EGIS COPELAND

TH Series High-Amp Time Delay Relay

PATENT PENDING



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.

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

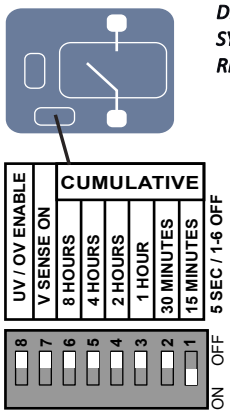
Bullet-proof Construction: Sealed unit, high temperature materials allow mounting anywhere on vehicle. Integrated thermal overload protection

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

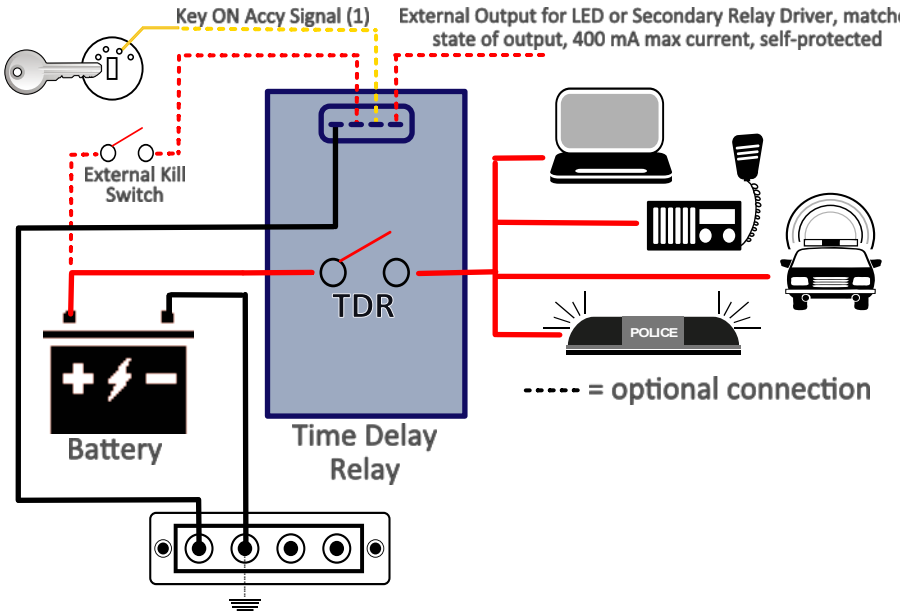
1) Use of Ignition Key On signal strongly recommended for all first responder installations to ensure rapid relay ON and maximize vehicle up-time in adverse situations.

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).

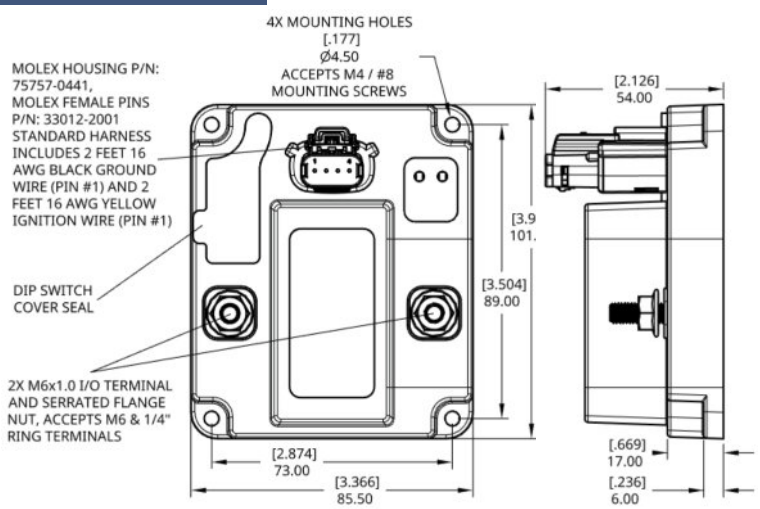
3) If DS1 through DS6 = Off, Time Delay = 5 seconds for testing and operational verification

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



Methods of Operation

Relay closes immediately if:

1) Key Ignition Input > 8 Vdc or
2) V_sense = On and Input Stud Voltage > 13.3 Vdc

Relay opens after Time Delay setting if:

1) Key Ignition Input < 8 Vdc and V_sense = Off or
2) Key Ignition Input < 8 Vdc and V_sense = 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

Specifications

Nominal Voltage	12 Vdc
Input Voltage Range	8-18 Vdc
Continuous Current	160 Amps
Max 5 Min Current	240 Amps
Operating Current	340 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
Low Voltage Protection (15 sec)	11.0 Vdc
Over Voltage Protection (15 sec)	17.0 Vdc

Part Numbers

TDR w/2' Gnd/Start Harness, Retail / Resell Box	7601
TDR w/2' Gnd/Start Harness, Bulk / OEM Pack	7601B

* 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 PENDING

EGIS COPELAND

AMERICA DESIGNED ASSEMBLED TESTED

VETERAN OWNED BUSINESS

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901444 Rev 2

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