

RECT-SDx-XX and RECT-SDx13-XX Dual Lamp
Operational and Programming Instructions

The TOMAR iLED™ RECT-SDx series LED warning lamp features 25 programmable flash rates with 3 programmable color pattern selections and can be synchronized with any of the TOMAR iLED™ family of LED warning lamps.

Wires and Functions

BLACK	Connect to GROUND
YELLOW	Sync/Enter Programming Mode/Pattern Select
RED	Mode 1 flash pattern
BLUE	Mode 2 flash pattern
RED & BLUE	Mode 3 flash pattern
WHITE	Steady Burn

Electrical

Input Voltage +12VDC/+24VDC
Installation to be completed with wire rated for 125% of amperage draw.

Current draw:

Mode	12.8Vdc	24Vdc
steady blue	0.75A	0.44A
steady red	0.57A	0.33A
steady white	0.78A	0.45A
Mode 1 default (neobe 150 phase 0, Red LED)	0.21A	0.13A
Mode 2 default (neobe 75 phase 0, Blue LED)	0.28A	0.19A
Mode 3 default (single 120 phase 0, White LED)	0.40A	0.24A

Selecting a Flash Pattern Mode

For the Mode 1 Flash Pattern: Apply +12VDC/+24VDC to the RED wire. The currently selected Mode 1 flash pattern will appear.

For the Mode 2 Flash Pattern: Apply +12VDC/+24VDC to the BLUE wire. The currently selected Mode 2 flash pattern will appear.

For the Mode 3 Flash Pattern: Apply +12VDC/+24VDC to the RED and BLUE wires. The currently selected Mode 3 flash pattern will appear. This mode overrides the Mode 1 and Mode 2 flash patterns.

Selecting Steady Burn Mode

Apply +12VDC/+24VDC to the WHITE wire. The LEDs will turn on Steady. This mode overrides the Mode 1, Mode 2 or Mode 3 flash patterns, if they are active.

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Assigning a Flash Pattern and Color Pattern for Mode 1, Mode 2 or Mode 3***Enter Programming for the desired Mode***

For the Mode 1 Flash Pattern: Apply +12VDC/+24VDC to the YELLOW and RED wires at the same time. All LEDs will flash 3 times in Color 1 to indicate you have entered programming mode.

Remove the YELLOW wire from +12VDC/+24VDC. Leave the RED wire connected to +12VDC/+24VDC.

After the unit flashes 3 times, the currently selected Mode 1 flash pattern will appear.

For the Mode 2 Flash Pattern: Apply +12VDC/+24VDC to the YELLOW and BLUE wires at the same time. All LEDs will flash 3 times in Color 2 to indicate you have entered programming mode.

Remove the YELLOW wire from +12VDC/+24VDC. Leave the BLUE wire connected to +12VDC/+24VDC.

After the unit flashes 3 times, the currently selected Mode 2 flash pattern will appear.

For the Mode 3 Flash Pattern: Apply +12VDC/+24VDC to the YELLOW, RED and BLUE wires at the same time. All LEDs will flash 4 times in Color 1 to indicate you have entered programming mode.

Remove the YELLOW wire from +12VDC/+24VDC. Leave the RED and BLUE wires connected to +12VDC/+24VDC.

After the unit flashes 4 times, the currently selected Mode 3 flash pattern will appear.

Select a Flash Pattern for the Mode**CYCLE FORWARD:**

Tap the YELLOW wire once to +12VDC/+24VDC, then release.

Repeat until the desired flash rate is selected.

CYCLE BACKWARD:

Tap the YELLOW wire twice, in less than one second, to +12VDC/+24VDC.

Repeat until the desired flash rate is selected.

To RESET to Factory Default:

While still in programming mode, touch and hold the YELLOW wire to +12VDC/+24VDC for at least 3 seconds. All LEDs will flash 2 times. Release the YELLOW wire. The flash pattern and color will be reset to factory default.

This will also return to full brightness.

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Select a Color Pattern for the Mode

CYCLE FORWARD:

Tap the WHITE wire once to +12VDC/+24VDC, then release.
Repeat until the desired color pattern is selected.

CYCLE BACKWARD:

Tap the WHITE wire twice, in less than one second, to +12VDC/+24VDC.
Repeat until the desired color pattern is selected.

Select Dimming for the Mode

To toggle dimming:

While still in programming mode, apply +12VDC/+24VDC to the WHITE wire. Hold for approximately 3 seconds. All LEDs will flash 2 times. Release the WHITE wire. The DIM setting will be toggled for the mode.
Repeat to return to full brightness.

Exit Programming

Remove power from all wires

Assigning a Color for Steady Burn Mode

Enter Programming for the Steady Burn Mode

For the Steady Mode Color: Apply +12VDC/+24VDC to the YELLOW and WHITE wires at the same time. All LEDs will flash 4 times in Color 2 to indicate you have entered programming mode.

Remove the YELLOW wire from +12VDC/+24VDC. Leave the WHITE wire connected to +12VDC/+24VDC.

After the unit flashes 4 times, the currently selected color in Steady Burn Mode will illuminate.

Select a Color for the Steady Burn Mode

CYCLE FORWARD:

Tap the YELLOW wire once to +12VDC/+24VDC, then release.
Repeat until the desired color is selected.

CYCLE BACKWARD:

Tap the YELLOW wire twice, in less than one second, to +12VDC/+24VDC.
Repeat until the desired color is selected.

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To RESET to Factory Default and Toggle Dim:

While still in programming mode, apply +12VDC/+24VDC to the WHITE wire. Hold for approximately 3 seconds. All LEDs will flash 2 times. Release the YELLOW wire. The color will be reset to factory default. Additionally, this will toggle the DIM setting. Repeat the step above to return to normal brightness.

Exit Programming

Remove power from all wires

Synchronizing Lamps: RECT-SDx Series

First, select a flash pattern and program each lamp to the same flash pattern.

If alternating lamps are desired, program one lamp to a PHASE 0 flash pattern and the second lamp to the corresponding PHASE 1 flash pattern. See Flash Patterns below.

To synchronize lamps, connect all YELLOW wires together. Only 10 devices can be connected together for synchronization. The maximum wire distance between the furthest units is 100 feet. For best results connect the BLACK wire to GROUND.

Note: When synchronizing lamps, YELLOW wire is for Sync mode only. Do not connect the YELLOW wires to power or ground.

Apply +12VDC/+24VDC to the RED and/or BLUE wires to activate the desired flash pattern Mode.

Flash Rates and Patterns

Flash Rates

SINGLE FLASH = 1 PULSE PER BURST
DOUBLE FLASH = 2 PULSES PER BURST
NEOBE FLASH = 5 PULSES PER BURST

Flash Patterns

- | | | | | |
|----|--------------|---------|---------|----------------|
| 1. | NEOBE FLASH | 150 FPM | PHASE 0 | MODE 1 Default |
| 2. | NEOBE FLASH | 120 FPM | PHASE 0 | |
| 3. | NEOBE FLASH | 75 FPM | PHASE 0 | MODE 2 Default |
| 4. | DOUBLE FLASH | 250 FPM | PHASE 0 | |
| 5. | DOUBLE FLASH | 125 FPM | PHASE 0 | |
| 6. | DOUBLE FLASH | 75 FPM | PHASE 0 | |

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7.	SINGLE FLASH	375 FPM	PHASE 0	
8.	SINGLE FLASH	150 FPM	PHASE 0	
9.	SINGLE FLASH	120 FPM	PHASE 0	MODE 3 DEFAULT
10.	SINGLE FLASH	75 FPM	PHASE 0	
11.	NEOBE FLASH	150 FPM	PHASE 1	
12.	NEOBE FLASH	120 FPM	PHASE 1	
13.	NEOBE FLASH	75 FPM	PHASE 1	
14.	DOUBLE FLASH	250 FPM	PHASE 1	
15.	DOUBLE FLASH	125 FPM	PHASE 1	
16.	DOUBLE FLASH	75 FPM	PHASE 1	
17.	SINGLE FLASH	375 FPM	PHASE 1	
18.	SINGLE FLASH	150 FPM	PHASE 1	
19.	SINGLE FLASH	120 FPM	PHASE 1	
20.	SINGLE FLASH	75 FPM	PHASE 1	
21.	STEADY BURN			
22.	MULTI-FLASH 1		PHASE 0	(PATTERNS 1, 4, 7, 1 REPEAT)
23.	MULTI-FLASH 2		PHASE 0	(PATTERNS 3, 5, 8, 10 REPEAT)
24.	MULTI-FLASH 1		PHASE 1	(PATTERNS 11, 14, 17, 11 REPEAT)
25.	MULTI-FLASH 2		PHASE 1	(PATTERNS 13, 15, 18, 20 REPEAT)

Color Pattern

Note: When selecting a multiple color pattern, the device will cycle through the indicated colors in the shown order.

For Phase 0 Flash Patterns

1. COLOR 1 (FACTORY DEFAULT MODE 1 + MODE 2)
2. COLOR 2 (FACTORY DEFAULT MODE 3 + STEADY BURN MODE)
3. COLOR 1 & 2

For Phase 1 Flash Patterns

1. COLOR 1
2. COLOR 2
3. COLOR 2 & 1