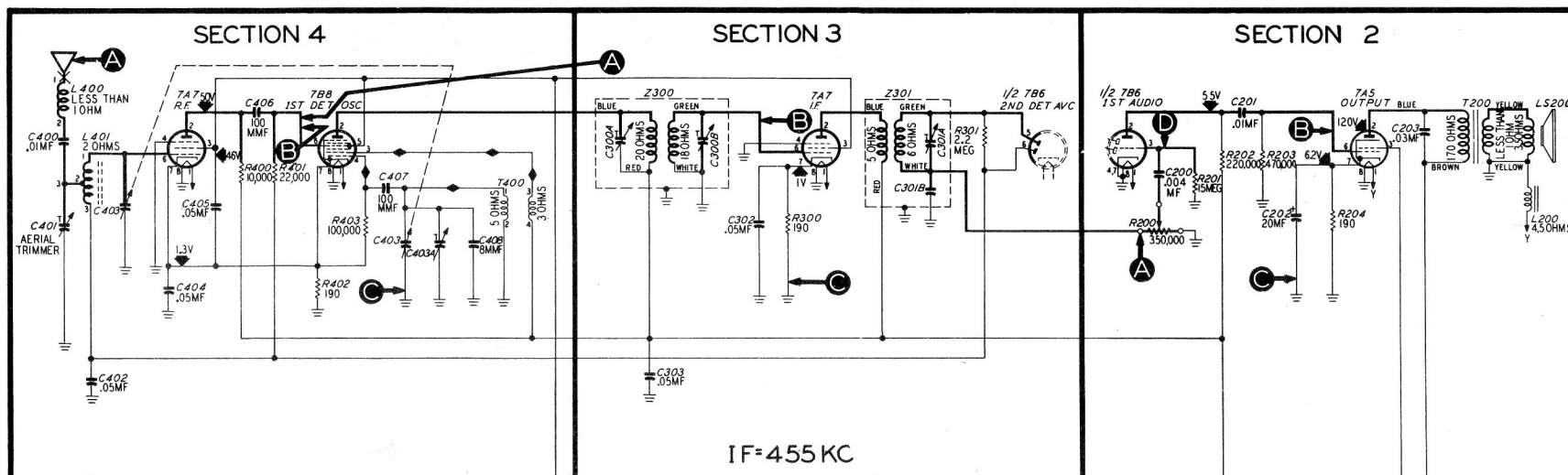
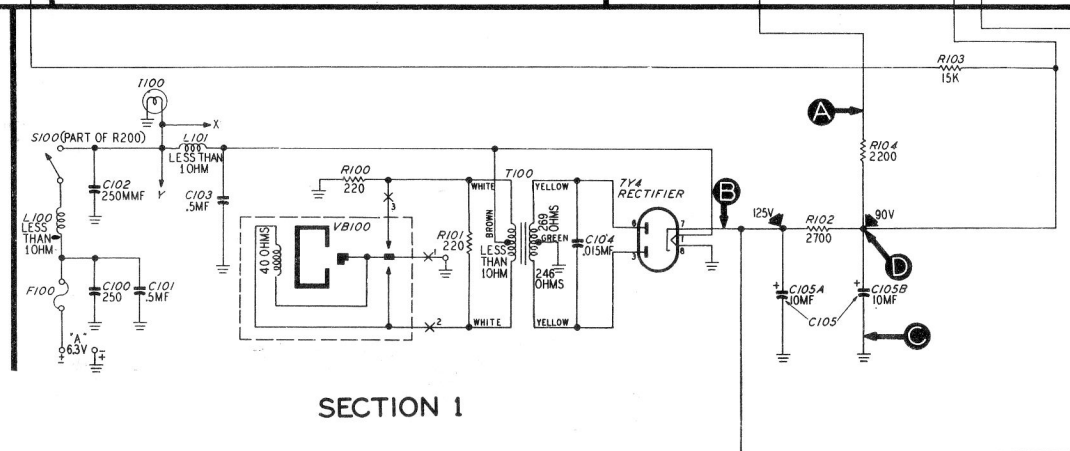
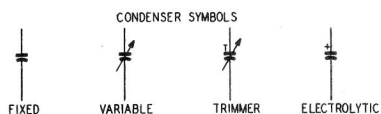


NOTES:

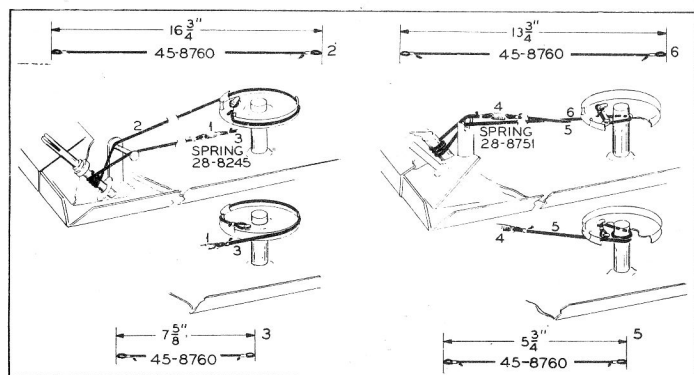
- X INDICATES PLUG CONNECTION.
- ALL VOLTAGES SHOWN ARE AVERAGE VALUES, MEASURED WITH A 20,000-OHMS-PER-VOLT METER.
- ALL RESISTOR VALUES IN OHMS UNLESS MARKED OTHERWISE.
- RF, IF AND AUDIO SIGNAL PATH
- OSC. SIGNAL PATH
- ALL RESISTOR VALUES IN OHMS UNLESS MARKED OTHERWISE



1948-49

IF. 455 KC.

AUTO RADIO  
MODEL  
CR-2



FURTHER DATA ON SHEETS 177, 179, 180.

## TROUBLE SHOOTING

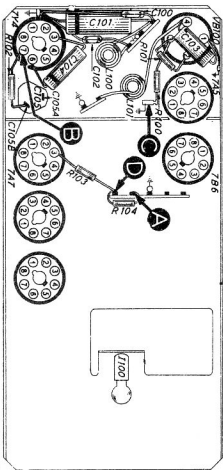
## TROUBLE SHOOTING

### Section 1

For the tests in this section, use a d-c voltmeter. Connect the negative lead to the radio chassis; test point C; connect the positive lead to the test points indicated in the chart. The voltage readings given were taken with a 20,000-ohms-per-volt meter with an "A" supply voltage of 6.3 volts, a.c.

Turn on the power, and set the volume control to minimum.

Follow the steps in sequence: if the "NORMAL INDICATION" is obtained in step 1, proceed with the tests for Section 2; if not, isolate and correct the trouble in this section.



ALIGNMENT PROCEDURE

TURN ON RADIO AND SET VOLUME CONTROL FULLY ON.

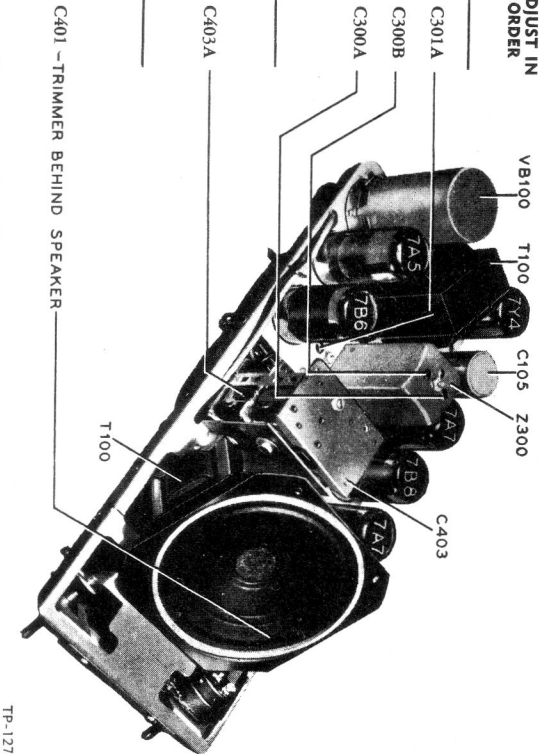
**DIAL**—With tuning-condenser plates fully meshed, set dial pointer to index dot at low-frequency end of scale.

**OUTPUT METER**—Connect output meter across loud-speaker voice-coil terminals. Use lowest range of meter. During alignment process, keep signal-generator output low enough to produce less than 2-volt output indication.

**SIGNAL GENERATOR**—Connect signal-generator ground lead to radio chassis; for step 1, connect output lead through .05-mf. condenser to aerial receptacle; for steps 2 and 3, connect output lead through 30-mmf. condenser to aerial lead (Philco Part No. 95-0185) plugged into aerial receptacle. If aerial lead is not available, connect generator output lead through 30-mmf. condenser directly to aerial receptacle, and connect another 30-mmf. condenser from aerial receptacle to radio chassis. Use modulated output.

| STEP | DIAL SETTINGS |          | SPECIAL INSTRUCTIONS                                                                                     | ADJUST IN ORDER                                                                                     |
|------|---------------|----------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
|      | SIG. GEN.     | RADIO    |                                                                                                          |                                                                                                     |
| 1    | 455 kc.       | 550 kc.  | Ground oscillator grid (pin 4) of 7B8. Adjust trimmers for maximum output and then repeat.               | C301A<br>C300B<br>C300A<br>VB100<br>T100<br>T1A<br>C105<br>Z300<br>C403<br>7A5<br>7B6<br>7B8<br>7A7 |
| 2    | 1600 kc.      | 1600 kc. | Remove ground from oscillator grid. Adjust trimmer for maximum.                                          | C403A<br>T100                                                                                       |
| 3    | 1400 kc.      | 1400 kc. | Adjust for maximum. Final adjustment to be made after radio is installed in car and aerial is connected. | C401—TRIMMER BEHIND SPEAKER                                                                         |

Figure 6. Top View, Showing Trimmer Locations



TP-1275

SYMBOLIZATION AND TERMINOLOGY

The components in the radio circuit are symbolized according to the types of parts and the sections of the radio in which the parts are located. The prefix letter of the symbol designates the type of part, as follows:

C—condenser  
I—pilot lamp  
L—choke or coil  
LA—loop aerial  
LS—loud-speaker  
R—resistor  
S—switch  
T—transformer  
Z—electrical assembly

The number of the symbol designates the section in which the part is located, as follows:

100-series components are in Section 1, the power supply.  
200-series components are in Section 2, the audio circuits.  
300-series components are in Section 3, the i-f amplifier, detector, and a-v-c circuits.  
400-series components are in Section 4, the aerial, r-f, and oscillator circuits.

A suffix letter identifies the part as a non-replaceable component of the assembly which bears an identical number without a suffix letter, and with perhaps a different prefix letter.

AUTO RADIO  
MODEL  
CR-2

1948-49

FURTHER DATA ON SHEETS 177,178,179