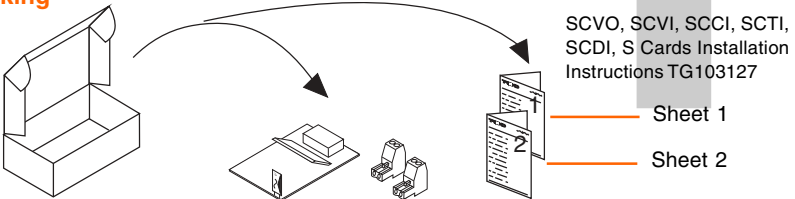


**Important: Retain these instructions**

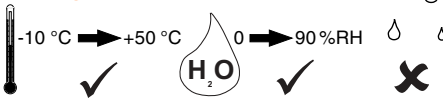


### SHEET 1: Installation

#### Unpacking



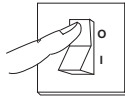
#### Storage



It is recommended that the installation should comply with the HSE Memorandum of Guidance on Electricity at Work Regulations 1989.

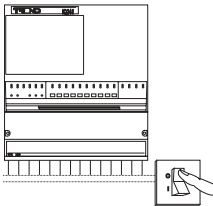
#### Installation

##### 1 Switch Off



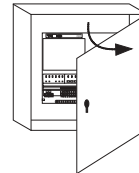
**WARNING:** To prevent damage to the IQ241/242, or S Cards the controller must be powered down during the installation.

##### 2 Isolate I/O



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

##### 3 Open Panel



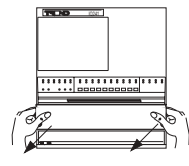
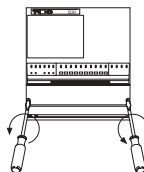
**WARNING:** Opening the panel may expose dangerous voltages. 417-IEC-5036

##### 4 Remove ENCLS/CMTRAY Cover

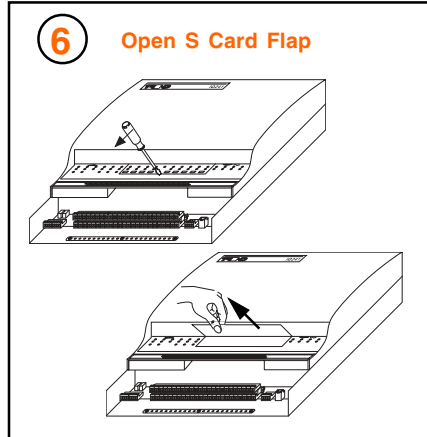
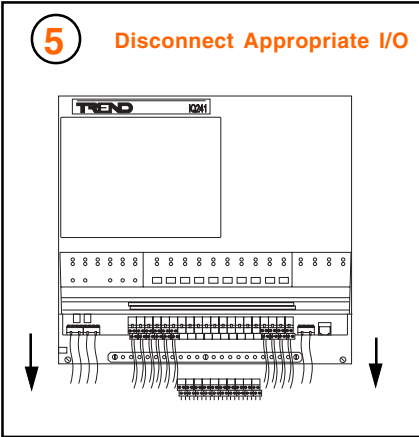
If ENCLS/CMTRAY fitted

**a** undo screws

**b** lift off cover



Installation (continued)



**7 Identify S Card**

- analogue current input S card (SCCI)
- analogue voltage input S card (SCVI)
- thermistor input S card (SCTI)
- digital input S card (SCDI)
- analogue voltage output S card (SCVO)

*Note each S card provides 2 channels of the same type.*

**8 Set Loop/Ext Link**

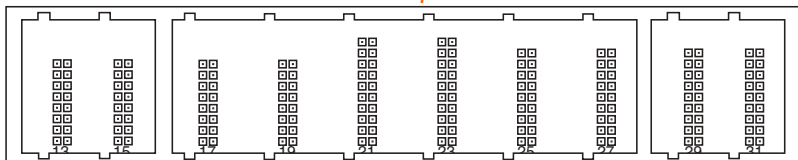
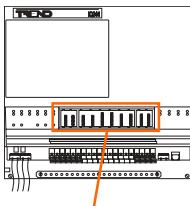
if SCCI

- LOOP  
EXT Link set for external power supply
- LOOP  
EXT Link set for controller power

Installation (continued)

9

Identify S Card Slot



Channel Numbers 13 15 17 19 21 23 25 27 29 31  
 14 16 18 20 22 24 26 28 30 32

Input Cards only

Input or Output Cards

Note that the IQ242 has 4 SCTI cards pre-fitted in these slots (i.e. 8 thermistor input channels)

Permitted S Cards

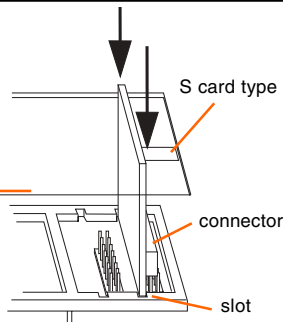
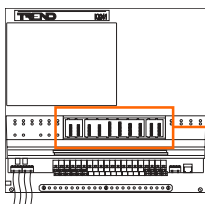
- SCCI
- SCVI
- SCTI
- SCDI

Permitted S Cards


- SCCI
- SCVI
- SCTI
- SCDI
- SCVO

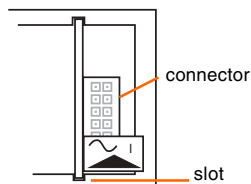
10

Fit S Cards



Note that only input cards should be fitted in the first 4 slots (from the left)

**WARNING:**  In some card positions spare pins are present on the board. Ensure cards are properly connected to correct pins; failure to do so may cause damage to S card and main board.

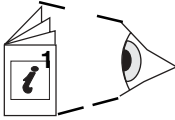


Ensure card is pushed fully home



### SHEET 2: Installation (continued)

#### 14 Install S Card



S cards Installation  
Instructions,  
TG103127, Sheet 1

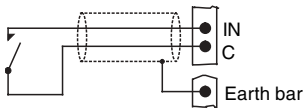
#### 15 Connect Inputs

Trend TP/1/1/22/HF/500 (Belden 8761) cable recommended for all inputs

Terminal size 0.5 to 2.5 mm<sup>2</sup>

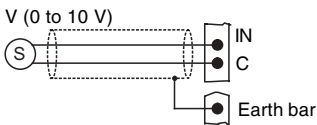
##### Digital Inputs

(Channels 13 to 32 only)



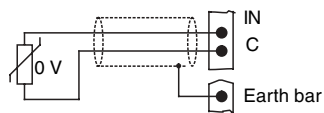
##### Sensor Voltage Inputs

(Channels 13 to 32 only)



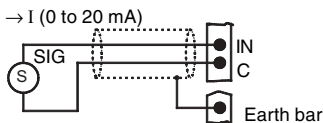
##### Sensor Thermistor Inputs

(Channels 13 to 32 only)



##### Sensor Current Inputs

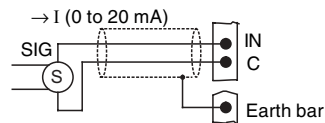
(Channels 13 to 32 only)



see step 8 for internal/external power link

##### Sensor External Powered Current Inputs

(Channels 13 to 32 only)




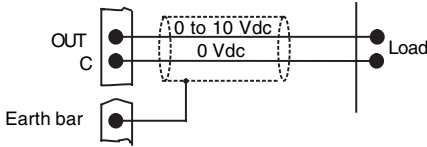
see step 8 for internal/external power link

Installation (continued)


**16** Connect Outputs

Trend TP/1/1/22/HF/500 (Belden 8761) cable recommended for voltage outputs  
Terminal size 0.5 to 2.5 mm<sup>2</sup>

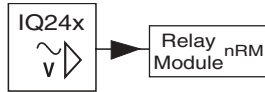
**Analogue Voltage Outputs** (Channels 21 to 32 only)   
maximum current 20 mA per channel








**WARNING:** If external relays are fitted, the wires may be connected to hazardous voltages. Disconnect power before attempting any wiring.

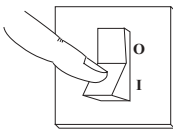


Additional Relay Modules





- SRMV =  x 1
- 2SRM =  x 2
- 2RM =  x 2 (RLM/HLM)
- 3RM =  x 3 (HCM/TRM)
- 6RM =  x 6


**17** Switch On





**18** Check Controller


**a**  (power)  
(green)

 ✓

 ✗ Check supply

**b**  (watchdog)  
(red)

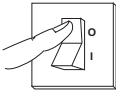
 ✓

 ✗ IQ Faulty

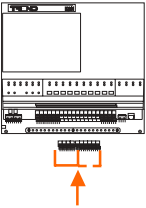
Installation (continued)

**19 Test Inputs**

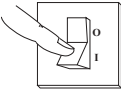
a Switch off



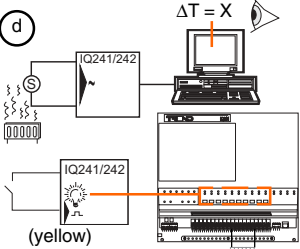
b Connect Inputs



c Switch on



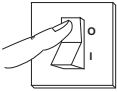
d



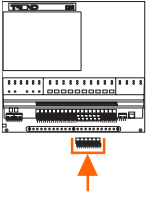
(yellow)

**20 Test Outputs**

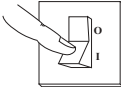
a Switch off



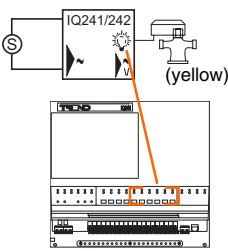
b Connect Outputs



c Switch on

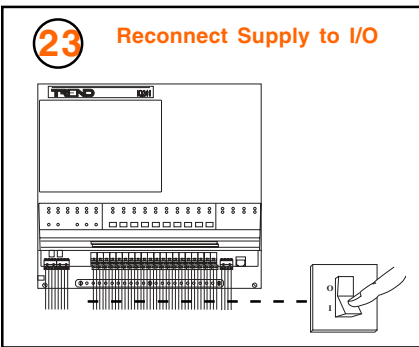
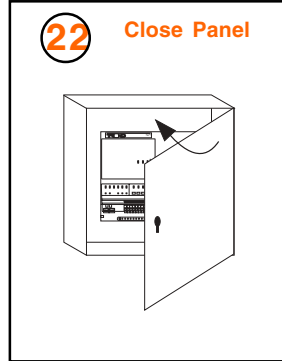
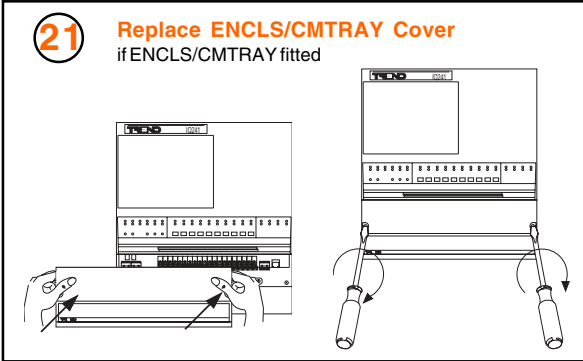


d



(yellow)

Installation (continued)



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Trend Control Systems Ltd P.O. Box 34 Horsham Sussex RH12 2YF Telephone 01403 211888 Fax 01403 241608 www.trend-controls.com