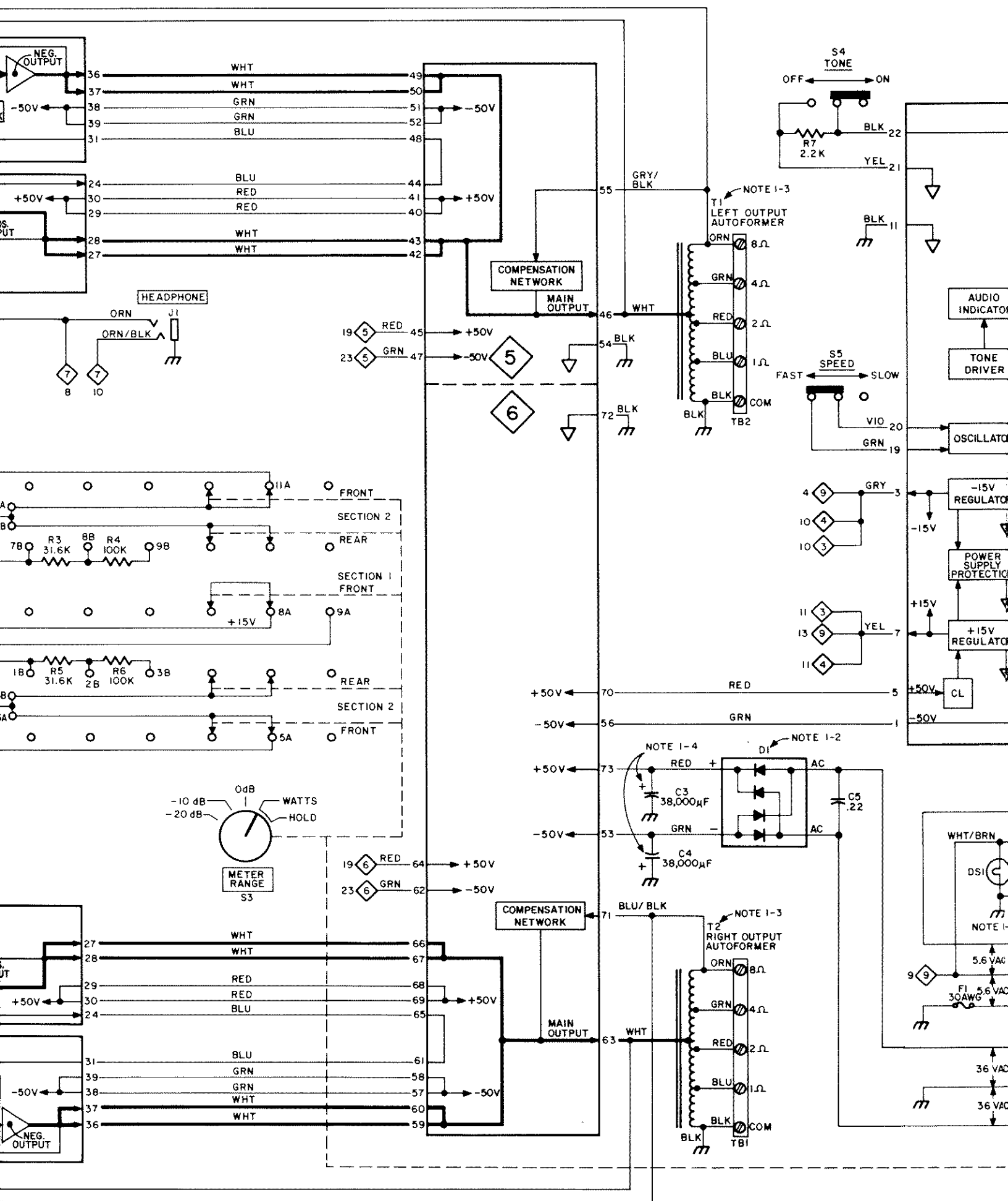
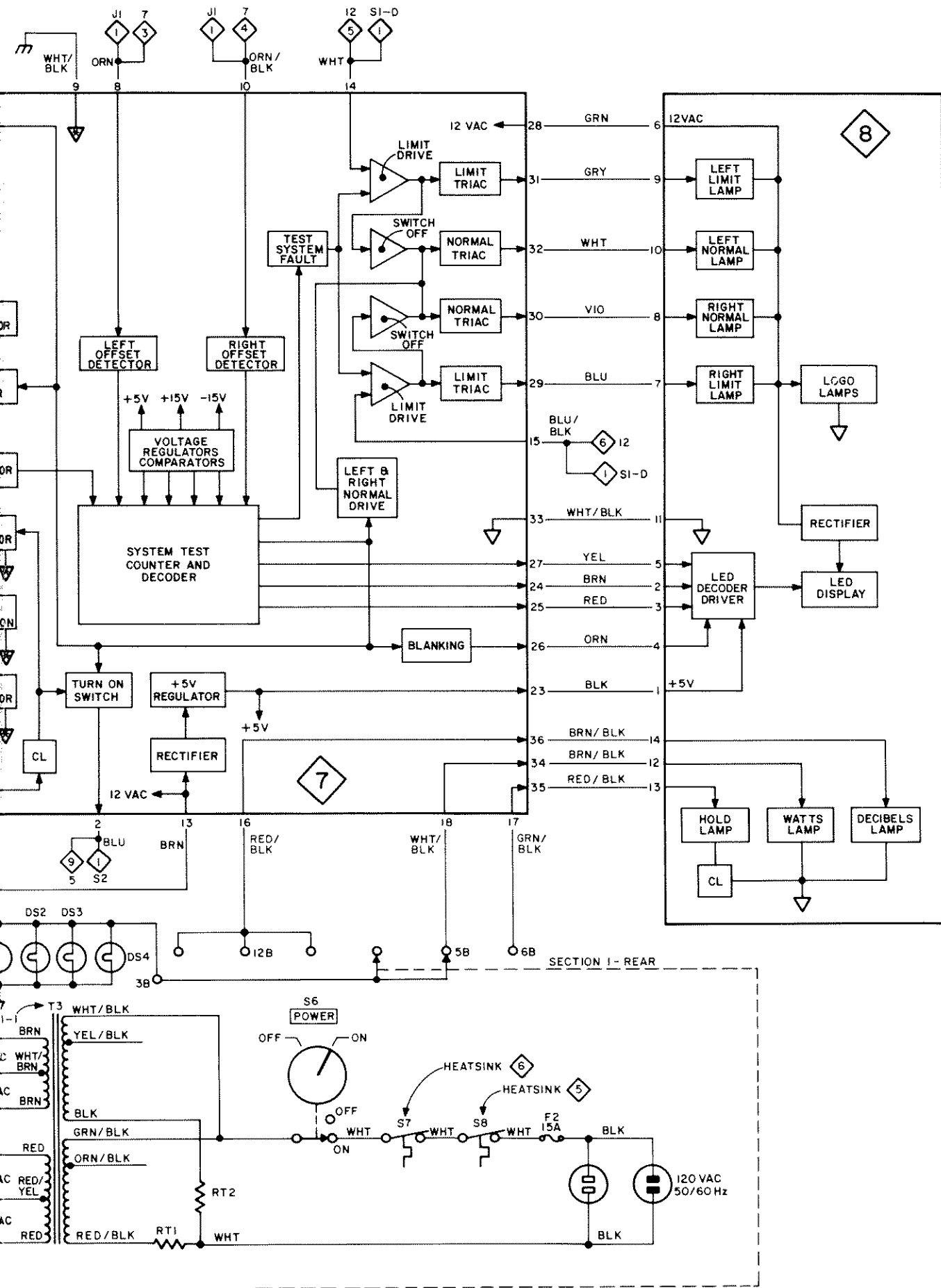


Schematic No. 156051A





**1**

# INTERCONNECTION DIAGRAM

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# PARTS LIST

Symbol Part  
No. No. Description

**PACITORS** (CD = Ceramic Disc, ELECT = Electrolytic,  
MPE = Metalized Polyester)

- C1 061159 CD, .01 $\mu$ F, + 80 - 20%, 50V
- C2 061159 CD, .01 $\mu$ F, + 80 - 20%, 50V
- \*C3 066331 ELECT, 38,000 $\mu$ F, 60V
- \*C4 066331 ELECT, 38,000 $\mu$ F, 60V
- C5 064267 MPE, .22 $\mu$ F, 400V

**DIODES** (BRID = Bridge, RECT = Rectifier,  
Si = Silicon)

- \*D1 070092 Si, BRID, RECT, 35A, 200V,  
MDA3502

**LIGHTING DEVICES** (INC = Incandescent)

- \*DS1 058014 INC, 6.3V, .25A, 1866
- \*DS2 058014 INC, 6.3V, .25A, 1866
- \*DS3 058014 INC, 6.3V, .25A, 1866
- \*DS4 058014 INC, 6.3V, .25A, 1866

**RESISTORS and FUSEHOLDERS** (FA = Fast Action)

- \*F1 174188 Fusible Link, #30 solid copper wire
- \*F2 089042 FA, Fuse, 15A, 250V, ABC15
- 178114 Fuseholder, UL/CSA-Slot,  
Bussman HMM

**METERS**

- \*M1 124034 Meter
- \*M2 124034 Meter

**RESISTORS** (CF = Carbon Film, MF = Metal Film)

- \*R1 134273 Left Gain Control
- \*R2 134273 Right/Mono Gain Control
- \*R3 144148 MF, 31.6k $\Omega$ , 1%, 1/4W
- \*R4 144113 MF, 100k $\Omega$ , 1%, 1/4W
- \*R5 144148 MF, 31.6k $\Omega$ , 1%, 1/4W
- \*R6 144113 MF, 100k $\Omega$ , 1%, 1/4W
- R7 141057 CF, 2.2k $\Omega$ , 5%, 1/4W

**RESISTORS**

- \*RT1 144151 Thermistor, 5 $\Omega$
- \*RT2 144151 Thermistor, 5 $\Omega$

**SWITCHES**

- \*S1 148055 Mode Switch
- \*S2 146183 Speaker Switch
- \*S3 146214 Meter Range Switch
- \*S4 148052 Tone Switch
- \*S5 148052 Speed Switch
- \*S6 146183 Power Switch
- \*S7 153017 Thermal Cut-Out Switch
- \*S8 153017 Thermal Cut-Out Switch

**TRANSFORMERS**

- \*T1 045721 Audio
- \*T2 045721 Audio
- \*T3 045722 Power

**MISCELLANEOUS**

- 084038 Strain Relief (Line Cord)
- 117009 AC Receptacle, Black
- \*J1 117049 Headphone Jack, 3/8"
- 170133 Line Cord, 16 Ga.

Parts marked with an asterisk (\*) are replacement parts stocked by our Service Department and must be ordered from Intosh. These parts must be ordered by part number. Parts not marked may be obtained from electronic parts suppliers.

## NOTES

1-1. If the power transformer is suspected of a malfunction, the DC resistance of the windings must be checked before replacement. The measurements are made with the primary windings disconnected. Actual DC resistance measurements can vary by  $\pm 20\%$ .

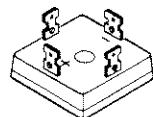
BRN to WHT/BRN	.046 $\Omega$
RED to RED/YEL	.033 $\Omega$
WHT/BLK to YEL/BLK	.056 $\Omega$
YEL/BLK to BLK	0.25 $\Omega$
GRN/BLK to ORN/BLK	.056 $\Omega$
ORN/BLK to RED/BLK	0.25 $\Omega$

1-2. When replacing bridge rectifier D1 make sure to apply a layer of heatsink compound (Dow Corning 340 or equivalent) to the metal bottom of the rectifier before installing on the heatsink.

1-3. If the autotransformer is suspected of a malfunction, the DC resistance of the windings must be checked before replacement. The measurements are made with all windings disconnected. Actual DC resistance measurements can vary by  $\pm 20\%$ .

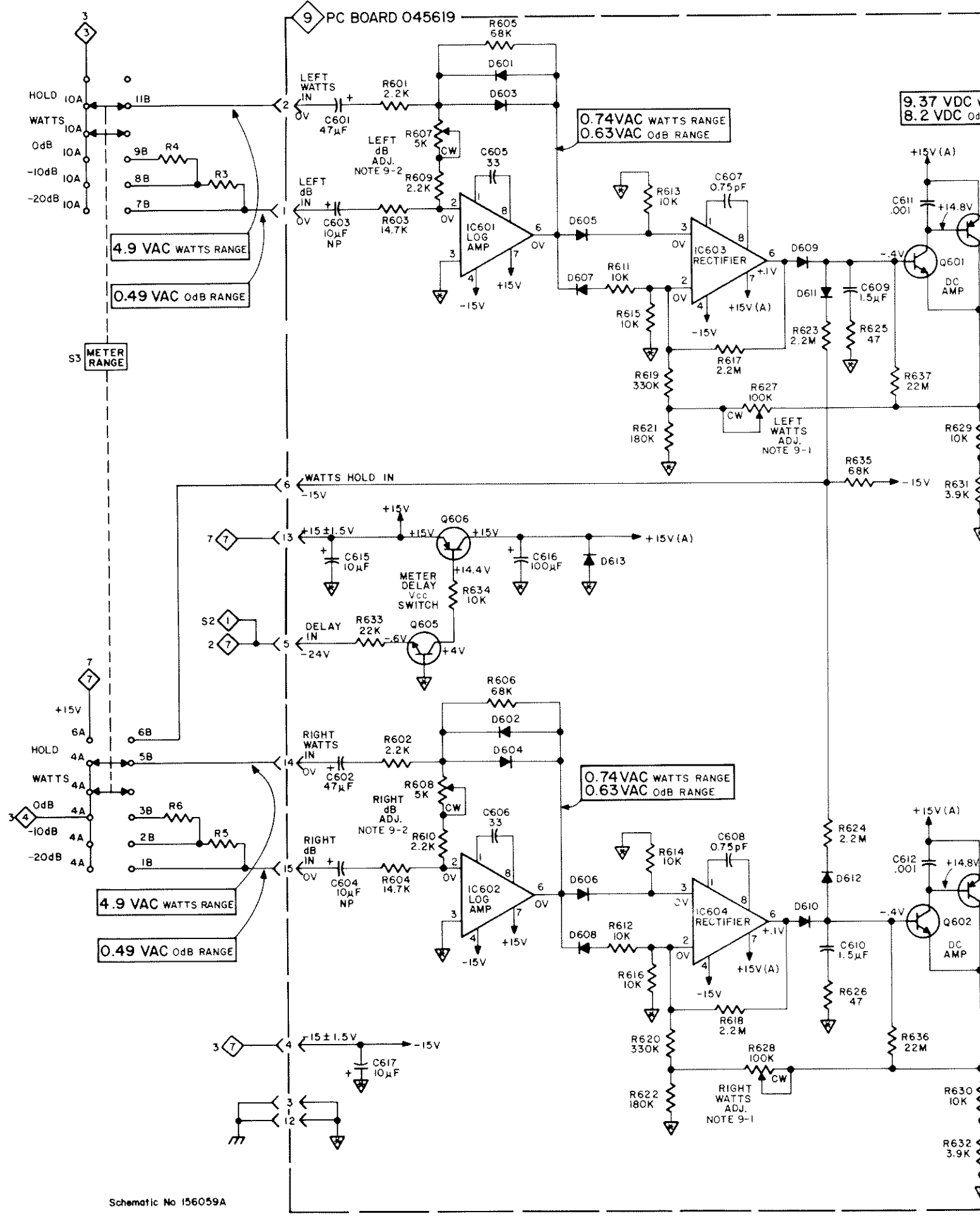
ORN to GRN	0.24 $\Omega$
GRN to RED	0.10 $\Omega$
RED to BLU	0.13 $\Omega$
BLU to WHT	0.36 $\Omega$
BLU to BLK	0.24 $\Omega$

1-4. WARNING! Filter capacitors C3 and C4 have high energy storage capacity. Before servicing, disconnect amplifier from AC line voltage and discharge both capacitors to chassis ground through a resistor.



D1

PC BOARD 045619



Schematic No 156059A

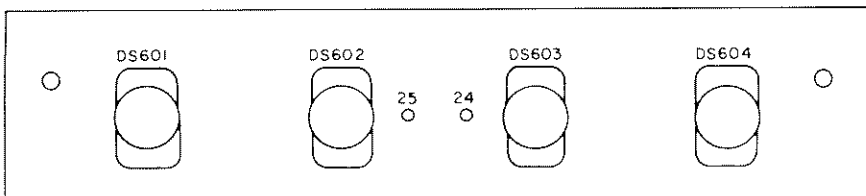


Fig. 9-1. PARTS LOCATION - PC board 045627, left channel.

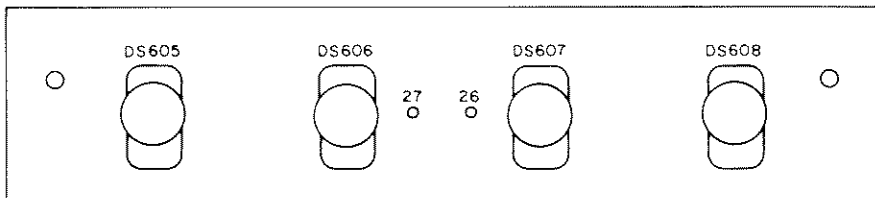
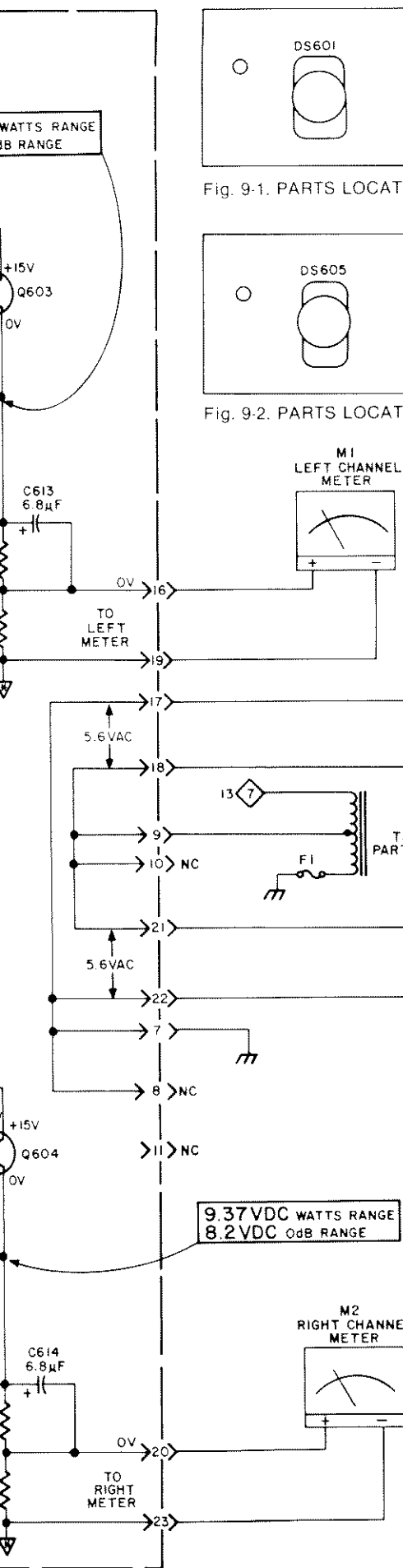
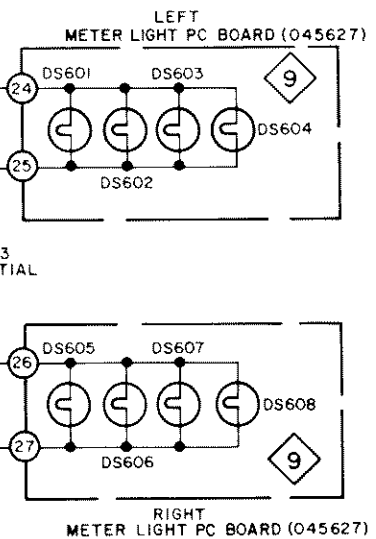


Fig. 9-2. PARTS LOCATION - PC board 045627, right channel.



THE VOLTAGES ENCLOSED IN A BOX ARE SIGNAL VOLTAGES MEASURED WITH THE AMPLIFIER OPERATING AT RATED POWER OUTPUT AT 1 KHZ.



**NOTES**

9-1. WATTS ADJUSTMENT - At rated output (8Ω load), adjust R627 (left) and R628 (right) so that each meter indicates 250 watts with the meter range switch in watts position.

9-2. dB ADJUSTMENT - Adjust the watts scale first (note 9-1). At rated output (8Ω), adjust R607 (left) and R608 (right) so that each meter indicates 0dB with the meter range switch in 0dB position.

**PARTS LIST**

Symbol No.	Part No.
<b>CAPACITORS (CD = MPE =)</b>	
C601	066215
C602	066215
*C603	066316
*C604	066316
C605	061016
C606	061016
*C607	069015
*C608	069015
C609	064143
C610	064143
C611	061035
C612	061035
C613	066290
C614	066290
C615	066211
C616	066226
C617	066211
<b>DIODES (SIG = Signal)</b>	
*D601	070047
*D602	070047
*D603	070047
*D604	070047
*D605	070047
*D606	070047
*D607	070047
*D608	070047
*D609	070047
*D610	070047
*D611	070047
*D612	070047
*D613	070047
<b>LIGHTING DEVICES</b>	
*DS601	058055
*DS602	058055
*DS603	058055
*DS604	058055
*DS605	058055
*DS606	058055
*DS607	058055
*DS608	058055
<b>INTEGRATED CIRCUITS</b>	
*IC601	133068
*IC602	133068
*IC603	133068
*IC604	133068
<b>TRANSISTORS (Si = Silicon)</b>	
*Q601	132195
*Q602	132195
*Q603	132056
*Q604	132056
*Q605	132143
*Q606	132172
<b>RESISTORS (CC = Carbon Film, MF = Metal Film)</b>	
R601	141057
R602	141057
*R603	144149
*R604	144149
R605	141092
R606	141092
*R607	134387
*R608	134387

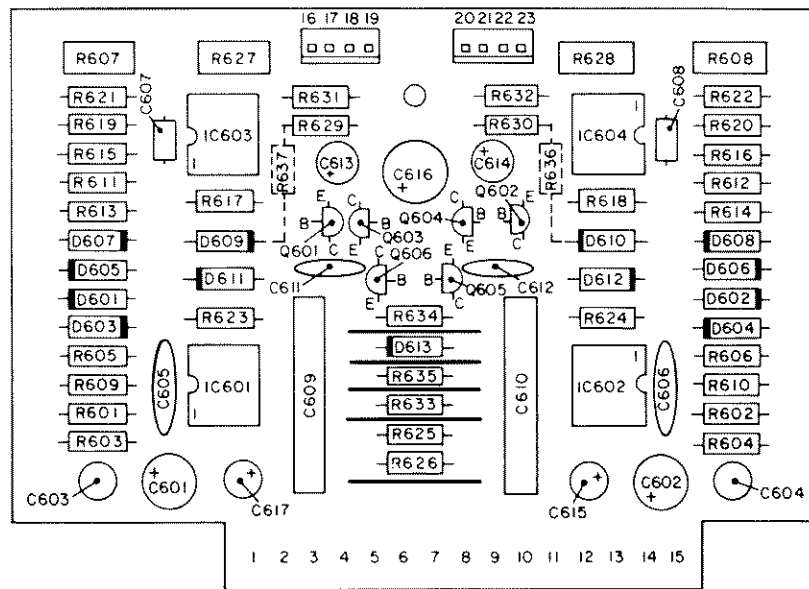


Fig. 9-3. PARTS LOCATION - PC board 045619.

# METER DRIVE and ILLUMINATION

T

**Description**  
 Ceramic Disc, ELECT = Electrolytic,  
 = Metalized Polyester)  
 5 ELECT, 47 $\mu$ F, 16V  
 5 ELECT, 47 $\mu$ F, 16V  
 5 ELECT, 10 $\mu$ F, 25V, NP  
 5 ELECT, 10 $\mu$ F, 25V, NP  
 5 CD, 33pF, 10%, 500V, NPO  
 5 CD, 33pF, 10%, 500V, NPO  
 5 FC, 0.75pF, 10%  
 5 FC, 0.75pF, 10%  
 3 MPE, 1.5 $\mu$ F, 100V  
 3 MPE, 1.5 $\mu$ F, 100V  
 5 CD, .001 $\mu$ F, 20%, 500V, Z5U  
 5 CD, .001 $\mu$ F, 20%, 500V, Z5U  
 0 ELECT, 6.8 $\mu$ F, 10%, 25V  
 0 ELECT, 6.8 $\mu$ F, 10%, 25V  
 1 ELECT, 10 $\mu$ F, 16V  
 6 ELECT, 100 $\mu$ F, 16V  
 1 ELECT, 10 $\mu$ F, 16V  
 (Si = Silicon)  
 7 Si, SIG, 75V, 10mA, IN4148  
 7 Si, SIG, 75V, 10mA, IN4148  
 7 Si, SIG, 75V, 10mA, IN4148  
 7 Si, SIG, 75V, 10mA, IN4148  
 7 Si, SIG, 75V, 10mA, IN4148  
 7 Si, SIG, 75V, 10mA, IN4148  
 7 Si, SIG, 75V, 10mA, IN4148  
 7 Si, SIG, 75V, 10mA, IN4148  
 7 Si, SIG, 75V, 10mA, IN4148  
 7 Si, SIG, 75V, 10mA, IN4148  
 7 Si, SIG, 75V, 10mA, IN4148  
 7 Si, SIG, 75V, 10mA, IN4148  
 7 Si, SIG, 75V, 10mA, IN4148  
 7 Si, SIG, 75V, 10mA, IN4148

R609	141057	CF, 2.2k $\Omega$ , 5%, 1/4W
R610	141057	CF, 2.2k $\Omega$ , 5%, 1/4W
R611	141072	CF, 10k $\Omega$ , 5%, 1/4W
R612	141072	CF, 10k $\Omega$ , 5%, 1/4W
R613	141072	CF, 10k $\Omega$ , 5%, 1/4W
R614	141072	CF, 10k $\Omega$ , 5%, 1/4W
R615	141072	CF, 10k $\Omega$ , 5%, 1/4W
R616	141072	CF, 10k $\Omega$ , 5%, 1/4W
R617	141124	CF, 2.2M $\Omega$ , 5%, 1/4W
R618	141124	CF, 2.2M $\Omega$ , 5%, 1/4W
R619	141108	CF, 330k $\Omega$ , 5%, 1/4W
R620	141108	CF, 330k $\Omega$ , 5%, 1/4W
R621	141102	CF, 180k $\Omega$ , 5%, 1/4W
R622	141102	CF, 180k $\Omega$ , 5%, 1/4W
R623	141124	CF, 2.2M $\Omega$ , 5%, 1/4W
R624	141124	CF, 2.2M $\Omega$ , 5%, 1/4W
R625	141152	CF, 47 $\Omega$ , 5%, 1/4W
R626	141152	CF, 47 $\Omega$ , 5%, 1/4W
*R627	134383	POT, 100k $\Omega$ , 20%
*R628	134383	POT, 100k $\Omega$ , 20%
R629	141072	CF, 10k $\Omega$ , 5%, 1/4W
R630	141072	CF, 10k $\Omega$ , 5%, 1/4W
R631	141062	CF, 3.9k $\Omega$ , 5%, 1/4W
R632	141062	CF, 3.9k $\Omega$ , 5%, 1/4W
R633	141080	CF, 22k $\Omega$ , 5%, 1/4W
R634	141072	CF, 10k $\Omega$ , 5%, 1/4W
R635	141092	CF, 68k $\Omega$ , 5%, 1/4W
R636	136477	CC, 22M $\Omega$ , 10%, 1/4W
R637	136477	CC, 22M $\Omega$ , 10%, 1/4W

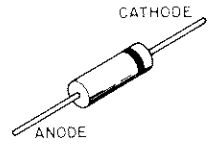
\* Parts marked with an asterisk (\*) are replacement parts stocked by our Service Department and must be ordered from McIntosh. These parts must be ordered by part number. Parts not marked may be obtained from electronic parts suppliers.

(INC = Incandescent)  
 5 INC, 6.3V, 250mA, GE259  
 5 INC, 6.3V, 250mA, GE259  
 5 INC, 6.3V, 250mA, GE259  
 5 INC, 6.3V, 250mA, GE259  
 5 INC, 6.3V, 250mA, GE259  
 5 INC, 6.3V, 250mA, GE259  
 5 INC, 6.3V, 250mA, GE259  
 5 INC, 6.3V, 250mA, GE259

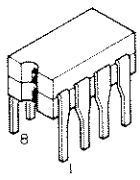
**UNITS** (AN = Analog, BP = Bipolar)  
 58 AN, BP, Operation Amp, LM201A  
 58 AN, BP, Operation Amp, LM201A  
 58 AN, BP, Operation Amp, LM201A  
 58 AN, BP, Operation Amp, LM201A

(Si = Silicon)  
 5 Si, NPN, 40V, Low Noise  
 5 Si, NPN, 40V, Low Noise  
 56 Si, PNP, 2N5087  
 56 Si, PNP, 2N5087  
 43 Si, NPN, MPS-D05  
 72 Si, PNP, MPS-A55

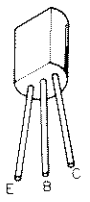
Carbon Composition, CF = Carbon Film,  
 Metal Film, POT = Potentiometer)  
 57 CF, 2.2k $\Omega$ , 5%, 1/4W  
 57 CF, 2.2k $\Omega$ , 5%, 1/4W  
 49 MF, 14.7k $\Omega$ , 1%, 1/4W  
 49 MF, 14.7k $\Omega$ , 1%, 1/4W  
 52 CF, 68k $\Omega$ , 5%, 1/4W  
 52 CF, 68k $\Omega$ , 5%, 1/4W  
 87 POT, 5k $\Omega$ , 20%  
 87 POT, 5k $\Omega$ , 20%



D601-D613



IC601-IC604



Q601-Q606

## INSTALLATION HARDWARE

Part No.	Description
*044871	Hardware Pkg.
*043677	Mounting Strips
*038244	Mounting Template
*043678	Panloc Shelf Bracket, Right
*043679	Panloc Shelf Bracket, Left
*017218	Plastic Feet, Secure w/101072 Screws
*101072	Sheetmetal Screw, #8 x 3/4, Phillips, black

## FRONT PANEL and TRIM

Part No.	Description
*045736	Front Panel, Complete
*045739	Front Panel, Glass
*018173	End Cap, Secure w/101042 Screws
*045740	Bezel, w/Adhesive
*090156	Left Gain Knob
*090156	Right/Mono Gain Knob
*090170	Meter Range Knob
*090156	Speaker Knob
*090156	Power Knob
*018155	Top Panel Rail, Secure w/100007 Screws
*018155	Bottom Panel Rail, Secure w/100103 Screws
*101054	Tapping Screws, 6-32 x 1/4, phillips, black
*104017	Felt Washers, Knobs
*101042	Tapping Screw, 4-40 x 1/2, filister head
*100007	Machine Screw, 6-32 x 1/4
*100103	Machine Screw, 6-32 x 1/8

## SHIPPING CARTON

Part No.	Description
*033241	Shipping Skid
*033368	Shipping Carton only
101034	10x2" Screw (3 required for mounting skid)
104033	10x 1 3/4" Flat Washer (3 used with 101034 screws)
*045758	Shipping Carton, Complete

# MC 2255

Stereo Power Amplifier

# Schematics

039401

Sheet **1** of **2**

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## McIntosh

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This sheet includes sections

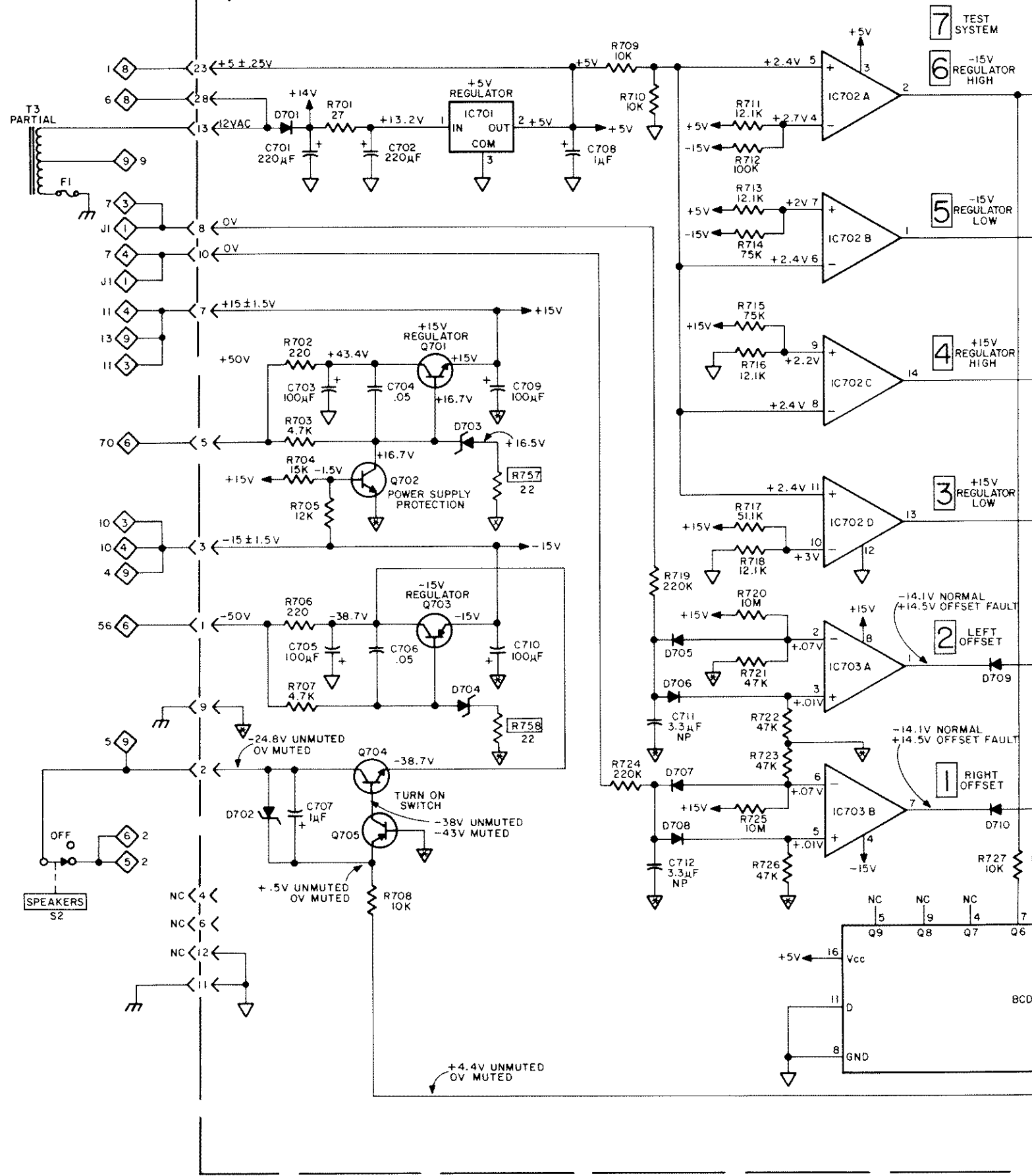
- ◆ **1** INTERCONNECTION DIAGRAM
  
- ◆ **2** INPUT LEVEL
  
- ◆ **7** POWER SUPPLY, COUNTDOWN and  
POWER GUARD DISPLAY DRIVES
  
- ◆ **8** POWER GUARD, COUNTDOWN and  
METER FUNCTION DISPLAYS
  
- ◆ **9** METER DRIVE and ILLUMINATION

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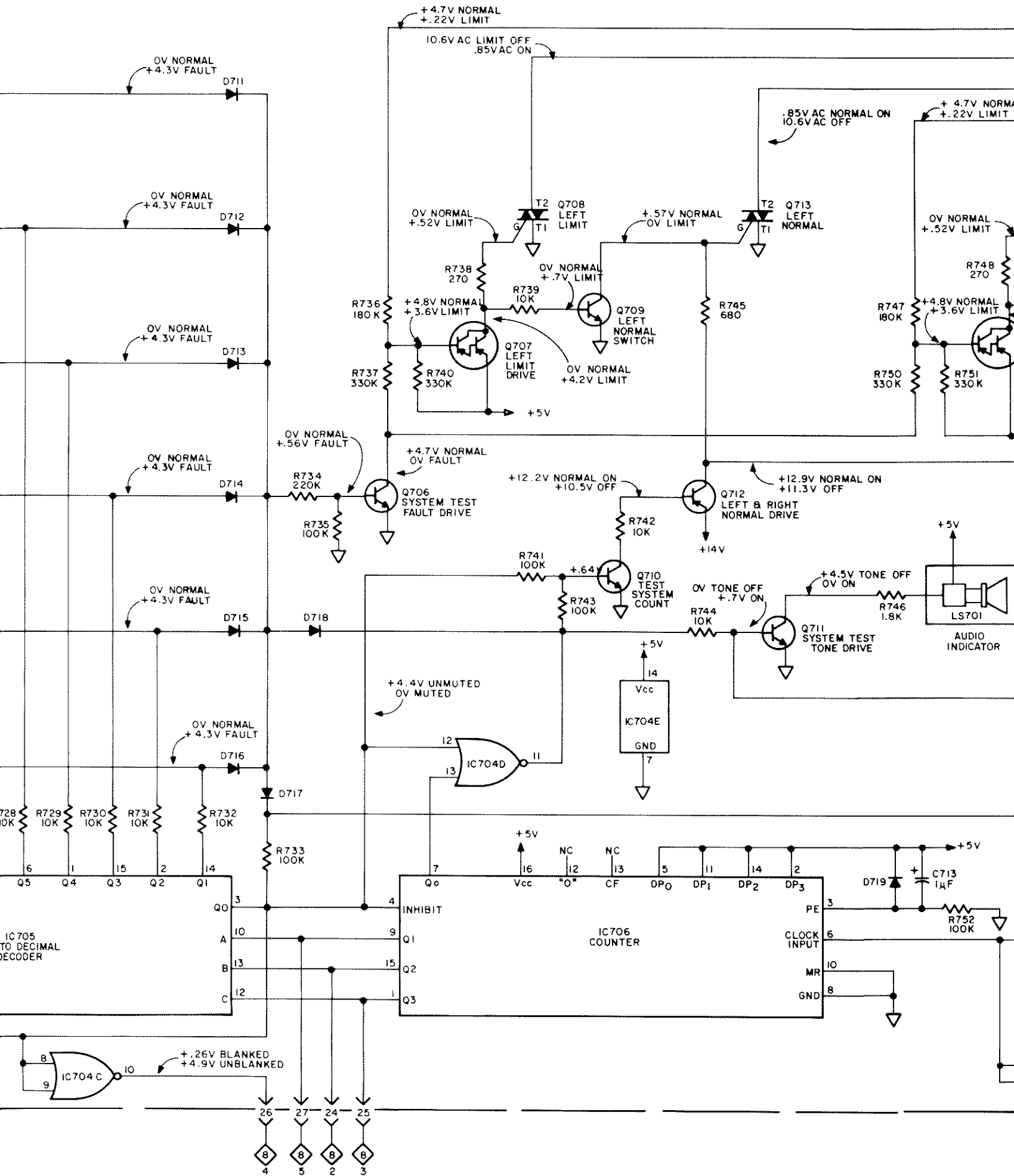
**McIntosh Laboratory Inc. 2 Chambers Street, Binghamton, NY 13903-9990**

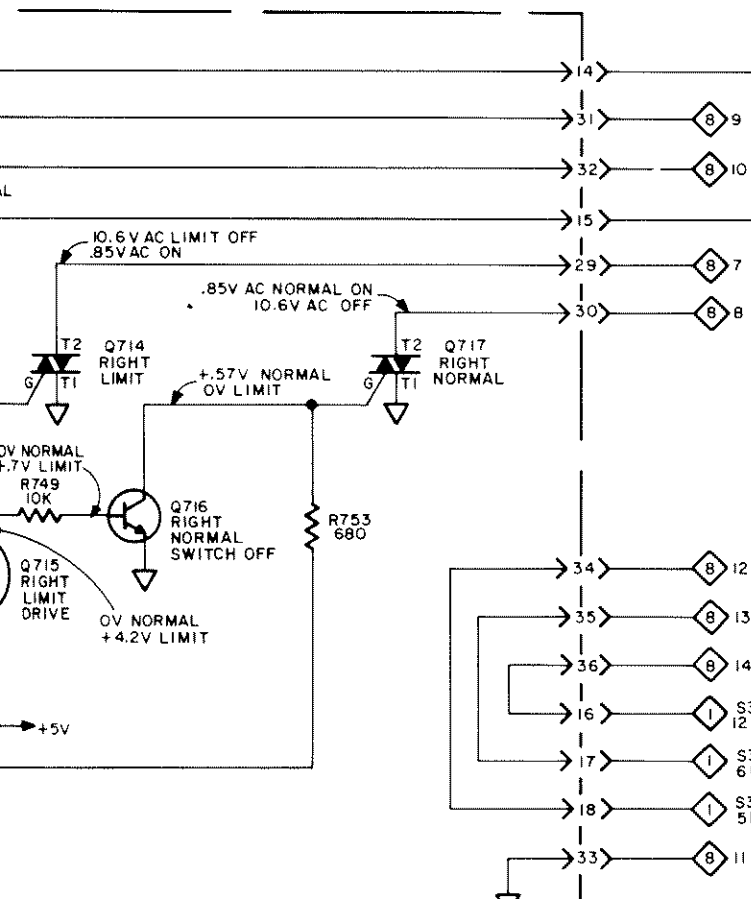


7 PC BOARDS 045727 and 045914

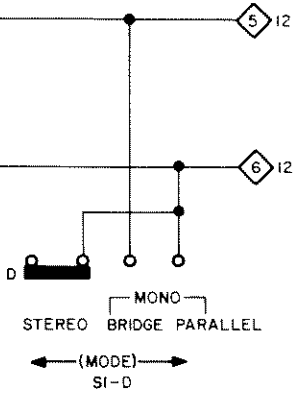


Schematic No. 156057A





"0" CMOS LOGIC LOW  
"1" CMOS LOGIC HIGH



IF THE SYMBOL NUMBER IS ENCLOSED IN A BOX, REFER TO THE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

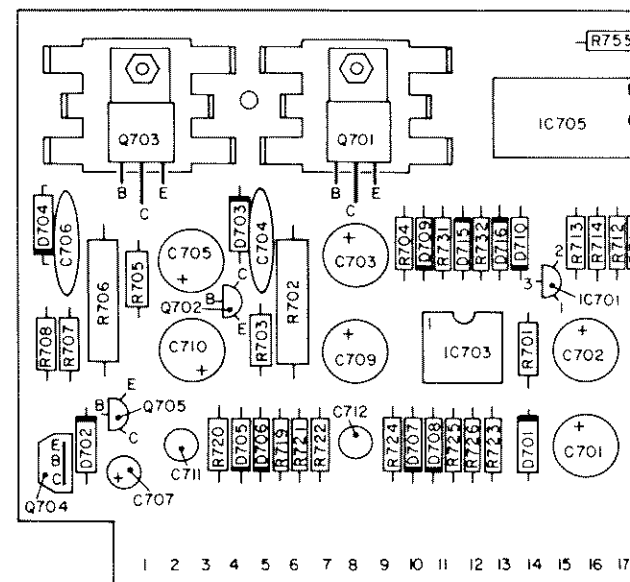
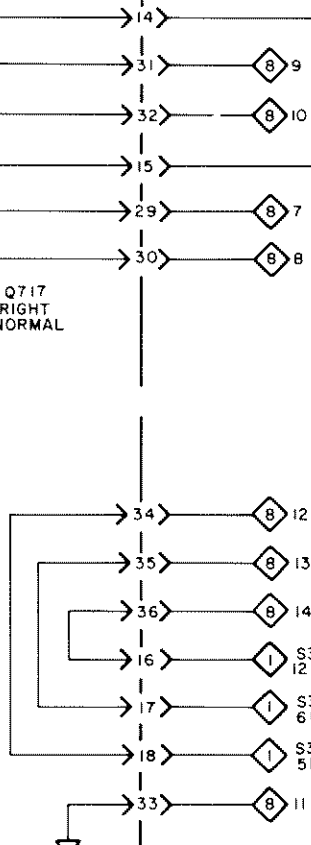


Fig. 7-1. PARTS LOCATION - PC board 045727 used on units S/N CT1001 to CT2552.

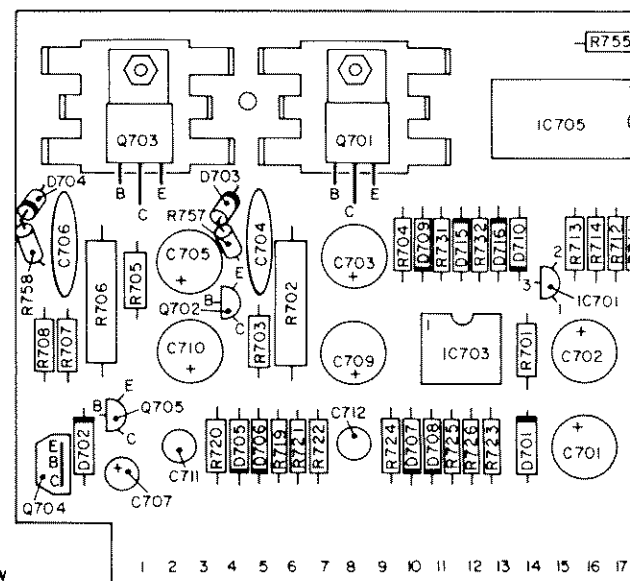
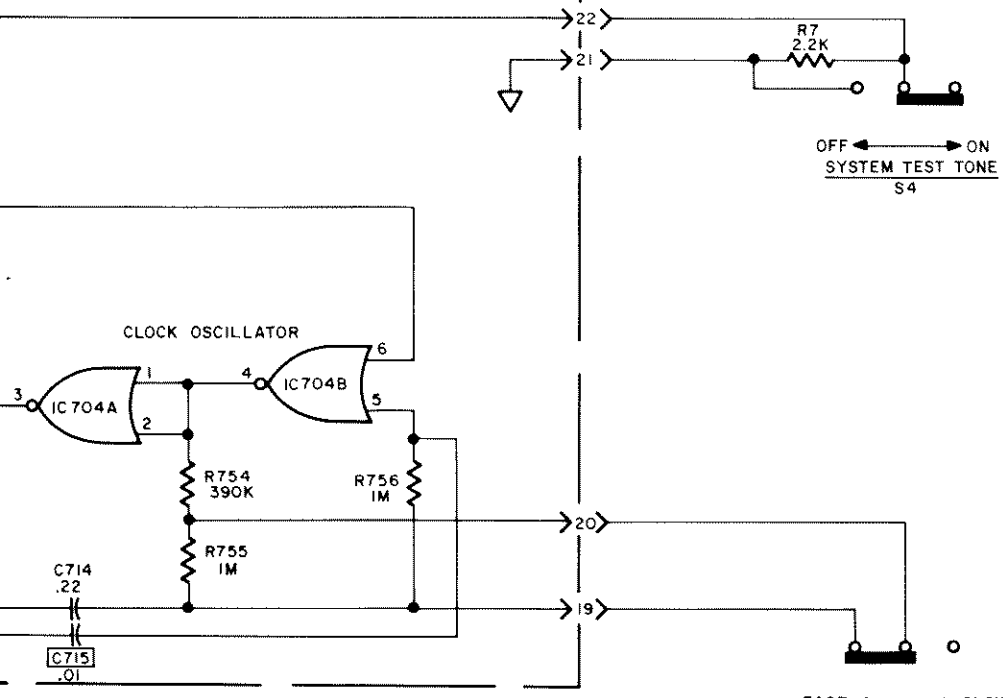


Fig. 7-2. PARTS LOCATION - PC board 045914 used on units S/N CT2553 and above.

# PARTS LIST

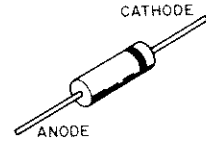
Symbol No.	Part No.	Description
<b>CAPACITORS</b> (CD = Ceramic Disc, ELECT = Electrolytic, MPE = Metalized Polyester)		
C701	066330	ELECT, 220 $\mu$ F, 16V
C702	066330	ELECT, 220 $\mu$ F, 16V
C703	066353	ELECT, 100 $\mu$ F, 50V....(7486)
C704	061048	CD, .05 $\mu$ F, +80 -20%, 100V, 25V
C705	066353	ELECT, 100 $\mu$ F, 50V....(7486)
C706	061048	CD, .05 $\mu$ F, +80 -20%, 100V, 25V
C707	066242	ELECT, 1 $\mu$ F, 50V
C708	066242	ELECT, 1 $\mu$ F, 50V
C709	066353	ELECT, 100 $\mu$ F, 50V....(7486)
C710	066353	ELECT, 100 $\mu$ F, 50V....(7486)
*C711	066277	ELECT, 3.3 $\mu$ F, 20%, 50V, NP
*C712	066277	ELECT, 3.3 $\mu$ F, 20%, 50V, NP
C713	066242	ELECT, 1 $\mu$ F, 50V
C714	064190	MPE, .22 $\mu$ F, 5%, 63V
C715	061159	S/N CT2210 and above: CD, .01 $\mu$ F, +80 -20%, 50V....(7389)

<b>DIODES</b> (SIG = Signal, Si = Silicon, RECT = Rectifier, ZN = Zener)		
*D701	070031	Si, RECT, 400 PIV, 1.5A
*D702	070065	Si, ZN, 24V, 5%, 1W
*D703	070114	Si, ZN, 16V, 5%, 500mW
*D704	070114	Si, ZN, 16V, 5%, 500mW
*D705	070047	Si, SIG, 75V, 10mA, IN4148
*D706	070047	Si, SIG, 75V, 10mA, IN4148
*D707	070047	Si, SIG, 75V, 10mA, IN4148
*D708	070047	Si, SIG, 75V, 10mA, IN4148
*D709	070047	Si, SIG, 75V, 10mA, IN4148
*D710	070047	Si, SIG, 75V, 10mA, IN4148
*D711	070047	Si, SIG, 75V, 10mA, IN4148
*D712	070047	Si, SIG, 75V, 10mA, IN4148
*D713	070047	Si, SIG, 75V, 10mA, IN4148
*D714	070047	Si, SIG, 75V, 10mA, IN4148
*D715	070047	Si, SIG, 75V, 10mA, IN4148
*D716	070047	Si, SIG, 75V, 10mA, IN4148
*D717	070047	Si, SIG, 75V, 10mA, IN4148
*D718	070047	Si, SIG, 75V, 10mA, IN4148
*D719	070047	Si, SIG, 75V, 10mA, IN4148

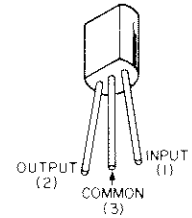
<b>INTEGRATED CIRCUITS</b> (AN = Analog, BP = Bipolar, DG = Digital, C-MOS = Complementary MOS)		
*IC701	133093	AN, BP, Positive 5V Regulator, 78L05A
*IC702	133092	AN, BP, Quad Comparator, MLM339AP
*IC703	133028	AN, BP, Dual Hi-speed Operation Amp., MC-4558P
*IC704	133064	DG, C-MOS, Quad, 2 input NOR Gate, MC14001B
*IC705	133082	DG, C-MOS, BCD to Decimal Decoder, MC14028B
*IC706	133091	DG, C-MOS, Divide-By-N-4-Bit Counter, MC14526BCP

<b>TRANSISTORS</b> (DAR = Darlington, Si = Silicon)		
*Q701	132174	Si, NPN, FT3055
*Q702	132143	Si, NPN, MPS-D05
*Q703	132173	Si, PNP, FT2955
*Q704	132149	Si, NPN, MPS-U07
*Q705	132147	Si, PNP, MPS-A93
*Q706	132143	Si, NPN, MPS-D05
*Q707	132182	Si, PNP, DAR, MPS-A64
*Q708	131011	Si, TRIAC, IB200-1
*Q709	132143	Si, NPN, MPS-D05
*Q710	132143	Si, NPN, MPS-D05
*Q711	132143	Si, NPN, MPS-D05
*Q712	132172	Si, PNP, MPS-A55....(7448)
*Q713	131011	Si, TRIAC, IB200-1
*Q714	131011	Si, TRIAC, IB200-1
*Q715	132182	Si, PNP, DAR, MPS-A64
*Q716	132143	Si, NPN, MPS-D05
*Q717	131011	Si, TRIAC, IB200-1

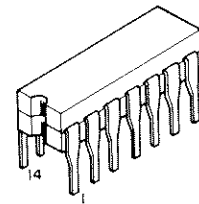
**RESISTORS** (CC = Carbon Composition, CF = Carbon Film



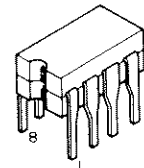
D701-D719



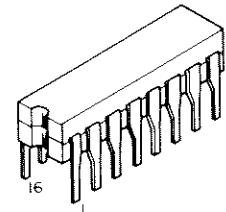
IC701



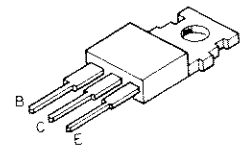
IC702  
IC704



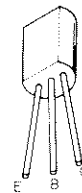
IC703



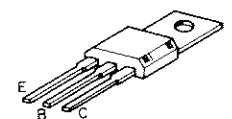
IC705  
IC706



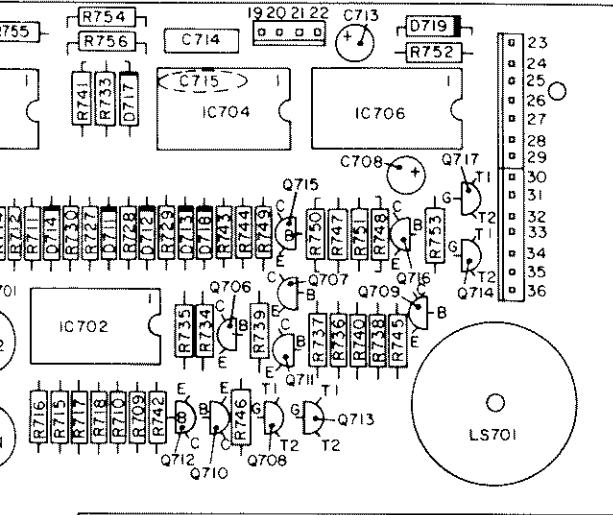
Q701  
Q703



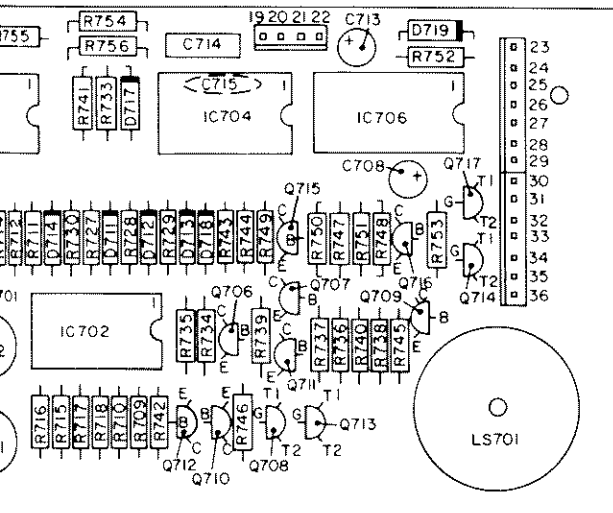
Q702  
Q705-Q707  
Q709-Q712  
Q715, Q716



Q704



used in

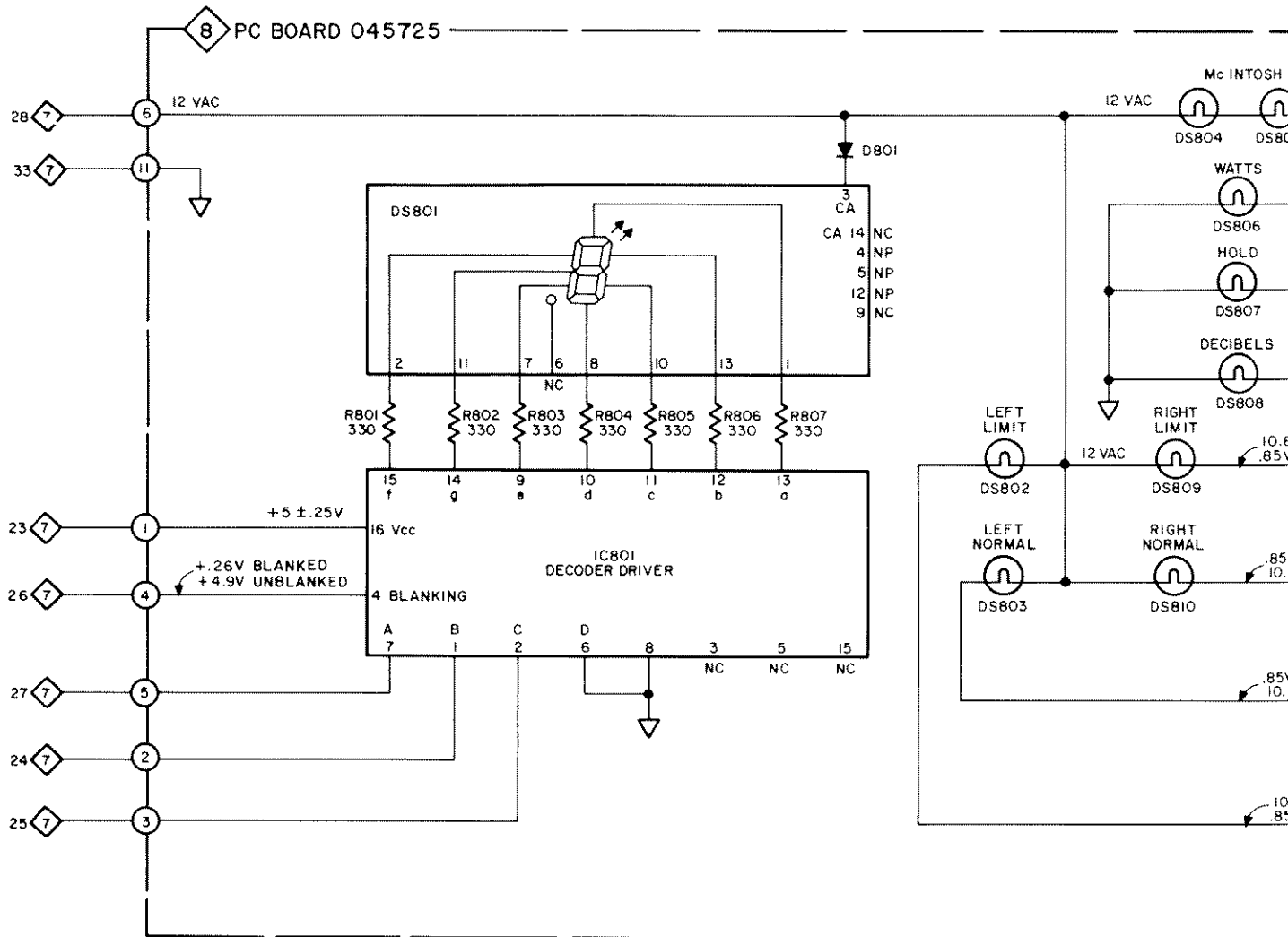


used in

SECTION

**8**

**POWER GUARD, COUNTDOWN and**



Schematic No. I56058A

**METER FUNCTION DISPLAYS**

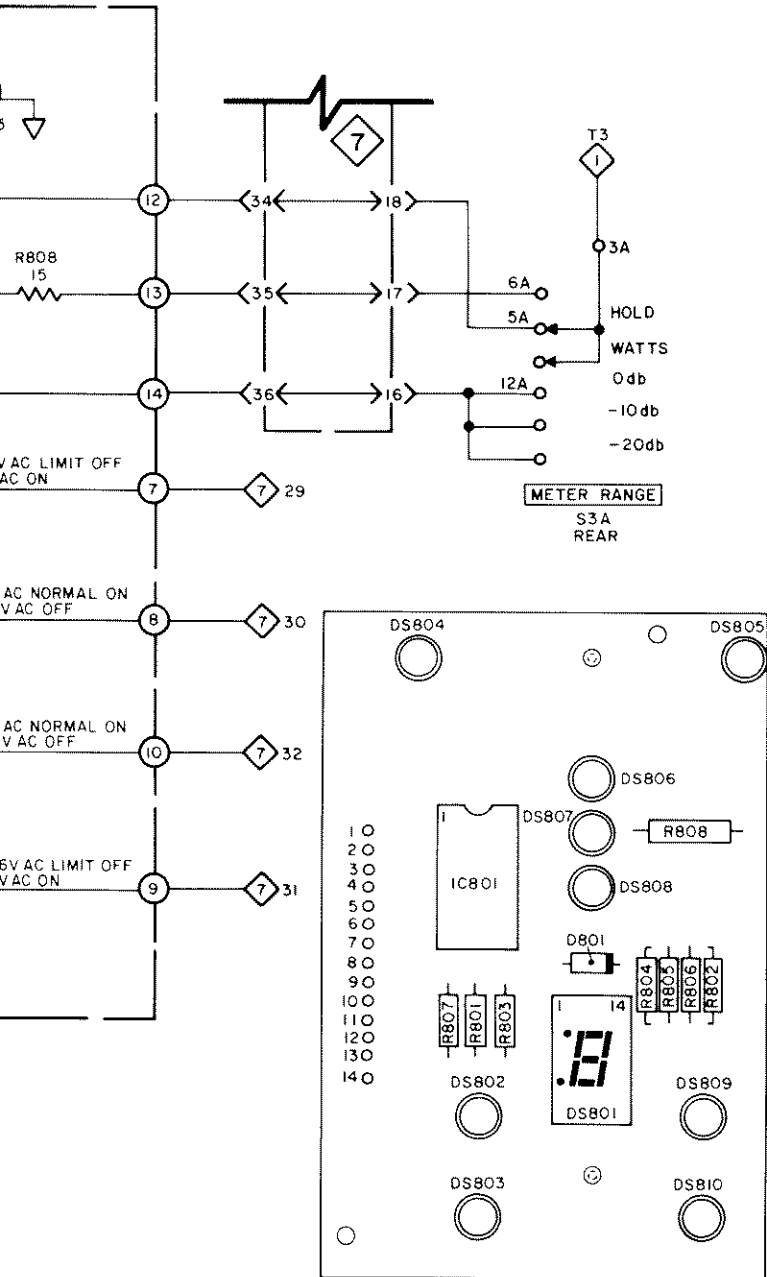
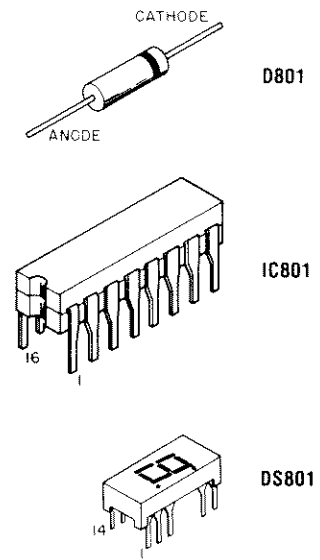


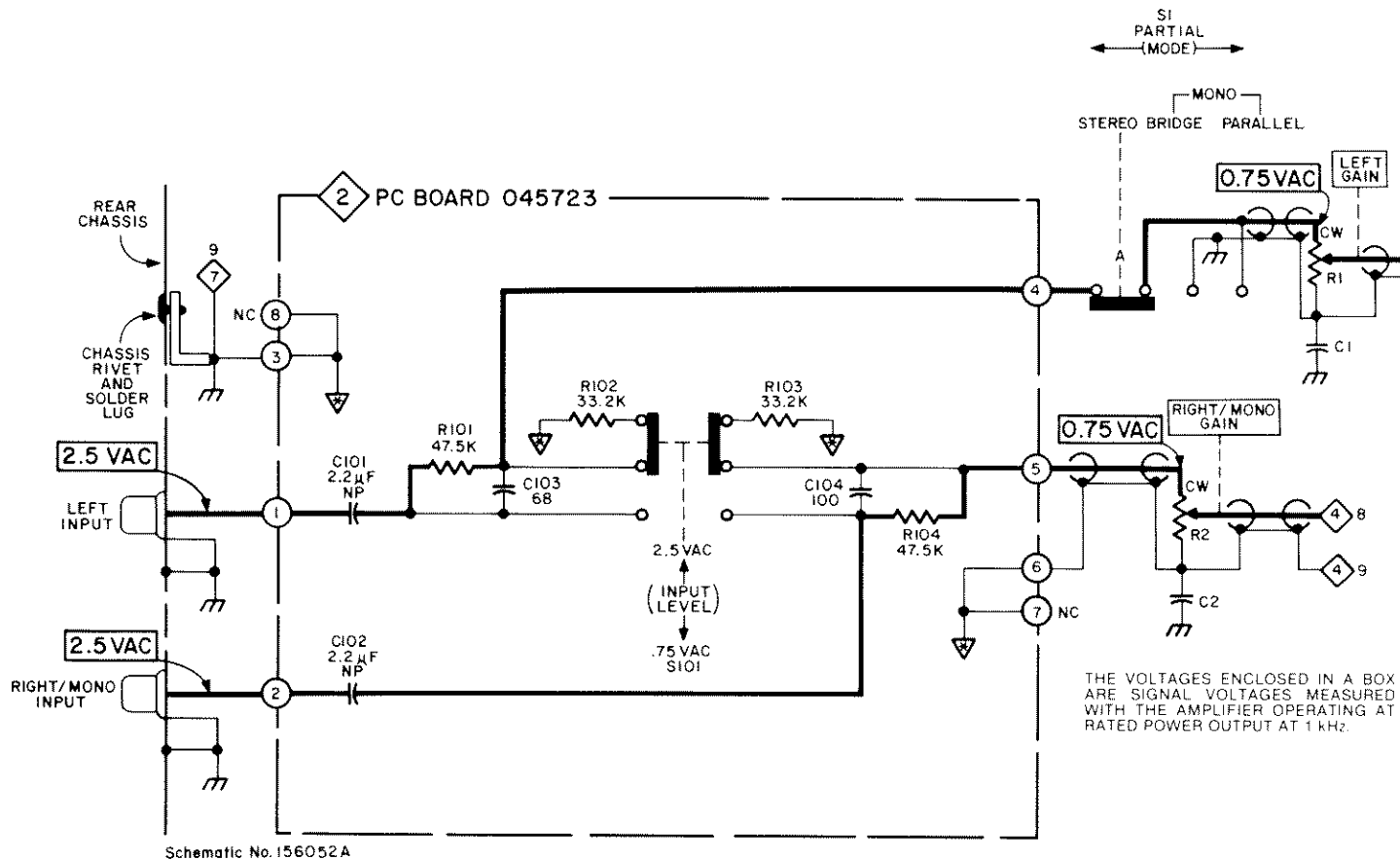
Fig. 8-1. PARTS LOCATION - PC board 045725.

**PARTS LIST**

Symbol No.	Part No.	Description
<b>DIODES</b> (SIG = Signal, Si = Silicon)		
*D801	070047	Si, SIG, 75V, 10mA, IN4148
<b>LIGHTING DEVICES</b> (INC = Incandescent)		
*DS801	058079	7-Segment Display, MAN72AB
*DS802	058061	INC. 14V, 80mA, 7382
*DS803	058061	INC. 14V, 80mA, 7382
*DS804	058062	INC. 6.3V, 200mA, 7381
*DS805	058062	INC. 6.3V, 200mA, 7381
*DS806	058062	INC. 6.3V, 200mA, 7381
*DS807	058062	INC. 6.3V, 200mA, 7381
*DS808	058062	INC. 6.3V, 200mA, 7381
*DS809	058061	INC. 14V, 80mA, 7382
*DS810	058061	INC. 14V, 80mA, 7382
<b>INTEGRATED CIRCUITS</b> (DG = Digital, TTL = Transistor-Transistor Logic)		
*IC801	133090	DG, TTL, Seven Segment Decoder/latch/driver SN74LS47
<b>RESISTORS</b> (CF = Carbon Film)		
R801	141037	CF, 330Ω, 5%, 1/4W
R802	141037	CF, 330Ω, 5%, 1/4W
R803	141037	CF, 330Ω, 5%, 1/4W
R804	141037	CF, 330Ω, 5%, 1/4W
R805	141037	CF, 330Ω, 5%, 1/4W
R806	141037	CF, 330Ω, 5%, 1/4W
R807	141037	CF, 330Ω, 5%, 1/4W
R808	141205	CF, 15Ω, 5%, 1/2W

\* Parts marked with an asterisk (\*) are replacement parts stocked by our Service Department and must be ordered from McIntosh. These parts must be ordered by part number. Parts not marked may be obtained from electronic parts suppliers.





Schematic No. 156052A

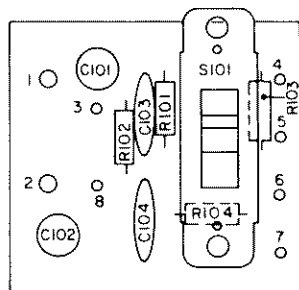


Fig. 2-1. PARTS LOCATION - PC board 045723.

## PARTS LIST

Symbol No.	Part No.	Description
------------	----------	-------------

### CAPACITORS (CD = Ceramic Disc, ELECT = Electrolytic)

- \*C101 066302 ELECT, 2.2µF, 25V, NP
- \*C102 066302 ELECT, 2.2µF, 25V, NP
- C103 061133 CD, 68pF, 10%, N750, CG
- C104 061023 CD, 100pF, 10%, 500V, N1500

### RESISTORS (MF = Metal Film)

- \*R101 144108 MF, 47.5K, 1%, 1/4W
- \*R102 144106 MF, 33.2K, 1%, 1/4W
- \*R103 144106 MF, 33.2K, 1%, 1/4W
- \*R104 144108 MF, 47.5K, 1%, 1/4W

### SWITCHES

- \*S101 148053 Input Level Switch

\* Parts marked with an asterisk (\*) are replacement parts stocked by our Service Department and must be ordered from McIntosh. These parts must be ordered by part number. Parts not marked may be obtained from electronic parts suppliers.

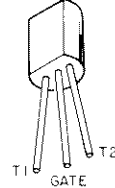
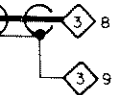
**RESISTORS** (CC = Carbon Composition, CF = Carbon Film,  
MF = Metal Film, FP = Flameproof)

R701	141146	CF, 27, 5%, 1/4W
*R702	139158	FP, 220Ω, 10%, 2W
R703	141064	CF, 4.7kΩ, 5%, 1/4W
R704	141076	CF, 15kΩ, 5%, 1/4W
R705	141074	CF, 12kΩ, 5%, 1/4W
*R706	139158	FP, 220Ω, 10%, 2W
R707	141064	CF, 4.7kΩ, 5%, 1/4W
R708	141072	CF, 10kΩ, 5%, 1/4W
*R709	144053	MF, 10kΩ, 1%, 1/4W
*R710	144053	MF, 10kΩ, 1%, 1/4W
*R711	144154	MF, 12.1kΩ, 1%, 1/4W
*R712	144113	MF, 100kΩ, 1%, 1/4W
*R713	144154	MF, 12.1kΩ, 1%, 1/4W
*R714	144156	MF, 75kΩ, 1%, 1/4W
*R715	144156	MF, 75kΩ, 1%, 1/4W
*R716	144154	MF, 12.1kΩ, 1%, 1/4W
*R717	144155	MF, 51.1kΩ, 1%, 1/4W
*R718	144154	MF, 12.1kΩ, 1%, 1/4W
*R719	141104	CF, 220kΩ, 5%, 1/4W
R720	136476	CC, 10MΩ, 10%, 1/4W
R721	141088	CF, 47kΩ, 5%, 1/4W
R722	141088	CF, 47kΩ, 5%, 1/4W
R723	141088	CF, 47kΩ, 5%, 1/4W
R724	141104	CF, 220kΩ, 5%, 1/4W
R725	136476	CC, 10MΩ, 10%, 1/4W
R726	141088	CF, 47kΩ, 5%, 1/4W
R727	141072	CF, 10kΩ, 5%, 1/4W
R728	141072	CF, 10kΩ, 5%, 1/4W
R729	141072	CF, 10kΩ, 5%, 1/4W
R730	141072	CF, 10kΩ, 5%, 1/4W
R731	141072	CF, 10kΩ, 5%, 1/4W
R732	141072	CF, 10kΩ, 5%, 1/4W
R733	141096	CF, 100kΩ, 5%, 1/4W
R734	141104	CF, 220kΩ, 5%, 1/4W
R735	141096	CF, 100kΩ, 5%, 1/4W
R736	141102	CF, 180kΩ, 5%, 1/4W
R737	141108	CF, 330kΩ, 5%, 1/4W
R738	141035	CF, 270Ω, 5%, 1/4W
R739	141072	CF, 10kΩ, 5%, 1/4W
R740	141108	CF, 330kΩ, 5%, 1/4W
R741	141096	CF, 100kΩ, 5%, 1/4W
R742	141072	CF, 10kΩ, 5%, 1/4W
R743	141096	CF, 100kΩ, 5%, 1/4W
R744	141072	CF, 10kΩ, 5%, 1/4W
R745	141045	CF, 680, 5%, 1/4W
R746	141055	CF, 1.8kΩ, 5%, 1/4W
R747	141102	CF, 180kΩ, 5%, 1/4W
R748	141035	CF, 270Ω, 5%, 1/4W
R749	141072	CF, 10kΩ, 5%, 1/4W
R750	141108	CF, 330kΩ, 5%, 1/4W
R751	141108	CF, 330kΩ, 5%, 1/4W
R752	141096	CF, 100kΩ, 5%, 1/4W
R753	141045	CF, 680, 5%, 1/4W
R754	141110	CF, 390kΩ, 5%, 1/4W
R755	141120	CF, 1MΩ, 5%, 1/4W
R756	141120	CF, 1MΩ, 5%, 1/4W
R757	141144	S/N CT2553 and above: CF, 22Ω, 5%, 1/4W....(7345)
R758	141144	S/N CT2553 and above: CF, 22Ω, 5%, 1/4W....(7345)

**MISCELLANEOUS**

\*LS701 098195 Audio Transducer

\* Parts marked with an asterisk (\*) are replacement parts stocked by our Service Department and must be ordered from McIntosh. These parts must be ordered by part number. Parts not marked may be obtained from electronic parts suppliers.

Q708, Q713  
Q714, Q717OX  
ED  
AT



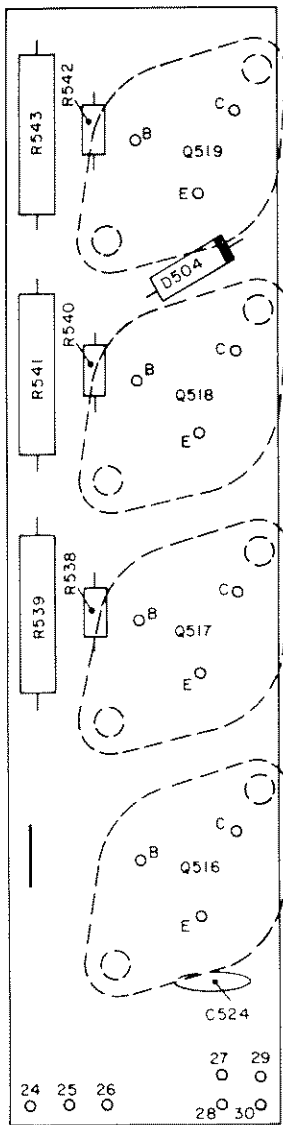


Fig. 6-4. PARTS LOCATION - PC board 045728, positive heatsink.

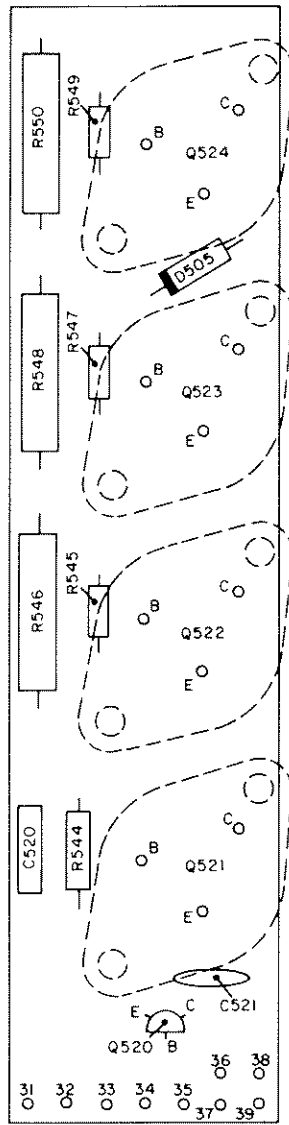
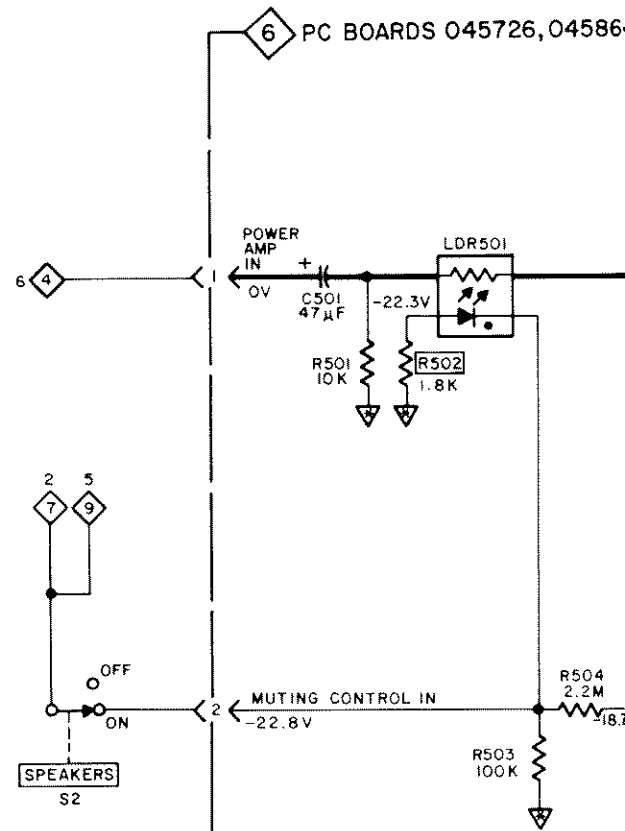


Fig. 6-5. PARTS LOCATION - PC board 045729, negative heatsink.

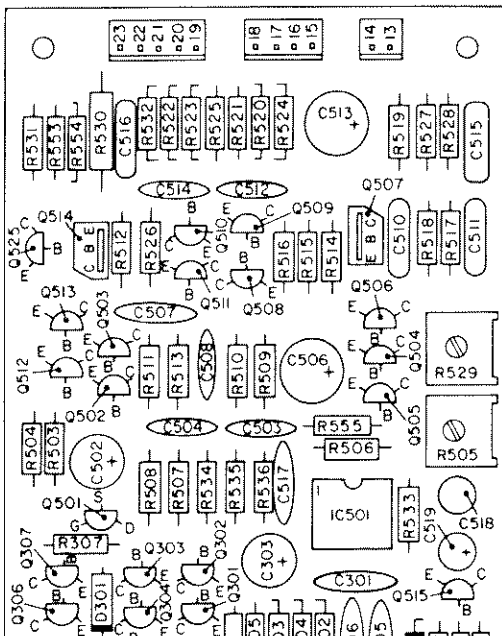


### NOTES

- 6-1. OFFSET ADJUSTMENT - through amplifier, adjust  $\pm 3\text{mVDC}$  across  $8\Omega$  output
- 6-2. DC BIAS ADJUSTMENT - under load until heatsinks input signal, adjust R529 until AC power line current 50mA.

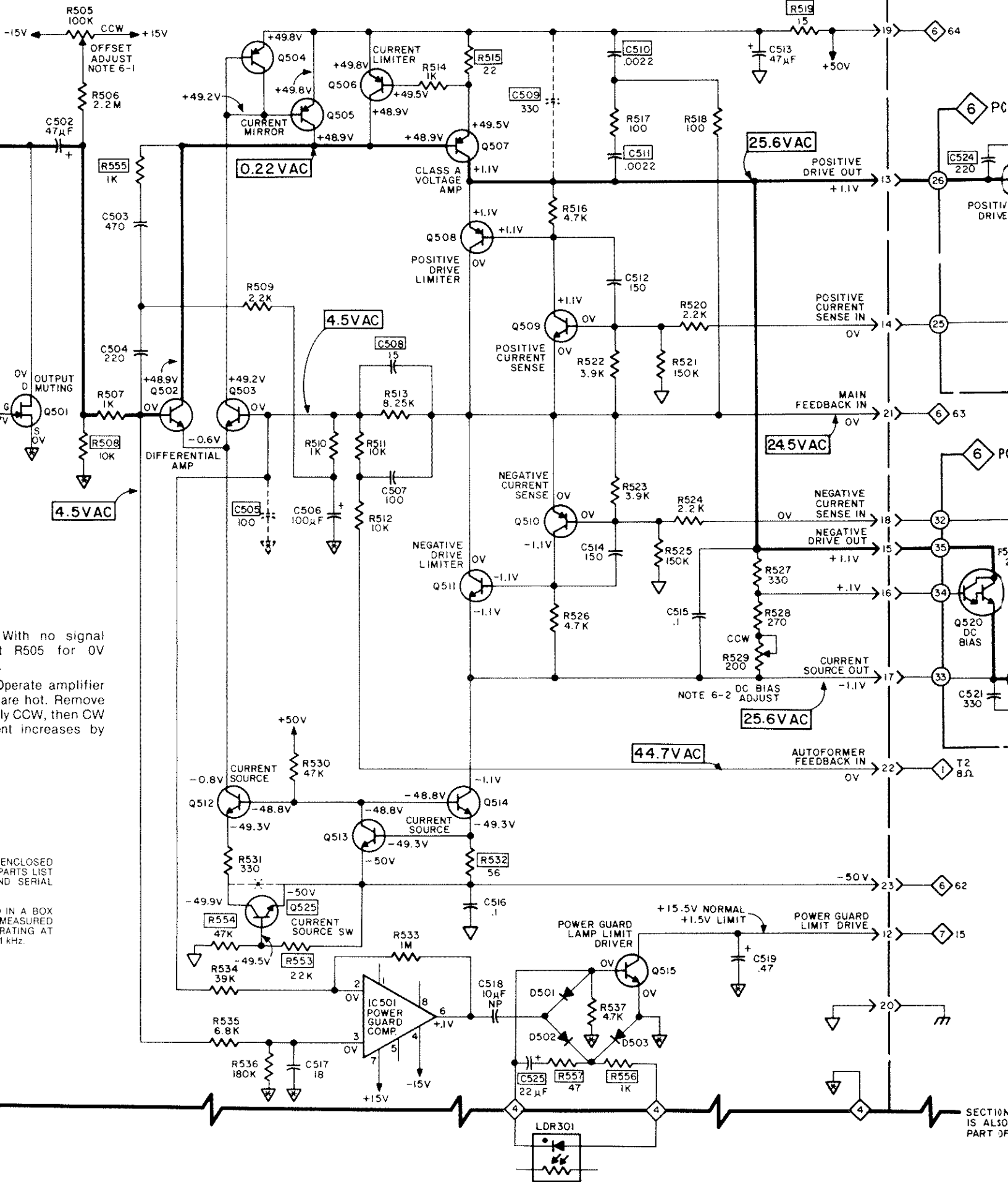
IF THE SYMBOL NUMBER IS IN A BOX, REFER TO THE FOR EARLIER VALUES AND NUMBER RANGES.

THE VOLTAGES ENCLOSED ARE SIGNAL VOLTAGES WITH THE AMPLIFIER OPERATED POWER OUTPUT AT



+15V -15V

Schematic No. 156056A



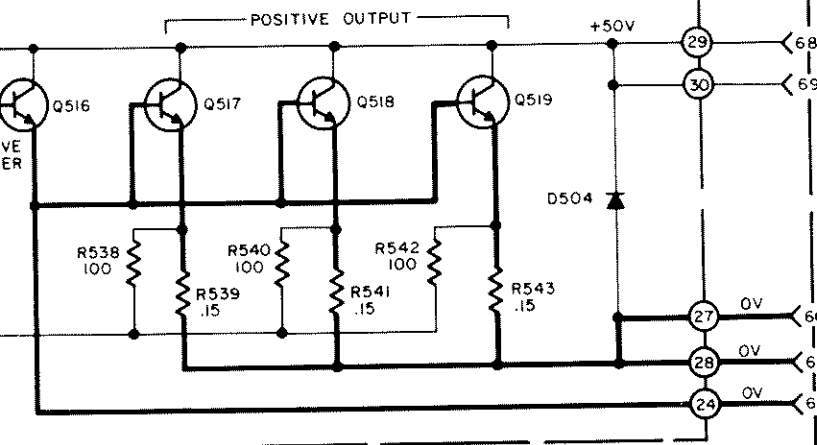
With no signal  
at R505 for 0V  
Operate amplifier  
are hot. Remove  
ly CCW, then CW  
nt increases by

ENCLOSED  
PARTS LIST  
AND SERIAL

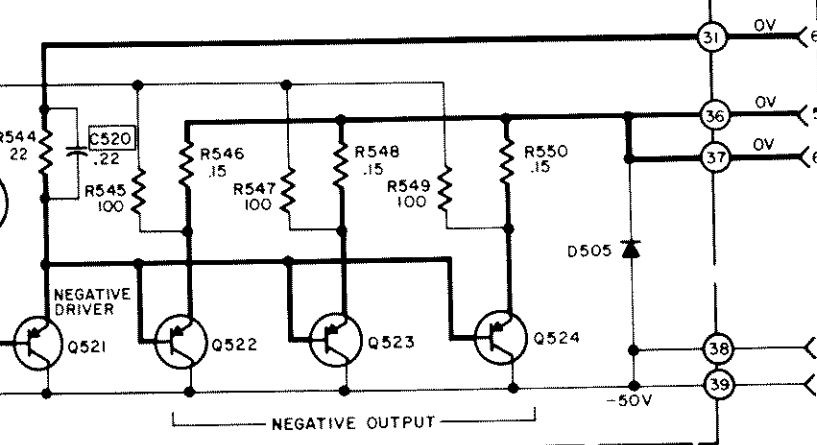
IN A BOX  
MEASURED  
RATING AT  
1 KHz.

SECTION  
IS ALSO  
PART OF

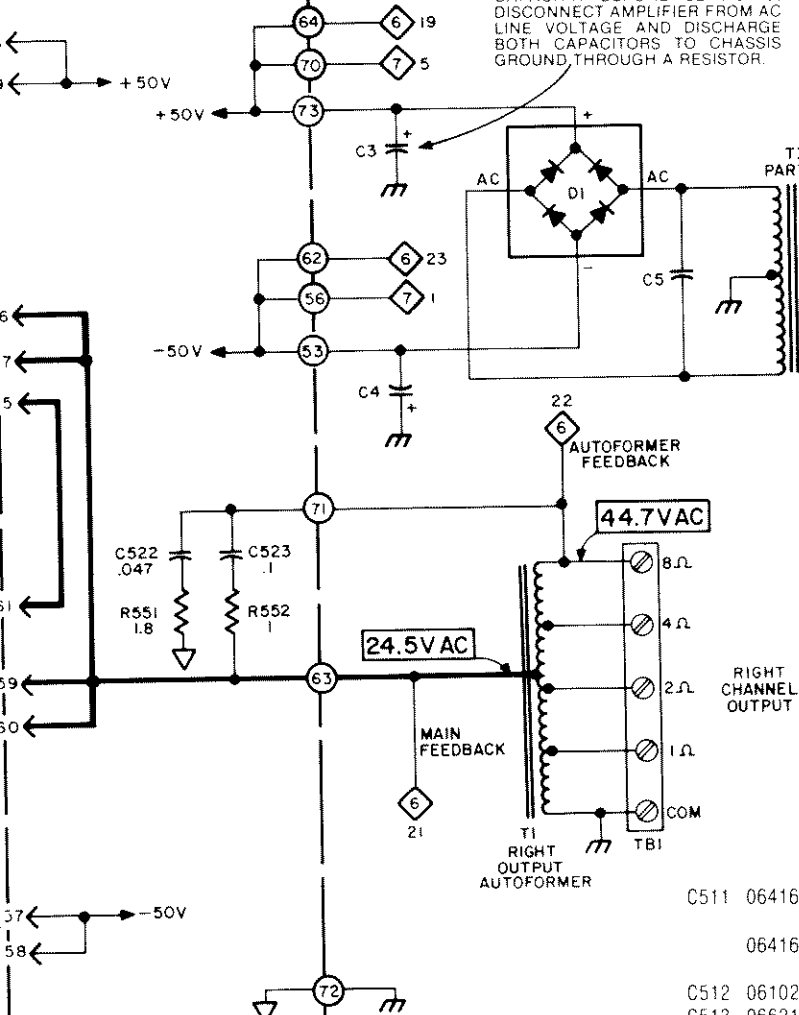
PC BOARD 045728 RIGHT CHANNEL POSITIVE HEATSINK



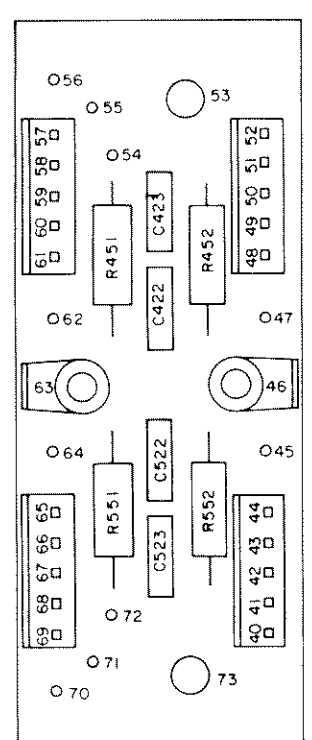
PC BOARD 045729 RIGHT CHANNEL NEGATIVE HEATSINK



PC BOARD 045724



WARNING! FILTER CAPACITORS C3 AND C4 HAVE HIGH ENERGY STORAGE CAPACITY. BEFORE SERVICING, DISCONNECT AMPLIFIER FROM AC LINE VOLTAGE AND DISCHARGE BOTH CAPACITORS TO CHASSIS GROUND THROUGH A RESISTOR.



ON SO OF THIS PCB

- C511 064169
- 064165
- C512 061024
- C513 066215
- C514 061024
- C515 064186
- C516 064186
- C517 061112
- \*C518 066316
- C519 066244
- C520 064254

- 064190
- C521 061029
- C522 064250
- C523 064254
- C524 061027
- C525 066241

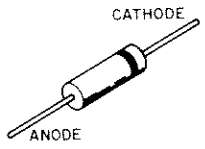
PARTS LIST

Symbol No.	Part No.	Description
<b>CAPACITORS</b> (CD = Ceramic Disc, ELECT = Electrolytic, MPE = Metallized Polyester, PF = Polyester Film)		
C501	066215	ELECT, 47µF, 16V
C502	066215	ELECT, 47µF, 16V
C503	061128	CD, 470pF, 10%, 500V, Z5F
C504	061027	CD, 220pF, 10%, 500V, Z5F
C505	061023	S/N CT1001 to CT2400: CD, 100pF, 10%, 500V, N1500...(7385)
C506	066226	ELECT, 100µF, 16V
C507	061023	CD, 100pF, 10%, 500V, N1500
C508	061055	S/N CT1001 to CT2701: CD, 47pF, 10%, 500V, N470...(7385)
	*061114	S/N CT2702 and above: CD, 15pF, 5%, 500V, N330...(7385)
C509	061029	S/N CT1001 to CT2701: CD, 330pF, 10%...(7385)
C510	064169	S/N CT1001 to CT2701: PE, 0047-E, 5%, 100V, (7385)
<b>DIODES</b> (Si = Silicon)		
	*D501	070047
	*D502	070047
	*D503	070047
	*D504	070031
	*D505	070031
<b>INTEGRATED CIRCUIT</b>		
	*IC501	133066
<b>LIGHT DEPENDENT RESISTOR</b>		
	*LDR501	144159

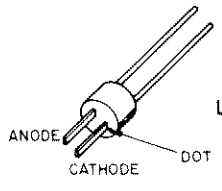
SECTION IS ALSO PART OF THIS PCB

**TRANSISTORS** (DAR = Darlington, J-FET = Junction FET, Si = Silicon, N = N Channel)

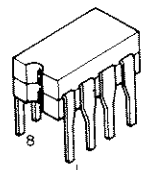
*Q501	132193	Si, N, J-FET, 2N4392
*Q502	132185	Si, NPN, 2N6429A
*Q503	132185	Si, NPN, 2N6429A
*Q504	132150	S/N CT1001 to CT3000: Si, PNP, MPS-D55....(7440)
	132056	S/N CT3001 and above: Si, PNP, 2N5087....(7440)
*Q505	132150	S/N CT1001 to CT3400: Si, PNP, MPS-D55....(7448)
	132172	S/N CT3401 and above: Si, PNP, MPS-A55....(7448)
*Q506	132150	S/N CT1001 to CT3000: Si, PNP, MPS-D55....(7440)
	132056	S/N CT3001 and above: Si, PNP, 2N5087....(7440)
*Q507	132194	Si, PNP, NDS-U57
*Q508	132150	S/N CT1001 to CT3400: Si, PNP, MPS-D55....(7448)
	132172	S/N CT3401 and above: Si, PNP, MPS-A55....(7448)
*Q509	132143	Si, NPN, MPS-D05
*Q510	132150	S/N CT1001 to CT3400: Si, PNP, MPS-D55....(7448)
	132172	S/N CT3401 and above: Si, PNP, MPS-A55....(7448)
*Q511	132143	Si, NPN, MPS-D05
*Q512	132185	Si, NPN, 2N6429A
*Q513	132195	Si, NPN, 40V, Low Noise
*Q514	132196	Si, NPN, NSD-U07
*Q515	132195	Si, NPN, 40V, Low Noise
*Q516	132203	Si, NPN, MJ4247
*Q517	132208	Si, NPN, MJ15003
*Q518	132208	Si, NPN, MJ15003
*Q519	132208	Si, NPN, MJ15003
*Q520	132090	Si, NPN, DAR, Selected MPS-A14
*Q521	132204	Si, PNP, MJ4237
*Q522	132209	Si, PNP, MJ15004
*Q523	132209	Si, PNP, MJ15004
*Q524	132209	Si, PNP, MJ15004
*Q525	132195	S/N CT1773 and above: Si, NPN, Selected 2N6428A....(7223)



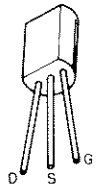
**D501-D505**



**LDR501**



**IC501**



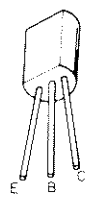
**Q501**

**RESISTORS** (CF = Carbon Film, MF = Metal Film, POT = Potentiometer, WW = Wirewound, FP = Flameproof)

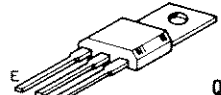
R501	141072	CF, 10kΩ, 5%, 1/4W
R502	141057	S/N CT1001 to CT1389: CF, 2.2kΩ, 5%, 1/4W....(7098)
	141055	S/N CT1390 and above: CF, 1.8kΩ, 5%, 1/4W....(7098)
R503	141096	CF, 100kΩ, 5%, 1/4W
R504	141124	CF, 2.2MΩ, 5%, 1/4W
*R505	134389	POT, 100kΩ 10%
R506	141124	CF, 2.2MΩ, 5%, 1/4W
R507	141049	CF, 1kΩ, 5%, 1/4W
R508	141068	S/N CT1001 to CT1389: CF, 6.8kΩ, 5%, 1/4W....(7098)
	141072	S/N CT1390 and above: CF, 10kΩ, 5%, 1/4W....(7098)
R509	141057	CF, 2.2kΩ, 5%, 1/4W
*R510	144090	MF, 1kΩ, 1%, 1/4W
*R511	144053	MF, 10kΩ, 1%, 1/4W
*R512	144053	MF, 10kΩ, 1%, 1/4W
*R513	144153	MF, 8.25kΩ, 1%, 1/4W
R514	141049	CF, 1kΩ, 5%, 1/4W
*R515	144158	S/N CT1001 to CT2701: FP, 15Ω, 5%, 1/4W....(7385)
	144160	S/N CT2702 and above: FP, 22Ω, 5%, 1/4W....(7385)
R516	141064	CF, 4.7kΩ, 5%, 1/4W
R517	141025	CF, 100Ω, 5%, 1/4W
R518	141025	CF, 100Ω, 5%, 1/4W
*R519	144157	S/N CT1001 to CT2701: FP, 10Ω, 5%, 1/4W....(7385)
	144158	S/N CT2702 and above: FP, 15Ω, 5%, 1/4W....(7385)

R520	141057	CF, 2.2kΩ, 5%, 1/4W
R521	141100	CF, 150kΩ, 5%, 1/4W
R522	141062	CF, 3.9kΩ, 5%, 1/4W
R523	141062	CF, 3.9kΩ, 5%, 1/4W
R524	141057	CF, 2.2kΩ, 5%, 1/4W
R525	141100	CF, 150kΩ, 5%, 1/4W
R526	141064	CF, 4.7kΩ, 5%, 1/4W
R527	141037	CF, 330Ω, 5%, 1/4W
R528	141035	CF, 270Ω, 5%, 1/4W
*R529	134368	POT, Linear, 200Ω, 10%
R530	141196	CF, 47kΩ, 5%, 1/2W
R531	141037	CF, 330Ω, 5%, 1/4W
R532	141150	S/N CT1001 to CT2701: CF, 39Ω, 5%, 1/4W....(7385)
	141154	S/N CT2702 and above: CF, 56Ω, 5%, 1/4W....(7385)
R533	141120	CF, 1MΩ, 5%, 1/4W
R534	141086	CF, 39kΩ, 5%, 1/4W
R535	141068	CF, 6.8kΩ, 5%, 1/4W
R536	141102	CF, 180kΩ, 5%, 1/4W
R537	141064	CF, 4.7kΩ, 5%, 1/4W
R538	141025	CF, 100Ω, 5%, 1/4W
*R539	139125	WW, .15Ω, 5%, 5W, Noninductive
R540	141025	CF, 100Ω, 5%, 1/4W
*R541	139125	WW, .15Ω, 5%, 5W, Noninductive
R542	141025	CF, 100Ω, 5%, 1/4W
*R543	139125	WW, .15Ω, 5%, 5W, Noninductive
*R544	144066	FP, 22Ω, 10%, 1/2W
R545	141025	CF, 100Ω, 5%, 1/4W
*R546	139125	WW, .15Ω, 5%, 5W, Noninductive
R547	141025	CF, 100Ω, 5%, 1/4W
*R548	139125	WW, .15Ω, 5%, 5W, Noninductive
R549	141025	CF, 100Ω, 5%, 1/4W
*R550	139125	WW, .15Ω, 5%, 5W, Noninductive
*R551	139077	WW, 1.8Ω, 10%, 2W
*R552	139147	WW, 1Ω, 5%, 2W
R553	141080	S/N CT1773 and above: CF, 22kΩ, 5%, 1/4W....(7223)
R554	141088	S/N CT1773 and above: CF, 47kΩ, 5%, 1/4W....(7223)
R555	141049	S/N CT2702 and above: CF, 1kΩ, 5%, 1/4W....(7385)
R556	141049	S/N CT3264 and above: CF, 1kΩ, 5%, 1/4W....(7418)
R557	141152	S/N CT3264 and above: CF, 47Ω, 5%, 1/4W....(7418)

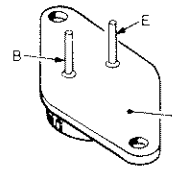
\* Parts marked with an asterisk (\*) are replacement parts stocked by our Service Department and must be ordered from McIntosh. These parts must be ordered by part number. Parts not marked may be obtained from electronic parts suppliers.



**Q502-Q506**  
**Q508-Q513**  
**Q515, Q520**  
**Q525**



**Q507**  
**Q514**



**Q516-Q519**  
**Q521-Q524**

S/N CT1001 to CT2701: PF, .0047μF, 5%, 100V....(7385)  
S/N CT2702 and above: PF, .0022μF, 5%, 100V....(7385)  
CD, 150pF, 10%, 500V, Z5F ELECT., 47μF, 16V  
CD, 150pF, 10%, 500V, Z5F MPE, .1μF, 5%, 63V  
MPE, .1μF, 5%, 63V  
CD, 18pF, 10%, 500V, NPO ELECT., 10μF, 25V, NP ELECT., 47μF, 50V  
S/N CT1001 to CT2701: MPE, 0.1μF, 10%, 63V....(7385)  
S/N CT2702 and above: MPE, 0.22μF, 5%, 63V....(7385)  
CD, 330pF, 10%  
MPE, .047μF, 10%, 63V  
MPE, .1μF, 10%, 63V  
S/N CT1087 and above: CD, 220pF, 10%, 500V, Z5F....(7167)  
S/N CT3264 and above: ELECT., 22μF, 6V....(7418)  
SIG = Signal, RECT = Rectifier  
Si, SIG, 75V, 10mA, IN4148  
Si, SIG, 75V, 10mA, IN4148  
Si, SIG, 75V, 10mA, IN4148  
Si, RECT, 400 PIV, 1.5A  
Si, RECT, 400 PIV, 1.5A  
CUTS (AN = Analog, BP = Bipolar)  
AN, BP, Operation Amp, NE-5534AN  
**RESISTORS**  
LDR, CLM6500

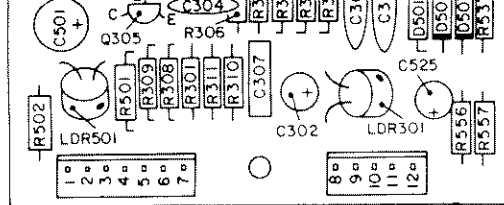


Fig. 4-3. and Fig. 6-3. PARTS LOCATION - PC board 045929 used in units S/N CT3264 and above.

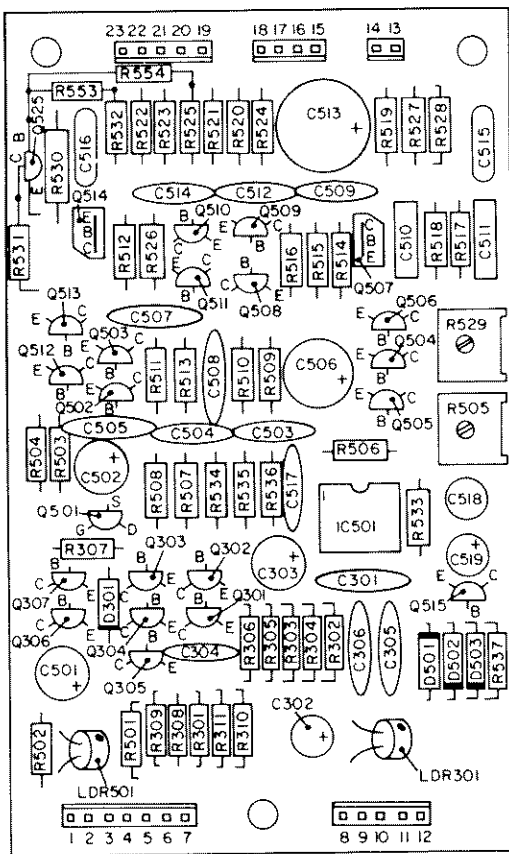


Fig. 4-1. and Fig. 6-1. PARTS LOCATION - PC board 045726 used in units S/N CT1001 to CT2449.

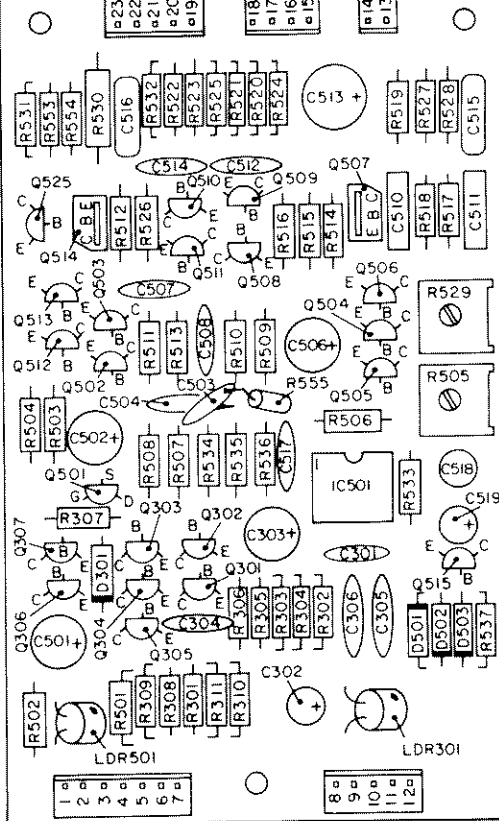
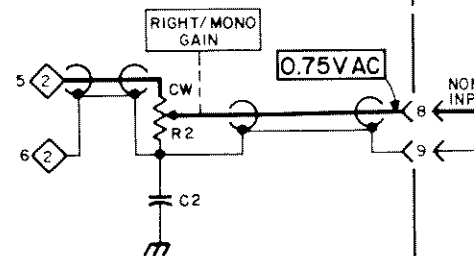


Fig. 4-2. and Fig. 6-2. PARTS LOCATION - PC board 045864 used in units S/N CT2450 to CT3263.



IF THE SYMBOL NUMBER IS ENCLOSED IN A BOX, REFER TO THE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

THE VOLTAGES ENCLOSED IN A BOX ARE SIGNAL VOLTAGES MEASURED WITH THE AMPLIFIER OPERATING AT RATED POWER OUTPUT AT 1 KHZ.

# 6

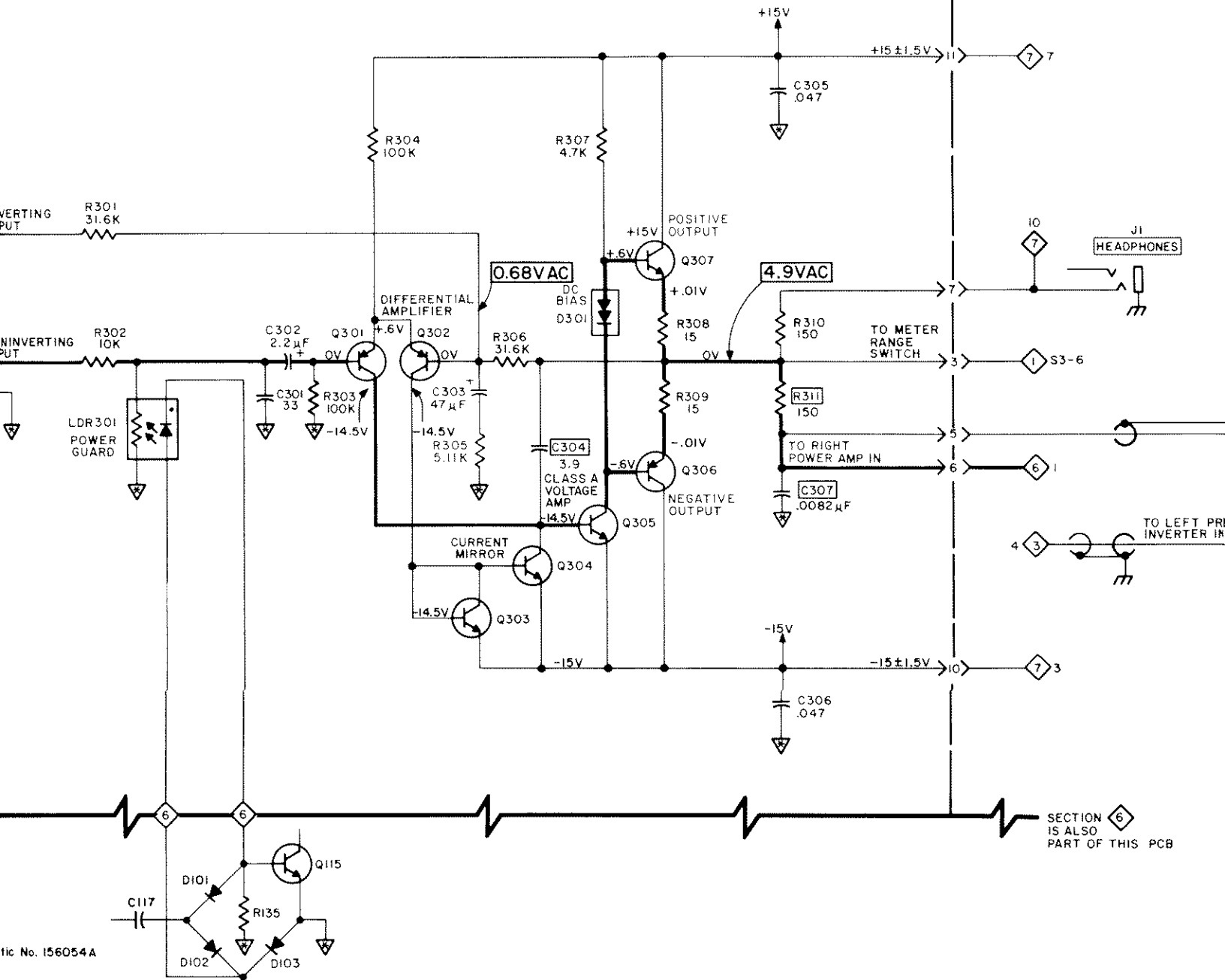
## POWER OUTPUT and POWER GUARD (RIGHT CHANNEL)

### SECTION

# 4

## PREAMP INPUT and HEADPHONE OUTPUT (RIGHT CHANNEL)

PC BOARDS 045726, 045864 and 045929



SECTION 6  
IS ALSO  
PART OF THIS PCB

# RIGHT CHANNEL)

## PARTS LIST

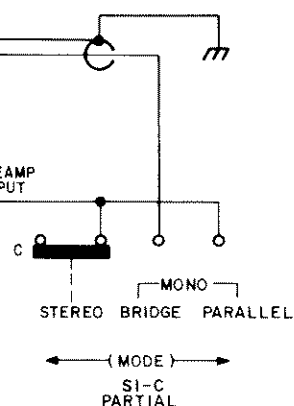
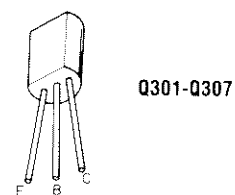
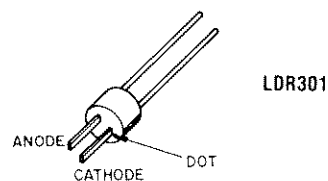
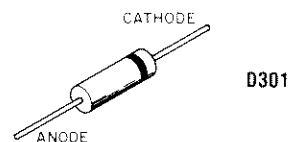
Symbol No.	Part No.	Description
<b>CAPACITORS</b> (CD = Ceramic Disc, ELECT = Electrolytic)		
C301	061016	CD, 33pF, 10%, 500V, NPO
C302	066237	ELECT, 2.2 $\mu$ F, 50V
C303	066313	ELECT, 47 $\mu$ F, 80V, DC
C304	061004	S/N CT1001 to CT2187: CD, 4.7pF, 20%, 500V, NPO....(7211)
	061130	S/N CT2188 to CT2701: CD, 8.2pF, 10%, NPO....(7377)
	*061140	S/N CT2702 and above: CD, 3.9pF, $\pm$ .25pF, 100V, NPO....(7377)
C305	061161	CD, .047 $\mu$ F, +80 - 20%, 50V
C306	061161	CD, .047 $\mu$ F, +80 - 20%, 50V
C307	064172	S/N CT3264 and above: PF, .0082 $\mu$ F, 5%, 100V....(7418)

<b>DIODES</b> (Si = Silicon, STAB = Stabistor)		
*D301	070046	Si, STAB, 1.3V, 2%, 10mA, Selected MZ236

<b>LIGHT DEPENDENT RESISTORS</b>		
*LDR301	144070	LDR, CLM6000

<b>TRANSISTORS</b> (Si = Silicon)		
*Q301	132056	Si, PNP, 2N5087
*Q302	132056	Si, PNP, 2N5087
*Q303	132195	Si, NPN, 40V, Low Noise
*Q304	132195	Si, NPN, 40V, Low Noise
*Q305	132195	Si, NPN, 40V, Low Noise
*Q306	132172	Si, PNP, MPS-A55
*Q307	132171	Si, NPN, MPS-A05

<b>RESISTORS</b> (CF = Carbon Film, MF = Metal Film)		
*R301	144148	MF, 31.6k $\Omega$ , 1%, 1/4W
R302	141072	CF, 10k $\Omega$ , 5%, 1/4W
R303	141096	CF, 100k $\Omega$ , 5%, 1/4W
R304	141096	CF, 100k $\Omega$ , 5%, 1/4W
*R305	144083	MF, 5.11k $\Omega$ , 2%, 1/4W
*R306	144148	MF, 31.6k $\Omega$ , 1%, 1/4W
R307	141064	CF, 4.7k $\Omega$ , 5%, 1/4W
R308	141140	CF, 15 $\Omega$ , 5%, 1/4W
R309	141140	CF, 15 $\Omega$ , 5%, 1/4W
R310	141029	CF, 150, 5%, 1/4W
R311	141150	S/N CT1001 to CT2701: CF, 39 $\Omega$ , 5%, 1/4W....(7377)
	141029	S/N CT2702 and above: CF, 150 $\Omega$ , 5%, 1/4W....(7377)



\* Parts marked with an asterisk (\*) are replacement parts stocked by our Service Department and must be ordered from McIntosh. These parts must be ordered by part number. Parts not marked may be obtained from electronic parts suppliers.

# MC 2255

Stereo Power Amplifier

# Schematics

039402

Sheet 2 of 2

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## McIntosh

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This sheet includes sections

- 3 PREAMP INPUT and HEADPHONE OUTPUT  
(LEFT CHANNEL)
- 4 PREAMP INPUT and HEADPHONE OUTPUT  
(RIGHT CHANNEL)
- 5 POWER OUTPUT and POWER GUARD  
(LEFT CHANNEL)
- 6 POWER OUTPUT and POWER GUARD  
(RIGHT CHANNEL)

The continuous improvement of its products is the policy of McIntosh Laboratory Incorporated, who reserve the right to improve design without notice. Because of the constant upgrading of McIntosh products' circuitry and components, the Company cannot insure, and does not warrant, the accuracy of the within schematic material, which is intended for information only.

**McIntosh Laboratory Inc. 2 Chambers Street, Binghamton, NY 13903-9990**



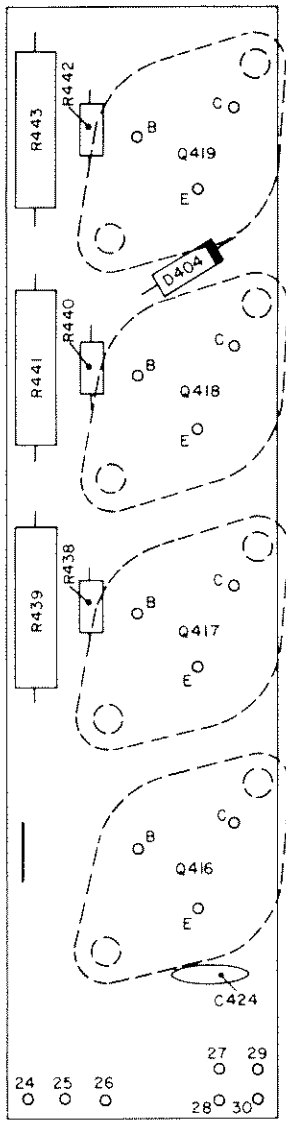


Fig. 5-4. PARTS LOCATION - PC board 045728. positive heatsink.

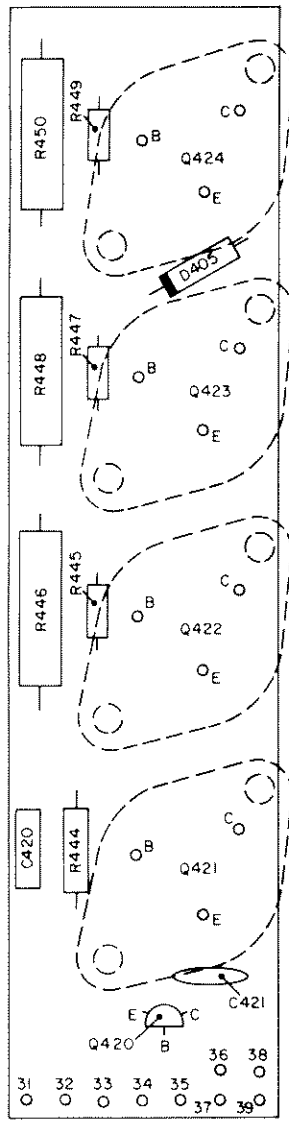
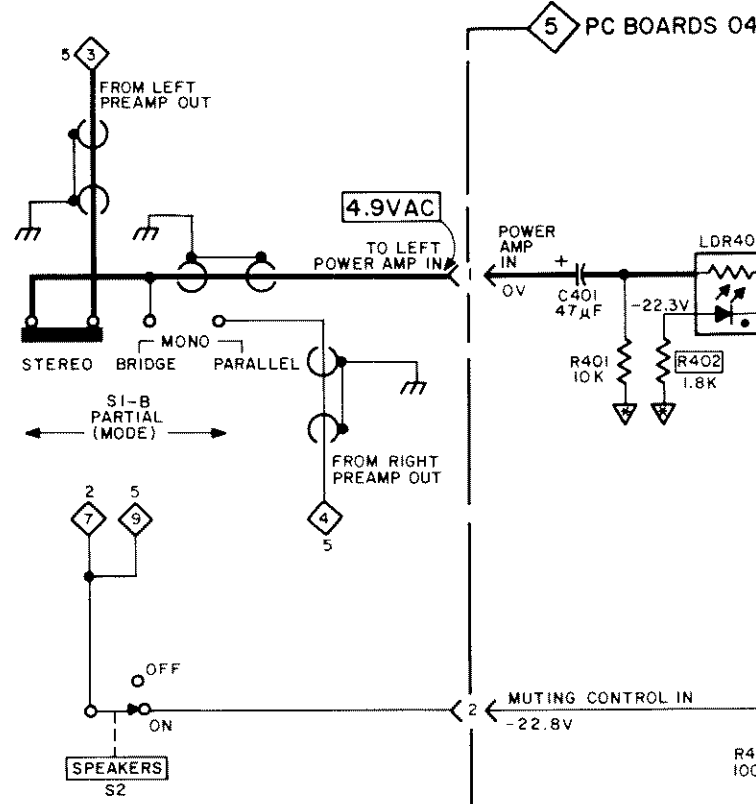
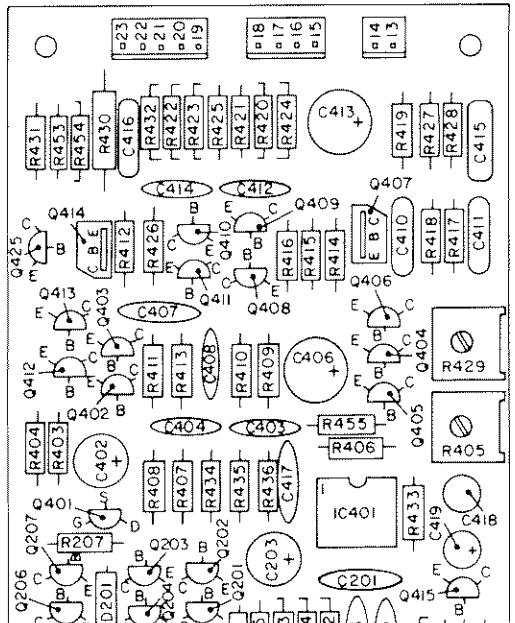


Fig. 5-5. PARTS LOCATION - PC board 045729. negative heatsink.



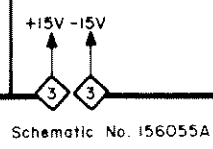
**NOTES**

- 5-1. OFFSET ADJUST through amplifier  $\pm 3\text{mVDC}$  across
- 5-2. DC BIAS ADJUST under load until input signal, adjust until AC power 50mA.

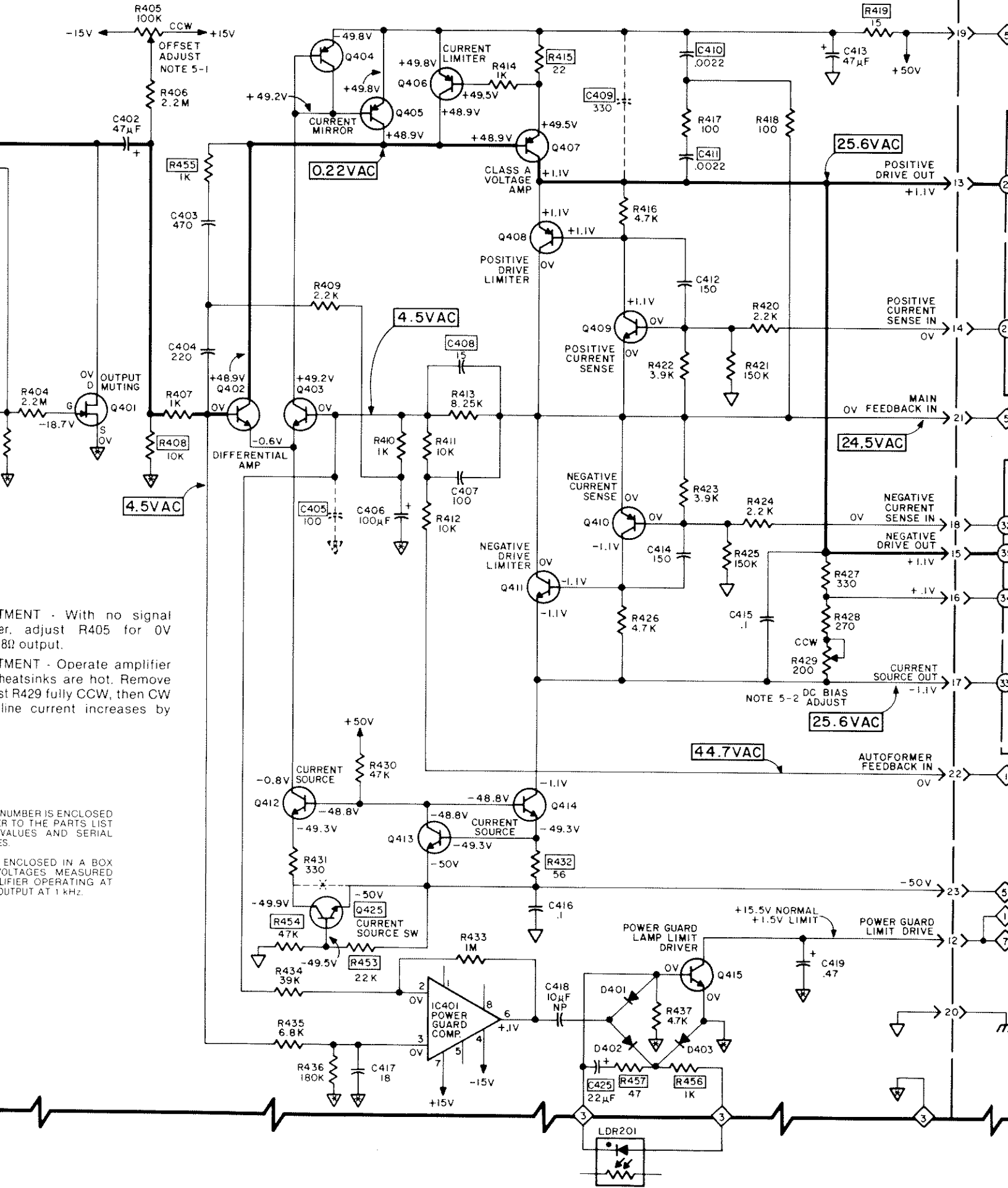


IF THE SYMBOL IS IN A BOX, REFER TO EARLIER NUMBER PARTS LIST.

THE VOLTAGE ARE SIGNAL WITH THE A RATED POWER



Schematic No. 156055A



ADJUSTMENT - With no signal  
 present, adjust R405 for 0V  
 output.

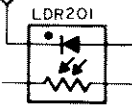
ADJUSTMENT - Operate amplifier  
 with heatsinks are hot. Remove  
 the load. Turn R429 fully CCW, then CW  
 until line current increases by

RESISTOR NUMBER IS ENCLOSED  
 WITH THE PARTS LIST  
 VALUES AND SERIAL  
 NUMBERS.

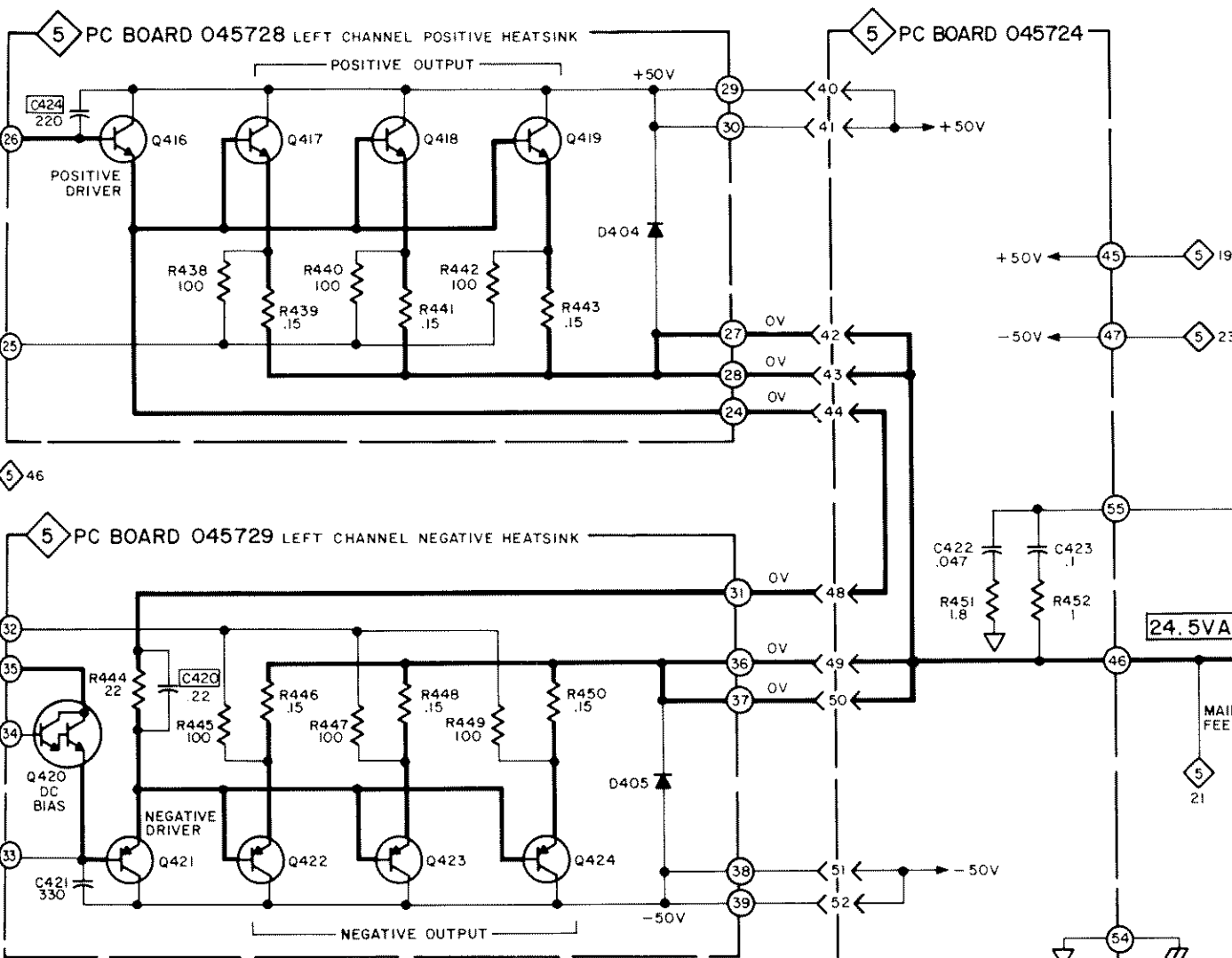
VOLTAGES ENCLOSED IN A BOX  
 ARE MEASURED WITH THE  
 AMPLIFIER OPERATING AT  
 1 kHz OUTPUT.

NOTE 5-2

POWER GUARD  
 LAMP LIMIT  
 DRIVER



5 45

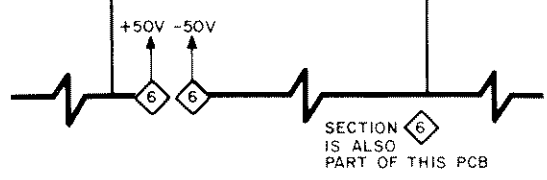
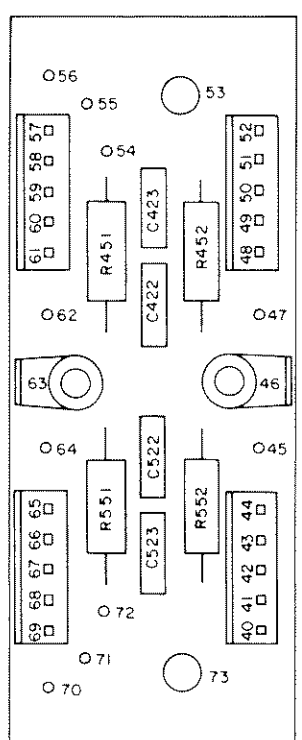


5 46

T1 8.Ω

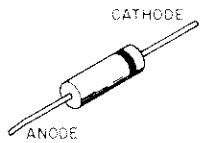
5 47  
1 SI-D  
7 14

SECTION 3 IS ALSO PART OF THIS PCB

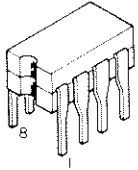


**PARTS LIST**

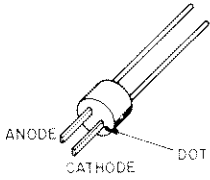
Symbol No.	Part No.
<b>CAPACITORS</b> (CD = MPE)	
C401	06621
C402	06621
C403	06112
C404	061C2
C405	061C2
C406	06621
C407	061C2
C408	061C5
*06111	
C409	06102
C410	06416
	06416
C411	06416
	06416
C412	06102
C413	06621
C414	06102
C415	06418
C416	06418
C417	06113
C418	06621



**D401-D405**



**IC401**

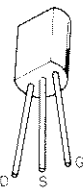


**LDR401**

7VAC

8Ω  
4Ω  
2Ω  
1Ω  
COM

LEFT CHANNEL OUTPUT



**Q401**

LIST

Part No. Description

CD = Ceramic Disc. ELECT = Electrolytic.  
MPE = Metalized Polyester. PF = Polyester Film

66215 ELECT. 47μF. 16V  
66215 ELECT. 47μF. 16V  
61128 CD. 470pF. 10%. 500V. Z5F  
61027 CD. 220pF. 10%. 500V. Z5F  
61023 S/N CT1001 to CT2400: CD. 100pF.  
10%. 500V. N1500...(7385)  
66226 ELECT. 100μF. 16V  
61023 CD. 100pF. 10%. 500V. N1500  
61055 S/N CT1001 to CT2701: CD. 47pF.  
10%. 500V. N470...(7385)  
61114 S/N CT2702 and above: CD. 15pF.  
5%. 500V. N330...(7385)  
61029 S/N CT1001 to CT2701: CD. 330pF.  
5%...(7385)  
64169 S/N CT1001 to CT2701: PF.  
0047μF. 5%. 100V...(7385)  
64165 S/N CT2702 and above: PF.  
0022μF. 5%. 100V...(7385)  
64169 S/N CT1001 to CT2701: PF.  
0047μF. 5%. 100V...(7385)  
64165 S/N CT2702 and above: PF.  
0022μF. 5%. 100V...(7385)  
61024 CD. 150pF. 10%. 500V. Z5F  
66215 ELECT. 47μF. 16V  
61024 CD. 150pF. 10%. 500V. Z5F  
64186 MPE. 1μF. 5%. 63V  
64186 MPE. 1μF. 5%. 63V  
6112 CD. 18pF. 10%. 500V. NPO  
66215 ELECT. 10μF. 25V. NPO

C420 064254 S/N CT1001 to CT2701: MPE.  
0.1μF. 10%. 63V...(7385)  
064190 S/N CT2702 and above: MPE.  
0.22μF. 5%. 63V...(7385)  
C421 061029 CD. 330pF. 10%  
C422 064250 MPE. 047μF. 10%. 63V  
C423 064254 MPE. 1μF. 10%. 63V  
C424 061027 S/N CT1087 and above: CD. 220pF.  
10%. 500V. Z5F...(7167)  
C425 066241 S/N CT3264 and above: ELECT.  
22μF. 6V...(7418)

**DIODES** (Si = Silicon. SIG = Signal. RECT = Rectifier)  
\*D401 070047 Si. SIG. 75V. 10mA. IN4148  
\*D402 070047 Si. SIG. 75V. 10mA. IN4148  
\*D403 070047 Si. SIG. 75V. 10mA. IN4148  
\*D404 070031 Si. RECT. 400 PIV. 1.5A  
\*D405 070031 Si. RECT. 400 PIV. 1.5A

**INTEGRATED CIRCUITS** (AN = Analog. BP = Bipolar)  
\*IC401 133066 AN. BP. Operation Amp. NE-5534AN

**LIGHT DEPENDENT RESISTORS**  
\*LDR401 144159 LDR. CLM6500

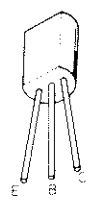
**TRANSISTORS** (DAR = Darlington. J-FET = Junction FET.  
Si = Silicon. N = N Channel)

\*Q401 132193 Si. N. J-FET. 2N4392  
\*Q402 132185 Si. NPN. 2N6429A  
\*Q403 132185 Si. NPN. 2N6429A  
\*Q404 132150 S/N CT1001 to CT3000: Si. PNP.  
MPS-D55...(7440)  
132056 S/N CT3001 and above: Si. PNP.  
2N5087...(7440)  
\*Q405 132150 S/N CT1001 to CT3400: Si. PNP.  
MPS-D55...(7448)  
132172 S/N CT3401 and above: Si. PNP.  
MPS-A55...(7448)  
\*Q406 132150 S/N CT1001 to CT3000: Si. PNP.  
MPS-D55...(7440)  
132056 S/N CT3001 and above: Si. PNP.  
2N5087...(7440)  
\*Q407 132194 Si. PNP. NDS-U57  
\*Q408 132150 S/N CT1001 to CT3400: Si. PNP.  
MPS-D55...(7448)  
132172 S/N CT3401 and above: Si. PNP.  
MPS-A55...(7448)  
\*Q409 132143 Si. NPN. MPS-D05  
\*Q410 132150 S/N CT1001 to CT3400: Si. PNP.  
MPS-D55...(7448)  
132172 S/N CT3401 and above: Si. PNP.  
MPS-A55...(7448)  
\*Q411 132143 Si. NPN. MPS-D05  
\*Q412 132185 Si. NPN. 2N6429A  
\*Q413 132195 Si. NPN. 40V. Low Noise  
\*Q414 132196 Si. NPN. NSD-U07  
\*Q415 132195 Si. NPN. 40V. Low Noise  
\*Q416 132203 Si. NPN. MJ4247  
\*Q417 132208 Si. NPN. MJ15003  
\*Q418 132208 Si. NPN. MJ15003  
\*Q419 132208 Si. NPN. MJ15003  
\*Q420 132090 Si. NPN. DAR. Selected MPS-A14  
\*Q421 132204 Si. PNP. MJ4237  
\*Q422 132209 Si. PNP. MJ15004  
\*Q423 132209 Si. PNP. MJ15004  
\*Q424 132209 Si. PNP. MJ15004  
\*Q425 132195 S/N CT1773 and above: Si. NPN.  
Selected 2N6428A...(7223)

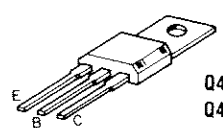
**RESISTORS** (CF = Carbon Film. MF = Metal Film.  
POT = Potentiometer. WW = Wirewound.  
FP = Flameproof)

R401 141072 CF. 10kΩ. 5%. 1/4W  
R402 141057 S/N CT1001 to CT1389: CF. 2.2kΩ.  
5%. 1/4W...(7098)  
141055 S/N CT1390 and above: CF. 1.8kΩ.  
5%. 1/4W...(7098)  
R403 141096 CF. 100kΩ. 5%. 1/4W  
R404 141124 CF. 2.2M. 5%. 1/4W  
\*R405 134389 POT. 100kΩ 10%  
R406 141124 CF. 2.2M. 5%. 1/4W  
R407 141049 CF. 1kΩ. 5%. 1/4W  
R408 141068 S/N CT1001 to CT1389: CF. 6.8kΩ.  
5%. 1/4W...(7098)  
141072 S/N CT1390 and above: CF. 10kΩ.  
5%. 1/4W...(7098)  
R409 141057 CF. 2.2kΩ. 5%. 1/4W  
\*R410 141088 MF. 10kΩ. 1%. 1/4W  
\*R411 144053 MF. 10kΩ. 1%. 1/4W  
\*R412 144053 MF. 10kΩ. 1%. 1/4W  
\*R413 144153 MF. 8.25kΩ. 1%. 1/4W  
R414 141049 CF. 1kΩ. 5%. 1/4W  
\*R415 144158 S/N CT1001 to CT2701: FP. 15Ω.  
5%. 1/4W...(7385)  
144160 S/N CT2702 and above: FP. 22Ω.  
5%. 1/4W  
R416 141064 CF. 4.7kΩ. 5%. 1/4W  
R417 141025 CF. 100Ω. 5%. 1/4W  
R418 141025 CF. 100Ω. 5%. 1/4W  
\*R419 144157 S/N CT1001 to CT2701: FP. 10Ω.  
5%. 1/4W...(7385)  
144158 S/N CT2702 and above: FP. 15Ω.  
5%. 1/4W...(7385)  
R420 141057 CF. 2.2kΩ. 5%. 1/4W  
R421 141100 CF. 150kΩ. 5%. 1/4W  
R422 141062 CF. 3.9kΩ. 5%. 1/4W  
R423 141062 CF. 3.9kΩ. 5%. 1/4W  
R424 141057 CF. 2.2kΩ. 5%. 1/4W  
R425 141100 CF. 150kΩ. 5%. 1/4W  
R426 141064 CF. 4.7kΩ. 5%. 1/4W  
R427 141037 CF. 330Ω. 5%. 1/4W  
R428 141035 CF. 270Ω. 5%. 1/4W  
\*R429 134368 POT. Linear. 200Ω. 10%  
R430 141196 CF. 47kΩ. 5%. 1/2W  
R431 141037 CF. 330Ω. 5%. 1/4W  
R432 141150 S/N CT1001 to CT2701: CF. 39Ω.  
5%. 1/4W...(7385)  
141154 S/N CT2702 and above: CF. 56Ω.  
5%. 1/4W...(7385)  
R433 141120 CF. 1MΩ. 5%. 1/4W  
R434 141086 CF. 39kΩ. 5%. 1/4W  
R435 141068 CF. 6.8kΩ. 5%. 1/4W  
R436 141102 CF. 180kΩ. 5%. 1/4W  
R437 141064 CF. 4.7kΩ. 5%. 1/4W  
R438 141025 CF. 100Ω. 5%. 1/4W  
\*R439 139125 WW. 15Ω. 5%. 5W. Noninductive  
R440 141025 CF. 100Ω. 5%. 1/4W  
\*R441 139125 WW. 15Ω. 5%. 5W. Noninductive  
R442 141025 CF. 100Ω. 5%. 1/4W  
\*R443 139125 WW. 15Ω. 5%. 5W. Noninductive  
\*R444 144066 FP. 22Ω. 10%. 1/2W  
R445 141025 CF. 100Ω. 5%. 1/4W  
\*R446 139125 WW. 15Ω. 5%. 5W. Noninductive  
R447 141025 CF. 100Ω. 5%. 1/4W  
\*R448 139125 WW. 15Ω. 5%. 5W. Noninductive  
R449 141025 CF. 100Ω. 5%. 1/4W  
\*R450 139125 WW. 15Ω. 5%. 5W. Noninductive  
\*R451 139077 WW. 1.8Ω. 10%. 2W  
\*R452 139147 WW. 1Ω. 5%. 2W  
R453 141080 S/N CT1773 and above: CF. 22kΩ.  
5%. 1/4W...(7223)  
R454 141088 S/N CT1773 and above: CF. 47kΩ.  
5%. 1/4W...(7223)  
R455 141049 S/N CT2702 and above: CF. 1kΩ.  
5%. 1/4W...(7385)  
R456 141049 S/N CT3264 and above: CF. 1kΩ.  
5%. 1/4W...(7418)  
R457 141152 S/N CT3264 and above: CF. 47Ω.  
5%. 1/4W...(7418)

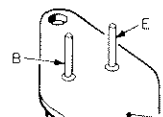
\* Parts marked with an asterisk (\*) are replacement parts stocked by our Service Department and must be ordered from McIntosh. These parts must be ordered by part number. Parts not marked may be obtained from electronic parts suppliers.



**Q402-Q406  
Q408-Q413  
Q415, Q420  
Q425**



**Q407  
Q414**



**Q416-Q419  
Q421-Q424**

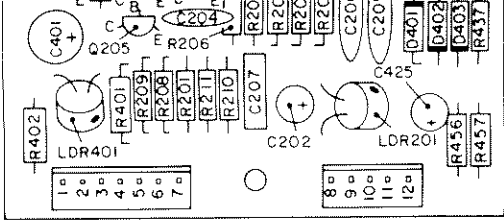


Fig. 3-3. and Fig. 5-3. PARTS LOCATION -  
PC board 045929 used in units  
S/N CT3264 and above.

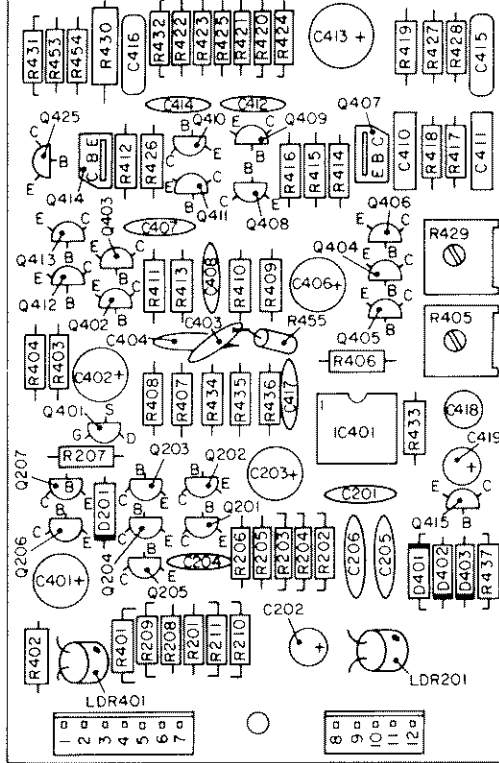


Fig. 3-2. and Fig. 5-2. PARTS LOCATION -  
PC board 045864 used in units  
S/N CT2450 to CT3263.

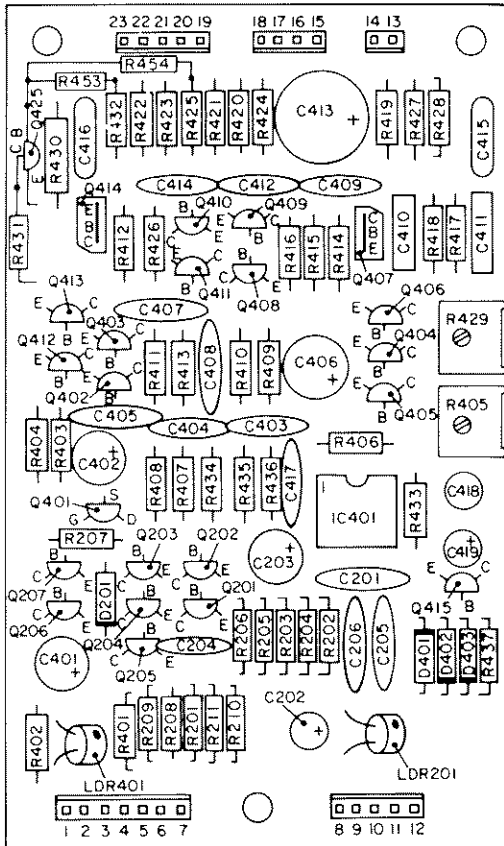
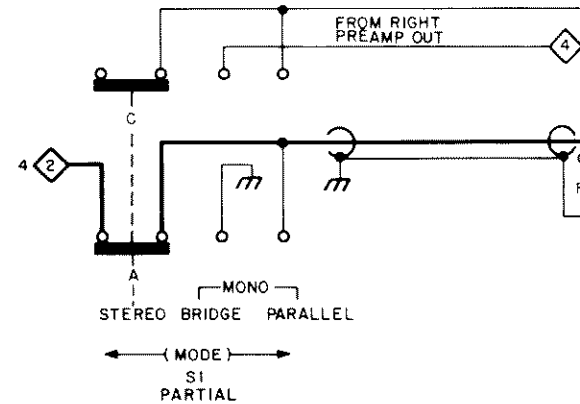
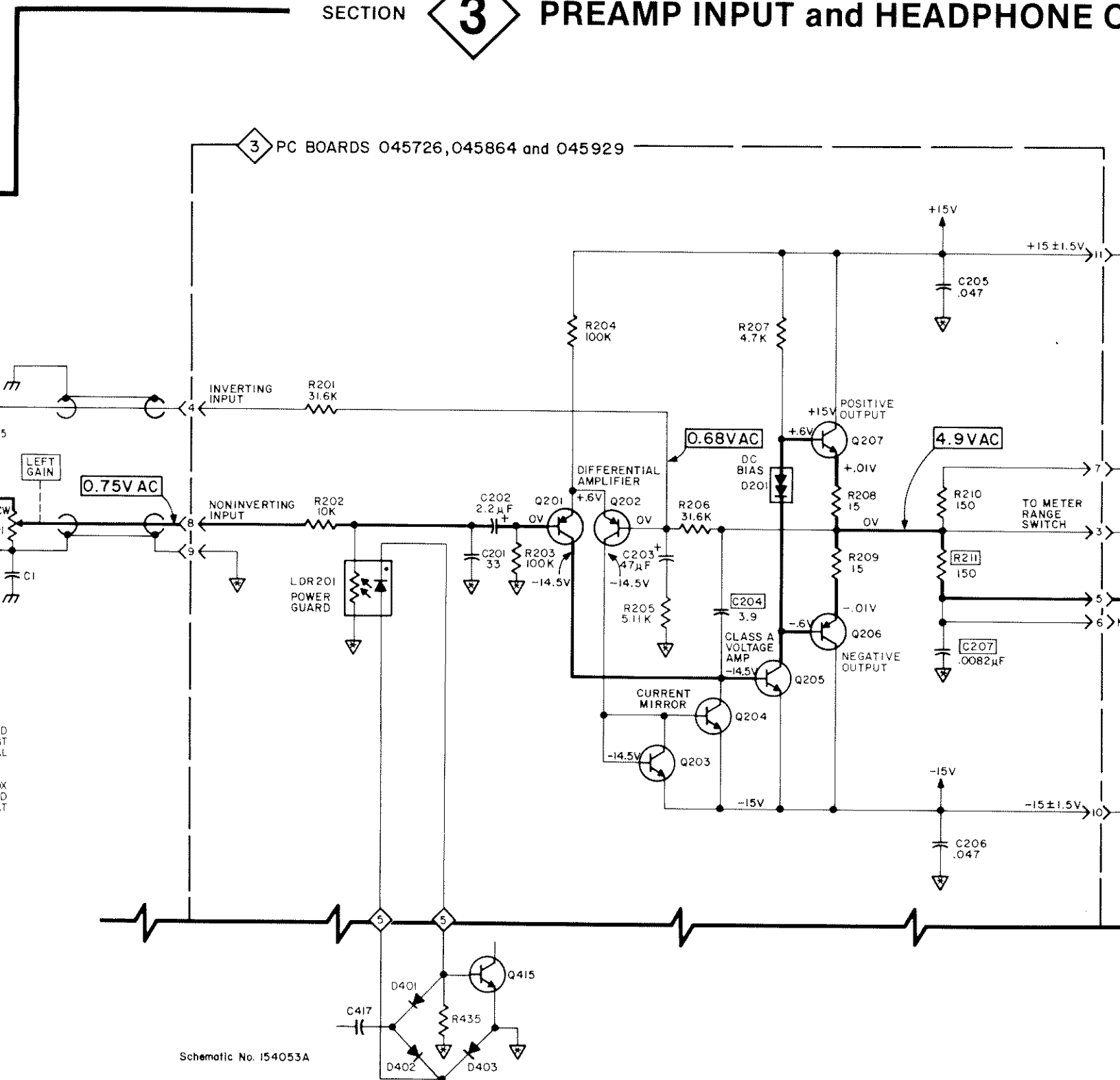


Fig. 3-1. and Fig. 5-1. PARTS LOCATION -  
PC board 045726 used in units  
S/N CT1001 to CT2449.

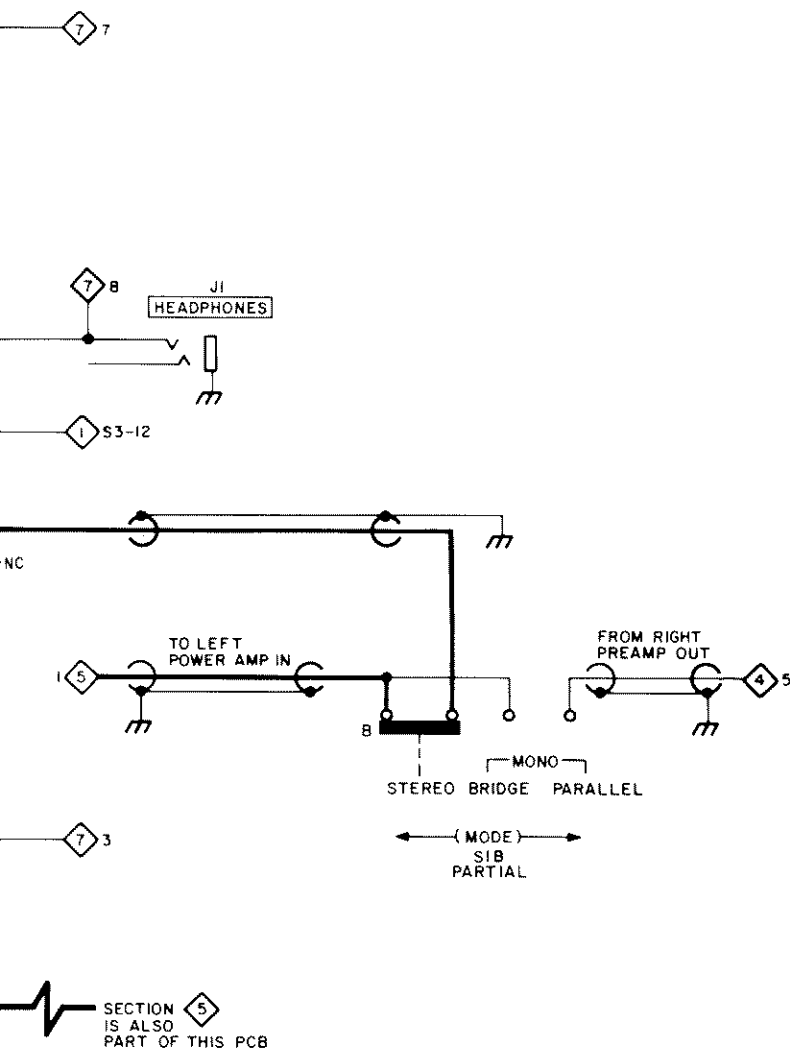


IF THE SYMBOL NUMBER IS ENCLOSED IN A BOX, REFER TO THE PARTS LIST FOR EARLIER VALUES AND SERIAL NUMBER RANGES.

THE VOLTAGES ENCLOSED IN A BOX ARE SIGNAL VOLTAGES MEASURED WITH THE AMPLIFIER OPERATING AT RATED POWER OUTPUT AT 1 KHZ.



# OUTPUT (LEFT CHANNEL)



## PARTS LIST

Symbol No.	Part No.	Description
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**CAPACITORS** (CD = Ceramic Disc, ELECT = Electrolytic)

C201	061016	CD, 33pF, 10%, 500V, NPO
C202	066237	ELECT, 2.2μF, 50V
C203	066313	ELECT, 47μF, 80V, DC
C204	061004	S/N CT1001 to CT2187: CD, 4.7pF, 20%, 500V, NPO... (7211)
	061130	S/N CT2188 to CT2701: CD, 8.2pF, 10%, NPO... (7377)
	*061140	S/N CT2702 and above: CD, 3.9pF, ± 25pF, 100V, NPO... (7377)
C205	061161	CD, .047μF, + 80 - 20%, 50V
C206	061161	CD, .047μF, + 80 - 20%, 50V
C207	064172	S/N CT3264 and above: PF, .0082μF, 5%, 100V... (7418)

**DIODES** (Si = Silicon, STAB = Stabistor)

*D201	070046	Si, STAB, 1.3V, 2%, 10mA, Selected MZ236
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**LIGHT DEPENDENT RESISTORS**

*LDR201	144070	LDR, CLM6000
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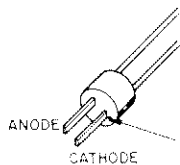
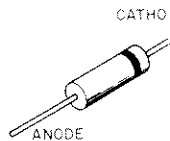
**TRANSISTORS** (Si = Silicon)

*Q201	132056	Si, PNP, 2N5087
*Q202	132056	Si, PNP, 2N5087
*Q203	132195	Si, NPN, 40V, Low Noise
*Q204	132195	Si, NPN, 40V, Low Noise
*Q205	132195	Si, NPN, 40V, Low Noise
*Q206	132172	Si, PNP, MPS-A55
*Q207	132171	Si, NPN, MPS-A05

**RESISTORS** (CF = Carbon Film, MF = Metal Film)

*R201	144148	MF, 31.6kΩ, 1%, 1/4W
R202	141072	CF, 10kΩ, 5%, 1/4W
R203	141096	CF, 100kΩ, 5%, 1/4W
R204	141096	CF, 100kΩ, 5%, 1/4W
*R205	144083	MF, 5.11kΩ, 2%, 1/4W
*R206	144148	MF, 31.6kΩ, 1%, 1/4W
R207	141064	CF, 4.7kΩ, 5%, 1/4W
R208	141140	CF, 15Ω, 5%, 1/4W
R209	141140	CF, 15Ω, 5%, 1/4W
R210	141029	CF, 150, 5%, 1/4W
R211	141150	S/N CT1001 to CT2701: CF, 39Ω, 5%, 1/4W... (7377)
	141029	S/N CT2702 and above: CF, 150Ω, 5%, 1/4W... (7377)

\* Parts marked with an asterisk (\*) are replacement parts stocked by our Service Department and must be ordered from McIntosh. These parts must be ordered by part number. Parts not marked may be obtained from electronic parts suppliers.

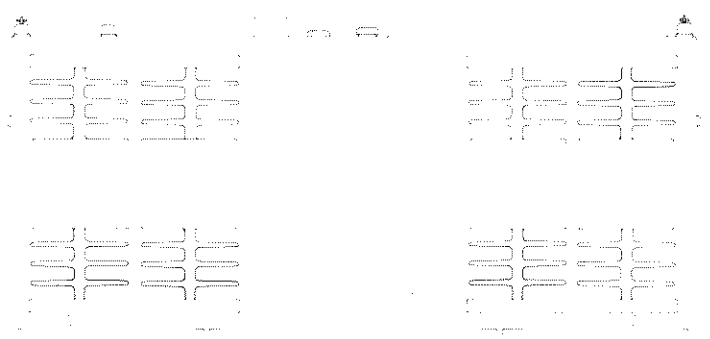


066216 ELECT. 10 $\mu$ F. 25V. NP  
066244 ELECT. .47 $\mu$ F. 50V

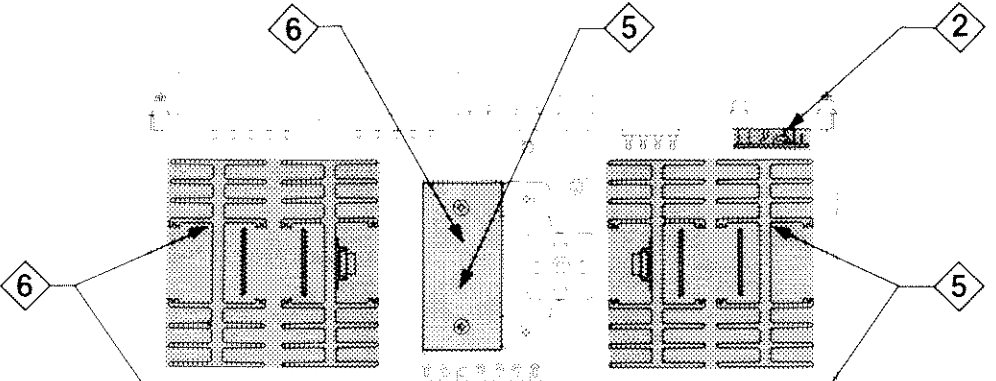
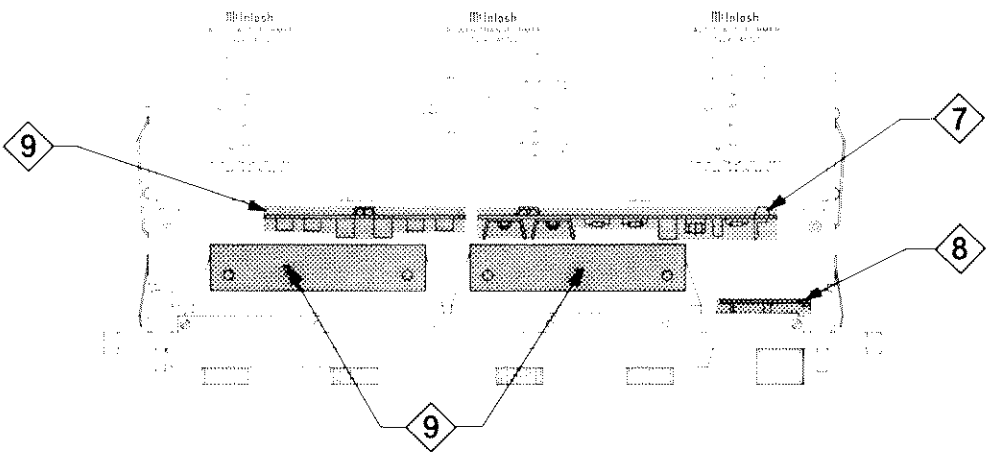
\*R410 144090 MF. 1k $\Omega$ . 1%. 1/4W  
\*R411 144053 MF. 10k $\Omega$ . 1%. 1/4W



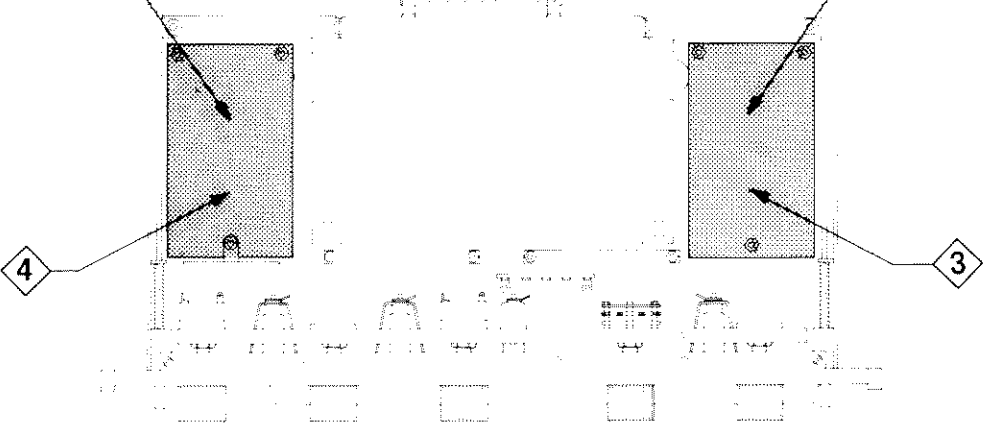
Q427-Q429



**SECTION LOCATION**  
Top View



**Bottom View**



D201



LDR201

DOT

Q201-Q207