



# Swift Taillights <sup>TM</sup>

Remote Controlled Taillights & Front Directional Lights

## User's Manual

Model: ST04

*Today's Technology for your Classic Car*



**Swift Taillights are to be used only as temporary taillights.**

### Notice of Agreement of Use

By installing or otherwise using Swift Taillights you agree to follow the directions within this manual and be bound by the limitation of liability set out within this manual. If you do not accept this limitation, then you are not authorized to install or use Swift Taillights, which you should return for a refund.

Please read this manual carefully and thoroughly before any attempt to operate this product, and retain it for your future reference. Please practice and become comfortable working with the Swift Taillights before actual use in an application setting.

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# Swift Taillights ST04 User Manual

## Introduction

Thank you for purchasing the Swift Taillights ST04. This product works on the ISM-433MHz frequency band that can be legally used worldwide without permission.

The Swift Taillights are designed and intended to only be used as temporary taillights that can provide a quick and easy way to display driving signals on the road. Drivers can mount the 2 Taillights (Left & Right) on the rear, and the 2 Front Directional Lights (Left & Right) on the front of the vehicle they are driving, and then use the hand-held remote control to display forward, stop, left turn, right turn, reverse and emergency signals. After their use, the Swift Taillights should be recharged for their next use.

**Before installing or testing the Swift Taillights, please make certain that you are in a safe setting, and that you test the taillights completely before use. Please practice and become comfortable working with the Swift Taillights before actual use in an application setting.**

### Notice:

This product may cause interference with other wireless equipment that operates at 433MHz. Please turn off other equipment on 433MHz eliminate the interference.

### Product Assurance:

This product will emit electromagnetic waves, just like other wireless products. But its transmitting power is less than other wireless products such as mobile phones. The product meets wireless frequency security standards and recommended indexes, and conforms with DOC regulations while working. These standards, indexes and regulations are certificated by academic organizations and represent the cognitive research of the scientific workers who continuously explore and annotate the involved fields. We believe that our products are safe and conform to these standards.

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### **Warranty:**

The Swift Taillights ST04 have one-year limited warranty against any defective parts. If you have questions about your Swift Taillights, please call (617) 600-8282 or send an email to: [swifttaillights@sun-tronics.com](mailto:swifttaillights@sun-tronics.com)

Swift Taillights – Suntronics Technologies Inc. does not warrant that the Swift Taillights will be without any errors that will affect their performance or the user's objectives. If any defects are determined, Swift Taillights –Suntronics Technologies Inc. will work within a reasonable time frame to correct the issue.

Swift Taillights –Suntronics Technologies Inc. disclaims all representations, warranties, or conditions not contained in this manual that may arise in any law or use.

**Do not return defective product to the retailer.**

### **Approval Information :**

This product meets the requirements of the FCC and has been granted with FCC certification. They are authorized to bear the FCC mark.

#### **FCC:**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Increase the separation between the product and the interfered device.
- Consult Swift Taillights –Suntronics Technologies Inc.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions.

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- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interferences that may cause undesired operation.
- (3) Changes and modification might not be expressly notified by the manufacturer or registrant of this product under Federal Communications Commission rules.

### **Restrictions :**

DO NOT put the Swift Taillights in water. The Swift Taillights are designed to be water resistant – not water proof. Submersing the Swift Taillights in water will void their warranty.

DO NOT put this product near any medical equipment. Radio waves might potentially cause breakdown of electrical medical equipment. So this product should be placed at least 1 foot away from any heart pacemaker. Radio waves might potentially influence heart pacemaker and lead to respiratory disturbance;

DO NOT use this product for any illegal activities. The manufacturer shall not be responsible for any consequences of illegal acts committed by the user.

### **Magnet Safety:**

The Swift Taillights have four very strong magnets – one on the back of each taillight.

Please keep the Swift Taillights away from anything that is magnetically sensitive or that may become attached to the magnets and become difficult to remove.

**People with Pacemakers or other implanted medical devices should not handle the Swift Taillights.**

### **Maintenance :**

1. Do not shake or strike the product;
2. Keep it dry and dustless.
3. Keep product away from heat sources such as electric heater;
4. Do not use the product in the places which are enclosed by metal. The surrounding metal like aluminum trailer walls may shield the electromagnetic waves and result in failure of signal reception.
5. Please obey the local government's environmental protection policy.
6. Please turn off the power when left unused.
7. Do not disassemble or repair the taillight or remote controller. Doing so might cause damages to the product and also VOID THE WARRANTY

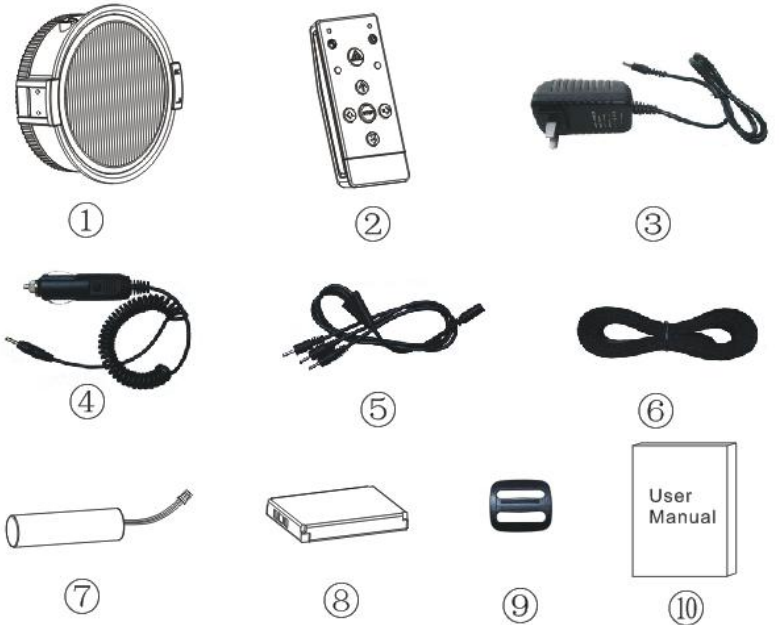
# Swift Taillights ST04 User Manual

## Product

### Package Contents:

This package comes with the following items. Please check if they are all included in the packaging case, if one or more is missing, please contact the Manufacturer for replacement.

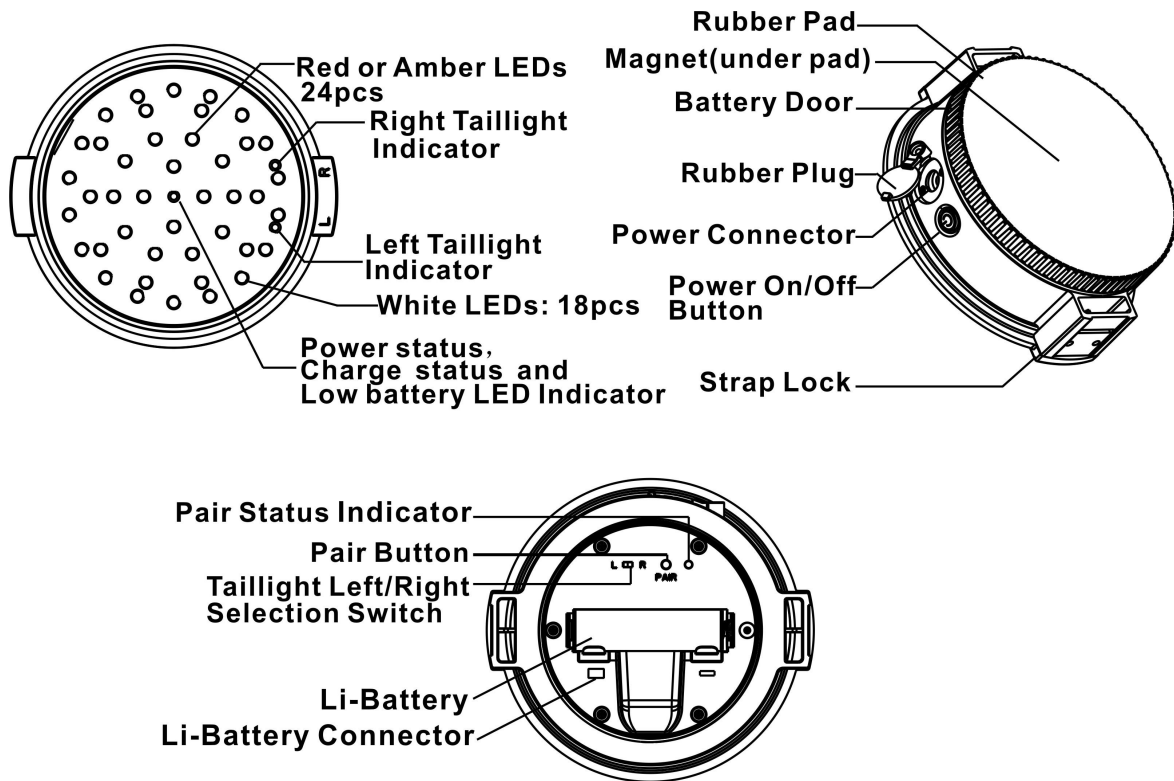
1. Taillight x 4 (Amber Front & Red Rear)
2. Remote controller x 1
3. Wall outlet adapter to all five units x 2
4. Cigarette lighter charger x 1
5. Charging cable adapter x 2
6. Strap for taillights x 4
7. Battery for taillights x 4(Loaded in)
8. Battery for remote controller x 1
9. Buckle for strap x 4
10. Manual x 1



# Swift Taillights ST04 User Manual

## Product Illustration and Detail:

### 1. Taillight



#### **Power On/Off Button:**

Turn Front Directional Lights/Taillights on/off.

#### **Pair Button:**

Every set of ST04 are pre-paired at the time of manufacturing and are ready to be used once taken out of the kit. Each Front Directional Lights/Taillight is controlled by its own remote controller, which is accomplished by the pairing between the remote controller and Front Directional Lights/Taillight. Pairing need to be done one by one, you cannot pair Front Directional Lights/Taillights at the same time.

#### **Taillight Left/Right Selection Switch:**

Each kit contains 2 FRONT Directional Lights (Left/Right) and 2 REAR Taillights (Left/Right). This switch is inside each light case, when it is selected as left (L side), the light will become a left light; when selected as right (R side), the light becomes a right light.

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### Power/Charging/Low Battery Indicator:

When the Front Directional Light/Taillight is turned on, the indicator is green color, when the light is being charged it will be red. When the charging is completed, the red color is off. When light battery is low, the indicator shows slow flashing red. In the meantime, the remote controller will detect this status and show a flashing red LED above the pair key to remind the user to charge the lights.

### Left Taillight Indicator (Above L letter):

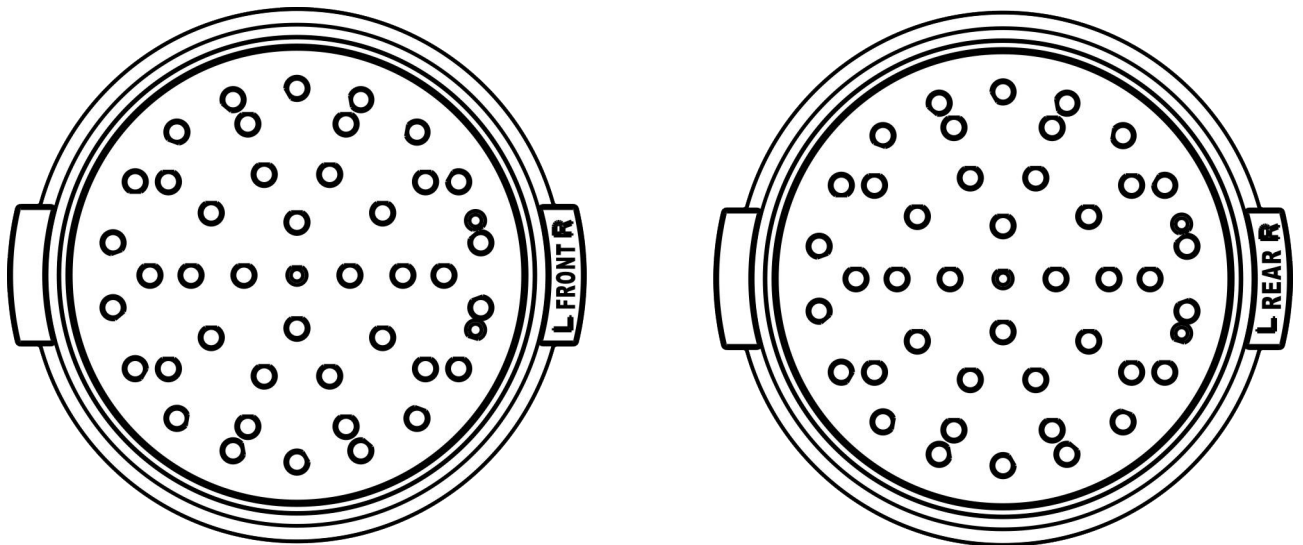
When the Front Directional Light/Taillight is selected as left one, this indicator will be green color when turned on. After 60 seconds, it is off automatically.

### Right Taillight Indicator (Above R letter):

When the Front Directional Light/Taillight is selected as right one, this indicator will be green color when turned on. After 60 seconds, it is off automatically.

### Front Directional Light/Taillight:

Between the R & L has a mark FRONT or REAR to indicate where each light shall be mounted on the vehicle.



### Pair Status Indicator:

To display the status of pairing between remote controller and taillights.

### Battery Door:

Unscrew the battery door to load the battery. When put back battery door, please be careful not to damage the thread.

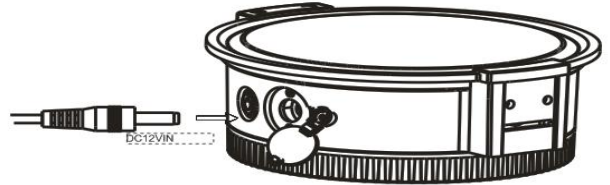


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### Charging Socket:

Gently pull out the plug cover on taillights. Plug in the charging cable that comes with the kit. When charging is in the progress, the indicator in the center of the taillight will be red, when the charging is completed, the indicator will off.

After charging, please securely push the plug cover back to socket so that both taillights can be water resistant.



### Rubber Plug for Charging Socket:

It is the plug to protect the charging socket to be water-resistant. When lights are charged, it needs to be pulled out, after charging, it needs to be securely pushed back.

| <b>Behaviors of Taillight Indicators</b> |                             |  |
|--|-----------------------------|--|
| Indicator Name                           | Indicator Status            | Indicator Meaning  |
| Power/Charging/Low battery indicator     | Green On/Off                | Power On/Off   |
|  | Red On/Off                  | Charging in progress /Finished (If working while charging, color will be orange)   |
|  | Flashing Red                | Front Directional Lights/Taillights battery is low and needs to be charged   |
| Left /Right Light Indicator              | Green on                    | It indicates if it is Left or Right Light. After 60 seconds it will automatically shut off   |
| Pairing indicator                        | Quick flash/Constant on/Off | Pairing is not required before use since pre-pair is completed at time of Manufacturing. When pair is needed, please press both remote controller and taillight pair buttons, indicator become quick flashing green color, once pairing is successful and finished,it will be constant green color on. Then please release pair buttons, indicator will be off |

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### **Magnet (Under Rubber Pad):**

It is a very strong magnet that can be used to attach the Front Directional Lights/Taillights.

### **Rubber pad:**

It is a soft rubber pad that protects the surface of vehicle when attaching the Front Directional Lights/Taillights on vehicle body.

### **Strap lock:**

It is the place to lock the safety strap of the Front Directional Lights/Taillights when the lights need to be attached to a non-steel surface. It is recommended that safety strap are used to prevent the falling off taillights on bumpy road.

### **Li-Battery:**

The rechargeable Li-battery powers Front Directional Lights/Taillights and can be easily replaced if necessary.

### **Red or Amber LED:**

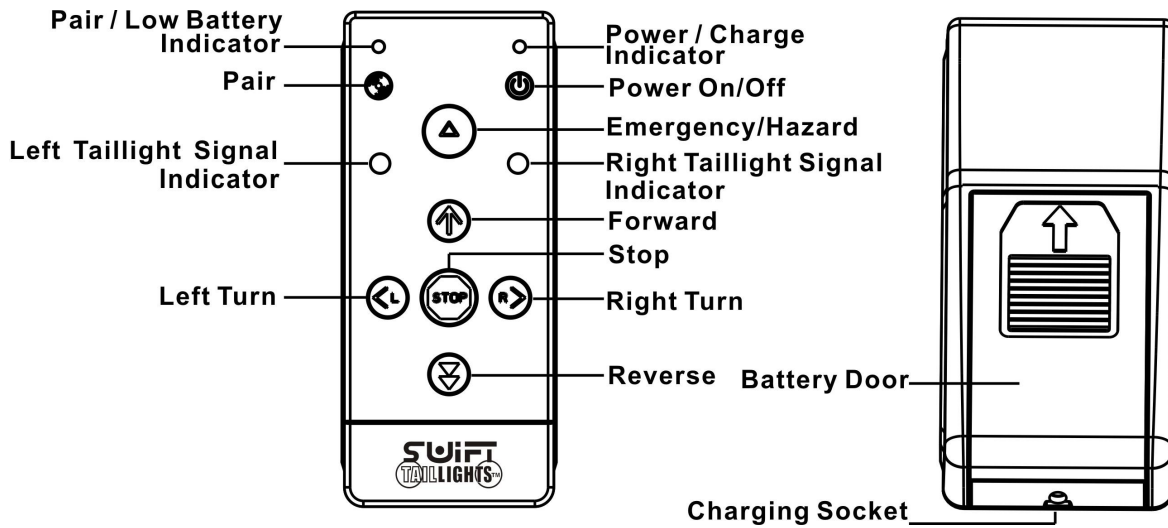
LED provides signals such as Forward, Stop, Emergency, Left turn and Right turn for the driver front or back. Taillights with red LED are placed on rear of car, and taillights with the amber LED are placed on front of car.

### **White LED:**

Provide white color signal such as reverse or use as flashlight.

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## . Remote Controller



**Power On/Off:** To turn the Remote Controller power on and off (Hold it for 3 second). This key can also turn the Front Directional Lights/Taillights off - but Front Directional Lights/Taillights are still on standby mode and can be waken up. If need completely shut off each Front Directional Lights/Taillights, their power button need to be pressed.



**Pair:** Every controller is pre-paired at the manufacturing time and is ready to be used. Each remote controller can only control paired Front Directional Lights/Taillights.

**Pair and Low Battery Indicator:** Every set of Front Directional Lights/Taillights are pre-paired and can be used once taken out of the kit without pairing. However, when the pair is needed, for example, you receive a replaced taillight from seller and need pair it with your existing controller. Please press the pair buttons on both controller and taillights, this LED shows quick flashing green color and then becomes constant green once pairing is successful and finished. When Front Directional Lights / Taillights battery runs low, this LED show slow flashing red color to remind user to charge the light. User will have remaining 20 minutes before it finishes battery.


**Power and Charge indicator:** When power is on, it is green. When is charging, this LED is red, when charging is completed, it is off.




**Emergency/Hazard:** ALL Front Directional Lights/Taillights show flashing bright color (Amber or Red). Pressing this key again will turn this function ON/OFF.



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**Left Turn:** Used to display left signal when a vehicle will make a left turn. Left Front Directional Lights/Taillights shows bright blinking Amber/Red color. At the same time the right Front Directional Lights/Taillights show low Amber/Red color. The Forward(  ) key can turn this function off.



R >

**Right Turn:** Used to display right signal when a vehicle will make a right turn. Right front light/taillight shows bright blinking Amber/Red color. At the same time the left front light/taillight show low Amer/Red color. The Forward (  ) key can turn this function off.



↑

**Forward:** Used to display signal that the vehicle is moving forward, both Front Directional Lights /Taillights will be low Amber/Red light. Forward lights are ON when the unit is first powered on.

STOP

**Stop:** Used when the vehicle is going to STOP or brake. Both Front Directional Lights/Taillights are bright Amber/Red light. The Forward (  ) key or the Reverse (  ) key can turn this function off.

↓

**Reverse:** Used when the vehicle is going to reverse. Both Front Directional Lights/Taillights are bright white light. The Stop(  ) key or Forward(  ) key can turn this function off.

**Left Taillight Signal Indicator:** This LED simulates the signal of left Front Directional Lights/Taillights. Whatever the signal the left front/taillight are showing, this LED repeats it on remote controller. This LED is also the alarm indicator if the left front/taillight falls off or does not work for some reason. Alarm is a quick flashing light between red and white color.

**Right Taillight Signal Indicator:** This LED simulates the signal of right taillight, whatever the signal the right front/taillight are showing, this LED repeats it on remote controller. This LED is also the alarm indicator if the right front/taillight falls off or does not work for some reason. Alarm is a quick flashing light between red and white color.

**Charging socket:** When you plug the charging cable into the remote controller, the charging indicator LED becomes red color.

When charging is completed, it is off.



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### Behavior of Remote Controller Indicators

| Indicator Name                | Indicator Status                     | Indicator Meaning  |
|-------------------------------|--------------------------------------|--|
| Pair/Low Battery Indicator    | Quick Flashing Green Color           | Pairing in progress<br>(Kit is pre-paired in factory)  |
|                               | Constant Green On                    | Pairing is successful and is completed. Green color is off after release   |
|                               | Slow Flashing Red Color              | Taillight battery (1 or all) is low and needs to be recharged.   |
| Power/Charging Indicator      | Green On                             | Remote controller is turned on<br>Front Directional Lights/Taillights are turned on<br>(Press 3 second to turn on) |
|                               | Red On/Off                           | Charging in progress /Charging is Finished   |
| Left / Right Signal Indicator | Red On/Off/Flash                     | It simulates front/taillight signals   |
|                               | Flashing between White and Red Color | Taillight falls off or is broken   |

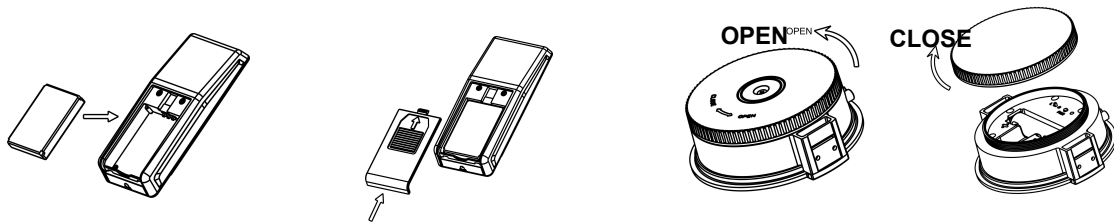
## How to Operate the Swift Taillights ST04

Before installing or testing the Swift Taillights, please make certain that you are in a safe setting, and that you test the taillights completely before use. Please practice and become comfortable working with the Swift Taillights before actual use in an application setting.

### 1. Setting Up the Swift Taillights:


#### 1.1 Load the batteries

Load the batteries into the remote controller and Front Directional Lights/Taillights based on diagrams below.



#### 1.2 Pairing the remote controller with Front Directional Light / Taillights:

**Swift Taillights are pre-paired at the time of manufacturing.**

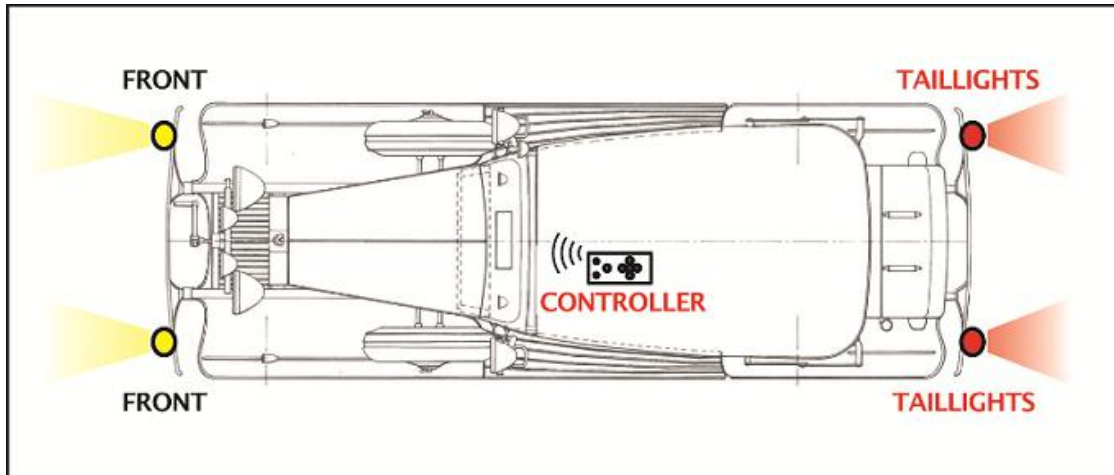
No need to do pairing for any new set. When pairing is needed, it is done by pressing the pairing button (  ) at the same time on both controller or Front Directional Lights/Taillights. When pairing has started, LED indicators on both the remote and front/taillight show quick green flashing color. Once pairing is successful, the green LED becomes solid green and the pairing button can be released. Pairing is necessary when purchased a replaced remote to control existing taillights.

#### 1.3 Mounting the Front Directional Lights/Taillights:

The Front Directional Lights/Taillights can be mounted by using the strong magnet wherever the user wants temporary taillights. **It is recommended that the Swift Taillights safety strap be used to help prevent the taillights from falling off.**

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Once you have installed the Front Directional Lights/Taillights, you must test them to be sure they are operating properly.




## 2. Operating the Swift Taillights :



Before installing or testing the Swift Taillights, please make certain that you are in a safe setting, and that you test the taillights completely before use. Please practice and become comfortable working with the Swift Taillights before actual use in an application setting.


2.1 Turn on the Front Directional Lights/Taillights and the Remote Controller.

2.2 When the Front Directional Lights/Taillights are first turned on the lights will come on in the Forward mode. The green LED indicator will glow above the L or R on each Front Directional Lights/Taillight to indicate that it is Left or Right unit.


2.3 By pushing the button on the Remote Controller, the Taillights can display following signals.


 **Emergency/Hazard:** Both Front Directional Lights/Taillights are bright Amber/Red blinking light. Pressing this button again can turn this function off.




 **Left Turn:** Used to display left signal when a vehicle make a left turn. Left front light/taillight shows bright blink Amber/Red color. At the same time the right front light/taillight show low Amber/Red color. The Forward(  ) key can turn this function off.




 **Right Turn:** Used to display right signal when a vehicle will make a right turn. Right front light/taillight shows bright blink Amber/Red color. At the same time the

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left front light/taillight show low Amber/Red color. The Forward (  ) key can turn this function off.

 **Forward:** Used to display signal that the vehicle is moving forward, both Front Directional Lights /Taillights will be low Amber/Red light. Forward lights are ON when the unit is first powered on .

 **Stop:** Used when the vehicle is going to STOP or brake. Both Front Directional Lights/Taillights are bright Amber/Red light. The Forward (  ) key or the Reverse (  ) key can turn this function off.

 **Reverse:** Used when the vehicle is going to reverse. Both Front Directional Lights/Taillights are bright white light. The Stop(  ) key or Forward(  ) key can turn this function off.



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# Product Specification

| Item | Product                             | Description                  | Specification/Parameter           |
|------|-------------------------------------|------------------------------|-----------------------------------|
| 1    | System                              | Transmission Frequency       | 428MHz~438MHz @433MHz             |
| 2    |                                     | Modulation Mode              | FSK                               |
| 3    |                                     | Modulation Rate              | 0.123Kbps~256Kbps                 |
| 4    |                                     | Unobstructed Effective Range | 50m                               |
| 5    |                                     | Charging Power Supply        | DC 12V~DC25V                      |
| 6    |                                     | Store temperature            | -40°C~85°C / -40°F~185°F          |
| 7    |                                     | Operation temperature        | -20°C~50°C / -4°F~122°F           |
| 8    | Remote Controller                   | Power Consumption            | 80mA                              |
| 9    |                                     | Receiving Sensitivity        | -85dBm                            |
| 10   |                                     | Battery type                 | Li-Battery 3.7V 1200mAH           |
| 11   |                                     | Charging Current             | 400mA (MAX)                       |
| 12   |                                     | Charging Time                | Up to 4 hours                     |
| 13   |                                     | Working Time                 | Up to 12 hours                    |
| 14   |                                     | Standby Time                 | Up to 1 year                      |
| 15   |                                     | Weight                       | 112g                              |
| 16   |                                     | Main Size (L ×W × H)         | 129.5×56.3×21.6                   |
| 17   | Operation humidity                  | 85%                          |                                   |
| 18   | Front Directional Lights /Taillight | Transmission Power           | 10dBm                             |
| 19   |                                     | Battery type                 | Li-Battery 3.7V 1800mAH           |
| 20   |                                     | Quality of Amber/Red LEDs    | 24pcs                             |
| 21   |                                     | Quality of Withe LEDs        | 18pcs                             |
| 22   |                                     | Power Consumption            | 150mA @ In Run mode               |
| 23   |                                     |                              | 420mA @ In Stop mode              |
| 24   |                                     |                              | 380mA @ In Reverse mode           |
| 25   |                                     |                              | 150mA~400mA @ In Emergency mode   |
| 26   |                                     | Charging Current             | 400mA (MAX)                       |
| 27   |                                     | Charging Time                | Up to 6 hours                     |
| 28   |                                     | Working Time                 | Up to 10 hours @ In Run mode      |
| 29   |                                     |                              | Up to 4 hours @ In Stop mode      |
| 30   |                                     |                              | Up to 4 hours @ In Reverse mode   |
| 31   |                                     |                              | Up to 6 hours @ In Emergency mode |
| 32   |                                     | Standby Time                 | Up to 1 year                      |
| 33   |                                     | Protection Levels            | IP68                              |
| 34   |                                     | Weight                       | 370                               |
| 35   |                                     | Main Size (W × H × T)        | Φ145×48(MAX.)                     |

## Swift Taillights ST04 User Manual

### Trouble Shooting

When you experience an operation issue, please check the following before contacting Swift Taillights – Suntronics Technologies Inc.

| ISSUE  | Possible Reason and Solution  |
|--|---|
| Remote controller's power LED is not on                    | Charge the battery before use   |
| Low battery indicator is flashing on the remote controller | Front Directional Lights/Taillight battery runs low and needs to be charged |
| Remote controller has white/red flashing signals           | At least one taillight has fallen off or is broken                          |

### Contact Us

**Swift Taillights - Suntronics Technologies Inc.**

**Phone: 617-600-8282**

**Email: [swifttaillights@sun-tronics.com](mailto:swifttaillights@sun-tronics.com)**

**Add: 200 Centreport drive suite 365, Greensboro NC 27409 USA**

**Web: [www.swifttaillights.com](http://www.swifttaillights.com)**

### Limitation of Liability

In no event will Swift Taillights – Suntronics Technologies Inc. or its suppliers be liable to the user or any other person or entity for any incidental, indirect, special, multiple, punitive, or consequential damages, arising out of or relating to Swift Taillights. Including, but not limited to: loss of profits, damage to personal property (including data), cost of recovery or any other similar harm or loss, regardless of the form of action, in contract or in Tort (including negligence), even if Swift Taillights –Suntronics Technologies Inc. or its suppliers have been advised of the possibility of such damages. Swift Taillights –Suntronics Technologies Inc. liability for any and all damages that might arise out of or relate to the Swift Taillights, regardless of the form of action, will in no event exceed two hundred dollars (\$200) USD.