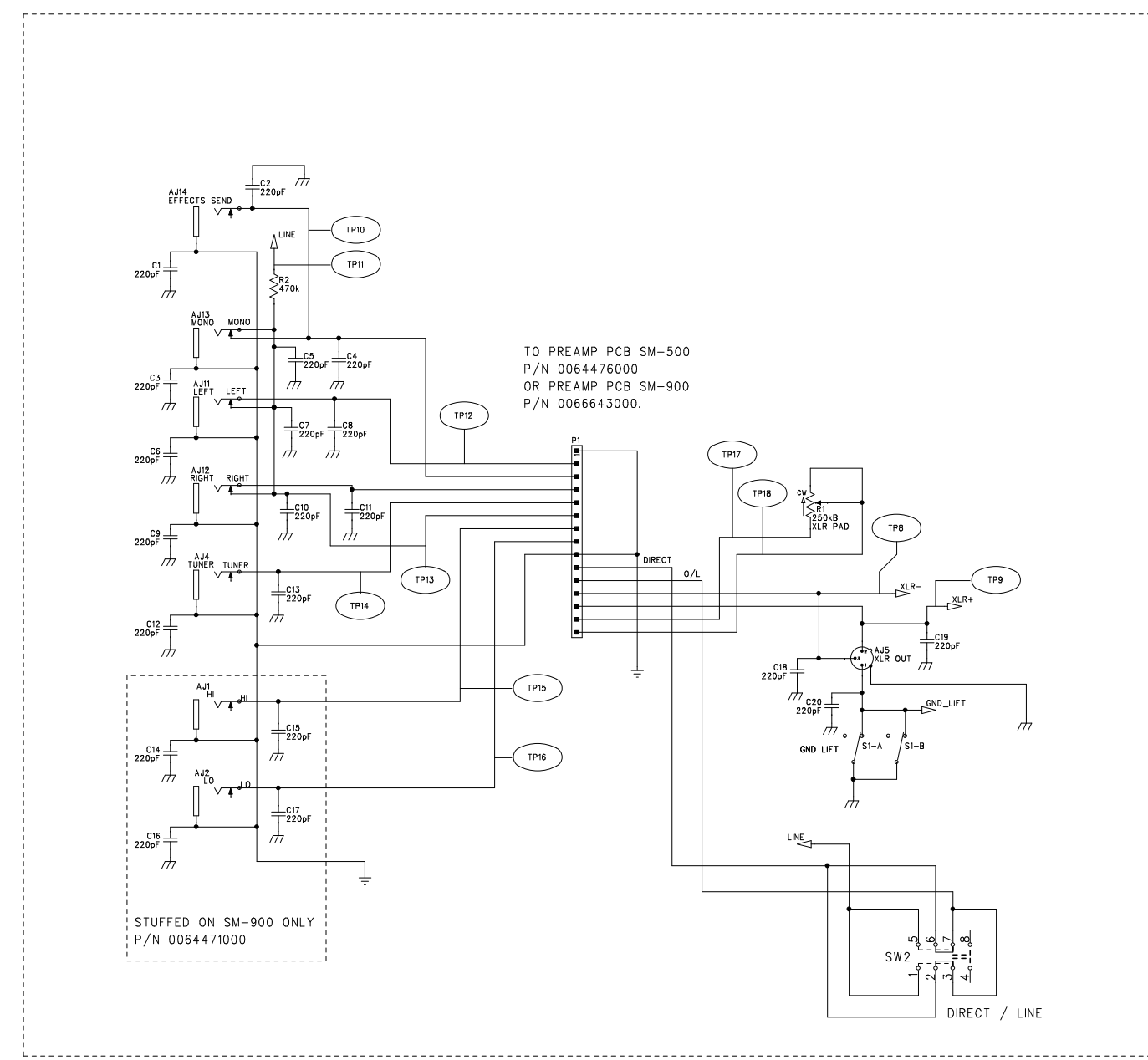
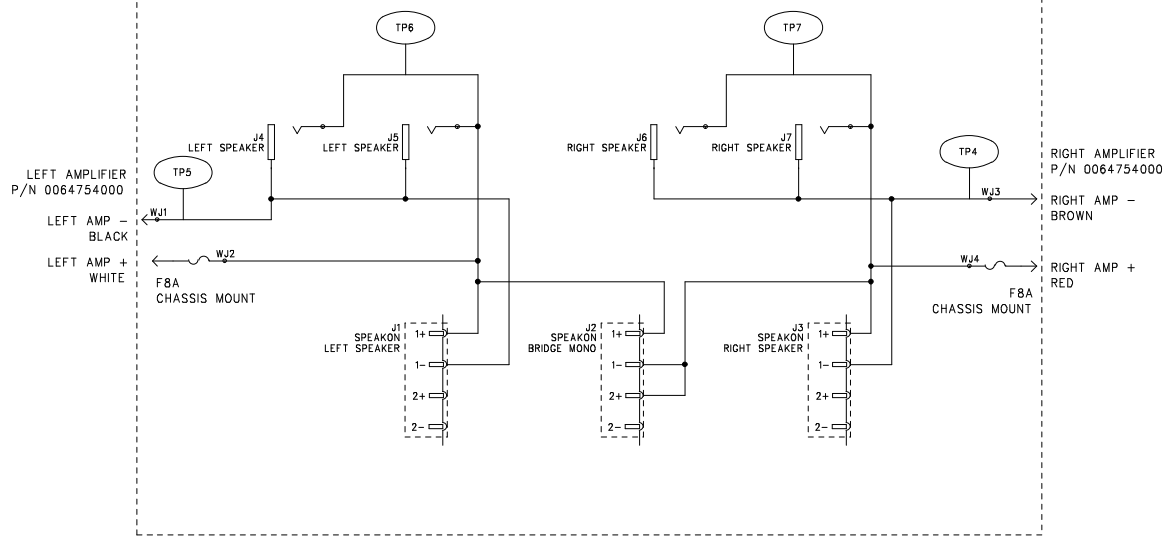
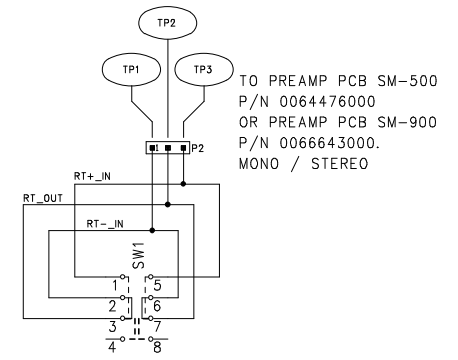


REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	EC3166	11-NOV-04	G A R



STUFFED ON SM-900 ONLY
P/N 0064471000

T/P	SM-500	SM-900
TP1	550mVAC	TBD
TP2	550mVAC	TBD
TP3	550mVAC	TBD
TP4	0 VAC	TBD
TP5	0 VAC	TBD
TP6	14.5 VAC	TBD
TP7	14.5 VAC	TBD
TP8	400mVAC	TBD
TP9	400mVAC	TBD
TP10	1.5 VAC	TBD
TP11	1.5 VAC	TBD
TP12	1.5 VAC	TBD
TP13	1.5 VAC	TBD
TP14	300mVAC	TBD
TP15	N/A	TBD
TP16	N/A	TBD
TP17	10mVAC	TBD
TP18	400mVAC	TBD

5. FOR TEST CONDITIONS AND MEASUREMENTS
REFERENCE DRAWING # 0065402000 FOR
SM-500 AND DRAWING # 0065412000 FOR
SM-900.
4. THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0064489000 AND
PCB ASSEMBLY P/N 0064470000 (SM-500) OR P/N
0064471000 (SM-900).
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.
- 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 AUTHORIZ- ATION FROM FENDER MUSICAL INSTRUMENTS.		<p>SWR SOUND Corona, CA U.S.A.</p>
CHECKED BY: _____ DATE: _____ APPROVED BY: _____ DATE: _____ DRAWN: ROCHELEAU/ENGR; ROCHELEAU DATABASE FILE: Z629S2.SCH		
TITLE: SERVICE DIAGRAM, COMBINED (schematic) SM-500 / SM-900 IO/SPKR		SIZE: D DRAWING NUMBER: 0069128000 REV. A
RELEASE DATE: 18-NOV-04 SHEET: 1 OF 2		

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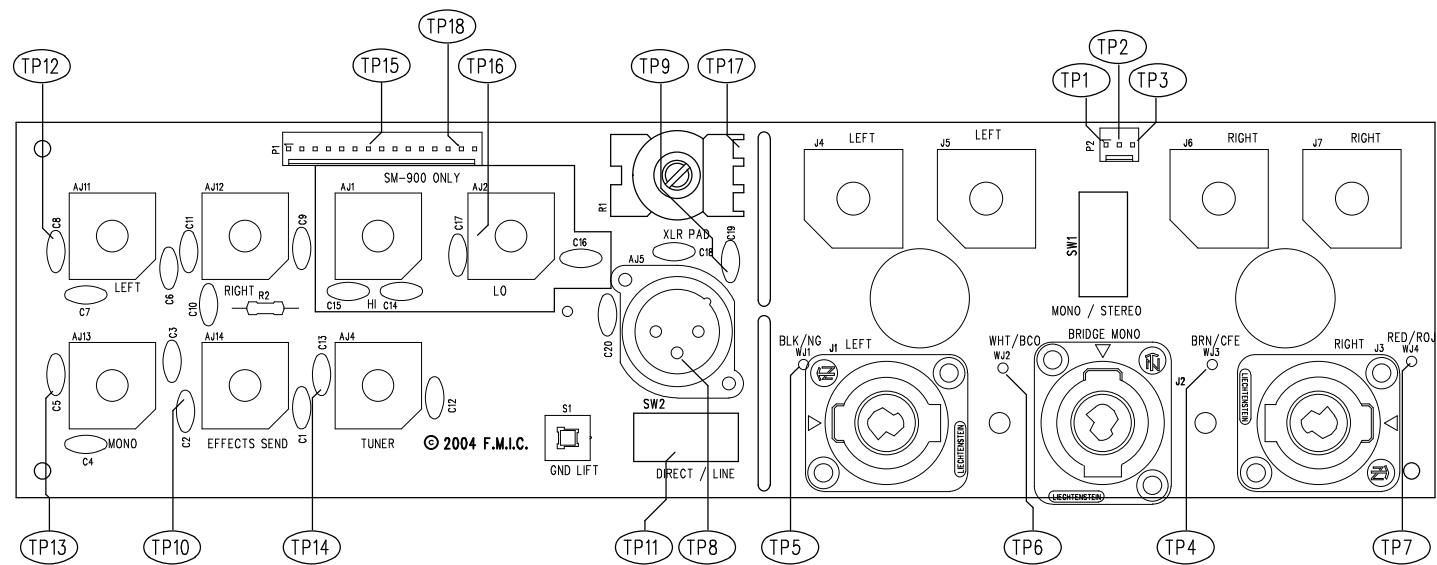
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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	EC3166	11-NOV-04	G A R



FILM/DWG: SERVICE DIAGRAM
 DATABASE: Z629P2.PCB DATE: 11-NOV-04

3. PCB SHOWN AS FABRICATED BEFORE BREAKAWAYS ARE INSTALLED IN CHASSIS.
 2. WIRES NOT SHOWN FOR CLARITY.
 1. SEE SHEET 1 FOR PRIMARY WIRING, TEST CONDITIONS, AND TEST POINT VALUES
 NOTES: (UNLESS OTHERWISE NOTED)

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		CHECKED BY: _____ DATE: _____	APPROVED BY: _____ DATE: _____
DRAWN: G Rocheleau DATABASE FILE: Z629P2.PCB		0069128000	A
RELEASE DATE: 11-NOV-04		SHEET 2 OF 2	

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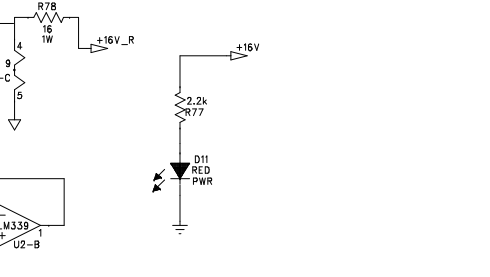
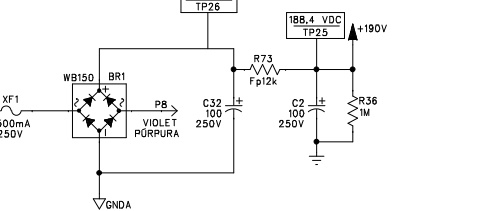
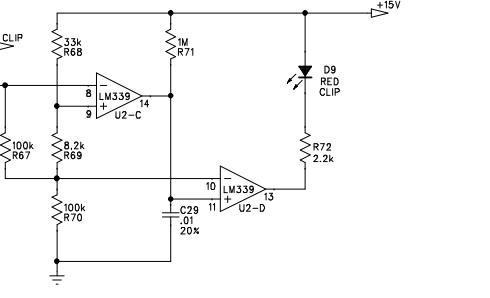
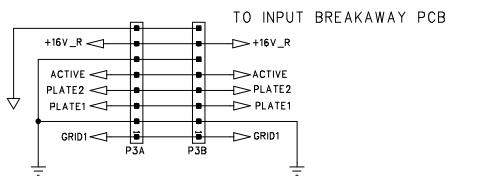
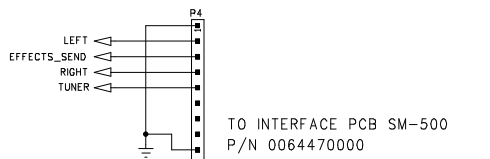
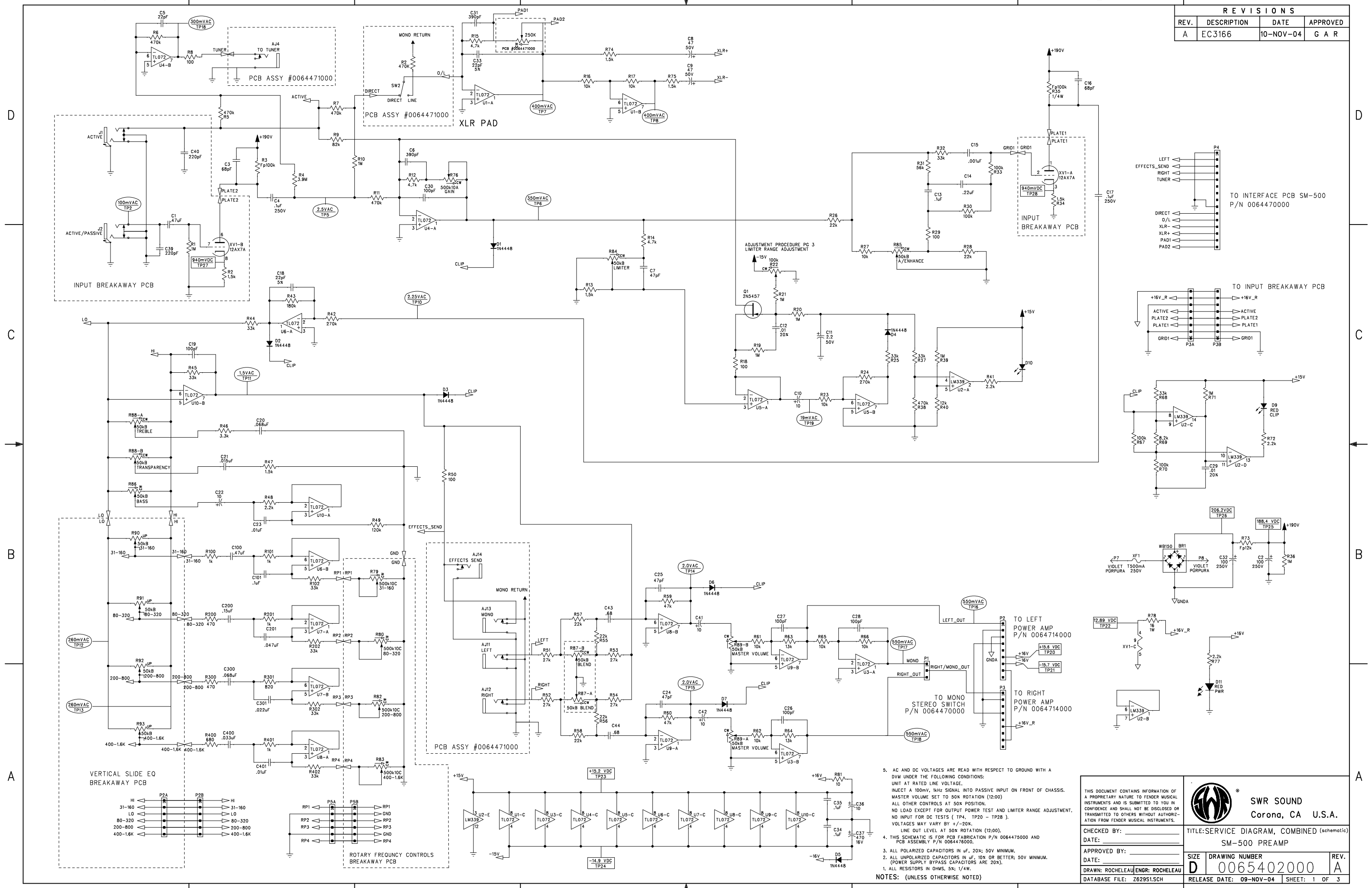
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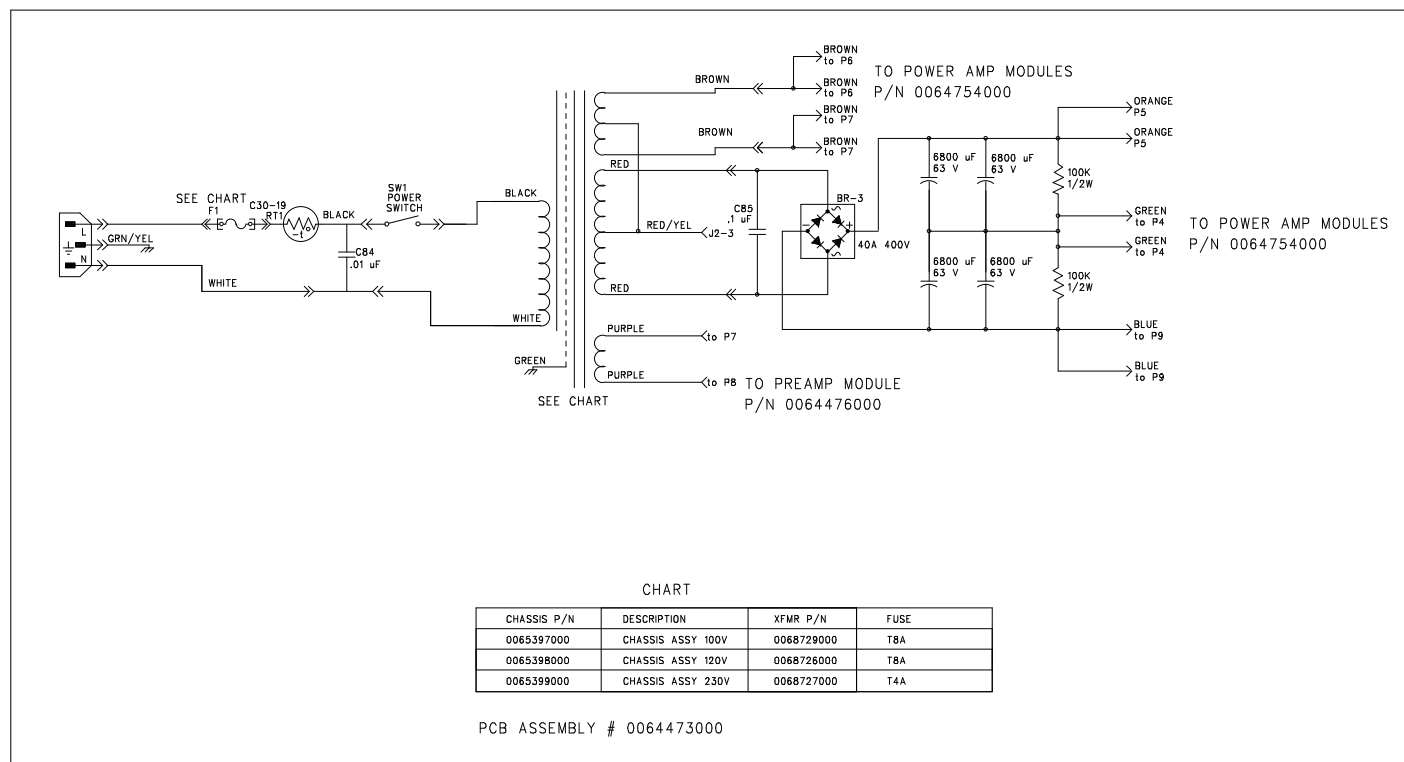
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	EC3166	10-NOV-04	G A R



5. AC AND DC VOLTAGES ARE READ WITH RESPECT TO GROUND WITH A DVM UNDER THE FOLLOWING CONDITIONS:
 UNIT AT RATED LINE VOLTAGE.
 INJECT A 100mV, 1kHz SIGNAL INTO PASSIVE INPUT ON FRONT OF CHASSIS. MASTER VOLUME SET TO 50% ROTATION (12:00)
 ALL OTHER CONTROLS AT 50% POSITION.
 NO LOAD EXCEPT FOR OUTPUT POWER TEST AND LIMITER RANGE ADJUSTMENT.
 NO INPUT FOR DC TESTS (TP4, TP20 - TP28).
 VOLTAGES MAY VARY BY +/-20%.
6. LINE OUT LEVEL AT 50% ROTATION (12:00).
4. THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0064475000 AND PCB ASSEMBLY P/N 0064476000.
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.
- NOTES: (UNLESS OTHERWISE NOTED)

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TITLE: SERVICE DIAGRAM, COMBINED (schematic) SM-500 PREAMP		
CHECKED BY: _____ DATE: _____	SIZE: DRAWING NUMBER D 0065402000	REV. _____ A
APPROVED BY: _____ DATE: _____	DRAWN: ROCHELEAU ENGR: ROCHELEAU DATABASE FILE: Z629S1.SCH	RELEASE DATE: 09-NOV-04 SHEET: 1 OF 3

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	EC3166	10-NOV-04	G A R



CHART

CHASSIS P/N	DESCRIPTION	XFMR P/N	FUSE
0065397000	CHASSIS ASSY 100V	0068729000	T8A
0065398000	CHASSIS ASSY 120V	0068726000	T8A
0065399000	CHASSIS ASSY 230V	0068727000	T4A

PCB ASSEMBLY # 0064473000

OUTPUT POWER TEST

SPEAKER OUT BREAKAWAY PCB'S

- LOAD BOTH CHANNELS WITH 4 OHMS EACH 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 SOURCE.
- APPLY 1.25Vrms, 1kHz SINE WAVE TO THE EFFECTS RETURN JACK.
- ROTATE MASTER VOLUME CW UNTIL OUTPUT CLIPPING IS OBSERVED.
- MAXIMUM OUTPUT POWER INTO 4 OHMS STEREO = 200W/CH @ 0.1%THD OR BETTER.

•IF LEFT AT MAX POWER FOR A LONG TIME, AMP WILL INVOKE THERMAL PROTECTION CIRCUITRY.

OUTPUT POWER AT 2 & 4 OHM LOAD

- MAXIMUM OUTPUT POWER INTO 4 OHMS STEREO = 200W/CH @ 0.1%THD OR BETTER.
- MAXIMUM OUTPUT POWER INTO 2 OHMS STEREO = 250W/CH @ 0.1%THD OR BETTER.

NOTES: (UNLESS OTHERWISE NOTED)

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

CHECKED BY: _____
DATE: _____

APPROVED BY: _____
DATE: _____

DRAWN: ROCHELEAU ENGR: ROCHELEAU
DATABASE FILE: Z62951.SCH

TITLE: SERVICE DIAGRAM, COMBINED (schematic)
SWR SM-500
SERVICE DIAGRAM, SM-500 PREAMP

SIZE: **D** DRAWING NUMBER: 0065402000 REV. A

RELEASE DATE: dd-MMM-yy SHEET: 2 OF 3

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	EC3166	10-NOV-04	G A R

Limiter test & adjustment

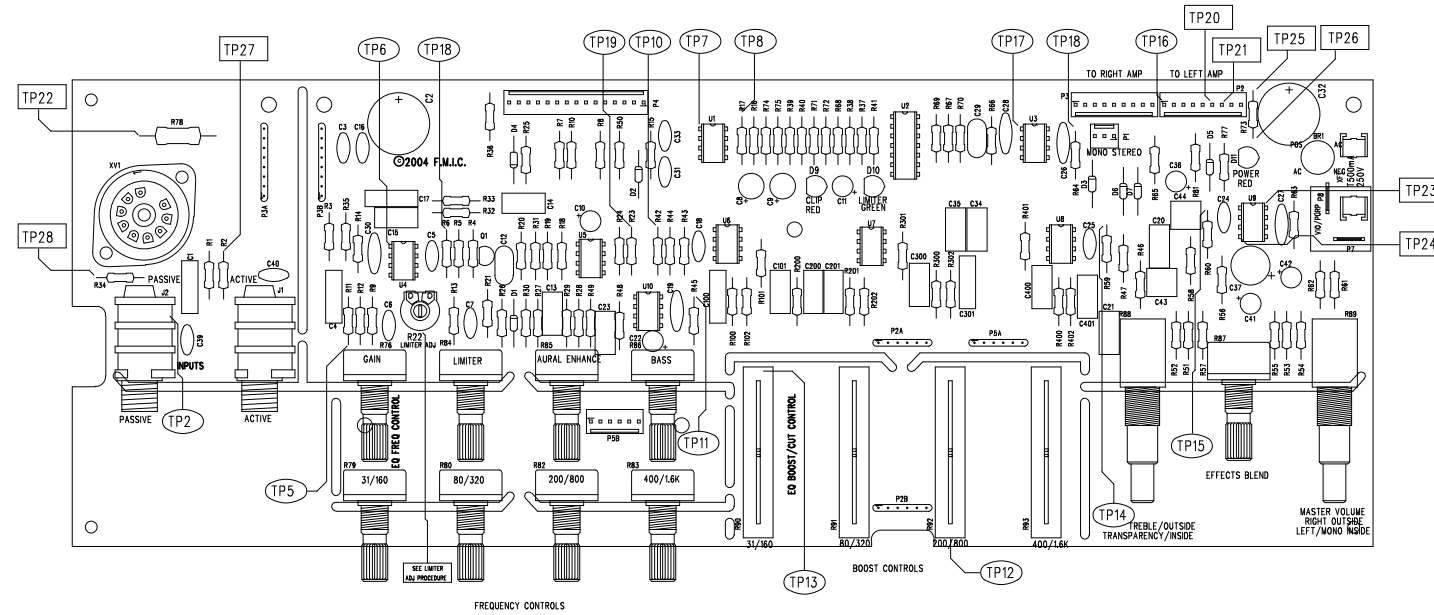
This amplifier has an adjustable limiter circuit that needs to be set before final sound testing of the unit. Use the following procedure to test and set the limiter circuit.

Test Conditions:

- Load both channels with 4 Ohms each.
- Amplifier running at rated line voltage. While operating the amp at full power, make sure there is not excessive voltage "sag" at the power outlet.
- Limiter control at "MAX"
- GAIN control and MASTER control fully clockwise to their maximum position.
- All other controls should be set to center detent or 50% rotation.
- Four Ohm load to each channel.
- Begin with the limiter control (R22) in the clockwise position.
- Monitor the amplifier output with an oscilloscope.


Test Procedure:

- Apply a 1kHz, 100mV sine wave at the passive input. This will create a full power square-wave condition at the output.
- Adjust R22 until there is no amplifier clipping observed on the oscilloscope.
- Verify that the green Limiter Active LED is illuminated.
- Turn the limiter control to "OFF", and verify that the Limiter Active LED turns off, and the PREAMP CLIP LED turns on.
- Use caution and perform this test quickly, since the amplifier will be operating at full power & will heat up quickly.
- The limiter adjustment, R22, on the SM-500 should be somewhere near 75% rotation.



FILM/DWG: SERVICE DIAGRAM
 DATABASE: Z629P1.PCB DATE: 21-OCT-04

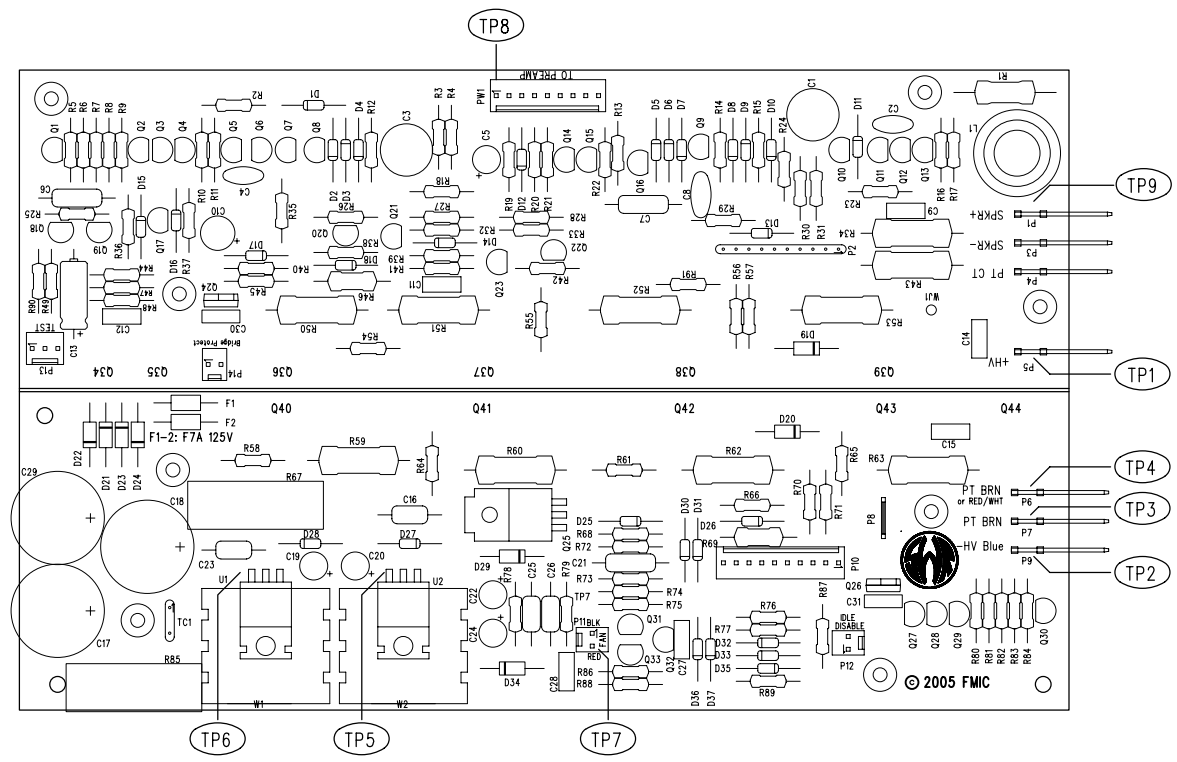
3. PCB SHOWN AS FABRICATED BEFORE BREAKAWAYS ARE INSTALLED IN CHASSIS.
 2. WIRES NOT SHOWN FOR CLARITY.
 1. SEE SHEET 1 FOR PRIMARY WIRING, TEST CONDITIONS, AND TEST POINT VALUES
 NOTES: (UNLESS OTHERWISE NOTED)

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CHECKED BY: _____ DATE: _____ APPROVED BY: _____ DATE: _____ DRAWN: G Rocheleau ENGR: G Rocheleau DATABASE FILE: Z629P1.PCB		
TITLE: SERVICE DIAGRAM, COMBINED (PCB assy) SM-500 PREAMP PCB		SIZE: D DRAWING NUMBER: 0065402000 REV: A
RELEASE DATE: 21-OCT-04		SHEET 3 OF 3

8 7 6 5 4 3 2 1


REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR632	30-JUL-04	S.M.B.
B	EC3147	30-SEP-04	S.M.B.
C	EC3174	07-JAN-05	S.M.B.
D	EC3213	14-APR-05	S.M.B.

D
C
B
A



FILM/DWG: SERVICE DIAGRAM
 DATABASE: z632p5.PCB DATE: 14-APR-05

1. SEE SHEET 1 FOR TEST CONDITIONS & TEST POINT VALUES
 NOTES: (UNLESS OTHERWISE NOTED)

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CHECKED BY: _____ DATE: _____		TITLE: SERVICE DIAGRAM, COMBINED (PCB assy) SWR 500/1000 POWER AMP	
APPROVED BY: _____ DATE: _____		SIZE C	DRAWING NUMBER 0064549000
DRAWN: R.MURRAY ENGR: B.HUGHES DATABASE FILE: z632p5.PCB		RELEASE DATE: 30-JUL-04	REV. D SHEET 2 OF 2

8 7 6 5 4 3 2 1