



WESTSIDE FIRE SERVICES

"CARING AND RESPONSIVE"



Fire Detection



Occupant Warning



Exit & Emergency Lighting



Fire Extinguishers



Fire Doors



Fire Hose Reels



Fire Hydrants



Fire Pumps



Gas Suppression



Sprinkler Systems



OCCUPANT WARNING



Occupant Warning

What Is A Warning System?

Warning systems are designed to alert and evacuate building occupants in the event of an emergency. A building evacuation is typically conducted in accordance with a defined set of emergency response procedures.

Loudspeakers or sounders are located throughout the premises. There are two standard signals, Alert and Evacuate, which are either a tone or a tone with a voice message. These messages may also be configured to assist occupants in multi-lingual environments.

The Alert tone identifies the need to prepare for an evacuation. The Evacuate tone is the signal that occupants must leave the building.

Some buildings are required to have a simultaneous "all-out" evacuation – no Alert signal or phased evacuation is permitted.

For all warning systems visual alarm devices (flashing lights) may be installed in areas where there are high ambient noise levels which would make audible alarms ineffective. Visual alarms are required in hearing impaired occupant designated areas.

Warning systems with loudspeakers may also be used for non-emergency purposes such as public address, or background music. The system automatically overrides these features in an emergency condition.

Why Do Buildings Have Warning Systems?

The Building Code of Australia volume 1 parts E1.5 and E2.2a detail the mandatory requirement for occupant warning systems to be provided in various classes of buildings. Parts E4.9 and G3.8 specify the classes of buildings that require emergency warning and intercom systems.



Types Of Warning Systems

Building Occupant Warning System (BOWS)

A building occupant warning system is typically configured as a single amplifier / circuit and on the receipt of an alarm the entire circuit is activated.

Emergency Warning Systems (EWS)

Provides audible warning signals on each level or zone within a building. According to Australian Standard AS1851.4, an evacuation zone is a subdivision of the premises that can be evacuated separately from any other subdivision.

A system that has two or more zones will evacuate the zone corresponding to the source of the alarm signal first followed by a delay where the next adjacent zone is then operated. The cascading sequence is repeated until all evacuation zones have been operated or the system has been manually disabled.

Emergency Warning and Intercommunication System (EWIS)

Includes all the EWS features plus dedicated emergency intercommunication system (EIS) between the master emergency control panel (MECP) and the fire warden intercommunication points (WIP's) in each zone.

A chief fire warden manages an evacuation using the WIPs to speak to the floor wardens to ensure all levels have been evacuated and the inbuilt Public Address system allows direct messages to be relayed throughout the building.





Occupant Warning

Where Should Warning Devices Be Located?

Australian Standard AS1670.1 sets out requirements for the design, installation and commissioning of fire detection and alarm systems comprising components conforming to the requirements of the appropriate component Standards.

AS1670.4 specifies the design, installation and commissioning requirements for emergency warning systems and emergency intercom systems used in buildings for the evacuation of building occupants in the event of a fire or other type of emergency.

It is important that the system designer has a good understanding of the building use to ensure the speech intelligibility and sound level requirements of the standards are met.

How Do I Operate A Warning System?

An emergency warning system is generally configured to be activated on an alarm signal by;

- An automatic fire sprinkler system; or
- A fire detection system; or
- A manual break glass point

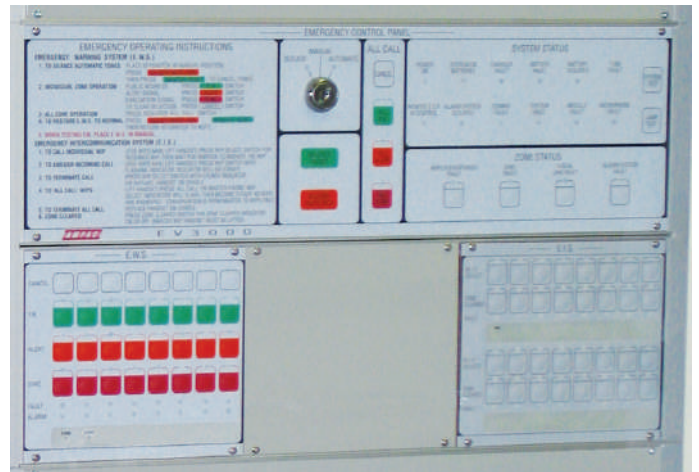
Manual control of the system should only be undertaken by qualified people that have been trained in the use of the panel and understand how the system operation fits within the building evacuation procedures.

The basic occupant warning system utilising sounders will be incorporated into the building's fire alarm panel and may not have any dedicated controls.

A more advanced occupant warning system with a microphone and loudspeakers will have individual control of the Alert, Evacuate and PA functions. The building will only have one zone – all tones and messages will be heard throughout the premises.

Emergency Warning and Intercommunication System (EWIS) control panels are more complicated to operate than BOWS panels. Individual buttons provide zone control for Alert, Evacuate and PA. Also, there are buttons to activate "All Zones".

The WIPs have an individual call buttons to "ring" the required point. They also indicate when a warden is calling the chief warden. In the same control section, there is also a floor cleared button and indicator to enable the chief warden to track which zones have evacuated all the occupants.

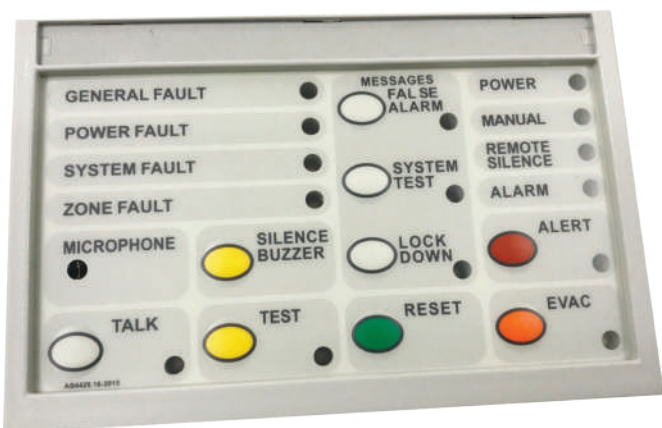











Western Australia's building legislation requires owners of Class 2 to Class 9 buildings (which includes residential apartments) to ensure the building's firefighting services and equipment are maintained. This is to ensure that safety systems remain capable of performing to a standard not less than they were originally required and commissioned to achieve.


There is a financial penalty for noncompliance with the building legislation.

The Building Commission considers the adoption of Australian Standard AS1851-2012 Routine service of fire protection systems and equipment as good practice and a means for owners to ensure fire safety measures are serviced at regular frequencies to demonstrate suitable operation, and rectified or repaired if necessary to meet their regulatory obligation on maintenance.

AS1851 requires warning systems to be inspected monthly. There is an additional inspection and test checklist required to be undertaken yearly and five yearly.




ROUTINE SERVICE FREQUENCIES	Monthly	Three Monthly	Six Monthly	Yearly	Five Yearly	Ten Yearly	Twenty Five Yearly	Thirty Yearly
 Fire Detection	✓		✓	✓	✓			
 Occupant Warning	✓			✓	✓			
 Exit & Emergency Lighting			✓	✓				
 Fire Extinguishers			✓	✓	✓			
 Fire Doors		✓ <small>Horizontal Sliding Doors</small>	✓	✓				
 Fire Hose Reels			✓	✓				
 Fire Hydrants	✓ <small>Where Pumpsets Fitted</small>		✓	✓	✓			
 Fire Pumps	✓		✓	✓	✓			
 Gas Suppression	✓		✓	✓		✓		
 Sprinkler Systems	✓		✓	✓	✓	✓	✓	✓



Design

We design solutions, tailored to your building.




Installation

Our installation teams are focused on delivering on time and on budget projects.



Service & Maintenance

We offer regular servicing and maintenance to ensure that your systems are working at their optimum level.



Emergency Call Out

The Emergency Call Out Service ensures that you are covered 24 hours, 7 days a week for fault and emergency.



Fire Safety Training

We deliver training courses to ensure your team has the knowledge to act competently during an emergency.



The information provided in this document is general in nature, every installation is different and requires site specific professional guidance. Westside Fire Services assumes no responsibility or liability for any errors or omissions in the content of this document. The information contained in this document is provided on an "as is" basis with no guarantees of completeness, accuracy, usefulness or timeliness.

FREE advice and site inspections.
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