|  | BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS WERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOW BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS WERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOW WERS BOWERS BOWERS BOWERS BOWFRS BOWERS PDWERS BOWERS BOWERS BOWERS BQWERSROWERS BQWERS BOWERS BOWERS BOWERS BOWERS BOW <br>  WERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS'BOWERS BOWERS BOWERS BOWERJ BOWERS BOWERS BOWERS BOWERS BOWERS BOW BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS WERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOW BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS WERS BOWERS BOWERS BOWERS BOWERS BO BOWERS BOWERS BOWERS BOWERS BOWERS WERS BOWERS BOWERS BOWERS BOWERS BO BOWERS BOWERS BOWERS BOWERS BOWERS WERS BOWERS BOWERS BOWERS BOWERS BO BOWERS BOWERS BOWERS BOWERS BOWERS BUWERS BUWERS BUWERS BUWERS BUWERS BUWERS BUWERS BOWERS BOWERS BOWERS BOWERS BOWERS WERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOW WERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOW BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS B BWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS <br>  BOWERS BOWERS BOWERS BOWERS BOWERS BOW WERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOW BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS WERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOW BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS BOWERS |
| :---: | :---: |



## INTRODUCTION

Welcome to issue 2 of our Ancillary Products Catalogue. Inside you will find a vast range of components catering for all your needs.

Products are grouped together under the following headings:- Switches \& Warning Lights, Cable \& Connectors, Towing \& Touring, Relays \& Flasher Units, Pumps \& Solenoids, Horns \& Gauges, Reversing Aids and Miscellaneous.

This catalogue illustrates a broad selection of our stock but by no means our full range. We consider our range to be the most in depth currently available from one single supplier in the U.K. aftermarket and compliments our 'Rotating Electrics' and 'Lighting' catalogues

There are a large number of items detailed within which are recent introductions to our rapidly expanding product portfolio and any part number that has been added is clearly identified.

The Ancillary range, as with all of our products has been developed with our five key objectives firmly in mind and which we consider to be central to the success of our joint trading relationships.

- We are committed to providing our customers with the highest levels of service.
- We are committed to marketing and selling only the highest quality products.
- We are committed to offering value for money.
- We are committed to providing added value service and support.
- We are committed to consistent and continual improvement of our range and services, which allows us to remain that little bit unique in our market place.

It is our intention wherever possible to continue to add further references to the Five Star Products Ancillary range and we will communicate these to you via our bi-monthly bulletins. I do hope you find that our programme fulfils all your requirements.

Kind Regards
H Bowers Limited


Page 1

CONTACT NUMBERS

## SALES ENQUIRIES/ORDERS

## 01782590700

## FAX

## $\ldots 01782590712$



## TECHNICAL ENQUIRIES



01782590702

sales@bowersmidland.co.uk

## Page 2

O.E.M. names and numbers are used for reference purposes only.

## CONTENTS

SWITCHES \& WARNING LIGHTS ..... 4-19
CABLE \& CONNECTORS ..... 20-49
TOWING \& TOURING ..... 50-67
RELAYS \& FLASHER UNITS ..... 68-72
PUMPS \& SOLENOIDS ..... 73-77
HORNS \& GAUGES ..... 78-87
REVERSING AIDS ..... 88-94
MISCELLANEOUS ..... 95-111
PART NUMBER INDEX ..... 112-115
NOTES ..... 116
$\square$
$\square$

SWITCHES


## Battery isolator switch (12/24v).

Supplied with detachable key.
Complete with dust cover on switch.
Continuous loads:- 100 amps .
Intermittent loads:- $\mathbf{5 0 0} \mathbf{a m p s}$.

| Spares | Description | Part No. |
| :---: | :--- | :---: |
|  | Spare Key | 9996000 K |

## Battery isolator switch (12/24v).

9996030
Supplied with detachable key.
Complete with dust cover on switch.
Continuous loads:- 100 amps .
Intermittent loads:- 500 amps .
When turned to the 'off' position the engine will be automatically stopped due to the secondary switch function whereby the ignition circuit is cut. This prevents engine 'run on' and is a vital safety factor.

| Spares | Description | Part No. |
| :---: | :--- | :---: |
|  | Spare Key | 9996030 K |

## SWITCHES

9996001


## Battery isolator switch (12/24v).

Supplied with detachable key \& chain.
Complete with dust covers on switch \& key.
Continuous loads:- 250 amps.
Intermittent loads:- 2500 amps.

| Spares | Description | Part No. |
| :---: | :--- | :---: |
|  | Spare Key | 9996001 K |

9996031

## Battery isolator switch (12/24v).

Panel mounted rotary on/off switch.
Suitable for cars, light commercial
\& light industrial applications.
Continuous loads:- 12v 150 amps,
24v 100 amps.
Intermittent loads:- 12v 1500 amps, 24v 500 amps.

## 9996032



## Ignition switch (12v).

Park/off/on/ignition.
Complete with 2 keys.
Suitable for various applications.
(Not suitable for marine use).

## Ignition switch.

Off/on/heater/ignition.
Supplied with dust cover.
Complete with 2 keys.
Suitable for agricultural
and plant applications.
Equivalent to 35670
(see below).

| Spares | Description | Part No. |
| :---: | :--- | :---: |
|  | Spare Key | 9996057 K |

## Page 6

O.E.M. names and numbers are used for reference purposes only.

SWITCHES

## Ignition switch.

Off/on/heater/ignition.
Complete with 2 keys. Suitable for agricultural and plant applications. Equivalent to 9996057 (see above).


## Lucas

| Spares | Description | Part No. |
| :---: | :---: | :---: |
|  | Spare Key | 9996057 K |

## Barrel \& keys.

9996013
Complete with 2 keys.
Size - 30mm.
Fits Lucas type
ignition switches.

## Push button switch (12/24v).

9996002
Momentary switch.
Push for on, none latching.
Waterproof.
Suitable for agricultural and plant applications.
12 v applications rated at 30 amps intermittent.
$\mathbf{2 4 v}$ applications rated at 15 amps intermittent.
Fixing:- 15 mm dia. hole size.
Screw terminals.


Push button switch (12v).
9996033
Momentary switch.
Push for on, none latching.
Heavy duty.
Rated at 16 amps.
Fixing:- 25 mm dia. hole size.
Screw terminals.

| Spares | Description | Part No. |
| :---: | :--- | :--- |
|  | Waterproof cover | 9996034 |



## SWITCHES

## 9996039

## Illuminated push button switch (12v).

Push on/push off, latching.
Red L.E.D on button.
Rated at 16 amps.
Square switch, round hole fixing.
Fixing:- 11mm dia. hole size.
Lucar terminals.

## Illuminated push/pull switch (12v).



On/off, latching.
Complete with bulb.
Rated at 16 amps.
Fixing:- 11mm dia. hole size.
Lucar terminals.

| Description | Part No. |
| :--- | :--- |
| Amber | 9996035 |
| Blue | 9996038 |$\quad$| Description | Part No. |
| :--- | :--- |
| Green | 9996036 |

## 9996040

## Push/pull switch (12/24v).

On/off, latching.
Rated at 16 amps.
Fixing:- 7 mm dia. hole size.
Screw terminals.


9996041


## Illuminated rocker switch (12v).

On/off, latching.
Complete with bulb.
Supplied with symbols and coloured lenses (red, yellow, blue \& green).
4 pin for use with relay.
Rated at 20 amps.
Fixing:- $20 \mathrm{~mm}(\mathrm{H}) \times 34 \mathrm{~mm}(\mathrm{~W})$
aperture required.
Lucar terminals.

## Page 8

O.E.M. names and numbers are used for reference purposes only.

## SWITCHES

## Illuminated rocker switch (12v).

On/off, latching.
Complete with bulb.
Supplied with symbols and coloured lenses (red, yellow, blue \& green).
Rated at 20 amps.
Fixing:- $20 \mathrm{~mm}(\mathrm{H}) \times 34 \mathrm{~mm}(\mathrm{~W})$
aperture required.
Lucar terminals.

9996042


## Illuminated rocker switch (12v).

On/off, latching.
Availlable with various
coloured L.E.D's.
Rated at 16 amps.
Oval switch, round hole fixing.
Fixing:- 11mm dia. hole size.
Lucar terminals.

| Description | Part No. |
| :--- | :---: |
| Amber | 9996043 |
| Green | 9996044 |
| Red | 9996045 |



## Illuminated mini rocker switch (12v).

On/off, latching.
Available with various
coloured L.E.D's.
Rated at 16 amps.
Fixing:- 20mm dia hole size.
Lucar terminals.

| Description | Part No. |
| :--- | :--- |
| Amber | 9996047 |
| Red | 9996046 |



## Mini rocker switch.

On/off, latching.
Rated at 10 amps.
Fixing:- 20mm dia hole size.
Lucar terminals.

## SWITCHES

9996049


## Mini rocker switch.

On/off, latching.
Rated at 16 amps.
Fixing:- $19 \mathrm{~mm}(\mathrm{H}) \times 12 \mathrm{~mm}(\mathrm{~W})$
aperture required.
Lucar terminals.


9996015


## Rocker switch with circuit breaker.

On/off, latching.
8 amp circuit breaker incorporated.
Fixing:- $45 \mathrm{~mm}(\mathrm{H}) \times 22 \mathrm{~mm}(\mathrm{~W})$
aperture required.
Lucar terminals.


## Illuminated rocker switch (24v).

On/off, latching.
Illuminated switch
(available in amber or red).
Rated at 16 amps.
Fixing:- $27 \mathrm{~mm}(\mathrm{H}) \times 12 \mathrm{~mm}(\mathrm{~W})$
aperture required.
Lucar terminals.

| Description | Part No. |
| :--- | :--- |
| Amber | 9996017 |
| Red | 9996018 |

9996022


## Rocker switch.

On/off, latching.
Rated at 16 amps.
Fixing:- $37 \mathrm{~mm}(\mathrm{H}) \times 21 \mathrm{~mm}(\mathrm{~W})$
aperture required.
Lucar terminals.

## SWITCHES

## Toggle switch.

On/off/change over, latching.
Rated at 10 amps.
Brass lever.
Nickel plated finish.
Fixing:- 11mm dia. hole size.
Lucar terminals.


## Toggle switch.

9996052
On/off, latching.
Heavy duty.
Rated at 25 amps.
Metal lever.
Fixing:- 11mm dia. hole size.
Screw terminals.


## Toggle switch.

9996055
Spring loaded flash/off, none latching.
Heavy duty.
Metal lever.
Rated at 25 amps.
Fixing:- 11 mm dia. hole size.
Screw terminals.


## Toggle switch.

9996053
On/on, latching.
Heavy duty.
Metal lever.
Rated at 25 amps.
Fixing:- 11mm dia. hole size.
Screw terminals.


## SWITCHES

9996051


## Toggle switch.

On/off/on, latching.
Heavy duty.
Metal lever.
Rated at 25 amps.
Fixing:- 11mm dia. hole size.
Screw terminals.


9996054


## Toggle switch.

On/off, latching.
Heavy duty.
Metal lever.
Rated at 25 amps.
Fixing:- 11 mm dia. hole size.
Lucar terminals.

## Toggle switch.

On/off, latching.
Twin circuit.
Metal lever.
Rated at 20 amps.
Fixing:- 11mm dia. hole size.
Screw terminals.

## Micro switch.

Zinc alloy housing.
Mild steel zinc plated plunger.
Actuating force maximum n (0zf):- 11 (40) .
Release force maximum n (0zf):- 1.1 (4).
Screw terminals.
Rated to IP54*.

| Recommended Max. Electrical Ratings |  |  |
| :---: | :---: | :---: |
| Voltage | Resistive Load | Inductive Load |
| AC | Amps | Amps |
| Up To 250 | 15 | 15 |


| Recommended Max. Electrical Ratings |  |  |
| :---: | :---: | :---: |
| Voltage | Resistive Load | Inductive Load |
| DC | Amps | Amps |
| Up To 30 | 15 | 15 |
| Up To 50 | 5 | 5 |
| Up To 75 | 2.5 | 2 |


*See IP ratings guide (page 192).

## Micro switch.

$\underline{9996026}$
Zinc alloy housing.
Stainless steel plunger.
Actuating force maximum n (0zf):- 7.2 (26) .
Release force maximum n (0zf):- 1.7 (6).
Screw terminals.
Rated to IP67*.

| Recommended Max. Electrical Ratings |  |  |
| :---: | :---: | :---: |
| Voltage | Resistive Load | Inductive Load |
| AC | Amps | Amps |
| Up To 250 | 15 | 5 |


| Recommended Max. Electrical Ratings |  |  |
| :---: | :---: | :---: |
| Voltage | Resistive Load | Inductive Load |
| DC | Amps | Amps |
| Up To 15 | 15 | 8 |
| Up To 30 | 2 | 1 |
| Up To 50 | 0.7 | 0.5 |
| Up To 75 | 0.5 | 0.2 |


*See IP ratings guide (page 192).

## SWITCHES

## $\underline{201.100}$

$A=230 \mathrm{~mm}$
$B=64.5 \mathrm{~mm}$
$C=57 \mathrm{~mm}$
$D=47 \mathrm{~mm}$

## Multi-function switch.

Non self-cancelling directional indicator, main beam, dip beam, headlamp flash \& horn.
To suit $\varnothing 45 \mathrm{~mm}$ steering column. Cable length:- 200mm.

## Britax



Page 14
O.E.M. names and numbers are used for reference purposes only.

## SWITCHES

## Multi-function switch.

Self-cancelling directional indicator, lane change, main beam/dip beam, headlamp flash, horn, wash, 2 speed wipe \& intermittent wipe.
Left hand only.
To suit $\varnothing 45 \mathrm{~mm}$ steering column.
Cable length:- 480mm.


Page 15
O.E.M. names and numbers are used for reference purposes only.

## SWITCHES

### 201.545

$A=250 \mathrm{~mm}$
$B=75 \mathrm{~mm}$
$C=62 \mathrm{~mm}$
D $=55 \mathrm{~mm}$

## Multi-function switch.

Self-cancelling directional indicator, lane change, main beam/dip beam, headlamp flash, horn, wash, 2 speed wipe \& intermittent wipe. Left hand only.
To suit $\varnothing 45 \mathrm{~mm}$ steering column.
Cable length:- 230mm.


Page 16
O.E.M. names and numbers are used for reference purposes only.

## SWITCHES

## Multi-function switch.

Self-cancelling directional indicator, lane change, main beam/dip beam, headlamp flash, horn, wash, 2 speed wipe \& intermittent wipe.
Left hand only.
To suit $\varnothing 45 \mathrm{~mm}$ steering column.
Cable length:- 320 mm .


Page 17
O.E.M. names and numbers are used for reference purposes only.

## SWITCHES

### 201.772



## Multi-function switch.

Forward, neutral \& reverse. Left hand only.
To suit $\varnothing 45 \mathrm{~mm}$ steering column. This switch is not fitted with a clamp assembly.
$A=252 \mathrm{~mm}$
$B=55 \mathrm{~mm}$
$C=62 \mathrm{~mm}$


Britax


## WARNING LIGHTS

## Warning light (12v).

Available in various colours.
Chrome bezel.
Complete with 12v 0.7 watt non-replaceable bulb.
Lucar terminals.
Fixing:- 13 mm dia. hole size.

| Description | Part No. |
| :--- | :--- |
| Amber | 9996500 |
| Blue | 9996501 |


| Description | Part No. |
| :--- | :--- |
| Green | 9996502 |
| Red | 9996503 |

## Warning light (12v).

Available in various colours.
Complete with 12v 3watt
replaceable bulb.
Screw terminals.
Fixing:- 16 mm dia. hole size.

| Description | Part No. |
| :--- | :--- |
| Amber | 9996504 |
| Blue | 9996505 |$\quad$| Description | Part No. |
| :--- | :--- |
| Green | 9996506 |
| Red | 9996507 |



## Warning light (12v).

Red L.E.D.
Complete with flying lead.
Choice of flashing or
static operation.
Fixing:- 8 mm dia. hole size.

| Description | Part No. |
| :--- | :--- |
| Flashing | 9996508 |
| Static | 9996509 |

Warning light (12v).
9996510
Red L.E.D.
Chrome housing.
Lucar terminals.
Fixing:- 7 mm dia. hole size.



## CABLE \& CONNECTORS

## STANDARD SINGLE CORE CABLE

NOTE: For colour required use part number plus colour code. E.G. $14 / 0.30 \mathrm{~mm} 1.0 \mathrm{~mm}^{2}$ in black is part number 9070000BB


## CABLE \& CONNECTORS

## Multicore cable

| PARTNO | SIZE | SHEATH | CORE COLOURS | LENGTH |
| :---: | :---: | :---: | :---: | :---: |
| 9070007 | 2x14/0.30mm 1.0mm ${ }^{2}$ | White PVC Flat | Black, Red | 30 Mtrs |
| 9070008 | $2 \times 14 / 0.30 \mathrm{~mm} 1.0 \mathrm{~mm}^{2}$ | Black PVC Flat | Black, Red | 30 Mtrs |
| 9070009 | $2 \times 14 / 0.30 \mathrm{~mm} 1.0 \mathrm{~mm}^{2}$ | Black PVC Flat | Black, Red | 100 Mtrs |
| 9070010 | $2 \times 14 / 0.30 \mathrm{~mm} 1.0 \mathrm{~mm}^{2}$ | Black PVC Flat | Black, White | 100 Mtrs |
| 9070011 | $2 \times 14 / 0.30 \mathrm{~mm} 1.0 \mathrm{~mm}^{2}$ | Black PVC Flat | Blue, White | 100 Mtrs |
| 9070012 | $2 \times 14 / 0.30 \mathrm{~mm} 1.0 \mathrm{~mm}^{2}$ | Black PVC Flat | Brown, White | 100 Mtrs |
| 9070013 | $2 \times 14 / 0.30 \mathrm{~mm} 1.0 \mathrm{~mm}^{2}$ | Black PVC Flat | Blue, Brown | 100 Mtrs |
| 9070014 | $2 \times 28 / 0.30 \mathrm{~mm} 2.0 \mathrm{~mm}^{2}$ | Black PVC Flat | Black, Red | 30 Mtrs |
| 9070015 | $2 \times 28 / 0.30 \mathrm{~mm} 2.0 \mathrm{~mm}^{2}$ | Black PVC Flat | Black, Red | 100 Mtrs |
| 9070016 | $2 \times 44 / 0.30 \mathrm{~mm} 3.0 \mathrm{~mm}^{2}$ | Black PVC Flat | Black, Red | 30 Mtrs |
| 9070017 | $2 \times 65 / 0.30 \mathrm{~mm} 4.5 \mathrm{~mm}^{2}$ | Black PVC Flat | Black, Red | 30 Mtrs |
| 9070018 | $\begin{aligned} & 3 \times 24 / 0.20 \mathrm{~mm}^{3} 0.75 \mathrm{~mm}^{2} \\ & 6 \mathrm{Amp} \end{aligned}$ | Black Rubber Round | Blue, Brown, Green/Yellow | 30 Mtrs |
| 9070019 | $\begin{aligned} & 3 \times 30 / 0.25 \mathrm{~mm} 1.5 \mathrm{~mm}^{2} \\ & 15 \mathrm{Amp} \end{aligned}$ | Black Rubber Round | Blue, Brown, Green/Yellow | 30 Mtrs |
| 9070020 | $\begin{aligned} & 2 \times 24 / 0.25 \mathrm{~mm}^{2} 1.5 \mathrm{~mm}^{2} \\ & 6 \text { Amp } \end{aligned}$ | Black PVC Round | Blue, Brown | 30 Mtrs |
| 9070021 | $\begin{aligned} & 3 \times 25 / 0.20 \mathrm{~mm}^{2} 0.75 \mathrm{~mm}^{2} \\ & 6 \mathrm{Amp} \end{aligned}$ | Black PVC Round | Blue, Brown, Green/Yellow | 30 Mtrs |
| 9070022 | $3 \times 30.0 .25 \mathrm{~mm}^{1.5 \mathrm{~mm}^{2}}$ <br> 15 Amp | Black PVC Round | Blue, Brown, Green/Yellow | 30 Mtrs |
| 9070023 | $2 \times 13 / 0.20 \mathrm{~mm} 0.75 \mathrm{~mm}^{2}$ | Black PVC Flat | Black, Black/White | 30 Mtrs |
| 9070024 | $2 \times 13 / 0.20 \mathrm{~mm} 0.75 \mathrm{~mm}^{2}$ | Black PVC Flat | Black, Black/White | 100 Mtrs |
| 9070025 | $3 \times 14 / 0.30 \mathrm{~mm} 1.0 \mathrm{~mm}^{2}$ | Black PVC Round | Red, Black, Green | 30 Mtrs |
| 9070026 | $4 \times 14 / 0.30 \mathrm{~mm} 1.0 \mathrm{~mm}^{2}$ | Black PVC Round | Brown, Green, Red, White | 30 Mtrs |
| 9070027 | $4 \times 14 / 0.30 \mathrm{~mm} 1.0 \mathrm{~mm}^{2}$ | Black PVC Round | Brown, Green, Red, White | 100 Mtrs |
| 9070028 | $5 \times 14 / 0.30 \mathrm{~mm} 1.0 \mathrm{~mm}^{2}$ | Black PVC Round | Brown, Green, Red, White, Yellow | 30 Mtrs |
| 9070029 | $6 \times 14 / 0.30 \mathrm{~mm} 1.0 \mathrm{~mm}^{2}$ $1 \times 28 / 0.30 \mathrm{~mm} 2.0 \mathrm{~mm}^{2}$ | Black PVC Round | Brown, Black, Blue, Green, Red, White, Yellow | 30 Mtrs |
| 9070030 | $6 \times 14 / 0.30 \mathrm{~mm}^{1.0 \mathrm{~mm}^{2}}$ $1 \times 28 / 0.30 \mathrm{~mm}^{2.0 \mathrm{~mm}^{2}}$ | Black PVC Round | Brown, Black, Blue, Green, Red, White, Yellow | 100 Mtrs |
| 9070031 | $6 \times 21 / 0.30 \mathrm{~mm}^{1.5 \mathrm{~mm}^{2}}$ $1 \times 35 / 0.30 \mathrm{~mm}^{2.5 \mathrm{~mm}^{2}}$ | Grey PVC Round | Brown, Black, Blue, Green, Red, White, Yellow | 30 Mtrs |

## CABLE \& CONNECTORS

Battery/Starter Cable

| PARTNO | SIZE | AMPS | CORE COLOUR | LENGTH |
| :---: | :---: | :---: | :---: | :---: |
| 9070035 | $37 / 0.90 \mathrm{~mm} \mathrm{25mm}{ }^{2}$ | 170 | Black | 10 Mtrs |
| 9070036 | $37 / 0.90 \mathrm{~mm} \mathrm{25mm}{ }^{2}$ | 170 | Black | 30 Mtrs |
| 9070037 | $37 / 0.90 \mathrm{~mm} \mathrm{25mm}{ }^{2}$ | 170 | Red | 10 Mtrs |
| 9070038 | $37 / 0.90 \mathrm{~mm} 25 \mathrm{~mm}^{2}$ | 170 | Red | 30 Mtrs |
| 9070039 | $61 / 0.90 \mathrm{~mm} 40 \mathrm{~mm}^{2}$ | 300 | Black | 10 Mtrs |
| 9070040 | $61 / 0.90 \mathrm{~mm} 40 \mathrm{~mm}^{2}$ | 300 | Black | 30 Mtrs |
| 9070041 | $61 / 0.90 \mathrm{~mm} 40 \mathrm{~mm}^{2}$ | 300 | Red | 10 Mtrs |
| 9070042 | $61 / 0.90 \mathrm{~mm} 40 \mathrm{~mm}^{2}$ | 300 | Red | 30 Mtrs |
| 9070043 | $61 / 1.13 \mathrm{~mm} 60 \mathrm{~mm}^{2}$ | 415 | Black | 10 Mtrs |
| 9070044 | $61 / 1.13 \mathrm{~mm} 60 \mathrm{~mm}^{2}$ | 415 | Black | 30 Mtrs |
| 9070045 | $61 / 1.13 \mathrm{~mm} 60 \mathrm{~mm}^{2}$ | 415 | Red | 10 Mtrs |
| 9070046 | $61 / 1.13 \mathrm{~mm} 60 \mathrm{~mm}^{2}$ | 415 | Red | 30 Mtrs |
| 9070047 | 1107/0.20mm $70 \mathrm{~mm}^{2}$ | 290 | Black | 10 Mtrs |
| 9070048 | $2214 / 0.20 \mathrm{~mm} 70 \mathrm{~mm}^{2}$ | 485 | Red | 10 Mtrs |
| 9070052 | $2214 / 0.20 \mathrm{~mm} 70 \mathrm{~mm}^{2}$ | 485 | Red | 10 Mtrs |
| 9070049 | $2214 / 0.20 \mathrm{~mm} 40 \mathrm{~mm}^{2}$ | 300 | Black | 50 Mtrs |
| 9070050 | $2214 / 0.20 \mathrm{~mm} 40 \mathrm{~mm}^{2}$ | 300 | Red | 50 Mtrs |
| 9070054 | 1107/0.20mm 70mm ${ }^{2}$ | 290 | Red | 10 Mtrs |

## Ignition Cable

## PARTNO SIZE Conductor CORECOLOUR SHEATH LENGTH

| 9070051 | $7 \mathrm{~mm}^{2}$ | Copper | Black | PVC | 30 Mtrs |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 9070052 | $7 \mathrm{~mm}^{2}$ | Resistive | Black | PVC | 30 Mtrs |
| 9070053 | $7 \mathrm{~mm}^{2}$ | Resistive | Black | TPE | 30 Mtrs |

## Thin Wall Cable <br> NOTE: For colour required use part number plus colour code. E.G. $16 / 020 \mathrm{~mm} 0.5 \mathrm{~mm}^{2}$ in black is part number 9070060BB

## CABLE \& CONNECTORS

## Booster cables.

Fully insulated.
Complete with crocodile clips.
Length:- 5 metres.


| Description | Part No. |
| :--- | :--- |
| $\mathbf{1 1 0 ~ a m p ~}$ | 9994040 |
| 170 amp | 9994045 |
| 240 amp | 9994046 |

## Surge protector.

Available in $\mathbf{1 2 v}$ or $\mathbf{2 4 v}$.
Protects vehicles from power surges during jump starting.
For use with booster cables.

| Description | Part No. |
| :---: | :---: |
| $\mathbf{1 2 v}$ | BSPSSC12 |
| $\mathbf{2 4 v}$ | BSPSSC24 |

## Booster cable clip.

Rated at 150 amps.
Available in black or red.

| Description | Part No. |
| :--- | :--- |
| Black | 9994041 |
| Red | 9994042 |

## Battery terminal cover.

Polyvinylchloride (PVC).


| Description | Part No. |
| :--- | :--- |
| Red | 9994043 |
| Blue | 9994044 |

## CABLE \& CONNECTORS

## Battery terminal.

To suit cable sizes:- $\mathbf{2 5 m m} \mathbf{m}^{\mathbf{2}} \mathbf{- 4 0} \mathrm{mm}^{\mathbf{2}}$.

| Description | Part No. |
| :--- | :--- |
| Positive + | 9994030 |
| Negative - | 9994031 |



## Battery terminal.

To suit cable size:- $\mathbf{6 0 m m} \mathbf{m}^{2}$.

| Description | Part No. |
| :--- | :--- |
| Positive + | 9994032 |
| Negative - | 9994033 |



## Battery terminal.

Suitable for some Japanese vehicles fitted with batteries with smaller posts. To suit cable sizes:- $\mathbf{2 0} \mathbf{m m}^{\mathbf{2}} \mathbf{- 2 5 m m}{ }^{\mathbf{2}}$.

| Description | Part No. |
| :--- | :--- |
| Positive + | 9994036 |
| Negative - | 9994037 |



## Battery terminal conversion lug.

Converts from standard taper posts to 8 mm dia. stud.

| Description | Part No. |
| :--- | :---: |
| Positive + | 9994038 |
| Negative - | 9994039 |



## CABLE \& CONNECTORS



9071435


9071437


9071422


Assorted heat shrink kit.
Approx 70 pieces.

| Contents |
| :--- |
| $3.2 \mathrm{~mm} \times 150 \mathrm{~mm}$ black |
| $3.2 \mathrm{~mm} \times 150 \mathrm{~mm}$ red |
| $6.4 \mathrm{~mm} \times 150 \mathrm{~mm}$ black |


| Contents |
| :--- |
| $6.4 \mathrm{~mm} \times 150 \mathrm{~mm}$ yellow |
| $6.4 \mathrm{~mm} \times 150 \mathrm{~mm}$ blue |
| $9.5 \mathrm{~mm} \times 150 \mathrm{~mm}$ red |

Assorted pin \& mouldings kit.
Approx 130 pieces.

| Contents |
| :--- |
| 3 mm pin terminals |
| 3 mm sckt 3 mm cable |
| 3 mm sckt 0.7 mm cable |
| 1 pin moulding |
| 2 pin moulding |
| 3 pin moulding |
| 4 pin moulding |
| 5 pin moulding |
| 7 pin moulding |


| Contents |
| :--- |
| 9 pin moulding |
| 1 socket moulding |
| 2 socket moulding |
| 3 socket moulding |
| 4 socket moulding |
| 5 socket moulding |
| 7 socket moulding |
| 9 socket moulding |

Assorted bullet \& connector kit.
Approx 130 pieces.

| Contents |
| :---: |
| 2 way connector |
| 4 way connector |
| 10 way connector |


| Contents |
| :---: |
| 1 mm crimp bullet |
| 2 mm crimp bullet |
| 3 mm solder bullet |

Page 26
O.E.M. names and numbers are used for reference purposes only.

## CABLE \& CONNECTORS

## Assorted terminals/covers kit.

Non-insulated
Approx 265 pieces.

| Contents | Contents |
| :---: | :---: |
| 2 amp speaker | 1/4" piggyback |
| 3/16" female | 1/4" rt/ang female |
| 3/16" cover | 1/4" rt/ang cover |
| 1/4" male | 35 amp female |
| 1/4" female | 35 amp cover |
| 1/4" cover | 2.8 mm male lock in |



Assorted red ring \& fork terminal kit.

Approx 240 pieces.

| Contents |
| :--- |
| 3.2 mm ring |
| 3.5 mm ring |
| 4.3 mm ring |
| 5.3 mm ring |
| 6.4 mm ring |


| Contents |
| :--- |
| 8.4 mm ring |
| 10.5 mm ring |
| 3 mm fork |
| 3.5 mm fork |
| 5 mm fork |

## Assorted red terminal kit.

## 9071416

Approx 480 pieces.

| Contents |
| :--- |
| 6.4 mm male |
| 6.4 mm female |
| 6.4 mm female F.I. |
| Speaker terminal |
| Butt |
| $1 / 4$ piggyback |


| Contents |
| :--- |
| ADLOC |
| Bullet |
| Socket |
| $3 / 16^{\prime \prime}$ female |
| 5.3 mm ring |

## Assorted blue/red terminal kit.

Approx 530 pieces.

| Contents |
| :--- |
| 6.4 mm blue male |
| 6.4 mm blue female |
| 6.4 mm blue female F.l. |
| Blue butt |
| Blue socket |
| Blue bullet |


| Contents |
| :--- |
| Blue piggyback |
| 6.4mm red male |
| 6.4mm red female F.I. |
| Red butt |
| Red socket |
| Red bullet |



## CABLE \& CONNECTORS

9071421


9071418

## Assorted blue ring \& fork terminal kit.

Approx 240 pieces.

| Contents |
| :--- |
| 3.2 mm ring |
| 4.3 mm ring |
| 5.3 mm ring |
| 6.4 mm ring |
| 8.4 mm ring |


| Contents |
| :--- |
| 10.5 mm ring |
| 3.5 mm fork |
| 4.3 mm fork |
| 5 mm fork |
| 6.4 mm fork |

## Assorted blue terminal kit.

Approx 470 pieces.

| Contents |
| :--- |
| 6.4 mm male |
| 6.4 mm female |
| 6.4 mm female F.I. |
| Butt |
| ADLOC |
| Bullet |


| Contents |
| :--- |
| Socket |
| $3 / 16^{\prime \prime}$ female |
| 5.3 mm ring |
| 6.4 mm ring |
| 6.4 mm piggyback |

## Assorted yellow ring \& fork terminal kit.

Approx 240 pieces.

| Contents |  |
| :--- | :--- |
| 4.3 mm ring |  |
| 5 mm ring | Contents |
| 6.4 mm ring | 12mm ring <br> 8.3 mm ring <br> 10.5 mm ring$\quad$5mm fork <br> 6.4 mm fork |

9071413


Assorted terminal kit.
Pre-insulated terminals.
Pack of 120.


| Contents |
| :--- |
| 6.4mm blue male lucar |
| 6.4 mm blue female lucar |
| Blue male bullet |
| Blue female bullet |
| 6.4mm yellow male lucar |
| 6.4 mm yellow female lucar |

## CABLE \& CONNECTORS

## Ratchet crimping tool.

9071401
Suitable for pre-insulated terminals.

## Cable stripping tool.

9071402
Incorporates cutter \& crimper.
Suitable for cables up to 4 mm .

## CABLE \& CONNECTORS CONNECTORS



## CABLE \& CONNECTORS

## HEAT SHRINK SLEEVING

| PART NO. | SIZE |  |
| :--- | :--- | :--- |
| 9089000 | $3.2 \mathrm{~mm}-1.6 \mathrm{~mm}$ |  |
| 9089001 | $4.8 \mathrm{~mm}-2.4 \mathrm{~mm}$ | Operating temperature -55 to $+135^{\circ} \mathrm{C}$ |
| 9089002 | $6.4 \mathrm{~mm}-3.2 \mathrm{~mm}$ | Shrink temperature $100^{\circ} \mathrm{C}$ |
| 9089003 | $9.5 \mathrm{~mm}-4.75 \mathrm{~mm}$ | Shrinks to half the original size |
| 9089004 | $12 \mathrm{~mm}-6 \mathrm{~mm}$ | Colour - Black |
| 9089005 | $19 \mathrm{~mm}-9.5 \mathrm{~mm}$ |  |
| 9089006 | $25.4 \mathrm{~mm}-12.7 \mathrm{~mm}$ | Minimum order length $=1$ metre |

## PVC SLEEVING

| PART NO. | SIzE |  |
| :---: | :---: | :---: |
| 9089012 | 4 mm | Supplied on 100 metre roll |
| 9089013 | 5 mm | Supplied on 100 metre roll |
| 9089014 | 6 mm | Supplied on 100 metre roll |
| 9089015 | 7 mm | Supplied on 100 metre roll |
| 9089016 | 8 mm | Supplied on 100 metre roll |
| 9089017 | 9 mm | Supplied on 100 metre roll |
| 9089018 | 10 mm | Supplied on 100 metre roll |
| 9089019 | 11 mm | Supplied on 25 metre roll |
| 9089020 | 12 mm | Supplied on 25 metre roll |
| 9089021 | 13 mm | Supplied on 25 metre roll |
| 9089022 | 14 mm | Supplied on 25 metre roll |
| 9089023 | 15 mm | Supplied on 25 metre roll |
| 9089024 | 16 mm | Supplied on 25 metre roll |
| 9089025 | 17 mm | Supplied on 25 metre roll |
| 9089026 | 18 mm | Supplied on 25 metre roll |
| 9089027 | 19 mm | Supplied on 25 metre roll |
| 9089028 | 20 mm | Supplied on 25 metre roll |
| 9089029 | 21 mm | Supplied on 25 metre roll |
| 9089030 | 22 mm | Supplied on 25 metre roll |
| 9089031 | 25 mm | Supplied on 25 metre roll |

## CABLE \& CONNECTORS

## COLOURED PVC TAPE

## PART NO. COLOUR

9994020
9994021
9994022
9994023
9994024
9994025
9994026

Black
Blue
Brown
Green
Red
White
Yellow

All PVC tape is $19 \mathrm{~mm} \times 20 \mathrm{~m}$ per roll.

## CABLE TIES



## CABLE TIE BASES

| PART NO.SIZE <br> 9994010 <br> 9994011 | $19 \mathrm{~mm} \times 19 \mathrm{~mm}$ <br> $25 \mathrm{~mm} \times 25 \mathrm{~mm}$ |  |
| :--- | :--- | :--- |

## CABLE \& CONNECTORS

## Conduit.

Flexible \& lightweight polymide (PA6) conduit. PA6 material provides fire retardent properties \& halogen free emissions.
Supplied in split form to facilitate rapid cable installation or unsplit form to provide protection against mechanical shock \& ingress of water.
Suitable for automotive applications \& harness fabrication
Enhanced flexibility enabling ease of use in confined spaces.
Operating temperature range, continuous $-40^{\circ} \mathrm{C}$ to $+120^{\circ} \mathrm{C}$, intermittent $-40^{\circ} \mathrm{C}$ to $+150^{\circ} \mathrm{C}$.
Rated to IP67* with sealed fittings (except split)
\& rated to IP40* with hinged fittings (except
split).
Supplied in 25 mtr rolls.


| Split/Unsplit | Overall (A) | Min. Bore (B) | Bend Radius (C) | Part No. |
| :---: | :---: | :---: | :---: | :---: |
| Split | $\mathbf{1 0 . 0 m m}$ | $\mathbf{6 . 9 m m}$ | $\mathbf{1 0}$ | 9090000 |
| Split | $\mathbf{1 3 . 0 m m}$ | $\mathbf{1 0 . 1 \mathbf { m m }}$ | $\mathbf{1 8}$ | 9090001 |
| Split | $\mathbf{1 6 . 0 m m}$ | $\mathbf{1 1 . 8 m m}$ | $\mathbf{3 2}$ | 9090002 |
| Split | $\mathbf{1 8 . 5 m m}$ | $\mathbf{1 4 . 5 m m}$ | $\mathbf{3 5}$ | 9090003 |
| Split | $\mathbf{2 1 . 2 m m}$ | $\mathbf{1 6 . 9 m m}$ | $\mathbf{4 0}$ | 9090004 |
| Unsplit | $\mathbf{1 0 . 0 m m}$ | $\mathbf{6 . 9 m m}$ | $\mathbf{1 0}$ | 9090005 |
| Unsplit | $\mathbf{1 3 . 0 m m}$ | $\mathbf{1 0 . 1 \mathbf { m m }}$ | $\mathbf{1 8}$ | 9090006 |
| Unsplit | $\mathbf{1 6 . 0 m m}$ | $\mathbf{1 1 . 8 m m}$ | $\mathbf{3 2}$ | 9090007 |
| Unsplit | $\mathbf{2 1 . 2 m m}$ | $\mathbf{1 6 . 9 m m}$ | $\mathbf{4 0}$ | 9090008 |

*See IP ratings guide (page 192).

## T-piece conduit fitting (hinged).

Designed to snap together over different types of split \& unsplit conduit thus maintaining maximum bore.
Operating temperature range, continuous $-40^{\circ} \mathrm{C}$ to $+120^{\circ} \mathrm{C}$, intermittent $-40^{\circ} \mathrm{C}$ to $+150^{\circ} \mathrm{C}$.
Rated to IP40*.


| $\mathbf{A}$ | B | C | Part No. |
| :---: | :---: | :---: | :---: |
| $\mathbf{8 m m}$ | $\mathbf{8 m m}$ | $\mathbf{8 m m}$ | 9091004 |
| $\mathbf{1 2 m m}$ | $\mathbf{1 2 m m}$ | $\mathbf{1 2 m m}$ | 9091005 |
| $\mathbf{1 6 m m}$ | $\mathbf{1 6 m m}$ | $\mathbf{1 6 m m}$ | 9091006 |
| $\mathbf{2 0 m m}$ | $\mathbf{2 0 m m}$ | $\mathbf{1 6 m m}$ | 9091007 |



## CABLE \& CONNECTORS



## Y-piece conduit fitting (hinged).

Designed to snap together over different types of split \& unsplit conduit thus maintaining maximum bore.
Operating temperature range, continuous $-40^{\circ} \mathrm{C}$ to $+120^{\circ} \mathrm{C}$, intermittent $-40^{\circ} \mathrm{C}$ to $+150^{\circ} \mathrm{C}$.
Rated to IP40*.

| A | B | C | Part No. |
| :---: | :---: | :---: | :---: |
| $\mathbf{8 m m}$ | $\mathbf{8 m m}$ | $\mathbf{8 m m}$ | 9091008 |
| $\mathbf{1 2 m m}$ | $\mathbf{1 2 m m}$ | $\mathbf{1 2 m m}$ | 9091009 |
| $\mathbf{1 6 m m}$ | $\mathbf{1 6 m m}$ | $\mathbf{1 2 m m}$ | 9091010 |
| $\mathbf{2 0 m m}$ | $\mathbf{1 6 m m}$ | $\mathbf{1 6 m m}$ | 9091011 |

*See IP ratings guide (page 192).


## Shroud conduit fitting (hinged).

Designed to snap together over different types of split \& unsplit conduit thus maintaining maximum bore.
Provides protection for inline connectors, fuse links, circuit breakers \& splicing areas.
Operating temperature range, continuous $-40^{\circ} \mathrm{C}$ to $+120^{\circ} \mathrm{C}$, intermittent $-40^{\circ} \mathrm{C}$ to $+150^{\circ} \mathrm{C}$.
Rated to IP40*.


| $A$ | $B$ | $C$ | $D$ | $E$ | Part No. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 12 mm | 12 mm | 43 mm | 77 mm | 100 mm | 9091012 |
| 16 mm | 16 mm | 43 mm | 77 mm | 104 mm | 9091013 |
| 12 mm | 12 mm | 35 mm | 73 mm | 100 mm | 9091014 |
| 16 mm | 20 mm | 43 mm | 77 mm | 104 mm | 9091015 |
| 20 mm | 20 mm | 43 mm | 77 mm | 104 mm | 9091016 |

*See IP ratings guide (page 192).

## Clip conduit fitting (hinged).



Designed to snap together over different types of split \& unsplit conduit.
Non metallic clip provides secure mounting points for conduit sytems within a harness installation.
Operating temperature range, continuous $-40^{\circ} \mathrm{C}$
to $+120^{\circ} \mathrm{C}$, intermittent $-40^{\circ} \mathrm{C}$ to $+150^{\circ} \mathrm{C}$.
Rated to IP40*.

| Conduit Size | Part No. |
| :---: | :---: |
| $\mathbf{2 0 m m}$ | 9091019 |
| $\mathbf{1 6 m m}$ | 9091020 |

*See IP ratings guide (page 192).
Page 34
O.E.M. names and numbers are used for reference purposes only.

## CABLE \& CONNECTORS

## Gland.

Straight compression fittings incorporating fixed male threads to provide connection to knockouts and threaded entries.
Suitable for up to 12 mm conduit.
Sealing bush rated to IP67*.
NOTE: order body, nuts, locknuts \& bushes separately (not supplied as complete unit).


| Thread Size | Body | Nut | Locknut | Bush |
| :---: | :---: | :---: | :---: | :---: |
| M16 $\times 1.5$ | 9091000 | 9091001 | 9091003 | 9091002 |

*See IP ratings guide (page 192).

## Enclosure.

Non metallic enclosure designed for use as a multi-way junction box or as a component or terminal housing. This enclosure provides the facility for quick and simple connection to our sealed fittings \& glands via PG sized knockouts.
Sealing gasket rated to IP66*.
Polycarbonate construction provides UV resistant properties and halogen
 free emissions.

| W | D | H | Part No. |
| :---: | :---: | :---: | :---: |
| 94 mm | 94 mm | 57 mm | 9091017 |
| 110 mm | 110 mm | 66 mm | 9091018 |



9091017 knockout arrangement with PG11/16 holes.


9091018 knockout
arrangement with
PG16/21 holes.
*See IP ratings guide (page 192).

## JUNCTION BOXES

## 111/01/01



Rubbolile

## Junction box.

Plastic construction with transparent lid.
4 rubber cable entries can be cut to various sizes.
Complete with 8 way terminal block
\& fixing screws.
Box can be used (without the terminal block) as a fuse box or terminal connection cover.
Size:- $145 \mathrm{~mm}(\mathrm{~L}) \times 101 \mathrm{~mm}(\mathrm{~W}) \times 37 \mathrm{~mm}$ (D).

## Junction box.

Plastic construction with transparent lid.
4 rubber cable entries can be cut to various sizes.
Complete with fixing screws.
Terminal block not included.
Box can be used as a fuse box or
terminal connection cover.
Size:- $145 \mathrm{~mm}(\mathrm{~L}) \times 101 \mathrm{~mm}(\mathrm{~W}) \times 37 \mathrm{~mm}(\mathrm{D})$.

## Rubbolie:

## 111/01/02



Rubbolute

## Junction box.

Plastic construction with transparent lid. 4 rubber cable entries can be cut to various sizes.
Complete with $2 \times 8$ way terminal blocks \& fixing screws.
Box can be used (without the terminal blocks) as a fuse box or terminal connection cover. Size:- $145 \mathrm{~mm}(\mathrm{~L}) \times 101 \mathrm{~mm}(\mathrm{~W}) \times 37 \mathrm{~mm}(\mathrm{D})$.

## 111/07/00



Rubbolie

## Junction box.

Plastic construction with transparent lid. 8 rubber cable entries can be cut to various sizes.
Complete with fixing screws.
Terminal block not included.
Box can be used as a fuse box or terminal connection cover.
Size:- $145 \mathrm{~mm}(\mathrm{~L}) \times 101 \mathrm{~mm}(\mathrm{~W}) \times 70 \mathrm{~mm}(\mathrm{D})$.

## JUNCTION BOXES

## Junction box.

Plastic construction with transparent lid. 8 rubber cable entries can be cut to various sizes.
Complete with 8 way terminal block \& fixing screws.
Box can be used (without the terminal block) as a fuse box or terminal connection cover.
Size:- 145 mm (L) $\times 101 \mathrm{~mm}$ (W) $\times 70 \mathrm{~mm}$ (D).
111/07/01


Rubbolite

108/01/00
Natural rubber construction with transparent lid.
4 rubber cable entries can be cut to various sizes.
Complete with heavy duty 8 way terminal block \& fixing screws.
Box can be used (without the terminal block) as a fuse box or terminal connection cover. Size:- 102 mm (L) $\times 74 \mathrm{~mm}(\mathrm{~W}) \times 38 \mathrm{~mm}$ (D).


Rubbotle

## Junction box.

120/07/02
Impact resistant plastic construction.
16 pre-formed cable grommets will accept
2 core flat or round, $4 / 5$ core, 7 core \& 10 core.
Complete with 16 way terminal block with type 250 spade terminals.
Hinged lid incorporates wiring label.
Rated to IP5*, IP6* \& IP 9K
(water/pressure washing).
Size:- 146 mm (L) x 98mm (W) x 87 mm (D).


Rubbolie
*See IP ratings guide (page 192).

## Junction box.

9980002
Plastic construction with transparent lid.
6 rubber cable entries can be cut to various sizes.
Complete with 10 way terminal block \& fixing screws.
Box can be used (without the terminal block) as a fuse box or terminal connection cover.
Size:- 156 mm (L) x $78 \mathrm{~mm}(\mathrm{~W}) \times 50 \mathrm{~mm}(\mathrm{D})$.


## Mini blade fuse.

Packs of 10.


| Description | Part No. |
| :--- | :---: |
| $\mathbf{3}$ Amp | 9071000.03 |
| $\mathbf{4 ~ A m p}$ | 9071000.04 |
| 5 Amp | 9071000.05 |
| $\mathbf{1 0}$ Amp | 9071000.10 |


| Description | Part No. |
| :---: | :---: |
| 15 Amp | 9071000.15 |
| 20 Amp | 9071000.20 |
| 25 Amp | 9071000.25 |
| 30 Amp | 9071000.30 |

Standard blade fuse.
Packs of 10.

| Description | Part No. |
| :--- | :---: |
| $\mathbf{1}$ Amp | 9071003.01 |
| $\mathbf{2 ~ A m p ~}$ | 9071003.02 |
| $\mathbf{3 ~ A m p}$ | 9071003.03 |
| 4 Amp | 9071003.04 |
| $\mathbf{5 ~ A m p}$ | 9071003.05 |
| $\mathbf{7 ~ A m p}$ | 9071003.07 |


| Description | Part No. |
| :--- | :---: |
| 10 Amp | 9071003.10 |
| 15 Amp | 9071003.15 |
| 20 Amp | 9071003.20 |
| 25 Amp | 9071003.25 |
| 30 Amp | 9071003.30 |

Maxi blade fuse.
Packs of 2.


| Description | Part No. |
| :--- | :---: |
| $\mathbf{1 0}$ Amp | 9071004.10 |
| $\mathbf{2 0}$ Amp | 9071004.20 |
| $\mathbf{3 0}$ Amp | 9071004.30 |
| $\mathbf{4 0}$ Amp | 9071004.40 |
| $\mathbf{5 0}$ Amp | 9071004.50 |


| Description | Part No. |
| :--- | :---: |
| $\mathbf{6 0}$ Amp | 9071004.60 |
| $\mathbf{7 0}$ Amp | 9071004.70 |
| $\mathbf{8 0}$ Amp | 9071004.80 |
| $\mathbf{1 0 0}$ Amp | 9071004.100 |

PAL female fuse.
Supplied in singles.


| Description | Part No. |
| :--- | :---: |
| $\mathbf{3 0} \mathrm{Amp}$ | 9071005.30 |
| $\mathbf{4 0} \mathrm{Amp}$ | 9071005.40 |
| $\mathbf{6 0} \mathrm{Amp}$ | 9071005.60 |
| $\mathbf{8 0}$ Amp | 9071005.80 |

## FUSES, FUSE BOXES/HOLDERS \& CIRCUIT BREAKERS

## PAL male fuse.

Supplied in singles.

| Description | Part No. |
| :--- | :---: |
| $\mathbf{3 0}$ Amp | 9071006.30 |
| 40 Amp | 9071006.40 |
| 60 Amp | 9071006.60 |
| $8 \mathbf{~ A m p}$ | 9071006.80 |



## PAL shortleg fuse.

Suppied in singles.

| Description | Part No. |
| :--- | :---: |
| 30 Amp | 9071007.30 |
| 40 Amp | 9071007.40 |
| $\mathbf{6 0}$ Amp | 9071007.60 |
| $\mathbf{8 0}$ Amp | 9071007.80 |
| $\mathbf{1 0 0}$ Amp | 9071007.100 |



## Radio fuse.

Packs of 10.
Size:- 19 mm (L) x 5mm (dia.).

| Description | Part No. |
| :--- | :---: |
| $\mathbf{2}$ Amp | 9071001.02 |
| $\mathbf{3 ~ A m p}$ | 9071001.03 |
| $\mathbf{5}$ Amp | 9071001.05 |

## Glass fuse.

Packs of 10.
Size:- 29 mm (L) x 6mm (dia.).

| Description | Part No. |
| :--- | :---: |
| $\mathbf{1}$ Amp | 9071002.01 |
| $\mathbf{2 ~ A m p ~}$ | 9071002.02 |
| $\mathbf{3}$ Amp | 9071002.03 |
| $\mathbf{5}$ Amp | 9071002.05 |
| $\mathbf{7}$ Amp | 9071002.07 |
| $\mathbf{1 0}$ Amp | 9071002.10 |$\quad$| Description | Part No. |
| :--- | :---: |
| $\mathbf{1 5}$ Amp | 9071002.15 |
| $\mathbf{2 5}$ Amp | 9071002.20 |
| $\mathbf{3 5}$ Amp | 9071002.25 |
| $\mathbf{5 0}$ Amp | 9071002.35 |

O.E.M. names and numbers are used for reference purposes only.

FUSES, FUSE BOXES/HOLDERS \& CIRCUIT BREAKERS

## Domestic fuse.

Packs of 10.
Size:- 25 mm (L) x 6 mm (dia.).

| Description | Part No. |
| :--- | :---: |
| $\mathbf{3}$ Amp | 9071008.03 |
| 5 Amp | 9071008.05 |
| $\mathbf{1 3}$ Amp | 9071008.13 |

## Ceramic fuse.

Packs of 10.
Size:- 26 mm (L) x 6 mm (dia.).


| Description | Part No. |
| :--- | :---: |
| 5 Amp | 9071009.05 |
| $\mathbf{8}$ Amp | 9071009.08 |
| $\mathbf{1 6 ~ A m p ~}$ | 9071009.16 |
| 25 Amp | 9071009.25 |

## Strip link fuse.

Packs of 10.
Length:- 41 mm .


| Description | Part No. |
| :--- | :---: |
| $\mathbf{3 0}$ Amp | 9071010.30 |
| 40 Amp | 9071010.40 |
| 50 Amp | 9071010.50 |
| 60 Amp | 9071010.60 |
| 80 Amp | 9071010.80 |

## 9071428



## Assorted maxi blade fuse kit.

Approx 40 pieces.

| Contents |
| :--- |
| 20 Amp |
| 30 Amp |
| 40 Amp |
| 50 Amp |


| Contents |
| :--- |
| 60 Amp |
| 70 Amp |
| 80 Amp |
| 100 Amp |

## FUSES, FUSE BOXES/HOLDERS \& CIRCUIT BREAKERS

## Assorted standard blade

 fuse kit.Approx 120 pieces.

| Contents |
| :--- |
| 3 Amp |
| 4 Amp |
| 5 Amp |
| 7.5 Amp |
| 10 Amp |


|  |
| :--- |
| 15 Amp |
| 20 Amp |
| 25 Amp |
| 30 Amp |



## Assorted mini blade fuse kit.

Approx 120 pieces.

| Contents |
| :--- |
| 3 Amp |
| 4 Amp |
| 5 Amp |
| 7.5 Amp |
| 10 Amp |


| Contents |
| :--- |
| 15 Amp |
| 20 Amp |
| 25 Amp |
| 30 Amp |



## Assorted glass fuse kit.

Approx 120 pieces.

| Contents |
| :--- |
| 1 Amp |
| 1.5 Amp |
| 2 Amp |
| 3 Amp |
| 5 Amp |
| 8 Amp |


| Contents |
| :--- |
| 10 Amp |
| 15 Amp |
| 20 Amp |
| 25 Amp |
| 35 Amp |
| 50 Amp |

## Assorted DIN fuse kit.

Approx 600 pieces.

| Contents |
| :--- |
| 1 Amp |
| 2 Amp |
| 3 Amp |


| Contents |
| :--- |
| 5 Amp |
| 10 Amp |


O.E.M. names and numbers are used for reference purposes only.

FUSES, FUSE BOXES/HOLDERS \& CIRCUIT BREAKERS

## Circuit breaker.

Suitable for all 12-24v applications.
Press to reset.
For holder use 9071065 (see page 58).
Can be used to replace a standard blade fuse.

| Description | Part No. |
| :--- | :---: |
| $\mathbf{6}$ Amp | 9071011.06 |
| $\mathbf{8}$ Amp | 9071011.08 |
| $\mathbf{1 0}$ Amp | 9071011.10 | | Description | Part No. |
| :---: | :---: |
| $\mathbf{2 0 ~ A m p}$ | 9071011.15 |
| $\mathbf{2 5 ~ A m p}$ | 9071011.20 |

## Compact circuit breaker.

Suitable for all 12-24v applications.
Press to reset.
For holder use 9071065 (see page 58).
Can be used to replace a standard blade fuse.

| Description | Part No. |
| :--- | :---: |
| $\mathbf{6}$ Amp | 9071012.06 |
| $\mathbf{8}$ Amp | 9071012.08 |
| $\mathbf{1 0}$ Amp | 9071012.10 | | Description | Part No. |
| :--- | :---: |
| $\mathbf{2 0 ~ A m p ~}$ | 9071012.15 |
| $\mathbf{2 5}$ Amp | 9071012.20 |

## Circuit breaker.

Suitable for all 12-24v applications.
For panel mounting in 9.6 mm dia. hole.
Solder terminals.
Press to reset.

| Description | Part No. |
| :--- | :---: |
| $\mathbf{5}$ Amp | 9071013.05 |
| $\mathbf{7}$ Amp | 9071013.07 |
| $\mathbf{1 0}$ Amp | 9071013.10 | | Description | Part No. |
| :--- | :---: |
| $\mathbf{2 0 ~ A m p}$ | 9071013.15 |
| $\mathbf{2 5 ~ A m p}$ | 9071013.20 |

## Circuit breaker.

Suitable for all 12-24v
applications.
For panel mounting in 9.6 mm dia. hole.
Solder terminals.
Manual trip.
Press to reset.

| Description | Part No. |
| :--- | :---: |
| $\mathbf{5}$ Amp | 9071014.05 |
| $\mathbf{7}$ Amp | 9071014.07 |
| $\mathbf{1 0}$ Amp | 9071014.10 | | Description | Part No. |
| :--- | :---: |
| $\mathbf{2 0 ~ A m p ~}$ | 9071014.15 |
| $\mathbf{2 5} \mathbf{A m p}$ | 9071014.20 |

Page 42
O.E.M. names and numbers are used for reference purposes only.

## FUSES, FUSE BOXES/HOLDERS \& CIRCUIT BREAKERS

## Circuit breaker.

Suitable for 12-24v applications.
For panel mounting in 9 mm dia. hole.
Press to reset.
Lucar terminals.

| Description | Part No. |
| :--- | :---: |
| $\mathbf{5}$ Amp | 9071015.05 |
| $\mathbf{1 0 ~ A m p ~}$ | 9071015.10 |
| $\mathbf{1 5}$ Amp | 9071015.15 |


| Description | Part No. |
| :--- | :---: |
| $\mathbf{2 0}$ Amp | 9071015.20 |
| $\mathbf{3 0}$ Amp | 9071015.30 |



## Rocker switch with circuit breaker.

## 9996015

On/off, latching.
8 amp circuit breaker incorporated.
Fixing:- $45 \mathrm{~mm}(\mathrm{H}) \times 22 \mathrm{~mm}(\mathrm{~W})$
aperture required.
Lucar terminals.


## Circuit breaker holder.

Suitable for 9071011 \& 9071012
series circuit breakers (see page 57).

## 9071065



## Fuse holder.

9071060
With terminals.
Accepts $28 / 0.3 \mathrm{~mm}\left(2 \mathrm{~mm}^{2}\right)$ cable.
Takes glass type fuses.
Rated at 17.5 amps continuous.


FUSES, FUSE BOXES/HOLDERS \& CIRCUIT BREAKERS

## 9071061

## Fuse holder.

Without terminals.
Accepts $28 / 0.3 \mathrm{~mm}\left(2 \mathrm{~mm}^{2}\right)$ cable.
Takes glass type fuses.
Rated at 17.5 amps continuous.

$\underline{9071062}$


## Fuse holder.

Takes standard blade type fuses.
Rated at 30 amps continuous.

## Fuse holder.

Takes mini blade type fuses.
Splash proof.
Rated at 15 amps continuous.

## Fuse holder.

Takes standard blade type fuses.
Splash proof.
Rated at 30 amps continuous.

FUSES, FUSE BOXES/HOLDERS \& CIRCUIT BREAKERS

## Fuse box.

9997054
Takes standard blade
type fuses.
8 way.
Complete with cover
\& gasket.
2 hole fixing.
Lucar terminals.
Fuses not included.

## Continental ceramic

fuse holder.
Screw terminals.
Complete with 8 amp fuse.


9071066
9071066

Fuse box.

Takes standard blade
type fuses.
16 way.
Complete with cover
\& gasket.
4 hole fixing.
Crimp terminals.
Fuses not included.

9997055


## Fuse box.

Takes standard blade
type fuses.
4 way.
Complete with cover.
2 hole fixing
Lucar terminals.
Fuses not included.

9997050


FUSES, FUSE BOXES/HOLDERS \& CIRCUIT BREAKERS

## 9997051



## Fuse box.

Takes standard blade
type fuses.

## 6 way.

Complete with cover.
2 hole fixing.
Lucar terminals.
Fuses not included.

## 9997052



## Fuse box.

Takes standard blade
type fuses.
4 way.
Complete with cover
\& gasket.
2 hole fixing.
Lucar terminals.
Fuses not included.

## Fuse box.

Takes standard blade
type fuses.
6 way.
Complete with cover
\& gasket.
2 hole fixing.
Lucar terminals.
Fuses not included.

## 9997057



## Fuse box.

Takes standard blade
type fuses.
12 way.
Complete with cover.
2 hole fixing.
Lucar terminals.
Fuses not included.

## FUSES, FUSE BOXES/HOLDERS \& CIRCUIT BREAKERS

## Fuse box.

Takes continental type
ceramic fuses.

## 4 way.

Complete with cover.
2 hole fixing.
Screw terminals.
Fuses not included.
$\underline{9997058}$


9997059
Takes continental type
ceramic fuses.

## 6 way.

Complete with cover.
2 hole fixing.
Screw terminals.
Fuses not included.


## Fuse box.

Takes continental type
ceramic fuses.
8 way.
Complete with cover.
2 hole fixing.
Screw terminals.
Fuses not included.
$\underline{9997060}$


## Fuse box.

Takes continental type
ceramic fuses.
12 way.
Complete with cover.
2 hole fixing.
Screw terminals.
Fuses not included.

$$
9997061
$$

.

FUSES, FUSE BOXES/HOLDERS \& CIRCUIT BREAKERS


## Circuit breaker box.

Takes standard blade type circuit breakers.

## 6 way.

Complete with cover
\& gasket.
2 hole fixing.
Lucar terminals.
Circuit breakers not included.

TOWING TOWING

## Plug (12N).

Plastic body.
7 brass pins
(4 male \& 3 female).
Screw terminals.
Rated to ISO 1724.
For use with 9998001
(see page 73) \& 9998002
(see page 74).

9998004


## Plug (12S).

Plastic body.
7 brass pins
(5 male \& 2 female).
Screw terminals.
Rated to ISO 3732.
For use with 9998011
(see page 73).
9998010


## Plug (12N).

9998003
Aluminium body.
7 brass pins
(4 male \& 3 female).
Screw terminals.
Rated to ISO 1724.
For use with 9998001
(see page 73) \& 9998002
(see page 74).


## Plug.

Nickel plated body.
3 male pins.
Screw terminals.
Rated at 5 amps continuous.
For use with 9998027
(see page 73).
O.E.M. names and numbers are used for reference purposes only.


## TOWING

## 9998034



## Plug.

Zinc alloy body.
1 male silver plated pin.
Screw terminals
Rated at 300 amps continuous,
400 amps intermittent.
For use with 9998040
(see page 73).

## 9998005



## Plug (24N).

Aluminium body.
7 male nickel plated brass pins.
Screw terminals.
Complete with rubber cover.
Rated to ISO 1185, DIN 72579.
For use with 9998007
(see page 71).

| Spares | Description | Part No. |
| :---: | :--- | :--- |
|  | Rubber cover | 9998009 |

## Plug (24S).

Aluminium body.
7 nickel plated brass pins
(6 male \& 1 female).
Screw terminals.
Complete with rubber cover.
Rated to ISO 3731.
For use with 9998008
(see page 72).

| Spares | Description | Part No. |
| :---: | :---: | :---: |
|  | Rubber cover | 9998009 |

## Plug (24N).

Aluminium body.
7 male nickel plated brass pins.
Lucar terminals.
Complete with rubber cover.
Rated to ISO 1185, DIN 72579.
For use with 9998007
(see page 71).

| Spares | Description | Part No. |
| :---: | :--- | :--- |
|  | Rubber cover | 9998009 |

Page 52
O.E.M. names and numbers are used for reference purposes only.

TOWING

## Plug (24S).

Aluminium body.
7 nickel plated brass pins
( 6 male \& 1 female).
Lucar terminals.
Complete with rubber cover.
Rated to ISO 3731.
For use with 9998038
(see page 72).

9998039


| Spares | Description | Part No. |
| :---: | :--- | :--- |
|  | Rubber cover | 9998009 |

## Plug (24N).

9998035
Zinc alloy body.
7 male nickel plated brass pins.
Screw terminals.
Rated at 30 amps continuous.
Rated to ISO 1185.
For use with 9998036
(see page 72).


## Plug (24S).

Zinc alloy body.
7 nickel plated brass pins
( 6 male \& 1 female).
Screw terminals.
Rated at 30 amps continuous.
Rated to ISO 3731.
For use with 9998038
(see page 72).


## Plug.

9998030
Zinc alloy body.
3 male nickel plated brass pins.
Screw terminals.
Rated at 25 amps continuous,
45 amps intermittent.
For use with 9998031
(see page 71).



9998028


## Plug.

Zinc alloy body.
10 male nickel plated brass pins.
Screw terminals.
For use with 9998029
(see page 71).

9998032


## Plug.

Zinc alloy body.
1 male silver plated pin.
Screw terminals.
Rated at 300 amps continuous,
400 amps intermittent.
For use with 9998033
(see page 72).

9998017


## ABS Plug.

Thermoplastic body.
5 male pins.
Screw terminals.
Rated to ISO 7638-1.
For use with 9998016
(see page 74).

9998047

## Electronic Braking System (EBS) Plug (24v).

Thermoplastic body.
7 male nickel plated brass pins.
Screw terminals.
Rated to ISO/DIN 7638-1.
For use with 9998046
(see page 74).

TOWING

## Electronic Braking System (EBS) Plug (24v).

Thermoplastic body.
15 male nickel plated brass pins.
Screw terminals.
Rated to ISO 12098, DIN 72570.
For use with 9998018 \&
9998058 (see page 75).


## Socket.

9998029
Zinc alloy body.
10 female nickel plated brass pins.
Screw terminals.
For use with 9998028
(see page 70).

## Socket.

Zinc alloy body.
3 female nickel plated brass pins.
Screw terminals.
Rated at 25 amps continuous,
45 amps intermittent.
For use with 9998030
(see page 69).
9998031


Socket (24N).
9998007
Aluminium body.
7 female nickel plated brass pins.
Screw terminals.
Rated to ISO 1185, DIN 72579.
For use with 9998019
(see page 68).


## TOWING

9998008


## Socket (24S).

Aluminium body.
7 nickel plated brass pins
(1 male \& 6 female).
Screw terminals.
Rated to ISO 3731.
For use with 9998006
(see page 68).

9998036


## Socket (24N).

Zinc alloy body.
7 female nickel plated brass pins.
Screw terminals.
Rated at 30 amps continuous.
Rated to ISO 1185.
For use with 9998035
(see page 69).

9998038


Socket (24S).
Zinc alloy body.
7 nickel plated brass pins
( 1 male \& 6 female).
Screw terminals.
Rated at 30 amps continuous.
Rated to ISO 3731.
For use with 9998037
(see page 69).

9998033


## Socket.

Zinc alloy body.
1 female silver plated pin.
Screw terminals.
Rated at 300 amps continuous, 400 amps intermittent.
For use with 9998032
(see page 70).

TOWING

## Socket.

Nickel plated body.
3 female pins.
Screw terminals.
Rated at 5 amps continuous.
For use with 9998026
(see page 67).

9998027


## Socket.

Zinc alloy body.
1 female silver plated pin.
Screw terminals.
Rated at 300 amps continuous,
400 amps intermittent.
For use with 9998034
(see page 68).
9998040


Socket (12N).
Plastic body.
7 brass pins
(3 male \& 4 female).
Screw terminals.
Rated to ISO 1724.
For use with 9998004 \&
9998003 (see page 67).
9998001


## Socket (12S).

## 9998011

Plastic body.
7 brass pins
(2 male \& 5 female).
Screw terminals.
Rated to ISO 3732.
For use with 9998010
(see page 67).



## TOWING

9998002


## Socket (12N).

Aluminium body.
7 brass pins
(3 male \& 4 female).
Screw terminals.
Rated to ISO 1724.
For use with 9998003
(see page 67).

9998041


## Trailing socket (12N).

Plastic body.
7 brass pins
(3 male \& 4 female).
Screw terminals.
Suitable for extending lead.
Rated to ISO 1724.
For use with 9998004 \&
9998003 (see page 67).

9998016


## ABS socket.

Thermoplastic body.
5 female pins.
Screw terminals.
Rated to ISO 7638-1.
For use with 9998017
(see page 70).

Electronic Braking System
(EBS) Socket (24v).
Thermoplastic body.
7 female nickel plated brass pins.
Screw terminals.
Rated to ISO/DIN 7638-1.
For use with 9998047
(see page 70).

## TOWING

## Electronic Braking System

(EBS) Socket (24v).
Thermoplastic body.
15 female nickel plated brass pins.
Screw terminals.
Rated to ISO 12098, DIN 72570.
For use with 9998059
(see page 71).


## Adaptor socket.

Converts 15 pin plug to
24N \& 24S sockets.
Screw terminals.
For use with 9998059
\& 9998007 (see page 71),
9998008, 9998036
\& 9998038 (see page 72).


Socket and bracket assembly.
$\underline{9998012}$
Prewired 12N socket.
Complete with 1 metre of 7 core cable.
For use with 9998003 or 9998004
(see page 67).


## Socket and bracket assembly.

## 9998013

Prewired 12N \& 12S sockets.
Complete with 1 metre of 7 core cable.
For use with 9998003 \& 9998004 or 9998010 (see page 67).




## Electrical coil (ABS).

Black hytrel cable sheath.
Complete with sockets.
19 turns.
Cable rated to ISO 4141.
Sockets rated to ISO 7638-1.
Extended length:- 4.5 Metres.
For use with 9998017
(see page 70).

## 9998022



9998023


## Electrical coil (ABS).

Black hytrel cable sheath.
Complete with sockets.
32.5 turns.

Cable rated to ISO 4141.
Sockets rated to ISO 7638-1.
Extended length:- 4.5 Metres.
For use with 9998017
(see page 70).

9998024


## Electrical coil.

Black nylon cable sheath
Complete with $2 \times 24 N$ sockets.
15 turns.
Sockets rated to ISO 1185.
Extended length:- 3.5 Metres.
For use with 9998005
(see page 68) or 9998035
(see page 69).

FIVE STATA
$P \quad R \quad 0 \quad D \quad U \quad C \quad \mid \quad S$

## Electrical coil.

Black polyurethane cable sheath.
Complete with $2 \times 24 \mathrm{~N}$ sockets.
33 turns.
Sockets rated to ISO 1185,
DIN 72579.
Extended length:- 3 Metres.
For use with 9998005
(see page 68) or 9998035

(see page 69).

## Electrical coil.

9998052
Black polyurethane cable sheath
Complete with $2 \times 24 \mathrm{~S}$ sockets.
38 turns.
Sockets rated to ISO 3731.
Extended length:- 3 Metres.
For use with 9998006
(see page 68) or 9998037
(see page 69).

## Electrical coil.

9998042


## Electrical coil (EBS).

9998055
Black hytrel cable sheath.
Complete with $2 \times 7$ pin EBS sockets.
19 turns.
Cable rated to ISO 4141.
Sockets rated to ISO 7638-1.
Extended length:- 4.5 Metres.
For use with 9998047
(see page 70).


TOWING

## 9998056



9998057


## Electrical coil (EBS).

Black hytrel cable sheath.
Complete with $2 \times 15$ pin EBS sockets.
19 turns.
Cable rated to ISO 4141.
Sockets rated to ISO 12098.
Extended length:- 4.5 Metres.
For use with 9998059
(see page 71).

## Electrical coil.

Black polyurethane cable sheath.
Complete with $1 \times 15$ pin socket connecting into $1 \times 24 \mathrm{~N} 7$ pin socket
\& $1 \times 24 \mathrm{~S} 7$ pin socket.
For use with 9998059 (see page 71), 9998005 \& 9998006 (see page 68).

## 9998048



## Electrical coil.

Black polyurethane cable sheath.
7 core.
33 turns.
Plugs/sockets not included.
Extended length:- 3 Metres.

9998054


## Electrical coil.

7 core.
12 turns.
Plugs/sockets not included.
Extended length:- 3 Metres.
Rated to SAE J8/44C.

## Mains hook up lead (240v).

9998020
Orange H05VV-F* cable.
Suitable for caravans.
Complete with
plug \& socket.
Rated to $25 \mathrm{amps} / 500 \mathrm{v}$.
Length:- 25 metres.
*H05VV-F = harmonized, 500 v, PVC/PVC with fine wire construction for flexibility.

## Bracket.

Galvanised \& enamelled.
Takes 12N \& 12S sockets.

| Description | Part No. |
| :--- | :--- |
| Single bracket | 9998014 |
| Double bracket | 9998015 |



## Warning triangle.

9987007
Breakdown warning triangle.
Supplied in plastic carry case.
Conforms to IRO 2705, E9 27R 031003.

*UK Department of Transport regulation - When using this product directly on the road it must be used in conjuction with a road sign, e.g. a European standard warning triangle. See 9987007 (above).

## CIGARETTE LIGHTERS AND ADAPTERS

9998065


Cigarette lighter (12v).
Complete with holder.
Illuminated.
Fits certain European cars.

9998066


Cigarette lighter (12v).
Complete with holder.
Illuminated.
Universal fitting.

9998067

## Cigarette lighter

 element (12v).Fits 9998065 (above).


9998068

## Cigarette lighter

 element (12v).Fits 9998066 (above).

## CIGARETTE LIGHTERS AND ADAPTERS

## Cigarette lighter

plug (12v).
Straight cable entry.
Solder terminals.
Suitable for running auxiliary accessories.
$\underline{9998069}$


## Cigarette lighter

9998043
plug (12v).
Angled cable entry.
2 screw terminals.
Suitable for running auxiliary accessories.
Rated to ISO 4165, DIN 72591.
Can also be used with 9998045
(see page 185).


## Cigarette lighter

9998060 adapter (12v).
Twin socket outlet
Y adapter.
Fuse protected.
1 ft extension cable
for mobility of use.
Rated at 10 amps.


Cigarette lighter 9998061 adapter (12v).
Twin socket outlet.
2 screw hole fixing.
Fuse protected.
3ft extension cable
for mobility of use.
Rated at 10 amps.


## CIGARETTE LIGHTERS AND ADAPTERS

9998062

## Cigarette lighter

adapter (12v).
Triple socket outlet. 2 screw hole fixing. Fuse protected. 3ft extension cable for mobility of use. Rated at 10 amps.

9998063


## Cigarette lighter adapter (12v).

Twin adapter
( 1 cigarette lighter \& 1 socket).
Complete with double
sided tape for fixing.
2 ft extension cable
for mobility of use.
Rated at 10 amps.

## Cigarette lighter adapter (12v).

Twin adapter
( 1 cigarette lighter \& 1 socket).
Plugs directly into cigarette
lighter socket.
Rated at 10 amps.


RELAYS \& FLASHER UNITS

## Relay (12v).

Normally open.
Rated at 30 amps.
4 terminal.
Complete with bracket.


Relay (24v).
Normally open.
Rated at 20 amps.
4 terminal.
Complete with bracket.
9997001


Relay (12v).
9997002
Changeover.
Rated at 20/30 amps.
5 terminal.
Complete with bracket.


## Relay (24v).

$\underline{997003}$
Changeover.
Rated at 10/20 amps.
5 terminal.
Complete with bracket.

| $\overline{87}$ <br> 186 <br> 87 a <br> $85 \mid$ <br> [30 |
| :---: |



## RELAYS \& FLASHER UNITS

9997012


Relay (12v).
Changeover with diode across the coil.
Rated at 40 amps.
5 terminal.
Complete with bracket.

9997004

## Flasher unit (24v).

$2+1 \times 21 \mathrm{w} \times 5 \mathrm{w}$.
$6 \times 21 w$.
2 screw fixing.


9997005

Flasher unit (24v).
$2+1 / 6 \times 21 w$.


9997007
Flasher unit (12v).
$2+1 / 6 \times 21 w$.
Trailer/caravan hazard.


## RELAYS \& FLASHER UNITS

Flasher unit (12v).
9997010
$2 / 4 \times 21 \mathrm{w}$.


Flasher unit (24v).
9997009
2/4 x 21w.
$+2 \times 5 \mathrm{w}$.
Max 98w.
Complete with bracket.


Flasher unit (24v).
2/4 x 21w.
Complete with bracket.


Flasher unit (12v).
9997011
$2 / 4 \times 21 w+5 w$.

## VOLTAGE DROPPERS

9881014


## Voltage dropper.

24v-12v.
Rated at 6 amps continuous, 10 amps peak. Overload \& overheat protection. Type approved to $72 / 245 / E E C$ as last amended by 95/54/EC.
Size:- $290 \mathrm{~mm}(\mathrm{~L}) \times 115 \mathrm{~mm}(\mathrm{~W}) \times 50 \mathrm{~mm}(\mathrm{D})$.


## Voltage dropper.

24v-12v.
Rated at 4 amps continuous,
7 amps peak.
Overload, reverse polarity, short circuit \& soft shutdown protection.
2 LED's to indicate operating status.
Conforms to EC 93/68/EEC,
95/54/EC \& VIDG SPEC 5 ISS 7.
Size:- $69 \mathrm{~mm}(\mathrm{~L}) \times 74 \mathrm{~mm}(\mathrm{~W}) \times 31 \mathrm{~mm}(\mathrm{D})$.

## 9881024



## Voltage dropper.

24v-12v.
Rated at 7 amps continuous, 11 amps peak.
Overload, reverse polarity, short circuit \& soft shutdown protection. 2 LED's to indicate operating status. Conforms to EC 93/68/EEC, 95/54/EC \& VIDG SPEC 5 ISS 7. Size:- 79 mm (L) $\times 74 \mathrm{~mm}$ (W) $\times 31 \mathrm{~mm}$ (D).

9881025


## Voltage dropper.

24v-12v.
Rated at 10 amps continuous,

## 14 amps peak.

Overload, reverse polarity, short circuit \& soft shutdown protection.
2 LED's to indicate operating status.
Conforms to EC 93/68/EEC,
95/54/EC \& VIDG SPEC 5 ISS 7.
Size:- 89 mm (L) $\times 74 \mathrm{~mm}(\mathrm{~W}) \times 31 \mathrm{~mm}$ (D).



## Washer pump.



Available in $\mathbf{1 2 v}$ or $\mathbf{2 4 v}$. Universal applications.

| Description | Part No. |
| :--- | :--- |
| 12v pump | 5050010 |
| $\mathbf{2 4 v}$ pump | 5050011 |

5050012


Washer pump (24v).
Suitable for ERF, Foden, Leyland and Seddon/Atkinson.

## Fuel shut off solenoid.

For use with 8 mm internal diameter hose.


Suitable for petrol \& diesel applications.
Can be used for anti-theft fuel cut-off with the use of a concealed switch and 3amp fuse (switch \& in-line fuse are not included).

| Description | Part No. |
| :--- | :--- |
| 12v solenoid | 9905000 |
| 24v solenoid | 9905001 |

8585100
Fuel stop solenoid (12v).
Servicing DPA \& DPC pumps.
Nut/stud terminal.
Green insulation.

## PUMPS \& SOLENOIDS

## Engine stop solenoid.

Universal applications.
Pull type operation.

| Description | Part No. |
| :--- | :--- |
| 12v solenoid | 3905008 |
| 24v solenoid | 3905011 |

Engine stop solenoid (12v).
3905009
Universal applications.
Pull type operation.


Engine stop solenoid (24v).
3905012
Universal applications.
Pull type operation.

Engine stop solenoid (24v).
3905010
Universal applications.
Push type operation.


## PUMPS \& SOLENOIDS

## Engine stop solenoid kit (24v).

Universal applications.
Full kit of parts for complete
installation.
Pull type operation.

## PUMPS \& SOLENOIDS

## Solenoid.

Available in 12, 24 or 36 volts.
Insulated.
Continuously rated.
Normally open.
Suitable for various applications, pump motors, winch motors \& starter solenoids etc.


| Volts | Continuous | Max $^{*}$ | Part No. |
| :---: | :---: | :---: | :---: |
| 12 | 80 amp | 150 amp | 3905000 |
| 24 | 60 amp | 100 amp | 3905001 |
| 36 | 50 amp | 100 amp | 3905002 |

*Maximum amps = per 5 seconds.

## Solenoid.

Available in 12, 24 or 36 volts.
Insulated.
Continuously rated.
Changeover contacts (1 set normally open, 1 set normally closed).
Can be used in conjuction with reversible motors.
Suitable for various applications, pump motors \& winch motors etc.


| Normally Open Ratings |  |  |  |
| :---: | :---: | :---: | :---: |
| Volts | Continuous | Max $^{*}$ | Part No. |
| $\mathbf{1 2}$ | $\mathbf{8 0} \mathbf{a m p}$ | $\mathbf{1 5 0} \mathbf{~ a m p}$ | 3905003 |
| $\mathbf{2 4}$ | $\mathbf{5 0} \mathbf{~ a m p}$ | $\mathbf{5 0} \mathbf{~ a m p}$ | 3905004 |


| Normally Closed Ratings |  |  |  |
| :---: | :---: | :---: | :---: |
| Volts | Continuous | Max $^{*}$ | Part No. |
| 12 | $\mathbf{6 0} \mathbf{~ a m p}$ | $\mathbf{6 0} \mathbf{~ a m p}$ | 3905003 |
| 24 | $\mathbf{3 0} \mathbf{~ a m p}$ | $\mathbf{3 0} \mathbf{~ a m p}$ | 3905004 |

*Maximum amps = per 5 seconds.

## Solenoid (12v).

Marine applications.
4 terminal.
Insulated base.


HORNS

## Disc horn.

2 terminal.
Complete with fixing bracket.

| Description | Part No. |
| :--- | :--- |
| 12v Low tone | 9995000 |
| $\mathbf{1 2 v}$ High tone | 9995001 |
| $\mathbf{2 4 v}$ Low tone | 9995002 |
| $\mathbf{2 4 v}$ High tone | 9995003 |
| $\mathbf{3 6 v}$ | 9995008 |
| $\mathbf{4 8 v}$ | 9995009 |



## Trumpet horn.

2 terminal.
Complete with fixing bracket.

| Description | Part No. |
| :--- | :--- |
| 12v Low tone | 9995004 |
| 12v High tone | 9995005 |
| 24v Low tone | 9995006 |
| 24v High tone | 9995007 |



## Twin tone air horn.

Available in $\mathbf{1 2 v}$ or $\mathbf{2 4 v}$.
Compact space-saving design. Fast \& easy to install with one fixing point \& single electrical connection. No tubes necessary as it has an incorporated air jet system for instant \& perfectly balanced sound.

| Description | Part No. |
| :---: | :---: |
| $\mathbf{1 2 v}$ | 9995061 |
| $\mathbf{2 4 v}$ | 9995062 |



## Twin tone air horn.

Complete with fixing bracket.
Suitable for emergency vehicles.
Primarily used on motor cycles.


9995030


## Electromagnetic horn set.

Designed and constructed for loud and harmonious sound. $1 \times$ high tone, $1 \times$ low tone.
Complete with fixing bracket
\& relay.
Rated at 12v 10 amps.
Frequency:- 410-510 Hz.

TF2


## Single blast air horn set.

Available in 12v or 24v.
Increased resistance against overheating.
Suitable for heavy duty operating conditions.
External case highly corrosion resistant.
Sealed and waterproof.
Complete with tubing \& relay.

| Description | Part No. |
| :---: | :---: |
| $\mathbf{1 2 v}$ | 9995015 |
| $\mathbf{2 4 v}$ | 9995016 |

## Twin trumpets.

Used in conjunction with
MC/2F1/12V \& MC/2F1/24V
compressors (see page 125).
Suitable for emergency vehicles.


FIAMM

## Twin trumpets.

Used in conjunction with
MC/2F1/12V \& MC/2F1/24V
compressors (see page 125).
Suitable for emergency vehicles.


Single blast air horn set (12v).
9995031
Provides the design and power
as on 9995032 \& 9995033
(see below),but is suitable for LGV, LCV and 4WD applications.
Rated at 20 amps.
Complete with tubing \& relay.
Length of trumpets:- 320 mm .
Frequency:- $392-415 \mathrm{~Hz}$.


## HORNS



## Commercial vehicle air horn.

Precision engineered for large vehicles equipped with on board compressed air. Heavy duty.

| Description | Part No. |
| :--- | :---: |
| 117db 150hz | 9995034 |
| Size - 617mm (L) x 140mm (W) x 140mm (D). |  |
| 117db 180hz | 9995035 |
| Size -522 mm (L) $\times$ 140mm (W) $\times$ 140mm (D). |  |



## Marine air horns.

Combination of heavy chrome plate,
brass and stainless steel for protection
from salt water.
Tuned for extra loud and sharp sound.

| Description | Part No. |
| :--- | :---: |
| 380hz 1600m range | 9995038 |
| Size $-385 \mathrm{~mm}(\mathrm{~L}) \times$ 95mm (W) $\times 100 \mathrm{~mm}(\mathrm{D})$. |  |
| 320hz 1600m range | 9995039 |
| Size $-\mathbf{4 3 0 m m}(L) \times 95 \mathrm{~mm}(W) \times 100 \mathrm{~mm}(\mathrm{D})$. |  |

## Marine electric horns.

Available in $\mathbf{1 2 v}$ or $\mathbf{2 4 v}$.
Stainless steel cover.
Stylish stainless steel pedestal mounting.

| Description | Part No. |
| :--- | :---: |
| 12v 390hz | 9995040 |
| 24v 390hz | 9995041 |
| Size - 390mm (L) x 95mm (W) x 100mm (D). |  |
| 12v 340hz | 9995042 |
| Size - 430mm (L) x 95mm (W) $\times 100 \mathrm{~mm}$ (D). |  |



## Air horn.

Hand held CFC free.
Ideal for marine, camping, biking
and sports events.

| Spares | Description | Part No. |
| :---: | :--- | :--- |
|  | Refill | 9995047 |

Page 82

## HORNS

## Electric valve kit.

Suitable for use with 9995032, 9995033, 9995034 \& 9995035
(see page 123),
9995038 \& 9995039
(see above).

| Description | Part No. |
| :--- | :--- |
| $\mathbf{1 2 v}$ | 9995036 |
| $\mathbf{2 4 v}$ | 9995048 |



## Compressor.

Available in $12 v$ or $24 v$.
12v compressor consumes 20 amps,
$24 v$ consumes 10 amps.

| Description | Part No. |
| :--- | :--- |
| $\mathbf{1 2 v}$ | 9995044 |
| $\mathbf{2 4 v}$ | 9995045 |



## Compressor.

Available in $\mathbf{1 2 v}$ or $\mathbf{2 4 v}$.
For emergency vehicles only.

| Description | Part No. |
| :---: | :---: |
| 12V | $\mathrm{MC} / 2 \mathrm{~F} 1 / 12 \mathrm{~V}$ |
| 24 V | $\mathrm{MC} / 2 \mathrm{~F} 1 / 24 \mathrm{~V}$ |

O.E.M. names and numbers are used for reference purposes only.

## GAUGES

9999000


## Ammeter kit.

30-0-30 amps.
Illuminated.
Complete with 12 v bulb, fixing bracket \& ring terminals.
52mm Dia.

## 9999001



## Ammeter kit.

60-0-60 amps.
Illuminated.
Complete with 12 v bulb,
fixing bracket \& ring terminals.
52mm Dia.

9999002


## Water temperature

gauge kit.
Capillary type.
Illuminated.
Complete with 12 v bulb, fixing bracket \& sender unit. 52mm Dia.

## 9999007



## Water temperature

gauge kit (12v).
Electric.
Illuminated.
Complete with 12 v bulb,
fixing bracket, terminal
block \& sender unit.
52 mm Dia.

## Water temperature

gauge kit (24v).
Electric.
Illuminated.
Complete with 24 v bulb, fixing bracket, terminal block and sender unit. 52mm Dia.


Voltmeter kit (12v).
9999003
Illuminated.
Complete with 12 v bulb,
fixing bracket and
terminal block.
52 mm Dia.

Voltmeter kit (24v).
9999004
Illuminated.
Complete with 24 v bulb,
fixing bracket and
terminal block.
52 mm Dia.


## Oil pressure gauge

## kit (12v).

Electric.
Illuminated.
Complete with 12 v bulb,
fixing bracket, terminal
block and sender unit.
52 mm Dia.
O.E.M. names and numbers are used for reference purposes only.

## GAUGES

## 9999006



## Oil pressure gauge <br> kit (24v).

Electric.
Illuminated.
Complete with $24 v$ bulb,
fixing bracket, terminal
block and sender unit.
52mm Dia.

## 9999012



## Oil pressure gauge kit.

Capillary type.
Illuminated.
Complete with 12 v bulb and fixing bracket.
52mm Dia.

9999011


Hour counter kit (8-32v).
Non illuminated.
Complete with fixing
bracket and
lucar terminals.
52 mm Dia.

## 9999013



## Digital hour counter

kit (12-48v).
L.E.D illumination.

Complete with fixing
bracket and
lucar terminals.
56mm Dia.


## REVERSING CAMERA SYSTEMS

## TFT Colour Reversing Kit

Kit includes: 1x Camera, 1x 5.6 " colour monitor, 0.25 " image sensor, 20 m cable, control box \& fitting kit. Camera : Colour CCD camera.
Monitor : 5.6" TFT LCD colour monitor.


9995278


## TFT Colour Reversing Kit

Kit includes: 1x Camera, 1x 5.6" colour monitor, 0.25 " image sensor, 20 m cable, control box \& fitting kit. Camera : 1 Watt power consumption. Water/dust resistant. $30 \mathrm{~mm}(\mathrm{~L}) \times 228 \mathrm{~mm}(\mathrm{~W}) \times 33 \mathrm{~mm}(\mathrm{H})$. Monitor : 3.5 " TFT LCD colour monitor. Weighs 146 g and used 5 Watts. Embedded camera also available. Operates between $-10^{\circ} \mathrm{C}$ and $+50^{\circ} \mathrm{C}$. Ideal for cars and small vans. $100 \mathrm{~mm}(\mathrm{~L}) \times 24 \mathrm{~mm}(\mathrm{~W}) \times 80 \mathrm{~mm}(\mathrm{H})$.

## REVERSING CAMERA SYSTEMS

## TFT Colour Reversing Kit

Kit includes: Choice of $1 x$ or $2 x$ Camera, $1 \times 5.6$ " colour monitor, 0.33 " CCD image sensor, 20 m cable, universal stand and remote control.

Camera : Integral microphone. 18 inferred LED's for night viewing. Utilises mirror image. Waterproof. $60 \mathrm{~mm}(\mathrm{~L}) \times 64 \mathrm{~mm}(\mathrm{~W}) \times 69 \mathrm{~mm}(\mathrm{H})$.

Monitor : High quality (A) class 5" TFT LCD colour monitor. $960 \times 240$ resolution. 3 Video inputs. Auto switching for reverse. Built in speakers. 4 Viewing options. $163 \mathrm{~mm}(\mathrm{~L}) \times 130 \mathrm{~mm}(\mathrm{~W}) \times 30 \mathrm{~mm}(\mathrm{H})$.

Operates between $-20^{\circ} \mathrm{C}$ and $+60^{\circ} \mathrm{C}$.


| Description | Part No. |
| :--- | :--- |
| Kit - 1x Camera, Monitor + Accessories | 9995280 |
| Spare Camera + Cable \& lead | 9995281 |
| Kit - 2x Camera, Monitor + Accessories | 9995282 |

## TFT Colour Reversing Kit

High quality reversing camera system.
Kit includes: 1x Camera, 1x 5" colour monitor, 20 m cable, universal stand and remote control.

Camera : Sharp CCD camera with 15 inferred LED's for night viewing. Built in audio for added safety. Support for optional second camera.
Waterproof/dustproof grade IP68. Lens angle $110^{\circ}$. 315 g weight. Mirror/normal image can be set using a switch on the rear of the camera.
$87 \mathrm{~mm}(\mathrm{~L}) \times 70 \mathrm{~mm}(\mathrm{~W}) \times 59.5 \mathrm{~mm}(\mathrm{D})$
Monitor : 5" TFT LCD colour monitor. Built in controller with 2 camera inputs. Day/night sensor for automatic adjustment. 12/24v DC, <7W. 535g (Including stand).
$147 \mathrm{~mm}(\mathrm{~L}) \times 110 \mathrm{~mm}(\mathrm{~W}) \times 59 \mathrm{~mm}$ (D)


## REVERSING ALARMS / AIDS

9995057


## Reversing alarm (12v/24v).

Heavy duty.
Suitable for cars, coaches,
buses, H.G.V. \& plant etc.
Sound level dB(A):- 97.

9995058


Reversing alarm (12v/24v).
Heavy duty.
Night silent feature cuts out the alarm when the vehicles lights are on. Suitable for cars, coaches, buses, H.G.V. \& plant etc.
Sound level dB(A): - 97.

9995059


## Reversing alarm (12v/24v).

Heavy duty.
Night silent feature cuts out the alarm when the vehicles lights are on with override option for additional safety. Suitable for cars, coaches, buses, H.G.V. \& plant etc. Sound level dB(A):- 97.

9995060


Talking Reversing alarm

## (12v/24v).

Heavy duty.
Night silent feature cuts out the alarm when the vehicles lights are on with override option for additional safety. Suitable for cars, coaches, buses, H.G.V. \& plant etc.
Sound level dB(A):- 97.

## Reversing alarm (12-80v).

Suitable for trucks, buses, coaches, light mobile plant and industrial vehicles. Screw terminals.
Sound level dB(A):- 97.

## Reversing alarm (12/24v).

Light duty.
Suitable for most light vehicles and
small forklift trucks.
Sound level dB(A):- 90.

9995063


## Reversing alarm (12/24v).

Optional night silent feature cuts out the
alarm when the vehicles lights are on.
Suitable for most light vehicles and
small forklift trucks.
Sound level $\mathrm{dB}(\mathrm{A})$ :- 90.


## Reversing alarm.

Broadband sound technology (bbs-tek).
Heavy duty.
Suitable for construction plant and earth moving equipment.

| Description | Part No. |
| :---: | :---: |
| Output dB(A) @ 1mtr 108.6 (24v) | 9995049 |
| Output dB(A) @ 1mtr 103.6 (24v) | 9995050 |

BRIGADE


## REVERSING ALARMS / AIDS



## Reversing

## alarm.

Broadband sound technology (bbs-tek).
Medium duty.
Suitable for construction vehicles and light mobile machinery.

| Description | Part No. |
| :---: | :---: |
| Output dB(A) @ 1mtr 93.6 (12v \& 24v) | 9995051 |
| Output dB(A) @ 1mtr 98.6 (12v \& 24v) | 9995054 |

## Reversing <br> alarm.

Broadband sound technology (bbs-tek).
Light duty.
Suitable for light commercial
vehicles and fork lift trucks.

| Description | Part No. |
| :---: | :---: |
| Output dB(A) @ 1mtr 88.6 (12v \& 24v) | 9995052 |
| Output dB(A) @ 1mtr 93.6 (12v \& 24v) | 9995053 |

9995029


## BRiGADE

## Reversing alarm (12v/24v).

Nightshift technology (double engage reverse and the reverse alarm will not sound).
Suitable for commercial vehicles and buses etc.
Sound level dB(A):- 90.

9995023


BRIGADE

Page 92
O.E.M. names and numbers are used for reference purposes only.

FIVE STAR


## Reversing alarm (12/24v).

9995022
Light duty.
Suitable for trucks, buses, coaches, light mobile plant and industrial vehicles. Sound level dB(A):- 97.


## BRigADE

## Self adjusting reversing

 alarm (12/24v).9995024
Heavy duty.
Alarm automatically adjusts to 5-10db louder than surrounding noise levels. Suitable for dump trucks, bulldozers, loading shovels and all heavy earth moving machinery.
Sound level dB(A):- 87-112.


Reversing alarm (12-36v).
Heavy duty.
Suitable for dump trucks, bulldozers,
loading shovels and all heavy
earth moving machinery.
Sound level dB(A):- 112.
NO LONGER AVALIABLE

> BRIGADE

9995021


Reversing alarm (12-36v).
9995019
Medium duty.
Suitable for trucks, buses, coaches,
light mobile plant and industrial vehicles.
Sound level dB(A):- 90.

BRIGADE


## REVERSING ALARMS / AIDS

9995020


## BRIGADE

## Reversing alarm (12/24v).

Light duty.
Optional night silent feature cuts out the alarm when the vehicles lights are on. Suitable for most light vehicles and small forklift trucks.
Sound level dB(A):- 90.

9995027


Backalarm cut-out (12/24v).
Dash-mounted single-touch timed relay.
Allows driver to temporarily cut off the reverse alarm.
Auto resets after 3-4 mins.

## BRiGADE

9995028


Wide-View reversing lens.
Allows wide angle viewing to
normally 'blind' areas.
Self adhesive.
Rigid PVC fresnel lens.
Size:- 200mm x 254mm.



## MISCELLANEOUS

## Tidgy Fridge (12v).

Complete with 2 mtr cord and cigarette lighter plug.
Auto shut-off to prevent overheating.
7ltr capacity.
Size:- $250 \mathrm{~mm}(\mathrm{H}) \times 142 \mathrm{~mm}(\mathrm{~W}) \times 140 \mathrm{~mm}(\mathrm{D})$.

*Deluxe version also available with mains adaptor, please ask for details.

## Travel cooler (12v).

Complete with 2 mtr cord and
cigarette lighter plug.
Auto shut-off to prevent overheating.
6ltr capacity.
Size:- $200 \mathrm{~mm}(\mathrm{H}) \times 130 \mathrm{~mm}(\mathrm{~W}) \times 200 \mathrm{~mm}(\mathrm{D})$.


## Handiwash.

Hot \& cold water.
Water capacity - 8.5Itrs.
Size:- $300 \mathrm{~mm}(\mathrm{~W}) \times 520 \mathrm{~mm}(H) \times 230 \mathrm{~mm}$ (D).
Depth with tray open:- 405 mm .

|  | Description |
| :--- | :--- |
|  | Part No. |
|  | 12v Handiwash |
|  | 24v Handiwash |
| Spares | 12v Electrical fitting kit $^{*}$ |
|  | 8151002 |
|  | 24v Electrical fitting kit $^{*}$ |

*Note: The relevant fitting kits MUST be used when installing these Handiwashes in ALL 12v and 24 v applications

## Miniwash.

Hot water only.
Water capacity - 6ltrs.
Size:- $300 \mathrm{~mm}(\mathrm{~W}) \times 390 \mathrm{~mm}(\mathrm{H}) \times 222 \mathrm{~mm}(\mathrm{D})$.
Depth with tray open:- 400 mm .

|  | Description |
| :--- | :---: |
|  | Part No. |
|  | 12v Miniwash |
|  | 24v Miniwash |
| Spares | 12v Electrical fitting kit $^{*}$ |
|  | 24v Electrical fitting kit $^{*}$ |
| 8151019 |  |


*Note: The relevant fitting kits MUST be used when installing these Handiwashes in ALL 12v and 24 v applications

## MISCELLANEOUS



## Oscillating fans.

Available in $\mathbf{1 2 v}$ or $\mathbf{2 4 v}$.
6 " diameter.

| Description | Part No. |
| :--- | :--- |
| 12v Fan | 9999020 |
| 24v Fan | 9999021 |

## 9980001

## Bosch free wheel pulley removal tool.

Necessary for carrying out the removal
 and re-fitting of pulleys to the new generation of internally fanned Bosch alternators.
Designed for use on pulleys with 28mm hexagonal inserts or splines. Manufactured from hardened steel.

## Light delay

Holds interior lights on for approx. 15 seconds at $80 \%$ brightness.

*Important Note: An old unit is required as this is a Service Exchange item. Veeder Root units are not accepted.

## MISCELLANEOUS

## Height indicator.

Plastic construction.
For internal use.
Displays height in feet \& inches
(numbers included).
2 or 4 hole fixing.
Can be used with LH24 (see page 174).
Size:- $180 \mathrm{~mm}(W) \times 187 \mathrm{~mm}$ (217mm inc top bracket) (H) $\times 7 \mathrm{~mm}$ (D).

## VTG6A MOT holder.

PLH52
Plastic construction.
Complete with clear plastic
sleeve for external use.
2 or 4 hole fixing.
Can be used with LH24 (see page 174).
Size:- 180 mm (W) $\times 187 \mathrm{~mm}$ ( 217 mm inc top bracket) (H) $\times 7 \mathrm{~mm}$ (D).


MISCELLANEOUS

## 645/01/00



## License plate holder.

Plastic construction.
Will accept plastic plates $280 \mathrm{~mm}(\mathrm{~L}) \times 202 \mathrm{~mm}(\mathrm{H})$.
Size:- $328 \mathrm{~mm}(\mathrm{~L}) \times 258 \mathrm{~mm}(\mathrm{H}) \times 28 \mathrm{~mm}(\mathrm{D})$.


## Tax disc holder.

Metal construction.
Splash proof.
3 hole fixing.
Can be attached to
PLH52 \& PLH60
height indicator/MOT holder
(see page 173).

ALH188/50


## Tax disc holder.

Self adhesive.

BMAC440


## Triple tax disc holder.

Metal construction with graphite grey finish.
Hinge mounted.
2 hole fixing.

## MISCELLANEOUS

## Latex gloves.

Powdered.
Box of 100.

| Description | Part No. |
| :--- | :---: |
| Medium | 8151016 |
| Large | 8151001 |



## Floor mats.

GOC0071
Crepe paper.
Protects the footwell area
from soiling in wet, greasy
or oily conditions.
Box of 100.

## Disposable seat covers.

GOC0064
Top feed.
Protects seats from soiling in wet, greasy or oily conditions.
Generous fitting to accommodate
large vehicles.
Roll of 100.

## Disposable seat covers.

Centre fed.
Protects seats from soiling in wet, greasy or oily conditions.
Generous fitting to accommodate large vehicles.
Box of 100.

## MISCELLANEOUS

## RTV310 silicon sealant.

Resistant to temperatures
from $-60^{\circ} \mathrm{C}$ to $+\mathbf{2 5 0}{ }^{\circ} \mathrm{C}$.
Will not crack, harden or dry out.
Available in various colours.
Contents:- 310ml.

| Description | Part No. |
| :--- | :---: |
| Clear | GOC0235 |
| Black | GOC0236 |
| White | GOC0240 |

## GOC0456



## Red instant gasket.

Withstands intermittent high temperatures up to $650^{\circ} \mathrm{F}\left(343^{\circ} \mathrm{C}\right)$.
Ideal when replacing gaskets on valve covers, transmission \& oil sumps, axle covers, exhaust manifolds plus many more applications.
Resists transmission fluids, water, oil \& antifreeze.
Contents:- 200ml.

## 9994047

## Wheel checkpoint

 indicators.Yellow.
Various sizes.

| Size | Part No. | Size | Part No. |
| :---: | :---: | :---: | :---: |
| 24mm | 8151006 | 30mm | 8151009 |
| 27mm | 8151007 | 32mm | 8151010 |
| 28mm | 8151008 | 33mm | 8151011 |

## MISCELLANEOUS

## Junior hacksaw blades.

General purpose blades with pinned ends.
Will fit all junior hacksaw frames.
Supplied in packs of 10.


## Hacksaw blades.

Bi-metal blades.
Unique variable pitch profile teeth for superior performance on a wide range of materials.
Standard pitch 20-24tpi.
Supplied in packs of 10.

## PTFE tape.

For water plumbing applications
(not suitable for use on
gas pipework).
Size:- $12 \mathrm{mtrs} \times 12 \mathrm{~mm}$.
Supplied per roll.


## Masking tape.

Length:- 50 mtrs per roll.
Supplied per roll.

| Description | Part No. |
| :--- | :---: |
| 25mm (1") tape | MT25/9 |
| $50 \mathrm{~mm}\left(\mathbf{2 "}^{\prime \prime}\right)$ tape | MT50C/24 |



## MISCELLANEOUS



## Side lever grease gun.

Die cast pump head with air bleed valve.
Supplied with rigid extension tube
\& push on hydraulic 4 jaw coupling.
Bulk or manual capability.
3 way fill with cartridge.
Accepts standard 400 g cartridges.

## TP05

## Oil can.

Flexible spout.
Thumb operated lever action.
500 ml capacity.

## TPJ005



## Flexi-jug.

Heavy duty plastic construction.
6.6Itr capacity.
(Not suitable for storing
or transporting petrol).

## TFF001



## Flexi-funnel.

Plastic construction.
Short fixed spout for stability.
Flexible spout for difficult to reach areas.
Removeable filter mesh
for cleaning.
Splash guard rim.
Large 144mm opening for
ease of pouring.

## MISCELLANEOUS

## Squeegee.

Suitable for cleaning windows/glass.
Complete with course and soft sponge and squeegee for removing excess water.


## Assorted steel washer kit.

Metric.
Approx 840 pieces.

| Contents |
| :--- |
| M5 |
| M6 |
| M8 |


| Contents |
| :--- |
| M10 |
| M12 |
| M16 |



## Assorted heavy duty washer kit.

Metric.
Approx 605 pieces.

| Contents |
| :--- |
| M3 |
| M4 |
| M5 |
| M6 |
| M8 |


| Contents |
| :--- |
| M10 |
| M12 |
| M16 |
| M20 |



## Assorted copper washer kit.

Imperial.
Approx 800 pieces.

| Contents |
| :--- |
| $1 / 4 " \times 3 / 8^{\prime \prime} \times 20 \mathrm{G}$ |
| $1 / 4 " \times 7 / 16 " \times 20 \mathrm{G}$ |
| $1 / 4 " \times 1 / 2 " \times 20 \mathrm{G}$ |
| $5 / 16^{\prime \prime} \times 7 / 16^{\prime \prime} \times 20 \mathrm{G}$ |
| $5 / 16^{\prime \prime} \times 1 / 2 " \times 20 \mathrm{G}$ |
| $3 / 8 " \times 1 / 2 " \times 18 \mathrm{G}$ |


| Contents |
| :--- |
| $1 / 2 " \times 11 / 16^{\prime \prime} \times 20 \mathrm{G}$ |
| $1 / 2^{\prime \prime} \times 3 / 4 " \times 18 \mathrm{G}$ |
| $5 / 8^{\prime \prime} \times 7 / 8^{\prime \prime} \times 18 \mathrm{G}$ |
| $13 / 16^{\prime \prime} \times 1 " \times 18 \mathrm{G}$ |
| $15 / 16^{\prime \prime} \times 1-1 / 8^{\prime \prime} \times 16 \mathrm{G}$ |



## MISCELLANEOUS

9071440


Assorted fibre washer kit.
Imperial.
Approx 840 pieces.

| Contents |
| :--- |
| $13 / 64 " \times 3 / 8^{\prime \prime}$ |
| $1 / 4 " \times 3 / 8^{\prime \prime}$ |
| $5 / 16 " \times 5 / 8 "$ |
| $21 / 64 " \times 1 / 2^{\prime \prime}$ |
| $3 / 8^{\prime \prime} \times 5 / 8^{\prime \prime}$ |
| $3 / 8^{\prime \prime} \times 7 / 8^{\prime \prime}$ |


| Contents |
| :--- |
| $29 / 64 " \times 11 / 16 "$ |
| $1 / 2 " \times 11 / 16 "$ |
| $17 / 32 " \times 3 / 4 "$ |
| $37 / 64 " \times 7 / \mathbf{N}^{\prime \prime}$ |
| $5 / 8 " \times 7 / 8 "$ |
| $49 / 64 " \times 1 "$ |

## 9071414



## Assorted spring washer kit.

Metric.
Approx 880 pieces.

| Contents |
| :--- |
| M5 |
| M6 |
| M8 |


| Contents |
| :--- |
| M10 |
| M12 |

## 9071434



Assorted M6 fastener, nut \& washer kit.

Metric.
Approx 405 pieces.

| Contents |
| :--- |
| M6 x 16 screw |
| M6 $\times 20$ screw |
| M6 $\times 25$ screw |
| M6 $\times 35$ screw |


| Contents |
| :--- |
| M6 $\times 50$ screw |
| M6 steel nuts |
| M6 steel washers |

Assorted M8 fastener, nut \& washer kit.

Metric.
Approx 290 pieces.

| Contents |
| :--- |
| M8 $\times 20$ screw |
| M8 $\times 25$ screw |
| M8 x 40 screw |
| M8 $\times 50$ screw |


| Contents |
| :--- |
| M8 x $\mathbf{8 0}$ screw |
| M8 steel nuts |
| M8 steel washers |

Page 106
O.E.M. names and numbers are used for reference purposes only.

MISCELLANEOUS

## Assorted M10 fastener, nut \& washer kit.

Metric.
Approx 290 pieces.

| Contents |
| :---: |
| M10 $\times 25$ screw |
| M10 $\times 40$ screw |
| M10 $\times 50$ screw |


| Contents |
| :--- |
| M10 x 75 screw |
| M10 steel nuts |
| M10 steel washer |



## Assorted self tapping pan head screw kit.

## 9071425



## Assorted self tapping black

 pan head screw kit.Approx 700 pieces.

| Contents |
| :--- |
| No4 $\times 1 / 2^{\prime \prime}$ |
| No6 $\times 1 / 2^{\prime \prime}$ |
| No6 $\times 3 / 4^{\prime \prime}$ |
| No8 $\times 1 / 2^{\prime \prime}$ |
| No8 $\times 3 / 4^{\prime \prime}$ |
| No8 $\times 1$ " |


| Contents |
| :--- |
| No10 x 1/2" |
| No10 x 3/4" |
| No10 x 1" |
| No12 x 3/4" |
| No12 x 1" |

Assorted black (flanged) self taping screw kit.

Approx 700 pieces.

| Contents |
| :---: |
| No6 x 1/2" |
| No6 x 3/4" |
| No8 x 1/2" |
| No8 x 3/4" |


| Contents |
| :---: |
| No8 $\times 1-1 / 2^{\prime \prime}$ |
| No10 $\times 1 / 2^{\prime \prime}$ |
| No10 $\times 3 / 4^{\prime \prime}$ |

MISCELLANEOUS

9071436


Assorted screw \& fastener kit.
Approx 400 pieces.

| Contents |
| :--- |
| No8 $\times 19 \mathrm{~mm}$ screw |
| No10 $\times 19 \mathrm{~mm}$ screw |
| No12 x 19mm screw |
| No14 $\times 19 \mathrm{~mm}$ screw |$\quad$| Contents |
| :--- |
| No8 J clip |
| No10 J clip |
| No12 J clip |
| No14 J clip |

## Assorted "E" retaining

ring kit.
Approx 1500 pieces.

| Contents |
| :--- |
| $3 / 32 "$ |
| $1 / 8^{\prime \prime}$ |
| $5 / 32 "$ |
| $3 / 16 "$ |


| Contents |
| :--- |
| $7 / 32 "$ |
| $1 / 4 "$ |
| $5 / 16 "$ |
| $3 / 8^{\prime \prime}$ |

## Assorted star lock push on fastener kit.

Approx 1050 pieces.

| Contents |  |
| :--- | :--- |
| 2.5 mm | Contents <br> 3 mm <br> 3.5 mm <br> 4 mm <br> 4.5 mm <br> 5 mm$\quad$6 mm <br> 6.5 mm <br> 7 mm <br> 8 mm <br> 9 mm l |

9071442


Assorted split pin kit.
Small sizes.
Approx 950 pieces.

| Contents | Contents |
| :---: | :---: |
| 1/16" X 1" | 7/64" X 1-1/2" |
| 1/8" ${ }^{\prime \prime}$ 1-1/2" | 9/64" $\times 1-1 / 2^{\prime \prime}$ |
| 5/64" X 1" | 5/32" $\times 3 / 4{ }^{\prime \prime}$ |
| $3 / 32$ " X 1" |  |

## MISCELLANEOUS

## Assorted split pin kit.

9071443
Large sizes.
Approx 200 pieces.

| Contents |
| :--- |
| $1 / 8^{\prime \prime} \times 1-1 / 2^{\prime \prime}$ |
| $5 / 32^{\prime \prime} \times 2^{\prime \prime}$ |
| $3 / 16^{\prime \prime} \times 2^{\prime \prime}$ |
| $1 / 4^{\prime \prime} \times 3^{\prime \prime}$ |
| $5 / 16^{\prime \prime} \times 3^{\prime \prime}$ |



## Assorted aluminium pop

## rivet kit.

Approx 575 pieces.

| Contents |
| :--- |
| $1 / 8^{\prime \prime} \times 1 / 2 " \times 1 / 32 "$ washer |
| $1 / 8^{\prime \prime} \times 5 / 16^{\prime \prime}$ rivet |
| $1 / 8^{\prime \prime} \times 1 / 2 "$ rivet |
| $5 / 32^{\prime \prime} \times 1 / 2 "$ rivet |


| Contents |
| :--- |
| $3 / 16^{\prime \prime} \times 1 / 2$ " rivet |
| $3 / 16^{\prime \prime} \times 3 / 4$ " rivet |
| $3 / 16^{\prime \prime} \times 1 / 2$ " rivet |
| $3 / 16^{\prime \prime} \times 1$ " rivet |



## Assorted grommet kit.

Approx 100 pieces.

| Contents |
| :---: |
| $6.4 \mathrm{~mm} \times 14.3 \mathrm{~mm}$ |
| $6.4 \mathrm{~mm} \times 25.4 \mathrm{~mm}$ |
| $7.9 \mathrm{~mm} \times 15.9 \mathrm{~mm}$ |
| $9.5 \mathrm{~mm} \times 19.1 \mathrm{~mm}$ |


| Contents |
| :---: |
| $12.7 \mathrm{~mm} \times 34.9 \mathrm{~mm}$ |
| $19.1 \mathrm{~mm} \times 41.3 \mathrm{~mm}$ |
| $25.4 \mathrm{~mm} \times 47.6 \mathrm{~mm}$ |



## Assorted wiring \& blanking

## grommet kit.

Approx 160 pieces.

| Contents |  |
| :---: | :---: |
| 4mm x 6.4mm (W) | $14.2 \mathrm{~mm} \times 17.5 \mathrm{~mm}$ (W) |
| $5.5 \mathrm{~mm} \times 8 \mathrm{~mm}$ (W) | $\mathrm{m} \times 19 \mathrm{~mm}$ (W) |
| $6.4 \mathrm{~mm} \times 9.5 \mathrm{~mm}$ (W) | $6.4 \mathrm{~mm} \times 9.5 \mathrm{~mm}$ (B) |
| $8 \mathrm{~mm} \times 9.5 \mathrm{~mm}$ (W) | $8 \mathrm{~mm} \times 14.2 \mathrm{~mm}$ (B) |
| $9.5 \mathrm{~mm} \times 12.5 \mathrm{~mm}$ (W) | $9.5 \mathrm{~mm} \times 15.4 \mathrm{~mm}$ (B) |
| $11 \mathrm{~mm} \times 12.5 \mathrm{~mm}$ (W) | $11.2 \mathrm{~mm} \times 17.7 \mathrm{~mm}$ (B) |
| $12.5 \mathrm{~mm} \times 17.5 \mathrm{~mm}$ (W) | $12.5 \mathrm{~mm} \times 18.7 \mathrm{~mm}$ (B) |


| Contents |  |
| :--- | :---: |
| $15.5 \mathrm{~mm} \times 22 \mathrm{~mm}$ | (B) |
| $19 \mathrm{~mm} \times 25.5 \mathrm{~mm}$ | (B) |
| $20 \mathrm{~mm} \times 25.5 \mathrm{~mm}$ | (B) |
| $22 \mathrm{~mm} \times 28.4 \mathrm{~mm}$ | (B) |

(W) = wiring,
(B) = blanking.

## 9071431


$\underline{9998044}$


## Single pole plug.

Plastic body.
2 screw terminals.
Straight cable entry.
Rated to ISO 4165,
DIN 72591.
For use with 9998025
\& 9998045
(see below).

9998025


## Plug \& socket assembly.

Single pin plastic plug
(as 9998044 above).
Aluminium socket for external mounting.

9998045


## Single pole socket.

Nickel plated brass body.
2 screw terminals.
Complete with spring loaded cover.
Rated to ISO 4165,
DIN 72591.
For use with 9998043
(see page 86) \& 9998044
(see above).


## MISCELLANEOUS

Economy wiper blades.
Sizes:- 11"-24" available.

| Part No |
| :--- |
| TW11 |
| TW13 |
| TW14 |
| TW15 |
| TW16 |
| TW17 |


| Part No. |
| :--- |
| TW18 |
| TW19 |
| TW20 |
| TW21 |
| TW22 |
| TW24 |



## Bosch wiper blades.

Internal tension strip keeps constant
 pressure across the blade as the screen curves.
High quality rubber spine enables
effective flipover functions.
Precision cut cleaning edge ensures smear free wiping.
Pre-mounted quick-clip adapters makes fitting the blade a quick \& simple process.
Sizes:- 11" - 26" available.

| Part No |
| :--- |
| SP11 |
| SP13 |
| SP15 |
| SP16 |
| SP17 |
| SP18 |
| SP19 |


| Part No. |
| :--- |
| SP20 |
| SP21 |
| SP22 |
| SP23 |
| SP24 |
| SP26 |


N.B. - Spoiler blades \& blade kits also available, please ask for more details.

|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PART NUMBERINDEX |  |  |  |  |  |
| Part no. | Page | Part ${ }^{\text {no. }}$ | Page | Part no. | Page |
| 108/01/00 | 37 | 9070012 | 22 | 9071003.05 | 38 |
| 111/01/00 | 36 | 9070013 | 22 | 9071003.07 | 38 |
| 111/01/01 | 36 | 9070014 | 22 | 9071003.10 | 38 |
| 111/01/02 | 36 | 9070015 | 22 | 9071003.15 | 38 |
| 111/07/00 | 36 | 9070016 | 22 | 9071003.20 | 38 |
| 111/07/01 | 37 | 9070017 | 22 | 9071003.25 | 38 |
| 120/07/02 | 37 | 9070018 | 22 | 9071003.30 | 38 |
| 201.100 | 14 | 9070019 | 22 | 9071004.10 | 38 |
| 201.308 | 15 | 9070020 | 22 | 9071004.100 | 38 |
| 201.413 | 17 | 9070021 | 22 | 9071004.20 | 38 |
| 201.545 | 16 | 9070022 | 22 | 9071004.30 | 38 |
| 201.772 | 18 | 9070023 | 22 | 9071004.40 | 38 |
| 35670 | 7 | 9070024 | 22 | 9071004.50 | 38 |
| 3905000 | 77 | 9070025 | 22 | 9071004.60 | 38 |
| 3905001 | 77 | 9070026 | 22 | 9071004.70 | 38 |
| 3905002 | 77 | 9070027 | 22 | 9071004.80 | 38 |
| 3905003 | 77 | 9070028 | 22 | 9071005.30 | 38 |
| 3905003 | 77 | 9070029 | 22 | 9071005.40 | 38 |
| 3905004 | 77 | 9070030 | 22 | 9071005.60 | 38 |
| 3905004 | 77 | 9070031 | 22 | 9071005.80 | 38 |
| 3905006 | 77 | 9070035 | 23 | 9071006.30 | 39 |
| 3905007 | 76 | 9070036 | 23 | 9071006.40 | 39 |
| 3905008 | 75 | 9070037 | 23 | 9071006.60 | 39 |
| 3905009 | 75 | 9070038 | 23 | 9071006.80 | 39 |
| 3905010 | 75 | 9070039 | 23 | 9071007.100 | 39 |
| 3905011 | 75 | 9070040 | 23 | 9071007.30 | 39 |
| 3905012 | 75 | 9070041 | 23 | 9071007.40 | 39 |
| 5050010 | 74 | 9070042 | 23 | 9071007.60 | 39 |
| 5050011 | 74 | 9070043 | 23 | 9071007.80 | 39 |
| 5050012 | 74 | 9070044 | 23 | 9071008.03 | 40 |
| 57431 | 103 | 9070045 | 23 | 9071008.05 | 40 |
| 63389 | 103 | 9070046 | 23 | 9071008.13 | 40 |
| 645/01/00 | 100 | 9070047 | 23 | 9071009.05 | 40 |
| 8151001 | 101 | 9070048 | 23 | 9071009.08 | 40 |
| 8151002 | 97 | 9070049 | 23 | 9071009.16 | 40 |
| 8151003 | 97 | 9070050 | 23 | 9071009.25 | 40 |
| 8151004* | 97 | 9070051 | 23 | 9071010.30 | 40 |
| 8151004* | 97 | 9070052 | 23 | 9071010.40 | 40 |
| 8151005* | 97 | 9070052 | 23 | 9071010.50 | 40 |
| 8151005* | 97 | 9070053 | 23 | 9071010.60 | 40 |
| 8151006 | 102 | 9070054 | 23 | 9071010.80 | 40 |
| 8151007 | 102 | 9071000.03 | 38 | 9071011.06 | 42 |
| 8151008 | 102 | 9071000.04 | 38 | 9071011.08 | 42 |
| 8151009 | 102 | 9071000.05 | 38 | 9071011.10 | 42 |
| 8151010 | 102 | 9071000.10 | 38 | 9071011.15 | 42 |
| 8151011 | 102 | 9071000.15 | 38 | 9071011.20 | 42 |
| 8151013* | 97 | 9071000.20 | 38 | 9071011.25 | 42 |
| 8151014 | 97 | 9071000.25 | 38 | 9071012.06 | 42 |
| 8151015 | 98 | 9071000.30 | 38 | 9071012.08 | 42 |
| 8151016 | 101 | 9071001.02 | 39 | 9071012.10 | 42 |
| 8151018 | 97 | 9071001.03 | 39 | 9071012.15 | 42 |
| 8151019 | 97 | 9071001.05 | 39 | 9071012.20 | 42 |
| 8585100 | 74 | 9071002.01 | 39 | 9071012.25 | 42 |
| 9070000 | 21 | 9071002.02 | 39 | 9071013.05 | 42 |
| 9070000 | 21 | 9071002.03 | 39 | 9071013.07 | 42 |
| 9070001 | 21 | 9071002.05 | 39 | 9071013.10 | 42 |
| 9070001 | 21 | 9071002.07 | 39 | 9071013.15 | 42 |
| 9070002 | 21 | 9071002.10 | 39 | 9071013.20 | 42 |
| 9070003 | 21 | 9071002.15 | 39 | 9071013.25 | 42 |
| 9070004 | 21 | 9071002.20 | 39 | 9071014.05 | 42 |
| 9070005 | 21 | 9071002.25 | 39 | 9071014.07 | 42 |
| 9070006 | 21 | 9071002.35 | 39 | 9071014.10 | 42 |
| 9070007 | 22 | 9071002.50 | 39 | 9071014.15 | 42 |
| 9070008 | 22 | 9071003.01 | 38 | 9071014.20 | 42 |
| 9070009 | 22 | 9071003.02 | 38 | 9071014.25 | 42 |
| 9070010 | 22 | 9071003.03 | 38 | 9071015.05 | 43 |
| 9070011 | 22 | 9071003.04 | 38 | 9071015.10 | 43 |
| Page 112 |  |  |  |  |  |



PART NUMBER INDEX

| Part ${ }^{\text {no. }}$ | Page | Part ${ }^{\text {no. }}$ | Page | Part no. | Page |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 9071015.15 | 43 | 9071309 | 30 | 9089029 | 31 |
| 9071015.20 | 43 | 9071310 | 30 | 9089030 | 31 |
| 9071015.30 | 43 | 9071311 | 30 | 9089031 | 31 |
| 9071050 | 30 | 9071312 | 30 | 9090000 | 33 |
| 9071051 | 30 | 9071313 | 30 | 9090001 | 33 |
| 9071053 | 30 | 9071401 | 29 | 9090002 | 33 |
| 9071060 | 43 | 9071402 | 29 | 9090003 | 33 |
| 9071061 | 44 | 9071410 | 41 | 9090004 | 33 |
| 9071062 | 44 | 9071411 | 41 | 9090005 | 33 |
| 9071063 | 44 | 9071412 | 41 | 9090006 | 33 |
| 9071064 | 44 | 9071413 | 28 | 9090007 | 33 |
| 9071065 | 43 | 9071414 | 106 | 9090008 | 33 |
| 9071066 | 45 | 9071415 | 105 | 9091000 | 35 |
| 9071100 | 30 | 9071416 | 27 | 9091001 | 35 |
| 9071101 | 30 | 9071417 | 109 | 9091002 | 35 |
| 9071102 | 30 | 9071418 | 28 | 9091003 | 35 |
| 9071103 | 30 | 9071419 | 27 | 9091004 | 33 |
| 9071104 | 30 | 9071420 | 28 | 9091005 | 33 |
| 9071105 | 30 | 9071421 | 28 | 9091006 | 33 |
| 9071106 | 30 | 9071422 | 26 | 9091007 | 33 |
| 9071107 | 30 | 9071423 | 27 | 9091008 | 34 |
| 9071108 | 30 | 9071424 | 108 | 9091009 | 34 |
| 9071109 | 30 | 9071425 | 107 | 9091010 | 34 |
| 9071110 | 30 | 9071426 | 107 | 9091011 | 34 |
| 9071111 | 30 | 9071427 | 107 | 9091012 | 34 |
| 9071112 | 30 | 9071428 | 40 | 9091013 | 34 |
| 9071113 | 30 | 9071429 | 41 | 9091014 | 34 |
| 9071114 | 30 | 9071430 | 108 | 9091015 | 34 |
| 9071115 | 30 | 9071431 | 110 | 9091016 | 34 |
| 9071116 | 30 | 9071432 | 107 | 9091017 | 35 |
| 9071117 | 30 | 9071433 | 106 | 9091018 | 35 |
| 9071118 | 30 | 9071434 | 106 | 9091019 | 34 |
| 9071119 | 30 | 9071435 | 26 | 9091020 | 34 |
| 9071200 | 30 | 9071436 | 108 | 9881014 | 72 |
| 9071201 | 30 | 9071437 | 26 | 9881023 | 72 |
| 9071202 | 30 | 9071438 | 27 | 9881024 | 72 |
| 9071203 | 30 | 9071439 | 105 | 9881025 | 72 |
| 9071204 | 30 | 9071440 | 106 | 9905000 | 74 |
| 9071205 | 30 | 9071441 | 105 | 9905001 | 74 |
| 9071206 | 30 | 9071442 | 108 | 9980001 | 98 |
| 9071207 | 30 | 9071443 | 109 | 9980002 | 37 |
| 9071208 | 30 | 9071444 | 109 | 9987007 | 63 |
| 9071209 | 30 | 9071445 | 109 | 9994000 | 32 |
| 9071210 | 30 | 9089000 | 31 | 9994001 | 32 |
| 9071211 | 30 | 9089001 | 31 | 9994002 | 32 |
| 9071212** | 30 | 9089002 | 31 | 9994003 | 32 |
| 9071213 | 30 | 9089003 | 31 | 9994004 | 32 |
| 9071214 | 30 | 9089004 | 31 | 9994005 | 32 |
| 9071215 | 30 | 9089005 | 31 | 9994006 | 32 |
| 9071216** | 30 | 9089006 | 31 | 9994007 | 32 |
| 9071217 | 30 | 9089012 | 31 | 9994008 | 32 |
| 9071219 | 30 | 9089013 | 31 | 9994009 | 32 |
| 9071220 | 30 | 9089014 | 31 | 9994010 | 32 |
| 9071221 | 30 | 9089015 | 31 | 9994011 | 32 |
| 9071222 | 30 | 9089016 | 31 | 9994020 | 32 |
| 9071223 | 30 | 9089017 | 31 | 9994021 | 32 |
| 9071224 | 30 | 9089018 | 31 | 9994022 | 32 |
| 9071225 | 30 | 9089019 | 31 | 9994023 | 32 |
| 9071226 | 30 | 9089020 | 31 | 9994024 | 32 |
| 9071300 | 30 | 9089021 | 31 | 9994025 | 32 |
| 9071301 | 30 | 9089022 | 31 | 9994026 | 32 |
| 9071302 | 30 | 9089023 | 31 | 9994030 | 25 |
| 9071303 | 30 | 9089024 | 31 | 9994031 | 25 |
| 9071304 | 30 | 9089025 | 31 | 9994032 | 25 |
| 9071306 | 30 | 9089026 | 31 | 9994033 | 25 |
| 9071307 | 30 | 9089027 | 31 | 9994034 | 26 |
| 9071308 | 30 | 9089028 | 31 | 9994035 | 26 |


|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PART NUMBER INDEX |  |  |  |  |  |
| Part ${ }^{\text {no. }}$ | Page | Part $n$. | Page | Part no. | Page |
| 9994036 | 25 | 9995275 | 88 | 9997005 | 70 |
| 9994037 | 25 | 9995276 | 88 | 9997007 | 70 |
| 9994038 | 25 | 9995277 | 88 | 9997008 | 71 |
| 9994039 | 25 | 9995278 | 88 | 9997009 | 71 |
| 9994040 | 24 | 9995280 | 89 | 9997010 | 71 |
| 9994041 | 24 | 9995281 | 89 | 9997011 | 71 |
| 9994042 | 24 | 9995282 | 89 | 9997012 | 70 |
| 9994043 | 24 | 9995287 | 89 | 9997050 | 45 |
| 9994044 | 24 | 9996000 | 5 | 9997051 | 46 |
| 9994045 | 24 | 9996000K | 5 | 9997052 | 46 |
| 9994046 | 24 | 9996001 | 6 | 9997053 | 46 |
| 9994047 | 102 | 9996002 | 7 | 9997054 | 45 |
| 9995000 | 79 | 9996013 | 7 | 9997055 | 45 |
| 9995001 | 79 | 9996015 | 43 | 9997056 | 48 |
| 9995002 | 79 | 9996015 | 10 | 9997057 | 46 |
| 9995003 | 79 | 9996017 | 10 | 9997058 | 47 |
| 9995004 | 79 | 9996018 | 10 | 9997059 | 47 |
| 9995005 | 79 | 9996022 | 10 | 9997060 | 47 |
| 9995006 | 79 | 9996025 | 11 | 9997061 | 47 |
| 9995007 | 79 | 9996026 | 13 | 9998001 | 57 |
| 9995008 | 79 | 9996027 | 13 | 9998002 | 58 |
| 9995009 | 79 | 9996030 | 5 | 9998003 | 51 |
| 9995015 | 80 | 9996030K | 5 | 9998004 | 51 |
| 9995016 | 80 | 9996031 | 6 | 9998005 | 52 |
| 9995017 | 91 | 9996032 | 6 | 9998006 | 52 |
| 9995019 | 93 | 9996033 | 7 | 9998007 | 55 |
| 9995020 | 94 | 9996034 | 7 | 9998008 | 56 |
| 9995021 | 93 | 9996035 | 8 | 9998009 | 52 |
| 9995022 | 93 | 9996036 | 8 | 9998009 | 52 |
| 9995023 | 92 | 9996037 | 8 | 9998009 | 53 |
| 9995024 | 93 | 9996038 | 8 | 9998009 | 52 |
| 9995025 | 91 | 9996039 | 8 | 9998010 | 51 |
| 9995027 | 94 | 9996040 | 8 | 9998011 | 57 |
| 9995028 | 94 | 9996041 | 8 | 9998012 | 59 |
| 9995029 | 92 | 9996042 | 9 | 9998013 | 59 |
| 9995030 | 80 | 9996043 | 9 | 9998014 | 63 |
| 9995031 | 81 | 9996044 | 9 | 9998015 | 63 |
| 9995032 | 81 | 9996045 | 9 | 9998016 | 58 |
| 9995033 | 81 | 9996046 | 9 | 9998017 | 54 |
| 9995034 | 82 | 9996047 | 9 | 9998018 | 59 |
| 9995035 | 82 | 9996048 | 9 | 9998019 | 52 |
| 9995036 | 83 | 9996049 | 10 | 9998020 | 63 |
| 9995037 | 80 | 9996050 | 12 | 9998021 | 60 |
| 9995038 | 82 | 9996051 | 12 | 9998022 | 60 |
| 9995039 | 82 | 9996052 | 11 | 9998023 | 60 |
| 9995040 | 82 | 9996053 | 11 | 9998024 | 60 |
| 9995041 | 82 | 9996054 | 12 | 9998025 | 110 |
| 9995042 | 82 | 9996055 | 11 | 9998026 | 51 |
| 9995044 | 83 | 9996057 | 6 | 9998027 | 57 |
| 9995045 | 83 | 9996057K | 7 | 9998028 | 54 |
| 9995047 | 82 | 9996057K | 6 | 9998029 | 55 |
| 9995048 | 83 | 9996500 | 19 | 9998030 | 53 |
| 9995049 | 91 | 9996501 | 19 | 9998031 | 55 |
| 9995050 | 91 | 9996502 | 19 | 9998032 | 54 |
| 9995051 | 92 | 9996503 | 19 | 9998033 | 56 |
| 9995052 | 92 | 9996504 | 19 | 9998034 | 52 |
| 9995053 | 92 | 9996505 | 19 | 9998035 | 53 |
| 9995054 | 92 | 9996506 | 19 | 9998036 | 56 |
| 9995057 | 90 | 9996507 | 19 | 9998037 | 53 |
| 9995058 | 90 | 9996508 | 19 | 9998038 | 56 |
| 9995059 | 90 | 9996509 | 19 | 9998039 | 53 |
| 9995060 | 90 | 9996510 | 19 | 9998040 | 57 |
| 9995061 | 79 | 9997000 | 69 | 9998041 | 58 |
| 9995062 | 79 | 9997001 | 69 | 9998042 | 61 |
| 9995063 | 91 | 9997002 | 69 | 9998043 | 65 |
| 9995073 | 88 | 9997003 | 69 | 9998044 | 110 |
| 9995274 | 88 | 9997004 | 70 | 9998045 | 110 |
| Page 114 |  |  |  |  |  |

## PART NUMBER INDEX

| Part $n 0$. | Page | Part $n 0$. | Page |
| :---: | :---: | :---: | :---: |
| 9998046 | 58 | SP15 | 111 |
| 9998047 | 54 | SP16 | 111 |
| 9998048 | 62 | SP17 | 111 |
| 9998050 | 61 | SP18 | 111 |
| 9998052 | 61 | SP19 | 111 |
| 9998054 | 62 | SP20 | 111 |
| 9998055 | 61 | SP21 | 111 |
| 9998056 | 62 | SP22 | 111 |
| 9998057 | 62 | SP23 | 111 |
| 9998058 | 59 | SP24 | 111 |
| 9998059 | 55 | SP26 | 111 |
| 9998060 | 65 | TA/2-906V | 81 |
| 9998061 | 65 | TA/2BL | 81 |
| 9998062 | 66 | TA/U6A | 79 |
| 9998063 | 66 | TF2 | 80 |
| 9998064 | 66 | TFF001 | 104 |
| 9998065 | 64 | TP05 | 104 |
| 9998066 | 64 | TPJ005 | 104 |
| 9998067 | 64 | TW11 | 111 |
| 9998068 | 64 | TW13 | 111 |
| 9998069 | 65 | TW14 | 111 |
| 9999000 | 84 | TW15 | 111 |
| 9999001 | 84 | TW16 | 111 |
| 9999002 | 84 | TW17 | 111 |
| 9999003 | 85 | TW18 | 111 |
| 9999004 | 85 | TW19 | 111 |
| 9999005 | 85 | TW20 | 111 |
| 9999006 | 86 | TW21 | 111 |
| 9999007 | 84 | TW22 | 111 |
| 9999008 | 85 | TW24 | 111 |
| 9999011 | 86 |  |  |
| 9999012 | 86 |  |  |
| 9999013 | 86 |  |  |
| 9999020 | 98 |  |  |
| 9999021 | 98 |  |  |
| AK44 | 104 |  |  |
| ALH188/50 | 100 |  |  |
| BMAC440 | 100 |  |  |
| BSPSSC12 | 24 |  |  |
| BSPSSC24 | 24 |  |  |
| GOC0064 | 101 |  |  |
| GOC0071 | 101 |  |  |
| GOC0235 | 102 |  |  |
| GOC0236 | 102 |  |  |
| GOC0240 | 102 |  |  |
| GOC0456 | 102 |  |  |
| GOC0995 | 101 |  |  |
| HSB/10 | 103 |  |  |
| LH24 | 100 |  |  |
| MC/2F1/12V | 83 |  |  |
| MC/2F1/24V | 83 |  |  |
| MT25/9 | 103 |  |  |
| MT50C/24 | 103 |  |  |
| Part number: 9070060 | 23 |  |  |
| Part number: 9070061 | 23 |  |  |
| Part number: 9070061 | 23 |  |  |
| Part number: 9070062 | 23 |  |  |
| Part number: 9070063 | 23 |  |  |
| Part number: 9070064 | 23 |  |  |
| Part number: 9070065 | 23 |  |  |
| Part number: 9070066 | 23 |  |  |
| Part number: 9070067 | 23 |  |  |
| PLH52 | 99 |  |  |
| PLH60 | 99 |  |  |
| SCR003 | 105 |  |  |
| SP11 | 111 |  |  |
| SP13 | 111 |  |  |

First Numera

| First Numeral Protection against human access or solid objects |
| :---: |
| No protection |
| Protected against solid objects with a diameter of 50 mm and over (e.g. accidental insertion of hands) |
| Protected against solid objects over 12 mm (e.g. jointed fingers) |
| Protected against solid objects over 2.5 mm (tools) |
| Protected against solid objects over 1 mm (small wires) |
|  <br> Protected against dust - limited ingress permitted (no harmfull deposit) |
| $\mathbf{6}$ Totally protected against dust |

Please note that a water protection index of 7 is not necessarily better than an index of 6 . In some cases the device will not pass IP66 while they successfully pass the IP67 tests: A strong jet of water can generate a higher force than the spread pressure under immersion at 1 m . Gaskets are the main parts affected by this phenomenon.
Please refer to the latest revision of the EN 60529 standard for complete information regarding applications, features and design tests.

| Second Numeral <br> Protection against harmfull ingress of liquids |
| :---: |
| $\begin{gathered} \mathbf{0} \\ \text { No protection } \end{gathered}$ |
| Protected against vertically falling drops of water |
| $\mathbf{2}$ <br> Protected against direct sprays of water up to 15 deg. from the vertical |
| 3 <br> Protected against direct sprays of water up to 60 deg. from the vertical |
| 4 Protected against water sprayed from any direction - limited ingress permitted |
| 5 <br> Protected against low pressure jets of water from any direction - limited <br> ingress permitted |
| $6$ <br> Protected against strong jets of water from any direction(e.g. for use on ship decks, heavy seas) - limited ingress permitted (see note) |
| 7 <br> Protected against the effects of temporary immersion in water between <br> 15 cm and 1 m (see note) |
| 8 Protected against the effects of continuous immersion in water |

## Second Numeral

 Protection against harmfull ingress of liquidsProtected against vertically falling drops of water

Protected against direct sprays of water up to 15 deg. from the vertical

Protected against direct sprays of water up to 60 deg. from the vertical

Protected against low pressure jets of water from any direction - limited ingress permitted
ted against strong jets of water from any direction(e.g. for use 15 cm and 1 m (see note)

Protected against the effects of continuous immersion in water

## Automotive Components Distributors

## BoyvIrs

www:bowersmidland:co:uk




