

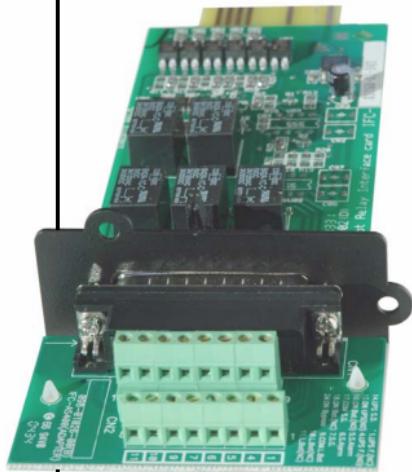


MONITORING

**INTELLISLOT™**

**USER MANUAL**

*Interface Card for  
Relay Contacts*



  
**EMERSON**  
Network Power



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## **1.0 INTRODUCTION**

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The Liebert Intellislot™ Interface for Relay Contacts card provides contact closures for remote monitoring of alarm conditions in your Liebert UPS. Delivering On Battery, On Bypass, Low Battery, Summary Alarm, UPS Fault and On UPS signals, the easy-to-install card integrates with other relay contact monitoring systems.

This advanced power-management device is specially designed to function only in the Liebert Intellislot port of the following supported UPS units:

- Nfinity™
- Liebert NX™
- PowerSure PSI™
- UPStation GXT™
- UPStation GXT2™

In addition, the RS-232 port on the UPS remains active with the card installed, allowing more sophisticated monitoring with Liebert MultiLink™ software.

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 Intellislot Interface for Relay Contacts card is rated for 24 VAC/DC at 1A.

### **Inspecting Shipment on Receipt**

Upon accepting shipment, please inspect the product for any damaged or missing parts. If damage is observed, call Liebert at 1-800-222-5877 and select the Warranty Support option from the menu. If components are missing, contact your sales representative for replacement.

Items included with the shipment are:

- Intellislot Interface for Relay Contacts card protected by an anti-static bag
- Hardwire Adapter board
- User manual

## 2.0 INSTALLATION

### Parts and Tools Required

- Intellislot Interface for Relay Contacts card and required cable assembly
- #2 (medium) Phillips or small flat-head screwdriver

### Instructions

1. Turning off the UPS prior to installation is suggested, although not required.

2. Locate the Intellislot port on the UPS.

The Intellislot port is on the rear of some units (GXT, Nfinity and PowerSure PSI); on the Liebert NX, the port is inside the front door. Refer to your UPS user manual for port location and orientation.

3. Remove the two retaining screws from the Intellislot port cover plate on the UPS.

**NOTE:** Save the screws for re-assembly (described in Step 5).

4. The card and slot are keyed to insert in one position only. 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.



#### CARD AND SLOT ORIENTATION



Incorrect



Correct

5. Using the screwdriver, secure the card to the UPS chassis with the two retaining screws. Make sure the screws are snug, not tight, to avoid damage to the device.

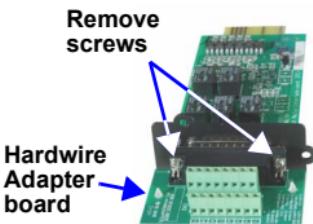
6. Select either interface **Option 1** or **2** below (also see **Step 7** and **3.0 - Pin Configuration**).

**Option 1: Hardwire (terminal block pins)** - Use these guidelines for terminal block specifications:

Acceptable Wire Size	Wire Strip Length	Recommended Tightening Torque	Screw
30-16 AWG	0.24-0.28 in. (6-7mm)	1.73 lb-in (2 kgf-cm)	M2

**Option 2: DB25 pins**

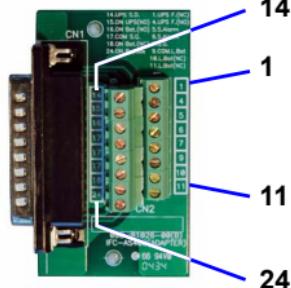
- Disconnect the Hardwire Adapter board by removing the two mounting screws, as shown at right.
- Pull the Hardwire Adapter board away from the Relay Card.



7. Configure the terminal block or DB25 pins, depending on which interface option you chose in **Step 6** (see figure below and **Table 1** in **3.0 - Pin Configuration**).

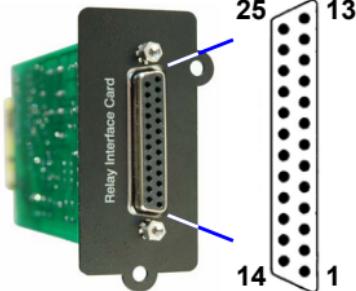
**TERMINAL BLOCK PINS  
(Option 1)**

Hardwire Adapter board      Pin numbering



**DB25 PINS  
(Option 2)**

Intellislot card      Pin numbering



*See Table 1 for configuration of terminal block & DB25 pins.*

## 3.0 PIN CONFIGURATION

**Table 1 Relay contact card pin configuration**

Terminal Block Pin	DB25 Pin	Function	Operation
1	1	UPS Fault	Closed if no UPS failure*
—	2	Not Used	
—	3	Not Used	
4	4	UPS Fault	Closed if UPS fails*
5	5	Summary Alarm**	Closed if SUMMARY ALARM** occurs*
6	6	Summary Alarm**	Closed if no alarm conditions are present*
7	7	Signal Ground (for UPS Any Mode Shutdown)	
—	8	Not Used	
9	9	Common - Low Battery	
10	10	Low Battery	Closed if battery is OK
11	11	Low Battery	Closed if LOW BATTERY point occurs.
—	12	Not Used	
—	13	Not Used	
14	14	UPS Any Mode Shutdown (short to pin 7)	Turn UPS output OFF when connected to pin 7*
15	15	On UPS	Closed if ON UPS (inverter) power*
16	16	On Battery	Closed if ON BATTERY power (Utility failure)
17	17	Common - UPS Fault, Summary Alarm, On UPS, On Battery, On Bypass	
18	18	On Battery	Closed if not ON Battery power (Utility OK)
—	19	Not Used	
—	20	Not Used	
—	21	Not Used	
—	22	Not Used	
—	23	Not Used	
24	24	On Bypass	Closed if ON BYPASS*
—	25	Not Used	

\* Feature not available on PSI products

\*\* A Summary Alarm occurs when any of the following conditions exists:

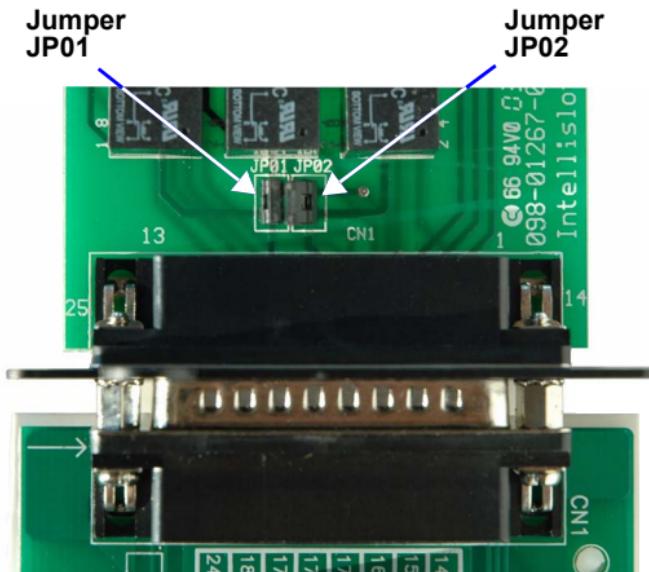
- Utility power is out of the acceptable range (voltage and/or frequency).
- UPS is in BYPASS MODE (load not on Inverter power).
- UPS battery is LOW (<2 minutes of battery power remaining).
- UPS fault has occurred.

## 4.0 JUMPER SETUP

Refer to Table 2 and the figure below for jumper setup.

**Table 2 Jumper connections**

#	Connection	Description
JP01	Pin 9 to Pin 17	Allows all relay COMMONS to be tied together.
JP02	Pin 7 to Pin 17	Allows all relay COMMONS and the ANY MODE SHUTDOWN GROUND to be tied together. <b>NOTE:</b> This jumper should be removed if there is any external voltage source that may intentionally or inadvertently be connected to the DB25 pins.



## **5.0 CONTACTING TECHNICAL SUPPORT**

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Liebert has a team of specially trained technicians waiting to quickly assist you with any installation or troubleshooting problems.

Refer to the back of this manual for the Technical Support phone number.

To successfully diagnose your individual problem, our technicians may require the following installation site and system information. Please have it available when you call.

### **INSTALLATION SITE**

**Company Name:**

**Street Address:**

**City:**

**State / Principality:**

**ZIP / Postal Code:**

**Country:**

### **INSTALLATION SITE CONTACT**

**Name of Contact:**

**Phone Number:**

**Fax Number:**

**E-Mail Address:**

**Fax Number:**



## MONITORING

### INTELLISLOT™

### USER MANUAL

#### The Company Behind the Products

With over a million installations around the globe, Liebert is the world leader in computer protection systems. Since its founding in 1965, Liebert has developed a complete range of support and protection systems for sensitive electronics:

- Environmental systems—close-control air conditioning from 1 to 60 tons
- Power conditioning and UPS with power ranges from 300 VA to more than 1000 kVA
- Integrated systems that provide both environmental and power protection in a single, flexible package
- Monitoring and control—from systems of any size or location, on-site or remote
- Service and support through more than 100 service centers around the world and a 24/7 Customer Response Center

While every precaution has been taken to ensure the accuracy and completeness of this literature, Liebert Corporation assumes no responsibility and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

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#### Technical Support/Service

##### Web Site

[www.liebert.com](http://www.liebert.com)

##### Monitoring

800-222-5877

[monitoring@liebert.com](mailto:monitoring@liebert.com)

Outside the US: 614-841-6755

##### Single-Phase UPS

800-222-5877

[upstech@liebert.com](mailto:upstech@liebert.com)

Outside the US: 614-841-6755

##### Three-Phase UPS

800-543-2378

[powertech@liebert.com](mailto:powertech@liebert.com)

##### Environmental Systems

800-543-2778

##### Outside the United States

614-888-0246

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