



PRIOR TO INSTALLATION, PLEASE READ THE ENTIRE INSTALLATION INSTRUCTIONS

INSTALLATION INSTRUCTIONS — PLEASE COMPLY WITH THESE INSTRUCTIONS AND NOTES TO ENSURE THAT THE PRODUCT IS OPERATED IN A SAFE CONDITION.

SAFETY PRECAUTIONS — FOR YOUR AND OTHERS' SAFETY, PLEASE READ THE PRECAUTION CAREFULLY BEFORE INSTALLATION

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

1. CHECK THE LAMP BEFORE INSTALLATION, IF THERE IS ANY DAMAGE CAUSE DURING TRANSPORTATION, DO NOT INSTALL
2. MAINTENANCE SHOULD BE CARRIED OUT BY TECHNICAL PERSONNEL ONLY
3. DO NOT STARE AT THE LIGHT SOURCE WITH BARE EYES FOR A LONG TIME, OR BEAM TO OTHERS' EYES
4. DO NOT PLACE ANY OBJECTS ON THE LAMP
5. KEEP THE LAMP AWAY FROM FLAME OR HIGH TEMPERATURE OBJECTS
6. ONLY REPLACE WITH SAME TYPE OF LED TUBE! RISK OF ELECTRICAL SHOCK!
7. IF THE GLASS LAMP TUBE IS BROKEN, THE LAMP MUST BE DISPOSED OF IMMEDIATELY!

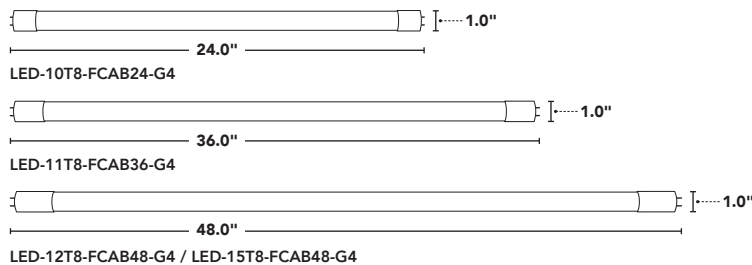
MAINTENANCE NOTES

DISCONNECT LAMP FROM POWER SUPPLY BEFORE ANY MAINTENANCE

CLEAN LUMINAIRE WITH DRY CLOTH

DO NOT CLEAN THE LAMP WITH CORROSIVE CHEMICALS

IT IS HIGHLY RECOMMENDED THAT EACH CIRCUIT IS EQUIPPED WITH A SURGE PROTECTION DEVICE



IF USING A BALLAST, PLEASE CHECK THE BALLAST COMPATIBILITY CHART TO CONFIRM COMPATIBILITY PRIOR TO INSTALLATION



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FOR DIRECT REPLACEMENT MODE (MODE I)

1. WARNING: RISK OF SHOCK. DISCONNECT POWER BEFORE INSTALLATION.
2. WARNING: RISK OF FIRE, USE ONLY IN PLACE OF FLUORESCENT LAMPS SPECIFIED ON LABEL. RISK OF ELECTRIC SHOCK. SUITABLE FOR DAMP LOCATIONS.
3. LED T8 LAMP FOR USE ONLY WITH PRODUCTS DESCRIBED AND INSTALLED IN ACCORDANCE WITH PRODUCT SPECIFICATIONS. LED T8 LAMPS TO BE OPERATED WITH FLUORESCENT ELECTRONIC BALLAST.
4. NOT FOR EMERGENCY LIGHTING.
5. THIS PRODUCT MAY CAUSE INTERFERENCE TO RADIO EQUIPMENT AND SHOULD NOT BE INSTALLED NEAR MARITIME SAFETY COMMUNICATIONS EQUIPMENT OR OTHER CRITICAL NAVIGATION OR COMMUNICATION EQUIPMENT OPERATING BETWEEN 0.46-30 MHz.

DO NOT INSTALL THIS LAMP IN A PRE-HEAT LUMINAIRE.

N'INSTALLEZ PAS CETTE LAMPE DANS UN APPAREIL D'ÉCLAIRAGE DE PRÉCHAUFFAGE.

THIS LAMP ONLY OPERATES ON ELECTRONIC BALLASTS. IF LAMP DOES NOT LIGHT WHEN THE LUMINAIRE IS ENERGIZED, REMOVE LAMP FROM LUMINAIRE AND CONTACT LAMP MANUFACTURER OR QUALIFIED ELECTRICIAN.

CETTE LAMPE OPÈRE SEULEMENT AVEC LE BALLAST ÉLECTRONIQUE. SI LA LAMPE NE S'ALLUME PAS QUAND L'APPAREIL D'ÉCLAIRAGE ACTIVE, ENLEVEZ LA LAMPE DE L'APPAREIL D'ÉCLAIRAGE ET CONTACTEZ LE FABRICANT DE LAMPE OU UN ÉLECTRICIEN QUALIFIÉ.

CAUTION - RISK OF FIRE.

IF THE LAMP OR LUMINAIRE EXHIBITS UNDESIRABLE OPERATION (BUZZING, FLICKERING, ETC.), IMMEDIATELY TURN OFF POWER, REMOVE LAMP FROM LUMINAIRE AND CONTACT MANUFACTURER.

ATTENTION - RISQUE DE FEU.

SI LA LAMPE OU LE LUMINAIRE MONTRE DES SIGNES D'OPERATION INDESIRABLE (BRUIT, VIBRATION, CLIGNOTEMENT, ETC.), ALORS COUPER IMMÉDIATEMENT LE COURANT ET ENLÉVER LA LAMPE DE L'APPAREIL D'ÉCLAIRAGE ENTRER EN CONTACT AVEC LE FABRICANT.

CAUTION - RISK OF ELECTRIC SHOCK.

DO NOT USE IF OUTER LAMP ENVELOPE IS DAMAGED OR BROKEN.

TYPE A LAMP — INTENDED FOR DIRECT SUBSTITUTION OF A FLUORESCENT LAMP AND OPERATION FROM THE INTEGRAL BALLAST WITHOUT ANY MODIFICATIONS TO THE FLUORESCENT LUMINAIRE.



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FOR BY PASS MODE (MODE II)

1. PRODUCT SHOULD BE INSTALLED BY QUALIFIED ELECTRICIAN.
2. SWITCH OFF THE POWER SUPPLY BEFORE COMMENCING WORK, MAKE SURE CORRECT CONNECTION BEFORE POWER ON.
3. NOT FOR EMERGENCY LIGHTING.
4. THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NO CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

THE UNITS COVERED BY THIS REPORT WERE INTENDED TO RETROFIT SURFACE MOUNT, TYPE IC OR NON-IC RECESSED MOUNT FLUORESCENT LUMINAIRES THAT USE MAXIMUM 4 STRAIGHT TUBULAR LAMPS, THE MINIMUM LAMP COMPARTMENT DIMENSIONS ARE TABULATED BELOW.

MODEL NUMBER	MINIMUM LAMP COMPARTMENT DIMS (L X W X H)	LAMP QUANTITY	LAMP-TO-LAMP SPACING
LED-10T8-FCAB24-G4	24.0" X 22.5" X 3.0"	4	2.8"
LED-11T8-FCAB36-G4	36.2" X 22.5" X 3.0"		5.5"
LED-12T8-FCAB48-G4	47.6" X 20.9" X 4.0"		3.5"
LED-15T8-FCAB48-G4			

DO NOT MAKE OR ALTER ANY OPEN HOLES IN AN ENCLOSURE OF WIRING OR ELECTRICAL COMPONENTS DURING KIT INSTALLATION.

INSTALLERS SHOULD NOT DISCONNECT EXISTING WIRES FROM LAMPHOLDER TERMINALS TO MAKE NEW CONNECTIONS AT LAMPHOLDER TERMINALS. INSTEAD INSTALLERS SHOULD CUT EXISTING LAMPHOLDER LEADS AWAY FROM THE LAMPHOLDER AND MAKE NEW ELECTRICAL CONNECTIONS TO LAMPHOLDER LEAD WIRES BY EMPLOYING APPLICABLE CONNECTORS.

INSTALLERS SHOULD EXAMINE ALL PARTS THAT ARE NOT INTENDED TO BE REPLACED BY THE RETROFIT KIT FOR DAMAGE AND REPLACE AND DAMAGED PARTS PRIOR TO INSTALLATION OF THE RETROFIT KIT.

THERE ARE TUBE OPERATION INSTRUCTION AND FILED THE DOUBLE-ENDED OR SINGLE-ENDED APPLICATION LABEL IN THIS RETROFIT KIT.

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.

TYPE B LAMP — INTENDED FOR OPERATION IN LUMINAIRES WITH TRADITIONAL FLUORESCENT-TYPE LAMPHOLDERS WIRED DIRECTLY TO THE BRANCH CIRCUIT. THIS INCLUDES BOTH FACTORY-WIRED LUMINAIRE AS WELL AS THOSE CONVERTED FOR THIS PURPOSE UNDER A RETROFIT PROGRAM.

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.

AVERTISSEMENT - RISQUE D'INCENIE OU DE CHOC ÉLECTRIQUE.

INSTALLATION DU KIT DE RETROFIT LED EXIGE UNE CONNAISSANCE DES SYSTÈMES ÉLECTRIQUES LUMINAIRES. SI VOUS N'ÊTES PAS QUALIFIÉ, NE TENTEZ PAS DE L'INSTALLATION. CONTACTEZ UN ÉLECTRICIEN QUALIFIÉ.



PRIOR TO INSTALLATION, PLEASE READ THE ENTIRE INSTALLATION INSTRUCTIONS

WARNING - RISK OF FIRE OR ELECTRIC SHOCK.

INSTALL THIS KIT ONLY IN THE 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.

AVERTISSEMENT - RISQUE D'INCENIE OU DE CHOC ÉLECTRIQUE.

INSTALLEZ CE KIT DANS LES LUMINAIRES QUI ONT LES CARACTÉRISTIQUES DE CONSTRUCTION ET LES DIMENSIONS INDIQUÉES DANS LES PHOTOGRAPHIES ET / OU DESSINS ET OÙ LA COTE D'ETRÉE DU KIT DE MODIFICATION NE DÉPASSE PAS LA CAPACITÉ D'ENTRÉE DU LUMINAIRE.

WARNING - TO PREVENT WIRING DAMAGE OR ABRASION, DO NOT EXPOSE WIRING TO EDGES OF SHEET METAL OR OTHER SHARP OBJECTS.

AVERTISSEMENT - POUR ÉVITER D'ENDOMMAGER LE CÂBLAGE AUX BORDS DE TÔLE OU D' AUTRES OBJETS POINTUS.

WARNING - TO AVOID POTENTIAL FIRE OR SHOCK HAZARD, DO NOT USE THIS RETROFIT KITS IN LUMINAIRES EMPLOYING SHUNTED BI-PIN LAMPHOLDER. NOTE: SHUNTED LAMP HOLDERS ARE FOUND ONLY IN FLUORESCENT LUMINAIRES WITH INSTANT-START BALLASTS. INSTANT-START BALLASTS CAN BE IDENTIFIED BY A STATEMENT PERTAINING TO THE BALLAST ITSELF, OR MAY BE COMBINED WITH THE MARKING FOR THE LAMPS WITH WHICH THE BALLAST IS INTENDED TO BE USED, FOR EXAMPLE F40T12/IS. FOR MORE INFORMATION, CONTACT THE LED LUMINAIRE RETROFIT KIT MANUFACTURER.

AVERTISSEMENT - POUR ÉVITER TOUT INCENDIE POTENTIEL OU TOUT RISQUE DE CHOC, NE PAS UTILISER CE KIT DE RÉNOVATION DANS LES LUMINAIRES UTILISANT DES DOUILLES SHUNTÉES À DEUX BROCHES. REMARQUE: LES SUPPORTS DE LAMPE SHUNTÉ NE SE TROUVENT QUE SUR LES LUMINAIRES FLUORESCENTS AVEC BALLASTS ET À ALLUMAGE INSTANTANÉ. LES BALLASTES À ALLUMAGE INSTANTANÉ PEUVENT ÊTRE IDENTIFIÉS PAR LES MOTS "DÉMARRAGE INSTANTANÉ" OU "I.S" SUR LA BALLASTE. CETTE DÉSIGNATION PEUT ÊTRE PRÉSENTÉE SOUS LA FORME D'UNE DÉCLARATION RELATIVES AU BALLAST LUI-MÊME, OU PEUT ÊTRE COMBINÉE AVEC LE MARQUAGE POUR LES LAMPES DONT LE BALLAST EST DESTINÉ À ÊTRE UTILISÉ, PAR EXEMPLE LE MODÈLE F40T12/EST. POUR PLUS D'INFORMATIONS, CONTACTEZ LE FABRICANT DU KIT DE RÉNOVATION DE LUMINAIRE LED.

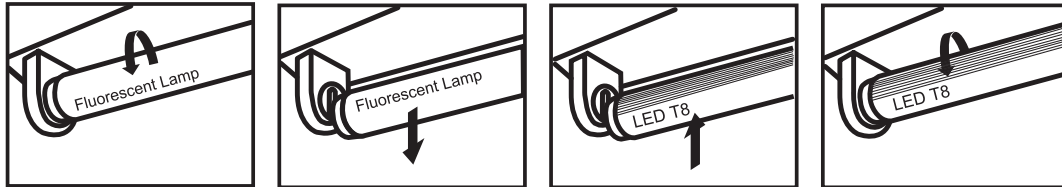


INSTALLATION — DIRECT REPLACEMENT MODE (MODE I)

1. MAKE SURE POWER IS OFF.
2. REMOVE LENS OR DIFFUSER (IF APPLICABLE).
3. REMOVE EXISTING FLUORESCENT LAMPS FROM THE LUMINAIRE.
4. CHECK THAT BALLAST IS COMPATIBLE WITH LAMPS.
5. BRING LED LAMP TO LUMINAIRE AND INSERT LAMP PINS INTO LUMINAIRE LAMP HOLDERS.
6. ROTATE LED LAMP UNTIL LAMP LOCKS IN PLACE. ENSURE THAT THE LED LAMP FRONT POINTS AWAY FROM THE BACK OF THE LUMINAIRE.
NOTE: INSTALL LED T8 REPLACEMENT LAMP ONE FOR EACH FLUORESCENT LAMP REMOVED.
7. PLACE LENS OR DIFFUSER BACK IN PLACE (IF APPLICABLE).
9. POWER ON.

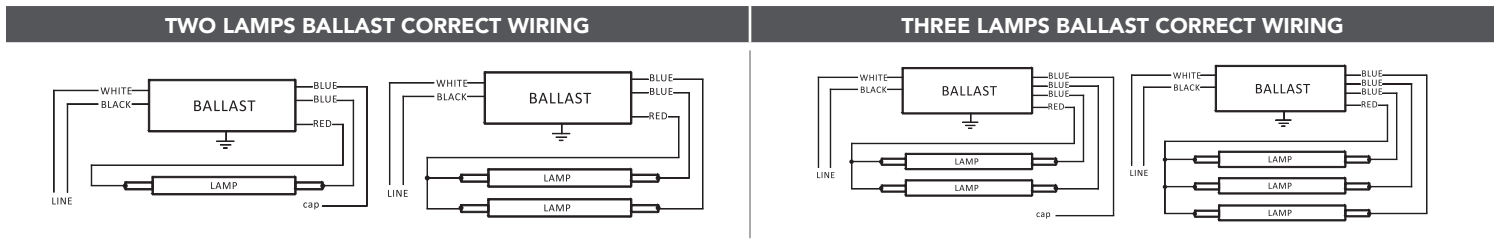


**BALLAST
COMPATIBILITY**

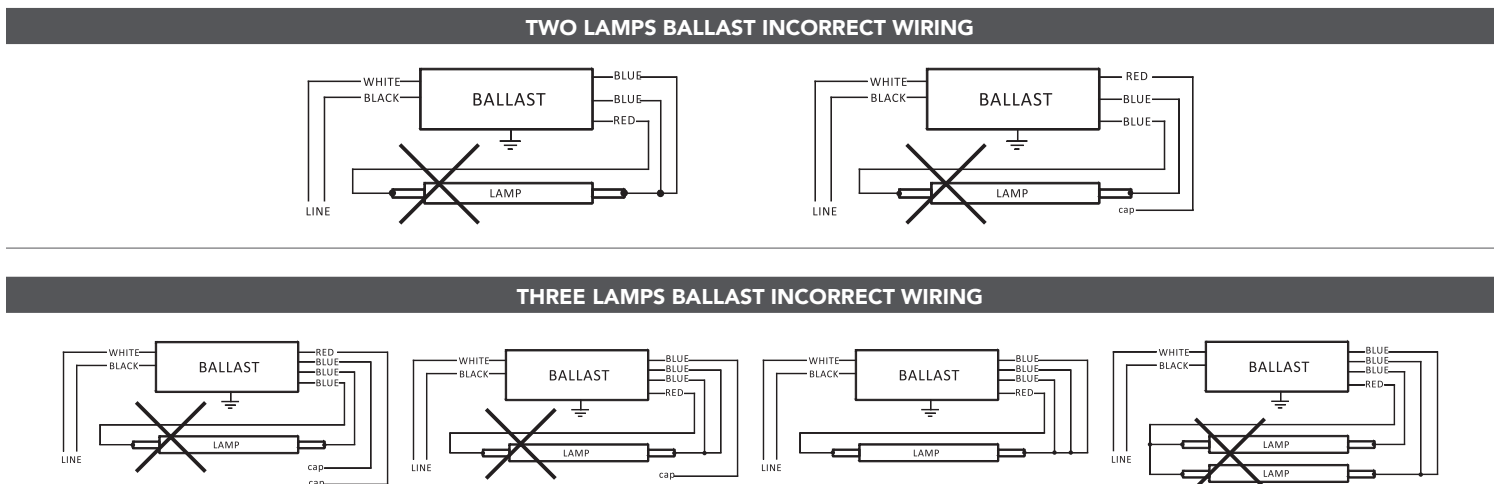


SUGGESTION: PLEASE USE JUMPERED OR SHUNTED SOCKET, BECAUSE IN DIRECT REPLACEMENT MODE, THIS LAMP CAN ONLY BE COMPATIBLE WITH INSTANT START ELECTRONIC BALLAST, AND THE BI-PIN ON LAMP BASE ARE NOT ELECTRICAL CONNECTED INTERNALLY.

INSTANT START BALLAST WIRING DIAGRAM (CORRECT)



INSTANT START BALLAST WIRING DIAGRAM (INCORRECT)



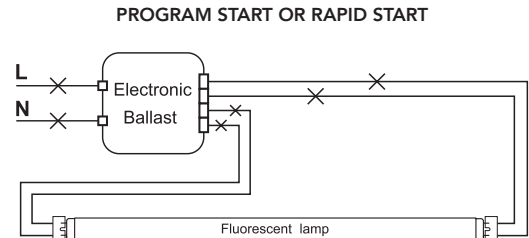
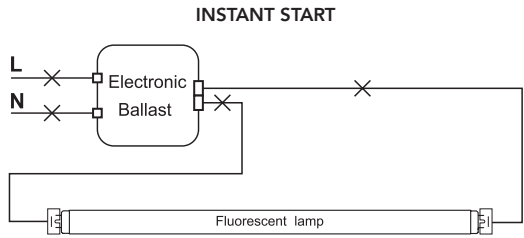


INSTALLATION — DIRECT BY PASS MODE (MODE II)

WARNING: THE BELOW BALLAST WIRING REPRESENTS TYPICAL CONFIGURATION. THE ACTUAL BALLAST WIRING VARIES ACCORDING TO BALLAST MODEL. THE SOCKET SHOULD BE NON-SHUNTED.

SINGLE ENDED WIRING INSTRUCTION

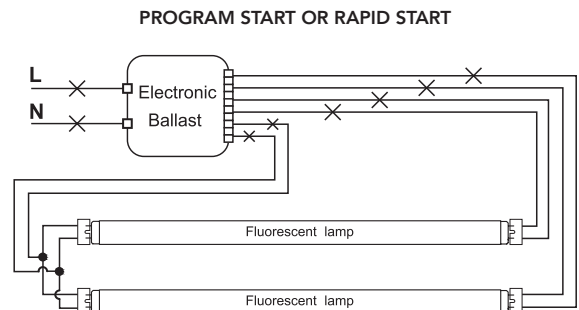
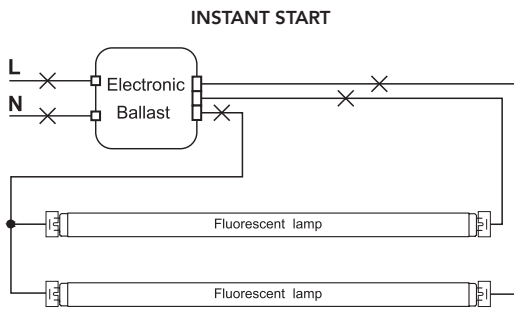
SINGLE ENDED WIRING | RETROFIT LUMINAIRE WITH 1 LAMP



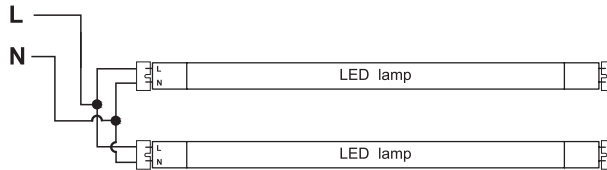
WIRING



SINGLE ENDED WIRING | RETROFIT LUMINAIRE WITH 2 LAMPS



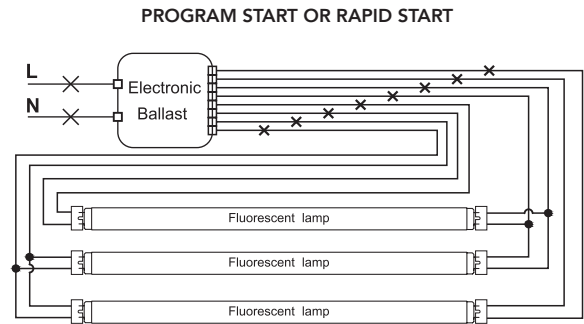
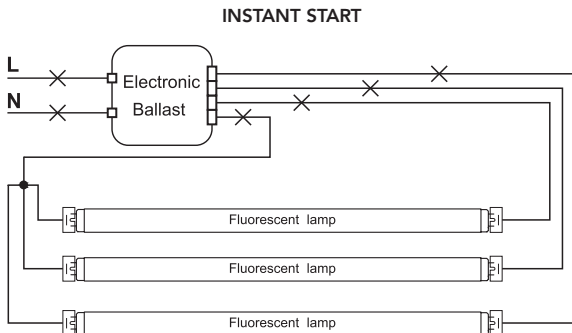
WIRING



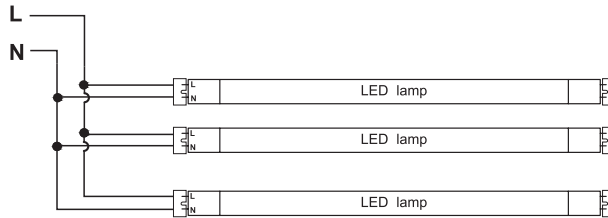


INSTALLATION — DIRECT BY PASS MODE (MODE II)

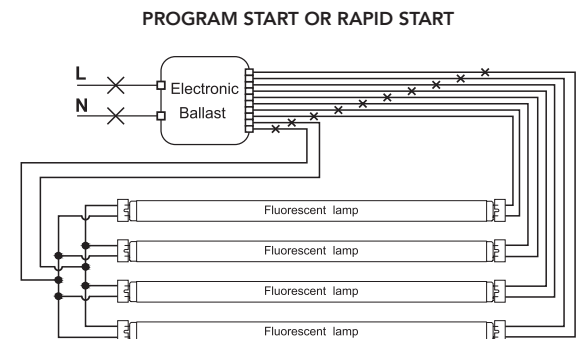
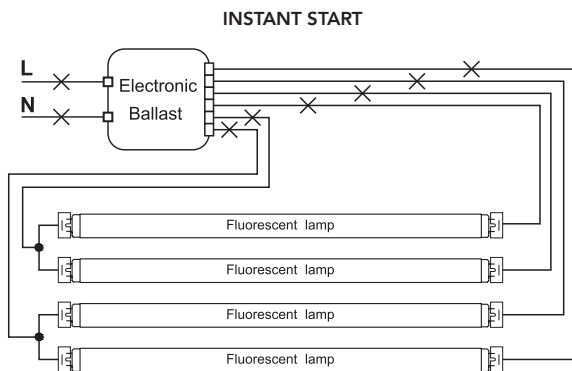
SINGLE ENDED WIRING | RETROFIT LUMINAIRE WITH 3 LAMPS



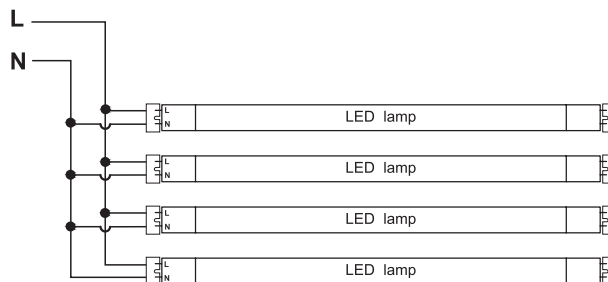
WIRING



SINGLE ENDED WIRING | RETROFIT LUMINAIRE WITH 4 LAMPS



WIRING





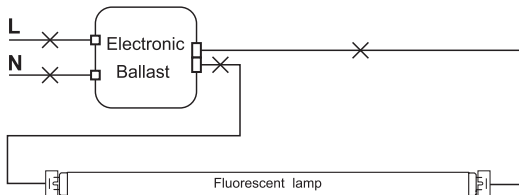
INSTALLATION — DIRECT BY PASS MODE (MODE II)

WARNING: THE BELOW BALLAST WIRING REPRESENTS TYPICAL CONFIGURATION. THE ACTUAL BALLAST WIRING VARIES ACCORDING TO BALLAST MODEL. IT IS NOT NEEDED TO CHANGE SOCKET (IF IN GOOD CONDITION) TO OPERATE DOUBLE ENDED LAMPS, REGARDLESS THE TYPE OF SOCKETS. PLEASE MAKE SURE ONE SIDE OF FIXTURE IS CONNECTED TO LIVE (L) AND THE OTHER SIDE TO NEUTRAL (N).

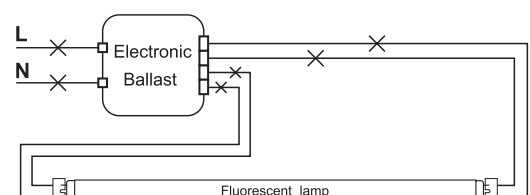
DOUBLE ENDED WIRING INSTRUCTION

DOUBLE ENDED WIRING | RETROFIT LUMINAIRE WITH 1 LAMP

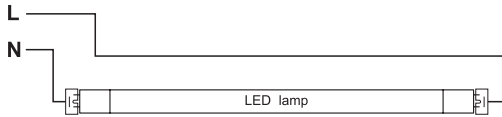
INSTANT START



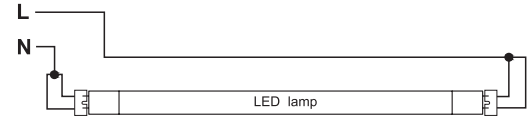
PROGRAM START OR RAPID START



WIRING

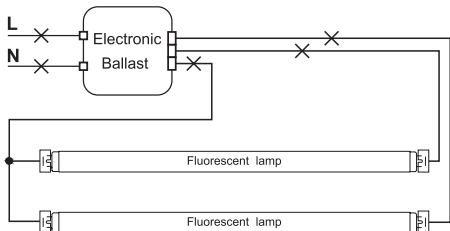


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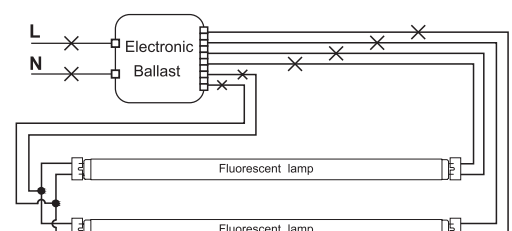


DOUBLE ENDED WIRING | RETROFIT LUMINAIRE WITH 2 LAMPS

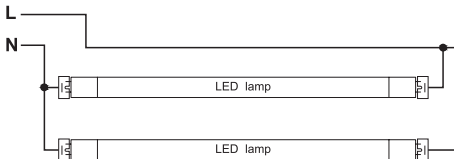
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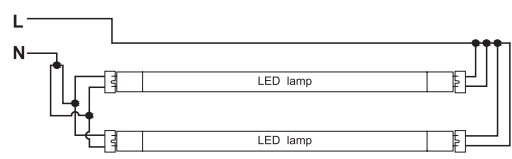
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WIRING



WIRING

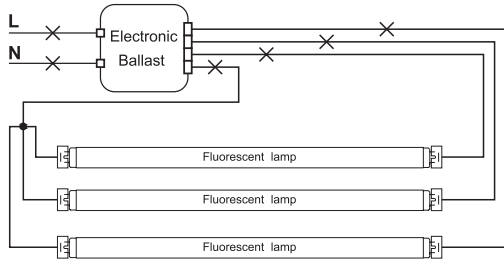




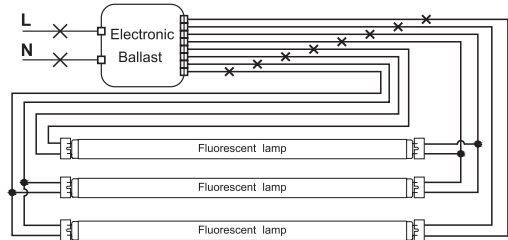
INSTALLATION — DIRECT BY PASS MODE (MODE II)

DOUBLE ENDED WIRING | RETROFIT LUMINAIRE WITH 3 LAMPS

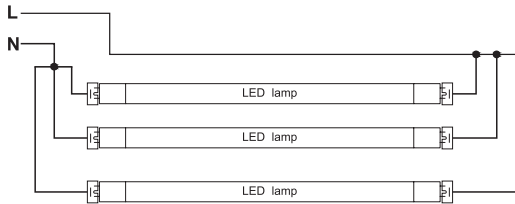
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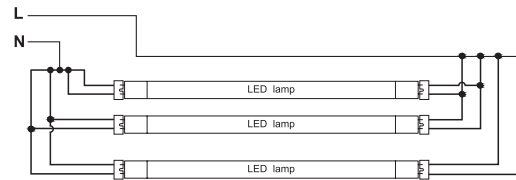
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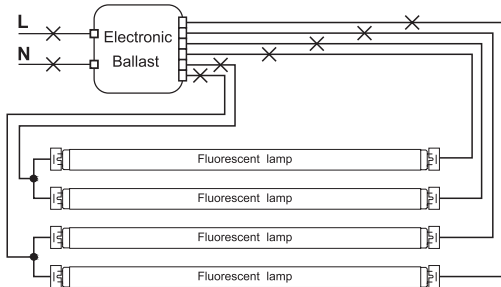


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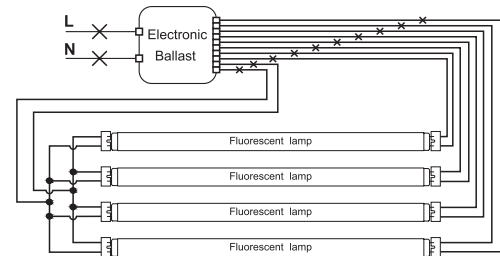


DOUBLE ENDED WIRING | RETROFIT LUMINAIRE WITH 4 LAMPS

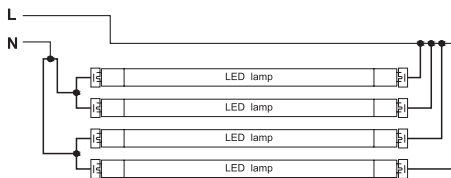
INSTANT START



PROGRAM START OR RAPID START



WIRING



WIRING

