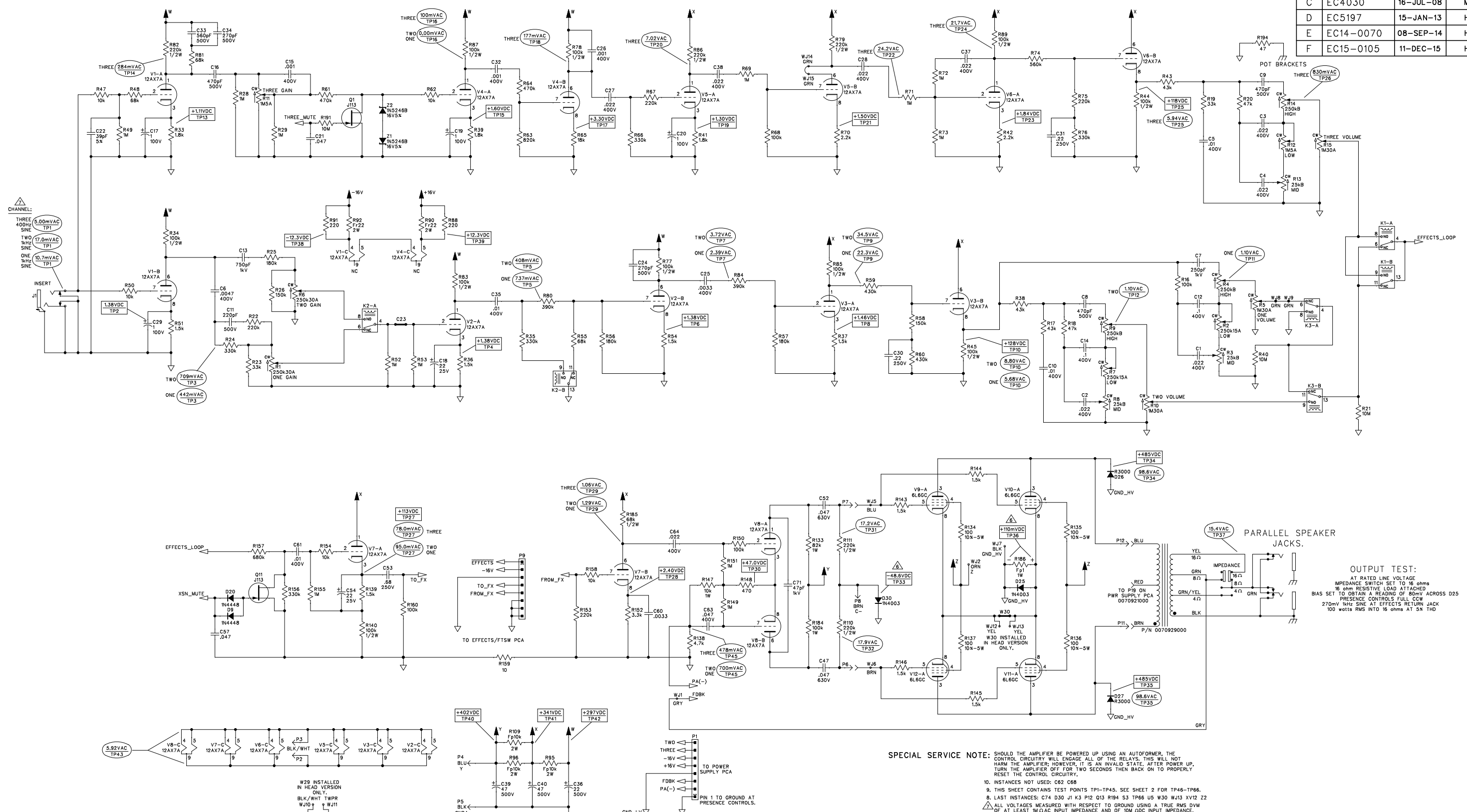


REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR684	04-AUG-06	MCU
B	EC3914	25-SEP-07	MCU
C	EC4030	16-JUL-08	MCU
D	EC5197	15-JAN-13	HBK
E	EC14-0070	08-SEP-14	HBK
F	EC15-0105	11-DEC-15	HBK



OUTPUT TEST:
 AT RATED LINE VOLTAGE
 IMPEDANCE SWITCH SET TO 16 ohms
 16 ohm RESISTIVE LOAD ATTACHED
 BIAS SET 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 10M ΩDC INPUT IMPEDANCE. VOLTAGES MAY VARY +/-20%. TEST CONDITIONS:
 UNIT OPERATING AT RATED LINE VOLTAGE.
 BIAS SET TO 20mA PER OUTPUT TUBE. SEE NOTE 8.
 ALL DC AND SUPPLY MEASUREMENTS MADE WITH NO SIGNAL.
 ALL CONTROLS AT 50% ROTATION EXCEPT AS NOTED BELOW.
 RB 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 007092000 TO OBTAIN A READING OF +100mV AT TP36. VOLTAGE SHOWN AT TP33 IS FOR REFERENCE ONLY AND WILL VARY FROM UNIT TO UNIT.

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

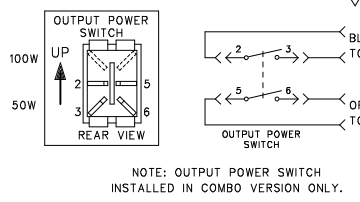
CHECKED BY: _____
 DATE: _____

APPROVED BY: _____
 DATE: _____

DRAWN: M.LULRICH ENGR: M.LULRICH
 DATABASE FILE: Z68451.SCH

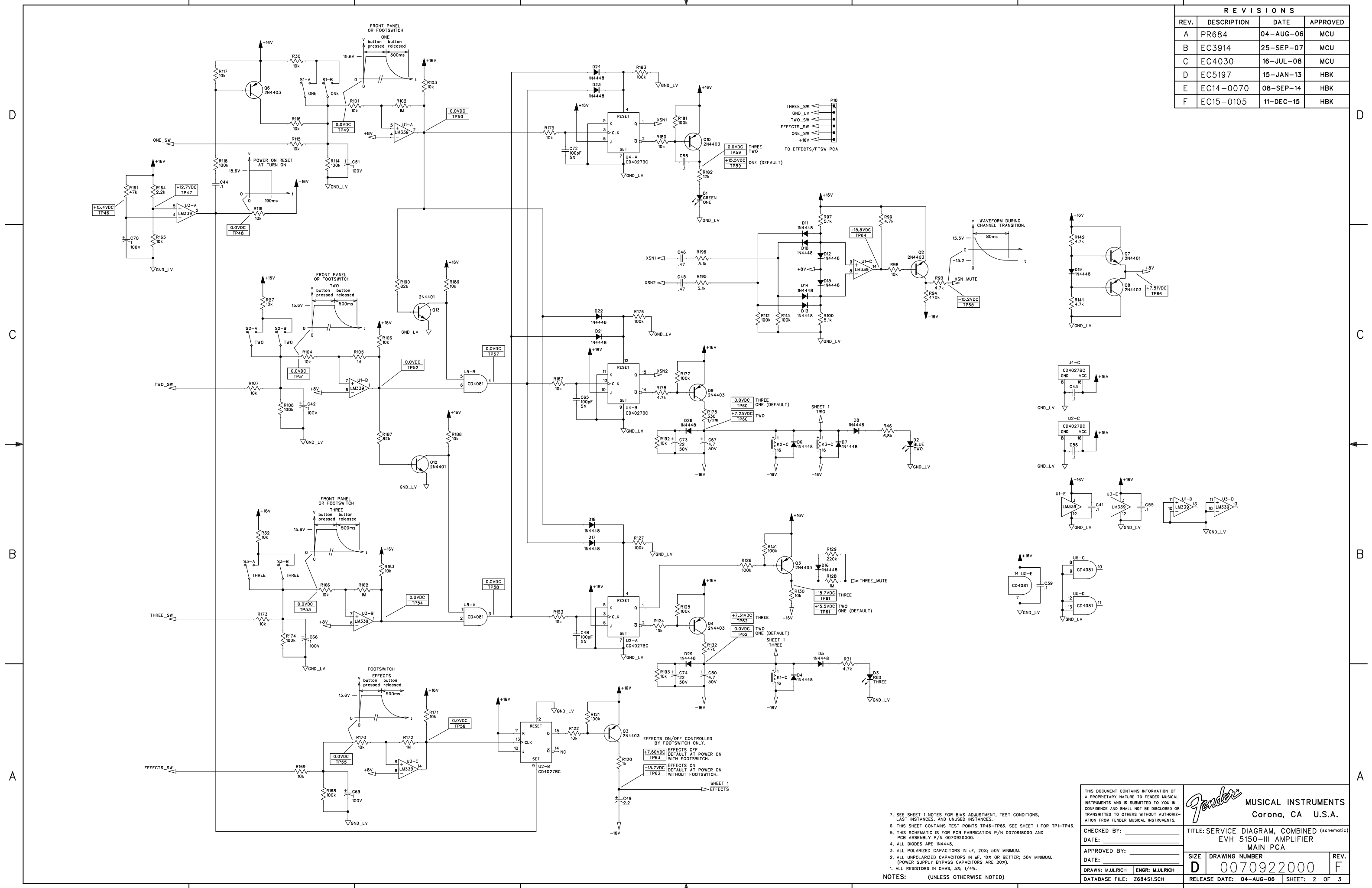
SIZE: **D** DRAWING NUMBER: 0070922000 REV. F

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



NOTES: (UNLESS OTHERWISE NOTED)

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR684	04-AUG-06	MCU
B	EC3914	25-SEP-07	MCU
C	EC4030	16-JUL-08	MCU
D	EC5197	15-JAN-13	HBK
E	EC14-0070	08-SEP-14	HBK
F	EC15-0105	11-DEC-15	HBK



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

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

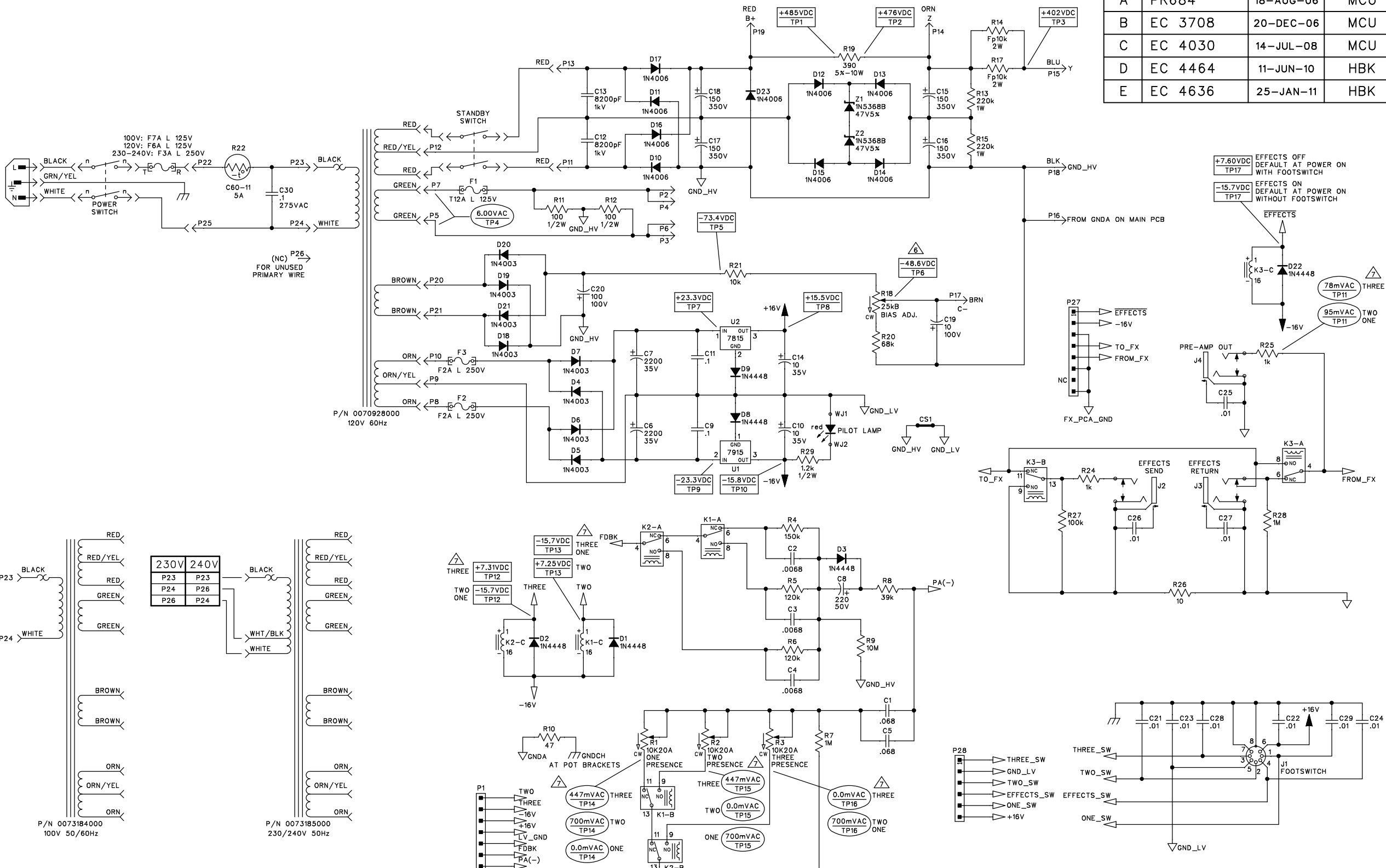
CHECKED BY: _____ DATE: _____
APPROVED BY: _____ DATE: _____
DRAWN: M.JULRICH ENGR: M.JULRICH
DATABASE FILE: Z68451.SCH

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

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 μ F, 20%; 50V MINIMUM.
 - ALL UNPOLARIZED CAPACITORS IN μ 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	18-AUG-06	MCU
B	EC 3708	20-DEC-06	MCU
C	EC 4030	14-JUL-08	MCU
D	EC 4464	11-JUN-10	HBK
E	EC 4636	25-JAN-11	HBK



- 9. INSTANCES NOT USED: R23
- 8. LAST INSTANCES: C29 D23 F4 J4 K3 P29 R29 U2 W2 WJ2 Z2
- 7. SEE SCHEMATIC 0070922000 SHEET 1 NOTE 7 FOR TESTING CONDITIONS. NOTE THE DIFFERENT INPUT SIGNAL VOLTAGES AND FREQUENCIES USED FOR TESTING EACH CHANNEL.
- 6. 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 μ F, 20%; 50V MINIMUM.
- 2. ALL UNPOLARIZED CAPACITORS IN μ 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: _____ DATE: _____		
APPROVED BY: _____ DATE: _____		TITLE: SERVICE DIAGRAM, COMBINED (schematic) EVH 5150-III AMPLIFIER PWR SUPPLY PCA
DRAWN: M.ULRICH ENGR: M.ULRICH	DATABASE FILE: Z684S2.SCH	SIZE: C DRAWING NUMBER: 0070916000 RELEASE DATE: 18-AUG-06
		REV. E SHEET: 1 OF 2