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Tridon Guarantee

The Tridon products listed in this catalogue are guaranteed to be free of defects in materials and workmanship for the following periods:

- Electronic and Electro-mechanical Flashers: 2 years
- Thermal Flashers: 1 year
- General Relays: 1 year

This warranty does not apply to:

- Flashers or Relays that have been modified or altered in any way.
- Flasher relays that have been fitted to the incorrect vehicle.
- Flashers or Relays that have been incorrectly connected.
- Flashers or Relays used in continuous use applications.
Tridon Australia Pty Ltd is an Australian owned company and supplies an extensive range of the highest quality products to the Automotive, Original Equipment, Industrial and Hardware markets in Australia and New Zealand. Quality and customer service are of the utmost importance and Tridon’s manufacturing and distribution facilities are all ISO9002/QS9000 quality accredited and ISO14001 environmentally accredited.

This Catalogue contains information on the comprehensive relay range available from Tridon. The Relay range includes Flasher Relays to suit turn signal applications, and General Relays to suit an extensive range of applications including fuel pump, driving lights, fog lights, head lamp, door locks, horn, ignition, instrument panel and park lamps.

Vehicle applications for Flasher Relays are contained within this catalogue. As Relays are for general purpose applications selection and replacement should be made by referring to the style, pin configuration, code number, voltage and amps.

This extensive, full colour catalogue includes photographs of each part number for easy identification, together with the most up to date Vehicle Application List in the marketplace. An aftermarket cross reference guide been included to assist with product selection.

For further information on these products please contact your nearest Tridon stockist or Tridon Customer Service as listed on the back of this catalogue.
Flasher Relays

Today’s modern vehicles require flasher relays to operate in a broader range of conditions than earlier style thermal flashers. The extended Tridon flasher relays range now covers; Electro Mechanical Flashers, Electronic Flashers, Thermal Flashers and includes alternating flashers for emergency vehicles. In addition, LED flashers designed to operate rear LED lamps on commercial trucks and trailers are now available.

Electro-Mechanical Flashers
Tridon electro-mechanical flashers are non-polarised and therefore are suitable for both negative ground and positive ground vehicles. These are also non load sensitive and the flash rate frequency remains relatively constant with variations in temperatures, electrical system load, supply voltage variation and mounting location.

Electronic Flashers
Most of the Tridon electronic flashers are load sensitive whereby if bulb failure occurs, the flash rate doubles to indicate outage or bulb failure. Details on each flasher are listed in the flasher pin identification guide on page 7. Electronic and electro-mechanical flashers last up to ten times longer than thermal flashers of equivalent configuration. Tridon electronic flashers are designed to operate consistently for over 3 million operations and Tridon electro-mechanical flashers are designed to operate consistently for over 2.5 million operations.

Thermal Flashers
Tridon thermal flashers offer a low cost alternative, utilising a bi-metal strip contact to flash up to six lamps within the required frequency range. As a general rule, Tridon recommend that thermal flashers only be used on vehicles manufactured prior to 1980, electro-mechanical flashers only to be used on vehicles prior to 1990 and electronic flashers are suitable for use on all vehicles. Consult the application listing in this catalogue to find the flasher recommended for your vehicle. All Tridon flashers can be used with any standard or heavy duty long life bulbs and will operate efficiently in all applications nominated.

Whilst some flasher configurations appear the same, the correct unit should be fitted as per the application list in this catalogue. If in doubt, either the pin configuration of the flasher or the vehicle wiring diagram should be checked. Pin function of all Tridon flashers shown in this catalogue are for reference and product identification purposes.

LED Flashers
Tridon LED lamp flashers are now available for commercial vehicle applications in 12 volt, 2 and 3 pin configurations. The LED flashers are available in two versions – non load sensitive and load sensitive.

Australian Design Rules (ADR13)
In Australia since 1990, motor vehicle manufacturers have had to comply with ADR13 which is a legal requirement for flasher relays to incorporate outage or bulb failure indication. Outage style flashers are designed to double the flash rate and frequency of audibility in the event of bulb failure to indicate to the driver that the turn signal is not operating. Outage style flasher relays or load sensitive relays are an ADR requirement and have been utilised by European vehicle manufacturers since the early 1980’s. Tridon style outage flasher relays are detailed in the Tridon electronic flasher range.

All Tridon flashers are designed to meet or exceed O.E, D.O.T, S.A.E, FMVSS and ADR specifications.
Packaging

Tridon flasher relays are available in two packaging styles to suit various sales applications. To check the packaging style of a particular part number refer to the Quick Reference Guide on page 6.

Blister Packed Flashers

► Tridon blister packed flashers are suitable for use in retail and self-serve sales areas.
► Each flasher is secured behind a clear shell to enable identification without any tampering or opening of the pack.
► The rear of the backing card has an abbreviated applications listing for ease of product selection.
► Each pack is individually bar coded.
► To order blister packed flashers add the suffix PAC to the end of the part number e.g. FET13PAC.

Boxed Flashers

► Tridon boxed flashers are suitable for use in trade use and high volume applications.
► Packaging has been kept simple and size minimised to enable the maximum amount of stock to be stored in the minimum amount of space.
► Packaging is clearly marked with the part number to enable easy product identification.
► Part numbers listed in this catalogue are for boxed flashers and do not require any additional numbers or letters to be used.
► Tridon flashers are supplied individually boxed in outer cartons containing ten flashers.

Merchantising

This attractive, modern wall display contains 16 popular electronic flasher relays to suit an extensive range of vehicle applications.

Part No. TFM16
Contents
2 X EP32PAC
1 X EP34PAC
2 X EPJ13PAC
2 X HD13PAC
4 X FET13PAC
1 X FET16PAC
4 X HD12PAC
Dimensions: 450mm wide x 380mm high
# Flasher Relays Quick Reference Guide

<table>
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<tr>
<th>Part No</th>
<th>Figure No</th>
<th>Voltage</th>
<th>Number of Terminals</th>
<th>Globe Fail Indication (Outage)</th>
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<th>Notes</th>
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Note: All part numbers listed in this catalogue are for boxed flasher relays. To receive Blister packed Flasher Relays please add “PAC” to the end of the part number. EG: HD12PAC

## Terminal Codes for Tridon Flasher Relays

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<th>L</th>
<th>Load or Output</th>
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<td>P</td>
<td>Vehicle Dash Indicator</td>
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<td>Ignition or Battery</td>
<td>+</td>
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<td>+ve feed from Hazard Switch</td>
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<td>E</td>
<td>Earth or Ground</td>
<td>31</td>
<td>Earth or Ground</td>
<td></td>
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</table>
Flasher Pin Identification Guide

**Figure 1**  
Applicable to: EG22, EP12, EP37, EP50, HD12, LED04, SD12, TF122

**Figure 2**  
Applicable to: EG23, EP13, HD13, LED03, SD13, TF63, TF123

**Figure 3**  
Applicable to: EP32

**Figure 4**  
Applicable to: EPJ13

**Figure 5**  
Applicable to: EP34

**Figure 6**  
Applicable to: EP35, EP36, FET13, LED01, LED02

**Figure 7**  
Applicable to: EL13A, EL23A

**Figure 8**  
Note: Use EP13 for this application as EP13 doesn’t require terminal 31.  
See note 5 on page 33

**Figure 9**  
Note: Use EP12 for this application.  
See notes 3 and 4 on page 33

**Figure 10**  
Applicable to: FET16

**Figure 11**  
Applicable to: FET17

**Figure 12**  
Applicable to: FET18

**Figure 13**  
Applicable to: FET19, FET20

**Figure 14**  
Applicable to: FET21

*Note:* Round flashers shown in this catalogue are for illustrative purposes only. Some flashers will be supplied with square bases as per vehicle requirements.
Tridon Flasher Relay Range

EG22  2 Pin  24 Volt
Electro-mechanical flasher
Load Rating: 1 to 6 x 25 watt, 24v lamps.
Temp. Range: -32°C to 63°C.
Voltage Range: 22-30 volts D.C.
- Not polarity sensitive.
- Suitable for flasher & hazard light applications.
- Flash rate is not influenced by load variation.

EG23  3 Pin  24 Volt
Electro-mechanical flasher
Load Rating: 1 to 6 x 25 watt, 24v lamps.
Temp. Range: -32°C to 63°C.
Voltage Range: 22-30 volts D.C.
- Not polarity sensitive.
- Suitable for flasher & hazard light applications.
- Flash rate is not influenced by load variation.

EL13A  3 Pin  12 Volt
Alternating flasher for emergency vehicles
Load Rating: 1 to 6 x 25 watt 12v lamps per side.
Temp. Range: -40°C to 85°C.
Voltage Range: 10-16 volts D.C.
- Designed to conform to the test and durability requirements of SAE J1054.
- Suitable for buses and emergency vehicles & applications requiring alternate flashing lamps.

EL23A  3 Pin  24 Volt
Alternating flasher for emergency vehicles
Load Rating: 1 to 6 x 25 watt 24v lamps per side.
Temp. Range: -40°C to 85°C.
Voltage Range: 22-30 volts D.C.
- Designed to conform to the test and durability requirements of SAE J1054.
- Suitable for buses and emergency vehicles & applications requiring alternate flashing lamps.
EP12  2 Pin  12 Volt  
**Electronic flasher load sensitive**

**Load Rating:** $2 + 1 (6) \times 21$ watt, 12v lamps.  
**Temp. Range:** -40°C to 85°C.  
**Voltage Range:** 9-16 volts D.C.  
- Designed to conform to SAE, ISO and ADR13 specifications.  
- Suitable for flasher & hazard light applications.  
- Incorporates audible, visual globe failure (outage) indication.

B&B terminals are 7mm apart.

EP13  3 Pin  12 Volt  
**Electronic flasher load sensitive**

**Load Rating:** $2 + 1 (6) \times 21$ watt, 12v lamps.  
**Temp. Range:** -40°C to 85°C.  
**Voltage Range:** 9-16 volts D.C.  
- Designed to conform to SAE, ISO and ADR13 specifications.  
- Suitable for flasher & hazard light applications.  
- Incorporates audible, visual globe failure (outage) indication.

EP32  3 Pin  12 Volt  
**Electronic flasher load sensitive**

**Load Rating:** $2 + 1 (6) \times 21$ watt.  
**Temp. Range:** -40°C to 85°C.  
**Voltage Range:** 9-16 volts D.C.  
- Designed to conform to SAE, ISO and ADR13 specifications.  
- Suitable for flasher and hazard light applications.  
- “B” and “E” terminals are set approx 7mm apart for Japanese applications.  
- Incorporates audible, visual globe failure (outage) indication.

EP34  3 Pin  12 Volt  
**Electronic flasher load sensitive**

**Load Rating:** $2 + 1 (6) \times 21$ watt, 12v lamps.  
**Temp. Range:** -40°C to 85°C.  
**Voltage Range:** 9-16 volts D.C.  
- Designed to conform to SAE, ISO and AFNOR specifications.  
- Suitable for flasher & hazard light applications.  
- Incorporates audible, visual globe failure (outage) indication.
EP35 3 Pin 12 Volt (Replaced by FET13)
Electronic flasher load sensitive
Load Rating: 2 + 1 (6) x 21 watt, 12v lamps.
Temp. Range: -40°C to 85°C.
Voltage Range: 9-16 volts D.C.
- Designed to conform to SAE, ISO and ADR13 specifications.
- Suitable for flasher & hazard light applications.
- Incorporates audible, visual globe failure (outage) indication.

EP36 3 Pin 12 Volt
Electronic flasher load sensitive
Load Rating: 3 + 1 (8) x 21 watt, 12v lamps.
Temp. Range: -40°C to 85°C.
Voltage Range: 9-16 volts D.C.
- Designed to conform to SAE, ISO and ADR13 specifications. Suitable for flasher & hazard light applications.
- Heavy duty version of FET13 (EP35).
- This flasher incorporates audible, visual globe failure (outage) indication.
- For use on vehicles with three lamps on the vehicle.

EP37 2 Pin 12 Volt
Heavy duty electronic flasher for road trains
Load Rating: 16 x 25 watt, 12v lamps.
Temp. Range: -40°C to 85°C.
Voltage Range: 9-16 volts D.C.
- Designed to conform to test and durability requirements of SAE J1690 Class A.
- Suitable for flasher and hazard light applications on heavy duty vehicles with multiple trailers.
  eg. B Double and road train.

EP50 2 Pin 12 Volt
Heavy duty electronic flasher for road trains
Load Rating: 20 x 25 watt, 12v lamps.
Temp. Range: -40°C to 85°C.
Voltage Range: 9-16 volts D.C.
- Designed to conform to test and durability requirements of SAE J1690 Class A.
- Suitable for flasher and hazard light applications on heavy duty vehicles with multiple trailers.
  eg. B Double and road train.
- Heavy duty version of EP37.
**EPJ13**  3 Pin  12 Volt  
Electronic flasher  
load sensitive  
Load Rating: 2 + 1 (6) x 21 watt, 12v lamps.  
Temp. Range: -40°C to 85°C.  
Voltage Range: 9-16 volts D.C.  
- Designed to conform to SAE, ISO and ADR13 specifications.  
- Suitable for flasher and hazard light applications.  
- "B" and "E" terminals are set approx 4mm apart for Japanese applications.  
- Incorporates audible, visual globe failure (outage) indication.

**FET13**  3 Pin  12 Volt  
Electronic flasher  
load sensitive  
Load Rating: 2 + 1 (6) x 21 watt, 12v lamps.  
Temp. Range: -40°C to 85°C.  
Voltage Range: 9-16 volts D.C.  
- Designed to conform to SAE, ISO and ADR13 specifications.  
- Suitable for flasher and hazard light applications.  
- Incorporates audible, visual globe failure (outage) indication.

**FET16**  4 Pin  12 Volt  
Electronic flasher  
load sensitive  
Load Rating: 2 + 1 (6) x 21 watt, 12v lamps.  
- Conforms to the requirements of ADR13.  
- Incorporates audible, visual globe failure (outage) indication.  
- Used in applications where FET13 is required and an independent trailer dash indicator is also required.

**FET17**  5 Pin  12 Volt  
Electronic flasher with  
load sensing  
Load Rating: 2 + 1 (6) x 21 watt, 12v lamps.  
- Conforms to the requirements of ADR13.  
- Incorporates audible, visual globe failure (outage) indication.  
- Used in European applications that require both a vehicle dash and a trailer dash indicator.
FET18 6 Pin 12 Volt
Electronic flasher
load sensitive
Load Rating: $2 + 1 + 1 (8) \times 21$ watt, 12v lamps.
- Conforms to the requirements of ADR13.
- Incorporates audible, visual globe failure (outage) indication.
- Provides dash indicators for two additional trailers to indicate that the trailers are connected and the globes are operational.

FET19 6 Pin 24 Volt
Electronic flasher
load sensitive
Load Rating: $3 + 1 (8) \times 21$ watt, 24v lamps.
- Conforms to the requirements of ADR13.
- Designed to be used on vehicles with 3 lamps & dash indicators for both the towing vehicle & 1 trailer. Used on heavy trucks.
- Incorporates audible, visual globe failure (outage) indication.

FET20 6 Pin 24 Volt
Electronic flasher
load sensitive
Load Rating: $2 + 1 (8) \times 21$ watt, 24v lamps.
- Conforms to the requirements of ADR13.
- Designed to be used on vehicles with 3 lamps & dash indicators for both the towing vehicle & 1 trailer. Used on heavy trucks.
- Incorporates audible, visual globe failure (outage) indication.

FET21 7 Pin 12 Volt
Electronic flasher
load sensitive
Load Rating: $25$ watt x $2 + 10$ watt, 12v lamps.
- Conforms to the requirements of ADR13.
- Suits later model Ford and Mazda application.
- Incorporates audible, visual globe failure (outage) indication.
**HD12  2 Pin  12 Volt**
**Electro-mechanical flasher**
Load Rating: 1 to 6 x 25 watt, 12v lamps.
Temp. Range: -32°C to 63°C.
Voltage Range: 11-15 volts D.C.
- Not polarity sensitive – can be used on positive and negative ground vehicles.
- Suitable for flasher & hazard light applications.
- Flash rate is not influenced by load variation.

**HD13  3 Pin  12 Volt**
**Electro-mechanical flasher**
Load Rating: 1 to 6 x 25 watt, 12v lamps.
Temp. Range: -32°C to 63°C.
Voltage Range: 11-15 volts D.C.
- Not polarity sensitive – can be used on positive and negative ground vehicles.
- Suitable for flasher & hazard light applications.
- Flash rate is not influenced by load variation.

**LED01  3 Pin  12 Volt**
**Electronic flasher load sensitive**
Load rating: Minimum 1 x 21w + 1 x 9w, 12v lamps.  
Maximum 2 x 21w + 2 x 9w, 12v lamps.
- For commercial vehicles with LED rear directional indicators.
- Conforms to the requirements of ADR13.
- Incorporates audible, visual globe failure (outage) indication.

**LED02  3 Pin  12 Volt**
**Electronic flasher load sensitive**
Load rating: Minimum 1 x 21w + 1 x 5w + 1 x 9w, 12v lamps.  
Maximum 2 x 21w + 2 x 5w + 2 x 9w, 12v lamps.
- For commercial vehicles with LED rear and additional side directional indicators.
- Conforms to the requirements of ADR13.
- Incorporates audible, visual globe failure (outage) indication.
LED03  3 Pin  12 Volt
Electronic flasher non load sensitive

Load rating: Minimum 0.02 AMP
Maximum 20 AMP

- For commercial vehicles with LED rear and additional side directional indicators pre 1980.
- This flasher does not conform to the requirements of ADR13.

LED04  2 Pin  12 Volt
Electronic flasher non load sensitive

Load rating: Minimum 0.02 AMP
Maximum 20 AMP

- For commercial vehicles with LED rear and additional side directional indicators pre 1980.
- This flasher does not conform to the requirements of ADR13.

SD12  2 Pin  12 Volt
Electro-mechanical flasher

Load Rating: 1 to 10 x 25 watt, 12v lamps.
Temp. Range: -32°C to 63°C.
Voltage Range: 11-15 volts D.C.

- Not polarity sensitive – can be used on positive and negative ground vehicles.
- Suitable for flasher & hazard light applications.
- Flash rate is not influenced by load variation.
- Extra heavy duty version of HD12.

SD13  3 Pin  12 Volt
Electro-mechanical flasher

Load Rating: 1 to 10 x 25 watt, 12v lamps.
Temp. Range: -32°C to 63°C.
Voltage Range: 11-15 volts D.C.

- Not polarity sensitive – can be used on positive and negative ground vehicles.
- Suitable for flasher and hazard light applications.
- Flash rate is not influenced by load variation.
- Extra heavy duty version of HD13.
TF63  3 Pin 6 Volt
Thermal flasher
Load Rating: 1 to 6 x 25 watt, 6v lamps
Temp. Range: -32°C to 63°C.
Voltage Range: 5-9 volts D.C.
- Not polarity sensitive – can be used on positive and negative ground vehicles.
- Suitable for flasher & hazard light applications.
- Flash rate is not influenced by load variation.

TF122  2 Pin 12 Volt
Thermal flasher
Load Rating: 2 to 6 x 21 watt, 12v lamps
- Thermal flashers operate on a bi-metallic strip principle and flash faster with more load.
- Suitable for use only in older vehicle applications (prior to 1980).
- Not suitable for use on late model vehicles as they do not comply to ADR13.
- Flash rate not influenced by load variation.

TF123  3 Pin 12 Volt
Thermal flasher
Load Rating: 2 to 6 x 21 watt, 12v lamps.
- Thermal flashers operate on a bi-metallic strip principle and flash faster with more load.
- Suitable for use only in older vehicle applications (prior to 1980).
- Not suitable for use on late model vehicles as they do not comply to ADR13.
- Flash rate not influenced by load variation.
General Relays

Tridon offers a range of general relays for many applications including:

- fuel pump
- fog light
- driving light
- head lamp
- door lock
- horn
- ignition
- instrument
- park lamp

The general relay range is available in 12 and 24 volt versions and includes mini, micro, dual and vehicle specific Japanese applications. The mini and micro range is available in 4 and 5 pin styles.

Mini Relays and Micro Relays
Designed for a wide range of applications, the Mini and Micro range is available in both 12 and 24 volt with various pin terminal designations. All Mini relays are supplied with a removable straight bracket.

Dual Relays
The Tridon Dual Relay incorporates two 12 volt Mini relays in the one unit.

Fused Relays
Available in 4 pin, 12 volt/30 amp and 24 volt/15 amp combinations with the additional protection of an inbuilt fuse.

Japanese Specific Relays
Designed as direct replacement relays for Japanese vehicles including Toyota and Honda. Check OE part numbers and pin configurations prior to installation.

Relay Function
The function of a relay is to integrate between different control items and depending on the application these are either isolating, sensing or counting a high frequency signal to create a trigger.

Using a relay allows an on/off signal transmission between various control components. Basically, relays are electrical switches that control electrical circuits by opening and closing contacts within circuits.

Selection of Correct Relay
When selecting the relay, ensure the terminal pin configuration meets the requirements. For details of pin codes refer to Relay Pin Identification Guide on page 39.

Caution: Check the Pin number codes prior to installation as relay functions vary depending on the vehicle manufacturer’s specifications. The replacement Tridon relay should match the old unit being replaced. Pin configuration may appear the same however Pin designation may vary.
Packaging

Tridon relays are available in two packaging styles to suit various sales applications. To check the packaging style of particular part number refer to the Quick Reference Guide on page 38.

Blister Packed Relays
► Tridon blister packed relays are suitable for use in retail and self-serve sales areas.
► Each relay is secured behind a clear shell so that it can be identified without any tampering or opening of the pack.
► Each pack is individually bar coded.
► To order blister packed relay add the suffix PAC to the end of the part number eg TR001PAC.

Boxed Relays
► Tridon boxed relays are suitable for use in trade and high volume applications.
► Packaging has been kept simple and size minimised to enable the maximum amount of stock to be stored in the minimum amount of space.
► Packaging is clearly marked with the part number to enable easy product identification.
► Part numbers listed in this catalogue are for boxed relays and do not require any additional numbers or letters to be used.
► Tridon relays are supplied individually boxed in outer cartons containing ten relays.

Merchandising

This attractive, modern wall display contains 30 popular relays to suit an extensive range of vehicle applications.

Part No. TRM30
Contents
3 X TR001PAC 3 X TR018PAC
3 X TR002PAC 3 X TR022PAC
3 X TR006PAC 3 X TR032PAC
3 X TR007PAC 3 X TR046PAC
3 X TR016PAC 3 X TR047PAC
Dimensions: 450mm wide x 380mm high
<table>
<thead>
<tr>
<th>Tridon Part No</th>
<th>Volts</th>
<th>Amps</th>
<th>Relay Type</th>
<th>Number of Terminals</th>
<th>Relay Type</th>
<th>Pin Sizes</th>
<th>Packaging</th>
<th>Figure No</th>
<th>Page No</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR001</td>
<td>12v</td>
<td>30amp(NO)</td>
<td>Normally open/Non Resistor</td>
<td>4</td>
<td>Mini</td>
<td>4 x 6.3mm</td>
<td>Box + Blister</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>TR002</td>
<td>12v</td>
<td>40amp(NO)</td>
<td>Normally open/Non Resistor</td>
<td>4</td>
<td>Mini</td>
<td>4 x 6.3mm</td>
<td>Box + Blister</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>TR003</td>
<td>12v</td>
<td>70amp(NO)</td>
<td>Normally open/Non Resistor</td>
<td>4</td>
<td>Mini</td>
<td>2 x 6.3 / 2 x 9.5mm</td>
<td>Box + Blister</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>TR005</td>
<td>24v</td>
<td>20amp(NO)</td>
<td>Normally open/Non Resistor</td>
<td>4</td>
<td>Mini</td>
<td>4 x 6.3mm</td>
<td>Box + Blister</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>TR006</td>
<td>12v</td>
<td>30amp(NO)</td>
<td>Normally open/Non Resistor</td>
<td>4</td>
<td>Mini</td>
<td>4 x 6.3mm</td>
<td>Box + Blister</td>
<td>1</td>
<td>40</td>
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<td>TR007</td>
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<td>Mini</td>
<td>4 x 6.3mm</td>
<td>Box + Blister</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>TR008</td>
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<td>50amp(NO)</td>
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<td>4</td>
<td>Mini</td>
<td>2 x 6.3 / 2 x 9.5mm</td>
<td>Box + Blister</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>TR013</td>
<td>12v</td>
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<td>Normally open/Non Resistor</td>
<td>4</td>
<td>Mini</td>
<td>4 x 6.3mm</td>
<td>Box + Blister</td>
<td>1</td>
<td>40</td>
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<tr>
<td>TR014</td>
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<td>15amp(NO)</td>
<td>Normally open/Non Resistor</td>
<td>4</td>
<td>Mini</td>
<td>4 x 6.3mm</td>
<td>Box + Blister</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>TR015</td>
<td>12v</td>
<td>30amp(NO)</td>
<td>Normally open/Dual</td>
<td>8</td>
<td>Mini</td>
<td>8 x 6.3mm</td>
<td>Box only</td>
<td>7</td>
<td>42</td>
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<tr>
<td>TR016</td>
<td>12v</td>
<td>30amp(NO)</td>
<td>Normally open/Non Resistor</td>
<td>5</td>
<td>Mini</td>
<td>5 x 6.3mm</td>
<td>Box + Blister</td>
<td>3</td>
<td>41</td>
</tr>
<tr>
<td>TR017</td>
<td>24v</td>
<td>20amp(NO)</td>
<td>Normally open/Non Resistor</td>
<td>5</td>
<td>Mini</td>
<td>5 x 6.3mm</td>
<td>Box + Blister</td>
<td>3</td>
<td>41</td>
</tr>
<tr>
<td>TR018</td>
<td>12v</td>
<td>40amp(NO)</td>
<td>Normally open/Resistor</td>
<td>5</td>
<td>Mini</td>
<td>5 x 6.3mm</td>
<td>Box + Blister</td>
<td>6</td>
<td>41</td>
</tr>
<tr>
<td>TR019</td>
<td>24v</td>
<td>30amp(NO)</td>
<td>Normally open/Resistor</td>
<td>5</td>
<td>Mini</td>
<td>5 x 6.3mm</td>
<td>Box + Blister</td>
<td>6</td>
<td>41</td>
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<td>Changeover/Resistor</td>
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<td>Mini</td>
<td>5 x 6.3mm</td>
<td>Box + Blister</td>
<td>4</td>
<td>41</td>
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<td>Changeover/Resistor</td>
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<td>Mini</td>
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<td>4</td>
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<td>TR024</td>
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<td>Changeover/Resistor</td>
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<td>Mini</td>
<td>5 x 6.3mm</td>
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<td>41</td>
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<td>TR025</td>
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<td>30amp(NO)</td>
<td>Changeover/Resistor</td>
<td>5</td>
<td>Mini</td>
<td>5 x 6.3mm</td>
<td>Box + Blister</td>
<td>4</td>
<td>41</td>
</tr>
<tr>
<td>TR026</td>
<td>12v</td>
<td>40amp(NO)</td>
<td>Changeover/Resistor</td>
<td>5</td>
<td>Mini</td>
<td>5 x 6.3mm</td>
<td>Box + Blister</td>
<td>4</td>
<td>41</td>
</tr>
<tr>
<td>TR027</td>
<td>24v</td>
<td>30amp(NO)</td>
<td>Changeover/Resistor</td>
<td>5</td>
<td>Mini</td>
<td>5 x 6.3mm</td>
<td>Box + Blister</td>
<td>4</td>
<td>41</td>
</tr>
<tr>
<td>TR032</td>
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<td>16amp(NO)</td>
<td>Normally open/Resistor</td>
<td>4</td>
<td>Micro</td>
<td>2 x 4.8 / 2 x 6.3mm</td>
<td>Box + Blister</td>
<td>8</td>
<td>42</td>
</tr>
<tr>
<td>TR033</td>
<td>12v</td>
<td>20amp(NO)</td>
<td>Normally open/Resistor</td>
<td>4</td>
<td>Micro</td>
<td>2 x 4.8 / 2 x 6.3mm</td>
<td>Box + Blister</td>
<td>8</td>
<td>42</td>
</tr>
<tr>
<td>TR039</td>
<td>12v</td>
<td>20amp(NO)</td>
<td>Changeover/Resistor</td>
<td>5</td>
<td>Micro</td>
<td>3 x 4.8 / 2 x 6.3mm</td>
<td>Box + Blister</td>
<td>9</td>
<td>42</td>
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<tr>
<td>TR040</td>
<td>24v</td>
<td>10amp(NO)</td>
<td>Changeover/Resistor</td>
<td>5</td>
<td>Micro</td>
<td>3 x 4.8 / 2 x 6.3mm</td>
<td>Box + Blister</td>
<td>9</td>
<td>42</td>
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<tr>
<td>TR043</td>
<td>All</td>
<td>All</td>
<td>Connectors</td>
<td>4 &amp; 5</td>
<td>Mini</td>
<td>3 x 6.3 / 2 x 9.5mm</td>
<td>Box + Blister</td>
<td>-</td>
<td>43</td>
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<tr>
<td>TR044</td>
<td>All</td>
<td>All</td>
<td>Connectors</td>
<td>4 &amp; 5</td>
<td>Mini</td>
<td>5 x 6.3mm</td>
<td>Box + Blister</td>
<td>-</td>
<td>43</td>
</tr>
<tr>
<td>TR045</td>
<td>All</td>
<td>All</td>
<td>Connectors</td>
<td>4 &amp; 5</td>
<td>Micro</td>
<td>3 x 4.8 / 2 x 6.3mm</td>
<td>Box + Blister</td>
<td>-</td>
<td>43</td>
</tr>
<tr>
<td>TR046</td>
<td>12v</td>
<td>30amp(NO)</td>
<td>Normally open/Resistor</td>
<td>4</td>
<td>Mini</td>
<td>4 x 6.3mm</td>
<td>Box + Blister</td>
<td>2</td>
<td>40</td>
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<tr>
<td>TR047</td>
<td>12v</td>
<td>30amp(NO)</td>
<td>Changeover/Resistor</td>
<td>5</td>
<td>Mini</td>
<td>5 x 6.3mm</td>
<td>Box + Blister</td>
<td>5</td>
<td>42</td>
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<tr>
<td>TR048</td>
<td>12v</td>
<td>22amp</td>
<td>Toyota</td>
<td>3</td>
<td>Round</td>
<td>3 x 6.3mm</td>
<td>Box + Blister</td>
<td>10</td>
<td>43</td>
</tr>
<tr>
<td>TR049</td>
<td>12v</td>
<td>22amp</td>
<td>Toyota/Honda</td>
<td>4</td>
<td>Round</td>
<td>4 x 6.3mm</td>
<td>Box + Blister</td>
<td>11</td>
<td>43</td>
</tr>
<tr>
<td>TR050</td>
<td>12v</td>
<td>15amp</td>
<td>Toyota</td>
<td>4</td>
<td>Round</td>
<td>4 x 6.3mm</td>
<td>Box + Blister</td>
<td>12</td>
<td>43</td>
</tr>
</tbody>
</table>

(NO) Normally open between contacts
(NC) Normally closed between contacts
(NO/NC) Changeover relay normally open/normally closed between contacts
Relay Pin Identification Guide

Terminal codes for Tridon Relays

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>Input</td>
</tr>
<tr>
<td>85</td>
<td>Ground</td>
</tr>
<tr>
<td>86</td>
<td>Switch Input</td>
</tr>
<tr>
<td>87</td>
<td>Output Contacts Normally Open</td>
</tr>
<tr>
<td>87a</td>
<td>Output Contacts Normally Closed</td>
</tr>
<tr>
<td>87b</td>
<td>Output Contacts Normally Open</td>
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</table>

Type of Relay Contacts

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>Normally Open Between Contacts</td>
</tr>
<tr>
<td>NC</td>
<td>Normally Closed Between Contacts</td>
</tr>
<tr>
<td>NO/NC</td>
<td>Changeover type</td>
</tr>
<tr>
<td>NODC</td>
<td>Normally Open, Dual Contacts</td>
</tr>
<tr>
<td>Normal Contacts Normally Closed</td>
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</tr>
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</table>

Note: It is important to check pin configuration and terminal designations when selecting replacement relays.

Figure 1 - Applicable to: TR001, TR002, TR003, TR005, TR006, TR007, TR008, TR013, TR014
Figure 2 - Applicable to: TR046
Figure 3 - Applicable to: TR016, TR017
Figure 4 - Applicable to: TR022, TR023, TR024, TR025, TR026, TR027
Figure 5 - Applicable to: TR047
Figure 6 - Applicable to: TR018, TR019
Figure 7 - Applicable to: TR015
Figure 8 - Applicable to: TR032, TR033
Figure 9 - Applicable to: TR039, TR040
Figure 10 - 3 Pin Toyota Applicable to: TR048
Figure 11 - 4 Pin Toyota/Honda Applicable to: TR049
Figure 12 - 4 Pin Toyota Applicable to: TR050
Tridon General Relay Range

4 Pin Mini Relays
Normally open with removable straight bracket

Non Resistor Type

<table>
<thead>
<tr>
<th>Part No</th>
<th>Voltage</th>
<th>Amps</th>
<th>Pin Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR001</td>
<td>12v</td>
<td>30amp (NO)</td>
<td>4 x 6.3mm</td>
</tr>
<tr>
<td>TR002</td>
<td>12v</td>
<td>40amp (NO)</td>
<td>4 x 6.3mm</td>
</tr>
<tr>
<td>TR003</td>
<td>12v</td>
<td>70amp (NO)</td>
<td>2 x 6.3mm / 2 x 9.5mm</td>
</tr>
<tr>
<td>TR005</td>
<td>24v</td>
<td>20amp (NO)</td>
<td>4 x 6.3mm</td>
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</table>

Resistor Type

<table>
<thead>
<tr>
<th>Part No</th>
<th>Voltage</th>
<th>Amps</th>
<th>Pin Sizes</th>
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</thead>
<tbody>
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<td>TR006</td>
<td>12v</td>
<td>30amp (NO)</td>
<td>4 x 6.3mm</td>
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<tr>
<td>TR007</td>
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<td>TR008</td>
<td>12v</td>
<td>50amp (NO)</td>
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4 Pin Fused Relays
Normally open with removable straight bracket

Fused Type

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<td>12v</td>
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<td>TR014</td>
<td>24v</td>
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4 Pin Mini Relay with different pin designations
Normally open with resistor and removable straight bracket

Resistor Type

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<td>TR046</td>
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5 Pin Mini Relays
Normally open with removable straight bracket

Non Resistor Type

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<th>Amps</th>
<th>Pin Sizes</th>
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<td>TR016</td>
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<td>5 x 6.3mm</td>
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<td>TR017</td>
<td>24v</td>
<td>20amp (NO)</td>
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Resistor Type (Dual Contact)

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<tbody>
<tr>
<td>TR018</td>
<td>12v</td>
<td>40amp (NO) Dual Contact</td>
<td>5 x 6.3mm</td>
</tr>
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<td>TR019</td>
<td>24v</td>
<td>30amp (NO) Dual Contact</td>
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5 Pin Mini Relays
Changeover Relays with removable straight bracket

Non Resistor Type

<table>
<thead>
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<th>Pin Sizes</th>
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<td>TR023</td>
<td>24v</td>
<td>30amp (NO) / 20amp (NC)</td>
<td>5 x 6.3mm</td>
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Resistor Type

<table>
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<td>TR025</td>
<td>12v</td>
<td>30amp (NO) / 20amp (NC)</td>
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<td>TR026</td>
<td>12v</td>
<td>40amp (NO) / 30amp (NC)</td>
<td>5 x 6.3mm</td>
</tr>
<tr>
<td>TR027</td>
<td>24v</td>
<td>30amp (NO) / 20amp (NC)</td>
<td>5 x 6.3mm</td>
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</table>
5 Pin Mini Relay
Changeover with Resistor (with different pin designations) and removable straight bracket

<table>
<thead>
<tr>
<th>Part No</th>
<th>Voltage</th>
<th>Amps</th>
<th>Pin Sizes</th>
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</thead>
<tbody>
<tr>
<td>TR047</td>
<td>12v</td>
<td>30amp (NO) / 20amp (NC)</td>
<td>5 x 6.3mm</td>
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Resistor Type

8 Pin Mini Relays
Normally open

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<td>TR015</td>
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<td>30amp (NO)</td>
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Dual Type (Non Resistor Type)

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<tbody>
<tr>
<td>TR032</td>
<td>12v</td>
<td>22amp (NO) / 14amp (NC)</td>
<td>3 x 4.8mm / 2 x 6.3mm</td>
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<tr>
<td>TR033</td>
<td>12v</td>
<td>10amp (NO) / 5amp (NC)</td>
<td>2 x 4.8mm / 2 x 6.3mm</td>
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4 Pin Micro Relays
Normally open

<table>
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<th>Part No</th>
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<tr>
<td>TR033</td>
<td>12v</td>
<td>20amp (NO)</td>
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5 Pin Micro Relays
Changeover Relays

Resistor Type

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<td>TR039</td>
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<td>20amp(NO) / 10amp(NC)</td>
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<tr>
<td>TR040</td>
<td>24v</td>
<td>10amp(NO) / 5amp(NC)</td>
<td>3 x 4.8mm / 2 x 6.3mm</td>
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Replacement Relays to suit Japanese Vehicles

**Toyota and Honda**  Note: Reference to Manufacturer’s part numbers as detailed are solely for identification purposes.

### Suits Toyota

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<td>12v</td>
<td>22amp</td>
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Alternative replacement: Toyota relay part number 90987-01003

### Suits Toyota and Honda

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<td>22amp</td>
<td>4 x 6.3mm</td>
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Alternative replacement: Toyota relay part number 90987-02004 or Honda relay part number 25230-89978

### Suits Toyota

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Alternative replacement: Toyota relay part number 90987-03001

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**Relay Connectors**

- **TR043**
  - Suits 4 and 5 pin mini relays with pin connectors:
    - 3 x 6.3mm
    - 2 x 9.5mm

- **TR044**
  - Suits 4 and 5 pin mini relays with flat pin connectors:
    - 5 x 6.3mm

- **TR045**
  - Suits 4 and 5 pin micro relays with flat pin connectors:
    - 3 x 4.8mm
    - 2 x 6.3mm
# General Relay Cross Reference Guide

<table>
<thead>
<tr>
<th>TRIDON Part No</th>
<th>HELLA Part No</th>
<th>NARVA Part No</th>
<th>ASHDOWN Part No</th>
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**Note:** Reference to Manufacturer's names as detailed are solely for identification purposes.
Hose Clamps
• Perforated Band Clamps
• Non Perforated Band Clamps
• T-Bolt Clamps
• EFI Clamps
• Double Ear Clamps
• Rubber Lined Clamps
• Spring Lock Clamps
• Uniband Clamps
• Vinyl Coated Clamps
• Specialised Clamping Solutions

Workshop Tools
• General Workshop
• Electrical Ignition and Spark
• Battery Service
• Engine Service
• Lubrication Service
• Transmission and Gearbox Service
• Fuel Service
• Cooling Service
• Tyre and Wheel Service
• Brake Service
• Suspension and Steering Service
• Exhaust Service
• Body and Trim

Pullers
• Mechanical Pullers
• Hydraulic Pullers
• Automotive Pullers

Cutting and Shaping
• Cutters
• Files
• Knives
• Scissors

Hand Tools
• Crimping
• Circlip Pliers
• Multigrips
• Pliers
• Screw Drivers
• Scribes
• Squares
• Wire Strippers
• Wrenches

Measuring
• Calipers
• Dividers
• Rules
• Tapes

Ignition Parts
• Ignition Modules
• Ignition Coils
• Pick Up Coils
• Crank Angle Sensors

Cooling System
• Fan Switches
• Thermostats
• High-Flow Thermostats
• Thermostat Gaskets
• Radiator Caps

Engine Management
• Coolant Temperature Sensors
• Oxygen Sensors

Windscreen Wiper
• Plastic Wiper Refills
• Metal Wiper Refills
• Complete Wiper Blades

Electrical
• Electronic Flashers
• Thermal Flashers
• General Relays

Battery Maintenance
• Brass Battery Terminals
• Battery Cables

Driveway Service Products
• Mallory Window Squeegees

Sanding and Refinishing
• Sandmate Sanding Blocks and Pads

Servicing the Automotive Market