



Lightvault® LTV81/LTV82/LTV83 Installation Instructions

Below-grade luminaires often become ineffective or inoperable simply because they are not installed and maintained correctly. While it is tempting to install these fixtures at or below grade, this generally turns out to be unsatisfactory unless the installation is in a paved area. When the fixtures are installed too low, they

become a collection point for dirt, mud and encroaching ground cover. With a little preplanning and care, below-grade luminaires can be installed in a manner that will promote easy maintenance and longevity. The following installation methods represent our best recommendations.

INSTALLATION GUIDELINES:

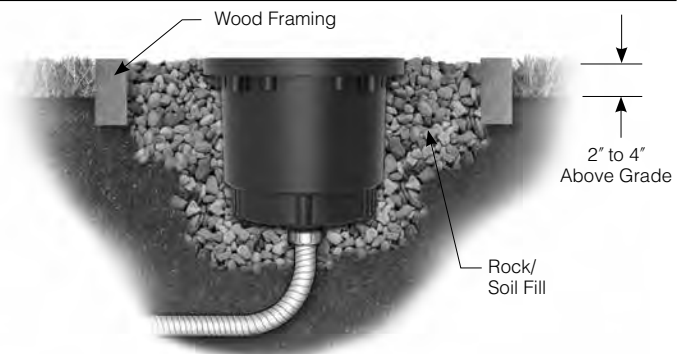
Remember, **always isolate and elevate.**

CREATE A BUFFER ZONE:

When the fixtures are to be installed in areas planted in ground cover and shrubbery, a buffer zone is needed to prevent lens overgrowth as the plants mature. Elevating the fixture will encourage water runoff around the unit rather than over the top.

Advantages of A Buffer Zone:

- Helps prevent lens overgrowth.
- Provides a defined edge for trimming.
- Provides drainage around fixture and helps keep the lens clean.
- Rock-fill partially buffers fixture from corrosive soil.
- Visually looks like a flush mounted installation.



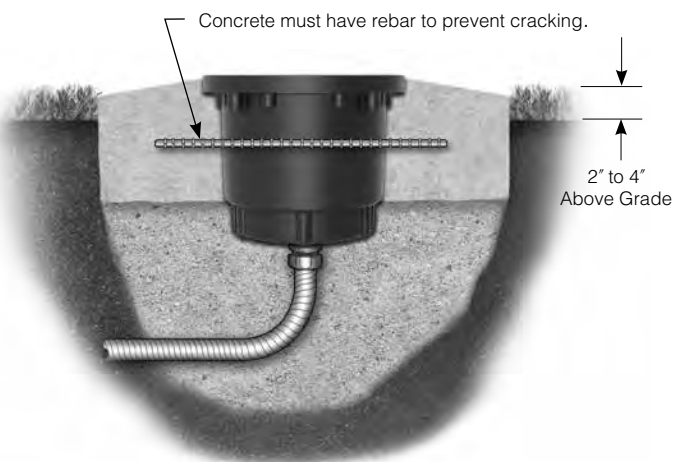
INSTALL IN CONCRETE:

Another option for ground cover, shrubbery or lawn areas is to encase the fixture in concrete. This has some additional advantages over the rock-fill method (above).

Advantages of Concrete Installation:

- Allows higher wattage lamps because concrete makes an excellent heat sink.
- Totally isolates fixture from corrosive soils.
- Helps prevent lens overgrowth.
- Allows edging without scratching fixture.
- Provides drainage around fixture and helps keep the lens clean.
- Visually looks like a flush mounted installation.

Note: Always use adequate rebar surrounding the fixture to prevent cracking of concrete.

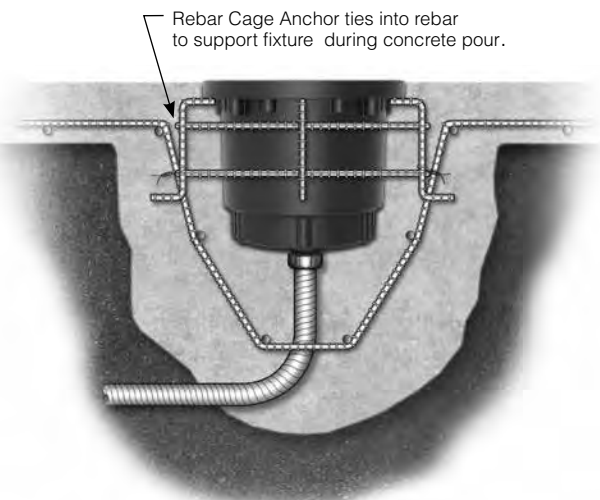


USE REBAR CAGE ANCHOR IN PAVED AREAS

To make fixture installation easier in concrete, use Rebar Cage Anchor (RCA81/82/83) and tie into paving rebar to support fixture during concrete pour.

Advantages of Paved Area Installation with Rebar Cage Anchor

- Supports fixture during concrete pour.
- Can be easily tied into reinforcing rods used for paving
- Easily adapts to any paving material.



NOTE: Concrete foundation is to be designed according to local soil conditions (by others).

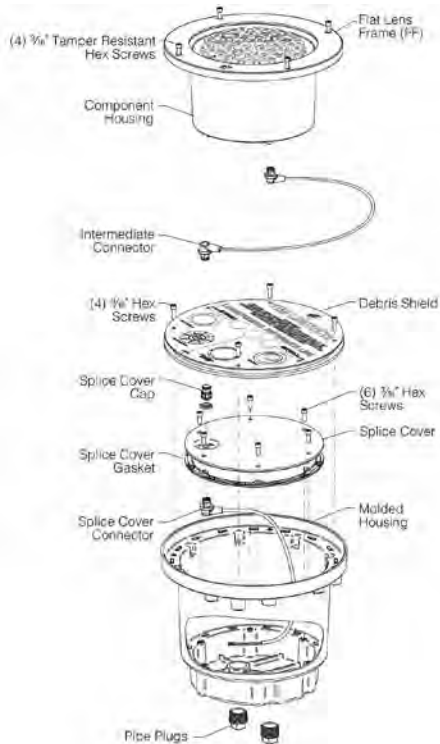
Lightvault® LTV81/LTV82/LTV83 Installation Instructions

CAUTION:

- To help maintain a clean, dry splice compartment, seal the conduit entries with RTV.
- Make sure all electrical supply is **OFF** before starting fixture installation.

ALIGNMENT: Fixture lens frames can be installed on housings at 90° increments. Care must be taken when installing the housing so directional lens frames can be installed at a desired orientation.

Tools Required: RTV sealant, 3/16" tamper resistant hex wrench, adjustable wrench or pipe wrench



IMPORTANT SAFETY INSTRUCTIONS TO AVOID RISK OF FIRE OR INJURY!

WARNING: Fixtures must be grounded in accordance with local codes or the National Electrical Code. Failure to take these steps may result in serious personal injury. All electrical work should be done by a qualified electrician

⚠ SAFETY WARNING: DO NOT install these fixtures in submersible installations such as fountains or swimming pools. Extreme caution should be taken when installed in paved areas. **MAINTENANCE:** To maintain light efficiency and prevent overheating, lenses must be kept clean and free of dirt, dust, leaves, trash and mineral deposits from water. For optimum performance a regularly scheduled maintenance program should be followed. DO NOT operate luminaire with missing or damaged lens.

KEEP THIS SHEET FOR FUTURE REFERENCE.

Lightvault® LTV81/LTV82/LTV83 Installation Instructions

MOLDED HOUSING ROUGH-IN INSTALLATION:

Read guidelines on page 1 before starting.

1. Excavate 20" dia. hole in desired fixture location. Run conduit 3" deeper than height of housing. Fill with gravel for drainage.
2. With $\frac{3}{16}$ " Allen wrench, unscrew (4) hex screws to remove debris shield from molded housing.
3. Remove gasketed splice cover in bottom of molded housing using $\frac{3}{16}$ " Allen wrench and (6) hex screws.
4. Remove pipe plugs from molded housing. Connect molded housing to conduit. Apply sealant to both conduit threads **and** molded housing to seal.
5. Pull supply conductors into splice compartment.
6. Connect field wires to splice cover connector observing polarity, i.e. green to ground, white to common and red to voltage using provided silicone wire nuts.
7. Replace gasketed splice cover into bottom of molded housing using $\frac{3}{16}$ " Allen wrench and (6) hex screws.
8. With $\frac{3}{16}$ " Allen wrench, screw in (4) hex screws to reinstall debris shield.
9. Align molded housing using markings on debris shield keeping longitudinal reference line parallel to street, wall or walkway.
10. Back fill for stability. **Do not** back fill with bark or Vermiculite. **Never install below** surrounding **ground level**.

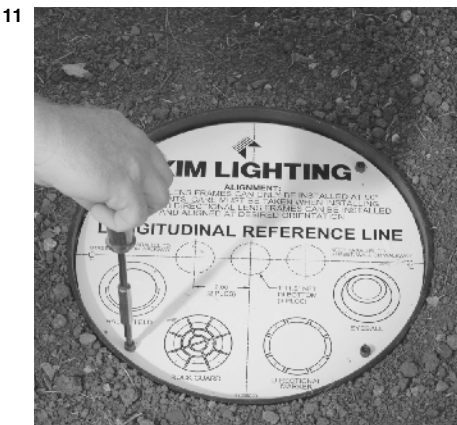
COMPONENT MODULE INSTALLATION:

11. When the component housing has been delivered to site and you're ready to install, unscrew (4) hex screws with $\frac{3}{16}$ " Allen wrench to remove debris shield.

12. Attach intermediate connector to splice cover cap.

NOTE: When installing cable connector, slide connector in place while rotating collar until connector is fully seated, then rotate collar clockwise to lock connector in place. Sealant on connectors is not necessary as rubber o-rings are in place to keep connectors water-tight.

13. Plug other end of intermediate connector into component housing.
14. Drop component housing in place and attach to molded housing using $\frac{3}{16}$ " tamper resistant hex wrench and (4) tamper resistant hex screws.



Lightvault® LTV81/LTV82/LTV83 Installation Instructions

KIM Remote (Android) Quick Start Guide

Setting Up And Enabling Wireless Controlled Optics:

LTV8 luminaires can be controlled via Bluetooth®-equipped mobile devices.

1. Go to Google Play and download the **KIM Remote** app. Hint: Search the term "kimremote".
2. Power on the LTV8 luminaire.
3. Turn on Bluetooth in menu > settings.
4. Locate Kim Remote app in applications menu of mobile device, and select to open.
5. App may request permission to enable Bluetooth functionality. If it does, choose "Yes" (If Bluetooth is already enabled, skip to step 6).
6. Open application menu with device's "Menu" key.
7. Stand near luminaire to be adjusted, and choose "connect" option.
8. Select "Scan for devices." A list of both already-paired, and available Bluetooth-ready devices will appear.
9. Select LTV8 fixture you wish to adjust. Closest devices appear highest on list; Lightvault luminaires will appear with "HUBB" prefix followed by a number (Example: HUBB-1001).
10. Enter security code supplied in product documentation.
11. Kim logo in center of screen will indicate "connected" when LTV8 is paired with your mobile device. The fixture will blink 3 times to confirm connection.
12. Use arrow keys to adjust deck-tilt focus, up to 15° in full 360° rotation - Tap for fine adjustments, hold down arrows for continuous sweep.
13. Use dimmer slider bar to adjust fixture brightness level. Tap (+/-) for fine increments. (The fixture will dim down as far as 20% of the full 100%)
14. After desired focus and brightness levels are reached, open application menu. Select "disconnect" to save settings.
15. Repeat steps 8-11 for each additional fixture.

(NOTE: All fixtures may be paired with device prior to adjustment. In this case, repeat steps 8-12.)

Tip: Bluetooth signal exits the fixture through the glass lens. The signal cannot travel through the brass housing. For best results, be sure your device is in the line of sight of the LED's.

* For bluetooth pairing PIN see label near the serial number on the fixture or contact your KIM agent.



3. Turn on Bluetooth.



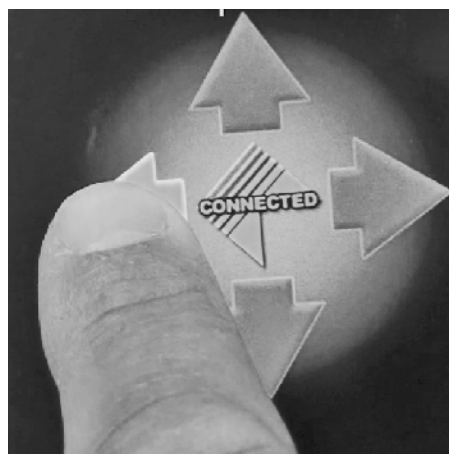
4. Open KIM Remote.



7. Menu > connect.



**9. Select Device.
10. Enter PIN*.**



11. Connected.

Lightvault® LTV81/LTV82/LTV83 Installation Instructions

Note: Requires an Apple device that support Bluetooth low energy (BLE). This includes iPhone 4S and above, iPad 3 and above and iPad mini.

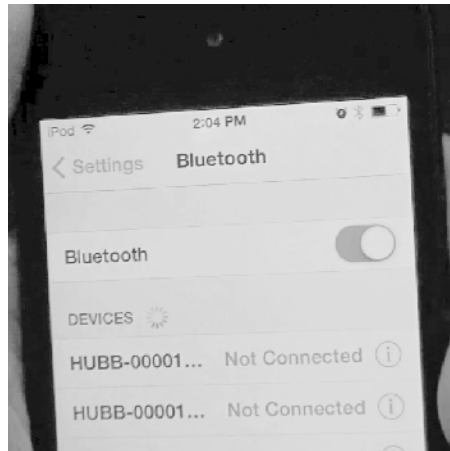
KIM Remote (Apple) Quick Start Guide

Setting Up And Enabling Wireless Controlled Optics:

LTV8 luminaires can be controlled via Bluetooth®-equipped mobile devices.

1. Go to the Apple Store and download the **KIM Remote** app.
2. Power on the LTV8 luminaire.
3. Turn on Bluetooth in menu > settings.
4. Open the Kim Remote app.
5. App may request permission to enable Bluetooth functionality. If it does, choose "Yes" (If Bluetooth is already enabled, skip to step 6).
6. Open application menu with device's "Menu" key.
7. Stand near luminaire to be adjusted, and choose "connect" option.
8. Select "Scan for devices." A list of both already-paired, and available Bluetooth-ready devices will appear.
9. Select LTV8 fixture you wish to adjust. Closest devices appear highest on list; Lightvault luminaires will appear with "HUBB" prefix followed by a number (Example: HUBB-1001).
10. Enter security code supplied in product documentation.
11. Kim logo in center of screen will indicate "connected" when LTV8 is paired with your mobile device. The fixture will blink 3 times to confirm connection.
12. Use arrow keys to adjust deck-tilt focus, up to 15° in full 360° rotation - Tap for fine adjustments, hold down arrows for continuous sweep.
13. Use dimmer slider bar to adjust fixture brightness level. Tap (+/-) for fine increments. (The fixture will dim down as far as 20% of the full 100%)
14. After desired focus and brightness levels are reached, open application menu. Select "disconnect" to save settings.
15. Repeat steps 8-11 for each additional fixture.

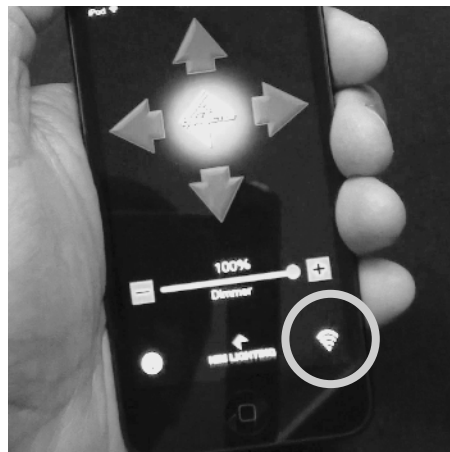
(NOTE: All fixtures may be paired with device prior to adjustment. In this case, repeat steps 8-12.)



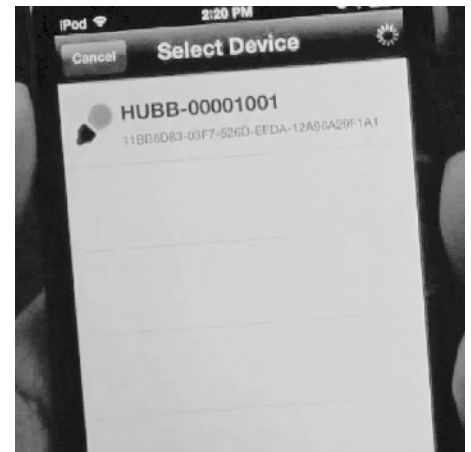
3. Turn on Bluetooth.



4. Open KIM Remote.



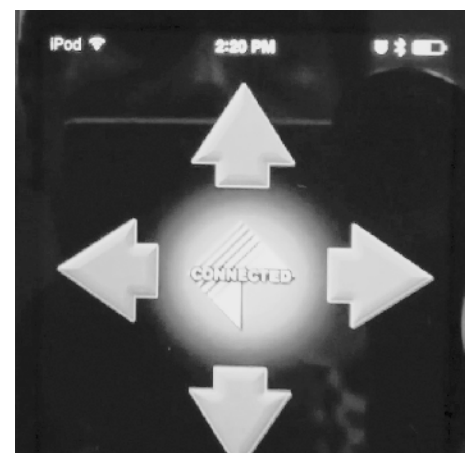
7. Click to connect.



9. Select Device.



10. Enter PIN*.



11. Connected.

Tip: Bluetooth signal exits the fixture through the glass lens. The signal cannot travel through the brass housing. For best results, be sure your device is in the line of sight of the LED's.

* For bluetooth pairing PIN see label near the serial number on the fixture or contact your KIM agent.

KIM REMOTE - TROUBLESHOOTING

Trouble pairing device and KIM REMOTE with fixture.

1. When pairing initially, stand as close as possible to the fixture.
2. Power down fixture for 15 seconds and power back on.
3. Pair one device at a time.
4. Close app. To do this on an Android device go to Settings > Applications (or Applications Manager) > Downloaded > KIM REMOTE > Force Stop. To do this on an Apple device (iOS 7): Push home button twice, find KIM REMOTE app, hold the app icon and swipe up. To do this on an Apple device (iOS 6): Push home button twice, find KIM REMOTE app, tap the X to close.
5. We recommend using one type of bluetooth device (apple or android) when pairing.
When pairing multiple types of devices with the same fixture, power down the fixture for 15 seconds before switching devices.
6. A phone case/cover may interfere with the Bluetooth signal. Removing your case can significantly improve connectivity.

Why won't it work on my iPhone 4 or iPad 2?

The Kim Remote app for Apple devices requires an Apple device that support Bluetooth low energy (BLE). This includes iPhone 4S and above, iPad 3 and above and iPad mini.

Why did my dimming settings change?

The advanced electronics inside the LTV8 are designed to retain your settings for both dimming and aiming.

Note: Each time you **connect** to the fixture with the KIM REMOTE app, dimming settings are automatically reset to 100%. Please follow the following steps.

1. Power on fixture.
2. Pair and **Connect** device.
3. Aim and set dimming.
4. **Disconnect** the device. (This will store your settings in memory)
5. Once settings are stored the fixture does not require power to retain settings.

Lightvault® LTV81/LTV82/LTV83 Installation Instructions

STANDARD LIGHTVAULT® LTV8 LIMITED MANUFACTURER’S WARRANTY

When properly installed and under normal conditions of use, Kim Lighting warrants LIGHTVAULT LTV8 products (“Product(s)”) sold by Kim Lighting to be free from defects in material and workmanship for (i) a period of twenty-five (25) years for brass parts, (ii) a period of seven (7) years for pour boxes, (iii) a period of six (6) years for LED Light Engines and, (iv) a period of five (5) years for LED power components, from the date of sale of such goods to the buyer as specified in Kim Lighting shipment documents for each Product(s). Occupancy sensors, LED drivers, dimmers and relay wiring components are covered by the manufacturer’s warranty. The buyer agrees to make all claims regarding defects or deficiencies in the Product(s) according to the terms of Kim Lighting’s official warranty. Warranty claims must be made in writing according to Kim Lighting procedures existing at the time of the claim. Valid warranty claims must be made within the warranty period specified herein above, and submitted within thirty (30) days of discovery of the damage or defect. No FIELD labor, repair, DISMANTLE, or installation charges are included with this warranty. Kim Lighting may repair or replace any Product(s) covered by this warranty at its sole discretion and in accordance with its procedure. Any unauthorized return, repair, replacement or modification of the Product(s) shall void this warranty. This warranty applies only to the use of the Product(s) as intended by Kim Lighting and does not cover any misapplication or misuse of said Product(s), or installation in hazardous or corrosive environments. In no event shall Kim Lighting’s total liability for any reason arising hereunder exceed the purchase price paid to Kim Lighting for the product purchased by the buyer hereunder. Contact Kim Lighting for complete warranty language, exceptions, and limitations.



The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Kim Lighting is under license. Other trademarks and trade names are those of their respective owners. Apple, the Apple logo, iPad, iPhone, and iPod Touch are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc. Google Play is a trademark of Google Inc.