



T50C

p/n 021-3304-000 (120V)

SERVICE MANUAL

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Sunn T50C

SERVICE MANUAL

MARCH 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

Sunn T50C SPECIFICATIONS

Product Release No.:	PR 425 <i>(This is not a model number)</i>	
Part Number:	120V Version	: 21-3304
	240V Aust	: 21-3334
	230V UK	: 21-3344
	230V	: 21-3364
	100V	: 21-3374
Power Requirement:	325W	
Power output:	50 Watts RMS (High output) 12.5 Watts RMS (Low output) 1 kHz sine wave into 16 Ω @ <3% THD (Presence @ "1")	
Input impedance:	1 M Ω	
Tubes:	Two 6L6GC Tubes	p/n 053980
	Two 12AX7A Tubes	p/n 023572
	Five 12AX7WA Tubes	p/n 013341
	One 12AT7 Tube	p/n 023531
Speaker:	Celestion G12T75, 12 in, 16 Ω	
Fuse:	F1:	F3A 250V fuse for 100V and 120V versions T1A 250V fuse for 230V and 240V versions
	F2:	T100mA (All versions)
Footswitch:	3 Button Footswitch p/n 055771 (Controls Channel, Effects Loop Select, and Reverb)	
Dimensions:	Height:	22" (55.9 cm)
	Width:	24.5" (62.2 cm)
	Depth:	11.6" (29.5 cm)
Weight:	75 lbs. (33.8 kg)	

Product specifications are subject to change without notice

Sunn T50C PARTS LIST

NOTE: SHADED ITEMS ARE FOR REFERENCE ONLY

MAIN PRINTED CIRCUIT BOARD ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	0055364000	MAIN PCB FAB SUNN T50C	
2	0051660000	BRACKET R/A PC MNT #6-32	BK1 BK2
2	0028953000	CAP AE AX 100uF 350V +50%-10%	C201 C202
1	0038690001	CAP AE AX 1uF 100V 20%	C17
2	0025960001	CAP AE AX 22uF 16V 20%	C33 C36
3	0024819000	CAP AE AX 22uF 500V +50%-10%	C203 C204 C207
1	0038693001	CAP AE AX 47uF 16V 20%	C1
2	0024820000	CAP AE AX 47uF 350V 20%	C208 C209
2	0041589000	CAP AE AX 47uF 500V +50%-10%	C205 C206
2	0028494000	CAP AE RDL 1000uF 35V 20%	C214 C215
2	0031040000	CAP AE RDL 100uF 100V 20%	C210 C211
2	0028482003	CAP AE RDL 220uF 50V 20%	C212 C213
3	0036954003	CAP AE RDL 22uF 63V 20%	C216 C217 C220
1	0020883002	CAP CD 10pF 1000V 10%	C38
3	0051458003	CAP CD 470pF 500V 10%	C8 C18 C31
1	0051408003	CAP CD 47pF 500V 5%	C3
1	0011435002	CAP CD 680pF 1000V 10%	C16
2	0025951002	CAP CD 750pF 1000V 10%	C13 C15
1	0025995002	CAP CD 8200pF 1000V 20%	C200
2	0034788003	CAP CR .1uF 50V 20% .2" LS	C224 C225
3	0027272003	CAP MPF .047uF 63V 10%	C21 C32 C34
1	0027280003	CAP MPF .15uF 63V 10%	C221
1	0027278003	CAP MPF .1uF 63V 10%	C219
1	0027281003	CAP MPF .22uF 63V 10%	C222
2	0027286003	CAP MPF .47uF 63V 10%	C218 C223
2	0033477003	CAP MPF .68uF 63V 10%	C7 C11
1	0024823000	CAP MPF RDL .01uF 400V 10%	C22
6	0024833000	CAP MPF RDL .022uF 400V 10%	C9-10 C12 C19 C20 C42
5	0024845000	CAP MPF RDL .047uF 400V 10%	C2 C14 C23-24 C39
2	0024846000	CAP MPF RDL .047uF 630V 10%	C44 C45
2	0024853000	CAP MPF RDL .1uF 250V 10%	C41 C43
1	0037666002	CAP PFF .001uF 400V 10%	C5
1	0047065002	CAP PFF .0015uF 400V 10%	C37
1	0026202000	CAP PFF .0022uF 400V 10%	C4
1	0037040002	CAP PFF .0033uF 400V 10%	C35
2	0025962000	CAP PFF .0047uF 400V 10%	C6 C40
2	0041510000	CONTROL SNAPIN 25K B	R17 R38 (CH 1 MID, CH 2 MID)
1	0047031000	CONTROL SNAPIN 25k 30C TAPER	R103 (PRESENCE)
1	0037600000	CONTROL SNAPIN 100k B TAPER	R90 (REVERB)
2	0047540000	CONTROL SNAPIN 250k 15A TAPER	R18 R37 (GAIN, CH 2 BASS)
3	0037597000	CONTROL SNAPIN 250k 30A TAPER	R15 R36 R40 (CH 1 TREB, CH 2 TREB, CH 2 VOL)
2	0041507000	CONTROL SNAPIN 1M 10A TAPER	R7 R16 (CH 1 VOL, CH 1 BASS)
2	0026133000	CONTROL TRIM 25k LIN	R212 R213 (BAL, BIAS)

Sunn T50C
MAIN
PRINTED CIRCUIT BOARD ASSEMBLY (CONT)

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
17	0026730001	DIODE 1N4006 800V 1A	D13 D14 D17 D200-207 D210-213 D236 D237
14	0006260001	DIODE 1N4448 SIGNAL LL	D1 D9 D10 D216 D218 D221-227 D229 D231
2	0029690001	DIODE HV 3kV 200mA LL	D12 D16
2	0031635001	DIODE ZEN 1N5240B 10V 5% LL	D217 D228
2	0031019001	DIODE ZEN 1N5245B 15V 5% LL	D2 D3
2	0028119060	DIODE ZEN 1N5353B 16V 5W 5%	D214 D215
2	0041811060	DIODE ZEN 1N5368B 47V 5W 5%	D208 D209
6	0026000001	FASTON TAB, .187"	P14-17 P63 P64
23	0025802000	FASTON TAB, .250"	P8 P35 P36 P39 P40 P42-55 P65 P68 P70 P71
1	0022546000	FUSE HOLDER PCB MTG UNIVERSAL	F2
1	0022548000	CARRIER, FUSE 5mm	F2
1	0013004000	FUSE TD 100mA 20mm x 5mm 250V	F2
1	0027416000	HDR .1 CTR 8 CKT SQ PIN	P13
3	0031611000	IC OP-AMP DUAL PC4560	U1 U3-4
1	0037117000	JACK PCB MONO CLOSED CKT	J1 (INPUT)
1	0025933000	JACK PHONO DUAL PC MTG	J4 (REVERB)
3	0026481000	JACK TIP	J7-9 (V9, GND, V10)
1	0028039000	LED RED 5x5mm SLB-55VR3	D232
1	0030754000	LED RED T-1 3mm DIFFUSED	D220
1	0033177000	LED RED/GREEN 5x5mm BI-COLOR	D18
2	0036178000	SPACER LED .5x.1 BRN	@ D18 D220
2	0036613000	RELAY DPDT DIP 24VOLT 8.3mA	K1-2
2	0026368001	RES CF 1/2W 5% 100ohm LL	R216 R217
1	0025941001	RES CF 1/2W 5% 560ohm LL	R121
1	0025113001	RES CF 1/2W 5% 10k LL	R104
1	0031065001	RES CF 1/2W 5% 91k LL	R108
9	0025116001	RES CF 1/2W 5% 100k LL	R3 R11 R13 R21 R31 R34 R88 R95 R109
1	0025117001	RES CF 1/2W 5% 220k LL	R207
1	0036957001	RES CF 1/2W 5% 470k LL	R26
6	0024969001	RES CF 1/4W 5% 1.5k LL	R4 R22 R46 R85 R86 R231
6	0024997001	RES CF 1/4W 5% 100k LL	R110 R111 R223 R224 R237 R243
10	0024981001	RES CF 1/4W 5% 10k LL	R10 R20 R25 R30 R33 R44 R210 R225-227
1	0024937001	RES CF 1/4W 5% 10ohm LL	R126
1	0024998001	RES CF 1/4W 5% 120k LL	R211
1	0024999001	RES CF 1/4W 5% 150k LL	R99
2	0024985001	RES CF 1/4W 5% 15k LL	R221 R242
1	0025058001	RES CF 1/4W 5% 180k LL	R82
1	0024955001	RES CF 1/4W 5% 180ohm LL	R222
1	0024986001	RES CF 1/4W 5% 18k LL	R27
1	0028862001	RES CF 1/4W 5% 1.3k LL	R220
8	0025069001	RES CF 1/4W 5% 1M LL	R1 R6 R19 R41 R43 R91 R105 R106
6	0025059001	RES CF 1/4W 5% 220k LL	R5 R24 R29 R39 R84 R93
1	0029455001	RES CF 1/4W 5% 2.4k LL	R102
1	0024971001	RES CF 1/4W 5% 2.2k LL	R101
3	0024987001	RES CF 1/4W 5% 22k LL	R42 R120 R125
1	0029450001	RES CF 1/4W 5% 240k LL	R80
1	0025077001	RES CF 1/4W 5% 3.3M LL	R94
1	0024989001	RES CF 1/4W 5% 33k LL	R35
2	0025079001	RES CF 1/4W 5% 4.7M LL	R81 R87

Sunn T50C
MAIN
PRINTED CIRCUIT BOARD ASSEMBLY (CONT)

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
11	0025065001	RES CF 1/4W 5% 470k LL	R8-9 R23 R28 R92 R96 R97 R219 R229 R230 R240
2	0024961001	RES CF 1/4W 5% 470ohm LL	R107 R122
3	0024993001	RES CF 1/4W 5% 47k LL	R45 R47 R100
1	0025066001	RES CF 1/4W 5% 560k LL	R79
1	0024962001	RES CF 1/4W 5% 560ohm LL	R236
1	0028948001	RES CF 1/4W 5% 6.2k LL	R228
1	0024979001	RES CF 1/4W 5% 6.8k LL	R241
2	0024995001	RES CF 1/4W 5% 68k LL	R2 R14
1	0025068001	RES CF 1/4W 5% 820k LL	R239
3	0024964001	RES CF 1/4W 5% 820ohm LL	R12 R32 R89
2	0029613001	RES CF 1/4W 5% 91k LL	R214-215
2	0027349001	RES FILM 1W 5% 10k LL	R203 R204
1	0028029001	RES FILM 1W 5% 1.5k LL	R218
1	0027347001	RES FILM 1W 5% 2.2k LL	R83
6	0027354001	RES FILM 1W 5% 220k LL	R118 R119 R123 R124 R205 R206
1	0016979001	RES MF 1/4W 1% 215k LL	R233
1	0017191001	RES MF 1/4W 1% 36.5k LL	R238
1	0016971001	RES MF 1/4W 1% 33.2k LL	R235
2	0017372001	RES MF 1/4W 1% 51.1k LL	R232 R234
1	0029870001	RES MOX 2W 5% 1.5k LL	R200
1	0036921001	RES MOX 2W 5% 1k LL	R201
1	0041740110	RES MOX 2W 5% 4.7k LL	R202
2	0033095001	RES MOX FP 1W 5% 1ohm LL	R114 R115
2	0041256000	RES WW 5W 10% 470ohm	R116 R117
2	0029047000	RES WW 7W 10% 270ohm	R208 R209
5	0051442000	SOCKET, TUBE 9PIN PCB MOUNT	@V1-5
1	0028091000	SWITCH PUSH SLFLK SHORT STROKE	S4 (CH SELECT)
1	0028104000	BUTTON PUSH BLACK	@ S4
1	0049976000	SWITCH TOGGLE DPST DC W/NUTS	S3 (OUTPUT PWR)
1	0028503000	THERMISTOR 10 ohm 5A C60-11	RT1
1	0041261000	VOLT REF LM4040DCZ-10 TO-92	U2
2	0014689003	XSTR N-CH JFET J111 TO-92	Q5 Q6
2	0041465003	XSTR N-CH JFET J113 TO-92	Q1 Q4
2	0016739003	XSTR NPN 2N4401 TO-92	Q7 Q8
1	0016742003	XSTR PNP 2N4403 TO-92	Q9

FX LOOP
PRINTED CIRCUIT BOARD ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	0055809000	PCB FAB FX LOOP SUNN T50C	
1	0048914000	CABLE RIBBON 8 CKT 7"	P13
1	0038690001	CAP AE AX 1uF 100V 20%	C30
1	0009512001	CAP AE AX 22uF 25V 20%	C28
1	0052003003	CAP MPF .1uF 250V 10%	C27

**Sunn T50C
FX LOOP (cont)
PRINTED CIRCUIT BOARD ASSEMBLY**

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	0024823000	CAP MPF RDL .01uF 400V 10%	C25
1	0024845000	CAP MPF RDL .047uF 400V 10%	C29
1	0024876000	CAP MPF RDL .68uF 250V 10%	C26
4	0047540000	CONTROL SNAPIN 250k 15A TAPER	R49 R51 R63 R65(CH 1 SEND,CH 2 SEND,CH 1 RETRN,CH 2 RETRN)
6	0006260001	DIODE 1N4448 SIGNAL LL	D4 D7 D219 D230 D233 D234
1	0031635001	DIODE ZEN 1N5240B 10V 5% LL	D8
2	0031019001	DIODE ZEN 1N5245B 15V 5% LL	D5 D6
5	0051658000	JACK MONO R/A	J2 J3 J5 J6 J12 (SEND, RETURN,EXT AMP IN,MAIN AMP OUT,FTSW)
1	0028039000	LED RED 5x5mm SLB-55VR3	D235
2	0036613000	RELAY DPDT DIP 24VOLT 8.3mA	K3 K4
2	0025116001	RES CF 1/2W 5% 100k LL	R57 R69
2	0024969001	RES CF 1/4W 5% 1.5k LL	R56 R70
1	0024997001	RES CF 1/4W 5% 100k LL	R62
2	0024981001	RES CF 1/4W 5% 10k LL	R55 R68
4	0024937001	RES CF 1/4W 5% 10ohm LL	R61 R77 R78 R98
2	0024965001	RES CF 1/4W 5% 1k LL	R60 R75
6	0025069001	RES CF 1/4W 5% 1M LL	R53 R54 R67 R71 R72 R76
2	0025059001	RES CF 1/4W 5% 220k LL	R58 R59
1	0024987001	RES CF 1/4W 5% 22k LL	R73
1	0024989001	RES CF 1/4W 5% 33k LL	R48
1	0028948001	RES CF 1/4W 5% 6.2k LL	R74
4	0024980001	RES CF 1/4W 5% 8.2k LL	R50 R52 R64 R66
1	0028091000	SWITCH PUSH SLFLK SHORT STRK	S5 (LOOP EFFECTS)
1	0048451000	BUTTON PUSH OFF WHITE	@ S5
1	0041465003	XSTR N-CH JFET J113 TO-92	Q2
1	0016739003	XSTR NPN 2N4401 TO-92	Q3

CHASSIS ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
2	0028069000	BUSHING SNAP 3/4x1-1/8 WHT	@ PWR XFMR
2	0018022000	BUSHING SNAP 5/16x17/32 BLK	@ CHOKE
2	0012560000	BUSHING SNAP 5/8x27/32 BLK	@ OUTPUT XFMR
1	0021741000	HOLDER DIAL LITE ASSY PILOT	@ PILOT LIGHT
1	0031625000	NUT 1/16-27 HOLDER PILOT LIGHT	@ PILOT LIGHT
1	0032219000	COLLAR-PILOT LIGHT	@ PILOT LIGHT
1	0021642000	PILOT LIGHT #T47	@ PILOT LIGHT
1	0025718000	JEWEL PILOT LITE RED #20	@ PILOT LIGHT
1	0036570000	SWITCH TOGGLE DPST W/NUTS	PWR SWITCH
1	0026472000	SWITCH SLIDE DPTT	IMPED. SELECTOR
1	0051855000	SWITCH ROCKER DPST W/BEZEL SUNN	STANDBY SWTCH
1	0047213000	CONN. AC LINE MALE IEC	IEC PWR JACK
1	0036702000	FUSE HOLDER 3AG FINGER GRIP	@ LINE FUSE F1
1	0077982000	FUSE QA 1-1/4x1/4" 250V 3A	LINE FUSE F1 (120V/100V UNITS)
Ref	0020793000	FUSE QA 20mm x 5mm 250V 1.6A	LINE FUSE F1 (230V/240V UNITS)

Sunn T50C
CHASSIS ASSEMBLY (cont)

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
Ref	0036703000	FUSE HOLDER 5mm FINGER GRIP	@ V8-9 PROTECT, @ F1 EXP.
1	0013004000	FUSE 100mA TIME 5mm	V8-9 PROTECT F2
1	0021550000	JACK PHONE TIP SHUNT 12A	MAIN SPKR JACK J8
1	0021956000	JACK PHONE OPEN CKT 11	EXT. SPKR JACK J9
1	0055362000	CHASSIS SUNN T50C	
1	0053892000	COVER BOX BIAS CONTROLS	
2	0023572000	TUBE 7025/12AX7A CHINESE	V1 V2
1	0023531010	TUBE 12AT7 CHINESE	V5
5	0013341000	TUBE 7025/12AX7WA RUSSIAN MADE	V3 V4 V6 V7 V8
2	0053980000	TUBE 6L6GC SVETLANA	V9 V10
3	0023598000	TUBE SHIELD	@V6 V7 V8
5	0053893000	TUBE SHIELD MODEL T	@V1 V2 V3 V4 V5
2	0023580000	TUBE SOCKET 8 PIN	@ V7 V8 V9 V10
2	0020424000	TUBE RING UNIVERSAL (277H-2)	@ V7 V8 V9 V10
3	0023606000	TUBE SOCKET 9 PIN	@ V5 V6 V10
15	0024604000	KNOB BLACK W/WHITE STAMP 1-10	@ ALL CONTROLS
2	0024969001	RES CF 1/4W 5% 1.5K LL	@ V9 V10
2	0026730001	DIODE 1N4006 800V LL	@ V9 V10
2	0022293000	WSHR FLAT .473x.750 NI	@ PWR SWTCH & ARENA/CLUB SWTCH
4	0026501000	SCREW C 1/4-20x1/2" HH BLX	@ PWR XFMR
4	0028272000	NUT KEP 1/4x20 FOJ	@ PWR XFMR
8	0022319000	WSHR FLT 1/4x9/16 NI	@ PWR XFMR
Ref	0047163000	TUBING SHRINK 1" BLACK	@ PWR XFMR PRI. LEADS
4	0026553000	SCREW M 8-32 x 3/8" PHP BLX	@ OUTPUT XFMR
4	0022004000	NUT KEPS #8-32 ZINC	@ OUTPUT XFMR
2	0097360000	NUT HEX 4-40 EX LOCK	@ IEC PWR JACK
2	0014172000	SCREW M 4-40 x 1/4" PHP BLX	@ IEC PWR JACK
2	0031153000	WSHR FLAT 3/8 x .614" NI	@ SPKR JACKS J8 J9
2	0016436000	WSHR LCK INTL 3/8 x .687 x .035 NI	@ SPKR JACKS J8 J9
2	0016352000	NUT HEX 3/8-32 x 3/32 TK NI	@ SPKR JACKS J8 J9
2	0021568000	SCREW M 6-32 x 3/16" PHP NI	@ IMPED. SELECTOR
2	0014999000	SCREW M 6-32x1/4 PHP BLX	@ BK1 BK2 BIAS BOARD
2	0026564000	WSHR FLAT .284x1/2 ZI	@ BIAS AND BALANCE
16	0032806000	SCREW TF 6-32x1/4" PHP BLX	@ CHOKE , SOCKETS, COVER BOX
2	0038900000	SCREW TF 6-32x1/4" PHP ZI	@ CHASSIS GNDS
24	0031184000	SCREW M 6-32x1/4 PHP BLX ITLW	@ STANDOFFS
5	0053479000	NUT HEX 7/16 20 x 1/8 NI	@ FX BOARD JACKS
5	0053480000	WSHR FLAT .442x.692 NI	@ FX BOARD JACKS
Ref	0012398000	TUBING SHRINK 3/16 BLACK	@ PILOT LIGHT WIRES
1	0055365000	PCB ASSY MAIN PCB T50C	
1	0055810000	PCB ASSY FX LOOP T50C	
1	0055372000	FRONT PANEL SUNN T50C	
1	0049009000	XFMR OUTPUT PROSONIC	OUTPUT XFMR T2
1	0055358000	XFMR POWER T50C	
1	0037099000	XFMR OUTPUT DUAL 12AT7 TO REVERB	REVERB XFMR
1	0036486000	CHOKE	CHOKE L1

**Sunn T50C
CAB ASSEMBLY**

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
8	0002971000	CORNER NOTCHED NI	
1	0027846000	HANDLE 9.25" NO LOGO	
1	0032524000	INSERT HANDLE	
2	0019279000	HANDLE CAP 2 HOLE NI	
4	0051049000	FOOT RUBBER	
8	0022244000	SCREW M10-32 x 1 1/8 OHP NI	
16	0026571000	SCREW SMAB 8x5/8 THP NI	
12	0021972000	NUT T 10-32 X 3/4 STR 3 PRNG BLX	
4	0023505000	MTG PLATE SWIVEL CASTER	
16	0027199000	SCREW SMAB 10 X 3/4 PHP NI	
Ref	0055366000	GRL CLTH FRM	1/2" PB
Ref	0037788000	GRL CLTH BLK/SILVER	
Ref	0027648000	TAPE ALUM 6" X 60 YDS	
ref	0051343000	VINYL TOLEX	
ref	0029085000	VELCRO STRIP LOOP 1.5 BCK	
ref	0029086000	VELCRO STRIP HOOK 1.5" WD BLK	

FOOTSWITCH ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	0028895000	CABLE ASSY FTSW RT ANG 12'	
3	0006260001	DIODE 1N4448 SIGNAL	
1	0031017000	DIODE ZEN 1N5223B 2.7V 5%	
3	0028039000	LED RED 5x5mm SLB-55VR3	
1	0028109000	HSG END CUP LEFT FTSW	
1	0028141000	HSG FTSW 3 BUTTON	
1	0028143000	HSG END CUP RIGHT FTSW	
1	0037036000	JACK PCB MONO CA (099-0912-000)	
1	0053898000	PCB FAB FTSW 3 BTN SUNN BASS	
1	0055593000	PCB ASSY FTSW 3 BTN DSP/T50C	
1	0055770000	PLATE FTSW 3 BTTN SUNN T50C	
3	0028714000	SWITCH PUSH SPDT	
8	0028684000	SCRW SMB 6x3/8 PH PHS BLX	
1	0031647000	NUT HEX 12mmx1mm NI	@ JACK
3	0031899000	WSHR NYL .485x.775x.150 TK	
3	0034921000	SPACER RND NYL .147x.250x.780	

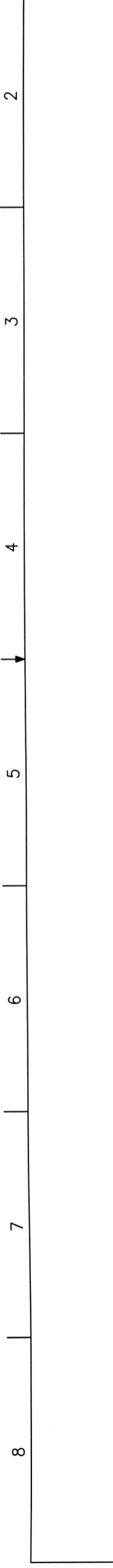
END ITEM ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	0055361000	CABINET ASSY T50C	
1	0051363000	CHASSIS ASSY. 120V DOM.	
1	0051370000	CHASSIS ASSY. 240V AUST.	
1	0051369000	CHASSIS ASSY. 230V	

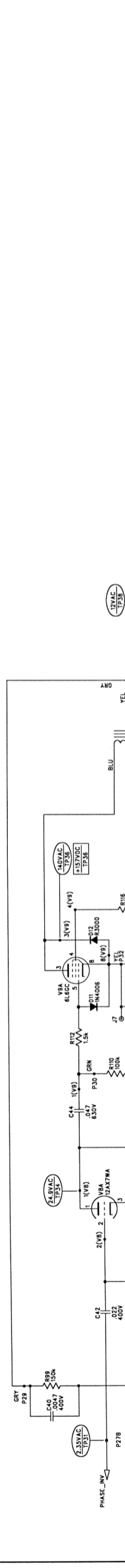
Sunn T50C
END ITEM ASSEMBLY (cont)

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	0051368000	CHASSIS ASSY. 100V JAP.	
1	0047248000	CORD PWR W/IEC CONN DOM	
1	0047250000	CORD PWR W/IEC CONN 240V AUST	
1	0047249000	CORD PWR W/IEC CONN 240V UK	
1	0047251000	CORD PWR W/IEC CONN 230V EUR	
1	0053997000	CORD PWR W/IEC CONN 100V JAP	
1	0051380000	NAME PLATE SUNN	
1	0055771000	FOOTSWITCH ASSY 3 BUTTON SUNN	
4	0017439000	SCRW SMA 6x1/2 PHP BLX	@ LOGO
4	9904101550	SCREW M 8-32x1-1/4 OHP BLX WX	CHASSIS TO CAB
4	0029527000	WSHR FNSH 8-5/8 FLNGD BLX WX	CHASSIS TO CAB
3	0029828000	SCRW PB 8x3/4 PHP BLX	@ REV. BAG & CABLE CLAMP
2	0022327000	WSHR FLAT 8x7/16 NI	@ REV. BAG
1	0012582000	CLAMP CABLE NYL SCRW MNT 1/4	@ REV. CABLE
1	0031849000	REVERB BAG	
1	0028453000	PAD CARDBOARD REVERB	
1	0025722000	CABLE REVERB 1100mm	
1	0064063000	REVERB UNIT 4 SPRING 4AB3C1B	
1	0053982000	SPEAKER 12" 16 OHM 100W	
4	0023513000	CASTER SWIVEL	
1	0028044000	CABLE ASSY SPKR RT ANG 33"	

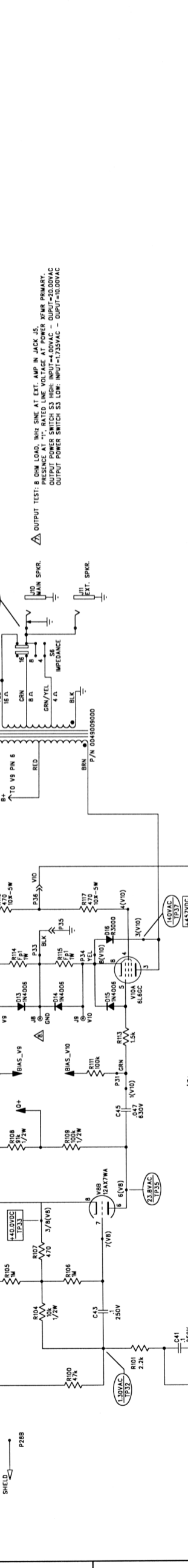
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR425	10-AUG-99	M.J.C.
B	EC 2367	25-OCT-99	M.J.C.



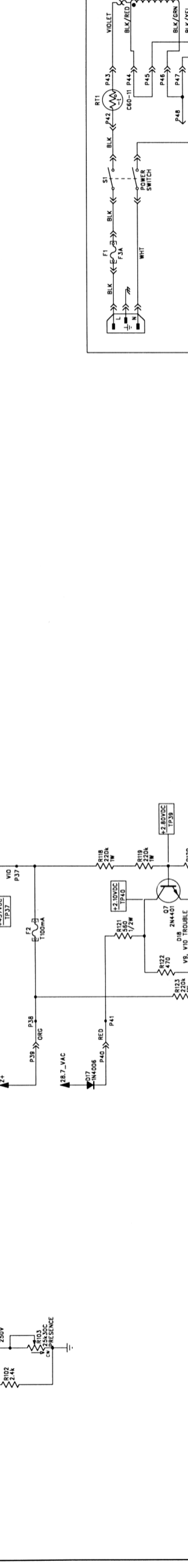
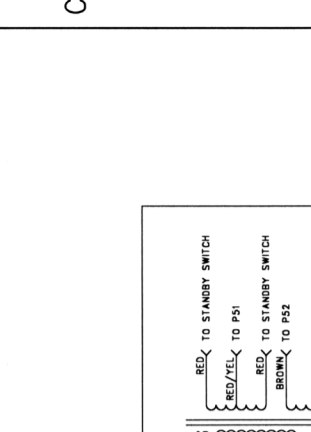
PRIMARY WIRING FOR 100V UNIT



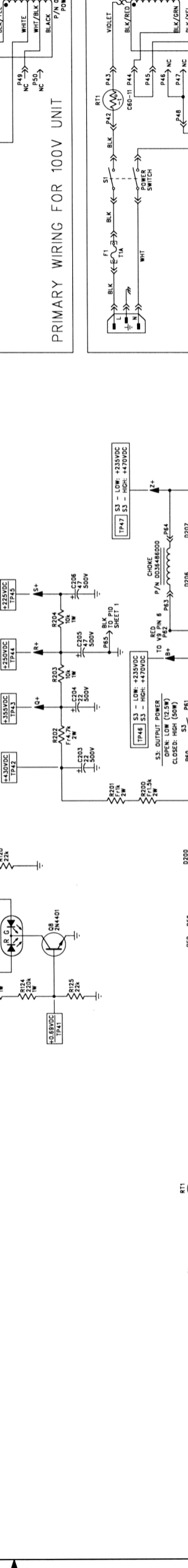
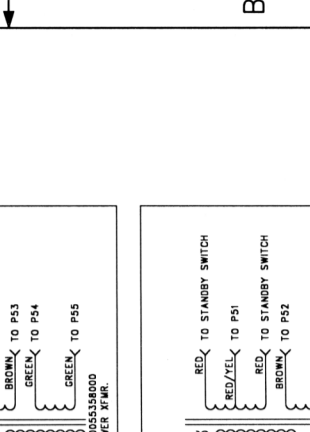
PRIMARY WIRING FOR 240V UNIT



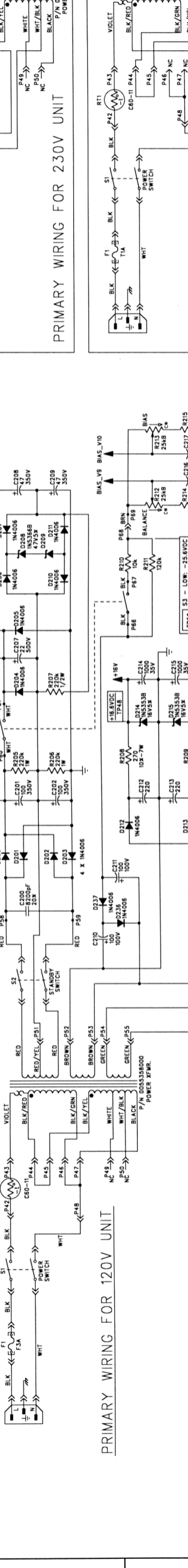
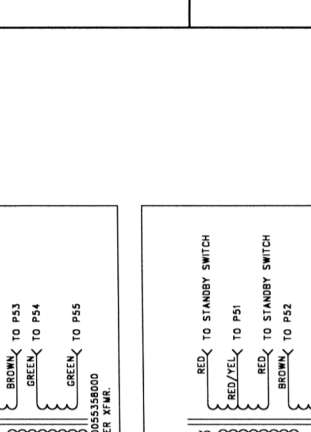
BIASING AND SIGNAL PROCESSING SECTION



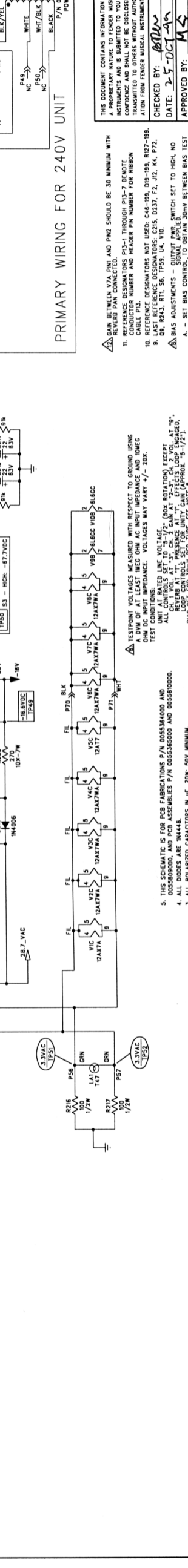
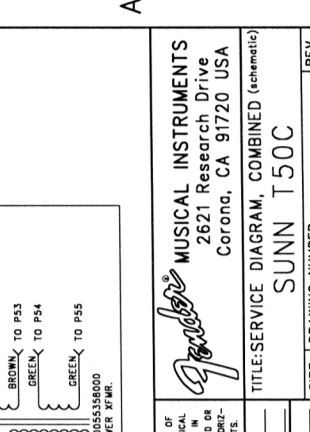
AMPLIFIER AND OUTPUT STAGES



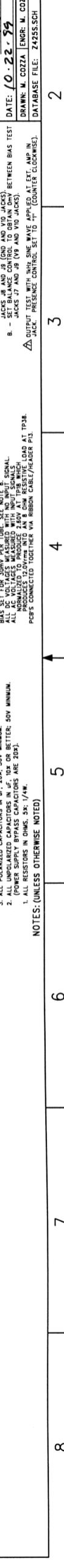
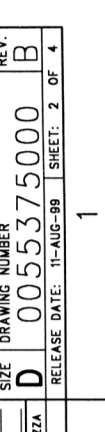
CONTROL AND TEST POINTS SECTION



BIASING AND SIGNAL PROCESSING SECTION



AMPLIFIER AND OUTPUT STAGES



CONTROL AND TEST POINTS SECTION

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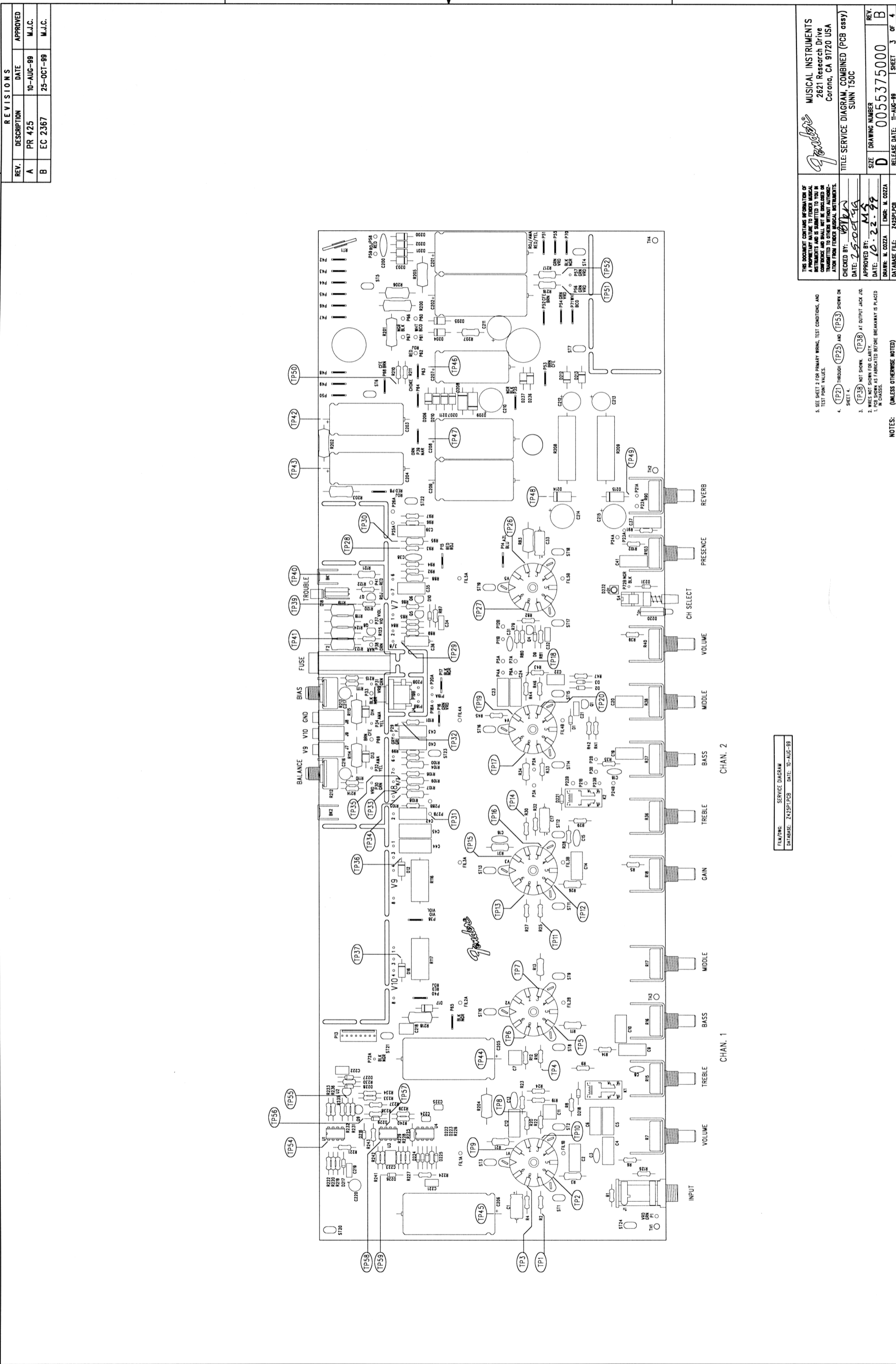
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1 2 3 4 5 6 7 8



REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 425	10-AUG-98	M.J.C.
B	EC 2367	25-OCT-99	M.J.C.

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CHECKED BY: *[Signature]*
 DATE: 25-08-99
 APPROVED BY: *[Signature]*
 DATE: 10-22-99
 DRAWN: M. COZZA
 ENGR: M. COZZA
 DATABASE FILE: Z425P1PCB

TITLE: SERVICE DIAGRAM, COMBINED (PCB assy)
 SUNN T50C

SIZE: D
 DRAWING NUMBER: 0055375000
 RELEASE DATE: 11-AUG-98
 SHEET 3 OF 4

5. SEE SHEET 3 FOR PRIMARY WIRING, TEST CONDITIONS, AND TEST POINT VALUES.
 4. (TP21) THROUGH (TP25) AND (TP53) SHOWN ON SHEET 4.
 3. (TP38) NOT SHOWN AT OUTPUT JACK J2.
 2. WRES NOT SHOWN FOR CLARITY.
 1. PCB SHOWN AS FABRICATED BEFORE BREAKAWAY IS PLACED IN CHASSIS.
- NOTES: (UNLESS OTHERWISE NOTED)

FILE/PCB: SERVICE DIAGRAM
 DATABASE: Z425P1PCB DATE: 10-AUG-99

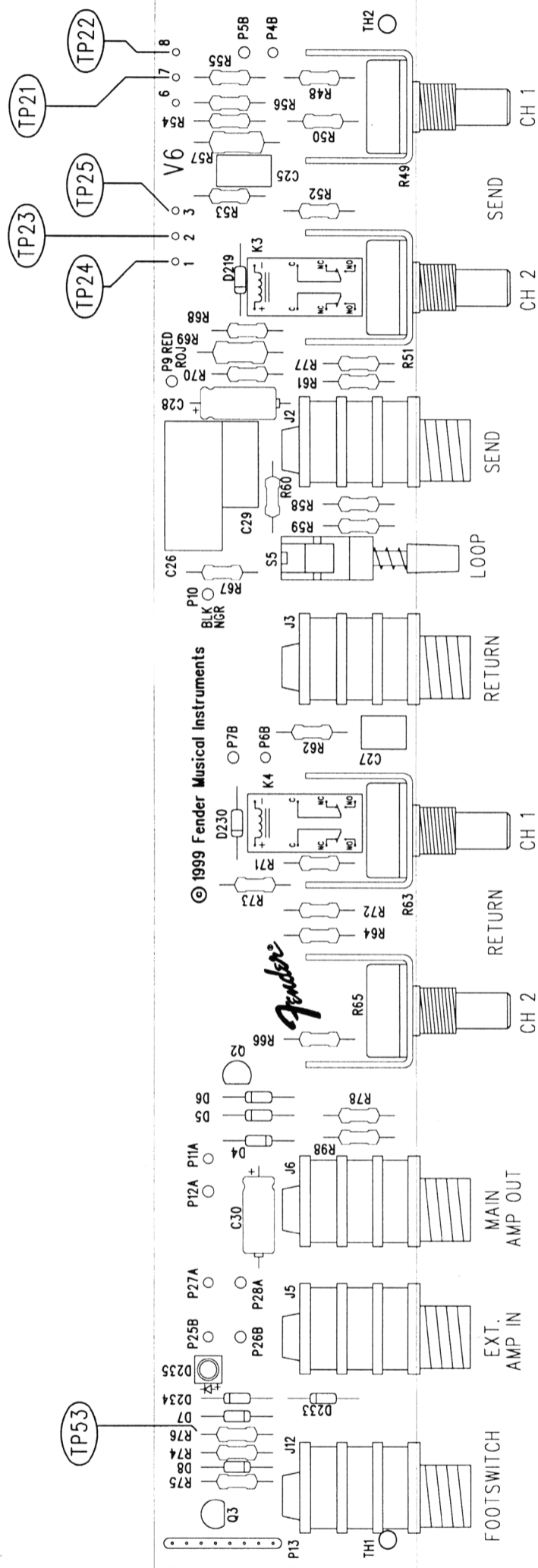
CHAN. 2

CHAN. 1

1 2 3 4 5 6 7 8

REVISIONS

REV.	DESCRIPTION	DATE	APPROVED
A	PR 425	10-AUG-99	M.J.C.
B	EC 2367	25-OCT-99	M.J.C.



FILM/DWG: SERVICE DIAGRAM
 DATABASE: Z425P2.PCB DATE: 10-AUG-99

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CHECKED BY: *Blm*
 DATE: 25 OCT 99
 APPROVED BY: *MS*
 DATE: 10-22-99
 DRAWN: M. COZZA
 ENGR: M. COZZA
 DATABASE FILE: Z425P2.PCB

MUSICAL INSTRUMENTS
 2621 Research Drive
 Corona, CA 91720 USA

TITLE: SERVICE DIAGRAM, COMBINED (PCB assy)
 SUNN T50C

SIZE: B
 DRAWING NUMBER: 0055375000
 REV. B

RELEASE DATE: 11-AUG-99
 SHEET 4 OF 4

- NOTES: (UNLESS OTHERWISE NOTED)
1. WIRES NOT SHOWN FOR CLARITY.
 2. ALL OTHER TEST POINTS SHOWN ON SHEET 3 EXCEPT (TP38) AT OUTPUT JACK J10.
 3. SEE SHEET 2 FOR PRIMARY WIRING, TEST CONDITIONS, AND TEST POINT VALUES.

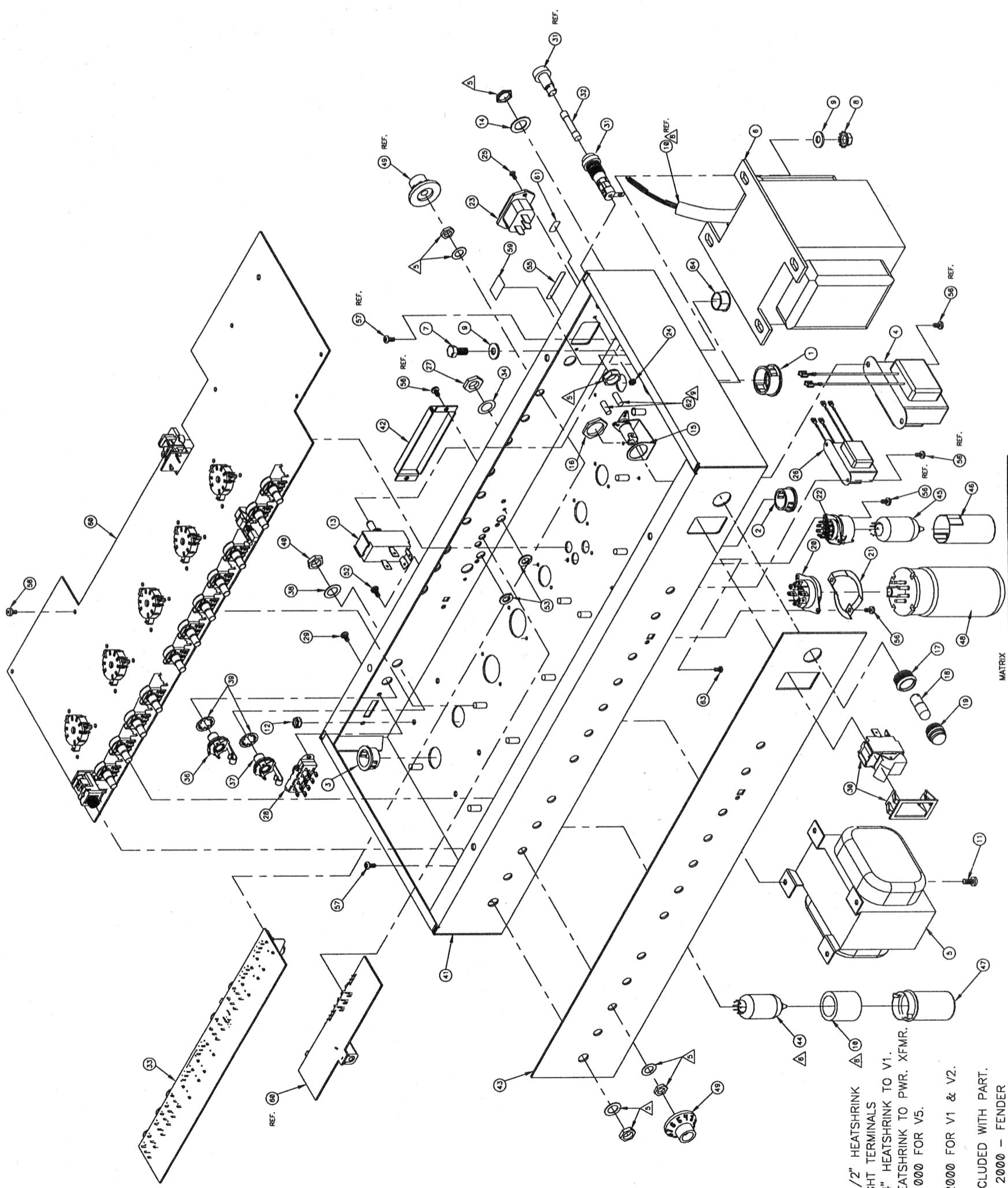
THIS DOCUMENT CONTAINS INFORMATION OF A PROPRIETARY NATURE. IT IS TO BE DISCLOSED OR TRANSMITTED TO OTHERS WITHOUT AUTHORIZATION FROM FENDER MUSICAL INSTRUMENTS CORP.

REV.	DESCRIPTION	DATE
B	EC 2367 CHG. FUSE & FUSE LABELS	10/22/99
C	EC 2378- ADD ITEM 65	12/29/99
D	ECOR 217 ROTATIVE ITEM 13	1/5/2000

(N.S.) = NOT SHOWN

60	0055365000	PCB ASSY SUNN T50C MAIN PCB
59	0013020000	LABEL GROUNDING SEMKO
58	0031184000	SCRW M6-32x1/4 PHPS BLX ITLW
57	0038900000	SCRW TF 6-32x1/4 PHP ZI
56	0032806000	SCRW TF 6-32x1/4 PHP BLX
55	1	SEE MATRIX LABEL VOLTAGE
54	1	SEE MATRIX CHASSIS WIRE SET (N.S. FOR CLARITY)
53	2	0026564000 WSHR FLAT 284x1/2 ZI
52	2	0014999000 SCRW M 6-32x1/4 PHP BLX
51	2	0026739001 DIODE 1N4006/1N5062 800PRV 1A LL (N.S. ON SOCKET) V9, V10
50	2	0024969001 RES CF 1/4W 5% 1.5K LL (N.S. ON SOCKET) V9, V10
49	15	0024604000 KNOB BLACK W/WHITE STAMP 1-10
48	2	0053980000 TUBE VACUUM 6L6GC/5881 SVTLNA
47	5	00539893000 TUBE SHIELD SUNN MODEL T
46	3	0023596000 TUBE SHIELD (099-0723-000)
45	5	0013341000 TUBE 7025/12AX7WA RUSSIAN MADE
44	2	0023572000 TUBE 7025/12AX7A CHINESE /A
43	1	0055372000 FRONT PANEL SUNN T50C
42	1	0053892000 COVER BOX BIAS CONTROLS
41	1	0055362000 CHASSIS SUNN T50C
40	2	0016352000 NUT HEX 3/8-32x3/32 TK NI
39	2	0016436000 WSHR LCK INTL 3/8x.687x.035 NI
38	2	0031153000 WSHR FLAT 3/8x.614 NI
37	1	0021956000 JACK PHONE OPEN CIRCUIT 11
36	1	0021550000 JACK PHONE TIP SHUNT 12A
35	1	0023531000 TUBE 12AT7 HIGH MU TWIN TRODE A
34	5	0053480000 WASHER FLAT 442 x .692 NI
33	1	0055810000 PCB ASSY EFFECTS SUNN T50C
32	1	SEE MATRIX FUSE
31	1	SEE MATRIX FUSE HOLDER
30	1	0051855000 SWITCH ROCKER DPST W/BEZEL SUNN
29	2	0049648000 SCRW 6-32x3/16 PHPS BLX
28	1	0026472000 SWITCH SLIDE DPST
27	5	0053479000 NUT HEX 7/16 20 x 1/8 NI
26	1	0037099000 XFMR REVERB VIBROVERB/65 DLX
25	2	0014172000 SCREW M 4-40x1/4 PHP BLX
24	2	0097360000 NUT HEX 4-40 EX LOCK
23	1	0047213000 CONNECTOR AC LINE MALE IEC
22	3	0023606000 TUBE SOCKET 9 PIN
21	2	0020424000 TUBE RING UNIVERSAL (277H-2)
20	2	0023580000 TUBE SOCKT 8 PN (099-0724-000)
19	1	0025718000 JEWEL PILOT LITE RED #20
18	1	0021642000 PILOT LIGHT #147
17	1	0032219000 COLLAR-PILOT LIGHT
16	1	0031625000 NUT HOLDER PILOT LIGHT 1/16-27
15	1	0021741000 HOLDER IDAL LITE ASSY PILOT
14	2	0022939000 WSHR FLAT .473x.750 NI
13	1	0036570000 SWITCH TOGGLE DPST W/NUTS
12	4	0022004000 NUT KEPS #8-32 ZINC
11	4	0026553000 SCRW M 8-32x3/8 PHP BLX
10	3958	00047163000 TUBING SHRINK 1" BLACK
9	8	0022319000 WSHR FLAT 1/4x9/16 NI
8	4	0028272000 NUT KEP 1/4x20 FOJ
7	4	0026501000 SCRW C 1/4-20x1/2 HH BLK
6	1	0055358000 XFMR POWER SUNN T50C
5	1	0049009000 XFMR OUTPUT PROSONIC
4	1	0036486000 CHOKE
3	2	0012560000 BUSHING SNAP 5/8x27/32 BLK
2	2	0018022000 BUSHING SNAP 5/16x17/32 BLK
1	2	0028069000 BUSHING SNAP 3/4x1-1/8 WHT
ITEM QTY. PART NO. DESCRIPTION		
ENGINEER COZZA		
DRAWN WIELOPOLSKA		
DATE 6/10/99		

TITLE		CHASSIS ASSEMBLY
FENDER MUSICAL INSTRUMENTS CORP.		SUNN T50C
CORONA, CALIFORNIA 91720		
SHEET SIZE	D	0055363000
DRAWING NUMBER	1/1	0055363000
SCALE	N/A	MASTER/ASSEMBLY
REV.	D	

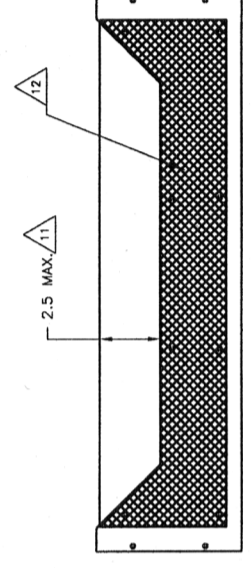
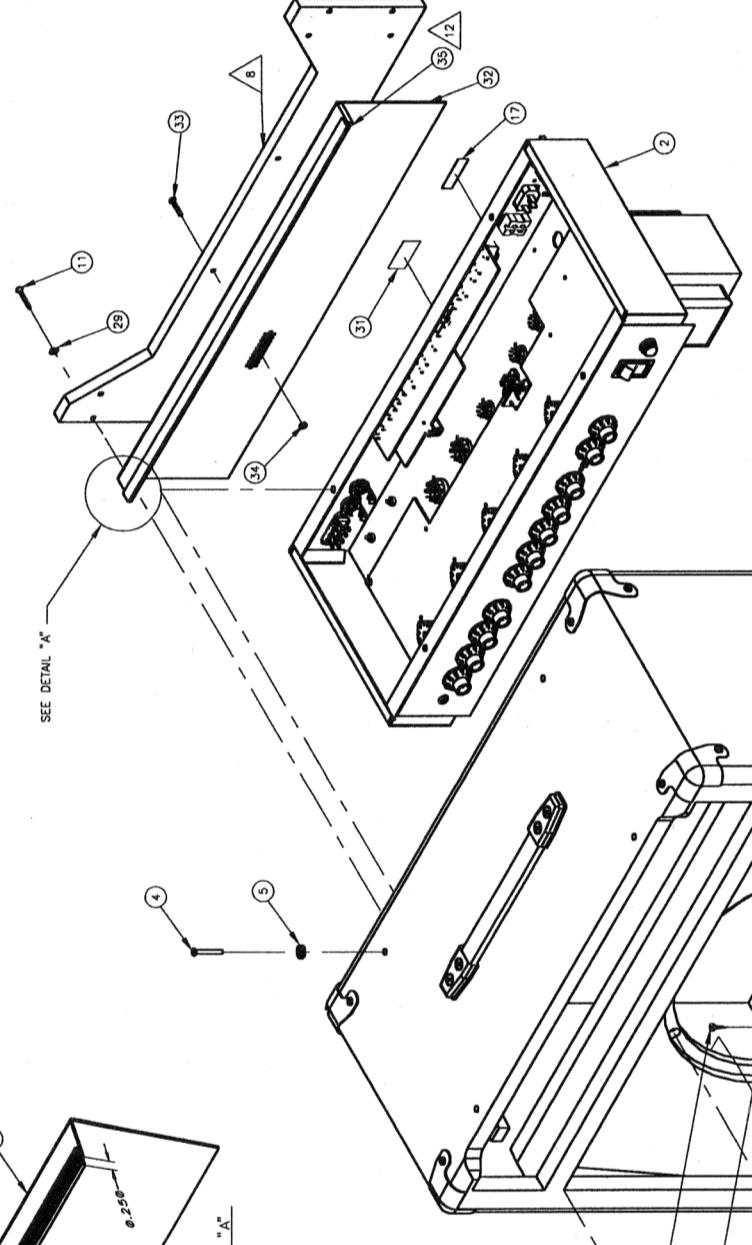
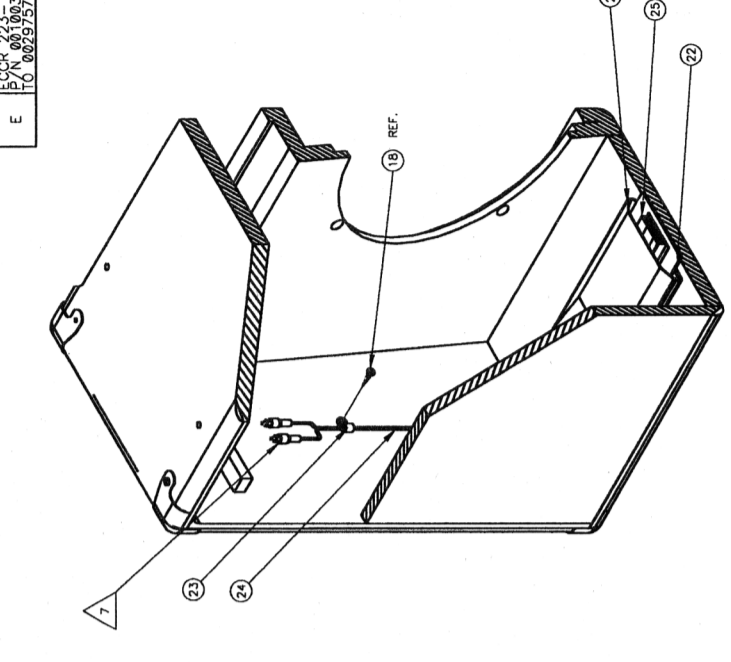
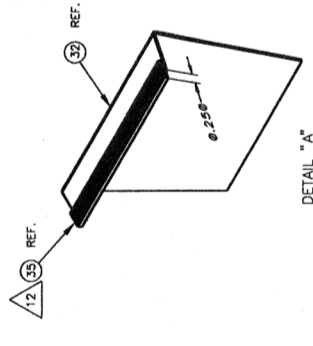
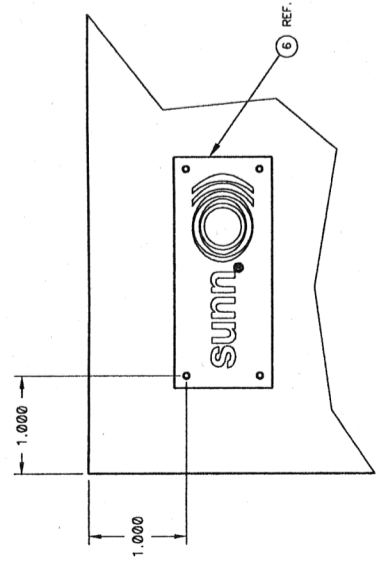


65	1	SEE MATRIX	LABEL MADE IN USA 1-3/4 x 7/32 (N.S.)
64	1	0055931000	PLUG STRAIN RELIEF 0.625 x 0.550
63	1	0051155000	SCRW SMB #4 x 3/8 PHP BLX
62	.09	0012398000	TUBING, SHRINK 3/16" BLK
61	1	SEE MATRIX	LABEL FUSE

MATRIX		0033485000	0033485000	0033485000
65	LABEL	N/A	0047580000	0047580000
61	FUSE LABEL	N/A	0050506000	0050507000
59	VOLTAGE LABEL	0055374000	0055374000	0055374000
54	WIRE SET	0013112000	0036703000	0077982000
52	FUSE	0036702000	SUNN T50C	SUNN T50C
51	FUSE HOLDER	0036702000	240V AUST.	100V JPN
CHASSIS ASSY.		0055363000	0055363000	0055363000

9. APPLY TWO 1/2" HEATSHRINK TO PILOT LIGHT TERMINALS
 8. APPLY 1-3/4" HEATSHRINK TO V1.
 7. APPLY 3" HEATSHRINK TO PWR. XFMR.
 6. USE 0023572000 FOR V1 & V2.
 5. HARDWARE INCLUDED WITH PART.
 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

ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES. DIMENSIONS ARE GIVEN IN DECIMAL INCHES UNLESS OTHERWISE SPECIFIED. DIMENSIONS ARE TO BE DISCLOSED OR TRANSMITTED TO OTHERS WITHOUT AUTHORIZATION FROM FENDER MUSICAL INSTRUMENTS CORP.



7. CONNECT RCA PLUGS TO RED & WHITE RCA JACKS ON BOTTOM OF CHASSIS.
 8. CONNECT "RIBBED" WIRE TO SPEAKER TERMINAL "+", SMOOTH WIRE TO SPEAKER TERMINAL "-". CONNECT 1/4" PLUG INTO MAIN SPEAKER JACK ON BACK OF CHASSIS.
 9. GRILLE ASSEMBLY (0055366000) IS PART OF CABINET ASSEMBLY (0055361000).
 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

7. CONNECT RCA PLUGS TO RED & WHITE RCA JACKS ON BOTTOM OF CHASSIS.
 8. CONNECT "RIBBED" WIRE TO SPEAKER TERMINAL "+", SMOOTH WIRE TO SPEAKER TERMINAL "-". CONNECT 1/4" PLUG INTO MAIN SPEAKER JACK ON BACK OF CHASSIS.
 9. GRILLE ASSEMBLY (0055366000) IS PART OF CABINET ASSEMBLY (0055361000).
 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

N.S. = NOT SHOWN

MATRIX

TAPE VINYL	59	NONE	00510980000	00510980000	NONE	NONE	NONE
NUT HEX 6-32	64	NONE	00693930000	00693930000	NONE	00539970000	00539970000
SCREW M6-32x3/4	63	NONE	00156270000	00156270000	NONE	00553700000	00553700000
TUBE CAGE	62	NONE	00564810000	00564810000	NONE	00555369000	00555369000
LABEL CSA	61	NONE	00507120000	00507120000	NONE	02133640000	02133640000
CORD PWR W/EC CONN	3	NONE	00472480000	00472480000	EUR 230V	AUS 240V	JAPAN 100V
CHASSIS ASSY.	2	02133040000	EUR 120V	SUNN T50C	SUNN T50C	SUNN T50C	SUNN T50C

ITEM	QTY.	DESCRIPTION
36	1	00412990000 GASKET SPEAKER, 481203-1,GET112
35	1.73	SEE MATRIX TAPE VINYL NITRITE W/ ADHESIVE
34	8	SEE MATRIX NUT 6-32 HEX EXT LOCK
33	8	SEE MATRIX SCREW M 6-32x3/4 PHP BLX
32	1	SEE MATRIX TUBE CAGE SUNN T50C
31	1	SEE MATRIX LABEL CSA NRTL/C

ITEM	QTY.	PART NO.	DESCRIPTION
COZZA			
DRAWN	WIELOPOLSKA		
DATE	6/23/99		
DATE	6/23/99		
DATE	6/23/99		
DATE	6/23/99		

ITEM	QTY.	DESCRIPTION
30	1	00105260000 TAG CASTER REMOVAL NOTICE (N.S.)
29	4	00372150000 WSHR C'SNK #6 NI
28	1	00280440000 CABLE ASSY SPKR RT ANG 33°
27	4	00235130000 CASTER SWIVEL (N.S.)
26	1	00539820000 SPEAKER 12" 16 OHMS
25	1	00640630000 REVERB UNIT 4 SPRING 4ABC18
24	1	00257220000 CABLE REVERB 1100mm
23	1	00125820000 CLAMP CABLE NYL SCRW MNT 1/4
22	1	00284530000 PAD CARDBOARD REVERB
21	1	00318490000 REVERB BAG
20	1	99033200000 BAG POLY ZIP 10x13 2M (N.S.)
19	2	00223270000 WSHR FLAT 8x7/16 NI
18	3	00298280000 SCRW PB 8x3/4 PHP ZI
17	1	00490810000 LABEL SERIAL (CORONA)
16	1	00553710000 MANUAL OWNERS SUNN T50C (N.S.)
15	1	00553750000 SVC DIA COMB SUNN T50C (N.S.)
14	1	00556550000 ACCESSORIES BOX SUNN T50C (N.S.)
13	4	00555840000 CORNER FOAM SUNN T50C (N.S.)
12	4	00265770000 SCRW M 10-32x1 PHP BLX
11	4	00379520000 SCRW SMA #6 x 1 OHP NI
10	1	00556480000 CARTON SUNN T50C (N.S.)
9	1	00297570000 BAG POLY 35x22x52 .0015 (N.S.)
8	1	00557710000 FOOTSWITCH ASSY. 3 BUTTON SUNN (N.S.)
7	4	00174390000 SCRW SMA 6x1/2 PHP BLX
6	1	00513800000 NAMEPLATE SUNN
5	4	002395270000 WSHR FNISH 8-5/8 FLNGD BLX WX
4	4	99041015500 SCREW M 8-32x1-1/4 OHPs BLX WX
3	1	SEE MATRIX CORD PWR W/EC CONN. (N.S.)
2	1	SEE MATRIX CHASSIS ASSY.
1	1	00553610000 CABINET ASSY. T50C

N.S. = NOT SHOWN

FENDER
FENDER MUSICAL INSTRUMENTS CORP.
CORONA, CALIFORNIA 92880

END ITEM
SUNN T50C

DRAWING NUMBER
0213304000

SCALE
N/A

REV.
E