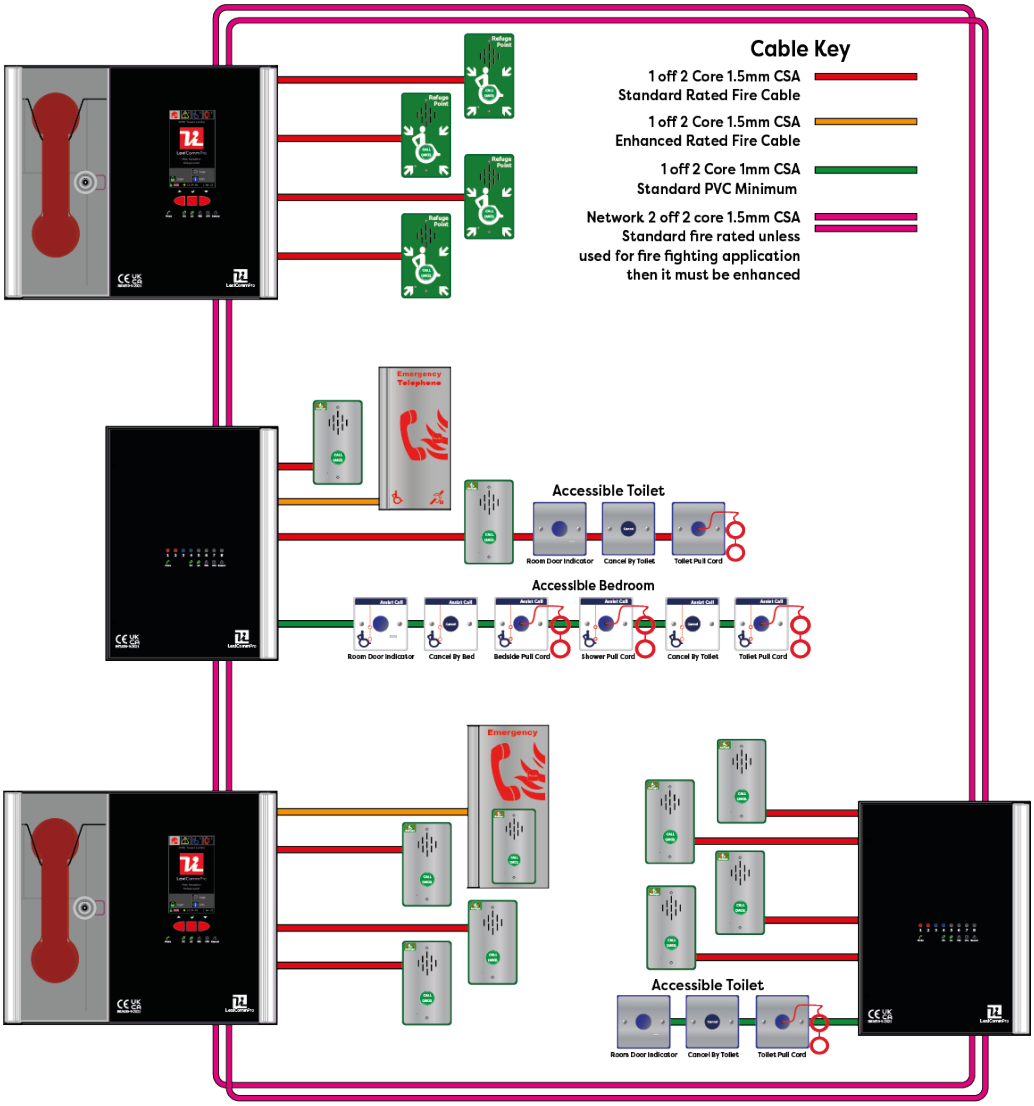
LexiComm

VoxIgnis

LexicommPro TMS3

Product Manual

LexicommViLX-TMS3 EVCS Master Station/ ViLX-ACM3-8 AssistCall Master



Installation and Commissioning Manual
Software V3 Onwards
Revision 6- October 2025

Document Control

Revision Number	Description of Change	Date of Change	Author of Change
0	Initial Draft		JS
1	Initial Release	11/08/22	JK
2	Panel internal, line card, exchange drawings updated. Range update	13/09/22	JK
3	Internal drawing updated	22/09/22	JT
4	Network connection drawing updated Change to the fault icon list Added sections relating to firmware v3.5 Updated the layout	18/11/24	JS
5	Added missing information regarding the conference calling (sections 2, 7.8.3, 12.3) Updated images with home screen to have new logo. Refreshed illustrations for OSA and OSB wiring.	30/04/25	JS
6	Change of Address	01.10.2025	JT

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1 Introduction

1.1 What is an Emergency Voice Communication System?

An Emergency Voice Communication System, or EVCS, is a system that allows voice communication in either direction between a central control point and numerous other points throughout a building or building complex, particularly in a fire or an emergency. The control points, or outstations by which they are more commonly referred, generally comprise of a Type A outstation, a Type B outstation, or a Type C Combined Type outstation. AssistCall emergency assistance alarm systems can also be incorporated into the EVCS.

EVCS is generally required in the following situations:

- In any building or sports or similar venue where there are disabled people, or people who may have difficulty negotiating the evacuation route.
- In buildings with phased evacuation and/or firefighting lifts where it facilitates secure communications for building managers, fire wardens, and attending fire officers.
- At sports venues and similar complexes, where it will assist stewards in controlling the evacuation of the area in an emergency.

The Lexicomm ViLX-TMS3 Emergency Voice Communications System (EVCS) is designed to fully comply with BS 5839-9:2021 for use as a Fire Telephone system, Disabled Refuge Call system or as a combined system when both Fire Telephones and Disabled Refuge Points are required.

1.2 Suitability

Fire telephone systems are recommended for all public buildings and multi-story buildings over four floors that require phased evacuation as per BS 9999:2017.

Disabled Refuge systems are required in buildings where the public or staff gains access to any floor other than the ground floor using lifts. A refuge is a relatively safe waiting area provided at each storey exit from each protected stairway.

Refuge areas are not just for wheelchair users, they are for anyone who may need assistance i.e. someone who's immediate evacuation will impede the egress of others, a pregnant woman over 6 months term or persons with long term injuries, arthritis etc.

2 Product Overview

The Lexicomm EVCS has been designed around a total network solution, so most Lexicomm panels have inbuilt networking.
The Lexicomm Network system comprises 3 types of panels; ViLX-TMS3 touchscreen master station (hereafter referred to as TMS3), the ViLX-228N 2-to-8-line networkable master station (hereafter referred to as 228N) and a ViLX-EX8 system expander panel (hereafter referred to as EX8). For Lexicomm Network systems a TMS3 must be used as the site wide network master station, the system can then be expanded using an EX8 or 228N in blocks of 8 lines up to a maximum system capacity of 512 lines.

Additional TMS3 panels can be used wherever indication and control is required, i.e., Fire Control rooms and building reception. These additional TMS3 panels have the facility to filter the information that is displayed, so if there are several buildings with a TMS3 in each building, the TMS3 can be configured to only display/ answer EVCS calls from that building. The system also has the ability for **all** calls to be displayed /answered on a particular TMS3 panel thus becoming the overall site master. This display filter can also be applied to AssistCall indications so panels can be configured to only display/acknowledge calls from AssistCall emergency assistance alarms. This display filtering works in the same manner as for EVCS calls.

Each TMS3 can be configured so information displayed during daytime is distinct from information displayed during night-time, thus allowing separate locations to handle daytime operations and night-time operations. The day/night timing applies across the entire network.

The Lexicomm TMS3 panels can call individual outstations via a named directory list or by dialling the appropriate extension number for the desired outstation. In addition to this, it is possible to call from one TMS3 master station to another so communication between master stations is possible and control can be transferred between master stations. The TMS3 can communicate with up to five outstation simultaneously in a conference call.

The wiring is a ring and spur topology with outstations being wired on radial spurs from any master station or system expander panel. The panels are wired in a ring network up to a maximum of 64. The EX8 would typically be sited in convenient locations close to the outstations i.e. risers or stairwells resulting in short vertical wiring runs. The 228N can be used to provide local control of up to 8 lines within a building this can then report back to a TMS3 which can provide overall control of an entire site.
In this way a very large system can be completed with a minimum of cabling coming back the master station via the network ring.

Additionally, the AssistCall emergency assistance alarm system can either be connected to the same line with an outstation or connected to a dedicated line. As each line is powered from the TMS3 or EX8, the outstations and the AssistCall emergency assistance alarm system do not require a separate power supply unit. This has the additional benefit of each line being fully monitored and battery backed up.

If only emergency assistance alarms are connected, then a **ViLX-ACM3-8** AssistCall master station can be used. The ViLX-ACM3-8 is very similar to a ViLX-TMS3-W-8 however it does not have a telephone handset and cannot be used to answer EVC calls it uses the same housing as a ViLX-EX8 system expander panel. The operation and configuration is as described for a ViLX-TMS3-W-8.

2.1 Lexicomm Product Range

Part Code	Description
Lexicomm Network Panels	
ViLX-TMS3-W-8	Touchscreen Master Station w/ 8 lines
ViLX-TMS3-W-0	Touchscreen Master Repeater Station
ViLX-ACM3-8	Touchscreen AssistCall Master Station
ViLX-ACR	Touchscreen AssistCall Repeater
ViLX-EX8	8 Line System Expander Panel
ViLX-228N-2	2 Line Master Station
ViLX-228N-4	4 Line Master Station
ViLX-228N-8	8 Line Master Station
ViLX-RAP	Remote Alarm Panel
ViLX-CMD	Lexicomm Commander PC Touchscreen
Panel Accessories	
ViLX-LC2	Lexicomm 2-way line card
ViLX-CBZ	Flush mount stainless steel bezel for ViLX-228N and ViLX-TMS33
ViLX-EBZ	Flush mount stainless steel bezel for ViLX-ACM and ViLX-EX8
ViLX-72HR-Box	Extended duration battery box
ViLX-TMS3-AB	TMS3 Adaptor Board
ViLX-EX8-AB	System Expander Panel Adaptor Board
Outstations	
ViLX-OSA	Stainless steel Type A fire telephone
ViLX-OSA-R	Red painted Type A fire telephone
ViLX-OSA-GS	Green Steward's Phone with integral strobe indication
ViLX-OSB-G	Green polycarbonate Type B outstation
ViLX-OSB-SS	Stainless steel Type B outstation
ViLX-OSC	Stainless steel combined Type A and B outstation
ViLX-ILB-F	Flush mounted Type B outstation with induction loop
ViLX-ILB-S	Surface mounted Type B outstation with induction loop
ViLX-IPA2	IP66 weatherproof Type A fire telephone
ViLX-IPA2-GS	IP66 Green Steward's Phone with integral strobe indication
ViLX-IPB2	IP66 weatherproof Type B outstation
ViLX-OSR	Roaming handset with jack plug (Not for use in UK)
ViLX-OSJ	Stainless steel jack point (Not for use in UK)
ViLX-OSJ-S	Stainless steel jack point with signalling contact (Not for use in UK)
Outstation Accessories	
ViLX-OBZ	Flush mounting stainless steel bezel for ViLX-OSA and ViLX-OSC
ViLX-OBZ-R	Flush mounting Signal Red steel bezel for ViLX-OSA-R
ViLX-DBB-G	Green polycarbonate surface mounting box for Type B outstations
ViLX-LBZ-1	Lexicomm legacy bezel
ViLX-THC	Roaming telephone handset cabinet
ViLX-VID	In-line visual indication device for Type A outstations
ViLX-RLY	In-line activation relay for Type B outstations

Part Code	Description
AssistCall Alarms	
ViAC-ACA-SS	AssistCall WC alarm kit. Finished with a stainless steel fascia.
ViAC-ACB-SS	AssistCall accessible bedroom kit. Finished with a stainless steel fascia.
ViAC-ODP-SS	AssistCall over-door plate. Finished with a stainless steel fascia.
ViAC-CNP-SS	AssistCall cancel plate. Finished with a stainless steel fascia.
ViAC-ACP-SS	AssistCall ancillary cancel plate. Finished with a stainless steel fascia.
ViAC-CPP-SS	AssistCall ceiling pull cord. Finished with a stainless steel fascia.
ViAC-CLP-SS	AssistCall call plate. Finished with a stainless steel fascia.
ViAC-CCP-SS	AssistCall call cancel plate. Finished with a stainless steel fascia.
ViAC-SIP-SS	AssistCall switch interface plate. Finished with a stainless steel fascia.
ViAC-ACA-W	AssistCall WC alarm kit. Finished in white polycarbonate.
ViAC-ACB-W	AssistCall accessible bedroom kit. Finished in white polycarbonate.
ViAC-ODP-W	AssistCall over-door plate. Finished in white polycarbonate.
ViAC-CNP-W	AssistCall cancel plate. Finished in white polycarbonate.
ViAC-ACP-W	AssistCall ancillary cancel plate. Finished in white polycarbonate.
ViAC-CPP-W	AssistCall ceiling pull cord. Finished in white polycarbonate.
ViAC-CLP-W	AssistCall call plate. Finished in white polycarbonate.
ViAC-CCP-W	AssistCall call cancel plate. Finished in white polycarbonate.
ViAC-SIP-W	AssistCall switch interface plate. Finished in white polycarbonate
AssistCall Weatherproof Alarms	
ViLX-CNP-66	IP66 weatherproof AssistCall cancel plate
ViLX-CLP-66	IP66 weatherproof AssistCall call plate
ViLX-CLM-56-KR	IP56 weatherproof AssistCall mushroom call button with key release
ViLX-CLM-56-TR	IP56 weatherproof AssistCall mushroom call button with twist release
ViLX-ODP-66	IP66 weatherproof AssistCall over-door plate
ViLX-ACP-66	IP66 weatherproof AssistCall ancillary cancel plate

3 Important Safety Information

This Equipment must only be installed and maintained by a suitably skilled and competent person.

This Equipment is defined as Class 1 in EN IEC62368-1:2020+A11:2020 (Low Voltage Directive) and must be EARTHED.





Caution	Indoor Use Only
Warning	Shock Hazard- Isolate Before Opening
Warning	TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE
Warning	THIS UNIT MUST BE EARTHED
Warning	NO USER SERVICEABLE PARTS

Each TMS3, EX8 and 228N requires local isolation with verification as per the Electricity at Work Regulations 1989, returning to a B6A breaker clearly marked "**EMERGENCY VOICE COMMUNICATION SYSTEM. DO NOT TURN OFF"**.

If the TMS3, 228N and the EX8 are distributed around a site, it is essential that all panels are on the same mains phase, as they are classified TEN 230V. Powering from different phases can mean a 440V potential can be present in a panel during a major fault incident.

Anti-static handling guidelines

Make sure that electrostatic handling precautions are taken immediately before handling PCBs and other static sensitive components.

Before handling any static-sensitive items, operators should get rid of any electrostatic charge by touching a sound safety earth. Always handle PCBs by their sides and avoid touching any components.

3.1 Unpacking the ViLX-TMS3

Figure 1 - Lexicomm TMS3 Front View

Remove the ViLX-TMS3 from its packing, and check the contents against the following list:

- ViLX-TMS3Master Station.
- Quick Start Guide.
- Accessory pack with the following contents:-
    - 1 × 2.5mm AF Hex Key.
    - 1 × Battery Lead.
    - End-of-Line 10kΩ Resistors, 2 per Line Card.
    - USB Micro SD Card reader.
    - Door Lock Key.

Use the 2.5mm AF Hex Key supplied to open the right-hand front cover.
Verify the following items are present:

- 4 × Line cards.
- 1 × 2-way Fault connector.
- 1 × 2-way In Use connector.
- 1 × 2-way Enable connector.
- 4 × 2-way Network connectors.
- 1 × 3-way mains connector.

If there are any items missing, please contact your supplier or Vox Ignis Limited, quoting the unit serial number, so the situation can be rectified.

4 Installation

4.1 Connecting the ViLX-TMS3 Master Station

To comply with EMC (Electro Magnetic Compatibility) regulations and to reduce the risk of electrical interference in the system wiring, the use of fire-resistant screened cables is recommended throughout the installation.

All wiring should come into the enclosure via the knockouts provided and be fixed tidily to the relevant terminals.

Note that correct cable glanding is essential. Due regard should be paid to any system specifications which demand a certain cable type, providing it meets the appropriate national wiring regulations.

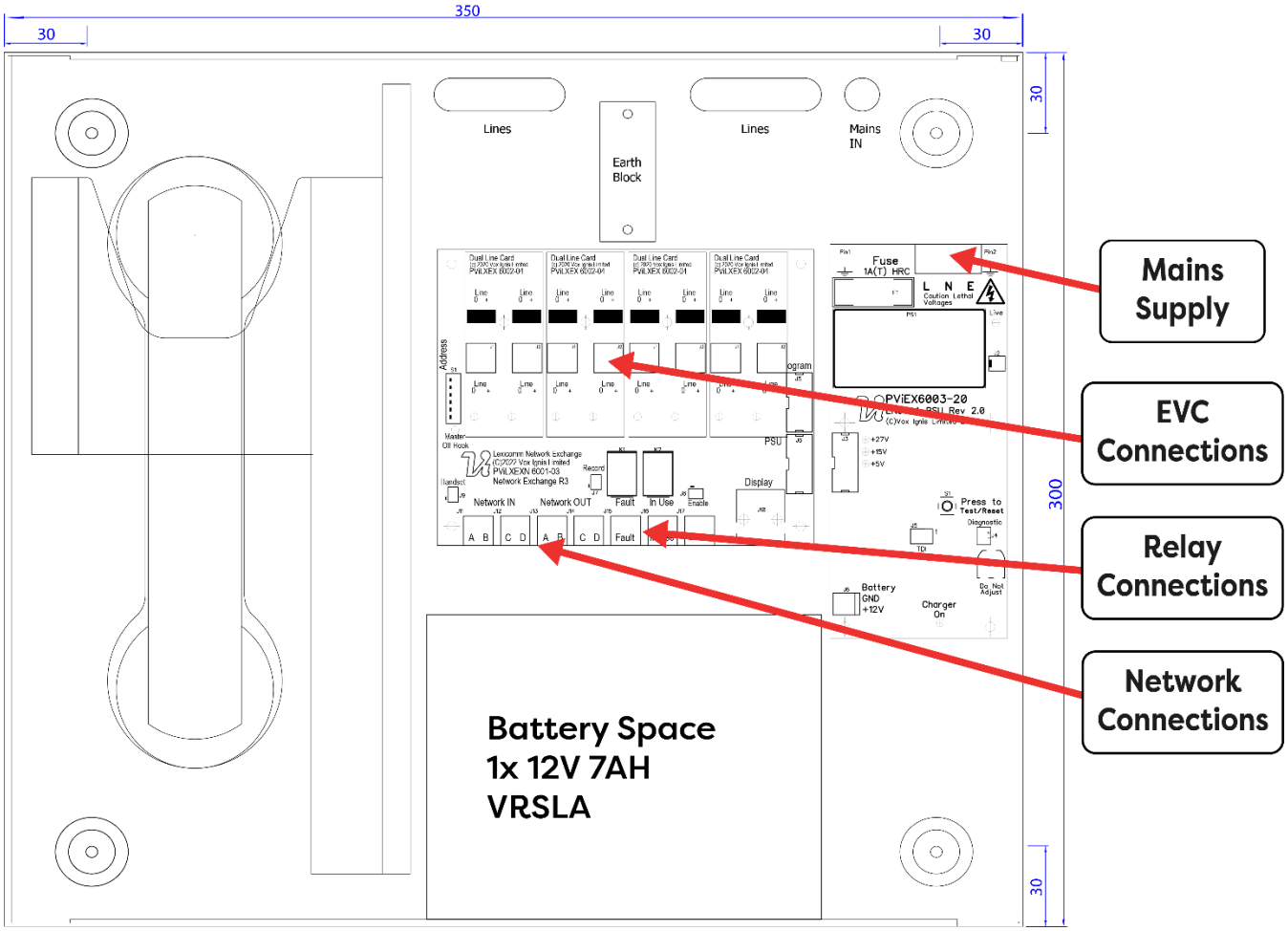


Figure 2 - Lexicomm TMS3 Internal View

Prior to mounting the TMS3, it should be decided if the field wiring is to be run on the surface or concealed. There are 14 knockouts on the top and 2 slotted entries with a dedicated mains supply entry at the rear. If a knockout is removed by mistake, fill the hole with a good quality cable gland.

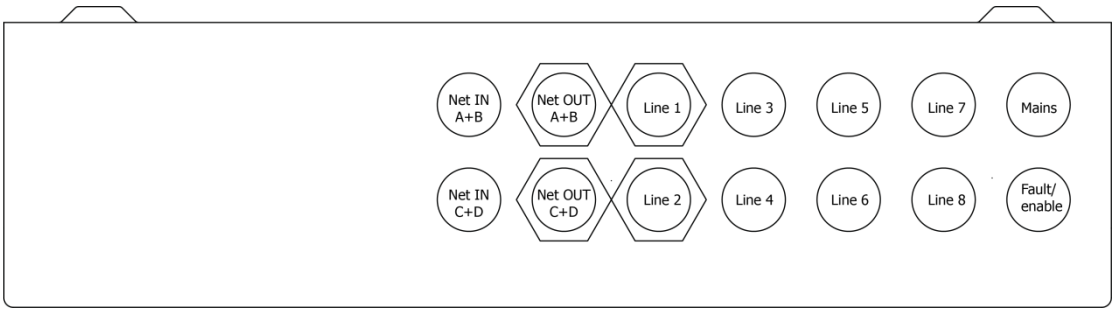


Figure 3 - Lexicomm TMS3 Top View

Unused knockouts must be left unopened to comply with the Low Voltage Directive. Accidentally knocked out holes should be blanked off.

The TMS3 Master Station weighs 6kg with batteries, so care should be taken to securely mount the Station on stud walling.

4.2 Planning the Wiring

All system wiring should be installed to meet the appropriate parts of BS 5839-9:2021 and BS 7671 (Wiring Regulations). Other national standards of installation should be adhered to where applicable.

Do not test wiring using an insulation tester (Megger) with any equipment connected, as the 500 Volt test voltage will destroy these devices.

You must observe local wiring regulations. Do not run SELV and LV cables in the same enclosure without adequate insulation between them.

4.3 Cable and Wiring Guidance

4.3.1 Fire Telephone System

Any system using Type A outstations must use enhanced grade cabling throughout for all wiring, including the mains supply to the TMS3/EX8.

4.3.2 Disabled Refuge EVC System

For buildings less than 30m in height, or any building with sprinklers fitted, and the planned evacuation will be completed within 30 minutes, then standard grade fire resistant cable may be used to wire Type B outstations and the mains supply to the TMS3/EX8.
If the building is over 30m in height without sprinklers, or where the planned evacuation will take place over multiple stages exceeding 30 minutes, then enhanced grade cables must be used.

4.3.3 Combined Systems

For systems containing Type A, Type B or Type C outstations, shared cable such as network cables must be enhanced grade.
Cabling to Type A or Type C outstations must be in enhanced grade fire resistant cabling.
Individual spurs to Type B outstations can be wired in standard grade fire resistant cabling in accordance with the wiring guidelines already set out for disabled refuge systems.

4.3.4 AssistCall Emergency Assistance Alarm Systems

All installations must conform to Building Regulations Approved Document M and BS 8300. The AssistCall is wired using 2-core cable, and the AssistCall plates can be wired in any order.

4.3.5 AssistCall Cabling Methods

There are two ways to integrate AssistCall systems into the EVCS panels as shown below:

- Connection to a Type B outstation: use 2 core standard grade fire resistant cable, connecting to the EOL out connection of the type B outstation and placing the end of line resistor in the last AssistCall device on the line.
- Connecting an AssistCall system on to a dedicated line requires 2 core 1mm CSA or above LSF sheathed. The maximum conductor resistance is 5 ohm per leg for proper operation. The end of line is placed in the last AssistCall device on the line for ease of fault finding.

4.3.6 ViLX-TMS3 Master Station Wiring

Typical wiring for a TMS3 is shown in the schematic below

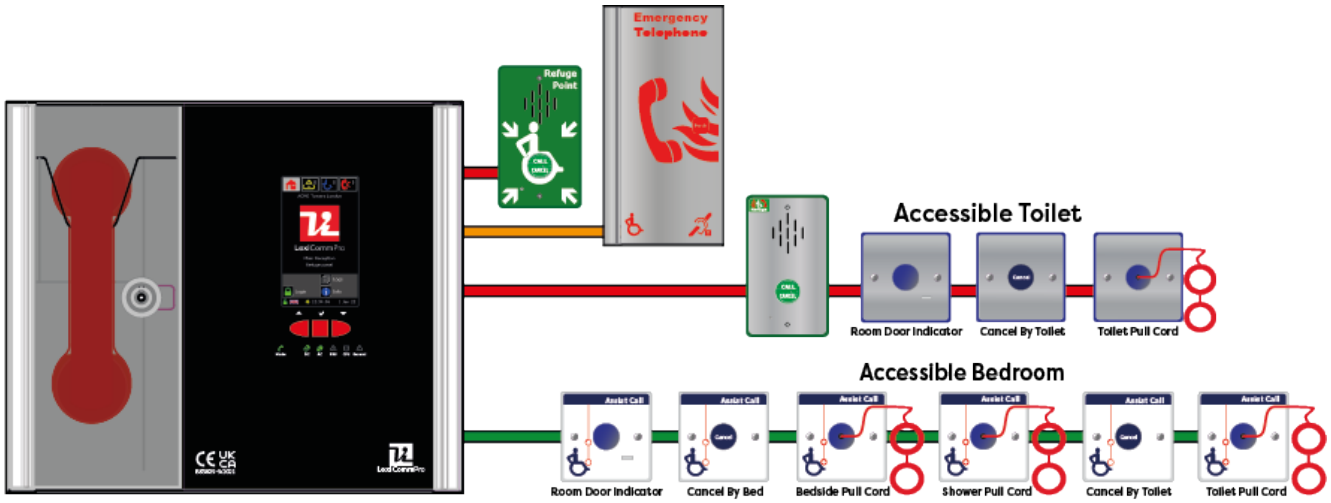


Figure 4 - Lexicomm TMS3 Typical Wiring Schematic

4.3.7 ViLX-TMS3 Master, ViLX-EX8 System Expander Panel Wiring in Ring

If more than 8 lines are required then an EX8 will be required in addition to the TMS3, with the outstations shared between both the TMS3 and the EX8. The system must be wired as a ring as shown in the schematic below. This ensures that the loss of any single cable will not affect the operation of more than one outstation.

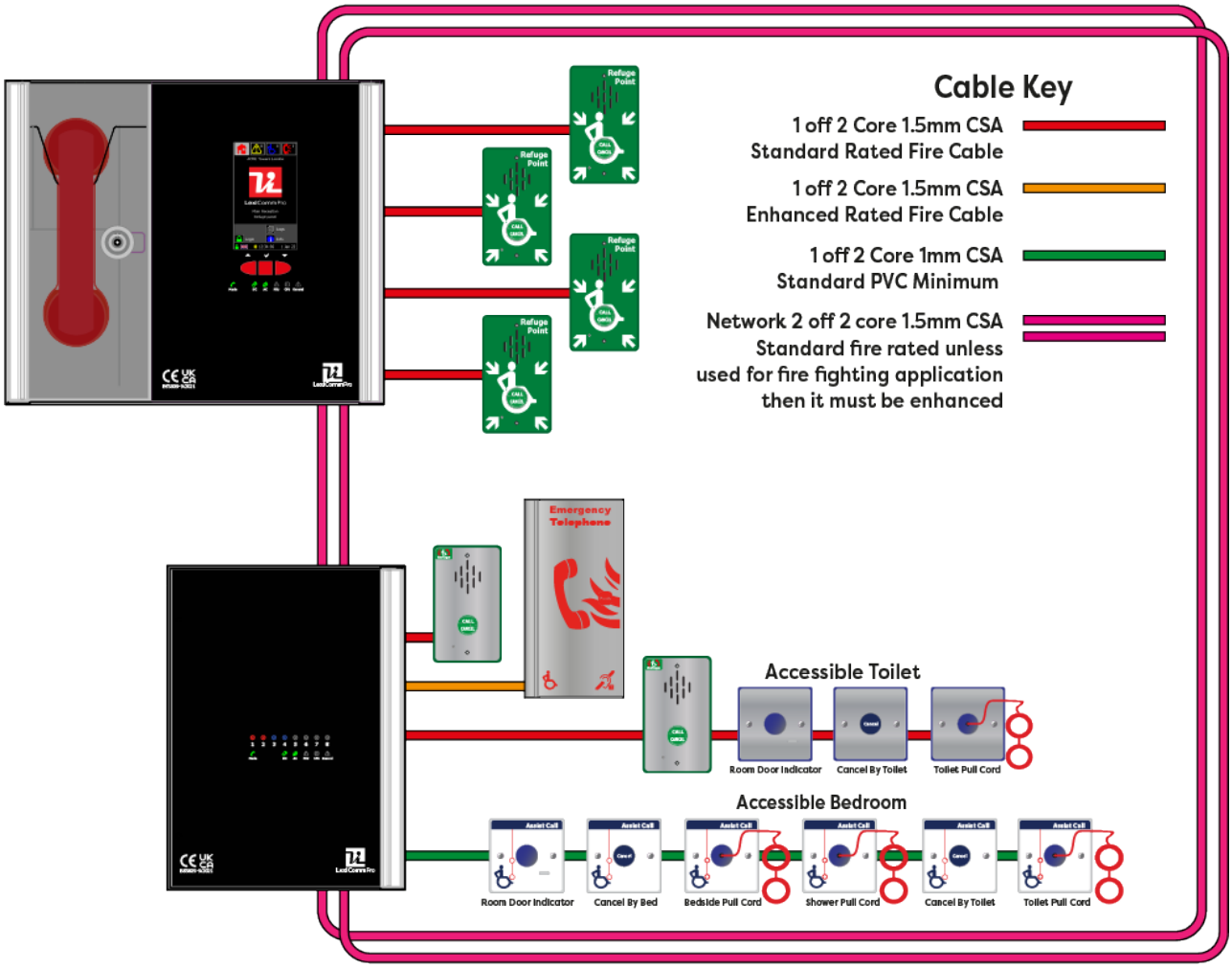


Figure 5 -ViLX-TMS3 and ViLX-EX8 Wiring Diagram

4.3.7.1 **Network Wiring**

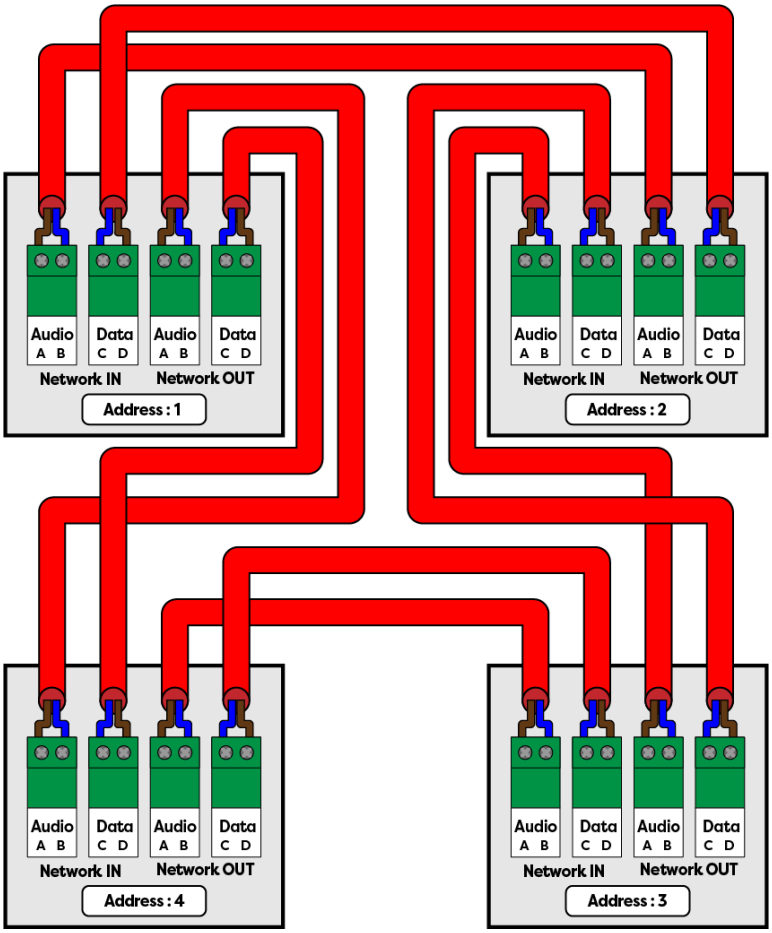


Figure 6 - Lexicomm 4 Panel Wiring Diagram

Note: Only connect the earth screens on the Net in cables, cut back and insulate Net OUT earth screens, as shown below.

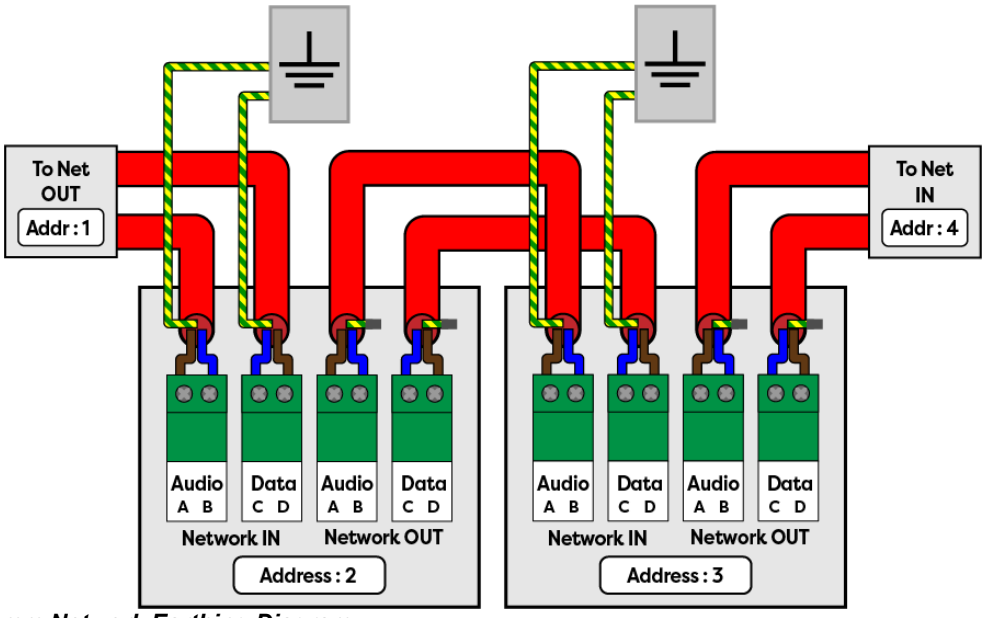


Figure 7 - Lexicomm Network Earthing Diagram

4.3.8 Mains Connection

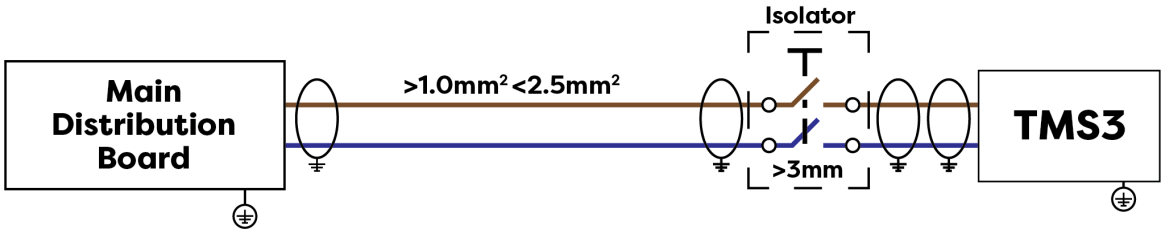


Figure 8 - Mains Connection Isolator Setup

Each TMS3, EX8, and 228N panel requires local isolation with verification as per the Electricity at Work Regulations 1989, returning to a B6A breaker clearly marked "**EMERGENCY VOICE COMMUNICATION SYSTEM. DO NOT TURN OFF"**.

If there are TMS3, EX8, and 228N panels distributed around a site, it is essential that all panels are on the same mains phase, as they are classified TEN 230V. Powering from different phases can mean a 440V potential can be present in a panel during a major fault incident.

4.4 Battery Information

In the event of mains failure, BS 5839-9:2021 requires battery backup for 24 hours standby and 3 hours operation thereafter.
A ViLX-TMS3 requires **one number** 12V 7AH vent regulated sealed lead acid battery. The battery is not supplied with the ViLX-TMS3.

Safety Information:
Sealed Lead Acid batteries contain sulphuric acid which can cause burns if exposed to the skin. The low internal resistance of these batteries mean large currents will flow if they are accidentally short-circuited causing burns and a risk of fire.
Exercise caution when handling batteries.

Power Up Procedure:
Always apply mains power before connecting batteries.
When connecting batteries, always connect the Positive (Red +) terminal first.

Power Down Procedure:
Disconnect the batteries before removing the mains power.
When disconnecting batteries, always remove the Negative (Black –) terminal first.

Battery leads should be removed by grasping the plastic battery spade connector covers not the red and black wires as this can cause premature failure of the lead.

4.5 Outstation Connections

The TMS3 and EX8 are configured via the configuration spreadsheet contained on the Micro SD card supplied with the TMS3, for configuration (see 6.2 Configuration Procedure).

The following devices are available on the system:

- Type A (fixed phone)
- Type B (hands-free refuge point)
- Type C "Combi" (combined Type A and Type B)
- Jack point
- AssistCall emergency assistance alarm system.

For Type A, Type B, and Type C outstations, put the supplied end-of-line 10kΩ resistor into the end-of-line terminal in the outstation.
For Jack points, and the AssistCall system, put the supplied end-of-line 10kΩ resistor into the terminal in the last plate on the system.

4.5.1 Type A Outstation

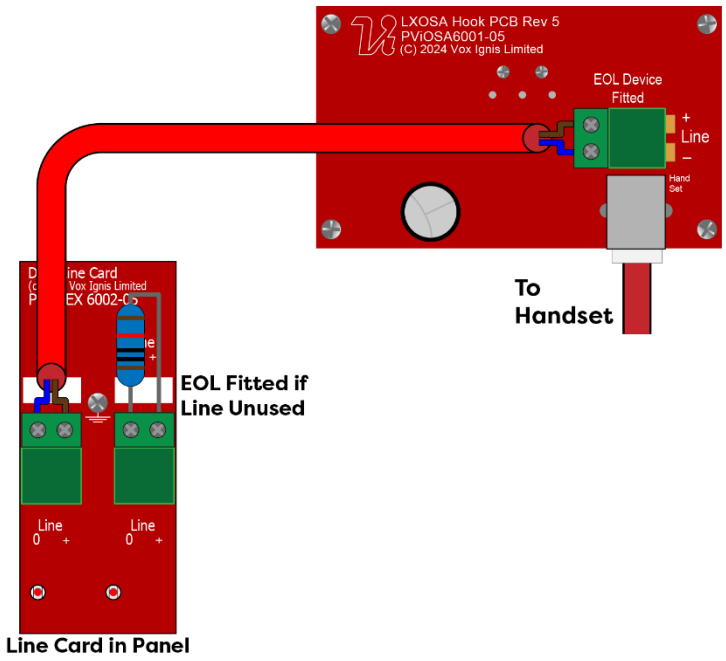


Figure 9 - Type A/C Outstation Connections

Note: The Earth screen should be sleeved and connected to the terminal block in the controller, and the earth stud in the Type A outstation.

4.5.2 Type B Outstation

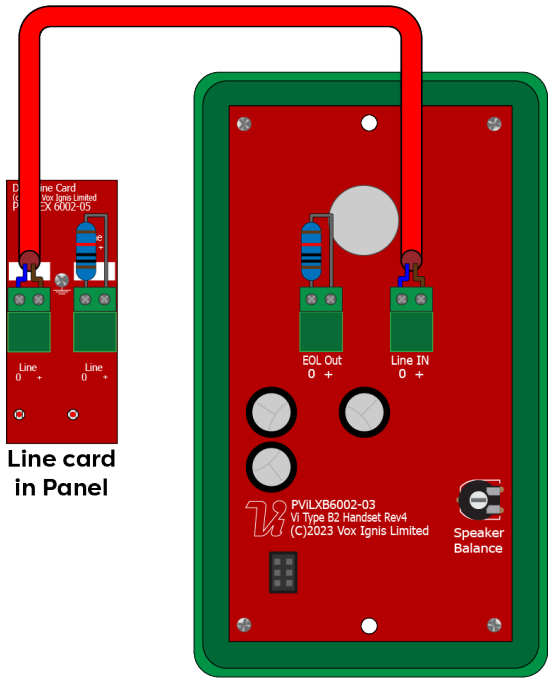


Figure 10 - Type B Outstation Connections

Note: The Earth screen should be sleeved and connected to the terminal block in the controller, and the earth connection in the metal back box (if a plastic back-box is used cut the earth back and insulate at the outstation).

4.5.3 AssistCall ACA Accessible Toilet Kit

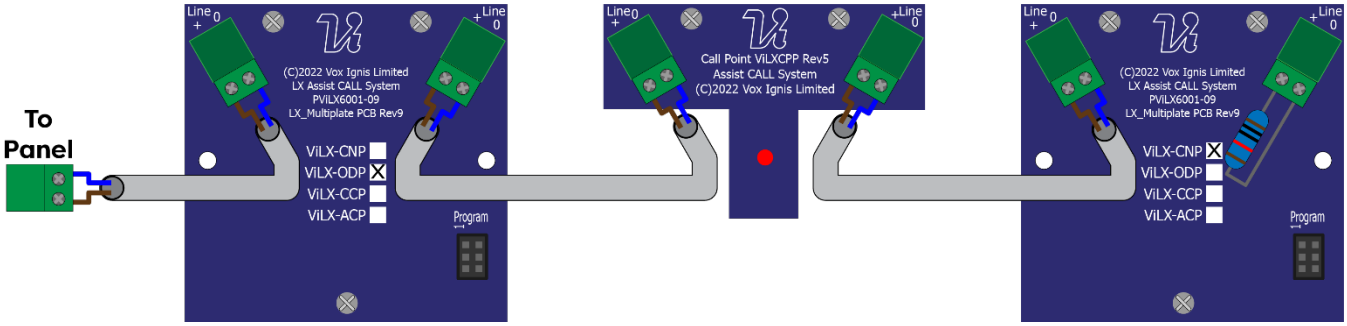


Figure 11 - AssistCall Accessible Toilet Kit Connections

The AssistCall ACA kit comprises an Over Door Indicator, a Pull Cord, and a Cancel Plate. The above order is a typical order; with the Over Door Indicator, Pull Cord and the Cancel Plate connected as shown, but the plates can be wired in any order, as long as the EOL resistor goes into the free terminal of the last plate.

4.5.4 Event Mode Switch Input

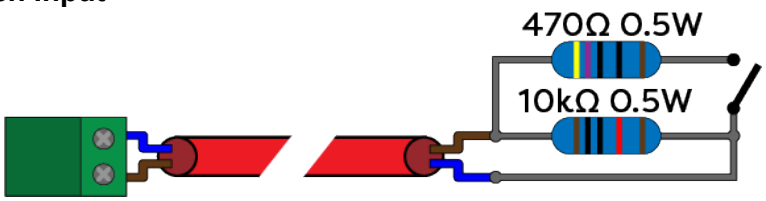


Figure 12 – Event Mode Switch Connections

Event Mode is used for large event or sports stadia, it s function is to provide the event safety/security management a single point of control.The Swich input is used for remote enabling or disabling of panels and only has to be acitivated at one point. Typically this might be the located in the Police Control Room at a football stadium or a racecourse. The input is monitored, and expects a 470R resistor for activating . A 10K EOL resistor for the unit is supplied with the panel.

4.6 TMS3 Auxiliary Connections

The TMS3 has three auxiliary connections:

Fault is a normally CLOSED volt free relay (30V DC 1A) which OPENS on any fault on the network, including loss of power

In Use is a normally OPEN volt free relay (30V DC 1A) connection. The relay CLOSES when configured to do so by the TMS3 (see 7.28.1), usually when an outstation on the network is operated

Enable is a normally CLOSED input, and is required to operate the system, this is often connected to the fire alarm system. If Jumper J8 is in place, then no connection is required at the terminals.
It is advised that this feature is not used as the system should always be available, not just during an evacuation.

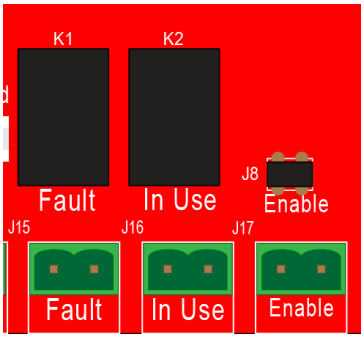


Figure 13 - Lexicomm Auxiliary Connections

If this function is used, then the removal of Jumper J8 and opening the **Enable** input, will not display incoming calls from Type B outstations only. Calls from Type B outstations automatically “time out” after approximately 30 minutes. Type A outstations and AssistCall emergency assistance alarm systems will continue to operate. If this feature is utilised, then the mode LED illuminates yellow after 30 seconds to show that the system is disabled.
***Note:** If the system is disabled, the master station can still make outgoing calls.*

If this function is used, it only requires connection with one panel on the network. If the **Enable** input is CLOSED on one panel, then all panels on the network are CLOSED. To disable Type B outstations, then the **Enable** input on all panels on the network must be OPEN.

4.7 Powering Up Procedure

Before powering up the TMS3/EX8, carefully check all internal wiring.
To power up the TMS3/EX8:

1. Apply mains power first.
2. Connect the battery using the battery leads supplied. Always connect the Positive (Red+) terminal first before connecting the Negative (Black -) terminal.

4.8 Powering Down Procedure

To power down the TMS3:

1. Disconnect the battery. Always disconnect the Negative (Black -) terminal first, before disconnecting the Positive (Red +) terminal.
2. Remove mains power.

5 Hardware configuration procedure

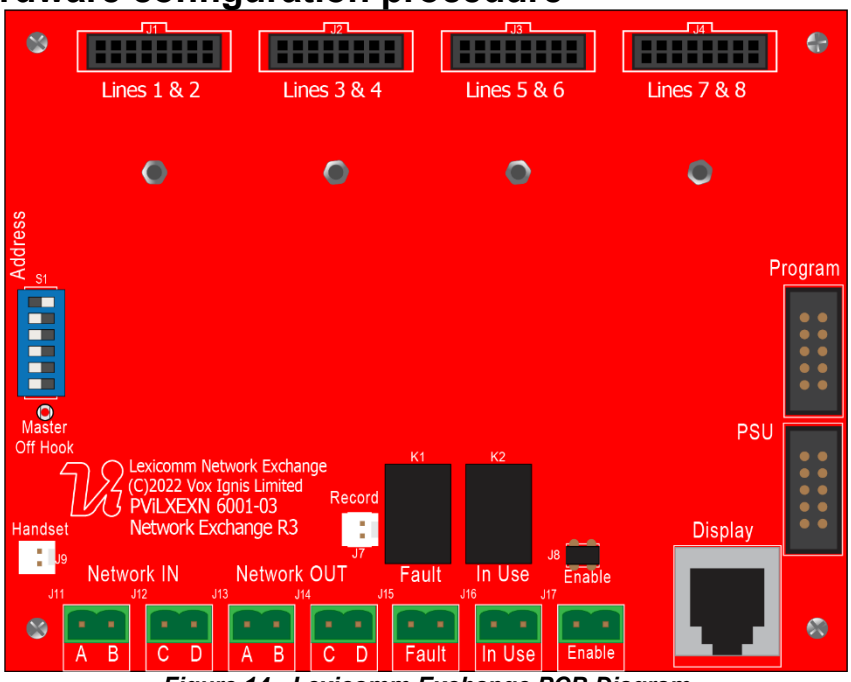


Figure 14 - Lexicomm Exchange PCB Diagram

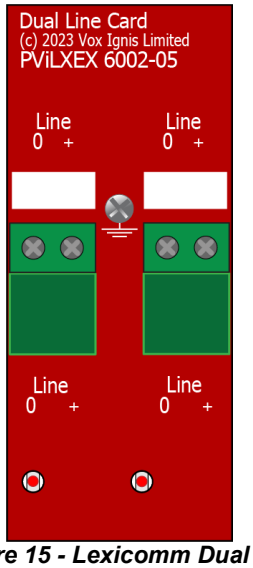


Figure 15 - Lexicomm Dual Line Card

5.1 Adding a Line Card

Before adding a Line Card, ensure that the TMS3 is not powered. If the TMS3 is powered, then power down the TMS3 (see 4.8 Powering Down Procedure).

To fit the Line Card:

1. Place Line Card in the next available space on the Exchange PCB and secure using the supplied screw.
2. Remove a terminal from the Line Card for each outstation to be fitted.
3. Connect the field wiring for the outstation to the terminal.
4. Push the terminal into the correct position on the Line Card.

Update the site configuration (see 6.2 Configuration Procedure)

Once the Line Card is securely fitted, power up the TMS3 (see 0 Powering Up Procedure).

5.2 Removing a Line card

Before removing a Line Card, ensure that the TMS3 is not powered. If the TMS3 is powered, then power down the TMS3 (see 4.8 Powering Down Procedure).

To remove the Line Card:

1. Remove all terminals from the Line Card that are wired to an outstation.
2. Remove screw securing the Line Card.
3. Remove Line Card from Exchange PCB.
4. Update the site configuration (see 6.2 Configuration Procedure)

Once the Line Card has been removed, the TMS3 may be powered (see 0 Powering Up Procedure).

5.3 Adding a ViLX-TMS3 Master Station

Install the TMS3 panel as per the relevant parts in the section 4 Installation.
The Lexicomm network can consist of TMS3, EX8 and 228N panels. Each TMS3, EX8, and 228N panel has in-built networking that allows each panel to be connected to the Lexicomm network. The panel added to the network must be wired as a ring (see 4.3.7.1 Network Wiring), it cannot be spurred off. This is due to the ability for outstations to be wired from any panel therefore there is no loss of functionality due to cable faults as a ring provides redundancy.
Network connections used are Network Out and Network In, with Network In on one Station wired to Network Out on the other Station (A to A, B to B, C to C, and D to D).
The default network address setting for the TMS3/EX8 is 1.
When adding a TMS3, it must have a unique network address. The site configuration must be updated to include the panel added (see 6.2 Configuration Procedure).
If the site configuration is not updated, the panel will not be seen by the rest of the network and importantly any outstations connected to that panel will not operate as they will not be seen by the rest of the network.

5.4 Exchange PCB Dipswitch Settings

The Lexicomm network is formed from TMS3 master stations, EX8 expander panels, and 228N master stations. Each panel on the network must have a unique network address. This address is set by the dipswitches on the Exchange PCB. The address is a binary number given by the positions of dip switches 1 to 6, with valid addresses lying between 1 and 64 inclusive. In the table below, a 1 indicates the switch is in the ON position.

Addr	1	2	3	4	5	6	Addr	1	2	3	4	5	6
1	1	0	0	0	0	0	33	1	0	0	0	0	1
2	0	1	0	0	0	0	34	0	1	0	0	0	1
3	1	1	0	0	0	0	35	1	1	0	0	0	1
4	0	0	1	0	0	0	36	0	0	1	0	0	1
5	1	0	1	0	0	0	37	1	0	1	0	0	1
6	0	1	1	0	0	0	38	0	1	1	0	0	1
7	1	1	1	0	0	0	39	1	1	1	0	0	1
8	0	0	0	1	0	0	40	0	0	0	1	0	1
9	1	0	0	1	0	0	41	1	0	0	1	0	1
10	0	1	0	1	0	0	42	0	1	0	1	0	1
11	1	1	0	1	0	0	43	1	1	0	1	0	1
12	0	0	1	1	0	0	44	0	0	1	1	0	1
13	1	0	1	1	0	0	45	1	0	1	1	0	1
14	0	1	1	1	0	0	46	0	1	1	1	0	1
15	1	1	1	1	0	0	47	1	1	1	1	0	1
16	0	0	0	0	1	0	48	0	0	0	0	1	1
17	1	0	0	0	1	0	49	1	0	0	0	1	1
18	0	1	0	0	1	0	50	0	1	0	0	1	1
19	1	1	0	0	1	0	51	1	1	0	0	1	1
20	0	0	1	0	1	0	52	0	0	1	0	1	1
21	1	0	1	0	1	0	53	1	0	1	0	1	1
22	0	1	1	0	1	0	54	0	1	1	0	1	1
23	1	1	1	0	1	0	55	1	1	1	0	1	1
24	0	0	0	1	1	0	56	0	0	0	1	1	1
25	1	0	0	1	1	0	57	1	0	0	1	1	1
26	0	1	0	1	1	0	58	0	1	0	1	1	1
27	1	1	0	1	1	0	59	1	1	0	1	1	1
28	0	0	1	1	1	0	60	0	0	1	1	1	1
29	1	0	1	1	1	0	61	1	0	1	1	1	1
30	0	1	1	1	1	0	62	0	1	1	1	1	1
31	1	1	1	1	1	0	63	1	1	1	1	1	1
32	0	0	0	0	0	1	64	0	0	0	0	0	0

Table 1 - Address Dipswitch Settings

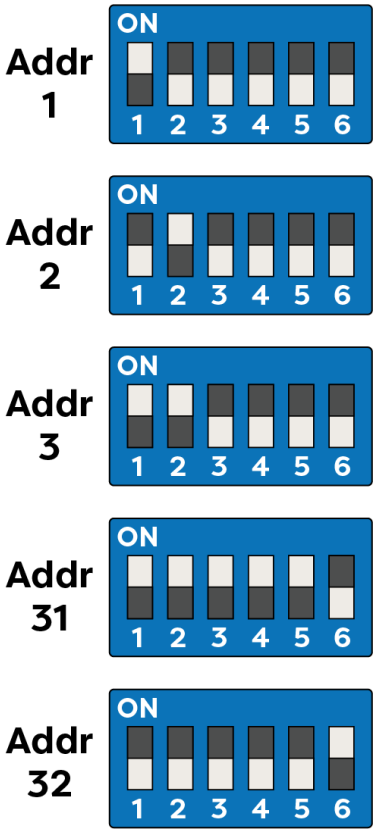


Figure 16 - Lexicomm Exchange PCB Address Dipswitches

6 Configuration

6.1 Configuration File

All TMS3 and EX8 panels on the network are configured from the configuration file located on the Micro SD card that is fitted as standard.
The configuration file contains information on general site details, the panels that are present, the lines used by each panel, and which line is controlled, by which panel.
The configuration file is generated from the supplied spreadsheet. This spreadsheet is available in both Apache Open Office Calc format, and Microsoft Excel format. All details are entered into the appropriate spreadsheet.
In Excel use the save as option and set the [Save as Type] to “CSV UTF-8(Comma delimited)”. In Open Office Calc, save as a text CSV, and change the character set to “Unicode (UTF-8)”.
When the configuration is loaded from the Micro SD card, the file can be selected based on its filename (see 7.20 File Select Screen)

The TMS3 (from version 3.5 onwards) can load any version of the LXConfig file, meaning that if the TMS display is being fitted as a replacement on an old system, the configuration from the SD card on the old panel can be loaded directly into the TMS3. If it is a new job, the most up to date version of the configuration file should be used.

6.2 Configuration Procedure

6.2.1 Accessing SD Card

There are two ways to access the data on the Micro SD card. They are:

1. Connect a micro-USB cable from the port on the back of the display to a PC.
2. Remove the Micro SD card from the holder and connect to PC

If connecting to the Micro SD via a Micro USB cable, connect the cable to the port on the display board and then connect to a PC. The panel display will show the configuration mode popup (see Figure 18 below), the mode LED will be illuminated yellow, and the panel will be temporarily disabled to avoid any possible corruption to the data on the SD card.
Note – If the user is on either the load or backup screen, the panel will not connect to USB. This is to avoid connection whilst the SD card is being read from / written to.

Figure 18 - TMS3 Configuration Mode Popup

If the Micro SD card is being removed, pull the holder DOWN and OUT to open. The Micro SD card can then be inserted into the supplied card reader and connected to a PC.

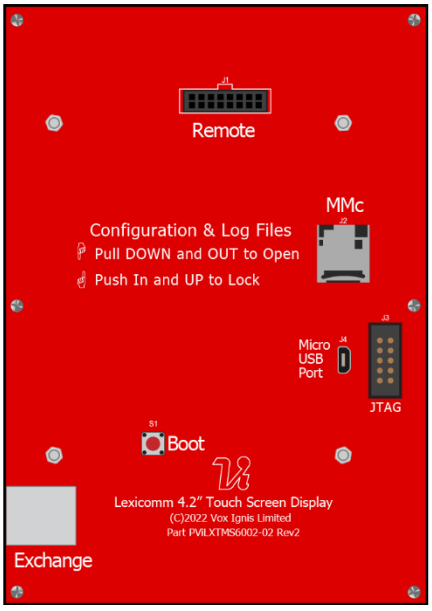


Figure 17 - TMS3 Display Rear Layout

6.2.2 Updating Configuration File

Once access to the SD card is achieved, the file can be opened and updated as described in sections 6.4 to 6.6.
When the configuration is updated, the spreadsheet **MUST BE SAVED** as a UTF-8 CSV (comma delimited) file. When saving the file on Microsoft Excel, an error popup will be shown. This is because the spreadsheet has a hidden sheet. The user can just press the “Ok” button on the popup and the CSV will be generated for the configuration. The file can be uniquely named with a 15-character filename of choice, this allows multiple versions of configuration, we suggest a copy is kept elsewhere as a backup.
Once the file updated file is saved, **make sure the SD card is ejected from the PC properly** to reduce the risk of the SD card getting corrupted.
If using the Micro-USB cable, this can now be disconnected from the PC and display. The popup will hide, and the panel will return to normal operation.
If the Micro SD card was removed from the panel, it must be inserted back into the holder then pushed IN and UP to reconnect it to the display.

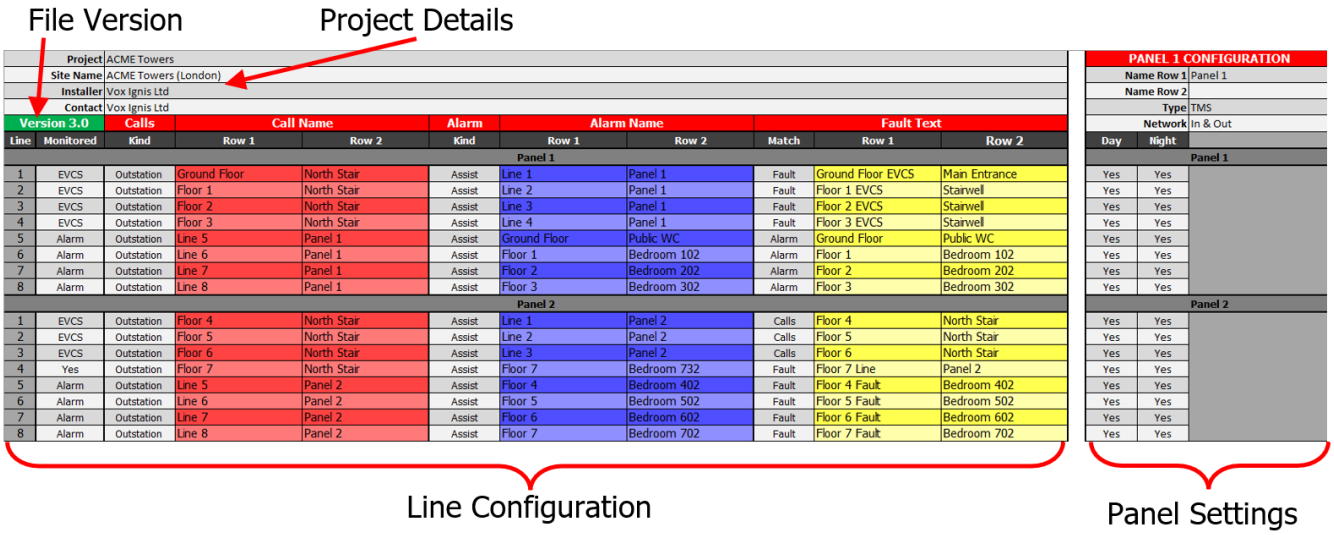
6.2.3 Loading Configuration File

To load the new configuration into the TMS3, the user must first be logged in at level 3 (see 7.11 Login Screen) and then access the load screen (see 7.18 Load Screen). The file can be selected (see 7.20 File Select Screen) and the loaded into the panel and sent around the network (see 7.18 Load Screen)

Note that the configuration stored on the Micro SD cards on other TMS3 master stations are not updated with the new configuration. Either only use one TMS3 for configuration (Preferred option) or store the updated configuration on all Micro SD cards to ensure discrepancies do not occur in future

6.3 Configuration File Sections

The configuration file is split into 3 discrete sections: Project details, Panel details, Line details (see below). There is also a file version number visible on the file.



Project	ACME Towers
Site Name	ACME Towers (London)
Installer	Vox Ignis Ltd
Contact	Vox Ignis Ltd

Version 3.0	Calls	Call Name		Alarm	Alarm Name		Fault Text		
Line	Monitored	Kind	Row 1	Row 2	Kind	Row 1	Row 2	Match	Row 1	Row 2
Panel 1										
1	EVCS	Outstation	Ground Floor	North Stair	Assist	Line 1	Panel 1	Fault	Ground Floor EVCS	Main Entrance
2	EVCS	Outstation	Floor 1	North Stair	Assist	Line 2	Panel 1	Fault	Floor 1 EVCS	Stairwell
3	EVCS	Outstation	Floor 2	North Stair	Assist	Line 3	Panel 1	Fault	Floor 2 EVCS	Stairwell
4	EVCS	Outstation	Floor 3	North Stair	Assist	Line 4	Panel 1	Fault	Floor 3 EVCS	Stairwell
5	Alarm	Outstation	Line 5	Panel 1	Assist	Ground Floor	Public WC	Alarm	Ground Floor	Public WC
6	Alarm	Outstation	Line 6	Panel 1	Assist	Floor 1	Bedroom 102	Alarm	Floor 1	Bedroom 102
7	Alarm	Outstation	Line 7	Panel 1	Assist	Floor 2	Bedroom 202	Alarm	Floor 2	Bedroom 202
8	Alarm	Outstation	Line 8	Panel 1	Assist	Floor 3	Bedroom 302	Alarm	Floor 3	Bedroom 302
Panel 2										
1	EVCS	Outstation	Floor 4	North Stair	Assist	Line 1	Panel 2	Calls	Floor 4	North Stair
2	EVCS	Outstation	Floor 5	North Stair	Assist	Line 2	Panel 2	Calls	Floor 5	North Stair
3	EVCS	Outstation	Floor 6	North Stair	Assist	Line 3	Panel 2	Calls	Floor 6	North Stair
4	Yes	Outstation	Floor 7	North Stair	Assist	Floor 7	Bedroom 732	Fault	Floor 7 Line	Panel 2
5	Alarm	Outstation	Line 5	Panel 2	Assist	Floor 4	Bedroom 402	Fault	Floor 4 Fault	Bedroom 402
6	Alarm	Outstation	Line 6	Panel 2	Assist	Floor 5	Bedroom 502	Fault	Floor 5 Fault	Bedroom 502
7	Alarm	Outstation	Line 7	Panel 2	Assist	Floor 6	Bedroom 602	Fault	Floor 6 Fault	Bedroom 602
8	Alarm	Outstation	Line 8	Panel 2	Assist	Floor 7	Bedroom 702	Fault	Floor 7 Fault	Bedroom 702

PANEL 1 CONFIGURATION	
Name Row 1	Panel 1
Name Row 2	
Type	TMS
Network	In & Out

Day	Night	
Panel 1		
Yes	Yes	
Yes	Yes	
Yes	Yes	
Yes	Yes	
Yes	Yes	
Yes	Yes	
Yes	Yes	
Yes	Yes	
Panel 2		
Yes	Yes	
Yes	Yes	
Yes	Yes	
Yes	Yes	
Yes	Yes	
Yes	Yes	
Yes	Yes	
Yes	Yes	

Figure 19 - Configuration Spreadsheet Overview

6.4 Project Details

This section contains the project details that are common to all panels for this project. These details are shown in the Info box available on the home screen. Additionally, the site name is shown above the logo on the home screen.

Project	ACME Towers
Site Name	ACME Towers (London)
Installer	Vox Ignis Ltd
Contact	Vox Ignis Ltd

Figure 20 - Spreadsheet Project Details

6.4.1 Project

This line is used to store the project name. The project name is limited to 30 characters. The project name is only available on the Info screen.

6.4.2 Site name

This line is used to store the site name. The site name is limited to 30 characters. The site name is shown on both the home screen and the Info box.

6.4.3 Installer

This line is used to store the name of the installer. The installer name is limited to 30 characters. The installer's name is shown in the Info box.

6.4.4 Contact

This line is used to store the contact details. The contact details are limited to 30 characters. The contact details are shown in the Info box.

6.4.5 Version Details

This section shows the version number of this configuration file. This box cannot be altered.

6.5 Line Configuration

This section contains the details that govern each line on the system. Each panel can have up to 8 lines. Each line can be configured to be used or not, and if it is used, then the text that is shown can be configured.

Version 3.0	Calls	Call Name		Alarm	Alarm Name		Fault Text		
Line	Monitored	Kind	Row 1	Row 2	Kind	Row 1	Row 2	Match	Row 1	Row 2
Panel 1										
1	EVCS	Outstation	Ground Floor	North Stair	Assist	Line 1	Panel 1	Fault	Ground Floor EVCS	Main Entrance
2	EVCS	Outstation	Floor 1	North Stair	Assist	Line 2	Panel 1	Fault	Floor 1 EVCS	Stairwell
3	EVCS	Outstation	Floor 2	North Stair	Assist	Line 3	Panel 1	Fault	Floor 2 EVCS	Stairwell
4	EVCS	Outstation	Floor 3	North Stair	Assist	Line 4	Panel 1	Fault	Floor 3 EVCS	Stairwell
5	Alarm	Outstation	Line 5	Panel 1	Assist	Ground Floor	Public WC	Alarm	Ground Floor	Public WC
6	Alarm	Outstation	Line 6	Panel 1	Assist	Floor 1	Bedroom 102	Alarm	Floor 1	Bedroom 102
7	Alarm	Outstation	Line 7	Panel 1	Assist	Floor 2	Bedroom 202	Alarm	Floor 2	Bedroom 202
8	Alarm	Outstation	Line 8	Panel 1	Assist	Floor 3	Bedroom 302	Alarm	Floor 3	Bedroom 302

Figure 21 - Spreadsheet Line Configuration

6.5.1 Line Index

This is the index number of the line for this panel. The panel index is given by the panel bar. This index number cannot be altered.

6.5.2 Line Monitoring

This determines what devices the line is being monitored for. It is set using the dropdown menu, with the five options available being:

Yes	Line monitored for both EVCS outstations and emergency assistance alarms
EVCS	Line monitored for only EVCS outstations
Alarm	Line monitored for only emergency assistance alarms
No	Line not monitored for any devices
Switch	Line monitored for event mode switch

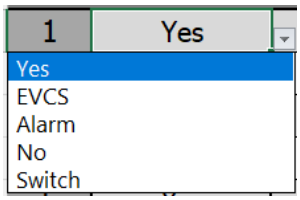


Figure 22 - Spreadsheet Line Monitoring Options

6.5.3 Call Outstation Icon Selection

This determines which icon is shown for a Type B outstation on the given line. It is set using the dropdown menu and has three options. Type A outstations are unaffected by this selection and will always show as fire telephones.

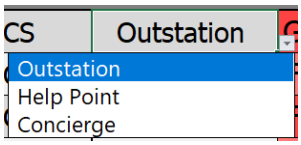


Figure 23 - Spreadsheet Call Outstation Selection Options

6.5.4 Call Location Text

The outstation text is used to identify an outstation that is calling, in a conversation, or on hold. The Call screen displays all active outstations, using the outstation text to identify the outstations.

The Outstation text is split into 2 rows, with each row having a maximum of 20 characters. Row 1 is the top row, and Row 2 is the bottom row.

Call Name	
Row 1	Row 2
Ground Floor	North Stair
Floor 1	North Stair
Floor 2	North Stair
Floor 3	North Stair
Line 5	Panel 1
Line 6	Panel 1
Line 7	Panel 1
Line 8	Panel 1

Figure 24 - Spreadsheet Call Name

6.5.5 Alarm Icon Selection

The alarm icons can be defined for different functions, the default is a pull cord symbol for AssistCall Emergency Assistance Alarm. Other icons can be chosen using the dropdown menu which has six options e.g. Pool Alarm will identify using a Pool Alarm Icon on the given line.

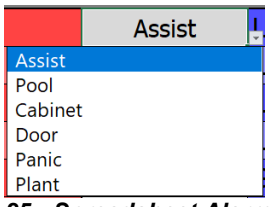


Figure 25 - Spreadsheet Alarm Kind Options

6.5.6 Alarm Text

The Alarm text is used to identify an active, or acknowledged, emergency assistance alarm. The Alarms screen displays all active emergency assistance alarms, using the alarm text to identify the alarms.

The Alarm text is split into 2 rows, with each row having a maximum of 20 characters. Row 1 is the top row, and Row 2 is the bottom row

Alarm Name	
Row 1	Row 2
nel 1	
Line 1	Panel 1
Line 2	Panel 1
Line 3	Panel 1
Line 4	Panel 1
Ground Floor	Public WC
Floor 1	Bedroom 102
Floor 2	Bedroom 202
Floor 3	Bedroom 302

Figure 26 - Spreadsheet Alarm Name

6.5.7 Fault Text Match

The fault text match setting is used to say which two lines of text are used when a line goes into fault. This can be set to either use the separate line fault text, or to show the call or alarm location text using the dropdown box. The options in the dropdown are as follows:

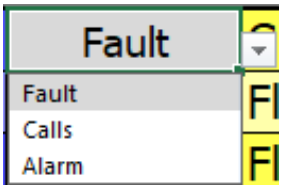


Figure 27 - Spreadsheet Match Dropdown

Fault	The line fault text will be used for a line fault
Calls	The call location text will be used for a line fault
Alarm	The alarm location text will be used for a line fault

6.5.8 Line Fault Text

The Fault text is used to identify any fault associated with that line. This text allows additional information i.e., where equipment is fed from or located in addition to line identity. The Faults screen displays all faults, including line faults, where the line faults use the fault text to identify the line in fault.

The Fault text is split into 2 rows, with each row having a maximum of 20 characters. Row 1 is the top row, and Row 2 is the bottom row.
This fault text will only be used if the match option is set to fault, otherwise the call or alarm text will be used instead.

Fault Text	
Row 1	Row 2
Ground Floor EVCS	Main Entrance
Floor 1 EVCS	Stairwell
Floor 2 EVCS	Stairwell
Floor 3 EVCS	Stairwell
Ground Floor EVCS	Panel 1
Floor 1 EVCS	Panel 1
Floor 2 EVCS	Panel 1
Floor 3 EVCS	Panel 1

Figure 28 - Spreadsheet Fault Text

6.6 Panel Configuration

This section contains the configuration for each panel of the up to 64 panels on the system.

The panel configuration contains:

- Panel name.
- Panel type.
- Network monitoring.
- Day setting for line.
- Night setting for line.

PANEL 1 CONFIGURATION		
Name Row 1		Security
Name Row 2		Admin Suite
Type		TMS
Network		In & Out
Day	**Night**	
Panel 1		
Yes	Yes	
Yes	Yes	
Yes	Yes	
Yes	Yes	
Yes	Yes	
Yes	Yes	
Yes	Yes	
Yes	Yes	

Figure 29 - Spreadsheet Panel Configuration

6.6.1 Panel Name

The panel name is the text that appears on the Home screen, and is used to identify the panel location when a panel fault has occurred.
The panel name is split into 2 rows, with each row having a maximum 20 characters. Row 1 is the top row, and Row 2 is the bottom row.

6.6.2 Panel Type

The network can consist of different types of panel. To set which type of panel is at a given network address, select one of the following six options from the dropdown box.

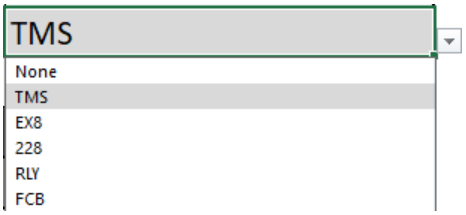


Figure 30 - Spreadsheet Panel Type Options

None	No panel at this address
TMS	Touchscreen Master Station at this address
EX8	System Expander Panel at this address
228	228N Master Station at this address
RLY	LXRLY Relay Box at this address (not yet available)
FCB	LXFCB Fibre Converter at this address (not yet available)

6.6.3 Network settings

The network monitoring sets whether the network in and out ports on the given panel are monitored or not. The four network options that are available in the dropdown box are:

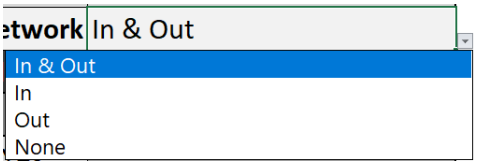


Figure 31 - Spreadsheet Network Options

In & Out	Both net in and net out ports monitored
In	Only net in port monitored
Out	Only net out port monitored
None	Neither network port monitored

6.6.4 Day/Night Filter Setting

The panel day and night settings are used for filtering which lines will be displayed on the given panel when activated during either the daytime or night-time (see 7.16.1 Day and Night Modes). These settings can also be used to if a specific TMS3 is required to only show specific items, e.g. only calls from building A, but none from buildings B or C, or a TMS3 that only shows emergency assistance alarms e.g. a ViLX-ACM3-8 AssistCall Master.

Day	Night
Yes	Yes
Yes	Yes
Yes	Yes
Yes	Yes

Figure 32 - Spreadsheet Day/Night Settings

By default all lines are set to always show on all panels.

The four options that are available on the dropdown menu are:

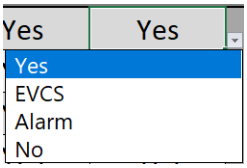


Figure 33 - Spreadsheet Day/Night Options

Yes	EVCS calls and assistance alarm will both be shown on touchscreen display
EVCS	Only EVCS calls will be shown on touchscreen display when activated
Alarm	Only assistance alarms will be shown on touchscreen display when activated
No	EVCS calls and assistance alarm will both **not** be shown on touchscreen display

6.7 Custom logo

A custom logo can be shown on the home screen instead of the default logo. To use a custom logo, a bitmap file must be saved to the root directory of the Micro SD card with the following properties:

- Name: logo must be saved as **Logo.BMP**.
- Location: the file must be stored in the root directory of the SD card.
- Format: 16bit bitmap (BMP) or 24bit bitmap (BMP).
- Size: 200x200 pixels.

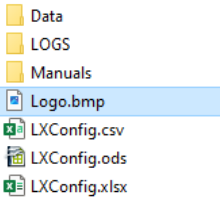


Figure 34 - Custom Logo SD Card Location

7 Operation

All operations are under the command of the ViLX-TMS3 Master Station using the touchscreen display.

7.1 Navigation Button Operation

The navigation buttons located under the touchscreen display can be used in most circumstances to duplicate using the touchscreen display.

Left button	Scroll up through the list on screen when appropriate
Middle button	Select the central highlighted item on screen when appropriate
Right button	Scroll down through the list on screen when appropriate.

7.2 Header Bar

The header bar is present at the top of all screens. This bar allows the user to switch to the desired screen. It also displays the number of active events. This number of calls, alarms, and faults is available on all screens. The header icons for the faults, alarm, and calls will also flash to indicate new events have occurred.

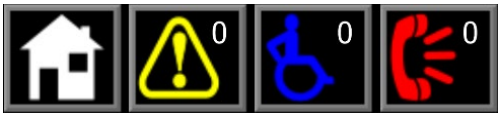


Figure 35 - TMS3 Header Bar

	Pressing the Home button will show the Home screen. When a user is logged in, the correct menu screen will be shown instead.
	Pressing the Faults button will show the Faults screen. The numbers of faults are displayed within this button.
	Pressing the Alarms button will show the Alarms screen. The numbers of alarms are displayed within this button.
	Pressing the Calls button will show the Calls screen. The numbers of calls are displayed within this button.

7.3 Footer Bar

The footer bar shows the time of day, the current access level, the language of the panel, the time, and the date.

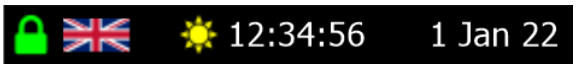


Figure 36 - TMS3 Footer Bar

The time of day is shown as an icon:		The access level is shown as an icon:	
	Panel in day time mode.		Access level 1
	Panel in night time mode.		Access level 2
	Panel Disabled		Access level 3

7.4 Screen Button Operation

Buttons that have a single word of text, such as those on the menu screens (Figure 51 and Figure 52) and the back and save buttons, can be triggered either by pressing the icon **or** the text that is next to it. This only applies to those icons that are square with one rounded corner.

7.5 Home screen

Figure 37 - TMS3 Home Screen

The Home screen is the default screen that is shown when there are no active calls or alarms, and when no user is logged in. It displays the site name, the logo, and the panel's name.

The buttons at the bottom of the screen allow the user to do the following:

	Log In – Allows for a user, with greater access and control, to be logged
	Logs – If an SD card is installed, allows the user to view the full system log
	Info – Allows the user to view the system information screen

7.6 Fault Screen

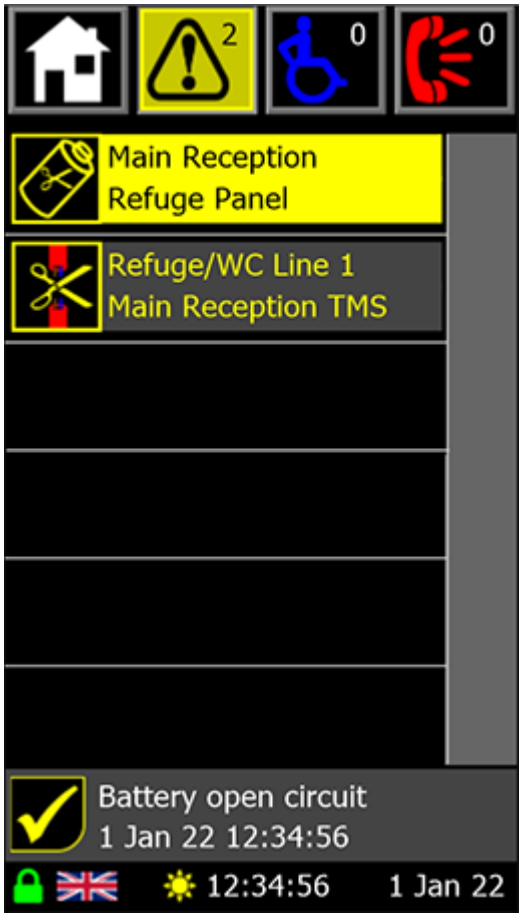


Figure 38 - TMS3 Fault Screen

The fault screen shows all the faults that are currently present on every panel on the network and is accessed by pressing the icon in the header. Each fault is shown with an icon denoting the fault (see 13.3 Panel Fault Icons and 13.4 EVCS Fault Icons) and two lines of customisable fault text. Six faults can be shown on the screen at any time, with more recent faults appearing higher on the screen.

At the bottom of the screen is the fault accept button, along with the fault type and occurrence time for the currently highlighted fault.
If there are more than six faults, the faults can be scrolled by touching the screen where the fault text is and moving the finger up or down as appropriate. The left and right navigation buttons located beneath the screen can also be used to change which fault is highlighted and scroll through the fault list.

The fault list can also be scrolled through using the scroll icons that appear on the right hand side of the screen. Pressing the icons will have the following effect:

	Scrolls to show the six most recent faults
	Scrolls up the fault list six entries
	Scrolls down the fault list six entries
	Scrolls to show the six oldest faults

7.6.1 Accepting Faults

If there are unaccepted faults on the system, the fault accept button is shown. Additionally, the fault buzzer will be sounding, and the general fault LED will be flashing. To accept the faults either press the fault accept button or press the middle navigation button whilst on the fault screen. Once the faults are accepted, the button will disappear, the buzzer will cease sounding, and the general fault LED will show a solid colour. If a new fault occurs, or 8 hours passes since a fault has been accepted but not cleared, the panel will revert to the unaccepted state. The buzzer will resound, the general fault LED will begin to flash, and the fault accept button will be reshown.

7.6.2 Fault Information Screen

Pressing on one of the fault icons on the fault screen will show additional information about the fault. The information that is provided is:

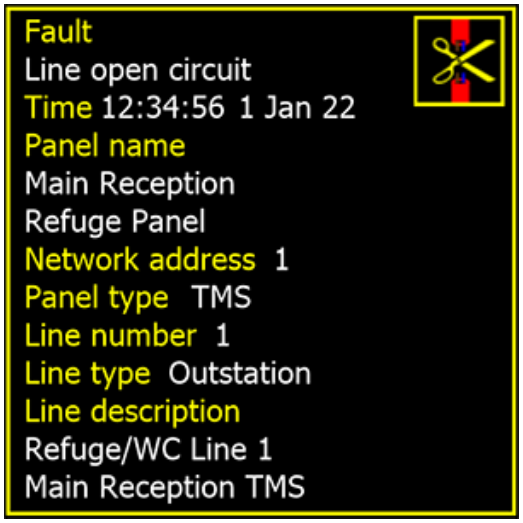


Figure 39 - TMS3 Fault Information Box

Fault	Type of fault that has occurred
Time	Time and date when the fault occurred
Panel name	Name of panel where the fault occurred
Network address	Address of the panel where the fault occurred
Panel type	Type of panel located where the fault has occurred – TMS3, EX8, 228N, RLY, FCB, or None
Line number	Index of line in fault. *Only shown for line and master handset faults*
Line type	Type of line in fault. *Only shown for line and master handset faults*
Line description	Fault desription of line in fault. *Only shown for line faults*

Pressing the back button  at the bottom of the screen will return the user to the fault screen.

7.7 Alarm Screen

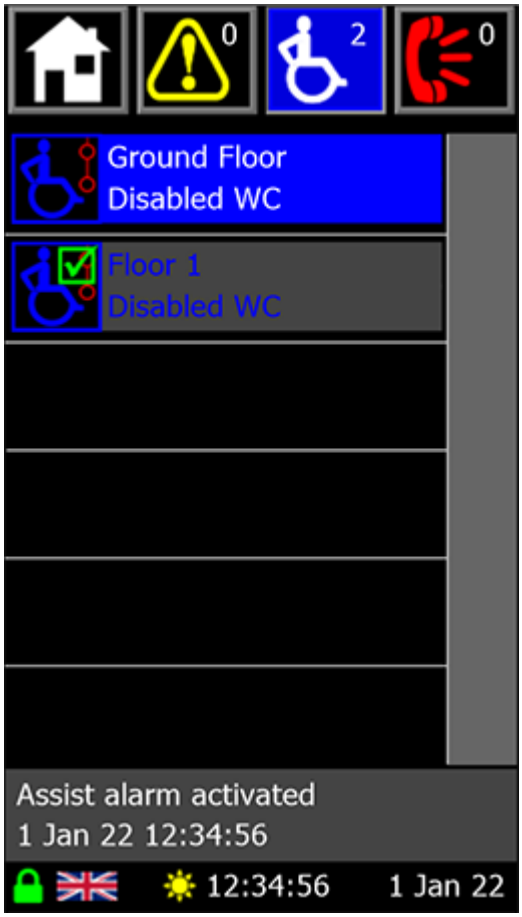


Figure 40 - TMS3 Alarm Screen

The alarm screen shows the status of any active emergency assistance alarms on the system and is accessed by pressing the  icon in the header bar. When an alarm is triggered, this screen is automatically displayed if the panel is not in use.

Each alarm is shown with an icon denoting the state of the alarm (see 13.2 Assistance Alarm Status Icons), and two lines of user definable text to describe the location. The highlighted alarm also shows status and time information at the bottom of the screen.

Six alarms can be shown on the screen at any time, with the oldest alarms appearing higher on the screen. If there are more than six alarms, the alarms can be scrolled by touching the screen where the alarm text is and moving the finger up or down as appropriate. The left and right navigation buttons located beneath the screen can also be used to change which alarm is highlighted and scroll through the alarm list.

The alarm list can also be scrolled through using the scroll icons that appear on the right hand side of the screen. Pressing the icons will have the following effect:

	Scrolls to top of list, showing the six oldest alarms
	Scrolls up the alarm list six entries
	Scrolls down the alarm list six entries
	Scrolls to bottom of list, showing the six newest alarms

7.7.1 Acknowledging Assistance Alarms

An emergency assistance alarm can be acknowledged either using the touchscreen or the navigation buttons. To achieve this:

1. Scroll through alarms until the desired alarm is on screen (and is highlighted in blue for the case of the navigation buttons).
2. Press the alarm icon  on the screen to acknowledge that alarm, or press the middle navigation to acknowledge the highlighted alarm.

The alarm will then show the acknowledged icon  to indicate that this alarm has been acknowledged.

7.8 Call Screen

Figure 41 - TMS3 Call Screen

The call screen shows the status of any active calls and conversations on the system and is accessed by pressing the  icon in the header bar. When a call comes in, this screen is automatically displayed if the panel is not in use. If the panel is in use, picking up the master handset whilst there is an active call will show this screen.
Calls are either from fire telephones (Type A outstations) or disabled refuge points (Type B outstations). Type A outstation can be combined with a Type B to form a Type C outstation; the indication of the call will depend on whether it was the Type A or the Type B that is in use.

Each call is shown with an icon denoting the state of the call (see 13.1 EVC Call Status Icons), and two lines of user definable text to describe the location.

Six calls can be shown on the screen at any time, with the oldest calls appearing higher on the screen. If there are more than six calls, the calls can be scrolled by touching the screen where the call text is and moving the finger up or down as appropriate. The left and right navigation buttons located beneath the screen can also be used to change which call is highlighted and scroll through the call list.
The call list can also be scrolled through using the scroll icons that appear on the right hand side of the screen. Pressing the icons will have the following effect:

	Scrolls to top of list, showing the six oldest calls
	Scrolls up the call list six entries
	Scrolls down the call list six entries
	Scrolls to bottom of list, showing the six newest calls

7.8.1 Answering an EVCS Call

An incoming EVCS call can be answered using either the touchscreen or the navigation buttons. To achieve this:

1. Lift the master handset off its cradle.
2. Scroll through calls until the desired call is on screen (and is highlighted in red for the case of the navigation buttons).
3. Press the call icon ( for a Type A outstation, or  for a Type B outstation) on the screen to answer that call, or press the middle navigation to answer the highlighted call.

The icon will change to  for a Type A outstation, or  for a Type B outstation. This indicates that a conversation is now possible with the selected outstation.

7.8.2 Placing an EVCS Call on Hold

If an active conversation needs to be placed on hold, this can be done either through the touchscreen or by use of the navigation button. To place a call on hold:

1. Scroll through calls until the desired call is on screen (and is highlighted in red for the case of the navigation buttons).
2. Press the call icon ( for a Type A outstation, or  for a Type B outstation) on the screen to answer that call, or press the middle navigation to answer the highlighted call.

The icon will change to  for a Type A outstation, or  for a Type B outstation. This indicates that a conversation is now on hold with the selected outstation.

7.8.3 Conference Calling

The ViLX-TMS3 can be connected to up to five outstations at any time. This allows for a conversion to occur between the master handset and all of the five outstations simultaneously. Only connected outstations, those with green icons such as  for a Type A outstation, or  for a Type B outstation count towards the five allowed outstations. If an outstation is on hold it does not contribute to the total.

7.8.4 Call Screen Popups

There are two popup messages that can appear on the call screen.

The first is a reminder to lift the master handset off its cradle before answering a call. Picking up the master handset will hide the popup

Figure 42 - TMS3 Pickup Handset Popup

The second popup is a message that shows another master handset is in control of the network, with the panel name for that master handset on show. Placing the master handset back on its cradle will hide the popup

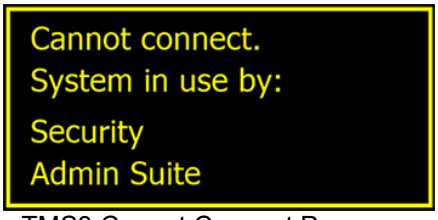


Figure 43 - TMS3 Cannot Connect Popup

Both popups can also be cleared by pressing anywhere on the screen

7.8.5 Disconnect all Calls

Placing the master handset back onto its cradle will disconnect all calls. All conversations will end, and the affected outstations will revert to incoming call. Any outstations on hold will be taken off hold and will revert to incoming call. To stop the incoming call, the outstation must be cancelled at source, i.e., the person at the outstation must cancel the call, either by placing the Type A outstation back onto its cradle, or by pressing the call/cancel button on the Type B outstation.

7.8.6 Call Screen Buttons

The buttons associated with the call screen are:

	Shows directory screen which allows user to choose from the list of allowed extensions.
	Shows the dial screen which allows the user to dial out to a specific outstation using its panel and line indexes

7.9 Directory Screen

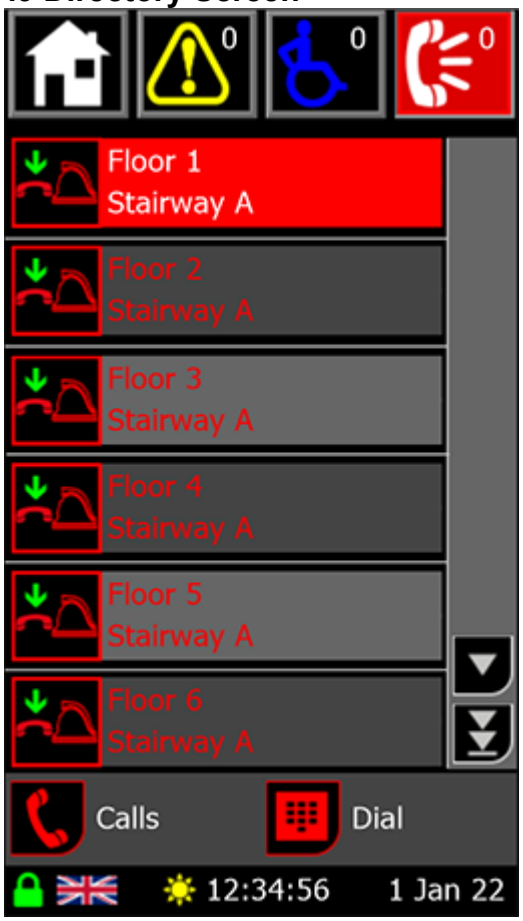


Figure 44 - TMS3 Directory Screen

The directory screen shows the list of all outstations available to this TMS3 and is accessed by pressing the icon on the call or dial screen. Picking up the master handset when there are no active calls (and you aren't on either the call or dial screen) will also show this screen.

Each outstation is shown with an icon denoting the state of the outstation (see 13.1 EVC Call Status Icons), and two lines of user definable text to describe the location. The outstations are shown in alphabetical order using these names.

Master handsets for remote panels are also shown on the screen, displaying the name of the panel next to the icon. When operating, the remote master handset is considered the same as any other outstation.

Six entries can be shown on the screen at any time. If there are more than six entries, the list can be scrolled by touching the screen where the text is and moving the finger up or down as appropriate. The left and right navigation buttons located beneath the screen can also be used to change which entry is highlighted and scroll through the directory list.

The directory list can also be scrolled through using the scroll icons that appear on the right hand side of the screen. Pressing the icons will have the following effect:

	Scrolls to top of the directory list
	Scrolls up the directory list six entries
	Scrolls down the directory list six entries
	Scrolls to bottom of the directory list

7.9.1 Placing a Call to an Outstation

To place an outgoing call to an outstation from the directory screen you must:

Lift the master handset off the cradle. If not, the pickup handset popup (

1. Figure 42) will show
2. Scroll through directory until the desired call is on screen (and is highlighted in red for the case of the navigation buttons).
3. Press the icon on the screen to, or press the middle navigation to call the highlighted outstation.

The directory entries icon will then switch to , indicating the master is calling the outstation. When the outstation answer, the conversation will commence immediately.

7.9.2 Directory Screen Buttons

The buttons associated with the directory screen are:

	Shows the call screen which allows the user to see all active calls on the network
	Shows the dial screen which allows the user to dial out to a specific outstation using its panel and line indexes

7.10 Dial Screen

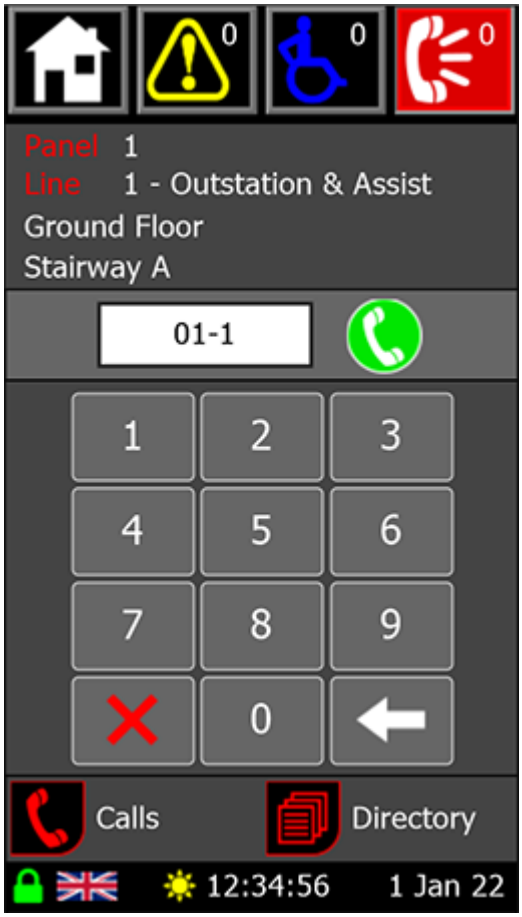


Figure 45 - TMS3 Dial Screen

The dial screen is used to call out to an outstation using the extension number for that outstation. It is accessed by pressing the  icon on the call or directory screen.
The extension number is a three-digit number formed of the panel address and the line number

Digits are entered using the keypad with the panel address being entered first, followed by the line index. A line index of 1-8 is entered for an outstation, with 9 being used for the master handset on a TMS3 or 228N.

Once an extension has been entered, the line monitoring of that line will be shown along with the name associated with a call on that line.

The  icon will appear next to the entry box if that outstation can be called. Pressing the icon will call the outstation. If the master handset is on its cradle or another master handset is in control of the network, the relevant popup will be shown (see 7.8.4 Call Screen Popups).

If the outstation cannot be called, a message will show instead of the dial button either saying the outstation is in fault or not present.

7.10.1 Dial Screen Buttons

The buttons associated with the dial screen are:

	Deletes the last digit that was entered
	Clears all digits that have been entered
	Shows the call screen which allows the user to see all active calls on the network
	Shows directory screen which allows user to choose from the list of allowed extensions.

7.11 Login Screen

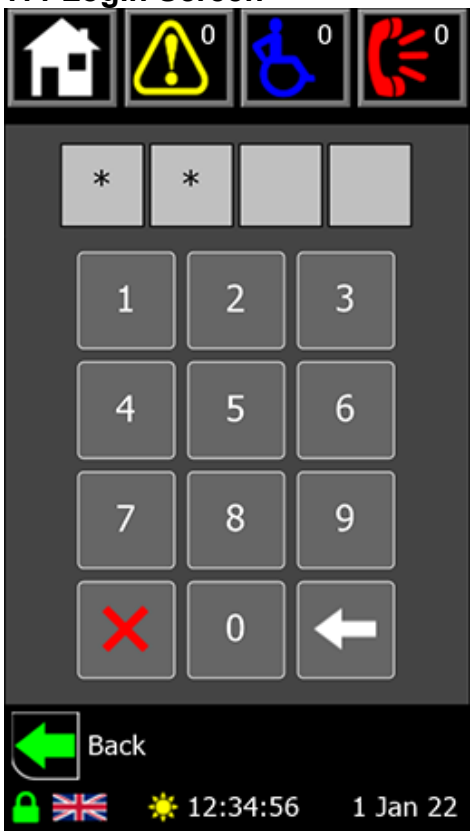


Figure 46 - TMS3 Login Screen

The login screen allows users with more access to login to the panel and is accessed by pressing the icon on the home screen

The four-digit PIN is entered using the keypad, with the other buttons having the following functions:

	Deletes the last digit that was entered
	Clears all digits that have been entered

Once the fourth digit has been entered, if the PIN is valid the user will be logged in and returned to the appropriate menu screen. If the PIN is invalid a message will pop up over the entered digits saying *Invalid PIN* . Pressing any button on the keypad will clear this message and all the digits that are currently entered. By default the two access levels have the following PINs:

Access Level 2		1664
Access Level 3		1812

Pressing the icon will return the user to the home screen

7.12 Info screen

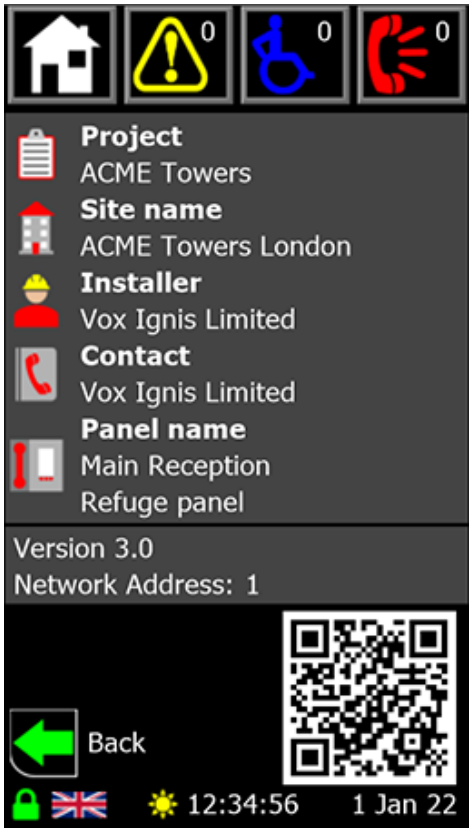


Figure 47 - TMS3 Info Screen

The information screen shows additional information about the panel and is accessed by pressing the icon on the home screen. The information that is shown is the following:

Project Name	Name given to the project.
Site Name	Name given to the site.
Installer	Name of the installer.
Contact	Contact for the installer or maintenance.
Panel Name	Name given to the specific panel
Version	Software version and build number
Network Address	Address of the specific panel

The QR code links to the download page of the Vox Ignis website where this manual can be downloaded from.

Pressing the icon will return the user to the home or menu screen they came from.

7.13 Log Screen

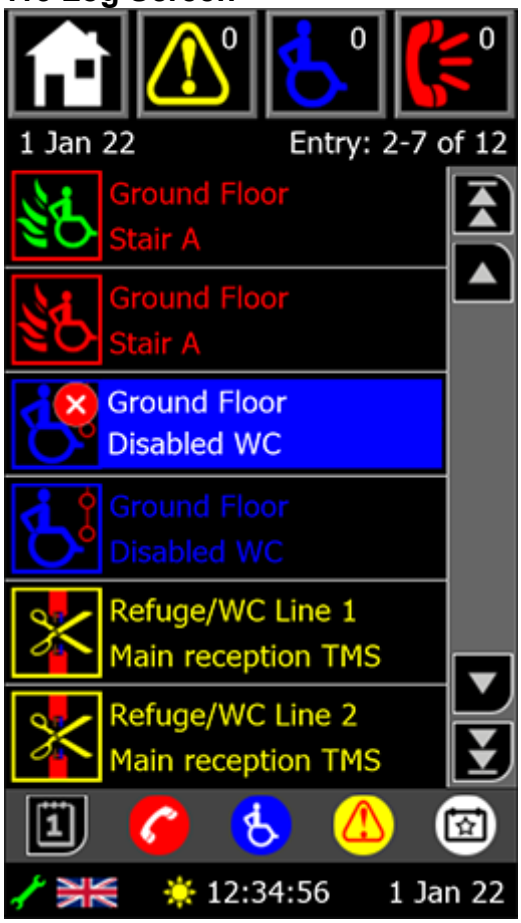


Figure 48 - TMS3 Log Screen

The log screen shows all the logged events for a given day and is accessed by pressing the icon on the home screen.

When an event occurs, that event is added to the log file. Each day has a different log file. Each log file can contain up to 65,535 events. All log files are stored on the attached Micro SD card. The log files are stored in CSV format, so they can be imported from the Micro SD card into a spreadsheet for analysis.

There are four different categories that log items fall into:

	Calls	EVCS and master handset events
	Alarms	Emergency assistance alarm event
	Faults	Fault occurrence and clear events
	Events	Operating system events

The different categories are colour coded for easy identification. Each entry shows an icon relating to the fault (see 13 Appendix C -TMS3 Status Icons), along with up to two lines of identifying text.

Along the top of the screen is the date of the log file that is being shown, along with the range of entries being shown out of the total number of entries.

7.13.1 Log Screen Navigation

If there are more than six log entries, then not all of them will be shown on the screen at once. The log entries can be navigated through using the following options:

- Scroll the screen by touching the text of any entry, then move finger up or down.
- Pressing one of the navigation buttons (see icons to the right) shown on screen.
- Pressing the left or right navigation buttons on the panel below the screen to scroll through individual events

	Shows the six most recent log entries.
	Move the list up by six entries
	Move the list down by six entries
	Shows the six oldest log entries

7.13.2 Log Screen Filters

The log filter icons can be pressed to show/hide log entries of a certain type. The filter toggles are denoted by:

Log type	Selected icon	Deselected icon
Calls		
Alarms		
Faults		
Events		

7.13.3 Log Information Screen

Further information for a log event can be seen by pressing the icon for a given event, or by pressing the middle navigation button to see information for the highlighted event (e.g. the cancelled assistance alarm in Figure 48). This will bring up the log information screen, showing more details about the given log event

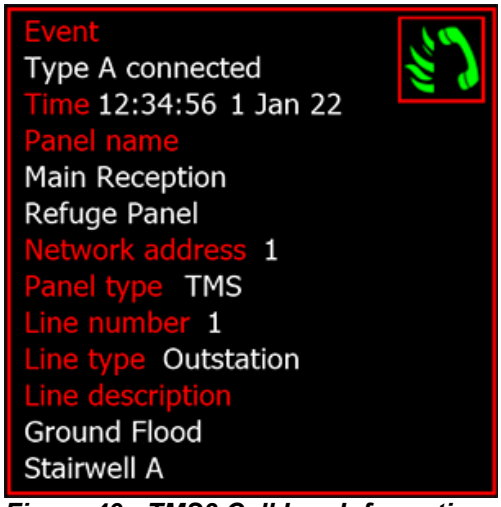


Figure 49 - TMS3 Call Log Information

Each information box is colour coded to identify which kind of log event has occurred. All events include the event icon, event name, and the time and date that the event occurred.

Calls, alarms, and faults will show some further information about the event. That information is:

Panel name	Name of panel where the event occurred
Network address	Address of the panel where the event occurred
Panel type	Type of panel located where the fault has occurred – TMS, EX8, 228N, RLY, FCB, or None
Line number	Index of line for event. *If applicable*
Line type	Monitoring state of line. *If applicable*
Line description	Desriptive text for the event at that line. *If applicable*

Pressing the back button  at the bottom of the screen will return the user to the log screen.

7.14 Calendar Screen

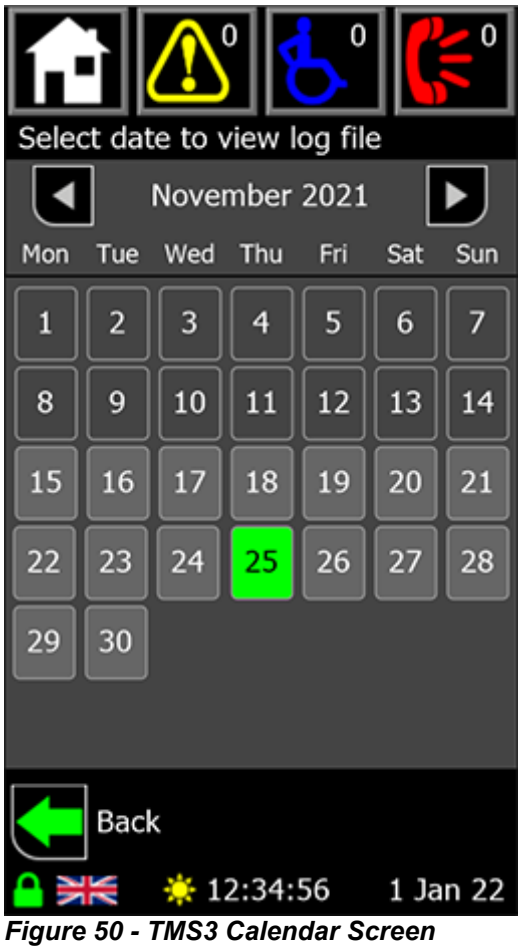


Figure 50 - TMS3 Calendar Screen

The calendar screen is accessed by pressing the  icon on the log screen. This allows the user to view a log file from a specific day

The calendar shows all days for the month displayed. The month can be changed by using the  and  buttons.

If there is a log for a specific day, that day will be shown in light grey. If the day is dark grey, then there will have been no log entries generated on that day, thus no file will have been created for that day. The log file that is currently open will be highlighted in green.

Pressing a day that has a log file will show the log for that day.

*Note: the selected log will always be the current day when the Log screen is first shown from the from the **Home** or **Menu** screen*

To return to the log screen without choosing a day, press the Back button 

7.15 Menu Screen

Once a user has logged in, the normal home screen (Figure 37) will be replaced with one of the menu screen, which allow the user to change the configuration on the panel.

When the level 2 passcode has been entered (1664 by default), the user will see the menu screen shown in Figure 51.
The buttons that are on shown on the level 2 menu are as follows:

Clock – Allows the user to edit the time and date settings that are used across the network.

Test – Allows the user to perform a lamp test on the panel.

Logout – Logs the current user out and returns to the normal home screen (Figure 37).

When the level 3 passcode has been entered (1812 by default), the user will see the menu screen shown in Figure 52.
The buttons that are shown on the level 3 menu screen, in addition to those on the level 2 screen, are as follows:

Load – Allows the user to load the configuration from the Micro SD card.

Backup – Allows the user to back up the configuration to the Micro SD card.

Settings – Allows the user to access the settings menu to configure the system.

Figure 51 - TMS3 Level 2 Menu Screen

Figure 52 - TMS3 Level 3 Menu Screen

7.16 Clock screen

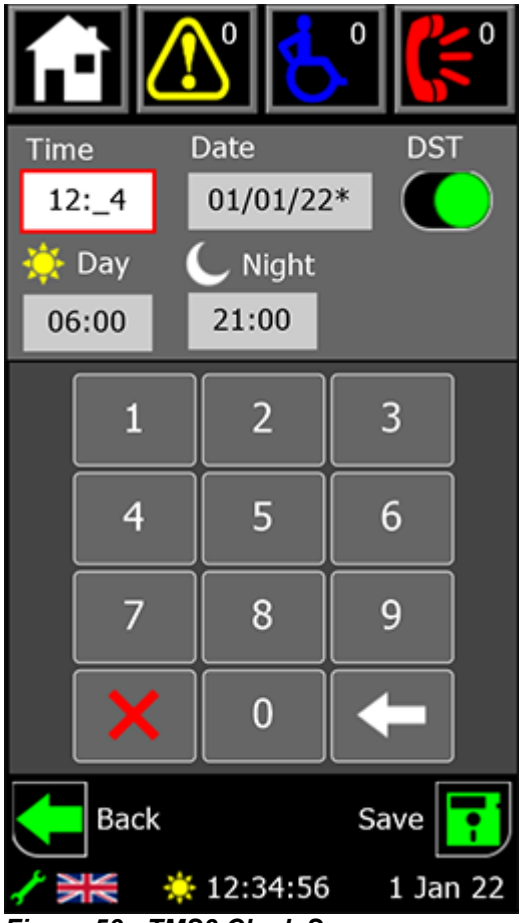


Figure 53 - TMS3 Clock Screen

The clock screen is show by pressing the icon on one on the menu screen and allows the user to set the time and date for the system.
Along with the time and date, the user can also set whether the system uses daylight saving time, as well as the day and night times for EVC display (see 7.16.1 Day and Night Modes). All the configuration is sent around the network to ensure all the panels have the same time and date settings.

To edit a value, first select it by pressing on the box, it will then be shown in white with a red border (as the time is in Figure 53). The keypad can then be used to enter the required digits in the position indicated by the underscore. Once a full value has been entered, an asterisk (*) will be shown after the value to indicate that it is currently not saved.

Also on the keypad are the following buttons:

	Deletes the last digit that was entered
	Clears all digits that have been entered

To enable or disable the daylight-saving time, press the toggle. When the toggle is showing green the daylight-saving time is enabled.
The buttons at the bottom of the screen have the following functions

	Shows once a change has occurred. Will save any of the unsaved values, which are indicated by an asterisk (*), and updates the network.
	Exits this screen and returns to the home screen without updating any values

7.16.1 Day and Night Modes

All panels on the network have the same day and night-time. Updating the day/night-time will update the time on all panels. Each panel has its own configuration for which lines are shown during the day or night.

When the time reaches the day time, the panel enters day mode, indicated by icon in the footer. Only lines configured to operate during the day will be shown on the touchscreen display.

When the time reaches the night time, the panel enters night mode, indicated by icon in the footer. Only lines configured to operate during the night will be shown on the touchscreen display.

If both day time and night time are set to 00:00, the panel will be continually in day mode.

7.17 Panel Test Screen

By pressing the icon, the panel screen will scroll through each of the available colours, the statutory indicators will illuminate (with the mode LED matching the colour of the screen) and the buzzer will sound. The single colour status LEDs on the MAP panel will illuminate in sequence. To exit test mode, press the screen again or press one of the navigation buttons.

7.18 Load Screen

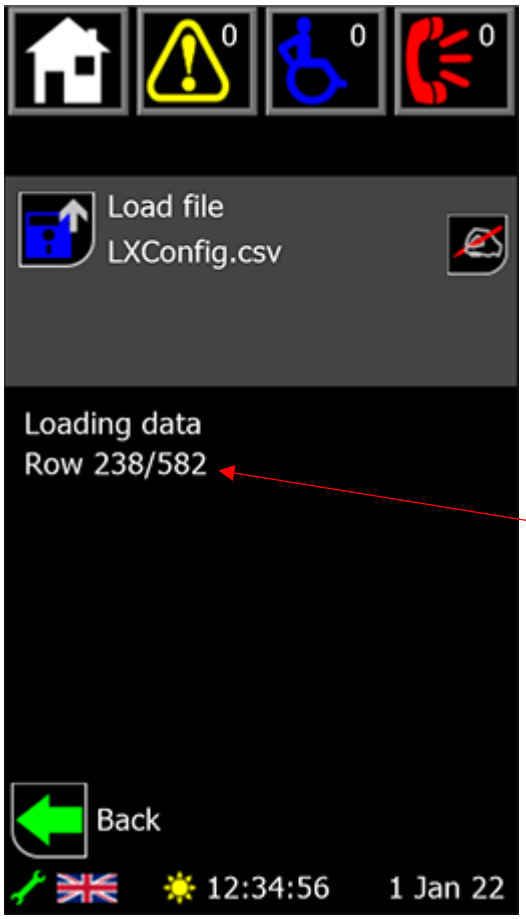


Figure 54 - TMS3 Load Screen

The load screen is show by pressing the icon on the menu screen and allows the user to load the system configuration from the Micro SD card on the back of the TMS3 display.

By default the TMS3 will try and load from a file called LXConfig.csv but other files can be loaded by pressing the icon to bring up the file select screen (See 7.20 File Select Screen).

Once the desired filename is on show, pressing the icon will begin the load procedure***. During the loading procedure, the user is unable to leave this screen.***

Whilst loading, the progress of the load will be shown in the area underneath the grey box. This will also show any errors if any occur (see 7.18.1 for information about errors)

Once the load is complete and the finished message has shown, the user can then leave the screen. Pressing will return the user to the menu screen.

7.18.1 Load Screen Errors

If an error occurs whilst loading a file from the SD card, one of the following message will be shown on screen:

Error Text	Description
Read Error	Data in given cell of the csv file (as denoted by row and column) is invalid.
Invalid File	File does not contain the expected number of rows or columns.
File Missing	File is not present on the SD card.

Upon receiving an error, the load process will end and the buttons on the screen will be active again. If the “Read” or “Invalid” message appears then the “csv.” file must be resaved.

7.19 Backup Screen

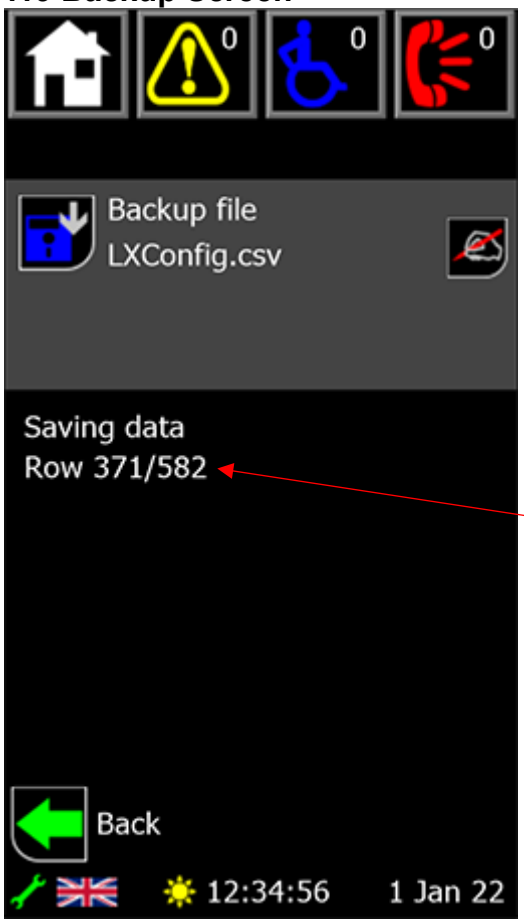


Figure 55 - TMS3 Backup Screen

The backup screen is shown by pressing the icon on the menu screen and allows the user to back up the system configuration to the Micro SD card on the back of the TMS3 display.

By default the TMS3 will back up to a file called LXConfig.csv but other files can be selected by pressing the icon to bring up the file select screen (See 7.20 File Select Screen).

Once the desired filename is on show, pressing the icon will begin the backup procedure***. During the backing up procedure, the user is unable to leave this screen.***

Whilst backing up, the progress of the backup will be shown in the area underneath the grey box. This will also show any errors if any occur (see 7.19.1 for information about errors)

Once the backup has finished, the file will be verified to make sure it will load properly. If the file is valid, the finished message is shown, and the user can then leave the screen. Pressing will return the user to the menu screen.

7.19.1 Backup Screen Errors

If there is an error when writing the backup to the SD card, the display will try again, showing a “Backup Failed – Retrying” message. If after five attempts it remains unsuccessful, an error will appear saying “Backup Failed” and the backup process will end. If a written file fails the verification, the backup will be tried again.

7.20 File Select Screen

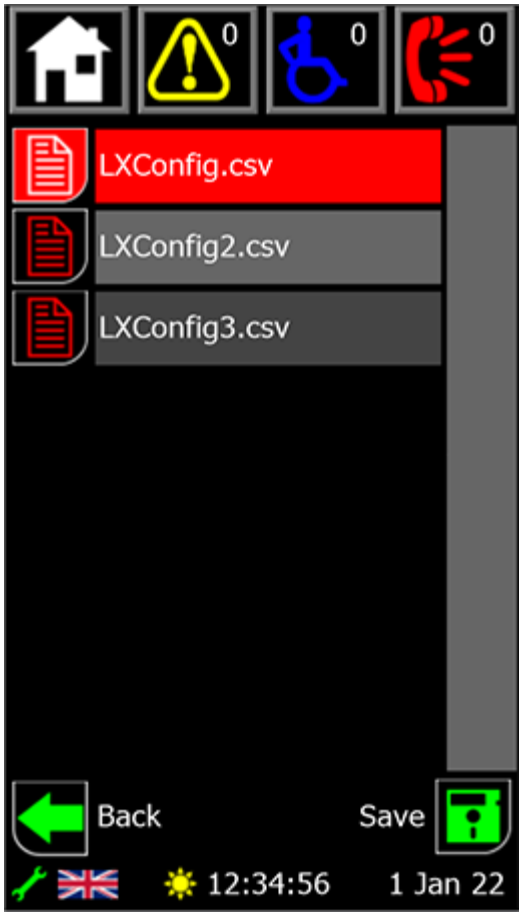


Figure 56 - TMS3 File Select Screen

The file select screen is show by pressing the  icon on either the load or backup screen and allows the user to select which file is being read from or written to.

The screen will show up to eight csv files at a time. If there are more than eight files, the list can be scrolled by touching the screen where the text is and moving the finger up or down as appropriate. The left and right navigation buttons located beneath the screen can also be used to change which file is highlighted and scroll through the file list. Pressing one of the  icons will highlight that file (denoted by the  icon and the red background).
The file list can also be scrolled through using the scroll icons that appear on the right hand side of the screen. Pressing the icons will have the following effect:

	Scrolls to top of the file list
	Scrolls up the file list eight entries
	Scrolls down the file list eight entries
	Scrolls to bottom of the file list

The buttons at the bottom of the screen have the following functions:

	Selects the highlighted file as the one for reading from or writing to and returns the user to the screen they came from.
	Returns the user to the screen they came from without selecting a new file.

7.20.1 Backing up to a New File

If a new file is needed for a backup, rather than just an overwrite of a current file, the user can press the “Save as” file that will appear at the end of the file list. Once selected, pressing the save icon  will take the user to the keyboard screen (see 7.22 Keyboard Screen) and allow them to enter their own 15-character file name ***(the .csv extension does not need to be entered)***. Pressing the save icon  on that screen will return the user to the backup screen (see 7.19 Backup Screen) and **automatically** begins a backup of the TMS3 configuration.

7.21 Settings Screen

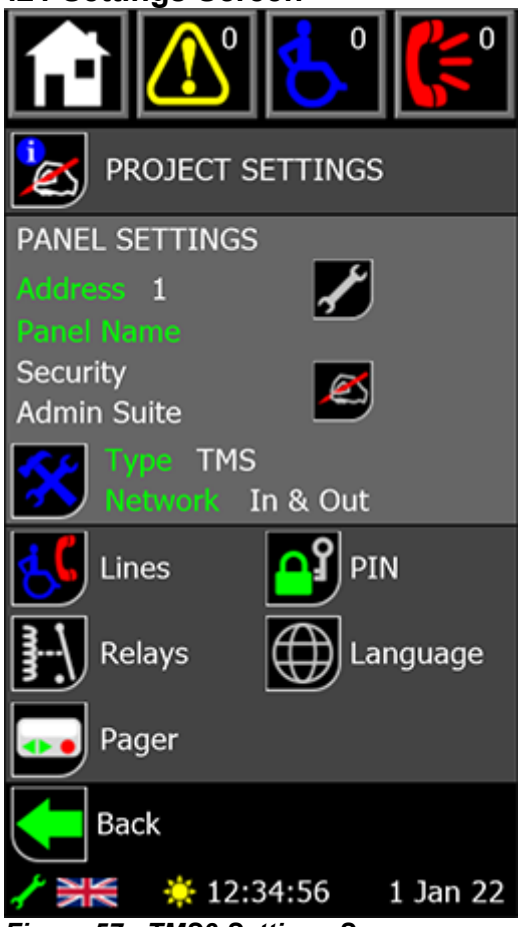


Figure 57 - TMS3 Settings Screen

The settings screen is show by pressing the icon on the menu screen and allows the user to configure the panel and network.

Pressing the icon will bring up the project settings screen and allow the user to edit the project name, site name, installer, and contact details (see 7.23 Project Settings Screen).

In the panel settings section there is the name, type and network monitoring state for a given panel. When the screen is first accessed, this information applies the local panel, but other panel's information can be shown by pressing the icon to access the panel select screen and selecting another panel. Pressing the icon will bring up the keyboard screen (see 7.22 Keyboard Screen) and allow the user to edit the panel location name. To edit the panel's type and network, press the icon to bring up the panel settings screen (see 7.25 Panel Settings Screen)

The buttons in the bottom section of the screen have the following functions:

	Lines – Allows the user to edit the line settings on the network
	PIN – Allows the user to change the passcodes for both access levels on the TMS3
	Relays – Allows the user to configure the in-use relay on the local exchange board
	Language – Allows the user to change the language of the TMS3 panel
	Pager – Allows the user to configure the pager. *Only shown if the daughterboard is attached*

7.22 Keyboard Screen

Figure 58 - TMS3 Keyboard Screen

The keyboard screen is used to edit the displayed text, with the text at the top of the screen informing the user as to which text is currently being edited (panel 1's name in the case of Figure 58).

There are either one or two boxes on display, depending on the text being edited. The currently selected box is shown in white with a green border. Pressing one of the boxes (if both boxes are on show) will select it for editing.

Pressing any character will append it to the end of the text in the selected box. Once the character limit has been reached, no other characters can be added.

The control buttons on the keyboard are as follows:

abc	Toggle between lowercase, shift (where next character is capitalised before returning to lowercase) and full uppercase.
Alt	Toggle between standard and extended characters.
	Deletes the last character that was entered
	Clears the whole line of text

Pressing the save button  will save the new text to memory and transmit it across the network. The user will then be returned to the previous screen.

Pressing the back button  will return the user to the previous screen, discarding any changes.

7.23 Project Settings Screen

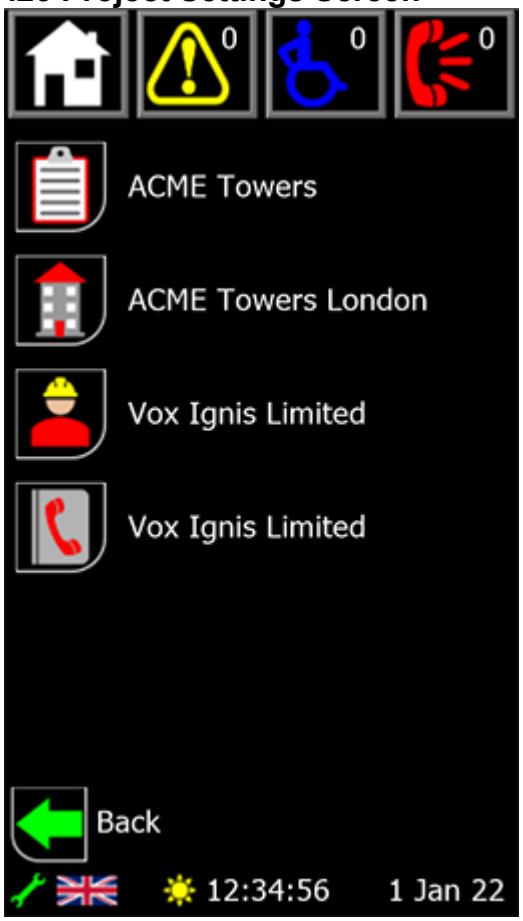


Figure 59 - TMS3 Project Settings Screen

The project settings screen is shown by pressing the icon on the settings screen and allows the user to change the following:

	Project Name
	Site Name
	Installer Name
	Contact Details

Pressing one of the icons will bring up the keyboard screen (see 7.22 Keyboard Screen) to allow the user to update the given piece of text.

All these pieces of text are common to all panels across the network and have a maximum length of 30 characters.

Pressing the back button will return the user to the settings screen.

7.24 Panel Select Screen

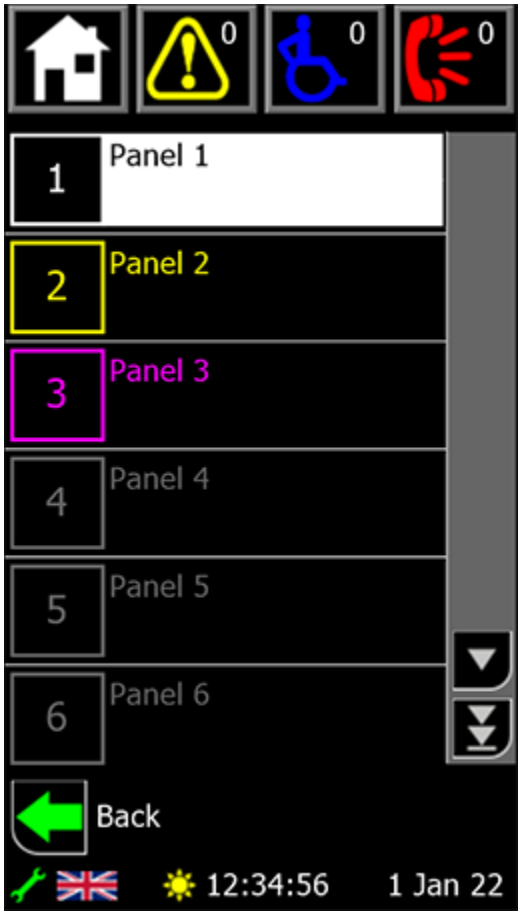


Figure 60 - TMS3 Panel Select Screen

The panel select screen is shown by pressing the  icon on the settings screen and allows the user to select any panel on the network. It also shows an overview of the status of all the panels on the network.

Each panel is shown with its panel address in the left-hand box, and two lines of user definable text to describe its location. The colour of each panel denotes its status depending on whether the panel is **present** (the panel has been seen by the network) and **configured** (the panel kind is set to something other than none). Those colours are:

Colour	Present	Configured
White	Yes	Yes
Yellow	No	Yes
Fuchsia	Yes	No
Grey	No	No

Six panels can be shown on the screen at any time. To see further panels, the list can be scrolled by touching the screen where the text is and moving the finger up or down as appropriate. The left and right navigation buttons located beneath the screen can also be used to change which panel is highlighted and scroll through the panel list.

The panel list can also be scrolled through using the scroll icons that appear on the right hand side of the screen. Pressing the icons will have the following effect:

	Scrolls to top of the panel list
	Scrolls up the panel list six panels
	Scrolls down the panel list six panels
	Scrolls to bottom of the panel list

To select a panel, either press the number icon to select that panel, or press the middle navigation button to select the highlighted panel.

Pressing the back button  will return the user to the settings screen, without selecting a new panel.

7.25 Panel Settings Screen

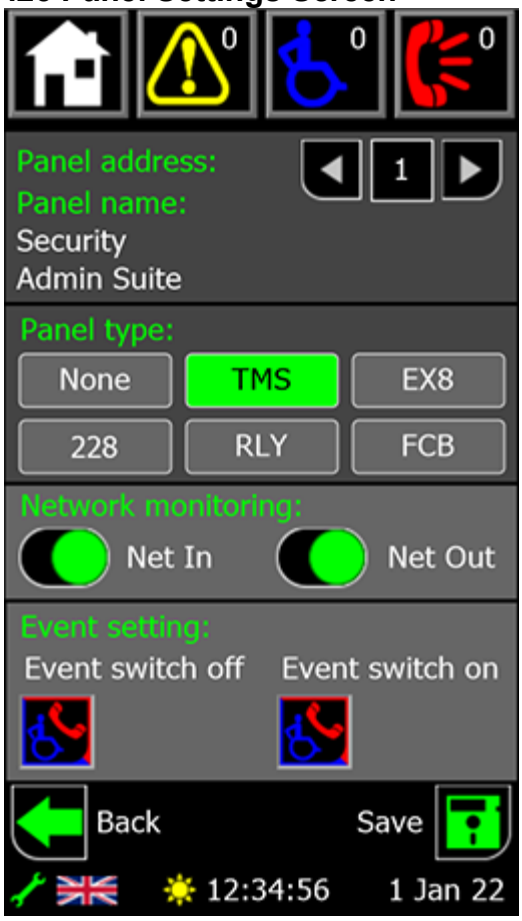


Figure 61 - TMS3 Panel Settings Screen

The panel settings screen is shown by pressing the icon on the settings screen and allows the user to set the configuration for panels on the network.

At the top of the screen is the address and name of the panel that is being configured. If this panel address requires to be changed then pressing the and icons will cycle through the panels, these buttons can be held down.

The panel type button selects the which type of panel is situated at the given panel address, with the one highlighted in green as the one that is selected.

Network monitoring sets the monitoring options for the network in and network out ports. Each port is controlled by a toggle with indicating that the given port is monitored. To meet BS 5839-9:2021 the network should be wired as a ring, therefore both Net In and Net Out should be selected.
The buttons at the bottom of the screen have the following functions:

	Shows once a change has occurred. Will save any of the unsaved values, and updates the network. **Each panel's configuration must be saved separately.**
	Returns the user to the settings screen without updating any values

7.25.1 Event Mode Settings

*The event mode settings will only be shown for **TMS3** panels and only if there is a **switch** defined on the network.*
These settings allow the panel to be enabled or disabled depending on the state of a switch input (see 7.26.1 Line Monitoring Screen for information about a switch input) and is used in places like sports stadia that have a police control room.
The two toggle icons set what is shown on the display when the event switch is either turned on or off. Pressing the icon will cycle through the following options:

	EVCS calls and assistance alarm will both be shown on touchscreen display
	Only EVCS calls will be shown on touchscreen display when activated
	Only assistance alarms will be shown on touchscreen display when activated
	EVCS calls and assistance alarm will both **not** be shown on touchscreen display

If a given panel isn't showing both calls and alarms at a given time, the icon will be displayed in the footer to denote this. The panel being disabled and enabled is also logged.
Note – all panels and all lines must be always monitored from at least one display.

7.26 Line Settings Screen

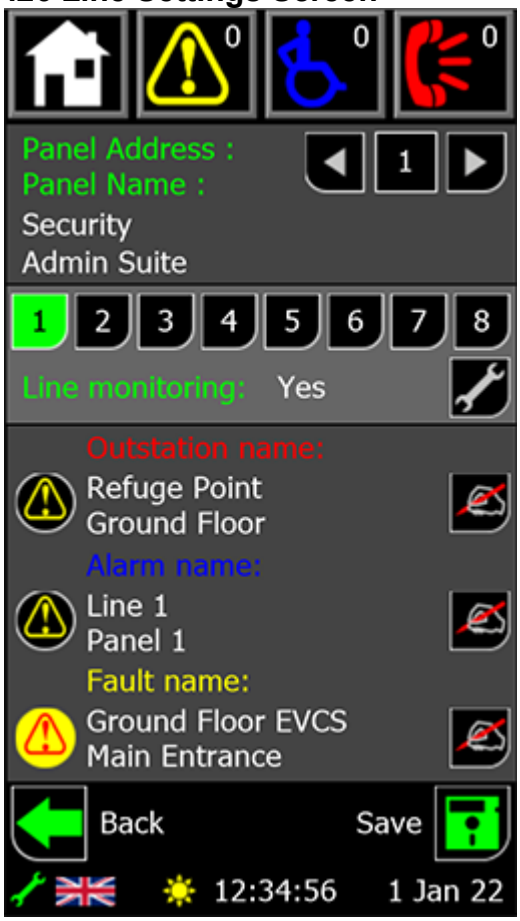


Figure 62 – TMS3 Line Settings Screen

The line settings screen is shown by pressing the icon on the settings screen and allows the user to see the monitoring for each line, and change any of the text associated with the line

The address and name of the panel are shown at the top of the screen and the corresponding lines. Alternative panels can be selected by pressing the and icons which will cycle through the panels, these buttons can be held down.

A line is selected using the number buttons, with 1 indicating which line is the currently selected one.

Underneath the line select is the monitoring state of the selected line. The states that are possible are:

No	No device is being monitored for
EVCS	Type A, Type B or Type C outstation attached
Alarm	Emergency assistance alarm attached
Yes	Both outstation and assistance alarm attached
Switch	Event mode switch input attached to line

Pressing the icon will bring up the line monitoring screen and allow the user to configure the monitoring of a given line, along with the call and alarm icons, and the day and night settings (see 7.26.1 Line Monitoring Screen).
The call name, alarm name, and fault name for the given line are all shown and can be edited by pressing the icon next to the desired text. All these pieces of text are two lines of 20 characters.
Line fault text can be matched to either the outstation or alarm text by pressing the icon to the left of the text. This will update the fault text with the selected text, and hide the fault text's edit button.

If separate fault text is required, pressing the icon to the left of the fault text will show the edit button and allow the user to enter fault text that is separate to the outstation and alarm text.
Changing the fault text match configuration will display the save icon .Pressing the icon will update the fault text match configuration for the line on display.

Pressing the back button will return the user to the settings screen.

7.26.1 Line Monitoring Screen

Figure 63 - TMS3 Line Monitoring Screen

The line monitoring screen is shown by pressing the icon on the line settings screen and allows the user to configure what device is attached to a given line, as well as set the call and alarm icons, and the local day and night settings

At the top of the screen are indicators for the panel and line indexes.

The panel and line index is altered by pressing the and icons which will cycle through the indexes, these buttons can be held down.

The line monitoring is set using the three toggles. They define the device type for the selected line. Setting all toggles to the off position defines the line isn't being used for any device. Event mode requires a key switch on a line, this is defined by the switch toggle.

The icon selects are used to define which icon shows on TMS3 displays for the given line *(note – the call icon select only affects Type B outstation calls).* They are enabled when the relevant toggle is enabled .The selected icon is denoted by the green border and different icons are selected by pressing on the icon.

The buttons at the bottom of the screen have the following functions:

	Shows once a change has occurred. Will save any of the unsaved values and updates the network. **Each line's configuration must be saved separately.**
	Returns the user to the line settings screen without updating any values

7.26.1.1 **Line Display Options (Day/Night)**

Each line can be configured to show or ignore any active outstation or emergency assistance alarm on the local TMS3. This allows for each TMS3 on the network to be configured to show a different combination of calls and alarms. This is commonly used if a specific TMS3 is required only to show specific items, e.g., only calls from Building A, but none from Buildings B and C, or emergency assistance alarms only.

Note – all panels and all lines must be always monitored from at least one display.

The display options are configured using the two buttons which cycle through the following states when pressed:

	EVCS calls and assistance alarm will both be shown on touchscreen display
	Only EVCS calls will be shown on touchscreen display when activated
	Only assistance alarms will be shown on touchscreen display when activated
	EVCS calls and assistance alarm will both **not** be shown on touchscreen display

7.27 PIN Change Screen

Figure 64 - TMS3 PIN Change Screen

The PIN change screen is shown by pressing the icon on the settings screen and allows the user to change the level 2 and level 3 PINs for the local TMS3 panel, the pin must be 4 digits.

Select the desired access level using the icons on the left-hand side of the screen, with the selected one being highlighted in green. The icons correspond to the following access levels:

Level 2 (User)

Level 3 (Engineer)

The new PIN can then be entered using the keypad. Once the first box is completed, the repeat box will automatically select, and the PIN must be entered again. These boxes can be selected manually too, with the selected one showing in white with the red border.

The buttons at the bottom of the keypad have the following functions:

Deletes the last digit that was entered

Clears all digits that have been entered in the selected box

Once both boxes are full, the codes will be checked. If there is an error (either the two code entries don't match, or the code is being used for another user) the boxes will turn yellow and must be re-entered. If the codes are valid, a save button will appear at the bottom of the screen to store the new codes

Pressing the back button will return the user to the settings screen.

7.28 Relay Settings Screen

The programmable relay on the exchange board can be configured to either trigger immediately when a call or alarm is received, or after a set delay of up to 10 minutes. Both are configured from the menu that is accessed by pressing the  icon on the settings screen.

7.28.1 In Use Relay Configuration

Figure 65 - TMS3 Relay Configuration Screen (In Use)

Setting the relay operation to in use will display the screen shown in Figure 65. The relay will trigger immediately, based on which monitoring settings are selected.

The sliders determine which devices will trigger the relay to close. EVCS and Alarms can be enabled independently, or both together (i.e. allowing the relay to close on any outstation or assistance alarm activation). They monitor **all** devices that the panel is set to display at the time (see 7.16.1 for information about line display options)

The ring option defines the relay will trigger whenever the master handset on the TMS3 is ringing. Therefore the relay will close when an outstation is activated or if another panel is calling the local one.

Once configuration has changed, the save button  will display. Pressing it will store the new configuration to the panel

Pressing the back button  will return the user to the settings screen.

7.28.2 Not Answered Relay Configuration

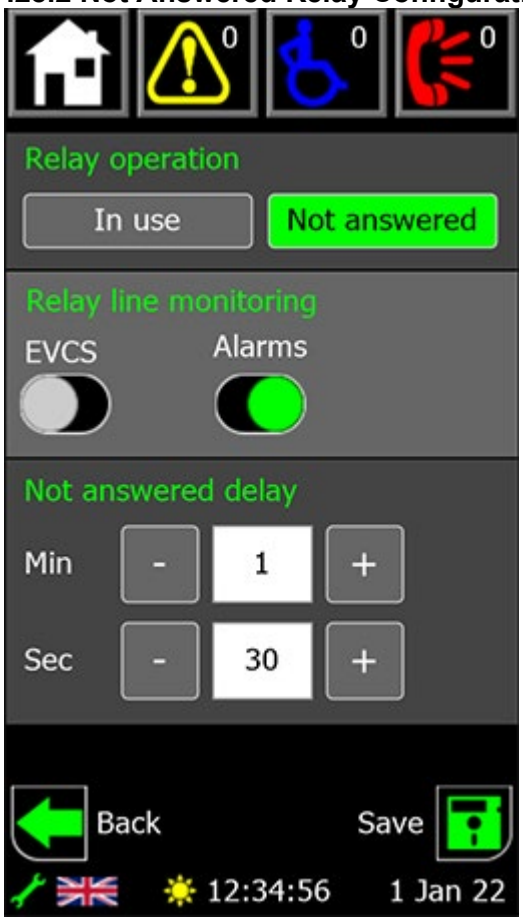


Figure 66 - TMS3 Relay Configuration Screen (Not Answered)

Setting the relay operation to not answered will display the screen shown in Figure 66. The relay will trigger after a set delay, based on which monitoring settings are selected.

The sliders determine which devices will trigger the relay to close. EVCS and Alarms can be enabled independently, or both together (i.e. allowing the relay to close on any outstation or assistance alarm activation). They monitor **all** devices that the panel is set to display at the time (see 7.16.1 for information about line display options)

The delay is set by pressing or holding down the + and – buttons to increase or decrease the number of minutes and seconds that the call or alarm is active for before the relay closes. The maximum delay is 9 minutes and 59 seconds

Once configuration has changed, the save button will display. Pressing it will store the new configuration to the panel

Pressing the back button will return the user to the settings screen.

7.29 Language Screen

Figure 67 - TMS3 Language Screen

The language screen is selected by pressing the icon on the settings screen and allows the user to change the language that the TMS3 uses.

A language can be selected by pressing the flag icon. This will then highlight the language name in red

Pressing the save button will then set the TMS3 to the selected language, updating all the text, and showing the new flag on the footer bar.

This language will now be used across the whole TMS3, including loading from, and backing up to, the Micro SD card.

Pressing the back button will return the user to the settings screen.

7.30 Pager Screen

This screen is only accessible if the ViLX-TMS-AB console daughter board is attached to the rear of the TMS3.

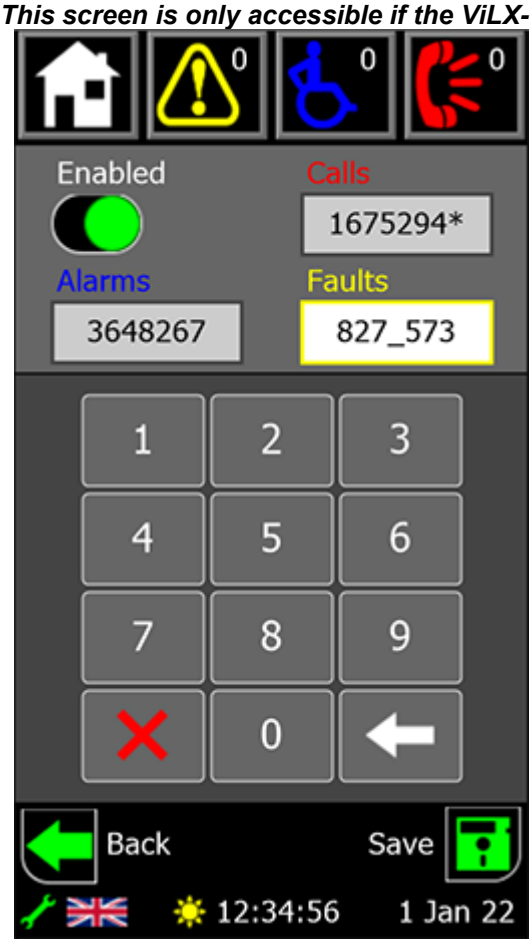


Figure 68 - TMS3 Pager Screen

The pager screen is shown by pressing the icon on the settings screen and allows the user to enable and set the capcodes for use with a Scope CX6 paging system.

The enable toggle sets whether the pager is enabled or not. This sets the RS232 port to send out the pager information rather than its standard console data.
There are three separate 7-digit capcodes for calls, alarms, faults. These correspond to the pager address or group address.

To edit a capcode, first select it by pressing the box containing the code. A selected code has a white box with a coloured border that matches the text above it.

The code can then be entered using the keypad, with the underscore indicating when in the code the next digit will be placed. Once a full code is entered an asterisk (*) will appear to indicate that the code is currently unsaved.

At the bottom of the keypad are buttons that have the following functions:

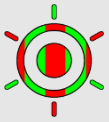
	Deletes the last digit that was entered
	Clears all digits that have been entered

The buttons at the bottom of the screen have the following functions

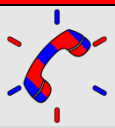
	Shows once a change has occurred. Will save any of the unsaved values, which are indicated by an asterisk (*), and updates the network.
	Exits this screen and returns to the home screen without updating any values

8 Indications and Controls

8.1 Indicator Icons Key

LED off	LED illuminated a single colour	LED flashing on and off	LED flashing between two colours
			

8.2 Mode Indicator Summary

Mode LED	Description	Mode LED	Description
	Normal state		Outstation off hook and assistance alarm active at same time
	Outstation off hook		Refuge (Type B) points disabled
	Assistance alarm active		Panel in fault

8.3 PSU and CPU Indicators Summary

DC LED	AC LED	PSU LED	CPU LED	Description
				Mains and battery OK
				Mains failure
				Battery open circuit
				Battery short circuit
				Battery high impedance
				PSU system fault
				Display / Exchange system fault or display-exchange comms fault

8.4 General Fault Indicator Summary

General LED	Description
	No faults present.
	Unaccepted faults present.
	Faults present and accepted.

9 Commissioning Procedure

The commissioning should be carried out by a competent person who has a basic knowledge and understanding of the design and installation sections of BS 5839-9:2021 and has access to the specification of the project.

9.1 Cable Checks

The 500V insulation tests should have been carried out by the installer and the results made available to the commissioning engineer.
All cables should be correctly labelled.
Test field wiring and check for end-of-line 10kΩ resistor. Check cables are clear from any short or open circuits.
Connect outstation cables into Line Cards ensuring the Earth is sleeved and terminated into the Earth block.

9.2 Network Set up

Configure relevant dipswitches for the network settings that may be required as per the set-up section in this manual.
Connect the network cabling (if appropriate), ensuring Net OUT ABCD is correctly connected to Net IN ABCD and the ring is continuous. **Only Connect the Earth screen of the Net IN cables.**

9.3 Power Up

Power up the ViLX-TMS3 Master Station using mains only, fed via a double pole isolator local to the panel fed from a dedicated circuit. The AC power indicator will be illuminated, and the DC power indicator is extinguished. The PSU fault and General fault indicators will be illuminated. There should be no line fault indicators illuminated.
If there are no line faults present, the battery may be connected. The DC power indicator will be illuminated, and the PSU fault and General fault indicators are extinguished when battery is connected.
If there are any line fault indicators illuminated, then the field wiring should be checked prior to the battery being connected.
Repeat the power up section for any additional ViLX-EX8 Expander panels or additional ViLX-TMS3 panels.

9.4 Site Configuration

Upload the site configuration from the Micro SD card (recommended) or using the settings menus.
If device missing or network faults are reported address these before continuing. Once remedied re-upload the site configuration to ensure all panels are programmed.

9.5 Site Testing

Lift the master handset receiver and listen for a cadence tone.
All outstations may be tested now, visit each outstation in turn and test that it is connected to the correct Master Station or Expander panel and perform an intelligibility test. This test should be conducted when the building has normal background noise levels. The intelligibility test requires two personnel.
Where AssistCall is fitted, all pull cords in each circuit should be tested, acknowledged at the panel, cancelled at the call location and the panel text checked. Ensure all controls and indicators operate correctly.
When all outstation tests are complete, network cable checks should be performed to ascertain correct operation by unplugging network cable to ensure the network is correctly fault monitoring and continues to work with a single cable fault.
When complete the log may be retrieved from Micro SD card, saved as a spreadsheet, and kept for record purposes.

10 Maintenance

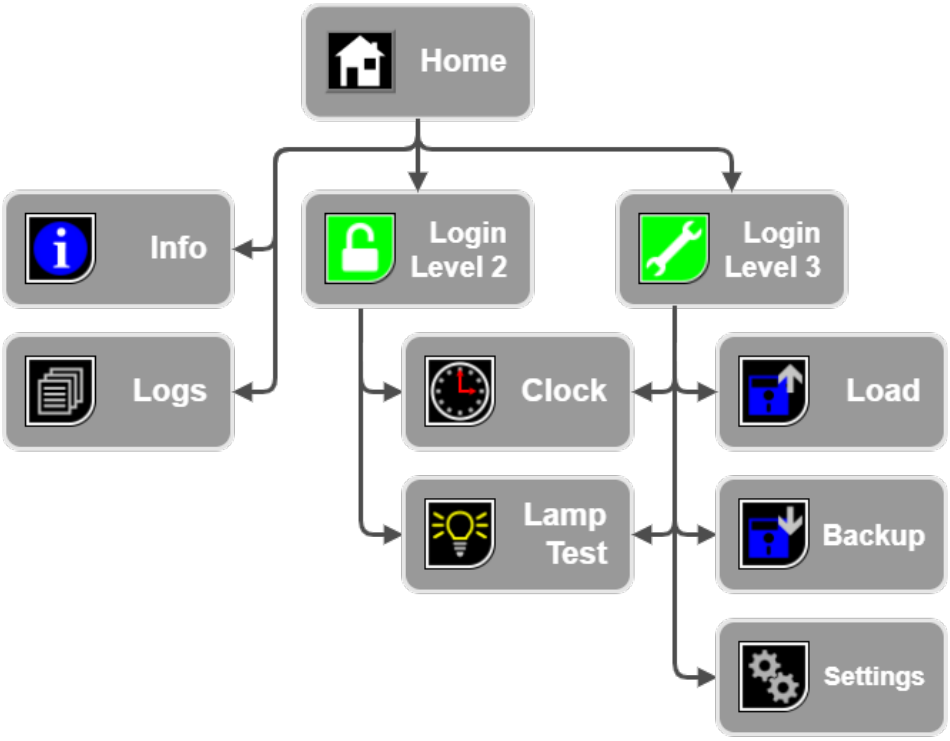
It is a requirement of BS 5839-9:2021 that a maintenance agreement be in place for the EVCS. The maintenance schedule should be as follows:

Frequency	Test
Weekly	Test a different outstation on the system each week and make a call to the master station. Repeat each week until all outstations and master stations are tested. Record these results in the site log. *if more than one master station is present alternate weekly. Non EVC mode devices should also be tested for correct operation, at a frequency of at least 1 per week so that all devices are tested over a 12-month period.
Biannually	Engineer call to check system operation perform 100% outstation and master station operation, field strength of attached AFILS equipment and check battery health. Record results and any variations into the site Logbook.
5 Yearly	In addition to Yearly tests replace all batteries and record in Logbook.

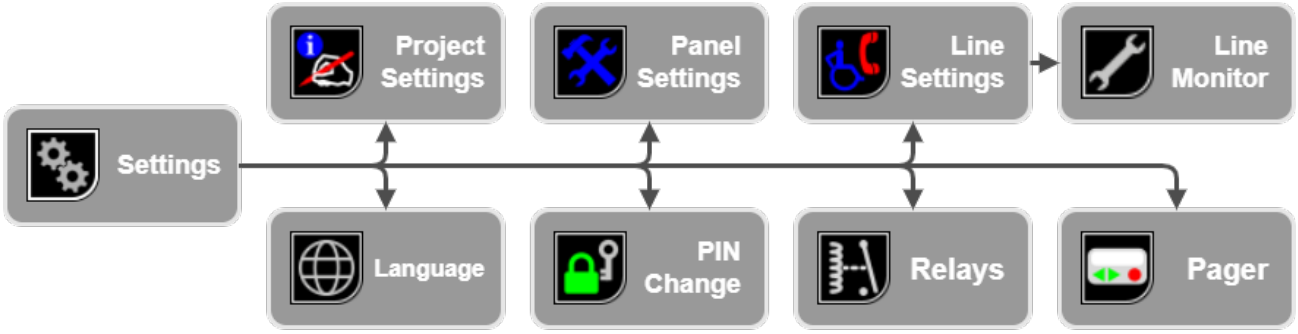
Refer to BS 5839-9:2021 for full details of maintenance and testing requirements.

11 Appendix A – Operational Flowcharts

11.1 TMS3 Home/Menu Structure



11.2 TMS3 Settings Structure



12 Appendix B – Simple Operating Instructions

Figure 69 - TMS3 Call Screen

The call screen shows the status of any active calls and conversations on the system and is accessed by pressing the icon in the header bar. When a call comes in, this screen is automatically displayed if the panel is not in use. If the panel is in use, picking up the master handset whilst there is an active call will show this screen.

Calls are either from fire telephones (Type A outstations) or disabled refuge points (Type B outstations). The outstation text will detail the location.

12.1 Answering an EVCS Call

An incoming EVCS call can be answered using either the touchscreen or the navigation buttons. To achieve this:

1. Lift the master handset off its cradle
2. Scroll through calls until the desired call is on screen (and is highlighted in red for the case of the navigation buttons).
3. Press the call icon (for a Type A outstation, or for a Type B outstation) on the screen to answer that call, or press the middle navigation to answer the highlighted call.

The icon will change to for a Type A outstation, or for a Type B outstation. This indicates that a conversation is now possible with the selected outstation.

12.2 Placing an EVCS Call on Hold

To place a call on hold:

1. Scroll through calls until the desired call is on screen (and is highlighted in red for the case of the navigation buttons).
2. Press the call icon (for a Type A outstation, or for a Type B outstation) on the screen to answer that call, or press the middle navigation to answer the highlighted call.

The icon will change to for a Type A outstation, or for a Type B outstation. This indicates that a conversation is now on hold with the selected outstation.

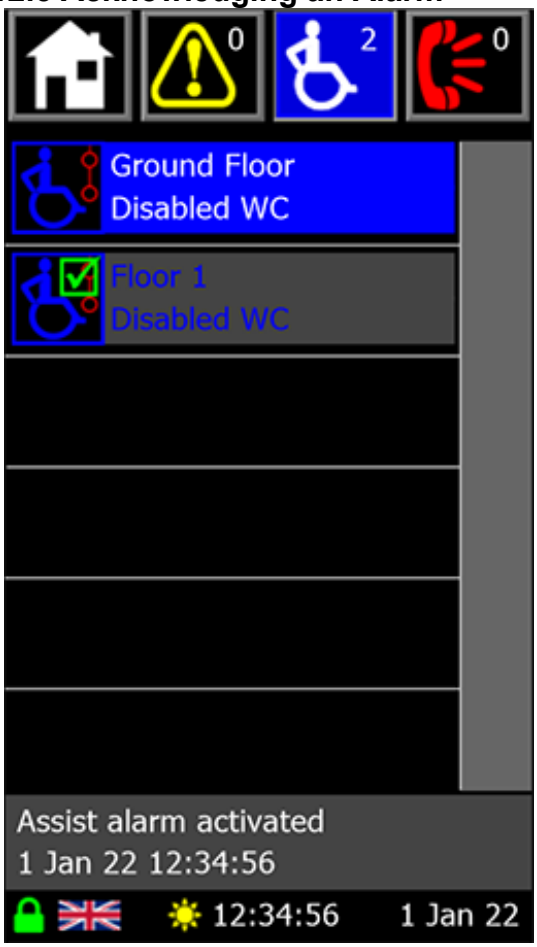
12.3 Conference Calling

The ViLX-TMS3 can be connected to up to five outstations at any time. This allows for a conversion to occur between the master handset and all of the five outstations simultaneously. Only connected outstations, those with green icons such as for a Type A outstation, or for a Type B outstation count towards the five allowed outstations. If an outstation is on hold it does not contribute to the total.

12.4 Ending an EVCS Call

The call must be ended by pressing the cancel button on a type B outstation or replacing the handset on a Type A outstation.

12.5 Acknowledging an Alarm



The alarm screen shows the status of any active emergency assistance alarms on the system and is accessed by pressing the  icon in the header bar. When an alarm is triggered, this screen is automatically displayed if the panel is not in use.
Each alarm is shown with an icon denoting the state of the alarm (see 13.2 Assistance Alarm Status Icons), and two lines of user definable text to describe the location. The highlighted alarm also shows status and time information at the bottom of the screen.

Figure 70 - TMS3 Alarm Screen

An emergency assistance alarm can be acknowledged either using the touchscreen or the navigation buttons. To achieve this:

1. Scroll through alarms until the desired alarm is on screen (and is highlighted in blue for the case of the navigation buttons).
2. Press the alarm icon  on the screen to acknowledge that alarm, or press the middle navigation to acknowledge the highlighted alarm.

The alarm will then show the acknowledged icon  to indicate that this alarm has been acknowledged.

12.6 Placing a Call to an Outstation From Directory

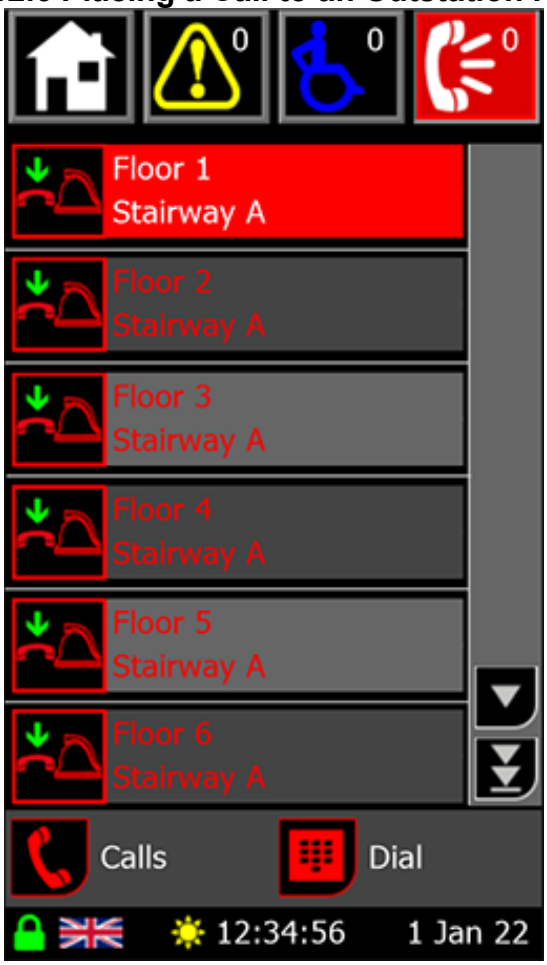


Figure 71 - TMS3 Directory Screen

There are two methods available either the directory screen or via the dial screen.

The directory screen shows the list of all outstations available to this TMS3 and is accessed by pressing the  icon on the calls or dial screen. Picking up the master handset when there are no active calls (and you aren't on either the call or dial screen) will also show this screen.
Each outstation is shown with an icon denoting the state of the outstation. The outstations are shown in alphabetical order using their location names.

Master handsets for remote panels are also shown on the screen, displaying the name of the panel next to the icon. Regarding operating, the remote master handset is considered the same as any other outstation.

To place an outgoing call to an outstation from the directory screen you must:

Lift the master handset off the cradle. If not, the pickup handset popup (

4. Figure 42) will show
5. Scroll through directory until the desired call is on screen (and is highlighted in red for the case of the navigation buttons).
6. Press the icon on the screen to or press the middle navigation to call the highlighted outstation.

The directory entries icon will then switch to  , indicating the master is calling the outstation. When the outstation answer, the conversation will commence immediately.

12.6.1 Directory Screen Buttons

The buttons associated with the directory screen are:

 Shows the call screen which allows the user to see all active calls on the network

 Shows the dial screen which allows the user to dial out to a specific outstation using its panel and line indexes

12.7 Placing a Call to an Outstation From Dial

Figure 72 - TMS3 Dial Screen

The dial screen is used to call out to an outstation using the extension number for that outstation. It is accessed by pressing the  icon on the call or directory screen.
The extension number is a three-digit number formed of the panel address and the line number

Digits are entered using the keypad with the panel address being entered first, followed by the line index. A line index of 1-8 is entered for an outstation, with 9 being used for the master handset on a TMS3 or 228N.

The outstation is called by pressing the  icon.

If the outstation cannot be called, a message will show instead of the dial button either saying the outstation is in fault or not present.

12.7.1 Dial Screen Buttons

The buttons associated with the dial screen are:

	Deletes the last digit that was entered
	Clears all digits that have been entered
	Shows the call screen which allows the user to see all active calls on the network
	Shows directory screen which allows user to choose from the list of allowed extensions.

13 Appendix C -TMS3 Status Icons

13.1 EVC Call Status Icons

	Incoming Type A outstation call.		Conversation with help point.
	Conversation with Type A outstation.		Help point on hold.
	Type A outstation on hold.		Help point connect to remote panel
	Type A outstation connect to remote panel		Incoming concierge call.
	Incoming Type B outstation call.		Conversation with concierge.
	Conversation with Type B outstation.		Concierge on hold.
	Type B outstation on hold.		Concierge connect to remote panel
	Type B outstation connect to remote panel		Master handset off hook.
	Incoming help point call.		Master handset, outstation, help point or concierge on hook.

13.2 Assistance Alarm Status Icons

	AssistCall alarm activated.		Medicine cabinet alarm activated.
	AssistCall alarm acknowledged.		Medicine cabinet alarm acknowledged.
	AssistCall alarm cancelled.		Medicine cabinet alarm cancelled.
	Pool alarm activated.		Panic alarm activated.
	Pool alarm acknowledged.		Panic alarm acknowledged.
	Pool alarm cancelled.		Panic alarm cancelled.
	Door alarm activated.		Plant alarm activated.
	Door alarm acknowledged.		Plant alarm acknowledged.
	Door alarm cancelled.		Plant alarm cancelled.
	Alarm acknowledge location		

13.3 Panel Fault Icons

Mains failure
The panel has lost its mains AC connection and is currently running on the battery backup.

Battery open circuit
The battery is being reported as open circuit.

Battery short circuit
The battery is being reported as short circuit.

Battery high impedance
The battery is being reported as high impedance.

Exchange PCB system fault
There has been a system fault on the exchange PCB, either watchdog or checksum.

Panel display system fault
There has been a system fault on the display PCB, either watchdog or checksum.

Display checksum fault
There has been a checksum fault on a TMS display PCB.

PSU checksum fault
There has been a checksum fault on the PSU PCB.

Panel data fault
There has been a communication problem between the exchange and display PCB in the panel.

Remote display data fault
There has been a communication problem between the panel and the connected remote display (ACR).

Network data fault
The named network data port (in/out) on the panel hasn't received any data for the last 30 seconds.

Panel missing
The TMS display hasn't received any data from the given panel for at least 30 seconds.

Audio open circuit
The name network audio port (in/out) on the panel is being reported as open circuit.

Audio short circuit
The name network audio port (in/out) on the panel is being reported as short circuit.

13.4 EVCS Fault Icons

Line open circuit
There is an open circuit fault on the identified line

Line short circuit
There is a short circuit fault on the identified line

Line earth fault
There is an Earth fault on the identified line

Line card missing
The line card for the identified line is missing

Master handset open circuit
There is an open circuit fault on the master handset of the identified panel

Master handset short circuit
There is an short circuit fault on the master handset of the identified panel

13.5 Log Event Icons

	New log file created.		User logged in.
	System powered and initialised.		User logged out.
	Watchdog reset.		Panel lamps tested.
	Time and date changed.		Event switch turned off
	Configuration loaded from SD card.		Event switch turned on
	Configuration saved to SD card.		Panel disabled by event mode
	Config settings changed.		Panel enabled by event mode
	Faults accepted.		

14 Technical Specification

DETAILS	ViLX-TMS3-W-8
POWER SUPPLY AND CHARGER	
AC Input	230V AC ± 10% 50/60Hz
Internal supply	5V, 16V, 27V DC
Supply and battery	Monitored Open, Short, Fuses, High Impedance
Protection	Deep discharge, Short, Thermals
Battery type	1× 12V 7AH VRSLA
Mains fuse	240V 1A HRC
Battery fuse	750mA PTC
Max charge current	500mA
INPUTS	
Lines	2-8 in 2 line blocks
Remote enable	Short to use
End of line	10kΩ
OUTSTATION CABLES	
Type	Standard* / Enhanced
Cores	1× 2 core radial 1mm or 1.5mm
Distance	500m from master station
OUTPUTS	
Number	2, Fault & In use
Fault Relay	1× Volt free NC, Com 30V DC 1A
In Use Relay	1× Volt free NO, Com 30V DC 1A

CONTROLS AND INDICATIONS	
Navigation Buttons	3 push button navigation keys
Statutory indicators	3× PSU status indicators
	1× CPU fault indicator
	1× general fault indicator
	1× RGB mode indicator
Touchscreen	4.7” RGB touchscreen
NETWORK CABLES	
Type	Standard* / Enhanced
Cores	2× 2 core loops, 1mm or 1.5mm (2c Data, 2C Audio)
Distance	500m max between panels
STANDARDS COMPLIANCE	
EMC	EN 55035:2017+A11:2020 EN 55032:2015+A1:2020
LVD	EN IEC62368-1:2020+A11:2020
Product Family	BS 5839-9:2021, BS 9999:2017, BS 8300-2:2018

DIMENSIONS	Panel	Bezel	Cut-out
Height	300mm	350mm	305mm
Width	350mm	400mm	355mm
Depth	95mm	1mm	85mm
Weight	4.5kg		

*Refer to BS 5839-9:2021 for exceptions

The LexicommPro system is designed and manufactured in the UK by:

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WEEE Compliant Product

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CE

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