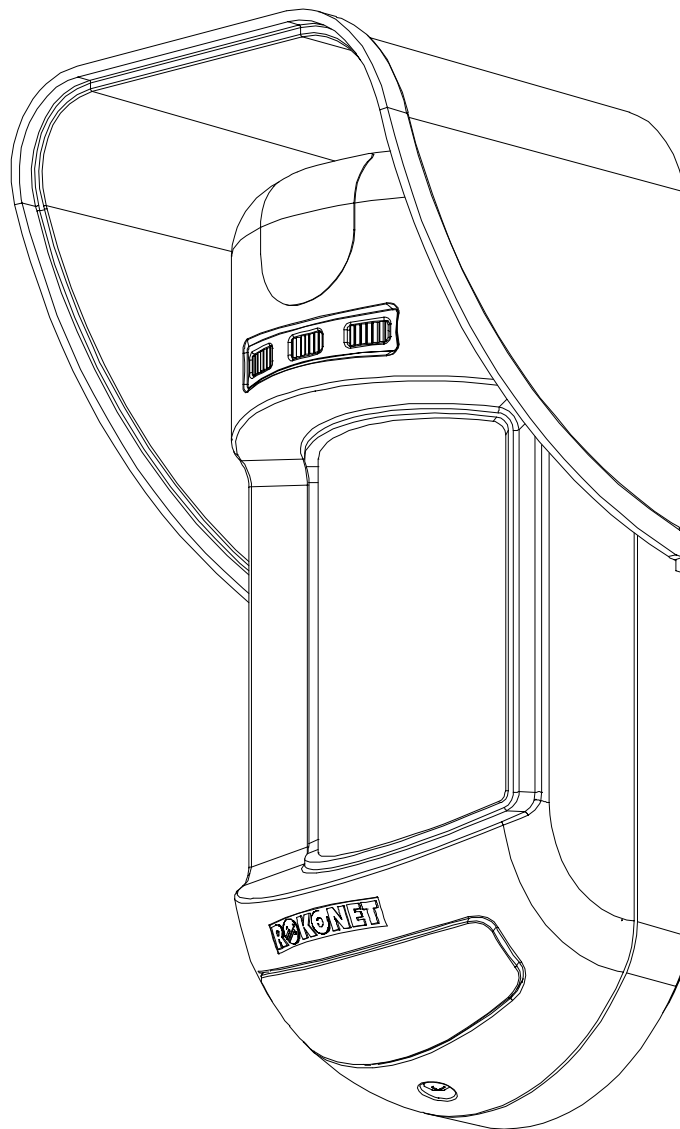


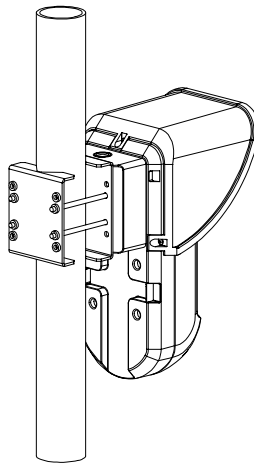
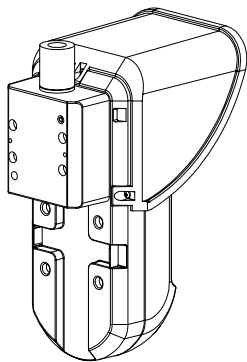
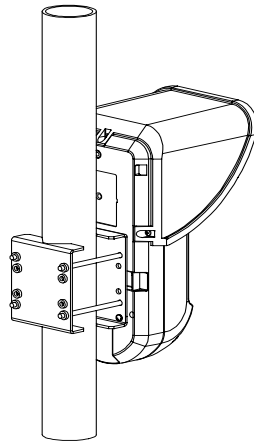
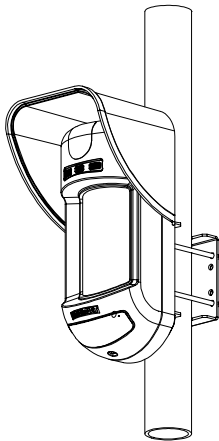
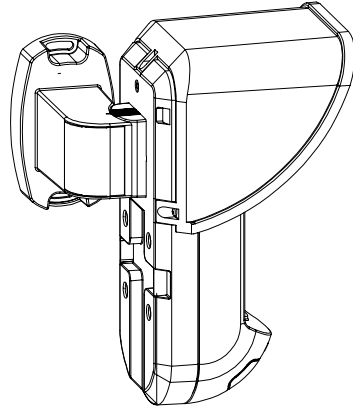
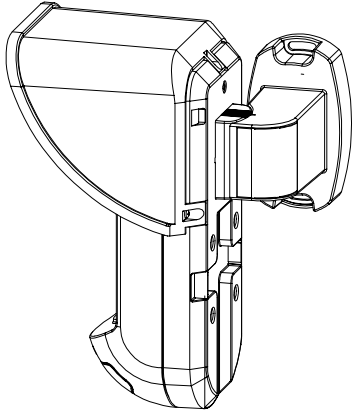
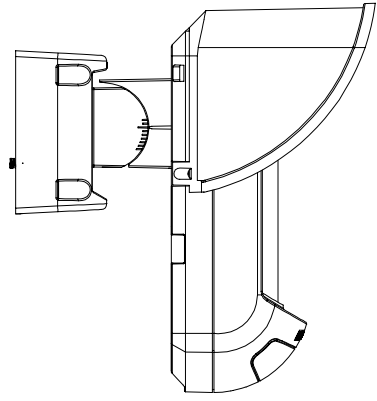
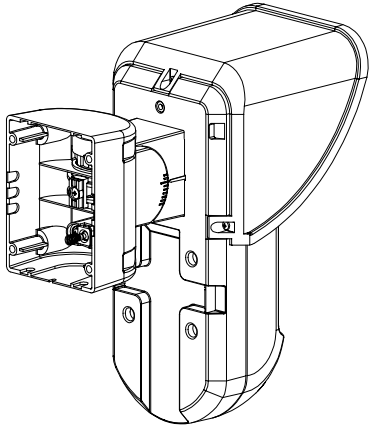


**WatchOUT™**  
Reliable Outdoor Detection

## **Dual Technology Outdoor Detector**



## **Relay Mode Installation Instructions**

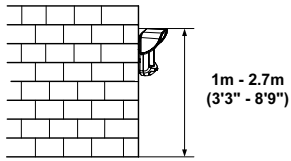


## WatchOUT Dual Technology Outdoor Detector: Relay Mode Installation

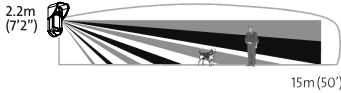
Rokonet's Dual Technology Outdoor detector, WatchOUT, is a unique detector with signal processing based on two Passive Infrared (PIR) channels and two Microwave (MW) channels. The detector can operate as a regular relay detector connected to any control panel, or as a BUS accessory when connected to Rokonet's ProSYS control panel via the RS485 BUS, thus having unique remote control and diagnostic capabilities.

The following instructions describe the installation of the WatchOUT in Relay mode. For detailed information regarding BUS mode installation refer to BUS mode installation instructions (5IN315DTB)

### Mounting Considerations

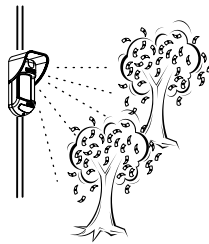


Optional Height: 1m – 2.7m (3'3"-8'9")  
 Typical Height: 2.2m (7'2")  
 Default Lens: Wide angle 15m (50') 90°

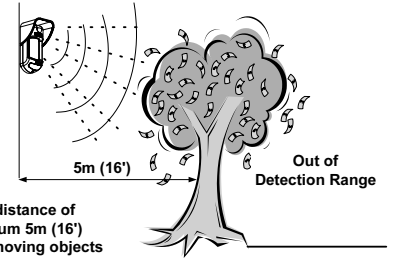


**Note:**

For low installations, below 1.7m (5'6") in which pet immunity is required, use the supplied RL300F lens (Low wall or fence installations)



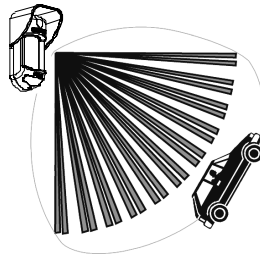
If possible avoid pointing the detector to moving objects (swaying trees, bushes etc)



Keep distance of minimum 5m (16') from moving objects

Ensure any objects do not obstruct the field of view for both technologies. Pay attention to growing trees or bushes, plants with big moving leaves etc.

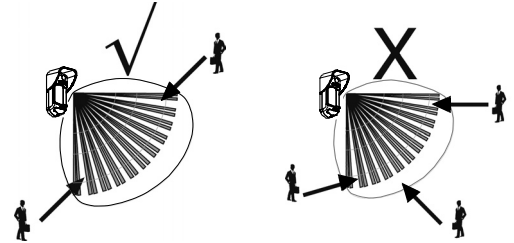
For installations with extensive vehicle traffic or targets beyond the required detection range it is recommended to adjust the MW sensitivity and/or to tilt the detector down.



**Note:**

Tilting the detector down may reduce the pet immunity

For optimum detection, select a location that is likely to intercept an intruder moving across the coverage pattern at a 45° trajectory.



### Wall Mount Installation

1. Open WatchOUT front cover. (Unlock C1, figure 1).
2. Release internal base (unlock I1, figure 2).
3. Select mounting installation as follows:
  - a. Remove tamper spring
  - b. Replace tamper bracket 1 with supplied flat tamper bracket 2.
8. Close the front cover (Lock C1, figure 1) after wiring and setting Dip switches.
9. Walk test the detector

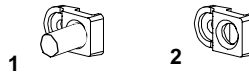
**Flat Mounting:**

- a. Open knockouts on external base (figure 3)
  - B1-B4: Wall mounting knockouts.
  - T1 : Back tamper knockout
  - W2 / W3: Wire entry knockouts.

**45° angle Mounting (Left side mounting)**

- a. Open knockouts on external base (figure 3)
  - L1, L2 : Left mounting knockouts
  - T3 : Left tamper knockout
  - W2 / W3: Wire entry knockouts

- d. Insert tamper lever B onto T5 and T3 and secure screw A (figure 3)
4. Insert external wires through external base W2, W3. (figure 3)
5. Secure external base to the wall.
6. Insert external wires and tamper wires through internal base. (figure 4)
7. Secure internal base to external base (lock I1, figure 2).



**Note:**

For 45° right side installation use the equivalent units on the external base as follows:

	Left	Right
<b>Mounting Knockouts</b>	L1, L2	R1, R2
<b>Tamper spring knockouts</b>	T1, T3	T2, T4
<b>Tamper screw anchor</b>	T5	T6

Figure 1:

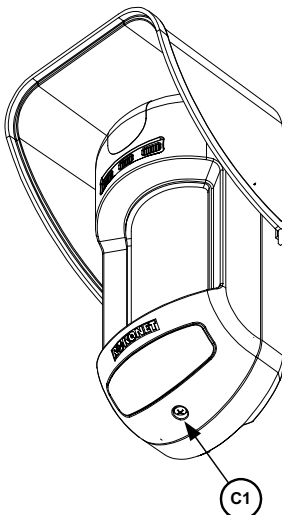


Figure 2:

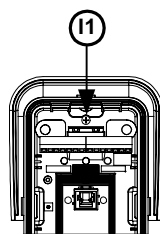


Figure 4:

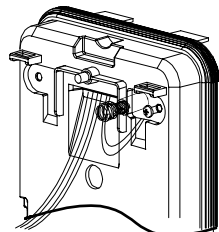
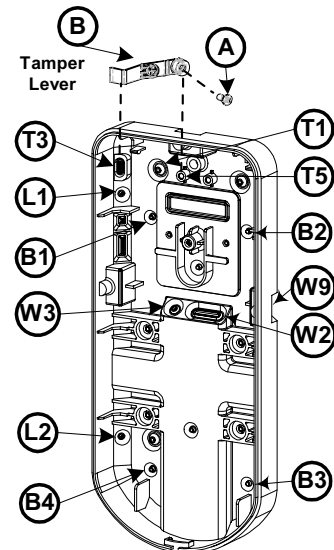


Figure 3:

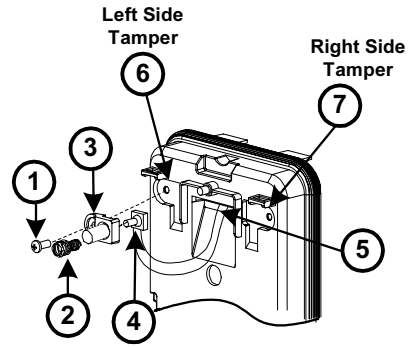


**Changing Back Tamper position:**

The back tamper is by default secured on the right side of the internal base (Rear view). If you wish to move it to the left side (rear view), do the following (Figure 5):

1. Remove tamper screw 1 in order to release the tamper from position 7.
2. Ensure tamper spring 2 rests over tamper wire base 4.
3. Ensure plastic tamper bracket 3 rests over both 2 and 4.
4. Secure tamper screw 1 into 3 over position 6.

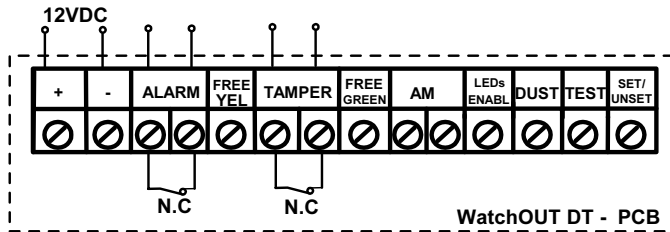
Figure 5:



**Notes:**

1. Verify that you hear a "Click" when attaching the tamper spring to the wall
2. For pole installation the tamper can be moved to the bottom right-hand side of the internal base.

**Terminal Wiring**



+, -	12 VDC
<b>ALARM</b>	N.C relay, 24VDC , 0.1A
<b>FREE YEL</b>	This terminal is a free pin that can be used to connect wires and EOL resistors
<b>TAMPER</b>	N.C relay, 24VDC , 0.1A
<b>FREE GREEN</b>	This terminal is a free pin that can be used to connect wires and EOL resistors
<b>AM</b>	Normally closed AM relay output (24VDC, 0.1A) indicates Anti Masking alarm or any trouble in the detector (Not including dust/ dirty lens).

**Note:**

When a vibration detector is installed and DP8 is defined as Enabled this relay also opens momentarily when vibration event occurs

**LED ENABLE**

Used to remotely control the LEDs when DIP1 is set to ON.  
 Enable: input is +12V OR no terminal connection  
 Disable: Connect the input to 0V

**DUST**

N.O. collector max 70 mA. Indicates that the lens is dirty and requires cleaning.

**TEST**

Used to perform remote alarm testing to the detector by applying 0 volts to this terminal.  
 Success: Alarm relay is momentary opened.  
 Failure: AM relay is opened

**SET/ UNSET**

This input enables to control Anti-masking and LEDs operation in accordance to the system status, Set (Arm) / Unset (Disarm).  
 While the system is armed this feature prevents an intruder from gaining knowledge of the detector's status and disables Anti-masking detection.

System Status	Input Status	AM Relay	LEDs
Set (Arm)	0V	Off	Off
Unset (Disarm)	12V or no connection	On*	On**

\* DIP7 is ON (Anti masking enabled)

\*\* DIP1 is ON (LEDs enabled) and LEDs ENABLE input terminal is enabled (+12V OR no terminal connection)

**Dip switch Settings**



**Factory Default**

**DIP 1:** LEDs operation  
 On: LEDs enabled  
 Off: LEDs disabled

**DIP 2-3:** Detection Sensitivity

Sensitivity	DIP2	DIP3
Low	Off	Off
Mid	Off	On
Normal (Default)	On	Off
Maximum*	On	On

\* In maximum sensitivity sway recognition is disabled to achieve maximum sensitivity

**DIP 4:** Alarm condition

On: PIR or MW  
 Off: PIR + MW

**DIP 5:** Detector's optics

On: Barrier / Long range  
 Off: Wide angle

**DIP 6:** Red LED /3 LED

On: Red LED only  
 Off: 3 LEDs

**DIP 7:** Anti masking operation

On: Enabled  
 Off: Disabled

**DIP 8:** Vibration detection (Only when the vibration sensor is installed)

On: Enabled  
 Off: Disabled

**Microwave Adjustment**

Adjust Microwave coverage area by using the trimmer on the PCB

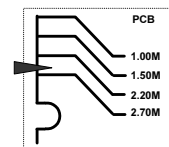


**Walk test**

Two minutes after applying power, walk test the protected area to verify proper operation.

For installations on uneven surfaces slide the PCB inside the internal base to the appropriate setting according to the desired height (1.0m, 1.5m, 2.2m, 2.7m) as printed on the bottom left corner of the PCB or use the standard swivel accessory.

For reducing the detection range slide the PCB up or tilt the swivel down.



**LEDs Display**

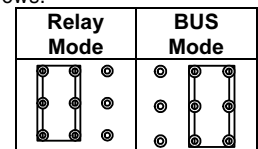
LED	State	Description
<b>YELLOW</b>	Steady	Indicates PIR detection
	Flashing	Indicates AM (Anti mask) detection
<b>GREEN</b>	Steady	Indicates MW detection
<b>RED</b>	Steady	Indicates ALARM
	Flashing	Indicates malfunctioned communication with ProSYS (BUS mode only)
<b>All LEDs</b>	Flashing (One after another)	Unit initialization on power up.

**Notes:**

1. DIP-Switch 1 should be in ON position to enable LED indications.
2. Only one LED is active at any one time. For example, in the case of both PIR and MW detection, either the steady YELLOW LED or the steady GREEN LED is displayed (the first to detect), followed by the Alarm RED LED

**Relay Mode / Bus Mode Jumper**

J-BUS jumper (located on the PCB between the red and green LEDs) is used to define the detector's mode of operation as follows:



## Standard Swivel Installation

The Outdoor detector packaging contains a standard swivel for flexible installation. Please follow the instructions below for mounting the detector with the Standard Swivel

1. Open WatchOUT front cover. (Unlock C1, figure 1).
2. Release internal base (Unlock I1, figure 2).
3. Open knockouts on external base (figure 6)
  - W1: Wires knockout
  - S1,S2: Knockouts for securing external base to Standard Swivel
  - S3: External base locking screw knockout
4. On the swivel accessory remove the required swivel cable wiring knockout S2, S7 or S9 (Figure 7)
5. Remove back tamper from the internal base and connect it to **S5** (figure 7) on the Standard Swivel. (See "Changing Back Tamper Position").
6. Select the mounting installation as follows:

### Note:

Ensure that you see the engraved **UP** mark on the upper front face of the swivel.

### Wall Mounting:

- a. Insert external cable wiring through knockouts S2, S7 or S9 and extract them (including the tamper wires) through the Swivel Wires Passage (figure 8)
- b. Secure swivel to the wall through holes S1, S3, S6 and S8.

### Swivel Conduit Mounting (using Conduit Metal Swivel Adaptor – CSMA, figure 7)

### Note:

The CSMA is required when wiring is in a pipe external to the wall. It should be ordered separately P/N RA300SC0000A.

- a. Choose the direction upon which to mount the CSMA according to the required diameter: 16mm (0.63 inches) or 21mm (0.83 inches).
- b. Insert conduit to the CSMA.

- c. Secure CSMA to the wall through points (M1, M4)
- d. Insert external cables and tamper wires from the conduit through the Swivel Wires Passage of the swivel (figure 8)
- e. Secure swivel to the wall through holes S1, S3, S6 and S8.

### Note:

The Tamper spring S5 (figure 7) should make contact with the wall through the tamper spring holes M2 or M3 on the CSMA. Make sure to hear the tamper "Click" when connecting to the wall

7. Insert tamper wires and external cable wiring from Standard Swivel through knockout W1 on the external base (figure 8)
8. Secure external base to swivel with two screws fastened to knockouts S1 and S2 (figure 8)
9. On the PCB, lift the black foam below the RED LED and remove angle locking screw knockout on the internal base (Figure 9)
10. Line up the internal base onto the external base. Insert all wiring cables through the internal base.
11. Insert the supplied angle locking screw from the PCB (lift the black foam below the RED LED), through the angle locking screw knockout on the internal base, through the knockout **S3** on the external base to the standard swivel (figure 8)
12. Tilt and Rotate the Standard Swivel to the desired position. Once the Standard Swivel is in the desired position, secure the angle locking screw

### Note:

When the marks on the two movable parts are aligned (figure 8), the Standard Swivel is in the horizontal position at 0°. Each vertical click from this position represents an increment / decrement of 5°.

13. Secure internal base to external base (Lock I1, figure 2)
14. Close the front cover (Lock C1, figure 1) and walk test the detector

Figure 6:

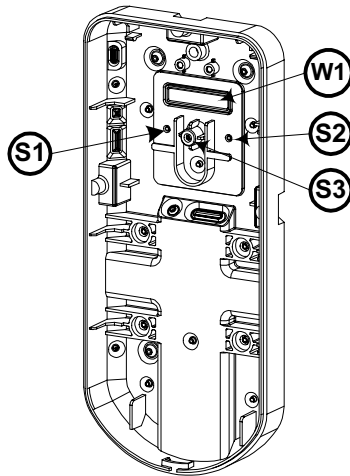


Figure 7:

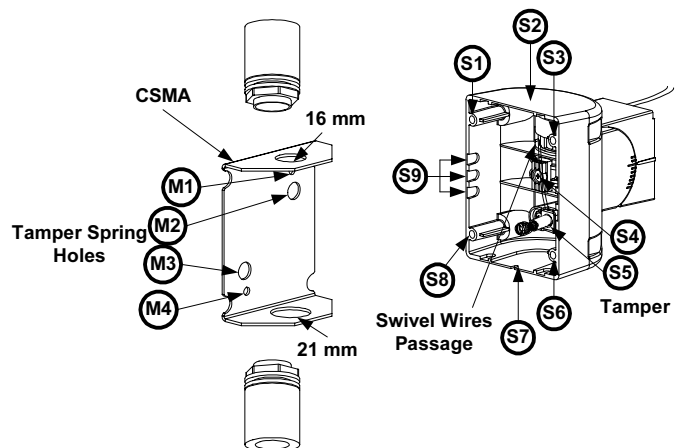
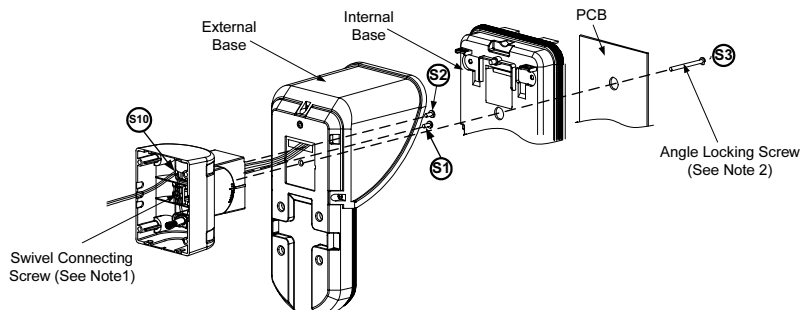


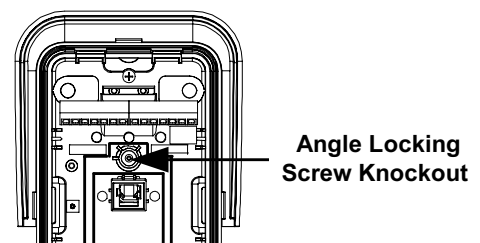
Figure 8:



### Notes:

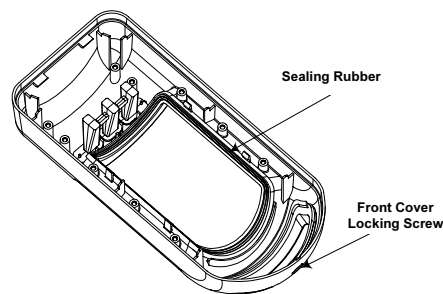
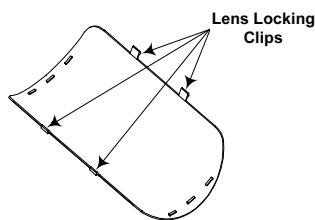
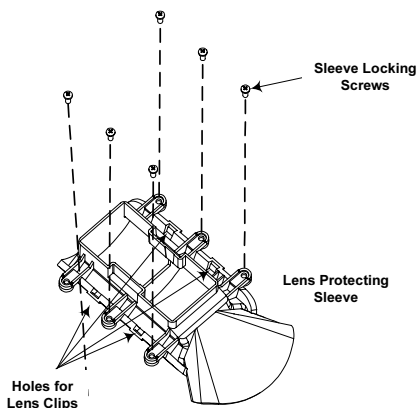
1. Do not open or close the Swivel Connecting Screw since it is used for connecting the swivel parts only.
2. The screw has to pass through the PCB, the Internal Base, Knockout S3 on the External Base and locked to the swivel.

Figure 9:



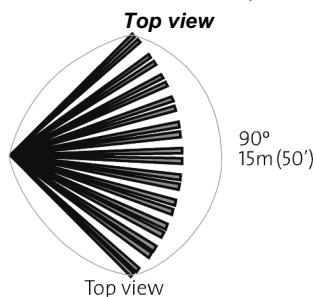
## Replacing a Lens

1. Unlock the six screws that hold the lens holding sleeve from the back of the front cover.
2. To release the protective sleeve, gently push the lens from the external side of the front cover.
3. Disconnect the lens from the sleeve by gently pushing the lens clips that secure it to the sleeve.
4. Replace the lens. Place the 4 clips of the lens into the matching holes on the sleeve.
5. Insert the protective sleeve back into place on the front cover. Pay attention to place the sleeve over the sealing rubber.
6. Secure the 6 holding screws back to their place.

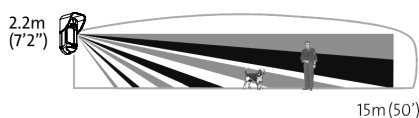


## Lenses Types

**Wide angle lens (RL300) / Low installation - Pet lens (RL300F) :**



**Wide angle lens (RL300): Side View**



**Low installation - Pet lens (RL300F) : Side view**



### Note:

Pet immunity: Up to 70cm (2'4") animal height (No weight limitation).

**Long range lens (RL300LR): Top view**



**Long range lens (RL300LR): Side view**



**Barrier lens (RL300B): Top view**



**Barrier lens (RL300B): Side view**



## Technical Specification

### Electrical

Current consumption (Relay Mode)	45mA at 12 VDC (Stand by)
	70mA at 12 VDC (MAX with LED ON)
Current consumption (BUS Mode)	30mA at 12 VDC (Stand by),
	55mA at 12 VDC (MAX with LED ON)
Voltage requirements	9 -16 VDC
Alarm contacts	24 VDC, 0.1A
AM contacts	24 VDC, 0.1A
Dust output	Open collector 70mA max

### Physical

Size (including hood)	230 x 121 x 123mm (9 x 4.76 x 4.85 in.)
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### Environmental

RF immunity	(30MHz to 2GHz): 40V/m
Operating/Storage temperature	-30°C to 60°C (-22°F to 140°F)

## Ordering Information

### Standard Units

Part Number	Description
RK315DT0000A	WatchOUT DT 10.525GHz + swivel
RK315DT00UKA	WatchOUT DT 10.587GHz + swivel

Note: Each of the detectors contains a standard swivel and 3 replacement lenses (P/N engraved on the Lens) 1.7m low installation pet (RL300F), Long-range (RL300R) and barrier lens (RL300B).

### Accessories Kits

Part Number	Description
RA300B00000A	WatchOUT Barrier swivel kit
RA300P00000A	WatchOUT Pole adaptor kit
RA300C00000A	WatchOUT Conduit adaptor kit
RA300SC0000A	WatchOUT Swivel metal conduit adaptor

### Camera Option

Part Number	Description
RA300VC053PA	WatchOUT PAL wide Camera kit
RA300VC017PA	WatchOUT PAL narrow Camera kit
RA300VPS100A	WatchOUT PAL Camera Power supply

## FCC Note

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

- ✦ Reorient or relocate the receiving antenna.
- ✦ Increase the separation between the equipment and the receiver.
- ✦ Connect the equipment into an outlet on a different circuit from that to which the receiver is connected.
- ✦ Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications to this equipment which are not expressly approved by the party responsible for compliance (Rokonet Electronics Ltd.) could void the user's authority to operate the equipment.

FCC ID: JE4RK315DT Valid for P/N RK315DT0000A

## RTTE Compliance Statement

Hereby, Rokonet Electronics Ltd, declares that this equipment is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC



### CE Ⓢ Clarification

Table for P/N: RK315DT0000A

<del>AT</del>	BE	<del>CZ</del>	<del>DE</del>
DK	ES	<del>FI</del>	<del>FR</del>
GR	IE	IT	It
LU	MT	NL	<del>PT</del>
SE	<del>LK</del>		

### CE Ⓢ Clarification

Table for P/N: RK315DT00UKA

<del>AT</del>	BE	<del>CZ</del>	<del>DE</del>
DK	ES	<del>FI</del>	<del>FR</del>
GR	IE	IT	It
LU	MT	NL	<del>PT</del>
SE	UK		

## Rokonet Limited Warranty

Rokonet Electronics, Ltd. and its subsidiaries and affiliates ("Seller") warrants its products to be free from defects in materials and workmanship under normal use for 24 months from the date of production. Because Seller does not install or connect the product and because the product may be used in conjunction with products not manufactured by the Seller, Seller cannot guarantee the performance of the security system which uses this product. Seller's obligation and liability under this warranty is expressly limited to repairing and replacing, at Seller's option, within a reasonable time after the date of delivery, any product not meeting the specifications. Seller makes no other warranty, expressed or implied, and makes no warranty of merchantability or of fitness for any particular purpose.

In no case shall seller be liable for any consequential or incidental damages for breach of this or any other warranty, expressed or implied, or upon any other basis of liability whatsoever.

Seller's obligation under this warranty shall not include any transportation charges or costs of installation or any liability for direct, indirect, or consequential damages or delay.

Seller does not represent that its product may not be compromised or circumvented; that the product will prevent any persona; injury or property loss by burglary, robbery, fire or otherwise; or that the product will in all cases provide adequate warning or protection. Buyer understands that a properly installed and maintained alarm may only reduce the risk of burglary, robbery or fire without warning, but is not insurance or a guaranty that such will not occur or that there will be no personal injury or property loss as a result.

Consequently seller shall have no liability for any personal injury, property damage or loss based on a claim that the product fails to give warning. However, if seller is held liable, whether directly or indirectly, for any loss or damage arising from under this limited warranty or otherwise, regardless of cause or origin, sellers maximum liability shall not exceed the purchase price of the product, which shall be complete and exclusive remedy against seller. No employee or representative of Seller is authorized to change this warranty in any way or grant any other warranty.

**USA**

Tel. +1 305 592 3820  
Fax. +1 305 592 3825  
Email: sales@rokonetusa.com

**UK**

Tel. +44 (0)161 655 5500  
Fax. +44 (0) 161 655 5501  
Email: sales@riscogroup.co.uk

**ITALY**

Tel. +39 02 392 5354  
Fax. +39 02 392 5131  
Email: info@rokonet.it

**SPAIN**

Tel. +34 91 4902133  
Fax. +34 91 4902134  
Email: sales@rokonet.es

**BRAZIL**

Tel. +55 11 3661 8767  
Fax. +55 11 3661 7783  
Email: rokonet@rokonet.com.br

**ISRAEL**

Tel. +972 (0)3 9637777  
Fax. +972 (0)3 9616584  
Email: info@rokonet.co.il

[www.rokonet.com](http://www.rokonet.com)

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