

# MX-5200 SERIES

## PROFESSIONAL MIXING CONSOLES

# SERVICE MANUAL

# MX-5200 SERIES

(This is the model name for warranty claims)

OCTOBER 1995

### IMPORTANT NOTICE:

The information contained herein is CONFIDENTIAL and PROPRIETARY to Fender Musical Instruments Co. It is disclosed solely for use by qualified technicians for purposes of equipment maintenance and service. It is not to be disclosed to others without the expressed permission of Fender Musical Instruments Co. All specifications subject to change without notice.

Part numbers ending with the three digit suffix "001" indicate a component prepped with long leads.

For warranty repair service, only Fender specified part numbers are to be used. It is recommended they also be used for post-warranty maintenance and repair.

Parts marked with an asterick (\*) indicate the required use of that specific part. This is necessary for RELIABILITY and SAFETY requirements. **DO NOT USE A SUBSTITUTE!**

A coded naming convention is used in the description of certain parts. The codes and what they mean are as follows:

#### CAPACITOR CODES

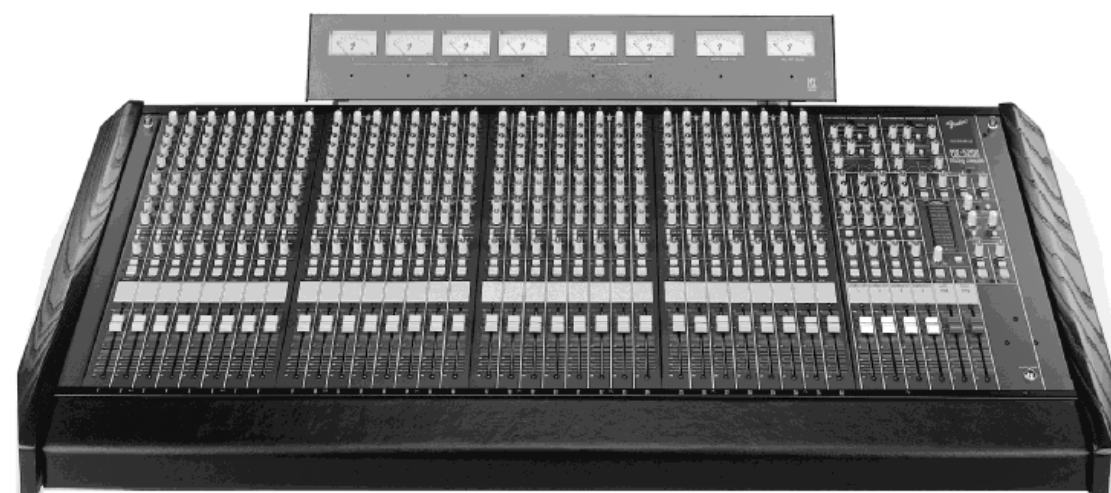
CAP AE = Aluminum Electrolytic  
 CAP CA = Ceramic Axial  
 CAP CD = Ceramic Disk  
 CAP MPF = Metalized Polyester Film  
 CAP MY = Mylar  
 CAP PFF = Polyester Film/Foil

#### HARDWARE CODES

BLX = Black Oxide  
 CR = Chrome Plated  
 HWH = Hex Washer Head  
 M = Machine Screw  
 NI = Nickel Plated  
 OHP = Oval Head Phillips  
 PB = Particle Board  
 PHP = Pan Head Phillips  
 PHPS = Pan Head Phillips Sems  
 SMA = Sheet Metal "A" Point  
 SMB = Sheet Metal "B" Point  
 SS = Stainless Steel  
 TF = Thread Forming  
 ZI = Zinc Plated

#### RESISTOR CODES

RES CC = Carbon Comp  
 RES CF = Carbon Film  
 RES FP = Flame Proof  
 RES MF = Metal Film  
 RES WW = Wire Wound



MX-5216 p/n 071-5216-000

MX-5224 p/n 071-5224-000

MX-5232 p/n 071-5232-000

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# SPECIFICATIONS

Specifications are subject to change without notice.

<b>Frequency Response:</b>	20Hz. to 40kHz. $\pm$ 1dB
<b>Distortion:</b>	< .025%, 20Hz to 20kHz (Mic input to any line level mixer output)
<b>Signal to Noise Ratio:</b>	> 90 dBu (ref. +4 dBu), all channels assigned and at unity gain
<b>Microphone Equivalent Input Noise:</b>	-133.8 dBv input shorted, -131.5 dBv 150 ohms source impedance
<b>Max. Output Level:</b>	+28 dBu on all balanced outputs +22 dBu on all unbalanced outputs
<b>Max. Gain:</b>	90 dB (Mic input to balanced main output) 84 dB (Mic input to unbalanced sub output)
<b>Dynamic Range:</b>	116 dB (20 Hz to 20 kHz)
<b>Adjacent Channel Crosstalk:</b>	-85 dB
<b>Mic Input Gain:</b>	50 dB
<b>Line Input Gain:</b>	40 dB
<b>Channel Fader Gain:</b>	10 dB
<b>Channel Fader Attenuation:</b>	106 dB
<b>Dimensions:</b>	
Height:	6.53" (16.6cm)
Width:	MX5216 33" (84cm) MX5224 42" (107cm) MX5232 51" (130cm)
Depth:	24.5" (62.2cm)
Weight:	MX5216 39 lbs (17.7 kg) MX5224 52 lbs (23.6 kg) MX5232 65 lbs (29.5 kg)
CPSM-4 Power Supply:	Height: 4.75" (12cm) Width: 8.5" (21.6cm) Depth: 13.125" (33.3cm) Weight: 17 lbs (7.7 kg)

# METER CALIBRATION

## METER CALIBRATION PROCEDURE

Metering of any input or output is provided by two twelve segment LED bargraphs, with VU ballistics. The meter circuit features a peak-hold function, which makes it easier to see the actual peak. The peak-hold function can be disabled by grounding pin 11 of U53 and U63 (LB1412) at P96. Refer to schematic MX52XX MASTER SECTION P/N 047696 sheet 4 of 4.

There is one calibration trim pot for each bargraph meter. The trim pots are accessible through two holes located at the top of the meters. The factory setting is for 0 dBu = 0.775 VRMS.

Typical "0" meter levels:

0.775 Vrms (0 dBu) Factory setting (For most applications this is the desired calibration).  
1.228 Vrms (+4 dBu) If mostly "Pro" equipment is connected to the mixer.  
0.316 Vrms (-10 dBu) If mostly "consumer" or semi-pro equipment is connected to the mixer.

Inject a 1kHz sine wave at the desired RMS voltage level into the TAPE L, RCA (phono) jack. Make sure none of the mixer's Solo switches are engaged.

Press the 2 TRACK PLAYBACK switch, located in the CONTROL ROOM section of the Master module.

Adjust the trim pot so the first yellow segment of the meter just begins to turn on.

Repeat the above procedure for the right meter, using the TAPE R input.

## IMPORTANT NOTE:

**When using the meters in conjunction with the various Solo switches, the SOLO LEVEL control must be turned up to maximum. This is the calibrated position to accurately meter the solo bus level. If the SOLO LEVEL control is not at maximum, the meter reading will be below the real output level of the soloed output.**

## **BUS CONFIGURATION**

### **AUXILIARY BUS PRE/POST CONFIGURATION**

The standard factory MX-5200 Auxiliary Bus configuration is:

- Aux 1/3 routes the post-EQ/post-fader signal to Auxiliary Buses 1 or 3.
- Aux 2/4 routes the pre-EQ/pre-fader signal to Auxiliary Buses 2 or 4.

Internal jumpers allow this configuration to be changed to the following:

- Post-EQ/post-fader or post-EQ/pre-fader on all Aux sends (1 through 4).
- Pre-or post-fader on all Aux Sends (1 through 4).

In addition, when the channel MUTE switch is engaged, the post-EQ/post-fader signal is muted, but the pre-EQ/pre-fader signal is not. This allows the channel to be "cued" in the PFL solo system, even if the channel is muted.

### **MONITOR BUS PRE/POST CONFIGURATION**

- Pre-EQ/pre-fader or post-EQ/post-fader to Monitor 1 and Monitor 2, switch-selectable.

Internal jumpers allow this configuration to be changed to the following:

- Post-EQ/pre-fader or post-EQ/post-fader signal to Monitor 1 and Monitor 2.

### **CHANGING THE PRE/POST CONFIGURATION**

The pre/post jumpers are actually three adjacent solder pads. They are located directly next to the MONITOR PRE/POST switches. The circuit board does not need to be removed from the panel, as the pads are accessible from the solder side of the PC board. A small connecting trace between two of the pads sets the factory jumper configuration. When changing the factory configuration, the trace must be cut to break the existing connection. To connect the desired pads, simply create a solder bridge across them. The jumpers are labeled (PX3,4,5), and the square pad indicates the number one (1) pad. PX3 selects pre/post EQ and is always pre-fader. PX4 selects between pre/post fader for AUX 2/4. PX5 selects pre/post fader for AUX 1/3. Refer to the Input Channel schematic P/N 047688 sheet 1 of 2 for pin outs.

## **PANEL REMOVAL**

Remove the top trim piece. The screws are located above the rear patch bay.

Remove the two (2) flathead screws at the top of the panel.

Slide the panel towards the patch bay until the lower edge of the panel exits the retaining slot.

Lift the panel straight up about 1 inch above the chassis.

Raise the bottom (Fader end) of the panel up to a near vertical position.

Gently rest the top edge of the panel onto the top of the chassis.

Use a support stick to hold up the panel similar to the hood of a automobile.

**\*\*\*\*\*CAUTION\*\*\*\*\***

**DO NOT RAISE OR LOWER THE BOTTOM OF THE PANEL WITHOUT HOLDING THE TOP OF THE PANEL UP OFF OF THE CHASSIS. PIVOTING THE TOP OF THE PANEL AGAINST THE CHASSIS WILL SEVERELY DAMAGE THE PC BOARD, TRIM POTS AND OTHER COMPONENTS.**

## **INTERCONNECTS**

There are many ribbon cables (Cable Assemblies) used as interconnects between circuit boards. The connection points are all labeled, i.e. P58 on the master board connects to P58A on the master I/O board. Use caution when reconnecting the cables as it is easy to connect them incorrectly (one pin off). On power supply interconnects, this can cause major damage to various components.

**Use caution!**

# PARTS LIST

## 8 CHANNEL INPUT I/O PRINTED CIRCUIT BOARD ASSEMBLY

### NOTES:

AN "X" IN A REFERENCE DESIGNATOR EQUALS 1-8.  
8 INPUT CHANNELS PER CIRCUIT BOARD.  
QUANTITIES LISTED ARE FOR 8 CHANNELS.

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
	047694001	PCB ASSY MX52XX INPUT I/O	(STUFFED)
2	031069	CAP AE RDL 10μF 100V 20%	C5,6
24	028463	CAP AE RDL 10μF 50V 20%	CX03,X04,X07
16	047195	CAP AE RDL 47μF 63V	CX01,X02
8	039256001	CAP CA 68PF 100V LL	CX05
8	033580	CAP PFF RDL .0022μF 100V 10%	CX26
32	027327001	DIODE ZEN 1N5234B 6.2V 5% LL	CRX01,X02,X03,X04
2	025802	FSTN TAB MALE .25OX.032 PCB MT	CP4,6
9	027411	HDR .1 CTR 4 CKT SQ PIN	PIA,PXIA
16	047175	JACK PHONE STEREO CLOSED CKT	JX2,X3 (Line Input & Insert)
8	030762	JACK XLR FM PC VERT MT (A/D)	JX1
1	047692	PCB FAB INPUT I/O MX5232	(RAW PCB)
16	016966001	RES MF 1/4W 1% 14.7K	RX07,X08
16	024997001	RES CF 1/4W 5% 100K	RX05,X06
16	047173001	RES MF 1/2W 1% 6.81K	RX01,X02

# PARTS LIST

## 8 CHANNEL INPUT PRINTED CIRCUIT BOARD ASSEMBLY

### NOTE:

AN "X" IN A REFERENCE DESIGNATOR EQUALS 1-8.  
8 INPUT CHANNELS PER CIRCUIT BOARD.  
QUANTITIES LISTED ARE FOR 8 CHANNELS.

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	047691001	PCB ASSY MX5200 INPUT LL	(STUFFED)
14	028463	CAP AE RDL 10μF 50V 20%	C1,2,902,905,912,915,CX19
8	028458	CAP AE RDL 1μF 50V 20%	CX22
10	028467	CAP AE RDL 22μF 50V 20%	C901,911,CX13
16	028471	CAP AE RDL 47μF 50V 20%	CX08,X18
8	028475	CAP AE RDL 100μF 35V	CX21
8	028490	CAP AE RDL 1000μF 6.3V	CX06
12	038699001	CAP CA 100PF 100V LL	C903,904,913,914,CX20
8	039255001	CAP CA 10PF 100V LL	CX23
16	039259001	CAP CA 220PF 100V LL	CX24,X25
16	038698001	CAP CA 47PF 100V LL	CX12,X17
49	047198	CAP CD .1μF 50V	C3, CBP(48 bypass caps use the CBP designator)
8	027259	CAP MPF .0033μF 100V	CX10
8	027262	CAP MPF .0068μF 100V	CX15
8	027269	CAP MPF .033μF 63V 10%	CX14
8	027278	CAP MPF .1μF 63V 10%	CX09
8	047199	CONTROL VERT 2KB W/DETENT	RX57 (Pan)
8	047218	CONTROL VERT 15K 694Z	RX09 (Trim)
8	047200	CONTROL VERT 20KB W/DETENT	RX24 (Mid)
16	041082	CONTROL VERT 50K B W/DETENT	RX16,X20 (Low, High)
8	047192	CONTROL VERT DUAL 100K 15C	RX27 (Mid Frequency)
32	047177	CONTROL VERT 100KB	RX47,X49,X51,X53 (Aux, Monitor)
40	006260001	DIODE 1N4448 SIGNAL LL	CRX05-X09
2	031017001	DIODE ZEN 1N5223B 2.7V 5% LL	CR903,913
6	027327001	DIODE ZEN 1N5234B 6.2V 5% LL	CR1,2,901,902,911,912
25	027411	HDR .1 CTR 4 CKT SQ PIN	P1,2A,2B,4A,4B,6,16,56,7,PX1,PX2
3	027416	HDR .1 CTR 8 CKT SQ PIN	P3A,3B,5
8	028120	IC 4053B TPL 2 CHAN ANLG SW	UX5
8	047212	IC AUDIO PREAMP SSM-2017P	UX1
8	016795	IC DUAL OP AMP TL072	UX3
2	028047	IC OP AMP MC1436/SG1436Y	U901,911
8	033281	IC OP-AMP DUAL 5532	U12,14,32,34,52,54,72,74

# PARTS LIST

## 8 CHANNEL INPUT PRINTED CIRCUIT BOARD ASSEMBLY CONTINUED

QTY	PART #	DESCRIPTION	REFERENCE	DESIGNATION
8	047179	LED AMBER T1	LDX1	
16	030754	LED RED T-1 3MM DIFFUSED	LDX2,X3	
1	047689	PCB INPUT MX5232	(RAW PCB)	
1	041852001	RES CF 1/6W 5% 1K LL	R7	
8	047236001	RES CF 1/6W 5% 20K LL	RX70	
2	027747001	RES MF FUZE 1/4W 5% 2.2Ω LL	R3,4	
16	024947001	RES CF 1/4W 5% 47Ω LL	RX14,X33	
18	024952001	RES CF 1/4W 5% 100Ω LL	R907,917,RX11,X38	
8	029606001	RES CF 1/4W 5% 510Ω LL	RX36	
24	024965001	RES CF 1/4W 5% 1K LL	RX43,X44,X46	
2	024967001	RES CF 1/4W 5% 1.2K LL	R901,911	
8	028862001	RES CF 1/4W 5% 1.3K LL	RX29	
16	024969001	RES CF 1/4W 5% 1.5K LL	RX26,X28	
8	029005001	RES CF 1/4W 5% 2K LL	RX42	
40	024971001	RES CF 1/4W 5% 2.2K LL	RX19,X21,X23,X25,X45	
8	024972001	RES CF 1/4W 5% 2.7K LL	RX69	
2	016957001	RES MF 1/4W 1% 2.74K LL	R903,913	
8	029610001	RES CF 1/4W 5% 3K LL	RX68	
16	016958001	RES MF 1/4W 1% 3.32K LL	RX03,X04	
24	024977001	RES CF 1/4W 5% 4.7K LL	RX15,X17,X37	
41	024981001	RES CF 1/4W 5% 10K LL	R5,RX13,X18,X31,X32,X66	
2	031818001	RES MF 1/4W 1% 18.2K LL	R906,916	
80	029006001	RES CF 1/4W 5% 20K LL	RX48,X50,X52,X54,X58-X63	
8	028865001	RES CF 1/4W 5% 30K LL	RX67	
16	024994001	RES CF 1/4W 5% 56K LL	RX64,X65	
8	024995001	RES CF 1/4W 5% 68K LL	RX41	
40	024997001	RES CF 1/4W 5% 100K LL	RX12,X30,X35,X39,X40	
2	025061001	RES CF 1/4W 5% 330K LL	R902,912	
8	025069001	RES CF 1/4W 5% 1M LL	RX22	
2	025937001	RES CF 1/2W 5% 22Ω LL	R908,918	
4	027869001	RES CF 1/2W 5% 470Ω LL	R1,2,904,914	
16	027872001	RES CF 1/2W 5% 1.2K LL	RX55,X56	
2	025113001	RES CF 1/2W 5% 10K LL	R905,915	
14	031188	SCRW M 4-40X1/4 PHPS ZI W/WSHR	@Standoffs	
24	047176	SPACER LED .5X.18	@LDX1-X3	
12	033275	STANDOFF 4X5/8" RND AL	(Mounting for input PCB to panel)	
58	041079	SWITCH DPDT ALT-ACT	S1,2,SX1-X7	
16	016739	XSTR NPN 2N4401 TO-92	QX1,X2	
2	028760	XSTR NPN 2SC3298A TOP-220	Q901,911	

# PARTS LIST

## PANEL ASSEMBLY 8 CHANNEL INPUT

QTY	PART #	DESCRIPTION	REFERENCE	DESIGNATION
	047703	PANEL ASSY INPUT MX5200		PCB mounted in panel
8	041832	BUTTON SWITCH 5.5X10MM GRAY		@Solo switches(SX6)
42	041831	BUTTON SWITCH 5.5X5.5MM GRAY		@All switches other than Mute and Solo(S1,2,SX1-5)
8	047169	BUTTON 12MM SQ. GREY		@Mute Switches(SX7)
8	047171	CONTROL SLIDE 100MM 10KA		RX34 (Fader)
32	041835	KNOB CTL CUSTOM DBL GRY/BLUE		@Aux and Mon Controls(RX47,49,51,53)
8	041837	KNOB CTL CUSTOM DBL GRY/DK GRY		@Pan Control(RX57)
32	041834	KNOB CTL CUSTOM DBL GRY/GREEN		@EQ Controls(RX16,20,24,27)
8	041833	KNOB CTL CUSTOM DBL GRY/WHT		@Trim Control(RX09)
8	041069	KNOB SLIDER 15MM LT GRAY/BLACK		@Faders
1	047736	PANEL TOP INPUT MX		Panel only
16	9904101070	SCREW M 3X5MM PHIL PANM/S B/O		Mounting Faders to Panel
12	014172	SCREW M 4-40X1/4 PHP BLX		Mounting PC Assembly to Panel

# PARTS LIST

# PARTS LIST

## OUTPUT I/O PRINTED CIRCUIT BOARD ASSEMBLY

### NOTES:

"X" IN A REFERENCE DESIGNATOR = 1-4  
 "Y" IN A REFERENCE DESIGNATOR = 5-6  
 "Z" IN A REFERENCE DESIGNATOR = 7-8

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	047702	PCB ASSY MX5200 OUTPUT I/O	(STUFFED)
3	025802	FSTN TAB MALE .250X.032 PCB MT	CP6,7
1	027408	HDR .1 CTR 2 CKT SQ PIN	P79A
17	027411	HDR .1 CTR 4 CKT SQ PIN	PX8A,X9A,PY8A,Y9A,P76A-78A, P89A,P93A
1	027416	HDR .1 CTR 8 CKT SQ PIN	P88A
14	047175	JACK PHONE STEREO CLOSED CKT	JX1,X3,X4,JY1
17	047174	JACK PHONE STEREO OPEN CKT	J1,JX2,X5,JY3,Y4,JZ1,Z3
1	040181	JACK PHONO DUAL VERT PC MOUNT	J2
4	040412	JACK XLR MALE (A/D XLM-3PV)	JY2,JZ2
1	047700	PCB OUTPUT I/O MX5232	PCBI
4	047241	RES CF 1/6W 5% 47Ω	RX19
10	047750	RES CF 1/2W 5% 330Ω	R9,10,RY20,Y21,RZ11,Z12
3	048831	SOCKET IC 14 PIN DIP	P97-99

## OUTPUT/MASTER PRINTED CIRCUIT BOARD ASSEMBLY

### NOTES:

"X" IN A REFERENCE DESIGNATOR = 1-4  
 "Y" IN A REFERENCE DESIGNATOR = 5-6  
 "Z" IN A REFERENCE DESIGNATOR = 7-8

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	047699001	PCB ASSY MX5200 OUTPUT LL	(STUFFED)
1	047217	CABLE JUMPER 2-CKT .1X8.5	@P10,P10A
18	028458	CAP AE RDL 1μF 50V 20%	CX06,X41,X43,CY06,Y20,CZ06
5	028460	CAP AE RDL 4.7μF 50V 20%	C5,CY19,Y21
43	028463	CAP AE RDL 10μF 50V 20%	C1,2,11,CX04,X07,X42,X44,X83, CY04,Y08,Y10,Y11,Y13,Y14,Y16, Y17,Y22,CZ03
27	028471	CAP AE RDL 47μF 50V 20%	C12,CX03,X09,X82,CY03,Y90,CZ02, Z07,Z19,Z26,Z27
1	028474	CAP AE RDL 100μF 25V 20%	C6
2	028475	CAP AE RDL 100μF 35V	C9,10
1	047194	CAP AE RDL 100μF 63V	C7
2	039255001	CAP CA 10PF 100V LL	CY18
16	038873001	CAP CA 22PF 100V LL	CX01,X81,CY01,Y09,Y12,CZ01
22	038698001	CAP CA 47PF 100V LL	C3,4,CX02,X84,CY02,Y07,Y15, CZ04,Z05,Z18
10	038699001	CAP CA 100PF 100V LL	CX05,CY05,CZ20,CZ25
4	039259001	CAP CA 220PF 100V LL	CZ12,Z17
75	034788	CAP CD .1μF 50V20% .15" CUT	CBP(All 75 bypass caps use the CBP reference designator.)
1	027278	CAP MPF .1μF 63V 10%	C8
4	030926	CAP PFF RDL 470PF 50V 5%	CZ23,Z24
4	030939	CAP PFF RDL .0039μF 50V 5%	CZ08,Z10
8	030953	CAP PFF RDL .039μF 50V 5%	CZ09,Z11,Z13,Z15
4	048488	CAP PFF RDL .22μF 50V 5%	CZ21,Z22
4	047197	CAP PFF RDL .39μF 50V 5%	CZ14,Z16
2	047181	CONTROL TRIM MULTITURN 100K	R548,648 (Meter Adjust)
8	041080	CONTROL VERT 10K B W/DETENT	RX23,X49 (Pan)
11	041083	CONTROL VERT 50K 15A	R1(Mono Level),RX84(Auxillary Level), RZ04(Monitor Level), RZ23,RZ33(Parametric "Bandwidth")
4	041082	CONTROL VERT 50K B W/DETENT	RZ20,Z30 (Parametric "Cut/Boost")
4	047193	CONTROL VERT DUAL 50K 15C	RZ26,Z36 (Parametric "Frequency")
4	047192	CONTROL VERT DUAL 100K 15C	RZ48,Z50 (Low Cut, High Cut)

## PARTS LIST

### OUTPUT/MASTER PRINTED CIRCUIT BOARD ASSEMBLY CONTINUED

QTY	PART #	DESCRIPTION	REFERENCE	DESIGNATION
7	047178	CONTROL VERT DUAL 100KB	R534(Control Room), R627(Solo Level), R640(Headphone),RX50(Return Level)	
8	047177	CONTROL VERT 100KB	RX60,X64 (Return to Monitor 1,2)	
39	006260001	DIODE 1N4448 SIGNAL LL	CR1-7,CRX1-X5,CRY1-Y3,CRZ1-Z3	
5	025802	FSTN TAB MALE .250X.032 PCB MT	CP1-5	
4	027408	HDR .1 CTR 2 CKT SQ PIN	P7A,7B,79,95	
30	027411	HDR .1 CTR 4 CKT SQ PIN	P2,4,76-78,89,91-94,91A,92A, PX7-9,PY7-9	
11	027416	HDR .1 CTR 8 CKT SQ PIN	P3,P5A-D,P6A-D,P8,P88	
1	047221	HEADER 6 CKT BLOK LOC	P9	
11	016795	IC DUAL OP AMP TL072	U3,4,77,UZ3-6	
2	041091	IC LED DRIVER 12 SEG LB1412	U53,63	
24	033281	IC OP-AMP DUAL 5532	U1,2,5,12,32,72,UX1,X3,X4,UY1,Y2,UZ1	
1	047174	JACK PHONE STEREO OPEN CKT	J3	
1	020888001	JUMPER WIRE 22GA	W1	
15	047179	LED AMBER T1	LD1,LDX3-5,LDZ2	
2	041090	LED ARRAY,12 SEG	LDY3	
1	030755	LED GREEN T-1 3MM DIFFUSED	LD2	
16	030754	LED RED T-1 3MM DIFFUSED	LDX1,X2,LDY1,Y2,LDZ1,Z3	
1	047697	PCB OUTPUT MX5232	PCB1	
2	047240001	RES CF 1/6W 5% 33Ω	RY43	LL
37	047241001	RES CF 1/6W 5% 47Ω	R3,7,8,RX05,X16,X86,X87,X88, RY05,Y18,Y19,Y31,Y39,RZ06,Z10	LL
2	047242001	RES CF 1/6W 5% 430Ω	RZ55	LL
8	047731001	RES CF 1/6W 5% 620Ω	RX29,X56	
23	041852001	RES CF 1/6W 5% 1K	R12,14,22,166,366,RX14,X33,X91, RY14,RZ18,Z60	
14	047234001	RES CF 1/6W 5% 1.8K	RY33,RZ25,Z27,Z28,Z35,Z37,Z38	LL
6	049083001	RES CF 1/6W 5% 2.2K	RX09,RY09	LL
14	047237001	RES CF 1/6W 5% 3K	RX83,RZ03,Z22,Z32,Z41,Z42	LL
4	041855001	RES CF 1/6W 5% 3.3K	RZ46,Z47	
4	047239001	RES CF 1/6W 5% 3.6K	RZ29,Z39	LL
2	047205001	RES CF 1/6W 5% 4.3K	RZ45	
8	047243001	RES CF 1/6W 5% 4.7K	RX10,RY10,Y49	LL
20	047246001	RES CF 1/6W 5% 5.6K	RX21,X22,X47,X48,RY36,RZ53	LL
11	041857001	RES CF 1/6W 5% 6.8K	R21,RZ24,Z34,Z44,Z49,Z51	
48	041848001	RES CF 1/6W 5% 10K	R5,6,RX03,X43,X46,X58,X59,X62,X63, RY03,Y16,Y17,Y29,Y37,Y41,RZ08,Z09 Z52	

## PARTS LIST

### OUTPUT/MASTER PRINTED CIRCUIT BOARD ASSEMBLY CONTINUED

QTY	PART #	DESCRIPTION	REFERENCE	DESIGNATION
6	047233001	RES CF 1/6W 5% 11K	LL	RX04,RY04
4	047235001	RES CF 1/6W 5% 15K	LL	RZ40,Z43
16	041858001	RES CF 1/6W 5% 18K		RX24,X27,X51,X53
28	047236001	RES CF 1/6W 5% 20K	LL	RX26,X55,X61,X65,X81,RY24,Y35, Y55,RZ01
2	047238	RES CF 1/6W 5% 30K		RY25
18	049085001	RES CF 1/6W 5% 36K	LL	RX01,X25,X54,RY01,Y23,Y30
8	049084001	RES CF 1/6W 5% 56K	LL	RX28,X52
8	047247001	RES CF 1/6W 5% 68K	LL	RX12,RY12,RZ16
77	041820	RES CF 1/6W 5% 100K		R2,4,13,15,16,17,18,RX06,X08,X11, X20,X32,X41,X42,X44,X45,X85,X89 RY06,Y08,Y11,Y22,Y28,Y38,Y90, RZ05,Z15,Z19,Z21,Z31,Z54
2	041821001	RES CF 1/6W 5% 330K		RY42
3	047244001	RES CF 1/6W 5% 470K	LL	R19,RY47
8	049505001	RES CF 1/6W 5% 1M		RZ56,Z57,Z58,Z59
14	024963001	RES CF 1/4W 5% 680Ω	LL	RX02,X82,RY02,Y26,RZ02
10	024964001	RES CF 1/4W 5% 820Ω	LL	R550-554,650-654
8	029453001	RES CF 1/4W 5% 1.6K	LL	RX13,RY13,RZ17
8	024970001	RES CF 1/4W 5% 1.8K	LL	RX30,X57
16	029610001	RES CF 1/4W 5% 3K	LL	R11,20,RX15,X90,RY15,RZ07,Z14
2	024997001	RES CF 1/4W 5% 100K	LL	RZ13
4	025937001	RES CF 1/2W 5% 22Ω	LL	RY44,Y45
2	027628	RES FILM 2W 5% 47Ω		RY46
14	031188	SCRW M 4-40X1/4 PHPS ZI W/WSHR		@Standoffs
32	047176	SPACER LED .5X.18		@LD1,2,LDX1-5,LDY1,Y2,LDZ1-3
6	041824	SPACER RND NYL .120X.187X .350		@LDY3
2	040533	STANDOFF 4-40X.937		(Mounting for small breakaway PCB, Phantom power)
12	033275	STANDOFF 4X5/8" RND AL		(Mounting for main PCB)
2	047180	SWITCH 4P3T SLIDE		S71,81
38	041079	SWITCH DPDT ALT-ACT		S1-4,SX1-X6,SY1,SZ2-Z5
5	014689	XSTR N-CH JFET J111 TO -92		Q3,QY3,Y4
17	016739	XSTR NPN 2N4401 TO-92		Q2,QX1,X2,QY1,Y2,QZ1,Z2
2	014867	XSTR NPN MPSW10 TO-226AE		QY5
2	014866	XSTR PNP MPSW92 TO-226AE		QY6
1	016742	XSTR PNP 2N4403 TO-92		Q1

# PARTS LIST

# PARTS LIST

## PANEL ASSEMBLY OUTPUT/MASTER

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	047704	PANEL ASSY OUTPUT MX5200	PCB mounted in panel
15	041832	BUTTON SWITCH 5.5X10MM GRAY	@Solo switches(S1,SX3,5,6,SZ2)
15	041831	BUTTON SWITCH 5.5X5.5MM GRAY	@All switches other than Mute and Solo(S2-3,SX2,4,SZ4,5)
8	047169	BUTTON 12MM SQ. GREY	@Mute switches(SX1,SY1,SZ2)
6	047171	CONTROL SLIDE 100MM 10KA	RX07,Y07
4	041836	KNOB CTL CUSTOM DBL GRY/BLACK	@Return Level Pots(RX50)
14	041835	KNOB CTL CUSTOM DBL GRY/BLUE	@pots for Aux Level(RX84), Mon Level(RZ04), and Return to Mon Level(RX60,64)
8	041837	KNOB CTL CUSTOM DBL GRY/DK GRY	@Pan Pots(RX23,49)
16	041834	KNOB CTL CUSTOM DBL GRY/GREEN	@EQ Pots(RZ20,23,26,30,33,36,48,50)
4	041833	KNOB CTL CUSTOM DBL GRY/WHT	@pots for Solo(R627), Control Room(R534), Headphones(R640), and Mono Level(R1)
2	041072	KNOB SLIDER 15MM RED/BLACK	Main Faders
4	041071	KNOB SLIDER 15MM WHITE/BLACK	@Sub 1-4 Faders
1	047737	PANEL TOP OUTPUT MX	
12	9904101070	SCREW M 3X5MM PHIL PANM/S B/O	Mounting Faders to Panel.
14	014172	SCREW M 4-40X1/4 PHP BLX	@Mounting of PC Assy to Panel.

## CHASSIS ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE DESIGNATION
1	047747	ARMREST ASSY MX5216	
1	047748	ARMREST ASSY MX5224	
1	047749	ARMREST ASSY MX5232	
1	047183	CABLE ASSY RIBBON 2CKT 3 IN	PCB INTERCONNECTS
1	047184	CABLE ASSY RIBBON 2CKT 60 IN	" "
25	049017	CABLE ASSY RIBBON 4CKT 8"	" "
8	049019	CABLE ASSY RIBBON 4CKT 16"	" "
10	049021	CABLE ASSY RIBBON 4CKT 24"	" "
1	049022	CABLE ASSY RIBBON 8CKT 30"	" "
1	049023	CABLE ASSY RIBBON 8CKT 40"	" "
	049024	CABLE ASSY RIBBON 8CKT 50"	" " (MX5224/32 ONLY)
	049025	CABLE ASSY RIBBON 8CKT 60"	" " (MX5232 ONLY)
1	047188	CABLE MX REC/M-PNL MT 1FT 6CKT	From PCB to power supply connector
1	047738	CHS BOTTOM MX5216	
2	031882	CLIP RIBBON CABLE W/ADHESIVE	
2	049043	CONNECTOR BNC PNL MNT SLDR LUG	
1	047248	CORD PWR W/IEC CONN DOM	
2	049000	JUMPER FSTN-FSTN 6" BLK	
1	047741	PANEL LEFT BNC MX	
1	047742	PANEL SIDE L MX52XX W/INSERTS	Wood end panel
1	047743	PANEL SIDE R MX52XX W/INSERTS	Wood end panel
1	047746	PLATE BTTM TRIM MX5216	
1	048891	PLATE COVER 15 PIN DOUBLE	
1	048892	PLATE COVER 25 PIN DOUBLE	
1	047733	PLATE TOP TRIM MX5216	
9	014999	SCRW M 6-32X1/4 PHP BLX	
12	031183	SCRW M 6-32X3/8 UFHP BLX	
1	026419	SCRW M 8-32X1 PHP STL NI	
14	029656	SCRW M 8-32X3/8 PHP BLX SEM/LM	
41	031868	SCRW PLASTITE 4X1/4	40@ XLR jacks, 1@ Tape In jacks
4	048890	SCRW TF 4-40X1/4 PHP BLX	2@Line Cord Connector,2@Voltage Selector Switch, 4@Circular connector
4	032806	SCRW TF 6-32X1/4 PHP BLX	



# CPSM-4 POWER SUPPLY MODULE

## PARTS LIST

THE FOLLOWING SECTION CONTAINS TWO DIFFERENT PARTS LISTS FOR THE PRINTED CIRCUIT BOARD ASSEMBLY. THE "REV A" PARTS LIST REFERS TO THE REV A CIRCUIT BOARD. THE "REV B" PARTS LIST REFERS TO THE REV B CIRCUIT BOARD. THE REVISION LEVEL IS LOCATED ON THE SOLDER SIDE OF THE PCB, ADJACENT TO THE RAW BOARD PART NUMBER (047722 A) NEAR THE CORNER, BY THE HEATSINK.

ANOTHER WAY TO IDENTIFY THE REVISION IS TO LOOK FOR THE THERMAL SWITCH LOCATED AT THE CENTER OF THE HEATSINK. THERMAL SWITCH MISSING, REV A. THERMAL SWITCH PRESENT, REV B.

ENCLOSED ARE SCHEMATICS AND SERVICE DIAGRAMS FOR BOTH VERSIONS.

"A" REVISION BOARD USE: SCHEMATIC 047721 REV C.  
SERVICE DIAGRAM 047723 REV A.

"B" REVISION BOARD USE: SCHEMATIC 047721 REV D.  
SERVICE DIAGRAM 047723 REV B.

### REV "A" MX-5200 POWER SUPPLY PRINTED CIRCUIT BOARD ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE	DESIGNATION
	047724001	PCB ASSY MX5200 PWR SUPPLY	(STUFFED)	
5	038692001	CAP AE AX 10µF 35V	C8,9,13,14,20	
1	031069	CAP AE RDL 10µF 100V 20%	C17	
2	025960001	CAP AE AX 22µF 16V	C7,12	
4	031040	CAP AE RDL 100µF 100V 20%	C5,6,10,11	
1	028494	CAP AE RDL 1000µF 35V 20%	C19	
1	047208	CAP AE RDL 2200µF 100V	C15	
1	047202	CAP AE RDL 6800µF 35V	C18	
2	047201	CAP AE RDL 15000µF 35V	C1,2	
2	027278	CAP MPF .1µF 63V 10%	C3,4	
1	027279	CAP MPF .1µF 100V 10%	C16	
9	064089001	DIODE 1N4003 LL	CR5,6,10,11,15-18,25	
10	006260001	DIODE 1N4448 SIGNAL LL	CR8,13,19,20,22-24,30-32	
9	020534	DIODE 1N5402 RECTIFIER 200V C&F	CR1-4,26-29,33 (CR27,28 KLUGED ON SOLDER SIDE OF "A" REVISION BOARD)	
2	027327001	DIODE ZEN 1N5234B 6.2V 5% LL	CR7,12	
1	047206	DIODE ZEN 1N5370B 56V 5W 5%	CR21	
16	025802	FSTN TAB MALE .250X.032 PCB MT	CP1-16	

# CPSM-4 POWER SUPPLY MODULE

## PARTS LIST

### REV "A" MX-5200 POWER SUPPLY PRINTED CIRCUIT BOARD ASSEMBLY CONTINUED

QTY	PART #	DESCRIPTION	REFERENCE	DESIGNATION
4	020775	FUSE HOLDER CLIP PCB 5MM	2ea @F1,2	
2	047231	FUSE TD 20MMX5MM 250V 1.6A	F1,2	
1	047221	HEADER 6 CKT BLOK LOC	P1	
1	047215	HEATSINK TO-218 MX52XX	(FOR Q1-3,5-7,10,11)	
2	028047	IC OP AMP MC1436/SG1436Y	U1,2	
8	040903	INSULATOR MICA TO-218	(1ea @ Q1-3,507,10,11)	
2	9904701001	JUMPER WIRE 20GA	STUFFED IN PLACE OF CR9,14	
9	020888001	JUMPER WIRE 22GA	W1-9	
4	047216	LED GREEN T-1 LENS	LD1-4	
1	047722	PCB POWER SUPPLY MX5232	RAW PCB (REVISION "A")	
1	029570001	RES CF 1/4W 5% 3.3Ω	R29	
1	024948001	RES CF 1/4W 5% 56Ω LL	R28	
2	024965001	RES CF 1/4W 5% 1K LL	R8,21	
2	024971001	RES CF 1/4W 5% 2.2K LL	R3,16	
2	024975001	RES CF 1/4W 5% 3.9K LL	R12,25	
2	024977001	RES CF 1/4W 5% 4.7K LL	R4,17	
2	037169001	RES CF 1/2W 5% 1.8K LL	R2,15	
2	016961001	RES MF 1/4W 1% 6.81K LL	R11,24	
2	024980001	RES CF 1/4W 5% 8.2K LL	R1,14	
2	024981001	RES CF 1/4W 5% 10K LL	R9,22	
1	026549001	RES CF 1/2W 5% 1.5K LL	R32	
2	027346001	RES CF 1W 5% 1.2K	R30,31	
1	027358	RES FILM 2W 5% 3.9K	R33	
1	041810	RES FILM 2W 5% 6.8K	R27	
1	032958	RES WW BT 5w 10% .33Ω	R34	
6	028028	RES WW BT 5W 10% .47Ω	R5-7,R18-20	
2	047203	RES WW BT 10W 10% .68Ω	R10,23	
1	049346	RES WW BT 10W 10% 750Ω	R39	
10	027638	SCRW TF 4-40X3/8 HWHS ZI .1"HD	1ea@Q1-3,5-7,10,11+2@Heatsink	
2	033255	SPACER RND NYL .047X.125X.200	@ R39	
1	028503	THERMISTOR 10 OHM 5A C60-11	TH1	
8	028169	WSHR SHLDR NYL 5/32X1/4	1ea@Q1-3,5-7,10,11	
1	016739	XSTR NPN 2N4401 TO-92	Q4	
1	9902248880	XSTR NPN 2N5401 TO-92	Q9	
5	028114	XSTR NPN TIP 142 TO-218AC	Q1-3,10,11	
1	016742	XSTR PNP 2N4403 TO-92	Q8	
3	028115	XSTR PNP TIP147 TO-218AC	Q5-7	

# CPSM-4 POWER SUPPLY MODULE

## PARTS LIST

REV "B"  
MX-5200 POWER SUPPLY  
PRINTED CIRCUIT BOARD ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE	DESIGNATION
1	047724001	PCB ASSY MX5200 PWR SUPPLY	(STUFFED)	
5	038692001	CAP AE AX 10µF 35V	C8,9,13,14,20	
1	031069	CAP AE RDL 10µF 100V 20%	C17	
2	025960001	CAP AE AX 22µF 16V	C7,12	
4	031040	CAP AE RDL 100µF 100V 20%	C5,6,10,11	
1	028494	CAP AE RDL 1000µF 35V 20%	C19	
1	047208	CAP AE RDL 2200µF 100V	C15	
1	047202	CAP AE RDL 6800µF 35V	C18	
2	047201	CAP AE RDL 15000µF 35V	C1,2	
2	027278	CAP MPF .1µF 63V 10%	C3,4	
1	027279	CAP MPF .1µF 100V 10%	C16	
9	064089001	DIODE 1N4003 LL	CR5,6,10,11,15-18,25	
10	006260001	DIODE 1N4448 SIGNAL LL	CR8,13,19,20,22-24,30-32	
9	020534	DIODE 1N5402 RECTIFIER 200V C&F	CR1-4,26-29,33	
1	047206	DIODE ZEN 1N5370B 56V 5W 5%	CR21	
20	025802	FSTN TAB MALE .250X.032 PCB MT	CP1-20	
4	020775	FUSE HOLDER CLIP PCB 5MM	2ea @ F1,2	
2	047231	FUSE TD 20MMX5MM 250V 1.6A	F1,2	
1	047221	HEADER 6 CKT BLOK LOC	P1	
1	047215	HEATSINK TO-218 MX52XX	(FOR Q1-3,5-7,10,11)	
2	028047	IC OP AMP MC1436/SG1436Y	U1,2	
8	040903	INSULATOR MICA TO-218	(1ea @ Q1-3,507,10,11)	
2	9904701001	JUMPER WIRE 20GA	CR9,14	
9	020888001	JUMPER WIRE 22GA	W1-9	
4	047216	LED GREEN T-1 LENS	LD1-4	
1	047722	PCB POWER SUPPLY MX5232	PCB1	
1	029570001	RES CF 1/4W 5% 3.3Ω	R29	
1	031694001	RES MF FUSE 1/4W 5% 68Ω LL	R28	
3	024965001	RES CF 1/4W 5% 1K LL	R8,21,35	
4	024971001	RES CF 1/4W 5% 2.2K LL	R3,13,16,26	
4	024977001	RES CF 1/4W 5% 4.7K LL	R2,4,15,17	
2	016961001	RES MF 1/4W 1% 6.81K LL	R12,25	
2	024980001	RES CF 1/4W 5% 8.2K LL	R1,14	
2	024981001	RES CF 1/4W 5% 10K LL	R9,22	
1	026549001	RES CF 1/2W 5% 1.5K LL	R32	
1	036621001	RES CF 1W 5% 6.8K	R31	
1	027358	RES FILM 2W 5% 3.9K	R33	

# CPSM-4 POWER SUPPLY MODULE

## PARTS LIST

REV "B"  
MX-5200 POWER SUPPLY  
PRINTED CIRCUIT BOARD ASSEMBLY  
CONTINUED

QTY	PART #	DESCRIPTION	REFERENCE	DESIGNATION
1	041810	RES FILM 2W 5% 6.8K	R27	
1	032958	RES WW BT 5w 10% .33Ω	R34	
6	028028	RES WW BT 5W 10% .47Ω	R5-7,R18-20	
2	047203	RES WW BT 10W 10% .68Ω	R10,23	
1	037034	RES WW BT 10W 10% 1K	R39	
12	027638	SCRW TF 4-40X3/8 HWHS ZI .1"HD	1ea@Q1-3,5-7,10,11+2@Heatsink +2@ TS1	
2	033255	SPACER RND NYL .047X.125X.200		
1	037037	SWITCH THERMAL N.O. 194 DEG F	TS1(FAN LOW TO HIGH SPEED)	
1	028503	THERMISTOR 10 OHM 5A C60-11	TH1	
2	041261	VOLT REF LM4040DC2-10V TO-92	U3,4	
8	028169	WSHR SHLDR NYL 5/32X1/4	1ea@Q1-3,5-7,10,11	
1	016739	XSTR NPN 2N4401 TO-92	Q4	
1	9902248880	XSTR NPN 2N5401 TO-92	Q9	
5	028114	XSTR NPN TIP 142 TO-218AC	Q1-3,10,11	
1	016742	XSTR PNP 2N4403 TO-92	Q8	
3	028115	XSTR PNP TIP147 TO-218AC	Q5-7	

# CPSM-4 POWER SUPPLY MODULE

## PARTS LIST

### MX-5200 POWER SUPPLY CHASSIS ASSEMBLY

QTY	PART #	DESCRIPTION	REFERENCE	DESIGNATION
	049033	CHS ASSY POWER SUPPLY MX52XX		
1	047190	CABLE MX5200 PWR INTERCONNECT	From power supply to mixer	
1	047189	CABLE MX REC/F-PNL MT 1FT 6CKT	From P1 of PCB Assy to rear of Chassis.	
1	047706	CHS BOTTOM MX POWER SUPPLY		
1	047705	CHS TOP MX POWER SUPPLY		
1	047213	CONNECTOR AC LINE MALE IEC		
1	036229	FAN 3-1/8" 120V		
5	069393	NUT 6-32 HEX EXT LOCK	4 @ Fan	
4	022004	NUT KEPS #8-32 ZINC	@Transformer	
2	033051	SCRW M 6-32X1/2 PHP ZI LW	@Mounting PCB Assy to chassis. Used on the PCB side, for the 2 holes through the heatsink.	
5	017433	SCRW M 6-32X3/8 PHP BLX	4@ Fan, 1@ Chassis Ground Lug	
4	026553	SCRW M 8-32X3/8 PHP BLX	@Transformer	
12	031184	SCRW M6-32X1/4 PHPS BLX ITLW	PCB Assy to Chassis Bottom	
28	032806	SCRW TF 6-32X1/4 PHP BLX	@Chassis, Top mounting to Chassis, Bottom	
7	031073	STANDOFF 6-32X3/8 RND AL	PCB Assy to Chassis Bottom	
1	040582	SWITCH DPST .250 TAB GLOBAL	S1	
1	047214	SWITCH VOLT SELECT		
1	047168	XFMR POWER MX5224/32	T1	

### MISCELLANEOUS

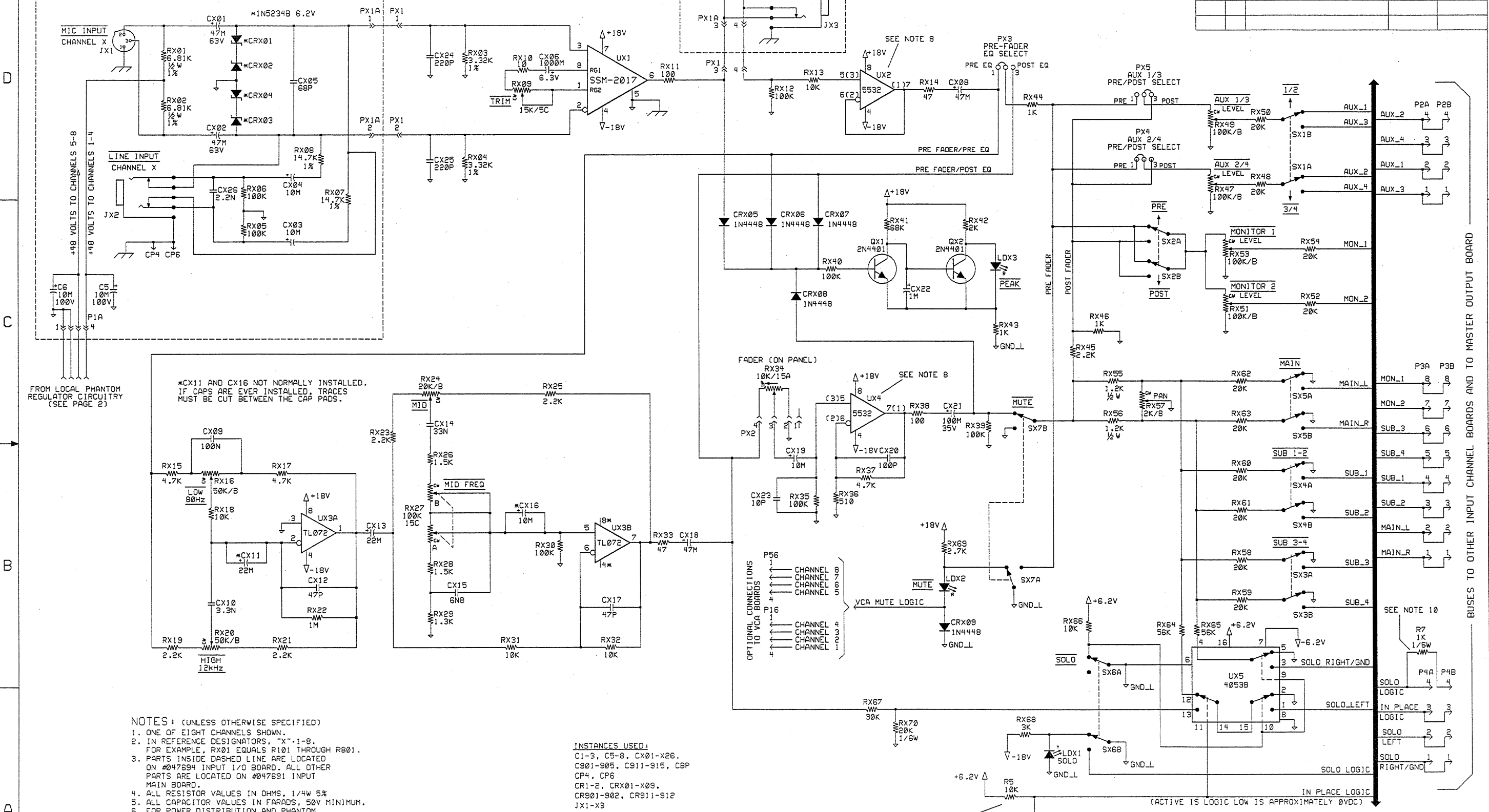
QTY	PART #	DESCRIPTION	REFERENCE	DESIGNATION
	047688	SCHEMATIC MX52XX INPUT CHANNEL	2 pages	
	047696	SCHEMATIC MX52XX MASTER	4 pages	
	047721	SCHEM MX PWR SUPPLY W/SERV DIA	See page 17 for correct revision	
	047690 / 93	SERVICE DIA MX52XX INPUT & I/O	2 pages (back page 047693 Input I/O)	
	047698	SERVICE DIA MX52XX MASTER	2 pages	
	047701	SERVICE DIA MX52XX MASTER I/O	2 pages	

REVISIONS

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASE, EC# 1455	25-MAR-95	JT

COMPONENTS WITHIN DASHED LINE LOCATED ON 047694 INPUT I/O PCB

COMPONENTS OUTSIDE OF DASHED LINE LOCATED ON 047691 INPUT MAIN BOARD



NOTES: (UNLESS OTHERWISE SPECIFIED)

- ONE OF EIGHT CHANNELS SHOWN.
- IN REFERENCE DESIGNATORS, "X"-1-8. FOR EXAMPLE, RX01 EQUALS R101 THROUGH R801.
- PARTS INSIDE DASHED LINE ARE LOCATED ON #047694 INPUT I/O BOARD. ALL OTHER PARTS ARE LOCATED ON #047691 INPUT MAIN BOARD.
- ALL RESISTOR VALUES IN OHMS, 1/4W 5%.
- ALL CAPACITOR VALUES IN FARADS, 50V MINIMUM.
- FOR POWER DISTRIBUTION AND PHANTOM CIRCUITS, SEE PAGE 2.
- LINE ABOVE AND BELOW TEXT INDICATE LITERAL LABELS MATCHING THOSE ON THE FRONT OR REAR PANELS.
- UX2 AND UX4 ARE SHARED BETWEEN PAIRS OF CHANNELS. ODD NUMBERED CHANNELS USE PINS 5, 6, AND 7. EVEN NUMBERED CHANNELS USE PINS 3, 2, AND 1.
- R7 APPEARS ONLY ON REV B AND LATER PCBs.

INSTANCES USED:

- C1-3, C5-8, CX01-X26, C901-905, C911-915, CBP
- CP4, CP6
- CR1-2, CRX01-X09, CR901-902, CR911-912
- JX1-X3
- LDX1-X3
- P1-8, P16, P56, PX1-X2
- QX1-2, Q901, Q911
- R1-7, RX01-X70, R901-908, R911-918
- S1-2 SX1-X7
- TP1-7
- UX1-X5, U901, U911

R5 ONLY APPEARS ONE TIME FOR EACH 8 CHANNEL CIRCUIT BOARD.

TO PIN 11 OF ALL OTHER 4053 IC'S.

DATABASE FILE: Z252S1

CHECKED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

APPROVED: *[Signature]*

DATE: 25-MAR-95

TOLERANCES: UNLESS OTHERWISE NOTED

X.X ±0.050"

X.XX ±0.010"

X.XXX ±0.005"

ANGLES ±0.500°

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NEXT HIGHER ASSEMBLY: MX52XX SERIES MIXERS

FENDER MUSICAL INSTRUMENTS  
1130 Columbia Street  
Brea, CA 92621

TITLE: SCHEMATIC DIAGRAM, MX52XX INPUT CHANNELS

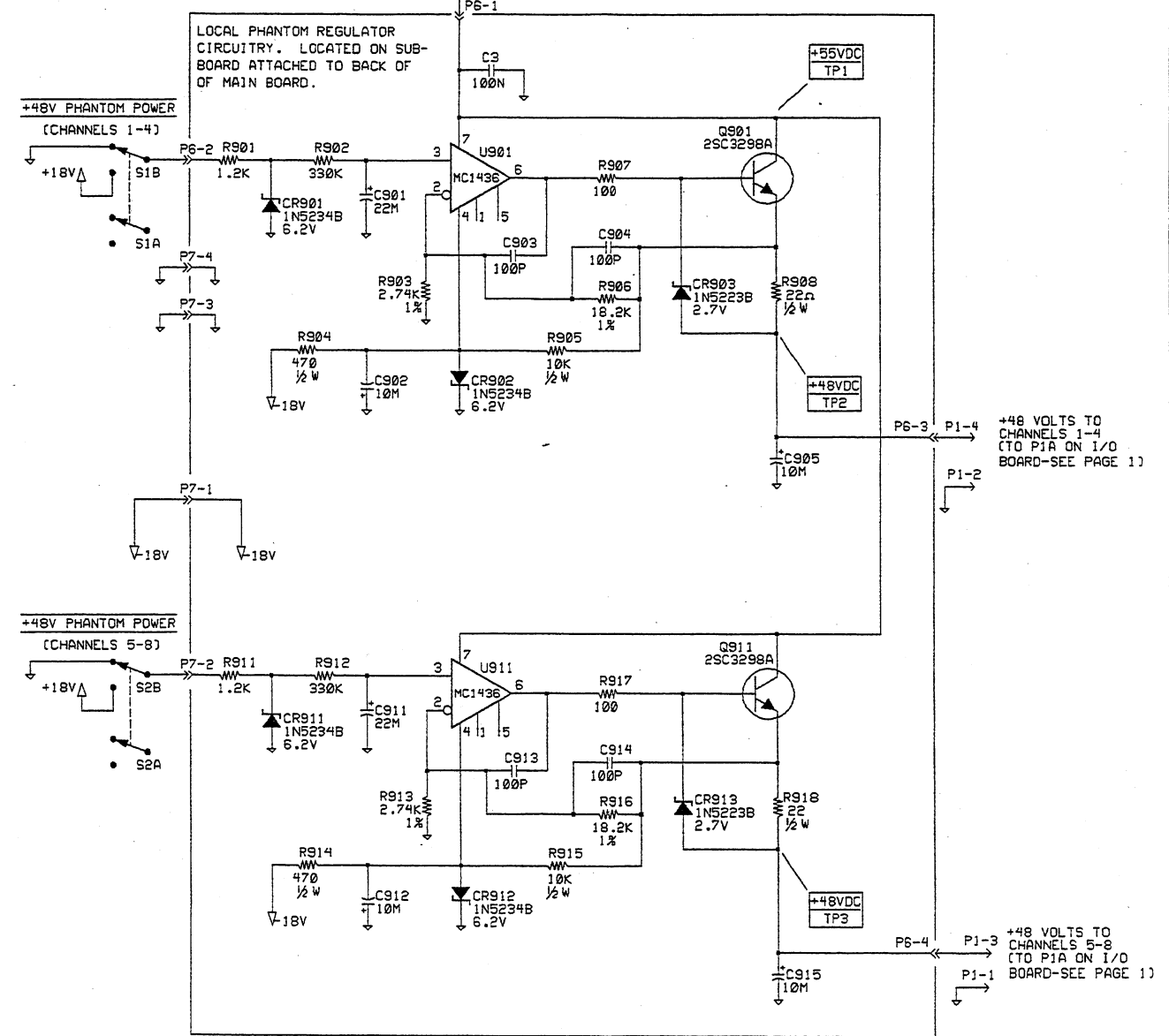
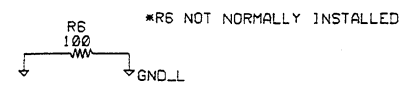
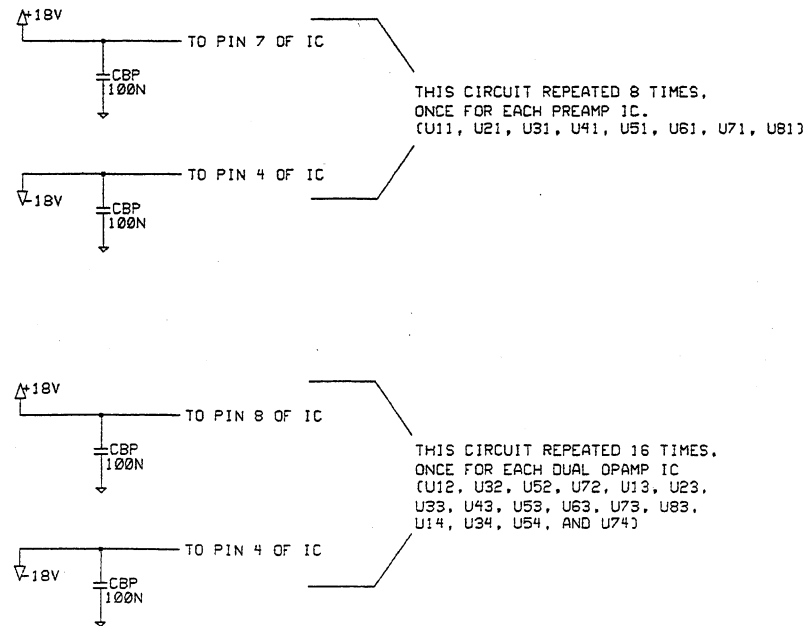
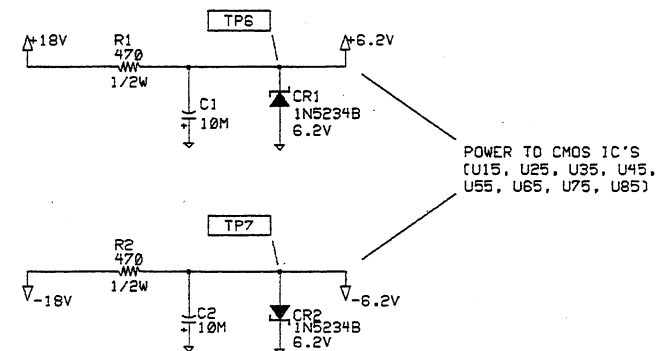
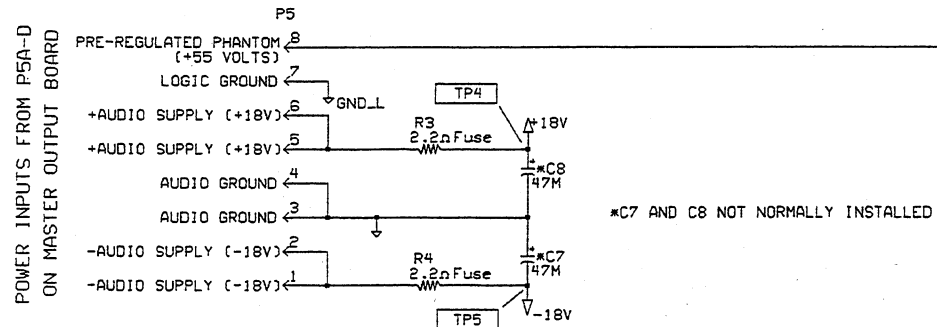
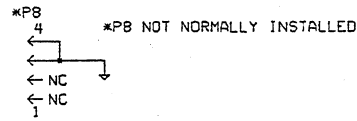
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ENGR: JY

SCALE: \_\_\_\_\_

CREATED: 01-SEP-93 PLOTTED: 23-MAR-95 SHEET 1 OF 2

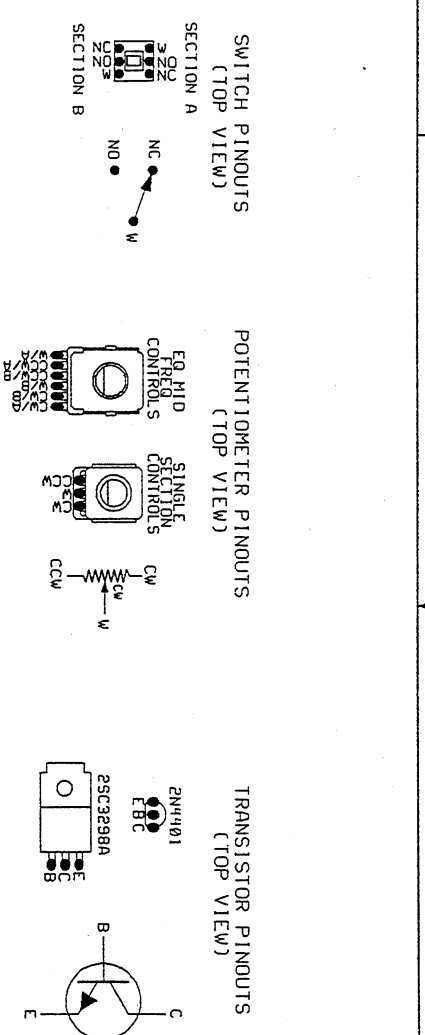
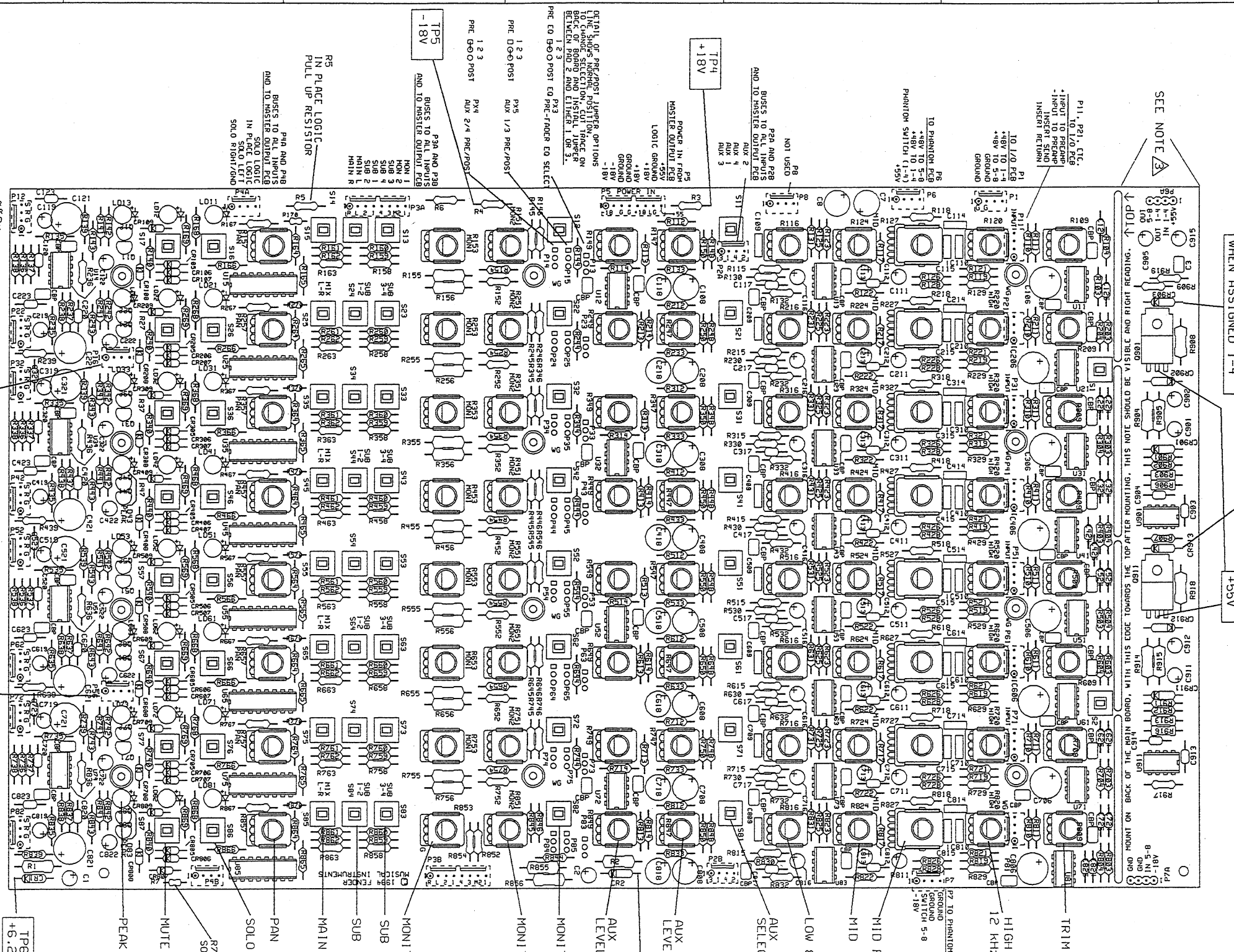
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASE, EC# 1455	25-MAR-95	JY



- NOTES: (UNLESS OTHERWISE SPECIFIED)
- ALL RESISTORS 1/4W 5%, VALUES IN OHMS.
  - ALL CAPACITORS 50V MINIMUM, VALUES IN FARADS.
  - ALL PARTS ON THIS PAGE ARE LOCATED ON 047691 INPUT MAIN BOARD. PARTS WITHIN THE BOX ARE LOCATED ON THE SMALL SUB-BOARD MOUNTED TO THE BACK OF THE MAIN BOARD.
  - CIRCUITS ON THIS PAGE APPEAR ONCE PER BOARD (ONCE FOR EVERY 8 CHANNELS). LINES ABOVE AND BELOW TEXT INDICATE LITERAL LABELS MATCHING THOSE ON THE FRONT OR REAR PANELS.
  - DC TEST POINT VOLTAGES FOR TP2 AND TP3 ARE WITH S1 AND S2 PRESSED.

DATABASE FILE: Z252S1A CHECKED BY: DATE: APPROVED: JY DATE: 25-MAR-95 TOLERANCES: UNLESS OTHERWISE NOTED X.X ±0.050" X.XX ±0.010" X.XXX ±0.005" ANGLES ±0.500°	<b>PROPRIETARY</b> THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE FENDER MUSICAL INSTRUMENTS CO. AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESSED WRITTEN CONSENT FROM: FENDER MUSICAL INSTRUMENTS CO. 1130 COLUMBIA ST. BREA, CALIFORNIA 92621 ROCK ON. NEXT HIGHER ASSEMBLY: MX52XX SERIES MIXERS	<b>FENDER MUSICAL INSTRUMENTS</b> 1130 Columbia Street Brea, CA 92621 TITLE: SCHEMATIC DIAGRAM, MX52XX INPUT CHANNELS SIZE: DRAWN: JY DRAWING NUMBER: REV. D ENGR: JY 047688 A SCALE: CREATED: 07-SEP-84 PLOTTED: 23-MAR-95 SHEET 2 OF 2
--	--	---

REVISIONS			
ZONE	REV. DESCRIPTION	DATE	APPROVED
A	RELEASE EC#1381	5FEB95	



SEE NOTE 3

↑ TOP ↓  
GND MOUNT ON BACK OF THE MAIN BOARD WITH THIS LOGO TOWARDS THE TOP AFTER MOUNTING. THIS NOTE SHOULD BE VISIBLE AND RIGHT READING.

DATABASE FILE:  
2252P1A  
CHECKED BY: *MH*  
DATE: *2-13-95*  
APPROVED: *JY*  
DATE: *10 FEB 95*  
TOLERANCES: UNLESS OTHERWISE NOTED  
X.X ±0.050"  
X.XX ±0.010"  
X.XXX ±0.005"  
ANGLES ±0.5000"

PROPRIETARY  
THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE FENDER MUSICAL INSTRUMENTS CO. AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESSED WRITTEN CONSENT FROM:  
FENDER MUSICAL INSTRUMENTS CO.  
2521 Research Drive  
Corona, CA 91720 USA  
NEXT HIGHER ASSEMBLY:

**Fender** MUSICAL INSTRUMENTS  
Corona, CA 91720 USA

TITLE: SERVICE DIAGRAM  
MX52XX INPUT PCB

SIZE B	DRAWN: JY	DRAWING NUMBER 047690	REV. A
SCALE: 2:3	ENGR: JY	CREATED: 09-FEB-95	SHEET 1 OF 1

- NOTES:
- COMPONENT SIDE VIEW OF BOARD IS SHOWN.
  - CONNECTORS (SHOWN IN DASHED LINES), ARE INSTALLED ON THE BACK SIDE OF THE BOARD. THE BOARD CONTAINING THE PHANTOM CIRCUITS IS ACTUALLY BROKEN OFF FROM, AND ATTACHED TO THE BACK OF, THE MAIN BOARD.

P13, P23, ETC.  
SEND TO FADER  
RETURN FROM FADER  
GROUND

OPTIONAL CONNECTIONS  
VCA 1  
VCA 2  
VCA 3  
VCA 4

OPTIONAL CONNECTIONS  
VCA 5  
VCA 6  
VCA 7  
VCA 8

TP6  
+6.2V

TP7  
-6.2V

TP2  
+48V  
WHEN ASSIGNED 1-4

TP3  
+48V  
WHEN ASSIGNED 5-8

TP1  
+55V

TP4  
+18V

TP5  
-18V

R3  
IN PLACE LOGIC  
PULL UP RESISTOR

R7  
SOLO LOGIC BUS RESISTOR

P13, P23, ETC.  
SEND TO FADER  
RETURN FROM FADER  
GROUND

OPTIONAL CONNECTIONS  
VCA 1  
VCA 2  
VCA 3  
VCA 4

OPTIONAL CONNECTIONS  
VCA 5  
VCA 6  
VCA 7  
VCA 8

TP6  
+6.2V

TP7  
-6.2V

TP2  
+48V  
WHEN ASSIGNED 1-4

TP3  
+48V  
WHEN ASSIGNED 5-8

TP1  
+55V

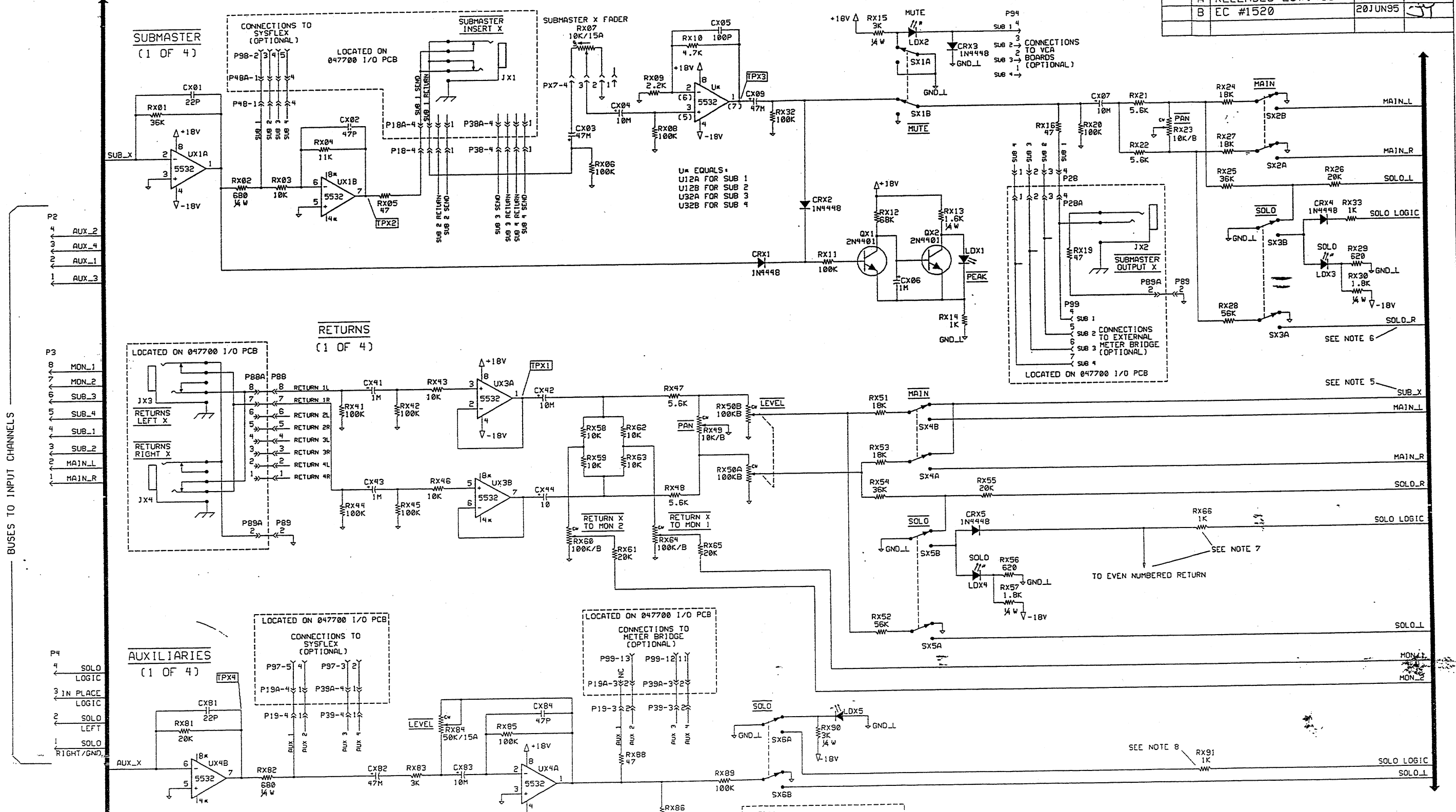
TP4  
+18V

TP5  
-18V

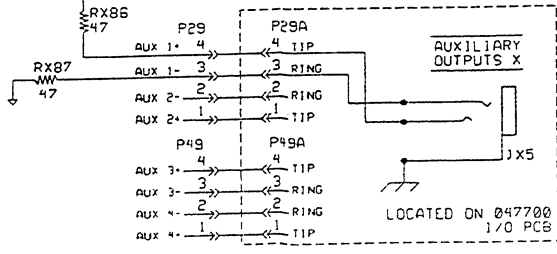
R3  
IN PLACE LOGIC  
PULL UP RESISTOR

R7  
SOLO LOGIC BUS RESISTOR

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASED EC#1455	24MAR95	
	B	EC #1520	20JUN95	JY



- NOTES (UNLESS OTHERWISE NOTED):
1. FOR POWER CIRCUITS, SEE PAGE 4 OF 4
  2. FOR CIRCUIT LABELS ON THIS PAGE, "X" EQUALS THE NUMBER OF THE SUBMASTER, EFFECTS RETURN, OR AUXILIARY.
  3. FOR GENERAL DRAWING NOTES, SEE PAGE 4 OF 4.
  4. ALL PARTS LOCATED ON 047697 OUTPUT PCB.
  5. RETURN 1 ASSIGNS TO SUB 1, ETC.
  6. THE SOLO\_R BUS IS LOCAL WITHIN THE MASTER SECTION ONLY. IT DOES NOT DIRECTLY CONNECT TO THE INPUT CHANNELS. SEE SOLO CIRCUITS ON PAGE 2.
  7. THERE IS ONLY 1 SOLO LOGIC BUILD OUT RESISTOR FOR EVERY PAIR OF RETURNS. R166 AND R366 ARE USED. THERE IS NO R266 OR R466.
  8. FOR ALL 1K SOLO LOGIC BUILD OUT RESISTORS (RX33, RX66, RX91), THESE RESISTORS APPEAR ONLY ON REV B AND LATER PCBs.

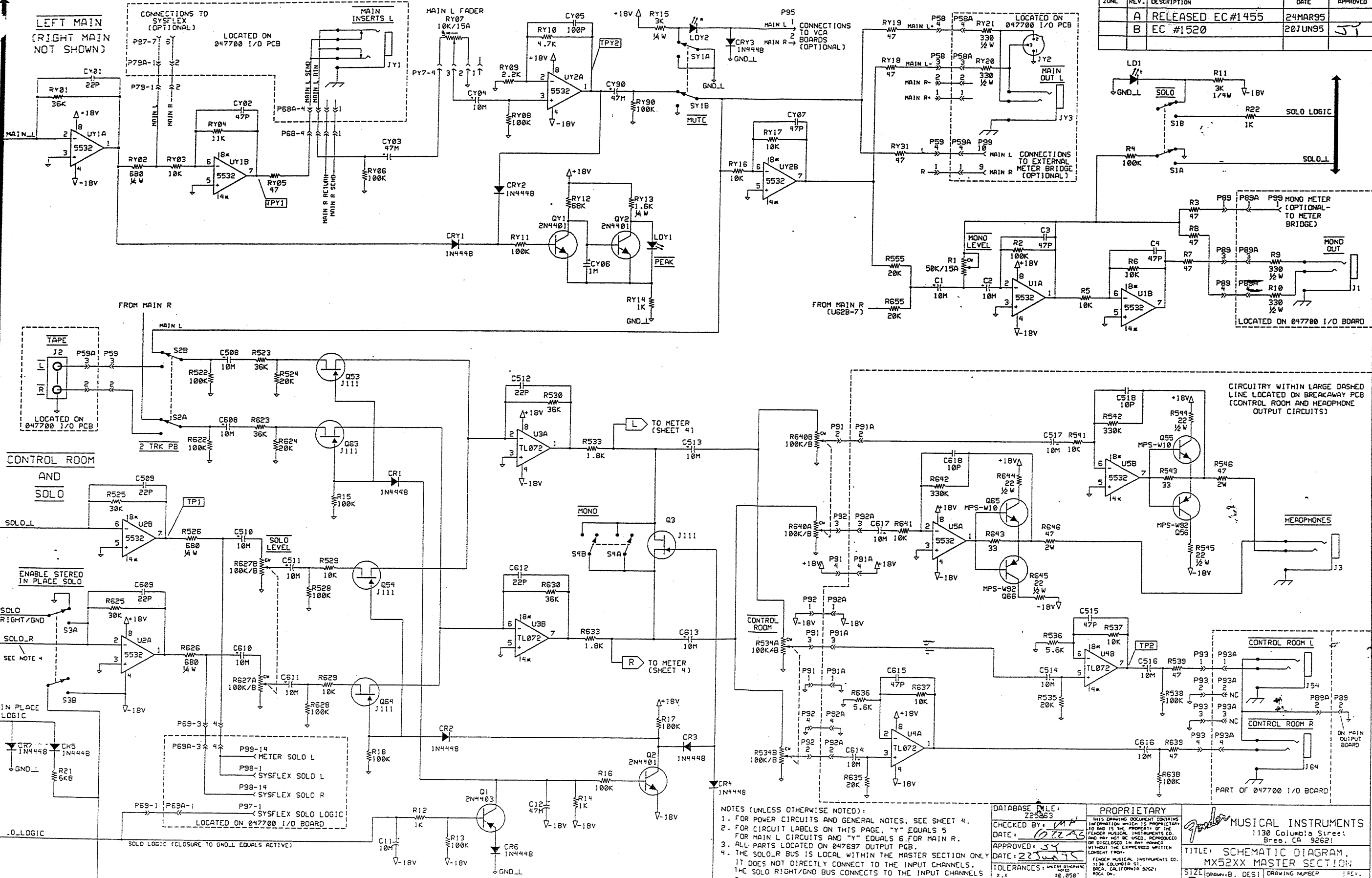


DATABASE FILE: Z25252	PROPRIETARY	<b>FENDER</b> MUSICAL INSTRUMENTS 1130 Columbia Street Brea, CA 92621
CHECKED BY: <i>[Signature]</i> DATE: <i>[Date]</i>	THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE FENDER MUSICAL INSTRUMENTS CO. AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM: FENDER MUSICAL INSTRUMENTS CO., 1130 COLUMBIA ST., BREA, CALIFORNIA 92621	
APPROVED: <i>[Signature]</i> DATE: <i>[Date]</i>	TOLERANCES: UNLESS OTHERWISE NOTED X.XX ±0.050 X.XX ±0.010 X.XXX ±0.005 ANGLES ±0.500°	TITLE: SCHEMATIC DIAGRAM, MX52XX MASTER SECTION SIZE: DRAWN-B, DESI D ENGR-YARBROUGH DRAWING NUMBER: 047696 REV: B SCALE: CREATD-01-SEP-93 PLOTTED-22-JUN-95 SHEET 1 OF 4



SEE PAGE 1 OF 4 FOR BUS CONNECTIONS TO INPUT CHANNELS

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASED EC#1455	24MAR95	
	B	EC #1520	20JUN95	JY

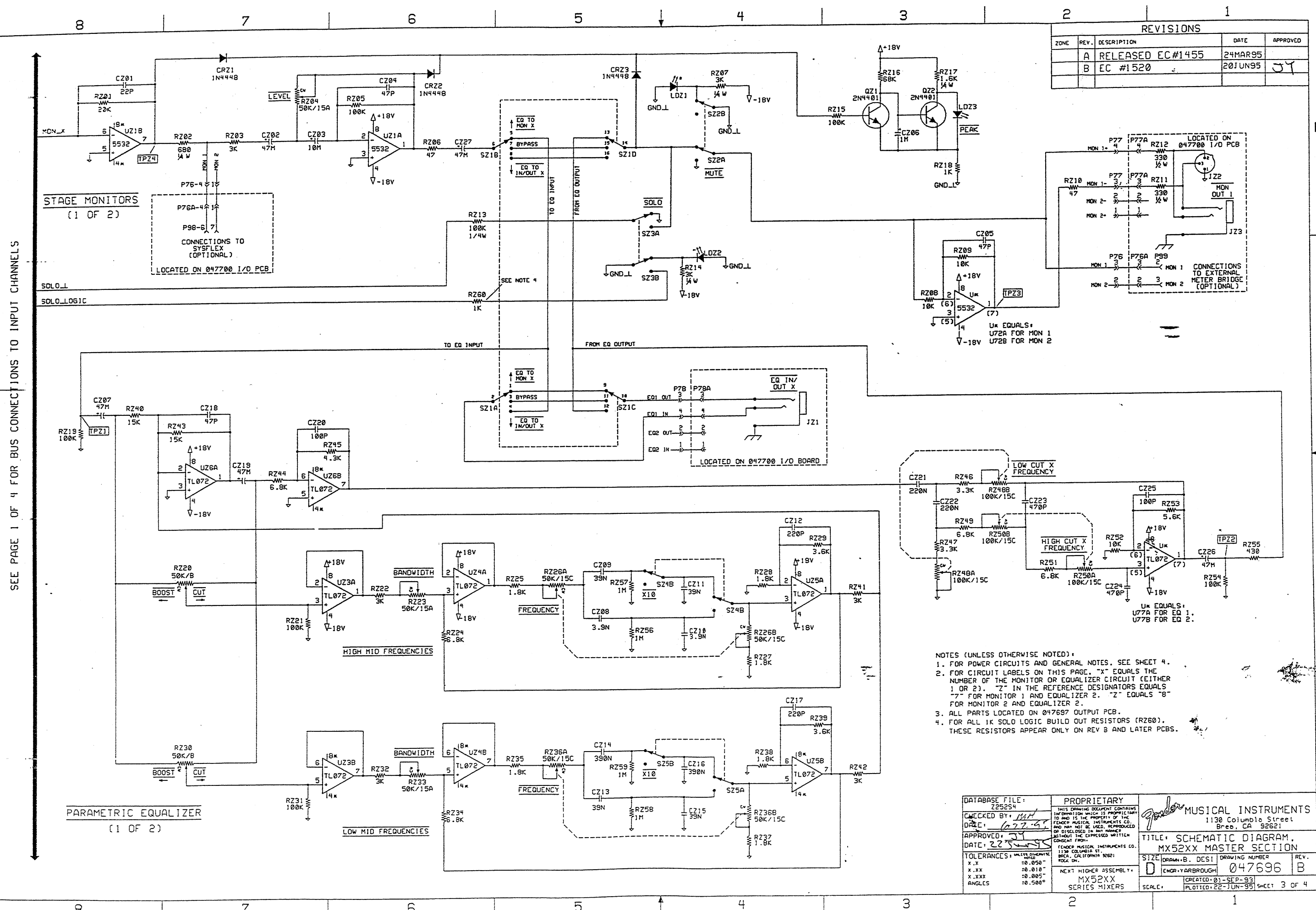


- NOTES (UNLESS OTHERWISE NOTED):
- FOR POWER CIRCUITS AND GENERAL NOTES, SEE SHEET 4.
  - FOR CIRCUIT LABELS ON THIS PAGE, "Y" EQUALS 5 FOR MAIN L CIRCUITS AND "Y" EQUALS 6 FOR MAIN R.
  - ALL PARTS LOCATED ON 047700 I/O BOARD.
  - THE SOLO\_R BUS IS LOCAL WITHIN THE MASTER SECTION ONLY. IT DOES NOT DIRECTLY CONNECT TO THE INPUT CHANNELS. THE SOLO RIGHT/GND BUS CONNECTS TO THE INPUT CHANNELS ONLY AND DOES NOT CONNECT ELSEWHERE IN THE MASTER.
  - SOLO LOGIC BUILD RESISTOR R22 APPEARS ONLY ON REV B AND LATER PCBs.

DATABASE FILE: 225053	PROPRIETARY THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF FENDER MUSICAL INSTRUMENTS CO. AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM: FENDER MUSICAL INSTRUMENTS CO. 1130 COLUMBIA ST. BREA, CALIFORNIA 92621 U.S.A.
CHECKED BY: <i>[Signature]</i> DATE: <i>07/23/95</i>	TITLE: SCHEMATIC DIAGRAM MX52XX MASTER SECTION
APPROVED: <i>[Signature]</i> DATE: <i>22/05/95</i>	SIZE: <i>D</i> DRAWN BY: DESI ENGR: YARBROUGH DRAWING NUMBER: 047696 REV: 3
TOLERANCES: UNLESS OTHERWISE NOTED .X.X 0.050" .X.XX 0.010" .X.XXX 0.005" ANGLES 20.500°	NEXT HIGHER ASSEMBLY: MX52XX SERIES MIXERS SCALE: [ ] CREATED: 01-SEP-93 PLOTTED: 22-JUN-95 11:55:00 SHEET: 2 OF 4



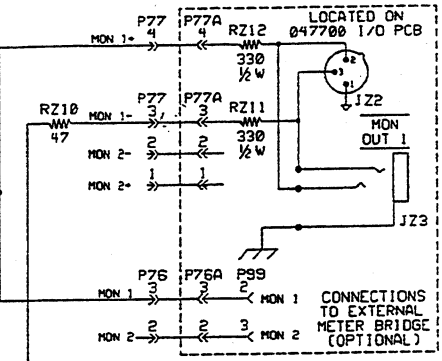
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASED EC#1455	24MAR95	
	B	EC #1520	20JUN95	JY



SEE PAGE 1 OF 4 FOR BUS CONNECTIONS TO INPUT CHANNELS

STAGE MONITORS  
(1 OF 2)

LOCATED ON 047700 I/O PCB



PARAMETRIC EQUALIZER  
(1 OF 2)

HIGH MID FREQUENCIES

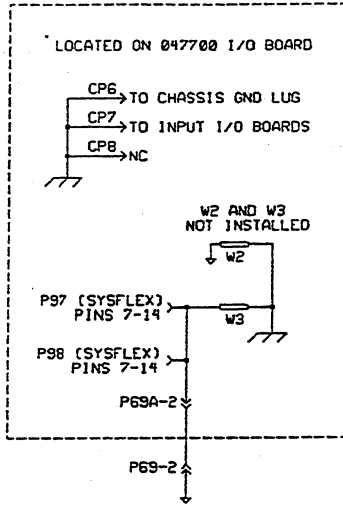
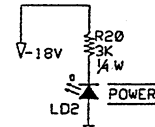
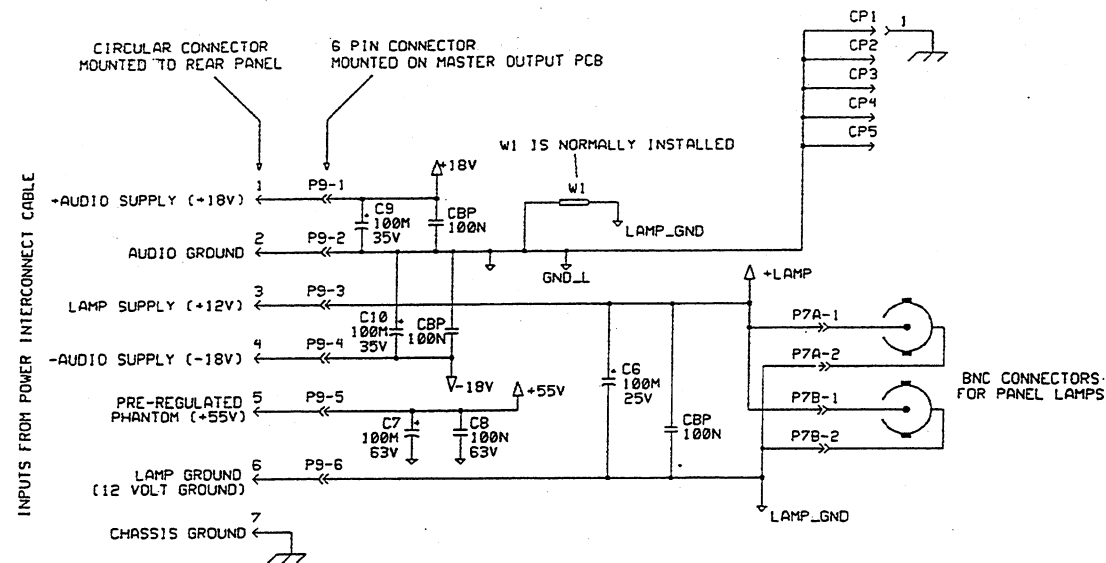
LOW MID FREQUENCIES

- NOTES (UNLESS OTHERWISE NOTED):
- FOR POWER CIRCUITS AND GENERAL NOTES. SEE SHEET 4.
  - FOR CIRCUIT LABELS ON THIS PAGE. "X" EQUALS THE NUMBER OF THE MONITOR OR EQUALIZER CIRCUIT (EITHER 1 OR 2). "Z" IN THE REFERENCE DESIGNATORS EQUALS "7" FOR MONITOR 1 AND EQUALIZER 2. "Z" EQUALS "8" FOR MONITOR 2 AND EQUALIZER 2.
  - ALL PARTS LOCATED ON 047697 OUTPUT PCB.
  - FOR ALL 1K SOLO LOGIC BUILD OUT RESISTORS (RZ60). THESE RESISTORS APPEAR ONLY ON REV B AND LATER PCBs.

DATABASE FILE: Z25254 CHECKED BY: <i>MMH</i> DATE: 10-27-94 APPROVED: <i>[Signature]</i> DATE: 2-2-95 TOLERANCES: UNLESS OTHERWISE NOTED: X.XX ±0.050 X.XX ±0.018 X.XXX ±0.005 ANGLES ±0.500°	PROPRIETARY THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE FENDER MUSICAL INSTRUMENTS CO. AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM: FENDER MUSICAL INSTRUMENTS CO. 1130 COLUMBIA ST. BREA, CALIFORNIA 92621 U.S.A. NEXT HIGHER ASSEMBLY: MX52XX SERIES MIXERS	Fender <b>MUSICAL INSTRUMENTS</b> 1130 Columbia Street Brea, CA 92621 <b>TITLE: SCHEMATIC DIAGRAM,          MX52XX MASTER SECTION</b> SIZE: <b>D</b> DRAWN: <b>B. DESI</b> DRAWING NUMBER: <b>047696</b> REV. <b>B</b> SCALE: <b>1:1</b> CREATED: <b>01-SEP-93</b> PLOTTED: <b>22-JUN-95</b> SHEET 3 OF 4
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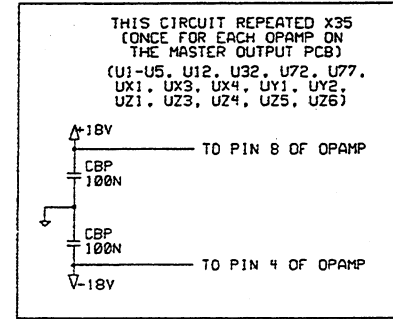
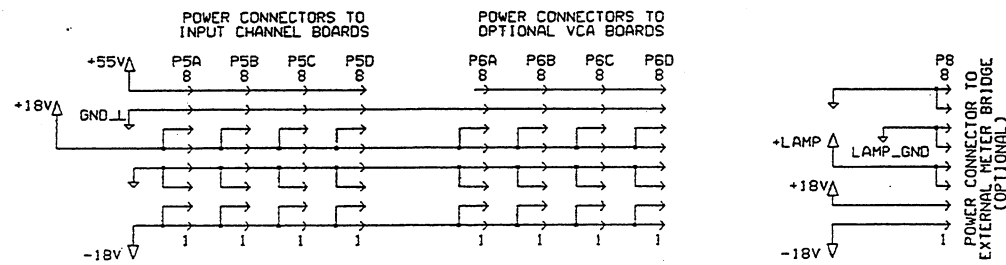
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASED EC#1455	24MAR95	
	B	EC #1520	20JUN95	ST

POWER ENTRY AND DISTRIBUTION



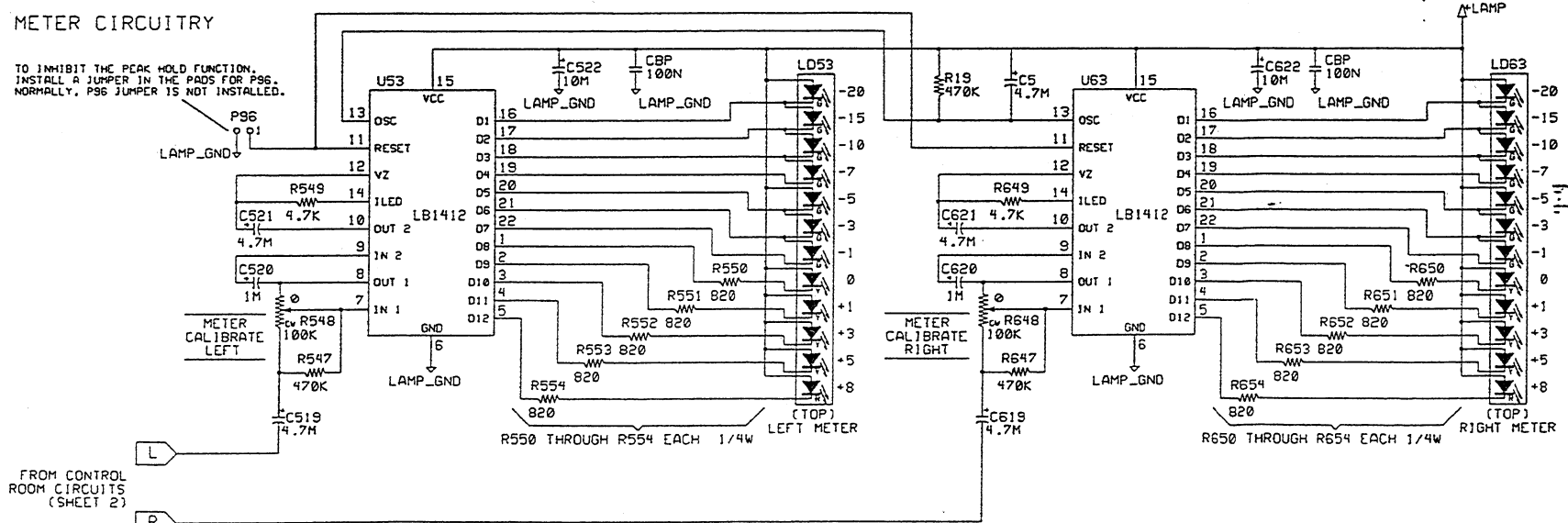
INSTANCES USED ON MASTER SECTION SCHEMATIC (PAGES 1 THROUGH 4)

- C1-12
- C101-109 141-144 181-184
- C201-209 241-244 281-284
- C301-309 341-344 381-384
- C401-409 441-444 481-484
- C501-523 590 601-623 690
- C701-727 801-827
- CP1-8
- CR1-5 11-15 21-25 31-35 41-45
- CR51-53 61-63
- CR71-73 81-83
- J1-3
- J11-15 21-25 31-35 41-45
- J51-54 61-64
- J71-73 81-83
- LD1-2
- LD11-15 21-25 31-35 41-45
- LD51-53 61-63
- LD71-73 81-83
- Q1-3
- Q11-12 21-22 31-32 41-42
- Q51-56 61-66
- Q71-72 81-82
- R1-22
- R101-116 119-132 141-166 181-191
- R201-216 219-232 241-265 281-291
- R301-316 319-332 341-366 381-391
- R401-416 419-432 441-465 481-491
- R501-526 528-539 541-556 590
- R601-633 635-656 690
- R701-760 801-860
- S1-4
- S11-16 21-26 31-36 41-46
- S51 61
- S71-75 81-85
- U1-5
- U11-14 21 23 24 31-34 41 43 44
- U51-53 61-63
- U71-77 81 83-86
- W1-3



METER CIRCUITRY

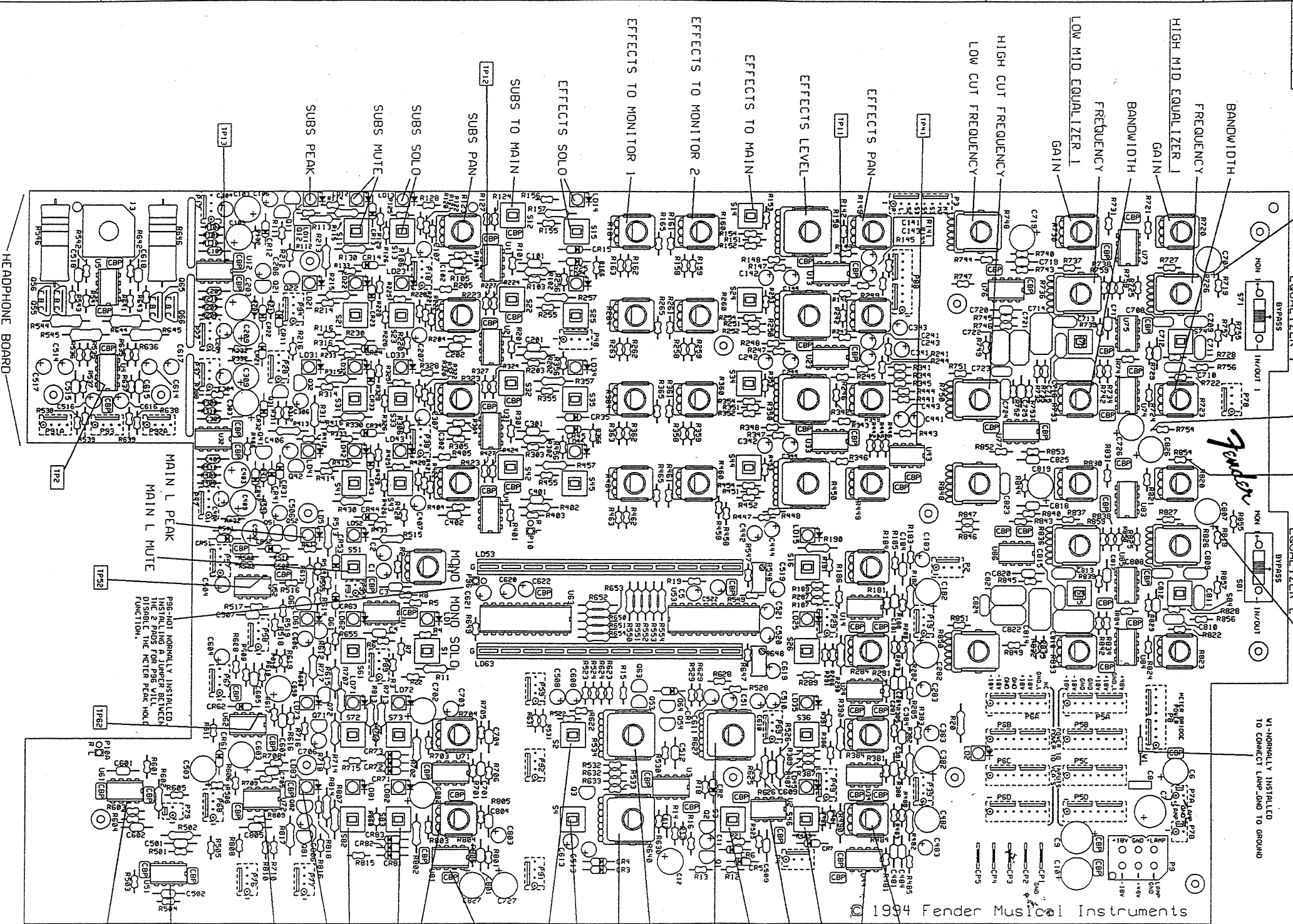
TO INHIBIT THE PEAK HOLD FUNCTION, INSTALL A JUMPER IN THE PADS FOR P96. NORMALLY, P96 JUMPER IS NOT INSTALLED.



- NOTES (UNLESS OTHERWISE NOTED):
- ALL NOTES ON THIS PAGE APPLY TO ALL 4 PAGES OF THE MASTER SECTION SCHEMATIC.
  - ALL RESISTOR VALUES IN OHMS, 1/5W, 5%.
  - ALL CAPACITOR VALUES IN FARADS, 50V MINIMUM.
  - LINE ABOVE AND BELOW TEXT INDICATE LITERAL LABELS MATCHING THOSE ON THE FRONT OR REAR PANELS.
  - PARTS INSIDE DASHED LINES ARE LOCATED ON THE 047700 I/O PCB. ALL OTHER PARTS LOCATED ON 047697 OUTPUT PCB.

DATABASE FILE: 225255 CHECKED BY: <i>MP</i> DATE: <i>7/7/95</i> APPROVED: <i>[Signature]</i> DATE: <i>7/27/95</i> TOLERANCES: MILS UNLESS NOTED X.X .050" X.XX .010" X.XXX .005" ANGLES .500°	PROPRIETARY THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE FENDER MUSICAL INSTRUMENTS CO. AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT FROM: FENDER MUSICAL INSTRUMENTS CO. 1130 COLUMBIA ST. BREA, CALIFORNIA 92621 P.O. BOX 91 BREA, CA NEXT HIGHER ASSEMBLY: MX52XX SERIES MIXERS	FENDER MUSICAL INSTRUMENTS 1130 Columbia Street Brea, CA 92621 TITLE: SCHEMATIC DIAGRAM, MX52XX MASTER SECTION SIZE: DRAWN BY B. DESI ENGR. YARBROUGH DRAWING NUMBER: 047696 REV. B CREATED: 01-SEP-93 PLOTTED: 22-JUN-95 SHEET 4 OF 4
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REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASE EC#		



FILM/DWG: SERVICE DIAGRAM  
 DATABASE: Z252P5 DATE: 10-FEB-95  
 LAYERS PLOTTED: 1 2 3 4 10 11 18

- NOTES:
1. THIS PAGE SHOWS THE COMPONENT SIDE VIEW.
  2. CONNECTORS, SHOWN IN DASHED LINES, ARE MOUNTED ON THE BACK SIDE OF THE BOARD. SEE PAGE 2 OF 2 FOR THE CONNECTOR PINOUTS.
  3. THE HEADPHONE BOARD IS ACTUALLY BROKEN AWAY FROM, AND MOUNTED BELOW, THE MAIN BOARD.

DATABASE FILE: Z252P5	
CHECKED BY:	<i>NH</i>
DATE:	7-15-95
APPROVED:	<i>ST</i>
DATE:	10 FEB 95
TOLERANCES: UNLESS OTHERWISE NOTED	
X.X	±0.050"
X.XX	±0.010"
X.XXX	±0.005"
ANGLES	±0.500°

PROPRIETARY  
 THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE FENDER MUSICAL INSTRUMENTS CO. AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESSED WRITTEN CONSENT FROM:  
 FENDER MUSICAL INSTRUMENTS CO.  
 2821 Reserch Dr 1st Flr  
 Corona, CA 91720 USA  
 NEXT HIGHER ASSEMBLY:

**Fender** MUSICAL INSTRUMENTS  
 Corona, CA 91720 USA

TITLE: SERVICE DIAGRAM  
 MX52XX MASTER OUTPUT PCB

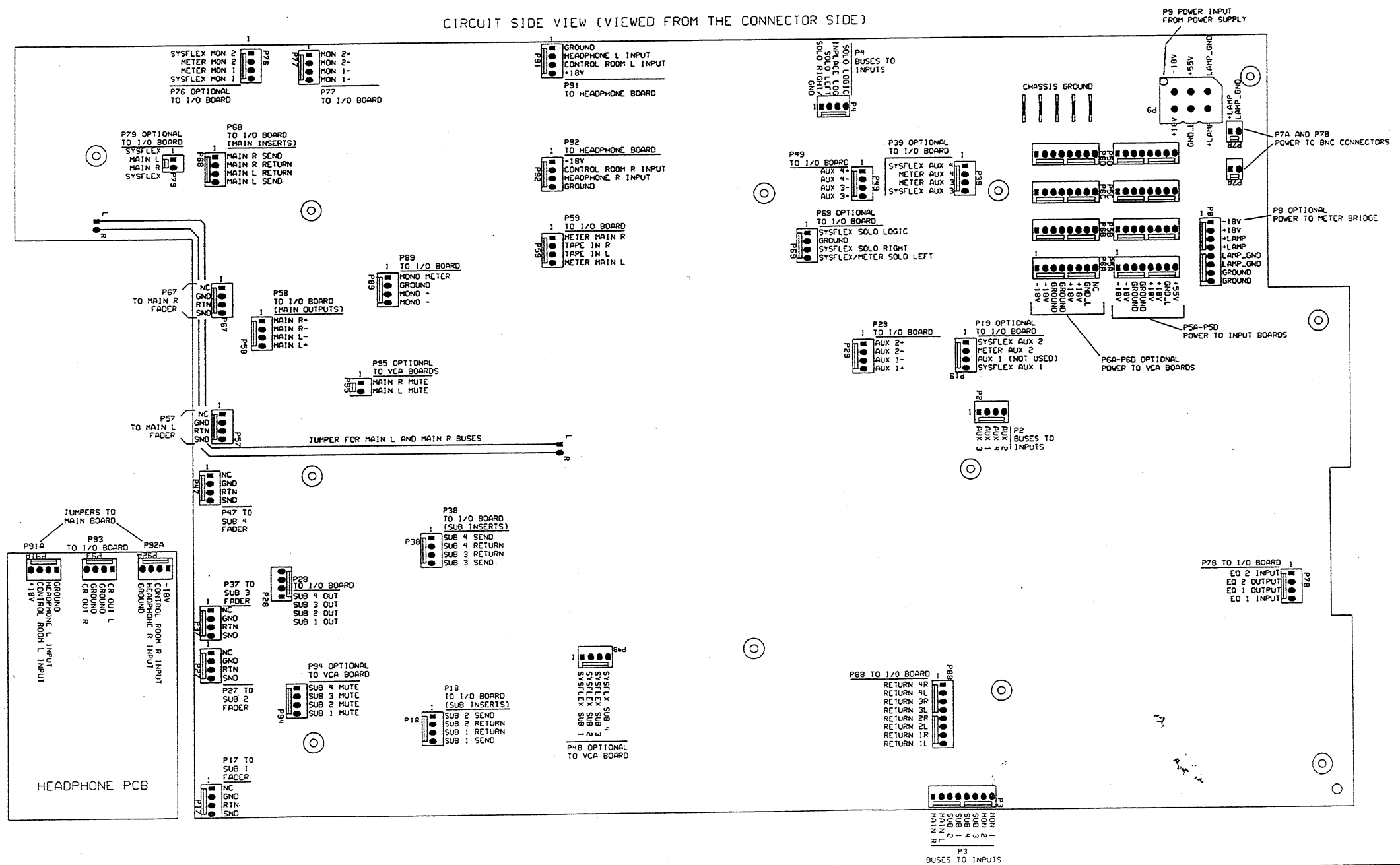
SIZE B	DRAWN: JY ENGR: BD	DRAWING NUMBER 047698	REV. A
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SCALE: 2:3  
 CREATED: 10-FEB-95  
 PLOTTED: 10-FEB-95 SHEET 1 OF 2

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REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASE	1/13/95	

CIRCUIT SIDE VIEW (VIEWED FROM THE CONNECTOR SIDE)

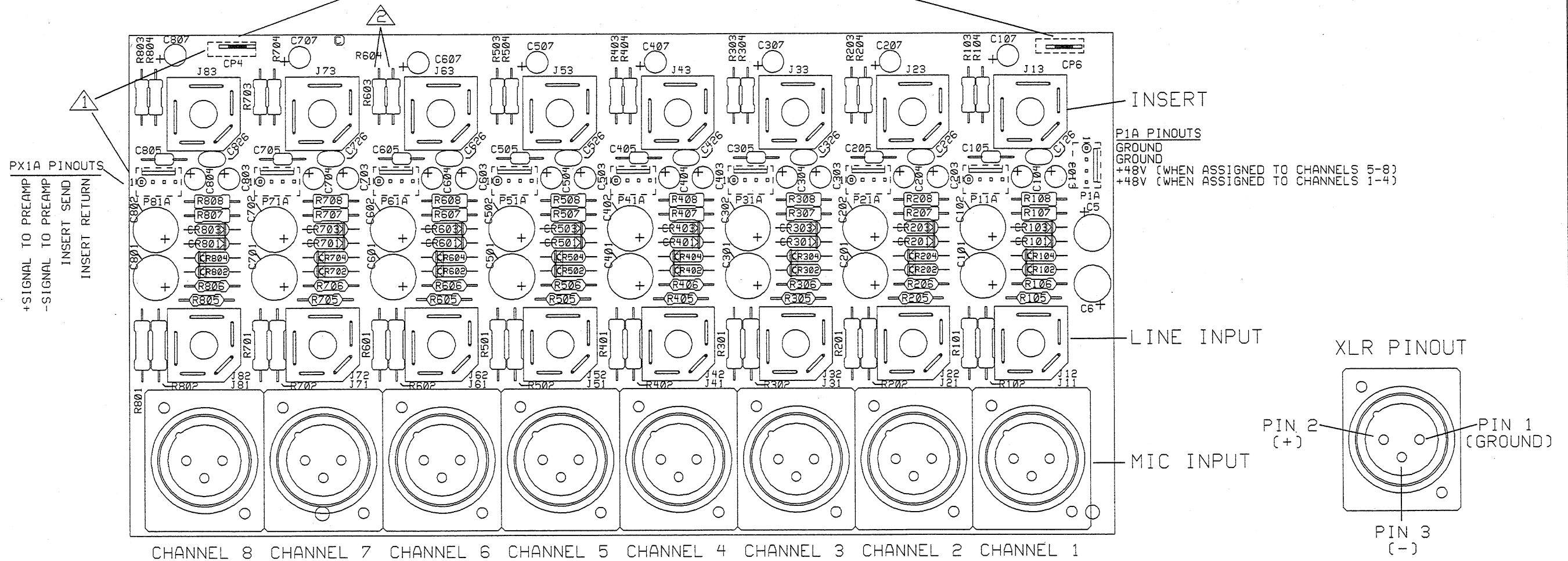


- NOTES:
1. THIS PAGE SHOWS VIEWING THE PCB FROM THE SIDE THAT THE CONNECTORS ARE MOUNTED ON. FOR THE COMPONENT SIDE VIEW, SEE PAGE 1 OF 2.
  2. THE HEADPHONE BOARD IS ACTUALLY BROKEN AWAY FROM, AND MOUNTED BELOW, THE MAIN PCB.
  3. CONNECTORS MARKED "OPTIONAL" ARE INSTALLED IN THE PCB, BUT ARE NOT NORMALLY WIRED UNLESS THE OPTION PACKAGE IS INSTALLED.

DATABASE FILE: 2252P5B CHECKED BY: <u>JY</u> DATE: <u>2-13-95</u> APPROVED: <u>JY</u> DATE: <u>10 Feb 95</u> TOLERANCES: UNLESS OTHERWISE NOTED X.X            ±0.050" X.XX          ±0.010" X.XXX        ±0.005" ANGLES       ±0.500°	PROPRIETARY THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE FENDER MUSICAL INSTRUMENTS CO. AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESSED WRITTEN CONSENT FROM: FENDER MUSICAL INSTRUMENTS CO. 2521 Research Drive Corona, CA 91720 USA NEXT HIGHER ASSEMBLY:	MUSICAL INSTRUMENTS Corona, CA 91720 USA TITLE: SERVICE DIAGRAM MX52XX MASTER OUTPUT PCB SIZE: B DRAWN: JY ENGR: BD DRAWING NUMBER: 047698 REV. A CREATED: [ ] PLOTTED: 09-FEB-95 SCALE: 2:3 SHEET 2 OF 2
--	--	---

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASE EC# 1378	17JAN95	JY

CONNECTIONS TO CHASSIS GROUND ARE MADE VIA THE FASTON TABS.



- NOTES:
- ① COMPONENTS IN DASHED LINES (HEADERS AND FASTON TABS) ARE INSTALLED ON THE BACK SIDE OF THE BOARD.
  - ② R103, R104, R203, R204...etc. ARE NOT INSTALLED ON THIS BOARD. RESISTORS WITH THESE DESIGNATORS ARE LOCATED ON THE MAIN INPUT CIRCUIT BOARD.
  - 3. THIS BOARD CONSISTS OF 8 IDENTICAL CHANNELS. IN ADDITION, THE PHANTOM POWER CONNECTOR AND BYPASS CAPACITORS ARE LOCATED TOWARDS THE RIGHT OF CIRCUIT BOARD (P1A, C5, AND C6).

FILM/DWG: SERVICE DIAGRAM	
DATABASE:	DATE: 18-JAN-95
LAYERS PLOTTED: 1 2 3 4	10 11
18 19	

DATABASE FILE: Z252P2.DBF CHECKED BY: <i>MH</i> DATE: <i>1-19-95</i> APPROVED: <i>JY</i> DATE: <i>18JAN95</i> TOLERANCES: UNLESS OTHERWISE NOTED X.X ±0.050" X.XX ±0.010" X.XXX ±0.005" ANGLES ±0.500°	<b>PROPRIETARY</b> THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE FENDER MUSICAL INSTRUMENTS CO. AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESSED WRITTEN CONSENT FROM: FENDER MUSICAL INSTRUMENTS CO. 2621 Research Drive Corona, CA 91720 USA NEXT HIGHER ASSEMBLY: MX5216, MX5224, AND MX5232	<b>MUSICAL INSTRUMENTS</b> Corona, CA 91720 USA <b>TITLE: SERVICE DIAGRAM</b> <b>MX52XX INPUT I/O BOARD</b> SIZE: DRAWN: JY      DRAWING NUMBER: 047693      REV. A ENGR: JY CREATED: 10JUN94 PLOTTED: 18-JAN-95      SHEET 1 OF 1
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COMPONENT SIDE VIEW OF PC BOARD

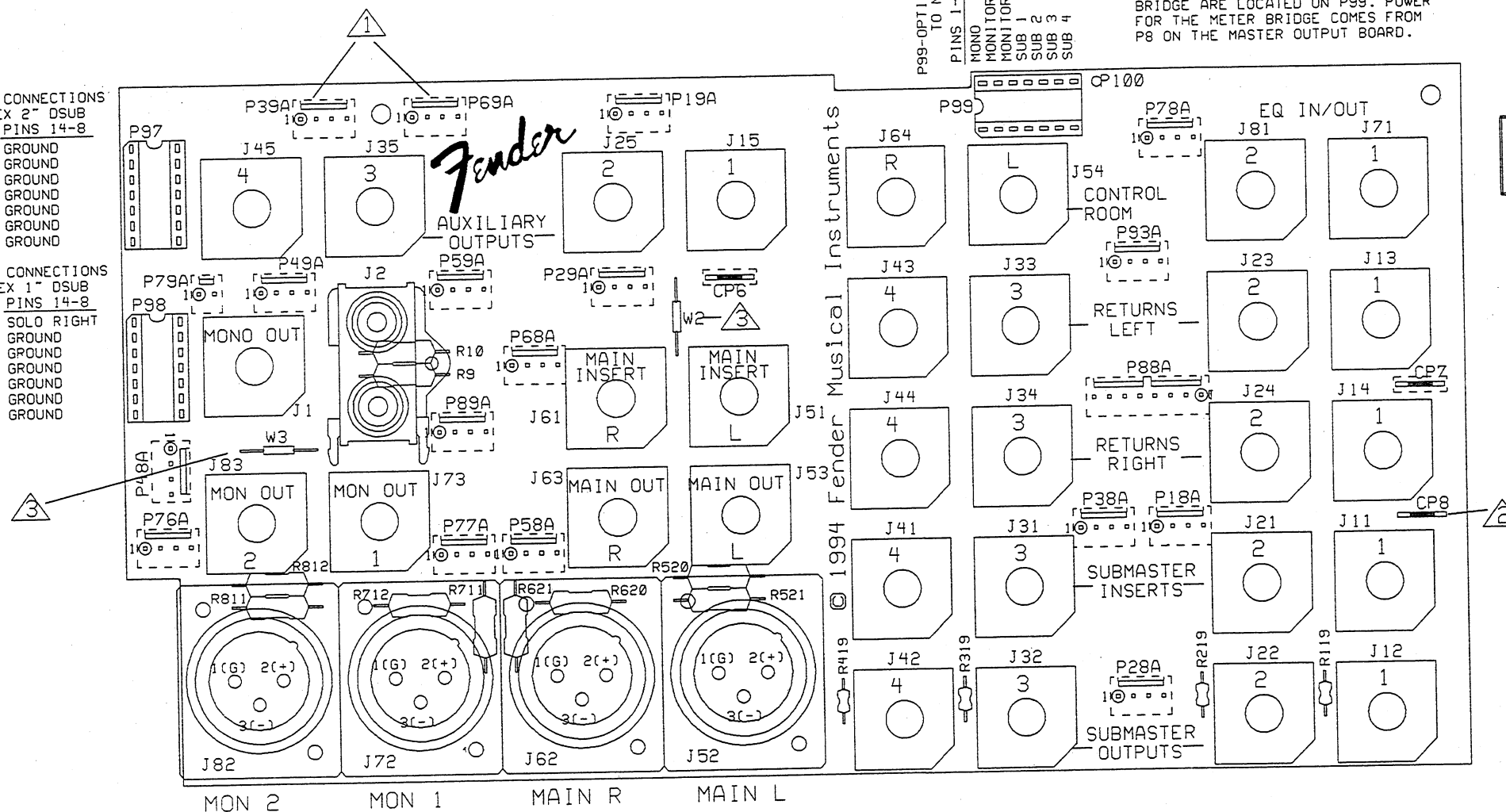
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASE EC#1379	1 FEB 95	JY

P97-OPTIONAL CONNECTIONS TO "SYSFLEX 2" DSUB  
 PINS 1-7 PINS 14-8  
 SOLO LOGIC GROUND  
 AUX 4 GROUND  
 AUX 3 GROUND  
 AUX 2 GROUND  
 AUX 1 GROUND  
 RIGHT GROUND  
 LEFT GROUND

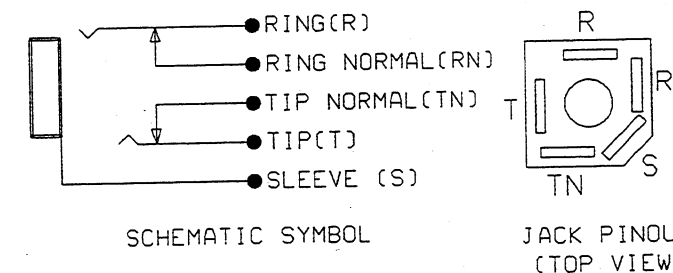
P98-OPTIONAL CONNECTIONS TO "SYSFLEX 1" DSUB  
 PINS 1-7 PINS 14-8  
 SOLO LEFT SOLO RIGHT  
 SUB 1 GROUND  
 SUB 2 GROUND  
 SUB 3 GROUND  
 SUB 4 GROUND  
 MONITOR 1 GROUND  
 MONITOR 2 GROUND

P99-OPTIONAL CONNECTIONS TO METER BRIDGE  
 PINS 1-7 PINS 14-8  
 MONO MONO L MONO R  
 MONITOR 1 MONITOR 2  
 SUB 1 SUB 2 SUB 3 SUB 4  
 SPARE

NOTES ON METER BRIDGE CONNECTIONS:  
 1. THE FOLLOWING AUDIO SIGNALS, ALTHOUGH PRESENT ON P99, ARE NOT USED WITHIN THE METER BRIDGE:  
 -AUX 2, AUX 3, AUX 4  
 -MONITOR 1, MONITOR 2  
 2. THE AUDIO SIGNALS FOR THE METER BRIDGE ARE LOCATED ON P99. POWER FOR THE METER BRIDGE COMES FROM P8 ON THE MASTER OUTPUT BOARD.



1/4" JACK PINOUT



NOTES:

- ① COMPONENTS IN DASHED LINES (HEADERS AND FASTON TABS) ARE INSTALLED ON THE BACK SIDE OF THE BOARD.
- ② FASTON TAB CP8 IS NOT INSTALLED.
- ③ JUMPERS W2 AND W3 ARE NOT INSTALLED.
- 4 THIS DRAWING SHOWS THE COMPONENT SIDE VIEW OF THE PC BOARD.
- 5 FOR PINOUTS OF RIBBON CONNECTORS TO THE MASTER OUTPUT BOARD, SEE PAGE 2 OF 2.

FILM/DWG: SERVICE DIAGRAM				
DATABASE:	Z252P6	DATE:	30-JAN-95	
LAYERS PLOTTED:	1 2 3 4		10 11	
	18 19			

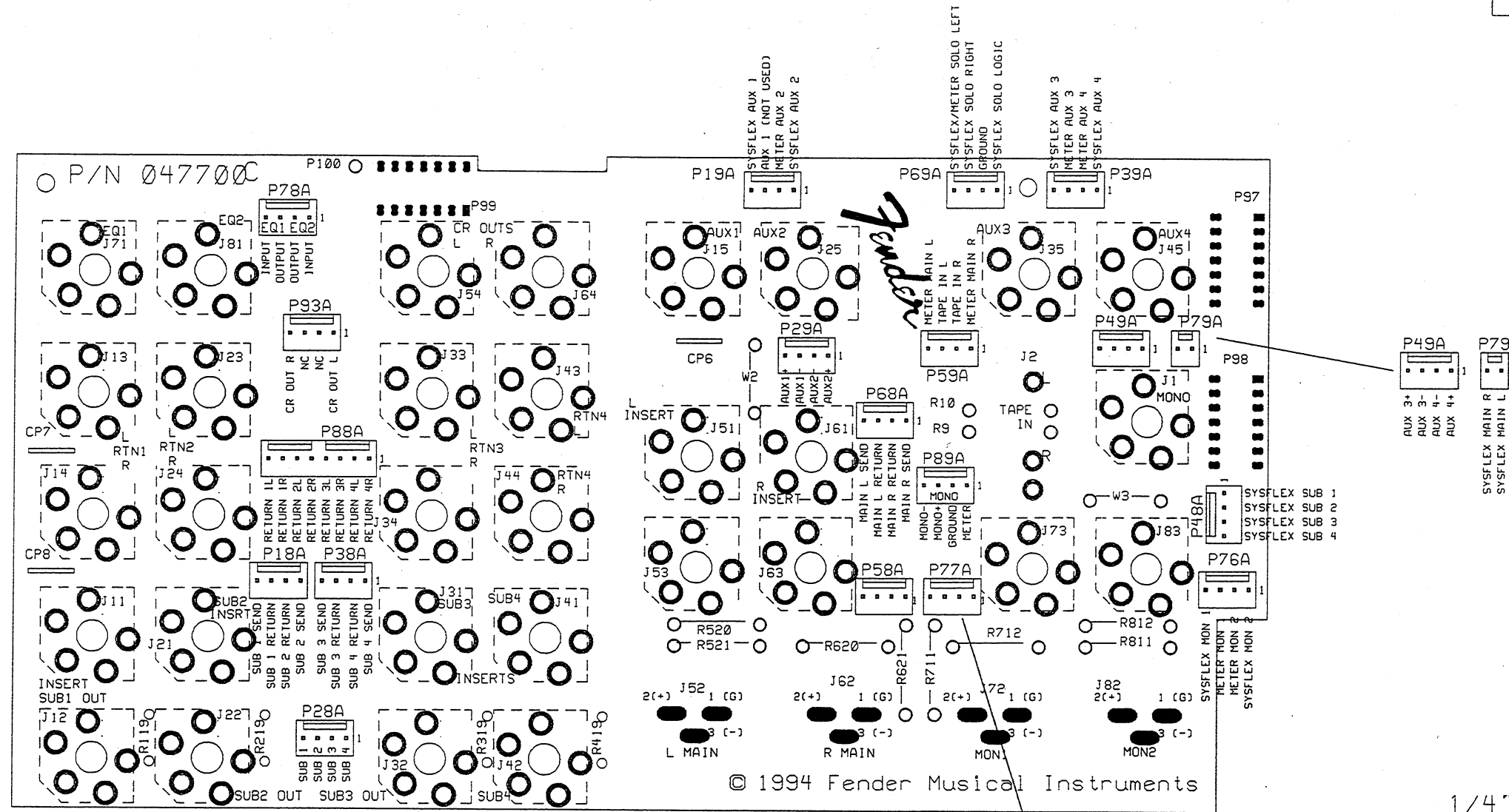
DATABASE FILE: Z252P6	PROPRIETARY
CHECKED BY: <i>MJ</i>	THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE FENDER MUSICAL INSTRUMENTS CO. AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESSED WRITTEN CONSENT FROM: FENDER MUSICAL INSTRUMENTS CO. 2621 Research Drive Corona, CA 91720 USA
DATE: <i>2-1-95</i>	
APPROVED: <i>JY</i>	
DATE: <i>1 FEB 95</i>	
TOLERANCES: UNLESS OTHERWISE NOTED	NEXT HIGHER ASSEMBLY: MX52XX SERIES MIXERS
X.X ±0.050"	
X.XX ±0.010"	
X.XXX ±0.005"	
ANGLES ±0.500°	

Fender MUSICAL INSTRUMENTS Corona, CA 91720 USA			
TITLE: SERVICE DIAGRAM, MX52XX OUTPUT I/O BOARD			
SIZE	DRAWN: B. DESI	DRAWING NUMBER	REV.
B/A	ENGR: B. DESI	047701	A
SCALE: DON'T	CREATED: 24-FEB-94	SHEET 1 OF 2	
	PLOTTED: 30-JAN-95		



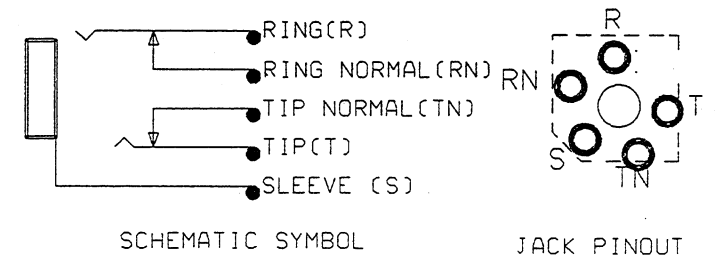
CIRCUIT SIDE VIEW OF PC BOARD  
(RIBBON CONNECTORS PLUG INTO THIS SIDE)

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASE EC#1379	1 FEB 95	JY



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1/4" JACK PINOUT



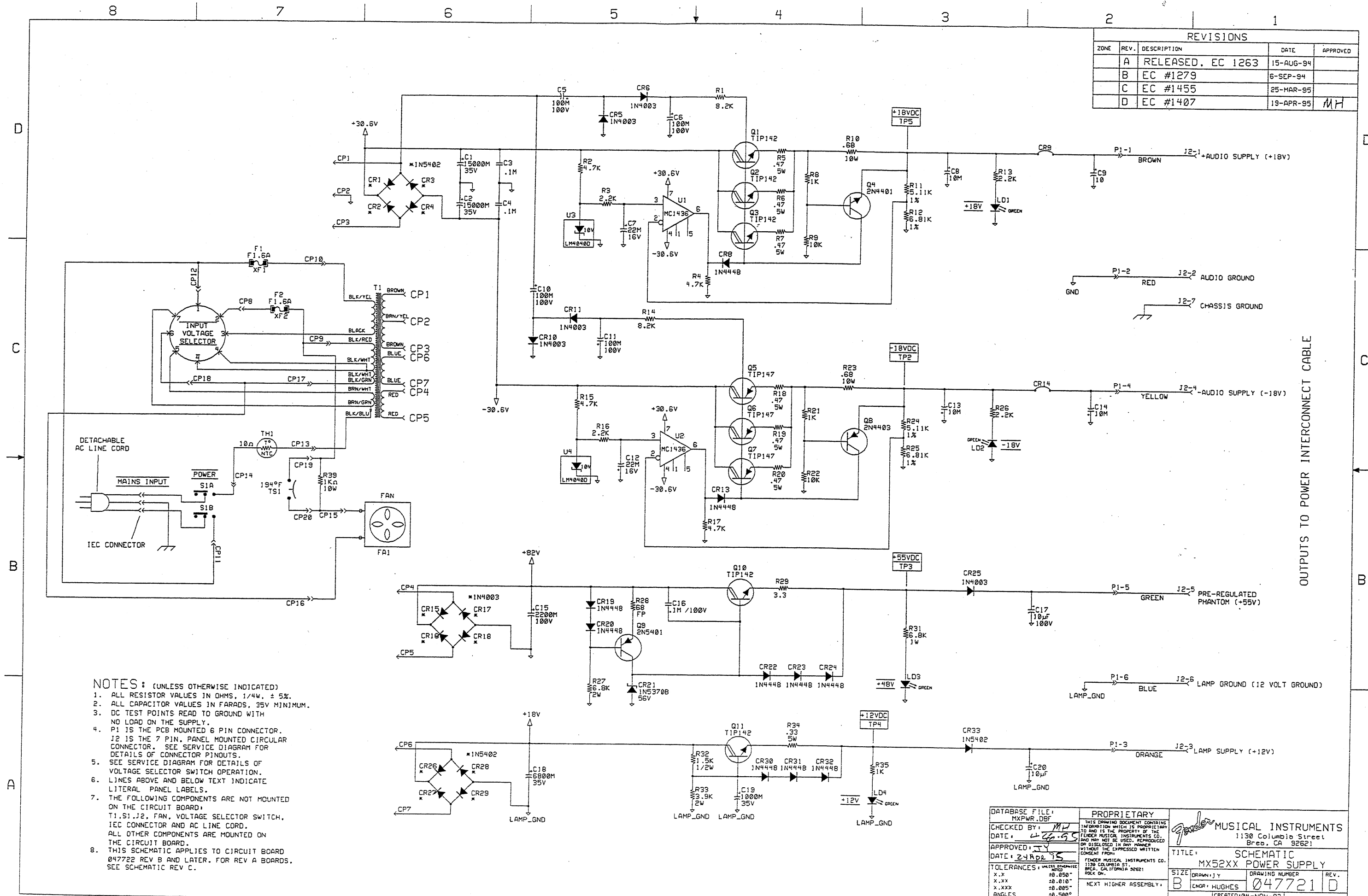
- NOTES:
- 1 COMPONENTS IN DASHED LINES ARE INSTALLED ON THE OTHER SIDE OF THE BOARD.
  - 2 FOR PINOUTS OF THE METER AND SYSFLEX CONNECTORS, SEE PAGE 1 OF 2

FILM/DWG: SERVICE DIAGRAM	
DATABASE: Z252P6	DATE: 01-FEB-95
LAYERS PLOTTED: 1 2 3 4	10 11
	18 19

DATABASE FILE: Z252P6A	<p align="center"><b>PROPRIETARY</b></p> <p>THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE FENDER MUSICAL INSTRUMENTS CO. AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESSED WRITTEN CONSENT FROM: FENDER MUSICAL INSTRUMENTS CO. 2621 Research Drive Corona, CA 91720 USA</p>
CHECKED BY: <i>HY</i>	
DATE: <i>2-1-95</i>	
APPROVED: <i>JY</i>	<p align="center"><b>FENDER MUSICAL INSTRUMENTS</b> Corona, CA 91720 USA</p>
DATE: <i>1 FEB 95</i>	
TOLERANCES: UNLESS OTHERWISE NOTED	
X.X ±0.050"	<p align="center">NEXT HIGHER ASSEMBLY: <b>MX52XX SERIES MIXERS</b></p>
X.XX ±0.010"	
X.XXX ±0.005"	
ANGLES ±0.500°	

<p align="center"><b>FENDER MUSICAL INSTRUMENTS</b> Corona, CA 91720 USA</p>	
<p align="center">TITLE: SERVICE DIAGRAM, <b>MX52XX OUTPUT I/O BOARD</b></p>	
SIZE	DRAWN: B. DESI
B/A	ENGR: B. DESI
SCALE: DON'T	CREATED: 24-FEB-94
	PLOTTED: 01-FEB-95
	SHEET 2 OF 2

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASED, EC 1263	15-AUG-94	
	B	EC #1279	6-SEP-94	
	C	EC #1455	25-MAR-95	
	D	EC #1407	19-APR-95	MH



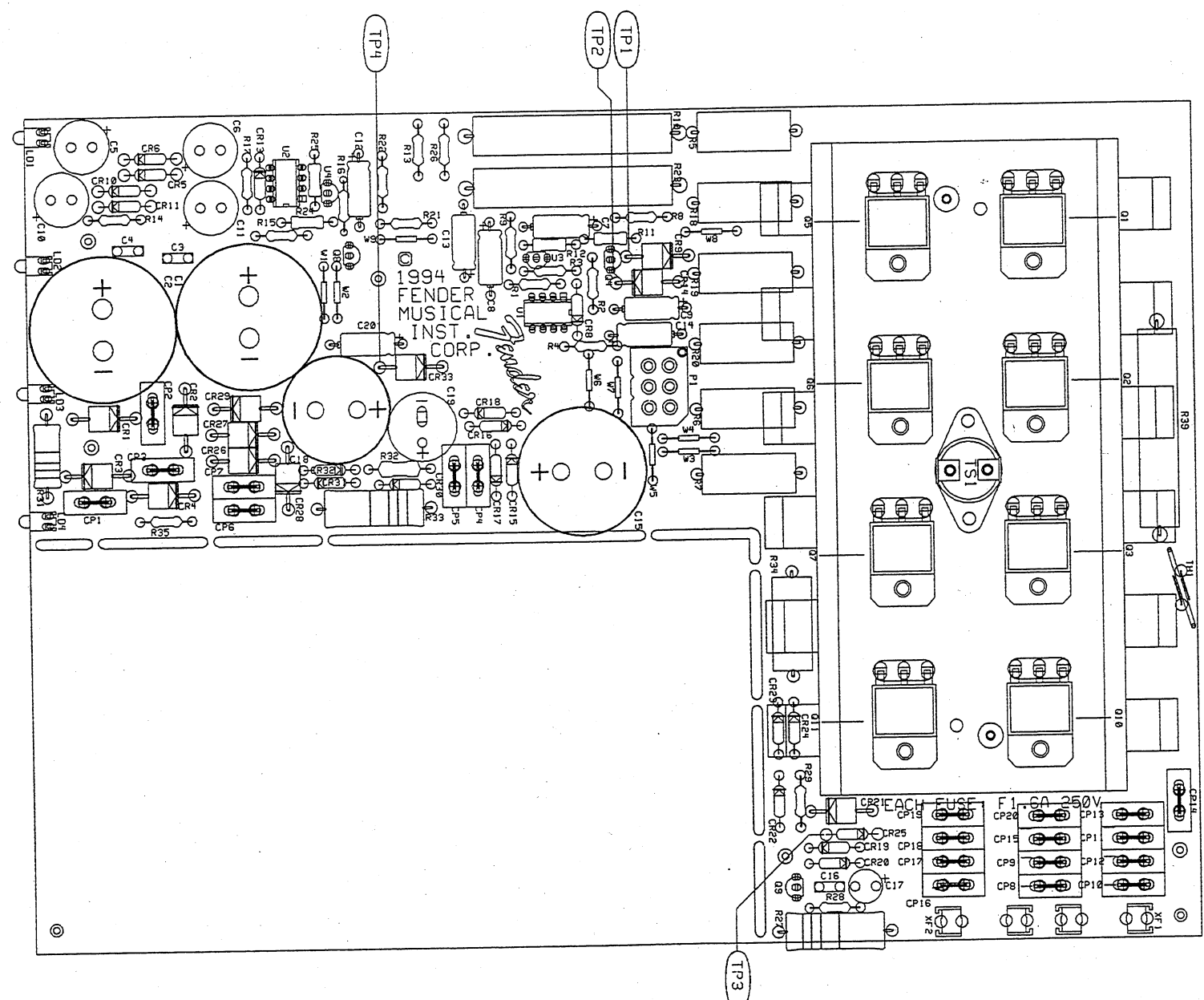
- NOTES:** (UNLESS OTHERWISE INDICATED)
- ALL RESISTOR VALUES IN OHMS, 1/4W, ± 5%.
  - ALL CAPACITOR VALUES IN FARADS, 35V MINIMUM.
  - DC TEST POINTS READ TO GROUND WITH NO LOAD ON THE SUPPLY.
  - P1 IS THE PCB MOUNTED 6 PIN CONNECTOR. J2 IS THE 7 PIN, PANEL MOUNTED CIRCULAR CONNECTOR. SEE SERVICE DIAGRAM FOR DETAILS OF CONNECTOR PINOUTS.
  - SEE SERVICE DIAGRAM FOR DETAILS OF VOLTAGE SELECTOR SWITCH OPERATION.
  - LINES ABOVE AND BELOW TEXT INDICATE LITERAL PANEL LABELS.
  - THE FOLLOWING COMPONENTS ARE NOT MOUNTED ON THE CIRCUIT BOARD: T1, S1, J2, FAN, VOLTAGE SELECTOR SWITCH, IEC CONNECTOR AND AC LINE CORD. ALL OTHER COMPONENTS ARE MOUNTED ON THE CIRCUIT BOARD.
  - THIS SCHEMATIC APPLIES TO CIRCUIT BOARD 047722 REV B AND LATER. FOR REV A BOARDS, SEE SCHEMATIC REV C.

OUTPUTS TO POWER INTERCONNECT CABLE

DATABASE FILE: MXPWR.DBF CHECKED BY: DATE: 4-29-95 APPROVED: JY DATE: 24 Apr 95	<b>PROPRIETARY</b> THIS DRAWING DOCUMENT CONTAINS INFORMATION WHICH IS PROPRIETARY TO AND IS THE PROPERTY OF THE FENDER MUSICAL INSTRUMENTS CO. AND MAY NOT BE USED, REPRODUCED OR DISCLOSED IN ANY MANNER WITHOUT THE EXPRESSED WRITTEN CONSENT FROM: FENDER MUSICAL INSTRUMENTS CO. 1130 COLUMBIA ST. BREA, CALIFORNIA 92621 ROCK ON! NEXT HIGHER ASSEMBLY.	<b>FENDER MUSICAL INSTRUMENTS</b> 1130 Columbia Street Brea, CA 92621 TITLE: SCHEMATIC MX52XX POWER SUPPLY SIZE: DRAWN: JY ENGR: HUGHES DRAWING NUMBER: 047721 REV: 10 SCALE: (CREATED: 04-NOV-93) PLOTTED: 24-APR-95 SHEET 1 OF 1
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REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	RELEASE EC#1160	11APR94	
	B	EC #1407	19APR95	MH



FILM/DWG: SERVICE DIAGRAM  
 DATABASE: MXPWRP.DBF DATE: 24-APR-95  
 LAYERS PLOTTED: 1 2 3 4 5 10 11 18

DATABASE FILE:  
 Z252P3.DBF  
 CHECKED BY: MH  
 DATE: 4-26-95  
 APPROVED: JY  
 DATE: 24 APR 95  
 TOLERANCES: UNLESS OTHERWISE NOTED  
 X.X ±0.050"  
 X.XX ±0.010"  
 X.XXX ±0.005"  
 ANGLES ±0.500°

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 FENDER MUSICAL INSTRUMENTS CO.  
 2621 Research Drive  
 Corona, CA 91720 USA  
 NEXT HIGHER ASSEMBLY:

**Fender** MUSICAL INSTRUMENTS  
 Corona, CA 91720 USA

TITLE: SERVICE DIAGRAM  
 MX52XX POWER SUPPLY

SIZE	DRAWN: SH	DRAWING NUMBER	REV.
B	ENGR: SH	047723	B

SCALE: 2:3  
 CREATED: 18-NOV-93  
 PLOTTED: 24-APR-95 SHEET 1 OF 1