

MISSION CRITICAL Air Conditioning Systems

## M52/BMS Interface Set-up Document



M52 Fascia c/w Touch Screen Graphical LCD Display



**M52 Control Board** 



Embedded Bridges - 500 Points Capacity

Building Management System (BMS) Interfaces also referred to as "Bridges" or "Gateways"

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#### **Purpose**

The purpose of the M52/BMS Interface Set-up document is to provide needed information to ClimateWorx for the proper programming and configuration of the gateway and to simplify the field execution of the communication between the ClimateWorx M52 and a BMS front end system.

The most important part of programming the gateway is:

- 1. Knowing the proper addresses of the ClimateWorx units
- 2. Their relationship to each other in a Co-Work Network and
- 3. The points that are required to be monitored.

The Set-up document provides a list of points offered by ClimateWorx which is included with the gateway. If there are points that you need that are not on the list it is possible that ClimateWorx can offer them but this requires a custom configuration file and will be subject to additional charges.

RS-485 Cable (By Others) Between Unit

#### Terms and Definitions:

Unit Designation: The unique tag given to a machine to

identify it in a building and to differentiate it from other like units. ie. CRAC-1 or AC-2.1

Network Address: The RS485 address ClimateWorx will use

to identify a unique unit in a BMS network.

Must be 01 to 63.

Baud Rate: The communication speed used to transmit and receive data

between gateway and ClimateWorx unit. Factory set and must

M52 Controllers -

(Max Distance 1,000 ft)

match baud rate in configuration file.

Co-Work Address: The address of each circuit board in a ClimateWorx unit that

identifies it in a local area network of units servicing the same space. This is set using DIP switches on the ClimateWorx circuit boards. See the M52 Users Guide for more information. Units

must be of the same Series.



### **Point Summary**

The Summary of Points below describes the standard points available from ClimateWorx with a gateway. Please note that single compressor ClimateWorx units point count is 39 and dual compressor ClimateWorx units point count is 45. Chilled Water units count is 39, the same as single compressor ClimateWorx units. You may monitor 500 points per gateway. If you exceed the gateway point count you will need to purchase additional gateways or purchase a custom configuration file with reduced point count in order not to exceed 500.

CRAC 2



#### Identification of units in a Co-Work Network

Units of the same ClimateWorx Series that are serving a common space may be connected in a Co-Work Network to manage the operation of the units to share duty, provide back-up and to prevent units from fighting each other. When units are connected in a Co-Work network the configuration file for the BMS gateway must be created in such a way as to identify units correctly. Therefore is it vital that the following information be provided.

#### Please note:

- 1. The Co-Work Network is limited to eight compressor circuits which means 8 Series 6, 6AU05 or 4 Series 9AU12.
- 2. The Co-Work Network is an I<sup>2</sup>C network and is a completely separate network operating on a different protocol then the RS485, BMS network. This means there will be two networks between units. One is the RS485 and the other is the Co-Work.
- 3. Units alone in a room or not part of a Co-Work Network are programmed as Co-Work address 1.

#### Sample Unit Identification Table:

The example below shows that there are six **Series 9, 9AD30VEBHAX** units in the Main Data Center and two separate Co-Work Networks. CRAC-1, 2 and 3 form Co-Work Network #1 and CRAC-4, 5 and 6 form a second Co-Work Network, #2. This requires two Co-Work I<sup>2</sup>C networks of three units and one RS485 BMS network of six units.

Room Number or Name:	Main Data Center			
Unit Designation	ClimateWorx Model Number	Co-Work Address (Network / Address)	Network Address	Point Count
CRAC-1	9AD30VEBHAX	1-1	01	45
CRAC-2	9AD30VEBHAX	1-2	02	45
CRAC-3	9AD30VEBHAX	1-3	03	45
CRAC-4	9AD30VEBHAX	2-1	04	45
CRAC-5	9AD30VEBHAX	2-2	05	45
CRAC-6	9AD30VEBHAX	2-3	06	45

Please fill in the Table 1 in Appendix A and fax back to ClimateWorx.

NOTE: FIELD SUPPLY NEEDS TO BE PROVIDED BY OTHERS.



## Appendix A - Unit Identification Table

**IP Address of gateway** 

**IP Address:** 

Netmask:

NOTE: IF WE DO NOT RECEIVE THE ABOVE FILLED OUT WE WILL ASSIGN THE FOLLOWING IP ADDRESS.

For X20 and X40 GATEWAYS

FOR QUICKSERVER GATEWAYS

 IP Address
 192.168.1.18
 IP Address
 192.168.2.18

 Netmask
 255.255.255.0
 Netmask
 255.255.255.0

# For LonWorks – Please select the Lon function for network variable input and output Implicit Lon functions

Implicit Map Descriptors are distinguished from Explicit Map Descriptors by the function used in the Lon\_Function field of the Map Descriptor. Depending on the nature and direction of Data Transfer needed, different implicit functions are available as follows (NOTE: function field MUST pair up with the Lon\_Function field as shown in the table):

Lon_Function	Description	Function Field
NVUI	Network Variable Update Input	PASSIVE
NVPO	Network Variable Polled Output	PASSIVE
NVPIIMC	Network Variable Polled Input Implicitly addressed Continuously sent	RDBC
NVUOIMC	Network Variable Update Output Implicitly addressed Continuously sent	WRBC
NVUOIMX	Network Variable Update Output Implicitly addressed and sent on Change	WRBX
NVUOIMT	Network Variable Update Output Implicitly addressed sent in Throttling Mode	WRBC See 0
CFG_NVUI	Configuration Network Variable Update Input	PASSIVE

#### Table 1

Room Number or Name:			
Unit Designation	ClimateWorx Model Number	Co-Work Address	Network Address



Mark Selection as required	Points Menu for Series 6,7,8,1	1 and P DX Single Circuit Satchwell SNP Protocol	
	All Points Below (Std. Configuration)		
	Table 5: Key code - Access type: Read / Write		
1930	Data	Settings Section Parameters	
	No. of Duty Unit	Units required to run together in a Co-Work network to satisfy the load	
	Temperature Setpoint	Controls space temperature base on return air temperature	
	Temperature High Limit	Maximum allowable return temperature before activating alarn	
	Temperature Low Limit	Minimum return air temperature before activating alarm	
	Humidity Setpoint	Controls space humidity based on return air humidity	
	Humidity High Limit	Maximum allowable return humidity before activating alarm	
	Humidity Low Limit	Minimum return air humidity before activating alarm	
	On/Off Mode (0-Local / 1-Timer / 2-Remote)	Sets unit to turn "ON" and "OFF" by local keypad, remote signal or timer schedule	
	Display Mode (0-°C/1-°F)	Sets temperature display on Status page to °F or °C	
.—			
	Table 6: Sensor Reading - Access type : I	Read only	
	Data	Settings Section Parameters	
П	Site temperature	The average of all the duty temperature 1 sensors in a Co-Work networl	
	Site humidity	The average of all the duty humidity 1 sensors in a Co-Work network	
	Local temperature 1	Return air temperature sensor.	
	Local temperature 2	Spare temperature sensor. Also used for Free cool units	
	Local humidity 1	Return air humidity sensor.	
	Local humidity 2	spare humidity sensor	
	Table 9: Switched Output Status - Access	type : Read only	
	Data	Settings Section Parameters	
П	Standby Start	Emergency start signal received from duty uni	
	Remote ON	Normal operation start signal received from external source	
	Standby Enable	Emergency enable signal to back-up unit	
	Common Alarm	Common alarm signal	
	Unit 1: Fan	Fan run demand signal	
	Unit 1: Compressor	Compressor run demand signal	
	Unit 1: Humidifier	Humidifier run demand signal	
	Unit 1: Dehumid. Valve	Cooling run demand signal	
	Unit 1: SCR Heater	Reheat run demand signal	
	Table 10: Analogue Output Status - Acces		
	Data	Settings Section Parameters	
Ш	Heating Analogue Output	Heating run analogue demand signal	
	Cooling Analogue Output	Cooling run analogue demand signa	
	Humidifying Analogue Output	Humidification run analogue demand signal	
	Dehumidifying Analogue Output	Dehumidification run analogue demand signal	



Table 11: Alarm Status - Access typ	e : Read / Write		
Data	Settings Section Parameters		
Unit 1: Fan Overload	Fan overload alarm or drain pan float switch on Series 11		
Unit 1: Low Airflow	Loss of air flow		
Unit 1: Boiler Dirty	Humidifier service		
Unit 1: Heater Overheat	Reheat heater over heat condition		
Unit 1: Filter Dirty	Change filter		
Unit 1: Fire	Fire alarm		
Unit 1: Flood	Liquid detected		
Unit 1: High Humidity	High return air humidity alarm		
Unit 1: High Humidity 2	High spare humidity sensor alarm		
Unit 1: High Temperature	High return air temperature alarm		
Unit 1: High Temperature 2	High spare temperature sensor alarm		
Unit 1: Low Humidity	Low return air humidity sensor alarm		
Unit 1: Low Humidity 2	Low spare humidity sensor alarm		
Unit 1: Low Trumidity 2 Unit 1: Low Temperature	Low return air temperature alarm		
Unit 1: Low Temperature 2	Low spare temperature sensor alarm		
Unit 1: Compressor High Pressure Unit 1: Compressor Low Pressure	High refrigeration pressure alarm  Low refrigeration pressure alarm		
Unit 1: Compressor Short Cycling  The byte value represents the alarm status	Reoccurring low pressure refrigeration alarm		
0 - No Alarm	us jouons.		
A CONTRACT OF THE PARTY OF THE			
1 - Alarm Active			
2 - Alarm Acknowledged			
Table 12: Control Status - Access ty			
Data	Settings Section Parameters		
Unit 1 - On/Off Status	Unit on off state		
Unit 1 - Connection	RS485 network connection status		
Dehumidifying	Dehumidification demand status		
Humidifying	Humidification demand status		
Cooling	Cooling demand status		
Heating	Reheat demand status		
Table 14: Stage Output Status - Acc			
Data	Settings Section Parameters		
Heating Stage	Reheat stages energized		
Cooling Stage	Cooling stages energized		
Humidification Stage	Humidification stages energized		
Dehumidification Stage	Dehumidification stages energized		
Table 15: Accumulating Run-Time -			
Data	Settings Section Parameters		
Unit 1 - Accumulated Fan Run-time	Fan run time totalizer		
Unit 1 - Accumulated Compressor Run-tim			
Unit 1 - Accumulated Humidifier Run-time			
Unit 1 - Accumulated Heater Run-time	Reheat run time totalizer		
Unit 1 - Accumulated Dehumid. Valve Rur			
Unit 1 - Accumulated SCR Heater Run-	-time SCR Reheat run time totalizer		
Table 16: Machine Remote Control -	Access type : Read / Write (see notes below)		
Control	Settings Section Parameters		
System On/Off Control (As local on/off con	ntrol) Turns on and off unit when in Local on/off mode		
Notes:			
1) On/Off control is sychronized when the	units are connected in a Co-Work Network. You cannot sequence units throuh the BMS when C		
Worked.			
2) Only works if no alarms are active or wh	2) Only works if no alarms are active or when On /Off mode is set to Local.		
• • • • • • • • • • • • • • • • • • • •			



Mark Selection as required	Points Menu for Series 9 or I	P-Series DX Dual Circuit Satchwell SNP Protocol	
	All Points Below (Std. Configuration)  Table 5: Key code - Access type : Read / Write		
	Data	Settings Section Parameters	
	No. of Duty Unit	Units required to run together in a Co-Work network to satisfy the load.	
	Temperature Setpoint	Controls space temperature base on return air temperature.	
	Temperature High Limit	Maximum allowable return temperature before activating alarm	
	Temperature Low Limit	Minimum return air temperature before activating alarm	
	Humidity Setpoint	Controls space humidity based on return air humidity	
	Humidity High Limit	Maximum allowable return humidity before activating alarm	
	Humidity Low Limit	Minimum return air humidity before activating alarm	
	On/Off Mode (0-Local / 1-Timer / 2-Remote)	Sets unit to turn "ON" and "OFF" by local keypad, remote signal or timer schedule.	
	Display Mode (0-°C/1-°F)	Sets temperature display on Status page to °F or °C	
	Table 6: Sensor Reading - Access type	: Read only	
	Data	Settings Section Parameters	
	Site temperature	The average of all the duty temperature 1 sensors in a Co-Work network	
	Site humidity	The average of all the duty humidity 1 sensors in a Co-Work network	
П	Local temperature 1	Return air temperature sensor.	
	Local temperature 2	Spare temperature sensor. Also used for Free cool units	
	Local humidity 1	Return air humidity sensor.	
	Local humidity 2	spare humidity sensor	
	Table 9: Switched Output Status - Access type : Read only		
	Data	Settings Section Parameters	
	Standby Start	Emergency start signal received from duty unit	
	Remote ON	Normal operation start signal received from external source	
	Standby Enable	Emergency enable signal to back-up unit	
П	Common Alarm	Common alarm signal	
	Unit 1: Fan	Fan run demand signal	
	Unit 1 – Humidifier	Humidifier run demand signal	
П	Unit 1 – SCR Heater	Reheat run demand signal	
	Unit 1 – Compressor 1	Compressor 1 run demand signal	
	Unit 1 – Compressor 2	Compressor 2 run demand signal	
	Table 10: Analogue Output Status - Access type : Read only		
<u> </u>	Data	Settings Section Parameters	
	Heating Analogue Output	Heating run analogue demand signal	
	Cooling Analogue Output	Cooling run analogue demand signal	
	Humidifying Analogue Output	Humidification run analogue demand signal	
	Dehumidifying Analogue Output	Dehumidification run analogue demand signal	
	Free-cooling 1 Output	Free cooling 1 run analogue demand signal	
	Free-cooling 2 Output	Free cooling 2 run analogue demand signal	
	>		



	Table 11: Alarm Status - Access type :	Read / Write
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П	Unit 1: Low Airflow	Loss of air flow
П	Unit 1: Boiler Dirty	Humidifier service
	Unit 1: Heater Overheat	Reheat heater over heat condition
	Unit 1: Filter Dirty	Change filter
	Unit 1: Fire	Fire alarm
	Unit 1: Flood	Liquid detected
	Unit 1: Fault 1	User defined digital input fault
	Unit 1: High Humidity	High return air humidity alarm
Ш	Unit 1: High Humidity 2	High spare humidity sensor alarm
	Unit 1: High Temperature	High return air temperature alarm
	Unit 1: High Temperature 2	High spare temperature sensor alarm
Ш	Unit 1: Low Humidity	Low return air humidity sensor alarm
	Unit 1: Low Humidity 2	Low spare humidity sensor alarm
	Unit 1: Low Temperature	Low return air temperature alarm
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	Unit 1: Compressor High Pressure 1	Compressor 1 High refrigeration pressure alarm
	Unit 1: Compressor Low Pressure 1	Compressor 1 Low refrigeration pressure alarm
Ш	Unit 1: Compressor Short Cycling 1	Compressor 1 Reoccurring low pressure refrigeration alarm
Ш	Unit 1: Compressor High Pressure 2	Compressor 2 High refrigeration pressure alarm
Ш	Unit 1: Compressor Low Pressure 2	Compressor 2 Low refrigeration pressure alarm
	Unit 1: Compressor Short Cycling 2	Compressor 2 Reoccurring low pressure refrigeration alarm
	The byte value represents the alarm status as	follows:
	0 - No Alarm	
	1 - Alarm Active	
	2 - Alarm Acknowledged	
	Table 12: Control Status - Access type	
$\overline{}$	Data	Settings Section Parameters
	Unit 1 - On/Off Status	Unit on off state
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	Dehumidifying Humidifying	Dehumidification demand status Humidification demand status
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	Dehumidifying Humidifying Cooling Heating	Dehumidification demand status Humidification demand status Cooling demand status Reheat demand status
	Dehumidifying Humidifying Cooling	Dehumidification demand status Humidification demand status Cooling demand status
	Dehumidifying Humidifying Cooling Heating Unit – Free cooling	Dehumidification demand status Humidification demand status Cooling demand status Reheat demand status Free Cooling demand status
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	Dehumidifying Cooling Heating Unit – Free cooling  Table 14: Stage Output Status - Access Data Heating Stage Cooling Stage Humidification Stage Dehumidification Stage Free-cooling Stage Table 15: Accumulating Run-Time - Acc Data Unit 1 – Accumulated Fan Run-time Unit 1 – Accumulated Humidifier Run-time Unit 1 – Accumulated SCR Heater Run-time Unit 1 – Accumulated Compressor 1 Run-time Unit 1 – Accumulated Compressor 2 Run-time Unit 1 – Accumulated Compressor 2 Run-time	Dehumidification demand status  Cooling demand status  Reheat demand status  Free Cooling demand status  Stype: Read only  Settings Section Parameters  Reheat stages energized  Cooling stages energized  Humidification stages energized  Dehumidification stages energized  Free Cooling stages energized  Free Cooling stages energized  Cosses type: Read / Write  Settings Section Parameters  Fan run time totalizer  Humidifier run time totalizer  SCR Reheat run time totalizer  Cooling stage 1 run time totalizer  Cooling stage 2 run time totalizer  Cooling stage 2 run time totalizer  Cooling stage 2 run time totalizer
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	Dehumidifying Cooling Heating Unit – Free cooling  Table 14: Stage Output Status - Access Data Heating Stage Cooling Stage Humidification Stage Dehumidification Stage Dehumidification Stage Table 15: Accumulating Run-Time - Acc Data Unit 1 – Accumulated Fan Run-time Unit 1 – Accumulated Humidifier Run-time Unit 1 – Accumulated SCR Heater Run-time Unit 1 – Accumulated Compressor 1 Run-time Unit 1 – Accumulated Compressor 2 Run-time Unit 1 – Accumulated Compressor 2 Run-time Unit 1 – Accumulated Compressor 3 Run-time Unit 1 – Accumulated Compressor 5 Run-time Unit 1 – Accumulated Compressor 6 Run-time Unit 1 – Accumulated Compressor 7 Run-time Unit 1 – Accumulated Compressor 8 Run-time Unit 1 – Accumulated Compressor 9 Run-time	Dehumidification demand status  Cooling demand status  Reheat demand status  Free Cooling demand status  Stype: Read only  Settings Section Parameters  Reheat stages energized  Cooling stages energized  Humidification stages energized  Dehumidification stages energized  Free Cooling stages energized  Free Cooling stages energized  Coss type: Read / Write  Settings Section Parameters  Fan run time totalizer  Humidifier run time totalizer  SCR Reheat run time totalizer  Cooling stage 1 run time totalizer  Cooling stage 2 run time totalizer  Cooling stage 2 run time totalizer  Settings Section Parameters  Settings Section Parameters
	Dehumidifying Cooling Heating Unit – Free cooling  Table 14: Stage Output Status - Access Data Heating Stage Cooling Stage Humidification Stage Dehumidification Stage Dehumidification Stage Table 15: Accumulating Run-Time - Acc Data Unit 1 – Accumulated Fan Run-time Unit 1 – Accumulated Humidifier Run-time Unit 1 – Accumulated SCR Heater Run-time Unit 1 – Accumulated Compressor 1 Run-time Unit 1 – Accumulated Compressor 2 Run-time Unit 1 – Accumulated Compressor 3 Run-time Unit 1 – Accumulated Compressor 4 Run-time Unit 1 – Accumulated Compressor 5 Run-time Unit 1 – Accumulated Compressor 6 Run-time Unit 1 – Accumulated Compressor 7 Run-time Unit 1 – Accumulated Compressor 8 Run-time Unit 1 – Accumulated Compressor 9 Run-time Unit 1 – Accumulated Compressor 1 Run-time	Dehumidification demand status  Humidification demand status  Reheat demand status  Free Cooling demand status  Free Cooling demand status  Stype: Read only  Settings Section Parameters  Reheat stages energized  Cooling stages energized  Humidification stages energized  Dehumidification stages energized  Free Cooling stages energized  Free Cooling stages energized  Free Cooling stages energized  Free Cooling stages energized  Coess type: Read / Write  Settings Section Parameters  Fan run time totalizer  Humidifier run time totalizer  SCR Reheat run time totalizer  Cooling stage 1 run time totalizer  Cooling stage 2 run time totalizer  Cooling stage 2 run time totalizer  Turns on and off unit when in Local on/off mode  s are connected in a Co-Work Network. You cannot sequence units throuh the BMS when



#### Mark Points Menu for Chilled Water Circuit Modbus RTU Protocol Selection as required All Points Below (Std. Configuration) Table 5: Key code - Access type: Read / Write Data Settings Section Parameters No. of Duty Unit Units required to run together in a Co-Work network to satisfy the load Controls space temperature base on return air temperature Temperature Setpoint Temperature High Limit Maximum allowable return temperature before activating alarn Temperature Low Limit Minimum return air temperature before activating alarn Controls space humidity based on return air humidity Humidity Setpoint Humidity High Limit Maximum allowable return humidity before activating alarn Humidity Low Limit Minimum return air humidity before activating alarn Sets unit to turn "ON" and "OFF" by local keypad, remote signal or timer schedule On/Off Mode (0-Local / 1-Timer / 2-Remote) Display Mode (0-°C/1-°F) Sets temperature display on Status page to °F or °C Chilled Water Circuit 1 Flow status of CW loop per from BMS sensors Chilled Water Circuit 2 Flow status of alternate CW loop per BMS sensors Temperature of alternate CW loop per BMS sensors °C Chilled Water 1 temperature in °C Temperature of alternate CW loop per BMS sensors °C Chilled Water 2 temperature in °C Primary Circuit Sets the circuit number for use as primary cooling source Provides minimum time delay during which both primary and secondary CW circuits are Change over delay functioning Chilled Water temperature limit in<sup>o</sup>C Temperature when primary to secondary CW source takes place °C Normal Fan Speed Normal fan energized Backup Fan Speed Sets fan speed under alarm condition Table 6: Sensor Reading - Access type : Read only Settings Section Parameters Site temperature The average of all the duty temperature 1 sensors in a Co-Work network The average of all the duty humidity 1 sensors in a Co-Work network Site humidity Local temperature 1 Return air temperature sensor. Spare temperature sensor. Also used for Free cool units Local temperature 2 Local humidity 1 Return air humidity sensor. Local humidity 2 spare humidity sensor Table 9: Switched Output Status - Access type : Read only Settings Section Parameters Standby Start Emergency start signal received from duty unit Remote ON Normal operation start signal received from external source Standby Enable Emergency enable signal to back-up unit Common Alarm Common alarm signal Unit 1: Fan Fan run demand signal Unit 1: Humidifier Humidifier run demand signal Unit 1: SCR Heater Reheat run demand signal Table 10: Analogue Output Status - Access type : Read only Settings Section Parameters Heating Analogue Output Heating run analogue demand signal Cooling Analogue Output Cooling run analogue demand signal Humidifying Analogue Output Humidification run analogue demand signal Dehumidifying Analogue Output Dehumidification run analogue demand signal



Table 11: Alarm Status - Access type : R	ead / Write	
Data	Settings Section Parameters	
Unit 1: Fan Overload	Fan overload alarm or drain pan float switch on Series 11	
Unit 1: Low Airflow	Loss of air flow	
Unit 1: Boiler Dirty	Humidifier service	
Unit 1: Heater Overheat	Reheat heater over heat condition	
Unit 1: Filter Dirty	Change filter	
Unit 1: Fire	Fire alarm	
Unit 1: Flood	Liquid detected	
Unit 1: High Humidity	High return air humidity alarm	
Unit 1: High Humidity 2	High spare humidity sensor alarm	
Unit 1: High Temperature	High return air temperature alarm	
Unit 1: High Temperature 2	High spare temperature sensor alarm	
Unit 1: Low Humidity	Low return air humidity sensor alarm	
Unit 1: Low Humidity 2	Low spare humidity sensor alarm	
Unit 1: Low Temperature	Low return air temperature alarm	
Unit 1: Low Temperature 2	Low spare temperature sensor alarm	
The byte value represents the alarm status as fo	llows:	
0 - No Alarm		
1 - Alarm Active		
2 - Alarm Acknowledged		
Table 12: Control Status - Access type :		
Data	Settings Section Parameters	
Unit 1 - On/Off Status	Unit on off state	
Unit 1 - Connection	R S485 network connection status	
Dehumidifying	Dehumidification demand status	
Humidifying	Humidification demand status	
Cooling	Cooling demand status	
Heating	Reheat demand status	
Table 14: Stage Output Status - Access t	yro : Pood only	
Data	Settings Section Parameters	
Heating Stage	Reheat stages energized	
Cooling Stage	Cooling stages energized	
Humidification Stage	Humidification stages energized	
Dehumidification Stage	Dehumidification stages energized	
Denumenton stage	D'ontaintaire airoi stages chergized	
Table 15: Accumulating Run-Time - Acce	ess type : Read / Write	
Data	Settings Section Parameters	
Unit 1 - Accumulated Fan Run-time	Fan run time totalizer	
Unit 1 - Accumulated Humidifier Run-time	Humidifier run time totalizer	
Unit 1 - Accumulated Heater Run-time	Reheat run time totalizer	
Unit 1 - Accumulated SCR Heater Run-time	SCR Reheat run time totalizer	
Table 16: Machine Remote Control - Acc	ess type : Read / Write (see notes below)	
Control	Settings Section Parameters	
System On/Off Control (As local on/off control)	Turns on and off unit when in Local on/off mode	
Notes:		
1) On/Off control is sychronized when the units	are connected in a Co-Work Network. You cannot sequence units throuh the BMS when Co	
Worked.	The state of the s	
2) Only works if no alarms are active or when O	2) Only works if no alarms are active or when On /Off mode is set to Local.	

### **NOTES:**





