

# Automotive Relay Catalogue

Flasher Relays  
General Relays



TERIDON



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## General Relays

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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 Automotive Relays Advanced Technology

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.



# Merchandising

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  | 4 X FET13PAC |
| 1 X EP34PAC  | 1 X FET16PAC |
| 2 X EPJ13PAC | 4 X HD12PAC  |
| 2 X HD13PAC  |              |

**Dimensions:** 450mm wide x 380mm high



# Flasher Relays Quick Reference Guide

Part No	Figure No	Voltage	Number of Terminals	Globe Fail Indication (Outage)	Packaging Styles Available	Notes	Page No
EG22	1	24 volt	2	No	Box + Blister		8
EG23	2	24 volt	3	No	Box + Blister		8
EL13A	7	12 volt	3	No	Boxed only	Alternating flasher for buses and emergency vehicles	8
EL23A	7	24 volt	3	No	Boxed only	Alternating flasher for buses and emergency vehicles	8
EP12	1	12 volt	2	Yes	Boxed only		9
EP13	2	12 volt	3	Yes	Boxed only		9
EP32	3	12 volt	3	Yes	Box + Blister		9
EP34	5	12 volt	3	Yes	Box + Blister		9
EP35	6	12 volt	3	Yes		Replaced by FET13	10
EP36	6	12 volt	3	Yes	Boxed only		10
EP37	1	12 volt	2	No	Boxed only	Extra heavy duty for road trains	10
EP50	1	12 volt	2	No	Boxed only	Extra heavy duty for road trains	10
EPJ13	4	12 volt	3	Yes	Box + Blister		11
FET13	6	12 volt	3	Yes	Box + Blister		11
FET16	10	12 volt	4	Yes	Box + Blister		11
FET17	11	12 volt	5	Yes	Boxed only		11
FET18	12	12 volt	6	Yes	Boxed only	Truck applications	12
FET19	13	24 volt	6	Yes	Boxed only	Truck applications	12
FET20	13	24 volt	6	Yes	Boxed only	Truck applications	12
FET21	14	12 volt	7	Yes	Boxed only	Suits later model Ford/Mazda	12
HD12	1	12 volt	2	No	Box + Blister		13
HD13	2	12 volt	3	No	Box + Blister		13
LED01	6	12 volt	3	Yes	Box + Blister	Commercial Vehicle Application	13
LED02	6	12 volt	3	Yes	Box + Blister	Commercial Vehicle Application	13
LED03	2	12 volt	3	No	Box + Blister	Commercial Vehicle Application	14
LED04	1	12 volt	2	No	Box + Blister	Commercial Vehicle Application	14
SD12	1	12 volt	2	No	Boxed only		14
SD13	2	12 volt	3	No	Boxed only		14
TF63	2	6 volt	3	No	Boxed only	Thermal flasher	15
TF122	1	12 volt	2	No	Box + Blister	Thermal flasher	15
TF123	2	12 volt	3	No	Box + Blister	Thermal flasher	15

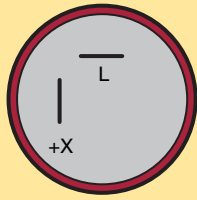
**Note:** All part numbers listed in this catalogue are for boxed flasher relays. To receive Blister packed Flasher Relays please add "PAC" to the end of the part number. EG: HD12PAC

## Terminal Codes for Tridon Flasher Relays

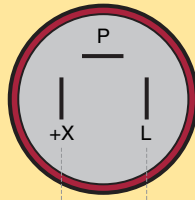
B	Ignition or Battery	L	Load or Output	49	Ignition or Battery
C	Vehicle Dash Indicator	P	Vehicle Dash Indicator	49a	Load or Output
C2	1st Trailer Dash Indicator	X	Ignition or Battery	+	Ignition or Battery
C3	2nd Trailer Dash Indicator	30b	+ve feed from Hazard Switch	-	Earth or Ground
E	Earth or Ground	31	Earth or Ground		



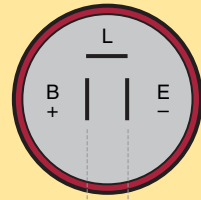
# Flasher Pin Identification Guide



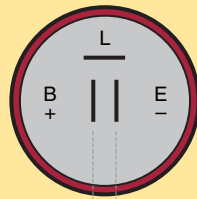
**Figure 1**  
Applicable to: EG22, EP12, EP37, EP50, HD12, LED04, SD12, TF122



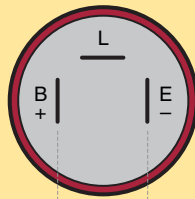
**Figure 2**  
Applicable to: EG23, EP13, HD13, LED03, SD13, TF63, TF123



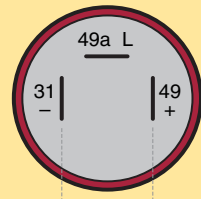
**Figure 3**  
Applicable to: EP32



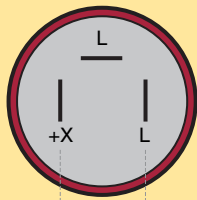
**Figure 4**  
Applicable to: EPJ13



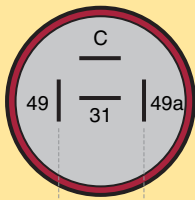
**Figure 5**  
Applicable to: EP34



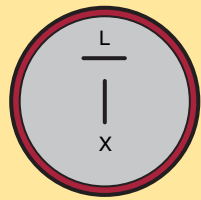
**Figure 6**  
Applicable to: EP35, EP36, FET13, LED01, LED02



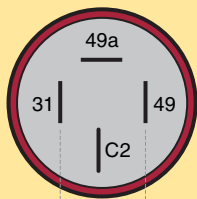
**Figure 7**  
Applicable to: EL13A, EL23A



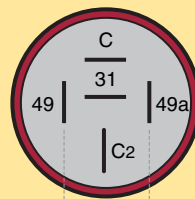
**Figure 8**  
Note: Use EP13 for this application as EP13 doesn't require terminal 31. See note 5 on page 33



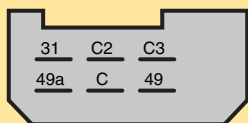
**Figure 9**  
Note: Use EP12 for this application. See notes 3 and 4 on page 33



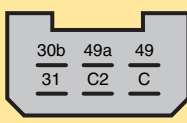
**Figure 10**  
Applicable to: FET16



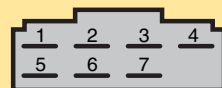
**Figure 11**  
Applicable to: FET17



**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



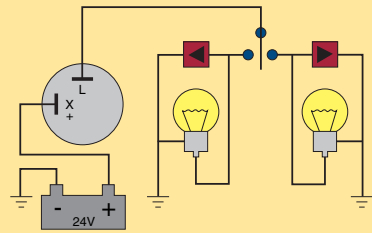
## EG22 2 Pin 24 Volt Electro-mechanical flasher

**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.



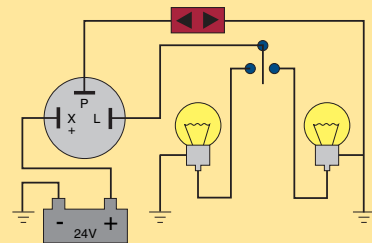
## EG23 3 Pin 24 Volt Electro-mechanical flasher

**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.



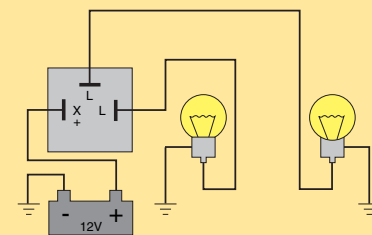
## EL13A 3 Pin 12 Volt Alternating flasher for emergency vehicles

**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.



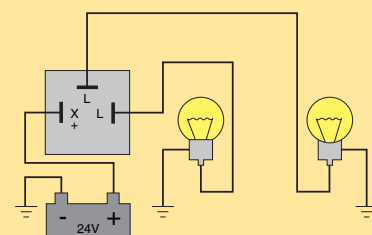
## EL23A 3 Pin 24 Volt Alternating flasher for emergency vehicles

**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.





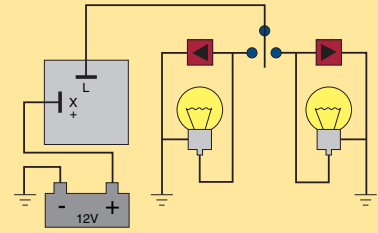
**EP12 2 Pin 12 Volt**  
**Electronic flasher**  
**load sensitive**

**Load Rating:** 2 + 1 (6) 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.



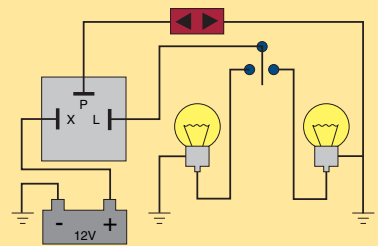
**EP13 3 Pin 12 Volt**  
**Electronic flasher**  
**load sensitive**

**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 & hazard light applications.
- Incorporates audible, visual globe failure (outage) indication.



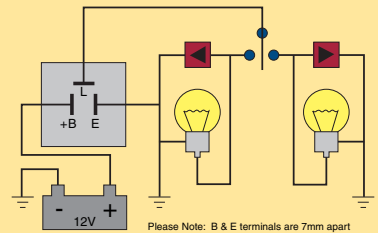
**EP32 3 Pin 12 Volt**  
**Electronic flasher**  
**load sensitive**

**Load Rating:** 2 + 1 (6) x 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.



Please Note: B & E terminals are 7mm apart



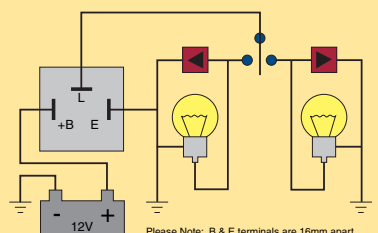
**EP34 3 Pin 12 Volt**  
**Electronic flasher**  
**load sensitive**

**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 AFNOR specifications.
- Suitable for flasher & hazard light applications.
- Incorporates audible, visual globe failure (outage) indication.



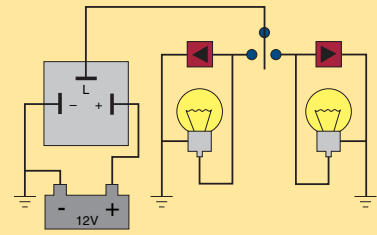
Please Note: B & E terminals are 16mm apart



**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.

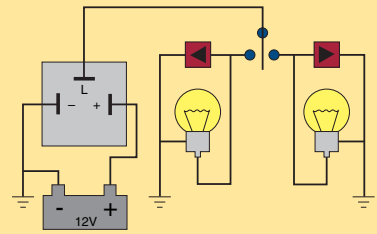
- Designed to conform to SAE, ISO and ADR13 specifications.
- Suitable for flasher & hazard light applications.
- Incorporates audible, visual globe failure (outage) indication.



**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.

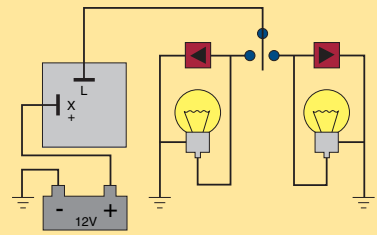
- Designed to conform to SAE, ISO and ADR13 specifications. Suitable for flasher & hazard light applications.
- Heavy duty version of FET13 (EP35).
- This flasher incorporates audible, visual globe failure (outage) indication.
- For use on vehicles with three lamps on the vehicle.



**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.

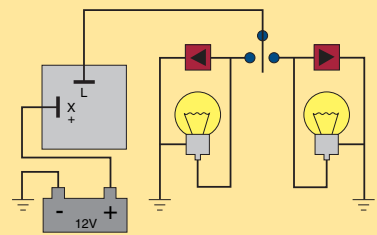
- Designed to conform to test and durability requirements of SAE J1690 Class A.
- Suitable for flasher and hazard light applications on heavy duty vehicles with multiple trailers. eg. B Double and road train.



**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.





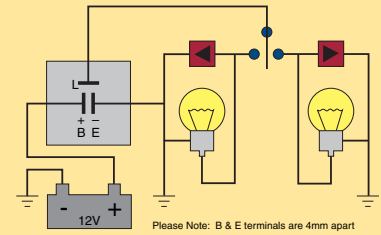
**EPJ13** 3 Pin 12 Volt  
**Electronic flasher load sensitive**

**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.



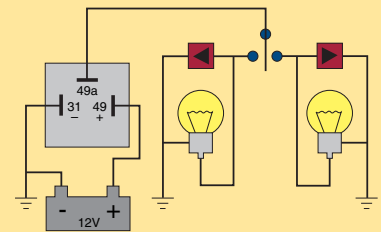
**FET13** 3 Pin 12 Volt  
**Electronic flasher load sensitive**

**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.



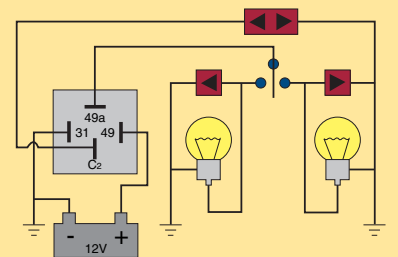
**FET16** 4 Pin 12 Volt  
**Electronic flasher load sensitive**

**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.



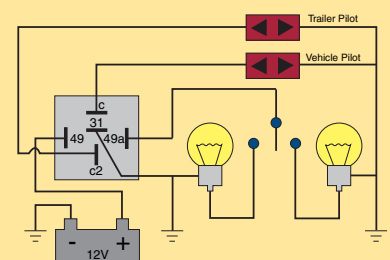
**FET17** 5 Pin 12 Volt  
**Electronic flasher with load sensing**

**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.

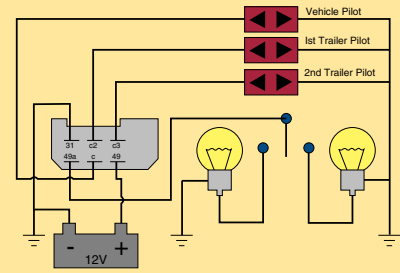




### FET18 6 Pin 12Volt Electronic flasher load sensitive

**Load Rating:** 2 + 1 + 1 (8) x 21 watt, 12v lamps.

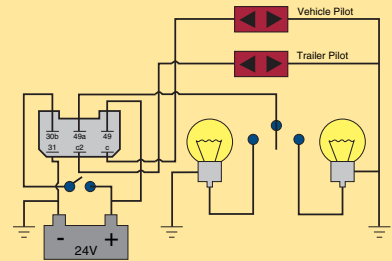
- Conforms to the requirements of ADR13.
- Incorporates audible, visual globe failure (outage) indication.
- Provides dash indicators for two additional trailers to indicate that the trailers are connected and the globes are operational.



### FET19 6 Pin 24Volt Electronic flasher load sensitive

**Load Rating:** 3 + 1 (8) x 21 watt, 24v lamps.

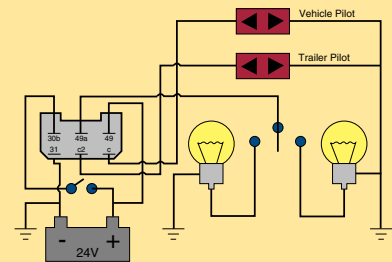
- Conforms to the requirements of ADR13.
- Designed to be used on vehicles with 3 lamps & dash indicators for both the towing vehicle & 1 trailer. Used on heavy trucks.
- Incorporates audible, visual globe failure (outage) indication.



### FET20 6 Pin 24 Volt Electronic flasher load sensitive

**Load Rating:** 2 + 1 (8) x 21 watt, 24v lamps.

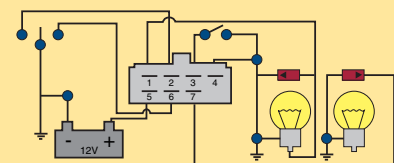
- Conforms to the requirements of ADR13.
- Designed to be used on vehicles with 3 lamps & dash indicators for both the towing vehicle & 1 trailer. Used on heavy trucks.
- Incorporates audible, visual globe failure (outage) indication.



### FET21 7 Pin 12 Volt Electronic flasher load sensitive

**Load Rating:** 25 watt x 2 + 10watt, 12v lamps.

- Conforms to the requirements of ADR13.
- Suits later model Ford and Mazda application.
- Incorporates audible, visual globe failure (outage) indication.





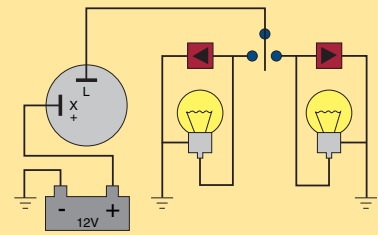
**HD12 2 Pin 12 Volt  
Electro-mechanical flasher**

**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.



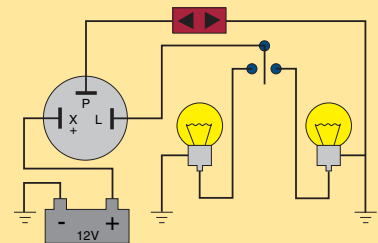
**HD13 3 Pin 12 Volt  
Electro-mechanical flasher**

**Load Rating:** 1 to 6 x 25 watt, 12v lamps.

**Temp. Range:** -32°C to 63°C.

**Voltage Range:** 11-15 volts D.C.

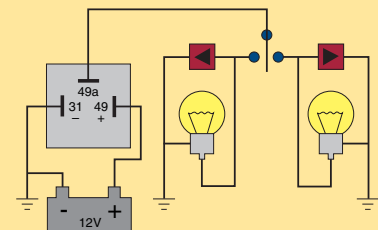
- Not polarity sensitive – can be used on positive and negative ground vehicles.
- Suitable for flasher & hazard light applications.
- Flash rate is not influenced by load variation.



**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.

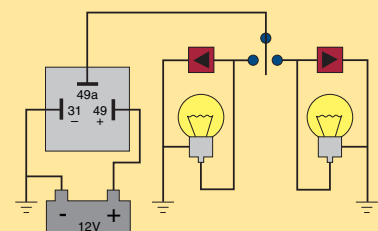
- For commercial vehicles with LED rear directional indicators.
- Conforms to the requirements of ADR13.
- Incorporates audible, visual globe failure (outage) indication.



**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.

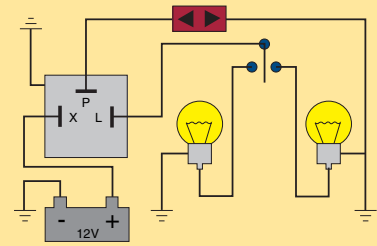




**LED03 3 Pin 12 Volt  
Electronic flasher  
non load sensitive**

**Load rating:** Minimum 0.02 AMP  
Maximum 20 AMP

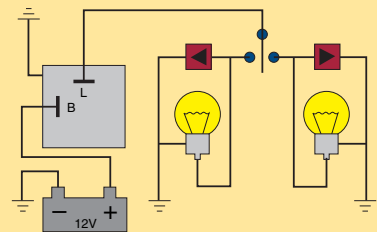
- For commercial vehicles with LED rear and additional side directional indicators pre 1980.
- This flasher does not conform to the requirements of ADR13.



**LED04 2 Pin 12 Volt  
Electronic flasher  
non load sensitive**

**Load rating:** Minimum 0.02 AMP  
Maximum 20 AMP

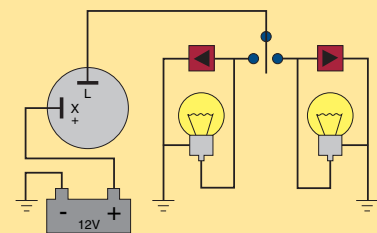
- For commercial vehicles with LED rear and additional side directional indicators pre 1980.
- This flasher does not conform to the requirements of ADR13.



**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.

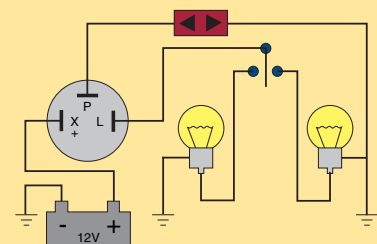
- Not polarity sensitive – can be used on positive and negative ground vehicles.
- Suitable for flasher & hazard light applications.
- Flash rate is not influenced by load variation.
- Extra heavy duty version of HD12.



**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.







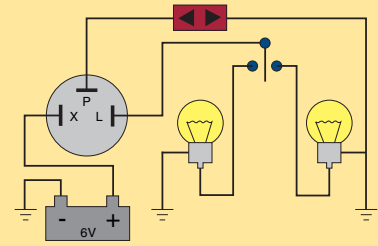
**TF63 3 Pin 6 Volt  
Thermal flasher**

**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**

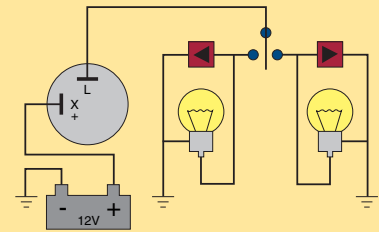
**Load Rating:** 2 to 6 x 21 watt, 12v lamps

■ 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**

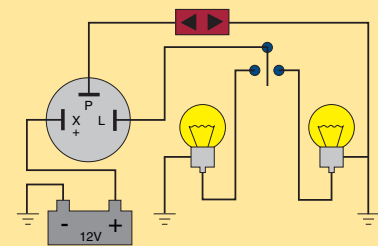
**Load Rating:** 2 to 6 x 21 watt, 12v lamps.

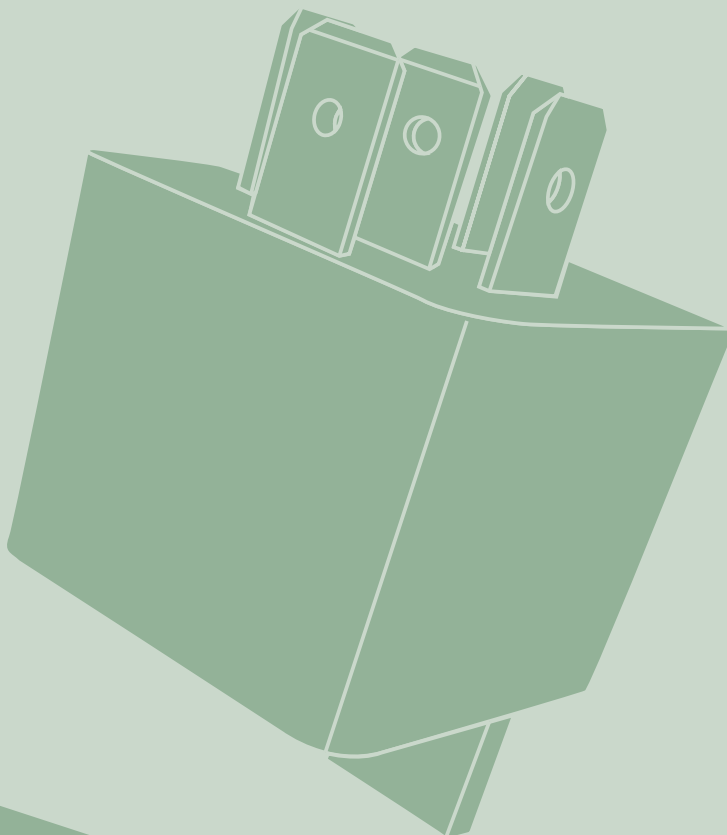
■ Thermal flashers operate on a bi-metallic strip principle and flash faster with more load.

■ 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

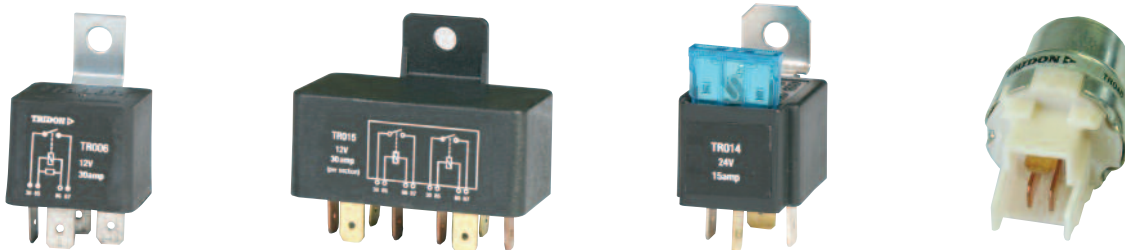
The function of a relay is to integrate between different control items and depending on the application these are either isolating, sensing or counting a high frequency signal to create a trigger.

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



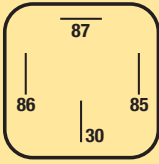
# General Relay Quick Reference Guide

Tridon Part No	Volts	Amps	Relay Type	Number of Terminals	Relay Type	Pin Sizes	Packaging	Figure No	Page No
TR001	12v	30amp(NO)	Normally open Non resistor	4	Mini	4 x 6.3mm	Box + Blister	1	40
TR002	12v	40amp(NO)	Normally open Non resistor	4	Mini	4 x 6.3mm	Box + Blister	1	40
TR003	12v	70amp (NO)	Normally open Non resistor	4	Mini	2 x 6.3 / 2 x 9.5mm	Box + Blister	1	40
TR005	24v	20amp(NO)	Normally open Non resistor	4	Mini	4 x 6.3mm	Box + Blister	1	40
TR006	12v	30amp (NO)	Normally open Resistor	4	Mini	4 x 6.3mm	Box + Blister	1	40
TR007	12v	40amp (NO)	Normally open Resistor	4	Mini	4 x 6.3mm	Box + Blister	1	40
TR008	12v	50amp (NO)	Normally open Resistor	4	Mini	2 x 6.3 / 2 x 9.5mm	Box + Blister	1	40
TR013	12v	30amp (NO)	Normally open Fused	4	Mini	4 x 6.3mm	Box + Blister	1	40
TR014	24v	15amp (NO)	Normally open Fused	4	Mini	4 x 6.3mm	Box + Blister	1	40
TR015	12v	30amp (NO)	Normally open Dual	8	Mini	8 x 6.3mm	Box only	7	42
TR016	12v	30amp (NO)	Normally open Non resistor	5	Mini	5 x 6.3mm	Box + Blister	3	41
TR017	24v	20amp (NO)	Normally open Non resistor	5	Mini	5 x 6.3mm	Box + Blister	3	41
TR018	12v	40amp (NO) Dual Contact	Normally open Resistor	5	Mini	5 x 6.3mm	Box + Blister	6	41
TR019	24v	30amp (NO) Dual Contact	Normally open Resistor	5	Mini	5 x 6.3mm	Box + Blister	6	41
TR022	12v	40amp (NO) / 30amp (NC)	Changeover Non resistor	5	Mini	5 x 6.3mm	Box + Blister	4	41
TR023	24v	30amp (NO) / 20amp (NC)	Changeover Non resistor	5	Mini	5 x 6.3mm	Box + Blister	4	41
TR024	12V	40amp (NO) / 20amp (NC)	Changeover Resistor	5	Mini	5 x 6.3mm	Box + Blister	4	41
TR025	12v	30amp (NO) / 20amp (NC)	Changeover Resistor	5	Mini	5 x 6.3mm	Box + Blister	4	41
TR026	12v	40amp (NO) / 30amp (NC)	Changeover Resistor	5	Mini	5 x 6.3mm	Box + Blister	4	41
TR027	24v	30amp (NO) / 20amp (NC)	Changeover Resistor	5	Mini	5 x 6.3mm	Box + Blister	4	41
TR032	12v	16amp (NO)	Normally open Resistor	4	Micro	2 x 4.8 / 2 x 6.3mm	Box + Blister	8	42
TR033	12v	20amp (NO)	Normally open Resistor	4	Micro	2 x 4.8 / 2 x 6.3mm	Box + Blister	8	42
TR039	12v	20amp (NO) / 10amp (NC)	Changeover Resistor	5	Micro	3 x 4.8 / 2 x 6.3mm	Box + Blister	9	42
TR040	24v	10amp (NO) / 5amp (NC)	Changeover Resistor	5	Micro	3 x 4.8 / 2 x 6.3mm	Box + Blister	9	42
TR043	All	All	Connectors	4 & 5	Mini	3 x 6.3 / 2 x 9.5mm	Box + Blister	-	43
TR044	All	All	Connectors	4 & 5	Mini	5 x 6.3mm	Box + Blister	-	43
TR045	All	All	Connectors	4 & 5	Micro	3 x 4.8 / 2 x 6.3mm	Box + Blister	-	43
TR046	12v	30amp (NO)	Normally open Resistor	4	Mini	4 x 6.3mm	Box + Blister	2	40
TR047	12v	30amp (NO) / 20amp (NC)	Changeover Resistor	5	Mini	5 x 6.3mm	Box + Blister	5	42
TR048	12v	22amp	Toyota	3	Round	3 x 6.3mm	Box + Blister	10	43
TR049	12v	22amp	Toyota/Honda	4	Round	4 x 6.3mm	Box + Blister	11	43
TR050	12v	15amp	Toyota	4	Round	4 x 6.3mm	Box + Blister	12	43

**(NO)** Normally open between contacts  
**(NC)** Normally closed between contacts  
**(NO/NC)** Changeover relay normally open/normally closed between contacts

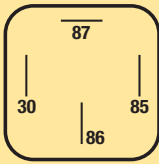
# Relay Pin Identification Guide

**Mini Relay  
4 Pin**



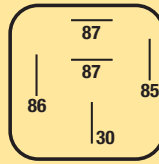
**Figure 1**  
Applicable to: TR001, TR002, TR003, TR005, TR006, TR007, TR008, TR013, TR014

**Mini Relay  
4 Pin**



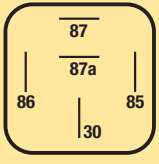
**Figure 2**  
Applicable to: TR046

**Mini Relay  
5 Pin**



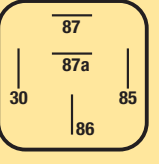
**Figure 3**  
Applicable to: TR016, TR017

**Mini Relay  
5 Pin**



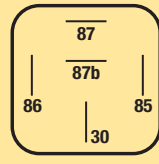
**Figure 4**  
Applicable to: TR022, TR023, TR024, TR025, TR025, TR026, TR027

**Mini Relay  
5 Pin**



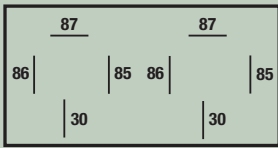
**Figure 5**  
Applicable to: TR047

**Mini Relay  
5 Pin**




**Figure 6**  
Applicable to: TR018, TR019

**Dual Relay  
8 Pin**




**Figure 7**  
Applicable to: TR015

**Micro Relay  
4 Pin**



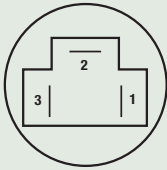
**Figure 8**  
Applicable to: TR032, TR033

**Micro Relay  
5 Pin**



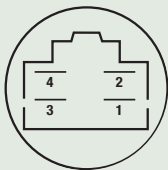
**Figure 9**  
Applicable to: TR039, TR040

**Japanese Specific**



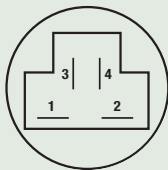
**Figure 10 - 3 Pin Toyota**  
Applicable to: TR048

**Japanese Specific**



**Figure 11 - 4 Pin Toyota/Honda**  
Applicable to: TR049

**Japanese Specific**



**Figure 12 - 4 Pin Toyota**  
Applicable to: TR050

## Terminal codes for Tridon Relays

30	Input
85	Ground
86	Switch Input
87	Output Contacts Normally Open
87a	Output Contacts Normally Closed
87b	Output Contacts Normally Open

## Type of Relay Contacts

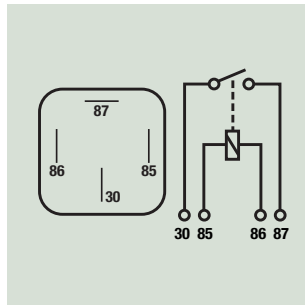
NO	Normally Open Between Contacts
NC	Normally Closed Between Contacts
NO/NC	Changeover type Normally Open, Normally Closed
NODC	Normally Open, Dual Contacts

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

# Tridon General Relay Range

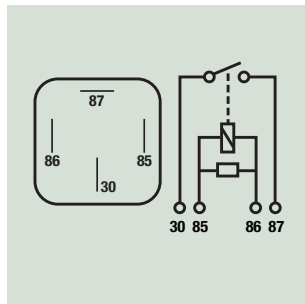
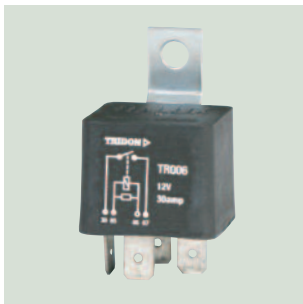
## 4 Pin Mini Relays

Normally open with removable straight bracket



### Non Resistor Type

Part No	Voltage	Amps	Pin Sizes
TR001	12v	30amp (NO)	4 x 6.3mm
TR002	12v	40amp (NO)	4 x 6.3mm
TR003	12v	70amp (NO)	2 x 6.3mm / 2 x 9.5mm
TR005	24v	20amp (NO)	4 x 6.3mm

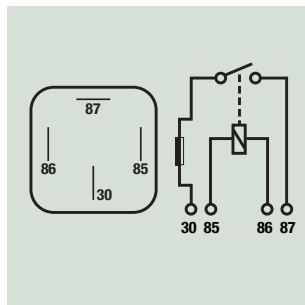


### Resistor Type

Part No	Voltage	Amps	Pin Sizes
TR006	12v	30amp (NO)	4 x 6.3mm
TR007	12v	40amp (NO)	4 x 6.3mm
TR008	12v	50amp (NO)	2 x 6.3mm / 2 x 9.5mm

## 4 Pin Fused Relays

Normally open with removable straight bracket

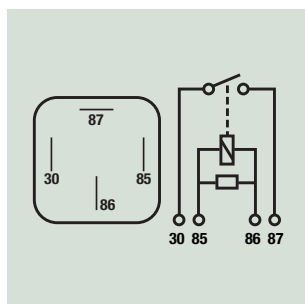


### Fused Type

Part No	Voltage	Amps	Pin Sizes
TR013	12v	30amp (NO)	4 x 6.3mm
TR014	24v	15amp (NO)	4 x 6.3mm

## 4 Pin Mini Relay with different pin designations

Normally open with resistor and removable straight bracket

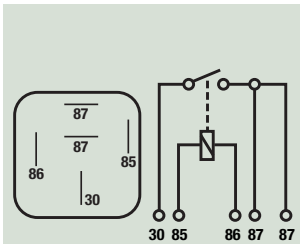


### Resistor Type

Part No	Voltage	Amps	Pin Sizes
TR046	12v	30amp (NO)	4 x 6.3mm

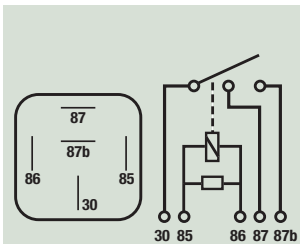
## 5 Pin Mini Relays

Normally open with removable straight bracket



### Non Resistor Type

Part No	Voltage	Amps	Pin Sizes
TR016	12v	30amp (NO)	5 x 6.3mm
TR017	24v	20amp (NO)	5 x 6.3mm

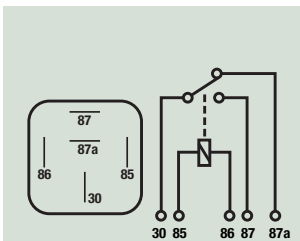


### Resistor Type (Dual Contact)

Part No	Voltage	Amps	Pin Sizes
TR018	12v	40amp (NO) Dual Contact	5 x 6.3mm
TR019	24v	30amp (NO) Dual Contact	5 x 6.3mm

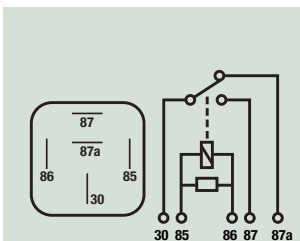
## 5 Pin Mini Relays

Changeover Relays with removable straight bracket



### Non Resistor Type

Part No	Voltage	Amps	Pin Sizes
TR022	12v	40amp (NO) / 30amp (NC)	5 x 6.3mm
TR023	24v	30amp (NO) / 20amp (NC)	5 x 6.3mm



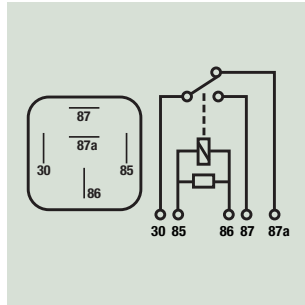
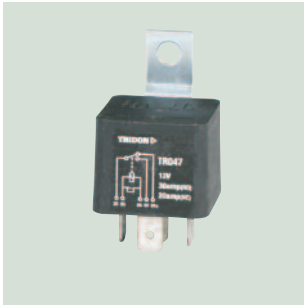
### Resistor Type

Part No	Voltage	Amps	Pin Sizes
TR024	12V	40amp (NO) / 20amp (NC)	5 x 6.3mm
TR025	12v	30amp (NO) / 20amp (NC)	5 x 6.3mm
TR026	12v	40amp (NO) / 30amp (NC)	5 x 6.3mm
TR027	24v	30amp (NO) / 20amp (NC)	5 x 6.3mm



## 5 Pin Mini Relay

Changeover with Resistor (with different pin designations) and removable straight bracket

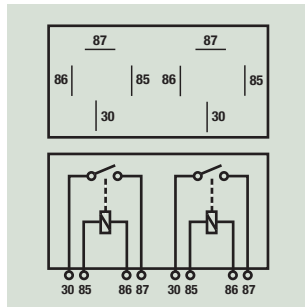
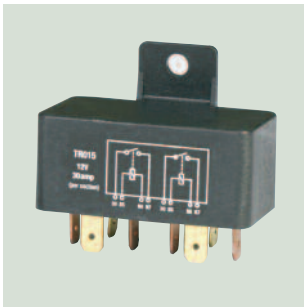


### Resistor Type

Part No	Voltage	Amps	Pin Sizes
TR047	12v	30amp (NO) / 20amp (NC)	5 x 6.3mm

## 8 Pin Mini Relays

Normally open

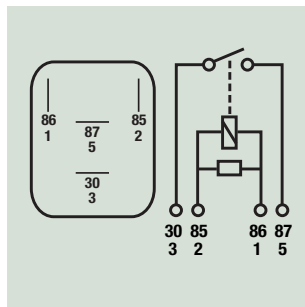


### Dual Type (Non Resistor Type)

Part No	Voltage	Amps	Pin Sizes
TR015	12v	30amp (NO)	8 x 6.3mm

## 4 Pin Micro Relays

Normally open

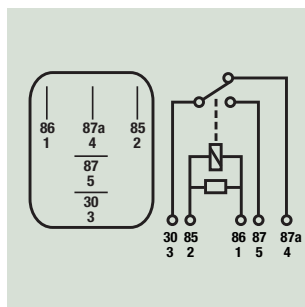


### Resistor Type

Part No	Voltage	Amps	Pin Sizes
TR032	12v	16amp (NO)	2 x 4.8mm / 2 x 6.3mm
TR033	12v	20amp (NO)	2 x 4.8mm / 2 x 6.3mm

## 5 Pin Micro Relays

Changeover Relays

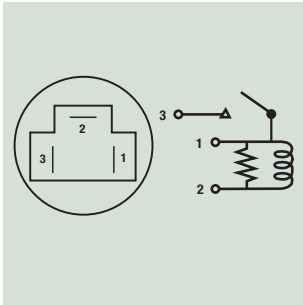


### Resistor Type

Part No	Voltage	Amps	Pin Sizes
TR039	12v	20amp(NO) / 10amp(NC)	3 x 4.8mm / 2 x 6.3mm
TR040	24v	10amp(NO) / 5amp(NC)	3 x 4.8mm / 2 x 6.3mm

## Replacement Relays to suit Japanese Vehicles Toyota and Honda

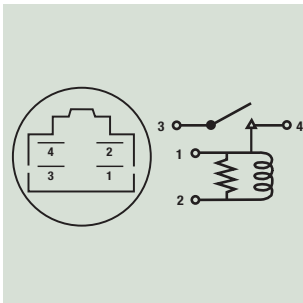
**Note:** Reference to Manufacturer's part numbers as detailed are solely for identification purposes.



### Suits Toyota

Part No	Voltage	Amps	Pin Sizes
TR048	12v	22amp	3 x 6.3mm

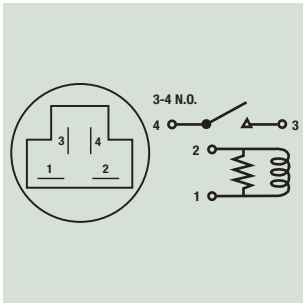
Alternative replacement : Toyota relay part number 90987-01003



### Suits Toyota and Honda

Part No	Voltage	Amps	Pin Sizes
TR049	12v	22amp	4 x 6.3mm

Alternative replacement : Toyota relay part number 90987-02004 or Honda relay part number 25230-89978



### Suits Toyota

Part No	Voltage	Amps	Pin Sizes
TR050	12v	15amp	4 x 6.3mm

Alternative replacement : Toyota relay part number 90987-03001

## 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

TRIDON Part No	HELLA Part No	NARVA Part No	ASHDOWN Part No
TR001	3078		57-43212
TR002		68000	57-44352
TR003	3084		57-47392
TR005	3079		57-43224
TR006			
TR007		68004	
TR008		68008	
TR013	3076	68060	
TR014	3077		
TR015	3051		
TR016	3082	68024	57-42212
TR017			57-42224
TR018		68028	
TR019		68036	
TR022	3080		
TR023	3081		
TR024			
TR025			57-46212R
TR026		68044	
TR027		68052	
TR032			
TR033	3064	68062	
TR039	3065	68070	
TR040		68074	
TR041			57-49145
TR042			57-49041
TR043		68082	
TR044	4973	68084	
TR045		68086	57-49004
TR046			
TR047			
TR048			
TR049			
TR050			

**Note:** Reference to Manufacturer's names as detailed are solely for identification purposes.



## Servicing the Automotive Market



### 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

### 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



### 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



- Cable Cutters
- Circlip Pliers
- Crimp Pliers
- Cutting Nippers
- Gripping Pliers
- Insulated Tools
- Pincers
- Pliers



- Garage Service Tools
- Body Repair Tools
- Pulling and Extracting Tools



- Engineering
- Lubrication



- Impact Sockets
- Sockets
- Spanners