TOMAR
Instruction Manual

R13 & 14 L-STICKS
Mini LED Lightstick Series

IS0553B-07
8.16.2018

L-Stick Wiring

Red	+12Vdc
Black	Ground
Orange	Warning Mode 1
Blue	Warning Mode 2
Orange & Blue	Warning Mode 3
Red/White	Right Arrow Mode
Brown/White	Left Arrow Mode
Red/White & Brown/White	Center Out Arrow Mode
Brown	N/A
Green	Intensity Control

Programming Instructions

Entering Programming Mode:

To activate the L-Stick programming mode, connect the BLACK Wire to ground then simultaneously attach the GREEN wire and the RED wire to +12 Vdc.

Changing Warning Patterns and Flash Rates:

Three unique warning patterns can be selected using the ORANGE and BLUE mode selection wires. See example below:

ORANGE WIRE = Warning Mode 1
BLUE WIRE = Warning Mode 2
ORANGE & BLUE WIRE = Warning Mode 3

To change the warning mode, attach the wire(s) corresponding to the mode to be changed to +12Vdc. Tap the RED/WHITE wire to +12Vdc to advance the flash pattern. See the list of available flash patterns below.

A unique flash rate can be assigned to each warning mode. To change the flash rates enter the programming mode as described above. Move the green wire from +12Vdc to Ground. Tap the BROWN/WHITE wire to +12Vdc to advance the flash rate. See the list of available flash rates below.

Changing Traffic Direction Patterns and Flash Rates:

To change the Traffic Direction pattern, activate the L-Stick programming mode by connecting the BLACK Wire to ground then simultaneously attach the GREEN wire, RED/WHITE wire and the RED wire to +12 Vdc. Tap the BROWN wire to +12Vdc to advance the flash pattern. See the list of available Traffic Direction patterns below.

A unique flash rate can be assigned to the Traffic Direction mode. To change the flash rates enter the programming mode as described above. Move the green wire from +12Vdc to Ground. Tap the BROWN wire to +12Vdc to advance the flash rate. See the list of available flash rates below.

Flash Rates, Warning Modes:

1) SINGLE FLASH   312 FPM
2) DOUBLE FLASH   117 FPM **
3) NEOBE FLASH   77 FPM **
4) SINGLE 75 FLASH   75 FPM **
5) SCROLL FLASH A   **   switches between the Single, Double and Neobe flash rates, every 4 seconds
6) SCROLL FLASH B   switches between the Single 75, Double and Neobe flash rates, every 4 seconds

Flash Patterns, Warning Modes (12, 10 & 8 Channel Versions):

1) OFF
2) COMBINATION A *(Patterns 6,5,7,5 repeat)*   *ORANGE Wire (Warning Mode 1) DEFAULT, SCROLL A FLASH*
3) COMBINATION B *(Patterns 6,5,4,5 repeat)* **
4) INBOARD OUTBOARD   **   *BLUE Wire (Warning Mode 2) DEFAULT, SCROLL A FLASH*
5) LEFT RIGHT   **   *ORANGE & BLUE Wires (Warning Mode 3) DEFAULT, SCROLL A FLASH*
6) ALTERNATE   **
7) RANDOM
8) SINGLE OUTBOARD   **
9) DOUBLE OUTBOARD   **
10) SINGLE INBOARD   **
11) DOUBLE INBOARD   **
12) TRIPLE INBOARD   **
13) SWEEP

Flash Patterns, Warning Modes (6 Channel Version):

1) OFF
2) COMBINATION A *(Patterns 6,5,7,5 repeat)*   *ORANGE Wire (Warning Mode 1) DEFAULT, SCROLL A FLASH*
3) COMBINATION B *(Patterns 6,5,4,5 repeat)* **
4) INBOARD OUTBOARD   **   *BLUE Wire (Warning Mode 2) DEFAULT, SCROLL A FLASH*
5) LEFT RIGHT   **   *ORANGE & BLUE Wires (Warning Mode 3) DEFAULT, SCROLL A FLASH*
6) ALTERNATE   **
7) RANDOM
8) SINGLE OUTBOARD   **
9) DOUBLE OUTBOARD   **
10) SINGLE INBOARD   **
11) DOUBLE INBOARD   **
12) SWEEP

** = CA Title 13 compliant

Flash Rates, Traffic Direction Modes:
1) SINGLE FLASH   96 FPM   **
2) DOUBLE FLASH   125 FPM
3) NEOBE FLASH   96 FPM   **
4) SINGLE 75 FLASH   75 FPM   **
5) SCROLL FLASH A   switches between the Single, Double and Neobe flash rates, every two cycles of a pattern.
6) SCROLL FLASH B   switches between the Single 75, Double and Neobe flash rates, every two cycles of a pattern.

** = CA Title 13 compliant

Flash Patterns, Traffic Direction Modes:
12 Channel Versions
1) 12 ELEMENT ARROW FILL *** *RED/WHITE and/or BRN/WHITE Wires (all Arrow Modes) DEFAULT, SINGLE FLASH*
2) 12 ELEMENT ARROW TRAIL
3) 10 ELEMENT ARROW FILL, WARNING LAMPS OFF
4) 10 ELEMENT ARROW TRAIL, WARNING LAMPS OFF
5) 10 ELEMENT ARROW FILL with 2 Warning (SINGLE OUTBOARD) ALTERNATING
6) 10 ELEMENT ARROW TRAIL with 2 Warning (SINGLE OUTBOARD) ALTERNATING
7) 10 ELEMENT ARROW FILL with 2 Warning (SINGLE OUTBOARD) SIMULTANEOUS
8) 10 ELEMENT ARROW TRAIL with 2 Warning (SINGLE OUTBOARD) SIMULTANEOUS
9) 8 ELEMENT ARROW FILL, WARNING LAMPS OFF
10) 8 ELEMENT ARROW TRAIL, WARNING LAMPS OFF
11) 8 ELEMENT ARROW FILL with 4 Warning (DUAL OUTBOARD) ALTERNATING
12) 8 ELEMENT ARROW TRAIL with 4 Warning (DUAL OUTBOARD) ALTERNATING
13) 8 ELEMENT ARROW FILL with 4 Warning (DUAL OUTBOARD) SIMULTANEOUS
14) 8 ELEMENT ARROW TRAIL with 4 Warning (DUAL OUTBOARD) SIMULTANEOUS

10 Channel Versions
1) 10 ELEMENT ARROW FILL *** *RED/WHITE and/or BRN/WHITE Wires (all Arrow Modes) DEFAULT, SINGLE FLASH*
2) 10 ELEMENT ARROW TRAIL
3) 8 ELEMENT ARROW FILL, WARNING LAMPS OFF
4) 8 ELEMENT ARROW TRAIL, WARNING LAMPS OFF
5) 8 ELEMENT ARROW FILL with 2 Warning (SINGLE OUTBOARD) ALTERNATING
6) 8 ELEMENT ARROW TRIAL with 2 Warning (SINGLE OUTBOARD) ALTERNATING
7) 8 ELEMENT ARROW FILL with 2 Warning (SINGLE OUTBOARD) SIMULTANEOUS
8) 8 ELEMENT ARROW TRAIL with 2 Warning (SINGLE OUTBOARD) SIMULTANEOUS
9) 6 ELEMENT ARROW FILL, WARNING LAMPS OFF
10) 6 ELEMENT ARROW TRAIL, WARNING LAMPS OFF
11) 6 ELEMENT ARROW FILL with 4 Warning (DUAL OUTBOARD) ALTERNATING
12) 6 ELEMENT ARROW TRAIL with 4 Warning (DUAL OUTBOARD) ALTERNATING
13) 6 ELEMENT ARROW FILL with 4 Warning (DUAL OUTBOARD) SIMULTANEOUS
14) 6 ELEMENT ARROW TRAIL with 4 Warning (DUAL OUTBOARD) SIMULTANEOUS

8 Channel Versions

   1) 8 ELEMENT ARROW FILL   *** *RED/WHITE and/or BRN/WHITE Wires (all Arrow Modes) DEFAULT, SINGLE FLASH*

   2) 8 ELEMENT ARROW TRAIL

   3) 6 ELEMENT ARROW FILL, WARNING LAMPS OFF

   4) 6 ELEMENT ARROW TRAIL, WARNING LAMPS OFF

   5) 6 ELEMENT ARROW FILL with 2 Warning (SINGLE OUTBOARD) ALTERNATING

   6) 6 ELEMENT ARROW TRAIL with 2 Warning (SINGLE OUTBOARD) ALTERNATING

   7) 6 ELEMENT ARROW FILL with 2 Warning (SINGLE OUTBOARD) SIMULTANEOUS

   8) 6 ELEMENT ARROW TRAIL with 2 Warning (SINGLE OUTBOARD) SIMULTANEOUS

6 Channel versions

   1) 6 ELEMENT ARROW FILL   *** *RED/WHITE and/or BRN/WHITE Wires (all Arrow Modes) DEFAULT, SINGLE FLASH*

   2) 6 ELEMENT ARROW TRAIL

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