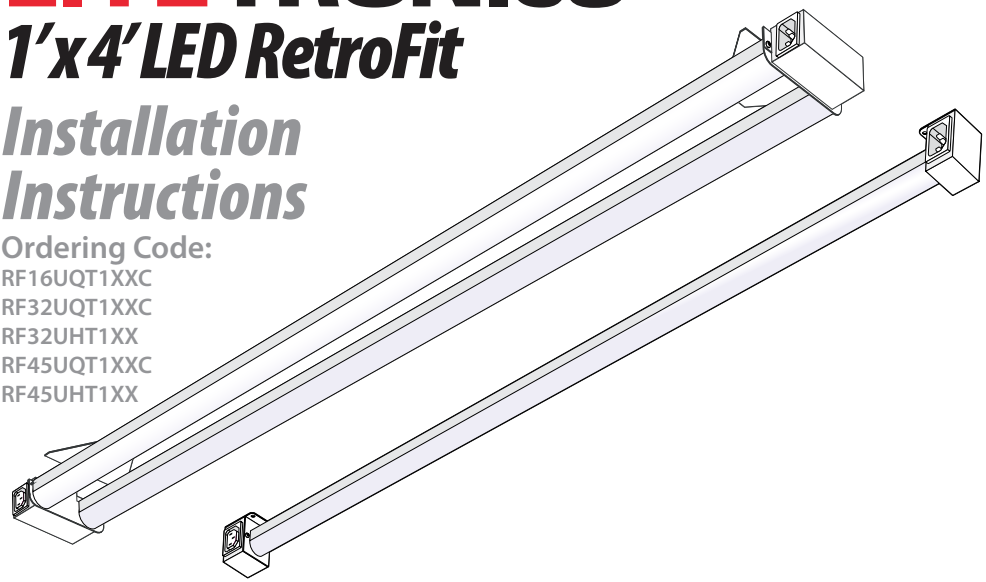
LITETRONICS®

1'x4' LED RetroFit

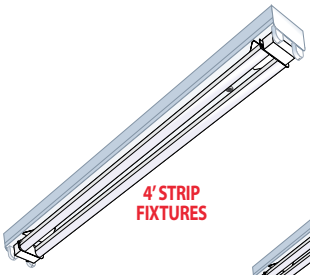
Installation Instructions

Ordering Code:

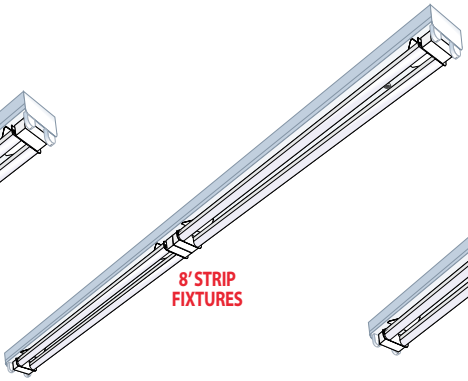
RF16UQT1XXC
RF32UQT1XXC
RF32UHT1XX
RF45UQT1XXC
RF45UHT1XX



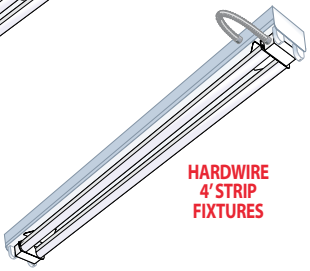
PLEASE READ THESE INSTRUCTIONS BEFORE INSTALLATION OF THE FOLLOWING:



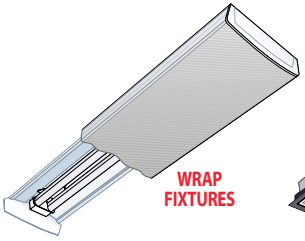
4' STRIP FIXTURES



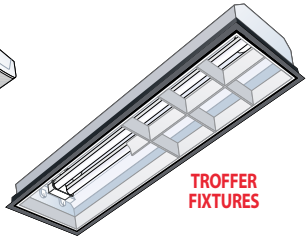
8' STRIP FIXTURES



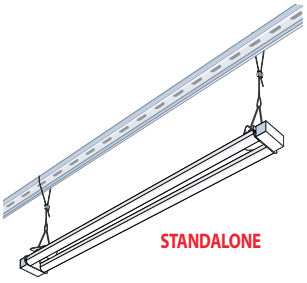
HARDWIRE 4' STRIP FIXTURES



WRAP FIXTURES



TROFFER FIXTURES



STANDALONE

INTRODUCTION & TABLE OF CONTENTS

Congratulations on the purchase of your 1x4 Retrofit. It is usable for a range of installations. Some of the most popular ones are included here.

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Section 3- TROFFER OR WRAP INSTALL 15

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SAFETY INSTRUCTIONS AND WARNINGS

CRITICAL SAFETY INSTRUCTIONS: Installation should only be conducted by a qualified electrician in accordance with NEC and any relevant local building codes.

LED RETROFIT WARNINGS: Risk of fire or electric shock. LED RetroFit kit installation requires knowledge of luminaires electrical system. If not qualified, do not attempt installation. Contact a qualified electrician. Luminaire wiring and electrical parts may be damaged when drilling for installation of LED RetroFit kit. Check for enclosed wiring and components. Do not make or alter any open holes in the enclosure of wiring or electrical components during kit installation. If Installing 4' or 8' strip fixture insure width is greater or equal to 2".

WARNING: Risk of fire or electric shock. Install this kit only in luminaires that have the construction features and dimensions shown in the photographs and/or drawings and where the input rating of the retrofit kit does not exceed the input rating of the luminaire. Only those open holdes indicated in the photographs and/or drawings may be made or altered as a result of kit installation. Do not leave any other open holes in an enclosure of wiring or electrical components.

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

This LED RetroFit Kit and Junction Box Cover shall only be installed into a UL/CUL listed luminaire with a steel enclosure. DO NOT INSTALL THIS RETROFIT KIT INTO LUMINAIRES WITH NON-FERROUS METAL OR POLYMERIC ENCLOSURES

Do not use with dimmers.

DISCONNECT SAFETY INSTRUCTIONS:

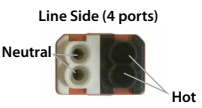
WARNING - This is a current rated device. Use in applications involving amperage beyond its rating can be dangerous and cause electrical fires. See note on this page for allowable current and voltage levels and do not exceed those levels.

DANGER - NEVER remove wires from product as contact with electricity can cause serious injury or death. Shut off power at the circuit breaker or remove fuse when installing this product.

SAFETY NOTICE - Improperly installed electrical wiring can be dangerous and cause electrical fires. This product must be used in accordance with the current rating and wire sizes listed.

COPPER to COPPER ONLY. Do not use on Aluminum. Temperature rating: 105° C (221° F) maximum. Flame Rated UL94V-0.
This product is intended for use in a UL/C-UL listed Fluorescent Recessed or surface-mounted luminaire, Type IC or Non-IC, with the dimensions specified.

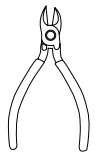
INCLUDED CN-02 CONNECTOR FOR RETROFIT POWER

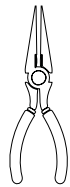


TOOLS AND MATERIALS NEEDED FOR ALL INSTALLATIONS

Step Ladder

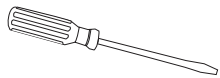
Wire Stripper


Wire Cutter


Pliers

Drill

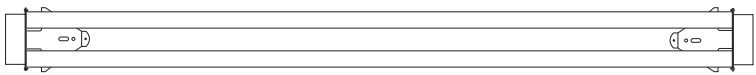
¼" Nut driver

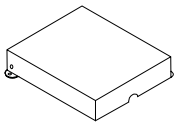

Screw Driver

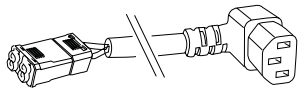
What comes in the box:

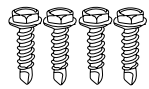
1x4 LED RetroFit- 1 Tube

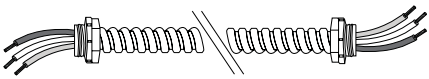
or


1x4 LED RetroFit- 2 Tube


Magnetic Junction Box Cover

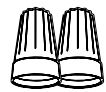

Power Cord (input wire with Luminaire disconnect both female and male parts are included)


(4) Self-tapping screws, #8 x 1/2"


Conduit with 14AWG Wire (1') (Applicable for RF32UHT1XX and RF45UHT1XX Only)

Split Snap Bushing

(2) Labels


(2)Wire Nuts

1X4 ACCESSORIES

Not included but available for purchase

4' Lamp to lamp extension cable
(RFAC-4FT)

8" Lamp to lamp extension cable
(RFAC-8IN)

Direct dual connector
(RFAC)

Wire cable accessories
for stand alone installations
(RFAXPVL5)

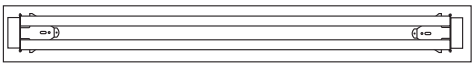
20mm bi-metal hole saw
(RFAHS-20)

RF16UQT1XXC, RF32UQT1XXC, RF45UQT1XXC
4' & 8' STRIP FIXTURE INSTALL

Before

1x4 Strip Fixture with T8 Tubes

After



1x4 Strip Fixture with LED Retrofit

READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION

Installation Notes:

1. Retrofit must be installed to a grounded luminaire.

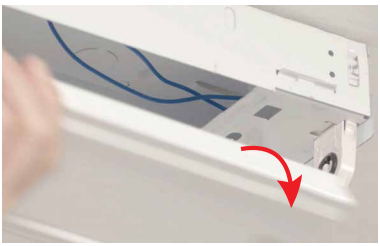
2. 1x4 strip install does not require the use of a junction box.

3. Ballast cover should be mechanically secured to physically support the Retrofit.

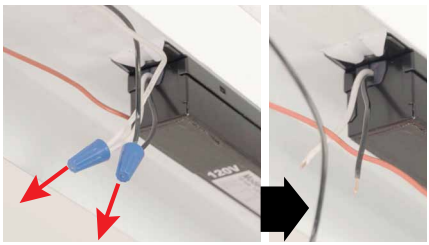
1. Turn off the power to the fixture from the circuit breaker.

2. Remove the existing fluorescent tubes. Recycle according to EPA guidelines (EPA.Gov).

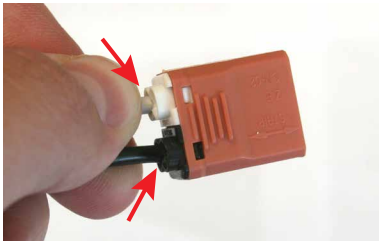
3. Open the fixture (ballast) cover to expose the ballast and set cover aside.



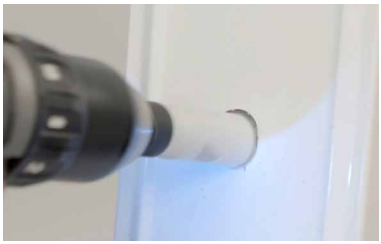
4. Disconnect the existing input and output ballast leads by cutting close to the ballast enclosure and remove the leads (black and white wires). Lampholders may remain in place but the leads to the lampholders should be cut at the lamp holder.



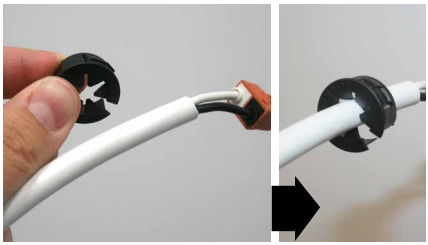
5. Connect incoming electrical line to the included female disconnect by pushing the wires into the corresponding color coded black and white holes.



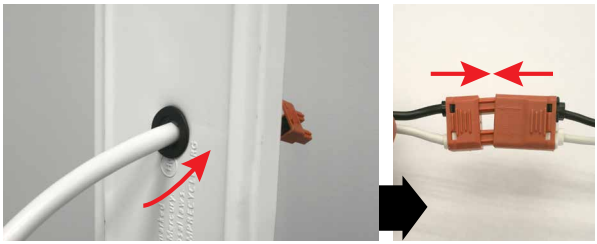
6. Punch hole through side knockout of strip fixture or drill a hole through the center of the cover (that was set aside in step 3) near the incoming electrical wires with 20mm bi-metal hole saw (sold separately ordering code RFAHS-20).



7. Push the included power cord through the split snap bushing.



8. Insert the power cord and split snap bushing into knockout hole or newly drilled hole. Reconnect the male and female halves of the Luminaire disconnect.



9. Replace the fixture (ballast) cover.

10. Place power cord between the two tubes of the LED RetroFit. Attach the LED RetroFit to the fixture cover using the powerful rare earth magnets. Position the LED RetroFit to preferred alignment. Secure to the fixture with 2 of the included self-tapping screws.

Route and position Retrofit wiring within luminaire enclosure away from mounting hole where screws will be inserted.

11. Plug the power cord into the power socket.

12. Apply both included labels to the fixture.

13. Restore the power and you're done!

HOW TO USE TWO 1'X4' RETROFITS TO CREATE 8' STRIP

For 8' install. Do not restore power until you complete steps 1a-1e below.

1a. Place and align the second 1' x 4' LED RetroFit with the C14 socket or Litetronics logo as close to the first LED Retrofit as needed to allow the use of RetroFit accessory.

1b. Place the dual connector (RFAC) in the sockets to connect both LED RetroFits together.

1c. Align the second fixture and secure with the 2 included self-tapping screws.

Unused branch circuits supplying interconnected retrofit luminaires should be properly terminated.

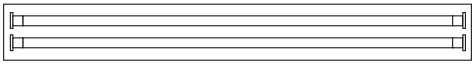
1d. Apply both included labels to the fixture.

1e. Restore the power and you're done! You have combined two 1'x4' Retrofits into an 8' fixture.

Our 1x4's can be assembled into long chains off one power source depending on Retrofit wattage. You can connect 2 retrofits together when less than or equal to 4' apart using 4ft lamp to lamp extension (RFAC-4FT). Or connect 2 retrofits together when less than or equal to 8" apart using 8in lamp to lamp extension (RFAC-8IN). Shown on page 4.

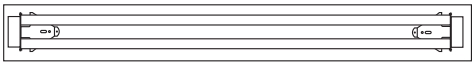
Maximum Length by Watts
16W = 36 Units
32W = 18 Units
45W = 12 Units

Before



1x4 Hardwire Strip Fixture with T8 Tubes

After



1x4 Hardwire Strip Fixture with LED Retrofit

READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION

Installation Notes:

1. Retrofit must be installed to a grounded luminaire.

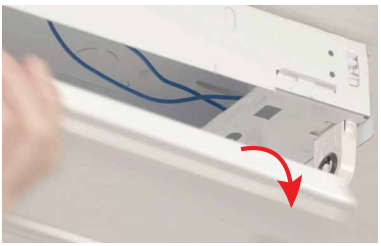
2. Hardwire install does not use a junction box.

3. Ballast cover should be mechanically secured to physically support the Retrofit.

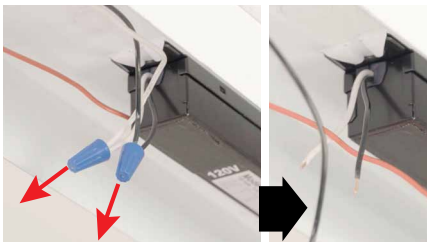
1. Turn off power to the fixture from the circuit breaker.

2. Remove existing fluorescent tubes. Recycle according to EPA guidelines (EPA.Gov).

3. Open fixture cover to expose the ballast and set the cover aside.



4. Disconnect ballast wires from the incoming electrical lines. (Black and white wires).



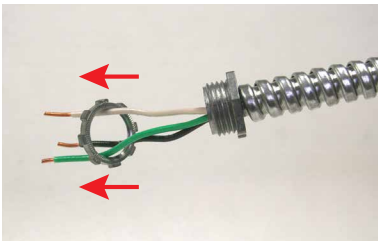
5. On the LED RetroFit RF32UHT1XX and RF45UHT1XX open the end cover with the Litetronics logo by removing both screws.

6. Once open, the internal black, white and green/yellow wires to the LED tubes are visible.

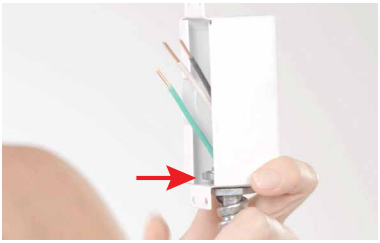
7. Strip the black, white and green/yellow wires coming from the tubes of the LED Retrofit to expose about ¼" of wire.

8. Remove the preferred knockout from the end cover of the LED RetroFit and the fixture to make the hole you want to connect conduit / box spacer.

9. Remove the nut from the conduit.



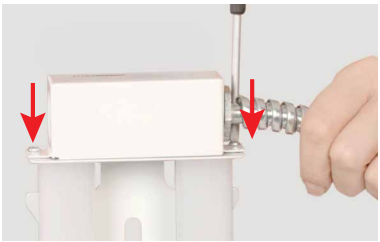
10. Insert the three conduit wires (black, white & green) through the hole of end cover. Then place the conduit nuts over the three conduit wires. After that, push conduit end into knockout hole and secure with conduit nut.



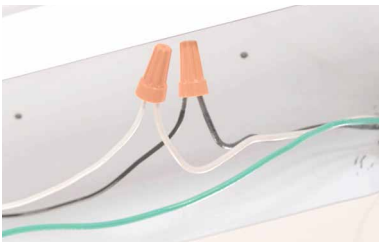
11. Connect conduit wires to LED RetroFit using wire nuts (included). See below chart:

a. black to black
b. white to white
c. green to green/yellow

12. Replace the end cover, and secure it with the two screws.



13. The other end of the conduit will go into the fixture. Remove the conduit nut. Push the three wires into the fixture hole, then through the conduit nut, and secure . Connect conduit wires to incoming electrical lines inside fixture. Connect black to black, white to white with wire nuts. Then connect the green/yellow with strip of ground screw.



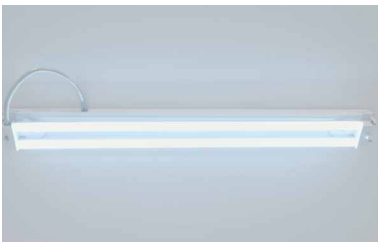
14. Replace fixture cover.

15. Mount your LED RetroFit which attaches to housing with powerful rare earth magnets. Position LED RetroFit to preferred alignment. Secure it to the fixture with the 2 included self-tapping screws.

16. Apply both included labels to fixture.

WARNING: IF RETROFITTING 8′ STRIP, DO NOT RESTORE POWER YET. CONTINUE WITH 8′ INSTALL STEPS 1A-1E BELOW.

17. Restore the power and you're done!



For 8' install. Do not restore power until you complete steps 1a-1e below.

1a. Place and align the second 1' x 4' LED RetroFit RF32UQT1XXC or RF45UQT1XXC with the C14 socket (or Litetronics logo) as close to the first LED Retrofit as needed to allow use of RetroFit accessory.

1b. Place the dual connector (RFAC) into the sockets to connect both the LED RetroFits together.

1c. Align the second fixture and secure with 2 included self-tapping screws

Any unused branch power circuits supplying interconnected retrofit luminaires should be properly terminated.

1d. Apply both included labels to the fixture.

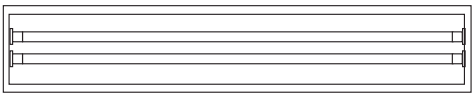
1e. Restore the power and you're done!

Our 1x4's can be assembled into long chains off one power source depending on Retrofit wattage. You can connect 2 retrofits together when less than or equal to 4' apart using 4ft lamp to lamp extension (RFAC-4FT). Or connect 2 retrofits together when less than or equal to 8" apart using 8in lamp to lamp extension (RFAC-8IN). Shown on page 4.

Maximum Length by Watts
16W = 36 Units
32W = 18 Units
45W = 12 Units

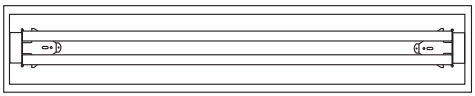
RF32UQT1XXC AND RF45UQT1XXC TROFFER OR WRAP INSTALL

Before



1x4 Troffer Fixture with T8 Tubes

After



1x4 Troffer Fixture with LED Retrofit

READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION

Installation Notes:

1. Troffer or wrap install requires the use of a junction box.

1. Turn off power to the fixture from the circuit breaker.

2. Open and remove fixture cover that applies to the Retrofit model number specified.

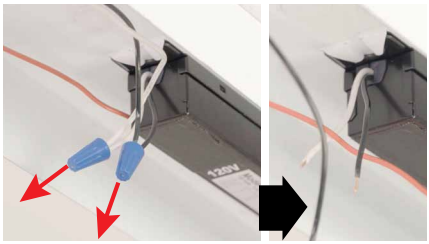
RF32UQT1XXC

NOTE: RF45UQT1XXC is designed for retrofitting a recessed luminaire with an open lamp compartment and not for retrofitting a recessed luminaire with a diffuser that fully encloses the lamp compartment.

RF45UQT1XXC

3. Remove existing fluorescent tubes and ballast cover. Recycle according to EPA guidelines (EPA.Gov).

4. Disconnect ballast wires from the incoming electrical line. (black and white wires)

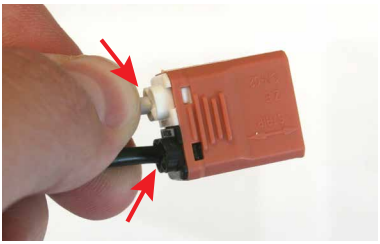


5. Remove lamp holders and mounting bracket.

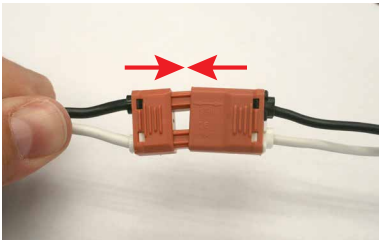
6. Unscrew and remove ballast from fixture.

If you are installing LED retrofit into a wrap fixture, instead of removing the lamp holders, just cut the remaining ballast wires as close to the lamp holders as possible.

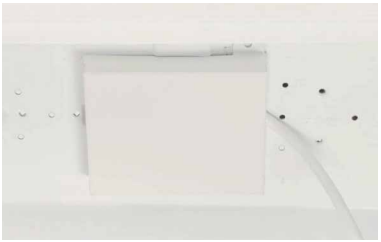
7. Connect the incoming electrical wires to the included female disconnect.



8. Connect the male disconnect to the female disconnect that is attached to the included power cord.



9. Fully cover the attached disconnect and incoming electrical wires using the provided magnetic junction box cover. Make sure the power cord is coming out the direction that allows connection to the LED RetroFit.



10. Secure junction box with 2 of the included self-tapping screws.

11. Place power cord between the two tubes of the LED RetroFit. Attach the LED RetroFit to the fixture cover using the powerful rare earth magnets. Position the LED RetroFit to preferred alignment and secure to the fixture with 2 of the included self-tapping screws.

12. Plug the power cord into the power socket.

13. Apply both included labels to the fixture.

14. Replace the fixture cover that applies to the Retrofit model number specified.

RF32UQT1XXC Shown

RF45UQT1XXC Shown

15. Restore the power and you're done!

READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION

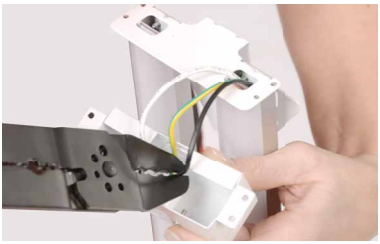
Installation Notes:

The LED RetroFit can be installed as a luminaire when hardwired and hung using the wire cable accessory (Ordering Code RFAXPVL5 sold separately).

1. Turn off the power to the fixture from the circuit breaker.

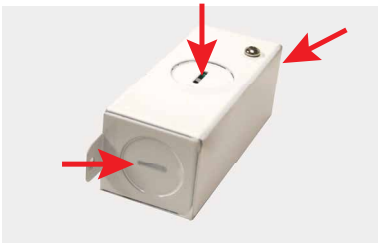
2. Open the end cover with Litetronics logo by removing both screws of the LED RetroFit.

3. Cut the black, white and green/yellow wires close to the power I/O of the LED Retrofit.

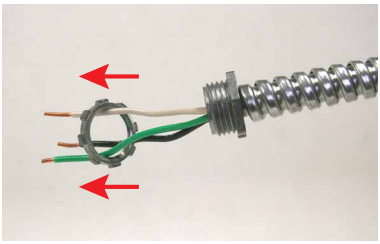


4. Strip the black, white and green/yellow wires to expose about ¼" of wire.

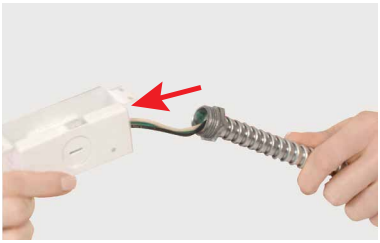
5. Remove the preferred knockout from end cover to make the preferred hole you want to connect conduit.



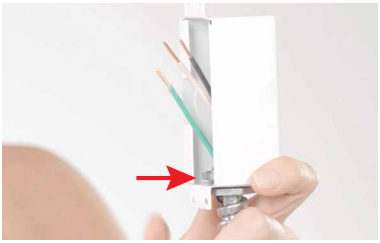
6. Unscrew the conduit nut from the conduit.



7. Insert the three conduit wires (black, white & green) through the hole.



8. Then place the conduit nut over the three conduit wires. After that, place conduit through knockout hole and secure with conduit's nut.

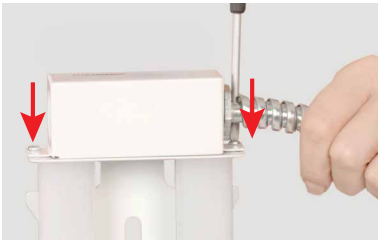


9. Connect conduit wires to the LED RetroFit using wire nuts (not included). See below chart:

a. black to black
b. white to white
c. green to green/yellow

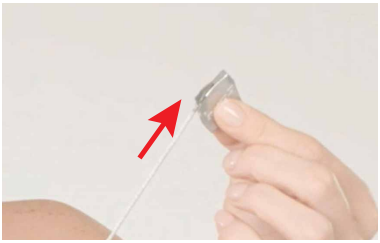
CAUTION: To avoid risk of an electric shock, do not connect wires from conduit directly to the socket.

10. Replace the end cover you removed earlier and secure it with 2 screws.

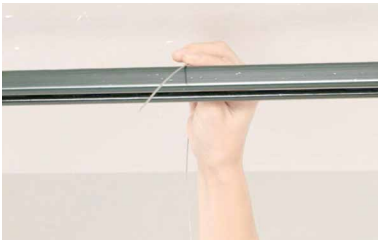


Once the LED retrofit is wired, it is time to hang the light using the wire cable accessory.

11. Thread the non loop side of the cable into the cable lock, and pull the cable through the lock.

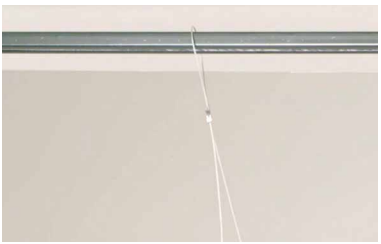


12. Loop cable around ceiling or service attachment point and pass tail end of cable through the other hole of the cable lock.



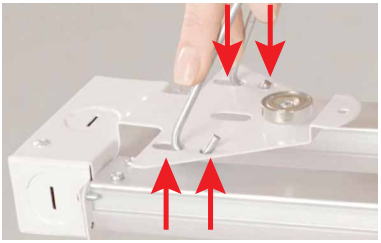
13. Pull the tail end of the cable through the cable lock so the LED RetroFit hangs at desired height.

14. Repeat steps 12-14 with the second wire cable and lock.

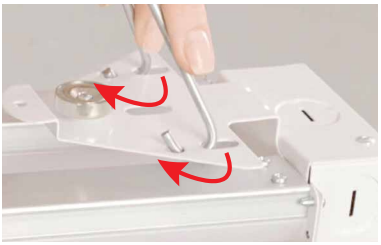


15. Put both V hooks in the loops of the cables.

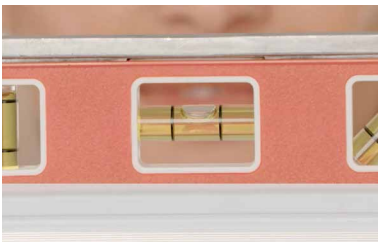
16. Locate the holes on the back of the mounting bracket of both ends of the LED RetroFit.



17. Insert both V hooks into the holes on the mounting bracket (both sides of LED RetroFit).



18. Put a level on the LED Retrofit for final leveling, and adjust the cable length to level the LED RetroFit.



19. Restore the power and you're done! Enjoy your new energy saving LED Light.

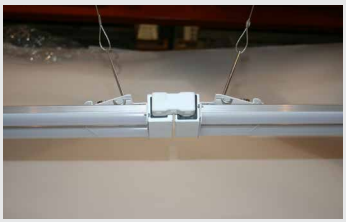
RF32UHT1XX, RF45UHT1XX, RF32UQT1XXC AND RF45UQT1XXC INTERCONNECTING STANDALONE USE

For interconnecting install. Do not restore power before you complete steps 1a-1c below.

1a. Place and align the second 1' x 4' LED RetroFit RF32UQT1XXC or RF45UQT1XXC with the C14 socket or Litetronics logo as close to the first LED Retrofit as needed to allow use of RetroFit accessory (RFAC, RFAC-8IN or RFAC-4FT) by repeating the wire cable accessory steps 11-18 in this section.

1b. Place the Retrofit accessory (RCAC, RFAC-8IN or RFAC-4FT) to connect both the Retrofit's together.

1c. Restore the power and you're done! Enjoy your new energy saving LED RetroFit



Our 1x4's can be assembled into long chains off one power source depending on Retrofit wattage. Connect 2 retrofits when aligned together using the dual connector (RFAC).You can also connect 2 retrofits together when less than or equal to 4' apart using 4ft lamp to lamp extension (RFAC-4FT). Or connect 2 retrofits together when less than or equal to 8" apart using 8in lamp to lamp extension (RFAC-8IN). Shown on page 4.

Maximum Length by Watts
32W = 18 Units
45W = 12 Units

Thank you for choosing

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