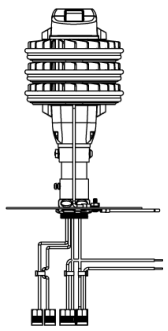
D4A PRC LED RETROFIT KITS

INSTALLATION GUIDE

These installation instructions apply to the VEGA D4A Retrofit Kit models designated below.

Model	Watts	CCT	Type	Acc. Cap	Mount	Down/Up	Control	Custom	Applications
D4A -	20G	22K	T5M	NA	F63	D	DIM	PRC	Retrofit Kits for Post Top and Pendant Style Luminaires With 19” Globes and Vertical Lamps.
D4A -	30G	30K	T3M		F65	U			
D4A -	40G	40K			F70				
D4A -	50G	50K			F80				
D4A -	60G				C#####				*#### - Custom Fitter Specific Mounts*

Key: NA – No Up Light
D – Base Down, U – Base Up
Universal Mounting Plates to replace socket mounts: F63 – 6.25”, F65 – 6.5”, F70 – 6.95”. F80 – 7.92”
DIM – Dimming controlled by external lighting control node.
PRC – Wired for future connection to a wireless lighting control node with 0 – 10VDC dimming.



Fixed Plate PRC D4A

CAUTION

- THIS IS A LINE DRIVEN 120VAC-277VAC LAMP. DO NOT INSTALL ABOVE 277VAC.
- THIS LAMP IS NOT RATED FOR USE WITH HID BALLAST OR EXTERNAL LED DRIVER.
- DO NOT USE WITH STANDARD DIMMERS.
- SUITABLE FOR DAMP LOCATIONS – DO NOT USE WHERE DIRECTLY EXPOSED TO WATER.
- THIS DEVICE IS NOT INTENDED FOR EMERGENCY LIGHTING OR FOR USE WITH EMERGENCY EXITS.
- PLEASE READ ALL INSTRUCTIONS BEFORE ATTEMPTING INSTALLATION.

⚠ WARNING

- WARNING - RISK OF FIRE OR ELECTRIC SHOCK. LUMINAIRES WIRING, POWER SUPPLY, OR OTHER ELECTRICAL PARTS MAY BE DAMAGED WHEN DRILLING FOR INSTALLATION OF RETROFIT KIT HARDWARE. INSPECT WIRING AND COMPONENTS FOR DAMAGE.
- WARNING - RISK OF FIRE OR ELECTRIC SHOCK. LED RETROFIT KIT INSTALLATION REQUIRES KNOWLEDGE OF LUMINAIRES ELECTRICAL SYSTEMS. IF NOT QUALIFIED, DO NOT ATTEMPT INSTALLATION. CONTACT A QUALIFIED ELECTRICIAN.
- 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.
- WARNING - TO PREVENT WIRING DAMAGE OR ABRASION, DO NOT EXPOSE WIRING TO EDGES OF SHEET METAL OR OTHER SHARP OBJECTS.
- DO NOT MAKE OR ALTER ANY OPEN HOLES IN AN ENCLOSURE OF WIRING OR ELECTRICAL COMPONENTS DURING KIT INSTALLATION.
- ONLY THOSE OPEN HOLES 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.
- THE RETROFIT KIT IS ACCEPTED AS A COMPONENT OF A LUMINAIRE WHERE THE SUITABILITY OF THE COMBINATION SHALL BE DETERMINED BY AUTHORITIES HAVING JURISDICTION. PRODUCT MUST BE INSTALLED BY A QUALIFIED ELECTRICIAN IN ACCORDANCE WITH THE APPLICABLE AND APPROPRIATE ELECTRICAL CODES. THE INSTALLATION GUIDE DOES NOT SUPERSEDE LOCAL OR NATIONAL REGULATIONS FOR ELECTRICAL INSTALLATIONS.

AVERTISSEMENT

- AVERTISSEMENT - RISQUE D’INCENDIE OU DE CHOC ÉLECTRIQUE. LE CÂBLAGE DES LUMINAIRES, LES BLOCS D’ALIMENTATION OU LES AUTRES COMPOSANTS ÉLECTRIQUES PEUVENT SUBIR DES DOMMAGES LORS DU PERÇAGE EN VUE D’INSTALLER LA QUINCAILLERIE D’UN NÉCESSAIRE DE MODERNISATION. VÉRIFIER SI LES CÂBLES ET LES COMPOSANTS SONT ENDOMMAGÉS.
- AVERTISSEMENT - RISQUE D’INCENDIE OU DE CHOC ÉLECTRIQUE. L’INSTALLATION DE CE NÉCESSAIRE DE MODERNISATION EXIGE UNE PERSONNE FAMILIÈRE AVEC LA CONSTRUCTION ET LE FONCTIONNEMENT DU SYSTÈME ÉLECTRIQUE DU LUMINAIRE ET DES RISQUES ASSOCIÉS. TOUTE PERSONNE QUI N’EST PAS QUALIFIÉE NE DOIT FAIRE AUCUNE TENTATIVE D’INSTALLATION ET DOIT CONTACTER UN ÉLECTRICIEN QUALIFIÉ.

- AVERTISSEMENT - RISQUE D'INCENDIE OU DE CHOC ÉLECTRIQUE. N'INSTALLER CE NÉCESSAIRE QUE DANS LE LUMINAIRE DONT LES CARACTÉRISTIQUES DE CONSTRUCTION ET LES DIMENSIONS SONT CONFORME À CELLES ILLUSTRÉES DANS LES PHOTOS ET/OU LES DESSINS ET DONT LA PUISSANCE D'ENTRÉE NOMINALE DU NÉCESSAIRE DE MODERNISATION NE DÉPASSE PAS CELLE DU LUMINAIRE.
- AVERTISSEMENT - AFIN DE PRÉVENIR L'ENDOMMAGEMENT OU L'ABRASION DES CÂBLES, ÉVITER TOUT CONTACT ENTRE CES DERNIERS ET LE BORD D'UN OBJET TRANCHANT TEL QU'UNE TÔLE.
- NE PAS FAIRE OU MODIFIER LES TROUS OUVERTS DANS L'ENCEINTE DU CÂBLAGE OU DES COMPOSANTS ÉLECTRIQUES PENDANT L'INSTALLATION DU KIT.
- SEULS LES OUVERTURES INDIQUÉES DANS LES PHOTOS ET/OU LES DESSINS PEUVENT ÊTRE FAITS OU MODIFIÉS À LA SUITE DE L'INSTALLATION DU NÉCESSAIRE. IL EST INTERDIT DE LAISSER D'AUTRES OUVERTURES DANS UN BOÎTIER DE CÂBLAGE OU DE COMPOSANTS ÉLECTRIQUES.
- LE NÉCESSAIRE DE MODERNISATION EST ACCEPTÉ À TITRE DE COMPOSANT D'UN LUMINAIRE LORSQUE LA PERTINENCE DE LA COMBINAISON DOIT ÊTRE DÉTERMINÉE PAR LES AUTORITÉS COMPÉTENTES. CE PRODUIT DOIT ÊTRE MIS EN PLACE PAR UN ÉLECTRICIEN QUALIFIÉ CONFORMÉMENT AUX CODES ÉLECTRIQUES APPROPRIÉS APPLICABLES. LE GUIDE D'INSTALLATION NE SUPPLANTE PAS LES RÈGLEMENTS LOCAUX OU NATIONAUX EN MATIÈRE D'INSTALLATIONS ÉLECTRIQUES.

FCC:

- **NOTE:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- **Caution:** Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

ISED Canada:

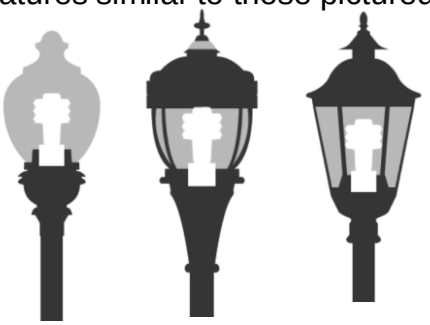
- This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device.
- L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) L'appareil ne doit pas produire de brouillage; (2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
- **Caution:** Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- **Attention :** Tout changement ou modification non expressément approuvé par la partie responsable de la conformité pourrait annuler l'autorisation de l'utilisateur d'utiliser l'équipement.

Link to Supplier's Declaration of Conformity (SDoC):

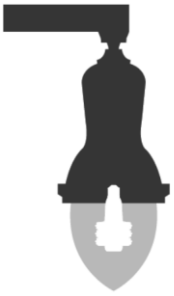
- https://vegalightcontrolsystems.com/products/d4a-adaptive-light-source/#tab-id-2

INTENDED APPLICATIONS

This D4A Retrofit Kit is designed for vertical use only AND in compatible applications only with features similar to those pictured here



Base DOWN
Post Top
style fixtures



Base UP
Pendant
style fixtures

If installed in fixture other than intended, contact VEGA customer service to evaluate applicability to fixture: support@vegalightcontrol.com, Phone: 616-259-0700
OR visit www.vegalightcontrolsystems.com for additional reference designs

FIXTURE CONSIDERATIONS AND PLANNING

1. A Type 5 LED Light Engine is best suited to a Refractive Globe. Type 3 Refractive globes will effectively convert the T5M retrofit kit into a Type 3 distribution in globes such as the Lindy Type 3 and the Granville Type 3.
2. House side shields are available as needed.
3. The height and light center of the D4A is set at the factory and is not field adjustable. Please contact Vega customer service for assistance in determining the appropriate height for your fixture or with any other questions: support@vegalightcontrol.com, Phone: 616-259-0700

PRODUCT DESCRIPTION

This D4A Retrofit Kit is designed for direct installation into the intended fixture and will not require the use of any drills or cutting tools. Do not make or alter any open holes in a wiring enclosure or electrical components during the kit installation.

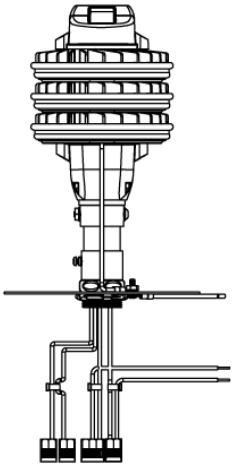
Parts included in kit as needed:

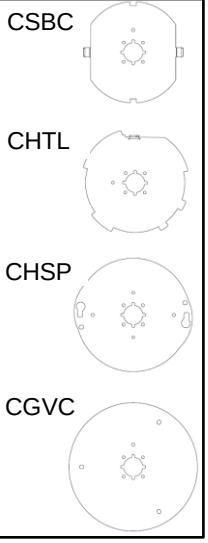
Wire Nuts

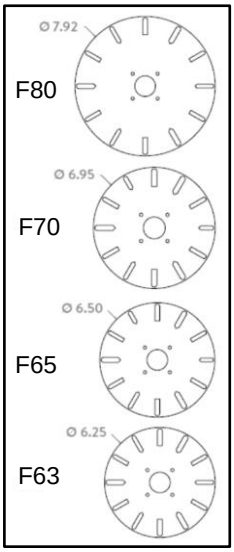
Lever Nut

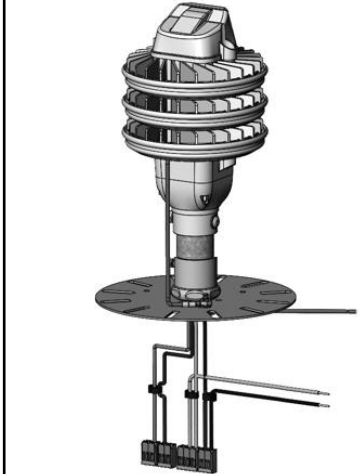
Required Tools and Hardware (Not provided)

- Flat and Phillips Head Screwdrivers
- Wrench and/or Hex Keys
- Pliers, Wire strippers
- Screws retained from fixture









FIXTURE PREPARATION STEPS

1. Disconnect electrical power before attempting installation.
2. Remove the fixture globe.
3. Remove internal reflectors or Lite Lid from globe.
4. Clean or replace globe as needed.
5. Remove lamp, original optical components.
6. Inspect the Line Voltage (Hot) supply wire, the Neutral supply wire, and the Ground wire for damage or deterioration. If damaged or deteriorated, replace prior to installation of retrofit kit.
7. If photocell-controlled, connect unit after external control.

Note: Failure to remove components noted, including internal reflectors will void product warranty

INSTALLATION INSTRUCTIONS - As Manufactured, For Future Connection to a Wireless Lighting Control Node or to a Photocell Receptacle

This is a Line Driven (120VAC-277VAC) LED Lamp Retrofit Kit

This lamp only supports 0-10VDC dimming control on the dimming lines. Do not exceed 10VDC.

For supplemental installation instructions, see:
https://vegalightcontrolsystems.com/products/d4a-adaptive-light-source/#tab-id-2

A. Disconnect electrical power to the fixture.

B. Follow the Fixture Preparation Steps, above.

C. Bypass the existing HID ballast. Refer also to the wiring diagrams.

- Step 1: Remove the lamp socket mounting plate and disconnect the lamp socket wiring at the ballast. Retain the socket plate screws for installation of the D4A Retrofit Kit.
- Step 2: Remove the ballast and disconnect the incoming Line Voltage (Hot) supply wire, the Neutral supply wire, and the ground wire from the ballast.
- Step 3: Connect the Hot (120VAC-277VAC) supply wire to the black wire of the D4A Retrofit Kit and connect the Neutral supply wire to the white wire of D4A Retrofit Kit.
- Step 4: Connect the D4A ground wire to the existing ground wiring or connect to a chassis screw in the fixture.

D. Secure the D4A Retrofit Kit to the fixture. Reuse the screws from the fixture to attach the Retrofit Kit when possible.

E. For Type 3 (T3M) models, align to street side or house side: Loosen the set screw in the side of the metal fitting that connects the mast/support tube to the mounting plate. Rotate the D4A to point in the desired street side or house side direction as indicated on the part label. Ensure that the mast/tube remains fully inserted into the fitting. Retighten the set screw.

F. Restore the original light fixture sealing for water and insect control. Rainwater must not enter the wiring compartment.

G. Install Globe. For Type 3 globe, rotate “Street Side” of globe to street.

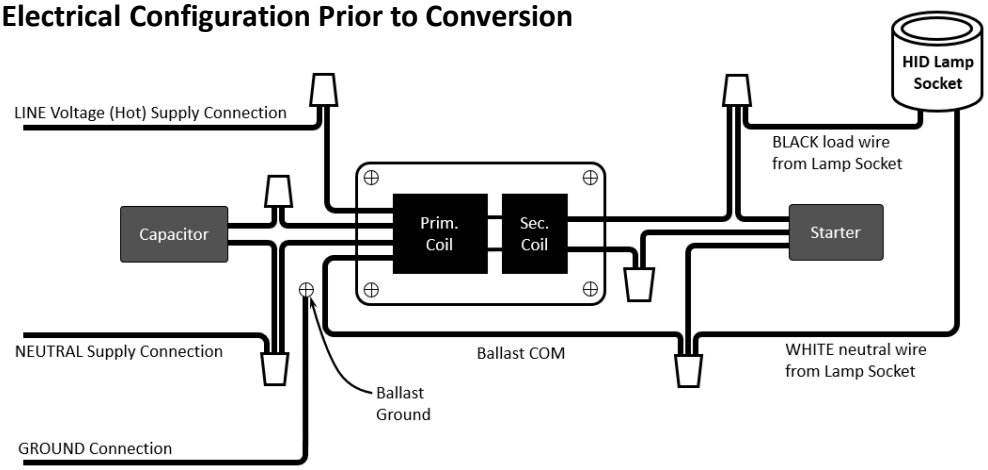
H. Turn power on to test installation.

Note: Connect line voltage wires using wire nuts as shown in the wiring diagram

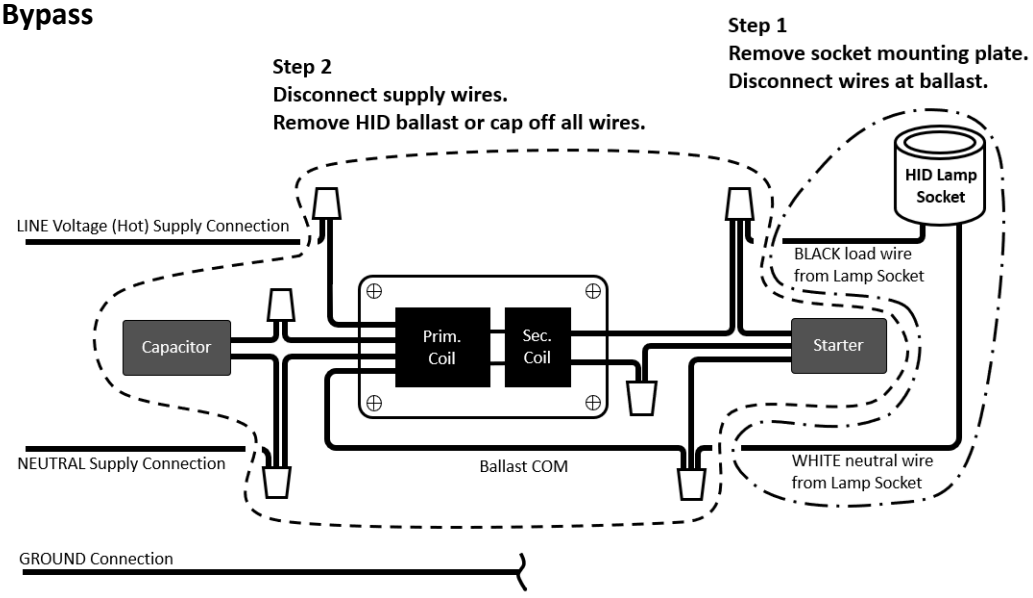
- ✓ Strip wires appropriately for the wire nuts utilized, 3/8” for those included in the kit.
- ✓ The surge protector is integrated in the lamp. Maximum protection is provided when Green or Green/Yellow wire is tied to the grounding conductor.

Wiring Diagrams for Future Connection to a Wireless Lighting Control Node or to a Photocell Receptacle

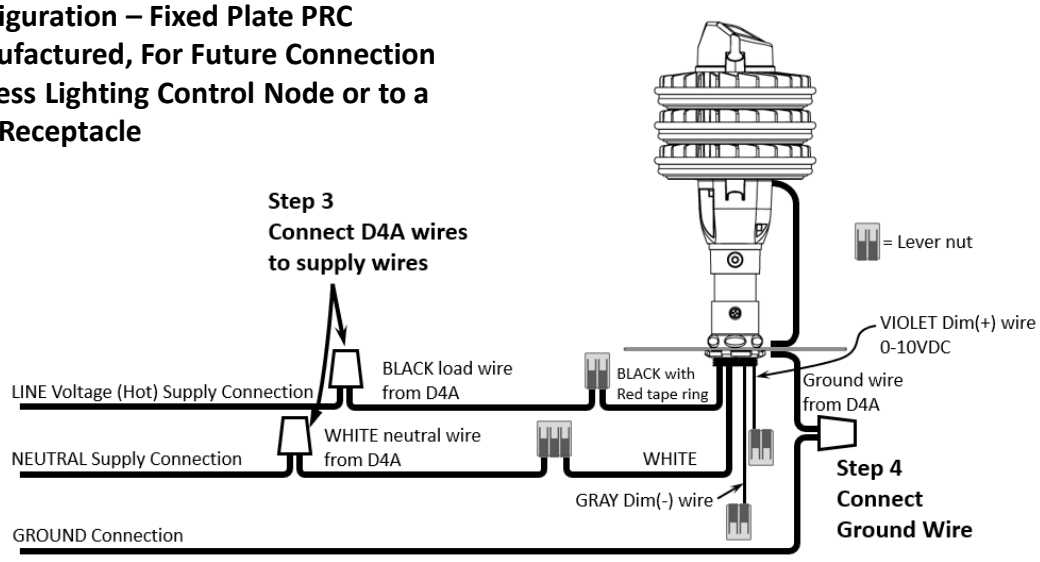
Typical Electrical Configuration Prior to Conversion



Ballast Bypass



Final Configuration – Fixed Plate PRC – As Manufactured, For Future Connection to a Wireless Lighting Control Node or to a Photocell Receptacle



FIXTURE PREPARATION STEPS

1. Disconnect electrical power before attempting installation.
2. Remove the fixture globe.
3. Remove internal reflectors or Lite Lid from globe.
4. Clean or replace globe as needed.
5. Remove lamp, original optical components
6. Inspect the Line Voltage (Hot) supply wire, the Neutral supply wire, and the Ground wire for damage or deterioration. If damaged or deteriorated, replace prior to installation of retrofit kit.
7. If photocell-controlled, connect unit after external control

Note: Failure to remove components noted, including internal reflectors will void product warranty

INSTALLATION INSTRUCTIONS - For Direct Connection to a Wireless Lighting Control Node or to a Photocell Receptacle

This is a Line Driven (120VAC-277VAC) LED Lamp Retrofit Kit
This lamp only supports 0-10VDC dimming control on the dimming lines. Do not exceed 10VDC.
For supplemental installation instructions, see:
https://vegalightcontrolsystems.com/products/d4a-adaptive-light-source/#tab-id-2

A. Disconnect electrical power to the fixture.
B. Follow the Fixture Preparation Steps, above.
C. Bypass the existing HID ballast. Refer also to the wiring diagrams.
   - Step 1: Remove the lamp socket mounting plate and disconnect the lamp socket wiring at the ballast. Retain the socket plate screws for installation of the D4A Retrofit Kit.
   - Step 2: Remove the ballast and disconnect the incoming Line Voltage (Hot) supply wire, the Neutral supply wire, and the ground wire from the ballast.
   - Step 3: a) Disconnect the black-with-red-tape-ring wire from lever nut (a). In its place, connect the black (hot) node or receptacle wire to the black load wire from D4A at lever nut (a).
     b) Connect the red (load) node or receptacle wire to the black-with-red-tape-ring D4A wire using the additional lever nut (b) that was supplied with the kit.
     c) Connect the white (neutral) node or receptacle wire to the white D4A wires at the 3-port lever nut (c).
     d) Connect the node or receptacle 0-10VDC Dim(+) wire to the violet D4A 0-10VDC Dim(+) wire at the lever nut (d).
     e) Connect the node or receptacle Dim(-) wire to the gray D4A Dim(-) wire at lever nut (e).
     f) Connect the Line Voltage Hot (120VAC-277VAC) supply wire to the black load wire from D4A and connect the Neutral supply wire to the white neutral wire from D4A using wire nuts (f).
   - Step 4: Connect the D4A ground wire to the existing ground wiring or connect to a chassis screw in the fixture.
D. Secure the D4A Retrofit Kit to the fixture. Reuse the screws from the fixture to attach the Retrofit Kit when possible.
E. For Type 3 or Bluetooth models, align to street side or house side: Loosen the set screw in the side of the metal fitting that connects the mast/support tube to the mounting plate. Rotate the D4A to point in the desired street side or house side direction as indicated on the part label. Ensure that the mast/tube remains fully inserted into the fitting. Retighten the set screw.
F. Restore the original light fixture sealing for water and insect control. Rainwater must not enter the wiring compartment.
G. Install Globe. For Type 3 globe, rotate “Street Side” of globe to street.
H. Turn power on to test installation.

Notes:

Connect D4A line voltage wires using wire nuts as shown in the wiring diagram

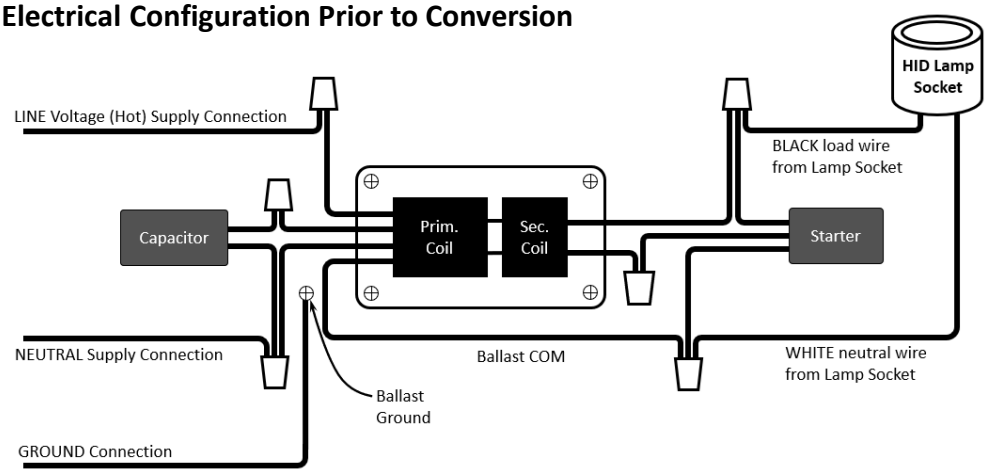
- ✓ Strip wires appropriately for the wire nuts utilized, 3/8” for those included in the kit.
- ✓ The surge protector is integrated in the lamp. Maximum protection is provided when Green or Green/Yellow wire is tied to the grounding conductor.

Connect photocell receptacle or control node wires using included lever nuts as shown in the wiring diagram.

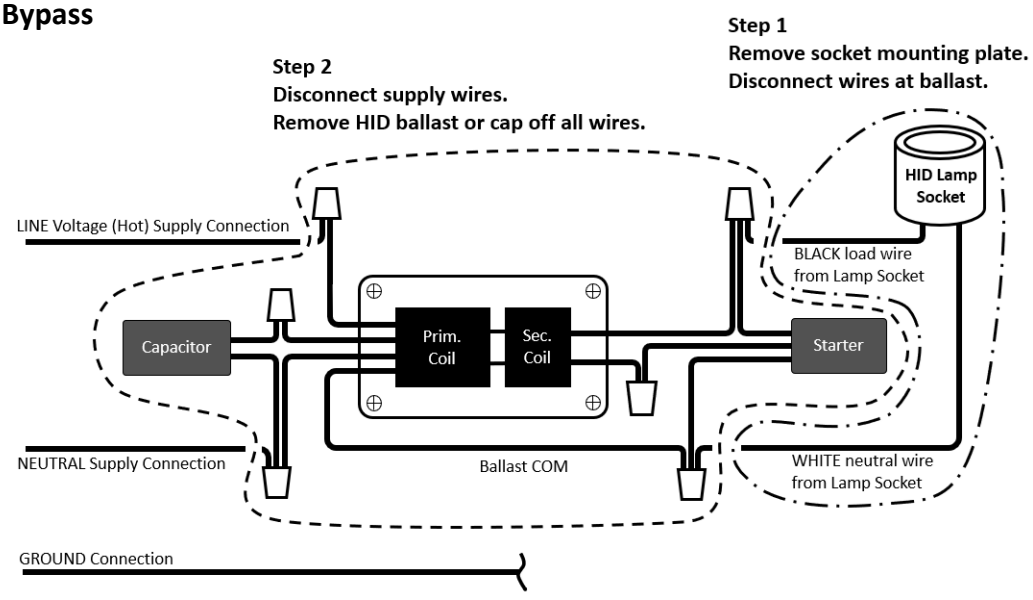
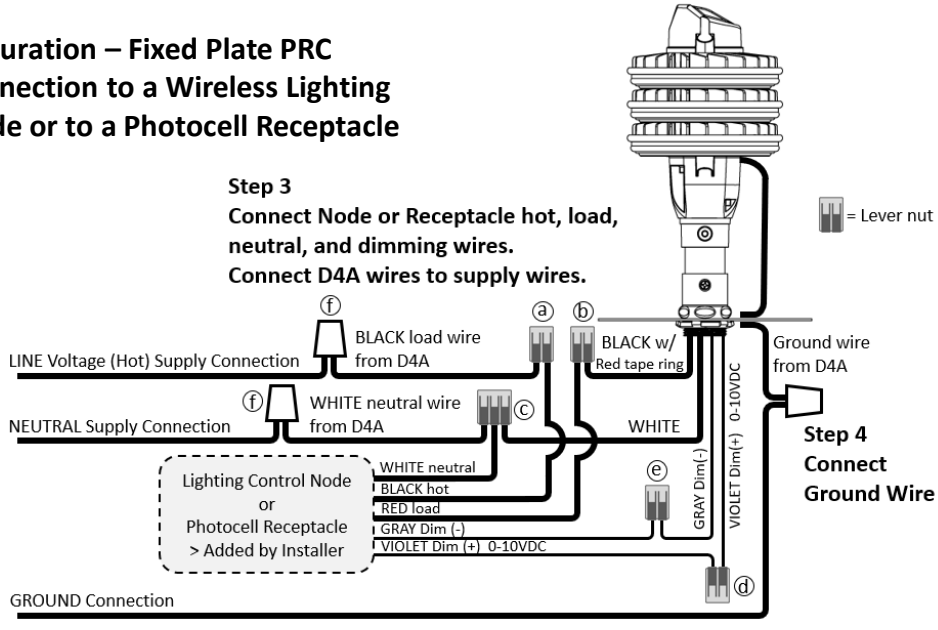
- ✓ Strip wires to length shown on side of lever nuts.

Wiring Diagrams for Direct Connection to a Wireless Lighting Control Node or to a Photocell Receptacle

Typical Electrical Configuration Prior to Conversion



Ballast Bypass



Final Configuration – Fixed Plate PRC – With Connection to a Wireless Lighting Control Node or to a Photocell Receptacle