

**PATENT  
PENDING**

**Prevents Dead Batteries** due to add-on equipment loads left on after engine stops or from multiple systems connected to your battery with independent keep alive power draw, maximizing operational readiness.

**Supports On-Board Video Systems** when vehicles are not in use allowing lengthy downloading while shutting down less time sensitive equipment sooner.

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



## EXPERTLY ENGINEERED

## PREFERRED BY PROFESSIONALS



**Eliminates Vehicle Downtime** due to dead batteries. Lowest off-state current draw (1.3 mA) available.



**Simple & Robust Installation:** Sealed plug with optional long wire leads. Single device replaces multiple control units and high amp replays, reduces installation time and costs and points of potential failure



**Additional Low Amp Output** can be used to maintain 24 Hr memory circuits or to direct other equipment to shut-down.



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



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



**Adjustable OFF Time Delay:** 0 seconds to 4 hours.



**Kill Switch** control input option for ensuring loads not inadvertently on, maintenance/servicing of vehicle, emergency OFF.



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

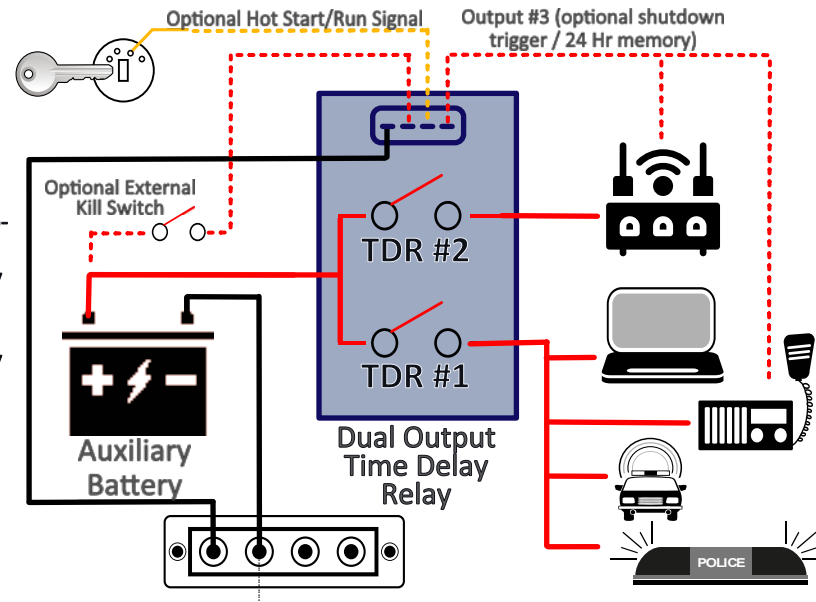
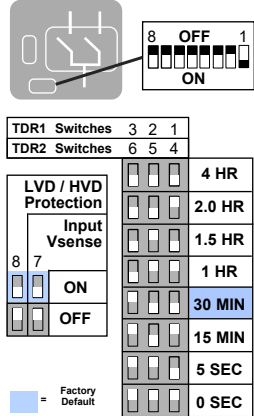


**4 Year Industry Leading Warranty**

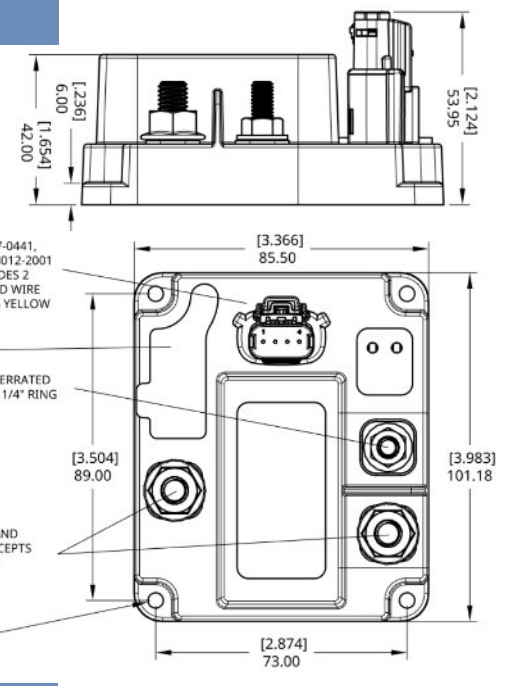
# System Diagram / Dip Switches

**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) Output #1 Delay between Off Trigger and Relay OFF set with Dip Switches 1-3. Time Delay per table to the left
- 3) Output #2 Delay between Off Trigger and Relay OFF set with Dip Switches 4-6. Time Delay per table to the left
- 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

Nominal Voltage	12 Vdc
Input Voltage Range	8-18 Vdc
Continuous Current (Per Circuit / Total)	80 A / 160 A
Max 5 Min Current (Per Circuit / Total)	120 A
Operating Current (Per Circuit)	170 mA
Operating Current, Relays Open	1.4 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 (Per Circuit)	0 sec - 4 hrs
TDR Close / Open Voltage	13.3 / 13.0
Output #3 Max Current	400 mA
Output #3 Time Off Before #2	60 sec
Low Voltage Protection (15 sec)	10.5 Vdc
Over Voltage Protection (1 sec)	17.0 Vdc

## Methods of Operation

- Outputs #1-#3 turn ON immediately if:
- 1) Key Ignition Input > 8 Vdc or
  - 2) Input V<sub>sense</sub> = On and Input Stud Voltage > 13.0 Vdc
- Outputs #1 & #2 turn OFF after their Time Delay setting if:
- 1) Key Ignition Input < 8 Vdc and V<sub>sense</sub> = Off or
  - 2) Key Ignition Input < 8 Vdc and Input V<sub>sense</sub> = On and Input Stud Voltage < 12.7 Vdc
  - 3) Kill Switch Input activated (i.e. > 8 Vdc), NO TIME DELAY
- UV / OV Open (Under-voltage / Over-voltage Protection):
- 1) If Dip Switch #8 = ON, will turn OFF all Outputs if Input Stud Voltage < 10.5 Vdc or > 17.0 Vdc for a short period
  - 2) Will turn OFF outputs regardless of Key ON Accy Signal
- Output #3 turns OFF 30 seconds before output #2
- \* Custom configuration response for Output #3 available, including 24 Hr keep-alive for memory, other time delays or voltage levels

Part Numbers	Resell Box	Bulk
Dual TDR, Gnd/Ign Harness	7616	7616B
Dual TDR, w/Full Harness		7616-2001B
Dual TDR, no Harness		7616-2002B

\* Custom product configurations available including stud sizes, control harness wires, time delays, voltage settings, dip switch functionality, and control input functionality. Low minimum quantities and short lead time for samples or production.



3135 Mercer Ave, Suite 102  
Bellingham, WA 98225  
360.768.1211  
sales@egismobile.com