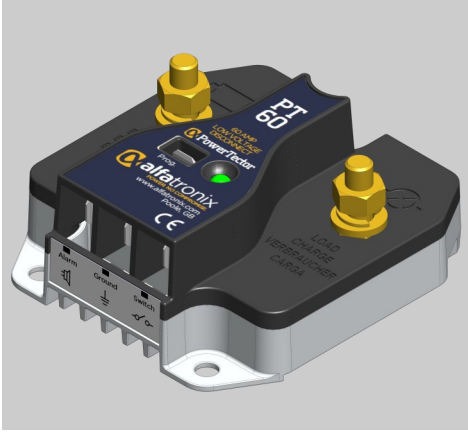
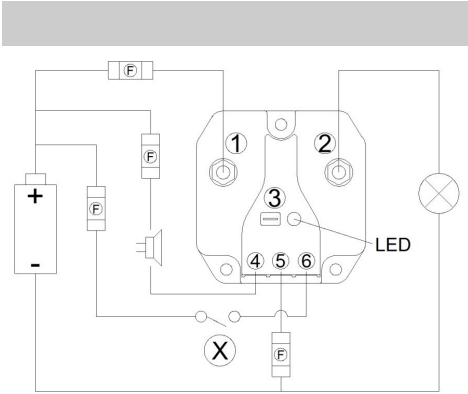


# OPERATING & ASSEMBLY INSTRUCTIONS

## PowerTector PT40-T & PT60-T



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- (1) - Input Positive
- (2) - Output Positive
- (3) - Program
- (4) - Alarm\*\*
- (5) - Ground
- (6) - Vehicle ignition switch
- (F) - Fuses
- (X) - Vehicle Ignition Switch

■ TECHNICAL DATA

Part Number	Current	Rated Voltage	Dimensions	Weight
PT40-T	40A	12V/24V	76x78x33mm	155g
PT60-T	60A	12V/24V	76x78x33mm	155g

■ PROGRAM MODES / MODES DE PROGRAMMATION

Program Number	Time
<b>P1*</b>	<b>30 mins</b>
P2	1 hour
P3	3 hours
P4	6 hours
P5	12 hours
P6	18 hours
P7	24 hours
P8	36 hours
P9	48 hours
P10	72 hours
	12V System      24V System
P11	10.5V      21V
P12	11V      22V
<b>P13*</b>	<b>11.5V      23V</b>
P14	12V      24V
P15	8.5V      8.5V

\* Factory default settings

# ASSEMBLY

- PACKING CONTENTS
  - 1 x PowerTector      3 x Screws
  - 5 x Crimp Connectors      1 x Programming Lead
- FEATURES
  - 12V / 24V Automatic mode selection (12V mode 8<V≤17 , 24V mode 17<V≤35)
  - 10 Programmable disconnection times
  - Supplied with FASTON crimp connectors for low current connections
  - IP65 rated
  - Ignition switch connection
  - Connection for remote alarm
- OPERATION

The PowerTector-T will guard against excessive battery discharge by disconnecting the load at a user selectable time after the ignition has been turned off.

The PowerTector-T will also monitor the battery once the ignition has been turned off and disconnect the load when the voltage drops below a user selectable level after one minute.

The PowerTector will protect the load by disconnecting it if the battery voltage exceeds 19V on a 12V system or 32V on a 24V system.

■ ASSEMBLY

1. Select a cool and ventilated position to install the device which is not exposed to direct sunlight.
2. Mount as close to the battery as possible using a wire of sufficient diameter.
3. Isolate the power to the wiring before commencing installation.
4. Mount using the three mounting holes with screws or bolts.
5. Connect the 'ground' terminal.
6. Connect the 'input positive' terminal.
7. Connect the 'ignition' terminal to the vehicle ignition switched output.
8. If required program the unit as described below.
9. Connect the 'output positive' once no further programming is required.
10. Connect the alarm if required.

For the alarm, (4) maximum current is 500mA.

# PROGRAMMING

■ THE CONNECTIONS

Isolate the circuit before you connect or disconnect the device. Connect the unit as detailed in the wiring diagram.

■ PROGRAMMING

The table shows the factory default and user defined settings.

To change a program:

1. Remove the 'input positive' crimp connector just enough to reveal the 'input positive' terminal.
2. Temporally connect together the 'input positive' and the 'program' terminal using the programming lead supplied.
3. The LED will start to flash, each flash indicates the program to be selected.
4. Keep the connection until the LED has flashed the number of times for the desired program then remove the connection.
5. The LED will then flash the number of times to confirm the selected program.
6. Programming of P1 to P10 and P11 to P15 are carried out separately.

■ PROGRAM MODES

**P1-P10**—Disconnect time range. (P1 is default)

**P11—15** Disconnect Voltage. (P13 is default)

■ ALARM

The alarm output will be constantly active 10s after the voltage drops below the disconnect threshold. It will deactivate if the voltage rises above the disconnect threshold or 60s after the voltage drops below the disconnect threshold.

The alarm will activate in pulse mode if the battery voltage rises above 19V for a 12V system or 32V for a 24V system.

**Alarm\*\*** - The use of a relay requires a free wheeling diode to prevent damage - see application note AN-PT01.

# SAFETY

■ SAFETY

- **This PowerTector is for ancillary equipment only. It must not be used to disconnect equipment that is critical to the safe operation of the vehicle.**
- The device must not be exposed to severe mechanical shocks.
- The device must not be exposed to extreme temperature, direct sunlight or vigorous vibration.
- The device may only be used within a dry environment, such as a vehicle.
- Do not install this device on hot vehicle parts and ensure there is sufficient space around the device for air circulation and cooling.
- The wiring harness should be protected by fuses.
- Observe the magnitude and polarity of the input/output voltage when installing, incorrect polarity of the output could damage the circuit.
- Isolate the circuit before you connect or remove the device.
- Ensure that the output of the device is not short-circuited.
- Never open the device casing and never repair it. The device must be replaced if it is damaged.

■ INDUCTIVE LOADS

The inductive load rating of this PowerTector is 1mH.

Do not exceed the specified inductive rating.

Inductive equipment includes; motors, pumps, refrigeration, relays, long cables etc.

Conducted voltage transients must not exceed those specified by ISO7637-2:2004 Level III.

■ FUSING

**The input and ground wiring must be fused appropriately.**

For the ground, minimum 500mA to 1A maximum.