

service manual

370

BASS AMPLIFIER

acoustic control corporation

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370 TECHNICAL SPECIFICATIONS

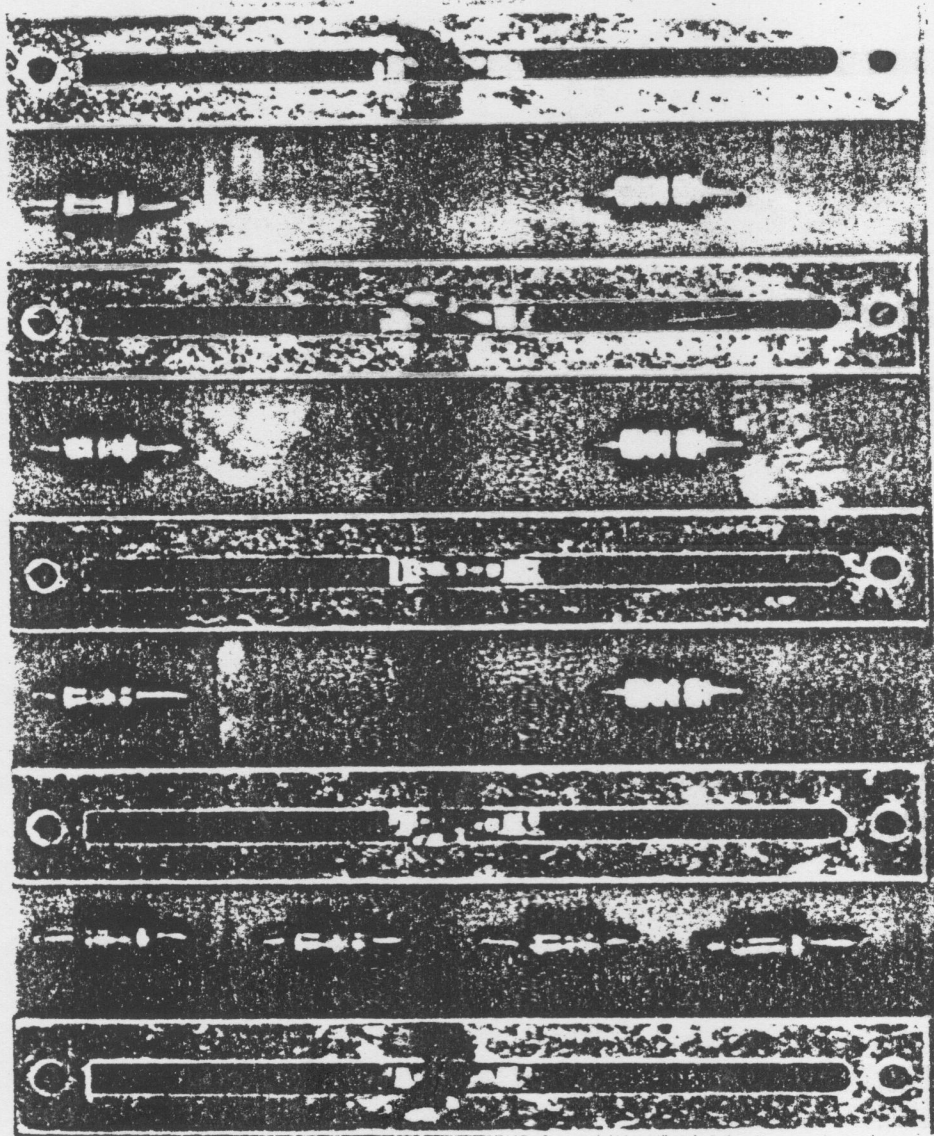
Preamp Gain	19.2X
Nominal Impedance	30K
Signal-to-noise Ratio	Minimum gain -60 dB Maximum gain -50 dB
Minimum Input Voltage for Rated Output	Input 1: 18 mv. Input 2: 56 mv.
Maximum Input Voltage	Input 1: 370 mv. Input 2: 820 mv.
Gain Difference Between Inputs	6 dB
Power Output Measured Across 3.2 Ohm Load @ 5% Distortion	205 watts RMS
Power Output Measured Across 3.2 Ohm Load @ 10% Distortion	230 watts RMS
Power Output Measured Across 1.6 Ohm Load @ 5% Distortion	325 watts RMS
Power Output Measured Across 1.6 Ohm Load @ 10% Distortion	365 watts RMS

*Rated output on export models is measured at 240v at 60 cycles. Using any lower source will result in a slight power loss, but will not damage the unit in any way.

Frequency Response	-6 dB @ 50 Hz & 17.5 KHz
Line Output Impedance	5000 ohms
Line Output Voltage	250 mv
Power Consumption @ 365 watts	730 watts
Standby Consumption	50 watts

Domestic models are designed for operation at 120 volts 60Hz.

Export models are designed for operation at 240 volts 50/60Hz.



PICTORIAL
MODEL 370 - GRAPHITE EQ ASSEMBLY 830019
SCHEMATIC 1297D

PARTS LIST
 MODEL 370 - CHASSIS WIRING
 SCHEMATIC 1297D

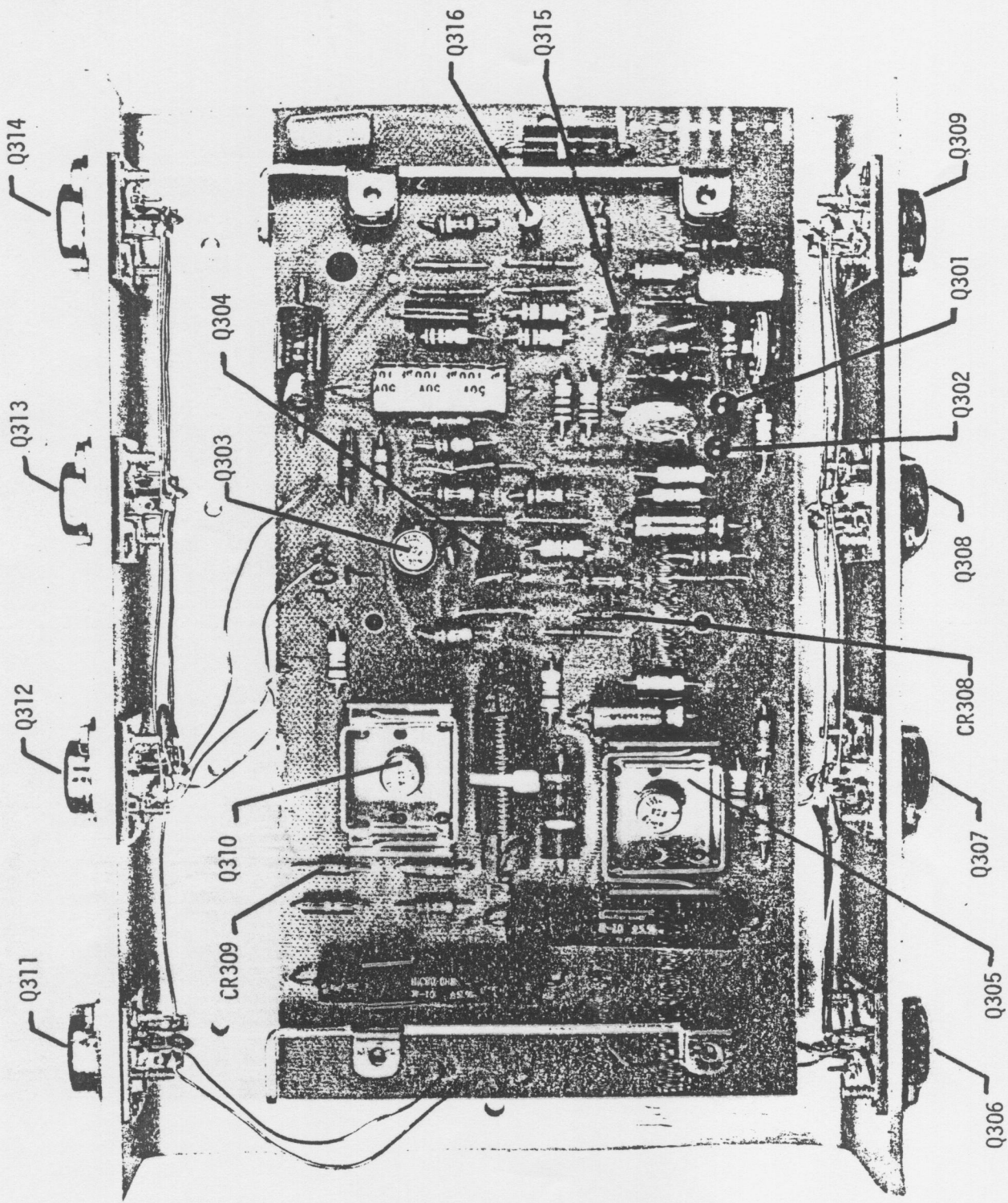
Schematic Reference	DESCRIPTION	Acoustic Part No.
T 401	Transformer, Power Supply	560014
P 401	A/C Line Cord	600054
F 401	Fuse, 7A 5B	510020
F 402	Fuse, 7A Pigtail	510031
None	Fuse Holder	510003
PL401	Pilot Light	390004
S 401	BRT Switch	510017
S 402	On/Off	510022
S 403	Ground/Reverb Switch	510017
J 401	Input Jack #1, Closed	210003
J 402	Input Jack #2, Closed	210003
J 403	A/C Convenience Outlet	210052
J 404	Speaker Jack, Open	210002
J 405	Speaker Jack, Open	210002
J 406	Line Output Jack, Open	210002
J 407	Line Output Jack, Open	210002
C 401	Capacitor, .047mf, 600V	152024
C 402	Capacitor, .047mf, 600V	152024
C 403	Capacitor, 7800mf, 100V	153013
C 404	Capacitor, 3900mf, 80V	153012
C 405	Capacitor, 1000mf, 75V	153011

PARTS LIST
MODEL 370 - PREAMP ASSEMBLY 830022
SCHEMATIC 1297D

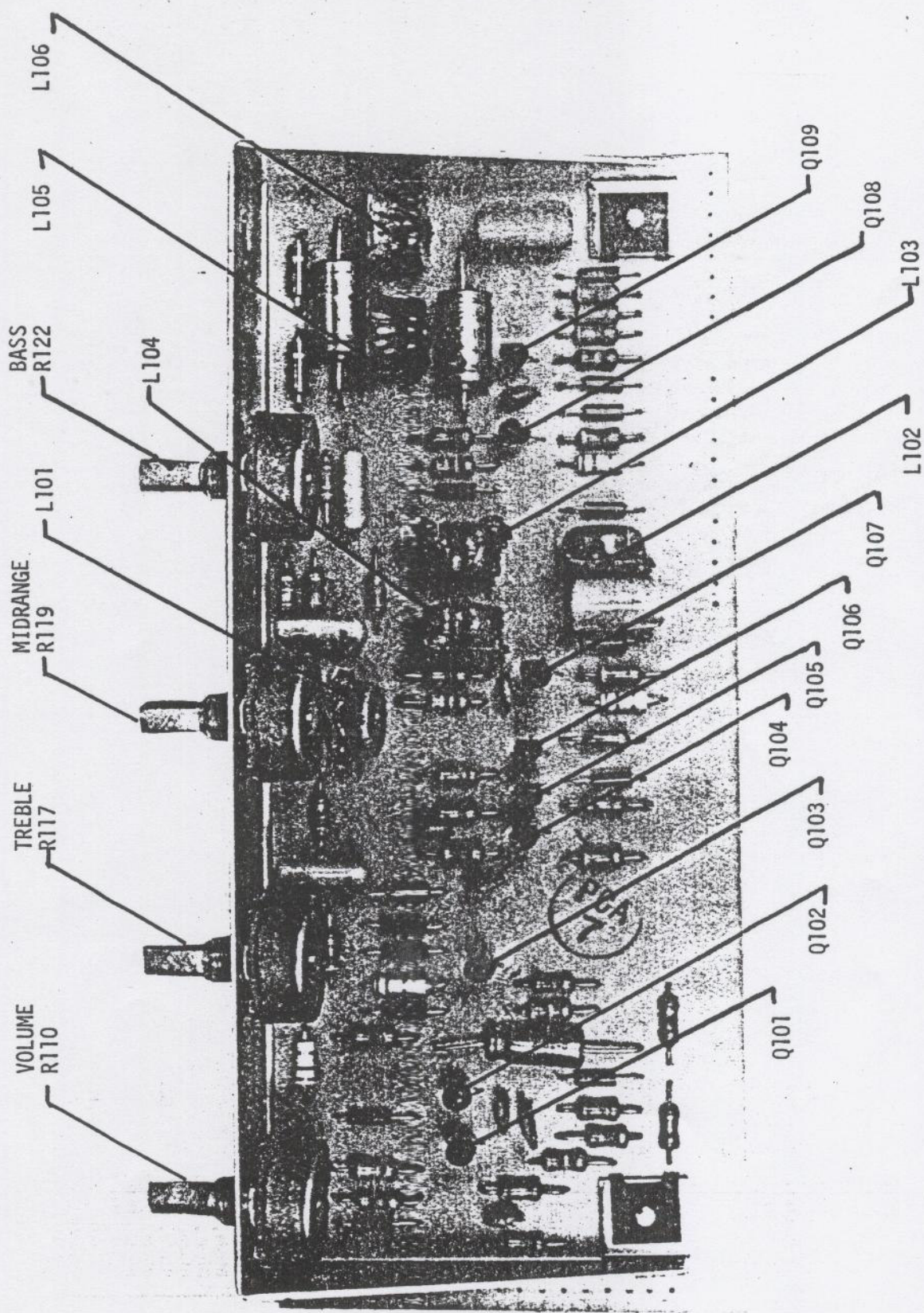
Schematic Reference	DESCRIPTION	Acoustic Part No.
PCB 1	Printed Circuit Board, Pre-Amp	170029
Q 101	Transistor, NPN, 2N2404 or MPSA01	480023
Q 102	Transistor, PNP, 2N4248 or 2N4249	480032
Q 103	Transistor, NPN, 2N2484 or MPSA09	480023
Q 104	Transistor, NPN, 2N2484 or MPSA09	480023
Q 105	Transistor, NPN, 2N2484 or MPSA09	480023
Q 106	Transistor, NPN, 2N2484 or MPSA09	480023
Q 107	Transistor, NPN, 2N2484 or MPSA09	480023
Q 108	Transistor, NPN, 2N2484 or MPSA09	480023
Q 109	Transistor, NPN, 2N2484 or MPSA09	480023
C 101	Capacitor, 68pf, Disc, 1KV	151002
C 102	Capacitor, 10mf, Electrolytic, 50V	153002
C 103	Capacitor, 1mf, Tantalum, 35V	154004
C 104	Capacitor, 1mf, Tantalum, 35V	154004
C 105	Capacitor, 68pf, Disc, 1KV	151002
C 106	Capacitor, 1mf, Tantalum, 35V	154004
C 107	Capacitor, 1mf, Tantalum, 35V	154004
C 108	Capacitor, 1mf, Tantalum, 35V	154004
C 109	Capacitor, .039mf, Mylar, 100V	152012
C 110	Capacitor, .0047, Mylar, 100V	152004
C 111	Capacitor, .047, Mylar, 100V	152013
C 112	Capacitor, 1mf, Tantalum, 35V	154004
C 113	Capacitor, 68pf, Disc, 1KV	151002
C 114	Capacitor, 68pf, Disc, 1KV	151002
C 115	Capacitor, 1mf, Tantalum, 35V	154004
C 116	Capacitor, 1mf, Tantalum, 35V	154004
C 117	Capacitor, 68pf, Disc, 1KV	151002
C 118	Capacitor, 2.2mf, Tantalum, 35V	154005
C 119	Capacitor, 2.2mf, Tantalum, 35V	154005
C 120	Capacitor, .39mf, Mylar, 100V	152028
C 121	Capacitor, .22mf, Mylar, 100V	152019
C 122	Capacitor, 1mf, Tantalum, 35V	154004
C 123	Capacitor, 68pf, Disc, 1KV	151002
C 124	Capacitor, 1mf, Tantalum, 35V	154004
C 125	Capacitor, 1mf, Tantalum, 35V	154004
C 126	Capacitor, .15mf, Mylar, 100V	152017
C 127	Capacitor, 100mf, Electrolytic, 50V	153006
C 128	Capacitor, 100mf, Electrolytic, 50V	151008
C 129	Capacitor, .001mf, Disc, 500V	151008
C 130	Capacitor, 1mf, Tantalum, 35V	154004
L 101	Choke, 6HY, (41)	180007
L 102	Choke, 6HY, (41)	180007
L 103	Choke, 1.5HY, (7197)	180002
L 104	Choke, 750MHY, (44)	180005
L 105	Choke, 3HY, (45)	180006
L 106	Choke, 1.5HY, (7197)	180002
R 101	Resistor, 10K ohm, 1/2 watt	476310
R 102	Resistor, 22K ohm, 1/2 watt	476322
R 103	Resistor, 470K ohm, 1/2 watt	476447
R 104	Resistor, 10M ohm, 1/2 watt	476610
R 105	Resistor, 56 ohm, 1/2 watt	476056
R 106	Resistor, 10K ohm, 1/2 watt	476310
R 107	Resistor, 33K ohm, 1/2 watt	476333
R 108	Resistor, 10K ohm, 1/2 watt	476310
R 109	Resistor, 560 ohm, 1/2 watt	476156
R 110	Potentiometer, 50K ohm, Linear	475019
R 111	Resistor, 8.2K ohm, 1/2 watt	476282
R 112	Resistor, 220K ohm, 1/2 watt	476422
R 113	Resistor, 470K ohm, 1/2 watt	476447
R 114	Resistor, 10K ohm, 1/2 watt	476310
R 115	Resistor, 10K ohm, 1/2 watt	476310
R 116	Resistor, 3.3K ohm, 1/2 watt	476233
R 117	Resistor, 4.7K ohm, 1/2 watt	476247
R 118	Resistor, 10K ohm, 1/2 watt	476310
R 119	Potentiometer, 50K ohm, Linear	475019
R 120	Potentiometer, 50K ohm, Linear	475019
R 121	Resistor, 22K ohm, 1/2 watt	476322
R 122	Potentiometer, 50K ohm, Linear	475019
R 123	Resistor, 5.6K ohm, 1/2 watt	476256
R 124	Resistor, 100K ohm, 1/2 watt	476410
R 125	Resistor, 8.2M ohm, 1/2 watt	476582
R 126	Resistor, 470 ohm, 1/2 watt	476147
R 127	Resistor, 10K ohm, 1/2 watt	476310
R 128	Resistor, 10K ohm, 1/2 watt	476310
R 129	Resistor, 10K ohm, 1/2 watt	476310
R 130	Resistor, 22K ohm, 1/2 watt	476322
R 131	Resistor, 100K ohm, 1/2 watt	476410
R 132	Resistor, 330K ohm, 1/2 watt	476433
R 133	Resistor, 5.6K ohm, 1/2 watt	476256
R 134	Resistor, 4.7K ohm, 1/2 watt	476247
R 135	Resistor, 100K ohm, 1/2 watt	476410
R 136	Resistor, 330K ohm, 1/2 watt	476433
R 137	Resistor, 5.6K ohm, 1/2 watt	476256
R 138	Resistor, 4.7K ohm, 1/2 watt	476247
R 139	Resistor, 10K ohm, 1/2 watt	476310
R 140	Resistor, 4.7K ohm, 1/2 watt	476247
R 142	Resistor, 4.7K ohm, 1/2 watt	476247
R 143	Resistor, 4.7K ohm, 1/2 watt	476247
R 144	Resistor, 2.2K ohm, 1/2 watt	476222
R 145	Resistor, 2.2K ohm, 1/2 watt	476222

MODEL 370 - GRAPHIC EQ ASSEMBLY 830019
 PARTS LIST
 SCHEMATIC 1297D

Schematic Reference	DESCRIPTION	Acoustic Part No.
PCB	Printed Circuit Board, Equalizer	170026
R 201	Resistor, 470 ohm, 1/2 watt	476147
R 202	Slide Pot, 50K ohm, Linear	475028
R 203	Resistor, 1K ohm, 1/2 watt	476210
R 204	Resistor, 560 ohm, 1/2 watt	476156
R 205	Slide Pot, 50K ohm, Linear	475028
R 206	Resistor, 1K ohm, 1/2 watt	476210
R 207	Resistor, 680 ohm, 1/2 watt	476168
R 208	Slide Pot, 50K ohm, Linear	475028
R 209	Resistor, 1.5K ohm, 1/2 watt	476215
R 210	Resistor, 470 ohm, 1/2 watt	476147
R 211	Slide Pot, 50K ohm, Linear	475028
R 212	Resistor, 1K ohm, 1/2 watt	476210
R 213	Resistor, 680 ohm, 1/2 watt	476168
R 214	Slide Pot, 50K ohm, Linear	475028
R 215	Resistor, 1.5K ohm, 1/2 watt	476215



MODEL 370 - POWER MODULE 843032
 SCHEMATIC 1297D

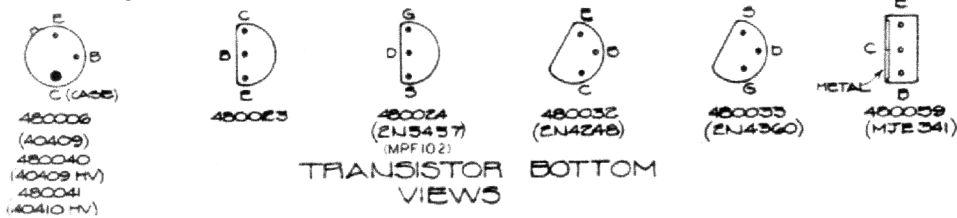


PICTORIAL
 MODEL 370 - PREAMP ASSEMBLY 830022
 SCHEMATIC 1297D

PICTORIAL
MODEL 370 - POWER MODULE 843032
SCHEMATIC 1297D

Schematic Reference	DESCRIPTION	Acoustic Part No.
PCB	Printed Circuit Board	170019
Q 301	Transistor, PNP, 2N4248	480032
Q 302	Transistor, PNP, 2N4248	480032
Q 303	Transistor, PNP, 40408	480003
Q 304	Transistor, NPN, 2N2484 or MPSA09	480023
Q 305	Transistor, NPN, 40409	480006
Q 306	Transistor, NPN, 2N3055	480015
Q 307	Transistor, NPN, 2N3055	480015
Q 308	Transistor, NPN, 2N3055	480015
Q 309	Transistor, NPN, 2N3055	480015
Q 310	Transistor, PNP, 40410	480007
Q 311	Transistor, NPN, 2N3055	480015
Q 312	Transistor, NPN, 2N3055	480015
Q 313	Transistor, NPN, 2N3055	480015
Q 314	Transistor, NPN, 2N3055	480015
Q 315	Field Effect Transistor, P-Channel, 2N4360	480033
Q 316	Transistor, NPN, 2N2484 or MPSA09	480023
L 301	Choke, 2MHY	180008
C 301	Capacitor, 1mf, Tantalum, 35V	154004
C 302	Capacitor, 330pf, Disc, 1KV	151005
C 303	Capacitor, .1mf, Mylar, 100V	152015
C 304	Capacitor, 100mf, Electrolytic, 50V	153006
C 305	Capacitor, 10mf, Electrolytic, 50V	153002
C 306	Capacitor, 2.2mf, Tantalum, 35V	154005
C 307	Capacitor, 10mf, Electrolytic, 50V	153002
C 308	Capacitor, 24pf, Disc, 1KV	151008
C 309	Capacitor, .001mf, Disc, 1KV	151010
C 311	Capacitor, .002, Disc, 1KV	151010
C 312	Capacitor, .002, Disc, 1KV	152015
C 313	Capacitor, .1mf, Mylar, 100V	151012
C 314	Capacitor, .005mf, Disc, 1KV	154006
C 315	Capacitor, 6.8mf, Tantalum, 35V	480005
CR301	Diode, 1N914	480005
CR302	Diode, 1N914	480005
CR303	Diode, 1N914	480005
CR304	Diode, 1N914	480005
CR305	Diode, 1N914	480005
CR306	Diode, 1N914	480005
CR307	Diode, 1N914	480005
CR308	Diode, 1N4731A CR 1N5229	480036
CR309	Diode, 1N4933	480028
CR310	Diode, 1N914	480005
CR311	Diode, 1N914	480005
R 301	Resistor, 27K ohm, 1/2 watt	476327
R 302	Resistor, 33K ohm, 1/2 watt	476333
R 303	Resistor, 180K ohm, 1/2 watt	476418
R 304	Trimpot, 100K ohm, Linear	475009
R 305	Resistor, 100K ohm, 1/2 watt	476410
Schematic Reference	DESCRIPTION	Acoustic Part No.
R 306	Resistor, 2.2K ohm, 1/2 watt	476222
R 307	Resistor, 6.8K ohm, 1/2 watt	476268
R 308	Resistor, 2.2K ohm, 1/2 watt	476222
R 309	Resistor, 56K ohm, 1/2 watt	476356
R 310	Resistor, 100K ohm, 1/2 watt	476410
R 311	Resistor, 1K ohm, 1/2 watt	476210
R 312	Resistor, 100K ohm, 1/2 watt	476410
R 313	Resistor, 4.7K ohm, 1/2 watt	476247
R 314	Resistor, 270K ohm, 1/2 watt	476427
R 315	Resistor, 4.7K ohm, 1/2 watt	476247
R 316	Resistor, 3.3K ohm, 1/2 watt	476233
R 317	Resistor, 3.3K ohm, 1/2 watt	476233
R 318	Resistor, 1.5K ohm, 1/2 watt	476215
R 319	Resistor, 680 ohm, 1/2 watt	476168
R 320	Resistor, 100 ohm, 1/2 watt	476110
R 321	Resistor, 1 ohm, 1/2 watt	478001
R 322	Resistor, .1 ohm, 10 watt	468810
R 323	Resistor, .1 ohm, 10 watt	468810
R 324	Resistor, 1 ohm, 1/2 watt	478001
R 325	Resistor, 100 ohm, 1/2 watt	476110
R 326	Resistor, 1 ohm, 1/2 watt	478001
R 327	Resistor, .05 ohm, 5 watt	467750
R 328	Resistor, 10 ohm, 2 watt	472010
R 329	Resistor, 22 ohm, 2 watt	472022
R 330	Resistor, 6.8M ohm, 1/2 watt	476568
R 331	Resistor, 1M ohm, 1/2 watt	476510
R 332	Resistor, 1M ohm, 1/2 watt	476510
R 333	Resistor, 10K ohm, 1/2 watt	476510
R 334	Resistor, 1M ohm, 1/2 watt	476327
R 335	Resistor, 27K ohm, 1/2 watt	476139
R 336	Resistor, 390 ohm, 1/2 watt	476127
R 337	Resistor, 270 ohm, 1/2 watt	476127
R 338	Resistor, 120K ohm, 1/2 watt	476412
R 339	Resistor, 100 ohm, 1/2 watt	476110
R 340	Resistor, 100 ohm, 1/2 watt	476110
R 341	Resistor, 18 ohm, 1/2 watt	476018

for Acoustic amps: RCA transistors



Information on this page is provided "as is" and no guarantee is implied including "suitability of purpose". Use this information at your own risk. Certain facts or details may have been omitted in order to provide abbreviated information.

2n2448 can be replaced with 2n4401

2n4246 can be replaced with 2n5401

Always replace bias servo transistor if output(s) were shorted.

EQ PCB # 170076 to 170084: there may be intermittent low f oscillation (motor boating)

after unit is turned off. Change R8, R9 from 100k to 22k.

Acoustic 220 notes: The model has the preamp stage of the 370 and the output stage of the 320.

Original 300 series amps develop intermittent crackling or odd distortions.

- replace all tantalum decoupling caps on all PCBs.

Output transistors are RCA 2n3055 do not substitute high speed transistors - can use 2n3773

Some units do not have CR310 mr2361 dual diode, but have two 1n914 diodes in series. Dual diode sub is 1n3886

REMEMBER the amp output is capacitor coupled and will have a DC offset unless it is slightly loaded to discharge the cap.

Adjust R 304 for even clipping on waveform in 8 ohms. Adjustment will float and takes time to stabilize.

40408 sub is 2n3053

2n4360 pfet sub is 2n5462

100-ohm resistors to driver transistors tend to open or change value with shorted outputs.

370 notes: Q304 is 2n2222

If amp 'motorboats' at the Q section check R 131- may be out of tolerance.

Transistor cross-references:

480037=2N3773

480056=2N6474

480057=2N6476

480059=MJE341

480060=originally 2N3055 select / upgrade with 2N3773 (match preferred)

480071=2N5416

480072=2N3440

480073=2N6211

480074=2N3584

480075=2SD555 or MJ15024 (used on B series amps not older versions)

480076=MPSA56