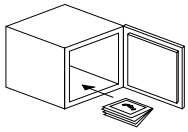
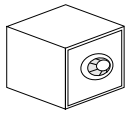
Installation Instructions
IQ3.../.../XNC/...
Controller/Interface

Important: Retain these instructions

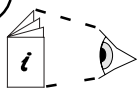




CONTENTS

1 Installation - Mounting

1 Install



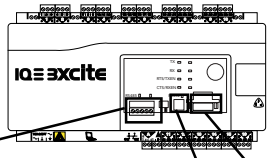
Install according to IQ3xact or IQ3xcite installation instructions section 3 steps 1 to 11

IQ3xact Installation Instructions TG200766
IQ3xcite Installation Instructions TG200626

2 Connect Serial Interface

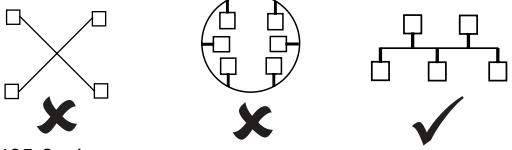
If /SER/.., serial interface auxiliary board, fitted

Note that only one of the RS232 or RS485 connectors can have a cable connected at any one time in order to comply with Class B EMC emission standard (EN61000-6-3, residential, commercial, and light industrial environments).
WARNING: Failure to comply with this requirement will reduce the unit to Class A (industrial environments); in a domestic environment the unit may cause radio interference, in which case the user may be required to take adequate measures.

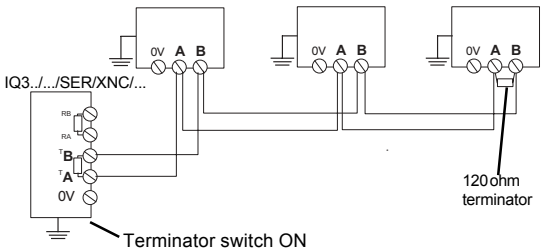


either RS485 2 wire, RS485 4 wire, or RS422

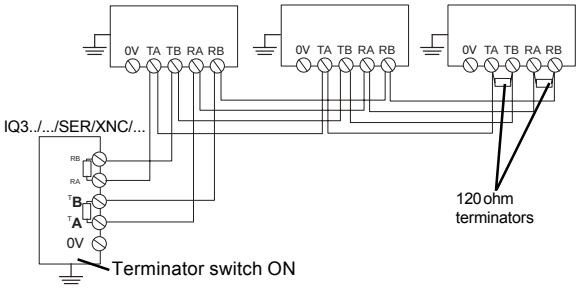
2 part connector with 5 screw terminals fo 0.5 to 2.5 mm² cross section area (14 to 20 AWG) cable



If RS485 2 wire
32 devices maximum

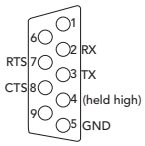


If RS485 4 wire
32 devices maximum



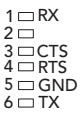
or RS232

either 9 way D type plug



Note pins 1,6,9 - no connection

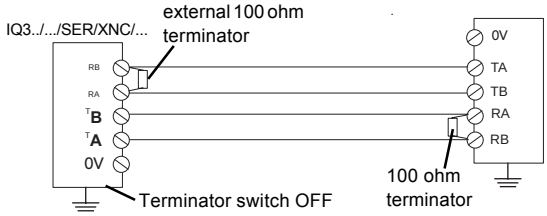
or RJ11 socket



Note pin 2 - no connection

Note that only one of the two RS232 connectors can be used at a time

If RS422



If the IQ3/XNC/SER controller and its slave units are in the same cabinet using the same power supply, each device should have a good physical earth (ground) connection.

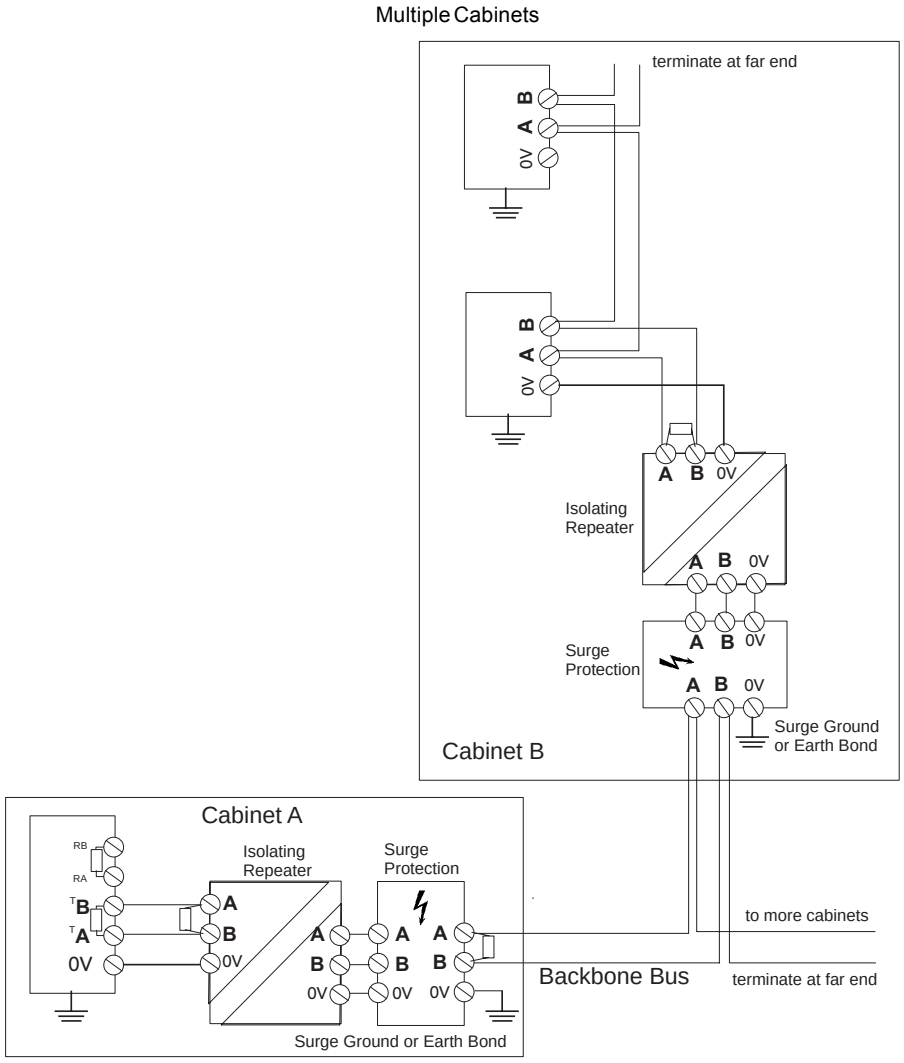
Step 2 continued over page →

1 Installation - Mounting (continued)

2 Connect Serial Interface (continued)

RS485 2 wire, RS485 4 wire, or RS422 (continued)

If the IQ3/XNC/SER controller and its slave units are in different cabinets or use different power supplies (e.g. different UPSs), the cabinets should be isolated from each other. If the bus is likely to suffer from surge and grounding problems, surge protection should be added. The isolator should be connected to the earth (ground) of the nearest device, the 0V of the isolator and the surge protector should be connected together, and earth (ground) of the surge protector's exposed side (e.g. backbone bus) should be connected as directly as possible to the surge ground or earth bond.



1 Installation - Mounting (continued)

3 Connect IQ System Current Loop Network

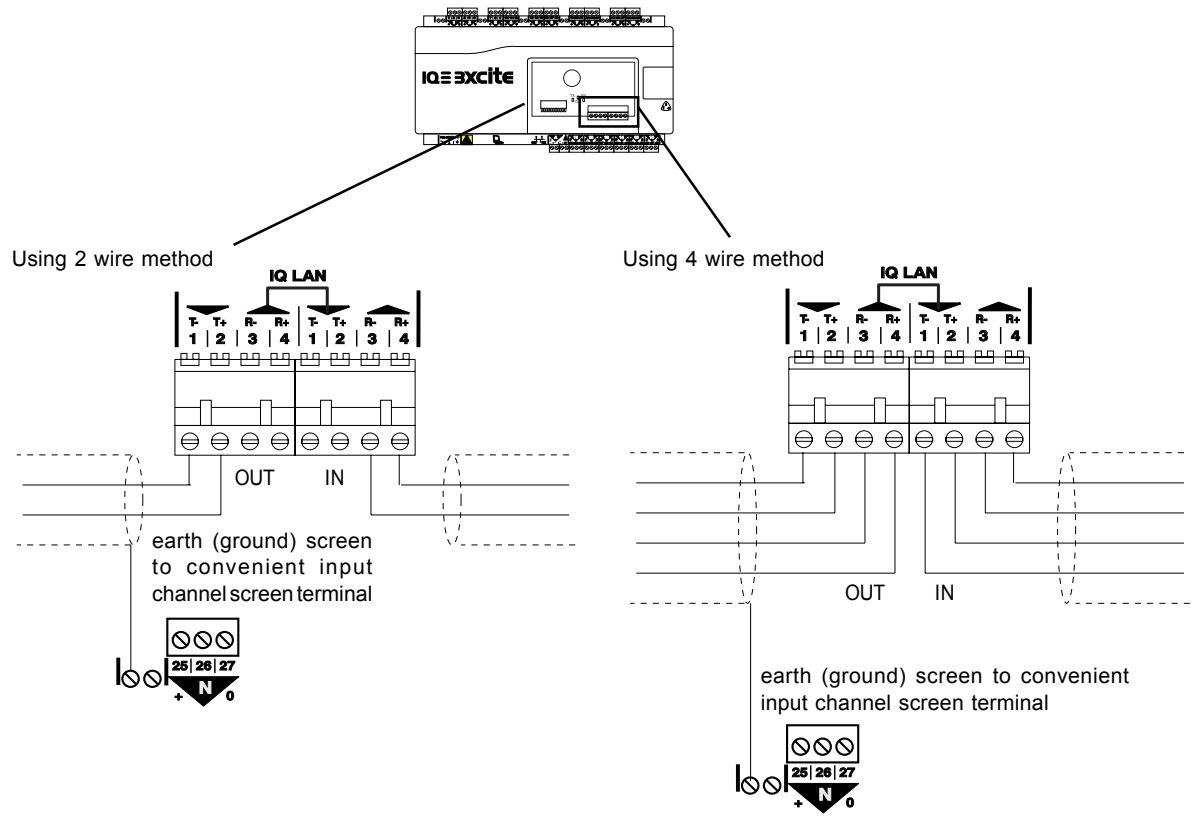
If /LAN/.., IQ system current loop Lan auxiliary board, fitted

Network Engineering Manual, 92-1735

2 off 2 part connectors with 4 screw terminals for 0.5 to 2.5 mm² cross section area (14 to 20 AWG) cable

polarity independent

Cable	9k6 baud	19k2 baud	No. of Wires
Belden 9182	1000 m (1090 yds)	700 m (765 yds)	2
Belden 9207	1000 m (1090 yds)	500 m (545 yds)	2
Trend TP/1/1/22/HF/200 (Belden 8761)	700 m (765 yds)	350 m (380 yds)	2
Trend TP/2/2/22/HF/200 (Belden 8723)	500 m (545 yds)	250 m (270 yds)	4



4 Continue Installation

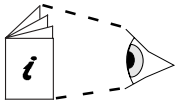
Install according to IQ3xact installation instructions section 4 step 1 to step 19, or IQ3xcite installation instructions from section 3 step 12 to section 4 step 20.

IQ3xact Installation Instructions TG200766
IQ3xcite Installation Instructions TG200626

2 Installation - Configuration

1 Continue Installation

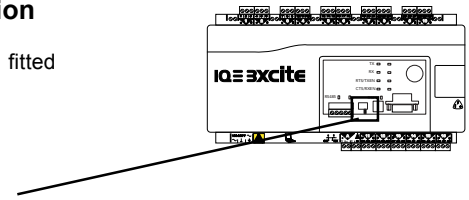
Complete IQ3../.../XNC/... installation instructions sheet 1 and IQ3xact installation instructions up to section 4 step 19, or IQ3xcite Installation Instructions up to section 4 step 20.

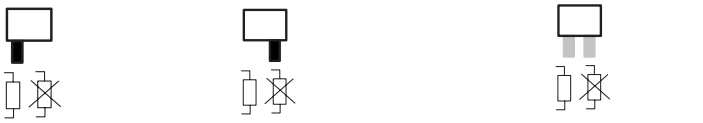


IQ3../.../XNC/... Installation Instructions TG200911 sheet 1
IQ3xact Installation Instructions TG200766
IQ3xcite Installation Instructions TG200626

2 Select Terminator Switch Position

If /SER/.., serial interface auxiliary board, fitted





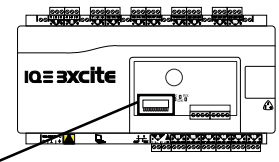
terminator in circuit
RS485 4 wire
RS485 2 wire

terminator out of circuit
RS422

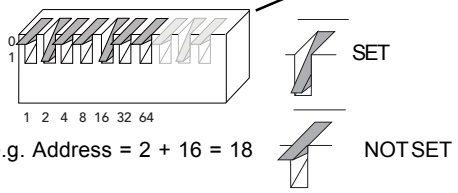
terminator in either position
RS232

3 Set current loop Network Baud Rate and Address

If /LAN/.., IQ system current loop Lan auxiliary board, fitted

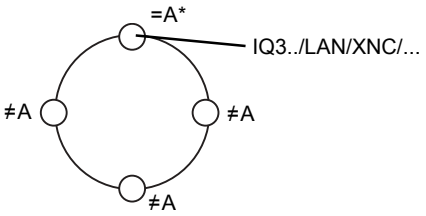


a, Set address switch



e.g. Address = 2 + 16 = 18

Address = A



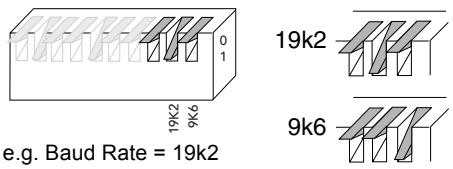
address

✓ 1, 4 to 9, 11 to 119

✗ 0, 2, 3,10 or >119

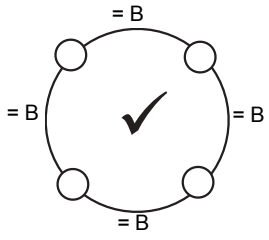
**Note that the IQ3../LAN/XNC/... may also use addresses for its virtual CNC, and for its local supervisor CNC which should also be unique on the Lan.*

b, Set baud rate switch



e.g. Baud Rate = 19k2

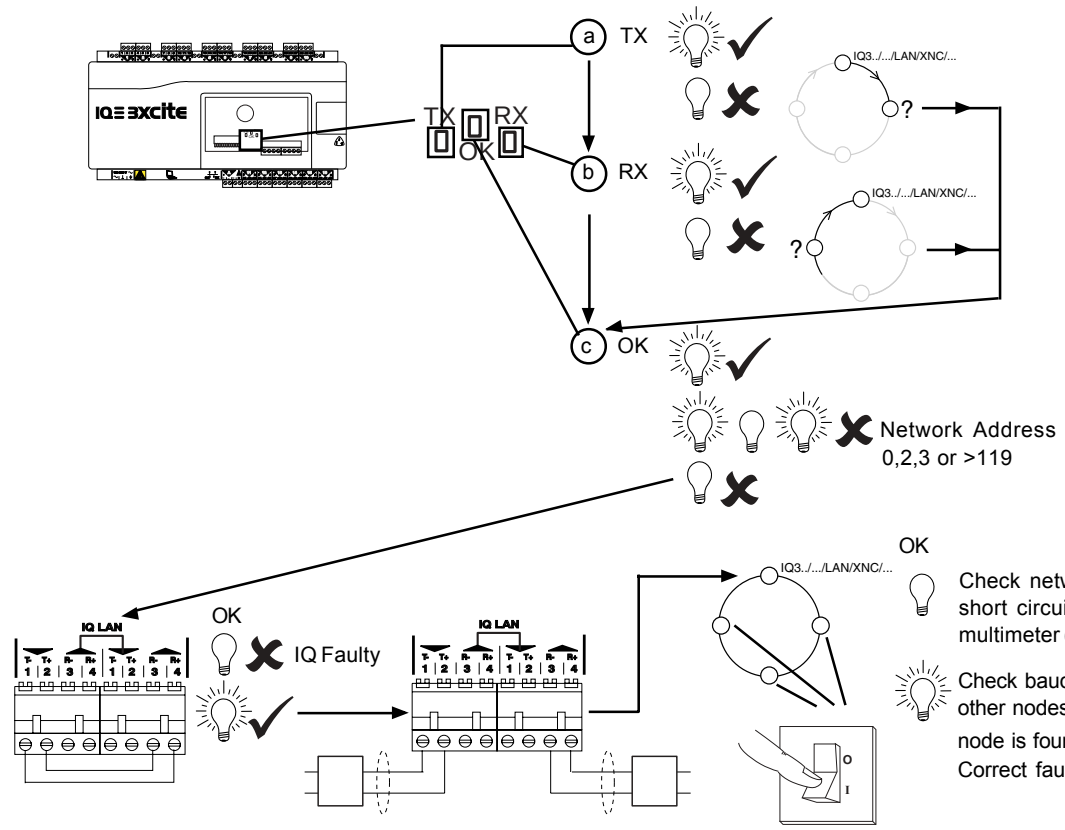
current loop Lan baud rate = B



2 Installation - Configuration (continued)

4 Check current loop network

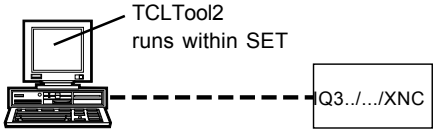
If /LAN/.., IQ system current loop Lan auxiliary board, fitted



5 Create TCL Application

Creat TCL application using TCLTool2

TCLTool2 ManualTC200832
TCL Manual TE200017



If using /SER/, ensure that interface type is set up in the TCL application (RS232, RS485 2 wire, or RS485 4 wire). See step 8 below.

2 Installation - Configuration (continued)

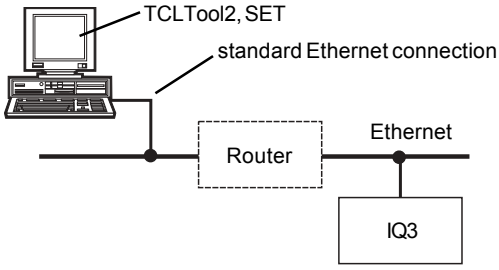
6 Download TCL Application

Use TCLTool2 or SET to download TCL Application (XNC file)

TCLTool2 Manual TC200832
SET Manual TE200147

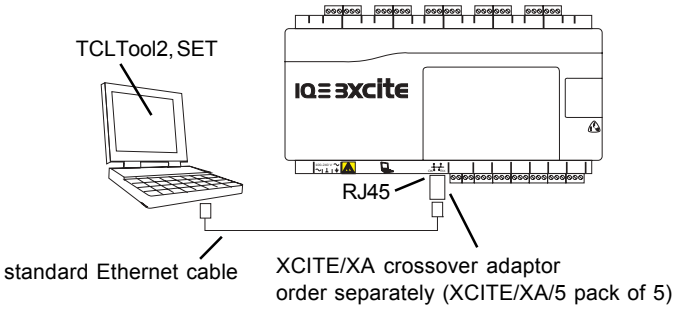
Note that if XNC (TCL application) file is protected, the installer should send MAC address(es) of the targetted controller(s) to the XNC file supplier. On receipt of this data the supplier will send back an unlock code which can be used to authorise the file within SET to run on the designated MAC Address(es).

either across IQ system network over Ethernet



or across IQ system network using local Ethernet connection

local PC (Ethernet) connection can be either to adjacent Ethernet hub using standard cable only, or directly to IQ3 using standard cable and crossover adaptor, XCITE/XA.

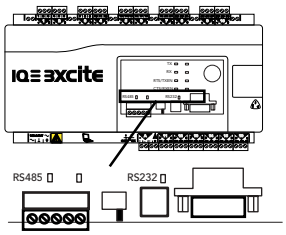


Note that downloading IQ3 TCL application is possible through a virtual CNC once the virtual CNC address is set up, and if IP addressing is set up correctly in both PC and IQ3.

7 Check Serial interface type

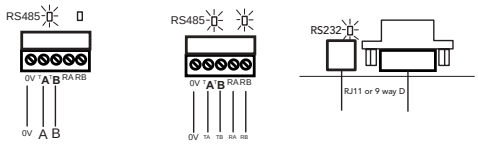
If /SER/.., serial interface auxiliary board, fitted

Note perform this step after the 'Configure IQ3' step in the main installation instructions



either

RS485 2 wire | RS485 4 wire | RS232

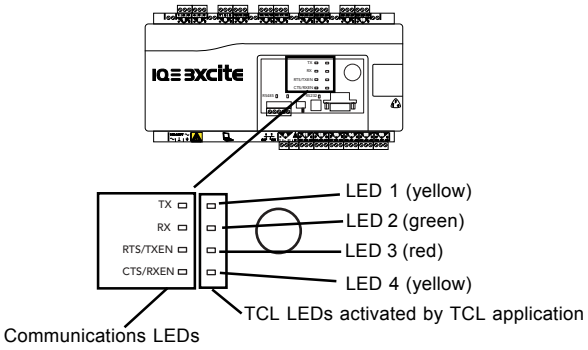


The interface type is set up in the TCL application (see step 5 above)

8 Check Serial interface operation

If /SER/.., serial interface auxiliary board, fitted

Note perform this step after the 'Configure IQ3' step in the main installation instructions



TX: (yellow) messages transmitted; flashes while communicating
RX: (yellow) messages received; flashes while communicating
RTS/TXEN: RS232 - RTS ready to send if handshaking selected
RS485 4 wire -enabled to transmit
RS485 2 wire -in transmit mode (extinguished in receive mode)
CTS/RXEN: RS232 - CTS clear to send if handshaking selected
RS485 4 wire -enabled to receive
RS485 2 wire -permanently extinguished

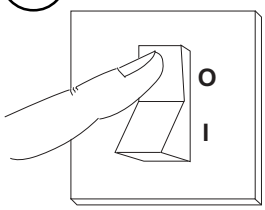
9 Continue Installation

Continue installation according to IQ3xact installation instructions section 4 step 21 on, or IQ3xcite installation instructions section 4 step 22 on

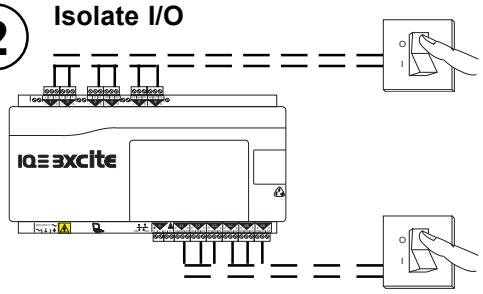
IQ3xact Installation Instructions TG200766
IQ3xcite Installation Instructions TG200626

3 Insertion/Replacement of Battery (if battery required)

1 Switch Off

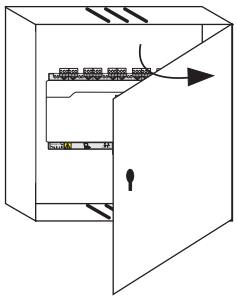


2 Isolate I/O



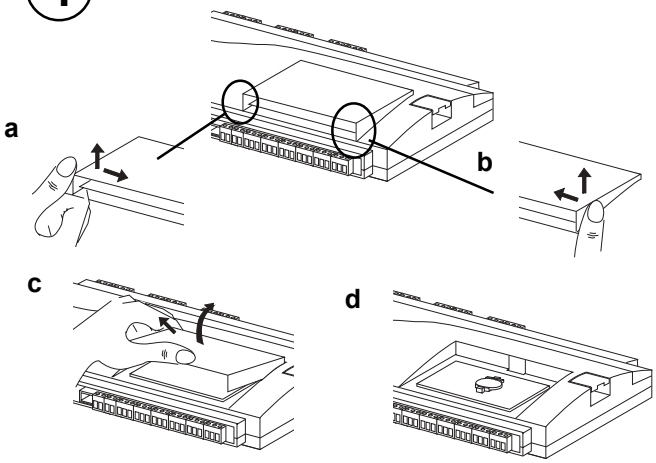
WARNING: The connecting leads may be connected to supplies. Isolate before touching.

3 Open Panel

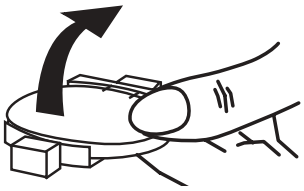


WARNING: Opening the panel may expose dangerous voltages. 417-IEC-5036

4 Remove Auxiliary Board Cover

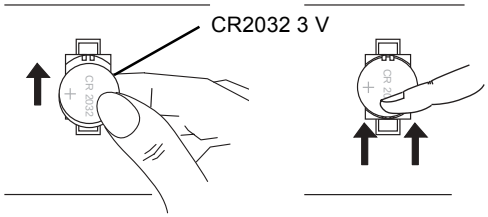


5 Remove battery (if replacing battery)

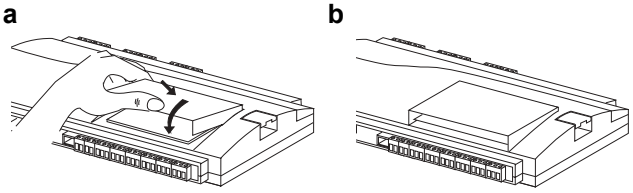


Warning: The lithium battery must not be recharged, disassembled, burnt or short circuited. Misuse may cause explosion or fire. Dispose of carefully (see Section 4, Disposal, below). Refer to Health and Safety Executive Guidance Note GS43.

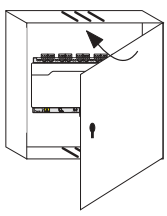
6 Insert new battery



7 Replace Auxiliary Board Cover

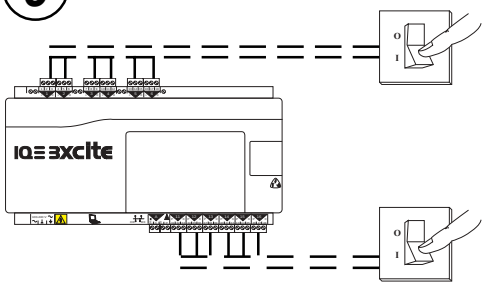


8 Close Panel

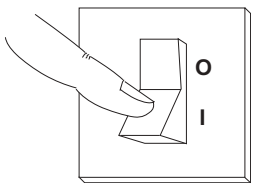


IQ3.../.../XNC/.../USA/UL/24 is UL rated as 'UL916 listed open energy management equipment'.

9 Reconnect Supply to I/O



10 Switch On



4 Disposal

WEEE Directive :

At the end of their useful life the packaging, product, and any battery should be disposed of by a suitable recycling centre.
Do not dispose of with normal household waste.
Do not burn.

Manufactured for and on behalf of the Environmental and Combustion Controls Division of Honeywell Technologies Sàrl, Ecublens, Route du Bois 37,Switzerland by its Authorized Representative, Trend Control Systems Limited.

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