

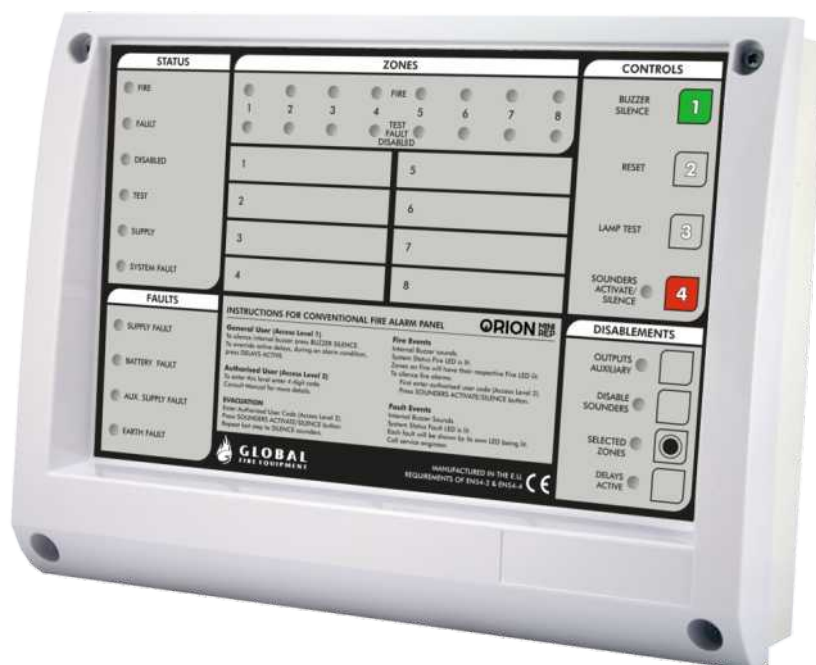


GLOBAL
FIRE EQUIPMENT

ORION MINI-REP
CONVENTIONAL MINI-REPEATER PANEL

INSTALLATION MANUAL

VERSION 1.0 - 04/2015



OVERVIEW

The ORION MINI-REP will provide remote control and system display status from multiple locations to an Orion based Conventional Fire Alarm system. Its reduced dimensions make it ideal for installation in reception areas or security booths where it would be impractical and unattractive to install a full size control panel. ORION MINI-REP can be connected to the Orion Conventional Panel using 4 different interconnecting technologies: RS-232, RS-485, Fiber Optics and TCP/IP. The unit is provided as standard with an RS-232 interface. Power for the ORION MINI-REP can be supplied from the control panel's auxiliary power output or an external 24 Volt DC power supply if required.

IMPORTANT SAFETY NOTES

- ▶ This equipment must only be installed and maintained by a suitably qualified and technically competent person.
- ▶ A basic knowledge and training in the installation of Fire Detection systems is assumed.
- ▶ The Fire Detection system should be designed by a suitably qualified person with reference to the Local Regulations and Guidance from the fire Officer where applicable.
- ▶ All wiring should be carried out with no power present in any part of the fire detection system.

INSTALLATION

In order to correctly install an ORION MINI-REP, the following steps should be taken:

- a) Remove the 4 screws fixing Orion Mini-Rep Display to the unit's back box.
- b) Disconnect flat cable linking Orion Mini-Rep Display to Interface Board.
- c) Fix unit's back box in required mounting position using the mounting holes provided. See Figure 1
- d) Reconnect flat cable connecting Orion Mini-Rep Main Board to Data Loop Interface board.
- e) Connect Data Loop Cables to interface following instructions provided in this manual and on appropriate data loop interface data sheet. Please also refer to Orion panel's installation manual for further details on how to integrate this Orion Mini-Rep unit on a networked system.
- f) Connect Power Supply. Orion Mini-Rep are supplied by an external 24V DC, normally from the control panel. Do not apply supply voltage until installation is complete.
- g) Finally replace Orion Mini-Rep cover onto unit's back box using the four previously removed screws.

Before powering up the unit, verify that all connections are correctly made and that there are no open or short circuits on any of the interconnecting wires used for both supply and data transmission.

All connections should be performed with all elements of the fire detection system unpowered.

The Repeater should be located where access to the internal components is not restricted and where the unit is not exposed to high levels of moisture, vibration and shock.

⚠ WARNING: observe ESD precautions when handling the PCBs.

All cables should be screened.

⚠ WARNING: Cable screen's should only be connected at one point to the physical Earth connection in order to avoid current loops.

When using RS-232 interfaces only use cables recommended for this communication media. As a general rule, cables used for LAN (Cat 5) are suitable for this type of interfacing technology as they are widely available and offer excellent data transmission characteristics.

Signal cables for RS485 Communication Links (twisted pair) to Repeater panels

12 AWG Signal 88202 Belden 9583 WPW999

14 AWG Signal 88402 Belden 9581 WPW995

16 AWG Signal 88602 Belden 9575 WPW991

18 AWG Signal 88802 Belden 9574 WPW975

FIRETUF FDZ1000 by Draka 2 core

PIRELLI type FP200 Gold 2 core

PIRELLI type FP-PLUS

Fibre Optic: Multi-mode Dual Core sheathed fire proof with 62,5µ/125µ fibre terminated in ST connectors.

MECHANICAL DETAILS

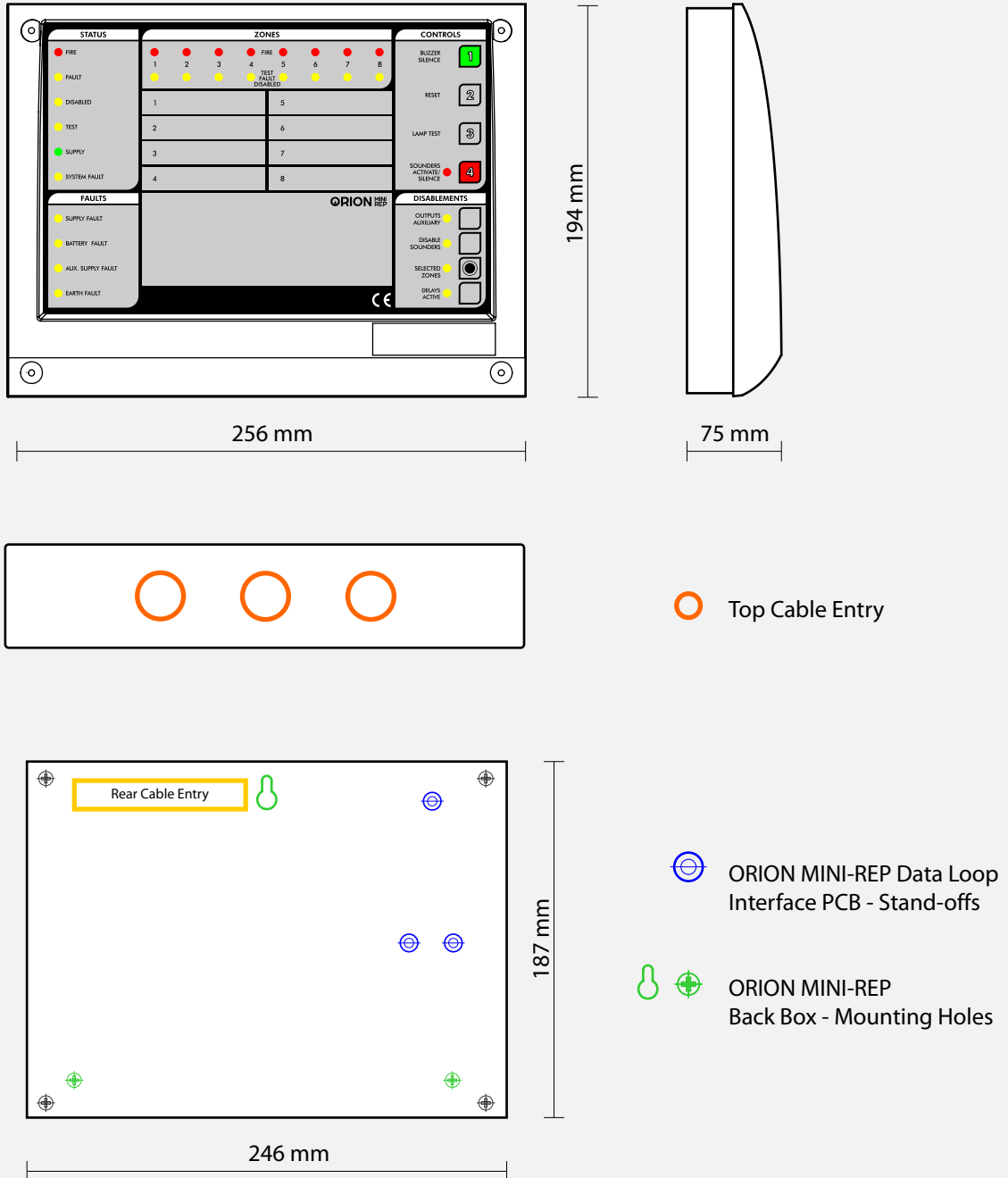


Figure 1: ORION MINI-REP - Installation

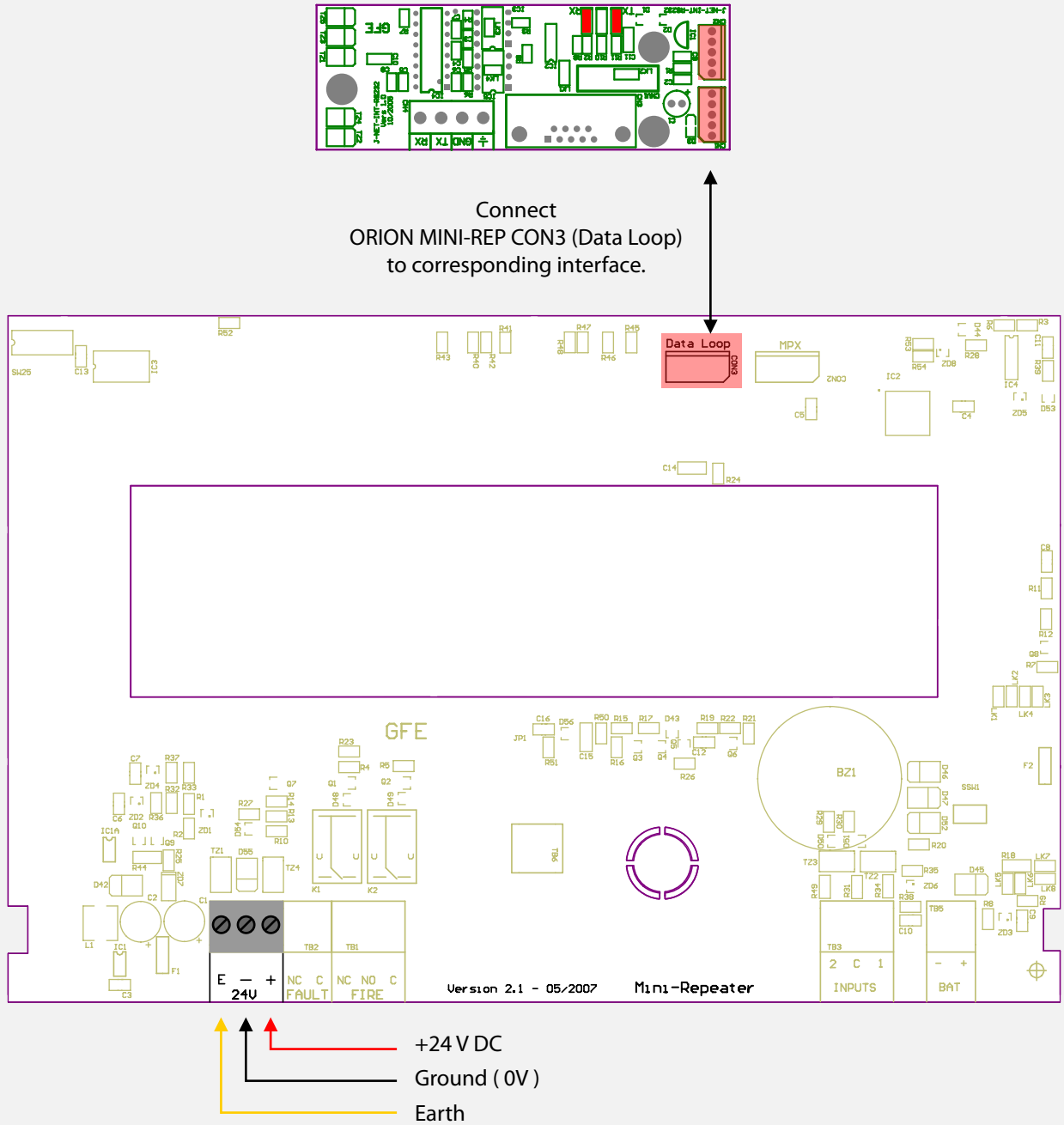


Figure 2: ORION MINI-REP - General Hardware and Connections Layout

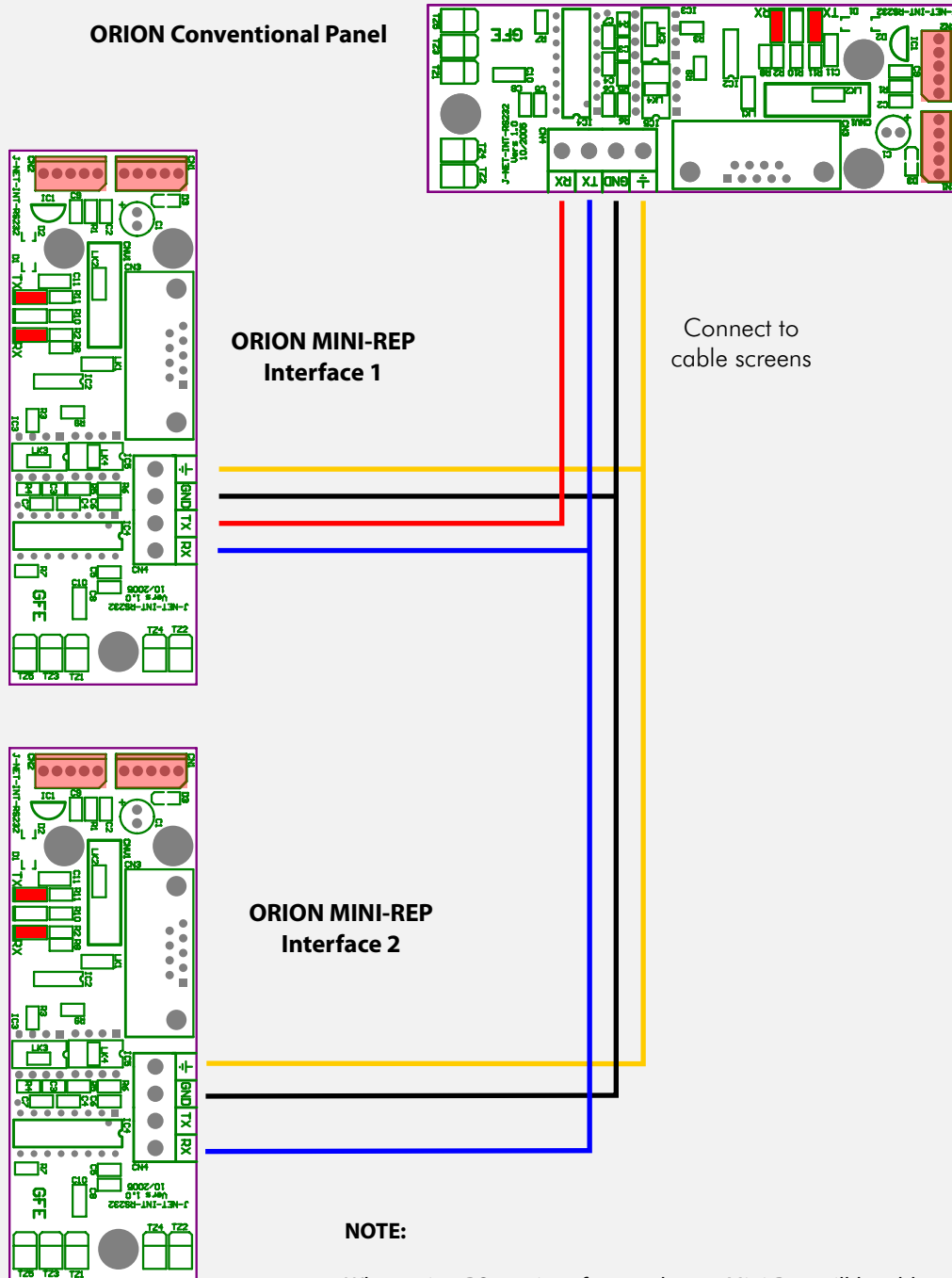


Figure 3: ORION MINI-REP - RS-232 Data Loop Interface Connections

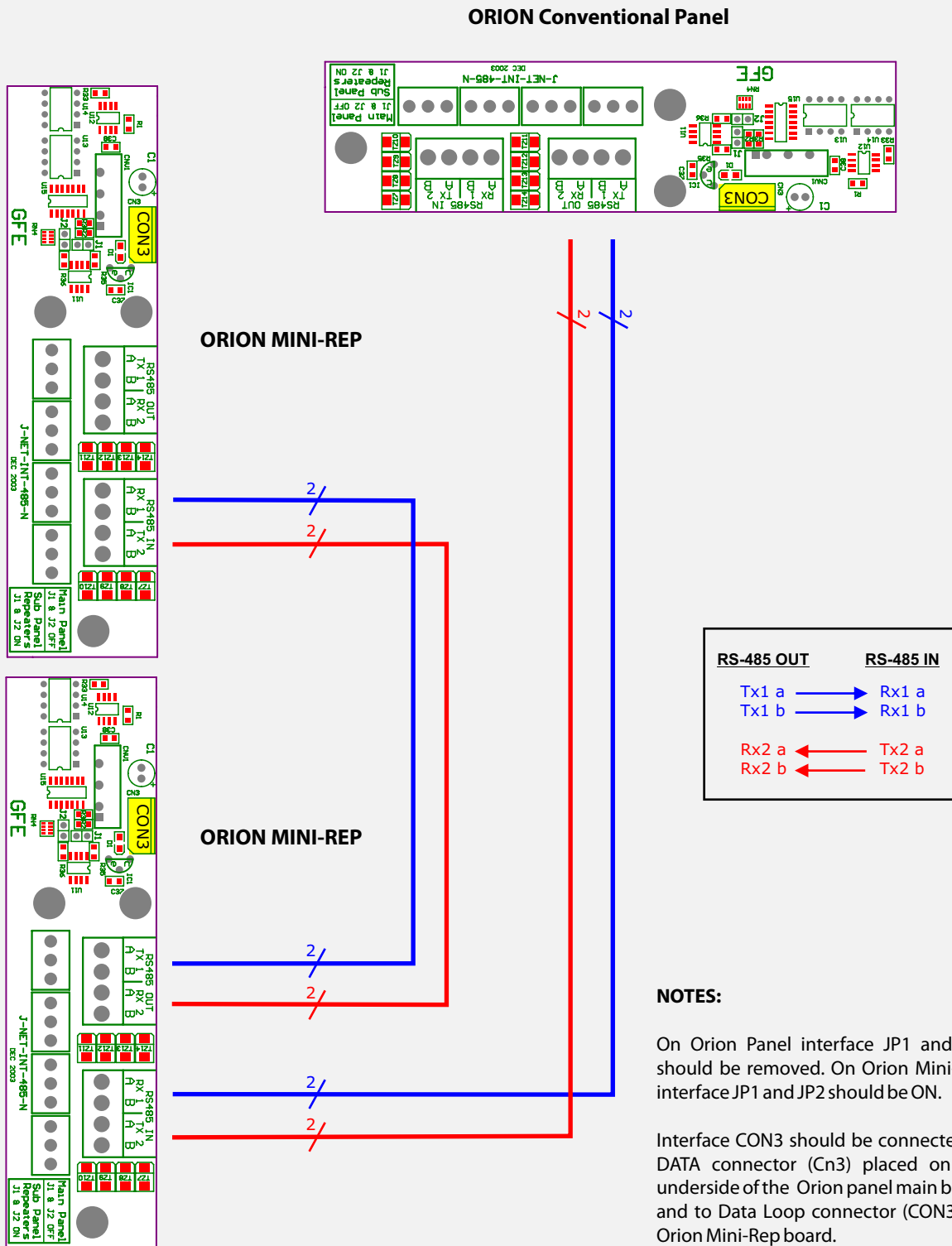
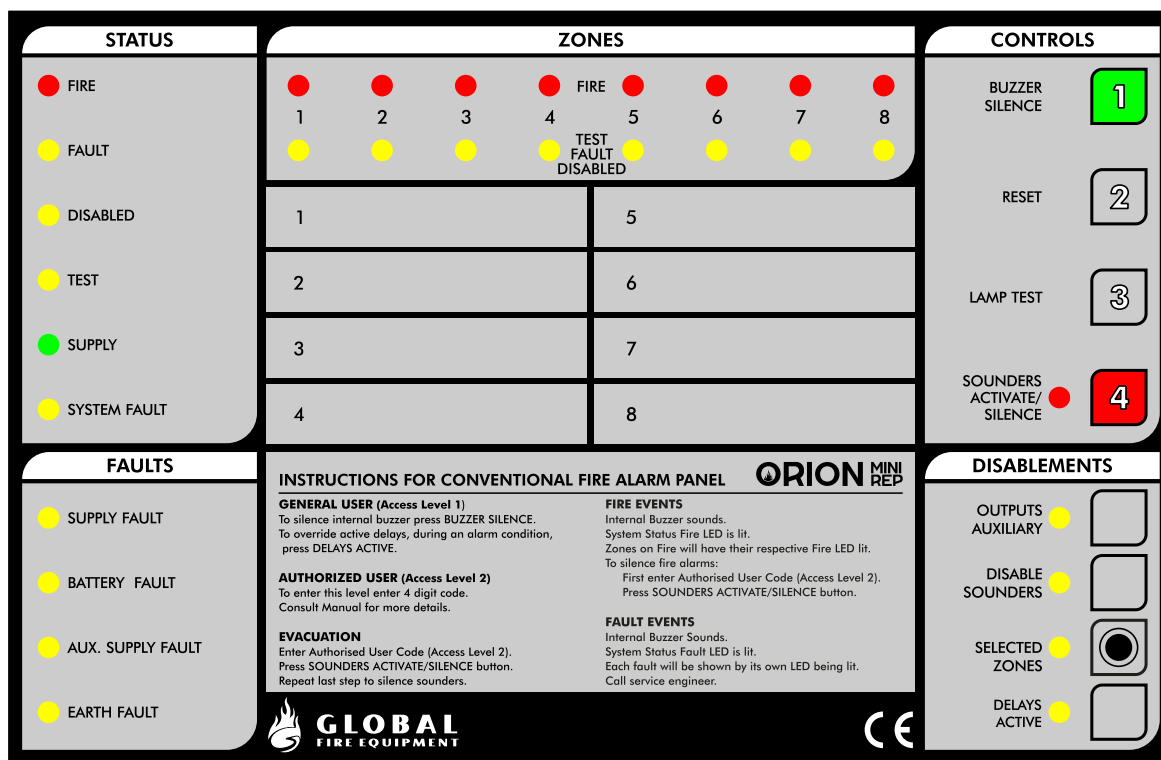


Figure 3: Orion Panel Multi - ORION MINI-REP - RS-485 interface connections.

THE ORION MINI-REP SYSTEM STATUS INDICATORS AND CONTROL BUTTONS



STATUS

FIRE LED used to indicate any FIRE ALARM condition present on panel.

FAULT LED used to indicate any FAULT condition present on panel.

DISABLED Disabled Status LED used to indicate that the panel has features that have been disabled in either Access Level 2 or 3 modes.

TEST This LED is active whenever panel is in TEST MODE. Only LIT when in Engineering Mode and TEST mode has been selected.

SUPPLY Multi function indicator used to indicate the presence of supply. When in Access Level 1 this LED is permanently lit. If in Access Level 2 (enter this mode using USER CODE) this LED will flash at a rate of once per second. And finally if in Access Level 3 mode (enter using ENGINEERING CODE) this LED will flash faster at a rate of once every 0,5 seconds.

SYSTEM FAULT This LED will be lit whenever there is a processor failure or corruption of the panel firmware.

FAULTS

- SUPPLY FAULT This LED will be ON whenever the Main Supply has been removed or has dropped below 20Volts.
- BATTERY FAULT Indicates that there is low voltage level on the batteries or the battery charger circuit has failed.
- AUX. SUPPLY FAULT Indicates that the Auxiliary Supply has a fault.
- EARTH FAULT When this indicator is ON there is leakage current flowing from the earth connection/ wiring and any conductor in coming into the panel.
- SOUNDER FAULT If there is a conventional sounder circuit fault, the General Fault LED will be lit and the Disable Sounders LED in the disablements section will also be lit and flashing.
- ZONE INDICATORS Individual zone indicators are provided for both FIRE and FAULT conditions. If any zone is disabled then its FAULT LED will also be used to indicate the disablement of that particular zone. The Zone LED will be ON along with the Disabled status LED. Flashing Zone Fault LED along with General fault LED indicates fault on that zone.

CONTROLS - **AUTHORISED USER CODE: 2 2 4 4**

Some switches will only be operational at the repeater after entering the authorised user code. If the operation of a switch is only available after successfully entering the authorised user code it will be clearly stated in this manual that these functions are only active at access level 2.

NOTE: If active please SILENCE INTERNAL BUZZER before entering code.

The four switches are numbered to indicate that they are used to enter digits from 1 to 4 for authorised user code entry.

- BUZZER SILENCE (1) At Access Level 1 this button is used to silence the panel's internal buzzer.
- RESET (2) Press this button to reset the panel at access level 2.
- LAMP TEST (3) Press this button at access level 1 or 2 to test all LED indicators and the panel's internal buzzer. Release when test is finished.
- SOUNDERS (4) Press once to activate/silence sounders. If sounders are active, for example, during a FIRE condition or in the event of an Evacuation action, pressing this button will stop the sounders. Auxiliary Relays are not affected by this action.

DISABLEMENTS

These buttons are only active at access levels 2.

These buttons have a toggle action. One press will disable the particular feature being selected another press of the same actuator will re-enable the function.

When a particular function is disabled, its associated LED will be active and OFF otherwise.

OUTPUTS AUXILIARY Pressing this button will ENABLE/DISABLE the auxiliary relays.

DISABLE SOUNDERS The user can use this button to enable/ disable the conventional sounder circuits.
Note: Disables both sounder circuits.

SELECTED ZONES Not available on the ORION MINI-REP.

DELAYS ACTIVE Pressing this button will enable the previously programmed delay. The corresponding LED will be ON during this time. In access level 1, during the delay time which started due to a FIRE alarm, pressing this button overrides the delay timer and the sounders and Fire relay will be activated immediately.

TECHNICAL SPECIFICATIONS	
SUPPLY VOLTAGE	28 V DC nominal derived from Orion Aux. Supply O/P
SUPPLY CURRENT	40 mA
CONNECTIONS	+Supply, -Supply, TX and RX
REPEATER NETWORK	RS232, RS485, FO or TCP/IP - 1 Display & Control 3 Display Only RS-485, Fibre Optics, TCP/IP - 4 units max. Display and Control
MAX. HUMIDITY	95% RH Non-Condensing
OPERATING TEMPERATURE	-10°C to 50°C
WEIGHT	1.4 Kg
DIMENSIONS	256 (L) x 194 (W) x 75 (H) mm
ORDER CODE	
ORION MINI-REP	CONVENTIONAL MINI-REPEATER PANEL - INCLUDES 1 X RS232 INTERFACE

GLOBAL FIRE EQUIPMENT S.A.

Sítio dos Barrabés, Armazém Nave Y, Caixa Postal 908-Z, 8150-016 São Brás de Alportel - PORTUGAL
Tel: +351 289 896 560 • Sales: sales@globalfire.pt • Technical Support: techs@globalfire.pt • www.globalfire.pt

