REDTRONIC
VEHICLE WARNING AND SAFETY SOLUTIONS

LIGHTBAR DATASHEET

SPARTAN

DSFX

WWW.REDTRONIC.CO.UK

MANUFACTURED IN THE
UNITED KINGDOM

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//UNPACKING

1. Check the box for damage in transit. If the box is damaged inform your designated sales representative immediately. (If the consignment is not signed for as 'damaged' it may affect whether the product can be repaired or replaced free of charge)

2. Carefully remove the lightbar from the box and place it on a flat and stable surface, taking extra care not to scratch the lenses.

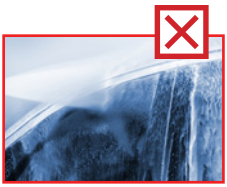
3. Examine the lightbar for damage such as cracked or scratched lenses. Report any damage to your designated sales representative.

//CONDITIONS OF USE

The following 'Warning Regarding Operation' section is only available in English. If you do not understand the following please do not use the Redtronic lightbar without seeking help and guidance as to use of the same from your supplier. Use of the Redtronic is entirely at your own risk.

//CLEANING

☒ NO CAR WASHES



☒ NO JET WASHES

☒ NO BRUSH WASHES

☑ MICROFIBRE CLOTHS

PLEASE REFER TO **PAGE 6 - HOW TO CARE FOR YOUR REDTRONIC POLYCARBONATE PRODUCTS** FOR CHEMICAL BASED GUIDANCE

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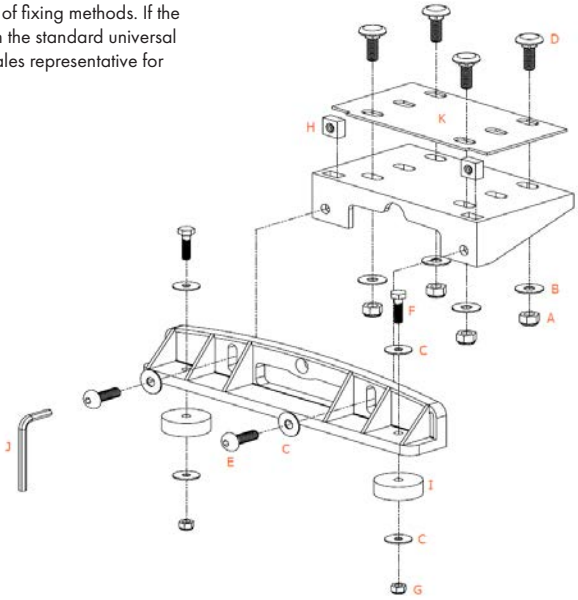
//MOUNTING

Redtronic lightbars are available with a variety of fixing methods. If the lightbar has a different fixing method other than the standard universal footpack (shown below) please contact your sales representative for further assistance. All parts are stainless steel.

REF#	QTY	DESCRIPTION	TORQUE
A	8X	M8 Nyloc Nut	4 N.m
B	12X	M8 X 21 Ring Washer	N/A
C	8X	M6 X 20 Ring Washer	N/A
D	8X	M8 X 25 Coach Bolt	N/A
E	4X	M8 X 25 Coach Bolt	N/A
F	4X	M6 X 25 Set Screw	4 N.m
G	4X	M6 Nyloc Nut	N/A
H	4X	M6 Nyloc Nut	4 N.m
I	4X	Rubber Foot	N/A
J	1X	5mm Allen Key	N/A
K	2Z	Rubber Spacer/Pad	N/A



//TEMPORARY MOUNTS

It is highly recommended that all temporary mounted lightbars utilise the use of a safety lanyard as a secondary backup. Safety lanyards are available from your designated sales representative.

Contact the manufacturer direct for the maximum speed rating of temporary mounted products. If applicable, request a speed test certificate. Do not use a temporary mounted products without knowing their speed restrictions.

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//FUSE

The following table can be used as a guide to determine the maximum current from standard builds: (24v vehicles will draw approximately half the current shown in the table below. Installers should contact their sales representative if they are unfamiliar with fusing requirements)

LIGHTBAR SIZE	LIGHTBAR STYLE	NO. OF LED MODULES	3 WATT MAX CURRENT 12V (AMPS)	DIM MODE 1 CURRENT 12V (AMPS)	CURRENT RATING DC 24V	CURRENT RATING DC 24V DIM MODE	NOTE
All sizes	SPARTAN SB1	8	4	2	2	1	Based on a alternating left/right flash rate
All sizes	Spartan additional modules	4	2	1	1	0.5	Add this per additional 4 modules
All sizes	DSFX	8	6	3	3	1.5	Based on a alternating left/right flash rate
All sizes	Spartan additional modules	4	3	1.5	1.5	0.75	Add this per additional 4 modules

//FLASH PATTERN

To reset all controllers to flash pattern 1, hold brown cable to positive for 2 seconds.
To set CAP168 flash pattern, hold brown cable to positive for 10 seconds.

FLASH PATTERN	SPARTAN STANDARD	DSFX	FLASHES (PM)
1) Mega-Flash	-	-	732
2) Quad	-	-	488
3) Triple	-	-	366
4) Double	TA1/TB2	TA2/TB2	244
5) Single	-	-	122
6) Hyper	-	-	480

//SYNC

Most Redtronic products have been pre-programmed to include a synchronised flash rate. Products can be synchronised by connecting their yellow cables. All LEDs can be permanently illuminated (cruise light) by connecting the yellow cable to negative.

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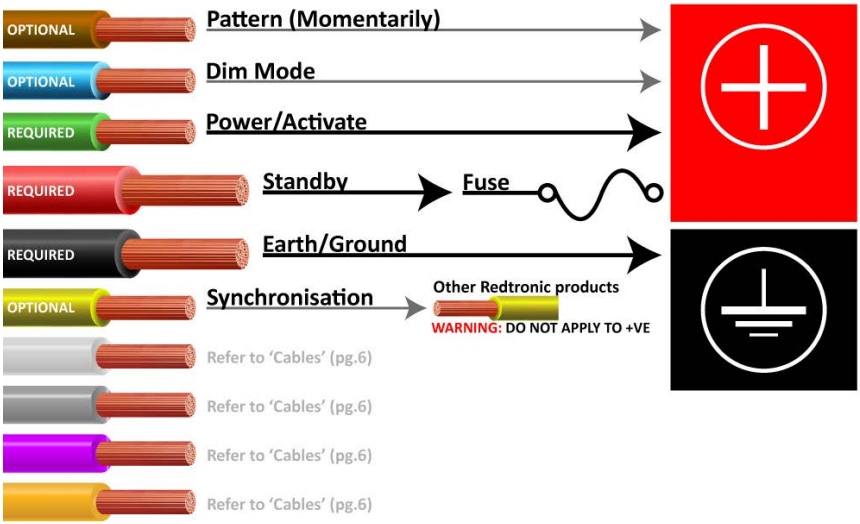
//INSTALLATION

Quick-test procedure only applies to standard hardwired lightbars. If the lightbar is not a standard build product please refer to lightbar technical specification insert sheet.



Pattern Select - Momentary	Dim - Reduces Brightness	Synchronisation to Redtronic products

//CABLES

PLEASE REFER TO THE TECHNICAL SPECIFICATION DRAWING INSERTED WITHIN THIS DOCUMENT FOR CABLE CONFIGURATIONS.

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//HOW TO CARE FOR YOUR REDTRONIC POLYCARBONATE PRODUCTS

Polycarbonate is one of the strongest plastics available, but like most materials they do have their weaknesses.

POLYCARBONATE IS WEAK AGAINST CHEMICAL ATTACK:

Cleaning and washing agents are vast in terms of their chemical composition and so it should not be assumed they are all the same. They frequently include chemicals that damage polycarbonate.

Makrolon is resistant to normal soaps but not to amines, ammonia, a small number of solvent components and a large number of high-gloss drying aids. Rinsing agents incorporating high-gloss drying aids are also unsuitable for polycarbonate.

In many instances it is sufficient to clean with warm or hot water to which some weakly acidic, neutral or weakly alkaline cleaning agent has been added. If you're unsure whether your cleaning agent is suitable,
you should contact Redtronic with details of the product for more advice.

Using aggressive cleaning agents generally leads to a great reduction in mechanical instability and strength, but there are also other effects, which are not always visible, such as swelling or chemical decomposition of the polymer.

MAKE SURE CLEANING AGENTS ARE FULLY RINSED OFF:

If you choose to use a cleaning agent it is imperative it is fully cleaned away and is not left in either droplet or film form. The longer a chemical agent is left in contact with polycarbonate, the increased possibility it will damage it.

WATER TEMPERATURE IS IMPORTANT:

For completely sealed units, it is not recommended to either immerse the product in water at above 60°C or in steam. It is highly likely using water above 60°C temperature will affect the chemical bond and composition of the plastic resulting in deformation or stress cracking potentially resulting in total failure. The higher temperature water that you use will shorten the lifetime of the polycarbonate.

For hard to remove oil and grease:
Surfaces soiled with lubricants like oil and grease are best cleaned with suitable solvents at room temperature and with short exposure times. These include: gasoline fractions free of aromatics (e. g. petroleum-ether, ligroin, white spirit), alcohols (ethyl, n-propyl, isopropyl, butyl and isobutyl-alcohol, but not methyl alcohol).

LONG LASTING UV STABILISED PROTECTION:

The more you clean polycarbonate the more you break down the UV stabilised additive in the material.

HOW YOU CLEAN DEPENDS ON THE IP RATING OF THE PRODUCT:

If your product is issued a IP69K rating, you can jet/ pressure wash the product.

However, it's important the end user is aware of the parameters behind the test. Importantly, the nozzle should be no closer than150mm, the water flow rate should not exceed 15 litres per minute and the pressure no more than 100 bar.

If you're unsure of the product IP rating, you should either check the datasheet, our website or contact us.

HERE'S A BASIC OVERVIEW OF THE TEST:

Test:	High pressure steam cleaning
Gem.	ISO 20653 (2013-02): IPX9K
Parameters:	Distance of the nozzle to the test specimen: 100-150mm
Water flow rate:	15l / min
Water pressure:	100 bar
Water temperature:	80°C
Speed test table:	5U / min
Spray angle:	0°, 30°, 60°, 90°
Number of cycles:	1
Test conditions:	The unit is not in electrical operation.

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//WARRANTY

1. Warranty

1.1 From the date of their production or the internal allocation of any warranty number (whichever the later), the Supplier warrants to the Customer that the Products shall that period of time (either 2 years or 5 years) specified in the Suppliers Products brochure (in publication at the date of the Contract) comply with any stated specification and be free from defects in materials and workmanship.

2. Notification

2.1 Where the Customer believes the Products have been supplied in breach of the warranty detailed in condition 1, the Customer shall at its own expense, be required to return the Products to the Supplier for inspection.

2.2 The Supplier agrees to inspect the Products at an agreed location, subject to the Customer agreeing to pay the Supplier for such inspection services on a time and materials basis, which costs shall be communicated to and agreed with the Customer in advance of them being incurred.

2.3 The Customer shall on request, supply any warranty or manufacturing code which accompanies the Products.

3. Repair or Replacement

3.1 Following the inspection referred to in condition 2, subject to condition 4, the Supplier undertakes, at its option, to either repair or replace any Products which are found to be in breach of the warranty in condition and to return such Products at its own expense to the Customer.

3.2 Following any repair or replacement, the warranty referred to in condition 1 shall continue for the unexpired portion of the relevant warranty period.

3.3 If the Products are reasonably considered by the Supplier not to be in breach of the warranty in condition 1, or if condition 4 applies, the Products shall only be returned to the Customer at the cost of the Customer, which costs must be paid in advance.

4. Exclusions

4.1 No warranty claim shall be entertained or dealt with by the Supplier if:

(a) the associated warranty or manufacturing code which accompanies the Products, is not supplied at the time of any notification pursuant to condition 2;
(b) the Customer waits longer than fourteen (14) days after becoming aware of the defect;
(c) the Customer continues to makes use of the Products in respect of which it gave notification;
(d) the Customer alters or repairs the relevant Products without the Suppliers prior written approval;
(e) the defect arises because the Customer failed to follow the Supplier's oral or written instructions as to the storage, installation, commissioning, use or maintenance of the Products or (if there are none) good trade practice;
(f) the defect arises because of the oxidisation of screws, bolts and fixings;
(g) the defect arises because of the use of lamp or other electrical equipment of a voltage which is higher than that recommended by the Supplier.

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