

USERS GUIDE MC-25

DELAY ON MAKE, DELAY ON BREAK TIME DELAY

PRODUCT DESCRIPTION

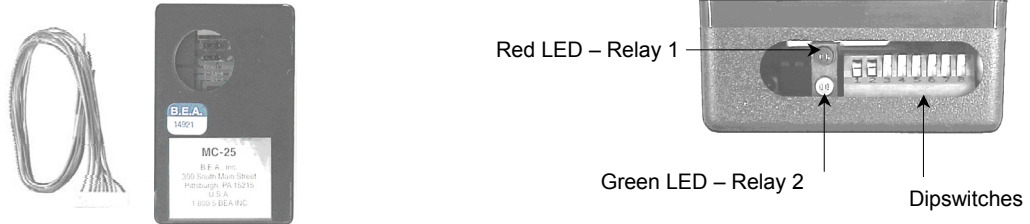
The MC-25 (PN: 10MC25) is a delay on make, delay on break time delay. It is perfect to use when either a magnetic lock or electric strike is installed on an automatic door. The delay on break timer will release the lock and then the delay on make timer will enable the door to open and be held open for a set period of time.

When a momentary contact closure is applied at the input wires, **Relay 1** (0-7 seconds) will become active. Approximately 0.5 or 1.5 seconds after **Relay 1** becomes active, a second relay, **Relay 2**, (0-15 seconds) will become active. The time delay will begin as soon as the input signal is released. If another momentary contact closure is applied to the input wires during the output of **Relay 2**, the entire timing cycle will begin again. **Relay 2** will not drop out, but it will be reset to the full time delay. Also, the input voltage can be supplied through the contacts of **Relay 1** by changing the position of two jumpers on the MC-25.

TECHNICAL SPECIFICATIONS

DESCRIPTION	SPECIFICATIONS
Supply Voltage	15 to 24 VAC / VDC: -5% to +10%
Operating Frequency	4 Mhz (Microprocessor)
Power Consumption	10 mA at rest, 50 mA Max.
Output	(2) SPDT Relays
Maximum Voltage – Relay Contact	30 V DC, 120 VAC
Maximum Current – Relay Contacts	1 A DC, 0.5 A AC

COMPONENT ID



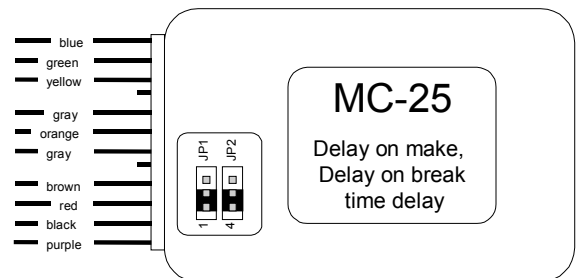
SAFETY PRECAUTIONS



- Shut off all power going to the header before attempting any wiring procedures.
- Maintain a clean & safe environment when working in public areas.
- Constantly be aware of pedestrian traffic around the door area.
- Always stop pedestrian traffic through the doorway when performing tests that may result in unexpected reactions by the door.
- Always check placement of all wiring before powering up to insure that moving door parts will not catch any wires and cause damage to equipment.
- Ensure compliance with all applicable safety standards (i.e. ANSI A156.10) upon completion of installation.

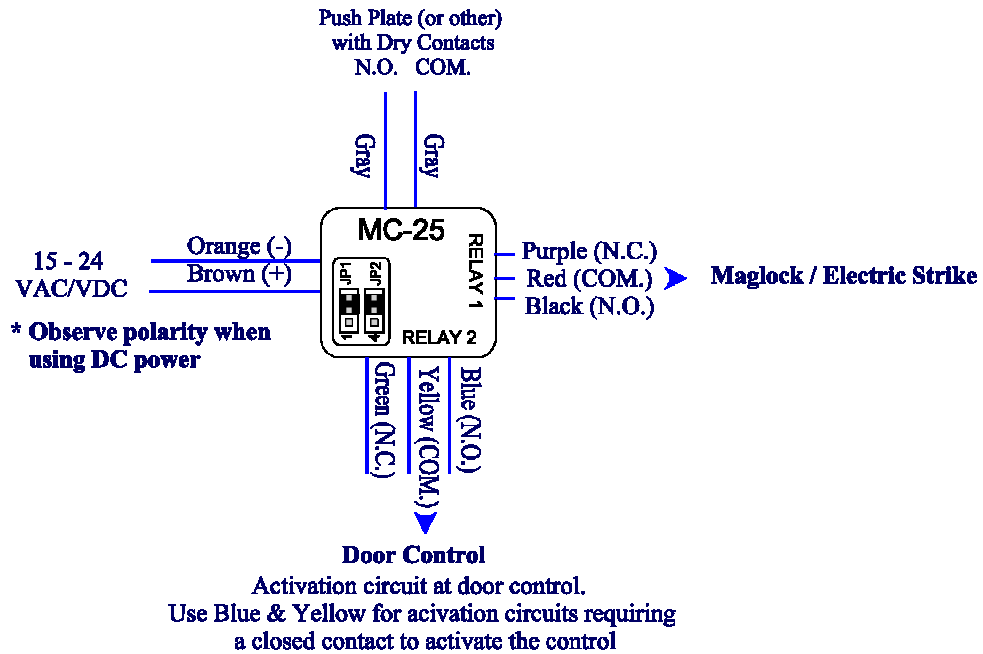
ELECTRICAL INSTALLATION

COLOR	DESCRIPTION
Orange	Power input (15-24 V AC/DC) (-)
Brown	Power input (15-24 V AC/DC) (+)
Gray*	Input contact COM from activation device
Gray*	Input contact NO from activation device
Violet	RELAY 1 NC contact
Red	RELAY 1 COM contact
Black	RELAY 1 NO contact
Green	RELAY 2 NC contact
Yellow	RELAY 2 COM contact
Blue	RELAY 2 NO contact



* Gray wires must be connected to dry contacts only

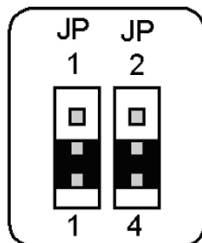
Typical Application: Electric Strike or Maglock



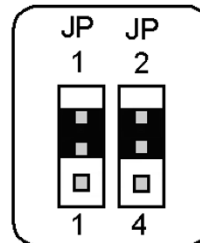
JUMPER SETTINGS

The jumpers on the MC-25 allow for either a dry output or a wet output at RELAY 1. If both jumpers are on the left and middle pins (1 & 2 and 4 & 5) RELAY 1's output (NO, NC, and COM) is a dry output; therefore, there is no voltage or current supplied by the MC-25. If a voltage is required at the output of RELAY 1 both jumpers must be moved to the middle and right pins (2 & 3 and 5 & 6). This configuration will enable the MC-25 to supply a voltage at RELAY 1's output (NO, NC, and COM). The supplied voltage will equal the input voltage. For example, if the input voltage is 24 VAC the output voltage will be 24 VAC or if the input voltage is 15 VDC the output voltage is 15 VDC. ***If the jumpers are placed diagonal from each other the MC-25 module will not function correctly.***

DRY Output on Relay 1

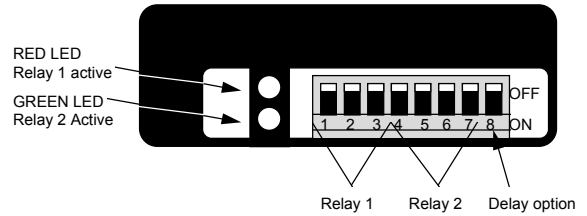


WET Output on Relay 1



DIPSWITCH SETTINGS

Set the dipswitches according to the chart below to achieve the desired hold open time delay.



RELAY 1

The time delay on **RELAY 1** is adjustable from 0 to 7 seconds by setting Dip Switches 1, 2, & 3 according to the chart. The Red LED will be on for the duration of the time delay set on **RELAY 1**. Independent of the time delay set on **RELAY 1**, **RELAY 2** will be activated 0.5 or 1.5 seconds after **RELAY 1** begins.

time delay (sec)	DIP 1	DIP 2	DIP 3
	1 sec	2 sec	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

The time delay on **RELAY 2** is adjustable from 0 to 15 seconds by setting Dip Switches 4, 5, 6, & 7 according to the chart. The time delay set to **RELAY 2** is the hold open time delay for the door. The Green LED will indicate that **RELAY 2** is active and is sending a signal to the door control to hold the door open.

time delay (sec)	DIP 4	DIP 5	DIP 6	DIP 7
	1 sec	2 sec	4 sec	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 OPTION

The delay option allows the installer to choose the time delay between Relay 1 being activated and Relay 2 being activated. This time delay can either be set to 0.5 seconds or 1.5 seconds by changing the position of dipswitch 8.

time delay (sec)	DIP 8
0.5	off
1.5	on

TROUBLE-SHOOTING	PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
	MC-25 will not activate	<ol style="list-style-type: none"> 1. Faulty power supply. 2. Activation input is faulty 	<ol style="list-style-type: none"> 1. Insure correct power supply of 15 to 24 VAC / VDC. Power should come from an isolated transformer – not from the door control. 2. Check for proper power at the orange and brown wires of the MC-25. If power source is good, but not present at the connector, check the orange and brown wires for continuity with an ohm meter. Replace as necessary. 3. When powering with DC power, observe polarity. Orange must be (-) and brown must be (+) 4. Using a multi-meter, check both gray wires for continuity.
	Door stays open too long	<ol style="list-style-type: none"> 1. Total time delay between the MC-25 and the door control is too long 	<ol style="list-style-type: none"> 1. For hold open time, use the MC-25 timer if the door control does not have a time delay adjustment. If it does, set the MC-25 to the minimum setting, and use the door control's hold time exclusively.
	Door unlocks but will not open	<ol style="list-style-type: none"> 1. Lock device is drawing too much from the power supply 	<ol style="list-style-type: none"> 1. Install a separate power supply for the lock device.

COMPANY CONTACT	
	<p>If after troubleshooting a problem, a satisfactory solution cannot be achieved, please call B.E.A., Inc. for further assistance during Eastern Standard Time at 1-800-523-2462 from 8am - 5pm.</p> <p>For after-hours, call East Coast: 1-866-836-1863 or 1-800-407-4545 / Mid-West: 1-888-308-8843 / West Coast: 1-888-419-2564. DO NOT leave any problem unresolved. If you must wait for the following workday to call B.E.A., leave the door inoperable until satisfactory repairs can be made.</p> <p>NEVER sacrifice the safe operation of the automatic door or gate for an incomplete solution.</p> <p>Web: www.beasensors.com</p>