

# FENDER LONDON REVERB AMPLIFIER

## (223700, 223701, 223702, 223703, 223708)

### (PARTS LIST)

#### LONDON TOP

021179 Cabinet w/hdw.  
021185 Grill Frame w/hdw.  
019553 Cabinet Back

#### LONDON 1-12

019388 Cabinet w/hdw.  
020910 12" Speaker  
010129 12" EV Speaker

#### LONDON 2-10

019390 Cabinet w/hdw.  
021258 10" Speaker  
019576 10" EV Speaker  
019540 Grill Frame w/hdw.  
019552 Upper Cabinet Back  
019553 Lower Cabinet Back  
019170 Handle w/insert  
019279 Handle Cap  
019308 Glide Assy.  
024695 Corner (two-screw)  
024752 Chassis Strap  
019252 Power Transformer  
019585 Tolex (Black)  
018252 Grill Cloth  
020489 Reverb Pan  
020900 Reverb Cable 36"  
020902 Reverb Cable 23"

#### CAPACITORS

020883 10 pf disc  
004026 22 pf disc  
020909 47 pf disc  
020925 120 pf disc  
007029 220 pf disc  
020867 330 pf disc  
020842 500 pf disc  
017518 560 pf disc  
060962 1000 pf disc  
065862 1200 pf disc  
023257 2000 pf disc  
020875 3000 pf disc  
019952 .0033 uf met poly  
019956 .0068 uf met poly  
019959 .01 uf met poly  
019961 .015 uf met poly  
019978 .018 uf met poly  
019963 .022 uf met poly  
019964 .027 uf met poly  
019969 .047 uf met poly  
019971 .068 uf met poly  
019972 .082 uf met poly  
019973 .10 uf met poly  
019977 .15 uf met poly  
019979 .22 uf met poly  
019985 .47 uf met poly  
017497 .1 uf ceramic  
019742 1 uf NP lytic  
019744 10 uf 16V  
015126 100 uf 16V  
021094 2200 uf 25V  
018456 6000 uf 125V  
021022 .1 uf 200V  
018764 .01 uf 125V  
015124 10 uf 16V

#### RESISTORS

016929 46.4 ohm 1% 1/4W  
016930 56.2 ohm 1% 1/4W  
016934 100 ohm 1% 1/4W  
016937 178 ohm 1% 1/4W  
016938 215 ohm 1% 1/4W  
016943 464 ohm 1% 1/4W  
016944 562 ohm 1% 1/4W  
016945 681 ohm 1% 1/4W  
016946 825 ohm 1% 1/4W  
015718 1K 1% 1/4W  
016951 1.21K 1% 1/4W  
016952 1.47K 1% 1/4W  
016953 1.78K 1% 1/4W  
016955 2.15K 1% 1/4W  
016957 2.74K 1% 1/4W  
016958 3.32K 1% 1/4W  
015580 4.64K 1% 1/4W  
016960 5.62K 1% 1/4W

016961 6.81K 1% 1/4W  
015582 10K 1% 1/4W  
016965 12.1K 1% 1/4W  
016966 14.7K 1% 1/4W  
016968 21.5K 1% 1/4W  
016971 33.2K 1% 1/4W  
016973 38.3K 1% 1/4W  
015583 46.4K 1% 1/4W  
016974 56.2K 1% 1/4W  
015585 100K 1% 1/4W  
016979 215K 1% 1/4W  
016984 464K 1% 1/4W  
035590 2.2 ohm 10% 1/2W  
061218 4.7 ohm 10% 1/2W  
021170 100 ohm 10% 1/2W  
070128 680 ohm 10% 1/2W  
021220 2.2K 10% 1/2W  
069823 5.6K 10% 1/2W  
038180 4.7 meg 10% 1/2W  
021096 15 ohm 10% 1W  
012545 33 ohm 10% 1W  
011310 33 ohm 10% 2W  
020740 .22 ohm 10% 5W  
020736 .10 ohm 10% 7W

#### TRANSISTORS

013569 RCA 29B  
013568 RCA 30B  
016537 MJ 15003  
014409 MPS A18  
016739 2N4401

#### DIODES

006260 1N4448  
015003 1N5234B  
018030 1N5393  
020591 LED (power on)  
022312 LED

#### CONTROLS

025674 1.5KL trim  
019995 250KL trim  
019734 10KRA (gain)  
021899 10KA (effects send)  
021931 50KA (effects receive)  
019710 50KA (channel 1 bass)  
019712 50KRA (channel 2 treble)  
019715 50KA (channel 1 volume)  
019708 50KL (channel 1 treble, master)  
019714 50KA (channel 2 volume)  
019709 50KL (reverb 1 & 2)  
019713 50KRA (channel 2 bass)  
019795 50KL (graphic equalizer)  
019736 50KL (mid 1 & 2, treble)

#### SCREWS

011231 Reverb mounting  
019277 Speaker mounting  
022103 Corner mounting  
022160 Glide mounting  
022244 Handle mounting  
022152 Logo mounting  
010099 Heatsink mounting  
014170 Transistor cover mounting  
022491 Cable clamp mounting  
030866 Chassis mounting (back lip)

#### WASHERS

022384 Lock, internal (jacks & effects controls)  
016469 Lock, internal (fuseholders)  
021505 Lock, internal (controls)  
022293 Finish (on/off & ground switch)  
020885 Flat (controls)  
031153 Finish (input jack)  
043760 Neoprene (fuseholders)

#### NUTS

021972 Handle mounting  
016352 Input jack & effect's controls  
020886 Control mounting  
022012 On/off & ground switch mounting  
031666 Fuseholder mounting  
092494 Speaker mounting

#### CONNECTORS

020823 4-pin (PCB male)  
020863 4-pin (PCB female)

020849 5-pin (PCB male)  
020864 5-pin (PCB female)  
021158 6-pin (PCB male)  
022351 6-pin (PCB male)  
021157 6-pin (PCB female)  
020837 7-pin (PCB male)  
020851 7-pin (PCB male)  
020866 7-pin (PCB female)  
020829 8-pin (PCB male)  
017700 8-pin (PCB male)  
013545 8-pin (PCB female)  
021766 8-pin (PCB female)  
020831 10-pin male  
022370 10-pin (PCB female)  
021357 12-pin (PCB male)  
022352 12-pin (PCB male)  
021341 12-pin (PCB female)  
020021 5-pin (female, footswitch)  
020496 3-pin (female)

#### MISCELLANEOUS

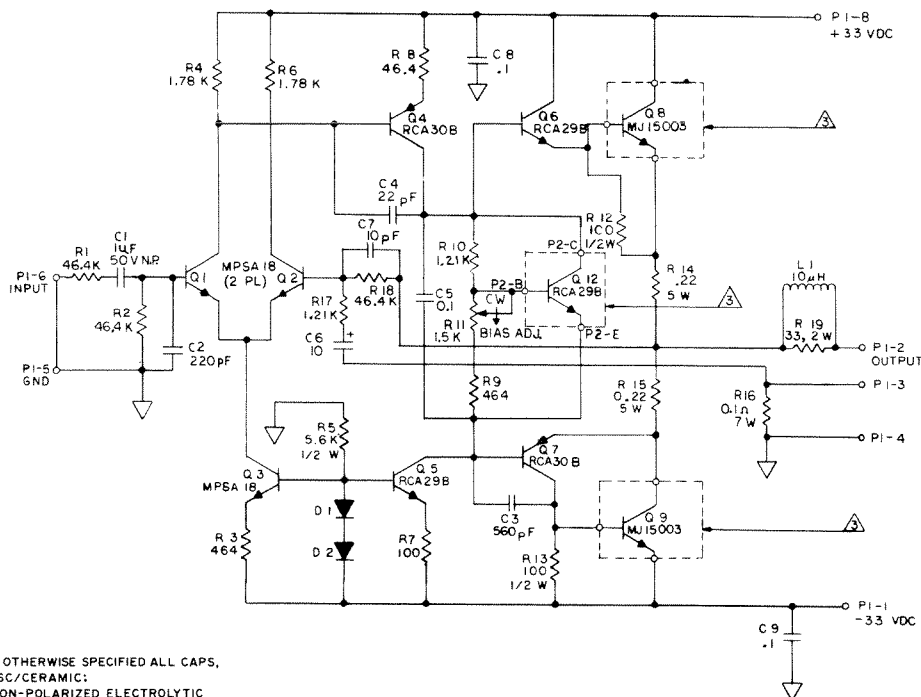
014521 Knob, effect's controls  
019798 Knob, controls  
007565 Bushing, strain relief (line cord)  
022491 Cable clamp (line cord, reverb cables)  
035897 Jack (effects send, preamp out)  
014715 Jack (effects receive, power amp in)  
021626 Jack (speaker)  
020772 Jack (reverb in & out)  
018594 Jack (input)  
021667 Fuse 1A-250V slo-blo  
019808 Knob, slide controls  
016081 Clamp, cap.  
017037 Clip fuseholder  
037588 Fuse 5A-250V (speaker)  
021584 Fuse 2A-250V slo-blo (line)  
017171 Fuseholder  
021198 Toggle switch (on/off)  
010023 SPDT switch (ground)  
020202 Slide switch (effects)  
013528 IC, dual op-amp  
019944 IC, CMOS  
016652 IC, analog switch  
020421 IC, dual d flip flop  
020422 IC, hex Schmidt trigger  
020270 IC, analog switch  
014748 10 uhy inductor  
019850 Heatsink  
020050 Heatsink (mini)  
020580 Line cord  
013594 Rectifier diode bridge  
023737 Accessory outlet  
074211 Mica (TO-3)  
017974 Mica (TO-220)  
016348 Power transistor socket  
020556 Transistor cover  
019666 Control panel  
020814 Rear panel, speaker  
020817 Rear panel, power

#### EXPORT MODELS ONLY

020815 Rear panel, speaker (S/220V & 240V)  
021106 Rear panel, power (S/220V & 240V)  
061663 Toggle switch, on/of (S/220V & 240V)  
013005 Fuseholder (S/220V & 240V)  
013002 Line cord (S/220V & 240V)  
010401 Bushing, strain relief, line cord (S/220V & 240V)  
013113 Fuse, 1.25AT 250V (S/220V & 240V)  
020798 Fuse, 5A 250V (S/220V & 240V)  
020799 Fuse, 6.3A 250V secondary (S/220V)  
016573 Fuseholder, clip type (S/220V)  
016546 Insulation plate, fuseholder (S/220V)  
013014 Clamp, strain relief (S/220V & 240V)  
015701 Screw, clamp mounting (S/220V & 240V)  
097360 Nut, clamp & fuse clip mounting (S/220V)  
034769 Screw, fuse clip mounting (S/220V)  
021564 Shield, fuseholder (S/220V)  
021565 Shield, on/off switch (S/220V & 240V)  
021124 240V label (240V)

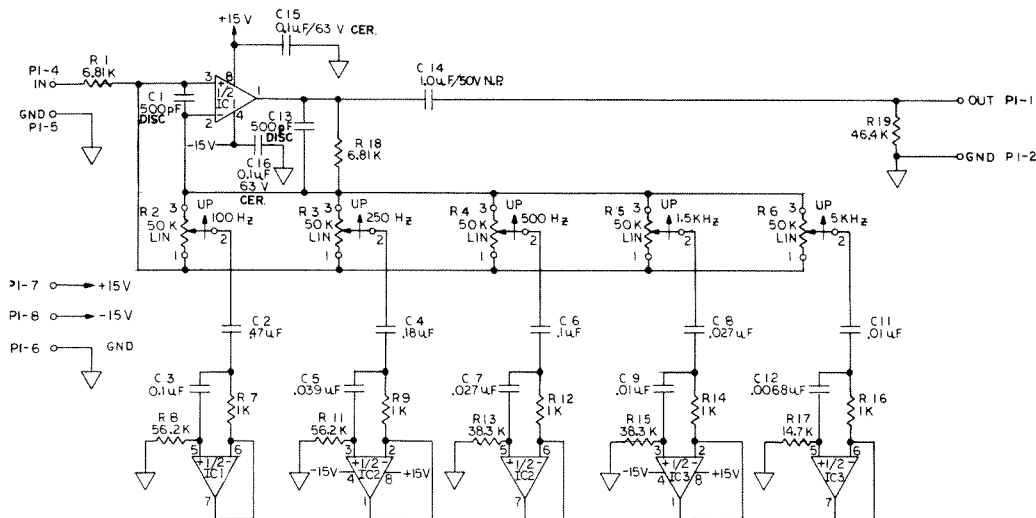
Specifications Subject to Change Without Notice





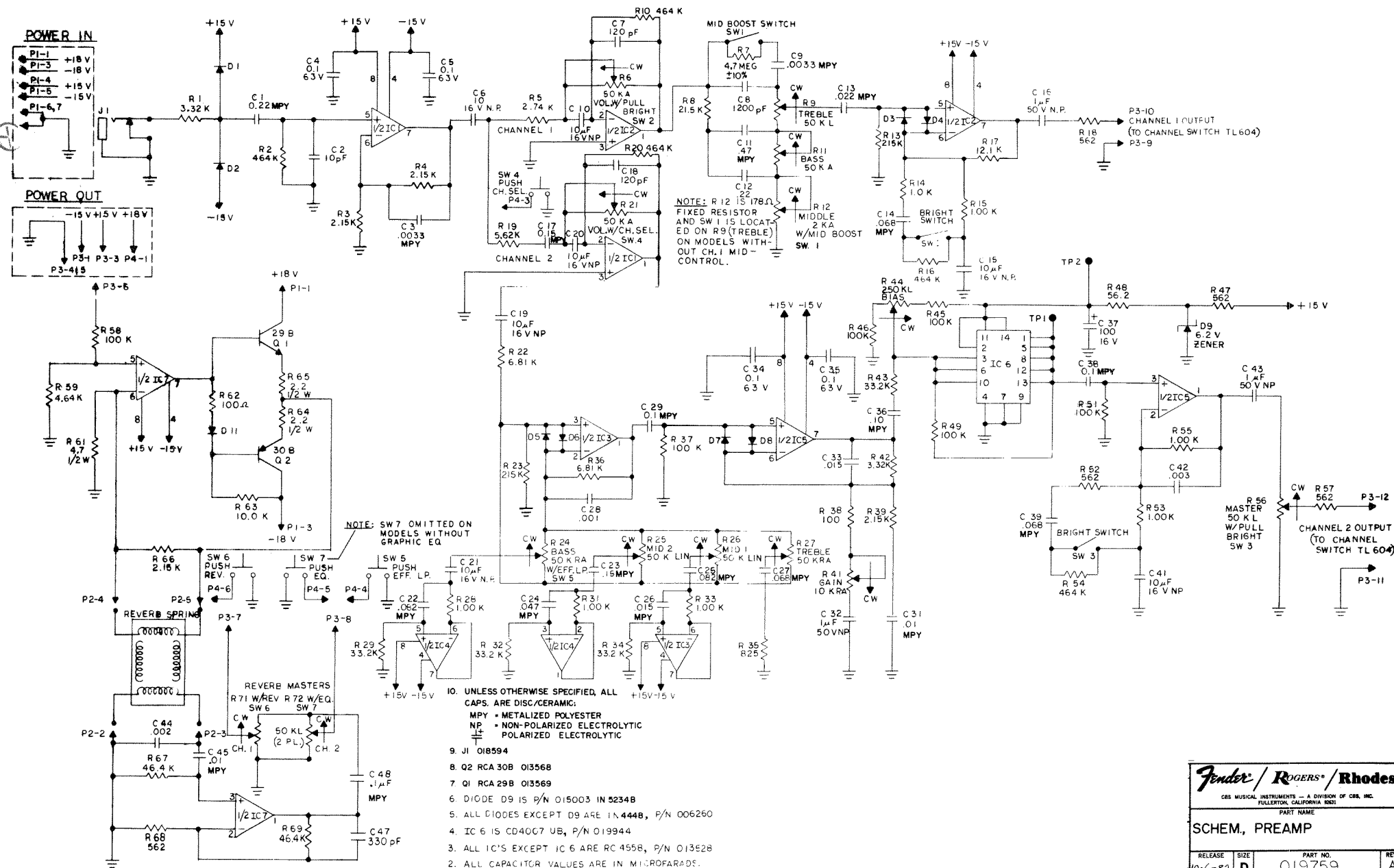
8. UNLESS OTHERWISE SPECIFIED ALL CAPS,  
ARE DISC/CERAMIC:  
NP = NON-POLARIZED ELECTROLYTIC  
+ = POLARIZED ELECTROLYTIC
7. TRANSISTORS Q5,6 ARE RCA29A P/N 013569  
6. TRANSISTORS Q4,7 ARE RCA30A P/N 013368  
5. TRANSISTORS Q1,2,3 ARE M.P.S. A18 P/N 014409  
4. DIODES D1 & D2 ARE P/N 006260  
▲ MOUNTED ON HEAT SINK
2. ALL CAPACITOR VALUES ARE IN MICROFARADS  
1. ALL RESISTOR VALUES ARE IN OHMS  $\pm 1\%$ ,  $\frac{1}{4}$  W
- NOTES: UNLESS OTHERWISE SPECIFIED

<b>Fender / ROGERS / Rhodes</b>			
CBS MUSICAL INSTRUMENTS — A DIVISION OF CBS, INC. FULLERTON, CALIFORNIA 92631			
PART NAME			
<b>SCHEMATIC - 75 WATT POWER AMPLIFIER</b>			
RELEASE 10-4-82	SIZE C	PART NO. 019369	REV D
SCALE	MODEL NO.		



5. UNLESS OTHERWISE SPECIFIED, ALL CAPS.  
ARE METALLIZED POLYESTER.  
NP = NON-POLARIZED ELECTROLYTIC
4. ITEM DESIGNATIONS IN DECADES OF 10 ARE OMITTED.
3. ALL IC'S ARE RC4558, P/N 013528.
2. ALL CAPACITORS ARE 16V MINIMUM RATING.
1. ALL RESISTOR ARE OHMS  $\pm 1\%$ ,  $\frac{1}{4}$  WATT.
- NOTES: UNLESS OTHERWISE SPECIFIED

<b>Fender / ROGERS / Rhodes</b>			
CBS MUSICAL INSTRUMENTS — A DIVISION OF CBS, INC. FULLERTON, CALIFORNIA 92631			
PART NAME			
<b>SCHEMATIC, 5 BAND GRAPHIC EQUALIZER</b>			
RELEASE 4-10-77/82	SIZE C	PART NO. 019550	REV A
SCALE	MODEL NO.	USED ON LONDON	

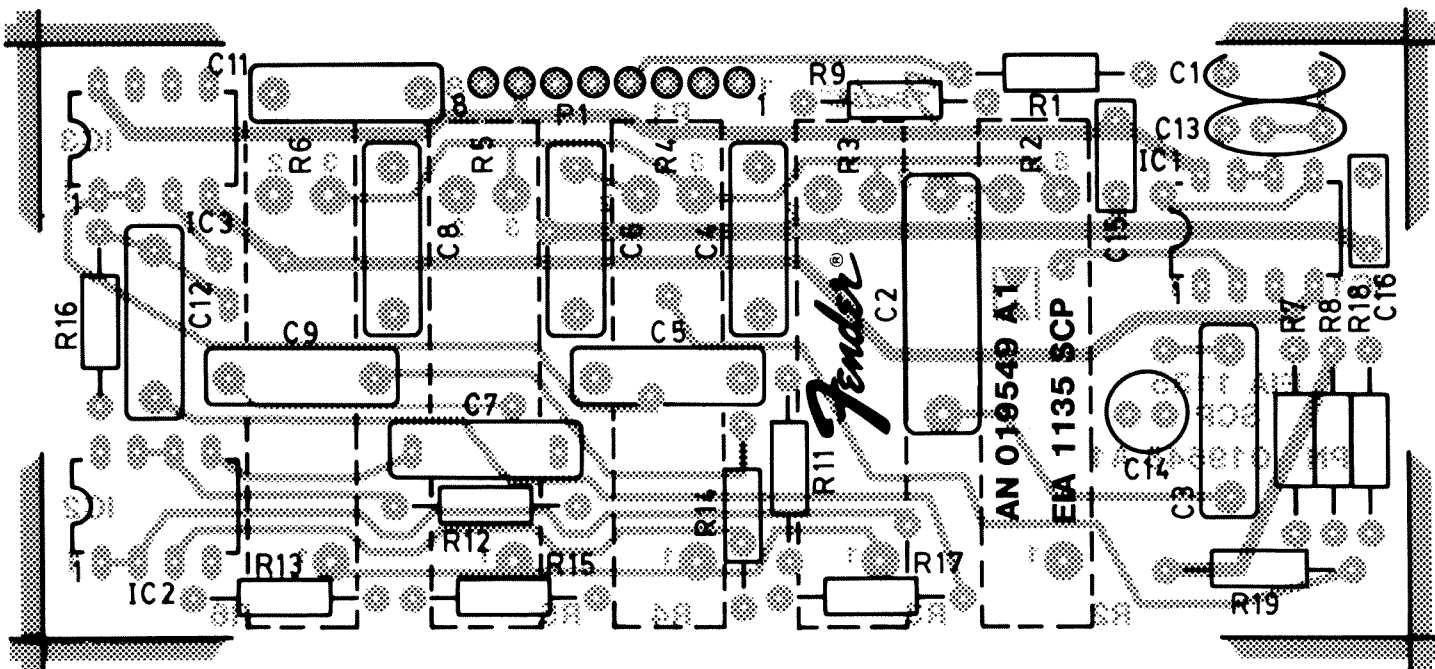




# FENDER LONDON REVERB & SHOWMAN AMPLIFIER

## P.C. BOARD ASSEMBLY (019549-000)

(PARTS LIST)



### CAPACITORS

020842	500 pf 10% disc	C1, 13
019956	.0068 uf 10% met poly	C12
019959	.01 uf 10% met poly	C9, 11
019964	.027 uf 10% met poly	C7, 8
019967	.039 uf 10% met poly	C5
019973	.100 uf 10% met poly	C3, 6
019978	.18 uf 10% met poly	C4
019985	.47 uf 10% met poly	C2
017497	.1 uf 63V Ceramic	C15, 16
019742	1 uf 50V NP lytic	C14

### RESISTORS

015718	1K 1% 1/4W	R7, 9, 12, 14, 16
016961	6.81K 1% 1/4W	R1, 18
016966	14.7K 1% 1/4W	R17
016973	38.3K 1% 1/4W	R13, 15
015583	46.4K 1% 1/4W	R19
016974	56.2K 1% 1/4W	R8, 11

### CONTROLS

019795	50KL	R2, 3, 4, 5, 6
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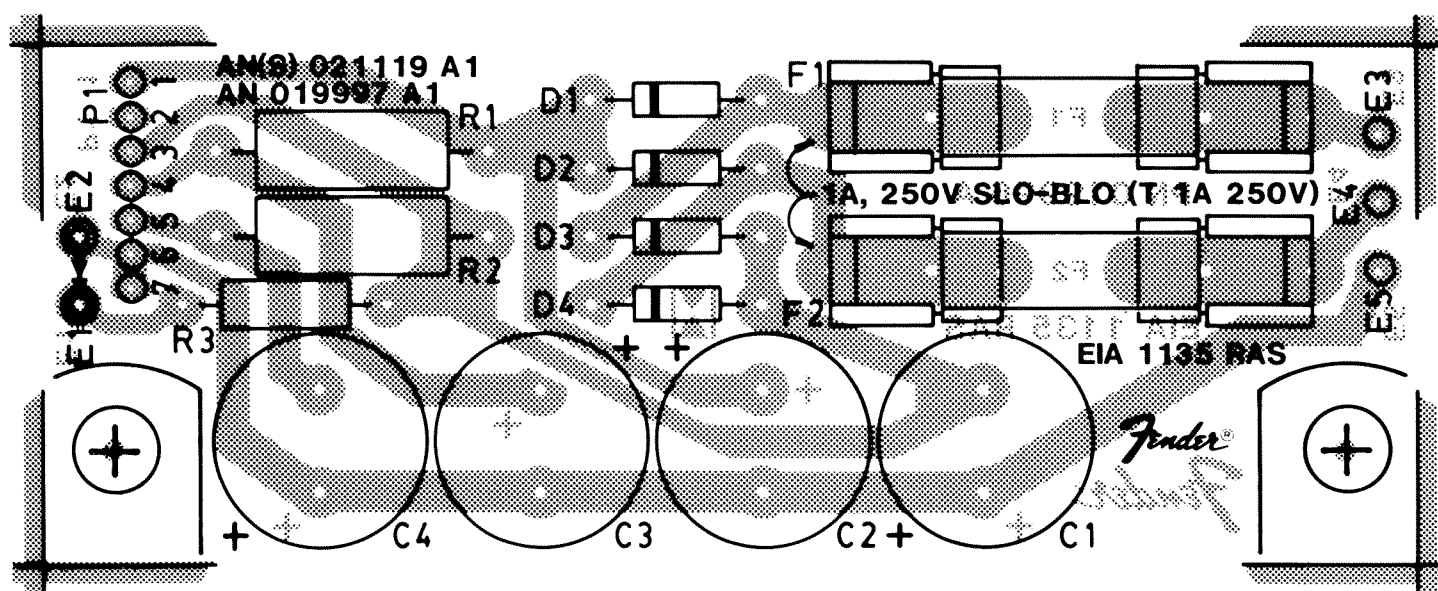
### MISCELLANEOUS

013528	Dual op-amp RCA4558	IC1, 2, 3
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# FENDER LONDON REVERB & MONTREUX & SHOWMAN AMPLIFIER P.C. BOARD ASSEMBLY (019997-000)

(PARTS LIST)



## CAPACITORS

021094	2200 uf 25V	C1, 2, 3, 4
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## RESISTORS

021220	2.2K 10% 1/2W	R3
021096	15 ohm 10% 1W	R1
012545	33 ohm 10% 1W	R2

## DIODES

018030	1N5393	D1, 2, 3, 4
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## MISCELLANEOUS

021667	Fuse, 1A-250V Slo Blo	F1, 2
017037	Clip fuseholder	
020894	Bracket	



# FENDER LONDON REVERB & SHOWMAN AMPLIFIER

## P.C. BOARD ASSEMBLY

### (019758-000)

#### (PARTS LIST)

#### CAPACITORS

020883 10 pf disc  
 020925 120 pf disc  
 020867 330 pf disc  
 060962 1000 pf disc  
 065862 1200 pf disc  
 023257 2000 pf disc  
 020875 3000 pf disc  
 019952 .0033 uf met poly  
 019959 .01 uf met poly  
 019961 .015 uf met poly  
 019963 .022 uf met poly  
 019969 .047 uf met poly  
 019971 .068 uf met poly  
 019972 .082 uf met poly  
 019973 .10 uf met poly  
 019977 .15 uf met poly  
 019979 .22 uf met poly  
 019985 .47 uf met poly  
 017497 .1 uf ceramic  
 019742 1 uf NP lytic  
 019744 10 uf 16V  
 015126 100 uf 16V

#### RESISTORS

016930 56.2 ohm 1% 1/4W  
 016934 100 ohm 1% 1/4W  
 016937 178 ohm 1% 1/4W  
 016944 562 ohm 1% 1/4W  
 016946 825 ohm 1% 1/4W  
 015718 1K 1% 1/4W  
 016955 2.15K 1% 1/4W  
 016957 2.74K 1% 1/4W  
 016958 3.32K 1% 1/4W  
 015580 4.64K 1% 1/4W  
 016960 5.62K 1% 1/4W  
 016961 6.81K 1% 1/4W  
 015582 10K 1% 1/4W  
 016965 12.1K 1% 1/4W  
 016968 21.5K 1% 1/4W  
 016971 33.2K 1% 1/4W  
 015583 46.4K 1% 1/4W  
 015585 100K 1% 1/4W  
 016979 215K 1% 1/4W  
 016984 464K 1% 1/4W  
 038180 4.7 meg 10% 1/4W  
 035590 2.2 ohm 10% 1/2W  
 061218 4.7 ohm 10% 1/2W

C2  
 C7, 18  
 C47  
 C28  
 C8  
 C44  
 C42  
 C3, 9  
 C31, 45  
 C26, 33  
 C13  
 C24  
 C14, 27, 39  
 C22, 25  
 C29, 36, 38, 48  
 C17, 23  
 C1, 12  
 C11  
 C4, 5, 34, 35  
 C16, 32, 43  
 C6, 10, 15, 19, 20, 21, 41  
 C37

R48  
 R38, 62  
 R12  
 R47, 52, 57, 68  
 R35  
 R14, 15, 28, 31, 33, 53, 55  
 R3, 4, 39, 66  
 R5  
 R1, 42  
 R59  
 R19  
 R22, 36  
 R18, 63  
 R17  
 R8  
 R29, 32, 34, 43  
 R67, 69  
 R37, 45, 46, 49, 51, 58  
 R13, 23  
 R2, 10, 16, 20, 54  
 R7  
 R64, 65  
 R61

#### TRANSISTORS

013569 RCA 29B  
 013568 RCA 30B

#### DIODES

006260 1N4448  
 015003 1N5234B

#### CONTROLS

019995 250KL  
 019734 10KRA  
 019736 50KL  
 019710 50KA  
 019712 50KRA  
 019715 50KA  
 019708 50KL  
 019714 50KA  
 019709 50KL  
 019713 50KRA

Q1  
 Q2

D1, 2, 3, 4, 5, 6, 7, 8, 11  
 D9

R44  
 R41  
 R25, 26  
 R11  
 R27  
 R6  
 R9, 56  
 R21  
 R71, 72  
 R24

#### CONNECTORS

020849 5-pin (male)  
 022351 6-pin (male)  
 020851 7-pin (male)  
 022352 12-pin (male)

P2  
 P4  
 P1  
 P3

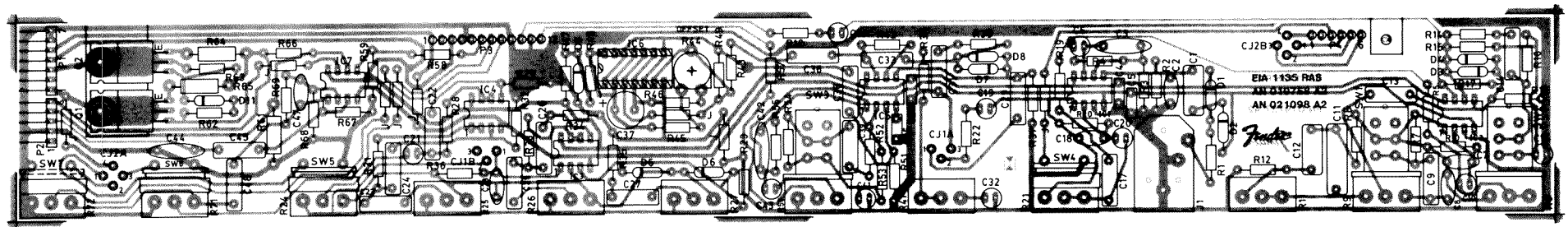
#### MISCELLANEOUS

018594 Phone jack  
 013528 Dual op-amp RCA4558  
 019944 CMOS  
 022178 Screw  
 097360 Lock nut

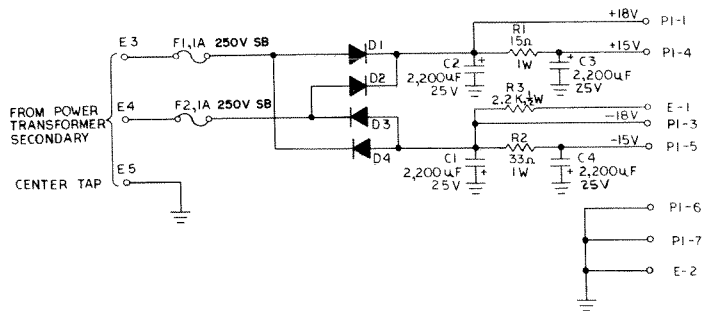
J1  
 IC1, 2, 3, 4, 5, 7  
 IC6



**FENDER LONDON REVERB & SHOWMAN AMPLIFIER  
P.C. BOARD ASSEMBLY  
(019758-000)**

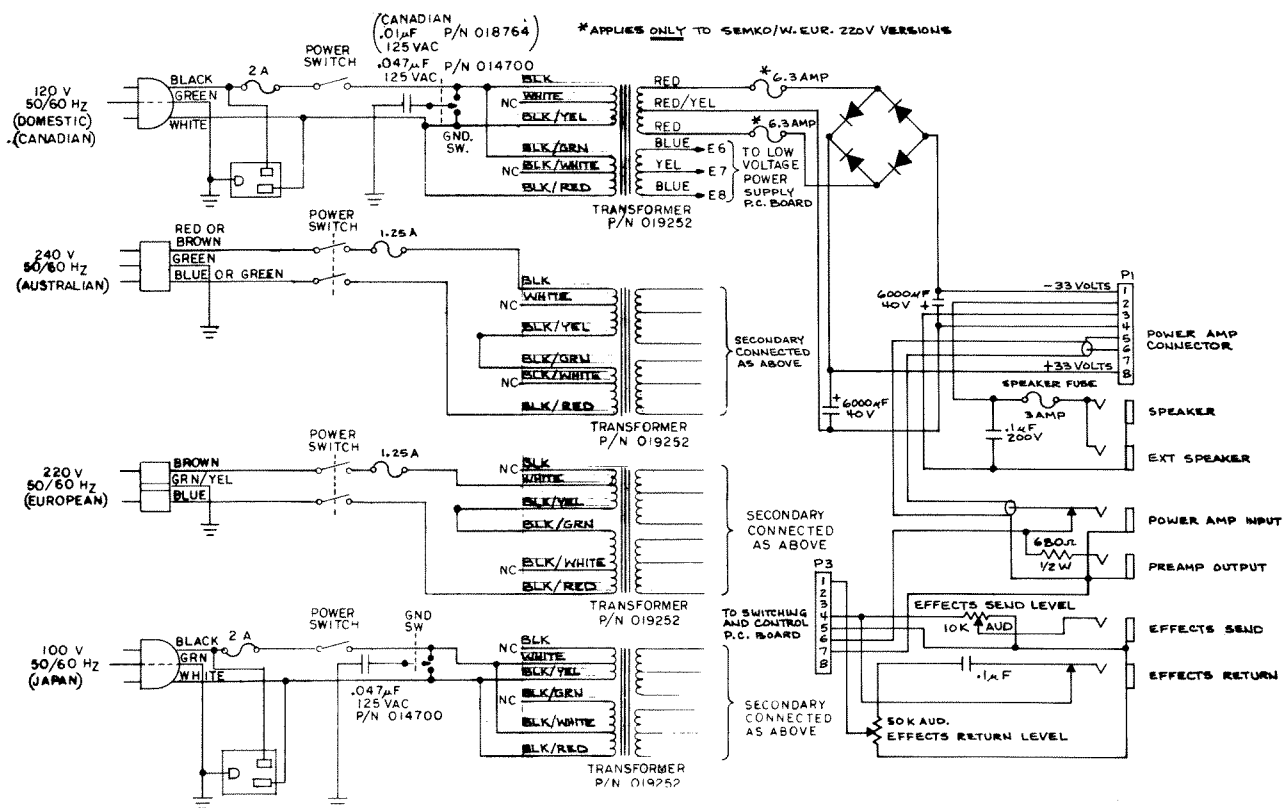






1. DIODES ARE 1.5 AMP 200 VOLT, P/N 018030

Fender / ROGERS / Rhodes®			
CBS MUSICAL INSTRUMENTS — A DIVISION OF CBS, INC. FOLSOM, CALIFORNIA 95630			
PART NAME			
SCHEMATIC, LOW VOLTAGE P/S			
RELEASE H	SIZE B	PART NO. 020051	REV A
SCALE 1/8" = 1"			
MODEL USED ON LONDON, MONT.			



NOTES: UNLESS OTHERWISE SPECIFIED

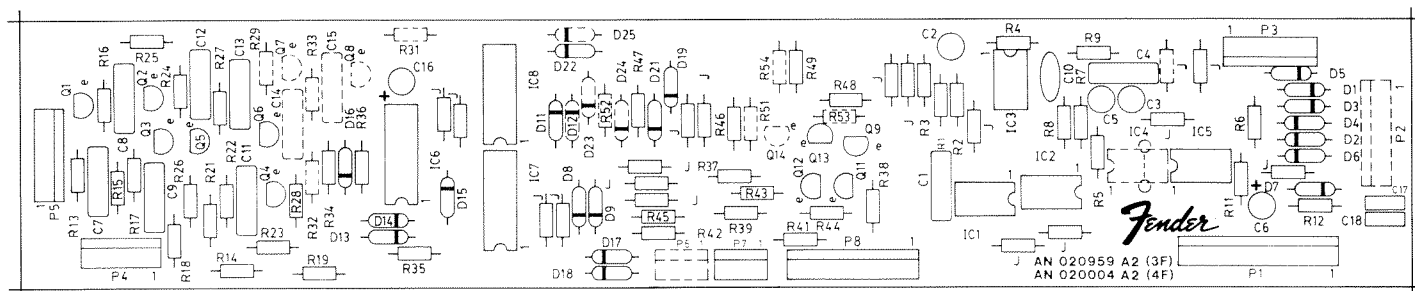
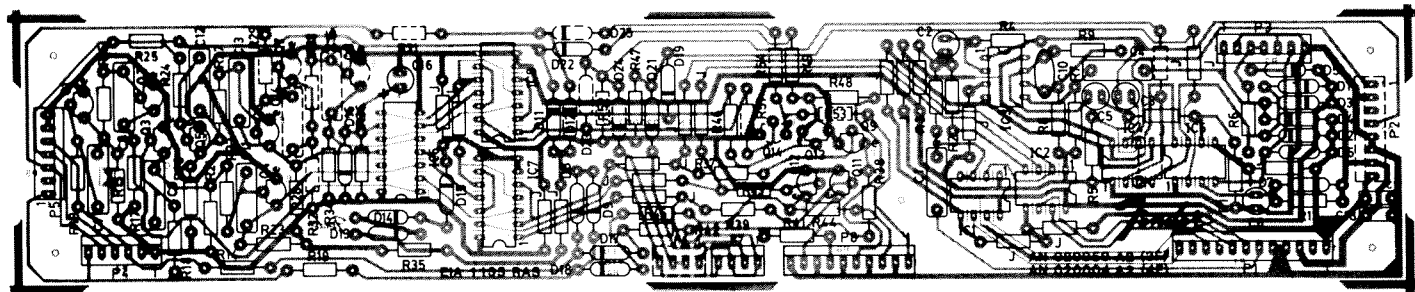
Fender / ROGERS / Rhodes®			
CBS MUSICAL INSTRUMENTS — A DIVISION OF CBS, INC. FOLSOM, CALIFORNIA 95630			
PART NAME			
SCHEMATIC, A.C. WIRING MONTREUX/LONDON			
RELEASE H	SIZE C	PART NO. 020450	REV C
SCALE 1/8" = 1"			
MODEL USED ON			

# FENDER LONDON REVERB & SHOWMAN AMPLIFIER

## P.C. BOARD ASSEMBLY

### (020004-000)

#### (PARTS LIST)



#### CAPACITORS

020909 47 pf disc  
020925 120 pf disc  
019973 .1 uf met poly  
017497 .1 uf ceramic  
019742 1 uf NP lytic  
015124 10 uf 16V

#### RESISTORS

016938 215 ohm 1% 1/4W  
016945 681 ohm 1% 1/4W  
015718 1k 1% 1/4W

016952 1.47K 1% 1/4W  
015582 10K 1% 1/4W

016968 21.5K 1% 1/4W  
015583 46.4K 1% 1/4W  
015585 100K 1% 1/4W

016984 464K 1% 1/4W

#### TRANSISTORS

016739 2N4401

C10  
C7, 9, 12, 14  
C1, 4, 8, 11, 13, 14  
C17, 18  
C2, 3, 5  
C6, 16

R14, 19, 25, 31  
R6  
R13, 18, 24, 29, 35, 42,  
45, 49, 54  
R38, 41, 44, 48, 53  
R8, 11, 15, 17, 21, 23, 26,  
28, 32, 34  
R37, 39, 43, 46, 51  
R1, 2, 4, 5  
R3, 7, 9, 16, 22, 27, 33, 36,  
47, 52  
R12

Q1, 2, 3, 4, 5, 6, 7, 8, 9,  
11, 12, 13, 14

#### DIODES

006260 1N4448

D1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12,  
13, 14, 15, 16, 17, 18, 19, 21, 22,  
23, 24, 25

#### CONNECTORS

020823 4-pin (male)  
021158 6-pin (male)  
020828 7-pin (male)  
020829 8-pin (male)  
020831 10-pin (male)  
021357 12-pin (male)

P6, 7  
P4  
P3, 5  
P2  
P8  
P1

#### MISCELLANEOUS

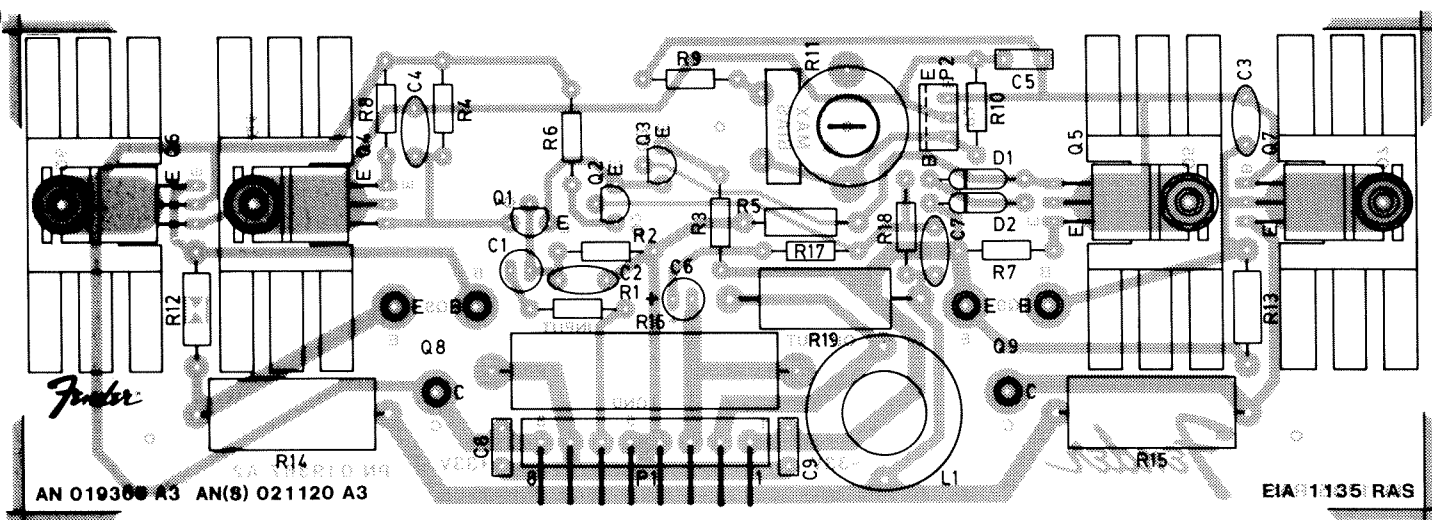
013528 Dual op-amp RCA4558  
016652 Analog sw. TL604  
020421 Dual D flip flop CD40138  
020422 Hex Schmidt Trigger  
CD401068  
020270 Analog sw. TL607

IC3  
IC1, 4  
IC7, 8  
IC6  
IC2, 5

# FENDER LONDON REVERB & MONTREUX AMPLIFIER

## P.C. BOARD ASSEMBLY (019368-000)

(PARTS LIST)



### CAPACITORS

020883	10 pf disc	C7
004026	22 pf disc	C4
007029	220 pf disc	C2
017518	560 pf disc	C3
017497	.1 uf ceramic	C5, 8, 9
019742	1 uf NP lytic	C1
015124	10 uf 16V	C6

### RESISTORS

016929	46.4 ohm 1% 1/4W	R8
016934	100 ohm 1% 1/4W	R7
016943	464 ohm 1% 1/4W	R3, 9
016951	1.21K 1% 1/4W	R10, 17
016953	1.78K 1% 1/4W	R4, 6
015583	46.4K 1% 1/4W	R1, 2, 18
021170	100 ohm 10% 1/2W	R12, 13
069823	5.6K 10% 1/2W	R5
011310	33 ohm 10% 2W	R19
020740	.22 ohm 10% 5W	R14, 15
020736	.10 ohm 10% 7W	R16

### TRANSISTORS

014409	MPS A18	Q1, 2, 3
013569	RCA 29B	Q5, 6
013568	RCA 30B	Q4, 7

### DIODES

006260	1N4448	D1, 2
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### CONTROLS

025674	1.5KL	R11
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### CONNECTORS

017700	8-pin (male)	P1
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### MISCELLANEOUS

014748	10 uhy inductor	L1
017415	Socket pin	
022178	Screw	
097360	Lock nut	
020050	Heatsink	