

iQUBE³ Digital Diagnostic Junction Box

Transient Protection Kit Installation

Rice Lake Weighing Systems recommends using transient protection when excessive voltage or dirty power conditions are possible and on power supply cables to secondary units where the secondary enclosure runs are longer than 75 feet. Transient protection is designed for DC voltages only. Input AC voltage is converted to DC with an internal or external power supply before it is connected to the iQUBE³ CPU board. Transient protection is installed after the AC/DC power supply. This addendum details how to install a transient protection kit into an iQUBE³ system.

Power Supply	Location	First iQUBE ³ Enclosure	Additional iQUBE ³ Enclosures
115/230 VAC	Internal	Not needed	Optional/Recommended
115/230 VAC	External	Optional/Recommended	Optional/Recommended
9-36 VDC power supply	Internal	Not needed	Optional/Recommended

Table 1. Transient Board Installation Locations



NOTE: For more information on the iQUBE³, See the product page at www.ricelake.com/iqube3



Manuals are available from Rice Lake Weighing Systems at www.ricelake.com/manuals

Warranty information is available at www.ricelake.com/warranties

See the iQUBE³ Technical Manual (228701) for detailed instructions on removing the board stack assembly.

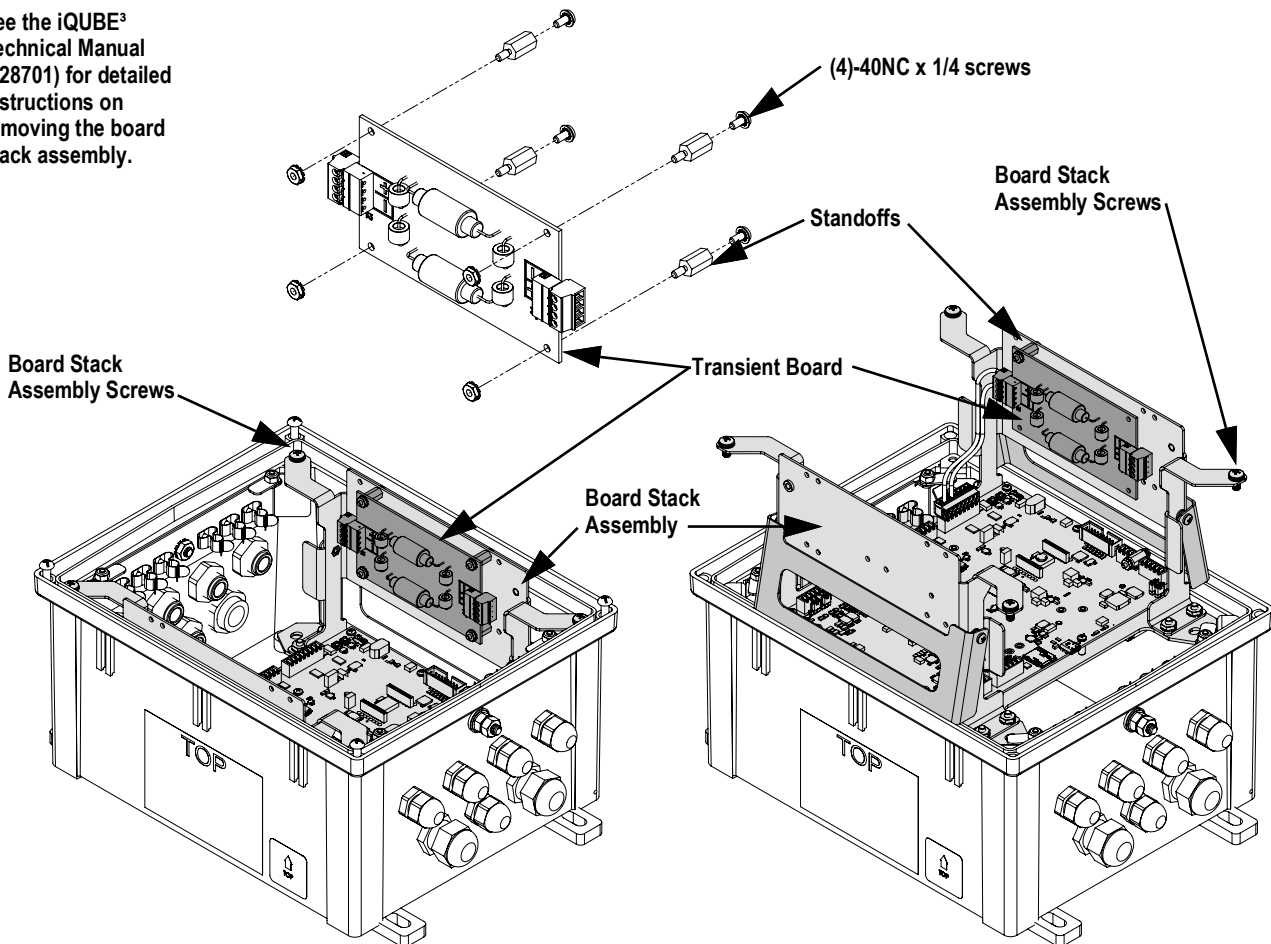


Figure 1. iQUBE³ Board Stack Assembly and Transient Board

Transient Board Installation Steps

1. Disconnect iQUBE³ from power.
2. Remove iQUBE³ cover.
3. Remove screws securing board stack assembly to the enclosure (Figure 1 on page 1).
4. Pull board stack assembly out of the enclosure and rest the kickstands on the enclosure channel (Figure 1 on page 1).
5. Disconnect power cable from the four-channel board.
6. Secure transient board to the board stack assembly with four 4-40NC x 1/4 screws (Figure 1 on page 1).
7. Connect existing DC power cable to the transient protection board (J1).
8. Connect a new two wire cable from the transient protection board (J2) to CPU board or four-channel board, where:
 - If first iQUBE³ enclosure, attach to CPU board (J5)
 - If additional iQUBE³ enclosure, connect to first four-channel board (J5)
9. Fold in kickstands and then lower the board stack assembly into the enclosure.
10. Replace screws securing board stack assembly to the enclosure.
11. Replace enclosure cover.
12. Reconnect iQUBE³ power.

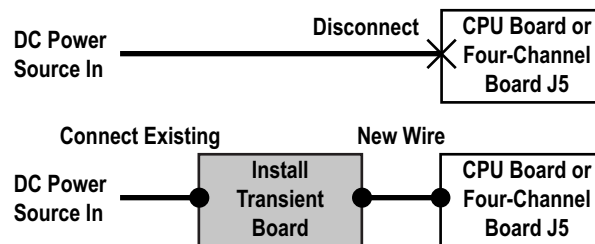


Figure 2. Wiring Sequence

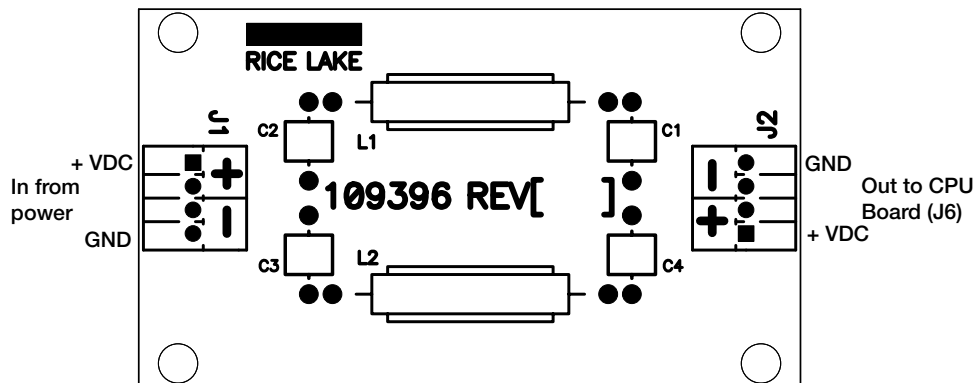


Figure 3. Transient Protection Board



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