

Redbird LED Cardinal® Stripit Kit® Installation Instructions

10-10-2019

Required Tools & Supplies

- ✓ Cordless drill/driver, with torque limiting adjustable clutch-head with 1/4" magnetic hex bit Set torque limit with the adjustable clutch-head to be ~ 20 in/Lbs to ensure the that when used to install the TEK-screws they do not 'strip-out' in the thin sheet metal of the fixture.
- ✓ Wire stripper with wire cutter
- ✓ 18 gauge solid core copper wire in two colors for the LED Plus and Minus power connections (Typically Black (-) and Red (+))
- ✓ Wire nuts and/or WAGO-style connectors for primary power connection

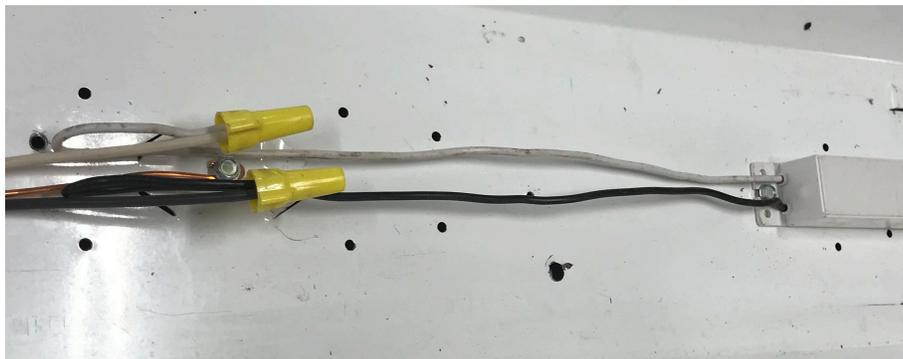
Pre-Installation Steps:

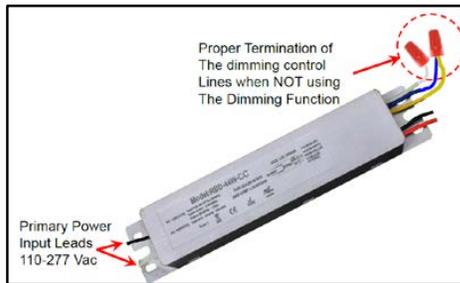
1. Turn off power to the fixture to be retrofitted
2. Remove Prismatic or Parabolic lens
3. Remove all Fluorescent tubes and dispose of properly
4. Remove ballast cover
5. Disconnect power wiring to the ballast. If possible, save the wire nuts commonly employed here to re-use for power connection to new LED Driver
6. Remove Ballast and dispose of properly
7. Remove all mechanical devices associated with the original fluorescent light system - tombstones [tube sockets], terminal bars that hold the sockets, and internal fixture wiring - and dispose of properly

Installing the Stripit Kit®

***Note, Installing TEK-Screws Properly:** When installing the supplied #6 self-drilling/self-tapping TEK-Screws, one must be careful to not '**OVER-TIGHTEN**' them. This can usually be avoided by using a driver with a adjustable torque-limit set at the appropriate level. The many different fixtures which can be retrofitted with the Stripit Kit® means that may different gauges of sheet metal may be encountered during the installation process. If a TEK-Screw is inadvertently 'stripped' during the installation process, one should remove said Screw (s) and reposition the component being mounted a small amount to allow a new, non-stripped TEK-Screw installation into fresh metal.

1. Mount the RedBird LED Driver in the area where the old ballast was located using supplied TEK screws. (see installing TEK-Screws Properly)
2. Using the wire nuts, connect the primary power leads to the driver's WHITE and BLACK wires on the driver's primary power input side. [All of the RBD series Drivers are fully isolated and it makes no difference which wire is connected to hot or neutral]





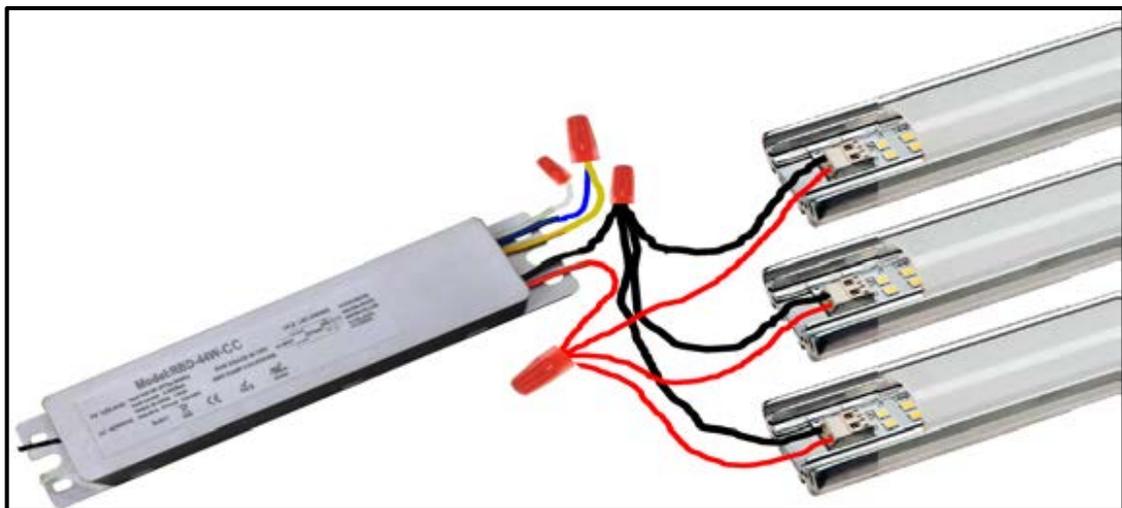
Note: Some of the RedBird LED drivers are Dimmable via the 0-10 volt control signal and also provide a 10Vdc auxiliary power output.

◆ *If installing one of the dimmable drivers with the aux output but will NOT be utilizing the Driver's dimming function connect the DIM + [yellow] lead to the Vcc+ Aux power [blue] lead as shown in the image above*
 We also recommend that the bare end of the DIM – [white] lead be insulated using electrical tape or a wire nut to prevent it from touching anything in the fixture. These measures are to ensure that the sensitive DIM control lines will not be susceptible to any electronic noise or transient signals present in the installed environment which could produce erratic results.

4. Strip approx. 7/16" - 1/2" of insulation from the end of the RED and BLACK leads of the driver's low voltage DC Output side, and connect to one of WAGO-style push-in connector at one end of the Stripit Kit LED strip; POLARITY MUST BE OBSERVED IN THIS STEP. Make sure to connect the RED wire to the (+) push-in terminal and the BLACK wire to the (-) push-in terminal. To make sure the wires have been completely engaged in the spring-loaded, push-in terminals, gently pull on the wires to ensure they can't be pulled out. Some RedBird Drivers come with two pairs of red(+) and black(-) output lines. If you are only powering a single strip with the driver, you should cut and/or Tape the ends of the extra set of output lines to ensure that they do not touch anything conductive. If a single driver is powering more than two LED strips then add an additional pair of the RED(+) and BLACK(-) power delivery leads by splicing them to the output leads of the Driver as shown below to provide a direct, 'home-run' power connection to each Strip.



Prepare ends of the solid core, 18 gauge power delivery wire by stripping ~ .375" to .5"



Correct Wiring Method for 'Home-Run' Parallel wiring of Multiple Strips to a single driver.

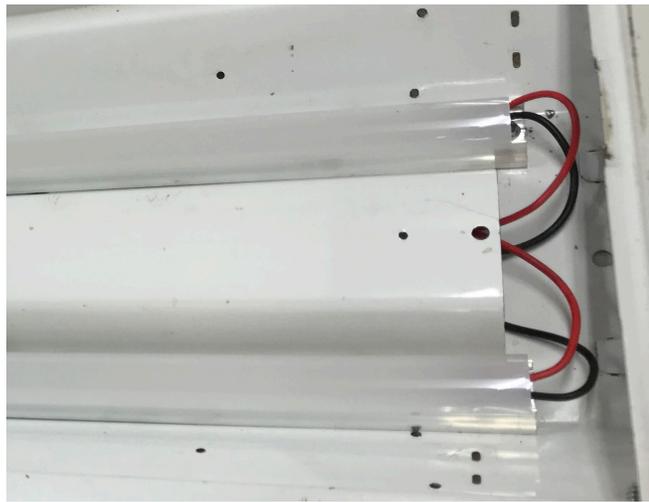
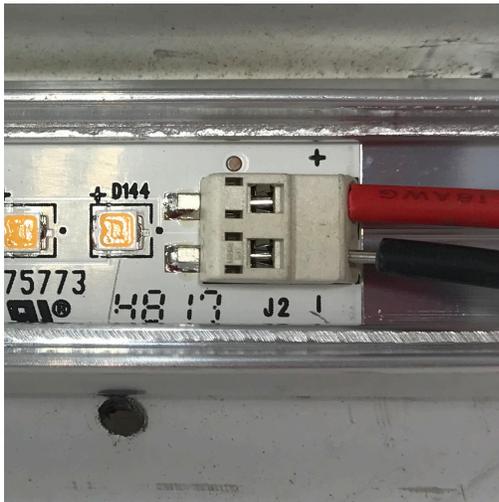
5. Using the supplied #8 X 3/4", 1/4" hex head TEK screws, mount the LED Strips in the fixture in the desired position, usually symmetrically within the fixture opening. Be careful to not over-torque the screw and strip the self-threading attachment mechanism out from the sheet-metal of the fixture. If your cordless driver has a clutch-head feature it is useful to set this at a low level to avoid the too-tight mistake. Connect power leads to each strip being installed.

Connecting Additional Strips

6. Measure distance from the driver to each strip and cut suitable sections of the 18 gauge solid-core wire to length of each color.
7. Strip approx. 7/16" - 1/2" off both ends of each wire
8. Insert one end of the wire into the new Strip, following the RED/BLACK polarity convention.
9. When all Strips have had their power leads attached mount each strip in the fixture using one TEK screw on each end to fasten it securely. Caution-do not over torque the TEK screws causing them to strip-out the self-formed threads in the fixture. If this happens, slightly relocate the strip so a new mounting point can be used.
10. With all Strips and the Driver installed in the fixture, connect all of the Red power leads from the strips to the Red Lead coming from the driver and all of the Black power leads from the strips to the Black Lead coming from the driver using wire-nuts, WAGO connectors, or crimp connectors.
11. Replace the ballast cover, which now covers the RedBird LED driver, making sure that the LED power leads exit through an area with adequate clearance to avoid being pinched or cut by any sharp edges.
12. Install the 'Fixture Retrofitted' Label supplied with the kit to the fixture to ensure that anyone servicing this fixture in the future is fully aware that it has been modified by the installation of the RedBird LED Cardinal® Stripit Kit® retrofit system. This also ensures that any inspectors can readily ascertain that all UL compliance of the original fixture has been maintained by the proper installation of this UL listed retrofit kit.



FIXTURE LABEL TO BE APPLIED AFTER RETROFIT HAS BEEN INSTALLED



Installing LED Strips in Fixture With TEK Screws, Connecting power lines, replacing Ballast cover and install snap-on diffusers

13. Replace the any trim such as a Prismatic or Parabolic lens components onto the fixture
14. Turn main power on – and enjoy the energy savings and high quality light output of RedBird LED's Stripit Kits!