

# TOMAR

## Operating & Programming **Instruction Manual**



### **200S-2**

Low Profile LED Lightstick Series  
with Programmable Internal Flasher

ISO485-00  
12.01.2005

TOMAR Electronics, Inc.  
2100 W. Obispo Ave.  
Gilbert, AZ 85233 USA

800.338.3133 ph  
800.688.6627 fax

[www.tomar.com](http://www.tomar.com)

The TOMAR iLED™ 200S-2 series LED warning lamps feature 10 programmable flash rates and can be synchronized with any of the TOMAR iLED™ family of LED warning lamps.

## Wires

|              |                                     |
|--------------|-------------------------------------|
| <b>Red</b>   | +12VDC to activate                  |
| <b>Black</b> | Connect to chassis GROUND           |
| <b>White</b> | Flash Pattern Selection & Sync Line |

## Electrical

**Input Voltage** 12VDC thru 28VDC

Complete installation with wire rated for 125% of amperage draw.

5 Amp in-line fuse recommended.

**WARNING: DO NOT SEAL TOMAR LED LAMPS OR SEAL THE LED LAMP TO THE VEHICLE MOUNTING SURFACE! DOING SO WILL PREVENT WATER DRAINAGE AND VOID THE LAMP WARRANTY.**

**Current Draw** - in Single Flash 75 FPM Mode @ 12VDC

|                             |                  |
|-----------------------------|------------------|
| <b>High Power Model</b>     | 1.8 Amps Average |
| <b>Standard Power Model</b> | 1.4 Amps Average |
| <b>Low Current Model</b>    | 0.9 Amps Average |

## Selecting Flash Rate

Apply the **White** wire to +12vdc and turn the unit on. Continue to apply +12vdc to the **White** wire for at least 2 seconds. All LEDs will flash 3 times to indicate you have entered flash rate selection mode. While maintaining power, remove the **White** wire from +12vdc and the unit will operate in the currently selected flash rate.

### Cycle Forward

Intermittently apply the **White** wire once to +12vdc then release.  
Repeat until the desired flash rate is selected.

### Cycle Backward

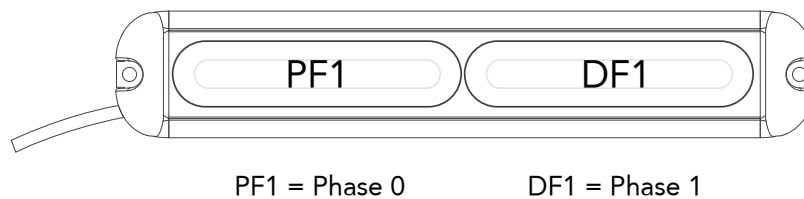
Intermittently apply the **White** wire twice to +12vdc in less than one second.  
Repeat until the desired flash rate is selected.

### To Reset to Flash Rate #1

Apply +12vdc to the **White** wire for at least 3 seconds then release. All LEDs will flash 2 times to indicate that you have reset the flash rate selection to rate # 1.

## Synchronizing iLED™ Warning Lamps

To synchronize, first select a flash rate. Make sure that all units that are to be synchronized are set to the same flash rate. Unpredictable results will occur if synchronized lamps have different flash rates selected. Connect the synchronization wires of up to 10 iLED lamps. The iLED™ RECT-79 lamps and 200S-2 are equivalent to 2 lamp units, when determining the number of lamps to synchronize. Do not exceed 100 feet of wire between the furthest synchronized units. For best results connect the **Black** lead to Chassis GROUND.



## Selectable Flash Patterns (Individual Lamp Flash Rates)

(Phase 0 and Phase 1 alternate)

1. Neobe 150 FPM (Factory Setting)
2. Neobe 75 FPM
3. Double flash 250 FPM
4. Double flash 125 FPM
5. Single flash 375 FPM
6. Single flash 150 FPM
7. Single flash 75 FPM
8. Multi flash 1 (Rate 1, 3, 5, 1)
9. Multi flash 2 (Rate 2, 4, 6, 7)
10. Demo Mode (Sequences all rates)