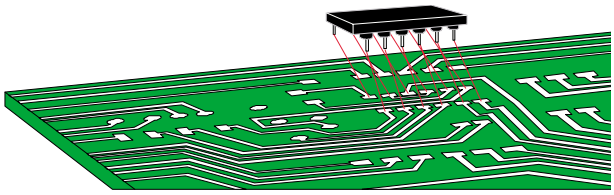

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THE MACKIE FIXER • MACKIE DESIGNS SERVICE NEWS

SR40•8 and SR56•8 rework instructions

Models affected:

SR40•8 and SR56•8

Symptom:

Various failures

Possible Cause:

Susceptability of the mixers to static discharge and power spikes.

Solution:

Rework the circuit boards by adding bypass capacitors and associated components in various locations.

Safety Warning:

Caution! These instructions are for use by qualified personnel only. To avoid electric shock, do not perform any servicing unless you are qualified to do so. Refer all service to qualified personnel.

Boards to be reworked:

1	Brain board assembly	055-169-00
2	Output digital board	055-101-00
3	Mono channel boards	055-067-00
4	Stereo channel board	055-071-00
5	Master output board	055-074-00

Tools Required:

Phillips head screwdriver, 1/16" Allen wrench, needle nose pliers, electrical cutters, soldering iron, solder, safety glasses, RTV silicone adhesive (electronic grade to secure cables), 3 loaves of bread and a French maid's outfit.

ESD Warning:

Caution! Each board should be treated and repaired using ESD precautions.

Preliminary:

The rework involves removing most of the circuit boards, so the top and bottom of the console must be accessable.

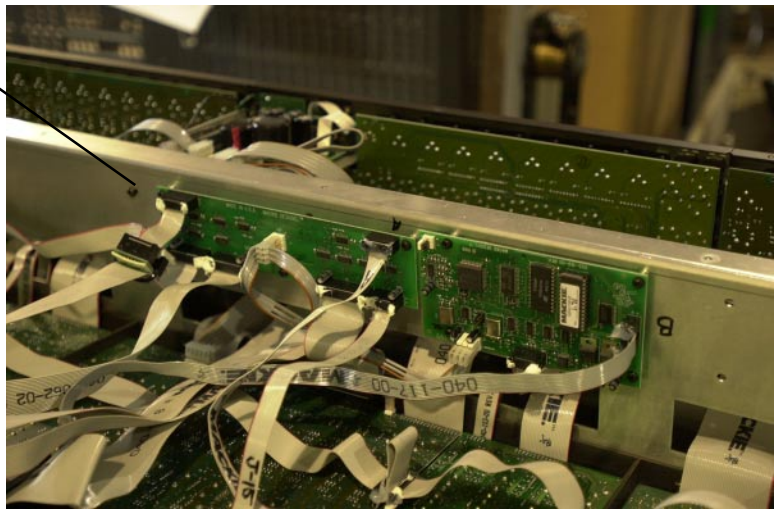
Procedure:

1. Remove all cords (including the power cable and input cable) from the console.
2 Remove the bottom from the console to expose the boards to be removed.

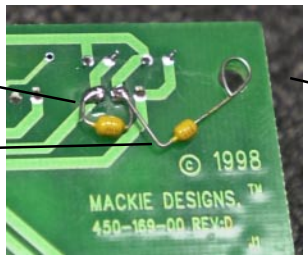
The pages which follow show the rework required on each board.

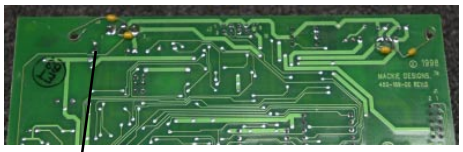
Rework procedure for the Brain board 055-169-00:

The Brain board and the output digital board are both mounted to the stiffener inside the console.

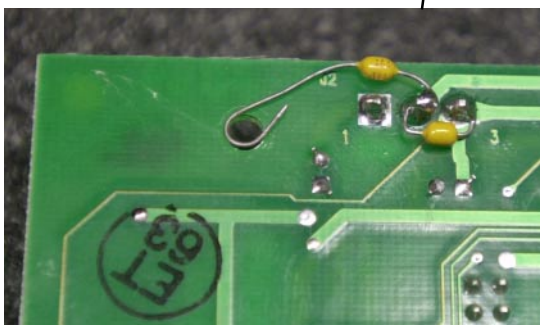


1. Make a note of the placement and direction of all cables to these boards, then remove the Brain board by undoing the four screws.

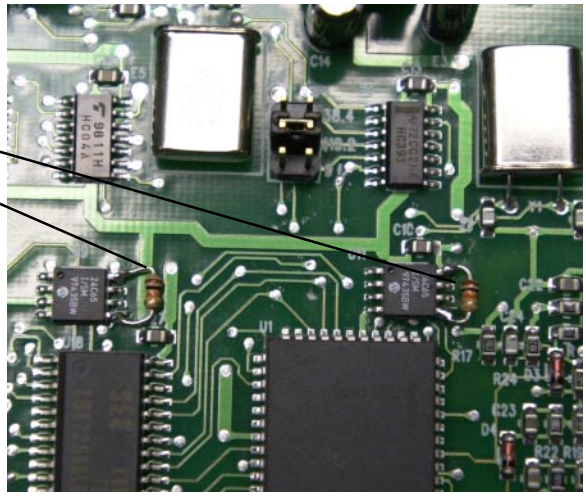




2. Add a 0.1uF capacitor across Pin 1 (+5VDC) and Pin 2 (GND) of the voltage regulator (U10).
3. Add a 0.01uF capacitor between Pin 2 (GND) and chassis ground (stand-off). Use a solder lug (not shown).



4. Add a 0.1uF capacitor across connector J2-pin 3 (+5VDC) and J2-pin 2 (digital ground).
5. Add a 0.01uF capacitor between J2-pin 2 (digital ground) and chassis ground (stand-off). Use a solder lug (not shown).

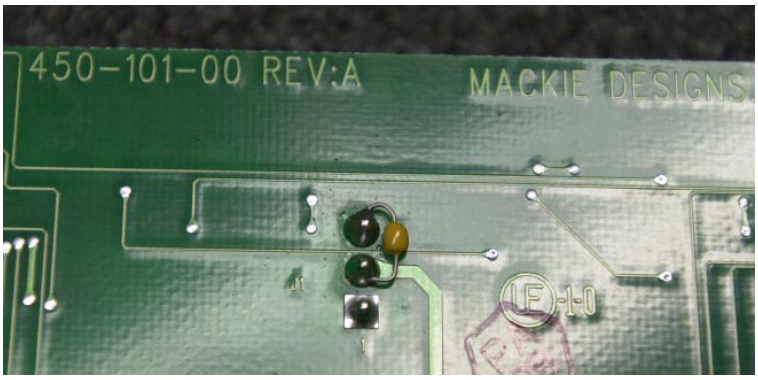


5. Add two 10kΩ, 1/8th Watt pull-up resistors across the Eprom devices:
U11-pin 8 to U11-pin 5,
and across U9-pin 8 to U9-pin 5. (Vcc and SDA).

Rework procedure for the Output Digital board 055-101-00:

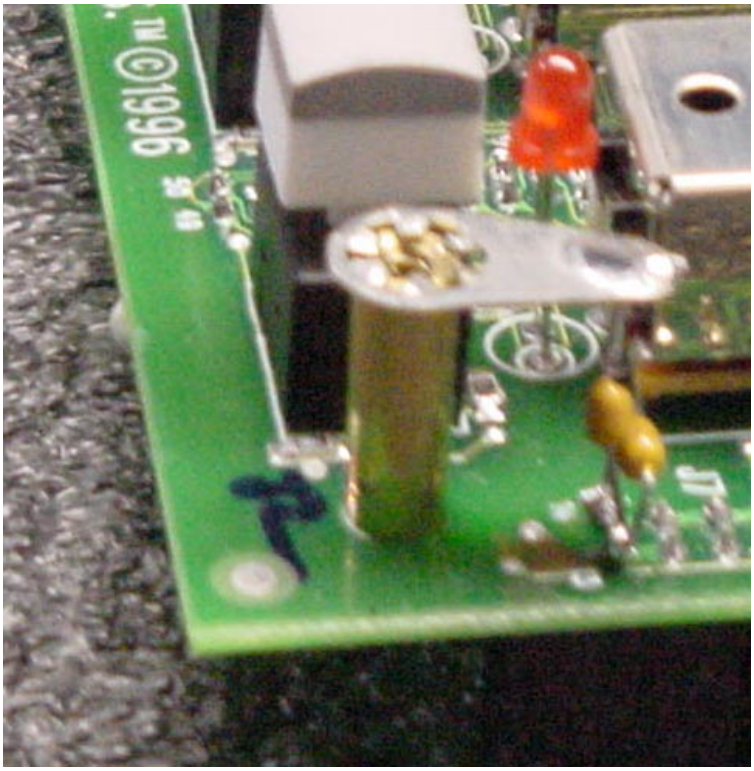
1. Make a note of the placement and direction of all cables to the Output Digital board, then remove it by undoing the screws.

2. Add a 0.1uF capacitor across connector J1-pin 3 (+5VDC) and J1-pin 2 (digital ground).



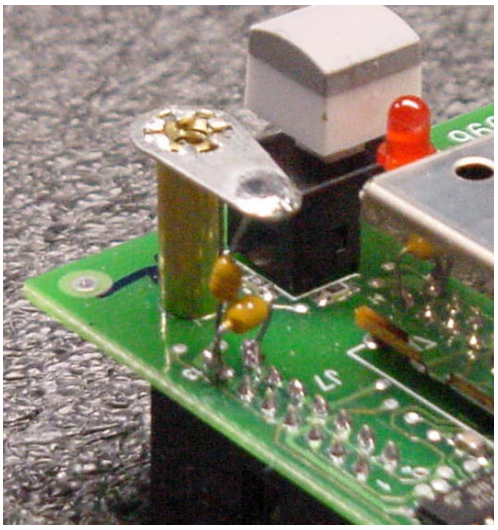
Rework procedure for each Mono Channel board 055-067-00:

1. Remove the cables from the back of the mono channel 1-8 board.
2. Using a 1/16" Allen wrench, remove the 15 button head screws from the top surface of the console, for channels 1-8.
3. Move the board back slightly and gently remove the cables running from the channel board to the mono pod, and remove the board.
4. Add a 0.1uF capacitor across connector J7-pin 14 (+5VDC) and J7-pin 13 (digital ground).
5. Add a 0.01uF capacitor between J7-pin 13 (digital ground) and chassis ground (stand-off). Note the use of a solder lug is recommended, as shown.
6. Repeat for all remaining mono channel boards.



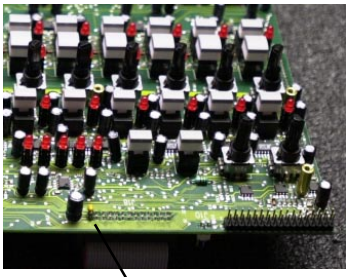
Rework procedure for the Stereo Channel board 055-071-00:

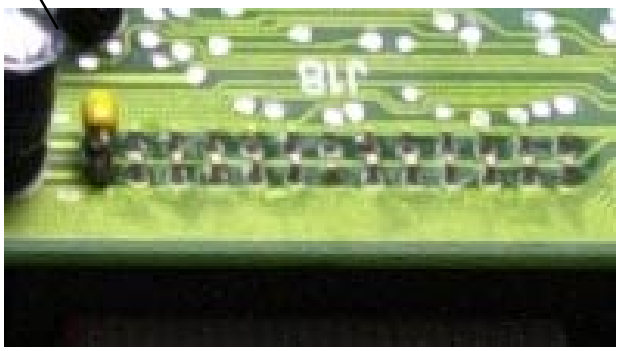
1. Remove the cables from the back of the stereo channel board.
2. Using a 1/16" Allen wrench, remove the 10 button head screws from the top surface of the console.
3. Move the board back slightly, and gently remove the cable running to the master pod and the cable running to the master meter, and then remove the board.
4. Add a 0.1uF capacitor across connector J7-pin 14 (+5VDC) and J7-pin 13 (digital ground).
5. Add a 0.01uF capacitor between J7-pin 13 (digital ground) and chassis ground (stand-off). Note the use of a solder lug is recommended.



Rework procedure for the Master Output board 055-074-00:

1. Remove the cables from the back of the Master output board, paying particular attention to where they connect to and their direction.
2. Using a 1/16" Allen wrench, remove the 23 button head screws from the top surface of the console.
3. Move the board back slightly, and gently remove the two cables running to the master pod, and then remove the board.
4. Add a 0.1uF capacitor across connector J18-pin 2 (+5VDC) and J18-pin 1 (digital ground). This is located along the bottom edge of the board, and the cap can be added on the component side.





Finishing up:

1. Before reinstalling the boards into the console, clean the metal chassis surface where the standoffs (chassis ground) will make contact. Clean off any paint, oxidation, or any other contamination.
2. Re-install all cables and secure the connections with silicone RTV to ensure the cables don't come loose.
3. Perform a complete specification and safety test before returning the console to your customer.