



Manufacturers Of Power & Automotive Equipment

Voltage Reducers | Reversing Alarms | Battery Isolators | Power Supplies | Power Inverters
Brake Contollers | Battery Chargers | Light Inverters | Fluorescent Lamps | Solar Regulators
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240VAC to 12VDC @ 10 Amps BATTERY CHARGERS

Features:

- Automatic 2 stage charger
- Designed to charge 12V lead acid batteries
- High reliability switchmode technology giving long life operation
- Compact and rugged aluminium heat sink construction
- Unit cooling via load activated fan
- LED light indicators display charging mode



Specifications	BC240-1210
AC Input Voltage	180 - 250V
Input Current	1.3A max
Floating Charge Voltage	14V
Output Current	10A
Switching Frequency KHz	60 KHz (Typical)
Efficiency	85%
Protection	Overload, Over Voltage, Short Circuit Reverse Polarity (External Fuse)
Indicators	AC Power, Boost and Float
Cooling	Fan Load Activated
Dimensions (mm) (LxWxH)	233 x 115 x 70
Weight	1.3 Kg

Approvals:

Safety Standard No. N17018
C Tick No. N1408 (EMI/RFI)
AS/ANZ 60950 : 2000
AS/ANZ 2064 Group 1, Class A



High Performance Award Winning 4 Stage Dual Chemistry 240VAC to 12VDC @ 30AMP BATTERY CHARGER

Features:

- Innovative 4 stage fully automatic charger for optimal fast charging and extended battery life
- Award winning microprocessor design insures accurate voltage and current charging parameters
- Low ripple charge and completely operational from 180VAC to 250VAC
- Compact heavy duty aluminium construction
- Fully protected against overload, over temperature and battery reversal
- No sparks connection
- Innovative voltage free leads with no power dissipation when disconnected
- Dual battery chemistry, selectable lead acid or calcium batteries
- High output 30 amps
- Custom charge voltages between 10V and 16V available upon request*



BC240-1230

Specifications	BC240-1230
Normal voltage	12V
Bulk Charge Current	30A
Dimensions[LxHxW]	210 X 65 X 160 mm
Float lead acid voltage	13.5V
Bulk lead acid voltage	14.5V
Float Calcium voltage	14.0V
Bulk Calcium voltage	15.5V
Safety	AS/NZS 3350.2.29
Protection	Over Temperature, Over Current, Over Voltage, Reverse Polarity, Bulk charge timeout, Voltage free leads without battery
Weight	2.2 Kg
Standby consumption	Below 1W



* Conditions Apply, call main office for more information.



High Performance Award Winning 4 Stage Dual Chemistry 240VAC to 24VDC @ 18AMP BATTERY CHARGER

Features:

- Innovative 4 stage fully automatic charger for optimal fast charging and extended battery life
- Award winning microprocessor design insures accurate voltage and current charging parameters
- Low ripple charge and fully operational from 180VAC To 250VAC
- Compact heavy duty aluminium construction
- Fully protected against overload, over temperature and battery reversal
- No sparks connection
- Innovative voltage free leads with no power dissipation when disconnected
- Dual battery chemistry, selectable lead acid or calcium batteries
- Custom charge voltages between 18V and 30V available upon request*



BC240-2418

Specifications	BC240-2418
Normal voltage	24V
Bulk Charge Current	18A
Dimensions[LxHxW]	210 X 65 X 160 mm
Float lead acid voltage	27.0V
Bulk lead acid voltage	29.0V
Float Calcium voltage	28.0V
Bulk Calcium voltage	31.0V
Safety	AS/NZS 3350.2.29
Protection	Over Temperature, Over Current, Over Voltage, Reverse Polarity, Bulk charge timeout, Voltage free leads without battery
Weight	2.2 Kg
Standby consumption	Below 1W



* Conditions Apply, call main office for more information.

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High Performance Award Winning 4 Stage Dual Chemistry 240VAC to 48VDC @ 10AMP BATTERY CHARGER

Features:

- Innovative 4 stage fully automatic charger for optimal fast charging and extended battery life
- Award winning microprocessor design insures accurate voltage and current charging parameters
- Low ripple charge and fully operational from 180VAC To 250VAC
- Compact heavy duty aluminium construction
- Fully protected against overload, over temperature and battery reversal
- No spark connection
- Innovative voltage free leads with no power dissipation when disconnected
- Dual battery chemistry, selectable lead acid or calcium batteries
- Custom charge voltages between 32V and 62V available upon request*



BC240-4810

Specifications

BC240-4810

Normal voltage	48V
Bulk Charge Current	10A
Dimensions[LxHxW]	210 X 65 X 160 mm
Float lead acid voltage	54V
Bulk lead acid voltage	58V
Float Calcium voltage	56V
Bulk Calcium voltage	62V
Safety	Designed to comply with AS/NZS 60950
Protection	Over Temperature, Over Current, Over Voltage, Reverse Polarity, Bulk charge timeout, Voltage free leads without battery
Weight	2.2 Kg
Standby consumption	Below 1W



* Conditions Apply, call main office for more information.

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High Performance Award Winning Design 240VAC to 12/24VDC @ 20/10AMP BATTERY CHARGER AUTO SELECT

Features:

- Innovative 4 stage fully automatic charger for optimal fast charging and extended battery life
- Award winning microprocessor design insures accurate voltage and current charging parameters
- Low ripple charge and fully operational from 180VAC To 250VAC
- Compact heavy duty aluminium construction
- Fully protected against overload, over temperature and battery reversal
- No spark connection
- Innovative voltage free leads with no power dissipation when disconnected
- Automatically selects and charges 12V or 24V batteries
- Compact and lightweight design



BC240-12202410

Specifications

BC240-12202410

Normal voltage	Auto Select 12V
Bulk Charge Current	5A / 15A / 30A
Dimensions[LxHxW]	210 X 65 X 160 mm
Float at 12V mode	13.5V
Bulk at 12V mode	14.5V
Safety	AS/NZS 3350.2.29
Protection	Over Temperature, Over Current, Over Voltage, Reverse Polarity, Bulk charge timeout, Voltage free leads without battery
Weight	1.8 Kg
Standby consumption	Below 1W



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High Performance Award Winning Design 240VAC To 12V @ 5A / 15A / 30A LEAD ACID BATTERY CHARGER

Features:

- Innovative 4 stage fully automatic charger for optimal fast charging and extended battery life
- Award winning microprocessor design insures accurate charging parameters with unique zero power consumption when not connected to the battery
- Low ripple charge and fully operational from 180VAC To 250VAC
- Compact heavy duty aluminium construction
- Fully protected against overload, over temperature and battery connection reversal
- No sparks connection
- Innovative voltage free leads with no power dissipation when disconnected
- Selectable output current between 5 Amp, 15 Amp and 30 Amp
- Available in custom charge rates, Conditions Apply.



BC240-1230-S

Specifications	BC240-1230-S
Normal voltage	Auto Select 12V
Bulk Charge Current	5A/ 15A / 30A
Dimensions[LxHxW]	210 X 65 X 160 mm
Float at 12V mode	13.5V
Bulk at 12V mode	14.5V
Safety	AS/NZS 3350.2.29
Protection	Over Temperature, Over Current, Over Voltage, Reverse Polarity, Bulk charge timeout, Voltage free leads without battery
Weight	1.8 Kg
Standby consumption	Below 1W





High Performance Award Winning Design 240VAC To 12V @ 30A Lead Acid Battery Charger for Fixed Connections

Features:

- Suitable for use on RV's and fixed connection vehicle applications
- No drain on battery when disconnected from AC power supply
- Innovative 4 stage fully automatic charger for optimal fast charging and extended battery life
- Award winning microprocessor design insures accurate voltage and current charging parameters
- Low ripple charge and completely operational from 180VAC to 250VAC
- Compact heavy duty aluminium construction
- Fully protected against overload, and over temperature
- No sparks connection
- Innovative voltage free leads with no power dissipation when disconnected
- Dual battery chemistry, selectable lead acid or calcium batteries
- High output 30 amps



BCAC240-1230RV

Specifications

BCAC1230RV

Input Voltage NOMINAL	240 VAC
Input Current MAXIMUM	5 ARMS
Bulk Charge Output [VDC±1%] GEL / AGM	14.3V
Bulk Charge Output [VDC±1%] Flooded / CALCIUM	14.6V
Float Charge Output [VDC±1%] GEL / AGM	13.3V
Float Charge Output [VDC±1%] Flooded/ CALCIUM	13.5V
Max Output Current [ADC±5%]	30ADC
Battery Voltage Required For Start-up	6V
Protections	Over Temperature, Over Current, Short Circuit, Over Voltage, Bulk Charge Time Out
Cooling	Via Fan, Load Activated
Efficiency (Typical)	Greater Than 85%
Stand By Drain On Battery	1mA
Weight	2.2 Kg
Dimensions [mm] (L x H x W)	250 x 65 x 160



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High Performance 24V To 12VDC Available in 40A and 60A SWITCHMODE BATTERY CHARGER

Features:

- Microprocessor based, 3 stage fast charge
- High efficiency switchmode technology
- High reliability and longer battery life
- Control wire with delayed reaction to avoid cold cranking problems
- Battery detection avoids connection reversal and sparking problems
- Time out on bulk charge to avoid battery over charging
- Current limiting under overload and short circuit conditions
- Compact and light weight aluminium heatsink construction



Specifications	REC-1240C	REC-1260C
Input Voltage	23 to 30VDC	23 to 30VDC
Output Voltage Absorption/Float	13.5V \pm 1%	13.5V \pm 1%
Output Voltage Bulk charge	14.5V \pm 1%	14.5V \pm 1%
Efficiency at typical operating conditions	\geq 85%	\geq 85%
Bulk charge current	40 Amps	60 Amps
Stand by Current	20mA	20mA
Short Circuit and Battery reversal Protection	Yes	Yes
Over Voltage Protection	Yes	Yes
Thermal Protection	Yes	Yes
Input and charge status indication	Yes	Yes
Output Connections	Fly Leads	Fly Leads
Dimensions L x W x H mm	285x175x65	285x175x65
Weight	2.5Kg	2.6Kg

24V TO 12VDC Switchmode BATTERY CHARGER

Features:

- High efficiency switchmode technology
- Control wire via ignition
- Automatic 2 stage charge
- Current and Voltage limiting protection
- Compact and lightweight aluminium heatsink construction
- Output over voltage protection
- Applicable where there are high current drain loads e.g. winches, rear lift platforms



Specifications	BC2412-10	BC2412-20	BC2412-30
Input Voltage	20V to 28VDC	20V to 28VDC	20V to 28VDC
Output Voltage	14V \pm 3%	14V \pm 3%	14V \pm 3%
Efficiency % @ Full Load	\geq 90%	\geq 90%	\geq 90%
Output Current	10 Amps	20 Amps	30 Amps
Stand By Current (Approx)	50mA	70mA	70mA
Short Circuit Protection	Yes	Yes	Yes
Input To Output Protection	Yes	Yes	Yes
Thermal Protection	No	Yes	Yes
Output Connections - 4 Fly Leads	Yes	Yes	Yes
Dimensions mm (L x W x H)	90 x 135 x 60	155 x 135 x 60	175 x 135 x 60
Weight	0.6Kg	1.2Kg	1.3Kg

12V TO 24VDC Switchmode BATTERY CHARGER

MCB-2440

- High efficiency switchmode technology
- Control wire via ignition
- Immediate charging at switch on
- Automatic 2 stage charge
- Current limiting protection
- Diode protection to guard against incorrect wiring of input to output leads
- Short circuit protection via fuse
- Compact and lightweight aluminium heatsink construction



BC1224-280:

- High efficiency switchmode technology
- Control wire via ignition
- Immediate charging at switch on
- Automatic 2 stage charge
- Current limiting protection
- Diode protection to guard against incorrect wiring of input to output leads
- Short circuit protection via fuse
- Compact and lightweight aluminium heatsink construction



Specifications	BC1224-280
Input Voltage	11V to 15VDC
Output Voltage	28VDC
Load Regulation	± 5%
Output Power	280W
Stand By Current (Approx)	140mA
Switching Frequency	25KHz
Input Protection Via Fuse	30A
Output Short Circuit Protection	No
Input To Output Protection	Yes
Output Connections - 4 Fly Leads	Yes
Dimensions mm [L x W x H]	220 x 135 x 60
Weight	1.76Kg

Specifications	MCB-2420
Input Voltage	10.5 to 27VDC
Maximum Charge Voltage (PbSO ₄)	28.8VDC
Maximum Charge Voltage (LiFePO ₄)	29.2VDC
Maximum Fixed Voltage Output	27VDC
Maximum Current at Bulk/Fixed	20A Peak /12.5A Cont.
Input Protection via Fuse	40A
Output Short Circuit Protection	No
Polymer Encapsulation	No
Input to Output Protection	Yes
Output Connections	4 Fly Leads
Dimensions [LxWxH mm]	100 x 75 x 35

High Performance 12V Multi Chemistry BOOSTER CHARGER

Features:

- Australian award winning microprocessor design ensures accurate voltage and current charging parameters from as low as 9.2V input
- Automatic 3 stage charging ensures optimal fast charge and extended battery life
- Low minimum input voltage compensates for voltage drop in long cable lengths between main and auxiliary battery
- Selectable chemistry switch enables accurate charge voltage for AGM/GEL/FLOODED batteries
- Fan cooled lightweight aluminium heat sink construction
- Short circuit protection
- Over temperature protection
- Over current protected
- Reverse polarity protected
- No spark connection to auxiliary battery



**Now Available
with
Lithium Battery
Charging and Fixed
Regulation Options**

"Best dual/auxiliary battery charging system on the market..."

Specifications	MCB-1225
Lowest Operating Voltage	9.2V
Maximum Operating Voltage	15V
Maximum Current at Bulk Charge	25A
Charge Voltage for Flooded Cell	14.6V
Charge Voltage for AGM	14.4V
Charge Voltage for GEL	14.2V
Float Voltage	13.5V
Dimensions cm (LxWxH)	17.5 x 13.5 x 6.3
Weight	1.4 Kg

Specifications	MCB-1225L
Lowest Operating Voltage	10.5V
Maximum Operating Voltage	15V
Maximum Current at Bulk Charge	25A
Charge Voltage for Lithium	14.6V
Charge Voltage for Lead Acid	14.4V
Charge Voltage for Fixed Output	13.5V
Float Voltage	13.5V
Dimensions cm (LxWxH)	17.5 x 13.5 x 6.3
Weight	1.4 Kg



High Voltage 22V-80VDC to 12V/24V REDUCER/CHARGER

Designed to operate from 22V to 90V in 12V mode and from 44V to 90V in 24V mode and supply 25Amps output. This reducer charger fits the bill when you are in need for a reducer or charger from a 48V or a 72V system making it cheaper and easier to source easily available 12V and 24V appliances and lighting.

Features:

- microprocessor design ensures accurate voltage and current charging parameters
- Automatic 3 stage charging ensures optimal fast charge and extended battery life
- Remote enable can be disabled via internal jumper
- Charging modes suitable for Lithium, AGM, GEL and Flooded
- Short circuit protection
- Over temperature protection
- Over current protected



Specifications	REC25HV
Input Voltage Range	22V-80V in 12V Mode 44V-80V in 24V Mode
Peak Current	25A
Stand By Current	40mA
Protections	Thermal, Short and Over Voltage
Dimensions [LxWxH mm]	155 x 177 x 68



High Performance Low Cost 200W Solar Charger MAXIMUM POWER POINT TRACKER

Increase your charging, with the revolutionary MPPT series using the technology that won GSL the prestigious “2008 EDN Innovation award”. This innovative solar charger is extremely cost effective, efficient, compact and easy to use. Reliability is enhanced by a multilevel over temperature protection and a robust maximum power tracking algorithm.



Features:

MPPT12-1: Lowest cost MPPT in the market:

- Ideal for charging batteries with new low cost and high efficiency grid type panels
- Simple 3 wire “plug and play” connection
- Autoselect for 12V and 24V panels and batteries

MPPT12-2: More features and flexibility

- Built in load switch configurable as a variable dusk to dawn or low voltage disconnect
- Remote load control option and alarm
- Surge, PV short and reverse current protection

Specifications	MPPT12-1	MPPT12-2
Input Voltage	15V to 55V	
Output Voltage	13.5V / 14.5V & 27V / 29V	13.5V / 14.5V & 27V / 29V or Prog. 2V - 50V
Efficiency Typical	97%	
Output Power	200W at 29V 150W at 14.5V	
Remote Control, Alarm and Programming	-	Yes
Dawn to Dusk or LVD	-	Yes
PV Short and Surge Protection	-	Yes
Thermal Protection	Yes	
Dimensions [LxWxH]	100mm x 75mm x 35mm	



High Performance Low Cost 1800W Solar Charger MAXIMUM POWER POINT TRACKER

Increase your charging, with the revolutionary GSL MPPT series battery charging technology that won us the prestigious "2008 EDN Innovation award".

This innovative solar charger is extremely cost effective, efficient, compact and easy to use.

Reliability is enhanced by a multilevel over temperature protection and a robust maximum power tracking algorithm.



Features:

MPPT30-1:

- Ideal for charging batteries with new low cost and high efficiency grid type panels
- Simple 3 wire "plug and play" connection
- Suitable for 12V to 48V panels and batteries

MPPT30-2:

- Additional features for the more advanced user such as dusk to dawn, low voltage disconnect, remote alarm and programming capability.
- Optional LCD display for voltage and charge status.
- Triple chemistry vented, GEL and AGM cells

MPPT30-1L and MPPT30-2L:

- Designed with charging functionality for the new Lithium (LiFePO₄) Batteries emerging on the market.
- Built with three different charging schemes "High Capacity", "Long Life" and "Nominal" to ensure you can get the most from your batteries and suit your charging style.

Specifications	MPPT30-1	MPPT30-2
Input Voltage	15V to 95V	
Output Voltage	12V / 24V / 48V	12 V / 24V / 48V or Prog. 5V - 70V
Efficiency Typical	96%	
Output Power	1800W	
Remote Control, Alarm and Programming	-	Yes
Dawn to Dusk or LVD	-	Yes
PV Short and Surge Protection	-	Yes
Thermal Protection	Yes	
Dimensions [LxWxH mm]	175 x 177 x 67	

- Available in custom charge rates. Conditions Apply.



High Performance Low Cost 3600W Solar Charger MAXIMUM POWER POINT TRACKER

Increase your charging with the revolutionary GSL MPPT series using the technology that won us the prestigious “2008 EDN Innovation award”. This innovative solar charger is extremely cost effective, efficient, compact and easy to use. Reliability is enhanced by a multilevel over temperature protection and a robust maximum power tracking algorithm.



Features:

MPPT60-1:

- Ideal for charging batteries with new low cost and high efficiency grid type panels
- Simple 3 wire “plug and play” connection
- Suitable for 12V to 48V panels and batteries

MPPT60-1L and MPPT60-2L:

- Designed with charging functionality for the new Lithium (LiFePO₄) Batteries emerging on the market.
- Built with three different charging schemes “High Capacity”, “Long Life” and “Nominal” to ensure you can get the most from your batteries and suit your charging style.

MPPT60-1C and MPPT60-2C:

- Designed with to work in Parallel for greater flexibility and charge batteries that are under constant use. (Not recommended for storage batteries)

MPPT60-2:

- Additional features for the more advanced user such as dawn to dusk, low voltage disconnect, remote alarm and programming capability.
- Optional LCD display for voltage and charge status.
- Triple chemistry vented, GEL and AGM cells

Specifications	MPPT60-1	MPPT60-2
Input Voltage	15V to 95V	
Output Voltage	12V / 24V / 48V	12 V / 24V / 48V or Prog. 5V - 70V
Efficiency Typical	96%	
Output Power	3600W	
Remote Control, Alarm and Programming	-	Yes
Dawn to Dusk or LVD	-	Yes
PV Short and Surge Protection	-	Yes
Thermal Protection	Yes	
Dimensions [LxWxH mm]	280 x 177 x 67	

- Available in custom charge rates. Conditions Apply.

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New High Performance Low Cost HIGH VOLTAGE MAXIMUM POWER POINT TRACKERS

Our new MPPT High Voltage range accommodates strings of panels up to 180V_{DC} open circuit with the MPPT30HV and 90V_{DC} with our MPPT10HV. Using our same proven and robust Maximum Power Point Tracking algorithm featured in all our solar products.

Note : For added safety should be used in conjunction with MIHV160 or MIHV240 (see page 20)



MPPT10HV



MPPT30HV

Features:

MPPT10HV:

- Maximum output 10Amps / 400Watts
- Low Voltage Disconnect
- Adaptive Dawn to Dusk
- Autoselect "plug and play" connection for input and output voltages
- Both Lead and Lithium based chemistries
- Remote Alarm and Load Control capabilities
- Surge and PV short protection

MPPT30HV:

- Input panel voltage up to 180 Voc input
- Ideal for charging batteries from higher voltage panels
- Autoselect for 12V, 24V and 48V panels and batteries
- Dual lead acid and Lithium
- Built in load switch configurable as a variable dawn to dusk or low voltage disconnect
- Remote load control option and alarm
- Low voltage disconnect
- Surge, PV short and reverse current protection
- Connectivity to the MCM product for Remote Monitoring and Control

Specifications	MPPT10HV	MPPT30HV	MPPT30HVC
Input Voltage	15V to 90V	15V to 180V	15V to 180V
Output Voltage	12V / 24V / 48V	12 V / 24V / 48V or Prog. 5V - 70V	12V / 24V / 48V
Efficiency Typical	97%	97%	97%
Max. Current / Output Power	10A / 400W	30A / 1800W	30A / 1800W
Remote Control, Alarm and Programming	Yes	Yes(Via MCM)	-
Dawn to Dusk or LVD	Yes	Yes	-
PV Short and Surge Protection	Yes	Yes	-
Thermal Protection	Yes	Yes	Yes
Dimensions [LxWxH mm]	143 x 75 x 35	260 x 145 x 67	260 x 145 x 67



High Performance Low Cost BOOSTER MAXIMUM POWER POINT TRACKERS

The BMPPT Range is designed for systems where a limited space is available for panel mounting or redesigning old systems going from lower voltage panels to higher voltage batteries. Ideal for situations where you can only fit a 12V panel but require a 24V or 48V charging system.



BMPPT250



BMPPT1500

The two larger models of our range offer the full featured functionality that can be found in the rest of the solar range through the MCM and the supported GUI.

Most of the BMPPT range has Lithium charging functionality on top of their proven and reliable lead acid charging programs.

Specifications	BMPPT60	BMPPT150	BMPPT250	BMPPT800	BMPPT1500
Maximum Panel Power	60W with Vout/Vin ≥ 2 80W with Vout/Vin < 4	100W with Vout/Vin ≥ 2 150W with Vout/Vin < 4	250W with Vout/Vin ≥ 2 350W with Vout/Vin < 4	400W with Vout/Vin ≥ 2 800W with Vout/Vin < 4	800W with Vout/Vin ≥ 2 1500W with Vout/Vin < 4
Input Voltage DC (Note1)	6V to 25V	14V to 54V	14V to 54V	14V to 54V	14V to 54V
Battery Voltage	12V/24V/48V (Note 2)	12V/24V/48V (Note 2)	12V/24V/48V	12V/24V/48V 14V-58V Fixed Programmable [See Note 3]	
Typical Efficiency	95%	95%	97%	96%	96%
Monitoring & Control	No	Yes	Yes Basic via Wires	Yes(via MCM)	Yes(Via MCM)
Dawn to Dusk,LVD & Remote Control	No	Yes	Yes	Yes(via MCM)	Yes(Via MCM)
PV Short and Surge Protection	Yes	Yes	Yes	Yes	Yes
Thermal Protection	Yes	Yes	Yes	Yes	Yes
Dimensions mm (L x W x H)	100 x 75 x 35	100 x 75 x 35	143 x 75 x 35	220 x 177 x 67	220 x 177 x 67

NOTE 1: The panel open circuit voltage must always be lower than the battery charge voltage

NOTE 2: On these models only a fixed float charge at 54V is available.

NOTE 3: Programmable fixed voltage output available only through use of MCM in conjunction with GUI

Designed and Made In Australia By
GSL Electronics
www.gsl.com.au



HIGH VOLTAGE DISCONNECT MIHV Series For use with MPPTHV Range

The MIHV160 and MIHV240 provide extra peace of mind to help prevent over voltage issues if there is a fault in the system. Designed specifically to provide added safety to our High Voltage range of MPPT's. These features also apply to any solar or battery charging system that has a higher voltage to a lower voltage battery.

Features:

- Auto detects 12V/24V/48V nominal battery voltages
- Enables partial battery charge even in the case of MPPT failure.
- Built in self resetting over temperature protection
- Status indication
- Compatible with GSL MPPT Series
- Compact heavy duty aluminium extrusion and heavy duty brass connections



Specifications	MIHV160	MIHV240
Input Range DC	15V to 95V	11V to 180V
Peak Current	80A	55A
Constant Current	60A	40A
Over Voltage Protection	15V/30V/60V	
Dimensions mm (L x W x H)	135 x 70 x 50	



HIGH VOLTAGE LUMINAIRE/LED DRIVER Combined with MPPT SOLAR BATTERY CHARGER

LMS Series

Designed specifically for solar lighting applications the LMS2025 is a one stop device for charging and driving high voltage LED lighting and their attached batteries.

Combining our award winning MPPT charger with a stable constant current LED Driver. Built to run a LED lighting/Luminaires 0.45A at voltages from 15V to 55V from a 12V Battery with 95% efficiency. Coupled with keeping a battery charged from a 200W panel (maximum Voc of 55V) also at 98% efficiency (typical).

All of these power packed features fit into a small form factor measuring just 170mm x 175mm x 40mm making it compact and capable of fitting into the tightest of situations.

The driver has a digital remote wire allowing the light to be switched off. This wire can be used with a grounded switch or attached to a light sensor switch to enable the light to be operated automatically at night time.



Additional Features to be considered : (MOQ applies):

- Dimmer via external controls
- ON / OFF Dawn to Dusk Controls
- Variable Current Settings (0.1A-2A / 15V-80V)
- Remote Alarm
- IP Rated units
- Up to 90VDC LED's / Luminaires

High Performance Low Cost Monitor and Control Module MAXIMUM POWER POINT TRACKERS

Features:

- Simple to operate
- Displays system parameters
- Enables load control and voltage settings
- Low cost
- Compatible with GSL MPPT Series
- PC connectivity
- Can be positioned up to 1m from MPPT



Display:

- Battery voltage
- Battery current and amph
- Load current and amph
- PV Voltage
- MPPT temperature
- Low battery voltage alarm
- High temperature alarm

Control:

- Load connect / disconnect
- Output voltage programming
- Alarm (Over Temperature and Low Voltage) level setup

Display Type:

- Dual line 32 character LCD

Connectivity:

- PC via USB
- PC GUI for all display and control
- MPPT via standard 9 pin connector

12V To 24VDC Voltage Doublers Single / Multi Circuit

Features:

- High efficiency switchmode technology
- Soft start - via control wire
- Overload protection
- Input to output protection
- Compact and lightweight aluminium heatsink construction
- Suitable for most automotive, marine and industrial applications
- Polymer encapsulation on VI1224-340 for waterproofing and to reduce water ingress.



Specifications	VI1224-5	VI1224-10	VI1224-340*
Input Voltage DC	11V to 15V	11V to 15V	11V to 15V
Output Voltage DC	26.5V	26.5V	27V
Number Of Circuits	Single	Single	Single
Stand-by Current	26mA	28mA	140mA
Full Load Current	5A	10A	15A
Load Regulation (1)	± 5%	± 5%	± 5%
Input To Output Protection	Yes	Yes	Yes
Connection - Fly Leads	Yes	Yes	Yes
Dimensions mm (L x W x H)	90 x 135 x 60	90 x 135 x 60	155 x 135 x 60
Weight	0.7Kg	0.7Kg	1.3Kg

* Denotes Encapsulated

Note (1): With vehicle engine running.

12V To 24VDC Voltage Reducers Multi Circuit

Features:

- For use with incandescent and LED lighting only
- High efficiency
- Compact and light weight aluminium heatsink construction
- Polymer encapsulation(on selected models) to reduce water intake
- Limited short circuit and overload protection



VR 11

New smaller compact design for external mounting on the draw bar of the trailer. Featuring direct feed wiring removing the need to wire a 24V source to the reducer. The VR 11 offers the best of the current range of voltage reducers in a small compact package.



VR 13



VR 11

Specifications

Model	Circuits	Power Rating in Watts	Dimensions	Feed Type
VR 6	4	Total 360W	90 x 135 x 40	Rail
VR 9	4	Total 480W	130 x 135 x 40	Rail
VR 9-5C	5	Total 480W	130 x 135 x 40	Rail
VR 11*	4	Total 480W	259 x 58 x 29	Direct
VR 12 *	5	3 x 240W + 2 x 480W	290 x 135 x 60	Direct
VR 13 *	5	2 x 240W + 3 x 120W	290 x 135 x 60	Direct

* Denotes Encapsulated

24V To 12VDC Multi Circuit Lighting Reducers 4 CIRCUITS

Features:

Multi circuit reducers are designed specifically for applications with incandescent & LED lighting for caravans, box trailers and other automotive vehicles. When choosing which model to use: determine the load required to be carried by each circuit as accurately as possible. Choose the model which has a capacity of 10-15% above the estimated current needed to allow for wiring resistance in trailers. The MCR 120 and MCR 240 series are designed for caravans, box trailers and other small trailers where the length of cable does not exceed 6m.



Model	Circuits	Power Rating (Watts)	Waterproofing	Dimensions (LxWxH)
MCR 120	4	120W	Encapsulated	73x92x31.5
MCR 240	4	240W	Encapsulated	73x92x31.5



24V To 12VDC Single Circuit LINEAR VOLTAGE REDUCERS "Keylink Series"

Features:

- Output - fail safe protection to guard communication and electronic equipment against over voltage
- Current limiting under overload, short circuit condition. The unit will respond to overload and short circuit conditions by folding back the output voltage.
- Ideal for use with communications equipment



Specifications	VS200	VR 1P	VR 2P	VR 3P	VR 4P
Input Voltage	20 to 30VDC	20 to 30VDC	20 to 30VDC	20 to 30VDC	20 to 30VDC
Output Voltage	13.5V \pm 5%	13.5V \pm 5%	13.5V \pm 5%	13.5V \pm 5%	13.5V \pm 5%
Output Current	3 Amps	4 Amps	7 Amps	10 Amps	14 Amps
Output current peak rating	3 Amps	6 Amps	10 Amps	15 Amps	20 Amps
Short Circuit Protection	No	No	No	No	No
Input to Output Protection	Yes	Yes	Yes	Yes	Yes
Earth Loss Protection	Yes	Yes	Yes	Yes	Yes
Current Limit	Yes	Yes	Yes	Yes	Yes
Over voltage Protection	Yes	Yes	Yes	Yes	Yes
Connections - fly leads	Yes	Yes	Yes	Yes	Yes
Dimensions L x W x H mm	130x90x40	130x136x47	155x136x47	220x136x47	290x136x47
Weight	0.32Kg	0.5Kg	0.58Kg	0.8Kg	1Kg

Compact 7A, 24V To 12VDC Switchmode Voltage Reducer

Features:

- High efficiency switchmode technology
- High reliability and low noise design
- Input and output status indicators
- Current limiting under overload and short circuit conditions
- Accurate output over voltage protection to safeguard 12V equipment
- Compact and lightweight design
- SM107MC and SM107-M are designed for applications that require constant voltage supplied for memory functions.
- SM107MC is for applications that call for a high current memory drain (up to full output) and a low current (20mA) switching wire for the control/remote wire of the device being attached.
- SM107M is for applications that have a constant memory wire requirement that is below 20mA.



Specifications	SM 107	SM 107MC	SM 107M
Connection	Connector	Connector	Connector
Auxiliary 12V output [20ma]	No	No	Yes
Input Voltage	23 to 30VDC	23 to 30VDC	23 to 30VDC
Output Voltage	13.5V \pm 1%	13.5V \pm 1%	13.5V \pm 1%
Efficiency at typical operating conditions	\geq 90%	\geq 90%	\geq 90%
Bulk charge current	7 Amps	7 Amps	7 Amps
Stand by Current	20mA	20mA	20mA
RF noise level complies to AS2064	Yes	Yes	Yes
Over Voltage Protection	Yes	Yes	Yes
Control wire	No	Yes	Yes
Input and charge status indication	Yes	Yes	Yes
Dimensions W x H x L mm	75x35x100	75x35x100	75x35x100
Weight	250g	250g	250g

24V To 12VDC Single Circuit Switchmode Voltage Reducer

Features:

- High efficiency switchmode technology
- Overload, short circuit, over voltage and thermal protection
- Compact and lightweight aluminium heatsink construction



Specifications	SM 110	SM 120	SM 130
Input Voltage	20 to 30VDC	20 to 30VDC	20 to 30VDC
Output Voltage	13.8V \pm 3%	13.8V \pm 3%	13.8V \pm 3%
Efficiency	\geq 90%	\geq 90%	\geq 90%
Output current	10 Amps	20 Amps	30 Amps
Stand by Current	20mA	40mA	40mA
Short Circuit Protection	Yes	Yes	Yes
Output Over Voltage Protection	Yes	Yes	Yes
Overload Protection	Yes	Yes	Yes
Thermal Protection	Yes	Yes	Yes
Output Connections	Fly Leads	Fly Leads	Fly Leads
Dimensions L x W x H mm	90 x 135 x 62	155 x 135 x 62	175 x 135 x 62
Weight	633g	1216g	1331g



High Performance 24V To 12VDC Available in 40A and 60A SWITCHMODE VOLTAGE REDUCERS

Features:

- Microprocessor based, high output stability and protection
- High efficiency switchmode technology
- Control wire via ignition
- Thermal, over voltage, overload and short circuit protection
- Compact and lightweight aluminium heatsink construction
- Able to suit most applications where high efficiency and regulated 12V is required



REC - 1260R

Specifications	REC-1240R	REC-1260R
Input Voltage	23 to 30VDC	23 to 30VDC
Output Voltage Absorption/Float	13.5V \pm 1%	13.5V \pm 1%
Efficiency at typical operating conditions	\geq 85%	\geq 85%
Bulk charge current	40 Amps	60 Amps
Stand by Current	20mA	20mA
Short Circuit and Overload Protection	Yes	Yes
Over Voltage Protection	Yes	Yes
Thermal Protection	Yes	Yes
Input and Output status indication	Yes	Yes
Output Connections	Fly Leads	Fly Leads
Dimensions L x W x H mm	285x175x65	285x175x65
Weight	2.5Kg	2.6Kg



High Performance 24V To 12VDC Available in 40A and 60A SWITCHMODE BATTERY EQUALIZER

Features:

- Microprocessor based, accurately insures that the voltage on both batteries remains equal even under highly unbalanced 12V current
- Status indication for both 24V and 12V buses
- High efficiency switchmode technology
- Improved reliability and extends battery life
- Control wire via ignition
- Current limiting under overload and short circuit conditions
- Thermal and over voltage protection
- Compact and lightweight aluminium heatsink construction



Specifications	REC-1240E	REC-1260E
Input Voltage	23 to 30VDC	23 to 30VDC
Output Voltage	1/2 Input Voltage \pm 3%	1/2 Input Voltage \pm 3%
Efficiency at typical operating conditions	\geq 85%	\geq 85%
Bulk charge current	40 Amps	60 Amps
Stand by Current	20mA	20mA
Short Circuit and Battery reversal Protection	Yes	Yes
Over Voltage Protection	Yes	Yes
Thermal Protection	Yes	Yes
12V and 24V status buss indication	Yes	Yes
Output Connections	Fly Leads	Fly Leads
Dimensions L x W x H mm	285x175x65	285x175x65
Weight	2.5Kg	2.6Kg

DC TO AC POWER SOLUTIONS

- Proven Quality • Modern Design • Soft Start • Input to Output Isolation • Portable
- Lightweight • Easy Installation • Reverse Polarity and Output Short Circuit Protection
- Overload and Low Battery Shutdown / Alarm



SWB1000-12



SWB1800-12



SWB2500-12

Model No.	Rating	Surge	DC Input	GPO's	Wave Form	Efficiency	No Load Current	Low Battery Alarm/Shutdown	DC Input Range	(L x W x H) (mm)	Weight (Kg)
12V DC Input – 240V AC Output											
SWB1000-12	1000W	1230W	Lugged Lead	2	Sine Wave	>85%	<800mA	10.7V/10V ±0.5V	10-15.5V	290 x 226 x 86	3.7
SWB1800-12	1800W	2050W	Lugged Lead	2	Sine Wave	>85%	<1200mA	10.7V/10V ±0.5V	10-15.5V	440 x 226 x 86	6.2
SWB2500-12	2500W	2750W	Lugged Lead	2	Sine Wave	>85%	<1500mA	10.7V/10V ±0.5V	10-15.5V	535 x 226 x 86	7.9
24V DC Input – 240V AC Output											
SWB1000-24	1000W	1230W	Lugged Lead	2	Sine Wave	>85%	<600mA	21.4V/20V ±0.5V	20-31V	290 x 226 x 86	3.7
SWB1800-24	1800W	2050W	Lugged Lead	2	Sine Wave	>85%	<1200mA	21.4V/20V ±0.5V	20-31V	440 x 226 x 86	6.2
SWB2500-24	2500W	2750W	Lugged Lead	2	Sine Wave	>85%	<1200mA	21.4V/20V ±0.5V	20-31V	535 x 226 x 86	7.9

DC TO AC POWER SOLUTIONS

- Proven Quality • Modern Design • Soft Start • Input to Output Isolation • Portable
- Lightweight • Easy Installation • Reverse Polarity and Output Short Circuit Protection
- Overload and Low Battery Shutdown / Alarm



INV150-12



INV350-12



INV600-12



INV1000-12

Model No.	Rating	Surge	DC Input	GPO's	Wave Form	Efficiency	No Load Alarm/Shutdown	Low Battery Voltage Range	DC Input Size	(L x W x H) (mm)	Weight (Kg)
12V DC Input – 240V AC output											
INV150-12	150W	300W	Cigarette	1	Modified Sine	>85%	300mA	10.5V/10V ±0.5V	10-15.5V	125x102x65	0.9
INV350-12	350W	700W	Alligator Clips	1	Modified Sine	>85%	350mA	10.5V/10V ±0.5V	10-15.5V	180x102x65	1.2
INV600-12	600W	1200W	Alligator Clips	1	Modified Sine	>85%	500mA	10.5V/10V ±0.5V	10-15.5V	245x175x85	2.7
INV1000-12	1000W	2000W	Alligator Clips	2	Modified Sine	>85%	600mA	10.5V/10V ±0.5V	10-15.5V	340x250x90	4.3
INV1500-12	1500W	3000W	Alligator Clips	2	Modified Sine	>85%	700mA	10.5V/10V ±0.5V	10-15.5V	465x250x90	4.6
INV2500-12	2500W	5000W	Alligator Clips	2	Modified Sine	>85%	800mA	10.5V/10V ±0.5V	10-15.5V	480x210x160	10
24 DC Input – 240V AC output											
INV150-24	150W	300W	Cigarette	1	Modified Sine	>85%	300mA	21V/20V ±0.5V	20-30V	125x102x65	0.9
INV350-24	350W	700W	Alligator Clips	1	Modified Sine	>85%	350mA	21V/20V ±0.5V	20-30V	180x102x65	1.2
INV600-24	600W	1200W	Alligator Clips	1	Modified Sine	>85%	400mA	21V/20V ±0.5V	20-30V	245x175x85	2.7
INV1500-24	1500W	3000W	Alligator Clips	2	Modified Sine	>85%	500mA	21V/20V ±0.5V	20-30V	465x250x90	4.6
INV2500-24	2500W	5000W	Alligator Clips	2	Modified Sine	>85%	600mA	21V/20V ±0.5V	20-30V	480x210x160	10
RC1500	Remote Control (On/Off) suits INV1000 & INV1500 Models										
RC2500	Remote Control (On/Off) suits INV2500 Model										



DC TO AC POWER SOLUTIONS

- Proven Quality • Modern Design • Soft Start • Input to Output Isolation • Portable
- Lightweight • Easy Installation • Reverse Polarity and Output Short Circuit Protection
- Overload and Low Battery Shutdown / Alarm



SW150-12



SW350-12



SW650-12



SW1200-12

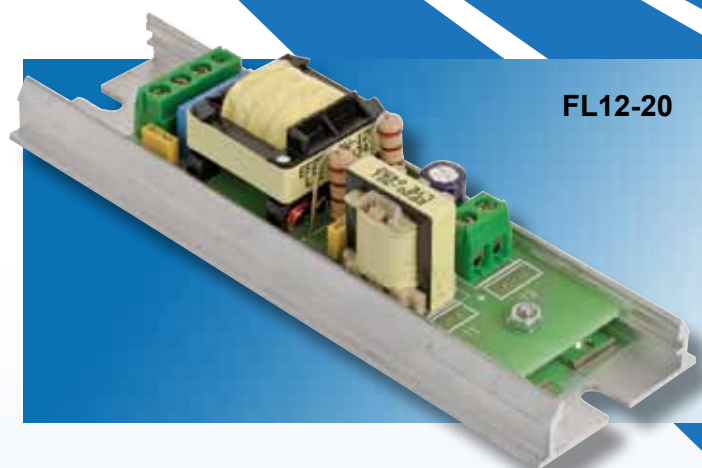
Model No.	Rating	Surge	DC Input	GPO's	Wave Form	Efficiency	No Load Alarm/Shutdown	Low Battery Voltage Range	DC Input Size	(L x W x H) (mm)	Weight (Kg)
12V DC Input – 240V AC output											
SW150-12	150W	450W	Cigarette	1	Sine Wave	> 90%	< 450mA	10.5V/10V ±0.5V	10-15.5V	210 x 165 x 100	2
SW350-12	350W	1050W	Alligator Clips	1	Sine Wave	> 90%	< 450mA	10.5V/10V ±0.5V	10-15.5V	310 x 165 x 100	5
SW650-12	650W	1950W	Lugged Lead	2	Sine Wave	> 93%	< 350mA	10.5V/10V ±0.5V	10-15.5V	360 x 282 x 115	9
SW1200-12	1200W	3600W	Lugged Lead	2	Sine Wave	> 93%	< 350mA	10.5V/10V ±0.5V	10-15.5V	465 x 282 x 115	15
SW1800-12	1800W	5400W	Lugged Lead	2	Sine Wave	> 93%	< 350mA	10.5V/10V ±0.5V	10-15.5V	405 x 282 x 182	18
SW3000-12	3000W	9000W	Lugged Lead	2	Sine Wave	> 85%	< 350mA	10.5V/10V ±0.5V	10-15.5V	565 x 282 x 182	30
24 DC Input – 240V AC output											
SW150-24	150W	450W	Cigarette	1	Sine Wave	> 90%	< 350mA	21V/20V ±0.5V	20-31V	210 x 165 x 100	2
SW350-24	350W	1050W	Alligator Clips	1	Sine Wave	> 90%	< 350mA	21V/20V ±0.5V	20-31V	310 x 165 x 100	5
SW650-24	650W	1950W	Lugged Lead	2	Sine Wave	> 93%	< 350mA	21V/20V ±0.5V	20-31V	360 x 282 x 115	9
SW1200-24	1200W	3600W	Lugged Lead	2	Sine Wave	> 93%	< 350mA	21V/20V ±0.5V	20-31V	465 x 282 x 115	15
SW1800-24	1800W	5400W	Lugged Lead	2	Sine Wave	> 93%	< 350mA	21V/20V ±0.5V	20-31V	405 x 282 x 182	18
SW3000-24	3000W	9000W	Lugged Lead	2	Sine Wave	> 83%	< 350mA	21V/20V ±0.5V	20-31V	565 x 282 x 182	30

RC-SW Remote Control (On/Off) suits SW650 SW1200, SW1800 and SW3000. 12V and 24V Models

Fluorescent Lamp For T8 Tubes LOW VOLTAGE INVERTERS

Features:

- Sine wave - high efficiency with low current drain
- Protection against reverse polarity connection
- Connection to both input and output via screw terminals located on PCB
- Compact and lightweight aluminium heatsink construction
- Optional extruded aluminium cover available, refer table for applications
- Pre-punched slots at either end of heatsink for ease of installation



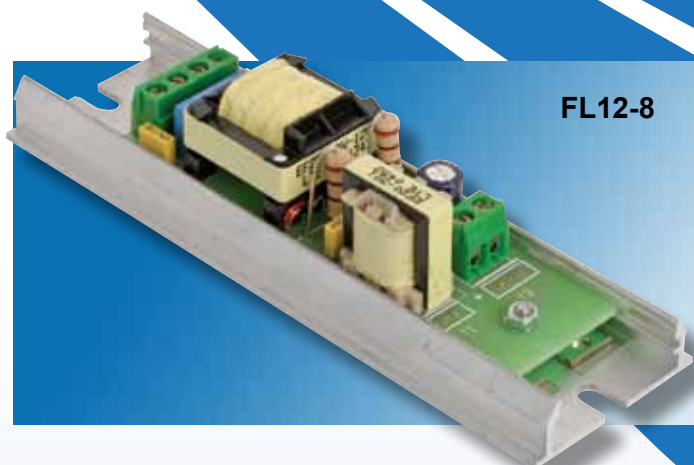
Specifications	FL12-20	FL12-40	FL24-20	FL24-40	FL24-40ST	FL24-20LP
Fluorescent Tube Rating	18W- 24W	30W- 40W	18W- 20W	30W- 40W	30W- 40W	18W- 20W
Operating Voltage	9-15VDC	9-15VDC	20-30VDC	20-30VDC	20-30VDC	20-30VDC
No Load Current	0.39A \pm 5%	0.43A \pm 5%	0.15A \pm 5%	0.1A \pm 5%	0.1A \pm 5%	0.15A \pm 5%
Full Load Current	1.5A \pm 5%	2A \pm 5%	0.49A \pm 5%	0.8A \pm 5%	0.8A \pm 5%	0.49A \pm 5%
Light Loss Protection	No	Yes	No	Yes	Yes	Yes
Dimensions L x W x H (mm)	130x40x30	150x40x30	110x40x30	150x40x30	93x49x40	110x40x30
Optional Cover FLC-1	Yes	Yes	Yes	Yes	Yes	Yes
Pre - Punched Mounting Slots	Yes	Yes	Yes	Yes	Yes	Yes

Note: - These products suit T8 tubes only

Fluorescent Lamp For T5 Tubes LOW VOLTAGE INVERTERS

Features:

- Sine wave - high efficiency with low current drain
- Protection against reverse polarity connection
- Connection to both input and output via screw terminals located on PCB
- Compact and lightweight aluminium heatsink construction
- Optional extruded aluminium cover available, refer table for applications
- Pre-punched slots at either end of heatsink for ease of installation



FL12-8

Specifications	FL12-8	FL12-13	FL24-8	FL24-13
Electrical System Type	12V Neg. Earth	12V Neg. Earth	24V Neg. Earth	24V Neg. Earth
Current Draw	0.87A	1.3A	0.42A	0.64A
Fluorescent Tube	8W T5	13W T5	8W T5	13W T5
Unit Dimensions L x W x H (mm)	130 x 40 x 30	130 x 40 x 30	130 x 40 x 30	130 x 40 x 30
Weight	95g	95g	95g	95g

Note: - These products suit T5 tubes only
- T5 tubes available for purchase



Fluorescent Interior Light For T5 Tubes LOW VOLTAGE FLC SERIES

Features:

- The GSL interior FLC series are suited ideally for ceiling and wall mounting
- Incorporates a built in on/off switch
- Suitable for mobile homes, caravans, boats and solar powered installations with either a 12V or 24V DC electrical system
- Light weight aluminium construction
- Fitted with a clear diffuser
- Assembly is fixed by means of two (2) screws
- Easy tube replacement
- Utilizes slim line type 5 tubes



FLC12-8

Specifications	FLC12-8	FLC12-13	FLC24-8	FLC24-13
Electrical System Type	12V Neg.Earth	12V Neg.Earth	12V Neg.Earth	12V Neg.Earth
Current Draw	0.87A	1.3A	0.42A	0.64A
Fluorescent Tube	8W Cool White	13W Cool White	8W Cool White	13W Cool White
Tube Dimensions (mm)	290 x 16	516 x 16	290 x 16	516 x 16
Connections	Via Twin Cable Fly Lead (All Models)			
Dimensions (mm) L x W x H	335x68x42	562x68x42	335x68x42	562x68x42
Weight	516 Grams	783 Grams	516 Grams	783 Grams

Note: - These products suit T5 tubes only
- T5 tubes available for purchase

12 Volt Tralier ELECTRIC BRAKE CONTROL

Features:

- Compact size design for easy installation
- Operates reliably even on roughest roads
- Adjustable brake pressure via control knob
- Suitable for single axel trailers
- Easy connection, only four wires to connect
- Light weight Aluminium heatsink construction
- Can be mounted in any position
- LED status indicator
- Designed for negative earth (ground) systems only



The XLE - 12 is an electronic, rugged and easily installed unit.

Specifications	XLE-12	XLE-12T*
Minimum Operating Voltage	12VDC	12VDC
Nominal Operating Voltage	13.2VDC	13.2VDC
Maximum Operating Voltage	14.5VDC	14.5VDC
No Load Currents (Brakes "Off")	8mA	8mA
Full Load Current		
(Max Brake Force)	4.3Amps	4.3Amps
Dimensions mm (L x W x H)	95x58x30	95x58x30
Weight	174g	174g



Note: * Please check with relevant authorities in your state for the use of the XLE-12T as it is prohibited for use in some states.



High Performance Advanced Micro Controlled ELECTRONIC BRAKE CONTROLLER

Features:

- New generation microprocessor based
- 12V and 24V versions available
- Digital display for accurate setup
- Open circuit and overload indication
- Easy setup via 2 push button switches
- Convenient override slide knob
- 3 Ramp up levels for brake speed actuation
- Compact and rugged aluminium extrusion
- 2 Axle capability



“Designed in conjunction with leading Australian towing experts...”

Specifications	EBC-12	EBC-24
Minimum Input Voltage	9 VDC	18 VDC
Nominal Input Voltage	12 VDC	24 VDC
Maximum Input Voltage	15 VDC	30 VDC
Suitable For 12V Trailer Brakes	Yes	Yes
No Current Load	30 mA	30 mA
Maximum Load	2 Axle /14A avg	2 Axle /14A avg
Dimensions [HxWxD [mm]]	40 x 80 x 125	40 x 80 x 125
Weight	270 gm	270 gm

12V and 24V REMOTE BRAKE CONTROLLER

Features:

- Convenient installation, control box can be mounted under dash.
- Ideal for modern vehicles where airbags leave no safe way for traditional brake controllers to be mounted.
- New generation microprocessor based
- 12V and 24v versions available
- Open circuit and overload indication
- Easy setup via 2 push button switches
- Convenient push button
- Compact and rugged aluminium extrusion
- 2 axle capability



Specifications	RBC-12	RBC-24
Minimum Input Voltage	9 VDC	18 VDC
Nominal Input Voltage	12 VDC	24 VDC
Maximum Input Voltage	15 VDC	30 VDC
Output	12V	12V
Suitable For 12V Trailer Brakes	Yes	Yes
No Current Load	30 mA	30 mA
Maximum Load	2 Axle /12A avg	2 Axle /12A avg
Dimensions [HxWxD [mm]]	40 x 79 x 81	40 x 79 x 81
Weight	200 gm	200 gm



12/24 Dual Voltage REVERSING BUZZER

Features:

- Dual Voltage 12 or 24VDC
- Compact and lightweight, black powder coated heatsink
- A high intensity piezo buzzer
- When reverse gear is engaged on the vehicle, the reversing lamps illuminate and at the same time the module begins to sound



“The XBA-12 is designed to suit most vehicles such as 4WD’s, Commercial, Forklifts and Agricultural vehicles...”

Specifications	XBA-12
System Voltage Suits	12V or 24V DC
Decibel Rating	12V at 102dB(A) - 24V at 105dB(A)
Voltage - Minimum	10VDC
- Maximum	36VDC
Input Current	40mA Average
Polarity	Suits either positive or negative earth systems
Housing	Black powder coated rigid aluminium extrusion
Sealing	Sprayed with rubber coating to protect from moisture and dust
Dimensions mm (L x W x H)	106 x 58 x 34
Weight	140 grams



WIG - WAG Flashing Modules TIMED Flashing Modules

Models: TFM-12, TFM-24, STFM-24

The module is designed for the use in school buses as required by the RTA. The module is activated and operates the four amber lamps (which are fitted externally on the bus), when the bus door(s) are opened. Voltage is supplied to operate the two (2) of the four (4) amber lights alternately. The lamps remain flashing until the door(s) are closed and then for a further period of 21 to 28 seconds. The cycle is repeated each time the door(s) are opened.

TFM - 12 & TFM - 24 models are designed for use on vehicles with negative earth air pressure switches. STFM is designed for use on STA vehicles with a positive voltage feed door air pressure switches.



Models: FLM-24P, FLM-24N & FLM-12N

These modules are designed for use in conjunction with either STFM-24, TFM-24, TFM-12 (To flash vehicle headlights alternately). The modules are activated and operate only when the timer unit is activated (via the door air pressure switches) and flashes the vehicles headlights (in a alternate pattern). The module is also fitted with a second channel, which may be used to dip the vehicles headlights if so desired. These can be adjusted for positive or negative fed vehicles with the movement of a jumper internally.

NEW
in
2013

Specifications	FLM-24P	FLM-24N	FLM-12N	TFM-12	TFM-24	STFM-24
Input Voltage DC	22V - 28V	22V - 28V	11.5V - 14V	11.5V - 14V	22V - 28V	22V - 28V
Current Rating	15 Amps	15 Amps	15 Amps	15 Amps	15 Amps	15 Amps
Lamp Load - Watts (at 26.0V)	390W	390W	390W	198W	390W	390W
Positive Feed Air Pressure Switch	Yes	No	No	N/A	N/A	Yes
Negative Feed Air Pressure Switch	No	Yes	Yes	Yes	Yes	N/A
Adjustable Trigger (Pos. or Neg.)	Yes	Yes	Yes	No	No	No
Output Connections - Terminated to 6 Pin Plug, 6 Plugs and Terminals Supplied	6 Wires	6 Wires	6 Wires	5 Wires	5 Wires	6 Wires
Dimensions (L x W x H mm)	87 x 68 x 30	87 x 68 x 30	87 x 68 x 30	87 x 68 x 30	87 x 68 x 30	87 x 68 x 30
Weight	125 Grams	125 Grams	125 Grams	125 Grams	125 Grams	140 Grams
Must be used in conjunction with	STFM-24	TFM-24	TFM-12			

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Vehicle Safety Devices

Daytime Running Lights & Hand Brake Alarms

LOKO 1224 - Daytime Running Lights (DRL)

- Suits most vehicles
- 12V and 24V compatability
- Works with both Positive and Negative switches
- Parking light enable/disable
- Delayed headlight initialization for reduced ignition loading.
- Low voltage cutout
- Adjustable low voltage cutout and delay times available upon request. [Minimum Order Quantity Applies]



LOKO 1224

HB 12/24 - Handbrake Alarm

- Suits most vehicles
- Compatible with both 12V and 24V Vehicles
- Works with both Positive and Negative switches
- One Button press easy setup for positive and negative switching.



HB 12/24



Battery Master Switch BMS Series

Features:

Battery Master Switch, models BMS-12L, BMS-K-12L & BMS-124 are a fully sealed, heavy duty, double pole switch designed for commercial vehicles. They are also suitable for industrial and marine applications.

The outer case is made from an anti-crack material, it has great resistance to damage from impact, is impervious to fuel oils, petroleum etc. and in case of fire has self extinguishing properties.

The Battery Master Switch can be operated manually. It can also be switched 'OFF' electronically by a momentary push switch (cab mounted, not supplied) which operates a solenoid inside the main switch.

The Battery Master Switch is designed so that the 'alternator field circuit contacts open prior to the main contacts opening. When the switch is turned off electronically this is approx. 2-3 milliseconds. When turned off manually, the delay on both models is 100-150 milliseconds.

Main terminals of the Battery Switches are 4 heavy duty studs and the Auxiliary terminals are screws protected by a detachable cover on the front of the switch.

The BMS-K-12L is specifically designed for dual positive isolation.



Specifications	BMS-12L	BMS-K-12L	BMS-24L
Nominal Operating Voltage	12V	12V	24V
Working Current	200A for 5 Minutes		
Maximum Current	500A		
IP Rating Class	IP66		
Complies with Australian Standards	AS/NZS 3947.3:2001	AS 60529:2004 AS60947.1:2004	
Weight	3.8KG		

Electronic 100 / 150 Amp BATTERY ISOLATORS

Features:

- Microprocessor control - improved reliability, stability and life expectancy
- Effective current limiting to protect vehicle electrical system from overload
- Galvanic insulation between positive main and auxiliary terminals
- No damage with short surges up to 60V or main connections inverted
- Delay of 2 seconds to connect when enabled
- No delay to connect once enabled or to disconnect if disabled
- Voltage dip protection via 2 second delay
- Accuracy better than 0.5% or 50mV
- Custom cut off and cut in voltage available *



Specifications	EBI-100M	EBI-150M	EBI-100M-24
Input Voltage	12V Neg.Earth	12V Neg.Earth	24V Neg.Earth
Charging System Suitable For	100 Amps	150 Amps	100 Amps
Cut In Voltage	13.3 VDC	13.3 VDC	26.6 VDC
Cut Out Voltage	11.8 VDC	11.8 VDC	23.6 VDC
Reversing Polarity Protection	Yes	Yes	Yes
Overload Protection	Yes	Yes	Yes
Thermal Protection	Yes	Yes	Yes
Overvoltage Protection	Yes	Yes	Yes
2 Fly Lead - Voltage Sensing	Yes	Yes	Yes
1/4 Brass Studs - Pos. Bat.	Yes	Yes	Yes
Dimensions (L x W x H mm)	90 x 135 x 60	90 x 135 x 60	90 x 135 x 60
Weight	400 Grams	400 Grams	400 Grams

* Conditions Apply, call main office for more information.

Micro Controlled 12V / 24V 50Amp & 12V 20A LOW VOLTAGE DISCONNECTS

LVD-5012 / LVD-5024

Features:

- Solid state design with accuracy better than 0.5%
- Current limited for overload
- 2 second delay for starting of vehicle and settling of input voltage
- 2 second delay for connecting/disconnecting for voltage surges/dips
- Less than 0.15V drop at full 50A load
- Low standby current drain of less than 20mA
- Aluminium extrusion 120(L) X 50(W) X 40(H) mm
- LED status indicator
- Custom cut out and cut in voltages available *



Model	Operating System	Disconnect Voltage	Capacity
LVD - 5012 - 1	12 VDC	11.5 VDC	50 Amp
LVD - 5024 - 1	24 VDC	23 VDC	50 Amp

* Conditions Apply, call main office for more information.

LVD-2012

Features:

- Current limited for overload
- Aluminium extrusion 120(L) X 50(W) X 40(H) mm
- Encapsulated to resist moisture ingress



Model	Operating System	Disconnect Voltage	Capacity
LVD - 2012 - 1	12 VDC	11.5 VDC	20 Amp



Low Battery MONITORS AND DISCONNECTS

Features:

Low Battery Disconnects

- Low voltage disconnect to protect battery
 - Built in LED indicator
 - Spike protected
 - Low current drain
 - Warning indicator with audible buzzer *
 - Lightweight construction
- * "B" Model Only



Features:

Low Battery Monitor

- Warns when battery voltage drops to 21V
- Warning indicators via audible buzzer and lamp
- Spike protected
- Low current drain
- Lightweight construction



Specifications	LBC-12	LBC-12B	LBM-24
Input Voltage	10V - 14V	10V - 14V	20V - 28V
Max Load Current	10 Amps	8 Amps	-
Output Connection	4 Fly Leads	4 Fly Leads	-
Cut In Voltage	13.4V	13.4V	-
Cut Out Voltage	11V	11V	-
Warnings	- LED	- LED - Audible Buzzer	- Lamp - Audible Buzzer at 22V
Material Type	ABS Plastic	ABS Plastic	ABS Plastic
Dimensions L x W x H mm	85x67x30	85x67x30	85x67x30
Weight	19 Grams	19 Grams	19 Grams

Micro Controlled SOLENOID BATTERY ISOLATOR

Features:

- Available in 12 and 24VDC versions at 100amp.
- Spike protected
- Delayed start
- Simple Installation - with 2 mounting points
- Suited to all vehicles, boats, caravans and mobile homes
- Override (optional requires momentary switch)



Specifications	KBI-100A-12	KBI-100A-24
Electrical System Type	12V Neg.Earth	24V Neg.Earth
Charging System Suitable For	100 Amps	100 Amps
In Rush Current	400 Amps	400 Amps
Current In Voltage	13.2 VDC*	26.4 VDC*
Current Out Voltage	12.7VDC*	25.4 VDC*
Output Connection - Brass Studs	Main and Aux. Batteries	Main and Aux. Batteries
Alarm LED:		
- On / Main Battery Over Voltage	> 14.8V	> 29.6V
- Flashing / Main Battery Under Voltage	< 10.5V	< 21V
- Burst Auxiliary Battery Faulty or Disconnect	< 6V	< 12V
Dimensions L x W x H mm	60x75x65	60x75x65
Weight	230gm	230gm
* Accuracy Better Than +/- 0.05V		

Battery ISOLATOR INSTALLATION KIT



Features:

- Isolator installation kit used in conjunction with BATTERY ISOLATOR products
- Simple and Easy Installation

Installation Kit Includes

2x Battery Connection Cables	2x Battery Lugs
1x Earth Strap	2x Battery Terminals

12 Volt UNINTERRUPTABLE POWER SUPPLY "Powermaster Series"

Features:

- Auto changeover without interruption upon mains failure
- 10A auto 2 stage charger
- Low voltage disconnect to protect battery
- High efficiency switchmode technology
- Compact and lightweight anodized aluminium heatsink construction



Specifications	UPS240-1210
AC Input voltage	240V
Input Current	1.3A max
Voltage	13.8V at No Load
Output Current (A) approx. max.	10A
Battery Low Voltage Disconnect Protection	9.7V to 10V
Efficiency (Approx)	85%
Indicators	AC Power and Back Up
Protection:	Overload, Over Voltage, Short Circuit, Reverse Polarity
Cooling	Fan, Load Activated
Dimensions (mm) [LxWxH]	233 x 115 x 70
Weight	1.3 Kg

Approvals:

Safety Standard No. N17018
 C Tick No.N1408 (EMI,RFI)
 AS/ANZ 60950 : 2000
 AS/NZS2064 Group1, Class A

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240VAC to 12VDC LINEAR REGULATED Power Supply

Features:

- Output short circuit protected
- Overload protected
- Thermal fuse protection against overheating or excessive primary current
- Low ripple voltage

Specifications

RPS12 - 5

Input Voltage	240VAC 50Hz
Output Voltage	13.8VDC \pm 5% Fully Regulated
Current Rating	2 Amp Continuous
Load Regulation	Better than 1% (0 to 3 Amp)
Ripple	15mV Typical 200mV at 3 Amp
Dimensions L x W x H (mm)	190 x 102 x 75
Weight	1.7 kg

12 Volt FULLY REGULATED POWER SUPPLY “Powermaster Series”

Features:

- High efficiency switchmode technology
- Compact and lightweight anodized aluminium heatsink construction
- Suitable for communications equipment or where stable regulated DC voltage is required



RPS12-10

Specifications

RPS12 - 10

AC Input Voltage	240V AC
Output Voltage	13.6V DC
Input Current	0.9 Amps
Rated Output Current	10 Amp Continuous
Efficiency	87%
Protections	Current and Temperature
Cooling	Fan
Output Connections	Red (+) Black (-) Posts
Dimensions (mm) [LxWxH]	230 x 115 x 66
Weight	1.2 Kg

Approvals: AS/NZS 60950; 2000 Inc. Amendment 1
Approval No. 17018
C Tick Approved AS/NZS 4417

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12VDC and 24VDC WATER LEVEL INDICATORS

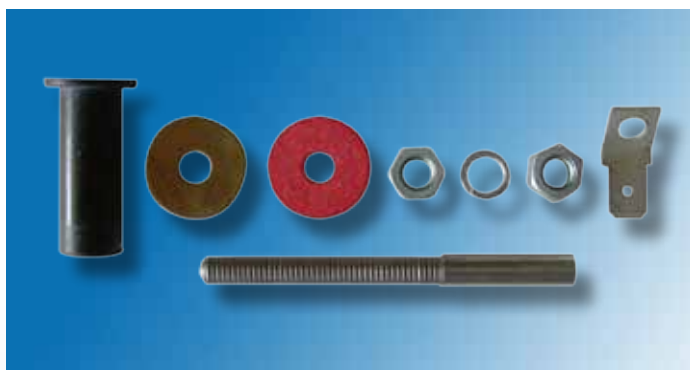
Features:

- Suits negative earth systems
- Warning indication by audible buzzer and a dash-mounted lamp
- Suits water based applications in automotive, agricultural, marine and industrial equipment
- Sensor probes available to suit both plastic and metal header tanks
- Light weight construction

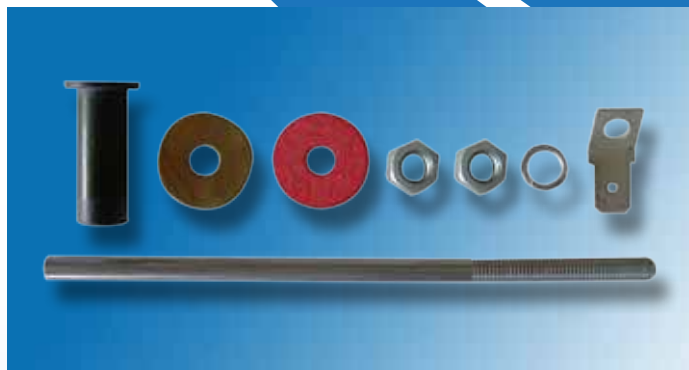


Specifications	WLI-12	WLI-24
Input Voltage	11V-14VDC	22V-28VDC
Output Connection	6Pin Plug	6Pin Plug
Warning Indication	Audible Buzzer and dash lamp (min 2W Globe)	Audible Buzzer and dash lamp (min 2W Globe)
Probes	Plastic P/N 230058 Metal P/N 230061	Plastic P/N 230058 Metal P/N 230061
Operating current	13mA	15mA
Dimensions L x W x H mm	85x67x30	85x67x30
Weight	90g	90g

Water Level Indicator INSTALLATION KITS



Model: 230058
Probe Kit
Suits Plastic Tanks



Model: 230059
121 mm Probe Kit
Suits Plastic Header Tanks



Model: 230061
Probe Kit
Suits Metal Tanks

Other Products

Part No.	Includes
WLI 12V/M	Buzzer Kit And Metal Probe
WLI 12V/P	Buzzer Kit And Plastic Probe
WLI 12V/LP	Buzzer Kit And Long Plastic Probe
WLI 24V/M	Buzzer Kit And Metal Probe
WLI 24V/P	Buzzer Kit And Plastic Probe
WLI 24V/LP	Buzzer Kit And Long Plastic Probe
AB3452	Buzzer Only

ABS Plastic / Alloy Housing C/W MOUNTING LUGS



Specifications	VW450	VW460	VW480
Dimensions mm (L x W x H)	66 x 86 x 31	68 x 112 x 36	73 x 92 x 31.5
Overall Length inc Lugs	133mm	108mm	92mm
Cable Entry Hole	Yes	No	Yes
Lug Hole Diameter	4mm	4mm	4.8mm
Material Type	High Impact Polystyrene	High Impact Polystyrene	Alloy
Material Flammability	UL - 94	UL - 94	-
High Distortion Temperature	85°C	85°C	-



GSL Electronics designs and manufactures power conversion and electronic equipment for the automotive and communications industries. We take pride in delivering quality products at very competitive prices.

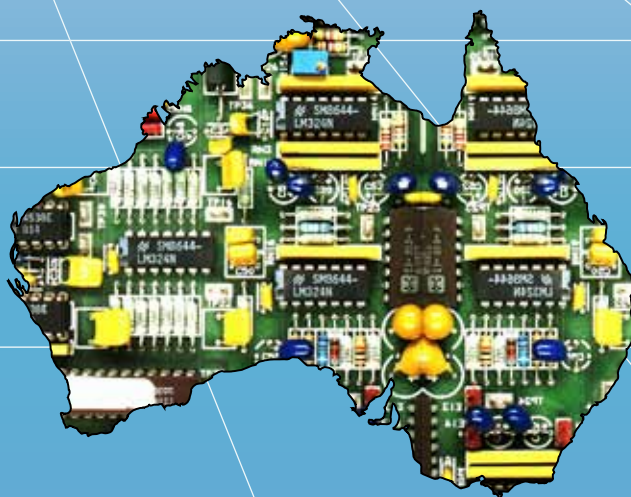
Our range includes solar chargers, voltage reducers, voltage doublers, battery chargers, battery isolators, fluorescent lights, light inverters, power inverters, power supplies, brake controls and reversing alarms.

Today you will find GSL products distributed by leading wholesalers and dealers throughout Australia and New Zealand. Thank you for the continued support of all our customers.

GSL has a fully trained and permanent workforce which enables us to maintain a consistently high standard of manufacturing. Our engineering, technical and production personnel bring many years of industry knowledge to each product.

GSL's commitment to research and development means we have a solid understanding of the proven manufacturing technologies. We also monitor new technologies to identify those that are likely to be of future interest to our customers and strategic partners.

We welcome enquiries from prospective distributors. To discuss the benefits of becoming a GSL distributor, contact us today.





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