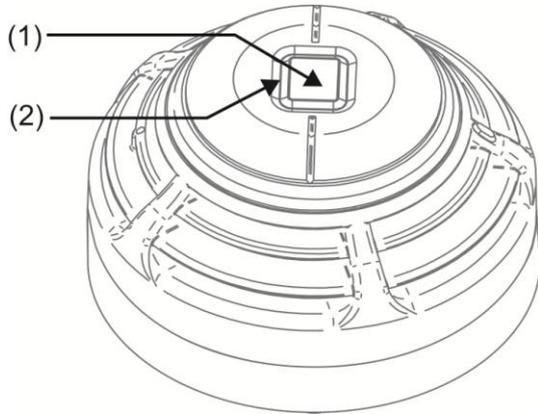


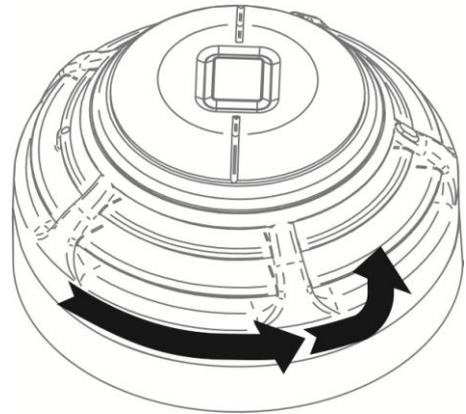


TX-6010-03-1 / RF58114 - Smoke / Heat Sensor Installation Sheet

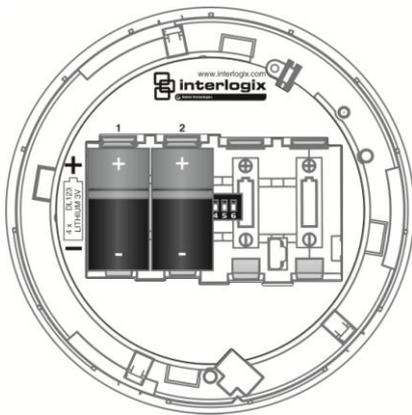
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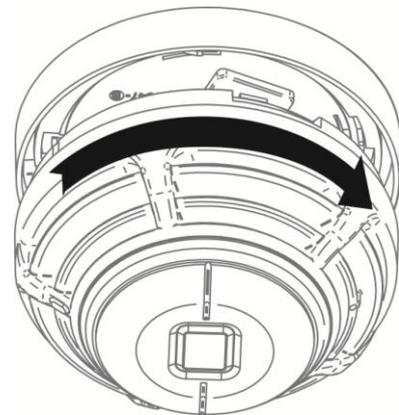
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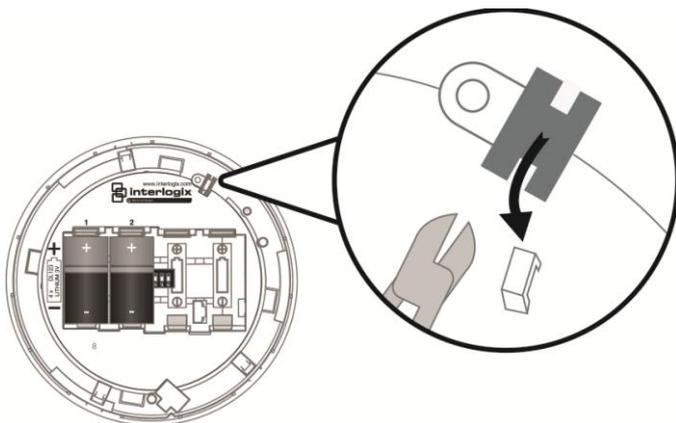
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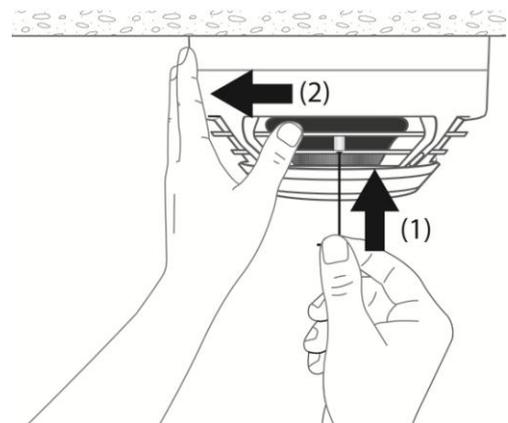
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5



6



Description

The TX-6010-03-1 and RF58114 are Learn Mode wireless smoke / heat alarms, designed for use in a security system with a compatible control panel. Both devices comply with EN14604:2005/AC:2008. The installation and operation methods are the same for both devices.

The device has a Test button (Figure 1, item 1) that is surrounded by a status LED, (Figure 1, item 2), and a built-in sounder for alarm indication.

The status LED flashes red every 45 seconds to indicate normal status (no alarm). When smoke or heat is detected (as configured), the status LED changes from flashing to on continuously, the built-in sounder is activated, and an alarm signal is sent to the control panel.

The device sends a supervisory signal to the control panel every 15-18 minutes to report its status.

The device also includes the following features:

- A tamper switch that triggers a tamper signal transmission when the device is removed from its mounting base
- Self-diagnostics to monitor the device's sensitivity and operational status.

Installation

Caution: Refer to your control panel documentation for detailed information on the corresponding communications, configuration, and test requirements.

Where to install a smoke / heat alarm

Regulations for smoke /heat alarm installation vary from region to region. For full details, contact your fire service or local authority having jurisdiction.

In addition to local regulations, use the following installation guidelines to optimise performance and reduce the chance of false alarms from the device:

- Install ceiling-mounted detectors in the center of a room or hallway at least 300 mm (12 in.) from any walls or partitions.
- Install wall-mounted detectors so that the top of the device's sensor is 150 to 300 mm (6 to 12 in.) below the ceiling and above the level of any door opening.
- Install the detector within 30 m (98 ft) of the control panel
- Install the detector away from air conditioners, fans, and any other devices that may interfere with smoke entering the sensor.
- Install detectors on a firm permanent surface away from large metallic objects.
- Ensure that the environmental conditions (temperature, relative humidity) comply with those indicated in the technical specifications.

Note: A supplementary 'Siting Guidelines' document (MK304) is available, providing additional installation guidelines, written in conjunction with the British standard BS5839-6.

Locations to avoid

- Very dusty or insect infested areas.
- Very humid areas.
- Directly above cooker, stove or oven.
- Directly above or adjacent to heaters / air conditioning units.

Verify communication

Communication between the device and the control panel should be verified prior to installation.

To verify communication:

1. Put the control panel into the corresponding test mode.
2. From the proposed installation location, press and hold the device's Test button for four seconds. After four seconds the device begins to sound (on) and the device transmits a test alarm signal to the control panel. The button may be released.
3. Check that the signal is received by the control panel and that the signal strength is adequate. If not, relocate the device and perform the test again.
4. When adequate communication is confirmed, exit the test mode.

Device Installation

To install the device:

1. Remove the mounting plate from the device by turning the detector counterclockwise (Figure 2).
2. Insert a minimum of two specified batteries, whilst observing the correct polarity, as indicated in the battery compartment (Figure 3).

Note: up to four batteries can be fitted to the device for extended battery life.

Note: when operating in environments of high or low temperatures, it is recommended to fit four batteries for extended battery life.

Note: the detector cannot be attached correctly to the mounting base if the batteries are not installed into the correct locations. These are shown on the device label – positions marked 1 & 2.

Note: ensure batteries are not exposed to excessive heat, such as sunshine, fire etc.

3. Using the two screws and anchors provided, mount the base in the required location. Ensure the device is securely fixed, to avoid risk of injury.
4. Reassemble the device by inserting the detector into the base and turning clockwise. The detector should click firmly into place (Figure 4).

Caution: Remove the yellow plastic cover from the detector. The device is shipped with the cover for protection against dust on construction sites.

5. Verify that the device communicates with the control panel and test as described in the 'Testing the device' section'.

Optional device locking

The device includes an optional locking mechanism. Remove the thin section of plastic shown in Figure 5.

Device unlocking

If the device has been locked, an Allen key will be required for unlocking:

1. Insert the Allen key, or similar, into the device's cavity and push (Figure 6, item 1).
2. Simultaneously twist the device anti-clockwise to release (Figure 6, item 2).

Operation

Status LED indications

The status LED indications are as follows:

LED indication	Status	Description
Flashing	Normal	The status LED flashes red every 45 seconds to indicate normal status
On	Alarm	Alarm (smoke has been detected) LED continuously illuminated red.
Off	Fault	Maintenance is required. Check the control panel for further information. (Wait at least 1 minute to ensure the LED is off).

The Test button

The Test button operations are as follows:

Operation	Description
Silence the low battery alert	Press the button for one second to silence the audible low battery alert (the alert resumes after 24 hours if the batteries are not replaced).
Sensitivity and Alarm test	Press the button for four seconds to perform a sensitivity test and to send a test alarm signal to the control panel. Refer to the 'Testing the device' section for details.
Remote monitoring station alarm test	Press the button for fifteen seconds to send a fire alarm signal to the remote monitoring station. Important: To avoid a fire department dispatch, contact the remote monitoring station or put the control panel into the corresponding test mode before performing this test.

Configuration switch

The 6-way configuration switch, located in the middle of the device's battery tray provides additional settings as follows:

Switches 1 to 3 – sounder tone selection:

Switch settings	Primary tone	Volume
	3kHz Continuous * Default	High
	3kHz 1s ON/OFF*	High
	3kHz 0.5s ON/OFF*	High
	3kHz 0.25s ON/OFF*	High
	520 Hz 1s ON/OFF	Medium
	970 Hz 1s ON/OFF	Medium
	3kHz 0.25s ON/OFF	Low
	3kHz Continuous	Low

* Tone approved to EN14604

Switches 4 to 6 – detector sensitivity selection:

Switch settings	Sensitivity
	Smoke (High) & Heat (72°C) Default
	Smoke only (High)
	Smoke only (Low)
	Heat only (72°C)
	Heat only (58°C)
	Smoke (High) & Heat (58°C)
	Smoke (Low) & Heat (72°C)
	Smoke (Low) & Heat (58°C)

Device fault tones

Tone	Description
3 chirps every 45 seconds	Battery low/missing fault
1 chirp every 45 seconds	General device fault. (Device tamper or sensor fault)

Testing the device

Siren and signal integrity test

Test each device to verify that siren and signal integrity responses are adequate.

Caution: When testing the siren's sounder pressure levels, hearing protection should be worn to prevent hearing damage.

Note: Refer to your control panel documentation for detailed information on system response.

To test the siren, sensor and signal integrity:

1. Put the control panel into the corresponding test mode.
2. Press and hold the device's Test button. The LED will flash amber once every second.
3. After four seconds, the device sounds the selected tone to confirm test success. This test tone is at a reduced volume to the alarm condition to avoid excessive exposure to the user during test. The device will send test confirmation to the control panel. Reception of the signal will confirm signal integrity. The LED will begin to flash red once every second (up to a total of fifteen seconds). **NOTE:** If the user continues to hold the button for a total of 15 seconds the remote monitoring alarm signal is sent and the sounder stops sounding. The LED will illuminate continuously red for several seconds.
4. Should the device fail the test, it will not sound and a fault signal will be sent to the control panel. The LED will continue to flash amber. The device will also chirp once every 45 seconds to confirm a fault condition. If the device fails the test, return the unit for service.
5. Upon completion, exit the test mode at the control panel.

Detector test

Caution: To avoid a fire department dispatch, contact the remote monitoring station or put the control panel into the corresponding test mode before performing this test.

Detectors should be tested annually using canned smoke (for smoke detectors only). Follow the instructions on the can.

Heat detectors can also be tested, using heat detector testers.

During the test, the status LED is on and the device sounds the selected tone. The device automatically resets when smoke is no longer present.

If the device fails to activate, return the unit for service.

Maintenance

Replacing the batteries

Insert a minimum of two specified batteries, whilst observing the correct polarity. Up to four batteries can be fitted for extended battery life.

When batteries are low, the device's status LED remains off and the device chirps 3 times in quick succession every 45 seconds until the batteries are exhausted. Replace batteries immediately.

Note: The low battery alert can be silenced for 24 hours by pressing the Test button for one second.

Always test the device after replacing the batteries.

Sensor maintenance

Remove dust cover before use.

The device should be tested upon installation and in accordance with local requirements.

Testing should only be carried out by a fully trained competent person.

The Manufacturer recommends regular functional testing of at least once per annum or in accordance with local codes of practice.

Caution: Do not open the case to clean inside the detector. The detector cannot be cleaned. If the device's sensor has a contamination fault, it should be replaced.

Limitations of smoke / heat alarm detectors

WARNING: Risk of personal injury or death. Smoke / heat detectors can not provide warnings for fires resulting from explosions, smoking in bed or other furniture, ignition of flammable liquids, vapors and gases, or children playing with matches or lighters. Failure to properly install, test and maintain detectors and associated alarm systems may cause it to fail, resulting in loss of life or property.

Smoke / heat detectors may not work under all conditions. Smoke / heat alarms can not provide total protection of life or property and are not a substitute for insurance. All alarms are subject to possible compromise or failure-to-warn for a variety of reasons. For example:

- This device will not operate and an alarm will not sound if its batteries are dead, removed, or installed incorrectly.
- Radio signals transmitted by this device may be blocked or reflected by metal objects. Adjacent devices or systems using radio frequency signals may interfere with the operation of this alarm. Test the system weekly to ensure signals are transmitted and received properly.
- Closed or partially closed doors and distance can block or reduce the alarm sound from this device. This device is not designed for the hearing impaired.
- Smoke / heat detectors cannot sense smoke inside chimneys, walls, roofs, or smoke blocked by a closed door.
- Smoke / heat detectors may not detect smoke on other levels of the building.
- Smoke / heat detectors may not warn in time when fires are caused by smoking in bed, explosions, improper storage of flammables, overloaded electrical circuits, or other hazardous conditions.
- Current studies have shown alarms may not awaken all sleeping individuals, and that it is the responsibility of individuals in the household that are capable of assisting others to provide assistance to those who may not be awakened by the alarm sound, or to those who may be incapable of safely evacuating the area unassisted.

Fire prevention and escape

NEVER IGNORE THE SOUND OF THE ALARM! IF THERE IS ANY QUESTION AS TO THE CAUSE OF THE ALARM, IT SHOULD BE ASSUMED THAT THERE IS A FIRE AND THE BUILDING SHOULD BE EVACUATED IMMEDIATELY.

The purpose of an early warning alarm is to detect the presence of fire in its early stages and sound an alarm giving the occupants time to exit the premises safely.

Avoid fire hazards

- No detection device can protect life in all situations. Therefore, safeguards should be taken to avoid potentially dangerous situations as follows:
- DO NOT smoke in bed.
- DO NOT leave children home alone.
- NEVER clean with flammable liquids such as gasoline.
- Properly store materials. Use general good housekeeping techniques to keep your home neat and tidy. A cluttered basement, attic, or other storage area is an open invitation to fire.
- Use combustible materials and electrical appliances carefully and only for their intended uses.
- DO NOT overload electrical outlets.
- DO NOT store explosive and/or fast burning materials in your home.
- Even after proper precautions have been taken, fires can start. Be prepared.

In case of a fire

In the event of a fire, do the following:

- Leave immediately. Don't stop to pack or search for valuables.
- In heavy smoke, hold your breath and stay low, crawl if necessary. The clearest air is usually near the floor.
- If you have to go through a closed door, carefully feel the door and doorknob to see if undue heat is present. If they seem cool, brace your foot against the bottom of the door with your hip against the door and one hand against the top edge. Open it slightly. If you feel a rush of hot air, slam the door quickly and latch it. Unvented fire tends to build up considerable pressure. Be sure all members of the household realize and understand this danger.
- Use your neighbour's phone or a street fire alarm box to call the fire department. The job of extinguishing the fire should be left to the professionals.

Be prepared

Practice the following steps to prepare you and your family in the event of a fire:

- Perform fire drills regularly. Use them to assure recognition of an alarm signal.
- Draw a floor plan and show two exits from each room. It is important that children be instructed carefully, because they tend to hide in times of crisis.
- Establish one meeting place outside the home. Insist that everyone meet there during an alarm. This will eliminate the tragedy of someone re-entering the house for a missing member who is actually safe.
- If you have children or physically challenged people residing in your household, use window decals to help emergency personnel identify the sleeping quarters of these individuals

False alarms

Smoke / heat detectors are designed to minimise false alarms. Cigarette smoke will not normally set off an alarm, unless the smoke is blown directly into the device's sensor.

Combustion particles from cooking may set off the device if the alarm is located close to the cooking area. Large quantities of combustible particles are generated from spills or when broiling.

Using the fan on a range hood which vents to the outside (non-recirculating type) will also help remove these combustible products from the kitchen. If the device does sound, check for fires first. If a fire is discovered, get out and call the fire department.

If no fire is present, check to establish what may have caused the alarm. Check the area of the device, only when certain that it is safe to do so and check that the device's sensitivity selection is appropriate for its environment.

Additional information

The points below must also be followed:

- DO NOT paint the device, as this can cause contamination of the sensor.
- Ensure that detectors are kept accessible and that there is clear space around all devices.
- The operation of devices should be checked upon the reoccupation of premises after vacation, etc.
- For details on the connected alarm panel's smoke / heat alarm capacities, refer to the alarm panel product guides for details.
- This device is not suitable for installation in LAVs.

Specifications

Current consumption (nominal)	
Standby	30 mA
Alarm	200 mA
Test	60 mA
Batteries	
	2 x 3 V Lithium (Panasonic CR123A or Duracell DL123) batteries
	Note: Up to four batteries can be fitted to extend battery life
	Note: Replace only with specified batteries
	Note: DO NOT mix batteries of different type or age
	CAUTION! Danger of explosion if batteries are incorrectly replaced. Replace only with the specified batteries and replace all batteries at the same time
Operating voltage	2.4 to 3.3 VDC 
Estimated battery life	5 to 10+ years* *Depending on number of batteries fitted
Low battery indication	Audible alert every 45 seconds
Smoke sensitivity	
High	0.08 dB/m
Low	0.12 dB/m
Heat sensitivity	
High	Class A2. (rate of rise) 58°C
Low	Class B.(rate of rise) 72°C
Drift compensation adjustment	1.64%/m (0.5%/ft.) max
Sounder	85 dBA at 3 m (continuous tone)
Supervisory signal	Every 15-18 minutes
RF frequency	868 MHz (TX-6010-03-1) 433MHz (RF58114)
Max RF output	14dBm (25mW) TX-6010-0301 10dBm (10mW) RF58114
RFI immunity	Complies to EN14604:2005/AC:2008 BS 5446-2:2003
Modulation type	AM
Transmitter ID	Preprogrammed. 1 million codes
Environmental	
Operating temperature	-10 to 55°C (14 to 131°F)
Storage temperature	0 to 30°C (32 to 86°F)
Relative humidity	Up to 90% non-condensing
Dimensions (W x H)	10.9 x 6.2 cm (4.3 x 2.2 in.)

Regulatory information

This section includes both regulatory information and a summary on the declared performance according to the Construction Products Regulation 305/2011. For detailed information refer to the product Declaration of Performance.

Certification	
Certification body	0359
Declaration of Performance number	0359-CPR-00643
Year of first CE marking	18
Product identification	TX-6010-03-1 / RF58114
Intended use	See DoP point 3
Essential characteristics	See DoP point 9
Manufacturer	EMS Ltd. Technology House, Herne Bay, Kent, CT6 8JZ. United Kingdom Authorized EU manufacturing representative: UTC Fire & Security B.V. Kelvinstraat 7, 6003 DH Weert, Netherlands



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see www.recyclethis.info



2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info

Contact information

For contact information, see www.utcssecurityproducts.eu.