

Cathode-Ray Oscillograph

Type TMV-122-D EXTENDED RANGE

The following sheets contain revised servicing information for the Cathode Ray Oscillograph, Type TMY-122-D. These sheets are to be used with Instruction Book IB-23339, replacing part of the servicing information included in that book.

The timing axis oscillator range extends down to approximately four cycles per second and the low-frequency response of the horizontal and vertical amplifiers is better than that of the TMV-122-B. Two dual tip jacks are provided to allow the use of d.c. deflecting voltages when desired. The dual jack on the right (S8) is used for horizontal deflection, the one on the left (S9) for vertical. In both cases the lower jack is connected to the ungrounded deflecting plate of the RCA-906 tube. The beam shift controls are still operative for shifting the spot position. Care should be taken if any connection is made to the oscillograph chassis, as a d.c. voltage may exist between the pin jacks and chassis, depending upon the settings of the beam shift controls.

The theory of operation, installation and operation are thoroughly covered in the instruction

book. However, due to a slight circuit change, the operation of the "Range" switch is better described as follows (page 15):

- "Range" switch, S4, selects one of eight timing capacitor values. It thus changes the timing axis oscillator frequency in steps giving 8 ranges approximately as follows: No. 1, 4-14; No. 2, 12-46; No. 3, 40-160; No. 4, 130-450; No. 5, 300-1050; No. 6, 900-3500; No. 7, 2000-7500; No. 8, 5500-18,000 cycles.

Also under "6. Ampl. 'B' Gain Control (horizontal)" note the following:

Due to the capacity load on this input potentiometer, when operating on "Timing" at the higher audio frequencies, linear sweep will not be obtained at all settings of this control. For best results, the control should be set for maximum linearity, which will occur at about 2/3 full screen deflection.

Under "Replacement Parts," note the addition or changes in the items shown on page 5.

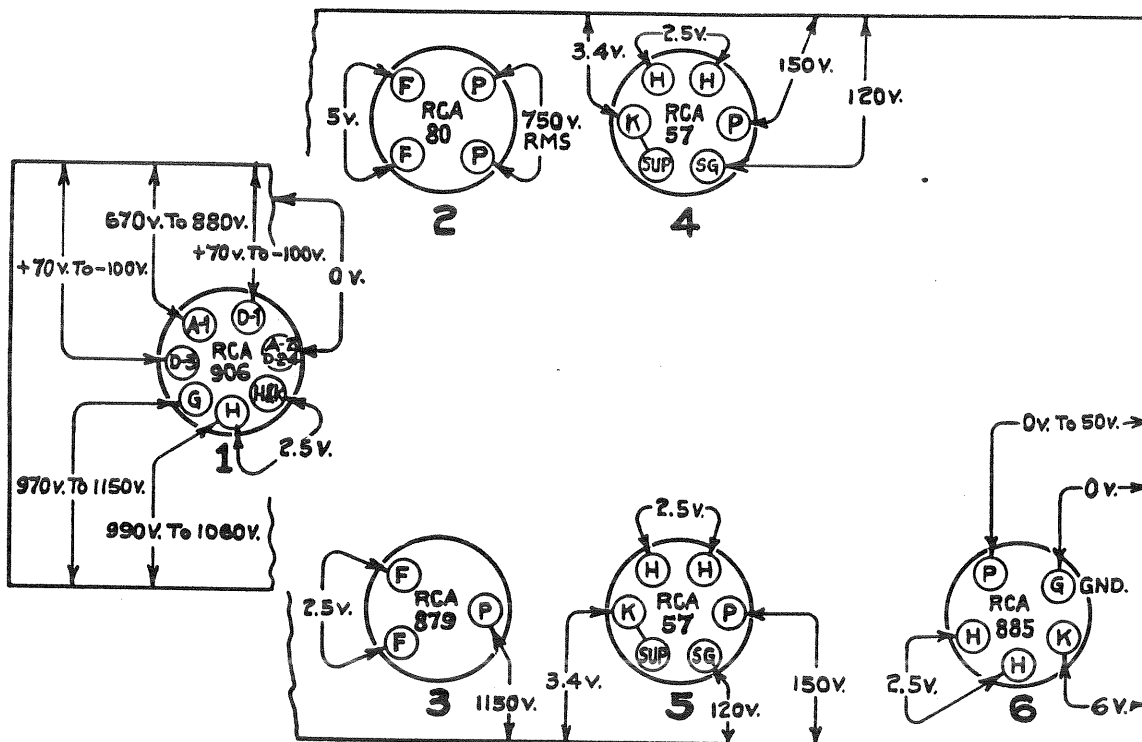


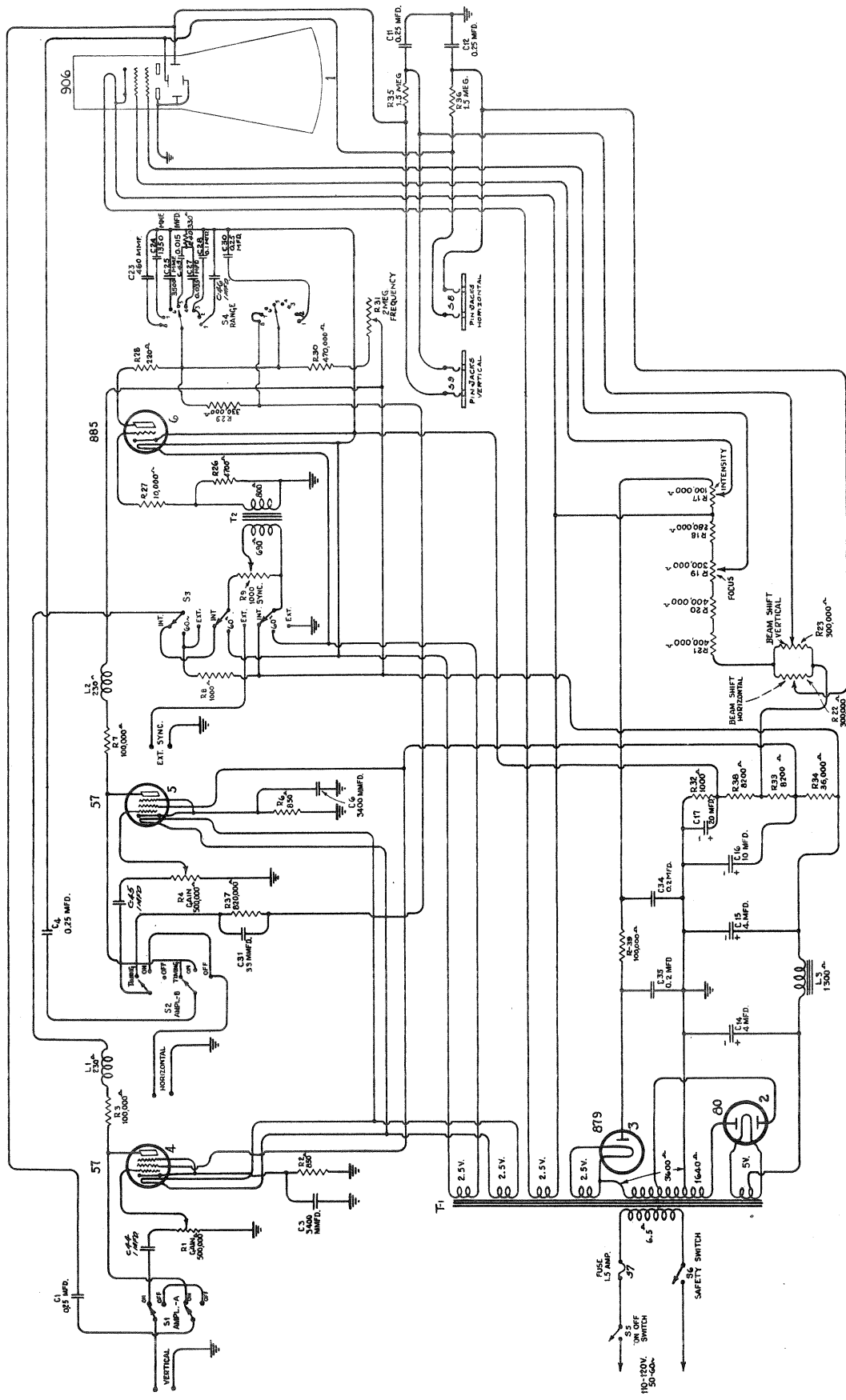
Figure 1—Radiotron Socket Voltages (Bottom View)

RADIOTRON SOCKET VOLTAGE TABLE

120-Volt, 60-Cycle Supply Line

RADIOTRON		Cathode Volts to Ground DC.	Screen Grid Volts To Ground DC.	Plate Volts to Ground DC.	Cathode Current MA-DC.	Anode Volts to Ground DC.		Deflecting Plates to Ground DC.		Filament or Heater Volts AC.
Socket Number	Type					Function	No. 1	No. 2	D ₁	
1	RCA-906	-990 to -1060*	—	—	—	-670 to -880*	0	+70 to -100*	+70 to -100*	2.5
2	RCA-80	—	—	375 (RMS)	24	—	—	—	—	5.0
3	RCA-879	—	—	+1150*	—	—	—	—	—	2.5
4	RCA-57	+3.4	+120	+150	2.5	—	—	—	—	2.5
5	RCA-57	+3.4	+120	+150	2.5	—	—	—	—	2.5
6	RCA-885	+6.0	—	0 to +50*	180 to 900 Micro-Amps	—	—	—	—	2.5

* Cannot be correctly measured with ordinary voltmeter.



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Figure 2—Schematic Diagram

Stock No.	DESCRIPTION	List Price	Stock No.	DESCRIPTION	List Price
4244	Cap—Contact cap—Package of 5....	\$0.20	4687	Resistor—1000 ohms—Carbon type—	
5198	Capacitor—33 mmfd. (C31).....	.16		1/2 watt (R8, R32)—Package of 10.	2.00
5197	Capacitor—460 mmfd. (C23).....	.18	5199	Resistor—4700 ohms—Carbon type—	
5115	Capacitor—1350 mmfd. (C24).....	.25		1/4 watt (R26)—Package of 5.....	1.00
4439	Capacitor—3400 mmfd. (C3, C6)...	.35	5205	Resistor—8200 ohms—Carbon type—	
5005	Capacitor—3500 mmfd. (C25).....	.16		1 watt (R33, R38).....	.22
11315	Capacitor—.015 mfd. (C43).....	.20	3381	Resistor—10,000 ohms—Carbon type	
5196	Capacitor—0.035 mfd. (C27).....	.18		1/4 watt (R27)—Package of 5.....	1.00
4841	Capacitor—0.1 mfd. (C28).....	.22	5206	Resistor—36,000 ohms—wire wound	
4840	Capacitor—0.25 mfd. (C11, C12,			(R34)35
	C30)30	3252	Resistor—100,000 ohms—Carbon	
5170	Capacitor—0.25 mfd. (C1, C4).....	.25		type—1/2 watt (R39)—Package of	
11897	Capacitor—1.0 mfd. (C44, C45, C46).	3.70		5	1.00
4844	Capacitor Pack—Two sections of 0.2		12529	Resistor—270,000 ohms—Carbon	
	mfd. each (C33, C34).....	7.25		type—1 watt (R18)—Package of 5.	1.10
11898	Jack—Dual tip pin jack.....	.22	5200	Resistor—330,000 ohms—Carbon	
7960	Knob—Range or Ext. Sync. switch			type—1/2 watt (R29)—Package of 5.	1.00
	knob20	12530	Resistor—390,000 ohms—Carbon	
11899	Plug—Pin tip plug for jack, Stock			type—1 watt (R20, R21)—Package	
	No. 11898—Package of 4.....	.46		of 5.....	1.10
5207	Potentiometer—Frequency control		5202	Resistor—470,000 ohms—Carbon	
	potentiometer (R31).....	1.35		type—1/2 watt (R30)—Package of 5.	1.00
5201	Resistor—220 ohms—Carbon type—		5203	Resistor—820,000 ohms—Carbon	
	1/2 watt (R28)—Package of 5.....	1.00		type—1/2 watt (R37)—Package of 5.	1.00
11932	Resistor—330 ohms—Carbon type—		5204	Resistor—1.5 megohm—Carbon type	
	1/10 watt (R40)—Package of 5...	.75		—1/2 watt (R35, R36)—Package of	
12531	Resistor—910 ohms—Carbon type—			5	1.00
	1/2 watt (R2, R6)—Package of 5...	1.00			

STOCK No. 9641

IB-23339-4

RCA PARTS



DIVISION

RCA MANUFACTURING CO., INC.

CAMDEN, NEW JERSEY, U. S. A.