

REV.	DESCRIPTION	DATE	APPROVED
A	PR4.36	19-OCT-99	R J D

REVISIONS

1

2

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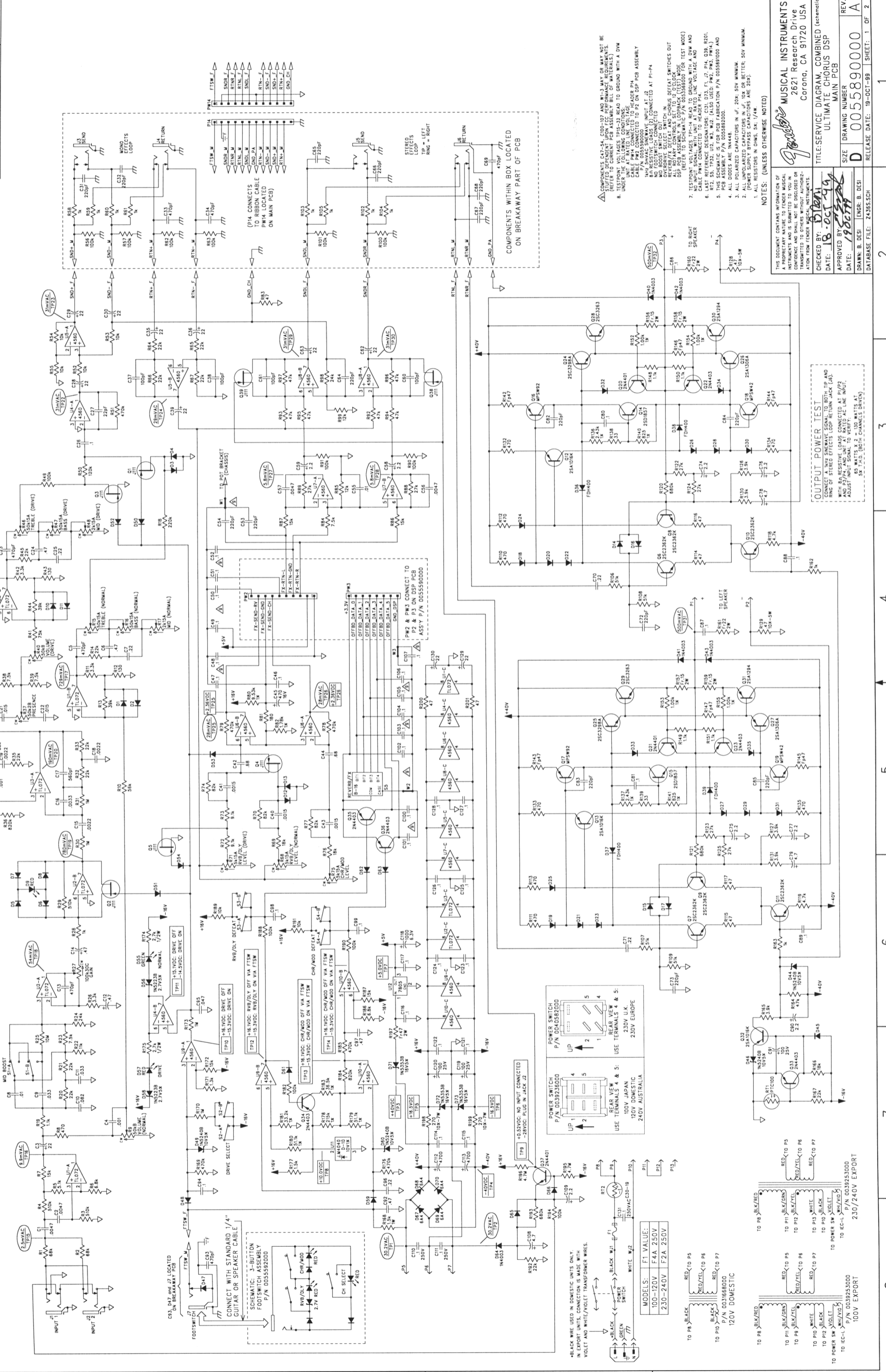
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8



COMPONENTS C17-34, C30-37, C40-47 AND C49-56 MAY BE OBTAINED FROM THE FOLLOWING SUPPLIERS (REFER TO CURRENT PCB ASSEMBLY BILL OF MATERIALS) TO BE UNDER UNIT AT RATED LINE VOLTAGE. CABLE P/N 0055582000 IS FOR THE PCB ASSEMBLY CABLE P/N 0055582000 IS CONNECTED AT P14. NO FOOTSWITCH CONNECTED. REVERSE/FA DEFLECT AND CHIRP DEFLECT SWITCHES OUT REVERSE/FA DEFLECT AND CHIRP DEFLECT SWITCHES OUT (REFER TO SCHEMATIC P/N 0055582000 FOR TEST MODE). DSP PCB ASSEMBLY N. LODDIPACK (TEST) MODE. NO INPUT SIGNAL WITH UNIT AT RATED LINE VOLTAGE AND CABLE P/N 0055582000 IS USED. (P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P12, P13, P14, P15, P16, P17, P18, P19, P20, P21, P22, P23, P24, P25, P26, P27, P28, P29, P30, P31, P32, P33, P34, P35, P36, P37, P38, P39, P40, P41, P42, P43, P44, P45, P46, P47, P48, P49, P50, P51, P52, P53, P54, P55, P56, P57, P58, P59, P60, P61, P62, P63, P64, P65, P66, P67, P68, P69, P70, P71, P72, P73, P74, P75, P76, P77, P78, P79, P80, P81, P82, P83, P84, P85, P86, P87, P88, P89, P90, P91, P92, P93, P94, P95, P96, P97, P98, P99, P100).

NOTES: (UNLESS OTHERWISE NOTED)
 1. ALL RESISTORS IN OHMS, SK. = 1/K.
 2. POLARIZED CAPACITORS IN UF. 20K = 50V MINIMUM.
 3. POLARIZED CAPACITORS IN MF. 50V MINIMUM.
 4. ALL DIODES ARE IN4448.
 5. LAST TEST POINTS: P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P12, P13, P14, P15, P16, P17, P18, P19, P20, P21, P22, P23, P24, P25, P26, P27, P28, P29, P30, P31, P32, P33, P34, P35, P36, P37, P38, P39, P40, P41, P42, P43, P44, P45, P46, P47, P48, P49, P50, P51, P52, P53, P54, P55, P56, P57, P58, P59, P60, P61, P62, P63, P64, P65, P66, P67, P68, P69, P70, P71, P72, P73, P74, P75, P76, P77, P78, P79, P80, P81, P82, P83, P84, P85, P86, P87, P88, P89, P90, P91, P92, P93, P94, P95, P96, P97, P98, P99, P100.

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CHECKED BY: *D. Den*
 DATE: 18-Oct-99
 APPROVED BY: *RJD*
 DATE: 19-Oct-99

MUSICAL INSTRUMENTS
 2621 Research Drive
 Corona, CA 91720 USA

TITLE: SERVICE DIAGRAM, COMBINED (estometric)
 ULTIMATE CHORUS DSP
 MAIN PCB

SIZE: DRAWING NUMBER
 D 0055890000

REV. A

RELEASE DATE: 19-OCT-99 SHEET: 1 OF 2

OUTPUT POWER TEST
 WITH 8Ω RESISTIVE LOADS CONNECTED AT P1/P2 AND P3/P4, AND UNIT AT RATED AC LINE INPUT, ADJUST INPUT SIGNAL TO VERIFY:
 5X T.A.D. (80% CHANNELS DRIVEN)

POWER SWITCH
 P/N 0039235000
 UP 1 2 3 4 5
 REAR VIEW USE TERMINALS 4 & 5:
 100V JAPAN
 120V DOMESTIC
 240V AUSTRALIA
 230V U.K. EUROPE

MODELS: F1 VALUE:
 100-120V F.A. 250V
 230-240V F.A. 250V

BLACK WIRE USED IN DOMESTIC UNITS ONLY.
 IN EXPORT UNITS, CONNECTION IS MADE WITH VIOLET AND WHITE/VIOLET TRANSFORMER WIRES.

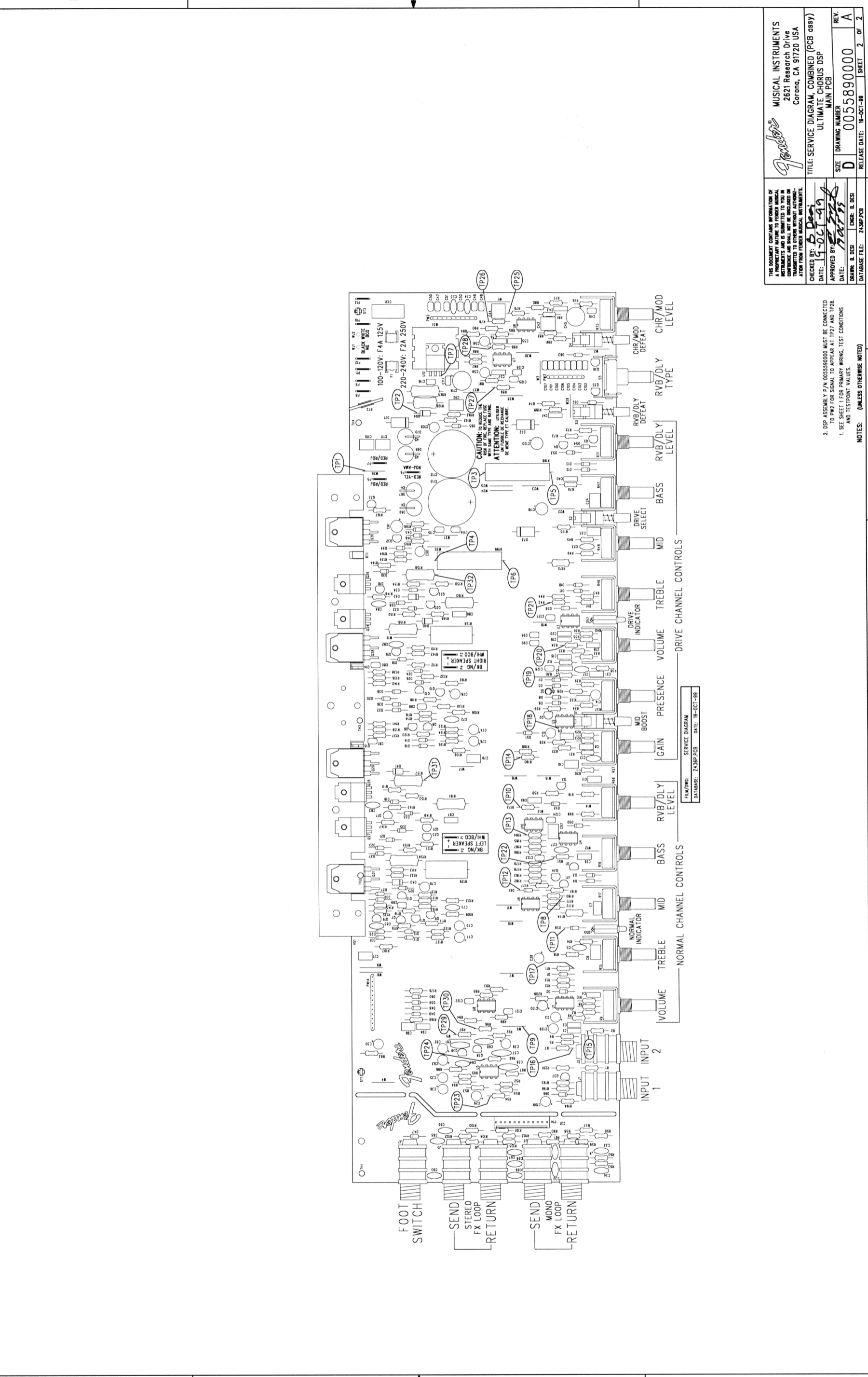
TO P8: BLACK
 TO P10: BLACK
 TO P11: BLACK/RED
 TO P12: BLACK/RED
 TO P13: BLACK/RED
 TO P14: BLACK/RED
 TO P15: BLACK/RED
 TO P16: BLACK/RED
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 TO P95: BLACK/RED
 TO P96: BLACK/RED
 TO P97: BLACK/RED
 TO P98: BLACK/RED
 TO P99: BLACK/RED
 TO P100: BLACK/RED

CONNECT WITH STANDARD 1/4" GUITAR OR SPEAKER CABLE

SCHEMATIC: 3-BUTTON FOOTSWITCH ASSEMBLY P/N 0055582000

CS3, D47 and J7 LOCATED ON BREAKAWAY PCB

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR436	19-OCT-99	R J D



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CHECKED BY: *B. Dea*
 DATE: 14-OCT-99
 APPROVED BY: *[Signature]*
 DATE: *[Signature]*
 DRAWN BY: B. DEB
 ENGR. B. DEB

TITLE: SERVICE DIAGRAM, COMBINED (PCB 6855)
 ULTIMATE CHORUS DSP
 MAIN PCB

2. DSP ASSEMBLY P/N 005589000 MUST BE CONNECTED TO PW2 FOR SIGNAL TO APPEAR AT TP27 AND TP28.
 1. SEE SHEET 1 FOR PRIMARY WIRING, TEST CONDITIONS AND TESTPOINT VALUES.

NOTES: (UNLESS OTHERWISE NOTED)

FILE NAME: SERVICE DIAGRAM
 DATABASE: Z43SP.PCB DATE: 19-OCT-99

MUSICAL INSTRUMENTS
 2821 Research Drive
 Corona, CA 91720 USA

SIZE: D
 DRAWING NUMBER: 005589000
 REV. A
 RELEASE DATE: 19-OCT-99
 SHEET 2 OF 2

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

REV.	DESCRIPTION	DATE	APPROVED
A	PR 378	16-JAN-98	R. P.
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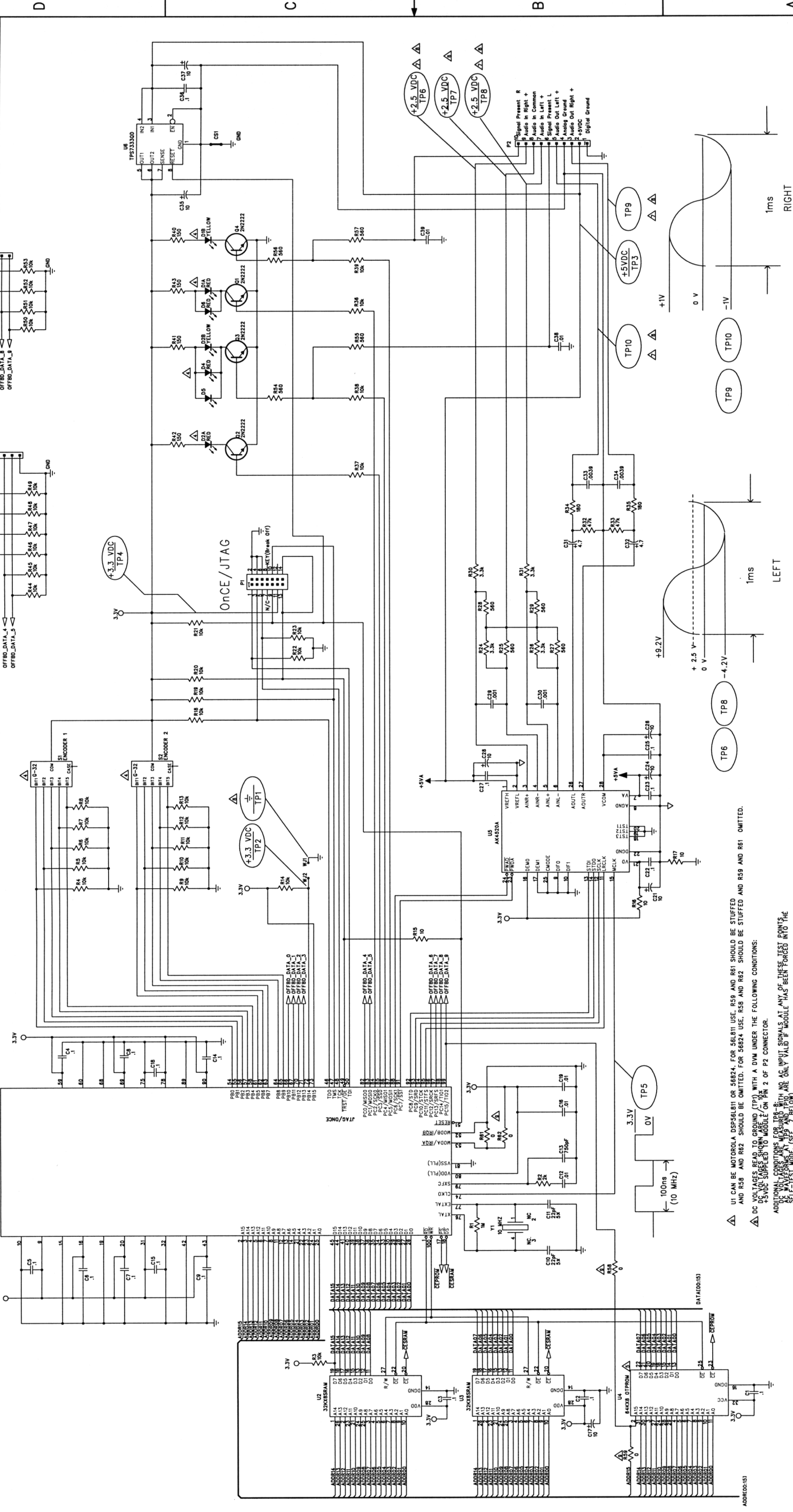
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C	PR 406	30-OCT-98	LWF
D	EC 2271	31-MAR-99	JEB



U1 CAN BE MOTOROLA DSP56181 OR 56824. FOR 56824 USE, R59 AND R61 SHOULD BE STUFFED AND R58 AND R62 SHOULD BE OMITTED.
 DC VOLTAGES READ TO GROUND (TP1) WITH A DVM UNDER THE FOLLOWING CONDITIONS:
 +5VDC SUPPLIED TO MODULE ON PIN 2 OF P2 CONNECTOR.

ADDITIONAL CONDITIONS TESTED WITH NO AS INPUT SIGNALS AT ANY OF THESE TEST POINTS:
 1. DC VOLTAGES AT TP8 AND TP10 ARE ONLY VALID IF MODULE HAS BEEN FORCED INTO THE 13.4V PEAK-TO-PEAK AND A DC OFFSET OF +2.5V WITH A 100ns RISE TIME OF INPUT SIGNAL.
 2. TO INITIATE SELF-TEST, SHORT TP2 TO GROUND AND TURN POWER FROM OFF TO ON. IN UNITS WITH D1 FAILURE IS INDICATED WHEN THE YELLOW LED BLINKS IN THE TOP RIGHT CORNER OF THE MODULE.
 3. IN UNITS WITH D1 FAILURE, THE YELLOW LED WILL NOT BLINK IN THE TOP RIGHT CORNER OF THE MODULE.
 4. IN UNITS WITH D1 FAILURE, THE YELLOW LED WILL NOT BLINK IN THE TOP RIGHT CORNER OF THE MODULE.
 5. IN UNITS WITH D1 FAILURE, THE YELLOW LED WILL NOT BLINK IN THE TOP RIGHT CORNER OF THE MODULE.

ESD PRECAUTIONS:
 THIS MODULE IS ESD SENSITIVE AND SHOULD ONLY BE SERVICED/HANDLED UNDER CONDITIONS OF AN ESD CONTROLLED ENVIRONMENT. ESD PREVENTION STRIPS SHOULD BE USED TO PREVENT ESD DAMAGE TO THE MODULE. ESD PREVENTION STRIPS SHOULD BE USED TO PREVENT ESD DAMAGE TO THE MODULE. ESD PREVENTION STRIPS SHOULD BE USED TO PREVENT ESD DAMAGE TO THE MODULE.

FOR PROM INSERTION AND REMOVAL:
 FAILURE TO USE THE PROPER TOOL FOR THE DEVICE CAN RESULT IN DAMAGE TO U1, PCB, OR SOCKET.

MUSICAL INSTRUMENTS
 2621 Research Drive
 Corona, CA 91720 USA

TITLE: SERVICE DIAGRAM, COMBINED (schematic)
 DSP SFX SERIES

CHECKED BY: *[Signature]*
 DATE: 31-MAR-99

APPROVED BY: *[Signature]*
 DATE: 31-MAR-99

DRAWN: S. HOSNER (ENGR. POLYMER)
 DATE: 31-MAR-99

DATA: BASE FILE: 23695.SCH

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SIZE: DRAWING NUMBER **D 005356900**

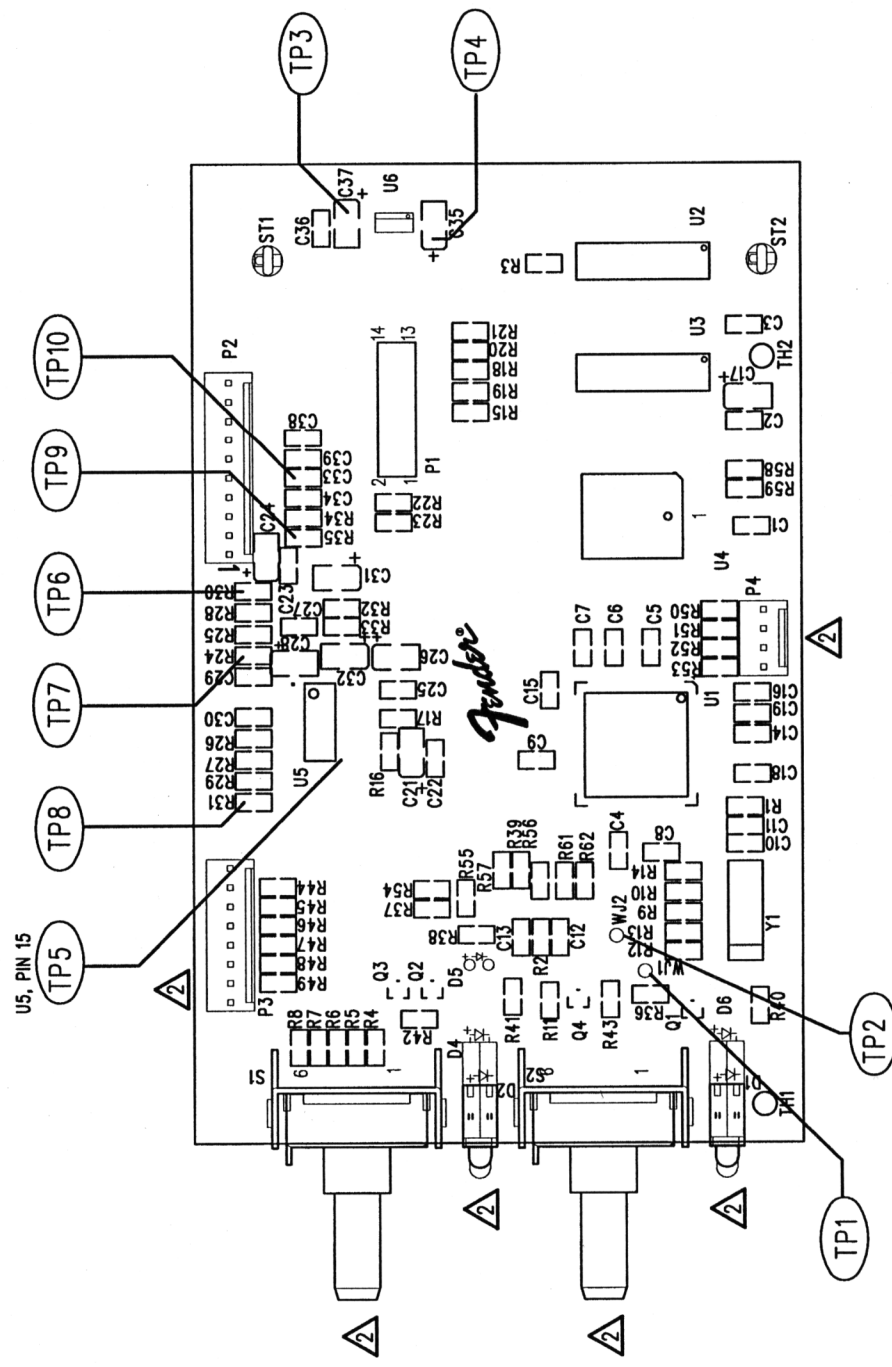
REV: **D**

RELEASE DATE: 17-MAR-99 SHEET: 1 OF 2

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



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Fender
 MUSICAL INSTRUMENTS
 2621 Research Drive
 Corona, CA 91720 USA

CHECKED BY: B. V. M.
 CK DATE: 31-MAR-99
 APPROVED BY: [Signature]
 AP DATE: 30 MAR 99
 DRAWN: S. HOSNER ENGR: R. POVINMIRE
 DATABASE FILE: Z369P.PCB

TITLE: SERVICE DIAGRAM, COMBINED (PCB assy)
 DSP SFX SERIES
 SIZE: B DRAWING NUMBER: 0053569000 REV. D
 RELEASE DATE: 16-JAN-98 SHEET 2 OF 2

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)