

## SECTION VIII

# POWER CONTROL PANEL

## CRV-23275

### TECHNICAL SUMMARY

#### ELECTRICAL CHARACTERISTICS—

##### Meters Used:

Plate and Bias Voltmeter, Dual Range .....	0-150/0-15 volts
Plate Milliammeter, Dual Range .....	0-5/0-25 milliamperes
Filament Voltmeter, a-c/d-c .....	0-8 volts

#### FUSE COMPLEMENT—

Bias Supply, 3 Receivers and Auxiliary Unit .....	$\frac{1}{8}$ ampere (4)
Plate Supply, 3 Receivers and Auxiliary Unit .....	$\frac{1}{4}$ ampere (4)
Filament Supply, 3 Receivers and Auxiliary Unit .....	10 amperes (8)
Meter Circuit (milliammeter) .....	$\frac{1}{32}$ ampere (1)

#### MECHANICAL SPECIFICATIONS—

##### Dimensions:

Panel Size .....	19 inches (length) x $10\frac{15}{32}$ inches (height)
Unit Depth .....	$4\frac{7}{8}$ inches
Weight (net) .....	9.5 pounds

### DESCRIPTION

The power control panel provides individual control of the three receivers and the tone keyer or audio-frequency amplifier unit comprising the diversity receiving system. Such control is afforded by separate switching, and the panel is therefore divided into four sections, one for each receiver and a fourth (at the extreme right) for the auxiliary unit. Each panel section includes a rotary switch at the top for filament, plate, and bias power, a filament rheostat, a set of three push-buttons for metering purposes, and a set of fuses at the bottom. All four sets of fuses are protected by a single bakelite cover extending across the bottom of the panel.

Each set of push-buttons permits checking the associated plate, bias, and filament voltages. Plate and bias voltages are indicated on the dual-purpose meter at the left, while filament voltages are shown on the a-c/d-c meter at the right. The central instrument is a dual-range milliammeter equipped with a retractable drop cord for

convenient determination of plate currents in the r-f and i-f units as shown in the tabulation of "Normal Operating Voltages and Currents" in Section I. This latter metering circuit also is protected by a fuse located at the center of the main fuse board.

Two of these power control panels are mounted in a dual diversity receiver group; one associated with each receiver group. Nameplates, mounted across the top of each panel, identify the circuit functions controlled. In the left-hand receiver group, the marking on these nameplates, reading from left to right, is as follows: "RECEIVER No. 1", "RECEIVER No. 2 AND A-F No. 1", "RECEIVER No. 3", and "KEYER A." Corresponding markings on the power control panel in the right-hand receiver group are as follows: "RECEIVER No. 4 and KEYER C", "RECEIVER No. 5 AND A-F No. 2", "RECEIVER No. 6", and "KEYER B."

### OPERATION

The four rotary switches at the top of the panel afford independent control of the three receivers and the auxiliary unit employed. In normal operation, it is necessary only to use the main a-c switch on the power supply panel to start up or to shut down the entire equipment.

Filament voltages for the individual receivers should be checked and adjusted to 6.3 volts by

means of the respective rheostats. An indication of 6.8 volts on the panel meter corresponds to 6.3 volts at the filament terminals. The push-button switches mounted on the face of the panel afford a means of checking the plate and bias as well as the filament voltages on the load side of the fuses. When making measurements, make certain that only one push-button at a time is depressed.

## SERVICE

Service on the power control panel generally consists in replacing defective fuses on the fuse board located underneath the long channel cover that extends across the bottom of the panel. In the event of failure of a meter to indicate a normal reading, the defect will most likely be found in the switches in the circuit in which such a failure occurs.

For example, assume that receiver No. 1 is turned to an "ON" position and power is sup-

plied to the panel. Depressing the "FILAMENT" push-button switch for this receiver should indicate, on the filament voltmeter, the applied filament voltage. If no such indication occurs, check the filament fuses (F714, F715), the "FILAMENT" rheostat (R704) and the "FILAMENT" push-button switch (S706). This test procedure should be followed for each circuit in which a meter reading fails to respond to a push-button depression.

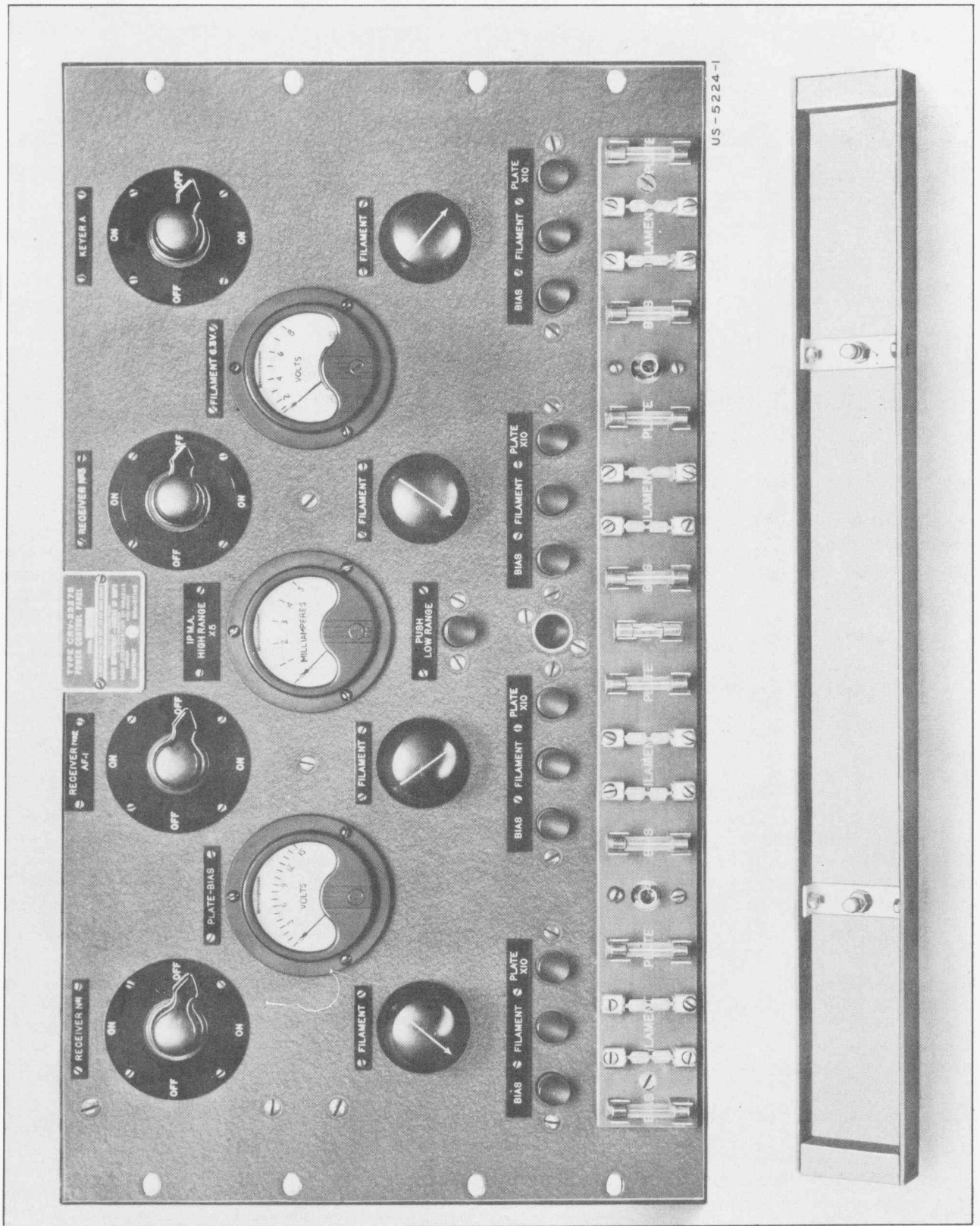


Figure 1—Type CRV-23275 Power Control Panel (Front View, Fuse Cover Removed)

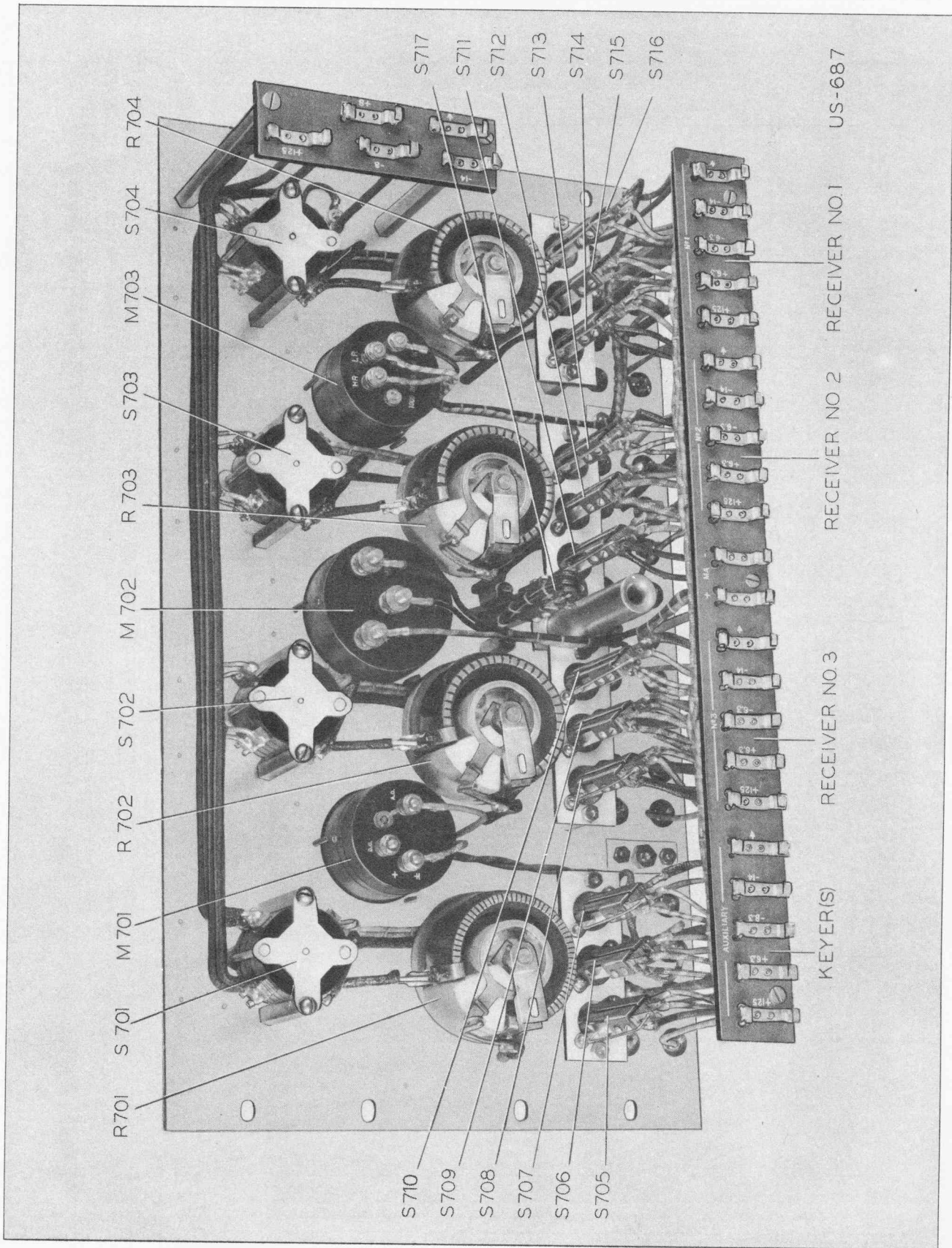


Figure 2—Type CRV-23275 Power Control Panel (Rear View)

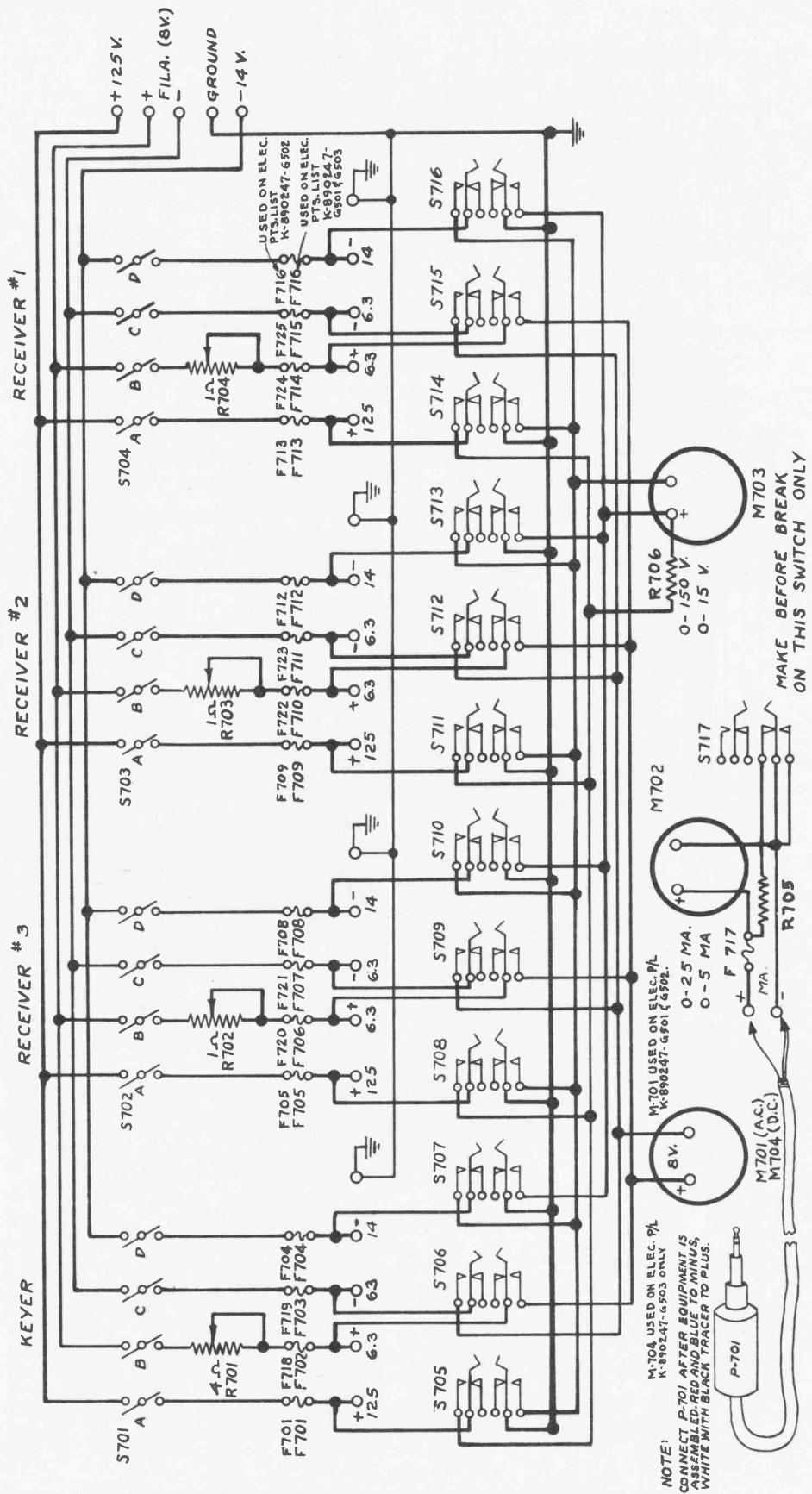


Figure 3—Type CRV-23275 Power Control Panel Schematic (M-440490—Sub. 1)

PART NO. M700-59	DESCRIPTION	WIRE NUMBER
5	K'815877-4 RED-REL TR	1 TO 15 INCL.
6	K'815877-5 RED-ARM TR	25 TO 33 INCL.
7	K'815877-6 RED-ARM TR	35 TO 44 INCL.
8	K'815877-0 YEL-ARM TR	55 TO 58 INCL.
9	K'815877-8 BLU	65 TO 72 INCL.
10	K'815877-9 BLU-YEL TR	80 TO 87 INCL.
11	K'815877-0 BLACK	95 TO 13 INCL.
12	35/105 30 AWG D.C. COPPER WIRE	120 TO 128 INCL.

NOTE 1—CODING INSERTED IN WIRES INDICATES THIS IS A 2000A WIRE AND ONLY IS GIVEN WIRE # IS INTENDED A NUMBER PRECEDED BY A LETTER INDICATES AN ELECTRICAL ITEM, THUS 5716, NUMBERS IN CIRCLES REFER TO PART #S ON WIRING M/E.

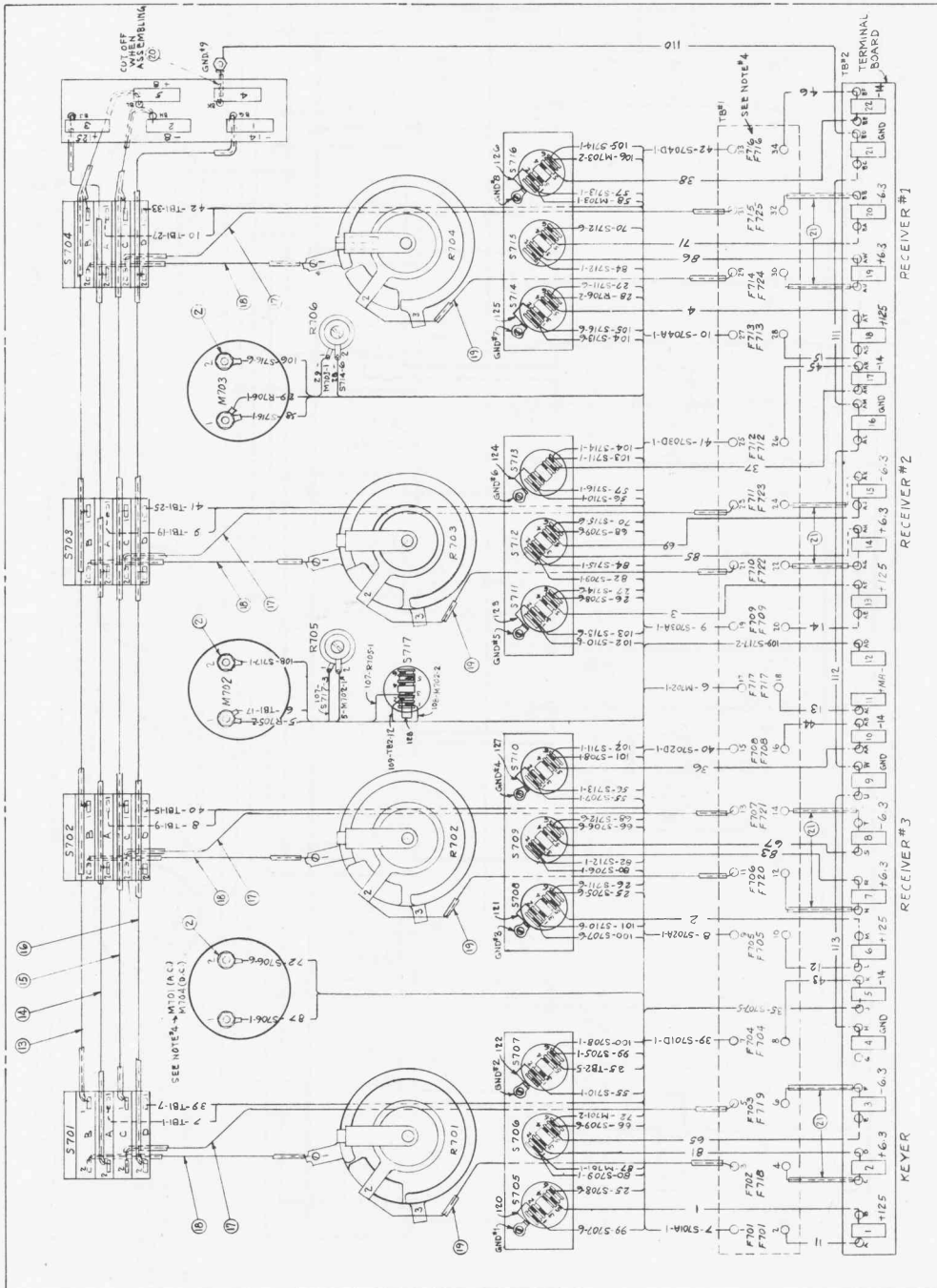


Figure 4—Type CRV-23275 Power Control Panel Connections (T-621121—Sub. 2)

FOR SCHEMATIC DIAGRAM SEE M-440490