

Mercury Relay Overview



Power Relay

The Mercury Electronic Relay is designed to eliminate mechanical parts and contacts found in relays. It is more durable and has current limit protection of 45 Amp. This relay will be switched on or off by the Mercury2 on the ELR output. It will power the coils, injectors, fuel pump etc. **Note** that when you use this relay as a power relay then put the Engine Shutdown in Fuel First mode. This will shutdown the ECU in a controlled manor and eliminate inductive interference from the coils when a catastrophic power down occurs. Other products do not have an ELR output.



The link below will indicate a typical power Relay connection.

[Electronic Power Relay Wiring](#)

Fuel Pump Driver

The Mercury Electronic Relay is also used as a fuel pump driver when fuel pressure control is activated. It is the PWM controlled to change the power to the fuel pump. It is driven by a positive signal from the ECU. Ensure the freewheel diode is installed to prevent interference.

The link below will indicate a typical fuel pump connection.

[Fuel Pump Wiring](#)

Dual Injectors

The Mercury Electronic Relay is also used as a injector power driver for dual injector systems. This is used where there is not enough drivers available for each injector. In these cases two injectors will share one Mercury2 driver and the secondary bank will have their power controlled via the relay by the Mercury2. It is driven by a positive signal from the ECU.

Note that a smaller fuse before this relay is required to protect the circuits from over current. 45 Amp from the relay can melt thinner wires causing a fire hazard. Also endure that each injector in the

secondary bank has a block out diode installed in each injectors power line. This will prevent current from the primary injectors to flow through the secondary injectors.

The link below will indicate an example of a typical duel injector connection. See the manual for other diagrams.

[Dual Injector Wiring](#)

Specifications

Relay Maximum current – 45 Amp protected

LED Indication

Yellow Power on indication

Power required

12V 45 Amp

Inputs

1x Relay Trigger input – 5 to 18 volt for On condition, 0-1 volt for Off condition.

Outputs

1x 12 Volt output 45 Amp

Dimensions

Size 49 x 45mm x 21mm

Weight 50g Epoxy Filled

4 x Fly Leads