PIR Twinspot 200
E-639

INSTALLER GUIDE

Version 5 : 11/11
IQ-OEMCTS2-200-150

SECTION ONE
GENERAL INFORMATION

This unit utilises passive infrared technology to detect heat radiation of moving human bodies. Upon detection, the lamp will illuminate for a user-determined time period.
An integral daylight sensor ensures night-only operation.

PARTS INCLUDED

- Luminaire / PIR Sensor unit.
- Instruction manual. Please keep safe for future reference.
- Accessory Pack.
- 2 x 42W G9 Tungsten halogen bulbs

TOOLS & PARTS NEEDED

- 3 core flexible cable
- Electric/hand-held drill & bits.
- Terminal or Electricians screwdriver
- Large slotted/philips screwdriver
- Wire cutters

This product is not suitable for direct mounting on normally flammable surface (Suitable only for mounting on non-combustible surface).

Unit is for outdoor use only. Unit is not suitable for portable use.
The unit can get very hot during use. Ensure the unit has cooled before handling.
Ensure adequate ventilation space is allowed between the unit and any object above, in front or to either side of the unit. Suggested space is 0.5m above, 0.3m to either side & 1.0m in front.
Do not attempt to install during wet weather, if you are suffering from nausea or dizzy spells or on medication with similar side effects.
If in any doubt, consult a qualified tradesperson or electrician.

SECTION TWO
SELECTING THE LOCATION

The motion detector has a number of detection zones, at various vertical and horizontal angles as shown (see diagram A).
A moving human body needs to cross/enter one of these zones to activate the sensor. The best all-round coverage is achieved with the unit mounted at the optimum height of 2.5m.

Careful positioning of the sensor will be required to ensure optimum performance. See diagram A detailing detection range and direction.

The sensor is more sensitive to movement ACROSS its field of vision than to movement directly TOWARDS (see diagram B). Therefore position the unit so that the sensor looks ACROSS the likely approach path.
Avoid positioning the sensor where there are any sources of heat in the detection area (extractor fans, tumble dryer exhausts etc.) including any other light sources such as other security lighting. Reflective surfaces (ie pools of water or white-painted walls) and overhanging branches may cause false activation under extreme conditions.

During extreme weather conditions the motion sensor may exhibit unusual behaviour. This does not indicate a fault with the sensor. Once normal weather conditions return, the sensor will resume normal operation.

SECTION THREE
INSTALLATION

After choosing a suitable location (see previous section) install the unit as follows:

The unit is suitable for connection to a 240V 50Hz electricity supply. It is suggested that 3-core round flexible cable of 1mm² gauge is used. An internal switch should be installed to switch the power to the unit ON & OFF. This allows the sensor to be easily switched off when not required or for maintenance purposes.

Unscrew the covers of each lamp. Install each halogen bulb, making sure not to touch the bulb with bare hands. It is suggested that the bulb is handled using a dry cloth.
Ensure the bulb is correctly fitted in the lampholder before use.
Re-attach the lamp front covers..

This unit uses an integral wall fixing plate, detach the wall fixing plate by unscrewing bot do not remove the fixing screw on underside of the wall plate (diagram F).

The floodlight is located onto the wall plate by two lugs which are inserted into the rectangular slots in the top of the wallplate. To remove, loosen but do not remove the fixing screw, and lift the body of the floodlight upwards to release from the wall plate. (diagram F).

Mark the position of the fixing holes. Ensure wall plate is correctly positioned. Note the orientation of the wall plate (diagram E).

Drill the holes. Insert wallplugs into the holes.

PIERCE & PASS THE CABLE THROUGH THE GROMMET BEFORE SECURING WALL PLATE TO WALL.

It is recommended that the grommet is pierced with a screwdriver to ensure a better seal.
Fix the wall plate to the wall (diagram G)
This unit is supplied with a hanging attachment (tether) to aid installation.
If it is not required, simply remove from the unit and discard.
Ensure the tether is securely fixed into the slot before releasing the weight of the unit.
The unit can now be suspended below the wall bracket. (Fig H)

***** IMPORTANT *****

As of 1 January 2005, changes to the Building Regulations affect domestic electrical installations in England and Wales. You don't need to be a qualified electrician to make changes to your home's electrical system, but the work must be done in accordance with the Regulations.

Where you employ an electrician who is a member of a competent person self-certification scheme, they will be able to certify the work complies with the Regulations.
If you decide to carry out the work yourself we recommend that you make yourself aware of the Regulations before you begin and if you require any clarification you should contact your Local Authority Building Control Department.

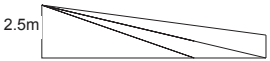
Details of the Building Regulations can be obtained on the internet via the government website www.odpm.gov.uk/explanatory-booklet

***** IMPORTANT *****

Switch off the electricity at the fuse box by removing the relevant fuse or switching off the circuit breaker before proceeding with the installation.

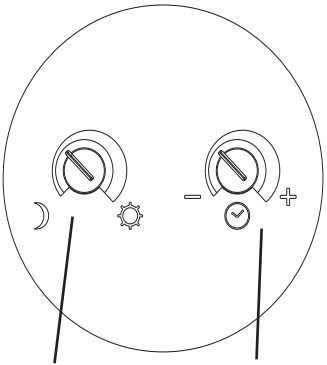
A

TOP VIEW



SIDE VIEW 12m

C



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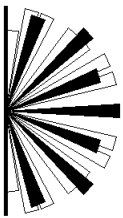
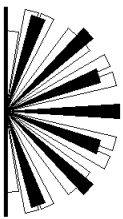
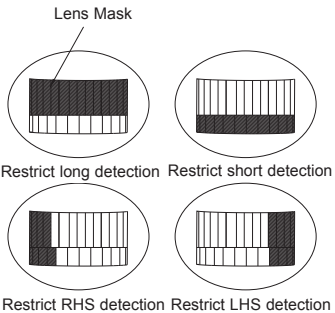


Less sensitive



More sensitive

D



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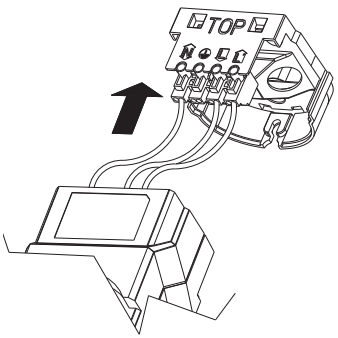

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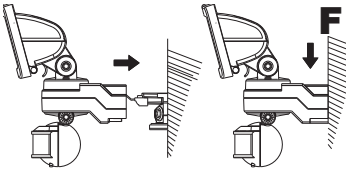

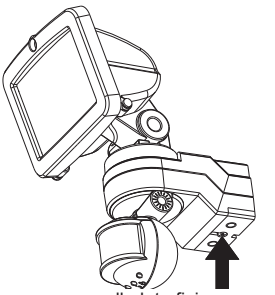

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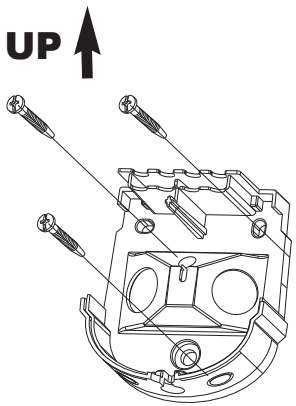

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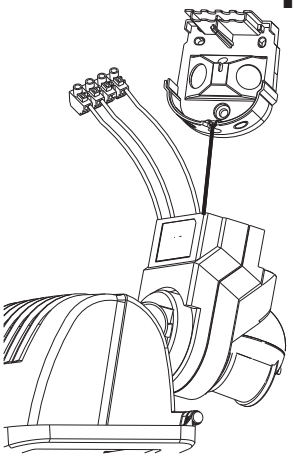


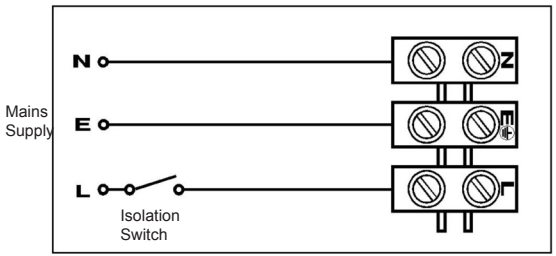
CONNECTION
Connect the cable to the terminal block on the unit as follows (see connection diagram):

NEUTRAL (Blue)	N
EARTH (Green/Yellow)	⏚
LIVE (Brown)	L

Ensure that the connections are secure.

Fit the terminal block to the posts on the wall plate
Re-fit the floodlight to the wall plate by locating the lugs onto into the recess on the top of the wall bracket, lift the floodlight so it fits over the wall plate (reverse diagram F)
Fully tighten the fixing screw (fig E).

CONNECTION DIAGRAM



SECTION FOUR
OPERATION AND TESTING

WALK TESTING PROCEDURE
The sensor will rotate from left to right, and tilt forward or backward. Adjust the sensor to point in the desired direction.

Set the three adjustment controls on the underside of the unit (diagram C) to the following positions:
TIME - Fully anti-clockwise
DUSK - Fully clockwise

The unit will now operate during daytime as well as at night, illuminating the lamp for approx. 5 seconds each time. This allows testing to be carried out to establish the best position for the sensor.
Switch on the mains power. The lamp will immediately illuminate as the unit goes through its "warm-up" period. After approximately 1 - 2 minutes the lamp will extinguish. Try to remain outside the detection area during the warm-up period.

Walk across the detection area approx 5 metres from the unit. As you cross a detection "zone" the lamp will illuminate. Now stand still until the lamp extinguishes (this should take approx. 5 seconds).

Start moving again. As you cross each "zone" the lamp will illuminate.

Repeat the above, walking at various distances and angles to the unit. This will help you to establish the detection pattern.

If the detection area is too small for your requirements, try angling the sensor head up. This will increase the coverage distance. Angling the head downwards will reduce the range should a smaller coverage area be required.

SETTING UP FOR AUTOMATIC OPERATION.
When walk tests are complete, the unit can be switched to automatic operation :

The TIME setting controls how long the unit remains illuminated following activation & after all motion ceases. The minimum time (fully anti-clockwise) is approx. 5 seconds, whilst the maximum time (fully clockwise) is approx. 12 minutes. Set the control to the desired setting between these limits.

The DUSK control determines the level of darkness required for the unit to start operating. The setting is best achieved by the procedure below:

Set the DUSK control knob fully anti-clockwise. The unit will now start operating at dusk. If you require the light to activate earlier, wait until the ambient light level reaches the level of darkness at which you wish the lamp to become operative, SLOWLY rotate the control in a clockwise direction until a point is reached where the lamp illuminates. Leave the control set at this point.
At this position, the unit should become operative at approximately the same level of darkness each evening. Observe the operation of the unit. If the unit is starting to operate too early (ie. when it is quite light), adjust the control slightly anti-clockwise. If the unit starts to operate too late (ie. dusk), adjust the control slightly clockwise.
Continue to adjust until the unit operates as desired.

MANUAL OVERRIDE MODE
At night, to switch the unit into manual override mode, turn the power Off/On Off/On within 1 second,using the internal wall switch/circuit breaker. The unit should now enter manual override mode until dawn when it will reset to its normal operation. The lamp will illuminate at full power until dawn.

To reset back to Auto mode, turn off the power again and wait 20 seconds. Switch back on. The unit will go through its warm-up cycle before resuming normal PIR operation.

MASKING THE SENSOR LENS
To reduce the sensor coverage, preventing detection in unwanted areas, mask the sensor lens using electrician's tape or similar (see diagram D). For your information, the top section of the lens covers long range detection, the bottom covers short range. Similarly, the left and right lens sections cover the left and right detection areas respectively.

SECTION FIVE
TECHNICAL SPECIFICATIONS

Detection Range	**Up to 12 metres**
Detection Angle	**200º**
Power Supply	**220 - 240V ~ 50Hz**
Maximum Switchable Load	**2 x 75W**
Lamp Type	**240V Max. 75W G9 Tungsten Halogen Lamp x 2**
Time On Adjustment	**5 seconds - 5minutes**
Dusk Level Adjustment	**Day & night or night only operation**
Environmental Protection	**IP44 (suitable for outdoor use)**

Halogen Lamp Replacement
CAUTION
Always handle quartz halogen bulbs with a soft cloth. Do not touch the bulb with your bare hand, as it will shorten the life of the bulb.
1. Switch off the floodlight. Do not touch the twinspot while it is in use or still hot. Allow it to cool (about 5 minutes) before touching it.
2. Replacement bulb type is 240V mains halogen Max. 75W G9 capsule.
3. Isolate the mains supply and then unscrew cover.
4. Place the cover on a flat, secure surface for safety.
5. To remove existing bulb, carefully pull the bulb towards you.
6. Install new bulb by inserting the pins into the lampholder and depressing gently until the bulb is secure.

Warning!
In the event of the cover glass shattering, do not replace with normal household glass.
Do not operate without the glass shield in place. If the glass shield is cracked or damaged, it must be replaced. If the glass is replaced, use only tempered glass of equal thickness

SECTION SIX
TROUBLESHOOTING GUIDE

PROBLEM	SOLUTION
❑ Lamp stays ON all the time at night.	The unit may be suffering from false activation. Cover the sensor lens completely with a thick cloth. This will prevent the sensor from "seeing" anything. If the unit now switches off after the set time duration and does not re-activate, this indicates that the problem was caused by false activation. The problem may be solved by slightly adjusting the direction/angle of the sensor head (see previous section). You may not be allowing the unit time to complete it's warm-up period. Stand well out of the detection range and wait (the warm-up period should never exceed 5 minutes). Occasionally, winds may activate the sensor. Sometimes passages between buildings etc. can cause a "wind tunnel" effect. Ensure the unit is not positioned so as to allow detection of cars/people using public thoroughfares adjacent to your property.
❑ PIR keeps activating for no reason / at random.	
❑ PIR sensor will not operate at all.	Check that the power is switched ON at the circuit breaker/internal wall switch. Turn OFF the power to the unit and check the wiring connections as per the diagram (see previous section 3). Ensure no connections are loose. Check the lamp. If the lamp has failed, replace. Ensure that the lamp is seated correctly in the lampholder.
❑ The PIR sensor will not operate at night.	The level of ambient light in the area may be too bright to allow operation at the current DUSK setting. During the hours of darkness, adjust the DUSK control slowly clockwise until the lamp illuminates. Refer to previous section for more details.
❑ Unit activates during the daytime	The level of ambient light in the area may be too dark for the current DUSK setting. During daylight, adjust the DUSK control slightly anti-clockwise. When the lamp extinguishes, enter the detection area. If the PIR still activates, the setting is still too high. Repeat the above procedure until the PIR does not activate when you enter the detection area. Refer to previous section for more details.
❑ PIR coverage is poor/sporadic ❑ Detection range varies from day to day	Unit may be poorly located. See previous section - 'Selecting The Location' and re-locate the unit. PIR sensors are influenced by climatic conditions. The colder the ambient temperature, the more effective the sensor will be. You may need to make seasonal adjustments to the sensor head position to ensure trouble-free operation all year round.
❑ Lamp flashes on/off on/off in a regular pattern	The PIR is sensing illumination from its own lamp, turning it off as if it were daylight every time the lamp illuminates. Turn the LUX setting clockwise until the flashing stops

WASTE ELECTRICAL PRODUCTS SHOULD NOT BE DISPOSED OF WITH HOUSEHOLD WASTE. PLEASE RECYCLE WHERE FACILITIES EXIST. CHECK WITH YOUR LOCAL AUTHORITY FOR RECYCLING ADVICE.