

WIRING SINGLE / DUAL COLOUR

Fuse Rating		
No. of Lighthouse	12VDC Model	24VDC Model
6-Head	6.0A	3.0A
8-Head	7.5A	4.0A
10-Head	10.0A	5.0A

RED ————— to +VDC with rated fuse
(for correct fuse, refer to Fuse Rating chart)

BLACK ————— to Chassis ground

ORANGE ————— **[+]** Rear "Left Arrow" [P2] } Rear "Centre Out Arrow" [P1]
BLUE ————— **[+]** Rear "Right Arrow" [P2] }

GREEN ————— **[+]** Warning Mode 2 [P3] or **[+]** End-Flasher
(See "FIRMWARE SELECTION" for End-Flasher Mode)

BROWN ————— **[+]** Warning Mode 1 [P4]

YELLOW ————— **[+]** Flash Pattern Selection / **[+]** Low Power Operation

WHITE ————— **[]** Control Panel Indicator Signal out / **[+]** Programming

NOTE: [Px] = Precedence order, when more than a wire is activated at the same time, higher precedence wire will affect lower precedence wire. P1 being the highest priority.

POWER WIRES

1. Route Power Wires to the vehicle firewall towards the battery and follow the factory wiring harness through the firewall. If drilling a hole is required, ensure that no component is damaged from the drilling.
2. Install a fuse (user-supplied) to the end of the **RED** wire, and connect it to the battery. (for correct fuse, refer to Fuse Rating chart)
3. Connect the **BLACK** wire to the factory chassis ground next to the battery.

NOTE: Ensure that all wires of the power cable are securely connected to the power source.

CONTROL WIRES

1. Route Control Wires towards the dash area to a switch panel (user-supplied).
2. Connect the required wires to the switch panel or power source.

TRAFFIC ARROW

1. Activate Traffic Arrow function by applying **+VDC** to:

- **ORANGE** wire for Left Arrow.
- **BLUE** wire for Right Arrow.
- Above 2 wires together for Centre-Out Arrow.

NOTE: If the stick is equipped with Dual Colour lighthoods, Traffic Arrow will display in Colour2.

2. To change the Traffic Arrow flash pattern, tap **+VDC** to **YELLOW** wire:
 - a. quick once to next pattern. (refer to Traffic Arrow Patterns chart).
 - b. quick 3 times to Traffic Arrow Pattern #1.

WARNING MODE 1 and MODE 2 / END-FLASHER

Each Warning Mode can select and store one flash pattern.

To change the flash pattern:

1. Activate the desired Warning Mode by applying **+VDC** to **BROWN**, or **GREEN** wire.

- **BROWN** wire for Warning Mode 1.
- **GREEN** wire for Warning Mode 2 / End-Flasher.

(See "FIRMWARE SELECTION" for End-Flasher Mode)

2. After 3 seconds, tap **+VDC** to **YELLOW** wire:
 - a. quick once to next pattern (refer to Warning or End-Flasher Patterns chart).
 - b. quick 3 times to Pattern #1.

To set colour mode (for Dual Colour Models only):

1. Disconnect all power then applying **+VDC** to **BROWN** (or **GREEN**), **WHITE** and **RED** wire together for 3 seconds to enter colour setting; the stick will display the current colour mode for the activated warning mode.
2. Tap **+VDC** to **WHITE** wire to scroll through the colour mode:
 - a. Single Colour 1 b. Single Colour 2 c. Dual Colour 1&2 d. Dual Colour 2&1
3. Save and exit colour setting by disconnecting all power.

LOW POWER OPERATION (DIM FUNCTION)

Activate dimming function by continuously applying **+VDC** to **YELLOW** wire.

CONTROL PANEL SIGNAL INDICATOR

Connect **WHITE** wire to the display signal input of a compatible Control Panel to display current lighthouse activity.

Warning Patterns

1	Random/Custom (see "PROGRAMMING")	SC
2	All Double [R65]*	SC
3	All Single [2HZ]	SC
4	All Triple [2HZ]	SC
5	All Quad [2HZ]	SC
6	All Steady / Scene	SC
7	All Single [SAE, CA13]	SC
8	All Double [SAE]	SC
9	All Mega	SC
10	All Ultra [SAE]	SC
11	All Single-Quad	SC
12	All Single H/L	SC
13	All Single-Triple-Quint	SC
14	Left-Right Single	SC
15	Left-Right Double	SC
16	Left-Right Mega	SC
17	Left-Right Ultra	SC
18	Side-by-Side Single	SC
19	Side-by-Side Double	SC
20	Side-by-Side Mega	SC
21	Side-by-Side Ultra	SC
22	Outside-in Single	SC
23	Outside-in Double	SC
24	Outside-in Mega	SC
25	Outside-in Ultra	SC
26	All Scan	SC
27	Split Scan	SC
28	Left-Right Single Mid	SC/DC
29	Left-Right Double-Single	SC/DC
30	Left-Right Triple-Single	SC/DC
31	Left-Right Quad-Single	SC/DC
32	Left-Right Single H/L II	SC/DC
33	Left-Right Double-Blast	SC/DC
34	Left-Right Swing I	SC/DC
35	Left-Right Triple-Blast	SC/DC
36	Left-Right Swing II	SC/DC
37	Left-Right Swing III	SC/DC
38	Left-Right Triple H/L	SC/DC
39	Side-by-Side Single Fast	SC/DC
40	Side-by-Side Quad Fast	SC/DC
41	Side-by-Side Double Fast	SC/DC
42	Side-by-Side Quad-Double	SC/DC
43	Composit Quad-Scan-Blast	SC/DC
44	Side-by-Side Mega X *	SC/DC
45	Composite All Scan-Split Scan	SC/DC
46	Composite Triple-Scan	SC/DC
47	Composite Single-Scan-Blast	SC/DC
48	Composite Solid Scan *	SC/DC
49	Composite Solid Scan-Mega *	SC/DC
50	Composite Solid San-Blast *	SC/DC

For dual colour models:

SC = Single Colour Mode; SC/DC = Single or Dual Colour Mode

Actual ECE R65 approval is based on the p/n ordered.

* Patterns show full effect in dual colour mode.

Traffic Arrow Patterns

1	Sweep Single	C2	12	Sweep Single	C1
2	Sweep Double	C2	13	Sweep Double	C1
3	Sweep Triple	C2	14	Sweep Triple	C1
4	Sweep 1 End x2	C2	15	Sweep 1 End x2	C1
5	Solid	C2	16	Solid	C1
6	Solid End x2	C2	17	Solid End x2	C1
7	Solid Chaser	C2	18	Solid Chaser	C1
8	Solid Fade	C2	19	Solid Fade	C1
9	Blink Double	C2	20	Blink Double	C1
10	Blink Triple	C2	21	Blink Triple	C1
11	Blink Solid	C2	22	Blink Solid	C1
23	Sweep Single w/ Dual End Flasher	[2HZ]	C1&2		
24	Sweep Single w/ Dual End Flasher	[SAE]	C1&2		
25	Solid Chaser Dual Quick		C1&2		
26	Solid Chaser D		C1&2		
27	Solid Chaser Dual Slow		C1&2		

For single colour model:

only Pattern 1~11 are available.

For dual colour models:

C1 = Colour 1; C2 = Colour 2; C1&2 = Colour 1&2

End Flasher Patterns

1	Double [R65]* (All)	7	Double [2HZ] (Left Right)
2	Quad [2HZ] (All)	8	Quad [2HZ] (Left Right)
3	Single [2HZ] (All)	9	Single [2HZ] (Left Right)
4	Double [SAE] (All)	10	Double [SAE] (Left Right)
5	Quad [SAE] (All)	11	Quad [SAE] (Left Right)
6	Single [SAE] (All)	12	Single [SAE] (Left Right)

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FIRMWARE SELECTION - END-FLASHER MODE

All units are pre-set to the firmware of its number of lightheades.
To change firmware to Traffic Arrow with End-Flashers:

1. Applying **+VDC** to **RED**, **WHITE** and **YELLOW** wires simultaneously for more than 3 seconds to enter FIRMWARE selection.
2. Once in FIRMWARE selection mode, the unit will display one of the following patterns.

6-Head Traffic Arrow



6-Head Traffic Arrow with End Flashers (Single Pair)



8-Head Traffic Arrow with End Flashers (Dual Pair)



not available

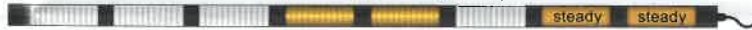
8-Head Traffic Arrow



8-Head Traffic Arrow with End Flashers (Single Pair)



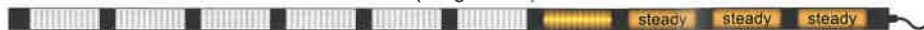
8-Head Traffic Arrow with End Flashers (Dual Pair)



10-Head Traffic Arrow



10-Head Traffic Arrow with End Flashers (Single Pair)



10-Head Traffic Arrow with End Flashers (Dual Pair)



3. Momentarily apply **YELLOW** wire to **+VDC** to scroll through FIRMWARES.
4. Once desired FIRMWARE is selected, save and exit by disconnecting all power.

CUSTOM FLASH PATTERN PROGRAMMING

PROGRAMMING

Warning Pattern #1 - Random Custom pattern can be customized.
This can only be done through firmware that is set to Traffic Arrow.

To configure Custom flash pattern:

1. Activate Warning Mode by applying **+VDC** to **BROWN** or **GREEN** wire.
2. Scroll to Warning Pattern #1 by quickly tapping **+VDC** to **YELLOW** wire 3 times.
3. Enter PROGRAMMING by quickly tapping **+VDC** to **WHITE** wire 3 times.
4. Once in PROGRAMMING, all lightheades will faintly blink once every second. The centre pair lightheades will blink in high power.
5. To change pattern of the pair, tap **+VDC** to **YELLOW** wire:
 - a. once for next pattern (see Programming Lighthead Patterns).
 - b. quick 3 times within 1 second for pattern #1.
6. Scroll to the next pair of lightheades by tapping **+VDC** to **WHITE** wire.
7. Repeat steps 5 and 6 until all lightheades are properly configured.
8. Save and exit PROGRAMMING by disconnecting all power.

RESETTING

To restore factory setting pattern for each warning mode:

1. Apply **+VDC** to **RED** and **WHITE** wires simultaneously for more than 3 seconds and remove **WHITE** wire from **+VDC** to enter PATTERN RESET.
2. Tap **+VDC** to **WHITE** wire to select which wire for resetting: Single flash for **BROWN** wire; Double flash for **GREEN** wire.
3. Apply **+VDC** to **WHITE** for more than 3 seconds and remove to reset. All lightheades will blink once to indicate the reset.
4. Save and exit PATTERN RESET by disconnecting all power.

Programmable Lighthead Patterns		
1	Steady	(Left Right Split)
2	Single Slow	(Left Right Split)
3	Single Mid	(Left Right Split)
4	Single Fast	(Left Right Split)
5	Double 2Hz	(Left Right Split)
6	Double	(Left Right Split)
7	Quad 2Hz	(Left Right Split)
8	Ultra	(Left Right Split)
9	Single-Quad	(Left Right Split)
10	Single H/L	(Left Right Split)
11	Random	
12	Off	
13	Single Slow	
14	Single Mid	
15	Single Fast	
16	Double 2Hz	
17	Double	
18	Quad 2Hz	
19	Ultra	
20	Single-Quad	
21	Single H/L	

Q-Lock™ MECHANISM & LIGHTHEAD SWAP

Lighthead may be quickly removed and swapped using Q-Lock™ Mechanism.

1. Use a flat-blade screwdriver to flip open the Q-Lock™ levers on both sides of the removing lighthead.
2. Remove the lighthead by pulling out the lighthead slowly and evenly from both side.
3. Carefully disconnect the lighthead wire from the wire harness.
4. Connect the new lighthead on to the wire harness. Note the direction and the orientation of the lighthead. (check wire-exit and lens marking)
5. Push the lighthead slowly and evenly into place.
6. Flip and close all Q-Lock™ levers.

