

July 2016  
Catalogue

# Catalogue

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## 2 A Little about **JGM DIRECT**

We are a small family owned and run business based in Nanango, Qld. At time of printing, we have been in business over 6 years. We began as a tiny home based business, selling on-line and thru Markets, then graduated to Caravan & Camping Shows, before opening our own shop at Nanango in January 2013. We still travel to Caboolture most Sundays for the market there.

During the last 6 years we have built a good reputation for being hands on, honest, genuine people.

We believe in good old fashioned customer service and customer satisfaction.

And, we really enjoy what we do!

**What do we do???** Aside from selling the products you will see in this catalogue, we also do Solar Fit Outs on caravans, motorhomes etc, and small Stand Alone Systems (generally only fairly close to home).

We hope that you enjoy this catalogue. There are snippets of useful information contained here, including a very handy cable size chart.

All information has been published in good faith, and is intended as a guide only. All prices were true and correct at time of printing (July 2016) and are subject to change, at short notice. Whilst we endeavour to maintain adequate stock levels at all times, availability of items may be affected by supply interruption, or surges in demand.

Thanks for taking the time to read this.

Jamie & Bev



### A couple of recent jobs.

Above: a distribution board for a solar system we fitted to a ute canopy.

Left: Solar Panels fitted to the top of a motor home.

Below: the Distribution Centre for a larger 12 Volt Stand Alone System.

The MPPT Solar Controllers we used are on page 32. The Circuit Breakers can be found on page 12, and the Buss Bars on page 14.



LED Light Bars are still really very popular. The range of products that we carry in this line is rapidly changing, so be sure to check with us for current availability and pricing. The products listed below were available at time of print.



This model is available in  
10" & 20"Cree  
with 4D Lens



125499



This model is available in  
31.5" & 41.5" 60° Flood  
10° Spot Epistar Chip

Code	Voltage	LED Light Bars	Length	Watts	LEDs	\$
125491	10-30V	54 Watt Spot/Flood Double Row	10"	54W	18 x 3W	\$65.00
125492	10-30V	126 Watt Spot/Flood Double Row	20"	126W	42 x 3W	\$99.00
125493	10-30V	180 Watt Spot/Flood Double Row	31.5"	180W	60 x 3W	\$149.00
125494	10-30V	240 Watt Spot/Flood Double Row	41.5"	240W	80 x 3W	\$199.00
125495	10-30V	220mm Diam Spot Flood Round	220mm	185W	37 x 5W	\$199.00
125499	10-30V	Wiring Harness	-	-	-	\$22.50
125498	-	Light Bar Number Plate Mount	600mm	-	-	\$39.50

Solar Powered Led Flood with Night Sensor

\$44.00 each



125500

This is a fantastic little product, and very popular with our customers!  
It is a fully waterproof 2 Watt Led Flood Light, with a built in night sensor, cable & solar panel. It is rated to run for approx 6 hours per night. There is an on/off switch on the housing to over-ride the sensor.  
Great idea for a little bit of security lighting.  
Note: switch must be left on during the day for the unit to charge.



125500

New Product: LED D2 Fluoro Replacement



125180

**This is a great new product:**  
2DFCL Led Replacement for caravan fluoros. You will need to bypass the in built transformer in the existing light, and then wire directly to the 12 volt side. The same disc is also available without the pins. It comes with screws & spacers.



125180

125181

125180 2D Disc **\$21.50**  
125180 LED Disc **\$19.50**

Diameter: 130mm  
Lumens: 900lm  
LEDs: 60 x 2538 SMD  
Watts: 10W

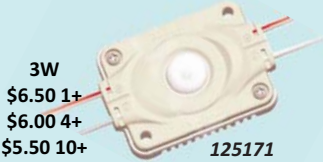
LED Light Modules 12V DC

These are just amazing! We have been selling them for about 4 or 5 years now, and they do not miss a beat! We have been using the 1.2W as garden lights all that time, and they are still going strong! The most popular use we have found for them is to replace fluoro tubes in caravans. Each module is 1.2W, and we recommend using 4 for each light (that is a total of 4.8W, or 0.4A). Not bad, when you consider that you will get a far better light than you had before, whilst using far less power. We also stock 3W modules, below centre, and 0.3W, on the right for smaller jobs.



125164

1.2W  
\$4.50 1+  
\$4.00 4+  
\$3.50 10+



125171

3W  
\$6.50 1+  
\$6.00 4+  
\$5.50 10+



125172

0.3W  
\$2.50 1+  
\$2.00 4+  
\$1.50 10+





125471



125472



125485



125455

125470  
125470

125405



125401

Code	Voltage	12 Volt DC Work/Flood Lights	Watts	LEDs	Qty 1+
125405	12/240V	Rechargeable Work Light	10W	COB	\$89.00
125453	12-24V	100mm Round Work/Flood	18W	6 x 3W	\$38.50
125455	12-24V	100mm Round Magnetic Base & Cig Plug	18W	6 x 3W	\$48.00
125471	12-24V	150mm Round with Switch	36W	12 x 3W	\$89.00
125472	12-24V	150mm Round Switch, Magnetic Base & Cig Plug	36W	12 x 3W	\$99.00
125470	12-24V	160mm x 45mm Mini Bar Light 1320lm Flood	18W	6 x 3W	\$29.00
125471	12-24V	160mm x 45mm Mini Bar Light 1320lm Spot	18W	6 x 3W	\$29.00
125473	12-24V	160mm Mini Bar Surface Mount	18W	6 x 3W	\$42.50
125485	12-24V	70mm x 70mm Cree LED	10W	1 x 10W	\$42.50
125401	12V	10 Watt 12V Flood Light	10W	COB	\$25.00
125403	12V	20 Watt 12V Flood Light	20W	COB	\$39.50

## 240V AC LED Lighting

Check with us for current products and prices. This field of products is constantly changing.



125402

Code	240V AC Flood Lights	Qty 1+
125402	240V 20 Watt Flood	\$85.00
125407	240V 50 Watt Flood	\$145.00
125408	240V 100 Watt Flood	\$280.00



125408

*Changing any of your household lighting over to LED will result in great savings on your electricity bills!*

## LED Flexible Camping Light Kit

### Buzz Off!!!



**Insect Deterrent Yellow!**  
**It really does work!**

Flexible LED Strip Light available in white or yellow, with touch switch/dimmer. Includes hooks, velcro tabs for tent pole mounts, cig plug & cig socket to alligator clamps & storage bag.



**1200mm**  
**White or**  
**Yellow**  
**Kit**

**\$69.50**



**Our range of 12 Volt LED strip lights just keeps growing & growing!** We have strips without switches, strips with switches, flat mount strips, pivot mount strips, dual colour strips, and magnetic base strips. We have our lights specially manufactured to our specifications to maintain the highest possible quality. There are so many applications: you can use them just about anywhere. From caravans, camper trailers, 4WD & boats, to household use (See the step down power supplies on page 27). We also carry a range of 12 Volt leads with DC connectors, so you can just plug and play! **Many of our light strips now have an option of IP65 or IP68 waterproof rating. Please specify which you need.**

### Aluminium Strip Light

#### White, Single Row 5050SMD, Waterproof IP65 No Switch

The following two lights are just a very basic model. They have the same light output as the 520mm strips. There is no switch in these lights, and they have been designed with a cable and DC connector at each end, making it simple to plug another light, or an extension lead and light straight into the end.

Code	Colour	Length	Watts	Amps	LEDs	Qty 1+	Qty 4+	Qty 10+
124202C	White No Cover	500mm	6.5W	0.54A	30 x 5050 SMD	\$18.00	\$16.20	\$15.30
124202PC	White Frosted Cover	500mm	6.5W	0.54A	30 x 5050 SMD	\$25.00	\$22.50	\$21.25

### Aluminium Strip Light

#### White, Built in Switch, Single Row 5050SMD, Waterproof IP65 or IP68

The built in switch makes this light so practical. Comes with approx. 150mm cable fitted with female DC plug which will connect directly to our ready made leads. For a permanent installation, simply cut off the plug to expose positive & negative wires, and use the sturdy mounting points at each end to screw or rivet the light in place. The aluminium profile measures 18mm wide x 12mm high.

Code	Colour	Length	Watts	Amps	LEDs	Qty 1+	Qty 4+	Qty 10+
124202	White	520mm	6.5W	0.54A	30 x 5050 SMD	\$26.50	\$23.85	\$22.53
124201	White	270mm	3.25W	0.27A	15 x 5050 SMD	\$19.00	\$17.10	\$16.15
124200	White	120mm	1.7W	0.15A	6 x 5050 SMD	\$12.50	\$11.25	\$10.63

### Aluminium Strip Light

#### White

#### Built in Switch, Single Row 5050SMD, Waterproof Ip65

These strips have the added bonus of a swivel mounting bracket, making it easy to get light right where you want it.

Code	Colour	Length	Watts	Amps	LEDs	Qty 1+	Qty 4+	Qty 10+
124205	White	520mm	6.5W	0.54A	30 x 5050 SMD	\$29.50	\$26.55	\$25.08
124204	White	270mm	3.25W	0.27A	15 x 5050 SMD	\$21.00	\$18.90	\$17.85
124203	White	120mm	1.7W	0.15A	6 x 5050 SMD	\$15.50	\$13.95	\$13.18

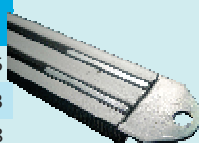
### Magnetic Base Aluminium LED Strip Light Single Row 5630SMD, Waterproof Ip65 Built in Switch

This is not just a run-of-the mill LED with a magnet! This little darling has a built in switch, like many of our products, is waterproof, and as an added bonus is made with amazingly bright 5630SMD LEDs. You will not find another like this on the market!

Code	Colour	Length	Watts	Amps	LEDs	Qty 1+	Qty 4+	Qty 10+
124623	White	1520mm	27W	2.25A	90 x 5630 SMD	\$99.00	\$89.10	\$84.15
124262	White	520mm	9W	0.75A	30 x 5630 SMD	\$32.50	\$29.25	\$27.63
124261	White	270mm	4.5W	0.37A	15 x 5630 SMD	\$23.50	\$21.15	\$19.98
124260	White	120mm	1.8W	0.15A	6 x 5630 SMD	\$17.50	\$15.75	\$14.88



**Detail of switch & pivot mount**



**Aluminium Strip Light****White/White Double Row Individually Switched 5050SMD**

We now carry double row strips in both white/white, and yellow white combinations. Each row is individually switched. Most of these strips are available as a flat mount, or a pivot mount, and most are available with IP65 or IP68 waterproof rating. Please specify your requirement regarding the IP rating at time of purchase



124267

Code	Colour	Mount	Length	Watts	Amps	LEDs	Qty 1+	Qty 4+	Qty 10+
124266WWF	White	Flat	1020mm	26W	2.2A	120 x 5050 SMD	\$85.00	\$76.50	\$72.25
124266WWP	White	Pivot	1020mm	26W	2.2A	120 x 5050 SMD	\$85.00	\$76.50	\$72.25
124265WWF	White	Flat	520mm	13W	1.1A	60 x 5050 SMD	\$45.00	\$40.50	\$38.25
124265WWP	White	Pivot	520mm	13W	1.1A	60 x 5050 SMD	\$45.00	\$40.50	\$38.25
124264WWF	White	Flat	270mm	6.5W	0.54A	30 x 5050 SMD	\$25.00	\$22.50	\$21.25
124264WWP	White	Pivot	270mm	6.5W	0.54A	30 x 5050 SMD	\$25.00	\$22.50	\$21.25
124267WWF	White	Flat	120mm	2.4W	0.2A	12 x 5050 SMD	\$18.50	\$16.65	\$15.73

**Aluminium Strip Light****Yellow/White Double Row Individually Switched 5050SMD**

Code	Colour	Mount	Length	Watts	Amps	LEDs	Qty 1+	Qty 4+	Qty 10+
124266YWF	W/Y	Flat	1020mm	26W	2.2A	120 x 5050 SMD	\$85.00	\$76.50	\$72.25
124266YWP	W/Y	Pivot	1020mm	26W	2.2A	120 x 5050 SMD	\$85.00	\$76.50	\$72.25
124265YWF	W/Y	Flat	520mm	13W	1.1A	60 x 5050 SMD	\$45.00	\$40.50	\$38.25
124265YWP	W/Y	Pivot	520mm	13W	1.1A	60 x 5050 SMD	\$45.00	\$40.50	\$38.25
124264YWF	W/Y	Flat	270mm	6.5W	0.54A	30 x 5050 SMD	\$25.00	\$22.50	\$21.25
124264YWP	W/Y	Pivot	270mm	6.5W	0.54A	30 x 5050 SMD	\$25.00	\$22.50	\$21.25
124267YWF	W/Y	Flat	120mm	2.4W	0.2A	12 x 5050 SMD	\$18.50	\$16.65	\$15.73

**Leads, Extensions & Connectors**

The following products are designed to create plug & play lighting systems. Thru the use of 5.5x 2.1mm DC connectors, our lights & leads are interchangeable & make perfect 'quick' lighting for almost any situation.



375304

375302

Code	Leads & Extensions	Qty 1+	Qty 4+	Qty 10+
375300	6 Metre Power Lead: Male 2 in1 Cig to Male DC	\$18.50	\$16.65	\$15.73
375301	3 Metre Power Lead: Male Cig to Male DC	\$12.50	\$11.25	\$10.63
375309	400mm Coiled Power Lead: Male Cig to Male DC	\$7.50	\$6.75	\$6.38
375302	2 Metre Extension Lead: DC Female to DC Male	\$8.50	\$7.65	\$7.23
375303	4 Metre Extension Lead: DC Female to DC Male	\$13.00	\$11.70	\$11.05
375304	1 into 2 splitter: 1 x DC Female to 2 x DC Male	\$6.50	\$5.85	\$5.53



175103



175104

Code	Plugs & Connectors	Qty 1+	Qty 4+	Qty 10+
375305	Female Cig to Alligator Clips	\$7.50	\$6.75	\$6.38
175101	Female DC 5.5 x 2.1mm Solder Connect	\$1.00	\$0.90	\$0.85
175102	Male DC 5.5 x 2.1mm Solder Connect	\$1.00	\$0.90	\$0.85
175103	Female DC 5.5 x 2.1mm Screws Connect	\$1.50	\$1.35	\$1.28
175104	Male DC 5.5 x 2.1mm Screws Connect	\$1.50	\$1.35	\$1.28
175105	Female Panel Mount DC 5.5 x 2.1mm	\$2.00	\$1.80	\$1.70
175108	Male DC 5.5 x 2.1mm with Wires	\$2.50	\$2.25	\$2.13
175107	Female DC 5.5 x 2.1mm with Wires	\$2.50	\$2.25	\$2.13
175109	Male DC to Male DC 5.5 x 2.1 mm	\$2.50	\$2.25	\$2.13

LED flexible strip lighting is fantastic for many applications. Top quality strip (as priced below) is encapsulated in silicone tube, which makes it waterproof (IP67) & also helps to soften the light, so it is not quite as intense as the aluminium strips. It is fantastic for lighting kitchens (especially under overhead cupboards, or under benches) & is magnificent in display cabinets. Not to mention caravans & camper trailers. All of the flexible strip lighting can be cut & re-soldered, with the cut points clearly marked every 3 SMDs. PS. This is not cheap EBAY low quality strip!

### Top Quality Flexible LED Strip Light: White (2 Year Warranty)

Code	Colour	Length	Watts Per m	Amps Per m	LEDs/m	Qty 1+	Qty 4+	Qty 10+
124304	White	5m	13W/m	1.08A/m	60 x 5050 SMD	\$99.00	\$89.10	\$84.15
124305	White	1m	13W/m	1.08A/m	60 x 5050 SMD	\$25.00	\$22.50	\$21.25
124302	White	5m	6.5W/m	0.54A/m	30 x 5050 SMD	\$79.00	\$71.10	\$67.15
124303	White	1m	6.5W/m	0.54A/m	30 x 5050 SMD	\$19.00	\$17.10	\$16.15
124300	White	5m	4.3W/m	036A/m	60 x 3528 SMD	\$58.50	\$52.65	\$49.30
124301	White	1m	4.3W/m	036A/m	60 x 3528 SMD	\$15.00	\$13.50	\$12.75



**Fantastic New Product: Industrial Quality 5630SMD Super Bright Flexible Strip 1 Metre \$39.00 5 Metre \$175.00**

These dimmers can be used with any of the single colour LED aluminium or flexible strips or modules.

### Dimmers: Single Colour

Code	Description	Watts	Amps	Qty 1+	Qty 4+	Qty 10+
125101	Surface Mount Screw Terminal 0—100%	96W	8A	\$15.00	\$13.50	\$12.75
125105	In-Line with DC Plugs 0—100% on/off	24W	2A	\$12.50	\$11.25	\$10.63
125106	RF Dimmer Black box 0—100% on/off	96W	8A	\$25.50	\$22.95	\$21.68
125129	Mini In-Line on/off Multi Mode	144W	12A	\$8.50	\$7.65	\$7.23
125131	Waterproof Mini In-Line on/off Multi Mode including flashing & strobe modes	144W	12A	\$9.50	\$8.55	\$8.08
125110	PIR Sensor Switch Screw Terminal	96W	8A	\$19.50	\$17.55	\$16.58



125106



125110

### Flexible LED Strip Light: RGB

lin RGB strips, each SMD is capable of producing three separate colours (Red, Green, Blue), or any combination of those colours. To make the colours change, a specific RGB Controller is required. In standard RGB all of the LEDs change to the selected colour. In Dream Lighting & Magic Strips each LED is independent.

Code	Colour	Length	Watts Per m	Amps Per m	LEDs Per m	Qty 1+	Qty 4+	Qty 10+
124356	RGB	5m	13W/m	1.1A/m	60 x 5050 SMD	\$89.00	\$80.10	\$75.65
124357	Dream Light	5m	6.5W/m	0.5A/m	30 x 5050 SMD	\$150.00	\$135.00	\$127.50
124358	Magic Strip	1m	6.5W/m	0.5A/m	32 x 5050 SMD	\$48.50	\$43.65	\$41.23
124359	Magic Strip	3m	6.5W/m	0.54/m	32 x 5050 SMD	\$115.00	\$103.50	\$97.75



### RGB Controllers

Code	Type	Watts	Amps	Qty 1+	Qty 4+	Qty 10+
125130	Mini In-Line Controller	144W	12A	\$9.50	\$8.55	\$8.08
125102	44 key Controller	72W	6A	\$19.50	\$17.55	\$16.58
125105	Touch pad Controller	216W	18A	\$45.00	\$40.50	\$38.25



125102

The LED globes on the following pages are all ideal for replacing the light globes in caravans, motorhomes camper trailers etc. If you like to free-camp, this is a great way to save power.

### Mr16 12 Volt DC Downlights

12 Volt MR16 downlights are common in many caravans as well as houses. The diameter of the face of the light is 50mm. Replacing a 50 watt quartz halogen downlight with a 5 watt LED MR16 will reduce your power consumption from 4.2 Amps to just 0.42 Amps per light. That represents a huge power saving, without compromising light quality.



125509



125506



125504

Code	12V DC LED MR16 Downlights Cool White / Day White		Qty 1+	Qty 4+	Qty 10+
125601	MR16 5W COB LED	80° Angle 12V DC	\$16.00	\$14.40	\$13.60
125509	MR16 5W 12 x 5630 SMD	120° Angle 12V DC	\$15.00	\$13.50	\$12.75
125508	MR16 4W 24 x 5050 SMD	120° Angle 12V DC	\$13.50	\$12.15	\$11.48
125506	MR16 4W 21 x 5050 SMD	120° Angle 12V DC	\$12.00	\$10.80	\$10.20
125504	MR16 3W 3 x 1W	60° Angle 12V DC	\$12.00	\$10.80	\$10.20

### MR11

Mr11 looks like a small downlight & has a diameter of 35mm. This is another very common light in caravans, often found in reading lights & over cookers.



125551



125552

Code	Colour	Angle°	Watts	Amps	LEDs	Qty 1+	Qty 4+	Qty 10+
125551	Day White	120°	1.8W	0.15A	9x 5050	\$7.50	\$6.75	\$6.38
125552	Day White	120°	2.4W	0.2A	12 x 5050	\$10.50	\$9.45	\$8.93

Code	Description	Qty 1+
125554	MR16 Surround	\$8.50
125553	MR11 Surround	\$6.50
125320	G4 Surround	\$15.00



125320

### Now with 5630SMD



125256

### T10 Wedge

Common in many vans, especially Jayco, as well as parkers & interiors in late model cars

Code	Colour	T10	Watts	Amps	LEDs	Qty 1+	Qty 4+	Qty 10+
125256	Day White	Disc	3W	0.25A	12 x 5630	\$12.50	\$11.25	\$10.63
125255	Day White	Tower	3.12W	0.26A	13 x 5050	\$12.50	\$11.25	\$10.63
125260	Day White Hi Power	Tower	3W	0.25A	10 x 5630 400Lm	\$14.50	\$13.05	\$12.33
125259	Day White Hi Power	Tower	1.8W	0.15A	6 x 5630 350Lm	\$10.50	\$9.45	\$8.93
125264	Day White	Tower	1.2W	0.04A	7 X 3632	\$12.50	\$11.25	\$10.63
125265	Day White	Tower	3W	0.25A	19 x 3632	\$14.50	\$13.05	\$12.33
125653	Day White Samsung	Adaptor Panel	2W	0.17A	8 x 5060	\$11.50	\$10.35	\$9.78
125652	Day White	Adaptor Panel	6W	0.5A	20 x 5050	\$18.50	\$16.65	\$15.73

### New Improved base



125260

### New Improved base



125259

### New product with 3632SMD



125264

### New product with 3632SMD



125265

### Adaptor Panel



125653

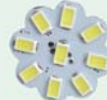


G4 globes have 2 pins which are 4mm apart. They are available in 3 different configurations: Side Pins, Back Pins & 'Towers'. If you pull your existing globe out 'sideways' it will have Side Pins. If the globe has to be pulled 'down' vertically, it will have Back Pins. When replacing a G4 globe, we need to know what diameter your fitting will accommodate, as the lights range from 12mm (least bright) to 31mm diameter (brightest).

**6 x 5630SMD**  
Diam: 24mm



**9 x 5630SMD**  
Diam: 26mm



**12 x 5630SMD**  
Diam: 31mm



*The larger the diameter, the brighter the light you will be able to fit in, so it is worth measuring to see what size you can accommodate. Brighter is always better!*

Code	Colour	Type	Watts	Amps	LEDs	Qty 1+	Qty 4+	Qty 10+
125302	Day White	Side Pin	3.2W	0.27A	12 x 5630	\$12.50	\$11.25	\$10.63
125300	Day White	Side Pin	2.34W	0.19A	9 x 5630	\$11.00	\$9.90	\$9.35
125309	Day White	Side Pin	1.59W	0.13A	6 x 5630	\$9.50	\$8.55	\$8.08
125302B	Day White	Back Pin	3.2W	0.27A	12 x 5630	\$12.50	\$11.25	\$10.63
125300B	Day White	Back Pin	2.34W	0.19A	9 x 5630	\$11.00	\$9.90	\$9.35
125309B	Day White	Back Pin	1.59W	0.13A	6 x 5630	\$9.50	\$8.55	\$8.08
125325	Day White	Tower	3.12W	0.26A	13 x 5050	\$12.50	\$11.25	\$10.63



## BA 15 Led Replacement Globes

Bayonet globes in caravans have 2 main configurations: single pole BA15s, where the pole is positive & the casing is negative & double pole BA15d, where one pole is negative & the other is positive (& the pins are parallel). The base diameter is 15mm.

Code	Colour	Type	Watts	Amps	LEDs	Qty 1+	Qty 4+	Qty 10+
125204	Day White	BA15s	11W	0.92A	1 x 5W Cree 4 x 1.5W HP	\$23.50	\$21.15	\$19.98
125224	Day White	BA15d	11W	0.92A	1 x 5W Cree 4 x 1.5W HP	\$23.50	\$21.15	\$19.98
125225	Red Stop/Tail	BA15d	11W	0.92A	1 x 5W Cree 4 x 1.5W HP	\$23.50	\$21.15	\$19.98
125208	Yellow Indicator	BA15s	11W	0.92A	1 x 5W Cree 4 x 1.5W HP	\$23.50	\$21.15	\$19.98
125228	Day White	BA15s	5.46W	0.46A	21 x 5630	\$22.00	\$19.80	\$18.70
125229	Day White	BA15d	5.46W	0.46A	21 x 5630	\$22.00	\$19.80	\$18.70
125210	Day White	BA15s	3.9W	0.25A	15 x 5630	\$18.50	\$16.65	\$15.73
125211	Day White	BA15d	3.9W	0.25A	15 x 5630	\$18.50	\$16.65	\$15.73
125203	Day White	BA15s	3.2W	0.27A	13 x 5050	\$12.50	\$11.25	\$10.63
125652	Day White	Adaptor Panel	6W	0.5A	20 x 5050	\$18.50	\$16.65	\$15.73

### LED Replacements: BA9 (9mm Bayonet)

Code	Colour	Type	Watts	Amps	LEDs	Qty 1+	Qty 4+	Qty 10+
125234	Day White	BA9	1.25W	0.11A	5 x 5050	\$6.50	\$5.85	\$5.53

BA9's have a 9mm diameter base, and only come in a single pole configuration. You will occasionally find these as dash lights and interior/courtesy lights.



*BA15s: note single pole is positive, casing is negative (earth)*



*BA15d: note 2 poles, one is positive, the other negative (earth)*



125234

LED Replacement Festoons (common in most vehicle interior lights)

Code	Colour	Length	Watts	Amps	LEDs	Qty 1+	Qty 4+	Qty 10+
125352	Day White	28mm	1W	0.10A	8 x 3626	\$5.50	\$4.95	\$4.68
125353	Day White	31mm	1.44W	0.12	4 x 5060	\$5.00	\$4.50	\$4.25
125364	Blue	31mm	1.44W	0.12A	6 x 5050	\$6.50	\$5.85	\$5.53
125366	Red	31mm	1.44W	0.12A	6 x 5050	\$6.50	\$5.85	\$5.53
125362	Day White	36mm	1.44W	0.12A	3 x 5060	\$6.00	\$5.40	\$5.10
125365	Blue	36mm	1.44W	0.12A	6 x 5050	\$6.50	\$5.85	\$5.53
125367	Red	36mm	1.44W	0.12A	6 x 5050	\$6.50	\$5.85	\$5.53
125363	White	42mm	1.44W	0.12A	4x 5060	\$7.00	\$6.30	\$5.95
125368	White 360°	42mm	3W	0.25A	12x 5050	\$9.50	\$8.55	\$8.08

LED Replacement: T5

Code	Colours Available	Watts	Amps	LEDs	Qty 1+	Qty 4+	Qty 10+
125283	White/Blue/Red/Yellow	0.3W	0.025A	3 x 1031	\$3.50pr	\$3.15pr	\$2.98pr
125279	White/Blue/Red/Yellow	0.25W	0.02A	1 x 5050	\$4.50pr	\$4.05pr	\$3.83pr

Code	Brake & Tail Multi Volt	\$	Per
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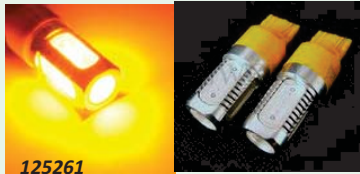
126199	Brake & Tail Jumbo Truck/Caravan Lights 400mm x 132mm Stop, Tail, Indicator. 10-30V DC	\$120.00	Pair
126201	Brake & Tail Ute Tray Lights 340mm x 100mm Stop, Tail, Indicator & Reverse. 10-30V DC	\$69.50	Pair
126211	Brake & Tail 220mm x 100mm Stop, Tail, Indicator. 10-30V DC	\$58.00	Pair
126202	Brake & Tail Small 120mm x 90mm Stop, Tail, Indicator. 10-30V DC	\$43.00	Pair
126203	Clearance Lights. Available in Red, Amber, Red/Amber & White 60mm x 30mm. 10-30V DC	\$8.50	Each
126207	Reflectors Available in Red, Amber & White 92mm x 35mm	\$2.50	Each
126210	Number Plate Light	\$7.50	Each
126215	Number Plate Light	\$12.50	Each

Prices, availability & styles of LED Brake & Tail lights can change at short notice. The above styles & prices were true and correct at time of printing.

LED Brake & Tail Replacement Globes

Code	Brake Tail & Indicator Globes	\$	Per
125208	BA15 Bayonet Amber Indicator Globe Single Pole 11W	\$23.50	Each
125225	BA15 Bayonet Red Stop/Tail Globe Double Pole 11W	\$23.50	Each
125204	BA15s Bayonet White Reverse Globe 11W	\$23.50	Each
125261	T20 Amber Indicator Globe 7.5W	\$23.50	Each
125262	T20 Red Stop/Tail Globe 7.5W	\$23.50	Each

To replace brake/tail & indicator globes with LEDs you need to use coloured LED globes. White LED g lobes show white thru the lens due to the brightness of the LEDs.



No matter how big or small a wiring job is, be sure to use either a fuse or a circuit breaker to help protect the overall wellbeing of your wiring system. The use of Fuse Blocks keeps your system neat & tidy & when coupled with the LED smart fuses, makes troubleshooting very simple. Circuit breakers serve the same purpose as fuses, without the added expense of buying a new fuse each time one blows. A Manual Reset circuit breaker can also double as an isolator switch. Many a caravan has burnt to the ground due to lack of circuit protection!

#### Fuse Blocks: Mini Blade

Code	Description	Qty 1+	Qty 4+	Qty 10+
325000	4 Position Fuse Block Max 60 Amp	\$7.50	\$6.75	\$6.38
325001	8 Position Fuse Block Max 120 Amp	\$10.50	\$9.45	\$8.93

#### Fuse Blocks: Medium Blade

Code	Description	Qty 1+	Qty 4+	Qty 10+
325002	4 Position Fuse Block Max 60 Amps	\$7.50	\$6.75	\$6.38
325003	8 Position Fuse Block Max 120 Amps	\$10.50	\$9.45	\$8.93
325005	6 Position Screw Type Max 150 Amps	\$25.50	\$22.95	\$21.68
325006	10 Position Screw Type Max 150 Amps	\$28.50	\$26.65	\$24.23

#### Fuse Holders

Code	Description	Qty 1+	Qty 4+	Qty 10+
325007	In-line Fuse Holder Mini Blade Fuse	\$3.00	\$2.70	\$2.55
325008	In-line Fuse Holder Medium Blade Fuse	\$3.50	\$3.15	\$2.98
325009	In-line Fuse Holder Maxi Blade Fuse	\$7.50	\$6.75	\$6.38
325010	Mini Blade Fuse-Tap	\$3.50	\$3.15	\$2.98
325011	Medium Blade Fuse-Tap	\$4.00	\$3.60	\$3.40
325300	In-line Glass Fuse Holder 5 x 20mm	\$1.50	\$1.35	\$1.28
325301	In-line Glass Fuse Holder 6 x 30mm	\$1.50	\$1.35	\$1.28
325302	Rail Mount Glass Fuse Holder	\$3.50	\$3.15	\$2.98

#### Blade Fuses

Code	Description	Qty 1+	35 pcs	100 pcs
325119	<b>Mini Blade Fuse</b> LED Smart Fuse. Available in 3, 5, 7.5, 10, 15, 20, 25 Amp. Price is per piece	\$0.50	\$8.50	\$24.50
325126	<b>Medium Blade Fuse</b> LED Smart Fuse Available in 3, 5, 7.5, 10, 15, 20, 25 Amp. Price is per piece	\$0.50	\$8.50	\$24.50
325114	<b>Maxi Blade Fuse</b> Gold Plated Available in 20, 30, 40, 60, 80, 100, 120 Amp. Price per piece	\$3.50	\$3.15	\$2.98

#### Blade Type Circuit Breaker Fuse

Code	Description	Qty 1+	Qty 4+	Qty 10+
325150	<b>Medium Blade Type Circuit Breaker</b> <b>Manual Reset</b> Available in 5, 7.5, 10, 15, 20, 25, 30 Amp. Price per piece	\$3.50	\$3.15	\$2.98
325151	<b>Medium Blade Type Circuit Breaker</b> <b>Auto Reset</b> Available in 5, 7.5, 10, 15, 20, 25, 30 Amp. Price per piece	\$3.50	\$3.15	\$2.98

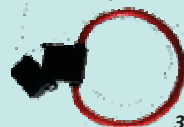
If you are sick and tired of replacing fuses when they blow, why not try replacing them with Circuit Breakers! See the following pages for our range.



325001



325006



325009



325008



325114



325150



325151

We now carry a great new range of Din Rail Low Voltage Circuit Breakers. These products are a fantastic new addition to our range, designed specifically for low voltage DC applications.. They are perfect for small & large solar systems, as they are rated up to 125 Volts DC. Ideal fo use with MPPT Solar Regulators, where the solar voltage can be up to 100 Volts DC. This Din Rail Circuit Breaker doubles as an isolation switch, which makes it ideal for isolating a solar array prior to doing any system maintenance which requires cutting the battery power to the Regulator. Ideally use one breaker between the panels and the regulator, and one between the regulator and the batteries. The Din Rail Circuit Breakers can be used in place of fuses, for all other circuits, eg, lighting, accessories, fridges, water pumps etc.

#### Din Rail Low Voltage DC Circuit Breakers

Code	Description	Qty 1+	Qty 4+	Qty 10+
225201	5 Amp	\$15.00	\$13.50	\$12.75
225202	10 Amp	\$15.00	\$13.50	\$12.75
225203	15 Amp	\$15.00	\$13.50	\$12.75
225204	20 Amp	\$15.00	\$13.50	\$12.75
225205	30 Amp	\$15.00	\$13.50	\$12.75
225206	40 Amp	\$15.00	\$13.50	\$12.75
225207	50 Amp	\$15.00	\$13.50	\$12.75
225208	60 Amp	\$15.00	\$13.50	\$12.75

225203

225224

225221

225231

&amp; 225201

Din Rail Enclosure  
+ Din Rail CB

#### Surface Mount Enclosure for Din Rail (No Door)

Code	Description	Qty 1+	Qty 4+	Qty 10+
225221	1 Position	\$8.00	\$6.75	\$6.38
225222	2 Position	\$9.50	\$8.55	\$8.08
225223	4 Position	\$15.00	\$13.50	\$12.75
225224	8 Position	\$18.50	\$16.65	\$15.73

#### Surface Mount Enclosure for Din Rail (With Door)

Code	Description	Qty 1+	Qty 4+	Qty 10+
225231	1-2 Position	\$15.00	\$13.50	\$12.75
225232	3-4 Position	\$19.50	\$17.55	\$16.58
225233	5-6 Position	\$25.00	\$22.50	\$21.25

**Above.** The 1-2 position enclosure, can be used for one or two circuit breakers.



The picture on the left shows a DC Distribution set-up we built for a stand alone solar system, using the above din rail circuit breakers, and surface mount enclosure. Note that each of the circuit breakers has been clearly labelled, for easy identification. The breakers act not only as circuit protection, but also as a means of isolating individual circuits. The main circuit breaker, situated above and to the right of the distribution point, allows for the entire system to be shut down or isolated, at that point. This is good when doing maintenance. The neutral link blocks can be found on page 14.



**Circuit Breakers: Waterproof, Surface Mount 42 Volt Max**

Code	Description	Qty 1+	Qty 4+	Qty 10+
225008	30 Amps Manual Reset	\$28.00	\$25.20	\$23.80
225009	40 Amps Manual Reset	\$28.00	\$25.20	\$23.80
225001	50 Amps Manual Reset	\$28.00	\$25.20	\$23.80
225010	60 Amps Manual Reset	\$28.00	\$25.20	\$23.80
225003	100 Amps Manual Reset	\$28.00	\$25.20	\$23.80
225004	150 Amps Manual Reset	\$28.00	\$25.20	\$23.80
225005	200 Amps Manual Reset	\$28.00	\$25.20	\$23.80
225006	50 Amps Auto Reset	\$28.00	\$25.20	\$23.80

**225004****225092****Circuit Breakers: Auto Reset Surface Mount 12/24 Volt**

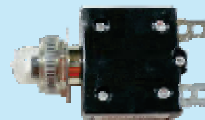
Code	Description	Qty 1+	Qty 4+	Qty 10+
225095	6 Amp Auto Reset Surface Mount	\$6.50	\$5.85	\$5.53
225096	10 Amp Auto Reset Surface Mount	\$6.50	\$5.85	\$5.53
225097	15 Amp Auto Reset Surface Mount	\$6.50	\$5.85	\$5.53
225091	20 amp Auto Reset Surface Mount	\$6.50	\$5.85	\$5.53
225092	30 amp Auto Reset Surface Mount	\$6.50	\$5.85	\$5.53
225093	40 amp Auto Reset Surface Mount	\$6.50	\$5.85	\$5.53
225094	50 amp Auto Reset Surface Mount	\$6.50	\$5.85	\$5.53
225100	PVC Auto Reset Protective Cover	\$2.50	\$2.25	\$2.03

**225100****Circuit Breakers: Manual Reset Surface Mount 12/24 Volt**

Code	Description	Qty 1+	Qty 4+	Qty 10+
225185	6 Amp Manual Reset Surface Mount	\$7.50	\$6.75	\$6.38
225186	8 Amp Manual Reset Surface Mount	\$7.50	\$6.75	\$6.38
225187	10 Amp Manual Reset Surface Mount	\$7.50	\$6.75	\$6.38
225188	15 Amp Manual Reset Surface Mount	\$7.50	\$6.75	\$6.38
225189	20 Amp Manual Reset Surface Mount	\$7.50	\$6.75	\$6.38
225190	25 Amp Manual Reset Surface Mount	\$7.50	\$6.75	\$6.38
225191	30 Amp Manual Reset Surface Mount	\$7.50	\$6.75	\$6.38
225192	35 Amp Manual Reset Surface Mount	\$7.50	\$6.75	\$6.38
225193	40 Amp Manual Reset Surface Mount	\$7.50	\$6.75	\$6.38
225194	50 Amp Manual Reset Surface Mount	\$7.50	\$6.75	\$6.38
225100	PVC Manual Reset Protective Cover	\$2.50	\$6.75	\$6.38

Also Available: Manual Reset Panel Mount Circuit Breakers Mini Code:225071 (above pic) 5 Amp to 30 Amp \$3.00 each

Manual Reset Panel Mount Circuit Breakers Medium Code:225051 (pic below) 30 Amp to 50 Amp \$5.00 each



*This distribution box on a stand alone solar system we designed, shows both the waterproof circuit breakers, & the auto reset circuit breakers in use. In this instance the load circuit of the solar regulator is being used. The red positive lead from the load circuit goes directly to the first of the auto reset breakers, and is then piggy-backed onto each of the inlets of the other 5 breakers. Each breaker then goes off to it's own circuit. The black negative lead from the load circuit is feeding directly to the (green) buss bar to the left of the breakers, where it then feeds out to the individual circuits. The waterproof breakers to the top left of the pic, are on the circuit between the panels & regulator, & between the solar regulator & batteries.*

200203



200204



Code	Description	Qty 1+	Qty 4+	Qty 10+
200201	Terminal Post 6mm Red	\$3.00	\$2.70	\$2.55
200202	Terminal Post 6mm Black	\$3.00	\$2.70	\$2.55
200203	Terminal Post 8mm Red	\$3.50	\$3.15	\$2.98
200204	Terminal Post 8mm Black	\$3.50	\$3.15	\$2.98

## Neutral Link Buss Bars

200102



200111

Code	Description	Qty 1+	Qty 4+	Qty 10+
200101	Buss Bar Neutral Link 4 Holes @ 6mm diam Green	\$4.50	\$4.05	\$3.83
200102	Buss Bar Neutral Link 6 Holes @ 6mm diam Green	\$5.00	\$4.50	\$4.25
200103	Buss Bar Neutral Link 8 Holes @ 6mm diam Green	\$5.50	\$5.00	\$4.68
200104	Buss Bar Neutral Link 10 Holes @ 6mm diam Green	\$6.00	\$5.40	\$5.10
200111	Buss Bar Neutral Link 1 Hole @ 7mm, 7 Holes @ 5mm Blue	\$5.00	\$4.50	\$4.25
200121	Buss Bar 2 x 7 Hole in Transparent Box 2 Holes@ 6mm diam, 5 Holes @ 5mm diam	\$10.50	\$9.45	\$8.50

## High Current Neutral Link

Code

High Current Neutral Link

Qty 1+

Amperage

Cable Size mm<sup>2</sup> x No of Holes

200150	80 Amp Neutral Link	16 x1, 6 x 4, 16 x2	\$8.50
200151	125 Amp Neutral Link	35 x 1, 16 x 4, 16 x 6	\$13.50
200152	160 Amp Neutral Link	70 x 1, 16 x 4, 16 x 6	\$15.50
200153	250 Amp Neutral Link	120 x 1, 35 x 2, 16 x 5, 10 x 4	\$34.00
200154	400 Amp Neutral Link	185 x 1, 35 x 2, 16 x 5, 10 x 4	\$38.00
200155	500 Amp Neutral Link	8mm x 24mm Plate Connector, 35 x 2, 16 x5, 10 x4	\$45.50
200131	100 Amp Neutral Link Brass	26 Position. Dimensions 9 x 19x 144 mm	\$18.50
200132	100 Amp Neutral Link Brass	50 Position. Dimensions 9 x 19 x230mm	\$25.00

NB. The 125A & 160A have the same outlets, but the single cable inlet size is different. Likewise, there is the same difference between the 250A, 400A & the 500A blocks.

200152

Cable Entry at Rear

200132

200131

200153

200154

200155

The picture on the right shows high current neutral links being used in a stand alone solar system. Note the use of the circuit breaker positioned to protect the entire load going thru the neutral link on the positive side.

The circuit breaker can also be used to isolate the system.



Create your own DC Distribution Centre with the use of these Junction Boxes

Code	Description	Qty 1+	Qty 4+	Qty 10+
378002	85mm x 85mm x 50mm IP64	\$3.50	\$3.15	\$2.98
378001	200mm x 100mm x 70mm IP65	\$10.50	\$9.45	\$8.93
378010	200mm x 200mm x 80mm IP65	\$15.50	\$13.95	\$13.18
378020	380mm x 280mm x 130mm IP66 Transparent Cover. Inner Grid Plate 365mm x 267mm	\$55.00	\$49.50	\$46.75
378021	400mm x 300mm x 200mm IP65 Plexiglass Cover Door, Inner Steel Door, Powder Coated. Double Door Enclosure. Vented	\$99.00	\$89.10	\$84.15



## Alligator Clamps

Code	Description	Qty 1+	Qty 4+	Qty 10+
425010	20 Amp 75mm Semi-Insulated Pair	\$1.50	\$1.35	\$1.28
425011	20 Amp 75mm Fully Insulated Pair	\$2.00	\$1.80	\$1.70
425012	10 Amp 55mm Fully Insulated Pair	\$3.00	\$2.70	\$2.55
425013	70 Amp 95mm Fine Circuitry Jaws Pair	\$12.00	\$10.80	\$10.20
425054	45mm Rubber Insulated Pair	\$1.00	\$0.90	\$0.85
425014	40 Amp 80mm Banana Plug Connection Pair	\$6.00	\$5.40	\$5.10
425015	30 Amp 55mm Test Clamps. Gold Plated Pair	\$4.50	\$4.05	\$3.83
425016	20 Amp 50mm Test Clamp Banana Plug Connection	\$2.50	\$2.25	\$2.13
425017	200 Amp 100mm Fully Insulated Pair	\$8.00	\$7.20	\$6.80
425019	30 Amp 80mm Fully Insulated Pair	\$6.00	\$5.40	\$5.10
425050	Mini Test Probe Pair	\$2.50	\$2.25	\$2.13
425051	Male Banana Plug 4mm Red or Black	\$2.50	\$2.25	\$2.13
425052	Female Banana Plug joiner Red or Black	\$2.50	\$2.25	\$2.13
425053	Female Banana Plug Panel Mount 4mm	\$2.50	\$2.25	\$2.13
425056	Banana Plug Pair Hi Amp Solder Type	\$4.50	\$4.05	\$3.83



## 12 VDC Fans

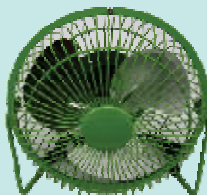


**12 Volt Ceiling Fans**  
500mm: \$30.00  
1000mm: \$60.00

- **12 VDC fans**
- Computer fans. Great for ventilation around caravan fridges. These are also able to replace a lot of composting toilet fans!
- USB powered desk fans & rechargeable USB fans,
- 12 VDC ceiling fans, available in 500mm & 1m diameter
- 12 VDC Pedestal Fans. The Pedestal fans are as good as any 240 VAC fan you will find! They are only 15 watts (about 1.25A), and have a really heavy solid base! Great for 12 Volt Stand Alone systems in houses & sheds!



**12 Volt Computer Fans**  
\$18.50 to \$35.00



**USB Desk Fans**  
\$15.00



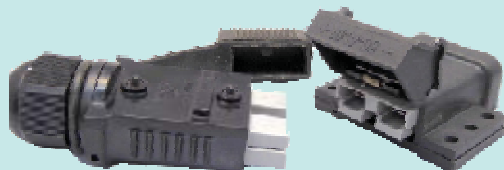
**12 Volt Pedestal Fans**  
\$55.00 each  
or 2 for \$100.00

Anderson connectors are a favourite with caravanners, campers & 4WD enthusiasts, as they are a very sturdy, non-gender connector (ie, there is no male or female). We can make splitters & adaptors to your requirements.



Code	Description	Qty 1+	Qty 4+	Qty 10+
175010	50 Amp Anderson Type Connector	\$4.50	\$4.05	\$3.83
175010R	50 Amp Anderson Type Connector Red	\$4.50	\$4.05	\$3.83
175010B	50 Amp Anderson Type Connector Blue	\$4.50	\$4.05	\$3.83
175011	50 Amp 'T' Handle Accessory	\$3.50	\$3.15	\$2.98
175012	50 Amp Dust Cover Accessory	\$3.00	\$2.70	\$2.55
175018	50 Amp Anderson Cable Entry Boot	\$2.50	\$2.25	\$2.13
175015	50 Amp Anderson Type Connector Set. Includes 2 Plugs, 2 Covers & 1 'T' Handle	\$13.50	\$12.15	\$11.48
175020	175 Amp Anderson Type Connector	\$12.00	\$10.80	\$10.20
175021	175/350 Amp 'T' Handle Accessory	\$6.50	\$5.85	\$5.53
175022	175 Amp Dust Cover Accessory	\$3.50	\$3.15	\$2.98
175030	350 Amp Anderson Type Connector	\$25.00	\$22.50	\$21.25
175041	Single Pole Anderson Type Connector 8pc 15A	\$8.50	\$7.65	\$7.23
175042	Single Pole Anderson Type Connector 8pc 30A	\$8.50	\$7.65	\$7.23
175043	Single Pole Anderson Type Connector 8pc 45A	\$8.50	\$7.65	\$7.23
175051	Single Pole Anderson Type Connector 2pc 75A Red	\$6.00	\$5.40	\$5.10
175052	Single Pole Anderson Type Connector 2pc 75A Black	\$6.00	\$5.40	\$5.10

Code	Trailer Vision Anderson Accessories	\$
TV416375-50	50 Amp Connector Cover Assembly	\$15.00
TV201426	50 Amp Connector Cover Surface Mount & LED	\$18.00
TV333820-50	50 Amp Connector Cover Flush Mount	\$18.00
TV201426 SC	50 Amp Screw Connector No Solder Required & LED	\$22.00



TV416375-50

TV201426

## Deutsch & Wago Connectors

Code	Description	Qty 1+	Qty 4+	Qty 10+
350210	Deutsch Connectors 2 Pin Pair 0.5-2mm <sup>2</sup>	\$6.50	\$5.85	\$5.53
350211	Deutsch Connectors 4 Pin Pair 0.5-2mm <sup>2</sup>	\$8.50	\$7.65	\$7.23
350200	Wago Connectors 2 Position 0.75-2.5mm <sup>2</sup>	\$1.25	\$1.13	\$1.06
350201	Wago Connectors 3 Position 0.75-2.5mm <sup>2</sup>	\$1.75	\$1.58	\$1.49
350202	Wago Connectors 5 Position 0.75-2.5mm <sup>2</sup>	\$2.50	\$2.25	\$2.13





Code	Cable Cutters/Strippers	\$
500011	Small Cable Cutter 8" (LK38A)	\$9.50
500050	Cable Cutter 0—100 mm <sup>2</sup> (TC100)	\$35.00
500044	Automatic Cable Stripper (HY369B)	\$13.50
Code	Crimping Tools	\$
500021	Crimper/ Cutter/ Stripper Small (HS202B)	\$12.50
500051	Crimper/ Cutter/Stripper Large (HS01)	\$22.00
500045	Ratchet Crimper Oval Suits Insulated Terminals(G301H)	\$19.50
500047	Ratchet Crimper Indent Suits Non-Insulated Terminals & Lugs (HD004)	\$19.50
500053	Self Adjustable Ferrule Crimper Suits Cable End Sleeves 0.25—6.0mm <sup>2</sup> (HSC8 6-6)	\$42.50
500054	Self Adjustable Ferrule Crimper Suits Cable End Sleeves 4-16mm <sup>2</sup> (HSC8 16-4)	\$39.50
500041	Lug Crimper Small Anderson Plug Crimper (HD16L)	\$22.00
500046	Lug Crimper Large Anderson Crimper (MH22)	\$35.00
500049	Hexagonal Crimper (JY0650A)	\$35.00
500048	Ratchet Crimper Kit with 5 Die Sets (Sold in carry Case) (TO3C-5D)	\$78.50
500043	Hydraulic Crimper Kit with 9 Die Sets (Sold in Carry Case) (YQK-70)	\$75.00
500055	HS519 Cable Tie Gun with Manual Cutter	\$18.50
500060	Crimping Kit: Includes Oval Crimper & 750pcs Crimp Terminals in Metal Carry Case	\$90.00



500060

\*Images are not to scale!!!

## Connector Strips

Code	Description	Qty 1+	Qty 4+	Qty 10+
350101	3 Amp Connector Strip	\$1.50	\$1.35	\$1.28
350102	6 Amp Connector Strip	\$1.70	\$1.53	\$1.45
350103	10 Amp Connector Strip	\$2.00	\$1.80	\$1.70
350104	15 Amp Connector Strip	\$2.40	\$2.16	\$2.04
350105	20 Amp Connector Strip	\$2.80	\$2.52	\$2.38
350106	30 Amp Connector Strip	\$3.50	\$3.15	\$2.98
350107	60 Amp Connector Strip	\$5.10	\$4.59	\$4.34
350108	80 Amp Connector Strip	\$9.20	\$8.28	\$7.82
350109	100 Amp Connector Strip	\$12.50	\$11.25	\$10.63

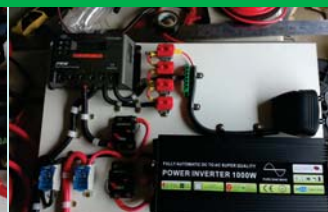


These Connector Strips are insulated, but not waterproof cable joiners, with screw down contacts. Each strip has 12 individual segments which can be easily separated using a stanley knife.

## Images



*Left: The Camper Trailer that started it all. 2009 We even made the fibreglass panels ourselves!!!*



*Above: Distribution board, including inverter. Note inverter is being run from batteries. Accessory sockets are thru load circuit.*

# 12 VOLT CABLE CALCULATION CHART

Acceptable Cable Size (mm<sup>2</sup>) with minimum voltage drop. A must for solar systems!!!

	Cable Length (Metres)							
	1	2	5	10	15	20	25	30
0.5	0.4	0.4	0.4	0.4	1.84	1.84	1.84	1.84
1	0.4	0.4	0.4	1.84	1.84	1.84	1.84	1.84
1.5	1.84	1.84	1.84	1.84	1.84	1.84	2.9	2.9
2	1.84	1.84	1.84	1.84	1.84	2.9	4.6	4.6
3	1.84	1.84	1.84	1.84	2.9	4.6	4.6	7.9
4	1.84	1.84	1.84	2.9	4.6	7.9	7.9	7.9
5	1.84	1.84	1.84	4.6	4.6	7.9	7.9	13.6
7.5	1.84	1.84	2.9	4.6	7.9	13.6	13.6	25.7
10	1.84	1.84	4.6	7.9	13.6	13.6	13.6	25.7
15	1.84	1.84	4.6	13.6	25.7	25.7	25.7	32.2
20	2.9	2.9	7.9	13.6	25.7	25.7	32.2	49.2
25	4.6	4.6	7.9	25.7	25.7	32.2	49.2	49.2
30	4.6	4.6	13.6	25.7	32.2	49.2	49.2	
40	7.9	7.9	13.6	25.7	49.2	49.2		
60	13.6	13.6	25.7	49.2				
80	25.7	25.7	25.7	49.2				
100	32.2	32.2	32.2					
125	49.2	49.2	49.2					

## Industry Standard Cable Sizes

1.10mm<sup>2</sup> = 3 mm Cable  
 1.84mm<sup>2</sup> = 4 mm Cable  
 2.9mm<sup>2</sup> = 5 mm Cable  
 4.6mm<sup>2</sup> = 6 mm Cable  
 7.9mm<sup>2</sup> = 8 B&S Cable  
 13.6mm<sup>2</sup> = 6 B&S Cable  
 25.7mm<sup>2</sup> = 3 B&S Cable  
 32.2mm<sup>2</sup> = 2 B&S Cable

Use the above to convert mm<sup>2</sup> measurements into industry standard cable size.

### Please note:

The measurements used here are the measurements of the copper conductor, not including the insulation. The measurements are calculated by multiplying the number of strands by the area of the individual strands..

*We do not refer to a size of cable as having an 'Amp Rating'.*

*Cable expressed in this way, is indicating the Amperage at which the insulation on the cable will burn.*

*It is not relevant to distance, or continuous current.*

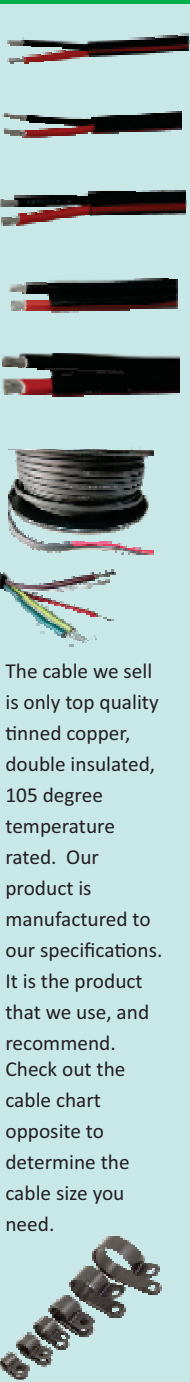
*To calculate the cable size required use the chart to apply both amps and distance.*

This table provides optimum current carrying capacity of cable, with minimal voltage drop.

Overall carrying capacity of electrical cable is assessed by surface area of the copper conductor. *The above table is recommended as a guide only.*

**Note** We occasionally come across people who have, for whatever reason, done some small 12 Volt wiring jobs using 240 Volt cable. Because they have noted no critical voltage drop, they assume that you can just use 240 Volt cable for everything low voltage! You can get away with that for the odd light, or two, but for jobs such as wiring Solar Panels or any Battery Charging System, any voltage drop is crucial, so it is best not to waste time &/or money, and just do it right the first time around!

Code	Description	\$ Per metre	Roll size	\$ Per roll
375100	2mm Twin core Single Insulated Tinned Copper Conductor VDE Rubber Sheath 0.8mm <sup>2</sup>	\$0.80/m	50m	\$29.50
375110	3mm Single Core Double Insulated Tinned Copper Conductor 1.13mm <sup>2</sup> Red	\$0.60/m	30m	\$13.50
375111	3mm Single Core Double Insulated Tinned Copper Conductor 1.13mm <sup>2</sup> Black	\$0.60/m	30m	\$13.50
375101	3mm Twin Core Double Insulated, Sheathed, Tinned Copper Conductor 1.13mm <sup>2</sup>	\$1.25/m	50m	\$48.50
375117	4mm Single Core Double Insulated Tinned Copper Conductor 1.84mm <sup>2</sup> Available in Red, Black, White, Yellow, Green, Blue & brown	\$0.80/m	30m	\$18.00
375118	4mm Twin Core Double Insulated Tinned Copper Conductor 1.84mm <sup>2</sup>	\$2.00/m	50m	\$85.00
375113	5mm Single Core Double Insulated Tinned Copper Conductor 2.9mm <sup>2</sup> Red	\$1.40/m	30m	\$35.00
375112	5mm Single Core Double Insulated Tinned Copper Conductor 2.9mm <sup>2</sup> Black	\$1.40/m	30m	\$35.00
375102	5mm Twin Core Double Insulated, Sheathed, Tinned Copper Conductor 2.9mm <sup>2</sup>	\$2.80/m	50m	\$125.00
375114	6mm Single Core Double Insulated Tinned Copper Conductor 4.59mm <sup>2</sup> Red	\$2.25/m	30m	\$60.00
375115	6mm Single Core Double Insulated Tinned Copper Conductor 4.59mm <sup>2</sup> Black	\$2.25/m	30m	\$60.00
375116	6mm Twin Core Double Insulated Tinned Copper Conductor 4.59mm <sup>2</sup>	\$4.50/m	50m	\$180.00
375011	8 B&S Single Core Double Insulated Tinned Copper Conductor 7.71mm <sup>2</sup> Red	\$3.25/m	30m	\$85.00
375012	8 B&S Single Core Double Insulated Tinned Copper Conductor 7.71mm <sup>2</sup> Black	\$3.25/m	30m	\$85.00
375103	8 B&S Twin Core Double Insulated , Sheathed, Tinned Copper Conductor 7.71mm <sup>2</sup>	\$7.50/m	30m	\$195.00
375105	6 B&S Twin Double Insulated, Sheathed, Tinned Copper Conductor 13.6mm <sup>2</sup>	\$10.00/m	30m	\$255.00
375106	3 B&S Single Core Double Insulated Tinned Copper Conductor Red or Black 26.45mm <sup>2</sup>	\$9.50/m	30m	\$240.00
375107	2 B&S Single Core Double Insulated, Tinned Copper Conductor Red or Black 32.07mm <sup>2</sup>	\$12.00/m	30m	\$300.00
375104	5 core Trailer Wire. Tinned Copper Conductor 0.254mm <sup>2</sup>	\$2.00/m	50m	\$75.00
375130	7 core 4mm Trailer Wire Double Insulated. Sheathed. Tinned Copper Conductor 1.84mm <sup>2</sup>	\$4.50/m	50m	\$199.00
375	Solar Cable Twin Core Double Insulated, Tinned Copper 4mm <sup>2</sup>	\$3.50/m	100m	\$300.00
375201	Solar Cable Twin Core Double Insulated, Tinned Copper 6mm <sup>2</sup>	\$4.50/m	100m	\$360.00












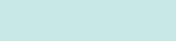
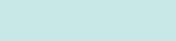




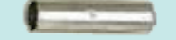




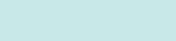
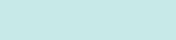


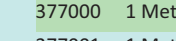
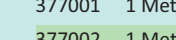


The cable we sell is only top quality tinned copper, double insulated, 105 degree temperature rated. Our product is manufactured to our specifications. It is the product that we use, and recommend. Check out the cable chart opposite to determine the cable size you need.



Code	Split Loom	\$ Per Metre	Code	Split Loom	\$ Per Metre
376004	5/16" 7.93mm ID	\$0.75/m	376006	7/16" 11.5mm ID	\$1.00/m
376005	11/32" 8.37mm ID	\$0.75/m	376002	5/8" 14.7mm ID	\$1.00/m
376001	3/8" 9.5mm ID	\$1.00/m	376003	3/4" 19mm ID	\$1.20/m



	Code	Description	Nearest Cable Size	Qty 1+	Qty 4+	Qty 10+
	251001	Non-Insulated Ring Terminal 6mm <sup>2</sup> /6mm	6mm	\$0.35	\$0.32	\$0.30
	251002	Non-Insulated Ring Terminal 6mm <sup>2</sup> /8mm	6mm	\$0.35	\$0.32	\$0.30
	251003	Non-Insulated Ring Terminal 10mm <sup>2</sup> /6mm	8 B&S	\$0.35	\$0.32	\$0.30
	251004	Non-Insulated Ring Terminal 10mm <sup>2</sup> /8mm	8 B&S	\$0.35	\$0.32	\$0.30
	251005	Non-Insulated Ring Terminal 10mm <sup>2</sup> /10mm	8 B&S	\$0.35	\$0.32	\$0.30
	250183	Non-Insulated Ring Terminal 16mm <sup>2</sup> /6mm	6 B&S	\$0.50	\$0.45	\$0.43
	250184	Non-Insulated Ring Terminal 16mm <sup>2</sup> /8mm	6 B&S	\$0.50	\$0.45	\$0.43
	251006	Non-Insulated Ring Terminal 16mm <sup>2</sup> /10mm	6 B&S	\$0.50	\$0.45	\$0.43
	250185	Non-Insulated Ring Terminal 25mm <sup>2</sup> /6mm	3 B&S	\$0.75	\$0.68	\$0.64
	250186	Non-Insulated Ring Terminal 25mm <sup>2</sup> /8mm	3 B&S	\$0.75	\$0.68	\$0.64
	251007	Non-Insulated Ring Terminal 25mm <sup>2</sup> /10mm	3 B&S	\$0.75	\$0.68	\$0.64
	251008	Non-Insulated Ring Terminal 35mm <sup>2</sup> /6mm	2 B&S	\$0.75	\$0.68	\$0.64
	250187	Non-Insulated Ring Terminal 35mm <sup>2</sup> /8mm	2 B&S	\$0.75	\$0.68	\$0.64
	251013	Non-Insulated Ring Terminal 35mm <sup>2</sup> /10mm	2B&S	\$0.75	\$0.68	\$0.64
	250181	Non-Insulated Ring Terminal 115A 25mm <sup>2</sup> /8mm	3 B&S	\$0.75	\$0.68	\$0.64
	250182	Non-Insulated Ring Terminal 115A 25mm <sup>2</sup> /10mm	3 B&S	\$0.75	\$0.68	\$0.64
	251009	Non-Insulated Ring Terminal 50mm <sup>2</sup> /8mm	0 B&S	\$1.10	\$1.00	\$0.94
	251010	Non-Insulated Ring Terminal 50mm <sup>2</sup> /10mm	0 B&S	\$1.10	\$1.00	\$0.94
	251011	Non-Insulated Ring Terminal 70mm <sup>2</sup> /8mm	00 B&S	\$1.50	\$1.35	\$1.28
	251012	Non-Insulated Ring Terminal 70mm <sup>2</sup> /10mm	00 B&S	\$1.50	\$1.35	\$1.28
	251030	Non-Insulated Joiner 4mm <sup>2</sup>	5mm	\$0.35	\$0.32	\$0.30
	251031	Non-Insulated Joiner 6mm <sup>2</sup>	6mm	\$0.35	\$0.32	\$0.30
	251032	Non-Insulated Joiner 10mm <sup>2</sup>	8 B&S	\$0.50	\$0.45	\$0.43
	250188	Non-Insulated Joiner 16mm <sup>2</sup>	6 B&S	\$0.50	\$0.45	\$0.43
	250189	Non-Insulated Joiner 25mm <sup>2</sup>	3 B&S	\$0.90	\$0.81	\$0.78
	251033	Non-Insulated Joiner 35mm <sup>2</sup>	2 B&S	\$0.90	\$0.81	\$0.78
	251034	Non-Insulated Joiner 50mm <sup>2</sup>	0 B&S	\$1.10	\$1.00	\$0.94
	251035	Non-Insulated Joiner 70mm <sup>2</sup>	00 B&S	\$1.50	\$1.35	\$1.28

Code	Heat Shrink Tube	Tube Size	\$ per Metre
377000	1 Metre each Red and Black	2mm	\$2.50
377001	1 Metre each Red and Black	4mm	\$3.00
377002	1 Metre each Red and Black	6mm	\$3.20
377003	1 Metre each Red and Black	8mm	\$3.40
377004	1 Metre each Red and Black	10mm	\$3.60
377005	1 Metre each Red and Black	12mm	\$3.80
377006	1 Metre each Red and Black	14mm	\$4.00
377007	1 Metre each Red and Black	16mm	\$4.20
377008	1 Metre each Red and Black	18mm	\$4.40
377009	1 Metre each Red and Black	20mm	\$4.60
377010	Multi Pack: 200mm lengths of Red & Black 4mm thru to 20mm 18pcs	Mixed	\$8.50

When using Non-Insulated Lugs & Joiners, it pays to use Heat Shrink Tube to insulate and protect against shorts. It gives a better finish than insulation tape, and lasts a lot longer as well!



When making battery cables etc, we always use two layers of heat shrink for extra protection!



## Heat Shrink Glue Lined Terminals

Code	Ring Terminals Shrink	Heat	Cable Size mm <sup>2</sup>	Amps	Qty 10pcs	Qty 25pcs	Qty 100pcs
250342	HS Red Ring Terminal 4mm		0.5-1.5mm <sup>2</sup>	10A	\$3.50	\$7.00	\$16.50
250343	HS Red Ring Terminal 6mm		0.5-1.5mm <sup>2</sup>	10A	\$3.50	\$7.00	\$16.50
250344	HS Red Ring Terminal 8mm		0.5-1.5mm <sup>2</sup>	10A	\$3.50	\$7.00	\$16.50
250351	HS Blue Ring Terminal 6mm		1.5-2.5mm <sup>2</sup>	15A	\$3.75	\$7.50	\$17.50
250352	HS Blue Ring Terminal 8mm		1.5-2.5mm <sup>2</sup>	15A	\$3.75	\$7.50	\$17.50
250353	HS Blue Ring Terminal 10mm		1.5-2.5mm <sup>2</sup>	15A	\$3.75	\$7.50	\$17.50
250360	HS Yellow Ring Terminal 6mm		4-6mm <sup>2</sup>	24A	\$4.00	\$8.00	\$24.00
250361	HS Yellow Ring Terminal 8mm		4-6mm <sup>2</sup>	24A	\$4.00	\$8.00	\$24.00
250362	HS Yellow Ring Terminal 10mm		4-6mm <sup>2</sup>	24A	\$4.00	\$8.00	\$24.00
250363	HS Yellow Ring Terminal 12mm		4-6mm <sup>2</sup>	24A	\$4.50	\$10.00	\$28.00

Code	Spade Terminals Heat Shrink	Cable Size mm <sup>2</sup>	Amps	Qty 25pcs	Qty 50pcs	Qty 100pcs
250311	HS Red Female semi Insulated	0.5-1.5mm <sup>2</sup>	10A	\$5.00	\$9.50	\$16.50
250312	HS Blue Female semi Insulated	1.5-2.5mm <sup>2</sup>	15A	\$5.50	\$10.50	\$17.00
250313	HS Yellow Female semi Insulated	4-6mm <sup>2</sup>	24A	\$6.00	\$11.50	\$17.50
250321	HS Red Male semi Insulated	0.5-1.5mm <sup>2</sup>	10A	\$5.00	\$9.50	\$16.50
250322	HS Blue Male semi Insulated	1.5-2.5mm <sup>2</sup>	15A	\$5.50	\$10.50	\$17.00
250323	HS Yellow Male semi Insulated	4-6mm <sup>2</sup>	24A	\$6.00	\$11.50	\$17.50

Code	In-Line Butt Terminals Heat Shrink	Cable Size mm <sup>2</sup>	Amps	Qty 25pcs	Qty 50pcs	Qty 100pcs
250331	HS Red In-Line Butt	0.5-1.5mm <sup>2</sup>	10A	\$7.00	\$12.50	\$20.00
250332	HS Blue In-Line Butt	1.5-2.5mm <sup>2</sup>	15A	\$8.50	\$15.50	\$26.00
250333	HS Yellow In-Line Butt	4-6mm <sup>2</sup>	24A	\$10.00	\$17.50	\$30.00

## PVC Terminals

Code	Ring Terminals PVC Insulated Tinned Copper	Cable Size mm <sup>2</sup>	Amps	Qty 10pcs	Qty 50pcs	Qty 100pcs
250154	Red Ring 4mm	0.5-1.5mm <sup>2</sup>	10A	\$2.25	\$6.00	\$11.00
250155	Red Ring 6mm	0.5-1.5mm <sup>2</sup>	10A	\$2.25	\$6.00	\$11.00
250156	Red Ring 8mm	0.5-1.5mm <sup>2</sup>	10A	\$2.25	\$6.00	\$11.00
250163	Blue Ring 4mm	1.5-2.5mm <sup>2</sup>	15A	\$2.50	\$6.50	\$12.00
250164	Blue Ring 6mm	1.5-2.5mm <sup>2</sup>	15A	\$2.50	\$6.50	\$12.00
250165	Blue Ring 8mm	1.5-2.5mm <sup>2</sup>	15A	\$2.50	\$6.50	\$12.00
250166	Blue Ring 10mm	1.5-2.5mm <sup>2</sup>	15A	\$2.50	\$6.50	\$12.00
250174	Yellow Ring 6mm	4-6mm <sup>2</sup>	24A	\$2.75	\$7.00	\$13.00
250175	Yellow Ring 8mm	4-6mm <sup>2</sup>	24A	\$2.75	\$7.00	\$13.00
250176	Yellow Ring 10mm	4-6mm <sup>2</sup>	24A	\$2.75	\$7.00	\$13.00
250177	Yellow Ring 12mm	4-6mm <sup>2</sup>	24A	\$2.75	\$7.00	\$13.00

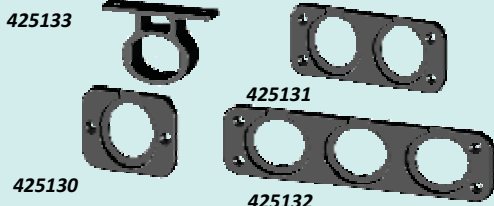
Code	Spade Terminals 6.6mm Nylon Insulated Tinned Copper	Cable Size mm <sup>2</sup>	Amps	Qty 25pcs	Qty 50pcs	Qty 100pcs
250260	Red Female Spade Fully Insulated	0.5-1.5mm <sup>2</sup>	10A	\$3.50	\$6.00	\$7.50
250261	Blue Female Spade Fully Insulated	1.5-2.5mm <sup>2</sup>	15A	\$3.75	\$6.50	\$8.50
250262	Yellow Female Spade Fully Insulated	4-6mm <sup>2</sup>	24A	\$4.00	\$7.00	\$9.50
250263	Red Female Spade Semi-Insulated	0.5-1.5mm <sup>2</sup>	10A	\$2.50	\$4.00	\$7.50
250264	Blue Female Spade Semi-Insulated	1.5-2.5mm <sup>2</sup>	15A	\$2.75	\$4.50	\$8.50
250265	Yellow Female Spade Semi-Insulated	4-6mm <sup>2</sup>	24A	\$3.00	\$5.00	\$9.50



Code	Spade Terminals 6.6mm PVC Insulated Tinned Copper	Cable Size mm <sup>2</sup>	Amps	Qty 25pcs	Qty 50pcs	Qty 100pcs
250001	Red Female Spade Fully Insulated	0.5-1.5mm <sup>2</sup>	10A	\$3.50	\$6.00	\$7.50
250002	Blue Female Spade Fully Insulated	1.5-2.5mm <sup>2</sup>	15A	\$3.75	\$6.50	\$8.50
250003	Yellow Female Spade Fully Insulated	4-6mm <sup>2</sup>	24A	\$4.00	\$7.00	\$9.50
250011	Red Female Spade Semi-Insulated	0.5-1.5mm <sup>2</sup>	10A	\$2.50	\$4.00	\$7.50
250012	Blue Female Spade Semi-Insulated	1.5-2.5mm <sup>2</sup>	15A	\$2.75	\$4.50	\$8.50
250013	Yellow Female Spade Semi-Insulated	4-6mm <sup>2</sup>	24A	\$3.00	\$5.00	\$9.50
250051	Red Male Spade Semi-Insulated	0.5-1.5mm <sup>2</sup>	10A	\$2.50	\$4.00	\$7.50
250052	Blue Male Spade Semi-Insulated	1.5-2.5mm <sup>2</sup>	15A	\$2.75	\$4.50	\$8.50
250053	Yellow Male Spade Semi-Insulated	4-6mm <sup>2</sup>	24A	\$3.00	\$5.00	\$9.50
Code	Other Spades	Cable Size mm <sup>2</sup>	Amps	Qty 10pcs	Qty 25pcs	Qty 100pcs
250221	Red Shoule Piggy Back Spade	0.5-1.5mm <sup>2</sup>	10A	\$2.00	\$3.50	\$10.50
250222	Blue Shoule Piggy Back Spade	1.5-2.5mm <sup>2</sup>	15A	\$2.25	\$4.00	\$12.00
250223	Yellow Shoule Piggy Back Spade	4-6mm <sup>2</sup>	24A	\$2.50	\$4.50	\$13.50
250231	Red Flag Right Angle (Nylon)	0.5-1.5mm <sup>2</sup>	10A	\$3.00	\$5.00	\$15.00
250232	Blue Flag Right Angle (Nylon)	1.5-2.5mm <sup>2</sup>	15A	\$3.50	\$6.00	\$18.00
250233	Yellow Flag Right Angle (Nylon)	4-6mm <sup>2</sup>	24A	\$4.00	\$7.00	\$21.00
Code	In-Line Butt Connectors PVC & Nylon	Cable Size mm <sup>2</sup>	Amps	Qty 25pcs	Qty 50pcs	Qty 100pcs
250071	Red In-Line Butt PVC Insulated	0.5-1.5mm <sup>2</sup>	10A	\$2.75	\$4.50	\$8.50
250072	Blue In-Line Butt PVC Insulated	1.5-2.5mm <sup>2</sup>	15A	\$3.00	\$5.00	\$9.50
250073	Yellow In-Line Butt PVC Insulated	4-6mm <sup>2</sup>	24A	\$3.25	\$5.50	\$10.00
250251	Red In-Line Butt Nylon Insulated	0.5-1.5mm <sup>2</sup>	10A	\$3.00	\$5.50	\$10.00
250252	Blue In-Line Butt Nylon Insulated	1.5-2.5mm <sup>2</sup>	15A	\$3.50	\$6.00	\$11.00
250253	Yellow In-Line Butt Nylon Insulated	4-6mm <sup>2</sup>	24A	\$5.00	\$8.50	\$14.50
Code	Fork Terminals PVC Insulated	Cable Size mm <sup>2</sup>	Amps	Qty 10pcs	Qty 25pcs	
250101	Red Fork 4mm Wide Blade	0.5-1.5mm <sup>2</sup>	10A		\$2.25	\$4.00
250111	Blue Fork 5mm Wide Blade	1.5-2.5mm <sup>2</sup>	15A		\$2.50	\$4.50
250121	Yellow Fork 6mm Wide Blade	4-6mm <sup>2</sup>	24A		\$2.75	\$5.00
250122	Red Fork 4mm Narrow Blade	0.5-1.5mm <sup>2</sup>	10A		\$2.25	\$4.00
250123	Blue Fork 4mm Wide Blade	1.5-2.5mm <sup>2</sup>	15A		\$2.50	\$4.50
Code	Pin Terminals PVC Insulated	Cable Size mm <sup>2</sup>	Amps	Qty 10pcs	Qty 25pcs	
250201	Red Pin Terminals	0.5-1.5mm <sup>2</sup>	10A		\$2.00	\$4.50
250202	Blue Pin Terminals	1.5-2.5mm <sup>2</sup>	15A		\$2.25	\$5.00
252203	Yellow Pin Terminals	4-6mm <sup>2</sup>	24A		\$2.50	\$5.50
Code	Bullet Terminals PVC Insulated	Cable Size mm2	Amps			25 Pairs
250081	Red Male & Female Bullets	0.5-1.5mm2	10A			\$5.50
250082	Blue Male & Female Bullets	1.5-2.5mm2	15A			\$6.00
250083	Yellow Male & Female Bullets	4-6mm2	24A			\$6.50
Code	Other connectors	Cable Size mm <sup>2</sup>	Amps	Qty 1+	Qty 25pcs	Qty 100pcs
250241	Red Scotch Lock /Quick Connect	0.5-1.5 mm <sup>2</sup>	10A	\$0.15	\$2.50	\$7.50
250242	Blue Scotch Lock/Quick Connect	1.5-2.5 mm <sup>2</sup>	15A	\$0.20	\$3.00	\$9.00
250243	Yellow Scotch Lock/Quick Connect	4-6 mm <sup>2</sup>	24A	\$0.25	\$3.50	\$10.50

Customise your DC power needs with the following 12 Volt Cig/Accessory Sockets, Volt Meters, Merit Sockets, Twin USB Sockets (2.1A and 1A) & Volt/Amp Meters. Just buy the inserts, which you can panel mount, or add single, double or triple panel mount face plate, or surface mount housings.

Code	Panel Mounts/Inserts	\$
425113	Volt Meter 3-30V DC	\$16.50
425111	Cig/Accessory Socket 12/24V DC	\$8.00
425112	USB Twin Socket 2.1A + 1A	\$17.50
425114	Merit Socket	\$9.50
425115	Volt/Amp Meter 10A/ 30V Max	\$35.00



Code	Face Plate Panel Mount	\$
425130	Single Hole Face Plate	\$2.50
425131	Double Hole Face Plate	\$3.50
425132	Triple Hole Face Plate	\$4.50
425133	Single Bracket Surface Mount	\$2.50

Code	Surface Mount Housing	\$
425120	Single Hole Housing	\$2.50
425121	Double Hole Housing	\$3.50
425122	Triple Hole Housing	\$4.50

Code	Other Cig Sockets	\$
425101	Cig Socket Rect Face Panel Mount	\$6.50
425107	Cig Socket Bar/Pole Mount	\$15.50
425106	Cig Socket with Wires	\$6.50
375305	Cig Socket Lead + Alligator Clamps	\$7.50
425014	Merit Socket Panel Mount 15 Amp	\$8.50

Code	Cig Plugs	\$
425010	Male Cig 2:1 Plug	\$4.50
425013	Male Cig 2 in 1 Plug Brass Contact 15 Amp	\$5.50
425012	Merit Male Plug 15 Amp	\$5.50



Code	Volt Meters	\$
275010	Surface Mount Rectangular Volt Meter Red Digital Display	\$18.50
275011	Panel Mount Rectangular Volt Meter Red Digital Display	\$15.50
275012	Cig Plug Volt Meter Red Digital Display	\$18.50
275013	Cig Plug Volt Meter Blue Digital Display	\$18.50
150741	Dual Battery 2 Way Voltage Test Panel	\$35.00
150740	Other: USB Socket Panel Mount + 10 Amp Circuit Breaker	\$35.00



275011

**New Products**

**Twin USB Toyota Switch Inserts.**  
 Large Body: \$18.50 Small Body: \$19.50

**Twin USB + Volt  
 Meter: \$25.00**

**Engel Plug: \$ 6.50**  
**Engel Socket: \$ 9.50**  
**Socket + Housing: \$ 12.00**



150741

**\$8.50 each****Rectangular Rocker Switches**  
Carling Type with Printed Covers

Available in Blue only

'ZOMBIE LIGHTS'

'BUNNY BURNERS'

'TRAY LIGHTS'

'ROOF LIGHTS'

'REAR ROOF LIGHTS'

'SPOT LIGHTS'

'ROOF LED LIGHT BAR'

'DRIVING LIGHTS'

'SIDE LIGHTS'

'ROCK LIGHTS'

'AUX LIGHTS'

'ENGINE BAY LIGHTS'

'WORK LAMP'

'AWNING LIGHTS'

'REVERSE LIGHTS'

'DOG CAGE LIGHT'

'KITCHEN LIGHT'

'BED SIDE LIGHTS'

'USB POWER'

'BEER FRIDGE'

'CAMPER POWER'

'12V INVERTER'

'AUXILIARY BATTERY'

'UHF RADIO'

'REAR DIFF LOCK'

'FRONT DIFF LOCK'

'REVERSE CAMERA'

'AIR COMPRESSOR'

'FAN'

Available in Blue or Red

'LIGHT'

'LED LIGHT BAR'

'CAMP LIGHT'

'ROOF LIGHTS'

'ROTARY BEACON'

'FRIDGE'

'WATER PUMP'

**Rectangular Rocker Switches**  
Carling Type with Laser Etched Covers**\$12.50 each**

'BUNNY BURNERS'

'ZOMBIE LIGHTS'

'PASSENGER EJECT'

'LANDING LIGHTS'

'BOAR LIGHTS'

'DRIVING LIGHTS'

'12 VOLT POWER'

'WATER PUMP'

'FRIDGE'

'CAMPER POWER'

'LED LIGHT BAR'

'REVERSE LIGHTS'

'TRAY LIGHTS'

'WORK LAMP'

'AUXILIARY BATTERY'

'TRACTION'

'COMPRESSOR'

'WINCH POWER'

'REAR VIEW CAMERA'



The Laser Etched Switches & Printed Switches have the same sized bodies, so the surrounds are suitable for both types.



Code	Description	Qty 1+
150702	Switch Illum Blue ON/OFF/ON	\$9.50
150703	Switch Illum Blue(ON)/OFF/(ON)	\$9.50
150730	Actuator Tool	\$4.50
150731	Panel Single	\$3.00
150732	Panel End Section	\$3.00
150733	Panel Mid Section	\$3.00
150734	Hole Plug Blank	\$3.00
150705	Base Connector	\$2.00

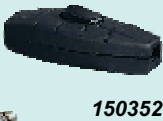


Code	Rocker Switches	mm	Amps	Qty 1+	Qty 4+	Qty 10+
150074	Mini Round Rocker Black ON/OFF	15mm	16A	\$2.50	\$2.25	\$2.13
150075	Mini Round Rocker Red Face ON/OFF	15mm	16A	\$2.50	\$2.25	\$2.13
150001	Round Rocker Black ON/OFF	19mm	16A	\$2.50	\$2.25	\$2.13
150002	Round Rocker Illuminated Red, Blue, Yellow or Green ON/OFF	19mm	16A	\$3.00	\$2.70	\$2.55
150042	Round Rocker ON/OFF/ON	19mm	16A	\$4.50	\$4.05	\$3.83
150041	Dust-Proof Cover for Round Rocker			\$1.00	\$0.90	\$0.85
150051	Oval Rocker Illuminated Red, Blue, Yellow or Green ON/OFF	12.5mm	20A	\$3.50	\$3.15	\$2.98
150055	Oval Rocker full Face Illuminated Red, Blue, Yellow or Green ON/OFF	12.5mm	30A	\$3.50	\$3.15	\$2.98
150071	Rectangular Rocker full Face Illuminated Red, Yellow or Green ON/OFF	12.5mm	20A	\$3.00	\$2.70	\$2.55



Code	Toggle Switches	mm	Amps	Qty 1+	Qty 4+	Qty 10+
150111	Toggle Switch Metal Case Illuminated Red, Blue, Yellow or Green ON/OFF	12.5mm	20A	\$3.50	\$3.15	\$2.98
150172	Toggle Switch Safety Cover Red, Blue, Black, Silver, Transparent Yellow, Faux Carbon, Green or Transparent Green	12.5mm	NA	\$2.50	\$2.25	\$2.13
150121	Toggle Switch Metal Case Side Terminals ON/OFF		6A	\$3.00	\$2.70	\$2.55
150122	Toggle Switch Metal Case with Wires ON/OFF		6A	\$3.00	\$2.70	\$2.55
150131	Toggle Switch Waterproof IP66 ON/OFF		20A	\$7.50	\$6.75	\$6.38
150141	Toggle Switch ON/OFF/ON		15A	\$4.75	\$4.28	\$4.04
150142	Toggle Switch (ON)/OFF/(ON)		15A	\$4.75	\$4.28	\$4.04
150143	Toggle Switch Metal Body ON/OFF	10.5mm	20A	\$3.00	\$2.70	\$2.55
150144	Toggle Switch Hi Amp ON/OFF		50A	\$7.50	\$6.75	\$6.38
150145	Toggle Switch Hi Amp ON/OFF/ON		50A	\$7.50	\$6.75	\$6.38
150151	Toggle Switch Waterproof Cover 12mm			\$1.00	\$0.90	\$0.85

Code	Other Switches	Amps	Qty 1+	Qty 4+	Qty 10+
150351	In-line Switch Snap Lock ON/OFF	5A	\$3.00	\$2.70	\$2.55
150352	In-line Switch Quick-Connect ON/OFF	5A	\$4.00	\$3.60	\$3.40
150354	In-line Switch 1 into 2 ON/OFF	5A	\$8.50	\$7.65	\$7.23
150251	Door/Pin Switch OFF/ ON	5A	\$4.50	\$4.05	\$3.83
150252	Door/Pin Switch Waterproof OFF/ON	5A	\$4.50	\$4.05	\$3.83
150275	Micro Switch Waterproof IP67 OFF/ON or ON/OFF	10A	\$8.50	\$7.65	\$7.23
150276	Micro Switch long roller OFF/ON or ON/OFF	10A	\$4.50	\$4.05	\$3.83
150301	Battery Isolation Switch OFF/ON	150A	\$12.50	\$11.25	\$10.63
150394	Replacement Key Battery Isolation Switch		\$2.50	\$2.25	\$2.13
150311	Pull/Push Switch OFF/ON	10A	\$2.50	\$2.25	\$2.13



We also carry Foot Switches, Key Switches, Push Button Off/On & Momentary Off/ (On).  
See Page 23 for USB switch 'replacements': simply remove a switch or switch blank, and insert the USB, or USB/Volt Meter into the existing hole!



MXS 5.0



MXS 25



Mw25



BC-1230P



230010



230011



230015

Code	CTEK	Volts	Amps	\$
MXS 5.0	CTEK Battery Charger	12V	5A	\$140.00
MXS 5.0	CTEK Battery Charger & Tester	12V	5A	\$185.00
MXS 10	CTEK Battery Charger	12V	10A	\$280.00
MXS 15	CTEK Battery Charger	12V	15A	\$335.00
MXS 25	CTEK Battery Charger	12V	25A	\$499.00
D250S	Dual DC/DC Battery Charger + Solar Input	12V	20A	\$390.00

**Voltech**

BC-1230P	Voltech 5 Stage Battery Charger	12V	30A	\$450.00
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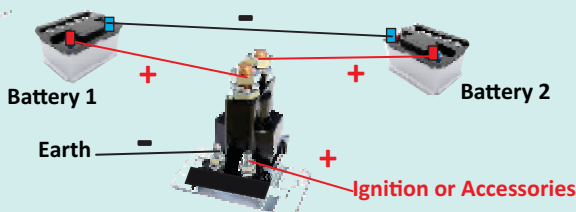
**Meanwell**

MW25	Meanwell 3 Stage Battery Charger Adjustable Output Voltage 13-14.7V	12V	25A	\$269.00
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**Dual Battery Relay**

BI-80	Electro 12 Volt Dual Battery Isolator	12V	80A	\$90.00
BI-40	Electro 24 Volt Dual Battery Isolator	24V	40A	\$90.00
BBC-3140	Electro 24v-12v Battery Charger/Converter	24/12V	40A	\$320.00
SCM03012V	Dual Input DC Booster/MPPT 10-50V PV Input	12V	30A	\$420.00
230011	Auto Relay Dual Battery 150 Amp	12V	150A	\$39.00
230012	Auto Relay Dual Battery 150 Amp Voltage Sensitive	12V	150A	\$99.00
230016	Auto Relay Dual Battery 80 Amp	12V	80A	\$29.50

Code	Description	Qty 1+	Qty 4+	Qty 10+
230010	Auto Relay 30 Amp 5 Pin	\$6.50	\$5.85	\$5.53
230015	Auto Relay 30 Amp With Fuse 4 Pin	\$7.50	\$6.75	\$6.38
230013	Relay Base Wire Connector	\$6.00	\$5.40	\$5.10
230014	LED Flasher Unit 3 Pin	\$10.50	\$9.45	\$8.93
230018	Auto Relay 40 Amp Closed Relay	\$6.50	\$5.85	\$5.53



Very basic wiring diagram for dual battery system using 150 Amp Auto Relay.

When wiring a Dual Battery System, ideally place a circuit breaker as close as possible to the cranking battery, for entire circuit protection, and don't scrimp on the cable size! Using cable which is not big enough for the job (any job) will lead to voltage drop. If you want to be able to start the engine with either of your batteries, you will need to use battery cable to link them. However, if you will only be running camping gear such as fridges, camping lights etc, you can use smaller cable, such as 8 B&S, or maybe even 6mm. Work out how many amps you will be pulling, then check it on the cable chart in the centre of this catalogue. As for earthing your batteries, we believe that best practice is to run both your positive, and your earth from battery to battery, rather than earthing to the chasis. If you MUST earth to the chasis, ensure that you make good solid earth points, AND remember to check them from time to time! We saw a caravan recently where the house batteries were bubbling away, and emitting a horrendous smell, the battery cables were starting to melt, and it was all seriously about to get very nasty! We tracked the cause down to a very bad chasis earth! It cost the owners 2 brand new batteries, a lot of new wiring, and a night in a motel, because they could not stay in the van with the smell. But it could have cost a lot more and had a very sad ending!

**Inverters: 12VDC to 240VAC**

Some items in this range need to be ordered. Turn-around is normally about 48 hours. Product range & prices can change at short notice, so please contact us for price & availability when you wish to make a purchase. All prices and information provided were true & correct at time of printing.

Code	Description	Watts	Surge 5 secs	Voltage	\$ RRP
<b>Voltech Trade Series. Suitable for intermittent use only</b>					
TS300-12	Voltech 300 Watt Pure Sine Wave	300W	600W	12V	\$169.00
TS800-12	Voltech 800 Watt Pure Sine Wave	800W	1600W	12V	\$350.00
TS1500-12	Voltech 1500 Watt Pure Sine Wave	1500W	3000W	12V	\$510.00
TS2500-12	Voltech 2500 Watt Pure Sine Wave	2500W	5000W	12V	\$820.00
<b>Voltech Pro Series. Suitable for continuous use.</b>					
HT-S-2000-12	Voltech 2000 Watt Pure Sine Wave	2000W	4000W	12V	\$890.00
HT-S-3000-12	Voltech 3000 Watt Pure Sine Wave	3000W	6000W	12V	\$1250.00
<b>Cotek Deluxe Pure Sine Wave Inverters</b>					
SE350-212	Cotek 350 Watt Pure Sine Wave	350W	700W	12V	\$385.00
SK700-212	Cotek 700 Watt Pure Sine Wave	700W	1400W	12V	\$680.00
SK1000-212	Cotek 1000 Watt Pure Sine Wave	1000W	2000W	12V	\$780.00
SK1500-212	Cotek 1500 Watt Pure Sine Wave	1500W	3000W	12V	\$1050.00
<b>Cotek Advanced Stackable Pure Sine Wave Inverters</b>					
SD2500-212	Cotek 2500 Watt Pure Sine Wave	2500W	4000W	12V	\$1750.00
SD3500-212	Cotek 3500 Watt Pure Sine Wave	3500W	6000W	12V	\$2200.00
<b>Latronics Pure Sine Wave Inverters</b>					
LS1012	Latronics 1000 Watt Pure Sine Wave	1000W	3000W	12V	\$1518.00
LS2012	Latronics 2000 Watt Pure Sine Wave	2000W	6000W	12V	\$2750.00
LS2324	Latronics 2300 Watt Pure Sine Wave	2300W	7000W	24V	\$2772.00
LS4024	Latronics 4000 Watt Pure Sine Wave	4000W	12000W	24V	\$4378.00



**Remote Meters  
are available**

**Power Supplies/Transformers: 240V AC to 12 V DC**

12 Volt DC lighting and appliances can be used in a 240 Volt AC situation, by using a 240 Volt AC to 12 Volt DC power supply. **What size Power Supply do I need?** Calculate the total Amps or Watts, and allow about 10% more, to find the answer.

Eg, A 12 Watt, 1 Amp Power Supply can easily run a 520mm, or 2 of the 270mm Led strip lights from our range, or up to 8 of the 1.2 watt LED modules! A 5 metre roll of 4.3 Watt per Metre Flexible strip could be run of the 36 Watt 3 Amp Model.

Code	Watts	Amps	Qty 1+
075121	12 Watt	1A	\$13.00
075122	36 Watt	3A	\$25.50
075124	72 Watt	6A	\$45.50
075126	100 Watt Meanwell	8A	\$65.00
075127	350 Watt Meanwell	29A	\$90.00

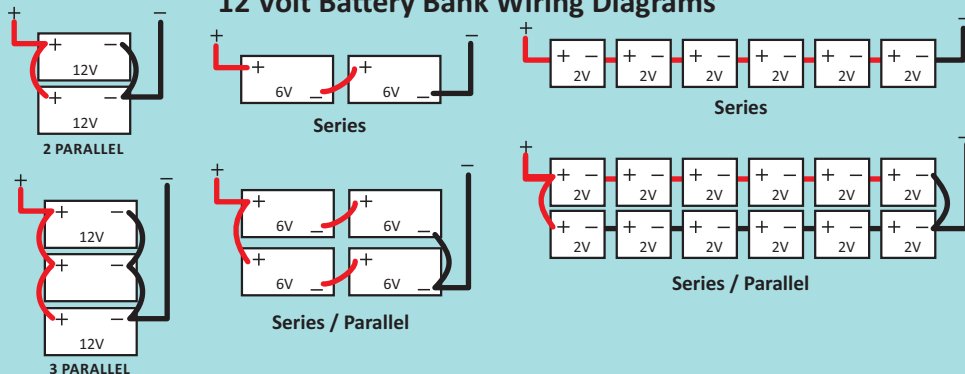
**075121****075127****DC/DC Converters: 24VDC to 12VDC**

Code	Description	Output Amps	Output Watts	\$
075220	DC/DC Converter 24VDCto 12VDC 15 Amp	15A	180W	\$45.00
075221	DC/DC Converter 24VDCto 12VDC 30 Amp	30A	360W	\$85.00

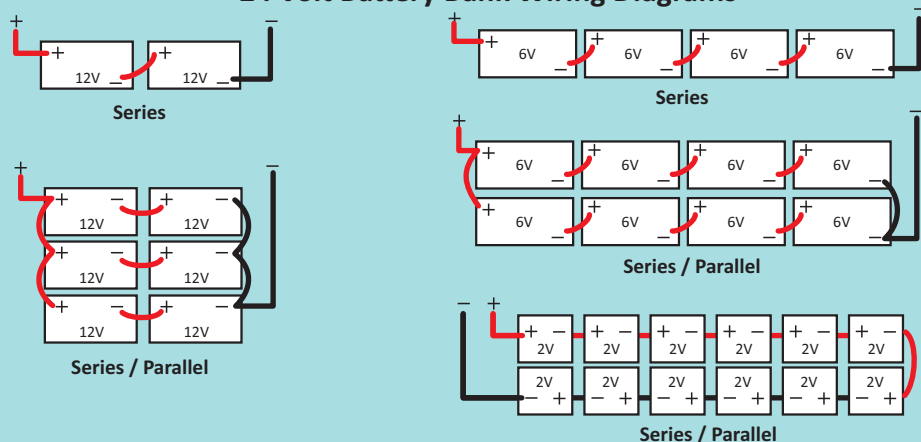
**075220**

Handy if you have a 24 VDC system, but can only access 12 VDC accessories, such as lighting

### 12 Volt Battery Bank Wiring Diagrams



### 24 Volt Battery Bank Wiring Diagrams



*The above diagrams are meant as a guide, and are provided in good faith*



Contact us for prices

We now stock Sentry Lithium Series Batteries using highest quality Lithium Iron Phosphate(LiFePO4) technology.

- **Features & Benefits of Sentry Lithium Series Batteries.**
- Greater number of cycles (2500+) along with greater utilisation of available capacity (up to 100% DOD) depth of discharge, means up to 8 times the cycle life of standard SLA technology - lowering your total cost of ownership.
- Integrated battery management system (BMS)- Provides optimum safety and performance
- Safe & stable chemistry - The use of LiFePO4 along with the integrated BMS greatly reduces the risk of combustion or explosion due to high impact, overcharging or short circuit situations
- Higher energy density means Sentry Lithium is close to half the weight of an equivalent SLA making them ideal for mobility and weight critical applications
- Extra fast recharge time and can be charged using most standard SLA chargers - no need to upgrade your existing charging infrastructure
- Rugged plastic flame retardant case and cover
- UL1642 at cell level



When it comes to purchasing deep cycle batteries you most definitely get what you pay for! When selecting a deep cycle battery be aware that weight is very relevant to quality (the heavier the battery, the more lead in it). (Obviously Lithium batteries are a different kettle of fish!). It is also worth considering how much use you will be getting from your system when deciding what quality to buy. If you are using a caravan 6 months of the year, year in, year out, & enjoy free camping, it would be advisable to invest in a really good quality brand. Go with a name that is reliable & has a good reputation. On the other hand, if you are designing a system that will only be used very occasionally, it is hard to justify spending top dollar if you are going to get little use from it. No matter how much, or how little you pay for your batteries, you will only get a good life out of them if you look after them. The trick is to keep them charged! As you can see on the State of Charge chart below, **a 12V battery is 50% discharged at 12.1V**. Each time the battery gets that low it is shortening the life span.

Battery State of Charge Chart							
Percentage of Charge	Specific Gravity Corrected to 80° F	<i>Battery must be idle for 20 mins prior to testing for an accurate reading</i>					
		Open Circuit Voltage					
		6V	8V	12V	24V	36V	48V
100	1.277	6.37	8.49	12.73	25.46	38.20	50.93
90	1.258	6.31	8.41	12.62	25.25	37.85	50.47
80	1.238	6.25	8.33	12.50	25.00	37.49	49.99
70	1.217	6.19	8.25	12.37	24.74	37.12	49.49
60	1.195	6.12	8.16	12.24	24.48	36.72	48.96
50	1.172	6.05	8.07	12.10	24.20	36.31	48.41
40	1.148	5.98	7.97	11.96	23.92	35.87	47.83
30	1.124	5.91	7.88	11.81	23.63	35.44	47.26
20	1.098	5.83	7.77	11.66	23.32	34.97	46.63
10	1.073	5.75	7.67	11.51	23.02	34.52	46.03

Deep Cycle Batteries

Description	Ah	Type	Dimensions L x W x H (mm)	Weight Kg	\$
Full River DCB120-12B	120Ah	AGM	331 x175x218	36.5	\$440.00
Full River HGL12-12	12Ah	SLA	151 x 99 x 101	3.6	\$59.00
Full River HGL 7.2-12	7Ah	SLA	151 x 65 x 101	2.2	\$35.00
Power Sonic PDC122000	215Ah	AGM	522 x 240 x 218	62.5	\$559.00
Power Sonic PDC121600	160Ah	AGM	485 x 170 x 240	42.5	\$439.00
Power Sonic PDC121200	120Ah	AGM	330 x 173 x 212	31.4	\$380.00
Power Sonic PS12200	20Ah	AGM	181 x 76 x 167	6.3	\$85.00
Power Sonic PS1280	8Ah	AGM	151 x 65 x 94	2.5	\$26.00
Sentry SA12V125C	125Ah	AGM	330 X 172 X 217	30	\$330.00



Battery Boxes  
& Battery Terminals  
Page 30



**NOTE: The price of batteries can change at short notice. The prices above were accurate at time of printing (June 2016). For current prices, products & availability please contact us.**



### Basic diagram for wiring solar panels for 12V (parallel)

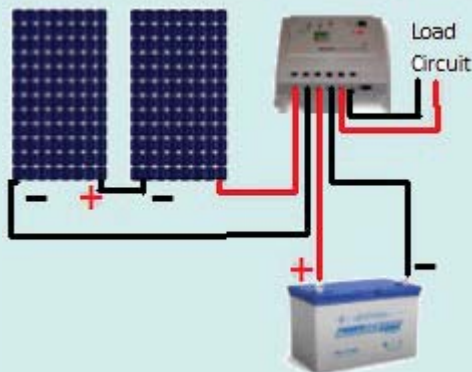
Wire the panels in parallel for a 12 Volt system. If using more than one battery, your batteries must also be wired in parallel to maintain 12 Volts. (Battery wiring diagrams can be found on Page 26)



It is really as simple as that! **Power in (+) & (-)** from the Solar Panels into the Controller /Regulator. **Power out(+)** & **(-)** to the Battery. **Power out to load (+) & (-)** You can use this **Load Circuit** as a point from which to draw power. For example, you could run a water pump, fridge or lighting, thru the Load Circuit. Note: a 10 Amp controller can output a maximum of 10 Amps thru the load circuit. The Load Circuit does not have to be used. Power can be drawn directly from the battery. You can't go wrong if you take note of the symbols on the controller. Ideally, **fuse the line between the panels & the controller & between the controller & the battery**. \*Connect the battery to the controller before you connect the panels. \*Do not connect the panels directly to your battery without a solar controller or regulator, as you risk damaging your battery.

### Basic diagram for wiring solar panels for 24V (series)

To increase output solar panels can be wired in series: Instead of both positives going to positive in the controller & both negatives going to negative in the controller, link the panels together one positive to one negative on one side, then on the other side link the negative & positive to the controller (ie the positive from one panel & the negative from the other panel). This creates a 24V output. By wiring panels in series in this fashion, you will need a 24Volt battery bank with a PWM controller, or a MPPT controller if you wish to use a 12 Volt battery bank. Larger MPPT controllers will take up to 100Volts solar input & still recognize a 12 or 24 Volt battery system safely.



*These diagrams are not to scale. They have been included to act as a general guide only.*

## Battery Accessories



Code	Battery Accessories		\$
075400	Battery Box	Each	\$35.00
075401	Battery Terminal Magnalium Red & Black	Pair	\$8.50
075402	Battery Terminal Brass	Pair	\$9.50
075403	Terminal Cover for 075401	Each	\$2.50
075404	Terminal Cover for 075402	Each	\$2.50

Hint: Keep your battery terminals free of clutter by using Terminal Posts. (page 14). Secure one each for your positive and negative lines. Run a good sized cable from the battery, to each post, then feed all of your circuits from there. Much neater than having cables all over the battery.

**Important:** When putting a solar system together it is essential that you connect the solar controller to the batteries, before linking to the panels. Link the panels in last. And reverse the process when working on the system. ie, disconnect the panels, before the batteries! Some regulators are more sensitive than others, ie MPPT regulators tend to be more sensitive, and when working with larger voltages, it would be highly recommended to follow this rule!

### What size solar panel do I need???

To determine the size of the panel/s you require, you need to calculate the amount of power that you are using. To calculate how many **AMPS** you are using, we apply the following: **WATTS / VOLTS = AMPS**. For example, an LED strip light draws **6.5 Watts**. Divide this by **12 Volt = 0.54 Amps** (542 mA) If you use 1 light strip for 3 hours /night, your power consumption will be: **542mA x 3 hours = 1.6 Amps per night**. Apply this same calculation to all of your lights & appliances, to get a total power consumption in Amps per day.



**Now to the Solar Panels.** Using the same calculation as above we can determine the output of a Solar Panel. Divide the Wattage of the Panel by the Max Power Voltage to get the Amp output. E.g.: A 140 Watt Solar Panel produces 7.78 Amps per hour. Multiply this

by an average of 5 hours sunlight per day, gives a total of 38.9Amps per day. Overcast days will obviously affect this outcome, so it is far better to under-calculate at this point.

**The Solar Controller** It is absolutely crucial to use a solar controller/regulator. Why? Quite simply, your solar panel, eg, a 150W panel, is outputting 17.9V.

Your 12V battery is only capable of carrying approx. 14V max . If a panel is connected to a battery without the use of a controller serious damage could occur to the battery, in a very short period of time. And there is also the risk of personal harm. **MPPT Controllers:** There has been a lot of hype recently about the benefits of using an MPPT (Multi Power Point Tracking) The only real benefit in using an MPPT unit is when you are installing multiple panels, as the MPPT units can carry much higher Voltage than a PWM (Pulse Width Modulator) controller. Despite the hype, putting an MPPT regulator on a single panel WILL NOT improve the panel output by 25%. Having said that, you will need to use an MPPT controller if you are using panels with an output of more than 24V. (most of the 'cheap' high wattage panels on the market at present, are high voltage and will require an MPPT controller), to charge a 12 Volt Battery.



**And finally: the batteries.** It is not impossible to use a standard 12 Volt car battery for your power storage. You are, in theory, putting 12 Volts in & taking 12 Volts out. But a standard car battery is designed for starting your car engine: small bursts of high power, which are replaced rapidly as the vehicle is being driven. Generally, standard car batteries are rated in Cranking Hours. Your standard wet cell car battery is filled with acid, which is corrosive & dangerous if spilled. It also gives off dangerous gasses, which you certainly do not want in your living space! The preferred batteries for camping, caravanning & stand alone systems are **Deep Cycle Sealed Batteries**, which come in many forms, including (but not restricted to) Gel & AGM. These batteries are rated in Amp Hours. They are designed to withstand power being drawn from them at lower rates, over longer periods of time. This by no mean means that they are designed to be run flat. In fact, a 12V battery is at just 50% capacity, at 12.1Volts. A 120Ah battery, has 60 Amps at your disposal, without compromising the health of the battery. Consider the following battery discharge rates: at 90% discharge you may get 300 cycles, whereas at 30% discharge, you could anticipate around 3000 cycles! Do not leave batteries discharged! For caravans & motorhomes, it is recommended that you make sure that you have sufficient battery storage capacity to last 2-3 days, (to allow for a couple of days rain or overcast conditions). For stand alone systems such as houses or sheds, you will need 3 –5 days autonomy.

### Notes

## EP Solar Controllers & Solar Regulators

**Why 'EP Solar' brand Solar Controllers?** During our 6+ years in this business, we have tried many different brands of controllers. Cheap controllers have proven to have a high failure rate, and their conversion efficiency of solar power can be very low, ie, a 90 Watt panel we tested with a Juta brand controller only produced 2.9 Amps (or the equivalent of 50.75 Watts!) The 10 Amp ViewStar Controller we tested on the same panel, produced 4.05 Amps (or the equivalent of 70.87 Watts) The cell temperature at time of testing was 57°C (test was done in February). The rated output of solar panels is tested at 25°C, which is evidenced by the lower than anticipated output of 4.05A. From our experience, to obtain the most power you can from your panels, you need to use a good quality controller. I occasionally hear someone say, "I can get one cheaper on-line". So can we, but we will only stock top quality product, that has proven over the years, to be reliable & efficient.



**New 'A' Series  
Solar Controller**



**New 'BPD' Series  
Solar Controller**



**New MPPT 'A'  
Series Solar  
Controller**

Code	Solar Charge Controllers/ Regulators 12/24 Volt	Amps	Watts @12V	\$
550001	5 Amp PWM LandStar R Series	5A	80W	\$26.50
<b>Waterproof Controllers BPD Series*</b>				
550015	10 Amp PWM Waterproof LandStar	10A	160W	\$45.00
550016	20 Amp PWM Waterproof Landstar	20A	320W	\$65.00
<b>ViewStar A Series* Semi Programmable 50 VDC Max Solar Input</b>				
550020	10 Amp PWM ViewStar	10A	160W	\$75.00
550021	20 Amp PWM ViewStar	20A	320W	\$95.00
550022	30 Amp PWM ViewStar	30A	480W	\$110.00
<b>ViewStar BN Series Fully Programmable</b>				
550002	10 Amp PWM ViewStar	10A	160W	\$95.00
550003	20 Amp PWM ViewStar	20A	320W	\$130.00
550004	30 Amp PWM ViewStar	30A	480W	\$190.00
550011	45 Amp PWM ViewStar	45A	720W	\$220.00
550007	60 Amp PWM ViewStar	60A	960W	\$320.00
<b>MPPT Tracer A Series</b>				
550120	20 Amp MPPT Input Max 100VDC	20A	260W	\$180.00
550121	30 Amp MPPT Input Max 100VDC	30A	390W	\$200.00
550122	40 Amp MPPT Input Max 100VDC	40A	520W	\$220.00
550106	60 Amp MPPT Input Max 150VDC ETracer Series Can be remotely managed via Ethernet	60A	800W	\$750.00

\*The BPD Series are the new waterproof series EP Solar regulators. The 'E' Series controllers are semi programmable, and have a scrolling screen, which automatically scrolls between read outs. These means that by just looking at the controller for a few moments, you will know exactly what voltage your batteries are, and how many Amps are going into the batteries.



**Left:** Solar Regulator fitted to a solar system in a canopy. Note the Load Circuit is feeding directly to the cig socket.

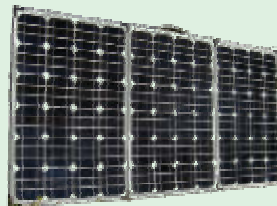
**Right:** The back view of a distribution centre. It takes no more time to do a neat job, than create a 'noodle box' of wires!



**200 Watt Folding Solar Panel Kit**

This 200 Watt Folding panel consists of 3 x 67 watt solar panels, wired in series to produce a 200 watt kit with a 35.4 volt closed circuit voltage. The new ViewStar A Series, is capable of accepting up to 50 VDC solar panel input, and still charge a 12 volt battery, making it suitable for use with this panel. Price includes panel, controller & 5 Metre cable.

Maximum Power (Pmax)	200 Watts Total
Open Circuit Voltage (Voc)	13.9 Volts x 3
Maximum Power Voltage (Imp)	11.8 Volts x 3
Maximum Power Current (Imp)	5.68 Amps x 3
Dimensions when folded	675 x 620 x 105mm
Weight	21 Kg

**\$450.00****Trickle Feed Panels**

Trickle feed panels are great for keeping batteries in farm machinery, boats, ride-on mowers, motor vehicles etc topped up. They are also very useful for running micro lighting systems such as garden lights. Used with our range of solar controllers which have built in timers for night lighting, you can put together an automatic lighting system. Great for effect, or security. The rigid aluminium frame means these panels will last for years.

**6 Watt Trickle Feed**

Watts	Dimensions	Max Power Voltage	Max Output Amps	\$
20 Watts requires controller	591 x 290 x 19mm	17.6V	1.13A	\$50.00
20 Watts fitted with controller, stand & cable	591 x 290 x 19mm	17.6V	1.13A	\$99.00
6 Watts no controller	282 x 186 x 17mm	17.6V	0.34A	\$25.00
6 Watts with diode & cable	282 x 186 x 17mm	17.6V	0.34A	\$45.00

**20 Watt Trickle Feed****Mc4 Connectors**

Mc4 Connectors are the connectors that are commonly found on solar panels. Most of our panels come with a bonus set, so that you can make the most of this simple method of connection. The connectors are waterproof, and also make it easy if you want to add an extra panel or panels into your system at a later date. We recommend that these connectors NOT be used where the current is higher than 20 Amps!

Code	MC4 IP65	\$
560101	MC4 Male & Female Pair In-line	\$6.50
560102	MC4 Pair Panel Mount	\$7.50
560103	MC4 2 into 1 Pair	\$15.00
560105	MC4 3 into 1 Pair	\$25.50
560104	MC4 pair with 900mm cable	\$14.50
560106	MC4 10Amp Diode	\$7.50
550107	MC4 Spanner	\$7.50

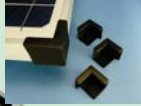
**560103 ->**

*If you haven't used these connectors before, we suggest that you pay particular attention to which contact goes into which housing!*



## 100 Watt Rigid Monocrystalline Solar Panel

\*We recommend using a 10 Amp Solar Controller (minimum) with this panel



Bonus Corner  
Protectors

Maximum Power (Pmax)	100 Watts
Open Circuit Voltage (Voc)	21.6 Volts
Maximum Power Voltage (Voc)	18 Volts
Maximum Power Current (Imp)	5.56 Amps
Dimensions	1200 x 550 x 35mm
Weight	8 Kg

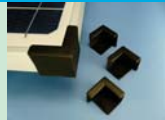
**\$150**

*This Panel can produce an average of approx 30 Amps per day.*

## 150 Watt Rigid Monocrystalline Solar Panel

We Recommend using a 10 Amp solar controller with this panel (minimum)

Maximum Power (Pmax)	150 Watts
Open Circuit Voltage (Voc)	21.4 Volts
Maximum Power Voltage (Voc)	18.1 Volts
Maximum Power Current (Imp)	8.29 Amps
Dimensions	1482 x 676 x 35mm
Weight	12 Kg



Bonus Corner  
Protectors

**\$199**

*This Panel can produce an average of approx 45 Amps per day.*

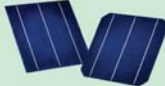
**\*The most common fit-out we do on caravans/motorhomes is 2 x 150 watt panels & 20 Amp Controller. As at time of printing, the cost of this fitted is approx \$900-\$950. This price includes the panels, controller, cable & circuit breakers, wired to your existing battery, including labour. It does not include batteries, or additional battery leads. Please contact us for a quote to meet your specific needs.**

## 200 Watt Rigid Monocrystalline Solar Panel

We Recommend using a 20 Amp solar controller with this panel (minimum)



**\$230**



German  
Cells!

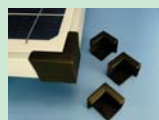
Maximum Power (Pmax)	200 Watts
Open Circuit Voltage (Voc)	21.35 Volts
Maximum Power Voltage (Voc)	17.08 Volts
Maximum Power Current (Imp)	11.71 Amps
Dimensions	1436 x 850 x 35mm
Weight	15 Kg

*This Panel can produce an average of approx 60 Amps per day.*

## 300 Watt Rigid Monocrystalline Solar Panel

We Recommend using a 20 Amp solar controller with this panel (minimum)

Maximum Power (Pmax)	300 Watts
Open Circuit Voltage (Voc)	22.5 Volts
Maximum Power Voltage (Voc)	18 Volts
Maximum Power Current (Imp)	16.67 Amps
Dimensions	1956 x 992 x 40mm
Weight	24 Kg



Bonus Corner  
Protectors

**\$345**

*This Panel can produce an average of approx 90 Amps per day.*





There is a lot of information out there about solar panels, but unfortunately, a lot of it is very misleading, and at times quite incorrect. The result is, many people who are trying to set up simple systems, are being overwhelmed, and at times confused. It should not be that hard to get accurate, easy to comprehend information. At JGM Direct, we are not rocket scientists & from what I can work out, not many (if any) of our customers are either. The information contained in this catalogue is designed to be helpful & easily understood, and is provided in good faith.

120 Watt Folding Solar Panel Kit



Monocrystalline. Includes Solar Controller, Carry Bag, 10 Metre Cable with Anderson Plug, & Bonus Anderson Lead with Alligator Clamps for connection directly to a battery.

Maximum Power (Pmax)	120 Watts
Open Circuit Voltage (Voc)	21.96 Volts
Maximum Power Voltage (Voc)	17.57 Volts
Maximum Power Current (Imp)	6.83 Amps
Dimensions when Folded	510 x 800 x 70mm
Weight	11.5 Kg

This Panel can produce an average of approx 40 Amps per day.

170 Watt Folding Solar Panel Kit

Monocrystalline. Includes Solar Controller, Carry Bag, 8 Metre Cable with Anderson Plug, & Bonus Anderson Lead with Alligator Clamps for connection directly to a battery.



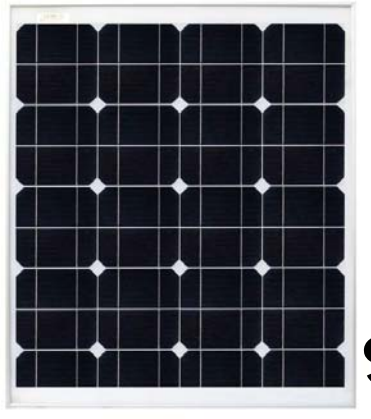
Maximum Power (Pmax)	170 Watts
Open Circuit Voltage (Voc)	21.96 Volts
Maximum Power Voltage (Voc)	17.57 Volts
Maximum Power Current (Imp)	9.68 Amps
Dimensions when folded	758 x 670 x 70mm
Weight	14 Kg

This Panel can produce an average of approx 55 Amps per day.

The following rigid solar panels require the use of a Solar Controller, please note recommended size.

80 Watt Rigid Monocrystalline Solar Panel

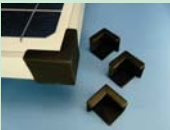
\*We recommend using a 5 Amp Solar Controller (minimum) with this panel



Maximum Power (Pmax)	80 Watts
Open Circuit Voltage (Voc)	21.6 Volts
Maximum Power Voltage (Voc)	18 Volts
Maximum Power Current (Imp)	4.44 Amps
Dimensions	790 x 675 x 35mm
Weight	6 Kg

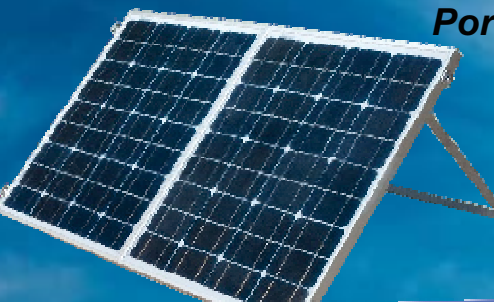
This Panel can produce an average of approx 25 Amps per day.

Bonus Corner  
Protectors






## Portable Solar Panels



**120 Watts**  
**\$230**



**170 Watts**  
**\$299**



## Contact Us

Our Shop is located at 13,912 D'Aguiar Hwy, Nanango, on the southern entrance to town. Look for us between the BP & the Big Bucket, and diagonally across from the southern end of the Free Camp (Tipperary Flats) See Map below. We are open Monday to Friday, 9.00am to 5.00pm.

**Online Store:**

[www.jgmdirect.com](http://www.jgmdirect.com)

**Email:**

[jamie@jgmdirect.com](mailto:jamie@jgmdirect.com)

[bev@jgmdirect.com](mailto:bev@jgmdirect.com)



**On the  
Web**



**Phone**

**Shop: 07 4163 3109**

**Jamie: 0413 669 112**

**Bev: 0403 379 476**



**Markets**

**Caboolture: Sundays  
Site B62**

**Weather permitting**

**Check our website for updates**

**Nanango: 1st Saturday each month**

**Site 136/137**



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All information & specifications are issued in good faith.*