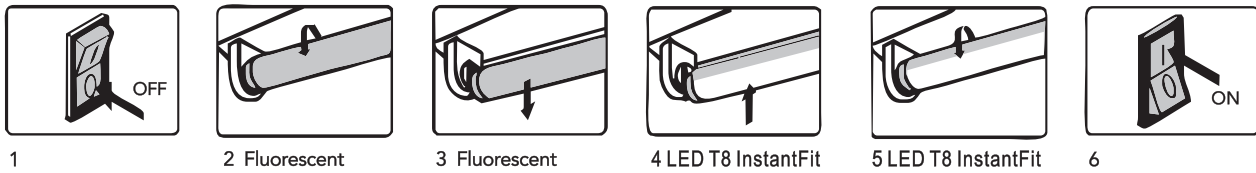


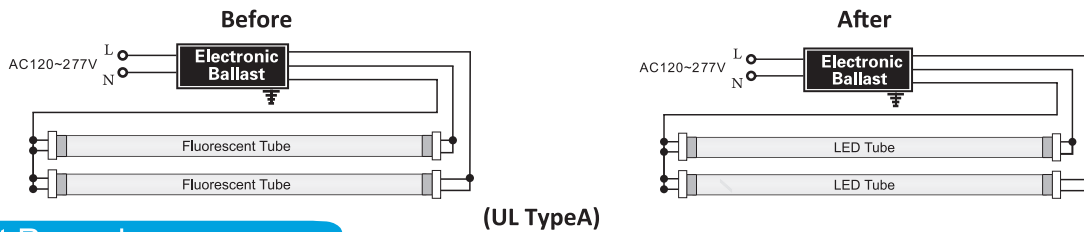
Installation Guide:



“Plug” and “Play” procedure

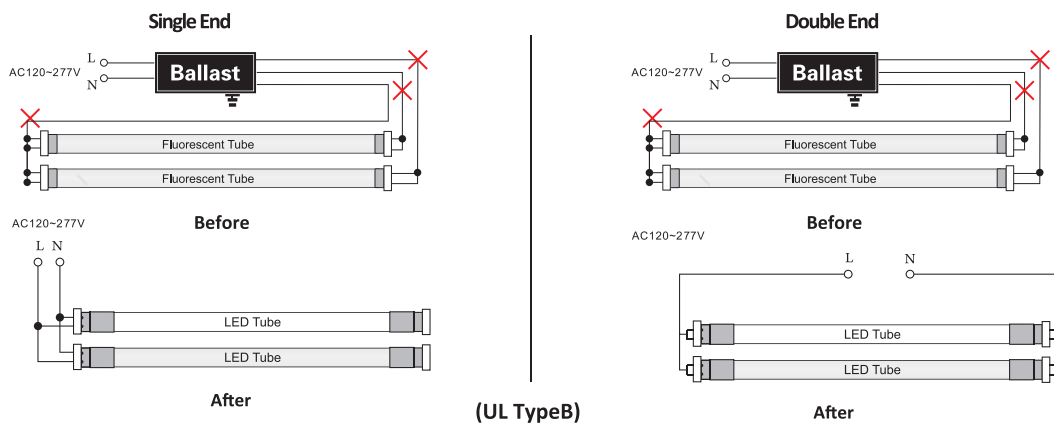
1. Turn off the power.
2. Remove diffuser (if provided).
3. Remove the fluorescent tubes. Please dispose of these items properly as they contain mercury.
4. Put LED tube in the lighting fixture.
5. Install the LED tubes, close the diffuser (if provided).
6. Turn on the power.

⚠ Ballast Compatibility List must be checked prior to installation. See www.comm-led.com for ballast compatibility on model.



Retrofit Procedure

1. Turn off the power.
2. Remove diffuser (if provided).
3. Remove the fluorescent tubes. Please dispose of these items properly as they contain mercury.
4. Cut the wires as shown in the diagram.
5. Make the new wire connect to branch circuit as shown.
6. Replace the cover over the wiring channel.
7. Install the LED tubes, close the diffuser.
8. Turn on the power.



⚠ WARNING

1. These lamps should be installed by a licensed electrician.
 2. These lamps should be used indoors(damp or dry locations only).Not suitable for wet location.
 3. Make sure tombstones/lamp holders are still in good condition and not defected before installation.
 4. Ensure the brand and model no. of the ballast of replacement tube are in our compatible ballast list.
 5. Make sure the ballast is working and still under warranty before installation.
 6. Put LED tubes/G13 pins into right position of the socket, install properly.
 7. This device is not suitable for using with emergency exits.
 8. These lamps are not suitable to be used with a light dimmer.
- Commercial LED is not responsible for products damaged by improper installation or operation.**

BALLAST LIST FOR T8 LED TUBE

1. Our tubes can be compatible with the ballasts listed below, if you intend to install ballast compatible tube with ballasts not be listed below, risk of damage or losses may occur. We disclaim liability for any damage or losses by not following the instructions in this document.

2. We are testing more and more ballasts and will update this list all the time. If you do not see your ballast on this list, please contact us.

⚠ Ballast Compatibility List must be checked prior to installation. See www.comm-led.com for ballast compatibility on model.

| ACCUPRO | |
|--------------------------|------------------------|
| 1 | AP-432IP-UNV |
| 2 | AP-332IP-UNV-M |
| ADVANCE | |
| 1 | IOPA-4P32-LW-N |
| ESPEN | |
| 1 | VE232MVHIPLE |
| 2 | VE232MVHIPE |
| 3 | VE432MVHIPE |
| 4 | VE432MVHIPLE |
| 5 | VE432120HIP |
| GE | |
| 1 | GE232MAX-L/Ultra |
| 2 | GE332MAX-N/Ultra |
| 3 | GE232MAX347-N |
| 4 | GE432MAX347-N |
| 5 | GE232-MVPS-N |
| 6 | GE332-MVPS-N |
| 7 | GE432-MVPS-N |
| 8 | GE432-120RESDIYB |
| 9 | GE-240-RS-MV-N |
| 10 | GE232-N-347 |
| 11 | GE132MAX-H/ULTRA |
| Halco | |
| 1 | EP232IS/L/MV/HE |
| HOWARD INDUSTRIES | |
| 1 | EP3/32IS/MV/MC/HE |
| KEYSTONE | |
| 1 | KTEB-232RIS-1-TP-SL |
| 2 | KTEB-232RIS-1-TP-SL/Ga |
| OSRAM | |
| 1 | QHE 2x32T8/UNV ISN-SC |
| 2 | QHE 3x32T8/UNV ISN-SC |
| 3 | QHE 3x32T8/UNV PSN-SC |

| PHILIPS | |
|----------------------------|-----------------------|
| 1 | ICN-2P32-N |
| 2 | ICN-3P32-N |
| 3 | ICN-2S40-N |
| 4 | IOP-4P32-LW-N |
| 5 | IOPA-1P32-N |
| 6 | IOPA-4P32-N |
| 7 | IOPA-2P32-LW-N |
| 8 | IOP-3P32-N |
| SYLVANIA | |
| 1 | QHE 1x32T8/UNV ISN-SC |
| 2 | QHE 3x32T8/UNV ISL-SC |
| 3 | QTP 2x32T8/UNV ISL-SC |
| 4 | QT 4X32/120 LP |
| 5 | QT 2x32 T8/347 ISL-SC |
| 6 | QHE 4x32T8/347 ISN-SC |
| 7 | QHE 4x32T8/347 ISL-SC |
| TRIAD | |
| 1 | B232IUNVHP-N |
| 2 | B332IUNVHP-A |
| 3 | B432IUNVHP-A |
| 4 | B232IUNVHP-B |
| UNIVERSAL | |
| 1 | B332IUNVHE-A |
| 2 | B432IUNVHE-A |
| 3 | B232IUNVEL-N |
| 4 | B332IUNVEL-A |
| 5 | B232IUNVHEH-A |
| 6 | B332PUNVHE-A |
| 7 | B4321UNVEL-A |
| WORK HORSE | |
| 1 | WH3-120-C |
| 2 | WH3-120-L |
| Pacific Fluorescent | |
| 1 | EB-232IS-120-RES |