

Quick Reference Guide



For detailed information, please refer to the LNL-500 tab in the READYKEYPRO Hardware Installation Guide (49289).

1.0 The ISC Board

The ISC board contains the following components (Refer to Figure 1):

- A. two (2) unsupervised alarm inputs
- B. one (1) RS-232 or RS-485 interface
- C. two (2) downstream RS-485 interfaces (which can consist of one 4-wire and two 2-wire interfaces)
- D. a set of three (3) status LEDs
- E. one (1) bank of eight (8) dip switches
- F. eleven (11) jumpers
- G. one (1) power-in input
- H. and one (1) memory backup (3 volt lithium) battery
- I. one (1) TCP/IP Connector

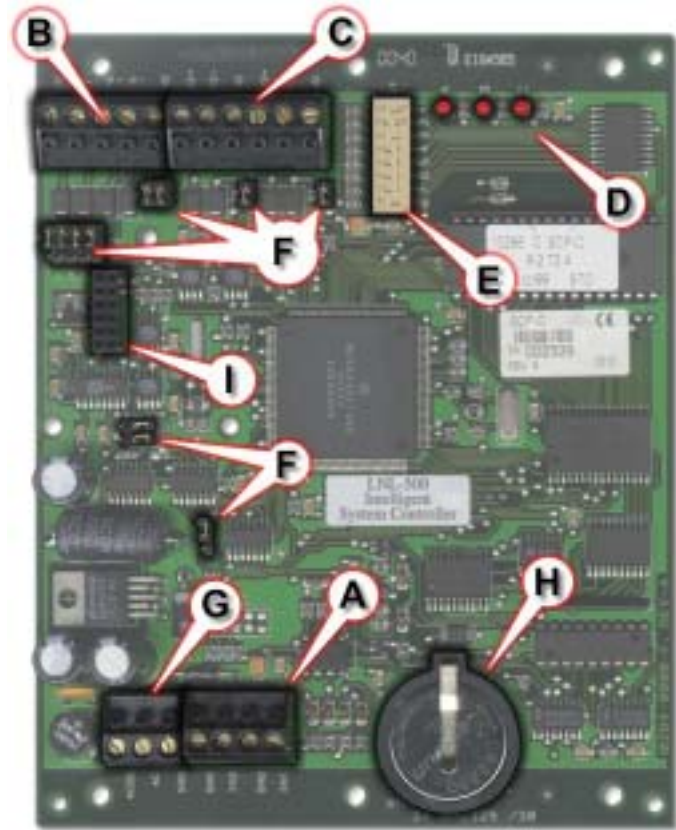


Figure 1: LNL-500

1.1 Unsupervised Alarm Input Wiring

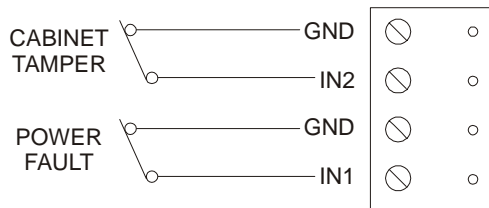


Figure 2: Unsupervised Alarm Input Wiring



If either of these inputs is not used, a jumper wire should be installed.

If RS-485 communication is used, an RS-232 to RS-485 converter is required at the host workstation.

1.2 Wiring Configuration

Port 1

This configuration will work for Direct Connect (RS-232) and Lantronix Ethernet network communications. With direct connect, or Dial-up DIP switch 5 needs to be OFF, and with Lantronix, DIP switch 5 needs to be ON.

ISC	9-pin	25-pin
TXD/TR1+	pin 2	pin 3
RXD/TR1-	pin 3	pin 2
RTS/R1+	not used	not used
CTR/R1-	pin 7	pin 4
GND	pin 5	pin 7
Jumper together	4, 6 & 8	5, 6 & 20

Table 1: LNL-500 Pinout Connections

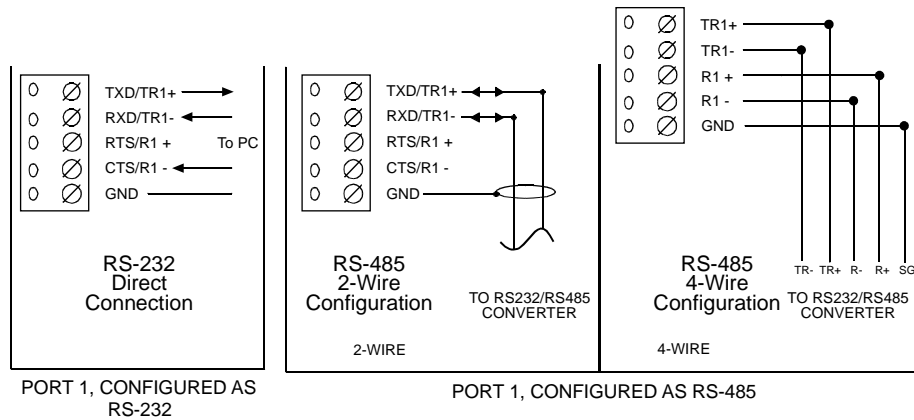


Figure 3: Upstream Host Communication Wiring (Port 1)



If Using A 12 VDC Power Source, Be Sure To Observe Polarity.

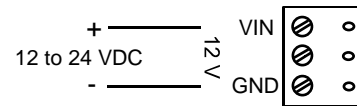


Figure 4: Power Source Wiring

Port 2 and Port 3

To configure all four downstream ISC ports as 2-wire RS-485, follow the 2-wire diagram and repeat on each set of three terminators, TR2+, TR2-, GND and TR3+, TR3-, GND

To configure as a 4-wire RS-485 ports, follow the 4-wire diagram (Table 2).

Port 2/3	TR2+, TR2-	TR3+, TR3-	GND

Table 2: Ports 2-3, RS-485



Must terminate the RS-485 at each end-of-line device.

2.0 DIP Switches

The ISC board contains **8 DIP switches** that *must be configured* appropriately for your system.

Figure 5 shows the default address of 0, CTS enabled, and baud rate set to 38,400 bps.

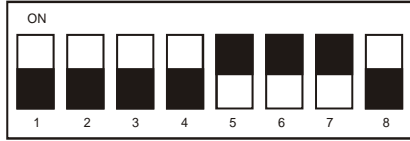


Figure 5: DIP Switch Settings

DIP Switch(es)	USED TO CONFIGURE:
1, 2, 3, 4	Processor address (0 – 7)
5	Communication handshake status (“CTS enabled” or “none”)
6, 7	Communication baud rate (38400, 19200, 9600 bps)
8	Not Used

Table 3: DIP Switch Settings

2.1 Processor Address

Address	DIP Switch			
	1	2	3	4
Default → 0	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF
2	OFF	ON	OFF	OFF
3	ON	ON	OFF	OFF
4	OFF	OFF	ON	OFF
5	ON	OFF	ON	OFF
6	OFF	ON	ON	OFF
7	ON	ON	ON	OFF

Table 4: Processor Address

2.2 Communication Handshake Status

HANDSHAKE STATUS:	DIP SWITCH 5
Transmit enabled by CTS	ON ← Default
None	off

Table 5: Handshake Status

2.3 Communication Baud Rate

(upstream and downstream)

BAUD RATE:	DIP SWITCH	
	6	7
38,400 bps	ON	ON ← Default
19,200 bps	off	ON
9600 bps	ON	off
	off	off

Table 6: Communication Baud Rate

Note: The **READYKEY^{PRO}** Intelligent System Controller does not currently support this feature. Therefore, set DIP switch 8 to the “off” (“Not used”) position, according to the following table.

PASSWORD STATUS:	DIP SWITCH 8
NOT USED	off ← Default

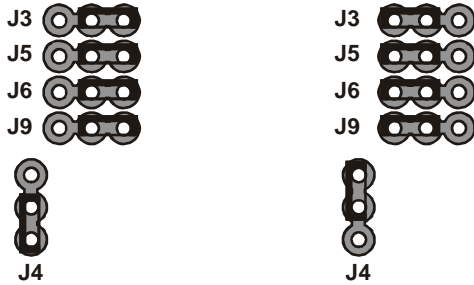
Table 7: Password Status

3.0 Installing Jumpers

The ISC board contains **11 jumpers** that *must be configured* appropriately for your system. Table 8 describes the use of each jumper on the ISC board.

Jumper(s)	Used to configure:
J3,J4,J5,J6,J9	Port 1 communication interface type (RS-485, RS-232)
J7	Port 1 RS-485 type (2-wire, 4-wire)
J8, J10	Port 1 EOL termination status (On, Not On)
J11	Port 2 EOL termination status (On, Not On)
J12	Port 3 EOL termination status (On, Not On)
J13	Port 1 Serial (RS-232), Ethernet

Table 8: Jumper Configuration



RS-232 Configuration for Jumpers J3, J4, J5, J6, J7, J9

RS-485 Configuration for Jumpers J3, J4, J5, J6, J7, J9

Figure 7: Communication Interface Type



EOL Terminator "On" Configuration for Jumper J11

EOL Terminator "Not On" Configuration for Jumper J11

Figure 9: Port 2 – RS-485 EOL Terminator Status



Serial or Dial-up Configuration for Jumper J13

Ethernet Configuration for Jumper J13

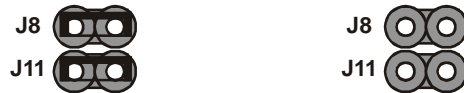
Figure 11: Port 1 – RS232, Serial, Ethernet Type



2-Wire Configuration for Jumper J7

4-Wire Configuration for Jumper J7

Figure 6: Port 1 – RS-485 Type



EOL Terminator "On" Configuration for Jumpers J8, J10

EOL Terminator "Not On" Configuration for Jumpers J8, J10

Figure 8: Port 1 – RS-485 EOL Terminator Status



EOL Terminator "On" Configuration for Jumper J12

EOL Terminator "Not On" Configuration for Jumper J12

Figure 10: Port 3 – RS-485 EOL Terminator Status

