



DELUXE 112

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

SERVICE MANUAL



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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 SCRW 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) |

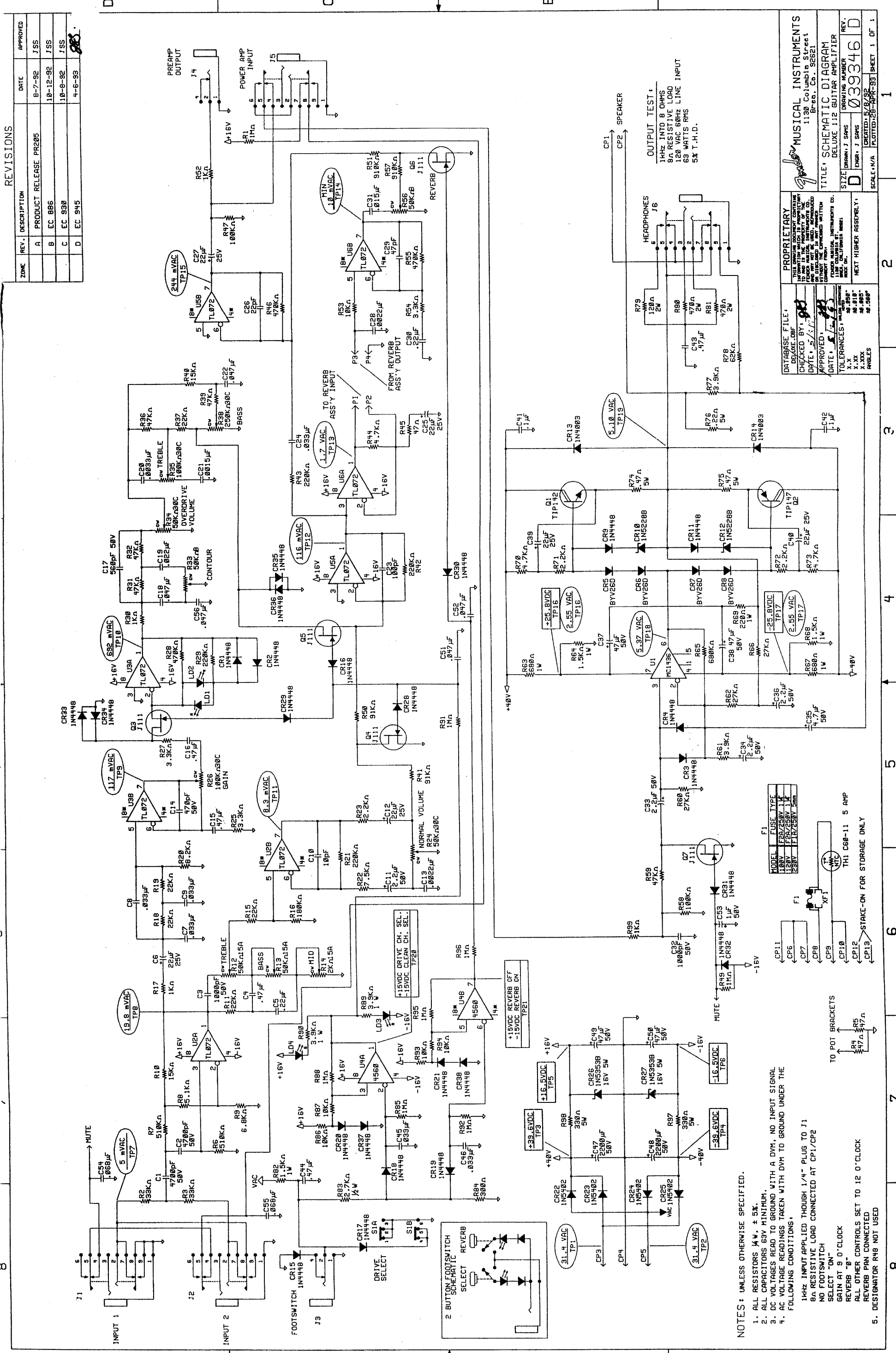
MISCELLANEOUS

| 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 | PRODUCT RELEASE PR205 | 8-7-92 | JSS |
| | B | EC 886 | 10-12-92 | JSS |
| | C | EC 930 | 10-8-92 | JSS |
| | D | EC 945 | 4-6-93 | JSS |

0039347000



- NOTES: UNLESS OTHERWISE SPECIFIED.
1. ALL RESISTORS 1/4 W, ± 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
 NO RESISTIVE LOAD CONNECTED AT CP1/CP2
 NO FOOTSWITCH
 SELECT "ON"
 GAIN AT 9 O'CLOCK
 REVERB "0"
 ALL OTHER CONTROLS SET TO 12 O'CLOCK
 REVERB PAN CONNECTED
 5. DESIGNATOR R48 NOT USED

FUSE TYPE

| MODEL | FUSE TYPE |
|-------|--------------|
| 110V | F2A/250V 1A |
| 120V | F2A/250V 1A |
| 230V | F1A/250V 5mm |

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 Brea, Ca. 92621

TITLE: SCHEMATIC DIAGRAM
 DELUXE 112 GUITAR AMPLIFIER

SIZE: DRAWING: J SIPS
 EMER: J SIPS
 D 039346 D

REV. 1
 SCALE: 1/4" = 1"

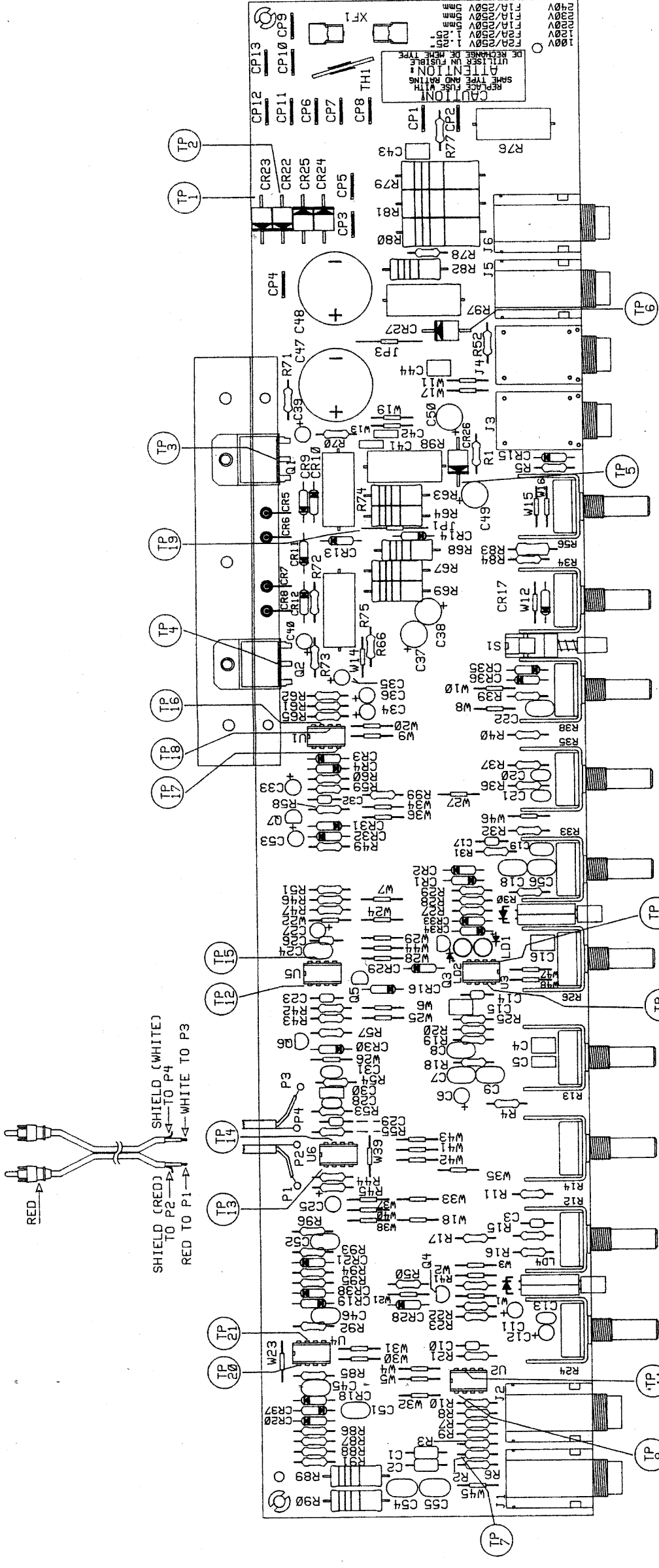
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1 2 3 4 5 6

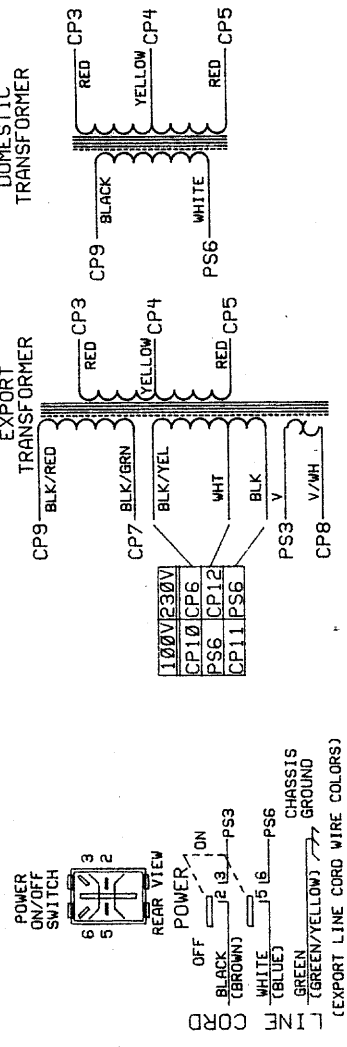
REVISIONS

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



INPUT 1 INPUT 2 VOLUME TREBLE MID BASS GAIN CONTOUR TREBLE BASS SELECT VOLUME REVERB FOOT SWITCH PREAMP OUT HEAD PHONE

FILM/DWG: SERVICE DIAGRAM
 DATABASE: DELUXPB.DBF DATE: 13-OCT-92
 LAYERS PLOTTED: 1 2 3 4 10 11 18



POWER ON/OFF SWITCH
 REAR VIEW
 OFF BLACK (BROWN) ON PS3
 WHITE (BLUE) PS6
 GREEN (GREEN/YELLOW) GROUND
 (EXPORT LINE CORD WIRE COLORS)

DOMESTIC UNITS:
 A WHITE WIRE CONNECTS PS3 TO CP8
 EXPORT UNITS:
 THE TRANSFORMER VIOLET/WHITE WIRE CONNECTS TO CP8
 THE TRANSFORMER VIOLET/WHITE WIRE CONNECTS TO CP8

FENDER MUSICAL INSTRUMENTS
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 BREA, CALIFORNIA 92621
 NEXT HIGHER ASSEMBLY:

TOLERANCES UNLESS OTHERWISE SPECIFIED:
 X.X ±0.050"
 X.XX ±0.010"
 X.XXX ±0.005"
 ANGLES ±0.500°

DATE: _____
APPROVED: _____
CHECKED BY: _____
DATABASE FILE: DELUXPB.DBF

TITLE: SERVICE DIAGRAM
DELUXE 112 GUITAR AMPLIFIER

SIZE: DRAWN: JS SAMS ENGR: JS SAMS
DRAWING NUMBER: 039348
REV.: B

SCALE: N/A
SHEET: 1 OF 1

1 2 3 4 5 6