

COLD ROOM CONTROLLER

**USER MANUAL**



**CRC-1001 / CRC-1001-C**



INDIA

[www.pvrcontrols.com](http://www.pvrcontrols.com)

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## Introduction

The CRC-1001/CRC-1001-C are single set point cold room controllers. The Sub-Zero CRC-1001/CRC-1001-C are aesthetically superior versions of their predecessors.

The controller controls the defrost in the system based on time based where the compressor is stopped. It is also possible to select the interval between defrosts and a maximum time out after which the defrost is interrupted.

There are safety features which include shutting down the system incase of a fault from a pressure control or similar device.

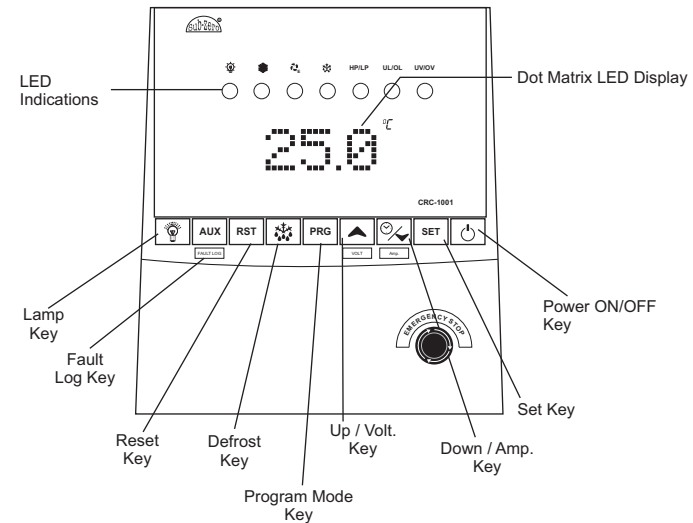
A series of “safety controls” (delay at start-up, minimum disable time, minimum time between activation) protects the compressors from close starts. In case of probe error or temperature alarm, the instrument signals the event through acoustic signal and by closing the relay contact. By pressing the mute key, the buzzer is silenced.

A number of parameters are displayed alphanumerically to set up the instrument for each specific function.

The CRC-1001/CRC-1001-C controller can be used for several applications with a measuring range from











-40.0°C to 50.0°C.


## Get to Know Your Controller



## Items included

NO.	ITEMS	QTY
1.	CONTROLLER	1
2.	NTC SENSOR 3 METER	1
3.	CATALOGUE	1
4.	6 X 25 SCREW	3

Key Introduction			
	Lamp ON/OFF Key		Up/Volt Key
	Auxiliary/Fault Log Key		Down/Amp. Key
	Alarm Reset Key		Set Key
	Defrost Key		Power Key
	Program Key		
MAIN SYSTEM PROGRAMMING MODE			
1> USER PROGRAM	Press PRG Key for 4 seconds to Enter into Programming mode and press once to escape from program mode.		
2> SET MODE	Press SET Key for 4 seconds to Enter Set mode.		
3> FAULT LOG	Press AUX/FAULT LOG Key for 2 seconds to View last 9 Fault Log.		
4> Mute	Press RST Key to reset alarm relay & buzzer.		
5> Manual Defrost	Press Defrost Key for manual defrost.		
6> View Current	Press Down/Amp Key to see the compressor current.		
7> View Voltage	Press UP/Volt Key to see the voltage.		
Min: MINIMUM Max : MAXIMUM Fact. Set : FACTORY SETTING(DEFAULT)			
Description of parameters and functions.			
Sr. No.	Parameter	Parameter setting method	
01	SET POINT	To set the cut-out point of the controller.	
	Press and hold SET key for 2 seconds and Release.		Display will change to set value. The set point value can now be changed by using the UP/DOWN key. After desired value, press the SET key & you will see "---" which confirms that the set point has been stored in memory.
<b>Range</b>			
<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
P3+0.5	P2-0.5	0.0°C	

Description of parameters and functions.			
Sr. No.	Parameter	Parameter setting method	
To set other parameter			
Press & hold PRG key for 2 seconds			Display will show 'P2' and scroll the description of the parameter. To go to other parameters, use up / down keys.
02	P2 Parameter	Function : To set maximum allowable high temperature limit.	
To change P2 parameter, press the set key.		Use UP/DOWN key to set desired value. Once set at a particular value, this will not allow the set point to go above this value and below P3 setting.	
<b>Range</b>			
<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
Set Point +0.5	50.0°C	50.0°C	
<b>Example</b> : Setting this parameter at 30.0°C will not allow the set point to go above 30.0°C also if the temperature reaches 30.0°C, the display will show HT (High Temperature). The alarm will be ON. But at power on till the AL delay is over controller will not generate HT Alarm.			
03	P3 Parameter	Function : To set minimum allowable low temperature limit.	
To change P3 parameter, press the set key.		Use UP/DOWN key to set desired value. Once set at a particular value, this will not allow the set point to go below this value and above P2 setting.	
<b>Range</b>			
<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
-40.0°C	Set Point -0.5°C	-40.0°C	
<b>Example</b> : Setting this parameter at -40.0°C will not allow the set point to go below -40.0°C also if the temperature reaches -40.0°C, the display will show LT (Low Temperature). The alarm will be ON.			

Description of parameters and functions.			
Sr. No.	Parameter	Parameter setting method	
04	P4 Parameter	Function: To set the differential for compressor restart.	
		To change P4 parameter, press the set key.	
		Use UP/DOWN keys to set desired value.	
		<b>Example(Cooling Mode) :</b> If the set point is set at 10.0°C and differential is set at 2.0°C, then when the system reaches 10.0°C, the comp. relay will cutout. Since the differential is 2.0°C, the comp. Relay will cutin at 12.0°C (10.0°C + 2.0°C).	
<b>Range</b>			
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>
	0.5°C	20.0°C	2.0°C
05	P5 Parameter	Function: To set probe calibration.	
		To change P5 parameter, press the set key.	
		Use UP/DOWN keys to set desired value. In time it may be possible that the display may be offset by a degree or so. To compensate for this error, you may need to add or minus the degrees required to achieve the correct temperature.	
		<b>Example :</b> The temperature on the display is 28.0°C, whereas the actual temperature is 30.0°C. You will need to set this parameter to 2.0°C, which means that once out of the programming parameter, the display will show the temperature 30.0°C (28.0°C + 2.0°C).	
<b>Range</b>			
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>
	-10.0°C	10.0°C	0.0°C
06	P6 Parameter	Function : To set time delay between relay restart time.	
		To change P6 parameter, press the set key.	
		Use UP/DOWN keys to set desired value. This parameter is used to protect the fan from restarting in a short period of time and can be set between 0 to 20 minutes.	
		<b>Example :</b> If this parameter is set at 3 minutes, the compressor will cut off at the set temperature, but will not restart for a minimum of 3 minutes, even if the differential is achieved earlier. This	
<b>Range</b>			
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>
	1 Min	20 Min	3 Min

07

Description of parameters and functions.			
Sr. No.	Parameter	Parameter setting method	
07	P7 Parameter	parameter is good to protect the life of the compressor when there are power fluctuations and the compressor is switched off and on within a few seconds.	
		Function : To set duration of defrost.	
		To change the P7 Parameter, press the set key.	
		Use UP/DOWN keys to set desired value. This is maximum amount of time allowed for defrost. If set to 0, there will be no defrost cycle	
<b>Range</b>			
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>
	0 Min	99 Min	30 Min
		<b>Example :</b> If P7 is set to 30 Mins and P8 parameter is set to 1 Hr. then after every 1 Hr defrosting will take place for 30 mins. In defrosting Compressor , Evap Fan relay will be OFF.	
08	P8 Parameter	Function : To set defrost frequency.	
		To change the P8 Parameter, press the set key.	
		Use UP/DOWN keys to set desired value. This is the amount of time between two defrost cycles.	
		<b>Example :</b> same as P7 parameter.	
<b>Range</b>			
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>
	1 Hrs	31 Hrs	6 Hrs
09	P9 Parameter	Function : To set power on defrost delay.	
		To change the P9 Parameter parameter, press the set key.	
		Use UP/DOWN keys to set desired value. This is the amount of time at power on after which defrosting will take place once.	
		<b>Example :</b> If P9 parameter is 30 mins then at power after 30 mins defrosting will take place once.	
<b>Range</b>			
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>
	0 Min	99 Min	30 Min

08

Description of parameters and functions.				
Sr. No.	Parameter	Parameter setting method		
10	BUZ Parameter	Function: To enable or disable Buzzer.		
	To change BUZ parameter, press the set key.		Use UP/DOWN keys to set desired value.	
	<b>Range</b>			ENB : Buzzer Enabled. DIS : Buzzer Disabled.
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
DIS	ENB	ENB		
11	AL Parameter	Function: This parameter is given to enable/Disable Alarm Relay.		
	To change AL parameter, press the set key.		Use UP/DOWN keys to set desired value.	
	<b>Range</b>			ENB : Buzzer Enabled. DIS : Buzzer Disabled.
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
DIS	ENB	ENB		
12	ADT Parameter	<b>Function</b> : This parameter is used to set HT power on delay for alarm.		
	To change the ADT parameter, press the set key.		Use UP/DOWN keys to set desired value.	
	<b>Range</b>			<b>Example</b> : If you set this parameter to 20, once the power is switched on, the HT alarm will not activate for 20 minutes after the power is switched on. This is most useful to avoid the nuisance alarms when the ambients are high when the machine is switched on after a long time.
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
0 Min	99 Min	30 Min		
13	ADD Parameter	<b>Function</b> : This parameter is used for time delay to activate Alarm/Buzzer relay at Door Open.		
	To change the ADD parameter, press the set key.		Use UP/DOWN keys to set desired value.	
	<b>Range</b>			<b>Example</b> : This Parameter is set to 60 Sec & Door is open then Alarm/Buzzer will be ON after 60sec, if AL & BUZ parameters are enabled.
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
0 sec	600 sec	60 sec		

Description of parameters and functions.				
Sr. No.	Parameter	Parameter setting method		
14	THD Parameter	<b>Function</b> : This parameter is used to set duration for temperature hold at door open.		
	To change the THD parameter, press the set key.		Use UP/DOWN keys to set desired value.	
	<b>Range</b>			<b>Example</b> : This Parameter is set to 60sec, Room Temperature is -18.0°C & Door open condition occurs then Room Temp value -18.0°C at Door open condition will be hold for the 60sec, if Room Temperature is increasing. After over the Temperature hold duration display temperature will be increased by 0.1°C at every sec until it reaches current Room Temperature. If this parameter is set to 0, then this feature will be disabled.
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
0 sec	300 sec	0 sec		
15	UV Parameter	Function: To set under voltage limit.		
	To change UV parameter, press the set key.		Use UP/DOWN keys to set desired value.	
	<b>Range</b>			<b>Example</b> : If this parameter is set to 180V then if the voltage is less than 180V it will show UV fault on display and Compressor Relay will be OFF.
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
180V	(OV-10)V	180V		
16	OV Parameter	Function : To set over voltage limit.		
	To change the OV Parameter parameter, press the set key.		Use UP/DOWN keys to set desired value.	
	<b>Range</b>			<b>Example</b> : If this parameter is set to 240V then if the voltage is above than 240V it will show OV fault on display and Compressor Relay will be OFF.
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
(UV+5)V	260	240		

Description of parameters and functions.			
Sr. No.	Parameter	Parameter setting method	
17	V0 Parameter	Function : To set voltage differential.	
	To change the V0 Parameter parameter, press the set key.		Use UP/DOWN keys to set desired value. <b>Example</b> : If this parameter is set to 5V then for OV fault when voltage is grater than OV-5 then only this fault is cleared. For UV fault then when the voltage is greater than UV+5 then only UV fault will be cleared.
	<b>Range</b>		
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>
	5V	50V	5V
18	V1 Parameter	Function : To set time delay for voltage sensing.	
	To change the V1 Parameter parameter, press the set key.		Use UP/DOWN keys to set desired value. <b>Example</b> : If V1 parameter is 5, then if voltage fault condition occures and stays continuously for 5 sec then only fault is valid.
	<b>Range</b>		
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>
	5 Sec	30 Sec	5 Sec
19	UL Parameter	Function : To set Under current limit.	
	To change the UL Parameter parameter, press the set key.		Use UP/DOWN keys to set desired value. This parameter used to switch off the compressor incase it draws lower current than the set current. <b>Example</b> : If this parameter is set at 1.0A, the controller will trip compressor if it draws less than 1.0A. Controller will restart the compressor after the set time delay. If after 3 retries within 1hour, current drawn is still less than 1.0A, the controller will trip the compressor on fault and activate the respective alarm relay. Also display will flash "UL".
	<b>Range</b>		
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>
	0.0A	(OL-1.0)A	1.0A

Description of parameters and functions.			
Sr. No.	Parameter	Parameter setting method	
20	OL Parameter	Function : To set Over current limit.	
	To change the OL parameter, press the set key.		Use UP/DOWN keys to set desired value. This parameter used to switch off the compressor incase it draws higher current than the set current. <b>Example</b> : If this parameter is set at 10.0A, the controller will trip compressor if it draws more than 10.0A. Controller will restart the compressor after the set time delay. If after 3 retries within 1hour, current drawn is still more than 10.0A, the controller will trip the compressor on fault and activate the respective alarm relay. Also display will flash "OL".
	<b>Range</b>		
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>
	(UL+1.0)A	18.0A	10.0A
21	C2 Parameter	Function: To set Current sensing delay.	
	To change the C2 parameter, press the set key.		Use UP/DOWN keys to set desired value. <b>Example</b> : If C2 parameter is set to 5 Sec then, any current fault will be valid only when it exists for more than 5 sec.
	<b>Range</b>		
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>
	5 Sec	60 Sec	5 Sec
22	D0 Parameter	Function : To enable or Disable HP sensing.	
	To change the D0 parameter, press the set key.		Use UP/DOWN keys to set desired value. <b>Example</b> : If this parameter is set to ENB = HP sensing is enabled. DIS = HP sensing is disabled Setting this parameter to disable will ignore HP fault for compressor. If this parameter is set to Enable then controller will detect HP trip.
	<b>Range</b>		
	<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>
	DIS	ENB	ENB

Description of parameters and functions.												
Sr. No.	Parameter	Parameter setting method										
23	D1 Parameter	Function: To enable or disable LP sensing.										
		To change D1 parameter, press the set key.										
		<table border="1"> <thead> <tr> <th colspan="3">Range</th> </tr> <tr> <th>Min</th> <th>Max</th> <th>Fact. Set</th> </tr> </thead> <tbody> <tr> <td>DIS</td> <td>ENB</td> <td>ENB</td> </tr> </tbody> </table>		Range			Min	Max	Fact. Set	DIS	ENB	ENB
		Range										
Min	Max	Fact. Set										
DIS	ENB	ENB										
<p>Use UP/DOWN keys to set desired value.</p> <p><b>Example:</b>            If this parameter is set to ENB = LP sensing is enabled.            DIS = LP sensing is disabled.            Setting this parameter to disable will ignore LP fault for compressor. If this parameter is set to Enable then controller will detect LP trip.</p>												
24	D2 Parameter	Function: To set fault sensing logic.										
		To change D2 parameter, press the set key.										
		<table border="1"> <thead> <tr> <th colspan="3">Range</th> </tr> <tr> <th>Min</th> <th>Max</th> <th>Fact. Set</th> </tr> </thead> <tbody> <tr> <td>0V</td> <td>230V</td> <td>230V</td> </tr> </tbody> </table>		Range			Min	Max	Fact. Set	0V	230V	230V
		Range										
Min	Max	Fact. Set										
0V	230V	230V										
<p>Use UP/DOWN keys to set desired value.</p> <p>0v = 0V at HP/LP/AUX input will be sensed as fault and trip the compressor.            230V = 230V at HP/LP/AUX input will be sensed as fault and trip the compressor.</p>												
25	D3 Parameter	Function : To set LP sensing delay.										
		To change D3 parameter, press the set key.										
		<table border="1"> <thead> <tr> <th colspan="3">Range</th> </tr> <tr> <th>Min</th> <th>Max</th> <th>Fact. Set</th> </tr> </thead> <tbody> <tr> <td>0 Sec</td> <td>180 Sec</td> <td>30 Sec</td> </tr> </tbody> </table>		Range			Min	Max	Fact. Set	0 Sec	180 Sec	30 Sec
		Range										
Min	Max	Fact. Set										
0 Sec	180 Sec	30 Sec										
<p>Use UP/DOWN keys to set desired value.</p> <p><b>Example :</b> If this parameter is set at 30 seconds, the system will ignore low pressure alarm for 30 sec from compressor on. In this manner, a false alarm can be avoided due to low pressure at compressor start up.</p>												

Description of parameters and functions.												
Sr. No.	Parameter	Parameter setting method										
26	D4 Parameter	Function : To set reset mode for HP fault.										
		To change D4 parameter, press the set key.										
		<table border="1"> <thead> <tr> <th colspan="3">Range</th> </tr> <tr> <th>Min</th> <th>Max</th> <th>Fact. Set</th> </tr> </thead> <tbody> <tr> <td>MAN</td> <td>AUTO</td> <td>MAN</td> </tr> </tbody> </table>		Range			Min	Max	Fact. Set	MAN	AUTO	MAN
		Range										
Min	Max	Fact. Set										
MAN	AUTO	MAN										
<p>Use UP/DOWN keys to set desired value.</p> <p>MAN = Manual Mode            AUTO = Auto mode</p> <p>If this parameter set to "MAN" mode HP fault will be cleared only after pressing reset key for 2 seconds.            If this parameter is set to "AUTO" mode HP fault will be cleared automatically when it is healthy.</p>												
27	E1 Parameter	Function : To set Compressor Relay status on Probe Failure.										
		To change E1 parameter, press the set key.										
		<table border="1"> <thead> <tr> <th colspan="3">Range</th> </tr> <tr> <th>Min</th> <th>Max</th> <th>Fact. Set</th> </tr> </thead> <tbody> <tr> <td>ON</td> <td>OFF</td> <td>CYC</td> </tr> </tbody> </table>		Range			Min	Max	Fact. Set	ON	OFF	CYC
		Range										
Min	Max	Fact. Set										
ON	OFF	CYC										
<p>Use UP/DOWN keys to set desired value.</p> <p>When set to            ON = Relay will stay ON.            CYC = Relay performs a duty cycle of 10 minutes ON and 4 minutes OFF.            OFF = Relay will stay OFF.</p>												
28	E2 Parameter	Function : To set Evap fan status when compressor is OFF.										
		To change E2 parameter, press the set key.										
		<table border="1"> <thead> <tr> <th colspan="3">Range</th> </tr> <tr> <th>Min</th> <th>Max</th> <th>Fact. Set</th> </tr> </thead> <tbody> <tr> <td>OFF</td> <td>ON</td> <td>ON</td> </tr> </tbody> </table>		Range			Min	Max	Fact. Set	OFF	ON	ON
		Range										
Min	Max	Fact. Set										
OFF	ON	ON										
<p>Use UP/DOWN keys to set desired value.</p> <p>OFF = Evaporator Fan will stay OFF.            ON = Evaporator Fan will stay ON.            at compressor OFF condition.</p>												



Description of parameters and functions.			
Sr. No.	Parameter	Parameter setting method	
29	E3 Parameter	Function : To set Crankcase Heater operation when compressor is OFF.	
		To change E3 parameter, press the set key.	
	Use UP/DOWN keys to set desired value.		
	OFF = Crankcase Heater will stay OFF. ON = Crankcase Heater will stay ON. at compressor OFF condition.		
<b>Range</b>			
<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
OFF	ON	ON	
30	E4 Parameter	Function: To set EVAP Fan operation at door open.	
		To change E4 parameter, press the set key.	
	Use UP/DOWN keys to set desired value.		
	OFF = Evap Fan will stay OFF. ON = Evap Fan will stay ON. at door open condition.		
<b>Range</b>			
<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
OFF	ON	ON	
31	E7 Parameter	Function: To set Display at defrosting.	
		To change E7 parameter, press the SET key.	
	Use UP/DOWN keys to set desired value.		
	TEMP = At defrosting temperature will be displayed. DEFR = At Defrosting 'Defrost ON' will scroll.		
<b>Range</b>			
<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
TEMP	DEFR	TEMP	
32	LD Parameter	Function : To set time delay to switch off the light .	
		To change LD parameter, press the SET key.	
	Use UP/DOWN keys to set desired value.		
	This parameter is used set the time delay to automatically switch off the light. If LD is set to 0 then this parameter is disabled. <b>Example</b> : If this parameter is set to 7 mins then, when light is switched ON after 7 mins it will be switch OFF automatically.		
<b>Range</b>			
<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
0 Min	30 Min	7 Min	

Description of parameters and functions.			
Sr. No.	Parameter	Parameter setting method	
33	LSD Parameter	Function : This parameter is used to enable / disable light relay ON at door open.	
		To change LSD parameter, press the SET key.	
	Use UP/DOWN keys to set desired value.		
	If this parameter is set to Enable then whenever Door get open, the Light Relay will be ON.		
<b>Range</b>			
<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
DIS	ENB	DIS	
If this parameter is set to Disable then Light Relay will be ON/OFF functioning manually and as per LD parameter.			
34	PW Parameter	Function : To change password.	
		To change PW parameter, press the SET key.	
	Use UP/DOWN key to change password.		
	User can enter into program mode only if correct password is entered. If the password is wrong it will show 'INVALID PASSWORD'.		
<b>Range</b>			
<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
0	9999	0	
35	FS Parameter	Function : To restore default settings of the controller.	
		To change FS parameter, press the SET key.	
	Use UP/DOWN keys to set desired value.		
	When set to YES all parameters are programmed to factory values.		
<b>Range</b>			
<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
NO	YES	NO	
Useful to debug setting related problems.			
36	CRH Parameter	Function: Compressor run Hours.	
		To change CRH parameter, press the SET key.	
		It will display compressor run hours. It's a read only parameter.	

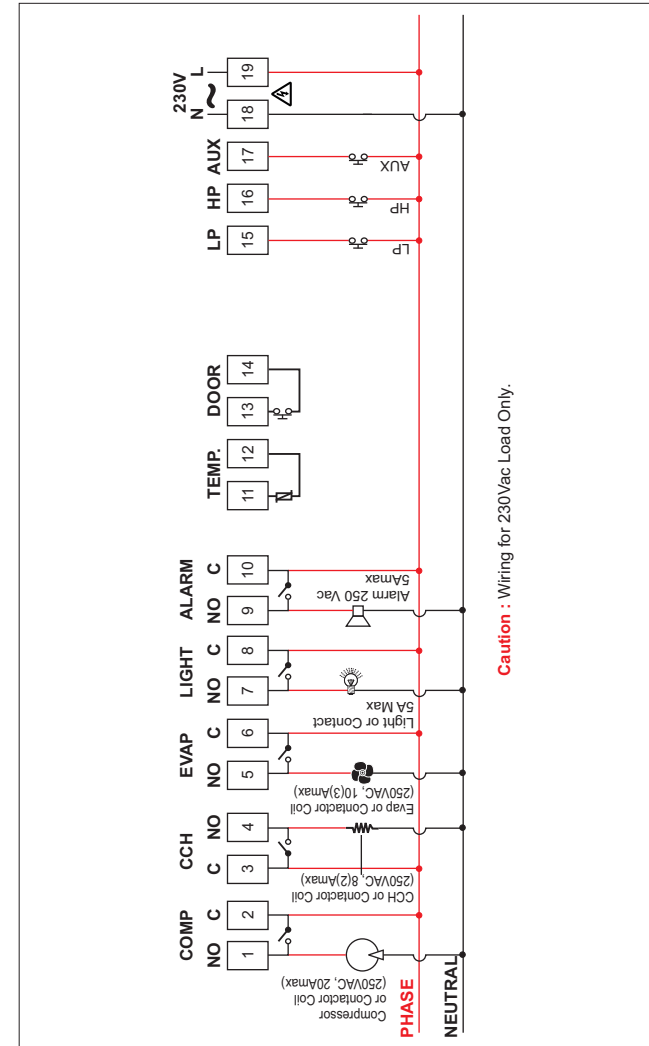
Description of parameters and functions.			
Sr. No.	Parameter	Parameter setting method	
37	CCRH	Function : Clear Compressor Run Hours.	
To change CCRH parameter, press the SET key.		If this parameter is set to 'YES' compressor run hours (CRH) are cleared.	
<b>Range</b>			
<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
NO	YES	NO	
38	CLOG	Function : Clear Clog fault log.	
To change CLOG parameter, press the SET key.		If this parameter is set to 'YES' Clog fault log are cleared.	
<b>Range</b>			
<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
NO	YES	NO	
39	KEYPAD LOCK	Function: To activate Keypad Lock.	
To change Keypad Lock parameter, press the set key.		This parameter can lock the keypad so that tempering is not possible by by-standers.	
<b>Range</b>			
<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
NO	YES	NO	
		NO - deactivates keypad lock. YES - activates keypad lock.	
		When locked all parameters can only be viewed, but not modified.	
40	ID Parameter	Function: To set Unit ID. (For CRC-1001-C only)	
To change Unit ID parameter, press the SET key.		This parameter is used to set the Unit ID of the device.	
<b>Range</b>			
<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
1	240	-	

Description of parameters and functions.			
Sr. No.	Parameter	Parameter setting method	
41	BD Parameter	Function : To change Baud Rate. (only for CRC-1001-C)	
To change the Baud Rate parameter, press the SET key.		Use Up/Down keys to set desired value.	
<b>Range</b>			
<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
9.6	38.4	-	
		Communication baud rate from 9600 to 38400 bps. 9.6 = 9600 bsp 19.2 = 19200 bsp 38.4 = 38400 bsp	
42	PO Parameter	Function : To enable/disable Power Switch.	
To change PO parameter, press the SET key.		Use UP/DOWN keys to get desired value & press SET key to confirm.	
<b>Range</b>			
<b>Min</b>	<b>Max</b>	<b>Fact. Set</b>	
DIS	ENB	DIS	
		DIS = Disable power switch ENB = Enables power switch	
		Controller has power switch, which if enable puts controller in active or stand by state. If press for 2 seconds controller will go in stand by mode, display will scroll message "STAND BY MODE". To again switch to ACTIVE WORKING MODE, press power switch again for 2 seconds.	
43	EP Parameter	Function: To end programming.	
To end programming parameter, press the set key.		Once the SET key is pressed, the control goes into the normal mode and displays the temperature and all settings are recorded.	

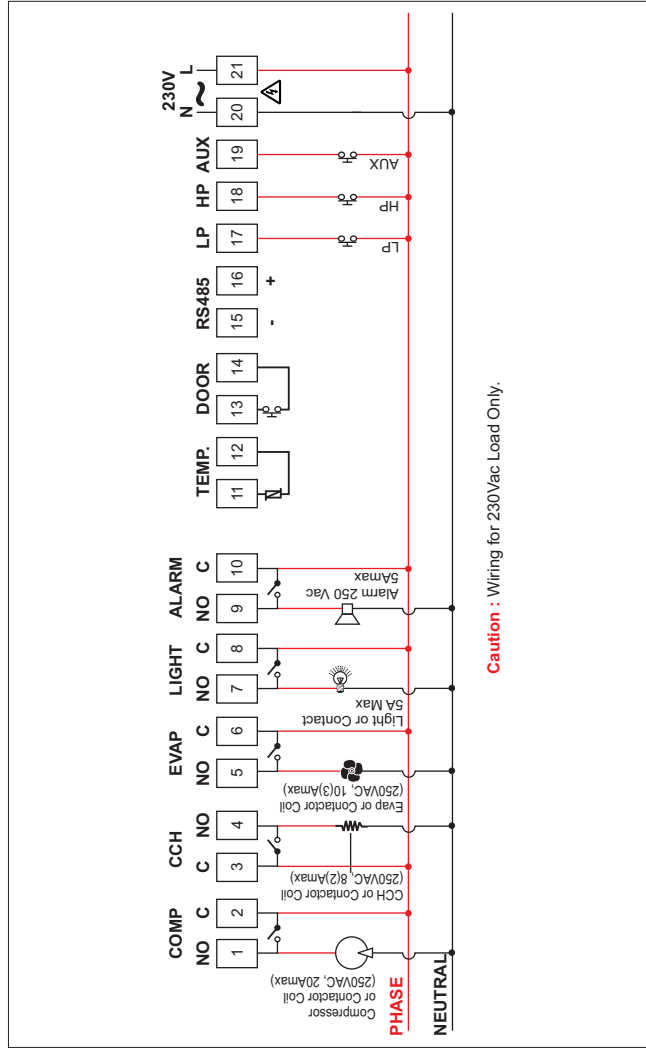
## Technical Data

<b>Housing</b>	: ABS Plastic.
<b>Front Cover</b>	: Red Polycarbonate plastic.
<b>Dimensions</b>	: Length 227mm, Width 200mm, Depth 93 mm
<b>Mounting</b>	: Panel/Wall mounting with screws.
<b>Connection</b>	: Screw terminal blocks. ≤ 2.5sq mm one wire/terminal only.
<b>Display</b>	: 0.56", 5X7 Dot Matrix LED display.
<b>Data Storage</b>	: Non-Volatile EEPROM Memory.
<b>Power Input (Options)</b>	: 230Vac +/-10%, 50-60Hz, Other on request.
<b>Operating Temp</b>	: 5°C to 50°C(non-condensing).
<b>Storage temp</b>	: -20°C to 70°C(non-condensing).
<b>Output</b>	:
Compressor Relay	: 20A/250Vac.
Evap Relay	: 10(3)A/250Vac.
Crankcase Heater	: 8(2)A/250Vac.
Light Relay	: 5A/250Vac.
Alarm Relay	: 5A/250Vac.
<b>Input</b>	: 1 NTC Probe.
<b>Range</b>	: -40.0°C to 50.0°C.
<b>Resolution</b>	: 0.1°C.
<b>Accuracy</b>	: +/-1°C.
<b>Probe Tolerance at 25°C</b>	: +/-0.3°C.
<b>Alarm (Buzzer)</b>	: SZ-B75. 10V,10mA.
<b>RS485 Connectivity</b>	: Modbus RTU Protocol
(for CRC-1001-C only)	Baud Rate : 9600 Settable, N, 8, 1 Device ID : 1 (By Default)

## Suggested Wiring Diagram for CRC-1001



## Suggested wiring Diagram for CRC-1001-C



## Controller

Controller should be installed in a place protected by vibration, water and corrosive gasses and where ambient temperature does not exceed the values specified in the technical data.

## Probe

To give a correct reading, the probe must be installed in a place protected from thermal influences, which may affect the temperature to be controlled.

## Caution

**WIRING :** The probe and its corresponding wires should never be installed in a conduit next to control or power supply lines. The electrical wiring should be done as shown in the diagram. The power supply circuit should be connected to a protection switch. The terminals admit wires of upto 2.5sq mm.

**WARNING :** Improper wiring may cause irreparable damage and personal injury. Kindly ensure that wiring is done by qualified personnel only.

**Maintenance :** Cleaning : Clean the surface of the controller with a soft moist cloth. Do not use abrasive detergents, petrol, alcohol or solvents.

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### Warranty

This product is warranted against defects in materials and workmanship for a period of one year from the date of purchase. During the warranty period, product determined by us to be defective in form or function will be repaired or, at our option, replaced at no charge. This warranty does not apply if the product has been damaged by accident, abuse, and misuse or as a result of service or modification other than by the company. This warranty is in lieu of any other warranty expressed or implied. In no event shall the company be held liable for incidental or consequential damages, such as lost revenue or lost business opportunity arising from the purchase of this product.

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## OUR OTHER PRODUCTS



INDIA

Cold Room Controller  
Chiller Controller  
Two Compressors Controller  
Heating Controller  
Humidity Controller  
Pressure Controller



Ball Valves  
Globe Valves  
Hand Valves  
Flow Switches  
Solenoid Valves