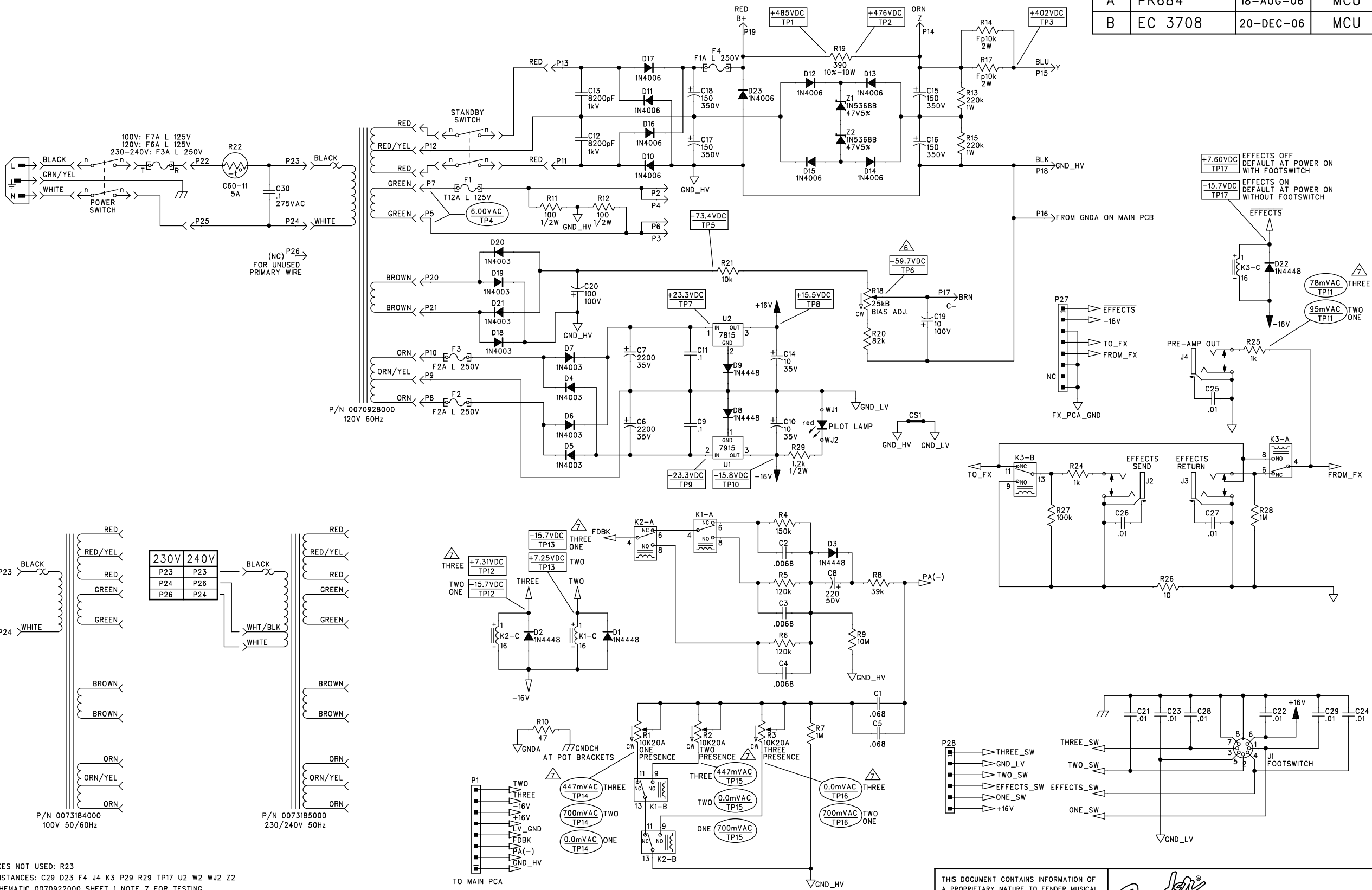


R E V I S I O N S			
REV.	DESCRIPTION	DATE	APPROVED
A	PR684	18-AUG-06	MCU
B	EC 3708	20-DEC-06	MCU



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.  
5. THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0070919000 AND PCB ASSEMBLY P/N 0070921000.  
4. ALL DIODES ARE 1N4448.  
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)

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.

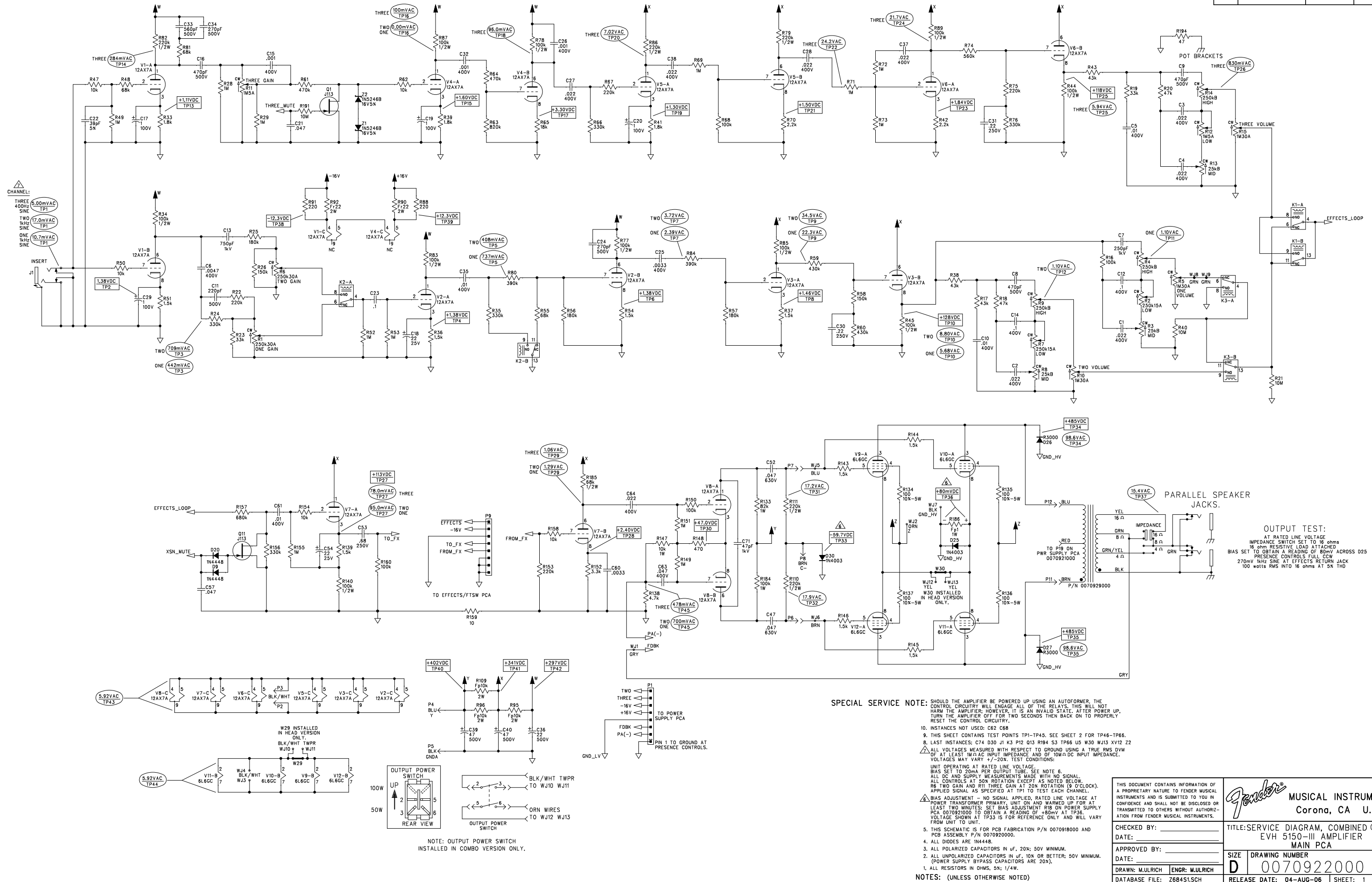
CHECKED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
APPROVED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
DRAWN: M.ULRICH ENGR: MULRICH  
DATABASE FILE: Z684S2.SCH

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

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

SIZE C DRAWING NUMBER 0070916000 REV. B  
RELEASE DATE: 18-AUG-06 SHEET: 1 OF 2

R E V I S I O N S			
REV.	DESCRIPTION	DATE	APPROVED
A	PR684	04-AUG-06	MCU
B	EC3914		



**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.

9. INSTANCES NOT USED: C62 C68  
10. THIS SHEET CONTAINS TEST POINTS TP1-TP46, SEE SHEET 2 FOR TP46-TP68.  
11. LAST INSTANCES: C74 D3D J1 K3 P2 Q13 R14 S3 TP68 U5 W3D W53 XV12  
**⚠** 12. THE FOLLOWING TEST CONDITIONS APPLY TO ALL TEST RUNS:  
A. AT LEAST IMR AC IMPEDANCE AND OF 10MΩ DC INPUT IMPEDANCE.  
VOLTAGES MAY VARY ±7-20% TEST CONDITIONS:  
UNIT OPERATING AT ROOM TEMPERATURE BELOW  
BIAS SET TO 20mA per OUTPUT TUBE, SEE NOTE 6.  
ALL DC AND SUPPLY MEASUREMENTS MADE WITH NO SIGNAL.  
ALL ROTATIONS AT 500 RPM EXCEPT AS NOTED ON CHANNEL.  
RW2 GAIN AND RT1 THREE GAIN AT 20X ROTATION (CLOCK).  
RT2 TWO GAIN AND SIGNAL AS NOTED ON CHANNEL.  
BIAS ADJUSTMENT - NO SIGNAL APPLIED, RATED LINE VOLTAGE AT  
POWER TRANSFORMER PRIMARY UNIT ON AND WARMED UP FOR SUPPLY  
CURRENT MONITORING TWO MINUTES.  
UNIT C74 007092 UNID TO BE AROUND A READING OF +80mV AT TP36.  
UNIT C74 SHOULD SHOW AT TP33 IS FOR REFERENCE ONLY AND WILL VARY  
FROM UNIT TO UNIT.
- THIS  
PHOTO  
IS  
FOR  
INSTRUM  
CONSTRU  
TRANSF  
ATION

5. THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0070918000 AND PCB ASSEMBLY P/N 0070920000.
4. ALL DIODES ARE 1N4448.
3. ALL POLARIZED CAPACITORS IN  $\mu\text{F}$ , 20%; 50V MINIMUM.
2. ALL UNPOLARIZED CAPACITORS IN  $\mu\text{F}$ , 10% OR BETTER; 50V MIN (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.

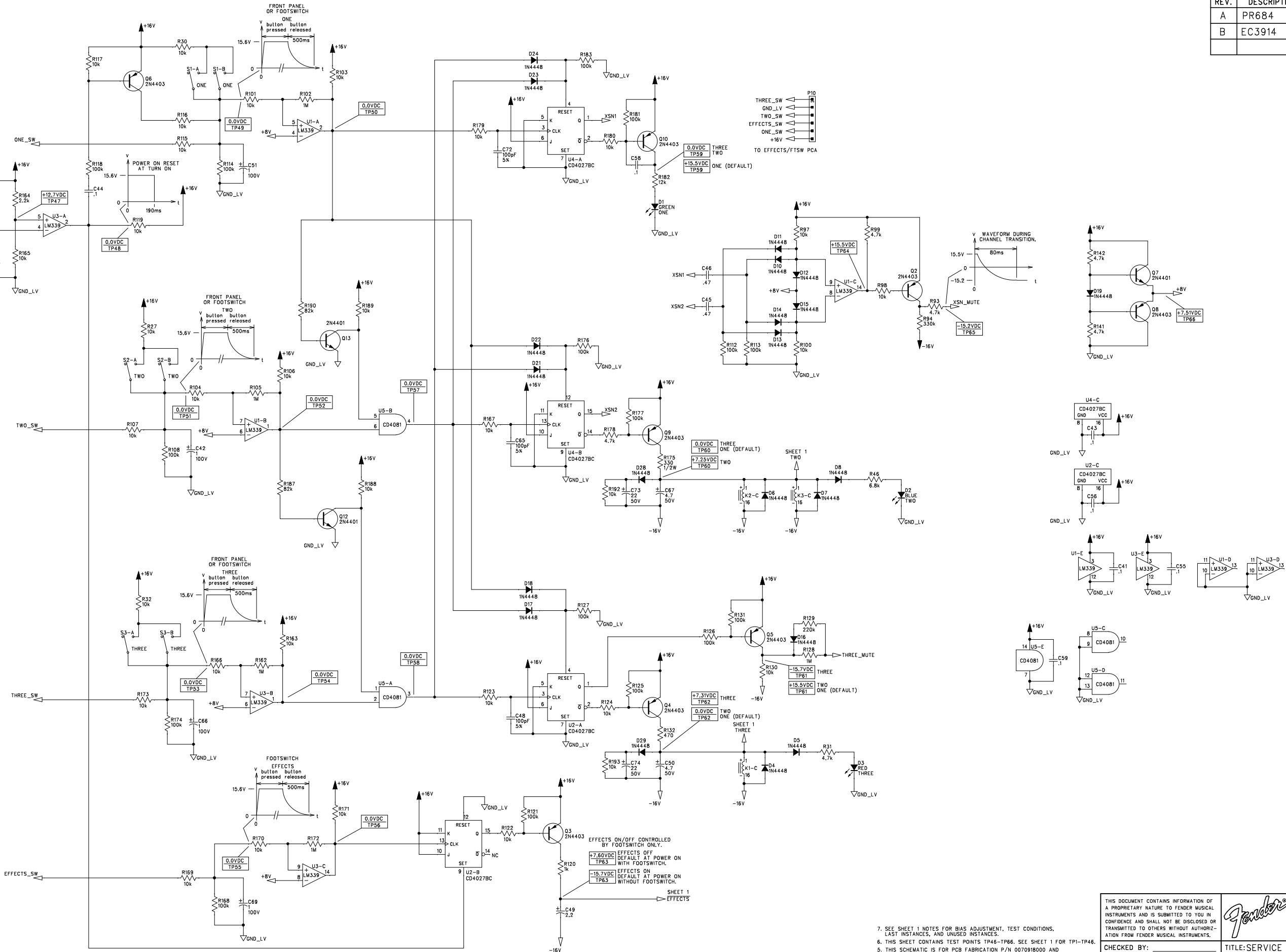
TITLE:SERVICE DIAGRAM, COMBINED (schematic)  
EVH 5150-III AMPLIFIER  
MAIN PCA

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

DRAWN: M.ULRICH	ENGR: M.ULRICH
DATABASE FILE: Z684S1SCH	

SIZE <b>D</b>	DRAWING NUMBER 0070922000	REV. <b>B</b>
RELEASE DATE: 04-AUG-06		SHEET: 1 OF 3

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



- 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)

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: M.ULRICH  
DATABASE FILE: Z684S1.SCH

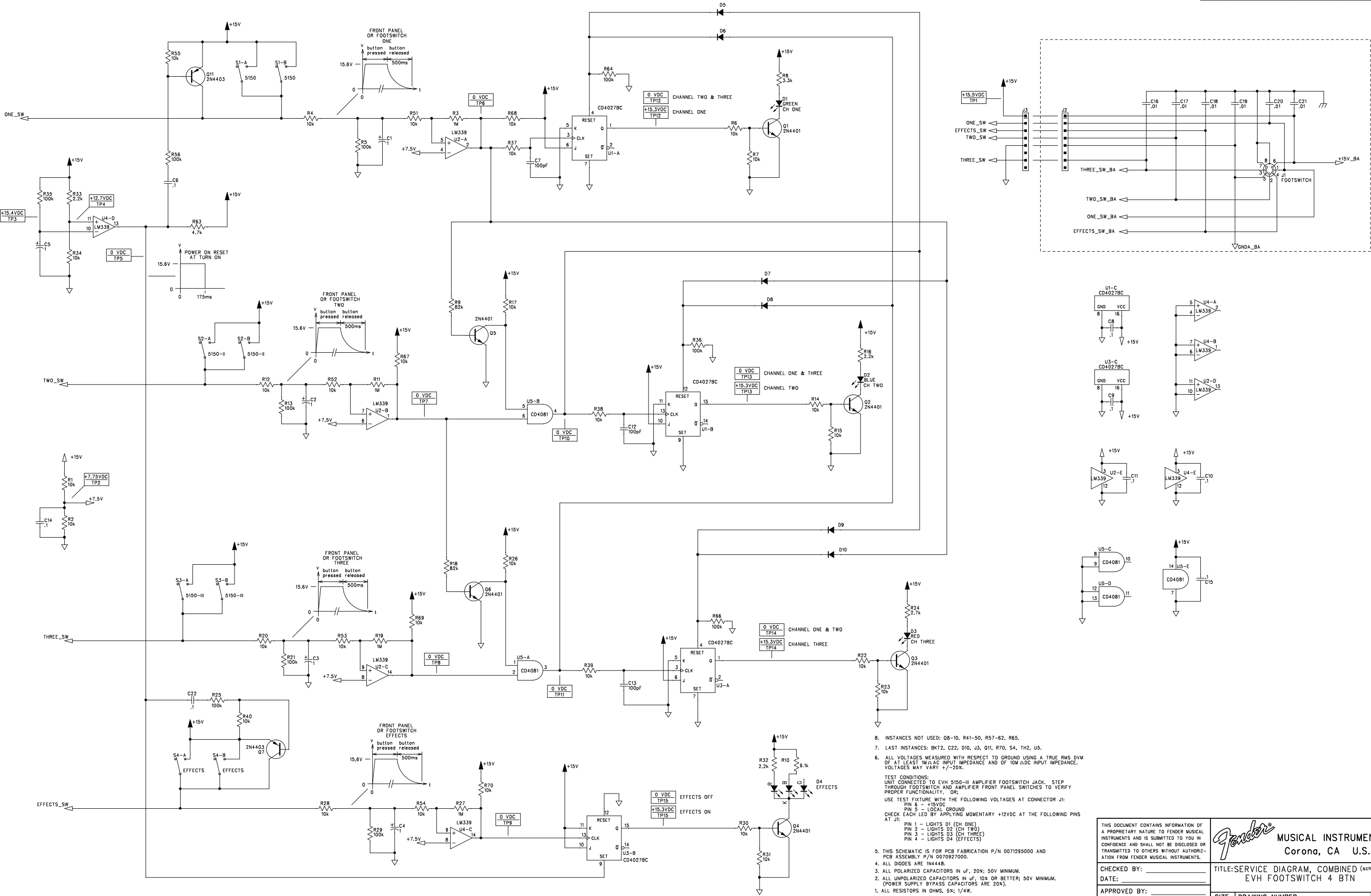
**Fender** MUSICAL INSTRUMENTS  
Corona, CA U.S.A.

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

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

RELEASE DATE: 04-AUG-06 SHEET: 2 OF 3

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



8. INSTANCES NOT USED: Q8-10, 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)

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: \_\_\_\_\_  
DATE: \_\_\_\_\_

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

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

SIZE **D** DRAWING NUMBER 0071227000 REV. A

DRAWN: LORENZEN ENGR: MULRICH  
DATABASE FILE: Z684S3.SCH

RELEASE DATE: 07-AUG-06 SHEET: 1 OF 2