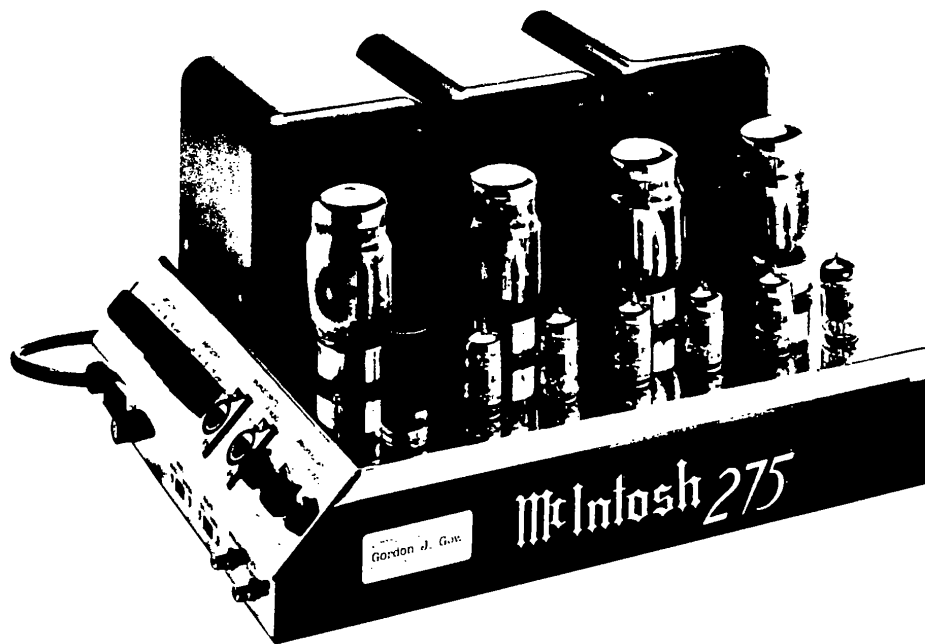


# McIntosh<sup>®</sup>

## *MC275*



## SERVICE INFORMATION

STARTING WITH SERIAL NO. 600E0

BE082006

MCINTOSH LABORATORY INC., 2 CHAMBERS STREET, BINGHAMTON, NEW YORK 13903

# MC275 Tube Power Amplifier

## Specifications

### Performance Limits

#### POWER OUTPUT, STEREO

75 watts into 16, 8 or 4 ohm loads is the minimum sine wave continuous average power output per channel from 20Hz to 20,000Hz.

The output RMS voltage is:

34.6 across 16 ohms

24.5 across 8 ohms

17.3 across 4 ohms

#### POWER OUTPUT, MONO PARALLEL

150 watts into 8, 4 or 2 ohm loads is the minimum sine wave continuous average power output from 20Hz to 20,000Hz.

#### OUTPUT LOAD IMPEDANCE

16, 8 or 4 ohms stereo

8, 4 or 2 ohms mono parallel

#### RATED POWER BAND

20Hz to 20,000Hz

#### TOTAL HARMONIC DISTORTION

.5% maximum harmonic distortion at any power level from 250 milliwatts to rated power from 20Hz to 20,000Hz.

#### INTERMODULATION DISTORTION

.5% maximum if instantaneous peak power output does not exceed twice the output rating for any combination of frequencies from 20Hz to 20,000Hz.

#### FREQUENCY RESPONSE (at 1 watt output)

20Hz to 20,000Hz +0 -0.2dB

10Hz to 100,000Hz +0 -3dB

#### NOISE AND HUM (A-Weighted)

100dB below rated output.

### Ratings

#### IHF DYNAMIC HEADROOM

1.1dB

#### DAMPING FACTOR

Greater than 10

#### INPUT IMPEDANCE

100,000 ohms unbalanced

180,000 ohms balanced

#### INPUT SENSITIVITY

Unbalanced, 1.0V to 30 volts through gain control.

Balanced, 2.0 volts fixed.

### General Information

#### POWER REQUIREMENTS

120 volts, 50/60Hz

240 watts at zero signal output

400 watts at rated output

The amplifier may be connected for 100, 120, 220 or 240 volt 50/60Hz operation. It is shipped connected for 120V.

### Mechanical Information

#### SIZE

16" wide (40.6cm) by 7-1/2" high (19.0cm) by 12" deep (30.5cm)

#### WEIGHT

67 pounds (30.5kg) net, 75 pounds (34.1kg) in shipping carton

REPLACEMENT PARTS			RESISTOR & POTENTIOMETERS		
<b>CAPACITORS</b>			R1,2	250k Gain Control	134460
Symbol Number	Description	Part Number	RT1,2	16 ohm Thermistor	144282
C12,13,18	Elect 100/100uF 500V	066434	<b>SWITCHES</b>		
C25	Elect 40/60uF 500V	066425	S1	Input Switch	148061
C34,42,43	Elect 47uF 250V	066426	S2	Mode Switch	148052
C44,45	Elect 10uF 160V	066427	<b>TUBES</b>		
C46,47			V1,2,5	12AX7A, McIntosh	165065
<b>DIODES</b>			V3,4,6,7	12AZ7, McIntosh	165066
D1	Bridge Rect 1000V 6A	070145	V8-11	KT-88/6550, McIntosh	165064
D2,4-7	Zener 200V 1.5W	070146	<b>TRANSFORMERS</b>		
D3	1N4004	070131	T1	POWER: POT	047772
<b>FUSES</b>			T2,3	OUTPUT: POT	047773
F1	5 Ampere Slo-Blo	089007	<b>MISCELLANEOUS ITEMS</b>		
F2	1/4 Ampere	089048	KNOB: 11/16" dia Plastic		090013
<b>CHOKES</b>			Fuse holder UL/CSA		178122
L1	Filter Choke 0.5H	122017	Plastic Foot		017542
L2-5	Choke 2.2uH	122001	Owners Manual MC275		039952
			Shipping Carton Inside		033702
			Shipping Carton Outside		033709

### SCHEMATIC NOTES

1. Unless otherwise specified, resistance values are in ohms, 1/2 watt, and 5% tolerance. Resistors marked with an asterisk (\*) are 1% tolerance. Capacitors are in microfarads (uF) unless otherwise noted. Inductors are in microhenries (uH).
2. For single channel mono output, parallel connect the left and right outputs to obtain desired output impedance.

### Voltage and Resistance Chart

Tube	Pin No.	DC Volts No. Signal	AC Volts at Rated Output	Resistance with Unit Off*
12AX7A (V1)	1	150	.76	163K
	2	0	---	452K
	3	1.2	0	2.16K
	4,5	0	3.2	.011 Ohm
	6	150	.76	163K
	7	0	---	435K
	8	1.2	0	2.15K
	9	0	3.2	.011 Ohm
	12AX7A (V2 or V5)	1	210	3.7
2		0	.76	985K
3		1.4	.72	1K
4,5		0	3.2	.011 Ohm
6		210	3.7	105K
7		0	.76	985K
8		1.4	.72	1K
9		0	3.2	.011 Ohm
12AX7 (V3 or V6)		1	342	135
	2	19	3.7	200K
	3	25	.45	---
	4,5	0	3.2	.011 Ohm
	6	342	136	47K
	7	19	3.7	200K
	8	25	.45	---
	9	0	3.2	.011 Ohm
	12AZ7 (V4 or V7)	1	226	98
2		-52	133	1.2M
3		-53	133	---
4,5		0	3.2	.011 Ohm
6		226	98	15M
7		-52	133	1.2M
8		-53	133	---
9		0	3.2	.011 Ohm
KT-8816550 (V8, V9, V10, V11)		1	---	---
	2	0	3.2	.011 Ohm
	3	441	98	19.5
	4	441	98	238 Ohm
	5	-53	133	---
	6	---	---	---
	7	0	3.2	.011 Ohm
	8	.6	98	12 Ohm

\* This resistance measured with capacitor C18A shorted to ground.

