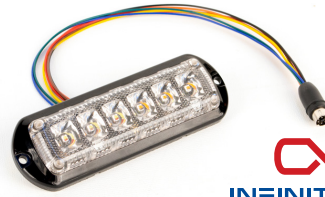# Infinity STX
Installation and Operation Instructions

INFINITY STX

Product Description

Redtronic's Infinity STX is an industry first quad-colour directional LED with in-built downlight. Whilst the STX is available with either single, dual or quad colour high intensity flashing light, one of the main benefits is the optional integrated downlight which for many applications reduces the requirement of requiring a scene or work light on the vehicle.

The Infinity STX has 4 programmable outputs which are capable of pre -selecting multiple functions including colour, pattern and flashing or steady burn.

The STX features an automotive acrylic lens and black heatsink body along with airflow vents on the rear to manage heat transfer and eliminate condensation issues. The lamp is designed for the toughest environments and is IP69K water and dust protected, EMC R10, ECE R65 approved and comes as standard with 7 flash patterns including ICAO/CAP168 airport pattern. The Infinity STX has synchronisation capability with other Redtronic products, is manufactured in the UK and is endorsed with a 5-year warranty.

Part Numbers

Part Number	Colour	Type	Voltage	Warranty
DIFX-005-BDC	Blue	Single with Downlight	11-32VDC	5 Years
DIFX-005-ADC	Amber	Single with Downlight	11-32VDC	5 Years
DIFX-005-RDC	Red	Single with Downlight	11-32VDC	5 Years
DIFX-005-WDC	White	Single with Downlight	11-32VDC	5 Years
DIFX-005-GDC	Green	Single with Downlight	11-32VDC	5 Years
DIFX-005-BRDC	Blue/Red	Dual with Downlight	11-32VDC	5 Years
DIFX-005-BWDC	Blue/White	Dual with Downlight	11-32VDC	5 Years
DIFX-005-BADC	Blue/Amber	Dual with Downlight	11-32VDC	5 Years
DIFX-005-QDC	Blue/Red/White/Amber	Quad with Downlight	11-32VDC	5 Years

(All lamps also available without downlight feature.)

Flash Patterns

Pattern 1	Quad
Pattern 2	Triple
Pattern 3	Double
Pattern 4	Single
Pattern 5	Quad/Single
Pattern 6	Quad/Triple/Double/Single
Pattern 7	CAP168

R65 CLASS II | R65 CLASS II | R10 EMC | ICAO CAP168 | IP69K

Technical Information

Dimensions	131mm x 46mm x 20mm (lxhxd)
Voltage Range	11-32VDC
Number of LEDs	Flashing: 6 (Single), 12 (Dual), 24 (Quad) Downlight: Additional 6 LED's
Amps / Current Peak Max	900mA at 12VDC
Recommended Fuse rating	2 Amps
LED Power	3 Watt (per flashing LED)
Light Output (Lumens)	Blue - 373 lumen Amber - 1281 lumen Red - 710 lumen White - 1457 lumen White + Downlight - 2001 lumen Downlight only - 544 lumen
IP Rating	IP69K
Approval R10	Yes
Approval R65 & CLASS	Yes Class II – Blue and Amber
Approval CISPR25 & CLASS	N/A

CAP168 / ICAO	Yes
DEKRA Speed Rating	N/A
DIM Mode or Auto DIM	Dim (night and day)
Cruise	Yes
GATSO	Yes
Synchronisation	Yes
Weight (approx.)	120g
Operating Temperature	-40º to 105º
Lens Material	Hybrid-Acrylic
Mounting	2 Screw Fix
Registered Community Design	N/A
Warranty	5 Years

Cable Connections

Function	Wire Colour	Description
Power 1 +ve	Red Wire	Power 1 – powers first colour
Ground -ve	Black Wire	0v ground / earth
Pattern +ve	Brown Wire	Changes the flash pattern by momentarily applying to a positive. Apply to +ve for 2-3 seconds to revert to quad flash (pattern 1)
DIM + ve	Blue Wire	Activate night mode
Synchronisation	Yellow Wire	Link to other Redtronic products
Model Dependant (if fitted)		
Power 2 +ve	Orange Wire	Power 2 - powers second colour
Power 3 +ve (+Configuration)	Green Wire	Power 3 - powers third colour (+Colour function selection)
Power 4 +ve	Red Wire Orange Wire	Power 4 - powers fourth colour
Downlight +ve	White Wire	Downlight Power

Installation

Connecting the Infinity STX directionals to a vehicle battery / power source requires the black wire to be connected to the negative (-ve) terminal, and either the **red wire** (V1), **orange wire** (V2), green (V3) or V1+V2 together (V4) to be connected to positive (+ve) terminal. (Please note, for single/dual colour models, not all outputs will be fitted.)

To programme colours and either flashing or steady burn features: Whilst powering either V1, V2, V3 or V4 and the black wire to negative (-ve) terminals on the power source, apply the ==yellow wire== to the negative (-ve) terminal and the **green wire** to positive (+ve) on. The STX will enter programming mode and can be identified by a reduced brightness indicating the colour it is already programmed to. Scroll through the various colour and flash/steady programmes by momentarily applying the **brown wire** to positive (+ve) to cycle through the various options.

DIFX-005-QDC (example)

Single Colour Flash	1 Blue	2 Red	3 Amber	4 White
Single Colour Steady Burn	1 Blue	2 Red	3 Amber	4 White
Dual Colour Flash	1 Blue/Red	2 Amber/Red	3 Amber/White	4 Blue/White

To alternate the flash modes (from two separate powers): The Infinity STX allows you to alternate flash two separate powers by programming them either "mode 1" or "mode 2". (As standard all STX lamps are supplied pre-set to "mode 1".) Whilst powering either V1, V2, V3 or V4 and the black wire to negative (-ve) terminals on the power source, apply the ==yellow wire== to the negative (-ve) terminal. The STX will turn from flashing to 'steady burn'. Apply the **brown wire** to the positive (+ve) terminal. After 2 seconds, the STX will extinguish for 5 seconds, after which it will start a quick succession of flashes. Remove the brown and ==yellow wires.== The STX is now in "mode 2" and will alternative with any other powers already pre-set to "mode 1".

To cycle through and set the flash pattern: Whilst powering either V1, V2, V3 or V4, the **brown wire** should be momentarily connected to positive (+ve) terminal to cycle to the next pattern. Repeat this action until you have found an appropriate flash pattern. Alternatively, connect **brown wire** via a momentary switch and press to change the pattern. All Infinity STX directionals are set to double flash pattern as default before leaving the factory.
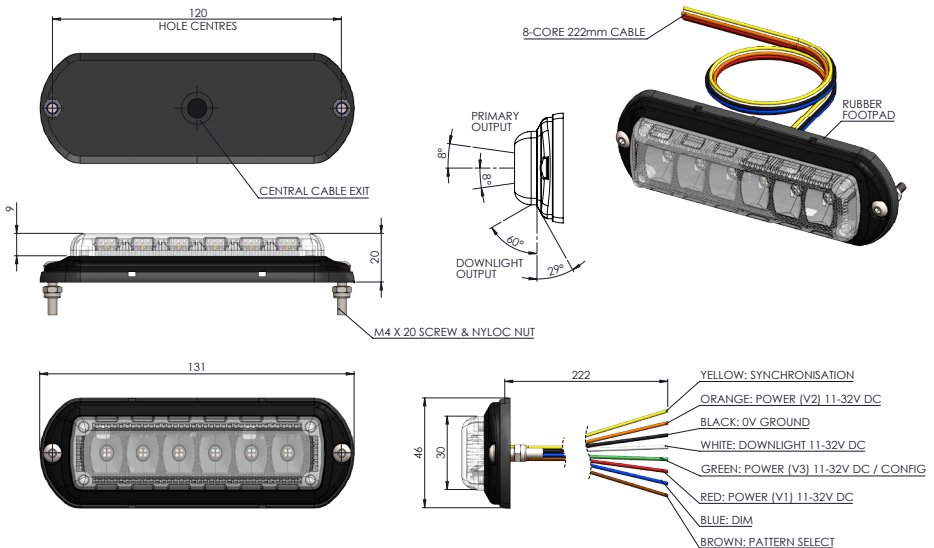
Troubleshoot Tip! If the pattern only provides a slow single flash at reduced brightness the lamp has accidently been programmed to CAP168/ICAO flash pattern. Undo this by powering the affected output (V1, V2, V3 or V4) and apply the **brown wire** to positive (+ve) for 10 seconds. The flash pattern and brightness will noticeably change and you can remove the **brown wire**.

To reduce the brightness (DIM function): Whilst powering either V1, V2, V3 or V4, the **blue wire** should be permanently connected to positive (+ve) terminal to provide a reduced brightness. The STX will return to full brightness when the **blue wire** is disconnected.

Synchronise multiple Redtronic products: When the desired flash pattern and mode has been set, connect the **yellow wires** from each STX together, this will ensure all lamps flash in synchronised format.

Please note: Do not apply yellow wires to positive (+ve). Do not attempt to sync Redtronic products with any other manufacturer's products.

Installation Diagram

- 120 HOLE CENTRES
- 8-CORE 222mm CABLE
- RUBBER FOOTPAD
- CENTRAL CABLE EXIT
- PRIMARY OUTPUT
- 8°
- 8°
- DOWNLIGHT OUTPUT
- 60°
- 29°
- 9
- 20
- M4 X 20 SCREW & NYLOC NUT
- 131
- 222
- 46
- 30
- YELLOW: SYNCHRONISATION
- ORANGE: POWER (V2) 11-32V DC
- BLACK: 0V GROUND
- WHITE: DOWNLIGHT 11-32V DC
- GREEN: POWER (V3) 11-32V DC / CONFIG
- RED: POWER (V1) 11-32V DC
- BLUE: DIM
- BROWN: PATTERN SELECT

Warranty and Liability

Redtronic warrants that on the date of purchase, this product will conform to Redtronic specifications for this product (which are available from Redtronic upon request). This product benefits from a 5-year warranty from the date of purchase.

Cleaning Maintenance

Please refer to our 'How to care for your Redtronic Polycarbonate Products".

Spare Parts

SP_STXLB90	SPARE PART – STX FULL LENGTH POWDER COATED BLACK L-BRACKET
SP_STX-W15	SPARE PART - STX 15 DEGREE WEDGE WITH M4 NICKEL INSERTS BLACK
SP_STXBEZBK	SPARE PART – STX BEZEL, BLACK
SP_STXGASBK	SPARE PART – STX REAR RUBBER GASKET, BLACK