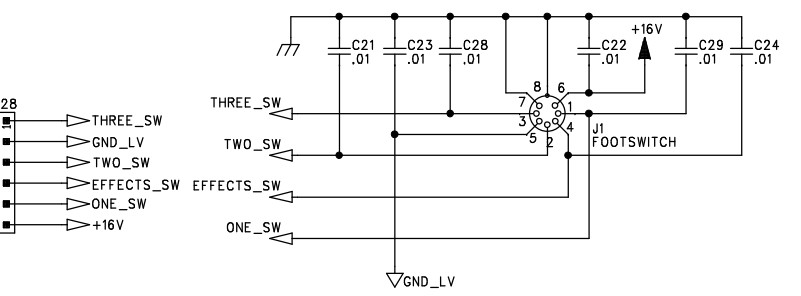
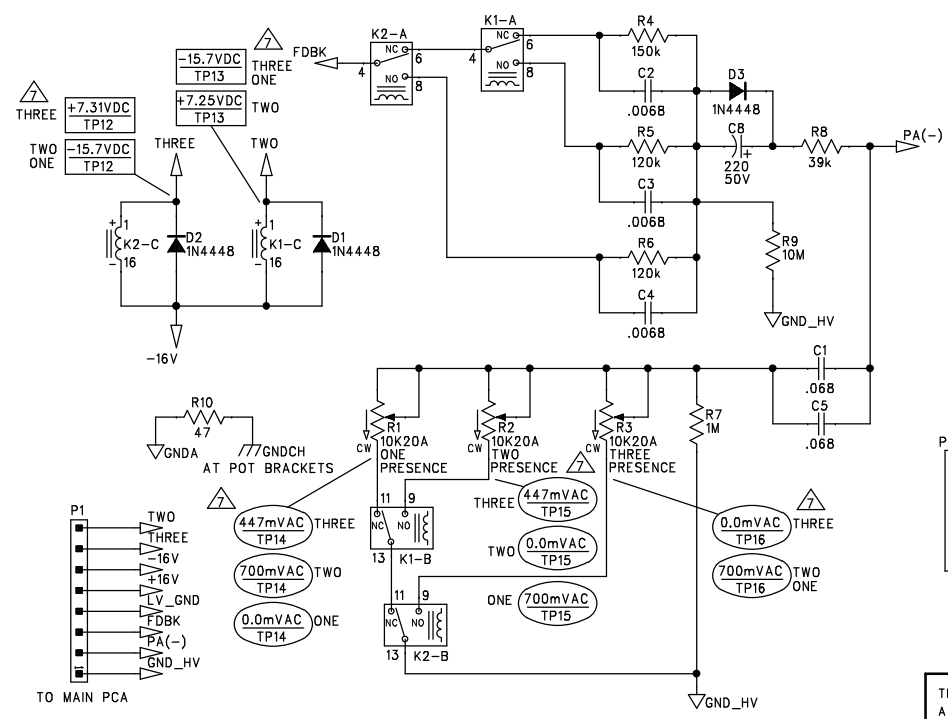
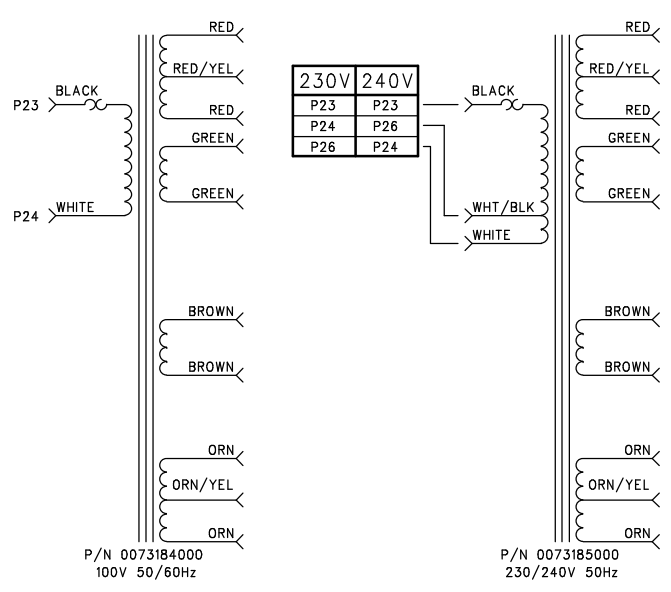
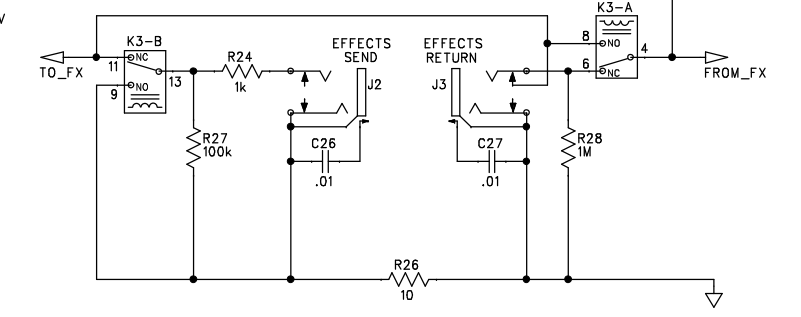
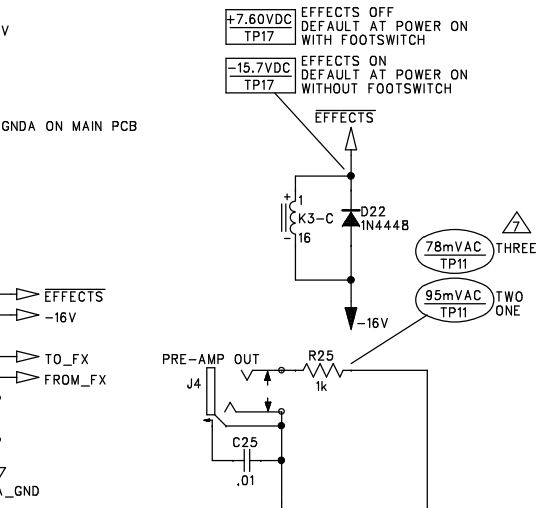
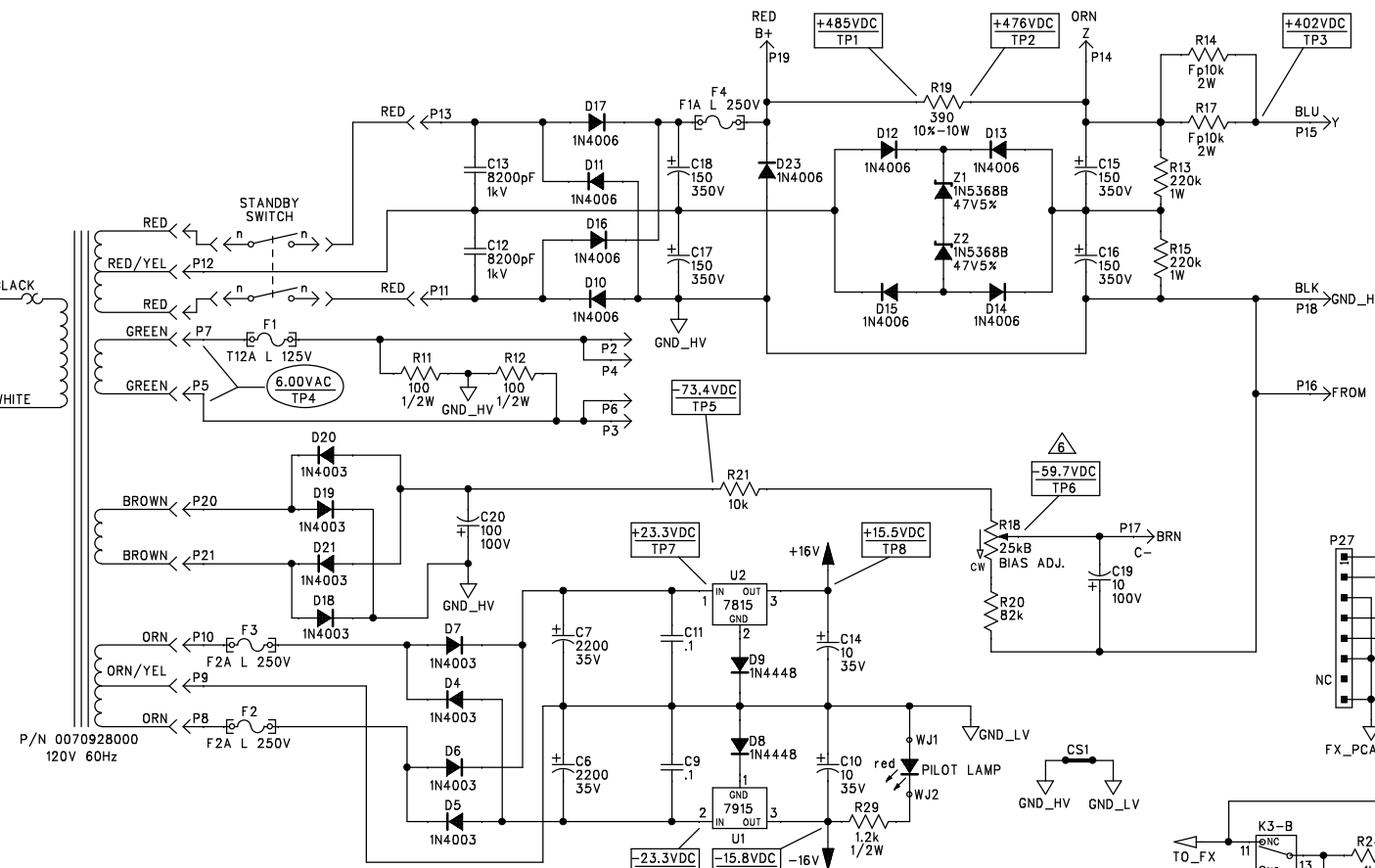
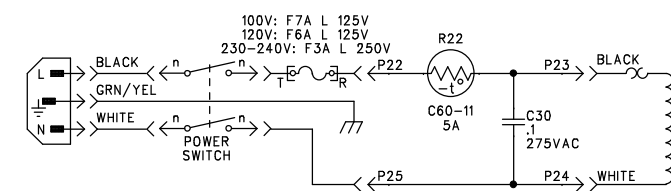


REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR684	18-AUG-06	MCU
B	EC 3708	20-DEC-06	MCU



- 9. INSTANCES NOT USED: R23
- 8. LAST INSTANCES: C29 D23 F4 J4 K3 P29 R29 TP17 U2 W2 WJ2 Z2
- SEE SCHEMATIC 0070922000 SHEET 1 NOTE 7 FOR TESTING CONDITIONS. NOTE THE DIFFERENT INPUT SIGNAL VOLTAGES AND FREQUENCIES USED FOR TESTING EACH CHANNEL.
- SEE SCHEMATIC 0070922000 SHEET 1 NOTE 6 FOR BIASING INSTRUCTIONS. VOLTAGE SHOWN AT TP6 IS FOR REFERENCE ONLY AND WILL VARY FROM UNIT TO UNIT.
- THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0070919000 AND PCB ASSEMBLY P/N 0070921000.
- ALL DIODES ARE 1N4448.
- ALL POLARIZED CAPACITORS IN uF, 20%, 50V MINIMUM.
- ALL UNPOLARIZED CAPACITORS IN uF, 10% OR BETTER; 50V MINIMUM. (POWER SUPPLY BYPASS CAPACITORS ARE 20%).
- 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.

CHECKED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

APPROVED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

DRAWN: M.ULRICH ENGR: MULRICH  
DATABASE FILE: Z684S2.SCH

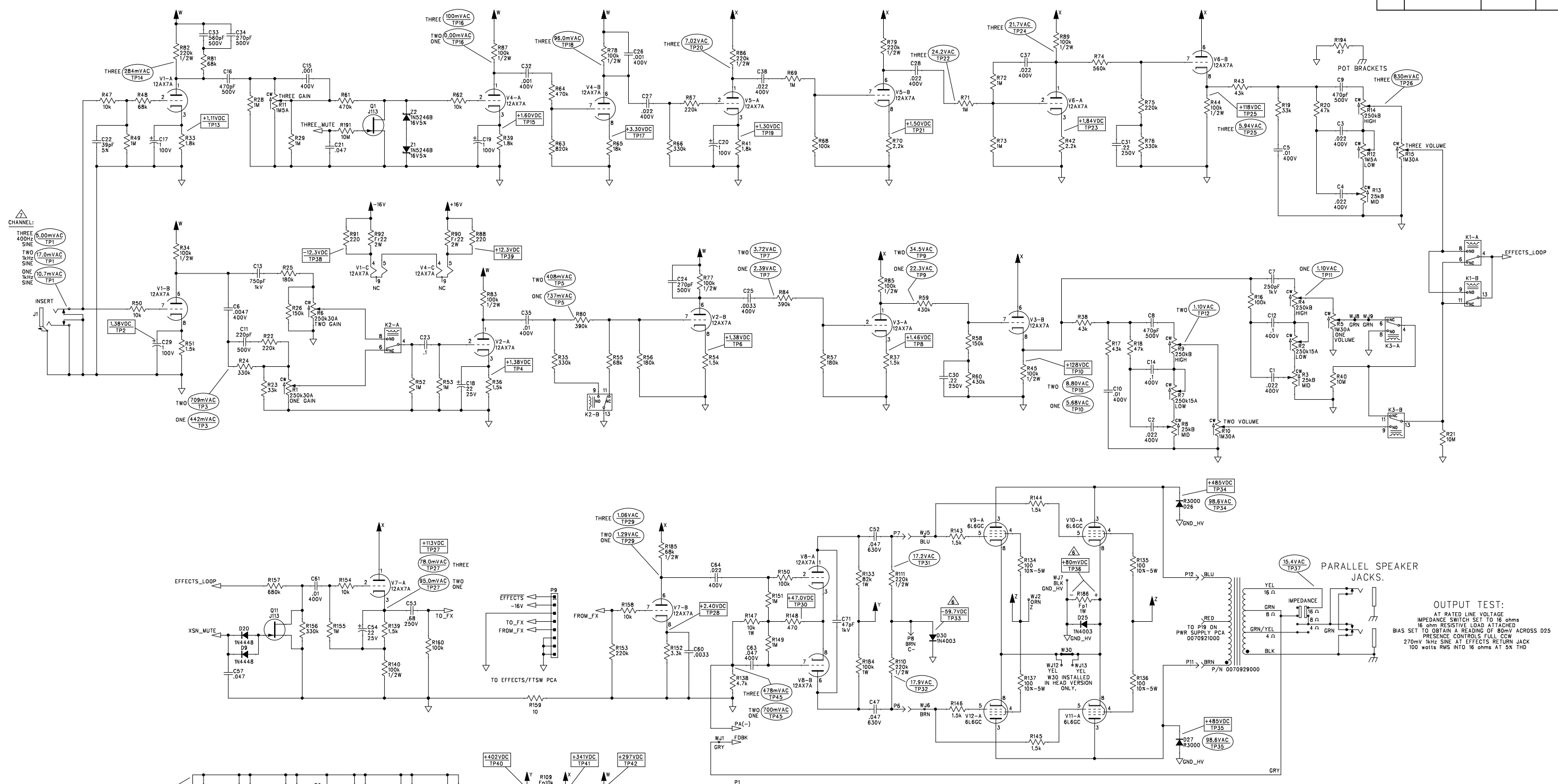
**Fender** MUSICAL INSTRUMENTS  
Corona, CA U.S.A.

TITLE: SERVICE DIAGRAM, COMBINED (schematic)  
EVH 5150-III AMPLIFIER  
PWR SUPPLY PCA

SIZE DRAWING NUMBER REV.  
**C** 0070916000 **B**

RELEASE DATE: 18-AUG-06 SHEET: 1 OF 2

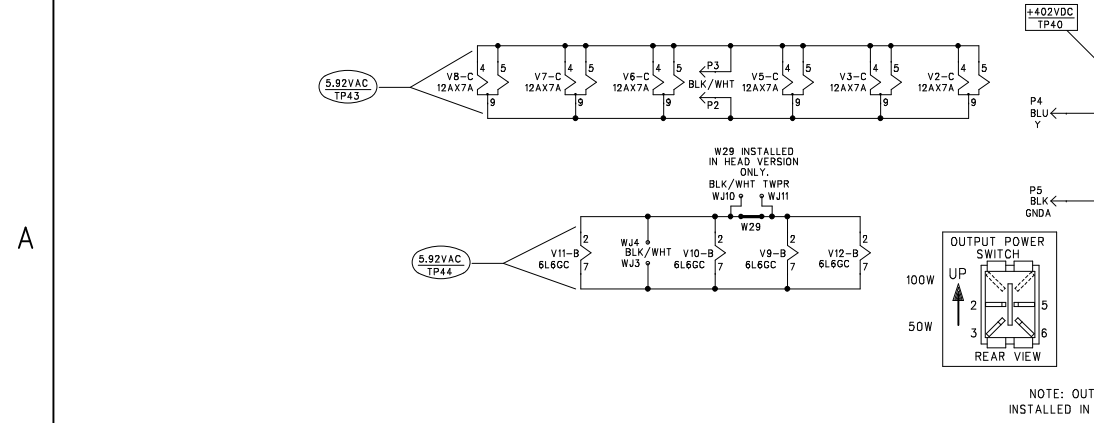
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR684	04-AUG-06	MCU
B	EC3914		



**OUTPUT TEST:**  
 AT RATED LINE VOLTAGE  
 IMPEDANCE SWITCH SET TO 16 ohms  
 16 ohm RESISTIVE LOAD ATTACHED  
 TO OBTAIN A READING OF 80mV ACROSS D25  
 PRESENCE CONTROLS FULL CCW  
 270mV 1kHz SINE AT EFFECTS RETURN JACK  
 100 watts RMS INTO 16 ohms AT 5% THD

**SPECIAL SERVICE NOTE:** SHOULD THE AMPLIFIER BE POWERED UP USING AN AUTOFORMER, THE CONTROL CIRCUITRY WILL ENGAGE ALL OF THE RELAYS. THIS WILL NOT HARM THE AMPLIFIER; HOWEVER, IT IS AN INVALID STATE. AFTER POWER UP, TURN THE AMPLIFIER OFF FOR TWO SECONDS THEN BACK ON TO PROPERLY RESET THE CONTROL CIRCUITRY.

10. INSTANCES NOT USED: C62 C68  
 9. THIS SHEET CONTAINS TEST POINTS TP1-TP45. SEE SHEET 2 FOR TP46-TP66.  
 8. LAST INSTANCES: C74 D30 J1 K3 P12 Q13 R194 S3 TP66 U5 W30 WJ13 XV12 Z2  
 7. ALL VOLTAGES MEASURED WITH RESPECT TO GROUND USING A TRUE RMS DVM OF AT LEAST 1MΩ INPUT IMPEDANCE AND OF 10MΩ DC INPUT IMPEDANCE. VOLTAGES MAY VARY +/-20%. TEST CONDITIONS:  
 UNIT OPERATING AT RATED LINE VOLTAGE.  
 BIAS SET TO 20mA PER OUTPUT TUBE. SEE NOTE 6.  
 ALL DC AND SUPPLY MEASUREMENTS MADE WITH NO SIGNAL.  
 ALL CONTROLS AT 50% ROTATION EXCEPT AS NOTED BELOW.  
 R8 TWO GAIN AND R11 THREE GAIN AT 20% ROTATION (9 O'CLOCK).  
 APPLIED SIGNAL AS SPECIFIED AT TP1 TO TEST EACH CHANNEL.  
 BIAS ADJUSTMENT - NO SIGNAL APPLIED, RATED LINE VOLTAGE AT POWER TRANSFORMER PRIMARY. UNIT ON AND WARMED UP FOR AT LEAST TWO MINUTES. SET BIAS ADJUSTMENT R18 ON POWER SUPPLY PCA 0070921000 TO OBTAIN A READING OF +80mV AT TP36. VOLTAGE SHOWN AT TP33 IS FOR REFERENCE ONLY AND WILL VARY FROM UNIT TO UNIT.



NOTE: OUTPUT POWER SWITCH INSTALLED IN COMBO VERSION ONLY.

NOTES: (UNLESS OTHERWISE NOTED)

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 Corona, CA U.S.A.

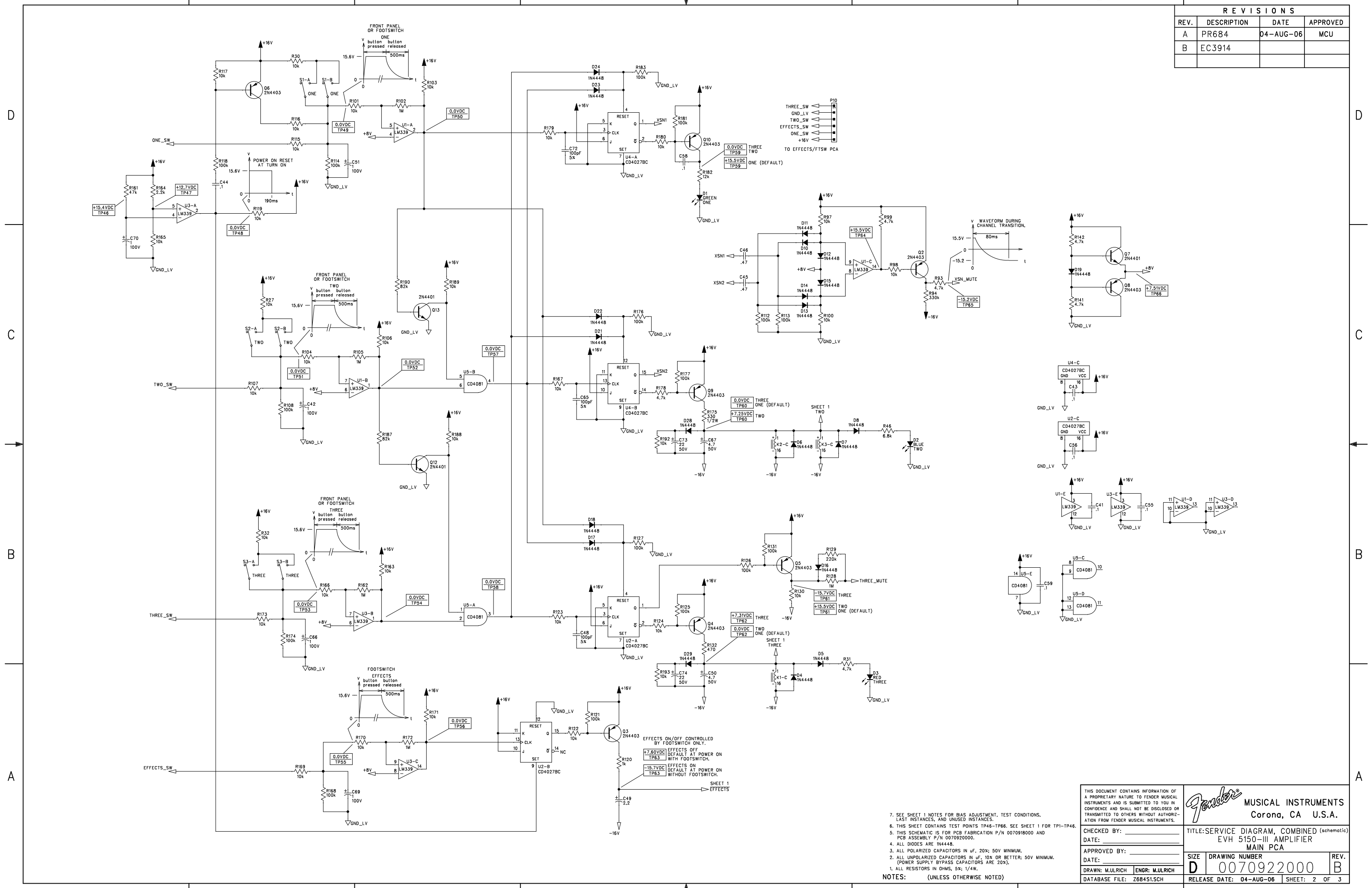
TITLE: SERVICE DIAGRAM, COMBINED (schematic)  
 EVH 5150-III AMPLIFIER  
 MAIN PCA

CHECKED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 APPROVED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 DATABASE FILE: Z684S1.SCH

SIZE: **D**  
 DRAWING NUMBER: 0070922000  
 REV. **B**

RELEASE DATE: 04-AUG-06  
 SHEET: 1 OF 3

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR684	04-AUG-06	MCU
B	EC3914		



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

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Corona, CA U.S.A.

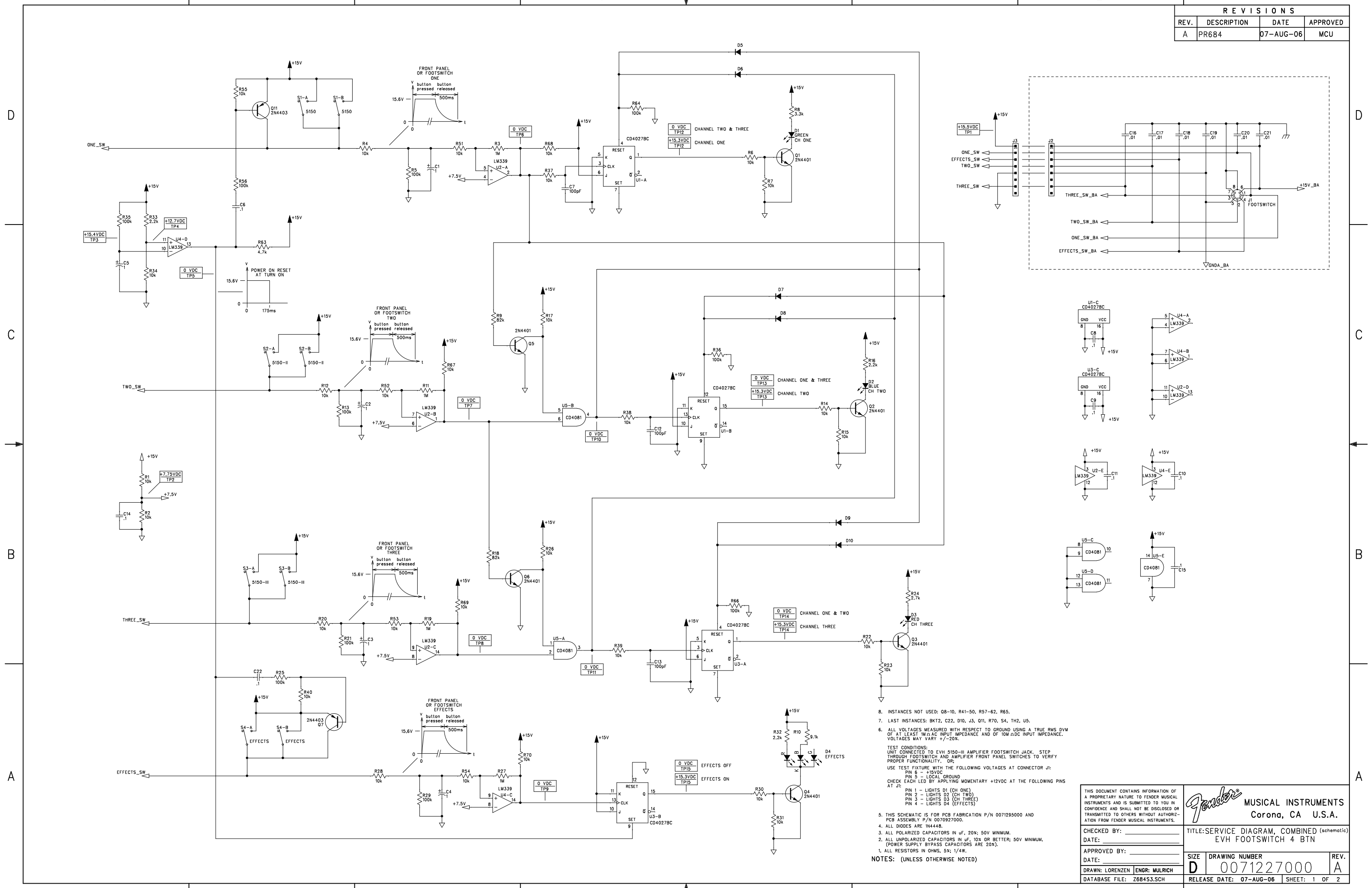
TITLE: SERVICE DIAGRAM, COMBINED (schematic)  
EVH 5150-III AMPLIFIER  
MAIN PCA

CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
DRAWN: M.LURICH ENGR: M.LURICH DATABASE FILE: Z684S1.SCH

SIZE: **D** DRAWING NUMBER: 0070922000 REV. **B**  
RELEASE DATE: 04-AUG-06 SHEET: 2 OF 3

- SEE SHEET 1 NOTES FOR BIAS ADJUSTMENT, TEST CONDITIONS, LAST INSTANCES, AND UNUSED INSTANCES.
  - THIS SHEET CONTAINS TEST POINTS TP46-TP66. SEE SHEET 1 FOR TP1-TP45.
  - THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0070918000 AND PCB ASSEMBLY P/N 0070920000.
  - ALL DIODES ARE 1N4448.
  - ALL POLARIZED CAPACITORS IN  $\mu F$ , 20%: 50V MINIMUM.
  - ALL UNPOLARIZED CAPACITORS IN  $\mu F$ , 10% OR BETTER; 50V MINIMUM. (POWER SUPPLY BYPASS CAPACITORS ARE 20%).
  - ALL RESISTORS IN OHMS, 5%: 1/4W.
- NOTES: (UNLESS OTHERWISE NOTED)

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR684	07-AUG-06	MCU



8. INSTANCES NOT USED: 08-10, R41-50, R57-62, R65.  
7. LAST INSTANCES: BKT2, C22, D10, J3, Q11, R70, S4, TH2, U5.  
6. ALL VOLTAGES MEASURED WITH RESPECT TO GROUND USING A TRUE RMS DVM OF AT LEAST 1MΩ AC INPUT IMPEDANCE AND OF 10MΩ DC INPUT IMPEDANCE. VOLTAGES MAY VARY +/-20%.  
TEST CONDITIONS:  
UNIT CONNECTED TO EVH 5150-III AMPLIFIER FOOTSWITCH JACK. STEP THROUGH FOOTSWITCH AND AMPLIFIER FRONT PANEL SWITCHES TO VERIFY PROPER FUNCTIONALITY. OR:  
USE TEST FIXTURE WITH THE FOLLOWING VOLTAGES AT CONNECTOR J1:  
PIN 6 - +15VDC  
PIN 5 - LOCAL GROUND  
CHECK EACH LED BY APPLYING MOMENTARY +12VDC AT THE FOLLOWING PINS AT J1:  
PIN 1 - LIGHTS D1 (CH ONE)  
PIN 2 - LIGHTS D2 (CH TWO)  
PIN 3 - LIGHTS D3 (CH THREE)  
PIN 4 - LIGHTS D4 (EFFECTS)  
5. THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0071295000 AND PCB ASSEMBLY P/N 0070927000.  
4. ALL DIODES ARE 1N4448.  
3. ALL POLARIZED CAPACITORS IN μF, 20%; 50V MINIMUM.  
2. ALL UNPOLARIZED CAPACITORS IN μF, 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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**Fender** MUSICAL INSTRUMENTS  
Corona, CA U.S.A.

TITLE: SERVICE DIAGRAM, COMBINED (schematic)  
EVH FOOTSWITCH 4 BTN

CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
DRAWN: LORENZEN ENGR: MULRICH  
DATABASE FILE: Z684S3.SCH

SIZE: **D** DRAWING NUMBER: 0071227000 REV. A  
RELEASE DATE: 07-AUG-06 SHEET: 1 OF 2