

WHELEN[®]

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Installation Guide:
TN™-series LED Dash Light
Models: TLN1* / TLNS1* / TLN2** / TLNS2**

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 owners 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

Mounting:

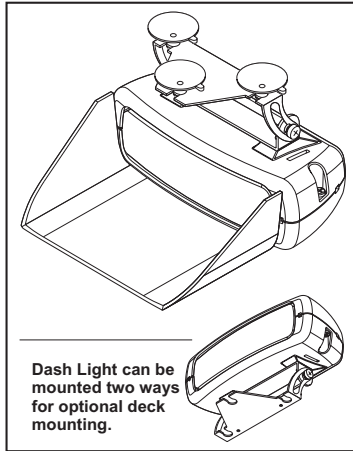
Caution: Nighttime operation of this product may produce reflected light within the vehicle! Use with caution!

Caution: This product has been designed to rest on top of the vehicle 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.

Caution: Permanent mounting of this product will require drilling. It is absolutely necessary to make sure that no other vehicle components could be damaged by this process. Check both sides of the mounting surface before starting. If damage is likely, select a different mounting location.

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 (see parts diagram). Then secure the visor hood to the unit.
4. With the TN™ resting on the top of the dashboard, apply the suction cups to the windshield.



IMPORTANT AIR BAG

WARNING: Do not install this product or route any wires in the air bag deployment zone of your vehicle. Equipment mounted or located in air bag deployment zones 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 owners manual to learn the air bag deployment zones for the vehicle. The User/Installer assumes full responsibility to determine proper mounting location, based on providing ultimate safety to all passengers inside the vehicle.

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:

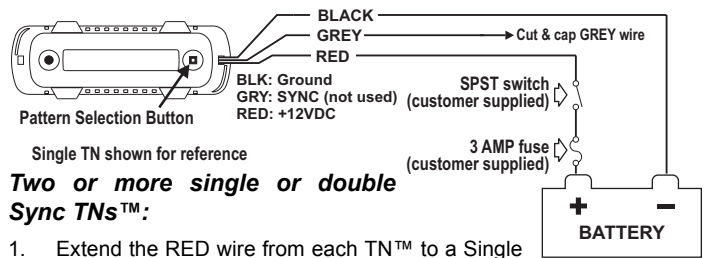
NOTE: Standard TNs™ use a cigar cord for power connection and no further wiring is necessary. Synced TNs™ are required to be wired as outlined below.

One single or double Sync TN™:

1. Extend the RED wire to a Single Pole/Single Throw switch. From this switch, extend a wire to +12VDC. See the appropriate Parts Diagram for fusing information.

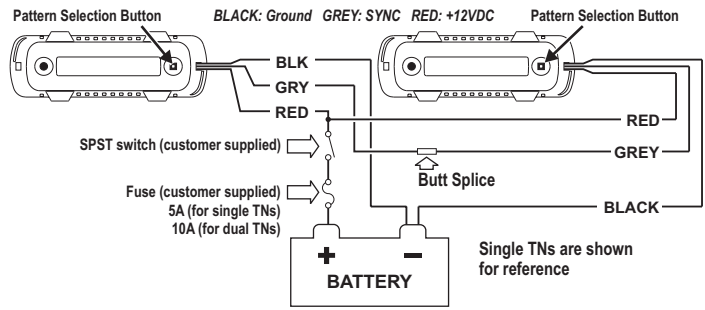
All customer supplied wires that connect to the positive terminal of the battery must be sized to supply at least 125% of the maximum operating current and FUSED at the battery to carry that load. DO NOT USE CIRCUIT BREAKERS WITH THIS PRODUCT!

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



Two or more single or double Sync TNs™:

1. Extend the RED wire from each TN™ to a Single Pole/Single Throw switch. From this switch, extend a wire to +12VDC. See Parts Diagrams for fusing information for your model.
2. Extend the BLACK wires from each TN to chassis ground.
3. Butt splice the two GREY wires together.



Flash Pattern Selection:

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

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

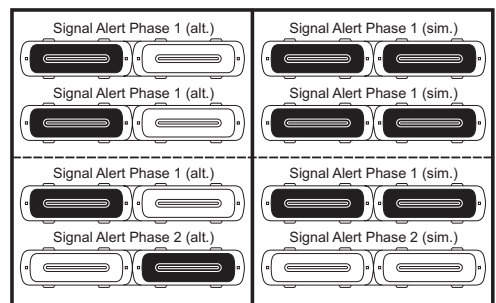
To reset to the factory default pattern, turn off power to the lighthouse. While pressing the pattern selection button, turn the lighthouse back on and keep the pattern selection button depressed for more than 5 seconds.

Flash patterns for both TNs are listed on the following pages.

Synchronizing Single TNs - To sync two or more lighthouses, configure all lighthouses to display the same **Phase 1** pattern. When the lighthouses are activated, the patterns displayed will be synchronized. To configure specific lighthouses to alternate their patterns with other lighthouses, advance the pattern of either 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 modes for each of the 69 available patterns. Alternating Phase 1 or 2 and Simultaneous Phase 1 or 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.

This diagram shows the relationship between two, dual synchronized TN™s. Keep in mind that all TN™s connected by the GREY wire must be configured to flash the same pattern (both TNs shown are displaying Signal Alert™).



IMPORTANT: It is the responsibility of the installation technician to make sure that the installation and operation of this product will not interfere with or compromise the operation or efficiency of any vehicle equipment! Before returning the vehicle to active service, visually confirm the proper operation of this product, as well as all vehicle components/equipment.

IMPORTANT WARNING!

CAUTION! DO NOT LOOK DIRECTLY AT THESE LED'S WHILE THEY ARE ON. MOMENTARY BLINDNESS AND/OR EYE DAMAGE COULD RESULT!

TN™ - Series LED Dash Light / Single

QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
	*		01-0685950-__	SINGLE PASSIVE TN™
*			01-0664078-__	SINGLE PASSIVE TN™ / SPLIT
1	1	1	01-0485950-00	KIT / INSTALLATION DASH LIGHT
2	2	2	15-06521B-080	SCREW / 6 X 1/2 PPH PLAST-LOK SS BLACK OXIDE
2	2	3	11-463555-000	HOUSING / SINGLE LED DASH LIGHT
-	A/R	4	02-0169582-00	PCB / BALLAST TN PASSIVE / SYNC
-	A/R	5	02-0169783-00	PCB / BALLAST TN PASSIVE / CIGAR CORD
-	A/R	6	01-0269956-10	LED / PASSIVE / REFLECTOR ASSEMBLY - AMBER
-	A/R	7	01-0269956-20	LED / PASSIVE / REFLECTOR ASSEMBLY - BLUE
-	A/R	8	01-0269956-30	LED / PASSIVE / REFLECTOR ASSEMBLY - WHITE
-	A/R	9	01-0269956-40	LED / PASSIVE / REFLECTOR ASSEMBLY - GREEN
-	A/R	10	01-0269956-50	LED / PASSIVE / REFLECTOR ASSEMBLY - RED
A/R	-	11	01-0264071-52	SPLIT LED / PASSIVE / with CIGAR CORD - RED/BLU
A/R	-	12	01-0264071-53	SPLIT LED / PASSIVE / with CIGAR CORD - RED/WHT
A/R	-	13	01-0264071-23	SPLIT LED / PASSIVE / with CIGAR CORD - BLU/WHT
A/R	-	14	01-0264071-21	SPLIT LED / PASSIVE / with CIGAR CORD - BLU/AMB
A/R	-	15	01-0264071-51	SPLIT LED / PASSIVE / with CIGAR CORD - RED/AMB
1	1	16	21-31000512-0	PLUG / HOLE RUBBER 5/32 DIA
A/R	A/R	17	68-3963604-10	LENS / AMBER SNAP-ON LED DASH LIGHT
A/R	A/R	18	68-3963604-20	LENS / BLUE SNAP-ON LED DASH LIGHT
1	1	19	68-3963604-30	LENS / CLEAR SNAP-ON LED DASH LIGHT
A/R	A/R	20	68-3963604-50	LENS / RED SNAP-ON LED DASH LIGHT

Part Number Key:

01-0685950-

L STYLE
LED-LENS COLOR

STYLE LED-LENS COLOR 1 = AMBER/CLEAR
S = SYNC A = AMBER/AMBER 2 = BLUE/CLEAR
0 = CIGAR B = BLUE/BLUE 3 = WHITE/CLEAR
G = GREEN/GREEN 4 = GREEN/CLEAR
R = RED/RED 5 = RED/CLEAR

Flash Patterns - Single Models (Split)

- SignalAlert™ 75-ALT
- SignalAlert™ 75-SIM
- CometFlash® 75-ALT
- CometFlash® 75-SIM
- DoubleFlash 75-ALT
- DoubleFlash 75-SIM
- SingleFlash 375-ALT
- SingleFlash 375-SIM
- SingleFlash 150-ALT
- SingleFlash 150-SIM
- SingleFlash 75-ALT
- SingleFlash 75-SIM
- ActionFlash™ -ALT
- ActionFlash™ -SIM
- ActionScan
- Steady / SingleFlash
- Dual Steady

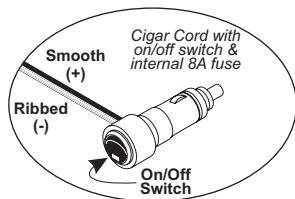
Flash Patterns - Single Models (Cigar Cord)

- SignalAlert™ 75
- SignalAlert™ 150
- SingleFlash 375
- SingleFlash 150
- SingleFlash 75
- DoubleFlash 150
- DoubleFlash 75
- CometFlash® 75
- ActionFlash™
- ModuFlash™
- ComAlert™
- ActionScan™
- SignalAlert™ Steady
- Steady (Brake)

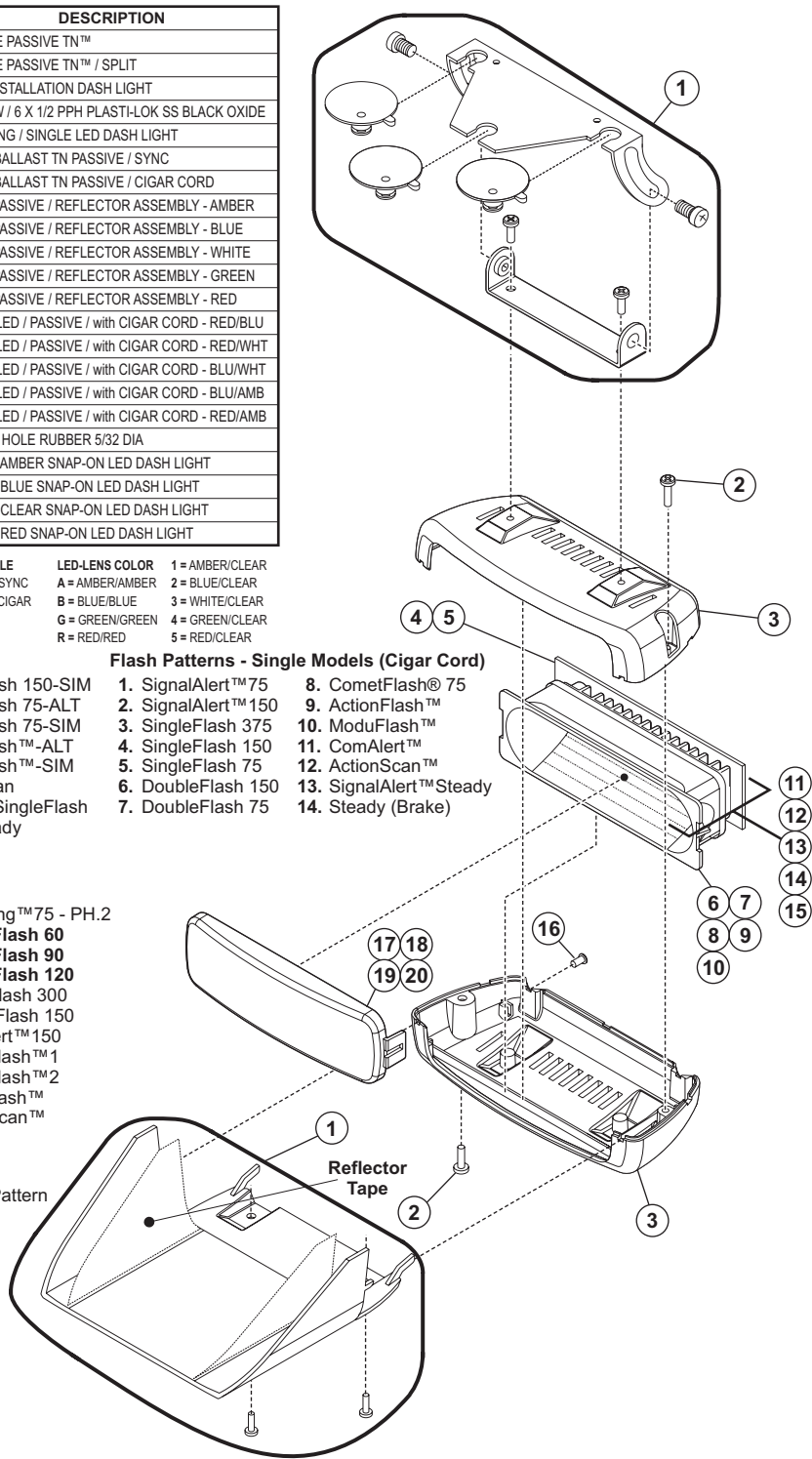
Flash Patterns - Single Models (SYNC)

- SignalAlert™ 75 - PH.1
- SignalAlert™ 75 - PH.2
- CometFlash® 75 - PH.1
- CometFlash® 75 - PH.2
- DoubleFlash 75 - PH.1
- DoubleFlash 75 - PH.2
- SingleFlash 75 - PH.1
- SingleFlash 75 - PH.2
- ComAlert™ 75-PH.1
- ComAlert™ 75-PH.2
- LongBurst™ 75-PH.1
- LongBurst™ 75-PH.2
- PingPong™ 75-PH.1
- PingPong™ 75 - PH.2
- SingleFlash 60**
- SingleFlash 90**
- SingleFlash 120**
- SingleFlash 300
- DoubleFlash 150
- ComAlert™ 150
- ActionFlash™ 1
- ActionFlash™ 2
- ModuFlash™
- ActionScan™
- Steady

NOTE: BOLD = CA Title XIII Compliant Pattern



Cigar cord shown for reference.

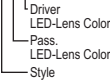


Flash Patterns - Dual Models (SYNC)

- 1. *SignalAlert™ 75* . . . PH.1
- 2. *SignalAlert™ 75* . . . PH.2
- 3. *SignalAlert™ 75* . . . PH.3
- 4. *SignalAlert™ 75* . . . PH.4
- 5. *CometFlash@75* . . . PH.1
- 6. *CometFlash@75* . . . PH.2
- 7. *CometFlash@75* . . . PH.3
- 8. *CometFlash@75* . . . PH.4
- 9. **DoubleFlash 75** . . . PH.1
- 10. **DoubleFlash 75** . . . PH.2
- 11. **DoubleFlash 75** . . . PH.3
- 12. **DoubleFlash 75** . . . PH.4
- 13. **SingleFlash 75** . . . PH.1
- 14. **SingleFlash 75** . . . PH.2
- 15. **SingleFlash 75** . . . PH.3
- 16. **SingleFlash 75** . . . PH.4
- 17. *ComAlert™ 75* . . . PH.1
- 18. *ComAlert™ 75* . . . PH.2
- 19. *ComAlert™ 75* . . . PH.3
- 20. *ComAlert™ 75* . . . PH.4
- 21. *LongBurst™ 75* . . . PH.1
- 22. *LongBurst™ 75* . . . PH.2
- 23. *LongBurst™ 75* . . . PH.3
- 24. *LongBurst™ 75* . . . PH.4
- 25. **PingPong™ 75** . . . PH.1
- 26. **PingPong™ 75** . . . PH.2
- 27. **PingPong™ 75** . . . PH.3
- 28. **PingPong™ 75** . . . PH.4
- 29. *SSNF 75* . . . PH.1
- 30. *SSNF 75* . . . PH.2
- 31. **SingleFlash 60** . . . ALT
- 32. **SingleFlash 60** . . . SIM
- 33. **SingleFlash 90** . . . ALT
- 34. **SingleFlash 90** . . . SIM
- 35. **SingleFlash 120** . . . ALT
- 36. **SingleFlash . . 120SIM**
- 37. **SingleFlash 300** . . . ALT
- 38. **SingleFlash 300** . . . SIM
- 39. **DoubleFlash 150** . . . ALT
- 40. **DoubleFlash 150** . . . SIM
- 41. **ComAlert™ 150** . . . ALT
- 42. **ComAlert™ 150** . . . SIM
- 43. **ActionFlash™ 50** . . . ALT
- 44. **ActionFlash™ 50** . . . SIM
- 45. **ActionFlash™ 150** . . . ALT
- 46. **ActionFlash™ 150** . . . SIM
- 47. **ModuFlash™** ALT
- 48. **ModuFlash™** SIM
- 49. **DoubleFlash 120** . . . ALT
- 50. **DoubleFlash 120** . . . SIM
- 51. **PingPong™ 120** . . . ALT
- 52. **PingPong™ 120** . . . SIM
- 53. **TripleFlash 75** . . . ALT
- 54. **TripleFlash 75** . . . SIM
- 55. **TripleFlash 120** . . . ALT
- 56. **TripleFlash 120** . . . SIM
- 57. **SigAlert Cal.™** . . . ALT
- 58. **SigAlert Cal.™** . . . SIM
- 59. **Action 1** ALT
- 60. **Action 1** SIM
- 61. **Action 2** ALT
- 62. **Action 2** SIM
- 63. **CalScan™** . . . Alt/Sim
- 64. **ActionScan™** . . . Alt/Sim
- 65. **Steady / Flash 60**
- 66. **Steady / Flash 75**
- 67. **Steady / Flash 90**
- 68. **Steady / Flash 120**
- 69. **Steady / Steady**

TN™ - Series LED Dash Light / Dual

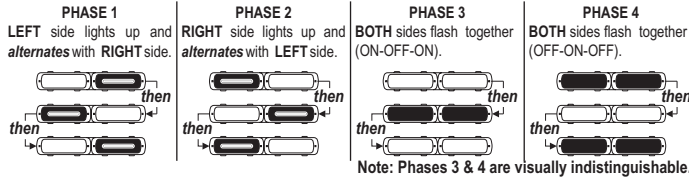
01-0685959



- LED-LENS COLOR**
 A = AMBER/AMBER
 B = BLUE/BLEU
 W = WHITE/CLEAR
 R = RED/RED
 1 = AMBER/CLEAR
 2 = BLUE/CLEAR
 5 = RED/CLEAR
- STYLE**
 0 = Standard
 S = SYNC

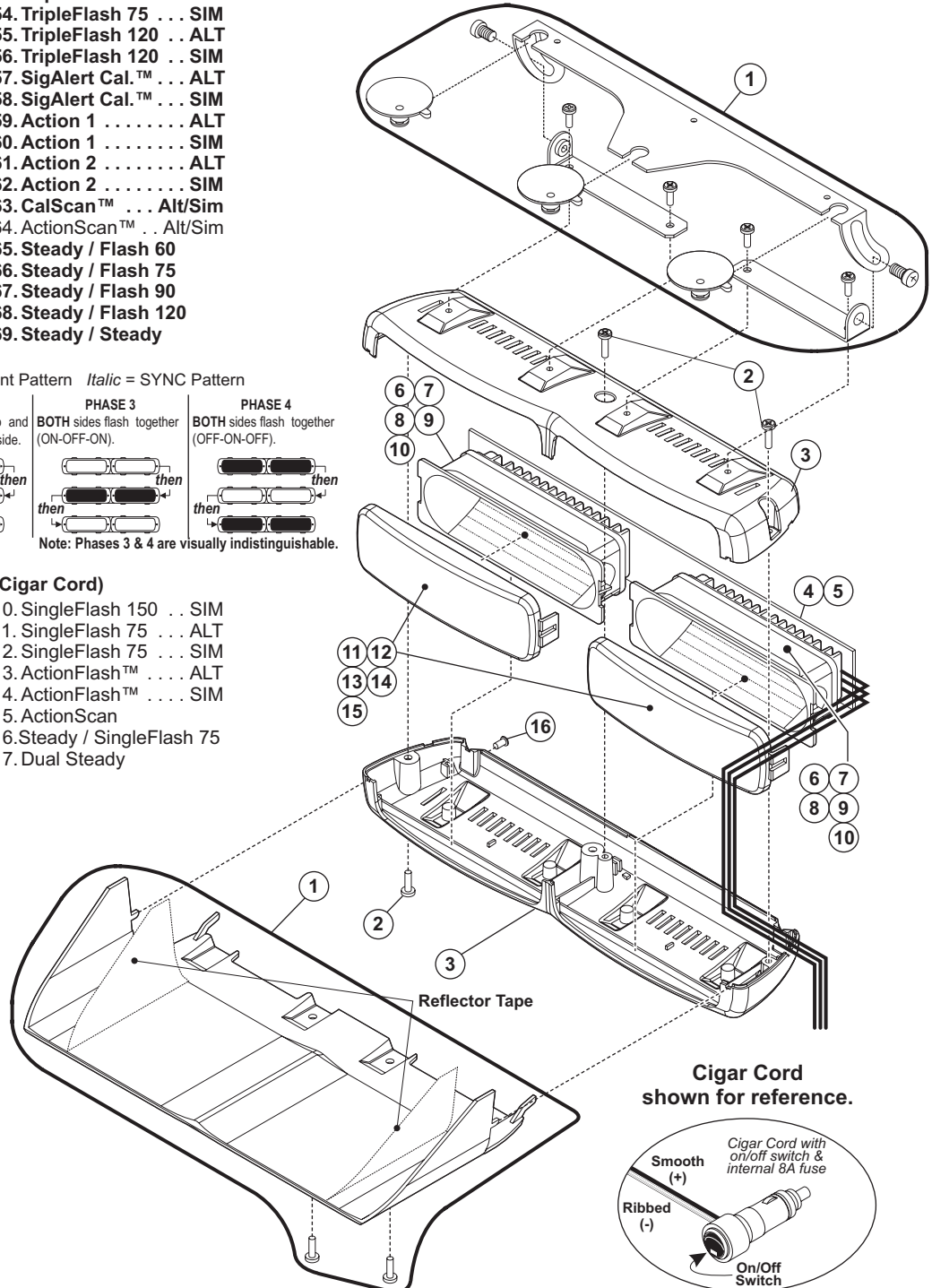
QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
	*		01-06859590 ()	DUAL PASSIVE TN™ / CIGAR CORD
*			01-0685959S ()	DUAL PASSIVE TN™ / SYNC
1	1	1	01-0485959-00	KIT / TN™ INSTALLATION
3	3	2	15-06521B-080	SCREW / #6 x 1/2" PPH PLASTI-LOK SS
2	2	3	11-483849-000	HOUSING / DUAL TN™
-	1	4	02-0169862-00	PCB ASSEMBLY DUAL TN / PASSIVE w/CIGAR
1	-	5	02-0169594-00	PCB ASSEMBLY DUAL TN / PASSIVE w/SYNC
A/R	A/R	6	01-0269956-10	TN™ PASSIVE LED ASSEMBLY / AMBER
A/R	A/R	7	01-0269956-20	TN™ PASSIVE LED ASSEMBLY / BLUE
A/R	A/R	8	01-0269956-30	TN™ PASSIVE LED ASSEMBLY / WHITE
A/R	A/R	9	01-0269956-40	TN™ PASSIVE LED ASSEMBLY / GREEN
A/R	A/R	10	01-0269956-50	TN™ PASSIVE LED ASSEMBLY / RED
A/R	A/R	11	68-3963604-10	LENS / SNAP-ON LED / AMBER
A/R	A/R	12	68-3963604-20	LENS / SNAP-ON LED / BLUE
2	2	13	68-3963604-30	LENS / SNAP-ON LED / CLEAR
A/R	A/R	14	68-3963604-40	LENS / SNAP-ON LED / GREEN
A/R	A/R	15	68-3963604-50	LENS / SNAP-ON LED / RED
1	1	16	21-31000512-0	PLUG / RUBBER

NOTE: BOLD = CA Title XIII Compliant Pattern *Italic = SYNC Pattern*



Flash Patterns - Dual Models (Cigar Cord)

- 1. *SignalAlert™ 75* . . . ALT
- 2. *SignalAlert™ 75* . . . SIM
- 3. *CometFlash@75* . . . ALT
- 4. *CometFlash@75* . . . SIM
- 5. **DoubleFlash 75** . . . ALT
- 6. **DoubleFlash 75** . . . SIM
- 7. **SingleFlash 375** . . . ALT
- 8. **SingleFlash 375** . . . SIM
- 9. **SingleFlash 150** . . . ALT
- 10. **SingleFlash 150** . . . SIM
- 11. **SingleFlash 75** . . . ALT
- 12. **SingleFlash 75** . . . SIM
- 13. **ActionFlash™** ALT
- 14. **ActionFlash™** SIM
- 15. **ActionScan**
- 16. **Steady / SingleFlash 75**
- 17. **Dual Steady**



Cigar Cord shown for reference.

