

**Prevents** add-on equipment from draining batteries, maximizing operational readiness by eliminating dead batteries, saving total cost of operation.

**Ensures** equipment that needs power after engine off or at end of shift (video downloads) are satisfied while automatically turning off after a preset time or optionally if battery charge is low.

**Protects** sensitive on-board electronics via optional under/over voltage shutdown and start event isolation.



US 11,352,998 B2

## EXPERTLY ENGINEERED

## PREFERRED BY PROFESSIONALS



**Ultra-Low Power Draw** eliminates vehicle downtime due to dead batteries. Lowest off-state current draw (1.3 mA).



**Simple & Robust Installation:** Sealed plug with optional long wire leads. Single timer/relay device reduces installation time, overall costs and points of potential failure. Optional output bus bar easily connects RT or CT Fuse Block families.



**Meets Stringent OEM Standards** for electrical transient self-protection



**Adjustable OFF Time Delay:** 15 minutes to 16 hours + 5 sec test mode



**Diagnostic Feedback** via optional external led and on-board LEDs



**Bullet-proof Construction:** Sealed unit, high temperature materials allow mounting anywhere on vehicle. Integrated thermal overload protection



**Start Isolation / Kill Switch** control input option for service technicians, emergency OFF, or protecting sensitive add-on equipment from engine cranking voltage fluctuation.

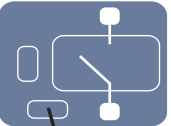


**Flexible Control Options** via Ignition Key, alternator voltage sense, or both.



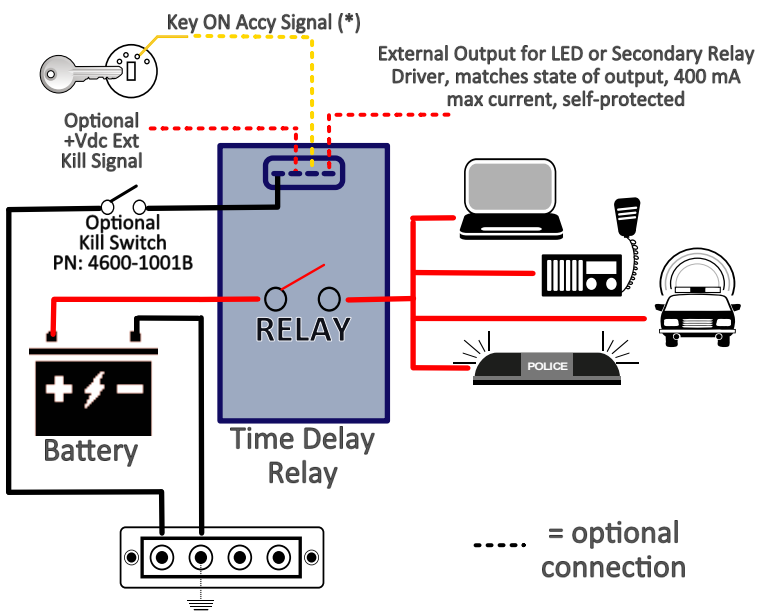
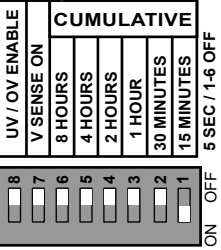
**4 Year Industry Leading Warranty**

# System Diagram / Dip Switches

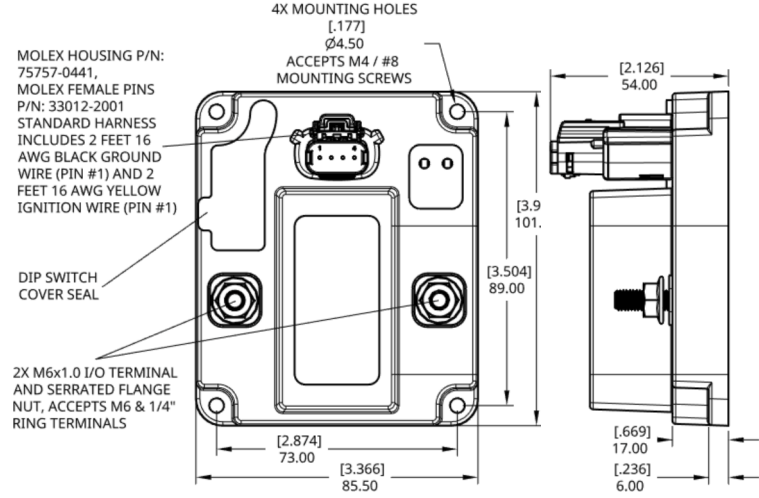


**DISCONNECT BATTERY FROM POWER DISTRIBUTION SYSTEM BEFORE INSTALLING PRODUCT TO PREVENT RISK OF ELECTRICAL SHOCK AND PRODUCT DAMAGE**

- 1) Use of Ignition Key On signal strongly recommended for all first responder installations to ensure rapid relay ON and maximize vehicle up-time in adverse situations.
- 2) Delay between Off Trigger and Relay OFF set with Dip Switches 1-6. Time Delay is cumulative (if DS1 and DS2 are On, Delay = 45 minutes).
- 3) If DS1 through DS6 = Off, Time Delay = 5 seconds for testing and operational verification
- 4) Input line voltage sense trigger enabled for ON and OFF Time Delay with Dip Switch 7
- 5) Under-Voltage and Over-Voltage Protection enabled with Dip Switch 8



## Dimensions



## Specifications

	7601	7801
Nominal Voltage	12 Vdc	12 Vdc
Input Voltage Range	8-18 Vdc	16-36 Vdc
Continuous Current	160 Amps	
Max 5 Min Current	240 Amps	
Operating Current	340 mA	170 mA
Operating Current, Relays Open	1.3 mA	
Cable Size to Meet Ratings	2 AWG	
Maximum Cable Size	2/0 AWG	
Hardware Material	Stainless Steel	
Terminal Stud Torque	80 in-lbs	
Time Delay Range (Adjustable)	5 sec - 16 hrs	
Close / Open Voltage	13.3 / 12.9	26.6 / 25.8
Low Voltage Protection (15 sec)	11.0 Vdc	22.0 Vdc
Over Voltage Protection (15 sec)	17.0 Vdc	34.0 Vdc

## Methods of Operation

- Relay closes immediately if:
- 1) Key Ignition Input > 8 Vdc or
  - 2) V<sub>sense</sub> = On and Input Stud Voltage > 13.3 Vdc
- Relay opens after Time Delay setting if:
- 1) Key Ignition Input < 8 Vdc and V<sub>sense</sub> = Off or
  - 2) Key Ignition Input < 8 Vdc and V<sub>sense</sub> = On and Input Stud Voltage < 12.8 Vdc
- UV / OV Lock (Under-voltage / Over-voltage Protection):
- 1) If ON, will turn OFF Relay if Input Stud Voltage < 10.5 Vdc or > 17.0 Vdc for 15 Sec
  - 2) Will turn OFF relay regardless of Key ON Accy Signal
- Kill Switch input turns OFF Relay immediately, will override all other relay ON indicators

## Part Numbers

## Resell Pack Bulk Pack

12V TDR w/2' Gnd/Start Harness	7601	7601B
24V TDR w/2' Gnd/Start Harness	7801	7801B
12V TDR w/Deutsch Connector	7601-1001	7601-1001B
24V TDR w/Deutsch Connector	7801-1001	7801-1001B

\* Contact Egis Mobile Electric for custom product configurations including stud sizes, control harness wires, time delays, voltage settings, dip switch functionality, and control input functionality.

**Patent: 11,352,998**



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901444 Rev 2

marine / rv van / 4x4 up-fitting emergency vehicle work truck