

**FROM:**

## **CandCNC Tech Support**

### **IMPORTANT FIELD MODIFICATION of THC SENSOR CARD FOR ALL MP3000-DTHC and BLADERUNNER DRAGON-CUT UNITS.**

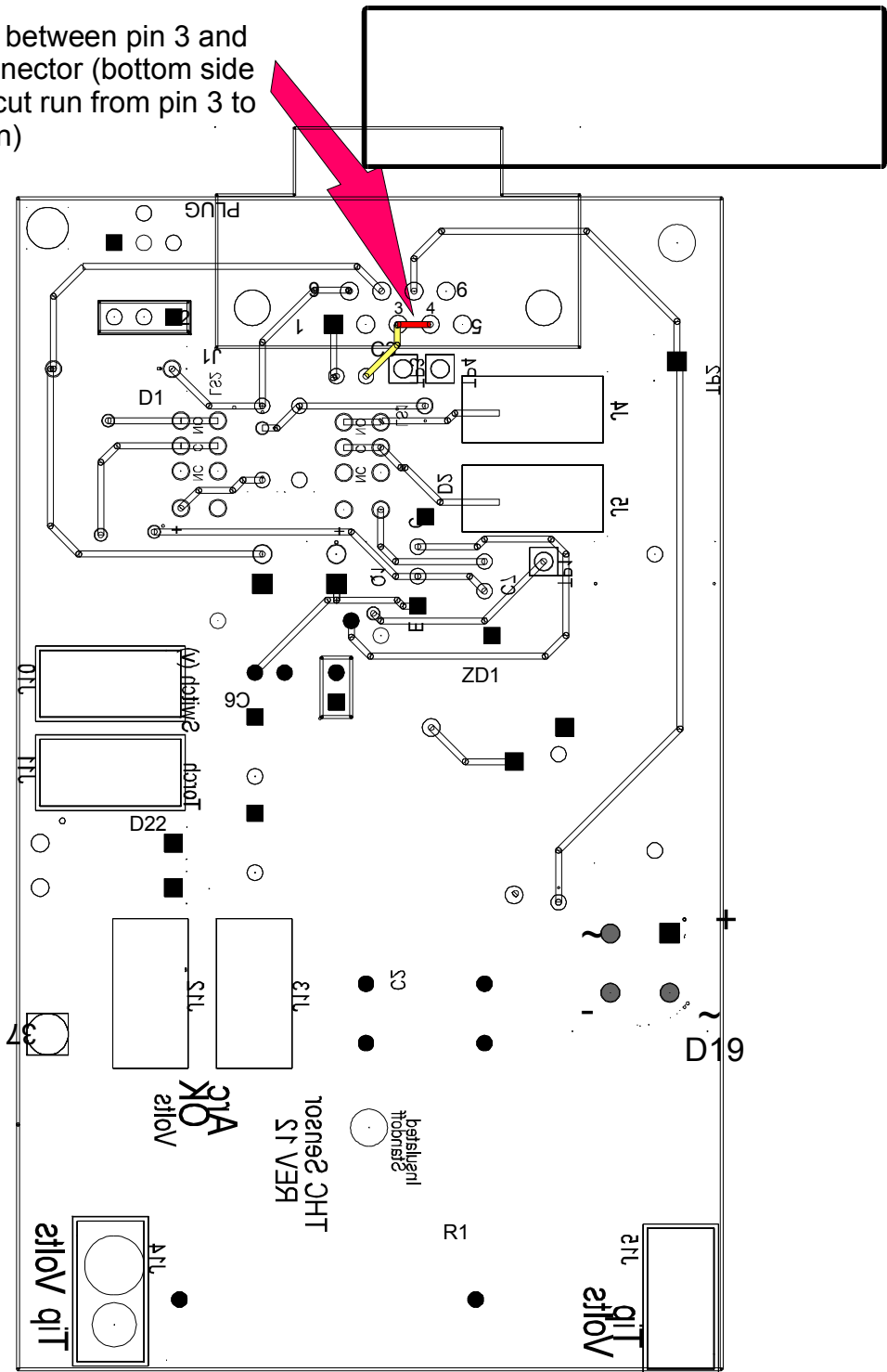
In preparation for a new digital current probe product to be introduced this summer, we made changes to the DB9 connection pinout of the DTHC module. We used what we thought was an open pin on the connector to tie in voltage for the external probe (which will connect to a new model THC Sensor Card). The existing THC SENSOR Card has that "unused" pin tied over to another pin. We missed it. The result is that on some of the MP3000-DTHC and BladeRunner Dragon-Cut models you could experience intermittent DTHC operation or possible ARC OK failures. We apologize for the mistake and by making one cut on the card the problem can be resolved. If you think your MP3000 or BladeRunner Dragon-Cut has been damaged (won't self test) or fails to operate correctly **after** the modification please contact us via phone (903-364-2740) or by e-mail (tom@candcnc.com).

Remove the THC Sensor Card from the Plasma unit and disconnect all wires. Use the next page to make a single cut on the THC Sensor card. After the mod you may find the voltage readout is wrong (lower than it should be. If it shows approx 10 to 12 percent less than it should, you can re-calibrate the voltage by opening the box and locating the DTHC card, and with a known DC voltage as outlined on the 3rd page of this document reset the readout. You can also elect to send us the THC Sensor card to modify and/or the DTHC card to recalibrate. If you do return any item to us for repair or calibration be sure there is documentation in the box with a brief description of the problems or with your return shipping information.

## IMPORTANT MODIFICATION FOR ALL THC SENSOR CARDS

Cut this (red) run between pin 3 and 4 on the Db9 connector (bottom side of card) Do **not** cut run from pin 3 to C3 pin.(yellow run)

**BOTTOM VIEW  
NOT ALL RUNS  
SHOWN**

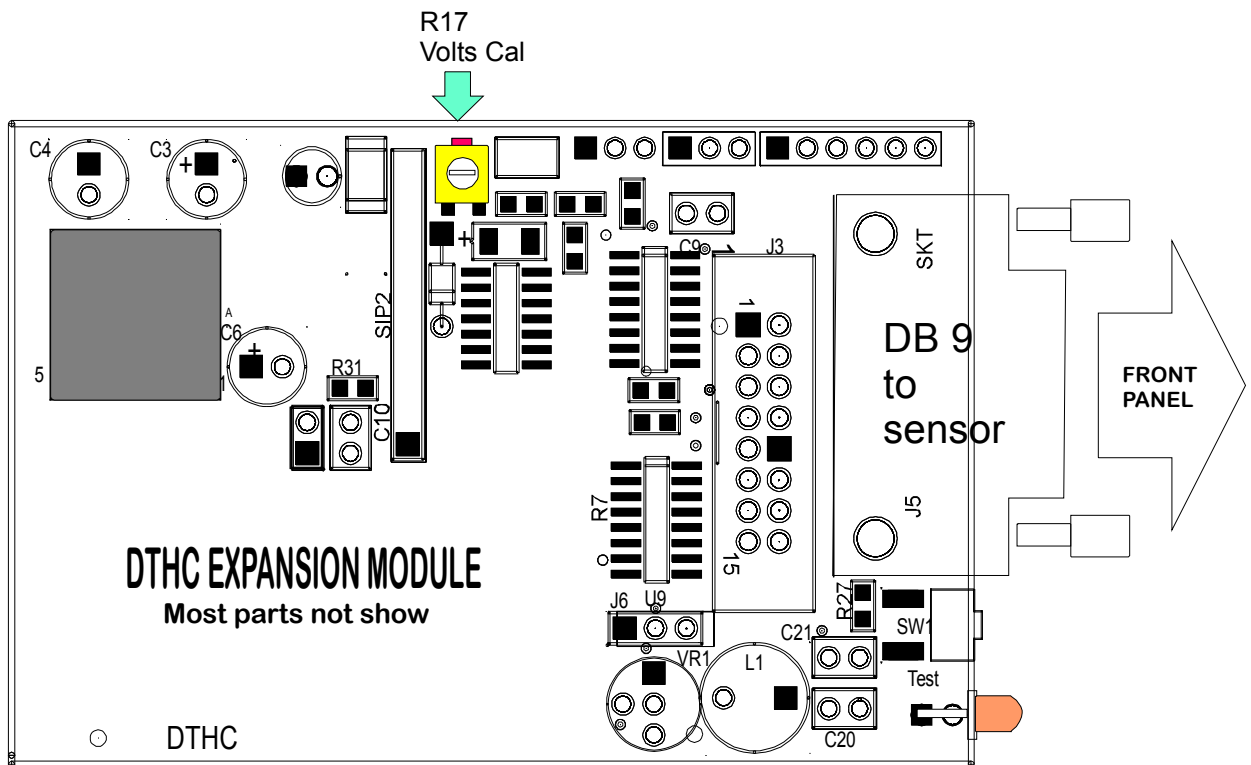


Bottom of THC SENSOR Card (REV12) view. Turn card over and locate pins 3 and 4 on the Db9. There is a small board run (connection) between pins 3 & 4. It must be cut/removed. Cut it with a sharp object. After the cut, test for continuity (ohmmeter or continuity tester) to make sure the connection is broken. There should be NO Connection (infinite resistance). DO NOT CUT ANY OTHER RUNS. See the next page for possible re-calibration steps if needed.

**IMPORTANT: DO NOT RE-CALIBRATE YOUR DTHC UNLESS YOU HAVE DONE THE MODIFICATION ON THE THC SENSOR CARD LISTED AND YOU OBSERVE THAT THE VOLTAGE WHEN RUNNING APPEARS TO BE ABOUT 10% LOW. SOME UNITS MAY NOT NEED TO BE RECALIBRATED. NORMAL FACTORY CALIBRATION SHOULD NOT BE CHANGED FOR ANY OTHER REASON**

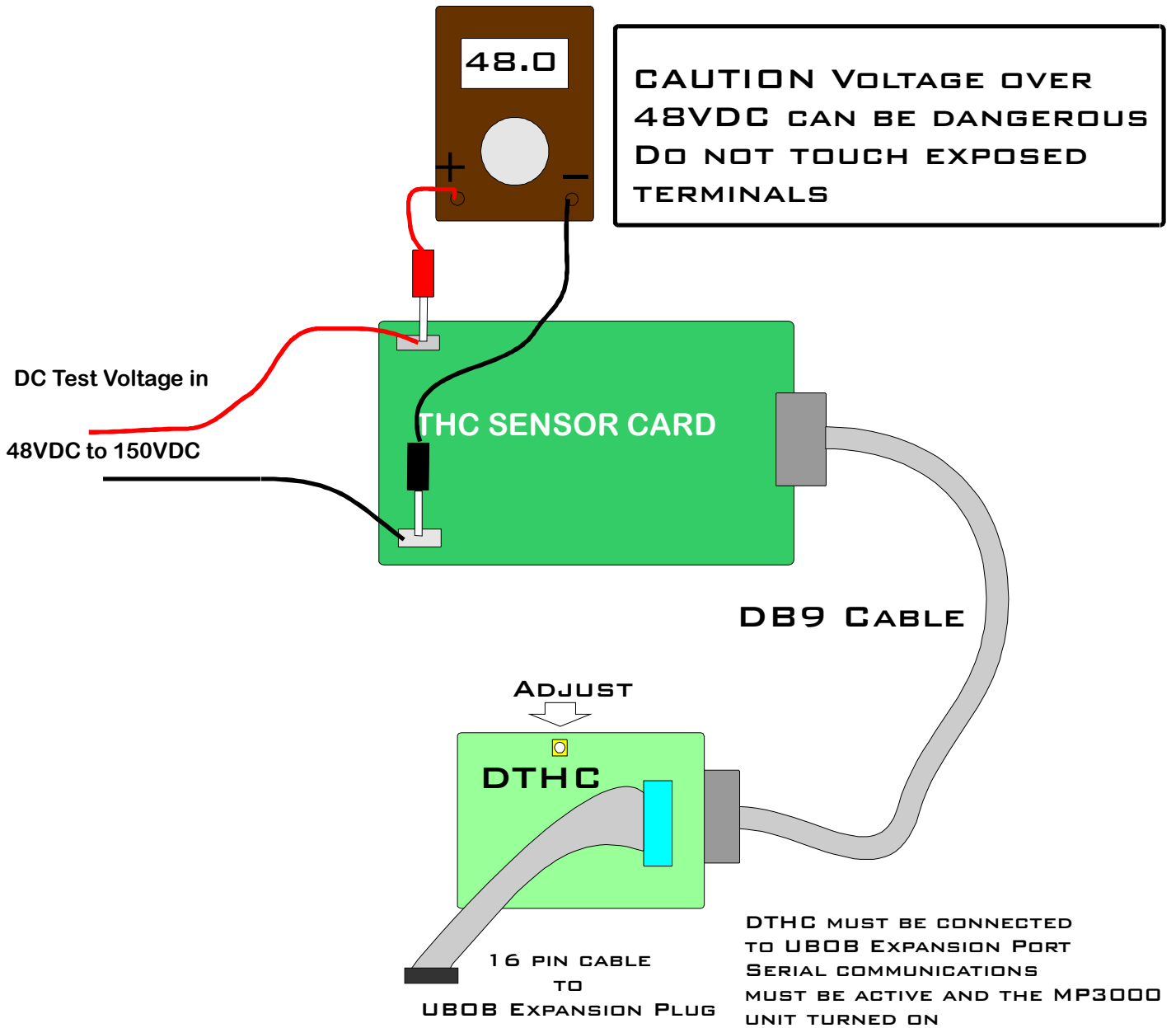
DTHC Card is located inside MP3000-DTHC and Dragon Cut behind front panel, and held in place by the two jack screws through the front panel to the DB9. You should be able to access R17 adjust pot without removing the card from the front panel. The Volts calibration is done with the THC Sensor TIP VOLTS inputs connected to a source of known DC voltage. **It's more accurate to use at least 48VDC.** Use a DVM to monitor the actual DC test volts (at the TIP VOLTS Terminals). The proper profile for MACH should be loaded and the screen will display the TORCH VOLTS reading. With a small screwdriver adjust R17 until the reading in MACH matches the actual test voltage applied. It should not take a large amount of change to bring the unit into calibration.

IF YOU DO NOT WANT TO ATTEMPT RE-CALIBRATION OF YOUR DTHC THEN PULL THE MODULE LOOSE FROM THE FRONT, DISCONNECT THE 16 PIN INTERFACE CABLE AND RETURN THE CARD TO US.



# CALIBRATION SCHEMATIC

## TEST VOLTAGE READOUT



SET TORCH VOLTS = TEST VOLTAGE READOUT