

User manual

ZT-MH AC/DC Heat Alarm



330t/01

Approved to BS 5446-2:2003

Model	CE	LPCB	Interconnection	Suitable for Leisure Accommodation Vehicles (LAV)
ZT-MH	NA	330t/01	Yes	Yes

Cautions



ELECTRICAL HAZARD: Disconnect power from equipment prior to making any internal adjustments. Service should only be performed by qualified personnel.



PRODUCT LIMITATIONS: This heat alarm does not detect smoke, gas, or flame, and should not be covered with a guard or similar obstructing item.

Hazardous levels of smoke and toxic gas can build up before a heat alarm might operate. Where life safety is the primary requirement in the event of a fire, smoke, gas or combination alarms usually provide earlier warning than heat alarms alone.

This heat alarm may not alert people who are hearing impaired. It is strongly recommended that the special-purpose heat alarms using visual or vibrating alerting devices, should be installed for these occupants.

This heat alarm may not be effective in fires where heat is prevented from reaching the device (eg where intermediate doors are closed), where the fire grows so rapidly that the egress path is blocked (even when correctly located), and where the fire is intimate to a person (eg where a victim's clothes catch fire).



SLEEPING AREAS: Heat alarms should not replace required smoke alarms in sleeping areas.



INSTALLATION LIMITATIONS This product is designed for use in a single residential unit, such as a family home or apartment. Heat alarms, located outside the dwelling may not provide early warning to occupants.

This product is not designed for use in non-residential buildings. Non-residential buildings require special fire detection and alarm systems. This product alone is not a suitable substitute for a fire detection system installed in places of work or where people sleep on a temporary basis, such as hotels or motels, dormitories, hospitals, nursing homes or group homes of any kind, even if they were once dwellings. Please refer to local regulations for fire detection and alarm system requirements.

Features

ZT-MH AC/DC heat alarms provide AC mains, DC or AC/DC powered heat detection and alarm functions within a single product. A single battery (available with some models) will ensure that the heat alarm remains operational, even if mains power is temporarily unavailable.

ZT-MH AC/DC heat alarms are suitable for general residential applications where a smoke alarm may result in unwanted activation (eg kitchens, garages with exhaust fumes, and areas subject to high levels of dust and other air-borne contaminants).

ZT-MH AC/DC heat alarms provide home owners with an easy-to-install, premium solution for property protection.

Audible and Visual Alarm Indicators

When operating normally, a red LED in the Test button will flash every 48 s. When heat is detected, an internal sounder will activate to alert occupants, and the red LED will flash rapidly. The sounder is a loud, pulsating alarm. Whenever alarm indication is given, it shall be assumed that is an actual fire.



WARNING: When there's alarm indication, unless it is clear it's caused by known nuisance source, it shall be assumed that is an actual fire and the dwelling shall be evacuated immediately.

Test Button

Pressing and holding the Test button for 3 s will activate the heat alarm to check its operation. The alarm will sound, and the LED will flash rapidly. Releasing the test button will return the unit to normal operation.

Low Battery

When the battery is depleted, the heat alarm will emit a short audible signal every 48 s for at least 30 days. When the Low Battery signal is given, change the battery without delay.

Fault

When the thermistor is damaged, the heat alarm will emit two short audible signals every 48 s, while the red LED not flashes simultaneously. When the fault is given, return the product for service.

Hush Button

Pressing the Hush button will reduce the sensitivity of the heat alarm for approximately 10 min. The Hush button should only be used after the cause of the alarm is known (such as normal cooking fumes). The Hush feature allows time for the smoke to clear. During the hush time, the red LED will flash once every 6 s. After the Hush time has expired, the heat alarm will return to normal sensitivity. If heat is still present in the unit, the alarm will re-activate. The Hush feature can be used repeatedly.

Under hush mode, press the hush button again will return the unit to normal operation.

Alarm Memory

Alarm Memory feature allows easy identification of any unit that has previously been in the Alarm condition. If a unit enters the Alarm condition and subsequently returns to the Normal condition, the Alarm Memory is set. Initially, the red LED will flash three times every 48 s. In order to preserve battery power, this visual indication will stop after 24 hours and the unit will return to normal operation.

If the Alarm Memory is active, pressing and releasing the Test/Hush button resets the Alarm Memory with 3 short beeps.

Interconnection Terminals

Interconnected heat alarms will activate sounders on all units if any heat alarm detects heat. In this case, only the heat alarm(s) that detected heat will flash the LED. This allows the home owner to quickly locate the cause of the alarm. Up to 24 units can be interconnected as long as the cabling is less than 250 m in length. Interconnection terminals are only available on some models.

Specifications

Mains power source	AC 220 V ~ AC 240 V, 50 Hz
Battery power source	DC 9 V

Operating temperature	0 °C ~ +45 °C
Operating humidity	10 % ~ 90 % RH, non-condensing
Alarm sounder output	≥ 85 dB @ 3 m
Interconnection (max)	24 units, 250 m cabling

Installation Preparation

Equipment

Before commencing installation, ensure all equipment and tools to mount and test the device are available, such as drills, mounting screws (supplied), cables and ladders.

Location Selection in Homes and Apartments

Heat alarms are suitable for residential applications where smoke or gas detectors may cause unwanted alarms. The following locations are suitable for heat alarms.

- Areas where combustion particles are present, such as kitchens with few windows or poor ventilation.
- Garages where there may be vehicle exhaust fumes.
- Near furnaces, combustion heaters, and space heaters.
- Damp or very humid areas, such as bathrooms with showers.
- Dusty or dirty areas.
- Insect-infested areas.

Be sure no door or other obstruction blocks the air flow to the alarm.



WARNING: Hazardous levels of smoke and toxic gas can build up before a heat alarm might operate. Where life safety is the primary requirement in the event of a fire, smoke, gas or combination alarms usually provide earlier warning than heat alarms alone.

Installation Location

Install heat alarms as close to the centre of the ceiling as possible, away from light fittings and air-conditioning ducts. If this is not practical, mount the heat alarm on the ceiling, no closer than 50 cm from any wall or corner (see Fig. 1).

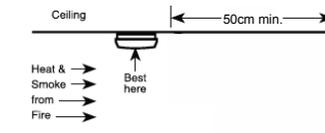


Fig. 1 – Heat alarm location from walls

Under flat horizontal ceilings, the horizontal distance from any point in the protected area to the detector nearest to that point should not exceed 5.3m for heat detectors.

If some of your rooms have sloped, peaked, or gabled ceilings, try to mount heat alarms 0.9 m measured horizontally from the highest point of the ceiling as shown in Fig. 2.

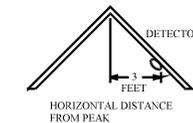


Fig. 2 – Heat alarm location for gabled ceilings

Where Not to Install Your Heat alarm

Heat alarms are not a suitable substitute for smoke alarms required in sleeping areas.

The product shall not be contaminated by paint.

Installation and Test

Please read the previous section **Installation Preparation**, before commencing installation.

Installing the Heat Alarm Mains and Interconnection Wiring

WARNING: To avoid the electrical shock hazard, turn off power to the area where you plan to install the alarm at the fuse box or circuit breaker box.

WARNING: Connect the heat alarm to a continuous source of mains power. Ensure the mains power cannot be inadvertently switched off.

It's recommended that the supply and interconnection wiring to be installed in accordance with BS 7671.

1. Unhinged the heat alarm from the base by pressing the PUSH button located on the side of the base part (see Fig. 3).



Fig. 3 – Press PUSH to unhinge base

2. Place the bracket on the ceiling and mark drill hole locations through the slots available in the base.
3. Remove the heat alarm from the ceiling.
4. Drill two 5 mm (3/16-inch) holes at the marks and insert the plastic mounting plugs (supplied), or other mounting solution (depending on the ceiling type).
5. Run the mains wiring. Use wiring with conductors of 1 mm² ~ 2.5 mm² cross-sectional area. Wiring should have an insulation resistance of at least 300 V.
6. Open the terminal cover to access the terminal screws and install the wiring as shown in Fig. 4.

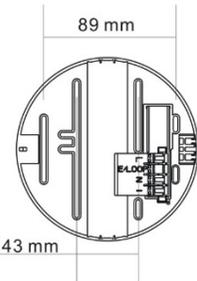


Fig. 4 – Mains wiring terminals and mounting slots

7. Where interconnection to other ZT-MH AC/DC heat alarms is used, install the interconnection wiring as shown in Fig. 5.

WARNING: Take care to ensure the insulation does not get clamped by the terminal contact.

WARNING: Do not connect this heat alarm to any device other than another ZT-MS smoke alarm, ZT-MH heat alarm or ZT-MSH smoke and heat alarm. Connecting anything else to this heat alarm may prevent it from working properly.

WARNING: To avoid the electrical shock hazard, do not use old wiring that may have been used for mains voltages. Use wiring with conductors of 1 mm² ~ 2.5 mm² cross-sectional area. Wiring should have an insulation resistance of at least AC 300 V.

Up to 24 ZT-MH heat alarms can be interconnected, with a maximum cable length of 250 m.

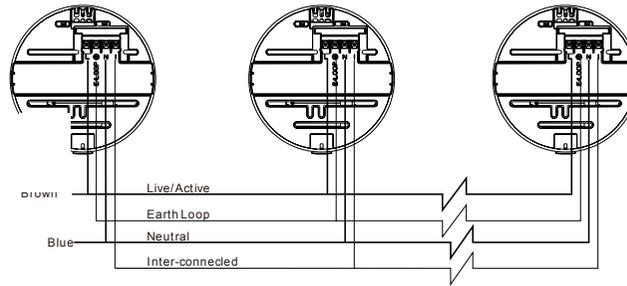


Fig. 5 – Interconnect wiring

8. After all wiring is installed, close the terminal cover.
9. Insert the ceiling plugs and attach the bracket to the ceiling with the screws supplied.

Installing the Battery

NOTE: The battery is purposefully reversed during production to keep it fresh until installation.

1. Remove the battery (supplied) from the battery compartment on the underside of the heat alarm (see Fig. 6). And correctly fit it in the battery compartment.



Fig. 6 – Fitting the battery

NOTE:

- 1) The battery will snap into place and should not shake loose.
- 2) The battery is polarity-dependent. Ensure it is inserted in the correct orientation.

WARNING: If the battery is not installed, the battery compartment will not close and the heat alarm will continually sound a Battery Missing signal.

NOTE: When the heat alarm battery is first contacted, the alarm sounder may sound for 1 s. This is normal and indicates that the battery is positioned properly.

2. Close the heat alarm and mounting base.
3. Connect the mains power.

Check that the green LED turns on and red LED in the Test button flashes every 48 s.

Tests

1. Press and hold the Test button for 3 s to check the heat alarm audible warning operates and the red LED flashes rapidly.



WARNING: The heat alarm has a loud alarm signal. Use hearing protection when testing heat alarms.

1. For interconnected heat alarms, press and hold the Test button for 3 s on each heat alarm, and check the heat alarm sounder operates on all interconnected heat alarms.
2. Check that the red LED in the Test button operates only on the heat alarm being tested.

NOTE: Heat alarms should be interconnected within only one family residence. Otherwise, you might encounter nuisance alarms when a heat alarm is operated or tested in another residence.

Normal Operation

Once installed and tested, your heat alarm will immediately start monitoring for heat. If the sounder in the heat alarm operates, check for a fire and execute your safety plan.

If the alarm was caused by a nuisance situation, open a window or fan the air to remove the heat from around the heat alarm. The alarm will turn off as soon as the area is cool. Do not disconnect the battery to silence the heat alarm.

Care and Maintenance

Weekly Tests

1. Press and hold the Test button for 3 s on each heat alarm.
2. Check the heat alarm sounder operates with a loud pulsating sound, and the red LED in the Test button flashes rapidly.



WARNING: The heat alarm has a loud alarm signal. Use hearing protection when testing heat alarms.

3. For interconnected heat alarms, check the heat alarm sounder operates with a loud pulsating sound on all interconnected heat alarms and the red LED in the Test button operates only on the heat alarm being tested. Repeat the test on all interconnected heat alarms.

The alarm shall also be tested when back from a long away/vacation from the house.

WARNING: Never use a naked flame of any kind to test your heat alarm. You may set fire to and damage the heat alarm, as well as your home. The built-in Test button accurately tests all alarm functions.

Annual Maintenance

1. Vacuum or carefully wipe the cover of the heat alarm to remove any dust, lint or dirt on the heat alarm cover. Do not spray aerosols into the heat alarm.
2. After annual maintenance, test all heat alarms.

Low Battery Alert

When the battery becomes depleted, the heat alarm will signal a short beep every 48 s. Immediately replace the battery with an approved model (see the section User Replaceable Parts).

NOTE: Batteries supply a lower voltage in cold conditions, so the Low Battery signal may start operating late at night. To avoid annoyance, keep a spare battery on hand. The Low Battery signal will operate for at least 30 days.

Protection from Fire

Installing heat alarms is only one step in protecting your family from fires. You should also reduce the chances that fires will start in your home and you must increase your chances of escaping safely if one does start. The following information will help you develop a fire safety program.

1. Install heat alarms properly. Carefully follow all the instructions in this manual. Keep your heat alarms clean, and test them every week.
2. Non-working heat alarms will not alert you. Replace your heat alarms immediately if they are not working properly.
3. Follow fire safety rules, and prevent hazardous situations:
 - Use smoking materials properly. Never smoke in bed.

- Keep matches and cigarette lighters away from children.
- Store flammable materials in proper containers. Never use them near open flames or sparks.
- Keep electrical appliances in good condition. Do not overload electrical circuits.
- Keep stoves, fireplaces, chimneys, and barbecue grills grease free. Make sure they are properly installed and away from any combustible materials.
- Keep portable heaters and open flames such as candles away from combustible materials.
- Do not allow rubbish to accumulate.
- Keep a supply of extra batteries on hand for your battery powered heat alarms.

Prepare and practice a family escape plan. Review the following with your children each time you have fire escape drills. This will help everyone remember them in case of a real fire emergency.

1. Don't panic and stay calm. Your safe escape may depend on thinking clearly and remembering what you have practiced.
2. Get out of the house as quickly as possible. Follow a planned escape route. Do not stop to collect anything or to get dressed.
3. Feel the doors to see if they are hot. If they are not, open them carefully. Do not open a door if it is hot. Use an alternate escape route.
4. Stay close to the floor. Smoke and hot gases rise.
5. Cover your nose and mouth with a wet or damp cloth. Take short, shallow breaths.
6. Keep doors and windows closed. Open them only if you have to in order to escape.
7. Meet at your planned meeting place after leaving the house.
8. Call the Fire Service as soon as possible from outside your house. Give the address and your name.
9. Never go back inside a burning building.
10. Contact your local Fire Service. They will give you more ideas about how to make your home safer from fires and how to plan your family's escape.

User Replaceable Parts

The following batteries are replaceable by the user, and may be purchased from general hardware stores. Use only the specified batteries. **Test the alarm for correct operation using the test facility, whenever the battery is replaced.**

Alkaline: Gold Peak GN1604A, Pairdeer 6LR61

Carbon zinc: Gold Peak 1604S, Pairdeer 6F22

Lithium: EVE CR9V/P.

WARNING: When using lithium battery, there is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type.



References

Document	Description
31-0165	ZT-MH AC/DC heat alarm datasheet

Disposal



Heat alarms or depleted batteries should not be disposed of as land-fill. Please dispose in an environmentally friendly manner.

Limited Warranty

NOTE: *In order to protect your rights, please keep the original purchase receipt for the proof of purchase of this Zeta heat alarm from our authorized dealers. No warranty can be offered without the original purchase receipt.*

Zeta warrants its enclosed Heat alarm - but not the battery - to be free from defects in materials and workmanship under normal use and service for a period of five years from date of purchase. Zeta makes no other express warranty for this Heat alarm. No agent, representative, dealer, or employee of Zeta has the authority to increase or alter the obligations or limitations of this Warranty. Zeta's obligation of this Warranty shall be limited to the repair or replacement of any part of the Heat alarm which is found to be defective in materials or workmanship under normal use and service during the five-year period, commencing from the date of purchase.

During the initial one-year period, commencing from the date of purchase, such repair or replacement shall be made without charge. During the latter four years of the Warranty period, such repair or replacement shall be made at a charge to the Customer, not to exceed the manufacturer's cost. Units in need of repair should be returned, shipping prepaid, to ZETA ALARMS LIMITED, DETECTION HOUSE, 72-78 MORFA ROAD, SWANSEA, SA1 2EN, UNITED KINGDOM.

Zeta shall not be obligated to repair or replace units, which are found to be in need of repair because of damage, unreasonable use, modifications, or alterations occurring after the date of purchase. The duration of any implied Warranty, including that of merchantability or fitness for any particular purpose, shall be limited to the period of five years commencing with the date of purchase. In no case shall Zeta be liable for any consequential or incidental damages for breach of this or any other Warranty expressed or implied whatsoever, even if the loss or damage is caused by Zeta's negligence or fault. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Zeta makes no warranty, expressed or implied, written or oral, including that of merchantability or fitness for any particular purpose, with respect to the batteries. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

View the complete range of products at www.Zetaalarmsystems.com



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