Installation and Operation Instructions
Infinity SP2 Stealth Plate

INFINITY SP2

Product Description

Redtronic's Infinity SP2 Stealth Plate is the world's slimmest, flexible, innovative hybrid registration plate and directional LED available in the market. The Infinity SP2 is primarily designed to emit light to the side at the furthest forward position on a vehicle and particularly useful when approaching/exiting a junction.

Part Number	Colour	Voltage	Colour Type	Front Facing LEDs	Warranty
SIFX-002-BC		11-32VDC	Single Colour	No	3 years
SIFX-002-AC		11-32VDC	Single Colour	No	3 years
SIFX-002-RWB		11-32VDC	Tri Colour	No	3 years
SIFX-002-AWB		11-32VDC	Tri Colour	No	3 years
SIFX-022-BC		11-32VDC	Single Colour	Yes	3 years
SIFX-022-AC		11-32VDC	Single Colour	Yes	3 years
SIFX-022-RWB		11-32VDC	Tri Colour	Yes	3 years
SIFX-022-AWB		11-32VDC	Tri Colour	Yes	3 years

Flash Patterns

1	Quad
2	Triple
3	Double
4	Single
5	Quad/Single
6	Quad/Triple/Double/Single
7	CAP168 – unlock with brown to +ve for 10 seconds

Technical Information

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

Voltage Range	11-32VDC
Housing Type	Flexible rubber registration plate assembly
Directional Type	Unique wide angle intense optic with Ultra-bright latest generation LEDs
Number of LEDs	36 (Tri) and 12 (Single) or 72 (Tri) 24 (Single) with additional front facing LEDs

Amps / Current Peak Max	1.2A at 12VDC or 2.4A with additional front facing LEDs
LED Power	36watts (single) 108watts (tri)
IP Rating	IP69K protection against dust and water ingress
Approval	ECE R65 Class II (blue and amber), CAP168/ ICAO
Compliant	EMC R10
DIM Mode	Yes (night and day)
Cruise	Cruise feature available
GATSO	GATSO light feature available
Synchronisation	Yes with other Redtronic products
Weight (approx.)	0.89kg (1.28kg with additional front facing LEDs)
Operating Temperature	-40 to +105°C
Lens Material	Ultra-strong UV stabilised polycarbonate lens
Mounting	16 optional fixing points
Front Facing LEDs	Additional horizontal front facing directionals available
Registered Community Design	Yes - 6178869 to 6178876
Warranty	3 years

Cable Connections

Function	Cable Colour	Description
Power +ve	**Red Wire**	Powers left lamp V1
Power +ve	**Orange Wire**	Powers left lamp V2
Power +ve	**Red Wire** & **Orange Wire**	Powers left lamp V3
Power +ve	**Purple Wire**	Powers right lamp V1
Power +ve	**Pink Wire**	Powers right lamp V2
Power +ve	**Purple Wire** & **Pink Wire**	Powers right lamp V3
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 double flash (pattern 1)
DIM + ve	**Blue Wire**	Activate night mode
Synchronisation	**Yellow Wire**	Link to other Redtronic products
Configuration	**Green Wire**	Colour function selection

Installation

View from the front of the Infinity SP2

Left Top   Right Top

Left Side   Right Side

Connecting the Infinity SP2 stealth plate to a vehicle battery / power source requires the **black wire** to be connected to the **negative** (-ve) terminal and the output for the left side lamp [either **red wire** (V1), **orange wire** (V2) or V1 and V2 together (V3)] and the output for the right side lamp [either the **purple wire** (V1), **pink wire** (V2) or V1 and V2 together (V3)] to be connected to **positive** (+ve) terminal. Pattern and mode functions need to be independently set in the same way for each of the active outputs and can be set to flash in simultaneous or alternating modes. All Infinity SP2 stealth plates are set to simultaneous double flash pattern as default before leaving the factory.

To set colours: (only relevant to TRI colour models)
For the left lamp connect either the red wire (V1), orange wire (V2) or V3 (V1 red wire and V2 orange wire together) wire to positive (+ve), and for the right lamp the purple wire (V1), pink wire (V2) or V3 (V1 purple wire and V2 pink wire together) and the black wire to negative (-ve) terminals on the power source. Hold the yellow wire to the negative (-ve) terminal and the green wire to positive on the power source. The SP2 will activate in either a flashing or steady burn (GATSO) option, these are colour select modes. Scroll through the 9 optional 'colour programs' by applying the brown wire to positive (+ve) momentarily. Repeat this method for each of the 3 individual outputs (if required).

SIFX-002-AWB / SIFX-022-AWB

Single Colour Flash	1 White	2 Blue	3 Amber
Steady Burn	4 White	5 Blue	6 Amber
Dual Colour Flash	7 Blue/White	8 Blue/Amber	9 White/Amber

SIFX-002-RWB / SIFX-022-RWB

1 White	2 Blue	3 Red
4 White	5 Blue	6 Red
7 Blue/White	8 Blue/Red	9 White/Red

To set the alternate flash mode:

The Infinity SP2 will arrive in simultaneous flash mode. You can set V1 to alternate against V2, or utilise the colour setting mode to combine an alternating feature on a single output. If you want to keep them individually controlled: connect the relevant V+ connection (V1, V2 or V1+V2) to **positive** (+ve) and the **black wire** to **negative** (-ve) terminals on the power source. Hold the yellow wire to the **negative** (-ve) terminal on the power source. The SP2 will turn from flashing to 'steady burn

While holding the yellow wire on the **negative** (-ve) terminal, hold the **brown wire** to the **positive** (+ve) terminal. After 2 seconds, the unit will extinguish for 5 seconds, after which the SP2 will start a quick succession of flashes. Remove the **brown wire**, the unit should now be flashing alternately to any LEDs it synchronises with.

To set the flash pattern:

With the SP2 powered on, to change to the next pattern the **brown wire** should be connected to **positive** (+ve) terminal from the power source momentarily, or connect via a momentary switch and press to change pattern.

To set the DIM function:

Connect the **blue wire** to **positive** (+ve) at the power source to enable DIM (night) mode. The **blue wire** needs a constant connection to **positive** (+ve) to operate in this mode. The SP2 will return to full brightness when the **blue wire** is disconnected.

To synchronise:

When the desired flash pattern and mode has been set, connect the yellow wires together, this will ensure all LEDs flash in synchronised format. Note: **Do not** apply yellow wires to **positive** (+ve). **Do not** attempt to sync Redtronic products with any other manufacturer's products.

Top lamp wiring:

If you have purchased an Infinity SP2 Stealth Plate with additional front facing pods there will be 2 cables coming out of the rear, these are marked with a label identifying cable "1" as side lamps and cable "2" as top lamps. Both cables follow the installation and setting modes as above giving you independent control over both set of lamps.
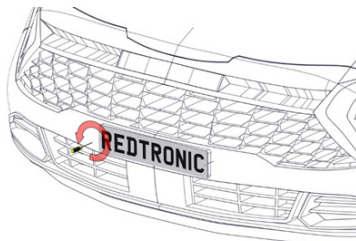
Mounting Instructions

Step 1

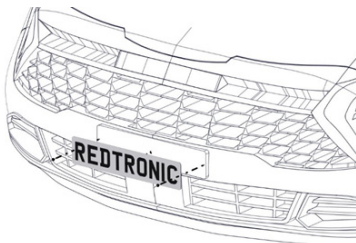Start by removing the number plate from the vehicle.
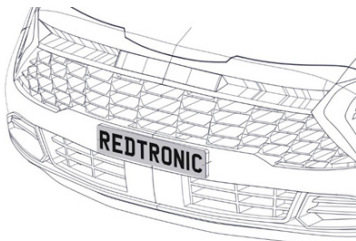
Step 2

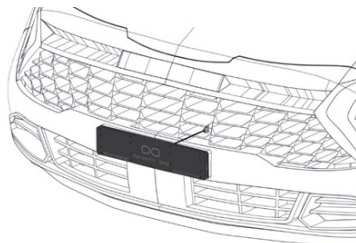Unscrew the fastenings retaining the registration plate.

Step 3

Remove the retaining screws and registration plate. Clean the back thoroughly ensuring that the back of the plate is dust and grease free.

Step 4

Place the stealth plate at the desired location. Ensure product is level on the vehicle. Mark the desired mounting holes. (min 4 recommended).

Step 5

Drill a pilot hole on the marked positions. Using a 2.5mm drill bit. Drill a 12mm hole in the centre of the marked holes to feed the cable(s) through.
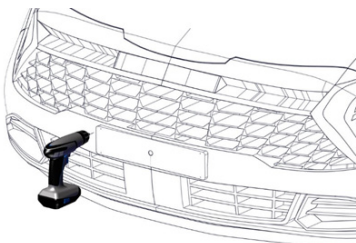
Step 6

Place the registration plate on the front of the stealth plate so it is flush with all the edges and the mounting points on the registration plate.

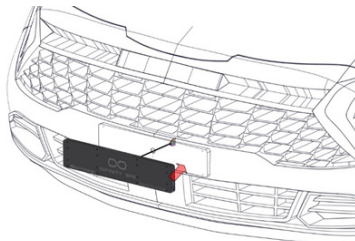## Step 7

Drill a 3.2mm hole in the marked position.

Step 8

Feed the cable through the central hole and pull through into the engine cavity, to the battery, or designated termination point in the vehicle.

Step 9

Use the screws and washers provided to attach the registration plate and stealth plate to the vehicle. Attach more screws if required.
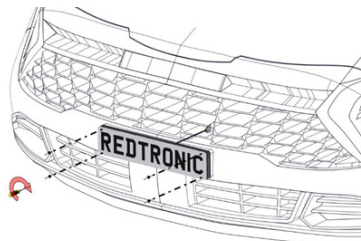
Step 10

The stealth plate is now successfully mounted to the vehicle.

Note: When mounting and installing the registration plate, only secure through the Infinity Stealth Plate body fixing holes due to internal wiring.

Installation Diagram

Top diagram labels:

LARGE ARRAY OF M4 THROUGH HOLES FOR VEHICLE MOUNTING (4 OFF M4 X 40mm SELF-TAPPING SCREWS & FLAT WASHERS INCLUDED)

CENTRAL CABLE EXIT

95 / 48 / 191 / 475
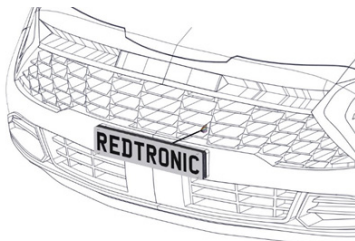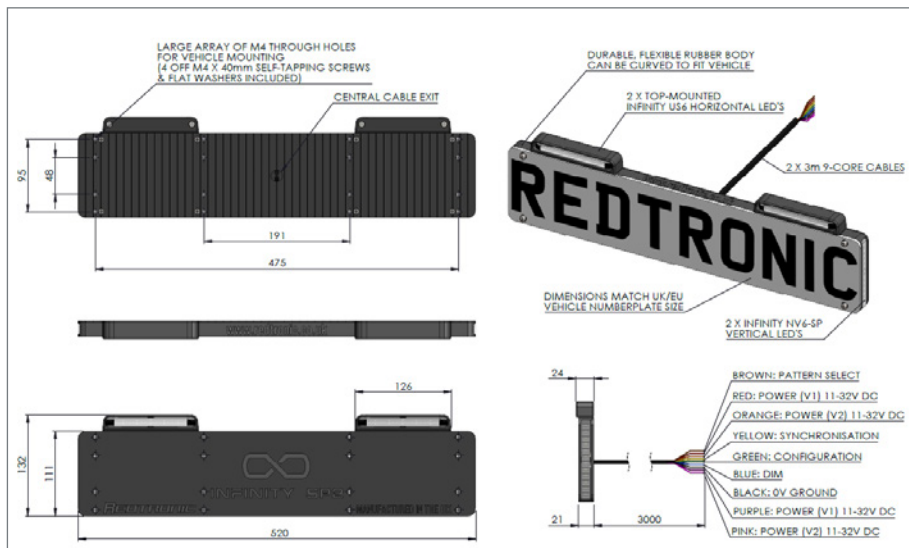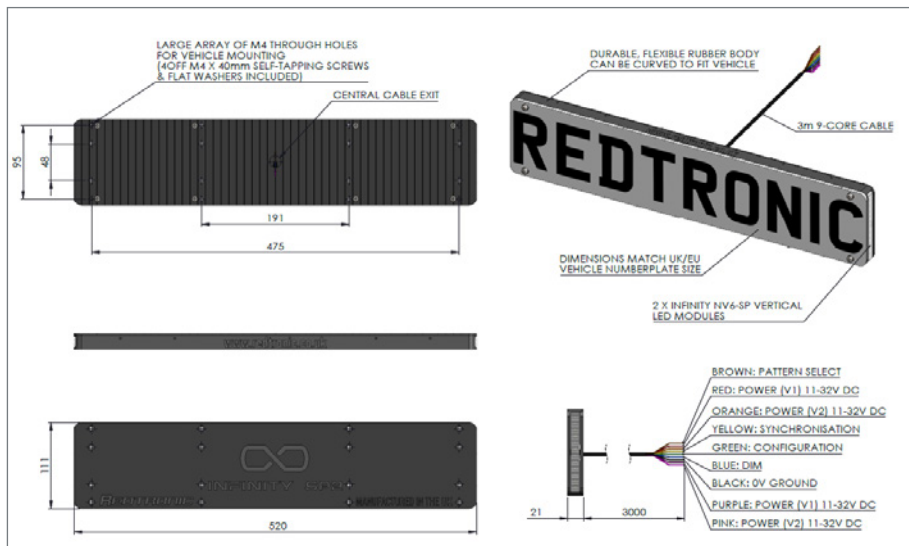
DURABLE, FLEXIBLE RUBBER BODY CAN BE CURVED TO FIT VEHICLE

3m 9-CORE CABLE

REDTRONIC

DIMENSIONS MATCH UK/EU VEHICLE NUMBERPLATE SIZE

2 X INFINITY NV6-SP VERTICAL LED MODULES

111 / 520

21 / 3000

BROWN: PATTERN SELECT
RED: POWER (V1) 11-32V DC
ORANGE: POWER (V2) 11-32V DC
YELLOW: SYNCHRONISATION
GREEN: CONFIGURATION
BLUE: DIM
BLACK: 0V GROUND
PURPLE: POWER (V1) 11-32V DC
PINK: POWER (V2) 11-32V DC

Bottom diagram labels:

LARGE ARRAY OF M4 THROUGH HOLES FOR VEHICLE MOUNTING (4 OFF M4 X 40mm SELF-TAPPING SCREWS & FLAT WASHERS INCLUDED)

CENTRAL CABLE EXIT

95 / 48 / 191 / 475

DURABLE, FLEXIBLE RUBBER BODY CAN BE CURVED TO FIT VEHICLE

2 X TOP-MOUNTED INFINITY US6 HORIZONTAL LED'S

2 X 3m 9-CORE CABLES

REDTRONIC

DIMENSIONS MATCH UK/EU VEHICLE NUMBERPLATE SIZE

2 X INFINITY NV6-SP VERTICAL LED'S

126 / 132 / 111 / 520

24 / 21 / 3000

BROWN: PATTERN SELECT
RED: POWER (V1) 11-32V DC
ORANGE: POWER (V2) 11-32V DC
YELLOW: SYNCHRONISATION
GREEN: CONFIGURATION
BLUE: DIM
BLACK: 0V GROUND
PURPLE: POWER (V1) 11-32V DC
PINK: POWER (V2) 11-32V DC

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 3-year warranty from the date of purchase.

Cleaning and Maintenance

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