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CX-1000/78

Multi Minder

Installation Instructions

MADE IN CANADA

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Section 1

General Description

The *Multi Minder* is the “Swiss Army Knife” of single relay timers. Multiple operating modes enable the relay to work in numerous applications. They are as follows:

1. **Basic Extension Timer.** Activate the momentary trigger, and the relay pulls in for 1 – 30 seconds, as set by the adjustable potentiometer. With the momentary trigger input, even a stuck switch will not keep the door open, thereby providing security.
2. **Extended Timer Mode.** When wired to the extended input, the relay is held in for as long as the input is held, **plus** any time set by the adjustable potentiometer. (The relay timer starts at the end of the extended trigger).
3. **Latching Relay.** With the flip of a dipswitch, the unit will latch the output with just a single momentary trigger. Another momentary pulse will release the relay. This is also known as a flip-flop, ratchet, or impulse relay.
4. **Nuisance Delay Relay.** By using dip switches 1 & 2, the user can select 2, 5, or 10 seconds of delay-on-activate time **before** the relay trips. Typically used to avoid alarms triggered by accidental activation, or with photo-eyes in Overhead Door applications, the *MultiMinder* will not activate unless the input is held past the time indicated by the two dip switches. If the input is released **before** the indicated time, then the relay does not fire.
5. **Auto Delay Relay.** Suitable for use on doors with Automatic Operators *and* electric strikes or panic sets, this mode invokes a full 2 second delay before the relay pulls in. The input does not have to be held in continuously.

Another feature is the ability to connect wet (hot or powered) inputs as well as dry contacts, simultaneously.

Section 2

Installation

Mounting

While the board is covered by a protective wrap, care must be given to mount in a location free of moisture. Once the unit has been wired & programmed, it may be tucked up in the header or affixed using the supplied double-sided tape.

Wiring

CAUTION: Do not apply power to the unit until all secondary wiring is complete.

See wiring diagram for suggested wiring options.

Section 3

Set Up Instructions

As you make the following adjustments, refer to the diagram for locations of the LED, dip switches, and potentiometer.

Turn on power, and activate an input device. Observe the **LED**, which should light immediately. The length of time is determined by adjusting the potentiometer, (clockwise for more time, counterclockwise for less time).

Momentary Trigger vs Extended Trigger:

Which input to use?

If you are activating this timer with a wall switch, and you don't want a jammed switch to hold the lock or door open, then use the momentary trigger input. The relay will release after the adjustable time delay, regardless of input status.

If this relay is triggered by a signal from the fire department, then choose the maintained input. Or perhaps you want the lock to release for several minutes or hours – again, use the maintained input.

Choosing an Operation Mode:

The *Delay-on-Trigger* feature is set with dip switches 1 & 2.

Switches 1 DOWN & 2 UP = 2 second delay on trigger.

Switches 1 UP & 2 DOWN = 5 second delay on trigger.

Switches 1 & 2 DOWN = 10 second delay on trigger.

The *Latching Mode* is set by putting dip switch # 3 into **DOWN** position, and using momentary trigger input.

NOTE: The extended trigger input can be used simultaneously to give a timed output.

The *Delay-on-Activate* feature is set by putting dip switch #4 into **DOWN** position (for a fixed delay time of 2 seconds). Unlike the "*Delay-on-Trigger*" mode, the input does not have to be held for the relay to trip. Either the momentary trigger or the extended trigger can be used.

A Note on "Mixed Mode" Triggering:

You can combine the *Latching Mode* with either of the *Delay-on-Trigger* or, *Delay-on Activate* Modes.

For example:

You want the relay to latch on, but only after the input is held on for 2 or more seconds. In this case put dipswitches **1 & 3 DOWN**, and use the Momentary trigger. (If the Extended trigger is held in for 2 seconds or more, than the relay will pull in for the time set on the pot, then release.)

NOTE: Do not use a pencil to move the dip switches!

Section 4 System Inspection Instructions (for Automatic Door Installations only)

After the Installation and operational check of the system:

1. Place warning label on the door (as per ANSI A156.10 or A156.19 guidelines). This will advise the person entering the swing side zone that the door will move.
2. Instruct the owner on door system operation and how to test it. This should be checked on a daily basis.
3. Instruct the owner on what to do if the door or any of its components become damaged.
4. Strongly recommend to the owner that the complete entry be inspected twice a year as part of the service agreement.

Section 5 Technical Data

Model	CX-1000/78
Size	3 ¼" x 2 ½" x 5/8"
Mounting	Double-sided tape
Enclosure	Protective paper sleeve
Operating Voltage	12 – 24 Volts AC/DC
Current Draw	46 mA max.
Response Time	0.3 seconds
Inputs: Quantity:	2: 1 Momentary trigger, and 1 Extended trigger, either of which may be: a) Dry N.O. dry contact only, or b) Wet 3 - 30V AC/DC. (Optically isolated, and non-polarity sensitive)
Relay Output	1 x Form C (SPDT)
Contact Rating	2 amps @ 30 VDC
Electrical Life	100,000 @ rated capacity
Time Delays:	
Adjustable timer	1 - 30 seconds
Delay-on-trigger	2, 5, or 10 seconds
Delay-on-activate	2 seconds fixed

Section 6 Warranty

Camden Door Controls guarantees the CX-1000/78 *MultiMinder* to be free from manufacturing defects for 3 years from date of sale.

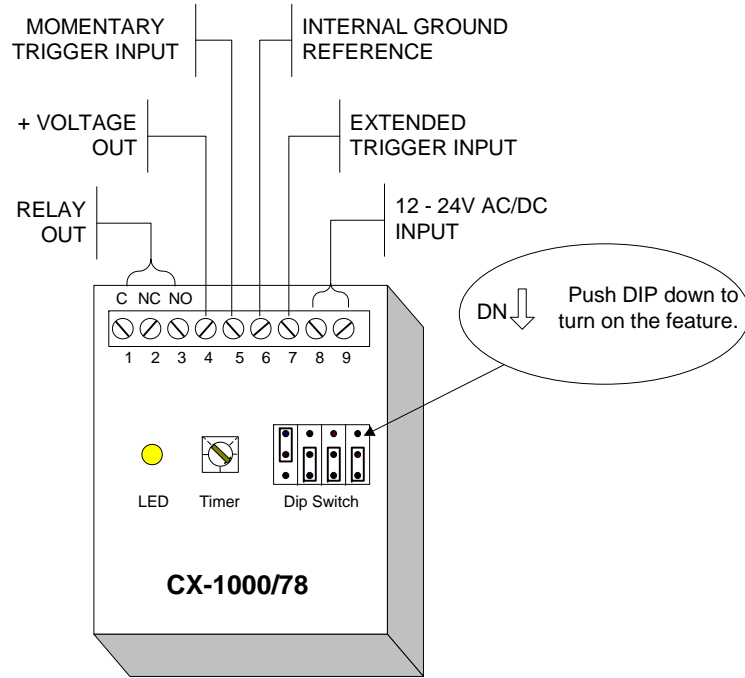
If during the first 3 years the CX-1000/78 fails to perform correctly, it may be returned to our factory where it will be repaired or replaced (at our discretion) without charge. Except as stated herein, Camden extends no warranties expressed or implied regarding function, performance or service.

Questions?

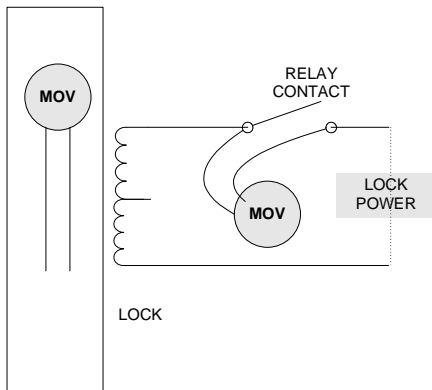
Call us toll-free at 1-877-226-3369

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THIS DIAGRAM SHOWS THE WIRING CONNECTIONS



A SMALL TIP TO HELP PROTECT YOUR CX-1000/78

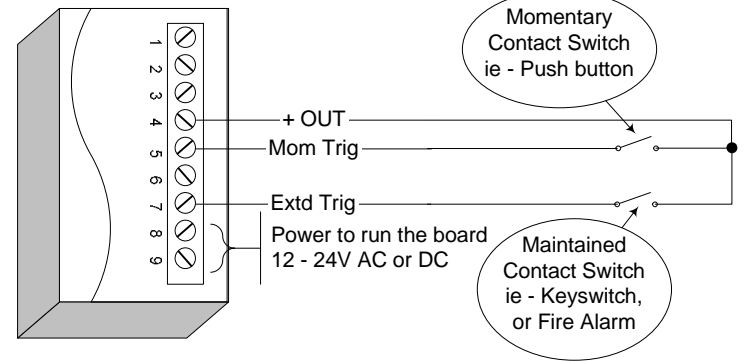


Maglocks and door strikes are essentially large electro-magnets. When power is removed from such locks, a high voltage is generated by the collapsing magnetic field. This voltage (called Back EMF) will eventually damage the relay contacts.

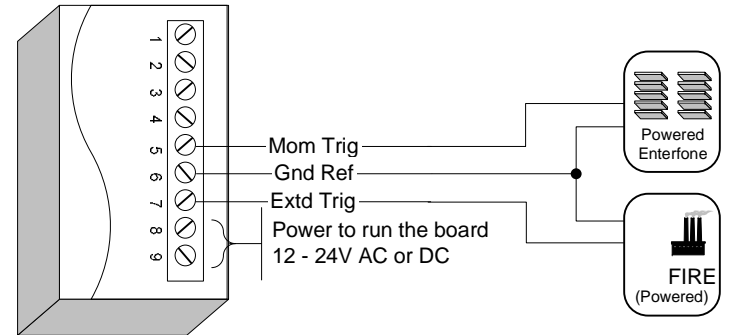
You can virtually eliminate these effects by connecting a suppression device across the relay contacts. This device is called an MOV (Metal Oxide Varistor). Use the supplied 35V MOV with either AC or DC power to the electric lock.

^ Here is your complimentary MOV to help protect your CX-1000/78

EXAMPLE 1
Triggering from a DRY Contact

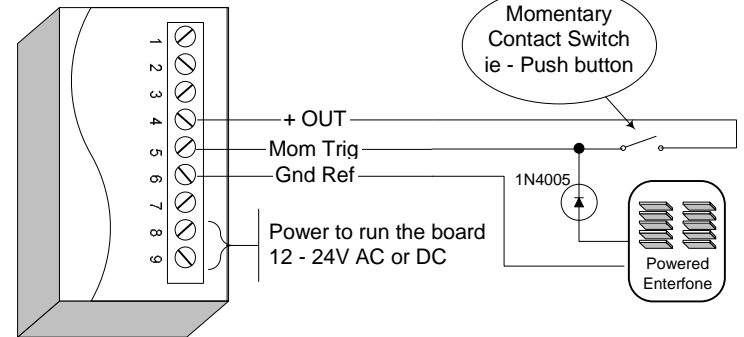


EXAMPLE 2
Triggering from HOT output



EXAMPLE 3
Triggering from HOT output and DRY contacts in Combination

Note: A Diode must be used to protect your powered equipment



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SCALE: NONE	DRAWN BY: DGW	DATE: 01/16/07	REVISED:	
<h3>CX-1000/78 Multi-Minder Wiring Diagram</h3>				
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