

FENDER M-80 CHORUS

PART NUMBER 22-5905 120V
 PART NUMBER 22-5945 240V
 PART NUMBER 22-5955 220V
 PART NUMBER 22-5975 100V

PARTS LIST PAGE 1 OF 6NOTICE:

The information contained herein is **CONFIDENTIAL** and **PROPRIETARY** to Fender Musical instruments. 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 express permission of Fender Musical Instruments. All specifications subject to change without notice.

*** PRINTED CIRCUIT BOARD ASSEMBLY ***

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	037025	PCB ASSEMBLY	PC1 (120V STUFFED)
1	037028	PCB ASSEMBLY	PC1 (220/240 STUFFED)
1	037029	PCB ASSEMBLY	PC1 (100V STUFFED)
1	037024	PCB FABRICATION	PB1 (BLANK)
4	9905301010	BARREL TERMINAL	BT1-4
2	004026	CAPCD 1KV 22pF 10%	C29 55
4	025979	CAPCD 1KV 50pF 10%	C26 34 57 68
4	069724	CAPCD 1KV 100pF 10%	C6 22 44 46
1	007029	CAPCD 1KV 220pF 10%	C39
1	025777	CAPCD 1KV 470pF 10%	C14
2	017518	CAPCD 1KV 560pF 10%	C3 17
1	033578	CAPRP 100V .001 10	C33
3	033579	CAPRP 100V .0015 10	C21 37 54
1	033580	CAPRP 100V .0022 10	C25
2	033581	CAPRP 100V .0033 10	C8 20
1	033582	CAPRP 100V .0039 10	C38
2	033583	CAPRP 100V .0047 10	C1 2
2	033590	CAPRP 100V .022 10	C19 28
6	033591	CAPRP 100V .033 10	C11-13 23 49 50
3	033592	CAPRP 100V .047 10	C18 36 41
3	027278	CAPRF 63V .1 10	C52 84 85
1	027281	CAPRF 63V .22 10	C5
2	027286	CAPRF 63V .47 10	C4 48
3	033605	CAPRE 50V .15uF 20	C27 32 42
3	033606	CAPRE 50V .47uF 20	C15 16 81
7	028458	CAPRE 50V 1uF 20	C31 43 53 56 79 80 88
7	028459	CAPRE 50V 2.2uF 20	C7 58 59 61 69 70 72
2	028460	CAPRE 50V 4.7uF 20	C60 71

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PARTS LIST PAGE 2 OF 6

*** PRINTED CIRCUIT BOARD ASSEMBLY (CONTINUED) ***

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
11	028465	CAPRE 25V 22uF 20	C9 10 24 30 35 45 47 + 64 66 75 77
5	028471	CAPRE 50V 47uF 20	C51 62 63 73 74
4	025787	CAPRE 16NP 100uF 20	C65 67 76 78
2	028474	CAPRE 25V 100uF 20	C86 87
1	028479	CAPRE 25V 220uF 20	C40
2	031756	CAPRE 50V 4700uF HT	C82 83
1	027937	CTRL, 2K, 15A	R12 (MID)
2	027940	CTRL, 50K, 15A	R10 11 (TREB/BASS)
2	027941	CTRL, 50K, B	R31 44 (CONTOUR/RVRB)
2	027943	CTRL, 50K, 30C	R17 33 (CLN,OVDR,VOL)
2	027945	CTRL, 100K, B	R104 108 (RATE/DEPTH)
2	027947	CTRL, 100K, 30C	R25 34 (GAIN/PRESNCE)
4	064089	DIODE 200PRV 1AMP 1N4003	CR32 33 48 49
4	029045	DIODE 400PRV 6AMP 6A4	CR50-53
8	028776	DIODE BIAS REF BYV26D	CR20-23 36-39
33	006260	DIODE SIGNAL 75PRV 1N4448	CR1-19 24-26 28 30 31 + 34 35 40-42 44 46 47
2	025996	FUSE,CLIP PCB DUAL	at XF1
9	025802	FSTN TAB .25"(120V DOMEST)	CP1-6 13-15
1	039982	FUSE, 4A 1/4"(120V DOMEST)	F1
14	025802	FSTN TAB .25"(100/120V EX)	CP1-11 13-15
1	039982	FUSE, 4A 1/4"(100/120V EX)	F1
14	025802	FSTN TAB .25"(220/240V EX)	CP1-12 14 16
1	020794	FUSE 2A 5mm (220/240V EX)	F1
4	020775	FUSE CLP 5mm (220/240V EX)	at XF2 3
2	020802	FUSE 10A 5mm (220/240V EX)	F2 3
1	031725	HEAT SINK PLATE	HP1
1	028120	IC CMOS 4053	U8
1	029671	IC BBD DEVICE MN3007	U11
1	029672	IC BBD DRIVER MN3101	U10
3	025929	JACK PHONE MONO	J3 4 7
5	031570	JACK PHONE STEREO	J1 2 5 6 8
2	028101	KNOB PUSH	KN1 2
2	030754	LED RED T-1 lens	LD1 2
1	028039	LED RED 5x5mm	LD3
1	028098	LED GREEN 5x5mm	LD4
1	033177	LED BI-COLOR 5X5 LL	LD5
1	014689	N-CHAN JFET J-111	Q1
7	016795	OP-AMP DUAL JFET TL072CP	U1-6 9
1	013528	OP-AMP DUAL 4558	U7
2	028047	OP-AMP HI VOLTAGE MC1436P1	U12 13

FENDER M-80 CHORUS

PARTS LIST PAGE 3 OF 6

*** PRINTED CIRCUIT BOARD ASSEMBLY (CONTINUED) ***

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
4	024947	RESCF 1/4W 47ohm5%	R40 62 113 114
1	024952	RESCF 1/4W 100ohm5%	R95
4	024957	RESCF 1/4W 270ohm5%	R133 135 160 162
1	029609	RESCF 1/4W 910ohm5%	R87
12	024965	RESCF 1/4W 1K 5%	R20 29 48 72 75 78 131 + 132 134 158 159 161
1	024971	RESCF 1/4W 2.2K 5%	R18
1	024972	RESCF 1/4W 2.7K 5%	R63
4	024973	RESCF 1/4W 3.3K 5%	R24 26 43 103
4	024975	RESCF 1/4W 3.9K 5%	R119 141 146 168
5	024977	RESCF 1/4W 4.7K 5%	R39 177-180
4	028034	RESCF 1/4W 5.1K 5%	R6 56 57 112
1	024979	RESCF 1/4W 6.8K 5%	R7
1	025942	RESCF 1/4W 7.5K 5%	R16
1	024980	RESCF 1/4W 8.2K 5%	R23
14	024981	RESCF 1/4W 10K 5%	R41 77 81 83-85 90 98 + 92-94 99 100 101
1	024985	RESCF 1/4W 15K 5%	R8
5	024986	RESCF 1/4W 18K 5%	R59-61 105 110
4	029006	RESCF 1/4W 20K 5%	R136 137 163 164
5	024987	RESCF 1/4W 22K 5%	R9 13 21 22 51
4	024988	RESCF 1/4W 27K 5%	R120 121 147 148
3	024989	RESCF 1/4W 33K 5%	R2 3 107
9	024993	RESCF 1/4W 47K 5%	R30 32 35 36 102 116 + 117 143 144
2	026507	RESCF 1/4W 62K 5%	R169 170
19	024997	RESCF 1/4W 100K 5%	R1 47 50 52 54 55 66-71 + 73 74 80 89 109 115 142
3	025058	RESCF 1/4W 180K 5%	R14 19 37
3	025059	RESCF 1/4W 220K 5%	R15 28 38
2	025061	RESCF 1/4W 330K 5%	R58 111
6	025065	RESCF 1/4W 470K 5%	R27 42 46 49 64 106
2	028018	RESCF 1/4W 510K 5%	R4 5
2	025067	RESCF 1/4W 680K 5%	R118 145
5	025069	RESCF 1/4W 1M 5%	R65 79 82 88 91
1	025074	RESCF 1/4W 1.8M 5%	R45
1	027869	RESCF 1/2W 470ohm5%	R96
1	037169	RESCF 1/2W 1.8K 5%	R86
4	036926	RESCF 1/2W 4.7K 5%	R128 130 155 157
4	028045	RESCF 1W 220ohm 5%	R126 153 171 173
4	028030	RESCF 1W 680ohm 5%	R122 124 149 151
1	029722	RESCF 1W 1K 5%	R97
4	028029	RESCF 1W 1.5K 5%	R76 123 125 150 152
2	028021	RESCF 2W 470ohm 5%	R172 174

FENDER M-80 CHORUS

PARTS LIST PAGE 4 OF 6

*** PRINTED CIRCUIT BOARD ASSEMBLY (CONTINUED) ***

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
4	036921	RESCF 2W 1K 5%	R127 129 154 156
6	028028	RESWW 5W .47ohm 10	R138-140 165-167
1	036940	RESWW 5W 270ohm 10	R176
1	036939	RESWW 7W 220ohm 10	R175
6	032908	SCREW TF 6-32x3/8	SC1-6
4	027638	SCREW 4-40x3/8	SC7 8
2	028091	SW 2P2T ALT/ACTION	S1 2
1	031910	THERMAL SENSOR	TS1
1	026411	THERMISTOR, NTC	TH1
1	019994	TRIMPOT, 100K, HOR-SM	R53
5	016739	XISTOR NPN 2N4401	Q2 3 5 6 10
3	016742	XISTOR PNP 2N4403	Q4 7 11
2	028114	XISTOR NPN PWRDARL TIP142	Q8 12
2	028115	XISTOR PNP PWRDARL TIP147	Q9 13
4	027327	ZENER 6.2V .5W 5% 1N5234B	CR27 29 CR43 45
2	028119	ZENER 16V 5W 10% 1N5353A	CR54 55
4	028169	WASHER NYL SHOULDER	WS1-4
14	020888	WIRE JUMPER, .5"	W1-14

*** CHASSIS ASSEMBLY ***

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	037189	CHASSIS ASS'Y COMPLETE	CH1 (120V DOMESTIC)
1	037190	CHASSIS ASS'Y COMPLETE	CH1 (240V EXPORT)
1	037191	CHASSIS ASS'Y COMPLETE	CH1 (220V EXPORT)
1	037192	CHASSIS ASS'Y COMPLETE	CH1 (100V EXPORT)
1	036928	CHASSIS FABRICATION	CS1
2	021709	BUSHING STRN RELIEF .437	BH1 2
1	026038	BUSHING STRN RELIEF .625	BH3
1	026116	BUSHING STRN RELIEF .500	BH4
1	026541	CABLE POWER	LC1 (100/120V)
1	026767	CABLE POWER	LC1 (220/240V)
1	028577	CABLE REVERB 30"	RC1
1	036929	FRONT PANEL	FP1
1	031726	HEAT SINK	HK1
11	025952	KNOB RED POINTER	KN1-11
4	028591	NUT ACORN 8-32	NT1-4 (AT PWR XFMR)
8	031647	NUT HEX 12mm x 1mm NI	NT5-12 (AT CONTROLS)
1	036941	REAR LABEL	RL1
5	028500	SCREW TF 8-32x3/4 HWH	SC9-13 (HEATSINK/CHAS)
4	028937	SCREW 6-32x5/8 PHP	SC14-17 (PCB/CHAS)
1	029913	SCREW TF 6-32x3/16 PHP	SC18 (GROUND LUG)

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PARTS LIST PAGE 5 OF 6

*** CHASSIS ASSEMBLY (CONTINUED) ***

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
4	025936	STAND-OFF	SF1-4
1	026479	SWITCH ROCKER DPST POWER	S3
1	031668	TRANSFORMER POWER	T1 (DOMESTIC)
1	033069	TRANSFORMER POWER	T1 (EXPORT)
1	033045	TRANSFORMER END BELL	TB1
4	030007	WASHER LOCK	WS5-8 (AT PWR XFMR)
1	037186	WIRE SET	WC1
4	010735	WIRE SET RECEPTACLE	WR1-4
8	025737	WIRE SET TABS	WT1-8

*** CABINET ASSEMBLY ***

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	036930	CABINET ASS'Y COMPLETE	CB1 (CARPET COVERED)
1	037172	CABINET ASS'Y COMPLETE	CB1 (VINYL COVERED)
4	023505	CASTER PLATE	CO1
1	031525	COVERING CARPET	CC1 (ROCK GRAY)
1	026570	COVERING VINYL	CC1 (BLACK)
2	031840	CORNER 3 HOLE BLACK	CN1 2
6	031838	CORNER 2 HOLE BLACK	CN3-8
8	031796	CORNER RIDGED PLASTIC	CN1-8
1	027648	FOIL TAPE SHIELD	FL1
4	019275	GLIDE INSERT	GR1
4	027849	GLIDE BLACK	GG1
1	026317	GRILLE CLOTH BLACK	GC1
1	027846	HANDLE	HD1
2	031845	HANDLE CAP BLACK	HC1 2
1	032524	HANDLE INSERT	HL1
1	026317	NAMEPLATE FENDER	NP1
16	027199	SCREW PLATE MOUNTING	SC19-34
4	017393	SCREW HANDLE MOUNTING	SC35-38
14	026576	SCREW CORNER MOUNTING	SC39-52 (2/3 HOLE CR)
32	016627	SCREW CORNER MOUNTING	SC53-84 (PLASTIC CNR)
2	022152	SCREW NAMEPLATE MTG	SC85 86
4	021972	TEE NUT 10-32	NT13-16
8	021972	TEE NUT 10-32	NT17-24

FENDER M-80 CHORUS

PARTS LIST PAGE 6 OF 6

*** FOOTSWITCH ASSEMBLY ***

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	029972	FOOTSWITCH ASS'Y	FT1
2	006260	DIODE 1N4448 SIGNAL	D1 2
1	037036	JACK PHONE PCB MONO	J1
2	028039	LED 5x5mm RED SLB-55VR3	D3 4
1	028445	PCB FABRICATION	PB1 (STUFFED)
1	028448	PCB ASSEMBLY	PC1 (BLANK)

*** MISCELLANEOUS ***

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
4	023513	CASTER	CT1-4
1	022491	CLAMP	CL1
4	029821	EYELET	EY1-4 (REVERB MTG)
1	011298	LOGO	LG1
1	028055	REVERB UNIT	RV1
2	018113	SCREW SMA 4x1/2 OHP	SC87 88 (LOGO MTG)
8	026577	SCREW M 10-32x1 PHP BLX	SC89-96 (SPEAKER MTG)
4	029828	SCREW PB 8x3/4 PHP ZI	SC97-101 (REVERB MTG)
1	029828	SCREW PB 8x3/4 PHP ZI	SC102 (CLAMP MTG)
6	9904101550	SCREW M 8-32x1-1/4 OH PHS	SC103-108 (CHASS MTG)
2	025923	SPEAKER 12" 8 OHM	SP1 2
6	029527	WASHER FINISH #8x5/8	WS9-14 (CHASSIS MTG)
1	037188	OWNERS MANUAL	OM1
1	037026	SCHEMATIC DIAGRAM	SM1
1	037027	SERVICE DIAGRAM	SV1



TECH NOTES

FENDER MUSICAL INSTRUMENTS CORP.
7975 N. HAYDEN ROAD
SCOTTSDALE, ARIZONA 85258



M-80 CHORUS

BIAS MODIFICATIONS

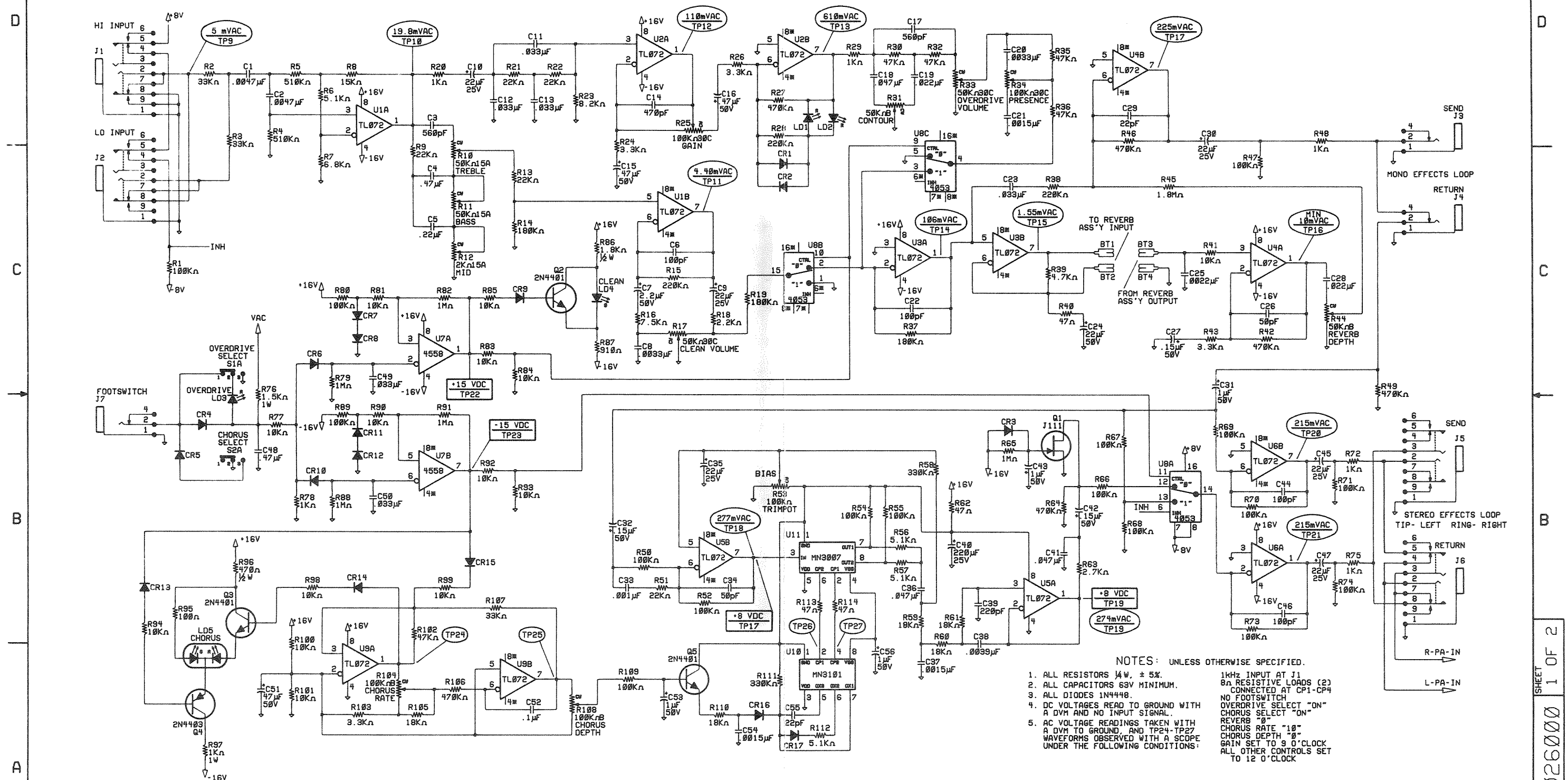
An engineering change notice has been issued requiring a resistor change in the Power amp section of the M-80 Chorus. This was necessary to reduce the DC Bias current through the output transistors. The resistor change will minimize the possibility of the power amp overheating, thus improving reliability.

Product recall is unnecessary, but any M-80 Chorus in for service should have this change performed.

Remove R127, R129, R154, R156 (1K Ω 2watt) and replace with a 2.2K Ω 2watt Carbon Film or Metal Film Resistor (P/N 041258).

JUNE 1993

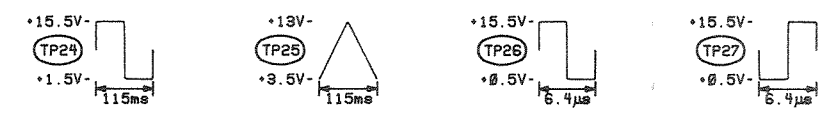
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASED PR#154	6-8-90	Blos
	B	EC#643	9-10-90	Blos



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 AND NO INPUT SIGNAL.
5. AC VOLTAGE READINGS TAKEN WITH A DVM TO GROUND AND TP24-TP27 WAVEFORMS OBSERVED WITH A SCOPE UNDER THE FOLLOWING CONDITIONS:

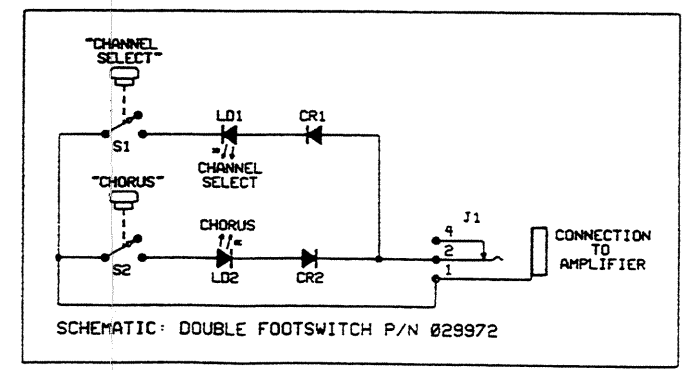
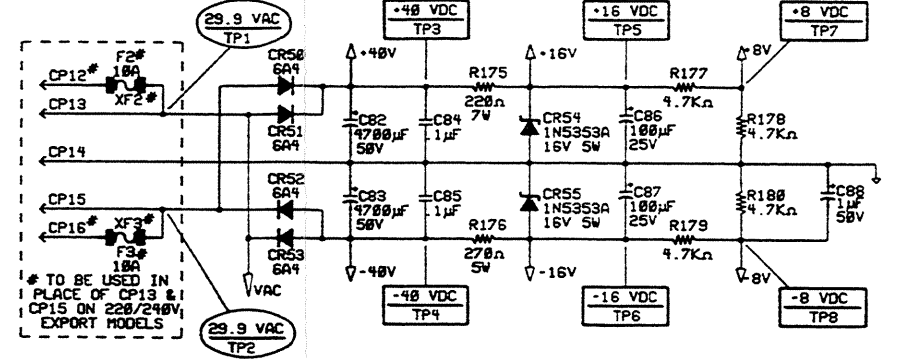
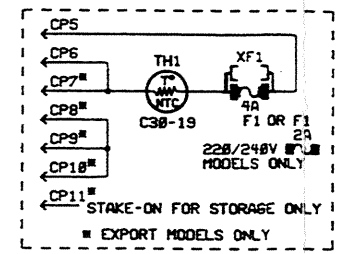
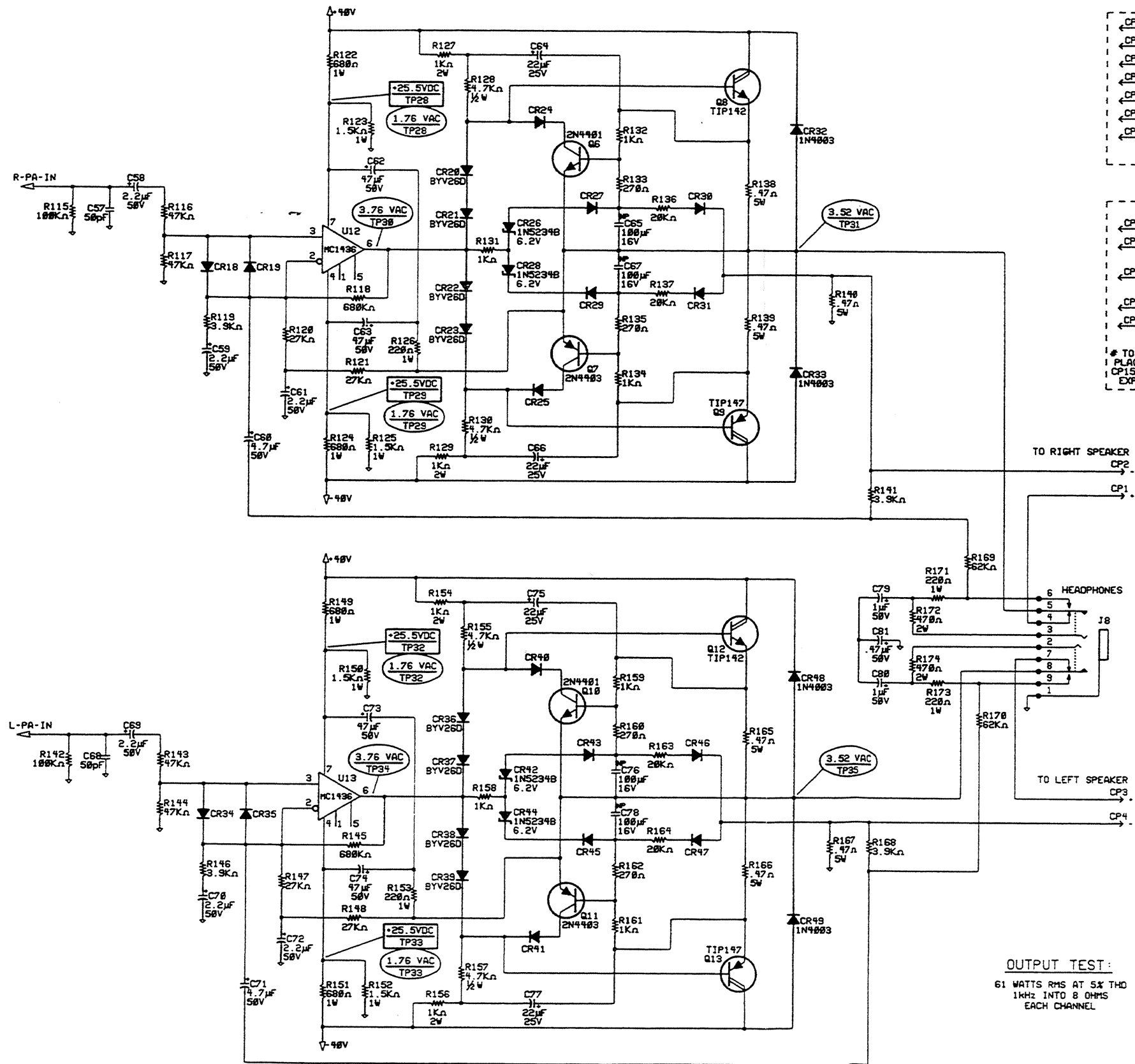
1KHz INPUT AT J1
8Ω RESISTIVE LOADS (2) CONNECTED AT CP1-CP4
NO FOOTSWITCH
OVERDRIVE SELECT "ON"
CHORUS SELECT "ON"
REVERB "0"
CHORUS RATE "10"
CHORUS DEPTH "0"
GAIN SET TO 9 O'CLOCK
ALL OTHER CONTROLS SET TO 12 O'CLOCK



DATABASE FILE: FFF071S CHECKED BY: <i>Blos</i> DATE: 4-10-90 APPROVED: <i>Blos</i> DATE: 4-10-90 TOLERANCES: UNLESS OTHERWISE SPECIFIED: X.X AS 50% X.XX AS 0.1% X.XXX AS 0.05% ANGLCS AS 0.05°	PROPRIETARY THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE FENDER MUSICAL INSTRUMENTS CO. AND NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM: FENDER MUSICAL INSTRUMENTS CO. 1155 COLLEEN AT BREA, CALIFORNIA 92621 ROCK ON. NEXT HIGHER ASSEMBLY: M-80 CHORUS SCALE:	Fender MUSICAL INSTRUMENTS 1155 Columbia Street Brea, Ca. 92621 TITLE: SCHEMATIC DIAGRAM M-80 CHORUS AMPLIFIER SIZE: D DRAWN: B. DESI ENGR: B. DESI DRAWING NUMBER: 037023 REV: B CREATED: 31-MAY-90 PLOTTED: 10-SEP-90 SHEET 1 OF 2
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SHEET 1 OF 2
PART NO. 0037026000

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASED PR#154	6-8-98	<i>B. J. Lee</i>
	B	EC#643	9-18-98	<i>B. J. Lee</i>



OUTPUT TEST:
61 WATTS RMS AT 5X THD
1KHZ INTO 8 OHMS
EACH CHANNEL

- NOTES: UNLESS OTHERWISE SPECIFIED.
- ALL RESISTORS 1/4W, ± 5%.
 - ALL CAPACITORS 63V MINIMUM.
 - ALL DIODES 1N4448.
 - DC VOLTAGES READ TO GROUND WITH A DVM AND NO INPUT SIGNAL.
 - AC VOLTAGE READINGS TAKEN WITH WAVEFORMS OBSERVED WITH SCOPE UNDER THE FOLLOWING CONDITIONS:
1KHZ INPUT AT J1
8Ω RESISTIVE LOADS (2) CONNECTED AT CP1-CP4
NO FOOTSWITCH
OVERDRIVE SELECT "ON"
CHORUS SELECT "ON"
REVERB "0"
CHORUS RATE "10"
CHORUS DEPTH "0"
GAIN SET TO 9 O'CLOCK
ALL OTHER CONTROLS SET TO 12 O'CLOCK

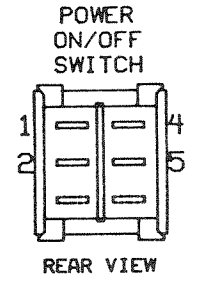
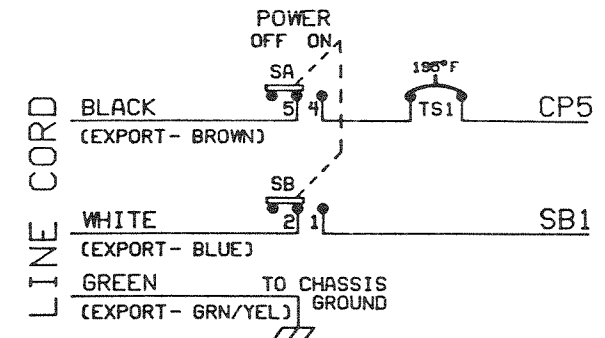
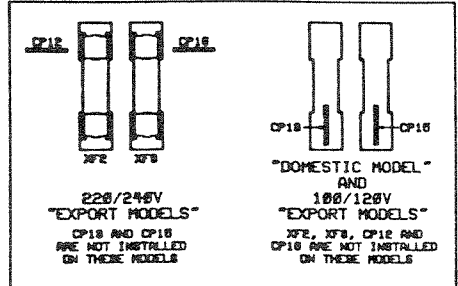
BT4 C88 CP16 CR55 F3 J8 L05 Q13 R100 S2A TH1 TP35 U13

DATABASE FILE: FFB729 CHECKED BY: <i>B. J. Lee</i> DATE: 4-10-95 APPROVED: <i>B. J. Lee</i> DATE: 4-10-95 TOLERANCES: X.X .50% X.XX .10% X.XXX .05% ANGLES .500°	PROPRIETARY THIS DESIGN OR CIRCUIT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IN THE POSSESSION OF THE FENDER MUSICAL INSTRUMENTS CO. AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF FENDER. FENDER MUSICAL INSTRUMENTS CO. 1130 COLUMBIA ST. BREA, CALIFORNIA 92621 M-80 CHORUS SCALE:	MUSICAL INSTRUMENTS 1130 Columbia Street Brea, Ca. 92621 TITLE: SCHEMATIC DIAGRAM, M-80 CHORUS AMPLIFIER SIZE: DRAWN: B. DESI DRAWING NUMBER: 037023 ENGR: B. DESI CREATED: 31-MAY-98 PLOTTED: 10-SEP-98 SHEET 2 OF 2
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SHEET 2 OF 2
PART NO. 0037026000

8 | 7 | 6 | 5 | 4 | 3 | 2 | 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASED PR#154	6-8-90	LD

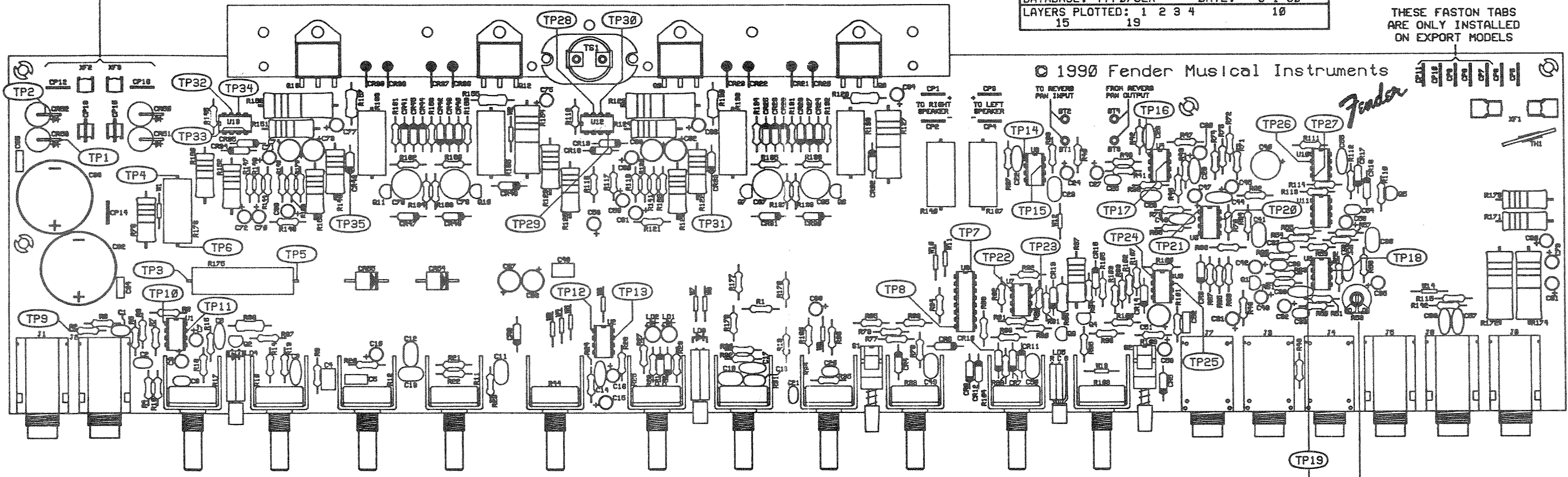


FILM/DWG: SERVICE DIAGRAM
 DATABASE: FFF07SER DATE: 6-1-90
 LAYERS PLOTTED: 1 2 3 4 10
 15 19

PRODUCTION
 JUN 0 8 1990
 RELEASE

THESE FASTON TABS ARE ONLY INSTALLED ON EXPORT MODELS

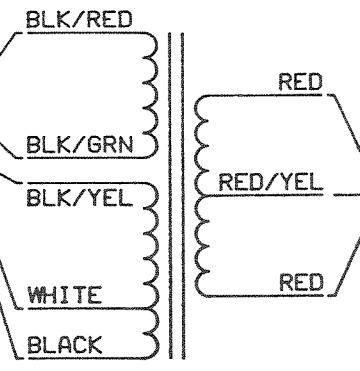
© 1990 Fender Musical Instruments



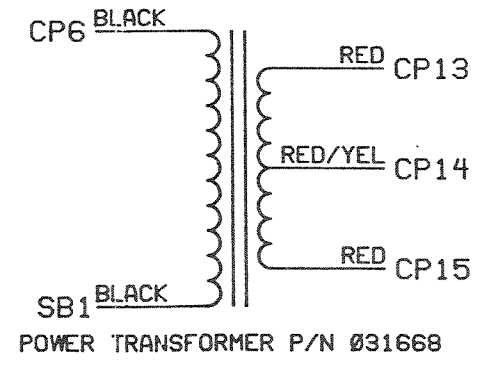
EXPORT MODELS

DOMESTIC MODEL

100V	120V	220V	240V
CP6	CP6	CP6	CP6
CP10	CP10	CP10	CP10
CP7	CP7	CP8	CP8
SB1	CP11	SB1	CP11
CP9	CP9	CP11	SB1



100V	120V	220V	240V
CP13	CP13	CP12	CP12
CP14	CP14	CP14	CP14
CP15	CP15	CP16	CP16



CP5 TO TS1 THERMOSTAT
 * 120V-JUMPER CP8 TO SB1

POWER TRANSFORMER P/N 033069

POWER TRANSFORMER P/N 031668

CHORUS BIAS ADJUSTMENT:
 WITH CHORUS SELECT ON, SET CHORUS RATE AND DEPTH CONTROLS FULLY CLOCKWISE. CONNECT A 1kHz SINEWAVE AT ABOUT 1.5 VOLTS RMS TO THE MONO EFFECTS LOOP RETURN JACK (J4). ADJUST TRIMPOT R53 FOR SYMMETRICAL CLIPPING AT U5 PIN 1 (TP19).

DATABASE FILE: FFF07SER
 CHECKED BY: BLD
 DATE: 6-4-90
 APPROVED: BLD
 DATE: 6-4-90
 TOLERANCES: UNLESS OTHERWISE SPECIFIED
 X.X .030"
 X.XX .010"
 X.XXX .005"
 ANGLES .500°

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 1190 COLUMBIA ST.
 BREA, CALIFORNIA 92621
 ROCK ON.

Fender MUSICAL INSTRUMENTS
 1190 Columbia Street
 Brea, Ca. 92621
 TITLE: M-80 CHORUS AMPLIFIER
 SIZE: D
 DRAWN: B. DEST
 ENGR: B. DEST
 DRAWING NUMBER: 037027
 REV: A
 SCALE: DATE: 5-31-90 SHEET 1 OF 1

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