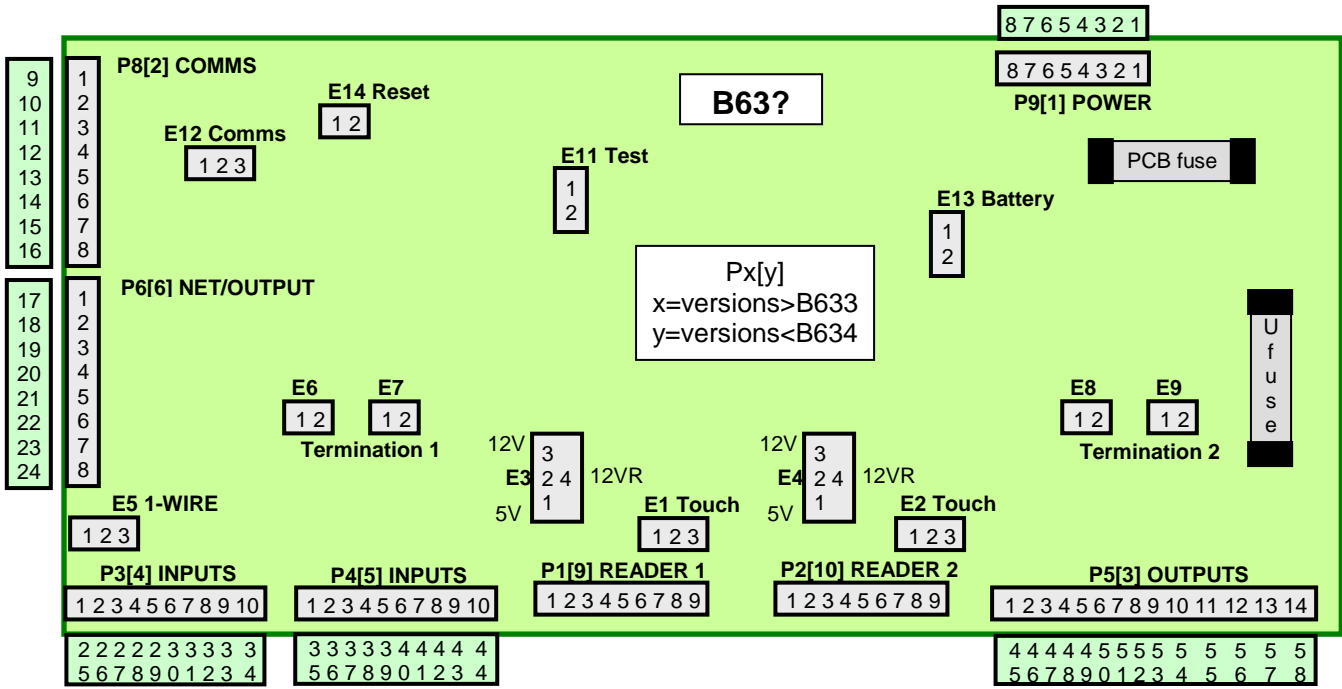


## CR355 CONNECTIONS Revision 02.37



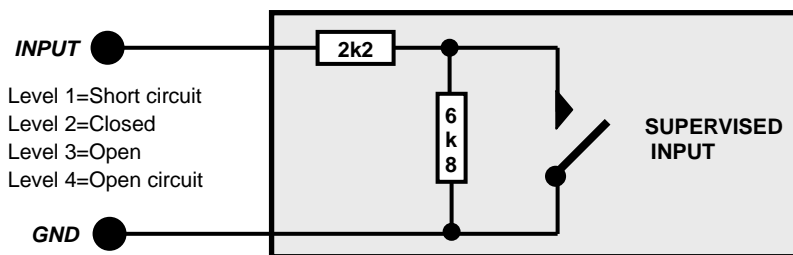
E3 and E4 2-4 provide 12V via 90 ohm resistor, preventing short-circuit on reader supply pulling down power on controller, resetting the controller.

For touch readers, E1 and E2 linked 1-2, for all other reader link 2-3. E1 and E3 links for reader 1, E2 and E4 for reader 2. For touch, remove OPT1 and OPT2, R13 and R19=4k7.

Termination links E6, E7 and E8, E9 provide 10k ohm pull-up and down resistors required in RS485 comms for reader 1 and reader 2 respectively.

Link E13 must be linked for the controller to function and is only removed when stored or when the RAM is to be cleared.

1-wire options available in future versions.



| T | P9[1] | POWER              |
|---|-------|--------------------|
| 1 | 1     | 5V from regulator. |
| 2 | 2     | Ground.            |
| 3 | 3     | 12V to regulator.  |
| 4 | 4     | AC 12V.            |
| 5 | 5     | AC 12V.            |
| 6 | 6     | AC 9.7.            |
| 7 | 7     | AC 9.7.            |
| 8 | 8     | Ground.            |

| T  | P8[2] | COMMS         |
|----|-------|---------------|
| 9  | 1     | RTS (RS232).  |
| 10 | 2     | Ground.       |
| 11 | 3     | Data (RS485). |
| 12 | 4     | /Data.        |
| 13 | 5     | RX (RS232).   |
| 14 | 6     | TX (RS232).   |
| 15 | 7     | RTS (RS485).  |
| 16 | 8     | /RTS (RS485). |

| T  | P5[3] | PORT | OUTPUTS                 |
|----|-------|------|-------------------------|
| 45 | 1     | 4    | Relay 4 NC (Capture 2). |
| 46 | 2     |      | Relay 4.                |
| 47 | 3     | 3    | Relay 3 NC (Buzzer 1).  |
| 48 | 4     |      | Relay 3.                |
| 49 | 5     | 2*   | Relay 2 NO (Latch 2).   |
| 50 | 6     |      | Relay 2.                |
| 51 | 7     | 1*   | Relay 1 NO (Latch 1).   |
| 52 | 8     |      | Relay 1.                |
| 53 | 9     |      | 12VAC.                  |
| 54 | 10    |      | 12VAC.                  |
| 55 | 11    |      | 12V.                    |
| 56 | 12    |      | Ground.                 |
| 57 | 13    |      | Ground.                 |
| 58 | 14    |      | 12V.                    |

| T  | P6[6]     | PORT | NETWORK                |
|----|-----------|------|------------------------|
| 17 | 1         |      | SCL.                   |
| 18 | 2         |      | SDA.                   |
| 19 | 3         |      | Ground.                |
| 20 | 4         |      | 1 Wire.                |
| 21 | 5         |      | Ground.                |
| 22 | 6         | 6    | Aux output 2.          |
| 23 | 7         | 5    | Aux output 1.          |
| 24 | 8         |      | 12V.                   |
|    | <b>E5</b> |      | <b>1-WIRE (future)</b> |
|    | 1         |      | 12V.                   |
|    | 2         |      | 1 Wire.                |
|    | 3         |      | Ground                 |

Note: Levels set-up of output 1=closed, 2=open, 3=open permanently (unlocked), 4=closed permanently (locked).

| T  | P3[4] | PORT | INPUTS (supervised)          |
|----|-------|------|------------------------------|
| 25 | 1     |      | Ground.                      |
| 26 | 2     | 1    | Input 1 (Egress 1).          |
| 27 | 3     | 2*   | Input 2 (Action complete 1). |
| 28 | 4     | 3    | Input 3 (Egress 2).          |
| 29 | 5     | 4*   | Input 4 (Action complete 2). |
| 30 | 6     |      | Ground.                      |
| 31 | 7     |      | Input 5 (Booth occupied).    |
| 32 | 8     |      | Input 6 (Capture monitor).   |
| 33 | 9     |      | Input 7 (Reader 1 enable).   |
| 34 | 10    |      | Input 8 (Reader 2 enable).   |

| T  | P4[5] | PORT | INPUTS (supervised)          |
|----|-------|------|------------------------------|
| 35 | 1     |      | Ground.                      |
| 36 | 2     |      | Input 9 (APB reader 1).      |
| 37 | 3     |      | Input 10 (APB reader 2).     |
| 38 | 4     |      | Input 11 (APB reset).        |
| 39 | 5     |      | Input 12 (CR355 mode input). |
| 40 | 6     |      | Ground.                      |
| 41 | 7     | 5    | Input 13 (Aux input 1).      |
| 42 | 8     | 6    | Input 14 (Aux input 2).      |
| 43 | 9     | 7    | Input 15 (Aux input 3).      |
| 44 | 10    | 8    | Input 16 (Aux input 4).      |

\*Note: Levels set-up of input 1=closed, 2=open, 3=illegally open, 4=open too long, 5=door not opened.

| P1[9] | READER 1 (programmer*)                           |
|-------|--|
| 1     | Power 5V (link E3 1-2), 12VR (2-4) or 12V (2-3). |
| 2     | Data/LO/Touch.                                   |
| 3     | Clock/HI.  |
| 4     | Ground.  |
| 5     | Green LED.                                       |
| 6     | Yellow LED.                                      |
| 7     | Red LED.   |
| 8     | Data – TX.                                       |
| 9     | /Data – RX.                                      |

| P2[10] | READER 2  |
|--------|---|
| 1      | Power 5V (link E4 1-2), 12VR (2-4) or 12V (E2 2-3). |
| 2      | Data/LO/Touch.                                      |
| 3      | Clock/HI.   |
| 4      | Ground.   |
| 5      | Green LED.  |
| 6      | Yellow LED.   |
| 7      | Red LED.  |
| 8      | Data – TX.  |
| 9      | /Data – RX.   |

\*Note: Programmer uses pins 1 (12V), 8 and 9. Requires link E11.

Node address set with programmer.

Front processors require the setting (with hand programmer) ABCD where:

A=node 2 on P2[10]      B=node 1 on P2[10] (currently not possible)  
C=node 2 on P1[9]      D=node 1 on P1[9]      0=none, 1=installed

|                             |  |
|-----------------------------|--|
| <b>NODE / MUX</b>           |  |
| <b>PC</b>                   |  |
| <b>Front Processors</b>     |  |
| <b>Controller Name</b>      |  |
| <b>*Previous Controller</b> |  |
| <b>Next Controller</b>      |  |

\*Note: Only earth LAN segment to previous controller (towards MUX)