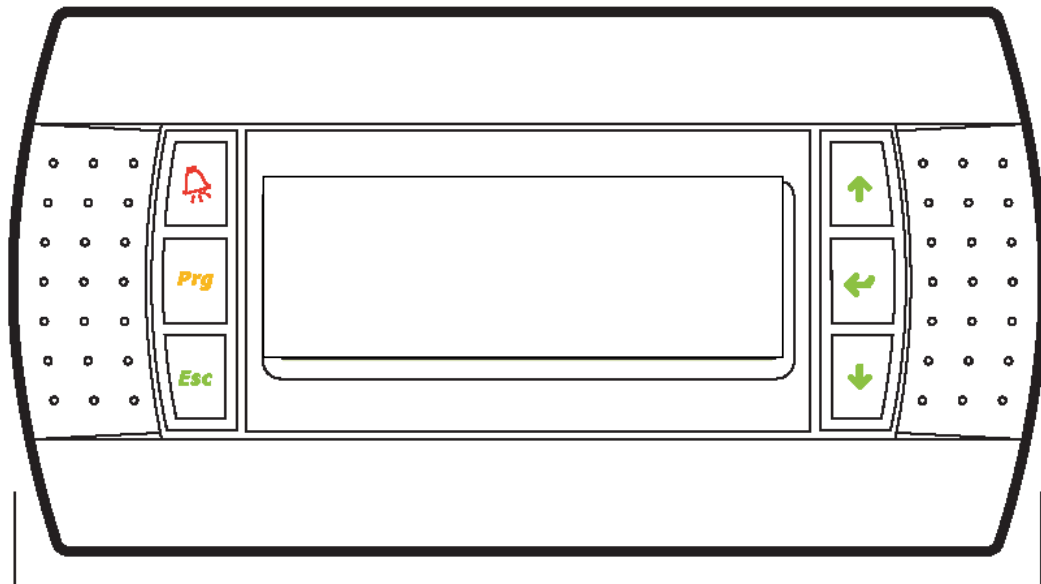


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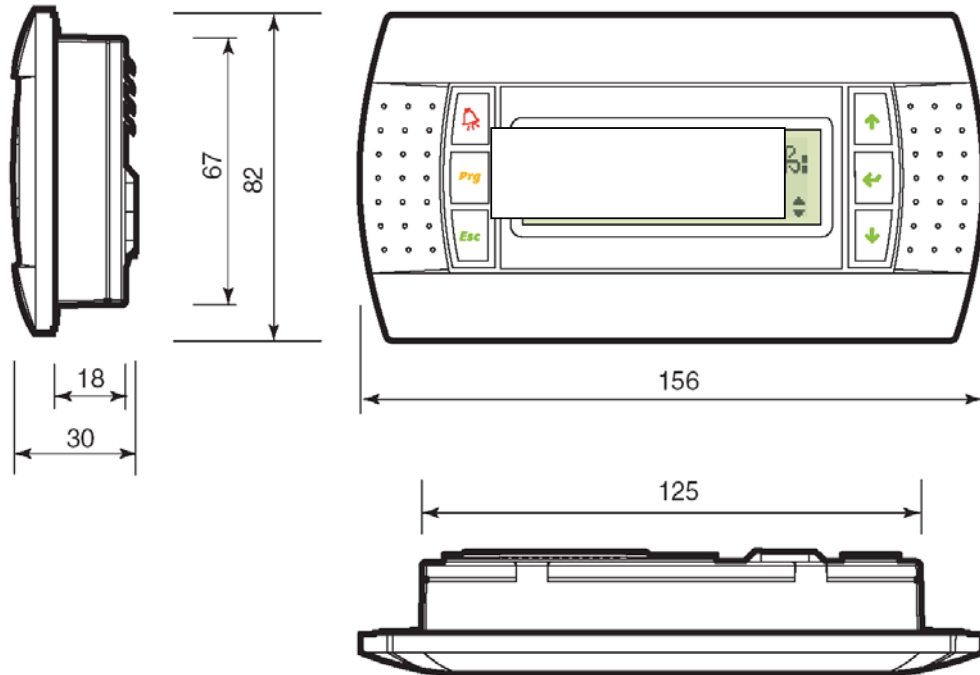
UNITS WITH PGD DISPLAY



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## PGD DISPLAY



+



**Turning the unit On/Off :** Pressing the “ESC” & the “Enter / Return” arrow buttons together turns on and off the unit at the display. Pressing the up arrow button followed by the “Enter / Return” arrow button also turns unit on/off. Follow on screen instruction.



**Alarm button:** By pressing this button you can display the alarm that has occurred & reset it manually. When the red led indicator lights up, at least one alarm condition has occurred. If there are multiple alarms then using the arrow “up” & “down” buttons lets you scroll through them.



**Up arrow button:** Displays the program windows and allows the user to set the value of the control parameter



**Down arrow button:** Displays the program windows and allows the user to set the value of the control parameter. In default menu, pressing down arrow button displays unit operating mode.



**Enter / Return arrow button:** Confirms the set data.



**Escape button:** By pressing this button, you go back one level from where you are.



**Program button:** By pressing this button, you get a range of sub-menu's.



## **PROGRAM BUTTON**

Pressing the “**Prg**” button brings up a screen with various sub-menu’s some which are password protected. Sub-menu’s are as follows:

**MAINTENANCE**  
**PRINTER – NOT AVAILABLE**  
**INPUT / OUTPUT**  
**CLOCK**  
**SETPOINT**  
**USER**  
**MANUFACTURER**  
**VERSION**

Sections on Setpoint & Version are self explanatory. The Printer is not available on these units.

The sections reviewed here are **MANUFACTURER, USER, MAINTENANCE, INPUT / OUTPUT & CLOCK.**

There is also an Alarm list included at the end of this manual.

## **MANUFACTURER SECTION**

The screens below appears when the “**Prg**” button is pressed & using the arrow up & arrow down buttons until you get to **MANUFACTURER**. This section is password protected and the relevant password is required for access to some screens. To enter the password the “**up**” and “**down**” & “**enter**” arrow keys are used.

The manufacturer’s part of the program is subdivided into 4 distinct sections as outlined below. Each section will be examined separately. Sections are:

**UNIT CONFIGURATION.**  
**PARAMETERS.**  
**TIMING.**  
**UNIT INITIALISATION.**



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## UNIT CONFIGURATION – SUBSECTION.

TABLE NO. 1

<b>Screen Ref – 1</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Printer	N/A	N	Not Applicable & Option Not Available
Supervisor	Y/N	See Note	If a Supervisor is connected to the unit
Select Temp C/F	C/F	C	Degrees Fahrenheit or Centigrade
Humidifier	Y/N	Y	For Units With Humidifier
<b>Screen Ref – 2</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Enable Humidity Probe	Y/N	Y	For Units With Humidifier
Select Probe Type	See Note	0-1 V	Always 0-1V. 0-10V & 4-20mA Options in Special Cases
<b>Screen Ref – 3</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Select Room Temp Probe Type	See Note	NTC	Sensor is always NTC. PT 1000 in special cases
<b>Screen Ref – 4</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Enable Supply Air Probe	Y/N	See Note	Only for units with this option. NTC or PT 1000 if used
Select Supply Air Probe Type	See Note	See Note	Only for units with this option. NTC or PT 1000 if used
<b>Screen Ref – 5</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Enable Water Entering Probe	Y/N	See Note	For CW or units with Freecooling. Probe type is NTC
Select Water Entering Probe	See Note	See Note	For CW or units with Freecooling. Probe type is NTC
<b>Screen Ref – 6</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Enable Water Leaving Probe	Y/N	See Note	For CW or units with Freecooling. Probe type is NTC
Select Water Leaving Probe	See Note	See Note	For CW or units with Freecooling. Probe type is NTC
<b>Screen Ref – 7</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Enable External Air Probe	Y/N	See Note	Only for units with this option. NTC or PT 1000 if used
Select External Air Probe Type	See Note	See Note	Only for units with this option. NTC or PT 1000 if used
<b>Screen Ref – 8</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Enable Freecooling	Y/N	See Note	For units with Freecooling.
Freecooling Type	W/A	See Note	Depends on Freecooling Type. W=Water & A= Ext. Air
<b>Screen Ref – 9</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Freecooling by AO	Y/N	See Note	For units with Freecooling. Activates Analog Output
<b>Screen Ref – 10</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
No. of Units in Local Network	000	See Note	For Local Network of up to 16 Units
<b>Screen Ref – 11</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Heaters No.	0/1/2	See Note	If Unit has heaters & number of stages
Compressors No.	0/1/2	See Note	If Unit has compressors & number of compressors
<b>Screen Ref – 12</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Cooling Valve	Y/N	See Note	Depends if Unit Has Cooling Valve
Heating Valve	Y/N	See Note	Depends if Unit Has Heating Valve
<b>Screen Ref – 13</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Condensate Pump Alarm Input	N/C N/O	See Note	Depends on Condensate Pump Type & Alarm Output

### Notes

1. On units with pCO XS microprocessor board Screen Ref – 13 is user selectable for filter clog or condensable pump.



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## PARAMETERS – SUBSECTION.

TABLE NO. 2

<b>Screen Ref – 1</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Compressors with Freecooling	Y/N	See Note	For units with Freecooling. Can be with or without.
<b>Screen Ref – 2</b>			
Rotation of Compressors	Y/N	Y	Compressor Operation is Rotated for Equal Wear
Compressors for Dehumidification.	0/1/2	1	Normally only 1 Compressor set for Dehumidification
Regulation Type	P / P+I	P	Can be set as P+I to add an Integration Time
<b>Screen Ref – 3</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Compressor 1 without Freecooling			
Set	000.0%	025.0%	Defines Operation Point of Compressor 1
Hysteresis	000.0%	025.0%	Defines Operation Point of Compressor 1
<b>Screen Ref – 4</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Compressor 2 without Freecooling			
Set	000.0%	075.0%	Defines Operation Point of Compressor 2
Hysteresis	000.0%	025.0%	Defines Operation Point of Compressor 2
<b>Screen Ref – 5</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Compressor 1 with Freecooling			
Set	000.0%	050.0%	Defines Operation Point of Compressor 1 in Freecooling
Hysteresis	000.0%	016.0%	Defines Operation Point of Compressor 1 in Freecooling
<b>Screen Ref – 6</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Compressor 2 with Freecooling			
Set	000.0%	083.3%	Defines Operation Point of Compressor 2 in Freecooling
Hysteresis	000.0%	016.6%	Defines Operation Point of Compressor 2 in Freecooling
<b>Screen Ref – 7</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Step Heater 1 Set	000.0%	025.0%	Defines Operation Point of Heater 1
Step Heater 1 Hysteresis	000.0%	025.0%	Defines Operation Point of Heater 1
<b>Screen Ref – 8</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Step Heater 2 Set	000.0%	050.0%	Defines Operation Point of Heater 2
Step Heater 2 Hysteresis	000.0%	025.0%	Defines Operation Point of Heater 2
<b>Screen Ref – 9</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Cool Valve 0-10V			
Start	0.00%	0.00%	If Cooling Valve Installed
Stop	100.00%	100.00%	If Cooling Valve Installed
<b>Screen Ref – 10</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Dehumidification with CW Valve	Y/N	See Note	Set as Y if Cooling Valve Installed
<b>Screen Ref – 11</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Heat Valve 0-10V			
Start	0.00%	0.00%	If Heating Valve Installed
Stop	100.00%	100.00%	If Heating Valve Installed
<b>Screen Ref – 12</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Damper/Valve Freecooling Start	000.0%	000.0%	Defines Starting Valve Position
Damper/Valve Freecooling Stop	000.0%	100.0%	Defines Stopping Valve Position



TABLE NO. 2 CONTINUED

<b>Screen Ref – 13</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Step Dehumidification Set	000.0%	050.0%	Defines Operation Point of Dehumidification
Step Dehumidification Hysteresis	000.0%	050.0%	Defines Operation Point of Dehumidification
<b>Screen Ref – 14</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Low Temp Limit Stop Dehum			
Set	000.0%	060.0%	Low Temp Point where Dehum is enabled / disabled
Hysteresis	000.0%	035.0%	Low Temp Point where Dehum is enabled / disabled
<b>Screen Ref – 15</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Humidifier	See Note	See Note	Humidifier Size. xx kg/hr depending on Unit
Voltage	See Note	See Note	Based on Unit Voltage
Phases Number	3	3	Always 3 Phase Power
Tam Model	100	100	Always a Tam 100 Transformer
<b>Screen Ref – 16</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Enable drain with voltage	Y/N	N	Humidifier cannot drain when live
Parameter C0	See Note	See Note	Set at factory, do not adjust
Parameter C1	See Note	See Note	Set at factory, do not adjust
<b>Screen Ref – 17</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Supervisor Comms Speed	See Note	See Note	From 1,200 – 19,200 bps
<b>Screen Ref – 18</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Room Humidity Start	000.0%	010.0%	Default settings for reading Humidity Sensor
Room Humidity Stop	000.0%	090.0%	Default settings for reading Humidity Sensor
<b>Screen Ref – 19</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Erase Alarm History	Y/N	N	Erases Alarm History
<b>Screen Ref – 20</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Local Network Mode	See Note	See Note	Master Control or Rotate by Time or Alarms
<b>Screen Ref – 21</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Units in Standby	000	See Note	Assigns No. of Units in Standby
Reset Sequence	Y/N	See Note	Resets the Rotation Sequence
<b>Screen Ref – 22</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Hours/Minutes	Hour/Min	See Note	Select Hours or Minutes
Rotation Time	000	See Note	Can be set up to 500
<b>Screen Ref – 23</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Force Unit in Standby Mode	Y/N	See Note	Makes Standby Units Available
Delay Time Low Temperature	000m	003m	Time Delay to Start Standby Units Low Temperature
Delay Time High Temperature	000m	003m	Time Delay to Start Standby Units High Temperature



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Table No. 2 CONTINUED

<b>Screen Ref – 24</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Low Temperature Offset	00.0 C	04.0 C	Starts Standby Units 4 C below Setpoint
Low Temperature Differential	00.0 C	03.0 C	Stops Standby Units 3 C below Setpoint
<b>Screen Ref – 25</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
High Temperature Offset	00.0 C	04.0 C	Starts Standby Units 4 C above Setpoint
High Temperature Differential	00.0 C	03.0 C	Stops Standby Units 3 C above Setpoint

**TIMING – SUBSECTION.**

TABLE NO. 3

<b>Screen Ref -1</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Time delay switching main fan on.	0000 Sec	0001 Sec	Main fan start up delay time.
Time delay switching main fan off.	0000 Sec	0020 Sec	Main fan off delay time.
<b>Screen Ref -2</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Integral time (only P+I Control)	0000 Sec	0600 Sec	Integration time for P+I control.
Delay Loss of Flow Alarm	0000 Sec	0010 Sec	Loss of Water Flow Alarm Delay
<b>Screen Ref -3</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Low pressure alarm delay time.	0000 Sec	0180 Sec	Low pressure alarm override time
Temp/Hum alarm delay time.	0000 Sec	0600 Sec	Temperature & Humidity Alarm Time Delays
<b>Screen Ref -4</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Delay Alarm – Air Flow	0000 Sec	0010 Sec	Air Flow Alarm time Delay
<b>Screen Ref -5</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Delay Serious Alarm	0000 Sec	0000 Sec	Serious Alarm Time Delay
Delay Non-Serious Alarm	0000 Sec	0000 Sec	Non Serious Alarm Time Delay
<b>Screen Ref – 6</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Compressor Min Off Time	0000 Sec	0180 Sec	Defines Minimum Compressor on Time
Compressor Min On Time	0000 Sec	0060 Sec	Defines Minimum Compressor off Time
<b>Screen Ref – 7</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Winter Start LP Override Delay	0000 Sec	0180 Sec	LP Switch time delay for Winter Start
<b>Screen Ref – 8</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Start Delay Same Compressor	0000 Sec	0360 Sec	Defines Start Delay of the Same Compressor
Compressor Inter Stage Delay	0000 Sec	0010 Sec	Defines an Inter Stage Delay for Twin Compressors
<b>Screen Ref – 9</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Heater Inter Stage Delay	0000 Sec	0003 Sec	Heater Inter Stage Delay



## UNIT INITIALISATION – SUBSECTION

**TABLE NO. 4**

<b>Screen Ref – 1</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Press Enter Key to insert default values	N/A	N/A	Pressing the enter key will insert default values
<b>Screen Ref – 2</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
New Manufacturers Password	0000	N/A	Allows Manufacturers Password to be changed

### Notes

1. Great care must be exercised in this section as using this will reload the factory settings but the unit must then be re-configured to reflect the installed options. Default DX unit is a single circuit DX unit with 2 stage heating & Default CW unit is a CW unit with 0-10V valve with 2 stage heating .

## USER SECTION

The screens below appears when the “**Prg**” button is pressed & using the arrow up & arrow down buttons until you get to **USER**. This section is password protected and the relevant password is required for access to some screens. To enter the password the “**up**” and “**down**” & “**enter**” arrow keys are used.

**TABLE NO. 5**

<b>Screen Ref – 1</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Enable On/Off Keyboard	Y/N	Y	Enables/Disables On/Off at Display
<b>Screen Ref – 2</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Temperature setpoint limits			
Minimum.	00.0 C	16.0 C	Minimum allowable temperature setpoint value entered.
Maximum.	00.0 C	26.0 C	Maximum allowable temperature setpoint value entered.
<b>Screen Ref – 3</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Humidity setpoint limits			
Minimum.	000.0 %	35.0%	Minimum allowable humidity setpoint value entered.
Maximum.	000.0 %	65.0%	Maximum allowable humidity setpoint value entered.
<b>Screen Ref – 4</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Temperature - Cooling Band	00.0 C	See Note	02.0 C DX Units & 01.7 C CW & Freecooling Units
Temperature - Heating Band	00.0 C	See Note	02.0 C DX Units & 01.7 C CW & Freecooling Units
Temperature - Neutral Zone	00.0 C	See Note	00.0 C DX Units & 00.3 C CW & Freecooling Units
<b>Screen Ref – 5</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Dehumidification Valve Limit	0.00V	See Note	Default is 10.00V
<b>Screen Ref – 6</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Humidity Control Band	00.0%	04.0%	Control Humidity Band – Humidification
Humidifier Output Limit	00.0Kg/hr	See Note	Depends on size of unit.
<b>Screen Ref – 7</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Auto Restart after Power Failure	Y/N	Y	Allows Unit to be switched off after Power Failure
Enable Remote on/off	Y/N	Y	Enables remote on/off shutdown facility.



TABLE NO. 5 CONTINUED

<b>Screen Ref – 8</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Freecooling Offset	00.0 C	5.0 or 14.0 C	See notes at end of this table
Differential Start Freecooling	00.0 C	00.5 C	Diff in Water Temps above start to stop Freecooling
<b>Screen Ref – 9</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Force Analogue Output Y4	Y/N	N	To Force Analogue Output Y4
Output Voltage	00.0V	10.0V	Can be set from 00.0V to 10.0V
<b>Screen Ref – 10</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Temperature Alarm - Low Offset	00.0 C	6.0 C	Room low temperature alarm offset from setpoint.
Temperature Alarm - High Offset	00.0 C	6.0 C	Room high temperature alarm offset from setpoint.
<b>Screen Ref – 11</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Humidity Alarm - Low Offset	000.0 %	020.0 %	Room low humidity alarm offset from setpoint.
Humidity Alarm - High Offset	000.0 %	020.0 %	Room high humidity alarm offset from setpoint.
<b>Screen Ref – 12</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Temp Alarm Entering Water Low	00.0 C	-5.0 C	Entering Water Low Temp Alarm Threshold
Temp Alarm Entering Water High	00.0 C	45.0 C	Entering Water High Temp Alarm Threshold
<b>Screen Ref – 13</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Temp Alarm Leaving Water Low	00.0 C	-5.0 C	Leaving Water Low Temp Alarm Threshold
Temp Alarm Leaving Water High	00.0 C	45.0 C	Leaving Water High Temp Alarm Threshold
<b>Screen Ref – 14</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Supply Air Temp Limit Enable	Y/N	See Note	If Supply Air Limit Temperature Sensor Fitted
Setpoint	00.0 C	15.0 C	If Supply Air Limit Temperature Sensor Fitted
Offset	00.0 C	05.0 C	If Supply Air Limit Temperature Sensor Fitted
<b>Screen Ref – 15</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Select Alarm Type	See Note	See Note	S=Serious & N=Non-serious. For Alarms : 1-18
<b>Screen Ref – 16</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Select Alarm Type	See Note	See Note	S=Serious & N=Non-serious. For Alarms : 19-36
<b>Screen Ref – 17</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Identification number for BMS	000	N/A	If connected to a Supervisor, unit must be addressed.
Protocol Type	See Note	See Note	Carel or Modbus or LON.
<b>Screen Ref – 18</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
New user password	0000	N/A	Enter new user defined user password.

Notes

1. If Freecooling unit is selected as Freecooling with Compressors (Parameters Screen 1) then Freecooling will be enabled when the water is 5.0 C below the Return Air Temperature.
2. If Freecooling unit is selected as Freecooling without Compressors (Parameters Screen 1) then Freecooling will be enabled when the water is 14.0 C below the Return Air Temperature.
3. Values noted in notes 1 & 2 are user adjustable.



### MAINTENANCE SECTION

The screens below appears when the “Prg” button is pressed & using the arrow up & arrow down buttons until you get to **MAINTENANCE**. This section is password protected and the relevant password is required for access to some screens. To enter the password the “up” and “down” & “enter” arrow keys are used.

TABLE NO. 6

<b>Screen Ref -1</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Run Hours Fan	0000	N/A	Gives Fan Run Hours
Run Hours Compressor 1	0000	N/A	Gives Compressor 1 Run Hours
Run Hours Compressor 2	0000	N/A	Gives Compressor 2 Run Hours
<b>Screen Ref -2</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Run Hours Heater 1	0000	N/A	Gives Humidifier Run Hours
Run Hours Heater 2	0000	N/A	Gives Dehumidification Run Hours
<b>Screen Ref -3</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Run Hours Humidifier	0000	N/A	Gives Heater 1 Run Hours
Run Hours Dehumidify	0000	N/A	Gives Heater 2 Run Hours
<b>Screen Ref -4</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Run Hours Freecooling	0000	N/A	Gives Freecooling Run Hours
<b>Screen Ref -5</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Alarm History	N/A	N/A	Press Alarm Button to view Alarm History
<b>Screen Ref -6</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Password	0000	0000	Password Required
<b>Screen Ref -7</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Fan Hours Alarm Threshold	000 x 000	200 x 1000	Fan Run Hours Alarm Threshold
Reset	000000	N/A	Reset of Run Hours Fan
<b>Screen Ref -8</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Comp 1 Hours Alarm Threshold	00 x 000	100 x 1000	Compressor 1 Run Hours Alarm Threshold
Reset	000000	N/A	Reset of Run Hours Compressor 1
<b>Screen Ref - 9</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Comp 2 Hours Alarm Threshold	00 x 000	100 x 1000	Compressor 2 Run Hours Alarm Threshold
Reset	000000	N/A	Reset of Run Hours Compressor 1
<b>Screen Ref - 10</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Heater 1 Hours Reset	Y/N	N	Heater 1 Run Hours Reset
Heater 2 Hours Reset	Y/N	N	Heater 2 Run Hours Reset
<b>Screen Ref - 11</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Humidifier Hrs Reset	Y/N	N	Humidifier Run Hours Reset
Dehum. Hours Reset	Y/N	N	Dehumidification Run Hours Reset
<b>Screen Ref - 12</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Freecooling Hours Reset	Y/N	N	Freecooling Run Hours Reset
Reset	Y/N	N	Reset of Run Hours Heater 1 & 2



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<b>Screen Ref –13</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Sensor Offset – Return Air Temp	+/-9.9 C	00.0 C	Allows Sensor Recalibration. +/- 9.9 C Available
Sensor Offset – Humidity	+/-9.9 %	0.0%	Allows Sensor Recalibration. +/- 9.9 % Available
<b>Screen Ref –14</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Sensor Offset – Supply Air Temp	+/-9.9 C	00.0 C	Allows Sensor Recalibration. +/- 9.9 C Available
Sensor Offset – Enter Water Temp	+/-9.9 C	00.0 C	Allows Sensor Recalibration. +/- 9.9 C Available
<b>Screen Ref – 15</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Sensor Offset – External Air Temp	+/-9.9 C	00.0 C	Allows Sensor Recalibration. +/- 9.9 C Available
Sensor Offset – Leaving Water	+/-9.9 C	00.0 C	Allows Sensor Recalibration. +/- 9.9 C Available
<b>Screen Ref –16</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Man Procedure – Fan (Master)	Y/N	N	Allows Manual Running of Fan ( Master Fan)
Man Procedure – Fan (Slave)	Y/N	N	Allows Manual Running of Fan ( Slave Fan )
<b>Screen Ref –17</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Man Procedure – Heater 1	Y/N	N	Allows Manual Running of Heater 1
Man Procedure – Heater 2	Y/N	N	Allows Manual Running of Heater 2
<b>Screen Ref –18</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Man Procedure – Alarm NS	Y/N	N	Allows proving of Non Serious Alarm Output
Man Procedure – Alarm S	Y/N	N	Allows proving of Serious Alarm Output
<b>Screen Ref –19</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Man Procedure – Compressor 1	Y/N	N	Allows Manual Running of Compressor 1
Man Procedure – Compressor 2	Y/N	N	Allows Manual Running of Compressor 2
<b>Screen Ref –20</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Man Procedure – AOUT 1	0.00V	0.00V	Allows Manual Setting of Analogue Output 1
Man Procedure – AOUT 2	0.00V	0.00V	Allows Manual Setting of Analogue Output 2
<b>Screen Ref –21</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Man Procedure – AOUT 3	0.00V	0.00V	Allows Manual Setting of Analogue Output 3
Man Procedure – AOUT 4	0.00V	0.00V	Allows Manual Setting of Analogue Output 4
<b>Screen Ref –22</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Humidifier			
Auto Drain Enable	Y/N	N	To enable automatic humidifier drain
Drain Interval	00Hr	05Hr	From 00 to 10Hr
Drain Length	000Sec	120Sec	From 000 to 240Sec
<b>Screen Ref –23</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Disable Humidifier	Y/N	N	Allows Disabling of Humidifier
Manual Drain	Y/N	N	Allows Manual Humidifier Drain of 120 Seconds

Notes :

1. With unit on/off set as off, screens 16 – 21 are available for manual enable of all analogue & digital outputs.



## INPUTS / OUTPUTS SECTION

The screens below appears when the “Prg” button is pressed & using the arrow up & arrow down buttons until you get to **INPUTS / OUTPUTS**. This section is not password protected.

TABLE NO. 7

<b>Screen Ref -1</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Analog Input Return Air Temp	N/A	N/A	Active Readout of I/O
Analog Input Return Air Humidity.	N/A	N/A	Active Readout of I/O
<b>Screen Ref -2</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Analog Input Supply Air Temp	N/A	N/A	Active Readout of I/O
Analog Input Entering Water Temp	N/A	N/A	Active Readout of I/O
Analog Input Leaving Water Temp	N/A	N/A	Active Readout of I/O
<b>Screen Ref -3</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Analog Input External Air	N/A	N/A	Active Readout of I/O
<b>Screen Ref -4</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Digital Inputs	N/A	N/A	Active Readout of I/O
<b>Screen Ref -5</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Analog Output – Cool Valve	N/A	N/A	Active Readout of I/O
Analog Output – Heat Valve	N/A	N/A	Active Readout of I/O
<b>Screen Ref -6</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Analog Outputs – Freecool Valve	N/A	N/A	Active Readout of I/O
<b>Screen Ref – 7</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Digital Outputs	N/A	N/A	Active Readout of I/O
<b>Screen Ref – 8</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Humidifier Contactor	N/A	N/A	On or Off
Humidifier Fill Valve	N/A	N/A	On or Off
Humidifier Drain Valve	N/A	N/A	On or Off
<b>Screen Ref – 9</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Humidifier Measured Current	N/A	N/A	Active Readout of Current
Humidifier Target Current	N/A	N/A	Active Readout of Current
Humidifier Nominal Current	N/A	N/A	Active Readout of Current
<b>Screen Ref – 10</b>			
<b>TEXT</b>	<b>OPTION</b>	<b>FACTORY SET</b>	<b>DESCRIPTION</b>
Humidifier Water Level	N/A	N/A	Normal, High
Humidifier Electrical Conductivity	N/A	N/A	xxxx microsiemens
Humidifier Production	N/A	N/A	xx.x Kg/Hr
<b>Screen Ref – 11</b>			
Humidifier Cylinder Worn	N/A	N/A	Yes or No
Humidifier Cylinder Mode	N/A	N/A	Start, Run, Full, Foam, Low Current & High Current
Humidifier Cylinder Status	N/A	N/A	Evaporating, Draining, Filling



### CLOCK SECTION

The screens below appears when the “Prg” button is pressed & using the arrow up & arrow down buttons until you get to **CLOCK**. This section is password protected and the relevant password is required for access to some screens. To enter the password the “up” and “down” & “enter” arrow keys are used.

TABLE NO. 8

<b>Screen Ref -1</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Regulation Clock - Hour	See Note	See Note	Sets Clock Hours & Minutes
Regulation Clock - Date	See Note	See Note	Sets Clock Date in format MM/DD/YY
Regulation Clock - Day	See Note	See Note	Mo, Tu, We, Th, Fr, Sa, Su
<b>Screen Ref -2</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Clock Password	0000	0000	Password Required
<b>Screen Ref -3</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Auto Temp Set Point Variation	Y/N	N	Enables Automatic Temperature Set Point Variation
<b>Screen Ref -4</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Time Zone N. 1 – Start Hour	00.00	00.00	Time Zone No. 1 Temperature Set Point Start Hour
Temperature Set Point	00.0 C	00.0 C	Time Zone No. 1 Temperature Set Point
<b>Screen Ref -5</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Time Zone N. 2 – Start Hour	00.00	00.00	Time Zone No. 2 Temperature Set Point Start Hour
Temperature Set Point	00.0 C	00.0 C	Time Zone No. 2 Temperature Set Point
<b>Screen Ref -6</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Time Zone N. 3 – Start Hour	00.00	00.00	Time Zone No. 3 Temperature Set Point Start Hour
Temperature Set Point	00.0 C	00.0 C	Time Zone No. 3 Temperature Set Point
<b>Screen Ref – 7</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Time Zone N. 4 – Start Hour	00.00	00.00	Time Zone No. 4 Temperature Set Point Start Hour
Temperature Set Point	00.0 C	00.0 C	Time Zone No. 4 Temperature Set Point
<b>Screen Ref – 8</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Auto Humidity Set Point Variation	Y/N	N	Enables Automatic Humidity Set Point Variation
<b>Screen Ref – 9</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Time Zone N. 1 – Start Hour	00.00	00.00	Time Zone No. 1 Humidity Set Point Start Hour
Humidity Set Point	00.0 %	00.0 %	Time Zone No. 1 Humidity Set Point
<b>Screen Ref – 10</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Time Zone N. 2 – Start Hour	00.00	00.00	Time Zone No. 2 Humidity Set Point Start Hour
Humidity Set Point	00.0 %	00.0 %	Time Zone No. 2 Humidity Set Point
<b>Screen Ref – 11</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Time Zone N. 3 – Start Hour	00.00	00.00	Time Zone No. 3 Humidity Set Point Start Hour
Humidity Set Point	00.0 %	00.0 %	Time Zone No. 3 Humidity Set Point
<b>Screen Ref – 12</b>			
TEXT	OPTION	FACTORY SET	DESCRIPTION
Time Zone N. 4 – Start Hour	00.00	00.00	Time Zone No. 4 Humidity Set Point Start Hour
Humidity Set Point	00.0 %	00.0 %	Time Zone No. 4 Humidity Set Point



### ALARMS SECTION

Notes :

1. Please note that the ALARMS generated will depend on the unit type & configuration.
2. All alarms can be set as Serious or Non-Serious in the user section of the controller. All serious alarms will shut down the unit
3. A05 & A09 are deemed Serious alarms by default. This can be changed by the user.
4. A06 is deemed non serious by default to keep a slave module of a duplex unit in the event of a master air flow alarm only
5. A35 & A 08 will always disable the Humidifier whether set as Serious or Non-Serious
6. There may also be some additional alarms which are order specific.

#### ALARM LIST

AL 01	Compressor 1 HP / Thermal Overload
AL 02	Compressor 2 HP / Thermal Overload
AL 03	Compressor 1 LP
AL 04	Compressor 2 LP
AL 05	Air Flow Alarm (Serious Alarm)
AL 06	Air Flow Alarm – Slave (Serious Alarm)
AL 07	Alarm Electric Reheat High Temp Trip
AL 08	Condensate Pump / High Water Level
AL 09	Smoke/Fire (Serious Alarm)
AL 10	Alarm Air Filter
AL 11	High Temperature Alarm
AL 12	Low Temperature Alarm
AL 13	High Humidity Alarm
AL 14	Low Humidity Alarm
AL 15	High Entering Water Temperature
AL 16	Low Entering Water Temperature
AL 17	Compressor 1 Run Hours
AL 18	Compressor 2 Run Hours
AL 19	Fan Run Hours
AL 20	Return Air Temperature Probe Fault Or Offline
AL 21	Entering Water Temperature Probe Fault Or Offline
AL 22	External Air Temperature Probe Fault Or Offline
AL 23	Supply Air Temperature Probe Fault Or Offline
AL 24	Return Air Humidity Probe Fault Or Offline
AL 25	Leaving Water Temperature Probe Fault Or Offline
AL 26	High Leaving Water Temperature
AL 27	Low Leaving Water Temperature
AL 28	High Current Into Humidifier
AL 29	Lack Of Water Into Humidifier
AL 30	Lack Of Current Into Humidifier
AL 31	Alarm Clock
AL 32	Spare / Custom
AL 33	Spare / Custom
AL 34	Spare / Custom
AL 35	Water Under Floor
AL 36	Loss of Water Flow Alarm