

Installation guide

Philips EvoKit G5 LED 2x4 and 2x2

This installation guide is only valid for the following Philips EvoKit models :

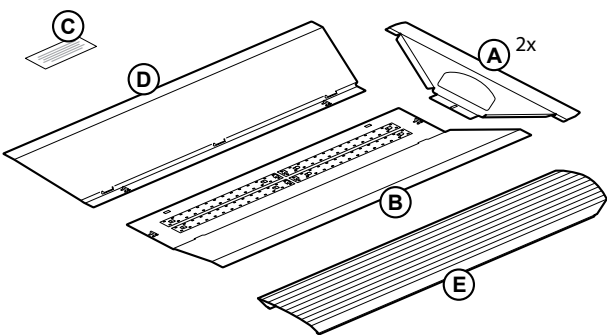
Products 2x4



Products 2x2

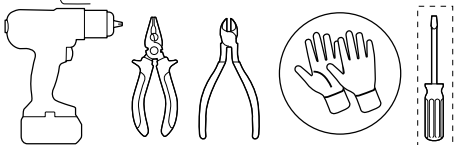


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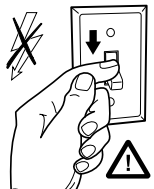


- A Side Panel
- B LED Panel
- C Troffer Label
- D Closing Panel
- E Diffuser

Tools required and warning precautions electronic static



Activity	Charge Voltage (dependent on rel. humidity)	
	10 - 20%	65 - 90%
Walking on a carpet	35000V	1500V
Walking on a vinyl floor	12000V	250V
Sitting in an office chair (Movements in the chair)	6000V	100V
Handling a plastic bag	20000V	1200V



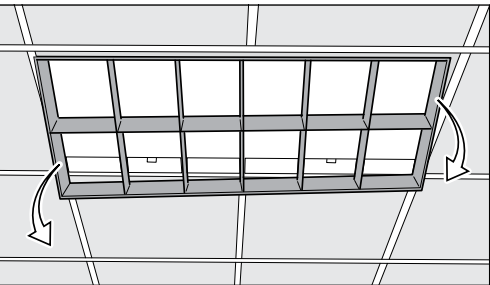
⚠️WARNING

LED electronics can be damaged by electro static discharge (ESD) shock. Before installation, discharge yourself by touching a grounded bare metal surface to remove this hazard. to avoid damage, do not touch the LED module.

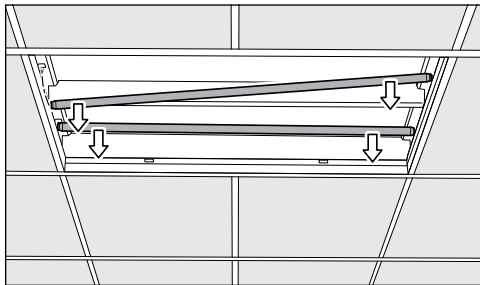
⚠️WARNING

RISK OF FIRE, ELECTRIC SHOCK OR PERSONAL INJURY
Before installation, turn power off.

Remove host fixture contents



1 Turn power off and take out original cover.



2 Take out TL tubes.

⚠️WARNING

FAILURE TO FOLLOW THESE INSTRUCTIONS AND WARNINGS MAY RESULT IN SERIOUS INJURY OR SIGNIFICANT PROPERTY DAMAGE.

For your protection, carefully read these warnings and instructions in their entirety before installing or maintaining this equipment. These instructions do not attempt to cover all installation and maintenance situations. If you do not understand these instructions or if additional information is required, contact your local Philips representative. Retain these instructions for maintenance reference.

⚠️WARNING

RISK OF FIRE, ELECTRIC SHOCK OR PERSONAL INJURY

Do not install in a damaged fixture.

Install the EvoKit only in NEMA type G or Type NFG t-grids with a minimum troffer depth of 3".

Before installation, turn power off.

⚠️WARNING

RISK OF FIRE OR ELECTRIC SHOCK

To prevent wiring damage or abrasion, do not expose wiring to edges of sheet metal or other sharp objects.

Notice

Do not use abrasive materials, glass cleaners or other solvents on cover plate or lens. To clean the faceplate, use a mild soap solution.

Do not expose the product to substances and /or materials containing sulphur, chlorine or other halogen compounds and to chemicals mentioned in below table.

Category	Chemical Name
Solvents	Toluene, xylene, benzene, chloromethane, chloroform, ethyl acetate, butyl acetate, acetone, MEK, MIBK
Acid	HCl, H ₂ SO ₄ , HNO ₃
Alkali	KOH, NaOH, LiOH, Ca(OH) ₂
Oil	Diesel oil, petroleum, hydro carbons

Caution

This kit is designed for permanent installation in ordinary (Non-Hazardous) locations in accordance with the National Electrical Code and all applicable local codes. Do not use in areas of limited ventilation or in high ambient enclosures.

Notice

Handle components with care. Do not drop, slide or scratch any of the components to prevent visual damage to the product, loss of functionality or difficulties during installation.

Host lighting fixture

The Philips EvoKit is designed for installation in a wide variety of 2x4 and 2x2 indoor fluorescent based fixtures in horizontal applications.

- The Philips EvoKit is non-air handling.
- Install the Philips EvoKit only in fluorescent based host lighting fixtures only with a minimum depth of 3".
- Install the Philips EvoKit only in combination with 15/16" NEMA G or NEMA NFG t-grids.
- Due to the wide variety in troffers and ceiling grids, it is recommended that the installer does a test install before commencing a renovation.
- Please verify voltage on the Philips EvoKit product label matches the mains voltage.

⚠️WARNING

RISK OF FIRE OR ELECTRIC SHOCK

The EvoKit must be installed and maintained by a professional electrician in accordance with the applicable federal, state and local laws, regulations and electrical codes, and the installation instructions provided in this document. This professional should be familiar with the construction and operation of this product and any hazards involved. If not qualified, do not attempt installation. Contact a qualified electrician.

⚠️WARNING

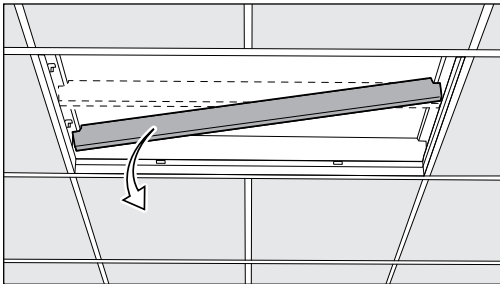
RISK OF PERSONAL INJURY

This equipment may have sharp edges. Wear gloves to prevent cuts or abrasions when removing from carton, handling and maintaining this equipment.

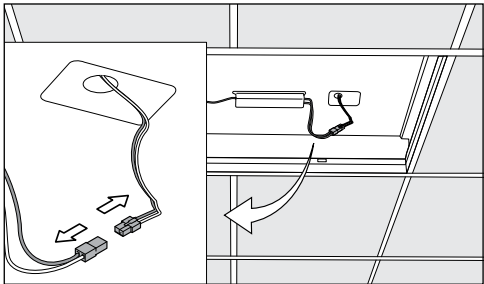
⚠️WARNING

RISK OF FIRE OR ELECTRIC SHOCK

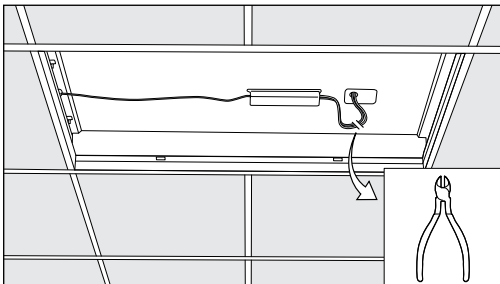
Luminaire wiring and electrical parts may be damaged when drilling for installation of LED retrofit kit. Check for enclosed wiring and components.



3 Remove belly pan. If remaining troffer height is limited, remove ballast.



4 Disconnect host fixture ballast from mains.



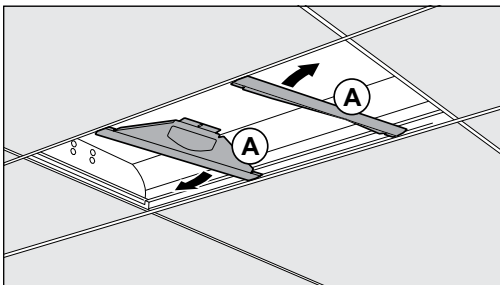
Notice

Make sure to remove packaging (except the LED protection*), from EvoKit components before installing.
Do not install with total power input greater than power rating of original fixture.
When space in the troffer is limited, remove original ballast.

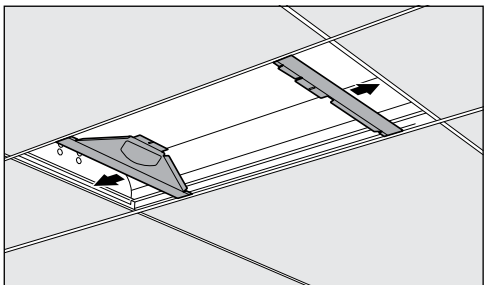
* Remove LED protection just before installing the Diffuser (E) (see step 14).

Installation of Side Panels (A)

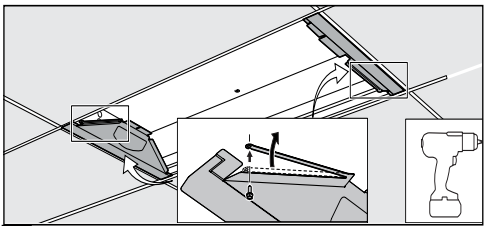
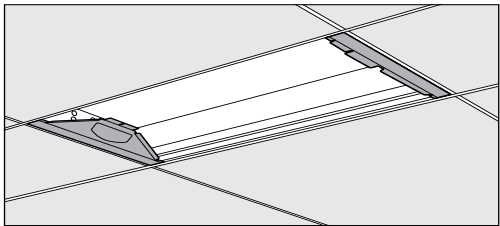
For SpaceWise accessory, see Spacewise installation instructions.



5 Install Side panels (A) in-between troffer and T-grid.



6 Slide Side Panel (A) outwards as far as possible.

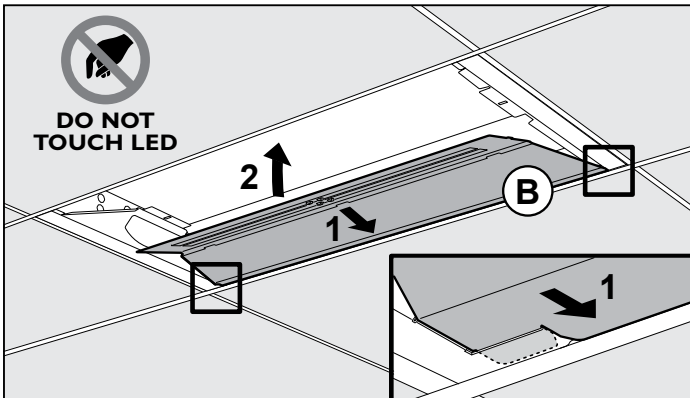


6a When required the integrated securement tabs can be bent towards and fixed to the troffer by means of a screw.

Installation Philips Bodine BSL310 (Optional)

For installation of the Philips Bodine BSL310 Emergency LED Driver, please see the emergency driver installation section from this EvoKit manual

Installation LED Panel (B)



7 Install LED panel (B) in between troffer and T-grid, making sure the tabs at each corner of the LED panel slide into the respective slots on the side panel.

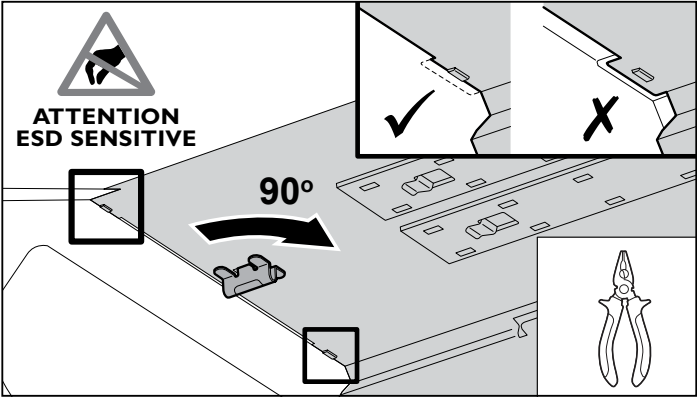
Notice

Do not touch the LEDs with hands or tooling! Touching LEDs can lead to failure of the product.

⚠️WARNING

RISK OF PERSONAL INJURY

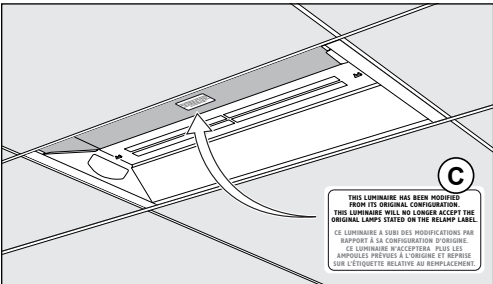
While installing the LED panel (B) and Closing Panel (D), make sure the electrical wiring is not clamped between panels.



8 Push LED panel upward into position so that the tabs sits above the side panels (this may require a push up on the tabs while pushing outward on the side panels). Fixate panels and establish ground by turning each fastener 90 degrees.

Notice
Do not touch the LEDs with hands or tooling! Touching LEDs can lead to failure of the product.

Installation Troffer Label (C)

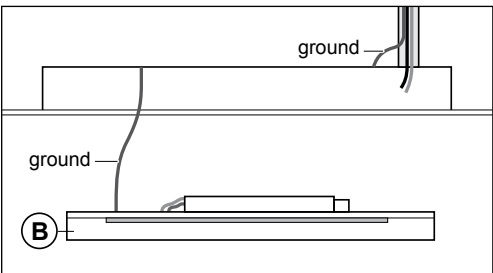
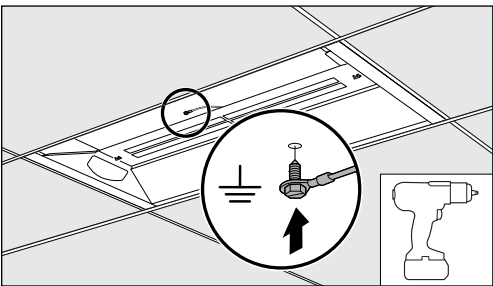


9 Place Troffer Label (C) inside original troffer.

Notice

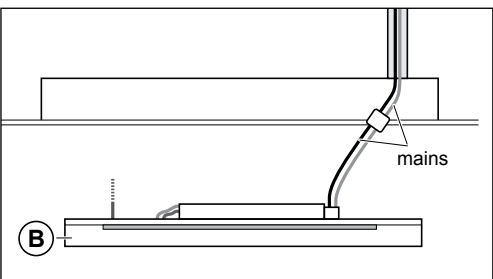
It is imperative to use the retrofit warning sticker included with the product in order to alert the end user that this luminaire will no longer operate on the originally intended lamps.

Ground connection (Situation 1 - 2)



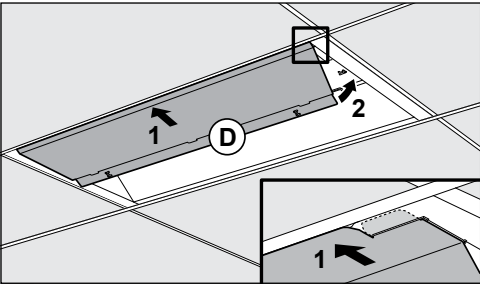
10a Situation 1 Grounding: Screw grounding cable from Led Panel (B) to original troffer if host fixture ground connection is made through host fixture.

Mains connection



Installation Closing Panel (D)

SpaceWise: Before installing the closing panel connect Spacewise. See Spacewise installation instructions.



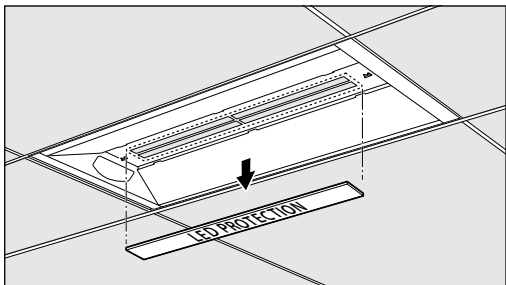
12 Install Closing Panel (D) in-between troffer and T-grid.

WARNING

RISK OF FIRE OR ELECTRIC SHOCK

While installing the LED panel (B) and Closing Panel (D), make sure the electrical wiring is not clamped between panels.

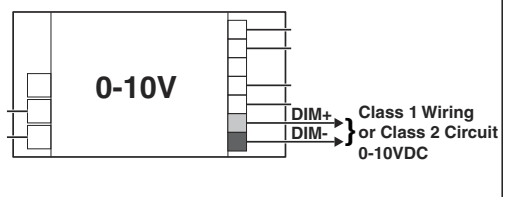
Remove LED protection



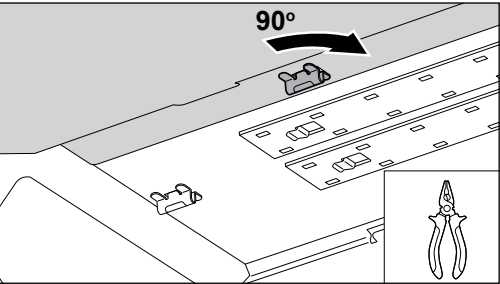
14 Tear off LED protection.

Connection 0-10V and STEP DIM (Optional)

EvoKit 0-10V wiring diagram

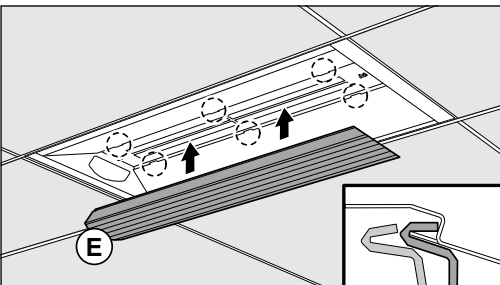


16a Optional: For connection EvoKit 0-10V input, use indicated connections on the driver.



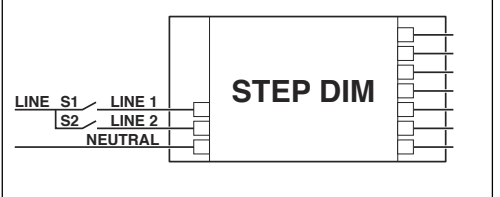
13 Fixate panels and establish ground by turning each fastener 90 degrees.

Installation Diffuser (E)



15 Slide Diffuser (E) under the tabs on one side from either Panel and press diffuser (E) over the tabs on opposite panel. The installation is now complete.

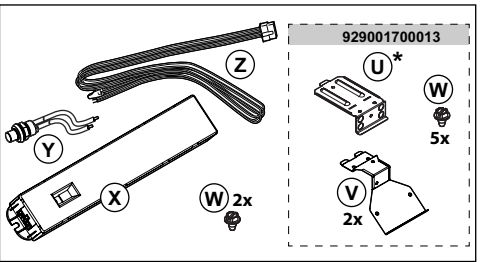
EvoKit STEP DIM wiring diagram



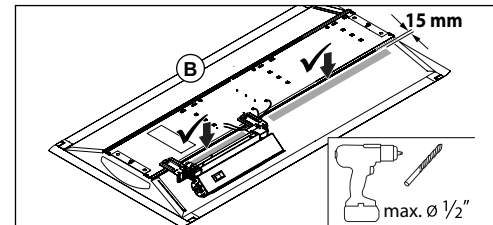
16b Optional: For connection STEP DIM, use indicated connections on the driver.

Initial installation Philips Bodine BSL310 Emergency LED Driver (not valid for 347V input) (Sold separately)

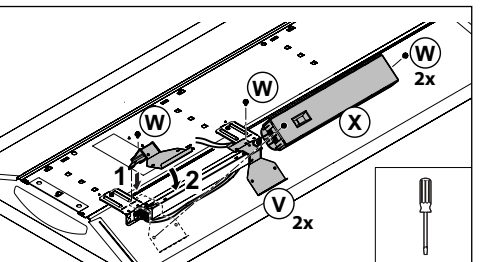
If the Philips Bodine BSL310 Emergency LED Driver is to be installed into the EvoKit retrofit fixture, please follow these instructions and the instructions provided with the Emergency driver.



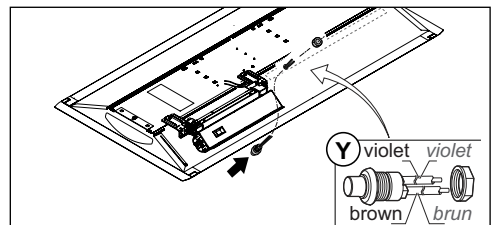
Components: Brackets (U, V), Screws (W), Emergency LED driver (X), Test switch (Y) Wiring harness (Z). (* required for 20W LED driver)



2 Drill 1/2" hole in the LED Panel (B) for installation of LED/test switch on indicated area.



1 First secure the two brackets (V) to each driver bracket using two screws (W) and mount BLS310/503441 (X) on the back side of the LED panel (B) using two screws (W)..



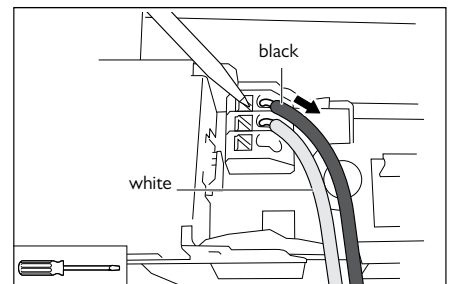
3 Install the test switch by feeding the violet and brown wires through this 1/2" hole and hand tighten the plastic nut included with the test switch/LED combo. Add connect from test switch to wiring harness (Z) (violet - violet, brown - brown).

WARNING

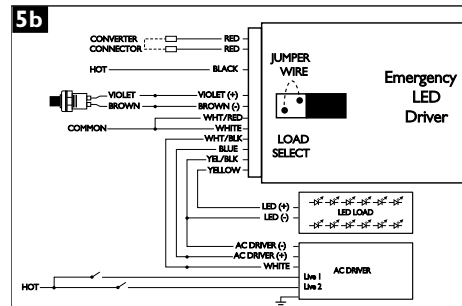
RISK OF PERSONAL INJURY

Ensure all warning and cautionary markings given in the Philips Bodine BSL310 installation instructions are heeded.

Notice Ensure an un-switched hot circuit is available to the fixture. This is required for proper emergency fixture operation.

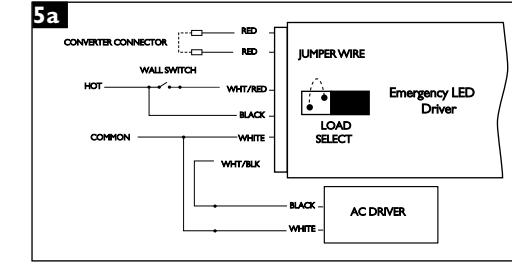
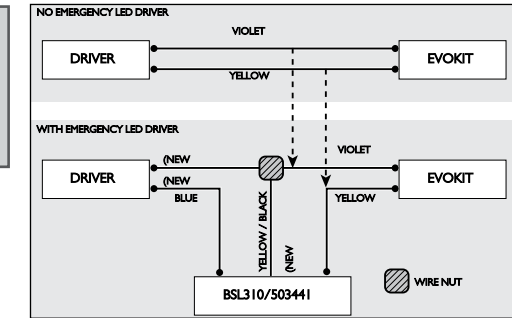
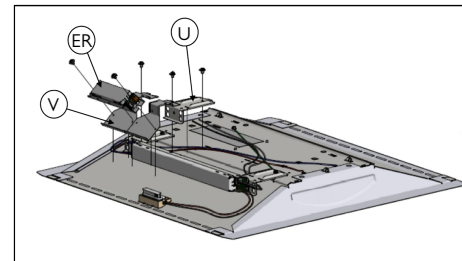


4 Disconnect black wire and insert white/black wire (Z) in the EvoKit driver.



5b Emergency LED driver wiring in combination with STEP version.

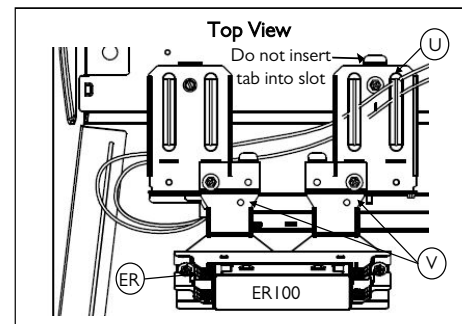
ERI00 Emergency Relay Installation



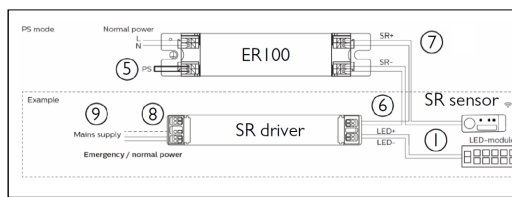
Emergency LED driver wiring in combination with **0-10V** version. Connect WHT/RED, BLACK and WHITE (2x) wires (Z) as per the BSL310/503441 wiring diagram. Connect the BSL310/503441 red to red as indicated in schematic (Z).

Notice For the EVOkit, do not connect the jumper wire / load select (yellow/red) on BSL310/503441.

Description	QTY	Comments
Driver Bracket (U)	1	Attach to EvoKit housing
Emergency Bracket (V)	2	Attach to driver brackets
ERI00 Emergency Relay (ER)	1	Attach to emergency brackets
Wire Purple 175mm	1	Connect ER100 to SR Driver
Wire Brown 175mm	1	Connect ER100 to SR Driver
Wire White 805mm	1	Connect ER100 to EM neutral
Wire Black w/ Red stripe 805mm	1	Connect ER100 to EM line
Wire Orange 50mm	1	Connect ER100 Jumper
Screw #8x.25 TYPE B serrated	5	Bracket and Relay Screw



- 1) Remove the purple and brown wires going to the sensor from the SR driver terminals.
- 2) Attach the driver bracket to the EvoKit housing with a #8 screw into the hole provided. **Note: It is not necessary to insert the driver bracket tab into the slot.**
- 3) Attach the two emergency brackets to the two SR driver brackets with two #8 screws into the holes provided.
- 4) Attach the ERI00 emergency relay to the two emergency brackets with two #8 screws into the holes provided.



- 5) Insert the orange jumper wire into the two orange terminals on the ERI00.
- 6) Use the shorter pair of purple and brown wires to make a connection from the purple and brown SR terminals of the SR driver to one set of the purple and brown terminals on the ERI00.
- 7) Reconnect the purple and brown wires coming from the SR sensor to the other set of purple and brown terminals on the ERI00.
- 8) Connect the white wire to the white terminal on the ERI00 and connect the black w/red stripe wire to the black terminal on the ERI00.
- 9) The unconnected ends of the white wire and the black w/red stripe wire are to be connected to the emergency mains.



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