

DELUXE 112

p/n 022-6702-000 (120V)

SERVICE MANUAL



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Fender Musical Instruments Corp. 7975 North Hayden Road Scottsdale, AZ 85258

DELUXE 112

(This is the model name for warranty claims)

SERVICE MANUAL

JANUARY 1993

IMPORTANT NOTICE:

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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 asterisk (*) 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

DELUXE 112

SPECIFICATIONS

Product Release No.: PR 205

Part Number: 120V Version : 022-6702-000
230V : 022-6762-000
100V : 022-6772-000

Product specifications are subject to change without notice

PARTS LIST

PRINTED CIRCUIT BOARD ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	039350	PCB ASSY "DELUXE 112" ALL VERSIONS	(STUFFED)
1	028104	BUTTON PUSH SWITCH BLACK	(@S1)
1	028577	CABLE ASSY REVERB 30"	(@P1-4)
2	028042	CAP AE RDL 50V 2200uF	C47,48
1	028458	CAP AE RDL 50V 1uF 20%	C53
4	028459	CAP AE RDL 50V 2.2uF 20%	C11,33,3,4,35
1	028460	CAP AE RDL 50V 4.7uF 20%	C35
6	028465	CAP AE RDL 25V 22uF 20%	C6,12,25,27,39,40
4	028471	CAP AE RDL 50V 47uF 20%	C37,38,49,50
1	039255	CAP CA 100V 10PF 5%	C10
1	038873	CAP CA 100V 22PF 5%	C26
1	038698	CAP CA 100V 47PF 5%	C29
1	038699	CAP CA 100V 100PF 5%	C23
1	038701	CAP CA 50V 470PF 5%	C14
1	038874	CAP CA 50V 560PF 5%	C17
2	039263	CAP CA 50V 1000PF	C3,32
2	039268	CAP CA 50V 4700PF	C1,2
1	033579	CAP PF RDL 100V .0015uF 10%	C21
2	033580	CAP PF RDL 100V .0022uF 10%	C13,28
1	033581	CAP PF RDL 100V .0033uF 10%	C20
1	033590	CAP PF RDL 100V .022uF 10%	C19
6	033591	CAP PF RDL 100V .033uF 10%	C7-9,24,45,46
5	033592	CAP PF RDL 100V .047uF 10%	C18,22,51,52,56
2	033596	CAP PF RDL 100V .068uF 10%	C54,55
1	036234	CAP PF RDL 100V .015uF 10%	C31
2	027278	CAP MPF 63V .1uF 10%	C41,42
2	027281	CAP MPF 63V .22uF	C5,30
5	027286	CAP MPF 63V .47uF	C4,15,16,43,44
1	027937	CONTROL SNAPIN 2K 15A TAPER	R14
2	027940	CONTROL SNAPIN 50K 15A TAPER	R12,13
2	027941	CONTROL SNAPIN 50K B TAPER	R24,33,34,56,
2	027947	CONTROL SNAPIN 100K 30C TAPER	R26,35,
1	027949	CONTROL SNAPIN 250K 30C TAPER	R38
24	006260	DIODE 1N4448 75PRV	CR1-4,9,11,15-21,28-38
4	020534	DIODE 1N5402 RECTOFOER 200V C&F	CR22-25
4	028776	DIODE BIAS BYV26D LEAD FORMED	CR5-8
2	064089	DIODE 1N4003 200PRV 1AMP	CR13,14
2	027329	DIODE ZENER 1N5228B 3.9V 1/2W	CR10,12
2	028119	DIODE ZENER 1M5353B 16V 5W	CR26,27
10	025802	FASTON TAB MALE .250"X.032 PCB MT	CP1-10
2	026000	FASTON TAB MALE PCB MT .187X.032	CP11,12
2	025996	FUSE CLIP PCB .250 & 5mm FUSE	XF1
1	048827	FUSE QA 1-1/4"X1/4" 250V 2AMP	F1 (100V/120V ONLY)

DELUXE 112

PRINTED CIRCUIT BOARD ASSEMBLY (CONT)

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	020789	FUSE QA 20mmX5mm 250V 1AMP	F1 (230V EXPORT ONLY)_
4	016795	IC DUAL OP AMP TL072C	U2,3,5,6
1	031611	IC DUAL OP AMP PC4560	U4
1	028047	IC OP AMP MC1436	U1
1	028497	HEATSINK PLATE	(TRANSISTOR MOUNTING)
2	038815	INSULATOR SILICONE TO-3P	(@Q1,Q2) SIL PAD
2	040903	INSULATOR MICA TO-218	(@Q1,Q2) MICA PAD
4	031570	JACK PHONE PCB STEREO PREMIUM	J1,2,5,6
2	037036	JACK PHONE PCB MONO CA PREMIUM	J3,4
48	020888	JUMPER WIRE 22GA .5x.175	W1-48
2	026043	JUMPER WIRE 18GA .8X.175	JP 1&3
1	028039	LED 5X5mm RED SLB-55VR3	LD3
1	028098	LED 5X5mm GREEN SLB-55MG3	LD4
2	9902202281	LED RED LONG LEAD LUMEX C502	LD1,2
1	039349	PCB "DELUXE 112"	(BLANK BOARD)
3	024947	RES CF 1/4W 470Ω 5%	R4,5,45
1	029604	RES CF 1/4W 300Ω 5%	R84
6	024965	RES CF 1/4W 1K 5%	R17,39,52,71,72,99
1	024971	RES CF 1/4W 2.2K 5%	R23
3	024973	RES CF 1/4W 3.3K 5%	R25,27,54
2	024975	RES CF 1/4W 3.9K 5%	R61,77
3	024977	RES CF 1/4W 4.7K 5%	R44,70,73
1	028034	RES CF 1/4W 5.1K 5%	R8
1	024979	RES CF 1/4W 6.8K 5%	R9
1	025942	RES CF 1/4W 7.5K 5%	T22
1	024980	RES CF 1/4W 8.2K 5%	T20
5	024981	RES CF 1/4W 10K 5%	R53,86,87,93,94
2	024985	RES CF 1/4W 15K 5%	R10,40
5	024987	RES CF 1/4W 22K 5%	R11,15,18,19,37
3	024988	RES CF 1/4W 27K 5%	R62,60,66
2	024989	RES CF 1/4W 33K 5%	R2,3
5	024993	RES CF 1/4W 47K 5%	R31,32,36,39,59
1	026507	RES CF 1/4W 62K 5%	R78
2	029613	RES CF 1/4W 91K 5%	R41,50
2	024997	RES CF 1/4W 100K 5%	R47,58
1	025058	RES CF 1/4W 180K 5%	R16
4	025059	RES CF 1/4W 220K 5%	R21,29,42,43
3	025065	RES CF 1/4W 470K 5%	R28,46,55
2	028018	RES CF 1/4W 510K 5%	R6,7
1	025067	RES CF 1/4W 680K 5%	R65
2	029618	RES CF 1/4W 910K 5%	R51,57
8	025069	RES CF 1/4W 1M 5%	R1,49,85,88,91,92,95,96
1	026493	RES CF 1/2W 2.7K 5%	R83
1	028045	RES MF 1W 220 Ω 5%	R69
2	028030	RES MF 1W 680Ω 5%	R63,67
3	028029	RES MF 1W 1.5K 5%	R64,68,82
2	028038	RES MF 1W 3.9K 5%	R89,90
1	028022	RES MF 2W 120Ω 5%	R79
2	028021	RES MF 2W 470Ω 5%	R80,81
1	020740	RES WW 5W .22Ω 5%	R76
2	039210	RES WW 5W .47Ω 10%	R74,75
2	040151	RES WW 5W 330Ω 10%	R97,98
2	027638	SCREW TF 4-40X3/8 HWH ZI	(@Q1,2)
2	032908	SCREW TF 6-32X3/8 PHP ZI	(HEATSINK PLATE TO PCB)
2	9904701440	SPACER LED 7X.125 BLUE (@LD3,4)	(LD3,4)
1	028091	SWITCH PUSH SLFLK SHORT STROKE	S1
1	028503	THERMISTOR 10Ω 5AMP	TH1
2	028169	WASHER SHLDR NYL 5/32X1/4	(@Q1,2)
5	014689	XISTOR N-CH JFET J111 TO-92	Q3-7
1	028114	XISTOR NPN TIP142 TO-218AC	Q1
1	028115	XISTOR PNP TIP147 TO-218ACC	Q2

DELUXE 112 CHASSIS ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	039352	CHASSIS ASSY "DELUXE 112" 120V	(COMPLETE CHASSIS)
1	021709	BUSHING SR .437X.062X13/32 BLK	(@SPEAKER CABLE)
1	026116	BUSHING SR .500X.063X7/16 BLK	(@REVERB CABLE)
1	026038	BUSHING SR .625X.062X37/64 BLK 100V/120V	(@POWER CABLE)
1	010401	BUSHING SR .62X.125X37/64 WHT 230V	(@PWR CABLE 230V)
1	026527	CABLE ASSY POWER W/ .187 TABS	(POWER CABLE 100V/120V)
1	026528	CABLE ASSY POWER 230V W/.187 TABS	(POWER CABLE 230V EXPORT)
1	036479	CABLE ASSY POWER AUST W/.187 TABS	(240V AUSTRALIA ONLY)
1	039351	CHASSIS "DELUXE 112"	(RAW CHASSIS)
1	028560	END BELL XFMR 85W	(@ POWER TRANSFORMER)
1	028499	HEATSINK BAR	(COUPLER CHASSIS)
10	026402	KNOB POINTER BLACK	
4	028591	NUT ACORN #8-32	(POWER XFORMER MOUNT)
1	039355	PANEL FRONT "DELUXE 112" LEXAN	
1	039356	PANEL REAR "DELUXE 112" VINYL	
3	028500	SCREW TF 8-32X3/4 SLTD HWH ZI	(HEATSINK TO CHASSIS)
2	028937	SCREW TF 6-32X5/8 ROLOK PHP ZI	(PCB MOUNTING)
1	038900	SCREW TF 6-32X1/4 PHP ZI	(@GROUND LUG)
2	025936	STAND OFF PCB PUSH ON NY 3/8L	(PCB MOUNTING)
1	025935	SWITCH POWER DPST	(POWER SWITCH)
1	039287	SWITCH POWER DPST EXPORT SEMKO	(230V EXPORT ONLY)
4	030007	WASHER LCK INTL 8X.330X.02 ZI	(POWER XFORMER MNT)
1	027668	XFORMER POWER 120V 85A	(120V DOMESTIC)
1	039357	XFORMER POWER EXPORT	(100V/115V/230V)

CABINET ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	040050	CABINET ASSY "DELUXE 112"	(COMPLETE CABINET)
2	019279	CAP HANDLE 2-3/16 NI	(HANDLE MOUNTING)
1	022491	CLAMP CABLE NYL SCRWB MNT 5/16	(REVERB CABLE MNT)
4	026566	CORNER 2 HOLE W/TAB NI	(BOTTOM FRONT, TOP REAR)
2	026568	CORNER 3 HOLE NI	(BOTTOM REAR)
4	029821	EYELET RFLNDG .215 OD X.315L BRASS	(REVERB PAN MOUNT)
4	019275	GLIDE CUSHION INSERT	(RUBBER ONLY)
4	019276	GLIDE CAB 1.24X.335 NI	(STEEL)
1	040051	GRILLE ASSY "DELUXE 112"	(COMPLETE GRILLE)
1	027846	HANDLE 9.25" NO LOGO	(RUBBER ONLY, NO INSERT)
1	032524	INSERT HANDLE	(SPRING STEEL)
1	011298	NAMEPLATE FENDER SMALL	
4	021972	NUT T 10-32X3/4 STR 3 PRNG BLX	(SPEAKER/HANDLE MOUNT)
1	028055	REVERB UNIT 800Ω 8EB2C1B DN	(REVERB PAN)
10	026571	SCREW CORNER MOUNTING	
4	026577	SCREW M 10-32X1 PHP BLX	(SPEAKER MOUNTING)
6	036199	SCREW M 8-32X1-3/16 OHP BLX	WX (CHASSIS MOUNT)
4	022244	SCREW M 10-32X1-18 OHP NI	(HANDLING MOUNTING)
5	029828	SCREW PB 8X3/2 PHP ZI	(REV PAN/CBL CLMP MT)
2	011678	SCREW SMA 8X1-1/2 OHP BLX	(GRILLE MOUNTING)
2	018113	SCREW SMA 4X1/2 OHP BLX	(NAMEPLATE MOUNTING)
4	026625	SCREW WOOD 8X1 FH	(GLIDE MOUNTING)
1	025923	SPEAKER 12" 8Ω	
6	029527	WASHER FNSH 8-5/8 FLNGD BLX WX	(CHASSIS MOUNT)

FOOTSWITCH ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	028122	FTSW ASSY 2 BTTN REVERB F/LOGO	(COMPLETE FOOTSWITCH)
1	028445	PCB ASSY FTSW 2 BUTTON	
1	028895	CABLE ASSY FTSW RT ANG 12'	(FTSWT/CABLE)
2	006260	DIODE 1N4448 75PRV	CR1,2
1	037036	JACK PHONE PCB MONO CA PREMIUM	J1
2	028039	LED 5X5MM RED SLB-55VR3	LD1,2
1	028445	PCB FOOTSWITCH 2 BUTTON	(BLANK BOARD)

DELUXE 112
FOOTSWITCH ASSEMBLY (CONT)

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
8	028889	SCREW SMB 6X1/4 PHP	
2	034921	SPACER RND NYL .147X.250X.780	
2	028714	SWITCH PUSH SPDT	S1,2
2	031899	WASHER NYL .485X.775X.150 TK	(SWITCH SPACER)

MISCELLANEOUS

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	039358	MANUAL OWNERS "DELUXE 112"	
1	039347	SCHEMATIC/SERVICE DIA. "DELUXE 112"	(REDUCED TO 11X17)

REVISIONS

ZONE	REV.	DESCRIPTION	DATE	APPROVED
A	1	PRODUCT RELEASE PREP25	8-7-82	J.S.S.
B	1	EC 886	10-12-82	J.S.S.
C	1	EC 898	10-6-82	J.S.S.
D	1	EC 945	4-6-83	J.S.S.

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MUSICAL INSTRUMENTS
 1130 Columbia Street
 Brea, Ca. 92621

TITLE: SCHEMATIC DIAGRAM
DELUXE 112 BUITER AMPLIFIER

SCALE: 1/8" = 1"

DATE: 10-6-82

DESIGNER: J. S. S.

DRAWN: J. S. S.

CHECKED: J. S. S.

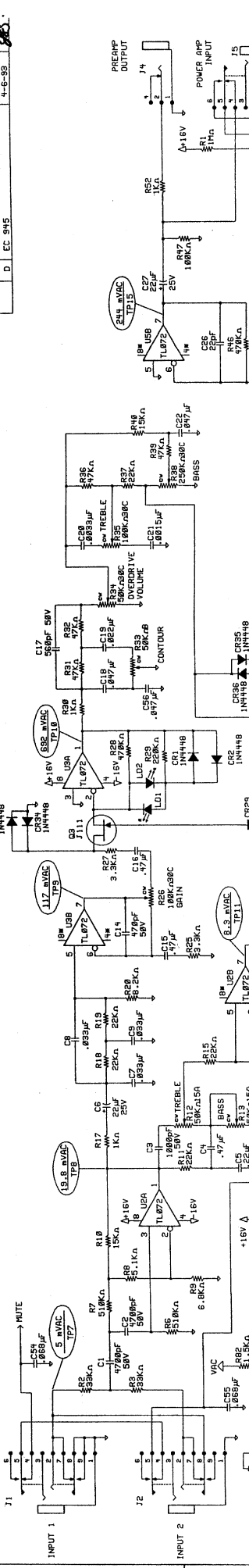
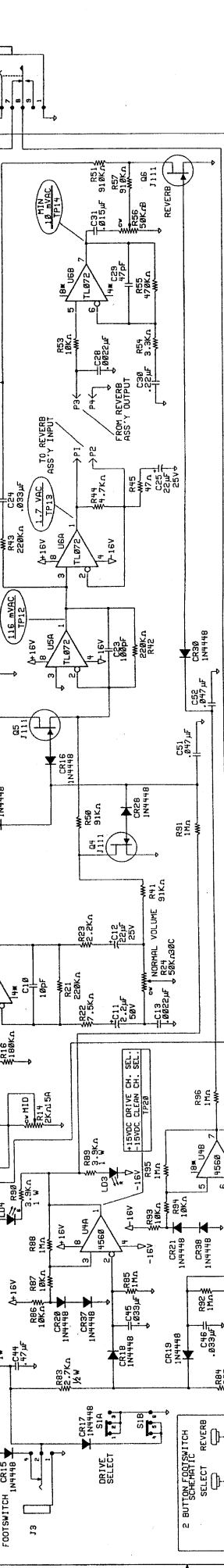
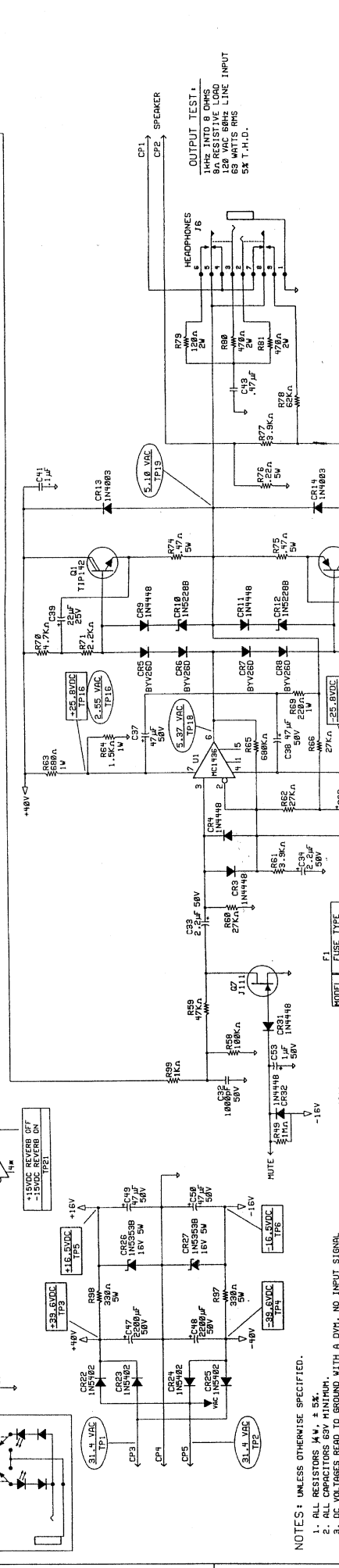
APPROVED: J. S. S.

DATE: 10-6-82

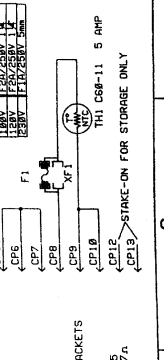
SCALE: 1/8" = 1"

FIG. NO. 0039346

SHEET 1 OF 1



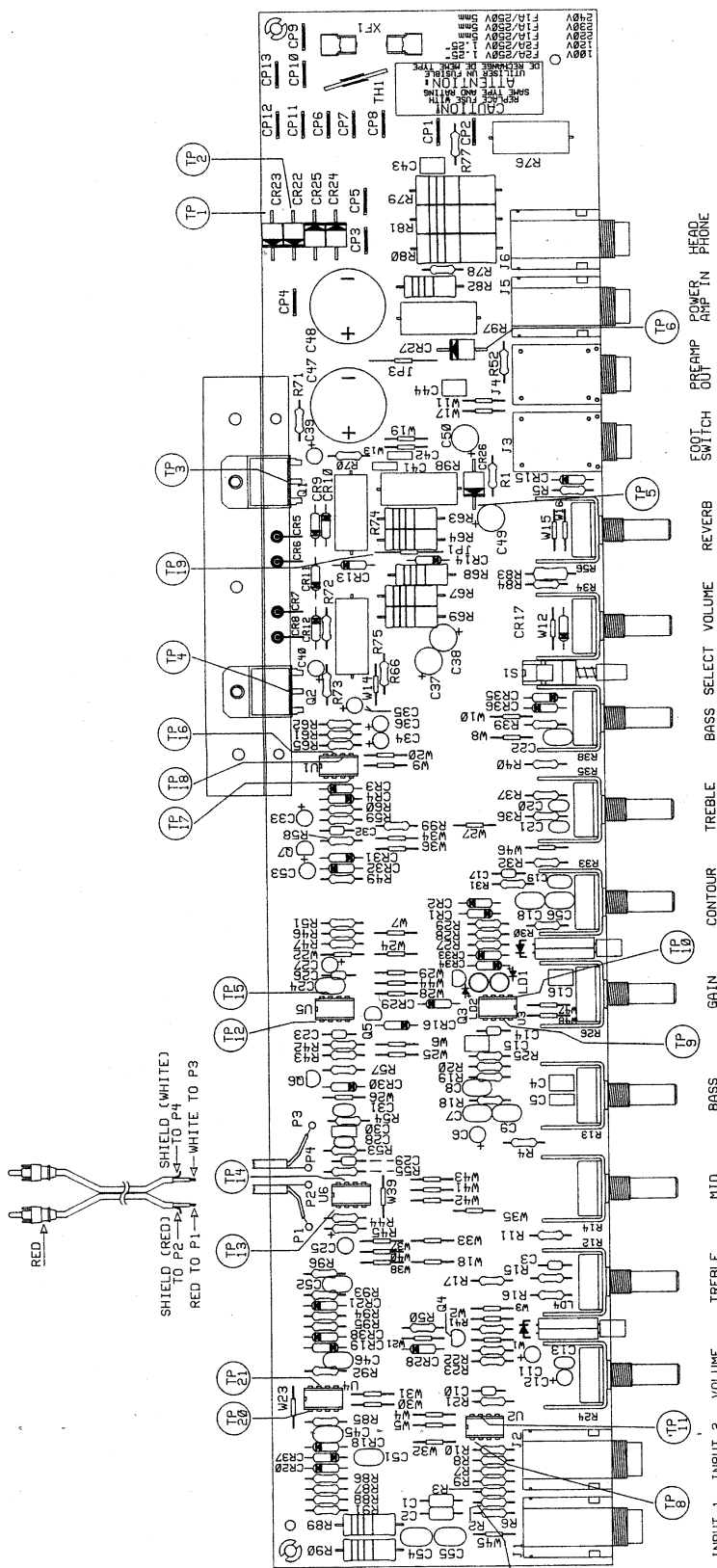
- NOTES:** UNLESS OTHERWISE SPECIFIED.
1. ALL RESISTORS 1/4W, ± 5%.
 2. ALL CAPACITORS 63V MINIMUM.
 3. DC VOLTAGES READ TO GROUND WITH A DVM, NO INPUT SIGNAL.
 4. AC VOLTAGE READINGS TAKEN WITH DVM TO GROUND UNDER THE FOLLOWING CONDITIONS:
 1kHz INPUT APPLIED THROUGH 1/4" PLUG TO J1
 8Ω RESISTIVE LOAD CONNECTED AT CP1/CP2
 SELECT "ON"
 GAIN AT 9.0 CLOCK
 REVERB "OFF"
 ALL OTHER CONTROLS SET TO 12.0 CLOCK
 REVERB PHN NOT USED
 5. DESTINATION P/N NOT USED



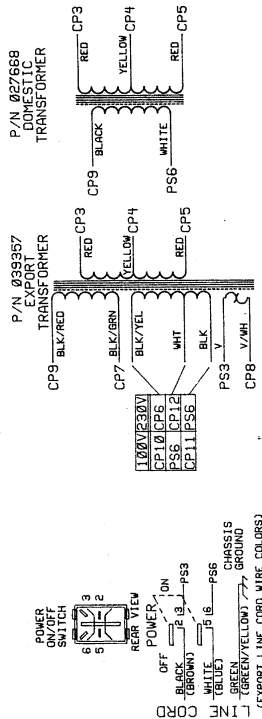
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REVISIONS

ZONE	REV.	DESCRIPTION	DATE	APPROVED
A	PRODUCT RELEASE	PR205	8-7-92	JSS
B	EC 886		10-12-92	



FILM/DWG. SERVICE DIAGRAM
 DATABASE: DELUXE.DBF DATE: 13-OCT-92 1011
 LAYERS PLOTTED: 1 2 3 4 18



DOMESTIC UNITS:
 A WHITE WIRE CONNECTS PSS TO CP8
 EXPORT UNITS:
 A VIOLET WIRE CONNECTS TO P38
 THE TRANSFORMER VIOLET/WHITE WIRE CONNECTS TO CP8

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 BREA, CALIFORNIA 92621

NEXT HIGHER ASSEMBLY:

DATE: _____
 X.XX
 X.XX
 ANGLES

TOLERANCES: UNLESS OTHERWISE SPECIFIED:
 .0005" .0005"
 .001" .001"
 .005" .005"
 .010" .010"
 .030" .030"
 .050" .050"

SCALE: N/A

CREATED: 17-24-92
 PLOTTED: 13-OCT-92

DRAWING NUMBER: **039348B**

ENGINEER: JS SAMS
 DRAWN: JS SAMS

TITLE: SERVICE DIAGRAM
 SIZE: DELUXE 112 GUITAR AMPLIFIER

11300 COLUMBIA AVE., SUITE 100
 BREA, CA. 92621

MUSICAL INSTRUMENTS