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MANUAL

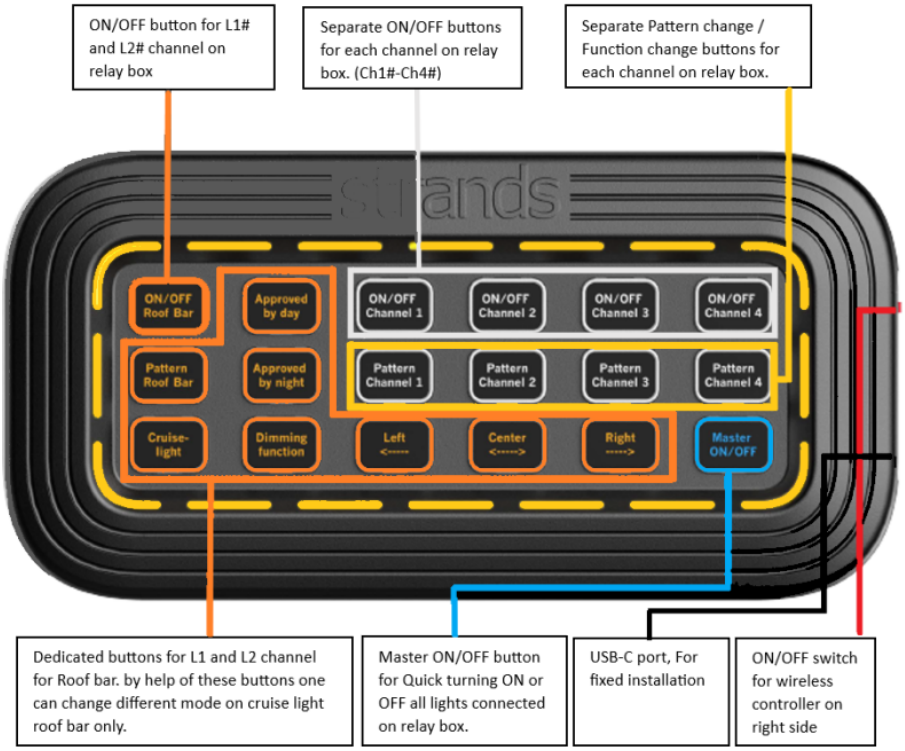
CRUISE LIGHT RELAY BOX AND WIRELESS CONTROLLER NEW

FUNCTION DESCRIPTION - WIRELESS CONTROLLER
Power: Use USB-C (for fixed installation) or Lithium-ion reachragebale battery (wireless),Buttons on controller: 9 buttons by Amber, 8 buttons by White, 1 button by Blue/Red.

FUNCTION DESCRIPTION - RELAY BOX
Channels: 6, Total 700W.
2 **channels** (L1#, L2#)x 150W (15A) each intended for Cruise Light Roof bar(850214-850221).
4 **channels**(Ch1#-Ch4#) x 100W(10A) each for any type of lighting.

***Read entire instruction manual before installation.**

WIRELESS CONTROLLER



Attention: The Li-ion battery connection wire must be plugged in for the New wireless controller version.

Functions operation explanation for each buttons:

ON/OFF SWITCH
Wireless controller's on/off switch is located on the right side.If you're using the controller with Lithium batteries, to save battery life, power it off when not in use.When connected via USB-C, no need to use this red switch.

ON/OFF ROOF BAR
Separate ON/OFF button for Roof bar`s. (Cruise light roof bar part nr. 850214-850221).

PATTERN ROOF BAR
PATTERN Select/Toggle button to choose next pattern mode for roof bar's

APPROVED BY DAY
BY DAY approved mode (higher intensity).

APPROVED BY NIGHT
BY NIGHT approved mode (lower intensity).

DIMMING FUNCTION
When in used, the DIMMING is active on a specific flash pattern. however, by day/by night/cruise, these patterns can't be controlled by dimming.

CRUISE LIGHT
Cruise mode(steady-on).

LEFT, CENTER, RIGHT
These buttons are used for traffic advising, flashing from right to left, from centre and out, and left to right.

*Roof bar pattern will be shown on the surrounding LED´s on the wireless control, and for most of the functions, there will be a button backlight on the active functions.

CHANNEL 1 - CHANNEL 4 ON/OFF
Separate ON/OFF button for each channel's power out.

CHANNEL 1 - CHANNEL 4 PATTERN
Each channel has a dedicated pattern select button.If the light has different modes rather than warning patterns, then this button controls the light's mode/intensity. Lights without patterns won't require using this button.

MASTER ON/OFF
When turned "OFF", all the lights will be turned off. When turned "ON", all the lights will return to the same status before turning off (memory function). Pressing 3 seconds will turn on all channels.This button has function that when battery % is low it will flash with red color.

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WHEN NOT IN USE:

- The surrounding LED´s for roof bar will turn off after 10 seconds.
- After 15 seconds the button backlights will be off.
- If the roof bar is turned ON, the backlight for the roofbar button will be remain on untill you turn off the roof bar.
- Red LEDs will be steady-on to show the battery is being charging. When the battery is fully charged, the red LEDs will be off, and the blue LEDs will be steady-on. (lack of power voltage setting: 4.25V). Make sure to charge controller on time.

OTHER INFORMATION FOR CONTROLLER:

- Range:10-15 meter for controller.(It depends on surrounding)
- On the back cover, you'll find a unique serial number (S/N XXXXXX) for your controller. Refer to this number if you encounter any damage or connection issues and need to contact support for reperation.
- Li-ion battery fited inside from batch nr S/N starts from 001914.
- Press each button deliberately. Avoid rapid button presses on controller.

Charging Possibilty:

- **1)**USB A to USB C **2)**USB C to C cable:C port output 5V **3)**Adaptor: 5V/2A most suitable

BATTERY SPECIFICATION:

Nominal Capacity:3000mAh
Charge voltage: 4.2V
Nominal voltage:3.7V
Max. charge current:2A
Max discharge current:3A(Instantaneous)

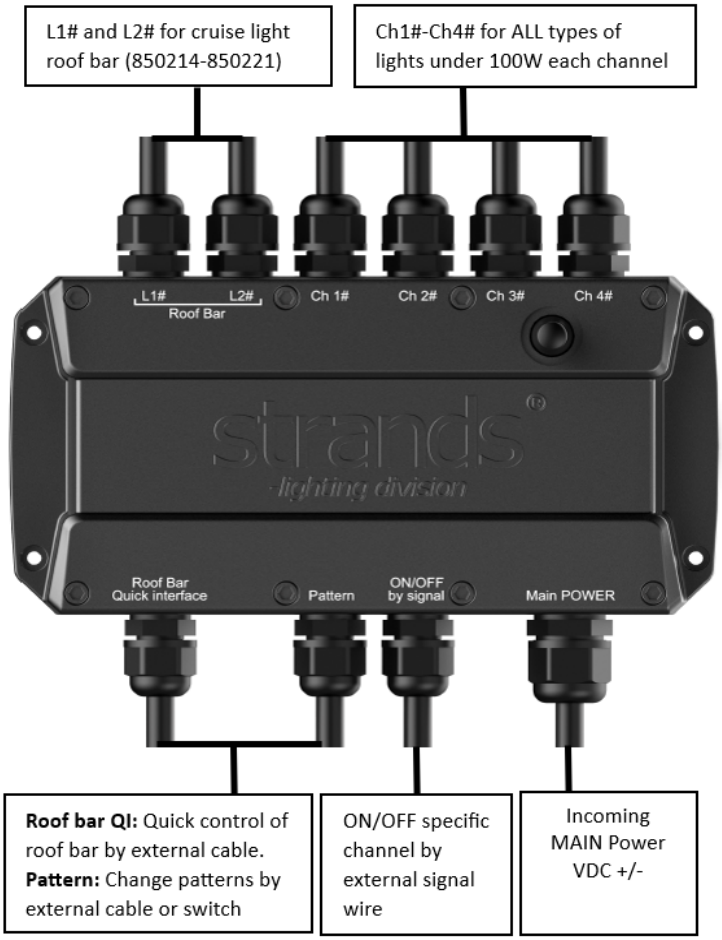
Charge temperature: -10℃ ～ + 45℃
Discharge temperature: -10℃ ～ + 55℃

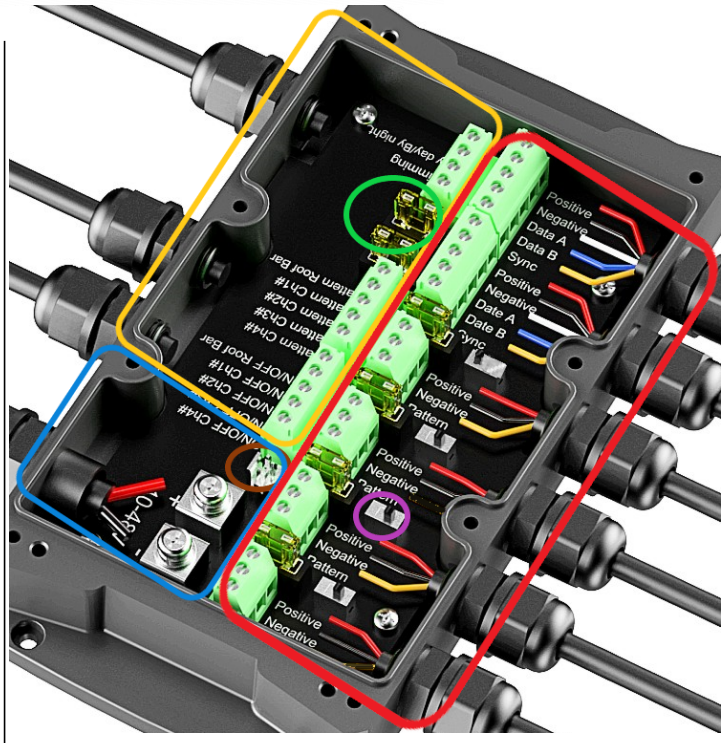
Charging time: Approx 3-4 hours

When the Li-ion battery is fully charged, the standby time is 22days on the condition of normal daily use without too frequent operation of the remote controller

The frequency is 443MHz. (TTL).

RELAY BOX





Red Zone: Output ports (x6 Channels) for connecting lighting wires according to requierment.Please refer to the manual for maximum wattage per port to avoid exceeding the limit.
Yellow Zone: Input ports for optional external control via wires or a switch.(No need to use those ports if you control by wireless controller)
Blue zone: Main power(+ and -)
Purple Zone: Black switch (Short-circuit the function according to light wiring construction either + or (-).
Green Zone: Each channel has a dedicated fuse for overload protection.(There are more fuse in red zone as well)
Brown Zone: The antenna connection port is located within the blue zone, near the main power supply. make sure to connect wire properly.

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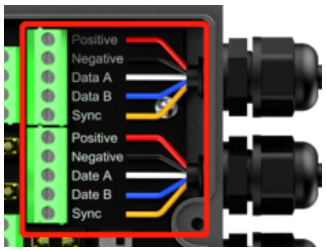
OUTPUT PORTS:(For connection of lighting wires)

L1#, L2# DEDICATED FOR FOR CRUSIE LIGHT ROOF BARS

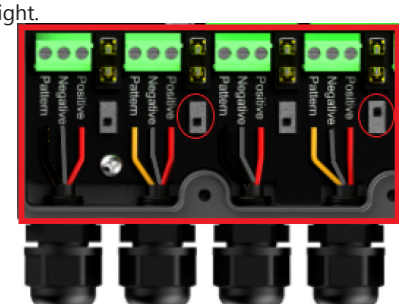
Positive: Red wire
Negative: Black wire
Data A: White cable
Data B: Blue cable
Snychronize: Yellow cable(If roof bars mounted on both channels)

Voltage: 10-35V DC
L1#max 150W , L2# MAX 150W.



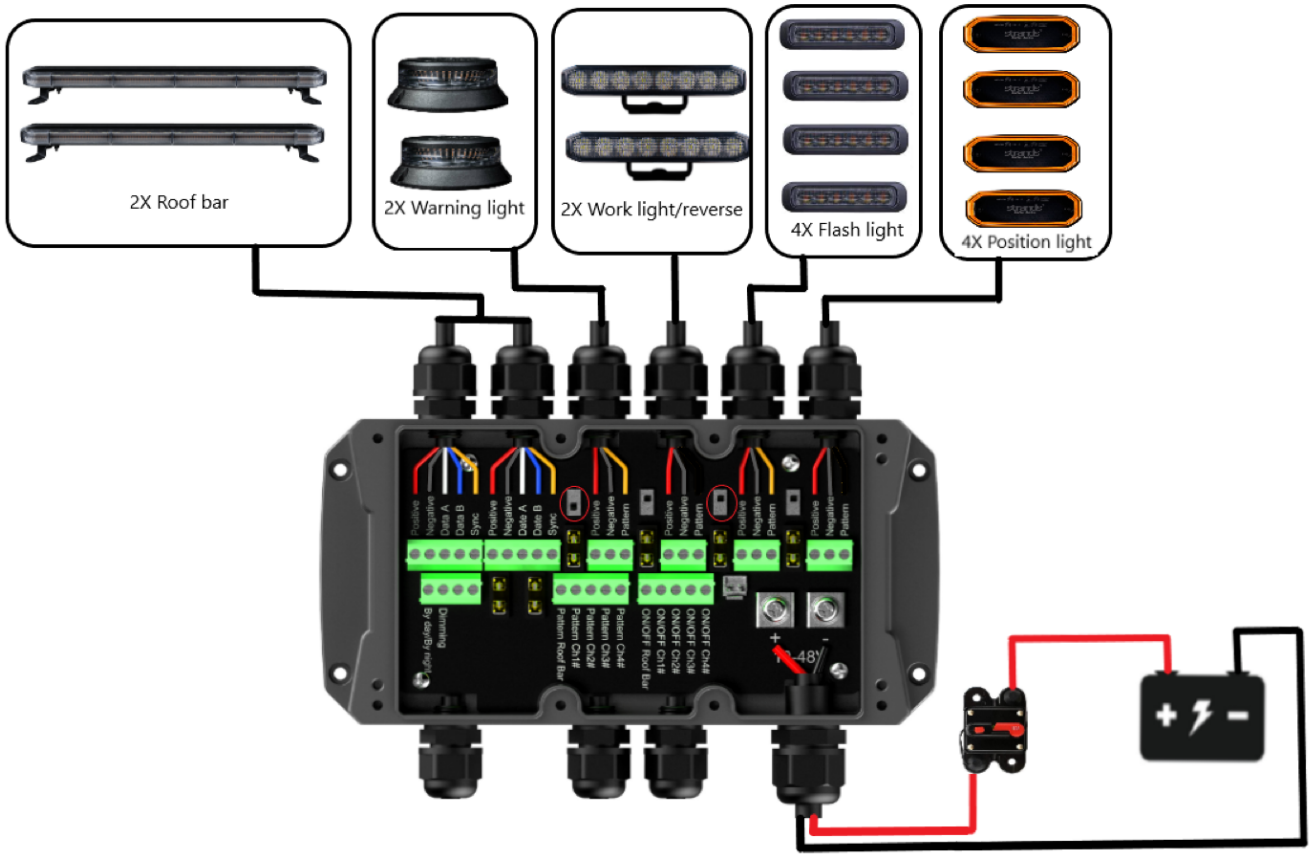
Ch1# to Ch4# FOR ALL TYPE OF LIGHTING
Voltage: 10-35V DC
Ch1#-Ch4# each channel 100W max. Do not mount any light exceeding 100 watts each in the relay box to avoid damaging components. You can safely mount multiple lights under 100 watts total. For example, if you have 15-watt warning lights, you can install up to six units (for a total of 90 watts).staying below the 100-watt limit per channel.

Positive: +VDC wire
Negative: - Black wire (optional if the light already has a good ground connection on the vehicle)
Pattern: Wire for pattern selection according to light (Optional if light doesn't have pattern, No need to use this terminal)
Black +/- Switch: Choosing a switch setting depends on how the lights are wired/short-circuit to (+ or -) Follow manual for particular warning light.



TROUBLESHOOTING

- There are some old batch of Cruise light Roof bar which might have to follow instruction for Data A and Data B as Reverse (**Data A:** Blue cable **Data B:** White cable)
- Please do not connect white cable and blue cable to Main power(Positive Terminal) dircetly it most likely damage the Roof bar.
- For more questions regarding to connection,please contact (Support@strands.se)



(Connection diagram example)

LAMP ON REALY BOX

- **2X** 850214-91W each light.
- **2X** 850933- 37W each,Total=74W
- **2X** 809271-30W each,Total=60W
- **4X** 850404-10W each ,Total= 40W
- **4X** 850452- 3.5W each ,Total=14W

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INPUT PORTS:

MAIN POWER
Incoming power VDC +/-. Choose wires with a capacity exceeding 700 watts to handle the load safely. Install a fuse in series with the main positive power wire. Ensure the antenna cable/antenna is securely connected to the designated port near the main power.

ON/OFF BY SIGNAL CABLE
Choose to control the relay functions by cable, by connecting a signal cable(+VDC) to "ON/OFF Roof Bar or CH1-4#", this will activates the different channels. The output is activated when the signal cable is continuously connected to the "ON/OFF" connection. You can connect signal cable to respective on/off channel can also be used for a reverse work light function. However, activating the light with a cable or an additional switch will override the wireless controller.

(Example for reverse function connection)

ROOF BAR QUICK INTERFACE
Quick roof bar function wire connection port, to control by cable or external switch.Keep in mind that activation by cable or extra switch will override the wireless controller.

PATTERN
Pattern can be changed by additional cable connection or external switch in vechical by connecting individual wire for each port. Use these ports only when you are not using the wireless controller for operation.Keep in mind that activation by cable or extra switch will override the wireless controller.

WARNING!
Be careful while opening the top cover, which might be connected to an antenna cable.Do not short circuit or overload the LED outputs, this may lead to permanent damage. if the connection is overloaded beyond the stated capacity, the warranty will be void.

WATERPROOF

Water sealed lid and rubber gaskets protecting the cable entries. Make sure it is selaed properly incase of any damge or water ingress due to improper mounting warranty will be void.

READ THIS BEFORE INSTALLATION

READ ALL INSTRUCTIONS AND STUDY DIAGRAMS BEFORE INSTALLING YOUR NEW PRODUCT!

-Pay attention to positive and negative polarity when installing batteries.
-Always use new batteries and never mix new and old batteries in the device.
-When the sensitivity decreases, or the usable distance becomes smaller please replace the batteries
-If the control box is not being used for a long period, we suggest you remove the batteries.
-The control unit is not waterproof, do not allow control unit to get wet or use in a moist environment.
-Maximum operating temperature 50°C
-Please recycle the batteries in a suitable way when expired.
-Do not forget to fit anntena.

LEGAL MOUNTING
Check with state or local authorities for laws governing usage and proper mounting of your new lights.

TAKE CARE OF YOUR PRODUCT
Keep the product clean. Dirt may shorten the products lifetime. We recommend using lukewarm water and alkaline degreasing.
Follow the degreasing instructions carefully and rinse off gently with cold or lukewarm water on low pressure.

WARNING!
Strong chemicals should not be used on the product. If you accidently get strong chemicals on the product, rinse off immediately, use plenty of water so that no chemicals remain in any joint. Some chemicals have a small amount of solvent in them, this can dissolve sealing adhesives and compromise the product's waterproofness. Some chemicals pull out liquid from plastic and rubber-based components, which makes the plastic or rubber brittle and bursts more easily. Be careful not to use high water pressure close up on the product.
If you use high water pressure at short distances, most products find it difficult to close out the water.

WARNING!
Do not use higher volts than the product description states. This product becomes hot under continuous use. Don´t remove or touch the casing for at least 30 minutes after turning the lamp off.

Part no. 850208

Contact us if you need support: support@strands.se or +46(0)320-450450

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Connection card

Use this template card to note down which light is connected to which channel in the relay box. Keep this card inside the car or in a safe place for easy access, so you can always remember and access information about the connections to each specific channel with the controller. For the first five empty boxes, write the name of the light and the number of pieces connected on particular channel.

L1/L2:

CH1:

CH2:

CH3:

CH4:

- In the box below, you can write extra information about safety, the connection of an extra relay or fuse, or any other important technical information related to the relay box. You can also note the mounting location of the light on the vehicle.

Other information:

Important information:

- MASTER ON/OFF (Blue light): When turned “OFF”, all the lights will be turned off. When turned “ON”, all the lights will return to the same status before turning off (memory function). Pressing 3 seconds will turn on all channels.
- This button has function that when battery % is low it will flash with red color. This means you have to charge controller on time with USB C cable.
- Charging time: Approximately 3-4 hours, after which the color will change from red to blue.
- When the Li-ion battery is fully charged, the standby time is approx 22days on the condition of normal daily use without too frequent operation of the remote controller.
- Li-ion battery is rechargeable and replaceable if the battery health is poor (with a small white connector).
- 3000mah battery
- Make sure the relay box has an extra fuse on the main positive cable, as described in the manual.
- Check the manual for more troubleshooting information, or if you have any issues with the controller, contact support@strands.se

Contact us if you need support: support@strands.se or +46(0)320-450450