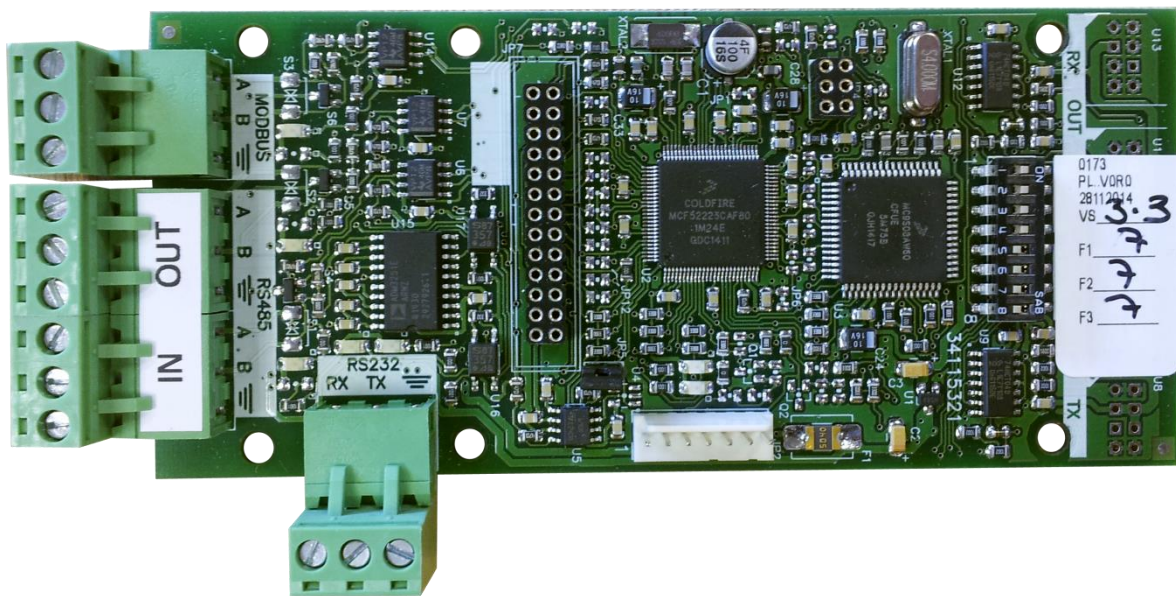


Premier *Quatro*



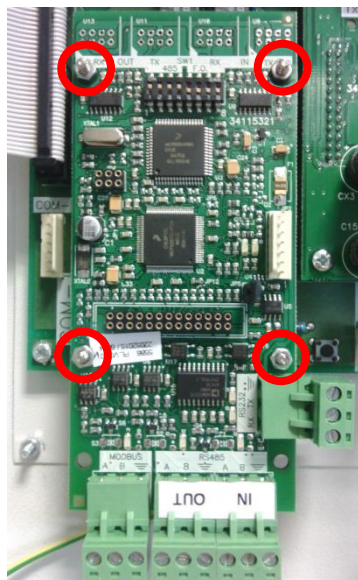
Network Card Instruction Sheet



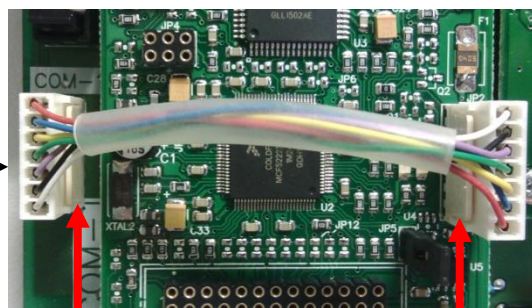
Fitting a Network Card into your QT/1-4 panel:



At the bottom of the PCB, just left of the LOOP 1 slot, will be where the QT/NC is to be fitted. There will be 4 spacers that the Network card will sit upon.



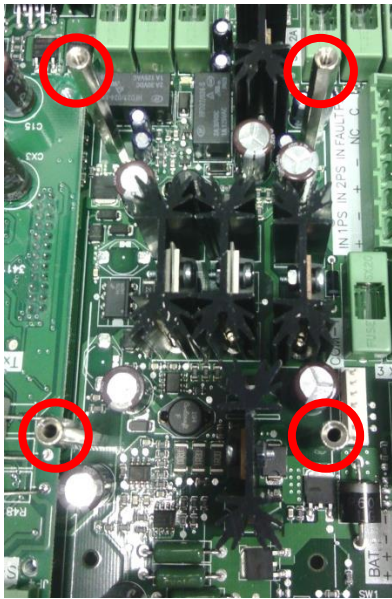
Place the QT/NC on top of the spacers in the pictured orientation, and secure it with M3 nuts.



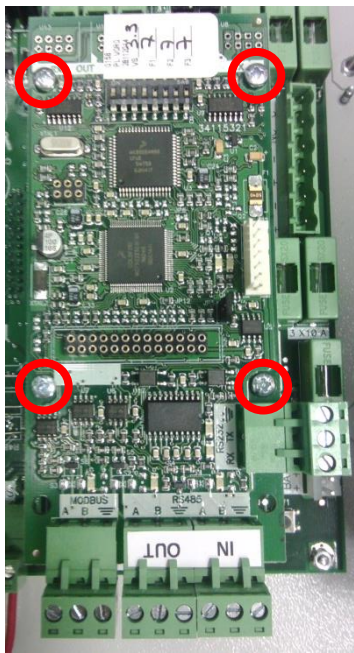
Finally, fit the QT-NC cable as pictured, one end fits into the QT-NC, and the other end will be fitted to the PCB/QT8-TERM COM-1 port. Ensure that each end of the cable is connected in the correct way.



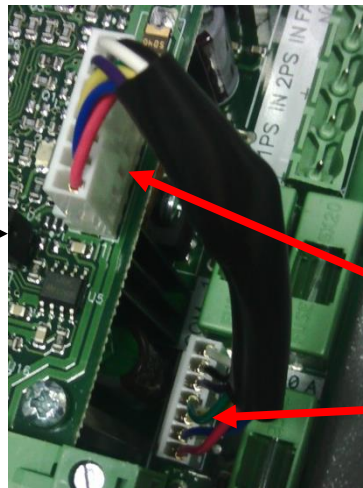
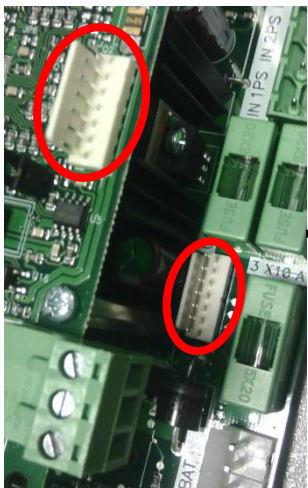
Fitting a Network Card into your QT/4-8 panel:



At the bottom of the PCB, just right of the LOOP 8 slot, will be where the QT/NC is to be fitted. There will be 4 spacers that the Network card will sit upon.



Place the QT/NC on top of the spacers in the pictured orientation, and secure it with M3x6 screws.



Finally, fit the network card cable as pictured, one end fits into the QT-NC, and the other end will be fitted to the PCB/QT8-TERM COM-1 port. Ensure that each end of the cable is connected in the correct way.



<u>Node Information</u>	
Max Number of Nodes	32
Max Distance Between Nodes	1000m

<u>RS232</u>	
Connection	Serial Port
Baud Rate	9600
Data Bits	8
Parity	None
Stop Bits	1

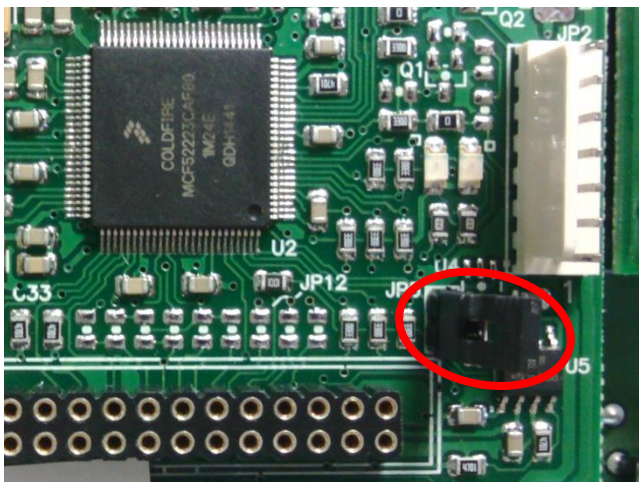
The RS232 is mainly used for sending communications to panel mounted printers, but can also be connected to a PC.

<u>RS485</u>	
Connection	Serial Port
Baud Rate	9600
Data Bits	8
Parity	None
Stop Bits	1

The RS485 is used to send communications from panel to panel through the network, and can also be connected to a PC via the Modbus (*more info on page 6*).

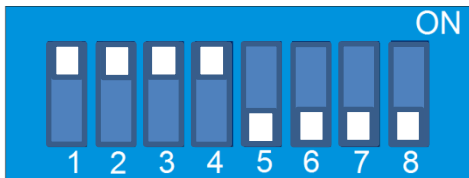
Jumper Link

Please ensure that the jumper link JP5 on the front of the Network card is kept on at all times. Removing the jumper could affect the cards operation. (Used during factory testing)



Dip Switch Settings

Please keep the dip switch settings as pictured below for Network cards that do not have any Fiber Optic drivers installed.



Modbus Protocol

What is the Modbus Protocol?

MODBUS is a standard communication protocol used in a wide range of industrial equipment. It allows the connection of multiple devices, in a master/slave topology. Multiple slaves can share the same bus, but only one master can be in the line at the same time. Master can communicate with a specific device (peer to peer) or with broadcast frames.

Modbus defines the communication format, including command, data and checksum. Quatro Modbus uses RTU frames. These frames use silences of 3.5 chars, and a CRC of 16 bits. Data size is 8 bits.

Quatro Modbus system accepts reading (0x04) and writing (0x10) commands. These commands bits affect 16-bits registers.

What registers can the Modbus read?

General information registers

These registers contain general panel information, like software versions and type of panel.

- Modbus state
- Type of panel
- Panel version
- Network version
- Modbus version

Panel status registers

These registers are used to get panel current status. It also includes virtual keys to interact remotely from the panel.

- Panel status
- Fault information
- Alarm information
- Virtual key registers
- Power status
- PCB Sounder 1 & 2 Status
- Fault Relay
- Alarm Relay
- Number of faults in panel
- Number of alarms in panel

Loop status registers

Following registers contain loop status

- Loop status (1-8)

Network status registers

These registers will contain the status of the network of Quatro addressable panels.

- Node configuration
- Network status
- Network topology

Zone status registers

These registers contain the zones status.

- Zone status (1-250)

Device status registers

These registers contain the status of all devices. One loop contains up to 250 devices.

- Loop 1-8 device statuses (Devices 1-250)

(FOR MORE INFORMATION ON USING THE MODBUS, PLEASE REFER TO THE 'MODBUS REGISTERS MANUAL')