

# Replacing PCB Rivets used in 8840A/8840AF/8842A Meters

The PCB rivets/plungers are somewhat delicate to release or remove. Follow these instructions for the best success.

## Rivet Release to remove a PCB

You should be familiar with the disassembly instructions in the Fluke manual Section 6.

- UNPLUG THE METER!
- Work on a static-protective surface.
- Examine the type of retainers used for the main PCB and turn upright. Two types were used:
  - Pop-up buttons – easy to pop up but easy to break. The trick for releasing is to press the rivet down while pulling up on button. DO NOT remove rivet from PCB. Most rivets are broken because the rivet was allowed to rise with the plunger.
  - Center-pin rivets – hard to remove. You must drive out the pin from the top while supporting the PCB from the under-side against something firm. We use a small ¼” socket. Using a dowel pin driver, tap the pin completely out. Then work the rivet down out of the retainer.
  - Pop-up rivets were always used on the option PCBs.
- Once the plunger is fully “up” the rivet can be carefully worked out of the side retainer. DO NOT TRY TO REMOVE THE PLUNGER FROM THE RIVET.
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## Broken Rivet Removal from a PCB

There is really no reason to remove a good rivet from a PCB, as you are highly likely to damage it. To remove a broken rivet, follow the next steps.

- Make sure the rivet is fully released from the side retainer.
- With the Plunger in the “up” position, grip the broken rivet at the top with pliers and carefully rotate and pull back through the mounting hole. This is an interference fit, so it takes some effort. You don’t care about the broken rivet, but you also don’t want to damage anything by jerking the PCB.

## Inserting a new Rivet

- DO NOT INSERT THE PLUNGER INTO THE RIVET BEFORE INSERTING THE RIVET INTO THE PCB. You will almost certainly break the rivet trying to insert it later.
- Carefully press a new rivet into the interference fit mounting hole. BE SURE YOU ARE INSERTING FROM THE PROPER SIDE OF THE PCB!
- Next insert the new plunger into the rivet, but DO NOT push all the way into the rivet.
- With all of the necessary new rivets and plungers in place, carefully reseat the PCB onto the plastic side retainers.
- Gently seat the rivets into the retainers with the plunger UP.
- When all the rivets are seated, work the plungers down to lock the PCB in place. New rivet/plungers will be stiffer to seat than old ones.