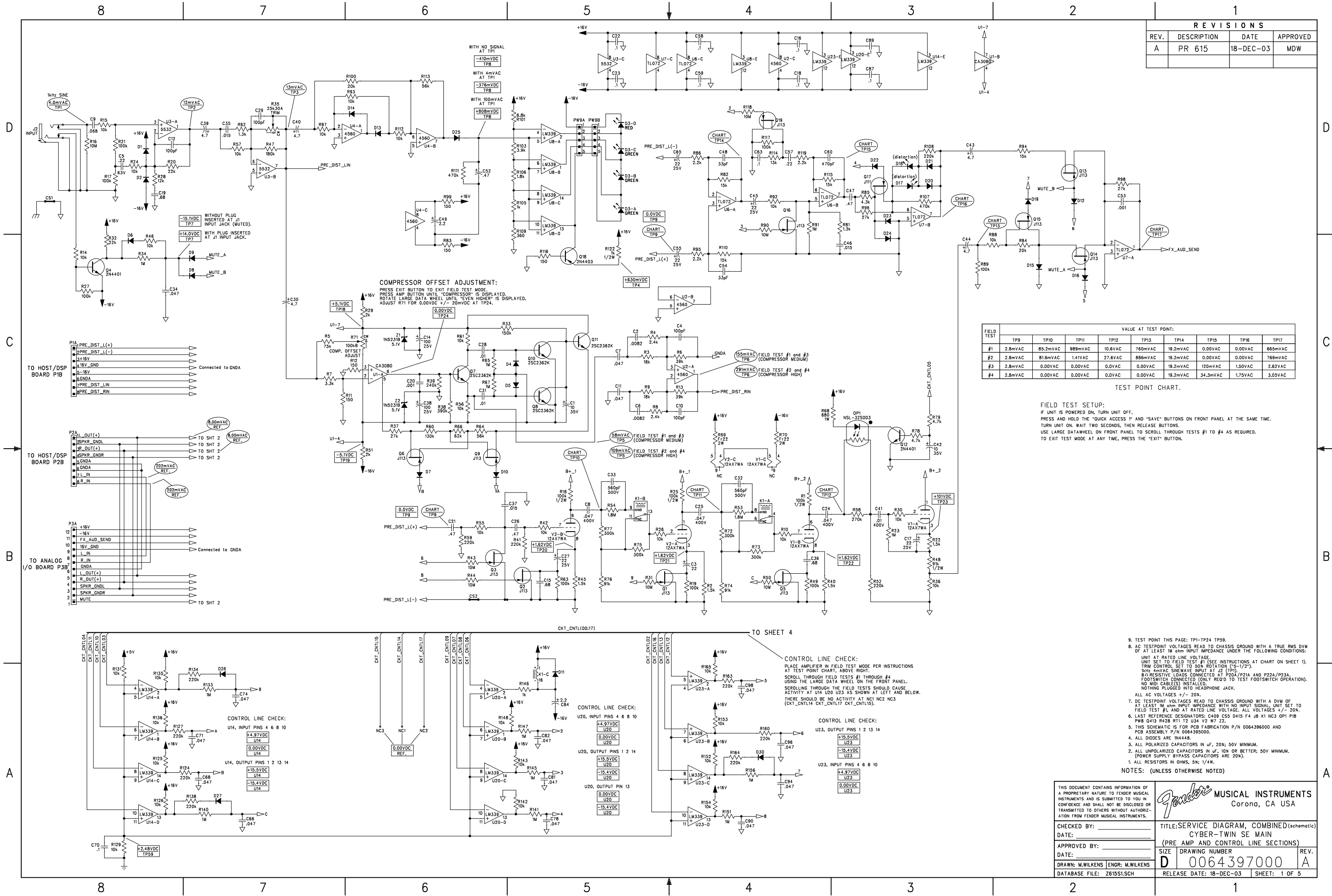


REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 615	18-DEC-03	MDW



FIELD TEST	VALUE AT TEST POINT:						
	TP9	TP10	TP11	TP12	TP13	TP14	TP15
#1	2.8mVAC	85.2mVAC	989mVAC	10.6VAC	760mVAC	19.2mVAC	0.00VAC
#2	2.8mVAC	81.6mVAC	1.41VAC	27.6VAC	886mVAC	19.2mVAC	0.00VAC
#3	2.8mVAC	0.00VAC	0.00VAC	0.0VAC	0.00VAC	19.2mVAC	120mVAC
#4	2.8mVAC	0.00VAC	0.00VAC	0.0VAC	0.00VAC	19.2mVAC	34.3mVAC

FIELD TEST SETUP:
 IF UNIT IS POWERED ON, TURN UNIT OFF.
 PRESS AND HOLD THE "QUICK ACCESS 1" AND "SAVE" BUTTONS ON FRONT PANEL AT THE SAME TIME.
 TURN UNIT ON, WAIT TWO SECONDS, THEN RELEASE BUTTONS.
 USE LARGE DATAWHEEL ON FRONT PANEL TO SCROLL THROUGH TESTS #1 TO #4 AS REQUIRED.
 TO EXIT TEST MODE AT ANY TIME, PRESS THE "EXIT" BUTTON.

- AC TEST POINT VOLTAGES READ TO CHASSIS GROUND WITH A TRUE RMS DVM OF AT LEAST 1M OHM INPUT IMPEDANCE UNDER THE FOLLOWING CONDITIONS:
 UNIT AT RATED LINE VOLTAGE.
 UNIT SET TO FIELD TEST #1 (SEE INSTRUCTIONS AT CHART ON SHEET 1).
 TRIM CONTROL SET TO 50% ROTATION ("5-1/2").
 1kHz 4mVAC SINEWAVE INPUT AT J2 (TP1).
- RESISTIVE LOADS CONNECTED AT P204/P214 AND P224/P234.
 FOOTSWITCH CONNECTED (ONLY REQ'D TO TEST FOOTSWITCH OPERATION).
 NO MIDI CABLE(S) INSTALLED.
 NOTHING PLUGGED INTO HEADPHONE JACK.
- ALL AC VOLTAGES +/- 20%.
- DC TESTPOINT VOLTAGES READ TO CHASSIS GROUND WITH A DVM OF AT LEAST 1M OHM INPUT IMPEDANCE WITH NO INPUT SIGNAL, UNIT SET TO FIELD TEST #1, AND AT RATED LINE VOLTAGE. ALL VOLTAGES +/- 20%.
- LAST REFERENCE DESIGNATORS: C409 C55 D415 F4 JB K1 NC3 OPI P18 P19 D413 R428 R11 T2 U34 U2 V2 W7 Z2.
- THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0064396000 AND PCB ASSEMBLY P/N 0064395000.
- ALL DIODES ARE 1N4148.
- ALL POLARIZED CAPACITORS IN uF, 20% 50V MINIMUM.
- ALL UNPOLARIZED CAPACITORS IN uF, 10% OR BETTER; 50V MINIMUM. (POWER SUPPLY BYPASS CAPACITORS ARE 20%).
- ALL RESISTORS IN OHMS, 5% 1/4W.

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 USA

CHECKED BY: _____
 DATE: _____

APPROVED BY: _____
 DATE: _____

DRAWN: M.WILKENS ENGR: M.WILKENS
 DATABASE FILE: Z61951.SCH

TITLE: SERVICE DIAGRAM, COMBINED (schematic)
 CYBER-TWIN SE MAIN
 (PRE AMP AND CONTROL LINE SECTIONS)

SIZE: DRAWING NUMBER
D 0064397000

RELEASE DATE: 18-DEC-03 SHEET: 1 OF 5

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 615	18-DEC-03	MDW

D

D

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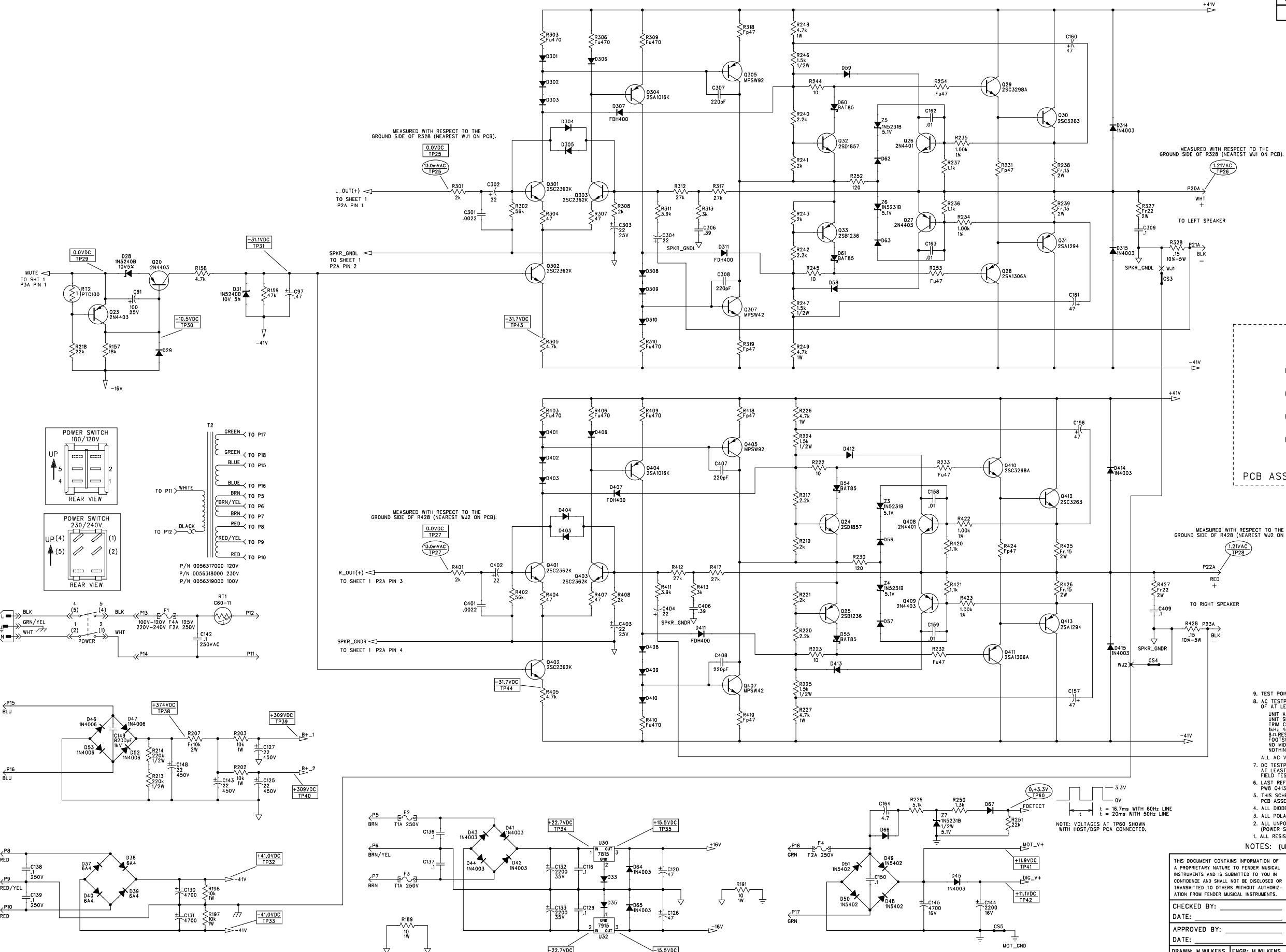
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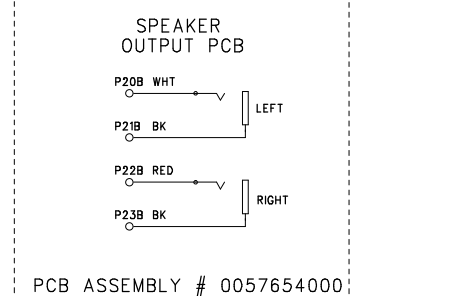
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A

A



OUTPUT TEST:
 65 watts PER CHANNEL, BOTH CHANNELS DRIVEN, INTO 8 ohm RESISTIVE LOADS, 5% THD, 1 KHZ.
 CONDITIONS:
 AMPLIFIER SET TO FIELD TEST #1. VOLUME AND MASTER FULL CW. RATED LINE VOLTAGE BETWEEN P11 AND P12. INPUT: 250mVAC, 1 kHz SINE SIGNAL APPLIED AT THE L/MONO RETURN JACK WITH EFFECTS LEVEL SET TO -10dBV. OUTPUT: MEASURED DIFFERENTIALLY DIRECTLY BETWEEN P20A AND P21A (P22A AND P23A FOR THE RIGHT CHANNEL).



- TEST POINT THIS PAGE: TP25-TP44 TP60.
- AC TESTPOINT VOLTAGES READ TO CHASSIS GROUND WITH A TRUE RMS DVM OF AT LEAST 1M ohm INPUT IMPEDANCE UNDER THE FOLLOWING CONDITIONS:
 UNIT AT RATED LINE VOLTAGE.
 UNIT SET TO FIELD TEST #1 (SEE INSTRUCTIONS ON CHART ON SHEET 1). TRIM CONTROL SET TO SOFT ROTATION (1/2").
 1KHz 4mVAC SINEWAVE INPUT AT J2 (TP1).
 8-ohm RESISTIVE LOADS CONNECTED AT P20A/P21A AND P22A/P23A. FOOTSWITCH CONNECTED (ONLY REQ'D TO TEST FOOTSWITCH OPERATION). NO MID CABLE(S) INSTALLED.
 NOTHING PLUGGED INTO HEADPHONE JACK.
 ALL AC VOLTAGES +/- 20%.
- DC TESTPOINT VOLTAGES READ TO CHASSIS GROUND WITH A DVM OF AT LEAST 1M ohm INPUT IMPEDANCE WITH NO INPUT SIGNAL. UNIT SET TO FIELD TEST #1, AND AT RATED LINE VOLTAGE. ALL VOLTAGES +/- 20%.
- LAST REFERENCE DESIGNATORS: C409 C55 D415 F4 JB K1 NCS OP1 P18 PWB Q413 R428 RT1 T2 U34 V2 W7 Z2
- THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0064398000 AND PCB ASSEMBLY P/N 0064395000.
- 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 20%).
- ALL RESISTORS IN OHMS, 5%; 1/4W.

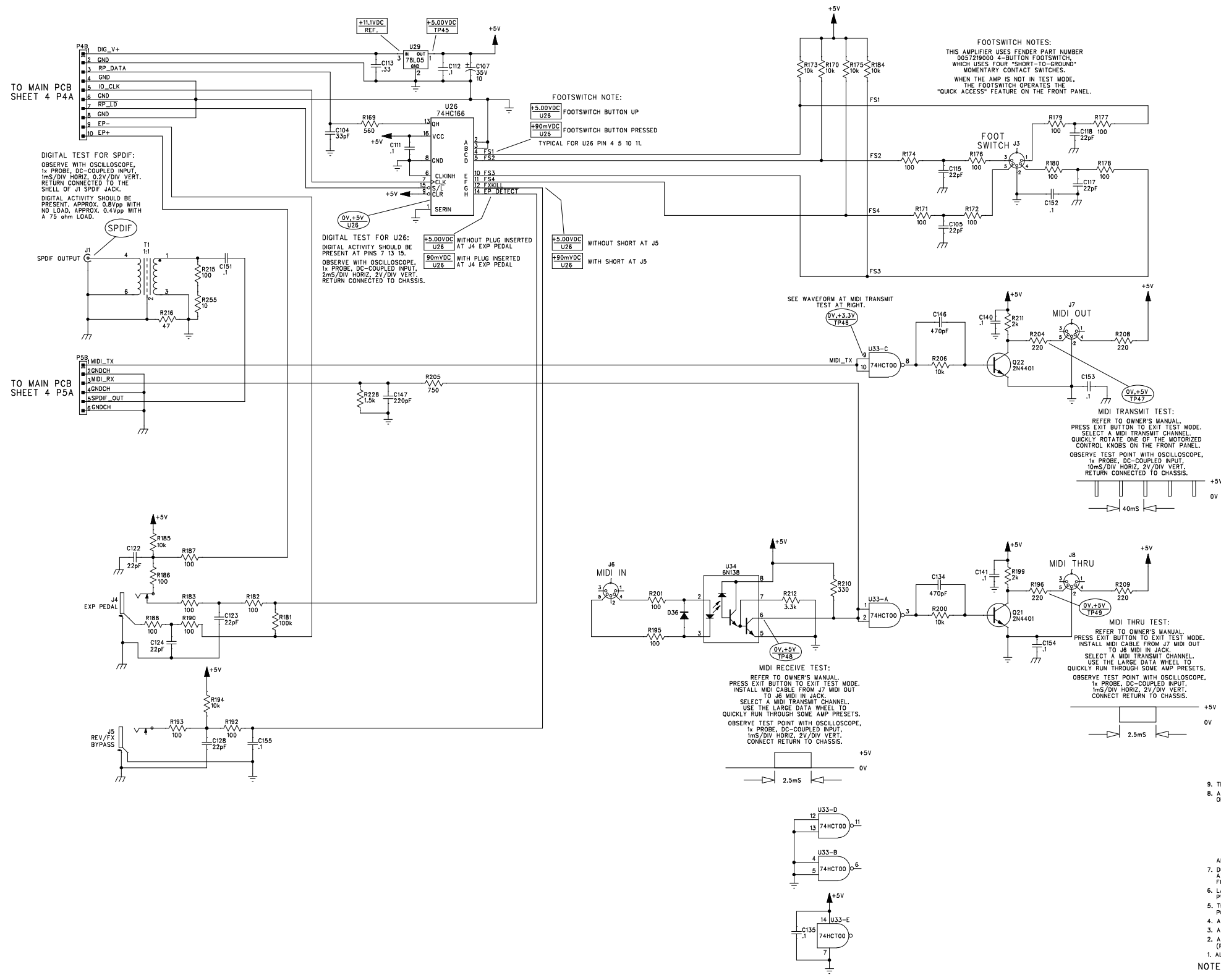
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Fender MUSICAL INSTRUMENTS
 Corona, CA USA

CHECKED BY: _____ DATE: _____
 APPROVED BY: _____ DATE: _____
 DRAWN: M.WILKENS ENGR: M.WILKENS DATABASE FILE: Z615S1.SCH

TITLE: SERVICE DIAGRAM, COMBINED (schematic) CYBER-TWIN SE MAIN (POWER SUPPLY AND POWER AMP SECTIONS)
 SIZE: DRAWING NUMBER: 0064397000
 REV: A
 RELEASE DATE: 18-DEC-03 SHEET: 2 OF 5

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 615	18-DEC-03	MDW



- TEST POINT THIS PAGE: TP45-TP48.
 - AC TESTPOINT VOLTAGES READ TO CHASSIS GROUND WITH A TRUE RMS DVM OF AT LEAST 1M ohm INPUT IMPEDANCE UNDER THE FOLLOWING CONDITIONS:
UNIT AT RATED LINE VOLTAGE.
UNIT SET TO FIELD TEST #1 (SEE INSTRUCTIONS AT CHART ON SHEET 1).
TRIM CONTROL SET TO 90x ROTATION (2-1/2').
1kHz 4mVAC SINEWAVE INPUT AT J2 (TP1).
8.0 RESISTIVE LOADS CONNECTED AT P201/P21A AND P22A/P23A.
FOOTSWITCH CONNECTED (ONLY REQ'D TO TEST FOOTSWITCH OPERATION).
NO MIDI CABLE(S) INSTALLED.
NOTHING PLUGGED INTO HEADPHONE JACK.
 - ALL AC VOLTAGES +/- 20%.
 - DC TESTPOINT VOLTAGES READ TO CHASSIS GROUND WITH A DVM OF AT LEAST 1M ohm INPUT IMPEDANCE WITH NO INPUT SIGNAL, UNIT SET TO FIELD TEST #1 AND AT RATED LINE VOLTAGE. ALL VOLTAGES +/- 20%.
 - LAST REFERENCE DESIGNATORS: C409 C55 D415 F4 J8 K1 NC3 OP1 P18 PWB Q413 R428 R71 T2 U34 V2 R7 Z2
 - THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0064396000 AND PCB ASSEMBLY P/N 0064395000.
 - ALL DIODES ARE IN4448.
 - ALL POLARIZED CAPACITORS IN uF, 20% 50V MINIMUM.
 - ALL UNPOLARIZED CAPACITORS IN uF, 10K OR BETTER; 50V MINIMUM. (POWER SUPPLY BYPASS CAPACITORS ARE 20x).
 - ALL RESISTORS IN OHMS, 5% 1/4W.
- NOTES: (UNLESS OTHERWISE NOTED)

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Fender MUSICAL INSTRUMENTS
Corona, CA USA

CHECKED BY: _____ TITLE: SERVICE DIAGRAM, COMBINED (schematic) CYBER-TWIN SE MAIN (DIGITAL I/O BOARD SECTION)

DATE: _____

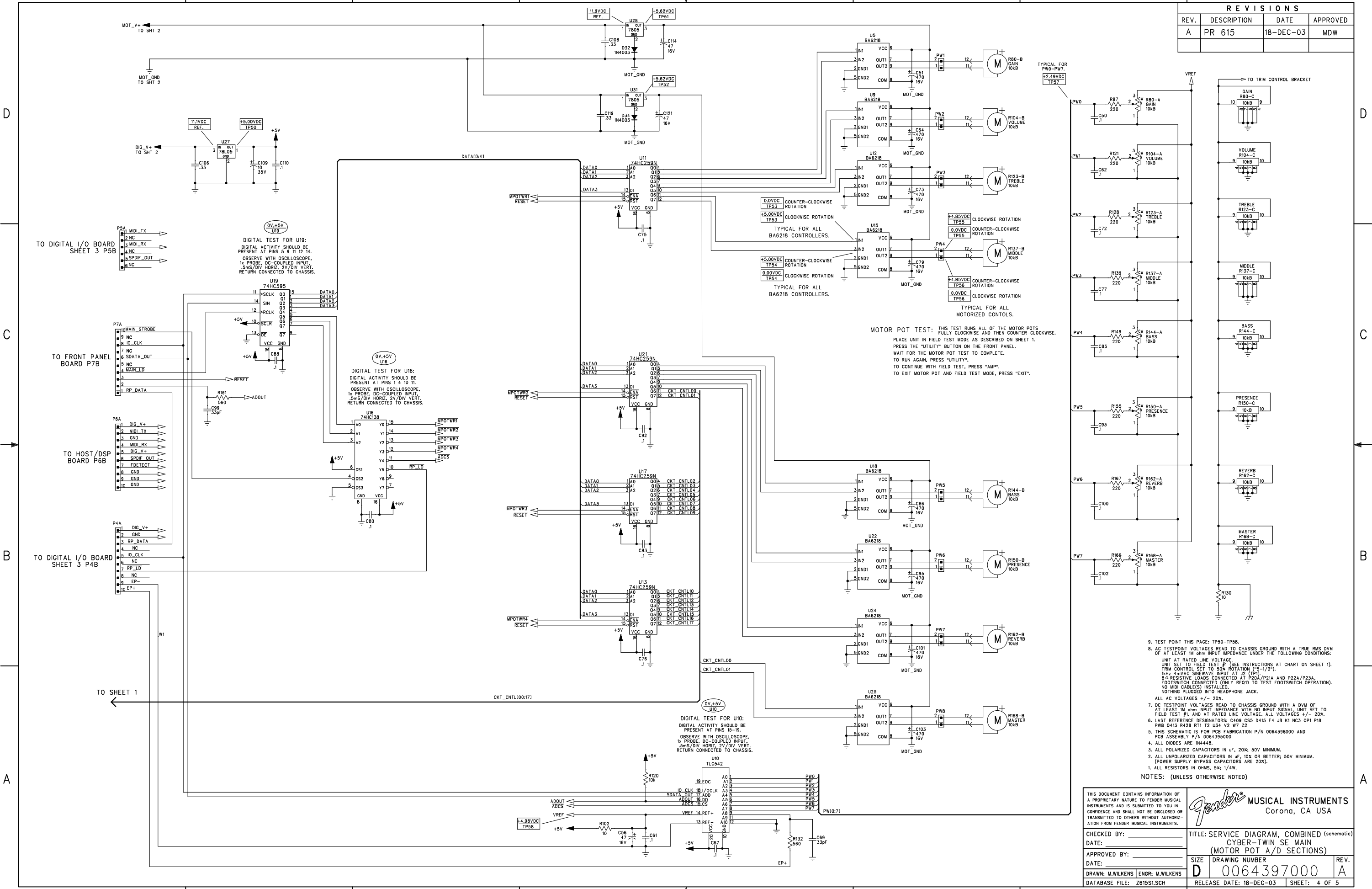
APPROVED BY: _____

DATE: _____

DRAWN: M.WILKENS ENGR: MWILKENS SIZE: DRAWING NUMBER: 0064397000 REV: A

DATABASE FILE: Z615S1.SCH RELEASE DATE: 18-DEC-03 SHEET: 3 OF 5

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 615	18-DEC-03	MDW



MOTOR POT TEST: THIS TEST RUNS ALL OF THE MOTOR POTS FULLY CLOCKWISE AND THEN COUNTER-CLOCKWISE. PLACE UNIT IN FIELD TEST MODE AS DESCRIBED ON SHEET 1. PRESS THE "UTILITY" BUTTON ON THE FRONT PANEL. WAIT FOR THE MOTOR POT TEST TO COMPLETE. TO RUN AGAIN, PRESS "UTILITY". TO CONTINUE WITH FIELD TEST, PRESS "AMP". TO EXIT MOTOR POT AND FIELD TEST MODE, PRESS "EXIT".

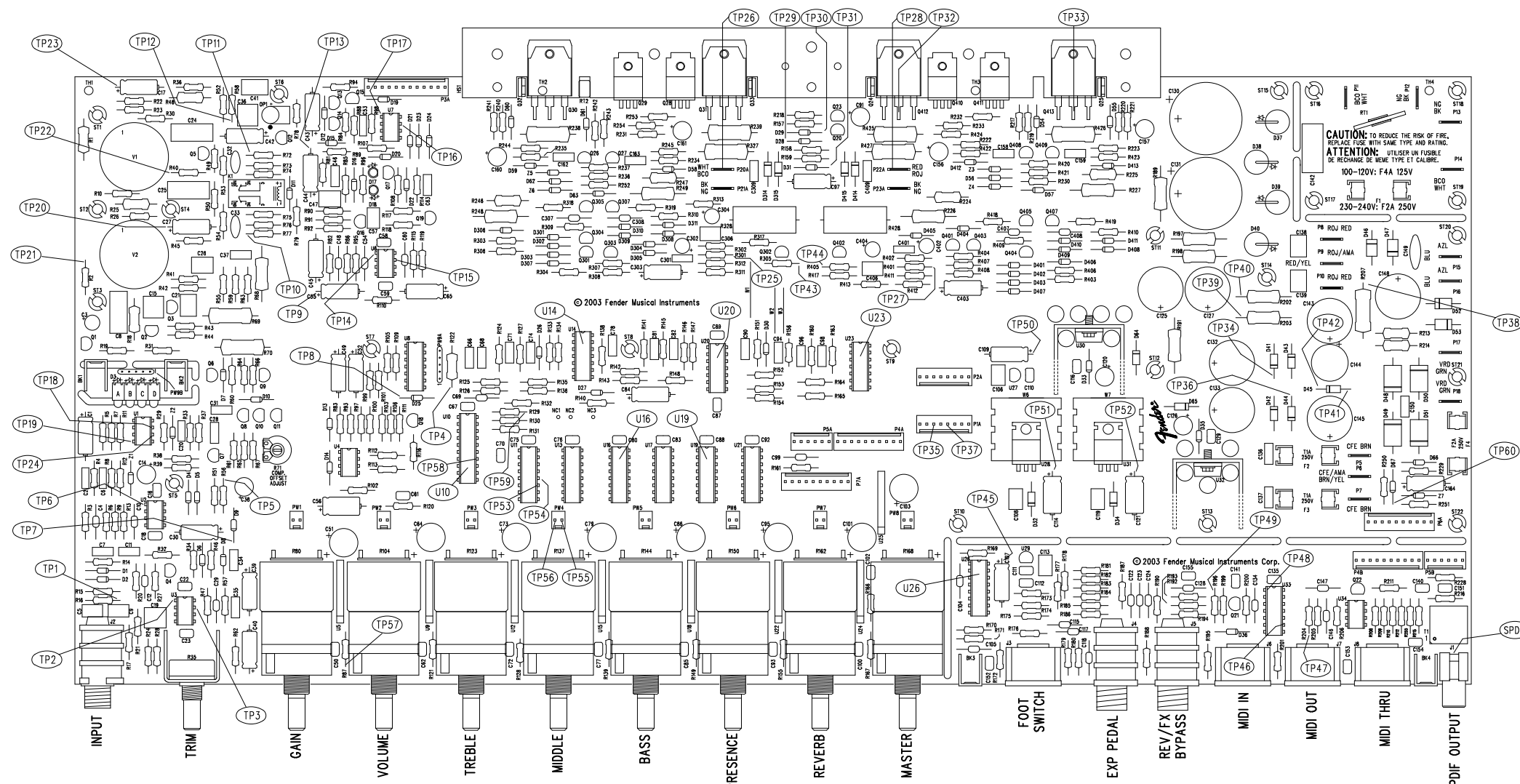
- TEST POINT THIS PAGE: TP50-TP58.
- AC TESTPOINT VOLTAGES READ TO CHASSIS GROUND WITH A TRUE RMS DVM OF AT LEAST 1M ohm INPUT IMPEDANCE UNDER THE FOLLOWING CONDITIONS:
UNIT AT RATED LINE VOLTAGE.
UNIT SET TO FIELD TEST #1 (SEE INSTRUCTIONS AT CHART ON SHEET 1).
TRIM CONTROL SET TO 50% ROTATION (5-1/2").
100V 40VAC SINEWAVE INPUT AT 12 (TP1).
- RESISTIVE LOADS CONNECTED AT P20A/P21A AND P22A/P23A.
FOOTSWITCH CONNECTED (ONLY REQ'D TO TEST FOOTSWITCH OPERATION).
NO MIDI CABLE(S) INSTALLED.
NOTHING PLUGGED INTO HEADPHONE JACK.
- ALL AC VOLTAGES +/- 20%.
- DC TESTPOINT VOLTAGES READ TO CHASSIS GROUND WITH A DVM OF AT LEAST 1M ohm INPUT IMPEDANCE WITH NO INPUT SIGNAL. UNIT SET TO FIELD TEST #1, AND AT RATED LINE VOLTAGE. ALL VOLTAGES +/- 20%.
- LAST REFERENCE DESIGNATORS: C409 C55 D415 F4 JB K1 NCS OP1 P18 PWB Q413 R428 R112 U34 V2 W7 Z2
- THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0064396000 AND PCB ASSEMBLY P/N 0064395000.
- 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 20%).
- ALL RESISTORS IN OHMS, 5%; 1/4W.

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Fender MUSICAL INSTRUMENTS
Corona, CA USA

CHECKED BY:	TITLE: SERVICE DIAGRAM, COMBINED (schematic) CYBER-TWIN SE MAIN (MOTOR POT A/D SECTIONS)
DATE:	
APPROVED BY:	
DATE:	
DRAWN: M.WILKENS ENGR: M.WILKENS	SIZE: DRAWING NUMBER
DATABASE FILE: Z615S1.SCH	D 0064397000
	RELEASE DATE: 18-DEC-03 SHEET: 4 OF 5

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 615	18-DEC-03	MDW

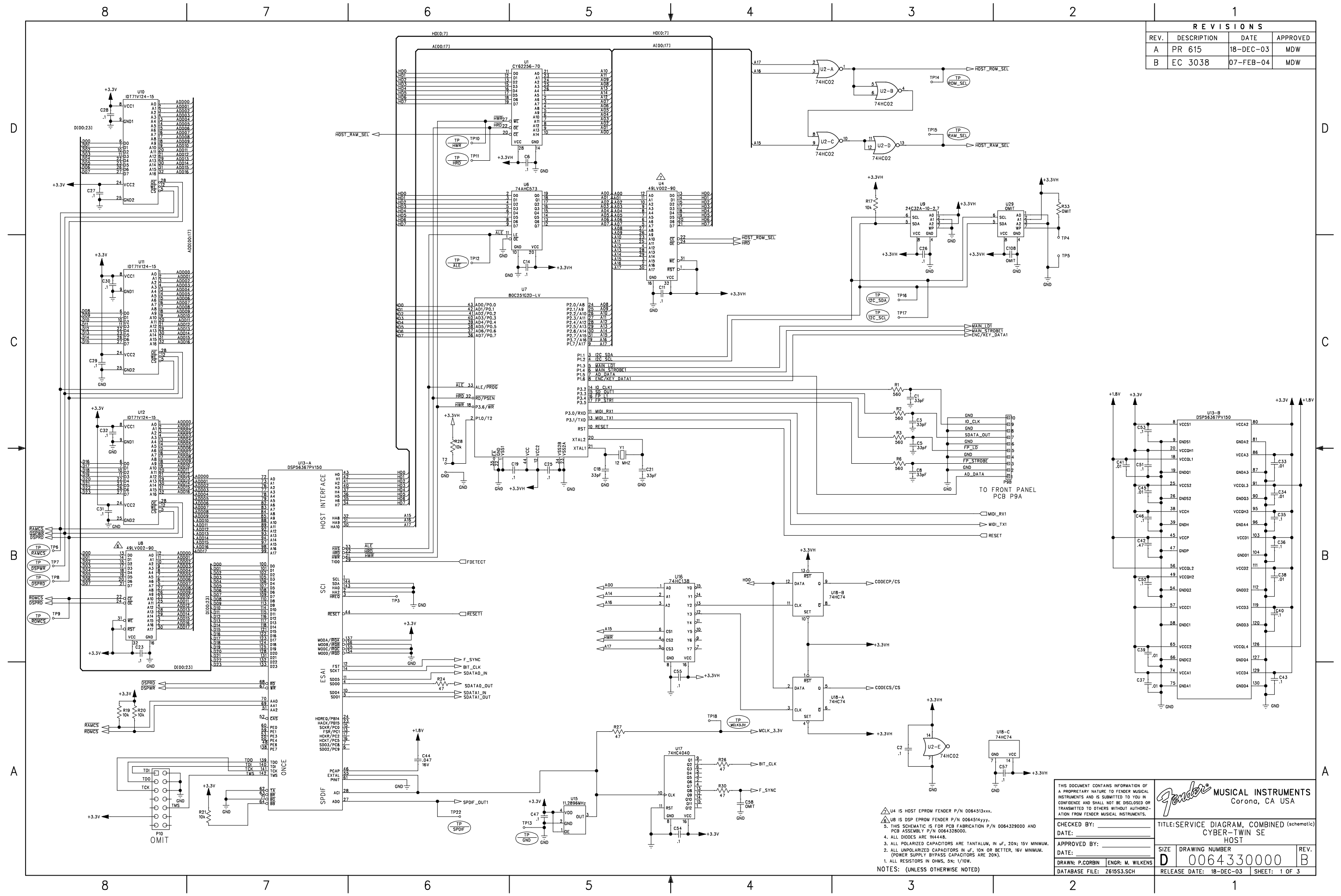


FILM/DWG: SERVICE DIAGRAM
 DATABASE: Z615P1.PCB DATE: 18-DEC-03

- 5. SEE SHEET 2 FOR PRIMARY WIRING.
 - 4. SEE SHEETS 1-4 FOR TEST CONDITIONS AND TEST POINT VALUES.
 - 3. WIRES NOT SHOWN FOR CLARITY.
 - 2. PCB ASSEMBLY SHOWN AS FABRICATED.
 - 1. PW1-PW8 NOT USED.
- NOTES: (UNLESS OTHERWISE NOTED)

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CHECKED BY: _____ DATE: _____		TITLE: SERVICE DIAGRAM, COMBINED (PCB assy) CYBER-TWIN SE MAIN	
APPROVED BY: _____ DATE: _____		SIZE: D	DRAWING NUMBER: 0064397000
DRAWN: M.WILKENS ENGR: M.WILKENS DATABASE FILE: Z615P1.PCB		RELEASE DATE: 18-DEC-03	SHEET 5 OF 5

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 615	18-DEC-03	MDW
B	EC 3038	07-FEB-04	MDW



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Fender MUSICAL INSTRUMENTS
Corona, CA USA

CHECKED BY: _____ TITLE: SERVICE DIAGRAM, COMBINED (schematic)
DATE: _____ CYBER-TWIN SE
HOST

APPROVED BY: _____ SIZE: _____ DRAWING NUMBER: _____ REV: _____
DATE: _____

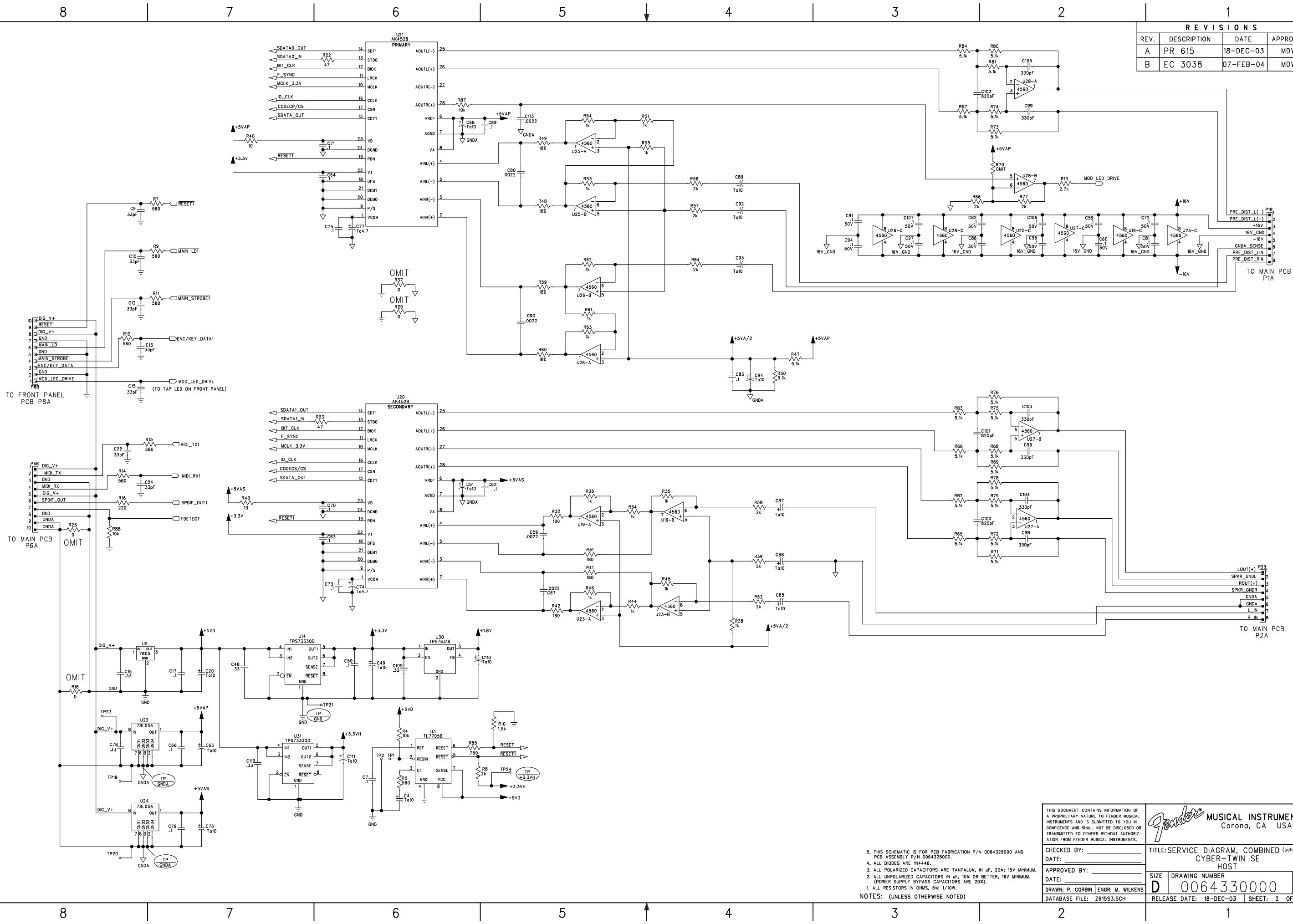
DRAWN: P.CORBIN ENGR: M. WILKENS
DATABASE FILE: Z619S3.SCH RELEASE DATE: 18-DEC-03 SHEET: 1 OF 3

- NOTES: (UNLESS OTHERWISE NOTED)
- U4 IS HOST EPROM FENDER P/N 0064513xxx.
 - U8 IS DSP EPROM FENDER P/N 0064514yyy.
 - THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0064328000 AND PCB ASSEMBLY P/N 0064328000.
 - ALL DIODES ARE 1N4448.
 - ALL POLARIZED CAPACITORS ARE TANTALUM, IN uF, 20%; 15V MINIMUM.
 - ALL UNPOLARIZED CAPACITORS IN uF, 10% OR BETTER, 16V MINIMUM. (POWER SUPPLY BYPASS CAPACITORS ARE 20%).
 - ALL RESISTORS IN OHMS, 5%; 1/10W.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 615	18-DEC-03	MDW
B	EC 3038	07-FEB-04	MDW

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Corona, CA USA

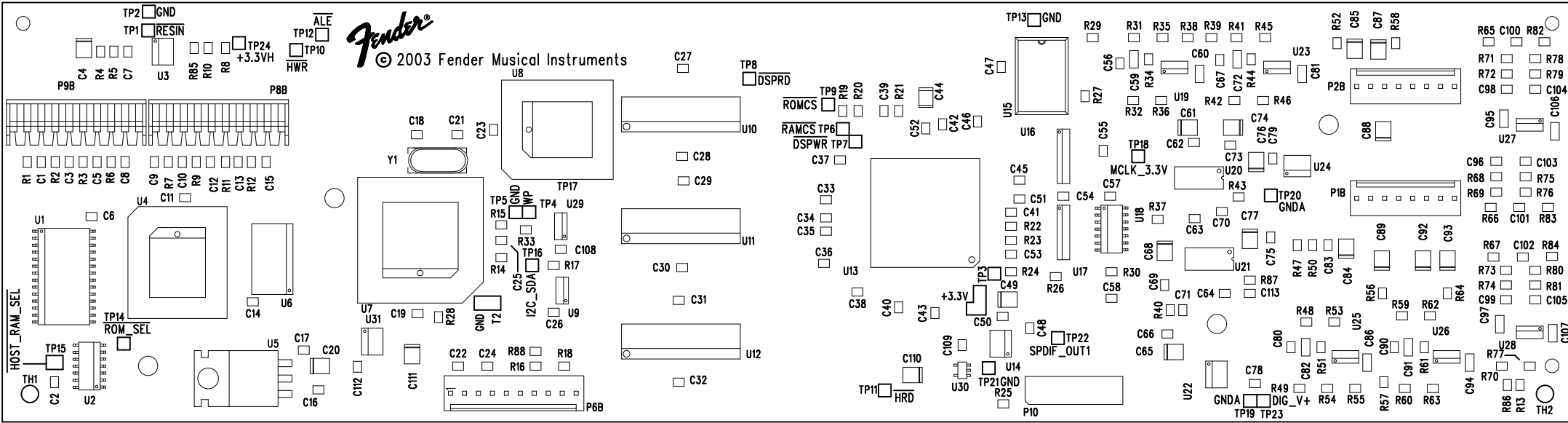
TITLE: SERVICE DIAGRAM, COMBINED (schematic)
CYBER-TWIN SE
HOST

CHECKED BY: _____ DATE: _____
APPROVED BY: _____ DATE: _____
DRAWN: P. CORBIN ENGR: M. WILKENS
DATABASE FILE: Z619S3.SCH

SIZE: D DRAWING NUMBER: 0064330000 REV: B
RELEASE DATE: 18-DEC-03 SHEET: 2 OF 3

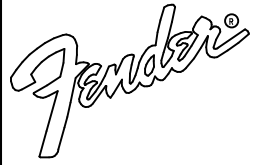
5. THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0064328000 AND PCB ASSEMBLY P/N 0064328000.
4. ALL DIODES ARE 1N4448.
3. ALL POLARIZED CAPACITORS ARE TANTALUM, IN μ F, 20%; 15V MINIMUM.
2. ALL UNPOLARIZED CAPACITORS IN μ F, 10% OR BETTER, 16V MINIMUM. (POWER SUPPLY BYPASS CAPACITORS ARE 20%).
1. ALL RESISTORS IN OHMS, 5%; 1/10W.
- NOTES: (UNLESS OTHERWISE NOTED)

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 615	18-DEC-03	MDW
B	EC 3038	07-FEB-04	MDW

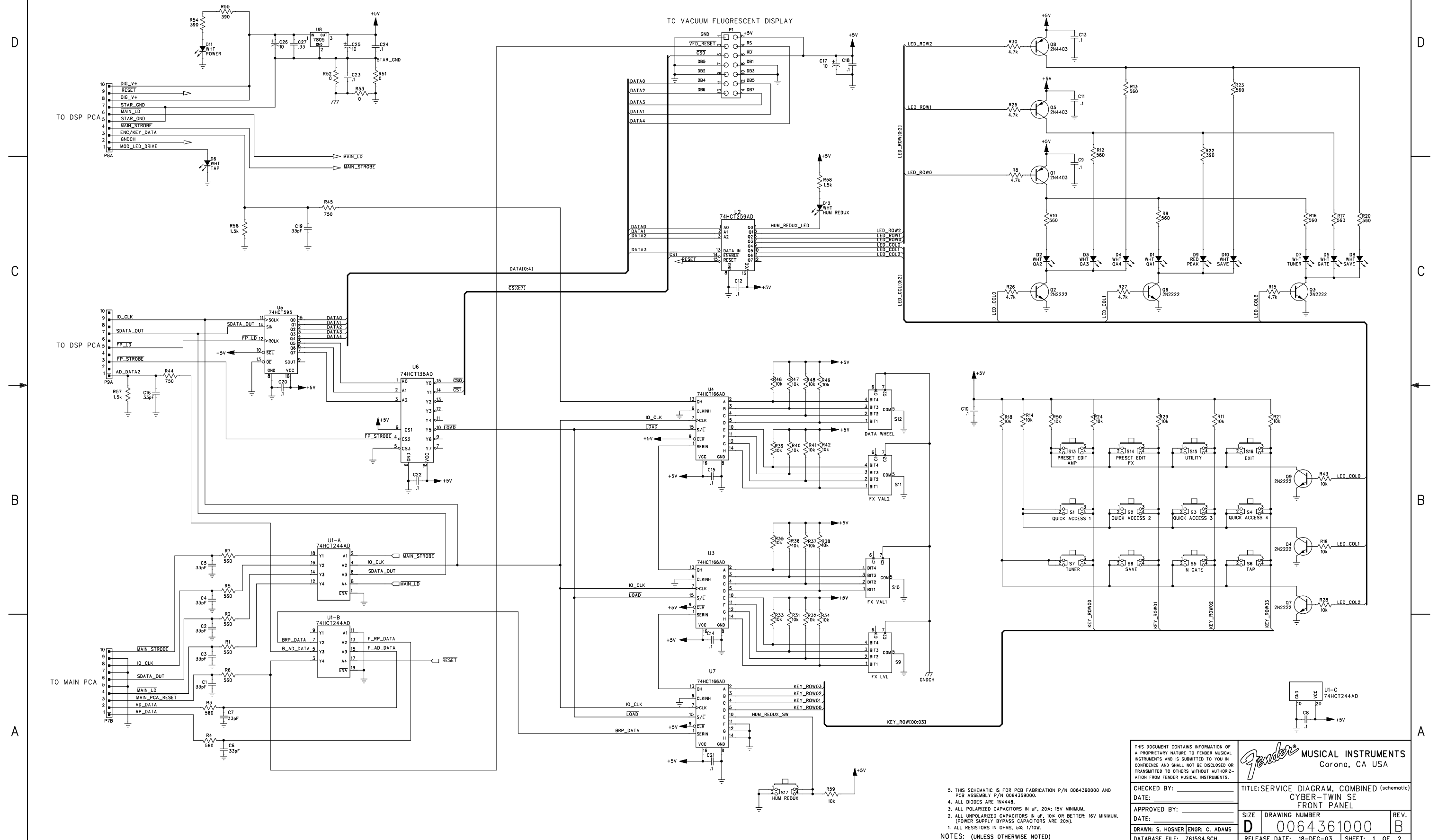


FILM/DWG: SERVICE DIAGRAM
 DATABASE: Z615P3.PCB DATE: 07-FEB-04

2. C58 C108 P10 R18 R25 R29 R33 R37 R70 U29 OMITTED.
 1. SEE SHEETS 1 AND 2 FOR SCHEMATIC.
 NOTES: (UNLESS OTHERWISE NOTED)

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CHECKED BY: _____ DATE: _____		TITLE: SERVICE DIAGRAM, COMBINED (PCB assy) CYBER-TWIN SE HOST	
APPROVED BY: _____ DATE: _____		SIZE B	DRAWING NUMBER 0064330000
DRAWN: P. CORBIN ENGR: M. WILKENS		REV. B	
DATABASE FILE: Z615P3.PCB		RELEASE DATE: 18-DEC-03	SHEET 3 OF 3

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 615	18-DEC-03	MDW
B	EC 3038	07-FEB-04	MDW



5. THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0064360000 AND PCB ASSEMBLY P/N 0064359000.
4. ALL DIODES ARE 1N4448.
3. ALL POLARIZED CAPACITORS IN μ F, 20%; 15V MINIMUM.
2. ALL UNPOLARIZED CAPACITORS IN μ F, 10% OR BETTER; 16V MINIMUM. (POWER SUPPLY BYPASS CAPACITORS ARE 20%).
1. ALL RESISTORS IN OHMS, 5%; 1/10W.
- 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 AUTHORIZATION FROM FENDER MUSICAL INSTRUMENTS.

Fender MUSICAL INSTRUMENTS
Corona, CA USA

CHECKED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____

DRAWN: S. HOSNER ENGR: C. ADAMS DATABASE FILE: Z619S4.SCH

TITLE: SERVICE DIAGRAM, COMBINED (schematic)
CYBER-TWIN SE FRONT PANEL

SIZE	D	DRAWING NUMBER	0064361000	REV.	B
RELEASE DATE:	18-DEC-03	SHEET:	1 OF 2		

8 | 7 | 6 | 5 | 4 | 3 | 2 | 1

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 615	18-DEC-03	MDW
B	EC 3038	07-FEB-04	MDW

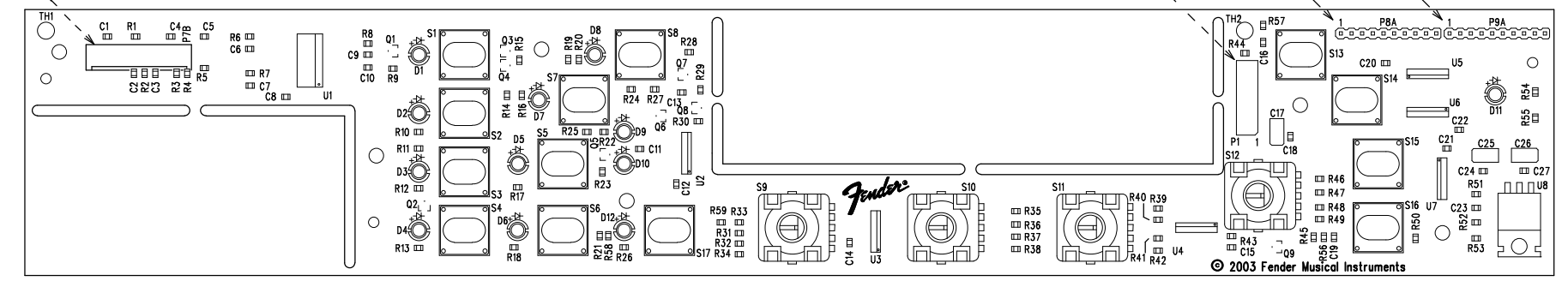
D
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P7B MOUNTS ON BACK SIDE OF PCB.

P1 MOUNTS ON BACK SIDE OF PCB.

P8A AND P9A MOUNT ON BACK SIDE OF PCB.



FILM/DWG: SERVICE DIAGRAM
 DATABASE: Z615P4.PCB DATE: 07-FEB-04

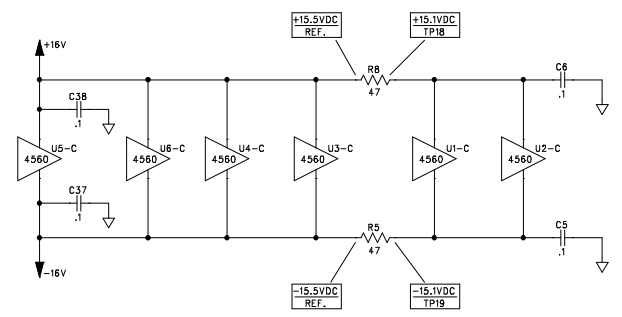
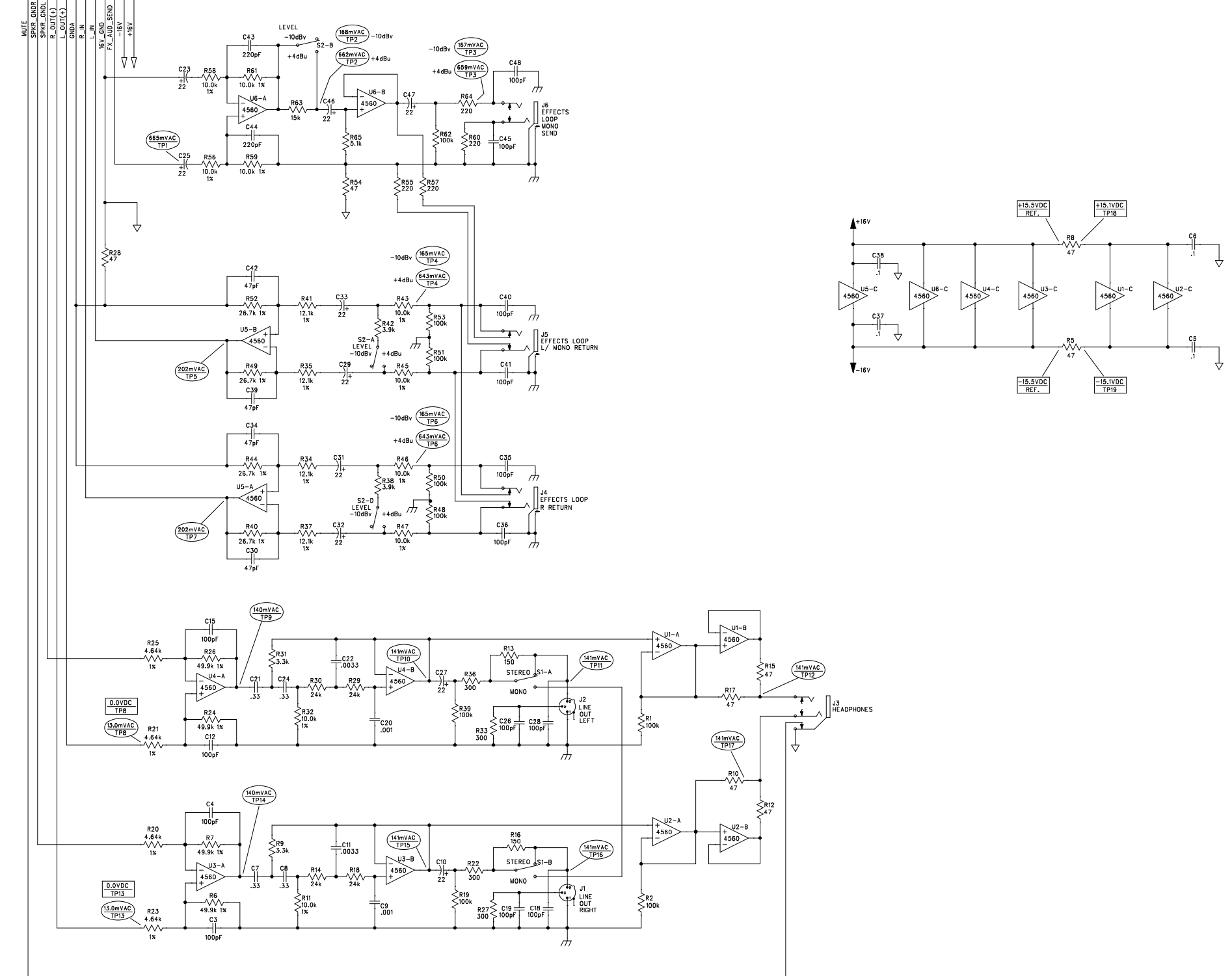
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CHECKED BY: _____ DATE: _____		TITLE: SERVICE DIAGRAM, COMBINED (PCB assy) CYBER-TWIN SE FRONT PANEL	
APPROVED BY: _____ DATE: _____		SIZE C	DRAWING NUMBER 0064361000
DRAWN: P. CORBIN	ENGR: M. WILKENS	RELEASE DATE: 18-DEC-03	REV. B SHEET 2 OF 2
DATABASE FILE: Z615P4.PCB			

1. SEE SHEET 1 FOR SCHEMATIC.
 NOTES: (UNLESS OTHERWISE NOTED)

8 | 7 | 6 | 5 | 4 | 3 | 2 | 1

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PR 615	18-DEC-03	MDW

TO MAIN ANALOG BOARD P3A

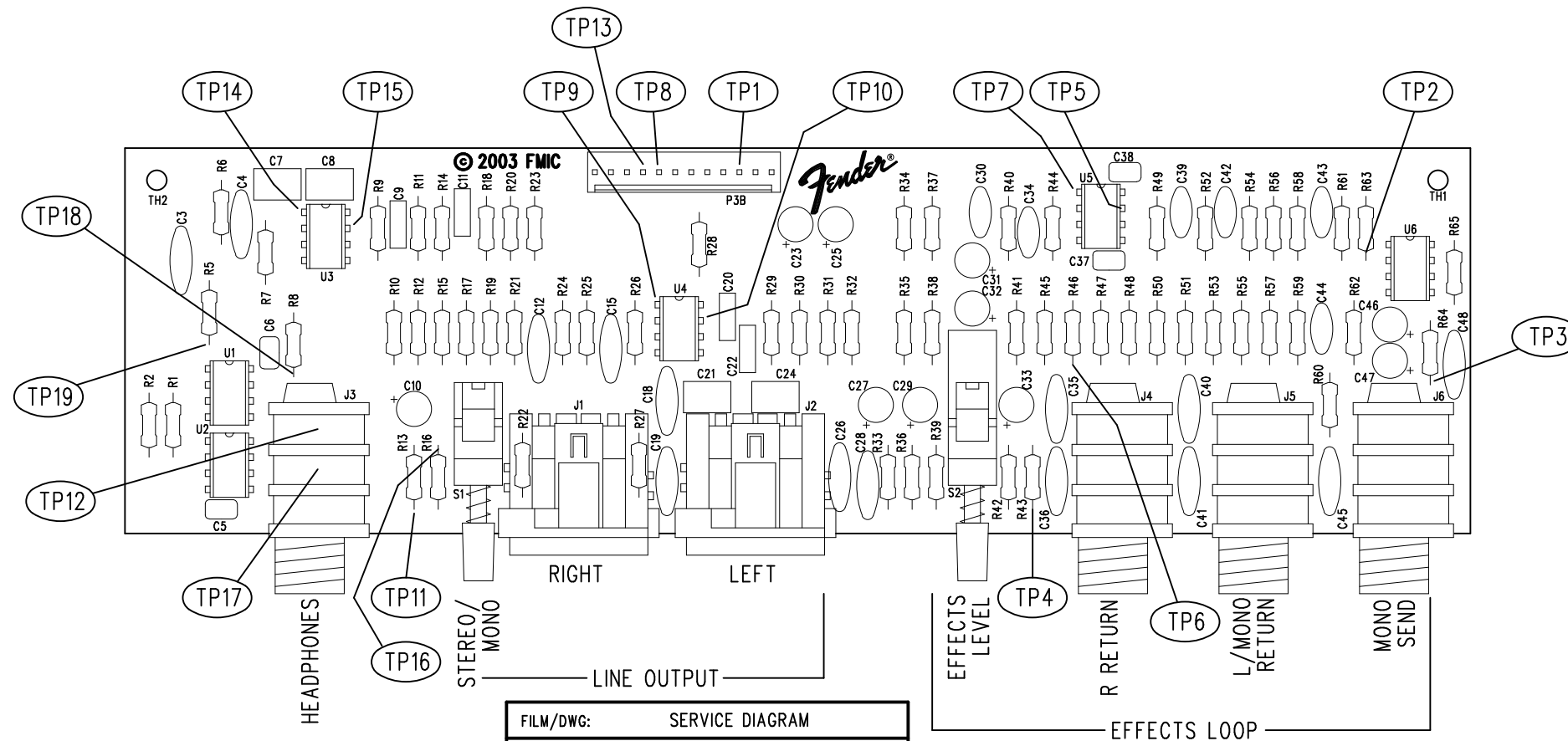


9. INSTANCES NOT USED: C1 C2 C3 C4 C16 C17 R3 R4.
 8. AC TESTPOINT VOLTAGES READ TO CHASSIS GROUND WITH A TRUE RMS DVM OF AT LEAST 1M ohm INPUT IMPEDANCE UNDER THE FOLLOWING CONDITIONS:
 UNIT AT RATED LINE VOLTAGE.
 UNIT SET TO FIELD TEST #1 (SEE SVC DIAG 0064397000 FOR INSTRUCTIONS).
 TRM CONTROL SET TO 50% ROTATION (5-1/2").
 1kHz 4mVAC SINEWAVE INPUT AT J2 (TP1).
 8Ω RESISTIVE LOADS CONNECTED AT P20A, P21A AND P22A, P23A.
 FOOTSWITCH CONNECTED (ONLY READ TO TEST FOOTSWITCH OPERATION).
 NO MIDI CABLE(S) INSTALLED.
 NOTHING PLUGGED INTO HEADPHONE JACK.
 ALL AC VOLTAGES +/- 20%.
 7. DC TESTPOINT VOLTAGES READ TO CHASSIS GROUND WITH A DVM OF AT LEAST 1M ohm INPUT IMPEDANCE WITH NO INPUT SIGNAL. UNIT SET TO FIELD TEST #1 AND AT RATED LINE VOLTAGE. ALL VOLTAGES +/- 20%.
 SEE SERVICE DIAGRAM 0055766000 FOR FIELD TEST INSTRUCTIONS.
 6. LAST REFERENCE DESIGNATORS: C58 J6 P38 R65 S2 TP19 U6
 5. THIS SCHEMATIC IS FOR PCB FABRICATION P/N 0064450000 AND PCB ASSEMBLY P/N 0064459000.
 4. ALL DIODES ARE 1N4448.
 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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CHECKED BY: _____	TITLE: SERVICE DIAGRAM, COMBINED (schematic) CYBER-TWIN SE ANALOG I/O PCB		
DATE: _____	APPROVED BY: _____	SIZE: D	DRAWING NUMBER: 0064451000
APPROVED BY: _____	DATE: _____	RELEASE DATE: 18-DEC-03	REV. A
DRAWN: M.WILKENS ENGR: M.WILKENS	DATABASE FILE: Z615S2.SCH	SHEET: 1 OF 2	

REVISIONS

REV.	DESCRIPTION	DATE	APPROVED
A	PR 615	18-DEC-03	MDW



FILM/DWG: SERVICE DIAGRAM
 DATABASE: Z615P2.PCB DATE: 18-DEC-03

1. SEE SHEET 1 FOR TEST CONDITIONS AND TESTPOINT VALUES.
 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 AUTHORIZATION FROM FENDER MUSICAL INSTRUMENTS.

CHECKED BY: _____
 DATE: _____

APPROVED BY: _____
 DATE: _____

DRAWN: M.WILKENS ENGR: M. WILKENS

DATABASE FILE: Z615P2.PCB

Fender MUSICAL INSTRUMENTS
 Corona, CA USA

TITLE: SERVICE DIAGRAM, COMBINED (PCB assy)
 CYBER-TWIN SE
 ANALOG I/O BOARD

SIZE B	DRAWING NUMBER 0064451000	REV. A
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RELEASE DATE: 18-DEC-03 SHEET 2 OF 2