

Delta 3-Phase, Bender Fault Protection EB-N-GFM-KIT

Drawings: BH803

Contains:

- Ground fault module, Bender IR470LY-4013, Electro part 5694
 - Pre-wired – internal jumper A1 to 21
 - Pigtails, A1 black, A2 white, KE green, ground symbol green
- Fuse block, Electro part UFH6645
 - Pre-wired pigtail black/red, pigtail red/black
- Fuses (3), Electro part UFUSE6645

Installation – Reference Hookup Drawing BH803

1. Turn off all power at the source – both the 3-phase heating power to the main large terminal block and the 120 control power.
2. Open main hinged door, unscrew and remove inside voltage barrier front panel.
3. Mount furnished fuse block (UFH6645) below the left ground lugs. This is a 3-position block, two fuses are used, third is spare.
4. Connect the furnished fuse block pigtails. Black/red to left most 3-phase large terminal block and red/black center phase.
5. With the main hinged door open, locate the third from the top flex conduit which has unterminated wires.
6. Connect the flex conduit black/red and red/black to the fuse block opposite the provided wires.
7. This completes the wiring in the high voltage compartment, replace voltage barrier front panel or make preparations for checkout. Depending upon the overall installation process and the completion of installation manual page 16, will determine whether the voltage barrier front panel is replaced at this point or remains off for further checkout.
 - a. Note: The interlock switch (upper left) associated with this voltage barrier front panel will need to be clipped closed if this panel is not replaced and screwed in place.
8. Mount the Bender module at the open space above the control transformer.
9. Remove the black wire from the 120CB which comes from the LWCO (COM) tab. Reconnect this same black wire to the Bender bottom terminal 22.
10. Connect the Bender pigtail black wire (A1) to the 120 CB bottom screw, tighten. Verify the black wire from the transformer is still connected to the 120 CB.
11. Connect the Bender white (A2) to the neutral block.
12. Connect the two Bender green wires (KE and ground) to the ground lug.
13. Verify jumper before A1 and 21 is installed on the Bender.
14. Again locating the unterminated wires from the third from the top flex conduit, connect the two wires.
 - a. Bender L1 – black/red
 - b. Bender L2 – red/black
15. Locate the red and yellow/green wires butt-connected, just above the Bender. These come from the TS & A control board top connector (J1). Untie, cut off the butt short connection, strip ¼", and connect at Bender terminals 11 and 12 (polarity is not a concern, but preference is red in 11).
16. Both power sources can now be re-energized, determine the next step in the installation manual pages 12 through 16.

Pre-Start or Setup

Bender – front panel setup:

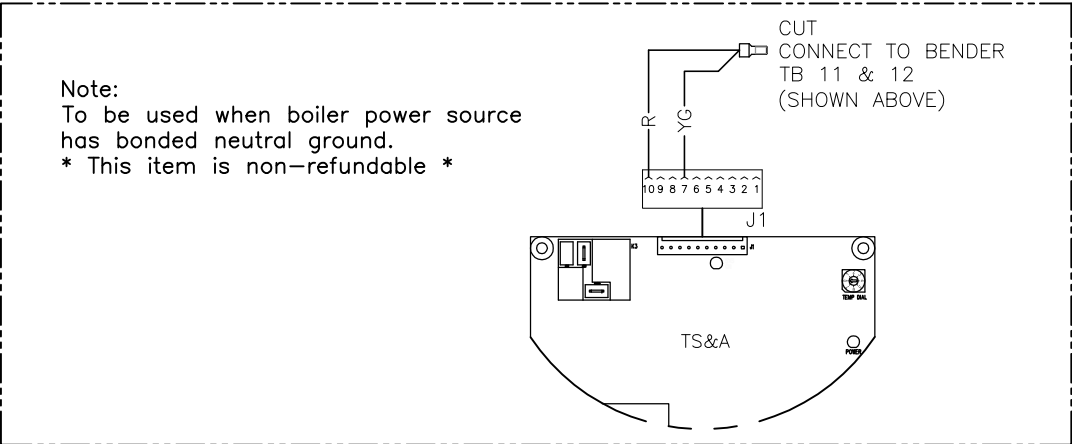
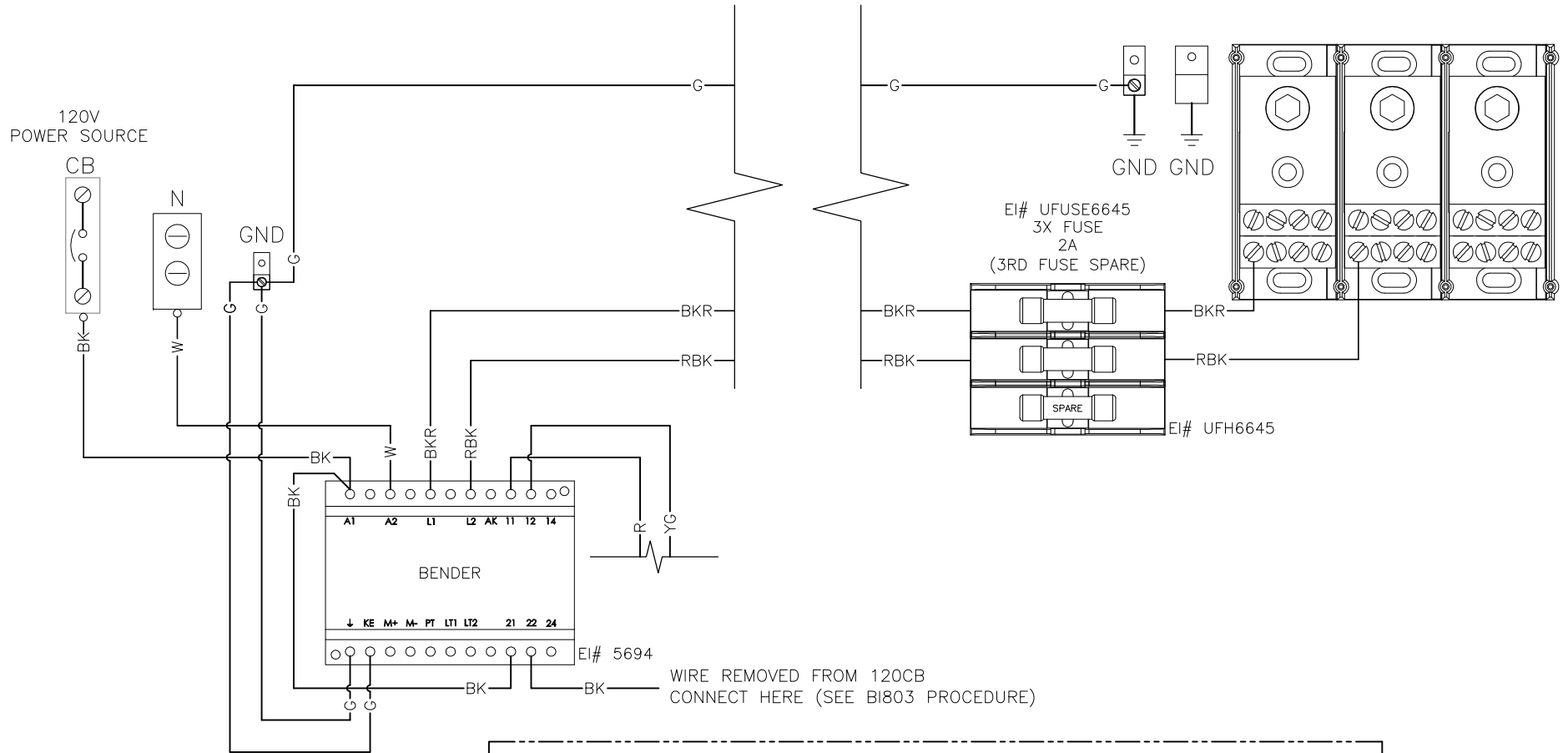
- Both bit switches **up** – NO and 1 k ohm.
- Setting, suggest 5 to 6 k ohm for 480 system and 10 or more elements. If small boiler can probably set at 10 k ohm.
- Press TEST, 5 seconds – then RESET.

Additional Operating Procedures & Sequence

- Reference Installation Manual BI802
- In the appropriate sections there will be a statement “Delta feed, option Fault Detector” relating to the functioning of this fault protection controller. Follow these instructions where they apply in the various sections.



EB-N-GFM-KIT DELTA 3-PHASE, GROUND FAULT MONITOR FAULT PROTECTION HOOKUP



Rev.B 9-28-16: Add note
Rev.A 7-7-09: Released