

PLEASE READ BEFORE PROCEEDING-

Care must be taken in changing the platen-base because the “Calibration Values” of the HandReader can be affected. To ease in the down time of your Customer, this technical note will help guide you in the changing of the platen-bases.

The replacing of the platen-base is a procedure that Recognition Systems has in the past insisted on doing at the Factory, this in part because the platen-base is considered part of the optical path. Therefore if done incorrectly can void the warranty of the HandReader.

It is highly recommended that before proceeding, to take note of the HandReader’s existing “Calibration Numbers”. The calibration numbers should be within this recommended range R= 0 (+/-2) C= 0 (+/-2) E=100 (+/-20) for optimal verification performance. If the numbers are outside of this range please clean and “recalibrate” the HandReader(s) before proceeding. If the R and the C remain out side of this range it is recommended that the HandReader(s) come back to RSI for cleaning. Once the platen-base has been replaced there may be a change in the E (exposure) number, this might be due to, cleaning agents that have dulled the older platen’s surface, vandalism, or debris. The numbers that you definitely don’t want to move outside of the recommended range are the R (rows) and C (columns), this means that the HandReader’s camera has shifted, the chassis could have torqued, the platen base is not seated properly, or debris has been knocked into the camera compartment.

Since this procedure does involve the camera assembly please take great care in the handling of it.

PROCEDURE

1. Check and write down Calibration values.
2. Insert key and turn key away from wall to unlock the reader. When latch releases guide Reader to open position.

CAUTION: If the Reader is equipped with an optional battery backup, remove the J7 jumper before proceeding. Failure to do so could lead to a risk of shock and/or main board damage.

3. Disconnect the power supply from the power source.
4. Tag and remove all external connections to aid in re-attachment.
5. Remove Reader from wall by sliding Reader to the right until sleeves clear the pins.

-Or-

Loosen the 3 screws on the wall mount and lift the HandReader to align the keyholes and the screw-heads and pull HandReader away from wall.

CAUTION: Before removing the back plate of Reader, wear a grounding wrist strap to help aid in protecting the circuit board from any ESD damage that might occur from improper handling.

6. Set the Reader on a firm surface such as a table. Remove the four screws that secure the back plate to the Reader. See figure 1 below.



Figure 1

CAUTION: *DO NOT allow the ground lug to contact any part of the main circuit board. If Backup battery is installed tape ground lug.*

7. Carefully remove the back plate.
8. Locate the cable that on the left side of the HandReader that runs from the top panel circuit board to the main circuit board. Disconnect this cable from J9 on the main circuit board. See figure 2. To remove the (J9) connector on the main circuit board, depress the retaining clip on the connector and pull upwards. **Take care to pull on the connector and to not pull on the cable.**

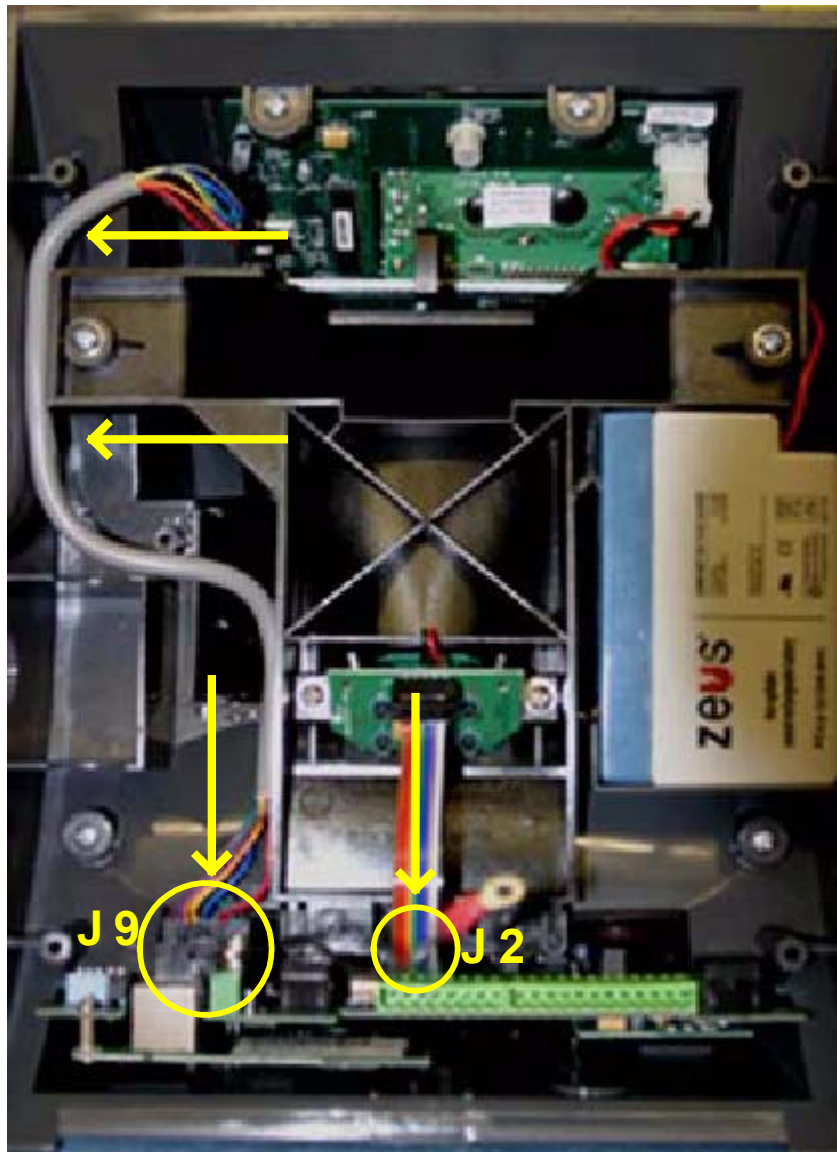


Figure 2

9. Carefully slide out the main circuit board about 1" until the ribbon cable between the camera assembly and J2 on the main circuit board can be detached from J2. Gently pull up on the connector, being careful to not disturb the camera assembly. See figure 2
10. Carefully remove the main circuit board by sliding it free from the chassis.
11. Remove the 3 platen mounting screws and set aside taking note as to which screw goes where. See figure 3

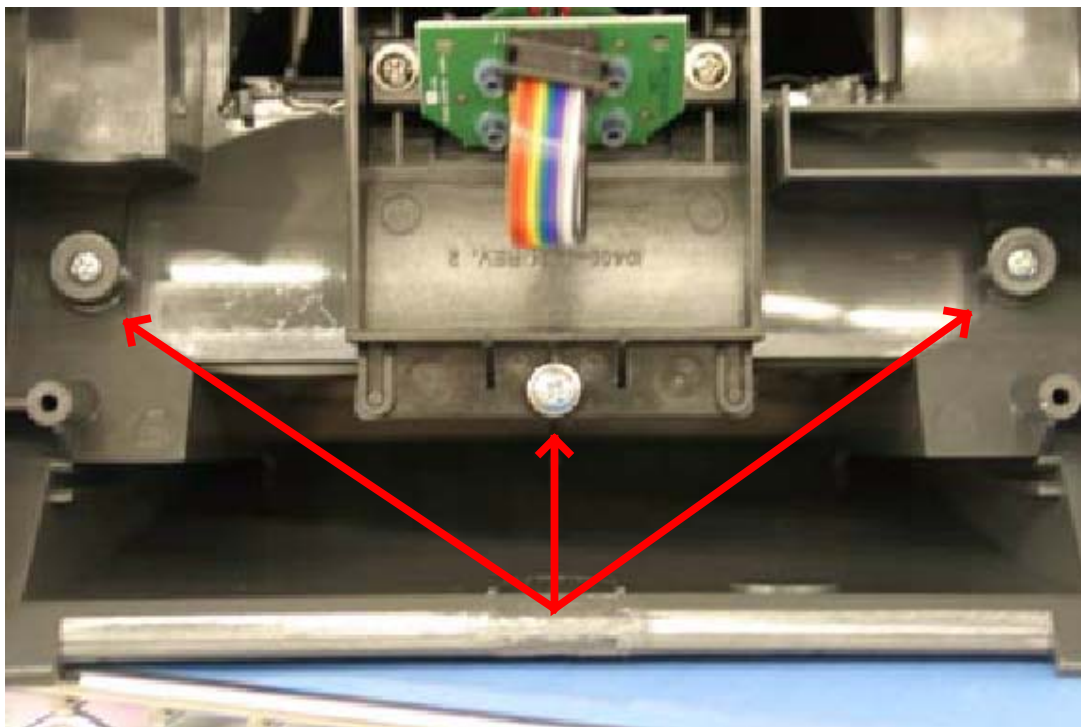


Figure 3

12. Turn HandReader over and grasp chassis as shown in Figure 4 and pull apart.



Figure 4

CAUTION: DO NOT force apart the HandReader; it may take the camera out of alignment. There may be a build up of debris between platen and chassis, so use care when separating the two.

13. Clean any debris from the front part of the HandReader, in order to create a good seal with the new platen-base.
14. Line up and slide new platen onto chassis. **Do not force.** If properly lined up it will slide into place with ease.
15. Make sure that the guide pins are seated properly in the camera housing. The guide pins should be level with the camera housing assembly. See figure 5 below for an example of improper placement and 6 below for the correct placement.

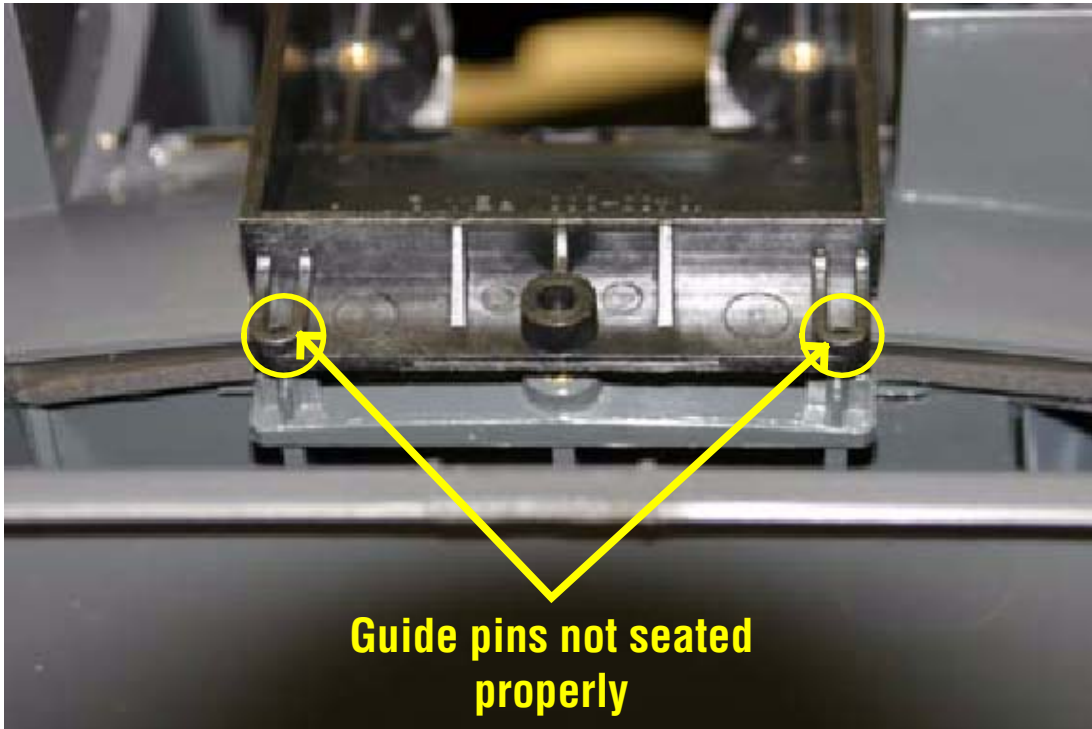


Figure 5

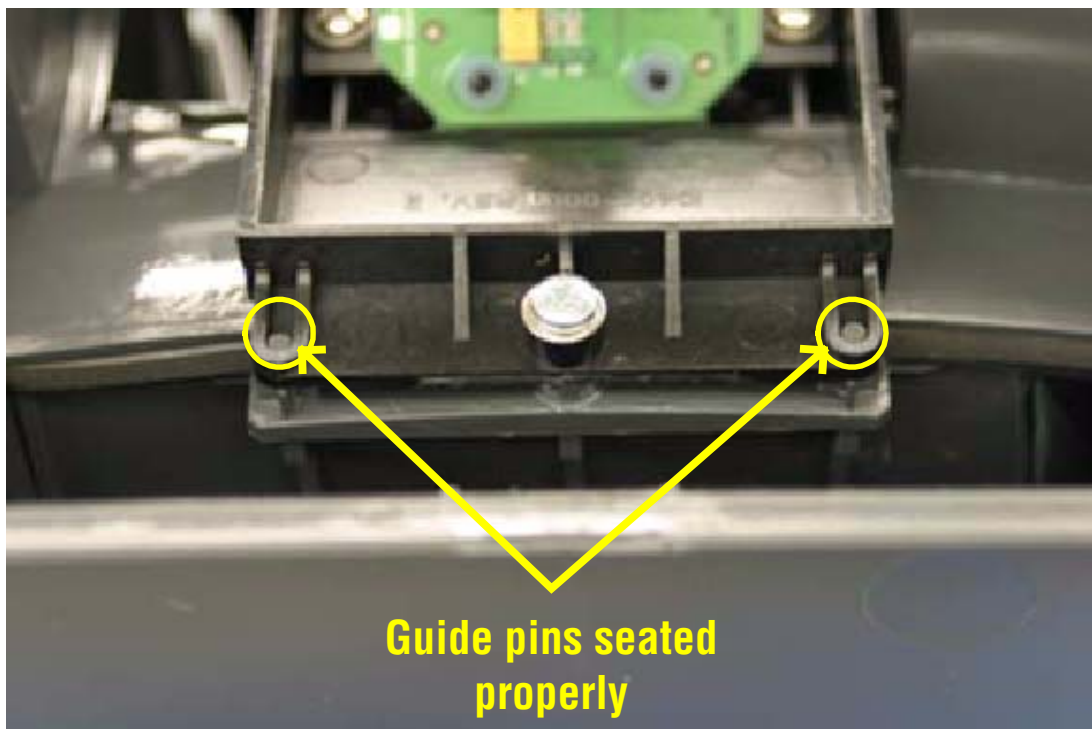


Figure 6

- 16. Replace the screws in the order listed on figure 7. Be careful to not over-tighten while at the same time still making sure that the screws are snug and that the platen-base is seated flat against the chassis.

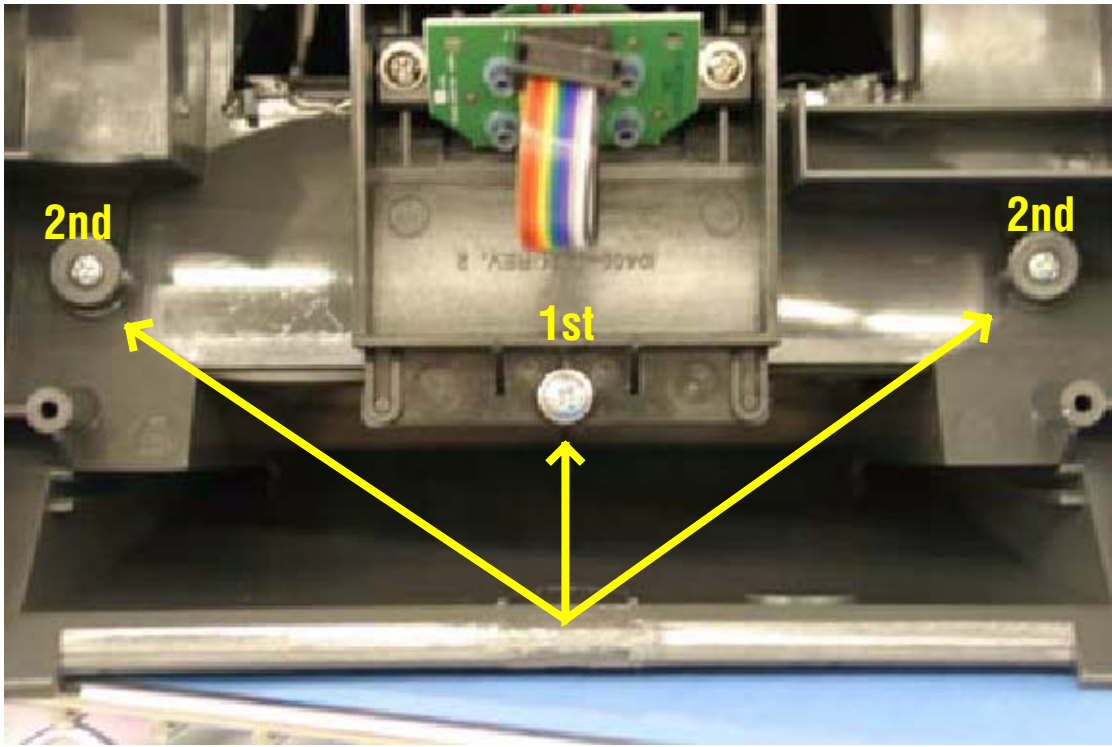


Figure 7

- 17. Carefully slide the main circuit board back into the chassis using the circuit board guides to seat the main circuit board correctly. See figure 8. Leaving the main circuit board out about 1". Attach the camera cable to J2 on the main circuit board. Take care to align the connector to the pins on the main circuit board and **do not twist the cable**, as this will damage the camera.



Figure 8

18. 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 2 for cable routing. Make sure that the cable is seated below the back plate standoffs or else the cable will get pinched when the back plate is re-installed.
19. Slide the main circuit board in the rest of the way. Make sure that the board is seated properly and does not stick out further than the standoffs for the back plate.
20. Place the back plate onto the chassis. Making sure that the back plate is seated flat and taking care to not pinch the ground strap.
21. Reattach the ground strap from the main circuit board to the lower left back plate screw. **Do not over tighten.** Replace the 3 remaining screws. **Do not over tighten.**
22. Realign the sleeves of the back plate to the pins of the wall mount and slide the Reader to the left.
-Or-
Align keyholes with the screws on the wall mount and lock into place and tighten screws.
23. Reconnect the J7 battery jumper if back up battery is installed.
24. Reconnect all external connections.
25. Rotate Reader up and turn key away from wall to release lock. Press Reader against the wall and turn the key towards the wall.
26. Check calibration numbers. If ok...
27. Upgrade is complete.