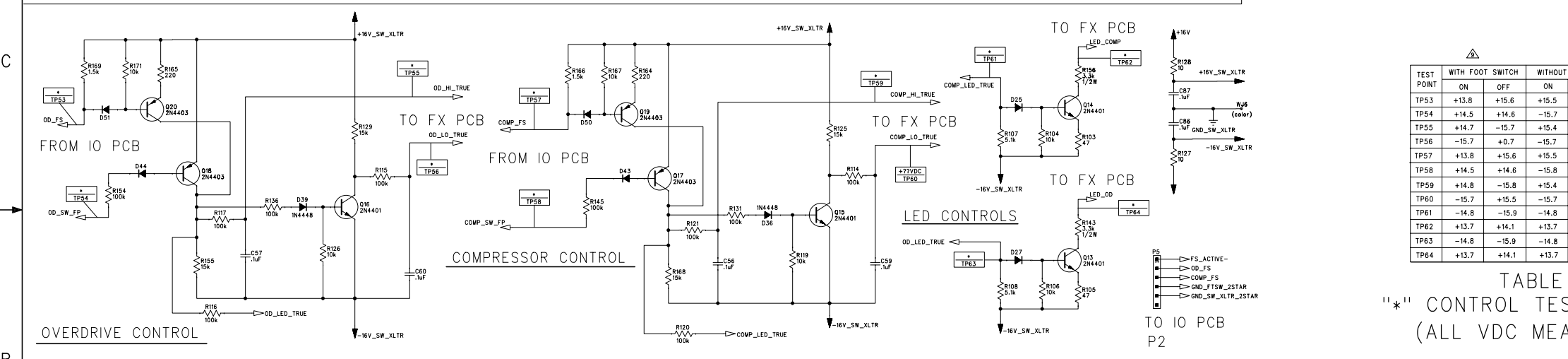
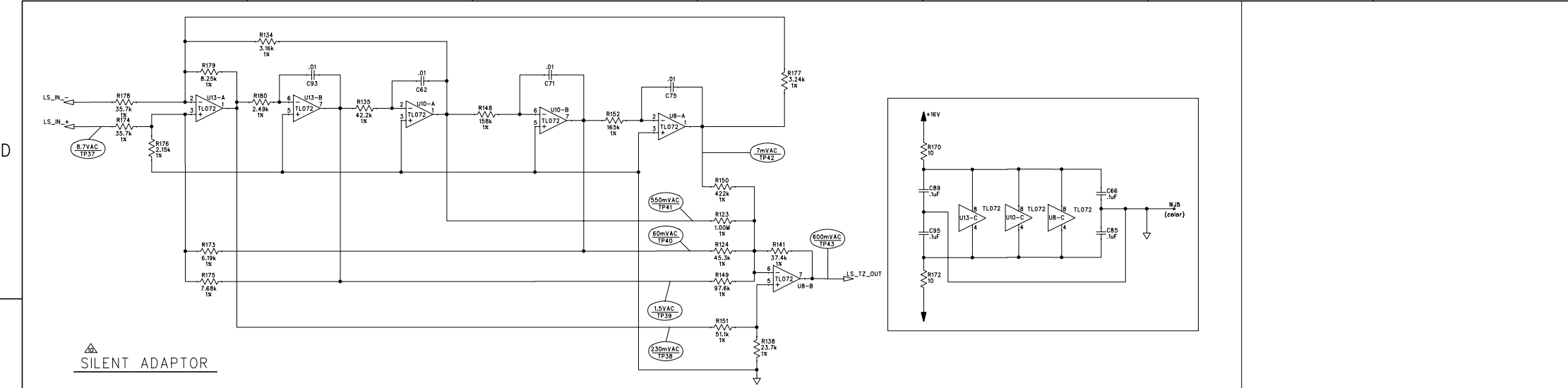
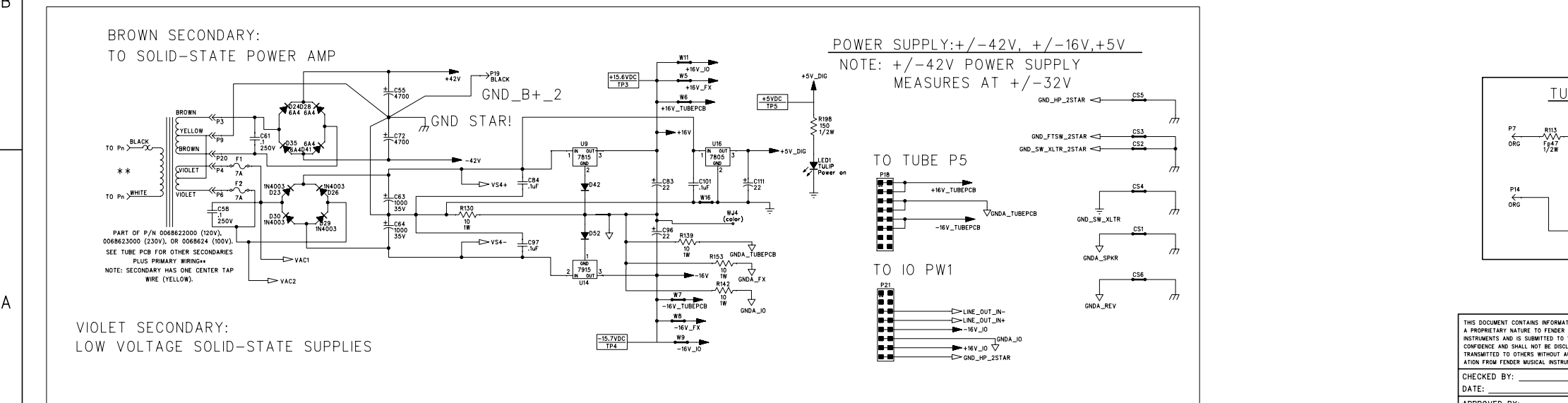


REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR524	11-MAY-06	S M M
B	EC 3817	21-JUN-06	S M M
C	EC 3829	22-AUG-06	S M M



TEST POINT	WITH FOOT SWITCH		WITHOUT FOOT SWITCH		FUNCTION
	ON	OFF	ON	OFF	
TP53	+13.8	+15.6	+15.5	-15.6	OD
TP54	+14.5	+14.6	-15.7	+14.6	OD
TP55	+14.7	-15.7	+15.4	-15.7	OD
TP56	-15.7	+0.7	-15.7	+0.7	OD
TP57	+13.8	+15.6	+15.5	+15.6	COMP
TP58	+14.5	+14.6	-15.8	+14.6	COMP
TP59	+14.8	-15.8	+15.4	-15.8	COMP
TP60	-15.7	+15.5	-15.7	+15.5	COMP
TP61	-14.8	-15.9	-14.8	-15.9	COMP LED
TP62	+13.7	+14.1	+13.7	+14.1	COMP LED
TP63	-14.8	-15.9	-14.8	-15.9	OD LED
TP64	+13.7	+14.1	+13.7	+14.1	OD LED

TABLE A - CONTROL TEST POINT DATA (ALL VDC MEASUREMENTS)



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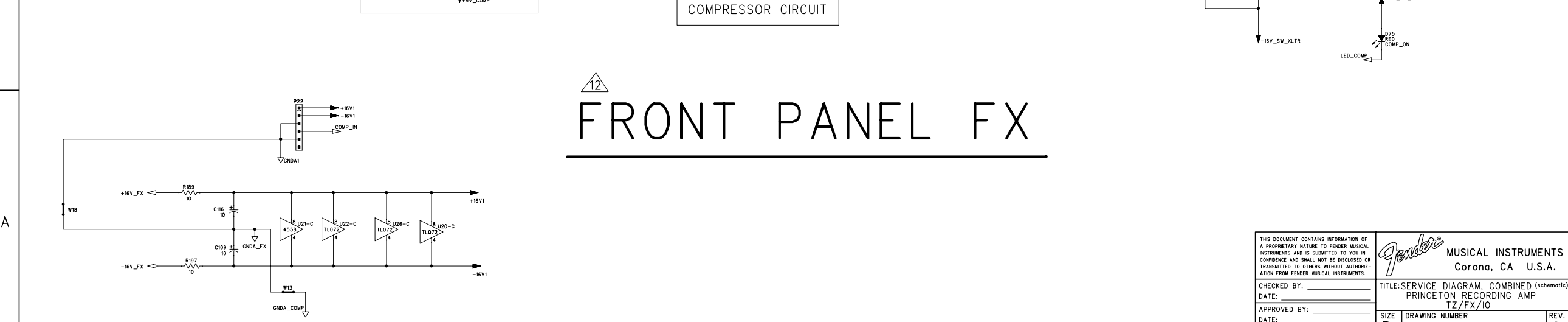
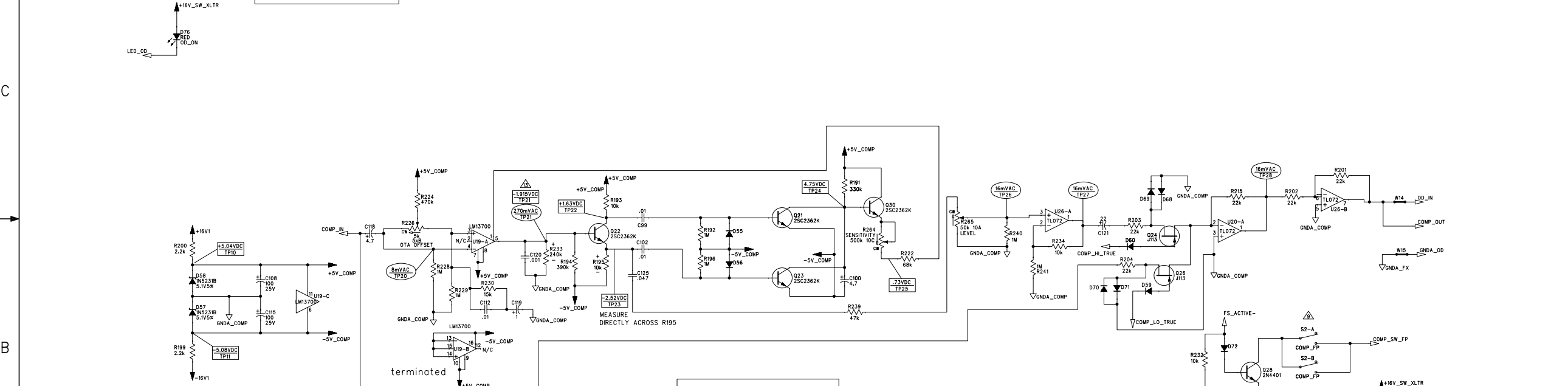
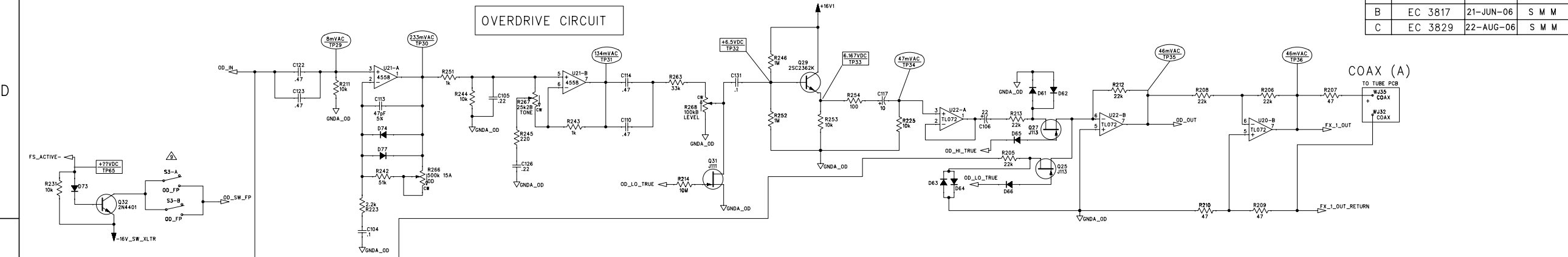
CHECKED BY: _____ DATE: _____
APPROVED BY: _____ DATE: _____
DRAWN: HAN LE ENGR: GIT'LO DATABASE FILE: Z52451.SCH

TITLE: SERVICE DIAGRAM, COMBINED (schematic)
PRINCETON RECORDING AMP
TZ/FX/IO

SIZE: D DRAWING NUMBER: 0069346000 REV. C
RELEASE DATE: 15-JUN-06 SHEET: 2 OF 5

8 7 6 5 4 3 2 1

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR524	11-MAY-06	S M M
B	EC 3817	21-JUN-06	S M M
C	EC 3829	22-AUG-06	S M M



FRONT PANEL FX

SEE PAGE 1
 NOTES: (UNLESS OTHERWISE NOTED)

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

CHECKED BY: _____
 DATE: _____

APPROVED BY: _____
 DATE: _____

DRAWN: HAN LE ENGR: GIT'LD
 DATABASE FILE: Z52451.SCH

TITLE: SERVICE DIAGRAM, COMBINED (schematic)
 PRINCETON RECORDING AMP
 TZ/FX/10

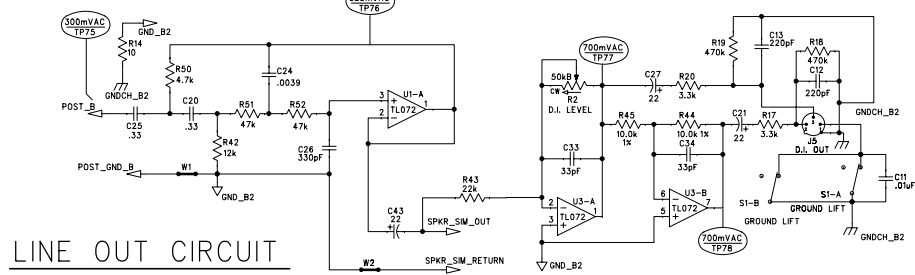
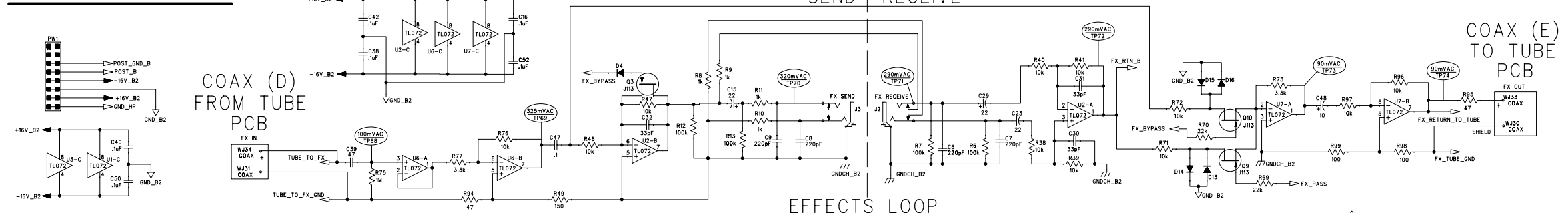
SIZE: **D** DRAWING NUMBER: **0069346000** REV. **C**

RELEASE DATE: 15-JUN-06 SHEET: 3 OF 5

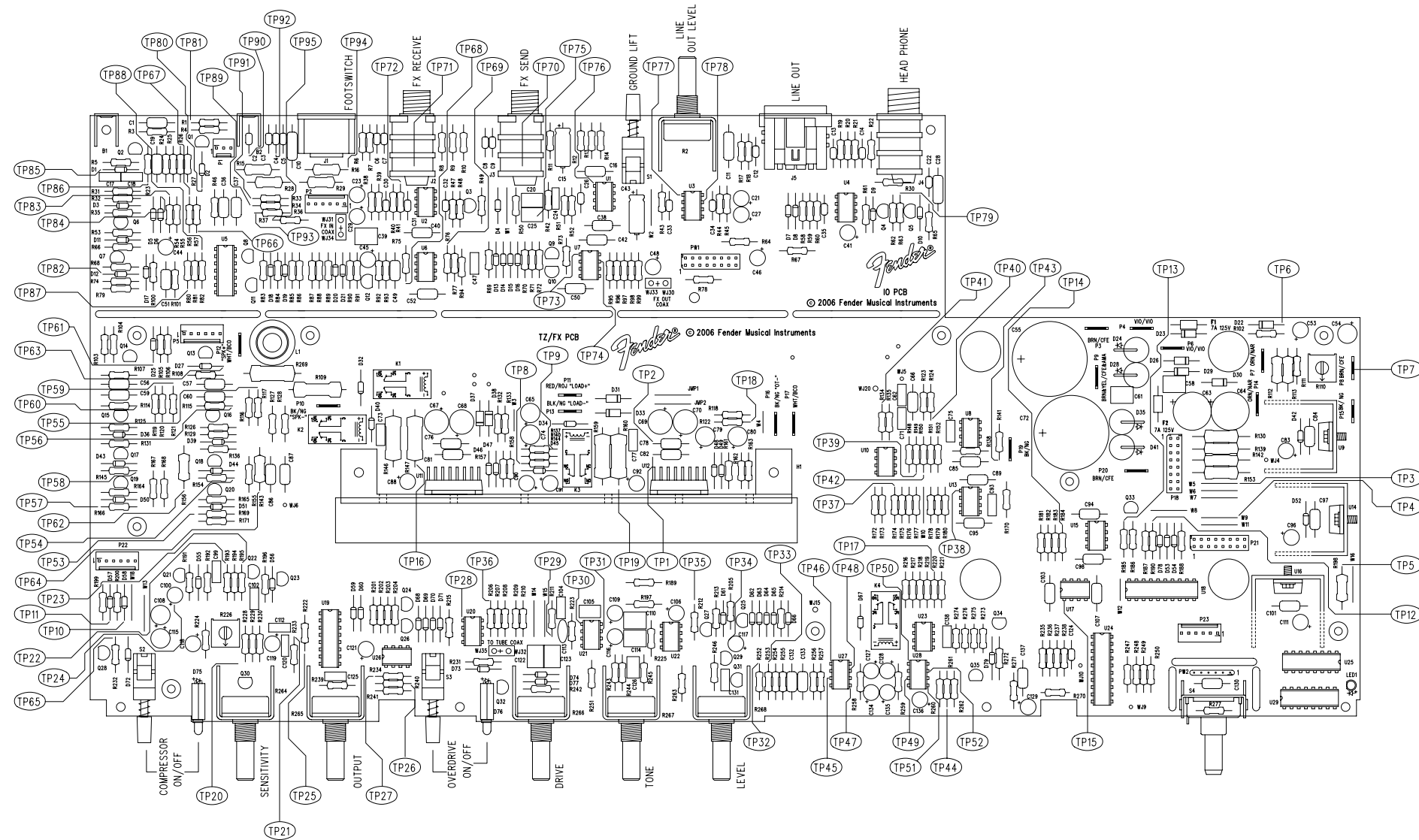
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10 PCB

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR524	11-MAY-06	S M M
B	EC 3817	21-JUN-06	S M M
C	EC 3829	22-AUG-06	S M M




REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR524	11-MAY-06	S M M
B	EC3817	21-JUN-06	S M M
C	EC3829	22-AUG-06	S M M

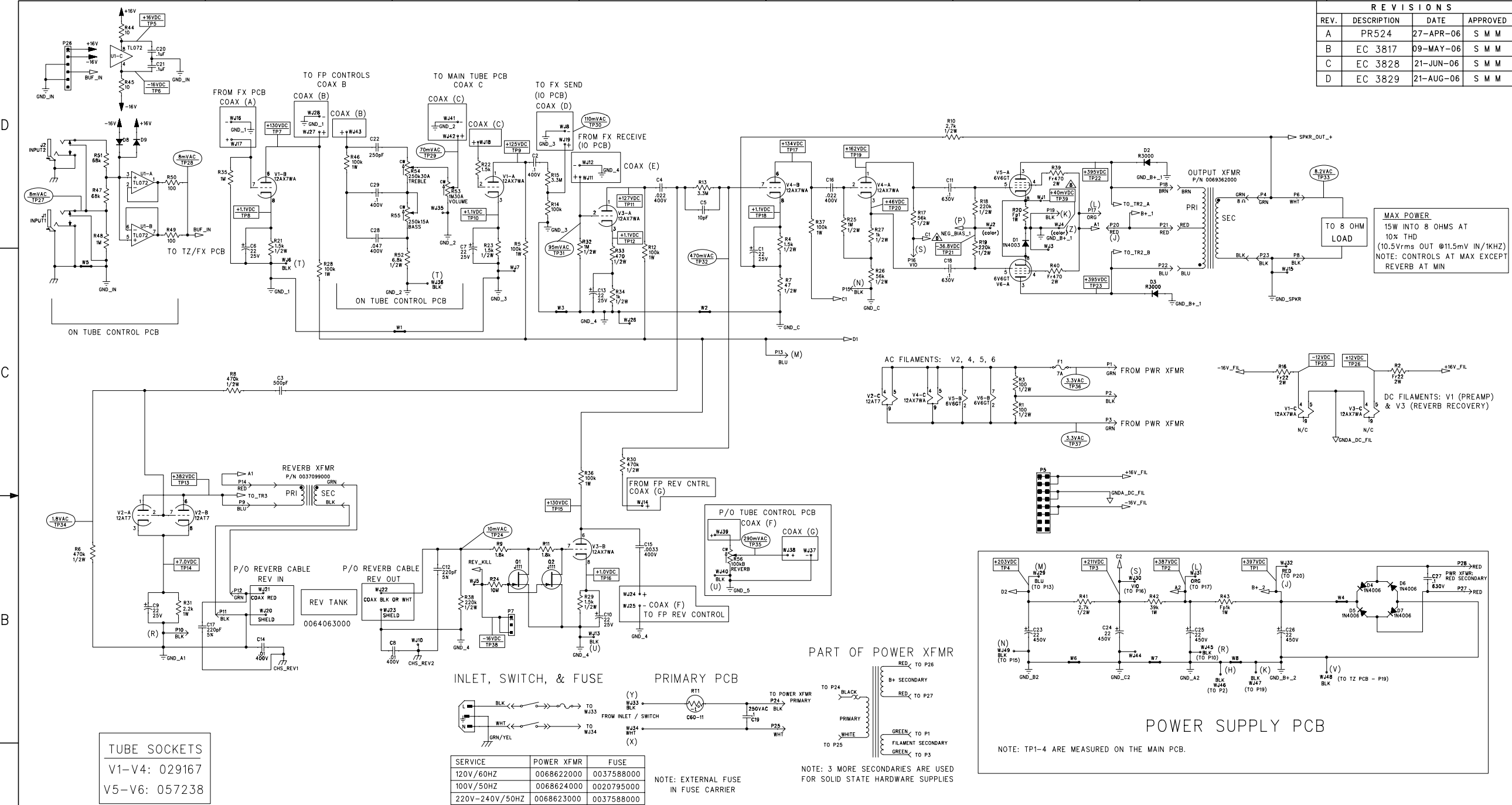


FILM/DWG: SERVICE DIAGRAM
 DATABASE: Z524P1PCB DATE: 22-AUG-06

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

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CHECKED BY: _____	DATE: _____	TITLE: SERVICE DIAGRAM, COMBINED (PCB assy) PRINCETON RECORDING AMP TZ/FX/IO	
APPROVED BY: _____	DATE: _____	SIZE: D	DRAWING NUMBER: 0069346000
DRAWN: HAN LE	ENGR: GIT'LO	RELEASE DATE: 11-MAY-06	SHEET 5 OF 5
DATABASE FILE: Z524P1PCB		REV. C	

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR524	27-APR-06	S M M
B	EC 3817	09-MAY-06	S M M
C	EC 3828	21-JUN-06	S M M
D	EC 3829	21-AUG-06	S M M



NOTE: THERE ARE 4 SECTIONS (BREAKAWAY) TO THIS ASSY.
 SUBASSYS ARE : 1) POWER SUPPLY PCB, 2) CONTROL PCB
 3) PRIMARY PCB
 ITEMS NOT MARKED AS SUBASSYS ARE PART OF MAIN TUBE PCB.

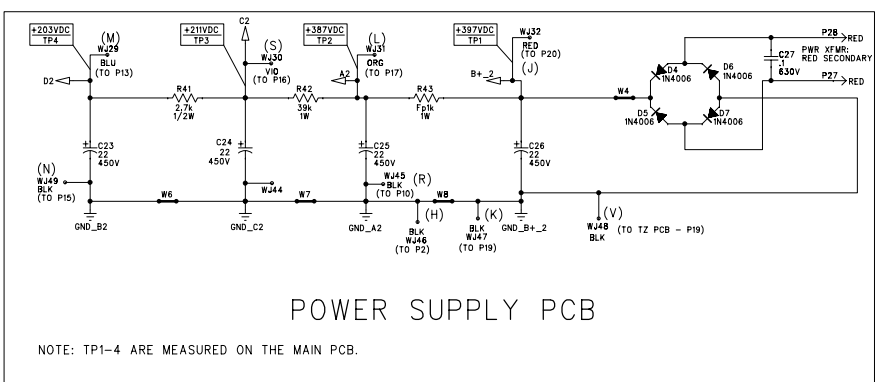
TUBE SOCKETS	
V1-V4:	029167
V5-V6:	057238

SERVICE	POWER XFMR	FUSE
120V/60HZ	0068622000	0037588000
100V/50HZ	0068624000	0020795000
220V-240V/50HZ	0068623000	0037588000

NOTE: EXTERNAL FUSE IN FUSE CARRIER

NOTE: 3 MORE SECONDARIES ARE USED FOR SOLID STATE HARDWARE SUPPLIES

- LAST REFERENCE DESIGNATORS: C29, D6, F1, J2, P28, Q2, R56, RT1, TP30, U1, V6, W8, W49.
- FOR TEST POINT ACCESS, IO PCB (FOUND ABOVE TUBE PCB ASSY IN CHASSIS) MAY NEED TO BE REMOVED. LEAVE ITS INTERCONNECTIONS ATTACHED; INSULATE ANY METAL SURFACES THAT THE IO PCB MAY REST AGAINST DURING TESTING.
- AC AND DC VOLTAGES READ TO GROUND WITH A DVM UNDER THE FOLLOWING CONDITIONS: UNIT AT RATED LINE VOLTAGE. TZ/FX/IO PCB ASSY 0068645000 INSTALLED IN CHASSIS WITH TUBE PCB ASSY UNDER TEST. TRANSDUCER POWER ATTENUATOR SET TO MAXIMUM CW POSITION (TUBE ONLY MODE). REVERB P/N 0064063000 CONNECTED AT WJ20-23. 8 OHM RESISTIVE LOAD CONNECTED AT SPEAKER JACK NO FOOTSWITCH CONNECTED. COMPRESSOR SELECT SWITCH - OUT POSITION. ALL TESTS OVERDRIVE SELECT SWITCH - OUT POSITION. ALL TESTS REVERB CONTROL AT "0" EXCEPT TP35 (MAX CW FOR THIS TEST ONLY).
- ALL OTHER CONTROLS AT "0". NO INPUT SIGNAL ON DC TESTS (TP - SQUARE WAVES).
- ADDITIONAL NOTES FOR AC TESTS (TP - OVAL), INPUT TO J2 SET TO 8mV SINE WAVE AT 1 KHZ.
- INTENTIONALLY LEFT BLANK.
- BIAS IS SET BY MEASURING VOLTAGE BETWEEN WJ1 & WJ3 (WITH NO SIGNAL APPLIED & TUBES WARMED UP). SET VOLTMETER TO mV RANGE. SET 6V6 BIAS CURRENT BY ADJUSTING BIAS CONTROL POT ON TZ PCB. SPECIFIED VOLTAGE BETWEEN WJ1 & WJ3 IS 40mV (TP39). TYPICAL NEGATIVE BIAS VOLTAGE (WJ2 TO CHS) IS -16.8VDC.
- WJ ITEMS NOTED AS (2) - (Z) ARE WIRE CONNECTIONS PER WIRESET DWG 0068620000.
- WJ ITEMS NOTED AS "+" ARE COAX CENTER CONDUCTORS. WJ ITEMS NOTED AS "-" ARE COAX SHIELDS.
- THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0068660000 AND PCB ASSEMBLY P/N 0068670000.
- 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 20K.
- ALL RESISTORS IN OHMS, 5%; 1/4W.



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CHECKED BY: _____
 DATE: _____

APPROVED BY: _____
 DATE: _____

DRAWN: GITLO ENGR: GITLO
 DATABASE FILE: Z52452.SCH

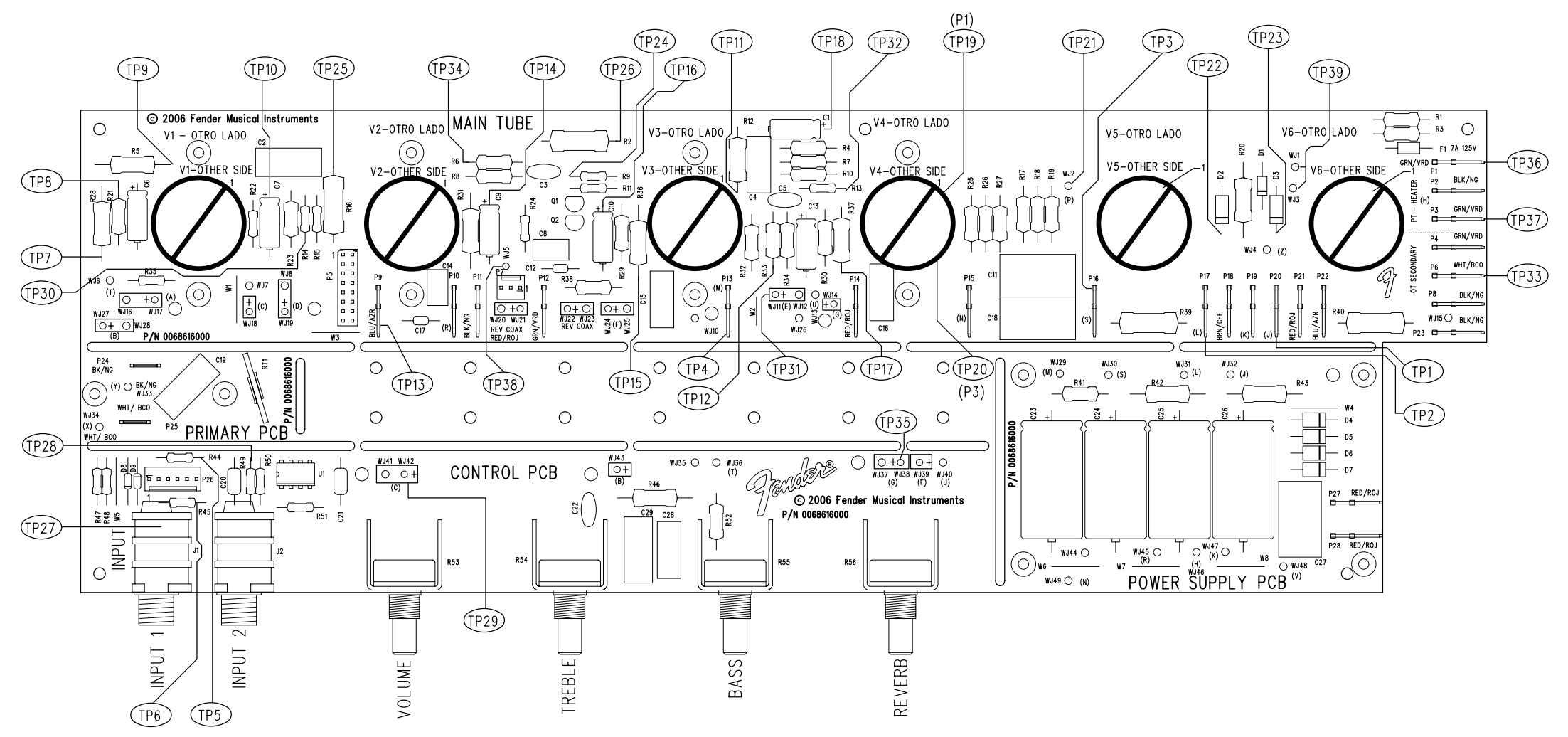
TITLE: SERVICE DIAGRAM, COMBINED (schematic)
 PRINCETON RECORDING AMP
 TUBE

SIZE: D DRAWING NUMBER: 0068618000 REV. D
 RELEASE DATE: 27-APR-06 SHEET: 1 OF 2

8 7 6 5 4 3 2 1

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR524	27-APR-06	S M M
B	EC 3817	09-MAY-06	S M M
C	EC 3828	21-JUN-06	S M M
D	EC 3829	21-AUG-06	S M M

D
C
B
A



FILM/DWG: SERVICE DIAGRAM
 DATABASE: Z524P2.PCB DATE: 21-JUN-06

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

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CHECKED BY: _____ DATE: _____		TITLE: SERVICE DIAGRAM, COMBINED (PCB assy) PRINCETON RECORDING AMP TUBE	
APPROVED BY: _____ DATE: _____		SIZE C	DRAWING NUMBER 0068618000
DRAWN: HAN LE	ENGR: GIT'LO	RELEASE DATE: 27-APR-06	REV. D SHEET 2 OF 2
DATABASE FILE: Z524P2.PCB			

8 7 6 5 4 3 2 1