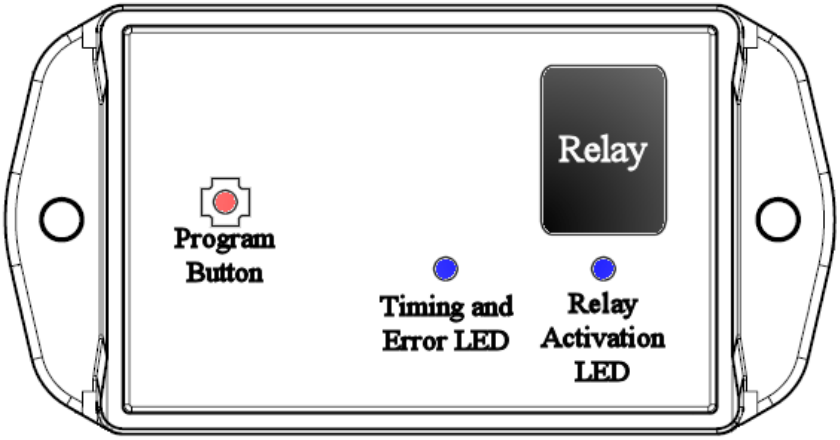
ERM Products
Programmable Timer



Thank you for purchasing this product from ERM. We appreciate your interest in our unique product line as we try to offer our customers an alternative to today's traditional products.

This programmable timer is a one of a kind product. Its features make this one of the easiest timers to setup and program. Backed by a two year no-hassle warranty, this product offers more features than any of today's timers.

By using a relay instead of solid-state circuitry, this timer can be used to switch positive or negative sources. This is accomplished more effectively using relays because relays are not polarity sensitive. So, if your application needs were to change from one polarity to another, you won't need to buy new equipment.

Additional features on this product include:

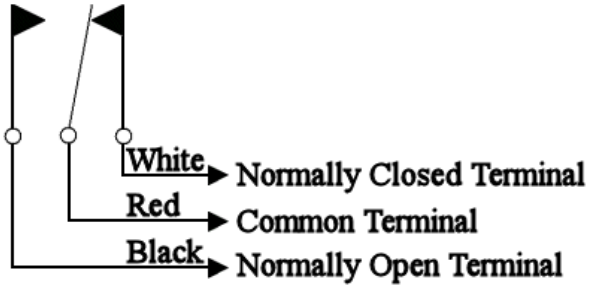
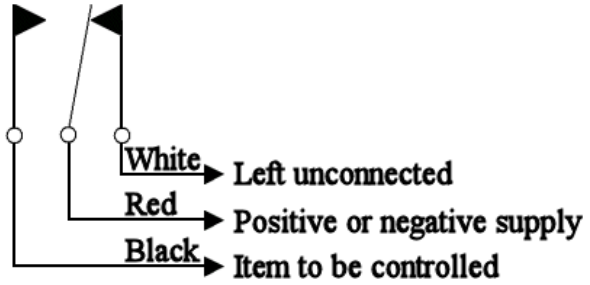
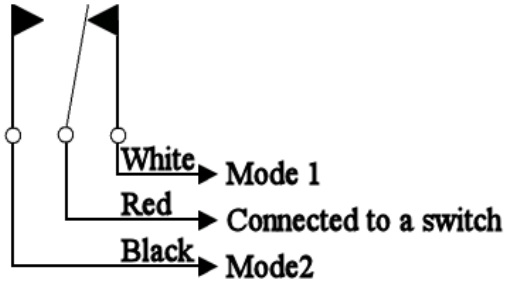
- Both a positive and negative trigger input. A feature offered by no other company.
- An LED for timing and error messaging purposes
- Time-out with auto reset feature for stuck input triggers
- Very low amp-draw in ready mode
- Can be used to activate a secondary function on another product (explained below)

Installing Your Timer

Start by finding the proper placement for the product. The timer's compact design allows for it to be installed in some of the smallest spaces. Its weatherproof construction allows it to be installed in wet locations, however, we recommend installing this product in a conveniently accessible location, should you wish to change the time delay.

The relay's terminals allow this timer to be used in multiple ways. One method can directly control a product such as a gun lock solenoid, which will only be used to turn on/off that specific item. Another method can be to toggle between two modes on another product such as a flasher or warning light. Such a setup could be to have your warning lights operating in normal mode and then when approaching an intersection, the timer could be triggered to activate a secondary, more aggressive pattern for intersection warning. Your warning lights would then return to their normal pattern after the pre-determined time has expired.

Next, you will need to decide if the product will be positive or negative switched. This is determined by the product to be controlled and/or your preference. Use the diagram below to setup the relay connections for your product.

	**Standard layout of the relay's terminals**
	**Method 1 for turning on/off another product**. The controlled item stays off until the timer is triggered. Once the timing sequence is complete, the relay turns off.
	**Method 2 for toggling between two modes.** Power normally flows to Mode 1 until the timer is triggered. The relay then activates to direct power to Mode 2. When the timer is done, the relay turns off putting power to Mode 1 again.
If you have any questions regarding the wiring of your relay, please do not hesitate to contact us for assistance.	

Once you've found a suitable mounting location, you can either program the timer before or after you've connected the remaining relay wires.

In order for the timer to be programmed and/or triggered, the ORANGE wire must be connected to a positive 12 volt source through a 1 amp fuse and the GREEN wire connected to a reliable ground.

Programming Your Timer

With power connected to your timer, press and hold the Program Button. After a 3 second delay, the left LED will flash once per second. Each pulse indicates the number of seconds the timer will activate the relay for. When you've reached the desired limit, simply release the button. The next time the timer is triggered, the relay will activate for this amount of time.

The delay is present so that any inadvertent press of the button will not reset your preprogrammed timing.

For security reasons, when the Program Button is held and the timing sequence is being recorded, the relay will not activate. This is done in order to prevent anyone from bypassing your trigger switch, which may be a hidden switch.

Test your timing sequence by activating one of the trigger wires. The relay and right LED will turn on for your recently programmed duration. The relay and LED will turn off once that timing sequence is complete.

Safety Feature for Your Product

One useful feature that has been programmed into your timer is a time-out feature. The timer is designed to be triggered by some kind of momentary pulse. This can be from a button, sensor or the like.

If the button were to remain in the depressed position, triggering the timer, the timer would run continuously. This could pose a problem for products that control locks. The point of the timer would be to unlock for a predetermined time and then relock. Security is defeated if the button is continuously pressed. That's why the timer has been programmed with a time-out feature with auto reset.

If the trigger input is activated for longer than 10 seconds, the relay automatically turns off, regardless of the timing sequence, and flashes the left LED quickly to indicate there is a problem. The timer cannot be triggered again until the stuck switch is fixed. Once the trigger input is removed, the timer resets itself, allowing the normal operation of the timer.

Wire Color and Meaning:	**Specifications:**
Orange: Connect to a switched +12 Volt source with a 1 amp fuse **Green:** Connect to a reliable ground **Yellow:** Positive input trigger **Yellow with a Green stripe:** Negative input trigger **Red:** Relay's common terminal **Black:** Relay's normally open terminal (see setup diagram) **White:** Relay's normally closed terminal (see setup diagram)	• Input Voltage 12 VDC • Operating Current: 0.05 Amps • Standby Current Draw: 0.02 Amps • Relay Current: 10 Amps

If you have any questions regarding this or any other product, please don't hesitate to contact us. We are always here to help.

Warranty

ERM warranties this Programmable Timer for 2 years from the date of purchase to the original purchaser against any manufacturer defects or workmanship. This warranty applies only to units installed and operated in accordance with these instructions. The owner will be responsible for returning any defective item(s) with transportation costs pre-paid. ERM will, without charge, repair or replace, at its discretion, the product(s), or part(s), which after examination by ERM, is found to be defective as the result of a defect in material and/or workmanship. Repaired or replaced item(s) will be returned to the purchaser with transportation costs paid by ERM. In order to qualify for the warranty, a copy of the purchaser's receipt must be returned with the defective item(s) and its original product date stamp. ERM's liability, under no circumstances, will exceed the price of the product(s) to be defective.

This warranty does not extend to any product that has been subjected to disaster, accident, abuse, misuse, lightning, power surges, improper installation or which has been inadequately maintained, nor damage resulting from incompatible chemicals or cleaning material, any damage or defects occurring as a result of any unauthorized service or repairs by unauthorized persons, inappropriate or inadequate wiring or circuit protection or failure to follow instructions in any enclosed documents, such that in ERM's judgment, the performance or reliability has been affected. ERM retains the right to be the sole mediator of what constitutes defects in performance or manufacturing.