455 kHz

Refer to Pictorial 10 for the following steps.

- () Connect a ,02 mfd disc capacitor between lugs 3 (S-2) and 5 (S-2) of V2.
- () Locate the oscillator coil (#40-775) and mount it at L3 as shown in Detail 10A. Note the position of the locating tab.



Refer to Detail I0B for the following four steps:

- () Solder the leads of one 130 pf resin capacitor to the leads of another 130 pf resin capacitor as shown in the inset drawing. This forms a 260 pf capacitor combination.
- () Connect the 260 pf capacitor combination between lugs 2 (NS) and 3 (NS) of coil L3.

- () Connect the lead from the banded end of the Varicap diode (#56-49) to lug 1 (NS) and the other lead to lug 2 (NS) of oscillator coil L3.
- Connect a 75 pf disc capacitor between lugs 1 (NS) and 3 (NS), of oscillator coil L3. Position the body of this capacitor against the coil windings as shown.
- () Connect a 47 kohm (yellow-violet-orange) resistor from lug 2 of coil L3 (NS) to lug 2 of control FK (S-1).
- () Connect a 10 kohm (brown-black-orange) resistor from lug 2 of coil L3 (NS) to lug 2 of control FJ (NS).
- **NOTE:** When soldering the wires at lugs 2 and 1 of coil L3, hold the leads of the Varicap diode with long-nose pliers to carry away the heat. The handles of the pliers may be held together with a heavy rubber band.
- Connect a 22 kohm (red-red-orange) resistor from lug 2 of coil L3 (S-5) to ground lug 13 of tube socket V2 (NS).
- Connect a 1-1/4" bare wire from lug 1 of coil L3 (NS) to ground lug 13 of tube socket V2 (S-2).
- () Connect a 100 pf disc capacitor from lug 1 of coil L3 (S-4) to lug 2 of control FJ (S-2).
- Connect a 1/2" bare wire from lug 4 of coil L3 (S-1) to lug 8 of tube socket V2 (S-1).
- Connect a 115 pf resin capacitor from lug 3 of coil L3 (S-3) to lug 9 of tube socket V2 (S-3).
- () Mount a #40-590 coil at L2. Note the position of the locating tab.
- () Connect a 470 pf disc capacitor between lugs 1 (NS) and 2 (NS) of coil L2.
- Connect a ,02 mfd.disc capacitor from lug 1 of coil L2 (S-2) to lug 2 of tube socket V2 (S-3).
- () Connect a ,02 mfd disc capacitor between lug 1 (S-2) and ground lug 10 (S-2) of tube socket V2.
- () Connect a 1/2" bare wire between lug 7 (S-1) and ground lug 12 (S-3) of tube socket V2.



- () Connect a 510 pf molded capacitor from lug 5 of tube socket V1 (NS) to lug 5 of terminal strip L (NS).
- Place one lead of a 305 pH peaking coil (#45-33) through lug 2 of coil L2 (S-3) to lug 5 of tube socket V1 (S-2). Connect the other lead of this coil to lug 5 of terminal strip L (NS).
- () Mount a #40-590 coil at L1. Note the position of the locating tab.
- () Connect a 1" bare wire from lug 1 of tube socket V1 (S-1) to lug 1 of coil L1 (NS).
- Connect a 1-3/4" hookup wire from lug 1 of coil L1 (S-2) to lug 2 of control FM (S-1).
- () Connect a 470 pf disc capacitor from lug 2 of coil L1 (S-1) to solder lug Z (S-5).

- Connect a .02 mfd disc capacitor between lugs 4 (S-3) and 5 (NS) of terminal strip L.
- () Connect a 15 kohm (brown-green-orange) resistor between lugs 5 (S-4) and 6 (S-4) of terminal strip L.

This completes the wiring of the Scanalyzer. Tip and shake the unit to dislodge any wire clippings or bits of solder that may have fallen unnoticed into the assembly. Carefully examine all connections to be sure they are properly made, and that no short circuits exist between wires or components. Then proceed to CRT Installation on Page 34.

There will be some parts left over that would have been used in one of the other optional IF wiring instructions. Save these parts. You may someday want to change the wiring for use with a different IF frequency.

1000 kHz, 1600 kHz, 1680 kHz, 2075 kHz, 2215 kHz, 2445 kHz, 3000 kHz, 3055 kHz, 5200 kHz, or 6000 kHz.

Refer to Pictorial 11 for the following steps.

NOTE: One of four different oscillator coils will be used, depending on the IF frequency of your receiver. Select the correct coil from the following table.

IF FREQ	OSCILLATOR COIL <u>PART NO.</u>
1000 kHz	#40-775
1600 kHz, 1680 kHz, 2075 kHz, 2215 kHz, 2445 kHz	#40-808
3000 kHz, 3055 kHz	#40-776
5200 kHz, 6000 kHz	#40-807



- () Install the selected oscilltor coil at L3 as shown in Detail 11A. Note the position of the locating tab.
- **NOTE:** Perform only two of the following steps. If the IF frequency of your receiver is 1000 kHz, perform only steps 1 and 2, and omit steps 3 and 4. If the receiver IF frequency is between 1600 and 6000 kHz, omit steps 1 and 2 and perform only steps 3 and 4.

Refer to Detail 11B for the following two steps.

- () 1. Prepare two 130 pf capacitors, as shown, to form a 260 pf capacitor.
- () 2. Connect this capacitor combination from lug 2 (NS) to lug 3 (NS) of coil L3.



Refer to Detail 11C for the following two steps.

- () 3. Connect a 470 pf disc capacitor between lugs 2 (NS) and 3 (NS) of coil L3.
- () 4. Connect a 56 pf disc capacitor between lugs 1 (NS) and 3 (NS) of coil L3. Position the body of the capacitor down against the coil windings as shown.
- () Connect the lead from the banded end of a Varicap diode to lug 1 (NS) and the other lead to lug 2 (NS) of coil L3. See Detail 11 C.
- () Connect a 10 kohm (brown-black-orange) resistor from lug 2 of coil L3 (NS) to lug 2 of control FJ (NS).
- () Connect a 47 kohm (yellow-violet-orange) resistor from lug 2 of coil L3 (NS) to lug 2 of control FK (S-1).
- **NOTE:** When soldering the wires at lugs 2 and 1 of coil L3, hold the leads of the Varicap diode with long-nose pliers to carry away the heat. The handles of the pliers may be held together with a heavy rubber band.

- Connect a 22 kohm (red-red-orange) resistor from lug 2 of coil L3 (S-5) to ground lug 13 of tube socket V2 (NS).
- Connect a 1-1/2" hookup wire from lug 13 of tube socket V2 (S-2) to lug 1 of coil L3 (NS).
- () Connect a 100 pf disc capacitor from lug 1 of coil L3 (S-4) (S-3 for 1000 kHz IF) to lug 2 of control FJ (S-2).
- () Connect a 1" bare wire from lug 4 of coil L3 (S-1) to lug 8 of tube socket V2 (S-1).
- Connect a 115 pf resin capacitor from lug 3 of coil L3 (S-3) to lug 9 of tube socket V2 (S-3) (S-2 for 1000 kHz IF).
- () Connect a 1/2" bare wire between lug 7 (S-1) and ground lug 12 (S-3) of tube socket V2.
- () Connect a .02 pfd disc capacitor between lug 1 (S-2)
- () Connect a .02 pfd disc capacitor between lugs 3 (S-2) and 5 (S-2) of tube socket V2.
- () Mount a #40-590 coil at L2. Note the position of the locating tab.
- () Pass one lead of a 470 pf disc capacitor through lug 2 of coil L2 (S-2) to lug 5 of tube socket V1 (NS). Connect the other lead to lug 1 of coil L2 (NS).
- () Connect a 15 M (brown-green-orange) resistor from lug 5 of tube socket V1 (S-2) to lug 6 of terminal strip L (S-4).
- Connect a .02 pfd disc capacitor from lug 2 of tube socket V2 (S-3) to lug 1 of coil L2 (S-2).
- () Mount a #40-590 coil at L1. Note the position of the locating tab.
- () Connect a 1" bare wire from lug 1 of tube socket V1 (S-1) to lug 1 of coil L1 (NS).
- () Connect a 1-3/4" hookup wire from lug 1 of coil L1 (S-2) to lug 2 of control FM (S-1).

and ground lug 10 (S-2) of tube socket V2.



- () Connect a 470 pf disc capacitor from lug 2 of coil L1 (S-1) to solder lug Z (S-5).
- () Solder the three leads connected to lug 4 of terminal strip L (S-3).

This completes the wiring of the Scanalyzer. Tip and shake the unit to dislodge any wire clippings or bits of solder that may have fallen unnoticed into the assembly. Carefully examine all connections to be sure they are properly made, and that no short circuits exist between wires or components. Then proceed to CRT Installation on Page 34.

There will be some parts left over that would have been used in one of the other optional IF wiring instructions. Save these parts. You may someday want to change the wiring for use with a different IF frequency.

3395 kHz

Refer to Pictorial 12 for the following steps.

() Locate the oscillator coil (#40-776) and mount it at L3 as shown in Detail 12A. Note the position of the locating lug.



Detail 12A

Refer to Detail 12B for the following three steps.

() Connect the lead from the banded end of a Varicap diode to lug 1 (NS) and the other lead to lug 2 (NS) of coil L3.



Detail 12B

- () Connect a 470 pf disc capacitor between lugs 2 (NS) and 3 (NS) of coil L3.
- Connect a 56 pf disc capacitor between lugs 1 (NS) and 3 (NS) of coil L3, Position the body of the capacitor down against the coil windings as shown.
- Connect a 10 M (brown-black-orange) resistor from lug 2 of coil L3 (NS) to lug 2 of control FJ (NS).
- () Connect a 47 kohm (yellow-violet-orange) resistor from lug 2 of coil L3 (NS) to lug 2 of control FK (S-1.

- **NOTE:** When soldering the wires at lugs 2 and 1 of coil L3, hold the leads of the Varicap diode with long-nose pliers to carry away the heat. The handles of the pliers may be held together with a heavy rubber band,
- Connect a 22 kohm (red-red-orange) resistor from lug 2. of coil L3 (S-5) to ground lug 13 of tube socket V2 (NS).
- () Connect a 100 pf disc capacitor from lug 1 of coil L3 (NS) to lug 2 of control FJ (S-2).
- Connect a 1-1/4" bare wire from lug 1 of coil L3 (S-4) to ground lug 13 of tube socket V2 (S-2).
- () Connect a 1" bare wire from lug 4 of coil L3 (S-1) to lug 8 of tube socket V2 (S-1).
- () Connect a 115 pf resin capacitor from lug 3 of coil L3 (S-3) to lug 9 of tube socket V2 (S-3).
- () Refer to Detail 12C and connect a 130 pf resin capacitor between lugs 1 (NS) and 2 (NS) of the bandpass coupling transformer (#52-101),



- () Again refer to Detail 12C and connect an 1800 pf resin capacitor between lugs 1 (NS) and 3 (S-1) of the bandpass coupling transformer.
- () Refer to the inset on Detail 12C and mount a 130 pf resin capacitor between lugs 1 (NS) and 4 (NS) of the bandpass coupling transformer L2.
- () Mount the bandpass coupling transformer at L2.

- Connect a .02 mfd disc capacitor from lug 2 of transformer L2 (NS) to lug 2 of tube socket V2 (S-3).
- Connect a 3300 kohm (orange-orange-red) resistor from lug 2 of transformer L2 (S-3) to lug 4 of terminal strip L (NS).
- () Connect a .02 pfd disc capacitor between lug 1 (S-2) and ground lug 10 (S-2) of tube socket V2.
- Connect a 1/2" bare wire between lug 7 (S-1) and ground lug 12 (S-3) of tube socket V2.
- () Connect a .02 pfd disc capacitor between lugs 3 (S-2) and 5 (S-2) of tube socket V2.
- () Connect a .02 pfd disc capacitor between lugs 4 (NS) and 5 (NS) of terminal strip L.
- () Connect a 1-1/2" hookup wire from lug 1 of transformer L2 (S-4) to lug 4 of terminal strip L (S-5).
- Connect a .02 pfd disc capacitor from lug 4 of transformer L2 (S-2) to lug 5 of tube socket V1 (NS).
- () Connect a 3300 ohm (orange-orange-red) resistor from lug 5 of tube socket V1 (S-2) to lug 5 of terminal strip L (NS).
- () Connect a 10 kohm (brown-black-orange) resistor between lugs 6 (S-4) and 5 (S-3) of terminal strip L.
- () Mount a #40-590 coil at L1. Note the position of the locating tab.
- () Connect a 1" bare wire from lug 1 of tube socket V1 (S-1) to lug 1 of coil L1 (NS).
- () Connect a 1-3/4" hookup wire from lug 1 of coil L1 (S-2) to lug 2 of control FM (S-1).
- () Connect a 470 pf disc capacitor from lug 2 of coil L1 (S-1) to solder lug Z (S-5).



PICTORIAL 12

This completes the wiring of the Scanalyzer. Tip and shake the unit to dislodge any wire clippings or bits of solder that may have fallen unnoticed into the assembly. Carefully examine all connections to be sure they are properly made, and that no short circuits exist between wires or components. Then proceed to CRT Installation on page 34.

There will be some parts left over that would have been used in one of the other optional IF wiring instructions. Save these parts. You may someday want to change the wiring for use with a different IF frequency.