Periodically, enhancements to the HandKey or HandPunch are introduced that offer added functionality and performance. Should it be necessary to incorporate the enhancements into the "F" series circuit board (HP2000, 3000, 4000, HandKey2 and HandKey CR), use the following procedures.

PROCEDURE

CAUTION: This procedure requires erasing the existing hand templates. Save the existing hand templates before proceeding.

1. Unlock the reader and open the unit.

2. Disconnect the power supply from the power source.

CAUTION: If the unit is equipped with an optional battery back up, remove the J7 jumper before proceeding. See figure #10.

3. Remove hand reader from wall by loosening the three screws that secure the hinge assembly to the wall mounting plate. Then slide the reader upwards until the screws can pass through the slotted holes in the hinge assembly. See Figure #1, point A. below.

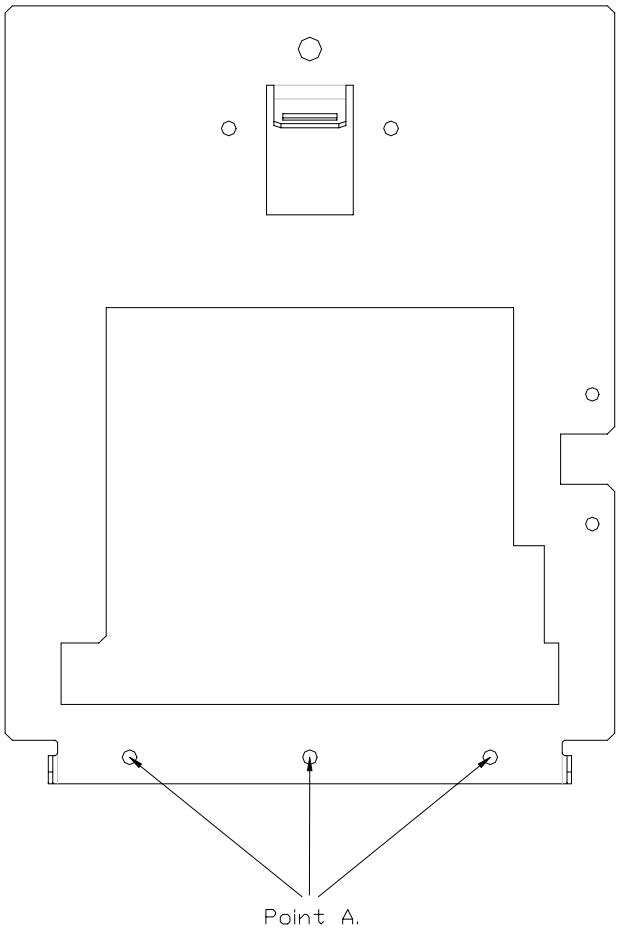

Figure 1.

4. Set the unit on a firm surface such as a table. Remove the four screws that secure the back plate to the HandKey. See figure # 2 below.

CAUTION: Do not allow the ground strap attached to the main PCB to touch the J7 jumper. Failure to do so will cause permanent damage to the main circuit board and will not be considered a warranty repair. See "1" on figure #2 below, and figure #10.

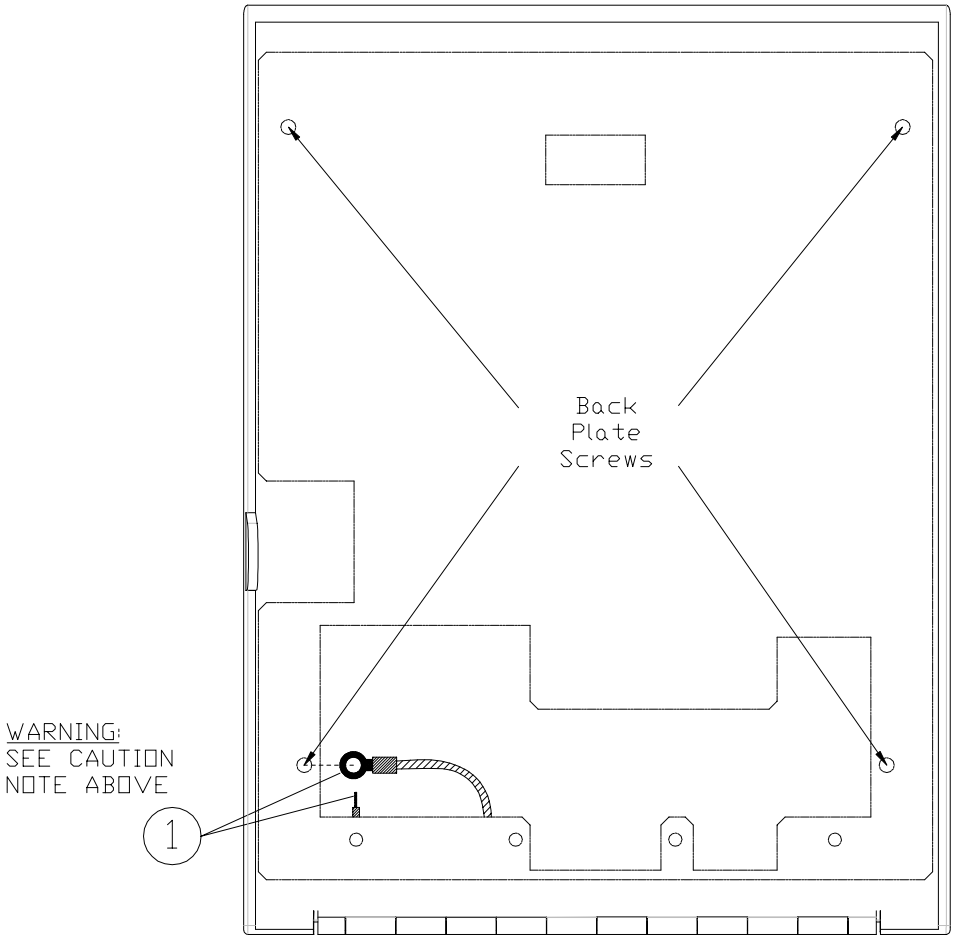

Figure 2.

(Cont.)

5. Remove the back plate.

6. Remove and discard the foam insert that is placed over the camera assembly (if installed).

7. Locate the cable that runs from the top panel circuit board to the main circuit board. Disconnect this cable from J9 on the main circuit board. See "1" on figure #4. To remove the (J9) connector on the main circuit board (lower board), depress the retaining clip on the connector and pull upwards. See figure #5 on the following page.

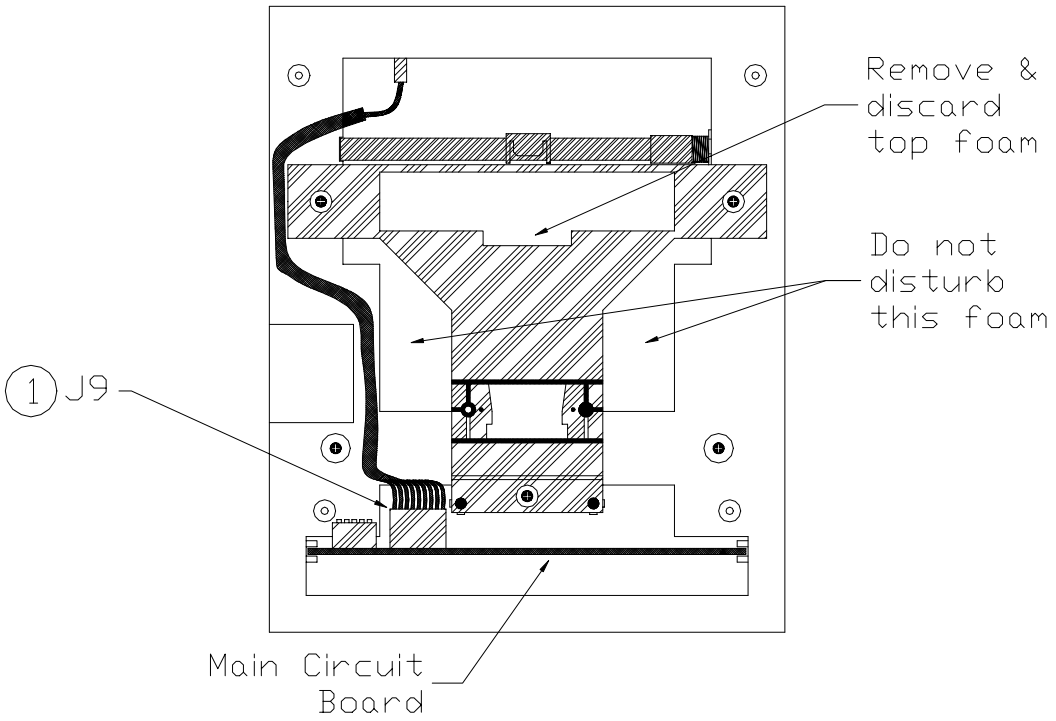

Figure 4.

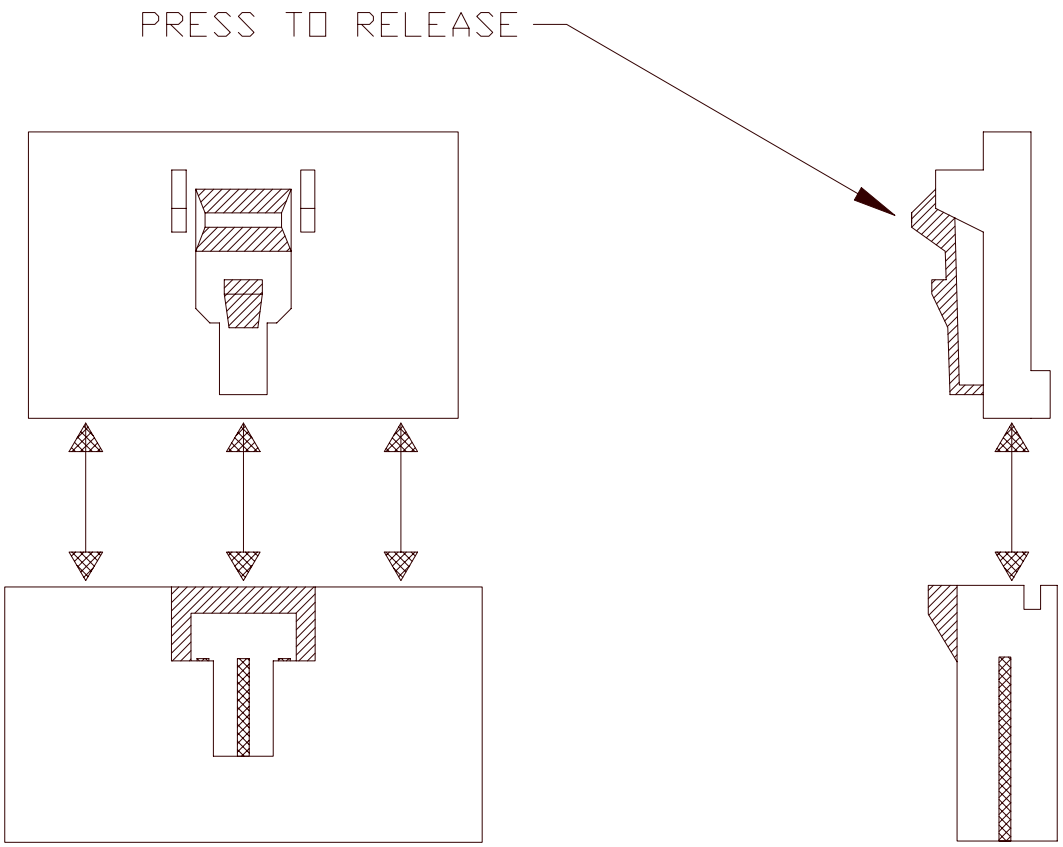

Figure 5.

8. Carefully slide the main circuit board out until the ribbon cable between the camera assembly and J2 on the main circuit board can be detached from J2. Gently pull up on this cable, being careful not to pull down as damage may occur to the camera assembly. See "3" on figure #6 below.

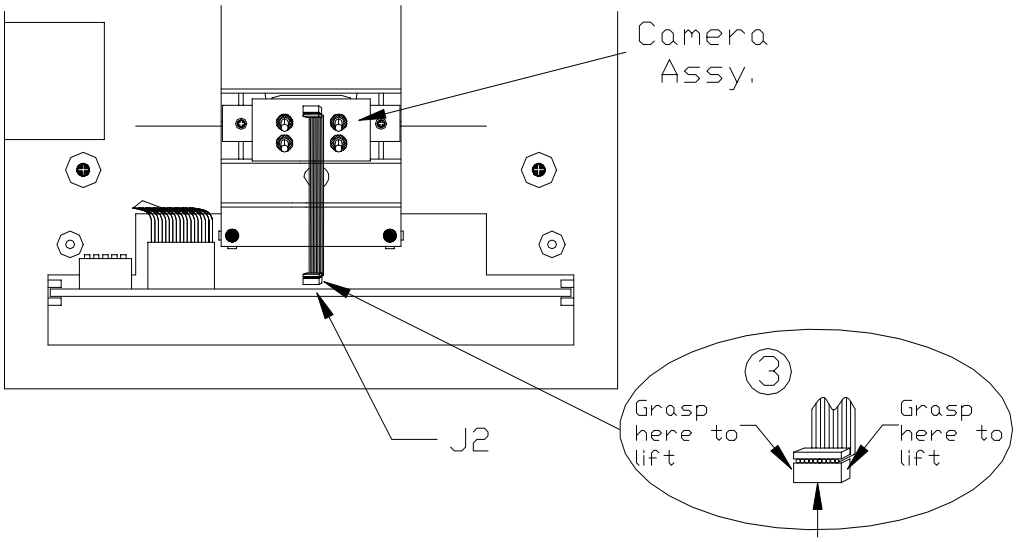

Figure 6.

9. Carefully remove the main circuit board by sliding it free from the chassis.

10. Install the modem PCB on to the main PCB. See figure #7 & 8 on the following page.
    A. Align P1 on the modem PCB with J10 on the underside of the main PCB.
    B. Insert the P1 pins into the J10 socket. If done correctly the two standoffs on the modem PCB should insert through the mounting holes in the main PCB.
    C. Turn the PCB's over so that the main circuit board is on top of the modem PCB. Secure the modem PCB to the main PCB by adding the provided flat washers, split washers then the nuts on to the stand-off(s). Tighten the nuts using a 3/16 nut driver.

CAUTION: Torque the 4-40 nuts to 4.5 – 5.5 in. lbs. (.51 - .62 Nm). Excessive torque may damage the circuit boards. After installing the modem inspect for warped modem PCB or main PCB.

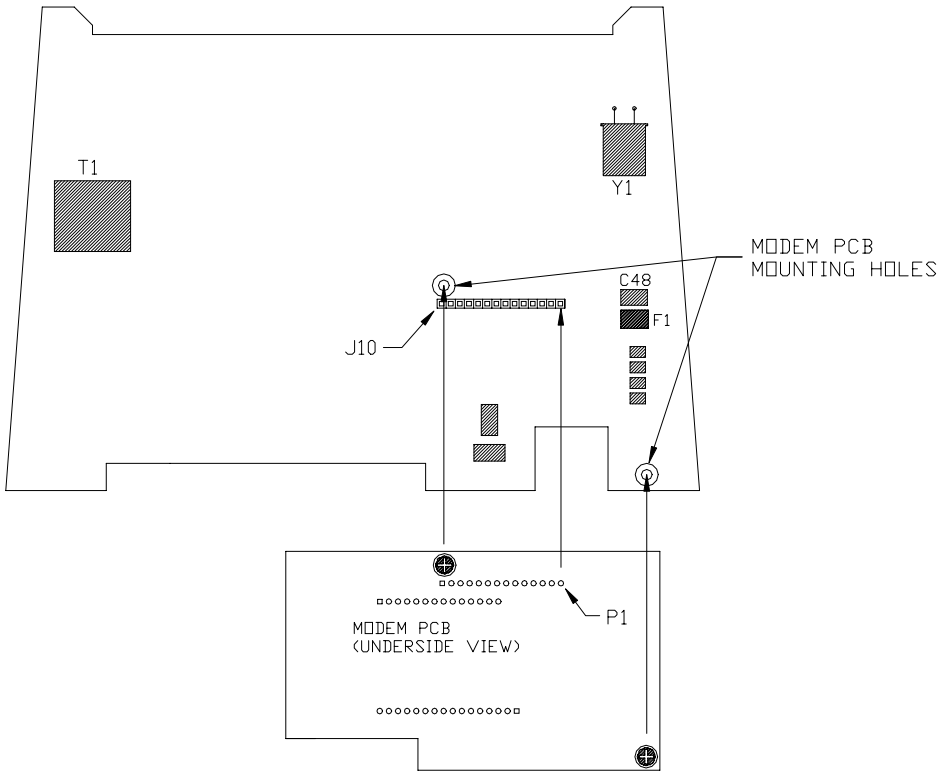

Figure 7.

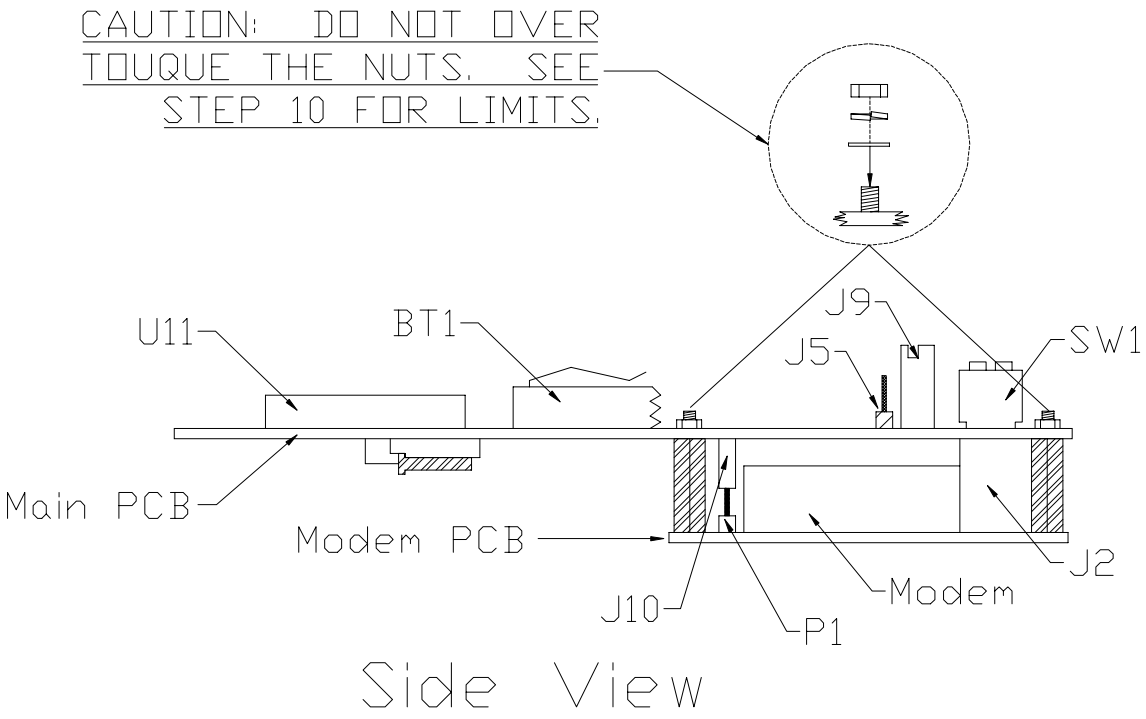

Figure 8.

11. Carefully slide circuit board back into the chassis using the circuit board guides to locate the circuit board correctly. See figure #9 below.

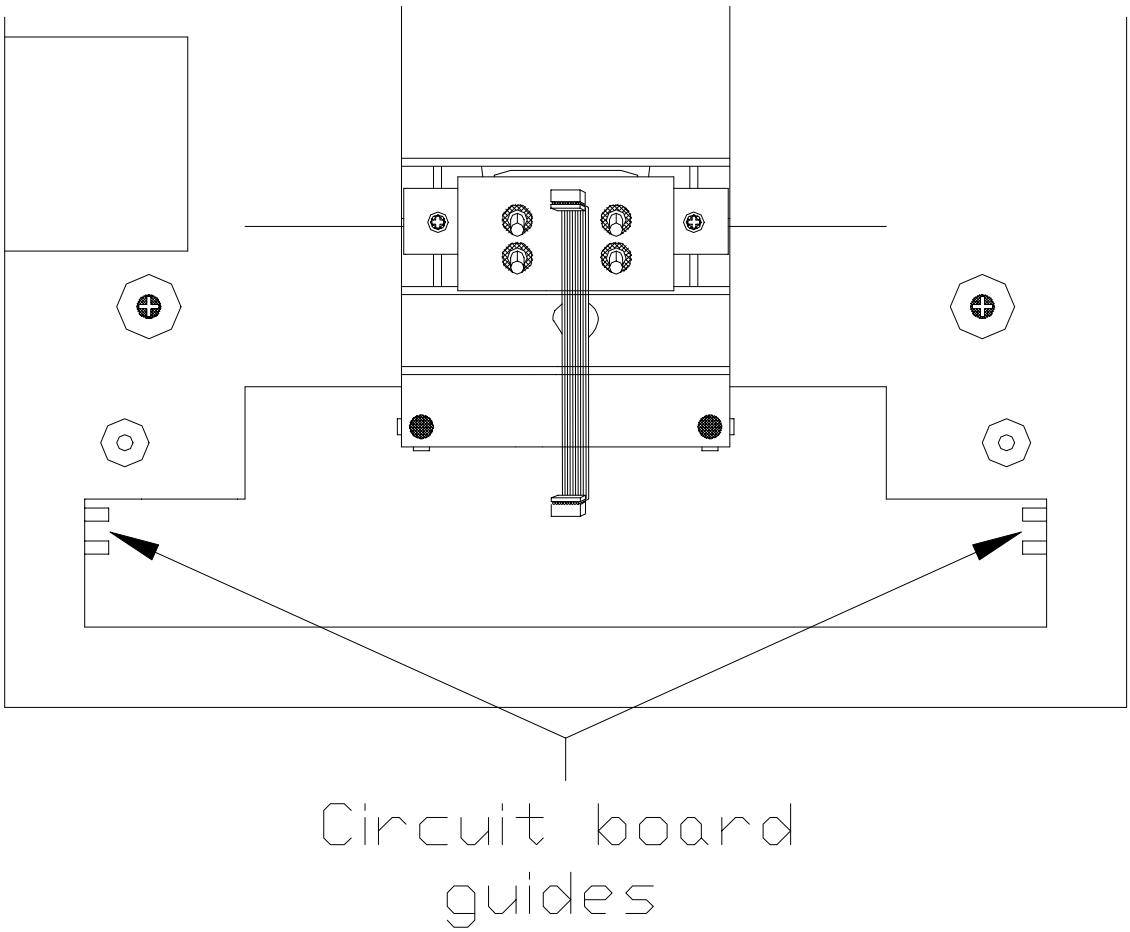

Figure 9.

12. Attach the camera cable to J2 on the main circuit board.

13. Locate the cable that runs from the top panel circuit board to the main circuit board. Connect this cable to J9 on the main circuit board. See figure #11 for cable routing.

14. If not already removed, remove the J7 jumper located directly in front of the dip switch bank (S1) on the main PCB. See figure #10 on the following page.

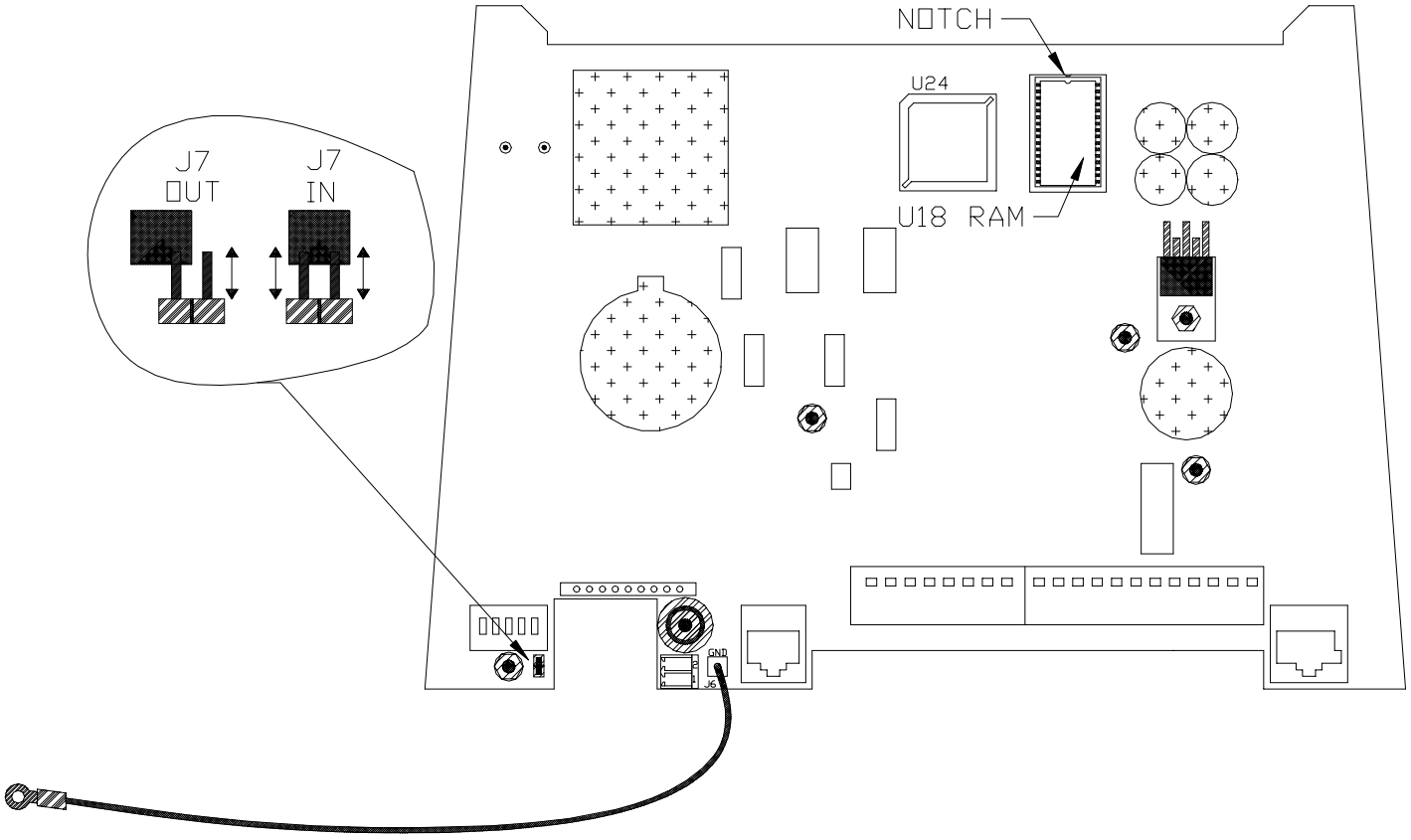

Figure 10.

CAUTION: Do not allow the ground strap attached to the main PCB to touch the J7 jumper. Failure to do so will cause permanent damage to the main circuit board and will not be considered a warranty repair.

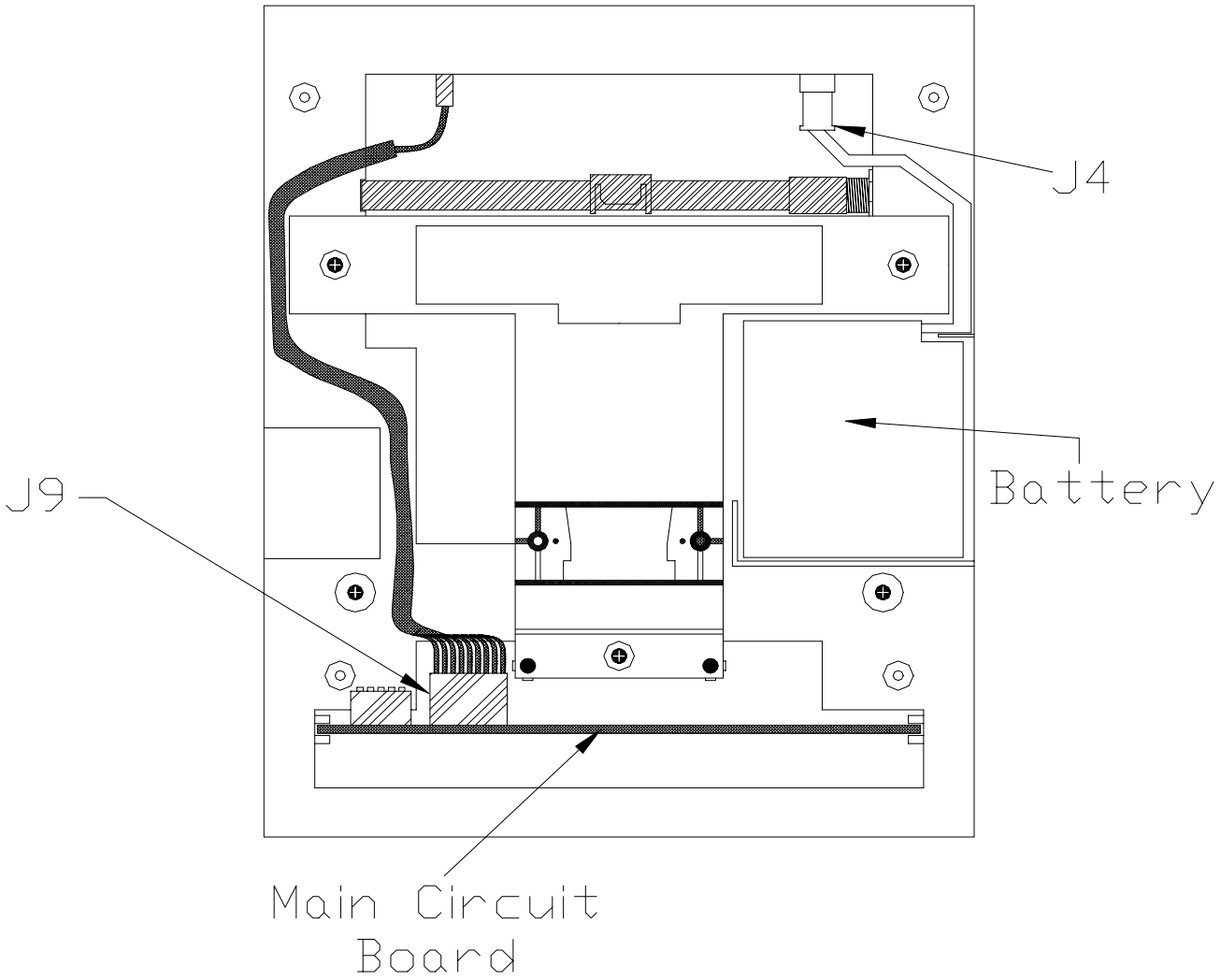

Figure 11.

15. Install jumper J7. See figure #10 for details.

16. Install the back plate onto the chassis (Attach the grounding strap on the main PCB to the lower left back plate screw).

17. Attach unit to the wall plate and hinge assembly and tighten the three hinge screws.

18. Place dip switch #4 and #5 in the "On" position. This will cause a full reset when powered up.

19. Reconnect all external connections removed in step #3.

20. Power up the unit. Once unit has booted up move dip switches #4 and #5 to "Off" position.

21. Secure unit to wall mount. Upgrade is completed.