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SCOPE OF THIS MANUAL

This manual provides instructions for installing these service kit parts for the B3000 explosion-proof flow monitor:

- B300-101 CPU for Basic B3000 flow monitors
- B300-102 CPU for Advanced B3000 flow monitors
- B300-105 Display PCB

IMPORTANT

- *Any board must be replaced with an equivalent certified replacement part. You must contact Badger Meter for an appropriate replacement part.*
- *Repairs are only allowed to be carried out by the manufacturer or an authorized Badger Meter agent.*
- *Must be aware of proper ESD procedures and protocols. Any work must be done in an ESD approved environment.*
- *For any questions on installation, service replacements and other repairs contact Badger Meter.*



OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC-SENSITIVE DEVICES.

UNPACKING AND INSPECTION

Upon opening the shipping container, visually inspect the product and applicable accessories for any physical damage such as scratches, loose or broken parts, or any other sign of damage that may have occurred during shipment.

NOTE: If damage is found, request an inspection by the carrier's agent within 48 hours of delivery and file a claim with the carrier. A claim for equipment damage in transit is the sole responsibility of the purchaser.

SAFETY

WARNING

EXPLOSION HAZARD - SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.

AVERTISSEMENT

RISQUE D'EXPLOSION - LA SUBSTITUTION DE COMPOSANTS PEUT RENDRE CEMATÉRIEL INACCEPTABLE POUR LES EMPLACEMENTS DE CLASSE I, DIVISION 2.

WARNING

DO NOT CONNECT OR DISCONNECT EITHER POWER OR OUTPUTS UNLESS THE AREA IS KNOWN TO BE NON-HAZARDOUS.

AVERTISSEMENT

RISQUE D'EXPLOSION. NE PAS DÉBRANCHER TANT QUE LE CIRCUIT EST SOUSTENSION, À MOINS QU'IL NE S'AGISSE D'UN EMPLACEMENT NON DANGEREUX.

Electrical Symbols

Function	Direct Current	Alternating Current	Earth (Ground)	Protective Ground	Chassis Ground
Symbol					

SERVICE KIT PARTS INSTALLATION

⚠ DANGER

REMOVE (DE-ENERGIZE) ANY EXTERNAL POWER FROM THE UNIT BEFORE REMOVING THE SCREW COVER FROM THE ENCLOSURE. FAILURE TO DO SO CAN BE DANGEROUS.

Replacing the CPU Board

Service Kit Number B300-101 for the basic monitor contains:

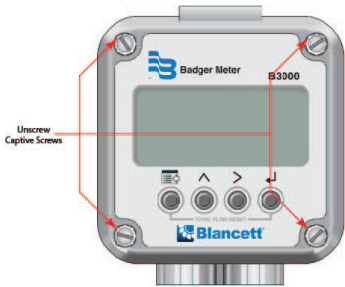
- One programmed CPU PCB, PN B300002-T
- Four screws, Phillips pan head, #6-32 × 1/4, zinc/steel, PN B300046
- One tie wrap

Service Kit Number B300-102 for the advanced monitor contains:

- One programmed CPU PCB, PN B300010-T
- Four screws, Phillips pan head, #6-32 × 1/4, zinc/steel, PN B300046
- One tie wrap

This procedure applies to both Basic and Advanced B3000 models.

1. Loosen the 4 enclosure captive screws and open the cover.

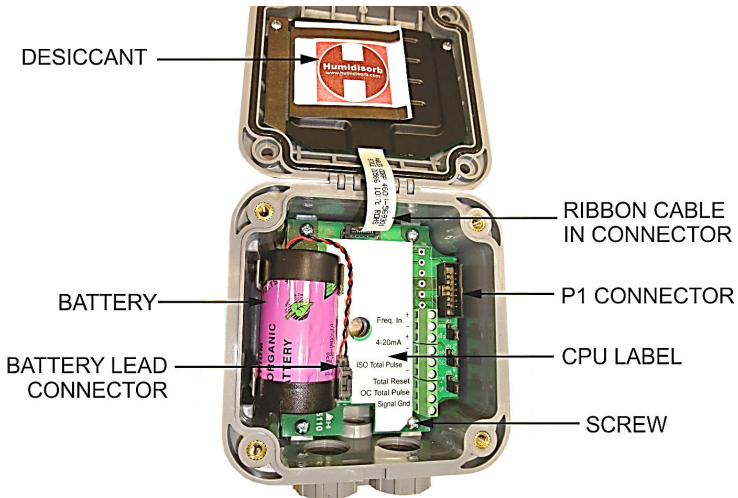


2. Press the tab on the battery connector plug to release it from the battery lead connector socket.
3. Cut the tie wrap that holds the battery in place.

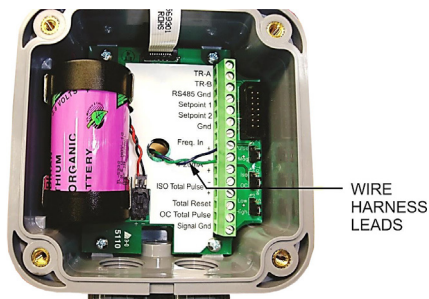
NOTE: You will need to replace tie wrap to maintain approval on the product.

4. Remove the battery and set it aside.

5. Remove the ribbon cable from the CPU board's cable connector.



6. Record the locations of all wiring connected to the CPU board.
7. Remove all wiring from the CPU board.
8. Remove the 4 screws holding the CPU board.
9. Remove the old CPU board.
10. Feed the wire harness leads up through the hold in the center of the new CPU board.
11. Position the new CPU board into the housing with the terminal strip on the right side.



12. Secure the new CPU board with 4 screws.
13. Replace the battery and secure it with a tie wrap.
14. Attach the battery connector plug to the battery connector socket on the new CPU board.
15. Attach the ribbon cable from the display board to the new CPU board's cable connector.
16. Connect the wiring to the new CPU board.
17. Close the enclosure cover and tighten the captive screws.

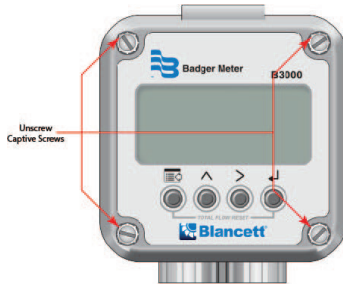
Replacing the Display Board

Service Kit Number B300-105 for the B3000 monitor display contains:

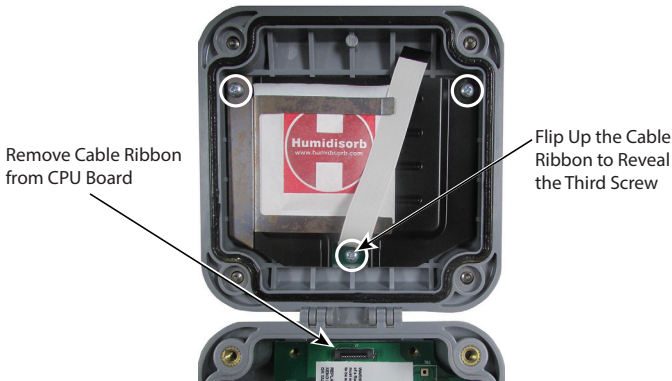
- One dot matrix display PCB, PN B300096
- Three screws, Phillips tri-shank, #4-20 x 1/4, zinc/steel, PN B300113

This procedure applies to both Basic and Advanced B3000 models.

1. Loosen the 4 enclosure captive screws and open the cover.



2. Remove the ribbon cable from the CPU board's cable connector.
3. Flip up the cable ribbon to reveal the third screw.



4. Remove the 3 screws holding the display board assembly.
5. Lift out the display board assembly and discard it.
6. Place the new display board assembly in the holder and attach it with 3 screws.
7. Attach the ribbon cable from the new display board to the CPU board's cable connector.
8. Close the enclosure cover and tighten the captive screws.

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