

L206 Lamp Dimmer Product Guide

1. Overview

The L206 Series lamp dimmer is a central component in the INNCOM Integrated Room Automation System (IRAS). The L206 lamp controllers dims up to a 100W incandescent or CFL loads and can wirelessly communicate with the IRAS by way of the S-Series, Designer Series, or Glass Series products using Infrared (IR) or radio frequency (RF) technologies.

2. Application

The L206 Series lamp dimmer can be used with a wide variety of floor and desk lamp fixtures. The L206 lamp dimmer is designed to be used in many different lighting circuit topologies and room lighting designs. In modest application the L206 can control a single lamp in the guestroom as a member of an occupancy welcome scene or single lighting mood. In high-end applications, multiple L206 lamp dimmers can be used to participate in several lighting moods using up to 255 dimming levels to achieve the highest level of comfort and control.

When designing the L206 lamp dimmer with an IR transceiver for a particular lamp application, note that the lamp shade should not cover the IR window located around the center of the product. This ensures that there are no physical barriers that would impede the wireless communications to the IRAS. When using the L206 lamp dimmer with the RF transceiver, the lamp shade can cover the entire product body.

Note also that the L206 lamp dimmer will raise the total height of the lamp by as much as 1½". This will move the center of gravity of the entire assembly higher, which may make some lamps less stable. To determine if the L206 lamp dimmer is suitable for a particular type of lamp holder, a tip stability test should be performed on a lamp with the L206 installed.

The L206 is designed to dim several different types of loads at 115VAC for applications in the US and at 220VAC for international applications. Please see Table 1 for specific types and ratings.



Figure 1. L206 Lamp Dimmer

2.1 Features

- Convenient dimmer for table and floor lamps
- UL and CE Mark listed dimmable loads up to a 100W incandescent as well as CFL loads
- Optional wireless IR or RF communication modes for IRAS control
- Designed for multi-point control and complex lighting applications
- Fully enclosed housing to protect electronic components
- Equipped with a standard Edison socket
- Equipped with harp holder
- FCC Approved

3. Typical Applications

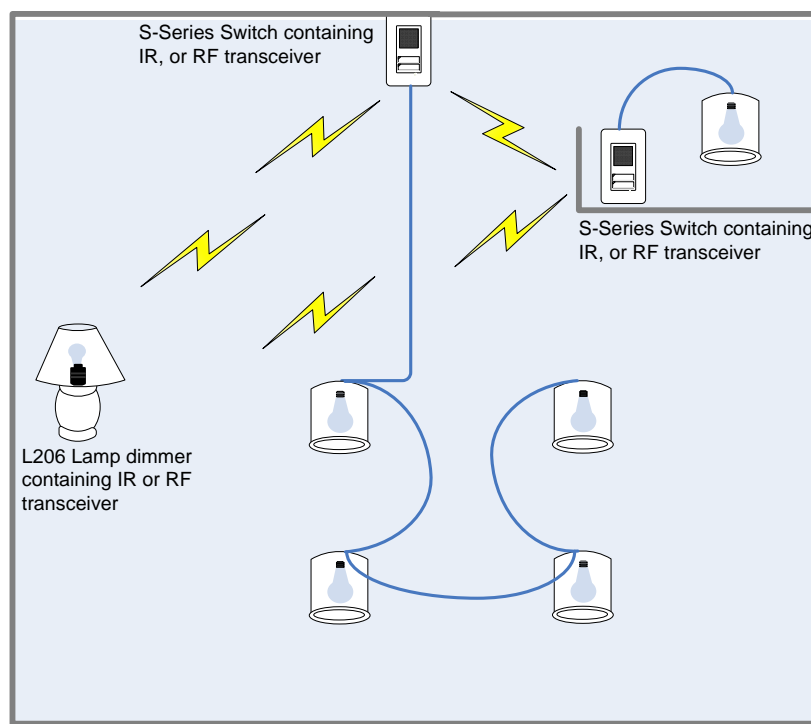


Figure 2. Typical Application

In this IRAS configuration, the L206 lamp dimmer is controlled by both S-Series light switches using either IR or RF wireless communications. TBD....

4. Installation Requirements

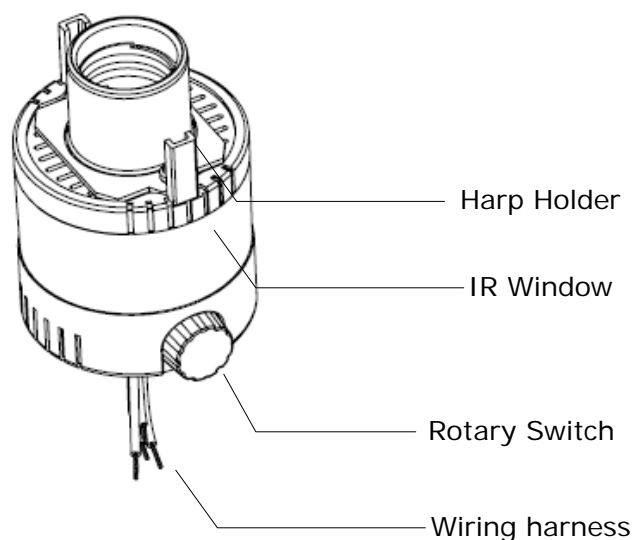


Figure 3. L206 Lamp Dimmer

CAUTION: To reduce the risk of overheating and possible damage to other equipment, do not install the L206 to control a receptacle, a motor-operated appliance, a fluorescent lighting fixture, or a transformer-supplied appliance.

Installing this product requires a trained, experienced service technician.

4.1 Mounting

The module mounts on a $\frac{1}{8}$ " (3 mm) pipe thread and will accommodate a thread length from $\frac{3}{16}$ " to $\frac{1}{2}$ " (4 mm to 12 mm).

If the surface against which the bottom rests in the lamp is smaller than $1\frac{1}{4}$ " (32 mm) in diameter, a washer with a maximum outside diameter of $\frac{5}{8}$ " (16 mm) and a thickness of $\frac{1}{16}$ " (2 mm) is required between the housing and that surface. The reason is that the threaded part of the module is indented below the bottom surface. Failure to use this washer (or a nut with a similar dimension) will cause the module to wobble or to mount at an angle.

The module will accommodate a standard two-point harp of medium duty construction. The opening in the harp holder accommodates a flat harp of up to $\frac{1}{8}$ " (3 mm) in thickness.

- The distance from the bottom of the module base to the base of the lamp is $2\frac{3}{4}$ " (70 mm). This is $1\frac{3}{4}$ " (44 mm) longer than the standard Edison Lamp Socket.
- For best remote control performance, the shade should not extend lower than $1\frac{1}{2}$ " (38 mm) above the base of the module.

5. Line Power Connections



CAUTION

The L206 lamp dimmer is intended for INDOOR USE ONLY.

Separation of Class-1 and Class-2 Circuits must be observed.

Use copper conductors ONLY.

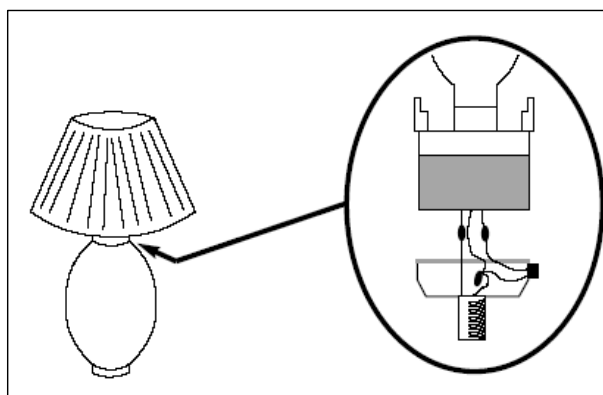


Figure 4. L206 wiring

5.1 Note for wiring the Rotary switch

Unlike conventional lamps, the manual rotary switch should not be wired in series with the incoming power. The L206 lamp dimmer needs to be powered at all times in order to respond to the wireless control signals coming from the IRAS, even if the load is turned off locally.

5.2 Wiring the L206 Lamp Dimmer

The wires connecting the L206 lamp dimmer to the incoming wire harness from the lamp base are labeled as described below. Using wire nuts, make the following connections:

Black wire: Connect to phase and 1 lead of the rotary switch

White wire: Connect to neutral

Yellow wire: Connect to the second lead of the rotary switch

6. Load Ratings

The following table provides the safety and regulatory standards for the load ratings and types.

Table 1 Regulatory Standards

Product	UL	CE-Mark	FCC
L206.115.IR	UL 244A	LVD, EMC	Part 15b
L206.115.RF	UL 244A	LVD, EMC	Part 15b
L206.220.IR	n/a	LVD, EMC	Part 15b
L206.220.RF	n/a	LVD, EMC	Part 15b

Note: The L206 Lamp dimmer UL approval was given under UL OOLR- 1993. The L206 lamp dimmer and lamp base assembly must be assembled by a UL listed manufacturer to remain a UL

listed product. If the L206 and lamp base are not assembled by a UL listed manufacturer, the lamp assembly must be tested by UL to maintain the listing.

Table 2 Listed Load Ratings

Load Types	UL Listed- US Ratings	International Ratings (CE Mark)
Tungsten/ Filament Lamp Load	100-120VAC, 60hz 0.9A	100-120VAC 60hz, 0.9A 220VACVAC 50hz, 0.5A
Dimmable FL (CFL)	100-120VAC, 60hz 0.5A	220VACVAC 50hz, 0.25A

7. Environmental Specification

Table 3 Environmental Specification

Specification	Condition	MIN	NOM	MAX	Units
Operating Temperature	100% load	0	-	40	C°
Storage Temperature	-	-40	-	70	C°
Relative Humidity	Non-Condensing	5	-	95%	%RH

8. Ordering Information

L206 ordering is based on the wireless communications mode and input voltage specification.

Table 4 Ordering Information

Model Number	Part Number	Description
L206.115.IR	01-9961.115.IR.xx	110-120VAC Input Voltage, IR transceiver
L206.115.RF	01-9961.115.RF.xx	110-120VAC Input Voltage, RF transceiver
L206.220.IR	01-9961.220.IR .xx	220VAC Input Voltage, IR transceiver
L206.220.RF	01-9961.220.RF.xx	220VAC Input Voltage, RF transceiver

Note: .xx represents the housing color option. The housing color can be chrome or brass plated when using the IR transceiver. When using the RF transceiver, the L206 lamp dimmer can only be glossy white or glossy black painted.

9. Document Revision History

Table 5 Document History

REVISION	DATE ISSUED	REASON FOR CHANGE
Version .01	12-Mar-2009	First Draft
Version.02	16-Mar-2009	Reformatted and edited for grammar and style.
Version .03	29-Mar-2009	Updated L206 part number with 115, instead of 110

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