



T-Gen2 Grade 2 User Interface Installation Instructions (FP1124 & FP1125)

Installation Instructions

1. Description

The T-Gen2 Grade 2 User Interface Doors are designed for use with the T-Gen2 Emergency Warning System (EWS) mounted in 19" rack cabinets. They provide the indication and controls for the first 4 zones of the EWS, the common functions, the emergency PA (Speech) microphone, and a connection point for 8 Zone Expansion Modules to expand the User Interface beyond 4 zones.

Two version are available:

- FP1124 T-GEN2 GRADE 2 UI 3U DOOR, GREY
- FP1125 T-GEN2 GRADE 2 UI 3U DOOR, BLACK

Other than the colour of the metalwork (FP1124 – grey, for VIGILANT panels, FP1125 – black for Simplex panels) they are the same.

The User Interface Doors include a Microphone, all the required hardware to mount the door in an *MX1* or Simplex cabinet, and cabling to wire the door to a T-Gen 60 or T-Gen 120 mounted in the cabinet. The door occupies 3U of rack space.

These instructions cover the fitting and connection of the Grade 2 User Interface Door in a T-Gen2 EWS, VIGILANT MX4428 or F3200, or Simplex 4100ESi fire alarm panel. The details of any necessary changes to the T-Gen2, *MX1* or Simplex system configuration, or other hardware are not covered here.

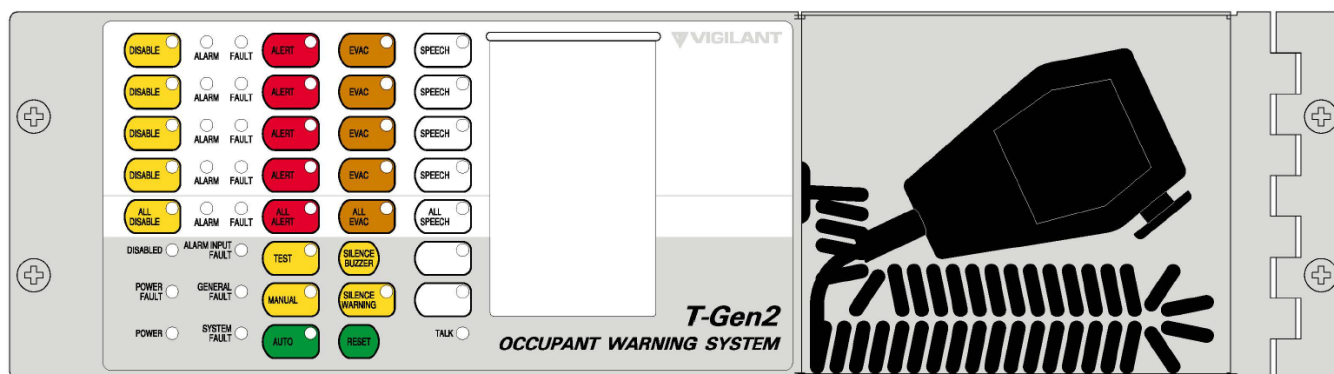


Figure 1 – T-Gen2 Grade 2 User Interface Door, FP1124 (Grey) Shown

2. Checking the Kit

Before installing a Grade 2 User Interface Door, check that all items in the kit are present, undamaged and you have the correct coloured door. The grey door FP1124 should be fitted to VIGILANT panels (T-Gen2 EWS, MX1, MX4428, F3200) and the black door FP1125 should be fitted to a Simplex panel.

Qty	Description
1	Grade 2 User Interface Door with Mic
1	LM0608 EARTH LOOM 1.0m (for earthing door to fire panel cabinet)
1	734-075 QBus LOOM 2.4m (for wiring to the T-Gen 60/120, 100V Switching Module or 14A PSE)
1	LB0684 BLANK ZONE LABEL SET (for labelling zone controls)
1	LT0681 INSTALLATION INSTRUCTIONS (these instructions)
1	LT0682 T-GEN2 GRADE 2 USER INTERFACE OPERATING INSTRUCTIONS
1	KT0538 containing 4 x M6 cage nuts, screws and washers and 2 plastic washers for mounting door

3. Mounting the Grade 2 User Interface Door

Determine the position of the Grade 2 User Interface Door to be placed in the cabinet. A 3U gap may be needed above this module for the 3U 16 zone extender door if the EWS is to be expanded above 4 zones.

Locate the four positions for the placement of the screws and insert the four cage nuts in the frame to suit.

Fit the door using one of the M6 screws (including metal washer) in the top hole of the hinge plate but do not tighten it fully.

Fit another M6 screw (including metal washer) into the bottom hole of the hinge plate and tighten both screws onto the cabinet bracket, aligning the door with the hole positions on the cabinet left-hand side.



Figure 2 – Mounting the Grade 2 User Interface Door

Insert the two remaining M6 screws (including metal washer) to the screw holes on the non-hinged side of the door. Place a plastic self-retaining washer on each of the screws on the inside of the door to keep these screws on the door when it is open.

4. Wiring a Grade 2 User Interface Door

A Grade 2 User Interface Door is connected to:

- The 4-way QBus loom (734-075) from J6 on the User Interface is connected to a QBus connector on the T-Gen 60/120 (J32), a 100V Switching Module (J1 or J2) or the PSE (J20 or J21). The QBus connectors on the T-Gen2 and all the Slaves are joined together in daisy-chain or star arrangements.
- If the 8 Zone Expansion Modules are required (i.e., T-Gen2 is configured with more than 4 zones) then these are mounted on the 19" frame and connected to the Grade 2 User Interface Module UBus connector J4. The modules are connected in daisy-chain style (In-Out) or can be star wired off the Grade 2 User Interface.
- The microphone cable is plugged into J9 on the T-Gen2 that is configured to generate emergency PA (Speech) – usually the master.
- Cabinet earth via the earth lead attached to the 3U door earthing tab.

WARNING: DO NOT CONNECT/DISCONNECT THE QBUS AND UBUS LEADS (J3, J4, J5, J6) WITH POWER APPLIED AS THIS CAN DAMAGE THE EQUIPMENT.

For further details on the T-Gen2 wiring refer to the T-Gen 2 Installation Instructions (LT0667) and drawing 1956-38 later in this document.

5. Zone Labels

The 4 Zones, All Zones and User Buttons are labelled using a slide-in label. A blank label is provided with each kit (LB0684). You can also generate labels using a Word template (LB0684).

The label is inserted via the slot in the front of the door overlay.

6. Configuration

The QBus ONES address rotary switch SW1 on the User Interface must be set to 1. Links Lk1 and Lk2 are not fitted.

The T-Gen2 used with the Grade 2 door will need configuring to enable the User Interface. This can be done by selecting the default **Grade 2 EWS BOWS** configuration in the T-Gen2 or programming a specific configuration using SmartConfig.

Refer to the T-Gen 2 Installation Instructions (LT0667) and the SmartConfig Programming Manual for instructions on configuring the T-Gen2. SmartConfig Lite (SF0323) and its User Manual (LT0345) can be downloaded from the Fireplace: <http://vigilant-fire.com.au>.

7. Status LEDs

The functionality of the buttons and LEDs mounted on the front of the User Interface is described in LT0682. The Grade 2 User Interface Door has 2 internal status LEDs for fault diagnostics:

LED Name	Colour	Description
POWER/ LINK	Green	OFF – no power applied. Flashing every second – operating and communicating with T-Gen2. Steady On – not communicating with T-Gen2, or faulty.
SYSTEM FAULT	Yellow	OFF – no fault present. Flashing – fault present When a System Fault is present the SYSTEM FAULT LED shows a sequence of 8 flashes followed by a pause, with each flash short (250msec) if that fault is not present and long (750msec) if that fault is present. The system faults are indicated in this order: <ol style="list-style-type: none"> 1. User Interface not communicating with the T-Gen2. Check the T-Gen2 QBus connection, configuration selected, address setting in T-Gen2 configuration, and Address Rotary switch setting on the User Interface. Will occur when the T-Gen2 is in programming mode (i.e., PC USB connection active). 2. Invalid Address (Not 0...9). Try rotating the address rotary switch and then back to the desired address. If cannot be fixed, replace the User Interface. 3. Firmware CRC Incorrect. Replace the User Interface. 4. Software Fault. Will not occur. 5. Unexpected restart occurred. Something happened to cause the User Interface microprocessor to restart. Clears once status sent to T-Gen2. If does not clear, even after power down/up, replace the User Interface. 6. No Configuration Data. Will occur on startup until the T-Gen2 sends the necessary configuration data to the User Interface. 7. UBus Slave not responding. A configured 8 Zone Expansion User Interface Module is not communicating on the UBus connection. Check the UBus cabling, address switches on the 8 Zone Expansion Modules and the system LEDs on each expansion module. 8. Hardware mismatch. Replace the User Interface.

8. Power On and Testing

For the first tests apply mains power only to check the operation of the T-Gen2 and User Interface without a battery. Once this is confirmed a battery can be connected. The T-Gen2 and Grade 2 User Interface will need to be configured and connected properly.

- Power on and wait for the T-Gen2 to start up (<10s).
- Check the POWER and AUTO LEDs on the User Interface turn on and that no faults are generated. If faults are generated refer to the T-Gen2 Instructions (LT0667) to use the OLED display to determine the faults that are present.
- Press the SPEECH button for the first zone and use the emergency PA microphone to make an announcement. Check this is heard in the Zone loudspeakers. Press the SPEECH button again to deselect SPEECH.
- Repeat for each configured zone, especially those on 8 Zone Expansion Modules.

9. Supplemental Terms and Licensed Software

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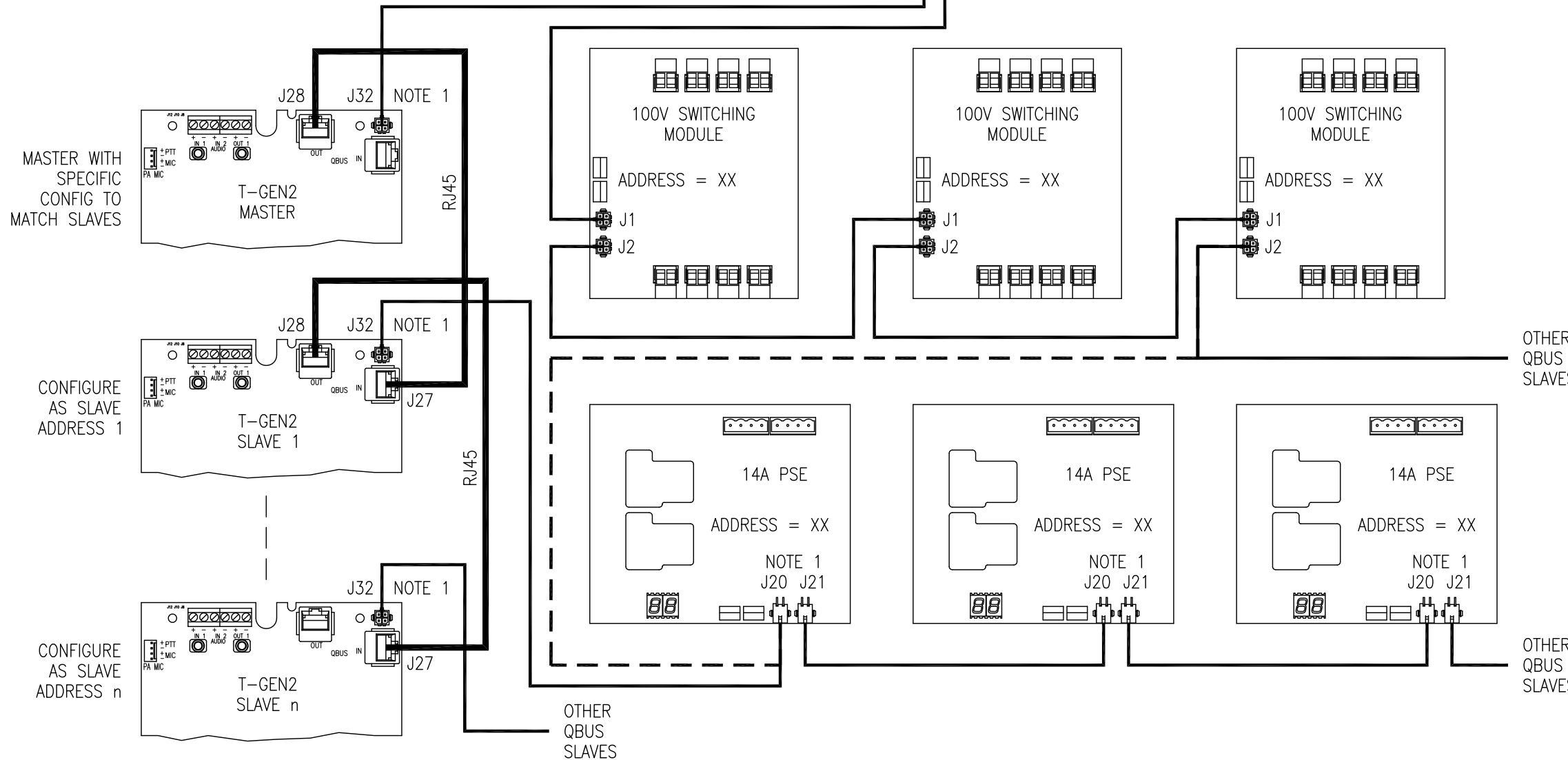
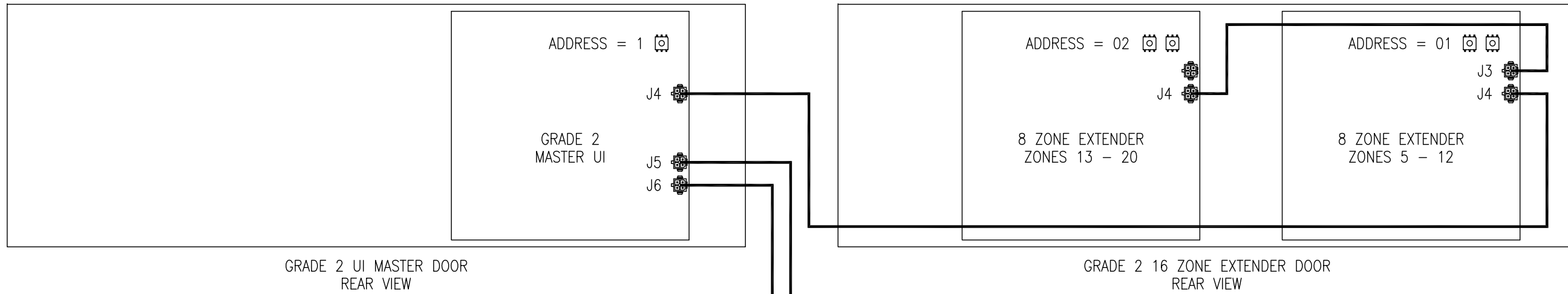
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QBUS IS A DAISY-CHAIN/STAR COMMS BUS FROM THE MASTER T-GEN2 TO EACH OF THE SLAVE QBUS DEVICES.

- SLAVE T-GEN2 MODULES USING RJ45 LOOMS.
- GRADE 2 USER I/F MASTER USING 4 CORE LOOM.
- 14A PSE USING 4 CORE LOOM.
- 100V SWITCHING MODULES USING 4 CORE LOOM.

THE ORDER OF WIRING IS NOT IMPORTANT.

SLAVES MAY BE CONNECTED TO ANY OTHER SLAVE/SLAVE T-GEN2 THAT ULTIMATELY CONNECTS TO THE MASTER T-GEN2. EACH SLAVE OF A SPECIFIC TYPE (E.G. SLAVE T-GEN2, UI, PSE OR 100V SWITCH) IS ASSIGNED A UNIQUE ADDRESS WHICH MUST MATCH THE SLAVES ENABLED IN THE CONFIGURATION OF THE MASTER T-GEN2. GRADE 2 USER INTERFACE (MASTER) MUST BE ASSIGNED ADDRESS 1.

8 ZONE EXTENDERS MUST CONNECT TO THE MASTER USER INTERFACE USING QBUS (4 CORE LOOM).
 ADDRESS 01 = ZONES 5 - 12,
 ADDRESS 02 = ZONES 13 - 20,

ALTHOUGH QBUS CONNECTIONS ARE SOMETIMES LABELLED "IN" AND "OUT" THEY ARE COMMON AND CAN BE USED INTERCHANGEABLY.

SUITABLE 4 WAY QBUS LOOM PARTS ARE:

- 734-008, 0.6m LONG
- 734-076, 2.4m LONG
- LM0592, 1m LONG.

NOTES:
 1. UI SLAVES AND SWITCHING MODULE SLAVES ARE POWERED FROM J32 ON T-GEN2 MASTER OR SLAVES. 14A PSE SLAVE DOES NOT PROVIDE POWER ON J20/J21.

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UNLESS OTHERWISE STATED: ALL DIMENSIONS IN MILLIMETRES. DO NOT SCALE. TOLERANCES ARE TO BE: 1 DECIMAL PLACE ±0.5, 2 DECIMAL PLACES ±0.3, 3 DECIMAL PLACES ±0.1

3rd ANGLE PROJECTION

ISS/REV	AMENDMENTS	ECO	DRN	CHKD	AUTH	APVD	DATE
A	ORIGINAL	5140	KJS	RC	RC	DC	29-5-18

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T-GEN2 QBUS CONNECTION WIRING DIAGRAM

DRAWING No: 1956-38 SHEET 1 of 1

A3 ISS/REV A PART No:

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