

## Installation guide

### Philips EvoKit G5 LED 2x4 and 2x2

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

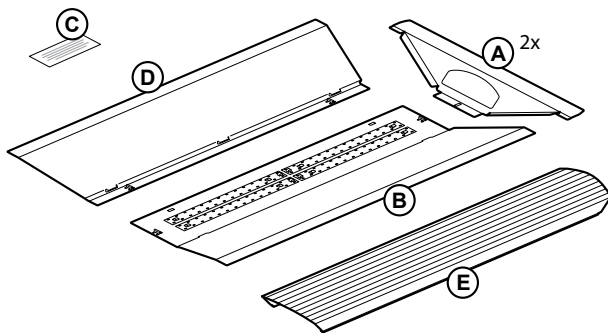
Products 2x4



Products 2x2

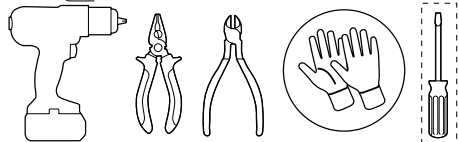


#### Set contains



- 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	35000 V	1500 V
Walking on a vinyl floor	12000 V	250 V
Sitting in an office chair (Movements in the chair)	6000 V	100 V
Handling a plastic bag	20000 V	1200 V

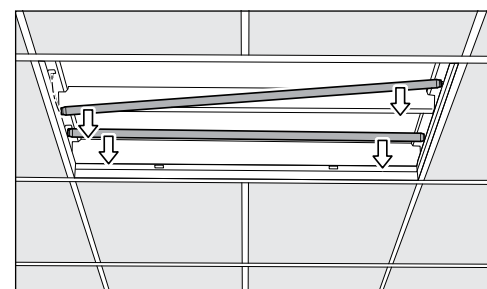
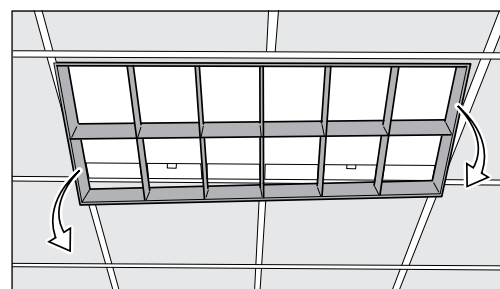
#### WARNING

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 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 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 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**

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

#### 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.

#### 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 <sub>2</sub> SO <sub>4</sub> , HNO <sub>3</sub>
Alkali	KOH, NaOH, LiOH, Ca(OH) <sub>2</sub>
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.

#### Caution

Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation except if specifically mentioned in these installation guide.

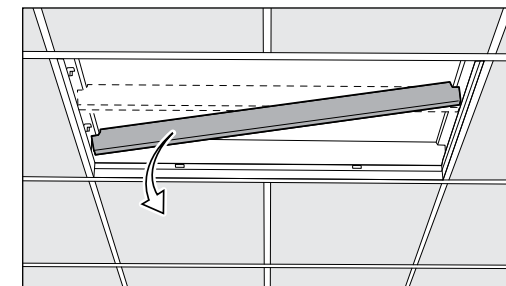
#### Notice

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.

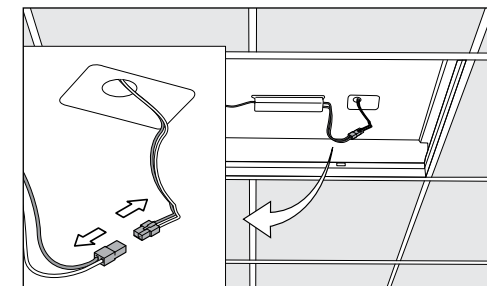
#### Host lighting fixture

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

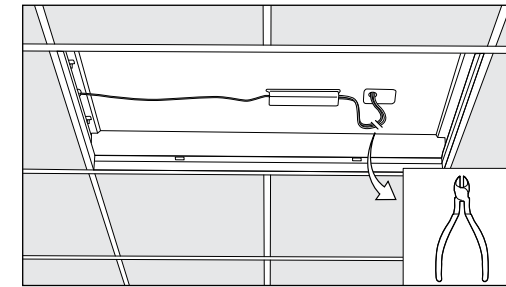
- The Philips EvoKit is non-air handling.
- Install the Philips EvoKit only in fluorescent based host lighting fixtures only with a minimum depth of 3".
- Install the Philips EvoKit only in combination with 15/16" NEMA G or NEMA NFG t-grids.
- Due to the wide variety in troffers and ceiling grids, it 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.



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

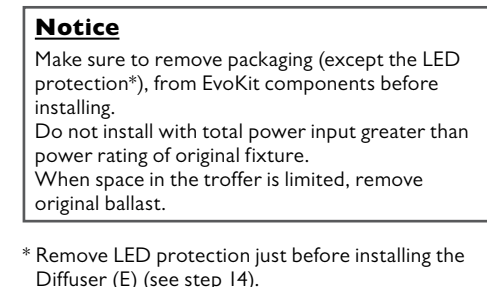


4 Disconnect host fixture ballast from mains.



#### Installation of Side Panels (A)

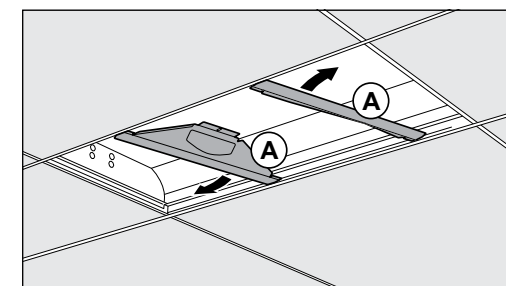
For SpaceWise accessory, see Spacewise installation instructions.



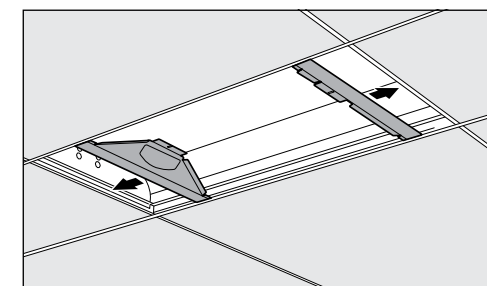
#### Notice

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.

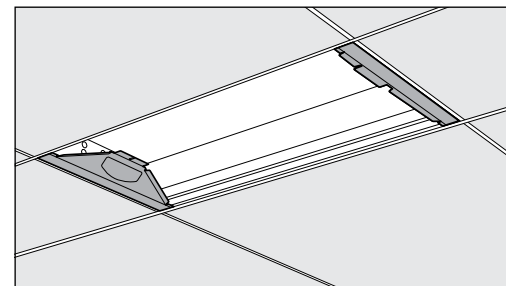
\* Remove LED protection just before installing the Diffuser (E) (see step 14).



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



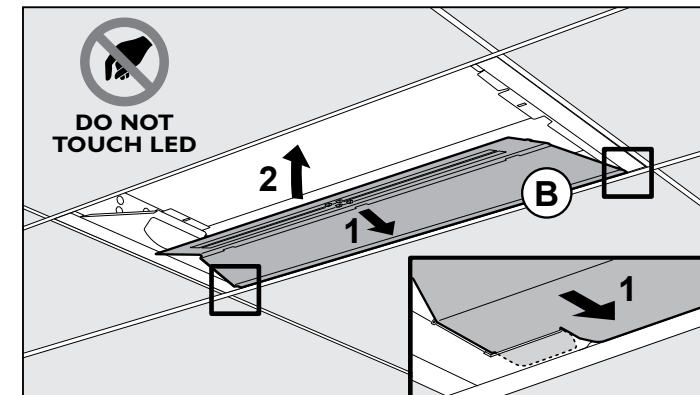
6 Slide Side Panel (A) outwards as far as possible.



#### 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.

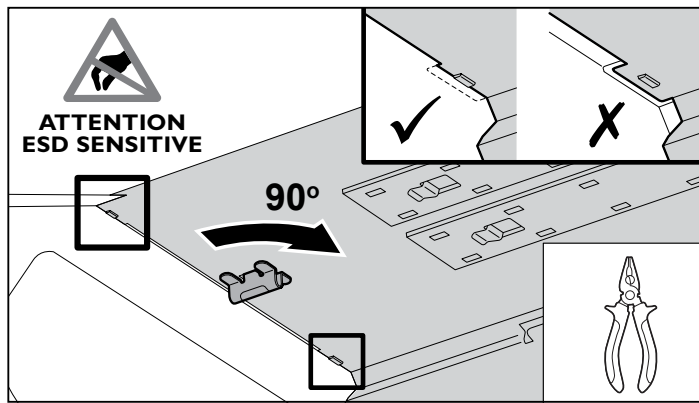
**DO NOT TOUCH LED**

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

#### WARNING

**RISK OF PERSONAL INJURY**

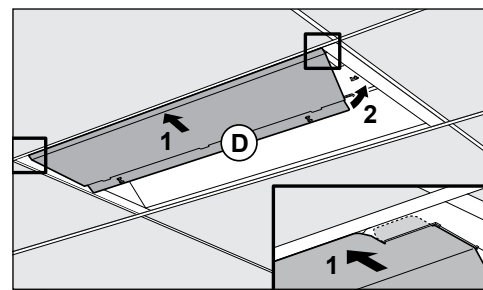
While installing the LED panel (B) and Closing Panel (D), make sure the electrical wiring is not clamped between panels.



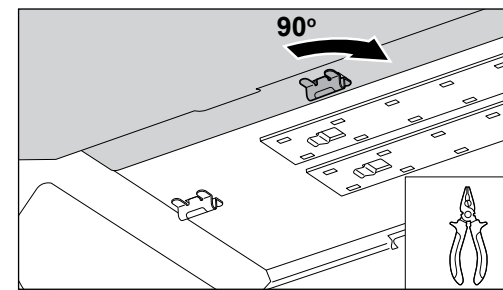
**8** Push LED panel upward into position so that the tabs sits above the side panels (this may require a push up on the tabs while pushing outward on the side panels). Fixate panels and establish ground by turning each fastener 90 degrees.

**Notice**

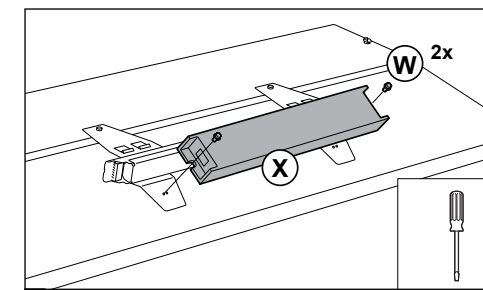
Do not touch the LEDs with hands or tooling! Touching LEDs can lead to failure of the product.



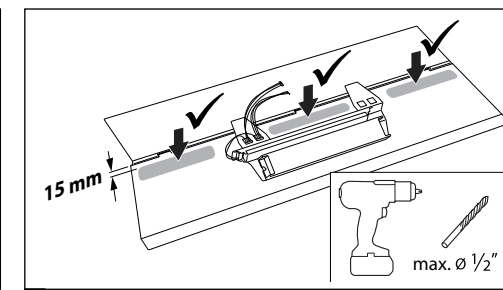
**12** Install Closing Panel (D) in-between troffer and T-grid.



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

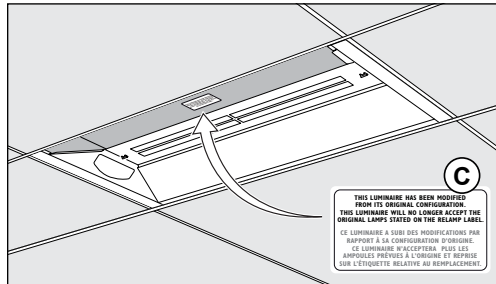


**11** Secure BSL310 (X) to the back side of LED Panel (B) using two screws (W).



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

**Installation Troffer Label (C)**



**9** Place Troffer Label (C) inside original troffer.

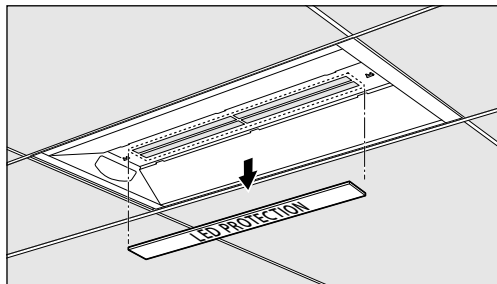
**THIS LUMINAIRE HAS BEEN MODIFIED FROM ITS ORIGINAL CONFIGURATION. THIS LUMINAIRE WILL NO LONGER ACCEPT THE ORIGINAL LAMPS STATED ON THE RELAMP LABEL.**  
**CE LUMINAIRE A SUBI DES MODIFICATIONS PAR RAPPORT À SA CONFIGURATION D'ORIGINE. CE LUMINAIRE N'ACCEPTERA PLUS LES AMPOULES PRÉVUES À L'ORIGINE ET REPRISE SUR L'ÉTIQUETTE RELATIVE AU REMPLACEMENT.**

**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.

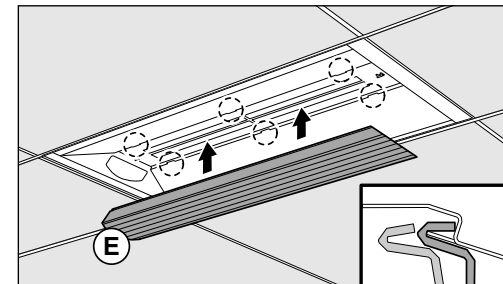
**WARNING**  
**RISK OF FIRE OR ELECTRIC SHOCK**  
 While installing the LED panel (B) and Closing Panel (D), make sure the electrical wiring is not clamped between panels.

**Remove LED protection**

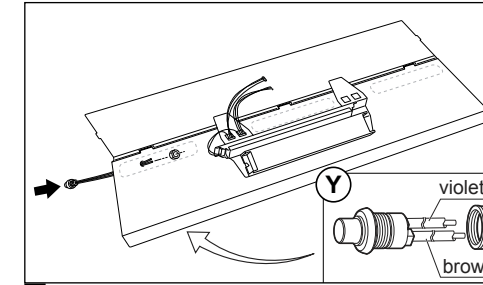


**14** Tear off LED protection.

**Installation Diffuser (E)**

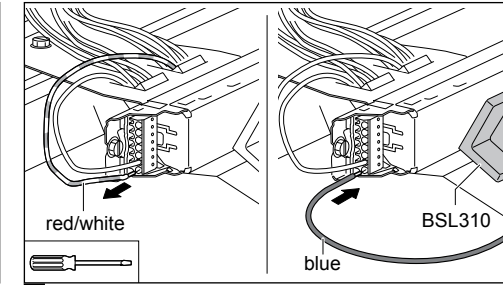


**15** Slide Diffuser (E) under the tabs on one side from either Panel and press diffuser (E) over the tabs on opposite panel. The installation is now complete.



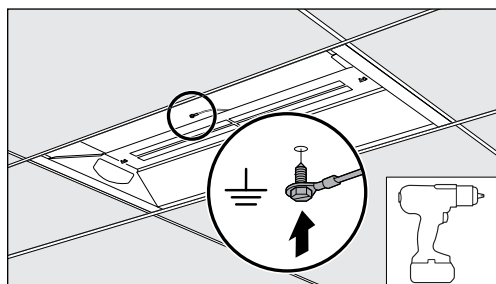
**3** Install the test switch by feeding the violet and brown wires through this 1/2" hole and hand tighten the plastic nut included with the test switch/LED combo. Add connect from test switch to wiring harness (Z) (violet - violet, brown - brown).

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



**4** Disconnect the red/white single wire from the EvoKit driver. Replace it with the blue output wire from the BSL310 (Z). Place a wire nut over the original red/white wire for proper isolation.

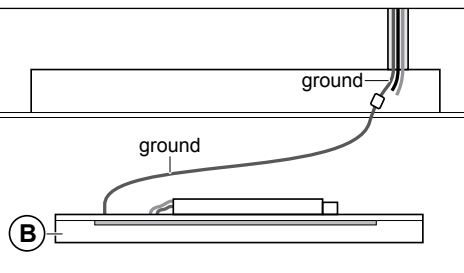
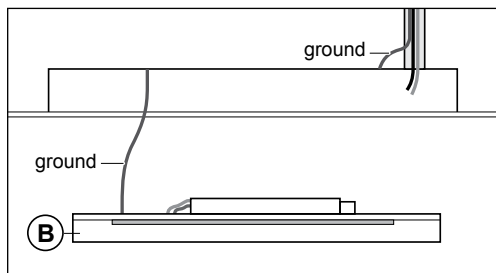
**Ground connection (Situation 1 - 2)**



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

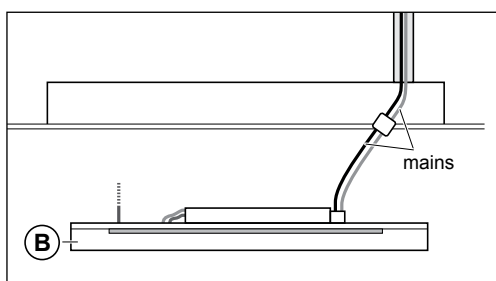
**WARNING**  
**RISK OF PERSONAL INJURY**  
 Proper grounding of EvoKit metal parts is required to ensure personal safety.

**Notice**  
 Make new electrical connections to mains by employing applicable connectors in accordance with the applicable federal, state and local laws, regulations and electrical codes.



**10b** Situation 2 Grounding: Connect to the incoming ground lead from conduit.

**Mains connection**

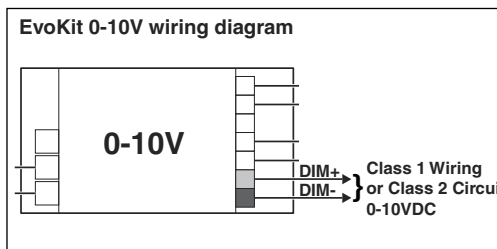


**11** Connect main cables and hide connected wires behind LED Panel (B).

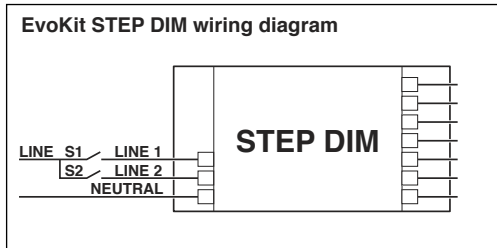
**Installation Closing Panel (D)**

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

**Connection 0-10V, MK10 dimmer and STEP DIM (Optional)**



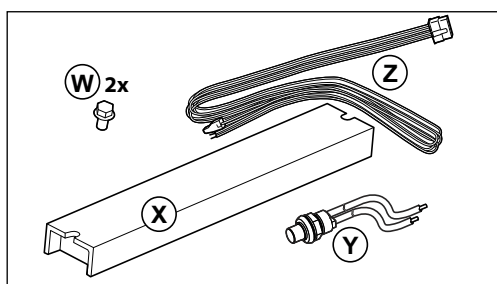
**16a** Optional: For connection EvoKit 0-10V input, use indicated connections on the driver.



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

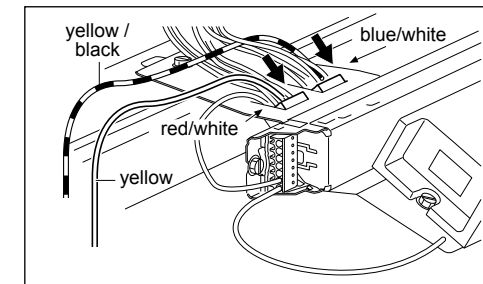
**Initial installation Philips Bodine BSL310 Emergency LED Driver (not valid for 347V input) (Sold separately)**

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.

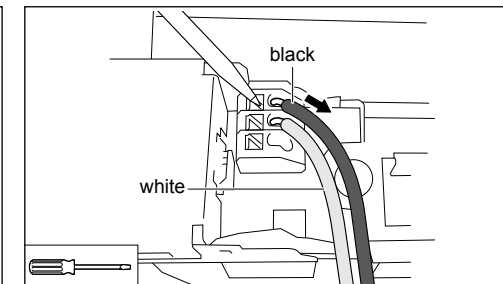


Components: Screws (W), Emergency LED driver (X), Test switch (Y) Wiring harness (Z).

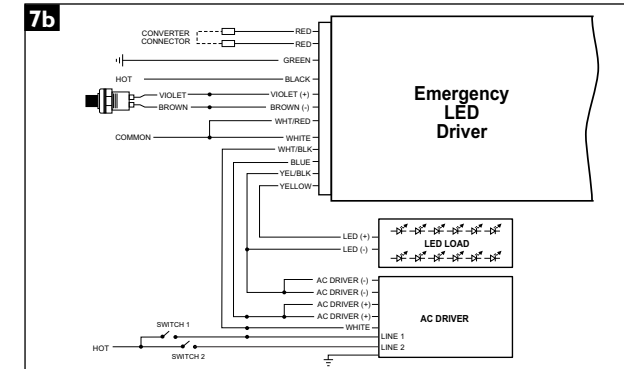
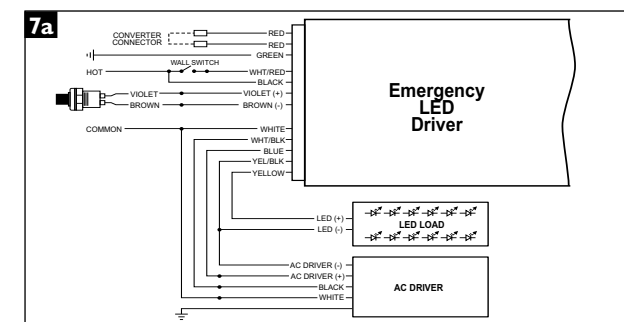
**WARNING**  
**RISK OF PERSONAL INJURY**  
 Ensure all warning and cautionary markings given in the Philips Bodine BSL310 installation instructions are heeded.



**5** Connect the yellow output wire from the BSL310 to the EvoKit red/white wire connection block and the yellow/black output wire from the BSL310 (Z) to the EvoKit blue/white wire connection block.



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



**7b** Emergency LED driver wiring in combination with STEP version.



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