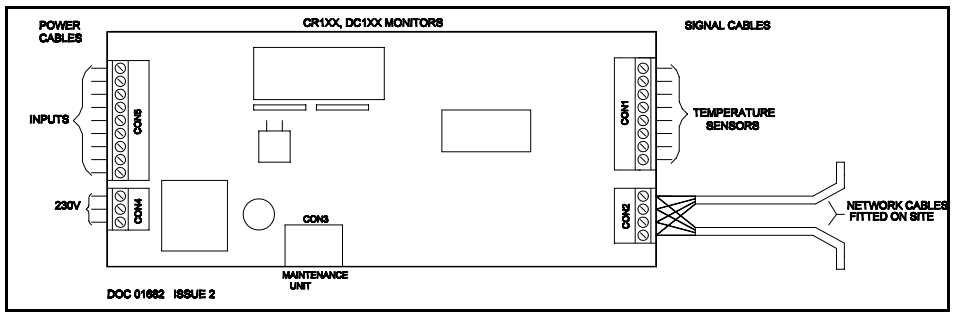
Electrical Installation Requirements

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

The inputs are electrically isolated. A line voltage should be connected for signal present. The terminal marked **COM** should be connected to the supply 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 5)

1 Defrost channel 1
2 Defrost channel 2
3 Defrost channel 3
4 Defrost channel 4
5 Plant alarm channel 1
6 Plant alarm channel 2
7 Plant alarm channel 3
8 Plant alarm channel 4

Temperatures (connector 1)

1 Channel 1
2 Channel 2
3 Channel 3
4 Channel 4

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 112 press: ITEM 1 1 2 ENTER

To set item 113 to -20.0 press:

ITEM 1 1 3 ENTER SET – 2 0 0 ENTER

To correct errors press: CANCEL

To select next or previous items press: + and –

JTL Network Communications

The JTL network port (connector 2) can be arranged for 2 wire (half duplex) or 4 wire (full duplex) communications. The wiring of the port is :

	2 wire	4 wire
1		Rx-
2	+	Rx+
3	not used	Tx-
4	not used	Tx+

Note all network products must be connected in parallel without cross connections. The Rx connections must be connected to the Tx connections at the network controller.

The choice of 2 or 4 wire is made using item 7.

Initial Commissioning

The monitor has a set of data built in to its program for use during commissioning. This can be accessed by setting item 9 to 1234. This will load into the monitor a standard set of data. Adjustments should then be made as necessary. The range over which the settings can be adjusted is shown overleaf.

If a JTL communications network is connected to the monitor then the unit numbers for the 4 channels should be set on items 111, 121, 131 and 141.

Defrost

The defrost sequence can be initiated in 2 ways, by command from the JTL communications network, or by contact input.

Defrost is terminated on time.

Alarms

The air temperature is monitored continually. The temperature is averaged over the period set on item 50. If the average temperature exceeds the alarm level then an alarm is given, on the JTL alarm system.

High air temperature alarms are **NOT** cancelled during defrost or defrost recovery.

Plant Alarms

A plant alarm facility is provided when a plant alarm signal is given to the monitor, an alarm is available, after a 30 second delay, on the JTL Network.

Network Shutdown

This monitor supports the JTL Network shutdown facility. When this facility is enabled if a channel shutdown command is received over the JTL Network, the channel alarms are disabled. The high temperature alarm sequence is initialised.

Item Numbers

The CR110 monitor is a 4 channel unit. Items 0-99 are common. Items 110-119 and items 210-219 are for channel 1, items 120-129 and 220-229 are for channel 2, items 130 - 139 and 230 - 239 are for channel 3 and items 140 - 149 and 240 - 249 are for channel 4.

ADJUSTABLE PARAMETERS			
Item	Function	Range	Units
7	JTL network (half or full duplex)	0=half (2 wire) 1=full (4 wire)	
45	Network initiated defrost	0=on 1=off	
50	Alarm averaging time	00:30 to 03:00	hr:mn
55	Invert plant alarm inputs	0=no 1=yes	
62	Network shutdown command	0=disabled 1=enabled	
65	Invert defrost inputs	0=no 1=yes	
69	Number of defrosts expected	0 to 6	
110,120,130,140	Enable channel	0=off 1=on	
111,121,131,141	Channel unit number	0.1 to 899.9	
113,123,133,143	Temperature setpoint	-35 to +10	°C
114,124,134,144	Overtemperature tolerance	0 to +20	°C
210,220,230,240	Defrost termination time	00:15 to 01:00	hr:mn

OTHER USEFUL ITEMS			
Item	Function	Item	Function
112,122,132,142	Air temperature	214,224,234,244	Duration of last defrost
117,127,137,147	Operating mode	215,225,235,245	Time since end of last defrost
118,128,138,148	Network shutdown command state	216,226,236,246	Duration of this defrost
211,221,231,241	Network defrost command state	218,228,238,248	Plant alarm input state
213,223,233,243	Defrost input state		

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

Supply Requirements
230 V ac 48-62 Hz
Supply 6 VA maximum
Inputs 2 mA maximum

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

Applicable Documentation

Item Numbers	Doc No. 01596
Software Variations	Doc No. 01597
Wiring Diagrams	Doc No. 01663
Evaporator Manual	Doc No. 01923
Installation Requirements	Doc No. 01676
Outline Details	Doc No. n/a

JTL Systems Ltd . 41 Kingfisher Court . Newbury . Berks. Tel: (01635) 263646 Fax: (01635) 263647
www.jtl.co.uk
SERVICE HELP DESK: 0870 321 HELP (4357)