



## Bulletin 001: Flextone HD

---

### Unknown start, up to and including unit 5016

**Indications** Failure to transmit MIDI Program Change

**Part Numbers affected** Q2 on Main Board. 09-10-4401 and Main Board.

**Tools/Supplies Required** Soldering iron, rotary cutting tool

**Repair Procedure**

- Remove Q2.
- Cut away excess copper that short-circuits the traces.
- Replace Q2.

**Warranty Implications** The repair procedure is to be considered a warranty repair.

**Production Status** Correction implemented in all current production units.

**ECO #** N/A



## Bulletin 02: Flexitone II

**Date codes affected: Before May 15, 00**

**Indications:** Amplifier cuts out after a few minutes of high volume use.

**Part Numbers affected:** 30-51-6063 (output amp heat sink) and 12-30-3886 (output device)

**Tools/Supplies Required:** #2 Phillips screwdriver, heat sink compound

### Repair Procedure

- Remove the (4) chassis screws on the top of the amplifier.
- Remove the (2) handle screws.
- Disconnect the speaker leads, remarking the location the leads
- Remove the (2) screws on the bottom of the chassis
- Remove the nuts on the 1/4" phone and the effects send and return jacks
- Slowly pull the bottom plate of the chassis off and when it pulls away, reach in and pull the ribbon connector from the main board.
- Look at the amplifier IC and see if the screw holding the output IC to the heat sink is in straight. If it is you can loosen the screws on the bottom of the heat sink and tighten the screw to 10-12 in lbs. If the screw is not straight, you may need to replace the heat sink. Also be sure that there is sufficient heat sink compound on the back of the IC. It should cover the back but not ooze out when the IC is secured tightly.
- Reassemble the unit

**Warranty Implications:** This is considered a warranty issue.

**Production Status:** All current production will not exhibit this problem.

**ECO #:** N/A

Customer Service Tel: 818-575-3600 • Customer Service Fax: 818-676-1585

Line 6 Inc. • 29901 Agoura Rd. Agoura Hills, CA 91301

Tel. 818-575-3600 Fax 818-676-1585



## Bulletin 03: MM4 and DL4

---

**Date codes affected: Rev 5 and 6 PCBAs Only**

**Indications:** When using true bypass mode, the sound that is passed is dull due to high frequency roll-off

**Part Numbers affected:** 03-50-0221 or 03-52-0221

**Tools/Supplies Required:** #2 Phillips screwdriver and soldering iron

### Repair Procedure

- Remove the (5) Phillips head screws on the bottom of the unit
- Remove the 1/4" jack nuts on the back of the unit
- Remove the knobs from the front of the unit
- Remove the (4) screws and the standoff on the PCB and remove PCB
- Remove C1, C23, C24, and C36 by removing the solder with solder wick and lifting one side of the capacitor with the soldering iron. Be careful not to heat the part excessively to avoid damaging the traces.
- Reassemble the unit, using the reverse of the disassembly process

**Warranty Implications:** This should be considered a warranty repair.

**Production Status:** All current productions reflect this change

**ECO #** 0011101



## Bulletin 004: Product Bass POD

---

**Date codes affected: Units produced before 06-12-00**

**Indications:** Unit appears to power up but will not initialize.

**Remedy:** E-Prom replacement with Version 1.2

**Part Numbers affected:** 45-00-1072 (E-Prom part number)

**Tools/Supplies Required:** #2 Phillips screwdriver, E-Prom removal tool

### Repair Procedure

- Rest unit faces down on padded surface.
- Remove the four- (4) corner chassis screws.
- Remove back chassis cover.
- Locate E-Prom, lower right hand corner next to headphone jack and amp model selector
- Replace with current E-Prom.
- Test all functions.
- Re-assemble chassis.

**Warranty Implications:** This is considered a warranty issue.

**Production Status:** All current production will not exhibit this problem.

**ECO #:** N/A

---

Customer Service Tel: 818-575-3600 • Customer Service Fax: 818-676-1585

Line 6 Inc. • 29901 Agoura Rd. Agoura Hills, CA 91301

Tel. 818-575-3600 Fax 818-676-1585



## Bulletin 05: POD Pro

---

### Date codes affected: Units Produced Before 6-15-00

**Indications:** Intermittent power with vibration of the unit.

**Part Numbers affected** Fuse holder; old part number 21-48-9521, change to 21-48-2071 (two per unit)

**Tools/Supplies Required:** #2 Phillips head screwdriver, controlled output soldering station, 4mm Allen wrench, needle nose pliers

**Repair Procedure:** There are two possible solutions for this problem. We have found that pinching the fuse holder to get a better connection has been very effective. The other possibility is to change the fuse holder. This should be done if it is not possible to get a good connection by pinching the fuse holder. You can test the effectiveness of pinching the fuse holder by vibrating the unit fervently and observing the lights on the front panel to see if they flicker with vibration. The procedure to replace the fuse holder is detailed below. The first steps are the disassembly instructions to access the fuse holder inside the unit.

- To remove the top cover, remove the (6) #2 Phillips head screws on the top cover.
- To remove the side panel, remove the (2) screws on the back panel, remove the (2) screws on the bottom panel and remove the (2) 4mm Allen head screws on the front panel.
- You can now access the fuse holder. From the solder side of the PCB, apply the soldering iron to one of the fuse holders and wait for the solder to liquefy.
- With the needle nose pliers, pull the fuse holder out from the component side of the board and repeat the procedure with the second fuse holder.
- You may need to use solder wick or a solder sucker to remove the excess solder from the hole before installing the new fuse holder.
- You will have to cut off one of the legs of the new fuse holder to accommodate the footprint of the PCB
- Once the orientation of the fuse holder is correct, you can solder the new fuse holder in place
- Reassemble the unit and test by vibrating the unit. If there is no fluctuation in the front panel lights, the repair has been successful.

---

Customer Service Tel: 818-575-3600 • Customer Service Fax: 818-676-1585

Line 6 Inc. • 29901 Agoura Rd. Agoura Hills, CA 91301

Tel. 818-575-3600 Fax 818-676-1585



**Warranty Implications:** This should be considered a warranty repair.

**Production Status:** This has been addressed in production and all units produced after 6-15-00 will not have this problem.

**ECO #** 005901

Customer Service Tel: 818-575-3600 • Customer Service Fax: 818-676-1585

---

Line 6 Inc. • 29901 Agoura Rd. Agoura Hills, CA 91301

Tel. 818-575-3600 Fax 818-676-1585



## **Bulletin 006: Spider 112 / 210**

**Mainboard Revisions affected: Rev 0 through Rev. 5.0**

---

**Indications : AC receptacle wired directly to mainboard. (No AC board).**

**Part Numbers affected: 50-00-0080 and 50-00-0082**

**Repair Procedure :** Older versions of Spider 112 and 210 do not have separate AC daughterboards. The AC receptacle was connected directly to the mainboard. Newer versions have an AC daughterboard attached to the AC receptacle which connects to the transformer and power switch. Because of this, the newer main boards have fewer tabs than the older boards. **If you have an older Spider 112 or 210 that does not have an AC daughterboard on the AC receptacle and you need to order a new mainboard (50-00-0080), you must also order the AC daughterboard (50-00-0082).**

**Production Status :** All production models are now manufactured using the AC daughterboard.

**ECO # 9929401**

Customer Service Tel: 818-575-3600 • Customer Service Fax: 818-676-1585

---

Line 6 Inc. • 29901 Agoura Rd. Agoura Hills, CA 91301

Tel. 818-575-3600 Fax 818-676-1585



## Bulletin 007: Product Spider 212

---

**Date codes affected : All**

**Indications: Intermittence on input jack or headphone jack / Low output / Noisy output / Static / No output** (If there is no signal after input inductors, L3 and/or L4 could be open. If there is signal after input inductors but no signal at headphone and speaker output, L5, L6 or L7 could be open.)

**Lights dim on floorboard** (If floorboard LEDs are dim or floorboard switches do not function properly, L11 could be open.)

**Volume or wah pedal on floorboard not operational** (If wah does not work, L12 could be open. If volume pedal does not work, L13 could be open.)

**Part Numbers affected :** 11-10-0601 (L3-L13)

**Tools/Supplies Required:** Soldering iron / DVM

### **Repair Procedure :**

Check appropriate inductor (see above) with DVM for continuity and replace if open. If problem is intermittent, it may be necessary to flex PCB slightly for inductor to become open. Make sure standoff insulation pads are in place when PCB is re-installed.

**Warranty Implications:** These failures are considered in-warranty failures. Line 6 will reimburse for 1 hour bench time (domestically only).





## Bulletin 008: Product: All

---

Date codes affected

**Indications :** Intermittent jack connections on plastic jacks which do not have metal sleeving.

**Part Numbers affected** 21-00-6616

**Tools/Supplies Required:** Phillips head screwdriver, soldering iron, desoldering device (ie. solder pullit, solder wick).

**Repair Procedure:** Disassemble unit and unscrew PCB from chassis. Desolder  $\frac{1}{4}$  jack and remove. Replace with metal-sleeved stereo switching jack (A/D Electronics Mfg. PN 6620-61) and re-solder onto PCB.

**Warranty Implications :** This should be considered a warranty repair (Domestically only).

**Production Status :** All production models are manufactured using the A/D Electronics' stereo switching jacks with metal sleeving (A/D Electronics Mfg. PN 6620-61).

**ECO # 0030702**

---

Customer Service Tel: 818-575-3600 • Customer Service Fax: 818-676-1585

Line 6 Inc. • 29901 Agoura Rd. Agoura Hills, CA 91301

Tel. 818-575-3600 Fax 818-676-1585



## Bulletin 009: Product Floorboard

---

**Indications** Wah and/or volume pedal not working

**Part Numbers affected** 09-00-4401

**Tools/Supplies Required** Soldering Iron, Phillips head Screw Driver

**Repair Procedure** Sometimes the wah and/or volume pedal on the floorboard will not work due to failure of a photo transistor (ref. M2, M3), Photo LED (M5, M6) or a transistor (Q1, Q2). Also, a damaged, smeared, creased or torn optical strip may be the problem but more often than not, the cause is Q1 or Q2 being pushed through the PCB causing the solder connections to break. This can happen when pressure is applied to the top of the floorboard by a player's foot and the top plate pushes down on the transistors enough to break the connections to the PCB. The solution is to reheat the solder points on the respective transistor, push the transistor so that it sits no higher than 7.5 millimeters above the PCB surface and then re-solder it into place. **It is important to check the condition of the transistor before re-soldering it. Check for creased, dented or split legs or any other signs of potential transistor failure before proceeding with this adjustment.**

**Warranty Implications** This should be considered a warranty repair (domestically only).

**Production Status** All production models are assembled with Q1 and Q2 no higher than 7.5mm.

---

Customer Service Tel: 818-575-3600 • Customer Service Fax: 818-676-1585

Line 6 Inc. • 29901 Agoura Rd. Agoura Hills, CA 91301

Tel. 818-575-3600 Fax 818-676-1585



# Bulletin 010:Product Spider 112/210

---

Date codes affected: all

## Indications

**Part Numbers affected** 30-03-0040 (insulating washer), 50-00-0080 (Main Spider 112/210 PCBA), 12-30-4765 (4765 Power IC – reference : U3).

## Repair Procedure

When replacing main PCBA, make sure to use insulating washer when securing Power IC to heatsink. It may be necessary to use the washer from the board being replaced. **Note: if this washer is not used, the Power IC will short to ground and burn out.**

Customer Service Tel: 818-575-3600 • Customer Service Fax: 818-676-1585

---

Line 6 Inc. • 29901 Agoura Rd. Agoura Hills, CA 91301

Tel. 818-575-3600 Fax 818-676-1585



# Bulletin 011: Product: Bass Pod Pro

**Date codes affected: All Date Codes Prior to 5109**

**Indications :** Unit occasionally does not fully boot up. (Unit will power up and show input signal but will have no audio output).

**Part Numbers affected :** 12-02-7915, 06-04-4002 (1N4002 diodes)

**Tools/Supplies Required :** Philips head screw driver, soldering iron, solder.

**Repair Procedure** Add one 1N4002 (06-04-4002) diode at each of the outputs of the +/- 15V regulators. (See diagram below)

1. Place unit upside down with the back panel facing you.
2. Remove bottom cover of chassis.
3. Clip leads on two 1N4002 diodes (06-04-4002), keeping the leads as short as possible.
4. Solder diode from pin#1 of C78 to pin#1 of C29. Cathode side of diode connects to C29. (See diagram below)
5. Solder diode from pin#3 of U25 to pin#2 of C142. Cathode side of diode connects to C142. (See diagram below) (U25's pins are located approximately 3<sup>1</sup>/<sub>2</sub>" from the right side of the PCB and 2<sup>1</sup>/<sub>4</sub>" from the back side of the PCB (the side with the output jacks.)
6. Carefully check that both diodes are oriented correctly.

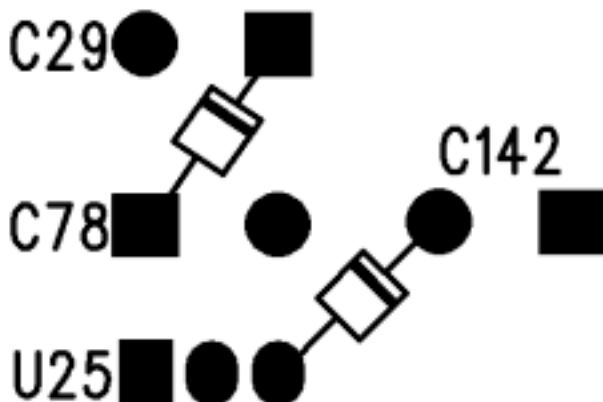
**Warranty Implications :** This should be considered a warranty repair (domestically only).


**Production Status :** All production models are manufactured with 1N4002 diodes at the outputs of the +/-15 volt regulator (U25).

**ECO # 0105303**

## Bottom side view of PCBA

(Square pad for all components is pin #1)



1N4002 Diode  
Anode——Cathode



## **Bulletin: 012 Product: Flextone 2, FT2 Plus, FT2 XL 220 volt versions only**

---

**Date codes affected : ALL**

**Indications :** Amp resets/shuts down

**Part Numbers affected** 12-02-2940, 12-02-7805, 12-02-2937

**Tools/Supplies Required :** Philips head screw driver, soldering iron, solder, desoldering device (pullit, wick).

### **Repair Procedure**

Disassemble amplifier, replace **U6**, (Texas Instruments UA7805C 5 volt regulator, part # 12-02-7805) with National Semiconductor LM2940CT-5.0 Low Dropout Regulator (part # 12-02-2940). (National Semiconductor LM2937ET-5.0 Low Dropout Regulator, part # 12-02-2937 can be substituted if 12-02-2940 is not available.)

(If the 5 volt low dropout regulator is not readily available, C39 may be replaced with a 6800uf, 16V capacitor, but the leads and the capacitor must be bent to fit on the board.)

**Warranty Implications :** This should be considered a warranty repair (domestically only).

**Production Status :** All production models are being manufactured with part # 12-02-2940.

**ECO # : 0029802**

---

Customer Service Tel: 818-575-3600 • Customer Service Fax: 818-676-1585

Line 6 Inc. • 29901 Agoura Rd. Agoura Hills, CA 91301

Tel. 818-575-3600 Fax 818-676-1585



## **Bulletin 013: Product: Flextone 2 Combos**

---

**Date codes affected: All**

**Indications:** Retrofitting any **Line 6** Flextone 2 amplifier with the new **Celestion** speaker in place of the older **Eminence** design.

**Part Numbers affected: Speaker part #'s:** **11-20-1200** (std. Combo amp speaker), **11-20-1202** (ext. cabinet speaker), **11-20-1208** (new **Celestion** std. speaker) and **11-20-1212** (new **Celestion** ext. cabinet speaker)

**Screw part #'s:** **30-00-0014** 10-24 X 7/8" Phillips Pan Head Machine Screw, **30-00-0015** 10-24 X 1" Truss/Phillips Head Black Oxide, and **30-00-1016** 10-24 1" Phillips Pan Head Machine Screw.

**Please note:** The appropriate screw part number for the new **Celestion** speaker is **30-00-0015**, and this can be distinguished by the head size (truss style, i.e.- flatter and larger).

**Tools/Supplies Required:** Phillips Head #2 Screwdriver.

**Repair Procedure:** Lay amplifier face down on a padded surface to not mar the front of the unit. Disconnect speaker leads (please make note of which lead went to which fast-on tab on speaker). Remove the four (4) speaker mounting screws (either **30-00-0014** or **30-00-1016**) from their respective threaded Tee-Nut mount. Lift out the old speaker from the rear of the unit and discard appropriately. Install new **Celestion** speaker(s) into the cabinet and align the mounting ferrules to the threaded Tee-Nut locations. Secure new **Celestion** speaker(s) with the appropriate screws (part #: **30-00-0015**) and tighten screws until secure, do not overtighten as this will strip out the Tee-Nut. Once speaker(s) is secured, re-attach the appropriate leads to their appropriate terminal on the speaker(s). Please test thoroughly to complete the repair.

**Warranty Implications:** Both warranty replacement for defective speaker(s) and out of warranty retrofit

**Production Status:** Effective immediately

**ECO #: 0114202**

Customer Service Tel: 818-575-3600 Customer Service Fax: 818-676-1585

---

Line 6 Inc. Corporate: 29901 Agoura Rd, Agoura, CA 91301-2513  
Line 6 Inc.. Mfg/ Customer Service/ Repair. 6033 DeSoto Ave. Woodland Hills, CA 91367



## Bulletin 014: Product Floorboard

Date codes affected: All

**Indications:** Switches failing due to insufficient spring force from actuator to the tact switch, resulting in intermittent or non-operation of the switches.

**Part Numbers affected** 30-15-0009 (.185" nylon spacer)

**Tools/Supplies Required:** Phillips head ScrewDriver

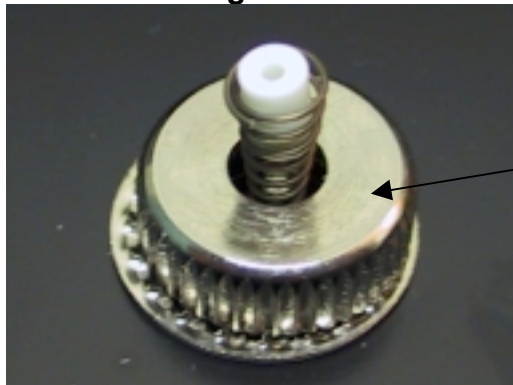
**Repair Procedure :** Remove bottom plate of floorboard by removing the 6 screws on the bottom and the 2 screws on each side. Remove the bottom plate. Remove the 6 screws that are holding the switch board (the largest of the 3 circuit boards) in place and move the board out of the way so as to expose the switch actuators. Check that all the actuator springs are properly situated. Insert spacer (part # 30-15-0009; see Fig. 1) into the center of each switch actuator. Replace PCB and bottom cover.

**Warranty Implications:** This should be considered a warranty repair. Service centers should insert the nylon spacers in all 8 actuators when a floorboard is brought in for warranty repair, regardless of the reported problem. Line 6 will pay the service center \$10 for the additional labor required for insertion of all 8 spacers.

**Production Status:** All production models are being manufactured with part # 30-15-0009 installed.

**ECO # 0121401**

**Fig 1.**



MAKE SURE THAT  
SWITCH CAP IS SECURED  
TIGHTLY.

Customer Service Tel: 818-575-3600 Customer Service Fax: 818-676-1585

Line 6 Inc. Corporate: 29901 Agoura Rd, Agoura, CA 91301-2513  
Line 6 Inc.. Mfg/ Customer Service/ Repair. 6033 DeSoto Ave. Woodland Hills, CA 91367



# Bulletin 015: Product DL4, MM4,DM4 & FM4 Stompbox Modelers

Date codes affected: All

**Indications** : Switches failing due to insufficient spring force from the actuator spring to the tact switch, resulting in intermittent or non-operation of the switches.

**Part Numbers affected** : 30-15-0010 (.145" Nylon Spacer)

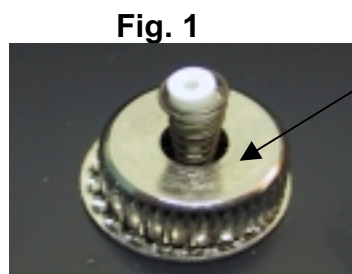
**Tools/Supplies Required** : Phillips head screw driver, 2 small flathead jeweler's screw drivers or 2 dental tools, 1/4" nut driver, 5/8" nut driver.

**Repair Procedure** : Using 2 small flathead jeweler's screwdrivers or dental tools placed underneath the knobs and 180 degrees apart, gently pry off the 6 control knobs. It may be necessary to apply electrical tape to the screw drivers or dental tools to avoid chipping the paint off the perimeter of the knob wells. (A set of pliers can be milled concave to the circumference of the knobs by a machine shop to make the removal of these knobs easier. If interested, contact Line 6's service department for details). Remove nuts from the 1/4" jacks. Remove the 5 screws on the bottom plate. Remove bottom plate. Remove the five screws and the 1/4" hex standoff that secure the circuit board. Remove the circuit board so as to expose the switch actuators. Check that all the actuator springs are properly situated. Insert spacer (Part #30-15-0010) into the center of each actuator spring (see Fig. 1.) Replace circuit board, knobs, nuts and bottom plate.

**Warranty Implications** : This should be considered a warranty repair. Service centers should insert the nylon spacers into all 4 actuators when a stomp box modeler is brought in for warranty repair of an intermittent switch.

**Production Status** : All production models are being manufactured with part # 30-15-0010 installed.

ECO #: 0121901



MAKE SURE THAT SWITCH CAP IS SECURED TIGHTLY.

Customer Service Tel: 818-575-3600 Customer Service Fax: 818-676-1585

Line 6 Inc. Corporate: 29901 Agoura Rd, Agoura, CA 91301-2513  
Line 6 Inc.. Mfg/ Customer Service/ Repair. 6033 DeSoto Ave. Woodland Hills, CA 91367





## **Bulletin 016: Product Flextone 2 HD**

---

**Date codes affected: All Rev. D Main boards and prior.**

**Indications :** Distorted or no input signal due to electrostatic damage to U19 on Main board.

**Part Numbers affected :** 12-54-0072 (input op-amp, U19 on main board) , 06-00-4148 (small signal diodes 1N4148)

**Tools/Supplies Required :** soldering iron, desoldering tool, wire cutters, 22 gauge teflon tubing.

**Repair Procedure :** Disassemble amplifier head (see assembly instructions), remove main board. Install 1N4148 diodes as shown below.

**Warranty Implications :** This is considered a warranty repair and is to be performed on all units in for service.

**Production Status :** Revision E of the mainboard will have the diodes installed.

**ECO # 0131202**

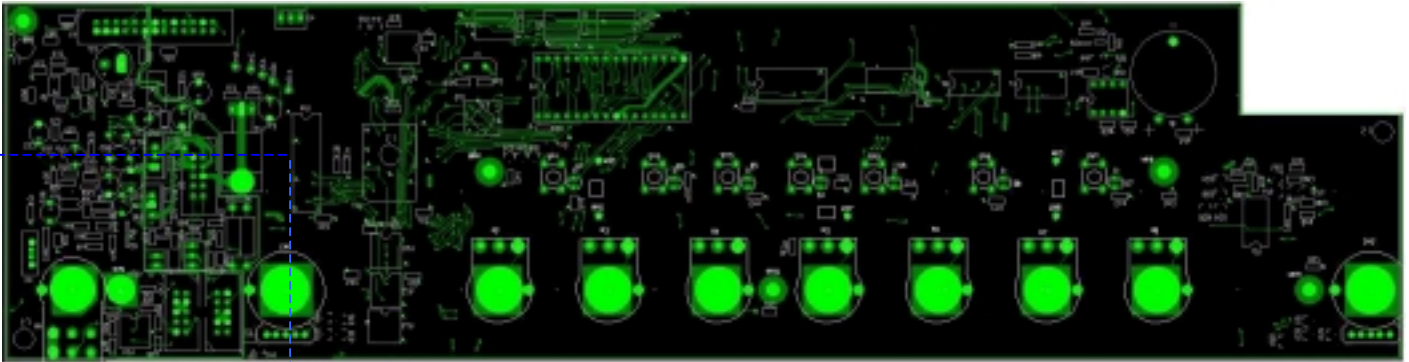
- **INSTALL TWO SMALL-SIGNAL (1N4148) DIODES AS SHOWN BELOW.**
- **INSTALL 22 GAUGE TEFLON TUBING ON LONG LEADS AS SHOWN BELOW.**
- **PROVIDE PLENTY OF CLEARANCE BETWEEN DIODE LEAD AND MOUNTING HOLE MH9 AS SHOWN BELOW.**

Customer Service Tel: 818-575-3600 Customer Service Fax: 818-676-1585

---

Line 6 Inc. Corporate: 29901 Agoura Rd, Agoura, CA 91301-2513  
Line 6 Inc.. Mfg/ Customer Service/ Repair. 6033 DeSoto Ave. Woodland Hills, CA 91367

(Tech Bulletin 016 continued)



**H9, pins 2&3**

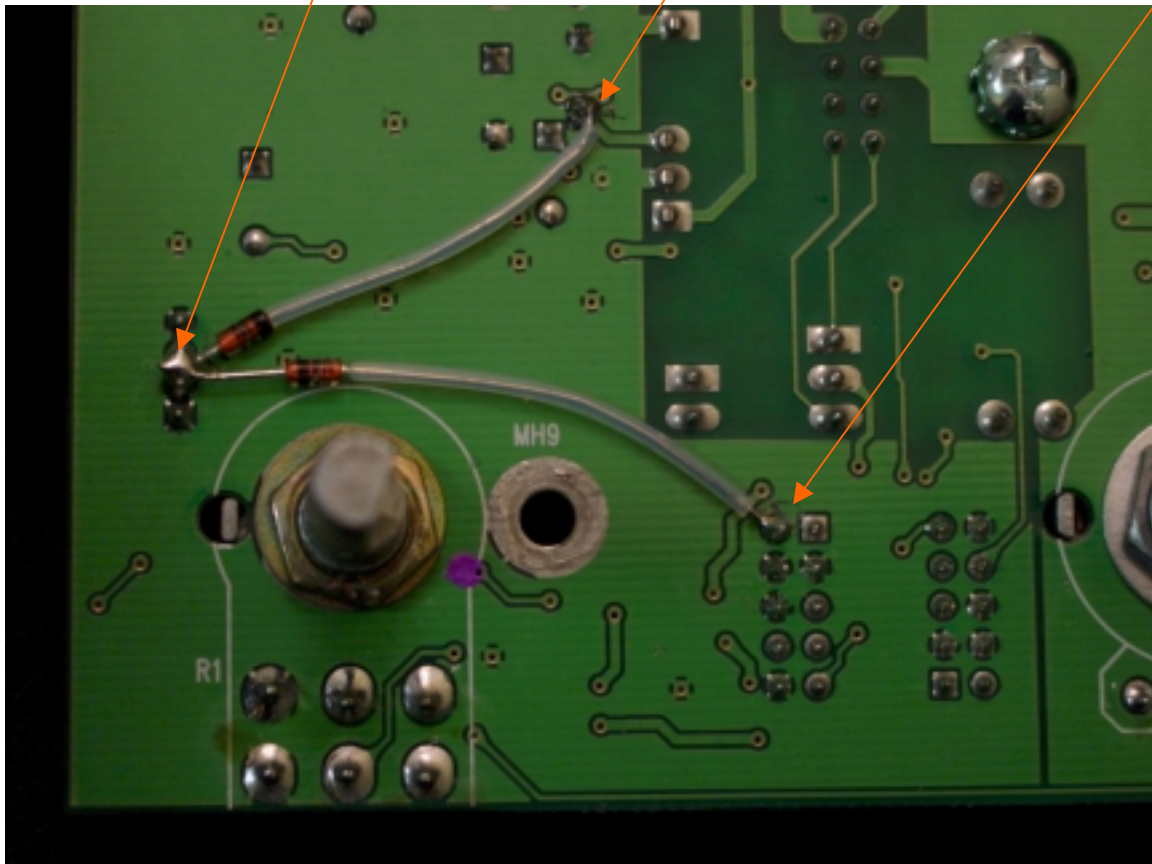
KEEP DIODE LEADS VERY SHORT  
TO THIS CONNECTION

**C14, +**

CONNECT CATHODE  
OF TOP DIODE  
HERE

**H7, pin 2**

CONNECT ANODE OF  
LOWER DIODE HERE





# Bulletin 017: Product Spider 212

---

## Date codes affected

**Indications :** PCBA flexing causing smt parts to crack or be compromised

**Note:** This is not a published technical bulletin. **Prior authorization from Line 6's service department is required before this procedure is performed.** This procedure should only be considered for units that have had multiple repairs involving cracked surface mount components.

**Part Numbers affected:** 30-12-2210 (hex standoffs - quantity: 2), 30-00-0610 (Screws – qty: 2), 30-03-0606 (washers - qty: 4), 30-12-0004 (threaded spacers - qty:2), 30-51-0119 (heatsink clips - qty:4).

**Tools/Supplies Required :** Drill, 1/4" drill bit, Philips head screwdriver, pliers, 7/64" Hex No.2 key

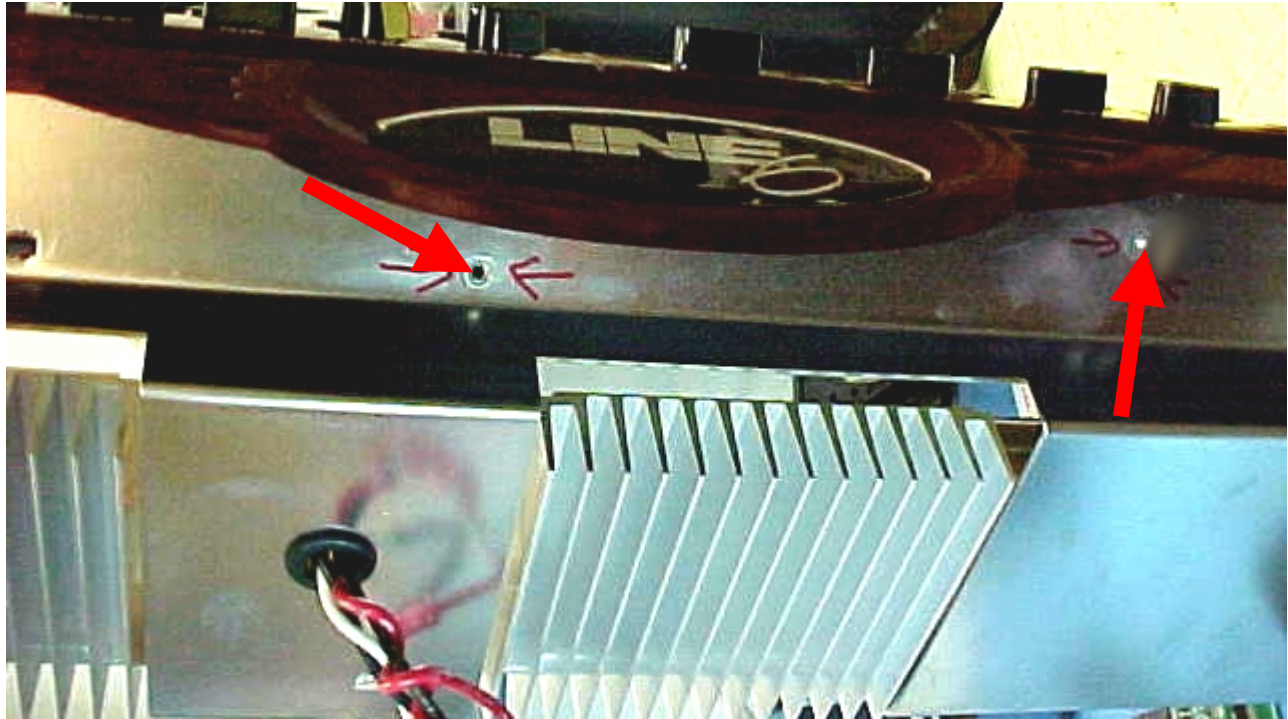
**Repair Procedure :** Unplug speaker wires from speakers. (Note the arrangement in which they were wired). Unscrew the 4 screws on the top of the amp cabinet and remove metal amp chassis from cabinet. Be careful not to damage the faceplate as it hangs over the speaker baffle. Disconnect the 5 wires that come from the transformer's secondary winding as well as the 2 sets of speaker wires from the PCBA. Disconnect the ribbon cable that connects the front PCBA to the main PCBA. Remove Main PCBA by unscrewing input and headphone jack hex nuts and removing 3886 power amps from heatsinks. Slide the main PCBA out from under the front panel PCBA and remove from the chassis.

Locate the point on the outside of the chassis where the two hex standoffs are mounted. They are located in the area between the heatsinks and the faceplate overhang. (See Fig. 1)

---

Customer Service Tel: 818-575-3600 Customer Service Fax: 818-676-1585

Line 6 Inc. Corporate: 29901 Agoura Rd, Agoura, CA 91301-2513  
Line 6 Inc.. Mfg/ Customer Service/ Repair. 6033 DeSoto Ave. Woodland Hills, CA 91367

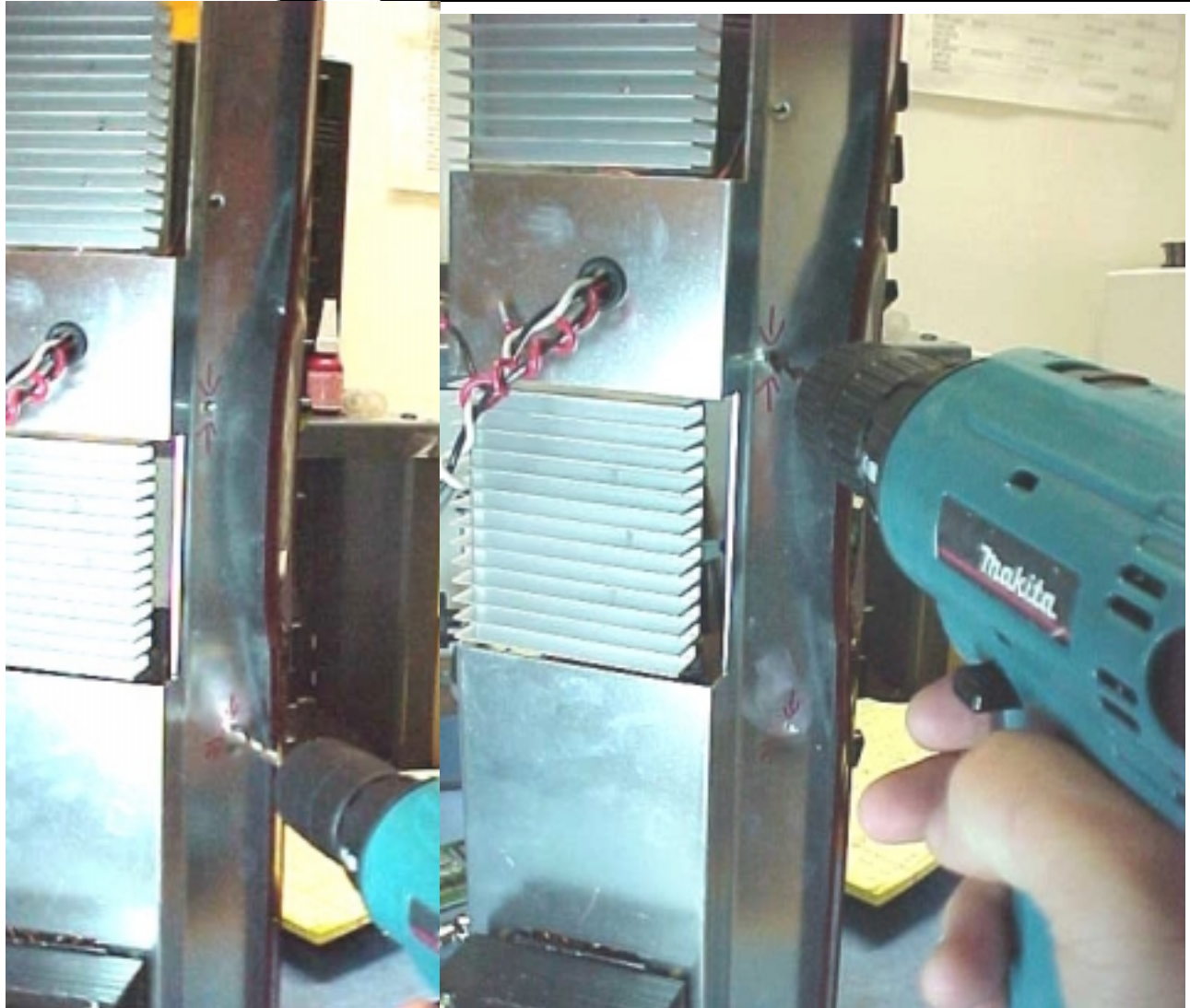


**Fig. 1**

Now drill  $\frac{1}{4}$ " holes in the chassis where the hex standoffs are. Be careful not to drill into the front panel PCBA! (Note: It may be easier if you drill smaller pilot holes into the standoffs first and then gradually work up to the  $\frac{1}{4}$ " drill bit.) In order to avoid metal shavings from getting on the front panel board and causing shorts, it is advisable to drill the chassis while on it's side with the transformer side down (see Fig 2). Additionally, after both holes have been drilled, the chassis and front board should have any metal shavings or other particles blown out by spraying compressed air throughout the chassis and board.

Customer Service Tel: 818-575-3600 Customer Service Fax: 818-676-1585

Line 6 Inc. Corporate: 29901 Agoura Rd, Agoura, CA 91301-2513  
Line 6 Inc.. Mfg/ Customer Service/ Repair. 6033 DeSoto Ave. Woodland Hills, CA 91367



**Fig. 2**

Place washers on the 2 screws (see Fig 3), place screws through holes you've drilled into the chassis from the outside (See Fig. 4). Place a washer on the screw from inside the chassis and then secure one of the threaded spacers onto the screw (see fig. 5 & fig 6). Do not tighten the screw and spacer to the chassis. Drive the screw into the spacer so that the screw just barely extends past the spacer. (If you drive the screw all the way through the spacer, you will not be able to get the main circuit board in place.)

Customer Service Tel: 818-575-3600 Customer Service Fax: 818-676-1585

---

Line 6 Inc. Corporate: 29901 Agoura Rd, Agoura, CA 91301-2513  
Line 6 Inc.. Mfg/ Customer Service/ Repair. 6033 DeSoto Ave. Woodland Hills, CA 91367



fig. 3



fig. 4



fig. 5

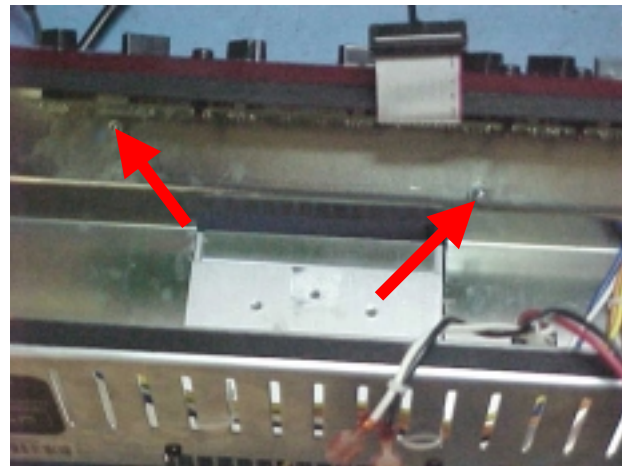


fig. 6

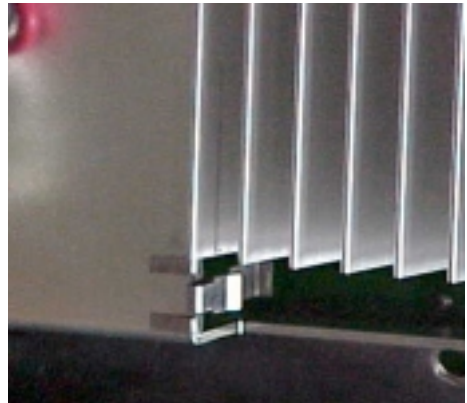
Now before re-installing the main PCBA, loosen, but do not remove, the screws that secure the heatsinks to the chassis so that the heatsinks are loose. (see fig. 7.) Secure one clip (fig. 8) to the chassis on each side of each heatsink (two clips per heatsink)(Fig. 9.)Now slide the clip over the last fin of the heat sink. (fig. 10.) (The hook on the long end should grab the heatsink by the opposite side. ) Slide the clips about an inch up the heatsink (fig. 11) **but do not tighten the heatsinks to the chassis just yet.**



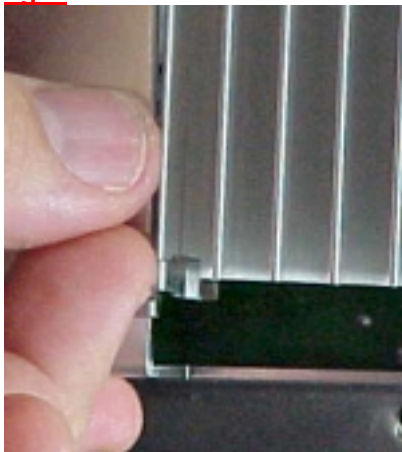
**fig. 7**



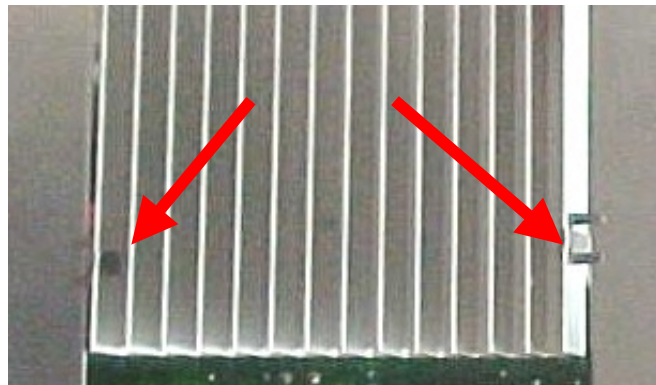
**fig. 8**



**fig. 9**



**fig. 10**



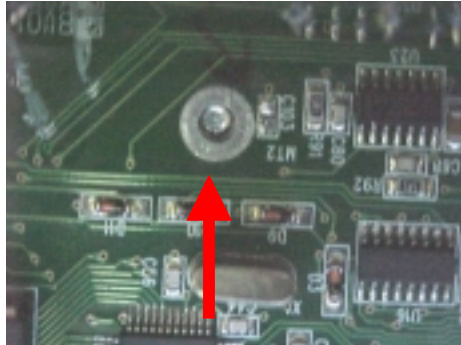
**Fig. 11**

Now reinstall the main PCB by sliding it underneath the front PCBA. Position the board so that the input and headphone jacks fit into their respective mounting holes in the faceplate. Line the PCBA up so that the tips of the screws that are connected to the threaded spacers and chassis show through the holes in the PCBA. (figs. 12, 13 & 14). Drive the screws just a little bit to hold the board in place but do not install the hex nuts to the PCBA screws just yet.

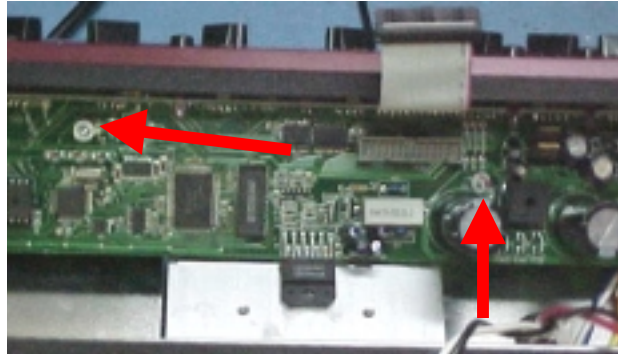
Secure the power IC's to the heatsinks by tightening each IC's hex (or Phillips) screw to 4-5 in/lbs. Apply more heatsink compound if needed. (Do not tighten heatsinks to the chassis just yet.)

Customer Service Tel: 818-575-3600 Customer Service Fax: 818-676-1585

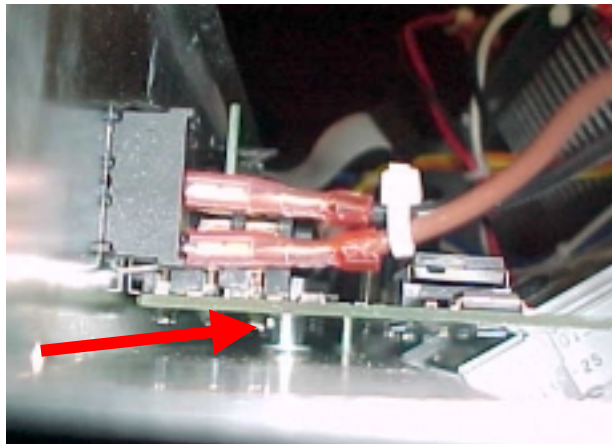
Line 6 Inc. Corporate: 29901 Agoura Rd, Agoura, CA 91301-2513  
Line 6 Inc.. Mfg/ Customer Service/ Repair. 6033 DeSoto Ave. Woodland Hills, CA 91367



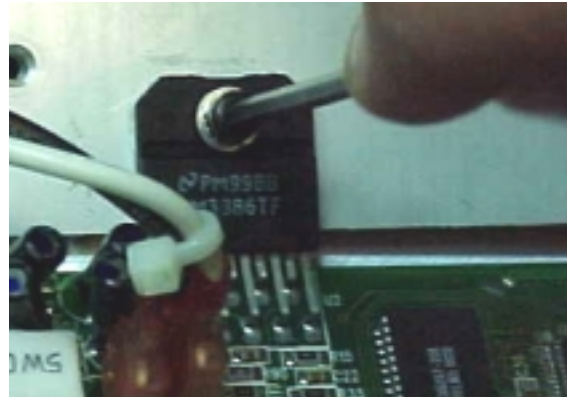
**fig. 12**



**fig. 13**



**fig. 14**



**fig. 15**

After the Power Ics have been secured to the heatsinks, screw the hex nuts to the screws that are showing through the PCBA's holes.(fig.16) With pliers or other tool, hold the hex nut still (fig. 17) while driving the outside screws into both the hex nut and threaded spacer to secure the PCBA (fig. 18).



**fig. 16**



**fig.17**



**fig.18**

Customer Service Tel: 818-575-3600 Customer Service Fax: 818-676-1585





After the main board has been properly installed and secured, secure the plastic hex nuts to the guitar input and headphone jacks, re-attach the two sets of speaker wires, transformer wires and ribbon cable from the front PCBA to the mainboard and tighten the heatsinks securely to the chassis. Replace chassis back into cabinet and re-attach the speaker wires to the speakers.

Customer Service Tel: 818-575-3600 Customer Service Fax: 818-676-1585

---

Line 6 Inc. Corporate: 29901 Agoura Rd, Agoura, CA 91301-2513  
Line 6 Inc.. Mfg/ Customer Service/ Repair. 6033 DeSoto Ave. Woodland Hills, CA 91367



## Technical Bulletin

# Bulletin 018: Product Spider 112/210

---

**Date codes affected: All**

**Indications** : Smoke/ burning around LM 4765 Power Amp IC (U3) causing amp to have no output or not power up; usually due to burning of C24 and/or C52.

**Part Numbers affected** : U3 (LM 4765), C24, C52 (.1uf smt capacitors).

**Tools/Supplies Required** : Soldering iron, Desoldering tool.

**Repair Procedure** : Remove C24 and C52 and discard. (These capacitors are in parallel with C25 and C53, respectively, which are both 10uf, 50 V capacitors.)

**Warranty Implications** : This procedure should be done when an amp comes in for any repair. If the unit has already smoked due to C24 and/or C52 burning, U3 most likely will need to be replaced.

**Production Status** : Production units do not have these capacitors installed.

**ECO # 0202902**

---

Customer Service Tel: 818-575-3600 Customer Service Fax: 818-676-1585

Line 6 Inc. Corporate: 29901 Agoura Rd, Agoura, CA 91301-2513  
Line 6 Inc.. Mfg/ Customer Service/ Repair. 6033 DeSoto Ave. Woodland Hills, CA 91367



## Technical Bulletin 019: Product:Pod Pro xt and Bass Pod Pro xt

---

**Indications :** Low signal level on unbalanced ¼" outputs.

**Parts affected :** Main pcba ; R85, R86, R97, R98.

**Tools/Supplies Required:** Soldering iron, tweezers, desoldering device (ie. solder pullit, solder wick).

**Repair Procedure:** Remove unit case top. Locate and remove R85 and R97. Replace R86 and R98 with 1K 0805 5% SMD resistors. Replace and secure unit case top.

**\*\*NOTE;** If R85 and R97 are already missing, unit may already be to spec. and not need this modification. Check R86 and R98 to see if they are 1K.

	<b>Was</b> before Modification /	<b>IS</b> after modification
R85 and R97 =	1.00K Res.	/ - Removed –
R86 and R98 =	3.65K Res.	/ 1.00K

**Warranty Implications :** This should be considered a warranty repair.

**Production Status :** Most production units do not need this modification. See **\*\*NOTE** above.

**ECO # 0323001**

Customer Service Tel: (805) 379-8900 • Customer Service Fax: (805) 379-3001

---

Line 6 Inc. • 555 St. Charles Avenue, Suite 100 • Thousand Oaks CA 91360 • Tel:  
(805) 379-8900 • Fax: (805) 379-3001



# Technical Bulletin 020:

## Product: Spider II HD

---

**Application:** To be implemented on all Spider II HD's.

**Objective:** To lower the cutoff frequency of the power amp, to eliminate the possibility of oscillation.

**Parts affected :** 50-02-0221 Stereo Power Amp PCBA for Spider II HD; R5, R6, C7, C9.

**Tools/Supplies Required:** Soldering iron, solder, tweezers, cutters, desoldering device (ie. solder pullit, solder wick). Two 0.56uF/100V, TH poly caps (03-24-0564), and two 2.2 ohm, 3W, TH resistors (01-23-02R2).

**Repair Procedure:** Remove unit chassis from cabinet. Locate and remove stereo power amp pcba. Note which cables are connected to which header locations. On the power amp pcba, locate and remove R5, R6. Replace them with 2.2 ohm, 3W, TH resistors. Locate and remove C7, and C9. Replace them with 0.56uF/100V, TH poly caps. Replace and secure stereo power amp pcba in chassis. Replace cables to power amp pcba as noted above. Replace and secure chassis into unit cabinet.

**\*\*NOTE;** If R5 and R6 are already 2.2 ohm/ 3W resistors, unit may already be to spec. and not need this modification. Check C7 and C9 to see if they are 0.56uF/100V poly caps.

	<b>Was</b> before Modification	/	<b>IS</b> after Modification
R5 and R6 =	2.2 ohm, 2W Res.	/	2.2 ohm, 3W Res.
C7 and C9 =	0.1uF, 100V poly cap	/	0.56uF, 100V poly caps

**Warranty Implications :** This should be considered a warranty repair.

**Production Status :** Units produced prior to 01/01/04 will need this modification. Units produced after this date do not need this modification. See **\*\*NOTE** above.

**ECO # 0336302**

Customer Service Tel: (805) 379-8900 • Customer Service Fax: (805) 379-3001

---

Line 6 Inc. • 555 St. Charles Avenue, Suite 100 • Thousand Oaks CA 91360 • Tel:  
(805) 379-8900 • Fax: (805) 379-3001



## **Technical Bulletin 021: Product: Pod Pro**

---

**Indications:** Random popping or crackling from output without signal applied.

**Parts affected:** 15-70-6256 – DRAM; U5 & U6 on main pcba.

**Tools/Supplies Required:** Solder iron, solder, cutters, tweezers, desoldering device (solder pullit, solder wick, heatgun, etc.).

**Repair Procedure:** Remove U5 & U6 and replace with alternate make of DRAM. Contact Line 6 for part, or the approved vendor list.

**Warranty Implications:** This should be considered a warranty repair.



# Technical Bulletin 022:

## Product: Duoverb HD

---

**Application:** To be implemented on all Duoverb HD's.

**Objective:** To lower the cutoff frequency of the power amp, to eliminate the possibility of oscillation.

**Parts affected :** 50-00-0123 Stereo Power Amp PCBA for Duoverb HD; R5, R6, C7, C9.

**Tools/Supplies Required:** Soldering iron, solder, tweezers, cutters, desoldering device (ie. solder pullit, solder wick). Two 0.56uF/100V, TH poly caps (03-24-0564), and two 2.2 ohm, 3W, TH resistors (01-23-02R2).

**Repair Procedure:** Remove unit chassis from cabinet. Locate and remove stereo power amp pcba. Note which cables are connected to which header locations. On the power amp pcba, locate and remove R5, R6. Replace them with 2.2 ohm, 3W, TH resistors. Locate and remove C7, and C9. Replace them with 0.56uF/100V, TH poly caps. Replace and secure stereo power amp pcba in chassis. Replace cables to power amp pcba as noted above. Replace and secure chassis into unit cabinet.

**\*\*NOTE;** If R5 and R6 are already 2.2 ohm/ 3W resistors, unit may already be to spec. and not need this modification. Check C7 and C9 to see if they are 0.56uF/100V poly caps.

	<b>Was</b> before Modification	/	<b>IS</b> after Modification
R5 and R6 =	2.2 ohm, 2W Res.	/	2.2 ohm, 3W Res.
C7 and C9 =	0.1uF, 100V poly cap	/	0.56uF, 100V poly caps

**Warranty Implications :** This should be considered a warranty repair.

**Production Status :** All units will need to be checked for this modification. See **\*\*NOTE** above.

**ECO # 0402801**

---

Customer Service Tel: (818) 575-3600 • Customer Service Fax: (818) 676-1585

Line 6 Inc. • 29901 Agoura Road, Agoura Hills, CA 91301 • 6033 De Soto Ave.

Woodland Hills, CA, 91367



## Technical Bulletin 023:

### Product: HD147 & Vetta II HD

---

**Application:** To be implemented on all HD147 and Vetta II HD's that show power supply whine symptoms from the unit itself, not from the audio outputs.

**Objective:** To shield the control pcba from the nearby transformer on the switching power supply to eliminate the audible whine.

**Parts affected :** 50-02-0236 HD147 and Vetta II HD Switching Power Supply Assembly.

**Tools/Supplies Required:** Soldering iron, solder, tweezers, cutters, desoldering device (ie. solder pullit, solder wick). One 35-00-0031 Shield and four 30-63-1111 Foam 1/2" x 1/2" x 1/8" w/ 1-side adhesive squares.

**Warranty Implications :** This should be considered a warranty repair.

**Production Status :** Only units that exhibit an audible hum from the power supply (not through the audio outputs) should be considered for this modification.

**ECO # 0405503**

**Procedure;** Please find the modification procedure beginning on the next page.

---

Customer Service Tel: (818) 575-3600 • Customer Service Fax: (818) 676-1585

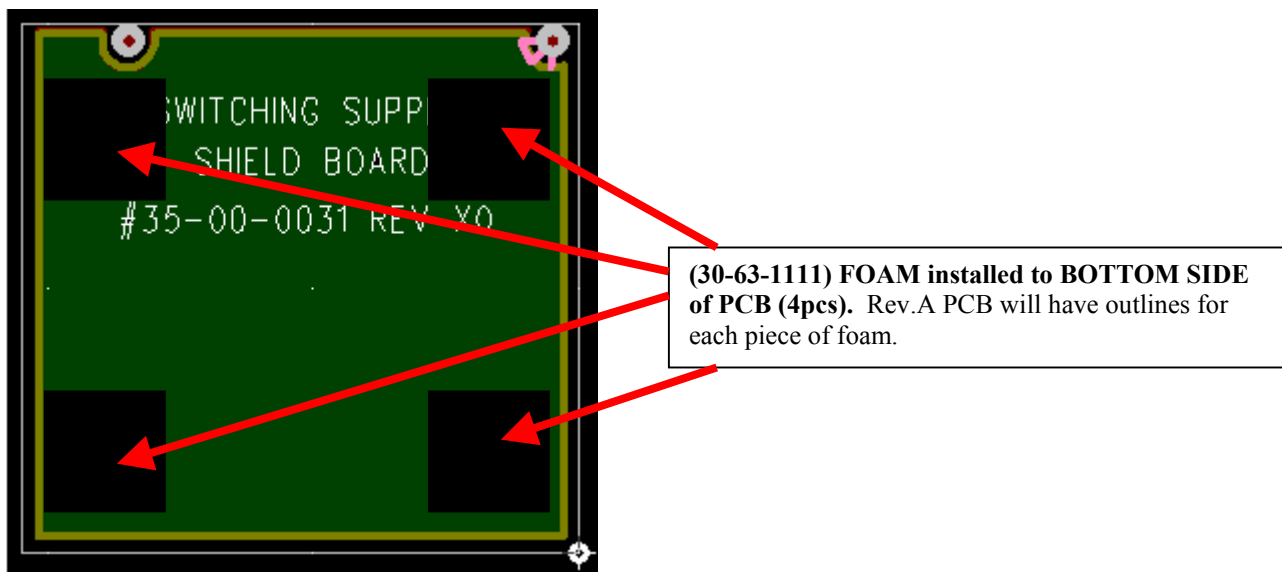
Line 6 Inc. • 29901 Agoura Road, Agoura Hills, CA 91301 • 6033 De Soto Ave.

Woodland Hills, CA, 91367

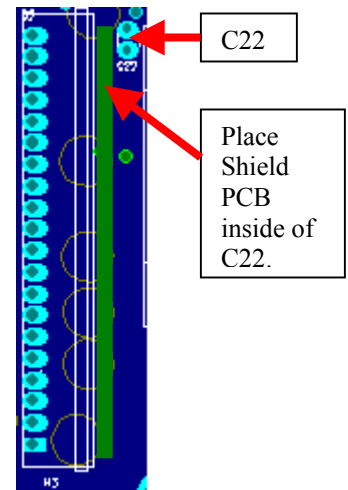
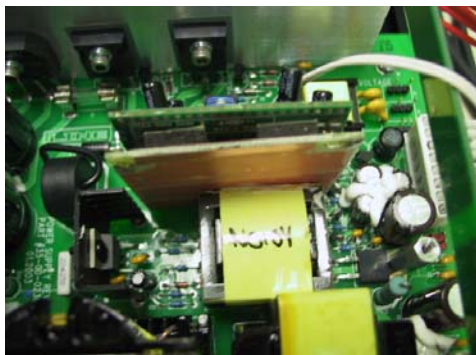
**REWORK INSTRUCTIONS - REV.A 2/20/04.**  
**50-02-0236 PCBA POWER SUPPLY w/CONTROL MODERN-HD/VETTA-HD SERIES**

These instructions are for reworking/installing the SWITCHING SUPPLY SHIELD PCB (35-00-0031) onto the POWER SUPPLY ASSY (50-02-0236).

1) Install (4) FOAM 1/2 x 1/2 x 1/8IN w/ADHSV 1-SIDE 3M NO. 4508 (30-63-1111) onto the **BOTTOM** side of the Shield PCB (35-00-0031). It is not necessary to remove the backing on the outside of the Foam.



2) Install the SHIELD PCB onto the Power Supply PCBA with the foam pads facing the Controller PCB (see below). **NOTE** - the bottom edge of the Shield PCB should contact the Power Supply PCB **inside of C22**.





# LINE 6

## Engineering

3) Push a piece of stripped jumper wire (22-24AWG) through PIN-1 of the Controller PCBA and through the hole in the Shield PCB that is also aligned with PIN-1. Solder both ends of the wire and trim any excess from the solder contacts. (see below) **NOTE:** the holes on the Controller PCBA may have solder filling them. If so, it will be necessary to heat the solder with a soldering iron while pushing the jumper wire through, or removing the solder from the hole prior to pushing the wire through.

4) Repeat the same process described for PIN-1 above between PIN-17 on the Controller PCBA and the hole that is aligned with it on the Shield PCB. (see below).

