Established 1974

Vehicle Wiring Products

9 BUXTON COURT, MANNERS INDUSTRIAL ESTATE, ILKESTON, DERBYSHIRE, DE7 8EF. U.K.

TEL: 0115 9305454 FAX: 0115 9440101 www.vehicleproducts.co.uk

E-mail:sales@vehicleproducts.co.uk



Trade & DIY Mail Order Catalogue UK & Export

Prices exclude VAT.

VAT No GB 118 4824 65

2019/20

© Vehicle Wiring Products Ltd 2019.

No part of this publication may be reproduced without the prior permission of Vehicle Wiring Products Ltd.

Welcome to our trade & DIY mail order catalogue. We try to ensure that the products we sell are of the highest quality, and we appreciate any comments or suggestions. If you are not satisfied with a product purchased from us, a refund will be given, or the goods exchanged, if they are returned to us in the condition received within 14 days of purchase. All specifications & recommendations are given to the best of our knowledge. It is the responsibility of the user to ensure that the materials chosen are suitable for the application to which they are put. No liability is accepted for their application.

How To Order

BY PHONE: 0115 9305454.

Orders can be phoned at any time.

1. Please have your customer number ready (found on the address label on back page).

2. Please quote the reference numbers of the items being ordered where listed.

Calls before 9.00am or after 5.00pm and at weekends can be left on our answer machine. Please speak clearly & leave your phone number & your customer number (found on the address label on the back page).

3. Please provide card details with every order because we do not retain customers card details.

BY INTERNET: www.vehicleproducts.co.uk.

Secure online ordering. Easy to use website. Order anytime day or night.

BY POST: Remove and complete the order form from page 95 of the catalogue with the items required. Post it with payment or card details to:

Vehicle Wiring Products Ltd, 9 Buxton Court, Manners Industrial Estate, Ilkeston, Derbyshire, DE7 8EF.

Please make cheques or postal orders payable to **Vehicle Wiring Products Ltd.** We accept Visa, Mastercard, Maestro, Visa electron. Please provide card details with every order because **we do not retain customers card details.**

BY FAX: 0115 9440101

Please print clearly & include your delivery address, card details, your customer number, item reference numbers & quantities required.

EMAIL:

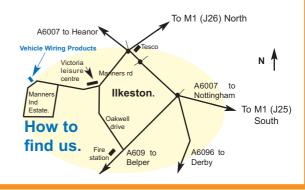
Our email address is: sales@vehicleproducts.co.uk

PAYPAL:

We accept PayPal as a method of payment. Our PayPal email address is: salespg@vehicleproducts.co.uk

COUNTER SALES:

We can serve customers between 9am & 4.30pm Monday to Friday. Closed weekends & bank holidays.



We will normally dispatch your goods within 24 hours of receipt of your order. Goods over 2kg are usually sent by carrier (mainland) on 1 to 2 day delivery. Orders under 2Kg are sent by first class post.

UK Mainland (excludes Scottish postcodes listed below)

Orders under £100 Goods Total (ex-vat)......£3.95

Orders over £100 Goods Total (ex-vat).....CARRIAGE FREE

Next Day Delivery.

Goods can be sent for next day delivery if phoned or faxed before 1pm, Monday to Thursday, for delivery Tuesday to Friday.

Cost is £9.75 up to 2kg, £13 over 2kg, for delivery on Tuesday to Friday.

Isle of Wight, Isle of Man, Northern Ireland and the following **Scotland** postodes : AB31-AB56, HS, IV1-IV63, KA27-KA28, KW1-KW17, PA20-PA78, PH4-PH44, PH40-PH50, ZE. Please ask for price for all deliveries to these destinations, or order on-line at: *www.vehicleproducts.co.uk*

Overseas Orders (Including Channel Islands)

The easiest way to pay is by credit card, Visa, Visa Electron, Maestro, Mastercard. We can also accept bank transfers. Please contact us for our bank details. If paying by bank transfer, please ensure that any charges made by your bank for this service are charged to yourself, ie <u>not</u> deducted from the amount to be paid for the order value. If paying by bank transfer, please incorporate any fees with your payment. We also accept PayPal, please see opposite page for details. Carriage is charged at cost (minimum charge is £7). Goods are normally sent by air.

EU Countries, must add VAT at current UK rate, unless a VAT registered business and must then enter the full VAT number on the order form.

BFPO's. Please ask for carriage cost. Must include 'end use authorisation certificate' to be ex-vat.



Cables

P6-8



Cable fixing & sleeving P9-13



Battery terminals, leads & isolators P16-19



Relays

P38-41



Fuse holders & fuses P42-45



Gauges



P68-70

accessory plug & skt	53	cable st
aerial	66	cable tie
alternator plug	32	cable tie
ammeters	68,70,86,92	carburet
battery brush	15	chain br
battery chargers	81	choke ca
battery clamp	15	cigarette
battery connectors	16,17	circlip pl
battery switches	18	circuit br
battery terminals	16	circuit te
beading	9	clevis pi
birdcage tool	93	clocks
booster cable	19	closing t
boxes	94	connecto
brackets, for gauges	69	control c
brackets, for w/lights	52	control c
brake pipes,fittings	78-80	convolut
brake fluid tester	80	copper v
bulbs	60-62	crimping
bulb holders	55,62	crocodile
busbars	34	door swi
butane blow torch	11,82	electroni
buzzers	40	extensio
cable	6-8	exhaust
cable clips	12	fans (rad
cable cutters	93	feeler ga
cable fixing	12,13	flasher u
cable markers	9	floor swi
cable protection, sleev	ring 9-11	foam rub



Fasteners

Index

cable strippers	9
cable ties & mounts	13
cable tie tensioning tool	13
carburettor synchronizer	85
chain breaker	85
choke cable	66
cigarette lighter	53
circlip pliers	83
circuit breakers	45
circuit testers	86,87
clevis pins	72
clocks	69
closing tool	31
connector blocks	33
control cable & nipples (m/c)	93
control cable kits m/c	94
convoluted tube	11
copper washers	73
crimping tools 14,17,23,	24,30,31
crocodile clips	19
door switches	49
electronic ignition kit (m/c)	71
extension cable 12v	53
exhaust mount bobbin	72
fans (radiator)	67
feeler gauges	83
flasher units	40
floor switch	50
foam rubber strip	94



Switches & warning

Brake parts

lamps

P79-80

P46-52

footrests (m/c)	92
fuel filter, pipe, valve, tap	76,77
fuel pump	76
fuse boxes, holders	42-44
fuse pullers	45
fuses	45
gas powered solder tool	82
gauges	68-70
gear pullers	84
gloves (disposable)	83
grommets	9
h/ bar grips & levers (m/c)	92
heat resistant tape, sleeve	10
heatseal terminals	24
heatshrink tubing	11
horns	66
hose clips,hose clip driver	76-78
hose connectors	78
HT terminals & tools	70 14
	49
hydraulic brake light switch	49 51
ignition switch	
ignition terminals	14
indicator lamps m/c	88,89
indicator kits m/c	89
indicator resistor (m/c)	89
Inverters	81
junction box 120amp	19
junction box w/proof	25
junior/power/timer housings	32



P20-24

P81-85



Non-insulated terminals & crimp tools P25-31



Connectors

P32-37



& crimp tools

Lighting/Bulbs P54-64



Worklamps

P62-63



Accessories

P65-67



Test meters



M/cycle parts P88-94

Tools

lamp mounting set	54
lamp parts	54,55
levers m/cycle	92
lights	54-64
lights (m/cycle)	56
LED bulbs	62
LED warning lights	52
locking wire, pliers	84
manuals	83
map lights	63
mechanics stethoscope	87
mirror (inspection)	85
motorcycle parts	85-94
motorcycle fuel tap	92
m/c tools	85
multimeters	86,87
multi-way connectors	35-37
nuts,bolts,screws,washers	72-75
oil filter wrench	83
O rings	73
O clips & crimp tool	78 12
p clips	72
perforated strip	10
PIB tape	85
pick-up tools (magnetic) pipes & hoses, pipe clips	ор 76-78
plug & socket (acc'y 12V)	70-70 53
power connectors	55 19
powerpole connectors	34
powerpoie connectors	04

Index	
radiator fans, thermostat	67
'R' clips	72
rechargable lamps	63
reflectors	56,90
regulators (generator)	71
relays & sockets	38-41
relays - split charge	39,65
reverse alarm	65
rim protector m/c	85
riveter, rivets, rivet washers	s 84
screenwash parts	67
screwdrivers(precision)	84
sleeving	10,11
solar battery maintainer	15,82
solder, solder iron,solder g	
speed fasteners	72
spiral binding	10
split pins	72
springs	73
starter solenoid	19
starter terminals	16
stud extractor	84
switches	46-51
switches (battery)	18
switches (m/cycle)	90,91
symbol sheet	52
tacho	68,70
tap connectors	33
tape	10

tensioning tool for cable ties	13
terminal extractor tool	25,36
terminal kits, pre-insulated	22-24
terminal kits, non-insulated	28,29
terminals, pre-insulated	20,21,24
terminals, non-insulated	25-27
third hand tool	85
timing relays	40
tools	82-87
tools, brake pipe	80
tools, crimping 14,17,23	24.30.31
towing accessories	65
trim buttons	72
trim remover kit	83
tyreart pen	85
tyre pressure gauge	83
USB power sockets	53
vacuum gauge (test)	85
velcro strip	94
vernier gauge	85
voltmeters	68,70
10111101010	52
warning lights	52 67
windscreen wash parts	
wiper blade (classic)	67
worklamps	62,63

Please note, cables cut to lengths cannot be returned for refund or exchange. Cables cannot be supplied in fractions of a metre unless otherwise stated.

Single core PVC thinwall cable

A high performance cable which, as the name suggests, has thinner insulation. It is multi-strand copper cable which is insulated with thinner high performance hard grade PVC, which offers good resistance to abrasion and cut through. The cable also carries a higher load compared to the old type cable. Gives savings in weight and volume when used in large harnesses. This cable is now original equipment on most new vehicles.

1.6mm **Ref 11.** 16/0.20mm, 0.5mm², 11amp. ^{1.0} 25p per M. £4.14 per 30M reel. £13.14 per 100M reel.

Typical applications: Side & tail lights, alarms, reversing & rear fog lamps, electric aerial, horns, general wiring.

Black	Slate	Purple
Blue	Lt.Green	Red
Brown	Orange	White
Green	Pink	Yellow

Ref 16. 32/0.20mm, 1mm²,16.5amp.^{1.95mm} 32p per M. £19.54 per 100M reel.

Plain colours also available in 30M reels @ £7.03

Typical applications: Side & tail lights, alarms, reversing & rear fog lamps, electric aerial, horns, general wiring.

Black Blue Brown Green Slate Lt.Green Orange Pink Purple Red White Yellow Azure(Lt Blue) Black/Blue Black/Brown Black/Green Black/Slate Black/Orange Black/Pink Black/Purple Black/Red Black/White Black/Yellow Blue/Black Blue/Brown Blue/Green Blue/Slate Blue/Lt.Green Blue/Orange Blue/Pink Blue/Purple Blue/Red Blue/White Blue/Yellow Brown/Black Brown/Blue Brown/Green

Brown/Slate Brown/Lt.Green Brown/Orange Brown/Pink Brown/Purple Brown/Red Brown/White Brown/Yellow Green/Black Green/Blue Green/Brown Green/Slate Green/Lt.Green Green/Orange Green/Pink Green/Purple Green/Red Green/White Green/Yellow Slate/Black Slate/Blue Slate/Brown Slate/Green Slate/Red Slate/White Slate/Yellow Lt.Green/Purple Lt.Green/Black Orange/Black Orange/Blue Orange/Brown Orange/Green Orange/Slate Orange/Lt Green Orange/Pink Orange/Red Orange/White

Orange/Yellow Pink/Black Pink/Blue Pink/Brown Pink/Green Pink/Lt Green Pink/White Purple/Black Purple/Blue Purple/Brown Purple/Green Purple/Orange Purple/Pink Purple/Red Purple/White Purple/Yellow Red/Black Red/Blue Red/Brown Red/Green Red/Slate Red/Lt.Green Red/Orange Red/Pink Red/Purple Red/White Red/Yellow White/Black White/Blue White/Brown White/Green White/Slate White/Lt.Green White/Orange White/Pink White/Purple White/Red

32/0.20 thinwall continued.

heater windscreen winer motor

White/Yellow	Yellow/Green	Yellow/Purple
Yellow/Black	Yellow/Slate	Yellow/Red
Yellow/Blue	Yellow/Orange	Yellow/White
Yellow/Brown	Yellow/Pink	

2.55mm Ref 25. 28/0.30mm, 2mm², 25amps.² 50p per M. £37.90 per 100M reel.

Plain colours also available in 30M reels @ £12.79 Typical applications: Headlamps, fog & driving lamps, rear screen

neater, windscreen wi	ber motor.	
Black Blue	Brown/Blue Brown/Green	Purple/Orange Purple/Pink
Brown	Brown/Pink	Purple/Red
Green	Brown/Purple	Purple/White
Slate	Brown/Red	Red/Black
Orange	Brown/White	Red/Blue
Pink	Brown/Yellow	Red/Brown
Purple	Green/Black	Red/Green
Red	Green/Brown	Red/White
White	Green/Lt.Green	Red/Yellow
Yellow	Green/Purple	White/Black
Black/Blue	Green/Red	White/Blue
Black/Slate	Green/White	White/Brown
Black/Pink	Green/Yellow	White/Green
Black/Purple	Slate/Blue	White/Slate
Black/Red	Lt.Green/Green	White/Orange
Black/White	Lt.Green/Pink	White/Purple
Black/Yellow	Orange/Black	White/Red
Blue/Green	Pink/Black	White/Yellow
Blue/Red	Pink/White	Yellow/Red
Blue/White	Purple/Black	Yellow/White
Blue/Yellow	Purple/Brown	
Brown/Black	Purple/Slate	

Ref 33. 44/0.30mm, 3mm², 33amps. ^{3.2mm} 75p per M. £62.74 per 100M reel.

Plain colours also available in 30M reels @ £19.21

Typical applications: Charging cable for battery feed & ammeter.			
Black	Pink	Brown/Green	
Blue	Purple	Red/Yellow	
Brown	Red	White/Blue	
Green	White	White/Green	
Slate	Yellow	White/Red	
Orange	Brown/Blue		

3 5mm **Ref 39.** 56/0.30mm, 4mm², 39amps. O/D 95p per M. £25.00 per 30M reel.

Typical applications:	Charging of	cable for battery feed & ammeter.
Black	Red	Yellow
Brown	White	

Prices ex-vat.

Cables

Thinwall cable continued.

4 1mm **Ref 50.** 84/0.30mm, 6mm², 50amps. ¹O/D £1.34 per M. £36.60 per 30M reel.

Typical applications: For dynamo, alternator & ammeter circuits. Black Brown Red

Ref 57. 97/0.30mm, 7mm², 57amp. ^{5.05mm} £1.63 per M. £45.32 per 30M reel.

Typical applications: For heavy duty alternator & ammeter circuits. Black Brown Red

5 5mm Ref 63. 120/0.30mm, 8.5mm², 63amp O/D £1.88 per M. £52.74 per 30M reel.

Typical applications: Charging cable for heavy duty alternator & ammeter circuits

Brown

5.6mm Ref 70. 80/0.40mm, 10mm², 70amp. O/D

Red

£2.18 per M. £61.84 per 30M reel.

Typical applications: Charging cable for heavy duty alternator & ammeter circuits. Red

Black Brown

Single core PVC cable

Black

Conductors of stranded copper wire, insulated with PVC. This type of cable was used on vehicles until recent years but is now superceded by the higher performance thinwall cable on most new vehicles.

2 7mm **Ref 14.** 14/0.30mm, 1mm², 8.75amp. ^{2.7} 37p per M. £12.26 per 50M reel.

Typical applications: Side & tail lights, alarms, reversing & rear fog lamps, electric aerial, horns, general wiring.

Black Blue Brown	Blue/Orange Blue/Red Blue/White	Purple/Black Purple/Blue Purple/Pink
Green	Blue/Yellow	Purple/Red
Slate	Brown/Black	Purple/White
Orange	Brown/Green	Red/Black
Pink	Brown.Red	Red/Blue
Purple	Brown/White	Red/Green
Red	Brown/Yellow	Red/Orange
White	Green/Black	Red/White
Yellow	Green/Blue	Red/Yellow
Black/Blue	Green/Brown	White/Black
Black/Green	Green/Slate	White/Blue
Black/Slate	Green/Orange	White/Brown
Black/Purple	Green/Pink	White/Green
Black/Red	Green/Red	White/Purple
Blue/Black	Green/White	Yellow/Black
Blue/Brown	Green/Yellow	Yellow/Green
Blue/Green	Orange/Blue	Yellow/Slate

3.4mm Ref 28. 28/0.30mm, 2mm², 17.5amp. 56p per M. £21.92 per 50M reel.

Typical applications: Headlamps, fog & driving lamps, rear screen heater, windscreen wiper motor.

Black	Black/White	Green/Black
Blue	Blue/Black	Green/White
Brown	Blue/Brown	Purple/Blue
Green	Blue/White	Red/Black
Slate	Blue/Yellow	Red/Green
Orange	Brown/Blue	Red/White
Pink	Brown/Purple	Red/Yellow
Purple	Brown/Red	White/Green
Red	Brown/White	Yellow/Green
White	Brown/Yellow	
Yellow	Green/Red	

4 2mm Ref 44. 44/0.30mm, 3mm², 27.5amp. 83p per M. £35.46 per 50M reel.

Typical applications: Charging cable for battery feed & ammeter.				
Black	Brown	White		
Blue	Red	Yellow		

5.1mm **Ref 65.** 65/0.30mm, 4.5mm², 35amp. O/D £1.14 per M. £30.40 per 30M reel.

Typical applications: Charging cable for alternator & ammeter. Black Brown Red

The following equation may prove useful to work out a cable size required. Watts + Volts = Amps

Coloured cables. When two colours are given, the first colour is the main colour, the second colour is the 'tracer' (usually two thin traces of colour which run straight down the cable).

Tracer colour.

Black/White

Main colour.

General notes on cables. All cables are made up of a number of strands. Generally these strands are 0.20mm or 0.30mm diameter. In our list for each cable we also give the cross sectional area in sq mm, and the continuous carrying capacity in amps. The breakdown of a cable specification is as follows:

Number of strands. Cross sectional area in sq mm. 2.55mm 28/0.30mm, 2mm², 25amps, O/D 1 Diameter of each Continuous carrying Outside diameter strand in mm. capacity in amps of insulation

Prices ex-vat.

Page 7

Cables

Please note, cables cut to lengths cannot be returned for a refund or exchange. Cables cannot be supplied in fractions of a metre unless otherwise stated.

Tinned single

core PVC thinwall cable

The tinned copper conductors make this cable more resistant to corrosion. Use in the automotive. marine and other harsh environments.

Ref CM1.5 2	21/0.30mm	, 1.5mm ² , 21	amps.
60p per M.	£22.12 per	r 50M reel.	2.4mm O/D
Black	Brown	Blue	UD
Green	Red	Yellow	
Ref CM2.5 3	35/0.30mm	, 2.5mm ² ,29a	amps.
88p per M.	£32.98 pe	r 50M reel.	3mm
Black	Brown	Blue	O/D
Green	Red	Yellow	
Ref CM4 56			
£1.27 per M	. £30.06 p	er 30M reel.	3 7mm
Black	Brown		O/D
Green	Red		
Ref CM6 84	1/0.30mm,	6mm², 50am	ps.
£1.87 per M	. £44.92 p	er 30M reel	4.3mm
			-1.011111

Black Green Red O/D**Ref CM10** 80/0.40mm, 10mm², 70amps.

£3.06 per M. £75.10 per 30M reel.

Green

Black

6mm O/D

Multicore cable

Comprise a number of single thinwall cables sheathed in black PVC sleeving.



Red

Ref.	Cable spec	Amps	O/D	Μ.	30M
CM211	2 x 0.5mm ²	11	5mm	61p	£14.88
CM216	2 x 1.0mm ²	16	5.5mm	77p	£19.56
CM225	2 x 2.0mm ²	25	7mm	£1.28	£34.88
CM233	2 x 3.0mm ²	33	4x7mm	£1.85	£49.50
CM242	2 x 4.5mm ²	42	6x9mm	£2.56	£67.42
CM316	3 x 1.0mm ²	16	5.5mm	£1.17	£31.42
CM325	3 x 2.0mm ²	25	7.5mm	£1.88	£52.84
CM414	4 x 1.0mm ²	16	6mm	£1.33	£35.14
CM514	5 x 0.75mm ²	2 14	7mm	£1.46	£40.10

Note: inner colours cannot be selected

All cables are round except CM233 & CM242. These are flat.

Tinned multicore cable

Available in 2 core & 3 core, with black outer sleeving (round). 2 core has black and red inner cables, 3 core has black, red and green inner cables.



Ref.	Cable spec	Amps	O/D	Μ.	30M
TM221	2 x 1.5mm ²	21	6.4mm	£1.23	£31.82
TM229	2 x 2.5mm ²	29	6.7mm	£1.76	£46.90
TM321	3 x 1.5mm ²	21	6.1mm	£1.68	£44.62
TM329	3 x 2.5mm ²	29	7.4mm	£2.52	£68.64

Battery & starter cable

Black or Red.

315

475

Priced per metre but we can supply any length to within a cm.		No	ote; o/d includ	des insulation.	
Ref.	Cable.	mm².	O/D	Amps	М.
126	126/0.40	16	7.3mm	110	£3.37
196	196/0.40	25	9.7mm	170	£5.11

12.2mm

14.6mm

300

415

£8.25

£12.43

Tinned battery & starter cable

40

60

Black or Red.

315/0.40

475/0.40

The tinned copper conductors make this cable more resistant to corrosion. Use in the automotive, marine and other harsh environments.

Ref.	Cable.	mm².	O/D	Amps	М.
CM16	203/0.30	16	8.3mm	110	£4.86
CM25	322/0.30	25	10.1mm	170	£7.29
CM35	455/0.30	35	11.8mm	240	£10.14
CM50	637/0.30	50	13.3mm	345	£14.30

Battery/starter cables are also suitable for making your own jump leads if our standard stock doesn't meet your requirements. See page 19 for jump lead set & battery clips.

Earthing braid

					the second se
Ref.	Cable.	mm².	O/D	Amps	Μ.
1616	16x16/0.30	19	7.2mm	130	£9.50

Welding cable

Very high flexibility cables.

Made from hundreds of copper strands. Max 600 Volt Sheathed with soft Black PVC.

Ref.	Cable.	mm².	Amps.	O/D	Μ.
306	204/0.30	16	110	8.0mm	£3.39
680	444/0.30	35	240	12.0mm	£6.81

Trailer cable

Comprise a number of single cables sheathed in black PVC sleeving.

Ref.	Cable.		O/D	Μ.
TC7	7-core,	6 x 1mm ² + 1 x 2mm ²	8.3mm	£2.36
TC8	8-core,	7 x 1mm ² + 1 x 2mm ²	8.8mm	£4.79
TC10	10-core,	9 x 1mm ² + 1 x 2mm ²	11mm	£5.75
TC13	13-core,	8 x 1.5mm ² + 5 x 2.5mm ²	13mm	£8.78
Noto: i	nnor colour	s are standard trailer colours		

ote; inner colours are standard trailer

Speaker cable

Ref.	Cable spec	Amps	O/D	Μ.	100M
SF6	2 x 0.75mm ²	6	4.3 X 2.1	54p	£52.26
SF10	2 x 1mm ²	10	4.7 X 2.3	66p	£54.40

HT cable. 7mm o/d

Please see page 14 for the fittings for HT cable.

Ref.	Core & i	insulation.	Colour.	М.	30M.
HTCB	Copper,	PVC	Black	88p	£22.76
HTCR	Copper,	PVC	Red	88p	£22.76
HTSILB	Carbon,	Silicone	Black	£1.84	£51.54

Prices ex-vat.

Cable Grommets & Markers

Cable markers

Thread on plastic markers.



For cable identification. To fit cables 0.65mm² - 3mm² Cable o/d 2-5mm. Pack of 200 assorted numbers 0-9. **Ref:CM £6.24**

Self adhesive cable markers.

Sheet of 80 assorted self adhesive wrap around cable markers (numbers 0-9). Ref: WM1J £1.38

Cable puller

5 metre long flexible nylon cord for pulling cables through lengths of sleeving. **Ref: GPN3 £7.89**



Cable stripper tool



Strips the insulation from the cables in all sizes from 0.65-6mm² without the need for adjustment. Tool also includes cable cutter. Length : 212mm.



cutter for cutting cables up to 70mm². Length: 236mm. **Ref: TT50 £18.26**



Edge protection Beading

Black PVC. For fitting over the edges of panels and to protect cables through sharp edged cut out sections.

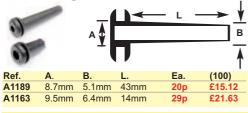
Fits panel thickness 0.8mm-1.6mm O/D 5mm.

Ref: PSI 57p per M. £33.97 per 75M. coil.



Fits panel thickness 2.0mm-3.0mm. O/D 7.0mmx6.0mm Ref: RA1 97p per M. £61.00 per 75M coil.

Sleeved grommets



PVC grommets Black.







25% off 1000 grommets in one size

		_		()
Ref.	Α.	В.	p(qty)	(50)
G6	4mm	6.4mm	£1.00(10)	£2.24
G8	5.6mm	7.9mm	£1.00(10)	£2.08
G10	8mm	9.5mm	£1.00(10)	£2.37
G12	8mm	12.7mm	£1.06(10)	£3.97
G16	11mm	14mm	£1.30(10)	£4.88
G20	12mm	19mm	£1.88(10)	£7.05
G25	19mm	25mm	22p(ea)	£8.24
G32	24mm	32mm	36p(ea)	£13.37
G38	32mm	38mm	40p(ea)	£14.92
G50	44mm	50mm	83p(ea)	£31.29
BG6		6.4mm	£1.00(10)	£2.52
BG8		8mm	£1.00(10)	£2.56
BG10		9.5mm	£1.00(10)	£2.83
BG12		12.7mm	15p(ea)	£4.25
BG16		16mm	15p(ea)	£4.88
BG20		20mm	23p(ea)	£8.57
BG25		25mm	26p(ea)	£9.76
BG32		32mm	44p(ea)	£16.42
BG38		38mm	46p(ea)	£17.39
BG50		50mm	62p(ea)	£23.21

Grommet packs

Cable grommet pack. Contains 25 cable grommets. 4mm-11mm (dim A) Ref: MCS312 £2.43

Blanking grommet pack.

Contains 25 blanking grommets. 6.4mm-16mm (dim B) Ref: MCS314 £2,91



Grommet kits



Cable grommet kit. Ref:CGK. 250 assorted black PVC cable grommets in 8 sizes G6-G32.....£23.51

Blanking grommet kit. Ref:BGK. 250 assorted black PVC blanking grommets in 8 sizes BG6-BG32.....£25.62

Cable & blanking grommet kit. Ref:CBK. 250 assorted black PVC cable & blanking grommets in sizes G6-G32 & BG6-BG32.....£25.15

Prices ex-vat.

Cable Protection

Tape

PVC tape, adhesive

Colours: Black, Red, Blue. Ref:TA 19mm x 20M 87p ea, £7.79(10)

PVC tape, non-adhesive

Colour: Black. Used in the manufacture of harnesses. Stretch slightly as it is wrapped around the cables & the tape will grip on itself. Ref:TNA19 19mm x 20M £1.74 ea, £14.50(10) Ref:TNA25 25mm x 20M £2.22 ea, £18.50(10)

Cloth tape, adhesive

Colour: Black. Rayon cloth harnessing tape. Not self extinguishing. 19mm x 25M Ref:3370 £4.00 ea, £36.00(10)



PIB Self amalgamating tape (Polyisobutylene). Colour Black.

Used for waterproofing cable joints, connections and many other waterproofing applications. PIB tape when wrapped

onto itself will amalgamate to create a complete water seal. Conformable, easy to apply. 25mm x 10M Good electrical properties. Ref:PIB £8.10 ea, £72.90(10)



Tank tape Colour: Black

Extremely strong waterproof cloth tape Excellent waterproofing properties. Many uses. 50mm x 50M Ref:1745B £4.27 ea, £38.47(10)

Heat resistant tape

Aluminium covered fibreglass adhesive tape. Protects against heat up to 815°C & abrasion. 37mm x 4.5M roll. Ref: 55738 £30.82



Twistwrap sleeving



Black polyester woven braid, with a memory which makes the material wrap around on itself. Can be opened out to fit around cables then will spring back to its original circular form to cover the cables. Very flexible and easy to use. To cover harness cables with easy access for cables along

route. Wraps around				£(qty)
approx 11/2 times the	TW5	5mm	£1.04	£46.25(50M)
diameter.				£60.00(50M)
	TW13	13mm	£1.50	£68.76(50M)
	TW16	16mm	£2.75	£65.63(25M)

PVC sleeving



For covering and protecting cables. Good resistance to oil, water and diluted acid.

Temperature rating -20 to +70 $^{\circ}$ c. 'Cables' in the table refers to the approx number of 1mm² thinwall cables that will fit into the sleeve. **Colour: Black**.

Ref.	Bore.	Wall.	Cables.	М.	£(QTY)
S4	4.5mm	0.5mm	2	26p	£10.50(100)
S6	6mm	0.5mm	4	31p	£12.22(100)
S8	8mm	0.5mm	8	37p	£15.52(100)
S10	10mm	0.5mm	12	44p	£19.62(100)
S12	12mm	0.5mm	16	73p	£23.30(100)
S14	14mm	0.75mm	۱	82p	£27.37(100)
S16	16mm	0.75mm	า	92p	£31.50(100)
S20	20mm	1mm		82p	£33.07(50)
S25	25mm	1mm		£1.03	£45.14(50)

Spiral binding



Rapid method of bundling cables 'in situ'. Grips firmly by spring memory of the plastic. **Colour: Black.**

Ref.	Bore.	Bundle dia.	М.	25M.
SB3B	3mm	3-8mm	33p	£5.80
SB6B	6mm	5-25mm	41p	£7.25
SB12B	12mm	10-50mm	72p	£14.28

Braided sleeving

Colour: Black. Material: Polyester.



Offers superior protection against abrasion. Ends should be melted with a hot iron or covered with a piece of heat shrink sleeving to prevent unravelling.

Ref.	Bore.	Fits.	Μ.	100M
BS6B	6mm	5-7mm	72p	£60.42
BS8B	8mm	6-9mm	80p	£68.40
BS10B	10mm	8-12mm	94p	£82.93
BS12B	12mm	10-14mm	£1.13	£101.00

Heat resistant sleeving

Manufactured in fibreglass with acrylic coating. Protects cables against heat up to 155°c and against abrasion to class F. Unaffected by oil or petrol. **Colour: Black.**

at	Ref.	Bore.	М.
	33440	4mm	£1.34
	33460	6mm	£1.53
	33480	8mm	£1.97
	33520	12mm	£2.50



Cable Protection Heat shrink sleeving Polyolefin.

Can be used to provide permanent insulation over terminals, connections and wiring or for identification. Will shrink down to half its original diameter. Shrink temperature 110°c-200°c. Good resistance against chemicals.

Ref.	Bore.	1M.
HS2	2.4mm	62p
HS3	3.2mm	62p
HS4	4.8mm	62p
HS6	6.4mm	72p
HS9	9.5mm	82p
HS12	12.7mm	£1.07
HS19*	19.0mm	£1.45
HS25*	25.4mm	£2.50
HS38*	38.0mm	£2.77
HS50*	50.0mm	£5.08

Operating temperature range -50°c to +125°c. Supplied in 1 metre lengths.

Colours:Black,Red, Blue,Yellow, Clear.

*Note: ref HS19.25.38.&50 only available in black or red.

Polyolefin heat shrink sleeving kits Black kit,

Contains approx 10M of heat shrink sleeving, supplied in 100mm lengths in Black and six sizes (2, 3, 4, 6, 9,12mm). All in a tough plastic case. Ref:HSKB £16.34



Coloured kit.

Contains approx 9.5M of heat shrink sleeving in five colours (black, red, yellow, blue and white) and four sizes(3,4 9.12mm) in 50mm lenghths in a plastic case. Ref:HS172 £13.00

Coloured pack,

Contains approx 6M of heat shrink sleeving in five colours (black ,red, yellow, blue, white) and four sizes (3, 4, 6, 12mm) in 200mm lengths.

Ref:HS30 £6.30

Heat shrink kit with gas shrink tool.

Kit contains 65 x 100mm pieces of heat shrink in sizes 2 - 9mm. Gas powered shrink tool with variable output. Uses standard butane gas. Contained in a tough storage hox Ref: HSGTK £21.50

Butane blow torch

Butane blow torch ideal for heat shrink sleeving up to 6.4mm bore & for use on heatseal terminals. Refillable from standard butane gas lighter filler can. Ref: 45099 £15.59



Page 11

Adhesive lined Polyolefin

Heat shrink sleeving with a adhesive liner that melts whe heated to fill crevices. Whe cooled the tube forms a touc rigid homogeneous coverine Gives a permanent waterproo encapsulation. Shrinks down

an	Ref.	Bore.	1220mm.
en	LHS3	3.2mm	£2.56
en	LHS6	6.4mm	£3.53
gh	LHS9	9.5mm	£4.45
g.	LHS12	12.7mm	£5.20
of	LHS19	19mm	£7.05
m			

to 1/3 its original diameter. Self extinguishing. Supplied in 1220mm lengths only. Colours: Black. Red.

Woven heat shrink sleeving

Flexible heatshrinkable fabric. Designed to provide mechanical abrasion protection plus noise and rattle suppression. Will shrink down to half its original diameter. Colour: Black.



Flexible convoluted tubing

Colour: Black

Manufactured from nylon, offering high strength and flexibility. Good abrasion resistance. Available with or without a slit down the length which enables fitting in-situ, the 'spring' in the material closes the slit after fitting, protecting the cables. (Ref 'F' for not slit. ref 'SF' for slit).

Ref.	Bore.	O/D.	М.	£(QTY)
F7	7mm	11mm	61p	£40.37(100)
F11	11.5mm	15mm	79p	£55.63(100)
F16	16.5mm	21mm	97p	£70.60(100)
F23	23.5mm	28mm	£1.92	£90.17(50)
Ref(slit)	Bore.	O/D.	М.	£(QTY)
Ref(slit) SF7	Bore. 7mm	O/D. 11mm	<u>М.</u> 63р	£(QTY) £41.70(100)
SF7	7mm	11mm	63p	£41.70(100)
SF7 SF11	7mm 11.5mm	11mm 15mm	63p 82p	£41.70(100) £60.00(100)
SF7 SF11 SF16	7mm 11.5mm 16.5mm	11mm 15mm 21mm	63p 82p £1.01	£41.70(100) £60.00(100) £80.68(100)

Fittings for Convoluted

tube

Enable complete protection of the vehicle wiring system.



Tee piece

Temperature range -40 to +120°c. End fittings are for fixing to bulkheads.

Material: black nylon. Not suitable for slit tube.

	End fitting.		Tee pie	ce.
To fit.	Ref.	Ea.	Ref.	Ea.
F7	CA07	£3.16	T07	£5.56
F11	CA13	£2.90	T13	£8.94
F16	CA16	£3.16	T16	£8.78
F23	CA23	£4.78	T23	£12.38

Prices ex-vat.







Cable Fixings

'P' clips Black nylon



Ref.	Dia.	(10).	(50)
X1	4.8mm	£1.00	£1.86
X2	6.4mm	£1.00	£2.55
X3	8mm	£1.00	£2.31
X4	10mm	£1.00	£2.96
X6	12.7mm	£1.00	£3.76
X8	14-16mm	£1.96	£7.35
X11	17-20mm	£1.52	£5.70
X14	22-25mm	£1.82	£6.84

5mm fixing hole

25% discount when you buy 1000 in one size

'P' clip kit

Black nylon.

An assortment of 230 black nylon cable clips in sizes X1-X8. In a handy plastic partitioned case. Ref:XK £20.03

'P' clips Solid brass

Hole Ref. Dia. Ea. 00266 3.2mm 61p 5mm 00267 10mm 4.2mm 87p 00263 15mm 5 0mm £1.03 00264 20mm 6 4mm £1.11

St.

Solid brass P-Clip kit. Contains 80 assorted clips in the sizes as listed above. In a tough partitioned case with removable compartments.



Ea. (10)

32p £2.63

34p £2.83

36p £2.98

40p £3.38

38p £3.20

51p £4.25

49p £4.08

56p £4.70

57p £4.75

68p £5.65

69p £5.73

67p £5.60

82p £6.85

67p £5.60

98p £8.15

(25)

£12.80

£18.07

£21.47

£23.05

Dia.

5mm

6mm

8mm

10mm

11mm

13mm

14mm

16mm

18mm

19mm

21mm

22mm

24mm

25mm

190899

190900

190901

190902

190903

190904

190905

190906

190907

191668

190908

191669

190909

191417 29mm

Ref: BPCK £51.85

'P'clips. Steel Ref. 191667



Bright zinc plated mild steel. Lined with synthetic rubber. Provides firm support with protection from vibration & chafing. Stud hole is 6mm.

P'clip kit Steel

An assortment of 100 steel cable clips as above in sizes 5mm-18mm, plus 25mm dia. Contained in a tough partitioned plastic case with carry handle. Ref:SPCK £39.51



'P' clips Stainless steel

Ref.

RSG5

Dia.

5mm



Stainless steel, lined with RSG12 synthetic rubber. Provides RSG16 firm support with protection RSG18 from vibration & chafing. RSG22 Stud hole is 6.4mm.

'P' clip kit

Stainless steel

100 assorted stainless steel cable clips in all sizes, in tough partitioned case with carry handle. Ref:SSPK £65.00



Ea. (10)

69p £6.22



Ally sticky clips Material: aluminium.

Self adhesive base.					
Ref.	Max dia.	(10).	(50)		
SCS	6mm	£1.48	£5.57		
SCL	10mm	£1.84	£6.90		
SC4	19mm	£5.30	£19.86		

SCS SCL SCL

Mounting clips Material: White nylon.

Self adhesive. Enable cables to be rapidly fixed or removed.

Ref.	В.	Ea.	(100)
MCS	5mm	15p	£10.68
MCM	8mm	23p	£17.58
MCL	15mm	26p	£19.86

Cable clamps

				- 1
Ref.	Dia.	Ea.	(100)	4
4J	6mm	24p	£20.20	
6J	9mm	26p	£21.37	
8J	12mm	29p	£24.27	
10J	14mm	31p	£26.12	
11J	16mm	35p	£29.40	
12J	18mm	34p	£27.92	

Chassis clips



Black self adhesive with releasable snap locks & a 4mm mounting hole



Plated steel clips suitable for securing cables or conduit along chassis members or steel support frames.

Ref.	Fits panel.	Dia.	Ea.	(25)
CC20	4-7mm	6-7mm	57p	£11.95
CC21	4-7mm	8-9mm	57p	£11.95
CC22	4-7mm	10-11mm	62p	£12.92
CC23	4-7mm	12-14mm	62p	£12.92
CC30	2-4mm	6-7mm	57p	£11.95
CC31	2-4mm	8-9mm	57p	£11.95
CC32	2-4mm	10-11mm	62p	£12.92
CC33	2-4mm	12-14mm	62p	£12.92



Cable Ties

Cable tie tensioning tool

TT20. For cable ties 2.2-4.8mm wide. Pistol grip style. Rapidly tensions cable tie then automatically cuts off the excess at the preset tension. Adjustable with knurled thumb screw. Ideal tool when using a lot of ties. All metal construction. Length: 160mm.



Ref: TT20 £24.00

Coloured cable tie pack 350 assorted ties.

White, black, blue, red, yellow. In sizes: 100x2.5, 200x3.2, 280x4.8mm Ref:DB350 £9.58



Cable tie pack

Contains 75 assorted black cable ties, in sizes: (mm) 96x2.5, 120x4.8, 190x4.8. **Ref:BP75 £6.51**



Cable tie mounts

Self adhesive cable tie bases, with a hole for screw fixing if required.

Material: Black Nylon.

Ref. Max tie. Ea. (50)

 SABSB
 3.6mm
 15p
 £3.00

 SABLB
 4.8mm
 15p
 £3.95

Screw fixing cable tie bases. Material: Black Nylon.

 Ref.
 Max tie.
 Ea.
 (50)

 CTEB
 4.8mm
 15p
 £4.47

 CTCB
 7.8mm
 16p
 £5.64



AT155 AT215

Pushfit cable tie mount. Fits 6mm hole. Material: white Nylon.

 Ref.
 Max tie.
 Ea.
 (100)

 PUM1
 7.8mm
 25p
 £18.60

Cable tie and fitting kit

Kit containing 100 each of 100, 140 & 200mm cable ties and a selection of 160 cable tie mountings in screw, push fit and self adhesive types.

Handy for all wiring loom assemblies, supplied in a tough storage case. Ref:CTFK £18.34



Cable ties Black nylon



25% discount when you buy 1000 in one size.

Ref.	Length.	Width.	(10)	£(qty)
CT100B	100mm	2.5mm	-	£1.00(100)
CT140B	140mm	3.6mm	-	£1.35(100)
CT160B	160mm	2.5mm	-	£1.62(100)
CT200B	200mm	4.8mm	-	£1.95(100)
CT20076B	200mm	7.6mm	£1.00	£5.20(100)
CT300B	300mm	4.8mm	£1.00	£3.15(100)
CT30076B	300mm	7.6mm	£1.00	£5.85(100)
CT360B	360mm	4.8mm	£1.00	£4.47(100)
CT370B	370mm	7.6mm	£1.00	£6.66(100)
CT430B	430mm	4.8mm	£1.30	£9.72(100)
CT530B	530mm	9mm	£2.05	£17.26(100)

Releasable ties. These ties have a releasing latch to unfasten the tie. Colour:Black.

CT200RB	200mm	7.6mm	£1.00	£5.68 (100)
CT300RB	300mm	4.8mm	£1.18	£8.89 (100)

Push mount cable ties

These cable ties have a moulding at the head that snap fits into a hole. The tie is then used in the usual way but is fixed to the panel. Fits panels up to 3mm thick. Colour: white.

AT155 fits a 4.5mm hole. AT215 fits a 6mm hole.

•	:0			
Ref.	Length.	Width.	(10)	(100)
AT155	155mm	3 5mm	£1.00	£4.62

4 6mm

£1.00

£6.54

Screw mount cable ties

215mm

These cable ties have a 5.3mm hole moulded at the head allowing the tie to be fixed by screw or bolt to a panel. The tie is then used in the usual way but is fixed to the panel. Available in white only.

Ref.	Length.	Width.	(10)	(100)
ET200	200mm	4.8mm	£1.06	£7.92

Stainless steel cable ties

Secure fixing. Ideal for cv joint boot

3				
Ref.	Length.	Width.	Ea.	(50)
E407	210mm	4.6mm	48p	£20.00
E408	360mm	4.6mm	54p	£22.50



H.T. Terminals & Tools

H.T terminals & insulations

Suitable for standard 7mm HT cable. See page 8. **Spark plug covers.** Material: **Hypalon.**

	Street P	0	
	RS76		RS221
Ref.	To fit.	Ea.	£(qty)
RS76	IT117	97p	£20.12(25)
RS221	IT103	88p	£16.77(25)

Spark plug terminals.

Fitted with spring clip for added security and longer life. Material: **Tinned steel.**

8	b IT117		IT103
Ref.	To fit.	Ea.	£(qty)
IT117 (Angled)	RS76	34p	£12.60(50)
IT103 (Straight)	RS221	31p	£13.18(50)

Distributor & coil covers.

Material: Black PVC.

0-	RS20	RS215	RS218
Ref.	Int dia.	Ea.	£(qty)
RS20	15mm	38p	£7.07 (25)
RS215	14mm	85p	£16.02 (25)
RS218	11mm	29p	£5.44 (25)

Distributor & coil terminals.

Material: Plain brass.

ГТЗ	5	IT111	1T248
Ref.	To fit.	Ea.	£(qty)
IT35 (Angled)	RS215	53p	£20.04 (50)
IT111 (Straight)	RS20 or RS218	32p	£13.60 (50)
IT248 (Screw in	a) RS20 or RS218	46p	£19.55 (50)

Spark plug covers

Ref: W76020 Replica of Lodge R90, rubber cover. None suppressed £2.08

Ref: W76022 NGK LB05F with rubber seals. Suppressed at 5K ohm £3.70

Ref: SB05F NGK SB05F with rubber seals. Suppressed at 5K ohm. Length 77mm. £3.06







Ignition terminal crimp kit



Contains a selection of H.T. terminals and covers. Includes all the terminals and covers for spark plug, distributor and coil shown on left. (RS76, RS221, IT117, IT103, RS20, RS215, IT35, IT111) plus H.T. terminal crimping tool ICT7. **Ref: ITK £85.80**

Crimping tool. H.T. terminals



Professional tool, enables the user to produce ignition cables comparable to factory produced leads. Solid construction, spring return handles. One die curves the terminal around the cable, the other die crimps the terminal. **Ref: ICT7 £58.80**

Using the crimp tool ICT7.

1. Fit the insulation over the cable.

 Strip the cable insulation and fold back the conductor.
 Insert the cable into rear terminal lugs ensuring the cable covers the holding spike on the terminal.

 Roll rear lugs of terminal using roll section of crimp tool.
 Crimp lugs using the crimp section of tool.

Spark plug gap tool

Double headed spark plug coin tool. Imperial on one side, and metric on the other. With gap opener. **Ref: SGT £3.75**





Prices ex-vat.

Battery Maintenance & Cables

Battery post brush with additional external brush.



Battery post brush with metal body specially designed for cleaning round battery posts and terminals.

Ref: BTT2 £2.95

Anti-corrode compound

An anti-corrosive compound that kills corrosion and inhibits future deteriation of terminals and metal parts on or near lead acid batteries. **Ref:13999. £3.52**

al

Battery boxes

Black plastic battery box with webbing tie down strap and 2 x base fixing clamps. The removable lid has cable entry openings underneath.



Ref:	Internal dims (WxLxH)	Price.
8740	180 x 275 x 200 mm	£17.52
8745	185 x 325 x 200 mm	£18.22

Battery fixing clamp



Plated and punched angle bracket with two threaded hold-down 'U' bolts with wing nuts. For most popular sizes of battery. Dims: 380mm x 20mm **Ref: 8775 £2.80**

12V Solar power battery maintainer





12V/2.4W for car & leisure batteries. Durable water resistant casing. Complete with suction cups for windscreen mounting. 12V DC power plug, battery clips & 2.7 metre lead supplied. Can be left connected unattended. **Ref: RSP240 £28.09**

Battery & starter cables

With crimped on clamps & 8mm rings.

900	BCP(red), BCN(black)
Para	BER
Contraction of the second seco	ECR
Un the second	

Cable on BCP/N is 16mm² (224/0.30).

Braid on BER & ECR is round 19mm² (16x16/0.30).

Length	BCP/N	BER	ECR
150mm	-	-	£2.45
300mm	£4.83	£5.71	£3.55
450mm	£5.34	£7.04	£4.96
600mm	£5.84	-	÷
760mm	£6.34	-	£7.60

With crimped on 8mm ring terminal each end.

0	-	_	-
0	_	_	-
	SSP (Red)	/ SSN (Black)	
Ref	Cable Size	Length	Price.
SSP/N225	16mm ²	225mm	£1.81
SSP/N375	16mm ²	375mm	£2.23
SSP/N600	16mm ²	600mm	£3.07
SSP/N915	16mm ²	915mm	£4.16
Ref	Cable Size	Length	Price.
SSP/N225L	25mm ²	225mm	£3.46
SSP/N375L	25mm ²	375mm	£3.98
SSP/N600L	25mm ²	600mm	£4.67
SSP/N915L	25mm ²	915mm	£6.32

Battery terminal crimp kit



Battery ring terminal kit comprising of a selection of 52 copper tube terminals suitable for 10mm² & 16mm² cable, quality ratchet crimp tool plus lengths of black & red heat shrink for a professional finish.

All contained in a tough storage box with carry handle. **Ref: BTCK £48.02**

Battery Connectors Copper tube terminals

Tin plated copper tube terminals. Can be crimped or soldered.



Ref.	Hole.	Cable size.*	Ea.	Ten.
CTT10/6	6mm	10mm ²	46p	£3.85
CTT10/8	8mm	10mm ²	46p	£3.85
CTT10/10	10mm	10mm ²	46p	£3.85
CTT10/12	12mm	10mm ²	46p	£3.85
CTT16/6	6mm	16mm ²	56p	£4.70
CTT16/8	8mm	16mm ²	56p	£4.70
CTT16/10	10mm	16mm ²	56p	£4.70
CTT16/12	12mm	16mm ²	56p	£4.70
CTT25/6	6mm	25mm ²	67p	£5.01
CTT25/8	8mm	25mm ²	60p	£4.80
CTT25/10	10mm	25mm ²	60p	£4.80
CTT25/12	12mm	25mm ²	67p	£5.01
CTT35/6	6mm	35mm ²	58p	£4.96
CTT35/8	8mm	35mm ²	58p	£4.96
CTT35/10	10mm	35mm ²	58p	£4.96
CTT35/12	12mm	35mm ²	58p	£4.96
CTT50/6	6mm	40-50mm ²	90p	£6.72
CTT50/8	8mm	40-50mm ²	96p	£7.18
CTT50/10	10mm	40-50mm ²	90p	£6.72
CTT50/12	12mm	40-50mm ²	£1.08	£8.12
CTT70/8	8mm	60-70mm ²	£1.68	£12.57
CTT70/10	10mm	60-70mm ²	£1.52	£11.40
CTT70/12	12mm	60-70mm ²	£1.68	£12.57

Cable size refers to the cable conductor size that will fit into the terminal, e.g. CTT16 will fit 16mm battery cable². (See page 8 for battery and starter cable)

PVC cover for CTT16-25 rings.

Black: AC4B Red: AC4R 84p ea, £7.56(10)

PVC cover for CTT35-50 rings Black: AC5B Red: AC5R 84p ea, £7.56(10)

PVC cover for CTT70 rings. Black: RS312B Red: RS312R 89p ea, £7.40(10)

Right angled copper tube terminals

Tin plated copper tube terminals. Can be crimped or soldered.

Ref.	Hole.	Cable size.	Ea.	Ten.
FTT16/6	6mm	16mm ²	67p	£5.70
FTT16/8	8mm	16mm ²	71p	£6.04
FTT25/8	8mm	25mm ²	82p	£6.97
FTT25/10	10mm	25mm ²	84p	£7.14
FTT50/8	8mm	50mm ²	£1.26	£10.71

Copper tube terminal kits



Ref: CTTKS 45 Pieces. Contains a variety of different ring sizes suitable for 10, 16, & 25mm² cable. £20.58

Ref: CTTKL 35 Pieces. Contains a variety of different ring sizes suitable for 35, 50, & 70mm² cable. £28.90

Copper tube ring terminals



Ref.	Hole.	Cable .	Ea.	(50).
T14-6	6mm	10-16mm ²	34p	£14.30
T14-8	8mm	10-16mm ²	78p	£42.62
T14-10	10mm	10-16mm ²	40p	£16.50
T22-6	6mm	16-25mm ²	55p	£23.10
T22-8	8mm	16-25mm ²	78p	£32.30
T22-10	10mm	16-25mm ²	55p	£23.10

Rubber covers.



All rubber covers are Black apart from AC2R (Red)

	h
b	A
1 a	A
	A
Dimensions:	4
a,b and L are	Ē

Ref. b To fit. Ea. Ten. а L AC1 6 11 36 49p £4.10 AC2 T14-6,8 42p £3.52 7.5 15 43 AC2R 7.5 15 43 T14-6,8 42p £3.52 AC3 9 15 60 T14-10 58p £4.86 RS126 11 15 42 T22 66p £5.50

mm

Battery clamps & covers

Clamps: tin plated brass or copper.

1000 1000	BTC20	4.		BTC30
2.		5.	3.	
	Pole.	Ref.	mm ²	Ea
1. Angle clamp	+	BT450P	40	£2.01
screw type	-	BT450N	40	£2.01
	+	BT451P	60	£2.75
	-	BT451N	60	£2.75
2. Stud/nut clamp	+	BT461P		£2.65
Stud size 8mm	-	BT461N		£2.65
3. PVC straight cover	Red	BTC10R		£1.01
Ū	Black	BTC10B		£1.01
4. PVC cover for 1.	Red	BTC20R		£1.04
Note choice of	Black	BTC20B		£1.04
cable entry.	Red	BTC30R		£1.04
cable entry:	Black	BTC30B		£1.04
5. PVC cover for 2	Red	BTC50R		£1.03
	Black	BTC50U		£1.03
Nut/halt far hatt -law				
Nut/bolt for batt. clam	ps	BTNB		55p

Prices ex-vat.

Battery Connectors & Tools Battery/starter terminal crimp tools

Ref: TN70. Heavy duty tool for indent crimping battery terminals on to cables 10-120mm². Screw adjustment to suit the size of cable and terminal. Length: 570mm, £79.86



Ref: TN76. For crimping ring terminals on cables from 6-50mm². Hexagonal crimping with revolving dies to suit the size of cable and terminal. Length: 390mm, £66.88



Ref: TN1016. Ratchet crimping tool for indent crimping ring terminals onto 10mm² and 16mm² cable. Length 240mm. £28.35



Ref: TT75 Ratchet crimping tool for indent crimping ring terminals on to cables 1.5-10mm². Length: 255mm. £29.35

Battery clamps-saddle type

Saddle type main cable connection.

Positive with auxilliary cable provision Ref: BT526 £3.53 Negative Ref: BT527 £3.53



Battery terminal crimp kit

Kit comprising of a selection of copper tube terminals suitable for 10mm² & 16mm² cable, quality ratchet crimp tool plus lengths of black & red heat shrink sleeving. All contained in a tough storage box. Ref: BTCK £53.58





Quick release connectors

Quick release clamp mechanism to easily attach or detach the terminals from a vehicle battery. Manufactured from copper-zinc alloy,



stainless steel & polypropylene. Rated max 500amps. Max cable 40mm² Ref: B166P, Red (+)

£6.25 each

Butt connectors



Ref: B167N Blue (-)

2

Includes heat shrink sleeving	
-------------------------------	--

Item.	Ref.	\mathbf{mm}^2	Ea
1. Tinned copper.	CTB16	16	70p
For crimp or soldering.	CTB25	25	81p
	CTB50	50	£1.03
	СТВ70	70	£1.50
2. Brass body with 4 grub screws	46600	25	£6.16
	46601	40	£6.76

Battery/starter flag terminal

Ford type brass, 6.3mm hole. Conductor dia 9.5mm.

Rof Hole. Cable. Ea. (25)F353 6.3mm 40mm² £1.13 £23.47

Disconnect battery terminal

Fits on negative battery post. Turn the plastic wheel to auickly isolate the battery.



Ref: 02100.....£6.95 ea Ref: 02101. As above but fitted with a bridging fuseholder with 5A glass fuse for clock & alarm feeds etc.. £8.50 ea

Prices ex-vat.





Battery Switches Battery isolator switches





KEY

Rated at 100A continuous @ 12 volt 500A for 5 seconds.

Useful when the main battery current needs to be cut off. Removable key. Ref: **BIS**. 10mm terminal studs. **£5.78** Ref. **BIS8** 8mm terminal studs **£7.85** Ref: **BISC**. Cover for BIS. **£0.99**

Ref: **BISALP**. Designed to prevent damage to alternator & electrical systems when isolating the battery. Isolates main battery feed as well as the ignition feed, thus preventing engine run on,(obligatory in competition). 10mm terminal studs..... £21.69

Spare key (fits both switches). Ref: KEY.......£1.00 Spare resistor for BISALP. Ref:ALPR......£4.34

Security battery isolator switch

Removable key in the 'on; and 'off' positions. Includes 2 keys. 100Amps @ 24v, 500A for 5 secs. 10mm studs. Ref:60520. £41.62

Blank spare key (Requires cutting) Ref:60519 £7.30

Battery isolator switch

100Amps @ 12v Fixed key, 10mm studs. Fits a 19mm round hole. **Ref: MBS4......£13.55**

Heavy duty

250Amps @ 24v, 2500A for 5 secs. Phenolic moulding with aluminium fixing plate and fixed key. 10mm studs Requires a 30.5mm hole. Ref:60560.....£41.75

Heavy duty battery isolator

Phenolic moulding with steel fixing plate and removable key. 250Amps @ 24v, 2500A for 5 secs. 10mm studs. Splashproof cover IP65. Requires a 24mm hole. **Ref:60550...£26.50** Spare key:-**Ref:60555....£5.10**







Remotely switched battery isolator

Electronically switched double pole battery isolator. Phenolic moulding with 'Sheffield plate' contacts and studs. Includes terminal covers. 250A @ 24v, 2500A for 5 secs. Normally open contacts. 10mm studs for main connections. 12V Ref:60532 £120.10 24V Ref:60544 £120.10



Emergency stop heavy duty battery isolator

Heavy duty emergency push button isolator switch. Twist button to connect, push to disconnect. Rated at 250A continuous (24V). M10 studs, 6mm fixing holes. **Ref: 60545 £29.30**



Marine battery isolator switches

Marine battery isolator switch

Fixed control knob. 300A continous (1 hour)@48v.DC. 1000 amps for 5 seconds. M10 studs E-Approved. Dimensions: 70mm x70mm x78mm deep. Ref: 60511 £20.98

Marine double pole battery isolator

Fixed handle. 250A @ 24V, 2500A for 5 secs. M10 studs. Switches both poles simultaneously. Ref:60526...£119.00

Marine battery change over switch

Selects between batteries; one, two, both or off. 175A at 12v, 300A for 5 seconds. Dimensions: 160mm dia. 65mm deep. Connection by 10mm studs. Ref:60510 £41.48

Marine battery isolator switch

Removable key. 100A @ 24V, 500A for 5 secs. M10 studs. Ref:60513...£29.98 Spare key:-Ref:60597...£3.22









Prices ex-vat.

Solenoids & Power Connectors Starter solenoids 12v



Ref:33509 £25.00

With rubber covered manual button. Replaces Lucas 76145, 76417, 76425, 7642, 76445, 76450, 76460, 76464, 76465, 76470, 76471, 76485, 76486, 76703.

Ref:33502 £15.58

Replaces Lucas 76795, 76789, 4ST, SRB335, 8mm studs Ref:33500 £13.50

Replaces Lucas 76766, 76772, 4ST, SRB325, 8mm studs,

Anderson connectors



For quick and safe connecting and disconnecting of battery or welding cables. Note that two of the same connectors are required.(see inset), one mounted on the car etc, the other to the leads of a portable power supply, battery etc. Colours for connector; Red or grey. Handle is red. (Red and grev connectors are not compatible).

50 amp connectors.

Ref.	Description.	Price.
PP50R	Red connector with 16mm ² terminals	£6.49
PP50S	Grey connector with 16mm ² terminals	£6.78
180535	Terminals for 6mm ² cable.	£2.62 pair
180390	Terminals for 16mm ² cable.	£2.70 pair
PPHS	Handle. Includes screws & nuts	£4.46
43195	Cover for power contacts when not in u	ise. £3.43
SB50L	Long dust/moisture PVC protection slee	eve £2.80
SB50S	Short dust/moisture PVC protection sle	eve £2.64

175 amp connectors.

Ref.	Description.	Price.
PP175 R	Red connector with 50mm ² terminals	£10.42
PP175S	Grey connector with 50mm ² terminals	£9.66
180536	Terminals for 35mm ² cable.	£4.90 pair
PPH1	Handle. Includes screws & nuts	£7.79
PPP1	Cover for power contacts when not in u	use. £7.83
SB175	Dust/moisture PVC protection cover	£5.64

350 amp connector.

Ref.	Description.	Price.
PP350S	Grey connector with 60mm ² terminals	£17.31

Junction boxes



Suitable for joining together several large cables. Tough plastic construction with hinged lid to cover the connections. Single pole. 120A Max rating. Mounting lug at rear. 2 x 8mm, Studs 8mm, Ref: PJ1 £7.33

As above but with 3 x 8mm studs. Ref: PJ2 £9.69

Booster cables

High quality leads manufactured from the finest high grade copper and sheathed with the latest PVC elastomeric compound to ensure complete flexibility down to a temperature of -25°c. The clips on all the leads are fully



insulated, the insulation reaches over the nose of the clip, avoids accidental shorting. Suitable for petrol engines up to 6000cc & diesel engines up to 4000cc.

Ref.	Length.	Amps.	Cable.	Price.
JL620	5M	170	25mm ²	£54.54

Battery clips, or welding clamps Black or Red

Ref: BC180FR (Red) BC180FB (Black) £3.11 Ea

Rating 170 amps. Fully insulated. Takes up to 50mm² cable.



Ref: BC300R (Red) BC300B (Black) £4.01 Ea

Rated 300 Amps. Fully insulated. Takes up to 50mm² cable. Has a length of copper braid linking the two jaws (see picture on right). It eliminates pivot pin and spring overheating giving a longer more effective life.

Crocodile clips

Ref.	Amps.	Ea.	Price (10)
CC5	5	32p	£2.65 (10)
CC25	25	62p	£12.95(25)
CC50	50	55p	£4.75 (10)



CC5

CC25

CC50

Prices ex-vat.

Pre Insulated Terminals

Terminals are tin plated brass, insulation is vinyl. Most terminals have a collar within the insulation for extra grip on the cable. Terminals not priced are not available. The colour of the insulation denotes the cable size it will fit. All terminals can be supplied in bulk packs of 1000 at 25% discount.

Red. 0.65-1.5mm²

Blue. 1.5-2.5mm²

Yellow. 3-6mm²

Ring.	C	1	-
Hole dia.	Ref.	(10)	(50)
3.2mm	RR32	£1.00	£1.52
4.3mm	RR4	£1.00	£1.75
5.3mm	RR5	£1.00	£1.75
6.4mm	RR6	£1.00	£2.34
8.4mm	RR8	£1.00	£2.34
10.5mm	RR10	£1.00	£3.35

Ring.	C	1	-
Hole dia.	Ref.	(10)	(50)
3.2mm	BR32	£1.00	£1.87
4.3mm	BR4	£1.00	£1.87
5.3mm	BR5	£1.00	£1.87
6.4mm	BR6	£1.00	£2.45
8.4mm	BR8	£1.00	£2.52
10.5mm	BR10	£1.00	£3.35

Ref.

(10)

(50)

Ring.	0	à	_
Hole dia.	Ref.	(10)	(50)
4.3mm	YR4	£1.00	£2.86
5.3mm	YR5	£1.00	£2.87
6.4mm	YR6	£1.03	£3.85
8.4mm	YR8	£1.18	£4.44
10.5mm	YR10	£1.18	£4.43
13mm	YR13	£2.18	£8.16

Male blade.*								
Blade.	Ref.	(10)	(50)					
2.8mm	RM2	£1.00	£2.74					
4.8mm	RM4	£1.00	£2.61					
6.3mm	RM6	£1.00	£2.08					

Female blade.*	E.	3	
Blade.	Ref.	(10)	(50)
2.8mm	RF2	£1.00	£3.64
4.8mm	RF4	£1.00	£3.16
6.3mm	RF6	£1.00	£2.45

Ref.

RPG



blade.*

Blade.

4 8mm

6.3mm

Fork. Int width.



6.4mm	BK6	£1.00	£2.45					
Male blade.*	C	- 5-			Male blade.	*	5-	_
Blade.	Ref.	(10)	(50)		Blade.	Ref.	(10)	(50)
4.8mm 6.3mm	BM4 BM6	£1.00 £1.00	£2.85 £2.40		6.3mm	YM6	£1.00	£3.55
Female blade.*		Đ.			Female blade.*	51	0	
Blade.	Ref.	(10)	(50)		Blade.	Ref.	(10)	(50)
2.8mm 4.8mm	BF2 BF4	£1.00 £1.00	£3.21 £2.26					
6.3mm	BF6	£1.00	£2.76		6.3mm	YF6	£1.00	£3.28
8.3mm	BF8	£2.15	£8.07		9.5mm	YF9	£1.53	£5.73
Piggyback				•	Piggyback.	A DE	d.	
6.3mm	Ref. BPG	(10) £1.00	(50) £3.42		6.3mm	Ref. YPG	(10) £1.98	(50) £7.44
Fully insulated female		1			Fully insulated female		-	

(50)

£1.00 £3.42

(10)

BFF6 £1.00 £3.42

insulated female blade.*	_	~	_
Blade.	Ref.	(10)	(50)
6.3mm 9.5mm		£1.39 £1.50	

* Note; 6.3mm is the most commonly used size of blade terminals.

Ref.

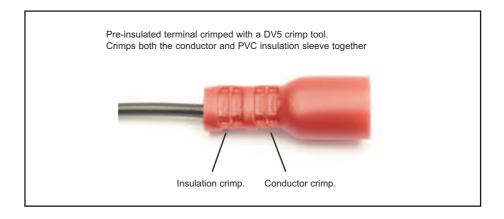
BFF4

Piggyback.

6.3mm

Pre Insulated Terminals

	Red.	0.65-1.	5mm²		Blue	. 1.5-2.5	imm²		Yello	ow. 3-6n	nm²
Bullet.	6	-	-	Bullet.	-	-		Bullet.	-		
Dia.	Ref.	(10)	(50)	Dia. 4mm	Ref. BB4	(10) £1.00	(50) £3.18	Dia.	Ref.	(10)	(50)
4mm	RB4	£1.00	£2.24	5mm	BB4 BB5	£1.00		5mm	YB5	£1.00	£3.49
Socket.		2	-	Socket.				Socket.			
Dia. 4mm	Ref.	(10)	(50) £4.29	Dia. 4mm	Ref. BS4	(10) £1.00	(50) £3.50	Dia.	Ref.	(10)	(50)
4000	RS4	£1.14	24.29	5mm	BS5		£2.91	5mm	YS5	£1.00	£3.73
Butt connector.	-		-	Butt connector	-	-	-	Butt connector.		_	
Standard	Ref.	(10) £1.00	(50) £2.42	Standard	BB	(10) £1.00	(50) £2.61	Standard	Ref. YB	(10) £1.42	(50) £5.34
Pin.		4		Pin.		4		Pin.			
Dia. 1.9mm dia	Ref.	(10) £1.00	(50) £2.76	Dia. 1.9mm dia	BP	(10) £1.00	(50) £3.10	Dia. 1.9mm dia	Ref.	(10) £1.90	(50) £7.14
1.9niii ua	TXP	21.00	22.70	Closed en connector coloured white.	d			i.enm dia	YP	£1.90	21.14
					_ Ref. BCE	(10) £1.00	(50) £3.12				



Pre Insulated Terminal Kits

The cases used in our kits are made from tough polypropylene to withstand the rough treatment encountered in workshop environments. Full descriptions of the cases can be found on page 94. The tools used in the kits are described on page 23.



Ref: P27DV

A comprehensive kit comprising 500 **pre-insulated** terminals in red, blue, yellow, of the type shown on pages 20 & 21. Includes male & female blades, forks, piggyback, rings, 4mm bullets & sockets, butts. Plus tool DV5 (see page 23) **£57.60**



Pre-insulated wiring/terminal kit

Ref: P27WK

General purpose wiring kit comprising 218 **pre-insulated** terminals in red, blue, yellow, of the type shown on pages 20 & 21. Includes male & female blades, piggybacks, rings, bullets & sockets, butts. Also includes cable ties sizes 200mm, 140mm & 100mm. Adhesive harness tape, 2 blade fuse holders & assorted blade fuses & cable grommets Plus tool DV5 (see page 23) **£39.72**

Prices ex-vat.

Crimp Tools For Pre Insulated Terminals

For crimping pre-insulated terminals shown on pages 20-24.

AM2. £4.90



Ref:AM2 Features long handles for comfort and cable cutter at nose for easy cable cutting. Includes insulation stripper and indent crimp for non insulated ring terminals. Length: 230mm £4.90

DV5. £18.56



Ref:DV5 A professional tool for crimping pre-insulated terminals. Robustly constructed with spring return ratchet action. Features simultaneous crimping of both the conductor and the insulation. Length: 225mm £18.56



Ref: P18

Contains a selection of 200 **pre-insulated** terminals and insulations of the type on pages 20 & 21. Includes male & female blades, piggybacks, rings, 4mm bullets & sockets. Note: No tool in this kit. **£17.23**

Heatshrink Pre Insulated Terminals

These terminals offer outstanding mechanical and weather resistance due to the use of a tough heat shrinkable polyamide sleeve, lined with a special hot melt adhesive around the crimp metal barrel. After crimping, the terminal sleeve is heated until adhesive melts and flows filling voids and providing excellent sealing with the cable.

Temperature rating -55°c to +125°c. Splashproof & humidity protected connections. Excellent mechanical resistance to vibration, bending etc. Electrical properties remain excellent after fluid immersion tests in diesel, fuel, brake fluid, antifreeze, 5% salt water, motor oil. Fully visible inspection through transparent tube.

Ref. RM6H	Ea.			-			4	
	Ea.	1		-		C		
RM6H		(50)	Ref.	Ea.	(50)	Ref.	Ea.	(50)
	44p	£18.41	BM6H	44p	£18.41	YM6H	57p	£25.90
ade	0	e.		0	2	5		lalf nsulated
Ref.	Ea.	(50)	Ref.	Ea.	(50)	Ref.	Ea.	(50)
RFF6H	78p	£32.57	BFF6H	80p	£33.40	YF6H	72p	£27.00
-	-		5	F				
Ref.	Ea.	(50)	Ref.	Ea.	(50)			
RB4H	52p	£21.49						
			BB5H	55p	£22.99			
1	-	-		1				
	Ea.	(/	Ref.	Ea.	(50)			
RS4H	61p							
			BS5H	64p	£26.51			
0	5		C	te	- Anno	C	1	
Ref.	Ea.	(50)	Ref.	Ea.	(50)	Ref.	Ea.	(50)
	36p	£14.59	BR4H	44p	£18.19			
	39p				£20.21			
RR6H	42p	£16.50						£26.47
			BR8H	63p	£26.25	YR8H	70p	£29.35
-	-	-	1	-			1	
			Ref.	Ea.	(50)	Ref.	Ea.	(50)
RHS	44p	£16.58	BHS	49p	£18.24	YHS	£1.11	£41.49
	Ref. RB4H Ref.	Ref. Ea. Ref. Sappa Ref. Sappa Ref. 42p Ref. Ea. Ref. Ea.	Ref. Ea. (50) Ref. Sapp £14.59 RR6H 39p £16.05 Ref. 42p £16.50 Ref. Ea. (50)	Ref. Ea. (50) Ref. Ref. S6p £14.59 BR4H RR6H 39p £16.05 BR5H RR6H 42p £16.50 BR6H BR8H Ref. Ea. (50)	Ref. Ea. (50) Ref. Ea. RS4H 61p £25.50 BS5H 64p Ref. Ea. (50) Ref. Ea. RR4H 36p £14.59 BR4H 44p RR5H 39p £16.05 BR6H 45p BR8H 63p BR8H 63p Ref. Ea. (50) Ref. Ea.	Ref. Ea. (50) Ref. 44p £18.19 RAH 36p £16.50 RRAH 43p £20.21 BR6H 43p £18.62 BR8H 63p £26.25	Ref. Ea. (50) Ref. BR3H 44p £18.19 RR6H 42p £16.50 BR6H 45p £18.62 BR8H 63p £26.25 YR6H BR8H 63p £26.25 YR8H	Ref. Ea. (50) Ref. Ea. (50) Ref. Ea. (50) BB5H 55p £22.99 Ref. Ea. (50) BB5H 55p £22.99 Ref. Ea. (50) BS5H 64p £26.51 Ref. Ea. (50) BR5H 49p £20.21 Ref. Ea. (50) BS5H 64p £26.51 Ref. Ea. (50) BR5H 49p £20.21 RR4H 36p £14.59 BR4H 44p £18.19 RR5H 39p £16.05 BR6H 45p £18.62 YR6H 64p BR8H 63p £26.25 YR8H 70p Ref. Ea. (50) Ref. Ea. 50

Fit the cables, apply heat to splice until solder melts & adhesive flows.



Heatshrink terminal crimping tool

Ref: TT320

Ratchet crimp tool designed specifically for heat shrink preinsulted terminals. Crimps Red, Blue and Yellow Size terminals 0.5mm² - 6.00mm². £25.95



Heatshrink pre-insulated kits.



Contains **126** assorted Heatshrink pre-insulated terminals. Includes male & female blades, bullets and sockets, rings, in-line splices & solder splices. Contained in a tough plastic partitioned box. **Ref: PHKIT £46.44**



Contains **80** assorted heatseal rings, butt connectors, and male & female connectors in a tough storage box. **Ref: K700 £26.51**

Page 24

Terminals to fit mouldings & Junction Boxes

Terminal extraction set.



Set of 2 tools for removing latched terminals from mouldings. Ref: 70399 £20.52

Fema	ale.		1	-	A
Ref: 30	0-852	Les.	Ref:3-765 3-7660,3-7 3-7671	.,	A
Ref: 3-72 3-7211	210,	Ref: 3-8070	0	Re	ef: 3-2050
Ref: 3-80	20	Ref: 3-	7209, -7212	Re	ef: 3-8050
Ref.	Cable.	Tab size.	Length.	ea.	10.
Ref. 3-7650	Cable. 2.5mm ²	Tab size. 8.1mm	Length. 35.5mm		10. £4.96
			<u>v</u>	ea. 66p 80p	
3-7650	2.5mm ²	8.1mm	35.5mm	66p	£4.96
3-7650 3-7660	2.5mm ² 6mm ²	8.1mm 8.1mm	35.5mm 35.5mm	66p 80p	£4.96 £5.99
3-7650 3-7660 3-7670	2.5mm ² 6mm ² 8-16mm ²	8.1mm 8.1mm 8.1mm	35.5mm 35.5mm 35.5mm	66p 80p 68p	£4.96 £5.99 £5.48
3-7650 3-7660 3-7670 3-7671	2.5mm ² 6mm ² 8-16mm ² 16mm ²	8.1mm 8.1mm 8.1mm 8.1mm	35.5mm 35.5mm 35.5mm 35.5mm Length.	66p 80p 68p £1.31	£4.96 £5.99 £5.48 £10.90
3-7650 3-7660 3-7670 3-7671 Ref.	2.5mm ² 6mm ² 8-16mm ² 16mm ² Cable.	8.1mm 8.1mm 8.1mm 8.1mm Tab size .	35.5mm 35.5mm 35.5mm 35.5mm Length.	66p 80p 68p £1.31 ea.	£4.96 £5.99 £5.48 £10.90 100.
3-7650 3-7660 3-7670 3-7671 Ref. 30-852	2.5mm ² 6mm ² 8-16mm ² 16mm ² Cable. 2.5mm ²	8.1mm 8.1mm 8.1mm 8.1mm Tab size. 4.8x0.8mm	35.5mm 35.5mm 35.5mm 35.5mm Length. 19mm	66p 80p 68p £1.31 ea. 47p	£4.96 £5.99 £5.48 £10.90 100. £35.49
3-7650 3-7660 3-7670 3-7671 Ref. 30-852 3-2050	2.5mm ² 6mm ² 8-16mm ² 16mm ² Cable. 2.5mm ² 4mm ²	8.1mm 8.1mm 8.1mm Tab size. 4.8x0.8mm 4.8mm	35.5mm 35.5mm 35.5mm 35.5mm 35.5mm Length. 19mm 20mm	66p 80p 68p £1.31 ea. 47p 68p	£4.96 £5.99 £5.48 £10.90 100. £35.49 £57.10
3-7650 3-7660 3-7670 3-7671 Ref. 30-852 3-2050 3-7209	2.5mm ² 6mm ² 8-16mm ² 16mm ² Cable. 2.5mm ² 4mm ² 1mm ²	8.1mm 8.1mm 8.1mm Tab size. 4.8x0.8mm 4.8mm 2.8mm	35.5mm 35.5mm 35.5mm 35.5mm Length. 19mm 20mm 19mm	66p 80p 68p £1.31 ea. 47p 68p 38p	£4.96 £5.99 £5.48 £10.90 100. £35.49 £57.10 £31.95
3-7650 3-7660 3-7670 3-7671 Ref. 30-852 3-2050 3-7209 3-7210	2.5mm ² 6mm ² 8-16mm ² 16mm ² 2.5mm ² 4mm ² 1mm ² 1.5mm ²	8.1mm 8.1mm 8.1mm 8.1mm Tab size. 4.8x0.8mm 4.8mm 2.8mm	35.5mm 35.5mm 35.5mm 35.5mm Length. 19mm 20mm 19mm 19mm	66p 80p 68p £1.31 ea. 47p 68p 38p 21p 33p 51p	£4.96 £5.99 £5.48 £10.90 100. £35.49 £57.10 £31.95 £15.84
3-7650 3-7660 3-7670 3-7671 Ref. 30-852 3-2050 3-7209 3-7210 3-7211	2.5mm ² 6mm ² 8-16mm ² 16mm ² 2.5mm ² 4mm ² 1.5mm ² 2.5mm ² 2.5mm ² 1mm ²	8.1mm 8.1mm 8.1mm 8.1mm Tab size. 4.8x0.8mm 4.8mm 2.8mm 2.8mm 2.8mm	35.5mm 35.5mm 35.5mm 35.5mm Length. 19mm 20mm 19mm 19mm 19mm	66p 80p 68p £1.31 ea. 47p 68p 38p 21p 33p	£4.96 £5.99 £5.48 £10.90 100. £35.49 £57.10 £31.95 £15.84 £24.84
3-7650 3-7660 3-7670 3-7671 Ref. 30-852 3-2050 3-7209 3-7210 3-7211 3-7212	2.5mm ² 6mm ² 8-16mm ² 16mm ² 2.5mm ² 4mm ² 1.5mm ² 2.5mm ² 2.5mm ²	8.1mm 8.1mm 8.1mm Tab size. 4.8x0.8mm 2.8mm 2.8mm 2.8mm 2.8mm	35.5mm 35.5mm 35.5mm 35.5mm Length. 19mm 20mm 19mm 19mm 19mm	66p 80p 68p £1.31 ea. 47p 68p 38p 21p 33p 51p	£4.96 £5.99 £5.48 £10.90 100. £35.49 £57.10 £31.95 £15.84 £24.84 £38.34

Weatherproof iunction boxes.

Rubber housing with clear plastic lid. Two mounting studs through base. 8-pole, 16 screw connection block. Dims:108x90x42mm. Ref:CB8. £17.14



The terminals on this page are some of the most common types used in various mouldings. Terminals used in mouldings we supply are listed with those items elsewhere in the catalogue. Pictures not to scale. 'Length' is overall terminal length.

Male blade.

3-8060

1mm²

Pound nin malo



22.5mm

42p

£31.23

2.8mm

& fe	male		ale	Ref: 0057	10	-
Ref: 00514				Ref: 3-12	00	5
Ref: 3-1210 Ref: 00515						
Ref.	Cable.	Dia.	Туре	Length.	ea.	50
00510	2.5mm ²	3mm	Male	23mm	88p	£19.30
00514	2.5mm ²	3mm	Female	23mm	75p	£28.05
00515	2.5mm ²	2mm	Female	18mm	£1.00	£37.53
3-1200	2.5mm ²	2mm	Female	19.5mm	20p	£6.60
3-1210	0 5 2	2mm	Male	20mm	47.	£5.33

Universal junction box with o-ring sealed lid. IP56 Material: grev ABS Dims. 150x110x70mm. REF: 69715 £8.22



Dims: 100x100x50mm. REF: 69710 £6.76



Prices ex-vat.

Page 25

Non Insulated Terminals & Connectors

Our terminals are mostly tin plated brass for protection against corrosion. Where tin plated terminals are not available plain brass is used. The maximum cable size that will fit each terminal is stated. Terminals on this page can be either crimped or soldered. For crimping use one of the following tools described on page 30: **PR4**, **MP71**, **D1**.

Bulk buying. All terminals can be supplied in packs of 1000 at 25% discount.

Blade connectors

'Width' is blade size. Most commonly used is 6.3mm





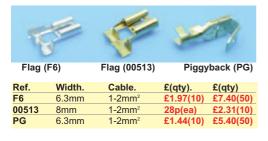
	Female blade (FB)	Male	blade (M	B)
Ref.	Width.	Cable.	(10).	(50)
FB2	2.8mm	1mm ²	£1.08	£4.04
FB4	.8 4.8mm	1mm ²	£1.00	£3.50
FB6	S 6.3mm	0.5-1mm ²	£1.70	£6.39
FB6	6.3mm	1-3mm ²	£1.00	£3.56
FB6	6 6.3mm	3-5.5mm ²	£1.00	£3.69
FB9	9.5mm	3-5.5mm ²	£1.54	£5.76
MB2	2.8mm	.5-1mm ²	£1.00	£2.82
MB4	4.8mm	1mm ²	£1.00	£3.26
MB6	6.3mm	1-2.5mm ²	£1.51	£5.67
MB6	6 6.3mm	2.5-6mm ²	£1.00	£3.65





Female blade (FBL) Male blade (MBL) with latch, fits into mouldings.

	•		
Width.	Cable.	(10).	(50)
2.8mm	1mm ²	£1.00	£2.19
4.8mm	1-2.5mm ²	£2.18	£8.16
6.3mm	1-2.5mm ²	£1.00	£2.82
6.3mm	2.5-6mm ²	£1.50	£5.62
7.7mm	1-2.5mm ²	£3.48	£13.06
9.5mm	6-10mm ²	£5.71	£20.86
2.8mm	1mm ²	£1.00	£2.73
4.8mm	1-2.5mm ²	£2.04	£7.65
6.3mm	1-2.5mm ²	£1.00	£2.48
6.3mm	2.5-6mm ²	£2.38	£8.91
	2.8mm 4.8mm 6.3mm 6.3mm 7.7mm 9.5mm 2.8mm 4.8mm 6.3mm	2.8mm 1mm² 4.8mm 1-2.5mm² 6.3mm 1-2.5mm² 6.3mm 2.5-6mm² 7.7mm 1-2.5mm² 9.5mm 6-10mm² 2.8mm 1mm² 4.8mm 1-2.5mm² 6.3mm 1-2.5mm²	2.8mm 1mm² £1.00 4.8mm 1-2.5mm² £2.18 6.3mm 1-2.5mm² £1.00 6.3mm 2.5-6mm² £1.50 7.7mm 1-2.5mm² £3.48 9.5mm 6-10mm² £5.71 2.8mm 1mm² £1.00 4.8mm 1-2.5mm² £2.04 6.3mm 1-2.5mm² £2.04



Blade insulations

Ref.	Width.	Cable.	(10).	(50)
FBI2	2.8mm	1mm ²	£1.00	£1.50
FBI4	4.8mm	1mm ²	£1.00	£2.48
FBI6	6.3mm	1-3mm ²	£1.00	£2.48
FBI66	6.3mm	3-5.5mm ²	£1.00	£2.77
FBI6H	6.3mm	1-3mm ²	£1.00	£1.75
FBI9	9.5mm	3-5.5mm ²	£1.00	£3.82

Insulation for male blade.

Mates with female insulation for inline connection.

Ref.	Width.	Cable.	(10).	(50)
MBI	6.3mm	1-3mm ²	£1.32	£4.95

Holder for female blade 6.3mm (FB6 or FB66). White.

Ref.	Width.	Cable.	(10).	(50)
191007	6.3mm	1-5.5mm ²	£1.00	£2.32
Flag insulations. Fl6 is soft PVC. 192002 is hinged type.		FI6	192002	
Ref.	Width.	Cable.	(10).	(50)
FI6	6.3mm	1-2mm ²	£1.38 f	25.17
192002	6.3mm	1-2mm ²	£1.71 f	6.42

Japanese connectors

3.9mm (dia of bullet). For cables up to 2mm².

JB	Ref.	(10)	(50)
	Bullet.		
	JB	£1.00	£2.42
JBI	Insulation for bull	et.	
JDI	JBI	£1.00	£1.50
-			
JS	Ref.	(10)	(50)
and the second se	Socket for bullet.		(00)
	JS	£1.00	£2.38
	Insulation for soc		
JSI	JSI	£1.00	£1.84
-			
JDS	Ref.	(10)	(50)
	Double socket fo		
	JDS	£1.52	£5.68
	Insulation for dou	ble socke	t.
JDSI	JDSI	£1.00	£3.54

Non Insulated Terminals & Connectors

Stationary blades

		1		R	State 1
Α	В	С	D	G	Н
Illus.	ltem.	Ref.	Blade.	Ea.	(50)
A	Single	SBA	6.3	15p	£3.28
A B C	2-blade	SBB	6.3	19p	£7.09
С	2 into 1	SBC	6.3	23p	£8.73
D	3 into 1	SBD	6.3	21p	£8.06
G	Single	SBG	6.3	15p	£3.00
Н	6 into 1	SBH	6.3	96p	£35.85

Ring terminals



Single crimp (R) Double crimp (RD)

Single crimp rings.					
Ref.	Cable.	Hole.	(10).	(50)	
R4	1-3mm ²	4.3mm	£1.00	£2.17	
R5	1-3mm ²	5.3mm	£1.00	£2.32	
R6	1-3mm ²	6.4mm	£1.00	£2.95	
R8	1-3mm ²	8.4mm	£1.00	£2.75	
R10	1-3mm ²	10.5mm	£1.00	£3.10	
R5L	3-7mm ²	5.3mm	£1.33	£4.99	
R6L	3-7mm ²	6.4mm	£1.29	£4.83	
R8L	3-7mm ²	8.4mm	£1.19	£4.47	
R10L	3-7mm ²	10.5mm	£2.11	£7.90	
Ref.	Cable.	Hole.	Each.	(50)	
R6XL	7-10mm ²	6.4mm	35p	£13.08	
R8XL	7-10mm ²	8.4mm	40p	£14.88	
R10XL	7-10mm ²	10.5mm	32p	£11.88	
Double of	rimp rings.				
Ref	Cable	Hole	Fach	(50)	

Ref.	Cable.	Hole.	Each.	(50)
RD4	1-3mm ²	4.3mm	15p	£3.97
RD5	1-3mm ²	5.3mm	17p	£6.42
RD6	1-3mm ²	6.4mm	17p	£6.42
RD8	1-3mm ²	8.4mm	24p	£8.85

Connectors for 6.3mm female blades

The insulation on these two connectors covers the whole female terminal. Common contact

	E	10	30
	C3B		C4B
Ref.	Description.	Ea.	(25)
C3B	3-blade	52p	£10.77
C4B	4-Blade	52p	£10.77

On this connector the insulation covers only the blade part of the female terminal. Best

to use with half-insulated female blade on page 20 (refs RF6 or BF6).

Ref.	Description.	Ea.	£(qty)
C12	Strip of 12x2-Blade	£2.70	£22.50(10)

4.7mm bullets & snap connectors

Bullet, 'W' crimp type. Use tool D1 to crimp. (10).

£1.66



Bullet, solder type. Tinned brass

Ref.

w

Cable.

1-3mm²

Ref.	Cable	(10).	(50)
BS2	1-2mm ²	£3.24	£13.50
BS3	2-3mm ²	£3.24	£13.50



Bullet, crimp or solder type.

For crimping use tool SSCT on page 31.

Ref.	Cable Size	(10).	(50)	
CB0	0.5mm ²	£3.24	£13.49	
CB1	1mm ²	£1.48	£5.46	A season of the
CB2	2mm ²	£1.38	£5.18	CB

(50) £6.22

Snap connectors, for the 4.7mm bullets listed above.

SS	DS	TS	FS	-
6				-
				•
Ref.	Description.	Each	(10).	(50)
SS	Single.		£1.61	£6.06
DS	Double(common).	-	£2.03	£7.60
TS	Triple(common)	£4.95	£44.55	-
FS	5 way (5x1)	£5.61	£50.45	-

Socket & insulation.

For 4.7r	nm bullets	listed	SB47	
above. Crimps with any non-insulated crimp tool				JSI
on page	e 30.			
Ref.	Cable.	Туре	(10).	(50)
SB47	1-2mm ²	Socket	£1.66	£6.21
JSI	1-2mm ²	Insulati	on £1.00	£1.84

Hollow bullet 4.6mm

Hollow brass bullet which requires no crimping or soldering. 4.6mm o/d. Fits classic vehicle bulb holders & spring clip earth points.

Cable. Ref. (10). **NCB2** 1-2mm² £2.20 NCB2

Butt splices

For 1.5 to 10mm² cable. Solder or crimp.

Ref.	Description.	(10).	(50)
C1	1.5mm ² butt splice	£1.00	£3.75
C2	2.5mm ² butt splice	£1.00	£3.75
CTB06	6mm ² butt splice	£6.54	£26.16
CTB10	10mm ² butt splice	£8.64	£34.56

Prices ex-vat.

Page 27

Non Insulated Terminal Kits

The cases used in our kits are made from tough polypropylene to withstand the rough treatment encountered in workshop environments. Full descriptions of the cases can be found on page 94. The crimp tools used in the kits are described fully on page 30 & 31.



Ref: N18

Contains a selection of 200 **non-insulated** terminals & insulations of the type on pages 26, 27. Includes male & female blades, flags, insulations piggybacks, rings, 4.7mm bullets & snap connectors, 3.9mm Japanese type bullets, sockets & insulations. Note: <u>No</u> tool in this kit. £22.56



Ref: N9M

Contains 150 **non-insulated** terminals & insulations of the type on pages 26, 27. Includes male & female blades, piggybacks, rings, 4.7mm bullets & snap connectors. Plus tool MP71. £26.54

Ref: N9MJ

A 150 piece kit similar kit to the one above, but the 4.7mm. British type bullets & snap connectors are replaced with 3.9mm Japanese type bullets, sockets & insulations. Tool is MP71. £24.21



Ref: N27M1

A comprehensive kit comprising 600 **non-insulated** terminals & insulations of the type shown on pages 26, 27. Includes male & female blades, flags, in-line blade connectors, piggyback, insulations, rings, 4.7mm bullets & snap connectors, 3.9mm Japanese type bullets, sockets & insulations Plus tool MP71 (shown on p30) £49.00

Solder, multicore.

Electricians top grade resin cored solder, needs no separate flux. Supplied in 18swg wire form. Pack of 5M. **Ref: SOL5 £2.78**

Reel of 1/2kg(approx 61M) Ref: SOL50 £19.30





SOL50

Prices ex-vat.

Non Insulated Terminal Kits



Ref: JTK

Japanese terminal kit

Contains 336 Japanese 3.9mm bullets, sockets, insulations, double sockets and insulations and a small selection of 6.3mm female blades and covers, rings, and 4.8mm female blades. Comes with MP71 crimping tool. £28.90



Ref: BKTT Bullet crimp kit.

Contains the bullet crimp tool SSCT and the closing tool 0400 (described on page 31), plus 350 bullets for cables 0.5-2mm², and 150 assorted single and double snap connectors. £115.67



Ref: N27MC Multiconnector & non-insulated terminal kit.

Contains components to make up a selection of multiconnectors and mini connectors (shown on page 35) and a selection of **non-insulated** terminals of the type on pages 26-27. Includes :

- 2, 3, 4, 6 & 8 way Multiconnectors,
- 2, 3, 4, 6 & 9 way Miniconnectors,

3.9mm Japanese type bullets, sockets & insulations, and a selection of female blades, insulations and rings. Plus tool MP71.

£54.31



Crimping Tools for non-insulated terminals

For crimping non-insulated terminals shown on pages 25-27.

Ref: MP71

A very good quality versatile tool. The accurate jawplates with three forming sections produce an excellent crimp on the non-insulated terminals (p26-27). Spring return handles and cable cutter. £8.95



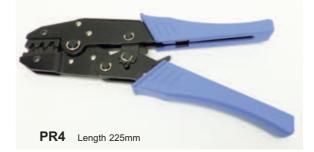
Ref:PR4

Heavy duty ratchet action crimp tool for prolonged use. Three forming dies for rapid crimping of male & female blades & Japanese connectors. Crimps both the conductor & the insulation in one

operation. Produces an excellent rapid crimp with ease.

Spring return handles with ratchet release. (Note; will not crimp flags).

£29.59



Ref:D1

DIY tool for crimping non-insulated terminals. Includes wire stripper, cable cutter, ignition terminal crimp. £4.08



Ref:TT77

Ratchet crimping tool for weatherproof connector terminals on Page 37. Spring handle return with ratchet release. Produces an excellent crimp. £37.75



TT77 Length 225mm

Crimping Tools for non-insulated terminals

	PR4.	MP71.	D1.
Ease of use.	****	****	***
Blade terminals.	****	****	**
Japanese type.	*****	****	**
Flags.	No	*	*
'W' bullet.	**	**	****
Rings R4-R10.	****	****	*
Other rings.	No	some	No
Ignition.	No	No	*
Cutter.	No	Yes	Yes
Stripper.	No	No	Yes
Spring return.	Yes	Yes	No

Instructions for using crimp tools, for non-insulated terminals on pages 26-27. Note: The crimp die layout differs from tool to tool, but the crimping method is the same.





Crimping flags.

Crimping other terminals.

Performance table.

We are often asked by customers 'which is the best tool to use'. The answer depends on which terminals you will be using the most, how much you are prepared to spend, and how skilled you are. As with all hand tools the results obtained depend to a degree on the skill of the user, but these tools will do a good or perfect crimp on the most common terminals used. There isn't a crimp tool made that will crimp every type and size of terminal on all cables, so the table above is offered as a very rough guide to how the three tools perform on the different terminals. The more stars the better.



Closing tool Ref: 0400

Useful fitting tool for frequent users of 4.7mm bullets and snap connectors (see page 27). Pushes the bullets fully into the snap connector.

Length: 145mm.

£22.43



Prices ex-vat.

Page 31

Connectors



192178

192179

Ref:AP £3.22

Cable seal 1.5-2.5mm²

Includes 2 x 9.5mm terminals (suitable for 3-6mm² cable)

and 1 x 6.3mm terminal (suitable for upto 2.5mm² cable)

Blanking plug

Alternator plug

28p

40p

£2.09

£3.00

(10)

(10)

Terminal blocks

Comprising common banks of plated brass 6.3mm male blades on Phenolic base. 4mm fixing hole. Rating 25A.



2 banks of 4 way. Dims: 50x12mm. Height 22mm. **Ref: 00552** £3.72 ea, £33.48(10)



3 banks of 6 way. Dims: 50x28mm. Height 22mm. **Ref: 00553** £5.72 ea, £51.48(10)

Prices ex-vat.



Connectors

Single pole terminal block.

7 cable screw fix holes. Plastic base with mounting lug. Ref: 538 £6.64 ea





Grooved 4mm screw connections Ref: 191771 £11.68 ea

8 pole terminal

Each pole has 6 male blades (6.3mm)

blocks.

Ref: 191756 £7.86 ea



Helacon plus Push in cable connectors.



For quickly and securely connecting multiple cables to a common connection. Accomodates cables from 0.5mm² to 2.5mm². 24amps. Clear housings allow connection checking. Strip cable end and push in, double spring secures cable. Housings colour coded. Width 10.5mm Height 19mm.

Ref	Ways	Colour	Length	Each	(10)
HECP2	2	Yellow	11mm	27p	£2.23
HECP3	3	Orange	15mm	30p	£2.50
HECP4	4	Clear	21mm	40p	£3.34
HECP5	5	Blue	24mm	47p	£3.90
HECP6	6	Violet	28mm	56p	£4.68
HECP8	8	Grey	37mm	79p	£6.58

Helacon connector kit

A selection of Helacon connectors 2 - 8 way as listed above. Supplied in a tough partitioned case with clear

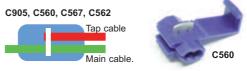
hinged lid. Ref: HECPK £24.56



Plastic connector strip.12 pole. screw terminals.

Salaininininininini				
Ref.	Max cable.	Ea.	£(qty)	
CB2.5	2.5mm ²	42p	£3.50(10)	
CB6	6mm ²	£1.20	£10.00(10)	

Tap connectors



C952 takes PRU1211 pre-insulated male blade connector.

C952	No.	4	0-	_	PRU1211
Ref.	Colour.	Cable Main.	mm². Tap	Ea.	£(qty)
C905	Red	.65-2	.65	15p	£3.79 (50)
C560	Blue	1-2	1-2	15p	£3.12 (50)
C952	Blue	1-2		15p	£5.05 (50)
PRU1211	Blue		1-2.5	15p	£5.28 (50)

Tap connector blade fuse holder

Snaps onto the cable ends without the need for terminals or cable stripping. Uses a similar method to 'scotchloks'. Takes a standard blade fuse. Fits cables up to 2mm². Ref: C972 44p ea, £18.65(50)



Tap connector kit

A selection of 120 tap connectors. Kit includes a selection of the tap connectors listed above plus 5 x C972 fuse holders. Supplied in a tough partitioned box with clear hinged lid.

Ref: TCK £18.00



Prices ex-vat.

Connectors & Busbars

Powerpole

Modular interlocking connectors.



These modular connectors are single way connectors that can be interlocked together to form a multiway unit. Both the housings and terminals are genderless (the two halves of a single way connector are identical).

Coloured housings provide visual identification for mating connectors. The polarized housings can be interlocked together in different orientations to prevent incorrect connection into similar assemblies. Silver plated terminals. **Order two housings and two terminals per way.**

Standard housings suitable for: Cable size 1-3mm² with 30Amp terminals Cable size 2-5mm² with 45Amp terminals

Ref	Description	Each	(10)
THR	Red Powerpole housing	50p	£4.00
THB	Black Powerpole housing	50p	£4.00
THG	Grey Powerpole housing	50p	£4.00
TC030	30A Powerpole terminal	35p	£3.06
TC045	45A Powerpole terminal	43p	£3.42





Large housings suitable for : Cables size 6mm² with 50Amp terminals Cables size 10mm² with 70Amp terminals

Ref	Description	Each	(10)
TH60B	Black housing	£2.23	£20.07
TH60R	Red housing	£2.23	£20.07
TC0605	60A Powerpole terminal	£1.88	£10.62
	70A Powerpole terminal	£1.88	£10.62

Power distribution posts



Single power distribution post, Rated @ 150 amps. Stud size 8mm with 2 x4mm fixing holes. Glass fibre reinforced nylon base. Stainless steel stud with nickel plated brass nut.

Ref: BB151R(Red) BB151B(Black)

£4.01 each , £36.13 (10)

Busbars & Covers

Dimensions: HxWxD mm





5mm mounting holes in base.100A rated 36x104x23mm Ref: BB104 £8.06 each Heavy duty busbar with 2x5mm

Heavy duty busbar with 4x5mm studs.

study duty busbar with 2x5mm study & 5x4mm screw connections. 5mm holes in mounting base.100A Rated, 36x104x23mm Ref: BB105 £6.80 each

Plastic cover to suit BB104 & BB105 heavy duty busbars. 38x143x54mm Ref: BBC1 £4.78 each



Heavy duty busbar with 2x6mm studs & 10x4mm screw connections. 5mm holes in mounting base.150A rated, 36x150x30mm Ref: B81510 £10.67 each

Rel. DD1510 210.07 edcl

Plastic cover to suit BB1510 heavy duty busbar. 40x190x64mm **Ref: BBC2 £5.00 each**



Heavy duty busbar with 4x8mm studs. 5mm mounting holes in base.250A rated. 42x200x38mm Ref: BB254 £26.70 each



Plastic cover to suit BB254 heavy duty busbar. 45x235x70mm

Ref: BBC3 £6.36 each

Through panel power post

Power post designed to carry heavy duty cable current through panels (max 9.5mm panel thickness). Manufactured from marine grade nickel plated posts and stainless steel nuts. Thread 5/16" Whitworth Voltage 0-48V.



Max Amp 250A@12 Vdc. Requires 25mm hole in panel for mounting. Use with PVC boot ref AC3 (page 16)

Ref: 772R (Red), 772B (Black) £13.95 each

Prices ex-vat.

Multi-Connectors

Terminals can be either crimped or soldered onto the cable. To crimp use one of the tools on page 30. (PR4, MP71 or D1).

Mini-connectors 2.8mm.



These connectors use 2.8mm blade terminals with latch. Supplied in sets of male & female housing plus terminals. The terminals are first crimped or soldered onto the wire and then pushed into the housing. A tab on each terminal locates it.

Overall dims: (6-way) 35x21x17mm.

For cables up to 1.5mm²

Prices shown for connectors are for complete sets, including both halves and terminals.

Туре.	Ref.	Each.	Ten.
2-way	MNC2	67p	£5.60
3-way	MNC3	86p	£7.18
4-way	MNC4	£1.12	£9.32
6-way	MNC6	£1.56	£13.03
9-way	MNC9	£2.26	£18.85
Spare term	inals.	(10)	(50)
Male	16405	£1.46	£5.49
Female	14303	£1.23	£4.62

Mini-connector kit

Containing components to make up to 45 assorted connectors as above, 2,3,4,6 & 9 way. Includes spare terminals. All contained in a tough plastic partitioned case. (Includes crimp tool D1). **Ref:MNCK. £50.78**



Multi-connectors 6.3mm



These connectors use 6.3mm blade terminals with latch. Supplied in sets of male & female housing plus terminals. The terminals are first crimped or soldered onto the wire and then pushed into the housing. A tab on each terminal locates it. **Overall dims:** (8-way) 45x38x19mm. For cables up to 2.5mm²

Prices shown for connectors are for complete sets, including both halves and terminals.

Туре.	Ref.	Each.	Ten.
1-way	MC1	60p	£5.00
2-way	MC2	69p	£5.75
2-way	MC2T (T shape)	69p	£5.75
3-way	MC3	81p	£6.25
4-way	MC4	£1.02	£8.50
6-way	MC6	£1.11	£9.25
8-way	MC8	£1.38	£11.50
11-way	MC11	£3.57	£29.75
Spare terminals		(10)	(50)
Male	MBL6	£1.00	£2.48
Female	FBL6	£1.00	£2.82

Multi-connector kit

Containing components to make up to 37 assorted connectors as above, 1,2,3,4,6,8 & 11 way. Includes spare terminals. All contained in a tough plastic partitioned case. (Includes crimp tool D1). **Ref:MCK. £31.85**



Prices ex-vat.

Multi-Connectors

Mate-N-Lock connectors



Supplied in sets of male and female housings and terminals. The terminals are first crimped or soldered onto the wire and then pushed into the housing. Tabs on the terminals locate them. The mouldings have latches for mounting into bulkhead if required.

Overall dims: (6 way) 22x29x44mm.

For cables up to 2.5mm².

Prices shown for connectors are for complete sets, including both halves and terminals.

Туре	Ref.	Each.	Ten.
1-way	MNL1	£1.53	£12.22
2-way	MNL2	£1.14	£9.22
3-way	MNL3	£1.50	£12.05
6-way	MNL6	£2.72	£21.76
9-way	MNL9	£3.65	£29.16
12-way	MNL12	£5.04	£40.34
15-way	MNL15	£6.52	£52.18
Spare terminals.		(10)	(50)
Male	3-1210	£1.70	£5.33
Female	3-1200	£2.00	£6.60

Mate-N-Lock connector kit

Containing components to make up to 41 assorted connectors as above, 1,2,3,6,9 & 12 way. Includes spare terminals. All contained in a tough plastic partitioned case. (Includes crimp tool D1). Ref:MNLK £72.97

Terminal extraction set



Set of 2 tools for removing latched terminals from mouldings. Ref: 70399 £20.52

Multi-connector & non-insulated terminal kit

Contains components to make up a selection of multiconnectors and mini connectors (shown on page 35) and a selection of **non-insulated** terminals of the type on pages 26, 27. Includes :

2, 3, 4, 6 & 8 way Multiconnectors,

2, 3, 4, 6 & 9 way Miniconnectors,

3.9mm Japanese type bullets, sockets & insulations, and a selection of female blades, insulations and rings. Plus tool MP71.

Ref: N27MC £54.31



Prices ex-vat.

Weatherproof Multi-Connectors

Weatherproof connectors



Supplied in sets of male and female housing, seals and terminals.

Suitable for cables up to 1mm². Weatherproof to IP67.

Туре	Ref.	Each.	Ten.
1-way	SWP1	£2.34	£19.46
2-way	SWP2	£3.35	£26.78
3-way	SWP3	£3.93	£31.46
4-way	SWP4	£5.52	£44.20
5-way	SWP5	£6.92	£55.38
6-way	SWP6	£8.03	£64.22
Spare terminals.		(10)	(100)
Male	3-5550	£1.81	£13.56
Female	3-5560	£1.81	£13.56
Spare seal	3-7740	£1.60	£13.34
Blanking plug	3-7750	29p each	£24.30

See page 30 for Weatherproof connector crimp tool. Ref: TT77

Large superseal weatherproof connectors



Larger version of the Superseal Weatherproof connectors, designed for cables 1.00mm² to 2.5mm². Supplied in sets of male and female housing with terminals and cable seals. Weatherproof to IP67.

Туре	Ref.	Each.	(10)	
1-way	WP1L	£4.07	£32.56	
2-way	WP2L	£4.51	£36.12	
3-way	WP3L	£7.51	£60.14	
Spare terminals.		(Each)	(10)	(100)
Spare terminals. Male	3-4500	(Each) £0.31	(10)	(100) £23.37
	3-4500 3-4510	/	(10)	<u> </u>

See page 30 for Weatherproof connector crimp tool. Ref: TT77

Weatherproof connector kit

Containing components to make up to 28 assorted connectors, 1,2,3,4,5 & 6 way (SWP1-6). Includes spare terminals, blanking plugs and D1 crimping tool.

All contained in a tough plastic partitioned case. Ref:SWPK £88.30



Weatherproof connector kit (with ratchet crimping tool)

Containing components to make up to 28 assorted connectors, 1,2,3,4,5 & 6 way (SWP1-6). Includes spare terminals, blanking plugs and TT77 crimping tool (as shown on page 30). All contained in a tough plastic partitioned case.

Ref:SWPK7 £117.00



Relays Relays 12v unless stated.







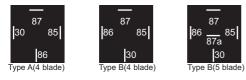
4 Blade relay

5 Blade relay

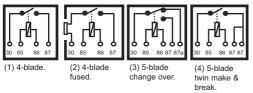
4 Blade fused relay

Relays with 4 or 5 blade connections. They allow a heavy amp current to be controlled by a light current switch at the facia. Also reduces voltage drop due to long cables & connections. There are two types of terminal layout. We state the type against each relay as it is important if replacing a relay in an existing application.

Pin layout.



Relay diagrams.



(1) 4-blade, this is the most common relay. Use for single circuit on/off applications such as spot lamps, horns, rear screen heater etc. (2) 4-blade fused, similar applications to (1) but these have a replaceable fuse in the accessory circuit.

(3) 5-blade changeover, use for applications to change between two circuits, eg, electric aerials.

(4) 5-blade twin make and break. Similar to (1) but with two blades at 87 feed.

'Loose' means the bracket is supplied loose.

'Yes' means the bracket is a fixed part of the relay case moulding.

4 blade relavs.

Dia	.Ref.	Amp.	Туре.	Brkt.	Ea.	(10)
1	R30A	30	А	Loose	£5.04	£45.36
1	R40B	40	В	Loose	£2.05	£18.43
2	R30AF	30-fused	łВ	Loose	£7.25	£65.21

5 blade relays

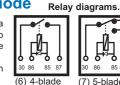
Dia	a.Ref.	Amp.	Type.	Brkt.	Ea.	(10)
3	R20BC	30	В	Loose	£3.13	£28.16
4	R30BT	30	В	Loose	£6.98	£62.82

24 volt relay. 4 blade.

Di	a.Ref.	Amp.	Туре.	Brkt.	Ea.	(10)
1	72774	20	А	yes	£6.60	£59.40
1	72724	20	В	yes	£6.60	£59.40
24	volt relay	. 5 blade.				
3	4251080	20	В	yes	£3.13	£28.17
6 \	/olt Relay.	4 Blade				
1	160652	20	В	Loose	£5.00	£47.00
2	72606	30-fused	В	Loose	£10.16	£95.60

Relays with diode

These relays have a diode in the coil circuit to protect against voltage spikes in sensitive circuits. Supplied with loose bracket.





with diode. with diode.

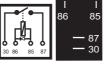
Relays with diode.								
Dia.	Ref.	Blade.	Amp.	Туре.	Ea.	(10)		
6	72714	4	30	В	£5.32	£47.88		
7	72814	5	30/40	В	£5.98	£53.82		

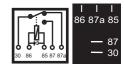
Micro relays.

These are smaller than the standard relays and have a different pin layout. Pins 30 & 87 are 6.3mm and pins 85, 86 & 87a are 4.8mm blade. With diode protection for sensitive circuits. No brackets on these relays.

MR25 dims: 23x15x26mm (excl pins).

Relay and pin layout diagrams.





(1) 4-blade.

(2) 5-blade change over.

Micro relays.							
Diag.	Ref.	Blade.	Amp.	Ea. (10)			
1	MR25	4	25	£4.16 £37.44			
2	MR15	5	15/25*	£5.04 £45.36			

*On MR15 terminal 87a is 15A, terminal 87 is 25A.

High current relays.



R100R R200R

R70 has 2 x 9mm blade & 2 x 6.3mm blade contacts. if fitting into a socket use RSI9 socket. R100R & R200R have 2 x 6.3mm blade contacts and

2 x 6mm stud contacts, these will not fit into sockets.

12 volt 4 blade high current relays.								
Diag.	Ref.	Amp.	Type.	Bracket.	Ea.	(10)		
1	R70	70	В	Loose	£5.83	£52.45		
1	R100R	100	n/a	Yes	£18.83	£169.47		
1	R200R	200	n/a	Yes	£18.83	£169.47		

24 v	olt 4 blad	e high	current	relay.		
Dia.	Ref.	Amp.	Туре.	Brkt.	Ea.	(10)
1	72706	60	n/a	Yes	£19.81	£178.29
1	R100R24	100	n/a	Yes	£22.30	£200.70

Prices ex-vat.

Relays & Relay Sockets

Latching relay

This relay has a mechanical latch. When the coil is momentarily energised the contacts operate and 'latch' in that position To unlatch the contacts, the coil is momentarily energised again. Coil should only be operated momentarily (not continously) on a switched earth circuit. Note: These relays do not fit into sockets.Mounting is by an integral spring clip.12V 25amps. Ref: 72802 £23.36



12v 70A. Intelligent split charge relay. Connects between vehicles main (starting) battery and auxilliary battery. Switches when alternator is charging to also charge auxiliary battery. Fits 12v negative earth vehicles. Ref: AVSPC10 £33.52

12v 140A. Voltage sensitive relay for charging auxilliary battery. Cuts in at 13.3V. Cuts out at 12.8V. Fits 12V negative earth vehicles. A 5 sec delay operates when the voltage falls below the cut out voltage to prevent unnecessary cut out due to high intermittent loads on the battery. Dims (mm) 68 x 68 x52. Two x 6mm stud connections. Ref: 72733 £50.44

Relay box

Takes up to 4 relays, (4 or 5 blade type). Transparent cover with 'O' ring seal. Can be interlocked with same or with 16-way fuse box (FBB16U on p43) to form a single module of unlimited size. Cables enter under the side or underneath through a



hole in the bulkhead. Includes terminals.

Ref:RB4U £15.15 ea.

Note. Not suitable for flasher relays, relays with fixed bracket or relays with fuse (R30AF & 72606)

Spare terminals For 1-2.5mm² cable. For 2.5-6mm² cable.

Ref:FBL6 £1.00(10) £2.82(50) Ref:FBL66 £1.29(10) £4.84(50)

Micro relay box

Similar to RB4U but for up to 7 micro relays. Ref: RELH705. £21.53 ea.



Page

Spare 6.3mm terminals Ref: FBL6 £1.00(10) £2.82(50) Spare 4.8mm terminals.Ref: FBL4 £2.18(10) £8.16(50)

Prices ex-vat.



δ

56 30

ò

S 56b 56a



Sockets for relays/flashers

Will fit all of the relays or flasher units from 2-pin to 5-pin. They are supplied with terminals, 'female blade with latch'.

Trailing relay socket.

Suitable where the relay or flasher unit is itself fixed to the bulkhead Dims: 22x24x30mm Ref: RS £1.50 ea, £11.25(10) Spare terminals. Ref:FBL6 £1.00(10) £2.82(50)





Interlocking relay socket.

These can be interlocked to form a neat housing for the vehicle relays and flasher units. They also have an integral bracket for fixing to the bulkhead. Dims:(exc bracket) 24x30x36mm.

Ref:RSI. £1.35 ea, £11.25(10) Spare terminals. Ref:FBL6 £1.00(10) £2.82(50)

High current relay socket.

This is similar to RSI but for larger amp relays (R70) (72706).

Ref:RSI9 £2.20 ea, £18.33(10) Spare 6.3mm terminals

Ref:FBL6 £1.00(10) £2.82(50) Ref:FBL9 £5.71(10) £20.86(50)

Micro relay socket.

Similar to RSI but for micro relays MR25 & MR15. Ref:RSIM. £1.46 ea, £12.19(10)

Spare 6.3mm terminals Ref:FBL6 £1.00(10) £2.82(50) Spare 4.8mm terminals.

Fuse & relay socket.

Takes one standard relay and three standard blade fuses Includes terminals.

Ref:RS3F. £2.20ea. £18.03(10)

Spare terminals for relay. FBL6 £1.00(10), £2.82(50) Spare terminals for fuse. BFT1. (1-2.5mm²) 16p ea BFT4. (4-6mm²) 18p ea





RSI9









Sales Tel: 0115 9305454



Spare 9mm terminals

Flashers & Relays

RFL1 RFL3 RFL3

Electro-mechanical hasher relays.							
Ref.	Indicators.	Hazards.	Towing.	Ea.			
RFL1	2x21w(+5w)	NO	NO	£2.63			
RFL2H	NO	4x21w	NO	£3.78			

Electronic flasher relays.

Ref.	Indicators.	Hazards.	Towing.	Ea.
RFL3	2x21w(+5w)	4x21w+(5w)	NO	£6.93
RFL5	2x21w(+5w)	4x21w+(5w)	NO	£7.60
RFL6	2x21w(+5w)	4x21w+(5w)	3-6x21w+(5w)	£9.48
RFL7	2x21w(+5w)	4x21w+(5w)	3-6x21w+(5w)	£15.66
RFL9	2x21w(+5w)	4x21w+(5w)	NO	£9.48

Lucas 12V 2pin flasher relay(Positive & Negative earth systems)							
Ref. Indicators. Hazards. Towing. Ea.							
SFB115	2x21w(+5w)	4x21w+(5w)	NO	£5.25			

24 volt Electronic flasher relay

Ref.	Indicators.	Hazards.	Towing.	Ea.
RFL3/24	2x21w(+5w)	4x21w+(5w)	NO	£14.52

Terminal reference guide.

	U.K/USA	Germany.	France.	Japan
Supply	X,B,+	49,15	+	В
Earth	-,E	31	-	E
Ind switch	L	49a	C,COMM	L
Vehicle w/lamp	Р	С	R,Rep	
Trailer w/lamp	L1	C2	R2	

Motorcycle flasher units



Indicator relay with rubber holder.

Ref.	Volts.	Pins	Bulbs	EA.
WRE01	6V	2	2 x 8-10W	£4.98
WRE02	12V	2	2 x 8-10W	£4.98
WRE03	6V	2	2 x 18-23W	£4.98
WRE04	12V	2	2 x 18-23W	£4.98
WRE05	6V	3	2 x 18-23W	£4.98
WRE06	12V	3	2 x 18-23W	£4.98

All 2 pin flasher units are suitable for Postive & Negative earth sysytems.

(On WRE05 & 6 the 3rd. pin is for warning lamp)

Flasher units for LED indicators

LEDs use less power than bulbs, so if bulbs are replaced by LED's a special LED flasher unit may be needed to operate correctly. 12V 10W max. 2 pin **Ref: LED01 £10.48**

Self adjusting 12V LED Flasher unit.

Enables a mix of LED & bulb indicators on the vehicle to flash at the correct rate.





Ref: WFL7LED £11.00

Timing & warning relays & buzzer 12v



1. Lights on relay buzzer.

Buzzes if the door is opened with the lights on.

Ref:GLR3. £12.98

2. Cab buzzer.

Small compact unit, 34x38mm dia. Can be used for an audible warning. operates without arcing.

12v Ref: 5807 £5.63 24v Ref: 05024 £5.98

3. Interior light timer.

Leaves the interior light on for 10 seconds after the door has closed. Ref:GLR1. £17.60

4. Windscreen wiper intermitent timer.

Switches on every 5 seconds. Ref:GLR8. £20.50

5. Heated rear window timer.

Switches the rear window heater off after 10 minutes. Rated at 20A Ref:GLR10. £16.69

Note: GLR1,3,8,10 are for negative earth vehicles only. These also include a wiring diagram.

Prices ex-vat.

Modular Fuse & Relay Housing System

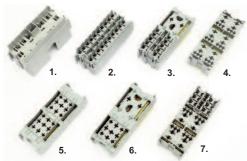


Note: relays & fuses <u>not</u> included.

A modular system for mounting combinations of fuses and relays. Available to take 1,2,4 or 5 modules. Seven types of modules are available which accept various combinations of maxi blade fuses (FBX), mini blade fuses (FBM), micro relays (MR15.MR25), standard relays (R40B,R30A etc) and Maxi-relays (high current relay R70). The modules are wired from underneath. Terminals are crimped or soldered onto cables then pushed into place. Tabs on the terminals latch them into place.

Order all parts separately. (Housing+cover+modules+terminals)

Modules



1. Accepts 6 maxi-blade fuses. Integral busbar links fuses. Common feed by M8 stud. Ref: 1470X £17.16

2. Accepts 20 mini-blade fuses. Ref: 1460X £7.71

3. Accepts 10 mini-blade fuses and 1 Maxi-relay.

Ref: 1510X £9.58

Mini-blade fuses can either be fed individually or adjacent fuses linked by a busbar.

 Accepts 6 micro relays. 	Ref: 1480X £10.14
5. Accepts 2 standard relays	Ref: 1500X £12.06

6. Accepts 1 standard and 1 Maxi-relay. Ref:1490X £9.12

7. Accepts 4 micro relays & 6 mini blade fuses

Ref: 1560X £6.81

Standard relays use 4 or 5 x F630 terminals. Micro relays require 2 x F630 terminals and 2 or 3 x F280 terminals.

Four module housing & cover





Accepts any 4 modules. Mounts flush to the bulkhead and is wired through a cutout in the bulkhead. Dims. 165x100mm exc lugs. Height incl cover 66mm.

Housing Ref:1520X £8.61 Cover Ref:1530X £5.76

Five module housing & cover



Accepts any 5 modules. Has stand-off mounting lugs that allows for wiring from under sides.

Dims. 200x100mm exc lugs. Height incl cover 96mm Housing **Ref:1450X £9.62** Cover **Ref:1540X £6.89**

Module mounting brackets & covers

Accepts any module. Mounts flush to the bulkhead and is wired through a cutout in the bulkhead.

100	1590X	1580X £5.87	Single bracket (pair)
1580X	/	1590X £4.80	Single module cover
1000	1550X	0699X £6.95	Double bracket (pair)
0699X	1.1	1550X £6.20	Double module cover

Terminals for maxi-blade fuses

Order 1 per fuse.	Ref	Cable.	Ea.	10
	3-7650	1.5-2.5mm ²	66p	£4.96
12.00	3-7660	4-6mm ²	80p	£5.99
and a start	3-7670	8-16mm ²	68p	£5.48
	3-7671	16mm ²	£1.31	£10.90

Terminals for mini-blade fuses

Order 2 per fuse unless	Ref	Cable.	Ea.	100
using busbar.	3-8331	1-2mm ²	19p	£15.52
2 the	3-8332	2.5-4mm ²	21p	£17.60
and the second	Busbar te	rminals, strip	of 10	
a Stationers	3-8335	1-2mm ²	£2.42	
11111111111	3-8336	2.5-4mm ²	£2.76	

Terminals for micro and standard relays

F280 termin	nal Ref	Cable.	Ea.	100
da a	3-7209	0.5-1mm ²	38p	£31.95
	3-7212	1.5-2.5mm ²	51p	£38.34
F630 termin	nal Ref	Cable.	Ea.	100

Terminals for power circuit on Maxi-relays

(For coil circuit use same as standard relay (Ref: 3-2050).

12	Ref	Cable.	Ea.	50
STAT	3-07740	2.5-5mm ²	80p	£33.30
Sec.	3-07741	6-8mm ²	70p	£26.55

Prices ex-vat.

Fuse Holders Fuses not included. Standard blade fuse holders

Ref:220. Interlocking fuse holder. 6.3mm male blade contacts. 74p ea, £6.16(10)

Ref:210P. Mounting plate & screw. 74p ea, £6.16(10)

Ref:210.

Interlocking fuse holder. 6.3mm male blade contacts underneath. 69p ea. £5.75(10)

Ref:210P. Mounting plate & screw. 24p ea, £2.00(10)

Ref:210C. Clear cover.

19p ea, £1.60(10)

Ref:FHA14.

Plain in-line blade fuse holder. 6.3mm male blade contacts. <u>This is not interlocking.</u>

49p ea, £40.69(100)

Ref:FHA16.

Interlocking fuse holder. Screw fixing lugs. Insulated 6.3mm male blade contacts. 83p ea, £6.95(10)

Ref: FH450

Add a circuit blade fuse holder. Fits all of our standard blade fuse holders and boxes. Cable size 1.5mm², 10 Amp max £2.40 ea, £21.60(10)

Ref:FH570.

Snap fits into a panel to give a flush fit. 6.3mm male blade contacts at back. Aperture size is 11x23mm. £1.06 ea, £8.80(10)

FH430 & FH440

Wired standard blade fuse holder, with splashproof hood.

 Ref:FH430
 20 amp.£2.43 ea,
 £21.89(10)

 Ref:FH440
 30 amp. £2.75 ea,
 £24.71(10)

FHA40 & FHA60

6.3mm male blade contacts underneath. Clip on transparent lid. Dims: W:26mm, H:58mm

Ref	Ways	Length	Ea	(10)
FHA40	4	65mm	£1.47	£13.25
FHA60	6	85mm	£2.00	£18.00

Splashproof fuseholders

Comprises fuse holder, lid, silicon seal, 2 terminals & locking bar. Can be clipped together.

Ref:FH241 for cables 1-2.5mm² Ref:FH242 for cables 2.5-6mm² £2.25 ea, £20.29(10) Spare terminals for: FH241- Ref: 3-7900 £2.69 (10) FH242- Ref: 3-7901 £2.91 (10)

Mounting plate. Ref:FH500P. 58p ea, £5.29(10)

Surface mount fuse boxes

Side entry 6.3mm male blade connectors. Screw-on transparent cover. (except 2 way). 2, 4 & 6 way have a single cover, 8, 10 & 12 way have a twopiece cover.

Dims:W:52mm, H:52mm (including cover nut)

Ref	Ways	Length	Ea	(10)
LFB02	2	50mm	£2.50	£23.00
LFB04	4	87mm	£4.76	£42.84
LFB06	6	117mm	£6.00	£54.00
LFB08	8	152mm	£7.70	£69.30
LFB10	10	182mm	£9.62	£86.58
LFB12	12	212mm	£11.55	£103.95

Side entry male 6.3mm blade connectors. Surface mounting. Rubber 'O' ring seal in lid Dims: W:29mm, H:36mm



Ref	Ways	Length	Ea	(10)
FBB4T	4	80mm	£2.71	£24.43
FBB6T	6	100mm	£3.65	£32.85
FBB8T	8	120mm	£5.20	£46.80

Ref:FBB8U, 8-way fuse box. Fits into an aperture 27x88mm. Male 6.3mm blade contacts underneath. Rubber 'O' ring seal in lid. £4.10 ea, £35.55(10)



Weatherproof 10 way LED Fuse Box

Surface mounted LED fuse box for 10 standard blade fuses. Fully weatherproof with a silicone sealed lid & rubber seal on base. Dims (LxWxH) 125 x 90 x 30mm Ratings 32 VDC max, 25A max per circuit and 6.3mm blade connections to rear. Ref: FHAWP10 £19.66





EB04















Fuse Holders Fuses not included. Standard blade fuse holders

16-way fuse box FBB16U £16.92



Dims: (mm) 45W(exc feet)x63Hx122L

These 16-way fuse boxes can be interlocked with each other or with relay boxes (RB4U & RELH705 on page 39), to form an integral unit of any size. Terminals are crimped to the cable and then pushed into position underneath. Cables can enter from under a side or directly below through a hole in the bulkhead. The transparent cover has an 'O' ring seal. Terminals included for 1-2.5mm². Spare terminals:-

For 1-2.5mm² cable. For 2.5-6mm² cable.

Ref:3-7900 £2.69(10) £10.08(50) Ref:3-7901 £2.91(10) £10.92(50)

12 way fuse block.

With negative busbar & clear cover

Consists of two separate banks of 6 fuses.Each bank has a common feed for main (+ve) connection. A common negative bus provides 12 screw connections for negative connections. Fuses not included. Main connections by 5mm studs. Dims (LxWxH) 164 x 84 x 57mm Ratings:- 30A per fuse 100A per bank.



Ref: 5026B £25.50

LED Fuse boxes

6 way fuse block With negative busbar & clear cover

6 Way fuse box with screw down transparent lid. Contains 2 positive circuits and 1 negative circuit. Rated @ 30A per circuit and maximum 100A per box. Dims (LxWxH) 123 x 94x 57 mm Ref: 5025A £21.60





terminals. LED lights up next to the fuse in the event of a blown fuse, 4 Mounting holes and clear plastic lid. Takes standard blade fuses.

Fuse box with common feed and

blade connectors, 5 mm, stud for

common feed, and 6.3mm blade



Page 43

30 Amp maximum per circuit.

4 way Ref: FHAL104 £7.75 6 way Ref: FHAL106 £9.32 10 way Ref:FHAL110 £14.35

Prices ex-vat.

Mini blade fuse holders

Wired mini-blade fuse holder, with splashproof hood. Ref:FH580 20 amp. £2.00 ea. £18.00(10) Ref:FH590 30 amp. £2.02 ea, £18.20(10)

Add a circuit mini blade fuse holder. Fits all of our mini blade fuse holders and boxes. Cable size 1.5mm², 10A Max Ref:FH597 2.40ea, £21.60(10)





Maxi blade fuse holders

Splashproof maxi-blade fuseholder.

Comprises maxi-blade fuse holder, lid & seal, bottom cover, 2 terminals & locking bar. Can be clipped together.

Fit cable. Ea. 10 Ref. FH602 4-6mm² £5.02 £41.85 FH603 6-10mm² £5.04 £42.01

Mounting plate. for the above fuseholders, FH602/3 Ref:FH500P. 58p ea, £5.29(10)

Wired maxi-blade fuse holder, with splashproof hood. 60Amp Max Ref:FHA22 £6.70 ea, £55.80(10)

Midi / Mega fuse holders

Strip/midi fuse holder

Suitable where a larger amp fuse is required. Takes strip or midi fuses. Snap shut lid. Mounting lugs. Use 5mm rings on the cable ends. Max cable 16mm² Ref: FH560 £2.38 ea, £21.38(10)

Mega power fuse holders

Suitable where a very large amp fuse is required. Snap shut lid. Mounting luas. Use 8mm rinas on the cable ends. Fuse not included. Ref: 37685 £6.40 ea

Midi/Mega fuse holder

Takes 1 x Mega fuse and 4 x midi fuses. Busbar link. Left or right cable entry. With cover. Ref: MFB1 £25.00







Fuse Holders and Fuse Kits

Glass cartridge fuse holders

Fuses not supplied

Spring loaded, nylon. Takes glass or ceramic fuses. 20-32mm Max. 20 amps. Ref: INF £1.33 ea, £11.05(10)



Splash-proof.

Moulded in polybutene with PVC grommets, nitrile 'O' ring and screw terminal of nickel plated brass. Takes glass fuses 30-32mm. **Ref:58490.** £4.72 ea.



Panel mounted. Takes 30-32mm glass fuse held within removeable cap. Fits 14.5mm panel hole. Overall length 58mm. Ref:59150 £4.25 ea.



4 way glass fuse holder Takes 30mm glass fuses as listed on page 45. Surface mounting. Ref: 23707 £24.14 ea.



Continental fuse holders

Fitted with 8 amp fuses.

Spring loaded. Cable held by screw fixing. Ref: FHA8 71p ea, £5.91 (10)

Fuse boxes for continental

fuses. Screw connections for the cable. Clear see through lid, held on with single knurled screw. Supplied with 8A fuses





Ref.	Type.	Ea.	(10)
CL1350	2-way	£4.25	£38.25
CL1351	4-way	£5.97	£53.77
CL1352	6-way	£9.37	£84.37
CL1353	8-way	£11.38	£102.42
23412	12-way	£17.32	£155.88

Blade, glass, ceramic Fuse Kit



200 assorted fuses in all sizes of standard blade, continental & 30mm glass. All in a tough shatterproof plastic partitioned case. **Ref:FK. £21.60**

Glass,continental,domestic,fuse kit



200 assorted fuses. 30mm glass 5,15,25,35A, 20mm glass 2,5A continental 8,16,25A, domestic 13A. All in a see through partitioned case. **Ref: 5005210 £17.62**

Standard blade fuse kit



100 assorted standard blade fuses in all sizes. Contained in a see through partitioned case. **Ref: 5005230 £12.40**

Mini blade fuse kit

100 assorted mini blade fuses in all sizes. Contained in a see through partitioned case. Ref: $5005240 \text{ } \text{\pounds 18.10}$

Prices ex-vat.

Fuses

Mini-blade fuses

20p ea, £7.44(50 in one size)

Continuous.	Fusing.	Colour.
2 amps	4 amps	Grey
3 amps	6 amps	Violet
5 amps	10 amps	Tan
7.5 amps	15 amps	Brown
10 amps	20 amps	Red
15 amps	30 amps	Lt.Blue
20 amps	40 amps	Yellow
25 amps	50 amps	White
30 amps	60 amps	Lt.green
	2 amps 3 amps 5 amps 7.5 amps 10 amps 15 amps 20 amps 25 amps	2 amps 4 amps 3 amps 6 amps 5 amps 10 amps 7.5 amps 15 amps 10 amps 20 amps 15 amps 30 amps 20 amps 40 amps 25 amps 50 amps

Standard blade fuses

15p ea, £3.96(50 in one size)



11mm

Ref.	Continuous.	Fusing.	Colour.
FB3	3 amps	6 amps	Violet
FB4	4 amps	8 amps	Pink
FB5	5 amps	10 amps	Tan
FB7.5	7.5 amps	15 amps	Brown
FB10	10 amps	20 amps	Red
FB15	15 amps	30 amps	Lt.Blue
FB20	20 amps	40 amps	Yellow
FB25	25 amps	50 amps	White
FB30	30 amps	60 amps	Lt.green
FB40	40amps	80 amps	Orange

Automatic indicating glow fuses

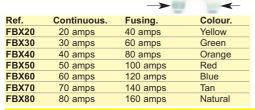
These are standard blade fuses with a tiny LED built into the fuse. This lights up if the fuse blows, giving a clearly visible indication of which fuse has blown. £5.40(10 in one size) 60p ea,



Ref.	Continuous.	Fusing.	Colour.
FBG3	3 amps	6 amps	Violet
FBG4	4 amps	8 amps	Pink
FBG5	5 amps	10 amps	Tan
FBG7.5	7.5 amps	15 amps	Brown
FBG10	10 amps	20 amps	Red
FBG15	15 amps	30 amps	Lt.Blue
FBG20	20 amps	40 amps	Yellow
FBG25	25 amps	50 amps	White
FBG30	30 amps	60 amps	Lt.green

Maxi-blade fuses

£7.12(10 in one size) 85p ea.



Glass cartridge 25mm

51p ea, £3.84(10 in one size)

Ref.	Continuous.
F25G10	10 amps
F25G15	15 amps
F25G20	20 amps

Glass cartridge 30mm 16p ea. £4.11(50 in one size)

Ref.	Continuous.	Fusing.
FG2	1 amps	2 amps
FG5	2.5 amps	5 amps
FG10	5 amps	10 amps
FG15	7.5 amps	15 amps
FG25	12.5 amps	25 amps
FG35	17.5 amps	35 amps



15p ea,	£2.61(50 in on		
Ref.	Continuous.	Fusing.	Colour.
FC5	5 amps	10 amps	Yellow
FC8	8 amps	16 amps	White
FC16	16 amps	32 amps	Red
FC25	25 amps	50 amps	Blue

Strip fuse

£2.40(10 in one size) 32p ea,

Ref.	Continuous.	Fusing.
FS30	30 amps	60 amps
FS40	40 amps	80 amps
FS50	50 amps	100 amps



Midi fuse

£2.48 ea, £22.32(10 in one size)

Ref.	Continuous.
MIDI 40	40 amps
MIDI 60	60 amps
MIDI 80	80 amps
MIDI 100	100 amps

Mega fuse

£3.46	ea, £31.18(10 in one size)	
Ref.	Continuous.	

MEGA100	100 amps
MEGA125	125 amps
MEGA150	150 amps
MEGA175	175 amps



l I	50mm
Ref.	Continuous.
MEGA200	200 amps
MEGA250 250 amps	
MEGA300	300 amps

Blade circuit breakers 12-24v

Standard blade size circuit breaker. Features a manual reset button. Due to the height will not fit into fuse boxes with covers apart from 5025A & 5026B. Ref

5.	£6.23 each

В.	Ref.	Trips at.
	SCB05	5A
	SCB10	10A
	SCB15	15A
	SCB20	20A
	SCB25	25A
	SCB30	30A

Fuse pullers For easy removal of blade fuses. Ref: BFP 53p ea. £4.01 (10)

For extracting & testing of blade fuses. Green light glows if fuse is ok. Ref: BFP £6.82 ea.





29mm

Lever Switches

Notes: 'MOM' in a switch specification means momentary, ie only on whilst pressed, suitable uses are headlamp flash, windscreen wash, starter button, horn.

Double pole switches can be used to switch two separate circuits, eg, hazard warning switch. Can also be used for single circuit applications, eg spotlights.

 $\ensuremath{\text{On}}\xspace/$ over switch suitable for dip, or two speed fan, or two speed wipers etc.

Where a heavy current is to be switched, such as a starter solenoid, heated screen, horns etc, we suggest that you include a relay to protect the cable and switch.

Heavy duty metal lever switches with screw connections

Toggle switches with silver contacts and screw connections. Fit 12mm hole. 25amps @ 12volt.

Ref	Description	Ea.	_
E891	Off/on	£2.72	Alin
E892	On/on	£2.68	
E893	On/off/on	£2.72	- LEG

Heavy duty metal lever switches with 6.3mm spade connections

Toggle switches with silver contacts and 6.3mm male blade connections. Fit 12mm hole. 25amps @ 12volt.

Ref	Description	Ea.	-
E895	Off/on	£2.68	
E898	On/on	£2.68	
E899	On/off/on	£2.68	-

Double pole metal lever switches

Fits 12mm dia hole with 6.3mm male terminals. 10A@12vdc.

Ref.	Detail.	Ea.	ter
JK26	Off/On	£4.97	118 - Ann.
JK29	On/on	£4.97	
JK30	On/Off/On	£5.44	and the second

Metal lever switch

Fits 13mm dia hole. Single pole. 10A.@12v. Rubber cover screw fits & includes washer.



Note; order cover separately

14010, 0140	i oover ooparatory	
Ref.	Detail.	Ea.
60300	Off/On.	£6.96
68701	Off/Mom.	£7.89
49600	Mom/Off/Mom.	£6.96
64500	Lights, Off/side/head.	£6.96

Metal lever switch accessories

Waterproof screw on hood. Will fit all the above metal lever switches. Ref: LHD £2.00

Steel off/on facia plate. Will fit all the above metal lever switches. Ref: 60306 77p



Toggle switches with LED

Toggle switch with LED in toggle. 6.3mm connections. Fits 12mm hole. Off/on 20amps @ 12volt. £4.00 ea Ref: E894 Red Ref: GE35LG Green Ref: GE35LB Blue Ref: GE35LA Amber

Splashproof metal lever switch

Fitted	with	rubber	gaiter.	
Fits 13	mm di	a hole		

Single pole. 20A.@12v		
Ref.	Detail.	Ea.
60350	Off/On.	£7.96
49650	Mom/Off/Mom	£10.08

Splashproof plastic lever switch

Off/on 20amp plastic switch with waterproof cover. Fits 12.5mm hole. 20mm lever. Ref: E139 £1.82



On/off switch

On/off switch with aluminium lever. Fits 12.5mm dia hole. Screw terminals. 6A@12V. Ref: 215400 £6.10



Lever switch

Plastic lever, metal shaft. Screw fix terminals. 20A rated. Fits 13mm hole. Ref: SW9. Off/On......£5.14 Ref: SW10. On/Off/On....£5.94



Lucas type Toggle switches

3 pos light switch replaces Lucas 31788



Heavy duty with metal body and plastic toggle lever. Switch body dims: 37x27x31mm deep. 10A@12V, 5A@24V. Ref:SW42 £13.90 ea

switches and plast Fit 13mm	type heavy duty with metal body ic toggle lever. hole. V, 5A@24V	
Ref.	Detail.	Ea.
SW45	Off/On (Replaces Lucas SPB200)	£6.80
68711	Off/mom	£9.82
65811	Changeover or On/On	£12.20

Prices ex-vat.

Lever Switches & Starter Panels

Plastic lever switch

Fit 12.5mm dia hole. Single pole with 27mm lever.

			Contract To a
Ref	Description	Ea.	
FSL90	Off/on	84p	
180088	Off/Mom	£1.01	
			and the second se

Toggle switch Off/On/Mom

Toggle switch with plastic lever and metal/plastic body. Ideal for wipers/washers or ignition/start applications. Fits 12.5mm hole. Rated 25A@12V Ref: E878 £3.95



Switch with flip up cover

25A On/Off toggle switch with red flip-up aircraft cover. Silver contacts. Brass screw connections. Fits 12mm dia hole. Ref: GE345 £6.72



Flip up aircraft toggle cover

Fits onto toggle switch by 12mm Dia hole. £3.36 ea Ref: E889 Red Ref: E889U Blue Ref: E889G Green Ref: E889Y Yellow



Indicator switches On/Off/On

with aluminium lever. Fits 12.5mm dia hole. Screw terminals, 6A@12V. Ref: 324500 £4.88

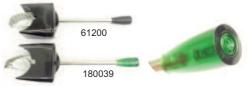


Illuminated indicator switch

On/off/on switch with green light in toggle. Fits 18.5mm dia hole. Toggle length 36mm. Screw terminals. 6A@12V Ref:325302 £14.92



Indicator stalk switch



On/off/on switch. Fits around 35-40mm dia steering column. Stalk length 121mm. 6A@12V. Ref:61200 £23.43

As above but with green illuminating stalk end. Ref:180039 £28.80

Chromed starter panels



2 switch panel

Comprises on/off toggle switch with flip up aircraft cover. 12V ignition light and push button starter switch with rubber button cover. Panel dims: 90x65mm. Ref: SW601 £12.76



3 switch panel

Comprises: Two on/off toggle switches, one with flip up aircraft cover. Two 12V lights, one red and one green. A push button starter switch with rubber button cover. Panel dims: 135x65mm.

Ref: SW602 £21.42



Battery isolator/starter panel

With battery isolator, rubber starter switch & 12 volt ianition light.

Connections for switches are 2 x 10mm rings for battery isolator, 2 x 4mm rings for starter switch and 2 x 6.3mm female blades for warning light. Panel dims: 135x65mm Ref: SW603 £14.25

Prices ex-vat.





Modular Rocker Switches

Modular Rocker switches & warning lamps. 12/24 Volt



A range of OE quality rocker switches and warning lights offering a full range of functions. Select the switch or warning lamp body required, then select the lens symbol(s) to fit if required. Suitable for 12 and 24 Volt.

Overall dims of switch 26mm x 50mm, fits into aperture 22 x 44mm, or can be gang mounted into gang frames. Switches listed are single pole unless stated.'DP' means double pole. 'Sealed' means weather proof to IP67.

'Mom' means momentary (only on whilst pressed)

Switches are rated at 20A (12V) and 10A (24V). Each body includes wiring instructions.

Please ensure that you order the lens(s) for your switch or warning lamp. Switch bodies are fitted with a 12V (1.2w) bulb, 24V bulbs available (See below)

Switch body.

o micon bo	ay.		
Ref.	Function.	Illum.	Ea.
SW78010	Off/on.	none	£11.56
SW78011	Off/on.	one	£15.14
SW78023	Off/on DP. sealed	one	£21.56
SW78110	Off/mom.	none	£13.10
SW78111	Off/mom.	one	£15.86
SW78212	Change over.	two	£17.62
SW78312	Hazard.	two	£41.26
SW78410	On/off/on.	none	£13.14
SW78412	On/off/on.	two	£18.04
SW78423	On/off/on DP sealed	two	£34.64
SW78612	Mom/off/mom.	two	£19.26
SW78620	Mom/off/mom DP	none	£17.34
SW78622	Mom/off/mom DP	two	£21.48
SW78623	Mom/off/mom DP sealed	two	£24.76
SW78710	Off/A/A+B.	none	£19.80
SW78712	Off/A/A+B.	two	£21.68
SW78810	Wiper.	one	£21.22
'Illum' means	s number of illuminating aperture	es for lenses	

in means number of illuminating apertures for i

Warning I	amp body			
Ref.	Detail.	Windo	ws Ea.	
WL78011	W/light facia,	one	£15.14	
WL78412	W/light facia,	two	£18.04	0

Spare bulbs.					
Ref.	Detail.	Ea.			
286	12V 1.2w wedge	55p			
508	24V 1.2w wedge	40p			

Lenses. If fitting into top half of rocker or w/light facia please use prefix 791 followed by ref of lens. For bottom fitting use prefix 792. *Please note, for rockers with one window, this is in the bottom half. £1.20 ea.

P	æ	Q	≣Ø	ED	30 05	ED	王D	0ŧ	<i>ଲ</i> ଲ
01	02	03	04	05	06	07	08	09	10
R	2	- Q*	-Ō-	不	*0	峦	征		00
11	12	13	14	15	16	17	18	19	20
8	₩.	₩/	Ŵ	Щ.		-6-0	N	(P)	(Θ)
21	22	23	24	25	26	27	28	29	30
별	(0)	92,	Þ	⇔	\$	む	1	1 4	B
31	32	33	34	35	36	37	38	39	40
B	÷.	B	A	4	ÉŤ	WW \$	-	-	
41	42	43	44	45	46	47	48	49	50
R	1	¢	Ê	ð	ď				
51	52	53	54	55	56	90	92	94	95

Ref. Description.

- 01 w/screen wiper.
- 02 w/screen washer
- 03 rearscreen wiper 04 h/lamp wiper/washer
- 05 headlamp washer
- 06 side lamps
- 07 h/lamp main beam
- 08 front fog lamps
- 09 rear fog lamps
- 10 front/rear worklamps
- 11 front worklamp 12 rear worklamp
- 13 fifth wheel worklamp
- 14 lights
- 15 interior lamps
- 16 instrument lamps 17 reading lamp
- 18 hazard beacon
- 19 hazard warning
- 20 diesel preheat
- 21 fan
- air conditioning 22
- 23 heated seat
- 24 windscreen demist 25 rear screen demist
- 26 wing mirror demist
- 27 trailer warning
- 28 choke warning
- 29 parking brake warning
- ABS brake warning 30







Gang mount frames	for modular rockers,
2 End frame	Ref:79300 £5.70 ea

- 2. End frame.
- 3. Centre frame.
- 4. Blanking plate.
- Ref:79301 £5.70 ea Ref:79399 £5.70 ea

Prices ex-vat.

Sales Tel: 0115 9305454

55	lock
56	unlock
90	plain amber
92	plain blue

94 , plain green

Ref. Description.

31

32

33

34 horn

35

36

37

38

39

40

41

42

43

44

45 power

46

47

48

49 fast

50 loft

51 right

52 on/one

53

54

95

trailer ABS warning

direction indicator

fuel tank changeover

liquid level warning

brake warning

oil pressure

right or left

down/up

water temp

up or down

fuel warning

fuel tank two

ignition warning

green as in photo)

winch (vellow, not

rear screen wipe/wash

rear screen wash

window lift

slow

- plain red

Rocker Switches

Oval rocker switches with LED

Dims 32x20mm. Surface mount, secured through a 12mm dia hole with rear locknut, 6.3mm connections. 16amp @ 12volt. Off/on £1.80 ea Amber E471, green E473, red E474.



Mini round rocker switches











Round body 23mm dia bezel. Fits 20mm dia hole. 4.8mm connections. 16amp @ 12volt. (unless stated)

			1.
Illus.	Ref	Description	£(ea)
1	E725	On/on (can be used as off/on)	£1.80
2	E721	Off/on illuminating amber	£2.63
2	E724	Off/on illuminating red	£2.63
2	E723	Off/on illuminating green	£2.63
2	E722	Off/on illuminating blue	£2.63
3	E731	Off/on with amber LED	£2.55
3	E732	Off/on with blue LED	£2.55
3	E733	Off/on with green LED	£2.55
3	E734	Off/on with red LED	£2.55
4	734R	Rear fog with LED	£4.48
5	731F	On/Off fan amber LED	£4.48
5	735F	2 speed fan amber LED	£4.48
6	735W	3 postion wiper with LED	£4.48
7	53101	Off/on (10 amp)	£1.92

Splashproof rocker switch

Black plastic switch with clear soft plastic splash-proof cover. Switch fits into 19x13mm aperture. 10A@12vdc. Use 4.8mm blades. Ref:53051. Off/On £2.84



Chunky Rocker switches

Switch dims: 22mm x 37mm. Fits aperture: 20mm x 34mm. 10A@12vdc.

1. Double pole. Off/On Ref:841.£2.57

2. LED in rocker. Single pole. Off/On Ref:E611 Amber, E614 Red, E613 Green. £6.34

Hazard switch

Hazard warning rocker switch. Bezel 21x40mm. 4.8mm blade connections. **Ref: 0635 £7.82**

Up/down switch

Mom/off/mom rocker switch with arrow markings. Suitable for electric aerial, windows etc. Connections 4.8mm blade.

Bezel 21x41.5mm, fits aperture 18x36.5mm. Ref: E697 £4.80



Door switches

Cut plunger to length required



Ref: D465. Metal body, £1.51



Ref: DS004. Plastic body, 94p

Hydraulic brake light switches

Need 6.3mm female blades for wiring connection.



Imperial thread 3/8 UNF Ref:LMA488U £7.95



Metric thread M10 x 1.0mm Ref:LMA488M £7.95

Prices ex-vat.





Switches

Momentary push button switches

Only on whilst pressed.

Fits 12.5mm dia hole. 10A@12vdc



Ref.	Detail.	Ea.
24DB	Off/Mom. Black button.	£4.96
24DR	Off/Mom. Red button.	£4.96
29F	Chrome bezel nut.	£3.93
PHD	Waterproof hood,	
	with nut & sealing washer.	£2.71

Ref:T721. Metal body, chromed bezel, screw connections. Fits 22mm hole. Use as starter button. £7.95



Ref: 63230.Red button, aluminiumbezel.Fits 22mm dia hole.6.3mmblade connections.£7.42

Ref: GE338 Red illumination, aluminium bezel. Fits 20mm.hole. Screw terminals.50A @12V. £8.27

 Ref:T720.
 Plastic body and bezel,

 blade connections.
 Fits 22mm hole.

 Includes optional weatherproof
 rubber hood.

Ref:PBS002. Plastic body and bezel, screw connections. Fits 25mm hole. £1

£1.93



Ref:48503

Stainless steel pushbutton. 22mm dia bezel, 19mm dia fixing hole. Screw connections. **£4.54**

Splashproof push switch

12A@12vdc.

Switch fits into 22mm dia hole. Only on whilst pressed. Two moulded rubber boots. Screw terminals. Ref:48550. Off/Mom...£11.68



Horn push switch

Surface mounting horn push switch. Black.38mm dia. Screw connections. **Ref: 48575 £10.92**

Push-on, push-off switch Metal button

 Push for on, push for off.

 Fits 13mm hole. 10amps @12V DC.

 Ref:48590 Off/On

 £16.84

Pull switch for lights

Off/side/main. Fits 10.5mm hole. 10Amps. Screw connections. Ref:64550 £6.58

Pull switch

Pull on, push off. Fits 10.5 mm hole. 10Amps. Screw connections. Ref:E118ST Off/On £1.75

Illuminated pull switches

Pull on, push off. Fits 12.5mm hole. 6.3mm blade connections. Off/On. Rated 10 Amp £7.90 Amber(59710), Green(59704) Red(59705). White(59707) Replacement bulb ref:281 53p ea

Floor mounted dip switch

Click on, click off. 6.3mm blade connections

Ref:LMA727 £8.62

Surface mounted On/Off switch

Push on, push off single pole switch for surface mounting with green (on) & red (off) LEDs. Self adhesive pad for quick fixing. Supplied with 900mm leads. Rated at 1a@12V Ref: 48591 £6.28









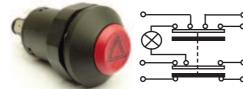






Switches

Hazard warning switch



Push on, push off, illuminated hazard warning button. Bezel 38mm dia. Fixing hole 30mm dia. 6.3mm blade connections. Supplied with full instructions. Ref:517202 £29.11

Connector housing for hazard switch. Supplied with terminals Ref: CONHOUS £2.20 ea



Push-on, push-off, with LED

Push-on, push-off switch with 12/24V LED illumination... Snap fits into 20mm dia hole. 4.8mm blade terminals. 10A@12V. £3.92 ea Ref: 69055 Red Ref: 69054 Green



Ref: 69060 Amber

As above but non illuminating Ref: 69051 £3.42 As 69051 but momentary on Ref: 69050 £3.58

Rotary switches

German made 15 amp rotary switches. moulded in black plastic. Splashproof. Positions marked on the face of knob. Fits 1



the face of knob. Fits 12mm dia hole.

Ref.	Detail.	Ea.
65602	Off/On.	£8.92
65603	Off/On/On.	£6.87
65604	Off/Side/Head (29amp)	£14.92
65600	Off/on. Illuminating. Supplied with	red, green &
amber le	nses, fit the one required.	£13.30

Rotary wiper switch

Rotary wiper switch for 2 speed motors with self park function. 6.3mm blade terminals. Fits a 11mm hole. Rated 10A @ 12V Ref: 64650 £14.44



Rotary lights/horn switch



Large rotary light switch with off/side/dip & main beam positions horn push. Ideally suited to plant & agricultural operations. Switch rating 20A lights/4A horn @ 12V. Fits 14mm panel hole. Suitable for 24 volt

Rotary switches

Fits 26.5mm hole. Screw connections at rear.. 1. 3-position **on/off/on** Green illumination when on. Suitable for indicators.

Ref:48400. £16.86 2. 3-position. on/off/on switch. Suit indicators Ref:48300. £11.96 2. 4-position light switch off,side,dip,main. Ref:64560 £17.86





T773

35101

Ignition switches Includes 2 keys.

4-position (1-0-1+2-start) With chromed bezel, fits 19.5mm hole. Ref:T773 £15.75

Cover for T773 ref:T773C.....£0.99

2-position (0-1) Off/On, fits 17.5mm hole. Ref:35101 £20.62

As 35101 but **4-position** (0-1-1+2-start), fits 17.5mm hole. **Ref:35105 <u>£32.10</u>**

Options for 35101 & 35105 switches. Replacement Key, ref:35109....£4.04 Rear connecting socket, ref:35102....£4.70

Ignition/light switch 6 position.

Park, off, ignition, side, dip & main beam. Includes 2 keys. 25mm fixing hole. **Ref:35112. <u>£42.12</u>**



Diesel start switches

5 position. Off, Accessory, Ignition, Pre-heat, Start. Includes 2 simple keys. 19mm fixing hole **Ref:35108......£14.92**

Diesel start switch 4 position.

Off, Ignition, Pre-heat, Start. Includes 2 simple keys. 16mm fixing hole **Ref:35106......£13.08**

Spare key for 35108 and 35106 Ref: 35110 £2.68



Prices ex-vat.

Warning Lights

Fits 12.5mm hole, with 6.3mm blade terminals. All available in: **Red, Green, Blue, Amber.**

1. CWL12. with chromed bezel. Non-replacement bulb. 12 volt only.



2. WL609. Has a brushed steel metal rim & uses a replaceable BA7 bulb. Fitted with a 12 volt 2w bulb (Ref 281). For 6 Volt use bulb (Ref 282) For 24 volt use bulb (Ref 283)

3. WLB609. Has a black metal rim & uses a replacement BA7 bulb. Fitted with a 12 volt 2w bulb (281).

For 6 volt use bulb (Ref 282). For 24 volt use bulb (Ref 283) See page 61 for replacement bulbs.

£3.02 ea

£3.02 ea

Warning lights with symbol



Chrome bezel. Non replacement bulb. Fits 12.7mm dia hole. 12 Volt. £2.88 ea

	Symbol.	Ref		Symbol.	Ref
1	oil	L1252	7	rear fog	L1244
2	headlights	L1250	8	indicators	L1242
3	direction	L1251	9	front fog	L1243
4	battery	L1248	10	hazard	L1245
5	brakes	L1249	11	lights	L1241
6	f/screen demist	L1260	12	fan	L1246

Symbol sheet



A self adhesive transparent plastic sheet printed with switch and function identification symbols and words. Simply cut out the symbols or words required, peel off the backing paper and fix to the switch or facia etc. Result looks neat and professional. Each sheet contains 149 symbols /words. £1.62 each

Ref:SYM White print Ref:SYMB Black print

LED warning lights



Illus.	Ref.	Colour.	Fit hole.	Volt.	Ea.
1	LED607R	Red.	8.2mm	12v	£3.76
1	LED607G	Green.	8.2mm	12v	£3.76
1	LED607A	Amber.	8.2mm	12v	£3.76
1	LED607RF	Red flashing.	8.2mm	12v	£4.76
2	LED607U	Blue.	8.2mm	12v	£3.36
3	LEDGWLR	Red.	13mm	12v	£7.24
3	LEDGWLG	Green.	13mm	12v	£7.24
3	LEDGWLA	Amber.	13mm	12v	£7.24
4	60735	Red.	20mm	12/24v	£3.54
4	60734	Green.	20mm	12/24v	£3.54
4	60740	Amber	20mm	12/24v	£3.54
4	60732	Blue.	20mm	12/24v	£3.54

Notes; Items 1 & 2 have leads, item 3 has 2.8mm blades, item 4 has 4.8mm blades. All LED's are polarity sensitive.

Large warning lights

Aluminium bezel 22mm dia Fits 17mm dia hole. Screw terminals Fitted with a BA9s 12 Volt 2w bulb.

Blue Ref:739000, Amber Ref:739200, Green Ref:739400, Red Ref:739600, £4.18 ea.

Black bezel 24mm dia. Fits 17mm dia hole. Screw terminals Fitted with a BA9s 12V 2W bulb Blue **Ref:GE39B** Amber **Ref:GE39A** Green **Ref:GE39G** Red **Ref:GE39R** £1,93 ea.



Large warning lights with symbols



Black bezel 24mm dia. Fit 17mm hole. £6.30 Takes BA9s 2w bulb, not included,(See below)

	Colour.	Symbol.	Ref.
1	Red	Battery.	60951
2	Red	Oil.	60953
3	Red	Brakes.	60956
4	Green	Indicators.	60957
5	Orange	Heater.	60959

 Replacement bulbs for all large warning lamps.

 12V 2W ref 288
 54p

 24V 2W ref 289
 54p

 6V 2W ref 287
 59p

Mounting brackets

For switches or warning lights. 12.5mm holes. Plastic.

 Ref.
 Desc.
 Ea.

 EP1
 1-hole
 50p

 EP2
 2-hole
 £1.53



Prices ex-vat.

Accessory Plugs & Sockets Use as in-car 12volt power point to feed inspection lamp, beacon etc.





1. DIN Socket, takes standard DIN plug. Fits 18mm dia hole in panel. Blade terminals. Ref:AS £3.86 2. Din Plug, fits into DIN sockets, Ref:PLG £3.20

DIN Socket. with 1 screw terminal. Fits into a 18.5mm hole and is secured via a locknut. Takes standard DIN plug. Ref:180038 £5.67



DIN Socket, surface mounting by two screws. Takes standard DIN plug. Ref:60169 £9.92





DIN Socket, surface mounting. Die cast aluminium body. Takes standard DIN plug. Ref:180115 £3.20

DIN Socket 3-way.

Takes 3 DIN plugs. 8amps max. Common link at rear. Includes fixing screws. Ref:60154 £21.30

12V sockets

DIN socket with 6.3mm blade connections. Takes standard DIN plug. Ref:180354 £7.07

Socket, takes cigarette lighter plug. Fitted with 300mm. 1mm² wire Ref: 181575 £3.26

Flush mounted socket. Takes cigarette lighter plug, with splashproof rubber cap. 16A Rated. Ref: ASF £5.27



USB Power sockets 12/24V

Supplied with mounting facia & screws. 6.3mm blade terminals on rear. USB output 5VDC, 2.1A.



Double USB/Single power socket for flush mounting. Socket rating 20A max Ref: USB142 £10.48



Double USB accessory socket for surface mounting. Ref: USB194SM £9.06



Double USB accessory socket for flush mounting. Ref: USB194 £9.06

Universal plug, fits most cigarette lighter sockets and,

by removing end cap, fits into DIN sockets. Fitted with 8 amp ceramic fuse Ref:60116 £5.84



2-Way adaptor. Double cigarette lighter socket connected to a cigarette lighter plug by flexible cable. Ideal where two accessories are needed to be used at once. Non fused. Ref:60190 £8.93



To take lighter plugs such as universal plug above. Does not include cigarette lighter or illumination. Fits a 27mm hole. Ref:160409 £

Bracket for cigarette lighter socket. Ref:60800 £1.44



Surface mount bracket for cigarette lighter socket, Dimensions 80x55x50mm (LxWxH) Ref:60161 £3.72

Cigarette lighter

lluminated. 12v. Fixing hole 28mm dia. Ref:AS2 £7.88

Retractable 2-core extension cables

A twin 24/0.20mm cable sheathed in black polyethylene. 6 amps max. Extends to 2.4M. Ref:60106. £10.30

A twin extension cable fitted with a cigarette lighter plug at one end. 5 amps max. Extends to 2.45M. Ref: 60150, £13,54

A twin extension cable with a cigarette lighter plug at one end & socket at the other. 5 amps max. Extends to 2.45M. Ref: 60155. £15.16

Socket & clips

Socket connected to two battery crocodile clips. Takes cigarette lighter plug. Ref:42248 £7.64









Prices ex-vat.

















Lighting Lamp mounting sets

Ref:5400. (illus). 7" Contains all the parts for installation of 7" headlamps. A tough plastic shell for replacing damaged or rusty lamp housings. Also for mounting headlamps on kit cars or motorcycle fairings. Set comprises; lamp retaining rim, shell, rubber seal (shell to body), screws, tapered grommet. £15.92 ea



Ref:5538. As above

but for mounting 5³/4" headlamps.....£21.96 ea Ref:5669. 7" Open shell.

This is a lamp mounting set only, not a shell. Suitable where easy access to bulbs is required, and protection from road spray not needed...... £16.92 ea Use outer rim ref:5435 for shells 5400 & 5669.

7" Halogen conversion kits WIPAC QUADOPTIC



split beam lamps 12v 60/55w Everything you need to

convert your vehicle to brighter safer headlamps. Suitable for all cars, vans &motorcycles using 7" headlamps. Fitted with high powered H4 Halogen bulb, rubber dust cover, bulb retaining clip. E approved.

Left hand dip. Without pilot. Ref:4694 With pilot. Ref:4698

£42.78(pair), £21.39(ea) £46.17(pair), £23.09(ea)

Also available in right hand dip: Without pilot **Ref:4695** & With pilot **Ref: 4699.**

Complete Wipac headlamp unit

Standard UK headlamp unit, 7" diamete.. Includes plastic shell with rubber seal and chrome bezel, lens/reflector, main bulb (H4 12V 60/55W), sidelight and wiring harness. E approved. Ref:58128 £51.72



Headlamp harness

Headlamp harness. Main bulb connector.Fitted1M length cables & sleeving, bullet connectors & grommet. **Ref:5823. £9.28**

Use with Quadoptic lamps or other lens/reflectors that have a pilot hole instead of pilot window. Ref:5829. £9.06

7" Standard halogen conversion kit

Converts to Halogen bulbs for brighter safer headlamps. For replacing 7" headlamps. Supplied with Halogen H4 P43t 12v 60/55W main bulbs, rubber dust covers and 4W pilot bulbs & bulb holders.E approved. Left hand dip with pilot.



Ref: \$8000 £16.02(ea) £32.04(pair)

Also available in right hand dip Ref: S8001.

Lens/reflectors





Ref:LA1016. Lens/reflector. 5³/₄" with pilot light & rubber cover for main bulb. Includes adaptor for fitting P45t or P43t bulbs. E approved......£18.26 Ref:LA1014 As above but right hand dip......£18.26 Ref:S526. Sealed beam unit 4¹/₄". Suitable for tractor/agricultural applications12v-40/40w. Without pilot£19.06

British pre-focus headlamp units & bulb holders



W10160 5³/4" British pre-focus Miller pattern headlamp. Supplied with main & pilot bulb holders shown below.(Bulbs not included) Ref :W10160 £20.90

Genuine Lucas 5³/4"British prefocus headlamp. Supplied with main & pilot bulb holders below.(Bulbs not included) Ref: W50211 £20.90 Lucas

Main bulb holder for British prefocus light units. **Ref: W13120 £5.90**

Use 12V bulb 414 / 6V bulb 312 See page 60 for bulbs.

Pilot bulb holder for British pre-focus light units. **Ref: W13121 £2.50** Use 12V bulb 233 / 6V bulb 293 See page 61 for bulbs.







Sales Tel: 0115 9305454

14/50

Lighting **Bulb connectors**



 Main bulb connector (Flag terminals).Ref:5736 £1.83

2.Main bulb connector (straight terminals) Ref:MBC £1.44

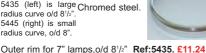
3. Pilot bulb holder. for 9.5mm wedgebulbs Ref:4276 £3.66

4.H7 Bulb holder with 140mm Ref: 171453 £3.62 tails

Outer rims

Choice of rim profile. 5435 (left) is large Chromed steel. radius curve o/d 81/2" 5445 (right) is small radius curve, o/d 8".





Outer rim for 7" lamps,o/d 8". Ref:5445. £11.24

Lucas Outer rim for 7" motorcycle lamps, (lens/reflector holder). o/d 71/2". Ref:0925. £15.80 Lucas

Genuine Lucas 5 3/4" Chrome headlamp rim Lucas

As fitted to BSA C15/B40, Triumph Tiger Cub etc. Note: This rim is only suitable for fitment to a motorcycle headlamp bowl. Not suitable for vehicles with a recessed headlamp mounting bowl. Depth 7/8" Ref: W19018 £11.90



Reflector clips (pack of 4). Holds lens/reflector into motorcycle rim. Ref:0887. £1.75

Headlamp rim fixing clamp and screw. Replacement for Lucas motorcycle headlamp. Ref: W19016 £2.50

Fast lamp fitting kit

For wiring a pair of fog or driving lamps. Includes 30amp relay with pre-wired loom, switch & bracket, connectors. instructions Ref:RLFK200 £12.74



7" Classic headlamps



Free standing complete 7" headlamps with Halogen H4 12V 60/55W main bulb and 12v 5W sidelight. Bolt dia 16mm. E approved.

Polished stainless steel body Ref: E340021 £87.36 ea Black powder coated mild steel with stainless steel rim

Ref: E340019 £87.36 ea

Wipac 5" stainless steel classic style driving lamps

High power 5" classic style driving lamps Complete stainless steel body and bracket. Universal fixing. H3 12V 55W bulbs included. E approved. Ref: S6066 £41.16 per pair



Classic driving lamps

Classic style chrome metal driving lamp with protective plastic cover and H3 12V 55W bulb. 138mm diameter. E approved. Ref: S6007

£43.32 per pair



Ring Road Runner lamps Halogen Driving & Fog lamps 12v/55w.



£21.16 per pair

All lamps are 'E' approved. For mounting above or below the bumper. Complete with 2 x 12 volt 55 watt H3 halogen bulbs. Comprehensive, easy to follow fitting instructions included. Round lens diameter 155mm. Rectangular lens 180x95mm

Round driving. Ref: RL020. Rectangular driving. Ref: RL022, Rectangular fog.

Ref: RL023.

Prices ex-vat.

Lighting

Lucas Chrome 7" headlamp shell & rim



Genuine Lucas chrome 7" headlamp shell and rim for side mounting. Apertures for ammeter, wiring grommet (see HWG below), two 13mm warning lights and one toggle switch. Ref: W10158 £36,95

Use with 0887 rim clips and W19016 fixing bolt (on page 55)

Headlamp shell wiring grommet

Rubber grommet for wiring on British Lucas type headlamp shell. Fits 40mm hole with 13mm hole through centre. Fits W10158 above. Ref: HWG £3.00



Chrome headlight casing



7" chromed steel headlight casing for side mounting. Comprises shell, outer rim, lamp retaining rim and main bulb connector. Suitable for 7" lens reflectors as listed on p54.

Ref: U7CHCASE. £45.98

Bates type chrome headlamp



Side mounted 5³/4" chromed steel headlight assembly. Includes lens, reflector, main bulb H4 halogen 12V 60/55W and pilot bulb. E marked. SB534E £41.98

Bates type 5³/₄ headlight visor

High chrome visor peak, simple locate between the housing rim and glass deflector. Fits Bates $5^3/4^n$ headlamp above.

Ref: HLV534B £7.96

Headlight brackets

Available in Black & Chrome (illustrated) or all Chrome Supplied with rubbers to fit 31mm forks.

Ref: HLBDBLK (Black) Ref: HLBDCH (Chrome) £27.28 per pair

Headlight bracket rubbers for above. to fit: 35mm Ref: HLBRUB35 £7.98 pair to fit: 38mm Ref: HLBRUB38 £7.98 pair







Reflectors

Self adhesive.

Dims: 95x45mm **Ref: RR** (Red) **RA** (Amber) **RC** (Clear) **£1.70 ea, £14.15(10)**

Screw fixing.

Overall dims: 125x50mm **Ref: 50505** (Red) **50510** (Amber) **50500** (Clear) **£2.16 ea, £19.46(10)**





Red reflective triangle.

152mm with 2 x 6mm fixing holes. Ref: RT \pounds 1.81 ea.

Classic Reflectors

Chrome bezel 52mm dia. Rear stud fixing. **Ref: W19102 <u>£6.95</u> ea**

Mini lamps

Mini style lamps. Overall dimensions 72mm dia x 107mm depth. Lens dia 53 mm x 50mm depth. Complete with 12V bulbs.

Ref.	Description	Colour.	Bulb.	Ea.
WSL49	Stop & tail lamp	Red	21/5W	£8.84
WRL48E	Indicator	Amber	21W	£9.22
WRL47E	Front side lamp	Clear	5W	£9.22

Spare bulbs (See page 61) 12 Volt - 21/5W (380), 21W (382), 5W (207) 6 Volt - 21/5W (384), 21W (217), 5W (205)

Marker/Flasher lamps

Flush base Fitted with a 12V festoon bulb. 6 Volt bulbs available

Lens dia 53x50mm deep Overall base dia 72mm.



Ref.	Description	Colour.	Bulb.	Ea.
53600	Side lamp	Clear	5W	£7.80
57000	Indicator	Amber	21W	£9.07
WRL39R	Tail lamp	Red	5W	£7.80

Spare bulbs (See page 61) 12 Volt 21W (273), 5W (239) 6 Volt 15W (266), 6W (253)



Page 56









Lighting Signal lamps

A range of universal lamps suitable for cars, trailers, trucks, motorcyles etc. Tough plastic backplate/bulbholder covered with a rubber weatherproof glove which seals out dirt and moisture. Bulb not included. E approved.



Lens dia 68mm x 45mm depth, Overall dia 73mm x 90mm deep

£4.50 ea

			Bulb	require	d (Ref)
Ref.	Colour	Application.	Wattage	12v	6v
LSL025	Red	Rear & stop.	21/5w	(380)	(384)
LSL005	Amber	Indicator.	21w	(382)	(317)
LSL015	Clear*	Front side.	5w	(207)	(205)

*The clear lamp can be used as reversing by fitting a 21w bulb (ref:382-12volt) or (317-6volt)

Lamps with plug connection and mounting base



NASBH bulb holder 76799

A range of lamps that can be fixed to vehicle directly or by using a moulded plastic mounting base. Connections are made using 2 or 3 way female connection sockets (3 way for stop & tail lamp).

Overall dims of lamp: 95mm dia x 75mm deep. Overall dims of base: 100mm dia x 25mm deep E approved. Order parts seperately:

Lamp unit + connector + base + bulbs.

Lamp units. £8.54 ea.

			Bulb re	quired	(Ref)
Ref.	Description	Colour.	Wattag	e 12v	6v
S6079	Rear fog lamp	Red	21W	(382)	(317)
S6082	Stop & tail lamp	Red	21/5W	(380)	(384)
S6081	indicator	Amber	21W	(382)	(317)
S6080	Reversing lamp	Clear	21W	(382)	(317)
	or side lamp		5W	(207)	(205)

Connectors, mounting base, trim & bulbs for above.	base, trim & bu	bs for above.
--	-----------------	---------------

Ref. D	escription.	Ea.
01252	2-way Connector	£3.28
01253	3-way Connector (For S6082)	£5.32
76799	Mounting base	£3.54
NASBH 2pin	Spare bulb holder (2 pin)	£3.15
NASBH 3pin	Spare bulb holder (3 pin)	£3.15
382	Bulb 12V 21W	38p
380	Bulb 12V 21/5W	38p
207	Bulb 12V 5W	38p

LED Signal lamps 12/24 Volt



16 LED's. Flush base. Waterproof to IP67, E-Marked, SAE approved, Each lamp comes with a male AMP connector fitted. Stainless steel fixing screws supplied. Dims: 73mm dia x 45mm deep

LED Lamp units

Ref.	Description.	Colour.	Ea.
S6060LED	Front sidelight	Clear	£19.90
S6061LED	Front&rear indicator	Amber	£19.90
S6062LED	Rear stop & tail	Red	£19.90

Female	connectors for above lamps.	Ea.
01252	2-way connector	£3.28
01253	3-way connector (for stop & tail)	£5.32



LED lamps 12/24 Volt



17 LED's. Flush base. E-Marked and road legal. Waterproof to IP67. Each lamp is pre-wired.

Low energy consumption. Stainless steel fixing screws supplied. Dims: 95mm dia x 36mm deep.

Lamp units.	£20.95	
Ref.	Description	Colour.
S6079LED	Rear fog lamp	Red
S6082LED	Stop & tail lamp	Red
S6081LED	Indicator	Amber
S6080LED	Reversing lamp	Clear
	or side lamp	

Smart load resistor

Use with LED indicator lamps where original flasher unit is retained. Complete with fixings and tap connectors. Supplied as a pair. **Ref: LEDNAS £10.39** (Pair)



Lighting

Number plate lamps

Includes bulbs 12v



Ref.	Dims.	Detail.	Ea.
RCT776	116x48x36	Black plastic	£6.39
RCT777	116x48x36	Chromed plastic	£5.06
RCT785	68X32X38	Black plastic	£4.28

Brass number plate lamps



Ref.	Dims.	Detail.	Ea.
45302	116x48x38	Black	£25.18
45303	116x48x38	Chromed	£27.68
45399	Spare lens fo	r above lamps	£5.92

LED number plate lamps

12 white LEDs. 12/24v. Dims: 120x46x40mm. Black polycarbonate body. Acrylic lens. E. approved. Ref:RL5 £14.50



4 White LEDs. 12/24v. Dims: 72x42x42mm. Black polycarbonate body, 2 mounting holes. Ref: RCT786 £7.78



Rear guard lamps

E approved.

Black plastic bodies. E approved. All include 12v 21w bulb.

RL014/15 have steel mounting bracket.



RLO14

Ref.	Dims.mm	Detail.	Ea.
RL014	85x75hx52d	Rear fog	£5.38
RL015	85x75hx52d	Reversing	£6.66



LWL005

LWL015

RLO15

LWL005 & LWL015 are flush mounting Land Rover type, fitted with cable & rear mounting studs.

Ref.	Dims.mm	Detail.	Ea.
LWL005	120x80hx55d	Rear fog	£10.44
LWL015	120x80hx55d	Reversing	£10.44
LWL005L	Red lens for L	WL005	£5.23
LWL015L	Clear lens for	LWL015	£5.23

Compact LED Stop/tail/indicator lamp



12V/24V. Waterproof to IP69K Dims: 100x37x16 Deep Ref: 49300 £21.00

Prices ex-vat.

Lighting Multi-role rear lamps





Include 12V bulbs. E approved.

 Ref:RCT450 Rear/stop/indicator, window for number plate illumination. Dims:98x98x50mm. £5.04 ea
 Ref:RCT400 Rear/stop/indicator, window for number plate illumination. Dims:167x84x50mm. £6.42 ea

Waterproof rear combination lamp unit

Stop/tail/indicator/reflector lamp unit. Tested to IP67.

E approved. 12V bulbs & waterproof gland included Dims: 200x88x57mm deep Ref:29500 £25.16 ea Replacement lens: Ref:29599 £13.10 ea



LED marker lamps 12V

Surface mounting. 24V available to order.

LED outline marker lamps with built in reflector. Lens dims:100x50x22mm. 4 LED's. E Approved.



Ref.	Overall Dims(mm)	Detail.	Ea.
RCV4101	120x63x21	Red rear	£13.19
RCV4300	120x63x21	Amber side	£13.19
RCV4201	120x63x21	White front	£27.14



12V LED Marker lamp. D.O.T./SAE approved. Rubber base, Fully waterproof. Dims: 96x17x24mm Deep 2 x fixing holes with centres @ 70mm.

Ref: ML29A (Amber) £5.37 Ref: ML29R (Red) £5.37

Prices ex-vat.

5 function tail lamp units

5 function tail lamp units. Both units incorporate tail light, reflector, brake light and direction indicator. R/H unit has rear fog and L/H unit has reversing light. 4xM6 fixing studs. Overall dimensions: 303x130x109mm.

Bulbs not included. (see page 61) Bulbs required 12V: 3x21W (382), 2x5W (207) Bulbs required 24V: 3x21W (241), 2x5W (149) (Tail light uses two 5W bulbs)



R/H unit (rear fog, tail, brake, reflector, indicator): **Ref: RCV3202** £23.98 ea Spare lens for RCV3202: **Ref: 7698** £11.20 ea



L/H unit (indicator, brake, tail, reflector, reversing): **Ref: RCV3203 £23.98 ea** Spare lens for RCV3203: **Ref: 7699 £11.20 ea**

LED multifunction rear lamps 12/24v

Incorporating stop, tail, indicator, reflector. Dims: 150x80x25mm deep.

2 fixing studs at rear. 280mm cable tails.

With red and amber lens. **Ref: 171667** £30.27 ea



With clear lens. Ref: 171668 £30.27 ea



Marker lamp 12/24 Volt

Moulded rubber outline marker lamp with red and clear lenses. E approved. Body dims: 95x85x35mm. Lens 50mm dia. 12 Volt 5W bulb included. **Ref: RCV4022 £15.02 ea** Replacement bulbs, see page 61. 12 Volt 5W (207) 24 Volt 5W (149)



Headlight Bulbs

Xenon Silverstar H1&H4 premium headlight bulbs

Up to 50% brighter than conventional halogen bulbs.

Up to 20 metres longer range. Uses no extra power. No need to alter wiring or switches. UV filter, so safe to use with plastic headlamps, reflectors or lenses. Easiest way to upgrade your lighting, simply take out the old and replace with these Xenon silverstar bulbs.

12V Xenon Silverstar halogen bulbs.

Ref.	Watts.	Туре	Replaces	(Pair)
R872	60/55	H4 P43t	472	£13.48
R848	55	H1	448	£12.60
447SS	55	H7	447	£17.60



P43t H4 Halogen main/dip.



Туре.	Volts.	Watts.	Ea.	(10)
P43t H4 Halogen	12	60/55	£2.45	£19.56
P43t H4 Halogen	12	130/90	£7.87	£62.96
P43t H4 Halogen	24	75/70	£4.62	£36.96
P43t H4 Halogen	6	35/35	£7.28	£68.20
	P43t H4 Halogen P43t H4 Halogen P43t H4 Halogen	Type. Volts. P43t H4 Halogen 12 P43t H4 Halogen 12 P43t H4 Halogen 24 P43t H4 Halogen 24 P43t H4 Halogen 6	P43t H4 Halogen 12 60/55 P43t H4 Halogen 12 130/90 P43t H4 Halogen 24 75/70	P43t H4 Halogen 12 60/55 £2.45 P43t H4 Halogen 12 130/90 £7.87 P43t H4 Halogen 24 75/70 £4.62

P45t. main/dip.



BA20d & P36d Main/dip.



Ref.	Туре.	Volts.	Watts.	Ea.	(10)
395	BA20d Bosch	12	35/35	£2.28	£18.24
396	BA20d Bosch	12	45/40	£1.87	£14.94
393	BA20d Bosch	6	35/35	£2.69	£21.52
414	P36d BPF	12	50/40	£2.09	£16.14
312	P36d BPF	6	30/24	£3.06	£28.00

Ice blue High performance halogen headlight bulbs

These bulbs give a distinctive crisp sharp blue light by producing a higher colour temperature than conventional

halogen bulbs. They are directly intechangeable with standard headlight bulbs. 'E' approved and fully street legal for use on any vehicle.



12V Ice blue halogen bulbs.

Ref.	Watts.	Туре	Replaces	Ea	(10)
R372	60/55	H4 P43t	472	£9.59	£76.76
R348	55	H1 P14.5s	448	£9.09	£72.76

Driving & front fog







Ref.	Туре.	Volts.	Watts.	Ea.	(10)
447	Halogen H7	12	55	£4.20	£33.60
448	Halogen H1	12	55	£2.35	£18.76
487	Halogen H1	12	130	£6.59	£59.48
466	Halogen H1	24	70	£3.50	£28.00
479	Halogen H2	12	55	£5.04	£46.90
453	Halogen H3	12	55	£2.35	£18.76
483	Halogen H3	12	100	£6.21	£49.64
489	Halogen H3	12	130	£6.59	£59.38
460	Halogen H3	24	70	£3.00	£24.00

Prices ex-vat.

Bulbs

Bayonet type. Sidelight, tail, stop, indicator & panel bulbs



Ref.	Volts	Watts	Dims(AxBxC)	Ea.	(10)
380	12	21/5	25x47x15	38p	£2.96
384	6	21/5	25x47x15	74p	£5.98
380R (Red	I) 12	21/5	25x47x15	£1.42	£10.76
BLB02	12	21/5	18x34x15	£1.12	£9.00
13047	6	18/5	18x34x15	90p	£7.20
294	24	21/5	25x47x15	85p	£6.80

BA15d



BAY15d (level pins)									
Ref.	Volts	Watts	Dims(AxBxC)	Ea.	(10)				
381	12	21/5	25x47x15	80p	£6.42				
335	12	21	25x47x15	54p	£4.32				

pins

Level

pins

BA15s

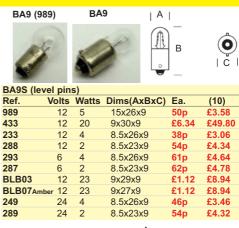


0 ICI

BAY15S (I	evel p	ins)			
Ref.	Volts	Watts	Dims(AxBxC)	Ea.	(10)
382	12	21	25x47x15	38p	£2.96
245	12	10	16x37.5x15	42p	£3.36
343(Ambe	r) 12	21	25x47x15	£1.16	£9.26
207	12	5	16x37.5x15	38p	£3.04
149	24	5	16x37.5x15	41p	£3.16
241	24	21	25x47x15	49p	£3.76
317	6	21	25x47x15	72p	£5.46
244	6	10	16x37.5x15	57p	£4.56
205	6	5	16x37.5x15	53p	£4.08
382R(Red)) 12	21	25x47x15	£1.36	£10.46
BLB04	12	23	18x34x15	£1.12	£8.94

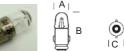


BAZ15d (Double offset pins)								
Ref.	Volts	Watts	Dims(AxBxC)	Ea.	(10)			
566	12	21/4	25x47x15	£1.70	£12.75			
BAU15s (Double	e offset	pins)					
Ref.	Volts	Watts	Dims(AxBxC)	Ea.	(10)			
581(Ambe	er) 12	21	25x47x15	£2.36	£17.70			



BA7

BA7 Ref. 281 282 283



S (le	vel pin	s)				
	Volts	Watts	Dims(AxBxC)	Ea.	(10)	
	12	2	7x20x7	53p	£4.06	
	6	1.2	7x20x7	80p	£5.97	
	24	3	7x20x7	54p	£4.32	

Screw cap bulbs

I ES





А



E10 (MES Panel)									
Ref.	Volts	Watts	Dims(AxBxC)	Ea.	(10)				
987	12	2.2	11x23x10	50p	£3.58				
990	6	3	11x23x10	61p	£4.68				
E5 (LES	Panel)								
Ref.	Volts	Watts	Dims(AxBxC)	Ea.	(10)				
280	12	1.5	6x16x5	53p	£4.18				

Festoon bulbs





SV8.5 (Festoon)								
Ref.	Volts	Watts	Dims(AxBxC)	Ea.	(10)			
265	12	10	11x42x8.5	62p	£4.96			
273	12	21	15x42x8.5	73p	£5.22			
239	12	5	11x36x8.5	50p	£4.02			
266	6	15	15x42x8.5	71p	£5.62			
253	6	6	11x36x8.5	69p	£6.21			
SV7 (Fest	oon)							
Ref.	Volts	Watts	Dims(AxBxC)	Ea.	(10)			
256	12	3	7.5x36x7	61p	£4.64			

Prices ex-vat.

Bulbs, Bulb holders, Torches

Wedge type bulbs



W2.1 x 9	.5d				
Ref.	Volts	Watts	Dims(AxBxC)	Ea.	(10)
501	12	5	10x28x10	43p	£3.48
504	12	3	10x28x10	46p	£3.70
W2 x 4.6	d				
Ref.	Volts	Watts	Dims(AxBxC)	Ea.	(10)
286	12	1.2	5x20x5	55p	£4.44
508	24	1.2	5x20x5	40p	£3.20
W5 x 16	d				
Ref.	Volts	Watts	Dims(AxBxC)	Ea.	(10)
380C	12	21/5	25x42x20	£2.49	£19.96
382C	12	21	25x42x20	£2.43	£19.46

White LED Bulbs 12V Off road use only



Ref.	Description.	Price (pair)
380LED	19x LEDs BA15d Offset Pins	£10.72
382LED	19x LEDs BA15s Level Pins	£10.72
207LED	9x LEDs BA15s Level Pins	£6.48
233LED	1x LEDs BA9s Level Pins	£4.94
501LED	1X LED W2.1x9.5d Wedge	£2.18

Rough service bulbs

As used in inspection lamps. Designed for use in workshop environments. Features 5 additional filament supports to minimise the effects of vibration and accidental knocks. Heavy duty tungsten filament, gas filled for cooler running & longer life.



5011 ED

Ref.	Volts.	Watts.	Cap.	Ea.	(10)
R100	240	60	BC	£3.08	£27.72
R101	240	100	BC	£3.08	£27.72

Bulb holders

Screw terminals.

£2.31

£2.88

£20.79

£25.92



LED multifunction
inspection lamp

BA 15s

BA 9s

170138

170136

3

Δ



Rechargeable cordless LED inspection lamp. Main lamp has 21 LEDs, additional spotlight in end of lamp has 5 LEDs. Lasts up to 4 hours on main lamp, up to 15 hours on spotlight between charges. Tough polycarbonate lens. Durable on/off switch. Magnetic base and 180° folding body design plus additional 2 magnets in rear and 2 fully swivelling fold away hanging hooks. Includes mains and in car chargers and charge indicator. Overall length 250mm. **Ref: 7405 £26.00**

Also available in yellow. Ref: 7405Y £26.00

LED Pocket pen torch



A handy powerful torch. 8 LED's, 7 hours operating time, magnetic clip. Takes 3 x AAA batteries (included) Ref: RIL50 £5.12

Prices ex-vat.

Map lights, Worklamps, Boot light.

LED map light 12V

Dual output, with red night light

12" flexistem. Integral 3 way switch. Switches between Off, 12 bright white LED's or 6 red dimmed LED's. **Ref: 66913 £32.03**



High output LED Rechargeable work lamp

High power rechargeable LED worklamp with SMD LED technology which provides a brighter and wider beam than traditional LED's. Main light 247 lumens and end light 40 lumens. Lamp provides a flexible design for multi-positioning,

magnetic base for hands free use and integrated folding hanging hook. Wrist strap is also included.

Supplied complete with mains charger.

Ref: EHL270 £33.42



Ultra bright lightweight LED headtorch



Lightweight headlight with high intensity LED. Water resistant. 90° vertical adjustment. Magnifier lens for focused light output. Headlight weighs 25 grams including batteries. Includes 2 x 3V lithium batteries. Battery life: up to 16 hours continual use.

Ref: RT5107 £9.22

LED worklamps

Robust LED work lamps. Low current draw, 1.5Amp at 12 volt dc. Black powder coated die cast aluminium case, polycarbonate lens, supplied with stainless steel bracket and 300mm flying lead. Protected to IP67





1. Ref 42044 5 x 3 Watt, 12/24 Volt, Square, 975 lumens (LxWxD) 135x108x40 £16.50



2. Ref 42045 6 x 3 Watt, 12/24 Volt, Round, 1170 Lumens (LxWxD) 135x114x43, **£16.50**

Oval LED Worklight



LED Worklamp on mounting bracket. 12/24 Volts. 550 Lumen light output from 2 x 3 watt CREE LED's. Weatherproof to IP66, Fully adjustable for swivel and tilt. Body dimensions: 93x60x55 (WxHxD) Integral 2 core cable tail 2 metres long. **Ref: 42060 £36.95**

Prices ex-vat.

Interior / Exterior Lighting

LED interior / exterior lights



1. Round LED lamp. 12 Volt, 22 white LEDs. Touch on/off switch incorporated in lens. White ABS with acrylic lens. Dims: 118x104x15mm Ref: INT22 £11.52

2. Square LED lamp. 12 Volt, 22 white LEDs. Touch on/off switch incorporated in lens. White ABS with acrylic lens. Dims 94x94x17mm. Ref: INT23 £13.36

 Round LED lamp with dual output. 12 Volt. Integral switch has 3 positions:
 Off/56 bright white LED's/4 dimmed blue LED's. Dims: 155mm dia x25mm.
 Ref: INT26 £26.00

4. Recessed mounted, 12/24 Volt, 10 white LEDs, Dims: 175x25mm. Cutout size 144x16mm. Ref: 68020 £14.22

5 Surface mounted. 10-30 Volt, 36 white LEDs, clear lens and on/off switch. Aluminium body. Dims: 160x40x21mm. Ref: INT10 £21.90

6. Surface mounted.12-30 Volt, 84 white LEDs, clear lens and on/off switch. Aluminium body.
Dims: 260x40x21mm.
Ref: INT11 £35.50 7. Rectangular slimline LED interior light. 12 Volt, 3.2W, 60 White LED's, Dims 100x220x12mm Ref: RC5011B £26.82

 Round slimline LED interior light. 12Volt, 3W, 42 White LEDS's. Dims. 130mm dia x11mm
 Ref:RC5009B £17.86

 9. Compact & robust, 10-30 Volt, 15W 580 lumens led light suitable for internal & external applications. Diecast aluminium housing, Waterproof to IP67.
 Supplied with 500mm cable and mounting gaskets.
 Dims: 44x77mm
 Ref: RE1590 £20.80

10. Slimline LED interior strip light 12/24V Integrated on/off switch. ECE R10 Approved. 9 LED. Dimensions 245x16x25mm (LxHxW) 180 Lumens Ref: INT30 £17.85

11. Slimline LED interior strip light 12/24V Integrated on/off switch. ECE R10 Approved. 18 LED. Dimensions 400x16x25mm (LxHxW) 360 Lumens Ref: INT31 £25.50

Prices ex-vat.

Towing, Reverse Alarms, Split Charge Relays

7 pin towing plugs & sockets



7-pin towing plugs &sockets

	Ref.	Item.	Each.
1.	A0013	12N Standard plug, plastic.	£2.37
	A0029	12S Supplementary plug, plastic	£2.94
2.	A0012	12N Standard socket, plastic.	£2.94
	A0028	12S Supplementary socket, plastic	£3.23
3.	TSG1	PVC gasket for socket.	71p
4.	TP156	Fixing nuts & bolts for socket,	
		pack of three 35mm x 5mm.	90p
5.	RCT600	Socket bracket single.	£1.95
6.	RCT650	Double mounting plate	£2.75

13 pin towing plugs & sockets



13pin socket assembly

Pre-wired on bracket with 2 metres of cable and quick connectors. Includes car fog light cut-out. **Ref: RSA500 £24.76**

Plug & socket adapters



- 1. Socket adaptor enables 12N plug (7 pin) on trailer or caravan to fit 13 pin socket on car Ref: A0035 £6.87
- 2. Socket adaptor enables 12N+12S sockets(7pin) on car to fit 13 pin plug on trailer/caravan Ref: A0039 £34.72
- Socket adaptor enables 12N+12S plugs(7pin) on trailer or caravan to fit 13 pin socket on car Ref: A0038 £35.06

Reverse alarms

Intermittent sound. 105dB(A). Connect one wire to reverse, the other wire to earth. 12v. Ref:56112 £13.48 24y. Ref:56124 £14.12



Silent night type. As above but with a third wire which connects to the light circuit, disabling the alarm at night. 12v Ref:56162 £15.70

Split charge relays

For charging battery in caravan etc.

Switches additional power to charge auxiliary battery plus feed to fridge via a 12S socket.(A0028) Fits 12v neg earth cars. Only operates when the alternator is charging.

Ref: RCT360 £14.60



For vehicles with auxiliary batteries

12v 70A. Intelligent split charge relay. Connects between vehicles main (starting) battery and auxilliary battery. Switches when alternator is charging to also charge auxiliary battery. Fits 12v negative earth vehicles. Ref: AVSPC10 £33.52



12v 140A. Voltage sensitive relay for charging auxilliary battery. Cuts in at 13.3V. Cuts out at 12.8V. Fits 12V negative earth vehicles.

A 5 sec delay operates when the voltage falls below the cut out voltage to prevent unnecessary cut out due to high intermittent loads on the battery. Dimensions (mm) 68 x 68 x52. Two x 6mm stud connections. **Ref: 72733 £44.75**

Smart logic relays

12S Smart combination 22A relay

Designed to cut off power from towing vehicle to caravan battery & fridge when no charge is available. Suitable for vehicles with multiplex & canbus wiring systems. Ref: RCT465 £15.08

12N Smart logic bypass relay

Enables 12N towing electrics to be wired to towing vehicles with multiplex and canbus wiring systems. Includes an audible warning buzzer. Ref: RCT485R £28.25

Audible warning relay

This rear fitting sensor relay fits to 12N wiring circuit in the towing vehicle. It has an audible warning device to make the driver aware that the indicators on the trailer are working correctly. This is a legal requirement when towing. Ref: RCT380 £7.95





Prices ex-vat.

Aerials, Horns & Universal Cables

Vandal resistant aerial



Single section flexible mast. Universal mounting through a 10mm hole, 40cm high. Fitted with 1.27M high efficiency co-axial screened cable with jack plug. Ref:AE702 £9.96

Aerial extension cable

Co-axial screened cable fitted with jack plug and socket. Suitable for most aerials. 2.5M length. **Ref:AE2500 £2.96**



Replacement horns

A compact powerful horn for its size. Suitable for cars, motorcycles, & where space is limited. Dia: 90mm. 12v. Ref:5446 £9.01 ea



'Coiled trumpet' horn.
Available in high or low note.
Can be fitted singly or in a pair.
Body dia 95mm. 12v.
Two x 6.3mm blade terminals.
Ref:5786(high note)
Ref:5787(low note) £11.95 ea

Note: Colours may be Black or silver, depending on availability

Chrome horns

95mm diameter, chrome grille. Two x 6.3mm blade terminals 6V Ref: WHEL003 £9.90 12V Ref: WHEL004 £9.90



Twin air horns



Consists of 2 trumpets 15 & 19cm long, compact electric air compressor 6cm dia x 10cm, plus air pipe, relay, brackets, nuts/bolts & fitting instructions. Ref:RAH122 £29.54

Compact trumpet horn

Diaphragm type with moulded black body and red plastic cover. 80mm dia 112dB(A).

Mounting strap and earth return wire included. 12V.

490Hz high tone: **Ref: 64210 £12.60** 410Hz low tone: **Ref: 64211 £12.60**



Marine trumpet horns

Italian manufactured. Made from chromium plated brass body with plastic grille. Stainless steel bracket. Fully sealed and water resistant. Pre wired.

110 mm diameter. ECE approved.

Electric diaphragm type High tone - 109dB (A) Low tone - 107dB (A)

Ref	Tone	Voltage	Each
64214	High	12	£36.51
64215	Low	12	£36.51
64224	High	24	£45.12
64225	Low	24	£45.12

Motorcycle horn

70mm dia. 100db, two x 6.3mm blade terminals. 12V Ref: HORS12V £6.22 6V Ref: HORS6V £6.22



Universal cables

1. Universal choke cable Locking Bowden cable. 1.52 metres. Multi strand. Ref: A420 £12.98

2. 'T' Pull cable

3 metre competition 'T' pull cable. Suitable for use with fire extinguishers, bonnet catches etc. Multi strand. Black or red handle.

Ref: GE61B (Black) £13.28 GE61R (Red) £13.28

3. Universal Throttle Cable

3 metres long, Inner 1.5mm, outer 5.6mm, 6.5mm ferrule. Blue outer sleeving with bulk head grommet on one end, fits 8mm hole. Multi strand. Ref: TLK £12.00



Prices ex-vat.

Radiator Fans & Screenwash Parts

Radiator fans 12v





Universal fitting.

Includes four sets of fitting brackets to		
suit most applications.	Ref	Ea
Fans listed are pull airflow (ie,	RFA109	£61.88
RFA109), for push type add PH to the	RFA110	£64.34
ref (ie, RFA109PH)	RFA112	£66.84
Pull fans fit behind radiator,	38-014	£84.76
Push fans fit in front of radiator,	38-016	£94.04

Ref.	Size.	CM/S.	Amps.	WxDxH(mm)	For engines*
RFA109	9"	2.95	5	267x56x240	upto 1200cc
RFA110	10"	3.56	6	293x56x276	upto 2000cc
RFA112	11"	4.83	7	312x60x298	+ 2000cc
38-014	13 ¹ /:	2"	10.5	375x80x355	
38-016	15¹/:	2"	12	428x100x410	

Note: CM/S means cubic metres per second. *For guidance only, use largest fan that will fit vour radiator.

Spare fitting kit

for radiator fan. Ref: 38001 £9.12



Radiator thermostat

Switch unit with integral capillary temperature sensor. Adjusts 60-120°C. Includes cable. terminals and mounting bracket. Ref:CF305 £33.54



Classic replacement wiper blade

10" Stainless steel: Ref: MX10RS £3.30

Screenwash parts Screenwash pump 12v

A tough powerful pump for replacement or for introducing

an extra circuit into a vehicle. Internally the pump is devoid of metal parts so that water or screenwash solvents cannot cause siezure or sluggish performance due to metal corrosion. Self priming and provides a continuous iet. Black plastic body with integral mounting lugs. Ref:WP12 £9.45



Washer pump & bag 12v

Can be used as a direct replacement for existing washer pump in bag or bottle. Supplied with fitting brackets. Bag capacity 2 Lt Ref:GWP14 £19.19



Washer pump & bottle 12v

Plastic bottle with washer pump and fitting bracket. 1.2Ltr comes with a fitting kit which includes wiring connectors, switch with bracket, 2 twin washer jets, T-Piece, straight connector, 1.75m PVC pipe & pipe clips. 1.2 Ltr bottle dims: 200mm H x 125mmW x 100mmD Ref: 160186 £11.82

3 Ltr. bottle dims: 210mmH x 200mmW x 100mmD (No fitting kit with 3 ltr. bottle) Ref: 160187 £31.38

Washer jets & parts



	Ref.	Disc.	Ea.
1.	160190	3mm Single jet. Plastic	£1.92
2.	160192	3mm Double jet. Plastic	£3.16
3.	4565140	4mm Single jet. Chrome	£4.21
4.	4565170	4mm Double jet. Chrome	£5.87
5.	160195	'T' connector - 4mm equal	66p
6.	59355	Wiper arm washer jet.	£7.56
7.	59306	Wiper arm washer pipe clip.	£1.54
8.	T43	Reducer tee (4-3mm)	75p
9.	SWP	4mm screen wash pipe £2.93	per Metre

Jets 1 & 2 use PVC3 pipe. See page 77



Prices ex-vat.

Dashboard Gauges (not suitable for motorcycles)

Durite gauges

All instruments are supplied complete with the fittings including clamps, instructions & wiring diagram where appropriate. Designed for 12v neg earth systems. Every instrument is internally illuminated by connection to existing panel wiring.

52mm dia unless stated

Ammeter.

30 amp. Ref:52301 £26.79

60 amp. Ref:52351 £29.12



Indicates voltage 8-16, with red and green colour zones to indicate high, low and normal volts. Ref:52322 £29.12 24 Volt version Ref:52372 £29.12



Tachometer.

0-8000 rpm 12 volts, 4-6-8 cylinder with coil ignition. With adjustable red pointer. Built in LED illumination **Ref:52320 £45.40**

Tachometers. 96mm dia. 0-4000 rpm

Suitable for 12/24 volt (Fit 89mm dia hole)

Alternator pick up. Hour counter included. (as picture but with hour counter)

Ref:52378 £98.75

Alternator pick up. (As picture). **Ref:52370 £84.88**

Turbo boost gauge.

Supplied with 5/8" UNF union and 60" pipe. -1 bar vacuum to +1.5 bar pressure. Ref:53302 £43.84

Water temperature gauge.

Supplied with 5/8" UNF union and 60" pipe Ref:53323 £33.55



Electric water temperature gauge .

Supplied with 1/8" NPTF sender Ref:52323 £38.87

24 Volt version Ref:52373 £41.34

Spare sender Ref: 52393 £22.35





Oil pressure gauge. Supplied with 1/8" NPTF union and 60" pipe.

Ref:53316 £33.55

12' extension kit, see page 69 Ref:53398 £10.24

Electric

oil pressure gauge. Supplied with 1/8" NPTF sender. Ref:52316 £37.01

24 Volt version Ref:52366 £41.34



DURITE

Spare sender. Ref:52389 £22.35

Oil temperature gauge.

Supplied with 5/8" UNF union and 60" pipe Ref:53315 £31.96



Electric

oil temperature gauge . Supplied with 1/8" NPTF sender Ref:52315 £38.87







Prices ex-vat.

Dashboard Gauges (not suitable for motorcycles)

Air pressure gauge.

Supplied with 1/8" NPTF union and 12 foot capillary. Ref:53301 £33.55

53398. 12' extension kit £10.24

Engine hour counter.

52mm dia.

Ref:52308 £39.74

10-80 volt. Non-illuminating

60 80 100 -40 € 120--20 Pai 150 - 90 URITE*



Engine hour counter.

fits 37 x 24mm hole. depth 70mm. Non-illuminating. 8-32 volt. Ref:52358 £37.87



Accurate to within one second per day. Very low current consumption. Ref:52303 £65.18



Quartz clock 12V.

Digital Quartz clock with LCD display. Ref:52304 £38.87



Fuel gauge.

Supplied complete with adjustable float & sender. Ref:52306 £46.98 24v Version. Ref:52356 £46.98



Replacement lamp for internal illumination of gauges.

Gauges with a 6mm hole 12 Volt Ref:52391 £2.10 24 Volt Ref:52392 £2.10

Gauges with a 10mm hole 12 Volt Ref:53391 £2.10 24 Volt Ref:53392 £2.10





Brass adaptor kits.

kits containing either 3 or 4 adaptors to fit unions or senders into alternative threads



Ref: 52398. To fit 1/8NPTF into :-M14x1.5, M16x1.5, M18x1.5 £7.28 Ref: 52399. To fit 1/8NPTF into:-5/8UNF, 3/8NPTF; 1/2NPTF; 1/8BSP £7.28 Ref: 53399. To fit 5/8UNF into:-M16x1.5; M18x1.5; 1/2NPTF. £7.28

Brass 'T' Piece adaptor 1/8" NPTF

For oil or air pressure gauges.

Ref: 52397 £9.88



Capillary extension kit.

12 foot copper capillary tube with 1/8" NPTF fittings. Can be used to extend or replace pipes supplied with oil or air pressure gauges. Ref:53398 £10.24



Fuel gauge sender.



Adjustable float & sender. Suitable for tank depths 5-27" For use with fuel gauge (ref:52306). Ref:52396 £25.54

Mounting pod



Mounting brackets



For 52mm gauges. Use instead of cutting holes in dash.

Ref.	Holes.	Details.	Ea.
24301	One	Matt black steel.	£1.50
24302	Two	Matt black steel.	£2.26
24303	Three	Matt black steel.	£2.78

Prices ex-vat.

Marine/waterproof Gauges

Durite marine gauges 52mm dia unless stated.

LED illuminated electrical marine gauges with matt black bezels and white figures.

All 52mm dia marine gauges have large screw collar type fixing.



Voltmeters.

12V. Indicates voltage 8-16, with red and white colour zones to indicate high, low and normal volts. Ref:52522 £40.27

24v. As above but Indicates voltage 16-32. Ref:52572 £43.19



Ammeter.

12/24V 80-0-80, with inductive pick up. Ref:52501 £69.47



Tachometer.

0-4000 rpm 12/24 volts, Adjustable for alternator pick up. Negative earth. Ref:52510 £57.41

Tachometer.

0-8000 rpm 12/24 volts, 4-6-8-12 cylinder with coil ignition. Negative earth. Ref:52520 £58.70



Tachometer 85mm dia.

(Bridge type fixing on this 85mm dia gauge)

0-8000 rpm 12/24 volts. 4-6-8-12 cylinder with coil ignition. Negative earth. Ref:52580 £70.74



Electric

water temperature gauge. 12/24V. 40 to 120°C. Supplied with 1/8" NPTF sender Ref:52523 £50.42

Replacement sender for water temperature gauge. Ref:52585 £12.56

Electric oil pressure dauge.

12/24V. 0 to 10 bar. Supplied with 1/8" NPTF sender. Ref:52516 £58.70

Replacement sender for oil pressure gauge. Ref:52389 £22.35

Electric oil temperature gauge .

12/24V. 50 to 150°C. Supplied with 1/8" NPTF sender Ref:52515 £47.93

Replacement sender for oil temperature gauge. Ref:52585 £12.56

Fuel level gauge.

12/24V. Supplied without pole tank sender. Order appropriate size sender separately. (see below.) Ref:52506 £42.49

Water level gauge. 12/24V

Supplied without pole tank sender. Order appropriate size sender separately. (see below.) Ref:52512 £42.49

Pole tank senders. Stainless steel.

For fuel or water level gauges above.

250mm Ref:52592 £43.71 290mm Ref:52593 £49.64 500mm Ref:52595 £72.51









350mm Ref:52594 £55.17 600mm Ref:52596 £87.08

Prices ex-vat.



Regulators, Rectifiers, Coils

Generator regulators

1. Mechanical regulator for 12volt 22amp generator. Ref: 83300 £25.10

Replaces Lucas. RB340, 37207, 279, 292, 297, 299, 304, 330, 334, 336, 342, 344, 346, 452, 367, 368, 391, 392, 451, 471, 472, 477, 528, 529, 542, 543, 544, 547, 559, 562, 563, 568, 569, 570, 571, 572, 573, 574, NCB 130, 131, 132.

Replaces Ford. 622E-10505A,B, 3004R-10505A,B, C5NF-1050B.

2. Mechanical regulator for 12volt 25amp generator. **Ref:83306 £27.09** Replaces Lucas. RB106, 37066, 139, 179, 183, LRC 105, NCB 101. Replaces Ford. 105E-10505B



Rectifier

Solid state. 6 or 12V Fits positive or negative earth. Diagram supplied. Ref: W10134 £6.85

Rectifier/regulators

Solid state rectifier/regulators. Replaces rectifier/ zenordiode. Pre-wired with 300mm cable.



Single phase (2 wires from alternator). 160 watt Ref: W10123w £30.45

Three phase (3 wires from alternator). 200 watt Ref: W10124w £30.45

12V electronic regulator

Replaces mechanical regulator. Ref: 130675 £12.16

Terminals viewed from rear.



Please note: Not suitable for vehicles with a dynamo charging system.

Solid state 6 Volt dynamo regulator

Wassell solid state 6V regulator. Replaces MCR2/RB108 Mechanical cut-out (E3L,E3N type dynamos). Compact

design in finned heat sink. This unit is small enough to conceal inside the original MCR2 cut out box casing. Supplied with full wiring instructions. Available for Positive and Negative earth systems. Ref: W10221P (Positive earth)

W10221N (Negative earth)



£29.90 Each

Zenor diode

Diode. -Negative earth. Replace Lucas 49589 Ref: W10166 £31.90



Genuine Lucas Motorcycle Ignition coils

Overall length 110mm x 40mm dia

6V ignition coil. Ref: W19375 £21.90

12V ignition coil. Ref: W19376 £21.90

12V Twin ignition lead coil

As fitted OEM on early Japanese motorcycles with points ignition. Black lead : Negative. Yellow lead : Positive. Fixing nuts are 90mm apart. Can be used with the W61495 Electronic ignition kit below.



Ref: W19371 £38.41

Electronic ignition kit, for classic motorcycles

For classic british motorcycles. Twins and single cylinder. BSA and Triumph twins. Norton Commando, Norton Atlas BSA C15/B40, B25, B44.

B50, Triumph T20 cub. Positive or negative ground. 12V only **Ref: W61495 £68.92**



Page 71



Sales Tel: 0115 9305454

Prices ex-vat.



W10124W

General Workshop Fixings etc

Trim button kit



Trim buttons, 220 pieces, 8 types Ref: AB151 £26.40

Drive rivet kit



Drive rivets 220 pieces, 8 sizes Ref: AB152 £38.00

Screw type rivet kit



Screw type rivets, 130 pieces, 8 sizes Ref: AB172 £38.70

Perforated strip

Zinc plated steel.

Prices ex-vat.

1/2" wide x 8" long. **Ref:APS080 47p ea. £4.25(10)** 3/4" wide x 12" long. **Ref:APS012 68p ea. £6.12(10)**

Trim fasteners

1.Screw on

Black plastic. Push fits into 6mm dia hole



in panel, screw fixes trim etc. Screw length 15mm. Ref: SR614 24p ea. £9.97(50)

2. Snap rivet.

Black plastic. Push fits into 6.2mm dia hole, then push the stem



down flush with the head to lock. To release, push the stem through. Body length 12.3mm. Head dia 10.8mm **Ref: SR612 20p ea, £8.31 (50)**

3. Fir tree trim panel clip

Black plastic. D= Head Diameter L= Length H= Hole size



 Ref.
 DxLxH
 Ea.
 50.

 FIX21
 24x18x6
 30p
 £12.50

 FIX29
 18x28x6
 30p
 £12.65

 FIX504
 18.5x23.8x8.5
 53p
 £19.80

4. Multi step trim panel clip.

Black plastic 17mm head, 6mm dia x 15mm long stem

Ref:FIX30 19p ea, £7.87 (50) Split pin kit



Contains 175 assorted zinc plated split pins. Sizes from 1/16" x 1/2" through to 1/8" x 1 1/2" **Ref: 13547 £6.74**

Ref: 1354/ £6./4

Clevis pins

Ref.	Size.DxL	Ea.	50.
HCP2	4.8X22mm	34p	£14.00
HCP4	6.4x17.5mm	34p	£14.00
HCP5	6.4x20mm	34p	£14.25
HCP7	8x25.4mm	43p	£18.12
HCP8	9.5x32mm	49p	£20.25

R-Clips

 Ref. Dia.*
 Length.
 Ea.
 £(qty).

 LP5
 2.5mm
 45mm
 16p
 £6.62(50)

 LP6
 3mm
 54mm
 27p
 £5.57(25)

 LP7
 4mm
 75mm
 41p
 £8.50(25)

 LP8
 5mm
 107mm
 75p
 £12.50(20)

* Dia means diameter of wire.

Exhaust mount bobbin



Studsize: ⁵/16" UNF x 15mm. Bobbin size: 34mm dia x 18mm. Includes nuts and spring washers. Ref: AMB001 £1.00 ea, £9.00(10) Spare nut Ref B982 15p ea, £1.20(10)

Nylon number plate nuts &

bolts

Ref.	Colour.	Ea.	100.
B374Y	Yellow	15p	£10.71
B374W	White	15p	£10.71
B375	Black	15p	£10.71

Threaded rubber mountings

Set of 8 button head aluminium alloy bolts, nylon washers and rubber mount-



ings with threaded brass inserts. Bolts; M5 x 16mm. Mountings; 15mm long x 9.5mm dia with 12.5mm dia flange. For motorcycle fairing mounts etc. Bolts are black **Ref: BOLFAIRB £11.98 set of 8**

Rubber & fibre washer kit



Assorted rubber and fibre washers. 130 pieces. Ref: ASST03 £11.98

Speed fastener kit



Approx.200 pieces in zinc plated steel. Sizes:No.4, 6, 8, 10, 12 & 14 **Ref: AB166 £14.63**

Page 72



General Workshop Fixings etc

Expansion spring kit



Contains 80 springs in 9 sizes. 5/32"x13/4", 1/4"x21/2", 1/4"x31/4", 9/32"x11/4", 5/16"x13/4", 5/16"x3", 3/8"x23/4", Throttle pull-off light & heavy. **Ref: 5006120 £34.98**

Expansion spring pack



70 pieces. Pack of assorted expansion springs Sizes : (mm) 19x6, 21x5, 22x6, 46x7, 57x10, 74x11, 112x9 Ref: AP18 £17.32 Compression springs



70 pieces. Pack of assorted compression springs Sizes : (mm) 19x9, 22x9, 23x13, 27x5, 28x10, 37x8, 63x10, 65x13, 99x18, 126x13 **Ref: AP17 £11.14**

Repair washer kit M3-M10



220 pieces, mudguard type. M3x12, M4x20, M6x25, M8x25, M8x40, M8x50, M10x50. Ref: 5004250 £16.60

Metric 'O' Ring kit



NBR 70° shore A. Contains 404 'O' rings in 30 sizes. Internal dia x thickness in mm. 3x2, 4x2, 5x2, 6x2, 7x2, 8x2, 10x2, 10x2.5, 11x2.5, 12x2.5, 14x2.5, 16x2.5, 17x2.5, 19x2.5, 19x3, 20x3, 22x3, 24x3, 25x3, 27x3, 28x3, 30x3, 32x3, 33x3, 35x3, 36x3, 38x4, 42x4, 45x4. **Ref: 5035500 £19.94**

'O' Ring splicing kit



For making 'o' rings to size. Includes Nitryl cord, 1 metre of each $1/16^{"}$, $3/32^{"}$, $1/8^{"}$, $3/16^{"}$, $1/4^{"}$, 1.6, 2, 3, 4, 5, 5.7mm. plus trimming knife, block and superglue. **Ref: AB126 £28.28**

Copper washer pack



110 Pieces,sizes 6mm, 8mm, 10mm, 12mm, 14mm, & 16mm. **Ref: CWP £10.20**

Copper washers



10mm x 14 mm copper washers to suit banjo bolts Ref: W163 15p.Each. £2.50 per 25 pack.

255 Piece circlip pack

Sprung steel, includes internal sizes 6-23mm, external sizes 7-29mm. Supplied in a clear plastic case. Ref: CCP £5.68



Self tapping screw kits



No.4-No.10 Pozidrive pan head. Zinc plated. 600 piece. Ref: 5001010 £14.78



(No.8-No.12 Pozidrive pan head) Zinc plated. 300 piece. Ref: 5001020 £14.78



(No.6-No.10pozidrive flanged head.) Black. 600 pieces. Ref: 5001050 £17.18



Stainless steel self tapping screws. 450 pieces. Pan hd, pozi. n°6x¹/2", n°6x³/4", n°6x1", n°8x¹/2", n°8x³/4", n°8x1", n°10x¹/2", n°10x³/4", n°10x¹", **Ref: AB141 £30.00**

Stainless Steel Fixings

Stainless steel screws, nuts, nyloc nuts & washers

	5
Stainless steel	
set screws.	Anterio
	- 100 C

Ref.	Size.	Ea.	10.
SM630S	M6 x 30	49p	£3.66
SM650S	M6 x 50	61p	£4.56
SM660S	M6 x 60	69p	£5.16
SM825S	M8 x 25	65p	£4.86
SM830S	M8 x 30	77p	£5.79
SM840S	M8 x 40	81p	£6.09
SM850S	M8 x 50	89p	£6.69
SM1030S	M10 x 30	£1.22	£9.12

Stainless steel socket head cap screws.



Ref.	Size.	Ea.	50.
SM416SC	M4 x 16	17p	£6.39
SM520SC	M5 x 20	24p	£9.09
SM612SC	M6 x 12	29p	£10.92
SM620SC	M6 x 20	32p	£12.12

Stainless steel full nuts.



Ref.	Size.	10.	100.
SM6F	M6	£1.82	£13.68
SM8F	M8	£2.43	£18.24
SM10F	M10	£4.46	£33.42

Stainless steel nyloc nuts.



Ref.	Size.	10.	100.
SM6N	M6	£1.22	£9.12
SM8N	M8	£2.43	£18.24
SM10N	M10	£4.86	£36.48

Stainless steel flat washers.

10			
100	1	10	
100	×	- 4	
	-	1	

Ref.	Size.	10.	100.
SM6W	M6	£1.00	£3.30
SM8W	M8	£1.00	£3.96
SM10W	M10	£1.00	£6.60

Stainless steel spring washers.

Ref.	Size.	10.	100.
SM6SW	M6	£1.00	£2.66
SM8SW	M8	£1.00	£4.40
SM10SW	M10	£1.04	£7.80

Set screws and nuts are metric coarse thread, Set screws are measured from under the head to the end of the shank. Thread pitch details: M4=0.7mm M5=0.8mm, M6=1mm, M8=1.25mm M10=1.5mm

Setscrew kit



Stainless steel set screws 120 pieces. M5x25, M6x25, M8x25, M8x40, M10x25, M10x40 Ref: AB154 £38.12

Full nut kit



Stainless steel full nuts. 250 pieces, M5, M6, M8, M10 Ref: AB155 <u>£24.78</u>

Nyloc nut kit



Stainless steel nyloc nuts. 225 pieces, M5, M6, M8, M10 Ref: AB156 £26.00

Flat washer kit



Stainless steel flat washers. 650 pieces, M5, M6, M8, M10 Ref: AB157 £12.90

Spring washer kit



Stainless steel spring washers. 650 pieces, M5, M6, M8, M10 Ref: AB158 £18.94

UNF Set Screw Kit



Zinc plated set crews. 150 pieces 3/16 x 1", 1/4 x 1", 5/16 x 1 1/2", 3/8 x 1 1/2" **Ref: AB5 £21.08**

UNF Nut Kit



Zinc plated. 325 piece. Contains 3/16, 1/4, 5/16 and 3/8. **Ref AB6 £12.95**

Imperial Washer Kit



Zinc plated 920 piece. Contains 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16 and 5/8 **Ref AB109 £17.73**

Prices ex-vat.

Fastener Kits

Assortments of high tensile set screws, full nuts, nyloc nuts and washers are zinc plated unless stated otherwise. All supplied in transparent partitioned cases.

All set screws and nuts are metric coarse thread, Set screws are measured from under the head to the end of the shank. Thread pitch: M4=0.7mm M5=0.8mm, M6=1mm, M8=1.25mm M10=1.5mm

Machine screw & nut kit. M2-M6



400 pieces. Slotted head machine screws and full nuts. M2.5x12, M3x20, M4x25, M5x25, M5X35, M5x50, M6x25, M6x35, M6x50 screws. M2.5, M3, M4, M5, M6 nuts. **Ref: 5003550 £16.88**

Socket head cap screw kit M5-M10



Socket head cap screws. Black. 120 pieces. M5x25, M5x40, M6x25, M6x40, M8x25, M8x40, M10x25, M10x40. Ref: 5001270 £26.04

Set screw kit M6-M12



101 pieces. M6x40, M8x30, M8x40, M8x50, M10x40, M12x50 set screws. **Ref: 5001410 £16.34**

Set screw & nut kit M5-M10



300 pieces. M5x25, M5x40, M6x25, M6x40, M8x30, M8x40, M10x30, M10x40 set screws. M5, M6, M8, M10 full nuts. **Ref: 5001415 £17.18**

M6. Set screw, full nut, nyloc nut, washer kit



400 pieces. M6x25 sets, M6x40 sets, M6 full nuts, M6 nyloc nuts, M6 flat washers. **Ref: 5001440 £12.44**

M8. Set screw, full nut, nyloc nut, washer kit



350 pieces. M8x25 sets, M8x40 sets, M8 full nuts, M8 nyloc nuts, M8 flat washers. **Ref: 5001450 £16.14**

Spring washer kit M5-M12



spring washers. 800 pieces. M5, M6, M8, M10, M12 **Ref: 5004310** £15.78

Flat washer kit M4-M12



800 pieces. M4, M5, M6, M8, M10, M12 flat washers. **Ref: 5004210 £14.68**

Full nut kit M6-M12



340 pieces. M6, M8, M10, M12 full nuts. **Ref: 5004010 £13.42**

Nyloc nut kit M5-M12



300 pieces. M5, M6, M8, M10, M12 nyloc nuts. **Ref: 5004110 £18.36**





Fuel pumps, Fuel Filters, Hose Clips

Facet fuel pumps

1. Universal pressure fuel pump. Designed to replace original equipment on carburetor equipped vehicles. Solid state design ensures reliable long life. 12V 1.5-4 psi, 0.3m lift, 94 ltr per hour. 6mm tube connection.



Fitting instructions included. Ref: 70187 £36.00

2. Filter for 70187 Ref: FPA906 £4.00

3. Universal pressure fuel pump (interrupter pump) 12V 4-5 Psi. 113.5 Litres/hour. Self priming. 0.6 Metre fuel lift, 6mm tube connection. Built in pressure relief when ignition is turned off. Vertical mounting near tank prefered. Built in fuel filter.



Fitting instructions included. Ref: 070003 £71.48

Facet fuel pump mounting kit

4. Mounting kit suitable for both Facet fuel pumps. Reduces vibration and noise when running. Also includes earth cable. Ref: FPA905 £5.32

Fuel pump

Pressure pump 12v.

Fitted near the tank. Includes bracket. 8mm outlets. Fuel delivery capacity 120L/Hr. Pressure head 0.25 bar. suction head -0 10bar



High quality filters for most makes of petrol engined cars, motorcycles and commercial vehicles, see through body. Stepped pipe connection for 6 or 8mm bore pipe.

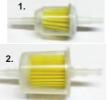
1. Dims (of body) 31x46mm Ref:FF100 £2.00ea, £16.66(10)

2. Dims (of body) 47x51mm. Ref:AFF105 £1.59 ea, £13.25(10)

3. Square MRC type fuel filter Fits 6mm fuel hose. Dims 33x23x16mm. Ref:FFTSQ £1.50, £12,49(10)

Glass fuel filter

4. Chrome finish for 1/4" bore fuel pipe. Supplied with two metal spring clips & replacement gauze filter Dims - 80x27mm dia Ref: GFF £11.90







Stainless steel hose clips

Hex head with slot/cross head drive & shoulder to ease tightening. 9mm band Ref (40)

width. 6mm head



Rel.	Fipe IIIII	. ⊏a.	(10)
HC0816	8-16	60p	£5.00
HC1220	12-20	73p	£6.05
HC1625	16-25	76p	£6.30
HC2032	20-32	76p	£6.30
HC2540	25-40	79p	£6.57
HC3250	32-50	82p	£6.82
HC4060	40-60	88p	£7.35
HC5070	50-70	£1.02	£8.50
HC6080	60-80	91p	£7.85
	HC0816 HC1220 HC1625 HC2032 HC2540 HC3250 HC4060 HC5070	HC0816 8-16 HC1220 12-20 HC1625 16-25 HC2032 20-32 HC2540 25-40 HC3250 32-50 HC4060 40-60 HC5070 50-70	HC0816 8-16 60p HC1220 12-20 73p HC1625 16-25 76p HC2032 20-32 76p HC2540 25-40 79p HC3250 32-50 82p HC4060 40-60 88p HC5070 50-70 £1.02

Stainless steel hose clips kit



Contains 40 assorted hose clips.

Sizes: 8-16mm, 12-20mm, 16-25mm, 20-32mm, 25-40mm, & 32-50mm.

All contained in a tough partitioned box with see through lid. Ref: SCK £34.13

Flexidriver



For use with hose clips. Hex socket, avoids slipping off the screw head. Stem flexes for screwdriving hose clip where access is difficult. Reversable socket to fit 6 & 7mm (across flats). Fits all the above clips. Ref:WNF7 £7.77

Anti-theft fuel cut-off valve

A solenoid fuel valve for petrol or diesel engines to cut off fuel when not energised. Fitted between the filter & lift pump on the low pressure feed to the engine. Operate from a



hidden switch, not included. Fits 8mm bore pipe. Not suitable for vehicles with re-circulating (or leak off) system. 12v. Ref:12912 £48.97

(24v available to order ref:12924 £86.19)

Fuel tap

Steel body and stainless steel valve. Supplied with fittings for either 6, 8, or 10mm bore pipe. With 6mm (1/4") fittings With 8mm (5/16") fittings With 10mm (3/8") fittings Ref: LMA350 £12.95



Ref: LMA349 £12.95 Ref: LMA348 £12.95

Prices ex-vat.

Fuel/Oil Pipe and Hoses

Ethanol Resistant Fuel Hose

High pressure high temperature ethanol fuel hose. Suitable for petrol (E10 rated) diesel, bio diesel and oil.



10 Bar working pressure. Working temperature -40 to + 150c. Brand: Codan, Specification SAE J30 R9

Ref.	Bore.	O/D	Per metre
PHE10/6	5.6mm	12mm	£9.10
PHE10/8	7.9mm	14.5mm	£10.20

Rubber Fuel Hose With Cotton Overbraid

Low pressure fuel hose. (75 psi working pressure) 6 or 8mm bore available.

DIA 1291 UPA SALADA	

Ref.	Bore.	O/D	Per metre
PH6	6mm	11mm	£3.80
PH8	8mm	12.5mm	£4.20

Rubber Fuel Injection Hose

High pressure fuel hose. (145psi working pressure) 6 or 8mm bore.

Ref.

king	ULE 2184	.0400-0A
ore.	CONLINEAR	
Bore.	O/D	Per metre
6mm	11.5mm	£5.75

PHINJ6	6mm	11.5mm	£5.75
PHINJ8	8mm	13.5mm	£5.75

Petrol pipe clips Zinc plated mild steel.

Hex slotted head drive & shoulder. 9mm band width. Non perforated band means no chance of damage to hose. Uniform circular pressure gives maximum sealing efficiency.



	Ref.	Pipe mm.	Ea.	(10)
	PPC9	8-10	37p	£3.33
mm	PPC11	10-12	44p	£3.96
ead.	PPC12	11-13	44p	£3.96
	PPC13	12-14	44p	£3.96
	PPC15	14-16	44p	£3.96
	PPC17	16-18	51p	£4.59

Petrol pipe clip kit

55 piece petrol pipe clip kit. Zinc plated mild steel. Size range: 8-10mm, 10-12mm, 11-13mm, 12-14mm, 14-16mm and 16-18mm.





Braided steel petrol hoses



Available in various lengths and bores. Comprise rubber hose covered with braided steel. Complete with rubber end caps and clips, (unless stated). Suitable for petrol/oil/water, working pressure 150 psi.

'Aluminised	d' braided s	steel, (includes end f	ittings).
Ref.	Bore.	Length.	Ea.
LMA330	6mm	75mm	£4.02
LMA331	6mm	150mm	£4.24
LMA332	6mm	300mm	£5.30
LMA333	6mm	450mm	£6.16

Braided stainless steel, (includes end fittings).

Ref.	Bore.	Length.	Ea.
LMA334	8mm	75mm	£4.82
LMA335	8mm	150mm	£5.50
LMA336	8mm	300mm	£8.66
LMA337	8mm	450mm	£11.20

Braided stainless steel, (without end fittings).

Cut to length.

Ref.	Bore.	O.D.	Per metre.
LMA366	6mm	11mm	£9.15
LMA367	8mm	13.5mm	£10.14
LMA368	9.5mm	15mm	£11.59
LMA369	12.4mm	20mm	£24.41

Rubber end cover

 Fits 6 & 8mm pipes only.

 Use with a PPC15 petrol pipe clip.

 Ref.
 Ea.
 (10)

 LMA338
 18p
 £1.50



Pipe & hose



Description.	Ref.	Bore.	O.D.	М.
	PVC3	3mm	6mm	62p
Clear	PVC5	5mm	7.5mm	92p
PVC pipe	PVC6	6mm	9mm	99p
	PVC8	8mm	12mm	£1.54
Vacuum pipe	VP4	4mm	9.5mm	£4.32
Vacuum	VSH9	9.5mm	19mm	£4.44
servo hose				
Heater hose	AHH921	16mm	23mm	£3.00

Prices ex-vat.

Hose Connectors

O Clip double ear

O clips double ear. These clips are crimped to secure them onto the pipe/hose using the O Clip Crimping tool (below), making a permanent joint. Material zinc plated steel.



Ref	Size	Each	(10)
OC1A	8-11mm	27p	£2.43
OC2A	9-11mm	27p	£2.43
OC3A	11-13mm	29p	£2.61
OC4A	13-15mm	29p	£2.61
OC5A	15-18mm	29p	£2.61
OC6A	17-20mm	35p	£3.15
OC7A	20-23mm	54p	£4.86

O Clip crimp tool

Crimp tool specially designed for crimping all sizes of O clips.



Ref: OCPLIER £18.98

O Clip & hose joiner kit



72 piece O clip and hose joiner kit. Comprises of 48 assorted O clips, size ranges 11-13mm, 13-15mm, 15-18mm, 17-20mm and 20-23mm. Also includes 24 plastic hose connectors, size ranges 6mm, 8mm, 10mm, 12mm and 16mm. All contained in a tough storage box.

Ref: 5005420 £27.50

Plastic hose connectors

Suitable for fuel line, heater hoses, windscreen washer hose, vacuum tubing etc. Resistant to coolant additives, petrol, diesel, oil. Made from tough nylon or acetyl. **Colour is black,blue or white depending on availability.**

Sizes: 6mm(1/4"), 8mm(5/16), 10mm(3/8"), 12mm(1/2"), 16mm(5/8") and 19mm(3/4").

Size refers to the bore size of pipe that connector fits into.



T-piece.

	Ref	Size	Each
	MHC012	6mm	£1.47
	795354	8mm	£1.62
	MHC013	10mm	£1.47
-	MHC001	12mm	£1.47
-	MHC002	16mm	£1.93
	MHC003	19mm	£2.44
	Ref	Size	Each
	LMA319	8-6mm	£2.80
	4557246	10-8mm	£1.62
	LMA327	12-8mm	£3.56
	MHC014	12-10mm	£1.47
	MHC011	16-12mm	£1.72
	MHC004	19-15mm	£2.12
	Ref	Size	Each
	MHC015	6mm	£2.25
		6mm 8mm	
	MHC015		£2.25
	MHC015 795477	8mm	£2.25 £2.20
	MHC015 795477 MHC016	8mm 10mm	£2.25 £2.20 £2.80
	MHC015 795477 MHC016 MHC005	8mm 10mm 12mm	£2.25 £2.20 £2.80 £2.44
	MHC015 795477 MHC016 MHC005 MHC006	8mm 10mm 12mm 16mm	£2.25 £2.20 £2.80 £2.44 £3.02
	MHC015 795477 MHC016 MHC005 MHC006 MHC007	8mm 10mm 12mm 16mm 19mm	£2.25 £2.20 £2.80 £2.44 £3.02 £3.23
	MHC015 795477 MHC016 MHC005 MHC006 MHC007 Ref	8mm 10mm 12mm 16mm 19mm Size	£2.25 £2.20 £2.80 £2.44 £3.02 £3.23 Each
	MHC015 795477 MHC016 MHC005 MHC006 MHC007 Ref MHC017	8mm 10mm 12mm 16mm 19mm Size 6mm	£2.25 £2.20 £2.80 £2.44 £3.02 £3.23 Each £2.42
	MHC015 795477 MHC016 MHC005 MHC006 MHC007 Ref MHC017 795411	8mm 10mm 12mm 16mm 19mm Size 6mm 8mm	£2.25 £2.20 £2.80 £2.44 £3.02 £3.23 Each £2.42 £2.20
	MHC015 795477 MHC016 MHC005 MHC006 MHC007 Ref MHC017 795411 MHC018	8mm 10mm 12mm 16mm 19mm Size 6mm 8mm 10mm	£2.25 £2.20 £2.80 £2.44 £3.02 £3.23 Each £2.42 £2.42 £2.42 £2.42
	MHC015 795477 MHC016 MHC005 MHC006 MHC007 Ref MHC017 795411 MHC018 MHC008	8mm 10mm 12mm 16mm 19mm Size 6mm 8mm 10mm 12mm	£2.25 £2.20 £2.80 £2.44 £3.02 £3.23 Each £2.42 £2.42 £2.42 £2.42 £2.42 £2.42 £2.42 £2.69 £3.42

Metal hose connectors

Material: Brass or plated steel depending on availability. Sizes: $6mm(^{1}/4")$, $8mm(^{5}/_{16})$, $10mm(^{3}/_8")$, $12mm(^{1}/_2")$, Size refers to the bore size of pipe that connector fits into.

Straight	Ref	Size	Each
connectors.	J0404	6mm	£2.48
and the second s	J0606	8mm	£2.55
	J0808	10mm	£4.08
State of Concession, State of State	J1010	12mm	£3.84
Reducers.	Ref	Size	Each
	J0604	8-6mm	£2.53
Contract of the local division of the local	J0806	10-8mm	£2.62
succession in the local division in the loca	J1006	12-8mm	£4.08
	J1008	12-10mm	£3.84
T-piece.			
and a state of the	Ref	Size	Each
annes and	MTP001	6mm	£3.98
	MTP002	8mm	£4.06
	MTP003	10mm	£4.86

Prices ex-vat.

Brake Pipe & Fittings

Brake pipe tubing

Supplied in 25 ft. (7.6metre) lengths in either copper-nickel or copper. Both conform to BS2871.



Copper-nickel 90/10 seamless brake tubing.				
Ref.	outside dia.	max pressure.	£(25 feet)	
T14M	3/16"	3100 psi	£20.48	
T20	1/4"	2250 psi	£32.50	
T18	5/16"	1740 psi	£34.43	

Coppe	er brake tubing	20swg	
Ref.	outside dia.	max pressure.	£(25 feet)
T100	^{3/16} "	3100 psi	£19.69

Brake pipe clips



Ref.	To suit	Hole	Material	Each
1. BPC1	1x 3/16"	6mm	Plastic	85p
2. BPC2	2x 3/16"	1/4"	Plastic	£2.36
3. BPC3	3x 3/16"	8mm	Plastic	£2.87
4. BPC	3/16&5/16	6mm	Metal	68p.

Brake nuts male



	Ref	Thread	Ea	£(Qty)
1.	B574	³ /8"unf x 24 tpi	38p	£7.85(25)
		(Mini, Escort)		
2.	B690	3/8"unf x 24 tpi TTE	47p	£9.80(25)
3.	B573	3/8" BSF x 20 tpi	59p	£12.27(25)
4.	B620	10mm x 1mm short	35p	£7.30(25)
5.	B678	10mm x 1mm long	50p	£10.42(25)
6.	B687	10mmx1mm short TTE	42p	£8.68(25)
7.	B689	10mmx1mm long TTE	47p	£9.80(25)
8.	B626	10mm x 1.25mm long	44p	£9.12(25)
9.	B571	12mm x 1mm	90p	£7.47(10)

	maic b	rake nato for 14 pipe		
	Ref	Thread	Ea	£(Qty)
10.	B691	12mm x 1mm	84p	£17.42(25)
	BPN31	7/16" UNF	79p	£14.88(25)

Note: TTE = Threaded to end

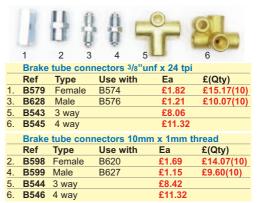
Brake

nuts female



	- i ciniare	bruke huts for 710	pipe	
	Ref	Thread	Ea	£(Qty)
1.	B576	³ /8"unf x 24 tpi	55p	£11.42(25)
2.	B627	10mm x 1mm	52p	£10.75(25)
	Female	brake nuts for 1/4" p	pipe	
3.	BPN32	7/16" unf	£1.01	£18.75(25)
4.	B695	12mm x 1mm	£1.59	£29.88(25)

Brake tube connectors



Brake bleed screws



	Ref	Thread	Ea	£(Qty)
1.	B618	1/4"unf x 28 tpi	£1.06	£22.15(25)
2.	B619	³ /8"unf x 24 tpi	£1.08	£22.47(25)
3.	B581	3/8"unf x 24 tpi long	£1.37	£28.47(25)
4.	B580	6mm x 1mm short	£1.20	£24.97(25)
5.	B578	6mm x 1mm long	£2.02	£42.07(25)
6.	B682	7mm x 1mm	88p	£18.32(25)
7.	B671	8mm x 1.25mm	83p	£17.20(25)
8.	B679	10mm x 1mm	92p	£19.17(25)
9.	B680	10mm x 1mm long	£1.08	£22.47(25)

Bleed nipple dust cap.

Ref: 4720500 70p ea, £6.34(10)



Prices ex-vat.

Brake Pipe Kits & Tools

Brake bleed screw kit

Contains 75 assorted blake bleed screws, imperial and metric, short and long. **Ref: 5006140** £48.70



Brake pipe fitting kit

Contains 135 pieces. 3/8"UNF male & female nuts, 10mm male & female nuts & female connectors, 12mm male nuts. All for 3/16" pipe fitting. Ref: 5006150 £38.60



Brake bleeder valve kit

One way valve and connecting hose. Prevents old fluid from re-entering brake system without repeatedly opening and closing bleed nipple. Ref BRK01 £16.78



Brake bleed/vacuum pump



A comprehensive kit including reservoir, nipple adaptor and vacuum pump with pressure gauge for brake bleeding. The hand operated pump pulls the fluid through the bleed nipple without the need to use the brake pedal or lever. The manual pump with pressure gauge can also be used to test many vacuum operated systems, fuel pumps carburetors etc. **Ref BRK07** £44.98

Pipe bending tool

Bends copper and steel tubing without kinking. Suitable for 6mm, 8mm and 10mm dia tube.



Will bend 3/16" pipe using the 6mm die. **Ref: 400098 £12.75**

Pipe flaring tool

Forms single and double flares.Adjustable grip pressure for different tube walls and materials. Pipe sizes: $3/16^{\circ}$, $1/4^{\circ}$, $5/16^{\circ}$, $3/8^{\circ}$, $1/2^{\circ}$, $7/16^{\circ}$ and $5/8^{\circ}$. Full step by step instructions included. **Ref: 5510 £39.20**



Note: Not suitable for steel pipe.

Mini tube cutter

Ideal for use in tight spaces. Hardened steel cutter cuts copper, brass and aluminium. Capacity 3-16mm dia. Ref : 400088 £3.95



Hydraulic hose clamp

For clamping hydraulic hoses when working on brake systems. **Ref: 400022 £6.62**



Brake fluid tester



Digital brake fluid tester, suitable for determining brake fluid quality with four LED reading plus low battery warning. Suitable for use with DOT4 brake fluid. Battery included. Ref: 47275 £10.00

Anti-seize copper grease

For use on rear of brake pads to prevent squealing. Also used for prevention of nuts/bolts seizing, can also be used to prevent battery terminal corrosion. 400g. tub. Ref: CG1 £5.99



Prices ex-vat.



Battery Chargers & Inverters

Optimate 4 Dual program battery charger



Fully automatic diagnostic battery charger for all 12V lead-acid, AGM and gel batteries from 2.0Ah to 50Ah. Ideal for motorcycles. Constant 1A output current for safe recharging. Safe for months long connection during over-winter battery maintenance. Features automatic 9 stage charge cycle. Supplied with two connection leads. One fused lead with ring terminals for permanent connection to the battery and one with crocodile clips.

Ref: OPT4 £55.26

Optimate 2 Automatic maintenance charger



12 Volt automatic battery charger for lead acid, EFB, AGM and gel batteries from 3-96AH. Ideal for motorcycles. Constant 0.8A output current for safe recharging. Safe for months long connection during over-winter battery

maintenance. Features automatic 4 stage charge cycle.Supplied with two connection leads. One fused lead with ring terminals for permanent connection to the battery and one with crocodile clips.

Optimate accessories

Weatherproof connector and lead.

Allows for quick connection to Optimate by plug and socket, Includes weatherproof fuseholder on positive lead. Ref: SAE71 £10.00



Charge cable extender.

1.8 metre cable fitted with plug and socket for connecting between Optimate lead and battery connection leads. Ref: SAE63 £11.00



TM to SAE converter lead.

Connects pre-2012 Optimate with white block connector to new style accessories with SAE bullet type connector. Ref: SAE17 £8.00



Motorcycle battery charger 6V/12V

6/12 volt battery charger, 300mA output. Plugs directly into a 13 amp socket. Plug in leads for choice of connection with either crocodile clips or ring terminals which can be left connected to the bike. Also includes 2 pin euro adapter.



Ref: BCH3PIN £19.98

Inverters For running 240 volt appliances

(drills, lights etc) from one or more 12 volt batteries.

Protected against overload, over temperature, short circuit over-voltage and low battery. DC input voltage range is 10-15V. Output is modified sine wave 230V 50hz.



500W inverters are fitted with 4mm socket screw connections and includes 0.5M cable with crocodile clips and 0.5M cable with cigarrette lighter plug. Ref RINV500 £54.50

Ref: OPT2 £38.52

Solar Panel & Soldering Irons

12V Solar Power Battery Maintainer



12 Volt, 2.4 Watt solar powered battery maintainer for car and leisure batteries. Durable water resistant casing. Complete with suction cups for windscreen mounting. 12 V DC power plug, battery clips and 2.7M lead supplied. Can be left unattended. **Ref: RSP240 £28.09**

Electric soldering kit



9 piece kit containing a 100W soldering gun for work on cables & sheet metal, a 30W soldering iron with fine point tip for precision work, plus stand, positioning tool, resin flux, solder, de-soldering tool, spare tip for gun and fully adjustable clamping work stand with magnifying glass. All supplied in a robust case. **Ref: 845318 £38.00**

Soldering station 240V

8-40 watt adjustable output. 1.2mm soldering tip with 1.4M cable length. Built in stand and sponge Ref: 245090 £26.20



Butane blow torch

Butane blow torch for low temperature soldering & for use on heat shrink sleeving & heatseal terminals. Refillable from standard butane gas lighter filler can. **Ref: 45099 £15.59**

Soldering iron Ref:6210 240y 30w

Ref:6210 240v 30w. Overall length:217m £8.76





Soldering iron stand

Suitable for most types of electric soldering iron.Heavy duty metal base, Reinforced spring holder to help prevent flex tangling. Cleaning sponge for bit cleaning.

Ref: SOL12 £4.00

Gas powered multi-purpose kit



70 watt 4-in-1 butane powered. Kit comprises of: Gas powered soldering torch with pointed solder tip, hot air blower tip, cap with lighter, tube of solder and cleaning sponge. Supplied in a tough storage case. **Ref: SP70K £42.95**

De-soldering tool



Removes molten solder from joints. Spring loaded plunger with removable nozzle. Ref: N40CH £9.90

Solder, multicore.

Electricians top grade resin cored solder, needs no separate flux. Supplied in 18swg wire form.1.2mm dia. 40% tin, 60% lead Pack of 5M Ref: SOL5 £3.00 Reel of 1/2kg(approx 61M) Ref: SOL50 £19.30



Soldering flux

Fluxite soldering paste. Contains zinc and ammonium chlorides in petroleum grease. 100 grams. Ref: 61300 £18.62

Tinmans solder

BS219, grade D. 30% tin, 70% lead. Approx 9 x 9 x 350mm. **Ref: 46800 £11.14 Ea**





Prices ex-vat.

Tools & Haynes Manuals

Latex disposable mechanics gloves



Disposable latex gloves for general workshop use. Ref: GLVLTL £10.48 per 100

Feeler gauges



Imperial feeler gauges. 10 blade. 0.0015"-0.025". **Ref: 101002A £4.82** Metric feeler gauges. 10 blade. 0.05mm-0.8mm **Ref:101006A £4.82**

Universal oil filter wrench



Removes all oil filters from 66 -102 mm diameter. For use with 1/2" or 3/8" drive or 21mm spanner. Ref:OFWUNI £10.48

Car trim remover kit



Set of 5 tools for removing upholstery clips, trims & mouldings without damage to panels. Tools are made of fibreglsass and nylon. Ref: TRT £10.10

Wire cutters



Heavy duty cable cutter for cutting cables up to 70mm². Length: 236mm. **Ref: TT50 £18.26**

6 way circlip plier set



Circlip pliers with interchangeable jaws. For internal and external snap rings from 3/8" to 2". Includes 3 convertible tips, 180°, 90° and 45°. **Ref:** 5554 £5.67 For circlip packs, see page 73

Tyre pressure gauge



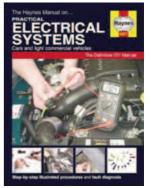
Very accurate professional tyre pressure gauge. Metal cased. Shockproof and vibration resistant. Bleed button to release inner pressure after use. Easy to read 0-60 psi and 0-4 bar dial markings. Supplied in polycarbonate case. **Ref: GE92 £13.74**

Haynes manuals

The following editions of the popular Haynes series of manuals are supplied in paperback.

No VAT charged on manuals.

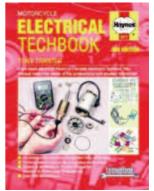
Practical Electrical Systems



Ref: 4267 Understanding, testing and repairing car electrical systems & components.

Step by step instructions, 100's of photos and illustrations to guide you through each job. The definitive D.I.Y. electrical manual. £20.50

Motorcycle electrical techbook



Ref: 3471 From basic electrical theory to complex electronic systems. All motorcycle electrical equipment fully explained. Includes information on ABS, fuel injection and engine management.

Covers practical electrical testing and electrical fault finding. **£22.14**



Tools

9" locking wire pliers



9"safety locking wire pliers. Ref: LSWPLIER £20.98

Stainless steel locking wire



Stainless steel locking wire. 0.7mm dia x 30 metres. Ref: GPRWIRE £6.58 (30metres)

33 piece ¹/4" hex security bit set



Security bit set contains bits for use on common types of tamper proof fasteners. Includes extra bit holder for use as lid or additional bit storage. Ref:2267 £8.19

Precision screwdriver set



Swivel heads for ease of use. Contains Phillips no.1-1, 1-2, 0, & 0-2 Slotted 1,1.4,2,2.4,3,3.8mm Hex 1.5, 2, 2.5 Nut driver 3,4,&5mm. In storage case. **Ref.JSS £3.09**

Lazy tong riveter



Designed for repetitive applications. Heavy duty carbon steel lattice and head. Enamelled, die cast aluminium handle. Complete with five nozzles for 3.2mm, 4mm, 4.8mm, 6mm and 6.4mm rivets. **Ref: 5564 £22.18**

Large

flange

rivets

Aluminium Rivets

Standard rivets

Standard rivets. Ref. Size. 10 100 371460 3.2mmx6mm £1.00 £2.60 572560 4.0mmx10mm £1.00 £5.00 ABR508 4.8mmx12mm £1.00 £6.87

ABR509 4.8mmx18mm £1.25 £9.39 Large flange rivets.

Ref.	Size.	10	100
ABR511	4.8mmx12mm	£1.14	£8.58

Aluminium rivet kit



Contains 440 pieces. standard flange: 3.2x10mm, 3.2x13mm, 4.0x12mm, 4.0x15mm, 4.8x13mm, 4.8x19mm, Large flange: 4.8x19mm Washers: M3X13mm. **Ref: AB48 £16.60**

Rivet washers.

¹/8" I.D. ¹/2" O.D. 20swg steel. **Ref:W66 £1.00(10). £9.78(200)**

Hand riveter kit



Heavy duty hand riveter with 4 sizes of riveter head; 2.4mm, 3.2mm, 4.0mm, and 4.8mm. includes 60 blind rivets (15 each size). **Ref:** 5556 £11.98

Stud extractor set



4 piece 1/2" drive, socket type stud extractor set.

For stud sizes: 6, 8, 10, and 12mm. Drop forged chrome vanadium. Metal storage case. **Ref: 9160 £32.88**

3 piece gear puller set



Sizes: 75, 100, and 150mm. dia. Ref: 5587 £16.24

45° long nosed pliers



45° extra long nose pliers. Length: 280mm. **Ref: 1022 £6.30**

Drill gauges

Metric 1mm to 13mm Ref:DG2 £2.40 Imperial 1/16" to 1/2" Ref:DG1 £2.40 Tempered stainless steel



Prices ex-vat.

Sales Tel: 0115 9305454

Tools

Digital LCD vernier gauge

Three way measurement, internal, external & depth.

Zero setting at any position.

Stainless steel digital LCD vernier gauge. 150mm range. Select Metric/imperial display at any position. Manual on/off switch.

Bright LCD display. Fine adjustment roller and locking screw. Supplied in a padded case. Shockproof. **Ref: DIG01 £25.18**

Motorcycle carburettor synchronizers

Contain vacuum gauges, mounting plate, valves, hoses and extension probes.



2 cylinder carburettor synchronizer. Ref: VGA2 £39.98

Telescopic mirror



30mm dia mirror on swivel joint. Handle extends to 550mm. Ref:5579 £3.48

Heavy duty chain breaker



Suitable for all motorcycle chains. Ref: CHBHDCH £33.58

Spare pin for CHBHDCH (above). Ref: CHBHDP £1.58ea

Cable lubricator

Colour: black & gold. Ref: CLBBLK £5.58



4 cylinder carburettor synchronizer. Ref: VGA4 £59.98

Magnetic pick-up tool



Powerful magnet. Telescopic shaft. Length ; 490mm extended, 115mm retracted. **Ref:5537 £3.39**

Motorcycle tyre lever

Flat tyre lever. Length 250mm. Drop forged steel.**Ref: TYLF £4.97 ea**

Tyre valve caps

Chrome With rubber seals. Ref: VCPRNDCH £2.97pair

Black plastic - Set of 4 Ref: PTC4 99p.

Third hand tool



"Third hand tool" with 60mm dia magnifying glass. Features adjustable joints, strong crocodile clamps and cast iron base. **Ref: 8605 £5.42**

Tyreart pen

'Paint in a pen'. Clean & simple to use. great results that last. Colour: White Ref:TP £2.95



Timing disc



Timing disc in PVC marked in degrees for accurate timing. Dia 190mm Ref:W29046 £6.50

Motorcycle rim protectors

Protect wheel rim from damage when using tyre levers. Ref:RIMPRO £7.50 pair



Motorcycle spring tool



Universal tool for spring removal. Length 170mm. Plated finish. Ref:MSH £5.72



Test Equipment

Automotive multi-meter



Measures rpm, dwell, DC volts, AC volts, DC current, and resistance. Includes diode test, continuity buzzer, on/off switch with auto off and Auto polarity indicator. Large LCD display also shows selected mode & indicates which sockets to use.CE approved. **Ref:79860. £47.75**

Tachometer	0-10,000 RPM
Dwell	0-90,,60,45°
Cylinders	4,,6,8
DC volts	200mV-1000V
AC volts	2V-750V
DC amps	200mA-10A
Resistance(ohm)	200-20M
Diode test	Yes
Continuity buzzer	Yes
Low battery sign	Yes
Ranging	Manual
LCD size mm	58x46
Dims mm	179x88x35mm

Induction ammeters

Clip on to outside of cable giving a 'hands free' operation. A scale shows approximate current and direction of flow.

Ref: 53475 75amp £26.30 Ref: 53430 30amp £25.41



All multimeters are supplied with test leads and batteries,

Pocket multimeter



Multimeter with temperature probe. Has the usual multimeter functions plus measures temperature in °C & °F. CE approved. Ref:79800. £20.88

DC volts	200mV-500V
AC volts	200-500V
DC amps	2mA-10A
Resistance(ohm)	200-20M
Temperature °C	-40 to 1000
Temperature °F	-40 to 1832
Diode test	Yes
Continuity buzzer	Yes
Low battery sign	Yes
Ranging	Manual
LCD size mm	46x15
Dims mm	130x76x33

Spare leads for 79800. **Ref: 79896 £10.08** Spare temperature probe for 79800. **Ref: 79897 £9.90**

Battery, bulb & fuse tester



Checks power of most 1.5-9v batteries. Tests fuses and bulbs Easy to read meter. Requires a 9v battery (not supplied) Ref: FTB £7.22



Page 86

Test Equipment

Pocket multimeter



Digital multimeter with built-in transistor test socket and diode test position. Ref: 589681 £9.12

DC volts	200mV-500V
AC volts	200V-500V
DC amps	200uA-5A
Resistance	200-2000k
Diode test	Yes
Transistor test	Yes
Ranging	Manual
LCD size mm	15x47
Dims mm	125x69x22

Gunson inductive Xenon timing light



Xenon timing light for setting ignition timing, suitable for 12V petrol engine vehicles. Inductive pickup clips directly onto ignition HT lead. Light is powered by the vehicles battery. **Ref: 4113 £42.69**

Prices ex-vat.

Circuit testers



Checks 6,12 & 24v circuits. Bulb lights when circuit is complete. Has a 1.5M rubber cable. Tester length 190mm. Ref:53426 £12.78



Chromium plated brass body with insulation piercing contact point. Protective cap for probe. Range 6-24V DC. Bulb lights when circuit is complete. 750mm lead and crocodile clip.

Ref:101740A £6.94

Cordless circuit tester



Detects DC voltage between 3 - 28 Volts. No ground wire or clip required. Tester illuminates LED & buzzes on contacting the live wire. Requires the users finger to touch a bare metal ground to obtain a reading. Comes with long life alkaline batteries.

Ref:53428 £12.95

Mechanics stethoscope



2 piece 320mm probe for pinpointing worn bearings, engine faults, and other mechanical noises. Ref:STETH $\pounds 6.58$



Motorcycle Indicators

Flexi-stem indicators



Flexi-stem universal indicators with 10mm mounting bolt (includes nut). Lens 60x44mm. E marked. 12V 10W bulbs fitted (for 6V use bulb ref 244). Ref: INDUFLBO. £18.88 pair

Spore hulbe 121/ Bof 245 42p

Spare bulbs. 12V - Ref 245 42p 6V - Ref 244 57p



Flexi-stem universal oval indicators. 10mm mounting bolt (includes nut). Lens 50x42mm. E marked. 12V 10W bulbs fitted (for 6V use bulb ref 244). **Ref: INDUFLOV £18.88 pair**

> Spare bulbs. 12V - Ref 245 42p 6V - Ref 244 57p



Black 40mm long stem with amber lens. Lens 55x38mm. 8mm fixing stud. E marked. Ref: INDMLBLK £9.98 per pair

Spare bulbs BLB03 £1.12 ea.

Mini indicators



Black 18mm short stem with amber lens. Lens 55x38mm. 8mm fixing stud E marked.

Ref: INDMSBLK £9.88 per pair

Spare bulbs BLB03 £1.12 ea.



Black 40mm long stem mini with transparent lens and amber bulbs. Lens 55x38mm. 8mm fixing stud. E marked

Ref:INDMLBKT £9.98 per pair Spare amber bulb 12v 23w Ref: BLB07 £1.12 ea





Black rubber stems. Lens 58x38mm. 8mm fixing stud. £9.90 per pair

Long stem, 40mm. Ref: WE35071 Short stem, 19mm. Ref: WE35070

Spare bulbs 12v 23w Ref: BLB03 £1.12 ea

Cat eye mini indicators

Universal cat eye mini indicators. E marked. Lens 48x28mm. 10mm fixing stud. Black Ref:INDUCEBL £12.58 pair Chrome Ref:INDUCECH £12.58 pair

Spare bulbs 12v 23w (BA9) BLB03 £1.12 ea





Prices ex-vat.

INDUCEBL



Motorcycle Indicators

Fairing indicators



Black flush mounting fairing indicators. Dimensions: 90x55x32mm. 12V 23W bulbs fitted. E marked. Ref: INDFBLK £11.53 (pair)

12v 23w (BA15) Ref: BLB04 £1.12 ea.



Small oval slim fairing indicators. E approved.Includes bulb (BA15). Lens 70x35mm.28mm dia fixing hole. Ref:INDFSLSA £10.48 per pair

12v 23w (BA15) Ref: BLB04 £1.12 ea.

British type chrome indicators



Ref: WL148 £19.96

Stem length 125mm. Lens dia 65mm Fitted with 12V 21W bulb and one nut

Spare bulbs. 12V - Ref: 382 38p 6V - Ref: 317 72p



Ref: WL149 £18.90

Stem length 80mm. Lens dia 65mm Fitted with 12V 21W bulb and one nut

⁷/16" unf nut, required if fitting in clearance hole. **Ref: B161 15p (ea)**

Spare lens for WL148 or WL149. Ref: WLE018 £3.00 (ea)

Complete motorcycle indicator kits



Complete kit for replacing, modifying or installing for the first time on a motorcycle/moped. Available with round or square lens lamps. The kit comprises of : 2 x pairs of flexi-stem indicators with 10mm mounting bolt. (Includes nut) E-Marked. Supplied with bulbs. (see page 88) Wiring kit comprises of : handlebar switch, flasher unit, cable, sleeving, terminals, fuse & fuse holder, and full instructions. Kits are available in 6 volt or 12 volt.

Square lens measures 60mm x 44mm 12 Volt - Ref: FLBOK12 £61.22 6 Volt - Ref: FLBOK6 £61.22 Oval lens measures 50mm x 42mm 12 Volt - Ref: FLOVK12 £61.22 6 Volt - Ref: FLOVK6 £61.22

LED indicators



Long stem (38mm). Ref: INDLED18.



Short stem (20mm). Ref: INDLED19.

Lens dimensions: 50mm x 28mm. 8mm fixing hole. (Use with LED flasher unit. see page 40). E marked. **£18.75 per pair**

Indicator resistor



For use if replacing a bulb type indicator with an LED one using existing flasher relay. Simply connects into the LED indicator wiring. 12V 25W. Requires one per LED lamp. **Ref: WRELED04 £7,98**

Indicator wiring kit



Suitable for any motorcycle or moped that has a battery fitted. Kit includes: handlebar switch, flasher unit, cable, sleeving, terminals, fuse and wiring instructions. (indicators not included). 6V pack Ref:INDWP6 £24.57 12V pack Ref:INDWP12 £24.57

Prices ex-vat.

Motorcycle Power Sockets & Switches

Replica rear lamp

Replica of Wipac type S446. 12V. Double contact, stop & tail light. **Ref: W19031 £13.90**

Spare bulbs 12V 21/5W Ref: BLB02 £1.12 ea. 6V 18/5W Ref: 13047 90p

Spare lens. Ref: W19030 £4.88

Replica rear lamps

Replaces British pre 1963. Fitted with 12V 21/5W bulb **Ref: RL011 £8.57**

Spare bulbs: 12V 21/5W Ref: 380 38p 6V 21/5W Ref: 384 74p

Spare lens Ref: W19037 £4.87

Replica of original Miller stop/tail lamp as fitted to Vincent B & C models. Fitted with 12V 10W bulb Ref: W19233 £23.95

Spare bulbs: 12V 10W Ref: 245 42p 6V 10W Ref: 244 57p

Replica of Miller n° 38ET. Fits most Velocettes 57-67 and Royal Enfield 150cc 1957 on. Fitted with 6V 21/5W bulb **Ref: W19236 £12.50**

Spare bulbs: 12V 21/5W Ref: 380 38p 6V 21/5W Ref: 384 74p

Replica of Lucas MT110. converted to stop/tail. Fits many models 1930-50. Fitted with 12V 21/5W bulb Ref: W19301 £20.90

Spare bulbs 12V 21/5W Ref: BLB02 £1.12 ea. 6V 18/5W Ref: 13047 90p

Replica of Lucas MT211 converted to stop/tail. Fits many models 1936-50. **Ref: W19234 £20.90**

Spare bulbs 12V 21/5W Ref: BLB02 £1.12 ea. 6V 18/5W Ref: 13047 90p





Chrome bezel 52mm diameter. Rear 5mm stud fixing with nut and washer. Ref: W19102 £6.95



12V Handlebar power outlet



12V power socket kit for motorcycle fitment. Accepts standard cigarette lighter size plug. Features weatherproof cap & cable seals to rear. Pre-wired fuse holder and 15A fuse. Also includes quick

connector allowing unit to be disconnected from battery when not in use. Ref: POWSUP11 £20.98

12V USB Handlebar outlet



USB socket kit for motorcycle fitment. 12V input, 5V putput.

Features weatherproof cap & cable seals to rear. Pre-wired with fuse

holder and 15A fuse. Also includes quick

connector allowing unit to be disconnected from battery when not in use. Ref: POWSUP12 £26.23

Universal handlebar switches

Universal handlebar on/off switch. Fits 7/8" bars, cable length approx 60cm. Connections are 3.9mm Japanese bullet and socket. **Ref: ESS** £14.98



Universal handlebar kill & off/low/high beam switch. Fits7/8" bars. Cablelength approx 40cm. Connections are 3.9mm Japanese bullets & sockets. Ref: EKLS £19.98





Motorcycle Switches

Handlebar switches



Handlebar switches, for 22mm (7/8") bars.

- 1. Chromed horn push or cut-out. Black button earths the contact.. Ref: SW1014B £7.50
- 1. Red button, earths the contact... Ref: SW1014B £7.50
- 2. Chromed dip or on/off...... Ref: SW10135 £8.85
- 3. Chromed dip & horn...... Ref: SW1049 £8.85
- Chromed lights/horn/cutout or indicators/horn/cutout...... Ref: SW1036
- rubber cover over the button...... Ref: SW1002 £7.50 6. Chromed, indicators, or on/off/on. Ref: SW1169 £11.90

Replica switches

Replica of Lucas chrome horn push switch. 7/8" Type 4A Ref: W16006 £11.25

Replica of Lucas chrome horn/dip switch complete with harness. Type 255A Ref: W19231 £17.90



Replica of Miller 157HV. Chrome horn/dip switch complete with harness. ⁷/s" **Ref: W86004 £16.25**



Spare mounting clip for W10114 switch above. Ref: W10115 £2.00

Replica of Wipac Ducon dip/horn switch. Fit 7/8" bars. **Ref: W10128 £15.90**

Stop lamp switches



Universal, with spring & clamp, pull for on type operation. **Ref: SW1039 £8,85**



Gives contact when plunger is released. Ref: 431100 £4.88



Honda type rear stop switch, pull for on type operation. **Ref: SSHR01 £10.47**



Universal, with spring & hook. Gives contact when spring is pulled **Ref: 180008 £9.90**

W10141

Rubber cover for 431100 and 180008 stop lamp switches above. Ref: 54049 £2.20

Replica stop lamp switches



Lucas replica. (pull for on). **Ref: SW1120 £14.37** Lucas replica. Fits BSA, Triumph triples, Norton commando & Triumph 750 twins. Ref: W10141 £7.90

Front stop lamp switches

Lucas

Honda type front stop light switch with 4.8mm blade terminals.

Ref: SSHF01 £11.98

Honda/Kawasaki type front stop light switch with 4.8mm blade terminals. Ref: SSHF02 £8.98

Ignition switches

Lucas ignition. 1968-70. BSA, Norton, Triumph. Without lock & key, (order these separately see below)

Ref: W10163 £12.50

Lucas ignition lock with 2 keys. To fit W10163(above) Ref: W10145 £8.30







Motorcycle Parts

Handlebar grips

Replica Amal grips 7/8" Ref:W84042 £4.50 pair

Foam Grips Black.

Dampens out the vibrations providing extra comfort. Includes end plugs. 125mm long. Fits 7/8" bars Ref:GRPFBLK £6.28 pair.

Superarips Black.

Positive control and grip with these grips, they have a 'tacky' feel when warmed, the ultimate sports bike grips. Includes end plugs. 125mm long. Fits 7/8" bars



Ref: GRPSUPBK £6.93 pair.

Standard twistgrip 7/8"

Twistgrip complete with amal grips. Ref:W83124 £13.50



and BN57555 nipple Air/magneto levers

Right hand, 7/8" Ref:W83005 £11.90

Use ferrule F35

Left hand, 7/8" Ref:W83007 £11.90 Use ferrule F1



Magneto advance grommet

Magneto advance cable grommet, fits Triumph/BSA.

Ref: W61146 £1.50

Decompressor lever

7/8" ball ended. Ref:W83011 £11.90



Use nipple BA5 & ferrule F1

Motorcycle fuel tap



Prices ex-vat.



Chrome flat lever fuel tap. On/off with filter. Fits 1/4" x 1/4". Ethanol resistant. Ref: W73091 £11.90 Nut/spigot for W73091 fuel tap 1/4" Ref: W73022/27 £2.30

Universal lever assemblies

Allov levers with mirror boss. Ref: LVR2LNG £19.98 pair Use nipple BN89L

Use ferrule F100

British type clutch. Chromed steel.

Ref: LVR5CL £9.00 ea Use nipple BN1010L Use ferrule F35

British type brake. Chromed steel.

Ref: LVR5BR £9.00 ea Use nipple BN1010L Use ferrule F35

Ammeters

Motorcycle 8 Amp ammeter with black face and metal casing. Common on various models from 1936-1968. Body dia 40mm, bezel 46mm. Ref: W19010 £14.60



Motorcycle tax disc holder

Stainless steel licence holder Ref:W85053 £7.50

Footrests

Universal folding footrest. Bolt length 55mm Ref:FRU10MM £9.97 pair

Universal folding pillion footrest Bolt length 50mm. Ref:W70004 £20.50 pair

Footrest rubbers

As fitted to British motorcycles. 1/2" bore x 4" length. Ref: W71015 £5.50 pair

Universal gear lever rubber

13mm bore x 60mm length. Ref: W71025 £1.95

Page 92













Control Cable Parts

Control cables and nipples



Control cable and outer casing priced per metre but can be supplied to any length within a centimetre.

Inner wire			
Ref.	Dia.	Metre	
GWS0	1.18mm	88p	
GWS1	1.50mm	88p	
GWS2	2.00mm	88p	
GWS2A	2.25mm	£1.04	
GWS3	2.50mm	£1.27	
GWS4	3.00mm	£1.35	

Galvanised steel 19 core stranded inner wire.

Steel spiral casing with a commercial PVC sheath and Teflon lined outer casing.

Outer casing.

Ref.	To suit	I.D.	O.D.	Metre
LB1NS	GWS0/1	2.4mm	5mm	£5.62
LB2NS	GWS1/2	2.8mm	6mm	£5.77
LB3NS	GWS2/2A	3.75mm	7mm	£6.36
T4NS	GWS3/4	4.75mm	9mm	£7.08

Ferrules.

To Suit	Ea.	10
LB1NS	54p	£4.00
LB2NS	54p	£4.00
LB3NS	54p	£4.00
	LB1NS LB2NS	LB1NS 54p LB2NS 54p



Control cable cutters

Wire cutters for all inner control cable as listed above.Ref: WC6 £21.46

Control cable inner wire bird caging tool

Tool for forming a 'birdcage'when soldering nipples to control cable inner wires. Suitable for 1.5, 2 and 2.5mm dia wire.You will need a vice to hold the jaws and clamp the cable. Then use a hammer to stamp the supplied punch to form the 'birdcage'. **Ref: VT13 £90.00**

Barrel nipples

	1	2 3	9 4 🥑	5 6	🥹 7 🐸
	Ref.	Dia.	Length.	Ea.	10
1.	BN6	4.5mm	4.5mm	39p	£2.60
2.	BN610	6mm	9.5mm	38p	£2.53
3.	BN575	5mm	7.5mm	38p	£3.42
4.	BN57555	5.75mm	5.5mm	39p	£2.60
5.	BN89L	8mm	9mm	55p	£4.00
6.	BN1010L	10mm	10mm	50p	£3.80
7.	BN1013L	9.5mm	13mm	58p	£4.40

Solderless nipples

			8-10-	2	3
	Ref.	Size(DxL)	Fixing type	Ea.	10
1.	BNS575	5.5x7.2mm	Grub screw	64p	£5.76
2.	BNS6	6x10mm	Screw	£1.17	£10.00
3.	BNS8	8x13mm	Hex nut	96p	£8.00

A 500 500

Nipple for air/magneto levers (For inner wire GWS0 & GWS1)							
Ref.	Туре	Dia.	Length	Ea.	25		
W81620	Drum	1/4"	1/8"	£1.62	£33.75		
Nipple for exhaust lifter handlebar levers etc (For inner wire GWS0 & GWS1)							
Ref.	Туре	Dia.		Ea.	10		
BA5	Ball	5mm		27p	£2.25		
(For inner	wire GWS	60 & GV	,		8		
(For inner) Ref.	wire GWS Type	0 & GV Dia.	VS1) Length.	Ea.	10		
(For inner	wire GWS	0 & GV Dia.	VS1) Length.		10 £1.50		
(For inner) Ref.	wire GWS Type Tube	0 & GV Dia.	VS1) Length. 3mm	Ea.			
(For inner v Ref. EE7	wire GWS Type Tube	60 & GV Dia. 3mm	VS1) Length. 3mm	Ea.	£1.50		
(For inner v Ref. EE7 Nipples, po	wire GWS Type Tube ear Size	50 & GV Dia. 3mm TN ¹	VS1) Length. 3mm	Ea. 22p	£1.50 TN24 10		
(For inner v Ref. EE7 Nipples, po Ref.	wire GWS Type Tube ear Size Mediur	0 & GV Dia. 3mm TN n for G	VS1) Length. 3mm 17	Ea. 22p	£1.50 TN24 10		

Control cable junction box

Used to link 2 carburettors to twistgrip or air lever. Material: Nylon. (Each cable end in junction box also needs one nipple EE7 & one ferrule F1) **Ref: W88003 £8.75**



Cable adjusters

1. Pair of alloy cable adjusters. M8 thread, 9mm dia ferrule recess. Use ferrule F100.

Ref: CABASTD £6.28 pair

2. Control cable mid-ajuster. 32mm long. Suitable for F35 ferrule. Ref: A61B £3.02

3. Control cable adjuster screw M6 1.0mm x 32mm length. Suitable for F35 ferrule **Ref: A632 £1.70**

4. Midway control cable adjuster. 20mm long. Suitable for F35 ferrule. Ref: A675B £2.70

5. Control cable adjuster screw. M6 1.0mm x 25mm length. Suitable for F35 ferrule. **Ref: A625 £1.70**

6. Cable adjuster locknut. M6 x 1.0mm fits adjusters as listed above. Ref: LN610 17p each

Control cable adjuster boot

Neoprene boot for protecting cable adjusters. 8mm bore size. Ref: ADJB £2.54

Control cable separator

Chrome control cable seperator. 8mm holes. Ref: CBSTCH £5.23

















Prices ex-vat.

Motorcycle Cable Kits & Misc Items

Universal motorcycle cable kits



Clutch cable:Outer (teflon lined) cable length 1.35m, Inner cable length 1.6m. Supplied with a selection of nipples & fittings. One end of inner cable has 6mm x 10mm nipple fitted and one end of outer has crimped ferrule. Ref: UCCK £15.04

Throttle cable: Outer (teflon lined) cable length 1.35m, Inner cable 1.6m. Supplied with a selection of nipples, adjusters & ferrules. One end of inner cable has carburettor nipple fitted & one end of outer cable has ferrule fitted. Ref: UTCK £10.70

Emergency cable repair kit



Repair kit comprising throttle & clutch inner cables, each one 1.63M long. Also includes solderless & trumpet nipples which can be crimped with pliers. All supplied in a robust nylon bag. **Ref: VWK001 £12.18**

Partitioned boxes

Made from tough polypropylene, including the see through lids. These are tough, top quality partitioned boxes. Ideal for workshop environments.

Case with compartments which can be re-arranged or removed. Case dims:-340x265x57mm. With carry handle.



13 varied size compartments Ref: CASE13 £10.62

32 equal size compartments Ref: CASE32 £10.62

Boxes with fixed compartments

Ref: AB5-9

9 Varied size compartments. Dims.: 240x195x42mm. £6.78

Ref:AB5-18

18 equal compartments. Dims: 240x195x42mm. £7.44



Rubber hooks

Rubber hooks with hinged bracket one end, other end stretches over hooked metal bracket. Large; 120mm long Ref:LMA256 £7.56 pair Small; 65mm long Ref:LMA257 £5.64 pair

LMA256 LMA257

Overcentre toggle latch





LMA289

Lockable toggle latch. (7mm dia hole for padlock) Length including bracket 75mm Ref: LMA289 £6.82pair Toggle latch. Length including bracket 85mm. Ref: LMA243 £6.58pair

LMA243

Folding luggage hooks

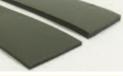
Universal fold away plastic bungee hooks with mounting bolts.

Dims (folded) 36x28x10mm. Ref: LUGHOOK £5.50pair

Foam rubber strip

Closed cell, self adhesive, black. Ideal for isolating from vibration, or where extra padding is required. Note: closed cell foam rubber will not absorb water.





Ref.	Width.	Thick.	М.	Reel.
FRS	50mm	3mm	£2.88	£55.20(25M)
FRS6	50mm	6mm	£4.10	£38.24(12M)

Self adhesive velcro tape

25mm wide. Hook tape. Ref:VC441 £1.65(M) £33.66(25M) Loop tape. Ref:VC442 £1.65(M) £33.66(25M)



Double sided adhesive foam tape

General purpose industrial standard. Suitable for interior or exterior use. 12mm wide x 10 metre roll. **Ref: VC402 £5.90**



Prices ex-vat.

VEHICLE WIRING PRODUCTS LTD,

ORDER FORM.

9 BUXTON COURT, MANNERS INDUSTRIAL ESTATE, ILKESTON, DERBYSHIRE, DE7 8EF

Order by PHONE, POST or FAX at any time day or night. Tel:0115 9305454, Fax:0115 9440101

	Pay Pay	by CRED	IT or	DEBIT C	ARD c	or CHEQUE	or P.C).
	enter Customer number		DE	LIVERY ADD	RESS if	different.		
	Iress label on back cover of catalogue)							
Name			Addre	ss				
Address								
Post code	e Tel No		Post	code		Tel No		
If payin	g by credit card or debit card. (Please tick) Visa	/Mastercard/ Eur	ocard/JCI	3/Solo/ Maestro				
Numb	ber					CHEQUE/PO		
Expiry	y date Start date (If	Maestro)				Please make che payable to:		
Last 3	3 digits of security code (found on back of card)					VEHICLE WIRIN	IG PROD	UCTS
Card	holder (please print)							
Signa	ature					CHEQUE/PO va	iue z	
Page	Item.	Size or co	lour	Ref		QTY.	£	Р
гауе			JIUUI.	Rei		QTT.	L	
CARR	NLAND (except for Scottish highlands)					Goods Total		
Orders under £100 Goods Total (ex-vat), please add £3.95 Orders over £100 Goods Total (ex-vat) are CARRIAGE FREE					Please	add carriage		
Scottish highlands & Isles, Isle of Wight, Isle of Man and Northern Ireland.					. 10030	Sub total		
NEXT DAY DELIVERY. Goods can be sent for next day delivery if phoned or faxed before 1pm. Cost is £9.75 up to 2kg, £13 over 2kg, for most of the UK. For the Scottish Highlands & Isles, Isle of Wight, Isle of Man or Northern Ireland please ask for price. Please note that next day delivery does not include delivery on a Saturday or				or taxed	VATO			
Sundav or	public holidays.	clude delivery o	on a Sat	urday or	VAI@	20%(or current rate) TOTAL		
OVERSEAS CUSTOMERS. Please see page 3.						IUIAL		

When placing an order please state your customer number

If the name or address is not correct please advise us. **Customer number**