



Touring Caravans



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Sprite Lite

Specification, Wiring Diagrams, Bulb Chart
and Electrical Control Panel Information

SWIFT GROUP

Dunswell Road, Cottingham, East Yorkshire, HU16 4JX.

Tel: 01482 875740 Fax: 01482 840082

email: enquiry@swiftgroup.co.uk

website: www.swiftgroup.co.uk

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1098243 issued October 2011

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Specification

Sprite Lite	Sprite Lite 2	Sprite Lite 4	Sprite Lite 5
Berths	2	4	5
Axles	1	1	1
Internal Length (bed box height)	4.34m/14'3"	4.74m/15'7"	4.74m/15'7"
Overall Width**	2.23m/7'4"	2.23m/7'4"	2.23m/7'4"
Overall Height (inc. TV Aerial)**	2.61m/8'7"	2.61m/8'7"	2.61m/8'7"
Maximum Internal Headroom	1.95m/6'5"	1.95m/6'5"	1.95m/6'5"
Overall Length**	6.04m/19'10"	6.45m/21'2"	6.45m/21'2"
Awning A/A dimension	8.55m/28'1"	8.95m/29'4"	8.95m/29'4"
Mass in Running Order (inc. tolerance)	915kg/18.0cwt	952kg/18.7cwt	982kg/19.3cwt
Maximum Technical Permissible Laden Mass (Lower limit)	1036kg/20.4cwt	1097kg/21.6cwt	1137kg/22.4cwt
Maximum Technical Permissible Laden Mass (Upper limit)	1100kg/21.7cwt	1150kg/22.6cwt	1200kg/23.6cwt
Total user Payload	121kg/2.4cwt	145kg/2.9cwt	155kg/3.1cwt
Personal Effects	121g/2.4cwt	145kg/2.9cwt	155kg/3.1cwt
Options	0kg/0cwt	0kg/0cwt	0kg/0cwt
Tyre Size	175 R14C 99R	175 R14C 99R	175 R14C 99R
Tyre pressure at Lower limit MTPLM	45 psi / 3.1 bar	48 psi / 3.3 bar	51 psi / 3.5 bar
Tyre pressure at Upper limit MTPLM	48 psi / 3.3 bar	51 psi / 3.5 bar	54 psi / 3.7 bar
Static Load on Coupling Head	100kg	100kg	100kg
Thermal Insulation Grade	TWO	TWO	TWO
Bed Sizes			
Front Double	208cm x 180cm/6'10" x 5'11"	208cm x 134cm/6'10" x 4'5"	208cm x 134cm/6'10" x 4'5"
or Front Nearside Single	190cm x 72cm/6'3" x 2'4"		
and Front Offside Single	180cm x 72cm/5'11" x 2'4"		
Rear Double		188cm x 137cm/6'2" x 4'6"	194cm x 132/120cm/ 6'4" x 4'4"/3'11"
Rear Bunk			
Side Single (offside)			
Side Single (nearside)			194cm x 68cm/6'4" x 2'3"
Side Bunk (offside)			
Side Bunk (nearside)			180cm x 59cm/5'11" x 1'11"
Rear Fixed Lower Bunk			
Rear Fixed Mid Bunk			
Rear Fixed Upper Bunk			
Side Fixed Lower Bunk			
Side Fixed Mid Bunk			
Side Fixed Upper Bunk			

Weights: From the 2011 season the method of calculating the Mass in Running Order (MRO) and user payload figures has changed in order to bring it in line with European Vehicle Directives.

Allowances for essential equipment (e.g. gas cylinders) previously allowed for in the user payload are now contained within the MRO. A provision for a leisure battery which used to be within the essential equipment payload has now been included within the personal effects payload allowance.

Although the method of calculation has changed, the overall effect is that the amount of payload available to the customer has remained the same, it is just calculated in a different manner.

*** Estimated**

Bed Sizes : Please note that the front double bed sizes quoted are for seating configurations without chest of drawers. The front double bed width for a layout with a chest of drawers fitted will be reduced by 0.4m(1'4") from that stated.

Awning sizes: Due to varying awning designs and sizes the awning sizes given are approximate only. Specific awning sizes must be confirmed by your dealer or awning manufacturer prior to purchase.

** The dimensions given are approximate due to slight variations in suspension ride heights, loading conditions and tyre pressures.

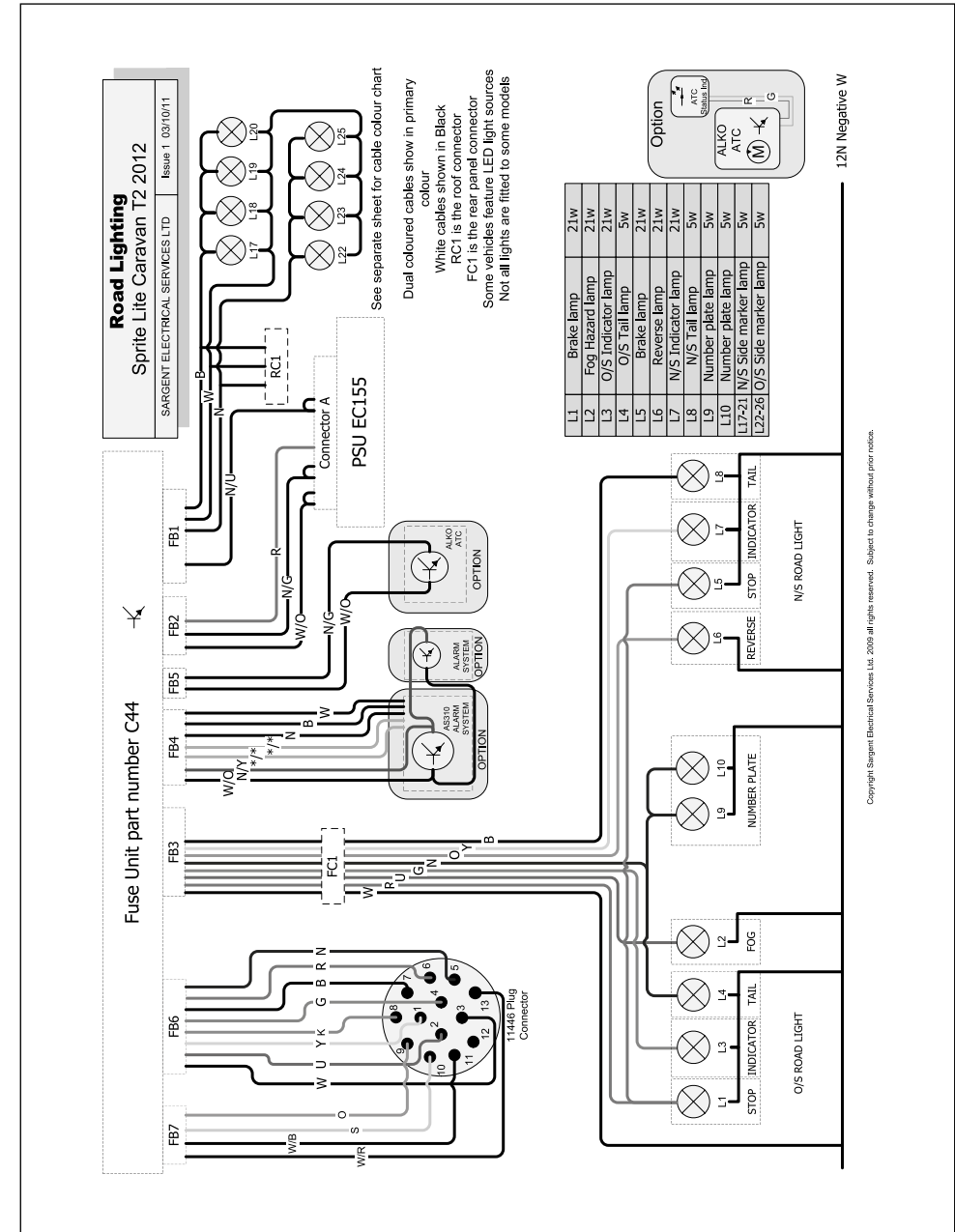
Customers should verify the actual dimensions of their touring caravan before committing to anything that could be impacted by these dimensions

Please note: Any dealer fit options will reduce the overall payload available to the user of the caravan.

If you require additional payload it is possible to upgrade the MTPLM to the upper limit. Please contact your Sprite caravan dealer for more information.

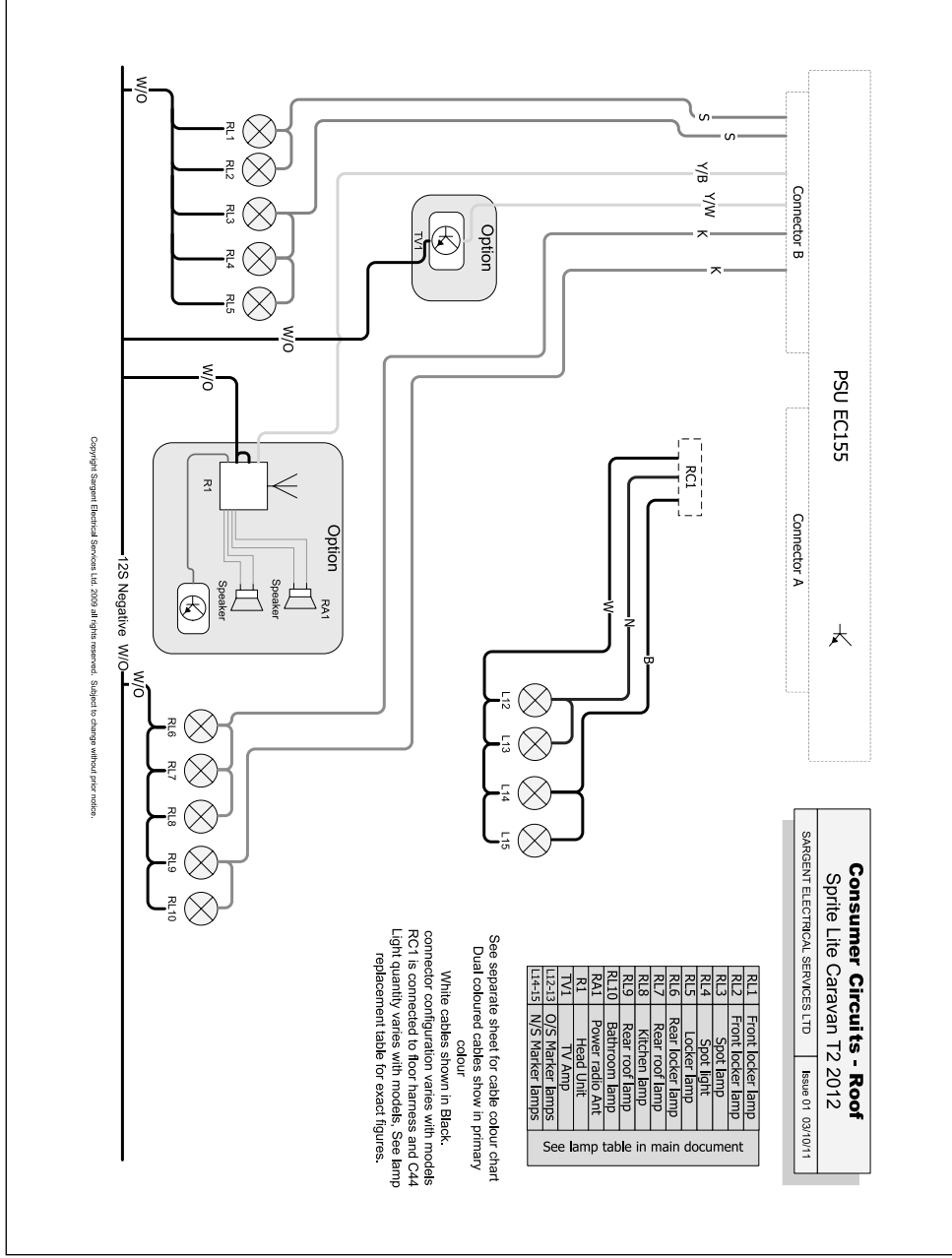
Wiring Diagrams

Sprite Lite range - Road lighting



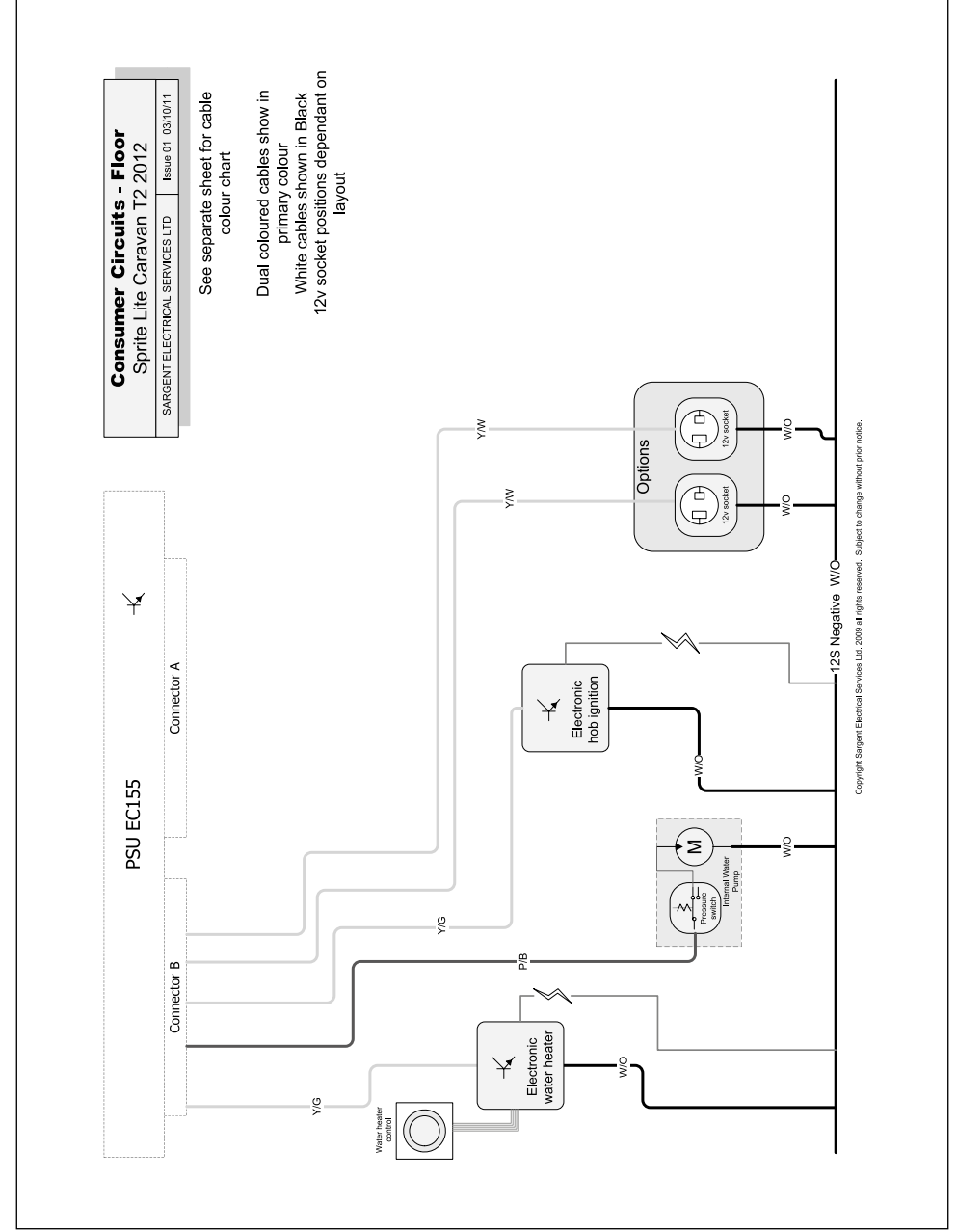
Wiring Diagrams

Sprite Lite range - Roof circuits

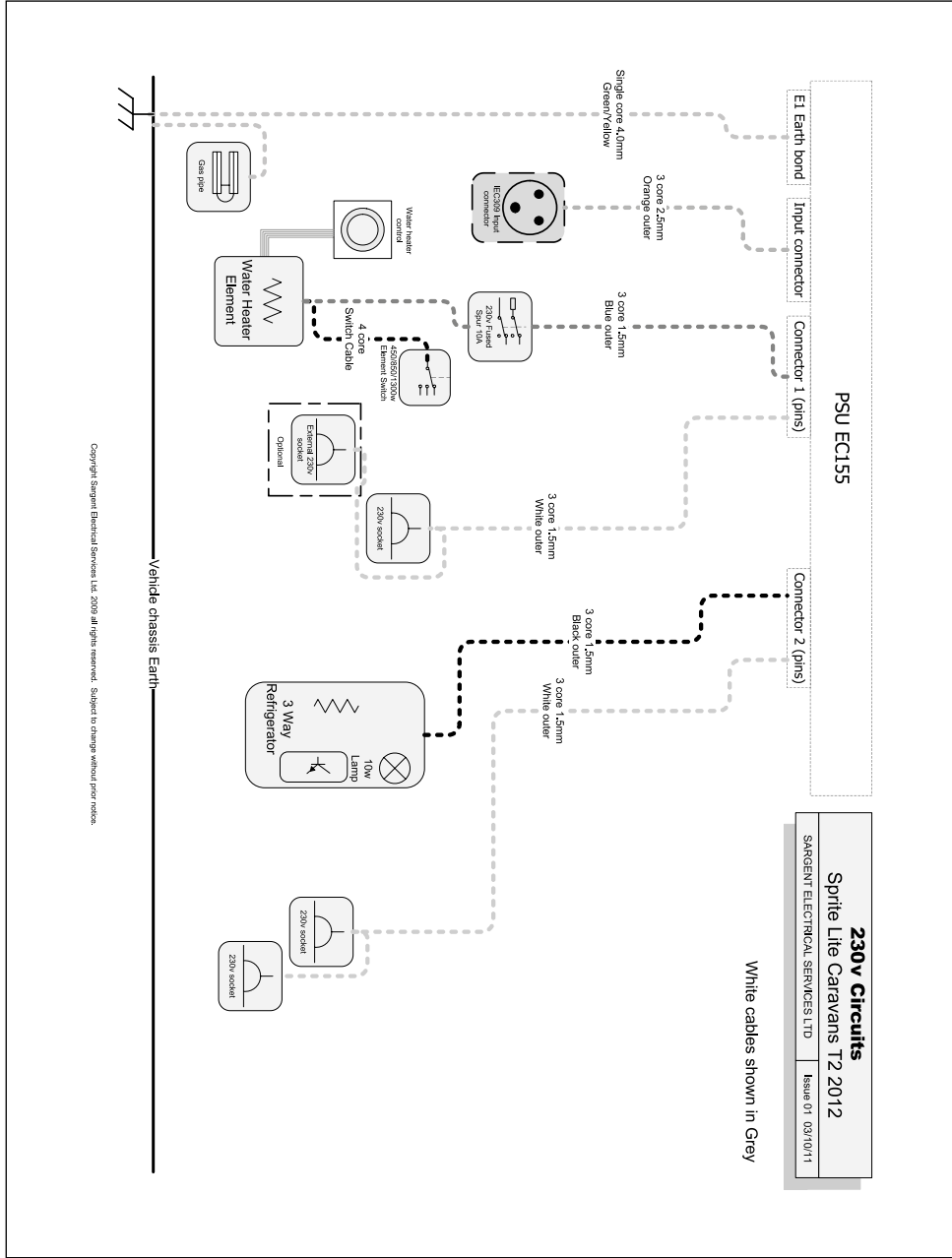


Wiring Diagrams

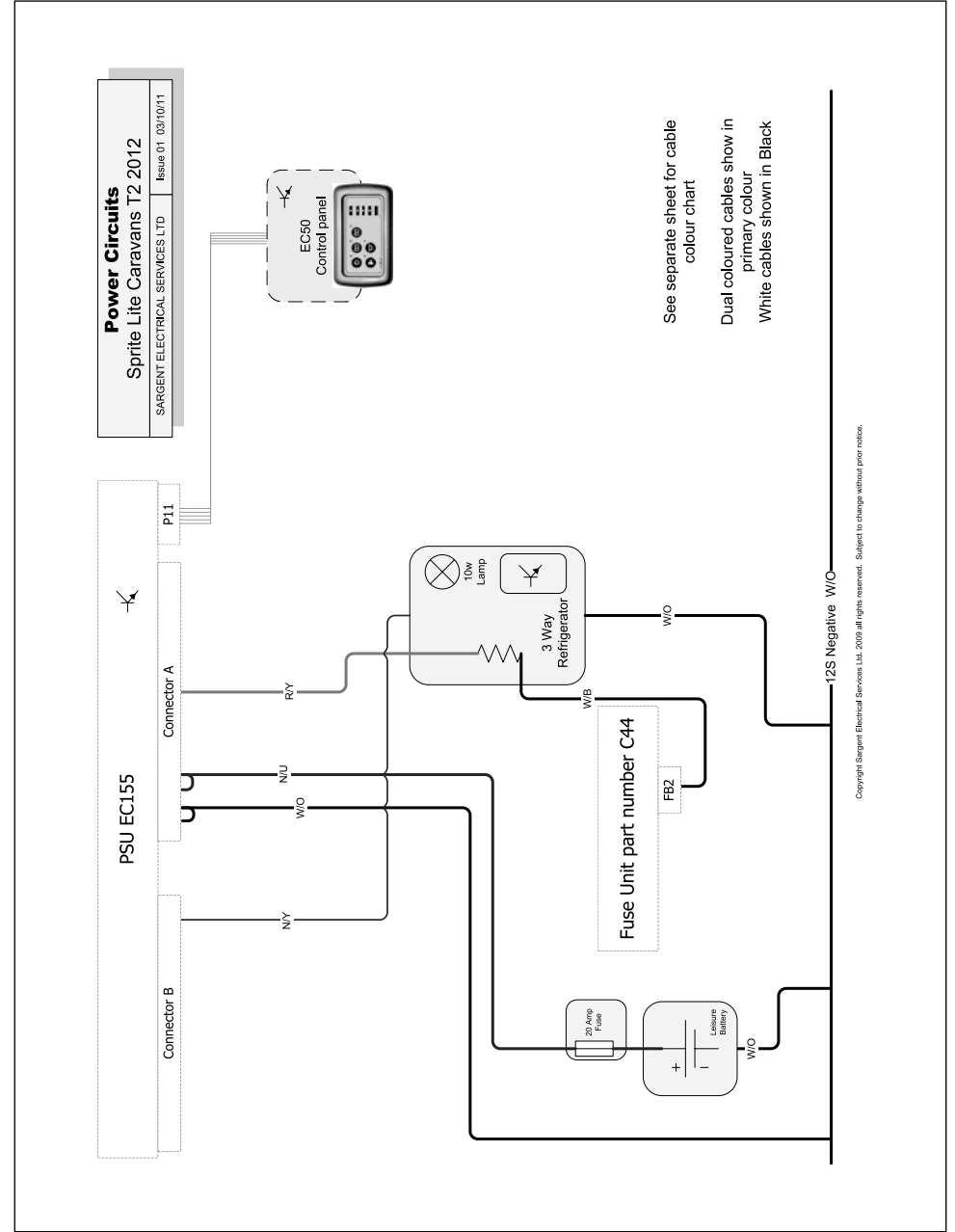
Sprite Lite range - Floor circuits



Sprite Lite range - 230V circuits



Sprite Lite range - Power circuits



Sprite Lite range - Cable colours



Example

Y/U

Yellow cable with Blue stripe

Cable Colour Chart

Swift range 2011

SARGENT ELECTRICAL SERVICES LTD

Issue 08/07/10

12v Cable Colours

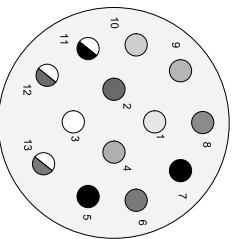
B	BLACK
N	BROWN
R	RED
O	ORANGE
Y	YELLOW
G	GREEN
U	BLUE
P	PURPLE
S	SLATE GREY
W	WHITE
K	PINK

230v Cable Colours

B	BLACK
N	BROWN
W	WHITE
O	ORANGE
Y	YELLOW
G	GREEN
U	BLUE

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Sprite Lite range - 13 pin socket



11446 Plug Connector viewed from cable entry on plug



ISO 11446 Circuits

Swift Group Caravans (where applicable)

SARGENT ELECTRICAL SERVICES LTD Issue 01 08/07/10

It is possible to get adaptors that convert two sockets on the towbar to a single 13 pin ISO socket, and vice versa.

Connection lead from 12N 7 pin socket plus 12S 7 pin socket to 13pin Euro Socket. (Converts a vehicle with two 7 pin sockets to a caravan with a 13 pin plug)

Please be aware that some car and adaptor manufacturers don't provide the fridge power connections

Pin No	Core Colour	Core Size	Function
1	Yellow	1.5	Left Hand Indicator Light
2	Blue	1.5	Rear Fog Warning Light(s)
3	White	2.5	Earth for pins 1 - 8
4	Green	1.5	Right Hand Indicator Light
5	Brown	1.5	Right Hand Tail Light
6	Red	1.5	Brake Lights
7	Black	1.5	Left Hand Tail Light
8	Pink	1.5	Reverse Light(s)
9	Orange	2.5	Car +ve
10	Slate (Grey)	2.5	Fridge +ve
11	White/Black	2.5	Earth for pin 10
12	White/Blue	1.5	Not Yet Allocated
13	White/Red	2.5	Earth for pin 9

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Bulb Chart

Road Lights	Bulb type	Bulb rating
Front marker lights	W5W	12v 5W
Side marker (low level)	W5W	12v 5W
Side marker (high level)	C5W	12v 5W
Reversing light	P21	12v 21W
Rear indicator light	PY21W Orange bulb	12v 21W
Brake / tail light	P21/5W	12v 21W/5W
Fog light	P21	12v 21W
Number plate light	C5W	12v 5W
Interior / Other Lights	Bulb type	Bulb rating
Spot / reading lights	GU4/MR11 Dichroic	GU4 12v 10W
Kitchen light	Fluorescent 300mm	12v 8W
Under locker strip light	Fluorescent 300mm	12v 8W
Ceiling light, round	Halogen capsule	G4 12v 20W
Ceiling light, small round White	Halogen capsule	G4 12v 10W

Note: Not all lights and bulbs feature on all models within a range

Bulb Replacement

SPRITE ROAD LIGHT BULB ACCESS

REAR ROAD LIGHT CLUSTERS (STOP / TAIL / INDICATOR / REVERSE / FOG)

- Bulb access is from front / via lense of each lamp cluster
- Remove 4x screws from each light lense and withdraw lense
- Bulbs are a bayonet fitting – apply slight pressure on bulb towards light fitting, and twist to release
- Reverse procedure to re-fit bulb and lense.
- Take care when replacing stop/tail lamp bulb, that orientation of bulb is correct – to check, brake light operation should be brighter than tail lamp operation

UPPER REAR SIDE POSITION LAMPS (RED / CLEAR LENSE)

- Lense is removed from base to access bulb
- Carefully insert small flat bladed screwdriver into recess in lower edge of lamp base. Apply pressure to release locking barb.
- Lift lense upwards and away from lamp base, lower edge first
- Lever bulb out of retaining clips
- Reverse procedure to re-fit bulb and lense

REAR CENTRAL FOG LIGHT

- Bulb access is from front / via lense of lamp
- Remove 2x screws from light lense and withdraw lense
- Bulb is a bayonet fitting – apply slight pressure on bulb towards light fitting, and twist to release
- Reverse procedure to re-fit bulb and lense

NUMBER PLATE LAMPS

- Bulb access is from the front / via lense of each lamp
- Remove the two screws in the lense of the lamp
- Lever the bulb out of retaining clips
- Reverse the procedure to re-fit a new bulb and the light lense

FRONT MARKER / POSITION LAMPS

- Bulb access is from rear of lamp
- Remove 2x screws from light fitting, and withdraw whole fitting from caravan body
- Harness plugs into bulb holder – Twist bulb holder relative to lamp body to release bulb holder from lamp body
- Bulbs are push fit into bulb holder – pull bulb directly away from holder to release
- Reverse procedure to replace bulb in holder, holder in lamp and lamp onto caravan body

SIDE MARKER POSITION LAMPS

- Bulb access is from rear of lamp. First check from within caravan if the rear of the lamp is accessible:
- If rear of light is accessible:
 - Harness plugs into bulb holder – Twist bulb holder relative to lamp body to release bulb holder from lamp body
 - Bulbs are push fit into bulb holder – pull bulb directly away from holder to release
 - Reverse procedure to replace bulb in holder and holder in lamp
- If rear of light is not accessible:
 - Remove 2x screws from light fitting, and withdraw whole fitting from caravan body
 - Harness plugs into bulb holder – Twist bulb holder relative to lamp body to release bulb holder from lamp body
 - Bulbs are push fit into bulb holder – pull bulb directly away from holder to release
 - Reverse procedure to replace bulb in holder, holder in lamp and lamp onto caravan body

EC155 Power Control System

1 Key Features

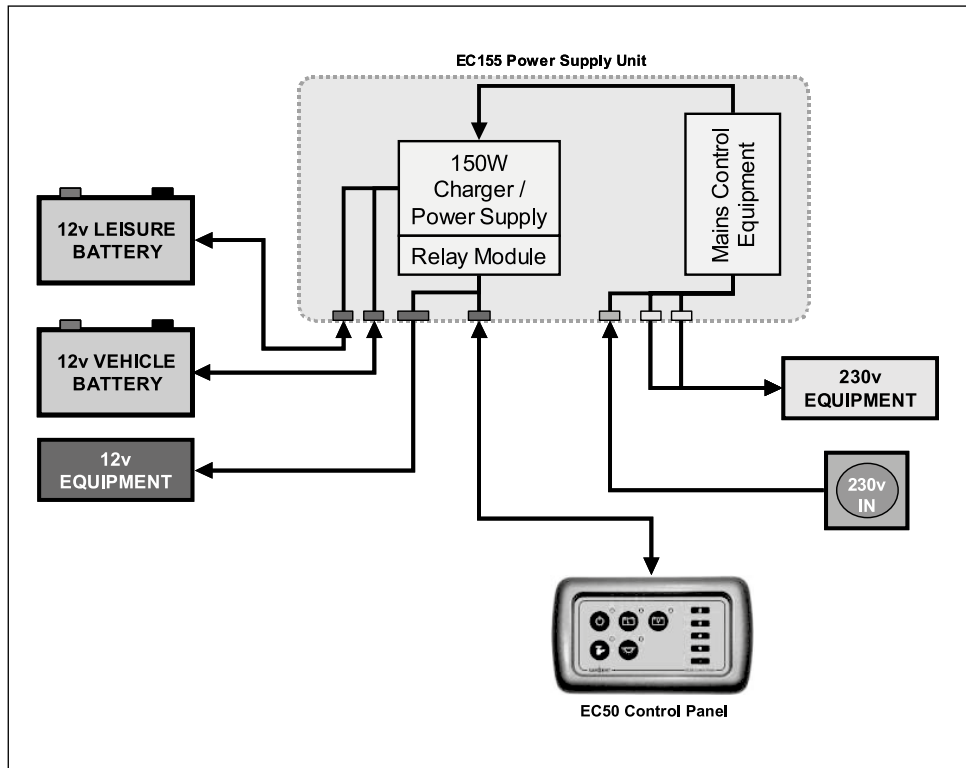
150W (~12A) combined Power Converter / Battery Charger - Converts the 230V mains supply into 12v DC power to run the leisure equipment and charge the battery.

Low current switching reduces voltage drop in the circuit and improved circuit fusing provides better protection for the harness and equipment.

Links to the EC50 series LED Control Panel to provide simple but intelligent control of the 12v equipment and built in over discharge software protects the leisure and vehicle batteries.

2 System Overview

The following diagram shows the typical configuration of the EC155 system. The key component is the EC155 power supply unit (PSU), which is the hub of the system and provides connectivity to the ancillary components and the EC50 series control panel.

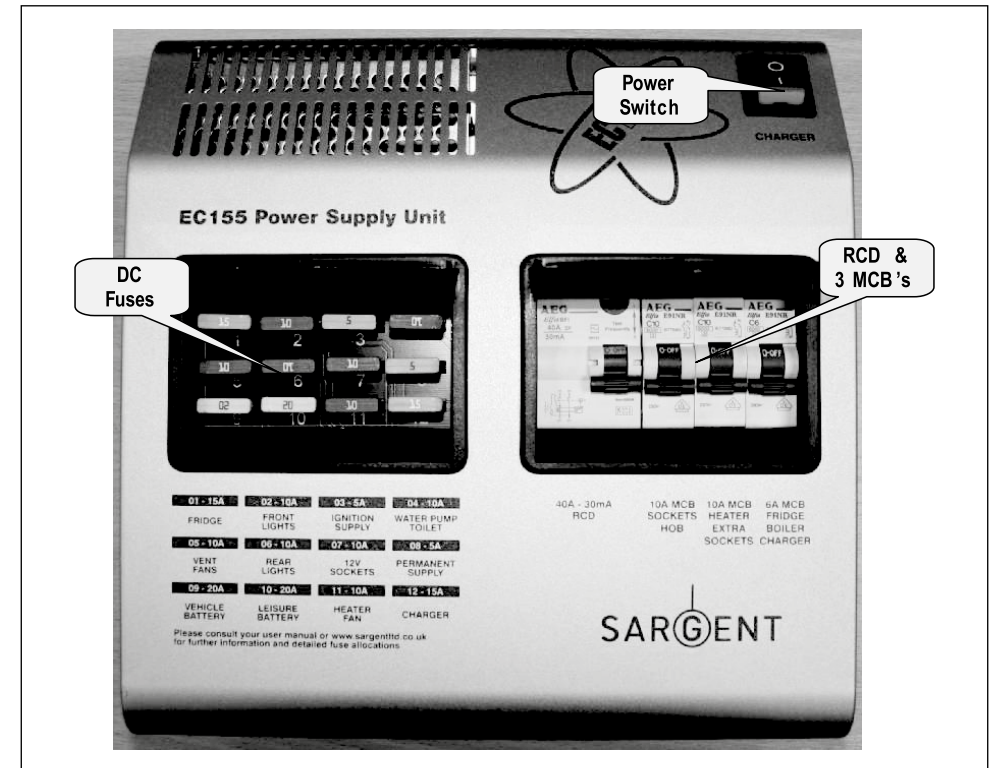


3 Power Supply Details

For the safe operation of all electrical equipment within your Leisure Vehicle it is important that you read and fully understand these instructions. If you are unsure of any point please contact your dealer / distributor for advice before use.

The following diagram shows the EC155PSU layout.

WARNING: Under heavy loads the EC155PSU case may become hot. ALWAYS ensure the ventilation slots have a clear flow of air. Do not place combustible materials against / adjacent to the EC155PSU. The PSU will shutdown if overheated and will restart automatically when cool

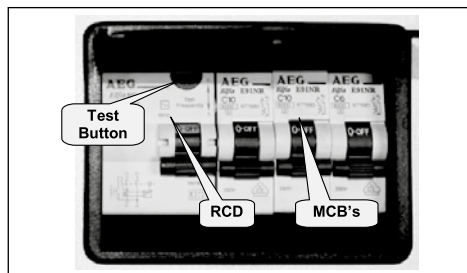


3.1 Battery Charger / Power Converter

The EC155PSU incorporates a fixed voltage battery charger / power converter. The battery charger / power converter also powers the leisure equipment when the mains supply is connected. This module supplies 13.8v DC to the leisure equipment up to a maximum of 12 Amps (155 Watts), therefore the available power is distributed between the leisure load and the battery, with the leisure load taking priority as per the following example:

Leisure load	Available power for battery charging
3A	9A
6A	6A
9A	3A
12A	0A

3.2 Residual Current Device & Miniature Circuit Breakers



The Residual Current Device (RCD) is basically provided to protect the user from lethal electric shock. The RCD will turn off (trip) if the current flowing in the live conductor does not fully return down the neutral conductor, i.e. some current is passing through a person down to earth or through a faulty appliance.

To ensure the RCD is working correctly, the test button should be operated each time the vehicle is connected to the mains supply (see section 5.1)

The Miniature Circuit Breakers (MCB's) operate in a similar way to traditional fuses and are provided to protect the wiring installation from overload or short circuit. If an overload occurs the MCB will switch off the supply. If this occurs you should investigate the cause of the fault before switching the MCB back on.

The following table shows the rating and circuit allocation for the three MCB's

MCB	Rating	Wire Colour	Description
1	10 Amps	White	230v Sockets
2	10 Amps	White (Yellow for heater)	Extra 230v Sockets / Heater
3	6 Amps	Black (Blue for water heater)	Fridge / Water Heater / 12v Charger (internally connected)

3.3 Fuses

WARNING: When replacing fuses always replace a fuse with the correct value. NEVER replace with a higher value / rating as this could damage the wiring harness or appliance. If a replacement fuse 'blows' do not keep replacing the fuse as you could damage the wiring harness or appliance. Please investigate the fault and contact your dealer.

The following table shows the fuse allocation for the 12 fuses fitted to the EC155PSU.

Fuse	Rating	Fuse Colour	Wire Colour	Description
1	15 Amps	Blue	Red / Yellow	Fridge
2	10 Amps	Red	Grey	Front Lights
3	5 Amps	Tan	Yellow/Green	Ignition Supplies
4	10 Amps	Red	Green / Blue	Water Pump / Toilet
5	10 Amps	Red	Black/Blue	Ventilation Fans
6	10 Amps	Red	Pink	Rear Lights
7	10 Amps	Red	Yellow / White	12v Sockets / TV Amplifier / Entertainment
8	5 Amps	Tan	Brown / Yellow	Permanent Supply (Radio / Fridge)
9	20 Amps	Yellow	Brown / Green	Vehicle Battery
10	20 Amps	Yellow	Brown / Blue	Leisure Battery
11	10 Amps	Red	Black/Red	Heater Fan
12	15 Amps	Blue	-	Charger

The following table shows details of the fuse(s) located at the Leisure battery.

Fuse	Rating	Fuse Colour	Wire Colour	Description
Battery 1	20 Amps	Yellow	Brown / Blue	Fuse remotely located near battery

3.4 Battery

A) Type / Selection

For optimum performance and safety it is essential that only a proprietary brand LEISURE battery is used with a typical capacity of 75 to 120 Ah (Ampere / hours). A normal car battery is NOT suitable. This battery should always be connected when the system is in use.

The EC155PSU is designed to charge standard lead acid leisure batteries, however it may be used with Gel batteries depending on their composition. Please consult the battery documentation for further advice.

The battery feed is fitted with an inline fuse between the battery and the electrical harness, and is usually located immediately outside the battery compartment or within 500mm of the battery. The maximum rating of this fuse is 20A per battery.

B) Installation & Removal

Always disconnect the 230v mains supply and turn the EC155PSU charger switch to the OFF (0) position before removing or installing the battery.

When connecting the battery, ensure that the correct polarity is observed (black is negative [-] and red is positive [+]) and that the terminals are securely fastened. Crocodile clips must not be used.

WARNING: Explosive gases may be present at the battery. Take care to prevent flames and sparks in the vicinity of the battery and do not smoke.

C) Operation / Servicing

Under normal circumstances it should not be necessary to remove the battery other than for routine inspection of the terminals and “topping up” of the battery fluid where applicable. Please see instructions supplied with the battery.

Note: Do not over discharge the battery. One of the most common causes of battery failure is when the battery is discharged below the recommended level of approximately 10v. Discharging a battery below this figure can cause permanent damage to one or more of the cells within the battery.

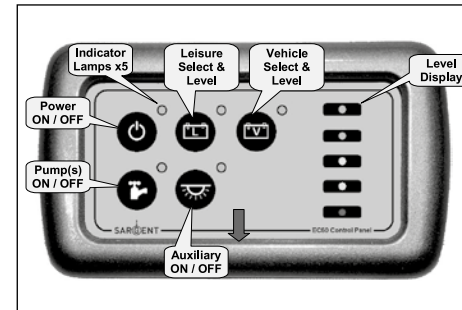
To prevent over discharge, the EC155PSU in conjunction with the EC50 series control panel incorporates a battery protect circuit that warns and then disconnects the batteries when they fall below the following conditions:

Battery	Voltage cut off	Action after cut off	Notes
Vehicle	10.9v	Battery selection is changed from Vehicle battery to Leisure battery. If the leisure battery is below 9v then a further warning will occur (see below).	This cut off level is designed to protect the vehicle battery from over discharge. The 10.9v level ensures there is sufficient power in the battery to run the vehicle electronics and start the vehicle. This cut off only applies to power drawn from the battery by the leisure equipment; it will not protect the battery if you leave the vehicle lights on.
Leisure	9v	Power is turned off	This is an emergency cut off level to protect the battery from severe damage. You should not rely on this cut off level during normal operation, but manage your power consumption to a discharge level of 10v. This cut off only applies to power drawn from the battery by the leisure equipment that is controlled by the control panel power switch; it will not protect the battery from discharge by the radio or other permanently connected equipment.

4 Control Panel Details

4.1 Layout and Buttons






The following diagram shows the control panel layout and button functions (EC50 control panel).



Note: to remove the decorative bezel, pull down and lift forward as indicated by the arrow.

4.2 Operation

The following

Symbol	Function	Description
	Main 12v Power switch	This switch turns on (or off) the 12-volt power. As the power is turned on the Leisure battery is automatically selected and the LED display shows the battery voltage.
	Water Pump power switch	This switch turns on power to the internal water pump ready for use. It can be used to turn off the pump over night to avoid any noise from the pump. When the switch is on, the LED will show green.
	Light switch	This switch turns the ceiling lights on (or off). When the switch is on the LED will show green.
	Select LEISURE battery and display battery voltage	This switch is used to select the Leisure battery and to display the battery voltage level. Press once to select and display the voltage. This display will turn off automatically after 5 seconds. The LED next to the button will show that the battery has been selected. If the Leisure battery drops below 9v an alarm will trigger to warn you that the battery is low. This alarm lasts for 1 minute and then the power will be switched off to protect the battery.
	Select VEHICLE battery and display battery voltage	This switch is used to select the Vehicle battery and to display the battery voltage level. Press once to select and display the voltage. This display will turn off automatically after 5 seconds. The LED next to the button will show that the battery has been selected. If the Vehicle battery drops below 10.9v an alarm will trigger to warn you that the battery is low. This alarm lasts for 1 minute and then the battery selection will automatically switch over to the Leisure battery to protect the vehicle battery.

4.3 System Disable

To meet EMC (Electro Magnetic Compatibility) directive 89/336/EEC the EC50 series control panel will shutdown, and the electrical accessories within the vehicle will be disconnected while the vehicle is in motion. When the engine is stopped the control panel returns to standby mode ready to be turned on by the power button.

4.4 Bar Graph Technical data

LED	Colour	Voltage reading	Water reading
5	Green	13.5 - 14.4	100% full
4	Green	12.5 - 13.5	75% full
3	Yellow	11.5 - 12.5	50% full
2	Yellow	10.5 - 11.5	25% full
1	Red	<= 10.5	Less than 25%

5 Operational & Safety Information

5.1 Connecting to the Mains supply - Safety checks

Connecting to the Mains supply - Safety checks

For your safety it is IMPORTANT that you follow these connections instructions each time your Leisure Vehicle is connected to a mains supply.

- A) **Ensure suitability of the Mains Supply.** Your Leisure Vehicle should only be connected to an approved supply that meets the requirements of BS7671. In most cases the site warden will hold information regarding suitability of supply. If using a generator you also need to comply with the requirements / instructions supplied with the generator. Please note that some electronic generators may not be compatible with your leisure system.
- B) **Switch the EC155PSU internal Power Converter OFF.** Locate the red 'Charger' power switch on the EC155PSU and ensure the switch is in the OFF (0) position before connection to the mains supply.

- C) **Connect the Hook-up Lead.** Firstly connect the supplied hook-up lead (orange cable with blue connectors) to the Leisure Vehicle and then connect to the mains supply.
- D) **Check Residual Current Device operation.** Locate the RCD within the EC155PSU and ensure the RCD is switched on (lever in up position). Press the 'TEST' button and confirm that the RCD turns off (lever in down position). Switch the RCD back to the on position (lever in up position). If the test button failed to operate the RCD see section 5.2.
- E) **Check Miniature Circuit Breakers.** Locate the MCB's within the EC155PSU (adjacent to the RCD) and ensure they are all in the ON (up) position. If any MCB's fail to latch in the on position see section 5.2.
- F) **Turn the EC155PSU ON.** Locate the red power switch on the EC155PSU and turn to the ON (I) position. The switch will illuminate when turned on.
- G) **Check operation of equipment.** It is now safe to check the operation of the 12v and 230v equipment.

5.2 Common Fault Table

Fault	Possible Cause	Proposed Fix
No 230 volt output from PSU	Connecting lead between the site and Leisure Vehicle not connected	Check and connect lead as per 5.1C Check also input connector at the base of the EC155PSU
	RCD switched off	Reset RCD as per 5.1D
	RCD not operating correctly	Check supply polarity; if the RCD continues to fail contact your Dealer, as there is probably an equipment or wiring fault.
	MCB switched off	Reset MCB by switching OFF (down position) then back ON (up position), if the MCB continues to fail contact your Dealer, as there is probably an equipment or wiring fault.
	No or deficient supply from site	Contact site Warden for assistance
	Other fault	Contact your Dealer
	Control Panel Problems	Control Panel has no display
12v Power turns off		Battery save feature has operated to protect the Vehicle battery and or the Leisure battery. See 3.4C Engine has been started, all equipment has been disconnected to meet EMC requirements. See 4.3
Control Panel display corrupt / erratic function		Observe control panel handling instructions Control panel software may have crashed. Reboot control panel by turning off the EC155PSU charger switch and removing fuses 9 & 10 at the EC155PSU (2x20A fuses for leisure and vehicle batteries). Wait 30 seconds then replace the fuses and turn the charger switch on. (Alternatively, remove the bezel at the control panel by pulling down in the centre at the bottom, unplug the control panel multi-way connector, wait 30 seconds, then plug back in and reassemble.)

5.2 Common Fault Table

Fault	Possible Cause	Proposed Fix
No 12 volt output from PSU	No 230v supply	Check all above
	Charger not switched on	Switch charger switch on (I) position, switch will illuminate
	Battery not connected and / or charged	Install charged battery as per 3.4
	Power switch on control panel not switched to ON	Turn power on at control panel
	Battery flat / Battery fuse blown	Recharge battery, check fuses, check charging voltage is present at battery
	Fuse blown	Check all fuses are intact and the correct value fuse is installed as per fuse table
	Equipment switched off / unplugged	Check equipment is switched on and connected to the 12v supply
	PSU overheated / auto shutdown operated	Reduce load on system. Allow PSU to cool down. PSU will automatically restart when cool. See section 3
	Other fault	Contact your Dealer
Pump not working	Fuse blown	Replace fuse
	Pump turned off	Turn pump on by pressing the pump button at the EC155 control panel (tap symbol)
	Control Panel display corrupt / erratic function	Observe control panel handling instructions Control panel software may have crashed. Reboot control panel by turning off the EC155PSU charger switch and removing fuses 9 & 10 at the EC155PSU (2x20A fuses for leisure and vehicle batteries). Wait 30 seconds then replace the fuses and turn the charger switch on. (Alternatively, remove the bezel at the control panel by pulling down in the centre at the bottom, unplug the control panel multi-way connector, wait 30 seconds, then plug back in and reassemble.)

6 Technical Data & Approvals

6.1 Outline Specification

INPUT 230v	230 Volts / 0 to 12 Amps	+ / - 10%
OUTPUT 230v	RCD protected, 3 x MCB outputs of 10, 10 and 6A via 2 x 9 way connectors	
INPUT 12v	2 x 20A battery inputs via a single 9 way connector	
OUTPUT 12v	20A total output via 4 x 16A switched channels protected by 12 fused outputs via a 12 way connector	
Integrated CHARGER	Input 220-240 Volts AC +/- 10%, Frequency 50 Hz +/- 6%, Current 3A max. DC Output 13.8 Volts nominal, Current 12 Amps max (155 Watts)	
Signal INPUT	1 x Engine running via PSU connector (4 x Fresh water level, 1 x Waste water level on EC51 version)	Fresh water negative sensed Waste water 5v sensed
Data IN / OUT	Data communication and power to Control Panel via 8 way RJ45 connector	Contact your Dealer
IP rating	IP31	
Operating temperature	Ambient 0 to 35° Centigrade PSU case temperature with full load 65° C Max	Automatic shutdown and restart if overheated / overloaded

6.2 Dimensions

EC155PSU	Overall size (HxWxD) 260 x 273 x 110mm	Fixing centres 262 x 224mm
	Clearances 75mm above, 20mm below, 50mm left & right	Weight 2.2 Kg
EC100 CONTROL PANEL	Overall size (HxWxD) 80 x 140 x 30mm	Fixing centres 123mm
	Cut-out size (HxW) 60 x 110mm	Weight 100 g

6.3 Approvals

System: BSEN 1648-1, BSEN1648-2 compliant, BS7671: 2008 compliant

Residual Current Device: RCD 40A 30mA trip to BS EN 61008

Miniature Circuit Breakers: MCB's (10 & 6A) type C 6000A breaking capacity to BSEN 60898

Electro Magnetic Compatibility (EMC) directive 89/336/EEC

Integrated Charger: BS EN 60335-1/2.29, 89/336/EEC, IEC61000-3.2/3:1995, EMC certificate 5172TC 3rd party tested.

6.4 Declaration of Conformity

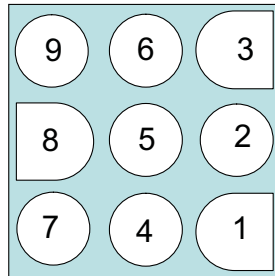
Equipment: Leisure Power Control System Model name: EC155PSU / EC50CP / EC51CP / EC52CP

I hereby declare that the equipment named above has been designed to comply with the relevant sections of the above referenced approvals. The unit complies with all essential requirements of the Directives.

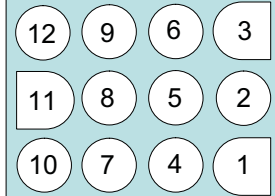
Signed:	Name:	Position:	Manufacturer:
	I L Sargent	Technical Director	Sargent Electrical Services Ltd Unit 39, Tokenspire Business Park, Woodmansey, Beverley East Yorkshire, United Kingdom
Date:			

6.5 Electrical Connection

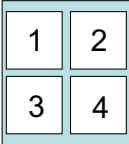
A) Battery Input Connector

	Pin	Function	Fuse	Wire Colour
	1	Fridge 12V output	1	RED / YELLOW
	2	Battery common earth 1	-	WHITE / ORANGE
	3	Battery common earth 2	-	WHITE / ORANGE
	4	Auxiliary 12V output	2	SLATE / RED
	5	Vehicle battery input 1	9	BROWN / GREEN
	6	Vehicle battery input 2	9	BROWN / GREEN
	7	Fridge power in / Engine run	-	RED
	8	Leisure battery input 1	10	BROWN / BLUE
	9	Leisure battery input 2	10	BROWN / BLUE

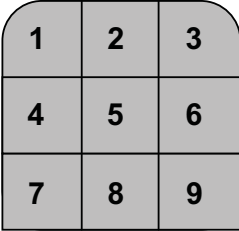
B) 12v Output Connector

	Pin	Function	Fuse	Wire Colour
	1	Radio	8	BROWN / YELLOW
	2	12v Sockets 1	7	YELLOW / WHITE
	3	12v Sockets 2	7	YELLOW / WHITE
	4	Ignitions	3	YELLOW / WHITE
	5	Front Lights 1	2	SLATE
	6	Front Lights 2	2	SLATE
	7	Heater fan	11	BLACK / RED
	8	Rear Lights 1	6	PINK
	9	Rear Light 2	6	PINK
	10	Fans	5	BLACK / BLUE
	11	Toilet Pump	4	PURPLE
	12	Pump	4	PURPLE / BLACK

C) 230v Mains Input connector

	Pin	Function	Wire Colour
	1	Not used	-
	2	Earth	GREEN / YELLOW
	3	Live	BROWN
4	Neutral	BLUE	

D) 230v Mains output connector (2 off connectors wired identical)

	Pin	Function	MCB	Wire Colour
	1	Live	3	BROWN
	2	Earth	3	GREEN / YELLOW
	3	Neutral	3	BLUE
	4	Live	2	BROWN
	5	Earth	2	GREEN / YELLOW
	6	Neutral	2	BLUE
	7	Live	1	BROWN
	8	Earth	1	GREEN / YELLOW
9	Neutral	1	BLUE	

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