



APPLICATION NOTE

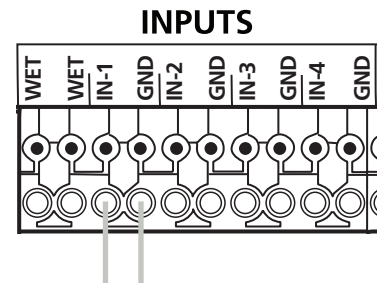
RETROFIT: MC25 to BR3-X

The purpose of this Application Note is to define the procedure for how to retrofit an application from an MC25 to a BR3-X logic module.

RE-WIRE

1. REWIRE ACTIVATION

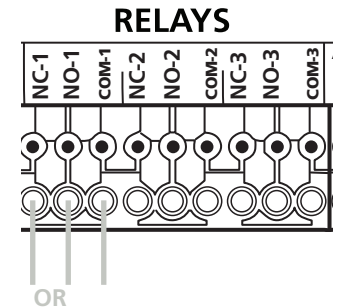
- Locate the MC25's gray wires connecting to the activation source (e.g. push plates, motion sensor, wireless receiver).
- Disconnect the device's wires from the MC25, noting which are N.O. and COM.
- Wire to the BR3-X at IN-1 and GND terminal points.



2. REWIRE LOCK

- Locate the MC25's purple, red, and black wires connecting to the lock.
- Disconnect the device's wires from the MC25, noting which are N.C. (or N.O.) and COM.
- Wire to the BR3-X at NC-1 (or NO-1) and COM-1 terminal points.

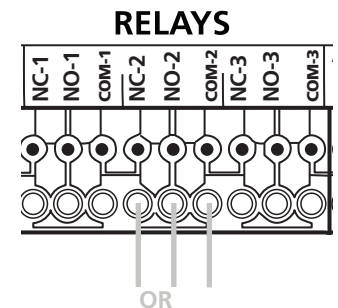
| MC25 WIRE COLORS | |
|------------------|----------|
| N.C. | = purple |
| N.O. | = black |
| COM | = red |



3. REWIRE TO DOOR CONTROL

- Locate the MC25's green, yellow, and blue wires connecting to the door control.
- Disconnect the device's wires from the MC25, noting which are N.C. (or N.O.) and COM.
- Wire to the BR3-X at NC-2 (or NO-2) and COM-2 terminal points.

| MC25 WIRE COLORS | |
|------------------|----------|
| N.C. | = green |
| N.O. | = blue |
| COM | = yellow |



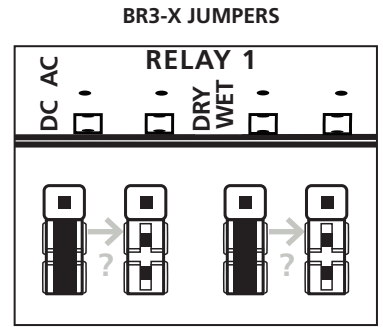
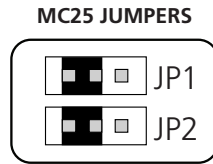
4. REWIRE TO POWER

- Locate the MC25's orange and brown wires connecting to power.
- Disconnect the device's wires from the MC25.
- Wire to the BR3-X at both power (AC/DC) terminal points.



ADJUST JUMPERS

1. Observe the position of the DRY/WET and AC/DC jumpers on the MC25, noting their configuration for WET or DRY input.
2. The BR3-X is already configured for a DRY input, so if your MC25 shows a WET input configuration, switch the jumper to WET.
3. The BR3-X is already configured for DC output, so if your application is requiring AC output, switch the jumper to AC.

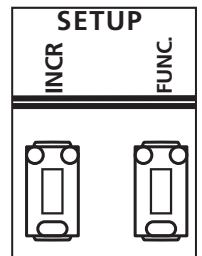


IMPORTANT NOTES:

- * If previous application involved bridge rectifier, note that the BR3-X has built-in rectifier, so choice of jumper automatically rectifies if needed.
- * When using a WET output and rectifying AC to DC, the BR3-X output will be ~40% higher than input.

PROGRAM BR3-X

1. The BR3-X must be set to Function 28. To do so, first press and hold the INCR and FUNC buttons for 3 seconds until the display toggles between FF and 00.
2. Press the INCR button repeatedly until you reach "28".

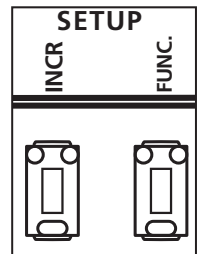


DETERMINE BR3-X PARAMETERS

1. Using the charts in the Appendix, observe the DIP switch configurations on the MC25.

| | Relay 1 | Relay 2 | Delay |
|--------------------------|---------|------------|-------|
| MC25 DIP switches | 1, 2, 3 | 4, 5, 6, 7 | 8 |
| BR3-X parameters | h1 | h2 | d1 |

2. On the BR3-X, press FUNC to cycle through the parameters, then use the INCR button to reach the appropriate value. Repeat this for h2 and d1 parameters.



Refer to the BR3-X full User's Guide (75.5871) for more information.

BEA, INC. INSTALLATION/SERVICE COMPLIANCE EXPECTATIONS

BEA, Inc., the sensor manufacturer, cannot be held responsible for incorrect installations or incorrect adjustments of the sensor/device; therefore, BEA, Inc. does not guarantee any use of the sensor/device outside of its intended purpose.

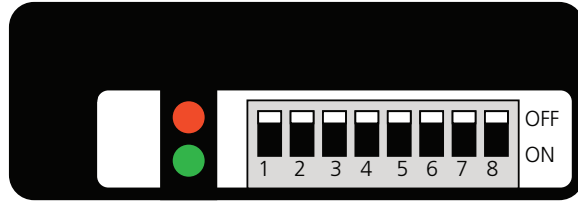
BEA, Inc. strongly recommends that installation and service technicians be AAADM-certified for pedestrian doors, IDA-certified for doors/gates, and factory-trained for the type of door/gate system.

Installers and service personnel are responsible for executing a risk assessment following each installation/service performed, ensuring that the sensor/device system performance is compliant with local, national, and international regulations, codes, and standards.

Once installation or service work is complete, a safety inspection of the door/gate shall be performed per the door/gate manufacturer's recommendations and/or per AAADM/ANSI/DASMA guidelines (where applicable) for best industry practices. Safety inspections must be performed during each service call – examples of these safety inspections can be found on an AAADM safety information label (e.g. ANSI/DASMA 102, ANSI/DASMA 107, UL294, UL325, and International Building Code).

Verify that all appropriate industry signage, warning labels, and placards are in place.

APPENDIX: MC25 DIP CONFIGURATIONS



RELAY 1

| TIME DELAY (sec) | DIP 1 (1 sec) | DIP 2 (2 sec) | DIP 3 (4 sec) |
|------------------|---------------|---------------|---------------|
| 1 | ON | OFF | OFF |
| 2 | OFF | ON | OFF |
| 3 | ON | ON | OFF |
| 4 | OFF | OFF | ON |
| 5 | ON | OFF | ON |
| 6 | OFF | ON | ON |
| 7 | ON | ON | ON |

RELAY 2

| TIME DELAY (sec) | DIP 4 (1 sec) | DIP 5 (2 sec) | DIP 6 (4 sec) | DIP 7 (8 sec) |
|------------------|---------------|---------------|---------------|---------------|
| 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 |
| 8 | OFF | OFF | OFF | ON |
| 9 | ON | OFF | OFF | ON |
| 10 | OFF | ON | OFF | ON |
| 11 | ON | ON | OFF | ON |
| 12 | OFF | OFF | ON | ON |
| 13 | ON | OFF | ON | ON |
| 14 | OFF | ON | ON | ON |
| 15 | ON | ON | ON | ON |

DELAY

| TIME DELAY (sec) | DIP 8 |
|------------------|-------|
| 0.5 | OFF |
| 1.5 | ON |