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# 82148 – 600 Time Delay

## Delay on Make / Delay on Break

### Installation Instructions

#### **DOR - O - MATIC®**

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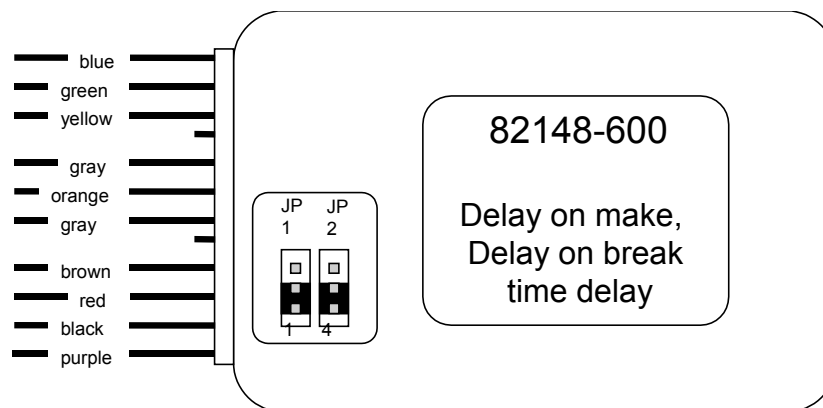
The 82148-600 is a delay on make, delay on break time delay. It is perfect to use when either a magnetic lock or electric strike is installed on an automatic door. The delay on break timer will release the lock and then the delay on make timer will enable the door to open and be held open for a set period of time.

## THEORY OF OPERATION

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** a second **Relay 2** ( 0-15 seconds ) will become active. The time delay will begin as soon as the input signal is released. If during **Relay 2**'s output another momentary contact closure is applied to the input wires, 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 82148-600.

## TECHNICAL SPECIFICATION

Power Supply	15-24 Volts AC/DC
Operating Frequency	4 MHz (Microprocessor)
Power Consumption	10 mA at rest, 50 mA Max.
Output	2 x SPST Relays
Max. Voltage - Relay Contact	30V DC, 120V AC
Max. Current - Relay Contacts	1A DC, 0.5A AC

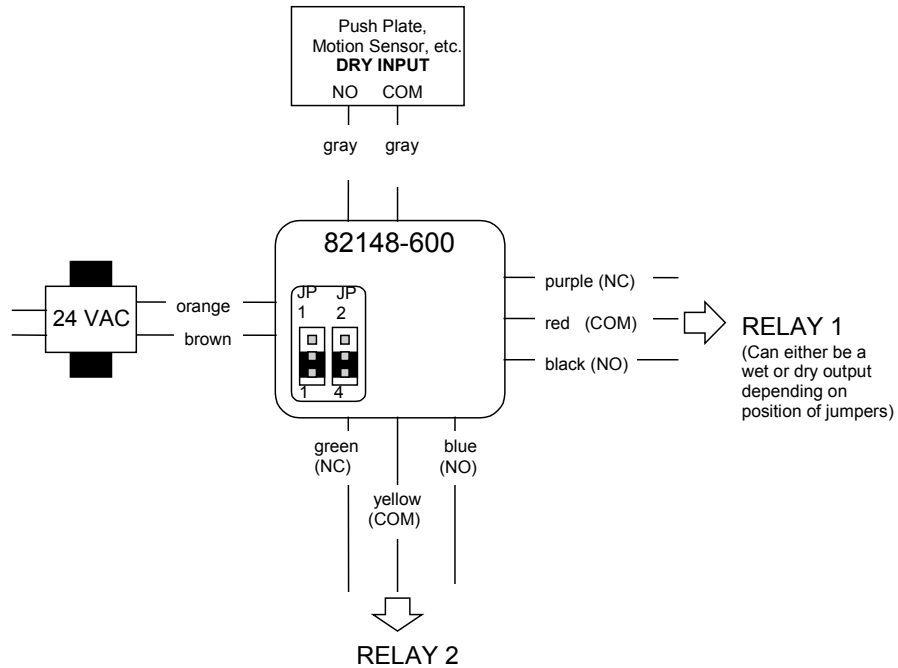


## WIRE CONNECTIONS

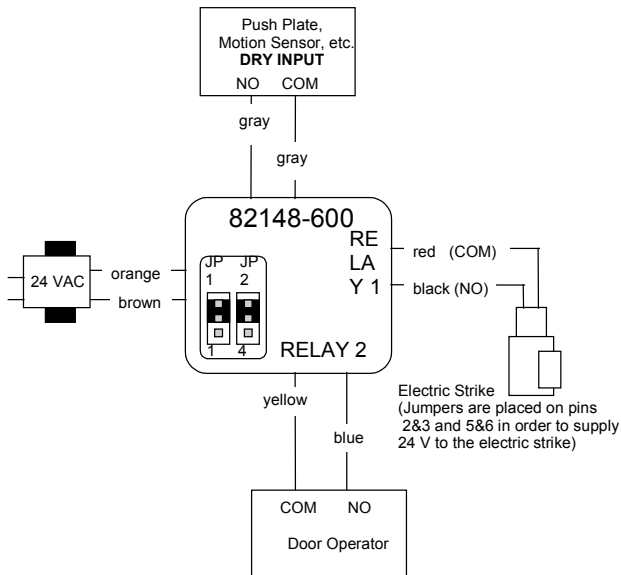
Wire connections for the 82148-600 are as follows: (refer to diagram on following page for more detail)

- Orange = Power input / 12-24 VAC or 15-24 VDC
- Brown = Power input / 12-24 VAC or 15-24 VDC
- 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

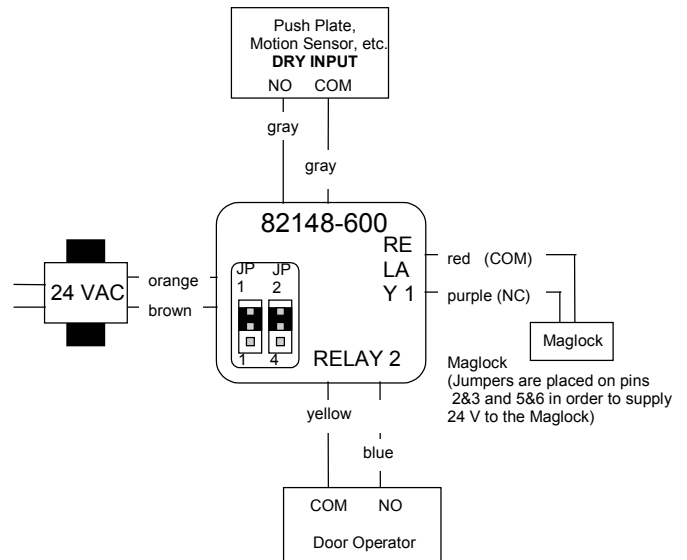
**NOTE: Unused wires must be insulated to prevent damage to the unit. No voltage should be applied to the gray wires or damage to the unit will result.**



### Electric Strike



### Maglock

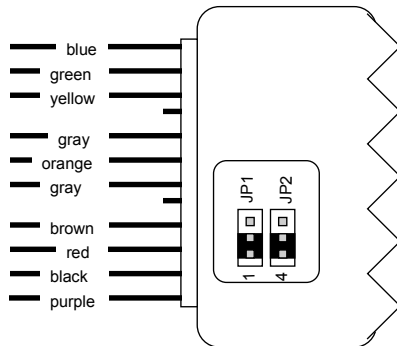


# ADJUSTMENTS

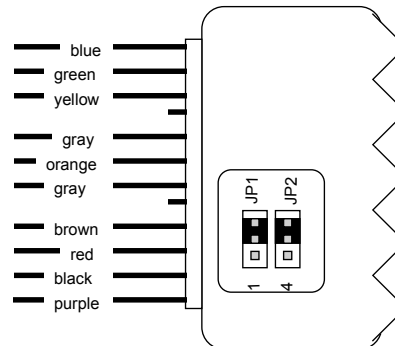
## JUMPERS

The jumpers on the 82148-600 provide the installer the flexibility of 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 82148-600. 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 82148-600 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 82148-600 module will not function correctly.*

### Dry Output on RELAY 1



### Wet Output on RELAY 1



## RELAY 1

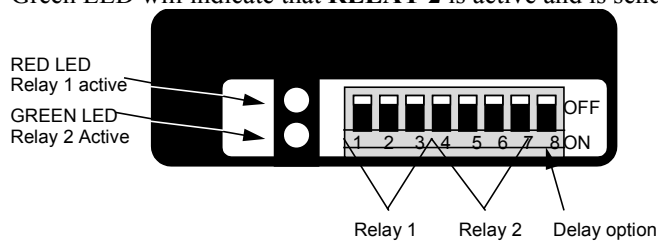
The time delay on **RELAY 1** can be set from 0 to 7 seconds by the installer. This can be done setting Dip Switches 1, 2, & 3 according to the chart on page 5. The Red LED will be on for the duration of the time delay set on **RELAY 1**. Independent of the time delay set on **RELAY 1**, **RELAY 2** will be activated 0.5 or 1.5 seconds after **RELAY 1** begins.

## 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 dip switch 8.

## RELAY 2

**RELAY 2** is adjustable from 0 to 15 seconds. The adjustable time delay can be set by setting Dip Switches 4, 5, 6, & 7 according to the chart on page 5. 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.



Set the dip switches according to the chart below to achieve the desired hold open time delay. The dip switches are configured to send a binary coded input to the micro-processor to establish the correct time delay.

### RELAY 1

- Dip Switch 1 = 1 second
- Dip Switch 2 = 2 seconds
- Dip Switch 3 = 4 seconds

### RELAY 2

- Dip Switch 4 = 1 second
- Dip Switch 5 = 2 seconds
- Dip Switch 6 = 4 seconds
- Dip Switch 7 = 8 seconds

### DELAY OPTION

- Dip Switch 8 = 0.5 sec. or 1.5 sec.

# DIP SWITCH SETTINGS

## 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 OPTION

time delay (sec)	dip 8
0.5	off
1.5	on

If after troubleshooting a problem, a satisfactory solution cannot be achieved, please call Dor-O-Matic Tech Services for further assistance during Central Standard time at **(800) 543-4635** from **7am - 5pm** Monday thru Friday.

**DO NOT** leave any problem unresolved. If you must wait for the following workday to call Dor-O-Matic, leave the door inoperable until satisfactory repairs can be made. **NEVER** sacrifice the safe operation of the automatic door or gate for an incomplete solution.