

Lesson: LTIII Accessories

This lesson presents an introduction to the LTIII Accessories and Options.

Objectives

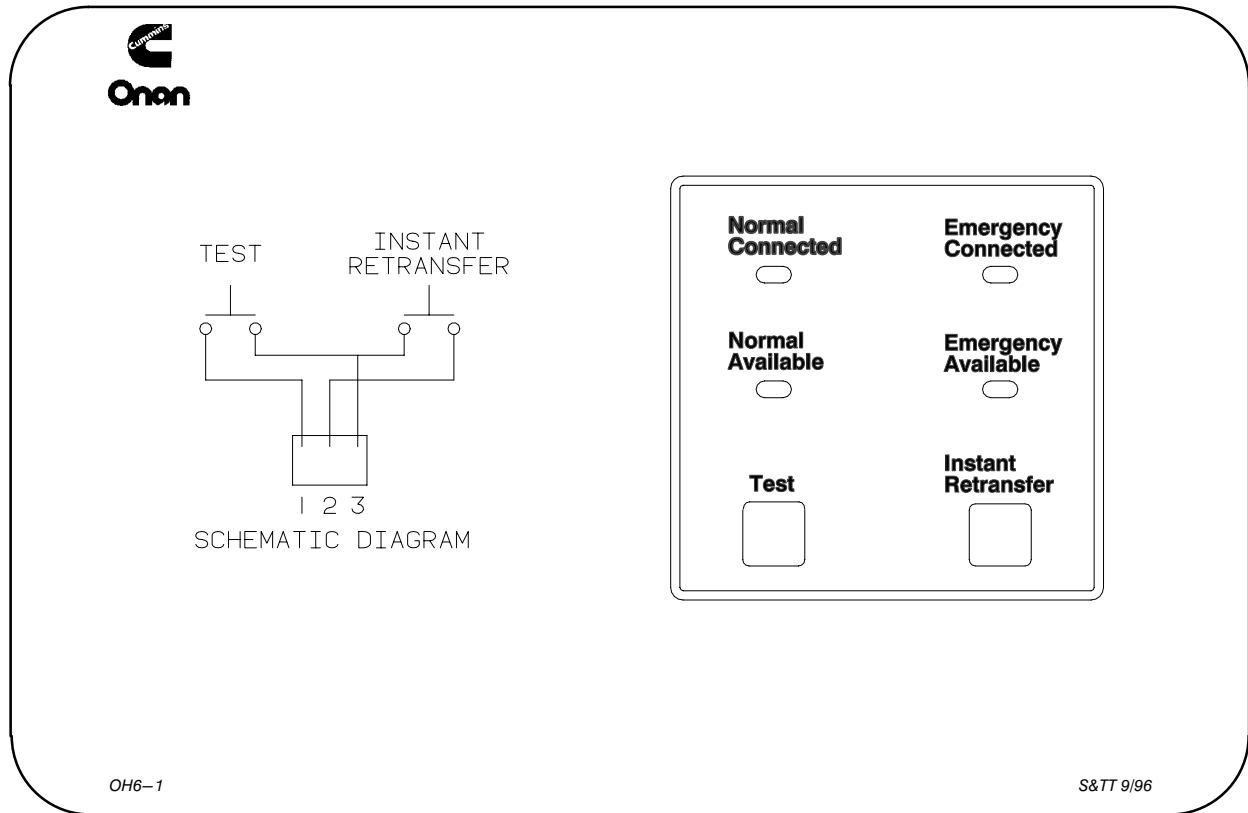
After completing this lesson, you should be able to:

- Perform Instant Retransfer and Local Test functions.
- Operate the Exerciser Clock.
- Install and setup a Program Transition module.
- Operate the Manual Override Switch.
- Install and calibrate a 2 or 10 Amp Battery Charger.
- Install and setup a 3–Wire Start module.

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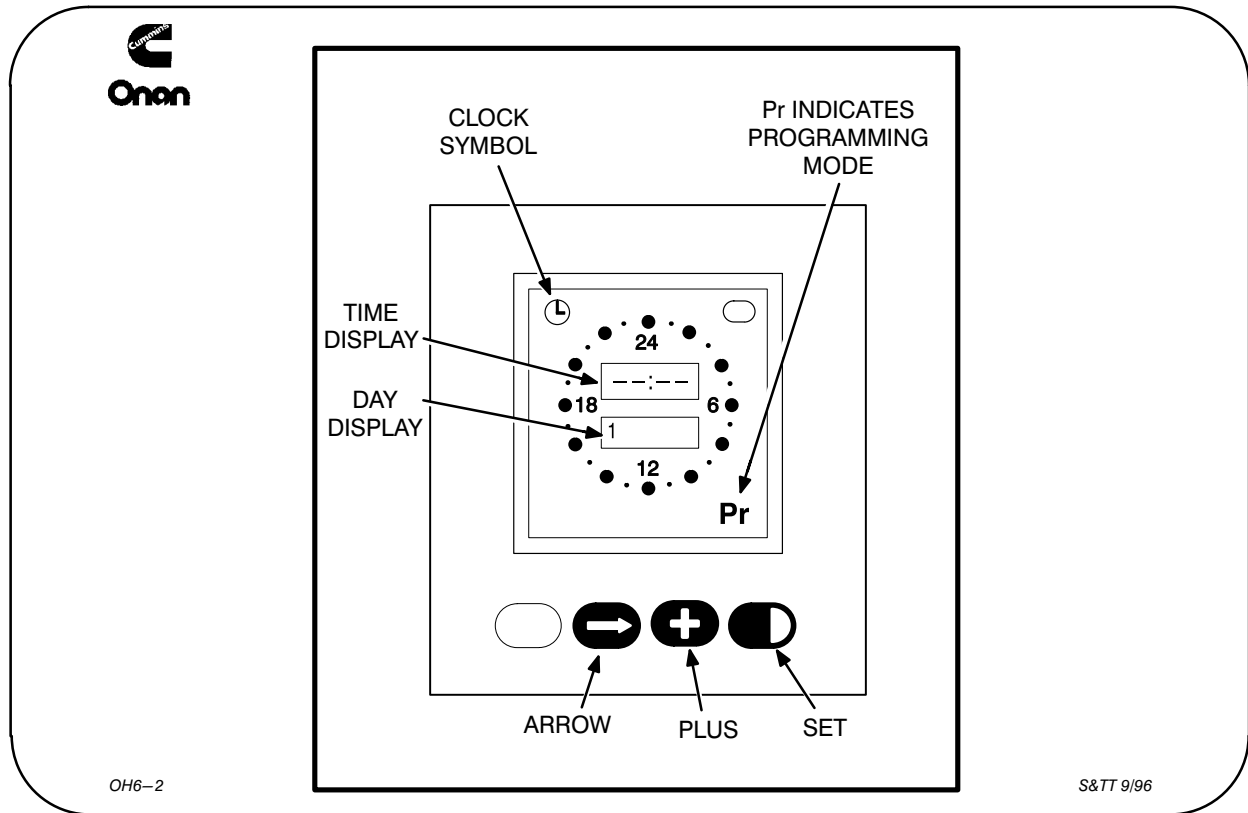
Sentinel is a trademark of Onan Corporation.

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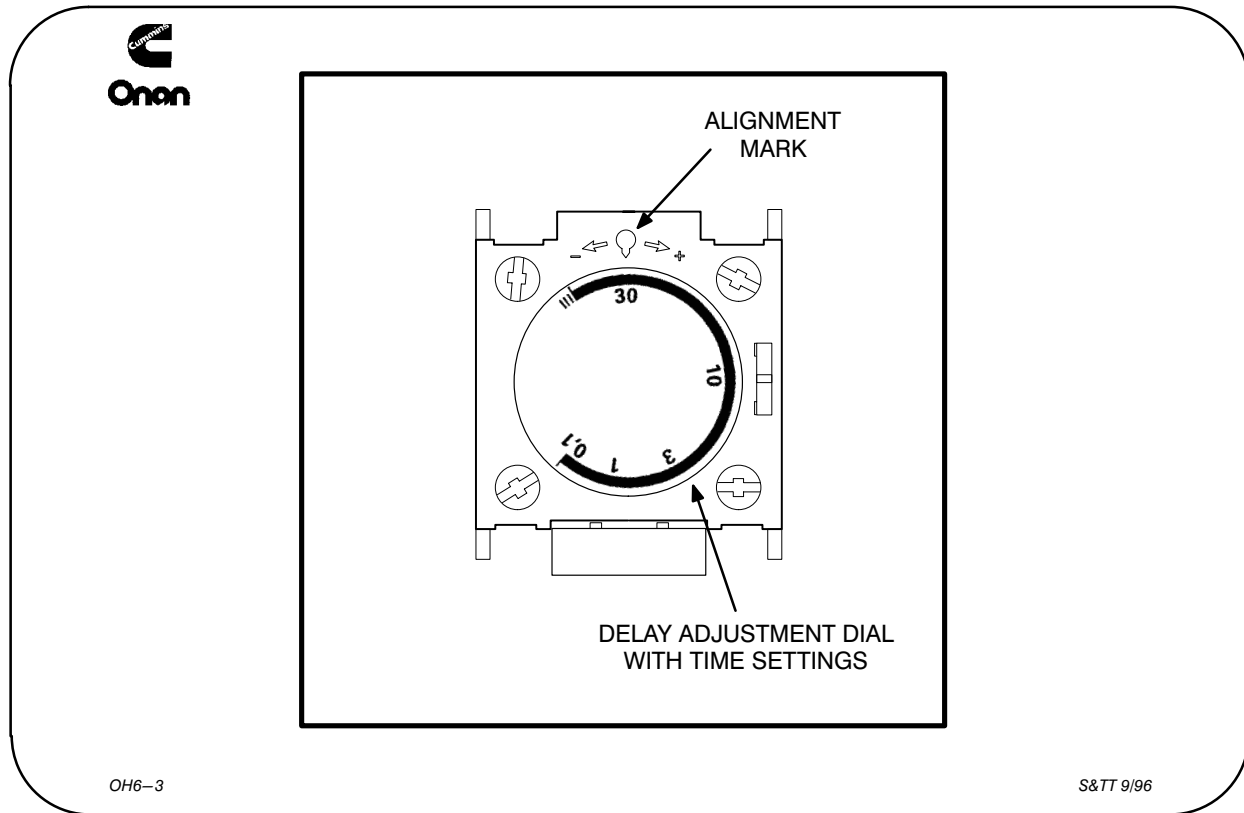
Membrane Touch Panel

1. The Membrane Touch Panel is available with Control Package B only.
2. It is available as a factory option only. There is not a field installation kit for this feature.
3. The Instant Retransfer push button is a momentary switch which interrupts the retransfer time delay, allowing the Retransfer Relay (A1K1) to energize immediately and the retransfer of load to the normal source to occur.
4. The Local Test switch must be depressed for the entire duration of the test. The electronic control time delays are bypassed if A1S3 is in the Without Load position. All time delays are activated if A1S3 is in the With Load position.
5. Pins 1, 2, and 3 in the schematic diagram above are from J1/P1 connector between the electronic control and the Membrane Touch Panel.
6. J1/P1-3 is a Gnd output from the electronic control to the Membrane Touch Panel. Actuation of the Test switch applies a Gnd signal back through J1/P1-1 to the electronic control. Actuation of the Instant Retransfer switch applies a Gnd signal back through J1/P1-2 to the electronic control.



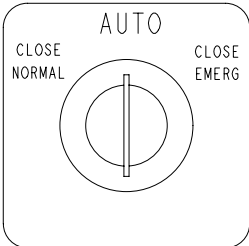
Exerciser Clock

7. The Exerciser Clock is available with Control Package B only.
8. It is available as a factory option only. There is not a field installation kit for this feature.
9. The exerciser clock is used to start and run the generator set at programmable intervals and for selected durations.
10. It is a 7-day, 24-hour clock that can store and execute up to four start/stop programs per day (one minute minimum duration).
11. The exerciser clock has backup power for approximately six hours. (When the clock is running on backup power the segments around the display will flash on and off). After six hours the day and time will have to be reset.
12. Exercise programs will not be lost during a power outage (exercise programs are stored in EEPROM).



Program Transition

13. The Program Transition module is available as a factory or field option.
14. It is available on 100–260 amp frame LTIII switches only.
15. Program Transition is used to provide a delay during transition. Programmed transition allows the transfer switch to assume a mid-transition position for an adjustable interval of time. In this position the load is not connected to either power source.
16. The module is available in either a 0.1 to 3 second delay (Kit #300–4965–01) or 0.1 to 30 second delay (Kit #300–4965–02).
17. There are two program transition modules required, one for the transfer sequence and one for the retransfer sequence.

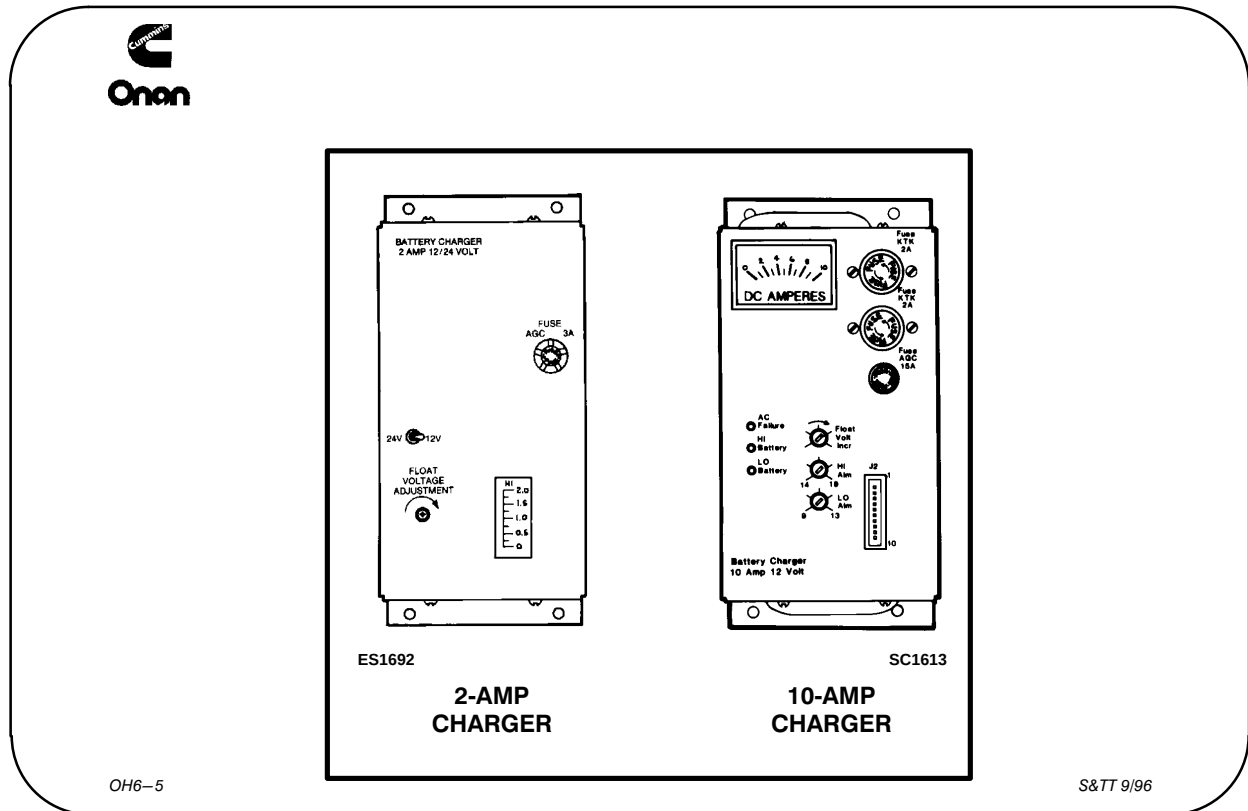
	C L O S E	A U T O	C L O S E
	N O R M		E M E R G
S3			
1 - 2	X		
3 - 4	X		
5 - 6		X	
7 - 8		X	
9 - 10		X	
11 - 12		X	
13 - 14			X
15 - 16			X

X = CLOSED

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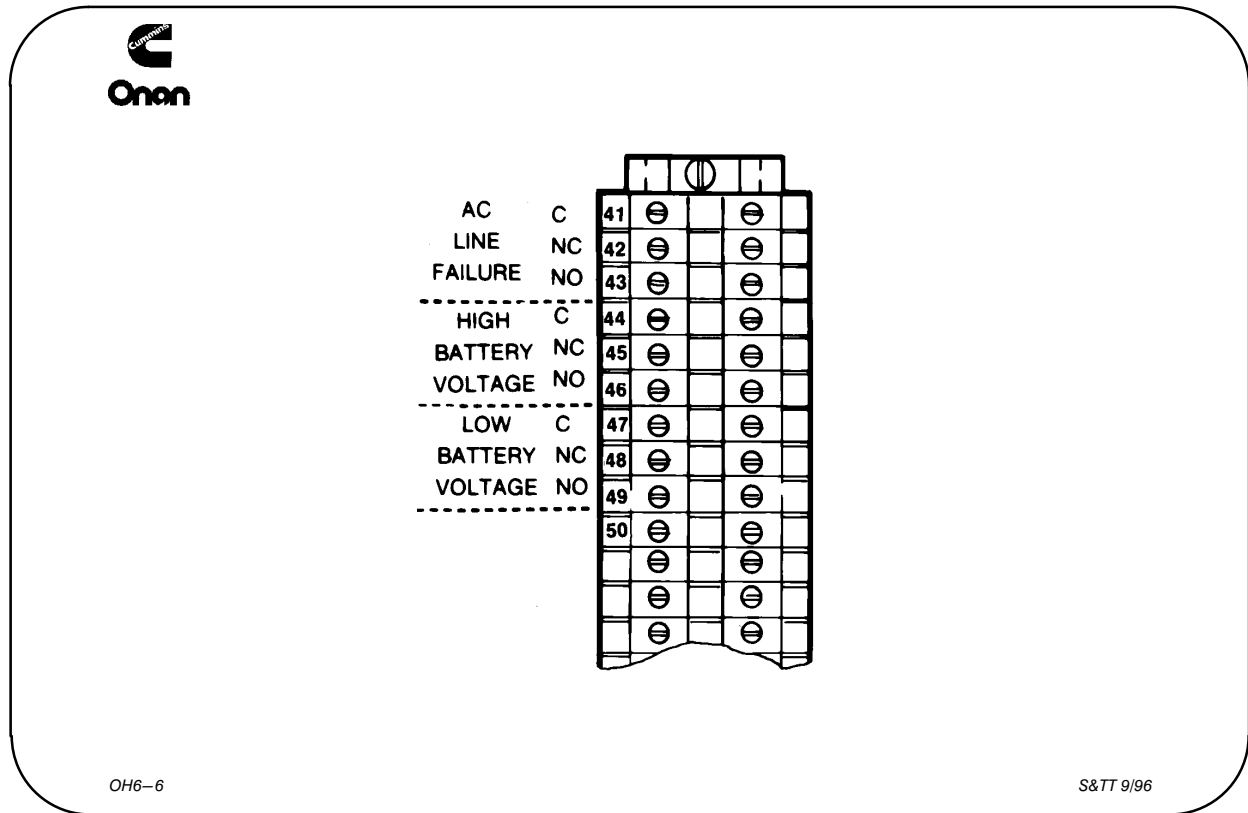
Manual Override Switch

18. The Manual Override Switch is available on any LTIII Automatic Transfer Switch as a factory option. There is not a Kit or Instruction Sheet for field installation.
19. This switch is mounted on the front of the cabinet door.
20. In the Auto position, the transfer switch is set for automatic operation.
21. Moving the the switch to the Close Emergency position bypasses the electronic control and causes the load to transfer immediately to Emergency power. The Emergency power source must be available before the transfer can occur.
22. Moving the the switch to the Close Normal position bypasses the electronic control and causes the load to transfer immediately to Normal power. The Normal power source must be available before the transfer can occur.



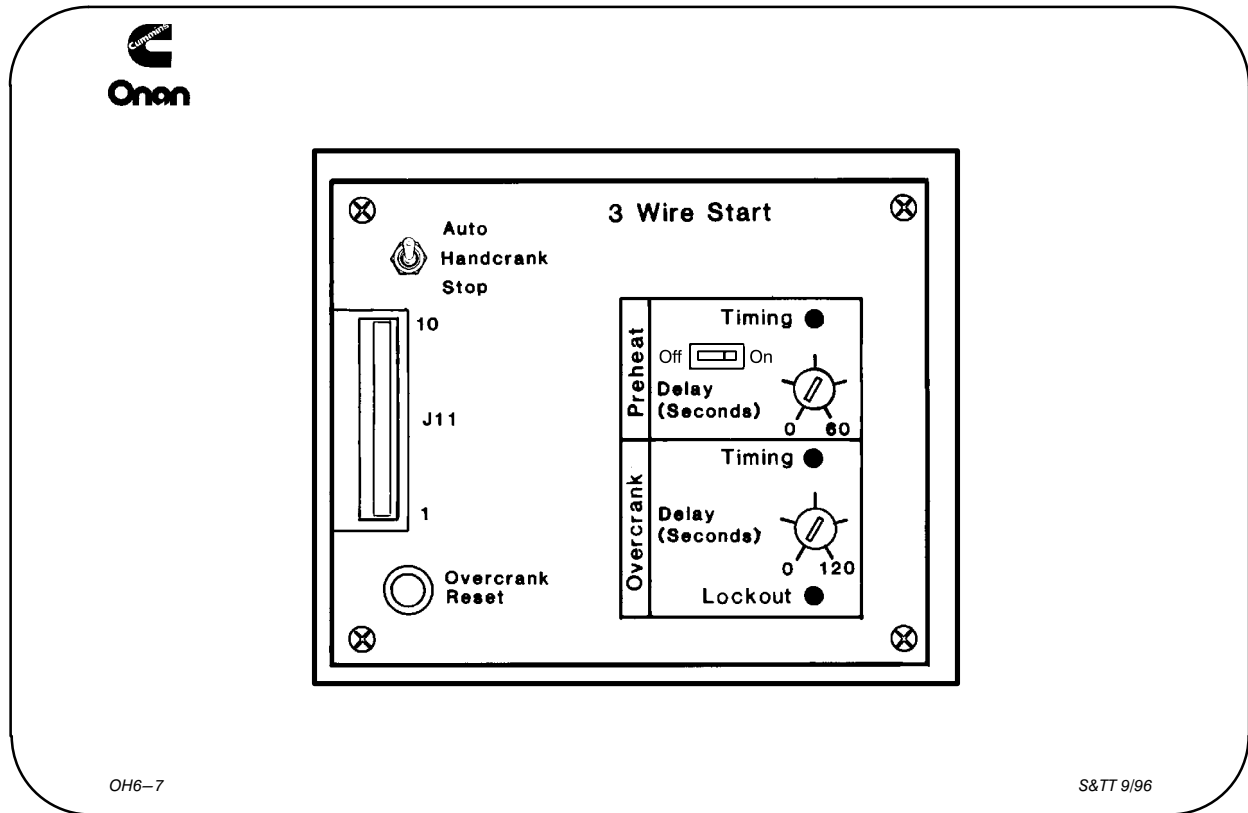
Battery Charger

23. The Battery Charge is available on any LTIII Automatic Transfer Switch as a factory or field option.
24. The Battery Charger is located inside the transfer switch enclosure.
25. The Battery Charger is available in either a 2 Amp kit (#300–3507 through 300–3514, Instruction Sheet C271b) or a 10 Amp kit (#300–3515 through 300–3542, Instruction Sheet C308b).



10-Ampere Battery Charger Alarm Contacts

26. The 10 Amp Battery Charge Alarm Contact Kit is available on with the 10-Battery Charger option only, as a factory or field option.
27. The Alarm contacts are accessed via the TB3 terminal block.
28. The 10 Amp Battery Charger Alarm Contacts Kit #300-3543 and the Instruction Sheet is C314b.



3-Wire Start

29. The 3-Wire Start module enables the transfer switch to start and stop a three-wire start generator set.
30. The preheat timer is adjustable from 0 to 60 seconds and the preheat switch must be in the ON position or the time delay will be bypassed.
31. The overcrank timer limits the time that the generator set starter is allowed to operate. The timer is adjustable from 0 to 120 seconds.
32. The Auto position allows the generator set to start and assume load if a power outage occurs.
33. The Stop position shuts down the generator set and prevents it from starting.
34. The Handcrank position prevents the automatic transfer switch from starting the generator set, but allows starting and stopping at the set.
35. Connections for the optional 3-Wire Start module are made at TB3.

Activity: Accessories Quiz

Match the functions and components/switches; use the Participant's Guide

- | | | | |
|-----------|---------------------------|----|--|
| _____ 1. | Membrane Touch Panel | A. | Prevents LTIII from starting the generator set, but allows starting and stopping at the generator set. |
| _____ 2. | 3-Wire Start Module | | |
| _____ 3. | Exerciser Clock | B. | Enables the LTIII to start and stop a three-wire start generator set. |
| _____ 4. | Local Test Switch | | |
| _____ 5. | Battery Charger | C. | Available with a 10 Amp Battery Charger. |
| _____ 6. | Handcrank Position | D. | Located inside the LTIII enclosure. |
| _____ 7. | Program Transition | E. | Transfers the load to the emergency source, if the emergency source is available. |
| _____ 8. | Instant Retransfer Switch | | |
| _____ 9. | Alarm Contacts | F. | Available on any LTIII as a factory option. |
| _____ 10. | Manual Override Switch | G. | Stores and executes up to four start/stop programs. |
| | | H. | Interrupts the retransfer time delay. |
| | | I. | Must be actuated for the entire duration of the test. |
| | | J. | Provides Local Test and Instant Retransfer functions. |