INSTALLATION GUIDE

Models: TLED-450RWA/TLED-650RWA

IMPORTANT: Before installing or operating this product, both the installation technician and the operator must read this manual in full. It contains critical information that can help prevent serious injury or damage. Be sure to provide these instructions to the end user.

CAUTION: These instructions are provided as a general guideline only. Additional mounting, wiring and/or weather seals may be required and are the responsibility of the installer. The manufacturer assumes no responsibility for the integrity of the installation.

WARNING!

- This document contains all the essential information required for the proper and safe installation of your TRUX product.
- Do not install or operate this product unless you have read and understood the information contained in this Installation Guide.
- Failure to follow these guidelines could result in damage to the product, vehicle and can even cause serious injury and/or death to those you are seeking to protect.
- TRUX recommends this product to be installed professionally.

SAFETY PRECAUTIONS

1. **Authorized Use Only:** This equipment is intended for use by authorized personnel only. Users are responsible for knowing and complying with all applicable city, state, and federal laws regarding emergency warning devices. The manufacturer assumes no liability for any loss resulting from improper use of this product.
2. **Installer Qualifications:** Proper installation of this product requires the installer to have a solid understanding of automotive electronics, systems, and procedures.
3. **Warranty Notice:** Using non-specified installation parts or hardware will void the product warranty.
4. **Training and Installation:** Proper installation, along with comprehensive operator training in the use, care, and maintenance of emergency warning devices, is essential to ensure the well-being of both emergency personnel and the public.
5. **Daily Inspection and Signal Projection:** It is the responsibility of the vehicle operator to verify daily that all features of this product are functioning correctly. While in use, ensure that the warning signal is not obstructed by vehicle components (e.g., open trunks, compartment doors), people, vehicles, or other barriers.
6. **Operator Responsibility and Right-of-Way:** Emergency warning devices do not guarantee that all drivers will see or respond to the signal. Never assume the right-of-way. It is the operator's responsibility to ensure it is safe before entering intersections, driving against traffic, responding at high speeds, or maneuvering around traffic lanes.
7. **Proper installation is critical:** Correct placement and installation are vital to the device's performance. Install the system to maximize output and ensure controls are within easy reach of the operator, allowing safe operation without taking eyes off the road.
8. **Precautions for Drilling Installation:** If installation of this product involves drilling holes, the installer must ensure that no vehicle components or other critical parts are at risk of damage. Always inspect both sides of the mounting surface before drilling. After drilling, remove any burrs to ensure a clean, safe installation.
9. **Warning: High-Intensity Light Hazard:** This product includes strobe lights, halogen bulbs, high-intensity LEDs, or a combination thereof. Do not look directly into the lights, as doing so may cause temporary blindness or permanent eye damage.
10. **Check for obstructions during use:** Operators must ensure the warning signal is not blocked by open compartments, vehicle components, bystanders, or other obstacles. Always verify system functionality during use.
11. **Optimal Placement of Controls for Operator:** Install the product controls in a location that is easily accessible and allows the operator to maintain continuous visual contact with the roadway. This ensures both convenience and visibility during operation.
12. **Air Bag Deployment Zones:** Do not install this product or route any wiring in areas that may interfere with air bag deployment. Equipment in these zones can impair air bag effectiveness or become dangerous projectiles. Consult the vehicle owner's manual to identify deployment zones and ensure a mounting location that minimizes risk, especially avoiding head impact areas.
13. **Electrical Guidelines:** Many emergency warning devices operate using high electrical voltages and/or currents. Always exercise caution when working with live electrical connections.
14. **Grounding Requirements:** This product must be properly grounded. Improper grounding or shorted electrical connections can result in high current arcing, posing risks of personal injury and/or severe vehicle damage, including fire. If wires are not properly bonded and grounded, this could cause a fire hazard.
15. **NOT FOLLOWING THESE PRECAUTIONS AND INSTRUCTIONS MAY CAUSE DAMAGE TO THE PRODUCT OR VEHICLE AND COULD LEAD TO SERIOUS INJURY TO YOU OR YOUR PASSENGERS.**

PART #	COMPLIANCES
TLED-450RWA	CA T13, SAE J595 Class 1, DOT SAE I/S/T/R, R65, R65 XA1, FMVSS-108, CE, RoHS, CISPR 25
TLED-650RWA	CA T13, SAE J595 Class 1, DOT SAE I/S/T/R, R65, R65 XA1, FMVSS-108, CE, RoHS, CISPR 25

INSTALLATION

IMPORTANT INSTRUCTIONS:

- Disable power before wiring up the device
- Before drilling into any vehicle surface, ensure the area is clear of electrical wiring, fuel lines, upholstery, and any other components that could be damaged.
- This unit is a warning device and must be connected to its own separate, fused power point. This ensures the device will continue operating even if another electrical accessory fails.
- Carefully remove the lighting device from its packaging and place it on a flat, stable surface.
- Inspect the unit thoroughly for transit damage and confirm all parts are present.
- Do not use any parts that appear damaged or broken. If you find damage or missing parts, contact the transit company or TRUX immediately.

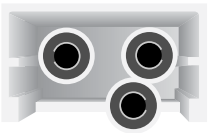
WIRING GUIDELINES:

1. **Disconnect Power First:**
   - Always disable power before wiring the Signal Light.
2. **Use Proper Connections:**
   - Use larger wires and tight connections for longer component life.
   - For high-current wiring, use terminal blocks or soldered connections with shrink tubing.
   - Do not use insulation displacement connectors.
3. **Protect Wiring:**
   - Route wires through grommets with sealant when passing through compartment walls.
   - Use looms, ties, and grommets to secure and protect wiring from heat and moving parts.
   - Avoid splices; fewer splices = less voltage drops and failure risk.
4. **Fuse and Breaker Placement:**
   - Install fuses/circuit breakers close to the power source.
   - Size them properly to protect both the wiring and devices.
5. **Grounding:**
   - Ground only to substantial chassis parts, preferably the vehicle battery

6. **Heat Sensitivity:**
   - High temperatures reduce wire, fuse, and breaker capacity.
   - Circuit breakers may false trip if mounted in hot locations or run near capacity.
7. **Additional Recommendations:**
   - Apply dielectric grease around all electrical connections exposed to moisture or the ambient environment to help protect them from corrosion and water ingress.
   - All wiring should be a minimum of 18 AWG.
   - Install a 5-amp fuse on the positive line, as shown.
8. **A switch can be added to control the on/off function. Run the ground wire directly back to the negative terminal of the battery:**
   - It is recommended to upgrade to a thicker wire (e.g., 16 AWG) after the first 10 feet of wiring. For every additional 10 feet, continue switching to a thicker gauge to minimize voltage drop and maintain optimal performance.
   - Always use minimum wire sizes and recommendations provided by the manufacturer (where applicable)

CONNECTIONS

PL3 CONNECTOR



Ground
Tail
Stop / Turn Signal

BARE WIRES



Wire 1 (White): Synchronization
Wire 2 (Green - Short): Function Switch
Wire 3 (Black - Long): Ground (-)
Wire 4 (Yellow): Reverse Light
Wire 5 (Red): Warning (+)

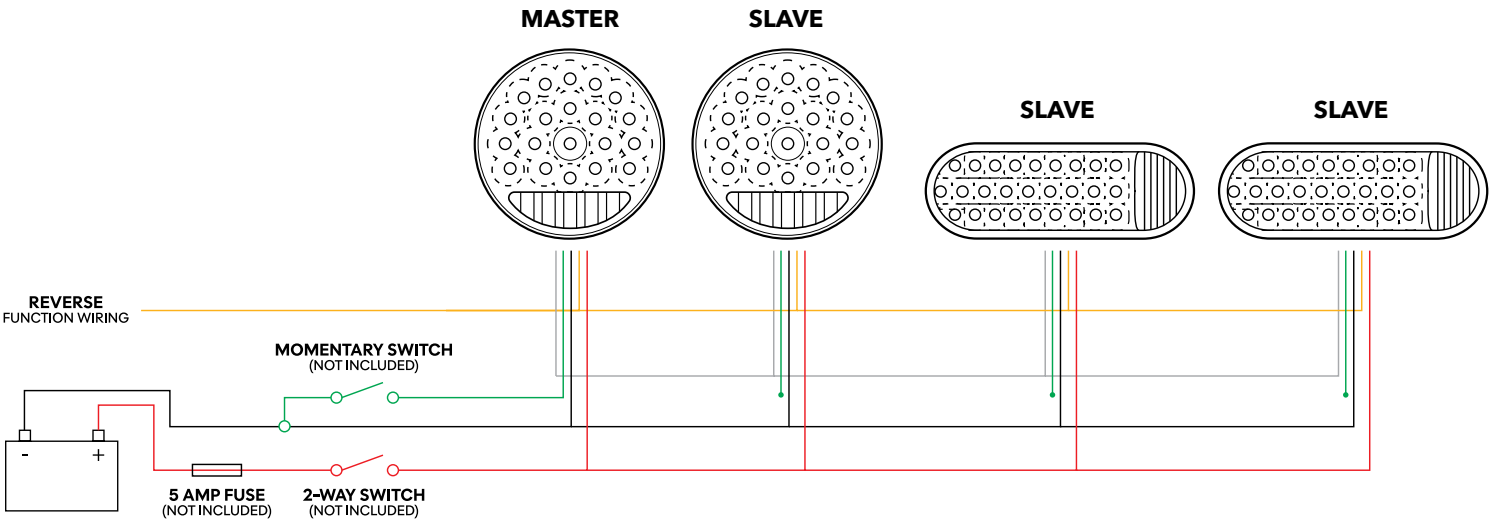
WIRING

Trux's comprehensive 36 Flash Patterns allows the TLED-450RWA & TLED-650RWA to function together in both alternating and synchronizing modes. Rewiring or reprogramming is not required to switch between these two modes.

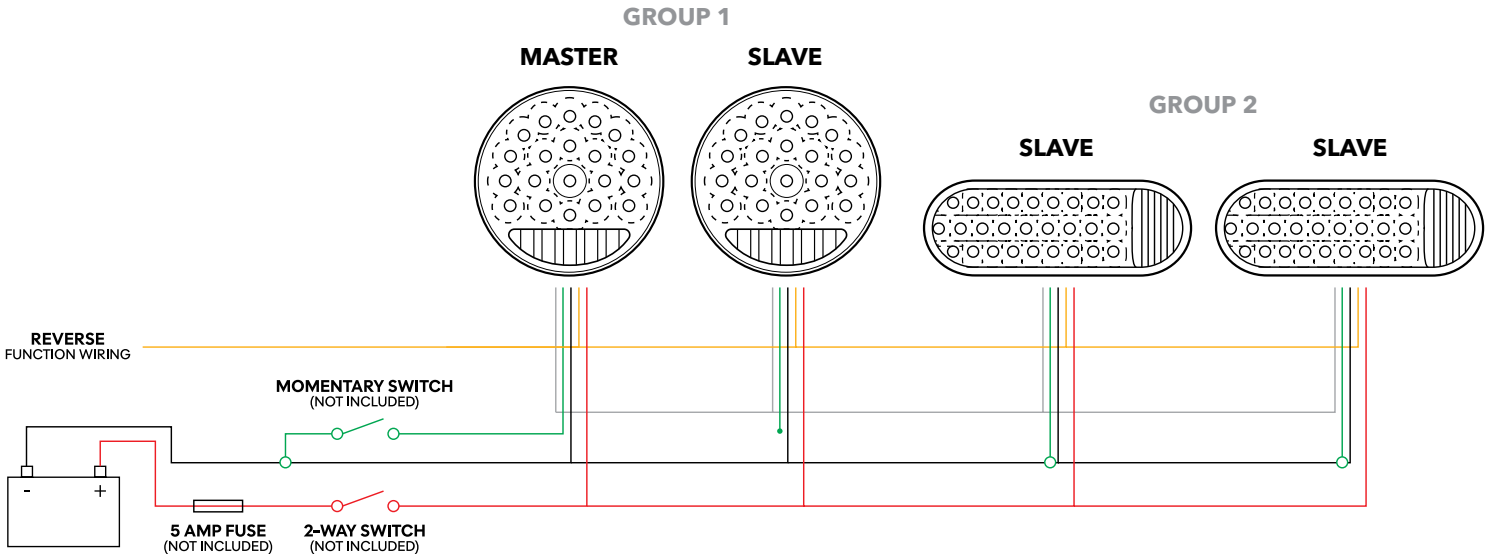
RECOMMENDATIONS:

To complete the installation of the light(s), Trux recommends
- 5 Amp Fuse
- Momentary Switch (Push Button)
- 2-Way Switch

SINGLE GROUP MODE (Synchronizing Mode Only)
All lights will be connected as 1 Group. All the patterns will be in "Synchronization Model"



DUAL GROUP MODE (Alternating & Synchronizing Modes)
All lights will be divided in 2 Groups. Depending on the flash pattern selected, Group 1 lights can alternate or synchronize with Group 2 lights.



ASSEMBLY INSTRUCTIONS FOR SINGLE OR DUAL GROUP:

Before turning power ON:

1. Connect the WHITE WIRES of all the lights together to enable Synchronization.
2. Link all the RED WIRES(+) of the Master and Slave light(s) to a 5 AMP FUSE (not included) that connects to a 2-WAY SWITCH (not included). Connect the 2-WAY SWITCH to the positive of the power supply.
3. Link all the BLACK WIRES (-) of the Master and Slave Light(s) to the GROUND WIRE (-) that is connected to the ground of the power supply or chassis.
4. GROUP 1 AND GROUP 2
   - For GROUP 1 Slave Light(s), leave the individual GREEN WIRES disconnected.
   - For GROUP 2 Slave Light(s), connect the individual GREEN WIRES to the GROUND WIRE (-). This will program these Slave Light(s) to be in GROUP 2.
5. Using the supplied Wire Caps, cap the individual GREEN WIRE on each of the Slave Light(s) that were not connected.
6. TO SET THE MASTER:
   Before attaching the momentary switch, turn power ON and the lights will begin to flash. Touch the GREEN WIRE of your Master Light choice to the BLACK WIRE (-) for 5 seconds to designate this light as the Master. Once you see a change (Flash or Steady Light), this Master light will be confirmed and will automatically set all the slave lights to the same flash pattern as the Master. If unsuccessful, turn power OFF and ON again and repeat this step. It is recommended that the Master Light be the first point of contact to the battery.
7. Once the Master is set, permanently connect its GREEN WIRE to the MOMENTARY SWITCH (not included). Then connect an extra wire from the MOMENTARY SWITCH to the GROUND WIRE (-) that is connected to the ground of the power supply or the chassis.
8. Once wiring is complete, all the slave lights will automatically change to any pattern that the Master light is set to.

FLASH PATTERNS

SELECTING YOUR FLASH PATTERN:

Once installed, single tap the MOMENTARY SWITCH to cycle through the 36 Flash Patterns as displayed on the FP chart.
The Flash Patterns that are highlighted in AMBER = SAE J595 Class 1 Flash Patterns.

#	FLASH PATTERN
1	Single Flash (Slow)
2	Single Flash (Slow) - Low Power
3	Double Flash (Slow)
4	Single Flash (Slow) - Alternating Group
5	Single Flash - ECE R65
6	Single Flash - Low Power
7	Double Flash (Fast)
8	Single Flash - Alternating Group
9	Double Flash (Slow)
10	Triple Flash (Slow)
11	Double Flash (Slow) - Alternating Group
12	Double Flash (Fast) - ECE R65

#	FLASH PATTERN
13	Double Flash (Fast) - Low Power
14	Triple Flash (Fast)
15	Double Flash (Fast) - Alternating Group
16	Triple Flash
17	Quad Flash
18	Triple Flash - Alternating Group
19	Quad Flash (Slow)
20	Sextuple (6) Flash (Slow)
21	Quad Flash (Slow) - Alternating Group
22	Quad Flash (Fast) - ECE R65
23	Quintuple (5) Flash (Fast)
24	Quad Flash (Fast) - Alternating Group - ECE R65

#	FLASH PATTERN
25	Octa (8) Flash
26	Eleven Flash
27	Octa (8) Flash - Alternating Group
28	Continuosly Flash (Fast)
29	Automatically Flash 5/28
30	Automatically Flash 12/16
31	Single Flash (Split Accelerate)
32	Double Flash (Split Accelerate)
33	SOS Flash
34	Random
35	Steady On
36	Standby (Inactive)

Flash Patterns listed as "Alternating Group" indicates a pattern where two or more lights alternate with each other.
NOTE: THIS UNIT IS FACTORY SET OF #17 – QUAD FLASH

STORE YOUR FAVORITE FLASH PATTERNS:

Store up to 3 Flash Patterns from the Flash Patterns that are available on the Flash Pattern Chart.

1. Turn on the Power.
2. Single Tap the MOMENTARY SWITCH until you reach the Pattern you would like to store.
3. Press & Hold the MOMENTARY SWITCH for 2 seconds. Once you let go, the light will be Steady On for 1.5 seconds. This means your selected pattern has been stored successfully.
4. To cycle through your 3 stored Flash Patterns, double tap the MOMENTARY SWITCH.

OVERWRITE YOUR FAVORITE FLASH PATTERN:

Each stored pattern is in a programmed position from 1 to 3. To overwrite a stored pattern, start at the pattern in the position before the pattern you want to change.
- To overwrite Position 2, start at Position 1.
- To overwrite Position 3, start at Position 2.
- To overwrite Position 1, start at Position 3.

POSITION 1	POSITION 2	POSITION 3
#6	#15	#35

In the example above, if you want to replace Pattern #35 in Position 3 with Pattern #27:

1. Double tap the MOMENTARY SWITCH to cycle through the Stored Flash Patterns until Position 2 [#15] is selected.
2. Then single tap the MOMENTARY SWITCH to cycle through the Flash Patterns to #27.
3. Once you reach #27, press & hold the MOMENTARY SWITCH for 2 seconds until the light is Steady On for 1.5 seconds.
4. Now Position 3 will contain Pattern #27 instead of Pattern #35

POSITION 1	POSITION 2	POSITION 3
#6	#15	#27

Warranty:
YOURTRUCKSHOP INC. ("TRUX") warrants that for a period of [sixty (60) months] from the date of purchase of the Product from TRUX or its distributor (the "Warranty Period"), such Product is fit for ordinary use and free from hidden defect, and will materially conform to TRUX's published specifications in effect as of the date of such purchase (the "Warranty").

THE WARRANTY DOES NOT COVER PRODUCTS WHERE THE PRODUCTS (A) HAVE BEEN SUBJECTED TO ABUSE, MISUSE, TAMPERING NEGLIGENCE OR FAULT, ACCIDENT, IMPROPER TESTING, IMPROPER INSTALLATION, IMPROPER STORAGE, IMPROPER HANDLING, ABNORMAL PHYSICAL STRESS, ABNORMAL ENVIRONMENTAL CONDITIONS, IMPROPER INSTALLATION OR OPERATION OR USE CONTRARY TO ANY INSTRUCTIONS ISSUED BY TRUX; (B) HAVE BEEN RECONSTRUCTED, REPAIRED, OR ALTERED BY PERSONS OTHER THAN TRUX OR ITS AUTHORIZED REPRESENTATIVES; OR (C) HAVE NOT BEEN MAINTAINED IN ACCORDANCE WITH THE MAINTENANCE PROCEDURES SET FORTH IN TRUX'S WIRING DIAGRAM, PRODUCT SPECIFICATIONS AND INSTALLATION GUIDE.

All warranty/return claims must be requested through our authorized TRUX Distributor. TRUX will only process claims from an authorized TRUX Distributor. For more information on the warranty/return policy, please contact your TRUX Distributor.

Exclusion of Other Warranties:

Notice to Québec Consumers

Notwithstanding the below, the Consumer Protection Act (Québec) gives Consumers (as defined in said Act) the following legal warranty on all goods they purchase or lease from a merchant or manufacturer. The goods must be:
- Fit for the purposes for which they are ordinarily used; and
- Durable in normal use for a reasonable length of time, which may vary according to the price paid, the terms of the contract and the conditions of use.

EXCEPT FOR THE EXPRESS WARRANTIES SET FORTH ABOVE IN "WARRANTY", TRUX MAKES NO WARRANTY WHATSOEVER WITH RESPECT TO THE PRODUCTS, INCLUDING ANY (A) WARRANTY OR CONDITION OF MERCHANTABILITY; (B) WARRANTY OR CONDITION OF FITNESS FOR A PARTICULAR PURPOSE; OR (C) WARRANTY OR CONDITION OF QUALITY OR OF NO LATENT DEFECTS, WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE, OR OTHERWISE. BUYER ACKNOWLEDGES THAT IT HAS NOT RELIED UPON ANY REPRESENTATION, CONDITION OR WARRANTY MADE BY TRUX, OR ANY OTHER PERSON ON TRUX'S BEHALF.

Remedies and Limitation of Liability:
TRUX'S SOLE LIABILITY AND BUYER'S EXCLUSIVE REMEDY IN CONTRACT, TORT (INCLUDING NEGLIGENCE AND FAULT), OR UNDER ANY OTHER THEORY AGAINST TRUX REGARDING THE PRODUCT AND ITS USE SHALL BE, AT TRUX'S DISCRETION, EITHER THE REPLACEMENT OR REPAIR OF THE PRODUCT, OR THE REFUND OF THE PURCHASE PRICE IN FULL. IN NO EVENT SHALL TRUX'S LIABILITY ARISING OUT OF THIS WARRANTY OR ANY OTHER CLAIM RELATED TO THE TRUX'S PRODUCT EXCEED THE AMOUNT PAID FOR THE PRODUCT BY BUYER. IN NO EVENT SHALL TRUX BE LIABLE FOR LOST PROFITS, THE COST OF SUBSTITUTE EQUIPMENT OR LABOUR, PROPERTY DAMAGE, OR SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES BASED UPON ANY CLAIM FOR BREACH OF CONTRACT, IMPROPER INSTALATION, NEGLIGENCE, FAULT OR OTHER CLAIM, EVEN IF TRUX OR A REPRESENTATIVE OF TRUX HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. TRUX SHALL HAVE NO FURTHER OBLIGATION OR LIABILITY WITH RESPECT TO THE PRODUCT OR ITS SALE, OPERATION AND USE, AND TRUX NEITHER ASSUMES NOR AUTHORIZES THE ASSUMPTION OF ANY OTHER OBLIGATION OR LIABILITY IN CONNECTION WITH SUCH PRODUCT.

Governing Law:
IF YOU ARE A CONSUMER (AS DEFINED IN THE QUÉBEC CONSUMER PROTECTION ACT) RESIDENT IN QUÉBEC, THIS WARRANTY AND ALL RELATED DOCUMENTS ARE GOVERNED BY THE LAWS OF THE PROVINCE OF QUÉBEC AND THE LAWS OF CANADA APPLICABLE THEREIN.

Except to the extent required by any applicable consumer protection legislation, this Warranty and all related documents are governed by the laws of the Province of Ontario and the laws of Canada applicable therein. Additionally, you may have other legal rights which vary from jurisdiction to jurisdiction. To the extent that the consumer protection legislation in your province or territory take precedence over the present Warranty ("Governing Law"), your rights will be determined by the Governing Law applicable to you.

No part of this document may be reproduced or transmitted in any form without written permission from the author. © 2025 YourTruckShop Inc. All rights reserved.