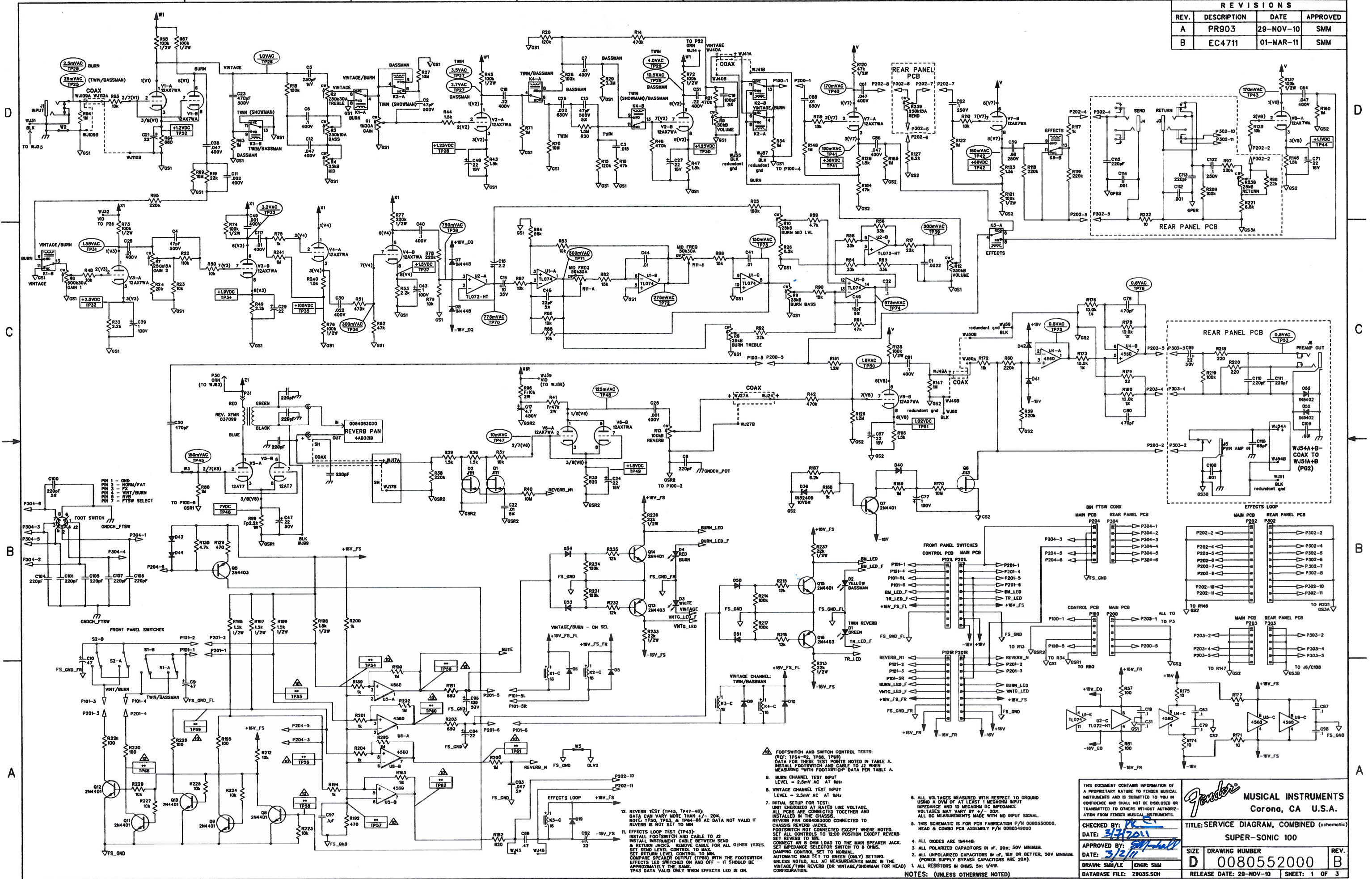


REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR903	29-NOV-10	SMM
B	EC4711	01-MAR-11	SMM



FOOTSWITCH AND SWITCH CONTROL TESTS:  
 (REF: TP54-52, TP88, TP89)  
 DATA FOR THESE TEST POINTS NOTED IN TABLE A.  
 INSTALL FOOTSWITCH AND CABLE TO J2 WHEN MEASURING "WITH FOOTSWITCH" DATA PER TABLE A.

- BURN CHANNEL TEST INPUT LEVEL = 2.5mV AC AT 80Hz
- VINTAGE CHANNEL TEST INPUT LEVEL = 2.5mV AC AT 80Hz
- INITIAL SETUP FOR TEST: UNIT ENERGIZED AT RATED LINE VOLTAGE. ALL PCBs ARE CONNECTED TOGETHER AND INSTALLED IN THE CHASSIS. REVERB PAN 0084083000 CONNECTED TO CHASSIS REVERB JACKS. FOOTSWITCH NOT CONNECTED EXCEPT WHERE NOTED. SET ALL CONTROLS TO 1200 POSITION EXCEPT REVERB. SET REVERB TO MIN. CONNECT AN 8 OHM LOAD TO THE MAIN SPEAKER JACK. SET IMPEDANCE SELECTOR SWITCH TO 8 OHMS. DAMPING CONTROL SET TO NORMAL. AUTOMATIC BIAS SET TO GREEN (ONLY) SETTING. (UNLESS NOTED, ALL AC MEASUREMENTS MADE IN THE VINTAGE/TWIN REVERB (OR VINTAGE/SHOWMAN FOR HEAD) CONFIGURATION.)
- ALL VOLTAGES MEASURED WITH RESPECT TO GROUND USING A DVM OF AT LEAST 1 MEGOHM INPUT IMPEDANCE AND TO MEGOHM DC IMPEDANCE. VOLTAGES MAY VARY BY +/- 20%. ALL DC MEASUREMENTS MADE WITH NO INPUT SIGNAL.
- THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0080550000. HEAD & COMBO PCB ASSEMBLY P/N 0080548000
- ALL DIODES ARE 1N4448.
- ALL POLARIZED CAPACITORS IN uF, 20K; 50V MINIMUM.
- ALL UNPOLARIZED CAPACITORS IN uF, 10K OR BETTER, 50V MINIMUM. (POWER SUPPLY BYPASS CAPACITORS ARE 20K.)
- ALL RESISTORS IN OHMS, 5%: 1/4W.

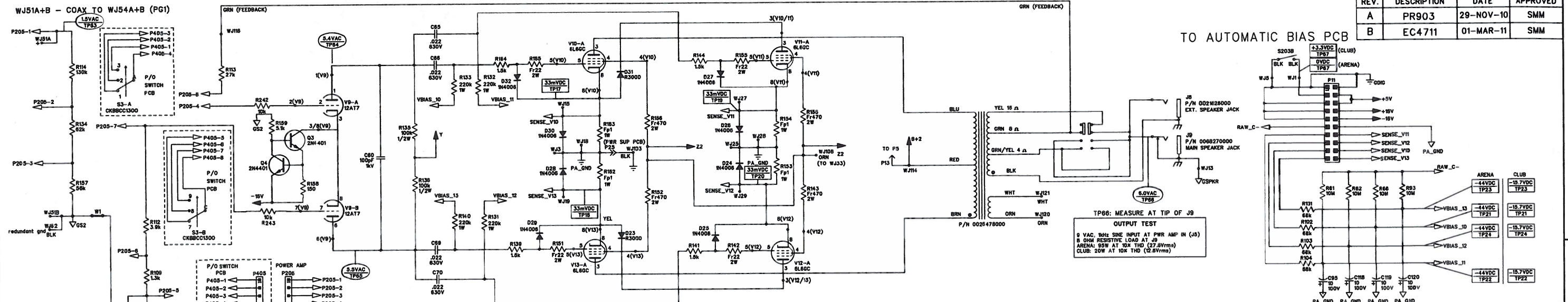
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 Corona, CA U.S.A.

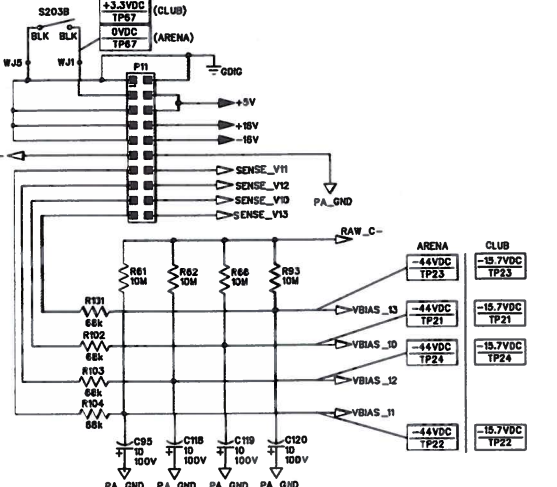
CHECKED BY: *[Signature]*  
 DATE: 3/12/11  
 APPROVED BY: *[Signature]*  
 DATE: 3/12/11  
 DRAWN: SMM/LE  
 ENGR: SMM  
 DATABASE FILE: Z903S.SCH

TITLE: SERVICE DIAGRAM, COMBINED (schematic)  
 SUPER-SONIC 100  
 SIZE: D  
 DRAWING NUMBER: 0080552000  
 RELEASE DATE: 29-NOV-10  
 SHEET: 1 OF 3

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR903	29-NOV-10	SMM
B	EC4711	01-MAR-11	SMM



TO AUTOMATIC BIAS PCB



OUTPUT TEST  
 8 VAC, 10% SINE INPUT AT PWR AMP IN (J9)  
 8 OHM RESISTIVE LOAD AT J9  
 ARENA: 95W AT 10% THD (27.8Vrms)  
 CLUB: 50W AT 10% THD (22.8Vrms)

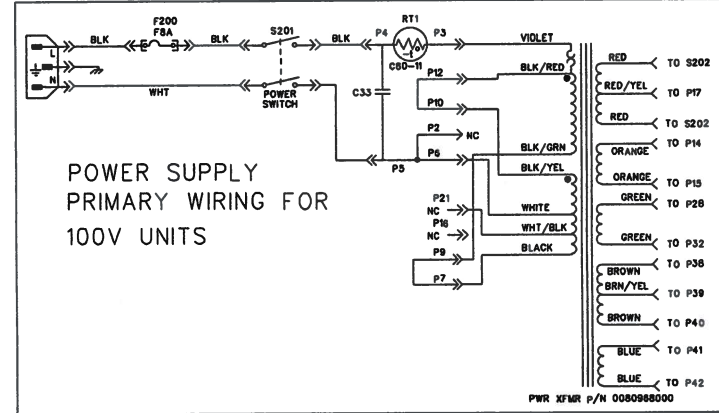
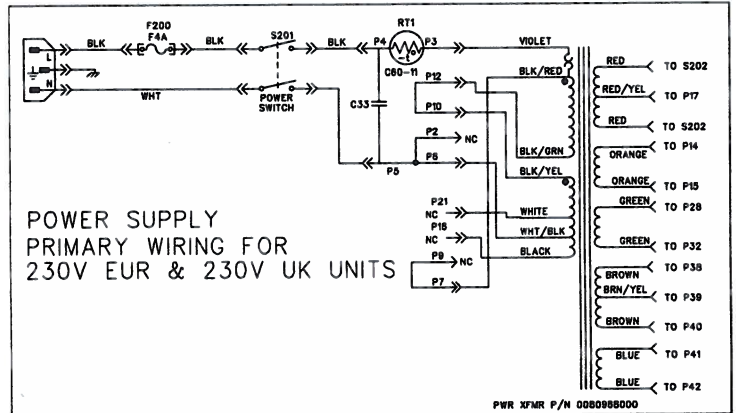
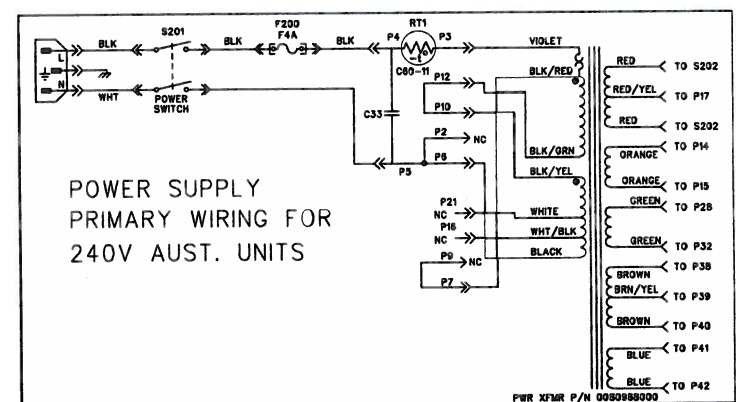
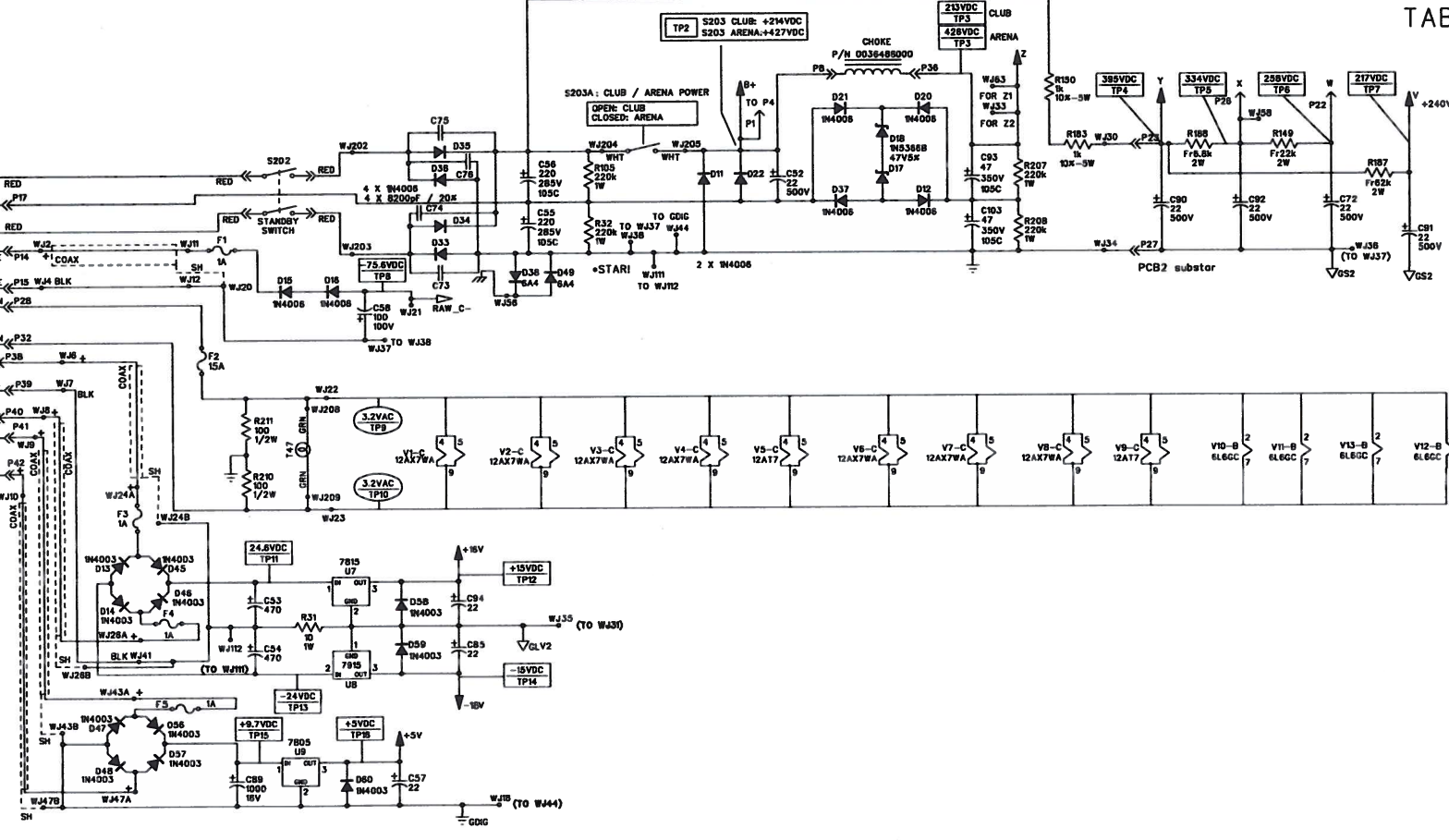
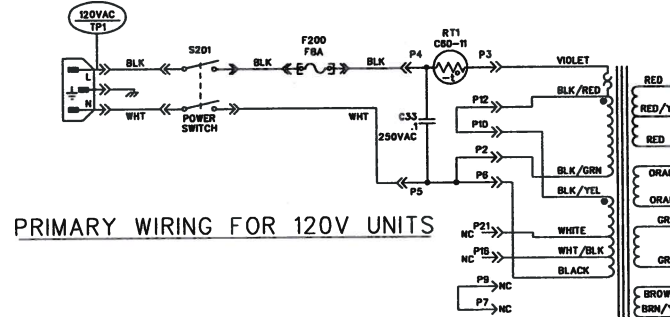


TABLE A-TEST POINT DATA-FRONT PANEL & FOOTSWITCH CONTROLS

TEST POINT	FUNCTION	WITHOUT FOOTSWITCH	WITH FOOTSWITCH
TP54	BURN/VINTAGE 1	S2 OUT: +14.5 VDC S2 IN: +1 VDC	LED ON: +2.6 VDC LED OFF: +14.7 VDC
TP55	TWIN/BASSMAN 1	S1 OUT: +14.5 VDC S1 IN: +1 VDC	LED ON: +2 VDC LED OFF: +14.7 VDC
TP56	FX LOOP 1	+1 VDC	LED ON: +2.6VDC LED OFF: +14.7 VDC
TP57	REFERENCE	+4.7 VDC	+4.7 VDC
TP58	FTSW SENSE 1	0VDC	+0.7 VDC
TP59	BURN/VINTAGE 2	S2 OUT: +13.7 VDC S2 IN: -12.4 VDC	LED ON: -12.5 VDC LED OFF: +14 VDC
TP60	TWIN/BASSMAN 2	S1 OUT: +13.7 VDC S2 IN: -12.4 VDC	LED ON: -12.5 VDC LED OFF: +14 VDC
TP61	REVERB 2	-13.5 VDC	LED ON: -13.6VDC LED OFF: +14.1 VDC
TP62	FX LOOP 2	-13 VDC	LED ON: -13 VDC LED OFF: +14.6 VDC
TP68	FTSW SENSE 2	+0.3 VDC	0 VDC
TP69	REVERB 1	1 VDC	LED ON: +2.6 VDC LED OFF: +14.7 VDC



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Corona, CA U.S.A.

CHECKED BY: *[Signature]*  
DATE: 3/27/2011

APPROVED BY: *[Signature]*  
DATE: 3/27/11

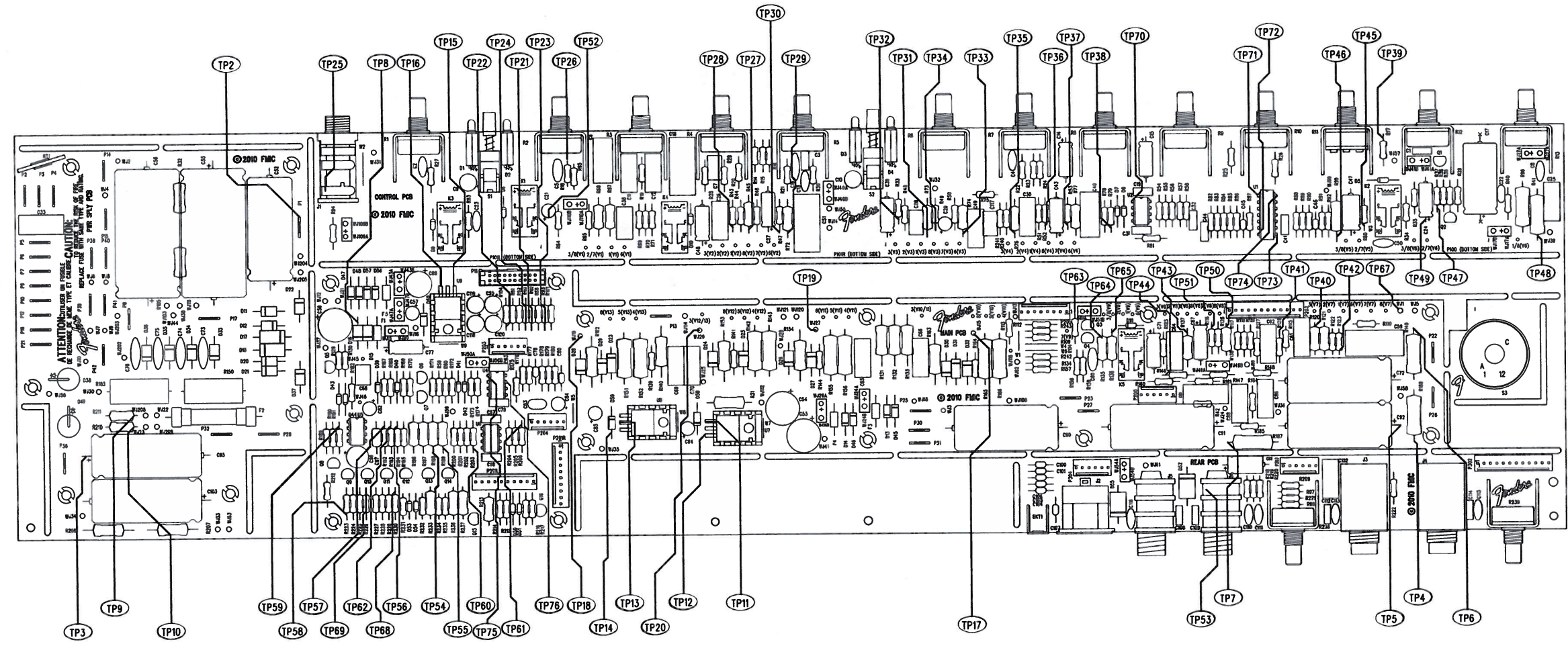
DRAWN: SM/LE ENGR: SMM  
DATABASE FILE: Z903S.SCH

TITLE: SERVICE DIAGRAM, COMBINED (schematic)  
SUPER-SONIC 100


SIZE	DRAWING NUMBER	REV.
D	0080552000	B

RELEASE DATE: 29-NOV-10 SHEET: 2 OF 3

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR903	09-NOV-10	SMM
B	EC4711	01-MAR-11	SMM



FILM/WRG: SERVICE DIAGRAM  
 DATABASE: Z903P.PCB DATE: 09-NOV-10

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CHECKED BY: <i>[Signature]</i> DATE: 3/2/11		TITLE: SERVICE DIAGRAM, COMBINED (PCB assy) SUPER-SONIC 100	
APPROVED BY: <i>[Signature]</i> DATE: 3/2/11		SIZE: D	DRAWING NUMBER: 0080552000
DATABASE FILE: Z903P.PCB		RELEASE DATE: 09-NOV-10	SHEET 3 OF 3

1. SEE SHEET 1 & 2 OF 3 FOR TEST CONDITIONS & TEST POINT VALUES  
 NOTES (UOS):

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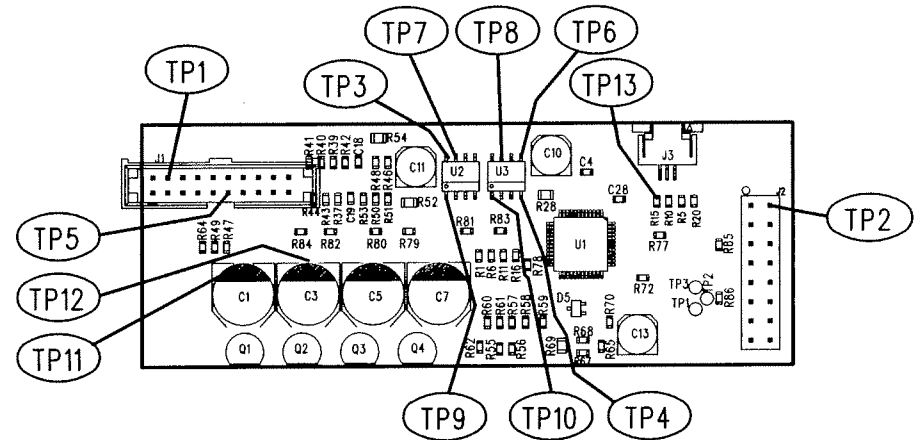
8 7 6 5 4 3 2 1

D  
C  
B  
A

D  
C  
B  
A

R E V I S I O N S			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 1178	16-AUG-10	dBL

\*\* CAD DATABASE Z1178\_BTM\_ASSY.PCB IS FOR BOTTOM ASSEMBLY REFERENCE ONLY.



FILM/DWG:	SERVICE DIAGRAM
DATABASE: Z1178_BTM_ASSY.PCB	DATE: 16-AUG-10

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MUSICAL INSTRUMENTS  
Corona, CA U.S.A.

CHECKED BY: *BYL*  
DATE: 15-DEC-10

TITLE: SERVICE DIAGRAM, COMBINED (PCB assy)  
AUTOMATIC BIAS 2-6 TUBE  
MICRO CONTROLLER PCB

APPROVED BY: *dBL*  
DATE: 12/15/10

SIZE	DRAWING NUMBER	REV.
<b>A</b>	0081425000	<b>A</b>

DRAWN: D. LEWIS      ENGR: D. LEWIS

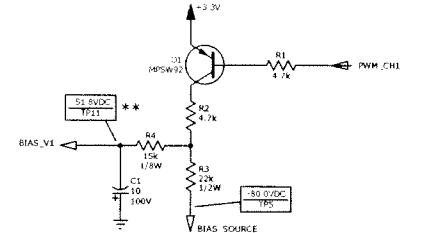
DATABASE FILE: Z1178\_BOT\_ASSY.PCB \*\*      RELEASE DATE: 16-AUG-10      SHEET 2 OF 2

1. SEE SHEET 1 FOR TEST POINT VALUES AND LOCATIONS.  
NOTES: (UNLESS OTHERWISE NOTED)

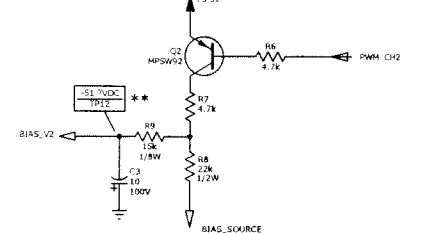
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 1178	16-AUG-10	dBL

TEST POINT VALUES SHOWN TYPICAL FOR DUPLICATE SECTIONS NOT STUFFED IN ALL ASSEMBLIES  
\*TP9-10 ARE TYPICAL AND MAY VARY SLIGHTLY DEPENDING ON TUBE BIAS TARGET.

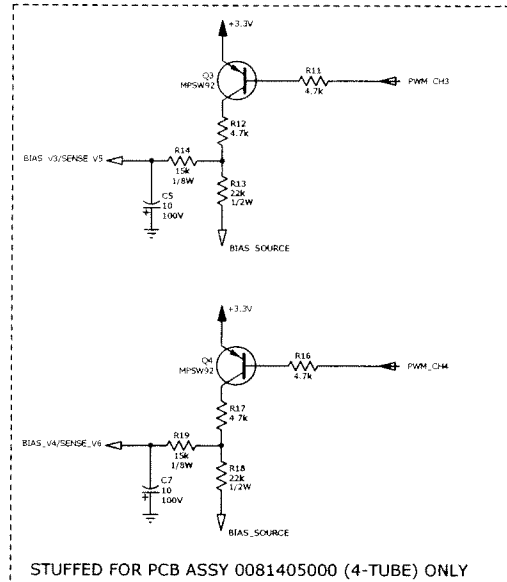
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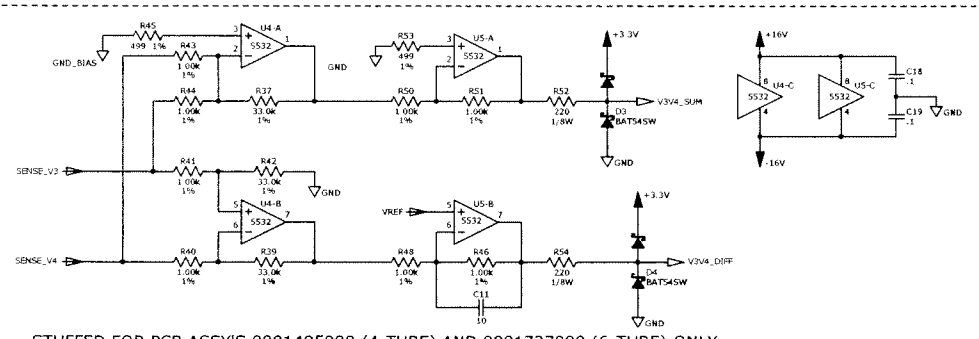
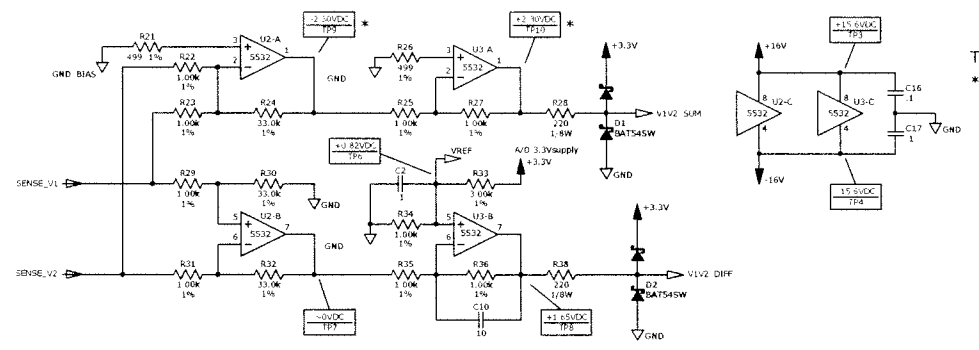
TPS MAY VARY DEPENDING ON HOST UNIT  
USE CAUTION WHEN PROBING HIGH VOLTAGE!!



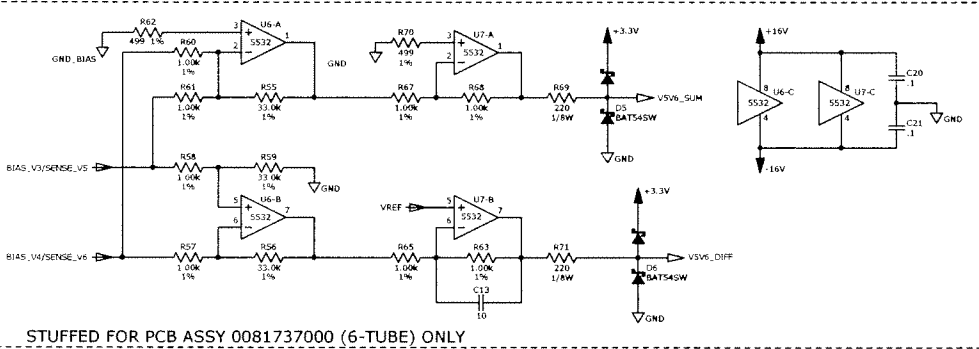
\*\*TP11-12 FOR REFERENCE ONLY, ACTUAL VALUES MAY VARY DEPENDING ON TUBE TYPE, GRADE, AND CONDITION (AGE).



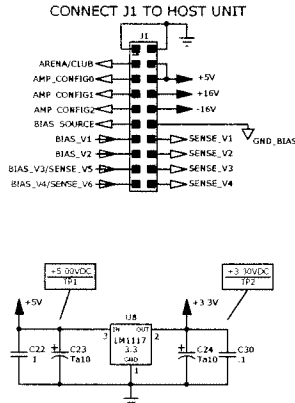
STUFFED FOR PCB ASSY 0081405000 (4-TUBE) ONLY



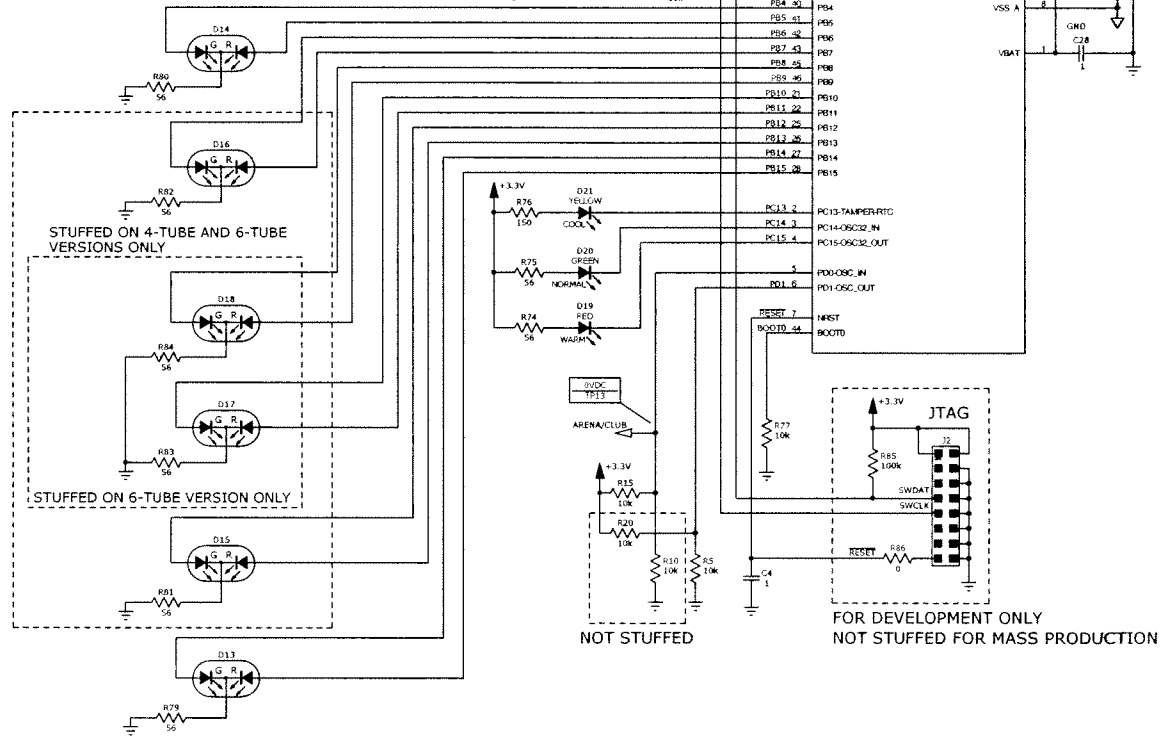
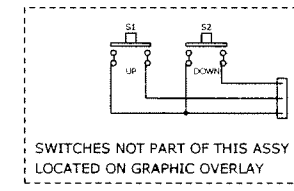
STUFFED FOR PCB ASSY'S 0081405000 (4-TUBE) AND 0081737000 (6-TUBE) ONLY



STUFFED FOR PCB ASSY 0081737000 (6-TUBE) ONLY



C



B

A

- ALL DC VOLTAGES MEASURED WITH RESPECT TO GROUND WITH A DVM UNDER THE FOLLOWING CONDITIONS:  
HOST UNIT AT RATED LINE VOLTAGE, STANDBY SWITCH CLOSED (NOT IN STANDBY)  
OUTPUT TUBES INSTALLED WITH LOAD CONNECTED PROPERLY ON HOST UNIT  
HOST UNIT ALLOWED PROPER WARM UP PERIOD WITH POWER ON (AT LEAST 1 MIN)  
ARENA/CLUB SWITCH SET TO ARENA (IF PRESENT)  
J1 CONNECTED PROPERLY TO HOST UNIT  
BIAS SET TO NORMAL, GREEN LED ONLY, TUBE STATUS LEDS ALL GREEN NOT BLINKING  
NO INPUT SIGNAL APPLIED TO HOST UNIT
- THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0081424000 AND PCB ASSEMBLY P/N 0081405000 (4-TUBE), PCB ASSEMBLY P/N 0081737000 (6-TUBE), PCB ASSEMBLY P/N 0081737000 (2-TUBE).
- ALL DIODES ARE 1N4148
- ALL POLARIZED CAPACITORS IN UF, 20% OR BETTER, 16V MINIMUM (POWER SUPPLY BYPASS CAPACITORS ARE 20%)
- ALL UNPOLARIZED CAPACITORS IN UF, 10% OR BETTER, 16V MINIMUM (POWER SUPPLY BYPASS CAPACITORS ARE 20%)
- ALL RESISTORS IN OHMS, 5%, 1/10W
- NOTES: (UNLESS OTHERWISE NOTED)

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

CHECKED BY: *Allen*  
DATE: 15-DEC-10

APPROVED BY: *DL*  
DATE: 12/15/10

DRAWN: D. LEWIS ENGR: D. LEWIS

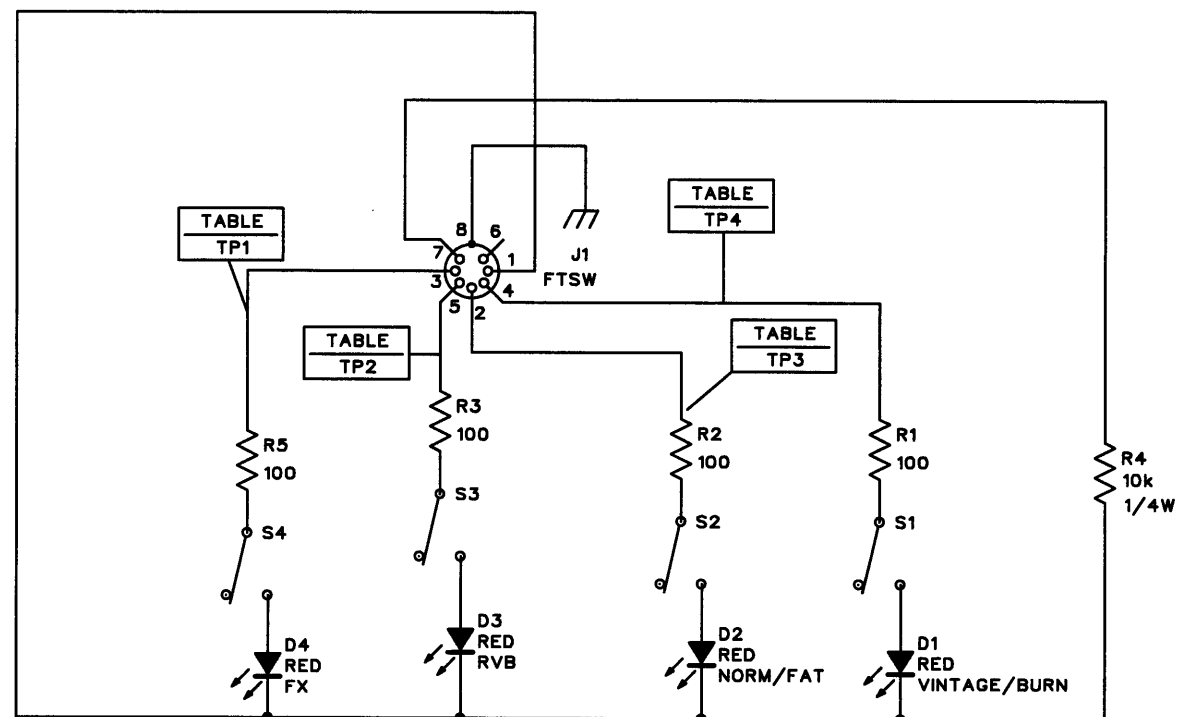
TITLE: SERVICE DIAGRAM, COMBINED (schematic)  
AUTOMATIC BIAS 2-6 TUBE MICRO CONTROLLER PCB

SIZE: D DRAWING NUMBER: 0081425000 REV: A

DATABASE FILE: Z11785.SCH RELEASE DATE: 18-AUG-10 SHEET: 1 OF 2

REVISIONS

REV.	DESCRIPTION	DATE	APPROVED
A	PR904	16-NOV-09	LEL



TEST POINT DATA

TP#	ON	OFF
1	+2.6VDC	+15.0VDC
2	+2.6VDC	+15.0VDC
3	+2.6VDC	+15.0VDC
4	+2.5VDC	+15.0VDC

7. LAST REFERENCE DESIGNATORS: D4, J1, R5, S4.
6. DC VOLTAGES READ TO GROUND WITH A DVM UNDER THE FOLLOWING CONDITIONS:  
FOOTSWITCH ASSY ATTACHED TO CHASSIS ASSY AT RATED LINE VOLTAGE. ON STATE IS WHEN LED IS LIT.
4. THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0077196000 AND PCB ASSEMBLY P/N 0077197000.
3. ALL POLARIZED CAPACITORS IN  $\mu$ F, 20%; 50V MINIMUM.
2. ALL UNPOLARIZED CAPACITORS IN  $\mu$ F, 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: <i>M. Villa</i> DATE: 11/17/2009		TITLE: SERVICE DIAGRAM, COMBINED (schematic) FOOTSWITCH 4 BUTTON SUPER SONIC 22	
APPROVED BY: <i>Lorenzen</i> DATE: 11/18/09		SIZE: <b>B</b>	REV. <b>A</b>
DRAWN: HAN LE      ENGR: LORENZEN		DRAWING NUMBER: 0077198000	
DATABASE FILE: Z904S2.SCH		RELEASE DATE: 16-NOV-09	SHEET: 1 OF 2

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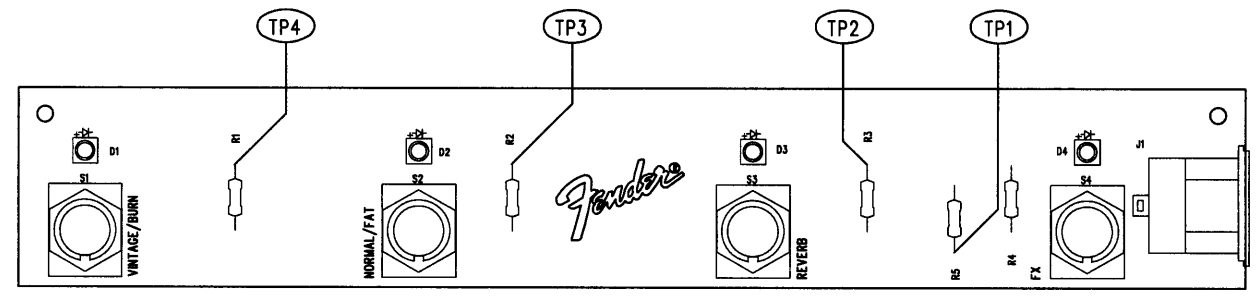
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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR904	16-NOV-09	LEL

D  
C  
B  
A



FILM/DWG:	SERVICE DIAGRAM
DATABASE:	Z904P2.PCB DATE: 9-SEP-09

1. SEE SHEET 1 FOR TEST CONDITIONS AND TP VALUES.  
NOTES: (UNLESS OTHERWISE NOTED)

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CHECKED BY: <i>[Signature]</i> DATE: 11/17/2009		TITLE: SERVICE DIAGRAM, COMBINED (PCB assy) FOOTSWITCH 4 BUTTON SUPER SONIC 22	
APPROVED BY: <i>[Signature]</i> DATE: 11/18/09		SIZE: C	DRAWING NUMBER: 0077198000
DRAWN: Han Le    ENGR: Lorenzen		RELEASE DATE: 16-NOV-09	REV. A
DATABASE FILE: Z904P2.PCB		SHEET 2 OF 2	

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