

GRADE 3 USER INTERFACE OPERATING MANUAL

INTRODUCTION

The T-Gen2 is an Emergency Warning System (EWS) that complies with AS 4428.16. It can be installed in a fire panel and controlled by the fire panel without any specific user interface controls or indications for the T-Gen2 itself. In this case the fire panel controls are used to control the EWS. An optional Grade 3 User Interface can be installed with the T-Gen2 to give manual control and indications – especially for making voice announcements in emergency situations to the single evacuation zone, and/or in normal conditions to different areas of the building.

AS 4428.16 includes a number of optional user controls/indications – most of which are provided on this T-Gen2 Grade 3 User Interface. A number of these require specific functions to be available in the building evacuation organisation (e.g., use of the Alert tone and messages, Test Mode, Silence Warning, and Reset functions). Therefore these buttons must be enabled on sites that require them and so may not be available on your system.

This manual covers operation of T-Gen2 units fitted with V2.xx firmware and a Grade 3 User Interface, and configured for Grade 3 operation.

USER INTERFACE LAYOUT

Figure 1 shows the layout of the T-Gen2 Grade 3 User Interface.

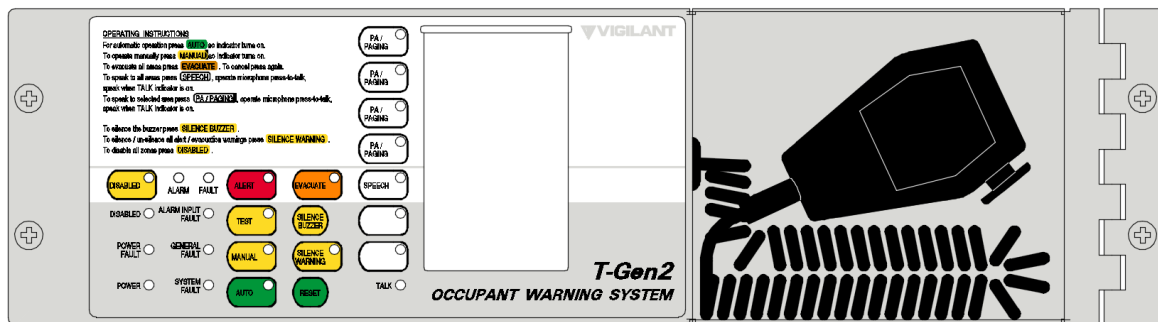


Figure 1 – T-Gen Grade 3 User Interface

The row of buttons containing the DISABLED, ALERT, EVACUATE and SPEECH buttons applies to the single zone covered by the Grade 3 T-Gen2 EWS.

Activation of Alert or Evacuate, for example, will generate tones to the whole building. Similarly selecting Speech and pressing the microphone PTT button will direct the voice announcement to the whole building. The 4 PAPA/PAGING buttons (if enabled) apply to specific areas of the building and allow non-emergency voice announcements to be made using the microphone.

The lower group of buttons apply to the system as a whole. For example, the TEST button will put the system (in this case the single zone) into Test mode.

BUTTONS & OPERATION

Auto / Manual Operation

The AUTO and MANUAL buttons control the overall operation of the T-Gen2 EWS. These are mutually exclusive controls – pressing one will cancel the other.



AUTO MODE

Pressing the AUTO button selects Automatic Mode (green AUTO LED on). In Automatic Mode the T-Gen2 EWS is set for automatic operation under control of the connected fire alarm system. When the fire alarm system goes into alarm (e.g., smoke is detected or a manual call point is activated) it will signal an alarm to the T-Gen2. The T-Gen2 will activate its ALARM LED, start its buzzer beeping (if enabled) and, depending on the configuration, start the Alert warning signal or go directly to the Evacuate warning signal. This should cause everyone to evacuate the building.

If the Alarm Devices are silenced or disabled on the fire panel, this will generally cause the T-Gen2 EWS to cancel its warning signals and return to the normal state.

At any time pressing the SPEECH button and activating the PTT switch on the microphone allows a live voice announcement to override the warning signal.

In Automatic mode the zone ALERT and EVACUATE buttons cannot be used.

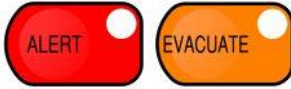


MANUAL MODE

In MANUAL mode, selected by pressing the MANUAL button (turns yellow MANUAL LED on), automatic operation is disabled and the manual ALERT and EVACUATE buttons can be used. These can be used to manually activate (or stop) the Alert or Evacuate warning signals in the building.

If an alarm occurs in Manual mode the ALARM LED will turn on and, if enabled, the buzzer will beep.

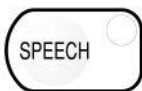
If automatic evacuation is required, then push the AUTO button and the Alert or Evacuate signals will be activated.



ZONE ALERT & EVACUATE

The zone ALERT (if configured) and EVACUATE buttons are enabled in Manual Mode only (not in Automatic mode). Each button turns on or off the sounding of the selected warning signal in the zone.

If a button is pressed to enable the signal and the other signal was already selected, then the other signal is cancelled. (For example if Evacuate is on, pressing ALERT will cancel Evacuate and select Alert).



SPEECH

Pressing the SPEECH button selects (turns the red LED on) Emergency Speech announcements to be made to the zone when the microphone PTT switch is pressed. If the SPEECH LED is already on, pressing the SPEECH button turns it off.

When the microphone PTT switch is pressed the audio path from the microphone to the loudspeakers is set up, with any "chime" message played first, then the green TALK LED is turned on, indicating that the voice announcements can be made. Speak clearly into the microphone (positioned 20-30mm from your mouth) at a natural volume – it is not necessary to speak loudly or shout. Release the PTT button when finished.

Note: Pressing the microphone PTT button without Speech selected and with no PA/Paging selections will automatically select Speech (the LED turns on).



SILENCE BUZZER

Pressing the SILENCE BUZZER button will turn off the beeping buzzer (alarm) or steady buzzer (fault). The buzzer will turn on again if a new alarm or fault is detected by the T-Gen2.



LED TEST

Pressing and holding the SILENCE BUZZER for at least 3 seconds will activate an LED test. All LEDs on the User Interface will turn on (steady) and the buzzer will beep at the quiet and loud volumes.

After 5 seconds the LED test will clear and the current status will be shown on the LEDs.

If however, the TEST button is pushed while the LED test is in progress, then the LED test will be latched on until any button is pressed.

This allows the LEDs on large displays to be thoroughly checked.

Note that neither the TEST button press nor the button pressed to complete the test will be acted on (as per their usual operation).



SILENCE WARNING

Pressing the SILENCE WARNING button, if configured, will stop the sounding of any warning signals and strobes (or background music or paging signals if the EWS is not in alarm) for 12 seconds. The yellow SILENCE WARNING LED will be turned on for this time.

Pressing this button while the LED is on will turn off the LED and re-enable the generation of any sounds and the strobe. Note the SPEECH function can still be used while SILENCE WARNING is active.

As this function will stop the EWS from making any warning sounds while it is active, the function is disabled by default in the T-Gen2 configuration, so is enabled only when required.



RESET

Pressing the RESET button will clear any latched alarm or faults in the T-Gen2.

It is unlikely this button is enabled in a Grade 3 EWS as there are usually no latching alarms nor faults that need to be reset.

The alarm condition is usually configured as non-latching so the fire alarm panel controls the EWS, and all faults automatically clear once the fault condition has been restored to normal.



TEST

Pressing the TEST button (if configured) will enable Test Mode (turns the yellow TEST LED on and makes the zone DISABLED LED flash) or cancel Test Mode if it is already on. In Test Mode the T-Gen2 EWS works as if it would normally, but all warning signal sounds and strobe outputs are disabled. Therefore no warning sounds or signals are produced in the building.

In Test Mode and Manual pressing ALERT or EVACUATE will select (or deselect if already on) the appropriate function. In Test Mode and Automatic the effect of an alarm condition can be observed.

Creating an alarm on the fire panel will cause the T-Gen2 to indicate an alarm and activate Alert/Evacuate according to its configuration.

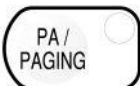
If no fire panel is present, or it is not convenient to create an alarm on the fire panel, an alarm can be simulated on the T-Gen2 by pressing the ALERT button.

The T-Gen2 will operate as if it is a real alarm, allowing testing to be done.

In Test Mode the SPEECH button and microphone can still be used to make voice announcements.

On cancelling Test Mode the T-Gen2 will automatically do a Reset function first to clear any latched alarms or activated warning signals before enabling the EWS outputs.

Note: It is not possible to select Test Mode if the T-Gen2 is already in alarm, or Alert or Evacuate is selected. Also Test mode will not apply to a zone that has been disabled.



PA/PAGING

There are four PA/PAGING buttons that allow non-emergency voice announcements to be made to four different areas in the building. Each button should be labelled with the area(s) that it applies to.

Pressing the appropriate PA/PAGING button selects the area to be paged (red PA/PAGING LED turns on) or cancels the selection (turns LED off).

Pressing the microphone PTT button when a PA/PAGING selection is active will cause the voice announcement to be made to that area. Wait until the green TALK LED is on before speaking.

Note it is possible to have multiple areas selected, so that the announcements will be made to all areas selected. It is not possible to use the PA/PAGING buttons when the T-Gen2 is in Alarm, Alert or Evacuate.

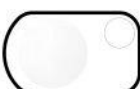


DISABLED

The zone DISABLED button (if configured) allows the zone to be disabled, so that no alarms or faults can be received for the zone, nor can any PA/PAGING, Alert, Evacuate or Speech selections be made for the zone. In effect the zone is removed from the EWS. Note that the ALARM LED still indicates if an alarm is received on the zone, so the zone could be enabled if needed.

Pressing the zone DISABLED button will disable the zone (yellow zone DISABLED LED turns on) or enable the zone if the zone was already disabled.

The DISABLED button can be used in any operating mode – Auto, Manual or Test.



USER 1 & 2

There are two unnamed buttons (called USER1 and USER2) that can be configured for playing specific messages, such as:

- Monthly test message(s)
- Lockdown, gas leak, or other emergency messages
- School bell
- Etc.

These should be labelled with their function, if programmed.

Pressing USER1 or USER2 will turn the corresponding LED on, activate the programmed message, and cancel the other User message if it was active. Pressing the button again when the LED is on will cancel the playing of the message and turn the LED off.

The LED will also turn off if the playing of the messages completes. Note some messages could be set up for continuous playing, so it will be necessary to turn them off by pressing the button.

Each user function is assigned a priority (as are many of the other sound producing functions), so which function is actually generated on a speaker output, if any other sound function is also selected (e.g., paging), will depend on the assigned priorities.

These buttons do not work if the mains power is failed and in fault (if pressed they turn on momentarily and then turn off).

LED INDICATORS

System Indicators

Indicator	Status
POWER	Off – No power is applied. On – Power is applied.
POWER FAULT	Off – No power faults present and mains is applied. On – Mains failed, or fault in the power supply or the supply voltage to the T-Gen2 is below the T-Gen's minimum operating voltage.
SYSTEM FAULT	Off – No System Faults present. Flashing – The User Interface is not communicating with the T-Gen2. On – CRC fault with the T-Gen2 configuration or firmware.
GENERAL FAULT	Off – No faults present. On – One or more faults are present. Refer to the other fault indicators or the T-Gen2 OLED display for details.
ALARM INPUT FAULT	Off – No faults present on the Alarm input(s). On – A fault is present on one or more of the T-Gen2's alarm input(s).
DISABLED	Off – No zones are disabled. On – The evacuation zone is disabled.
AUTO	Off – Not in Auto. On – Auto Mode – receipt of an alarm will automatically trigger an evacuation.
MANUAL	Off – Not in Manual. On – In Manual Mode – Zone Alert and Evacuate functions can be manually activated.
TEST	Off – Not in Test Mode. On – In Test Mode. No output signals (except Speech) or strobes are generated.
SILENCE WARNING	Off – Audio output signals can be generated. On – Audio output signals and strobes are silenced (except Speech).
TALK	Off – PA microphone and audio paths not connected. On – PA microphone enabled – talk into microphone.
USER1 USER2	Off – User function is not selected. On – User function is selected and will be sounding if it is the highest priority.

ZONE INDICATORS

Indicator	Status
DISABLED	Off – Zone is enabled for manual/automatic operation. Flashing – Zone is in Test Mode. On – Zone is Disabled. No Alarms or Faults will be received. (Note the Alarm indicator will turn on if an alarm is detected). No Alert, Evacuate, Speech or PA/PAGING functions can be used.
ALARM	Off – Zone is not in Alarm. On – Zone is in Alarm.
FAULT	Off – No faults present in zone. On – One or more faults present in THE zone speaker wiring or strobe wiring.
ALERT	Off – Alert signal is not active. On – Alert signal is selected and will be sounding if not in Test Mode or Silence Warning not active.
EVACUATE	Off – Evacuate signal is not active. On – Evacuate signal is selected and will be sounding if not in Test Mode or Silence Warning not active.
SPEECH	Off – Emergency Speech not active. On – Emergency Speech is selected and will be broadcast when the microphone PTT switch is depressed and Talk LED is on.
PA/PAGING	Off – Paging for this area is not active. On – Paging for this area is selected and will be broadcast when the microphone PTT switch is pressed and Talk LED is on.

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