

PHILIPS

InteGrade

LED Fixture
system NB



Quick Installation Guide

4422 409 38791

Narrow Beam

The solution for refrigerated cabinets

(-30 to +30 °C / -22 to +86 °F)



May 2016

Important

Please take the time to read this installation guide before you install this Philips LED product and driver. The guide contains important information regarding installation and operation.

Warranty

Warranty only applies when the appropriate Philips LED driver and Philips cabling (as described in this guide and leaflets) are used. Please visit our website www.philips.com/ledrefrigeration or contact your local sales office for more information.

Warnings

- The installation guide does not supersede local or (inter)national regulations for electrical installations.
- This Philips LED product and LED driver must be installed by a professional electrician in accordance with the applicable and appropriate electrical codes and the instructions provided by Philips.
- Please note that the driver should be built into an enclosure (Tcase max. 80 °C / 176 °F). Ensure that the mains cable to the driver is not accessible. Ensure that the mains cable to the driver is not accessible.
- This Philips LED product is designed to be connected to a circuit from a class 2 power source (Philips Xitanium LED power driver) with energy-limited supply.
- This is a 24 V DC product. Please ensure proper routing of the cable to avoid cable damage.
- Do not connect this LED product to mains voltages.
- To allow for variance in the installation, it is not recommended to load the power driver beyond 90% of its rated maximum power. Before installation, maintenance or cleaning, always first switch off or disconnect the power and follow the appropriate safety procedures.
- Before removing any lens covers or fluorescent lamps, always first switch off or disconnect the mains power to the lighting system.
- Take care not to damage the existing (heating) wiring if the LED product is installed in a freezer.
- To ensure that the InteGrade products remain securely in position when doors open and close, you can use extra tape or Velcro between the mounting surface and the fixture.
- Please note that the colors of the wires in existing designs, such as refrigeration systems or cabinets, may differ. The position of the (original) ballast may also differ.
- Do not make sharp bends with electrical wires.
- CAUTION: To reduce the risk of fire, do not install in a compartment smaller than 3 inches (76.2 mm) by 1.5 inches (38.1 mm) by length of luminaire.
- Avoid contact between cables and sharp edges.
- Due to the variety of designs and brands in which the Philips LED products can be installed, you may need to use customized mounting accessories to fit the specific design you are using. If you require further support, please contact your local Philips sales organization.
- Do not install the module in compression-type appliances with unprotected cooling systems which use flammable refrigerants.
- To prevent unwanted tripping caused by the inrush current of the LED driver, an MCB (mini circuit breaker) / fuse (slow blow) of at least 6 A must be installed.
- Philips advises using a zero-crossing/switching solid-state relay to reduce the inrush current peak.
- This product is designed for damp and dry locations only.

Cleaning

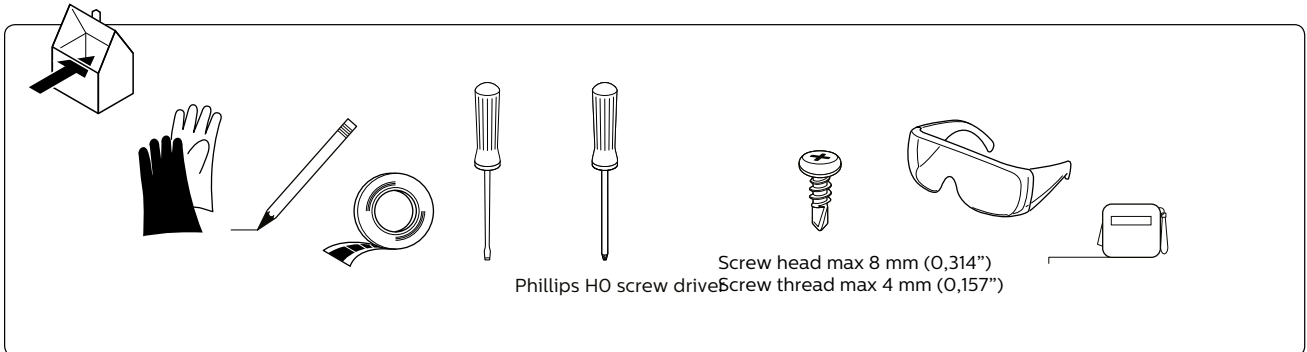
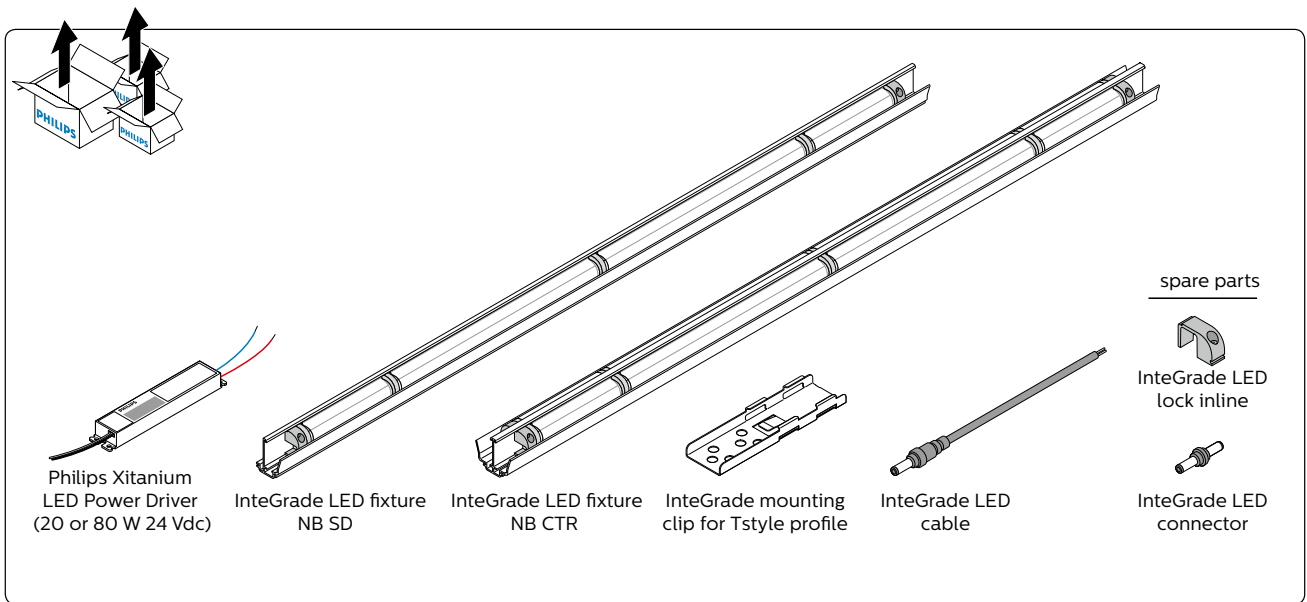
- Use a damp cloth and a mild cleaning agent. Do not wipe the LED product with a dirty or very wet dishcloth or towel because they may leave residue that can damage the LED product.
- Do not use abrasive cleaners, scouring pads, bleach or cleaners containing chlorine because they can scratch and damage the LED product.

Maximum allowed number of drivers per circuit breaker

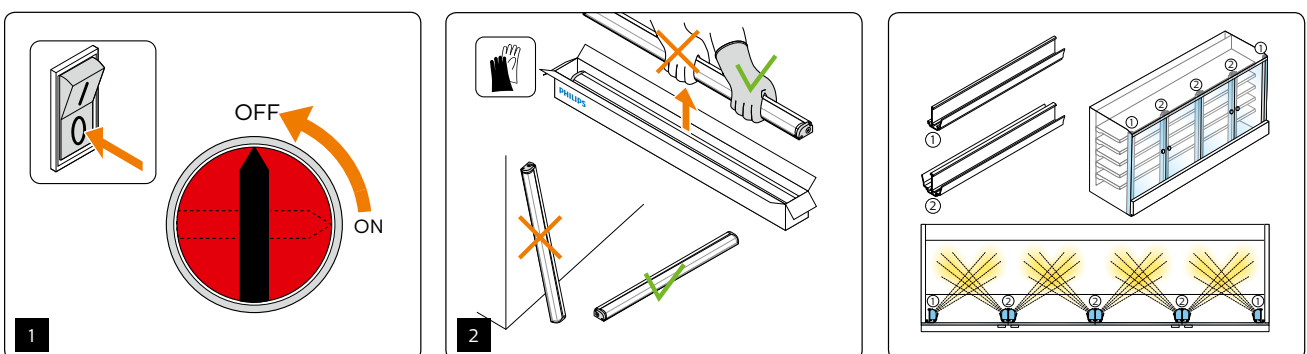
	12nc	B10	B16	C6	C10	C16	Imax (A)	Period (ms)
LED Power driver 80W - 24V *	929000653906	≤2	≤5	≤3	≤6	≤10	100	0,15
LED Power driver 20W - 24V *	929000654006	≤8	≤15	≤8	≤16	≤28	50	0,18

- The InteGrade LED engine system powered by this driver is Compliant to IEC 60335 standard (Household and similar electrical appliances)
- These values are indicative and shall not take the place of local and (inter) national regulations for electrical installations.
- This table only applies to the specified Philips driver.
- The data in this table are indicative, the installer must take into account external factors. External factors beyond the control of Philips Lighting (eg cable length, mix of products on the circuit breaker, ...)
- Note that the maximum number of drivers is given for a situation in which this all be connected at the same time, for example via a wall switch.

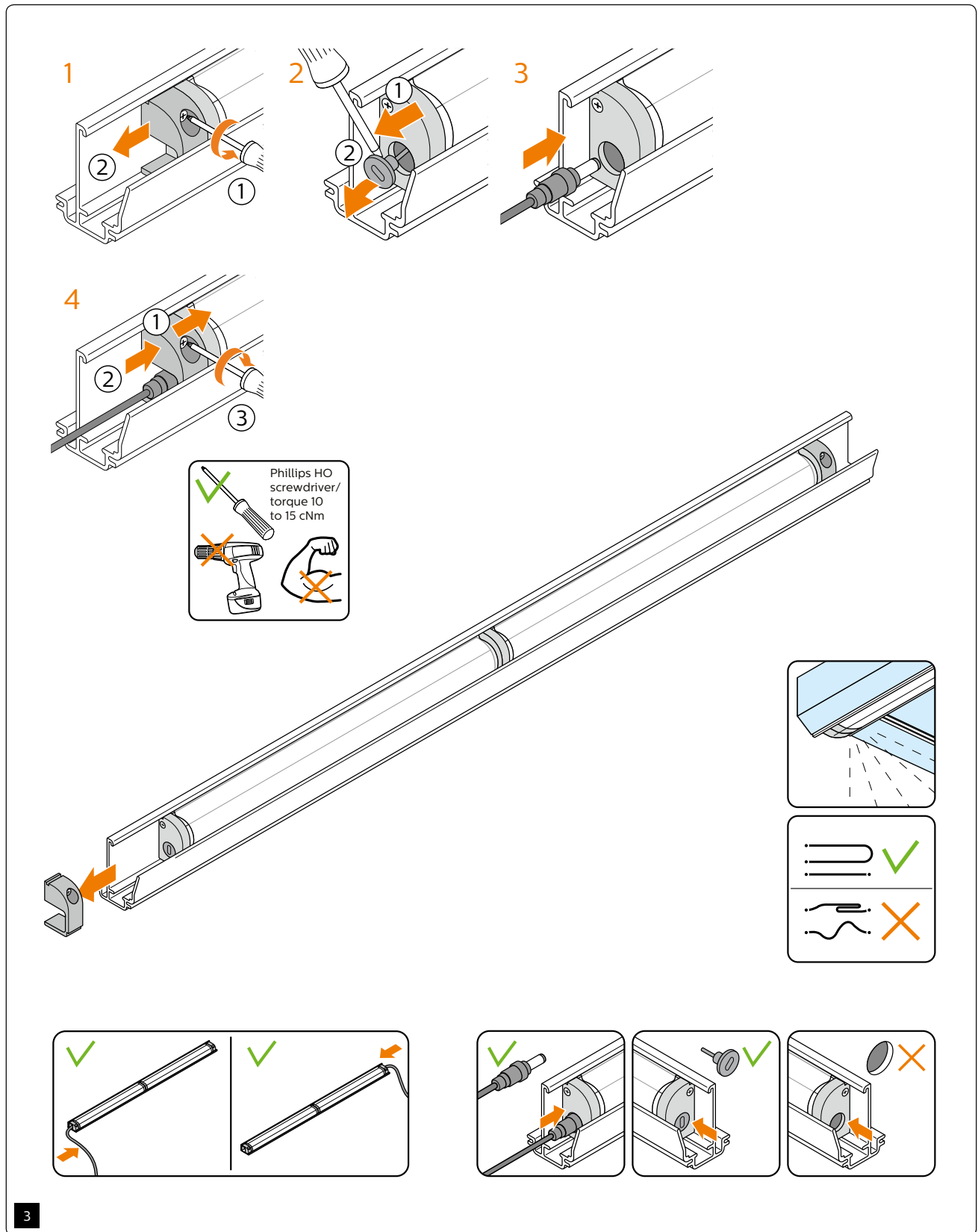
Products and tools



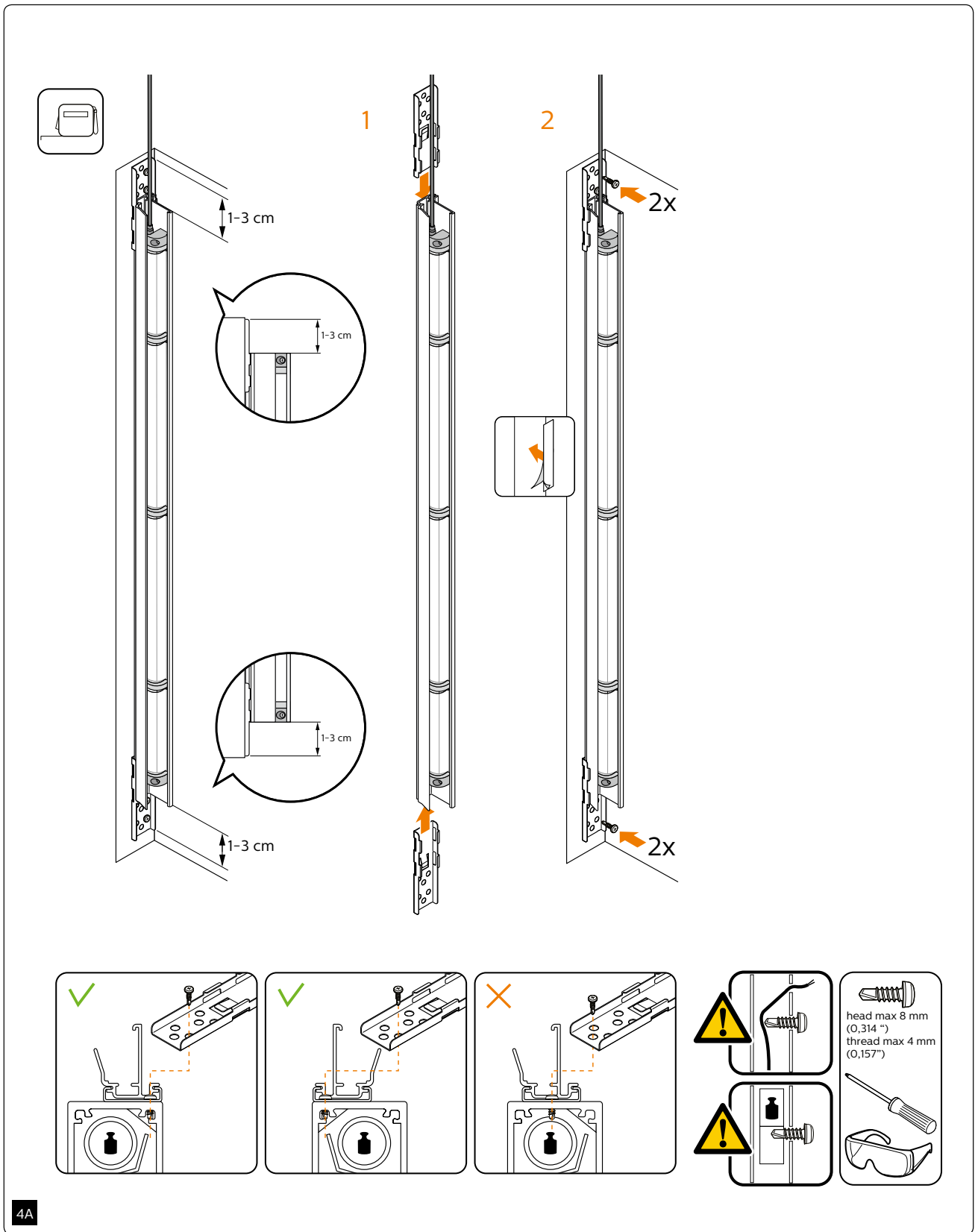
Start



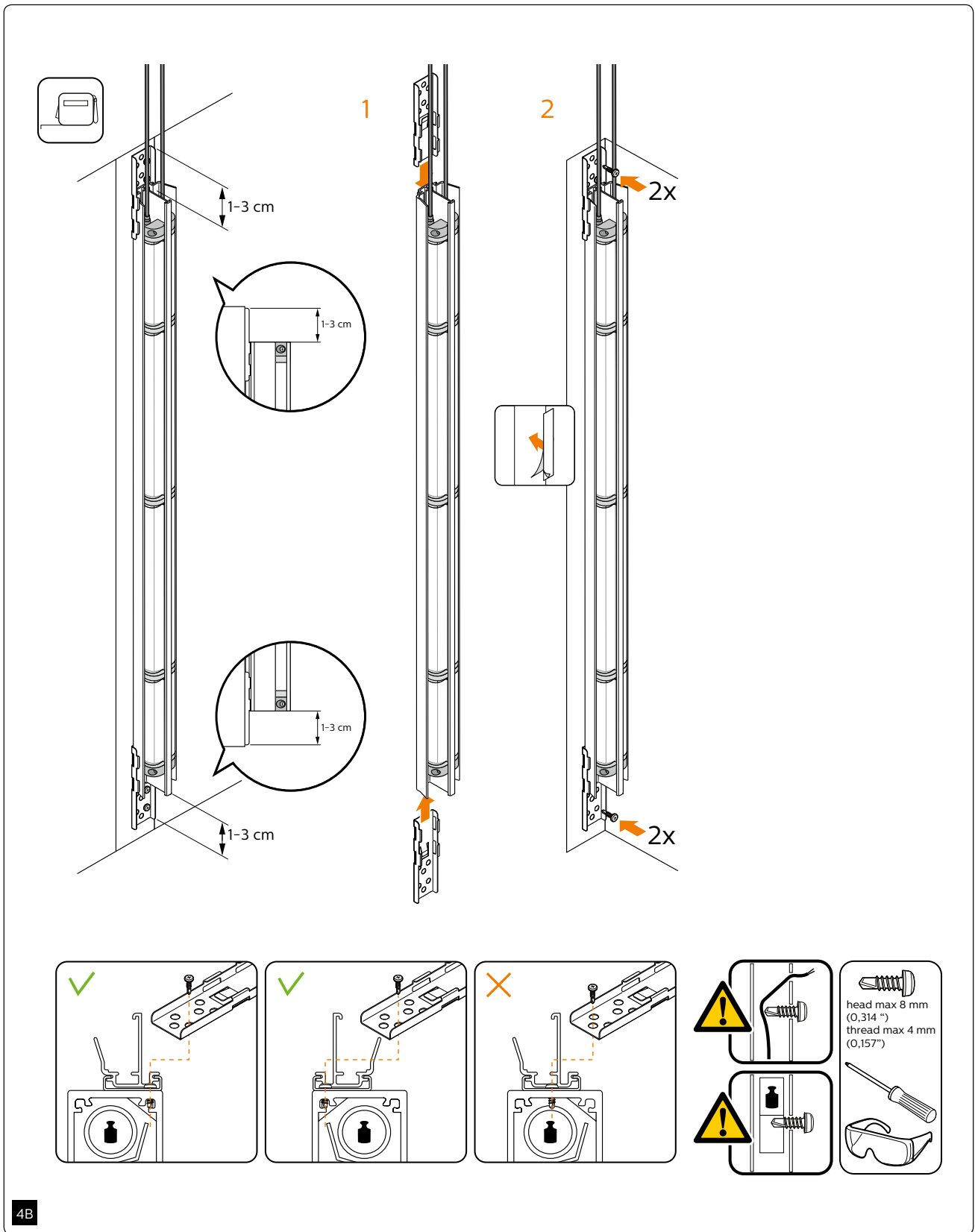
Connecting the LED InteGrade fixtures



Installation examples - InteGrade LED fixtures NB SD and mounting clips



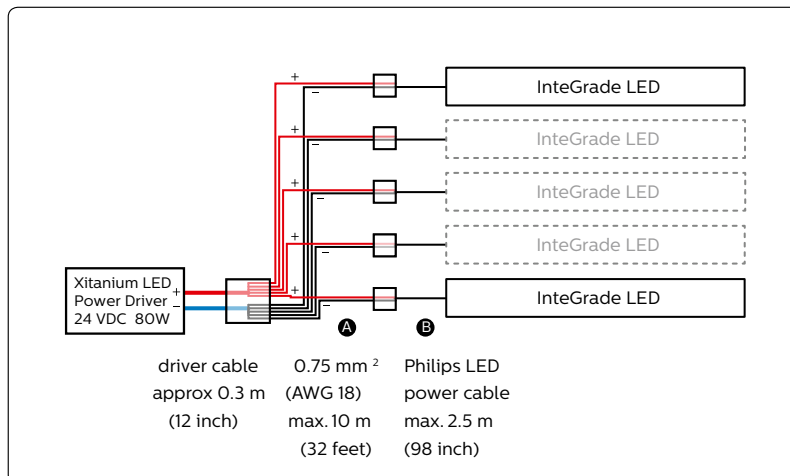
Installation examples - InteGrade LED fixtures NB CTR and mounting clips



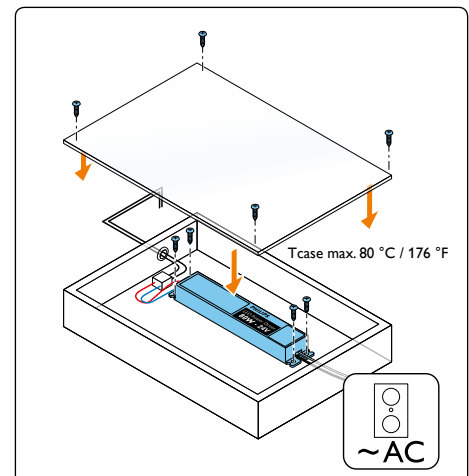
Power driver and wiring

- To allow for variance in the installation, it is not recommended to load the power driver beyond 90% of it's rated maximum power
 - Xitanium LED driver 20 W (logistic code 929000654006) max 18 W
 - Xitanium LED driver 80 W (logistic code 929000653906) max 72 W
- Use Philips InteGrade LED power cable of 1 m (39 inch) or 2.5 m (98 inch)
- If InteGrade power cables are extended, only use 0.75 mm² (AWG 18) or thicker cable upto a length of max 10 m (32 feet) between driver and Philips LED power cable
- Only parallel connections are advised, see table below for quantities per driver. If you wish to make any other configuration, please contact Philips.

Wiring diagram with Philips InteGrade LED engines



To allow for variance in the installation, it is not recommended to load the power driver beyond 90% of it's rated maximum power.



The 20 W, 80 W and 100 W driver should be built-in.

