

Requesting Engineer: _____ Date: _____

Approved by: _____ Date: _____

STEREO IMPACT SWEA FM1 LVPS REPAIR INSTRUCTIONS

1. One transistor and two resistors need to be added in place of C59 and D38.

It was found that the behavior of the LTC1788 regulator (U8) requires a circuit modification to prevent negative excursions of the Sync input signal. This modification requires the permanent removal of C59 and D38, and the addition of Q11, R56, and R57.

- 1) On the top side of the board, permanently remove C59 and D38.

COMPLETED BY _____ **DATE** _____

- 2) Prepare Q11 as follows, referring to Figures 1, 2 and 3: Using anti-shock cutters if possible, remove the orientation tab from the can. Bend the leads as shown, to accommodate the connections to be made. Solder a stranded #24AWG extending wire to the emitter lead (this is not the wire type shown in the photograph, which was used for demonstration only). Use shrink tubing to insulate the lead from the D31 lead.

COMPLETED BY _____ **DATE** _____

- 3) Solder the Q11 collector and base leads to the vacated C59 vias as shown in Figures 2 and 3. Solder the extended emitter wire to the pad for L11 pin 1 as shown, bringing it around from behind the other two leads. The blank board with the transistor installed for demonstration, as photographed, is also available for reference.

COMPLETED BY _____ **DATE** _____

- 4) On the bottom side of the board, cut the trace between the two red-circled vias shown in Figure 4. Cover the cut with #1838 B/A Green epoxy.

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- 5) Position R57 between the red-circled vias in Figure 4, and between C11 and R33, so that it does not lie over any solder points. Solder the leads to the existing soldered connections at the red-circled vias. Use Teflon sleeving over the leads as necessary to insulate them from nearby components, vias and pads.

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- 6) Position R56 between the yellow-circled vias, making sure that it does not lie over any solder points. Solder the leads to the existing soldered connections at the yellow-circled vias. Use Teflon sleeving over the leads as necessary to insulate them from nearby components, vias and pads.

COMPLETED BY _____ DATE _____

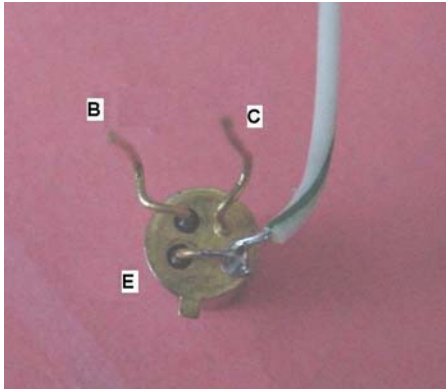


Figure 1: Three views, Q11 lead preparation

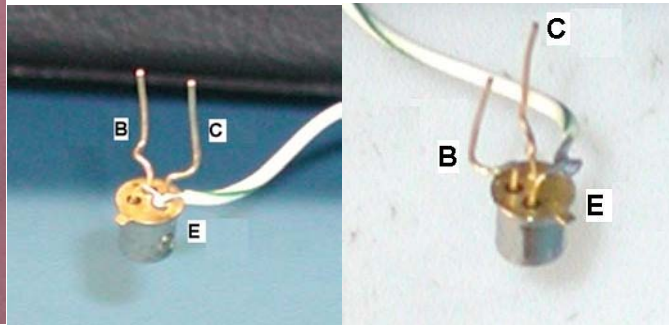
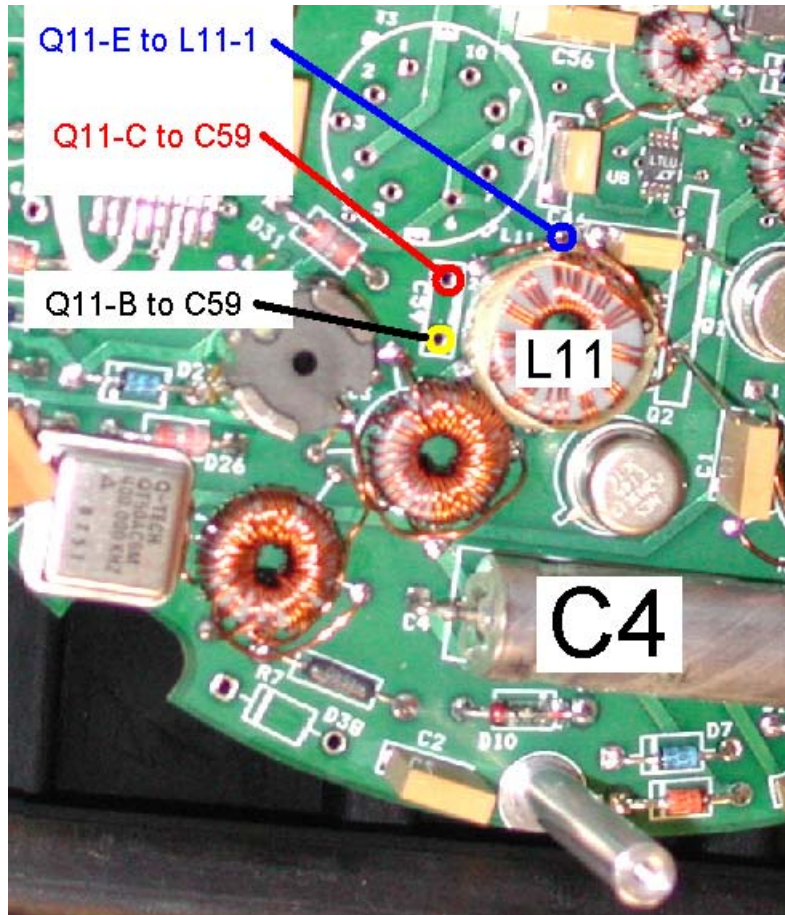


Figure 2:
Q11 connections detail



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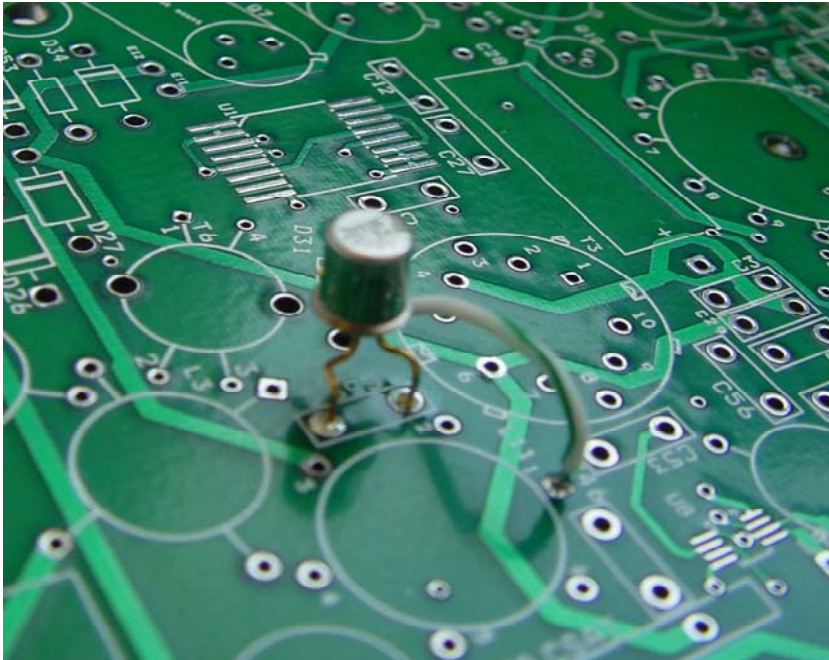
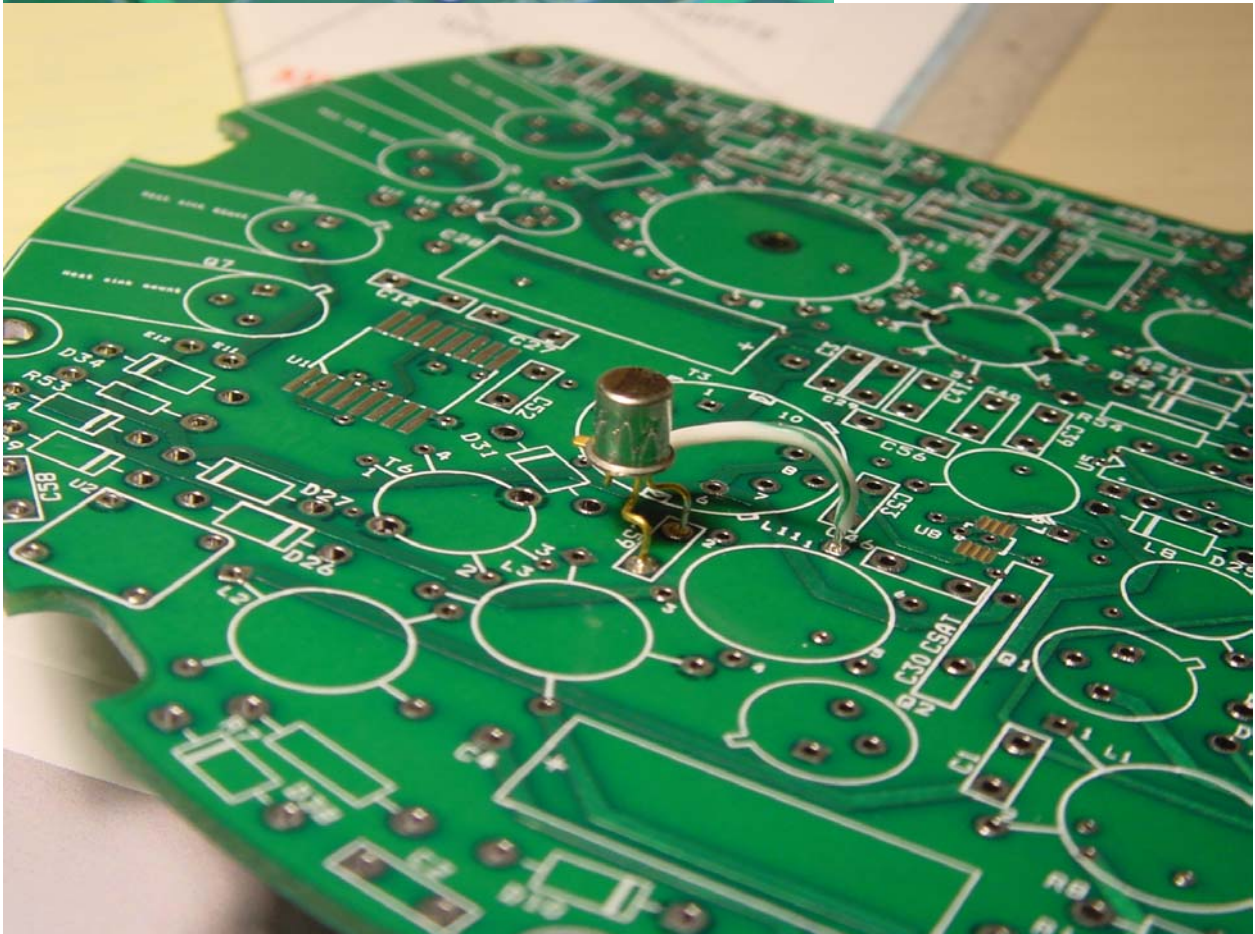


Figure 3:
Two views, Q11
Demonstration
installation



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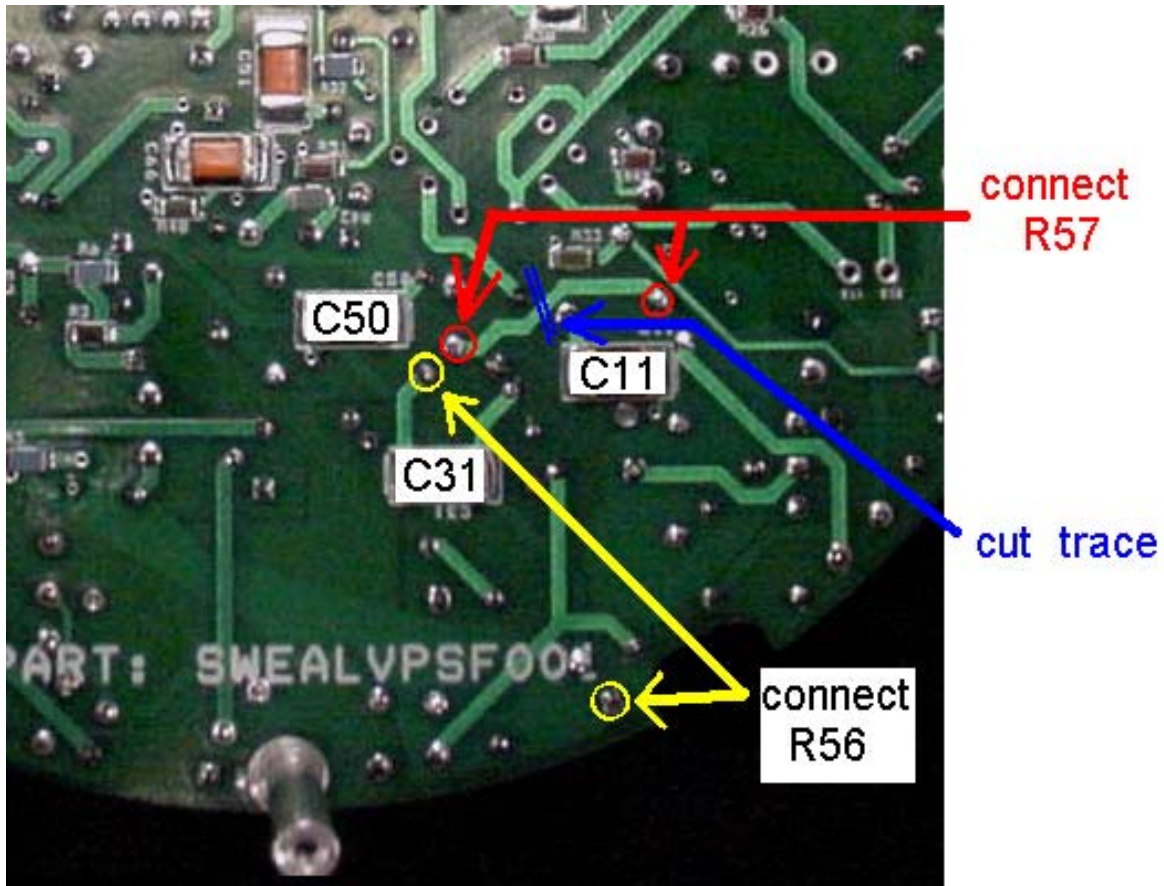


Figure 4: Reference for steps 4-6

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