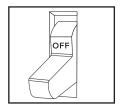
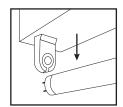


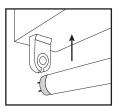


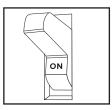
WARNING (A)

- 1. Installation should only be done by a licensed electrician
- 2. For indoor use only in damp or dry locations only
- 3. Not Suitable for wet or outdoor locations
- 4. Tombstones must be in good working condition with no damage prior to installation
- 5. For use only with one of the compatible ballast models listed below
- 6. Ballast and tombstones must be in good working condition with no damage prior to installation
- 7. LED tube must be properly seated in the tombstone to work correctly
- 8. Not suitable for use in emergency exits
- 9. Not suitable for use with dimmer







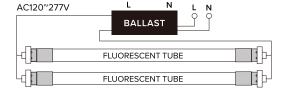


INSTRUCTIONS FOR PLUG & PLAY (TYPE A)

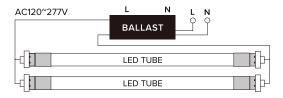
- 1. Disconnect power
- 2. Remove diffuser (if installed)
- 3. Remove existing fluorescent tubes and discard or recycle according to your local regulations
- 4. Install LED tubes
- 5. Replace diffuser (if provided)
- 6. Restore power

TYPE A WIRING DIAGRAMS

Before Upgrade:



After Upgrade:



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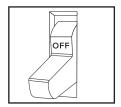


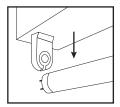
Type A/B Installation Guide

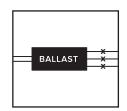
PAGE 2 OF 3

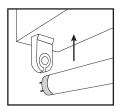
WARNING (A)

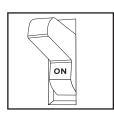
- 1. Installation should only be done by a licensed electrician
- 2. For indoor use only in damp or dry locations only
- 3. Not Suitable for wet or outdoor locations
- 4. Tombstones must be in good working condition with no damage prior to installation
- 6. Tombstones must be in good working condition with no damage prior to installation
- 7. LED tube must be properly seated in the tombstone to work correctly
- 8. Not suitable for use in emergency exits
- 9. Not suitable for use with dimmer









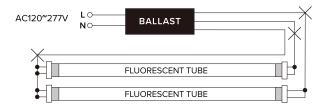


INSTRUCTIONS FOR BYPASSING BALLAST (TYPE B)

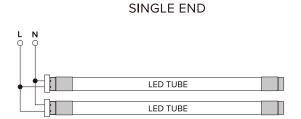
- 1. Disconnect power
- 2. Remove diffuser (if installed) and ballast cover
- 3. Remove existing fluorescent tubes and discard or recycle according to your local regulations
- 4. Cut wires leading to existing ballast
- 5. Rewire power for single-ended installation according to the appropriate diagram below
- 6. Reinstall ballast cover
- 7. Install LED tubes
- 8. Replace diffuser (if provided)
- 9. Restore power

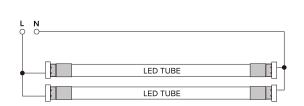
TYPE B WIRING DIAGRAMS

Before Upgrade:



After Upgrade:





DUAL END





Type A/B Installation Guide

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BALLAST COMPATIBILITY LIST

Our tubes are compatible with the ballasts listed below. Risk of damage or loss may occure if you use this tube with a ballast not listed below. ESL Vision is not liable for any damage or loss that may occure by not using the recommended ballasts below. We are testing ballasts constantly and will continue to update this list.

ADVANCE

- IOPA-4P32-LW-N
- REL-2P32-SC

ACCUPRO

- AP-432IP-UNV
- AP-332IP-UNV-M

ESPEN

- VE232MVHIPLE
- VE232MVHIPE
- VE432MVHIPE
- VE432MVHIPLE
- VE432120HIP

GE

- GE232MAX-L/ULTRA
- GE432MAX-N/ULTRA
- GE332MAX-N/ULTRA
- GE232MAX347-N
- GE432MAX347-NGE232MAX-G-N
- GE432MAX-G-N
- GE432MAX-G-N-42T
- GE332-MVPS-N
- GE432-MVPS-N
- GE432MV-N-42T
- GE432MAXP-L/ULTRA
- GE232-N-347

HALCO

• EP232IS/L/MV/HE

HOWARD INDUSTRIES

• EP3/32IS/MV/MC/HE

KEYSTONE

KTEB-232RIS-1-TP-SL/G

OSRAM

- QHE 2X32T8/UNV ISN-SC
- QHE 2X32T8/UNV ISL-SC
- QHE 2X32T8/UNV PSN-MC
- QHE 3X32T8/UNV ISN-SC
- QHE 3X32T8/UNV PSN-SC

PACIFIC FLUORESCENT

• EB-232IS-120-RES

PHILIPS

- ICN-2P32-N
- ICN-3P32-N
- ICN-4P32-N
- IOP-4P32-LW-N
- IOP-4PSP32-SC
- IOPA-1P32-N
- IOPA-4P32-N
- IOPA-2P32-LW-N
- IOP-3P32-N

SUPERIOR LIFT

.70204

SYLVANIA

- QHE 1X32T8/UNV ISN-SC
- QHE 2X32T8/UNV PSX-MC
- QHE 3X32T8/UNV ISL-SC
- QTP 2X32T8/UNV ISL-SC
- QT 2X32 T8/347 ISL-SC
- QHE 4X32T8/347 ISN-SC
- QHE 4X32T8/347 ISL-SC

TRIAD

- B232IUNVHP-N
- B332IUNVHP-A
- B432IUNVHP-A
- B232IUNVHP-B

UNIVERSAL

- B332IUNVHE-A
- B232IUNVEL-N
- B332IUNVEL-A
- B332PUNVHE-A
- B4321UNVEL-A

ULTRASAVE

UT232120

