GLOBAL
FIRE EQUIPMENT

INSTALLATION MANUAL

CHAMELEON-485-DTLOOP

RS485 Data Loop Interface

The **CHAMELEON-485-DTLOOP** interface allows GFE's range of addressable main panels to be interfaced to Repeaters, boxed Sub-Panels and/or NODES-SP panels using a 4-core data communication cable suitable for RS-485 data transmission using a common data communication loop in a ring topology.

These units can also use a double-redundant data communication loop for extra security and reliability when used in conjunction with a JUNO NET, JUNIOR main panel by creating a bidirectional communication flow. In this case, if the JUNO NET or JUNIOR main panel is unable to communicate with networked panels/repeaters due to a cable cut or short circuit, it will try to establish communication via the 2nd loop. A communication fault will be signalled by the JUNO NET main panel when communication is lost with any networked panel equipped with a loop card. Please note that JUNIOR main panels can only be interfaced with Mini-Repeaters.

This interface is used in the fire alarm control panel to provide a communication for the following:

1) A JUNIOR, analogue addressable panel, and its Mini-Repeater(s)
2) A JUNO NET panel and Juno Net Repeater(s), Mini-Repeater(s), Sub-Panel(s) and NODE-SP(s)

This interface is compatible with the following panels:

1) JUNIOR, 1 & 2 Loop analogue addressable main panel
2) Mini-Repeater (JNR MINI-REP)
3) JUNO NET, expandable analogue addressable main panel
4) Juno Net Repeater (J-NET-REP)
5) NODE-SP(s) & boxed sub-panels (J-NET-SPX)

This interface can be used with other interface technologies such as Fibre Optics and TCP/IP, providing the installer with the tools to interface and create a network of panels using mixed data communication technologies, catering for the most demanding applications and networking requirements.

Each panel, Repeater, Sub-panels and NODE-SP require one of these interface module. The maximum distance between two interfaces is 1.2 Km including the return path to the main panel.

WARNING: Disconnect all power sources including primary (electrical mains) and secondary (batteries) supplies, before connecting or disconnecting these interface modules and/or any other internal circuit boards.

NOTES:

On Main Panel SW1 should be OFF.
On Repeaters and NODEs SW1 should be ON.

CH1 or CH2 on interface connect to CON5 on J-NET-CON on Main Panel or Juno Net Repeater.

CH1 or CH2 connect to DL1 or DL3 on NODE. CH1 or CH2 connect to CON3 or CON4 on Mini-Rep or Repeater.

RS-485 CH1

RX1 A ⟵ **TX1 A**

RX1 B ⟵ **TX1 B**

RS-485 CH2

TX2 A ⟶ **RX2 A**

TX2 B ⟶ **RX2 B**

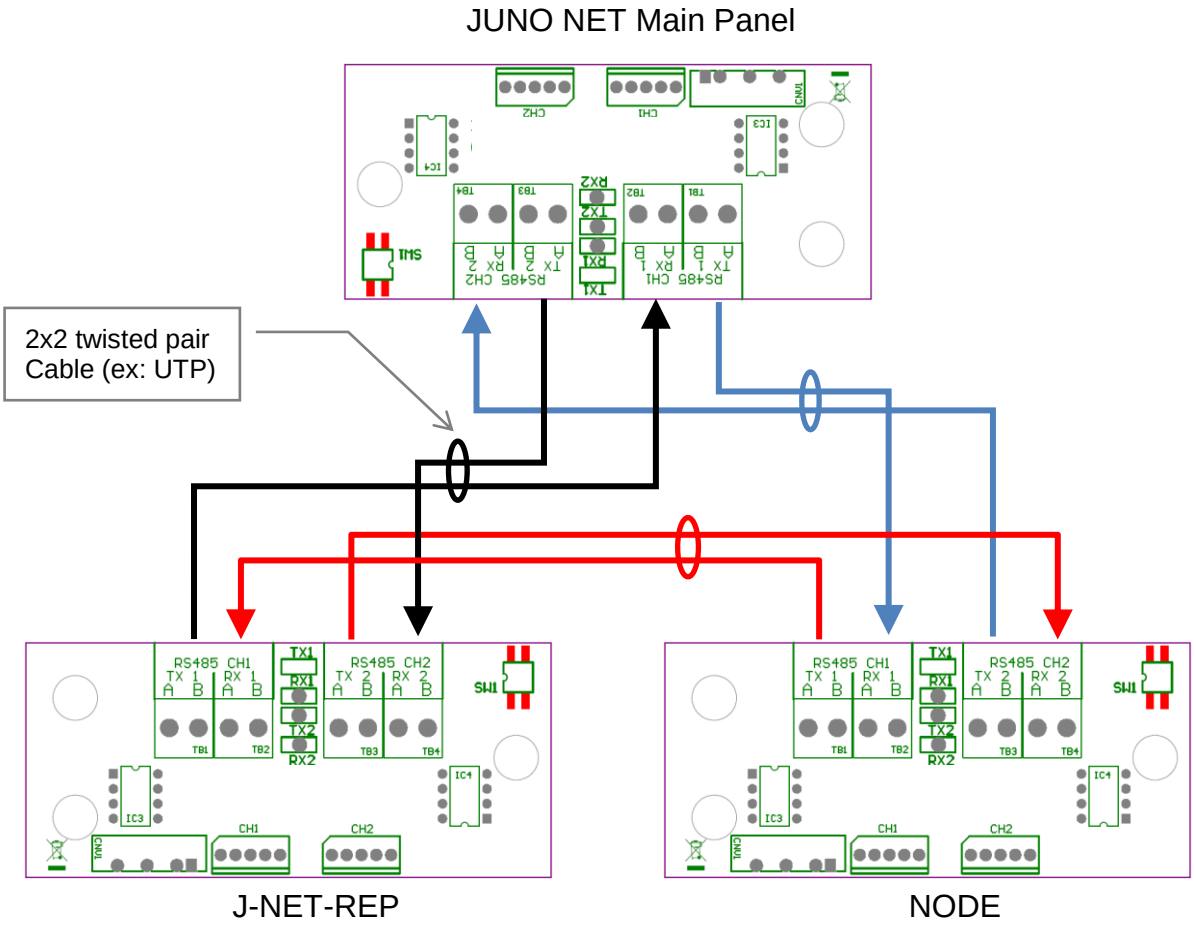


Figure 1. JUNO NET Main Panel – J-NET-REP/NODE Data Loop Connections.

NOTE1: For old JNET-INT-485 please follow Annex A.

NOTES:

On Junior Panel SW1 should be OFF.
On Mini-Rep SW1 should be ON.

CH1 or CH2 on interface connect to DATA LOOP (CN3) on Junior Panel.

CH1 or CH2 connect to DATA LOOP (CN3) on Mini-Reps.

RS-485 CH1

RX1 A ← **TX1 A**

RX1 B ← **TX1 B**

RS-485 CH2

TX2 A → **RX2 A**

TX2 B → **RX2 B**

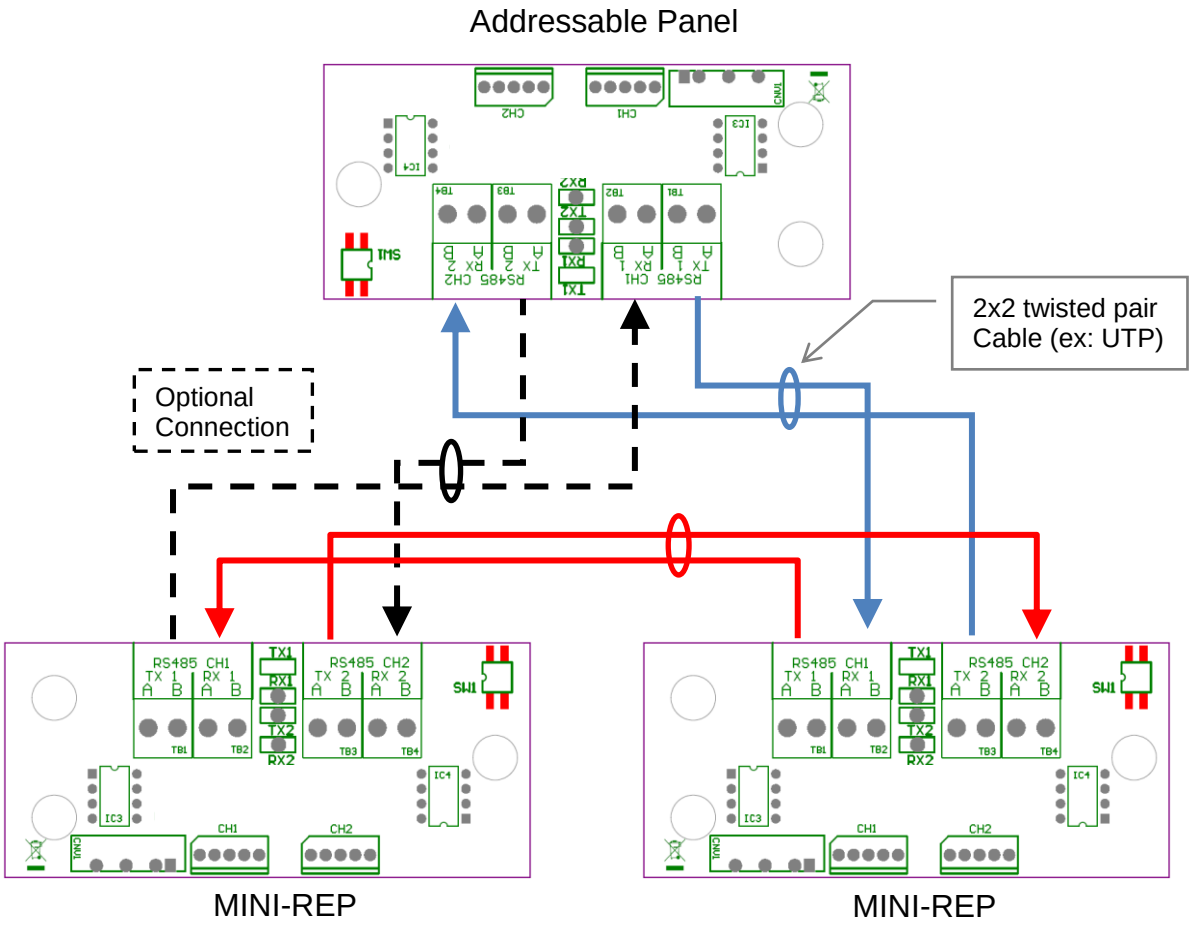


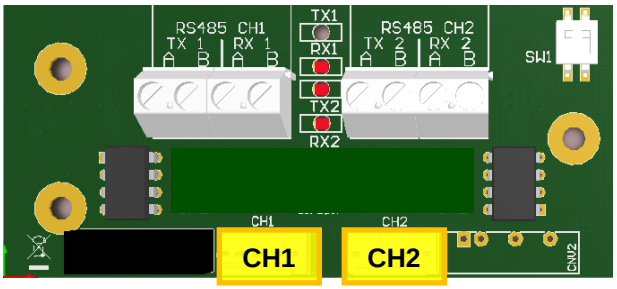
Figure 2. Addressable Main Panel with Multi Mini-Repeater - Data Loop Connections.

NOTE2:

It's not mandatory to connect return to main panel in networks only with Repeater panels (without loops).

If CHAMELEON-485-DTLOOP interfaces JOB: 213.31/17 are used please follow Annex B connections.

NODE PAL RS485



SW1 should be all ON.

Connect one 5-way flat cable between **CH1** or CH2 to **DL1** or DL3 on NODE panel.

→ 1x 5 way flat cable

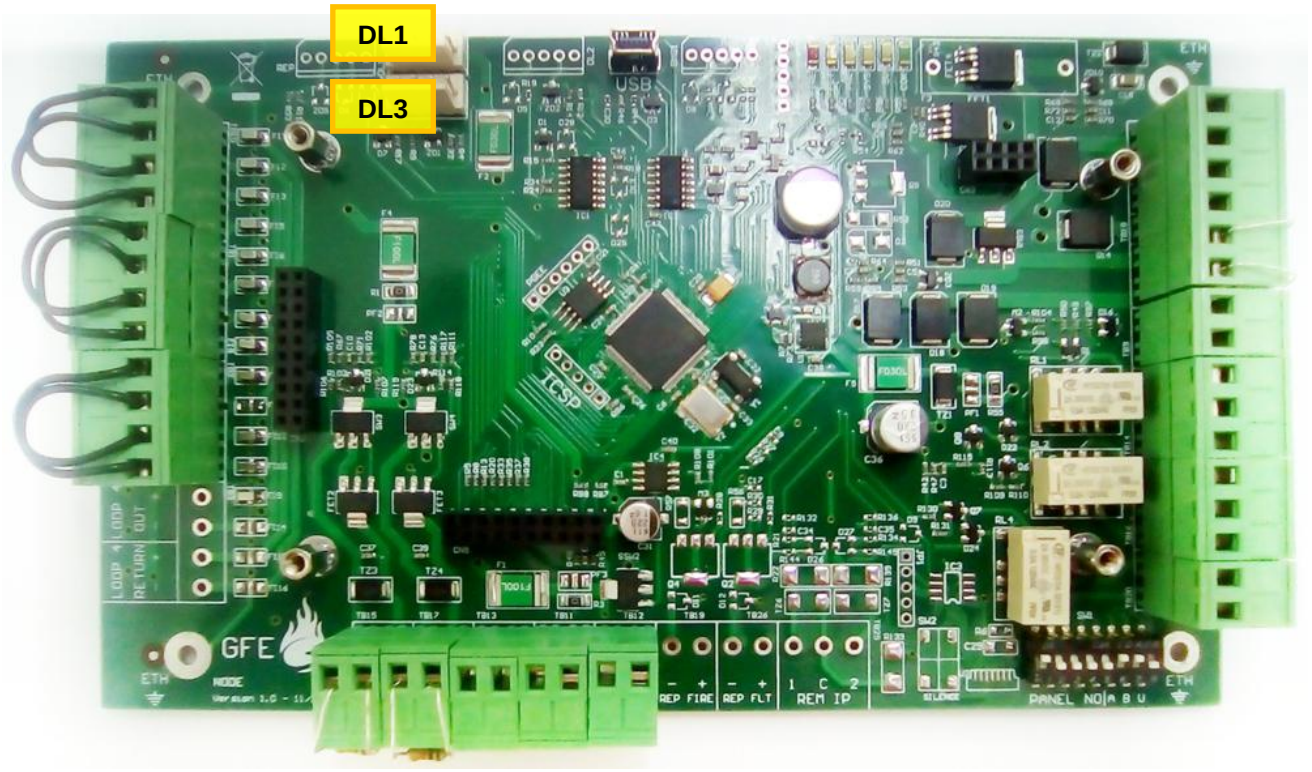
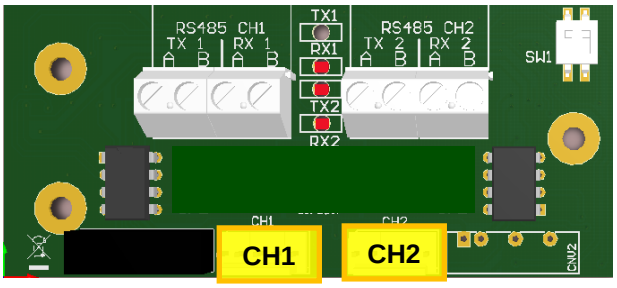


Figure 3. NODE Panel connections to RS485 interface.

MINI-REP PANEL RS485



SW1 should be all ON.

Connect one 5-way flat cable between **CH1** or CH2 to **CN3** on MINI-REP panel.

→ 1x 5 way flat cable

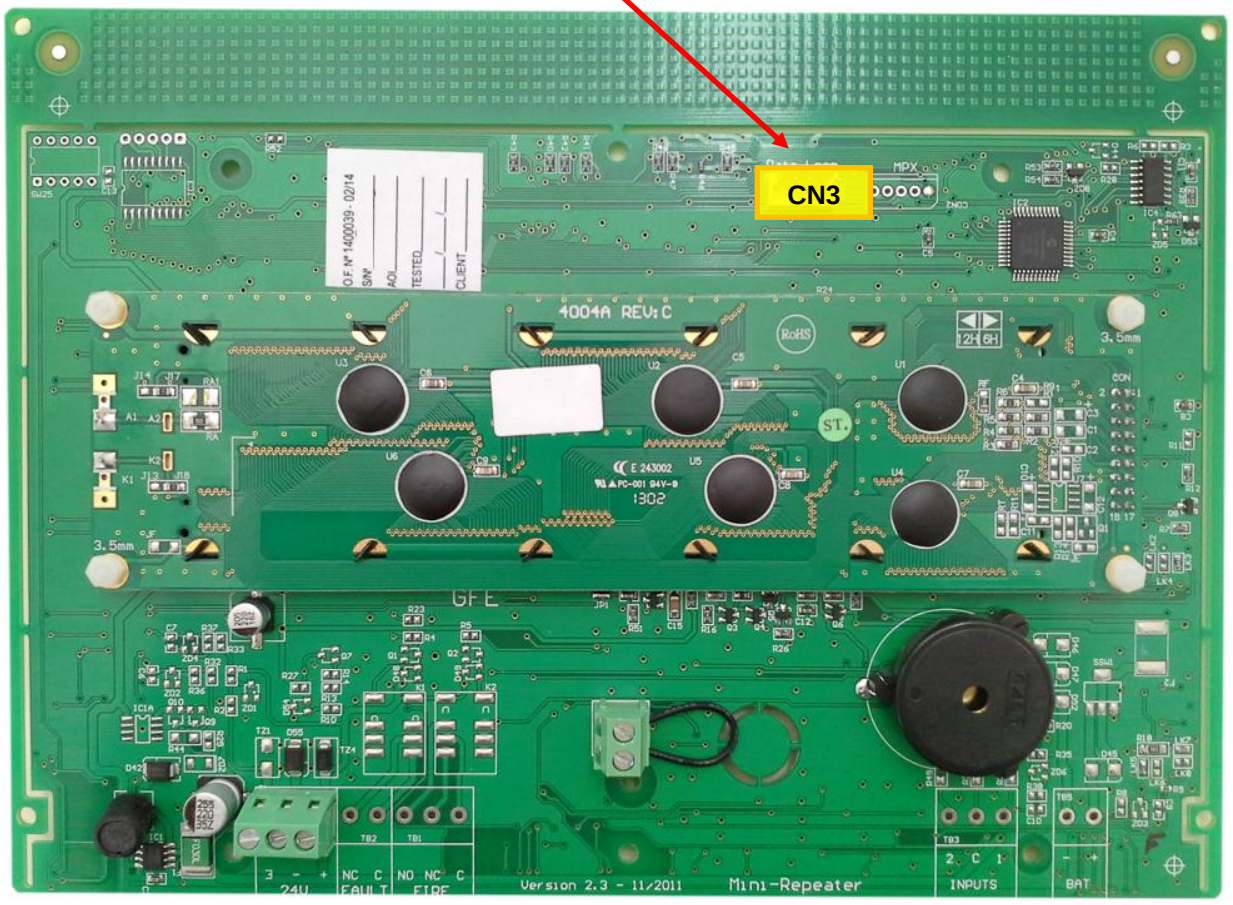
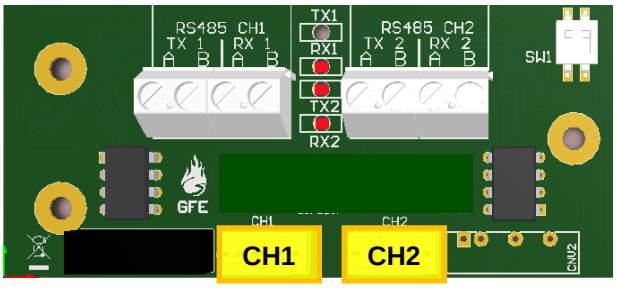


Figure 4. MINI-REP Panel connections to RS485 interface.

JUNIOR V4 PANEL RS485



SW1 should be all **OFF**.

Connect one 5-way flat cable between **CH1** or CH2 to **CN3** on JUNIOR V4 panel.

→ 1x 5 way flat cable

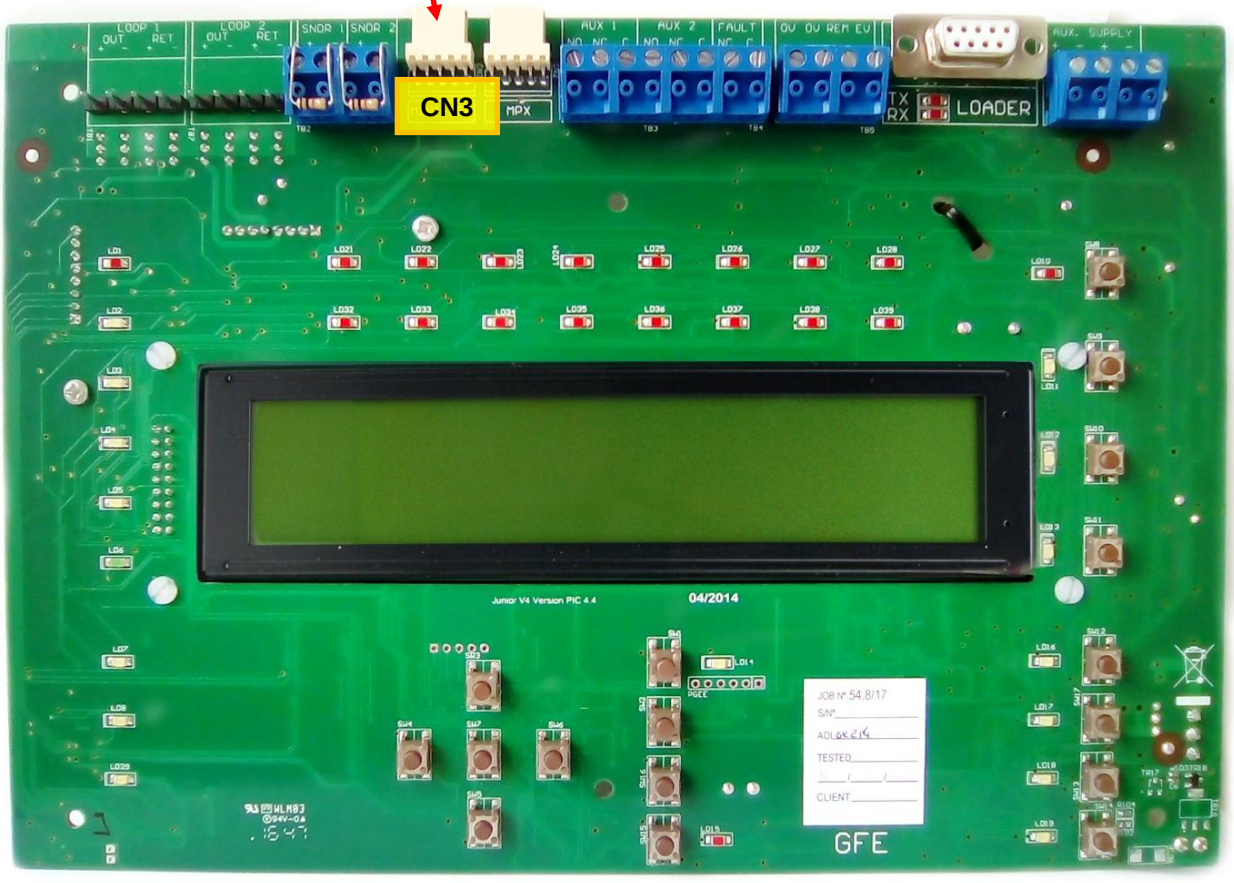
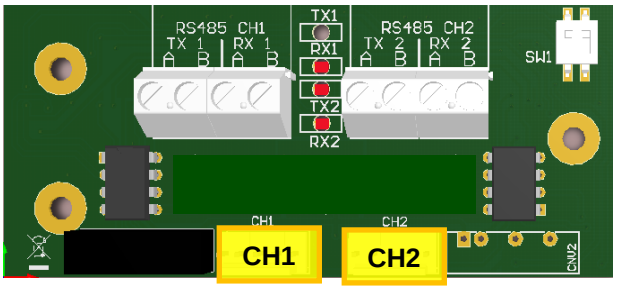


Figure 5. JUNIOR V4 Main Panel connections to RS485 interface.

JUNIOR V4 OEM PANEL RS485



SW1 should be **OFF**.

Connect one 5-way flat cable between **CH1** or CH2 to **CN3** on JUNIOR V4 OEM panel.

→ 1x 5 way flat cable

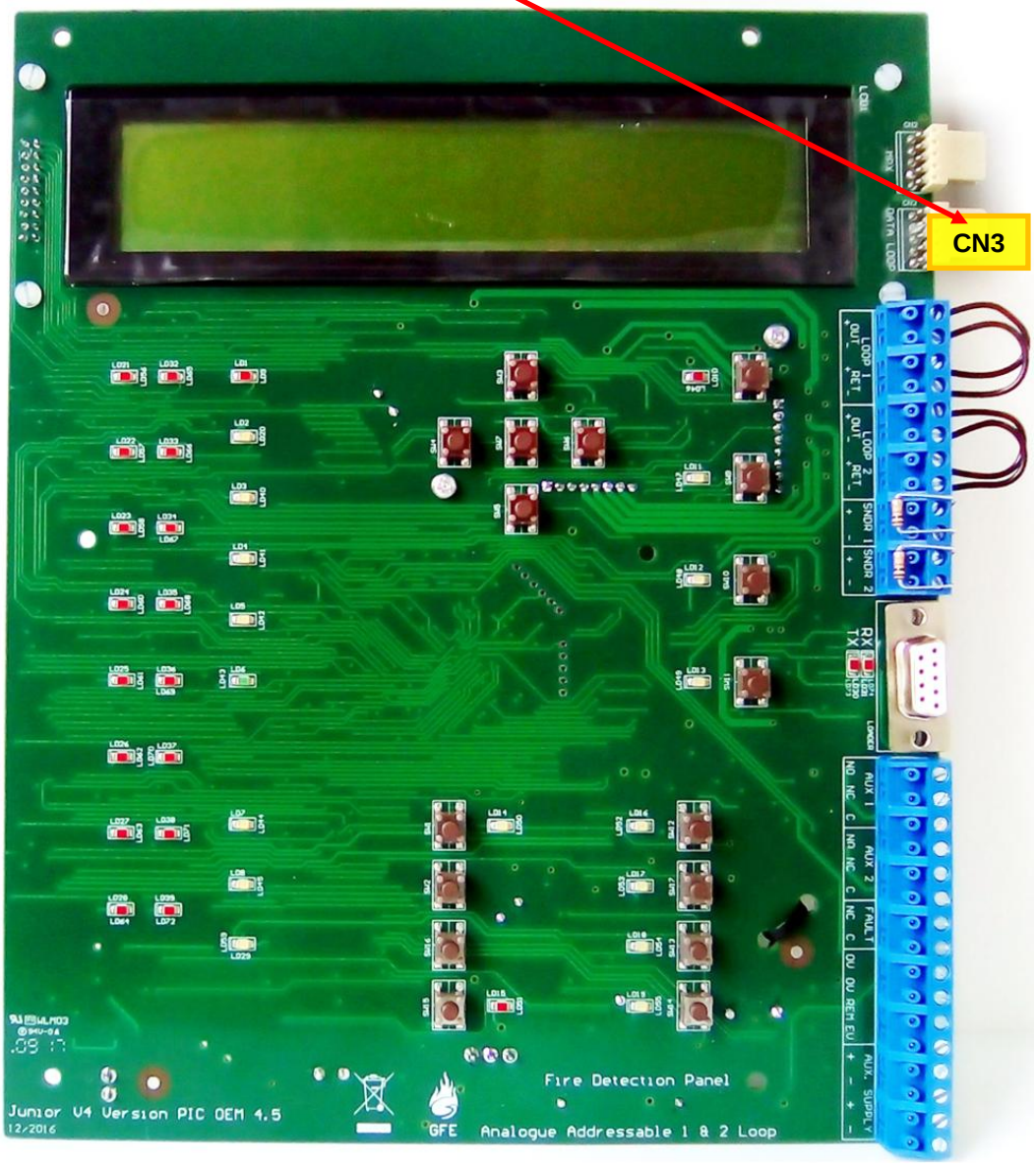


Figure 6. JUNIOR V4 OEM Main Panel connections to RS485 interface.

J-NET-CON Board RS485

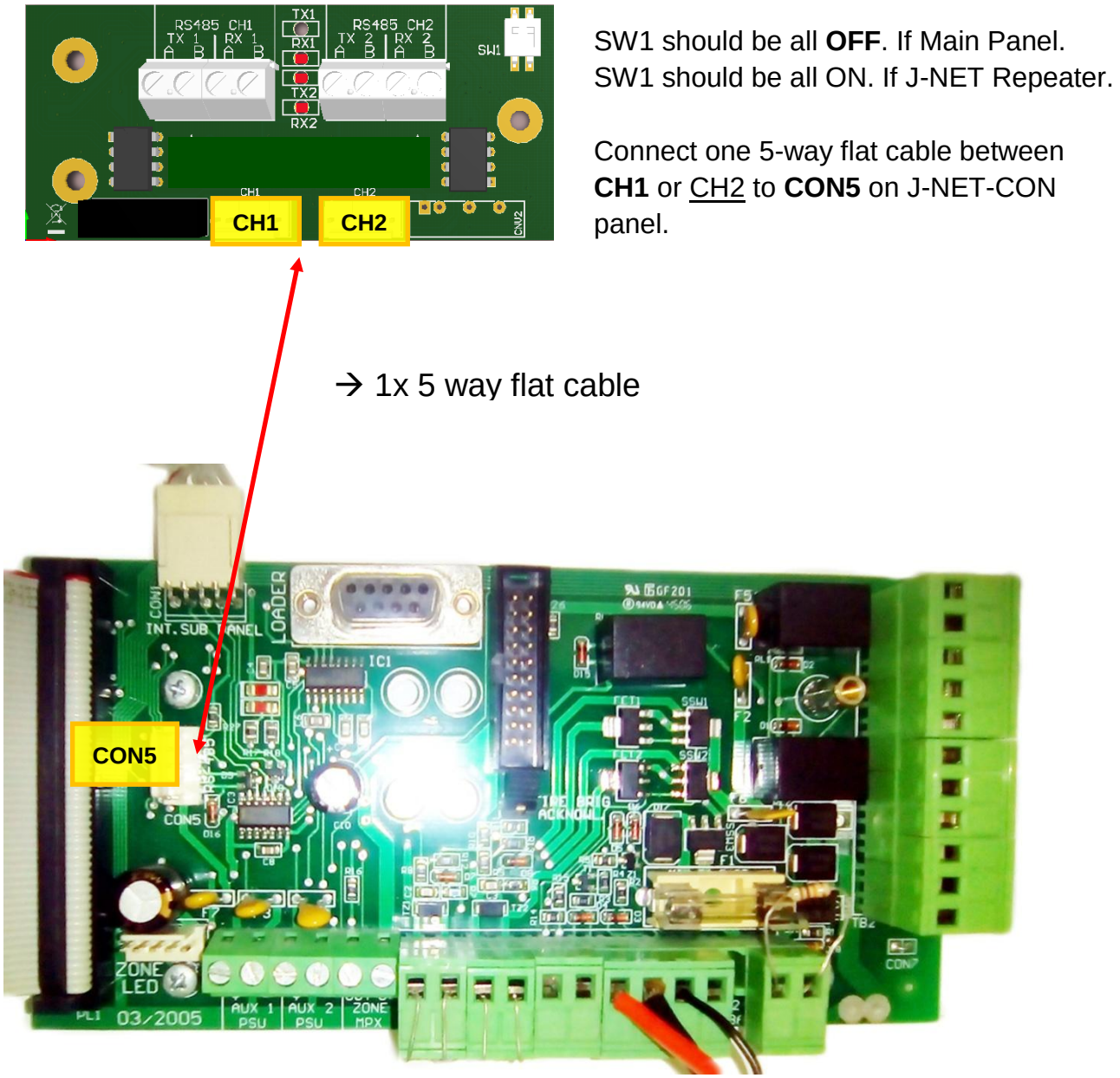


Figure 7. J-NET-CON Board connections to RS485 interface.

SW1 should be all **OFF**. If Main Panel.
SW1 should be all ON. If J-NET Repeater.

Connect one 5-way flat cable between **CH1** or CH2 to **CON5** on J-NET-CON panel.

ANNEX A

Replacing or adding an interface to network with previous interface version (J-NET-INT-485).

NOTES:

On Addressable Main Panel SW1 should be OFF.
On Addressable Repeater Panel SW1 should be ON.

New RS485 interface - CH1 or CH2 on interface connect to DATA LOOP on addressable panel.

Old RS485 interface - CN1 or CN2 on interface connect to DATA LOOP on addressable panel.

RX1 A	←	TX1 A
RX1 B	←	TX1 B
TX2 A	→	RX2 A
TX2 B	→	RX2 B

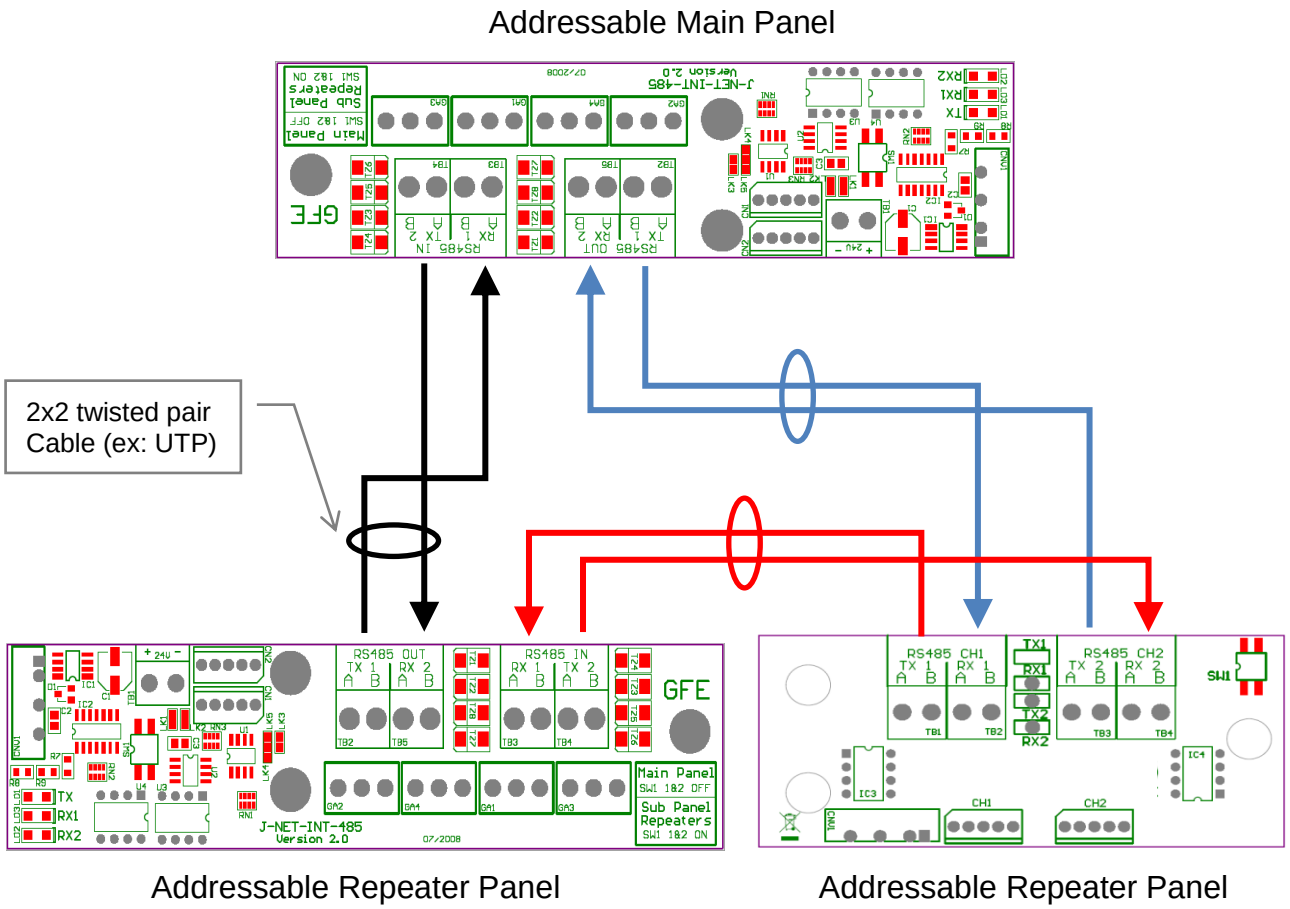


Figure 8. Replace or add new RS485 interface to existing network - Data Loop Connections.

ANNEX B

CHAMELEON-485-DTLOOP interface JOB: 213.31/17 (Main Panel and MINI-REPs)

NOTES: On Junior Panel SW1 should be OFF. On Mini-Rep SW1 should be ON. CH1 or CH2 on interface connect to DATA LOOP (CN3) on Junior Panel. CH1 or CH2 connect to DATA LOOP (CN3) on Mini-Reps.	**RS-485 CH1** RX1 A ← TX1 A RX1 B ← TX1 B **RS-485 CH2** TX2 A → RX2 A TX2 B → RX2 B

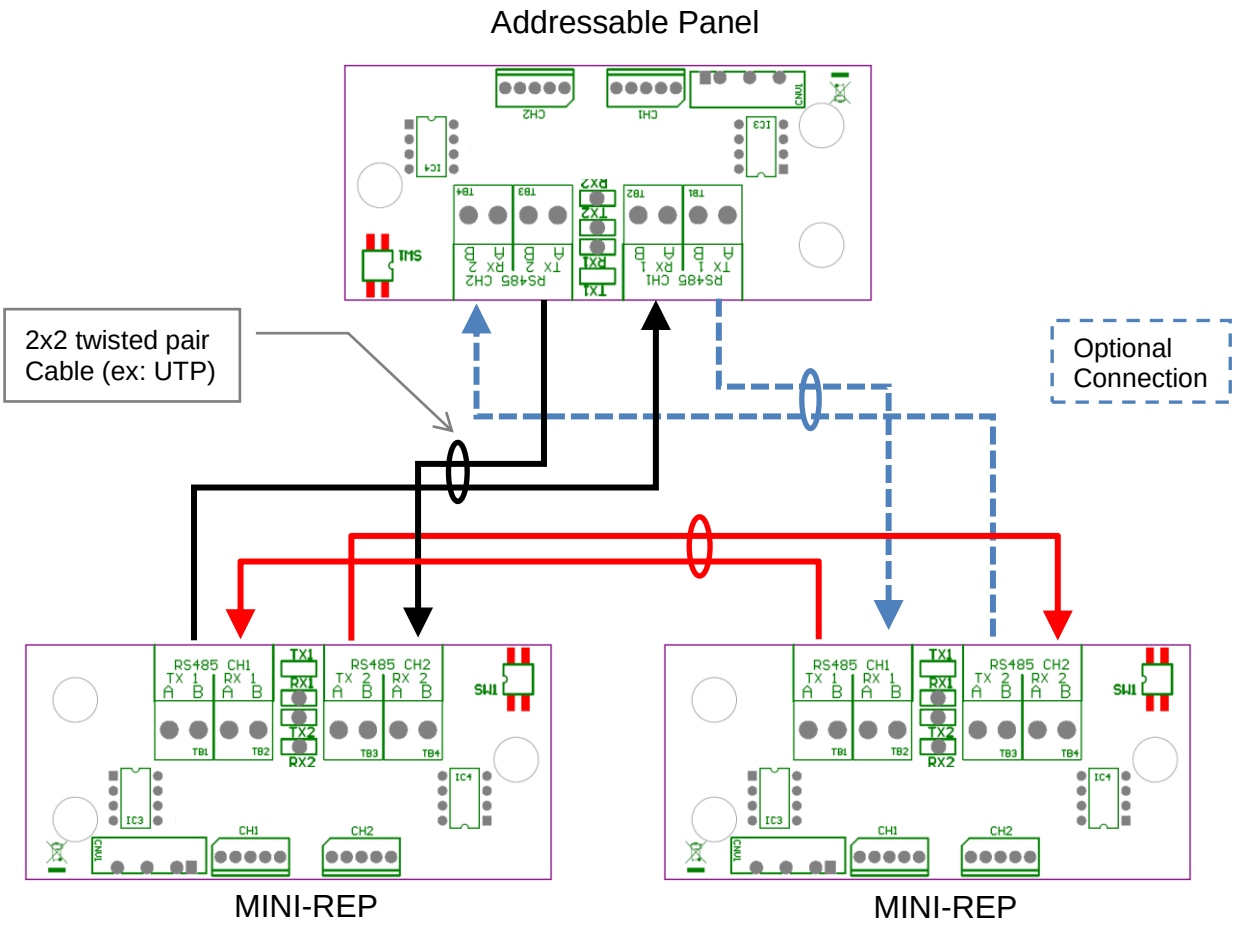


Figure 9. Addressable Main Panel with Multi Mini-Repeater - Data Loop Connections.

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