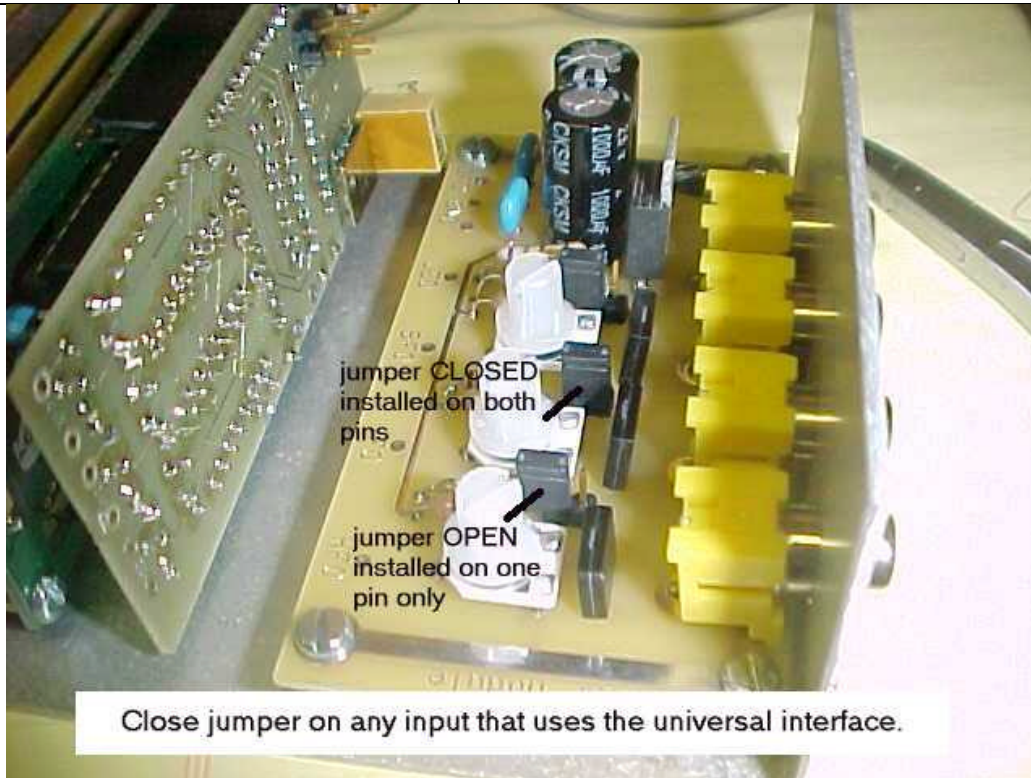
You could also make a direct connection to pin 8 of V8 similar to that shown for the KWM2.



clip the power wire to the hot side of the pilot light socket (clip off alligator and solder for a more permanent connection)

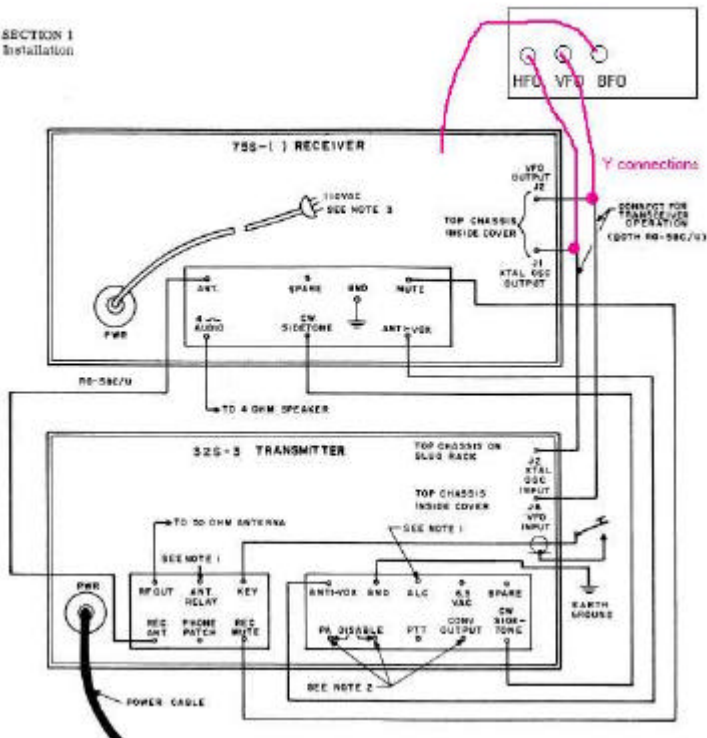
connect the grey cable from the RCA connector to the power input of the digital dial.

similar to shown on my 75S-1



When using the universal interface you must change the jumpers on the power module board from OPEN to CLOSED, for all inputs that use the universal interface, as shown.

SECTION 1
Installation



When used with a 32S transmitter you must use “Y” connections in the cables from the 75S to the 32S and C-75S display.

KWM-2

Use two tube shield probes

Using one of the probes, on tube V11 and slip the tube shield over the tube

Clip the ground wire to a nearby spot on the chassis

Connect a cable from the RCA connector to the C75S/DFD2-S BFO input.

Using the second probe, on tube V13 and slip the tube shield over the tube.

Clip the ground wire to a nearby spot on the chassis

Connect a cable from the RCA connector to the C75S/DFD2-S HFO input.

Connect a third cable from the EXTERNAL VFO jack on the rear panel to the VFO input.

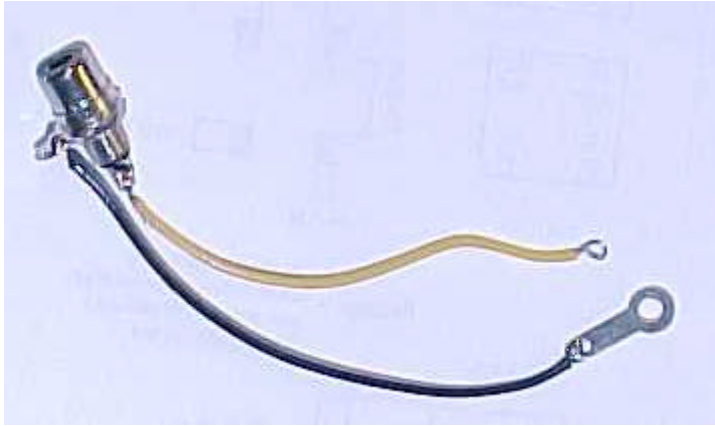
If you are using an external VFO you will need a T connector.

Connect appropriate power to the C75S power jack. Anything from 9 to 18 volts DC or 6.3V to 12.6VAC.

DFD2 requires 9 to 18VDC.

you can attach the probes power clip to the hot side of the pilot light socket socket and run an RCA cable to the C-75S

OPTIONALLY you can make direct connections



• Fabricate two RCA jack adapters similar to shown above. The center pin connects to a wire loop that will fit snugly over a tube pin, the shell connects to a solder lug. (Length of the wires will depend on the users installation requirements.)

Using one of the adapters, remove tube V15 and slip the loop over pin 9 then plug the tube back in. (Make sure cannot short to adjacent pin or ground)

Ground the shell, solder lug, at the right front corner screw on the final amplifier shield.

Connect a cable from the RCA connector to the C75S/DFD2-S BFO input.

Using the second adapter, remove tube V6 and slip the loop over pin 3 then plug the tube back in.

Thread the ground strap and the RCA connector through the tube shield and replace the shield.

(These will probably come out of the top of the shield)

Remove the nut from the screw beside V13 and put the ground lug over the screw and replace the nut.

Connect the cable from the RCA connector to the C75S/DFD2-S HFO input.

Connect a third cable from the EXTERNAL VFO jack on the rear panel to the VFO input.

If you are using an external VFO you will need a T connector.

Connect appropriate power to the C75S power jack. Anything from 9 to 18 volts DC or 6.3V AC.

(C75S contains a rectifier filter)

DFD2 requires 9 to 18VDC.

JUMPER OPTIONS and ADJUSTMENTS

There are two plug-on jumpers on the PC board inside the unit.

To access these jumpers on the C75, remove the screw from the bottom of the unit and slide the chassis out of the cabinet.

They are small black plastic jumper plugs that are plugged on four pins on the PCB.

- The top jumper selects either 10Hz resolution (jumper on) or 100Hz resolution (jumper off).
- The bottom jumper selects how the frequency is displayed
- Bottom jumper ON
 - 10Hz resolution would display as 12.345.670 USB (as shipped)
 - 100Hz resolution would display as 12.345.600 USB
- Bottom jumper OFF
 - 10Hz resolution would display as 12.345.67MHz USB
 - 100Hz resolution would display as 12.345.6 MHz USB
- ADJUSTMENT (Using C75S)
 - The unit has been adjusted at the factory and will probably not need readjusted. If adjustment is required, remove the screw in the bottom of the cabinet and slide the chassis to the rear just enough to reach the controls.
 - Tune to the highest frequency you will use and peak the PRESELECTOR.
 - Set the mode switch to LSB. If the display does not read LSB, turn the BFO control CW until the mode reads correct, then turn it a little more.
 - Set the mode switch to USB and repeat the above.
 - If the frequency is not reading correctly, turn both the VFO and XTAL controls fully CCW. The display will be reading the
 - BFO frequency when the mode switch is set to SSB, or 455 if the mode is AM. The 455 is in software, there is no BFO in AM mode.
 - Turn either control until the display reads a different frequency and is stable, then turn it a little more.
 - Turn the other control until the display reads the correct frequency, then turn it a little more.
 - Try some other bands to be sure the display reads correctly on all bands. If a band is found that is not reading correctly, turn the XTAL control CW a little more. (Remember to keep the preselector tuning at the proper band on the radios panel)

For more very interesting information on DFD2 or C75 from Tony, I0JX see <http://www.qsl.net/i0jx/dfd.html>

and for more of his neat stuff <http://www.qsl.net/i0jx>

• **KWS-1 (Using DFD2-KWS) needs a special chip available free when ordering.**

- The hook-up is straight forward,
- BFO tube shield probe connected to V104 (see picture above from KWM2 instructions),
- VFO to VFO Injection jack J203 and
- HFO to Crystal Injection jack J205.