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675T20

20 WATT TRANSMITTER

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SECTION 1

GENERAL INFORMATION

1-1 DESCRIPTION

The QEI Type #675T20 20W FM Transmitter consists of two units.

1. The QEI Type #675 FM Exciter, described in the enclosed instruction manual.

2. The Meter Panel described in this instruction manual.

1-2 ELECTRICAL SPECIFICATIONS

Power Output ----- 20W

All other specifications see the QEI Type 675 FM Exciter Manual.

1-3 MECHANICAL SPECIFICATIONS

Dimensions ----- 7"H X 19"W X 14"D

Net Weight ----- 8 lbs.

Shipping Weight----- 8 lbs.

Maximum Operating Temperature -- 131^oF (55^oC) Ambient

1-4 INSTRUMENT IDENTIFICATION

This unit is identified by a Model Number and a six digit serial number located on the rear panel. All correspondence to your sales representative or the factory in regard to this unit should reference the complete Model and Serial Numbers.

SECTION 2

INSTALLATION

Install the units in a 19" rack or cabinet using #10 hardware.
Connect the cables and plugs to the appropriate jacks as follows:

1. Power Cord 105-125/210-250 VAC 50-60Hz (Make sure what source of power your unit is wired for before plugging in.)
2. Coax Cable From J1 RF OUT on the 675 Exciter to RF IN on the meter panel.
3. Meter Plug From the meter panel to J5 METER on the 675 Exciter.
4. Antenna Cable Connect to RF OUT on the meter panel.

SECTION 3

OPERATION

After making proper connections to the units, apply power by operating POWER switch. Adjust the PWR ADJ. control on the Exciter to make the RF OUTPUT meter read 100% with the FWD/REV switch S1 in the FWD position. The reflected power from the antenna can be checked by placing FWD/REV switch S1 in the REV position.

SECTION 4

THEORY OF OPERATION

SECTION 5

TROUBLESHOOTING AND CALIBRATION

Refer to the 675 Exciter Manual for troubleshooting and calibrating the exciter portion of the transmitter.

Calibrate the meter panel section of the transmitter as follows:

Operate the transmitter into a wattmeter connected to a 50 Ohm dummy load.

Set the PWR ADJ control on the exciter to make the external wattmeter read 20W.

Adjust R5 on the meter panel to make the RF OUTPUT meter M3 read 100%.

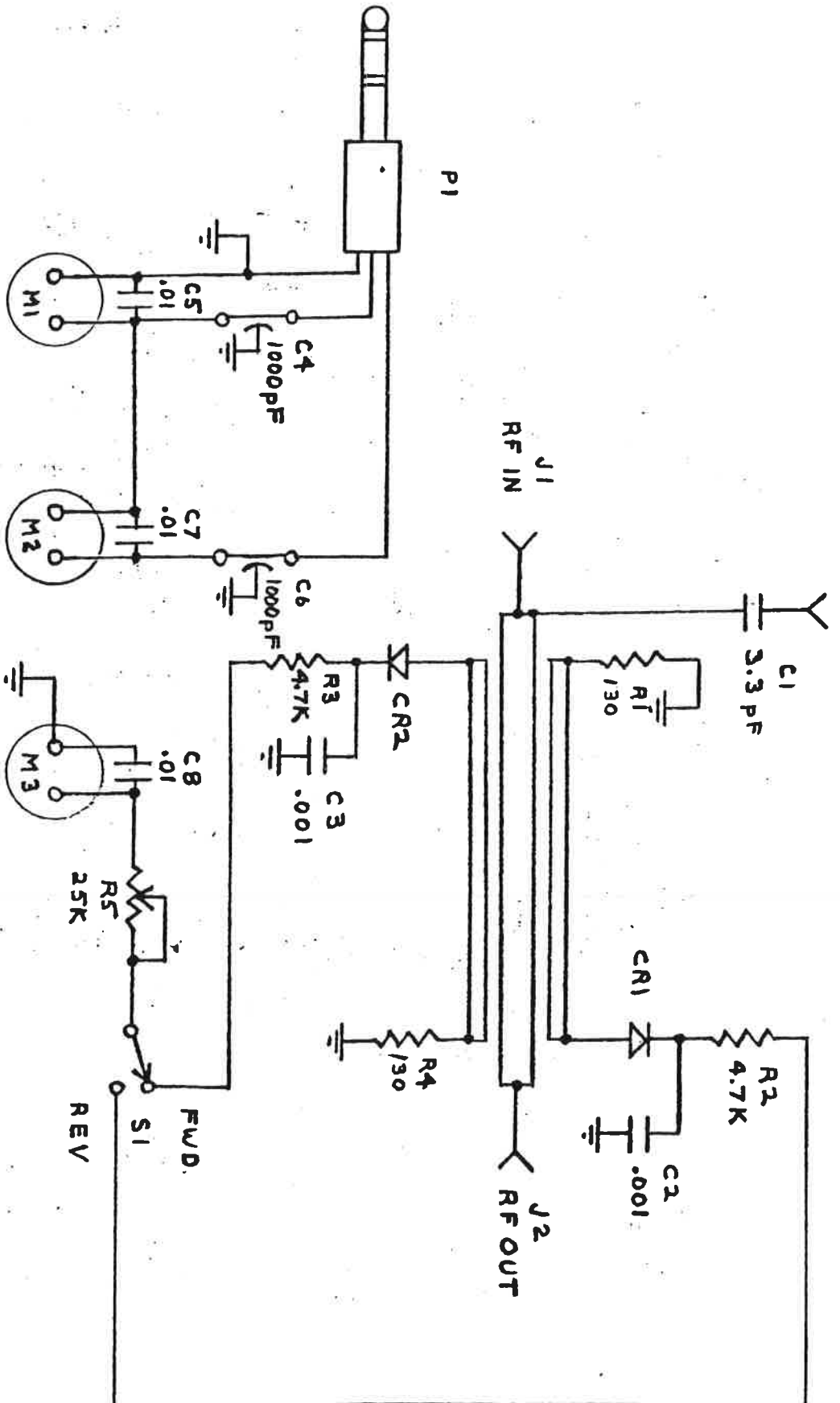
This completes the calibration of the meter panel.

SECTION 6

PARTS LIST

<u>REF DES.</u>	<u>DESCRIPTION</u>	<u>QEI PART NO.</u>
C1	Cap., Cer., 3.3pf	110-03R3
C2	Cap., Cer., .001uf	110-0102
C3	Cap., Cer., .001uf	110-0102
C4	Cap., Feed thru, 1000pf	110-7102
C5	Cap., Cer., .01uf	110-0103
C6	Cap., Feedthru, 1000pf	110-7102
C7	Cap., Cer., .01uf	110-0103
C8	Cap., Cer., .01uf	110-0103
CB1	Circuit Card	675T1001
CR1	Diode, Silicon	113-0005
CR2	Diode, Silicon	113-0005
J1	Jack, Type N	130-0004
J2	Jack, Type N	130-0004
M1	Meter, 0-40VDC	145-0008
M2	Meter, 0-3ADC	145-0009
M3	Meter, Percent Power	145-1110
P1	Plug, Phone	130-2003
R1	Res., Carb., 100 Ohm, $\frac{1}{2}$ W, 5%	RC20GF101J
R2	Res., Carb., 4.7K, $\frac{1}{2}$ W, 5%	RC20GF472J
R3	Res., Carb., 4.7K, $\frac{1}{2}$ W, 5%	RC20GF472J
R4	Res., Carb., 100 Ohm, $\frac{1}{2}$ W, 5%	RC20GF101J
R5	Res., Var., 25K	167-3004
S1	Switch, SPST	175-0007

J3
RF SAMPLE



DRAWN		METER PANEL	
CHK'D.		20W FM TRANSMITTER	
TRACED		SCHEMATIC DIAGRAM	
APP'D.	SCALE	DATE	DWG NO.
	~		675T20