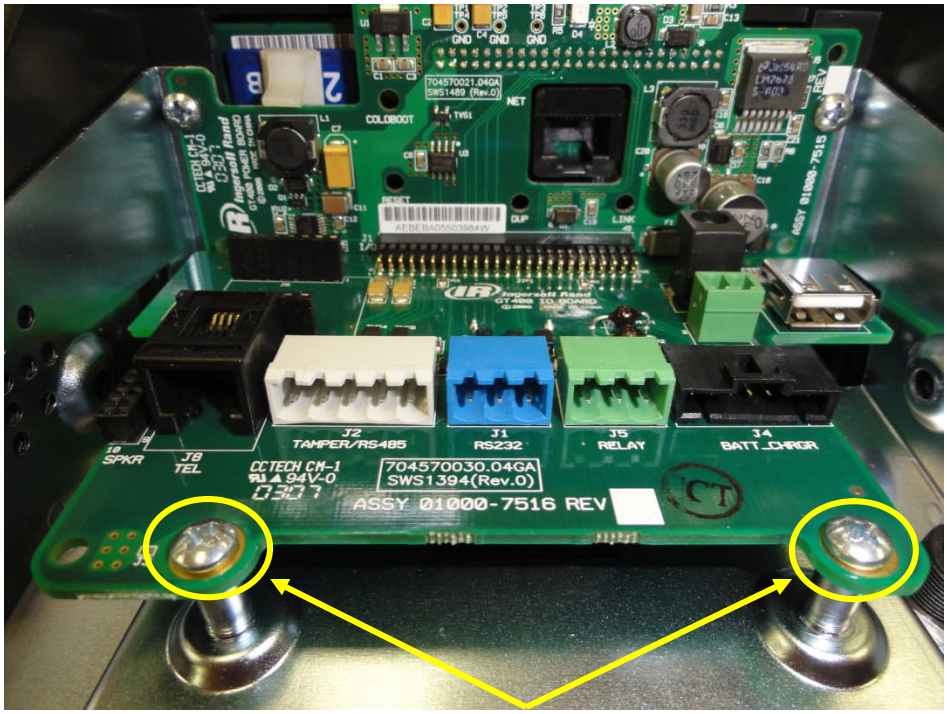
GT-400 Lithium Battery Replacement TECHNICAL NOTE

Graphic guide to the replacement of the lithium battery in the GT-400

Tools needed

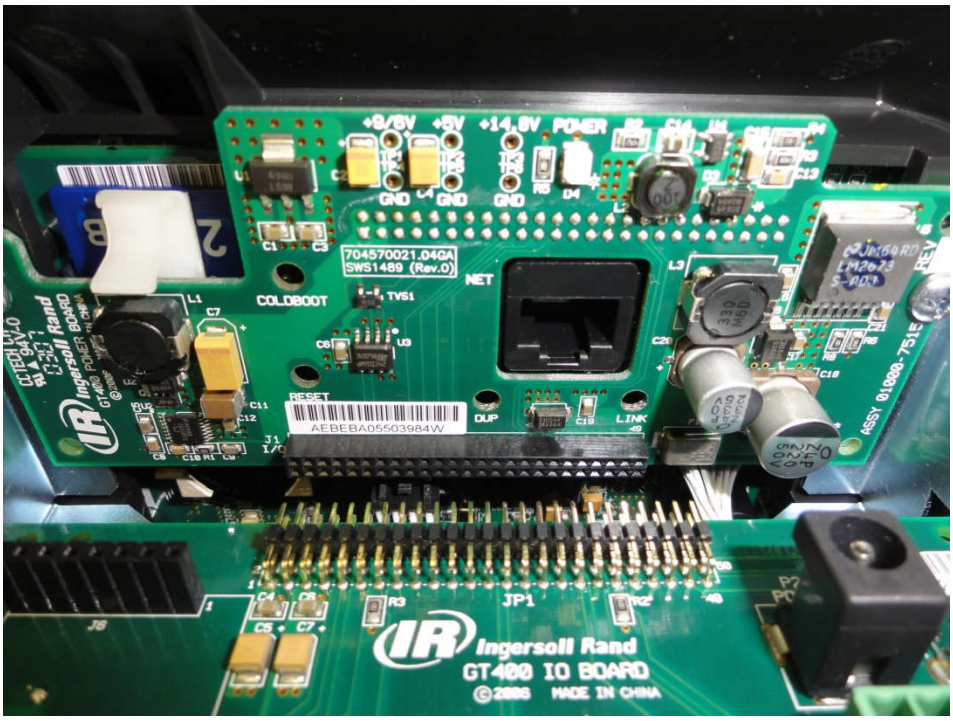
- ESD Grounding Strap worn at all times
- Antistatic mat clear of debris to protect the terminal from scratches
- #2 Philips Screwdriver for the disassembly of theGT-400
- Small flat Jeweler's type screwdriver
- Torque screwdriver must be used for the reassembly of the GT-400 set to **10.0 in-lbs**

Removal of the back plate



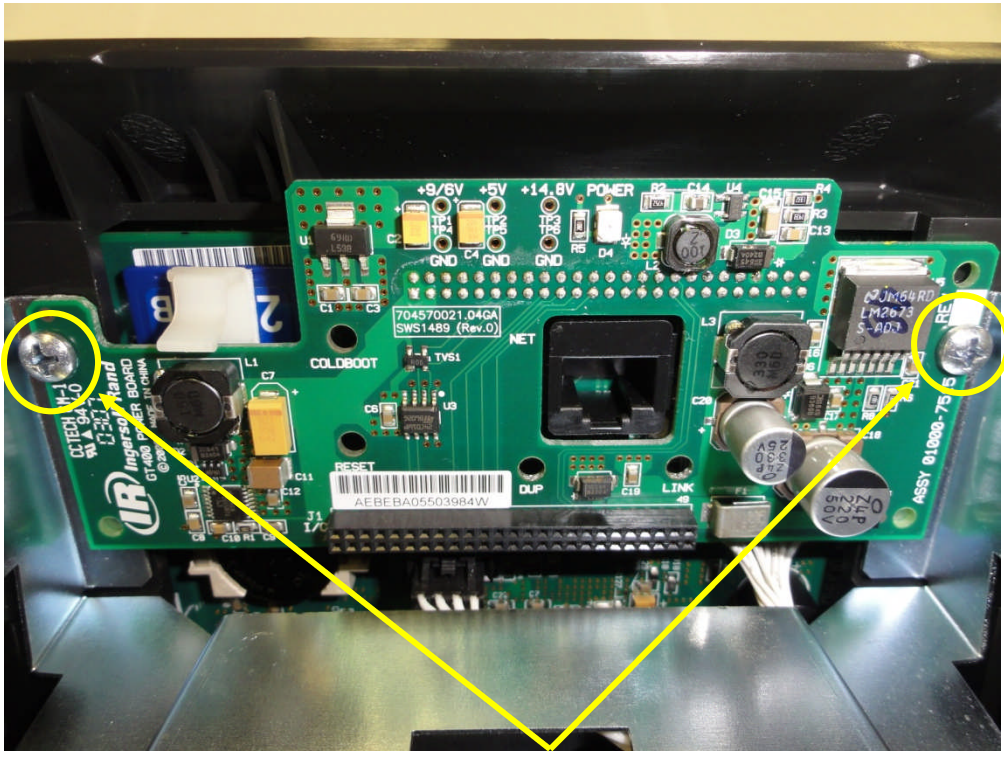
Lay the GT-400 terminal face down of a clean antistatic mat to protect the surface from scratches and the PCBs from ESD damage. Remove the two screws highlighted and set aside for reuse.

Removal of the IO board



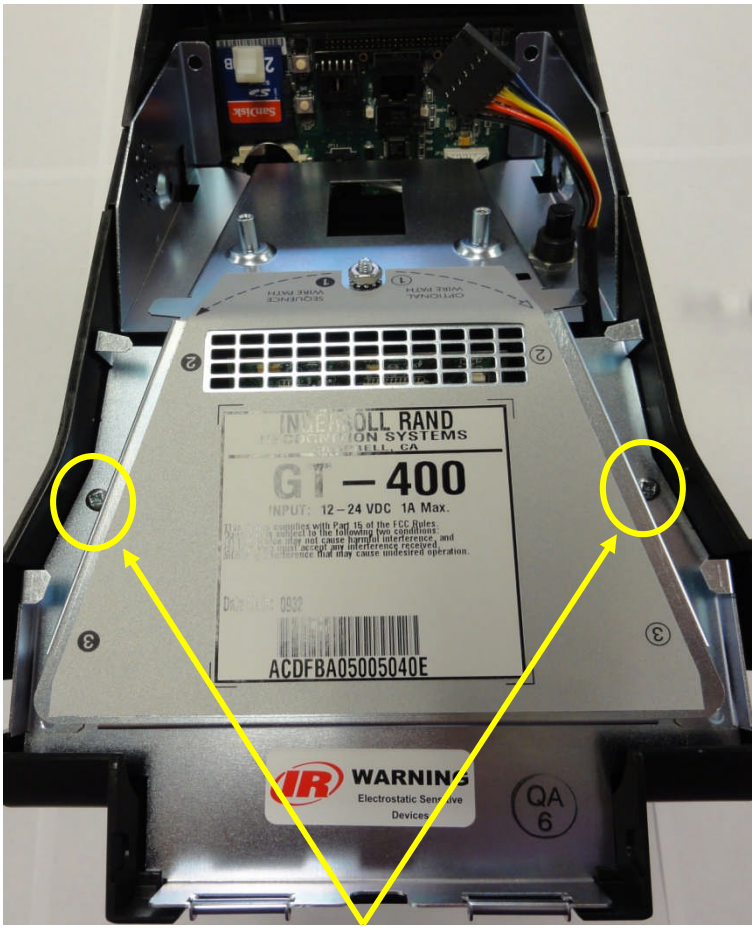
With the terminal still laying face down and while wearing the ESD ground strap hold the IO board by the edges and gently pull the board towards you and set aside.

Removal of the Power board

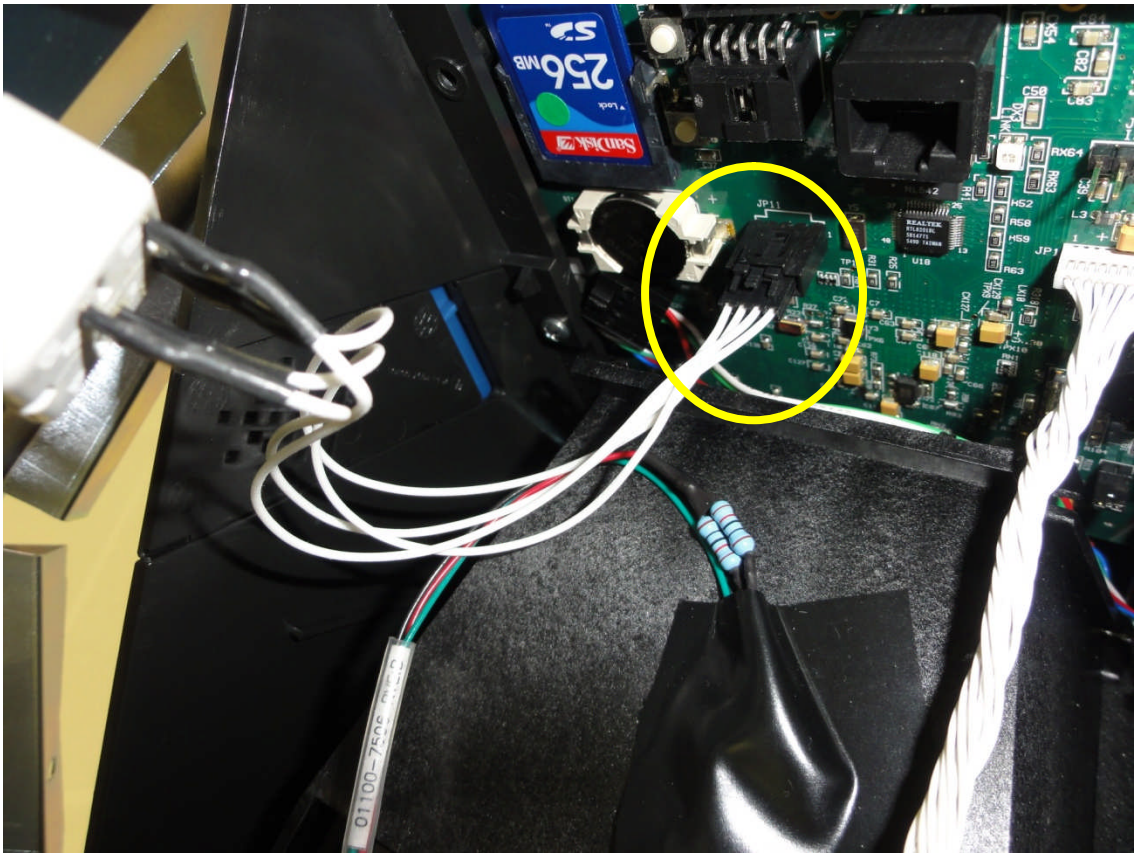


Remove the two screws highlighted and set aside for reuse. Hold the power board by the edges and gently pull the board towards you and set aside.

Removal of the back plate

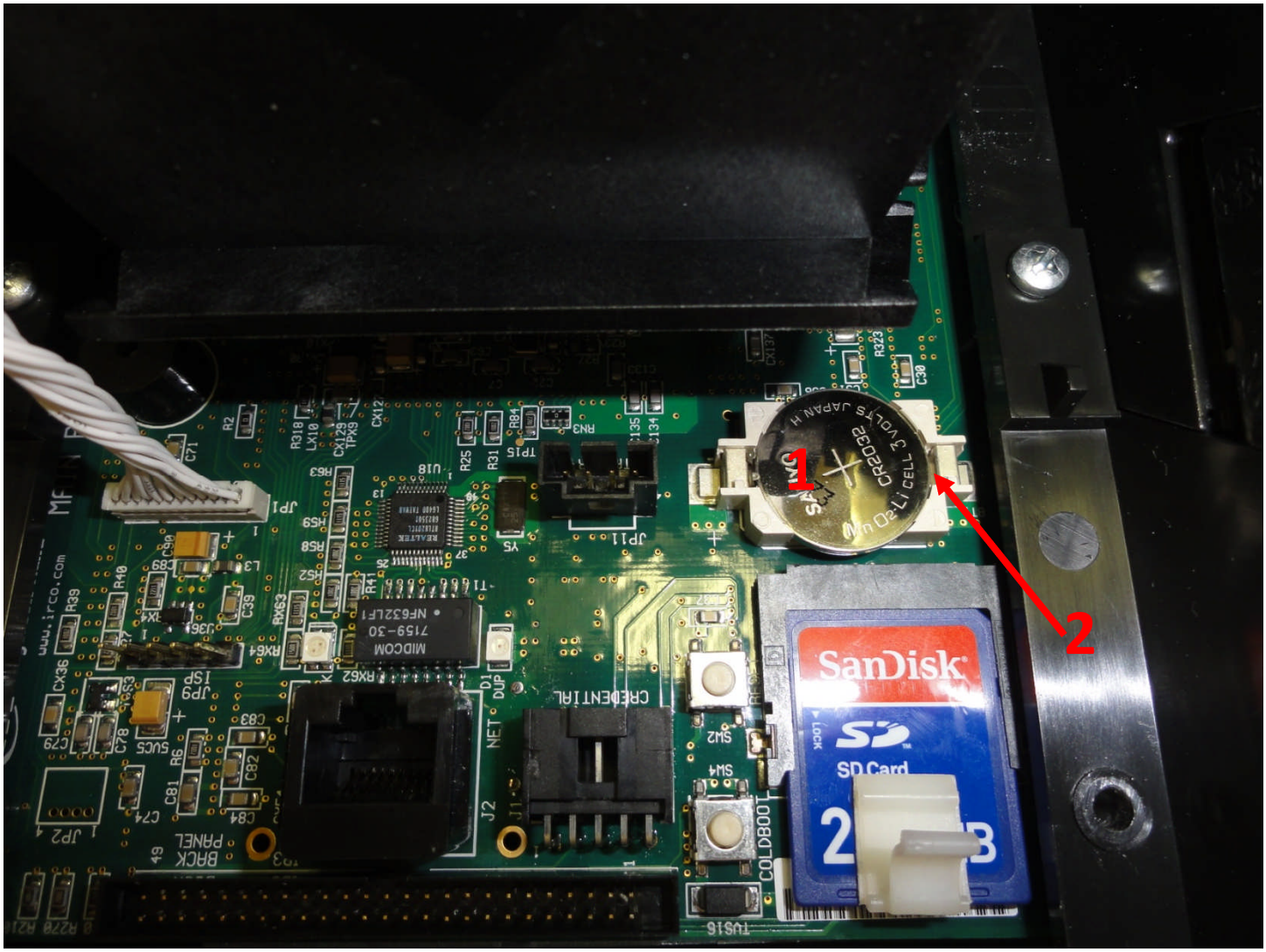


Remove the two screws highlighted and set aside for reuse. Rotate the top of the back plate towards you



Remove the tamper switch connector from the main board. Do not pull by the wires but depress the tab to release the connector.

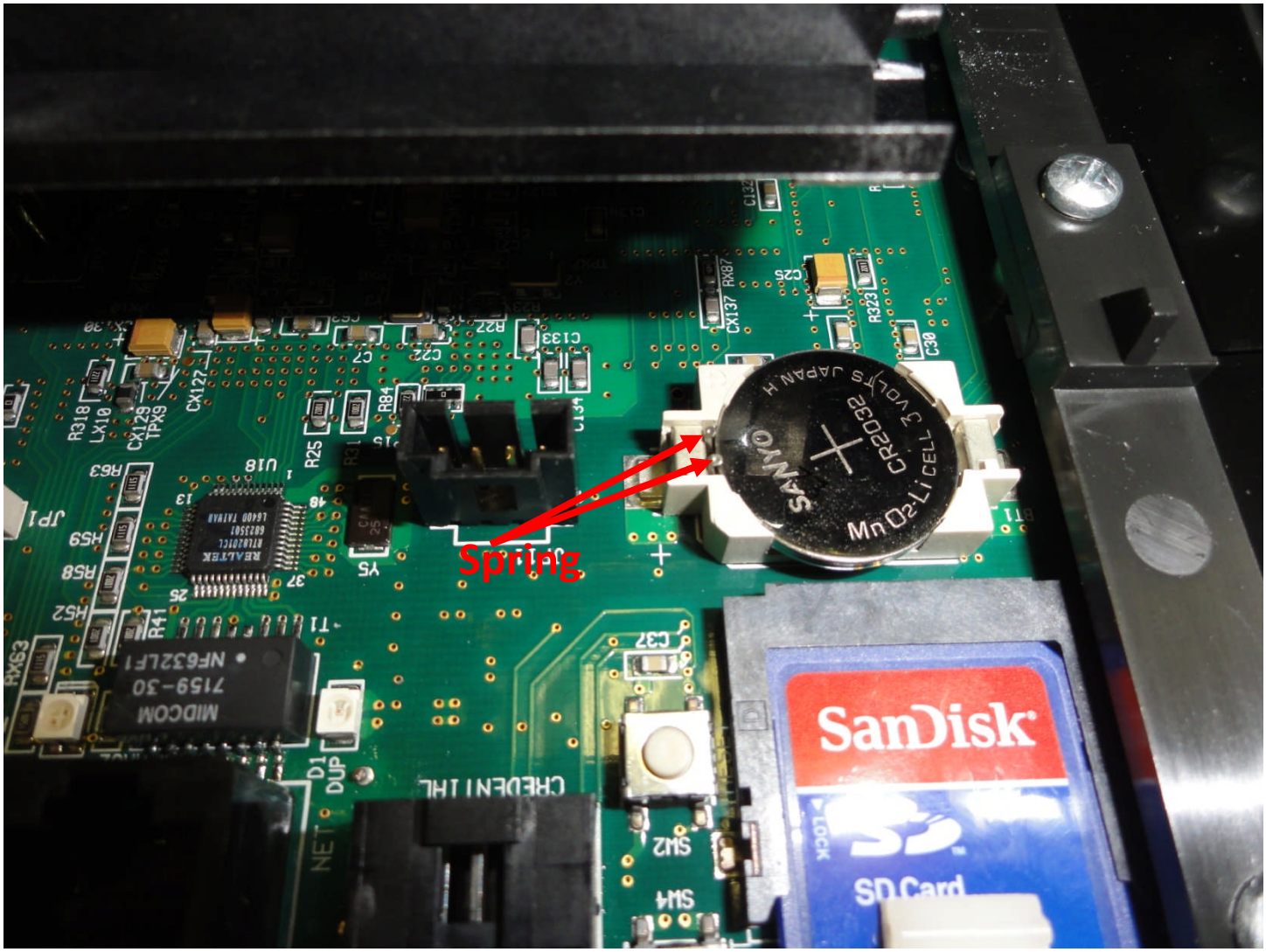
Removal of the lithium battery



Carefully place the terminal on its top panel so that you are looking at the main board. The lithium battery is located above the SD Card.

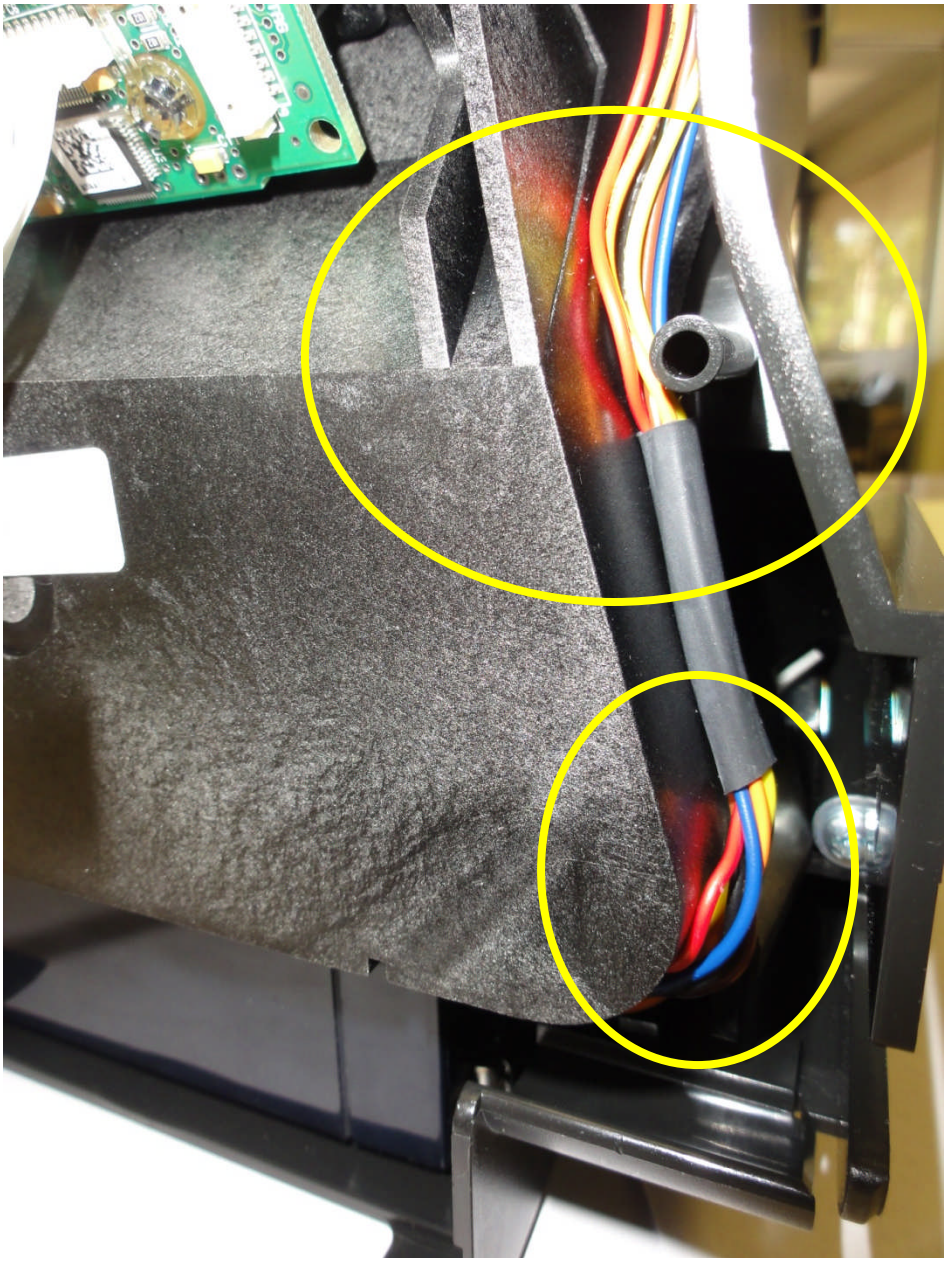
1. Place a finger on top of the lithium battery so that it will not pop out and fall forward, into the top panel, when the battery is released. If that happens, the reader will need to be taken completely apart to retrieve the battery.
2. Take a small jeweler's size flat screwdriver and **gently release** the battery up on the right hand side of the battery holder.

Installation of the lithium battery



There are two types of battery holder that may be installed on the main board; one with visible spring keeps and one without. The installation of the battery is the same either way.
Place the left side of the battery into the battery holder first and snap the battery into place.

Routing the battery cable if there is a back up battery installed



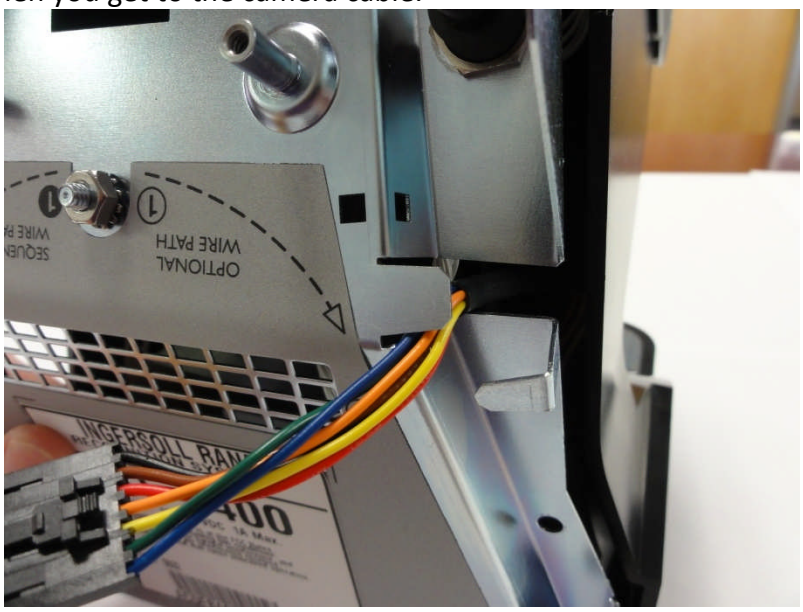
Make sure that the battery cable is routed around the camera compartment as shown in the image above. The area highlighted in yellow needs special attention when installin the back plate, the wires here can be easily pinched.

Connecting the tamper switch

Reconnect the tamper switch cable.

Reinstalling the back plate

Start with setting the back plate into the battery compartment and start rotating the back plate towards the top. If there is a backup battery installed, make sure that the BB-300 cable is not getting pinched in the lower right hand cable. Stop when you get to the camera cable.



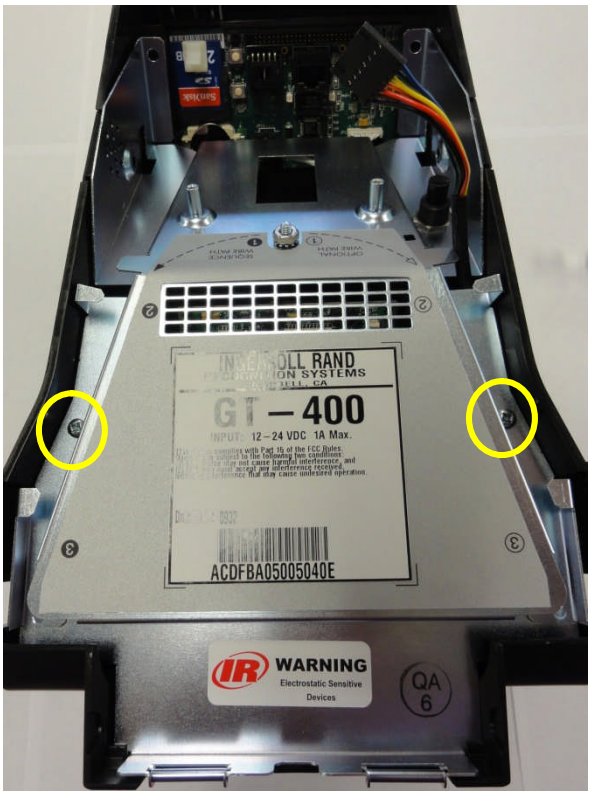
Pull the backup battery cable through the back plate as shown above.

Installing back plate screws

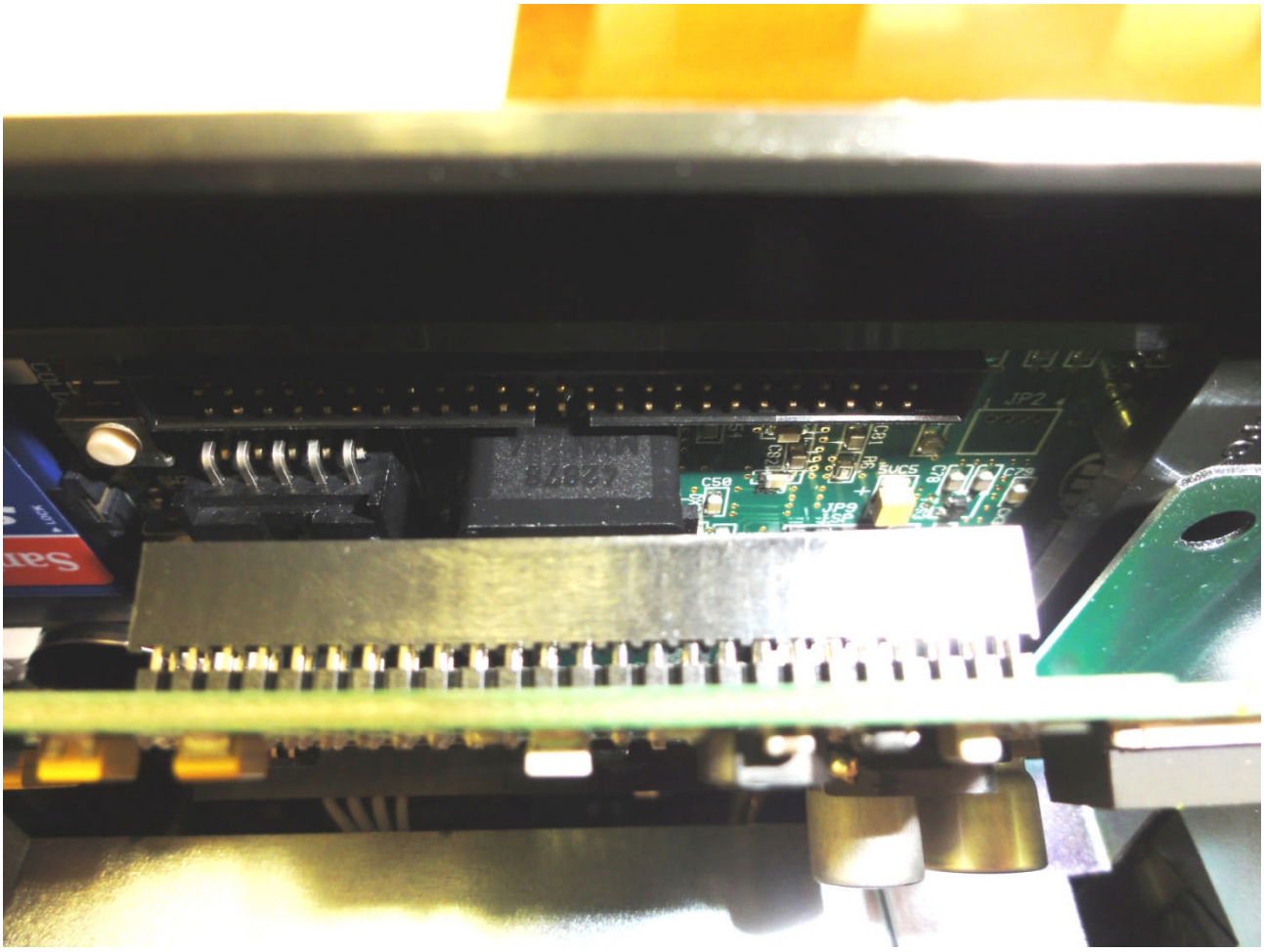
This point forward use the torque screwdriver set to **10.0 in-lbs**

Before screwing down the back plate make sure that neither the BB-300 cable nor the white camera cable will be pinched.

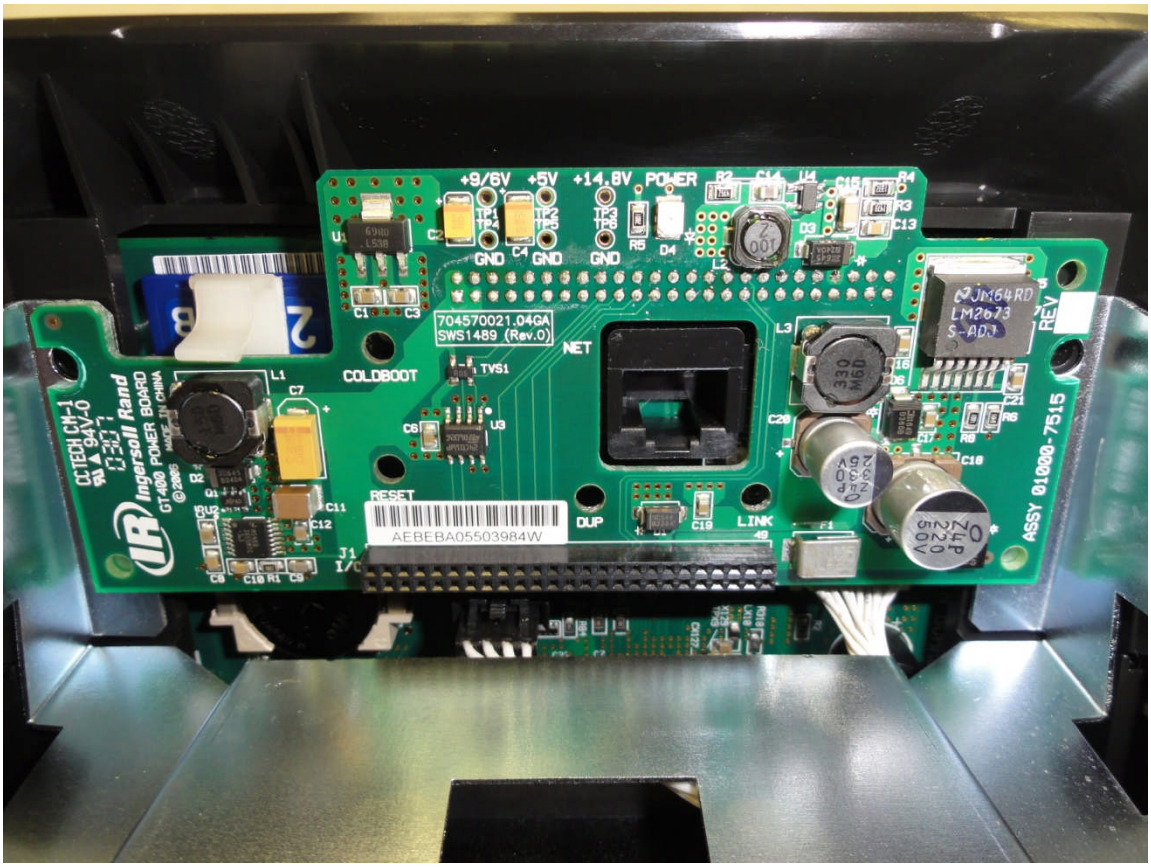
Install these screws into the two the back plate inserts. **Do not use the longer self tapping screws used for the power board or they will break through the front of the reader.**



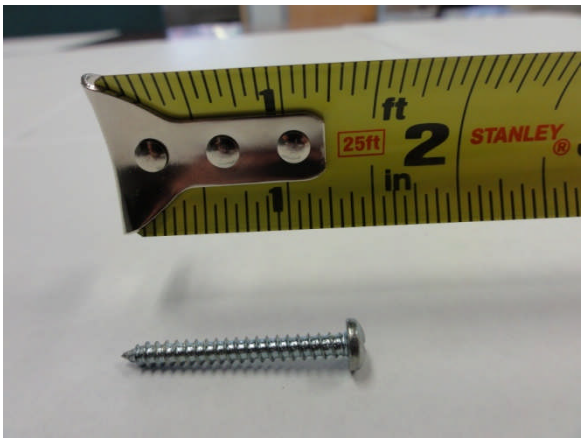
Reinstalling the power board



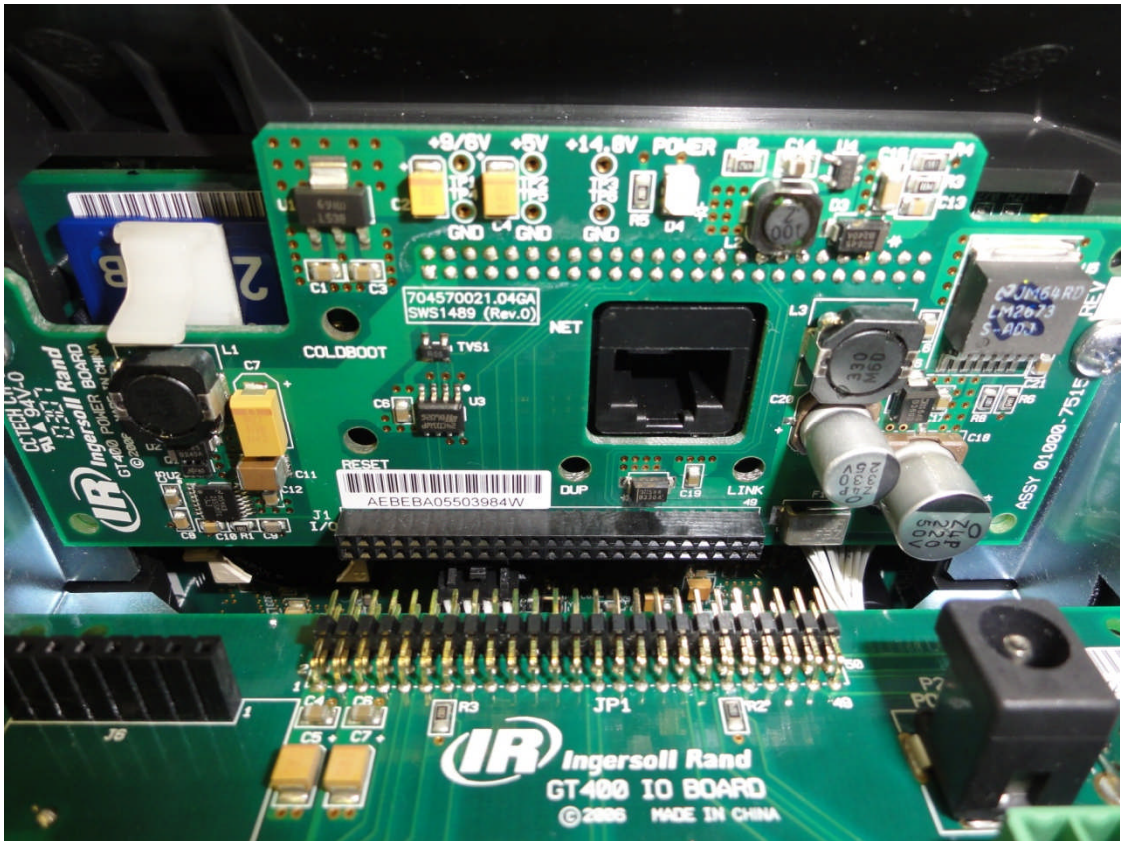
Making sure your ground strap is on. Align the 2 x 25 pin connector and header and gently mate the two boards.



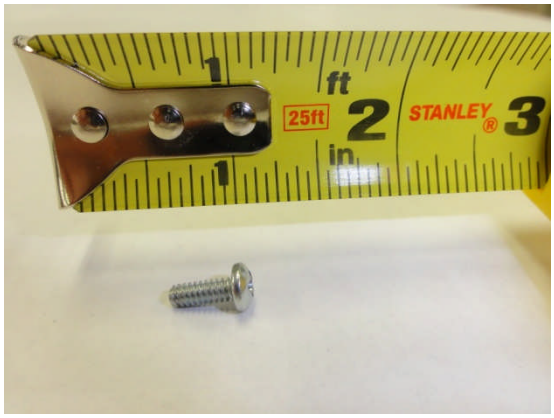
Secure the power board to the unit using the two screws shown in the image below.



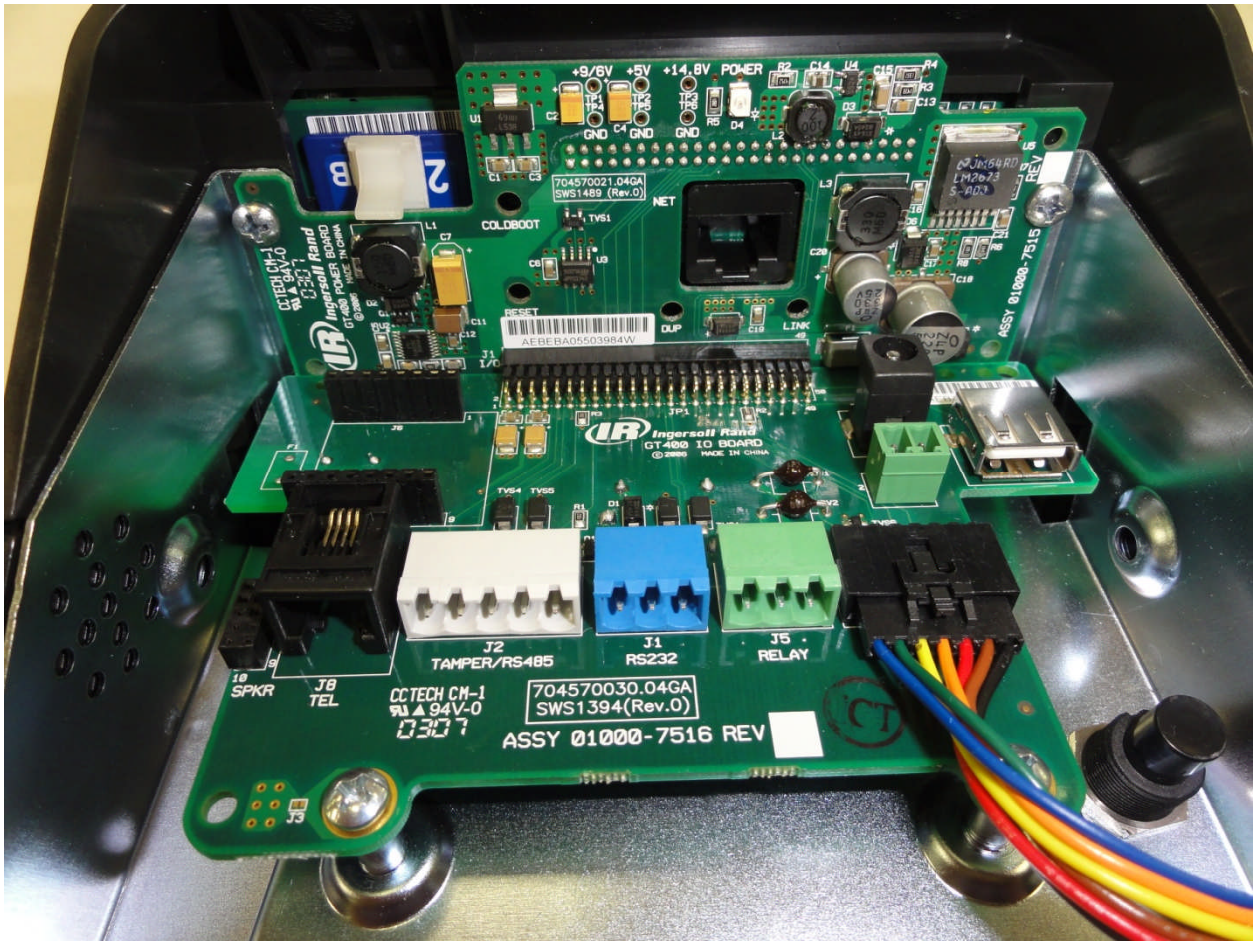
Reinstalling the IO board



Align the IO's 2 x 25 pin header and connector and gently press them together making sure that it is installed. Secure the IO board to the unit with the screws shown in the image below.



Plugging in the battery backup cable if installed



Replacement complete