

DELTA MANUAL

MAINS POWERED SMOKE ALARMS & HEAT ALARMS

COVERS:

- Fitting Instructions
- Location Guide
- User Information
- Basic Fire Safety Tips
- User Maintenance Instructions

MODELS:

- IONISATION SMOKE ALARM 1151
- THERMALLY ENHANCED OPTICAL SMOKE ALARM 1153
- HEAT ALARM 1155

220-240VAC (N)
MAINS POWERED ALARMS
CLASS II APPARATUS

Delta Electrical
Company Limited,
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Laporte Way,
Luton
Bedfordshire,
LU4 8RJ,
United Kingdom

GN23/46/R2

IMPORTANT! PLEASE READ AND RETAIN THIS OWNERS MANUAL

When installing this alarm for use by others, please leave this manual or a copy with the end user.

CHECKS BEFORE USE

- Check battery has been fitted correctly.
- Check alarm is not beeping.
- Test alarm before switching on the electricity supply.
- Check the green light is on
- Check the red light flashes every 45 seconds or so.
- When testing linked alarms check that they all interconnect within 10 seconds

GUIDANCE ON INSTALLATION

This alarm must not be exposed to dripping or splashing. Connect the alarm as late as possible in an installation, particularly in new build, to avoid contamination. Remove the dust cover before applying power.

NOTE: For detailed guidance on the siting of this alarm refer to section C of this handbook.

IMPORTANT: The circuit used to power the alarm must be a 24 hour voltage circuit that cannot be turned off by a switch. BS5539 Part 6 states that: -
For mains powered alarms, each with an integral standby supply (Grade D), the mains electricity supply should take the form of either:

- an independent circuit at the dwelling's main circuit board, in which case no other electrical equipment should be connected to this circuit (other than a dedicated monitoring device installed to indicate failure of the mains electricity supply to the alarms); or
- a separately electrically protected, regularly used local lighting circuit.

If it is necessary to use an RCD for protection, it should operate independently of any RCD protection for circuits supplying sockets or portable equipment. All inter-connected alarms should be installed on a single final circuit.

NOTE: The maximum interconnect wiring length is 250 metres. The maximum number of alarms inter-connected together is 12. DELTA smoke alarms should not be connected to any model produced by another manufacturer.

The location of the alarms must comply with the applicable building codes and the advice in section C: WHERE TO LOCATE Below.

INSTALLATION

(See fig 1 and 2)

1. Connect the brown (live) in the house wiring to connector Land the house blue wire (Neutral) to connector N.

NO CONNECTION SHOULD BE MADE TO THE MAINS ELECTRICITY SUPPLY EARTH TERMINAL, TERMINATE HOUSE WIRING EARTH IN SPARE CONNECTOR MARKED E. See Fig 1

2. For multiple alarm installations use a "three core and earth" style cable between all the alarms to be interconnected and connect the third core of that cable to connector marked I. DO NOT use the earth wire for the interconnect line. This must be treated as live, i.e. insulated and sleeved.

3. Open the battery door on the back of the alarm, connect the battery, close the battery drawer and secure with the screw provided. Test the alarm using the test button.

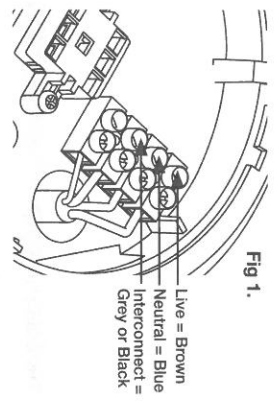


Fig 1.

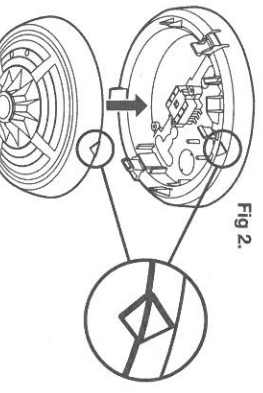


Fig 2.

4. Locate the molded arrow on the side of the base and smoke alarm see fig 2. Position the smoke alarm just below the base with both arrows in the same orientation and locate the alarm onto the base by gently applying pressure until the alarm 'clicks' into place.
5. Switch on the mains electricity supply.
6. Check that the green light is on and that the red light is flashing every 45 seconds or so.
7. Press and hold the test button until the alarm sounds.
NOTE: On the 1151 & 1153 alarms, pressing this button places the alarm in silent mode.

SYSTEMS OF MORE THAN ONE ALARM

Test each alarm in the system checking that all other alarms in the system are triggered within 10 seconds.

WARNING

Do not attempt to test the alarm with flame heat or smoke, then results may be misleading and may damage the alarm. The dust cover must be removed as late as possible before commissioning. This will reduce the chances of the alarm being contaminated by building dust etc. Remove the alarm from the system before testing the wiring with high voltage insulation testing equipment otherwise this will damage the alarm and will invalidate the warranty.

WHERE TO LOCATE

1. As a minimum smoke alarms should be located between sleeping areas and potential sources of fire such as living rooms and kitchens. In single storey homes with one sleeping area a smoke alarm should be installed in the hallway as close as possible to the living accommodation.
To ensure audibility in the bedrooms it may be necessary to install more than one smoke alarm, particularly if the hallway is more than 15m long. In single storey homes with two separate sleeping areas, a minimum of two smoke

alarms is required, one outside each sleeping area. In multilevel or split level homes as a minimum a smoke alarm should be installed on the ground floor between the staircase and any rooms in which a fire might start and on each storey in circulation areas which form part of the escape route (normally hallways and landings).

NOTE: Heat alarms should not be used in escape routes instead of smoke alarms. They should only be used in the applications listed below in addition to smoke alarms and should always be interconnected to smoke alarms.

2. Additional alarms should be installed in bedrooms in anticipation of fires originating there, caused by faulty wiring, lights, appliances, smokers or other hazards.

3. For best protection, smoke alarms should be installed in every room in your home, apart from those listed in the 'LOCATIONS TO AVOID' section. Heat alarms should be used in kitchens, boiler rooms, laundry rooms, garages and such like where smoke alarms would be unsuitable. All alarms must be interconnected.

4. Install smoke alarms in circulation areas at a distance no greater than 7.5m from the farthest wall, no greater than 7.5m from a door to any room in which a fire might start and no greater than 7.5m from the next smoke alarm.

5. When heat alarms are installed in a room, they should be at a distance no greater than 5.3m from the farthest wall no greater than 5.3m from a door to any room in which a fire might start and no greater than 5.3m from the next heat or smoke alarm.

6. As it is impossible to predict the source of a fire the best location for an alarm is the centre of the room or hallway. **It is necessary to locate the smoke alarm on a wall always** locate the detection element of the alarm 150mm to 300mm (6 to 12 inches) below the ceiling and the bottom of the alarm above the level of doors and other openings.

NOTE: Heat alarms should not be wall mounted.

7. In rooms with simple sloped, peaked or gabled ceilings install smoke alarms 900mm (3 feet) from the highest point of the ceiling. 'Dead air' at the peak of the ceiling may prevent smoke from reaching the alarm in time to provide an early warning.

8. Closed doors and other obstructions will interfere with the path of smoke and heat to an alarm and may prevent occupants from hearing an alarm on the other side of a closed door. Install sufficient alarms to compensate for closed doors and other obstacles.

9. Your local fire brigade or insurance company may be able to give you further advice. Call them and ask. Further help and information may also be found in BS5539 Part 6 and the Fire Safety guidance given by the Department of Transport, Local Government and the Regions (DfTR).

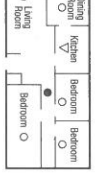
IMPORTANT: These smoke and heat alarms are intended primarily for use in single-family occupancy private dwellings. For use in other applications the manufacturers advice should be sought.

LOCATIONS TO AVOID

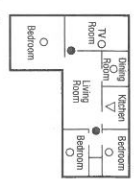
DO NOT locate alarms: -

1. In turbulent air from fans, heaters, doors, windows, etc.
2. In high humidity areas such as bathrooms and shower rooms or where the temperature exceeds 39°C (100°F) or falls below 5°C (40°F)

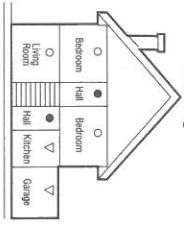
Single storey, one sleeping area



Single storey, two sleeping areas



Two storey dwelling



- Smoke alarms for limited protection
 - Additional smoke alarms for better coverage
 - ▽ Heat alarms
3. At the peak of an 'A' frame ceiling - dead air at the top may prevent smoke and heat from reaching the alarm to provide an early warning.

- Less than 300mm (12 inches) from a wall when mounted on the ceiling.
 - In insect infested areas. Tiny insects may affect performance.
 - (Smoke alarms) In poorly ventilated kitchen or garage. Combustion particles from cooking or car exhaust could trigger a nuisance alarm
 - In very dusty or dirty areas – dirt and excessive dust can impair the performance of the alarm.**
 - Within 300mm (12 inches) of a light fitting or room corners.
 - In locations that would make routine testing or maintenance hazardous. (e.g. over a stairwell).
 - On poorly insulated walls or ceilings.
 - Near objects such as ceiling decorations that might impede the path of smoke or heat to the alarm.
 - Within 1500mm (5 feet) of a fluorescent light fitting and keep wiring at least 1000mm (39 inches) from these fittings. Do not install alarms on circuits containing fluorescent light fittings or dimmer switches.
- Further help and information may be found in BSS5839 Part 6

USER INFORMATION

Features

- Operating Lights – A continuous green light indicates the alarm is receiving mains power. The red light doubles as an alarm source indicator and flashes approximately every 45 seconds to confirm circuitry integrity.
- Alarm Source Indicator – Red light will flash every second in the unit originating the alarm. Red lights on other alarms flash every 45 seconds.
- Alarm pause/silence (Smoke Alarms only) – silence your smoke alarm by momentarily pressing the test button. Ideal when non-emergency smoke (e.g. cooking fumes) cause nuisance alarms. Red light flashes every ten seconds to remind you that the alarm has been silenced. After 10 minutes the alarm will automatically reset and the LED will continue to flash once every 45 seconds.

Be Prepared

- Smoke and heat alarms properly installed and maintained are an essential part of a good home fire safety programme. Review fire hazards and eliminate dangerous conditions wherever possible. When fire strikes a prepared and practiced escape plan could prove vital. Your local fire brigade may be willing to advise you. Call them and ask. Consider and discuss the following safety hints:
 - Ensure everyone is familiarized with the alarm signal.
 - Always test doors with your hands before flinging them open. If they feel warm, fire may be walled up behind them – leave closed and find another escape route.
 - Don't waste time collecting possessions. Rouse all occupants and leave the building, your life is more valuable.

GET OUT, STAY OUT, GET THE FIRE BRIGADE OUT

- Keep everyone in a set meeting place after your escape.
- If trapped inside, stay close to the floor, cover your mouth with cloth and conserve breath while you crawl to safety.
- Keep all windows and doors closed except for escape purposes.
- Prepare and practice an escape plan before a fire starts.
- Draw a floor plan. Have fire drills often. Practise your escape.

USER MAINTENANCE

Vacuum every six months to keep unit working efficiently by firstly turning off the mains electrically supply and vacuuming through the vents using a soft brush attachment. Keep the nozzle from touching the unit. **SWITCH POWER BACK ON WHEN YOU HAVE FINISHED.**

Test the alarm once a week by:-

- Checking that the green light is on and that the red light is flashing every 45 seconds or so. The lights are located behind the grille on the front of the alarm.
- Press and hold the test button until the alarm sounds. NOTE: Pressing this button on alarms in the series also places the alarm in pause mode.

CHANGING THE BATTERY

Change the battery with a new one when the alarm beeps every 45 seconds.

- Turn off the power, usually at the consumer unit (fuse box). Green LED should be off.
- Using a small flat blade screwdriver gently flex the locking clips on the side of the base away from the alarm.
- Using your other hand, disconnect the alarm by gently pulling away from the base.
- When alarm is removed, remove screw and open battery door on the rear of the alarm. Replace battery with Duracell MN1604, MX1604, Eveready PPS3, 6LFE22, Gold Peak 1606A or 1604S. Close battery door and refit the screw.
- Press the test button on the alarm to ensure correct operation be re-installing. Locate the molded arrow on the side of the base and smoke alarm see fig 2. Position the smoke alarm just below the base with both arrows in the same orientation and locate the alarm onto the base by gently applying pressure until the alarm 'clicks' into place.
- Restore mains power and ensure green LED lights and press the test button to confirm operation.

TROUBLESHOOTING

Problems are indicated by four events:-

- Alarm does not sound upon pressing the test button
 - Green light does not illuminate when mains power is on.
 - Red operating light remains steadily on, or off (i.e. does not flash every 45 seconds when alarm is in standby).
 - Alarm emits a beep every 45 seconds when back up power supply should be fully charged.
- Try the following:-
- Inspect the fuse in the power circuit to the alarm
 - Gently vacuum as detailed in 'User Maintenance'.
 - Replace the Battery.
 - Call a qualified electrician to inspect the house wiring and connections to the alarm.

If these procedures do not eliminate the problem, DO NOT ATTEMPT REPAIRS. In the first instance contact the manufacturer for further advice. If the alarm is still within warranty period and terms, return the unit with proof of purchase to the distributor, indicating the nature of the problem. Units beyond warranty cannot be economically repaired. For address see the bottom of this page.

False Alarms

Abnormal air conditions may cause the highly sensitive alarm to give a 'false' alarm. DO NOT DISCONNECT THE ALARM. If no fire is apparent, ventilate the room and/or operate the alarm pause (if fitted).

WARNING: IF THERE IS ANY QUESTION AS TO THE CAUSE OF AN ALARM, ALWAYS ASSUME THAT IT IS DUE TO AN ACTUAL FIRE AND FOLLOW YOUR FIRE EMERGENCY PLANS. Do not assume the alarm is a nuisance alarm and activate alarm pause (if fitted).

Dust can have an adverse effect. Vacuum as recommended above. Do not paint the unit.

Other factors such as nicotine contamination may also adversely affect the alarm.

Radioactive Contents

Ionisation type smoke alarms (1151) utilise a tiny amount of radioactive material, 0.9 microcuries (30 kilobecquerels) of Americium 241, to detect smoke. This material is in the form of a sealed source and represents no hazard whatsoever to anyone installing or using the smoke alarm. Any stray particles would be unable to "penetrate the dead layer of skin and thus do not constitute an external hazard". (Radiation Protection Guidance for Scientists and Physicians). All Delta ionisation smoke alarms have been rigorously tested by the National Radiological Protection Board to ensure absolute safety.

Disposal

This product, the batteries and other accessories must not be disposed of as unsorted municipal waste and must be collected separately at the end of the products life. Contact your local authority for information about collection points in your area.

Limited warranty

DETA products are warranted by the Distributor to be free from defects in materials and workmanship under normal use and service for a period of five years from the date of purchase. DETA do not make any guarantees for this product. No agent, representative, dealer or employee from DETA has the authority to increase or alter the obligations or limitations of the warranty.

DETA's obligation of this warranty shall be limited to the repair or replacement of any part of the smoke or heat alarm which is found to be defective in materials or workmanship under normal use and service during the five year period commencing from date of purchase. DETA shall not be obligated to repair or replace smoke or heat alarms which are found to be in need of repair because of damage, unreasonable use, modifications or alterations occurring after the date of purchase. This warranty does not affect a customer's statutory rights in any way.

How to obtain warranty service

If service is required, return the product to your retailer. The DETA makes no guarantee, express or implied, written or oral, including that of merchantability or fitness for any particular purpose with respect to battery. YOUR ALARM IS NOT A SUBSTITUTE FOR PROPERTY, DISABILITY OR OTHER INSURANCE OF ANY KIND. APPROPRIATE COVERAGE IS YOUR RESPONSIBILITY. CONSULT YOUR AGENT. In the event of a problem with your alarm or you have any questions concerning its use, care and service please consult this manual.

If you require any further help or clarification please write to:

Delta Electrical Company Limited, Kingsway House, Laporte Way, Luton Bedfordshire, LU4 8RJ, United Kingdom

DETA technical hot line: 01582 544548

Placed on the market by Sprue Safety Products Ltd, Unit 6 Carter Court, Davy Way, Waterwells Business Park, Gloucester GL2 2DE
Please note that specifications may be subject to change

PLEASE KEEP THIS MANUAL IN A SAFE PLACE

MODEL 1151



0086
0086-CPR-597993
EN14604-2005
DOP13/05

MODEL 1153



0359
0359-CPR-00253
EN14604-2005
DOP14/11

MODEL 1155



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