

MICROPROCESSOR CONTROL SYSTEM

The Lake Shore Electric Corporation MP7650 Control System is a sophisticated, state of the art, microprocessor based controller for automatic transfer switches. This system consists of four components: The HMI Panel; The Main Control Board; The Relay Interface Board and The Power Supply Board. This powerful and versatile controller incorporates a full range of automatic transfer switch accessories, which are user selectable.

Fully programmable with only four input keys and a two line 40 character backlit LCD display, the MP7650 is very user friendly, intuitive to operate and highly reliable. All timer settings can be viewed on the LCD. Additionally, all timer values are displayed on the LCD during operation. Diagnostic messages are displayed on the LCD as well as being displayed in a LED array.

Power can be supplied by either the engine battery system or an alternate power supply, 12 or 24 volts DC.

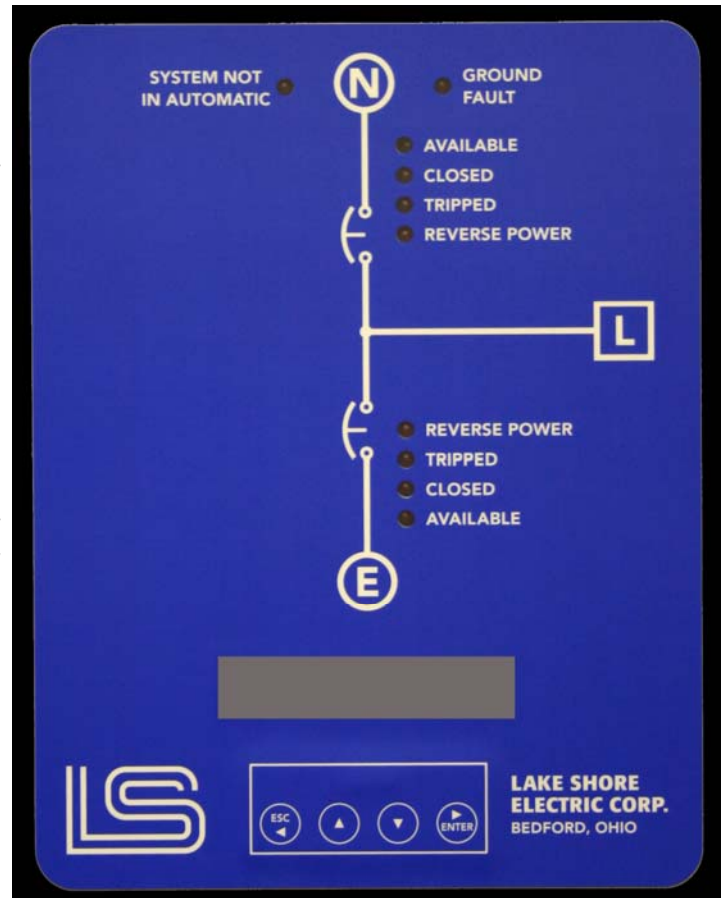
Components are mounted on printed circuit boards to provide a compact, rugged design. Solid-state devices assure dependable operation, even in severe environments, and have a projected electrical life of over one million cycles.

The MP7650 provides optimum flexibility of transfer switch controls. All adjustments are easily accessible at the HMI Panel.

The form C, dry engine start contact provides a convenient interface to almost any engine starting control.

Additional dry contacts from the Relay Interface Board provide a convenient interface for additional information to be transmitted as necessary.

The controller provides for five modes of operation: off/reset, automatic, hand crank, load test and fault. The fault mode will display an explanation of the fault condition should one exist.



FEATURES

LCD Backlit Display, 2 lines, 24 characters

User Input Keys, 4 membrane style

Inputs for:

- Key Pad Disable*
- Momentary load test*
- Remote Load Test*
- Override push-button*
- Synchronizer*
- Load Demand Inhibit*
- Ground Fault Relay*
- Reverse Power Condition* (normal & emergency)
- Remote Disconnect*
- Peak Shave*

System Status LED's, up to 14

System Not in Automatic

System Ground Fault*

Source Available - normal & emergency

Switch Position - normal & emergency

Reverse Power - normal & emergency*

Switch Withdrawn - normal & emergency*

Switch Tripped - normal & emergency*

Switch In Test - normal & emergency*

Dry Contacts for User Interface

Switch in normal - 2 form C contacts

Switch in emergency - 2 form C contacts

Normal Source Available - 2 form C contacts*

Emergency Source Available - 2 form C contacts*

Trouble - 2 form C contacts

Normal Tripped - 1 form C contact*

Emergency Tripped - 1 form C contact*

Engine Start - 1 form C contact

Pre-transfer Signal - 2 form C contacts

Up to 48 diagnostic LED's

Up to 9 field programmable timers

Time Delay Engine Start

Time Delay Emergency

Time Delay Neutral*

Time Delay Retransfer

Time Delay Engine Cool Down

Minimum Run Timer

Time Delay Before Transfer*

Synchronize Fail Timer*

Single Phase Protection Timer*

Engine Exerciser Clock for weekly testing with or without load

Available for open or closed transition

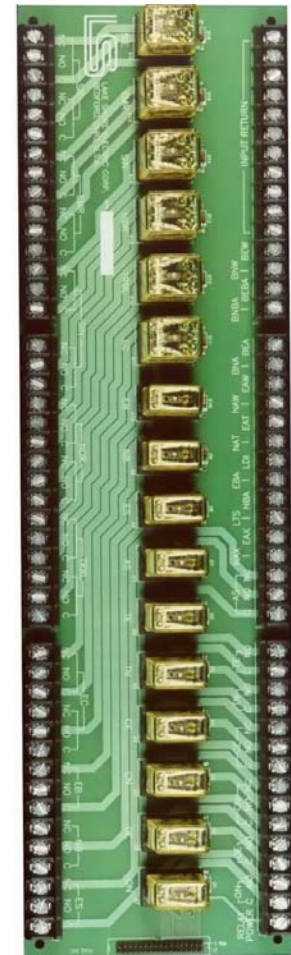
Temperature range -40°C to 85°C

Continuous Voltage Operating Range 12VDC or 24VDC

***Only available with certain accessories, consult factory for details.**



Main Processor Control Board



Relay Interface Board