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Challenger / Conqueror
Eccles / Elite

Specification, Wiring Diagrams & Bulb Chart

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Specifications

Challenger	Challenger 480	Challenger 530	Challenger 540	Challenger 570	Challenger 580
Eccles	**Eccles Topaz**	**Eccles Moonstone**	**Eccles Jewel**	**Eccles Ruby**	**Eccles Quartz**
Berths	2	4	4	4	4
Axles	1	1	1	1	1
Internal Length (bed box height)	4.74m/15'7"	5.50m/18'1"	5.50m/18'1"	5.83m/19'2"	5.83m/19'2"
Overall Width	2.29m/7'6"	2.29m/7'6"	2.29m/7'6"	2.29m/7'6"	2.29m/7'6"
Overall Height (inc. TV Aerial)	2.61m/8'7"	2.61m/8'7"	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"	1.95m/6'5"	1.95m/6'5"
Overall Length	6.42m/21'1"	7.18m/23'7"	7.18m/23'7"	7.51m/24'8"	7.51m/24'8"
Mass in Running Order (inc. tolerance)	1203kg/23.7cwt	1368kg/26.9cwt	1294kg/25.5cwt	1385kg/27.3cwt	1385kg/27.3cwt
Essential Habitation Equipment Payload	69kg/1.4cwt	69kg/1.4cwt	69kg/1.4cwt	69kg/1.4cwt	69kg/1.4cwt
Personal Effects Payload	105kg/2.1cwt	133kg/2.6cwt	133kg/2.6cwt	136kg/2.7cwt	136kg/2.7cwt
Optional Equipment Payload	10kg/0.2cwt	10kg/0.2cwt	4kg/0.1cwt	5kg/0.1cwt	5kg/0.1cwt
Total user Payload	184kg/3.6cwt	212kg/4.2cwt	206kg/4.1cwt	210kg/4.1cwt	210kg/4.1cwt
Maximum Technical Permissible Laden Mass (DECLARED)	1387kg/27.3cwt	1580kg/31.1cwt	1500kg/29.5cwt	1595kg/31.4cwt	1595kg/31.4cwt
Maximum Technical Permissible Laden Mass (POSSIBLE)	1500kg/29.5cwt	1600kg/31.5cwt	1500kg/29.5cwt	1600kg/31.5cwt	1600kg/31.5cwt
Awning A/A dimension†	9.11m/29'11"	9.87m/32'5"	9.87m/32'5"	10.20m/33'6"	10.20m/33'6"
Tyre Size	185 R14 102	195/70 R15 104	185 R14 102	195/70 R15 104	195/70 R15 104
Tyre pressure at DECLARED MTPLM	58 psi	63 psi	65 psi	63 psi	63 psi
Tyre pressure at POSSIBLE MTPLM	65 psi	65 psi	65 psi	65 psi	65 psi
Static Load on Coupling Head	100kg	100kg	100kg	100kg	100kg
Thermal Insulation Grade	TWO	TWO	TWO	TWO	TWO
Bed Sizes					
Front Double	213cm x 190cm/7'0" x 6'3"	213cm x 180cm/7'0" x 5'11"	213cm x 159cm/7'0" x 5'3"	213cm x 159cm/7'0" x 5'3"	213cm x 159cm/7'0" x 5'3"
or Front Nearside Single	190cm x 72cm/6'3" x 2'4"	180cm x 72cm/5'11" x 2'4"	167cm x 72cm/5'6" x 2'4"	167cm x 72cm/5'6" x 2'4"	167cm x 72cm/5'6" x 2'4"
and Front Offside Single	190cm x 72cm/6'3" x 2'4"	190cm x 72cm/6'3" x 2'4"	159cm x 72cm/5'3" x 2'4"	159cm x 72cm/5'3" x 2'4"	159cm x 72cm/5'3" x 2'4"
Rear Double			192cm x 138cm/6'4" x 4'6"	193cm x 137cm/6'4" x 4'6"	187cm x 133cm/6'2" x 4'4"
Rear Bunk					
Side Single (offside)		180cm x 70cm/5'11" x 2'4"			
Side Single (nearside)					
Side Bunk (offside)		176cm x 59cm/5'9" x 1'11"			
Side Bunk (nearside)					
Rear Fixed Lower Bunk					
Rear Fixed Upper Bunk					

Bed sizes: Please note that double bed sizes are quoted with wrap round seating.

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

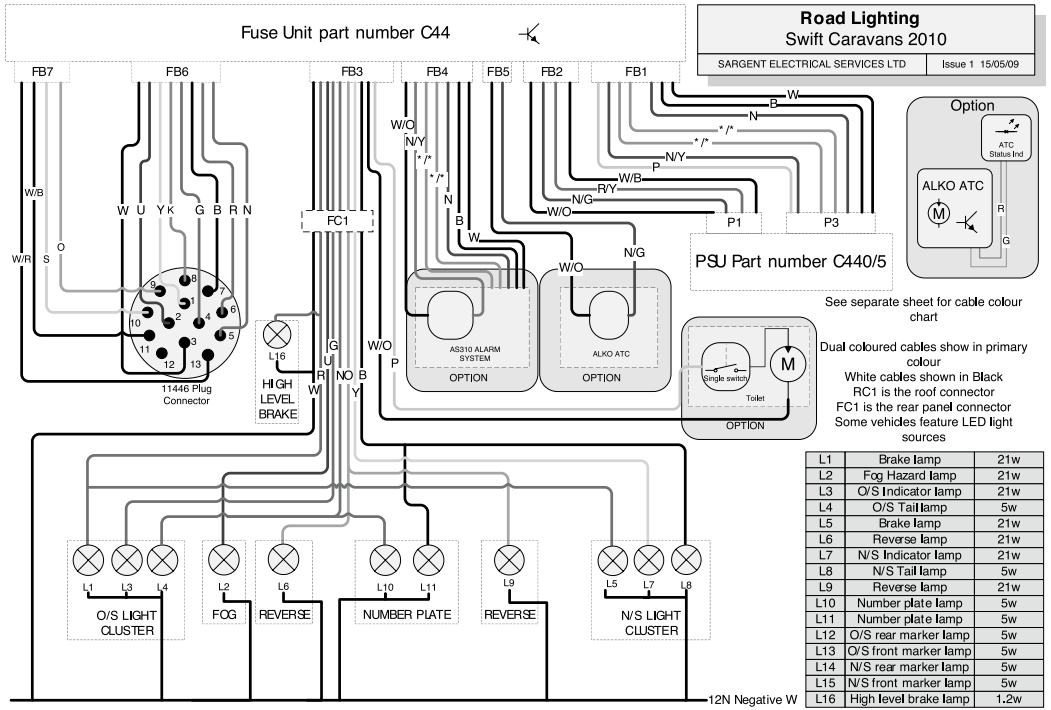
Challenger	Challenger 620	Challenger 625
Eccles	**Eccles Coral**	**Eccles Amethyst**
Berths	4	6
Axles	2	2
Internal Length (bed box height)	6.27m/20'7"	6.27m/20'7"
Overall Width	2.29m/7'6"	2.29m/7'6"
Overall Height (inc. TV Aerial)	2.61m/8'7"	2.61m/8'7"
Maximum Internal Headroom	1.95m/6'5"	1.95m/6'5"
Overall Length	7.95m/26'1"	7.95m/26'1"
Mass in Running Order (inc. tolerance)	1491kg/29.4cwt	1542kg/30.4cwt
Essential Habitation Equipment Payload	105kg/2.1cwt	105kg/2.1cwt
Personal Effects Payload	141kg/2.8cwt	161kg/3.2cwt
Optional Equipment Payload	10kg/0.2cwt	10kg/0.2cwt
Total user Payload	256kg/5.0cwt	276kg/5.4cwt
Maximum Technical Permissible Laden Mass (DECLARED)	1747kg/34.4cwt	1818kg/35.8cwt
Maximum Technical Permissible Laden Mass (POSSIBLE)	1800kg/35.4cwt	1900kg/37.4cwt
Awning A/A dimension†	10.64m/34'11"	10.64m/34'11"
Tyre Size	175/65 R14 86	175/65 R14 86
Tyre pressure at DECLARED MTPLM	40 psi	42 psi
Tyre pressure at POSSIBLE MTPLM	41 psi	44 psi
Static Load on Coupling Head	100kg	100kg
Thermal Insulation Grade	TWO	TWO
Bed Sizes		
Front Double	213cm x 167cm/7'0" x 5'6"	213cm x 175cm/7'0" x 5'9"
or Front Nearside Single	167cm x 72cm/5'6" x 2'4"	175cm x 72cm/5'9" x 2'4"
and Front Offside Single	190cm x 72cm/6'3" x 2'4"	190cm x 72cm/6'3" x 2'4"
Rear Double	193cm x 137cm/6'4" x 4'6"	192cm x 138cm/6'4" x 4'6"
Rear Bunk		
Side Single (offside)		180cm x 70cm/5'11" x 2'4"
Side Single (nearside)		
Side Bunk (offside)		176cm x 59cm/5'9" x 1'11"
Side Bunk (nearside)		
Rear Fixed Lower Bunk		
Rear Fixed Upper Bunk		

Bed sizes: Please note that double bed sizes are quoted with wrap round seating.
†Note on awning sizes: Due to the varying awning designs and sizes the awning sizes given are approximate only. Specific awning sizes must be confirmed by your dealer or the awning manufacturer prior to purchase.

Specifications

Conqueror	Conqueror 480	Conqueror 530	Conqueror 540	Conqueror 630	Conqueror 645
Elite	**Elite Diamond**	**Elite Emerald**	**Elite Onyx**	**Elite Searcher**	**Elite Explorer**
Berths	2	4	4	4	4
Axles	1	1	1	2	2
Internal Length (bed box height)	4.74m/15'7"	5.50m/18'1"	5.50m/18'1"	6.27m/20'7"	6.27m/20'7"
Overall Width	2.29m/7'6"	2.29m/7'6"	2.29m/7'6"	2.29m/7'6"	2.29m/7'6"
Overall Height (inc. TV Aerial)	2.61m/8'7"	2.61m/8'7"	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"	1.95m/6'5"	1.95m/6'5"
Overall Length	6.42m/21'1"	7.18m/23'7"	7.18m/23'7"	7.95m/26'1"	7.95m/26'1"
Mass in Running Order (inc. tolerance)	1235kg/24.3cwt	1388kg/27.3cwt	1358kg/26.7cwt	1545kg/30.4cwt	1545kg/30.4cwt
Essential Habitation Equipment Payload	105kg/2.1cwt	105kg/2.1cwt	105kg/2.1cwt	104kg/2.0cwt	104kg/2.0cwt
Personal Effects Payload	105kg/2.1cwt	133kg/2.6cwt	133kg/2.6cwt	141kg/2.8cwt	141kg/2.8cwt
Optional Equipment Payload	10kg/0.2cwt	4kg/0.1cwt	4kg/0.1cwt	40kg/0.8cwt	40kg/0.8cwt
Total user Payload	220kg/4.4cwt	242kg/4.8cwt	242kg/4.8cwt	285kg/5.6cwt	285kg/5.6cwt
Maximum Technical Permissible Laden Mass (DECLARED)	1455kg/28.6cwt	1630kg/32.1cwt	1600kg/31.5cwt	1830kg/36.0cwt	1830kg/36.0cwt
Maximum Technical Permissible Laden Mass (POSSIBLE)	1500kg/29.5cwt	1630kg/32.1cwt	1600kg/31.5cwt	1900kg/37.4cwt	1900kg/37.4cwt
Awning A/A dimension†	9.11m/29'11"	9.87m/32'5"	9.87m/32'5"	10.64m/34'11"	10.64m/34'11"
Tyre Size	185 R14 102	195/70 R15 104	195/70 R15 104	175/65 R14 86	175/65 R14 86
Tyre pressure at DECLARED MTPLM	62 psi	65 psi	65 psi	42 psi	42 psi
Tyre pressure at POSSIBLE MTPLM	65 psi	65 psi	65 psi	44 psi	44 psi
Static Load on Coupling Head	100kg	100kg	100kg	100kg	100kg
Thermal Insulation Grade	TWO	TWO	TWO	TWO	TWO
Bed Sizes					
Front Double	213cm x 190cm/7'0" x 6'3"	213cm x 180cm/7'0" x 5'11"	213cm x 159cm/7'0" x 5'3"	206cm x 155cm/6'9" x 5'1"	206cm x 163cm/6'9" x 5'4"
or Front Nearside Single	190cm x 72cm/6'3" x 2'4"	180cm x 72cm/5'11" x 2'4"	167cm x 72cm/5'6" x 2'4"	163cm x 70cm/5'4" x 2'4"	163cm x 70cm/5'4" x 2'4"
and Front Offside Single	190cm x 72cm/6'3" x 2'4"	190cm x 72cm/6'3" x 2'4"	159cm x 72cm/5'3" x 2'4"	155cm x 70cm/5'1" x 2'4"	186cm x 70cm/6'1" x 2'4"
Rear Double			192cm x 138cm/6'4" x 4'6"	190cm x 134cm/6'3" x 4'5"	184cm x 133cm/6'0" x 4'4"
Rear Bunk					
Side Single (offside)		180cm x 70cm/5'11" x 2'4"			
Side Single (nearside)					
Side Bunk (offside)		176cm x 59cm/5'9" x 1'11"			
Side Bunk (nearside)					
Rear Fixed Lower Bunk					
Rear Fixed Upper Bunk					

Challenger/Conqueror - Eccles/Elite ranges - Road lighting



L1	Brake lamp	21w
L2	Fog Hazard lamp	21w
L3	O/S Indicator lamp	21w
L4	O/S Tail lamp	5w
L5	Brake lamp	21w
L6	Reverse lamp	21w
L7	N/S Indicator lamp	21w
L8	N/S Tail lamp	5w
L9	Reverse lamp	21w
L10	Number plate lamp	5w
L11	Number plate lamp	5w
L12	O/S rear marker lamp	5w
L13	O/S front marker lamp	5w
L14	N/S rear marker lamp	5w
L15	N/S front marker lamp	5w
L16	High level brake lamp	1.2w

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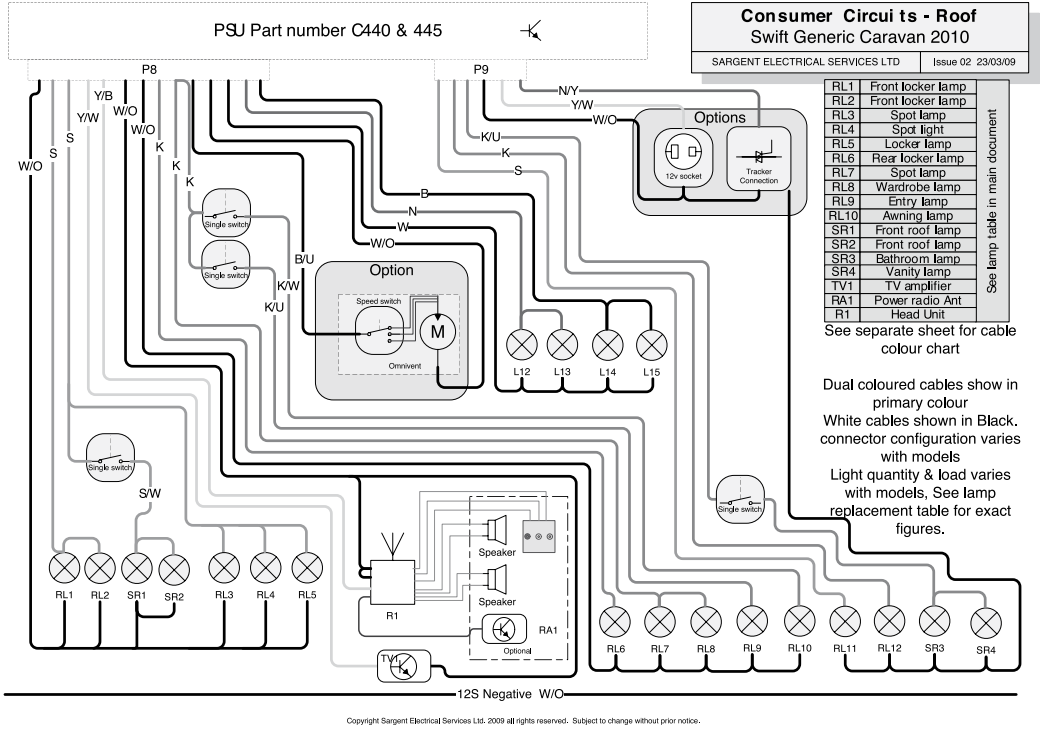
Challenger/Conqueror - Eccles/Elite ranges - Roof circuits



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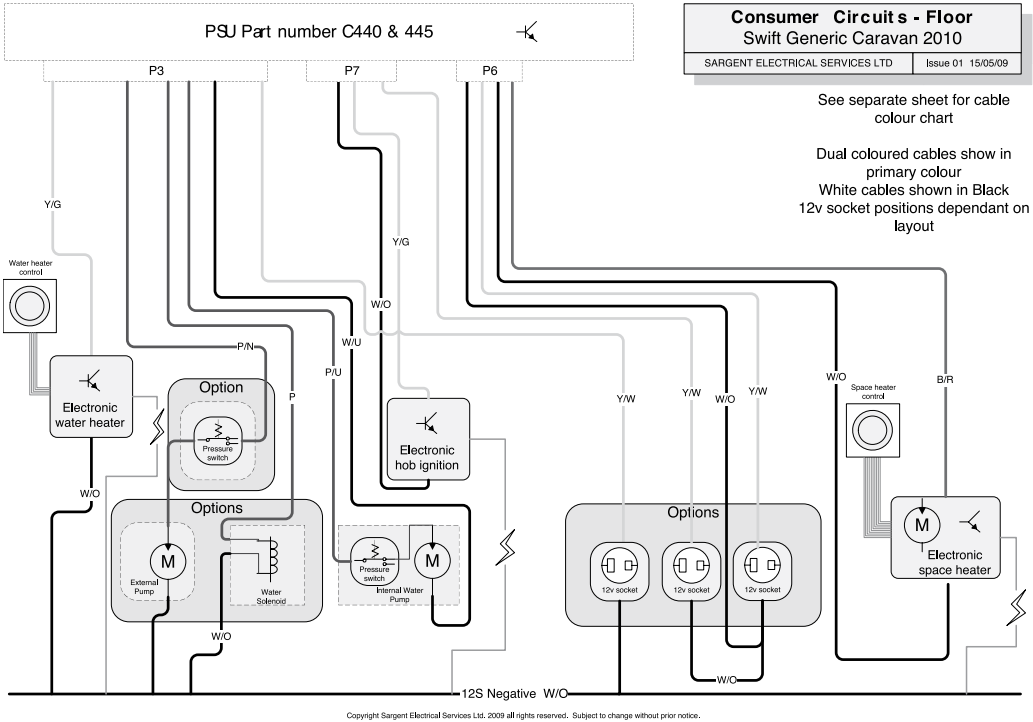
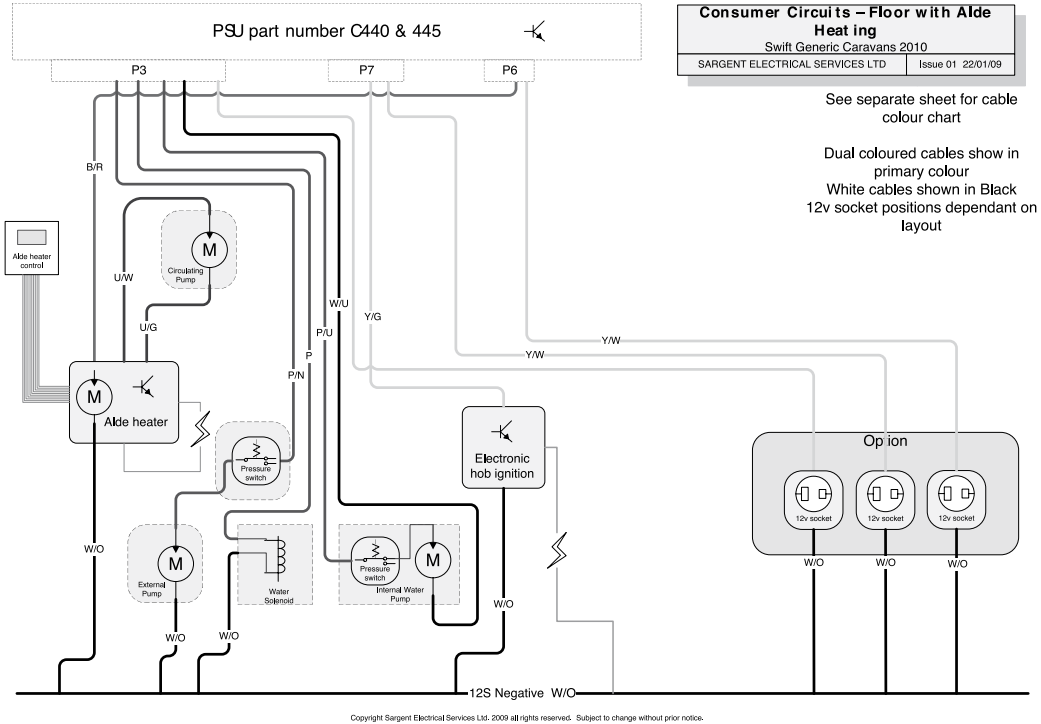
Challenger/Conqueror - Eccles/Elite ranges - Floor circuits



Conqueror/Elite ranges - Heating circuits



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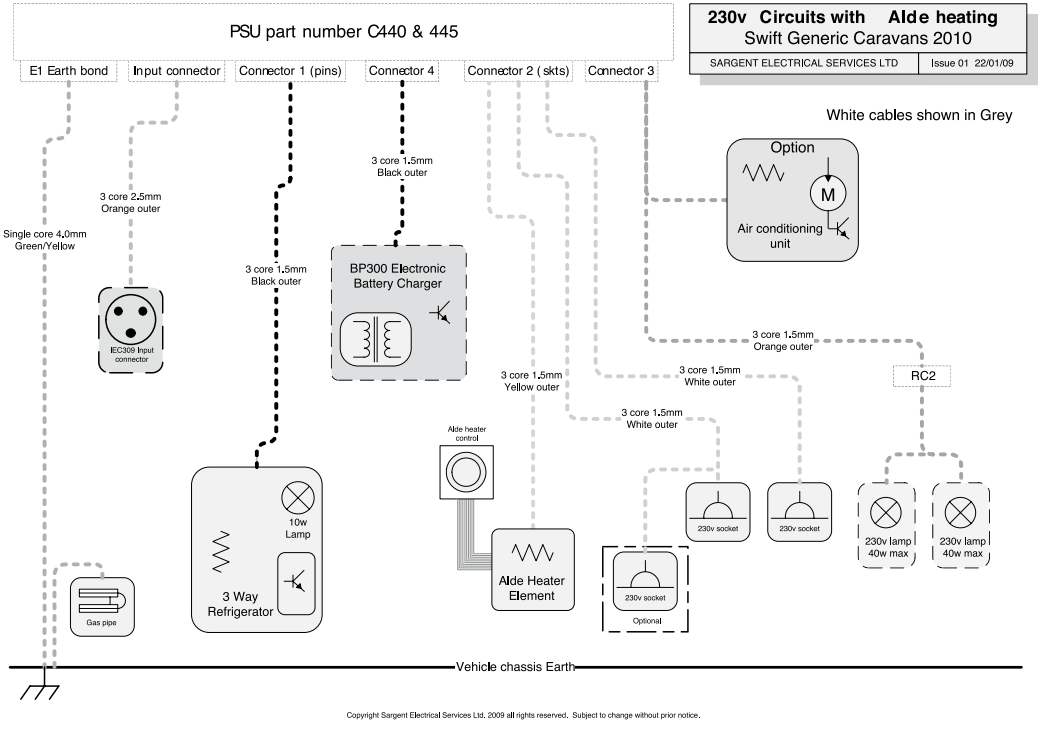
Conqueror/Elite ranges - 230v Heating circuits



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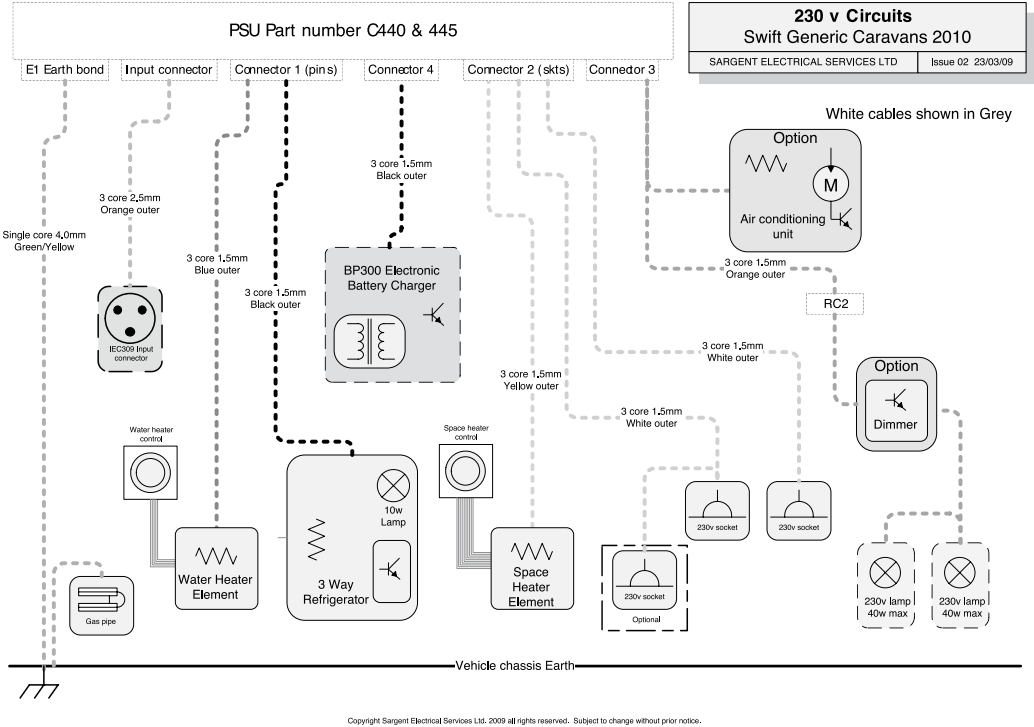
Challenger/Conqueror - Eccles/Elite ranges - 230V circuits



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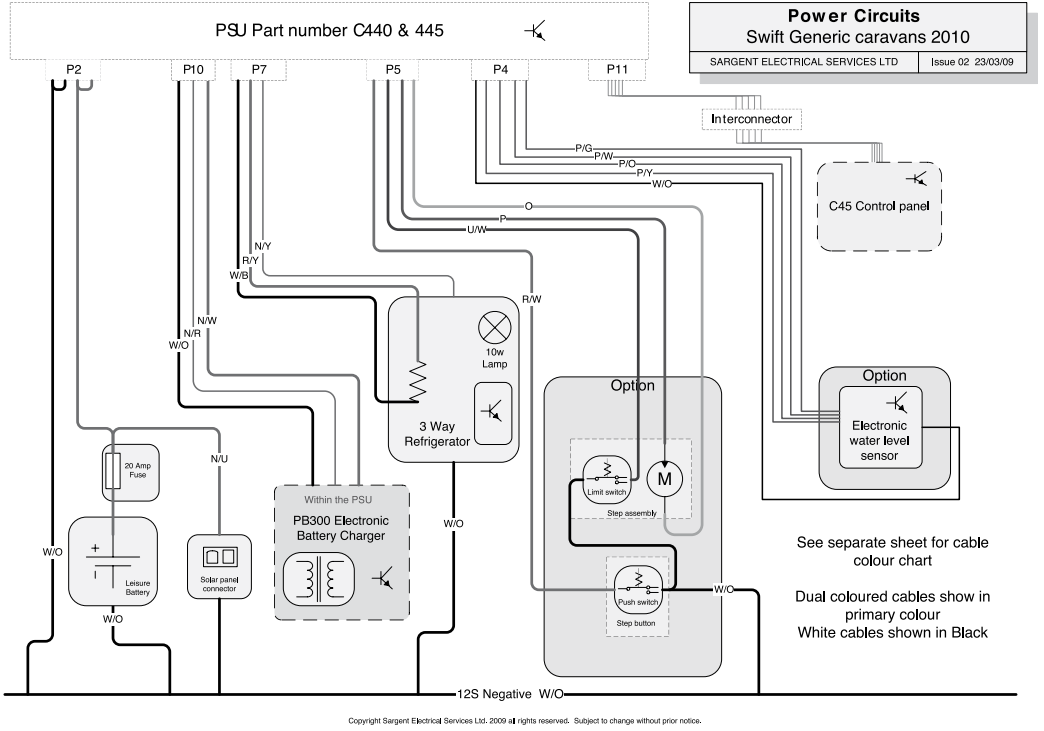
Challenger/Conqueror - Eccles/Elite ranges - Power circuits



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Challenger/Conqueror - Eccles/Elite ranges - 13 pin socket

ISO 11446 Circuits	
Swift Group Caravans (where applicable)	
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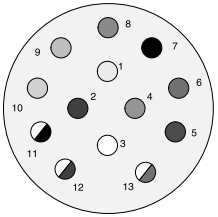

11446 Plug Connector viewed from cable entry on plug

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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Challenger/Conqueror - Eccles/Elite ranges - Cable colours

Example

Y/U Yellow cable with Blue stripe

Cable Colour Chart Swift range 2010	
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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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Bulb Chart

Exterior Lights	Bulb type	Bulb rating
Front marker lights	W5W	12v 5W
Side marker	C5W	12v 5W
Reversing light	P21	12v 21W
Rear indicator light	P21	12v 21W
Rear indicator light	P21W Orange Bulb	12v 21W
Brake / tail light	P21/5W	12v 21W/5W
Fog light	P21	12v 21W
Number plate light	C5W	12v 5W
High level brake light	2DA 343 800-007	LED
Interior / Other Lights	**Bulb type**	**Bulb rating**
Awning lamp (LED)	Astro 500mm LED complete unit	12v 2.2W LED
Locker spot lights (LED)	FEM0440 complete lamp	12v LED
Down lighters (LED) main habitation (dry) areas	FEM0470 complete lamp	12v LED
Down lighters (LED) shower (wet) areas	FEM0441 complete lamp	12v LED
Kitchen light	FEM0446 complete lamp	12v LED
Over locker lighting	Fluorescent 300mm	12v 8W
Over locker lighting	Fluorescent 525mm	12v 13W
Feature light over front seating	FEM0466 complete lamp	12v LED
Wardrobe lamp	Halogen capsule bulb	GU4 12v 5W
Mains lights	Small edison screw candle	230v 40W

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

LIGHT BULB ACCESS

STOP / TAIL / INDICATOR AND REVERSE LAMPS

Bulb access is from front / via lens of each lamp.

Remove 2x screws from each light lens and withdraw lens.

Bulbs are a bayonet fitting – apply slight pressure on bulb towards light fitting, and twist to release.

Reverse procedure to re-fit bulb and lens.

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.

REAR CENTRAL FOG LIGHT

Bulb access is from front / via lens of lamp.

Remove 2x screws from light lens and withdraw lens.

Bulb is a bayonet fitting – apply slight pressure on bulb towards light fitting, and twist to release.

Reverse procedure to re-fit bulb and lens.

UPPER REAR SIDE POSITION LAMPS (RED / CLEAR LENS)

Lens 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 lens upwards and away from lamp base, lower edge first.

Lever bulb out of retaining clips.

Reverse procedure to re-fit bulb and lens.

HIGH LEVEL BRAKE LAMP

Light is one piece design with no internally replaceable parts.

Remove 2x screw cover caps from front face of lamp using small flat bladed screwdriver.

Remove screws at either end of lamp, and withdraw whole fitting away from rear panel of caravan.

Disconnect lamp from harness.

Re-connect new lamp to harness, and secure lamp to caravan body with 2x screws.

Lamp retaining screws are fixed into a rubber sleeve with a threaded insert, often known as a rawlnut. If lamp has been removed / re-fitted several times the rubber sleeve may need replacing, these are available through your dealer.

NUMBER PLATE LAMPS

Bulb access is from the front / via lens of each lamp.

Remove the two screws in the lens of the lamp.

Lever the bulb out of retaining clips.

Reverse the procedure to re-fit a new bulb and the light lens.

FRONT MARKER / POSITION LAMPS

Bulb access is from rear of lamp.

Remove 2x screws from light fitting, and withdraw whole fitting from motorhome 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.