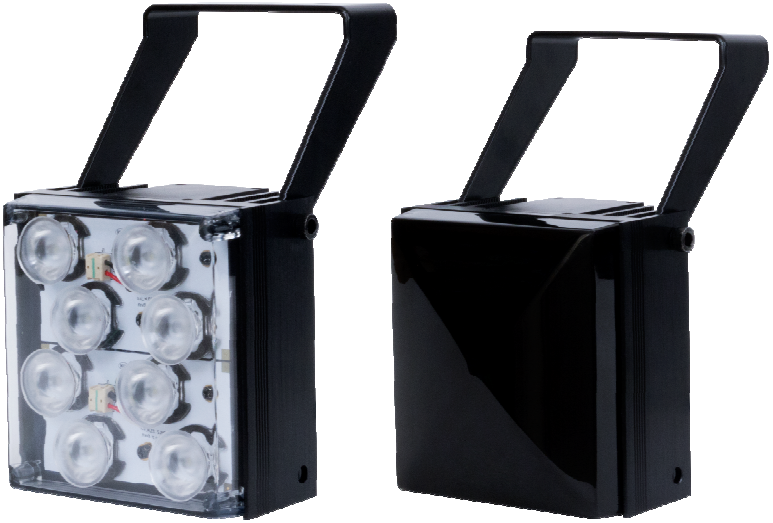
Infrared &
White Light PoE Powered
Illuminators
Series II

Install Manual



iluminar

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Overview

1. Description

A complete range of PoE (Power Over Ethernet) infrared and white light illuminators for video surveillance as well as non-security applications, the Visible and Invisible Series II range of illuminators from Iluminar feature state of the art technology and installation friendly design.

- Energy efficient, PoE powered operation for quick and easy installation
- Latest high efficiency surface mount LEDs with advanced electronic control circuitry deliver improved thermal management, long life and low cost of ownership
- Semi covert, covert and visible white light illuminators
- Built in IR day/night sensor (sensitive to infrared light in daylight)
- Easy integration with day/night cameras with relay contacts; If light is on – relay is closed; if light is off – relay is open
- Remote activation
- Setup via remote control
- Pressure equalisation vent prevents thermal expansion and pressure cycling

2. Specification

Electronics	High efficiency surface mount high power LED's with advanced current limited integral control circuitry
Beam Angles	10, 30, 60, 100 & 120 degree
Lens/Beam pattern	The illuminator should be matched to the scene and the camera lens focal length
Wavelength	850nm, 940nm and Visible White Light

Power Consumption & Requirements

IR148 / WL105 PoE	12W	PoE (complies with 802.3af)
IR312 / WL220 PoE	24W	PoE+ (complies with 802.3at)
IR623 / WL436 PoE	36W	High Power PoE
IR919 / WL643 PoE	48W	High Power PoE

Operating Temp. -58° to 140°F (-50° to 60°C)

Environmental IP67

Construction Robust high quality aluminum extrusion

Front window Polycarbonate high transmittance protective (vandal-proof) IR filter

Dimensions

IR148 / WL105	2.16” x 4.33” x 3.07” (55 x 110 x 80mm)
IR312 / WL220	4.33” x 4.33” x 3.07” (110 x 110 x 80mm)
IR623 / WL436	6.49” x 4.33” x 3.07” (165 x 110 x 80mm)
IR919 / WL643	8.27” x 4.33” x 3.15” (210 x 110 x 80mm)

Weight

IR148 / WL105	1.63lbs (500g)
IR312 / WL220	2.2lbs (1.0Kg)
IR623 / WL436	3.3lbs (1.5Kg)
IR919 / WL643	4.4lbs (2.0Kg)

Power Cable 9ft (3m) IP67 rated RJ45 Cat5e

Interface Cable 3ft (1m) multi-core cable

Mount Black powder coated stainless steel wall mount. Adjustable via M6 Allen key (included)

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3. Achievable Distances

Model Number	Wavelength	Angle	Distance		HOV	
IR148-PoE-2 Series						
IR148-A10-PoE-2	850nm	10°	115'	35m	20'	6m
IR148-A30-PoE-2	850nm	30°	66'	20m	35'	11m
IR148-A60-PoE-2	850nm	60°	49'	15m	56'	17m
IR148-A100-PoE-2	850nm	100°x50°	40'	12m	94'	29m
IR148-A120-PoE-2	850nm	120°	33'	10m	115'	35m
IR312-PoE-2 Series						
IR312-A10-PoE-2	850nm	10°	312'	95m	56'	17m
IR312-A30-PoE-2	850nm	30°	164'	50m	89'	27m
IR312-A60-PoE-2	850nm	60°	115'	35m	131'	40m
IR312-A100-PoE-2	850nm	100° x	80'	24m	188'	57m
IR312-A120-PoE-2	850nm	120°	66'	20m	226'	69m
IR312-C10-PoE-2	940nm	10°	148'	45m	26'	8m
IR312-C30-PoE-2	940nm	30°	79'	24m	43'	13m
IR312-C60-PoE-2	940nm	60°	56'	17m	66'	20m
IR312-C100-PoE-2	940nm	100° x	40'	12m	94'	29m
IR312-C120-PoE-2	940nm	120°	33'	10m	115'	35m
IR623-PoE-2 Series						
IR623-A10-PoE-2	850nm	10°	623'	190m	108'	33m
IR623-A30-PoE-2	850nm	30°	328'	100m	177'	54m
IR623-A60-PoE-2	850nm	60°	246'	75m	285'	87m
IR623-A100-PoE-2	850nm	100°x50°	160'	48m	375'	114m
IR623-A120-PoE-2	850nm	120°	131'	40m	456'	139m
IR623-C10-PoE-2	940nm	10°	295'	90m	53'	16m
IR623-C30-PoE-2	940nm	30°	157'	48m	85'	26m
IR623-C60-PoE-2	940nm	60°	118'	36m	138'	42m
IR623-C100-PoE-2	940nm	100°x50°	75'	23m	180'	55m
IR623-C120-PoE-2	940nm	120°	62'	19m	217'	66m
IR919-PoE-2 Series						
IR919-A10-PoE-2	850nm	10°	919'	280m	161'	49m
IR919-A30-PoE-2	850nm	30°	623'	190m	335'	102m
IR919-A60-PoE-2	850nm	60°	410'	125m	472'	144m
IR919-A100-PoE-2	850nm	100°x50°	236'	72m	563'	172m
IR919-A120-PoE-2	850nm	120°	197'	60m	682'	208m
IR919-C10-PoE-2	940nm	10°	443'	135m	79'	24m
IR919-C30-PoE-2	940nm	30°	295'	90m	157'	48m
IR919-C60-PoE-2	940nm	60°	197'	60m	226'	69m
IR919-C100-PoE-2	940nm	100°x50°	114'	35m	273'	83m
IR919-C120-PoE-2	940nm	120°	95'	29m	331'	101m

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Model Number	Wavelength	Angle	Distance		HOV	
WL105-PoE-2 Series						
WL105-10-PoE-2	Visible	10°	105'	32m	18'	6m
WL105-30-PoE-2	Visible	30°	59'	18m	32'	10m
WL105-60-PoE-2	Visible	60°	43'	13m	49'	15m
WL105-100-PoE-2	Visible	100°	36'	11m	86'	26m
WL105-120-PoE-2	Visible	120°	30'	9m	102'	31m
WL220-PoE-2 Series						
WL220-10-PoE-2	Visible	10°	220'	67m	38'	12m
WL220-30-PoE-2	Visible	30°	115'	35m	62'	19m
WL220-60-PoE-2	Visible	60°	82'	25m	95'	29m
WL220-120-PoE-2	Visible	120°	55'	17m	133'	41m
WL436-PoE-2 Series						
WL436-10-PoE-2	Visible	10°	436'	133m	76'	23m
WL436-30-PoE-2	Visible	30°	230'	70m	123'	38m
WL436-60-PoE-2	Visible	60°	174'	53m	201'	61m
WL436-100-PoE-2	Visible	100°	110'	33m	258'	79m
WL436-120-PoE-2	Visible	120°	92'	28m	318'	97m
WL643-PoE-2 Series						
WL643-10-PoE-2	Visible	10°	643'	196m	112'	34m
WL643-30-PoE-2	Visible	30°	436'	133m	234'	71m
WL643-60-PoE-2	Visible	60°	289'	88m	333'	102m
WL643-100-PoE-2	Visible	100°	166'	50m	391'	119m
WL643-120-PoE-2	Visible	120°	138'	42m	477'	145m

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4. Installation

Note: The illuminator is PoE powered. Do not apply 12/24Vdc, 24VAC, 120VAC or 220VAC as this will damage the unit and void the warranty.

Optimum results are achieved by setting up at night and viewing the results on a monitor.

1. Attach the illuminator mount to pan/tilt unit, wall or camera housing via mounting bracket (see Diag. A)

2. Connect the lamp to a suitable PoE supply (switch or midspan)

3. Commission the camera and monitoring equipment

4. Adjust the pan angle of the illuminator to match the camera field of view

5. Adjust the vertical alignment by loosening the side bolts (one on each side of the main body) to maximise the results

6. Tilt the lamp downwards until the rear part of the required field of view is saturated with light, as viewed on the monitor

7. SLOWLY and GRADUALLY tilt the lamp upwards until the far part of the required field of view is illuminated correctly on the monitor.

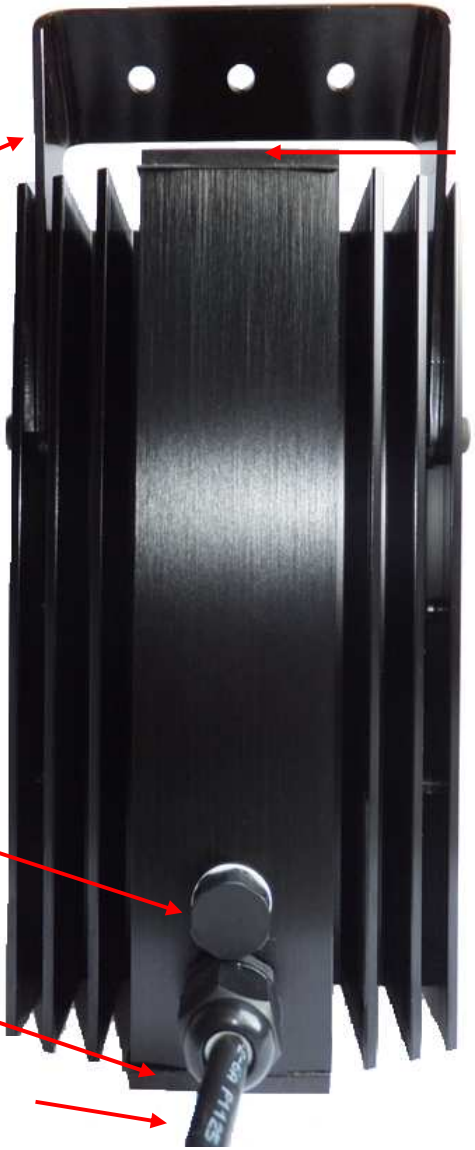
8. The illuminator has a built-in photocell at the base of the unit. Adjust the photocell sensitivity and power via remote control unit (see Diag. C)

Safety

WARNING: When the lamp is running it is hot to touch. Before touching switch off the illuminator and allow to cool for a minimum of 10 minutes.

Do not stare directly into the lamp at a distance of less than 6' (1.8m)

Diag. A – Back of Illuminator



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Interface Cable

Diag. B Power & Interface Cable Connections

Telemetry - Remote switching

The illuminator may be activated remotely by a volt-free contact latched across the telemetry wires.

Relay – Normally open OFF and normally closed ON

Volt free relay contact - normally open (day) to normally closed (night).

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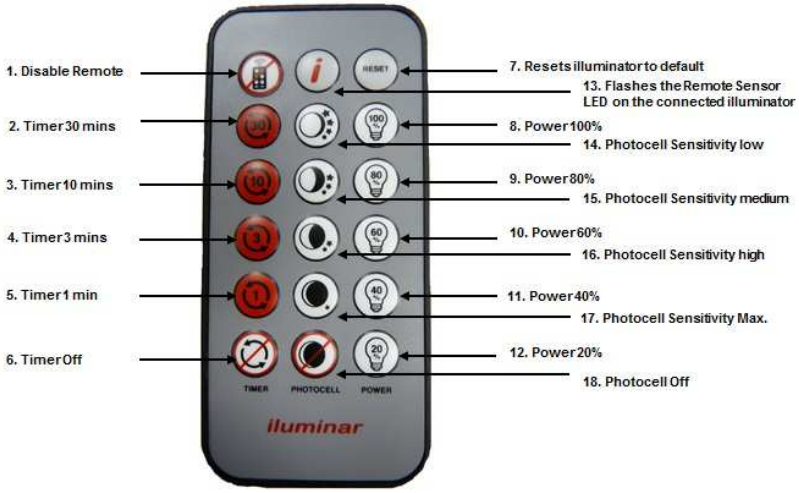
5. Setup via Remote Control Unit



Diag. C Remote Control Unit

Note:
Remote sold separately from illuminator (Model No. IL-RC)

To operate the remote:-

1. Power up the illuminator you wish to setup (ensure all other illuminators are powered down, otherwise you will set up more than one simultaneously)
2. Point towards base of illuminator where the sensor is located
3. Set up, following Legend on above
4. To lock in settings, hold DISABLE REMOTE button for 4 seconds

The remote control will function at 6-10m and needs to be pointed at the base window. The Signal LED will illuminate when it receives data from the remote control unit. Any remote will control any illuminator.

The Remote will disable itself 30 minutes after connectivity to the illuminator. To enable the remote recycle power to the illuminator.

The timer function works in conjunction with the telemetry input for controlling the illuminator remotely. It operates independently from the IR day/night sensor. It can be used to turn the illuminator ON for a predetermined period of time (1 to 30 minutes). It is recommended to be used with the IR day/night sensor DISABLED.

Legend

1. Disable Remote & lock in settings (hold for 4 seconds)
2. Turns illuminator on for 30 minutes
3. Turns illuminator on for 10 minutes
4. Turns illuminator on for 3 minutes
5. Turns illuminator on for 1 minute
6. Turns timer off (DEFAULT)
7. Resets to factory default (hold for 4 seconds)
8. 100% illumination power (DEFAULT)
9. 80% illumination power
10. 60% illumination power
11. 40% illumination power
12. 20% illumination power
13. Flashes the Remote Sensor LED on the connected illuminator to show which illuminator is connected for setup purposes
14. Sensitivity LOW (illuminator turns on when it is most dark)
15. Sensitivity MEDIUM
16. Sensitivity HIGH (DEFAULT approx. 30 lux ON and 70 lux OFF
17. Sensitivity MAX. (illuminator stays ON the longest)
18. IR day/night sensor DISABLED (illuminator can only be turned on/off via telemetry input)

5. Trouble shooting

Ensure all tests are undertaken by a qualified, trained engineer.
Ensure safe working practices are followed at all times.

Step 1: Basics
- Check power connection
- Ensure PoE power type is correct
- Check the photocell is working - cover photocell (located at top of unit), light should turn On (faint RED glow on IR illuminators and bright WHITE light on White Light illuminators).

Step 2: Set-up Camera, Lens and Illumination
- Check alignment of lamp
- Check CAMERA is true DAY/NIGHT camera (with mechanical IR cut filter)
- Check camera lens – fully open at night & set correctly
- Check model number to performance specification to ensure required distance is achievable

Step 3: Call for further assistance
If the lamp is still not delivering the required performance, please contact Technical Support for further assistance

Note down:
- Model and serial number of illuminator
- Camera make and model
- Lens make and model

CE

6. Certification

This product complies with the European Directive 89/336/EEC Electromagnetic Compatibility and 73/23/EEC Low Voltage Directive by meeting the following standards:

Safety:	EN60598-1:2008 Electrical Safety EN60825-1:2007 LED/Laser Eye Safety
EMC:	EN 61000-6-1:2007 EN 61000-6-3:2007 EN 61000-3-2:2006 EN 61000-3-3:1995 AMD1 & AMD2
FCC:	FCC CFR Part 15.107 and 15.109
IP:	IP67 in accordance with EN 60529:1992 AMD1 7643, 1993 AMD2 10931, 2000
WEEE:	Waste Electrical & Electronic Equipment European directive 202/96/EC
RoHS:	Restriction of Hazardous Substances European directive 202/95/EC

This symbol on the product means that the electrical and/or electronic equipment to which it relates should be disposed of at the end of life separately from domestic household waste.

There are separate collection systems for recycling in the EU.
For more information please contact the Local Authority or supplier of the product.