



Model 75A00-1 Access Control Reader

DESCRIPTION

The 75A00-1 Access Control Reader is a 125 KHz high security, digitally encrypted, 26-bit proximity card reader that connects to a serial port on an HAI Home Control System for access control. Multiple 75A00-1 readers may be multi-dropped on a single serial interface configured for RS-485 communications.

The 75A00-1 incorporates three inputs: 1 input for an exit push button, and 2 general purpose inputs. The 75A00-1 also incorporates one output for the electric door strike or magnetic lock.

PLANNING

The 75A00-1 requires 4 wires for operation (2 for power and 2 for communications). The maximum distance between the 75A00-1 and the connected 12V Power Supply or HAI 83A00 Power Hub is based on two factors: 1) the current draw of the connected door lock device, and 2) the wire gauge/type used. To maintain proper operation of the 75A00-1 and the connected door lock device, do not exceed the "Maximum Cable Length" based on the Total Current Draw and the Wire Gauge/Type per the table below (Table 1).

75A00-1 Only (no Door Lock connected): 150mA maximum					75A00-1 and 79A00-1 Electric Door Strike (450mA): 600mA maximum				
Wire Gauge	Wire Type	Number of positive conductors	Number of ground conductors	Maximum Cable Length (feet)	Wire Gauge	Wire Type	Number of positive conductors	Number of ground conductors	Maximum Cable Length (feet)
24	solid	1	1	233	24	solid	1	1	58
24	solid	2	2	466	24	solid	2	2	117
24	solid	3	3	699	24	solid	3	3	175
22	solid	1	1	413	22	solid	1	1	103
22	solid	2	2	826	22	solid	2	2	207
22	stranded	1	1	381	22	stranded	1	1	95
18	solid	1	1	1000	18	solid	1	1	261
18	stranded	1	1	963	18	stranded	1	1	241
16	solid	1	1	1000	16	solid	1	1	415
16	stranded	1	1	1000	16	stranded	1	1	383

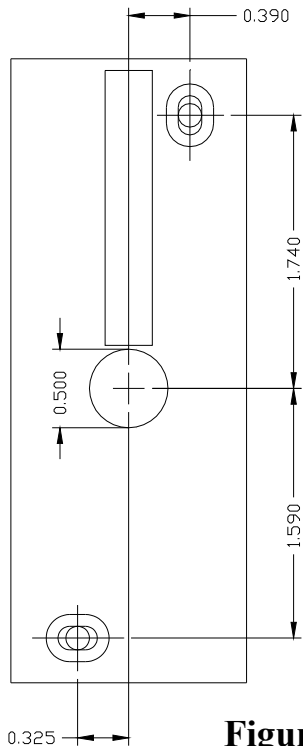
75A00-1 and Door Lock (800mA): 950mA maximum					75A00-1 and Door Lock (1A): 1.15A maximum				
Wire Gauge	Wire Type	Number of positive conductors	Number of ground conductors	Maximum Cable Length (feet)	Wire Gauge	Wire Type	Number of positive conductors	Number of ground conductors	Maximum Cable Length (feet)
24	solid	1	1	37	24	solid	1	1	30
24	solid	2	2	74	24	solid	2	2	61
24	solid	3	3	110	24	solid	3	3	91
22	solid	1	1	65	22	solid	1	1	54
22	solid	2	2	130	22	solid	2	2	108
22	stranded	1	1	60	22	stranded	1	1	50
18	solid	1	1	165	18	solid	1	1	136
18	stranded	1	1	152	18	stranded	1	1	126
16	solid	1	1	262	16	solid	1	1	217
16	stranded	1	1	242	16	stranded	1	1	200

Table 1

Note: If cable with multiple conductors is used (such as Cat-5 cable), it is possible to connect multiple conductors together to achieve greater distance.

INSTALLATION

The 75A00-1 requires the use of one serial port on the HAI controller. Run the cable (as determined by Table 1) from the HAI controller or HAI 83A00 Power Hub to the location of the Model 75A00-1 Access Control Reader and install as follows:



- 1) Remove the cover from the 75A00-1 by gently prying the top and bottom of the cover with a small blade screwdriver.
- 2) Drill a 1/2" hole in the center of the mounting location for the 75A00-1. The 75A00-1 may be mounted on a mullion or wall.
- 3) Insert the connections cable from the 75A00-1 into the hole. Mark the mounting holes locations on the top-right and bottom left.
- 4) Make the connections to the 75A00-1 as shown in Figure 2 or Figure 3.
- 5) Secure the 75A00-1 to the mounting surface using the supplied mounting hardware.
- 6) Install the cover by gently pushing it onto the reader until it snaps in place.
- 7) Configure the serial interface on the HAI controller for RS-485 communications by moving the corresponding interface jumper (JP1-JP5) to the "485" position.

Figure 1 - Mounting the Model 75A00-1

SPECIFICATIONS

Read Range: 78A00-1 Cards = 4 inch; 78A00-2 Key Tags = 2 inch
Door Open Time: 5 Seconds (default), 1-60 Seconds (selectable)
Current Consumption: 150mA maximum
Communications: RS-485
Inputs: 3 inputs (Exit Button, Input 1, Input 2)
Lock Output: 12VDC, 1A maximum
Lock Type: Fail Safe or Fail Secure (selectable)

LED Indicators: Array of 9 LED indicators (Red and Green)
Beeper: Piezoelectric
Operating Temperature: -31°F to 140°F
Operating Humidity: 10% to 90% relative humidity, non-condensing
Dimensions: 1.8"W x 4.9"H x 0.8"D
Weight: 80g (0.18 lb.)

Federal Communications Commission (FCC) Statement:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with **Part 15 of the FCC Rules**.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation

This equipment has been tested and found to comply with the limits for a **Class A Digital Device**, pursuant to **Part 15 of the FCC Rules**. These limits are designed to this equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the radio or television off and on, the user is encouraged to try to correct interference by one or more of the following measures. (1) Reorient or relocate the receiving antenna, (2) Increase the separation between the equipment and receiver, (3) Connect the equipment into an outlet on another circuit, (4) Consult the dealer or an experienced radio/TV technician for help.

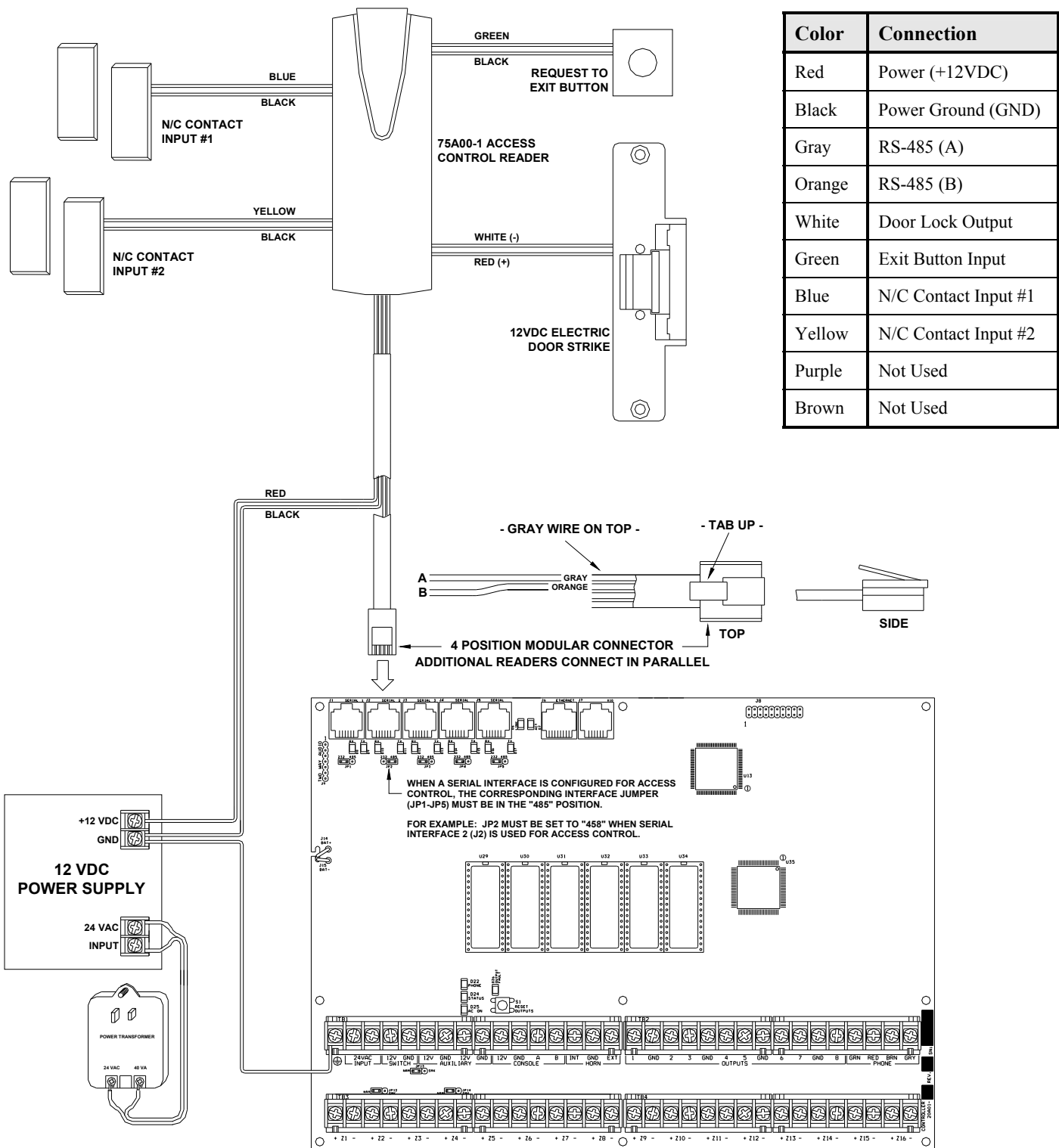
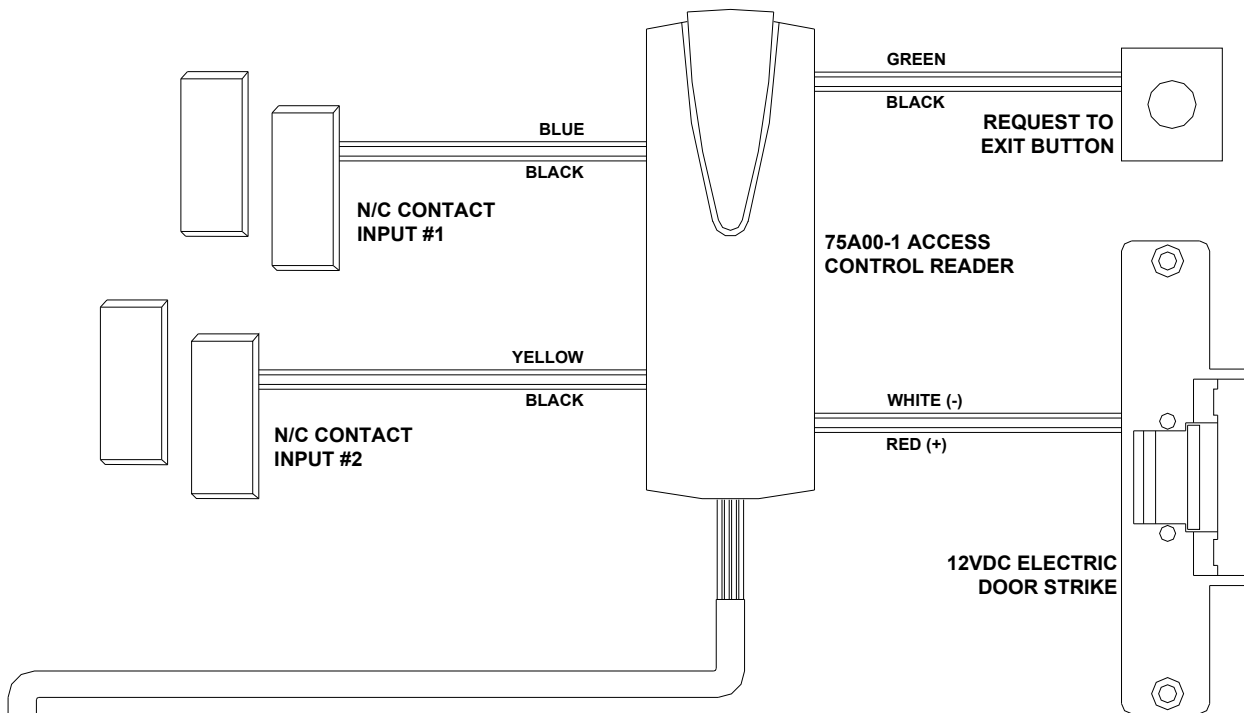


Figure 2 - Connections to the 75A00-1



Color	Connection
Red	Power (+12VDC)
Black	Power Ground (GND)
Gray	RS-485 (A)
Orange	RS-485 (B)
White	Door Lock Output
Green	Exit Button Input
Blue	N/C Contact Input #1
Yellow	N/C Contact Input #2
Purple	Not Used
Brown	Not Used

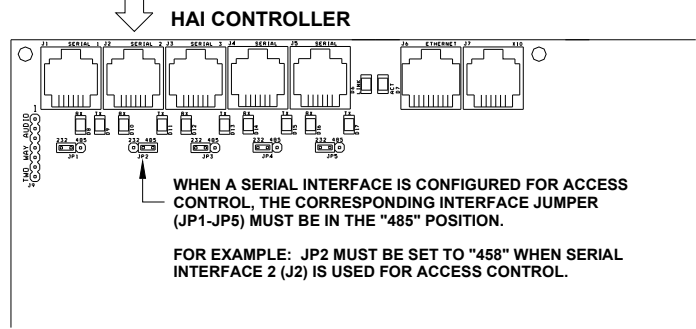
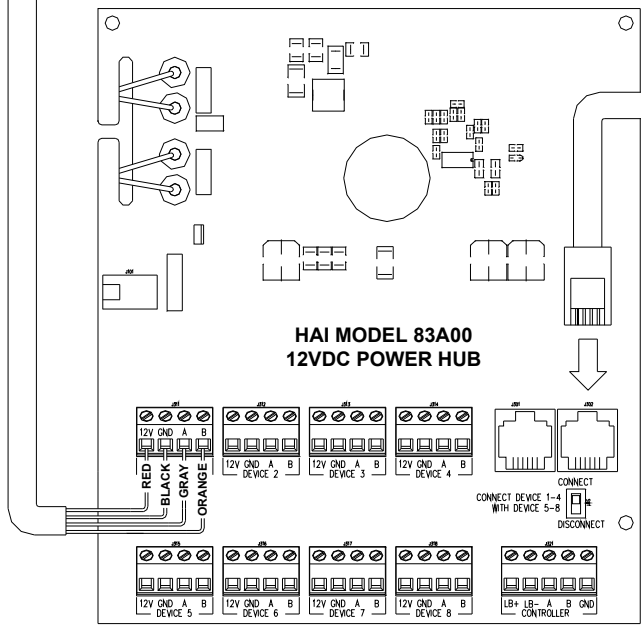


Figure 3 – Connections to the 83A00 Power Hub