

# REISSUE '65 DELUXE REVERB

## SERVICE MANUAL



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# Reissue '65 Deluxe Reverb

(This is the model name for warranty claims)

## SERVICE MANUAL

TYPE: PR 239

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### 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

# Reissue '65 Deluxe Reverb

## PARTS LIST

### PRINTED CIRCUIT BOARD ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	041289	PCB ASSY '65 DELUXE REVERB 120V	(STUFFED)
3	037805	CABLE RIBBON 6 CKT 2-1/4"	P21,22,23
1	038691	CAP AE AX 4.7uF 50V 20%	C19
7	009512	CAP AE AX 22uF 25V 20%	C1,6,11,15,16,23,24
3	024819	CAP AE AX 22uF 500V 20%	C33,34,35
1	041589	CAP AE AX 47uF 500V 20%	C32
1	036954	CAP AE RDL 22uF 63V 20%	C29
1	031040	CAP AE RDL 100uF 100V 20%	C36
1	041705	CAP AE RDL 220uF 100V 20%	C31
1	020883	CAP CD 10PF 1000V 10%	C13
1	020909	CAP CD 47PF 1000V 10%	C10
2	020917	CAP CD 250PF 1000V 10%	C2,7
1	020842	CAP CD 500PF 1000V 10%	C14
2	024823	CAP MPF RDL .01uF 400V 10%	C20,21
2	024833	CAP MPF RDL .022uF 400V 10%	C12,22
3	024845	CAP MPF RDL .047uF 400V 10%	C4,5,9
1	024853	CPA MPF RDL .1uF 250V 10%	C26
3	024854	CAP MPF RDL .1uF 400V 10%	C3,8,18
2	024855	CAP MPF RDL .1uF 630V 10%	C27,28
1	037040	CAP PFF .0033uF 400V 10%	C17
1	037666	CAP PFF .001uF 400V 10%	C25
2	037596	CONTROL SNAPIN 1 MEG 30A J TAPER	R10,22
2	037597	CONTROL SNAPIN 250K 30A J TAPER	R7,19
2	037599	CONTROL SNAPIN 250K 10A AUDIO	R8,20
1	037600	CONTROL SNAPIN 100K B	R31
1	037601	CONTROL SNAPIN 3 MEG 10C AUDIO	R42
1	037602	CONTROL SNAPIN 50K 30C REV AUDIO	R48
1	064089	DIODE 1N4003 200PRV 1 AMP	CR1
23	026000	FSTN TAB MALE PCB MT .187X.032	CP1-23
3	027413	HDR .1CTR 6 CKT SQ PIN	PX1A,22A,23A
4	037117	JACK PCB MONO CLOSED CKT	J1-4
1	025933	JACK PHONO DUAL PC MTG	J5
7	020888	JUMPER WIRE 22GA .5X.175	W1-7
1	037836	OPTOISOLATOR ASSY 65 TWIN	OP1
1	041288	PCB FAB 65 DELUXE REVERB	(RAW BOARD)
2	031901	PIN MALE PCB .093	SP1,2
1	024947	RES CF 1/4W 5% 47Ω	R53
1	024961	RES CF 1/4W 5% 470Ω	R51
3	024964	RES CF 1/4W 5% 820Ω	R24,30,64
4	024969	RES CF 1/4W 5% 1.5K	R5,17,60,61
1	024972	RES CF 1/4W 5% 2.7K	R44
2	024979	RES CF 1/4W 5% 6.8K	R9,21
1	024981	RES CF 1/4W 5% 10K	R36
4	024995	RES CF 1/4W 5% 68K	R1,2,13,14
3	024997	RES CF 1/4W 5% 100K	R6,18,41
6	025059	RES CF 1/4W 5% 220K	R12,28,33,35,56,57
1	025063	RES CF 1/4W 5% 390K	R37
1	025065	RES CF 1/4W 5% 470K	R32
7	025069	RES CF 1/4W 5% 1M	R3,15,26,39,40,49,52
1	025075	RES CF 1/4W 5% 2.2M	R38
1	025084	RES CF 1/4W 5% 10M	R45
2	026368	RES CF 1/2W 5% 100Ω	R70,71
1	025113	RES CF 1/2W 5% 10K	R59
1	025832	RES CF 1/2W 5% 22K	R50
9	025116	RES CF 1/2W 5% 100K	R4,11,16,23,29,34,46,4
1	025117	RES CF 1/2W 5% 220K	R43
1	037619	RES CF 1W 5% 82K	R54
1	041706	RES CF 1W 5% 470K	R66
1	027347	RES FILM 1W 5% 2.2K	R27
1	027353	RES FILM 1W 5% 100K	R55
1	027749*	RES MF FUSE 1/4W 5% 22Ω	R69

# Reissue '65 Deluxe Reverb

## PRINTED CIRCUIT BOARD ASSEMBLY (CONT)

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
2	036468*	RES MOX FP 1W 5% 470Ω	R62,63
2	036470*	RES MOX FP 1W 5% 10K	R67,68
1	025803*	THERMISTOR 10 OHM 5 AMP C60-11	TH1

## CHASSIS ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	047043	CHS ASSY '65 DLX REVERB 120V	(COMPLETE CHASSIS)
4	018022	BUSHING SNAP 5-16X17-32 BLK	(@TRANSFORMER WIRES)
1	026038	BUSHING SR .625X.062X37/64 B;L	(@POWER CABLE 100/120V)
1	010401	BUSHING SR .625X.125X37/64 WHT	(@POWER CABLE 220/230/240V)
1	026541	CABLE ASSY PWR W/.250 TAB 120V	(POWER CABLE 100/120V)
1	033331	CABLE ASSY PWR W/.250 TAB 220/240V	(220/230/240V EXPORT)
1	038602	CABLE ASSY PWR W/.250 TAB AUST	(240V AUSTRALIA ONLY)
1	022707	CHOKE FILTER	L1
1	041293	CHS '65 DELUXE REVERB	(RAW CHASSIS)
1	032219	COLLAR-PILOT LIGHT	
1	037300	COVER CAPACITOR VIBROVERB	
1	048827	FUSE QA 1-1/4X1/4 250V 2 AMP	F1 (100/120V ONLY)
1	020789	FUSE QA 20mmX5mm 250V 1 AMP	F1 (220/230/240V ONLY)
1	036702	FUSEHOLDER 3AG FINGER GRIP	XF1
1	036703	FUSEHOLDER 5mm FINGER GRIP	XF1
1	021741	HOLDER DIAL LITE ASSEMBLY PILOT	(SOCKET ASSY W/OUT COLLAR)
1	021550	JACK PHONE TIP SHUNT 12A	(INTERNAL SPEAKER JACK)
1	021956	JACK PHONE OPEN CIRCUIT 11	(EXTERNAL SPEAKER JACK)
1	013043	JACK PHONE STEREO 12B	J6 (FOOTSWITCH JACK)
1	025718	JEWEL #20 PILOT LITE	(RED INDICATION)
9	024604	KNOB BLACK W/ WHITE STAMP 14000	
4	016352	NUT HEX 3/8-32X3/32 TK NI	(@ 1/4" JACKS)
1	031625	NUT HOLDER PILOT LIGHT 1/16-27	
4	022004	NUT KEPS #8-32 ZINC	(POWER XF MOUNT)
1	041391	PANEL FRONT '65 DLX REVERB	
1	041292	PANEL REAR '65 DLX REVERB 120V	
1	047060	PANEL REAR '65 DXL REV EXPORT	
1	021642	PILOT LIGHT #T47	(BULB)
1	026438	PLUG BUTTON .437" BLK	(@CAPACITOR COVER)
1	017502	POT 10KB 20% SCR ADJ	R58 (BIAS ADJUST)
1	030758	SCRW HI-LO 6X3/8 PHP ZI	(@ REVERB RCA JACKS)
29	038900	SCRW TF 6-32X1/4 PHP ZI	(@ TUBE SKT/XFMRS/CAP COV)
14	028937	SCRW TF 6-32X5/8 PHP ZI TAPTYT	(PCB MOUNTING)
6	023598	SHIELD TUBE	(@ PREAMP TUBES)
3	023580	SOCKET TUBE 8 PIN	(OUTPUT/RECTIFIER TUBES)
6	023606	SOCKET TUBE 9 PIN	(PREAMP TUBES)
14	025936	STAND OFF PCB PUSH ON NYL 3/8L	(PCB MOUNTING)
1	036570	(SWITCH TOGGLE DPST W/NUTS	S1 (POWER SWITCH)
1	036571	SWITCH TOGGLE SPDT W/NUTS	S2 (GROUND SWITCH 120V ONLY)
1	037039	SWITCH TOGGLE SPST W/NUTS	S3 (STANDBY SWITCH)
3	020424	TUBE RING UNIVERSAL (277H-2)	
2	023531	TUBE 12AT7	V3,6
1	041400	TUBE 5AR4 FULL WAVE RECTIFIER	V9
2	023564	TUBE 6V6GTA STR391A	V7,8
4	013341	TUBE VACUUM 7025/12AX7	V1,2,4,5
4	9904300100	WSHR LCK INTL 3/8X.681X.032ZI	(@ 1/4" JACKS/BIAS/ADJ)
1	41316	XFMR PWR DELUXE REVERB 120V	T3 (120V DOMESTIC)
1	041317	XFMR PWR EXPORT	T3 (100/230V EXPORT)
1	041318	XRMR OUTPUT '65 DELUXE REVERB	T2
1	037099	XFMR REVERB VIBROVERB	T1

## Reissue '65 Deluxe Reverb CABINET ASSEMBLY

<b>QTY</b>	<b>PART #</b>	<b>DESCRIPTION</b>	<b>REFERENCE DESIGNATION</b>
1	047073	CAB ASSY '65 DELUXE REVERB	(COMPLETE CABINET)
1	041565	BACK ASSY LOWER '65 DLX REV	
1	041567	BACK ASSY UPPER '65 DLX REV	
1	031849	BAG REVERB	(BAG ONLY)
1	025722	CABLE ASSY REVERB 1100MM	(FROM PAN TO CHASSIS)
1	038566	CABLE ASSY SPKR RT ANG 13-1/2	(SPEAKER WIRES)
2	022491	CLAMP CABLE NYL SCRW MNT 5/16	
1	041560	GRILLE ASSY '65 DLX REV	(COMPLETE GRILLE)
2	025395	HANDLE CAP CABINET NICKEL	
1	037790	HANDLE STRAP BLACK RIBBED	(WITHOUT INSERT)
1	032524	INSERT HANDLE	(SPRING STEEL)
1	023192	NAMEPLATE FENDER 65 TWIN (LOGO)	
8	022004	NUT KEPS #8-32 ZINC	(SPEAKER MOUNT)
2	021972	NUT T #10-32X3/4 STR 3 PRNG BLX	(HANDLE MOUNT)
1	028547	REVERB ASSY W/ BAG	(W/PAN, CABLE, BAG)
1	064063	REVERB UNIT 4 SPRING 4AB3C1B	(PAN ONLY)
3	037985	SCRW SMA #2X3/8 PHP BLX	(LOGO MOUNT)
8	037952	SCRW SMA #6X1 OHP NI	(BACKBOARD MOUNT)
4	011678	SCRW SMA #8X1-1/2 OHP BLX	(GRILLE MOUNT)
4	022236	SCRW M #10-32X1-1/8 OHP NI	(HANDLE MOUNT)
7	029828	SCRW PB #8X3/4 PHP ZI	(CHASSIS/REV BAG MOUNT)
1	037617	SPEAKER 12" 8 OHM 50 WATTS	
2	024745	STRAP CHASSIS 4" NICKEL	
8	037215	WSHR C'SNK #6 NI	(BACKBOARD MOUNT)
2	022327	WSHR FLAT #8X7/16 NI	(REVERB BAG MOUNT)
4	029527	WSHR FNSH #8-5/5 F;MGD B;X WX	(GRILLE MOUNT)

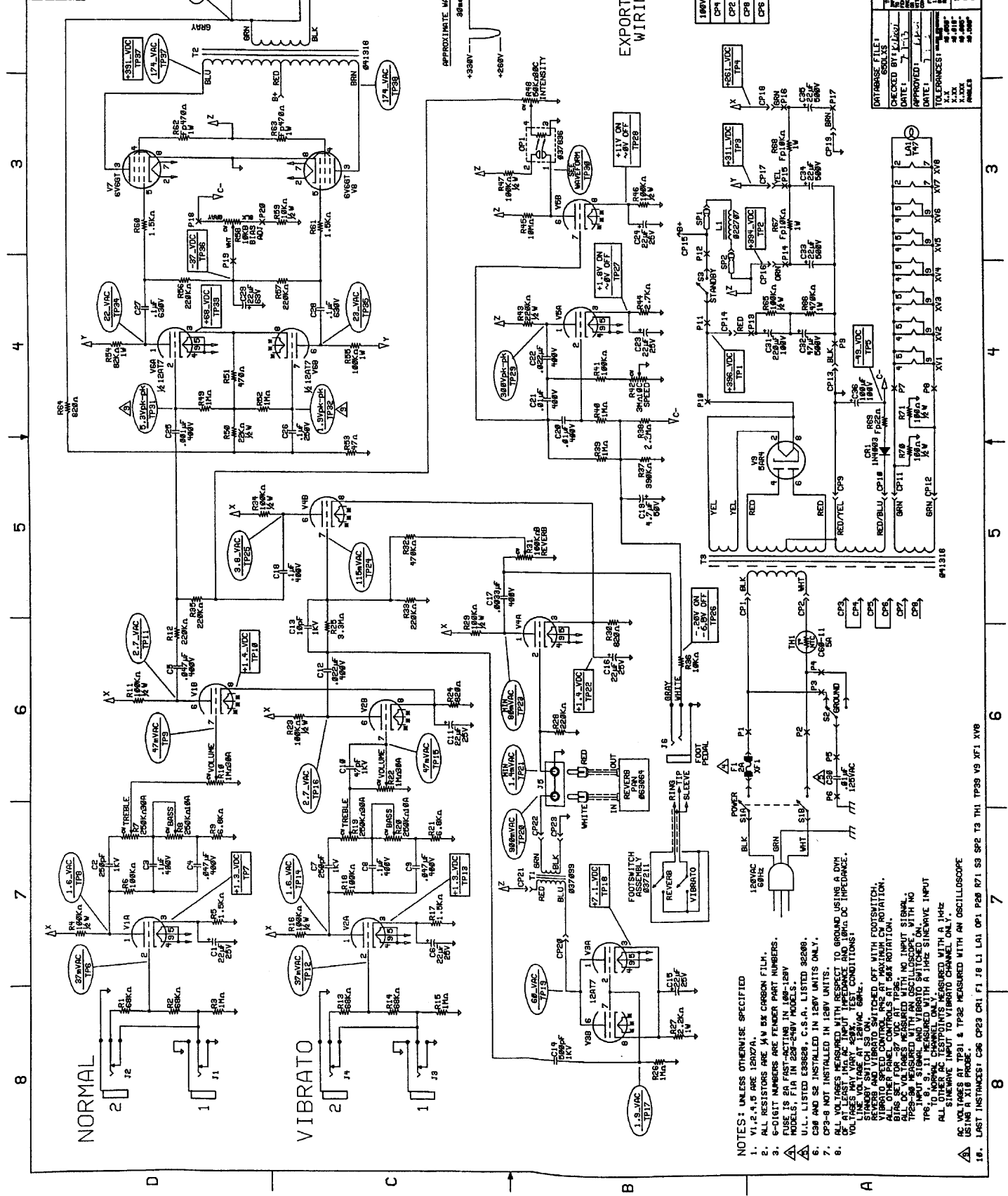
### FOOTSWITCH ASSEMBLY

<b>QTY</b>	<b>PART #</b>	<b>DESCRIPTION</b>	<b>REFERENCE DESIGNATION</b>
1	037211	FTSW ASSY VIBRO '65 TWIN	(COMPLETE FOOTSWITCH)
1	021691	BUSHING SR .500X.100X7/16 BLK	(STRAIN RELIEF)
1	022665	COVER CUP DUAL FTSW ASSY	(BOTTOM COVER)
1	016063	DECAL FOOTSWITCH VIBRATO + REV	
1	013172	PLUG PHONE 3 CONDUCTOR 238 RT ANGLE	
2	024042	SWITCH SPST PUSH BUTTON	

### MISCELLANEOUS

<b>QTY</b>	<b>PART #</b>	<b>DESCRIPTION</b>	<b>REFERENCE DESIGNATION</b>
1	047059	MANUAL OWNERS '65 DLX REVERB	
1	041286	SCHEM REDUCED '65 DLX REVERB	

ZONE	REV.	DESCRIPTION	DATE	APPROVED
A	PR-#239		7-2-93	BD
B	LO2732		11-4-93	BD



**NORMAL**

**VIBRATO**

- NOTES:** UNLESS OTHERWISE SPECIFIED
1. V1, C1, C2 ARE 100% 1N4001 SILICON CARBON FILM.
  2. ALL RESISTORS ARE 1% TOLERANCE UNLESS OTHERWISE SPECIFIED.
  3. FUSES ARE FIA FAST-ACTING IN 160V-180V MODELS, FIA IN 250V-240V MODELS.
  4. U.L. LISTED C3828, C.S.A. LISTED 32288.
  5. C38 AND S2 INSTALLED IN 120V UNITS ONLY.
  6. CP3-8 NOT INSTALLED IN 120V UNITS.
  7. ALL VOLTAGES MEASURED WITH RESPECT TO GROUND USING A DVM.
  8. VOLTAGES IN VIBRATO CHANNEL MEASURED WITH D.C. IMPEDANCE.
  9. LINE VOLTAGE AT 120VAC.
  10. REVERB AND VIBRATO SWITCHES OFF WITH FOOTSWITCH.
  11. VIBRATO SPEED CONTROL R22 AT MAXIMUM CW ROTATION.
  12. BIAS SET FOR -37 VDC AT TP36.
  13. ALL DC VOLTAGES MEASURED WITH NO INPUT SIGNAL.
  14. REVERB AND VIBRATO SWITCHES ON WITH NO INPUT SIGNAL.
  15. TP1, 6, 8, 9, 11 MEASURED WITH A 1MHz SINEWAVE INPUT.
  16. ALL OTHER AC TESTPOINTS MEASURED WITH A 1MHz SINEWAVE INPUT TO VIBRATO CHANNEL ONLY.

AC VOLTAGES AT TP31 & TP32 MEASURED WITH AN OSCILLOSCOPE USING A X10 PROBE.

16. LAST INSTRUMENT C38 CP3 CRI F1 I8 L1 L01 OPI P8 R71 S2 SP2 T3 TH1 TP33 V9 YF1 XVB

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**SCHEMATIC DIAGRAM**

65 DELUXE REVERB AMPLIFIER

DATE: 7-1-93

APPROVED: [Signature]

DATE: 11-4-93

TOLERANCES: UNLESS OTHERWISE SPECIFIED

RESISTORS: 1% UNLESS OTHERWISE SPECIFIED

CAPACITORS: 5% UNLESS OTHERWISE SPECIFIED

SCALE: 1" = 1"

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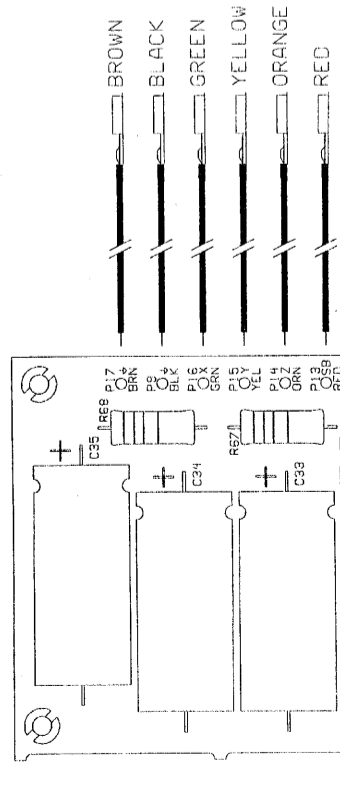
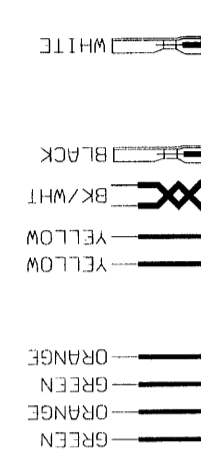
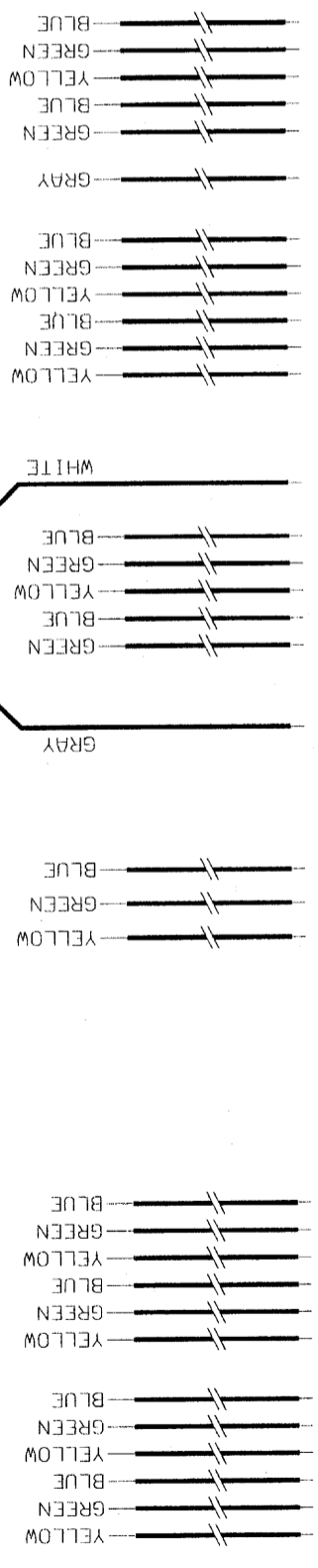
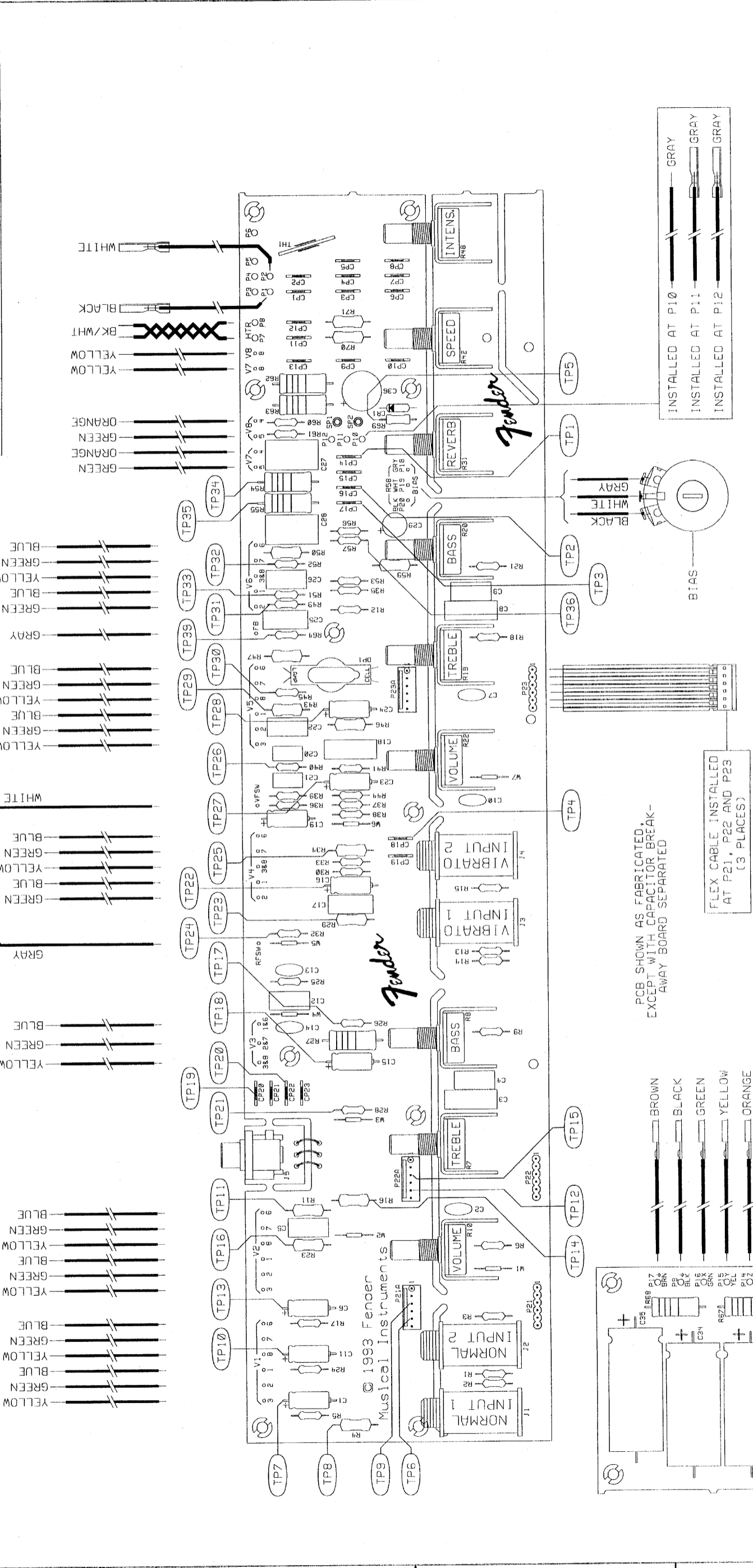
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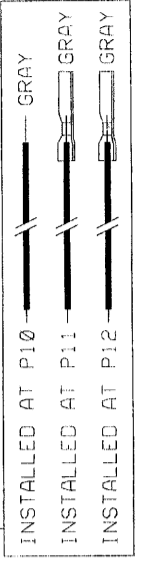
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ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASED PR#239	7-2-93	
	B	EC#1694	5-13-96	



PCB SHOWN AS FABRICATED,  
EXCEPT WITH CAPACITOR BREAK-  
AWAY BOARD SEPARATED

FLEX CABLE INSTALLED  
AT P21, P22 AND P23  
(3 PLACES)



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<p>DATABASE FILE: 65DLXSR</p> <p>CHECKED BY:</p> <p>DATE:</p> <p>APPROVED:</p> <p>DATE:</p> <p>TOLERANCES: UNLESS OTHERWISE NOTED</p> <p>X.XX ±0.050"</p> <p>X.XXX ±0.010"</p> <p>X.XXXX ±0.005"</p> <p>ANGLES ±0.500°</p>	<p>FILM/DWG: SERVICE DIAGRAM</p> <p>DATABASE: 65DLXSR DATE: 07-JUN-96</p> <p>LAYERS PLOTTED: 1 2 3 4 10 15</p>
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1 2 3 4 5 6 7 8