Door Contact (DC-18HY-SL) User Manual

The Door Contact monitors the opening/closing of specified devices (e.g. door or window). The Door Contact is fixed to the monitored device frame with an actuating magnet fixed to the device. When the door or window opens, the magnet moves away from the Door Contact, activating an internal magnetic switch causing the Door Contact to transmit an alarm signal to the Control Panel. The device is also capable of communicating signal problems and low battery situations.

The Door Contact design consists of a cover and base. The base contains all electronics and provides a means for fixing the device. An enclosed PCB tamper switch provides tamper protection against unauthorized device opening.

● **Identifying the Parts**

1. LED Indicator

2. Tamper Switch

When the Door Contact is properly installed, the Tamper switch will be compressed.

A **Tamper close** signal is transmitted when the Tamper is compressed.

A **Tamper open** signal is transmitted when the Tamper is released.

The Door Contact is learnt into the control panel when two sets of **Tamper close**, **Tamper open** signals are transmitted (pressing and release of the Tamper twice).
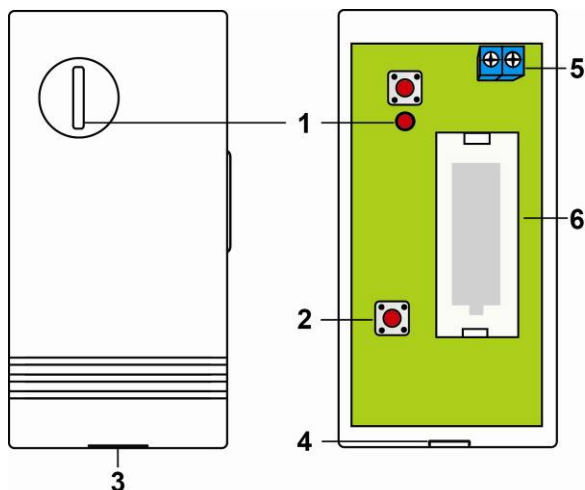
3. Base Fit Hole

Insert the Base Fit Hook into the Base Fit Hole to attach the base-cover assembly

4. Base Fit Hook

5. Extension Terminal

In addition to the built-in magnet switch, an additional 2-pin dry contact terminal is provided for an extension magnet switch or any device with N.C. (Normally Closed) functionality.

6. Battery Compartment

● **Accessories Included**

  a) 1 Magnet

  b) 2 Screws

  c) 2 Wall Plugs

  d) 1 Magnet double-sided adhesive tape pad

  e) 2 Magnet mounting screws

  f) 1 Mounting Bracket

● **LED Indicator**

  ● In Normal Operation Mode, the LED will not light when the Door Contact is activated with the exceptions listed below:
    ◆ The LED will flash quickly for 2 seconds when Tamper Switch is pressed or released even in Normal Operation Mode.
    ◆ When the cover is opened or the tamper switch is released, the LED will flash quickly for 2 seconds.
    ◆ When a tamper open condition persists, every time the Door Contact is activated, the LED will flash quickly for 2 seconds.
    ◆ When the cover is closed or the tamper switch is compressed, the LED will flash quickly for 2 seconds.
  ● When the Door Contact is in Low Battery Mode, every time it is activated (device opened/closed), the LED will flash quickly for 2 seconds.
  ● When the battery is depleted, the LED flashes once every 4 seconds and all Door Contact functions are stopped.

- *Battery*
  - The Door Contact uses one **CR123A, 3V Lithium battery** as its power source. Please note: **ALWAYS** replace battery with the correct size and voltage.
  - The Door Contact can detect if the battery is low. When the Battery is low, a low battery signal will be sent to the Control Panel along with regular transmission. The LED will also flash quickly for 2 seconds when the Door Contact is activated under low battery status.
  - When the battery is depleted, the LED flashes once every 4 seconds and the Door Contact will stop all function.
    Battery Change
    I.   Detach the base and cover assembly.
    II.   Remove the old battery.
    III. Press the Tamper Switch a few times.
    IV.   Fit a new battery into the battery compartment. Please orient the battery according to the correct polarity.
    V.   Reattach the base and cover assembly.

- *Tamper Switch*

 Tamper Switch provides tamper protection against unauthorized device opening.

  - The Tamper switch is in normal operating position (Tamper closed) when the spring is compressed against the inside of device cover. Tamper violation happens when the cover is removed from the base and releases the tamper switch.

- *Supervisory Signal*
  - The Door Contact will automatically transmit Supervisory Signals periodically to the Control Panel at random intervals of 30-50 minutes.
  - The supervision time is reset whenever a signal is transmitted. (such as **Tamper open** signal, **Tamper close** signal, etc.).

- *Getting Started*
  - Detach the base and cover assembly.
  - Insert the "**CR123A**" battery into the battery holder connecting the polarity correctly.
  - Put the Control Panel into learning mode. Please refer to your Control Panel user manual.
  - Press and release the Tamper Switch twice to send learn code to Control Panel.
  - Refer to your Control Panel operation manual's to complete the learn-in process.
  - To check for range, please refer to the control panel user manual for what type of signal transmission is needed from the Door Contact. (A **Tamper open** signal is usually needed)
  - Proceed with mounting and installation once you are satisfied with the location of the Door Contact.

Internal Magnetic Switch Position
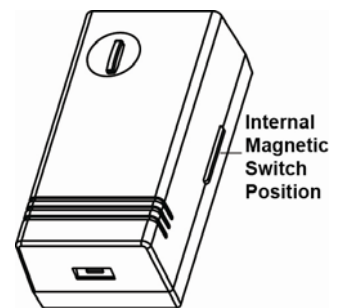
- *Mounting Methods and Installation*

  It is recommended that the Door Contact should be placed on the door frame and the magnet on the door.

  Step 1: Find a suitable location close to a door/window to install the Door Contact.

  Step 2: **Option A**: Base mounting:
    I.   Detach the base and cover assembly
    II.   Using the mounting holes as templates, drill holes in the surface
    III. Insert the wall plugs if fixing into plaster or brick
    IV.   Screw the base into the wall plugs
    V.   Reattach the base and cover assembly
    Option B: Using the Mounting Bracket:
    I.   Using the Bracket Mounting Holes as templates, drill holes in the surface
    II.   Insert the wall plugs if fixing into plaster or brick
    III. Screw the Mounting Bracket into the wall plugs
    IV.   Hook the Door Contact onto the Mounting Bracket

Rear View of the Door Contact

Mounting Hole

Mounting Hole
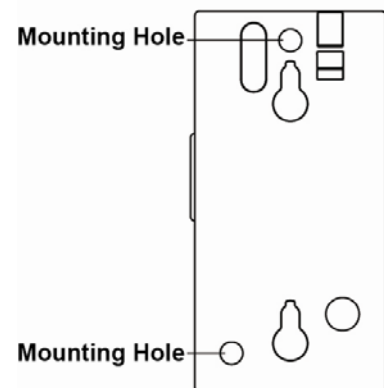
Step 3: The Door Contact has an Internal Magnetic Switch Position marked by a protrusion on one side (refer to figure) of the Door Contact. Ensure the Internal Magnetic Switch side is facing the magnet.

Step 4: Fit the magnet on the door using the small piece of double sided adhesive tape or with provided screws. The magnet must align with the marked side of the door contact.

<NOTE>

☞ The magnet should not be more than 15 mm from the detector when the door is closed.

☞ Windows can be protected similar to door installations. When fitting to a window fix the magnet to the moving window part and the door switch to the stationary frame.


Rear View of the Mounting Bracket
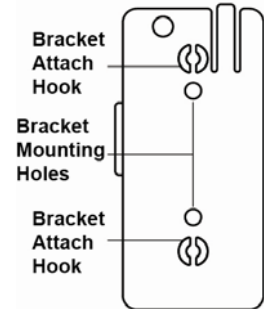
- ### Using the Extension Terminal.

The Door Contact has an Extension Terminal providing enhanced installation flexibility. The Extension terminal may be useful for the following:

- If the Door Contact cannot be mounted on the door frame, you can connect an additional extension magnet switch to the Extension Terminal and mount the Door Contact remotely.

- More than one window and door can be protected by a Door Contact using the additional magnet and extension magnet switch. The switches must be wired to the Extension Terminal as shown:

- Any dry contact device with N.C. (Normally Closed), such as a Broken Glass detector, Smoke Sensor, Gas detector, Water Sensor etc, can be connected to the Extension Terminal. Allowing the Door Contact to serve as an Universal Transmitter.

- The Extension Terminal forms a closed loop with the device connected to it. When the Loop is opened (the device is triggered), the Door Contact is activated.

- The device connected to the Extension Terminal is in series with the internal magnet Switch. Meaning both can work together simultaneously.

- You can choose to use the Extension Terminal and bypass the internal magnet switch or to use both together.
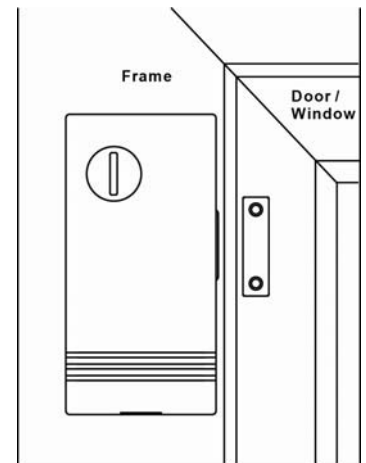
Rear View of the Door Contact
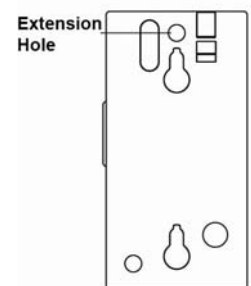
CONNECTING THE EXTENSION TERMINAL:

Step 1: Detach the base and cover assembly.

Step 2: The rear of the Door Contact has an Extension Hole designed specifically to allow external wiring connections.

Step 3: Connect the external device(s) to the Extension Terminal as shown in the diagram.

<NOTE>

☞ **If both the Internal Magnet Switch and Extension Terminal operate together, then:**

When the protected door is opened/closed **or** the external device is triggered, the Door Contact activates and transmits a signal immediately .

However, the Door contact will only transmit a **Door Closed** or **Restored** signal after both the door **and** the external device are restored for 3 sec.

Magnet Switches

Magnet
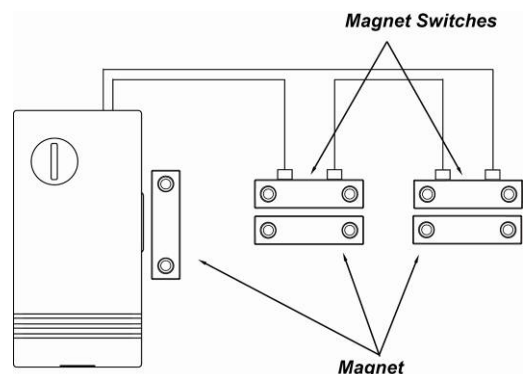
FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Caution:

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance may void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).