ELECTRONICS

BLUES JUNIOR

SERVICE MANUAL



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Fender Musical Instruments Corp., 8860 E. Chaparral Road Suite 100 Scottsdale, AZ 85250

BLUES JUNIOR

SERVICE MANUAL

NOVEMBER 1995

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 asterick (*) 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

BLUES JUNIOR

SPECIFICATIONS

Type	PR 295
Input impedance:	1M ohm
Power output:	15 Watts R.M.S. @ 5% T.H.D
Rated load impedance:	8 Ohms
Speaker compliment	One 8 ohm 12" Eminence, replica of Jenson P-10

Dimensions:

Height:	16	inches	(41 cm)
Width:	18	inches	(46 cm)
Depth:	9-13/16	inches	(25 cm)
Weight:	31 lbs.		(14 kg)

THEORY OF OPERATION

J1 is a high-sensitivity input with an input impedance of about 1MΩ. V1B is the first gain stage which also contains the "FAT" switch. The FAT feature is activated by grounding the node between bypass capacitor C3 and R9. Via the FAT switch (S1) or the optional footswitch, the junction of R52 and R54 can be grounded. With zero volts applied to the gate of Q1, the JFET will essentially ground C3, activating the FAT feature.

The output of V1B couples to the VOLUME control (R7). The VOLUME control is actually a preamp overdrive control that adjusts the level of distortion. C2 attenuates high frequencies and C1 attenuates low frequencies at high distortion settings. This takes the edge off the distortion and prevents the speaker from flapping. V1A provides a gain of about 40, and drives the tone control circuitry. After the tone controls, the signal is fed to V2B, which drives the MASTER volume control (R41). From the MASTER volume, the signal splits to feed the power amplifier and the Reverb.

U1A makes up a typical solid-state reverb drive circuit. U1B is the reverb recovery or sense circuit, which drives the REVERB control (R51). The reverb signal is summed with the dry signal at C6, which couples to the input of the Phase Inverter (V3).

The output tubes (6BQ5/EL84) are arranged in a push-pull configuration that will produce fifteen (15) watts R.M.S. into eight (8) ohms @ 5% THD, 1kHz.

The output bias is derived from the -15Vdc supply. The voltage divider at R31 & R37 determines the bias voltage (-10.7 Vdc). C14 filters the ripple to 1mV or less.

BLUES JUNIOR
PARTS LIST
PRINTED CIRCUIT BOARD ASSEMBLY

QTY	PART #	DESCRIPTION				REFERENCE DESIGNATION	
1	049306001	PCB ASSY BLUES JUNIOR ALL V				(STUFFED)	
1	028104000	BUTTON PUSH SWITCH BLACK				(@ S1)	
2	047093000	CABLE 6 CKT 3.2"				CJ1,3	
3	029533000	CABLE JMPR 22GA 4 CKT 3.2"				CJ2,4,5	
1	028577000	CABLE REVERB 30"				(@ P1,2,3,4)	
1	038689001	CAP AE AX	.47µF	100V		C23	
3	009512001	CAP AE AX	22µF	25V	20%	C3,4,21	
3	024819000	CAP AE AX	22µF	500V		C10,17,18	
1	041589000	CAP AE AX	47µF	500V	20%	C15	
1	028474000	CAP AE RDL	100µF	25V	20%	C14	
2	028479000	CAP AE RDL	220µF	25V	20%	C29,30	
2	028489000	CAP AE RDL	470µF	50V	20%	C27,28	
1	039255001	CAP CA	10PF	100V	LL	C24	
1	020909000	CAP CD	47PF	1000V	10%	C33	
1	069724000	CAP CD	100PF	1000V	10% C&F	C2	
1	020917000	CAP CD	250PF	1000V	10%	C25	
1	020867000	CAP CD	330PF	1000V	10%	C20	
1	017620000	CAP CD	1500PF	1000V	10%	C35	
1	039265001	CAP CA	2200PF	100V	LL	C22	
2	026202000	CAP PFF	.0022µF	600V		C1,16	
1	033581000	CAP PFF RDL	.0033µF	100V	10%	C26	
1	033588000	CAP PFF RDL	.01µF	100V	10%	C31	
2	024823000	CAP MPF RDL	.01µF	400V	10%	C6,34	
1	036234000	CAP PFF RDL	.015µF	100V	10%	C12	
4	024833000	CAP MPF RDL	.022µF	400V	10%	C8,9,11,13	
1	024839000	CAP MPF	.033µF	400V		C19	
2	024853000	CAP MPF RDL	.1µF	250V	10%	C5,7	
1	024855000	CAP MPF RDL	.1µF	630V	10%	C32	
1	049402000	CONTROL 25K B SNAPIN				R29	
2	034719000	CONTROL 50KB SNAP IN				R41,51	
1	041913000	CONTROL SNAPIN 250K 10A				R8	
1	040985000	CONTROL SNAPIN 250K B				R28	
1	049401000	CONTROL 1M 10A				R7	
2	064089001	DIODE 1N4003 LL				CR5,7	
4	026730001	DIODE 1N4006 800V LL				CR1,2,3,4	
2	006260001	DIODE 1N4448 SIGNAL LL				CR6,12	
2	029690001	DIODE HV 3KV 200MA LL				CR10,11	
2	009165001	DIODE ZEN 1N4744A 15V 1W 5%				CR8,9	
16	025802000	FSTN TAB MALE .250X.032 PCB MT				CP1-13,16-18	
2	031041000	FSTN TAB ML RTANG PCB .25X.032				CP14,15	
2	025996000	FUSE CLIP PCB .250 & 5MM FUSE				XF1	
1	048827	FUSE QA 1-1/4X1/4 250V 2A				F1	(100V/120V ONLY)
1	020789	FUSE QA 20mmX5mm 250V 1 AMP				F1	(230/240V EXPORT ONLY)
1	016795	IC DUAL OP AMP TLO72				U1	
1	030771	JACK 1/4 PCB 2/CD SCC				J2	(SPEAKER JACK)
1	027674	JACK 1/4 PCB 2/CD SCC INSL				J3	(FOOTSWITCH JACK)
1	037036	JACK PHONE PCB MONO CA PREMIUM				J1	(INPUT JACK)
26	020888001	JUMPER WIRE 22GA .5"				W1-26	
1	048332	LED RED PNL MT 7"				LD1	
1	049305	PCB FAB BLUES JUNIOR				(RAW BOARD)	
1	024947001	RES CF 1/4W	5%	47Ω	LL	R45	
1	024964001	RES CF 1/4W	5%	280Ω	LL	R15	
5	024969001	RES CF 1/4W	5%	1.5K	LL	R4,11,20,23,38	
1	029005001	RES CF 1/4W	5%	2K	LL	R49	

BLUES JUNIOR

PRINTED CIRCUIT BOARD ASSEMBLY (CONT)

QTY	PART #	DESCRIPTION				REFERENCE DESIGNATION
2	024977001	RES CF 1/4W	5%	4.7K	LL	R16,46
1	025942001	RES CF 1/4W	5%	7.5K	LL	R26
1	026510001	RES CF 1/4W	5%	9.1K	LL	R18
3	024981001	RES CF 1/4W	5%	10K	LL	R1,30,48
3	024987001	RES CF 1/4W	5%	22K	LL	R31,52,54
2	024989001	RES CF 1/4W	5%	33K	LL	R13,37
1	028153001	RES CF 1/4W	5%	75K	LL	R27
2	024997001	RES CF 1/4W	5%	100K	LL	R6,9
1	024998001	RES CF 1/4W	5%	120K	LL	R44
1	028955001	RES CF 1/4W	5%	130K	LL	R5
3	025059001	RES CF 1/4W	5%	220K	LL	R21,22,42
1	025061001	RES CF 1/4W	5%	330K	LL	R50
1	025828001	RES CF 1/4W	5%	430K	LL	R40
2	025065001	RES CF 1/4W	5%	470K	LL	R47,56
1	029618001	RES CF 1/4W	5%	910K	LL	R43
4	025069001	RES CF 1/4W	5%	1M	LL	R2,12,14,53
2	041741001	RES MOX FP 1/2W	5%	47Ω		R35,36
2	028580001	RES MOX FP 1/2W	5%	100Ω		R24,25
1	025829001	RES CF 1/2W	5%	150Ω	LL	R34
1	031065001	RES CF 1/2W	5%	91K	LL	R17
4	025116001	RES CF 1/2W	5%	100K	LL	R3,10,19,39
2	031067001	RES FILM 1W	5%	750Ω	LL	R57,58
2	027349001	RES FILM 1W	5%	10K	LL	R33,55
1	041258	RES CF 2W	5%	2.2K		R32
1	028091	SWITCH PUSH SLFLK SHORT STROKE				S1
5	029167	TUBE SOCKET 9 PIN PCB MOUNT				XV1-5
1	014689	XSTR N-CH JFET J111 TO-92				Q1

CHASSIS ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	049307	CHS ASSY BLUES JUNIOR 120V	(COMLETE CHASSIS)
1	047560	BRACKET TUBE RETAINER PRO. JR.	(@ V4,5)
2	018022	BUSHING SNAP 5/16X17/32 BLK	(@ OUTPUT TRANSFORMER)
1	026116	BUSHING SR .500X.063X7/16 BLK	(@ REVERB CABLE)
1	026038	BUSHING SR. .625X.062X37/64BLK	(@ POWER CABLE)
1	010401	BUSHING SR .625X.125X37/64 WHT	(@ 230V & U.K. POWER CABLE)
1	026541	CABLE ASSY PWR W/.250 TAB 120V	(POWER CABLE 120V ONLY)
1	048463	CABLE ASSY PWR .250 TAB 100V	(POWER CABLE 100V ONLY)
1	033331	CABLE ASSY PWR 220/240V	(POWER CABLE 230V ONLY)
1	038602	CABLE ASSY PWR AUST .250 TAB	(PWR CABLE AUSTRALIA 240V)
1	040993	CABLE ASSY PWR 5A U.K..250 TAB	(P CABLE UNITED KINGDOM 240V)
1	049101	CHS BLUES JUNIOR	(RAW CHASSIS)
6	041710	KNOB POINTED PUSH ON BLK	
1	027288	LENS LED RED	(@ LD1)
2	016352	NUT HEX 3/8-32X3/32 TK NI	(@ SPEAKER & FOOTSWITCH JACK)
9	097360	NUT HEX 4-40 EX LOCK	(TUBE PCB MOUNT)
4	022004	NUT KEPS #8-32 ZINC	(POWER TRANSFORMER MOUNT)
1	049102	PANEL FRONT BLUES JUNIOR	(CHROME PANEL UNDER KNOBS)
1	049300	PANEL REAR BLUES JUNIOR	(@ BACK OF CABINET)
9	031188	SCRW M 4-40X1/4 PHPS ZI W/WSHR	(TUBE PCB TO CHASSIS MOUNT)
4	038900	SCRW TF 6-32X1/4 PHP ZI	(GND LUG & OUTPUT XFMR MOUNT)
7	037353	SCRW TF 6-32X3/4 PHP ZI	MAIN PCB TO CHASSIS MOUNT)
2	039371	SPRING, EXTENSION 1.81X.15"	(@ V4,5)
9	038519	STANDOFF M/F 4-40 X 1/4L	(TUBE PCB TO CHASSIS MOUNT)
7	047040	STANDOFF NYLON PCB SNAPIN 1/2"	(PCB MOUNT)

BLUES JUNIOR

CHASSIS ASSEMBLY (CONT)

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	036570	SWITCH TOGGLE DPST W/NUTS	S1 (POWER SWITCH)
3	013341	TUBE 7025/12AX7WA RUSSIAN MADE	V1,2,3
2	041255	TUBE 6BQ5/EL84	V4,5
2	990430092	WASHER FLAT .482X.709 NI	(@ INPUT JACK & POWER SWITCH)
2	990430010	WASHER LCK INTL 3/8X.681X.032	(@ SPEAKER & FOOTSWITCH JACK)
1	049969	XFMR OUTPUT 15W	T1
1	049967	XFMR PWR BLUES JUNIOR 120V	T2 (120V ONLY)
1	049968	XFMR PWR BLUES JUNIOR EXPORT	T2 (100V,115V,230V,240V)

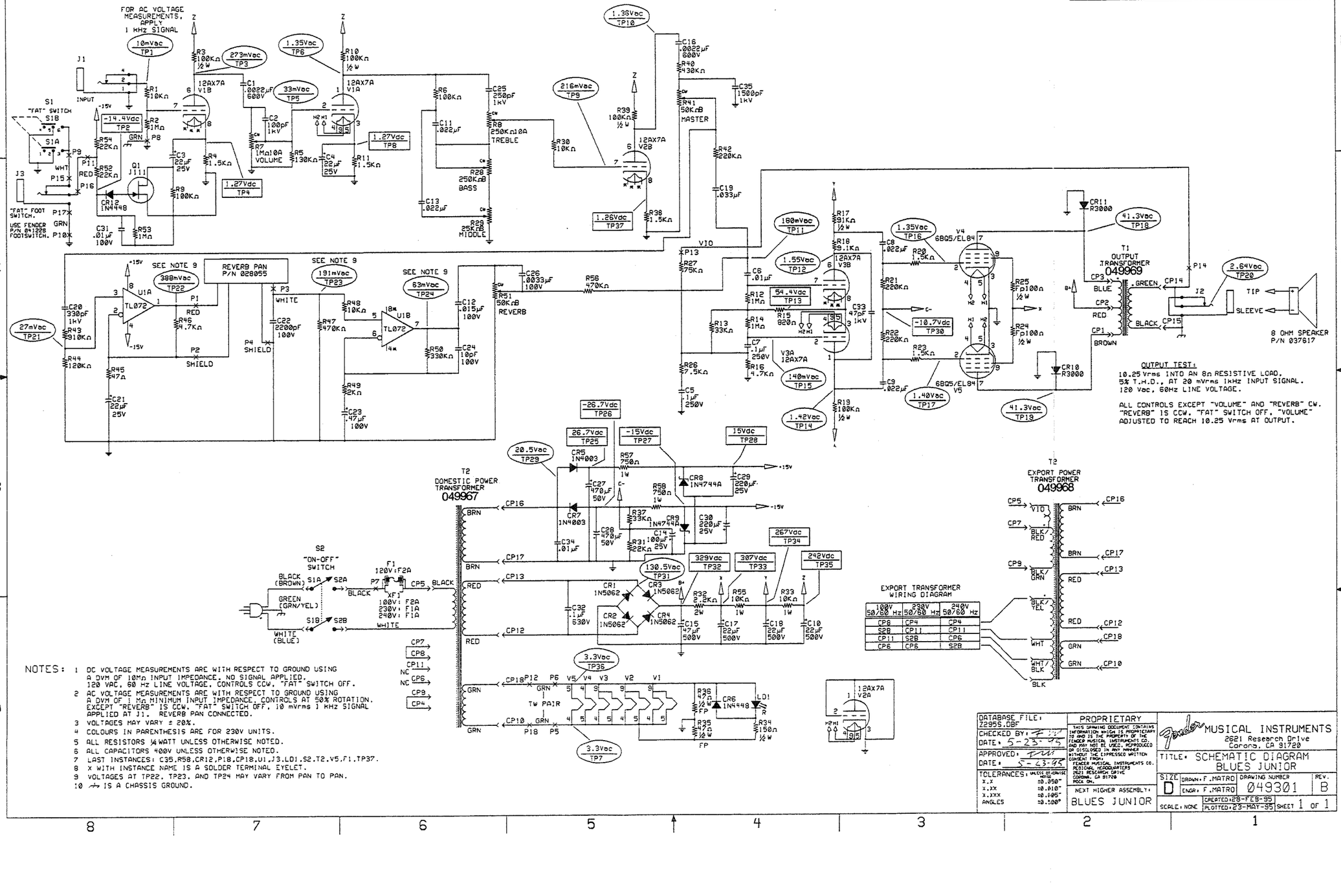
CABINET ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	049103	CAB ASSY BLUES JR TWEED	(COMPLETE CABINET)
1	049103020	BACK ASSY BLUES JR TWEED	(BACKBOARD)
1	038566	CABLE ASSY SPKR RT ANG 13-1/2	(SPEAKER CABLE)
1	022491	CLAMP CABLE NYL SCREW MNT 5/16	
.3360	036131	CLOTH GRILLE VINTAGE TYPE	
4	029821	EYELET RFLNGD .215 OD X.315 L	(REVERB PAN MOUNT)
4	0415490	GLIDE PRESS-IN .75 DIA	
1	049103010	GRILLE BAFFLE ASSY BLUES JR	(COMPLETE GRILLE)
1	048534	HANDLE 8 3/4" LEATHER BROWN	
2	036478	HANDLE CAP NI	
1	041929	NAMEPLATE FENDER TWEED AMPS	
4	069393	NUT 6-32 HEX EXT LOCK	(GRILLE MOUNT)
4	021972	NUT T 10-32X3/4 STR 3 PRNG BLX	(SPEAKER MOUNT)
4	064162	NUT T 8-32X1/2 STR 3 PRNG BLX	(HANDLE MOUNT)
.0010	036650	PIN ESCUTCHEON #18X3/8 NI	(NAMEPLATE MOUNT)
1	028055	REVERB UNIT 800 OHM 8EB2C1B DN	(PAN)
4	026577	SCREW M 10-32X1 PHP BLX	(SPEAKER MOUNT)
4	036619	SCREW M 10-32X1-1/2 THP NI	(CHASSIS MOUNT)
6	015990	SCREW M 10-32X3/4 THP NI	(BACKBOARD MOUNT)
4	036618	SCREW M 6-32X1-1/2 OHP BRONZ	(GRILLE MOUNT)
4	026419	SCREW M 8-32X1 PHP STL NI	(HANDLE MOUNT)
5	029828	SCREW PB 8X3/4 PHP ZI	(REVERB PAN & CABLE CLAMP MNT)
1	037617	SPEAKER 12" 8 OHM 50 WATTS	
1.036	036343	TOLEX TWEED	
4	022327	WASHER FLAT 8X7/16 NI	

MISCELLANEOUS

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	049312	MANUAL OWNERS BLUES JUNIOR	
1	049302	SCHEM REDU W/SCV DIA BLS JR	

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASED PR295	3-3-95	FM
	B	EC 1476	5-15-95	FM

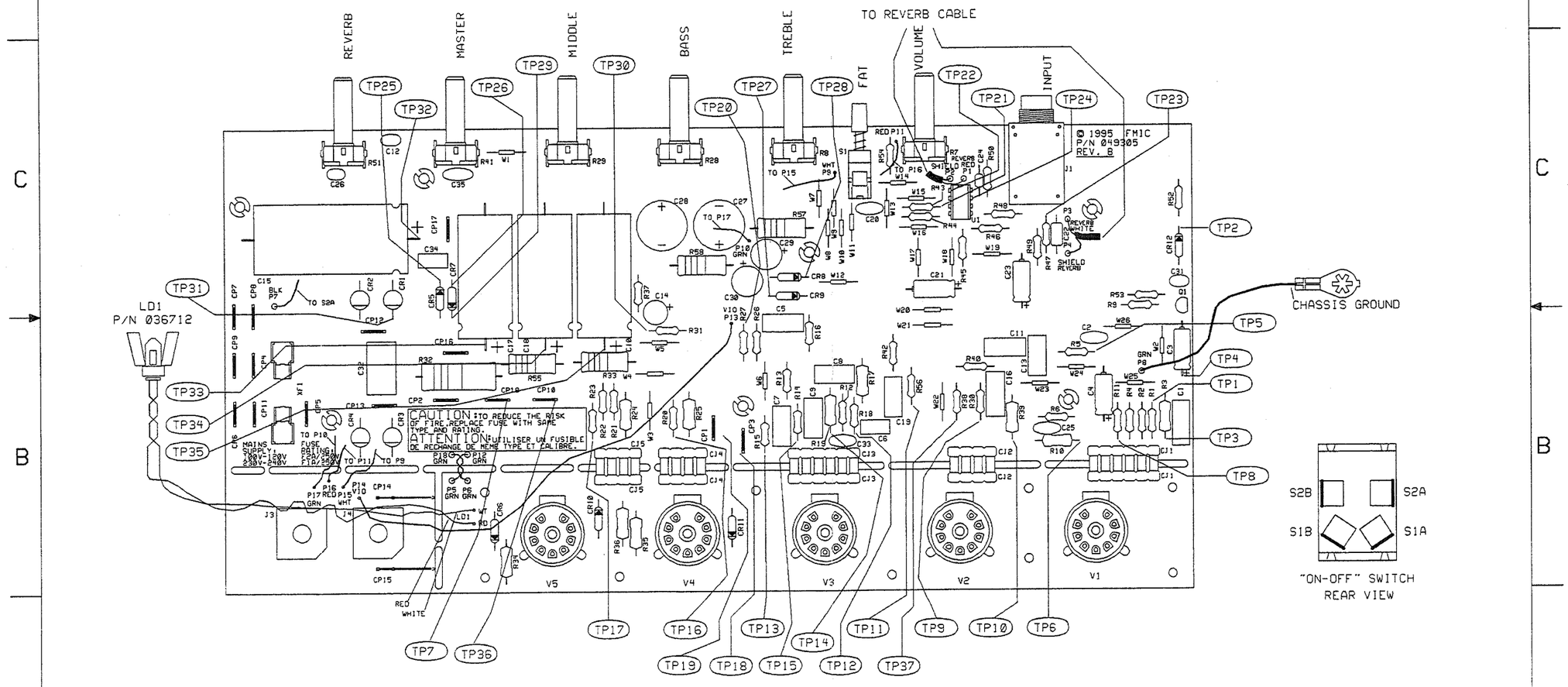


NOTES:
1. DC VOLTAGE MEASUREMENTS ARE WITH RESPECT TO GROUND USING A DVM OF 10MΩ INPUT IMPEDANCE. NO SIGNAL APPLIED. 120 VAC, 60 Hz LINE VOLTAGE. CONTROLS CCW, "FAT" SWITCH OFF.
2. AC VOLTAGE MEASUREMENTS ARE WITH RESPECT TO GROUND USING A DVM OF 1 MΩ MINIMUM INPUT IMPEDANCE. CONTROLS AT 50% ROTATION. EXCEPT "REVERB" IS CCW. "FAT" SWITCH OFF, 10 mVrms 1 KHz SIGNAL APPLIED AT J1. REVERB PAN CONNECTED.
3. VOLTAGES MAY VARY ± 20%.
4. COLOURS IN PARENTHESIS ARE FOR 230V UNITS.
5. ALL RESISTORS ¼ WATT UNLESS OTHERWISE NOTED.
6. ALL CAPACITORS 400V UNLESS OTHERWISE NOTED.
7. LAST INSTANCES: C35,R58,CR12,P18,CP18,U1,J3,LDI,S2,T2,V5,F1,TP37.
8. X WITH INSTANCE NAME IS A SOLDER TERMINAL EYELET.
9. VOLTAGES AT TP22, TP23, AND TP24 MAY VARY FROM PAN TO PAN.
10. ⏚ IS A CHASSIS GROUND.

DATABASE FILE: Z2955.DBF	PROPRIETARY	Fender MUSICAL INSTRUMENTS 2821 Research Drive Corona, CA 91720
CHECKED BY: [illegible] DATE: 5-23-95	THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE FENDER MUSICAL INSTRUMENTS CO. AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESSED WRITTEN CONSENT FROM FENDER MUSICAL INSTRUMENTS CO. REGIONAL HEADQUARTERS 2821 RESEARCH DRIVE CORONA, CA 91720 MADE ON:	TITLE: SCHEMATIC DIAGRAM BLUES JUNIOR
APPROVED: FM DATE: 5-23-95	NEXT HIGHER ASSEMBLY: BLUES JUNIOR	SIZE D · DRAWN: F.MATRO · DRAWING NUMBER 049301 · REV. B
TOLERANCES: UNLESS OTHERWISE NOTED X.X ±0.050" X.XX ±0.010" X.XXX ±0.005" ANGLES ±0.500°		ENGR: F.MATRO · CREATED: 28-FEB-95 · SCALE: NONE · PLOTTED: 23-MAY-95 · SHEET 1 OF 1

0049302000

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASED PR295	3-3-95	FM
	B	EC 1476	5-21-95	FM



FILM/DWG: SERVICE DIAGRAM	
DATABASE: Z295P.DBF	DATE: 23-MAY-95
LAYERS PLOTTED: 1 2 3 4 :8	10

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CHECKED BY: FM	
DATE: 5-23-95	
APPROVED: FM	
DATE: 5-23-95	
TOLERANCES: UNLESS OTHERWISE NOTED	
x.x	±0.050"
x.xx	±0.010"
x.xxx	±0.005"
ANGLES	±0.500°

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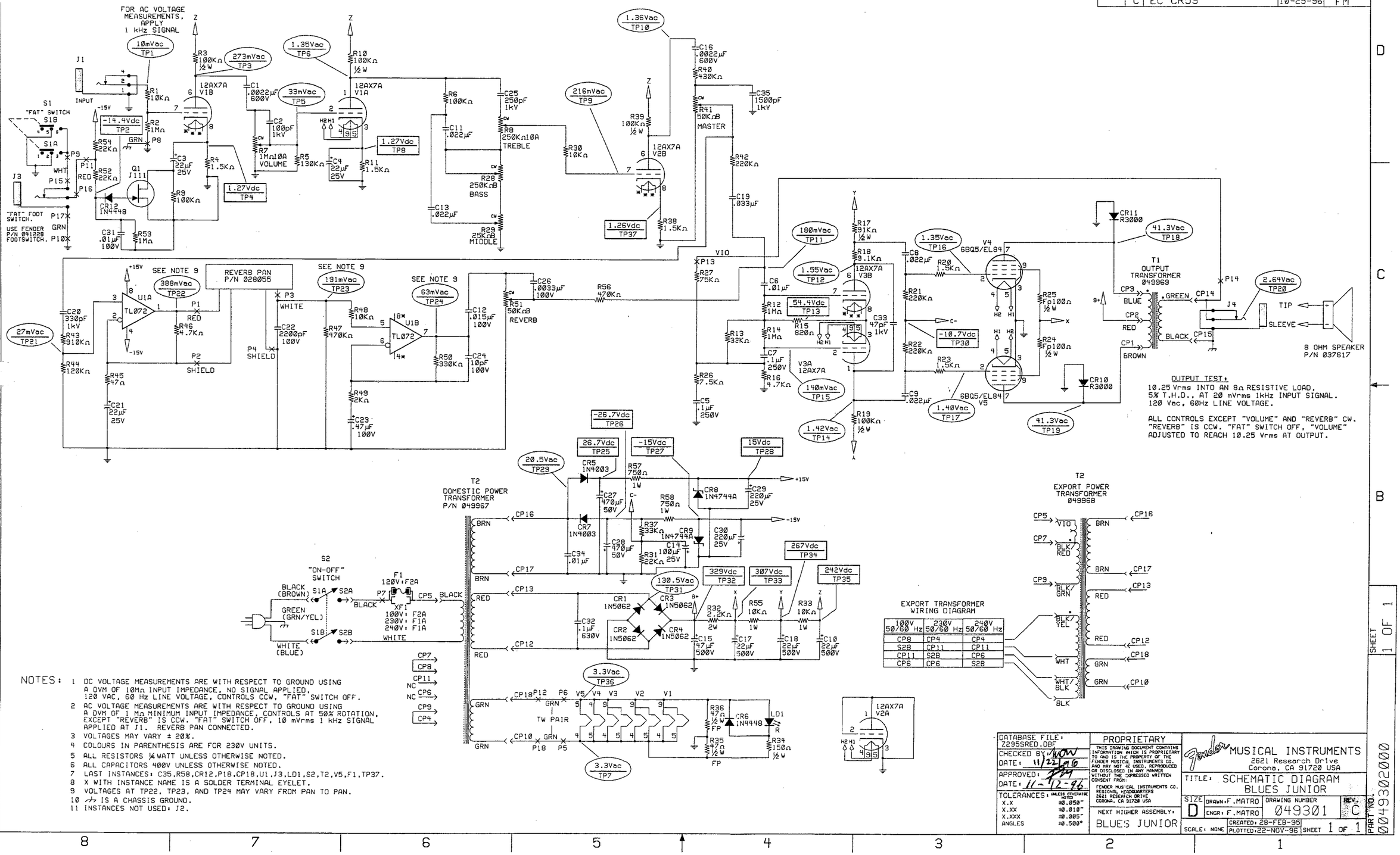
NEXT HIGHER ASSEMBLY:
BLUES JUNIOR

Fender MUSICAL INSTRUMENTS
2621 Research Drive
Corona, CA 91720 USA

TITLE: SERVICE DIAGRAM
BLUES JUNIOR

SIZE	DRAWN: F.MATRO	DRAWING NUMBER	REV.
C	ENGR: F.MATRO	049303	B
SCALE: NONE	CREATED: 3-3-95 PLOTTED: 23-MAY-95	SHEET 1 OF 1	

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASED PR295	3-3-95	FM
	B	EC 1476	5-15-95	FM
	C	EC CR59	10-29-96	FM

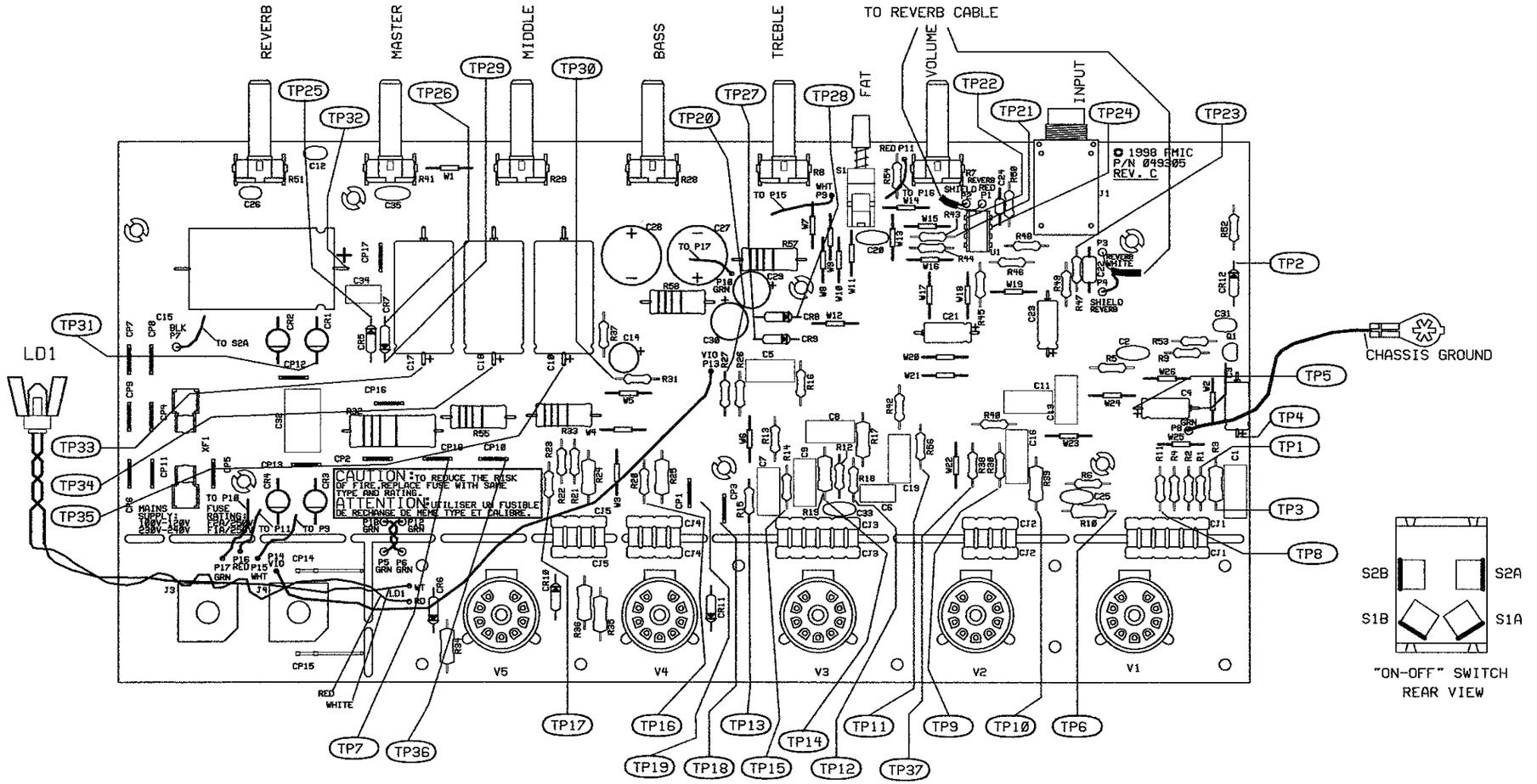


DATABASE FILE: Z295SREQ.DBF	PROPRIETARY	Fender MUSICAL INSTRUMENTS 2621 Research Drive Corona, CA 91720 USA
CHECKED BY: MW DATE: 11/22/96	THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE FENDER MUSICAL INSTRUMENTS CO. AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESSED WRITTEN CONSENT FROM: FENDER MUSICAL INSTRUMENTS CO. REGIONAL HEADQUARTERS 2621 RESEARCH DRIVE CORONA, CA 91720 USA	TITLE: SCHEMATIC DIAGRAM BLUES JUNIOR
APPROVED: DATE: 11-12-96	NEXT HIGHER ASSEMBLY: BLUES JUNIOR	SIZE D · DRAWN: F.MATRO · DRAWING NUMBER 049301 · REV. C
TOLERANCES: UNLESS OTHERWISE NOTED X.X ±0.050" X.XX ±0.010" X.XXX ±0.005" ANGLES ±0.500°		ENGR: F.MATRO · CREATED: 28-FEB-95 · PLOTTED: 22-NOV-96 · SCALE: NONE · SHEET 1 OF 1

SHEET 1 OF 1

PART NO. 049302000

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASED PR295	3-3-95	FM
	B	EC 1476	5-21-95	FM
	C	EC 2214	12-02-98	MDW



FILM/DWG: SERVICE DIAGRAM		
DATABASE: Z295P.DBF	DATE:	02-DEC-98
LAYERS PLOTTED: 1 2 3 4 18		10

DATABASE FILE: Z295P.DBF
CHECKED BY:
DATE: 9/18/98
APPROVED:
DATE: 2/18/99

TOLERANCES: UNLESS OTHERWISE NOTED

X.X	±0.050"
X.XX	±0.010"
X.XXX	±0.005"
ANGLES	±0.500°

PROPRIETARY

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REGIONAL HEADQUARTERS
2621 RESEARCH DRIVE
CORONA, CA 91720 USA

NEXT HIGHER ASSEMBLY: BLUES JUNIOR

Fender MUSICAL INSTRUMENTS
2621 Research Drive
Corona, CA 91720 USA

TITLE: SERVICE DIAGRAM
BLUES JUNIOR

SIZE		DRAWING NUMBER	REV.
C	DRAWN: F.MATRO	049303	C
	ENGR: F.MATRO		
SCALE: NONE	CREATED: 3-3-95	SHEET 1 OF 1	
	PLOTTED: 02-DEC-98		

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASED PR295	3-3-95	FM
	B	EC 1476	5-15-95	FM
	C	EC CR59	10-29-96	FM
	D	EC 2214	07-29-98	MDW

FOR AC VOLTAGE MEASUREMENTS, APPLY 1 kHz SIGNAL

10mVac TP1 · 543mVac TP3 · 1.35Vac TP6 · 65mVac TP5 · 1.27Vac TP8 · 1.27Vac TP4 · -14.4Vdc TP2 · 216mVac TP9 · 1.36Vac TP10 · 1.26Vdc TP37 · 180mVac TP11 · 1.55Vac TP12 · 54.4Vdc TP13 · 140mVac TP15 · 1.42Vac TP14 · 1.35Vac TP16 · 1.40Vac TP17 · 41.3Vac TP18 · 41.3Vac TP19 · 2.64Vac TP20 · -10.7Vdc TP30 · 27mVac TP21 · 388mVac TP22 · 191mVac TP23 · 63mVac TP24 · -26.7Vdc TP26 · 26.7Vdc TP25 · -15Vdc TP27 · 15Vdc TP28 · 20.5Vac TP29 · 267Vdc TP34 · 130.5Vac TP31 · 329Vdc TP32 · 307Vdc TP33 · 242Vdc TP35 · 3.3Vac TP36 · 3.3Vac TP7

J1 INPUT · S1 "FAT" SWITCH · S1B · S1A · J3 "FAT" FOOT SWITCH. USE FENDER P/N 041228 FOOTSWITCH.

12AX7A V1B · 12AX7A V1A · 12AX7A V2B · 12AX7A V3B · 12AX7A V3A · 12AX7A V2A

R1 10KΩ · R2 1MΩ · R3 100KΩ ½W · R4 1.5KΩ · R5 130KΩ · R6 100KΩ · R7 1MΩ10A VOLUME · R8 250KΩ10A TREBLE · R9 100KΩ · R10 100KΩ ½W · R11 1.5KΩ · R12 1MΩ · R13 33KΩ · R14 1MΩ · R15 820Ω · R16 4.7KΩ · R17 91KΩ ½W · R18 9.1KΩ · R19 100KΩ ½W · R20 1.5KΩ · R21 220KΩ · R22 220KΩ · R23 1.5KΩ · R24 Fp100Ω ½W · R25 Fp100Ω ½W · R26 7.5KΩ · R27 75KΩ · R28 250KΩB BASS · R29 25KΩB MIDDLE · R30 10KΩ · R31 22KΩ · R32 2.2KΩ 2W · R33 10KΩ 1W · R36 47Ω ½W FP · R37 33KΩ · R38 1.5KΩ · R39 100KΩ ½W · R40 430KΩ · R41 50KΩB MASTER · R42 220KΩ · R44 120KΩ · R45 47Ω · R46 4.7KΩ · R47 470KΩ · R48 10KΩ · R49 2KΩ · R50 330KΩ · R51 50KΩB REVERB · R52 22KΩ · R53 1MΩ · R54 22KΩ · R55 10KΩ 1W · R56 470KΩ · R57 750Ω 1W · R58 750Ω 1W

C1 .0022µF 600V · C2 100pF 1kV · C3 47µF 16V · C4 22µF 25V · C5 .1µF 250V · C6 .01µF · C7 .1µF 250V · C8 .022µF · C9 .022µF · C10 22µF 450V · C11 .022µF · C12 .015µF 100V · C13 .022µF · C15 47µF 450V · C16 .0022µF 600V · C17 22µF 450V · C18 22µF 450V · C19 .033µF · C20 330pF 1kV · C21 22µF 25V · C22 2200pF 100V · C23 47µF 100V · C24 10pF 100V · C25 250pF 1kV · C26 .0033µF 100V · C27 470µF 50V · C28 470µF 50V · C29 220µF 25V · C30 220µF 25V · C31 .01µF 100V · C32 .1µF 630V · C33 47pF 1kV · C34 .01µF · C35 1500pF 1kV · C36 100µF 25V

Q1 J111 · CR1 1N5062 · CR2 1N5062 · CR3 1N5062 · CR4 1N5062 · CR5 1N4003 · CR6 1N4448 · CR7 1N4003 · CR8 1N4744A · CR9 1N4744A · CR10 R3000 · CR11 R3000 · CR12 1N4448 · LD1 R

U1A TL072 · U1B TL072

V4 6BQ5/EL84 · V5 6BQ5/EL84

T1 OUTPUT TRANSFORMER 049969 · T2 DOMESTIC POWER TRANSFORMER P/N 049967 · T2 EXPORT POWER TRANSFORMER 049968

S2 "ON-OFF" SWITCH · F1 120V:F2A · XF1 100V: F2A 230V: F1A 240V: F1A

REVERB PAN P/N 028055 · 8 OHM SPEAKER P/N 037617

SEE NOTE 9 (×3)

OUTPUT TEST:
10.25 Vrms INTO AN 8Ω RESISTIVE LOAD, 5% T.H.D., AT 20 mVrms 1kHz INPUT SIGNAL. 120 Vac, 60Hz LINE VOLTAGE.

ALL CONTROLS EXCEPT "VOLUME" AND "REVERB" CW. "REVERB" IS CCW. "FAT" SWITCH OFF. "VOLUME" ADJUSTED TO REACH 10.25 Vrms AT OUTPUT.

EXPORT TRANSFORMER WIRING DIAGRAM

100V 50/60 Hz	230V 50/60 Hz	240V 50/60 Hz
CP8	CP4	CP4
S2B	CP11	CP11
CP11	S2B	CP6
CP6	CP6	S2B

NOTES:
1 DC VOLTAGE MEASUREMENTS ARE WITH RESPECT TO GROUND USING A DVM OF 10MΩ INPUT IMPEDANCE, NO SIGNAL APPLIED, 120 VAC, 60 Hz LINE VOLTAGE, CONTROLS CCW, "FAT" SWITCH OFF.
2 AC VOLTAGE MEASUREMENTS ARE WITH RESPECT TO GROUND USING A DVM OF 1 MΩ MINIMUM INPUT IMPEDANCE, CONTROLS AT 50% ROTATION, EXCEPT "REVERB" IS CCW. "FAT" SWITCH OFF, 10 mVrms 1 kHz SIGNAL APPLIED AT J1. REVERB PAN CONNECTED.
3 VOLTAGES MAY VARY ± 20%.
4 COLOURS IN PARENTHESIS ARE FOR 230V UNITS.
5 ALL RESISTORS ¼ WATT UNLESS OTHERWISE NOTED.
6 ALL CAPACITORS 400V UNLESS OTHERWISE NOTED.
7 LAST INSTANCES: C35,R58,CR12,P18,CP18,U1,J3,LD1,S2,T2,V5,F1,TP37.
8 X WITH INSTANCE NAME IS A SOLDER TERMINAL EYELET.
9 VOLTAGES AT TP22, TP23, AND TP24 MAY VARY FROM PAN TO PAN.
10 ⏚ IS A CHASSIS GROUND.
11 INSTANCES NOT USED: J2.

DATABASE FILE: Z295SR2.DBF
CHECKED BY: [signature] DATE: 2-18-98
APPROVED: [signature] DATE: 2/18/98
TOLERANCES: UNLESS OTHERWISE NOTED
X.X ±0.050" · X.XX ±0.010" · X.XXX ±0.005" · ANGLES ±0.500°

PROPRIETARY
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FENDER MUSICAL INSTRUMENTS CO.
REGIONAL HEADQUARTERS
2821 RESEARCH DRIVE
CORONA, CA 91720 USA

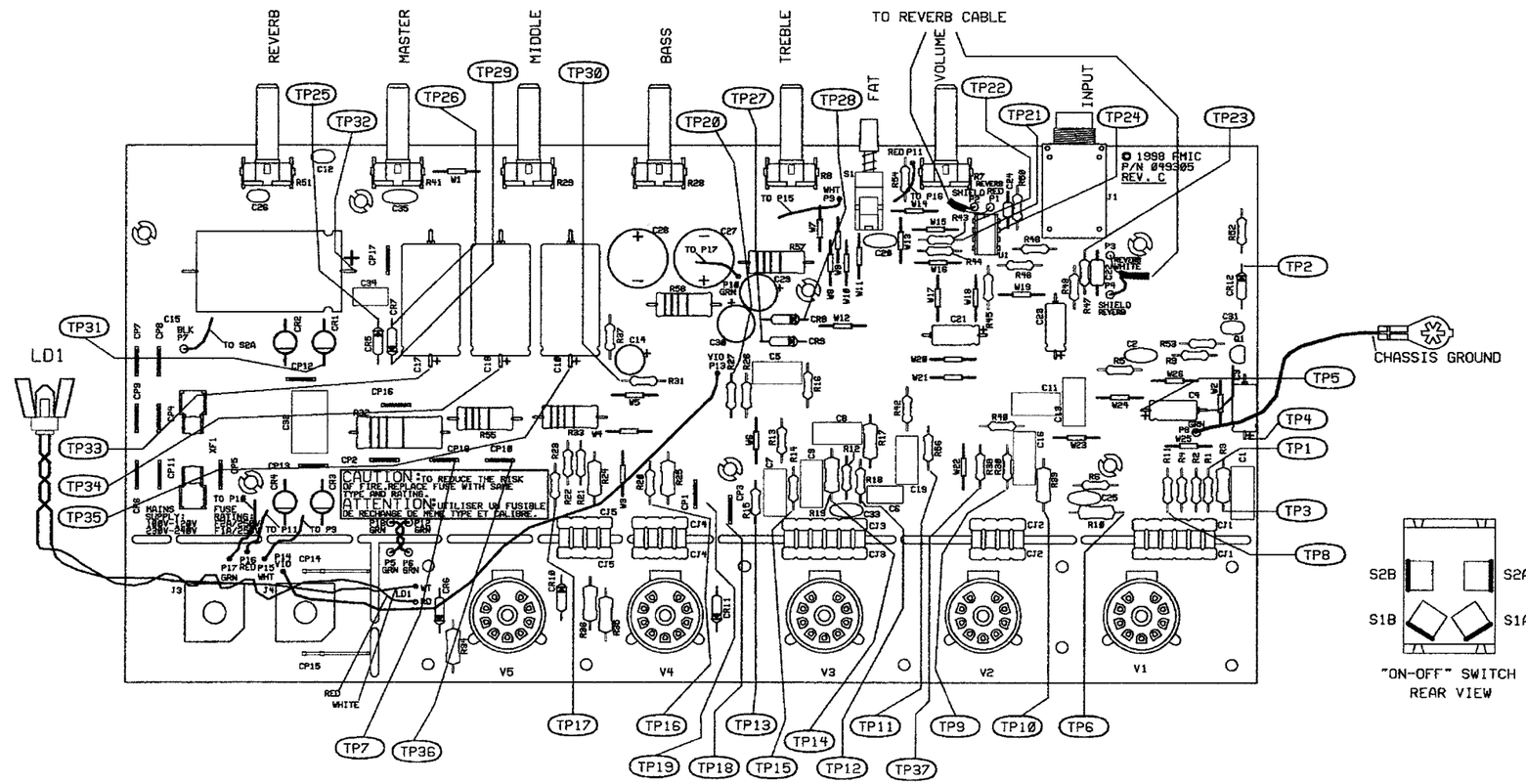
NEXT HIGHER ASSEMBLY: BLUES JUNIOR

FENDER MUSICAL INSTRUMENTS
2821 Research Drive
Corona, CA 91720 USA

TITLE: SCHEMATIC DIAGRAM
BLUES JUNIOR

SIZE D · DRAWN: R.MURRAY · DRAWING NUMBER 049301 · REV. D
ENGR: F.MATRO
SCALE: NONE · CREATED: 28-FEB-95 · PLOTTED: 02-DEC-98 · SHEET 1 OF 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASED PR295	3-3-95	FM
	B	EC 1476	5-21-95	FM
	C	EC 2214	12-02-98	MDW



FILM/DWG:	SERVICE DIAGRAM
DATABASE:	Z295P.DBF DATE: 02-DEC-98
LAYERS PLOTTED:	1 2 3 4 10 18

DATABASE FILE:	Z295P.DBF
CHECKED BY:	
DATE:	
APPROVED:	MDW
DATE:	12/10/98

TOLERANCES: UNLESS OTHERWISE NOTED	
X.X	±0.050"
X.XX	±0.010"
X.XXX	±0.005"
ANGLES	±0.500°

PROPRIETARY

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2821 RESEARCH DRIVE
CORONA, CA 91720 USA

NEXT HIGHER ASSEMBLY: BLUES JUNIOR

Fender MUSICAL INSTRUMENTS
2621 Research Drive
Corona, CA 91720 USA

TITLE: SERVICE DIAGRAM
BLUES JUNIOR

SIZE	DRAWN: F.MATRO	DRAWING NUMBER	REV.
C	ENGR: F.MATRO	049303	C
SCALE: NONE	CREATED: 3-3-95 PLOTTED: 02-DEC-98	SHEET 1 OF 1	

ELECTRONICS

SUPPLEMENT TO: BLUES JUNIOR

p/n 021-3105-000 (120V)

SERVICE MANUAL

Reason for supplement: Reverb improvements and improved manufacturability require changes to the PCB and to the BOM. This supplement contains parts lists and schematics of the new circuitry. Please file it with your original service manual.



CONTENTS:

Parts lists:
PCB assembly
Schematics/diagrams

Fender Musical Instruments Corp. 7975 North Hayden Road Scottsdale, AZ 85258

SUPPLEMENT TO: BLUES JUNIOR

PARTS LIST

NOTE: SHADED ITEMS ARE FOR REFERENCE ONLY

PRINTED CIRCUIT BOARD ASSEMBLY

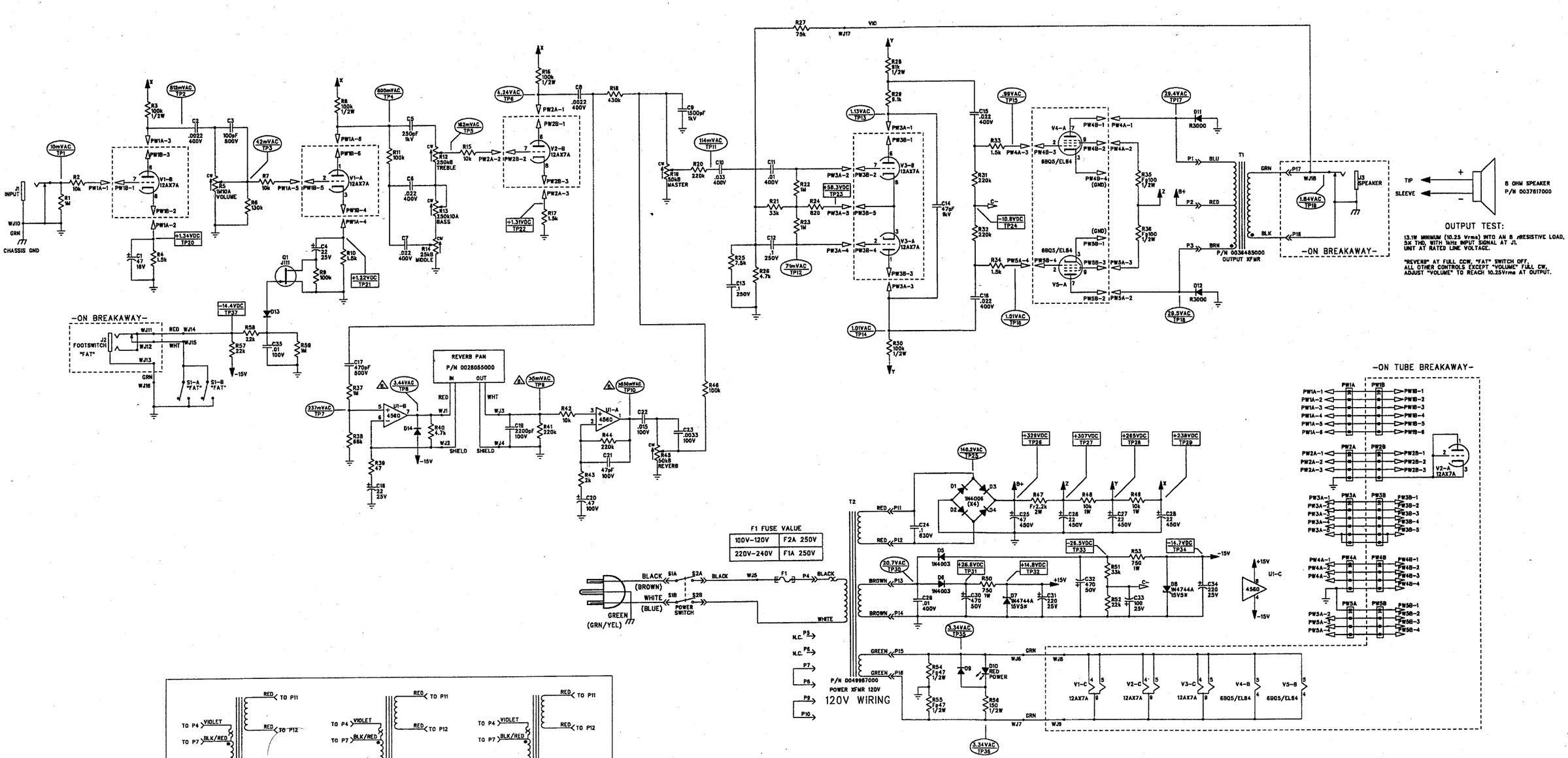
QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
3	0029533000	CABLE JMPR 22GA 4 CKT 3.2"	PW2 PW4 PW5
2	0050687000	CABLE JMPR 6 CKT .156 ROUND	PW1 PW3
1	0028577000	CABLE REVERB 30"	@ WJ1-4
1	0038689001	CAP AE AX .47uF 100V 20%	C20
2	0009512001	CAP AE AX 22uF 25V 20%	C4 C18
3	0051720000	CAP AE AX 22uF 450V 20%	C26-28
1	0038693001	CAP AE AX 47uF 16V 20%	C1
1	0051719000	CAP AE AX 47uF 450V 20%	C25
1	0028474003	CAP AE RDL 100uF 25V 20%	C33
2	0028479003	CAP AE RDL 220uF 25V 20%	C31 C34
2	0028489000	CAP AE RDL 470uF 50V 20%	C30 C32
1	0038698001	CAP CA 47pF 100V	C21
1	0039265001	CAP CA 2200pF 100V	C19
1	0051457003	CAP CD 100pF 500V 5%	C3
1	0051458003	CAP CD 470pF 500V 10%	C17
1	0020909000	CAP CD 47pF 1000V 10%	C14
1	0020917000	CAP CD 250pF 1000V 10%	C5
1	0017620000	CAP CD 1500PF 1000V 10%	C9
2	0024823000	CAP MPF RDL .01uF 400V 10%	C11 C29
4	0024833000	CAP MPF RDL .022uF 400V 10%	C6-7 C15-16
1	0024839000	CAP MPF RDL .033uF 400V 10%	C10
2	0024853000	CAP MPF RDL .1uF 250V 10%	C12-13
1	0024855000	CAP MPF RDL .1uF 630V 10%	C24
2	0026202002	CAP PFF .0022uF 400V 10%	C2 C8
1	0033581003	CAP PFF RDL .0033uF 100V 10%	C23
1	0033588003	CAP PFF RDL .01uF 100V 10%	C35
1	0036234003	CAP PFF RDL .015uF 100V 10%	C22
1	0049402000	CONTROL SNAPIN 25k B	R14 ***Middle***
2	0034719000	CONTROL SNAPIN 50k B	R19 R45 ***Master, Reverb***
1	0041913000	CONTROL SNAPIN 250k 10A	R13 ***Bass***
1	0040985000	CONTROL SNAPIN 250k B	R12 ***Treble***
1	0049401000	CONTROL SNAPIN 1M 10A	R5 ***Volume***
2	0064089001	DIODE 1N4003	D5-6
4	0026730001	DIODE 1N4006 800V 1A	D1-4
3	0006260001	DIODE 1N4448 SIGNAL	D9 D13-14
2	0029690001	DIODE HV 3kV 200mA	D11-12
2	0009165001	DIODE ZEN 1N4744A 15V 1W 5%	D7-8
16	0025802000	FSTN TAB MALE .250x.032 PCB MT	P1-16
2	0031041000	FSTN TAB ML RTANG PCB .25x.032	P17-18
2	0025996000	FUSE CLIP PCB 1/4" & 5mm DUAL	F1
1	0031611000	IC OP-AMP DUAL PC4560	U1
1	0030771000	JACK 1/4 PCB 2/CD SCC	J3 ***Speaker***
1	0027674000	JACK 1/4 PCB 2/CD SCC INSL	J2 ***Footswitch***
1	0037036000	JACK PHONE PCB MONO PREM	J1 ***Input***

SUPPLEMENT TO: BLUES JUNIOR

PRINTED CIRCUIT BOARD ASSEMBLY (CONT)

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	0056975000	LED RED PNL MT 7"	D10
1	0024947001	RES CF 1/4W 5% 47ohm LL	R39
1	0024964001	RES CF 1/4W 5% 820ohm LL	R24
5	0024969001	RES CF 1/4W 5% 1.5k LL	R4 R10 R17 R33-34
1	0029005001	RES CF 1/4W 5% 2k LL	R43
2	0024977001	RES CF 1/4W 5% 4.7k LL	R26 R40
1	0025942001	RES CF 1/4W 5% 7.5k LL	R25
1	0026510001	RES CF 1/4W 5% 9.1k LL	R29
4	0024981001	RES CF 1/4W 5% 10k LL	R2 R7 R15 R42
3	0024987001	RES CF 1/4W 5% 22k LL	R52 R57-58
2	0024989001	RES CF 1/4W 5% 33k LL	R21 R51
1	0024995001	RES CF 1/4W 5% 68k LL	R38
1	0028153001	RES CF 1/4W 5% 75k LL	R27
3	0024997001	RES CF 1/4W 5% 100k LL	R9 R11 R46
1	0028955001	RES CF 1/4W 5% 130k LL	R6
5	0025059001	RES CF 1/4W 5% 220k LL	R20 R31-32 R41 R44
1	0025828001	RES CF 1/4W 5% 430k LL	R18
5	0025069001	RES CF 1/4W 5% 1M LL	R1 R22-23 R37 R59
1	0025829001	RES CF 1/2W 5% 150ohm LL	R56
1	0031065001	RES CF 1/2W 5% 91k LL	R28
4	0025116001	RES CF 1/2W 5% 100k LL	R3 R8 R16 R30
2	0041741001	RES MOX FP 1/2W 5% 47ohm LL	R54-55
2	0028580001	RES MOX FP 1/2W 5% 100ohm LL	R35-36
2	0031067001	RES FILM 1W 5% 750ohm LL	R50 R53
2	0027349001	RES FILM 1W 5% 10k LL	R48-49
1	0041258001	RES MOX 2W 5% 2.2k LL	R47
1	0028091000	SWITCH PUSH SLFLK	S1
1	0028104000	BUTTON PUSH SWITCH BLACK	AT S1
5	0029167000	TUBE SOCKET 9 PIN PCB MOUNT	V1-5
REF	0038519000	STANDOFF M/F 4-40 x 1/4L	
REF	0097360000	NUT HEX 4-40 EX LOCK	
REF	0047040000	STANDOFF NYL PCB SNAP 1/2" BLK	
1	0014689003	XSTR N-CH JFET J111 TO-92	Q1
1	0057276000	PCB FAB BLUES JUNIOR	
REF	0057275000	SERVICE DIAGRAM	

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	EC 2630	21-MAR-01	dBL



⚠ TP8 - TP10 VARY AND ARE DEPENDENT ON SPECIFIC EXCITATION FREQUENCY AND PARTICULAR REVERB PAN FREQUENCY RESPONSE.

7. AC AND DC VOLTAGES READ WITH RESPECT TO GROUND WITH A DVM UNDER THE FOLLOWING CONDITIONS:
   UNIT AT RATED LINE VOLTAGE
   NO INPUT SIGNAL (TP20-TP37 ONLY)
   VOLTAGES MAY VARY +/- 20%
   ADDITIONAL CONDITIONS FOR TP1-TP19:
   10mVrms, 1kHz SINEWAVE INPUT SIGNAL AT J1
   8Ω RESISTIVE LOAD CONNECTED AT J3
   REVERB PAN CONNECTED
   "REVERB" AT FULL CCW, "FAT" SWITCH OUT (OFF)
   ALL OTHER CONTROLS AT 50% ROTATION.
6. LAST REFERENCE: C35, D14, F1, J3, P16, R58, S1, T2, TP37, U1, V5, WJ18.
5. THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0057276000 AND PCB ASSEMBLY P/N 0057277000.
4. ALL DIODES ARE 1N4448.
3. ALL POLARIZED CAPACITORS IN mF, 20%; 50V MINIMUM.
2. ALL UNPOLARIZED CAPACITORS IN uF, 10% OR BETTER; 50V MINIMUM. (POWER SUPPLY BYPASS CAPACITORS ARE 20%).
1. ALL RESISTORS IN OHMS, 5%; 1/4W.

NOTES: (UNLESS OTHERWISE NOTED)

THIS DOCUMENT CONTAINS INFORMATION OF A PROPRIETARY NATURE TO FENDER MUSICAL INSTRUMENTS AND IS SUBMITTED TO YOU IN CONFIDENCE AND SHALL NOT BE DISCLOSED OR TRANSMITTED TO OTHERS WITHOUT AUTHORIZATION FROM FENDER MUSICAL INSTRUMENTS.

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

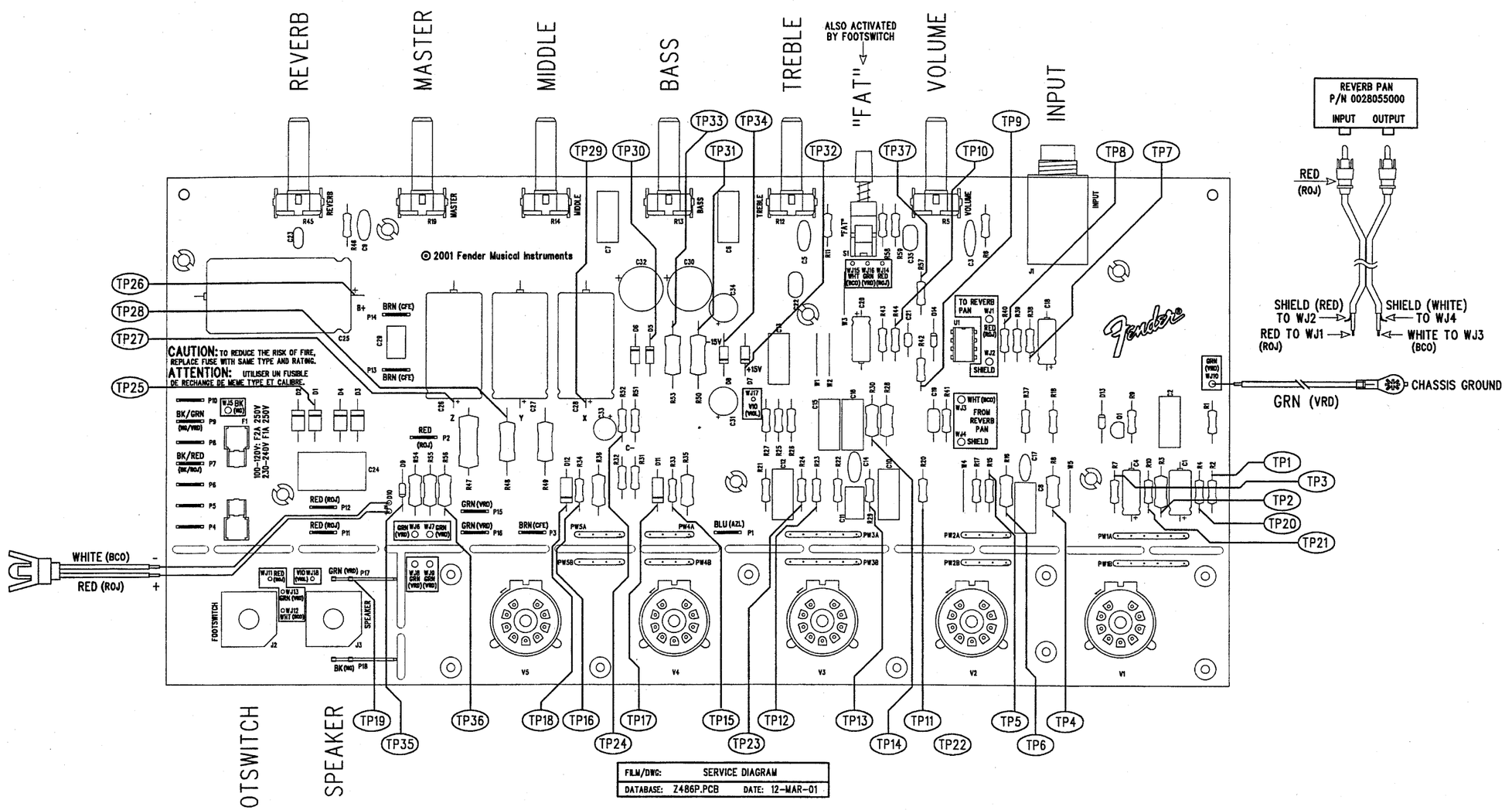
CHECKED BY: Edson
DATE: 23-April-01
APPROVED BY: dBL
DATE: 4/20/01
DRAWN: D. LEWIS | ENGR: D. LEWIS
DATABASE FILE: Z486S.SCH

TITLE: SERVICE DIAGRAM, COMBINED (schematic)
BLUES JUNIOR

SIZE	DRAWING NUMBER	REV.
D	0057275000	A

RELEASE DATE: 21-MAR-01 | SHEET: 1 OF 2

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	EC 2630	21-MAR-01	dBL



FILM/DWG:	SERVICE DIAGRAM
DATABASE: Z486P.PCB	DATE: 12-MAR-01

NOTES: (UNLESS OTHERWISE NOTED)

1. SEE SHEET 1 FOR PRIMARY WIRING, TEST CONDITIONS, AND TEST POINT VALUES.

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CHECKED BY: [illegible] DATE: 23-APR-01

APPROVED BY: dBL DATE: 4/30/01

DRAWN: D. LEWIS ENGR: D. LEWIS

DATABASE FILE: Z486P.PCB

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

TITLE: SERVICE DIAGRAM, COMBINED (PCB assy) BLUES JUNIOR

SIZE	DRAWING NUMBER	REV.
C	0057275000	A

RELEASE DATE: 21-MAR-01 SHEET 2 OF 2

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	EC 2630	21-MAR-01	dBL
B	EC 2767	09-APR-02	dBL

-ON BREAKAWAY-

CONNECT 1-BUTTON VINTAGE STYLE FOOTSWITCH P/N 0041225000

-ON TUBE BREAKAWAY-

OUTPUT TEST:

13.9W MINIMUM (10.25 Vrms) INTO AN 8 ΩRESISTIVE LOAD, 5% THD, WITH 1kHz INPUT SIGNAL AT J1. UNIT AT RATED LINE VOLTAGE.

"REVERB" AT FULL CCW, "FAT" SWITCH OFF, ALL OTHER CONTROLS EXCEPT "VOLUME" FULL CW, ADJUST "VOLUME" TO REACH 10.25Vrms AT OUTPUT.

8 OHM SPEAKER P/N 0037617000

REVERB PAN P/N 0028055000

F1 FUSE VALUE

100V-120V	F2A 250V
220V-240V	F1A 250V

120V WIRING

P/N 0049957000 POWER XFMR 120V

EXPORT POWER XFMR 100V WIRING P/N 0049958000

EXPORT POWER XFMR 230V WIRING P/N 0049958000

EXPORT POWER XFMR 240V WIRING P/N 0049958000

TYPICAL POWER ON/OFF SWITCH

REAR VIEW

⚠ TP8 - TP18 VARY AND ARE DEPENDENT ON SPECIFIC EXCITATION FREQUENCY AND PARTICULAR REVERB PAN FREQUENCY RESPONSE.

7. AC AND DC VOLTAGES READ WITH RESPECT TO GROUND WITH A DVM UNDER THE FOLLOWING CONDITIONS:
   UNIT AT RATED LINE VOLTAGE
   NO INPUT SIGNAL (TP20-TP37 ONLY)
   VOLTAGES MAY VARY +/- 20%
   ADDITIONAL CONDITIONS FOR TP1-TP18:
   10mVrms, 1kHz SINEWAVE INPUT SIGNAL AT J1
   8Ω RESISTIVE LOAD CONNECTED AT J3
   REVERB PAN CONNECTED
   "REVERB" AT FULL CCW, "FAT" SWITCH OUT (OFF)
   ALL OTHER CONTROLS AT 50% ROTATION.
6. LAST REFERENCE: C35, D14, F2, J3, P16, R59, S1, T2, TP37, U1, V5, W18.
5. THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0057276000 AND PCB ASSEMBLY P/N 0057277000.
4. ALL DIODES ARE 1N4446.
3. ALL POLARIZED CAPACITORS IN uF, 20%; 50V MINIMUM.
2. ALL UNPOLARIZED CAPACITORS IN uF, 10% OR BETTER; 50V MINIMUM. (POWER SUPPLY BYPASS CAPACITORS ARE 20%).
1. ALL RESISTORS IN OHMS, 5%; 1/4W.

NOTES: (UNLESS OTHERWISE NOTED)

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CHECKED BY:	Blues
DATE:	19-APR-02
APPROVED BY:	dBL
DATE:	4/19/02
DRAWN: D. LEWIS	ENGR: D. LEWIS
DATABASE FILE:	Z4885.SCH

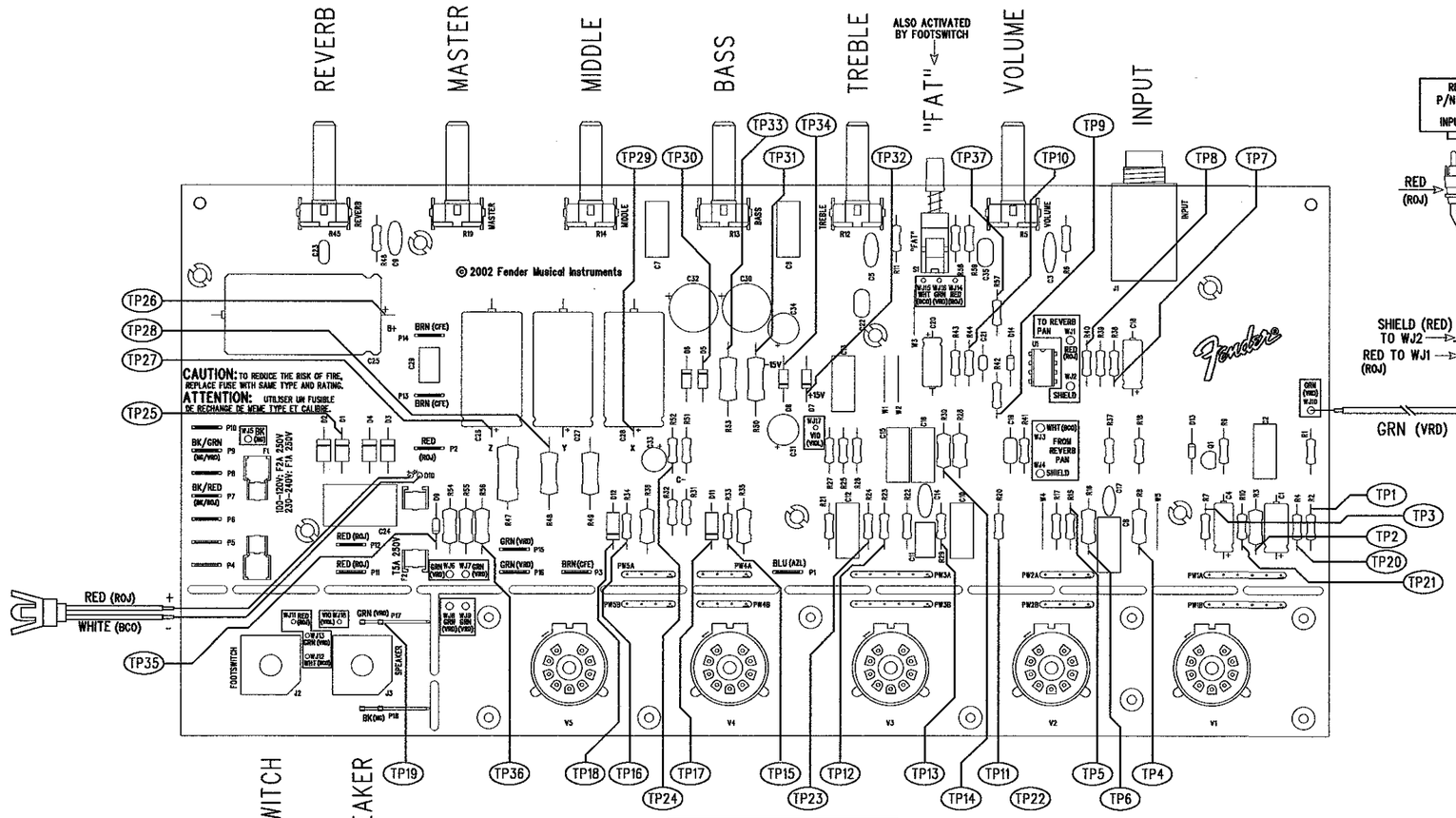
Fender MUSICAL INSTRUMENTS
Corona, CA U.S.A.

TITLE: SERVICE DIAGRAM, COMBINED (schematic)
BLUES JUNIOR

SIZE	DRAWING NUMBER	REV.
D	0057275000	B

RELEASE DATE: 21-MAR-01 | SHEET: 1 OF 2

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	EC 2630	21-MAR-01	dBL
B	EC 2767	09-APR-02	dBL



FILM/DWG: SERVICE DIAGRAM
DATABASE: Z486P.PCB DATE: 09-APR-02

1. SEE SHEET 1 FOR PRIMARY WIRING, TEST CONDITIONS, AND TEST POINT VALUES.

NOTES: (UNLESS OTHERWISE NOTED)

THIS DOCUMENT CONTAINS INFORMATION OF A PROPRIETARY NATURE TO FENDER MUSICAL INSTRUMENTS AND IS SUBMITTED TO YOU IN CONFIDENCE AND SHALL NOT BE DISCLOSED OR TRANSMITTED TO OTHERS WITHOUT AUTHORIZATION FROM FENDER MUSICAL INSTRUMENTS.

CHECKED BY: BPeart
DATE: 19-APR-02
APPROVED BY: dBL
DATE: 4/11/02
DRAWN: D. LEWIS ENGR: D. LEWIS
DATABASE FILE: Z486P.PCB

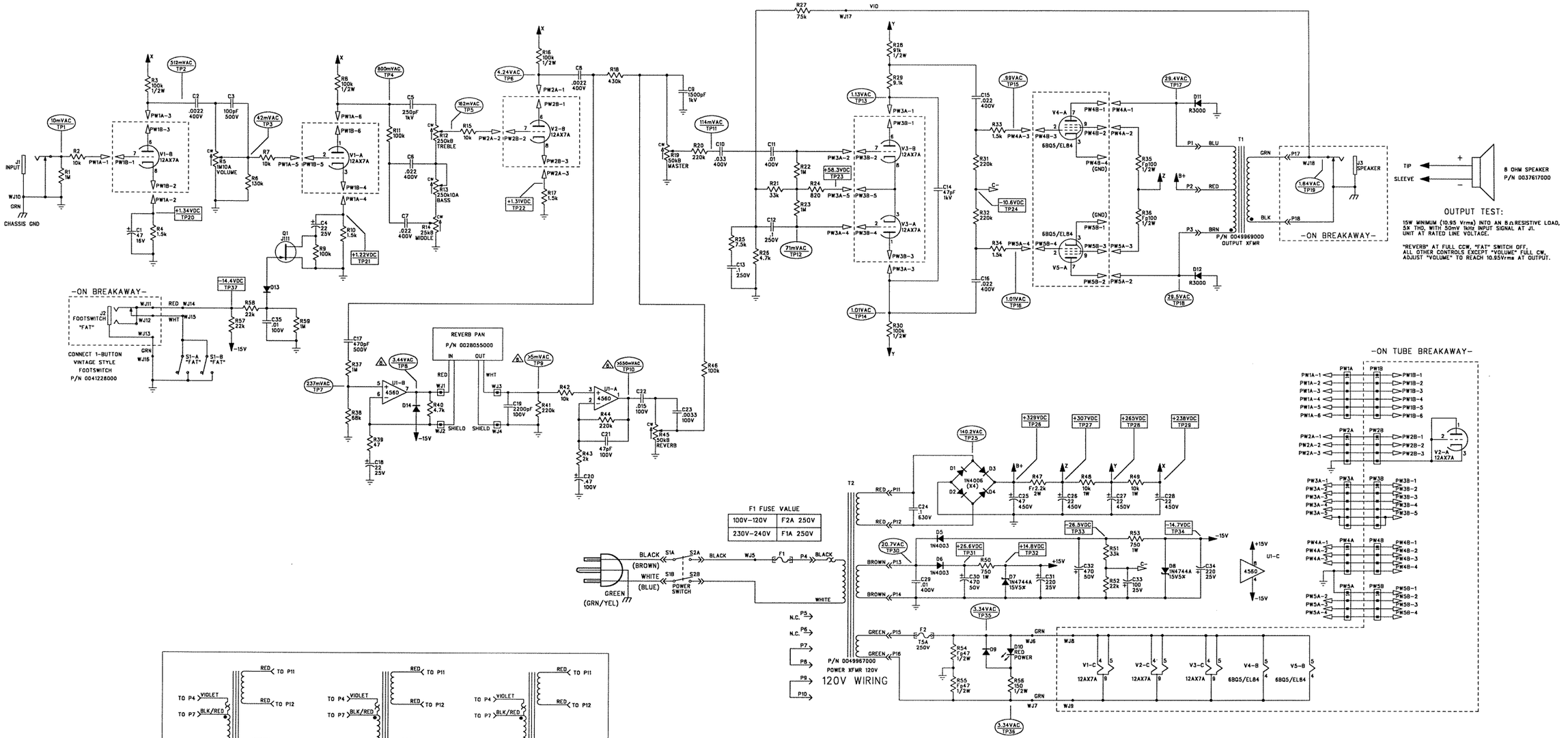
Fender MUSICAL INSTRUMENTS Corona, CA U.S.A.

TITLE: SERVICE DIAGRAM, COMBINED (PCB assy)
BLUES JUNIOR

SIZE C | DRAWING NUMBER 0057275000 | REV. B

RELEASE DATE: 21-MAR-01 SHEET 2 OF 2

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	EC 2630	21-MAR-01	dBL
B	EC 2767	09-APR-02	dBL
C	EC 2871	06-JAN-03	dBL



△TP8 – TP10 VARY AND ARE DEPENDENT ON SPECIFIC EXCITATION FREQUENCY AND PARTICULAR REVERB PAN FREQUENCY RESPONSE.

7. AC AND DC VOLTAGES READ WITH RESPECT TO GROUND WITH A DVM UNDER THE FOLLOWING CONDITIONS:
   UNIT AT RATED LINE VOLTAGE
   NO INPUT SIGNAL (TP20–TP37 ONLY)
   VOLTAGES MAY VARY +/– 20%
   ADDITIONAL CONDITIONS FOR TP1–TP19:
   10mVrms, 1kHz SINEWAVE INPUT SIGNAL AT J1
   8Ω RESISTIVE LOAD CONNECTED AT J3
   REVERB PAN CONNECTED
   "REVERB" AT FULL CCW, "FAT" SWITCH OUT (OFF)
   ALL OTHER CONTROLS AT 50% ROTATION.
6. LAST REFERENCE: C35, D14, F2, J3, P18, R59, S1, T2, TP37, U1, V5, WJ15.
5. THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0057276000 AND PCB ASSEMBLY P/N 0057277000.
4. ALL DIODES ARE 1N4448.
3. ALL POLARIZED CAPACITORS IN uF, 20%; 50V MINIMUM.
2. ALL UNPOLARIZED CAPACITORS IN uF, 10% OR BETTER; 50V MINIMUM. (POWER SUPPLY BYPASS CAPACITORS ARE 20%).
1. ALL RESISTORS IN OHMS, 5%; 1/4W.

NOTES: (UNLESS OTHERWISE NOTED)

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CHECKED BY: DBL DATE: 10-JAN-03

APPROVED BY: dBL DATE: 1/16/03

DRAWN: D. LEWIS ENGR: D. LEWIS

DATABASE FILE: 2486S.SCH

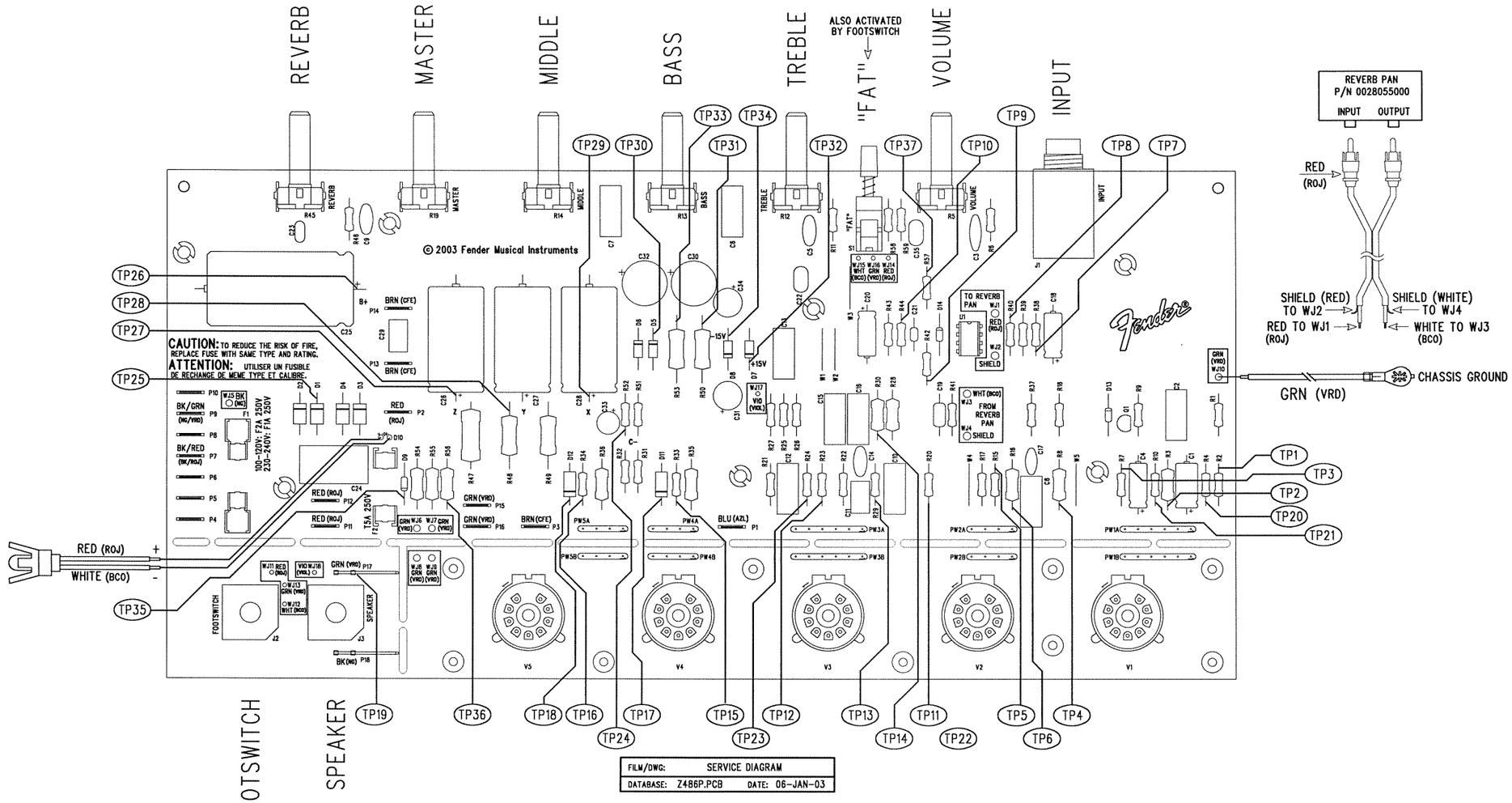
Fender® MUSICAL INSTRUMENTS
Corona, CA U.S.A.

TITLE: SERVICE DIAGRAM, COMBINED (schematic)
BLUES JUNIOR

SIZE D | DRAWING NUMBER 0057275000 | REV. C

RELEASE DATE: 21-MAR-01 | SHEET: 1 OF 2

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	EC 2630	21-MAR-01	dBL
B	EC 2767	09-APR-02	dBL
C	EC 2871	06-JAN-03	dBL



FILM/DWG:	SERVICE DIAGRAM	
DATABASE: Z486P.PCB	DATE: 06-JAN-03	

1. SEE SHEET 1 FOR PRIMARY WIRING, TEST CONDITIONS, AND TEST POINT VALUES.

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CHECKED BY: BTW
DATE: 29-JAN-03

APPROVED BY: dBL
DATE: 1/16/03

DRAWN: D. LEWIS | ENGR: D. LEWIS

DATABASE FILE: Z486P.PCB

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

TITLE: SERVICE DIAGRAM, COMBINED (PCB assy)
BLUES JUNIOR

SIZE	DRAWING NUMBER	REV.
C	0057275000	C

RELEASE DATE: 21-MAR-01 | SHEET 2 OF 2