



HID Xenon & LED Lighting Technology for Aerospace and Industrial Applications

## Installation and Operation Manual

**\* Read all installation instruction and warranty information prior to beginning installation \***

**XeVision™ HID landing and taxi lights are for experimental aircraft only and are not yet approved (STC'd) for certified aircraft.**

### Ballast Mounting

Mount the ballast in any suitable location, preferably on the firewall. Attach ballast using AN3 bolts and locknuts, Click Bond Studs, rivets or other suitable installation methods.

### Cable Length

Verify that the standard cable is of suitable length to reach the lamp from your selected ballast location without any interference with engine, controls, and movements. If the cable is either too short or under tension, relocate the ballast. Using standard techniques, you can modify the cable yourself by splicing additional length into the existing cable. The total length must not exceed 10 feet. We recommend using 16 GA wire for any additional spliced length. It is imperative to splice the shielding for uninterrupted continuity.

**Caution:** Do not bend the double-shielded Teflon (blue) or Silicone (black) cable to a diameter of less than **4 (four) inches**, especially at the connector locations!

### Cable Connector

The lamp cable connection should be oriented downward. However, a sideways or upward orientation is acceptable if the connection is suitably protected from water. The flat 4-pin (3 pins used) connector on the lamp side has a locking tab "bump" which locks it into the lamp connector securely once inserted. We recommend that you only insert this connector when making the final connection since separation can be a challenge. The lamp-to-ballast cable needs to be secured to the ballast with the provided retaining cap.



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#### Power Feed and Circuit Breaker

The power feed "pigtail" is color coded with the red marked wire being positive+; consult the included schematic for additional details. Reuse your existing circuit breaker if 10/15/20 amp values for a 14 volt DC electrical systems or 5/7.5/10 amp for 28 volt systems. The minimum recommended breaker size is 10 amps for 14 V systems or 5 amps for 28 V single light systems. The minimum breaker sizes were selected to cover the initial inrush currents. Within 10 seconds, the current draw is below 6 amps at 14 volts, below 3 amps at 28 volts. The steady state current draw is approximately 3 amps at 14 volts, 1.5 amps at 28 volts for 35-watt systems. The steady state current draw is approximately 4.5 amps at 14 volts and 2.3 amps at 28 volts for 50-watt systems.

**NOTE:** Circuit breakers should always be sized to adequately protect the wire.

#### Warnings

**Warning:** When bench testing the lamp do not start, or shut down the lamp with the light beam oriented at an angle of more than 45 degrees above or below horizontal. During start up (1<sup>st</sup> minute of operation,) or cool down (1<sup>st</sup> minute after turned off) do not point up or down when testing prior to installation.

**Warning:** The lamp must not be turned on above 35,000 ft ISA. This is due to the possibility of internal arcing within the lamp/igniter since high voltages of over 20 kV are generated at start-up. Operation of the landing lamp above 35,000 ft. ISA is at your own risk of premature XeVision™ system failure and in all cases voids the warranty.

**Warning:** Use of any pulsing system, other than the XeVision™ pulsing unit, voids the warranty on both lamp and ballast. The lamp is shipped installed in a watertight reflector housing with a tamper proof seal. Any tampering with the seal will void the warranty. In the event you choose to remove the bulb from the reflector housing and void the warranty, do not touch any portion of the glass bulb. If touched wipe with alcohol and lint free cloth. Body oils and other contaminants will significantly degrade bulb life. There are no user serviceable parts in either the igniter/bulb or the ballast.



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### Warranty

XeVision™ warranty covers the H.I.D. lamp, ballast, and other specified XeVision components. Warranty is only valid with proof of sale from XeVision™. Warranty only covers the original purchaser and does not include installation, just replacement parts. The replaced item is only covered for the remainder of the original warranty. The purpose of the warranty is only to protect the purchaser from manufacturing quality defects, which develop under normal use.

The XeVision™ 35-watt system is warranted against failure for a period of five (5) years from the purchase date or 3,000 hours of operation, whichever occurs first. Our 50-watt system is warranted for five (5) years or 2,000 hours, whichever occurs first. Our 35-watt work lights are warranted for one (1) year or 3,000 hours, whichever occurs first. Our 50-watt work lights are warranted for one (1) year or 2,000 hours, whichever occurs first. Our pulsing module is warranted for five (5) years or 2,000 hours, whichever occurs first as long as it is used with a XeVision™ ballast, otherwise, the warranty on the pulsing unit is invalid. The pulsing unit must be installed in a suitable location that is dry and without excessive heat. The lamp must not be turned on and used in an un-pressurized environment above 35,000 ft ISA, doing so voids the warranty. Note: Consider these new altitude limits and associated COLD temperatures, when choosing a mounting location for the electronic ballast. The operating temperature limits shown on its label must be maintained. These limits as shown on the ballast are -40 degrees C to +85 degrees C. Use of any pulsing system other than the XeVision™ pulsing unit voids the warranty on both lamp and ballast. Operating the lamp contrary to the included warnings in the installation instructions also voids the warranty. The lamp is shipped installed in a watertight reflector housing with a tamper proof seal. Any tampering with the seal will void the warranty. There are no user serviceable parts in either the igniter or the ballast.

Warranty does not cover breakage due to improper installation or handling, nor do we cover explosion (extremely rare) due to improper handling or use. This warranty is void in the case of accidental misuse, or improper electrical or mechanical installation. This Limited Warranty specifically excludes defects resulting from water damage, fire, chemical spillage, acts of nature, misuse, abuse, neglect, alteration, modification, improper installation, submersion, dropping or by any other type of impact. ANY unauthorized modification to the system or operation with defective landing light housing will automatically void the warranty. Except for the Limited Warranty stated above, there is no warranty of XeVision™ products or any part thereof, whether expressed or implied.



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The replacement warranty applies to all XeVision™ HID "bulbs" with this additional disclaimer:

For products sold with an integral lens bonded to the reflector housing, if the lens is removed it voids the lamp warranty. For products sold without a bonded-on lens (XV-19 and XV-16), a maximum of one bulb per unit purchased will be covered under warranty. Our normal warranty return and assessment will still be required to qualify for this single replacement policy. (The reason for this limitation on these models is we cannot control the proper treatment of the bulb by the user in "non tamper proof" models). In any event, if the bulb (glass portion) is touched with human hands, "bulb" warranty is void.

XeVision™ will not be liable for any loss or damage, whether incidental, indirect, consequential, special or otherwise arising from the installation or use of this product. XeVision™ and its representatives' maximum liability shall not, in any case, exceed the purchase price of your XeVision™ H.I.D. lights.

In no event shall XeVision™ or any distributor be liable for any damages whatsoever (including without limitation, consequential damages, incidental damages, or damages for loss of use, loss of business profit, business interruption, loss of business information, loss of time, inconvenience, or other losses) arising out of the use, misuse, or inability to use a XeVision product. XeVision™ reserves the right to change the design and function of its products without notice or any obligation to modify any previous product. This warranty gives you specific legal rights. You may also have other rights that vary from state to state. In the case of litigation, all claims must be filed in Weber County, Utah, USA

### Exclusions

Except for the Limited Warranty stated above, there is no warranty of XeVision™ products or any part thereof, whether expressed or implied.

### Repair and Replacement

If a XeVision™ product is suspected of being defective, please contact XeVision™ to obtain an RMA#. Upon receiving an RMA#, product must be submitted freight prepaid to XeVision™. The receipt or other proof of purchase along with a copy of product registration card and a description of the problem must be included. The returned product will be inspected by our technicians. If the product is found to be defective and covered by this Limited Warranty, the sole remedy is repair or replacement, at XeVision's™ option. A repaired or replacement product will be shipped back at no charge (excluding shipping), and will be warranted to be free from defects in workmanship and material under normal use for the remainder of the original warranty. This Limited Warranty does not cover shipping, removal, installation, or reinstallation costs.



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Do not return the product without an RMA number. Please call first for a return authorization.

Returns

Due to the nature of the products offered by XeVision™, we reserve the right to accept returns at our discretion. If a return is approved, there will be a 15% restocking fee. An RMA # must be received from XeVision™ prior to returning the items.

*XeVision reserves the right to change this warranty at any time without notice. The current warranty applies to all orders shipped prior to changes being made.*

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## Basic Wiring 12 VDC Diagram Example

