

# WHELEN<sup>®</sup>

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## Installation Guide: TN™ Series LED Dash Light

### Safety First

This document provides all the necessary information to allow your Whelen product to be properly and safely installed. Before beginning the installation and/or operation of your new product, the installation technician and operator must read this manual completely. Important information is contained herein that could prevent serious injury or damage.

- Proper installation of this product requires the installer to have a good understanding of automotive electronics, systems and procedures.
- If mounting this product requires drilling holes, the installer **MUST** be sure that no vehicle components or other vital parts could be damaged by the drilling process. Check both sides of the mounting surface before drilling begins. Also de-burr the holes and remove any metal shards or remnants. Install grommets into all wire passage holes.
- If this manual states that this product may be mounted with suction cups, magnets, tape or Velcro®, clean the mounting surface with a 50/50 mix of isopropyl alcohol and water and dry thoroughly.
- Do not install this product or route any wires in the deployment area of your air bag. Equipment mounted or located in the air bag deployment area will damage or reduce the effectiveness of the air bag, or become a projectile that could cause serious personal injury or death. Refer to your vehicle owner's manual for the air bag deployment area. The User/Installer assumes full responsibility to determine proper mounting location, based on providing ultimate safety to all passengers inside the vehicle.
- For this product to operate at optimum efficiency, a good electrical connection to chassis ground must be made. The recommended procedure requires the product ground wire to be connected directly to the **NEGATIVE (-)** battery post (this does not include products that use cigar power cords).
- If this product uses a remote device for activation or control, make sure that this device is located in an area that allows both the vehicle and the device to be operated safely in any driving condition.
- Do not attempt to activate or control this device in a hazardous driving situation.
- This product contains either strobe light(s), halogen light(s), high-intensity LEDs or a combination of these lights. Do not stare directly into these lights. Momentary blindness and/or eye damage could result.
- Use only soap and water to clean the outer lens. Use of other chemicals could result in premature lens cracking (crazing) and discoloration. Lenses in this condition have significantly reduced effectiveness and should be replaced immediately. Inspect and operate this product regularly to confirm its proper operation and mounting condition. Do not use a pressure washer to clean this product.
- It is recommended that these instructions be stored in a safe place and referred to when performing maintenance and/or reinstallation of this product.
- **FAILURE TO FOLLOW THESE SAFETY PRECAUTIONS AND INSTRUCTIONS COULD RESULT IN DAMAGE TO THE PRODUCT OR VEHICLE AND/OR SERIOUS INJURY TO YOU AND YOUR PASSENGERS!**

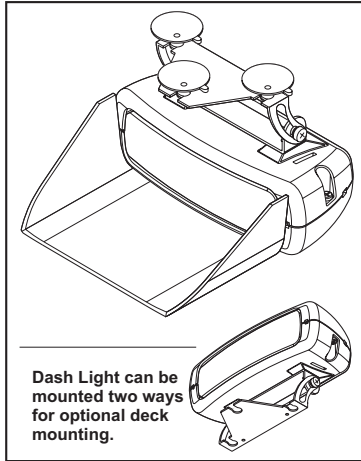
**For warranty information regarding this product, visit [www.whelen.com/warranty](http://www.whelen.com/warranty)**

## Mounting...

**CAUTION! Nighttime operation of this product may produce reflected light within the vehicle! Use with caution!**

The TN™ includes a complete suction cup mounting kit (see your Whelen dealer for information on other optional mounting brackets). Refer to the parts diagrams for hardware illustration.

1. Secure the lower mounting bracket to the TN (the Dual TN uses two brackets).
2. Slide the suction cups onto the upper mounting bracket and secure the upper mounting bracket onto the lower mounting bracket.
3. Attach the reflector tape to the visor hood. Then secure the visor hood to the unit.
4. Apply the suction cups to the windshield. Do not locate the TN in any location where it will interfere with the drivers ability to safely operate the vehicle. Refer to the safety warnings on the cover of this manual. **CAUTION: This product has been designed to rest on top of the vehicle's dashboard. Suction cups are used to prevent lateral movement while the vehicle is in motion. These suction cups should not be used to suspend this product above the dashboard.**
5. Adjust the angle of the TN so that the visor hood is in full contact with the windshield.



There are holes on the upper bracket to be used if permanent mounting is desired. Using the upper bracket as a template, mark the areas where the mounting holes are to be drilled. Secure the unit using the appropriate hardware (customer supplied).

## Wiring...

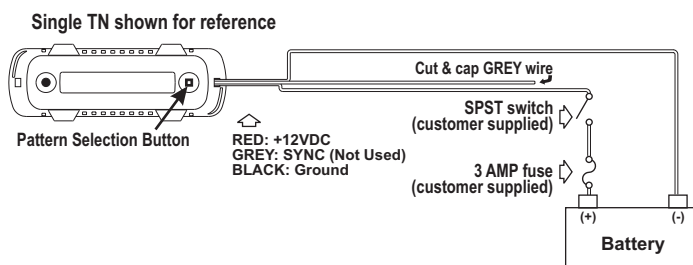
**NOTE: Standard TNs use a cigar cord for power connection and no further wiring is necessary. Sync TNs are required to be wired as outlined below.**

### One Sync TN (single or double)

1. Extend the RED wire to a Single Pole/Single Throw switch. From this switch, extend a wire to +12VDC. Fuse this wire @ 3 Amps.

**All customer supplied wires that connect to the Positive (+) battery terminal must be sized to supply at least 125% of the maximum operating current and fused "at the battery" to carry that load.**

2. Extend the BLACK wire to chassis ground.
3. The GREY wire is not used. Cut & cap this wire.

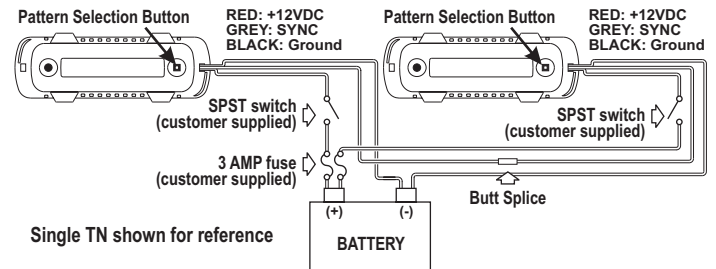


## Flash Pattern Selection:

To advance to the next flash pattern, press the pattern selection button for less than 1 second.

To cycle backwards to previous patterns, press the pattern selection button for more than 1 second.

To reset to the factory default pattern, begin by turning off power to the lighthouse. While pressing the pattern selection button, turn the lighthouse back on. and keep the pattern selection button depressed for more than 5 seconds.



Flash patterns for the TN are listed on the following 2 pages.

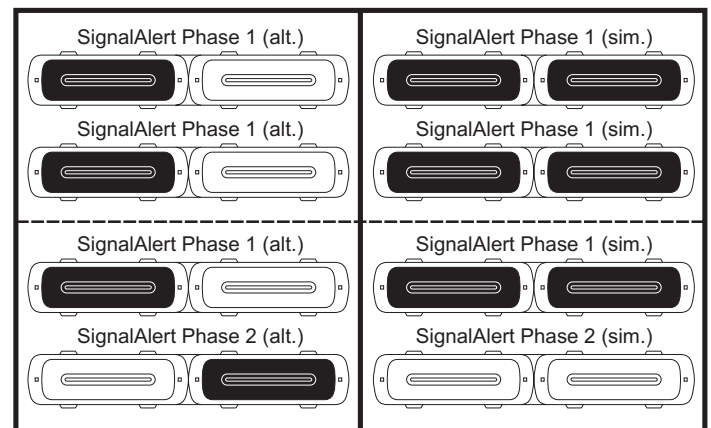
### Two (or more) Sync TNs (single or double)

1. Extend the RED wire from one TN to a Single Pole/Single Throw switch. From this switch, extend a wire to +12VDC. Fuse this wire @ 3 Amps. Repeat for the remaining TN.
2. Extend the BLACK wires from each TN to chassis ground.
3. Butt splice the two GREY wires together.

**Synchronizing Single TNs** - To sync two or more lighthoods, configure all lighthoods to display the same **Phase 1** pattern. When the lighthoods are activated, the patterns displayed will be synchronized. To configure specific lighthoods to alternate their patterns with other lighthoods, advance the pattern of the desired lighthouse to the **Phase 2** mode of the current pattern (see Sync pattern table for pattern list).

**Synchronizing Dual TNs** - The dual TN has 4 unique modes for each of the 5 available patterns; Alternating Phase 1, Alternating Phase 2, Simultaneous Phase 1 and Simultaneous Phase 2. In Alternating mode, the left lighthouse in a dual TN alternates with the right lighthouse. In Simultaneous mode, the left and right lighthouse in a dual TN flash simultaneously.

The diagram below shows the relationship between two, dual synchronized TNs. Keep in mind that all TNs connected by the Grey wire must be configured to flash the same pattern (as shown, both TNs are displaying SignalAlert™).



# TN™ Series LED DASH LIGHT (SINGLE)

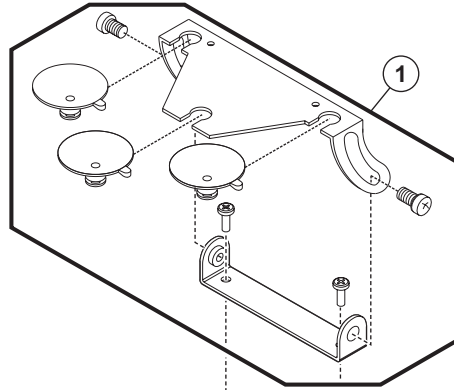
QTY	ITEM	PART NUMBER	DESCRIPTION
*		01-0685926-__S	TN SERIES SINGLE LED DASH LIGHT
1	1	01-0485926-00	KIT / INSTALLATION DASH LIGHT
2	2	15-06521B-080	SCREW / 6 X 1/2 PPH PLASTI-LOK SS BLACK OXIDE
2	3	11-463555-000	HOUSING / SINGLE LED DASH LIGHT
A/R	4	01-0269508-10	SUB ASSY. LINEAR-LED® DASH LIGHT / AMBER
A/R	5	01-0269508-20	SUB ASSY. LINEAR-LED® DASH LIGHT / BLUE
A/R	6	01-0269508-30	SUB ASSY. LINEAR-LED® DASH LIGHT / WHITE
A/R	7	01-0269508-50	SUB ASSY. LINEAR-LED® DASH LIGHT / RED
A/R	8a	02-0169576-00	PCB ASSY / SINGLE TN (SYNC)
A/R	8b	02-0169486-00	PCB ASSY / SINGLE TN (STANDARD)
1	9	21-31000512-0	PLUG / HOLE RUBBER 5/32 DIA
	10	68-3963604-10	LENS / AMBER SNAP-ON LED DASH LIGHT
A/R	11	68-3963604-20	LENS / BLUE SNAP-ON LED DASH LIGHT
A/R	12	68-3963604-30	LENS / CLEAR SNAP-ON LED DASH LIGHT
A/R	13	68-3963604-50	LENS / RED SNAP-ON LED DASH LIGHT

01-0685926-50 = RED LED / CLEAR LENS

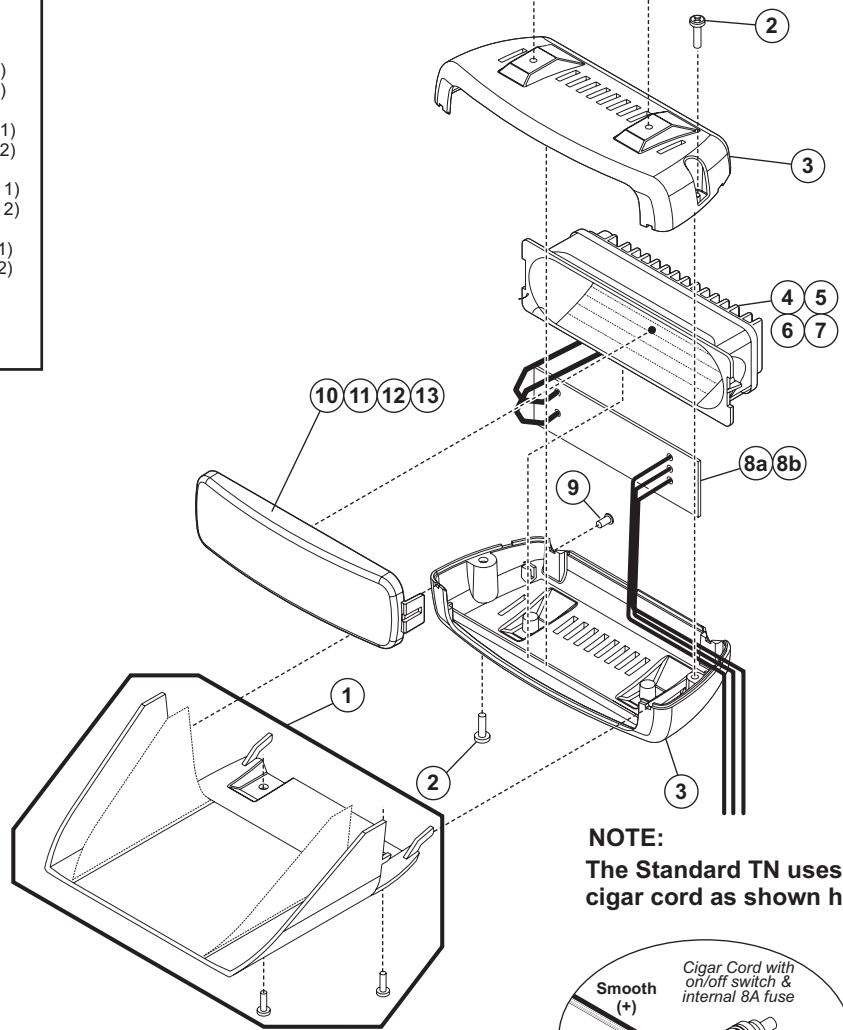
LED-LENS COLOR

LED-LENS COLOR

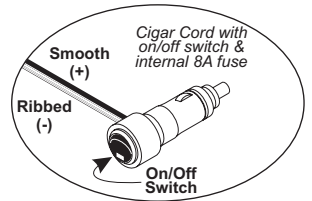
A = AMBER/AMBER    1 = AMBER/CLEAR  
 B = BLUE/BLUE     2 = BLUE/CLEAR  
 W = WHITE/CLEAR    5 = RED/CLEAR  
 R = RED/RED



Single TN Flash Patterns	
Standard	Sync
SignalAlert™ 75	[ SignalAlert (Phase 1) SignalAlert (Phase 2)
SignalAlert™ 150	
SingleFlash™ 375	[ CometFlash (Phase 1) CometFlash (Phase 2)
SingleFlash™ 150	
SingleFlash™ 75	[ DoubleFlash (Phase 1) DoubleFlash (Phase 2)
SingleFlash™ 15	
DoubleFlash™ 150	[ SingleFlash (Phase 1) SingleFlash (Phase 2)
DoubleFlash™ 75	
CometFlash® 75	[ ComAlert (Phase 1) ComAlert (Phase 2)
ActionFlash™	
ModuFlash™	
ComAlert™	
ActionScan™	
SignalAlert™ Steady	
Steady	



**NOTE:**  
 The Standard TN uses a cigar cord as shown here.



# TN™ Series LED DASH LIGHT (DUAL)

QTY	ITEM	PART NUMBER	DESCRIPTION
*		01-0685925S__	TN SERIES DUAL LED DASH LIGHT
1	1	01-0485925-00	KIT / INSTALLATION DASH LIGHT
3	2	15-06521B-080	SCREW / 6 X 1/2 PPH PLASTI-LOK SS BLACK OXIDE
2	3	11-483849-000	HOUSING / DUAL LED DASH LIGHT
A/R	4	01-0269508-10	SUB ASSY. / LINEAR-LED® DASH LIGHT / AMBER
A/R	5	01-0269508-20	SUB ASSY. / LINEAR-LED® DASH LIGHT / BLUE
A/R	6	01-0269508-30	SUB ASSY. / LINEAR-LED® DASH LIGHT / WHITE
A/R	7	01-0269508-50	SUB ASSY. / LINEAR-LED® DASH LIGHT / RED
1	8a	02-0169608-00	PCB ASSY / DUAL TN (SYNC)
1	8b	02-0169484-00	PCB ASSY / DUAL TN (STANDARD)
1	9	21-31000512-0	PLUG / HOLE RUBBER 5/32 DIA
A/R	10	68-3963604-10	LENS / AMBER SNAP-ON LED DASH LIGHT
A/R	11	68-3963604-20	LENS / BLUE SNAP-ON LED DASH LIGHT
2	12	68-3963604-30	LENS / CLEAR SNAP-ON LED DASH LIGHT
A/R	13	68-3963604-50	LENS / RED SNAP-ON LED DASH LIGHT

01-0685926-50 = RED LED / CLEAR LENS

LED-LENS COLOR

LED-LENS COLOR

A = AMBER/AMBER    1 = AMBER/CLEAR  
 B = BLUE/BLUE      2 = BLUE/CLEAR  
 W = WHITE/CLEAR    5 = RED/CLEAR  
 R = RED/RED

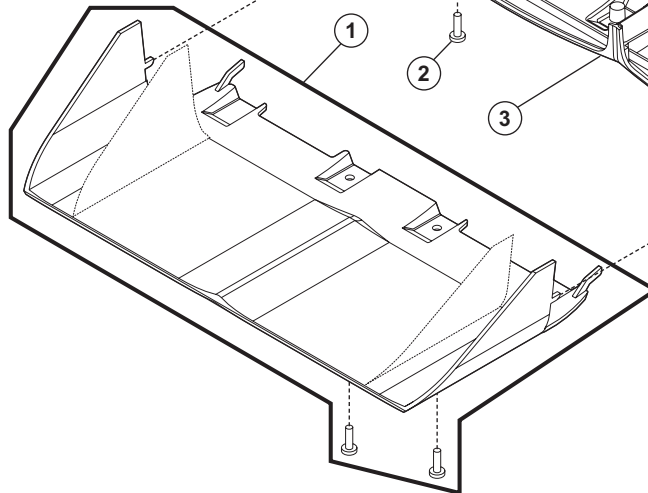
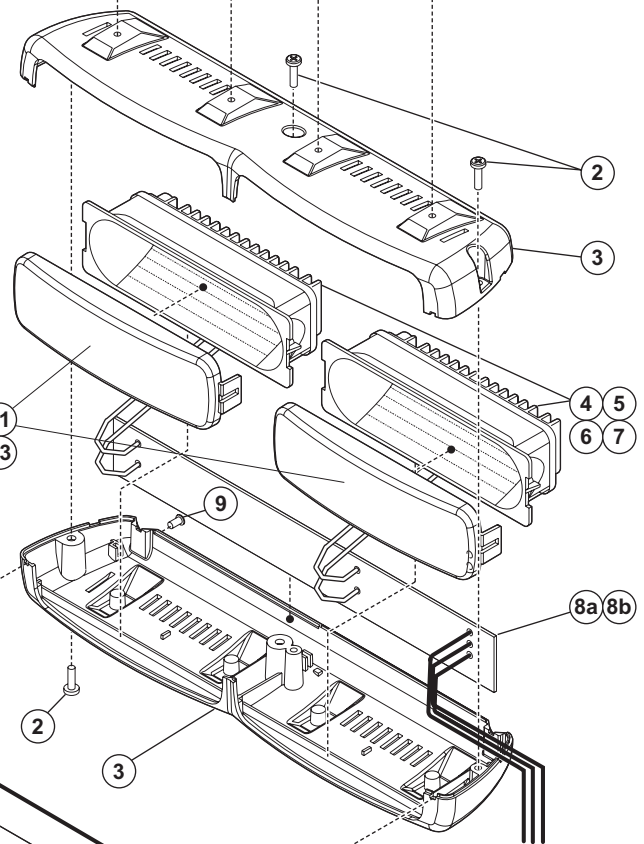
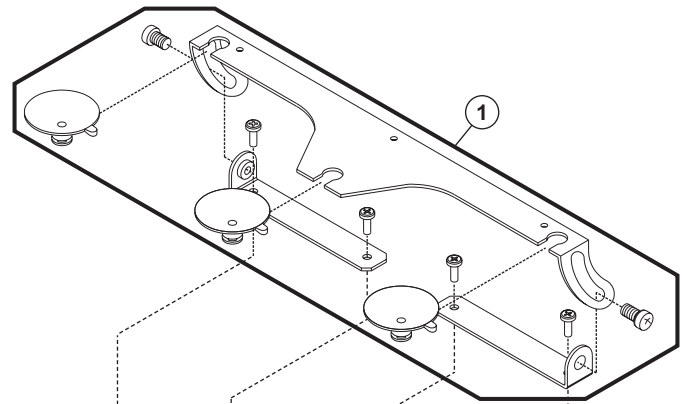
### Dual TN Flash Patterns

#### Standard

RapidFire™ 680  
 RapidFire™ 240  
 RapidFire™ 120  
 Simultaneous RapidFire™ 150  
 DoubleFlash™ 240  
 DoubleFlash™ 120  
 Simultaneous DoubleFlash™ 150  
 CometFlash®  
 Simultaneous CometFlash®  
 ActionFlash™  
 Simultaneous ActionFlash™  
 ModuFlash™  
 Simultaneous ModuFlash™  
 SignalAlert™ 120  
 Simultaneous SignalAlert™ 80  
 ScanFlash™  
 CalFlash™  
 Cal. Steady w/ RapidFire™  
 Cal. Steady w/ CalFlash™  
 Cal. Steady w/ CometFlash® 120  
 Cal. Steady w/ ActionFlash™

#### Sync

SignalAlert (Alt. / Phase 1)  
 SignalAlert (Alt. / Phase 2)  
 SignalAlert (Sim. / Phase 1)  
 SignalAlert (Sim. / Phase 2)  
 CometFlash (Alt. / Phase 1)  
 CometFlash (Alt. / Phase 2)  
 CometFlash (Sim. / Phase 1)  
 CometFlash (Sim. / Phase 2)  
 DoubleFlash (Alt. / Phase 1)  
 DoubleFlash (Alt. / Phase 2)  
 DoubleFlash (Sim. / Phase 1)  
 DoubleFlash (Sim. / Phase 2)  
 SingleFlash (Alt. / Phase 1)  
 SingleFlash (Alt. / Phase 2)  
 SingleFlash (Sim. / Phase 1)  
 SingleFlash (Sim. / Phase 2)  
 ComAlert (Alt. / Phase 1)  
 ComAlert (Alt. / Phase 2)  
 ComAlert (Sim. / Phase 1)  
 ComAlert (Sim. / Phase 2)



**NOTE:**  
 The Standard TN uses a cigar cord as shown here.

