



UNLESS OTHERWISE SPECIFIED:
ALL RESISTORS IN MEGOHMS ($\frac{1}{2}$ WATT)
ALL CAPACITORS IN MICROFARADS.

MARK SIMPSON MFG. CO., INC.

MODEL MA-8N

SPECIFICATIONS

VOLTAGE: 105 volts to 117 volts - 60 CPS AC

POWER CON-
SUMPTION: 65 Watts at 117 volts.

TUBES: (1) 6SF5 Microphone voltage amplifier
 (1) 6SJ7 Voltage amplifier and mixer
 (1) 6L6G Beam power output
 (1) 5Y3GT/G Full wave rectifier
 (1) #47 Pilot Lamp

FUSE: (1) 1 amp. Size 3 AC

CONTROLS: (1) Microphone volume
 (1) Phonograph volume
 (1) Tone
 (1) Power ON-OFF Switch on Tone Control

INPUTS: (1) Phonograph - high impedance (0.5 meg ohm) 0.4
 volts sensitivity.
 (1) Microphone - high impedance (5.6 meg) 0.006
 volts sensitivity.

NOTE: The microphone channel may be equipped with a low
 impedance input (50, 200 or 500 ohms)-unbalanced line;
 (200 or 500 ohms)-balanced line. The MASCO input
 transformer model IN-525 is used for this conversion.

OUTPUT
 IMPEDANCES: Line - 500 ohm
 Voice Coil - 4,8 ohms

NOTE: At the 6 prong output socket any one of the above
 impedances may be obtained. (see diagram).

POWER: 8 watts at less than 5% rms. distortion
 OUTPUT: 5 watts at less than 2% rms. distortion

POWER GAIN: Microphone - 128 DB
 Phonograph - 75 DB

FREQUENCY
 RESPONSE: \pm 2 DB 50 to 10,000 CPS

HUM LEVEL: 60 DB below output level of 8 watts

TUBE REPLACEMENT:

Under normal usage the tubes will give long trouble-free service. Periodic testing of all tubes is recommended. Weak tubes should be replaced to avoid failure during operations. When tubes are replaced use only known top quality tubes.

PERIODIC MAINTENANCE:

At regular intervals all connectors should be inspected for signs of oxidized controls, cables checked for weak spots, excess grime and dust removed, etc. Such periodic inspection and cleaning will prevent interruptions of service and intermittent operations.

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VOLTAGE AND RESISTANCE CHARTS

TUBE	FUNCTION	VOLTAGE READINGS							
		Pin #1	Pin #2	Pin #3	Pin #4	Pin #5	Pin #6	Pin #7	Pin #8
(1) 5Y3GT/G	FULL WAVE RECTIFIER	0	325 DC	0	365 AC	0	365 AC	0	325 DC
(1) 6L6G	BEAM POWER OUTPUT	0	0	300 DC	290 DC	0	290 DC	6.3 AC	16.5 DC
(1) 6SJ7	VOLTAGE AMPLIFIER AND MIXER	0	0	1.7 DC	0	1.7 DC	40 DC	6.3 AC	100 DC
(1) 6SF5	MIC. VOLTAGE AMPLIFIER	0	0	-.5 DC	290 DC	115 DC	260 DC	6.3 AC	0

"Y" - A reading of 5 volts AC will be obtained between points marked "Y".

TUBE	FUNCTION	RESISTANCE READINGS							
		Pin #1	Pin #2	Pin #3	Pin #4	Pin #5	Pin #6	Pin #7	Pin #8
(1) 5Y3GT/G	FULL WAVE RECTIFIER	Inf.	150 K	Inf.	150	Inf.	250	Inf.	150 K
(1) 6L6G	BEAM POWER OUTPUT	0	0	150 K	150 K	500 K	150 K	0	200
(1) 6SJ7	VOLTAGE AMP. AND MIXER	0	0	1500	135 K	1500	1.15Meg	0	315 K
(1) 6SF5	MIC. VOLTAGE AMPLIFIER	0	0	15 Meg	150 K	447 K	177 K	0	0

* Variations of $\pm 15\%$ are allowable. All other readings $\pm 5\%$.
All readings taken with all controls at "0", with a 20,000 ohm per volt meter.

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CONVERSION FOR LOW IMPEDANCE MICROPHONE

DESIRED IMPEDANCE	BALANCED LINE CONNECT	UNBALANCED LINE CONNECT
500 OHM	#2 on Mic.Con.to Red on Mic. Trans. #3 on Mic.Con.to Brown on Mic.Trans. Blue on Mic. Trans. to Ground	#2 on Mic.Con.to Red on Mic.Trans. #3 on Mic.Con. to Ground Brown on Mic. Trans. to Ground
200 OHM	#2 on Mic.Con.to Green on Mic.Trans. #3 on Mic.Con.to White on Mic.Trans. Blue on Mic. Trans. to Ground	#2 on Mic.Con.to Green on Mic. Trans. #3 on Mic. Con. to Ground. White on Mic. Trans. to Ground.
50 OHM	CANNOT BE USED	#2 on Mic.Con. to White on Mic. Trans. #3 on Mic. Con. to Ground Blue on Mic. Trans. to Ground

NOTE: #1 on Microphone Input Connector is always grounded.

Connect transformer secondary as shown on diagram. Diagram shows transformer primary connected for 200 OHM Balanced Line. Cut short and tape up all unused leads.

