

Automatic Transfer Switch Option Maintained Load Test Switch

Introduction

The standard load test switch in any automatic transfer switch (ATS), allows the operator to press/switch the load test switch (LTS) to perform a full load transfer test of the ATS.

Once the operator has pressed/switched the LTS, it will simulate a power outage on the normal source that will force the ATS to send the engine start (ES) signal to the attached generator. This is the same for either microprocessor or electromechanical controls. Once the generator is fully operational, the ATS will transfer the load to the emergency power. Once the transfer is complete, the ATS will return to automatic operation.

Product Features

- Maintained Load Test Switch (Manual Operation Required)

Standard Load Test Switch Operation

Microprocessor Controls - HMI Load Test

To ensure the Load Test software is operating correctly, the following explains how to perform a load test from the HMI panel directly.

All MP7650 controlled Transfer Switches have a "Load Test" operating mode which is menu selectable at the HMI panel. A test of the automatic circuitry can be initiated by placing the Transfer Switch in the load test mode. This will cause the normal control circuits to de-energize and give a signal to start the engine. After the generator is up to the required voltage and frequency, the transfer switch will transfer to the emergency source.

1. On the HMI screen, depress "Enter".
2. The display will read "Select Mode (current mode displayed here)".
3. Depress "Enter" again.
4. Depress either "↓" and "↑". The following are the available selections.
 - a. Automatic
 - b. Hand Crank
 - c. Load Test
 - d. Off
5. Once the "Load Test" option is shown, depress "Enter" to proceed with load test. The following is an example of the HMI display.

MODE LOAD TEST
09:25 Thu 29 Sep, 2016

6. The display will then start to cycle through the appropriate timers to transfer the Load to the emergency source.

NOTE: At any time during this procedure you get lost, depress the "ESC" button unit you are back at the main screen to start over.

Place the transfer switch back into the 'AUTO' position at the HMI panel, using the instruction above, to allow the transfer switch to transfer back to normal and shut down the engine. After the appropriate time delays, the ATS will return the load to the normal source if normal power is available.

Microprocessor Controls - Load Test Switch

Entry into the ATS enclosure is required for this step. Be sure all the appropriate PPE required is being used.

To test the Load Test Cycle, press the momentary Load Test Cycle pushbutton inside the door for two seconds. The transfer switch will start the engine, transfer to emergency, and return to normal after the appropriate time delays.

Electromechanical Controls

Entry into the ATS enclosure is required for this step. Be sure all the appropriate PPE required is being used.

For the standard electromechanical controls, the Load Test switch is a maintained switch. A momentary version of this feature is available but is mounted on the door, (no enclosure entry required), and will work as described in the Microprocessor Controls - Load Test Switch section. See Electromechanical Controls Overview Datasheet for more information.

The operator must be physically present during the entirety of the full load test in order to return the ATS to automatic operation after completion.

To perform a Load Test on the ATS, flip the toggle on the Load Test switch inside the door. The transfer switch will start the engine and transfer to emergency.

To return the ATS back to automatic operation, flip the toggle on the Load Test Switch inside the door back to its original position and the ATS will return to normal, if normal is available, after the appropriate time delays.

Maintained Load Test (MLT) Operation

Entry into the ATS enclosure is required for this step. Be sure all the appropriate PPE required is being used.

For the standard Maintained Load Test switch, the operator has to be physically present during the entirety of the full load test in order to return the ATS to automatic operation after completion. However, if this option is being used to force the ATS to emergency power, the switch may be set and the operator may leave.

To perform a Load Test on the ATS, flip the MLT switch located inside the door. The transfer switch will start the engine and transfer to emergency.

To return the ATS back to automatic operation, flip MLT switch inside the door back to its original position and the ATS will return to normal, if normal is available, after the appropriate time delays.

Once that input has been removed, automatic operations will resume.

Order Guide

Part Number Examples:

1. ICFA32000BPSB/MLT - Insulated Case ATS, 3 pole, 2000 Amp, 120/208Vac, **24Vdc Microprocessor Controls**, 65kAIC @ 480Vac, NEMA 1 Free Standing Enclosure with Option MLT.
2. MCDA30400CPSA/MLT - Molded Case ATS, 3 pole, 400 Amp, 277/480Vac, **24Vdc Microprocessor Controls**, 35kAIC @ 480Vac, NEMA 1 Wall Mount Enclosure with Option MLT.