



SR6300 / SR8500 Powered Mixers®™

(These are the model name for warranty claims)

p/n 0716200000 (120V)

p/n 0718500000 (120V)

SERVICE MANUAL



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August, 2004

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

PARTS LIST CODES

The description codes used in the itemized Parts Lists are defined below:

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

RESISTOR CODES

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

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



SPECIFICATIONS

Model Name:	SR6300 6 Channel Stereo Powered Mixer	
Release Number: <i>(Not a model number)</i>	PR546	
Part Numbers	(120V, 60Hz) US:	0716200000
	(110V, 60Hz) TW:	0716200910
	(240V, 50Hz) AUS:	0716200030
	(230V, 50Hz) UK:	0716200040
	(230V, 50Hz) ARG:	0716200950
	(230V, 50Hz) EUR:	0716200060
	(100V, 50/60Hz) JPN:	0716200070
	(220V, 60Hz) ROK:	0716200990
Power Requirement:	550 W	
Power Output, Per Channel:	150 W continuous into 4 ohms @ 0.5 %THD 100 W continuous into 8 ohms @ 0.5% THD 300 W continuous into 8 ohms bridged @ 0.5% THD	
Power Amp Sensitivity:	992 mV for 150W into 4 ohms @ 0.5 %THD	
Impedances	Line Input:	10k ohms
	Mic Input:	2k ohms
	Pwr Amp In:	22k ohms
Speaker Complement:	N/A	
Dimensions	Height:	10.5 in (26.7 cm)
	Width:	18.25 in (46.4 cm)
	Depth:	11.25 in (28.6 cm)
Weight:	35.5 lbs (16.1 kg)	

Product specifications are subject to change without notice



SR6300 / SR8500 Powered Mixers®TM

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SPECIFICATIONS

Model Name:	SR8500 8 Channel Stereo Powered Mixer	
Release Number: <i>(Not a model number)</i>	PR547	
Part Numbers	(120V, 60Hz) US:	0718500000
	(110V, 60Hz) TW:	0718500910
	(240V, 50Hz) AUS:	0718500030
	(230V, 50Hz) UK:	0718500040
	(230V, 50Hz) ARG:	0718500950
	(230V, 50Hz) EUR:	0718500060
	(100V, 50/60Hz) JPN:	0718500070
	(220V, 60Hz) ROK:	0718500990
Power Requirement:	800 W	
Power Output, Per Channel:	250 W continuous into 4 ohms @ 0.5 %THD 175 W continuous into 8 ohms @ 0.5% THD 500 W continuous into 8 ohms bridged @ 0.5% THD	
Power Amp Sensitivity:	906 mV for 250W into 4 ohms @ 0.5 %THD	
Impedances	Line Input:	10k ohms
	Mic Input:	2k ohms
	Pwr Amp In:	22k ohms
Speaker Complement:	N/A	
Dimensions	Height:	10.5 in (26.7 cm)
	Width:	18.25 in (46.4 cm)
	Depth:	11.25 in (28.6 cm)
Weight:	35.5 lbs (16.1 kg)	

Product specifications are subject to change without notice



SERVICE NOTES

- 1. FRONT PANEL REMOVAL** is accomplished by removing the 6 screws from the front. It helps to remove the "PROGRAMS" and "MAIN MASTER" knobs for leverage to pull the panel from the chassis. Clip the wire tie and remove the two connectors (CON5 + CON6) to completely remove the front panel. Ensure that all wires are re-attached onto wire tie point to prevent a safety hazard.
- 2. REAR PANEL REMOVAL** is accomplished by first removing the front panel as in # 1. There are 6 screws in the rear panel that must be removed; after which the rear panel including power supply and power amplifier can be removed.
- 3. EFFECTS board** is permanently connected to the main mix board (NOT the input section, an additional board on the front panel). The effects board is part of the main mix module. To remove this module, remove the knobs, nuts and washers from the "PROGRAMS" and "MAIN MASTER" controls. There are 5 connectors on the board that must be disconnected for full removal of effects and main mixer section.
- 4. PCB REMOVAL** is generally not necessary since part replacement is done at the module level only.
- 5. POWER AMPLIFIER MODULE REMOVAL** is accomplished by removing the screws on the 4 corners of the heatsink (which is part of the module). Remove connectors from CON1, CON2, CON7 and DC FAN.

MODULE EXCHANGE POLICY

If a failure due to one of the modules is detected, please contact the Fender® Dealer Customer Service Department to order the complete Module Assembly.

SR6300/SR8500 Parts List

Part Number	Description
0069912000	Power Amp Module, SR6300
0069913000	Power Amp Module, SR8500
0069914000	Transformer, 120V, SR6300
0069915000	Transformer, 230V, SR6300
0069916000	Transformer, 120V, SR8500
0069917000	Transformer, 230V, SR8500
0069918000	Cooling Fan, SR6300
0069919000	Cooling Fan, SR8500
0069920000	Speaker Output Board, SR Mixers
0069921000	DFX Board, SR Mixers
0069922000	Front Panel Assy, SR6300
0069923000	Front Panel Assy, SR8500
0069924000	Chassis, SR Mixers
0069925000	Knob, Grey Tip, SR Mixers
0069926000	Knob, Red Tip, SR Mixers
0069927000	Knob Green Tip, SR Mixers
0069928000	Knob Blue Tip, SR Mixers
0069929000	Knob, Grey, Phantom Pwr, SR Mixers
0069930000	Knob, Red, DSP, SR Mixers
0069931000	IEC Socket, 120V, SR6300
0069932000	IEC Socket, 120V, SR8500
0069933000	IEC Socket, 230V, SR6300
0069934000	IEC Socket, 230V, SR8500
0069935000	Rubber Feet w/screws, SR Mixers
0069936000	Corner, w/screws, SR Mixers
0069937000	Strap Handle w/cover/scews, SR Mixers
0069938000	Pot, Channel Pan, SR Mixers
0069939000	Pot, Channel Level, SR Mixers
0069940000	Pot, Channel EFX/Mon, SR Mixers
0069941000	Pot, Channel EQ/lo/mid/high, SR Mixers
0069942000	Pot, Master EFX/Aux/Tape, SR Mixers
0069943000	Pot, Master Mon out/L/R, SR Mixers
0069944000	Pot, Main Master, SR Mixers
0069945000	Switch, EFX on/off, SR Mixers
0069946000	Switch, Level Meter Mode, SR Mixers
0069947000	Switch, Phantom Pwr, SR Mixers
0069948000	Switch, System Mode, SR Mixers
0069949000	Jack, TRS, all exept spkr, SR Mixers
0069950000	Jack, XLR, SR Mixers
0069951000	Jack, RCA, SR Mixers
0069952000	Jack, TRS, speaker out, SR Mixers



CIRCUIT DESCRIPTION

This section provides concise information about new or unusual circuitry designs incorporated into the mixer. The purpose is to aid the service technician by providing insight into the design areas most likely to become obstacles in troubleshooting. Information is focused for its effective use while maintaining the security of Fender® proprietary information wherever possible.

FRONT PANEL MIXER SECTION

The mixer section is mainly made of operational amplifiers and gain stage and therefore requires only a brief description. The mixer section consists of 6 or 8 Mic and line inputs with volume, EQ and pan controls. There are also monitor and effects bus levels on each channel. Line inputs can be operated as either balanced or unbalanced. There is a gain selection switch (0dB / -20dB) on the front panel for each channel. Each channel is routed to one of 4 main mixer busses (Left, Right, Monitor and Effects). The "Main" bus is a mono sum of the left and right busses. There are many access

points to each bus (tape in/out, aux in etc.) that are best described in the user's manual block diagram.

POWER AMPLIFIER

The power amplifier is a standard class AB stereo 150 Watt per side amplifier. Note that the program material sent to the amplifier is switchable between Left and Right, Main and Monitor, and Bridged. Bridge mode level is controlled by the left volume control.

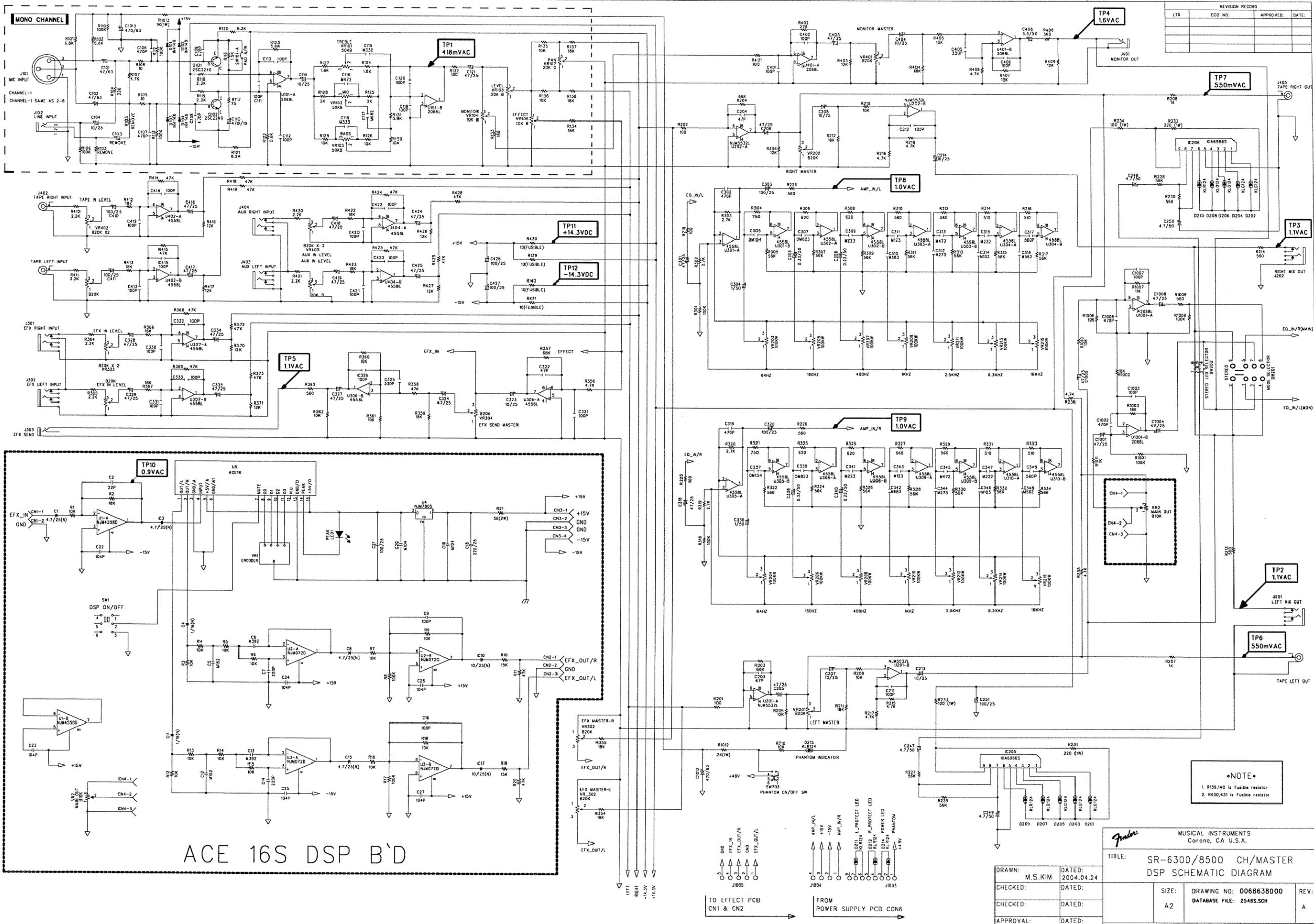
POWER SUPPLY

The power supply is located on the power amplifier board.

DIGITAL EFFECTS

The effects are located on a permanently affixed daughter board on the front panel. This module converts the effects bus to digital audio, processes it with the selected effect, and converts it back to analog audio to later be mixed onto one of the main channels.

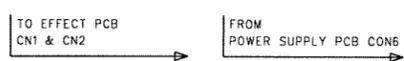
REVISION RECORD			
LTR	ECO NO.	APPROVED:	DATE:



ACE 16S DSP B'D

NOTE
 1. R139,140 is fusible resistor
 2. R430,431 is fusible resistor

MUSICAL INSTRUMENTS Corona, CA U.S.A.	
TITLE: SR-6300/8500 CH/MASTER DSP SCHEMATIC DIAGRAM	
DRAWN: M.S.KIM	DATED: 2004.04.24
CHECKED: []	DATED: []
CHECKED: []	DATED: []
APPROVAL: Y.H.KIM	DATED: 2004.04.26
SIZE: A2	DRAWING NO: 0068638000 DATABASE FILE: Z5465.SCH
REV: A	OEM/ODM: Philips Research Co
SHEET: 2/2	



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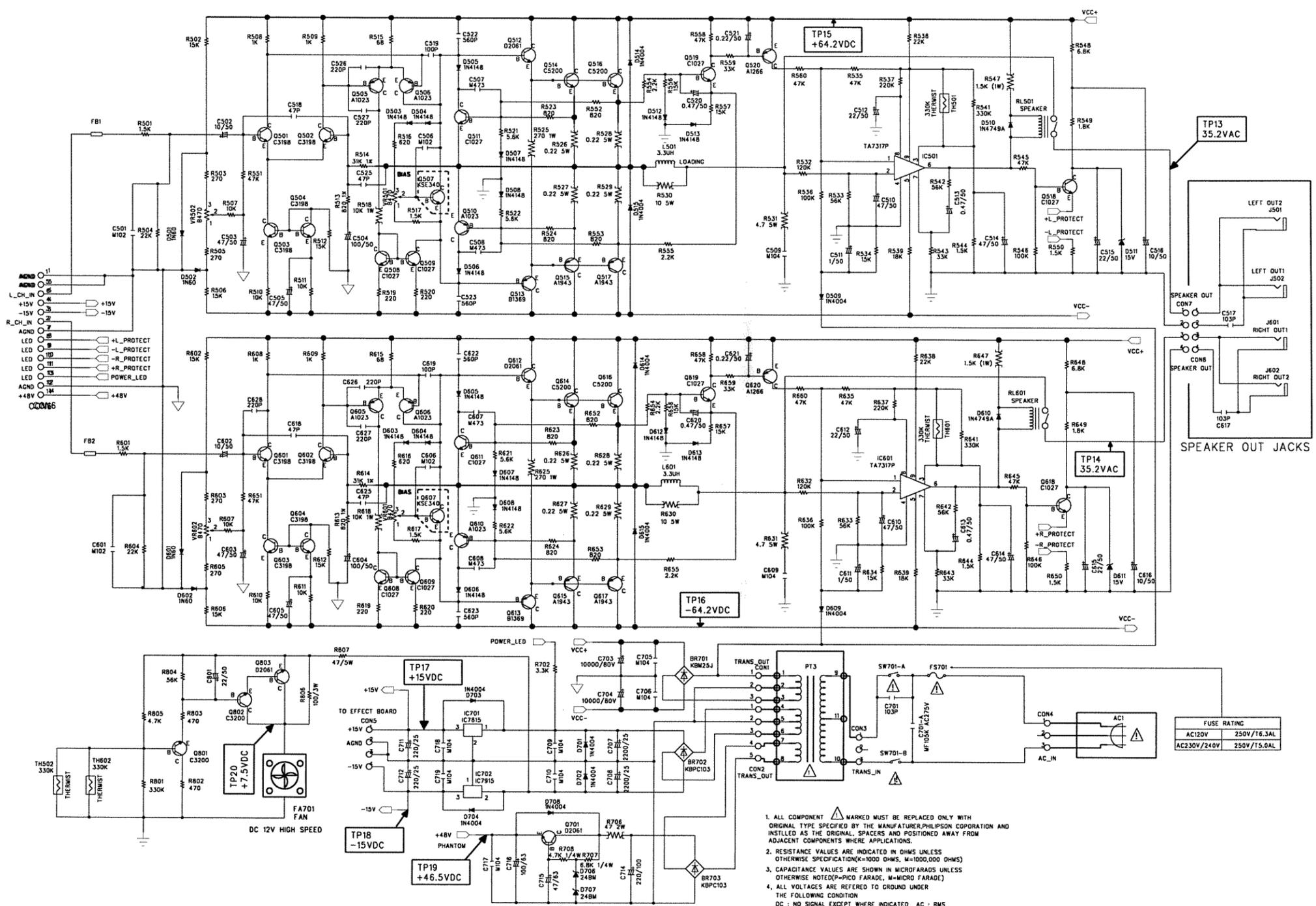
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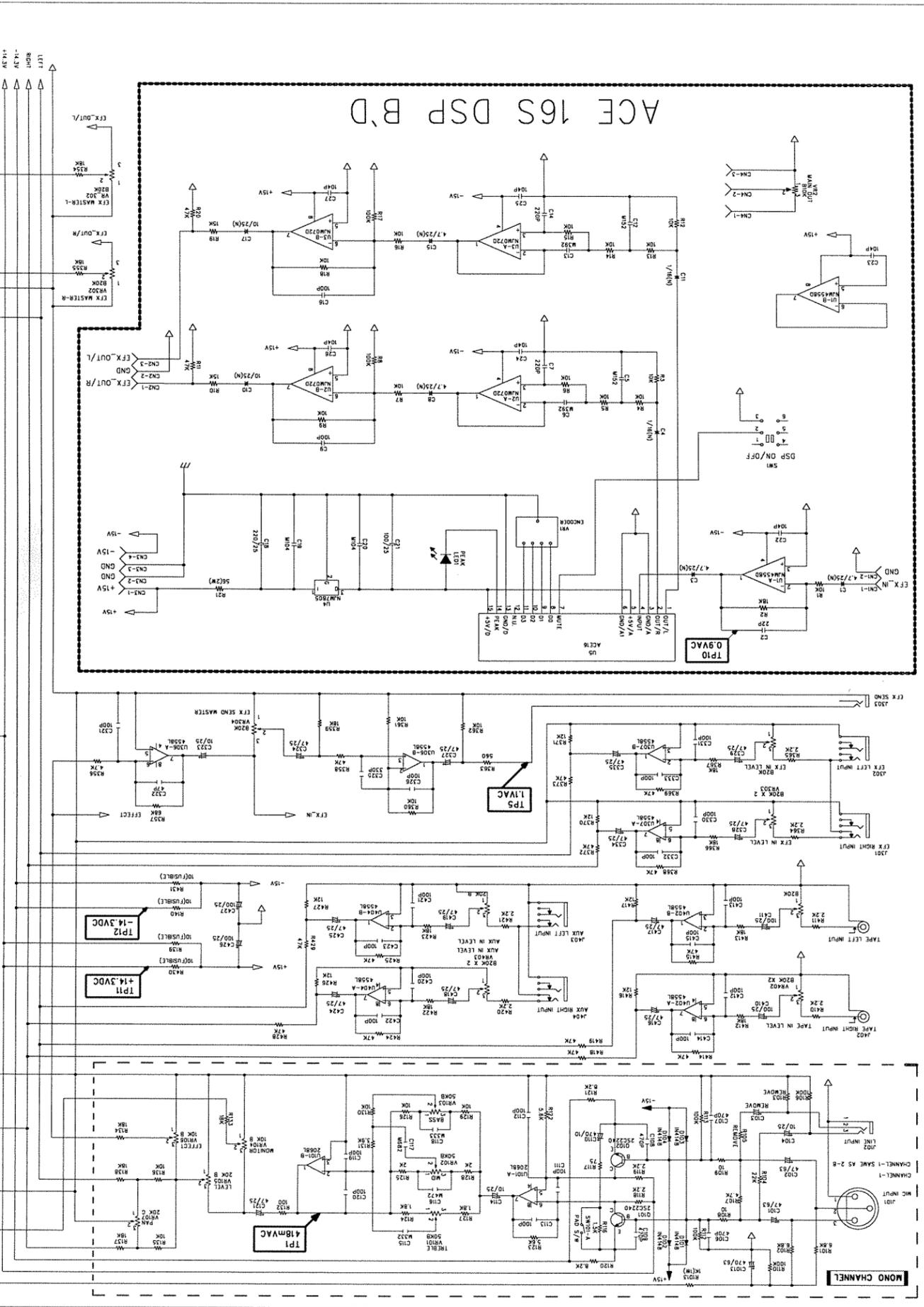
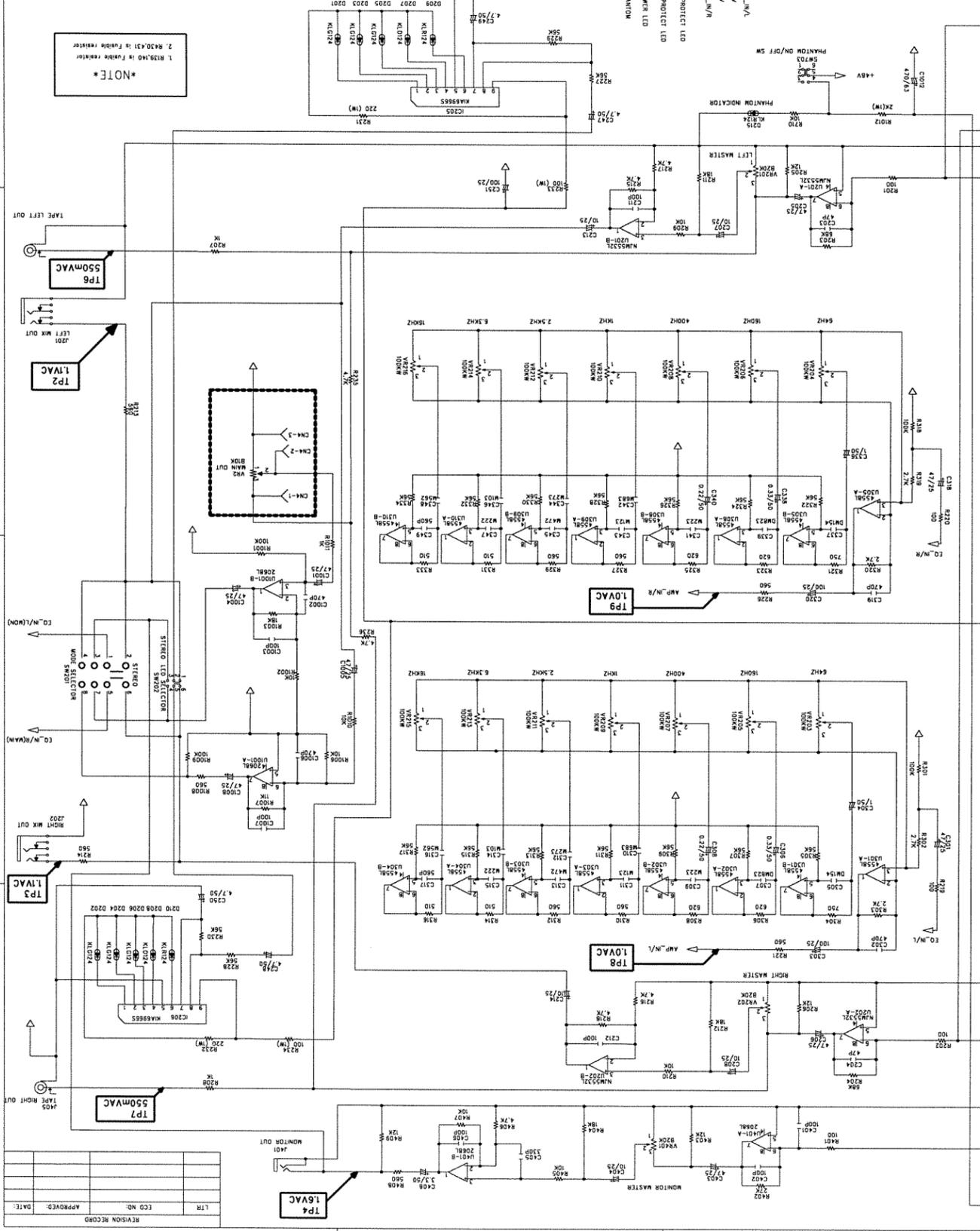
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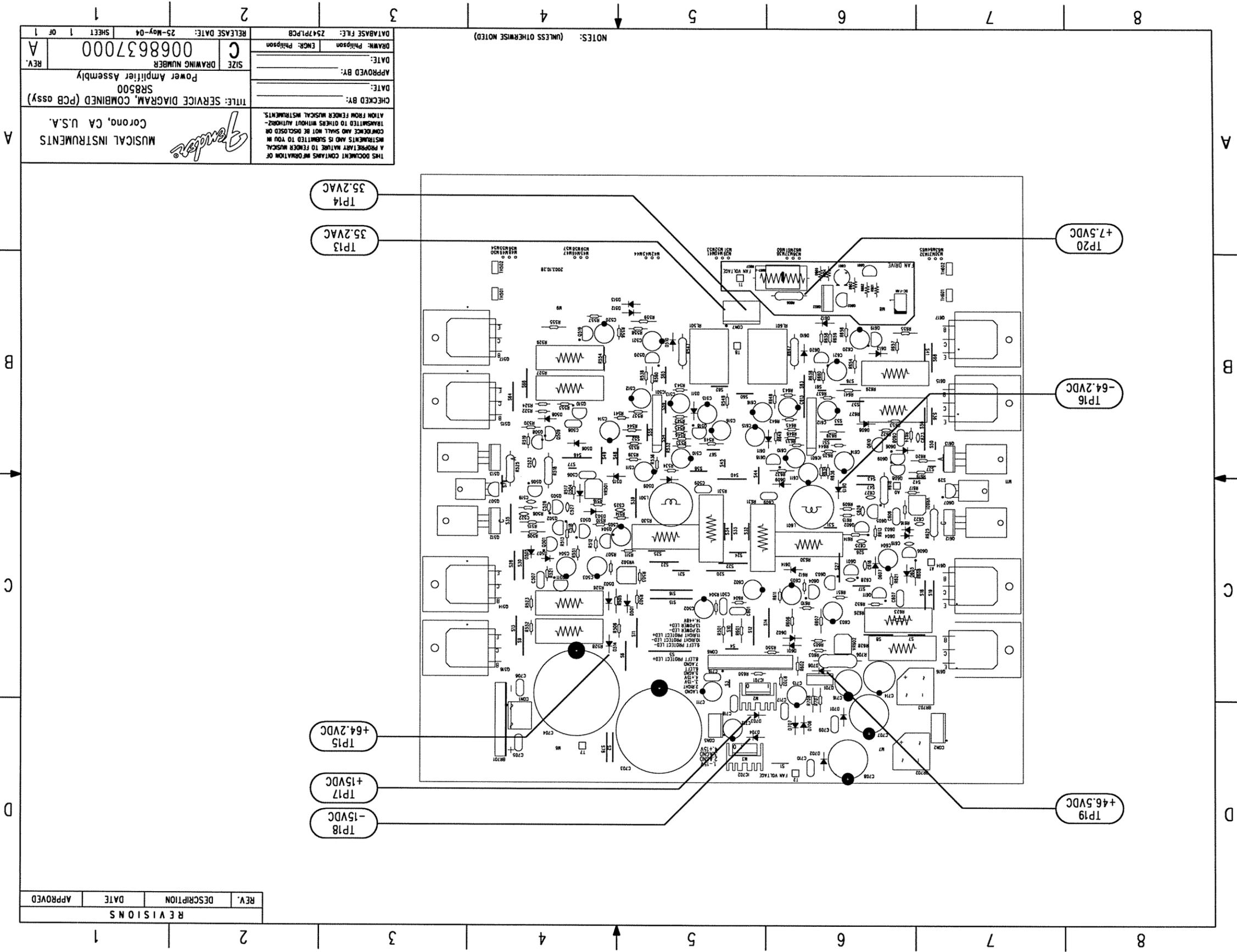


TITLE: SR-6300/8500 CH/MASTER DSP SCHEMATIC DIAGRAM
 MUSICAL INSTRUMENTS
 Corona, CA U.S.A.
 APPROVAL: Y.H.KIM
 DATE: 2004.04.26
 CHECKED: M.S.KIM
 DATE: 2004.04.24
 REV: A
 DATABASE FILE: ZS4353CH
 SHEET: 2/2

NOTE*
 1. R193, R194 is flexible resistor
 2. R193, R194 is flexible resistor



REV	DATE	APPROVED	ECO NO.	LTN



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Fender
 Musical Instruments
 Corona, CA U.S.A.

CHECKED BY: _____ DATE: _____
 APPROVED BY: _____ DATE: _____

DRM: Phibson
 EMGR: Phibson
 DATABASE FILE: 2547P1.PCB

RELEASE DATE: 25-May-04 SHEET 1 OF 1

SIZE C DRAWING NUMBER 0068637000 REV. A
 TITLE: SERVICE DIAGRAM, COMBINED (PCB assy)
 Power Amplifier Assembly
 SR8500

NOTES: (UNLESS OTHERWISE NOTED)

TP20 +7.5VDC

TP16 -64.2VDC

TP19 +6.5VDC

TP18 -15VDC

TP17 +15VDC

TP15 +64.2VDC

TP13 35.2VAC

TP14 35.2VAC

REVISIONS			
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DRWNG: Phibson ENCR: Phibson

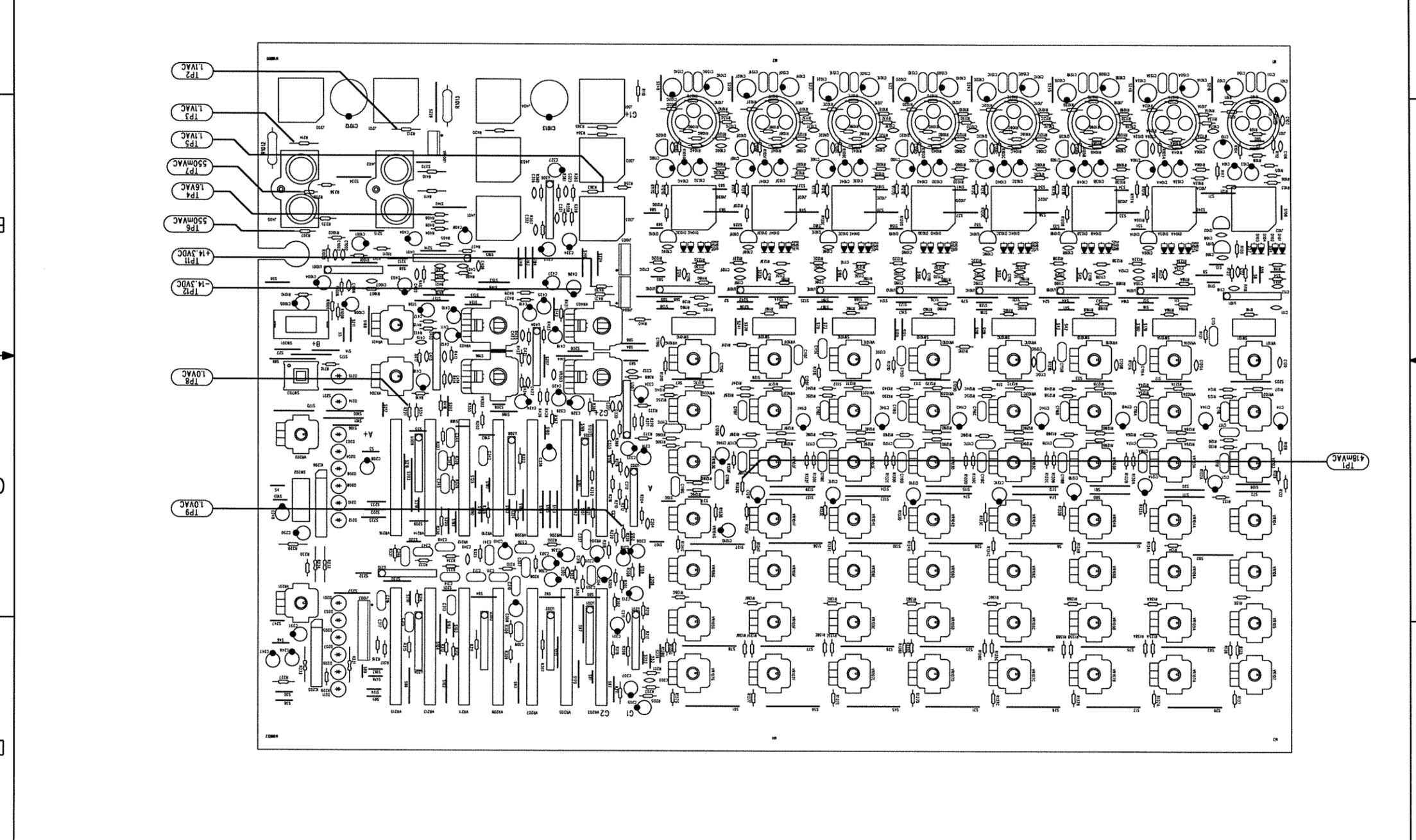
DATABASE FILE: Z547P2.PCB

RELEASE DATE: 24-May-04 SHEET 1 OF 1

SIZE: C DRAWING NUMBER: 0068638000 REV. A

TITLE: SERVICE DIAGRAM, COMBINED (PCB assy) SR Mixers Front Panels

Corona, CA U.S.A.



REVISIONS		
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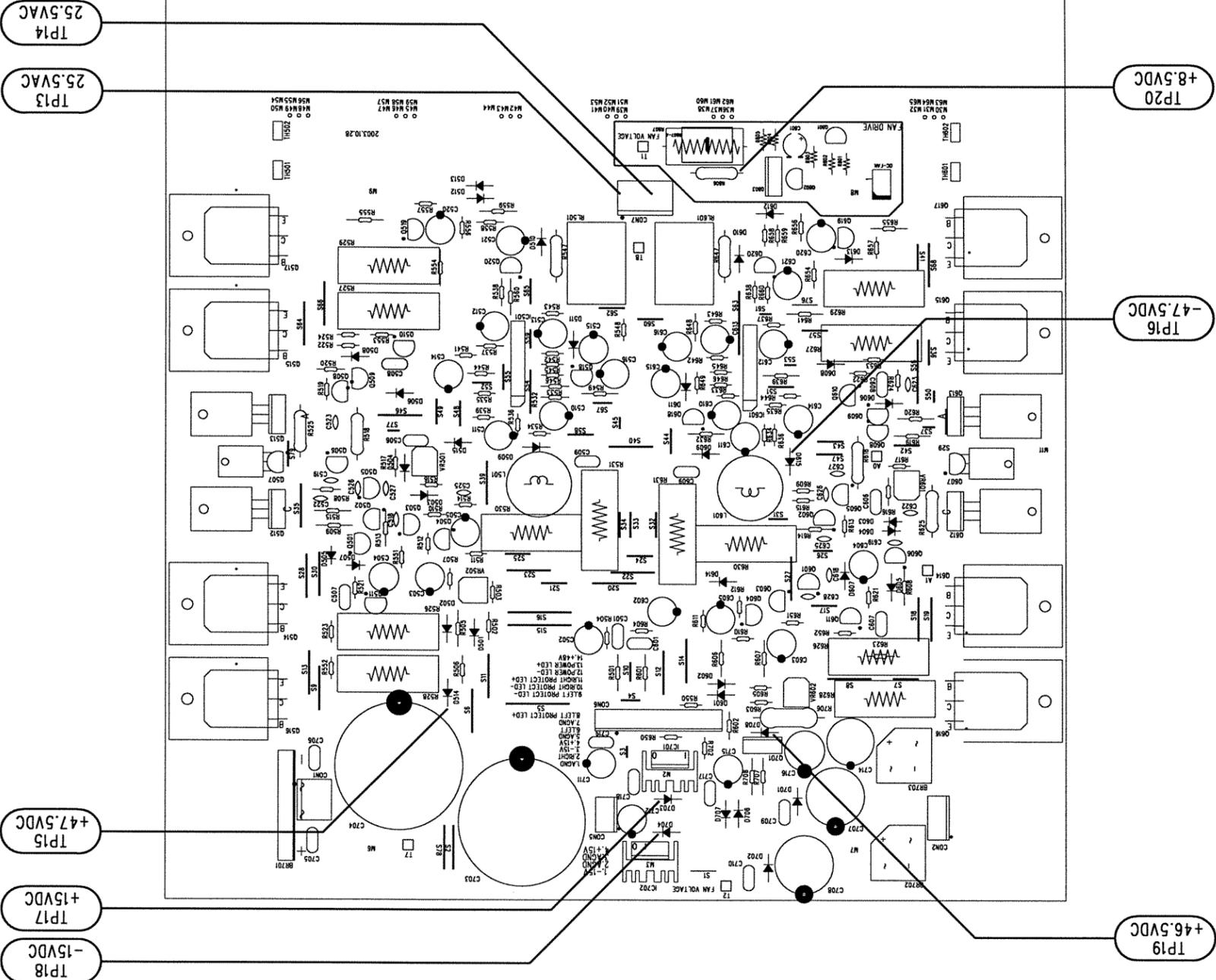
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APPROVED BY: _____ DATE: _____		DRAWN: Philipson ENGR: Philipson
SIZE: C DRAWING NUMBER: 0068635000 REV: A	DATABASE FILE: Z546P1.PCB RELEASE DATE: 24-May-04 SHEET 1 OF 1	

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C

D



NOTES: (UNLESS OTHERWISE NOTED)

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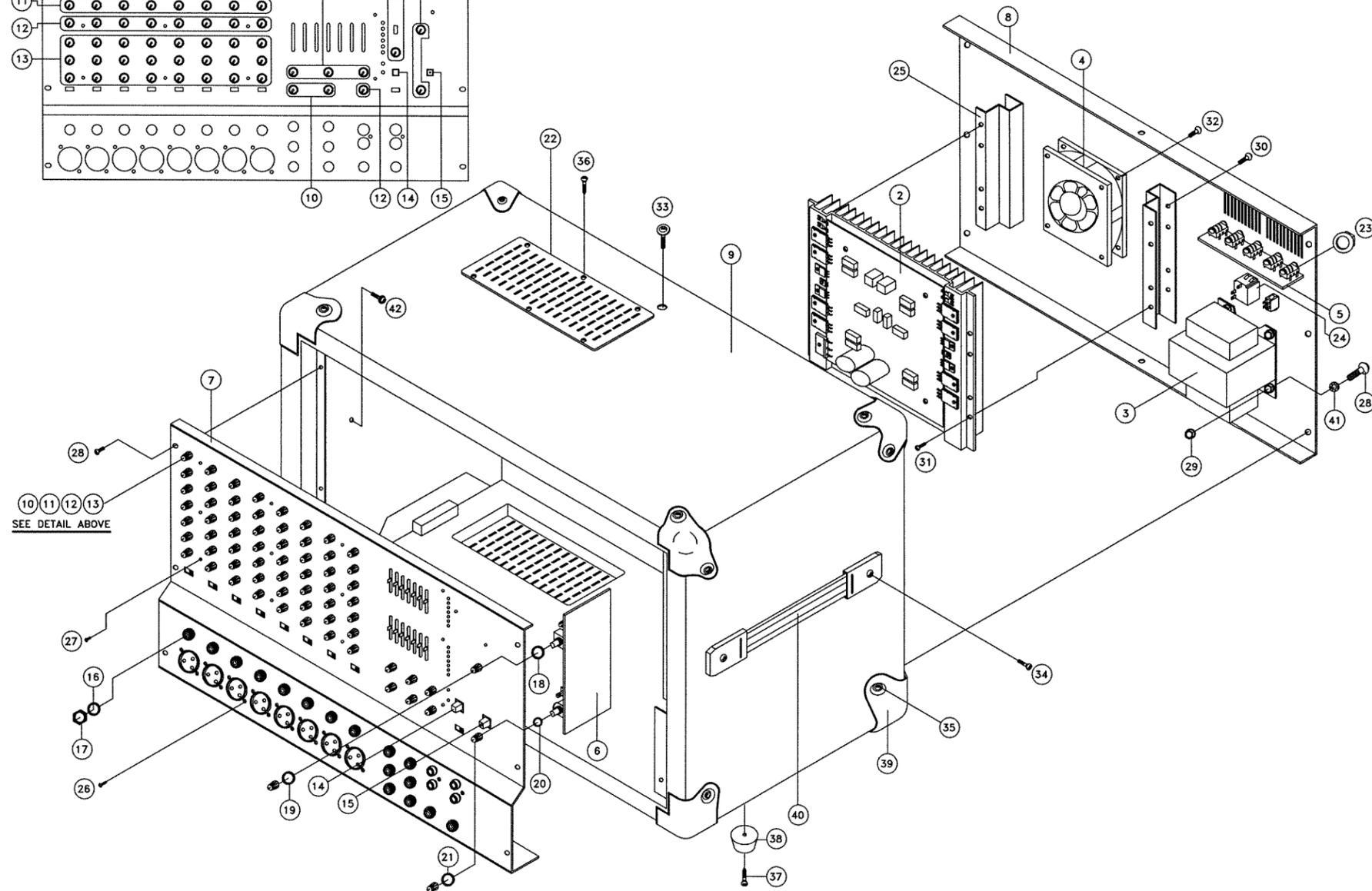
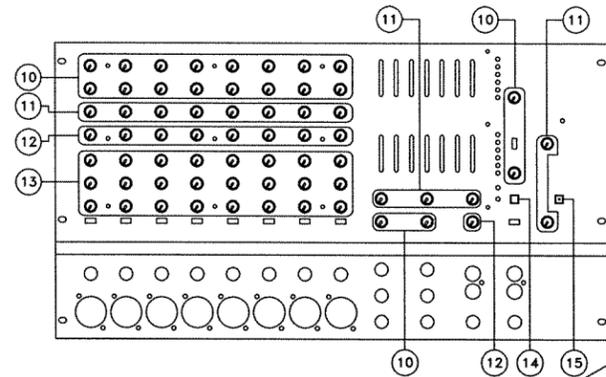
A

B

C

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KNOB PLACEMENT DETAIL



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 - 3. - 3 - SAMPLES OF FIRST PARTS MUST BE APPROVED BY FENDER R&D BEFORE STARTING PRODUCTION.
 - 2. ALL DIMENSIONS ARE IN MILLIMETERS.
 - 1. DO NOT SCALE DRAWING.
- NOTES: UNLESS OTHERWISE NOTED

ENGINEER PHILIPSON				FENDER MUSICAL INSTRUMENTS CORP. CORONA, CALIFORNIA U.S.A.	
DRAWN PHILIPSON				TITLE SR8500 POWERED MIXER	
DATE 07/06/2004		SHEET 1 of 1		DRAWING NUMBER 0068642000	
DFT. ENG. ENG.		SCALE NONE		REV. 1.0	
DATE		D		ASSEMBLY	