

**service manual**

**270**

GUITAR AMPLIFIER

**acoustic control corporation**

7949 WOODLEY AVENUE  
VAN NUYS, CA 91406  
(213) 997-6631

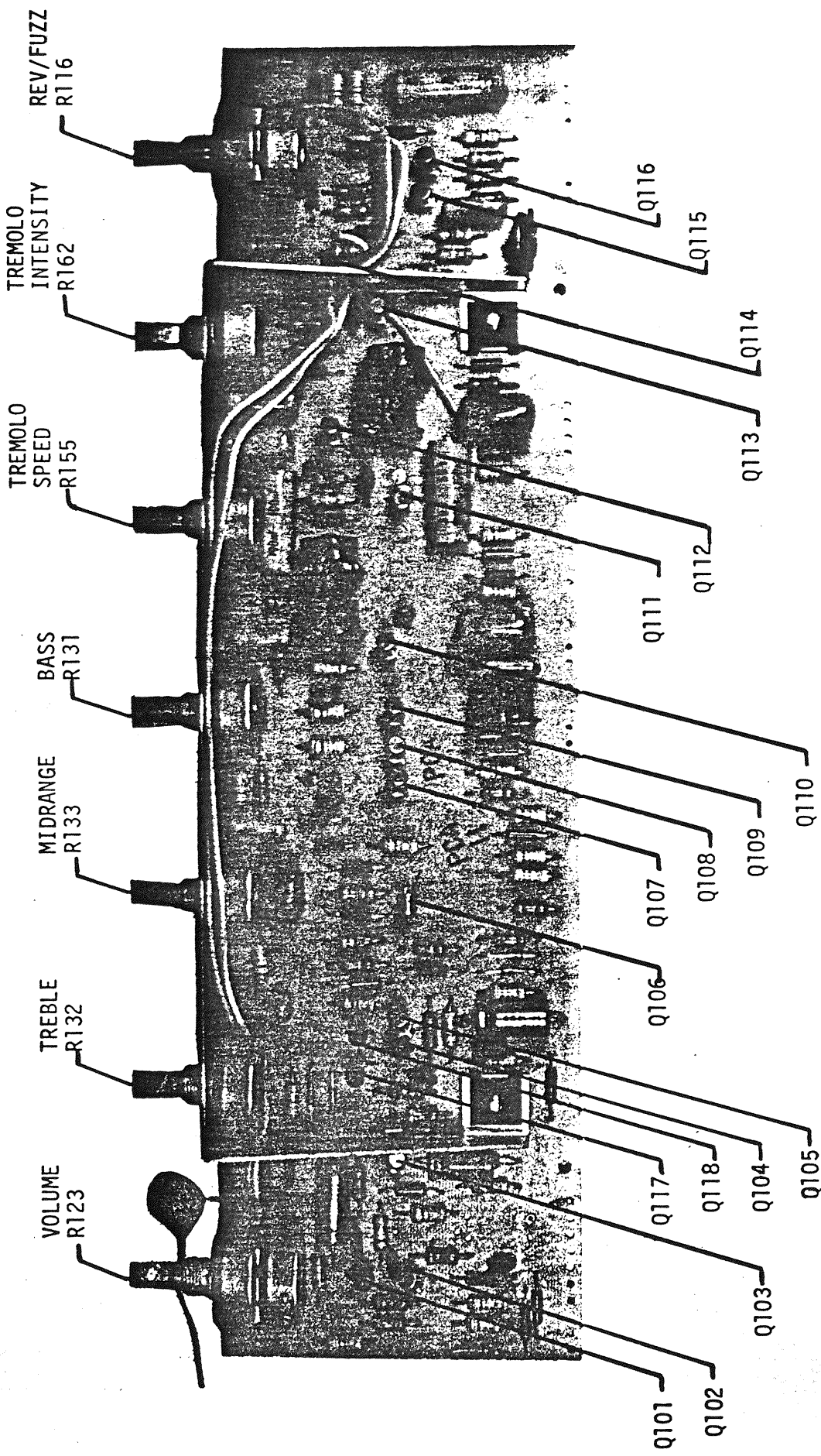
## 270 TECHNICAL SPECIFICATIONS

Preamp Gain	19.2X
Nominal Input 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 2.4 Ohm Load @ 5% Distortion	235 watts RMS
Power Output Measured Across 2.4 Ohm Load @ 10% Distortion	285 watts RMS
Power Output Measured Across 1.2 Ohm Load @ 5% Distortion	340 watts RMS
Power Output Measured Across 1.2 Ohm Load @ 10% Distortion	375 watts RMS
Frequency Response	-6 dB @ 10 Hz & 17.5 KHz
Line Output Impedance	5000 ohms
Line Output Voltage	250 mv
Power Consumption @ 375 watts	750 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.

## RANGE OF TONE CONTROLS

Bass	+15 dB, -15 dB @ 50 Hz
Treble	+15 dB, -25 dB @ 10 KHz
Mid-range	+ 7 dB, -30 dB @ 400 Hz
Bright Switch Boost	6 dB per octave from 200 Hz to 5 KHz



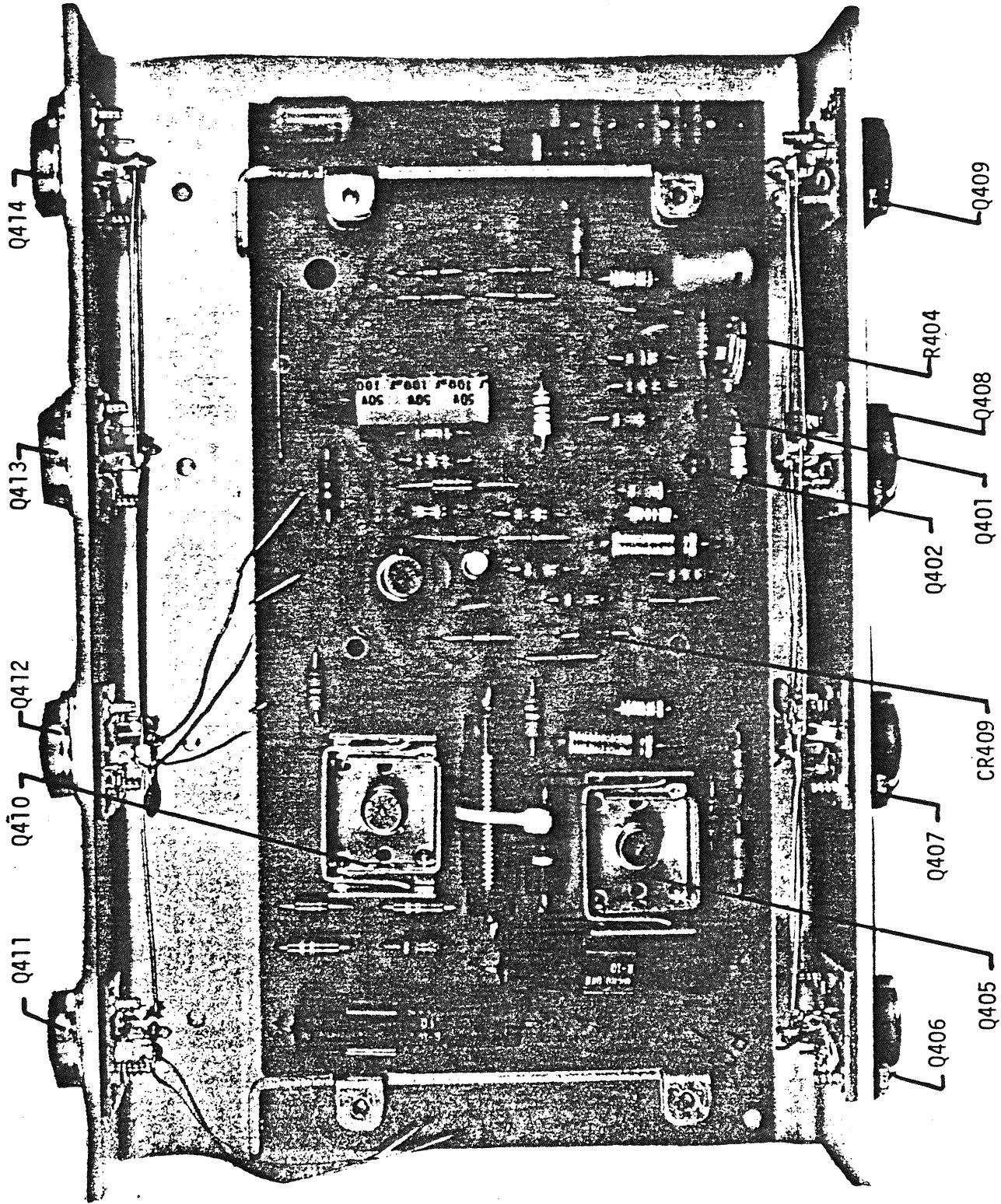
PICTORIAL  
 MODEL 270 - PREAMP ASSEMBLY 830020  
 SCHEMATIC 1290D

PARTS LIST  
MODEL 270 - PREAMP ASSEMBLY 830020  
SCHEMATIC 12900

Schematic Reference	DESCRIPTION	Acoustic Part No.	Schematic Reference	DESCRIPTION	Acoustic Part No.
PCB 1	Printed Circuit Board	170027	C 120	Capacitor, 68pf, Disc, 1KV	151002
Q 101	Transistor, NPN, 2N2484 or MPS A09	480023	C 121	Capacitor, 24pf, Disc, 1KV	151001
Q 102	Transistor, PNP, 2N4248 or 2N4249	480032	C 122	Capacitor, 1mf, Tantalum, 35V	154004
Q 103	Transistor, NPN, 2N2484 or MPS A09	480023	C 123	Capacitor, 100pf, Disc, 1KV	151003
Q 104	Transistor, PNP, 2N4248 or 2N4249	480032	C 124	Capacitor, 2.2mf, Tantalum, 35V	154005
Q 105	Transistor, NPN, 2N2484 or MPS A09	480023	C 125	Capacitor, 2.2mf, Tantalum, 35V	154005
Q 106	Transistor, NPN, 2N2484 or MPS A09	480023	C 126	Capacitor, .33mf, Mylar, 100V	152020
Q 107	Transistor, NPN, 2N2484 or MPS A09	480023	C 127	Capacitor, .03mf, Mylar, 100V	152012
Q 108	Transistor, NPN, 2N2484 or MPS A09	480023	C 128	Capacitor, 1mf, Tantalum, 35V	154005
Q 109	Transistor, NPN, 2N2484 or MPS A09	480023	C 129	Capacitor, 100pf, disc, 1KV	151003
Q 110	Transistor, NPN, 2N2484 or MPS A09	480023	C 130	Capacitor, 1mf, Tantalum, 35V	154004
Q 111	Transistor, NPN, 2N2484 or MPS A09	480023	C 131	Capacitor, 1mf, Tantalum, 35V	154004
Q 112	Transistor, NPN, 2N2484 or MPS A09	480023	C 132	Capacitor, 24pf, disc, 1KV	151001
Q 113	Transistor, NPN, 2N2484 or MPS A09	480023	C 133	Capacitor, .18mf, Mylar, 100V	152018
Q 114	Field Effect Transistor, 2N4360	480033	C 134	Capacitor, 100mf, Electrolytic, 40V	153006
Q 115	Transistor, NPN, 2N2484 or MPS A09	480023	C 135	Capacitor, .22mf, Mylar, 100V	152019
Q 116	Transistor, NPN, 2N2484 or MPS A09	480023	C 136	Capacitor, .39mf, Tantalum, 35V	154001
Q 117	Field Effect Transistor, 2N4360	480033	C 137	Capacitor, .22mf, Mylar, 100V	152019
Q 118	Field Effect Transistor, 2N5457, MPF 102	480024	C 138	Capacitor, 470pf, Disc, 1KV	151006
CR101	Diode, 1N914	480005	C 139	Capacitor, 1mf, Tantalum, 35V	154004
CR102	Diode, 1N914	480005	C 140	Capacitor, 1mf, Tantalum, 35V	154004
CR103	Diode, 1N914	480005	C 141	Capacitor, .047mf, Mylar, 100V	152013
CR104	Diode, 1N914	480005	C 142	Capacitor, 1mf, Tantalum, 35V	154014
CR105	Diode, 1N914	480005	C 143	Capacitor, .047mf, Mylar, 100V	152013
CR106	Diode, 1N914	480005	C 144	Capacitor, 100pf, Disc, 1KV	151003
CR107	Diode, 1N914	480005	C 145	Capacitor, 1mf, Tantalum, 35V	154004
L 101	Inductor, 615	180007	C 146	Capacitor, 1mf, Tantalum, 35V	154004
L 102	Inductor, 1.5Ily	180002	C 147	Capacitor, 68pf, Disc, 1KV	151002
L 103	Inductor, 750Mily	180005	C 148	Capacitor, 100mf, Electrolytic, 40V	153006
L 104	Inductor, 375Mily	180004	C 149	Capacitor, 100mf, Electrolytic, 40V	153006
L 105	Inductor, 750Mily	180005	C 150	Capacitor, 1mf, Tantalum, 35V	154004
L 106	Inductor, 375Mily	180004	C 151	Capacitor, 1mf, Tantalum, 35V	154004
C 101	Capacitor, 68pf, Disc, 1KV	151002	C 152	Capacitor, 1mf, Tantalum, 35V	154004
C 102	Capacitor, 1mf, Tantalum, 35V	154004	C 153	Capacitor, 1mf, Tantalum, 35V	154004
C 103	Capacitor		C 154	Capacitor, .001mf, Disc, 1KV	151008
C 104	Capacitor, 10mf, Nlectrolytic, 50V	153002	C 155	Capacitor, .001mf, Disc, 1KV	151008
C 105	Capacitor, 68pf, Disc, 1KV	151002	C 156	Capacitor, 1mf, Tantalum, 35V	154004
C 106	Capacitor, 1mf, Tantalum, 35V	154004	C 157	Capacitor, .01mf, Disc, 50V	151013
C 107	Capacitor, 1mf, Tantalum, 35V	154004	R 101	Resistor, 10K ohm, 1/2 watt	476310
C 108	Capacitor, 68pf, Disc, 1KV	151002	R 102	Resistor, 22K ohm, 1/2 watt	476322
C 109	Capacitor, 20mf, Electrolytic, 50V	153003	R 103	Resistor, 470K ohm, 1/2 watt	476447
C 110	Capacitor, 1mf, Tantalum, 35V	154004	R 104	Resistor, 10M ohm, 1/2 watt	476510
C 111	Capacitor, 10mf, Electrolytic, 50V	157002	R 105	Resistor, 33K ohm, 1/2 watt	476333
C 112	Capacitor, 1mf, Tantalum, 35V	154004	R 106	Resistor, 560 ohm, 1/2 watt	476156
C 113	Capacitor, 1mf, Tantalum, 35V	154004	R 107	Resistor, 10K ohm, 1/2 watt	476310
C 114	Capacitor, 1mf, Tantalum, 35V	154004	R 108	Resistor, 1K ohm, 1/2 watt	476210
C 115	Capacitor, .002mf, Mylar, 100V	152009	R 109	Resistor, 470K ohm, 1/2 watt	476447
C 116	Capacitor, .002mf, Mylar, 100V	152009	R 110	Resistor, 8.2M ohm, 1/2 watt	476582
C 117	Capacitor, .022mf, Mylar, 100V	152009	R 111	Resistor, 470K ohm, 1/2 watt	476447
C 118	Capacitor, 1mf, Tantalum, 35V	154004	R 112	Resistor, 3.3K ohm, 1/2 watt	476333
C 119	Capacitor, 1mf, Tantalum, 35V	154004	R 113	Resistor, 6.8K ohm, 1/2 watt	476268
			R 114	Resistor, 39 ohm, 1/2 watt	476049

PARTS LIST  
MODEL 270 - POWER MODULE 843030  
SCHEMATIC 1290D

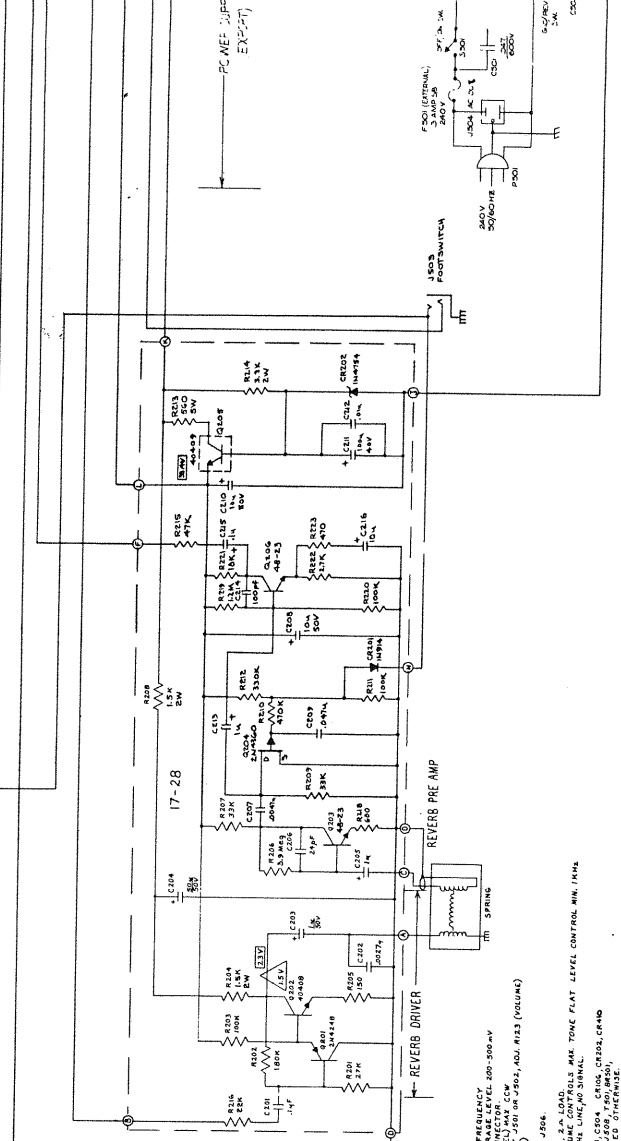
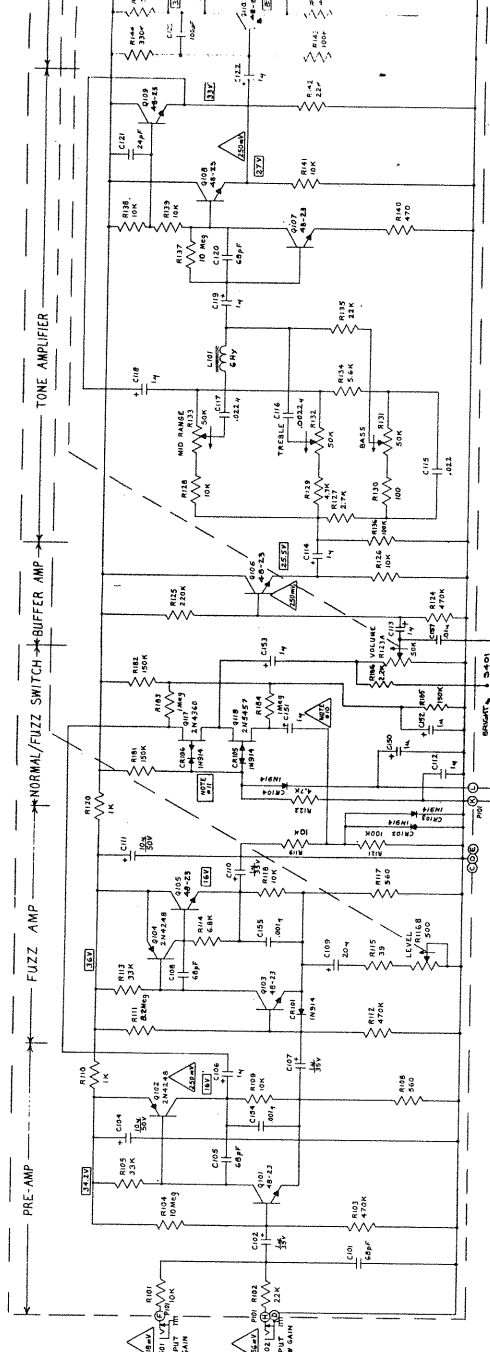
Schematic Reference	DESCRIPTION	Acoustic Part No.	Schematic Reference	DESCRIPTION	Acoustic Part No.
PCB 4	Printed Circuit Board	170019F	R 409	Resistor, 1K ohm, 1/2 watt	476210
Q 401	Transistor, PNP, 2N4248	480032	R 410	Resistor, 56K ohm, 1/2 watt	476356
Q 402	Transistor, PNP, 2N4248	480032	R 411	Resistor, 100K ohm, 1/2 watt	476410
Q 403	Transistor, NPN, 40408	480003	R 412	Resistor, 100K ohm, 1/2 watt	476410
Q 404	Transistor, NPN, 2N2484	480023	R 413	Resistor, 4.7K ohm, 1/2 watt	476247
Q 405	Transistor, NPN, 40409	480006	R 414	Resistor, 270K ohm, 1/2 watt	476427
Q 406	Transistor, NPN, 2N3055	480015	R 415	Resistor, 4.7K ohm, 1/2 watt	476247
Q 407	Transistor, NPN, 2N3055	480015	R 416	Resistor, 3.3K ohm, 1/2 watt	476233
Q 408	Transistor, NPN, 2N3055	480015	R 417	Resistor, 3.3K ohm, 1/2 watt	476233
Q 409	Transistor, NPN, 2N3055	480015	R 418	Resistor, 1.5K ohm, 1/2 watt	476215
Q 410	Transistor, NPN, 2N3055	480015	R 419	Resistor, 680 ohm, 1/2 watt	476168
Q 411	Transistor, NPN, 40410	480007	R 420	Resistor, 100 ohm, 1/2 watt	476110
Q 412	Transistor, NPN, 2N3055	480015	R 421	Resistor, 1 ohm, 1/2 watt	478001
Q 413	Transistor, NPN, 2N3055	480015	R 422	Resistor, .1 ohm, 10 watt	468810
Q 414	Transistor, NPN, 2N3055	480015	R 423	Resistor, .1 ohm, 10 watt	468810
CR401	Transistor, NPN, 2N3055	480015	R 424	Resistor, 1 ohm, 1/2 watt	478001
CR402	Diode, 1N914	480005	R 425	Resistor, 100 ohm, 1/2 watt	476110
CR403	Diode, 1N914	480005	R 426	Resistor, 1 ohm, 1/2 watt	478001
CR404	Diode, 1N914	480005	R 427	Resistor, 1 ohm, 1/2 watt	478001
CR405	Diode, 1N914	480005	R 428	Resistor, 10 ohm, 2 watt	472010
CR406	Diode, 1N914	480005	R 429	Resistor, 22 ohm, 2 watt	472022
CR407	Diode, 1N914	480005	R 430	Resistor, 120K ohm, 1/2 watt	476412
CR408	Diode, 1N914	480005	R 431	Resistor, 100 ohm, 1/2 watt	476110
CR409	Diode, Zener, 1N4731	480036	R 432	Resistor, 100 ohm, 1/2 watt	476110
CR410	Diode, 1N4933, 1N4003	480028	R 433	Resistor, 18 ohm, 1/2 watt	476018
CR411	Diode, 1N914	480005			
L 401	Choke, 2MHy	480005			
C 401	Capacitor, 1mf, Tantalum, 35V	180008			
C 402	Capacitor, 330pf, Disc, 1KV	154004			
C 403	Capacitor, .1mf, Mylar, 100V	151005			
C 404	Capacitor, 100mf, Electrolytic, 50V	152015			
C 405	Capacitor, 10mf, Electrolytic, 50V	153006			
C 406	Capacitor, 2.2mf, Tantalum, 35V	153002			
C 407	Capacitor, 10mf, Electrolytic, 50V	154005			
C 408	Capacitor, .001mf, Disc, 1KV	153002			
C 409	Capacitor, 24pf, Disc, 1KV	151008			
C 410	Capacitor, .002mf, Disc	151001			
C 411	Capacitor, .002mf, Disc	151010			
C 412	Capacitor, .002mf, Disc	151010			
C 413	Capacitor, .1mf, Mylar, 100V	152015			
R 401	Resistor, 27K ohm, 1/2 watt	476327			
R 402	Resistor, 33K ohm, 1/2 watt	476333			
R 403	Resistor, 180K ohm, 1/2 watt	476418			
R 404	Tri-impot, 100K ohm	475009			
R 405	Resistor, 2.2K ohm, 1/2 watt	476222			
R 406	Resistor, 100K ohm, 1/2 watt	476410			
R 407	Resistor, 6.8 ohm, 1/2 watt	476268			
R 408	Resistor, 2.2K ohm, 1/2 watt	476222			



MODEL 270 - POWER AMP ASSEMBLY 843030  
SCHEMATIC 1290D

PARTS LIST  
 MODEL 270 - POWER SUPPLY, REVERB 830021  
 SCHEMATIC 1290D

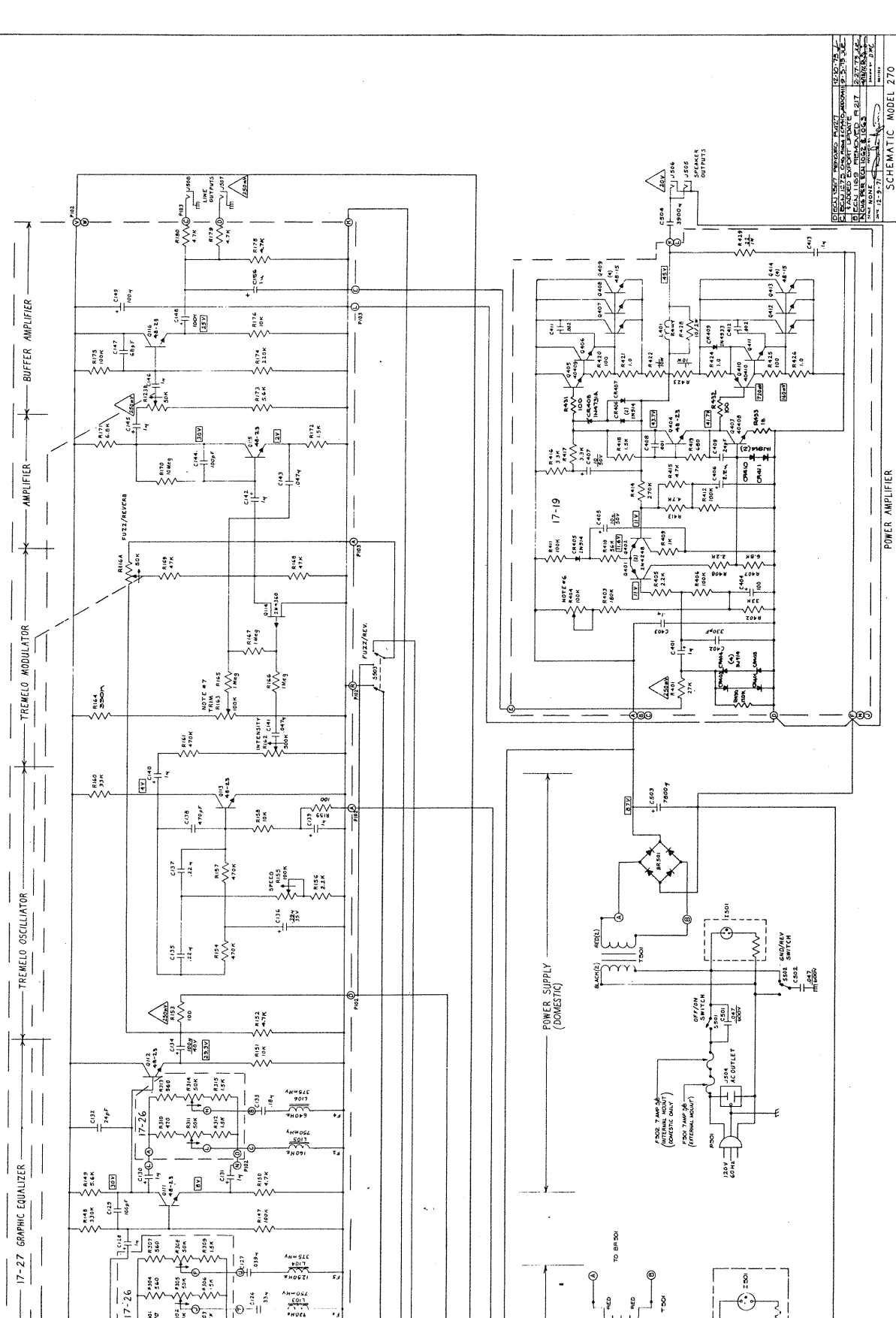
Schematic Reference	DESCRIPTION	Acoustic Part No.
PCB 2	Printed Circuit Board	170028
Q 201	Transistor, PNP, 2N4248	480032
Q 202	Transistor, NPN, 40408	480003
Q 203	Transistor, NPN, 2N2484	480023
Q 204	Field Effect Transistor, P-Channel, 2N4360	480033
Q 205	Transistor, NPN 40409	480006
Q 206	Transistor, NPN, 2N2484	480023
CR201	Diode, 1N914	480005
CR202	Diode, Zener, 1N4754	480022
C 201	Capacitor, .1mf, 100V, Mylar	152015
C 202	Capacitor, .0027, 100V, Mylar	152002
C 203	Capacitor, 1mf, 50V, Electrolytic	153001
C 204	Capacitor, 50mf, 50V, Electrolytic	153005
C 205	Capacitor, 1mf, 35V, Tantalum	154004
C 206	Capacitor, 24pf, 1KV, Disc	151001
C 207	Capacitor, .0047mf, 100V, Mylar	152004
C 208	Capacitor, 10mf, 50V, Electrolytic	153002
C 209	Capacitor, .047mf, 100V, Mylar	152013
C 210	Capacitor, 10mf, 50V, Electrolytic	153002
C 211	Capacitor, 100mf, 40V	153006
C 212	Capacitor, .01mf, 100V, Mylar	152006
C 213	Capacitor, 1mf, 35V, Tantalum	154004
C 214	Capacitor, 100pf, 1KV, Disc	151003
C 215	Capacitor, .1mf, 100V, Mylar	152015
C 216	Capacitor, 10mf, 50V, Electrolytic	153002
R 201	Resistor, 27K ohm, 1/2 watt	476327
R 202	Resistor, 180K ohm, 1/2 watt	476418
R 203	Resistor, 100K ohm, 1/2 watt	476410
R 204	Resistor, 1.5K ohm, 2 watt	472215
R 205	Resistor, 150 ohm, 1/2 watt	476115
R 206	Resistor, 3.9M ohms, 1/2 watt	476539
R 207	Resistor, 33K ohm, 1/2 watt	476333
R 208	Resistor, 1.5 ohm, 2 watt	472215
R 209	Resistor, 33K ohm, 1/2 watt	476333
R 210	Resistor, 470K ohm, 1/2 watt	476447
R 211	Resistor, 100K ohm, 1/2 watt	476410
R 212	Resistor, 330k ohm, 1/2 watt	476433
R 213	Resistor, 560 ohm, 5 watt	463156
R 214	Resistor, 3.3K ohm, 2 watt	472233
R 215	Resistor, 47K ohm, 1/2 watt	476347
R 216	Resistor, 22K ohm, 1/2 watt	476322
R 218	Resistor, 680 ohm, 1/2 watt	476168
R 219	Resistor, 1.2M ohm, 1/2 watt	476512
R 220	Resistor, 100K ohm, 1/2 watt	476410
R 221	Resistor, 18K ohm, 1/2 watt	476318
R 222	Resistor, 2.7K ohm, 1/2 watt	476227
R 223	Resistor, 470 ohm, 1/2 watt	467147



1. DC VOLTAGE FOR FUZZ ISV
2. AC VOLTAGE FOR FUZZ ISV
3. AC VOLTAGE FOR FUZZ ISV
4. AC VOLTAGE FOR FUZZ ISV
5. AC VOLTAGE FOR FUZZ ISV
6. AC VOLTAGE FOR FUZZ ISV
7. AC VOLTAGE FOR FUZZ ISV
8. AC VOLTAGE FOR FUZZ ISV
9. AC VOLTAGE FOR FUZZ ISV
10. AC VOLTAGE FOR FUZZ ISV
11. AC VOLTAGE FOR FUZZ ISV
12. AC VOLTAGE FOR FUZZ ISV
13. AC VOLTAGE FOR FUZZ ISV
14. AC VOLTAGE FOR FUZZ ISV
15. AC VOLTAGE FOR FUZZ ISV
16. AC VOLTAGE FOR FUZZ ISV
17. AC VOLTAGE FOR FUZZ ISV
18. AC VOLTAGE FOR FUZZ ISV
19. AC VOLTAGE FOR FUZZ ISV
20. AC VOLTAGE FOR FUZZ ISV
21. AC VOLTAGE FOR FUZZ ISV
22. AC VOLTAGE FOR FUZZ ISV
23. AC VOLTAGE FOR FUZZ ISV
24. AC VOLTAGE FOR FUZZ ISV
25. AC VOLTAGE FOR FUZZ ISV
26. AC VOLTAGE FOR FUZZ ISV
27. AC VOLTAGE FOR FUZZ ISV
28. AC VOLTAGE FOR FUZZ ISV
29. AC VOLTAGE FOR FUZZ ISV
30. AC VOLTAGE FOR FUZZ ISV
31. AC VOLTAGE FOR FUZZ ISV
32. AC VOLTAGE FOR FUZZ ISV
33. AC VOLTAGE FOR FUZZ ISV
34. AC VOLTAGE FOR FUZZ ISV
35. AC VOLTAGE FOR FUZZ ISV
36. AC VOLTAGE FOR FUZZ ISV
37. AC VOLTAGE FOR FUZZ ISV
38. AC VOLTAGE FOR FUZZ ISV
39. AC VOLTAGE FOR FUZZ ISV
40. AC VOLTAGE FOR FUZZ ISV
41. AC VOLTAGE FOR FUZZ ISV
42. AC VOLTAGE FOR FUZZ ISV
43. AC VOLTAGE FOR FUZZ ISV
44. AC VOLTAGE FOR FUZZ ISV
45. AC VOLTAGE FOR FUZZ ISV
46. AC VOLTAGE FOR FUZZ ISV
47. AC VOLTAGE FOR FUZZ ISV
48. AC VOLTAGE FOR FUZZ ISV
49. AC VOLTAGE FOR FUZZ ISV
50. AC VOLTAGE FOR FUZZ ISV
51. AC VOLTAGE FOR FUZZ ISV
52. AC VOLTAGE FOR FUZZ ISV
53. AC VOLTAGE FOR FUZZ ISV
54. AC VOLTAGE FOR FUZZ ISV
55. AC VOLTAGE FOR FUZZ ISV
56. AC VOLTAGE FOR FUZZ ISV
57. AC VOLTAGE FOR FUZZ ISV
58. AC VOLTAGE FOR FUZZ ISV
59. AC VOLTAGE FOR FUZZ ISV
60. AC VOLTAGE FOR FUZZ ISV
61. AC VOLTAGE FOR FUZZ ISV
62. AC VOLTAGE FOR FUZZ ISV
63. AC VOLTAGE FOR FUZZ ISV
64. AC VOLTAGE FOR FUZZ ISV
65. AC VOLTAGE FOR FUZZ ISV
66. AC VOLTAGE FOR FUZZ ISV
67. AC VOLTAGE FOR FUZZ ISV
68. AC VOLTAGE FOR FUZZ ISV
69. AC VOLTAGE FOR FUZZ ISV
70. AC VOLTAGE FOR FUZZ ISV
71. AC VOLTAGE FOR FUZZ ISV
72. AC VOLTAGE FOR FUZZ ISV
73. AC VOLTAGE FOR FUZZ ISV
74. AC VOLTAGE FOR FUZZ ISV
75. AC VOLTAGE FOR FUZZ ISV
76. AC VOLTAGE FOR FUZZ ISV
77. AC VOLTAGE FOR FUZZ ISV
78. AC VOLTAGE FOR FUZZ ISV
79. AC VOLTAGE FOR FUZZ ISV
80. AC VOLTAGE FOR FUZZ ISV
81. AC VOLTAGE FOR FUZZ ISV
82. AC VOLTAGE FOR FUZZ ISV
83. AC VOLTAGE FOR FUZZ ISV
84. AC VOLTAGE FOR FUZZ ISV
85. AC VOLTAGE FOR FUZZ ISV
86. AC VOLTAGE FOR FUZZ ISV
87. AC VOLTAGE FOR FUZZ ISV
88. AC VOLTAGE FOR FUZZ ISV
89. AC VOLTAGE FOR FUZZ ISV
90. AC VOLTAGE FOR FUZZ ISV
91. AC VOLTAGE FOR FUZZ ISV
92. AC VOLTAGE FOR FUZZ ISV
93. AC VOLTAGE FOR FUZZ ISV
94. AC VOLTAGE FOR FUZZ ISV
95. AC VOLTAGE FOR FUZZ ISV
96. AC VOLTAGE FOR FUZZ ISV
97. AC VOLTAGE FOR FUZZ ISV
98. AC VOLTAGE FOR FUZZ ISV
99. AC VOLTAGE FOR FUZZ ISV
100. AC VOLTAGE FOR FUZZ ISV

NOTES:  
 1. ALL COMPONENTS IN W/D UNLESS NOTED OTHERWISE.  
 2. ALL CAPACITORS IN W/D UNLESS NOTED OTHERWISE.  
 3. ALL RESISTORS IN W/D UNLESS NOTED OTHERWISE.  
 4. ALL VOLTAGES ARE IN W/D UNLESS NOTED OTHERWISE.  
 5. ALL CURRENTS ARE IN W/D UNLESS NOTED OTHERWISE.  
 6. ALL DIMENSIONS ARE IN W/D UNLESS NOTED OTHERWISE.  
 7. ALL TOLERANCES ARE IN W/D UNLESS NOTED OTHERWISE.  
 8. ALL PARTS ARE IN W/D UNLESS NOTED OTHERWISE.  
 9. ALL MATERIALS ARE IN W/D UNLESS NOTED OTHERWISE.  
 10. ALL FINISHES ARE IN W/D UNLESS NOTED OTHERWISE.





DESIGNED BY	W. H. BROWN	DATE	12-10-75
DESIGNED BY	W. H. BROWN	DATE	9-2-75
DESIGNED BY	W. H. BROWN	DATE	2-27-75
DESIGNED BY	W. H. BROWN	DATE	1-15-75
DESIGNED BY	W. H. BROWN	DATE	1-15-75
DESIGNED BY	W. H. BROWN	DATE	1-15-75
DESIGNED BY	W. H. BROWN	DATE	1-15-75
DESIGNED BY	W. H. BROWN	DATE	1-15-75
DESIGNED BY	W. H. BROWN	DATE	1-15-75
DESIGNED BY	W. H. BROWN	DATE	1-15-75

SCHEMATIC MODEL 270  
ACOUSTIC CONTROL CORP.

1250 D