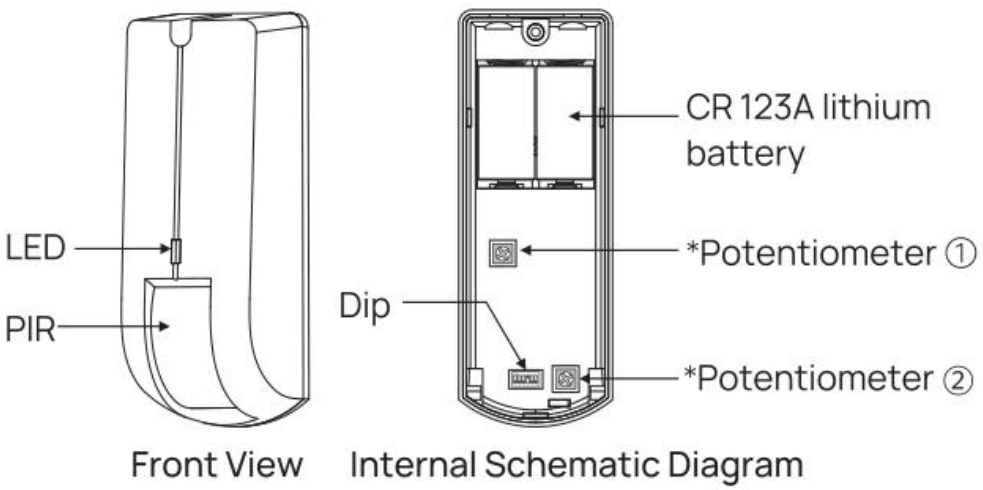
# DT-450R Wireless PIR+MW Curtain Detector Specification

## I.Product Picture



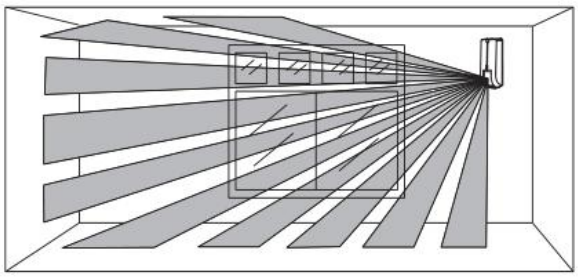
## II.Product Brief

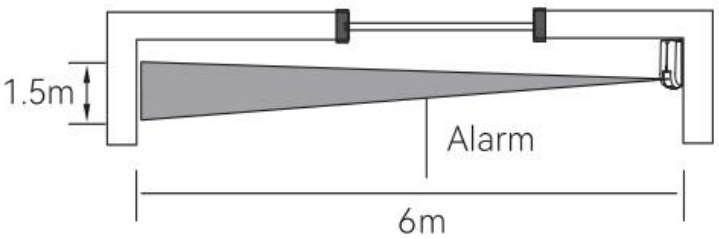


# MOTION SENSOR SPECIFICATION

## III.Specification

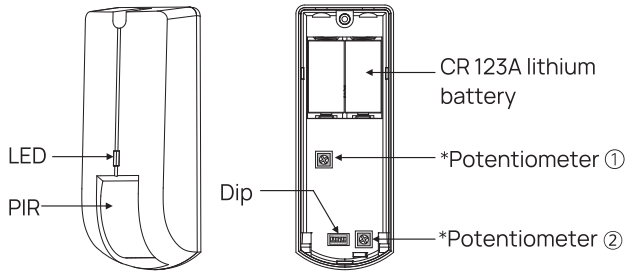
| | |
|---|---|
| Product No. | DT-450R |
| Detection range | 6m/25°C |
| Transmit range | 150m(in the open air) |
| Working voltage | DV3V,2*CR123 Lithium battery |
| Working current | ≤30mA |
| Quiescent current | ≤35μA |
| Working frequency | ASK433/868 |
| Size | L122*W45*H54mm (excluding bracket) |
| Installation method | Wall mounted |
| Installation height | 1.8-2.5m,no angle between the back cover and the wall |
| Working environment | |
| Operating temperature | -10℃～50℃, <95%RH |
| Storage temperature | -20℃～60℃ |
| Anti-white light interference | Typical 9000LUX(indoor) |
| LED | |
| Alarm indication | LED red&green light flashes |
| Heartbeat report | Every 3 hours |





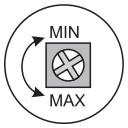
## I. Introduction

The DT-450R is a microwave and passive infrared composite intrusion detector with adjustable motion alarm directions. It is designed to detect unexpected or malicious intrusions and can meet general security needs. This product features a built-in tamper switch to prevent unauthorized removal.



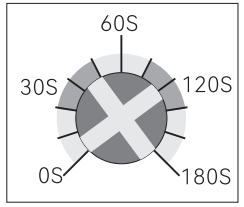

Front View  Internal Schematic Diagram

*LED Indicators: The red light represents infrared triggering; the green light represents microwave; when both the red and green lights are on, it indicates an alarm.




Potentiometer ①: Sets microwave sensitivity. Turn counterclockwise to increase sensitivity, clockwise to decrease.

Potentiometer ②: Sets alarm inhibit time. If triggered in the non-alarm direction, within the inhibit time, triggering in the alarm direction will not cause an alarm. This time is invalid when direction alarm is disabled. Alarm inhibit time is divided into 5 levels: 0s (off), 30s, 60s, 120s, 180s.

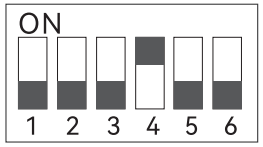



After setting, re-powering is required for the setting to take effect, and the green light will blink to indicate the time level.

| Alarm inhibit time | Number of green light flashes |
|---|---|
| 0 second | 0 (No flashing) |
| 30 seconds | Once |
| 60 seconds | Twice |
| 120 seconds | Three times |
| 180 seconds | Four times |



## II.Function Description of DIP Switch



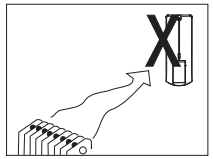

Dip switches 1 and 2 are used to set the alarm direction, and the instructions for the dip switches are shown in the table below.

| DIP 1 | DIP 2 | Alarm Direction |
|---|---|---|
| ON | OFF | Alarm from left to right |
| OFF | ON | Alarm from right to left |
| ON | ON | Alarm in both directions |
| OFF | OFF | Alarm in both directions |

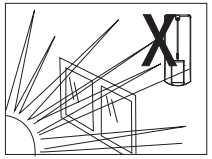
| DIP | Meaning | ON | OFF |
|---|---|---|---|
| 3 | Sensitivity | Low | High(Default) |
| 4 | Alarm Delay | 5-minute delay | 5-second delay |
| 5 | LED | Enable | Disable |
| 6 | Tamper Alarm | Disable | Enable |

## III.Installation

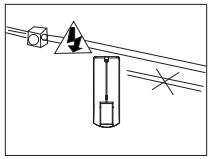
### 3.1 Precautions for Installation



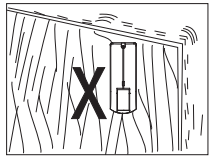
Do not install facing heat or cold sources.



Do not install directly facing sunlight.



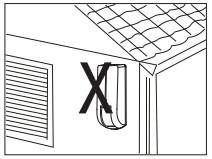
Wiring of the detector should not be done alongside high-voltage wires.



Avoid installation in places with a weak foundation.



Do not install facing a metal wall.



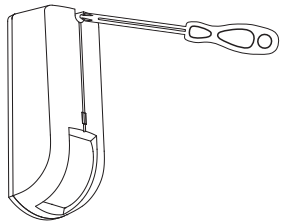
Cannot be installed outdoors



### 3.2 Battery Installation

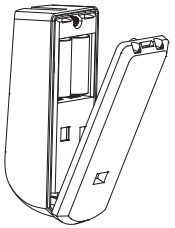
This product does not come with a battery installed. Please install the battery before use.

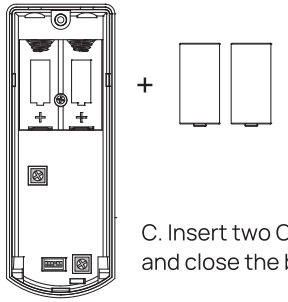
Installation Steps:



A. Unscrew the screws on the lower case

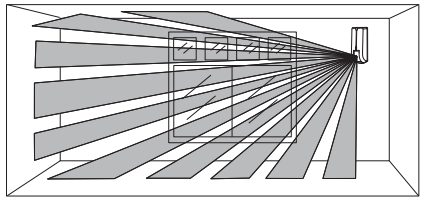
B. Separate the faceplate and base shell

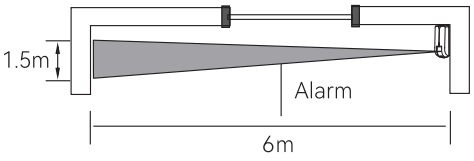




C. Insert two CR123A lithium batteries and close the base shell

### 3.3 Installation Guide





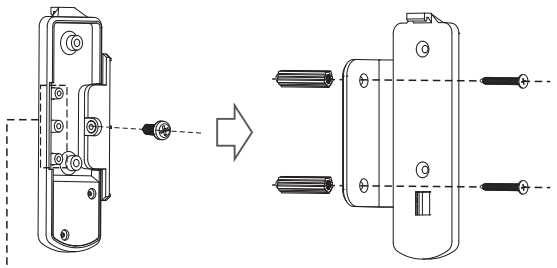
### 3.4 Installation Diagram Description

Note: Please install this detector vertically with the infrared channel facing downwards; otherwise, it will trigger the tamper alarm.

Method 1: Installation on the side of the bracket

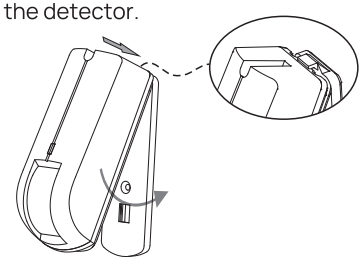
A. Attach the bracket to the base and drive in the screws; users can choose to mount it on the wall on either the left or right side.

B. Use expansion screws and bolts to install the bracket base on the wall.



Bracket position for wall-mounted installation on the left side

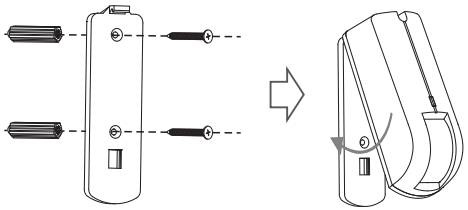
C. Connect the detector.



Method 2: Wall Installation of the Base

A. Use expansion screws and bolts to install the base on the wall;

B. Connect the detector.

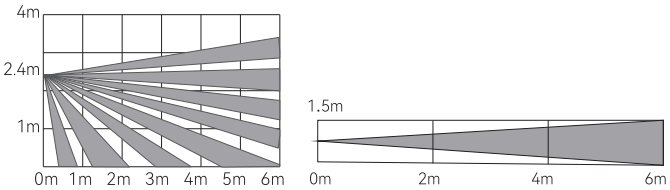




## IV.Technical Specifications

Product Model: DT-450R
Detection Angle: 25°
Detection Distance: 6m/25°
Wireless Transmission Distance: 150m (open field)
Alarm/Tamper-proof Output: Wireless signal transmission
Power Supply Voltage: DC 3V
Batteries Used: CR 123A lithium batteries 2
Operating Current: standby current ≤35uA, alarm current ≤ 30mA
Modulation Mode: ASK/FSK (optional)
Wireless Frequency: 433/868MHz (optional)
Installation Method: Indoor wall mounting
Installation Height: 1.8~2.5 meters above the ground
Operating Environment: Temperature: -10℃-50℃; Humidity ≤ 90%RH
Resistance to White Light Interference (indoor): >9000LUX
Resistance to Radiation Interference: >30V/m, 10MHz-1000MHz
Product Dimensions: L122W45*H54mm (excluding bracket)

Infrared Section (as shown in the figure below)




Wall Mounting Side View Curtain Lens

Wall Mounting Top View Curtain Lens

## V. Conduct a Walking Test on the Coverage Area

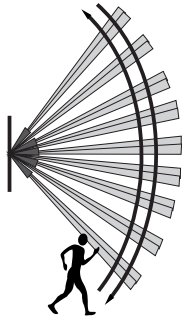
Place the detector in the intended installation location.

①Power on the device and wait for the self-test to complete before starting the walking test.

②Moving in any direction at the far end of the covered area should trigger the traffic lights to light up simultaneously.

③Conduct a walking test from the opposite direction to confirm the perimeter and alarm directionality on both sides. The detection center should be directed towards the center of the protected area.

④At a distance of 3-6 meters from the detector, slowly raise your arm and extend it into the detection area to mark the lower boundary of the passive infrared alarm. Repeat the above steps to determine its upper boundary.



⑤The center of the detection area should not be tilted to the left or right. If the desired detection distance cannot be achieved, adjust the detection range left and right to ensure that the detector's pointing direction is not skewed to either side.

Important Note: To ensure continuous good functionality of the detector, it is recommended that users conduct a walking test on the detector once a month.

P/N:25250601B01





# User Guide

DT-450R
Intelligent Direction Recognition
Passive Infrared Composite Intrusion Detector