

# ETS Inc. PR1 Dual reader interface Instructions

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The PR1 is a universal Parallel access control reader interface. It permits the use of 2 magnetic stripe or Wiegand card readers to be connected to a single reader port on an access control panel. Note- the PR1 does not store any card read data. Only one reader can be sending card reader data at a given time.

## Power input / output

The PR1 accepts 12vdc in and consumes 10ma of power. It has +12v or +5v outputs that can be used to power up the readers. The PR1 can supply up to 250ma 5v power to the readers.

## Data Jumpers

### D1-D3

These jumpers are set depending on the idle state of the card reader data lines. For example, a typical Wiegand reader's D0 and D1 output (connected to D1 and D2 of the PR1) are normally high (5vdc) when there is no card present. Therefore, you would set the jumpers on the D1 and D3 channels of the PR1 to the "normally high" position. See figure1.

In the case of a magnetic stripe reader, there are 3 data lines. Clock and data are typically "normally high" when a card is not being read. If connected to D1 and D2 of the PR1, these channel jumpers would be set to the "normally high" position. The card present signal is typically logic low (0vdc). If connected to the D3 channel, the jumpers for that channel should be set to the "normally low" position. See figure 2.

## LED Jumpers

### L1-L3

Most card reader lamp circuits are designed to turn the lamps on when there is a logic low applied to the inputs. Therefore, "buffer" and "sink" positions should be chosen for all used LED circuits. If your reader's lamps don't operate this way, the logic states can be changed on the PR1 to accommodate any scenario. Simply experiment with the jumper settings to achieve the desired LED operation of the card reader. "source" means the PR1 applies 5v to the output. "invert" means if there is a logic low on the input, the output will be logic high.

## Logic jumpers

If your reader's data lines are 12vdc, select 12vdc position for "logic v" jumper. In most instances, the jumper is set in the 5v position.

If your reader LEDs operate on 12vdc (as opposed to 5vdc), select the 12v position for the "lamp v" jumper. In most instances, the jumper is set in the 5v position.

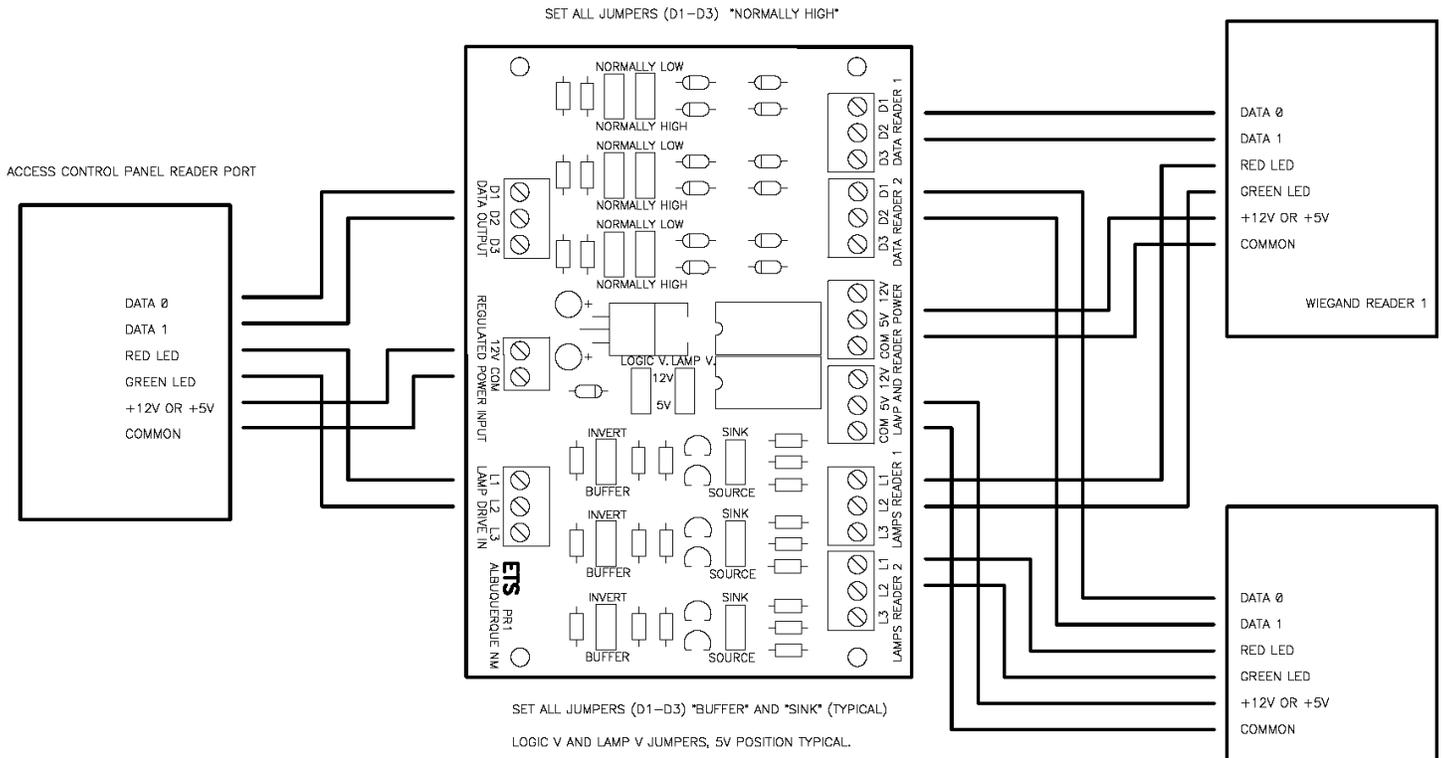
## Cabling

For Wiegand readers, run 2 each #22 6 conductor shielded cables from the PR1 to each reader. The shield can be used as a common. For Mag stripe readers, run 2 each #22 8 conductor shielded cables from the PR1 to each reader. Again, use the shield as the common connection. If the PR1 is within a few feet of the access control reader, single conductors can make the connections. If the PR1 and access control panel are more than a few feet apart, run the a section of the described shielded cables between the PR1 and the panel.

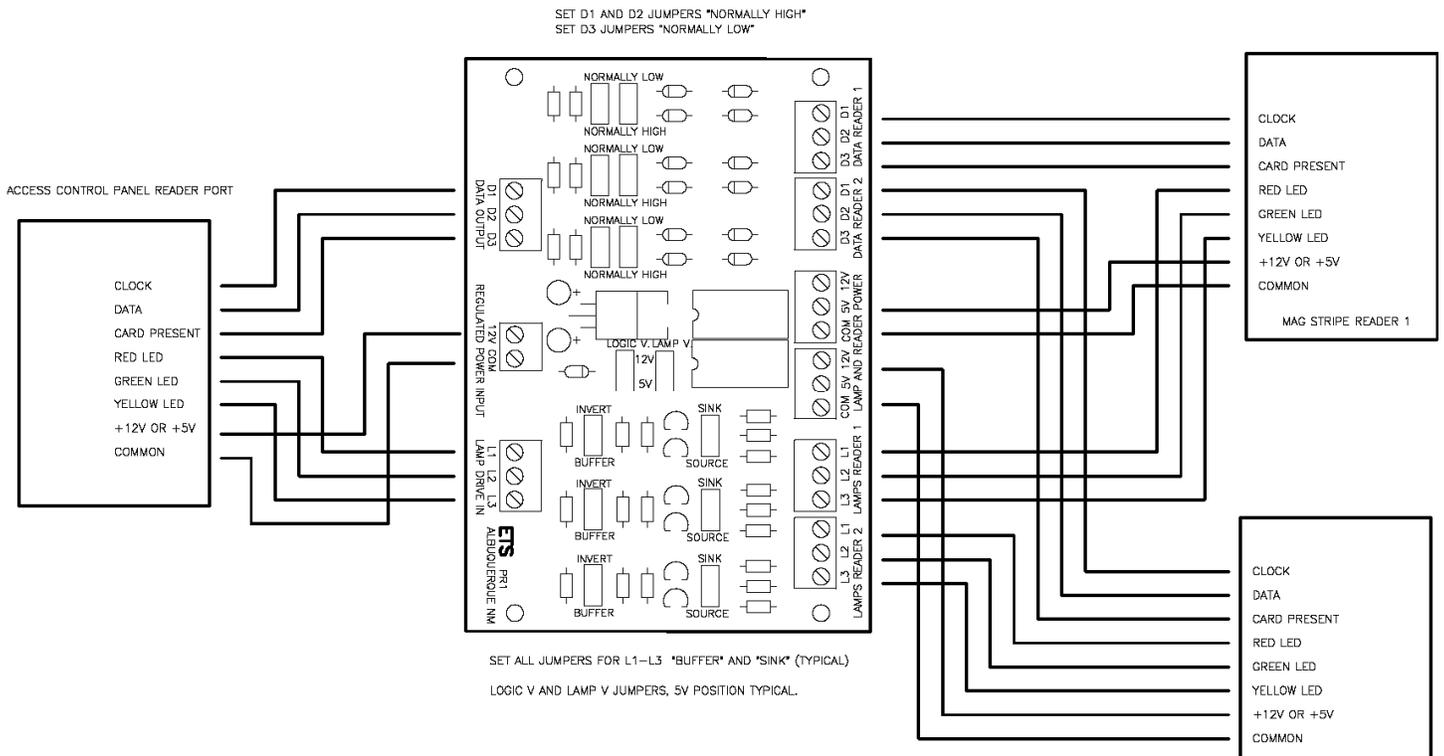
## Warranty

All ETS products carry a one year parts and labor warranty. This warranty does not cover damages as a result of misuse, improper handling of the unit or exposure to extreme temperatures or moisture. At its discretion, ETS reserves the right to repair or replace this unit under the conditions of the warranty. If you experience problems with your equipment call ETS at: 505-888-3923 to obtain a return authorization number. Equipment requiring repair beyond the warranty period or units that have been damaged or are not covered under the warranty can be repaired by ETS for a minimal cost under most conditions.

Made in the USA  
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**FIGURE 1 TYPICAL WIEGAND READER CONNECTION DIAGRAM**



**FIGURE 1 TYPICAL MAG STRIPE READER CONNECTION DIAGRAM**