DLITMC Series

Low Profile LED Auxiliary Light

IMPORTANT: ***Please read all of the following instructions before installing your new light. Failure to follow these safety precautions may result in damage to your light or vehicle and may result in serious injury or death to you and your passengers.***

Installation Notes

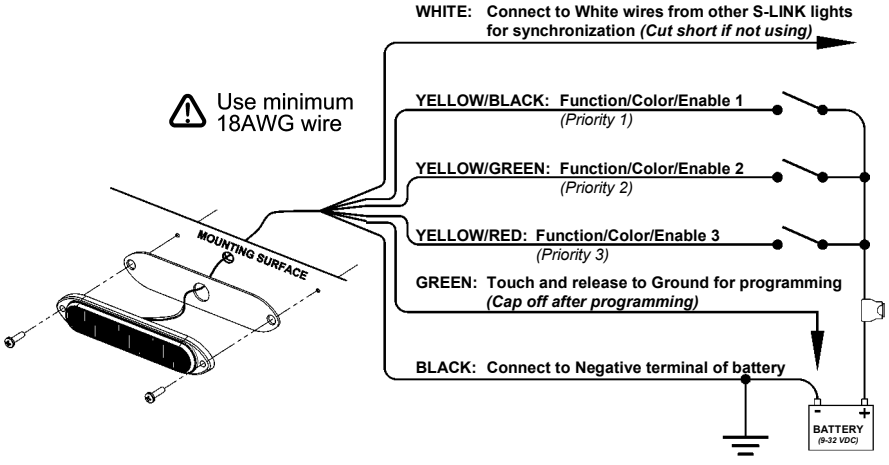
- Installer must have firm knowledge of vehicle electrical systems & emergency equipment. **It is the sole responsibility of the installer to ensure the warning light is secure. The manufacturer assumes no responsibility for the secure mounting of this light.**
- If you need to drill any holes when installing this light, please take care to check that BOTH SIDES of your drilling surface are clear from obstructions.
- Choose a mounting location away from any air bag deployment areas.
- Controls should be placed within convenient reach of the driver.
- Use only soap and water when cleaning product. Use of other chemicals may discolor lens and/or housing, diminishing light output.

Wiring Notes

When wiring your lights, it is recommended that you take the following precautions to reduce any Electromagnetic Interference (EMI).

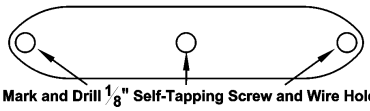
- Keep LED modules and any radios as far away from each other as possible.
- Separate the radio wires and the LED wires.
- Any excess wires should be cut short.
- The Ground wire, Power wire, and Synchronization wire should be bound tightly together as they run from light to light, through your switchbox, and to the battery.
- Do not ground each unit independently to the chassis. Run the ground for each unit in a "bus" like structure, to the negative terminal on the battery.

Note: The total wire length between the two farthest units should be no more than 40 feet.



Mounting Instructions

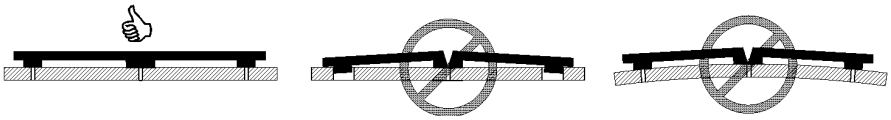
DLIT Rubber Mounting Gasket (P30047-174)



MUST DRILL HOLES THE SPECIFIED SIZES!!!

DO NOT OVER TIGHTEN SCREWS!! TORQUE TO 10 IN.-LBS.!!

This light must be mounted on a perfectly flat surface!! Failure to do so will result in damage to the housing and will void the warranty!



Once the wires are run, the use of a small amount of silicone or other similar sealant (not included) is recommended to seal the wire hole and prevent your wires from becoming damaged.

Standard Programming, Functionality, and Operation

This section applies to the default functionality of this light. There are also several other advanced features that can be programmed. Most applications will not require reprogramming of the light, but you can find these options described in detail under the ***Advanced Programming*** section.

The recommended first step is to identify what color is defaulted to each input. To do this:

- Connect the BLACK wire to Ground
- Touch one of the Enable wires (YELLOW w/BLACK, YELLOW w/GREEN, or YELLOW w/RED) to power.
- Repeat for each Enable wire.

Please note that the default functionality differs, depending upon whether you select a 2-Phase pattern or a 3-Phase pattern. Determine which you will be using:

- Use a 2-Phase pattern if you want to activate a single color with one wire.
- Use a 3-Phase pattern if you want to activate all 3 colors at once with one wire.

PATTERN SELECTION

1. Connect the BLACK wire to Ground
2. Connect the corresponding Enable wire to Power *(only one at a time)*.
3. Touch and release the GREEN wire to Ground to scroll through the patterns.

Flash Pattern #	S-LINK Pattern Type	Pattern Description	PHASE
1	K	Flicker † *(Shortcut 1)*	2 PHASE PATTERNS
2	L	Fast Doubleflash	
3	M	Tripleflash †	
4	N	Pseudo Flicker	
5	O	Pseudo Random	
6	F	Quadflash †	
7	G	Quadflash w/Post-Pop †	
8	H	Singleflash †	
9	I	Doubleflash †	
10	J	Variable AKA Delta-Omega	
11	A21	Double Shuffle *(Shortcut 2)*	3 PHASE PATTERNS
12	A22	Quad/Single	
13	A23	Single Cycle	
14	A24	Quad Post Pop Shuffle	
15	A25	Quint Shuffle	
16	A26	Combo 1 5 3	
17	A27	Delta Omega Nu	
18	A28	Cliff	

† - *SAE approved patterns when properly configured*

Shortcut 1 - Hold GREEN wire to Ground for 3 seconds (light flashes once)

Shortcut 2 - Hold GREEN wire to Ground for 6 seconds (light flashes twice)

2-Phase Patterns (1-10)

If you program any of the Enable wires for Pattern 1-10, the default functionality will be such that it will activate the single color that is tied to that Enable wire.
*(See the **Advanced Programming** section for additional functionality.)*

3-Phase Patterns (11-18)

If you program any of the Enable wires for Pattern 11-18, the default functionality will be such that it will activate all three colors dispersed throughout that pattern.
*(See **Advanced Programming** section for additional functionality.)*

Each of the Phases in the 3-Phase Patterns is designated for a particular color. Review the chart to the right that shows which color is designated to each Phase depending upon which Enable wire you select. You can use different Enable wires to produce different pattern effects. Additionally, you can utilize the different Enable wires when synchronizing lights so that the colors alternate back and forth between the synchronized lights.

ENABLE WIRE PHASES FOR 3-PHASE PATTERNS

Enable Wire	Phase 3 Color	Phase 2 Color	Phase 1 Color
YELLOW w/BLACK	C3	C2	C1
YELLOW w/GREEN	C1	C3	C2
YELLOW w/RED	C1	C2	C3

Factory Default wire colors for Enables shown below.

ACTIVATING MULTIPLE ENABLES

- If you activate multiple Enable lines at the same time, the Pattern of the highest Priority Enable wire (Priority 1 is highest) will take precedence.
- If the highest priority Enable wire activated is a 3-Phase pattern (11-18), the lower priority Enables will be disregarded.
- Multiple 2-Phase Enables activated:

FACTORY DEFAULT ENABLE WIRE LEGEND

YELLOW w/BLACK - Enable 1 *(Priority 1)*: **Color/Function 1**
YELLOW w/GREEN - Enable 2 *(Priority 2)*: **Color/Function 2**
YELLOW w/RED - Enable 3 *(Priority 3)*: **Color/Function 3**

# of Enables Activated	*Result*
1	That color will flash its programmed pattern On and Off.
2	The two colors will alternate the pattern of the higher priority Enable wire.
3	All 3 colors will cycle though the pattern of the highest priority Enable wire one at a time with an “Off” time between colors.

ADDITIONAL FUNCTION SHORTCUTS

There are several additional functions that can be accessed through the “shortcuts” that are listed in the chart to the right. To set any of them, **connect the BLACK wire to Ground and connect ONE of the Enable wires to Power**. Hold the GREEN wire to Ground for the time indicated. Each Enable is programmed independently.

ADDITIONAL FUNCTION PROGRAMMING SHORTCUTS

Hold Green to Ground (sec)	# Flashes	Effect On That Enable Wire
0-2	N/A	Advances to next pattern
3	1	Advances to Pattern 1
6	2	Advances to Pattern 11
9	3	Set Enable to Phase 1
12	4	Set Enable to Phase 2
15	5	Toggles Cruise On/Off
18	6	Toggles Steady Burn On/Off
21	7	Toggle Auto-Dim On/Off

Phase 1 / Phase 2** **(Patterns 1-11 only)

By default, each Enable is set for Phase 1. If you are synchronizing this light with another and want the two lights to alternate, set the second light for Phase 2.
(See Synchronization section for details)

Steady Burn

Use this setting to set an Enable wire to activate Steady Burn mode for that color. This mode the highest priority and it will override all other modes (all flashing stops). Note: If more than one Steady Burn Enable is activated, only the highest priority Enable (color) will display.

Cruise

Low intensity version of Steady Burn. This is the lowest priority. It will be over ridden if any other Enables are activated.

Auto-Dim

If this feature is enabled the color/function tied to that particular Enable wire will automatically dim in low light environments (ex. at night). *Warning: Bright lights (such as headlights) can temporally change the light back to standard intensity.*

RESET TO DEFAULT SETTINGS

To reset all settings to the factory defaults, proceed as follows:

- Connect the BLACK wire to Ground
- Connect the WHITE wire and any **ONE** of the Enable wires to Power
- Connect hold the GREEN wire to Ground for 9 seconds and release it when the light flashes 3 times.
- Disconnect the WHITE wire from Power 1 second later

SYNCHRONIZATION

You can synchronize up to ten lights with S-LINK SYSTEM compatibility.

DO NOT CONNECT WHITE WIRES UNTIL PROGRAMMING HAS BEEN COMPLETED FOR ALL LIGHTS!!

1. Power up the first unit and select a pattern. Touch and release the green wire to ground to change patterns.

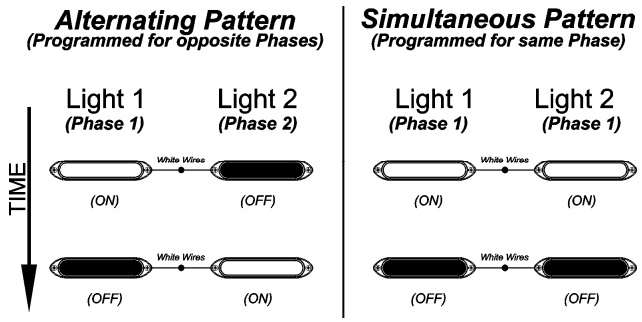
2. Program the second light with the same ***Pattern Type***.

   Lights with the SAME phase flash together (simultaneous).

   Lights with DIFFERENT phases flash opposite one another (alternate).

3. After programming all lights, tie off the green wires and connect the white wires together.

4. Test lights by applying power to all of them at the same time.



NOTICE

Due to continuous product improvements, we must reserve the right to change any specifications and information, contained in this manual at any time without notice. Star Headlight & Lantern Co., Inc. makes no warranty of any kind with regard to this manual, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Star Headlight & Lantern Co., Inc. shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this manual.

This section is OPTIONAL. Most applications will not require any Advanced Programming. You should only need to reference this section if you require specialized programming.

Advanced Programming

CHANGING COLOR ASSIGNMENTS FOR EACH ENABLE

(applies only to Patterns 1-11, Steady Burn, and Cruise)

The list to the right shows the default factory settings in which each Enable wire has one color assigned to it when using Patterns 1-11.

To reprogram the color assigned to each Enable, or to assign multiple colors to one Enable, proceed as follows:

- Connect the BLACK wire to Ground.
- Connect the WHITE wire and **only** the Enable wire that you wish to reprogram to Power.
- Briefly touch and release the GREEN wire to Ground to scroll through the color combinations listed in the table to the right.
- Disconnect the WHITE wire from Power after 1 second.

For 2-color Models Only: Color 3 should be disregarded and has no effect on the output.

FACTORY DEFAULT ENABLE WIRE LEGEND

YELLOW w/BLACK - Enable 1 *(Priority 1)*: **Color 1** *(setting #1)*
YELLOW w/GREEN - Enable 2 *(Priority 2)*: **Color 2** *(setting #2)*
YELLOW w/RED - Enable 3 *(Priority 3)*: **Color 3** *(setting #4)*

Enable Wire Color Assignment

Setting #	Color 1	Color 2	Color 3
1	ON	OFF	OFF
2	OFF	ON	OFF
3	ON	ON	OFF
4	OFF	OFF	ON
5	ON	OFF	ON
6	OFF	ON	ON
7	ON	ON	ON

CHANGING COLOR ORDER FOR EACH ENABLE

(applies only to Patterns 12-18 / 3-Phase Patterns)

When programmed for Patterns 12-18, each Enable wire has a default "Color Order" assigned to it (the order the colors are rotated through).

DEFAULT ENABLE WIRE COLOR ORDERS FOR 3-PHASE PATTERNS

YELLOW w/BLACK - Enable 1 *(Priority 1)*: **Color 1/Color 2/Color 3** *(setting #22)*
YELLOW w/GREEN - Enable 2 *(Priority 2)*: **Color 2/Color 3/Color 1** *(setting #8)*
YELLOW w/RED - Enable 3 *(Priority 3)*: **Color 3/Color 2/Color 1** *(setting #6)*

Using this programming option you can change the order and/or replace individual colors from the 3-Phase pattern. This can be useful if you want to utilize only one or two colors for a particular Enable, or if you have two synchronized lights and you would like a different color flashing on different lights.

To reprogram the Color Order assigned to each Enable, proceed as follows:

- Connect the BLACK wire to Ground.
- Connect the WHITE wire and the Enable wire that you wish to reprogram to Power.
- Hold the GREEN wire to Ground to for 3 seconds until the light flashes once then release it. The Color Order will scroll to the next combination listed in the table to the left.
- Repeat the process with the GREEN wire until you advance to the combination you desire.
- Disconnect the WHITE wire from Power after 1 second.

For 2-color Models Only: Selecting a combination that uses color 3 will result in an "Off" time in the pattern.

Color Order For 3-Phase Patterns

Setting #	Phase 1	Phase 2	Phase 3
1	C1	C1	C1
2	C2	C1	C1
3	C3	C1	C1
4	C1	C2	C1
5	C2	C2	C1
6	C3	C2	C1
7	C1	C3	C1
8	C2	C3	C1
9	C3	C3	C1
10	C1	C1	C2
11	C2	C1	C2
12	C3	C1	C2
13	C1	C2	C2
14	C2	C2	C2
15	C3	C2	C2
16	C1	C3	C2
17	C2	C3	C2
18	C3	C3	C2
19	C1	C1	C3
20	C2	C1	C3
21	C3	C1	C3
22	C1	C2	C3
23	C2	C2	C3
24	C3	C2	C3
25	C1	C3	C3
26	C2	C3	C3
27	C3	C3	C3

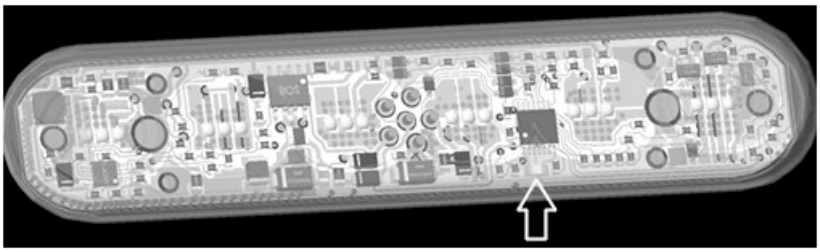
WIRELESS PROGRAMMING ***(OPTIONAL)***

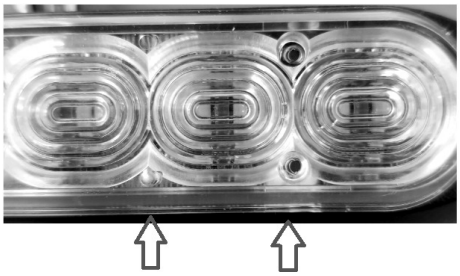
Optionally, instead of using the wires to program this light, it can be done using any android based phone or tablet that has a flash on it.

1. Download the application from the play store.
2. Select the desired options in the app.
3. Power up the light using two or more Enable lines and attach the GREEN wire to Ground.
4. Hold the android device's flash as close as possible to the sensor in the light (shown below).
5. Press send.
6. The light will either flash once quickly to indicate an error, or it will flash for about 1.5 seconds to indicate success.

If the light indicates an error:

- Ensure the flash of the phone is as close as possible to the location shown.
- Try blocking bright sunlight from the light.
- Try closing open apps on your device and or resetting it.





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LED FIVE YEAR LIMITED WARRANTY

The manufacturer warrants this LED light against factory defects in material and workmanship for five years after the date of purchase. The owner will be responsible for returning to the Service Center any defective item(s) with the transportation costs prepaid. The manufacturer will, without charge, repair or replace *at its option*, products, or part(s), which its inspection determines to be defective. Repaired or replacement item(s) will be returned to the purchaser with transportation costs prepaid from the service point. A copy of the purchaser's receipt must be returned with the defective item(s) in order to qualify for the warranty coverage. Exclusions from this warranty include, but are not limited to, domes, and/or the finish. This warranty shall not apply to any light, which has been altered, such that in the manufacturer's judgment, the performance or reliability has been affected, or if any damage has resulted from abnormal use or service.

There are no warranties expressed or implied (including any warranty of merchantability or fitness), which extend this warranty period. **The loss of use of the product, loss of time, inconvenience, commercial loss or consequential damages, including costs of any labor, are not covered**. The manufacturer reserves the right to change the design of the product without assuming any obligation to modify any product previously manufactured.

This warranty gives you specific legal rights. You might also have additional rights that may vary from state to state. Some states do not allow limitations on how long an implied warranty lasts. Some states do not allow the exclusion or limitation of incidental or consequential damages. Therefore, the above limitation(s) or exclusion(s) may not apply to you.

If you have any questions concerning this or any other product,
please contact our **Customer Service Department** at (585) 226-9787.

If a product must be returned for any reason, please contact our Customer Service Department to obtain a Returned Material Authorization number (RMA #) before you ship the product back. Please write the RMA # clearly on the package near the mailing label.

PROUDLY MADE IN THE USA
An ISO 9001:2008 Certified Company

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