DSW104 — *"THE FIRE DETECTIVE"*

BATTERY POWERED OPTICAL SMOKE ALARMS.
MODEL NUMBER DSW104(R)
USERS MANUAL

IMPORTANT.
PLEASE READ CAREFULLY AND SAVE

This manual contains important information about the operation of this smoke alarm. Purchaser's who install this alarm for use by others should leave this manual or a copy of it with the user.

WHAT THIS SMOKE ALARM CAN DO

This smoke alarm is battery powered. It is designed to sense smoke particles that enter into its sensing chamber. This smoke alarm is designed to give early warning of developing Fires. It will provide precious time for you and your family to escape before a fire spreads. Such early warning is only possible, however, if the smoke alarm is located, installed and maintained as described in this User's Manual.

WARNING: This smoke alarm may not alert people who are hard of hearing.

DSW International. recommends that you install added devices to the smoke alarms outputs such as lights or vibrating devices to alert occupants who are hard of hearing. In this event, contact DSW International or the Installer for assistance.

DSW-104 OPTICAL SMOKE DETECTOR

The DSW104(R) Smoke detector is an advanced Photoelectric (Optical) smoke detector containing sophisticated very-low-power Analog and Digital circuitry. The Detector uses an infrared photoelectric chamber. Detection is accomplished by sensing scattered light from minute smoke particles or other aerosols. The unit is aesthetically pleasing to the eye, weighing in at a mere 140g with a diameter of 104mm x 50mm deep. It is very easy to install using the two screws provided to mount the unit to the ceiling or wall.

Standard Features

- 10 year Battery life. The unit comes standard with 3 x 3.6Vdc Lithium Batteries. These batteries may be replaced if required. Due to the very low current consumption of the unit, the batteries only need to be replaced every 10 years, under normal operating conditions.
- A >85dB onboard siren.
- LED indication for Normal, Alarm, Battery Low and Dirty Chamber conditions.
- LOW Battery Supply Audible Sounding.
- Degraded or Dirty chamber Audible Sounding.
- Built in test button for testing.

Interconnection Features

- This feature enables all interconnected units to sound their Horns in the event of one or more of the DSW104's detecting a potential fire condition. The connector which comprises two screw terminals on the board, is used to connect up to 40 units together. A local–smoke condition activates the connected output to other DSW104's of an alarm condition, thereby signalling smoke conditions to remote DSW104's.
- The Security Panel connection feature is used to connect interconnected DSW-104's to an existing security or intruder panel, using the connections discussed above and a small interface board. In the event of there not being anyone in the vicinity of the detectors for the audible horn to be heard, the security panel is activated thereby alerting the relative personnel
- Additionally, the I/O connections can be used to activate escape lights, enable auxiliary or remote alarms, security panels and/or initiate auto–diallers.

VISUAL AND AUDIO ALERT CONDITIONS

- When detection occurs, a pulsating alarm is sounded using an onboard 85 dB piezoelectric transducer. A visible LED flash accompanying a pulsating audible alarm indicates a local-smoke condition.
- A pulsating audible alarm with no LED flashing indicates a remote-smoke Alarm. This means that one of the other connected DSW104's has detected a smoke condition.
- A beep or chirp occurring simultaneously with an LED flash indicates a low-supply condition, which means the batteries are getting weak.
- The special monitor circuit periodically checks for degraded chamber sensitivity. A beep occurring half–way between LED flashes indicates a degraded chamber. This indicates that the unit requires cleaning. (See how to take care of the Smoke alarm).

WHERE SMOKE ALARMS SHOULD BE INSTALLED

- Put a smoke alarm in the hallway outside every separate bedroom area. Two smoke alarms are required in homes with two bedroom areas.
- Put a smoke alarm on every floor of a multi-floor home or apartment.
- Put a smoke alarm inside every bedroom, especially if a smoker sleeps there.
- Put a smoke alarm inside bedrooms where electrical appliances (such as portable heaters or humidifiers) are used.
- Put a smoke alarm inside every bedroom where someone sleeps with the door partly or completely closed. The closed door could block smoke. Also, a hallway smoke alarm may not wake up the sleeper if the door is closed.
- Put smoke alarms at both ends of a bedroom hallway if the hallway is more than 12 metres (40 feet) long.
- Put basement smoke alarms at the bottom of the basement stairwell.
- Put first-floor smoke alarms at the top of the ground to first floor stairwell. Be sure no door or other obstruction blocks the path of smoke to the alarm.
- Put additional smoke alarms in your living room, dining room, family room, attic, utility and storage rooms.
- Put smoke alarms as close to the centre of the ceiling as possible. If this is not practical, put the smoke alarm on the ceiling, no closer than 10cm (4 inches) from any wall or corner.
- If ceiling mounting is not possible, put wall-mounted smoke alarms between 10 and 15cm (4 and 6 inches) from the ceiling.
- Some rooms have sloped, peaked, or gabled ceilings. If yours does, mount smoke alarms 0.9 metres (3 feet) measured horizontally - from the highest point of the ceiling.

WHERE SMOKE ALARMS SHOULD NOT BE INSTALLED

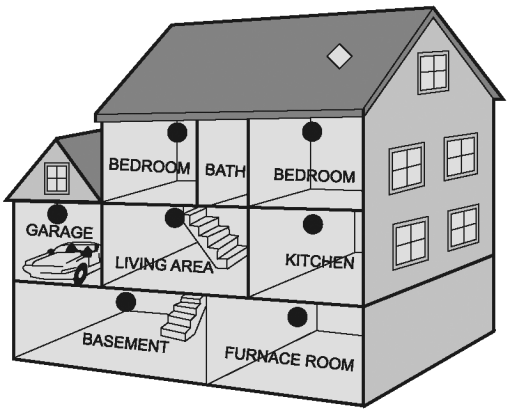
Nuisance alarms occur when smoke alarms are put up where they will not work properly. To avoid nuisance alarms, do not place smoke alarms:

- In or near areas where combustion particles are present. (Combustion particles are the by-products of something that is burning). Areas to avoid include kitchens, with few window or poor ventilation, near furnaces, hot water heaters, and space heaters.
- Place the smoke alarms at least 6 metres (20 feet) away from places where combustion particles are normally present. If a 6-metre distance is not possible put the smoke alarm as far away from the combustion particles as possible. To prevent nuisance alarms, provide good ventilation in such places.
- In air streaming kitchens.
- In damp or very humid areas, or near bathrooms with showers. Moisture in humid air can enter the sensing chamber. It then cools and turns into droplets which can cause nuisance alarms, and damage the unit. Place smoke alarms at least 3 metres (10 feet) away from bathrooms.
- In very cold or very hot areas, including unheated buildings or outdoor rooms. If the temperature goes above or below the operating range of your smoke alarm, it will not work properly.
- In very dusty or dirty areas. Dirt and dust can build up on the smoke alarm's sensing chamber, making it overly sensitive, alternatively it can block openings to the sensing chamber and stop the smoke alarm from sensing smoke.
- Near fresh air vents, or very drafty areas. Air conditioner, heather, fans, fresh air vents, and drafts can drive smoke away from smoke alarms.
- In dead air spaces. Dead air spaces are often at the top of a peaked roof, or in the corners between ceilings and walls. Dead air may prevent smoke from reaching a smoke alarm.
- In insect infested areas. If insects enter a smoke alarm's sensing chamber, they may cause a nuisance alarm. Where insects are a problem, get rid of them before installing a smoke alarm.
- Near fluorescent lights. Electrical "noise" from fluorescent lights may cause nuisance alarms. Put up smoke alarms at least 1.5 metres (5 feet) from such lights.

WARNING: Never remove batteries or the jumper from a battery-operated smoke alarm to stop a nuisance alarm. Open window or fan the air around the smoke alarm to get rid of the smoke. The smoke alarm will turn itself off when the smoke is gone.

WARNING: Do not stand close to the smoke alarm when the alarm horn is sounding. The smoke alarm is loud in order to wake you in an emergency. Too much exposure to the horn at close range could be harmful to your hearing.

RECOMMENDED LOCATIONS FOR SMOKE ALARMS



HOW THIS SMOKE ALARM SHOULD BE INSTALLED

The smoke alarm is made to be mounted on the ceiling or on the wall if necessary. This model is a single-station smoke alarm and may be linked to other similar smoke alarms. A facility is provided whereby the smoke alarms may be connected to your currently installed intruder system ,or to each other, to notify the relative personnel, that a fire is present in your home. CONTACT THE SUPPLIER OR YOUR LOCAL INSTALLER TO ASSIST YOU WITH THIS.

To install your smoke alarm, follow these steps:

1. Press the catch with the extended flange, and open the unit.
2. On the main pcb (printed circuit board) there is a small 3-way jumper. The positions are marked "ON" and "OFF". If the jumper is in the "OFF" position, remove it by pulling it out and move it over to the "ON" position. The unit is shipped in the "OFF" position. The unit does not operate if the jumper is in the "OFF" position.
3. Locate the base mounting slots in the main base, and screw the unit into the ceiling or wall, double sided tape may also be used.
4. Close the unit by pressing the mounting base and head base together.
5. On setting the jumper to the "ON" position, the Red LED on the unit will flash.
6. Make sure that the red led on the Head Flashes approximately every 30-40 seconds. This indicates the unit is working properly.

HOW TO TELL IF THE SMOKE ALARM IS WORKING PROPERLY

TEST ALARM PERIODICALLY. IF THE SMOKE ALARM FAILS TO TEST PROPERLY, HAVE IT REPAIRED OR REPLACED IMMEDIATELY.

- Check that the RED LED on the head is flashing approximately once every 30 seconds.
- Test the smoke alarm monthly by depressing the little square test switch on the head marked "TEST". The horn sounds for as long as the Test switch is depressed. The LED on the unit will start to flash quickly.
- The smoke alarm could be caused by a nuisance situation. Cooking smoke or a dusty furnace, sometimes called "friendly fires", can cause the smoke alarm to sound. If this happens, open a window or fan the air to remove the smoke or dust. The smoke alarm will turn off as soon as the air is completely clear. **DO NOT DISCONNECT THE BATTERY, THIS WILL REMOVE YOUR PROTECTION.**

WARNING: Never use an open flame of any kind to test your smoke alarm. You may set fire to and damage the smoke alarm, as well as your home.

DANGER: If the alarm horn sounds a loud continuous beeping sound and you are not testing it, and the RED LED is flashing, the smoke alarm has sensed smoke or combustion particles in the air. **THE ALARM HORN IS A WARNING OF A POSSIBLY SERIOUS SITUATION**

HOW TO TAKE CARE OF AND TEST THIS SMOKE ALARM

Your smoke alarm has been designed to be as maintenance-free as possible. To keep your alarm in good working order, you should do the following:

1. Test the smoke alarm monthly. (See section "How to tell if the Alarm is Working Properly")
2. Replace the smoke alarm or contact the supplier to replace the batteries, if they are getting weak.
3. A beep occurring half–way between LED flashes indicates a degraded chamber. In this event, the unit needs to be cleaned. The unit may be cleaned by blowing it out with air. DO NOT use high pressure air ,as this may damage the unit.

NOTE: IF you have repeated nuisance alarms, check the smoke alarm's location. Refer to "Where Smoke Alarms Should Not Be Put". Move your smoke alarm if it is not located properly. Clean the smoke alarm as described above.

WARNING: If the smoke alarm does not work properly, make sure the interior of the smoke alarm and the openings to the sensing chamber are clean. If there is still a problem, do not try to repair the alarm yourself, as this will void your warranty, contact the supplier.

WHAT ELSE YOU CAN DO TO MAKE YOUR FAMILY SAFER

1. Install the smoke alarms properly. Carefully follow all the instructions in this manual. Keep your smoke alarms clean, and test them periodically.
2. Replace your smoke alarms immediately if they are not working properly.
3. Use smoking materials properly. Never smoke in bed.
4. Keep matches and lighters away from children.
5. Store flammable materials in proper containers. Never use them near open flames or sparks.
6. Keep electrical appliances in good condition. Do not overload electrical circuits.
7. Keep stoves, fireplaces, chimneys and barbecue grills grease free. Make sure they are properly installed, away from any combustible materials.
8. Keep portable heaters and open flames such as candles away from combustible materials.
9. Develop a family escape plan and practice it with your entire family. Be sure to include small children in your practice.
10. Explain to children what the smoke alarm signal means. Teach them that they must be prepared to leave the home by themselves if necessary. Show them how to check to see if doors are hot before opening them. Show them how to stay close to the floor and crawl if necessary.
11. Know where to go to call the Fire Brigade from outside your home.
12. Provide emergency equipment, such as fire extinguishers, and teach your family to use this equipment properly.

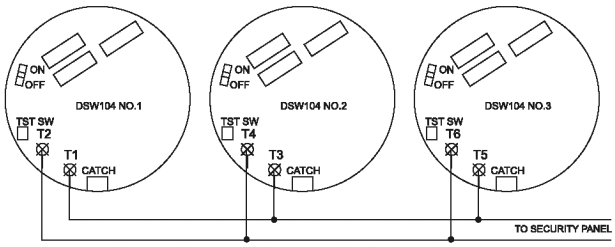
WHAT TO DO IF THERE IS A FIRE IN YOUR HOME

If you have made a family escape plan and practised it with your family, you have increased the chances of escaping safely. Go over the following rules with your children each time you have fire drills. This will help everyone remember them in case of a real fire emergency.

1. Don't panic. Stay calm. Your safe escape may depend on thinking clearly and remembering what you have practised.
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 gasses rise.
5. Cover your nose and mouth with a cloth (wet, if possible). 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 Brigade as soon as possible from outside your house. Give them your name and address.
9. NEVER go back inside a burning building.contact your local Fire Brigade. They will give you more ideas about how to make your home safer from fires and how to plan your family's escape.

INTERCONNECTION INSTRUCTIONS

The units are connected together using any type of twin flex cable. The connections consist of two screw terminals on the board, inside the detector. The detectors are connected to each other using a connector to connector configuration. The terminal closest to the closing catch is connected to the same terminal closest to the closing catch on the other DSW104's. The terminal closest to the test switch is connected to the same terminal closest to the test switch on the other DSW104's.



STANDARDS AND CERTIFICATION

CE (EC Conformity Marking)

This product complies to the CE marking regulations

DSW104 SPECIFICATIONS

Detector Card Part Number	DSW104
Detector Type	Optical / Photoelectric
Physical Dimensions	Ø104mm x 50mm
Weight	140g
Operation Voltage	6 Vdc – 12 Vdc
Operation Temperature	-10°C to + 60°C
Supply Voltage 9	-12 Vdc Lithium Battery
Maximum Quiescent Current	<15uA (10 Year Life)
Operational Indication	Flashing Led every 30-45 Seconds
Fire Pre-Warning Condition	Flashing Led every 0.5 Seconds
Local Fire Condition	Flashing Led + Pulsating Sounder
Remote Fire Condition	Pulsating Sounder Only
Battery Low Condition	Beep or Chirp Sound Simultaneously With Led Flash
Chamber Degradation (Dirty)	Beep or Chirp Sound Halfway Between Led Flash
Sound Pressure	>85dB
Test Facility	Push Button
Inter-Connection Capabilities DSW-104	40 Units
Security Panel Connection DSW-104	N/O Relay Contact (Special Board)

WARRANTY INFORMATION.

The DSW104 — "Fire Detective" Smoke Detector comes with a 5 warranty against manufacturers defects. *This does not include the batteries.* The warranty is valid as long as the smoke detector has not been altered, modified or a repaired in any way.

If you believe the smoke detector to be defective, return it either to your Installer or to: DSW International.

If you wish to contact Telemux Industries regarding other issues or documentation for the DSW104 please visit our web site or e-mail us.