

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

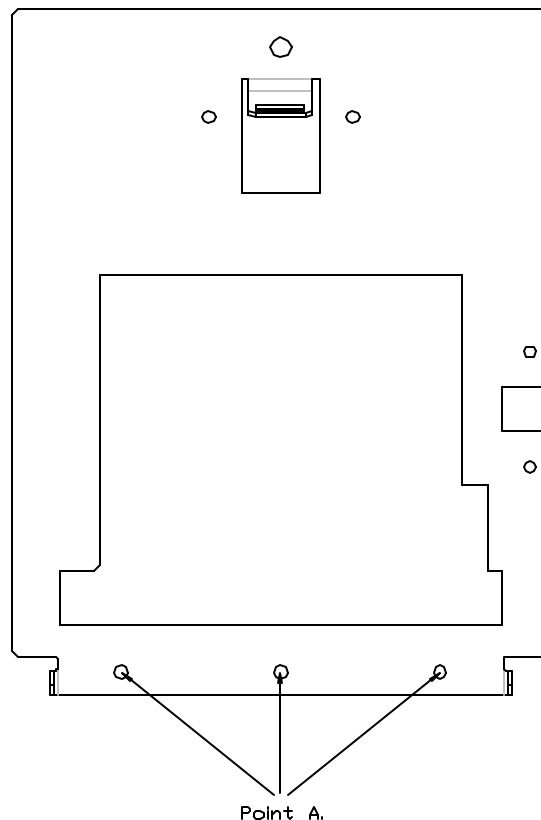
CAUTION: This procedure requires erasing the existing hand templates. Save the existing hand templates before proceeding.

1. Unlock the reader and open the unit.

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

2. Disconnect the power supply from the power source.
3. Remove and tag all external connections to make correct re-attachment.
4. 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.



(Cont.)

CAUTION: DO NOT allow the rear panel ground lug to contact any components on the Main Logic Board.

5. 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.

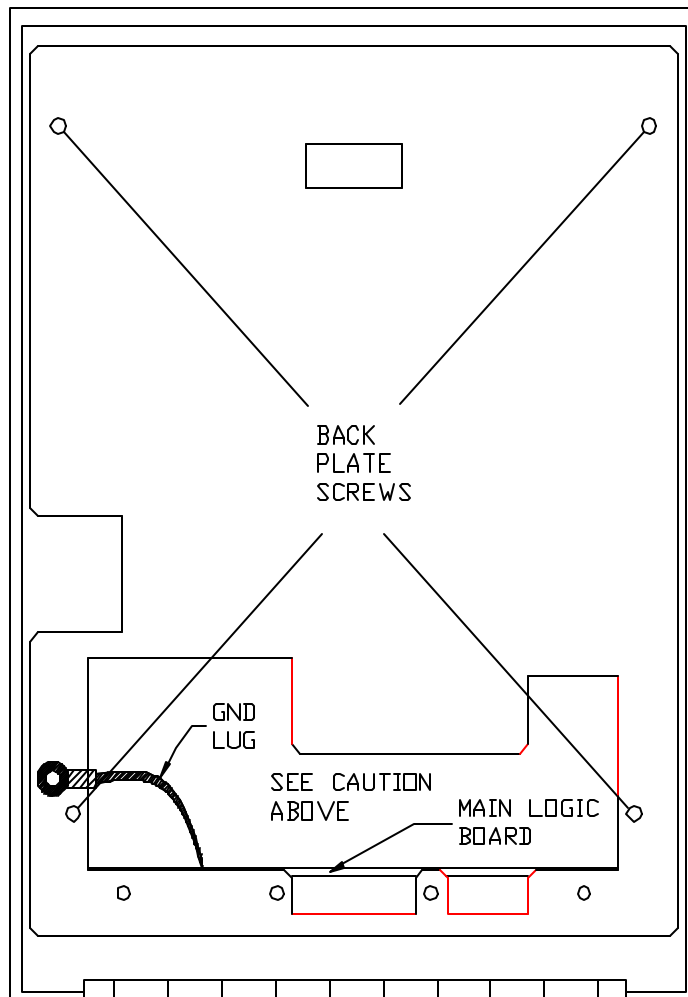
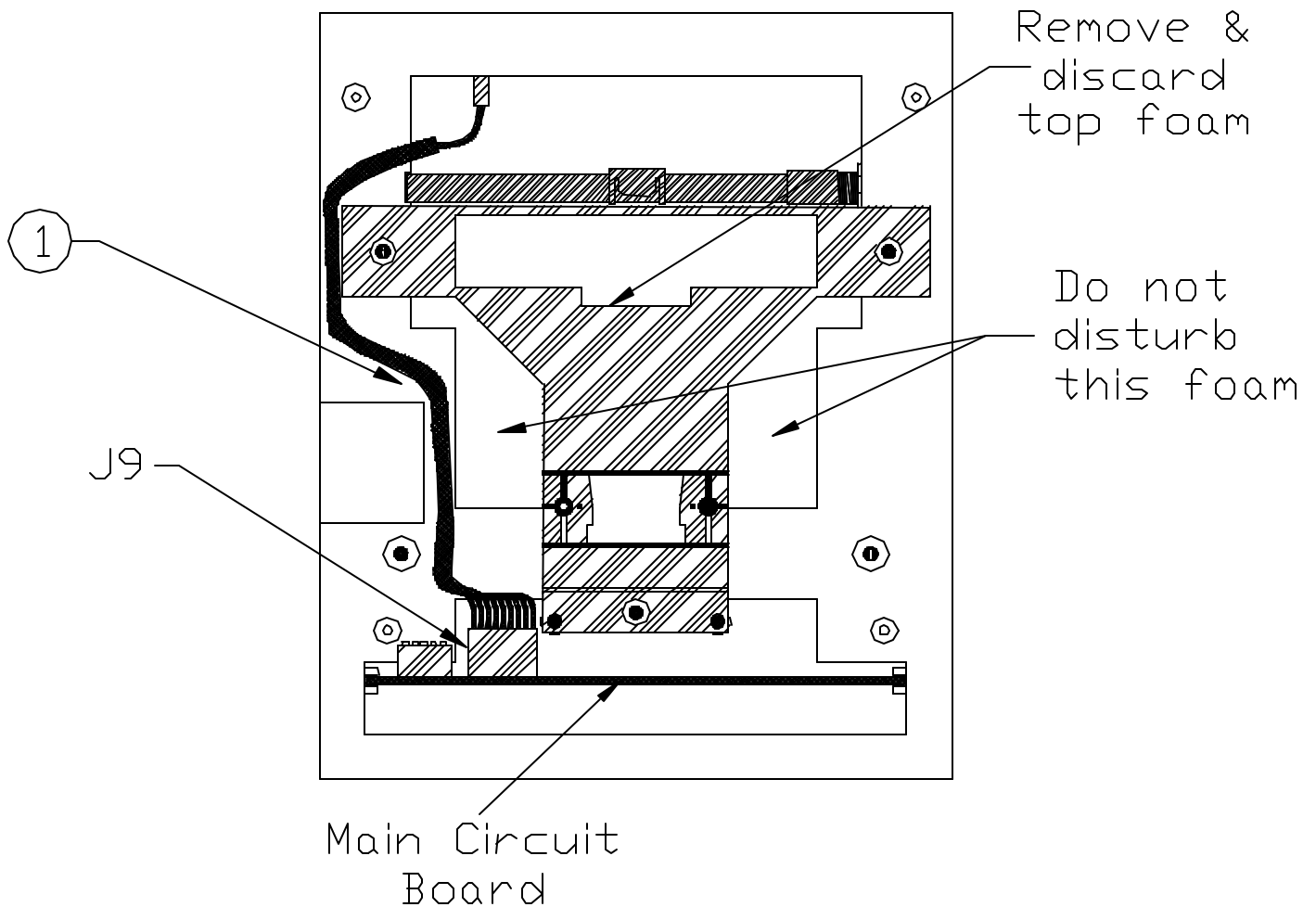


Figure 2.

(Cont.)
)

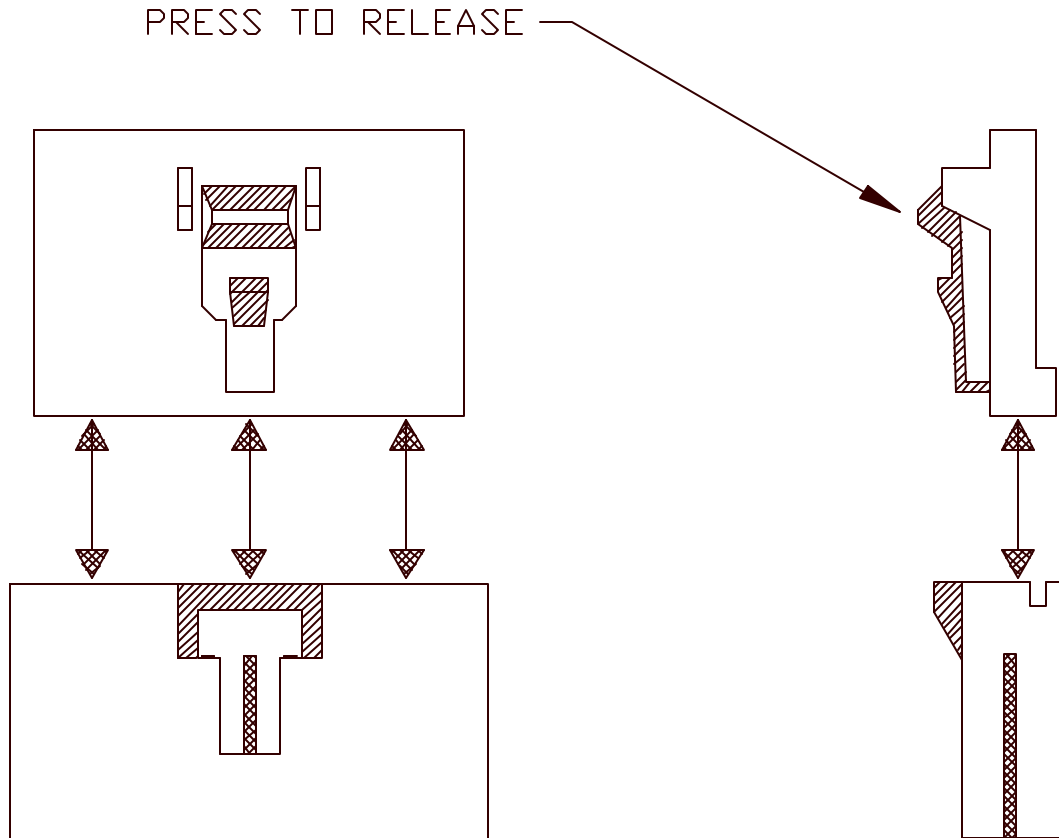
6. Remove the back plate.
7. Remove and discard the foam insert that is placed over the camera assembly
8. Locate the cable that runs from the top panel circuit board to the main circuit board. Disconnect this cable from J9 on the main circuit board. See "1" on figure #4. To remove the (J9) connector 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.



(Cont.)

Figure 5.



9. 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 on the following page.

(Cont.)

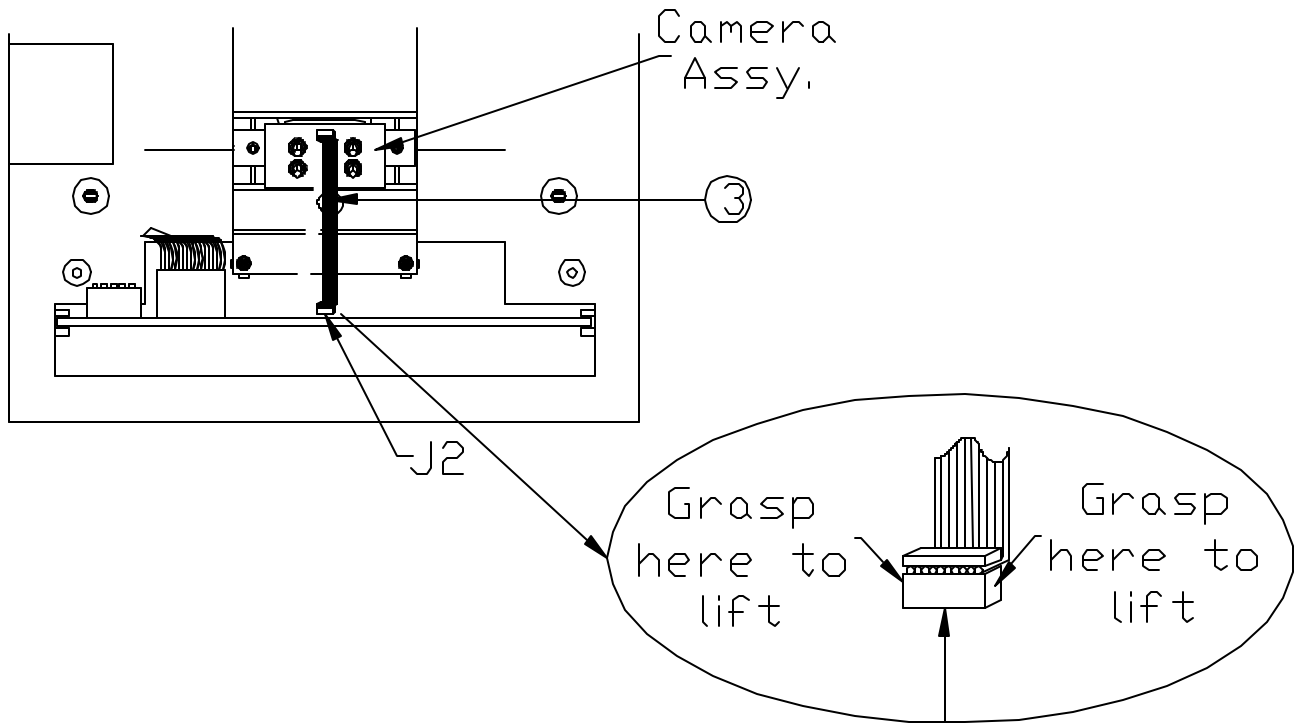


Figure 6.

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

(Cont.)

11. Locate the PROM socket labeled U24. Please take notice that there is a flat corner located in the upper left corner of the socket. This flat corner will align with a flat corner on the PROM. See figure #7 below.

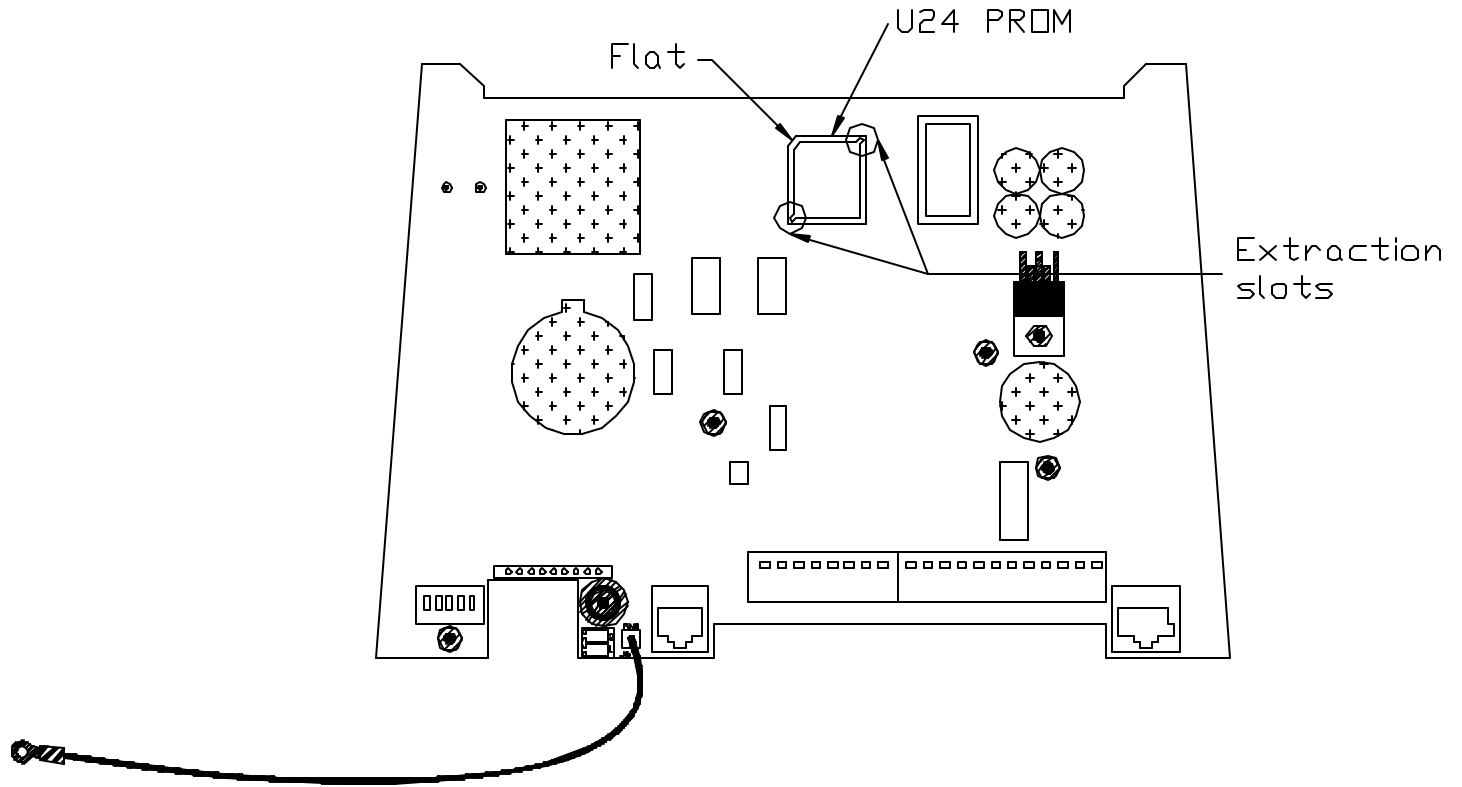


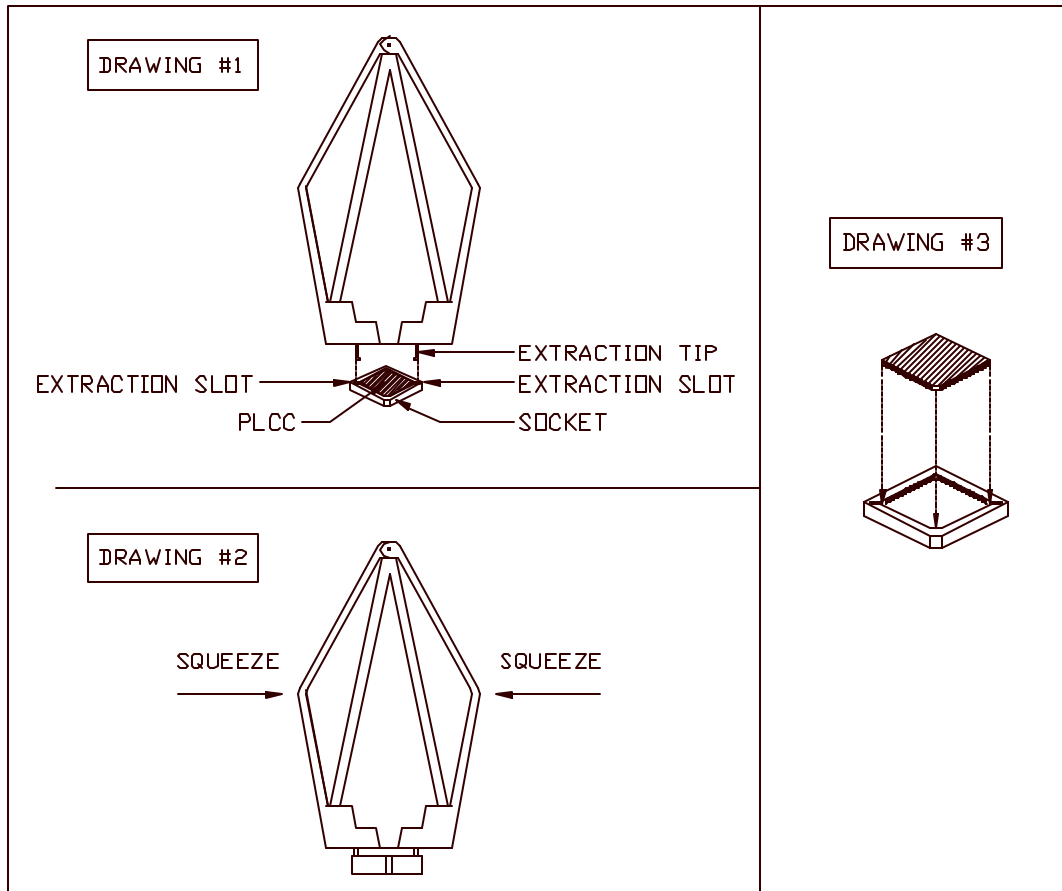
Figure 7.

12. Remove the PROM currently installed in the U24 PROM socket using the steps below in conjunction with the provided PROM extraction tool.

- a. Insert the extraction tips into the extraction slots of the socket until the tool bottoms on the socket. See figure #8, drawing number 1 for details.
- b. Squeeze the tool handles until the PROM backs out of the socket. See figure #8, drawing number 2 for details.

CAUTION: Do **NOT** pull upward on the tool to loosen the PROM – slowly squeeze the tool handles while maintaining a slight downward force toward the socket.

- c. Remove the PROM and tool.
- d. Inspect the PROM socket and socket pins for any damage or misalignment.
- e. Store the original PROM in a safe location so it does not get confused with the new PROM.



(Cont.)
Figure 8.

13. Install the new PROM in the U24 PROM socket using the steps below.

- a. Inspect the pins of the new PROM for bent or misaligned pins.
- b. Place the new PROM over the socket, aligning the flat corner of the PROM with the flat corner of the socket. See figure #8, drawing number 3 for details.
- c. Gently press the PROM down into the socket until it snaps into place.
- d. Inspect the PROM to insure that it has been fully seated in the socket.

(Cont.)

Re-installing

14. Carefully slide circuit board back into the chassis, using the circuit board guides to locate the circuit board correctly, until the camera’s ribbon cable can be inserted. See figure 9 below.

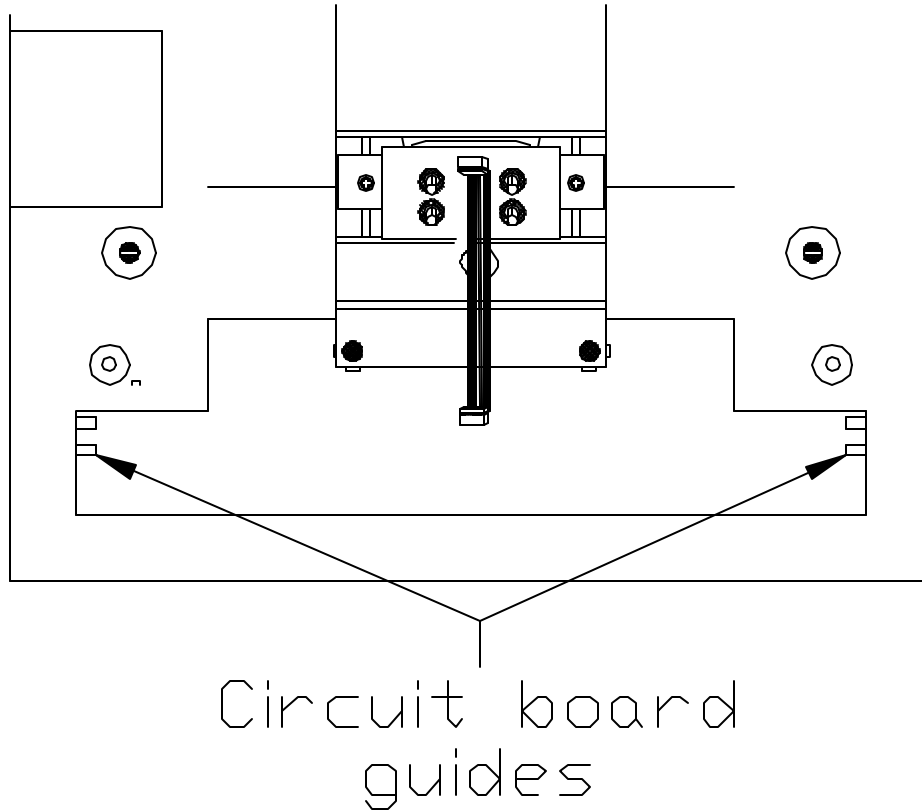


Figure 9.

15. Being careful to align all pins, attach the camera cable to J2 on the main circuit board.
16. 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. Make sure the connector 'snaps' into J9.
17. Install the back plate onto the chassis (Attach the grounding strap on the circuit board to the lower left back plate screw).
18. Attach unit to the wall plate and hinge assembly and tighten three hinge screws.
19. Place dip switch #4 and #5 in the "On" position. This will cause a full reset when powered up.
20. Reconnect all external connections removed in step #3.
21. Power up the unit and install J7 (if applicable). Once unit has booted up move dip switches #4 and #5 to "Off" position.
22. Secure the unit to wall mount. Upgrade is completed.