

Electrical Installation Requirements

Care should be taken to separate the power and signal cables to prevent electrical interference and possible damage due to inadvertent connection.

TA220

TA220 inputs are electrically (optically) isolated. A line voltage should be connected for signal present. The terminal marked **COM** should be connected to the supply voltage neutral.

NOTE: The line voltage **MUST BE** on the same phase as the unit supply.

CE Conformance

This unit conforms with the relevant EU standards when installed according to the JTL Installation Requirements for this product.

Inputs and Temperatures

Inputs (connector as shown) Temperatures (connector as shown)

- I1 Defrost
- I2 Input 2 alarm
- C Supply Neutral
- A1 Air on temperature (T1)
- A2 Air off temperature (T2)

Use of Maintenance Unit

The monitor can be checked and the operation adjusted using a JTL portable maintenance unit which plugs into the monitor. Each item of information has an item number. The more important items are listed in the tables overleaf. Examples:

To read item 21 press: **ITEM** **2** **1** **ENTER**

To set item 31 to -20.0 press:

ITEM **3** **1** **ENTER** **SET** **-** **2** **0** **0** **ENTER**

To correct errors press: **CANCEL**

To select next or previous items press: **+** and **-**

JTL Network Communications

Connection to the Jnet zone should be made via a CAB60 into the RJ8 connectors. Units may be daisy chained together.

Two wire screw terminal connectors are also provided as an alternative means of connecting to the Jnet zone. Terminal designation is as follows:

- Terminal 1 negative (-)
- Terminal 2 positive (+)

All Jnet networked products must be connected in parallel without cross connections.

Communications speed is set automatically for 4800 baud.

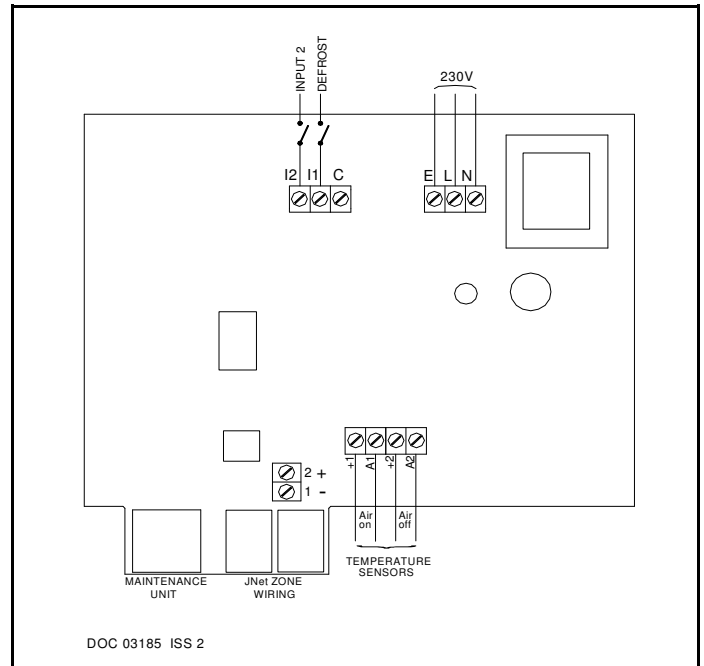
Initial Commissioning

The monitor has a set of data built in to its program for use during commissioning. This can be accessed setting item 9 to 1. This loads into the monitor a standard set of data. Adjustments should then be made as necessary. The range over which the settings can be adjusted shown overleaf.

The unit number for the JTL communications network should be set on item 1.

Defrost

The defrost sequence can be initiated via the Jnet network (with defrost scheduler) or by a contact input. Item 107 must be set accordingly. Defrost is terminated when either the network command or contact input is taken away. An adjustable maximum defrost period is set on item 57. An alarm is generated if a defrost exceeds this time and is only cleared after the defrost has finished.



Defrost Recovery

When the defrost is ended the monitor enters defrost recovery for a period set on item 64.

Alarms

The reported temperature is monitored continually. The reported temperature is computed from the T1 and T2 temperatures. A factor is used to proportion the T1 and T2 temperatures. If a single sensor is used then a value can be added to offset the reported temperature using item 34.

In two sensor mode, the reported temperature is averaged over a period set on item 47. If the average temperature exceeds the alarm level, then an alarm is transmitted on the JTL alarm system.

In single sensor mode (T1 only) an alarm is transmitted on the JTL alarm system if the reported temperature exceeds the alarm level for a period longer than the delay set on item 47.

Temperature alarms are cancelled during defrost and defrost recovery.

Input 2 Alarm

A general purpose alarm facility is provided when a mains alarm signal (eg. Plant fault, door open) is given to the monitor, an alarm is available after an adjustable delay on the JTL Network. The delay is set on item 36.

In the default condition (input not inverted, Item 66=0), the line voltage should be present to indicate; plant healthy (Item 89=2,4,5), door closed (Item89=3), unit shutdown (Item89=6). When a unit is shutdown, all temperature and defrost alarms are cancelled, sensor faults are still reported.

According to the application the unit should be set up as follows:

	TA220				TA221
	Cabinets (Item 89=2)	Coldrooms (Item 89=3)	Air Handlers (Item 89=4)	Cabinets (Item 89=6)	Cabinets TA211 (Item 89=5)
Input 2 Function	Plant fault alarm	Door open alarm	Plant fault alarm	Unit shutdown	Plant Fault Alarm
T1	Air on	Air on	Air on	Air on	Air on
T2	Air off	Air off	Air off	Air off	Air off
Temperature ratio	0 - 100%	100%	0%	0 - 100%	0 - 100%

ADJUSTABLE PARAMETERS			
Item	Function	Range	Units
1	JTL network unit number	0.1 to 899.9	
30	Setpoint (for optimiser compatibility, does not affect alarm logic)	-99.9 to +99.9	°C
31	Low temperature alarm level	-99.9 to +99.9	°C
32	High temperature level	-99.9 to +99.9	°C
33	Cabinet temperature factor	0 to 100	%
34	Single sensor temperature offset	-10.0 to + 10.0	°C
36	Input 2 alarm delay time	0 to 99	mins
38	Sensor selections	0=none 1=T1 2=T1 & T2 3=T2	
47	Alarm delay time/Period over which averages taken	0 to 99	mins
57	Maximum defrost time	5 - 60	mins
65	Invert defrost input	0=no 1=yes	
66	Invert input 2	0=no 1=yes	
67	Door alarm critical	0=no 1=yes	
102	Sensor type selection	0=Standard, 1=Hot, 2=2K, 3=2K2	
107	Defrost strategy selection	0=none 1=contact 2=network	
64	Delay after defrost (defrost recovery)	0 to 60	mins
89	Unit sub-type (TA220)	2=DC 3=CR 4=AH 6=DC	
89	Unit sub-type (TA221)	5=DC.5i	

OTHER USEFUL ITEMS			
Item	Function	Item	Function
20	Reported temperature	22	Air off temperature (T2)
21	Air on temperature (T1)	70	Operating mode

Full operating manuals and item number information can be obtained from your supplier or JTL Systems.

Supply and Input Requirements

230 V ac 48-62 Hz

Supply 2 VA maximum

Inputs 2 mA maximum



This unit conforms with the relevant EU standards when fitted in accordance with its installation instructions.

Other useful documents:

Installation Requirements

03188

Connections Diagram

03187

Item Numbers

03189

Firmware Variations

03190

Application Drawing

(using unit shutdown input)

03186

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