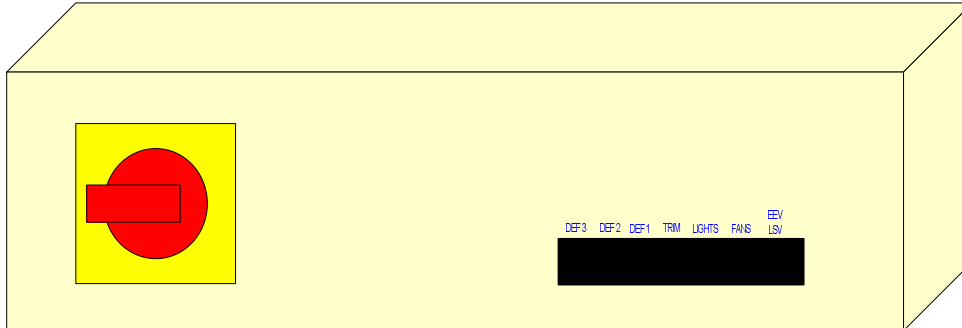


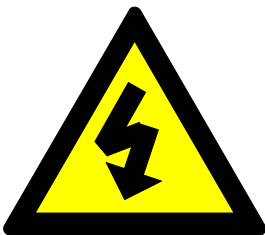
# INSTALLATION / SET-UP GUIDE

CC100x Universal evaporator controller



## CC1000/1002/1006 Controller features:

- EEV control
- LSV control
- 1 to 4 evaporator control
- PT1000, 5K0, 2K2 probe compatible
- IP addressable
- RS485 comms RMS 9600
- 7 x 240Vac outputs
- Internal MCB circuit protection
- Up to 30A0 Defrost control
- Energy saving Algorithm features.
- 2 Digital inputs
- OEM customisation facility



### DANGER

For the safety of personnel and the proper functioning of the equipment it is essential that everybody who uses or works on this equipment must be competent to prevent danger and injury.

The safety instructions in this guide are intended to draw attention to potential hazards that may be encountered during installation, commissioning and operation of the equipment.

While the installer is responsible for the correct and safe installation and commissioning of the equipment, once this is complete, the owner and/or user of the equipment is responsible for its safe operation and maintenance.

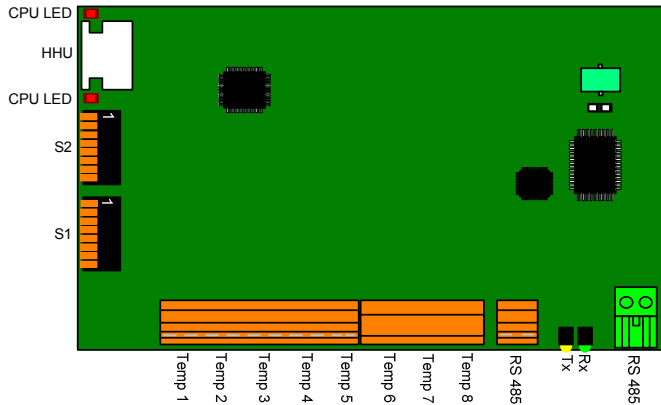
It is essential that personnel who operate or maintain the equipment know how to isolate each part of the system from its electricity supply.

### IMPORTANT

The controller is factory supplied with a 1 amp fuse fitted into the first defrost fuse holder for GAS DEFROST applications.

If ELECTRIC DEFROST is used REPLACE the 1 amp fuse link with the two supplied 10 amp fuse links SEE PAGE 3

## CPU BOARD LAYOUT / CONNECTION & CONFIGURATION DETAILS



Temperature Inputs			
	CC1000	CC1002	CC1006
Temp 1	Air On	Air On	Air On
Temp 2	Air Off	Air Off	Air Off
Temp 3	Evap In	Defrost 1 / Air On 3	Evap In
Temp 4	Evap Out	Air On 2	Evap Out
Temp 5	Defrost	Air Off 2	Defrost
Temp 6		Defrost 2 / Air On 4	Door
Temp 7		Air Off3 / Air On 3	Relative RH
Temp 8		Air Off 4 / Air On4	Dew Point

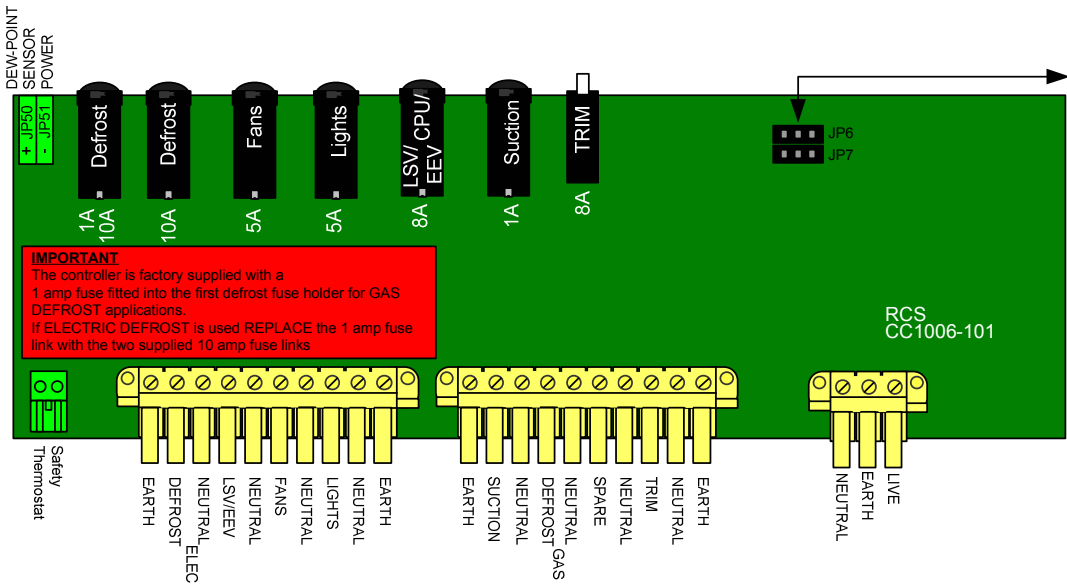
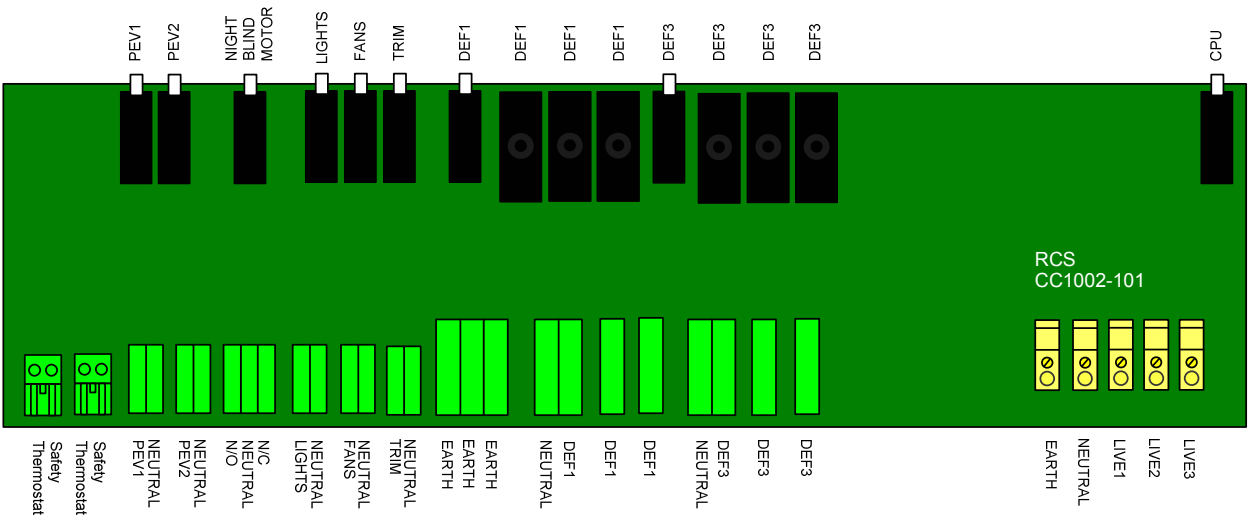
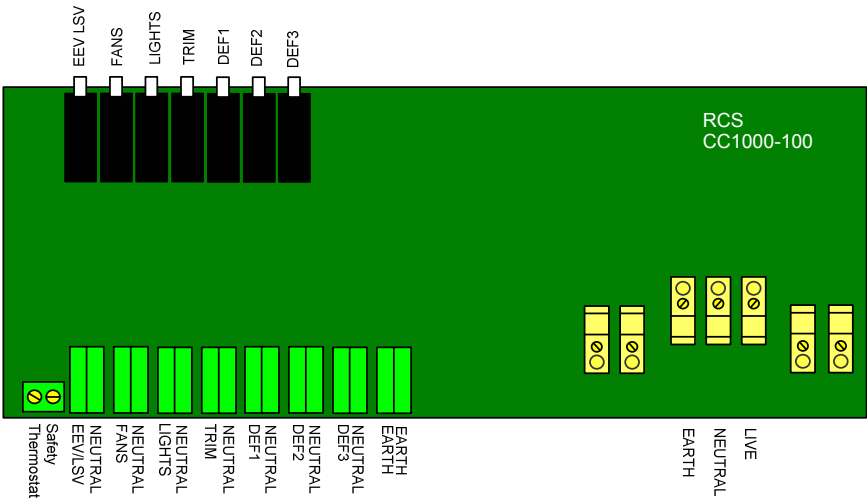
BIT SWITCH SET 1		
PROBE TYPE	5K0	
	2K2	
	PT1000	
DEW-POINT SENSOR	Fitted	
	Not Fitted	
DEW-POINT SENSOR TYPE	Sontay	
COMMS bps	Rense	
	RMS 600	
	RMS 9600	

BIT SWITCH SET 2		
INLET VALVE TYPE	LIQUID SOLENOID	
	PULSED ELECTRONIC	
DEFROST TYPE	ELECTRIC	
	HOT GAS	
DEFROST PROBE	FITTED	
	NOT FITTED	
DEFAULT TEMPERATURE RANGE Switches 6 to 8	-24.0 ° C	
	+1.0 ° C	
	+4.0 ° C	
	+8.0 ° C	

N.B. Changes to switch settings require a power down / up for the controller to load defaults.		
<b>Key to Symbols</b>	Switch ON (down)	
	Switch OFF (up)	

Indicates the switch settings for the single controller on each case run that has the dew-point sensor fitted

**CC1000 & CC1002 & CC1006 DRIVE BOARD LAYOUT / CONNECTION DETAILS**



**IMPORTANT**  
 The controller is factory supplied with a 1 amp fuse fitted into the first defrost fuse holder for GAS DEFROST applications.  
 If ELECTRIC DEFROST is used REPLACE the 1 amp fuse link with the two supplied 10 amp fuse links

Dew-Point Sensor Power Supply	
JP? Selects the supply voltage available from screw terminals JP50= + JP51= -	16Vdc (Rense) 
	24Vac (Sontay) 

**CC1000**  
Hand Held Unit Menu List

MENU LIST	
Alarms	Control
Status	Address
Times	Setup
Defrosts	Manual

F1
MAC Address 00:50:C2:4D:00:53

ESC  
ENT

Alarms / F4	
Any Alarms?	YES
AirOn OT	OK
AirOff OT	OK
AirOn Sen	ALARM
AirOff Sen	OK
EvapIn Sen	OK
Defrost Sen	ALARM
Insuff. Data	OK

Status / F2	
Mode	REF
Unit Type	TBA
Online	YES
ControlTemp	-99.9
AirOn Temp	-99.9
AirOff Temp	-99.9
EvapIn Temp	-99.9
EvapOut Temp	-99.9
SuperHeat	-99.9
Door Temp	-99.9
Dew Point Temp	-99.9
Rel Humidity	-99.9
EEV% O/P	15.0
LSV O/P	N/A
Defrost O/P	OFF
Fans O/P	ON
Lights O/P	ON
Trim O/P	ON
Last D/F Term	NONE
Control Type	MEV
S/w Ver.	1054
TrimHeaterSP	
Act.Trim %	

Times	
Time Of Day	12:00
Time Nxt D/F	12:00
TimeSinceD/F	00:00
Dur Last D/F	00:00
Dur This D/F	00:00
Current Date	101
Current Year	2006

Defrosts	
DefrostTime1	06:00
DefrostTime2	00:00
DefrostTime3	00:00
DefrostTime4	00:00
DefrostTime5	00:00
DefrostTime6	00:00
DefrostTime7	00:00
DefrostTime8	00:00
Max D/F Durn	00:45
D/F TermTemp	8.0
EvapPrbsFit?	NO
D/F TermSnsr	Defrst
Fans Off SP	30.0
FnsDlyPstD/F	-10.0
FanPulseDef	NO
FanPulsePer	60
Fans On SP	N/A
TrimsOn@Def	NO
PumpDownTime	02:00
Drain Time	02:00

Control	
LoadDefaults	DONE
Time Of Day	12:00
Temp. SP	-23.0
LSV Deadband	1.0
Air On Ratio	100
SuperHeat SP	6.0
EEV% @ Injct	45
AirOnAlmDly	10
AirOffAlm.SP	-20.0
AirOffAlmDly	10
Trim On O/P%	100.0
Cycle Period	01:00

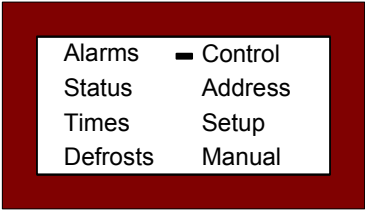
Address / F3	
IP Address	192
	168
	0
	220
Subnet Mask	255
	255
	255
Gtwy Address	192
	168
	100
NTP Address	192
	168
	0
	230
DHCP	YES
NTPfromDHCP	YES
GtwyfromDHCP	YES

Setup	
LoadDefaults	DONE
Unit Number	1.0
Unit Type	Velando
Defrst Type	HOT GAS
Def Probe	PRESENT

Manual	
Force Mode	AUTO
ManualCtrlEn	AUTO
EEV % Open	50.0
Trigger D/F	NO
Sleep Mode	NO
Fans Only	NO
Lights Mode	Remote
SunLightsOn	N/A
SunLightsOff	N/A
MonLightsOn	N/A
MonLightsOff	N/A
TueLightsOn	N/A
TueLightsOff	N/A
WedLightsOn	N/A
WedLightsOff	N/A
ThuLightsOn	N/A
ThuLightsOff	N/A
FriLightsOn	N/A
FriLightsOff	N/A
SatLightsOn	N/A
SatLightsOff	N/A

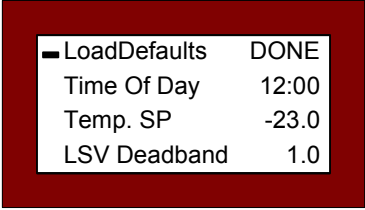
## CC1000 HHU Examples

### LOADING DEFAULT PARAMETERS



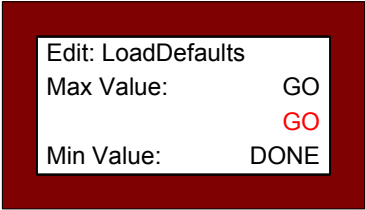
From the 'Menu List', use the arrow keys to move the cursor to **Control**

Press **ENT**.



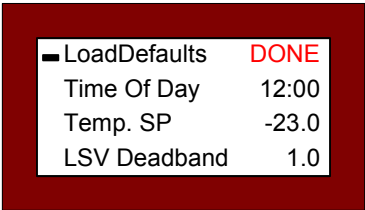
Use the arrow keys to move the cursor to **LoadDefaults**.

Press **ENT**.



Use the arrow keys to change the Value to **GO**.

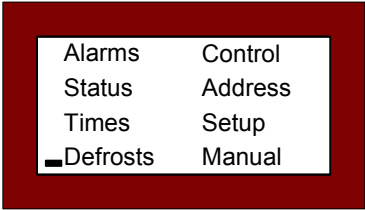
Press **ENT**.



The display will return to the Control menu. The value of **LoadDefaults** will display **GO** and then change to **DONE**.

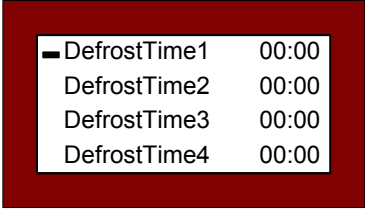
Press **ESC**.

### SETTING A DEFROST



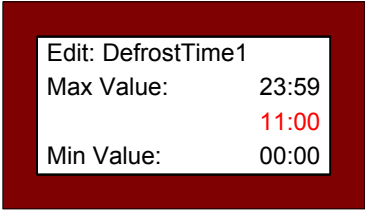
From the 'Menu List', use the arrow keys to move the cursor to **Defrosts**

Press **ENT**.



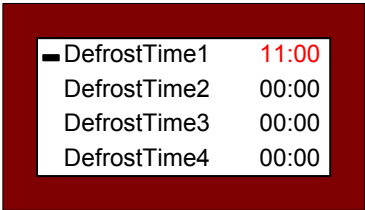
Use the arrow keys to move the cursor to **DefrostTime1**.

Press **ENT**.



Use the number keys to change the Value from **00:00** to **11:00**.

Press **ENT**.



The display will return to the Defrosts menu. The value of **DefrostTime1** will show **11:00**.

Press **ESC**.

**CC1000 Commissioning Examples**

