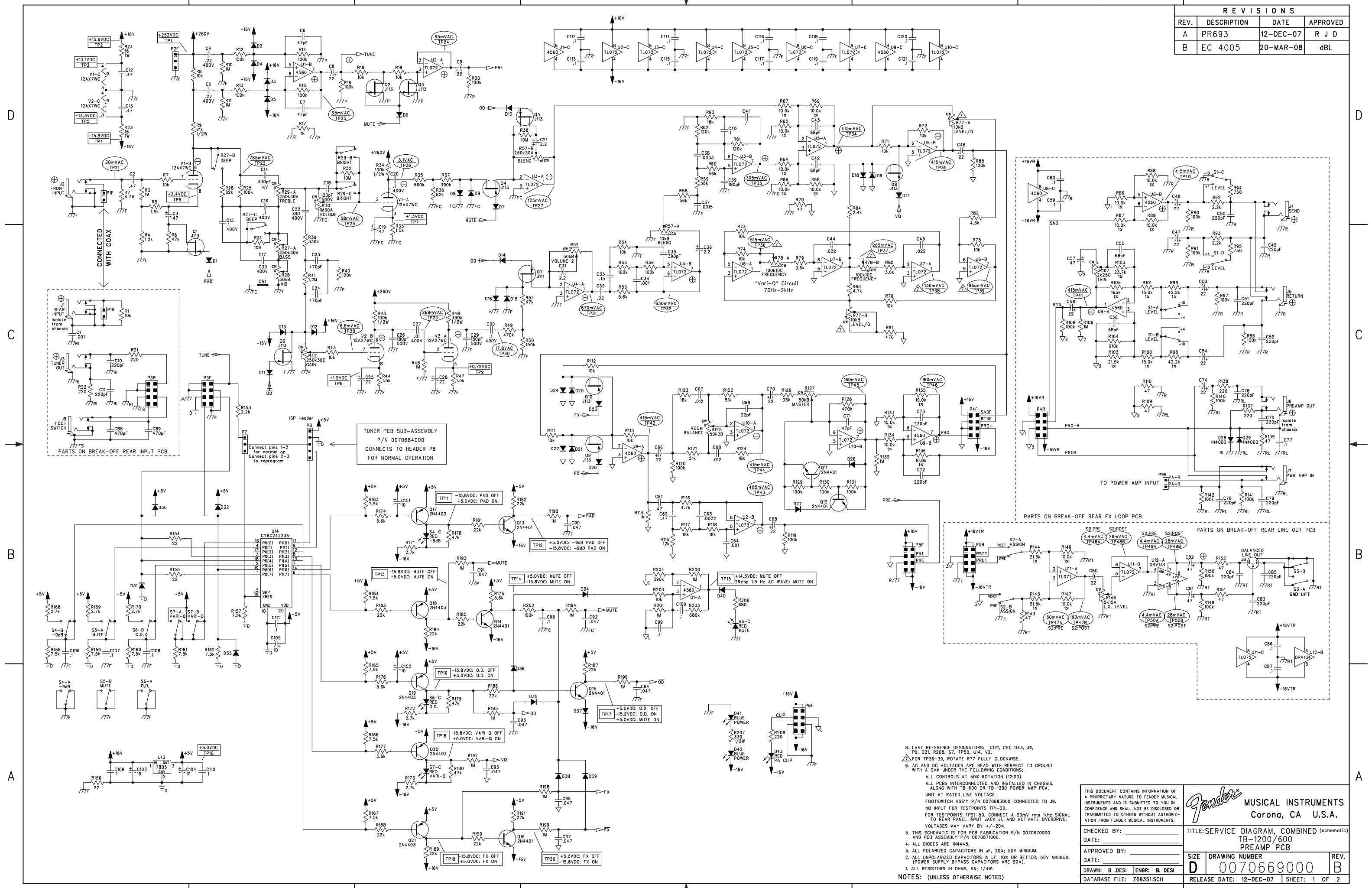


REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR693	12-DEC-07	R J D
B	EC 4005	20-MAR-08	dBL



8. LAST REFERENCE DESIGNATORS: C121, C51, D43, J9, P9, Q21, R208, S7, TP50, U14, V2.
 △ FOR TP38-39, ROTATE R77 FULLY CLOCKWISE.
 6. AC AND DC VOLTAGES ARE READ WITH RESPECT TO GROUND WITH A DVM UNDER THE FOLLOWING CONDITIONS:
 ALL CONTROLS AT 50K ROTATION (12:00).
 ALL PCB'S INTERCONNECTED AND INSTALLED IN CHASSIS, ALONG WITH TB-600 OR TB-1200 POWER AMP PCA, UNIT AT RATED LINE VOLTAGE.
 FOOTSWITCH ASSY P/N 0070683000 CONNECTED TO J9.
 NO INPUT FOR TESTPOINTS TP1-20.
 FOR TESTPOINTS TP21-50, CONNECT A 20mV rms 1kHz SIGNAL TO REAR PANEL INPUT JACK J1, AND ACTIVATE OVERDRIVE. VOLTAGES MAY VARY BY +/-20%.
 5. THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0070670000 AND PCB ASSEMBLY P/N 0070671000.
 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.

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

TITLE: SERVICE DIAGRAM, COMBINED (schematic)
TB-1200/600
PREAMP PCB

CHECKED BY: _____
DATE: _____

APPROVED BY: _____
DATE: _____

DRAWN: B_DESI ENGR: B_DESI
DATABASE FILE: Z693S1.SCH

SIZE: **D**
DRAWING NUMBER: 0070669000
REV. **B**

RELEASE DATE: 12-DEC-07
SHEET: 1 OF 2

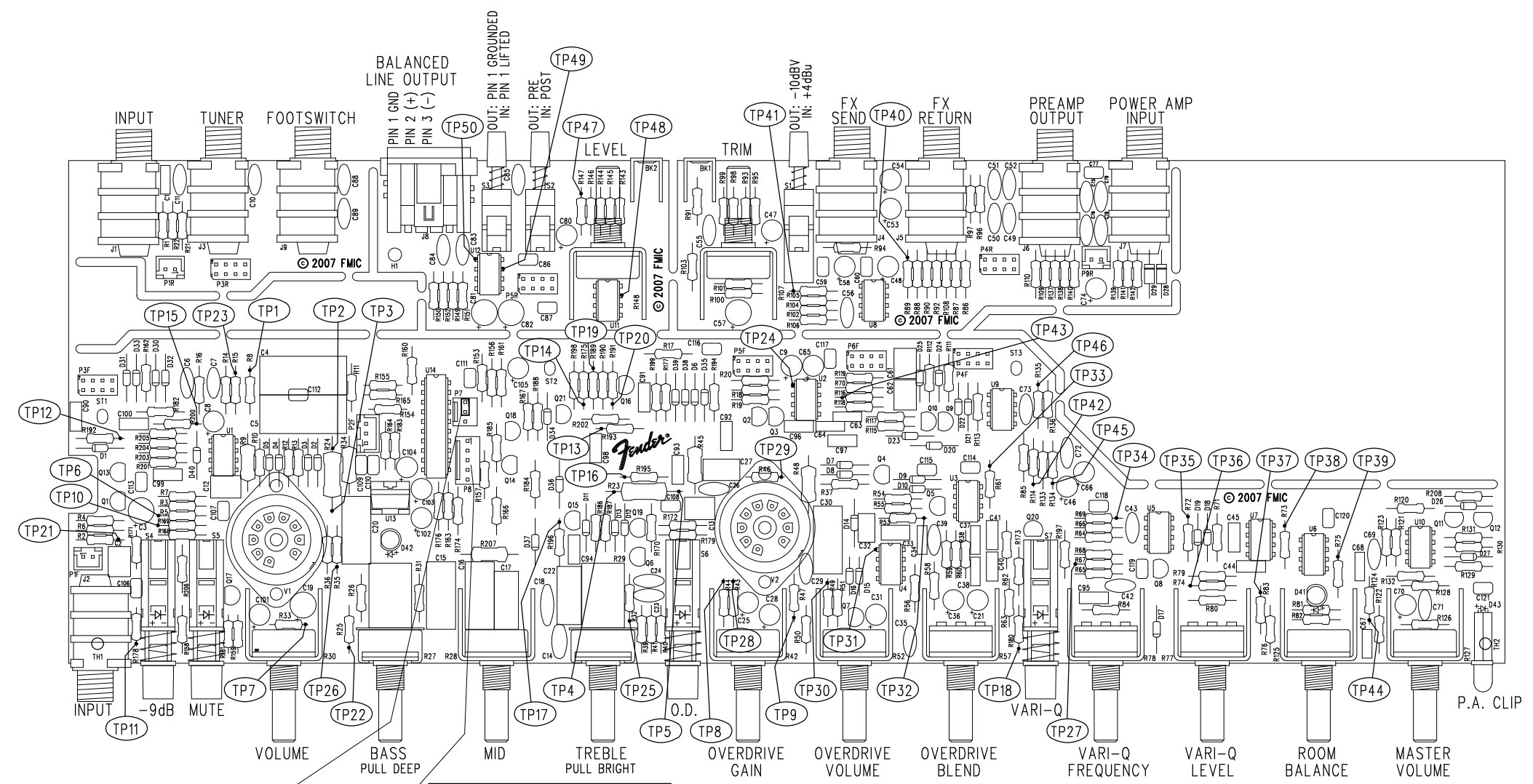
NOTES: (UNLESS OTHERWISE NOTED)

8 7 6 5 4 3 2 1

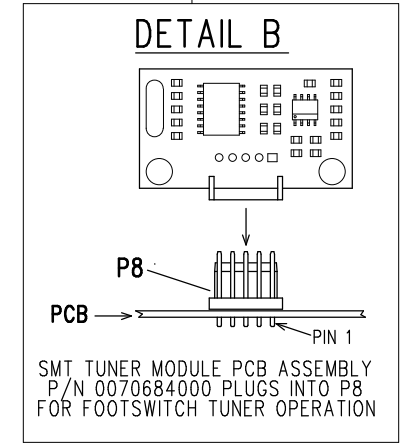
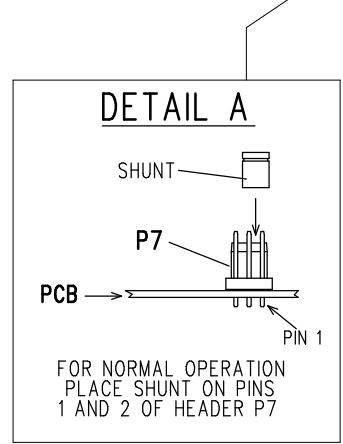
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 693	12-DEC-07	R J D
B	EC 4005	20-MAR-08	dBL

D
C
B
A

D
C
B
A



FILM/DWG: SERVICE DIAGRAM
 DATABASE: Z693P1.PCB DATE: 12-DEC-07



1. SEE PAGE 1 FOR TEST CONDITIONS AND TEST POINT VALUES.
 NOTES: (UNLESS OTHERWISE NOTED)

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CHECKED BY: _____ DATE: _____		TITLE: SERVICE DIAGRAM, COMBINED (PCB assy) TB-1200/600 PREAMP PCB	
APPROVED BY: _____ DATE: _____		SIZE C	DRAWING NUMBER 0070669000
DRAWN: B Desi	ENGR: B Desi	RELEASE DATE: 12-DEC-07	REV. B
DATABASE FILE: Z693P1.PCB		SHEET 2 OF 2	

8 7 6 5 4 3 2 1

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR693	11-DEC-07	dBL
B	EC 4004	05-MAR-08	dBL

D

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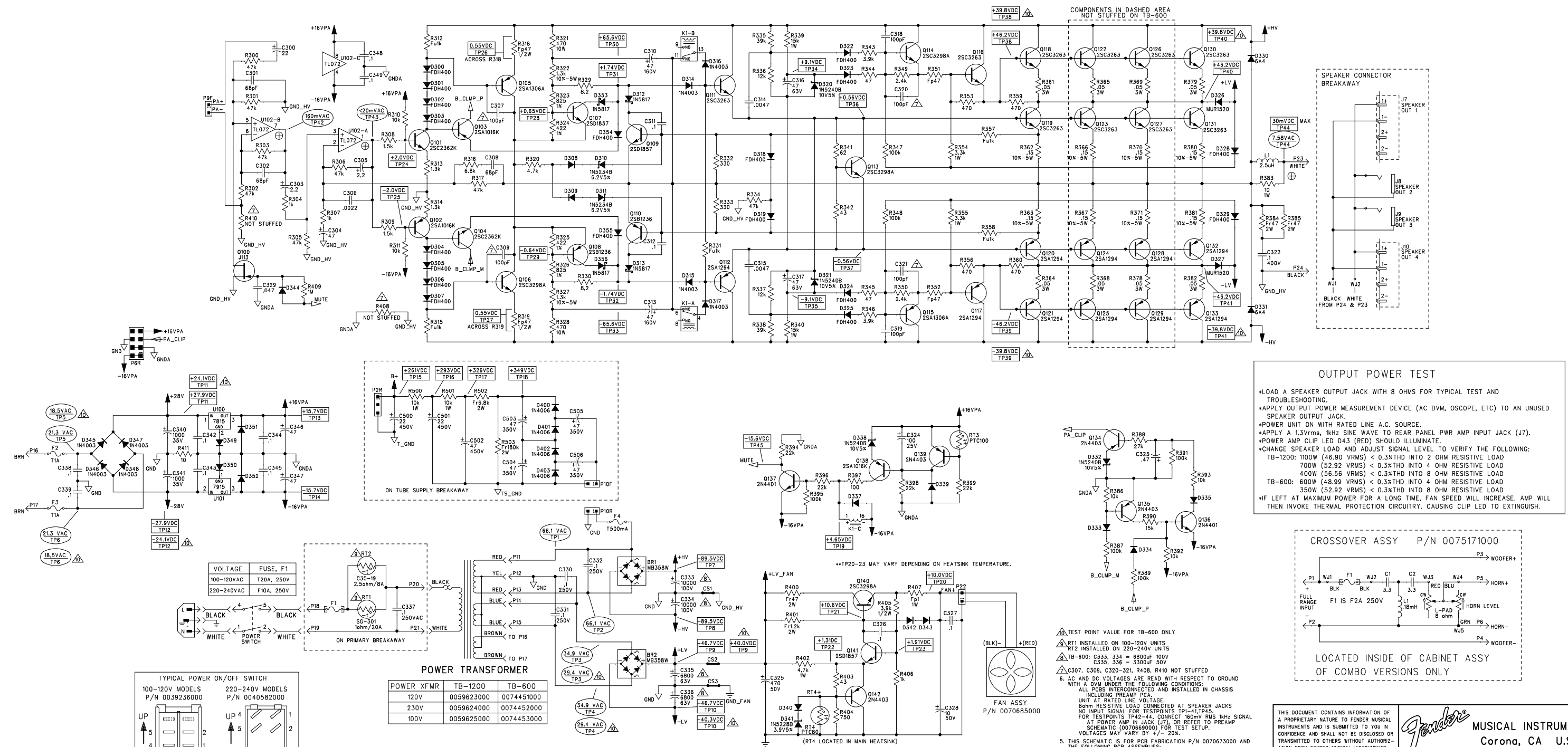
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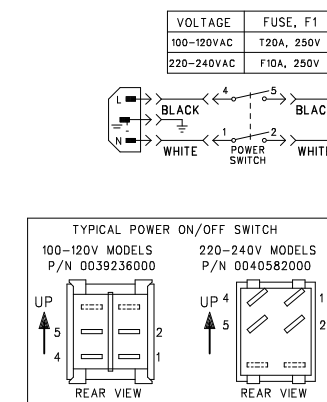
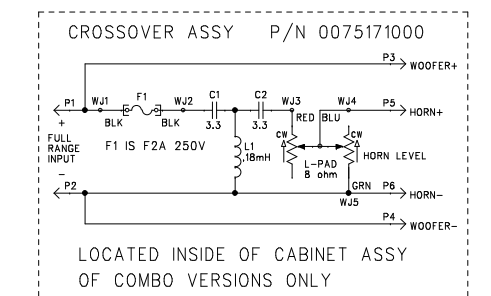
A

A



OUTPUT POWER TEST

- LOAD A SPEAKER OUTPUT JACK WITH 8 OHMS FOR TYPICAL TEST AND TROUBLESHOOTING.
- APPLY OUTPUT POWER MEASUREMENT DEVICE (AC DVM, OSCOPE, ETC) TO AN UNUSED SPEAKER OUTPUT JACK.
- POWER UNIT ON WITH RATED LINE A.C. SOURCE.
- APPLY A 1.3Vrms, 1kHz SINE WAVE TO REAR PANEL PWR AMP INPUT JACK (J7).
- POWER AMP CLIP LED D43 (RED) SHOULD ILLUMINATE.
- CHANGE SPEAKER LOAD AND ADJUST SIGNAL LEVEL TO VERIFY THE FOLLOWING:
 - TB-1200: 1100W (46.90 VRMS) < 0.3xTHD INTO 2 OHM RESISTIVE LOAD
 - 700W (52.92 VRMS) < 0.3xTHD INTO 4 OHM RESISTIVE LOAD
 - 400W (56.56 VRMS) < 0.3xTHD INTO 8 OHM RESISTIVE LOAD
 - TB-600: 600W (48.99 VRMS) < 0.3xTHD INTO 4 OHM RESISTIVE LOAD
 - 350W (52.92 VRMS) < 0.3xTHD INTO 8 OHM RESISTIVE LOAD
- IF LEFT AT MAXIMUM POWER FOR A LONG TIME, FAN SPEED WILL INCREASE. AMP WILL THEN INVOKE THERMAL PROTECTION CIRCUITRY, CAUSING CLIP LED TO EXTINGUISH.



POWER TRANSFORMER

POWER XFMR	TB-1200	TB-600
120V	0059623000	0074451000
230V	0059624000	0074452000
100V	0059625000	0074453000

VOLTAGE FUSE, F1

VOLTAGE	FUSE, F1
100-120VAC	T20A, 250V
220-240VAC	F10A, 250V

11. REFERENCE DESIGNATORS USED:
 BR1-2, C300-349, C500-506, D300-356, D400-403
 F1-4, J7-10, K1, L1, P2, P6, P9-24, Q100-142,
 R300-371, R378-411, R500-503, RT1-4, U100-102

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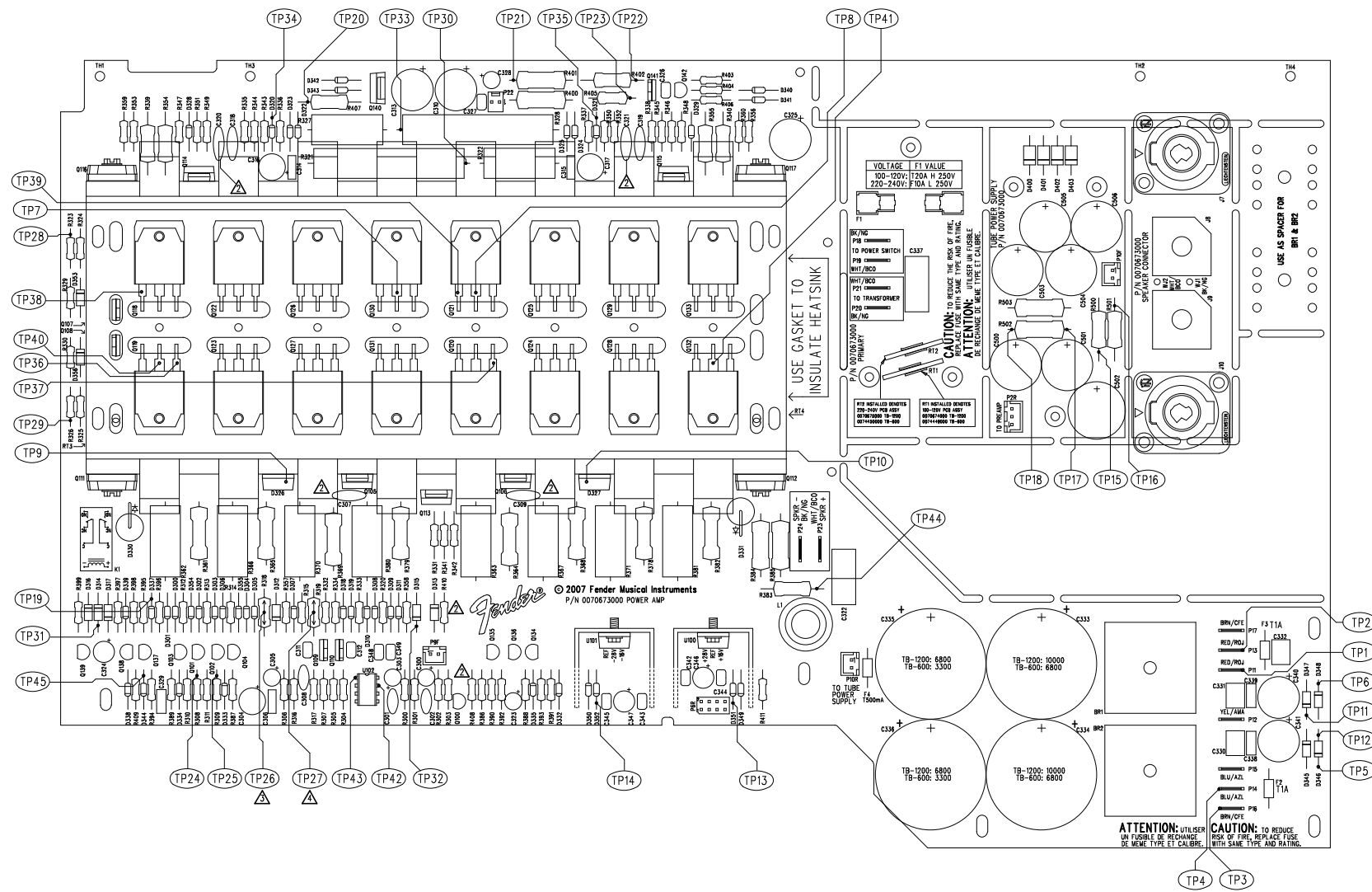
Fender MUSICAL INSTRUMENTS
 Corona, CA U.S.A.

CHECKED BY: _____ TITLE: SERVICE DIAGRAM, COMBINED (schematic)
 DATE: _____ TB-1200/600
 POWER AMPLIFIER

APPROVED BY: _____ SIZE: DRAWING NUMBER
 DATE: _____ D 0070672000 REV. B

DRAWN: D. LEWIS ENGR: D. LEWIS
 DATABASE FILE: Z693S2.SCH RELEASE DATE: 11-DEC-07 SHEET: 1 OF 2

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 693	11-DEC-07	dBL
B	EC 4004	05-MAR-08	dBL



TRANSISTOR PINOUT
 WHEN PROBING, DO NOT SHORT
 PIN TO PIN OR PIN TO HEATSINK!!!

BASE
 COLLECTOR
 EMITTER

2SC3263 (NPN)
 2SA1294 (PNP)
 2SC3298 (NPN)
 2SA1306 (PNP)

FILM/DWG: SERVICE DIAGRAM
 DATABASE: Z693P2.PCB DATE: 11-DEC-07

- ⚠ OBSERVE DC VOLTAGE ACROSS R319.
 - ⚠ OBSERVE DC VOLTAGE ACROSS R318.
 - ⚠ COMPONENTS NOT INSTALLED: C307, C309, C320-321, R408, R410.
1. SEE SHEET 1 FOR PRIMARY WIRING, TEST CONDITIONS, TEST POINT VALUES, AND OUTPUT POWER SETUP.

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CHECKED BY:	DATE:	TITLE: SERVICE DIAGRAM, COMBINED (PCB assy) TB-1200/600 POWER AMPLIFIER	
APPROVED BY:	DATE:	SIZE: D	DRAWING NUMBER: 0070672000
DRAWN: D. LEWIS	ENGR: D. LEWIS	RELEASE DATE: 11-DEC-07	SHEET 2 OF 2
DATABASE FILE: Z693P2.PCB			REV. B