



MP 24 SERVICE INFORMATION

CHANGING INTERNAL JUMPER BLOCKS

There exists several programmable options built into the MP 24. All are located on the Main Board which is the top-most PCB. Access is gained by removing the seven (7) screws from the top cover. See the main board assembly diagram on page Schematic-2. Dots on the circuit board indicate jumper positions as shipped from the factory. To change: pull the jumper block straight up, move over one pin and push back down. That's all there is to it.

ZONE OUTPUT JUMPERS

The Zone Outputs are shipped from the factory to include the output of the Program Equalizer and the Mic signals. Moving jumpers J18 and J19 to BYPASS changes the Zone Output to pre-EQ, with no mic signals. Locate J18 and J19 behind the R81 BASS pot on the main circuit board.

TAPE OUTPUT JUMPERS

The Tape Outputs are shipped from the factory to not include any Mic signal. Moving jumpers J25 and J26 to MIC add the Mic signal to the Tape Output. Locate J25 and J26 behind the S12 SYSTEM MONO switch on the main circuit board.

PHONO/LINE JUMPERS

The Phono Inputs are shipped from the factory with a Phono (RIAA equalization) preamp. Move each respective pair of jumpers to LINE to convert each of these into line level inputs. Phono 1 jumpers J27 and J28 are located behind the PHONO 1 and LINE 1 jacks. Phono 2 jumpers J21 and J22 are located behind the PHONO 2 and PHONO 3 jacks. Phono 3 jumpers J23 and J24 are located behind the LINE 4 and LINE 5 jacks.

REMOVING THE CROSSFADER

The Crossfader may be removed from the front of the MP 24 without any disassembly of the unit itself:

1. Remove the two (2) ASSIGN knobs.
2. Remove the nuts holding the ASSIGN switches to the cover.
3. Firmly pull the Crossfader Assembly forward, unplugging it from the connector on the bottom board.
4. Install the replacement assembly by reversing the above instructions.

MP 24 ASSEMBLY

In the following pages lie a rather large selection of drawings to help with any service problems that may arise on the MP 24. Included are full schematic diagrams, a block diagram, component placement drawings for all of the printed circuit boards and a diagram of the overall placement of the PCBs and their interconnects. All of the information you will need is found in these drawings. Begin with a thorough study of the SCHEMATIC GUIDE found on page Schematic-5. It is the *Hitchhiker's Guide to the MP 24!*

Tracing signal through the MP 24 is easy if you refer to the schematic and pay close attention to the connector and pin information. The signal appears at pins on the top PCB as it travels through the unit. You may use these as well as the pins on the ICs to make your troubleshooting safari easier.

It may be necessary in some cases to remove the chassis to access internal components. To accomplish this in a manner that will make it possible to reconstruct the unit once you are finished fixing it, please follow these simple directions:

1. Remove the three (3) philips-head screws on each side of the front panel.
2. Remove the fourteen (14) nuts from the various ¼" connectors on the rear panel.
3. Remove the five (5) philips-head screws holding the RCA connector assemblies and the one securing the bracket in the center area of the rear panel (near LIGHT OUTPUT LEVEL).
4. Remove the three (3) knobs from the rotary controls protruding through the rear.
5. Carefully lift off the chassis, spreading it slightly so it clears the obstructions created by the circuit boards.

If resistance is encountered, re-check for missed screws or sticking 3-pin connectors before you take a tire iron to it. You (and we) will be glad you did. Having successfully removed the chassis, the PCB assemblies will be far easier to service. If it is required to get to some of the parts on the individual Channel PCBs, *the only way to extract these is to either remove the top or the bottom PCBs.* You must first remove the screws adjacent to each connector or they will not budge. Once all of the connector screws are removed from the top or bottom PCB, you should be able to remove the board.

All integrated circuits are in sockets since active components statistically have a shorter life expectancy than their passive cousins. Most of the ICs may be removed and replaced without separating any of the PCBs. All it takes is a little patience and a pair of long nose pliers with a curve at the tip. Hang in there, you'll get it.

If any of the sliders get noise or scratchy they can be cleaned with CiaLube MCL® spray. The use of any other cleaner may shorten the life of the sliders.

CiaLube MCL Spray is available from:

CAIG Laboratories, Inc.

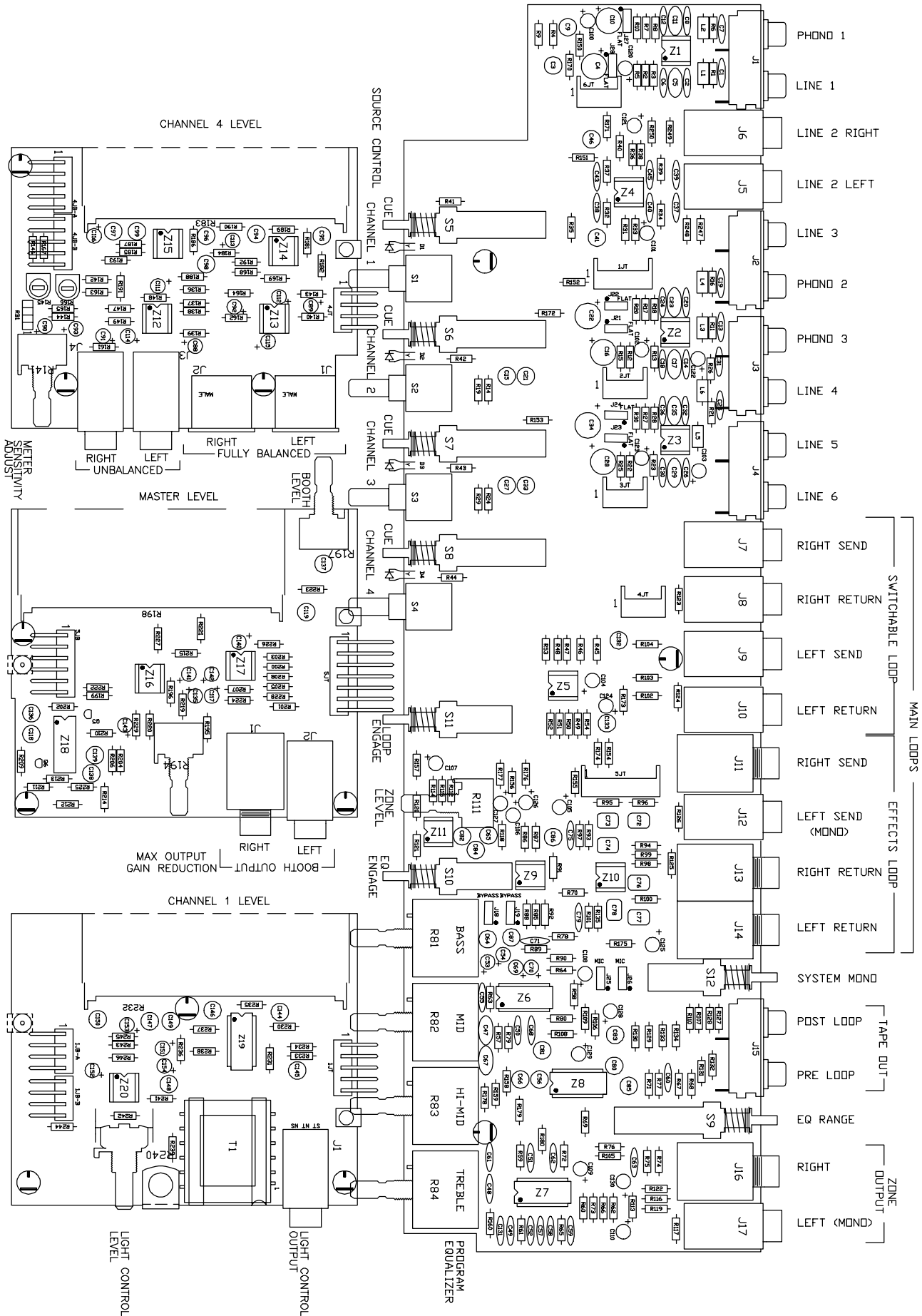
16744 W. Bernardo Dr.

San Diego, CA 92127-1904 (USA)

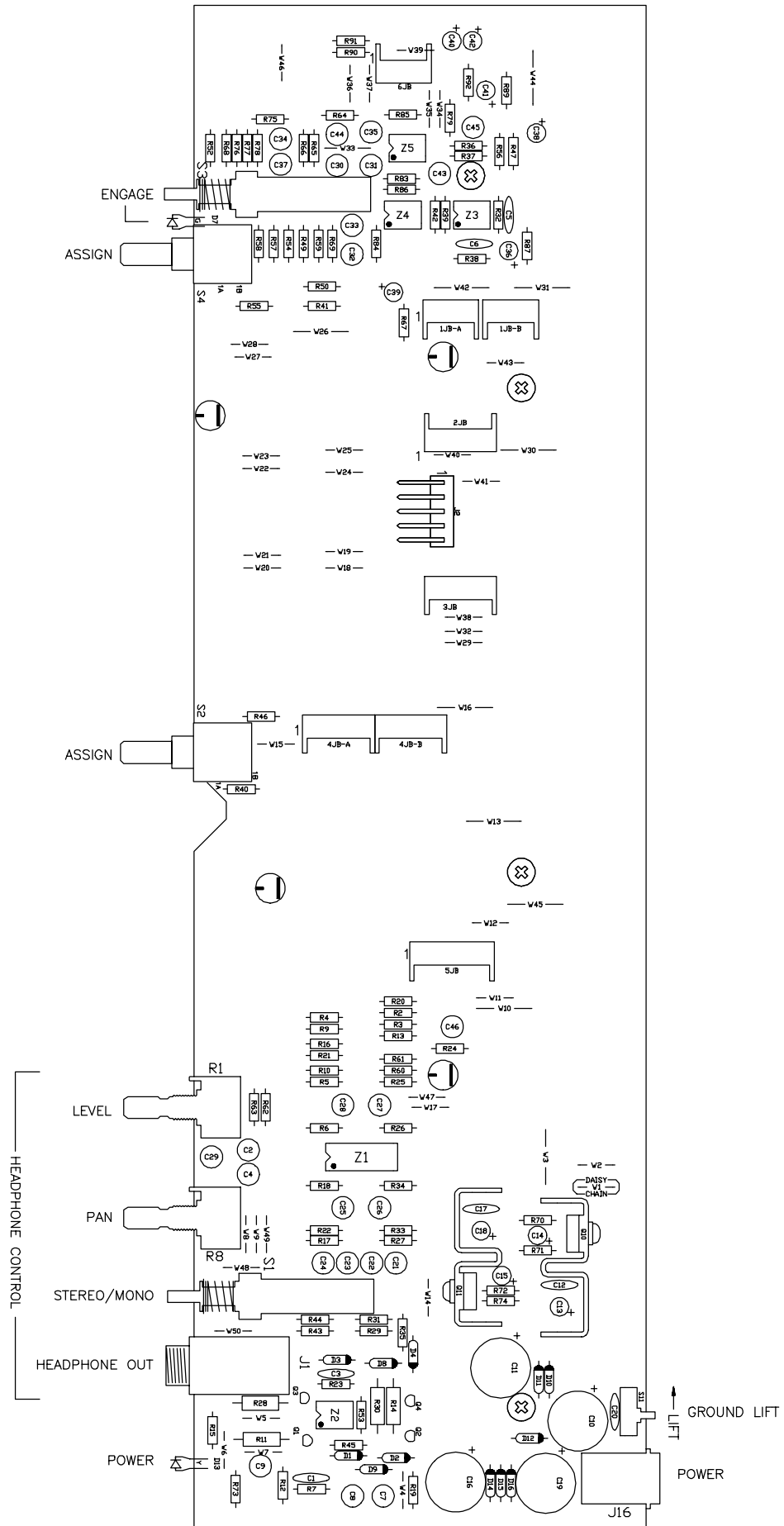
TEL 619-451-1799

FAX 619-451-2799

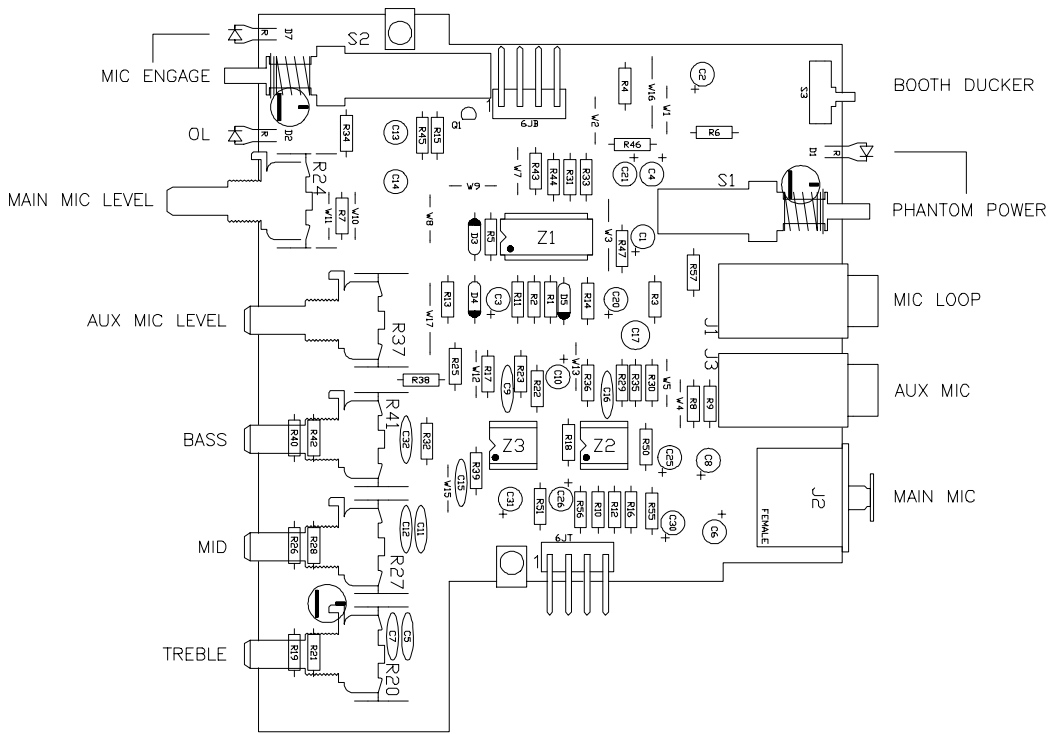
WEB www.caig.com



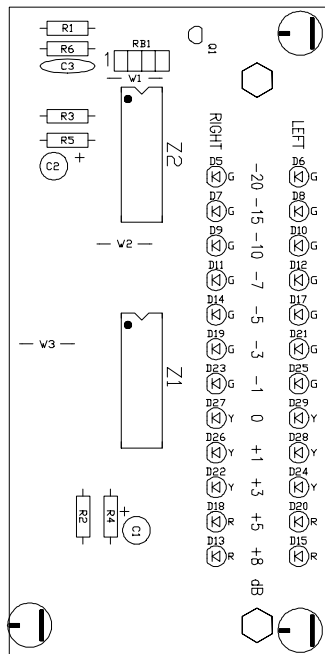
522-283:C DESIGNATOR: MP 24 MAIN/CH1/4/MAST ACTION: MOVED AND ROTATED MANY PARTS FOR IMPROVED R.I., MOVED TOP TRACES UNDER SLIDERS, DELETED MANY PARTS MARKED "OMIT". RJT 280CT96



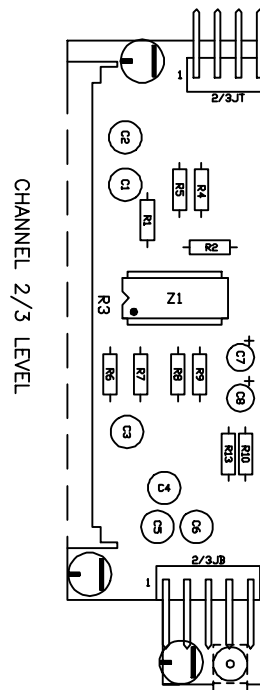
522-120:E DESIGNATOR: MP 24 BOTTOM ACTION: MOVED MANY PARTS FOR RADIAL INSERTION. CHANGED PCB OUTLINE. RJT 13SEP96



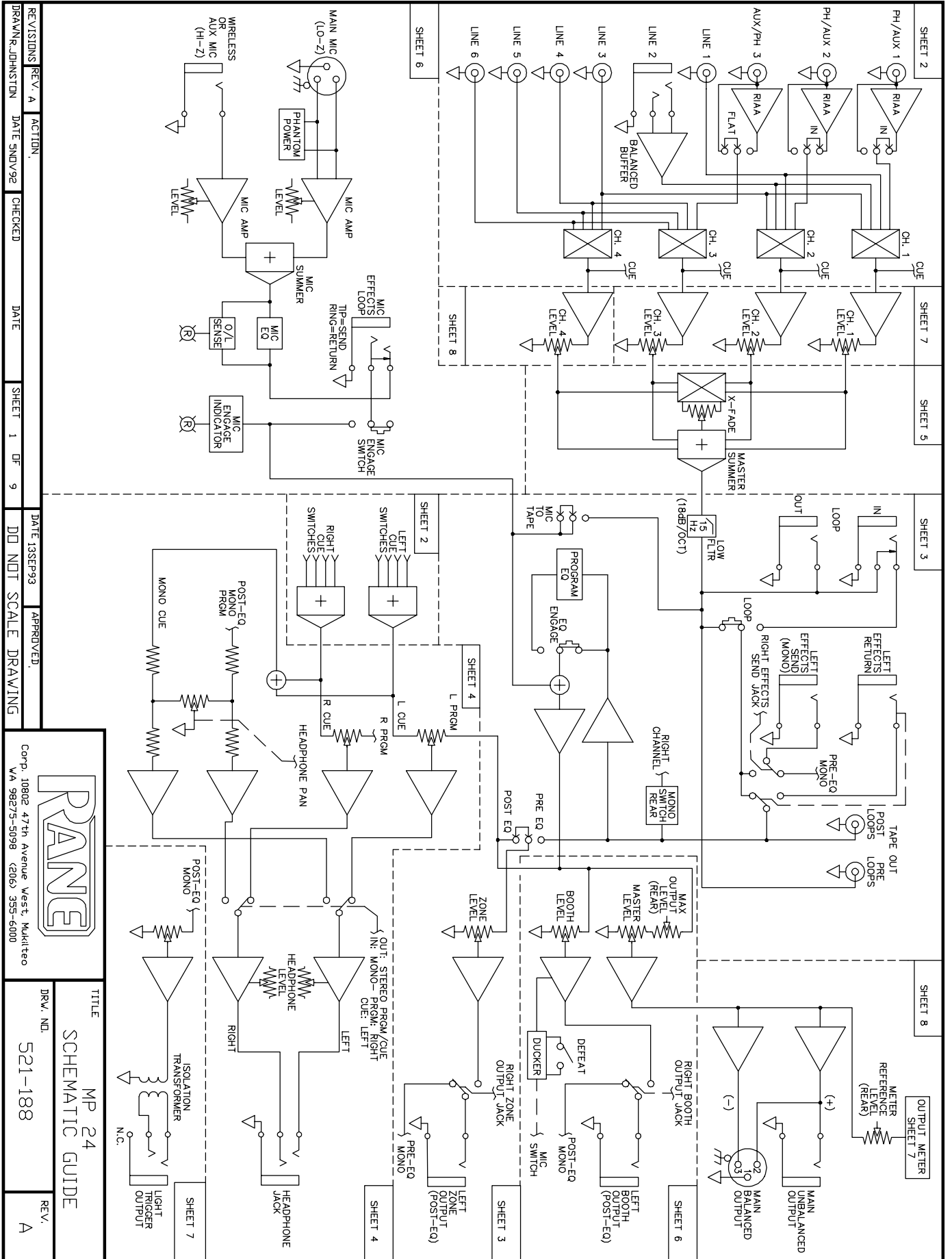
522-122:C DESIGNATOR: MP 24 ACTION: REMOVED 1 .6
 JUMPER, CHANGED XLR TO NEW TYPE, MOVED MANY PARTS RWJ 12DEC95



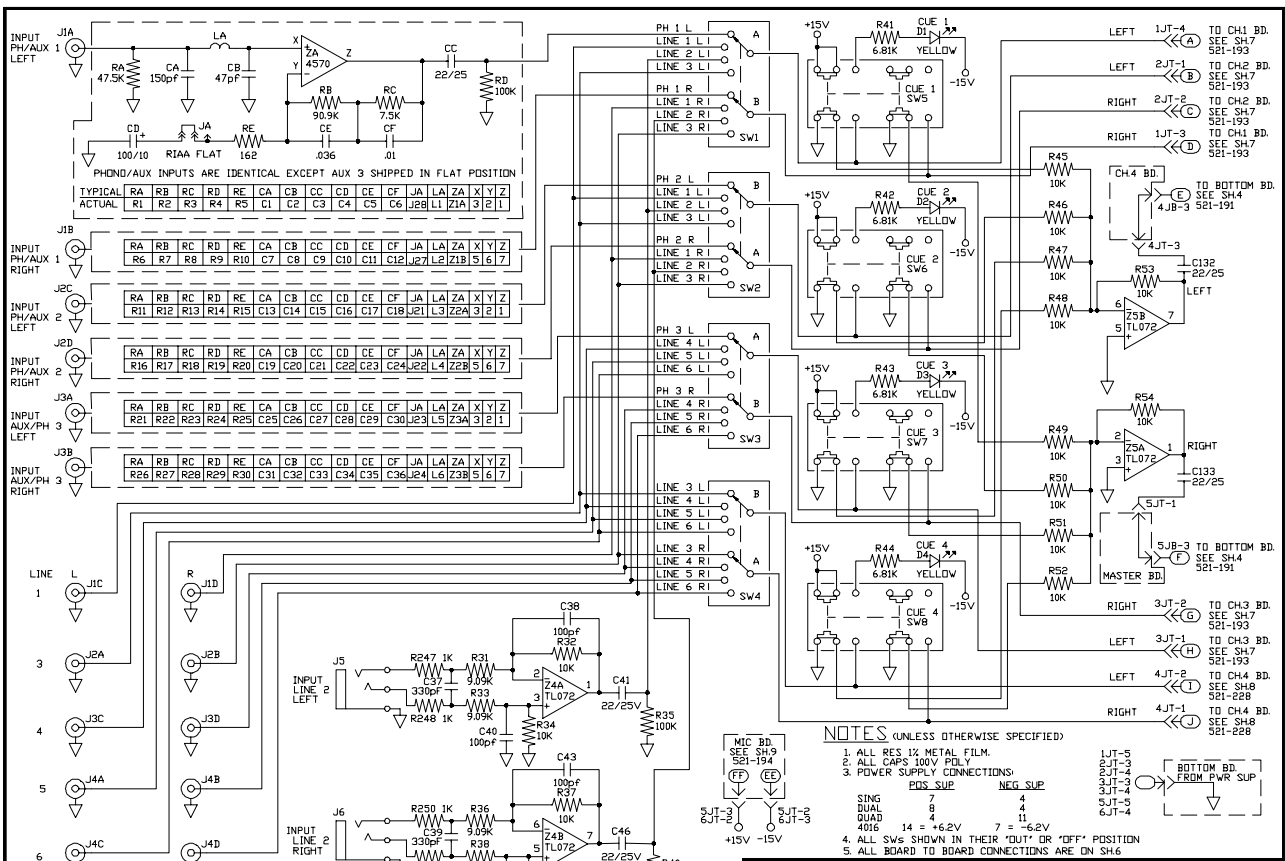
522-126:B DESIGNATOR: MP 24 METER
 ACTION: ADDED C3. RJT 09OCT96



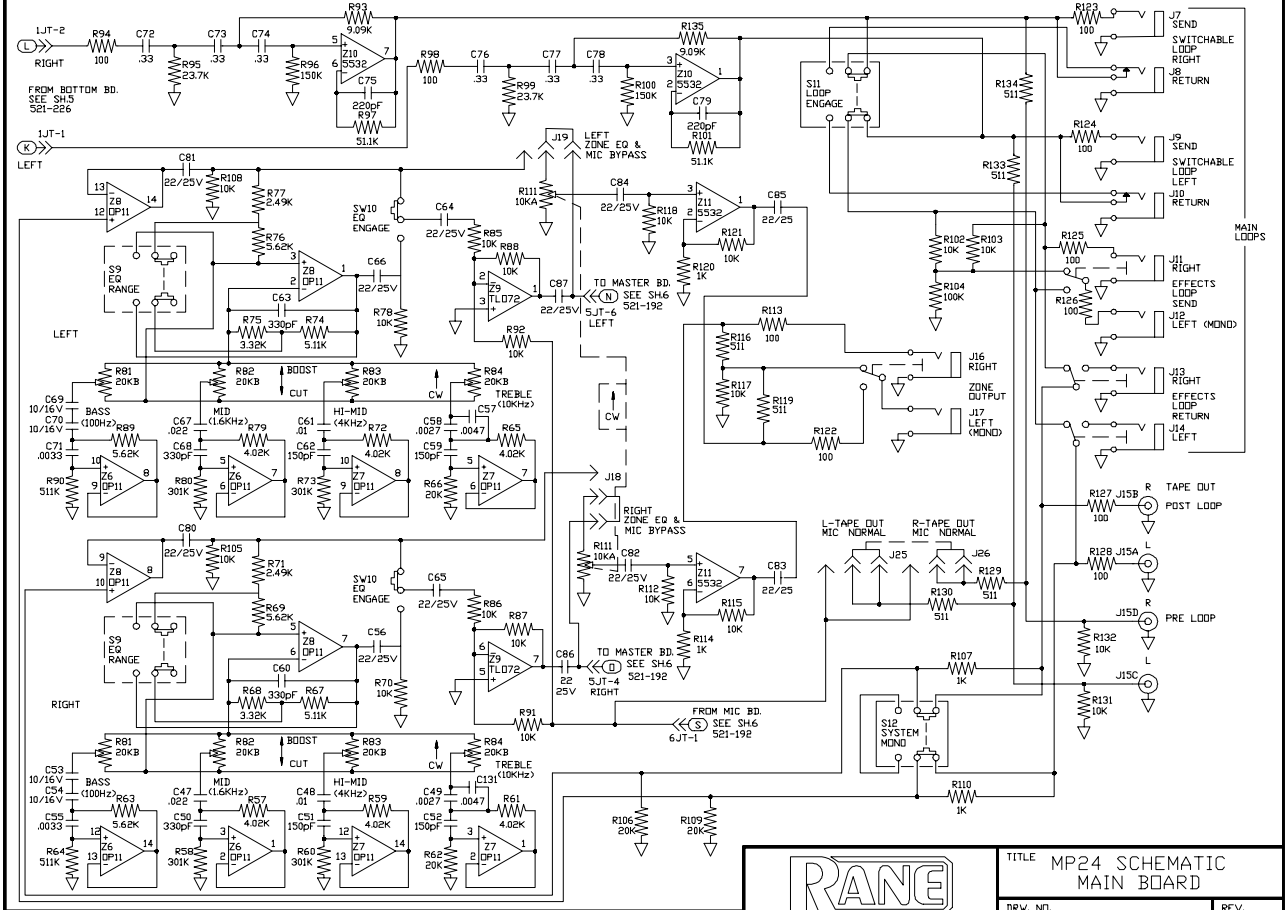
522-124:B MP 24 CH 2/3 ASSY
 ACTION: ADDED C5&C6 RWJ 6MAY95



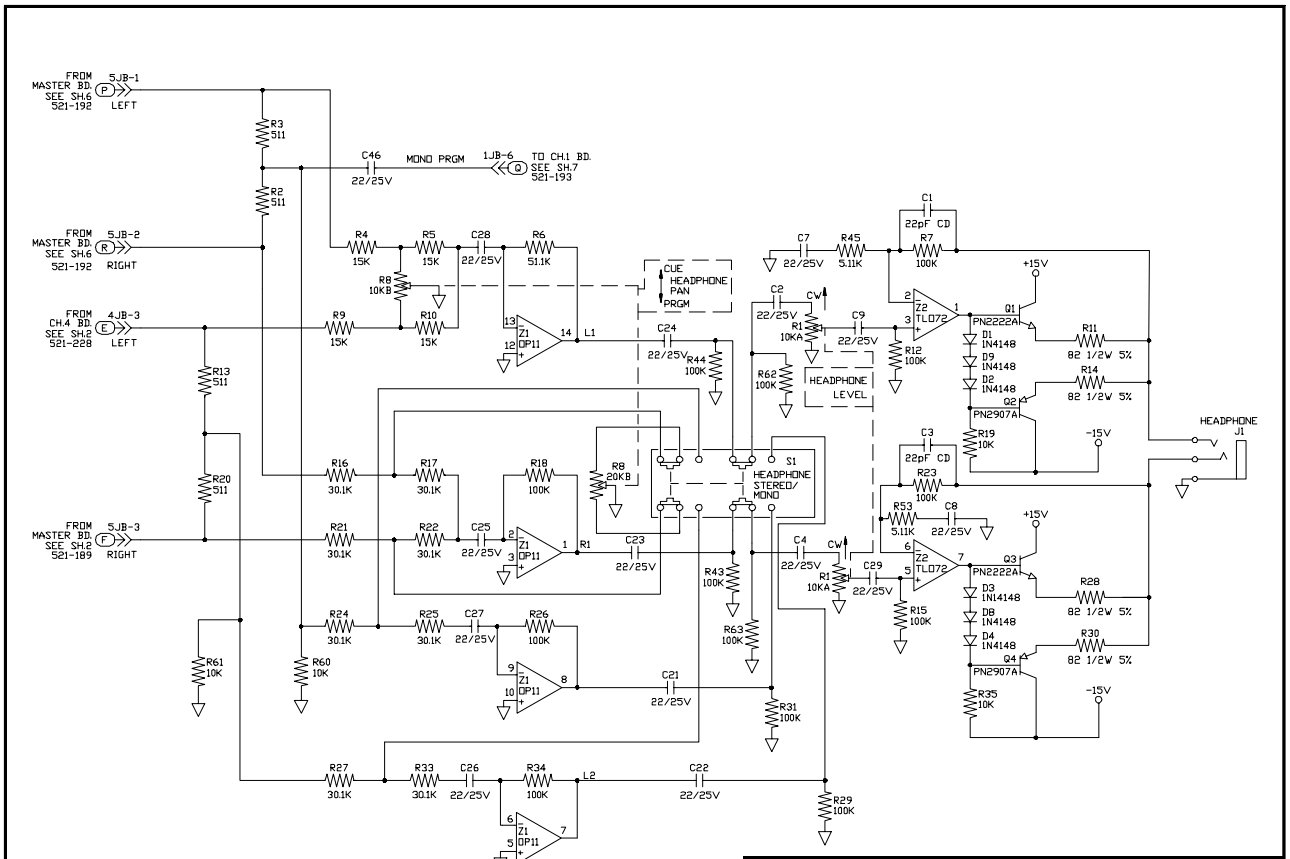
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<p>PANE</p> <p>Corp. 10802 47th Avenue West, Mukilteo VA 98275-5098 (206) 355-6000</p>													DRW. NO.	521-188	REV.	A
<p>TITLE</p> <p>MP 24</p> <p>SCHEMATIC GUIDE</p>																



REVISIONS REV. D ACTION CHANGED TO COMMONALY VALUES		DATE 23JAN96	APPROVED	TITLE MP24 SCHEMATIC MAIN BOARD	DRV. NO. 521-189	REV. D
DRAWN R. JOHNSON DATE 24SEP92 CHECKED SKH		DATE 11MAY93	SHEET 2 OF 9	DD NOT SCALE DRAWING	Corp. 10802 47th Avenue West, Mukilteo WA 98275-5098 (206) 355-6000	



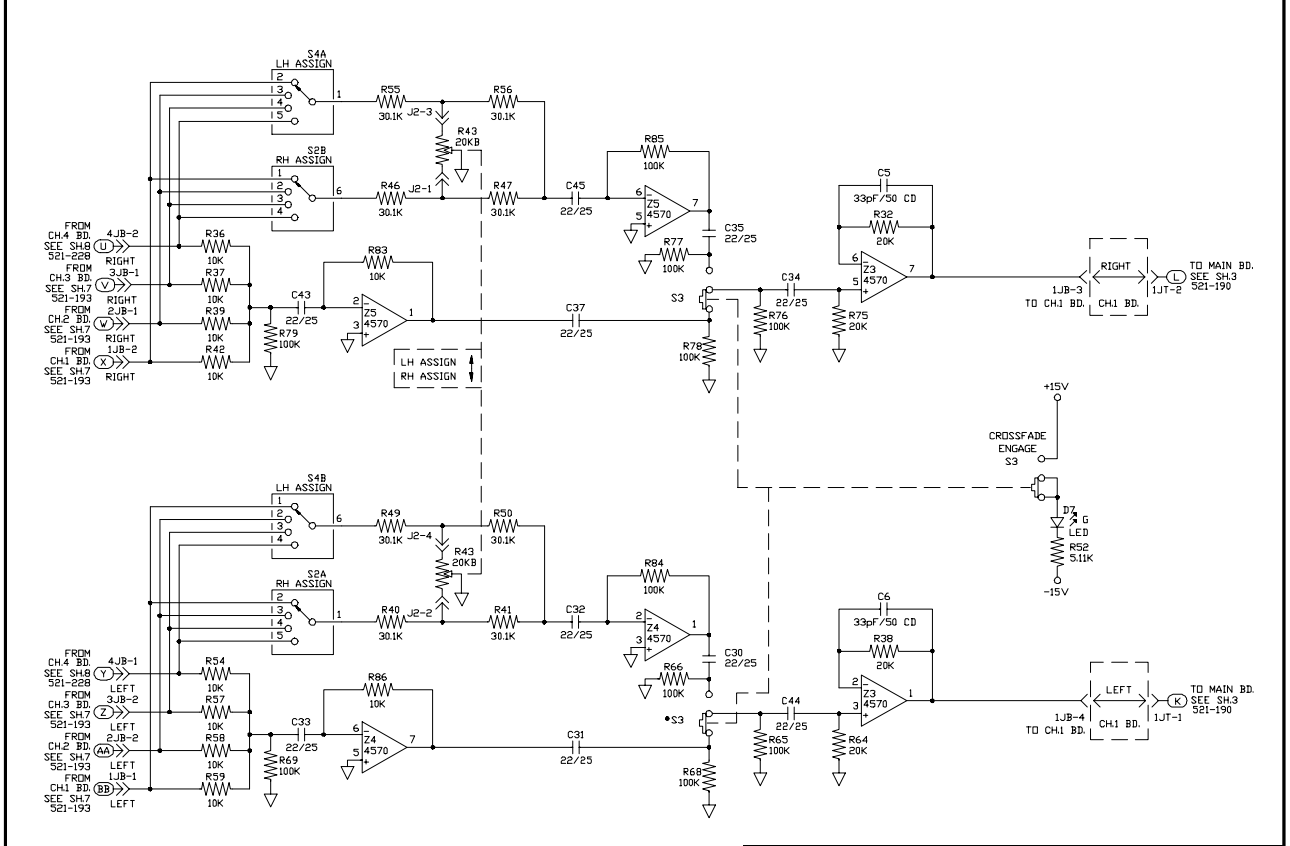
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TITLE MP24 SCHEMATIC BOTTOM BOARD	
DRW. NO. 521-191	REV. E

REVISIONS REV. E ACTION CHANGED TO COMMONALITY VALUES	DATE 23JAN96	APPROVED
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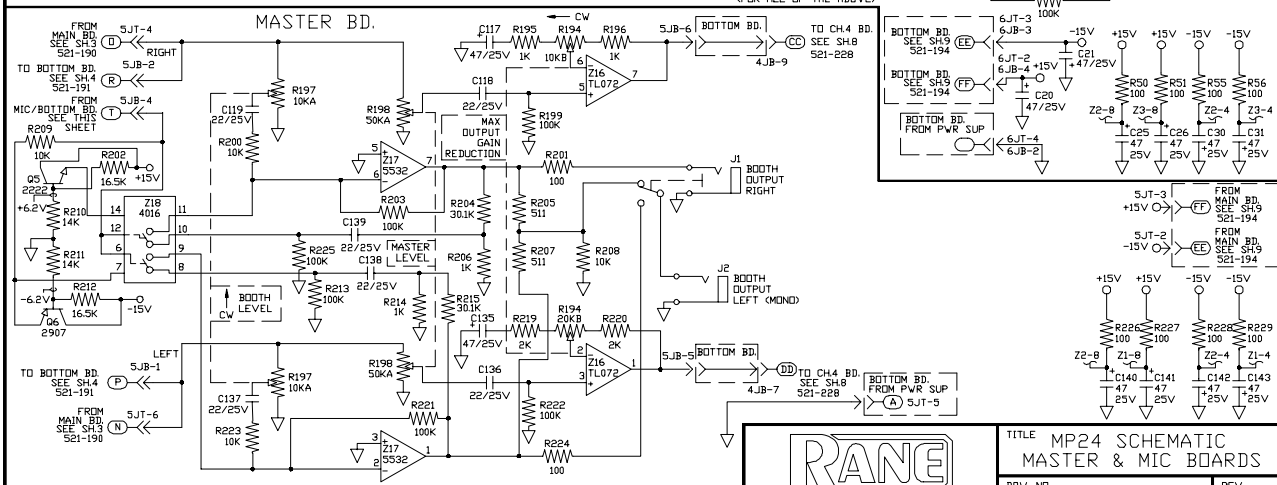
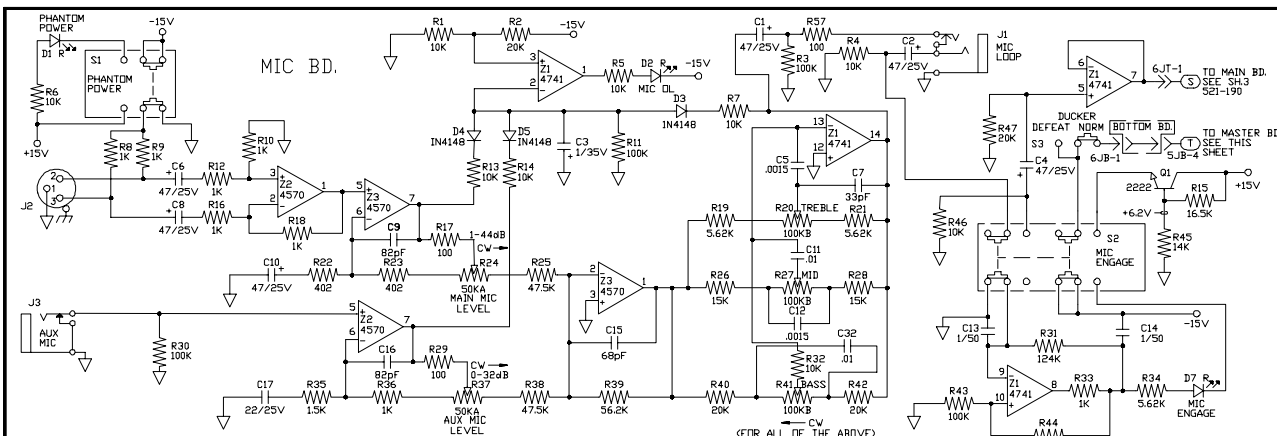
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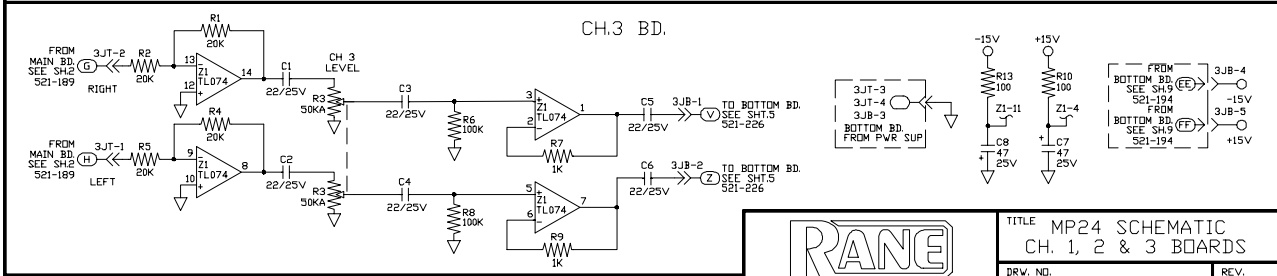
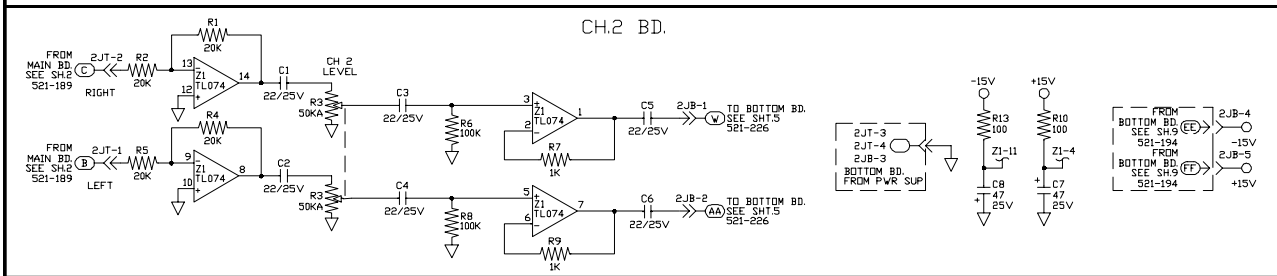
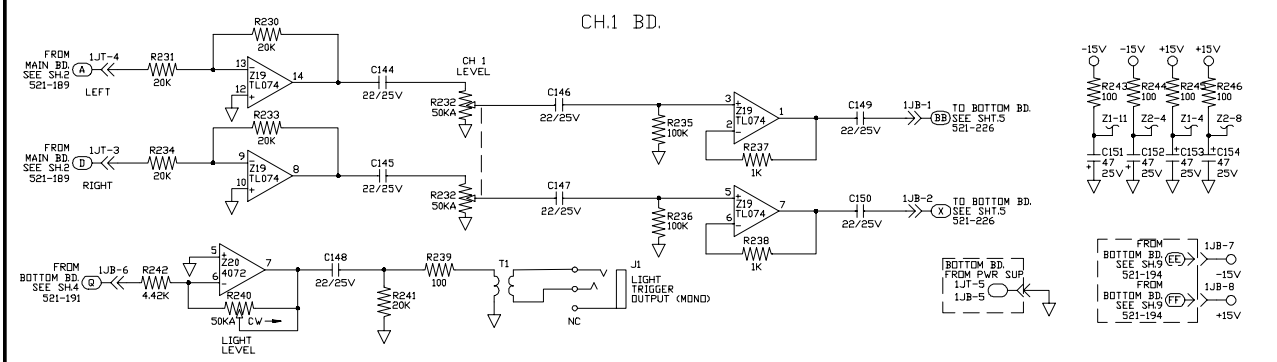
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DRAWN R. JOHNSTON DATE 11AUG93 CHECKED RGH DATE 02DEC93 SHEET 5 OF 9	DO NOT SCALE DRAWING	

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REVISIONS REV. F ACTION REMOVED MUTING CIRCUIT DATE 17JUN96 APPROVED
 DRAWN R. JOHNSON DATE 30SEP92 CHECKED S. TURNIDGE DATE 14SEP92 SHEET 6 OF 9 DO NOT SCALE DRAWING



REVISIONS REV. C ACTION REDESIGNATED CHANNEL 1 DATE 12JAN96 APPROVED
 DRAWN R. JOHNSON DATE 25SEP92 CHECKED SKH DATE 29APR93 SHEET 7 OF 9 DO NOT SCALE DRAWING



TITLE MP24 SCHEMATIC MASTER & MIC BOARDS

DRV. NO. 521-192 REV. F

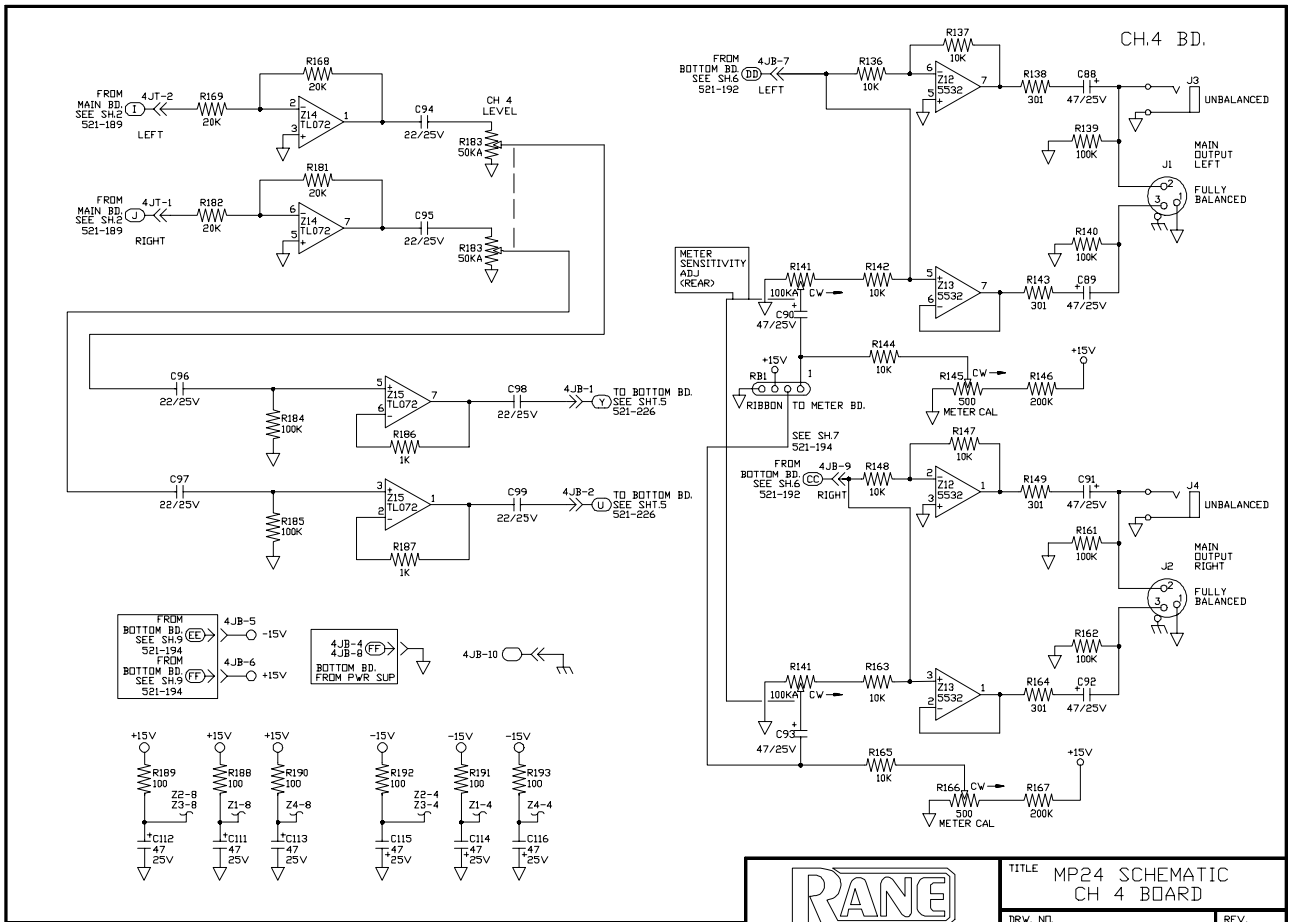
Corp. 10802 47th Avenue West, Mukilteo WA 98275-5098 (206) 355-6000



TITLE MP24 SCHEMATIC CH. 1, 2 & 3 BOARDS

DRV. NO. 521-193 REV. C

Corp. 10802 47th Avenue West, Mukilteo WA 98275-5098 (206) 355-6000



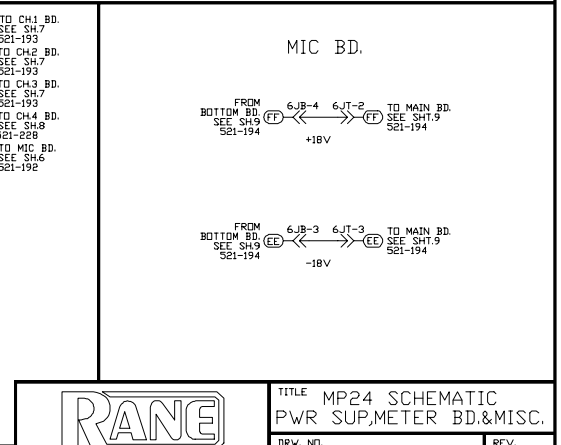
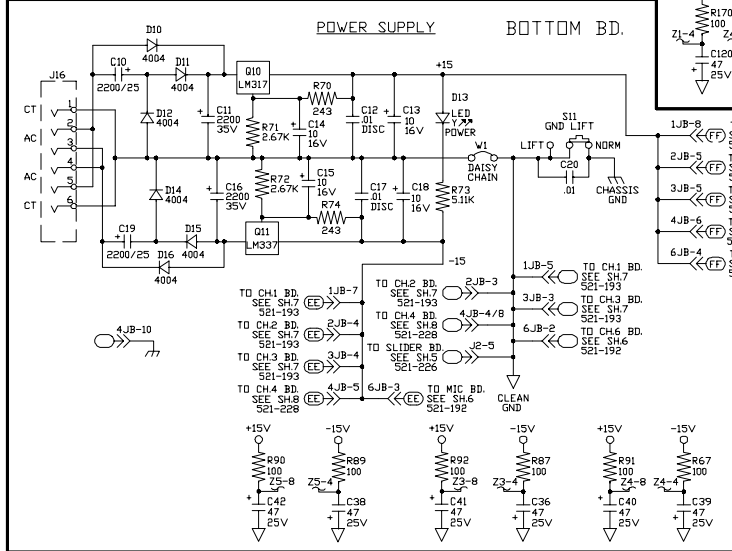
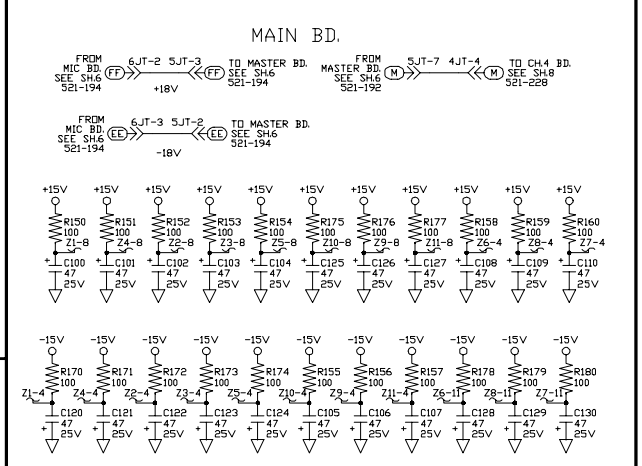
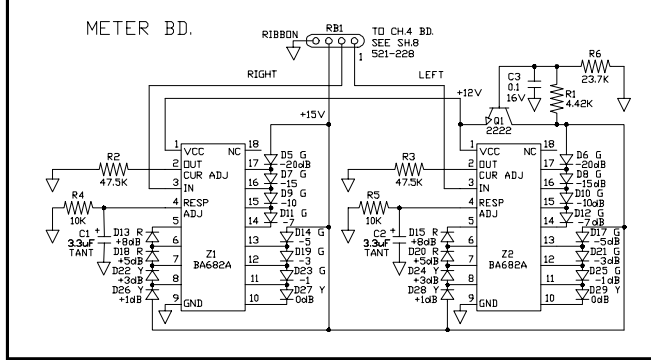
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SHEET 8 OF 9	DO NOT SCALE DRAWING		

TITLE MP24 SCHEMATIC
CH 4 BOARD

DRW. NO. 521-228

REV. C

Corp. 10802 47th Avenue West, Mukdteo
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REV. C	ACTION ADDED C3 TO METER BD.	DATE 10OCT96	APPROVED RJT
DRAWN R. JOHNSTON	DATE 5OCT92	CHECKED SKH	DATE 11MAY93
SHEET 9 OF 9	DO NOT SCALE DRAWING		

TITLE MP24 SCHEMATIC
PWR SUP. METER BD. & MISC.

DRW. NO. 521-194

REV. C

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