

# SR6300P/SR8300P POWERED MIXERS

## SERVICE MANUAL

NOVEMBER 1995

### IMPORTANT NOTICE:

The information contained herein is CONFIDENTIAL and PROPRIETARY to Fender Musical Instruments Corp. It is disclosed solely for use by qualified technicians for purposes of equipment maintenance and service. It is not to be disclosed to others without the expressed permission of Fender Musical Instruments Co. All specifications subject to change without notice.

For warranty repair service, only Fender specified part numbers are to be used. It is recommended they also be used for post-warranty maintenance and repair.

Parts marked with an asterick (\*) indicate the required use of that specific part. This is necessary for RELIABILITY and SAFETY requirements. **DO NOT USE A SUBSTITUTE!**

A coded naming convention is used in the description of certain parts. The codes and what they mean are as follows:

#### CAPACITOR CODES

CAP AE = Aluminum Electrolytic  
CAP CA = Ceramic Axial  
CAP CD = Ceramic Disk  
CAP MPF = Metalized Polyester Film  
CAP MY = Mylar  
CAP PFF = Polyester Film/Foil

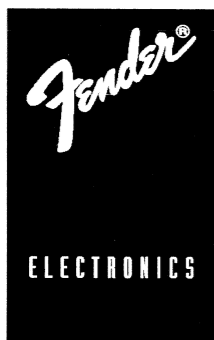
#### RESISTOR CODES

RES CC = Carbon Comp  
RES CF = Carbon Film  
RES FP = Flame Proof  
RES MF = Metal Film  
RES WW = Wire Wound

#### HARDWARE CODES

BLX = Black Oxide  
CR = Chrome Plated  
HWH = Hex Washer Head  
M = Machine Screw  
NI = Nickel Plated  
OHP = Oval Head Phillips  
PB = Particle Board  
PHP = Pan Head Phillips  
PHPS = Pan Head Phillips Sems  
SMA = Sheet Metal "A" Point  
SMB = Sheet Metal "B" Point  
SS = Stainless Steel  
TF = Thread Forming  
ZI = Zinc Plated





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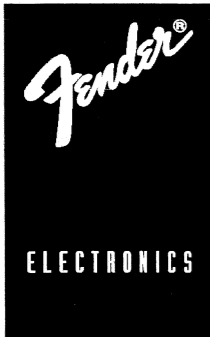
# SR6300P/SR8300P

## POWERED MIXERS

### SPECIFICATIONS

Type:	PR 240
Input impedance:	22K Ohms
Input sensitivity:	1.06 Volts R.M.S.
Power output:	300 Watts R.M.S. @ Less than .2% T.H.D.
Rated load impedance:	2 Ohms
DELTA COMP™ Range:	20dB





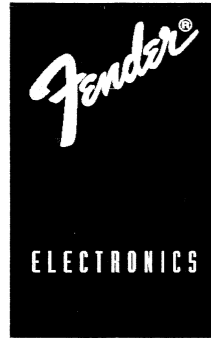
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## POWERED MIXERS

### PARTS LIST

#### GROUNDING Emitter POWER AMPLIFIER PRINTED CIRCUIT BOARD ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
0	047078001	PCB ASSY PWRAMP SR63/83 FLY RL	(STUFFED)
7	026517001	CAP AE AX 2.2 $\mu$ F 50V	C1,4,15,17-20
1	038691001	CAP AE AX 4.7 $\mu$ F 50V	C2
1	009512001	CAP AE AX 22 $\mu$ F 25V 20%	C14
1	038693001	CAP AE AX 47 $\mu$ F 16V	C7
2	028471	CAP AE RDL 47 $\mu$ F 50V 20%	C34,35
2	025787	CAP AE RDL MINI100 $\mu$ F 16V NP	C22,23
2	028482	CAP AE RDL 220 $\mu$ F 50V 20%	C10,11
2	028495	CAP AE RDL 1000 $\mu$ F 50V	C28,29
2	025786	CAP AE RDL 6800 $\mu$ F 80V 20%	C26,27
2	038703001	CAP CA .1 $\mu$ F 50V LL	C9,16
1	039270001	CAP CA 10,000PF 50V 5% LL	C5
2	039263001	CAP CA 1000PF 100V LL	C3,6
1	039266001	CAP CA 3300PF 100V LL	C21
1	038698001	CAP CA 47PF 100V LL	C8
2	038874001	CAP CA 560PF 50V LL	C24,25
2	034788	CAP CD .1 $\mu$ F 50V 20%	C36,37
4	027278	CAP MPF .1 $\mu$ F 63V 10%	C30-33
1	041501	CAP MPF AX 2.2 $\mu$ F 100V 10%	C12
4	028776001 *	DIODE BIAS BYV26D LL	CR4-7
2	025821001 *	DIODE HV FDH-400 SWITCHING LL	CR8,9
6	064089001	DIODE IN4003 LL	CR33-36,39,40
21	006260001	DIODE IN4448 SIGNAL LL	CR1,10-13,15-20,23-26,29-32,37,38
2	020534	DIODE IN5402 RECTIFIER 200V C&F	CR41,42
3	027329001	DIODE ZEN 1N5228B 3.9V 5% LL	CR2,3,14
2	031019001	DIODE ZEN 1N5245B .5W 15V 5% LL	CR21,22
2	027327001	DIODE ZEN IN5234B 6.2V 5% LL	CR27,28
23	025802	FSTN TAB MALE .250X.032 PCB MT	CP1-20,22,24,25
2	025996	FUSE CLIP PCB .250 & 5MM FUSE	XF1
4	020775	FUSE HOLDER CLIP PCB 5MM	XF2,3
1	028330	FUSE QA 1-1/4X1/4 250V 10A	F1 (100/120V ONLY)
2	013112	FUSE TD 20MMX5MM 250V 1A	F2,3
1	027416	HDR .1 CTR 8 CKT SQ PIN	P1
1	047064	HEATSINK SR 300W FLY RAIL	(MAIN HEATSINK)



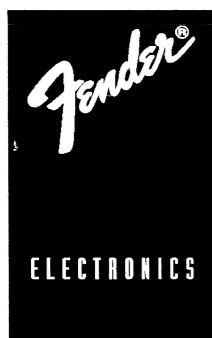
# SR6300P/SR8300P

## POWERED MIXERS

### PARTS LIST

GROUNDING EMITTER POWER AMPLIFIER  
PRINTED CIRCUIT BOARD ASSEMBLY  
CONTINUED

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
2	025796	HEATSINK TO-220	(@ U5,6)
1	027404	IC CA3080AE OTA	U2
2	016795	IC DUAL OP AMP TL072	U1,3
1	033281	IC OP-AMP DUAL 5532	U4
1	013562	IC REGULATOR +15V MC7815CT	U5
1	013564	IC REGULATOR -15V MC7915CT	U6
1	027387	INDUCTOR AIR CORE RDL 2.5UH	L1
2	017974	INSULATOR MICA TO-220	(@ Q2,3)
6	038815	INSULATOR SILICONE TO-3P	(@ Q4-9)
1	047077	PCB FAB SR PWR AMP FLY RAIL	(RAW BOARD)
6	031693001 *	RES MF FUSE 1/4W5% 4.7Ω	LL R20-25
2	033205001 *	RES MF FUSE 1/4W5% 15Ω	LL R17,18
1	024940001	RES CF 1/4W 5% 18Ω	R19
1	024959001	RES CF 1/4W 5% 330Ω	LL R7
1	024963001	RES CF 1/4W 5% 680Ω	LL R50
4	024964001	RES CF 1/4W 5% 820Ω	LL R13,16,63,68
4	024965001	RES CF 1/4W 5% 1K	LL R10,12,47,57
4	024970001	RES CF 1/4W 5% 1.8K	LL R14,15,61,62
2	024971001	RES CF 1/4W 5% 2.2K	LL R1,8
1	024972001	RES CF 1/4W 5% 2.7K	LL R60
2	024975001	RES CF 1/4W 5% 3.9K	LL R38,45
1	024977001	RES CF 1/4W 5% 4.7K	LL R51
6	024978001	RES CF 1/4W 5% 5.6K	LL R64-66,69-71
1	024979001	RES CF 1/4W 5% 6.8K	LL R36
7	024981001	RES CF 1/4W 5% 10K	LL R39-42,44,56,59
1	024985001	RES CF 1/4W 5% 15K	LL R48
1	024987001	RES CF 1/4W 5% 22K	LL R4
2	024989001	RES CF 1/4W 5% 33K	LL R5,6
2	024991001	RES CF 1/4W 5% 39K	LL R67,72
4	028990001	RES CF 1/4W 5% 51K	LL R52-55
3	024997001	RES CF 1/4W 5% 100K	LL R43,46,49
4	024998001	RES CF 1/4W 5% 120K	LL R11,37,58,74



# SR6300P/SR8300P

## POWERED MIXERS

### PARTS LIST

GROUNDING EMITTER POWER AMPLIFIER  
PRINTED CIRCUIT BOARD ASSEMBLY  
CONTINUED

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
2	025069001	RES CF 1/4W 5% 1M LL	R2,3
1	027627001	RES FILM 1W 5% 10Ω LL	R33
6	032958	RES WW BT 5W 10% .33Ω	R26-31
1	032905	RES WW BT 10W 10% 400Ω	R73
1	047072	RES WW BT 20W 5% 1Ω	R32
10	032934	SCRW TF 4-40X1/2 HIHS ZI	(@ Q2-9)
4	038784	SLEEVING TEFLON 18GA. 5/8"	(@ CR4-7)
1	037037	SWITCH THERMAL N.O. 194 DEG F	TS1
1	038533	SWITCH THERMAL N.C. 248 DEG F	TS2
1	026411 *	THERMISTOR 2.5 OHM 8A C30-19	TH1
6	032937	WSHR CONE	(@ Q4-9)
2	0177460	WSHR SHLDR NYL 1/8X1/4	(@ Q2,3)
1	014689	XSTR N-CH JFET J111 TO-92	Q1
3	016739	XSTR NPN 2N4401 TO-92	Q12,13,16
1	025751	XSTR NPN 2SC2362K/2SC2389	Q10
3	028763	XSTR NPN 2SC3281 TOP-3L	Q4-6
1	028164	XSTR NPN MJE15030	Q2
2	016742	XSTR PNP 2N4403 TO-92	Q14,17
1	025752	XSTR PNP 2SA1016K TO-92	Q11
3	028762	XSTR PNP 2SA1302 TOP-3L	Q7-9
1	014408	XSTR PNP DARLNGTN MPSA63 TO-92	Q15
1	028166	XSTR PNP MJE15031	Q3

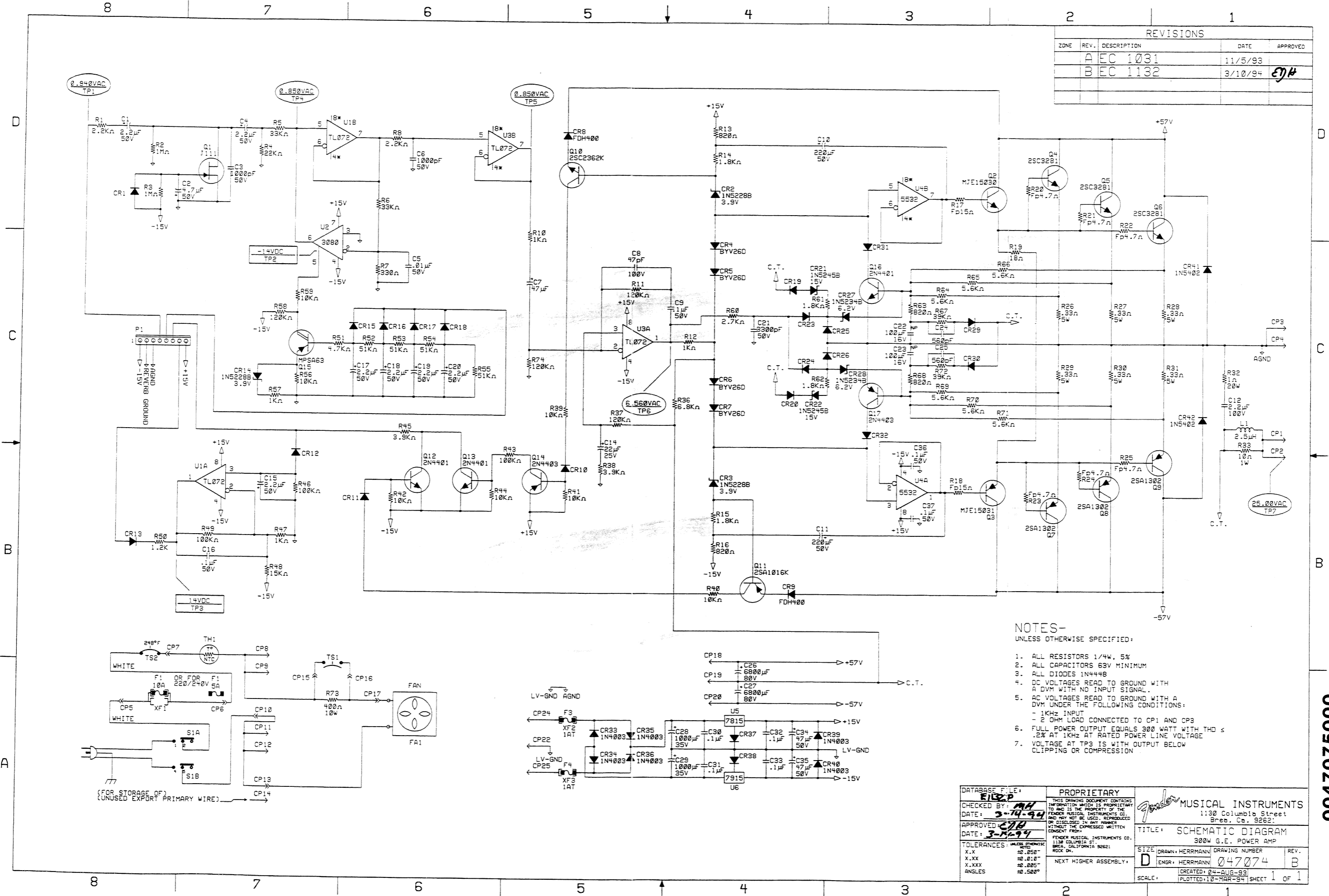
#### MISCELLANEOUS

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	041245	MANUAL OWNERS SR63/8300P	
1	047074	SCHEM 300W G.E. PWR AMP	





REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	EC 1031	11/5/93	
	B	EC 1132	3/10/94	EDH



- NOTES-  
UNLESS OTHERWISE SPECIFIED:
1. ALL RESISTORS 1/4W, 5%
  2. ALL CAPACITORS 63V MINIMUM
  3. ALL DIODES 1N4448
  4. DC VOLTAGES READ TO GROUND WITH A DVM WITH NO INPUT SIGNAL.
  5. AC VOLTAGES READ TO GROUND WITH A DVM UNDER THE FOLLOWING CONDITIONS:  
- 1KHz INPUT  
- 2 OHM LOAD CONNECTED TO CP1 AND CP3
  6. FULL POWER OUTPUT EQUALS 300 WATT WITH THD ≤ .2% AT 1KHz AT RATED POWER LINE VOLTAGE
  7. VOLTAGE AT TP3 IS WITH OUTPUT BELOW CLIPPING OR COMPRESSION

DATABASE FILE: <b>E132P</b> CHECKED BY: <b>3-14-94</b> DATE: APPROVED: <b>3-14-94</b> DATE: TOLERANCES: UNLESS OTHERWISE SPECIFIED: X.X     ±.050" X.XX    ±.010" X.XXX   ±.005" ANGLES   ±.500°	<b>PROPRIETARY</b> THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE FENDER MUSICAL INSTRUMENTS CO. AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESSED WRITTEN CONSENT FROM: FENDER MUSICAL INSTRUMENTS CO. 1130 COLUMBIA ST. BREA, CALIFORNIA 92621 ROCK ON. NEXT HIGHER ASSEMBLY:	<b>MUSICAL INSTRUMENTS</b> 1130 Columbia Street Brea, Ca. 92621 TITLE: SCHEMATIC DIAGRAM 300W G.E. POWER AMP SIZE: DRAWN: HERRMANN   DRAWING NUMBER: <b>047074</b> REV. <b>B</b> ENGR: HERRMANN CREATED: 04-AUG-93 PLOTTED: 10-MAR-94   SHEET 1 OF 1
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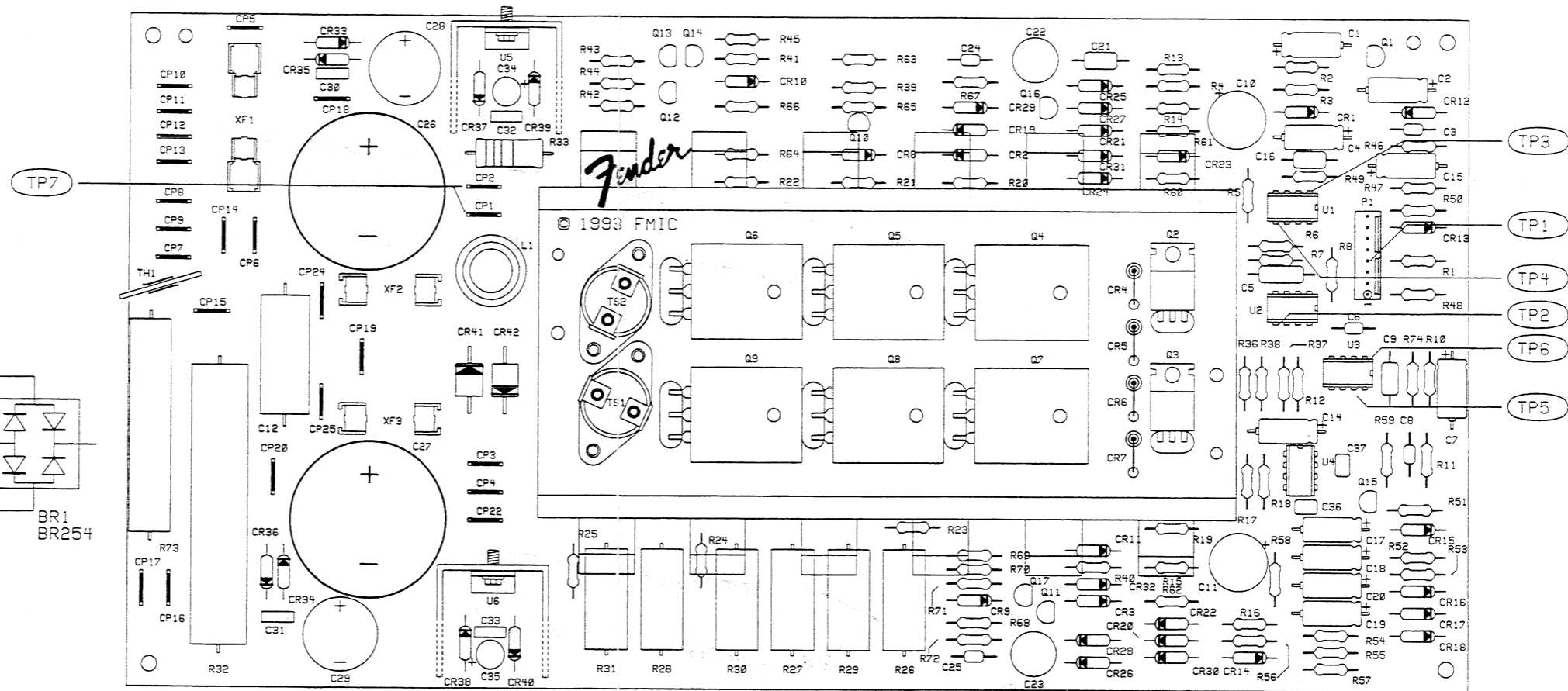
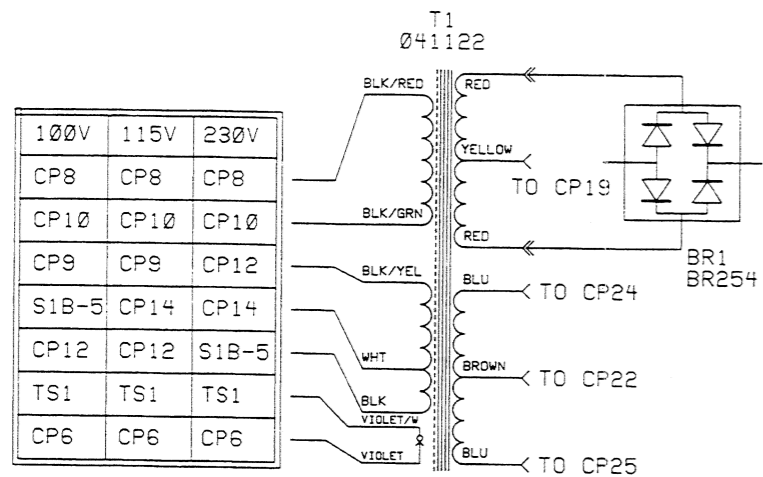
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REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	EC 1031	11/5/93	
	B	EC 1132	3-14-94	ECYK

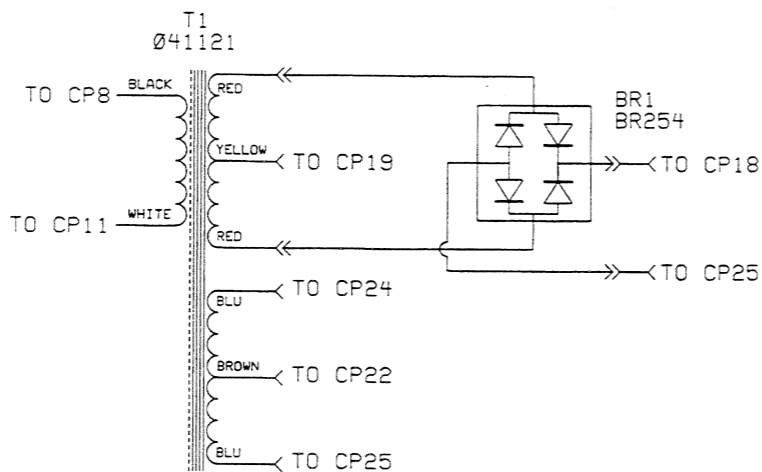
ASSEMBLY NOTES-

1. WIRE SETS: ON EXPORT UNITS, WIRES FROM TS1 ARE REPLACED BY A SINGLE WIRE BETWEEN ONE TERMINAL OF TS1 AND CP7. CONNECTION OF THE REMAINING TERMINAL OF TS1 AND CP6 IS ACCOMPLISHED WITH THE VIOLET AND VIOLET/WHITE LEADS INCLUDED ON EXPORT TRANSFORMER 041122.

ALTERNATE EXPORT POWER TRANSFORMER.



NOTE: FOR ALL 120 VOLT UNITS, CP11 IS CONNECTED TO S1B-5, USING BLACK WIRE SUPPLIED IN THESE VERSIONS. ON EXPORT UNITS, TRANSFORMER VIOLET IS CONNECTED TO CP6, AND VIOLET/WHITE IS CONNECTED TO TS1, AND ELIMINATES THE WHITE WIRE USED IN DOMESTIC UNITS.



FILM/DWG: SERVICE DIAGRAM
DATABASE: E1132P
DATE: 10-MAR-94
LAYERS PLOTTED: 1 2 3 4 10
18

DATABASE FILE: E1132P CHECKED BY: <i>MM</i> DATE: 3-14-94 APPROVED: <i>ECYK</i> DATE: 3-14-94 TOLERANCES: UNLESS OTHERWISE NOTED X.X     ±0.050" X.XX    ±0.010" X.XXX   ±0.005" ANGLES   ±0.500°	PROPRIETARY THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE FENDER MUSICAL INSTRUMENTS CO. AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESSED WRITTEN CONSENT FROM: FENDER MUSICAL INSTRUMENTS CO. 1130 COLUMBIA ST. BREA, CALIFORNIA 92621 ROCK ON. NEXT HIGHER ASSEMBLY: SR6300	FENDER MUSICAL INSTRUMENTS 1130 Columbia Street Brea, CA 92621 TITLE: SERVICE DIAGRAM, 300W G.E. POWER AMP SIZE: DRAWN: HERRMANN    DRAWING NUMBER: 047076 ENGR: HERRMANN SCALE: PLOTTED: 10-MAR-94    SHEET 1 OF 1
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