



Field Installation of Advantage Circuit Boards

I.S. 17533



This industrial type control is designed to be installed, operated, and maintained by adequately trained workmen. These instructions do not cover all details, variations, or combinations of the equipment, its storage, delivery, installation, check-out, safe operation, or maintenance. Care must be exercised to comply with local, state and national regulations, as well as safety practices, for this class of equipment.

The following steps are required to install a circuit board into a mounted starter.

1. Remove all power to the starter (control power as well as the power to the external terminals).
2. Verify that there is no power to the unit (use a volt meter or tester).
3. Remove the arc box cover on the unit.
4. Verify that the replacement board is the correct style. For example, a Size 3 board will physically look like a Size 4 board.
5. Label the control wires to the 3PEC terminal.
6. Remove the wires to the 3PEC terminal. Unplug any of the options from the circuit board.
7. Remove the crossbar with the moving contacts.
8. Remove the 3 stationary contacts from the load side.
9. Slide the terminals out the load side of the starter. The terminals may have to be moved back and forth to remove the terminal to get past the rubber insulation. (It may be necessary to remove the motor cables from the bottom of the unit first.)
10. Slide the circuit board out. The coil plug will disconnect as the board is removed. Place the old board aside to be returned through warranty.
11. Place the test verification label for the replacement board on the right-hand side of the base near the communication plug (overlapping the previous test label).
12. Place the version label for the replacement board on the arc box next to the model number (example: MODEL A.H05). This number should match the last 3 characters from the programming label on the front of the circuit board. (If there is not an extra programming label, copy the last 3 characters of the programming label next to the model number (example: MODEL A.H05).
13. Plug the coil lead connector into the replacement circuit board. The locking tab on the circuit board should be snapped past the locking ridge on the coil lead connector.
14. Slide the circuit board into the base. Make sure the black backing board rides in the thin $\frac{1}{16}$ " guiding slot on both sides of the base.
15. Slide the load terminals in through the holes of the circuit board one at a time. **IMPORTANT:** Visually align the circuit board and the terminals so that the terminals do not damage the circuit board upon insertion.
16. Replace the stationary contacts. Tighten the bolts per the Instruction Leaflet (depends on the frame side). Do not over- or under-torque.
17. Replace the crossbar (moving system). **NOTE:** If there is an auxiliary contact, make sure that the interlock is installed correctly when the crossbar is in place.
18. Replace the arc box cover. Tighten the screws per the Instruction Leaflet (depends on the frame side). Do not over- or under-torque.
19. Wire in the 3PEC terminal block for unit control. If a remote reset or other option is used, plug into the proper location on the side of the circuit board.
20. Check the nameplate label and the test verification label to assure that they are in place (per step 10 and 11).
21. Check the torque on the load terminals for the power cables per the Instruction Leaflet (depends on the frame side). Do not over- or under-torque screws.