

Fender®

SUPER-SONIC™ 22

(This is the model name for warranty claims)

p/n 2160000000 (Black 120V)
p/n 2160000400 (Blonde 120V)

SERVICE MANUAL





SUPER-SONIC™22

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FEBRUARY 2010

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• Parts marked with two asterisks (**) indicate the required use of that specific part. This is necessary for RELIABILITY and SAFETY requirements. **DO NOT USE A SUBSTITUTE!**

PARTS LIST CODES

The description codes used in the itemized Parts Lists are defined below:

CAPACITOR CODES

CAP AE = Aluminum Electrolytic
 CAP CA = Ceramic Axial
 CAP CD = Ceramic Disk
 CAP CR = Ceramic Radial
 CAP MPF = Metalized Polyester Film

CAP MY = Mylar
 CAP PFF = Polyester Film/Foil

RESISTOR CODES

RES CC = Carbon Comp
 RES CF = Carbon Film

ATTENTION:

WARRANTY SERVICE PROCEDURES

The Super-Sonic 22 Amplifier is considered to be field serviceable to the component level. As such stuffed PCB Assemblies are not readily available for this unit. Any Fender Authorized Service Center in need of a warranty replacement PCB Assembly for this unit should contact FMIC Tech Support by phone at (866) 345-3642, or by email sent to: service@fender.com.



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RES FP = Flame Proof
 RES MF = Metal Film
 RES MOX = Metal Oxide
 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

Model Name:	Super-Sonic 22	
Release Number: (Not a model number)	PR 904	
Part Numbers	(120V, 60Hz) US:	2160000x00
	(110V, 60Hz) TW:	2160001x00
	(240V, 50Hz) AUS:	2160003x00
	(230V, 50Hz) UK:	2160004x00
	(230V, 50Hz) ARG:	2160005x00
	(230V, 50Hz) EUR:	2160006x00
	(100V, 50Hz) JPN:	2160007x00
	(220V, 60Hz) ROK:	2160009x00
	"x" = 0: Black "x" = 4: Blonde	
Power Requirement:	120W	
Power Output:	22W RMS into 8 ohms @ 5 %THD	
Power Amp Sensitivity:	2.87V for 22W into 8 ohms @ 5 %THD	
Impedances	Input (Pre-Amp):	1 meg ohms
	FX Send:	220 ohms
	FX Return:	10k ohms
Dimensions	Height:	17.5 in (44.45 cm)
	Width:	24.0 in (60.96 cm)
	Depth:	8.5 in (21.59 cm)
Weight:	40 lbs (18.18 kg)	

Product specifications are subject to change without notice



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SERVICE NOTES

1. **CHASSIS REMOVAL** is accomplished by first removing four (4) screws from the rear upper cabinet panel. Remove the panel. Remove three (3) screws from the bottom lip of the rear of the chassis that attaches to the inside top of the cabinet. Remove four (4) screws from the top of the cabinet. Unplug the speaker cable from the "Main Spkr" jack on the rear panel. Unplug the dual RCA cable from the dual RCA jacks on the bottom of the chassis. Slide the chassis toward the rear of the cabinet.
2. **POWER SUPPLY PCB ASSEMBLY REMOVAL** is accomplished by disconnecting all fast-on terminal wire connections to/from the power supply PCB assembly. Remove four (4) mounting screws attaching the PCB assembly to the chassis. Remove pilot light LED from the pilot light jewel assembly. Un-solder heater wiring (WJ3-4, WJ8-9) from tube socket V4 pins 4-5 and 9 and V5, pins 4-5 and 9.
3. **MAIN PCB ASSEMBLY REMOVAL** is accomplished by disconnecting all fast-on terminal wire connections to/from the main PCB assembly. Disconnect all ribbon cables from the main PCB assembly. Remove ten (10) mounting screws attaching the PCB assembly to the chassis. Un-solder all tube socket wiring at V3 thru V8. NOTE: It is not necessary to remove heater wiring from tube sockets V3 thru V8 in order to remove the main PCB assembly.
4. **CONTROL PCB ASSEMBLY REMOVAL** is accomplished by disconnecting all fast-on terminal wire connections to/from the control PCB assembly. Disconnect all ribbon cables from the control PCB assembly. Remove nine (9) knobs, ten (10) nuts and washers attaching the PCB assembly to the front panel of the chassis. Un-solder all tube socket wiring at V1 and V2. NOTE: It is not necessary to remove heater wiring from tube sockets V1 and V2 in order to remove the control PCB assembly.
5. **EFFECTS PCB ASSEMBLY REMOVAL** is accomplished by disconnecting all ribbon cables from the control PCB assembly. Remove two (2) nuts and washers and two (2) screws attaching the PCB assembly to the rear panel of the chassis.
6. **REVERB PCB ASSEMBLY REMOVAL** is accomplished by disconnecting all fast-on wire connections from the PCB assembly (P32-P35). Remove one (1) screw attaching green/yellow ground wire to the chassis. Remove one (1) screw from bottom of chassis that attaches the dual RCA jack to the chassis.

PCB EXCHANGE POLICY

Parts marked with a single asterisk (*) in the Part Lists are not field replaceable. If a failure due to one of these components is detected, please

contact the FMIC Customer Service Department to order the complete PCB Assembly.



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CIRCUIT DESCRIPTION

This section provides concise information about new or unusual circuitry designs incorporated into this amplifier model. The purpose is to aid the service technician by providing insight into the design areas most likely to become obstacles in troubleshooting. Information is focused for its effective use while maintaining the security of Fender® proprietary information wherever possible.

PRE-AMPLIFIER

The guitar input signal flows through a tube gain stage (V1-A) before it is split into two signal paths, the "Vintage" path or the "Burn" path. The "Vintage" channel, consisting of passive 2-band tone stack, volume control and subsequent tube sections, can also be split into two paths within the channel, known as "Normal" and "Fat". The path selection will depend upon the selection of the "Vintage/Fat" front panel switch (or via Footswitch).

The "Normal/Fat" switch controls relays K3 and K4 in order to activate the desired path. When the "Normal" path is selected, relay K3 thru K4 will be in the "normally closed" state. When the "Fat" path is selected, relay K3 thru K4 will be in the "normally open" state. The "Normal" path provides a tone that is similar to the '65 Fender Vintage blackface amplifier. The "Fat" path provides a tone that is similar to the '66 Fender Fat Head blackface amplifier.

The "Vintage" channel remains active until the "Vintage/Burn" front panel switch (or via Footswitch) is selected. This will change relay K1, K2, K6 and K7 to reconfigure the "Vintage" channel to become the "Burn" channel. When the "Vintage" path is selected, relays K1, K2, K6 and K7 will be in the "normally closed" state. When the "Burn" path is selected, they will be in the "normally open" state.

The "Burn" channel provides a new tube distortion tone that is more versatile than past Fender tube drive circuits. The "Burn" channel consists of two Gain controls, a passive 3-band tone stack, volume control and an extra tube stage, V2-A. Setting "Gain 1" (R31) to "0" will provide no signal through this channel. "Gain 1" provides the high gain to the

signal, while "Gain 2" (R35) provides harmonic overtones to the signal. Using "Gain 1" and "Gain 2" in tandem can provide many distortion tones, ranging from standard clean rock "crunch" tones, to "Texas Blues" tones to "lo-fi" fizz tones, to "play-itself" ultra-high gain tones.

The signal is directed back to the summing point at V4-B and amplifier stage at V3-A the input to the reverb circuit at V3 and V4. The amount of reverb is controlled by potentiometer R166. The reverb signal is summed at the input of V4-B. The output from V4-B is split into two paths: The "Dry" path and the "Effects Loop" path. This path selection is controlled only by the footswitch. When the "dry" path is selected, relay K5-A/B is "normally closed". When the "Effects Loop" path is selected, relay K5-A/B is normally open". When the footswitch is not used, K5-A/B will default to "normally closed". The "Effects Loop" will not be in operation unless the "Send" and "Return" jacks are connected to either an outboard Effects system or if a jumper cable connects the two jacks together. If a plug is connected only to the "Return" jack, the signal of the Pre-Amp will be broken, thus not allowing signal to flow to the "Pre-Amp Out" jack and the power amplifier. The output from the desired path ("dry" or "Effects Loop") is directed through K5-A, pin 13. From here, the signal is sent to the power amp.

POWER AMPLIFIER

The Power Amplifier is a discrete, Class AB push-pull topology with feedback. The basic amplifier sections include a phase-splitter stage (12AT7 at V5) and a pentode push-pull output stage (6V6's at V6 and V7). The output signal is directed through an output transformer capable of driving 8 ohm speaker loads. The output is wired to the External Speaker

The phase splitter circuit is a "long-tailed" configuration commonly found in Fender Tube amplifiers. The output circuit consists of two 6V6 tubes in a push-pull configuration, again, commonly used in Fender Tube amplifiers. The 1 ohm Resistors (R140 and R141) are can be used by the technician



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to properly measure the amount of bias current for each output tube (V6 and V7). The Optimal bias setting for each tube in this amplifier is 22mA-26mA. The bias current for V6 can be derived by measuring the voltage across R140, which in this case will measure 22mV-26mV. The same procedure can be used for V7 by measuring the voltage across R141. The bias current for both output tubes is controlled by potentiometer R156, found on the Main PCB assembly.

The Feedback network consists of feedback resistor R132 and shunt resistor R133.

POWER SUPPLY

The Power Supply is typical of a Fender tube amplifier. The secondary side of the Power Transformer consists of 3 windings: high-voltage winding, low-voltage winding and heater winding. The high voltage winding is used to generate the high voltage

DC power supplies in the amplifier. The high voltage DC power supply consists of a standard bridge rectifier configuration. The "voltage-drop" resistors R148 thru R151 set the DC plate voltages used at various tube stages throughout the design. The low voltage winding is used to generate the low voltage +/-16V DC power supply, as well as the output tube bias supply. The low voltage DC power supply also consists of a standard bridge rectifier configuration. Three-Terminal regulators are used to regulate the +/-15VDC power supplies. A voltage doubler circuit (C85-C86 and D43-D44) is used on 1/2 of the low voltage winding to generate a negative DC power supply for the bias control potentiometer R156. The heater winding produces a 6.3VAC power supply that is used for the heater filament in all of the tubes in the amplifier, as well as illuminating the pilot light.



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PARTS LIST:		PCB ASSEMBLY	
QTY.	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	0078326000	* PCB ASSY SUPER-SONIC 22	
15	0006260001	DIODE 1N4448 SIGNAL	D1-2 D6 D8-10 D20-21 D23-24 D27-29 D33-34
1	0064510000	LED WHITE T-1 3mm CLEAR	D26
2	0009512001	CAP AE AX 22uF 25V 20%	C17 C95
1	0011435000	CAP CD 680pF 1000V 10%	C25
2	0014689003	XSTR N-CH JFET J111 TO-92	Q8-9
7	0016739003	XSTR NPN 2N4401 TO-92	Q2-4 Q7 Q11 Q13-14
3	0016742003	XSTR PNP 2N4403 TO-92	Q5-6 Q12
2	0016795000	IC OP-AMP DUAL TL072	U3-4
4	0020534000	DIODE 1N5402 RECTIFIER 200V C&F	D3-4 D7 D11
1	0020883000	CAP CD 10pF 1000V 10%	C11
1	0020917000	CAP CD 250pF 1000V 10%	C4
2	0311188000	SCRW M 4-40 1/4 PHP STL ZI w/WSHR	at U5, U6
2	0097360000	NUT HEX 4-40 EX LOCK	at U5, U6
3	0027264003	CAP MPF .01uF 100V	C47 C52 C94
2	0024823000	CAP MPF RDL .01uF 400V 10%	C12 C68
1	0024833000	CAP MPF RDL .022uF 400V 10%	C24
1	0024835000	CAP MPF RDL .022uF 630V 10%	C10
2	0024845000	CAP MPF RDL .047uF 400V 10%	C6 C20
1	0024853000	CAP MPF RDL .1uF 250V 10%	C69
2	0024854000	CAP MPF RDL .1uF 400V 10%	C5 C39
2	0024855000	CAP MPF RDL .1uF 630V 10%	C71-72
1	0024858000	CAP MPF RDL .15uF 400V 10%	C23
3	0024862000	CAP MPF RDL .22uF 400V 10%	C9 C14 C16
2	0024937001	RES CF 1/4W 5% 10ohm LL	R69 R100
1	0024942001	RES CF 1/4W 5% 22ohm LL	R84
1	0024947001	RES CF 1/4W 5% 47ohm LL	R133
4	0024952001	RES CF 1/4W 5% 100ohm LL	R71 R93-95
2	0024956001	RES CF 1/4W 5% 220ohm LL	R87-88
2	0024961001	RES CF 1/4W 5% 470ohm LL	R55 R68
1	0024963001	RES CF 1/4W 5% 680ohm LL	R125
3	0024964001	RES CF 1/4W 5% 820ohm LL	R73 R130 R132
6	0024965001	RES CF 1/4W 5% 1k LL	R56-57 R62-63 R90 R101
10	0024969001	RES CF 1/4W 5% 1.5k LL	R4 R14 R16 R27 R34 R39 R78 R138-139 R165
2	0024970001	RES CF 1/4W 5% 1.8k LL	R106-107
2	0024973001	RES CF 1/4W 5% 3.3k LL	R83 R85
1	0024979001	RES CF 1/4W 5% 6.8k LL	R11
16	0024981001	RES CF 1/4W 5% 10k LL	R1 R38 R58-59 R81-82 R96-98 R110-111 R121 R154 R144 R145 R126
3	0024983001	RES CF 1/4W 5% 12k LL	R112 R115 R119
1	0024985001	RES CF 1/4W 5% 15k LL	R6
2	0024987001	RES CF 1/4W 5% 22k LL	R80 R128
3	0024989001	RES CF 1/4W 5% 33k LL	R29 R60-61
2	0024993001	RES CF 1/4W 5% 47k LL	R20 R70
1	0024996001	RES CF 1/2W 5% 82k LL	R157
12	0024997001	RES CF 1/4W 5% 100k LL	R8 R28 R41 R43-44 R52-54 R86 R113-114 R120
2	0024998001	RES CF 1/4W 5% 120k LL	R19 R46

* Non-serviceable part. Replace complete parent assembly. See PCB EXCHANGE POLICY section above.

shaded Unique Fender® part. Order directly from the FMIC Parts Department.

shaded + * Access to this part or assembly is controlled. Please contact the FMIC Customer Service Department.

** Safety Requirement part. Replacement must match Safety Agency...-Value, if specified -Type, if specified -Approval Mark(s) if on part.

shaded + ** Both a unique Fender® part and a Safety Requirement part as defined above.



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PARTS LIST:		PCB ASSEMBLY	
QTY.	PART #	DESCRIPTION	REFERENCE DESIGNATION
5	0025059001	RES CF 1/4W 5% 220k LL	R50 R76 R136-137 R163
1	0025060001	RES CF 1/4W 5% 270k LL	R23
4	0025065001	RES CF 1/4W 5% 470k LL	R24-25 R42 R45
17	0025069001	RES CF 1/4W 5% 1M LL	R2 R5 R7 R30 R72 R74 R79 R91 R103-105 R124 R127 R129 R131 R161 R167
2	0025077001	RES CF 1/4W 5% 3.3M LL	R22 R75
5	0025079001	RES CF 1/4W 5% 4.7M LL	R17 R21 R32-33 R109
5	0025084001	RES CF 1/4W 5% 10M LL	R13 R18 R92 R99 R108
5	0025116001	RES CF 1/2W 5% 100k LL	R3 R15 R26 R40 R77
13	0025802000	FSTN TAB MALE .250x.032 PCB MT	P1-5 P11-18
1	0025829001	RES CF 1/2W 5% 150ohm LL	R118
2	0025832001	RES CF 1/2W 5% 22k LL	R116-117
1	0025933000	JACK RCA DUAL HORIZ PC MOUNT	J7
4	0025995000	CAP CD 8200pF 1000V 20%	C73-76
1	0025996000	**FUSE CLIP PCB 1/4" & 5mm DUAL	F2
18	0026000001	FSTN TAB MALE .187x.032 PCB MT	P6-10 P21-26 P29-30 P31-35
1	0026202002	CAP PFF .0022uF 400V 10%	C2
2	0026368001	RES CF 1/2W 5% 100ohm LL	R152-153
1	0026502001	CAP AE AX 100uF 100V +50%-10%	C87
4	0026549001	RES CF 1/2W 5% 1.5k LL	R64-67
14	0026730001	DIODE 1N4006 800V 1A	D12-13 D35-36 D39-48
2	0027255003	CAP MPF .001uF 100V 10%	C77 C45
8	0027278003	CAP MPF .1uF 63V 10%	C55-58 C63-66
1	0027286003	CAP MPF .47uF 63V 10%	C54
2	0027353001	RES FILM 1W 5% 100k LL	R135 R164
2	0027411000	HDR .1 CTR 4 CKT SQ PIN	P204 P304
4	0027413000	HDR .1 CTR 6 CKT SQ PIN	P101-102 P201-202
2	0027418000	HDR .1 CTR 9 CKT SQ PIN	P203 P303
1	0027873000	Control PCB MOUNT LINEAR 30% 25K	R156
1	0028029001	RES FILM 1W 5% 1.5k LL	R102
2	0028091000	SWITCH PUSH SLFLK SHORT STROKE	S1-2
2	0028463003	CAP AE RDL 10uF 50V 20%	C90-91
3	0028459003	CAP AE RDL 2.2uF 50V 20%	C8 C13 C81
2	0028471003	CAP AE RDL 47uF 50V 20%	C57 C70
1	0028476003	CAP AE RDL 100uF 50V 20%	C59
2	0028463003	CAP AE RDL 10uF 50V 20%	C37 C46
10	0028467003	CAP AE RDL 22uF 50V 20%	C1 C19 C21 C31-32 C35 C38 C42 C50 C62
2	0079274000	CAP AE RDL 470uF 50V 20% 105C	C88-89
1	0028503000	THERMISTOR 10 ohm 5A C60-11	RT1
1	0028549001	RES CF 1/4W 5% 110k LL	R37
2	0028740001	RES FILM 1W 5% 470ohm LL	R142-143
1	0028948001	RES CF 1/4W 5% 6.2k LL	R89
1	0028990001	RES CF 1/4W 5% 51k LL	R155
1	0029006001	RES CF 1/4W 5% 20k LL	R36
2	0029045000	DIODE 6A 400V 6A4 LEAD FORMED	D51-52
1	0013562000	IC REGULATOR +15V MC7815CT	U5
1	0013564000	IC REGULATOR -15V MC7915CT	U6
2	0029690001	DIODE HV 3kV 200mA	D37-38

* Non-serviceable part. Replace complete parent assembly. See PCB EXCHANGE POLICY section above.

shaded Unique Fender® part. Order directly from the FMIC Parts Department.

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PARTS LIST:		PCB ASSEMBLY	
QTY.	PART #	DESCRIPTION	REFERENCE DESIGNATION
2	0033586003	CAP PFF RDL .0068uF 100V 10%	C79 C98
1	0030954003	CAP PFF RDL .047uF 50V 5%	C49
2	0031040000	CAP AE RDL 100uF 100V 20%	C85-86
2	0031611000	IC OP-AMP DUAL PC4560	U1-2
1	0031635001	DIODE ZEN 1N5240B 10V 5% LL	D5
2	0031901000	PIN MALE PCB .093 DIA.	P19-20
2	0033095001	RES MOX FP 1W 5% 1ohm LL	R140-141
7	0036613000	RELAY DPDT DIP 24VOLT 8.3mA	K1-7
1	0036962000	CONTROL SHORT SHAFT 250k B	R47
1	0036964000	CONTROL SNAP-IN SHORT SHAFT 100k B	R166
1	0037040002	CAP PFF .0033uF 400V 10%	C96
1	0037619001	RES FILM 1W 5% 82k LL	R134
1	0038690001	CAP AE AX 1uF 100V 20%	C48
4	0038701001	CAP CA 470pF 50V LL	C29-30 C40-41
1	0038703001	CAP CA .1uF 50V	C51
6	0039259001	CAP CA 220pF 100V LL	C26-28 C36 C60-61
2	0041268001	RES MOX 2W 5% 10k LL	R150-151
2	0041465003	XSTR N-CH JFET J113 TO-92	Q1 Q10
1	0041589000	CAP AE AX 47uF 500V +50%-10%	C78
1	0041740110	RES MOX FP 2W 5% 4.7k	R148
1	0048903001	RES CF 1/2W 5% 18k LL	R123
8	0051406003	CAP CD 220pF 500V 10%	C3 C33 C34 C43-44 C53 C99 C100
2	0051408003	CAP CD 47pF 500V 5%	C7 C18
2	0051458003	CAP CD 470pF 500V 10%	C15 C92
1	0053860000	CAP MPF .1uF 250VAC 20%	C97
1	0024819000	CAP AE AX 22uF 500V 20% 85°C	C80
3	0054204000	CAP AE RDL 22uF 450V 20% 85°C	C82-84
1	0057221000	RES MOX FP 1W 5% 2.2k LL	R162
2	0059922000	JACK PHONE PCB STEREO LOW PROFILE	J3 J5
1	0063213000	JACK PCB STEREO CLOSED CKT	J1
1	0063739001	CAP AE AX 22uF 50V 20%	C93
1	0064511000	LED RED 3mm CLEAR	D25
1	0066026000	CAP CD 150pF 1000V 10%	C22
4	0069296000	CONTROL SHORT SHAFT 250k 15A	R10 R31 R35 R48
2	0069297000	CONTROL SHORT SHAFT 250K 30A	R9,R51
2	0037985000	SCRW SMA 2X3/8 PHP BLX	at J2
1	0069298000	CONTROL SHORT SHAFT 1M 30A	R12
1	0069299000	CONTROL SHORT SHAFT 25K B	R49
2	0073586001	**FUSE PICO 1 AMP 125V	F4 F3
1	0070997000	LED 3mm T-1 SUPER BRIGHT YELLOW	D32
1	0071226000	CONNECTOR FEMALE 7 PIN DIN	J2
1	0055812000	LED TULIP RED	PILOT LIGHT
2	0050849000	HEATSINK PCB LEVEL 576012U	AT U5,6

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PARTS LIST:		CHASSIS ASSEMBLY - BLACK	
QT Y.	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	0078319000	*PANEL FRONT SUPER-SONIC 22 BLK	
1	0078334000	**XFMR PWR SUPER SONIC 22 120V	
1	0037099000	XFMR REVERB VIBROLUX/65 DLX	
1	0022707000	CHOKE FILTER	
1	0028069000	BUSHING SNAP 3/4x1-1/8 WHT	AT PWR XFMR
3	0018022000	BUSHING SNAP 5/16x17/32 BLK	AT OUT/RVB/CHOKE XFMR
1	0036570000	**SWITCH TOGGLE DPST W/NUTS	"POWER"
1	0037039000	**SWITCH TOGGLE SPST W/NUTS	"STANDBY"
1	0047213000	**CONNECTOR AC LINE MALE IEC	
2	0014171000	SCRW M 4-40x3/8 PHP BLX	AT IEC
2	0097360000	NUT HEX 4-40 EX LOCK	AT IEC
2	0053480000	WASHER FLAT .442x.692 NI	AT EFFECTS LOOP JACKS
1	0078326000	*PCB ASSY SUPER-SONIC 22	
14	0025936000	STANDOFF NYL PCB SNAP 3/8"	AT PCB's
14	0028937000	SCRW TF 6-32x5/8 PHP ZI	AT PCB's
1	0036702000	**FUSE HOLDER 3AG FINGER GRIP	DOMESTIC
1	0048827000	**FUSE QA 1-1/4x1/4 250V 2A	DOMESTIC
23	0038900000	SCRW TF 6-32x1/4 PHP ZI	SOCKETS/XFMRS/GND
2	0020424000	TUBE RING UNIVERSAL (227H-2)	AT 8 PIN TUBES
2	0023580000	TUBE SOCKET 8 PIN (099-0724-000)	
5	0023598000	TUBE SHIELD (099-0723-000)	AT 9 PIN TUBES
5	0023606000	TUBE SOCKET 9 PIN	
2	5550112400	TUBE 12AT7 HIGH MU TWIN TRIODE	V3,5
1	5550113691	TUBE GT-6V6-S MATCHED DUET	V6,7
1	5550113209	TUBE 7025/12AX7WC (RUSSIAN)	V1
1	0021626000	JACK PHONE 2/CD SOC L11 3/8"L	EXT SPKR
1	0068270000	JACK PHONE TIP SHUNT L12A 3/8L	MAIN SPKR
2	5550112398	TUBE 12AX7 CHINESE	V2,4
10	0041263000	KNOB VINTAGE CREAM	
1	0041318000	XFMR OUTPUT 65 DELUXE	
1	0054798000	JEWEL ASSY LED	
1	0031625000	NUT HOLDER PILOT LIGHT	
1	0051155000	SCRW SMB #4x3/8 PHP BLX	AT REVERB JACK
2	0014999000	SCRW M6-32X1/4 PHP BLX	
4	0029656000	SCREW M8-32X1/4 PHP BLX w/WSHR	AT PWR XFMR
2	0070998000	CABLE ASSY RIBBON 6 CKT 2-1/2"	
1	0079114000	CABLE ASSY RIBBON 4 CKT 2-1/2"	
1	0079115000	CABLE ASSY RIBBON 9 CKT 14 "	
4	0022293000	WASHER FLAT .473X.750 NI	FX JACKS PWR STNDBY
2	0028102000	BUTTON PUSH IVORY	AT PCB SWITCHES
2	0016436000	WSHR LCK INTL 3/8x.687x.035 NI	AT MAIN SPKR, EXT SPKR
3	0031153000	WSHR FLAT 3/8x.614 NI	INPUT MAIN & EXT SPKR
1	0017161000	**FUSE TD 1-1/4x1/4 250V 10A	FILAMENT FUSE
1	0017433000	SCRW M 6-32x3/8 PHP BLX	AT REAR PANEL

* Non-serviceable part. Replace complete parent assembly. See PCB EXCHANGE POLICY section above.

shaded Unique Fender® part. Order directly from the FMIC Parts Department.

shaded + * Access to this part or assembly is controlled. Please contact the FMIC Customer Service Department.

** Safety Requirement part. Replacement must match Safety Agency...-Value, if specified -Type, if specified -Approval Mark(s) if on part.

shaded + ** Both a unique Fender® part and a Safety Requirement part as defined above.



SUPER-SONIC™22

(This is the model name for warranty claims)

PARTS LIST:		CHASSIS ASSEMBLY - BLONDE	
QTY.	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	0078320000	*PANEL FRONT SUPER-SONIC 22 BRN	
1	0078334000	**XFMR PWR SUPER SONIC 22 120V	
1	0037099000	XFMR REVERB VIBROLUX/65 DLX	
1	0022707000	CHOKE FILTER	
1	0028069000	BUSHING SNAP 3/4x1-1/8 WHT	AT PWR XFMR
3	0018022000	BUSHING SNAP 5/16x17/32 BLK	AT OUT/RVB/CHOKE XFMR
1	0036570000	**SWITCH TOGGLE DPST W/NUTS	"POWER"
1	0037039000	**SWITCH TOGGLE SPST W/NUTS	"STANDBY"
1	0047213000	**CONNECTOR AC LINE MALE IEC	
2	0014171000	SCRW M 4-40x3/8 PHP BLX	AT IEC
2	0097360000	NUT HEX 4-40 EX LOCK	AT IEC
2	0053480000	WASHER FLAT .442x.692 NI	AT EFFECTS LOOP JACKS
1	0078326000	*PCB ASSY SUPER-SONIC 22	
14	0025936000	STANDOFF NYL PCB SNAP 3/8"	AT PCB's
14	0028937000	SCRW TF 6-32x5/8 PHP ZI	AT PCB's
1	0036702000	**FUSE HOLDER 3AG FINGER GRIP	DOMESTIC
1	0048827000	**FUSE QA 1-1/4x1/4 250V 2A	DOMESTIC
23	0038900000	SCRW TF 6-32x1/4 PHP ZI	SOCKETS/XFMRS/GND
2	0020424000	TUBE RING UNIVERSAL (227H-2)	AT 8 PIN TUBES
2	0023580000	TUBE SOCKET 8 PIN (099-0724-000)	
5	0023598000	TUBE SHIELD (099-0723-000)	AT 9 PIN TUBES
5	0023606000	TUBE SOCKET 9 PIN	
2	5550112400	TUBE 12AT7 HIGH MU TWIN TRIODE	V3,5
2	5550113691	TUBE GT-6V6-5 MATCHED DUET	V6,7
1	5550113209	TUBE 7025/12AX7WC (RUSSIAN)	V1
1	0021626000	JACK PHONE 2/CD SOC L11 3/8"L	EXT SPKR
1	0068270000	JACK PHONE TIP SHUNT L12A 3/8L	MAIN SPKR
2	5550112398	TUBE 12AX7 CHINESE	V2,4
10	0041263000	KNOB VINTAGE CREAM	
1	0041318000	XFMR OUTPUT 65 DELUXE	
1	0054798000	JEWEL ASSY LED	
1	0031625000	NUT HOLDER PILOT LIGHT	
1	0051155000	SCRW SMB #4x3/8 PHP BLX	AT REVERB JACK
2	0014999000	SCRW M6-32X1/4 PHP BLX	
4	0029656000	SCREW M8-32X1/4 PHP BLX w/WSHR	AT PWR XFMR
2	0070998000	CABLE ASSY RIBBON 6 CKT 2-1/2"	
1	0079114000	CABLE ASSY RIBBON 4 CKT 2-1/2"	
1	0079115000	CABLE ASSY RIBBON 9 CKT 14 "	
4	0022293000	WASHER FLAT .473X.750 NI	FX JACKS PWR STNDBY
2	0028102000	BUTTON PUSH IVORY	AT PCB SWITCHES
2	0016436000	WSHR LCK INTL 3/8x.687x.035 NI	AT MAIN SPKR, EXT SPKR
3	0031153000	WSHR FLAT 3/8x.614 NI	INPUT MAIN & EXT SPKR
1	0017161000	**FUSE TD 1-1/4x1/4 250V 10A	FILAMENT FUSE
1	0017433000	SCRW M 6-32x3/8 PHP BLX	AT REAR PANEL

* Non-serviceable part. Replace complete parent assembly. See PCB EXCHANGE POLICY section above.

shaded Unique Fender® part. Order directly from the FMIC Parts Department.

shaded + * Access to this part or assembly is controlled. Please contact the FMIC Customer Service Department.

** Safety Requirement part. Replacement must match Safety Agency...-Value, if specified -Type, if specified -Approval Mark(s) if on part.

shaded + ** Both a unique Fender® part and a Safety Requirement part as defined above.



SUPER-SONIC™22

(This is the model name for warranty claims)

PARTS LIST:		CABINET ASSEMBLY - BLACK	
QTY.	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	0078312000	*CABINET ASSEMBLY (BLACK)	
1	0078312009	*LOWER BACK ASSEMBLY (BLACK)	
1	0078312010	*UPPER BACK ASSEMBLY (BLACK)	
1	0078312006	*GRILLE FRAME ASSEMBLY (BLACK)	
1	0049094000	HANDLE MLD BLK	
4	0026566000	CORNER 2 HOLE w/TAB NI	
4	0019276000	GLIDE CUP NICKEL	
4	0019275000	INSERT GLIDE CUSHION NEOPRENE 1.27 DIA	
4	0026625000	SCREW WOOD 8 x 1 FH	
4	0026571000	SCRW SMAB 8X5/8 THP NI	
4	0037247000	SCREW M 8-32 X 1 OHP NI	
4	0064162000	NUT T 8-32 x 1/2 STR 3 PRNG BLX	
1.55	0026570000	TOLEX "BRAVURA BLACK" BRONCO	
0.62	0037788000	CLOTH GRILLE BLACK-SILVER	
4	0021972000	NUT T 10-32x3/4 STR 3 PRNG BLX	

PARTS LIST:		CABINET ASSEMBLY - BLONDE	
QTY.	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	0078313000	*CABINET ASSEMBLY (BLONDE)	
1	0078312009	*LOWER BACK ASSEMBLY (BLONDE)	
1	0078312010	*UPPER BACK ASSEMBLY (BLONDE)	
1	0078312006	*GRILLE FRAME ASSEMBLY (BLONDE)	
1	0036784000	HANDLE MLD BROWN	
4	0026566000	CORNER 2 HOLE w/TAB NI	
4	0019276000	GLIDE CUP NICKEL	
4	0019275000	INSERT GLIDE CUSHION NEOPRENE 1.27 DIA	
4	0026625000	SCREW WOOD 8 x 1 FH	
4	0026571000	SCRW SMAB 8X5/8 THP NI	
4	0037247000	SCREW M 8-32 X 1 OHP NI	
4	0064162000	NUT T 8-32 x 1/2 STR 3 PRNG BLX	
1.55	0040882000	TOLEX CREAM NUBEX BLONDE	
0.62	0040883000	CLOTH GRILLE OXBLOOD	
4	0021972000	NUT T 10-32x3/4 STR 3 PRNG BLX	

PARTS LIST:		END ITEM ASSEMBLY – BLACK	
QTY.	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	0079527000	SPKR 12 INCH 8 OHM STL CER	
4	0026577000	SCRW M 10-32x1 PHP BLX	AT SPEAKER
1	0064063000	REVERB UNIT 4 SPRING 4AB3C1B	
1	0031849000	REVERB BAG	
1	0028453000	PAD CARDBOARD REVERB	
1	0025722000	CABLE REVERB 1100mm	
3	0022491000	CLAMP CABLE NYL SCRW MNT	AT REVERB & SPKR CABLE
1	0028044000	CABLE ASSY SPKR RT ANG 33"	SPEAKER CABLE
2	0024745000	STRAP CHASSIS 4" NI	CHASSIS MOUNT
4	0022236000	SCRW M 8-32x3-1/4 OHP NI CONE	CHASSIS MOUNT

* Non-serviceable part. Replace complete parent assembly. See PCB EXCHANGE POLICY section above.

shaded Unique Fender® part. Order directly from the FMIC Parts Department.

shaded + * Access to this part or assembly is controlled. Please contact the FMIC Customer Service Department.

** Safety Requirement part. Replacement must match Safety Agency...–Value, if specified –Type, if specified –Approval Mark(s) if on part.

shaded + ** Both a unique Fender® part and a Safety Requirement part as defined above.



SUPER-SONIC™22

(This is the model name for warranty claims)

PARTS LIST:		END ITEM ASSEMBLY – BLACK	
QTY.	PART #	DESCRIPTION	REFERENCE DESIGNATION
2	0022327000	WSHR FLAT 8x7/16 NI	AT REVERB BAG
8	0029828000	SCRW PB 8x3/4 PHP ZI	REVERB BAG/CHASSIS/CLAMPS
4	0026201000	GROMMET RUBBER	AT REVERB UNIT
1	0047600000	*NAMEPLATE 63 FENDER BLACK	
3	0051621000	SCRW SMA 2X9-16 FHP NI	AT NAMEPLATE
8	0037952000	SCRW SMA 6x1 OHP NI	AT CABINET BACKS
8	0037215000	WSHR C'SNK #6 NI	AT CABINET BACKS
1	0047248000	**CORD PWR w/IEC CONN DOM	
1	0047251000	**CORD PWR w/IEC CONN 230V	
1	0047249000	**CORD PWR w/IEC CONN 230V UK	
1	0047250000	**CORD PWR w/IEC CONN 250V	
1	0053997000	**CORD PWR w/IEC CONN 100V JPN	
1	0057674000	**CORD PWR w/IEC 230V ARG	
1	0079278000	COVER TUBE SUPER-SONIC 22	
2	0025743000	SCRW M 10-32x1/2 THP BLK	AT TUBE COVER
1	0047483000	COVER 65 DELUXE REVERB	

PARTS LIST:		END ITEM ASSEMBLY – BLONDE	
QTY.	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	0079527000	SPKR 12 INCH 8 OHM STL CER	
4	0026577000	SCRW M 10-32x1 PHP BLX	AT SPEAKER
1	0064063000	REVERB UNIT 4 SPRING 4AB3C1B	
1	0031849000	REVERB BAG	
1	0028453000	PAD CARDBOARD REVERB	
1	0025722000	CABLE REVERB 1100mm	
3	0022491000	CLAMP CABLE NYL SCRW MNT	AT REVERB & SPKR CABLE
1	0028044000	CABLE ASSY SPKR RT ANG 33"	SPEAKER CABLE
2	0024745000	STRAP CHASSIS 4" NI	CHASSIS MOUNT
4	0022236000	SCRW M 8-32x3-1/4 OHP NI CONE	CHASSIS MOUNT
2	0022327000	WSHR FLAT 8x7/16 NI	AT REVERB BAG
8	0029828000	SCRW PB 8x3/4 PHP ZI	REVERB BAG/CHASSIS/CLAMPS
4	0026201000	GROMMET RUBBER	AT REVERB UNIT
1	0036795000	*NAMEPLATE 63 FENDER BRN	NAMEPLATE
3	0051621000	SCRW SMA 2X9-16 FHP NI	AT NAMEPLATE
8	0037952000	SCRW SMA 6x1 OHP NI	AT CABINET BACKS
8	0037215000	WSHR C'SNK #6 NI	AT CABINET BACKS
1	0047248000	**CORD PWR w/IEC CONN DOM	
1	0047251000	**CORD PWR w/IEC CONN 230V	
1	0047249000	**CORD PWR w/IEC CONN 230V UK	
1	0047250000	**CORD PWR w/IEC CONN 250V	
1	0053997000	**CORD PWR w/IEC CONN 100V JPN	
1	0057674000	**CORD PWR w/IEC 230V ARG	
1	0079278000	COVER TUBE SUPER-SONIC 22	
2	0025743000	SCRW M 10-32x1/2 THP BLK	AT TUBE COVER
1	0047483000	COVER 65 DELUXE REVERB	

* Non-serviceable part. Replace complete parent assembly. See PCB EXCHANGE POLICY section above.

shaded Unique Fender® part. Order directly from the FMIC Parts Department.

shaded + * Access to this part or assembly is controlled. Please contact the FMIC Customer Service Department.

** Safety Requirement part. Replacement must match Safety Agency...–Value, if specified –Type, if specified –Approval Mark(s) if on part.

shaded + ** Both a unique Fender® part and a Safety Requirement part as defined above.



SUPER-SONIC™22

(This is the model name for warranty claims)

PARTS LIST:		FOOTSWITCH ASSY	
QTY.	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	0078324000	COMPLETE FOOTSWITCH ASSY	
1	0071225000	CABLE 7 PIN DIN 25 FT (N.S.)	FOOTSWITCH CABLE
1	*	END CAP FTSW 2004 LEFT SIDE	
1	*	END CAP FTSW DIN RIGHT SIDE	
8	*	SCRW SMB 6x3/8 PH PHS BLX	
1	*	NUT HEX 12mmx1mm NI	
3	*	WSHR NYL .485x.775x.150 TK	
1	*	HOUSING FTSW 4 BUTTON 2004	
1	*	PLATE FOOTSWITCH SUPER-SONIC 22	
1	*	PCB ASSY FTSW SUPER-SONIC 22	
4	*	RES CF 1/4W 5% 100ohm LL	R1-3 R5
1	*	RES CF 1/4W 5% 10k LL	R4
4	*	LED RED 5x5mm SLB-55VR3	D1-4
4	*	SWITCH PUSH SPDT	S1-4
1	*	CONNECTOR FEMALE 7 PIN DIN	J1
1	*	SPACER RND NYL .680x.250x.147	

* Non-serviceable part. Replace complete parent assembly. See PCB EXCHANGE POLICY section above.

shaded Unique Fender® part. Order directly from the FMIC Parts Department.

shaded + * Access to this part or assembly is controlled. Please contact the FMIC Customer Service Department.

** Safety Requirement part. Replacement must match Safety Agency...-Value, if specified -Type, if specified -Approval Mark(s) if on part.

shaded + ** Both a unique Fender® part and a Safety Requirement part as defined above.



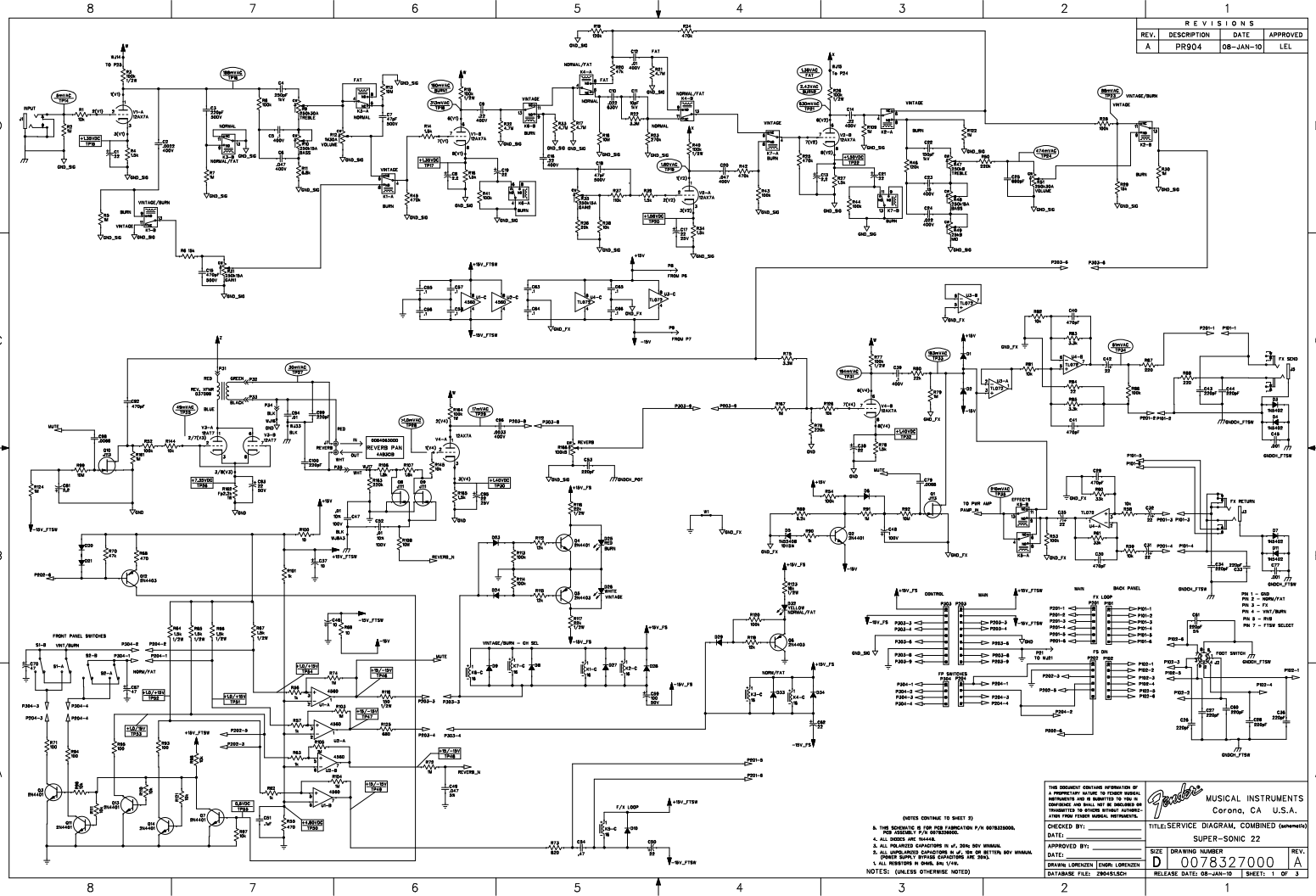
SUPER-SONIC™22

(This is the model name for warranty claims)

Service Diagram List

Service Diagram (Schematic)	Super-Sonic 22 Amplifier
Service Diagram (PCB Assembly)	Super-Sonic 22 Amplifier
Chassis Assembly	Super-Sonic 22 Amplifier
End Item Assembly	Super-Sonic 22 Amplifier
Assembly	4-Button Footswitch Super-Sonic22 Amplifier

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR904	08-JAN-10	LEL



(NOTE CONTINUE TO SHEET 2)
 1. THE SCHEMATIC IS FOR PICKUP ASSIGNMENT P-1100/30000.
 2. ALL POLARIZED CAPACITORS IN μ F, 50V UNLESS NOTED.
 3. ALL CAPACITORS ARE 50V UNLESS NOTED.
 4. ALL RESISTORS IN OHMS, UNLESS NOTED.
 5. ALL RESISTORS IN OHMS, UNLESS NOTED.
 6. ALL RESISTORS IN OHMS, UNLESS NOTED.
 7. ALL RESISTORS IN OHMS, UNLESS NOTED.

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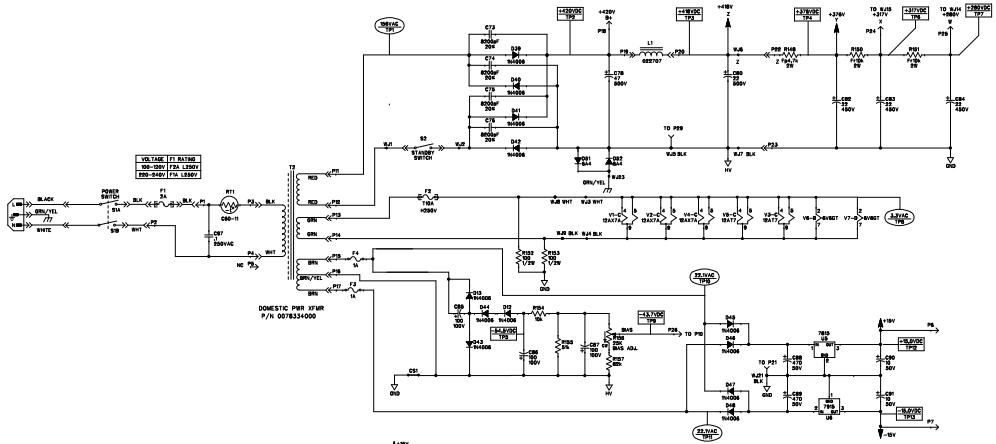
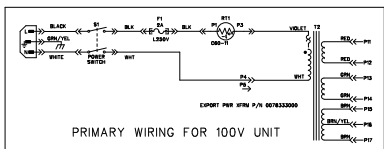
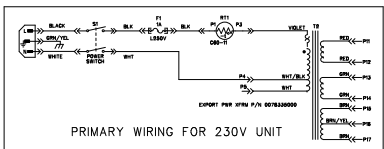
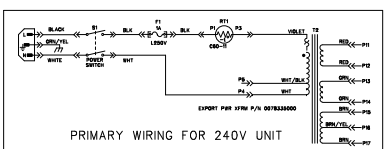
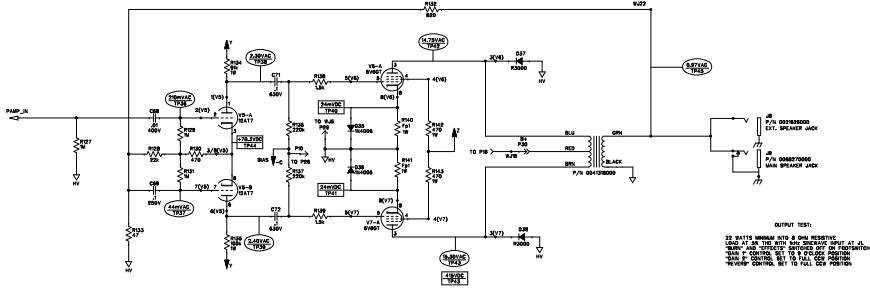
Fender MUSICAL INSTRUMENTS
 Corona, CA U.S.A.

TITLE: SERVICE DIAGRAM, COMBINED (continued)
 SUPER-SONIC 22

APPROVED BY: _____
 DATE: _____
 DRAWN: LORENZEN [ENR, LORENZEN]
 DATABASE FILE: 2804SLICH

SIZE: DRAWING NUMBER: **D 0078327000** REV. **A**
 RELEASE DATE: 08-JAN-10 SHEET: 1 OF 3

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR904	08-JAN-10	LEL



6. ALL VOLTAGE READINGS WITH RESPECT TO GROUND LEADS ± 5% OF VALUE. ALL VOLTAGE READINGS FOR THE 22K POTENTIOMETER SHOULD BE WITHIN ± 5% OF VALUE. VOLTAGE MAY VARY ± 5%.

RESISTOR TEST CONDITIONS:
 A) ALL RESISTORS SHOULD BE TESTED IN THE CIRCUIT.
 B) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 C) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 D) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 E) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 F) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 G) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 H) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 I) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 J) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
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 M) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 N) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 O) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 P) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 Q) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 R) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 S) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 T) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 U) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 V) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 W) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 X) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 Y) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.
 Z) RESISTOR VALUE SHOULD BE WITHIN ± 5% OF VALUE.

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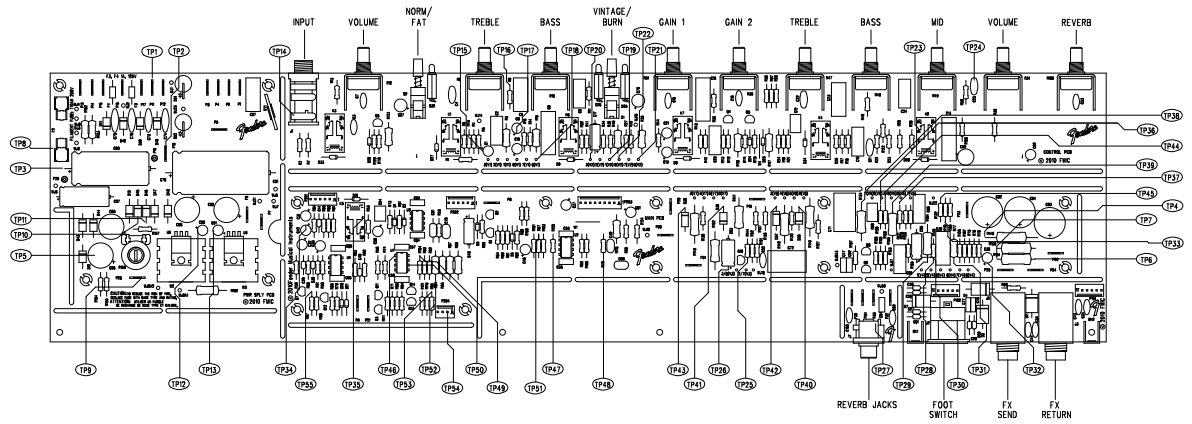
DATE: _____
 APPROVED BY: _____
 DATE: _____
 DRAWING NUMBER: D 0078327000
 DRAWING FILE: 280451SCH
 TITLE: SERVICE DIAGRAM, COMBINED (MUSICIAN)
 SUPER-SONIC 22
 SIZE: _____
 RELEASE DATE: 08-JAN-10
 SHEET: 2 OF 3

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR904	08-JAN-10	LEL



DRAWING: SERVICE DIAGRAM
DATE: 28APR08 REV: 08-JAN-10

SEE SHEET 1-2 OF 3 FOR TEST CONDITIONS AND TEST POINT VALUES.
NOTES: (UNLESS OTHERWISE NOTED)

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Fender MUSICAL INSTRUMENTS
Corona, CA U.S.A.

CHECKED BY: _____
DATE: _____

APPROVED BY: _____
DATE: _____

DRAWN: HAR LE (ENR, L. LORENZO)
DATE: 08-JAN-10

TITLE: SERVICE DIAGRAM, COMBINED (schematic)
SUPER-SONIC 22

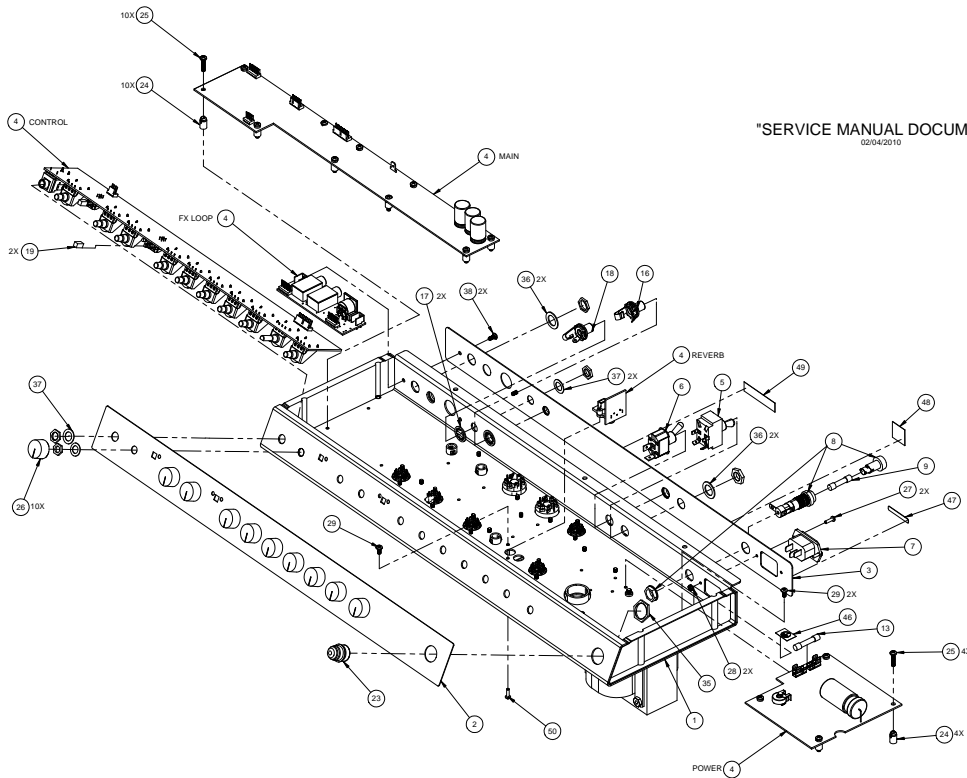
SIZE: DRAWING NUMBER: **D 0078327000**

RELEASE DATE: 08-JAN-10 SHEET 3 OF 3

8 7 6 5 4 3 2 1

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"SERVICE MANUAL DOCUMENT"
02/04/2010



50	1	SCRW SMB #4X3/8 PHP BLK
49	1	LABEL PSE JPN SAFETY CAUTION AND ICONS
48	1	LABEL PSE JPN (YAMANO)
47	1	LABEL VOLTAGE
46	1	LABEL GROUNDING SEMKO
45	2	TUBE 7025/12AX7A 12AX7B UNMARKED
44	1	WIRE SET CHS SUPER-SONIC 22 (N.S.)
43	4	SCRW M 8-32X3/8 PHP BLXSEMLW
41	2	CABLE ASSY RIBBON 6CKT 2-1/2" (N.S.)
40	1	CABLE RIBBON ASSY 4CKT 1" (N.S.)
39	1	CABLE RIBBON ASSY 4CKT 2.5" (N.S.)
38	2	SCRW M 6-32X1/4 PHP BLK
37	3	WSHR FLAT 3/8X.614 NI
36	4	WSHR FLAT 47X.750 NI SELL 049
35	1	NUT HOLDER PILOT LIGHT 11/16-27
34	1	TUBE 7025/12AX7A 12AX7WC GT-12AX7-R
33	2	TUBE 12AT7 GT-12A77
32	5	TUBE SHIELD 099-0723-000
31	2	TUBE 6V6GTA 6V6S GT-6V6-S
30	2	TUBE RING UNIVERSAL (277H-2)
29	23	SCRW TF 6-32X1/4 PHP ZI
28	2	NUT HEX 4-40 EX LOCK
27	2	SCRW M 4-40X3/8 PHP BLK
26	10	KNOB VINTAGE CREAM
25	14	SCRW TF 6-32X5/8 PHP ZI
24	14	STANDOFF NYL PCB SNAP 3/8
23	1	JEWEL ASSY LED
22	1	KFMR PWVR SUPER-SONIC 22
21	3	BUSHING SNAP 5/16X17/32 BLK
20	1	BUSHING SNAP 3/4X1-1/8 WHIT
19	2	BUTTON PUSH IVORY
18	1	JACK PHONE 2/CD SOC L11 3/8" L
17	2	WSHR LCK INTL 3/8X.614X.65 NI
16	1	JACK PHONE TIP SHUNT L12A
15	1	KFMR REVERB VIBROVERB5 DLX
14	1	CHOKE FILTER
13	1	FUSE TD 1-1/4X1/4 250V 10A
12	5	TUBE SOCKET 9 PIN
11	2	TUBE SCTY 8 PN (999-0724-000)
10	1	KFMR OUTPUT 65 DELUXE REVERB
9	1	FUSE
8	1	FUSE HOLDER
7	1	CONNECTOR AC LINE MALE IEC
6	1	SWITCH TOGGLE SPST W/NUITS
5	1	SWITCH TOGGLE DPST W/NUITS
4	1	PCB ASSY SUPER-SONIC 22
3	1	PANEL REAR SUPER-SONIC 22
2	1	PANEL FRONT SUPER-SONIC 22
1	1	CHASSIS SUPER-SONIC 22
ITEM	QTY	DESCRIPTION

ITEM	FROM	TO
44	P101	P201
45	P102	P202
42	P204	P304
43	P203	P303

MATERIAL	N/A	ENGINEER	
FINISH	N/A	DRAWN	
THIRD ANGLE PROJECTION		DATE	5/7/2009
GENERAL TOLERANCES (Unless otherwise specified)	ENGLISH: FRACTION: .010 .030 .050 .070 .100 HOLE DIA: -.001-.001	TITLE	CHASSIS ASSEMBLY SUPER-SONIC 22
	METRIC: .05 .15 .25 .30 HOLE DIA: .01-.03	DATE	
	ANGLES: 45° UNMARKED ANGLES: 90° DO NOT SCALE DRAWING	CHRD: _____ S.M.E. (DPT): _____ MGR/R: _____ P.E. _____ DATE: _____ DATE: _____ DATE: _____ DATE: _____	FENDER MUSICAL INSTRUMENTS CORP. DESIGN AND DEVELOPMENT CORONA, CALIFORNIA U.S.A.
		SIZE: D PART NUMBER: 0078315000 ASSEMBLY: A FILE NAME: 0078315000A SCALE: NONE SHEET: 1 of 3	

8 TITLER/LOCK REVISION: 17

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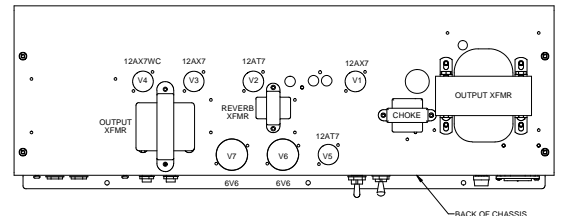
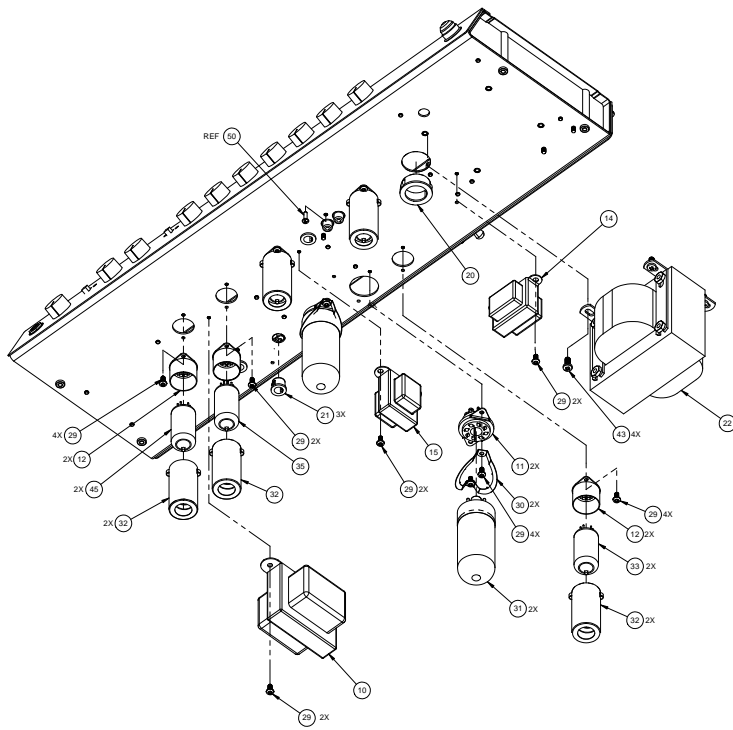


CHART A
VIEWED FROM BOTTOM OF CHASSIS
FOR TUBE INSERTION
SCALE: 1/2

TABLE B
120V & 110V POWER TRANSFORMER
WIRING INTERCONNECT AT CHASSIS ASSY

WIRE COLOR	FROM	TO	CONNECTION TYPE
BK	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P3	FASTON
WHT	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P4	FASTON
RED (2X)	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P11, P12	FASTON
GRN (2X)	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P13, P14	FASTON
BRN (2X)	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P15, P17	FASTON
BRN/YEL	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P16	FASTON

TABLE D
240V POWER TRANSFORMER
WIRING INTERCONNECT AT CHASSIS ASSY

WIRE COLOR	FROM	TO	CONNECTION TYPE
VIOLET	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P3	FASTON
BK/RED	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P5	FASTON
BK/GRN	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P7	FASTON
BK/YEL	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P8	FASTON
WHT	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P9	FASTON
WHT/BK	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P10	FASTON
BK	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P4	FASTON
RED (2X)	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P11, P12	FASTON
GRN (2X)	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P13, P14	FASTON
BRN (2X)	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P15, P17	FASTON
BRN/YEL	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P16	FASTON

TABLE C
230V & 220V POWER TRANSFORMER
WIRING INTERCONNECT AT CHASSIS ASSY

WIRE COLOR	FROM	TO	CONNECTION TYPE
VIOLET	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P3	FASTON
BK/RED	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P5	FASTON
BK/GRN	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P7	FASTON
BK/YEL	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P8	FASTON
WHT	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P9	FASTON
WHT/BK	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P4	FASTON
BK	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P10	FASTON
RED (2X)	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P11, P12	FASTON
GRN (2X)	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P13, P14	FASTON
BRN (2X)	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P15, P17	FASTON
BRN/YEL	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P16	FASTON

TABLE E
100V POWER TRANSFORMER
WIRING INTERCONNECT AT CHASSIS ASSY

WIRE COLOR	FROM	TO	CONNECTION TYPE
VIOLET	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P3	FASTON
BK/RED	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P5	FASTON
BK/GRN	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P7	FASTON
BK/YEL	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P8	FASTON
WHT	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P4	FASTON
WHT/BK	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P9	FASTON
BK	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P6	FASTON
RED (2X)	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P11, P12	FASTON
GRN (2X)	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P13, P14	FASTON
BRN (2X)	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P15, P17	FASTON
BRN/YEL	ITEM 26	ITEM 4 (PWR SUPPLY PCB) - P16	FASTON

8 TITELBLOCK REVISION: 17

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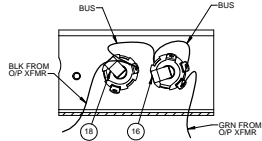
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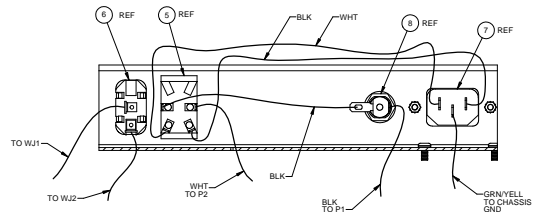
FENDER MEDICAL INSTRUMENTS CORP. RESEARCH AND DEVELOPMENT CORONA, CALIFORNIA U.S.A.	DRAWN	DATE	5/7/2009	REV	ASSEMBLY
COPYRIGHT - 2009 - FMC				D	0078315000
				FILE NAME	0078315000A
				SCALE	NONE
				SHEET	2 of 3

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ITEM LETTER	CONNECTION REFERENCE CHASSIS WIRESET 0078330000 (ITEM 46)
A	IEC GND TO CHS GND
B	BLK WIRE - V1 PIN 8 TO V2 PIN 9 WHT WIRE - V1 PIN 4&5 TO V2 PINS 4&5 BLK WIRE - V2 PIN 8 TO V3 PIN 9 WHT WIRE WIRE - V2 PIN 4&5 TO V3 PIN 4&5 BLK WIRE - V4 PIN 8 TO V6 PIN 2 WHT WIRE - V5 PINS 4&5 TO V6 PIN 7 BLK WIRE - V6 PIN 2 TO V7 PIN 2 WHT WIRE - V6 PIN 7 TO V7 PIN 7
C	BLK WIRE - V3 PIN 9 TO V4 PIN 9 WHT WIRE - V3 PINS 4&5 TO V4 PINS 4&5
D	P6 TO P6
E	P7 TO P9
F	P10 TO P26
G	AT P2 TO S1B-1
H	IEC N TO S1B-2
J	AT P1 TO F1 (FUSE)
K	IEC L TO S1A-1
L	J8 TIP TO J8 TIP J8 GND AND SHUNT TO 9 GND
M	F2 (FUSE) TO S1A-2
N	V3A(2) TO V3B(7)
P	V5A(3) TO V5B(8) V5A(3) TO V5B(8)
R	PIN 3 ON V5, V3 TO PIN 8 ON V5, V3



VIEW C-C
SCALE: 1/1



VIEW D-D
SCALE: 1/1

ITEM LETTER	CONNECTION REFERENCE PCB WIRESET 0078332000
A	PIN 8 AT V1,2,4,6,7 TO PCB PIN 8 AT V1,2,4,6,7 PINS 3&4 AT V3,2 TO PCB PIN 8 AT V1,2,4,6,7 PINS 3 & 4 AT V3,2 TO PCB PIN 3 AT V1,2,4,5 PIN 3 AT V1,2,4,5 AT PCB PIN 3 AT V1,2,4,5
B	WJ22 TO CHS GND
C	WJ22 TO J8 TIP
D	PINS 2&7 AT V1,2,4,5 TO PIN 7 AT V3, PIN 5 AT V6,7
E	WJ33 TO CHS GND
F	PIN1 & 6 AT V1,2,4,5 PIN AT V6,7 TO PCB PIN 1 & 6 AT V1,2,4,5 PIN 3 AT V6,7
G	WJ23 TO CJS GND
H	PIN 4 AT V6,7 TO PCB V6 PIN 4, V7 PIN 4
J	WJ17 TO P25
K	WJ16 TO P34
L	WJ7 TO P23
M	WJ14 TO P25
N	WJ15 TO P24
P	WJ8 TO P22
Q	WJ18 TO P18
R	WJ21 TO P21
S	WJ1 TO S2-1
T	WJ2 TO S2-2
U	WJ5 TO P29
V	BLK WIRE - WJ4 TO V4 PIN 9 WHT WIRE - WJ3 TO V4 PINS 4 & 5 BLK WIRE - WJ8 TO V5 PIN 9 WHT WIRE - WJ5 TO V5 PIN 4 & 5

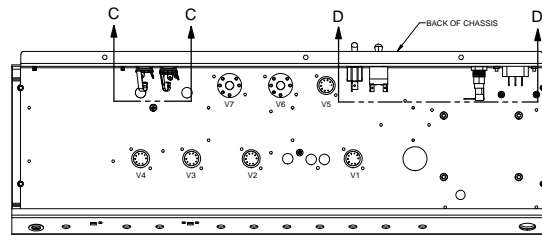


CHART B
VIEWED FROM TOP OF CHASSIS FOR WIRING
SCALE: 1/2

FENDER MUSICAL INSTRUMENTS CORP. DRAWN	DATE	5/7/2009	REV	A
RESEARCH AND DEVELOPMENT CORONA, CALIFORNIA U.S.A.	FILE NAME	0078315000A	SCALE	NONE
COPYRIGHT © 2009 F/MC			SHEET	3 of 3

8 TITLERLOCK REVISION: 17

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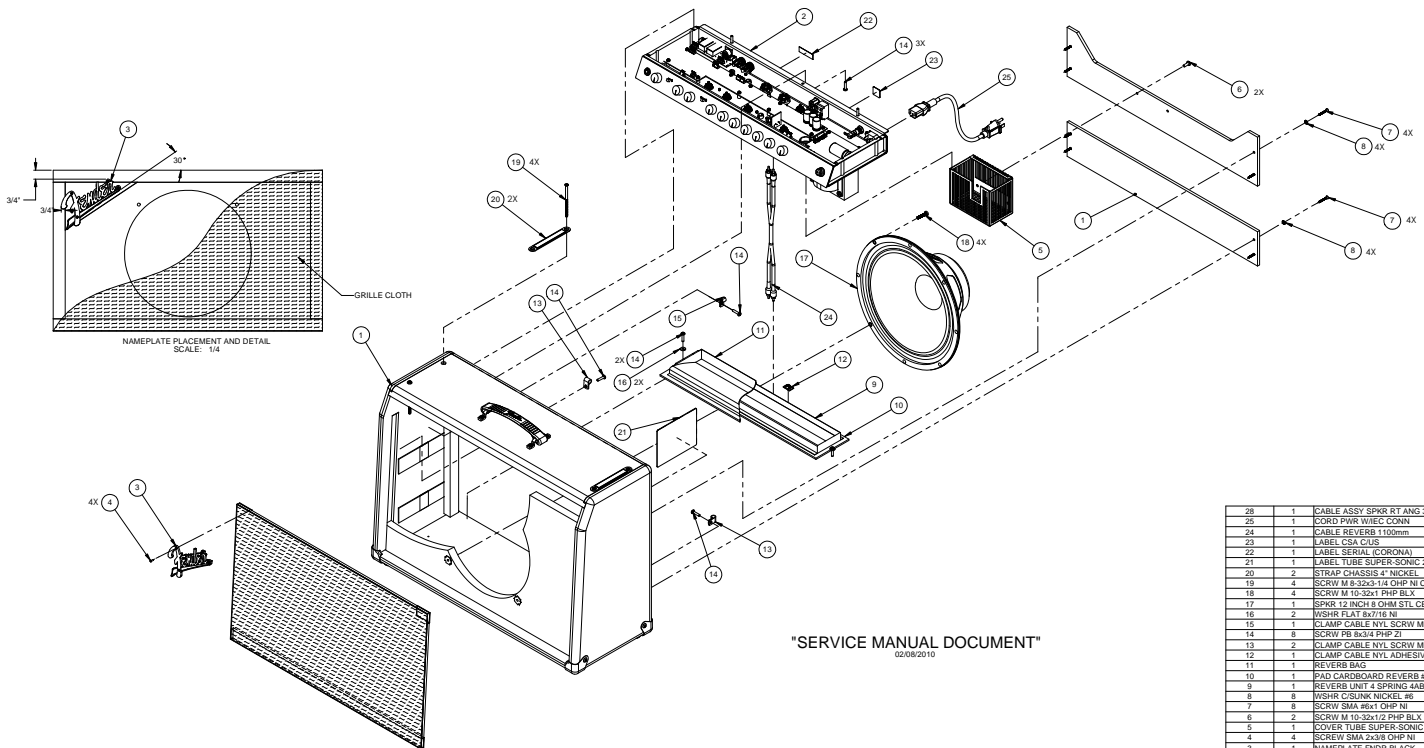
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28	1	CABLE ASSY SPRKR RT ANG 33" (N.S.)
25	1	CORD PWK W/REC CONN
24	1	CABLE REVERB 1100mm
23	1	LABEL USA CUS
22	1	LABEL SERIAL (CORONA)
21	1	LABEL TUBE SUPER-SONIC 22
20	2	STRAP CHASSIS 4" NICKEL
19	4	SCREW M 8-32x3-1/4 OHP NI CP
18	4	SCREW M 10-32x1 PHP BLK
17	1	SPKR 12 INCH 4 OHM STL CER
16	2	WSHR FLAT 8x7/16 NI
15	1	CLAMP CABLE NYL SCRW MNT 1/4
14	6	SCRW FB 8x34 PHP ZI
13	2	CLAMP CABLE NYL SCRW MNT 5/16
12	1	CLAMP CABLE NYL ADHESIVE
11	1	REVERB DAG
10	1	PAD CARDBOARD REVERB #12FNB6
9	1	REVERB UNIT 4 SPRING 4483C1B
8	8	WSHR C-SLUNK NICKEL 86
7	8	SCRW SMA 8x1 OHP NI
6	2	SCRW M 10-32x1/2 PHP BLK
5	1	COVER TUBE SUPER-SONIC 22
4	4	SCREW SMA 2x3/8 OHP NI
3	1	NAMEPLATE FNDR BLACK
2	1	CHASSIS ASSEMBLY SUPER-SONIC 22
1	1	CABINET ASSY SUPER-SONIC 22 BLK

MATERIAL	N/A	ENGINEER		TITLE	END ITEM ASSEMBLY SUPER-SONIC 22 BLACK
FINISH	N/A	DRAWN		DATE	5-29-2009
THIRD ANGLE PROJECTION		CHRD	B.M.E. (DPT)	MGR/DR	P.E.
GENERAL TOLERANCES UNLESS OTHERWISE SPECIFIED	ENGLISH FRACT -- #1/32 X -- #1/64 XX -- #1/128 HOLE DIA -- .005-.001 WOOD HOLE DIA -- #1/8	DATE	DATE	DATE	DATE
	METRIC #1 X -- #1.6 XX -- #1.25 HOLE DIA -- #1.2-#1.3	FILE NAME	SCALE	NONE	SHEET 1 of 1
ANGLES UNMARKED ANGLES -- 90° DO NOT SCALE DRAWING		SIZE	PART NUMBER	2160000000	MASTER/ASSEMBLY
		REV	A		

8 TITLERLOCK REVISION: 18

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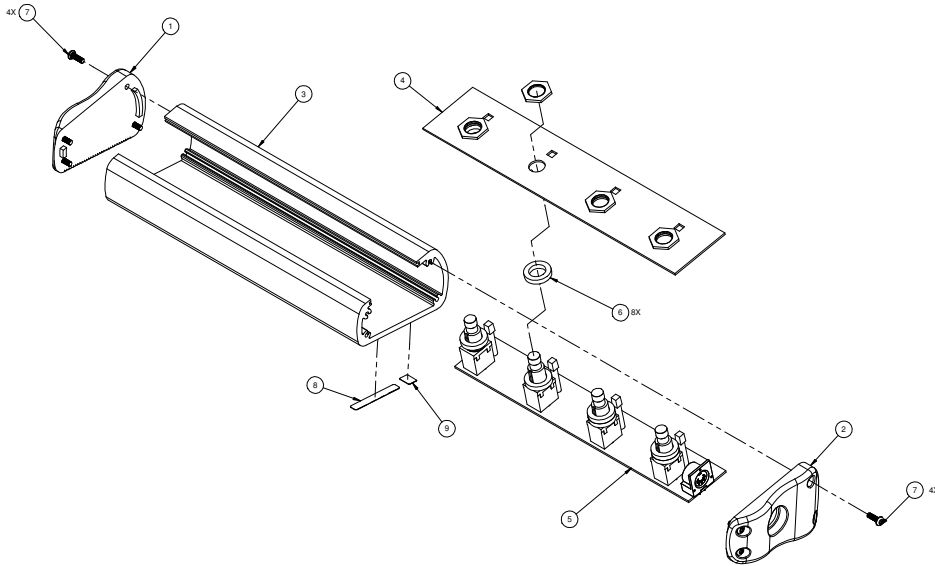
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SERVICE MANUAL DOCUMENT
02/02/2010

(N.S.) = NOT SHOWN

9	1	LABEL MEEE SYMBOL
8	1	LABEL "MADE IN MEXICO"
7	8	SCREW SMB 6x3/8 PH PHS BLX
6	8	NSHR NYL 455 775x150 TK
5	1	PCB ASSY FTSW 3 BTN DLX 90 DSP
4	1	PLATE TOP FTSW SUPER-SONIC 22
3	1	HOUSING FTSW 4 BUTTON 2004
2	1	END CAP FTSW DIN RIGHT SIDE
1	1	END CAP FTSW 2004 LEFT SIDE
		ITEM QTY DESCRIPTION

MATERIAL	NONE	GENERAL TOLERANCES UNLESS OTHERWISE SPECIFIED ENGLISH: FRACTION 1/16 X 1/32 XX 1/64 HOLE DIA. 0.0005	ENGINEER		TITLE	FOOTSWITCH ASSEMBLY 4 BUTTON
FINISH	NONE	METRIC: 0.5 1 2 3 4 5 6 8 10 12 15 20 25 30 HOLE DIA. 0.01	DRAWN		REV	D 0069511000 MASTER/ASSEMBLY C
THIRD ANGLE PROJECTION		ANGLES: 90° UNMARKED ANGLES: 90°	DATE	9/29/2005	FILE NAME	0069511000C
		DO NOT SCALE DRAWING	CHKD		DATE	
			S.M.E. (OPT)		DATE	
			MGR/DR		DATE	
			P.E.		DATE	
			SIZE	A	SCALE	NONE
			SHEET	1	OF	1

8 TITLEBLOCK REVISION: 17

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