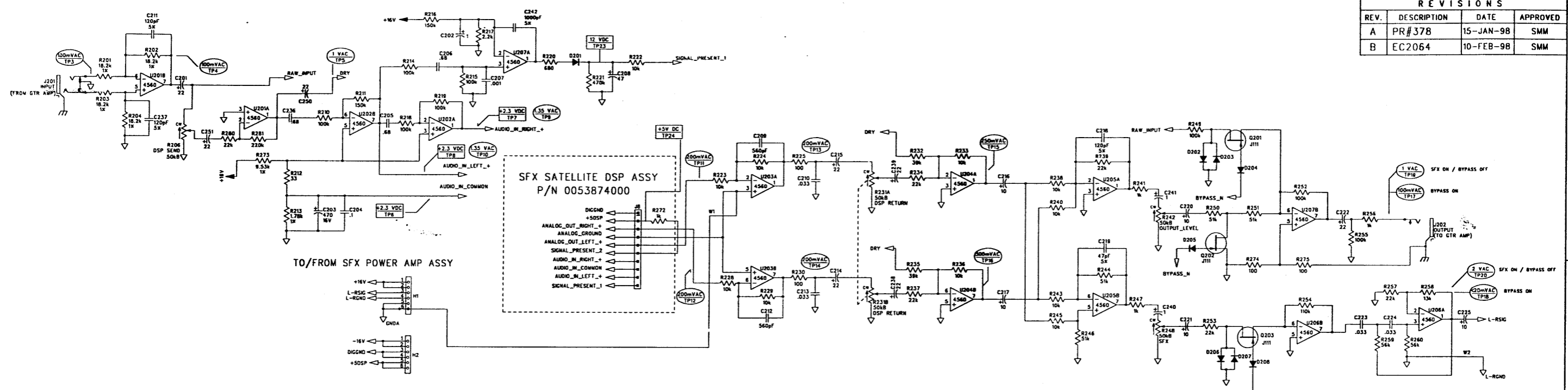
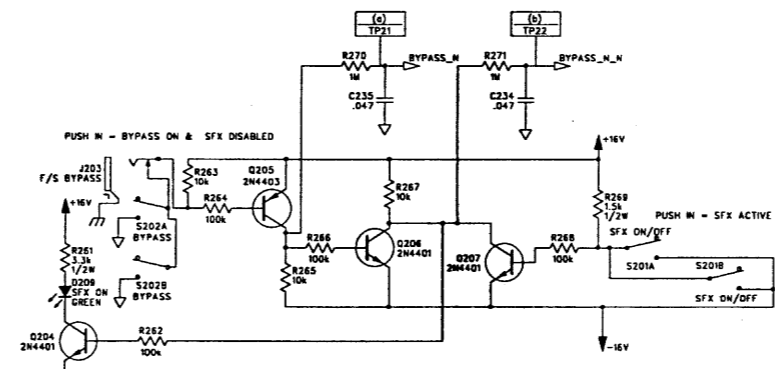
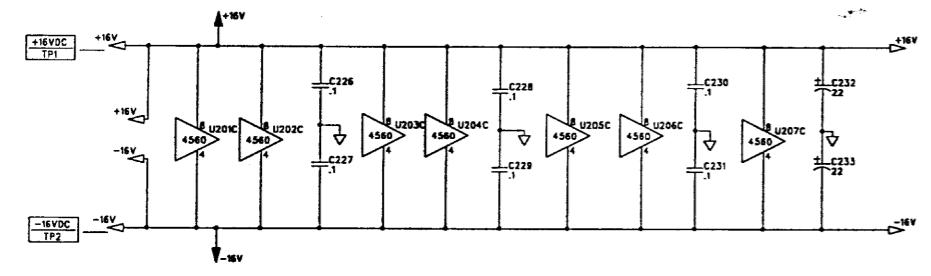


REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR#378	15-JAN-98	SMM
B	EC2064	10-FEB-98	SMM



TO/FROM SFX POWER AMP ASSY

PREAMP PCB POWER DISTRIBUTION & BYPASSING



SFX CONTROL CIRCUITRY ON PREAMP PCB

NOTE: USER CAN CONNECT FOOTSWITCH WITH STANDARD 1/4" GUITAR OR SPEAKER CABLE
 NOTE: FOOTSWITCH OVERRIDES BYPASS BUTTON ON FRONT PANEL

S201 STATE	S202 STATE	OPERATIONAL STATE	(a)	(b)
IN	OUT	J202: SIGNAL W/ EFFECT, TP20: SFX SIGNAL ON	-15V	+14V
IN	IN	J201 SIGNAL TO J202, TP18: NO SIGNAL OUT	+15V	-16V
OUT	OUT	J201: SIGNAL W/ EFFECT, TP18: NO SIGNAL OUT	-15V	-16V
OUT	IN	J201 SIGNAL TO J202, TP18: NO SIGNAL OUT	+15V	-16V

- TPM & TPM MEASUREMENTS ARE MADE WITH "BYPASS" BUTTON PUSHED IN
 - WHEN DSP ASSY IS NOT IN SELF TEST MODE: AC MEASUREMENTS TAKEN AT TPM-TPM ARE AFFECTED BY DSP EFFECT AND SUGGESTED TP VALUE ABOVE IS FOR REFERENCE ONLY
 - AC AND DC VOLTAGES READ TO GROUND WITH A DVM UNDER THE FOLLOWING CONDITIONS: UNIT AT RATED LINE VOLTAGE SFX SATELLITE DSP ASSY CONNECTED AT J8 SET DSP ASSY IN SELF TEST MODE PER NOTE 7 ON SERVICE DIAGRAM (005346000) CONNECT 4 OHM RESISTIVE LOAD TO SFX SATELLITE POWER AMP ASSY (0053867000) OUTPUT ALL POTS SET AT MAX EXCEPT SFX STARTING W/ SFX POT @ MIN (0) SET SFX POT FOR 20Vrms AT TP20 (ABOUT 3) NO FOOTSWITCH CONNECTED "SFX ON/OFF" BUTTON PUSHED IN "BYPASS" BUTTON SET TO OUT POSITION ALL DC MEASUREMENTS MADE WITH NO SIGNAL TO J201 ALL AC MEASUREMENTS MADE WITH SINEWAVE INPUT TO J201 @ 100mV RMS @ 1kHz
 - ALL DIODES M4448.
 - ALL POLARIZED CAPACITORS IN uF; 25V MIN. 20X.
 - ALL UNPOLARIZED CAPACITORS IN nF; 50V MIN. 10X OR BETTER.
 - ALL RESISTORS IN OHMS; 1/4W, 5%.
- NOTES: (UNLESS OTHERWISE NOTED)

- THIS SCHEMATIC FOR PCB FAB # 005346000
- INSTANCES NOT STUFFED: R221
- LAST INSTANCES: R281, C251, D208, Q207, U207, J203, W58
- INSTANCES NOT USED: C243-248, R205, R207-209, R226-227, R276-279, W56-57

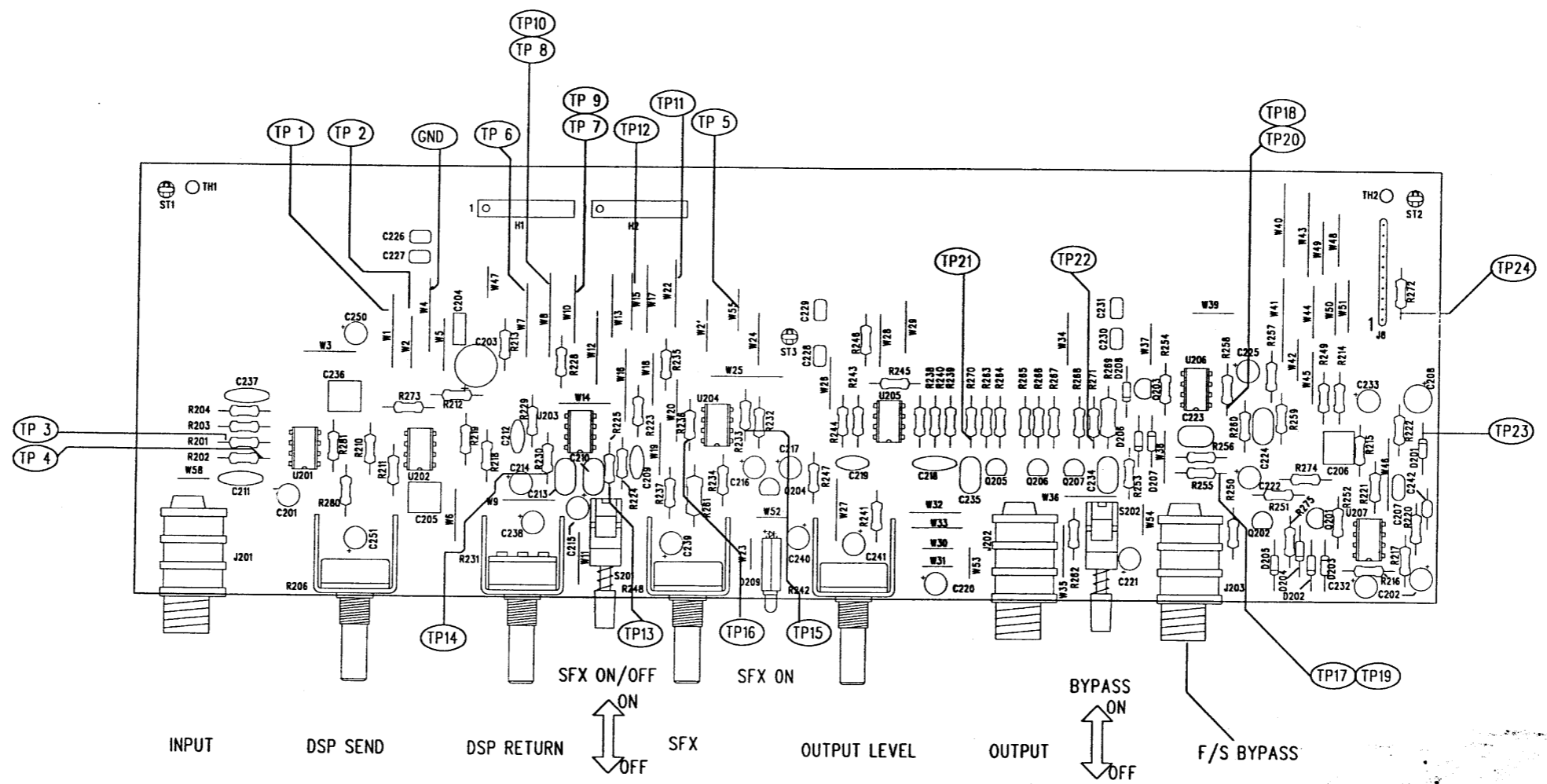
THIS DOCUMENT CONTAINS INFORMATION OF A PROPRIETARY NATURE TO FENDER MUSICAL INSTRUMENTS AND IS SUBMITTED TO YOU IN CONFIDENCE AND SHALL NOT BE DISCLOSED OR TRANSMITTED TO OTHERS WITHOUT AUTHORIZATION FROM FENDER MUSICAL INSTRUMENTS.

Fender MUSICAL INSTRUMENTS
 2621 Research Drive
 Corona, CA 91720 USA

CHECKED BY: *SFH*
 CK DATE: *2-19-98*
 APPROVED BY: *24-2-98*
 AP DATE: *2-19-98*
 DRAWN: SMM ENCR: SMM
 FILE: Z37851SCH

TITLE: COMBINED SERVICE DIAGRAM, (Schematic)
 PREAMP, SFX SATELLITE
 SIZE: D DRAWING NUMBER: 0053456000
 REV: B
 RELEASE DATE: 10-FEB-98 SHEET: 1 OF 2

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR378	15-JAN-98	SMM
B	EC2064	10-FEB-98	SMM



FILM/DWG: SERVICE DIAGRAM
 DATABASE: Z378P1.PCB DATE: 10-FEB-98

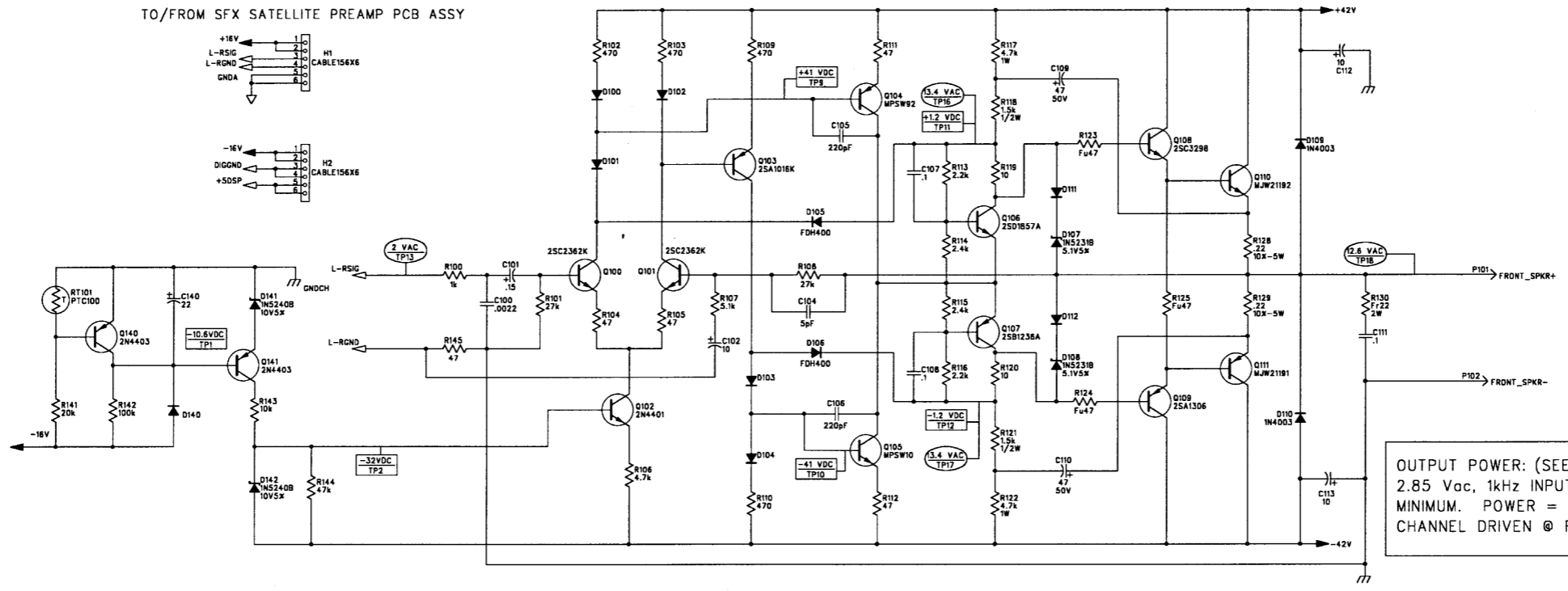
S201 STATE	S202 STATE	OPERATIONAL STATE
IN	OUT	J202: SIGNAL WITH EFFECT, TP20: SFX SIGNAL
IN	IN	J201 SIGNAL TO J202, TP18: NO SIGNAL OUT
OUT	OUT	J201: SIGNAL WITH EFFECT, TP18: NO SIGNAL OUT
OUT	IN	J201 SIGNAL TO J202, TP18: NO SIGNAL OUT

(NOTE: FOOTSWITCH OVERRIDES S202)

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CHECKED BY: <i>SPH</i> DATE: <i>2-19-98</i>		TITLE: COMBINED SERVICE DIAGRAM (PCB assy), PREAMP, SFX SATELLITE	
APPROVED BY: <i>SM-hall</i> DATE: <i>2-19-98</i>		SIZE: C	DRAWING NUMBER: 0053456000
DRAWN: S. HOSNER ENGR: S. MARSHALL DATABASE FILE: Z378P1.PCB		RELEASE DATE: 10-FEB-98	REV. B SHEET 2 OF 2

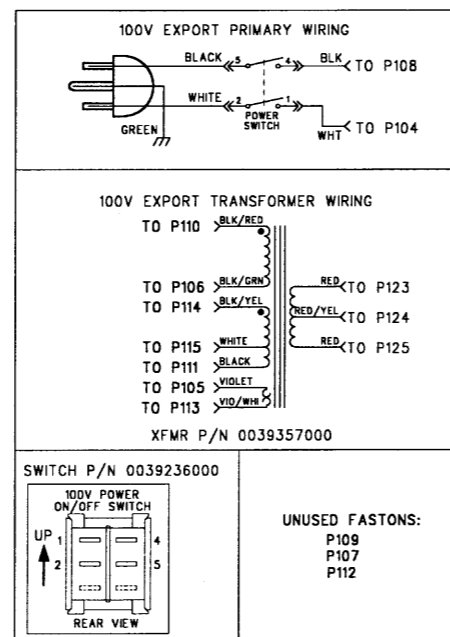
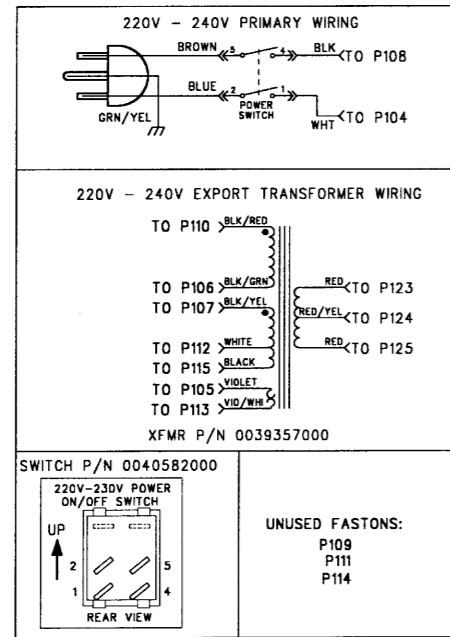
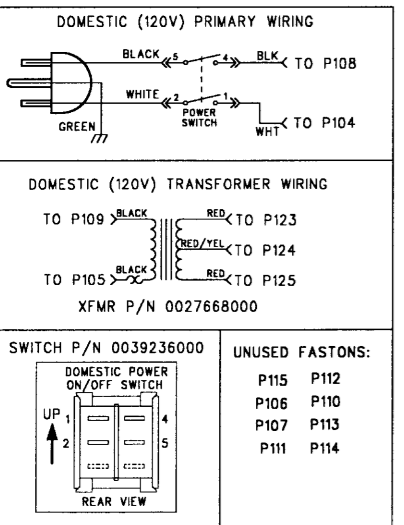
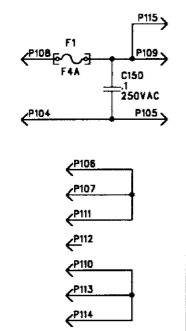
1. SEE SHEET 1 FOR TEST CONDITIONS AND TEST PT VALUES
 NOTES: (UNLESS OTHERWISE NOTED)

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR378/EC2059	28-JAN-98	S M M
B	EC 2064	18-FEB-98	S M M
C	EC 2077	17-MAR-98	S M M
D	EC 2118	14-MAY-98	S M M
E	EC 2153	14-SEP-98	S M M



OUTPUT POWER: (SEE NOTE 7 BELOW)
 2.85 Vac, 1kHz INPUT AT L-R SIG INPUT W/ L-R GND @ GROUND
 MINIMUM. POWER = 80W @ < 1% THD INTO 4 ohm RESISTIVE LOAD.
 CHANNEL DRIVEN @ RATED LINE VOLTAGE

F1 FUSE USAGE LISTING		
100V	120V	220-240V
F4A	F4A	F2A
(250V)	(125V)	(250V)



- 11. THIS SCHEMATIC FOR PCB FAB NO 0053858000
- 10. INSTANCES NOT STUFFED: C104
- 9. LAST INSTANCES: C158, D160, Q152, R158, RT101, U150, P125
- 8. INSTANCES NOT USED: C114-C139, C141-C139, D113-D149, D143-D149, Q112-Q139, Q142-Q149, R126-R127, R131-R139, R146-R149, P103, P116-P122

- 7. OUTPUT POWER TEST PERFORMED ON POWER AMP ASSY BY ITSELF. REMOVE W40 ON PREAMP ASSY TO PERFORM IN CHASSIS. REPLACE W40 ON PREAMP ASSY AFTERWARDS.
- 6. WHEN DSP ASSY IS NOT IN SELF TEST MODE: AC MEASUREMENTS ARE AFFECTED BY DSP EFFECT AND SUGGESTED TP VALUES ABOVE ARE FOR REFERENCE ONLY. SUGGESTED SETTING: REVERSE / DELAY AT 1 CLICK CLOCKWISE PAST 6'O'CLOCK
- 5. AC AND DC VOLTAGES ARE READ TO GROUND WITH A DVM UNDER THE FOLLOWING CONDITIONS:
 UNIT AT RATED LINE VOLTAGE
 SFX SATELLITE PREAMP AND DSP ASSY ARE CORRECTLY INTERCONNECTED WITH THIS ASSY
 ALL DC MEASUREMENTS MADE WITH NO AC SIGNAL TO PREAMP ASSY
 SET DSP ASSY IN SELF TEST MODE PER NOTE 7 ON SERVICE DIAGRAM (0053569000)
 SFX SATELLITE DSP & PREAMP ASSYS ARE SETUP
 PER NOMINAL CONDITIONS OUTLINED IN DWG NOS. 0053458000 & 0053569000
 PREAMP AND POWER AMP INTERCONNECTIONS ARE DEFINED BY H1 & H2

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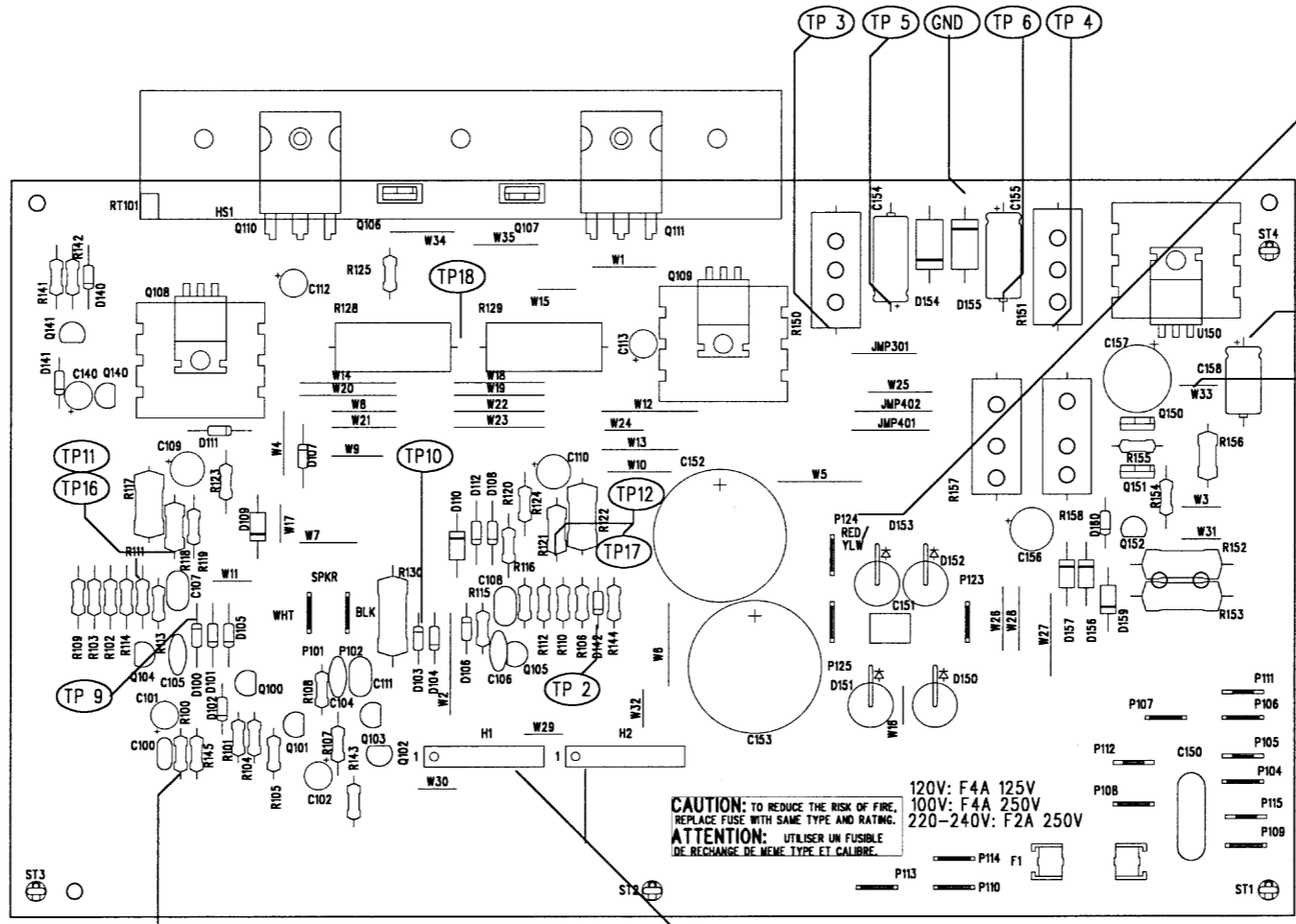
Fender MUSICAL INSTRUMENTS
 2621 Research Drive
 Corona, CA 91720 USA

CHECKED BY: *[Signature]*
 CK DATE: 22-SEP-98
 APPROVED BY: *[Signature]*
 AP DATE: 22-SEP-98
 DRAWN: S M M [ENGR: S M M]
 FILE: 237852.SCH

TITLE: COMBINED SERVICE DIAGRAM, (Schematic)
 POWER AMP,
 SFX SATELLITE

SIZE DRAWING NUMBER
D 0053859000
 RELEASE DATE: 15-JAN-98 SHEET: 1 OF 2

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR378/EC2059	28-JAN-98	SMM
B	EC 2064	18-FEB-98	SMM
C	EC 2077	17-MAR-98	SMM
D	EC 2118	14-MAY-98	SMM
E	EC 2153	14-SEP-98	SMM



NOTE: CENTER TAP (RED/YELLOW WIRE) TO P124.

CAUTION: TO REDUCE THE RISK OF FIRE, REPLACE FUSE WITH SAME TYPE AND RATING.
 ATTENTION: UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE ET CALIBRE.

120V: F4A 125V
 100V: F4A 250V
 220-240V: F2A 250V

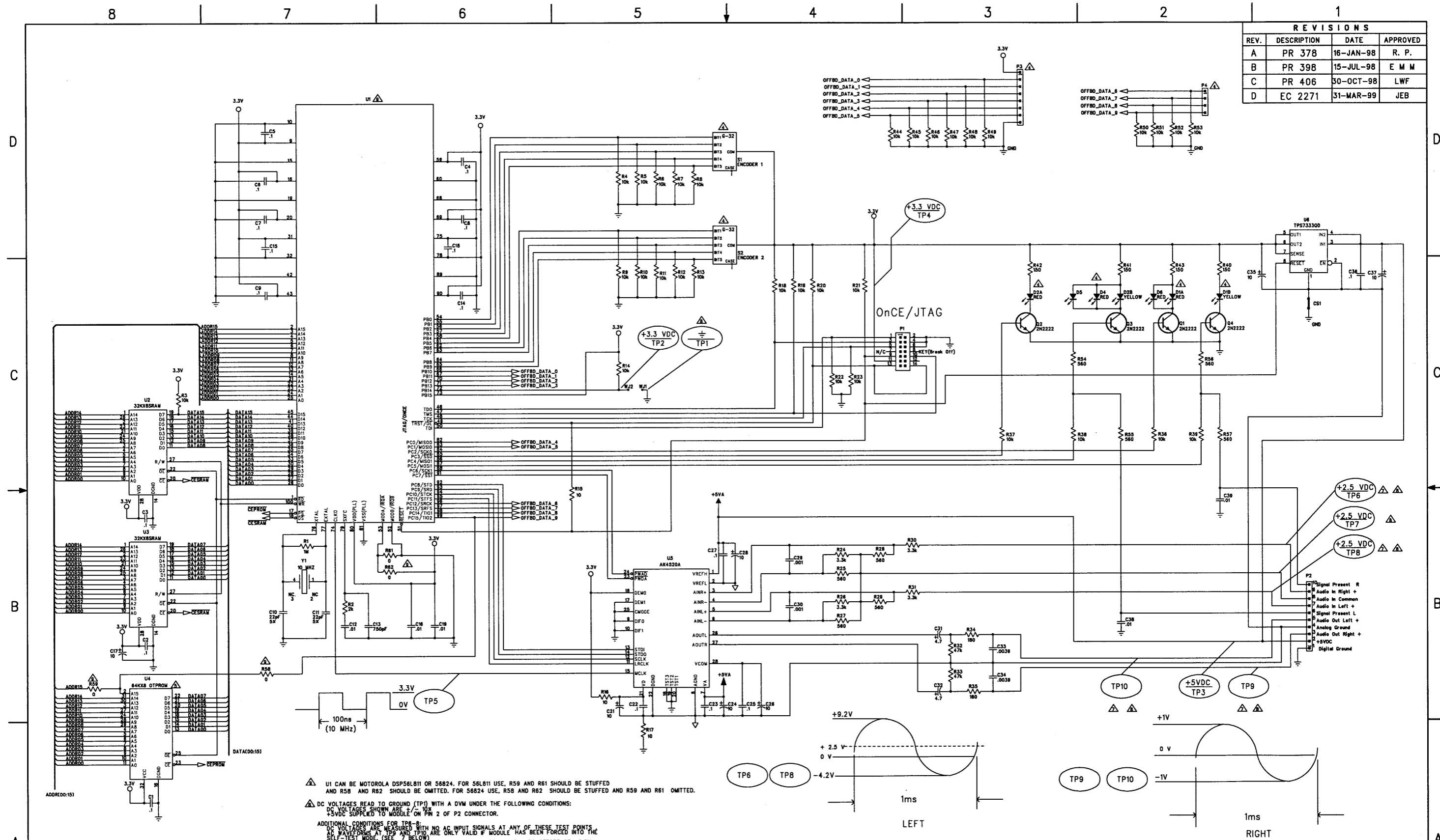
FILM/DWG: SERVICE DIAGRAM
 DATABASE: Z37BP2.PCB DATE: 14-MAY-98

NOTE: H1 & H2 ARE 6 CKT RIBBON CABLES (0050687000) TO SFX SAT PREAMP ASSY (0053460000)

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

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CHECKED BY: <i>blaw</i>	TITLE: COMBINED SERVICE DIAGRAM (PCB ASSY), POWER AMP, SFX SATELLITE		
DATE: 27-SEP-98	APPROVED BY: <i>Ed Hall</i>		
DATE: 22-SEP-98	SIZE: C	DRAWING NUMBER: 0053859000	REV. E
DRAWN: SMM	ENGR: SMM	RELEASE DATE: 15-JAN-98	SHEET 2 OF 2
DATABASE FILE: Z37BP2.PCB			

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 378	16-JAN-98	R. P.
B	PR 398	15-JUL-98	E M M
C	PR 406	30-OCT-98	LWF
D	EC 2271	31-MAR-99	JEB



U1 CAN BE MOTOROLA DSP56L811 OR 56824. FOR 56L811 USE, R59 AND R61 SHOULD BE STUFFED AND R58 AND R62 SHOULD BE OMITTED. FOR 56824 USE, R58 AND R62 SHOULD BE STUFFED AND R59 AND R61 OMITTED.

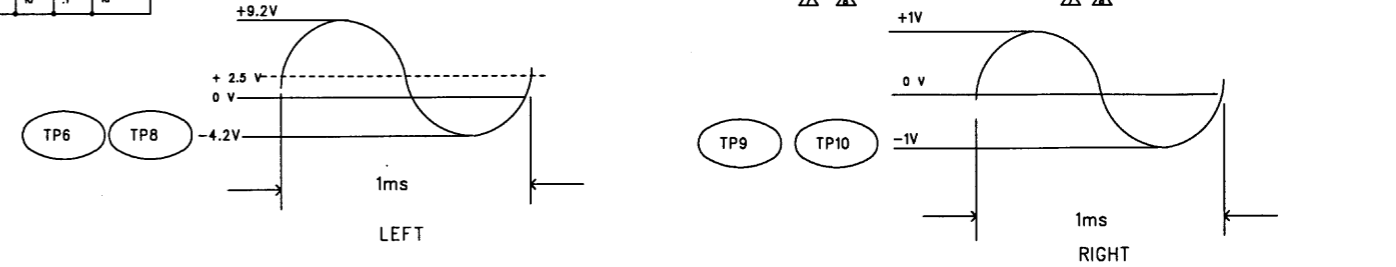
DC VOLTAGES READ TO GROUND (TP1) WITH A DVM UNDER THE FOLLOWING CONDITIONS:
 1. +3.3VDC SUPPLIED TO MODULE ON PIN 2 OF P2 CONNECTOR.

ADDITIONAL CONDITIONS FOR TP6-8:
 DC VOLTAGES ARE MEASURED WITH NO AC INPUT SIGNALS AT ANY OF THESE TEST POINTS. AC WAVEFORMS AT TP9 AND TP10 ARE ONLY VALID IF MODULE HAS BEEN FORCED INTO THE SELF-TEST MODE (SEE 6. ESD PRECAUTIONS).
 WITH A 100mV SINEWAVE OF AMPLITUDE 13.4V PEAK-TO-PEAK AND A DC OFFSET OF +2.5V APPLIED TO TP6 AND TP8 AS SHOWN.

TO INITIATE SELF-TEST, SHORT WIP2 (TP2) TO W1 (TP1, GROUND) AND TURN POWER FROM OFF TO ON. IN UNITS WITH D1 FAILURE IS INDICATED BY THE RED LED BLINKS ON THE YELLOW LED FAILS TO LIGHT. IN PIN 32 REMAINS HIGH FAILURE IS INDICATED WHEN PIN 32 TURNS OFF OR WHEN U1 PIN 87 FAILS TO GO HIGH. IF PASSING CONDITION EXISTS, MODULE WILL OPERATE IN THE LOOKBACK MODE UNTIL THE POWER IS CYCLED OFF-ON. WITH TP2 NOT SHORTED TO TP1 IN THE LOOKBACK MODE THE MODULE'S OUTPUT (AT TP9 AND TP10) WILL BE A REPLICATION OF THE INPUT SIGNALS (TP6 AND TP8).

6. ESD PRECAUTIONS:
 THIS MODULE IS ESD SENSITIVE AND SHOULD ONLY BE SERVICED/HANDLED UNDER CONDITIONS WHICH PREVENT ANY ESD SURGES INTO THIS MODULE. THE SERVICE WORK AREA SHOULD INCLUDE A PROPERLY INSTALLED ESD MAT SURFACES WHICH CONNECTS TO THE SERVICE PERSONNEL VIA AN ESD WRIST STRAP. THE ESD MAT SHOULD BE CONNECTED TO EARTH GROUND AND ALL HANDLING OF THE MODULE SHOULD BE DONE WEARING THE WRISTSTRAP.

EPROM INSERTION AND REMOVAL:
 THE REMOVAL OR INSTALLATION OF U4 MUST BE DONE WITH THE PROPER PLCC REMOVAL TOOL. FAILURE TO USE THE PROPER TOOL FOR THE DEVICE CAN RESULT IN DAMAGE TO U4, PCB, OR SOCKET.

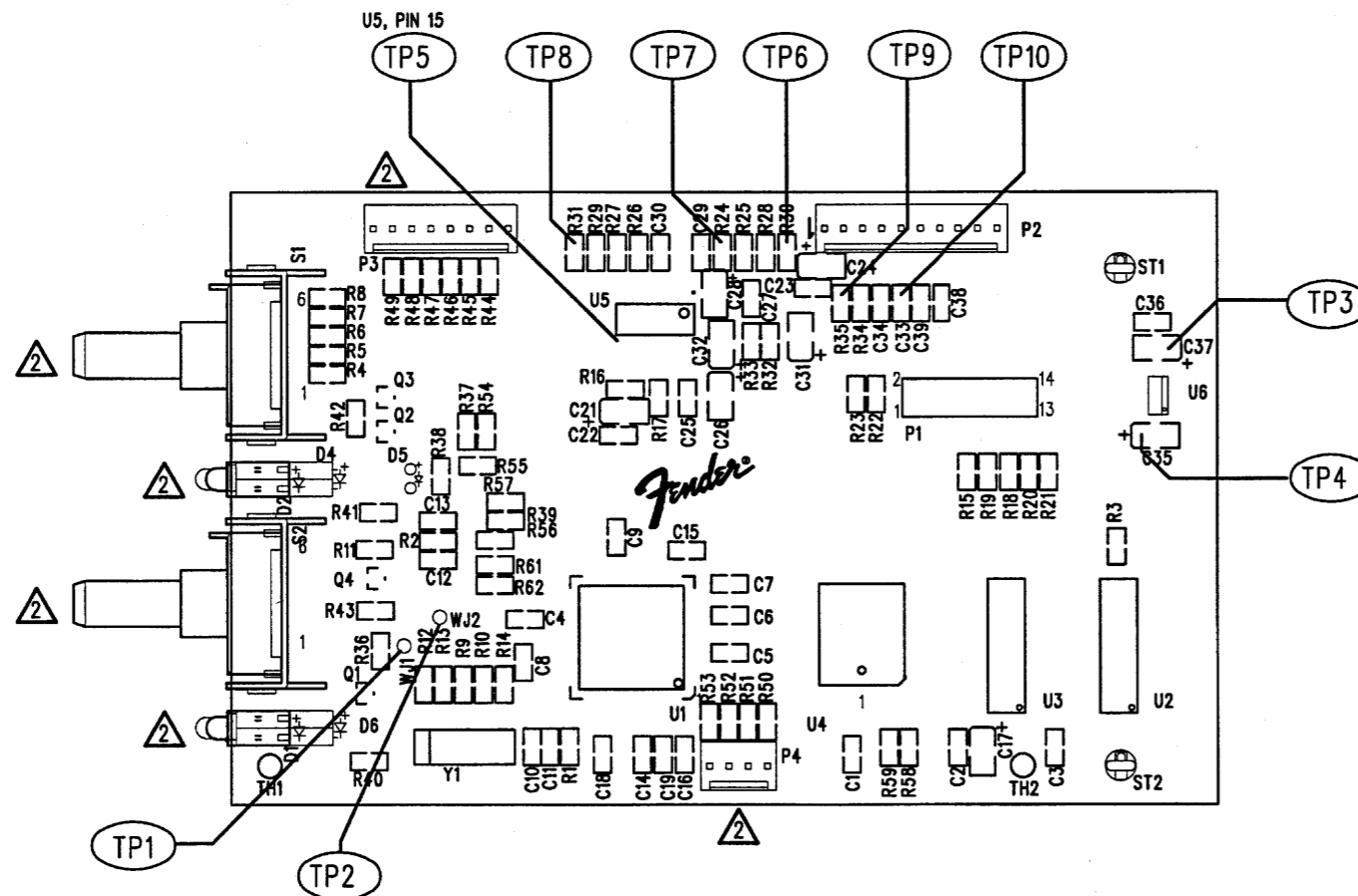


- NOTES: (UNLESS OTHERWISE NOTED)
- COMPONENTS D1, D2, D4, D5, D6, P3, P4, S1 & S2 ARE STUFFED ACCORDING TO INDIVIDUAL PRODUCT REQUIREMENTS.
 - ALL POLARIZED CAPACITORS IN uF, 20% 15V MINIMUM.
 - ALL UNPOLARIZED CAPACITORS IN uF, 10% OR BETTER; 25V MINIMUM.
 - ALL RESISTORS IN OHMS, 5% 1/10W.

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CHECKED BY: <i>B. Van</i>	DATE: <i>31-MAR-99</i>	TITLE: SERVICE DIAGRAM, COMBINED (schematic) DSP SFX SERIES	
APPROVED BY: <i>[Signature]</i>	DATE: <i>31-MAR-99</i>	SIZE: D	DRAWING NUMBER: 0053569000
DRAWN: S. HOSNER ENGR: POVMNMR		RELEASE DATE: 17-MAR-99	SHEET: 1 OF 2
DATABASE FILE: Z3695.SCH			

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 378	16-JAN-98	R.P.
B	PR 398	15-JUL-98	E M M
C	PR 406	30-OCT-98	L W F
D	EC 2271	31-MAR-99	J E B

FILM/DWG: SERVICE DIAGRAM
 DATABASE: Z369P.PCB DATE: 31-MAR-99




3. TEST POINT LOCATIONS AND VALUES ARE VALID FOR ALL PRODUCT CONFIGURATIONS.

⚠ COMPONENTS D1, D2, D4, D5, D6, P3, P4, S1 & S2 ARE STUFFED ACCORDING TO INDIVIDUAL PRODUCT REQUIREMENTS. SEE SPECIFIC PRODUCT BILL OF MATERIALS TO DETERMINE WHICH COMPONENTS SHOULD BE PRESENT. REFERENCE MASTER ASSEMBLY DRAWING 0053567000

1. SEE SHEET 1 FOR TEST CONDITIONS AND TEST POINT VALUES.

NOTES: (UNLESS OTHERWISE NOTED)

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CHECKED BY: <u>B. V. M.</u> CK DATE: <u>31-MAR-99</u>		TITLE: SERVICE DIAGRAM, COMBINED (PCB assy) DSP SFX SERIES	
APPROVED BY: <u>[Signature]</u> AP DATE: <u>30 MAR 99</u>		SIZE B	DRAWING NUMBER 0053569000
DRAWN: S. HOSNER ENGR: R. POVINMIRE		RELEASE DATE: 16-JAN-98	REV. D
DATABASE FILE: Z369P.PCB		SHEET 2 OF 2	