

BASSMAN 400/400H

p/n 022-4505-000 (120V)

SERVICE MANUAL



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BASSMAN 400/400H

(This is the model name for warranty claims)

SERVICE MANUAL

JUNE 2000

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 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

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SPECIFICATIONS

Product Release No.: PR 412 *(This is not a model number)*

Part Number:		Bassman 400	Bassman 400H
	120V Version	: 22-4505	22-4506
	240V Aus	: 22-4535	22-4536
	230V UK	: 22-4545	22-4546
	230V Eur	: 22-4565	22-4566
	100V	: 22-4575	22-4576

Power Requirements: 900W

Power Amp Section:

Power Output: 350 Watts RMS into 4Ω @ <0.02% THD, 1kHz
Sensitivity: 1.4V RMS, 1kHz

Preamp Section:

Input impedance:	Passive: 1MΩ	Active: 1MΩ
Sensitivity At Full Power:	Passive: 19mV	Active: 40mV
Nominal Level:	Passive: 145mV	Active: 300mV

Tone Controls:

Bass:	+/-15 dB @ 50 Hz
Treble:	+/-15 dB @ 10 kHz

Semi-parametric control: (3-Band, Switchable)	Low frequency:	25Hz to 150Hz
	Low level:	+/-15dB @ low freq. setting
	Mid frequency:	140Hz to 1.6kHz
	Mid level:	+/-15 dB @ Mid frequency setting
	High frequency:	1.4kHz to 8kHz
	High level	+/-15dB @ High frequency setting

Room balance: +/-10dB, crossover frequency: 350Hz

Effects Loop:

Send impedance: 1kΩ
Return impedance: 22kΩ
Nominal level: +4dbu (adjustable with level control)

Speakers: Bassman 400: Two Eminence 8 Ω 10" woofers (P/N 0051864000)
One Foster 8Ω Horn (P/N 0048847000), FUSE: 2A 250V

Footswitch: One button; Semi-parametric EQ (P/N 0055852000)

Dimensions: Bassman 400:	Height:	24 3/4"	(62.9 cm)
	Width:	23"	(58.4 cm)
	Depth:	17"	(43.2 cm)
Bassman 400H:	Height:	6 7/8"	(17.5 cm)
	Width:	23"	(58.4 cm)
	Depth:	15 1/2"	(39.4 cm)

Weight:	Bassman 400:	80 lbs.	(36.4 kg)
	Bassman 400H:	42 lbs.	(19.1 kg)

Product specifications are subject to change without notice

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SERVICE NOTES

- CHASSIS REMOVAL** is accomplished by first removing six (6) screws from the top, and one (1) screw from each side of the cabinet; then slide the chassis out the rear.
- HEATSINK AIR BAFFLE** should be in place before operating unit for extended periods. If baffle is removed, take care not to pinch any wires when reinstalling. See Technote 2k-3 for additional information.
The **HF HORN** is fuse-protected. This fuse is located on the rear speaker panel, near the Horn-level control

PARTS LIST

NOTE: SHADED ITEMS ARE FOR REFERENCE ONLY

PRINTED CIRCUIT BOARD ASSEMBLY - PREAMP

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
3	0029533000	CABLE JMPR 22GA 4 CKT 3.2"	PW1A-B PW2A-B PW3A-B
2	0048914000	CABLE RIBBON 8 CKT 7 in	PW100-101
2	0026517001	CAP AE AX 2.2uF 50V 20%	C7 C38
5	0038691001	CAP AE AX 4.7uF 50V 20%	C2 C5 C11 C19 C24
3	0038692001	CAP AE AX 10uF 35V 20%	C58-60
5	0025960001	CAP AE AX 22uF 16V 20%	C41 C44-46 C52
6	0042001001	CAP CA 33pF 100V LL	C6 C10 C18 C23 C30 C57
1	0039256001	CAP CA 68pF 100V LL	C39
2	0039258001	CAP CA 180pF 100V LL	C1 C25
1	0039261001	CAP CA 330pF 100V LL	C56
1	0039262001	CAP CA 680pF 50V LL	C32
16	0034788003	CAP CR .1uF 50V 20% .2" LS	C61-76
2	0027255003	CAP MPF .001uF 100V 10%	C16 C37
2	0027257003	CAP MPF .0022uF 100V 10%	C17 C40
3	0027259003	CAP MPF .0033uF 100V 10%	C13 C29 C35
1	0027260003	CAP MPF .0039uF 100V 10%	C55
1	0027261003	CAP MPF .0047uF 100V 10%	C22
2	0027262003	CAP MPF .0068uF 100V 10%	C8-9
2	0027264003	CAP MPF .01uF 100V 10%	C21 C33
1	0041904003	CAP MPF .012uF 100V 10%	C15
1	0027265003	CAP MPF .015uF 100V 10%	C12
1	0041903003	CAP MPF .018uF 100V 10%	C14
2	0027270003	CAP MPF .033uF 100V 10%	C27-28
5	0027272003	CAP MPF .047uF 100V 10%	C42-43 C47-48 C51
2	0027278003	CAP MPF .1uF 63V 10%	C3-4
1	0027281003	CAP MPF .22uF 63V 10%	C36
3	0027283003	CAP MPF .33uF 63V 10%	C26 C53-54
3	0027286003	CAP MPF .47uF 63V 10%	C20 C49-50
1	0030942003	CAP PFF RDL .0056uF 50V 5%	C31
10	0027945000	CONTROL SNAPIN 100k B TAPER	R13 R17 R34 R37 R39 R41 R43 R48 R94 R120 Gain RoomBalance Bass Treble LowLevel MidLevel HighLevel EqGain Compressor MasterVolume
1	0031089000	CONTROL SNAPIN 100K 10C DUAL	R63 MidFreq

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PRINTED CIRCUIT BOARD ASSEMBLY – PREAMP (cont)

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
2	0053563000	CONTROL SNAPIN 50k 30C DUAL	R56 R70 LowFreq HighFreq
31	0006260001	DIODE 1N4448 SIGNAL LL	D1-14 D16-24 D26-28 D31-33 D35-36
1	0027327001	DIODE ZEN 1N5234B 6.2V 5% LL	D25
1	0031635001	DIODE ZEN 1N5240B 10V 5% LL	D37
11	0016795000	IC DUAL OP-AMP TL072	U1-8 U10 U13-14
1	0027404000	IC CA3080AE OTA	U9
4	0031611000	IC DUAL OP-AMP PC4560	U11-12 U15-16
1	0053450000	JACK STEREO R/A	J1 Input
2	0030755000	LED GREEN T-1 3mm DIFFUSED	D29 D38
4	0036178000	SPACER LED .5x.1 BRN	@ D29 D30 D34 D38
1	0040271000	LED RED/YELLOW	D15
2	0049948000	LED, RED LONG LEAD LUMEX	D30 D34
2	0024937001	RES CF 1/4W 5% 10 ohm LL	R143 R146
1	0024952001	RES CF 1/4W 5% 100 ohm LL	R99
2	0024956001	RES CF 1/4W 5% 220 ohm LL	R112-113
3	0024962001	RES CF 1/4W 5% 560 ohm LL	R102-103 R144
3	0024963001	RES CF 1/4W 5% 680 ohm LL	R78 R91 R130
1	0024965001	RES CF 1/4W 5% 1k LL	R139
1	0024973001	RES CF 1/4W 5% 3.3k LL	R1
3	0024977001	RES CF 1/4W 5% 4.7k LL	R11-12 R133
4	0024978001	RES CF 1/4W 5% 5.6k LL	R36 R50 R100-101
1	0028948001	RES CF 1/4W 5% 6.2k LL	R87
1	0024979001	RES CF 1/4W 5% 6.8k LL	R38
33	0024981001	RES CF 1/4W 5% 10k LL	R3 R5 R10 R14 R20-21 R31 R46-47 R49 R51 R57-58 R64-65 R71-73 R79-81 R89 R98 R104-107 R118 R121 R125-126 R141-142
2	0024983001	RES CF 1/4W 5% 12k LL	R23 R132
2	0029006001	RES CF 1/4W 5% 20k LL	R82-83
7	0024987001	RES CF 1/4W 5% 22k LL	R109 R114-117 R123 R128
6	0024988001	RES CF 1/4W 5% 27k LL	R15 R19 R24 R28 R134-135
5	0024989001	RES CF 1/4W 5% 33k LL	R22 R75 R84 R96-97
10	0024993001	RES CF 1/4W 5% 47k LL	R6-8 R29-30 R33 R45 R76 R131 R140
1	0024994001	RES CF 1/4W 5% 56k LL	R9
2	0026507001	RES CF 1/4W 5% 62k LL	R86 R92
6	0024995001	RES CF 1/4W 5% 68k LL	R52 R54 R59 R61 R66 R68
4	0024996001	RES CF 1/4W 5% 82k LL	R16 R18 R95 R136
10	0024997001	RES CF 1/4W 5% 100k LL	R32 R53 R55 R60 R62 R67 R69 R111 R119 R122
1	0028549001	RES CF 1/4W 5% 110k LL	R138
1	0024999001	RES CF 1/4W 5% 150k LL	R137
2	0025059001	RES CF 1/4W 5% 220k LL	R127 R129
6	0025063001	RES CF 1/4W 5% 390k LL	R2 R4 R35 R40 R42 R44
8	0025069001	RES CF 1/4W 5% 1M LL	R25-27 R74 R77 R85 R108 R124
3	0025073001	RES CF 1/4W 5% 1.5M LL	R88 R90 R93
1	0027872001	RES CF 1/2W 5% 1.2k LL	R110
1	0026549001	RES CF 1/2W 5% 1.5k LL	R145
4	0028091000	SWITCH PUSH SLFLK SHORT STROKE	S1-4
4	0048451000	BUTTON PUSH OFF WHITE	@ S1-4
2	0016739003	XSTR NPN 2N4401 TO-92	Q9-10
2	0016742003	XSTR PNP 2N4403 TO-92	Q7-8
6	0041465003	XSTR N-CH JFET J113 TO-92	Q1-6
1	0055683000	PCB FAB BASSMAN 400 PREAMP	

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PRINTED CIRCUIT BOARD ASSEMBLY – POWER AMP

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
2	0038689001	CAP AE AX .47uF 100V 20%	C16 C18
1	0038692001	CAP AE AX 10uF 35V 20%	C119
8	0025960001	CAP AE AX 22uF 16V 20%	C1-2 C200 C203-205 C207-208
4	0049521000	CAP AE AX 47uF 50V 20%	C9-10 C114-115
1	0038694000	CAP AE AX 100uF 16V 20%	C17
1	0028489000	CAP AE RDL 470uF 50V 20%	C117
2	0028494000	CAP AE RDL 1000uF 35V 20%	C108-109
2	0025786000	CAP AE RDL 6800uF 80V 20%	C106-107
4	0039256001	CAP CA 68pF 100V LL	C3 C5-6 C206
2	0039258001	CAP CA 180pF 100V LL	C201-202
8	0034788003	CAP CR .1uF 50V 20% .2" LS	C7-8 C110-113 C118 C120
1	0027278003	CAP MPF .1uF 63V 10%	C116
6	0052003003	CAP MPF .1uF 250V 10%	C13-14 C102-105
1	0053860000	CAP MPF .1uF 275V 20%	C101
2	0027267003	CAP MPF .022uF 100V 10%	C11-12
1	0051416003	CAP SF .1uF 100V 10%	C15
1	0027941000	CONTROL SNAPIN 50k B TAPER	R210 Line out level
28	0006260001	DIODE 1N4448 SIGNAL LL	D1-11 D16-19 D22-23 D26 D30-32 D104-107 D112-113 D201
2	0025821001	DIODE HV FDH400 SWITCHING	D12-13
2	0031729001	DIODE ZEN 1N5231B 5.1V 5% LL	D20-21
3	0031635001	DIODE ZEN 1N5240B 10V 5% LL	D27-29
10	0064089001	DIODE 1N4003 LL	D24-25 D100-103 D108-111
2	0054210001	DIODE BAT85	D14-15
9	0025802000	FSTN TAB MALE .250x.032 PCB MT	P1-9
2	0025996000	FUSE CLIP PCB .250 & 5MM FUSE	@ F1
1	0027408000	HDR .1 CTR 2 CKT SQ PIN	P10
2	0027416000	HDR .1 CTR 8 CKT SQ PIN	P100-101
2	0050849000	HEATSINK PCB LEVEL	@ U101-U102
2	0039420000	SCRW M 4-40X3/8 PHP SS SEMS	@ U101-U102
2	0097360000	NUT HEX 4-40 EX LOCK	@ U101-U102
1	0055689000	HEATSINK BASSMAN 400	@ HS1
10	0027638000	SCRW TF 4-40x3/8 HWHS ZI .1" HD	@ HS1, @ Q14-15
12	0032934000	SCRW TF 4-40x1/2 HIHS ZI	@ Q16-Q21
12	0032937000	WSHR CONE	@ Q16-Q21
1	0031611000	IC OP-AMP DUAL PC4560	U201
1	0013562000	IC REGULATOR +15V MC7815CT	U101
1	0013564000	IC REGULATOR -15V MC7915CT	U102
1	0027387000	INDUCTOR AIR CORE RDL 2.5uH	L1
1	0029175000	JACK PHONE 1/4" HI CURRENT PC	J1 (ass'y P/N 0055686000 Bassman 400) Spkr
2	0029175000	JACK PHONE 1/4" HI CURRENT PC	J1-2 (ass'y P/N 0055943000 Bassman 400H) Spkr
2	0051658000	JACK MONO R/A	J203-204 Footswitch – Tuner out
2	0053450000	JACK STEREO R/A	J201-202 Send - Return
1	0054261000	JACK XLR MALE RT ANGLE	J205 Line out
3	0036960001	RES MF FUSE 1/4W 5% 47ohm LL	R25 R28 R36
2	0038814001	RES MF FUSE 1/4W 5% 220ohm LL	R12-13

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PRINTED CIRCUIT BOARD ASSEMBLY – POWER AMP (cont)

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
6	0051731001	RES MF FUZE 1/4W 5% 1k LL	R29-33 R35
4	0024937001	RES CF 1/4W 5% 10ohm LL	R20-21 R61 R215
1	0024942001	RES CF 1/4W 5% 22ohm LL	R103
4	0024947001	RES CF 1/4W 5% 47ohm LL	R5 R7 R56 R216
1	0024960001	RES CF 1/4W 5% 390ohm LL	R104
9	0024965001	RES CF 1/4W 5% 1k LL	R1-2 R24 R106 R201-204 R208
6	0024971001	RES CF 1/4W 5% 2.2k LL	R4 R6 R9-10 R14 R17
2	0029455001	RES CF 1/4W 5% 2.4k LL	R15-16
2	0024973001	RES CF 1/4W 5% 3.3k LL	R213-214
1	0024977001	RES CF 1/4W 5% 4.7k LL	R8
7	0024981001	RES CF 1/4W 5% 10k LL	R26-27 R48-49 R51 R211-212
2	0024985001	RES CF 1/4W 5% 15k LL	R34 R50
1	0024986001	RES CF 1/4W 5% 18k LL	R55
2	0024987001	RES CF 1/4W 5% 22k LL	R54 R57
3	0024988001	RES CF 1/4W 5% 27k LL	R3 R11 R46
1	0024993001	RES CF 1/4W 5% 47k LL	R58
8	0024997001	RES CF 1/4W 5% 100k LL	R47 R52-53 R200 R205-207 R209
2	0054368001	RES FP 1/2W 5% 1.5k LL	R19 R22
1	0026512001	RES CF 1/2W 5% 3.9k LL	R105
1	0033095001	RES MOX FP 1W 5% 1ohm LL	R107
1	0027627001	RES FILM 1W 5% 10ohm LL	R45
3	0037354001	RES FILM 1W 5% 4.7k LL	R18 R23 R102
3	0027628001	RES MOX 2W 5% 47ohm LL	R43-44 R100
1	0041269001	RES MOX 2W 5% 1.2k LL	R101
6	0050814000	RES WW 5W 10% .15ohm	R37-42
2	0028091000	SWITCH PUSH SLFLK SHORT STROKE	S201-202
2	0048451000	BUTTON PUSH OFF WHITE	@ S201-202
1	0026411000	THERMISTOR 2.5 ohm 8A C30-19	RT1
1	0051418003	THERMAL SENSOR PTC 100 DEG C	RT3
1	0053923003	THERMAL SENSOR PTC 80 DEG C	RT2
1	0014689003	XSTR N-CH JFET J111 TO-92	Q201
1	0014867003	XSTR NPN MPSW42 (TO-92)	Q9
1	0014866003	XSTR PNP MPSW92 TO-226AE	Q8
2	0016739003	XSTR NPN 2N4401 TO-92	Q12 Q25
5	0016742003	XSTR PNP 2N4403 TO-92	Q13 Q22 Q24 Q26 Q102
4	0025751003	XSTR NPN 2SC2362K/2SC2389STPS	Q1-3 Q6
4	0025752003	XSTR PNP 2SA1038STPS	Q4-5 Q7 Q23
1	0051447003	XSTR PNP 2SB1236	Q11
2	0051448003	XSTR NPN 2SD1857	Q10 Q101
1	0028759000	XSTR PNP 2SA1306A TO-220P	Q15
2	0028760000	XSTR NPN 2SC4793/2SC3298B	Q14 Q100
3	0054804000	XSTR NPN 2SC2922 MT-200	Q16 Q18 Q20
3	0054805000	XSTR PNP 2SA1216 MT-200	Q17 Q19 Q21
1	0055685000	PCB FAB BASSMAN 400 PWR AMP	

CHASSIS ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	0054841000	CHASSIS BASSMAN 400	
1	0055679000	PANEL, FRONT, BASSMAN 400	
1	0055680000	PANEL, REAR, BASSMAN 400	

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CHASSIS ASSEMBLY (cont)

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	0055692000	XFMR PWR 120V, 500W 2OHM LVR	
1	0055693000	XFMR PWR 230V, 500W 2OHM LVR	230V/240V
1	0055694000	XFMR PWR 100V, 500W 2OHM LVR	
1	0055684000	PCB ASSY BASSMAN 400 PREAMP	
1	0055686000	PCB ASSY BASSMAN 400 PWR AMP	
1	0055688000	FUSE QA 20mmX5mm 125V 10A UL/CSA	100/120V
1	0020798000	FUSE QA 20mmx5mm 250v 5A	230/240V
1	0053911000	FAN ASSY COOLING DC 24V	
1	0031180000	FAN GUARD 3-1/8"	@ FAN
1	0032925000	DIODE BRIDGE RECTIFIER 35A	
1	0055687000	BAFFLE, AIR BASSMAN 400	
4	0055934000	SCRW TF 10-32x5/8 THP BLX	@ XFMR
10	0015627000	SCRW M 6-32x3/4 PHP BLX	@ FAN/BRDG/DAM/GND
10	0069393000	NUT 6-32 HEX EXT LOCK	@ FAN/BRDG/DAM/GND
5	0053479000	NUT HEX 7/16 20X1/8 NI	@ JACKS
5	0053480000	WASHER FLAT .442 X.692 NI	@ JACKS
1	0016352000	NUT HEX 3/8-32x3/32 TK NI	@ SPKR JACK
1	0031153000	WSHR FLAT 3/8x.614 NI	@ SPKR JACK
1	0016436000	WSHR LCK INTL 3/8x.687x.0.35 NI	@ SPKR JACK
4	0051404000	STANDOFF NYLON BLK .375	@ PRE-AMP PCB
10	0031073000	STANDOFF 6-32x3/8 RND AL	@ PWR AMP PCB
4	0033051000	SCRW M 6-32x1/2 PHP ZI LW	@ HEATSINK/STND
16	0014999000	SCRW M 6-32x1/4 PHP BLX	@ STANDOFFS
2	0051155000	SCRW SMB #4X3/8 PHP BLX	@ XLR JACK
1	0053986000	KNOB ROTARY SS W/CHR INSERT	@ REAR PANEL
13	0055775000	KNOB, ROTARY W/ CH INS, BASSMAN	
1	0039236000	SWITCH ROCKER DPST PSEUDO-IEC	100/120V
1	0040582000	SWITCH DPST .250 TAB GLOBAL	230/240V
1	0054642000	CONNECTOR IEC SNAP IN	

CABINET ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
4	0029071000	CORNER NOTCHED NICKLE (FD)	@ TOP REAR & BTM FRONT
2	0026568000	CORNER 3 HOLE NI	@ BTM REAR
4	0051049000	FOOT RUBBER 1.5 DIA	
2	0014150000	HANDLE-CABINET 6 CH	
2	0014151000	HANDLE HOUSING	
4	0023505000	MTG PLATE - SWIVEL CASTER	
20	0016627000	SCRW SMA 8x3/4 OHP BLX	@ HANDLES
12	0021972000	NUT T 10-32x3/4 STR 3 PRNG BLX	@ SPEAKER HOLES & FEET
14	0026571000	SCRW SMAB 8X5/8 THP NI	@ CORNERS
4	0026577000	SCRW M 10-32x1 PHP BLX	@ FEET
16	0027199000	SCRW SMAB 10x3/4 PHP NI	@ CASTER PLATES
REF	0027648000	TAPE ALUM 6"x60YDS	
REF	0040046000	CARPET BLACK	@ CLEATS
REF	0051343000	VINYL TOLEX 4227A	
REF	0051494000	POLY DAMPING	

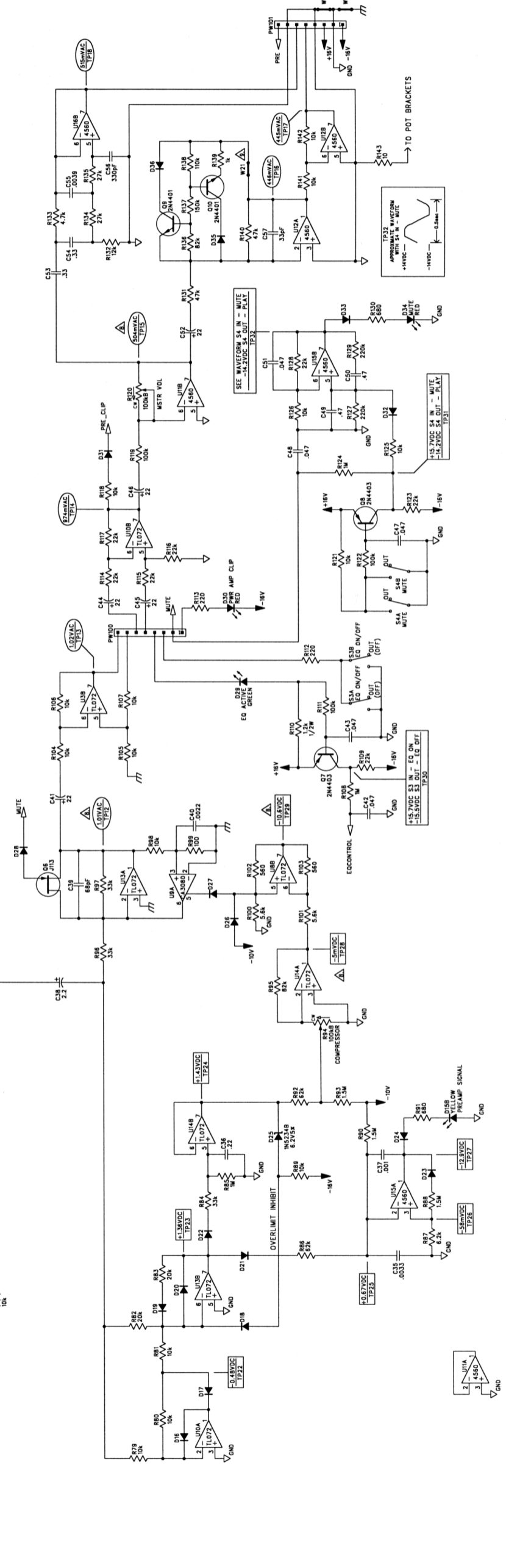
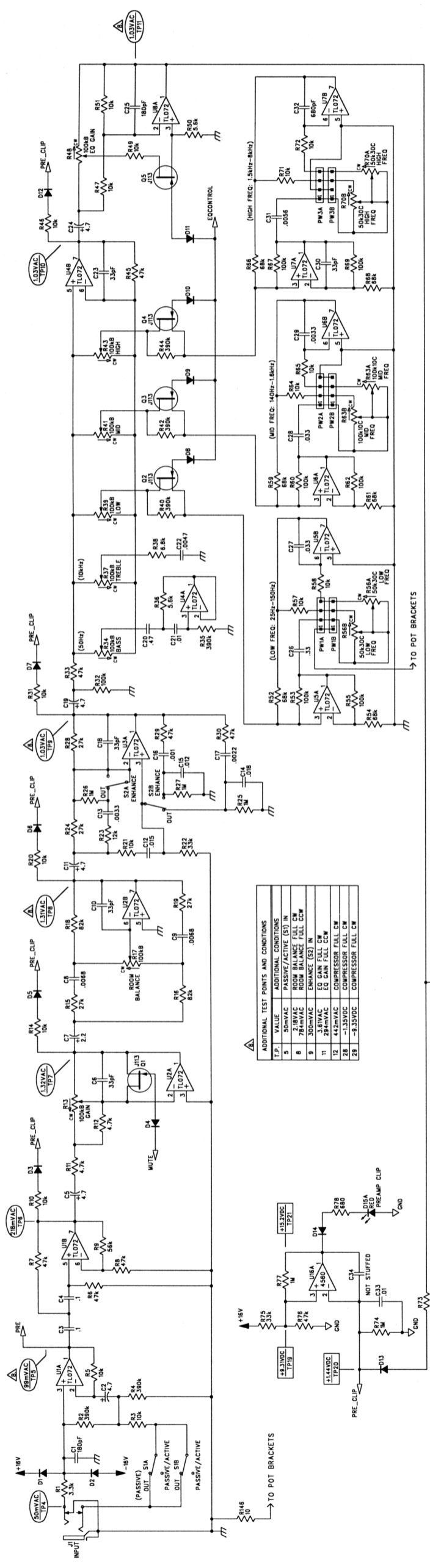
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END ITEM ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	0055357000	CAB ASSY BASSMAN 400	:
1	0055673000	CHS ASSY BASSMAN 400 120V	
REF	0055674000	CHS ASSY BASSMAN 400 230V	
REF	0055676000	CHS ASSY BASSMAN 400 240V AUST	
REF	0055677000	CHS ASSY BASSMAN 400 100V JPN	
1	0047600000	NAMEPLATE FNDR BLACK	
1	0055731000	LOGO, BADGE, BASSMAN AMPS	@ GRILLE
2	0051864000	SPEAKER 10" 8 ohms	
1	0048847000	HORN FOSTER 8 ohm	
1	0055831000	GASKET HORN BASSMAN AMPS	@ HORN
1	0055847000	CABLE ASSY, SPKR RT ANGL INSLTD	
1	0055802000	CROSSOVER ASSY, BASSMAN AMPS	
4	0023513000	CASTER SWIVEL	
1	0055678000	GRILLE BASSMAN 400	
2	0055690000	RACK RAIL, SINGLE	
1	0055691000	RACK SPACE COVER BASSMAN 400	
10	0036112000	SCRW SMAB 6x1-1/4 OHP BLX w/WS	@ GRILLE
1	0022491000	CLAMP CABLE NYL SCRW MNT 5/16	@ SPKR CABLE
1	0029828000	SCRW PB 8x3/4 PHP ZI	@ CLAMP
1	0022327000	WSHR FLAT 8x7/16 NI	@ CLAMP
4	0033380000	SCRW SMAB 8x1 THP BLX	@ HORN
8	0026577000	SCRW M 10-32X1 PHP BLX	@ SPEAKERS
4	0050312000	SCRW 2-56X3/8 FHP NI	@ LOGO
4	0050311000	NUT 2-56 NYLON INSERT 2CNME-Z	@ LOGO
8	0029527000	WSHR FNSH 8-5/8 FLNGD BLX WX	@ CHASSIS
8	0036199000	SCRW M 8-32x1-3/16 OHP BLX CP	@ CHASSIS
4	0025743000	SCRW M 10-32x1/2 PHP BLX	MOUNT COVER TO RAIL
2	0055933000	SCRW SMA 1/4x1 PHP BLX	@ RAIL
4	0030866000	SCRW SMA 8x1/2 PHP NI	@ CROSSOVER ASSY
1	0055839000	MANUAL, OWNER'S BASSMAN 400	
1	0055681000	SVC DIAG, COMB. BASSMAN 400 PREAMP	
1	0055682000	SVC DIAG, COMB. BASSMAN 400 PWR AMP	
1	0055852000	FTSW ASSY, 1 BTN EQ	
1	0047248000	CORD PWR W/IEC CONN DOM	
REF	0047250000	CORD PWR W/IEC CONN 240V	
REF	0047249000	CORD PWR W/IEC CONN 230V UK	
REF	0047251000	CORD PWR W/IEC CONN 230V	
REF	0053997000	CORD PWR W/IEC CONN 100V JPN	

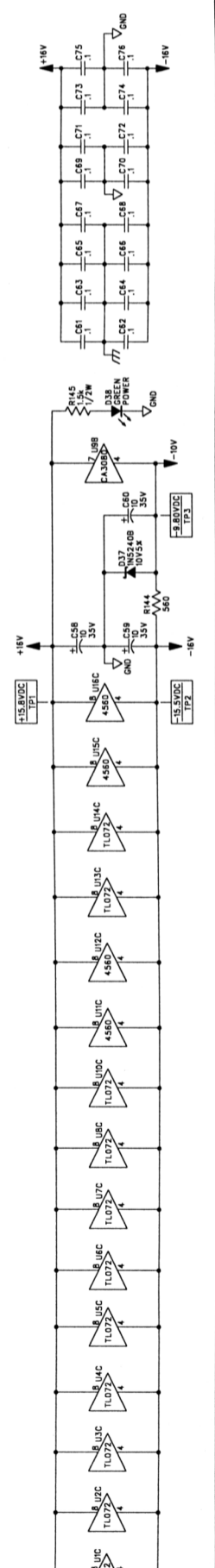
REV.	DESCRIPTION	DATE	APPROVED
A	PR412	02-SEP-99	dBL

1 2 3 4 5 6 7 8



REFER TO POWER AMP SERVICE DIAGRAM P/N 0055682000 FOR OUTPUT TEST SETUP CONDITIONS.
 SEE TABLE FOR ADDITIONAL TEST CONDITIONS.
 AC AND DC VOLTAGES READ TO GROUND WITH A DVM UNDER THE FOLLOWING CONDITIONS:
 NO INPUT SIGNAL (TP1-TP3, TP30-TP32 ON V)
 NO INPUT SIGNAL (TP1-TP3, TP30-TP32 ON V)
 ALL UNPOLARIZED CAPACITORS IN JFET, 20% RV MINIMUM.
 ALL POLARIZED CAPACITORS IN JFET, 50% OR BETTER, 50V MINIMUM.
 ALL RESISTORS IN OHMS, 5% 1/W.

- NOTES: (UNLESS OTHERWISE NOTED)
1. ALL RESISTORS IN OHMS, 5% 1/W.
 2. ALL UNPOLARIZED CAPACITORS IN JFET, 20% RV MINIMUM.
 3. ALL POLARIZED CAPACITORS IN JFET, 50% OR BETTER, 50V MINIMUM.
 4. PCB ASSEMBLY P/N 0055684000.
 5. THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0055683000 AND P/N 0055684000.
 6. LAST INSTANCES: R46, C76, D38, U16, D10, J1, S4, TP32, PM101 INSTANCES NOT USED: PM4-89.
 7. ALL OTHER CONTROLS AT "12 o'clock" (50X ROTATION) COMPRESSOR AT "0" (FULL CW).
 8. 100mV, 100mV SINEWAVE INPUT SIGNAL AT J1.
 9. APPROXIMATE WAVEFORMS FOR TP30-TP32.



MUSICAL INSTRUMENTS
 2621 Research Drive
 Corona, CA 91720 USA

TITLE: SERVICE DIAGRAM, COMBINED (continued)
 BASSMAN 400 AMPLIFIERS
 PREAMP

CHECKED BY: *ATL*
 DATE: 02-SEP-99

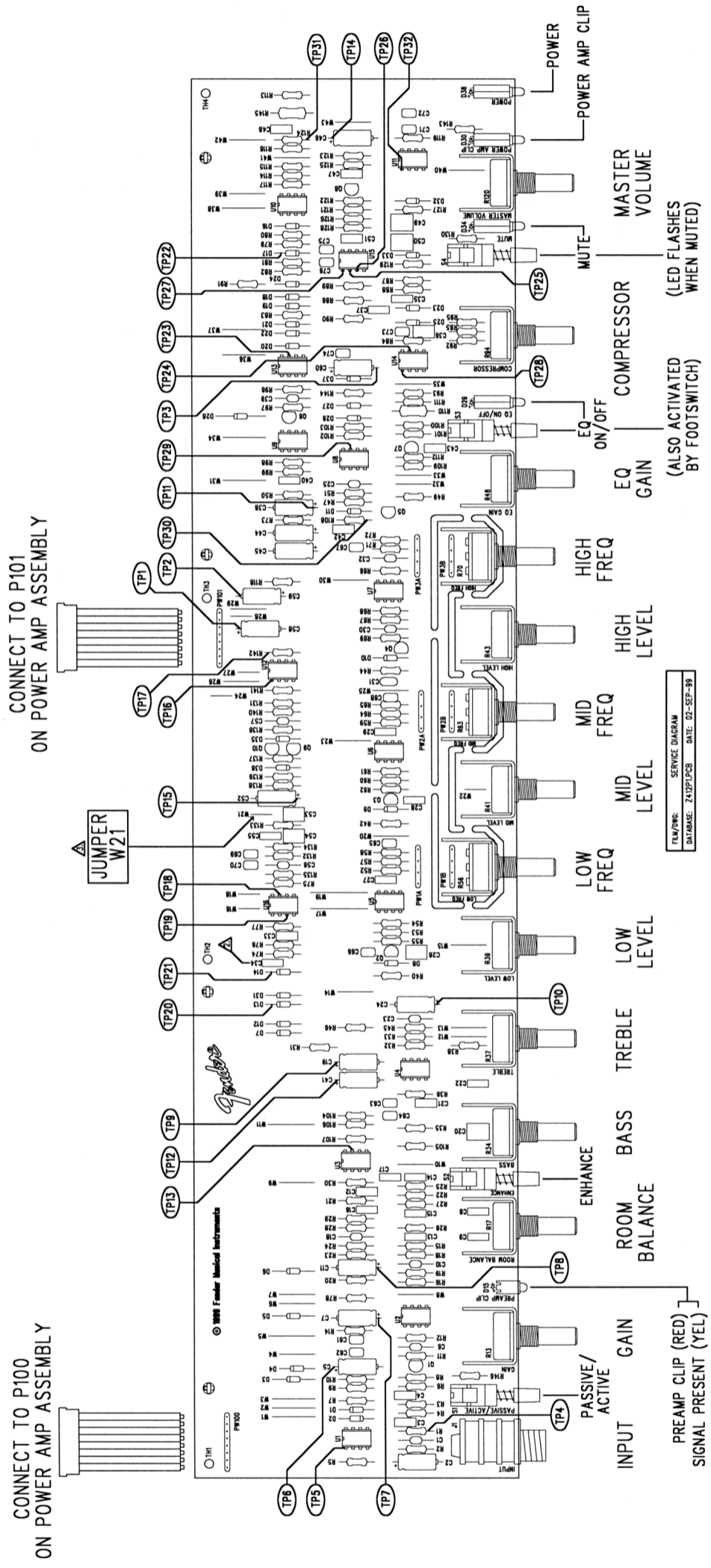
APPROVED BY: *DL*
 DATE: *02/09/99*

DRAWN: D. LEWIS [ENGR] D. LEWIS [ENGR]
 DATABASE FILE: Z41251.SCH

SIZE: D
 DRAWING NUMBER: 0055681000
 REV. A

RELEASE DATE: 03-SEP-99 SHEET: 1 OF 2

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 412	02-SEP-89	DBL



FEM/DRG: SERVICE DIAGRAM
 DATABASE: 241271.PCB DATE: 02-SEP-89

MUSICAL INSTRUMENTS
 2621 Research Drive
 Corona, CA 91720 USA

TITLE: SERVICE DIAGRAM COMBINED (PCB assy)
 BASSMAN 4100 AMPLIFIERS
 PREAMP

CHECKED BY: *SLP*
 DATE: *02-SEP-89*

APPROVED BY: *AB*
 DATE: *9/2/89*

DRAWN: D. LEWIS
 ENGR: D. LEWIS
 DATABASE FILE: 241271.PCB

SIZE: D
 DRAWING NUMBER: 0055681000
 REV. A

RELEASE DATE: 02-SEP-89
 SHEET 2 OF 2

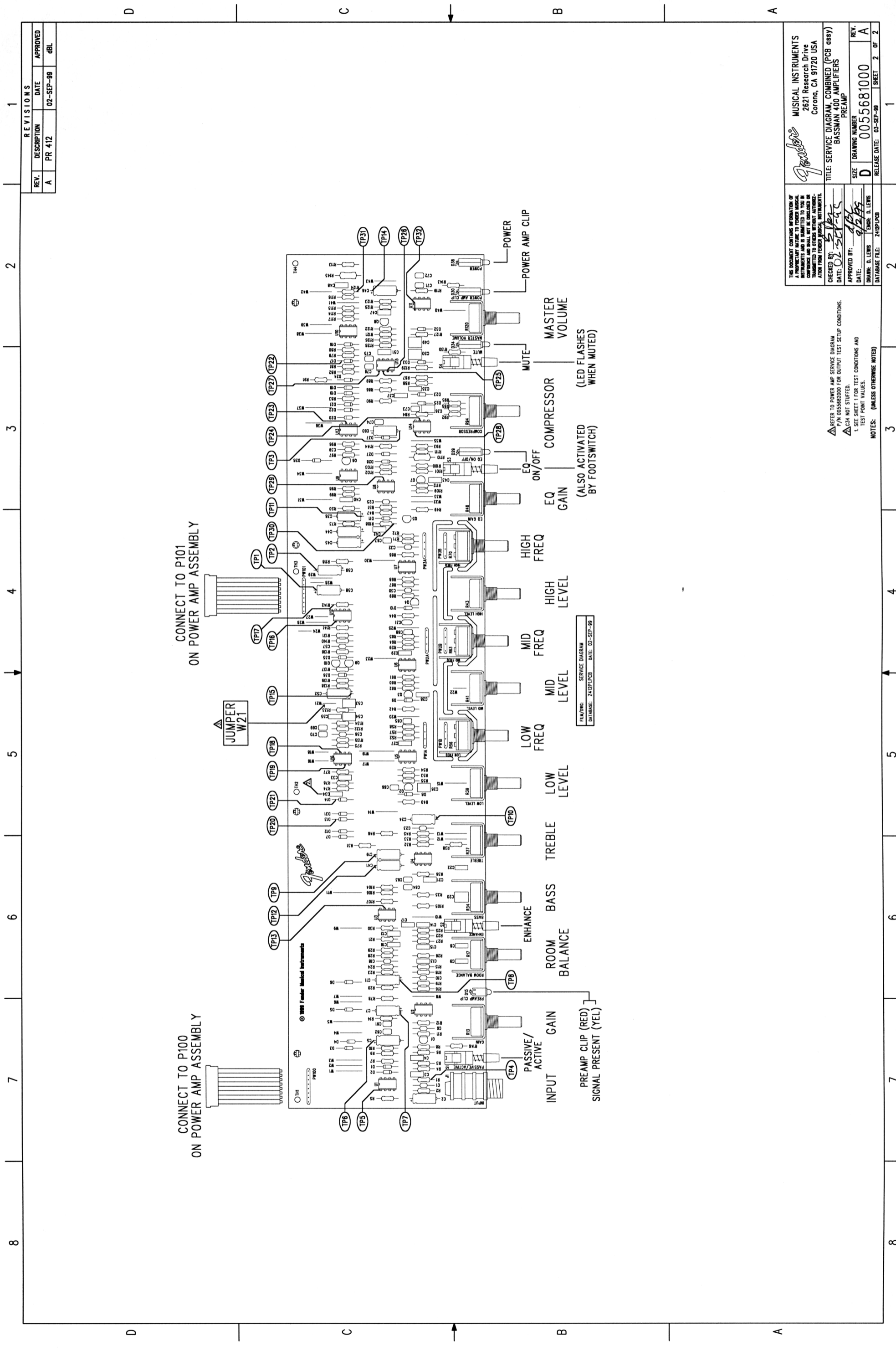
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REFER TO POWER AMP SERVICE DIAGRAM P/N 005582000 FOR OUTPUT TEST SETUP CONDITIONS.

△ CMA NOT STUFFED.

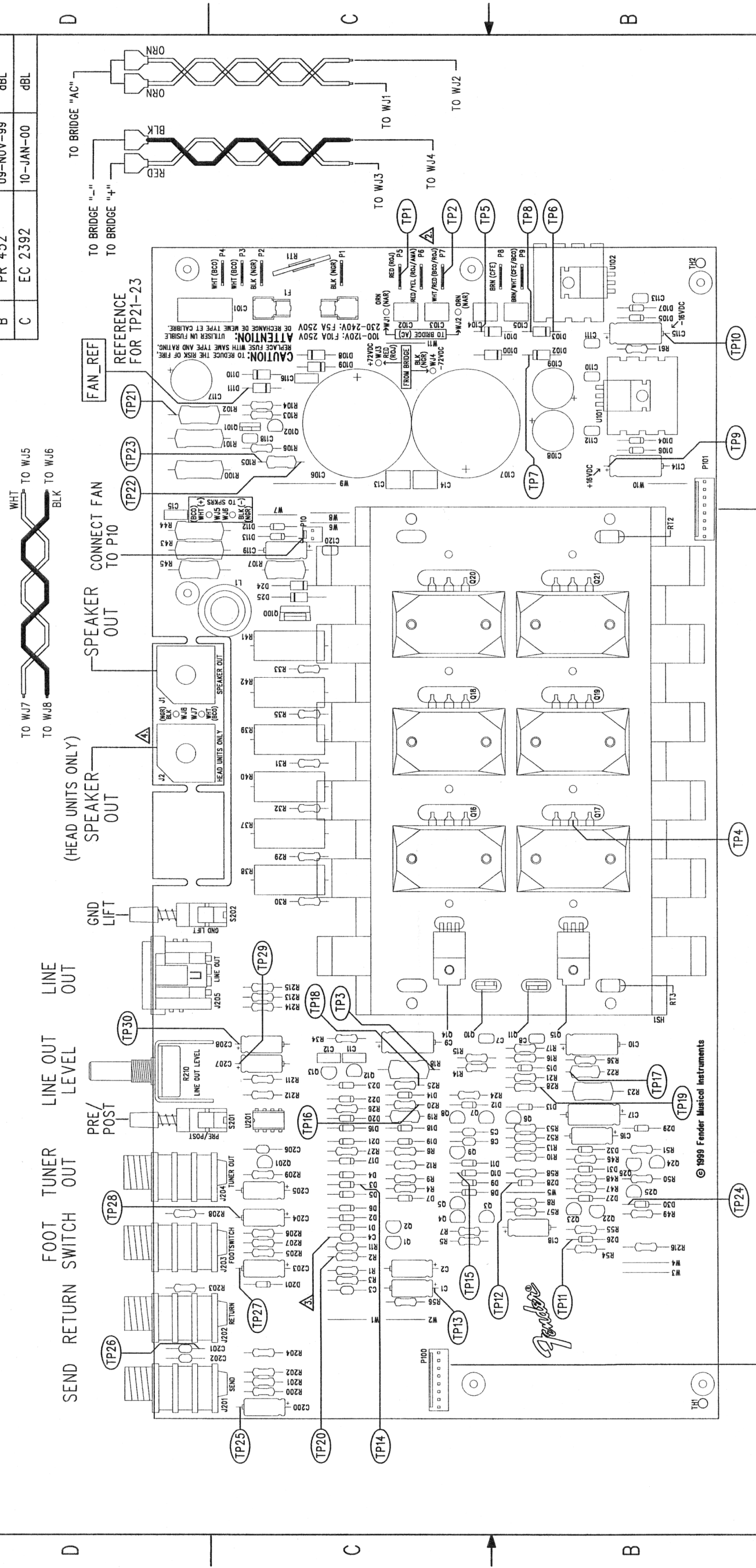
1. SEE SHEET 1 FOR TEST CONDITIONS AND TEST POINT VALUES.

NOTES: (UNLESS OTHERWISE NOTED)



1 2 3 4 5 6 7 8

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 412	01-SEP-99	dBL
B	PR 452	09-NOV-99	dBL
C	EC 2392	10-JAN-00	dBL



(HEAD UNITS ONLY)

SPEAKER OUT

SPEAKER OUT

CONNECT FAN TO P10

REFERENCE FOR TP21-23

FAN_REF

TO BRIDGE "4"

TO BRIDGE "AC"

TO WJ1

TO WJ3

TO WJ4

TO WJ2

CONNECT WITH PW101 FROM PREAMP PCB ASSEMBLY

CONNECT WITH PW100 FROM PREAMP PCB ASSEMBLY

FILM/DWG: SERVICE DIAGRAM
DATABASE: Z412P2.PCB DATE: 10-JAN-00

MUSICAL INSTRUMENTS
2621 Research Drive
Corona, CA 91720 USA

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CHECKED BY: *B. Viers*
DATE: *13-JAN-00*

APPROVED BY: *ABC*
DATE: *11/13/00*

DRAWN: D. LEWIS ENGR: D. LEWIS
DATABASE FILE: Z412P2.PCB

TITLE: SERVICE DIAGRAM, COMBINED (PCB Assy)
BASSMAN 400 AMPLIFIERS
POWER AMPLIFIER

SIZE: *C*
DRAWING NUMBER: *005568200*

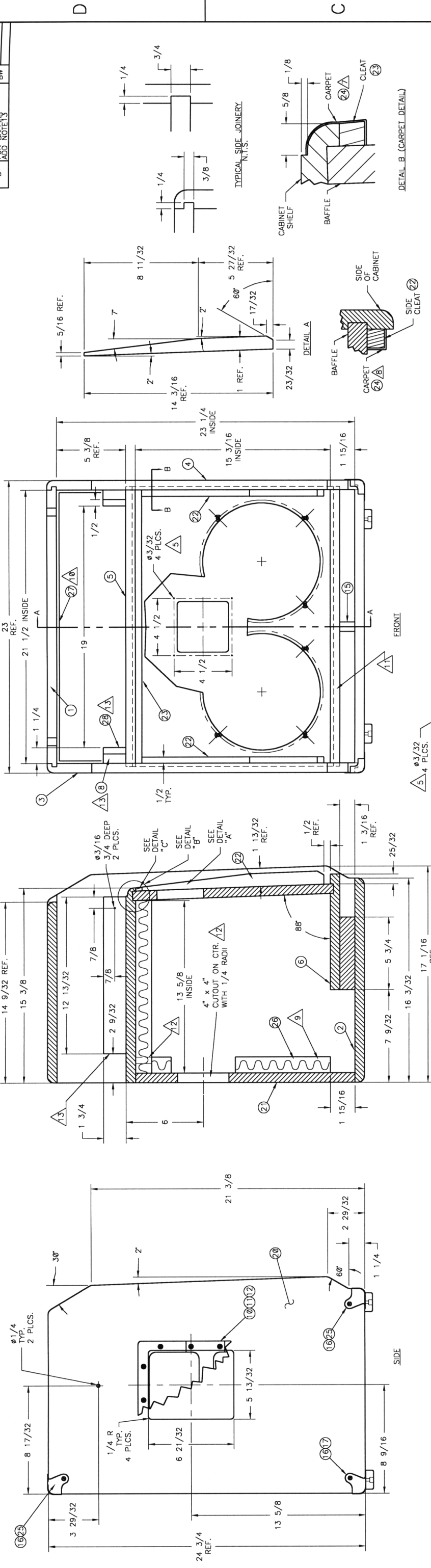
REV. *C*

RELEASE DATE: 03-SEP-99 SHEET 2 OF 2

- NOTES:
- △J2 STUFFED IN HEAD VERSIONS ONLY.
 - △C4 NOT STUFFED.
 - △ REFER TO SHEET 1 FOR PROPER SECONDARY WIRING. 1. SEE SHEET 1 FOR PRIMARY WIRING, TEST CONDITIONS, TEST POINT VALUES, AND OUTPUT POWER TEST SETUP.

1 2 3 4 5 6 7 8

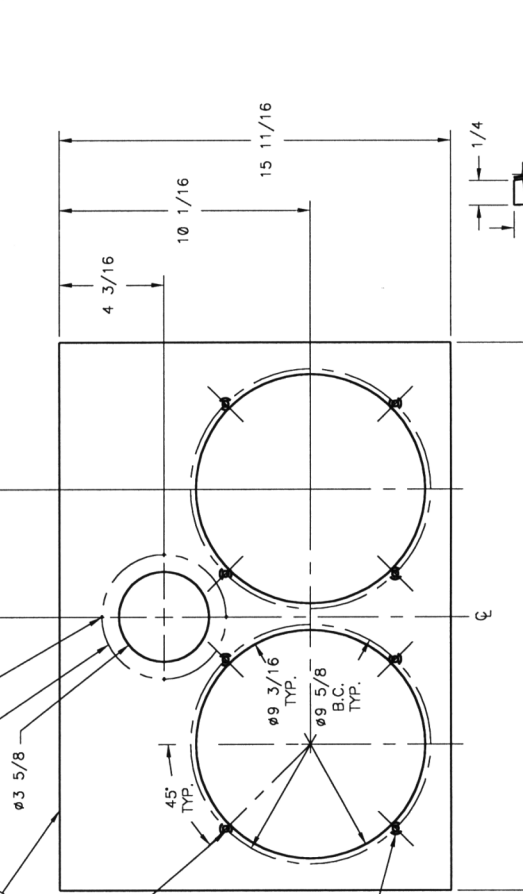
REV.	DESCRIPTION	DATE
A	PR 412	9/9/99
B	EC2428 - CHG DIM FOR BAFFLE ADD NOTCHES	2/28/2000



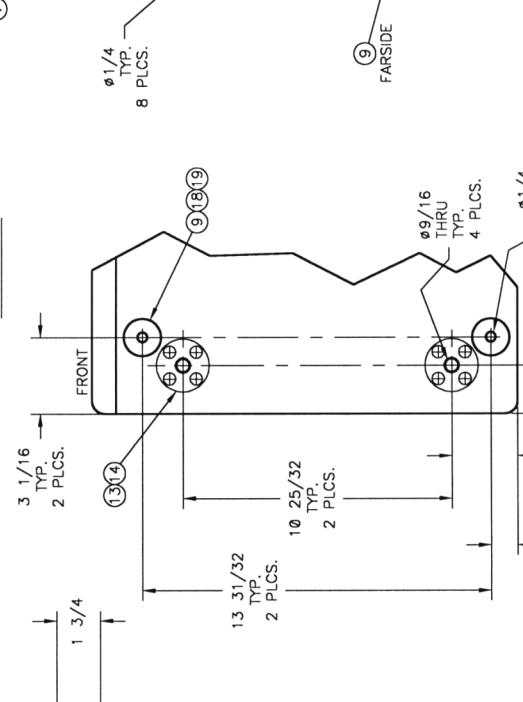
SECTION B-B

28	2	0055357013	CLEAT, BRACKET SUPPORT
27	AR	0027648000	TAPE ALUM 6" X 60" YDS
26	AR	0051494000	POLY DAMPING
25	4	0029071000	CORNER NOTCHED NICKLE (FD)
24	A/R	0040046000	CARPET BLACK
23	1	0055357011	TOP CLEAT SEE DETAIL "C"
22	2	0055357010	SIDE CLEAT SEE DETAIL "A"
21	1	0055357009	CABINET BACK
20	A/R	0051343000	VINYL TOLEX 4227A
19	4	0026577000	SCRW M 10-32x1 PHP BLX
18	4	0051049000	FOOT RUBBER 1.5 DIA
17	2	0026568000	CORNER 3 HOLE NI
16	14	0026571000	SCRW SMAB BX5/8 THP NI
15	1	0055357008	MIDDLE SHELF SUPPORT
14	16	0027199000	SCRW SMAB 10x3/4 PHP NI
13	4	0023505000	MTG PLATE - SWIVEL CASTER
12	2	0014150000	HANDLE-CABINET 6 CH
11	20	0016627000	SCRW SMA 8x3/4 OHP BLX
10	2	0014151000	HANDLE HOUSING
9	12	0021972000	NUT T 10-32x3/4 STR 3 PRNG BLX
8	2	0055357012	CLEAT RACK SUPPORT
7	1	0055357007	CABINET BAFFLE
6	1	0055357006	CABINET PORT SHELF 22x9-5/32x3/4
5	1	0055357005	CABINET SHELF
4	1	0055357004	CABINET SIDE RIGHT
3	1	0055357003	CABINET SIDE LEFT
2	1	0055357002	CABINET BOTTOM
1	1	0055357001	CABINET TOP

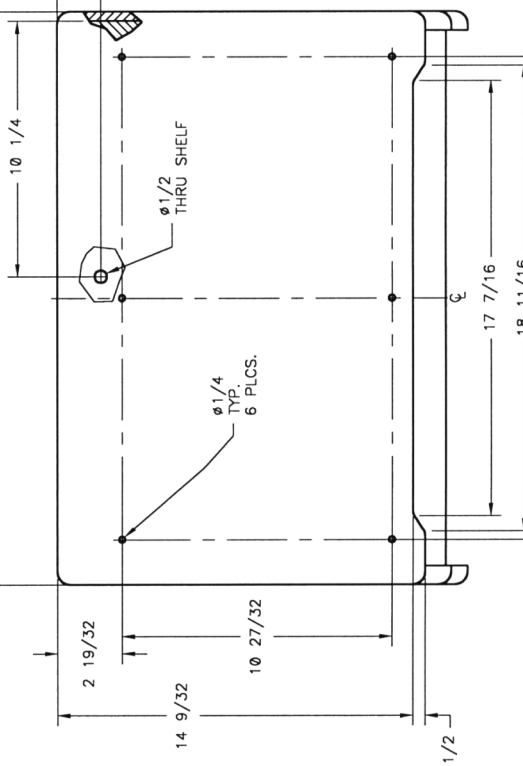
SECTION A-A



SECTION B-B



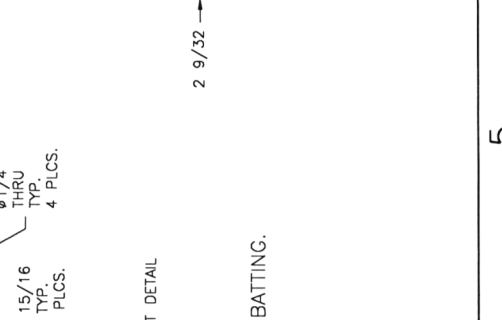
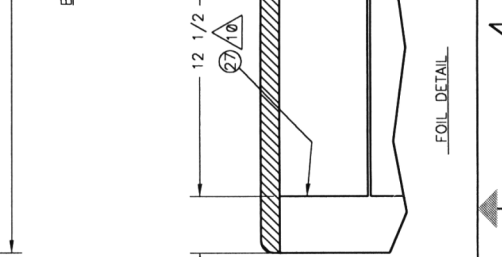
SECTION C-C



ITEM	QTY	PART NO.	DESCRIPTION
1	1	0055357001	CABINET TOP
2	1	0055357002	CABINET BOTTOM
3	1	0055357003	CABINET SIDE LEFT
4	1	0055357004	CABINET SIDE RIGHT
5	1	0055357005	CABINET SHELF
6	1	0055357006	CABINET PORT SHELF 22x9-5/32x3/4
7	1	0055357007	CABINET BAFFLE
8	2	0055357012	CLEAT RACK SUPPORT
9	12	0021972000	NUT T 10-32x3/4 STR 3 PRNG BLX
10	2	0014151000	HANDLE HOUSING
11	20	0016627000	SCRW SMA 8x3/4 OHP BLX
12	2	0014150000	HANDLE-CABINET 6 CH
13	4	0023505000	MTG PLATE - SWIVEL CASTER
14	16	0027199000	SCRW SMAB 10x3/4 PHP NI
15	1	0055357008	MIDDLE SHELF SUPPORT
16	14	0026571000	SCRW SMAB BX5/8 THP NI
17	2	0026568000	CORNER 3 HOLE NI
18	4	0051049000	FOOT RUBBER 1.5 DIA
19	4	0026577000	SCRW M 10-32x1 PHP BLX
20	A/R	0051343000	VINYL TOLEX 4227A
21	1	0055357009	CABINET BACK
22	2	0055357010	SIDE CLEAT SEE DETAIL "A"
23	1	0055357011	TOP CLEAT SEE DETAIL "C"
24	A/R	0040046000	CARPET BLACK
25	4	0029071000	CORNER NOTCHED NICKLE (FD)
26	AR	0051494000	POLY DAMPING
27	AR	0027648000	TAPE ALUM 6" X 60" YDS
28	2	0055357013	CLEAT, BRACKET SUPPORT

ENGINEER	LEWIS
DRAWN	WIELOPOLSKA
DATE	11/9/98
REV. ENG.	
DATE	
APPROVED	
DATE	3/6/00

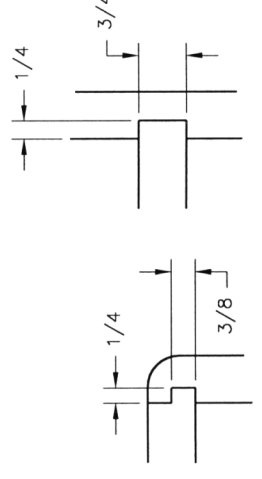
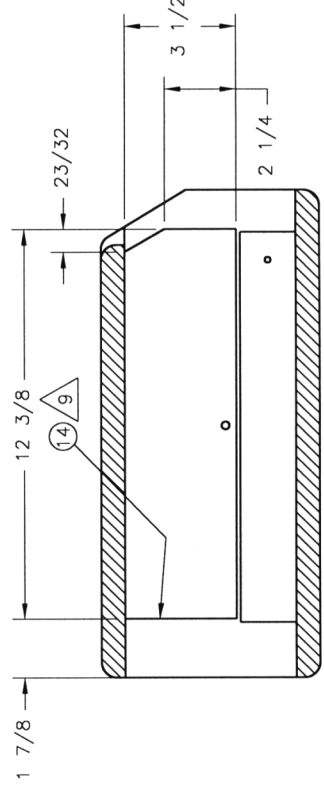
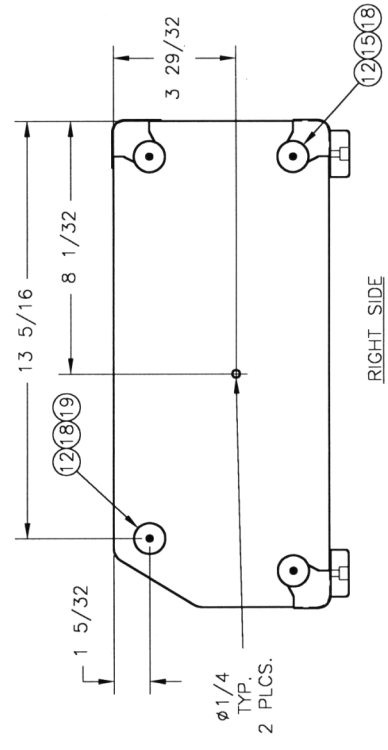
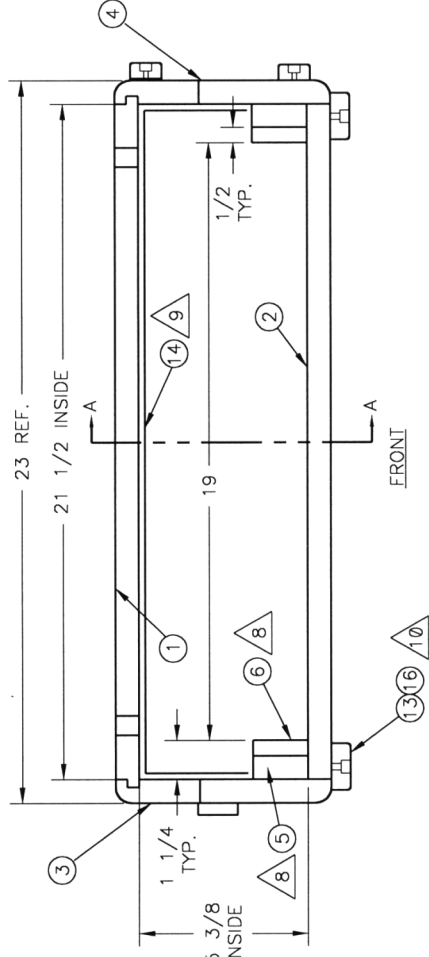
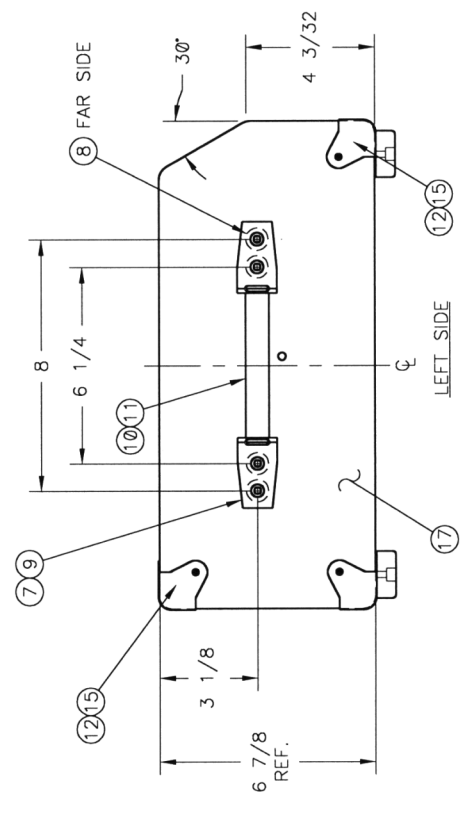
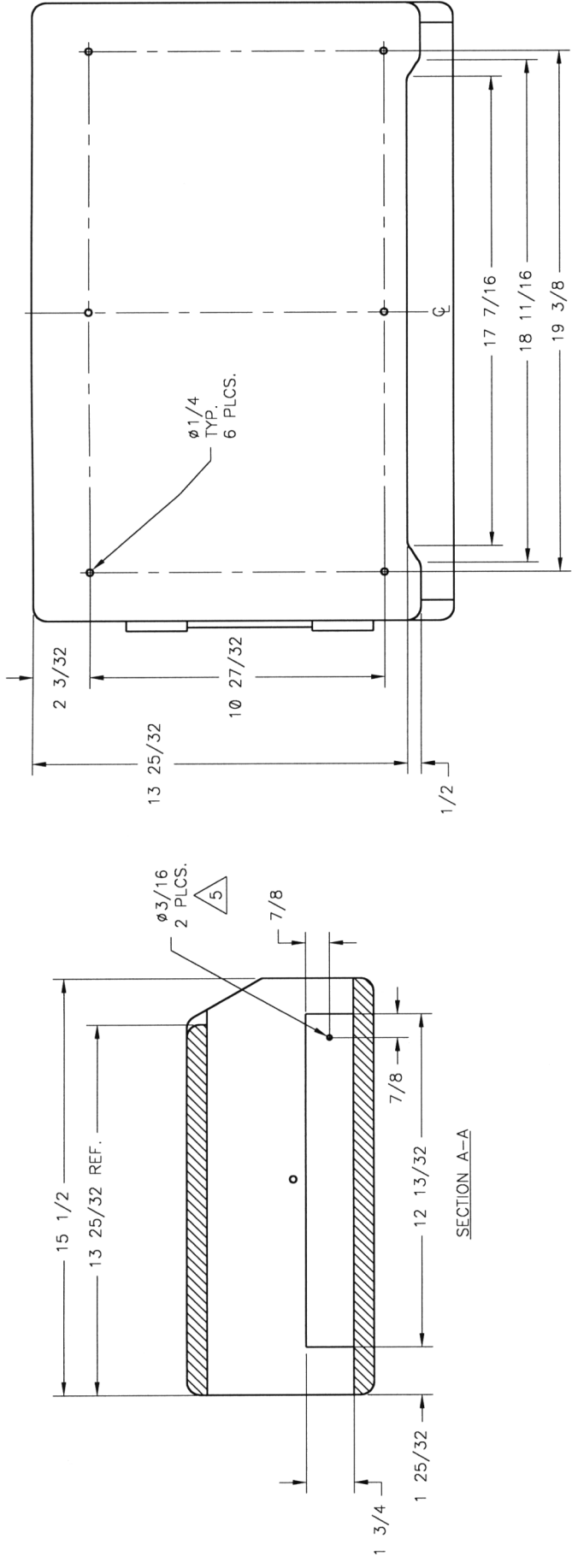
MATERIAL	0027500000 3/4 BIRCH
FINISH	PAINT ALL SURFACES BLACK
TOL. UNLESS NOTED	
FRAC.	1/32
.X	0.050
.XX	0.010
.XXX	0.010
ANGLE	0.5 DEGREES
ANGLE	0.5 DEGREES
ANGLE	0.5 DEGREES
UNMARKED ANGLES ARE 90 DEGREES.	



- △ COVER FRONT AND SIDES OF CLEAT.
- 7. FEET AND CORNERS NOT SHOWN IN ALL VIEWS FOR CLARITY.
- 6. ALL CORNER RADI TO BE 1/2".
- △ PILOT HOLES 1/4" DEEP.
- 4. COPYRIGHT - 2000 - FENDER MUSICAL INSTRUMENTS CORP.
- 3. - 3 - SAMPLES OF FIRST PARTS MUST BE APPROVED BY FENDER R&D BEFORE STARTING PRODUCTION.
- 2. ALL DIMENSIONS ARE IN INCHES. 1. DO NOT SCALE DRAWING. NOTES: UNLESS OTHERWISE NOTED
- △ 13. APPLY TOLEX COVERING TO FRONT AND REAR OF RACK SUPPORT CLEATS, ITEMS 8 & 28.
- △ 12. CUTOUT & HOLE IN SHELF TO BE CLEAR OF FIBER BATTING.
- △ 11. COVER TOP, FRONT AND BOTTOM OF PORT SHELF WITH TOLEX 0051343000.
- △ 10. STAPLE FOIL AT CORNERS AND MIDDLE.
- △ 9. PUT FIBER BATTING ON INSIDE OF CABINET FOR SIDES, BACK AND TOP.

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REV	LC NUMBER	BY	DATE/AMOUNT
A	PR 452	JR	11/10/99
B	MEC 270 CHC. FOIL	JR	07/10/2000



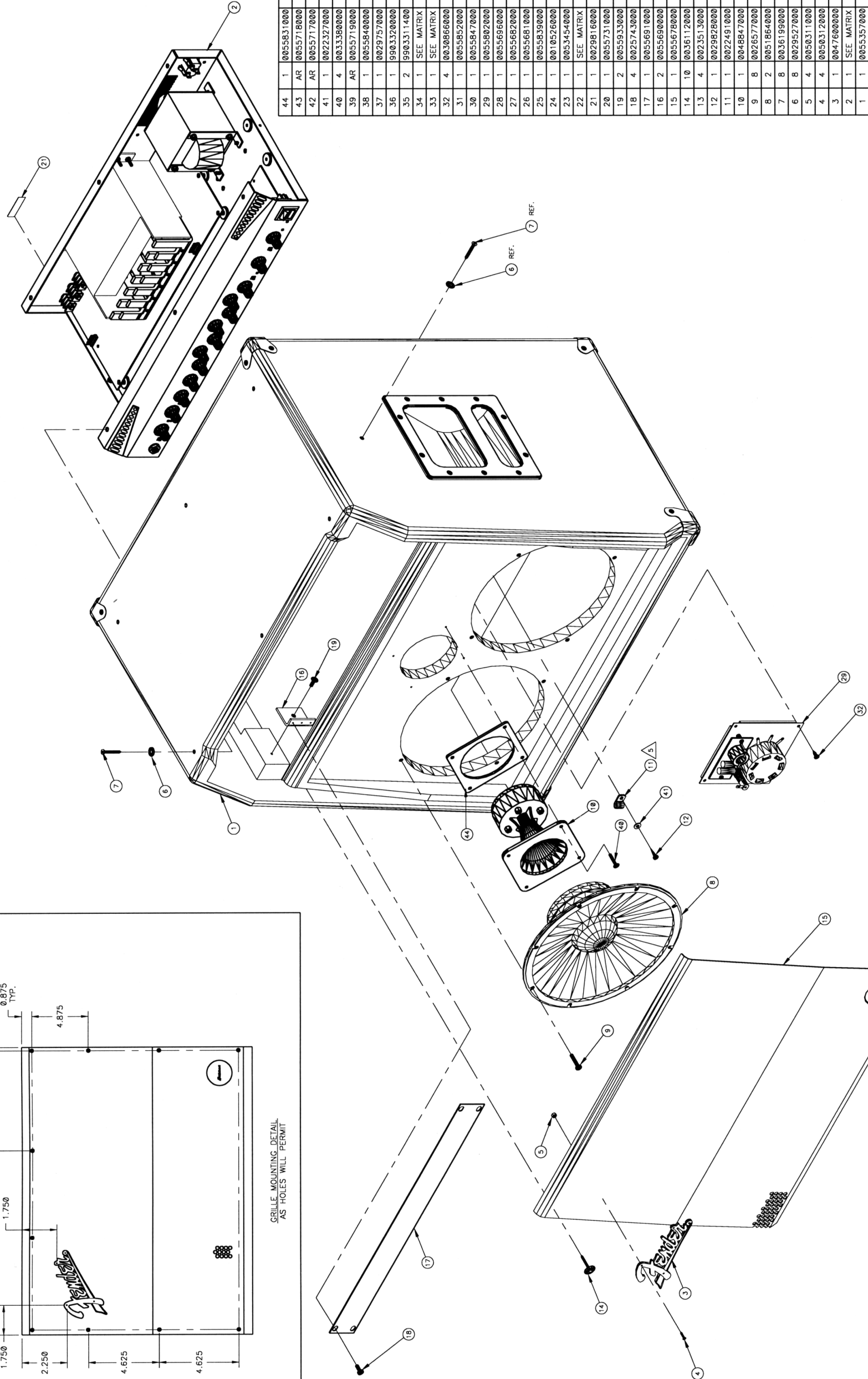
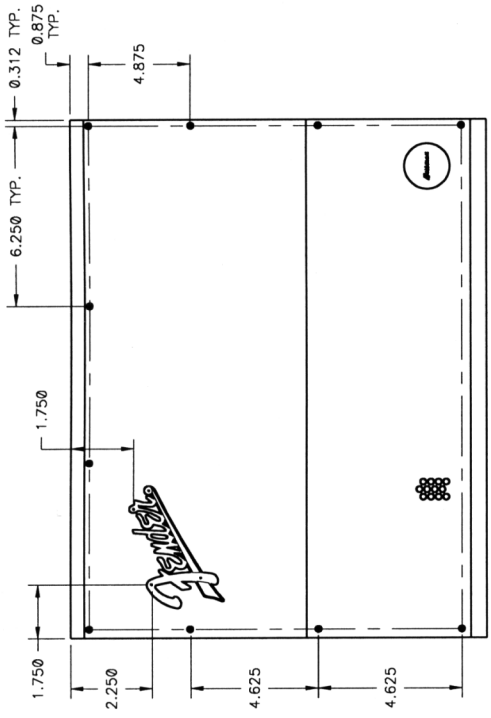
- 1. MOUNT FEET USING BOTTOM CORNER SCREW HOLE W/ ITEM #13.
- 2. STAPLE FOIL AT CORNERS AND MIDDLE.
- 3. APPLY TOLEX COVERING TO FRONT AND REAR OF RACK SUPPORT CLEATS, ITEMS 5 & 6.
- 4. FEET AND CORNERS NOT SHOWN IN ALL VIEWS FOR CLARITY.
- 5. ALL CORNER RADI TO BE 1/2".
- 6. PILOT HOLES 3/4" DEEP.
- 7. COPYRIGHT - 2000 - FENDER MUSICAL INSTRUMENTS CORP.
- 8. - 3 - SAMPLES OF FIRST PARTS MUST BE APPROVED BY FENDER R&D BEFORE STARTING PRODUCTION.
- 9. ALL DIMENSIONS ARE IN INCHES.
- 10. DO NOT SCALE DRAWING.
- 11. NOTES: UNLESS OTHERWISE NOTED

19	1	99043005000	WASHER FLAT 1/4X1 STL BLX
18	4	00293230000	FOOT RUBBER 1.0 DIA SMALL
17	A/R	00513430000	VINYL TOLEX 4227A
16	4	00510490000	FOOT RUBBER 1.5 DIA
15	6	00290710000	CORNER NOTCHED NICKLE (FD)
14	A/R	00276480000	TAPE ALUM 6"x60 YDS
13	4	00266250000	SCRW WOOD 8x1 FH
12	9	00265710000	SCRW SMAB 8x5/8 THP NI
11	1	00258840000	HANDLE INSERT 7.78"
10	1	00258830000	HANDLE SHORT NO LOGO
9	4	00222440000	SCRW M 10-32x1-1/8 OHP NI
8	4	00219720000	NUT T 10-32x3/4 STR 3 PRNG BLX
7	2	00192790000	HANDLE CAP 2 HOLE NICKEL
6	2	00559400006	CLEAT, BRACKET SUPPORT 1/2" PARTICLE BOARD
5	2	00559400005	CLEAT RACK SUPPORT
4	1	00559400004	CABINET SIDE RIGHT
3	1	00559400003	CABINET SIDE LEFT
2	1	00559400002	CABINET BOTTOM
1	1	00559400001	CABINET TOP

MATERIAL P/N 0027502000 3/4" PARTICLE BOARD		ENGINEER LEWIS	DESCRIPTION
FINISH PAINT ALL SURFACES BLACK		DRAWN RICHARDS	
TOL. UNLESS NOTED FRACT. 1/32 .X 0.050 .XX 0.010 ANGLES 0.5 DEGREES UNMARKED ANGLES ARE 90 DEGREES.		DATE 09/22/99	
TITLE CABINET ASSEMBLY BASSMAN 400H		DFT. ENG. ENG.	
SHEET SIZE 1/1		DATE 7/10/00	
SCALE N/A		APPROVED JBL	
REV. B		DATE 7/10/00	
DRAWING NUMBER 0055940000			
ASSEMBLY			

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REV. A PR 412 9/7/99



(N.S.) = NOT SHOWN

44	1	0055831000	GASKET HORN BASSMAN AMPS
43	AR	0055718000	FLEX FOAM PART "B" (N.S.)
42	AR	0055717000	FLEX FOAM PART "A" (N.S.)
41	1	0022327000	WSHR FLAT 8x7/16 NI
40	4	0033380000	SCRW SMAB 8x1 THP BLX
39	AR	0055719000	INSTAMATE PACK FILM (N.S.)
38	1	0055840000	CARTON BASSMAN 400 (N.S.)
37	1	0029757000	BAG POLY ZIP 10x13 2M (N.S.)
36	1	9903320000	BAG POLY #1 7-1/4x12 (N.S.)
35	2	9903311400	BAG JIFFY #1 7-1/4x12 (N.S.)
34	1	SEE MATRIX	REGISTRATION CARD (N.S.)
33	1	SEE MATRIX	CORD PWR W/EC CONN (N.S.)
32	4	0030866000	SCRW SMA 8x1/2 PHP NI
31	1	0055852000	FTSW ASSY 1 BTN EQ (N.S.)
30	1	0055847000	CABLE ASSY SPKR RT ANGL INSLID (N.S.)
29	1	0055802000	CROSSOVER ASSY BASSMAN AMPS
28	1	0055696000	WIRE SET FINAL BASSMAN 400 (N.S.)
27	1	0055662000	SVC DIAG COMB BASSMAN 400 PWR AMP (N.S.)
26	1	0055661000	SVC DIAG COMB BASSMAN 400 PREAMP (N.S.)
25	1	0055839000	MANUAL OWNER'S BASSMAN 400 (N.S.)
24	1	0010526000	TAG CASTER REMOVAL NOTICE (N.S.)
23	1	0053454000	STICKER BUMPER FEND SINCE 1946 (N.S.)
22	1	SEE MATRIX	TAG WARRANTY 5 YR FENDER-NEW (N.S.)
21	1	0029816000	LABEL SERIAL MEXICO
20	1	0055731000	LOGO BADGE BASSMAN AMPS
19	2	0055933000	SCRW SMA 1/4x1 PHP BLX
18	4	0025743000	SCRW M 10-32x1/2 PHP BLX
17	1	0055691000	RACK SPACE COVER BASSMAN 400
16	2	0055690000	RACK RAIL SINGLE
15	1	0055678000	GRILLE BASSMAN 400
14	10	0036112000	SCRW SMAB 6x1-17/4 OHP BLX w/WS
13	4	0023513000	CASTER SWIVEL (N.S.)
12	1	0029828000	SCRW PB 8x3/4 PHP ZI
11	1	0022491000	CLAMP CABLE NYL SCRW MNT 5/16
10	1	0048847000	HORN FOSTER 8 ohm
9	8	0026577000	SCRW M 10-32x1 PHP BLX
8	2	0051864000	SPEAKER 10" B ohms
7	8	0036199000	SCRW M 8-32x1-3/16 OHP BLX CP
6	8	0029527000	WSHR FNISH 8-5/8 FLNGD BLX WX
5	4	0050311000	NUT 2-56 NYLON INSERT 2CNME-Z
4	4	0050312000	SCRW 2-56X3/8 FHP NI
3	1	0047600000	NAMEPLATE FNDR BLACK (994895)
2	1	SEE MATRIX	CHS ASSY BASSMAN 400
1	1	0055357000	CAB ASSY BASSMAN 400

ENGINEER LEWIS
 DRAWN WIELOPOLSKA
 DATE 8/19/99
 TITLE END ITEM, BASSMAN 400
 FENDER MUSICAL INSTRUMENTS CORP. CORONA, CALIFORNIA 91720

REV. A
 SHEET SIZE 1/1
 SCALE N/A
 DRAWING NUMBER 0224505000
 MASTER/ASSEMBLY

MATERIAL n/o
 FINISH n/o

TOL. UNLESS NOTED	NONE	NONE	NONE	NONE	NONE
FRACT. .X	1/32	0047250000	0047249000	0047250000	0053997000
.XX	0.050	NONE	NONE	NONE	NONE
XXX	0.010	0055674000	0055674000	0055676000	0055677000
HOLE DIA.	0.010	BASSMAN 400	BASSMAN 400	BASSMAN 400	BASSMAN 400
UNMARKED ANGLES ARE 90 DEGREES.	0.005	230V EUR	230V EUR	230V EUR	230V EUR
	0.001	0224505000	0224505000	0224505000	0224505000

MATRIX

REGISTRATION CARD	0054387000	NONE	NONE	NONE	NONE
CORD POWER	0047248000	0047251000	0047249000	0047250000	0053997000
TAG WARRANTY	0053412000	NONE	NONE	NONE	NONE
CHASSIS ASSY	0055673000	0055674000	0055674000	0055676000	0055677000
END ITEM	BASSMAN 400	BASSMAN 400	BASSMAN 400	BASSMAN 400	BASSMAN 400
	230V EUR	230V EUR	230V EUR	230V EUR	230V EUR
	0224505000	0224505000	0224505000	0224505000	0224505000

- THE WORD "BASSMAN" ON THE BASSMAN LOGO SHOULD BE HORIZONTAL.
- USE TO SECURE ITEM 30.
- COPYRIGHT - 1999 - FENDER MUSICAL INSTRUMENTS CORP.
- SAMPLES OF FIRST PARTS MUST BE APPROVED BY FENDER R&D BEFORE STARTING PRODUCTION.
- ALL DIMENSIONS ARE IN INCHES.
- DO NOT SCALE DRAWING.
- NOTES: UNLESS OTHERWISE NOTED