OPERATING INSTRUCTIONS

GONSET "MONITONE" OSCILLATOR—MONITOR

THE MONITONE IS A TRIPLE-PURPOSE INSTRUMENT THAT SERVES AS (1) A CODE PRACTICE OSCILLATOR, OR (2) A KEYING MONITOR FOR A C-W TRANSMITTER, OR (3) A PHONE MONITOR FOR A-M RADIOTELEPHONE TRANSMITTER. ONE VERY IMPORTANT FEATURE OF THE UNIT, PARTICULARLY WHEN BEING USED BY NOVICES, IS THAT THERE IS ABSOLUTELY NO SHOCK HAZARD. ADDITIONAL COMPONENTS HAVE BEEN INCORPORATED WHICH SERVE TO PROVIDE COMPLETE ISOLATION OF THE KEY AND HEADPHONE CIRCUITS FROM THE 115 VOLT A-C LINE.

CODE PRACTICE OSCILLATOR. PLUG IN THE LINE CORD (115 VOLTS). UNIT IS TURNED ON AND OFF (POWER SUPPLY) BY ROTARY SWITCH ON THE PITCH CONTROL. TURN SELECTOR SWITCH TO "CODE" POSITION. CONNECT KEY TO PHONE TYPE (PL-55) PLUG AND INSERT IN KEY JACK ON REAR OF UNIT. CLOSING KEY WILL PRODUCE A TONE IN THE SPEAKER, THE VOLUME AND PITCH OF WHICH ARE VARIABLE BY MEANS OF THE CONTROLS ON THE FRONT PANEL. INSERTING HEADPHONES IN THE "PHONE" JACK ON THE REAR WILL SILENCE THE SPEAKER AUTOMATICALLY. IF MAXIMUM VOLUME IS DESIRED, USE LOW IMPEDANCE (300 OR 600 OHM) PHONES. IF DESIRED SEVERAL PAIRS OF PHONES MAY BE CONNECTED IN PARALLEL WITHOUT APPRECIABLE LOSS IN VOLUME. TO SEND BACK AND FORTH BETWEEN STATIONS, CONNECT THE DESIRED NUMBER OF KEYS IN PARALLEL, AS WELL AS A CORRESPONDING NUMBER OF HEADSETS IN PARALLEL, WITH ONE KEY AND ONE HEADSET AT EACH STATION.

CW MONITOR. CONNECT AS ABOVE EXCEPT DO NOT PLUG IN KEY, USE HEADPHONES OR SPEAKER, AS DESIRED. TURN SELECTOR SWITCH TO "CW". ADVANCE VOLUME CONTROL FULL ON. R-F VOLTAGE FROM THE TRANSMITTER FINAL TANK CIRCUIT IS THEN FED ACROSS THE REAR TERMINALS MARKED "R-F LINK" EITHER 300 OHM RIBBON LINE OR 75 OHM COAX MAY BE EMPLOYED. IF COAX IS USED, THE INNER CONDUCTOR SHOULD CONNECT TO THE TERMINAL UNDER THE WORD "LINK", THE OTHER END IS CONNECTED TO A LINK HAVING ABOUT 1 TURN PER 10 METERS OF WAVELENGTH, THEN COUPLING THIS LINK JUST CLOSELY ENOUGH TO THE FINAL TANK COIL TO GIVE VOLUME APPROACHING THAT OBTAINED FROM THE UNIT AS A CODE PRACTICE OSCILLATOR. EXCESSIVE R-F INPUT WILL CAUSE DAMAGE TO THE INTERNAL COMPONENTS. INSTEAD OF USING TIGHT COUPLING AND RUNNING THE VOLUME CONTROL TURNED DOWN, TURN THE LATTER FULL UP AND BACK OFF ON THE COUPLING. **BE CAREFUL TO AVOID ELECTRICAL SHOCK WHEN WORKING ON THE TRANSMITTER. IF YOU ARE NOT EXPERIENCED, GET SOMEONE WHO IS TO HELP YOU.**

IN ANY CARRIER-POWERED KEYING MONITOR THE CARRIER RECTIFIER ACTS AS A HIGHLY EFFICIENT HARMONIC GENERATOR. THIS IS INHERENT IN THIS TYPE OF INSTRUMENT. TO PREVENT THESE HARMONICS FROM BEING RADIATED TO NEARBY TV RECEIVERS WITH SUFFICIENT AMPLITUDE TO CAUSE INTERFERENCE, IT MAY BE NECESSARY TO EMPLOY COAXIAL LINE BETWEEN THE TRANSMITTER AND MONITOR, WITH THE OUTER SHIELD GROUNDED TO THE CASE OF BOTH UNITS VIA A GOOD, LOW IMPEDANCE CONNECTION.

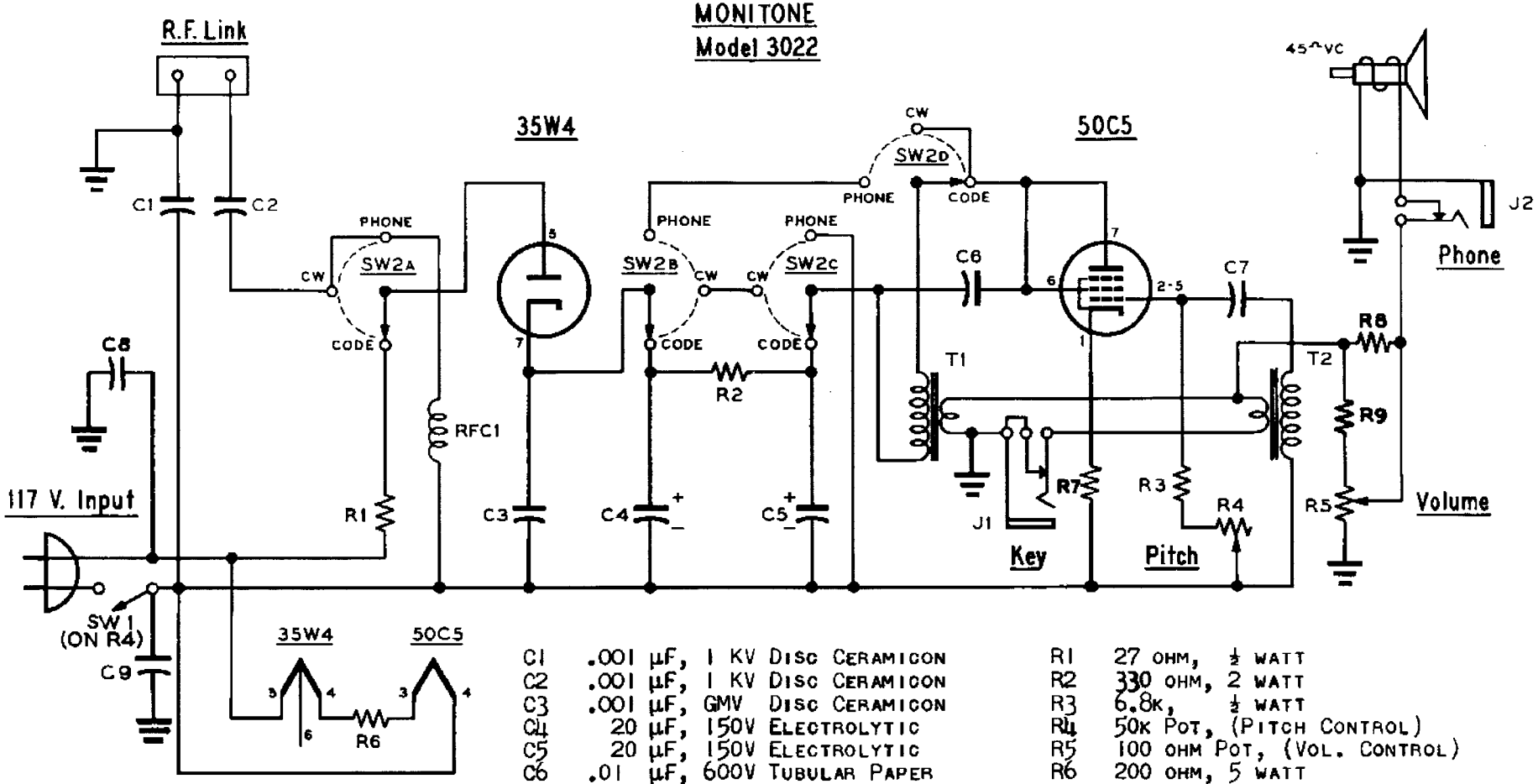
GREATEST R-F INPUT TO THE UNIT WILL OCCUR FOR A GIVEN LINK POSITION WHEN THE CONNECTING LINE IS JUST UNDER AN ELECTRICAL QUARTER WAVELENGTH LONG. FOR INSTANCE, ON 10 METERS THIS WOULD BE ABOUT 6 1/2 FEET FOR 300 OHM RIBBON OR ABOUT 5 FEET FOR COAX. THE LINK MAY BE COUPLED TO THE TANK COIL OF AN EXTERNAL ANTENNA COUPLER INSTEAD OF THE PLATE TANK IF THIS IS MORE CONVENIENT. ON THE LOWER FREQUENCY BANDS THE VOLTAGE ACROSS THE TERMINALS CAN BE BUILT UP BY CONNECTING CAPACITY ACROSS THE TERMINALS INSTEAD OF USING A LONGER LINE BETWEEN THE UNIT AND COUPLING LINK. THE BEST VALUE FOR EACH BAND WILL HAVE TO BE FOUND BY EXPERIMENT. LESS THAN ONE WATT OF R-F POWER WILL GIVE A GOOD HEADPHONE SIGNAL, ABOUT 2 WATTS FOR A SPEAKER.

PHONE MONITOR. CONNECT AND TURN ON AS ABOVE, EXCEPT HEADPHONES MUST BE USED TO AVOID AUDIO FEEDBACK. TURN SELECTOR SWITCH TO "PHONE" AND ADJUST COUPLING TO GIVE MAXIMUM DESIRED VOLUME (LEAVING VOLUME CONTROL FULL ON). VOLUME THEN MAY BE ADJUSTED BY MEANS OF THE VOLUME CONTROL.

GONSET DIVISION, YOUNG SPRING AND WIRE CORPORATION
801 SOUTH MAIN STREET, BURBANK, CALIFORNIA

520-226 MBP

MONITONE
Model 3022



C1	.001 µF, 1 KV Disc Ceramicon	R1	27 ohm, ½ watt
C2	.001 µF, 1 KV Disc Ceramicon	R2	330 ohm, 2 watt
C3	.001 µF, GMV Disc Ceramicon	R3	6.8K, ½ watt
C4	20 µF, 150V Electrolytic	R4	50K Pot, (Pitch Control)
C5	20 µF, 150V Electrolytic	R5	100 ohm Pot, (Vol. Control)
C6	.01 µF, 600V Tubular Paper	R6	200 ohm, 5 watt
C7	.02 µF, GMV Disc Ceramicon	R7	470 ohm, ½watt
C8	.001 µF, 1 KV Disc Ceramicon	R8	68 ohm, ½ watt
C9	.001 µF, 1 KV Disc Ceramicon	R9	27 ohm, ½ watt

SW 2 - 4 POLE 3 THROW NON- SHORTING
T1, T2 - 2000 OHM TO 3.2 OHM V.C.
RFC1 600 µF

BEWARE OF HIGH VOLTAGE WHEN SET
IS OUT OF CABINET

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