



Installation and Operation Instructions

TRANSFORMERS SERIES

LED Warning & Working Lighthead



TF-12

Use to ITEM: 024541** 024545**



1. Safety Precautions

The Manual provides all the necessary information for carrying out correct installation. Be sure to read this Manual thoroughly before proceeding with the installation and/or operation of the product so as to prevent serious injury or damage.

1. Proper installation of the lightbar requires the installer to have a good knowledge of automotive electronics, systems and procedures. Necessary training is required for operators to ensure safety of emergency personnel and the public.

2. Failure to use specified installation parts and/or hardware will void the product warranty.

3. Make a drilling and wiring plan before installation. Please guarantee no vehicle components or other vital parts could be damaged by the drilling process. DO NOT install this product or route any wires in the Air Bag Deployment Zone. Refer to your vehicle Owner's Manual for the location of any air bag deployment zones.

4. The product must be properly grounded in case of any high current arching. Make sure to follow all wiring guidelines provided in the manual to ensure safety and productivity.

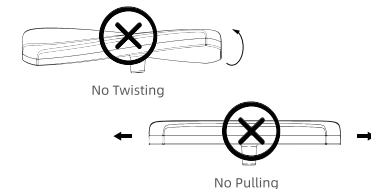
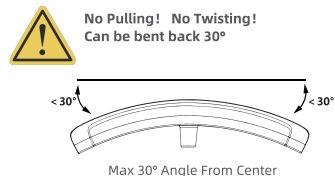
5. The vehicle operator should ensure daily that the product is securely fastened to the vehicle and all features work correctly.

6. The use of this or any other warning device does not ensure all drivers can or will observe or react to an emergency warning signal. Never take the right-of-way for granted. It is your responsibility to be sure you can proceed safely before entering an intersection, drive

against traffic, respond at a high rate of speed, or walk on or around traffic lanes.

7. The equipment is intended for use by authorized personnel only. The user is responsible for understanding and obeying all laws regarding emergency warning devices. Therefore, the user should check all applicable city, state, and federal laws and regulations. The manufacturer assumes no liability for any loss resulting from the use of this warning device.

8. It is recommended to keep this Manual on hand for future use like relocating or repairing the unit.

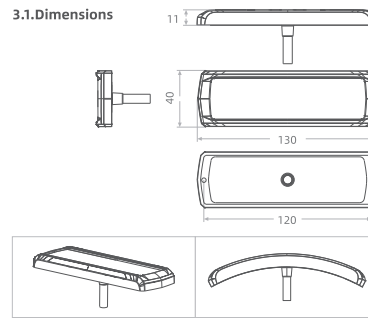


2. Specifications

ITEM	024545	024541
Max Power	18W	20W
Voltage	10-33V	10.5-16.5V
Flash Pattern	14	
IP Rating	IP67-IP69K	
Operating Temperature	-30°C to +70°C	
Dimensions	5.1x1.6x0.4in	130x40x11mm
Certifications	ECE R10, ECE R65, SAE J595	SAE J595, CA T13

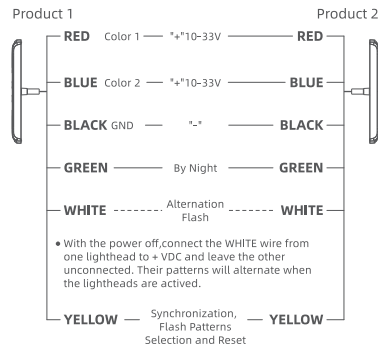
3. Product Introduction

3.1. Dimensions



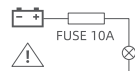
3.2. Wiring Instructions

ITEM: 024545**:



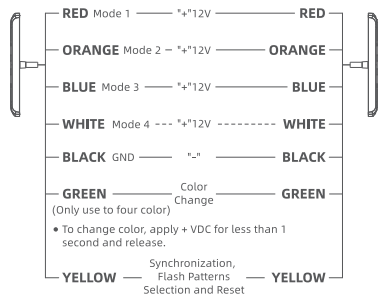
- Connect YELLOW wires of all heads together for synchronization.
- To change flash patterns, apply +VDC for less than 1 second and release.
- Flash patterns will be reset when YELLOW wires are connected to RED wire for more than 5 seconds.

A 10A fuse is required for connecting the positive terminal of the product to the battery.



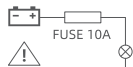
ITEM:024541**:

Product 1 Product 2



- Connet YELLOW wires of all heads together for synchronization.
- To change flash patterns, apply +VDC for less than 1 second and release.
- Flash patens will be reset when YELLOW wires are connected to RED wirefor more than 5 seconds.

A 10A fuse is required for connecting the positive terminal of the product to the battery.



Synchronous: Set the flash mode to be the same for Product 1 and Product 2.
 Alternating: After setting the flash mode to be the same for Product 1 and Product 2, then select one.
 Set to alternating mode.
 Priority: Mode 4 > Mode 3 > Mode 2 > Mode 1

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Apply yellow wire to positive pole

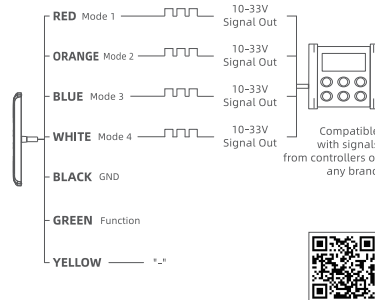
Dual Color

Time	1s	2s	3s	4s	5s
Prompt	💡 ×1	💡 ×2	💡 ×3	💡 ×4	💡 ×5
Function	Flash Control	Color Control	Brightness	Alternating Flash	Selection and Reset
Order	1. Steady ⋮ 14. Single-H/L	Color 1	☀ 100%	██ ███	/
		Color 2	☀ 60%	██ ███	/
		Color 1&2	⚡ 40%	/	/

Four Color

Time	1s	3s	4s	5s
Prompt	💡 ×1	💡 ×3	💡 ×4	💡 ×5
Function	Flash Control	Brightness	Alternating Flash	Selection and Reset
Order	1. Steady ⋮ 14. Single-H/L	☀ 100%	██ ███	/
		☀ 60%	██ ███	/
		⚡ 40%	/	/

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Priority: Mode 4 > Mode 3 > Mode 2 > Mode 1

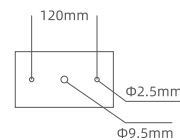
4.Flash Patterns

1	Steady	8	Single
2	Random	9	Double
3	SAE Single	10	Quad
4	ECE R65 Single	11	Quint
5	ECE R65 Double	12	Ultra
6	ECE R65 Triple	13	Single-Quad
7	ECE R65 Quint	14	Single-H/L

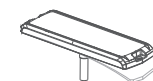
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5.Mouting

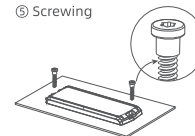
① Back panel punching



③ Peel off the backing adhesive



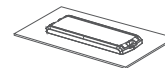
⑤ Screwing



② Clean the surface



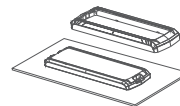
④ Install products



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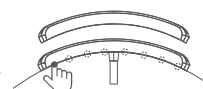
⑥ Install Cover

Hard cover



Check if the cover is securely in place.

Soft cover



Press along the edges with your fingers, ensuring a tight and snug fit.



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