## LED MINI SWIVEL SERIES

## Installation instructions for LMS, LMV, LMS-3, LMS-3KIT, LMV-3KIT and LMS-3-3KIT series fixtures

WARNING:These products may present a possible shock or fire hazard if improperly installed or attached in any way. Products should be installed in accordance with the owners manual, current electrical codes and/or the current National Electric Code (NEC).

## IMPORTANT

The following instructions are provided to assure safe installation and operation of the LED Mini Swivel Series. Please read carefully before connecting or installing this product.

1. The LED Mini Swivels are a safe low voltage lighting system that are suitable for indoor locations only. 2. Do not mount or support these fixtures in a manner that can cut the outer jacket or damage wire insulation. 3. Always make sure power is disconnected from the LED fixtures before cutting, mounting, attaching terminal block, attaching end cap or modifying in any way. 4. Do not exceed the maximum capacity of the 350 mA DC power supply used for any series configuration.

## SPECIFICATIONS

- 1 - 10 watts can be powered by one LED-DR10-350P
- 1 - 12 watts can be powered by one LED-DR12-350
- 1 - 18 watts can be powered by one LED-DR18-350 -Two runs of $1-18$ watts can be powered by each LED-DR36-350HW
- Constant current LED driver ( 350 mA DC ) is required
- Series wiring configuration only (do not wire in parallel)
- Hole mount size: 1-7/8" for LMS and LMV fixtures; 2-3/4" for LMS-3. (All styles for recessed applications only.) - Wattages: LMS, LMV $=1.25$ each; LMS-3 $=3.75$ each


## BEFORE YOU START

- Always make sure the LED Bullet is disconnected from the power source before wiring.
- Determine the number and locations of fixtures your application will require. There are multiple power connection configurations and accessories that allow many installation options. See reverse side prior to installation to determine the best configuration for each installation. Remember, for every run, add total wattages and do not exceed the capacity of the power supply!


## ****FOR HARDWIRE INSTALLATIONS, SEE OTHER SIDE ****

## FOR PLUG IN INSTALLATIONS (using LED-DR10-350PI)

1. Utilizing a good pair of shears, cut the Molex connector off the power connector (LED-CON2-350, LED-CON3-350 or
LED-CON6-350). Do NOT cut the molex connector off of the Mini Swivel Lights! Do NOT cut the molex connector off of any power connectors for hardwire power supplies! See other side for hardwire installation instructions.
2. Strip the insulation back $3 / 16^{\prime \prime}$ on lead wires.
3. Place the stripped leads of the power connector into one side of the TL-CONBLK2 connector (see Figure 1) and tighten screws. 4. Place stripped leads of plug-in driver LED-DR10-350PI into the other side of TL-CONBLK2 connector, being sure to match polarity and tighten screws. Connect solid red power connector lead to power supply connector marked with red. Black/red striped power connector lead goes to black power supply lead. See Figures 2 and 3.
4. Check that the male Molex connector of each LED Mini Swivel fixture is in operable condition. If in operable condition, insert male Molex connector into an open female port of the power connector.
5. When powering only one LED light, it is necessary to insert an end cap, LED-END-350, into the other open port to complete the series wiring.
7.When powering LED Mini Swivel light systems, every port of each power connector must be connected to an end cap, another power connector or a light. See Figure 3.

## ATTACHING JUNCTION BOX

1. Each TL-CONBLK2 (shown in Figures 1 and 2) can be placed in a junction box (FSL-BOX) if desired.
2. Disconnect power from transformer.
3. Place TL-CONBLK2 assembly into top of FSL-BOX
4. Make sure TL-CONBLK2 assembly fits into junction box and enclose with FSL-BOX bottom. Tighten four screws through bottom cover plate into FSL-BOX housing.

## MOUNTING LED MINI SWIVEL SERIES

1. Always make sure power is disconnected before modifying, mounting or installing a series of LED Mini Swivel Lights. 2. Drill a 1-7/8" hole for LMS or LMV fixtures; or 2-3/4" hole for LMS-3 fixtures.
2. Open steel spring clips.
3. Insert LED Mini Swivel into hole.
4. Make sure that the fixture's lead wire is not in contact with sharp objects.
5. Maximum wattage per series is dependent upon the power supply. Add the number of lights and respective wattages to assure you do not exceed the maximum wattage.


CUT OFF MOLEX ONLY WHEN USING PLUG-IN DRIVER


Connect red to red; and black/red stripe to black.

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RV-0904KB

## Figure 3




## LED MINI SWIVEL SERIES

Installation instructions for LMS, LMV, LMS-3, LMS-3KIT, LMV-3KIT and LMS-3-3KIT series fixtures (CONTINUED FROM OTHER SIDE)

WARNING:These products may present a possible shock or fire hazard if improperly installed or attached in any way. Products should be installed in accordance with the owners manual, current electrical codes and/or the current National Electric Code (NEC).

## IMPORTANT

The following instructions are provided to assure safe installation and operation of LED Mini Swivel Series. Please read carefully before connecting or installing this product.
1.The LED Mini Swivels are a safe low voltage lighting system that are suitable for indoor locations only. 2. Do not mount or support these fixtures in a manner that can cut the outer jacket or damage wire insulation. 3. Always make sure power is disconnected from the LED fixtures before cutting, mounting, attaching terminal block, attaching end cap or modifying in any way. 4. Do not exceed the maximum capacity of the 350 mA DC power supply used for any series configuration.

## SPECIFICATIONS - Please see other side for details

## BEFORE YOU START

- Always make sure the power supply (LED driver) is disconnected from the power source before wiring Bullet lights.
- Determine the number and locations of fixtures your application will require. There are multiple power connection configurations and accessories that allow many installation options. See Figures 1-3 for examples. Prior to installation, determine the best configuration for each installation.


## OPTICAL LENS OPTIONS FOR LMV AND LMS

The LED Mini Visor (LMV) and the LED Mini Swivel (LMS) are shipped with an optical lens with a $25^{\circ}$ beam angle installed. An additional optical lens accessory with an $80^{\circ}$ beam angle is included with each LMV and LMS fixture. To replace the lens, turn the lens frame counterclockwise to remove. Replace the lens by placing it upright on the LED cover and replacing the lens frame over the top. Turn the lens frame clockwise until snug.

## FOR HARDWIRE INSTALLATIONS

1. Check that the male molex connector of each LED fixture is in operable condition. If in operable condition, insert male molex connector into an open female port of the power connector. See Figures 2 and 3.
2. When powering only one fixture, it is necessary to insert an end cap, LED-END-350, into any open ports to complete the series wiring. When powering light sets, every port of each power connector must be connected to an end cap, another power connector or a light. The whole set will not light if any port remains empty. See Figures 2 and 3.

## CONNECTING TO POWER SUPPLY

Use a 350 mA power supply as recommended by the factory. Use of any other power supply will void the warranty. Make sure the power source is disconnected before making any

## connections.

1. When connecting to LED-DR12-350 or LED-DR18-350 power supplies, plug the molex connector directly into the molex port on the secondary side of the power supply. See Figures 2 and 3. 2. When using LED-DR36-350HW power supply, cut off the molex connector of the last power connector in the series and wire to the secondary side of the driver, matching polarity. Connect solid red power connector lead to power supply lead marked positive. Black/red striped power connector lead goes to negative supply lead.
2. Connect 120 V AC power to the primary side matching polarity and turn on power.

## MOUNTING LED MINI SWIVEL SERIES

1. Always make sure power is disconnected before modifying, mounting or installing a series of LED Mini Swivel Lights.
2. Drill a 1-7/8" hole for LMS or LMV fixtures; or 2-3/4" hole for LMS-3 fixtures.
3. Open steel spring clips.
4. Insert LED Mini Swivel into hole.
5. Make sure that the fixture's lead wire is not in contact with sharp objects.
6. Maximum wattage per series is dependent upon the capacity of the power supply. Add the number of lights and respective wattages to assure you do not exceed the maximum wattage.

