Monitoring
For *Business-Critical Continuity™*

Liebert® IntelliSlot® Relay Card

User Manual

EMERSON
Network Power

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1.0 INTRODUCTION

The Liebert® IntelliSlot® Relay Card (IS-RELAY) provides contact closure for remote monitoring of alarm conditions in your Liebert unit. The card is easy to install and integrates with other relay contact monitoring systems.

This advanced power-management device is designed to function in units with a Liebert IntelliSlot port. Some examples are:

- Liebert Nfinity™
- Liebert NX™
- Liebert UPStation GXT3™

Visit the Liebert Web site at **www.liebert.com** for the current list of supported products.

On supported units, the inverter shut-off command can be controlled from the computer directly connected to the UPS (via the factory-installed DB9 connector) and will conserve battery power after the workstation shutdown is completed.

The Liebert IntelliSlot Relay Card is rated for 24VAC/VDC at 1A.

Inspecting Shipment on Receipt

Upon accepting shipment, inspect the packaging and product for any damaged or missing parts. If any damage is observed, report it to the shipping company and your local Emerson Network Power® representative. If any components are missing, contact your local representative for replacement.

Items included with the shipment are:

- Liebert IntelliSlot Relay Card protected by an anti-static bag
- User manual

2.0 INSTALLATION

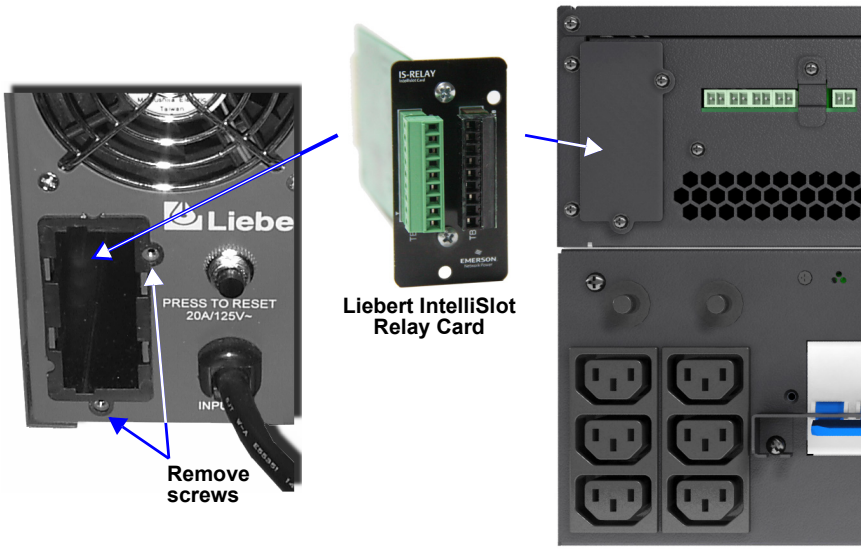
Make sure you have the following parts and tools before you begin.

Required Parts and Tools

- Liebert® IntelliSlot® Relay Card (provided)
- #2 (medium) Phillips or small flathead screwdriver

Instructions

1. Turning off the unit prior to installation is suggested, although not required.
2. Locate the Liebert IntelliSlot port, which is on the rear of some units, as shown in the examples below. Refer to the unit's user manual for port location and orientation.



3. Remove the two retaining screws from the Liebert IntelliSlot port cover plate on the unit. Save the screws for reassembly in **Step 5**.
4. As you insert the card, make sure the holes are aligned with those on the UPS. Initially, the card should slide in freely as you carefully align screw holes. As you feel it click into place, press firmly to ensure solid seating in the slot.
5. Use the screwdriver to secure the Liebert IntelliSlot Relay Card to the UPS chassis with the two retaining screws removed in **Step 3**. Make sure the screws are snug, not tight, to avoid damage to the device.

6. Use these guidelines for terminal block specifications:

Acceptable Wire Size	Wire Strip Length
24-16 AWG	0.24-0.28 in. (6-7mm)

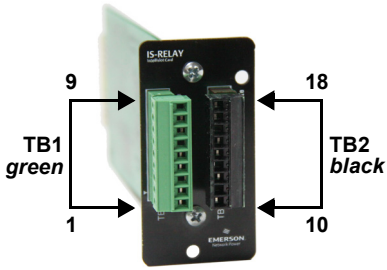
Proceed to the following sections:

- **3.0 - Pin Configuration** to configure the terminal blocks.
- **4.0 - Jumper Setup** to configure the jumpers.

3.0 PIN CONFIGURATION

The card has two terminals blocks, TB1 (green, numbered 1-9) and TB2 (black, 10-18), as shown in **Figure 1**.

Figure 1 Pin location and numbering



Refer to your Liebert® product user manual for the pin configuration for the terminal blocks. The pin functions in **Table 1** apply only to the Liebert units listed in **Section 1.0 - Introduction**.

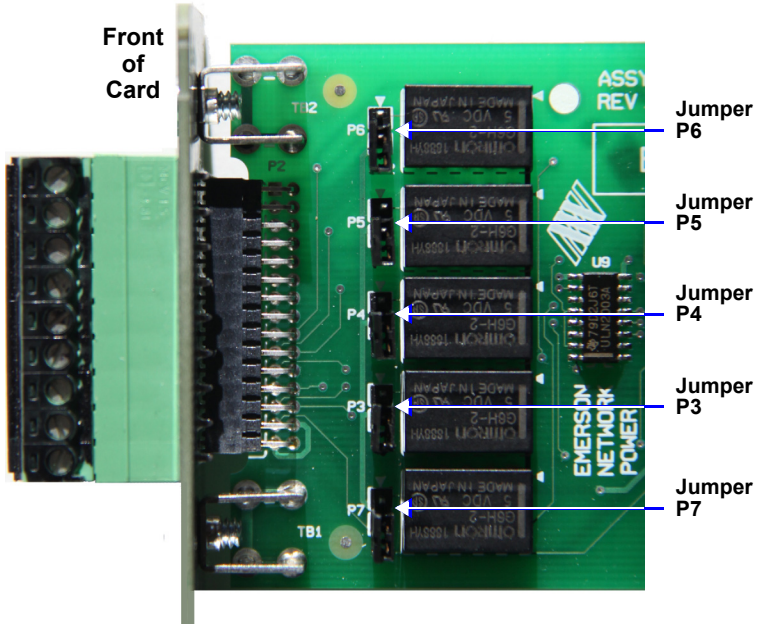
Table 1 Relay card pin configuration

Pin	Function	Operation
1	Common - Low Battery	
2	Low Battery	Closed if Low Battery point occurs.
3	Low Battery	Closed if battery is OK
4	Common - UPS Fault	
5	UPS Fault	Closed if UPS fault occurs
6	UPS Fault	Closed if no UPS failure
7	Common - On Battery	
8	On Battery	Closed if On Battery power (Utility failure)
9	On Battery	Closed if not On Battery power (Utility OK)
10	Signal Ground	Use for UPS Any-Mode Shutdown
11	Signal Ground	Use for UPS Any-Mode Shutdown
12	UPS Any-Mode Shutdown	Turn UPS output Off when shorted to Pin 10 or 11
13	Summary Alarm*	Closed if no alarm conditions are present
14	Summary Alarm*	Closed if Summary Alarm occurs
15	Common - Summary Alarm*	
16	On UPS	Closed if On UPS (inverter) power
17	On Bypass	Closed if On Bypass
18	Common - On Bypass	

4.0 JUMPER SETUP

The card has five jumpers, P3 through P7, as shown in **Figure 2**. Each jumper connects two pins.

Figure 2 Jumper location and numbering



By default all five jumpers have shunts installed. The two pins are shunted together to provide the functions shown in **Table 2**, allowing relay commons to be tied together.

NOTE: The jumpers should be removed if there is any external voltage source that may intentionally or inadvertently be connected to the relay.

Removing the shunt from any two pins breaks the connection between the relay commons so they are not tied together.

Table 2 Jumper connections

Jumper	Relay
P6	On Battery
P5	UPS Fault
P4	Low Battery
P3	On Bypass
P7	Summary Alarm

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