NESS LUX RADIO PIR WITH NIGHTLIGHT

lux



- 15m x 15m wide angle coverage
- Look down 'Creep Zone'
- White LED motion activated night-light
- Adjustable Pulse Count
- Adjustable Range
- High R.F. and E.S.D. immunity
- High white light immunity
- SAWR stabilised radio transmitter
- Capsule design with sealed electronics
- Front cover tamper protection
- Long life Lithium batteries supplied
- Low battery warning signal
- Hourly Supervision radio signals
- Includes wall mounting bracket
- Optional ceiling bracket available

NESS CORPORATION

INSTALLATION NOTES

INTRODUCTION

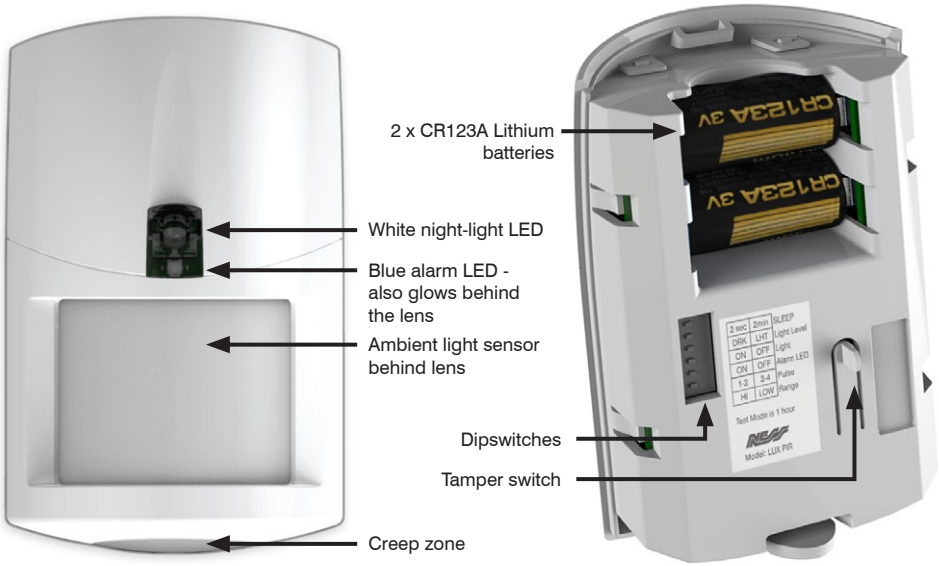
Ness LUX Radio PIR is a unique wireless motion detector with a white LED night-light.

LUX shares all the features and benefits of the Ness Radio PIR range including 15m x 15m detection coverage, look-down creep zone, high RF immunity, white light immunity, adjustable range, adjustable pulse count and extremely long battery life.

The 3V Lithium batteries supplied are expected to give up to 10 years service under normal conditions.

For safety and convenience, LUX's night-light function provides a motion-activated cone of light to help you find your way at night. The night-light operates for 25 seconds when activated and will remain lit as long as it detects motion, while the built-in ambient light sensor helps save power by enabling the night-light only in the dark.

Ness LUX's "capsule" design protects sensitive electronic components and provides easy access to the dipswitches and batteries.



LUX front

LUX rear

SEPARATING THE BACK HOUSING

Remove the LUX capsule from the back housing to access the batteries and switches.

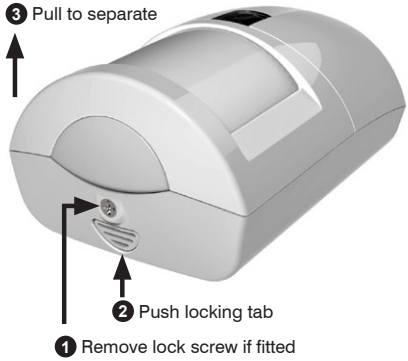


FIG 1.

STANDARD SWIVEL BRACKET

The Standard Swivel Bracket supplied can be used to wall mount the LUX and provides tilt and swivel adjustment.



FIG 2. Installation of the Standard Swivel Bracket.

PRODUCT CONTENTS

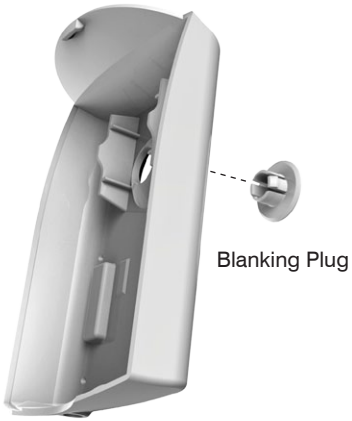
1 x LUX Radio PIR & back housing
1 x Standard Swivel Bracket & screws
1 x Blanking Plug
2 x CR123A Lithium batteries
1 x PIR locking screw



DIRECT WALL MOUNTING

If mounting direct to the wall without a bracket, first fit the blanking plug supplied to seal the bracket mounting hole in the back housing.

Drilling points for flat wall or corner mounting are provided on the inside of the housing.



MOUNTING LOCATION

The Ness LUX Radio PIR is designed for indoor use only and can be installed in wall or corner mount locations.

The Standard Swivel Bracket supplied allows wall mount installation with vertical tilt and horizontal swivel for adjusting coverage to suit the chosen mounting height.

The optional Deluxe Swivel Bracket allows LUX to be ceiling mounting with a wide range of tilt and swivel adjustment.

LUX can also be installed direct to the wall without a bracket. In this case, the mounting height should be carefully chosen to provide the correct detection coverage for the room size.

Always ensure the detector has a clear line of sight of the area to be protected as infra-red energy does not pass through solid objects, (including glass).

Mount the detector in a location where an intruder is most likely to walk across the coverage pattern. Corner mounting usually gives the best detection coverage.

As with all PIR detectors, it is advisable to choose mounting positions which avoid direct sunlight, heating or cooling sources and avoid areas of high humidity which may cause condensation on the lens.

Always install the detector away from metal surfaces which may shield radio transmissions. Before permanently mounting the detector, it is recommended that you conduct a radio test with the detector temporarily mounted in the intended position.

Use the signal strength meter on the alarm panel as a guide to the best mounting position. Often, a small change in position can have a dramatic effect on radio performance due to environmental effects on radio signals.

MOUNTING HEIGHT

The Ness LUX Radio PIR is designed for indoor use and can be wall or corner mounted at heights between 2.1m and 2.4m using the Standard Swivel Bracket supplied.

Mounting height can higher or lower at the installer's discretion when using the optional Deluxe Swivel Bracket.

If LUX is direct mounted without a bracket, the installer's choice of mounting height and position will entirely determine the coverage.

INSTALLATION

1 Remove the lock screw at the bottom of the LUX assembly (if fitted) then push the lock tab and lift the capsule out of the back housing. See Fig 1.

2 If using the Standard Swivel Bracket supplied, screw the bracket's base to the wall in your chosen location then fit the back housing over the bracket and secure it with the locking disc and small screw provided. Do not fully tighten the locking screw until you adjust the back housing's angle as required. See FIG 2. The Standard Swivel Bracket is designed for wall mounting only.

   Installation is similar using the optional Deluxe Swivel Bracket - with the added benefit of wall or ceiling mounting. See Fig 3.

   If mounting direct to the wall without a bracket, first fit the blanking plug supplied to seal the bracket mounting hole in the back housing.

3 Prepare your Ness control panel or receiver to receive a Learn signal from the LUX Radio PIR. (Refer to the control panel or receiver's manuals for instructions on programming/learning radio devices.)

4 Insert both batteries, observing correct polarity. On power-up, LUX sends a Learn signal to the control panel/receiver.

5 LUX will be in Walk-Test Mode for one hour after power-up (ignoring the setting of the Sleep switch) allowing you to walk-test detector coverage and radio transmission.

6 Clip the LUX capsule into the back housing - inserting the top clip first.

7 Wait approximately 30 seconds for the detector to adjust to the environment.

8 Walk test the coverage by walking slowly across the protected area. The blue alarm LED indicates alarm detection and radio transmission. During Walk-Test Mode the white night-light LED will also turn on, unless disabled by the LIGHT dipswitch.

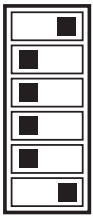
   Adjust the coverage as required by tilting the detector horizontally or vertically on the swivel bracket. If LUX is direct mounted without a bracket, the installer's choice of mounting height and position will entirely determine the coverage.

9 When you have finished walk testing, secure the detector to the back housing using the locking screw provided (small countersunk screw).

SETTINGS

Ness LUX custom settings are set by turning dipswitches 1-6 on or off. The dipswitches are easily accessible by removing LUX from the back housing.

Use a small screwdriver or pen tip to set the switches.



2sec	2min	SLEEP
DRK	LHT	LIGHT LEVEL
ON	OFF	LIGHT
ON	OFF	ALARM LED
1-2	3-4	PULSE
HI	LOW	RANGE

SLEEP

Sets the detector's re-trigger interval.

2sec The detector will "sleep" for 2 seconds after being triggered.

This mode should only be used for walk-testing coverage as it will reduce the battery life if left on permanently.

2min Normal operating mode. The detector will "sleep" for 2 minutes after being triggered. (Default)

This battery-saving mode limits unwanted radio transmissions by waiting until there has been no detectable movement in the area for at least 2 minutes before it will trigger and transmit a new alarm.

The Sleep time applies only to alarm transmissions. The night-light will turn on every time the detector detects movement (if enabled by the LIGHT switch and if the ambient lighting is suitably low).

LIGHT LEVEL

This switch sets the light level at which LUX's ambient light sensor will enable the night-light.

DRK The night-light will operate only when the ambient lighting is very low or near total darkness. (Default)

LHT The night-light will operate when the ambient lighting is semi-dark.

LIGHT

Enable/Disable the night-light.

ON The night-light will function and draw power from battery A. (Default)

OFF The night-light is disabled.

Note: If battery A is not installed or is flat the night-light will not work regardless of the switch setting.

ALARM LED

Enable/Disable the blue Alarm LED.

Note. The blue LED will always operate in Test Mode regardless of this switch setting.

ON The Alarm LED is enabled. (Default)

OFF The Alarm LED is disabled.

PULSE

Sets the detector's pulse count.

1–2 1–2 Pulses or walk steps should cause an alarm. (Default)

3–4 3–4 Pulses or walk steps should cause an alarm.

RANGE

Sets the maximum detection range.

HI 15m x 15m max. coverage.

LOW 12m x 12m max. coverage. (Default)

BATTERIES

Ness LUX is supplied with 2 x CR123A Lithium batteries which have an expected service life of up to 10 years of normal use in domestic installations (SLEEP switch setting, 2Min).

LUX's dual battery system allows the motion detector and radio transmitter to operate independently of the night-light.

The motion detector and radio transmitter will draw power from either battery, but battery A must be installed to power the night-light.

Battery A (top) provides power for the Night-Light, Motion Detector and Radio Transmitter.

Battery B (bottom) provides power for the Motion Detector, Radio Transmitter and blue alarm LED.



Both batteries must be installed to maximise service life.

Spare batteries are available from Ness Corporation or resellers.

Always replace both batteries at the same time.

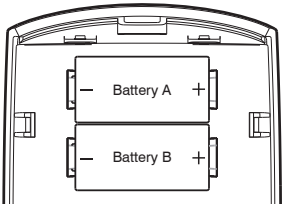
Use only CR123A 3V Lithium. Part No. 142-028. Batteries are sold individually.



BATTERY POLARITY

Note that LUX is supplied with both batteries fitted in reverse for safe transportation.

Note the correct polarity when inserting the batteries. Installing the batteries in reverse will not harm the unit but it will not operate correctly.



Correct polarity

WALK-TESTING

LUX will be in Test Mode for one hour after power-up. During this time it will ignore the setting of the SLEEP switch allowing you to walk-test detector coverage and radio transmission.

In this mode, the white night-light LED will operate even under bright ambient lighting - serving as a highly visible walk-test LED (unless disabled by the LIGHT dipswitch).

Note 1. The blue Alarm LED will always operate in the first hour after power-up regardless of the setting of the ALARM LED switch.

Note 2. LUX can also be walk-tested by switching the SLEEP switch to the 2sec position.

PROGRAMMING TO A CONTROL PANEL

Ness LUX sends a Learn signal to the receiver/ control panel when either battery is inserted.

Refer to your Ness control panel or receiver's manuals for instructions on "learning" LUX.

LOW BATTERY SIGNAL

The blue alarm LED will flash every 3 seconds to indicate a low battery condition. This continues for 4 minutes each time the detector is triggered. The detector also transmits a low battery signal to the control panel.

Low battery condition is triggered when the battery voltage sinks to approximately 2.6 volts under load.

Both batteries should be replaced immediately.

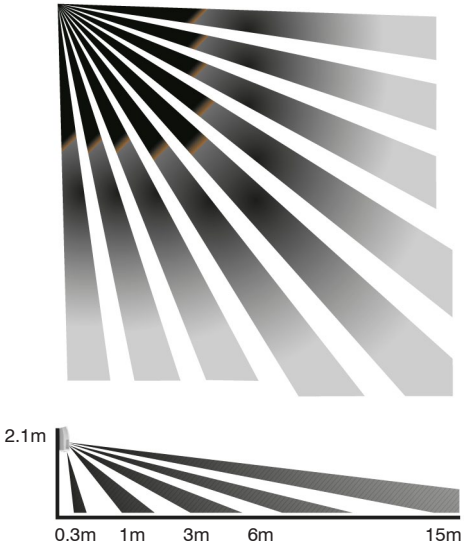
TAMPER SIGNAL

The onboard tamper switch transmits a Tamper signal when the detector is removed from the back housing.

Your Ness control panel may beep and alert you to a tamper alarm condition. Replace the detector in the back housing to restore the tamper switch. If necessary refer to your control panel's manual for instructions on resetting the tamper alarm.

DETECTION COVERAGE

At the recommended mounting height of 2.1m to 2.4m, LUX detector coverage is up to 15m (HI range setting) or 12m (LOW range setting).



OPTIONAL ACCESSORIES

The **DELUXE SWIVEL BRACKET** provides wall or ceiling mounting with a wide range of vertical and horizontal adjustment.

Part No. 106-169



FIG 3. Installation of the optional Deluxe Swivel Bracket.

SPECIFICATIONS

Dimensions	112(h) x 72(w) x 48(d) mm
Mounting height	2.1m – 2.4m
Coverage	Up to 15m x 15m @ 90°
Detector zones	20 dual element zones
Pulse count	Selectable 1–2 or 3–4
Range	Selectable High/Low. 15m max./12m max.
Sensor	Dual element pyroelectric
Alarm indication	Blue alarm LED
Night-Light	White LED with adjustable threshold, Dark/Dim Light
Alarm period	5 seconds
Warm up period	30 seconds
Operating voltage	3V DC
Battery	2 x CR123A Lithium
Quiescent current	< 14μA
Radio frequency	304MHz / 868MHz depending on region
Transmit power	100μW
Compatibility	Ness radio-enabled control panels, Ness MCR receiver, Ness SCR receiver

Ness Corporation manufacturing processes are accredited to ISO9001 quality standards and all possible care and diligence has been applied during manufacture to ensure the reliable operation of this product. However there are various external factors that may impede or restrict the operation of this product in accordance with the product's specification.

These factors include, but are not limited to:

1. Erratic or reduced radio range. Ness radio products are sophisticated low power devices, however the presence of in-band radio signals, high power transmissions or interference caused by electrical appliances such as wireless routers, cordless phones, computers, TVs and other electronic devices may reduce the range performance. While such occurrences are unusual, they are possible. In this case it may be necessary to either increase the physical separation between the Ness receiver and other devices or if possible change the radio frequency or channel of the other devices.

2. Unauthorised tampering, physical damage, electrical interruptions such as mains failure, electrical spikes or lightning.

CORPORATION

www.nesscorporation.com

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For products:
106-168 Ness LUX Radio PIR 304MHz
106-171 Ness LUX Radio PIR 868MHz

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Specifications may change without notice.

MADE IN AUSTRALIA

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