WEIL-McLAIN®

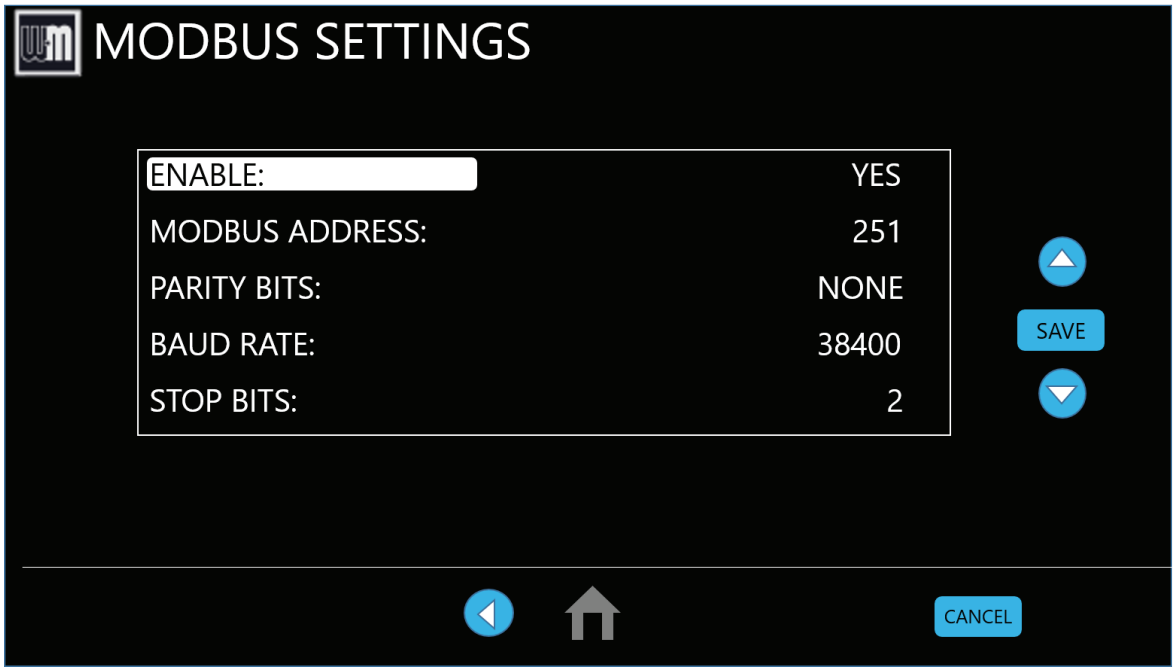
Unity™ 2 Control Modbus Supplement

Software Interface Specification - Modbus

Eco® Tec / SVF™ | STAINLESS VERTICAL FIRETUBE

Eco Tec 80/110/150/199 and SVF 500/600

Wall Mount / Commercial Gas-Fired Condensing Boilers – Combi and Heating Only Models



⚠WARNING This specification interface manual must only be used by a qualified heating installer/service technician. Read all instructions, including this manual and all other information shipped with the boiler, before installing. Perform steps in the order given. Failure to comply could result in severe personal injury, death or substantial property damage.

Part number 550-100-266/1023

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Part number 550-100-266/1023

HAZARD DEFINITIONS

WARNING Follow all instructions for installation, start-up and servicing in the appropriate **Boiler Manual**.

HAZARD DEFINITIONS

The following defined terms are used throughout this manual to bring attention to the presence of hazards of various risk levels or to important information concerning the life of the product.

DANGER Indicates presence of hazards that will cause severe personal injury, death or substantial property damage.

WARNING Indicates presence of hazards that can cause severe personal injury, death or substantial property damage.

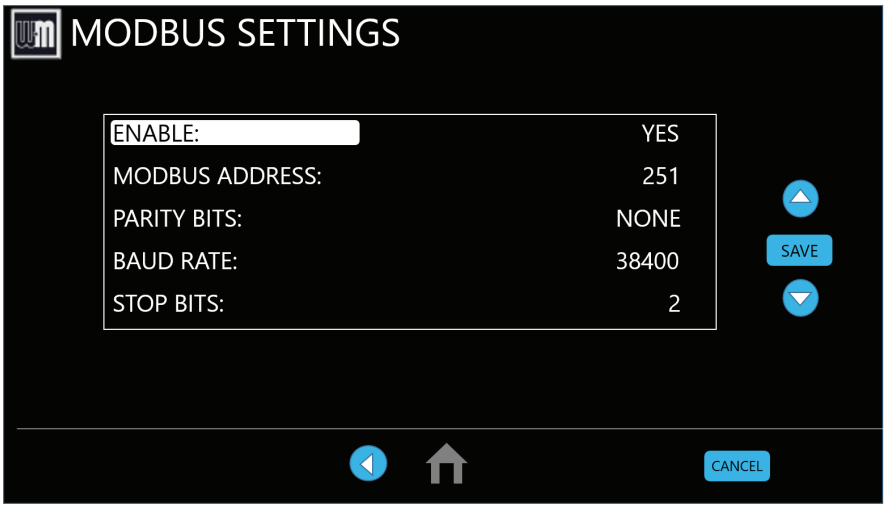
CAUTION Indicates presence of hazards that will or can cause minor personal injury or property damage.

NOTICE Indicates special instructions on installation, operation or maintenance that are important but not related to personal injury or property damage.

WARNING **To the installer:**

These instructions must only be used by a qualified installer/service technician. Read all Instructions completely before beginning the installation. This manual is to be used in conjunction with the **ECO® Tec** Boiler Manual and the User's Information Manual. Follow the boiler manual, startup and maintenance procedures, before finalizing installation. Failure to follow all instructions can cause severe personal injury, death or substantial property damage.

Software Interface Specification



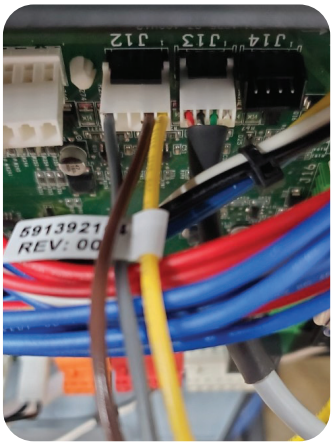
Enable :	YES or NO
Modbus Address :	0-255 (This is the address that this boiler will show up as on the BMS modbus network.)
PARITY BITS :	EVEN, ODD, or NONE
BAUD RATE :	4,800 or 9,600 or 38,400 BPS (Match this rate to the BMS Baud Rate)
STOP BITS :	1 or 2

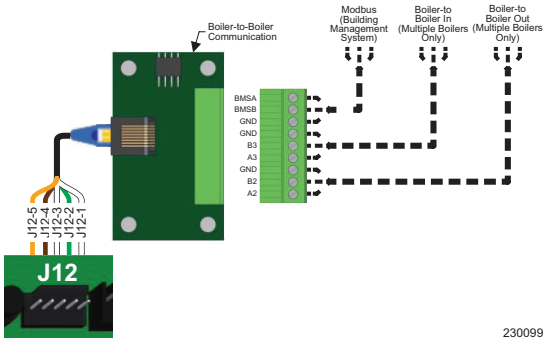
Modbus Set-up for Unity 2 controls

MODBUS/BMS CONNECTIONS - J12

SVF 500-600
Modbus communication board comes pre-installed on SVF 500-600 models. Skip to step 3.

1. Attach the Modbus harness (that shipped with the ECO Tec boiler, in the wiring bag assembly) to J12 on the control board (see image at right).
2. Wire the Modbus leads/screw terminals to the endpoint device.
   a. J12-1 = BMS A+/Tx+
   b. J12-2 = BMS B-/Tx-
   c. J12-3 = RS485 Multi-boiler Bus A+
   d. J12-4 = RS485 Multi-boiler Bus B-
   e. J12-5 = BMS Ground/RS-485 Common
3. Navigate to the Modbus Setting screen on the display. This is accessed via the contractor menu by pressing and holding the WM Logo from the home screen.
4. Adjust all necessary Modbus settings to match the BMS system being utilized.
5. The **Unity 2** control is capable of communicating to Unity™ control boilers. The **Unity 2** control MUST be the Master control in these applications.





What is Modbus ?

What is Modbus, and what can I do with it?

Building Management Systems (BMS) or Building Automation Systems (BAS) often communicate to boilers using a protocol such as Modbus. Modbus is a communication protocol used for transmitting data and instructions over serial lines between devices. The Unity 2 control platform has a built-in Modbus protocol. With Modbus, it becomes possible to read and write values to internal memory locations, known as Modbus registers. By reading or writing to these registers, you can monitor the status and details of the boiler (temperature, Boiler Status, date/time, etc.) and even configure the certain boiler parameters. Dependent upon the 3rd party device in use, remote monitoring of the boiler also becomes possible.

How do I read the table in this supplement?

The Modbus table included in this supplement is separated into sections to make certain points easier to find once familiar with the Unity 2 control. Each column contains a title. Register (DEC) is the decimal value of the register address, while Register (HEX) is the hexadecimal equivalent.

The Unity 2 control platform speaks in Hexadecimal format. Use Hex when assigning and talking to registers. Decimal is for reference only.

Name is the explicit name given to that register, in most cases matching what would be seen within the boiler's display.

Read/Write states whether the register is a Read Only register or if it can be written to by the user. Value Type states the given register's type.

Description contains the details of the register, including breakdowns of the numerical values or special instructions exclusive to that register.

MODBUS addressing

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
Frequently Used Points List					
32768	0x8000	Auto-Discovery Model	Read	UINT8	Value Model 1135 1225
40961	0xA001	Boiler Model	Read	UINT8	Value Model 16 = Eco Tec 80 17 = Eco Tec 110 18 = Eco Tec 110 Combi 19 = Eco Tec 150 20 = Eco Tec 150 Combi 21 = Eco Tec 199 22 = Eco Tec 199 Combi 64 = SVF 500 65 = SVF 600 255 = Not configured
40962	0xA002	Boiler State	Read	UINT16	Operating state of boiler 0 = Standby 1 = Prepump 2 = Prepurge 3 = Ignition Speed 4 = Pre-ignition 5 = GV Open Test 6 = GV Closed Test 7 = Ignition 8 = Heating 9 = Postpurge 10 = Lockout 11 = Postpump 12 = Inter-purge 13 = Init 14 = Config Check
40963	0xA003	Active Inputs	Read	UINT16	
40964	0xA004	Active Priority	Read	UINT8	0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = Local Priority 3 6 = Freeze Protection 7 = System Pump 8 = Priority Off 9 = No active priority
40965	0xA005	Desired Blower RPM	Read	UINT16	Value in RPM
40966	0xA006	Actual Blower RPM	Read	UINT16	Value in RPM
40967	0xA007	Modulation Percentage	Read	UINT16	Percent * 10
40968	0xA008	Desired Blower PWM	Read	UINT16	Value in PWM
40969	0xA009	Flame Signal	Read	UINT16	Flame current *10 in micro amps. Ex 23 = 2.3
40970	0xA00A	Target Temperature	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
40971	0xA00B	Boiler Out 1 Temp	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
40972	0xA00C	Boiler Out 2 Temp	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
40973	0xA00D	Boiler In Temp	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
40974	0xA00E	Flue 1 Temp	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
40975	0xA00F	Flue 2 Temp	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
40976	0xA010	System Supply Temp	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
40977	0xA011	System Return Temp	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
40978	0xA012	Outdoor Temp	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
40979	0xA013	DHW 1 Temp	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
40980	0xA014	DHW 2 Temp	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
40982	0xA016	DHW Flow Rate	Read	UINT16	Gallons per minute*10. 35 = 3.5 GPM
40983	0xA017	Gas Valve Relay 1 Status	Read	UINT 16	0 = Off, 1 = On
40984	0xA018	Gas Valve Relay 2 Status	Read	UINT 16	0 = Off, 1 = On
40985	0xA019	External Ignition/Pilot Relay Status	Read	UINT 8	0 = Off, 1 = On
40986	0xA01A	120v Output 1	Read	UINT 16	0 = Off, 1 = On
40987	0xA01B	120v Output 2	Read	UINT 16	0 = Off, 1 = On
40988	0xA01C	120v Output 3	Read	UINT 16	0 = Off, 1 = On
40989	0xA01D	120v Output 4	Read	UINT 16	0 = Off, 1 = On
40990	0xA01E	120v Output 5	Read	UINT 16	0 = Off, 1 = On
Boiler Specific					
41090	0xA082	Boiler Model	Read	UINT8	Value Model 16 = Eco Tec 80 17 = Eco Tec 110 18 = Eco Tec 110 Combi 19 = Eco Tec 150 20 = Eco Tec 150 Combi 21 = Eco Tec 199 22 = Eco Tec 199 Combi 64 = SVF 500 65 = SVF 600 255 = Not configured
41091	0xA083	Gas Type	Read	UINT8	0 = Natural Gas 1 = Liquid Propane
41092	0xA084	Altitude	Read	UINT8	0 = 0 - 2000 feet 1 = 2001 - 2500 feet 2 = 2501 - 3000 feet 3 = 3001 - 3500 feet 4 = 3501 - 4000 feet 5 = 4001 - 4500 feet 6 = 4501 - 5000 feet 7 = 5001 - 5500 feet 8 = 5501 - 6000 feet 9 = 6001 - 6500 feet 10 = 6501 - 7000 feet 11 = 7001 - 7500 feet 12 = 7501 - 8000 feet 13 = 8001 - 8500 feet 14 = 8501 - 9000 feet 15 = 9001 - 9500 feet 16 = 9501 - 10000 feet 17 = 10001 - 10500 feet 18 = 10501 - 11000 feet

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
41093	0xA085	Outdoor Air Configuration	Read	UINT8	0 = Outdoor Air Thermistor not configured 1 = Outdoor Air Thermistor Exempt 2 = Outdoor Air Thermistor Non-Exempt
41094	0xA086	Outdoor Temp Correction	Read/ Write	INT8	Amount to add or subtract from ODT sensor (calibration), -10 to 10F
41095	0xA087	Boiler Type	Read	UINT8	0 = Single Boiler 1 = Master Boiler 2 = Shadow Boiler
41097	0xA089	Warm Weather Shutdown	Read/ Write	UINT8	Temperature for the Warm Weather Shutdown to occur at when the ODT sensor returns a value at or above this temperature. 50 to 100F, 0 = disabled
41098	0xA08A	Manual Reset Temperature	Read/ Write	UINT8	Manual reset Temperature in whole degrees, 50 to 210F. The local boiler's high temperature limit. ECO Tec max value is 200
41099	0xA08B	Variable Speed Boiler Pump Enabled	Read/ Write	UINT8	0 = Disabled 1 = Enabled
41100	0xA08C	Variable Speed Boiler Pump Max Rate Volts	Read/ Write	UINT8	10 to 100
41101	0xA08D	Variable Speed Boiler Pump Min Rate Volts	Read/ Write	UINT8	10 to 100
41102	0xA08E	Variable Speed Boiler Pump Burner Off Volts	Read/ Write	UINT8	10 to 100
Circulator Exercising					
41119	0xA09F	Circulator 1 Exercise Settings	Read/ Write	UINT8	0 = Do not exercise circulator 1 = Exercise circulator every 72 hours of non use
41120	0xA0A0	Circulator 2 Exercise Settings	Read/ Write	UINT8	0 = Do not exercise circulator 1 = Exercise circulator every 72 hours of non use
41121	0xA0A1	Circulator 3 Exercise Settings	Read/ Write	UINT8	0 = Do not exercise circulator 1 = Exercise circulator every 72 hours of non use
41122	0xA0A2	Circulator 4 Exercise Settings	Read/ Write	UINT8	0 = Do not exercise circulator 1 = Exercise circulator every 72 hours of non use
41123	0xA0A3	120V Boiler Pump Exercise Settings	Read/ Write	UINT8	0 = Do not exercise circulator 1 = Exercise circulator every 72 hours of non use
41124	0xA0A4	0-10V Boiler Pump Exercise Settings	Read/ Write	UINT8	0 = Do not exercise circulator 1 = Exercise circulator every 72 hours of non use
Freeze Protection					
41143	0xA0B7	Circulator 1 freeze protection setting	Read/ Write	UINT8	0 = Freeze protection not enabled for circulator 1 = Freeze protection enabled for circulator
41144	0xA0B8	Circulator 2 freeze protection setting	Read/ Write	UINT8	0 = Freeze protection not enabled for circulator 1 = Freeze protection enabled for circulator
41145	0xA0B9	Circulator 3 freeze protection setting	Read/ Write	UINT8	0 = Freeze protection not enabled for circulator 1 = Freeze protection enabled for circulator
41146	0xA0BA	Circulator 4 freeze protection setting	Read/ Write	UINT8	0 = Freeze protection not enabled for circulator 1 = Freeze protection enabled for circulator
41147	0xA0BB	120V Boiler Pump freeze protection setting	Read/ Write	UINT8	0 = Freeze protection not enabled for circulator 1 = Freeze protection enabled for circulator
41148	0xA0BC	0-10V Boiler Pump freeze protection setting	Read/ Write	UINT8	0 = Freeze protection not enabled for circulator 1 = Freeze protection enabled for circulator

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
SW Versions and Serial Number					
41167	0xA0CF	U1 SW Version	Read	UINT8	Version # = MSB LSB in Hex
41168	0xA0D0	U2 SW Version	Read	UINT8	Version # = MSB LSB in Hex
41169	0xA0D1	Main Control Hardware Version	Read	UINT8	Version # = MSB LSB in Hex
41170	0xA0D2	U1 Model Number	Read	UINT8	1 = 1225-100
41171	0xA0D3	Display U1 SW Version	Read	UINT8	Version # = MSB LSB in Hex
41172	0xA0D4	WiFi SW Version	Read	UINT8	Version # = MSB LSB in Hex
41173	0xA0D5	Main Control Serial Number	Read	UINT8	The Main Control Serial Number, 1st character, (left most) ASCII
41174	0xA0D6	Main Control Serial Number	Read	UINT8	CP number digits
41175	0xA0D7	Main Control Serial Number	Read	UINT8	CP number is writeable if Eden Test is active
41176	0xA0D8	Main Control Serial Number	Read	UINT8	
41177	0xA0D9	Main Control Serial Number	Read	UINT8	
41178	0xA0DA	Main Control Serial Number	Read	UINT8	
41179	0xA0DB	Main Control Serial Number	Read	UINT8	
41180	0xA0DC	Main Control Serial Number	Read	UINT8	
41181	0xA0DD	Main Control Serial Number	Read	UINT8	
41182	0xA0DE	Main Control Serial Number	Read	UINT8	The Main Control Serial Number, last character, (right most) ASCII
Boiler Specific					
41282	0xA142	Boiler State	Read	UINT16	Operating state of boiler 0 = Standby 1 = Prepump 2 = Prepurge 3 = Ignition Speed 4 = Pre-ignition/ 5 = GV Open Test 6 = GV Closed Test 7 = Ignition 8 = Heating 9 = Postpurge 10 = Lockout 11 = Postpump 12 = Inter-purge 13 = Init 14 = Config Check
41283	0xA143	Active Priority	Read	UINT8	0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = Local Priority 3 6 = Freeze Protection 7 = System Pump 8 = Priority Off 9 = No active priority

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
Input # Priority/Source/Aux Pump					
41384	0xA1A8	Input 1 Priority	Read/ Write	UINT16	0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local 2 4 = Local 3 7 = System Pump 8 = Not Assigned
41385	0xA1A9	Input 1 Source	Read	UINT16	0 = TT Input 2 = Flow if configured as combi
41386	0xA1AA	Input 1 Aux Pump	Read/ Write	UINT16	When Input priority is configured as a System Pump 0 = Always on 1 = External Switch 2 = If ODT is below WWSD turn on pump 3 = When any TT input is on 4 = When input is on by its priority setting 5 = When burner is on 6 = Damper Control 7 = Primary Valve Normally Open Bypass 8 = Primary Valve Normally Closed Bypass 9 = Primary Valve Normally Open Isolation Valve 10 = Primary Valve Normally Closed Isolation Valve
41387	0xA1AB	Input 2 Priority	Read/ Write	UINT16	0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local 2 4 = Local 3 7 = System Pump 8 = Not Assigned
41388	0xA1AC	Input 2 Source	Read/ Write	UINT16	0 = TT Input 1 = 0 -10 V
41389	0xA1AD	Input 2 Aux Pump	Read/ Write	UINT16	When Input priority is configured as a System Pump 0 = Always on 1 = External Switch 2 = If ODT is below WWSD turn on pump 3 = When any TT input is on 4 = When input is on by its priority setting 5 = When burner is on 6 = Damper Control 7 = Primary Valve Normally Open Bypass 8 = Primary Valve Normally Closed Bypass 9 = Primary Valve Normally Open Isolation Valve 10 = Primary Valve Normally Closed Isolation Valve
41390	0xA1AE	Input 3 Priority	Read/ Write	UINT16	0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local 2 4 = Local 3 7 = System Pump 8 = Not Assigned
41391	0xA1AF	Input 3 Source	Read	UINT16	0 = TT Input

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
41392	0xA1B0	Input 3 Aux Pump	Read/ Write	UINT16	When Input priority is configured as a System Pump 0 = Always on 1 = External Switch 2 = If ODT is below WWSD turn on pump 3 = When any TT input is on 4 = When input is on by its priority setting 5 = When burner is on 6 = Damper Control 7 = Primary Valve Normally Open Bypass 8 = Primary Valve Normally Closed Bypass 9 = Primary Valve Normally Open Isolation Valve 10 = Primary Valve Normally Closed Isolation Valve
41393	0xA1B1	Input 4 Priority	Read/ Write	UINT16	0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local 2 4 = Local 3 7 = System Pump 8 = Not Assigned
41394	0xA1B2	Input 4 Source	Read	UINT16	0 = TT Input if not combi
41395	0xA1B3	Input 4 Aux Pump	Read/ Write	UINT16	When Input priority is configured as a System Pump 0 = Always on 1 = External Switch 2 = If ODT is below WWSD turn on pump 3 = When any TT input is on 4 = When input is on by its priority setting 5 = When burner is on 6 = Damper Control 7 = Primary Valve Normally Open Bypass 8 = Primary Valve Normally Closed Bypass 9 = Primary Valve Normally Open Isolation Valve 10 = Primary Valve Normally Closed Isolation Valve
Local Priority 1 Information					
41415	0xA1C7	Local Priority 1 System Type	Read/ Write	UINT8	0 - Fan Coil 1 - Finned Tube Baseboard 2 - Cast Iron Baseboard 3 - Cast Iron Radiator 4 - Radiant-Slab on grade 5 - Radiant-Thin Slab 6 - Radiant - Below Floor 7 - Radiant - Above Floor 8 - Domestic (Hot Water) 9 - Custom
41416	0xA1C8	Local Priority 1 Target Modulation	Read/ Write	UINT8	Only available when a SINGLE boiler, not a COMBI and a System Sensor is installed 0 = Boiler Out or DHW if combi 1 = System Supply
41417	0xA1C9	Local Priority 1 Target Adjustment	Read/ Write	UINT8	0 = None (Combi and System Type of Domestic can only select none) 1 = 0-10V 2 = ODT
41418	0xA1CA	Combi Enabled	Read/ Write	UINT8	0 = Combi not enabled 1 = Combi enabled

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
41419	0xA1CB	Local Priority 1 Boiler Supply Max Setpoint	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Supply Max Temperature (Target setpoint) if not configured as combi
41420	0xA1CC	Local Priority 1 DHW Target	Read/ Write	UINT8	Only available if configured as combi. DHW Target Temperature
41421	0xA1CD	Local Priority 1 Boiler Supply Min Setpoint	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Not available if Target Adjust is set to None. Supply Min Temperature (Target setpoint), Minimum is 100 if combi and not selectable
41422	0xA1CE	Local Priority 1 System On Diff	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Not available if Target Adjust is set to None. Not available for Target Mod Sensor set to Boiler Out. Not available for Combi 5 to 30 F
41423	0xA1CF	Local Priority 1 System Off Diff	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Not available if Target Adjust is set to None. Not available for Target Mod Sensor set to Boiler Out. Not available for Combi 5 to 15 F
41424	0xA1D0	Local Priority 1 Run 120v Boiler Pump	Read/ Write	UINT8	Not available for combi 0 = Don't run 120v boiler pump 1 = Run 120v boiler pump
41425	0xA1D1	Local Priority 1 Run System Pump as Aux Pump	Read/ Write	UINT8	0 = Don't run pump 1 = Run pump
41426	0xA1D2	Local Priority 1 Pre-Pump Time	Read/ Write	UINT8	not available for combi. 0 to 240 seconds, 0 = off
41427	0xA1D3	Local Priority 1 Post Pump Time	Read/ Write	UINT8	not available for combi. 0 to 240 seconds, 0 = off
41428	0xA1D4	Local Priority 1 Maximum Boiler Temperature	Read/ Write	UINT8	61 to 190F. Cannot be set <= Supply Min. Linked with Supply Max so that if Max Boiler Temp is set below Supply Max, Supply Max is set equal to Max Boiler Temp. HIDDEN when TARGET MOD SENSOR is set to BOILER OUT unless Input 2 is set to this priority and its source is 0-10V.
41429	0xA1D5	Local Priority 1 Boiler On Diff	Read/ Write	UINT8	2 to 30 F
41430	0xA1D6	Local Priority 1 Boiler Off Diff	Read/ Write	UINT8	2 to 15 F, Capped to 195F potential boiler out temperature. If Supply Max = 190F, Boiler Off diff cannot be more than 5F.
41431	0xA1D7	Local Priority 1 DHW On Diff	Read/ Write	UINT8	1 to 20 F, only available when configured for combi
41432	0xA1D8	Local Priority 1 DHW Off Diff	Read/ Write	UINT8	1 to 20 F, only available when configured for combi
41433	0xA1D9	Local Priority 1 Max On Time	Read/ Write	UINT8	0 to 240 minutes, 0 = off
41435	0xA1DB	Local Priority 1 Max Rate	Read/ Write	UINT8	11 to 100%

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
41436	0xA1DC	Local Priority 1 Min Rate	Read/ Write	UINT8	10 to 99%
41437	0xA1DD	Local Priority 1 Outdoor Reset Max	Read/ Write	UINT8	50 to 100F. Can only use if configured for Target Adjust ODT
41438	0xA1DE	Local Priority 1 Outdoor Reset Min	Read/ Write	UINT8	-29 to 49F. Can only use if configured for Target Adjust ODT
41439	0xA1DF	Local Priority 1 Voltage Max	Read/ Write	UINT8	50 to 100 = 5.0 to 10.0 Used for 0-10V voltage adjust Can only use if configured for Target Adjust 0-10V. Not available if configured as combi
41440	0xA1E0	Local Priority 1 Voltage Min	Read/ Write	UINT8	0 to 49 = 0.0 to 4.9 Used for 0-10V voltage adjust Can only use if configured for Target Adjust 0-10V Not available if configured as combi
41441	0xA1E1	Local Priority 1 Boost Time	Read/ Write	UINT8	Not available if Combi or Target Adjust set to NONE. 0 to 240 seconds, 0 = off
41442	0xA1E2	Local Priority 1 Additional Heat Contact	Read/ Write	UINT8	0 = No additional heat contact, contact off 1 = Additional heat contact energizes first 2 = Additional heat contact energizes 2nd 3 = Outdoor Temp Not available for a Master Local call, SHADOW allowable for LOCAL only.Not available for Combi.
41443	0xA1E3	Local Priority 1 Additional Heat Response Time	Read/ Write	UINT8	0 to 240 Minutes, 0 = off. Not available when configured as combi. Not available if Additional Heat Contact is not configured
41444	0xA1E4	Local Priority 1 Outdoor Setpoint	Read/ Write	UINT8	0 to 50, Not available if configured for combi or additional heat demand is not equal to OUTDOOR.
41445	0xA1E5	Local Priority 1 Cold Start Error	Read/ Write	UINT8	Modulation cold start error for local priority 1
41446	0xA1E6	Local Priority 1 Max Rate Volts (Output)	Read/ Write	UINT8	5.0 to 10.0, scaled by 10 so 50 = 5.0. Not available for Local Priorities.
41447	0xA1E7	Local Priority 1 Min Rate Volts (Output)	Read/ Write	UINT8	0.5 to 4.9, scaled by 10 so 0.5 = 5. Not available for Local Priorities.
41448	0xA1E8	Local Priority 1 Activate Contact Below Setpoint	Read/ Write	UINT8	0=Additional heat contact is set to Off 1 = Additional heat contact energizes first 2 = Additional heat contact energizes 2nd Not available if configured for additional heat demand is not equal to Outdoor
41449	0xA1E9	Local Priority 1 Temp Dependent	Read/ Write	UINT8	Not available for Local Priorities or if there is no Local Outdoor Temperature Sensor. 0 = Not Temp Dependent 1 = Temp Dependent
41450	0xA1EA	Local Priority 1 Activate Contact Above Setpoint	Read/ Write	UINT8	0=Additional heat contact is set to Off 1 = Additional heat contact energizes first 2 = Additional heat contact energizes 2nd Not available if configured for additional heat demand is not equal to Outdoor
41451	0xA1EB	Local Priority 1 Run 0-10v Boiler Pump	Read/ Write	UINT8	0 = Don't run 0-10v Boiler Pump 1 = Run 0-10v Boiler Pump

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
Local Priority 2 Information					
41469	0xA1FD	Local Priority 2 System Type	Read/ Write	UINT8	0 - Fan Coil 1 - Finned Tube Baseboard 2 - Cast Iron Baseboard 3 - Cast Iron Radiator 4 - Radiant-Slab on grade 5 - Radiant-Thin Slab 6 - Radiant - Below Floor 7 - Radiant - Above Floor 8 - Domestic (Hot Water) 9 - Custom
41470	0xA1FE	Local Priority 2 Target Modulation	Read/ Write	UINT8	Only available when a SINGLE boiler, not a COMBI and a System Sensor is installed 0 = Boiler Out or DHW if combi 1 = System Supply
41471	0xA1FF	Local Priority 2 Target Adjustment	Read/ Write	UINT8	0 = None (Combi and System Type of Domestic can only select none) 1 = 0-10V 2 = ODT
41472	0xA200	Local Priority 2 Boiler Supply Max Setpoint	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Supply Max Temperature (Target setpoint) if not configured as combi
41473	0xA201	Local Priority 2 Boiler Supply Min Setpoint	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Not available if Target Adjust is set to None. Supply Min Temperature (Target setpoint), Minimum is 100 if combi and not selectable
41474	0xA202	Local Priority 2 System On Diff	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Not available if Target Adjust is set to None. Not available for Target Mod Sensor set to Boiler Out. Not available for Combi 5 to 30 F
41475	0xA203	Local Priority 2 System Off Diff	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Not available if Target Adjust is set to None. Not available for Target Mod Sensor set to Boiler Out. Not available for Combi 5 to 15 F
41476	0xA204	Local Priority 2 Run 120v Boiler Pump	Read/ Write	UINT8	Not available for combi 0 = Don't run 120v boiler pump 1 = Run 120v boiler pump
41477	0xA205	Local Priority 2 Run System Pump	Read/ Write	UINT8	0 = Don't run pump 1 = Run pump
41478	0xA206	Local Priority 2 Pre-Pump Time	Read/ Write	UINT8	not available for combi. 0 to 240 seconds, 0 = off
41479	0xA207	Local Priority 2 Post Pump Time	Read/ Write	UINT8	not available for combi. 0 to 240 seconds, 0 = off
41480	0xA208	Local Priority 2 Maximum Boiler Temperature	Read/ Write	UINT8	61 to 190F. Cannot be set <= Supply Min. Linked with Supply Max so that if Max Boiler Temp is set below Supply Max, Supply Max is set equal to Max Boiler Temp. HIDDEN when TARGET MOD SENSOR is set to BOILER OUT unless Input 2 is set to this priority and its source is 0-10V.

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
41481	0xA209	Local Priority 2 Boiler On Diff	Read/ Write	UINT8	2 to 30 F
41482	0xA20A	Local Priority 2 Boiler Off Diff	Read/ Write	UINT8	2 to 15 F, Capped to 195F potential boiler out temperature. If Supply Max = 190F, Boiler Off diff cannot be more than 5F.
41483	0xA20B	Local Priority 2 Max On Time	Read/ Write	UINT8	0 to 240 minutes, 0 = off
41484	0xA20C	Local Priority 2 Min On Time	Read/ Write	UINT8	Not used - no higher priority. 0 to 240 minutes, 0 = off
41485	0xA20D	Local Priority 2 Max Rate	Read/ Write	UINT8	11 to 100%
41486	0xA20E	Local Priority 2 Min Rate	Read/ Write	UINT8	10 to 99%
41487	0xA20F	Local Priority 2 Outdoor Reset Max	Read/ Write	UINT8	50 to 100F. Can only use if configured for Target Adjust ODT
41488	0xA210	Local Priority 2 Outdoor Reset Min	Read/ Write	UINT8	-29 to 49F. Can only use if configured for Target Adjust ODT
41489	0xA211	Local Priority 2 Voltage Max	Read/ Write	UINT8	50 to 100 = 5.0 to 10.0 Used for 0-10V voltage adjust Can only use if configured for Target Adjust 0-10V. Not available if configured as combi
41490	0xA212	Local Priority 2 Voltage Min	Read/ Write	UINT8	0 to 49 = 0.0 to 4.9 Used for 0-10V voltage adjust Can only use if configured for Target Adjust 0-10V Not available if configured as combi
41491	0xA213	Local Priority 2 Boost Time	Read/ Write	UINT8	Not available if Combi or Target Adjust set to NONE. 0 to 240 seconds, 0 = off
41492	0xA214	Local Priority 2 Additional Heat Contact	Read/ Write	UINT8	0 = No additional heat contact, contact off 1 = Additional heat contact energizes first 2 = Additional heat contact energizes 2nd 3 = Outdoor Temp Not available for a Master Local call, SHADOW allowable for LOCAL only.Not available for Combi.
41493	0xA215	Local Priority 2 Additional Heat Response Time	Read/ Write	UINT8	0 to 240 Minutes, 0 = off. Not available when configured as combi. Not available if Additional Heat Contact is not configured
41494	0xA216	Local Priority 2 Outdoor Setpoint	Read/ Write	UINT8	0 to 50, Not available if configured for combi or additional heat demand is not equal to OUTDOOR.
41495	0xA217	Local Priority 2 Cold Start Error	Read/ Write	UINT8	Modulation cold start error for local priority 1
41496	0xA218	Local Priority 2 Max Rate Volts (Output)	Read/ Write	UINT8	5.0 to 10.0, scaled by 10 so 50 = 5.0. Not available for Local Priorities.
41497	0xA219	Local Priority 2 Min Rate Volts (Output)	Read/ Write	UINT8	0.5 to 4.9, scaled by 10 so 0.5 = 5. Not available for Local Priorities.
41498	0xA21A	Local Priority 2 Activate Contact Below Setpoint	Read/ Write	UINT8	0=Additional heat contact is set to Off 1 = Additional heat contact energizes first 2 = Additional heat contact energizes 2nd Not available if configured for additional heat demand is not equal to Outdoor

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
41499	0xA21B	Local Priority 2 Temp Dependent	Read/ Write	UINT8	Not available for Local Priorities or if there is no Local Outdoor Temperature Sensor. 0 = Not Temp Dependent 1 = Temp Dependent
41500	0xA21C	Local Priority 2 Activate Contact Above Setpoint	Read/ Write	UINT8	0=Additional heat contact is set to Off 1 = Additional heat contact energizes first 2 = Additional heat contact energizes 2nd Not available if configured for additional heat demand is not equal to Outdoor
41501	0xA21D	Local Priority 2 Run 0-10v Boiler Pump	Read/ Write	UINT8	0 = Don't run 0-10v Boiler Pump 1 = Run 0-10v Boiler Pump
Local Priority 3 Information					LOCAL PRIORITY 3 FIELDS ONLY AVAILABLE FOR SINGLE BOILER
41519	0xA22F	Local Priority 3 System Type	Read/ Write	UINT8	0 - Fan Coil 1 - Finned Tube Baseboard 2 - Cast Iron Baseboard 3 - Cast Iron Radiator 4 - Radiant-Slab on grade 5 - Radiant-Thin Slab 6 - Radiant - Below Floor 7 - Radiant - Above Floor 8 - Domestic (Hot Water) 9 - Custom
41520	0xA230	Local Priority 3 Target Modulation	Read/ Write	UINT8	Only available when a SINGLE boiler, not a COMBI and a System Sensor is installed 0 = Boiler Out or DHW if combi 1 = System Supply
41521	0xA231	Local Priority 3 Target Adjustment	Read/ Write	UINT8	0 = None (Combi and System Type of Domestic can only select none) 1 = 0-10V 2 = ODT
41522	0xA232	Local Priority 3 Boiler Supply Max Setpoint	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Supply Max Temperature (Target setpoint) if not configured as combi
41523	0xA233	Local Priority 3 Boiler Supply Min Setpoint	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Not available if Target Adjust is set to None. Supply Min Temperature (Target setpoint), Minimum is 100 if combi and not selectable
41524	0xA234	Local Priority 3 System On Diff	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Not available if Target Adjust is set to None. Not available for Target Mod Sensor set to Boiler Out. Not available for Combi 5 to 30 F
41525	0xA235	Local Priority 3 System Off Diff	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Not available if Target Adjust is set to None. Not available for Target Mod Sensor set to Boiler Out. Not available for Combi 5 to 15 F
41526	0xA236	Local Priority 3 Run 120v Boiler Pump	Read/ Write	UINT8	Not available for combi 0 = Don't run 120v boiler pump 1 = Run 120v boiler pump

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
41527	0xA237	Local Priority 3 Run System Pump as Aux Pump	Read/ Write	UINT8	0 = Don't run pump 1 = Run pump
41528	0xA238	Local Priority 3 Pre-Pump Time	Read/ Write	UINT8	not available for combi. 0 to 240 seconds, 0 = off
41529	0xA239	Local Priority 3 Post Pump Time	Read/ Write	UINT8	not available for combi. 0 to 240 seconds, 0 = off
41530	0xA23A	Local Priority 3 Maximum Boiler Temperature	Read/ Write	UINT8	61 to 190F. Cannot be set <= Supply Min. Linked with Supply Max so that if Max Boiler Temp is set below Supply Max, Supply Max is set equal to Max Boiler Temp. HIDDEN when TARGET MOD SENSOR is set to BOILER OUT unless Input 2 is set to this priority and its source is 0-10V.
41531	0xA23B	Local Priority 3 Boiler On Diff	Read/ Write	UINT8	2 to 30 F
41532	0xA23C	Local Priority 3 Boiler Off Diff	Read/ Write	UINT8	2 to 15 F, Capped to 195F potential boiler out temperature. If Supply Max = 190F, Boiler Off diff cannot be more than 5F.
41534	0xA23E	Local Priority 3 Min On Time	Read/ Write	UINT8	Not used - no higher priority. 0 to 240 minutes, 0 = off
41535	0xA23F	Local Priority 3 Max Rate	Read/ Write	UINT8	11 to 100%
41536	0xA240	Local Priority 3 Min Rate	Read/ Write	UINT8	10 to 99%
41537	0xA241	Local Priority 3 Outdoor Reset Max	Read/ Write	UINT8	50 to 100F. Can only use if configured for Target Adjust ODT
41538	0xA242	Local Priority 3 Outdoor Reset Min	Read/ Write	UINT8	-29 to 49F. Can only use if configured for Target Adjust ODT
41539	0xA243	Local Priority 3 Voltage Max	Read/ Write	UINT8	50 to 100 = 5.0 to 10.0 Used for 0-10V voltage adjust Can only use if configured for Target Adjust 0-10V. Not available if configured as combi
41540	0xA244	Local Priority 3 Voltage Min	Read/ Write	UINT8	0 to 49 = 0.0 to 4.9 Used for 0-10V voltage adjust Can only use if configured for Target Adjust 0-10V Not available if configured as combi
41541	0xA245	Local Priority 3 Boost Time	Read/ Write	UINT8	Not available if Combi or Target Adjust set to NONE. 0 to 240 seconds, 0 = off
41542	0xA246	Local Priority 3 Additional Heat Contact	Read/ Write	UINT8	0 = No additional heat contact, contact off 1 = Additional heat contact energizes first 2 = Additional heat contact energizes 2nd 3 = Outdoor Temp Not available for a Master Local call, SHADOW allowable for LOCAL only.Not available for Combi.
41543	0xA247	Local Priority 3 Additional Heat Response Time	Read/ Write	UINT8	0 to 240 Minutes, 0 = off. Not available when configured as combi. Not available if Additional Heat Contact is not configured
41544	0xA248	Local Priority 3 Outdoor Setpoint	Read/ Write	UINT8	0 to 50, Not available if configured for combi or additional heat demand is not equal to OUTDOOR.
41545	0xA249	Local Priority 3 Cold Start Error	Read/ Write	UINT8	Modulation cold start error for local priority 1
41546	0xA24A	Local Priority 3 Max Rate Volts (Output)	Read/ Write	UINT8	5.0 to 10.0, scaled by 10 so 50 = 5.0. Not available for Local Priorities.

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
41547	0xA24B	Local Priority 3 Min Rate Volts (Output)	Read/ Write	UINT8	0.5 to 4.9, scaled by 10 so 0.5 = 5. Not available for Local Priorities.
41548	0xA24C	Local Priority 3 Activate Contact Below Setpoint	Read/ Write	UINT8	0=Additional heat contact is set to Off 1 = Additional heat contact energizes first 2 = Additional heat contact energizes 2nd Not available if configured for additional heat demand is not equal to Outdoor
41549	0xA24D	Local Priority 3 Temp Dependent	Read/ Write	UINT8	Not available for Local Priorities or if there is no Local Outdoor Temperature Sensor. 0 = Not Temp Dependent 1 = Temp Dependent
41550	0xA24E	Local Priority 3 Activate Contact Above Setpoint	Read/ Write	UINT8	0=Additional heat contact is set to Off 1 = Additional heat contact energizes first 2 = Additional heat contact energizes 2nd Not available if configured for additional heat demand is not equal to Outdoor
41551	0xA24F	Local Priority 3 Run 0-10v Boiler Pump	Read/ Write	UINT8	0 = Don't run 0-10v Boiler Pump 1 = Run 0-10v Boiler Pump
Network Priority 1 Specific					*NETWORK PRIORITY 1 FIELDS ONLY AVAILABLE FOR MASTER BOILER*
41568	0xA260	Network Priority 1 System Type	Read/ Write	UINT8	0 - Fan Coil 1 - Finned Tube Baseboard 2 - Cast Iron Baseboard 3 - Cast Iron Radiator 4 - Radiant-Slab on grade 5 - Radiant-Thin Slab 6 - Radiant - Below Floor 7 - Radiant - Above Floor 8 - Domestic (Hot Water) 9 - Custom
41569	0xA261	Network Priority 1 Target Modulation	Read	UINT8	Only available when a SINGLE boiler, not a COMBI and a System Sensor is installed 0 = Boiler Out or DHW if combi 1 = System Supply
41570	0xA262	Network Priority 1 Target Adjustment	Read/ Write	UINT8	0 = None 1 = 0-10V 2 = ODT
41571	0xA263	Network Priority 1 Boiler Supply Max Setpoint	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Supply Max Temperature (Target setpoint) if not configured as combi
41572	0xA264	Network Priority 1 Boiler Supply Min Setpoint	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Not available if Target Adjust is set to None. Supply Min Temperature (Target setpoint), Minimum is 100 if combi and not selectable
41573	0xA265	Network Priority 1 System On Diff	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Not available if Target Adjust is set to None. Not available for Target Mod Sensor set to Boiler Out. Not available for Combi 5 to 30 F

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
41574	0xA266	Network Priority 1 System Off Diff	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Not available if Target Adjust is set to None. Not available for Target Mod Sensor set to Boiler Out. Not available for Combi 5 to 15 F
41575	0xA267	Network Priority 1 Run 120v Boiler Pump On Net	Read	UINT8	Not available for combi 0 = Don't run 120v boiler pump 1 = Run 120v boiler pump
41576	0xA268	Network Priority 1 Run System Pump	Read/ Write	UINT8	0 = Don't run pump 1 = Run pump
41577	0xA269	Network Priority 1 Pre-Pump Time	Read/ Write	UINT8	not available for combi. 0 to 240 seconds, 0 = off
41578	0xA26A	Network Priority 1 Post Pump Time	Read/ Write	UINT8	not available for combi. 0 to 240 seconds, 0 = off
41579	0xA26B	Network Priority 1 Maximum Boiler Temperature	Read/ Write	UINT8	61 to 190F. Cannot be set <= Supply Min. Linked with Supply Max so that if Max Boiler Temp is set below Supply Max, Supply Max is set equal to Max Boiler Temp. HIDDEN when TARGET MOD SENSOR is set to BOILER OUT unless Input 2 is set to this priority and its source is 0-10V.
41580	0xA26C	Network Priority 1 Boiler On Diff	Read/ Write	UINT8	2 to 30 F
41581	0xA26D	Network Priority 1 Boiler Off Diff	Read/ Write	UINT8	2 to 15 F, Capped to 195F potential boiler out temperature. If Supply Max = 190F, Boiler Off diff cannot be more than 5F.
41582	0xA26E	Network Priority 1 Max On Time	Read/ Write	UINT8	0 to 240 minutes, 0 = off
41583	0xA26F	Network Priority 1 Min On Time	Read/ Write	UINT8	Not used - no higher priority. 0 to 240 minutes, 0 = off
41584	0xA270	Network Priority 1 Max Rate	Read/ Write	UINT8	11 to 100%
41586	0xA272	Network Priority 1 Outdoor Reset Max	Read/ Write	UINT8	50 to 100F. Can only use if configured for Target Adjust ODT
41587	0xA273	Network Priority 1 Outdoor Reset Min	Read/ Write	UINT8	-29 to 49F. Can only use if configured for Target Adjust ODT
41588	0xA274	Network Priority 1 Voltage Max	Read/ Write	UINT8	50 to 100 = 5.0 to 10.0 Used for 0-10V voltage adjust Can only use if configured for Target Adjust 0-10V. Not available if configured as combi
41589	0xA275	Network Priority 1 Voltage Min	Read/ Write	UINT8	0 to 49 = 0.0 to 4.9 Used for 0-10V voltage adjust Can only use if configured for Target Adjust 0-10V Not available if configured as combi
41590	0xA276	Network Priority 1 Boost Time	Read/ Write	UINT8	Not available if Combi or Target Adjust set to NONE. 0 to 240 seconds, 0 = off
41591	0xA277	Network Priority 1 Additional Heat Contact	Read/ Write	UINT8	0 = No additional heat contact, contact off 1 = Additional heat contact energizes first 2 = Additional heat contact energizes 2nd 3 = Outdoor Temp Not available for a Master Local call, SHADOW allowable for LOCAL only.Not available for Combi.

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
41592	0xA278	Network Priority 1 Additional Heat Response Time	Read/ Write	UINT8	0 to 240 Minutes, 0 = off. Not available when configured as combi. Not available if Additional Heat Contact is not configured
41593	0xA279	Network Priority 1 Outdoor Setpoint	Read/ Write	UINT8	0 to 50, Not available if configured for combi or additional heat demand is not equal to OUTDOOR.
41594	0xA27A	Network Priority 1 Cold Start Error	Read/ Write	UINT8	Modulation cold start error for local priority 1
41595	0xA27B	Network Priority 1 Max Rate Volts (Output)	Read/ Write	UINT8	5.0 to 10.0, scaled by 10 so 50 = 5.0. Not available for Local Priorities.
41596	0xA27C	Network Priority 1 Min Rate Volts (Output)	Read/ Write	UINT8	0.5 to 4.9, scaled by 10 so 0.5 = 5. Not available for Local Priorities.
41597	0xA27D	Network Priority 1 Activate Contact Below Setpoint	Read/ Write	UINT8	0=Additional heat contact is set to Off 1 = Additional heat contact energizes first 2 = Additional heat contact energizes 2nd Not available if configured for additional heat demand is not equal to Outdoor
41598	0xA27E	Network Priority 1 Temp Dependent	Read/ Write	UINT8	Not available for Local Priorities or if there is no Local Outdoor Temperature Sensor. 0 = Not Temp Dependent 1 = Temp Dependent
41599	0xA27F	Network Priority 1 Add boilers Differential	Read/ Write	UINT8	Minimum degree differential between target and system temp in order to add a boiler. 2 to 10F
41600	0xA280	Network Priority 1 Add boiler delay	Read/ Write	UINT8	How long to delay before adding boilers, 30 to 240 seconds
41601	0xA281	Network Priority 1 Drop Boiler Differential	Read/ Write	UINT8	Minimum degree differential between target and system temp in order to drop a boiler., 2 to 10F
41602	0xA282	Network Priority 1 Drop Boiler Delay	Read/ Write	UINT8	How long to wait for the system to stabilize after dropping a boiler, 30 to 240 seconds
41603	0xA283	Network Priority 1 Mod Delay Time	Read/ Write	UINT8	Time in minutes to wait for the system to stabilize after adding a boiler. 1 to 15
41604	0xA284	Network Priority 1 Stabilization Time	Read/ Write	UINT8	Time in minutes to allow the boilers to use the PID loop before considering adding or dropping a boiler. 3 to 30
41605	0xA285	Network Priority 1 Max Sys Rate	Read	UINT8	Maximum system BTUs 0 = "AUTO" for all available
41606	0xA286	Network Priority 1 Min Boilers	Read	UINT8	Minimum number of Boilers to run on network. 1 to 8
41607	0xA287	Network Priority 1 Activate Contact Above Setpoint	Read/ Write	UINT8	0=Additional heat contact is set to Off 1 = Additional heat contact energizes first 2 = Additional heat contact energizes 2nd Not available if configured for additional heat demand is not equal to Outdoor
41608	0xA288	Network Priority 1 Run 0-10v Boiler Pump On Net	Read/ Write	UINT8	0 = Don't run 0-10v Boiler Pump 1 = Run 0-10v Boiler Pump

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
Network Priority 2 Specific					*NETWORK PRIORITY 2 FIELDS ONLY AVAILABLE FOR MASTER BOILER*
41626	0xA29A	Network Priority 2 System Type	Read/ Write	UINT8	0 - Fan Coil 1 - Finned Tube Baseboard 2 - Cast Iron Baseboard 3 - Cast Iron Radiator 4 - Radiant-Slab on grade 5 - Radiant-Thin Slab 6 - Radiant - Below Floor 7 - Radiant - Above Floor 8 - Domestic (Hot Water) 9 - Custom
41627	0xA29B	Network Priority 2 Target Modulation	Read	UINT8	Only available when a SINGLE boiler, not a COMBI and a System Sensor is installed 0 = Boiler Out or DHW if combi 1 = System Supply
41628	0xA29C	Network Priority 2 Target Adjustment	Read/ Write	UINT8	0 = None 1 = 0-10V 2 = ODT
41629	0xA29D	Network Priority 2 Boiler Supply Max Setpoint	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Supply Max Temperature (Target setpoint) if not configured as combi
41630	0xA29E	Network Priority 2 Boiler Supply Min Setpoint	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Not available if Target Adjust is set to None. Supply Min Temperature (Target setpoint), Minimum is 100 if combi and not selectable
41631	0xA29F	Network Priority 2 System On Diff	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Not available if Target Adjust is set to None. Not available for Target Mod Sensor set to Boiler Out. Not available for Combi 5 to 30 F
41632	0xA2A0	Network Priority 2 System Off Diff	Read/ Write	UINT8	Not Available if Input 2 is this priority and Input 2 Source is 0-10V. Not available if Target Adjust is set to None. Not available for Target Mod Sensor set to Boiler Out. Not available for Combi 5 to 15 F
41633	0xA2A1	Network Priority 2 Run 120v Boiler Pump On Net	Read	UINT8	Not available for combi 0 = Don't run 120v boiler pump 1 = Run 120v boiler pump
41634	0xA2A2	Network Priority 2 Run System Pump	Read/ Write	UINT8	0 = Don't run pump 1 = Run pump
41635	0xA2A3	Network Priority 2 Pre-Pump Time	Read/ Write	UINT8	not available for combi. 0 to 240 seconds, 0 = off
41636	0xA2A4	Network Priority 2 Post Pump Time	Read/ Write	UINT8	not available for combi. 0 to 240 seconds, 0 = off
41637	0xA2A5	Network Priority 2 Maximum Boiler Temperature	Read/ Write	UINT8	61 to 190F. Cannot be set <= Supply Min. Linked with Supply Max so that if Max Boiler Temp is set below Supply Max, Supply Max is set equal to Max Boiler Temp. HIDDEN when TARGET MOD SENSOR is set to BOILER OUT unless Input 2 is set to this priority and its source is 0-10V.

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
41638	0xA2A6	Network Priority 2 Boiler On Diff	Read/ Write	UINT8	2 to 30 F
41639	0xA2A7	Network Priority 2 Boiler Off Diff	Read/ Write	UINT8	2 to 15 F, Capped to 195F potential boiler out temperature. If Supply Max = 190F, Boiler Off diff cannot be more than 5F.
41641	0xA2A9	Network Priority 2 Min On Time	Read/ Write	UINT8	Not used - no higher priority. 0 to 240 minutes, 0 = off
41642	0xA2AA	Network Priority 2 Max Rate	Read/ Write	UINT8	11 to 100%
41643	0xA2AB	Network Priority 2 Min Rate	Read/ Write	UINT8	10 to 99%
41644	0xA2AC	Network Priority 2 Outdoor Reset Max	Read/ Write	UINT8	50 to 100F. Can only use if configured for Target Adjust ODT
41645	0xA2AD	Network Priority 2 Outdoor Reset Min	Read/ Write	UINT8	-29 to 49F. Can only use if configured for Target Adjust ODT
41646	0xA2AE	Network Priority 2 Voltage Max	Read/ Write	UINT8	50 to 100 = 5.0 to 10.0 Used for 0-10V voltage adjust Can only use if configured for Target Adjust 0-10V. Not available if configured as combi
41647	0xA2AF	Network Priority 2 Voltage Min	Read/ Write	UINT8	0 to 49 = 0.0 to 4.9 Used for 0-10V voltage adjust Can only use if configured for Target Adjust 0-10V Not available if configured as combi
41648	0xA2B0	Network Priority 2 Boost Time	Read/ Write	UINT8	Not available if Combi or Target Adjust set to NONE. 0 to 240 seconds, 0 = off
41649	0xA2B1	Network Priority 2 Additional Heat Contact	Read/ Write	UINT8	0 = No additional heat contact, contact off 1 = Additional heat contact energizes first 2 = Additional heat contact energizes 2nd 3 = Outdoor Temp Not available for a Master Local call, SHADOW allowable for LOCAL only.Not available for Combi.
41650	0xA2B2	Network Priority 2 Additional Heat Response Time	Read/ Write	UINT8	0 to 240 Minutes, 0 = off. Not available when configured as combi. Not available if Additional Heat Contact is configured
41651	0xA2B3	Network Priority 2 Outdoor Setpoint	Read/ Write	UINT8	0 to 50, Not available if configured for combi or additional heat demand is not equal to OUTDOOR.
41652	0xA2B4	Network Priority 2 Cold Start Error	Read/ Write	UINT8	Modulation cold start error for local priority 1
41653	0xA2B5	Network Priority 2 Max Rate Volts (Output)	Read/ Write	UINT8	5.0 to 10.0, scaled by 10 so 50 = 5.0. Not available for Local Priorities.
41654	0xA2B6	Network Priority 2 Min Rate Volts (Output)	Read/ Write	UINT8	0.5 to 4.9, scaled by 10 so 0.5 = 5. Not available for Local Priorities.
41655	0xA2B7	Network Priority 2 Activate Contact Below Setpoint	Read/ Write	UINT8	0=Additional heat contact is set to Off 1 = Additional heat contact energizes first 2 = Additional heat contact energizes 2nd Not available if configured for additional heat demand is not equal to Outdoor
41656	0xA2B8	Network Priority 2 Temp Dependent	Read/ Write	UINT8	Not available for Local Priorities or if there is no Local Outdoor Temperature Sensor. 0 = Not Temp Dependent 1 = Temp Dependent

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
41657	0xA2B9	Network Priority 2 Add boilers Differential	Read/ Write	UINT8	Minimum degree differential between target and system temp in order to add a boiler. 2 to 10F
41658	0xA2BA	Network Priority 2 Add boiler delay	Read/ Write	UINT8	How long to delay before adding boilers, 30 to 240 seconds
41659	0xA2BB	Network Priority 2 Drop Boiler Differential	Read/ Write	UINT8	Minimum degree differential between target and system temp in order to drop a boiler., 2 to 10F
41660	0xA2BC	Network Priority 2 Drop Boiler Delay	Read/ Write	UINT8	How long to wait for the system to stabilize after dropping a boiler, 30 to 240 seconds
41661	0xA2BD	Network Priority 2 Mod Delay Time	Read/ Write	UINT8	Time in minutes to wait for the system to stabilize after adding a boiler. 1 to 15
41662	0xA2BE	Network Priority 2 Stabilization Time	Read/ Write	UINT8	Time in minutes to allow the boilers to use the PID loop before considering adding or dropping a boiler. 3 to 30
41663	0xA2BF	Network Priority 2 Max Sys Rate	Read	UINT8	Maximum system BTUs 0 = "AUTO" for all available
41664	0xA2C0	Network Priority 2 Min Boilers	Read	UINT8	Minimum number of Boilers to run on network. 1 to 8
41665	0xA2C1	Network Priority 2 Activate Contact Above Setpoint	Read/ Write	UINT8	0=Additional heat contact is set to Off 1 = Additional heat contact energizes first 2 = Additional heat contact energizes 2nd Not available if configured for additional heat demand is not equal to Outdoor
41666	0xA2C2	Network Priority 2 Run 0-10v Boiler Pump On Net	Read/ Write	UINT8	0 = Don't run 0-10v Boiler Pump 1 = Run 0-10v Boiler Pump
Custom Type Name Characters					
41684	0xA2D4	Custom Type Local Priority 1	Read/ Write	UINT8	1st ASCII character
41685	0xA2D5	Custom Type Local Priority 1	Read/ Write	UINT8	2nd ASCII character
41686	0xA2D6	Custom Type Local Priority 1	Read/ Write	UINT8	3rd ASCII character
41687	0xA2D7	Custom Type Local Priority 1	Read/ Write	UINT8	4th ASCII character
41688	0xA2D8	Custom Type Local Priority 1	Read/ Write	UINT8	5th ASCII character
41689	0xA2D9	Custom Type Local Priority 1	Read/ Write	UINT8	6th ASCII character
41690	0xA2DA	Custom Type Local Priority 1	Read/ Write	UINT8	7th ASCII character
41691	0xA2DB	Custom Type Local Priority 1	Read/ Write	UINT8	8th ASCII character
41692	0xA2DC	Custom Type Local Priority 1	Read/ Write	UINT8	9th ASCII character
41693	0xA2DD	Custom Type Local Priority 1	Read/ Write	UINT8	10th ASCII character
41694	0xA2DE	Custom Type Local Priority 2	Read/ Write	UINT8	1st ASCII character
41695	0xA2DF	Custom Type Local Priority 2	Read/ Write	UINT8	2nd ASCII character

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
41696	0xA2E0	Custom Type Local Priority 2	Read/ Write	UINT8	3rd ASCII character
41697	0xA2E1	Custom Type Local Priority 2	Read/ Write	UINT8	4th ASCII character
41698	0xA2E2	Custom Type Local Priority 2	Read/ Write	UINT8	5th ASCII character
41699	0xA2E3	Custom Type Local Priority 2	Read/ Write	UINT8	6th ASCII character
41700	0xA2E4	Custom Type Local Priority 2	Read/ Write	UINT8	7th ASCII character
41701	0xA2E5	Custom Type Local Priority 2	Read/ Write	UINT8	8th ASCII character
41702	0xA2E6	Custom Type Local Priority 2	Read/ Write	UINT8	9th ASCII character
41703	0xA2E7	Custom Type Local Priority 2	Read/ Write	UINT8	10th ASCII character
41704	0xA2E8	Custom Type Local Priority 3	Read/ Write	UINT8	1st ASCII character
41705	0xA2E9	Custom Type Local Priority 3	Read/ Write	UINT8	2nd ASCII character
41706	0xA2EA	Custom Type Local Priority 3	Read/ Write	UINT8	3rd ASCII character
41707	0xA2EB	Custom Type Local Priority 3	Read/ Write	UINT8	4th ASCII character
41708	0xA2EC	Custom Type Local Priority 3	Read/ Write	UINT8	5th ASCII character
41709	0xA2ED	Custom Type Local Priority 3	Read/ Write	UINT8	6th ASCII character
41710	0xA2EE	Custom Type Local Priority 3	Read/ Write	UINT8	7th ASCII character
41711	0xA2EF	Custom Type Local Priority 3	Read/ Write	UINT8	8th ASCII character
41712	0xA2F0	Custom Type Local Priority 3	Read/ Write	UINT8	9th ASCII character
41713	0xA2F1	Custom Type Local Priority 3	Read/ Write	UINT8	10th ASCII character
41714	0xA2F2	Custom Type Network Priority 1	Read/ Write	UINT8	1st ASCII character
41715	0xA2F3	Custom Type Network Priority 1	Read/ Write	UINT8	2nd ASCII character
41716	0xA2F4	Custom Type Network Priority 1	Read/ Write	UINT8	3rd ASCII character
41717	0xA2F5	Custom Type Network Priority 1	Read/ Write	UINT8	4th ASCII character
41718	0xA2F6	Custom Type Network Priority 1	Read/ Write	UINT8	5th ASCII character
41719	0xA2F7	Custom Type Network Priority 1	Read/ Write	UINT8	6th ASCII character

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
41720	0xA2F8	Custom Type Network Priority 1	Read/ Write	UINT8	7th ASCII character
41721	0xA2F9	Custom Type Network Priority 1	Read/ Write	UINT8	8th ASCII character
41722	0xA2FA	Custom Type Network Priority 1	Read/ Write	UINT8	9th ASCII character
41723	0xA2FB	Custom Type Network Priority 1	Read/ Write	UINT8	10th ASCII character
41724	0xA2FC	Custom Type Network Priority 2	Read/ Write	UINT8	1st ASCII character
41725	0xA2FD	Custom Type Network Priority 2	Read/ Write	UINT8	2nd ASCII character
41726	0xA2FE	Custom Type Network Priority 2	Read/ Write	UINT8	3rd ASCII character
41727	0xA2FF	Custom Type Network Priority 2	Read/ Write	UINT8	4th ASCII character
41728	0xA300	Custom Type Network Priority 2	Read/ Write	UINT8	5th ASCII character
41729	0xA301	Custom Type Network Priority 2	Read/ Write	UINT8	6th ASCII character
41730	0xA302	Custom Type Network Priority 2	Read/ Write	UINT8	7th ASCII character
41731	0xA303	Custom Type Network Priority 2	Read/ Write	UINT8	8th ASCII character
41732	0xA304	Custom Type Network Priority 2	Read/ Write	UINT8	9th ASCII character
41733	0xA305	Custom Type Network Priority 2	Read/ Write	UINT8	10th ASCII character
Combi Points					*COMBI FIELDS ONLY AVAILABLE FOR COMBI MODELS*
41833	0xA369	Pre-Heat Setting	Read/ Write	UINT8	0= Disabled 1= Economy 2= High Performance
41834	0xA36A	Pre-Heat Temperature - Economy	Read/ Write	UINT8	70 to 180F
41835	0xA36B	Pre-Heat Burner Off Diff - Economy	Read/ Write	UINT8	1 to 30F
41836	0xA36C	Pre-Heat Burner On Diff - Economy	Read/ Write	UINT8	1 to 30F
41837	0xA36D	Pre-Heat Pump On Diff - Economy	Read/ Write	UINT8	1 to 30F
41838	0xA36E	Pre-Heat Temperature - High Performance	Read/ Write	UINT8	70 to 180F
41839	0xA36F	Pre-Heat Burner Off Diff - High Performance	Read/ Write	UINT8	1 to 30F
41840	0xA370	Pre-Heat Burner On Diff - High Performance	Read/ Write	UINT8	1 to 30F
41841	0xA371	Pre-Heat Pump On Diff - High Performance	Read/ Write	UINT8	1 to 30F

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
41842	0xA372	Pre-Heat Pre-Pump Time	Read	UINT8	0 to 240s
41843	0xA373	Eco Boost Mode	Read/ Write	UINT8	0 = Disabled 1 = Enabled
41844	0xA374	Eco Boost Target Temp	Read/ Write	UINT8	70 to 180F
41845	0xA375	Eco Boost On Diff	Read/ Write	UINT8	1 to 30F
41846	0xA376	Eco Boost Off Diff	Read/ Write	UINT8	1 to 30F
Network Settings Master					
41985	0xA401	Network Max Time	Read/ Write	UINT8	The maximum time this boiler will run on network priority before switching to a lower priority, 0 to 240 minutes
41986	0xA402	Network Min Time	Read/ Write	UINT8	The minimum time this boiler will run on network priority before switching to a higher priorit, 0 to 240 minutes
41987	0xA403	Master Max Rate	Read/ Write	UINT8	11 to 100% maximum rate for Master boiler
41988	0xA404	Master Min Rate	Read/ Write	UINT8	10 to 99% minimum rate for Master boiler
Rotation and Sequence Master					
42008	0xA418	Days Passed	Read	UINT16	Number of days that have elapsed since the last time the boiler order has changed.
42009	0xA419	Base Rate High	Read/ Write	UINT8	The Base Rate High Percentage to use when turning new boilers on/off in the network. 40 to 100. Only adjustable for Parallel sequence type.
42010	0xA41A	Base Rate Low	Read/ Write	UINT8	The Base Rate Low Percentage to use when turning new boilers on/off in the network. 10 to 40. Only adjustable for Smart sequence type.
42011	0xA41B	Sequence Type	Read	UINT8	The sequencing type currently selected. 0 = Smart, 1 = Parallel, 2 = Series
42012	0xA41C	Boiler Rotation Method	Read/ Write	UINT8	The method to use when rotating boilers, 0 = Off, 1 = by Boiler ID, 2 = Total Hours, 3 = Incremental Hours
42013	0xA41D	Force Lead Rotate	Read/ Write	UINT8	0 = Off 1 = On
42014	0xA41E	Rotation Frequency	Read/ Write	UINT16	0 to 365
42015	0xA41F	Boiler Order	Read	UINT8	Current Boiler Rotation Order, boiler ID 1
42016	0xA420	Boiler Order	Read	UINT8	Current Boiler Rotation Order, boiler ID 2
42017	0xA421	Boiler Order	Read	UINT8	Current Boiler Rotation Order, boiler ID 3
42018	0xA422	Boiler Order	Read	UINT8	Current Boiler Rotation Order, boiler ID 4
42019	0xA423	Boiler Order	Read	UINT8	Current Boiler Rotation Order, boiler ID 5
42020	0xA424	Boiler Order	Read	UINT8	Current Boiler Rotation Order, boiler ID 6
42021	0xA425	Boiler Order	Read	UINT8	Current Boiler Rotation Order, boiler ID 7
42022	0xA426	Boiler Order	Read	UINT8	Current Boiler Rotation Order, boiler ID 8

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
Master boiler specific					
42043	0xA43B	Master boiler Supply temperature	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42044	0xA43C	Master boiler Return temperature	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42045	0xA43D	Master boiler Outdoor temperature	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42046	0xA43E	Master Boiler Commanded Modulation Rate	Read	UINT8	Modulation rate for the master boiler to run at.
42047	0xA43F	Shadow 2 Commanded Modulation Rate	Read	UINT8	Modulation rate for Shadow boiler 2 to run at
42048	0xA440	Shadow 3 Commanded Modulation Rate	Read	UINT8	Modulation rate for Shadow boiler 3 to run at
42049	0xA441	Shadow 4 Commanded Modulation Rate	Read	UINT8	Modulation rate for Shadow boiler 4 to run at
42050	0xA442	Shadow 5 Commanded Modulation Rate	Read	UINT8	Modulation rate for Shadow boiler 5 to run at
42051	0xA443	Shadow 6 Commanded Modulation Rate	Read	UINT8	Modulation rate for Shadow boiler 6 to run at
42052	0xA444	Shadow 7 Commanded Modulation Rate	Read	UINT8	Modulation rate for Shadow boiler 7 to run at
42053	0xA445	Shadow 8 Commanded Modulation Rate	Read	UINT8	Modulation rate for Shadow boiler 8 to run at
42054	0xA446	Master Boiler Run Boiler Pump for active network call	Read	UINT8	0 = OFF, 1 = ON
42055	0xA447	Master Boiler Run Circ 4 for active network call	Read	UINT8	0 = OFF, 1 = ON
42056	0xA448	Master Boiler Run Circ 3 for active network call	Read	UINT8	0 = OFF, 1 = ON
42057	0xA449	Master Boiler Run Circ 2 for active network call	Read	UINT8	0 = OFF, 1 = ON
42058	0xA44A	Master Boiler Run Circ 1 for active network call	Read	UINT8	0 = OFF, 1 = ON
42059	0xA44B	Master Boiler Add'l Heat for active network call	Read	UINT8	0 = OFF, 1 = ON
42060	0xA44C	Shadow Boiler 2 Run Boiler Pump for active network call	Read	UINT8	0 = OFF, 1 = ON

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42061	0xA44D	Shadow Boiler 2 Run Circ 4 for active network call	Read	UINT8	0 = OFF, 1 = ON
42062	0xA44E	Shadow Boiler 2 Run Circ 3 for active network call	Read	UINT8	0 = OFF, 1 = ON
42063	0xA44F	Shadow Boiler 2 Run Circ 2 for active network call	Read	UINT8	0 = OFF, 1 = ON
42064	0xA450	Shadow Boiler 2 Run Circ 1 for active network call	Read	UINT8	0 = OFF, 1 = ON
42065	0xA451	Shadow Boiler 2 Add'l Heat for active network call	Read	UINT8	0 = OFF, 1 = ON
42066	0xA452	Shadow Boiler 3 Run Boiler Pump for active network call	Read	UINT8	0 = OFF, 1 = ON
42067	0xA453	Shadow Boiler 3 Run Circ 4 for active network call	Read	UINT8	0 = OFF, 1 = ON
42068	0xA454	Shadow Boiler 3 Run Circ 3 for active network call	Read	UINT8	0 = OFF, 1 = ON
42069	0xA455	Shadow Boiler 3 Run Circ 2 for active network call	Read	UINT8	0 = OFF, 1 = ON
42070	0xA456	Shadow Boiler 3 Run Circ 1 for active network call	Read	UINT8	0 = OFF, 1 = ON
42071	0xA457	Shadow Boiler 3 Add'l Heat for active network call	Read	UINT8	0 = OFF, 1 = ON
42072	0xA458	Shadow Boiler 4 Run Boiler Pump for active network call	Read	UINT8	0 = OFF, 1 = ON
42073	0xA459	Shadow Boiler 4 Run Circ 4 for active network call	Read	UINT8	0 = OFF, 1 = ON
42074	0xA45A	Shadow Boiler 4 Run Circ 3 for active network call	Read	UINT8	0 = OFF, 1 = ON
42075	0xA45B	Shadow Boiler 4 Run Circ 2 for active network call	Read	UINT8	0 = OFF, 1 = ON
42076	0xA45C	Shadow Boiler 4 Run Circ 1 for active network call	Read	UINT8	0 = OFF, 1 = ON
42077	0xA45D	Shadow Boiler 4 Add'l Heat for active network call	Read	UINT8	0 = OFF, 1 = ON
42078	0xA45E	Shadow Boiler 5 Run Boiler Pump for active network call	Read	UINT8	0 = OFF, 1 = ON
42079	0xA45F	Shadow Boiler 5 Run Circ 4 for active network call	Read	UINT8	0 = OFF, 1 = ON
42080	0xA460	Shadow Boiler 5 Run Circ 3 for active network call	Read	UINT8	0 = OFF, 1 = ON
42081	0xA461	Shadow Boiler 5 Run Circ 2 for active network call	Read	UINT8	0 = OFF, 1 = ON
42082	0xA462	Shadow Boiler 5 Run Circ 1 for active network call	Read	UINT8	0 = OFF, 1 = ON
42083	0xA463	Shadow Boiler 5 Add'l Heat for active network call	Read	UINT8	0 = OFF, 1 = ON
42084	0xA464	Shadow Boiler 6 Run Boiler Pump for active network call	Read	UINT8	0 = OFF, 1 = ON

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42085	0xA465	Shadow Boiler 6 Run Circ 4 for active network call	Read	UINT8	0 = OFF, 1 = ON
42086	0xA466	Shadow Boiler 6 Run Circ 3 for active network call	Read	UINT8	0 = OFF, 1 = ON
42087	0xA467	Shadow Boiler 6 Run Circ 2 for active network call	Read	UINT8	0 = OFF, 1 = ON
42088	0xA468	Shadow Boiler 6 Run Circ 1 for active network call	Read	UINT8	0 = OFF, 1 = ON
42089	0xA469	Shadow Boiler 6 Add'l Heat for active network call	Read	UINT8	0 = OFF, 1 = ON
42090	0xA46A	Shadow Boiler 7 Run Boiler Pump for active network call	Read	UINT8	0 = OFF, 1 = ON
42091	0xA46B	Shadow Boiler 7 Run Circ 4 for active network call	Read	UINT8	0 = OFF, 1 = ON
42092	0xA46C	Shadow Boiler 7 Run Circ 3 for active network call	Read	UINT8	0 = OFF, 1 = ON
42093	0xA46D	Shadow Boiler 7 Run Circ 2 for active network call	Read	UINT8	0 = OFF, 1 = ON
42094	0xA46E	Shadow Boiler 7 Run Circ 1 for active network call	Read	UINT8	0 = OFF, 1 = ON
42095	0xA46F	Shadow Boiler 7 Add'l Heat for active network call	Read	UINT8	0 = OFF, 1 = ON
42096	0xA470	Shadow Boiler 8 Run Boiler Pump for active network call	Read	UINT8	0 = OFF, 1 = ON
42097	0xA471	Shadow Boiler 8 Run Circ 4 for active network call	Read	UINT8	0 = OFF, 1 = ON
42098	0xA472	Shadow Boiler 8 Run Circ 3 for active network call	Read	UINT8	0 = OFF, 1 = ON
42099	0xA473	Shadow Boiler 8 Run Circ 2 for active network call	Read	UINT8	0 = OFF, 1 = ON
42100	0xA474	Shadow Boiler 8 Run Circ 1 for active network call	Read	UINT8	0 = OFF, 1 = ON
42101	0xA475	Shadow Boiler 8 Add'l Heat for active network call	Read	UINT8	0 = OFF, 1 = ON
42102	0xA476	Master Boiler, Net1 or Net2	Read	UINT8	Value of 1 for Net1 or 2 for Net2 or 0 for no active network call.
					Updated at Start of a Network call.
42103	0xA477	Master Boiler Max Boiler Temp	Read	UINT8	Max Boiler Temp to use for all Shadow Boilers.
					Updated at start of a Network call.
42104	0xA478	Master Boiler, Boiler On Diff	Read	UINT8	Boiler On Diff to use for all Shadow Boilers.
					Updated at Start of a Network call.
42105	0xA479	Master Boiler, Boiler Off Diff	Read	UINT8	Boiler Off Diff to use for all Shadow Boilers.
					Updated at Start of a Network call.
42106	0xA47A	Master Boiler, Pre Pump Time	Read	UINT8	Pre Pump Time to use for all Shadow Boilers.
					Updated at Start of a Network call.

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42107	0xA47B	Master Boiler, Post Pump Time	Read	UINT8	Post Pump Time to use for all Shadow Boilers.
					Updated at Start of a Network call.
42108	0xA47C	Master Boiler, Number of Boilers on Network	Read	UINT8	Number of shadow boilers on the network (1 - 7) Updated always.
42109	0xA47D	Master Boiler, Network 0-10 Volts output	Read	UINT8	0-10V Output to run Updated always.
42110	0xA47E	Master Boiler, Available to run	Read	UINT8	0x01 - Set when the timer has expired for the currently active running input. Network uses this to determine if it can start this boiler running on the network without any delay because another priority is being run.
Shadow 2 specific					
42128	0xA490	Shadow 2, Input 1 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 1 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42129	0xA491	Shadow 2, Input 1 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 1 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42130	0xA492	Shadow 2, Input 2 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 2 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42131	0xA493	Shadow 2, Input 2 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 2 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42132	0xA494	Shadow 2, Input 3 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 3 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42133	0xA495	Shadow 2, Input 3 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 3 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42134	0xA496	Shadow 2, Input 4 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 4 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42135	0xA497	Shadow 2, Input 4 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 4 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42136	0xA498	Shadow 2 Input Status	Read	UINT16	0x0001 - Demand from Input 1 0x0002 - Demand from Input 2 0x0003 - Demand from Input 3 0x0004 - Demand from Input 4 0x0010 - Manual Limit Open 0x0020 - Auto Limit Open 0x0040 - Low Water Open 0x0080 - Air Pressure Switch Open 0x0100 - Closure Switch Open 0x0200 - Exhaust Gas Switch Open 0x0400 - Minimum Air Flow Switch Open
42137	0xA499	Shadow 2 Boiler Status	Read	UINT16	Operating state of boiler 0 - Standby 1 - Prepump 2 - Prepurge 3 - Ignition Speed 4 - Pre-ignition 5 - GV Relay Open Test 6 - GV Relay Closed Test 7 - Ignition 8 - Heat Steady 9 - Postpurge 10 - Lockout 11 - Postpump 12 - Inter-purge 13 - Initializing 14 - Config Check
42138	0xA49A	Shadow 2 Supply Temp (local)	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42139	0xA49B	Shadow 2 Return Temp (local)	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42140	0xA49C	Shadow 2 Outdoor Temp (local)	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42141	0xA49D	Shadow 2 Boiler Out Temp (Greater of Boiler Out 1 or Boiler Out 2)	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42142	0xA49E	Shadow 2 Output Status	Read	UINT16	Output Status from this Shadow Boiler 0x0001 Gas Valve On 0x0002 Circulator 1 On 0x0004 Circulator 2 On 0x0008 Circulator 3 On 0x0010 Circulator 4 On 0x0020 120v Boiler Pump On 0x0040 Additional Heat Demand On 0x0080 Alarm Relay On 0x0100 Pilot External Ignition On
42143	0xA49F	Shadow 2 Model Number	Read	UINT8	Model Number for this Shadow Boiler
42144	0xA4A0	Shadow 2 Boiler BTUs (in 1000's)	Read	UINT16	Number of KBTU's for this Shadow Boiler
42145	0xA4A1	Shadow 2 Burner Hours (MSB)	Read	UINT32	Burner Hours for this Shadow Boiler (MSB)
42146	0xA4A2	Shadow 2 Burner Hours (LSB)	Read	UINT32	Burner Hours for this Shadow Boiler (LSB)
42147	0xA4A3	Shadow 2 Min Rate	Read	UINT8	Min Rate this Shadow Boiler can be run at
42148	0xA4A4	Shadow 2 Max Rate	Read	UINT8	Maximum Rate this Shadow Boiler can be run at
42149	0xA4A5	Shadow 2 Modulation Rate	Read	UINT8	Current Modulation Rate of the Blower for this Shadow Boiler
42150	0xA4A6	Shadow 2 Available Status	Read	UINT8	Availability set when local input currently running but min timer (Local 2) or max timer (local 1) has expired. 0 = Unavailable to run a Network Call 1 = Available to run a Network Call
42151	0xA4A7	Shadow 2 Calibration Warning	Read	UINT32	Current active calibration warnings for Shadow 2 0x8000 = calibrating
42152	0xA4A8	Shadow 2 Calibration Warning	Read	UINT32	0x10000 = needs calibration
Shadow 3 specific					
42160	0xA4B0	Shadow 3, Input 1 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 1 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42161	0xA4B1	Shadow 3, Input 1 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 1 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42162	0xA4B2	Shadow 3, Input 2 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 2 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42163	0xA4B3	Shadow 3, Input 2 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 2 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42164	0xA4B4	Shadow 3, Input 3 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 3 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42165	0xA4B5	Shadow 3, Input 3 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 3 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42166	0xA4B6	Shadow 3, Input 4 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 4 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42167	0xA4B7	Shadow 3, Input 4 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 4 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42168	0xA4B8	Shadow 3 Input Status	Read	UINT16	0x0001 - Demand from Input 1 0x0002 - Demand from Input 2 0x0003 - Demand from Input 3 0x0004 - Demand from Input 4 0x0010 - Manual Limit Open 0x0020 - Auto Limit Open 0x0040 - Low Water Open 0x0080 - Air Pressure Switch Open 0x0100 - Closure Switch Open 0x0200 - Exhaust Gas Switch Open 0x0400 - Minimum Air Flow Switch Open
42169	0xA4B9	Shadow 3 Boiler Status	Read	UINT16	Operating state of boiler 0 - Standby 1 - Prepump 2 - Prepurge 3 - Ignition Speed 4 - Pre-ignition 5 - GV Relay Open Test 6 - GV Relay Closed Test 7 - Ignition 8 - Heat Steady 9 - Postpurge 10 - Lockout 11 - Postpump 12 - Inter-purge 13 - Initializing 14 - Config Check
42170	0xA4BA	Shadow 3 Supply Temp (local)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42171	0xA4BB	Shadow 3 Return Temp (local)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42172	0xA4BC	Shadow 3 Outdoor Temp (local)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42173	0xA4BD	Shadow 3 Boiler Out Temp (Greater of Boiler Out 1 or Boiler Out 2)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42174	0xA4BE	Shadow 3 Output Status	Read	UINT16	Output Status from this Shadow Boiler 0x0001 Gas Valve On 0x0002 Circulator 1 On 0x0004 Circulator 2 On 0x0008 Circulator 3 On 0x0010 Circulator 4 On 0x0020 120v Boiler Pump On 0x0040 Additional Heat Demand On 0x0080 Alarm Relay On 0x0100 Pilot External Ignition On
42175	0xA4BF	Shadow 3 Model Number	Read	UINT8	Model Number for this Shadow Boiler
42176	0xA4C0	Shadow 3 Boiler BTUs (in 1000's)	Read	UINT16	Number of KBTU's for this Shadow Boiler
42177	0xA4C1	Shadow 3 Burner Hours (MSB)	Read	UINT32	Burner Hours for this Shadow Boiler (MSB)
42178	0xA4C2	Shadow 3 Burner Hours (LSB)	Read		Burner Hours for this Shadow Boiler (LSB)
42179	0xA4C3	Shadow 3 Min Rate	Read	UINT8	Min Rate this Shadow Boiler can be run at
42180	0xA4C4	Shadow 3 Max Rate	Read	UINT8	Maximum Rate this Shadow Boiler can be run at
42181	0xA4C5	Shadow 3 Modulation Rate	Read	UINT8	Current Modulation Rate of the Blower for this Shadow Boiler
42182	0xA4C6	Shadow 3 Available Status	Read	UINT8	Availability set when local input currently running but min timer (Local 2) or max timer (local 1) has expired. 0 = Unavailable to run a Network Call 1 = Available to run a Network Call
42183	0xA4C7	Shadow 3 Calibration Warning	Read	UINT32	Current active calibration warnings for Shadow 2 0x8000 = calibrating
42184	0xA4C8	Shadow 3 Calibration Warning	Read	UINT32	0x10000 = needs calibration
Shadow 4 specific					
42192	0xA4D0	Shadow 4, Input 1 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 1 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42193	0xA4D1	Shadow 4, Input 1 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 1 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42194	0xA4D2	Shadow 4, Input 2 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 2 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42195	0xA4D3	Shadow 4, Input 2 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 2 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42196	0xA4D4	Shadow 4, Input 3 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 3 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42197	0xA4D5	Shadow 4, Input 3 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 3 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42198	0xA4D6	Shadow 4, Input 4 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 4 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42199	0xA4D7	Shadow 4, Input 4 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 4 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42200	0xA4D8	Shadow 4 Input Status	Read	UINT16	0x0001 - Demand from Input 1 0x0002 - Demand from Input 2 0x0003 - Demand from Input 3 0x0004 - Demand from Input 4 0x0010 - Manual Limit Open 0x0020 - Auto Limit Open 0x0040 - Low Water Open 0x0080 - Air Pressure Switch Open 0x0100 - Closure Switch Open 0x0200 - Exhaust Gas Switch Open 0x0400 - Minimum Air Flow Switch Open

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42201	0xA4D9	Shadow 4 Boiler Status	Read	UINT16	Operating state of boiler 0 - Standby 1 - Prepump 2 - Prepurge 3 - Ignition Speed 4 - Pre-ignition 5 - GV Relay Open Test 6 - GV Relay Closed Test 7 - Ignition 8 - Heat Steady 9 - Postpurge 10 - Lockout 11 - Postpump 12 - Inter-purge 13 - Initializing 14 - Config Check
42202	0xA4DA	Shadow 4 Supply Temp (local)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42203	0xA4DB	Shadow 4 Return Temp (local)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42204	0xA4DC	Shadow 4 Outdoor Temp (local)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42205	0xA4DD	Shadow 4 Boiler Out Temp (Greater of Boiler Out 1 or Boiler Out 2)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42206	0xA4DE	Shadow 4 Output Status	Read	UINT16	Output Status from this Shadow Boiler 0x0001 Gas Valve On 0x0002 Circulator 1 On 0x0004 Circulator 2 On 0x0008 Circulator 3 On 0x0010 Circulator 4 On 0x0020 120v Boiler Pump On 0x0040 Additional Heat Demand On 0x0080 Alarm Relay On 0x0100 Pilot External Ignition On
42207	0xA4DF	Shadow 4 Model Number	Read	UINT8	Model Number for this Shadow Boiler
42208	0xA4E0	Shadow 4 Boiler BTUs (in 1000's)	Read	UINT16	Number of KBTU's for this Shadow Boiler
42209	0xA4E1	Shadow 4 Burner Hours (MSB)	Read	UINT32	Burner Hours for this Shadow Boiler (MSB)

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42210	0xA4E2	Shadow 4 Burner Hours (LSB)	Read	UINT32	Burner Hours for this Shadow Boiler (LSB)
42211	0xA4E3	Shadow 4 Min Rate	Read	UINT8	Min Rate this Shadow Boiler can be run at
42212	0xA4E4	Shadow 4 Max Rate	Read	UINT8	Maximum Rate this Shadow Boiler can be run at
42213	0xA4E5	Shadow 4 Modulation Rate	Read	UINT8	Current Modulation Rate of the Blower for this Shadow Boiler
42214	0xA4E6	Shadow 4 Available Status	Read	UINT8	Availability set when local input currently running but min timer (Local 2) or max timer (local 1) has expired. 0 = Unavailable to run a Network Call 1 = Available to run a Network Call
42215	0xA4E7	Shadow 4 Calibration Warning	Read	UINT32	Current active calibration warnings for Shadow 2 0x8000 = calibrating
42216	0xA4E8	Shadow 4 Calibration Warning	Read	UINT32	0x10000 = needs calibration
Shadow 5 specific					
42224	0xA4F0	Shadow 5, Input 1 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 1 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42225	0xA4F1	Shadow 5, Input 1 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 1 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42226	0xA4F2	Shadow 5, Input 2 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 2 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42227	0xA4F3	Shadow 5, Input 2 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 2 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42228	0xA4F4	Shadow 5, Input 3 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 3 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42229	0xA4F5	Shadow 5, Input 3 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 3 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42230	0xA4F6	Shadow 5, Input 4 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 4 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42231	0xA4F7	Shadow 5, Input 4 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 4 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42232	0xA4F8	Shadow 5 Input Status	Read	UINT16	0x0001 - Demand from Input 1 0x0002 - Demand from Input 2 0x0003 - Demand from Input 3 0x0004 - Demand from Input 4 0x0010 - Manual Limit Open 0x0020 - Auto Limit Open 0x0040 - Low Water Open 0x0080 - Air Pressure Switch Open 0x0100 - Closure Switch Open 0x0200 - Exhaust Gas Switch Open 0x0400 - Minimum Air Flow Switch Open
42233	0xA4F9	Shadow 5 Boiler Status	Read	UINT16	Operating state of boiler 0 - Standby 1 - Prepump 2 - Prepurge 3 - Ignition Speed 4 - Pre-ignition 5 - GV Relay Open Test 6 - GV Relay Closed Test 7 - Ignition 8 - Heat Steady 9 - Postpurge 10 - Lockout 11 - Postpump 12 - Inter-purge 13 - Initializing 14 - Config Check
42234	0xA4FA	Shadow 5 Supply Temp (local)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42235	0xA4FB	Shadow 5 Return Temp (local)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42236	0xA4FC	Shadow 5 Outdoor Temp (local)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42237	0xA4FD	Shadow 5 Boiler Out Temp (Greater of Boiler Out 1 or Boiler Out 2)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42238	0xA4FE	Shadow 5 Output Status	Read	UINT16	Output Status from this Shadow Boiler 0x0001 Gas Valve On 0x0002 Circulator 1 On 0x0004 Circulator 2 On 0x0008 Circulator 3 On 0x0010 Circulator 4 On 0x0020 120v Boiler Pump On 0x0040 Additional Heat Demand On 0x0080 Alarm Relay On 0x0100 Pilot External Ignition On
42239	0xA4FF	Shadow 5 Model Number	Read	UINT8	Model Number for this Shadow Boiler
42240	0xA500	Shadow 5 Boiler BTUs (in 1000's)	Read	UINT16	Number of KBTU's for this Shadow Boiler
42241	0xA501	Shadow 5 Burner Hours (MSB)	Read	UINT32	Burner Hours for this Shadow Boiler (MSB)
42242	0xA502	Shadow 5 Burner Hours (LSB)	Read	UINT32	Burner Hours for this Shadow Boiler (LSB)
42243	0xA503	Shadow 5 Min Rate	Read	UINT8	Min Rate this Shadow Boiler can be run at
42244	0xA504	Shadow 5 Max Rate	Read	UINT8	Maximum Rate this Shadow Boiler can be run at
42245	0xA505	Shadow 5 Modulation Rate	Read	UINT8	Current Modulation Rate of the Blower for this Shadow Boiler
42246	0xA506	Shadow 5 Available Status	Read	UINT8	Availability set when local input currently running but min timer (Local 2) or max timer (local 1) has expired. 0 = Unavailable to run a Network Call 1 = Available to run a Network Call
42247	0xA507	Shadow 5 Calibration Warning	Read	UINT32	Current active calibration warnings for Shadow 2 0x8000 = calibrating
42248	0xA508	Shadow 5 Calibration Warning	Read	UINT32	0x10000 = needs calibration
Shadow 6 specific					
42256	0xA510	Shadow 6, Input 1 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 1 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42257	0xA511	Shadow 6, Input 1 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 1 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42258	0xA512	Shadow 6, Input 2 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 2 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42259	0xA513	Shadow 6, Input 2 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 2 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42260	0xA514	Shadow 6, Input 3 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 3 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42261	0xA515	Shadow 6, Input 3 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 3 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42262	0xA516	Shadow 6, Input 4 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 4 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42263	0xA517	Shadow 6, Input 4 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 4 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42264	0xA518	Shadow 6 Input Status	Read	UINT16	0x0001 - Demand from Input 1 0x0002 - Demand from Input 2 0x0003 - Demand from Input 3 0x0004 - Demand from Input 4 0x0010 - Manual Limit Open 0x0020 - Auto Limit Open 0x0040 - Low Water Open 0x0080 - Air Pressure Switch Open 0x0100 - Closure Switch Open 0x0200 - Exhaust Gas Switch Open 0x0400 - Minimum Air Flow Switch Open
42265	0xA519	Shadow 6 Boiler Status	Read	UINT16	Operating state of boiler 0 - Standby 1 - Prepump 2 - Prepurge 3 - Ignition Speed 4 - Pre-ignition 5 - GV Relay Open Test 6 - GV Relay Closed Test 7 - Ignition 8 - Heat Steady 9 - Postpurge 10 - Lockout 11 - Postpump 12 - Inter-purge 13 - Initializing 14 - Config Check
42266	0xA51A	Shadow 6 Supply Temp (local)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42267	0xA51B	Shadow 6 Return Temp (local)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42268	0xA51C	Shadow 6 Outdoor Temp (local)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42269	0xA51D	Shadow 6 Boiler Out Temp (Greater of Boiler Out 1 or Boiler Out 2)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42270	0xA51E	Shadow 6 Output Status	Read	UINT16	Output Status from this Shadow Boiler 0x0001 Gas Valve On 0x0002 Circulator 1 On 0x0004 Circulator 2 On 0x0008 Circulator 3 On 0x0010 Circulator 4 On 0x0020 120v Boiler Pump On 0x0040 Additional Heat Demand On 0x0080 Alarm Relay On 0x0100 Pilot External Ignition On
42271	0xA51F	Shadow 6 Model Number	Read	UINT8	Model Number for this Shadow Boiler
42272	0xA520	Shadow 6 Boiler BTUs (in 1000's)	Read	UINT16	Number of KBTU's for this Shadow Boiler
42273	0xA521	Shadow 6 Burner Hours (MSB)	Read	UINT32	Burner Hours for this Shadow Boiler (MSB)
42274	0xA522	Shadow 6 Burner Hours (LSB)	Read	UINT32	Burner Hours for this Shadow Boiler (LSB)
42275	0xA523	Shadow 6 Min Rate	Read	UINT8	Min Rate this Shadow Boiler can be run at
42276	0xA524	Shadow 6 Max Rate	Read	UINT8	Maximum Rate this Shadow Boiler can be run at
42277	0xA525	Shadow 6 Modulation Rate	Read	UINT8	Current Modulation Rate of the Blower for this Shadow Boiler
42278	0xA526	Shadow 6 Available Status	Read	UINT8	Availability set when local input currently running but min timer (Local 2) or max timer (local 1) has expired. 0 = Unavailable to run a Network Call 1 = Available to run a Network Call
42279	0xA527	Shadow 6 Calibration Warning	Read	UINT32	Current active calibration warnings for Shadow 2 0x8000 = calibrating
42280	0xA528	Shadow 6 Calibration Warning	Read	UINT32	0x10000 = needs calibration

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
Shadow 7 specific					
42288	0xA530	Shadow 7, Input 1 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 1 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42289	0xA531	Shadow 7, Input 1 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 1 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42290	0xA532	Shadow 7, Input 2 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 2 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42291	0xA533	Shadow 7, Input 2 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 2 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42292	0xA534	Shadow 7, Input 3 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 3 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42293	0xA535	Shadow 7, Input 3 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 3 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42294	0xA536	Shadow 7, Input 4 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 4 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42295	0xA537	Shadow 7, Input 4 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 4 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42296	0xA538	Shadow 7 Input Status	Read	UINT16	0x0001 - Demand from Input 1 0x0002 - Demand from Input 2 0x0003 - Demand from Input 3 0x0004 - Demand from Input 4 0x0010 - Manual Limit Open 0x0020 - Auto Limit Open 0x0040 - Low Water Open 0x0080 - Air Pressure Switch Open 0x0100 - Closure Switch Open 0x0200 - Exhaust Gas Switch Open 0x0400 - Minimum Air Flow Switch Open

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42297	0xA539	Shadow 7 Boiler Status	Read	UINT16	Operating state of boiler 0 - Standby 1 - Prepump 2 - Prepurge 3 - Ignition Speed 4 - Pre-ignition 5 - GV Relay Open Test 6 - GV Relay Closed Test 7 - Ignition 8 - Heat Steady 9 - Postpurge 10 - Lockout 11 - Postpump 12 - Inter-purge 13 - Initializing 14 - Config Check
42298	0xA53A	Shadow 7 Supply Temp (local)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42299	0xA53B	Shadow 7 Return Temp (local)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42300	0xA53C	Shadow 7 Outdoor Temp (local)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42301	0xA53D	Shadow 7 Boiler Out Temp (Greater of Boiler Out 1 or Boiler Out 2)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42302	0xA53E	Shadow 7 Output Status	Read	UINT16	Output Status from this Shadow Boiler 0x0001 Gas Valve On 0x0002 Circulator 1 On 0x0004 Circulator 2 On 0x0008 Circulator 3 On 0x0010 Circulator 4 On 0x0020 120v Boiler Pump On 0x0040 Additional Heat Demand On 0x0080 Alarm Relay On 0x0100 Pilot External Ignition On
42303	0xA53F	Shadow 7 Model Number	Read	UINT8	Model Number for this Shadow Boiler
42304	0xA540	Shadow 7 Boiler BTUs (in 1000's)	Read	UINT16	Number of KBTU's for this Shadow Boiler
42305	0xA541	Shadow 7 Burner Hours (MSB)	Read	UINT32	Burner Hours for this Shadow Boiler (MSB)

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42306	0xA542	Shadow 7 Burner Hours (LSB)	Read	UINT32	Burner Hours for this Shadow Boiler (LSB)
42307	0xA543	Shadow 7 Min Rate	Read	UINT8	Min Rate this Shadow Boiler can be run at
42308	0xA544	Shadow 7 Max Rate	Read	UINT8	Maximum Rate this Shadow Boiler can be run at
42309	0xA545	Shadow 7 Modulation Rate	Read	UINT8	Current Modulation Rate of the Blower for this Shadow Boiler
42310	0xA546	Shadow 7 Available Status	Read	UINT8	Availability set when local input currently running but min timer (Local 2) or max timer (local 1) has expired. 0 = Unavailable to run a Network Call 1 = Available to run a Network Call
42311	0xA547	Shadow 7 Calibration Warning	Read	UINT32	Current active calibration warnings for Shadow 2 0x8000 = calibrating
42312	0xA548	Shadow 7 Calibration Warning	Read	UINT32	0x10000 = needs calibration
Shadow 8 specific					
42320	0xA550	Shadow 8, Input 1 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 1 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42321	0xA551	Shadow 8, Input 1 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 1 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42322	0xA552	Shadow 8, Input 2 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 2 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42323	0xA553	Shadow 8, Input 2 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 2 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42324	0xA554	Shadow 8, Input 3 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 3 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42325	0xA555	Shadow 8, Input 3 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 3 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned
42326	0xA556	Shadow 8, Input 4 Priority	Read	UINT8	Priority of this Shadow Boiler's Input 4 (Local-1, Net-1, Net-2, Local-2) 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = System Pump 1176 5 = Off for 1176 7 = System Pump 8 = Not Assigned / Priority Off
42327	0xA557	Shadow 8, Input 4 System Type	Read	UINT8	System Type for this Shadow Boiler's Input 4 0 = Fan Coil 1 = Finned Tube Baseboard 2 = Cast Iron Baseboard 3 = Cast Iron Radiator 4 = Radiant-Slab On Grade 5 = Radiant-Thin Slab 6 = Radiant-Below Floor 7 = Radiant-Above Floor 8 = Domestic (Hot Water) 9 = Custom 10 = Unassigned

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42328	0xA558	Shadow 8 Input Status	Read	UINT16	0x0001 - Demand from Input 1 0x0002 - Demand from Input 2 0x0003 - Demand from Input 3 0x0004 - Demand from Input 4 0x0010 - Manual Limit Open 0x0020 - Auto Limit Open 0x0040 - Low Water Open 0x0080 - Air Pressure Switch Open 0x0100 - Closure Switch Open 0x0200 - Exhaust Gas Switch Open 0x0400 - Minimum Air Flow Switch Open
42329	0xA559	Shadow 8 Boiler Status	Read	UINT16	Operating state of boiler 0 - Standby 1 - Prepump 2 - Prepurge 3 - Ignition Speed 4 - Pre-ignition 5 - GV Relay Open Test 6 - GV Relay Closed Test 7 - Ignition 8 - Heat Steady 9 - Postpurge 10 - Lockout 11 - Postpump 12 - Inter-purge 13 - Initializing 14 - Config Check
42330	0xA55A	Shadow 8 Supply Temp (local)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42331	0xA55B	Shadow 8 Return Temp (local)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42332	0xA55C	Shadow 8 Outdoor Temp (local)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42333	0xA55D	Shadow 8 Boiler Out Temp (Greater of Boiler Out 1 or Boiler Out 2)	Read	UINT8	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42334	0xA55E	Shadow 8 Output Status	Read	UINT16	Output Status from this Shadow Boiler 0x0001 Gas Valve On 0x0002 Circulator 1 On 0x0004 Circulator 2 On 0x0008 Circulator 3 On 0x0010 Circulator 4 On 0x0020 120v Boiler Pump On 0x0040 Additional Heat Demand On 0x0080 Alarm Relay On 0x0100 Pilot External Ignition On
42335	0xA55F	Shadow 8 Model Number	Read	UINT8	Model Number for this Shadow Boiler
42336	0xA560	Shadow 8 Boiler BTUs (in 1000's)	Read	UINT16	Number of KBTU's for this Shadow Boiler
42337	0xA561	Shadow 8 Burner Hours	Read	UINT32	Burner Hours for this Shadow Boiler (MSB)
42338	0xA562		Read		Burner Hours for this Shadow Boiler (LSB)
42339	0xA563	Shadow 8 Min Rate	Read	UINT8	Min Rate this Shadow Boiler can be run at
42340	0xA564	Shadow 8 Max Rate	Read	UINT8	Maximum Rate this Shadow Boiler can be run at
42341	0xA565	Shadow 8 Modulation Rate	Read	UINT8	Current Modulation Rate of the Blower for this Shadow Boiler
42342	0xA566	Shadow 8 Available Status	Read	UINT8	Availability set when local input currently running but min timer (Local 2) or max timer (local 1) has expired. 0 = Unavailable to run a Network Call 1 = Available to run a Network Call
42343	0xA567	Shadow 8 Calibration Warning	Read	UINT32	Current active calibration warnings for Shadow 2 0x8000 = calibrating
42344	0xA568	Shadow 8 Calibration Warning	Read	UINT32	0x10000 = needs calibration
Combustion system					
42439	0xA5C7	Gas Valve Relay 1	Read	UINT8	0 = Off, 1 = On
42440	0xA5C8	Gas Valve Relay 2	Read	UINT8	0 = Off, 1 = On
42441	0xA5C9	Status of both Gas Valves	Read	UINT16	0 = Off, 1 = On
42442	0xA5CA	Pilot/External Ignition Source	Read	UINT8	0 = Off, 1 = On
42443	0xA5CB	Blower Speed	Read	UINT16	RPM Actual
42444	0xA5CC	Local Flame Sense Current	Read	UINT16	Flame current *10 in micro amps. Ex 23 = 2.3
42445	0xA5CD	Remote Flame Sense Current	Read	UINT16	Flame current *10 in micro amps. Ex 23 = 2.3
120v outputs					
42464	0xA5E0	Circulator 1 / 3 way valve DHW	Read	UINT16	0 = Off, 1 = On
42465	0xA5E1	Circulator 2	Read	UINT16	0 = Off, 1 = On
42466	0xA5E2	Circulator 3	Read	UINT16	0 = Off, 1 = On
42467	0xA5E3	Circulator 4 / 3 way valve CH	Read	UINT16	0 = Off, 1 = On
42468	0xA5E4	120V Boiler Pump	Read	UINT16	0 = Off, 1 = On
Control inputs					
42488	0xA5F8	Enable Modbus TT inputs	Read/ Write	UINT16	Virtual Modbus TT inputs are enabled by setting 2 byte second timer in this register. This timer counts down. When 0, A5F9 to A5FC are set to 0. Keep writing this timer to prevent it reaching zero to keep inputs active

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42489	0xA5F9	Modbus TT1 input state	Read/ Write	UINT8	0 = Does not simulate a TT1 input being active 1 = Simulates a TT1 input being active
42490	0xA5FA	Modbus TT2 input state	Read/ Write	UINT8	0 = Does not simulate a TT2 input being active 1 = Simulates a TT2 input being active
42491	0xA5FB	Modbus TT3 input state	Read/ Write	UINT8	0 = Does not simulate a TT3 input being active 1 = Simulates a TT3 input being active
42492	0xA5FC	Modbus TT4 input state	Read/ Write	UINT8	0 = Does not simulate a TT4 input being active 1 = Simulates a TT4 input being active
42493	0xA5FD	TT1 Resolved input state	Read	UINT8	0 = TT1 input is not active 1 = TT1 input is active
42494	0xA5FE	TT2 Resolved input state	Read	UINT8	0 = TT2 input is not active 1 = TT2 input is active
42495	0xA5FF	TT3 Resolved input state	Read	UINT8	0 = TT3 input is not active 1 = TT3 input is active
42496	0xA600	TT4 Resolved input state	Read	UINT8	0 = TT4 input is not active 1 = TT4 input is active
42497	0xA601	Input 1 Demand Status	Read	UINT16	0 = Demand 1 input is not active 1 = Demand 1 input is active
42498	0xA602	Input 2 Demand Status	Read	UINT16	0 = Demand 2 input is not active 1 = Demand 2 input is active
42499	0xA603	Input 3 Demand Status	Read	UINT16	0 = Demand 3 input is not active 1 = Demand 3 input is active
42500	0xA604	Input 4 Demand Status	Read	UINT16	0 = Demand 4 input is not active 1 = Demand 4 input is active
42501	0xA605	Minimum air flow switch state	Read	UINT8	0 = Switch input is open 1 = Switch input is closed
42502	0xA606	Closure switch state	Read	UINT8	0 = Switch input is open 1 = Switch input is closed
42503	0xA607	Wind Detection Switch state	Read	UINT8	0 = Switch input is open 1 = Switch input is closed
42504	0xA608	Auto Limit switch state	Read	UINT8	0 = Switch input is open 1 = Switch input is closed
42505	0xA609	Manual Limit switch state	Read	UINT8	0 = Switch input is open 1 = Switch input is closed
42506	0xA60A	Gas pressure switch state	Read	UINT8	0 = Switch input is open 1 = Switch input is closed
42507	0xA60B	Low Water cutoff switch state	Read	UINT8	0 = Switch input is open 1 = Switch input is closed
42508	0xA60C	Air pressure switch state	Read	UINT8	0 = Switch input is open 1 = Switch input is closed
42509	0xA60D	0 - 10 VDC input voltage	Read	UINT8	Input voltage *10. In 10ths of a volt. Ex. 54 = 5.4
42510	0xA60E	Combi water flow rate	Read	UINT16	Gallons per minute*10. 35 = 3.5 GPM

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42511	0xA60F	Integrated LWCO Resistance	Read	UINT8	0-5 = 65535 to 54500 Ohms 6 = 54000 to 45000 Ohms 7 = 44500 to 38500 Ohms 8 = 38000 to 33000 Ohms 9 = 32500 to 27500 Ohms 10 = 27000 to 24000 Ohms 11 = 23500 to 21000 Ohms 12 = 20500 to 19000 Ohms 13 = 18500 to 16500 Ohms 14 = 16000 to 14500 Ohms 15 = 14000 to 13000 Ohms 16 = 12500 to 11500 Ohms 17 = 11000 to 10500 Ohms 18 = 10000 to 9500 Ohms 19 = 9000 to 8000 Ohms 20 = 7500 Ohms 21 = 7000 to 6500 Ohms 22 = 6000 Ohms 23 = 5500 to 5000 Ohms 24 = 4500 Ohms 25 = 4000 Ohms 26 = 3500 Ohms 27 = 3000 Ohms 28 = 2500 Ohms 29 = 2000 Ohms 30 = 1535 Ohms 31 = 1035 Ohms 32 = 750 Ohms 33 = 435 Ohms 34 - 255 = 335 ohms or less
AHD, Alarm, 0-10v output					
42530	0xA622	Additional Heat	Read	UINT8	0 = Off, 1 = On
42531	0xA623	Alarm	Read	UINT8	0 = Off, 1 = On
42532	0xA624	0-10V Output	Read	UINT16	0-10V Current voltage Output*10
Input Names					
42560	0xA640	Zone Name 1	Read/ Write	UINT8	Zone 1 Name (input 1)
42561	0xA641	Zone Name 1	Read/ Write	UINT8	
42562	0xA642	Zone Name 1	Read/ Write	UINT8	
42563	0xA643	Zone Name 1	Read/ Write	UINT8	
42564	0xA644	Zone Name 1	Read/ Write	UINT8	
42565	0xA645	Zone Name 1	Read/ Write	UINT8	
42566	0xA646	Zone Name 1	Read/ Write	UINT8	
42567	0xA647	Zone Name 1	Read/ Write	UINT8	

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42568	0xA648	Zone Name 1	Read/ Write	UINT8	
42569	0xA649	Zone Name 1	Read/ Write	UINT8	
42570	0xA64A	Zone Name 1	Read/ Write	UINT8	
42571	0xA64B	Zone Name 1	Read/ Write	UINT8	
42572	0xA64C	Zone Name 1	Read/ Write	UINT8	
42573	0xA64D	Zone Name 1	Read/ Write	UINT8	
42574	0xA64E	Zone Name 1	Read/ Write	UINT8	
42575	0xA64F	Zone Name 2	Read/ Write	UINT8	Zone 2 Name (Input 2)
42576	0xA650	Zone Name 2	Read/ Write	UINT8	
42577	0xA651	Zone Name 2	Read/ Write	UINT8	
42578	0xA652	Zone Name 2	Read/ Write	UINT8	
42579	0xA653	Zone Name 2	Read/ Write	UINT8	
42580	0xA654	Zone Name 2	Read/ Write	UINT8	
42581	0xA655	Zone Name 2	Read/ Write	UINT8	
42582	0xA656	Zone Name 2	Read/ Write	UINT8	
42583	0xA657	Zone Name 2	Read/ Write	UINT8	
42584	0xA658	Zone Name 2	Read/ Write	UINT8	
42585	0xA659	Zone Name 2	Read/ Write	UINT8	
42586	0xA65A	Zone Name 2	Read/ Write	UINT8	
42587	0xA65B	Zone Name 2	Read/ Write	UINT8	
42588	0xA65C	Zone Name 2	Read/ Write	UINT8	
42589	0xA65D	Zone Name 2	Read/ Write	UINT8	
42590	0xA65E	Zone Name 3	Read/ Write	UINT8	Zone 3 Name (Input 3)
42591	0xA65F	Zone Name 3	Read/ Write	UINT8	

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42592	0xA660	Zone Name 3	Read/ Write	UINT8	
42593	0xA661	Zone Name 3	Read/ Write	UINT8	
42594	0xA662	Zone Name 3	Read/ Write	UINT8	
42595	0xA663	Zone Name 3	Read/ Write	UINT8	
42596	0xA664	Zone Name 3	Read/ Write	UINT8	
42597	0xA665	Zone Name 3	Read/ Write	UINT8	
42598	0xA666	Zone Name 3	Read/ Write	UINT8	
42599	0xA667	Zone Name 3	Read/ Write	UINT8	
42600	0xA668	Zone Name 3	Read/ Write	UINT8	
42601	0xA669	Zone Name 3	Read/ Write	UINT8	
42602	0xA66A	Zone Name 3	Read/ Write	UINT8	
42603	0xA66B	Zone Name 3	Read/ Write	UINT8	
42604	0xA66C	Zone Name 3	Read/ Write	UINT8	
42605	0xA66D	Zone Name 4	Read/ Write	UINT8	Zone 4 Name (Input 4)
42606	0xA66E	Zone Name 4	Read/ Write	UINT8	
42607	0xA66F	Zone Name 4	Read/ Write	UINT8	
42608	0xA670	Zone Name 4	Read/ Write	UINT8	
42609	0xA671	Zone Name 4	Read/ Write	UINT8	
42610	0xA672	Zone Name 4	Read/ Write	UINT8	
42611	0xA673	Zone Name 4	Read/ Write	UINT8	
42612	0xA674	Zone Name 4	Read/ Write	UINT8	
42613	0xA675	Zone Name 4	Read/ Write	UINT8	
42614	0xA676	Zone Name 4	Read/ Write	UINT8	
42615	0xA677	Zone Name 4	Read/ Write	UINT8	

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42616	0xA678	Zone Name 4	Read/ Write	UINT8	
42617	0xA679	Zone Name 4	Read/ Write	UINT8	
42618	0xA67A	Zone Name 4	Read/ Write	UINT8	
42619	0xA67B	Zone Name 4	Read/ Write	UINT8	
Temperature Inputs					
42632	0xA688	Boiler Out Temperature Sensor 1 Value	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42633	0xA689	Boiler Out Temperature Sensor 2 Value	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42634	0xA68A	Boiler In Temperature Sensor Value	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42635	0xA68B	Supply temperature read from the local supply thermistor	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42636	0xA68C	Return temperature read from the local return thermistor	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42637	0xA68D	DHW Out Temperature Sensor 1 Value	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42638	0xA68E	DHW Out Temperature Sensor 2 Value	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42640	0xA690	Flue Temperature Sensor 1 Value	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42641	0xA691	Flue Temperature Sensor 2 Value	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42642	0xA692	Outdoor temperature read from the local thermistor	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
Controlled to I/O					
42662	0xA6A6	Boiler Out Temperature that system is controlling to. Is greater of Boiler Out 1 and Boiler Out 2.	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42663	0xA6A7	Supply temperature being controlled to. Either local sensor or network sensor depnding on configuration.	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42664	0xA6A8	Return temperature being controlled to. Either local sensor or network sensor depnding on configuration.	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42665	0xA6A9	DHW Out Temperature that system is controlling to	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42667	0xA6AB	Flue Temperature that system is controlling to	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42668	0xA6AC	Outdoor temperature being controlled to. Either local sensor or network sensor depending on configuration.	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
Modulation					
42829	0xA74D	Target Supply Temp	Read	UINT16	Target Temperature
42830	0xA74E	Modulation Temperature	Read	UINT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
42831	0xA74F	Active Priority	Read	UINT8	0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = Local Priority 3 6 = Freeze Protection 7 = System Pump 8 = Priority Off 9 = No active priority
42832	0xA750	Modulation On Diff	Read	INT16	2-20
42833	0xA751	Modulation Off Diff	Read	INT16	2-20
42834	0xA752	Max Boiler Temp for Modulation	Read	UINT8	Will contain the value from the priority setting for Max Boiler Temp except for the case where the control is satisfying a combi demand with a failed DHW Out sensor which will set this value to 140F.
42835	0xA753	Modulation Sensor	Read	UINT8	0 = Boiler Out 1 = System Supply 2 = DHW Out
42836	0xA754	Cold Start Modulation	Read	UINT8	A central heat request with a demand greater than the Cold Start Error priority setting will begin the heat cycle at this modulation rate instead of the Min Rate. This is a hard coded value of 50 that can be changed by Winterrogator in block 33 but is not saved to non-volatile memory.
Blower Control					
42855	0xA767	Modulation rate	Read	UINT8	Modulation rate 10% to 100%
42856	0xA768	Blower Speed	Read	UINT16	Desired blower RPM
42857	0xA769	Blower Desired PWM	Read	UINT16	Blwr Desired PWM
42858	0xA76A	Blower Desired RPM	Read	UINT16	Blwr Desired RPM
42859	0xA76B	Blower Speed	Read	UINT16	Blwr Actual RPM
42860	0xA76C	Percent PWM	Read	UINT16	PWM Percent * 10
42861	0xA76D	Blower RPM Override Timer	Read	UINT16	Number of seconds to override blower motor RPM
42862	0xA76E	PWM Override Timer	Read	UINT16	Number of seconds to override blower motor PWM
42863	0xA76F	RPM Ramp Rate	Read	UINT16	Rate at which RPM can ramp
42864	0xA770	Heat Steady RPM Ramp Rate	Read	UINT16	Rate at which RPM can ramp in heat steady

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
42865	0xA771	RPM Jump Threshold	Read	UINT16	If RPM delta greater than this use RPM/PWM lookup table
42866	0xA772	Manual Test Mode Fire Rate Selection	Read	UINT8	Used to force a fire rate once boiler is running 0 = Auto 1 = Low Fire 2 = Ignition Speed 3 = High Fire
42867	0xA773	Manual Test Mode Variable Speed Pump Volts	Read	UINT8	10 to 100
Pre/Post-Pump Timers					
42889	0xA789	Pre Pump Timer	Read/ Write	UINT8	Timer that is used for counting down prepump time.
42890	0xA78A	Priority To Post Pump	Read	UINT8	What priority we are post pumping for. 0 = Local Priority 1 1 = Network 1 2 = Network 2 3 = Local Priority 2 4 = Local Priority 3 6 = Freeze Protection 7 = System Pump 8 = Priority Off 9 = No active priority
42891	0xA78B	Post Pump Timer	Read/ Write	UINT8	Timer that is used for counting down postpump time.
Fault counters and run times					
42991	0xA7EF	Auto lockout counter	Read	UINT8	indicates how many timea an auto lockout has occurred
42992	0xA7F0	Manual lockout counter	Read	UINT8	indicates how many times a manual lockout has occurred
42993	0xA7F1	Safety micro RAM fault	Read	UINT16	Indicates how many safety micro RAM faults occurred
42994	0xA7F2	Ignition Retries	Read	UINT16	Indicates number of failed ignition attempts
42995	0xA7F3	Burner runtime hours	Read/ Write	UINT32	Most significant 2 bytes of burner runtime hours
42996	0xA7F4	Burner runtime hours	Read/ Write	UINT32	Least significant 2 bytes of burner runtime hours
42997	0xA7F5	Input 1 hours	Read/ Write	UINT32	Most significant 2 bytes of number of hours input 1 has been on
42998	0xA7F6	Input 1 hours	Read/ Write	UINT32	Least significant 2 bytes of number of hours input 1 has been on
42999	0xA7F7	Input 2 hours	Read/ Write	UINT32	Most significant 2 bytes of number of hours input 2 has been on
43000	0xA7F8	Input 2 hours	Read/ Write	UINT32	Least significant 2 bytes of number of hours input 2 has been on
43001	0xA7F9	Input 3 hours	Read/ Write	UINT32	Most significant 2 bytes of number of hours input 3 has been on
43002	0xA7FA	Input 3 hours	Read/ Write	UINT32	Least significant 2 bytes of number of hours input 3 has been on
43003	0xA7FB	Input 4 hours or Keep Hot Hours (Combi)	Read/ Write	UINT32	Most significant 2 bytes of number of hours input 4 has been on
43004	0xA7FC	Input 4 hours or Keep Hot Hours (Combi)	Read/ Write	UINT32	Least significant 2 bytes of number of hours input 4 has been on

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43005	0xA7FD	Network hours	Read/ Write	UINT32	Most significant 2 bytes of number of hoursnetwork been on
43006	0xA7FE	Network hours	Read/ Write	UINT32	Least significant 2 bytes of number of network has been on
43007	0xA7FF	Ignition attempts	Read/ Write	UINT32	Most significant 2 bytes of the number of ignition attempts in the life of the control
43008	0xA800	Ignition attempts	Read/ Write	UINT32	Least significant 2 bytes of the number of ignition attempts in the life of the control
Flame Sense History					
43028	0xA814	Last 5 ignition flame sense currents	Read	UINT8	Most recent proof of ignition flame current * 10. 25 = 2.5 uAmps
43029	0xA815	Last 5 ignition flame sense currents	Read	UINT8	
43030	0xA816	Last 5 ignition flame sense currents	Read	UINT8	
43031	0xA817	Last 5 ignition flame sense currents	Read	UINT8	
43032	0xA818	Last 5 ignition flame sense currents	Read	UINT8	Oldest proof of ignition flame current * 10. 20 = 2.2uAmps
43033	0xA819	Last 5 stabilization flame sense currents	Read	UINT8	Most recent flame stabilization time flame current * 10. 25 = 2.5 uAmps
43034	0xA81A	Last 5 stabilization flame sense currents	Read	UINT8	
43035	0xA81B	Last 5 stabilization flame sense currents	Read	UINT8	
43036	0xA81C	Last 5 stabilization flame sense currents	Read	UINT8	
43037	0xA81D	Last 5 stabilization flame sense currents	Read	UINT8	Oldest flame stabilization time flame current * 10. 20 = 2.2uAmps
Warnings					
43057	0xA831	Target Reduced Flue Temperature	Read	UINT16	0 - Not active 1 - Active
43058	0xA832	Target Reduced Flow	Read	UINT16	0 - Not active 1 - Active
43059	0xA833	Target Reduced Boiler Temperature	Read	UINT16	0 - Not active 1 - Active
43060	0xA834	Integrated LWCO active	Read	UINT16	0 - Not active 1 - Active
43061	0xA835	Supply Sensor Temperature Warning	Read	UINT16	0 - Not active 1 - Active
43062	0xA836	Return Temperature Sensor Warning	Read	UINT16	0 - Not active 1 - Active
43064	0xA838	DHW Out Temperature Sensor Warning	Read	UINT16	0 - Not active 1 - Active

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43065	0xA839	DHW Greater than Boiler Out Temperature Warning	Read	UINT16	0 - Not active 1 - Active
43066	0xA83A	Outdoor Sensor Warning	Read	UINT16	0 - Not active 1 - Active
43067	0xA83B	Clock Warning	Read	UINT16	0 - Not active 1 - Active
43068	0xA83C	Exceed Maximum Flow Rate Warning	Read	UINT16	0 - Not active 1 - Active
43071	0xA83F	Temperature Rise Too Quick Warning	Read	UINT16	0 - Not active 1 - Active
43072	0xA840	Blower is calibrating	Read	UINT16	0 - Not active 1 - Active
43073	0xA841	Blower needs calibration	Read	UINT16	0 - Not active 1 - Active
43074	0xA842	Virtual Inputs Active	Read	UINT16	0 - Not active 1 - Active
43075	0xA843	PreHeat is Active	Read	UINT16	0 - Not active 1 - Active
43076	0xA844	Freeze Protection Active	Read	UINT16	0 - Not active 1 - Active
43077	0xA845	Warm Weather Shutdown Active	Read	UINT16	0 - Not active 1 - Active
43078	0xA846	EcoBoost is Active	Read	UINT16	0 - Not active 1 - Active
43079	0xA847	Unconfigured Net 1	Read	UINT16	0 - Not active 1 - Active
43080	0xA848	Unconfigured Net 2	Read	UINT16	0 - Not active 1 - Active
43081	0xA849	High Outside Wind	Read	UINT16	0 - Not active 1 - Active
43082	0xA84A	Low Flame Shutdown	Read	UINT16	0 - Not active 1 - Active
43083	0xA84B	Return > Supply on Shadow #	Read	UINT16	0 - Not active 1 - Active
43084	0xA84C	Reduced Max Boiler Temp	Read	UINT16	0 - Not active 1 - Active

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
Active Faults					
43094	0xA856	Active fault 1	Read	UINT8	Fault code 1 = Auto Limit Switch 2 = Manual Limit Switch 3 = False Flame 4 = Ignition 2 5 = Ignition 1 6 = Blower 1 7 = Integrated LWCO 8 = Discrete LWCO 9 = Gas Relay 4 10 = Gas Relay 3 11 = Gas Relay 2 12 = Gas Relay 1 13 = Safety Micro ROM 14 = Safety Micro RAM 15 = Flame Loss 16 = Safety Micro Communications Error 17 = Safety Micro Configuration Error 18 = High Temp Limit 19 = Air Pressure Switch 20 = Additional Test Bit 8 21 = Additional Test Bit 7 22 = Additional Test Bit 6 23 = Additional Test Bit 5 24 = Additional Test Bit 4 25 = Analog Input 26 = Safety Micro Flame Circuit 27 = Safety Micro Internal Clock 28 = Blower 2 29 = Additional Test Bit 0 30 = Additional Test Bit 2 31 = Additional Test Bit 3 32 = Flue Temp Too High 220F 33 = DHW More Than 10F Apart

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
					34 = Boiler Out More Than 10F Apart 35 = Flue Temperature More Than 10F Apart 36 = Flue Temperature Too High 210F 37 = Flue 2 Thermistor Open 38 = Flue 2 Thermistor Shorted 39 = Flue 1 Thermistor Open 40 = Flue 1 Thermistor Shorted 41 = DHW Out 1 Thermistor Open 42 = DHW Out 1 Thermistor Shorted 43 = DHW Out 2 Thermistor Open 44 = DHW Out 2 Thermistor Shorted 45 = Boiler Out 2 Thermistor Open 46 = Boiler Out 2 Thermistor Shorted 47 = Boiler Out 1 Thermistor Open 48 = Boiler Out 1 Thermistor Shorted 49 = Gas Pressure Switch 50 = Pilot Valve 1 51 = Pilot Valve 2 52 = Ignition 3 53 = Blower Fault 3 65 = U2 U1 Configuration 66 = U2 U1 Communications 68 = Closure Switch 69 = Boiler In Thermistor Shorted 70 = Boiler In Thermistor Open 71 = Temp Rise Too Quick 72 = Supply 60F > Return 73 = Return > Supply 74 = DHW Out > Boiler Out 75 = Exhaust Gas Pressure Switch 76 = Minimum Air Flow Switch 77 = Software Incompatibility 78 = 3 Way Stuck CH 79 = 3 Way Stuck DHW
					80 = Wrong J6 Jumper 81 = Outdoor Air Thermistor 82 = DHW In Sensor 83 = Supply Sensor 84 = Return Sensor 85 = DHW Out Sensor 86 = Low Flame Shutdown

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43095	0xA857	Active fault 2	Read	UINT8	Fault code 1 = Auto Limit Switch 2 = Manual Limit Switch 3 = False Flame 4 = Ignition 2 5 = Ignition 1 6 = Blower 1 7 = Integrated LWCO 8 = Discrete LWCO 9 = Gas Relay 4 10 = Gas Relay 3 11 = Gas Relay 2 12 = Gas Relay 1 13 = Safety Micro ROM 14 = Safety Micro RAM 15 = Flame Loss 16 = Safety Micro Communications Error 17 = Safety Micro Configuration Error 18 = High Temp Limit 19 = Air Pressure Switch 20 = Additional Test Bit 8 21 = Additional Test Bit 7 22 = Additional Test Bit 6 23 = Additional Test Bit 5 24 = Additional Test Bit 4 25 = Analog Input 26 = Safety Micro Flame Circuit 27 = Safety Micro Internal Clock 28 = Blower 2 29 = Additional Test Bit 0 30 = Additional Test Bit 2 31 = Additional Test Bit 3 32 = Flue Temp Too High 220F 33 = DHW More Than 10F Apart

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
					34 = Boiler Out More Than 10F Apart 35 = Flue Temperature More Than 10F Apart 36 = Flue Temperature Too High 210F 37 = Flue 2 Thermistor Open 38 = Flue 2 Thermistor Shorted 39 = Flue 1 Thermistor Open 40 = Flue 1 Thermistor Shorted 41 = DHW Out 1 Thermistor Open 42 = DHW Out 1 Thermistor Shorted 43 = DHW Out 2 Thermistor Open 44 = DHW Out 2 Thermistor Shorted 45 = Boiler Out 2 Thermistor Open 46 = Boiler Out 2 Thermistor Shorted 47 = Boiler Out 1 Thermistor Open 48 = Boiler Out 1 Thermistor Shorted 49 = Gas Pressure Switch 50 = Pilot Valve 1 51 = Pilot Valve 2 52 = Ignition 3 53 = Blower Fault 3 65 = U2 U1 Configuration 66 = U2 U1 Communications 68 = Closure Switch 69 = Boiler In Thermistor Shorted 70 = Boiler In Thermistor Open 71 = Temp Rise Too Quick 72 = Supply 60F > Return 73 = Return > Supply 74 = DHW Out > Boiler Out 75 = Exhaust Gas Pressure Switch 76 = Minimum Air Flow Switch 77 = Software Incompatibility 78 = 3 Way Stuck CH 79 = 3 Way Stuck DHW
					80 = Wrong J6 Jumper 81 = Outdoor Air Thermistor 82 = DHW In Sensor 83 = Supply Sensor 84 = Return Sensor 85 = DHW Out Sensor 86 = Low Flame Shutdown

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43096	0xA858	Active fault 3	Read	UINT8	Fault code 1 = Auto Limit Switch 2 = Manual Limit Switch 3 = False Flame 4 = Ignition 2 5 = Ignition 1 6 = Blower 1 7 = Integrated LWCO 8 = Discrete LWCO 9 = Gas Relay 4 10 = Gas Relay 3 11 = Gas Relay 2 12 = Gas Relay 1 13 = Safety Micro ROM 14 = Safety Micro RAM 15 = Flame Loss 16 = Safety Micro Communications Error 17 = Safety Micro Configuration Error 18 = High Temp Limit 19 = Air Pressure Switch 20 = Additional Test Bit 8 21 = Additional Test Bit 7 22 = Additional Test Bit 6 23 = Additional Test Bit 5 24 = Additional Test Bit 4 25 = Analog Input 26 = Safety Micro Flame Circuit 27 = Safety Micro Internal Clock 28 = Blower 2 29 = Additional Test Bit 0 30 = Additional Test Bit 2 31 = Additional Test Bit 3 32 = Flue Temp Too High 220F 33 = DHW More Than 10F Apart

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
					34 = Boiler Out More Than 10F Apart 35 = Flue Temperature More Than 10F Apart 36 = Flue Temperature Too High 210F 37 = Flue 2 Thermistor Open 38 = Flue 2 Thermistor Shorted 39 = Flue 1 Thermistor Open 40 = Flue 1 Thermistor Shorted 41 = DHW Out 1 Thermistor Open 42 = DHW Out 1 Thermistor Shorted 43 = DHW Out 2 Thermistor Open 44 = DHW Out 2 Thermistor Shorted 45 = Boiler Out 2 Thermistor Open 46 = Boiler Out 2 Thermistor Shorted 47 = Boiler Out 1 Thermistor Open 48 = Boiler Out 1 Thermistor Shorted 49 = Gas Pressure Switch 50 = Pilot Valve 1 51 = Pilot Valve 2 52 = Ignition 3 53 = Blower Fault 3 65 = U2 U1 Configuration 66 = U2 U1 Communications 68 = Closure Switch 69 = Boiler In Thermistor Shorted 70 = Boiler In Thermistor Open 71 = Temp Rise Too Quick 72 = Supply 60F > Return 73 = Return > Supply 74 = DHW Out > Boiler Out 75 = Exhaust Gas Pressure Switch 76 = Minimum Air Flow Switch 77 = Software Incompatibility 78 = 3 Way Stuck CH 79 = 3 Way Stuck DHW
					80 = Wrong J6 Jumper 81 = Outdoor Air Thermistor 82 = DHW In Sensor 83 = Supply Sensor 84 = Return Sensor 85 = DHW Out Sensor 86 = Low Flame Shutdown

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43097	0xA859	Active fault 4	Read	UINT8	Fault code 1 = Auto Limit Switch 2 = Manual Limit Switch 3 = False Flame 4 = Ignition 2 5 = Ignition 1 6 = Blower 1 7 = Integrated LWCO 8 = Discrete LWCO 9 = Gas Relay 4 10 = Gas Relay 3 11 = Gas Relay 2 12 = Gas Relay 1 13 = Safety Micro ROM 14 = Safety Micro RAM 15 = Flame Loss 16 = Safety Micro Communications Error 17 = Safety Micro Configuration Error 18 = High Temp Limit 19 = Air Pressure Switch 20 = Additional Test Bit 8 21 = Additional Test Bit 7 22 = Additional Test Bit 6 23 = Additional Test Bit 5 24 = Additional Test Bit 4 25 = Analog Input 26 = Safety Micro Flame Circuit 27 = Safety Micro Internal Clock 28 = Blower 2 29 = Additional Test Bit 0 30 = Additional Test Bit 2 31 = Additional Test Bit 3 32 = Flue Temp Too High 220F 33 = DHW More Than 10F Apart

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
					34 = Boiler Out More Than 10F Apart 35 = Flue Temperature More Than 10F Apart 36 = Flue Temperature Too High 210F 37 = Flue 2 Thermistor Open 38 = Flue 2 Thermistor Shorted 39 = Flue 1 Thermistor Open 40 = Flue 1 Thermistor Shorted 41 = DHW Out 1 Thermistor Open 42 = DHW Out 1 Thermistor Shorted 43 = DHW Out 2 Thermistor Open 44 = DHW Out 2 Thermistor Shorted 45 = Boiler Out 2 Thermistor Open 46 = Boiler Out 2 Thermistor Shorted 47 = Boiler Out 1 Thermistor Open 48 = Boiler Out 1 Thermistor Shorted 49 = Gas Pressure Switch 50 = Pilot Valve 1 51 = Pilot Valve 2 52 = Ignition 3 53 = Blower Fault 3 65 = U2 U1 Configuration 66 = U2 U1 Communications 68 = Closure Switch 69 = Boiler In Thermistor Shorted 70 = Boiler In Thermistor Open 71 = Temp Rise Too Quick 72 = Supply 60F > Return 73 = Return > Supply 74 = DHW Out > Boiler Out 75 = Exhaust Gas Pressure Switch 76 = Minimum Air Flow Switch 77 = Software Incompatibility 78 = 3 Way Stuck CH 79 = 3 Way Stuck DHW
					80 = Wrong J6 Jumper 81 = Outdoor Air Thermistor 82 = DHW In Sensor 83 = Supply Sensor 84 = Return Sensor 85 = DHW Out Sensor 86 = Low Flame Shutdown

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43098	0xA85A	Active fault 5	Read	UINT8	Fault code 1 = Auto Limit Switch 2 = Manual Limit Switch 3 = False Flame 4 = Ignition 2 5 = Ignition 1 6 = Blower 1 7 = Integrated LWCO 8 = Discrete LWCO 9 = Gas Relay 4 10 = Gas Relay 3 11 = Gas Relay 2 12 = Gas Relay 1 13 = Safety Micro ROM 14 = Safety Micro RAM 15 = Flame Loss 16 = Safety Micro Communications Error 17 = Safety Micro Configuration Error 18 = High Temp Limit 19 = Air Pressure Switch 20 = Additional Test Bit 8 21 = Additional Test Bit 7 22 = Additional Test Bit 6 23 = Additional Test Bit 5 24 = Additional Test Bit 4 25 = Analog Input 26 = Safety Micro Flame Circuit 27 = Safety Micro Internal Clock 28 = Blower 2 29 = Additional Test Bit 0 30 = Additional Test Bit 2 31 = Additional Test Bit 3 32 = Flue Temp Too High 220F 33 = DHW More Than 10F Apart

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
					34 = Boiler Out More Than 10F Apart 35 = Flue Temperature More Than 10F Apart 36 = Flue Temperature Too High 210F 37 = Flue 2 Thermistor Open 38 = Flue 2 Thermistor Shorted 39 = Flue 1 Thermistor Open 40 = Flue 1 Thermistor Shorted 41 = DHW Out 1 Thermistor Open 42 = DHW Out 1 Thermistor Shorted 43 = DHW Out 2 Thermistor Open 44 = DHW Out 2 Thermistor Shorted 45 = Boiler Out 2 Thermistor Open 46 = Boiler Out 2 Thermistor Shorted 47 = Boiler Out 1 Thermistor Open 48 = Boiler Out 1 Thermistor Shorted 49 = Gas Pressure Switch 50 = Pilot Valve 1 51 = Pilot Valve 2 52 = Ignition 3 53 = Blower Fault 3 65 = U2 U1 Configuration 66 = U2 U1 Communications 68 = Closure Switch 69 = Boiler In Thermistor Shorted 70 = Boiler In Thermistor Open 71 = Temp Rise Too Quick 72 = Supply 60F > Return 73 = Return > Supply 74 = DHW Out > Boiler Out 75 = Exhaust Gas Pressure Switch 76 = Minimum Air Flow Switch 77 = Software Incompatibility 78 = 3 Way Stuck CH 79 = 3 Way Stuck DHW
					80 = Wrong J6 Jumper 81 = Outdoor Air Thermistor 82 = DHW In Sensor 83 = Supply Sensor 84 = Return Sensor 85 = DHW Out Sensor 86 = Low Flame Shutdown

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43099	0xA85B	Active fault 6	Read	UINT8	Fault code 1 = Auto Limit Switch 2 = Manual Limit Switch 3 = False Flame 4 = Ignition 2 5 = Ignition 1 6 = Blower 1 7 = Integrated LWCO 8 = Discrete LWCO 9 = Gas Relay 4 10 = Gas Relay 3 11 = Gas Relay 2 12 = Gas Relay 1 13 = Safety Micro ROM 14 = Safety Micro RAM 15 = Flame Loss 16 = Safety Micro Communications Error 17 = Safety Micro Configuration Error 18 = High Temp Limit 19 = Air Pressure Switch 20 = Additional Test Bit 8 21 = Additional Test Bit 7 22 = Additional Test Bit 6 23 = Additional Test Bit 5 24 = Additional Test Bit 4 25 = Analog Input 26 = Safety Micro Flame Circuit 27 = Safety Micro Internal Clock 28 = Blower 2 29 = Additional Test Bit 0 30 = Additional Test Bit 2 31 = Additional Test Bit 3 32 = Flue Temp Too High 220F 33 = DHW More Than 10F Apart

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
					34 = Boiler Out More Than 10F Apart 35 = Flue Temperature More Than 10F Apart 36 = Flue Temperature Too High 210F 37 = Flue 2 Thermistor Open 38 = Flue 2 Thermistor Shorted 39 = Flue 1 Thermistor Open 40 = Flue 1 Thermistor Shorted 41 = DHW Out 1 Thermistor Open 42 = DHW Out 1 Thermistor Shorted 43 = DHW Out 2 Thermistor Open 44 = DHW Out 2 Thermistor Shorted 45 = Boiler Out 2 Thermistor Open 46 = Boiler Out 2 Thermistor Shorted 47 = Boiler Out 1 Thermistor Open 48 = Boiler Out 1 Thermistor Shorted 49 = Gas Pressure Switch 50 = Pilot Valve 1 51 = Pilot Valve 2 52 = Ignition 3 53 = Blower Fault 3 65 = U2 U1 Configuration 66 = U2 U1 Communications 68 = Closure Switch 69 = Boiler In Thermistor Shorted 70 = Boiler In Thermistor Open 71 = Temp Rise Too Quick 72 = Supply 60F > Return 73 = Return > Supply 74 = DHW Out > Boiler Out 75 = Exhaust Gas Pressure Switch 76 = Minimum Air Flow Switch 77 = Software Incompatibility 78 = 3 Way Stuck CH 79 = 3 Way Stuck DHW
					80 = Wrong J6 Jumper 81 = Outdoor Air Thermistor 82 = DHW In Sensor 83 = Supply Sensor 84 = Return Sensor 85 = DHW Out Sensor 86 = Low Flame Shutdown
Fault History 1					
43119	0xA86F	Seconds when Fault History 1 occurred	Read	UINT8	
43120	0xA870	Minutes when Fault History 1 occurred	Read	UINT8	
43121	0xA871	Hour when Fault History 1 occurred	Read	UINT8	
43122	0xA872	Day when Fault History 1 occurred	Read	UINT8	
43123	0xA873	Month when Fault History 1 occurred	Read	UINT8	
43124	0xA874	Year when Fault History 1 occurred	Read	UINT8	

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43125	0xA875	Fault History 1 Target Reduced - Flue	Read	UINT16	0 = Not Active 1 = Active
43126	0xA876	Fault History 1 Target Reduced - Flow	Read	UINT16	0 = Not Active 1 = Active
43127	0xA877	Fault History 1 Target Reduced - Boiler	Read	UINT16	0 = Not Active 1 = Active
43128	0xA878	Fault History 1 I-LWCO Warning	Read	UINT16	0 = Not Active 1 = Active
43129	0xA879	Fault History 1 Supply Sensor	Read	UINT16	0 = Not Active 1 = Active
43130	0xA87A	Fault History 1 Return Sensor	Read	UINT16	0 = Not Active 1 = Active
43132	0xA87C	Fault History 1 DHW Out Sensor	Read	UINT16	0 = Not Active 1 = Active
43133	0xA87D	Fault History 1 DHW > Boiler Out	Read	UINT16	0 = Not Active 1 = Active
43134	0xA87E	Fault History 1 Outdoor Sensor	Read	UINT16	0 = Not Active 1 = Active
43135	0xA87F	Fault History 1 Clock Warning	Read	UINT16	0 = Not Active 1 = Active
43136	0xA880	Fault History 1 Exceeded Flow Rate	Read	UINT16	0 = Not Active 1 = Active
43137	0xA881	Fault History 1 3 Way Stuck CH	Read	UINT16	0 = Not Active 1 = Active
43138	0xA882	Fault History 1 3 Way Stuck DHW	Read	UINT16	0 = Not Active 1 = Active
43139	0xA883	Fault History 1 Temp Rise Too Quick	Read	UINT16	0 = Not Active 1 = Active
43140	0xA884	Fault History 1 Blower Calibration	Read	UINT16	0 = Not Active 1 = Active
43141	0xA885	Fault History 1 Freeze Protection	Read	UINT16	0 = Not Active 1 = Active
43142	0xA886	Fault History 1 Warm Weather Shutdown	Read	UINT16	0 = Not Active 1 = Active
43143	0xA887	Fault History 1 Blower RPM	Read	UINT16	Blower RPM when fault 0 occurred

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43144	0xA888	Fault History 1 Fault Code	Read	UINT8	Fault code 1 = Auto Limit Switch 2 = Manual Limit Switch 3 = False Flame 4 = Ignition 2 5 = Ignition 1 6 = Blower 1 7 = Integrated LWCO 8 = Discrete LWCO 9 = Gas Relay 4 10 = Gas Relay 3 11 = Gas Relay 2 12 = Gas Relay 1 13 = Safety Micro ROM 14 = Safety Micro RAM 15 = Flame Loss 16 = Safety Micro Communications Error 17 = Safety Micro Configuration Error 18 = High Temp Limit 19 = Air Pressure Switch 20 = Additional Test Bit 8 21 = Additional Test Bit 7 22 = Additional Test Bit 6 23 = Additional Test Bit 5 24 = Additional Test Bit 4 25 = Analog Input 26 = Safety Micro Flame Circuit 27 = Safety Micro Internal Clock 28 = Blower 2 29 = Additional Test Bit 0 30 = Additional Test Bit 2 31 = Additional Test Bit 3 32 = Flue Temp Too High 220F 33 = DHW More Than 10F Apart

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
					34 = Boiler Out More Than 10F Apart 35 = Flue Temperature More Than 10F Apart 36 = Flue Temperature Too High 210F 37 = Flue 2 Thermistor Open 38 = Flue 2 Thermistor Shorted 39 = Flue 1 Thermistor Open 40 = Flue 1 Thermistor Shorted 41 = DHW Out 1 Thermistor Open 42 = DHW Out 1 Thermistor Shorted 43 = DHW Out 2 Thermistor Open 44 = DHW Out 2 Thermistor Shorted 45 = Boiler Out 2 Thermistor Open 46 = Boiler Out 2 Thermistor Shorted 47 = Boiler Out 1 Thermistor Open 48 = Boiler Out 1 Thermistor Shorted 49 = Gas Pressure Switch 50 = Pilot Valve 1 51 = Pilot Valve 2 52 = Ignition 3 53 = Blower Fault 3 65 = U2 U1 Configuration 66 = U2 U1 Communications 68 = Closure Switch 69 = Boiler In Thermistor Shorted 70 = Boiler In Thermistor Open 71 = Temp Rise Too Quick 72 = Supply 60F > Return 73 = Return > Supply 74 = DHW Out > Boiler Out 75 = Exhaust Gas Pressure Switch 76 = Minimum Air Flow Switch 77 = Software Incompatibility 78 = 3 Way Stuck CH 79 = 3 Way Stuck DHW
					80 = Wrong J6 Jumper 81 = Outdoor Air Thermistor 82 = DHW In Sensor 83 = Supply Sensor 84 = Return Sensor 85 = DHW Out Sensor 86 = Low Flame Shutdown
43145	0xA889	Fault History 1 Reset Type	Read	UINT8	0 = Auto Resettable 1 = Manual Resettable 3 = Warning

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43146	0xA88A	Fault History 1 Boiler State	Read	UINT16	Operating state of boiler 0 = Standby 1 = Prepump 2 = Prepurge 3 = Ignition Speed 4 = Pre-ignition/ 5 = GV Open Test 6 = GV Closed Test 7 = Ignition 8 = Heating 9 = Postpurge 10 = Lockout 11 = Postpump 12 = Inter-purge 13 = Init 14 = Config Check
43147	0xA88B	Fault History 1 Running DHW	Read	UINT16	0 = No 1 = Yes
43148	0xA88C	Fault History 1 Local Priority 1	Read	UINT16	0 = Was Not Active 1 = Was Active
43149	0xA88D	Fault History 1 Local Priority 2	Read	UINT16	0 = Was Not Active 1 = Was Active
43150	0xA88E	Fault History 1 Local Priority 3	Read	UINT16	0 = Was Not Active 1 = Was Active
43151	0xA88F	Fault History 1 Network Priority 1	Read	UINT16	0 = Was Not Active 1 = Was Active
43152	0xA890	Fault History 1 Network Priority 2	Read	UINT16	0 = Was Not Active 1 = Was Active
43153	0xA891	Fault History 1 Modulation Source	Read	UINT16	0 = Boiler Out 1 = System Supply 2 = DHW Out
43154	0xA892	Fault History 1 Input 1 Demand Status	Read	UINT16	0 = Demand 1 input is not active 1 = Demand 1 input is active
43155	0xA893	Fault History 1 Input 2 Demand Status	Read	UINT16	0 = Demand 2 input is not active 1 = Demand 2 input is active
43156	0xA894	Fault History 1 Input 3 Demand Status	Read	UINT16	0 = Demand 3 input is not active 1 = Demand 3 input is active
43157	0xA895	Fault History 1 Input 4 Demand Status	Read	UINT16	0 = Demand 4 input is not active 1 = Demand 4 input is active
43158	0xA896	Fault History 1 Manual Limit switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43159	0xA897	Fault History 1 Auto Limit switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43160	0xA898	Fault History 1 Low Water cutoff switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43161	0xA899	Fault History 1 Air pressure switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43162	0xA89A	Fault History 1 Closure switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43163	0xA89B	Fault History 1 Exhaust gas pressure switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43164	0xA89C	Fault History 1 Minimum air flow switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43165	0xA89D	Fault History 1 Gas Pressure Switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43166	0xA89E	Fault History 1 Gas Valve state	Read	UINT16	0 = Off, 1 = On
43167	0xA89F	Fault History 1 Circulator 1 / 3 way valve DHW	Read	UINT16	0 = Off, 1 = On
43168	0xA8A0	Fault History 1 Circulator 2	Read	UINT16	0 = Off, 1 = On
43169	0xA8A1	Fault History 1 Circulator 3	Read	UINT16	0 = Off, 1 = On
43170	0xA8A2	Fault History 1 Circulator 4/ 3 way valve CH	Read	UINT16	0 = Off, 1 = On
43171	0xA8A3	Fault History 1 120v Boiler Pump	Read	UINT16	0 = Off, 1 = On
43172	0xA8A4	Fault History 1 Additional Heat	Read	UINT16	0 = Off, 1 = On
43173	0xA8A5	Fault History 1 Alarm	Read	UINT16	0 = Off, 1 = On
43174	0xA8A6	Fault History 1 Pilot/External Ignition Source	Read	UINT16	0 = Off, 1 = On
43175	0xA8A7	Fault History 1 Outdoor Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43176	0xA8A8	Fault History 1 Flue 1 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43177	0xA8A9	Fault History 1 Flue 2 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43178	0xA8AA	Fault History 1 Boiler Out 1 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43179	0xA8AB	Fault History 1 Boiler Out 2 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43180	0xA8AC	Fault History 1 DHW Out 1 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43181	0xA8AD	Fault History 1 DHW Out 2 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43182	0xA8AE	Fault History 1 Supply Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43183	0xA8AF	Fault History 1 Return Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43184	0xA8B0	Fault History 1 Boiler In Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43185	0xA8B1	Fault History 1 Flame Sense Current	Read	UINT16	Flame current *10 in micro amps. Ex 23 = 2.3
43186	0xA8B2	Fault History 1 0-10V Output	Read	UINT8	0-10V Current voltage Output*10
43187	0xA8B3	Fault History 1 0 - 10 VDC input voltage	Read	UINT8	Input voltage *10. In 10ths of a volt. Ex. 54 = 5.4
43188	0xA8B4	Fault History 1 Modulation rate	Read	UINT16	Modulation rate 10% to 100%
43189	0xA8B5	Fault History 1 Combi water flow rate	Read	UINT16	Gallons per minute*10. 35 = 3.5 GPM
Fault History 2					
43191	0xA8B7	Seconds when Fault History 2 occurred	Read	UINT8	
43192	0xA8B8	Minutes when Fault History 2 occurred	Read	UINT8	
43193	0xA8B9	Hour when Fault History 2 occurred	Read	UINT8	
43194	0xA8BA	Day when Fault History 2 occurred	Read	UINT8	
43195	0xA8BB	Month when Fault History 2 occurred	Read	UINT8	
43196	0xA8BC	Year when Fault History 2 occurred	Read	UINT8	

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43197	0xA8BD	Fault History 2 Target Reduced - Flue	Read	UINT16	0 = Not Active 1 = Active
43198	0xA8BE	Fault History 2 Target Reduced - Flow	Read	UINT16	0 = Not Active 1 = Active
43199	0xA8BF	Fault History 2 Target Reduced - Boiler	Read	UINT16	0 = Not Active 1 = Active
43200	0xA8C0	Fault History 2 I-LWCO Warning	Read	UINT16	0 = Not Active 1 = Active
43201	0xA8C1	Fault History 2 Supply Sensor	Read	UINT16	0 = Not Active 1 = Active
43202	0xA8C2	Fault History 2 Return Sensor	Read	UINT16	0 = Not Active 1 = Active
43204	0xA8C4	Fault History 2 DHW Out Sensor	Read	UINT16	0 = Not Active 1 = Active
43205	0xA8C5	Fault History 2 DHW > Boiler Out	Read	UINT16	0 = Not Active 1 = Active
43206	0xA8C6	Fault History 2 Outdoor Sensor	Read	UINT16	0 = Not Active 1 = Active
43207	0xA8C7	Fault History 2 Clock Warning	Read	UINT16	0 = Not Active 1 = Active
43208	0xA8C8	Fault History 2 Exceeded Flow Rate	Read	UINT16	0 = Not Active 1 = Active
43209	0xA8C9	Fault History 2 3 Way Stuck CH	Read	UINT16	0 = Not Active 1 = Active
43210	0xA8CA	Fault History 2 3 Way Stuck DHW	Read	UINT16	0 = Not Active 1 = Active
43211	0xA8CB	Fault History 2 Temp Rise Too Quick	Read	UINT16	0 = Not Active 1 = Active
43212	0xA8CC	Fault History 2 Blower Calibration	Read	UINT16	0 = Not Active 1 = Active
43213	0xA8CD	Fault History 2 Freeze Protection	Read	UINT16	0 = Not Active 1 = Active
43214	0xA8CE	Fault History 2 Warm Weather Shutdown	Read	UINT16	0 = Not Active 1 = Active
43215	0xA8CF	Fault History 2 Blower RPM	Read	UINT16	Blower RPM when fault 0 occurred

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43216	0xA8D0	Fault History 2 Fault Code	Read	UINT8	Fault code 1 = Auto Limit Switch 2 = Manual Limit Switch 3 = False Flame 4 = Ignition 2 5 = Ignition 1 6 = Blower 1 7 = Integrated LWCO 8 = Discrete LWCO 9 = Gas Relay 4 10 = Gas Relay 3 11 = Gas Relay 2 12 = Gas Relay 1 13 = Safety Micro ROM 14 = Safety Micro RAM 15 = Flame Loss 16 = Safety Micro Communications Error 17 = Safety Micro Configuration Error 18 = High Temp Limit 19 = Air Pressure Switch 20 = Additional Test Bit 8 21 = Additional Test Bit 7 22 = Additional Test Bit 6 23 = Additional Test Bit 5 24 = Additional Test Bit 4 25 = Analog Input 26 = Safety Micro Flame Circuit 27 = Safety Micro Internal Clock 28 = Blower 2 29 = Additional Test Bit 0 30 = Additional Test Bit 2 31 = Additional Test Bit 3 32 = Flue Temp Too High 220F 33 = DHW More Than 10F Apart

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
					34 = Boiler Out More Than 10F Apart 35 = Flue Temperature More Than 10F Apart 36 = Flue Temperature Too High 210F 37 = Flue 2 Thermistor Open 38 = Flue 2 Thermistor Shorted 39 = Flue 1 Thermistor Open 40 = Flue 1 Thermistor Shorted 41 = DHW Out 1 Thermistor Open 42 = DHW Out 1 Thermistor Shorted 43 = DHW Out 2 Thermistor Open 44 = DHW Out 2 Thermistor Shorted 45 = Boiler Out 2 Thermistor Open 46 = Boiler Out 2 Thermistor Shorted 47 = Boiler Out 1 Thermistor Open 48 = Boiler Out 1 Thermistor Shorted 49 = Gas Pressure Switch 50 = Pilot Valve 1 51 = Pilot Valve 2 52 = Ignition 3 53 = Blower Fault 3 65 = U2 U1 Configuration 66 = U2 U1 Communications 68 = Closure Switch 69 = Boiler In Thermistor Shorted 70 = Boiler In Thermistor Open 71 = Temp Rise Too Quick 72 = Supply 60F > Return 73 = Return > Supply 74 = DHW Out > Boiler Out 75 = Exhaust Gas Pressure Switch 76 = Minimum Air Flow Switch 77 = Software Incompatibility 78 = 3 Way Stuck CH 79 = 3 Way Stuck DHW
					80 = Wrong J6 Jumper 81 = Outdoor Air Thermistor 82 = DHW In Sensor 83 = Supply Sensor 84 = Return Sensor 85 = DHW Out Sensor 86 = Low Flame Shutdown
43217	0xA8D1	Fault History 2 Reset Type	Read	UINT8	0 = Auto Resettable 1 = Manual Resettable 3 = Warning

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43218	0xA8D2	Fault History 2 Boiler State	Read	UINT16	Operating state of boiler 0 = Standby 1 = Prepump 2 = Prepurge 3 = Ignition Speed 4 = Pre-ignition/ 5 = GV Open Test 6 = GV Closed Test 7 = Ignition 8 = Heating 9 = Postpurge 10 = Lockout 11 = Postpump 12 = Inter-purge 13 = Init 14 = Config Check
43219	0xA8D3	Fault History 2 Running DHW	Read	UINT16	0 = No 1 = Yes
43220	0xA8D4	Fault History 2 Local Priority 1	Read	UINT16	0 = Was Not Active 1 = Was Active
43221	0xA8D5	Fault History 2 Local Priority 2	Read	UINT16	0 = Was Not Active 1 = Was Active
43222	0xA8D6	Fault History 2 Local Priority 3	Read	UINT16	0 = Was Not Active 1 = Was Active
43223	0xA8D7	Fault History 2 Network Priority 1	Read	UINT16	0 = Was Not Active 1 = Was Active
43224	0xA8D8	Fault History 2 Network Priority 2	Read	UINT16	0 = Was Not Active 1 = Was Active
43225	0xA8D9	Fault History 2 Modulation Source	Read	UINT16	0 = Boiler Out 1 = System Supply 2 = DHW Out
43226	0xA8DA	Fault History 2 Input 1 Demand Status	Read	UINT16	0 = Demand 1 input is not active 1 = Demand 1 input is active
43227	0xA8DB	Fault History 2 Input 2 Demand Status	Read	UINT16	0 = Demand 2 input is not active 1 = Demand 2 input is active
43228	0xA8DC	Fault History 2 Input 3 Demand Status	Read	UINT16	0 = Demand 3 input is not active 1 = Demand 3 input is active
43229	0xA8DD	Fault History 2 Input 4 Demand Status	Read	UINT16	0 = Demand 4 input is not active 1 = Demand 4 input is active
43230	0xA8DE	Fault History 2 Manual Limit switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43231	0xA8DF	Fault History 2 Auto Limit switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43232	0xA8E0	Fault History 2 Low Water cutoff switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43233	0xA8E1	Fault History 2 Air pressure switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43234	0xA8E2	Fault History 2 Closure switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43235	0xA8E3	Fault History 2 Exhaust gas pressure switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43236	0xA8E4	Fault History 2 Minimum air flow switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43237	0xA8E5	Fault History 2 Gas Pressure Switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43238	0xA8E6	Fault History 2 Gas Valve state	Read	UINT16	0 = Off, 1 = On
43239	0xA8E7	Fault History 2 Circulator 1 / 3 way valve DHW	Read	UINT16	0 = Off, 1 = On
43240	0xA8E8	Fault History 2 Circulator 2	Read	UINT16	0 = Off, 1 = On
43241	0xA8E9	Fault History 2 Circulator 3	Read	UINT16	0 = Off, 1 = On
43242	0xA8EA	Fault History 2 Circulator 4/ 3 way valve CH	Read	UINT16	0 = Off, 1 = On
43243	0xA8EB	Fault History 2 120v Boiler Pump	Read	UINT16	0 = Off, 1 = On
43244	0xA8EC	Fault History 2 Additional Heat	Read	UINT16	0 = Off, 1 = On
43245	0xA8ED	Fault History 2 Alarm	Read	UINT16	0 = Off, 1 = On
43246	0xA8EE	Fault History 2 Pilot/External Ignition Source	Read	UINT16	0 = Off, 1 = On
43247	0xA8EF	Fault History 2 Outdoor Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43248	0xA8F0	Fault History 2 Flue 1 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43249	0xA8F1	Fault History 2 Flue 2 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43250	0xA8F2	Fault History 2 Boiler Out 1 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43251	0xA8F3	Fault History 2 Boiler Out 2 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43252	0xA8F4	Fault History 2 DHW Out 1 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43253	0xA8F5	Fault History 2 DHW Out 2 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43254	0xA8F6	Fault History 2 Supply Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43255	0xA8F7	Fault History 2 Return Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43256	0xA8F8	Fault History 2 Boiler In Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43257	0xA8F9	Fault History 2 Flame Sense Current	Read	UINT16	Flame current *10 in micro amps. Ex 23 = 2.3
43258	0xA8FA	Fault History 2 0-10V Output	Read	UINT8	0-10V Current voltage Output*10
43259	0xA8FB	Fault History 2 0 - 10 VDC input voltage	Read	UINT8	Input voltage *10. In 10ths of a volt. Ex. 54 = 5.4
43260	0xA8FC	Fault History 2 Modulation rate	Read	UINT16	Modulation rate 10% to 100%
43261	0xA8FD	Fault History 2 Combi water flow rate	Read	UINT16	Gallons per minute*10. 35 = 3.5 GPM
Fault History 3					
43263	0xA8FF	Seconds when Fault History 3 occurred	Read	UINT8	
43264	0xA900	Minutes when Fault History 3 occurred	Read	UINT8	
43265	0xA901	Hour when Fault History 3 occurred	Read	UINT8	
43266	0xA902	Day when Fault History 3 occurred	Read	UINT8	
43267	0xA903	Month when Fault History 3 occurred	Read	UINT8	

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43268	0xA904	Year when Fault History 3 occurred	Read	UINT8	
43269	0xA905	Fault History 3 Target Reduced - Flue	Read	UINT16	0 = Not Active 1 = Active
43270	0xA906	Fault History 3 Target Reduced - Flow	Read	UINT16	0 = Not Active 1 = Active
43271	0xA907	Fault History 3 Target Reduced - Boiler	Read	UINT16	0 = Not Active 1 = Active
43272	0xA908	Fault History 3 I-LWCO Warning	Read	UINT16	0 = Not Active 1 = Active
43273	0xA909	Fault History 3 Supply Sensor	Read	UINT16	0 = Not Active 1 = Active
43274	0xA90A	Fault History 3 Return Sensor	Read	UINT16	0 = Not Active 1 = Active
43276	0xA90C	Fault History 3 DHW Out Sensor	Read	UINT16	0 = Not Active 1 = Active
43277	0xA90D	Fault History 3 DHW > Boiler Out	Read	UINT16	0 = Not Active 1 = Active
43278	0xA90E	Fault History 3 Outdoor Sensor	Read	UINT16	0 = Not Active 1 = Active
43279	0xA90F	Fault History 3 Clock Warning	Read	UINT16	0 = Not Active 1 = Active
43280	0xA910	Fault History 3 Exceeded Flow Rate	Read	UINT16	0 = Not Active 1 = Active
43281	0xA911	Fault History 3 3 Way Stuck CH	Read	UINT16	0 = Not Active 1 = Active
43282	0xA912	Fault History 3 3 Way Stuck DHW	Read	UINT16	0 = Not Active 1 = Active
43283	0xA913	Fault History 3 Temp Rise Too Quick	Read	UINT16	0 = Not Active 1 = Active
43284	0xA914	Fault History 3 Blower Calibration	Read	UINT16	0 = Not Active 1 = Active
43285	0xA915	Fault History 3 Freeze Protection	Read	UINT16	0 = Not Active 1 = Active
43286	0xA916	Fault History 3 Warm Weather Shutdown	Read	UINT16	0 = Not Active 1 = Active
43287	0xA917	Fault History 3 Blower RPM	Read	UINT16	Blower RPM when fault 0 occurred

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43288	0xA918	Fault History 3 Fault Code	Read	UINT8	Fault code 1 = Auto Limit Switch 2 = Manual Limit Switch 3 = False Flame 4 = Ignition 2 5 = Ignition 1 6 = Blower 1 7 = Integrated LWCO 8 = Discrete LWCO 9 = Gas Relay 4 10 = Gas Relay 3 11 = Gas Relay 2 12 = Gas Relay 1 13 = Safety Micro ROM 14 = Safety Micro RAM 15 = Flame Loss 16 = Safety Micro Communications Error 17 = Safety Micro Configuration Error 18 = High Temp Limit 19 = Air Pressure Switch 20 = Additional Test Bit 8 21 = Additional Test Bit 7 22 = Additional Test Bit 6 23 = Additional Test Bit 5 24 = Additional Test Bit 4 25 = Analog Input 26 = Safety Micro Flame Circuit 27 = Safety Micro Internal Clock 28 = Blower 2 29 = Additional Test Bit 0 30 = Additional Test Bit 2 31 = Additional Test Bit 3 32 = Flue Temp Too High 220F 33 = DHW More Than 10F Apart

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
					34 = Boiler Out More Than 10F Apart 35 = Flue Temperature More Than 10F Apart 36 = Flue Temperature Too High 210F 37 = Flue 2 Thermistor Open 38 = Flue 2 Thermistor Shorted 39 = Flue 1 Thermistor Open 40 = Flue 1 Thermistor Shorted 41 = DHW Out 1 Thermistor Open 42 = DHW Out 1 Thermistor Shorted 43 = DHW Out 2 Thermistor Open 44 = DHW Out 2 Thermistor Shorted 45 = Boiler Out 2 Thermistor Open 46 = Boiler Out 2 Thermistor Shorted 47 = Boiler Out 1 Thermistor Open 48 = Boiler Out 1 Thermistor Shorted 49 = Gas Pressure Switch 50 = Pilot Valve 1 51 = Pilot Valve 2 52 = Ignition 3 53 = Blower Fault 3 65 = U2 U1 Configuration 66 = U2 U1 Communications 68 = Closure Switch 69 = Boiler In Thermistor Shorted 70 = Boiler In Thermistor Open 71 = Temp Rise Too Quick 72 = Supply 60F > Return 73 = Return > Supply 74 = DHW Out > Boiler Out 75 = Exhaust Gas Pressure Switch 76 = Minimum Air Flow Switch 77 = Software Incompatibility 78 = 3 Way Stuck CH 79 = 3 Way Stuck DHW
					80 = Wrong J6 Jumper 81 = Outdoor Air Thermistor 82 = DHW In Sensor 83 = Supply Sensor 84 = Return Sensor 85 = DHW Out Sensor 86 = Low Flame Shutdown
43289	0xA919	Fault History 3 Reset Type	Read	UINT8	0 = Auto Resettable 1 = Manual Resettable 3 = Warning

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43290	0xA91A	Fault History 3 Boiler State	Read	UINT16	Operating state of boiler 0 = Standby 1 = Prepump 2 = Prepurge 3 = Ignition Speed 4 = Pre-ignition/ 5 = GV Open Test 6 = GV Closed Test 7 = Ignition 8 = Heating 9 = Postpurge 10 = Lockout 11 = Postpump 12 = Inter-purge 13 = Init 14 = Config Check
43291	0xA91B	Fault History 3 Running DHW	Read	UINT16	0 = No 1 = Yes
43292	0xA91C	Fault History 3 Local Priority 1	Read	UINT16	0 = Was Not Active 1 = Was Active
43293	0xA91D	Fault History 3 Local Priority 2	Read	UINT16	0 = Was Not Active 1 = Was Active
43294	0xA91E	Fault History 3 Local Priority 3	Read	UINT16	0 = Was Not Active 1 = Was Active
43295	0xA91F	Fault History 3 Network Priority 1	Read	UINT16	0 = Was Not Active 1 = Was Active
43296	0xA920	Fault History 3 Network Priority 2	Read	UINT16	0 = Was Not Active 1 = Was Active
43297	0xA921	Fault History 3 Modulation Source	Read	UINT16	0 = Boiler Out 1 = System Supply 2 = DHW Out
43298	0xA922	Fault History 3 Input 1 Demand Status	Read	UINT16	0 = Demand 1 input is not active 1 = Demand 1 input is active
43299	0xA923	Fault History 3 Input 2 Demand Status	Read	UINT16	0 = Demand 2 input is not active 1 = Demand 2 input is active
43300	0xA924	Fault History 3 Input 3 Demand Status	Read	UINT16	0 = Demand 3 input is not active 1 = Demand 3 input is active
43301	0xA925	Fault History 3 Input 4 Demand Status	Read	UINT16	0 = Demand 4 input is not active 1 = Demand 4 input is active
43302	0xA926	Fault History 3 Manual Limit switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43303	0xA927	Fault History 3 Auto Limit switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43304	0xA928	Fault History 3 Low Water cutoff switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43305	0xA929	Fault History 3 Air pressure switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43306	0xA92A	Fault History 3 Closure switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43307	0xA92B	Fault History 3 Exhaust gas pressure switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43308	0xA92C	Fault History 3 Minimum air flow switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43309	0xA92D	Fault History 3 Gas Pressure Switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43310	0xA92E	Fault History 3 Gas Valve state	Read	UINT16	0 = Off, 1 = On
43311	0xA92F	Fault History 3 Circulator 1 / 3 way valve DHW	Read	UINT16	0 = Off, 1 = On
43312	0xA930	Fault History 3 Circulator 2	Read	UINT16	0 = Off, 1 = On
43313	0xA931	Fault History 3 Circulator 3	Read	UINT16	0 = Off, 1 = On
43314	0xA932	Fault History 3 Circulator 4/ 3 way valve CH	Read	UINT16	0 = Off, 1 = On
43315	0xA933	Fault History 3 120v Boiler Pump	Read	UINT16	0 = Off, 1 = On
43316	0xA934	Fault History 3 Additional Heat	Read	UINT16	0 = Off, 1 = On
43317	0xA935	Fault History 3 Alarm	Read	UINT16	0 = Off, 1 = On
43318	0xA936	Fault History 3 Pilot/External Ignition Source	Read	UINT16	0 = Off, 1 = On
43319	0xA937	Fault History 3 Outdoor Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43320	0xA938	Fault History 3 Flue 1 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43321	0xA939	Fault History 3 Flue 2 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43322	0xA93A	Fault History 3 Boiler Out 1 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43323	0xA93B	Fault History 3 Boiler Out 2 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43324	0xA93C	Fault History 3 DHW Out 1 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43325	0xA93D	Fault History 3 DHW Out 2 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43326	0xA93E	Fault History 3 Supply Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43327	0xA93F	Fault History 3 Return Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43328	0xA940	Fault History 3 Boiler In Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43329	0xA941	Fault History 3 Flame Sense Current	Read	UINT16	Flame current *10 in micro amps. Ex 23 = 2.3
43330	0xA942	Fault History 3 0-10V Output	Read	UINT8	0-10V Current voltage Output*10
43331	0xA943	Fault History 3 0 - 10 VDC input voltage	Read	UINT8	Input voltage *10. In 10ths of a volt. Ex. 54 = 5.4
43332	0xA944	Fault History 3 Modulation rate	Read	UINT16	Modulation rate 10% to 100%
43333	0xA945	Fault History 3 Combi water flow rate	Read	UINT16	Gallons per minute*10. 35 = 3.5 GPM
Fault History 4					
43335	0xA947	Seconds when Fault History 4 occurred	Read	UINT8	
43336	0xA948	Minutes when Fault History 4 occurred	Read	UINT8	
43337	0xA949	Hour when Fault History 4 occurred	Read	UINT8	
43338	0xA94A	Day when Fault History 4 occurred	Read	UINT8	
43339	0xA94B	Month when Fault History 4 occurred	Read	UINT8	

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43340	0xA94C	Year when Fault History 4 occurred	Read	UINT8	
43341	0xA94D	Fault History 4 Target Reduced - Flue	Read	UINT16	0 = Not Active 1 = Active
43342	0xA94E	Fault History 4 Target Reduced - Flow	Read	UINT16	0 = Not Active 1 = Active
43343	0xA94F	Fault History 4 Target Reduced - Boiler	Read	UINT16	0 = Not Active 1 = Active
43344	0xA950	Fault History 4 I-LWCO Warning	Read	UINT16	0 = Not Active 1 = Active
43345	0xA951	Fault History 4 Supply Sensor	Read	UINT16	0 = Not Active 1 = Active
43346	0xA952	Fault History 4 Return Sensor	Read	UINT16	0 = Not Active 1 = Active
43348	0xA954	Fault History 4 DHW Out Sensor	Read	UINT16	0 = Not Active 1 = Active
43349	0xA955	Fault History 4 DHW > Boiler Out	Read	UINT16	0 = Not Active 1 = Active
43350	0xA956	Fault History 4 Outdoor Sensor	Read	UINT16	0 = Not Active 1 = Active
43351	0xA957	Fault History 4 Clock Warning	Read	UINT16	0 = Not Active 1 = Active
43352	0xA958	Fault History 4 Exceeded Flow Rate	Read	UINT16	0 = Not Active 1 = Active
43353	0xA959	Fault History 4 3 Way Stuck CH	Read	UINT16	0 = Not Active 1 = Active
43354	0xA95A	Fault History 4 3 Way Stuck DHW	Read	UINT16	0 = Not Active 1 = Active
43355	0xA95B	Fault History 4 Temp Rise Too Quick	Read	UINT16	0 = Not Active 1 = Active
43356	0xA95C	Fault History 4 Blower Calibration	Read	UINT16	0 = Not Active 1 = Active
43357	0xA95D	Fault History 4 Freeze Protection	Read	UINT16	0 = Not Active 1 = Active
43358	0xA95E	Fault History 4 Warm Weather Shutdown	Read	UINT16	0 = Not Active 1 = Active
43359	0xA95F	Fault History 4 Blower RPM	Read	UINT16	Blower RPM when fault 0 occurred

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43360	0xA960	Fault History 4 Fault Code	Read	UINT8	Fault code 1 = Auto Limit Switch 2 = Manual Limit Switch 3 = False Flame 4 = Ignition 2 5 = Ignition 1 6 = Blower 1 7 = Integrated LWCO 8 = Discrete LWCO 9 = Gas Relay 4 10 = Gas Relay 3 11 = Gas Relay 2 12 = Gas Relay 1 13 = Safety Micro ROM 14 = Safety Micro RAM 15 = Flame Loss 16 = Safety Micro Communications Error 17 = Safety Micro Configuration Error 18 = High Temp Limit 19 = Air Pressure Switch 20 = Additional Test Bit 8 21 = Additional Test Bit 7 22 = Additional Test Bit 6 23 = Additional Test Bit 5 24 = Additional Test Bit 4 25 = Analog Input 26 = Safety Micro Flame Circuit 27 = Safety Micro Internal Clock 28 = Blower 2 29 = Additional Test Bit 0 30 = Additional Test Bit 2 31 = Additional Test Bit 3 32 = Flue Temp Too High 220F 33 = DHW More Than 10F Apart

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
					34 = Boiler Out More Than 10F Apart 35 = Flue Temperature More Than 10F Apart 36 = Flue Temperature Too High 210F 37 = Flue 2 Thermistor Open 38 = Flue 2 Thermistor Shorted 39 = Flue 1 Thermistor Open 40 = Flue 1 Thermistor Shorted 41 = DHW Out 1 Thermistor Open 42 = DHW Out 1 Thermistor Shorted 43 = DHW Out 2 Thermistor Open 44 = DHW Out 2 Thermistor Shorted 45 = Boiler Out 2 Thermistor Open 46 = Boiler Out 2 Thermistor Shorted 47 = Boiler Out 1 Thermistor Open 48 = Boiler Out 1 Thermistor Shorted 49 = Gas Pressure Switch 50 = Pilot Valve 1 51 = Pilot Valve 2 52 = Ignition 3 53 = Blower Fault 3 65 = U2 U1 Configuration 66 = U2 U1 Communications 68 = Closure Switch 69 = Boiler In Thermistor Shorted 70 = Boiler In Thermistor Open 71 = Temp Rise Too Quick 72 = Supply 60F > Return 73 = Return > Supply 74 = DHW Out > Boiler Out 75 = Exhaust Gas Pressure Switch 76 = Minimum Air Flow Switch 77 = Software Incompatibility 78 = 3 Way Stuck CH 79 = 3 Way Stuck DHW
					80 = Wrong J6 Jumper 81 = Outdoor Air Thermistor 82 = DHW In Sensor 83 = Supply Sensor 84 = Return Sensor 85 = DHW Out Sensor 86 = Low Flame Shutdown
43361	0xA961	Fault History 4 Reset Type	Read	UINT8	0 = Auto Resettable 1 = Manual Resettable 3 = Warning

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43362	0xA962	Fault History 4 Boiler State	Read	UINT16	Operating state of boiler 0 = Standby 1 = Prepump 2 = Prepurge 3 = Ignition Speed 4 = Pre-ignition/ 5 = GV Open Test 6 = GV Closed Test 7 = Ignition 8 = Heating 9 = Postpurge 10 = Lockout 11 = Postpump 12 = Inter-purge 13 = Init 14 = Config Check
43363	0xA963	Fault History 4 Runing DHW	Read	UINT16	0 = No 1 = Yes
43364	0xA964	Fault History 4 Local Priority 1	Read	UINT16	0 = Was Not Active 1 = Was Active
43365	0xA965	Fault History 4 Local Priority 2	Read	UINT16	0 = Was Not Active 1 = Was Active
43366	0xA966	Fault History 4 Local Priority 3	Read	UINT16	0 = Was Not Active 1 = Was Active
43367	0xA967	Fault History 4 Network Priority 1	Read	UINT16	0 = Was Not Active 1 = Was Active
43368	0xA968	Fault History 4 Network Priority 2	Read	UINT16	0 = Was Not Active 1 = Was Active
43369	0xA969	Fault History 4 Modulation Source	Read	UINT16	0 = Boiler Out 1 = System Supply 2 = DHW Out
43370	0xA96A	Fault History 4 Input 1 Demand Status	Read	UINT16	0 = Demand 1 input is not active 1 = Demand 1 input is active
43371	0xA96B	Fault History 4 Input 2 Demand Status	Read	UINT16	0 = Demand 2 input is not active 1 = Demand 2 input is active
43372	0xA96C	Fault History 4 Input 3 Demand Status	Read	UINT16	0 = Demand 3 input is not active 1 = Demand 3 input is active
43373	0xA96D	Fault History 4 Input 4 Demand Status	Read	UINT16	0 = Demand 4 input is not active 1 = Demand 4 input is active
43374	0xA96E	Fault History 4 Manual Limit switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43375	0xA96F	Fault History 4 Auto Limit switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43376	0xA970	Fault History 4 Low Water cutoff switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43377	0xA971	Fault History 4 Air pressure switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43378	0xA972	Fault History 4 Closure switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43379	0xA973	Fault History 4 Exhaust gas pressure switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43380	0xA974	Fault History 4 Minimum air flow switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43381	0xA975	Fault History 4 Gas Pressure Switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43382	0xA976	Fault History 4 Gas Valve state	Read	UINT16	0 = Off, 1 = On
43383	0xA977	Fault History 4 Circulator 1 / 3 way valve DHW	Read	UINT16	0 = Off, 1 = On
43384	0xA978	Fault History 4 Circulator 2	Read	UINT16	0 = Off, 1 = On
43385	0xA979	Fault History 4 Circulator 3	Read	UINT16	0 = Off, 1 = On
43386	0xA97A	Fault History 4 Circulator 4/ 3 way valve CH	Read	UINT16	0 = Off, 1 = On
43387	0xA97B	Fault History 4 120v Boiler Pump	Read	UINT16	0 = Off, 1 = On
43388	0xA97C	Fault History 4 Additional Heat	Read	UINT16	0 = Off, 1 = On
43389	0xA97D	Fault History 4 Alarm	Read	UINT16	0 = Off, 1 = On
43390	0xA97E	Fault History 4 Pilot/External Ignition Source	Read	UINT16	0 = Off, 1 = On
43391	0xA97F	Fault History 4 Outdoor Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43392	0xA980	Fault History 4 Flue 1 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43393	0xA981	Fault History 4 Flue 2 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43394	0xA982	Fault History 4 Boiler Out 1 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43395	0xA983	Fault History 4 Boiler Out 2 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43396	0xA984	Fault History 4 DHW Out 1 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43397	0xA985	Fault History 4 DHW Out 2 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43398	0xA986	Fault History 4 Supply Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43399	0xA987	Fault History 4 Return Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43400	0xA988	Fault History 4 Boiler In Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43401	0xA989	Fault History 4 Flame Sense Current	Read	UINT16	Flame current *10 in micro amps. Ex 23 = 2.3
43402	0xA98A	Fault History 4 0-10V Output	Read	UINT8	0-10V Current voltage Output*10
43403	0xA98B	Fault History 4 0 - 10 VDC input voltage	Read	UINT8	Input voltage *10. In 10ths of a volt. Ex. 54 = 5.4
43404	0xA98C	Fault History 4 Modulation rate	Read	UINT16	Modulation rate 10% to 100%
43405	0xA98D	Fault History 4 Combi water flow rate	Read	UINT16	Gallons per minute*10. 35 = 3.5 GPM
Fault History 5					
43407	0xA98F	Seconds when Fault History 5 occurred	Read	UINT8	
43408	0xA990	Minutes when Fault History 5 occurred	Read	UINT8	
43409	0xA991	Hour when Fault History 5 occurred	Read	UINT8	
43410	0xA992	Day when Fault History 5 occurred	Read	UINT8	
43411	0xA993	Month when Fault History 5 occurred	Read	UINT8	

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43412	0xA994	Year when Fault History 5 occurred	Read	UINT8	
43413	0xA995	Fault History 5 Target Reduced - Flue	Read	UINT16	0 = Not Active 1 = Active
43414	0xA996	Fault History 5 Target Reduced - Flow	Read	UINT16	0 = Not Active 1 = Active
43415	0xA997	Fault History 5 Target Reduced - Boiler	Read	UINT16	0 = Not Active 1 = Active
43416	0xA998	Fault History 5 I-LWCO Warning	Read	UINT16	0 = Not Active 1 = Active
43417	0xA999	Fault History 5 Supply Sensor	Read	UINT16	0 = Not Active 1 = Active
43418	0xA99A	Fault History 5 Return Sensor	Read	UINT16	0 = Not Active 1 = Active
43420	0xA99C	Fault History 5 DHW Out Sensor	Read	UINT16	0 = Not Active 1 = Active
43421	0xA99D	Fault History 5 DHW > Boiler Out	Read	UINT16	0 = Not Active 1 = Active
43422	0xA99E	Fault History 5 Outdoor Sensor	Read	UINT16	0 = Not Active 1 = Active
43423	0xA99F	Fault History 5 Clock Warning	Read	UINT16	0 = Not Active 1 = Active
43424	0xA9A0	Fault History 5 Exceeded Flow Rate	Read	UINT16	0 = Not Active 1 = Active
43425	0xA9A1	Fault History 5 3 Way Stuck CH	Read	UINT16	0 = Not Active 1 = Active
43426	0xA9A2	Fault History 5 3 Way Stuck DHW	Read	UINT16	0 = Not Active 1 = Active
43427	0xA9A3	Fault History 5 Temp Rise Too Quick	Read	UINT16	0 = Not Active 1 = Active
43428	0xA9A4	Fault History 5 Blower Calibration	Read	UINT16	0 = Not Active 1 = Active
43429	0xA9A5	Fault History 5 Freeze Protection	Read	UINT16	0 = Not Active 1 = Active
43430	0xA9A6	Fault History 5 Warm Weather Shutdown	Read	UINT16	0 = Not Active 1 = Active
43431	0xA9A7	Fault History 5 Blower RPM	Read	UINT16	Blower RPM when fault 0 occurred

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43432	0xA9A8	Fault History 5 Fault Code	Read	UINT8	Fault code 1 = Auto Limit Switch 2 = Manual Limit Switch 3 = False Flame 4 = Ignition 2 5 = Ignition 1 6 = Blower 1 7 = Integrated LWCO 8 = Discrete LWCO 9 = Gas Relay 4 10 = Gas Relay 3 11 = Gas Relay 2 12 = Gas Relay 1 13 = Safety Micro ROM 14 = Safety Micro RAM 15 = Flame Loss 16 = Safety Micro Communications Error 17 = Safety Micro Configuration Error 18 = High Temp Limit 19 = Air Pressure Switch 20 = Additional Test Bit 8 21 = Additional Test Bit 7 22 = Additional Test Bit 6 23 = Additional Test Bit 5 24 = Additional Test Bit 4 25 = Analog Input 26 = Safety Micro Flame Circuit 27 = Safety Micro Internal Clock 28 = Blower 2 29 = Additional Test Bit 0 30 = Additional Test Bit 2 31 = Additional Test Bit 3 32 = Flue Temp Too High 220F 33 = DHW More Than 10F Apart

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
					34 = Boiler Out More Than 10F Apart 35 = Flue Temperature More Than 10F Apart 36 = Flue Temperature Too High 210F 37 = Flue 2 Thermistor Open 38 = Flue 2 Thermistor Shorted 39 = Flue 1 Thermistor Open 40 = Flue 1 Thermistor Shorted 41 = DHW Out 1 Thermistor Open 42 = DHW Out 1 Thermistor Shorted 43 = DHW Out 2 Thermistor Open 44 = DHW Out 2 Thermistor Shorted 45 = Boiler Out 2 Thermistor Open 46 = Boiler Out 2 Thermistor Shorted 47 = Boiler Out 1 Thermistor Open 48 = Boiler Out 1 Thermistor Shorted 49 = Gas Pressure Switch 50 = Pilot Valve 1 51 = Pilot Valve 2 52 = Ignition 3 53 = Blower Fault 3 65 = U2 U1 Configuration 66 = U2 U1 Communications 68 = Closure Switch 69 = Boiler In Thermistor Shorted 70 = Boiler In Thermistor Open 71 = Temp Rise Too Quick 72 = Supply 60F > Return 73 = Return > Supply 74 = DHW Out > Boiler Out 75 = Exhaust Gas Pressure Switch 76 = Minimum Air Flow Switch 77 = Software Incompatibility 78 = 3 Way Stuck CH 79 = 3 Way Stuck DHW
					80 = Wrong J6 Jumper 81 = Outdoor Air Thermistor 82 = DHW In Sensor 83 = Supply Sensor 84 = Return Sensor 85 = DHW Out Sensor 86 = Low Flame Shutdown
43433	0xA9A9	Fault History 5 Reset Type	Read	UINT8	0 = Auto Resettable 1 = Manual Resettable 3 = Warning

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43434	0xA9AA	Fault History 5 Boiler State	Read	UINT16	Operating state of boiler 0 = Standby 1 = Prepump 2 = Prepurge 3 = Ignition Speed 4 = Pre-ignition/ 5 = GV Open Test 6 = GV Closed Test 7 = Ignition 8 = Heating 9 = Postpurge 10 = Lockout 11 = Postpump 12 = Inter-purge 13 = Init 14 = Config Check
43435	0xA9AB	Fault History 5 Runing DHW	Read	UINT16	0 = No 1 = Yes
43436	0xA9AC	Fault History 5 Local Priority 1	Read	UINT16	0 = Was Not Active 1 = Was Active
43437	0xA9AD	Fault History 5 Local Priority 2	Read	UINT16	0 = Was Not Active 1 = Was Active
43438	0xA9AE	Fault History 5 Local Priority 3	Read	UINT16	0 = Was Not Active 1 = Was Active
43439	0xA9AF	Fault History 5 Network Priority 1	Read	UINT16	0 = Was Not Active 1 = Was Active
43440	0xA9B0	Fault History 5 Network Priority 2	Read	UINT16	0 = Was Not Active 1 = Was Active
43441	0xA9B1	Fault History 5 Modulation Source	Read	UINT16	0 = Boiler Out 1 = System Supply 2 = DHW Out
43442	0xA9B2	Fault History 5 Input 1 Demand Status	Read	UINT16	0 = Demand 1 input is not active 1 = Demand 1 input is active
43443	0xA9B3	Fault History 5 Input 2 Demand Status	Read	UINT16	0 = Demand 2 input is not active 1 = Demand 2 input is active
43444	0xA9B4	Fault History 5 Input 3 Demand Status	Read	UINT16	0 = Demand 3 input is not active 1 = Demand 3 input is active
43445	0xA9B5	Fault History 5 Input 4 Demand Status	Read	UINT16	0 = Demand 4 input is not active 1 = Demand 4 input is active
43446	0xA9B6	Fault History 5 Manual Limit switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43447	0xA9B7	Fault History 5 Auto Limit switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43448	0xA9B8	Fault History 5 Low Water cutoff switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43449	0xA9B9	Fault History 5 Air pressure switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43450	0xA9BA	Fault History 5 Closure switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43451	0xA9BB	Fault History 5 Exhaust gas pressure switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43452	0xA9BC	Fault History 5 Minimum air flow switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43453	0xA9BD	Fault History 5 Gas Pressure Switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43454	0xA9BE	Fault History 5 Gas Valve state	Read	UINT16	0 = Off, 1 = On
43455	0xA9BF	Fault History 5 Circulator 1 / 3 way valve DHW	Read	UINT16	0 = Off, 1 = On
43456	0xA9C0	Fault History 5 Circulator 2	Read	UINT16	0 = Off, 1 = On
43457	0xA9C1	Fault History 5 Circulator 3	Read	UINT16	0 = Off, 1 = On
43458	0xA9C2	Fault History 5 Circulator 4/ 3 way valve CH	Read	UINT16	0 = Off, 1 = On
43459	0xA9C3	Fault History 5 120v Boiler Pump	Read	UINT16	0 = Off, 1 = On
43460	0xA9C4	Fault History 5 Additional Heat	Read	UINT16	0 = Off, 1 = On
43461	0xA9C5	Fault History 5 Alarm	Read	UINT16	0 = Off, 1 = On
43462	0xA9C6	Fault History 5 Pilot/External Ignition Source	Read	UINT16	0 = Off, 1 = On
43463	0xA9C7	Fault History 5 Outdoor Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43464	0xA9C8	Fault History 5 Flue 1 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43465	0xA9C9	Fault History 5 Flue 2 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43466	0xA9CA	Fault History 5 Boiler Out 1 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43467	0xA9CB	Fault History 5 Boiler Out 2 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43468	0xA9CC	Fault History 5 DHW Out 1 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43469	0xA9CD	Fault History 5 DHW Out 2 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43470	0xA9CE	Fault History 5 Supply Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43471	0xA9CF	Fault History 5 Return Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43472	0xA9D0	Fault History 5 Boiler In Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43473	0xA9D1	Fault History 5 Flame Sense Current	Read	UINT16	Flame current *10 in micro amps. Ex 23 = 2.3
43474	0xA9D2	Fault History 5 0-10V Output	Read	UINT8	0-10V Current voltage Output*10
43475	0xA9D3	Fault History 5 0 - 10 VDC input voltage	Read	UINT8	Input voltage *10. In 10ths of a volt. Ex. 54 = 5.4
43476	0xA9D4	Fault History 5 Modulation rate	Read	UINT16	Modulation rate 10% to 100%
43477	0xA9D5	Fault History 5 Combi water flow rate	Read	UINT16	Gallons per minute*10. 35 = 3.5 GPM
Fault History 6					
43479	0xA9D7	Seconds when Fault History 6 occurred	Read	UINT8	
43480	0xA9D8	Minutes when Fault History 6 occurred	Read	UINT8	
43481	0xA9D9	Hour when Fault History 6 occurred	Read	UINT8	
43482	0xA9DA	Day when Fault History 6 occurred	Read	UINT8	
43483	0xA9DB	Month when Fault History 6 occurred	Read	UINT8	

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43484	0xA9DC	Year when Fault History 6 occurred	Read	UINT8	
43485	0xA9DD	Fault History 6 Target Reduced - Flue	Read	UINT16	0 = Not Active 1 = Active
43486	0xA9DE	Fault History 6 Target Reduced - Flow	Read	UINT16	0 = Not Active 1 = Active
43487	0xA9DF	Fault History 6 Target Reduced - Boiler	Read	UINT16	0 = Not Active 1 = Active
43488	0xA9E0	Fault History 6 I-LWCO Warning	Read	UINT16	0 = Not Active 1 = Active
43489	0xA9E1	Fault History 6 Supply Sensor	Read	UINT16	0 = Not Active 1 = Active
43490	0xA9E2	Fault History 6 Return Sensor	Read	UINT16	0 = Not Active 1 = Active
43492	0xA9E4	Fault History 6 DHW Out Sensor	Read	UINT16	0 = Not Active 1 = Active
43493	0xA9E5	Fault History 6 DHW > Boiler Out	Read	UINT16	0 = Not Active 1 = Active
43494	0xA9E6	Fault History 6 Outdoor Sensor	Read	UINT16	0 = Not Active 1 = Active
43495	0xA9E7	Fault History 6 Clock Warning	Read	UINT16	0 = Not Active 1 = Active
43496	0xA9E8	Fault History 6 Exceeded Flow Rate	Read	UINT16	0 = Not Active 1 = Active
43497	0xA9E9	Fault History 6 3 Way Stuck CH	Read	UINT16	0 = Not Active 1 = Active
43498	0xA9EA	Fault History 6 3 Way Stuck DHW	Read	UINT16	0 = Not Active 1 = Active
43499	0xA9EB	Fault History 6 Temp Rise Too Quick	Read	UINT16	0 = Not Active 1 = Active
43500	0xA9EC	Fault History 6 Blower Calibration	Read	UINT16	0 = Not Active 1 = Active
43501	0xA9ED	Fault History 6 Freeze Protection	Read	UINT16	0 = Not Active 1 = Active
43502	0xA9EE	Fault History 6 Warm Weather Shutdown	Read	UINT16	0 = Not Active 1 = Active
43503	0xA9EF	Fault History 6 Blower RPM	Read	UINT16	Blower RPM when fault 0 occurred

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43504	0xA9F0	Fault History 6 Fault Code	Read	UINT8	Fault code 1 = Auto Limit Switch 2 = Manual Limit Switch 3 = False Flame 4 = Ignition 2 5 = Ignition 1 6 = Blower 1 7 = Integrated LWCO 8 = Discrete LWCO 9 = Gas Relay 4 10 = Gas Relay 3 11 = Gas Relay 2 12 = Gas Relay 1 13 = Safety Micro ROM 14 = Safety Micro RAM 15 = Flame Loss 16 = Safety Micro Communications Error 17 = Safety Micro Configuration Error 18 = High Temp Limit 19 = Air Pressure Switch 20 = Additional Test Bit 8 21 = Additional Test Bit 7 22 = Additional Test Bit 6 23 = Additional Test Bit 5 24 = Additional Test Bit 4 25 = Analog Input 26 = Safety Micro Flame Circuit 27 = Safety Micro Internal Clock 28 = Blower 2 29 = Additional Test Bit 0 30 = Additional Test Bit 2 31 = Additional Test Bit 3 32 = Flue Temp Too High 220F 33 = DHW More Than 10F Apart

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
					34 = Boiler Out More Than 10F Apart 35 = Flue Temperature More Than 10F Apart 36 = Flue Temperature Too High 210F 37 = Flue 2 Thermistor Open 38 = Flue 2 Thermistor Shorted 39 = Flue 1 Thermistor Open 40 = Flue 1 Thermistor Shorted 41 = DHW Out 1 Thermistor Open 42 = DHW Out 1 Thermistor Shorted 43 = DHW Out 2 Thermistor Open 44 = DHW Out 2 Thermistor Shorted 45 = Boiler Out 2 Thermistor Open 46 = Boiler Out 2 Thermistor Shorted 47 = Boiler Out 1 Thermistor Open 48 = Boiler Out 1 Thermistor Shorted 49 = Gas Pressure Switch 50 = Pilot Valve 1 51 = Pilot Valve 2 52 = Ignition 3 53 = Blower Fault 3 65 = U2 U1 Configuration 66 = U2 U1 Communications 68 = Closure Switch 69 = Boiler In Thermistor Shorted 70 = Boiler In Thermistor Open 71 = Temp Rise Too Quick 72 = Supply 60F > Return 73 = Return > Supply 74 = DHW Out > Boiler Out 75 = Exhaust Gas Pressure Switch 76 = Minimum Air Flow Switch 77 = Software Incompatibility 78 = 3 Way Stuck CH 79 = 3 Way Stuck DHW
					80 = Wrong J6 Jumper 81 = Outdoor Air Thermistor 82 = DHW In Sensor 83 = Supply Sensor 84 = Return Sensor 85 = DHW Out Sensor 86 = Low Flame Shutdown
43505	0xA9F1	Fault History 6 Reset Type	Read	UINT8	0 = Auto Resettable 1 = Manual Resettable 3 = Warning

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43506	0xA9F2	Fault History 6 Boiler State	Read	UINT16	Operating state of boiler 0 = Standby 1 = Prepump 2 = Prepurge 3 = Ignition Speed 4 = Pre-ignition/ 5 = GV Open Test 6 = GV Closed Test 7 = Ignition 8 = Heating 9 = Postpurge 10 = Lockout 11 = Postpump 12 = Inter-purge 13 = Init 14 = Config Check
43507	0xA9F3	Fault History 6 Running DHW	Read	UINT16	0 = No 1 = Yes
43508	0xA9F4	Fault History 6 Local Priority 1	Read	UINT16	0 = Was Not Active 1 = Was Active
43509	0xA9F5	Fault History 6 Local Priority 2	Read	UINT16	0 = Was Not Active 1 = Was Active
43510	0xA9F6	Fault History 6 Local Priority 3	Read	UINT16	0 = Was Not Active 1 = Was Active
43511	0xA9F7	Fault History 6 Network Priority 1	Read	UINT16	0 = Was Not Active 1 = Was Active
43512	0xA9F8	Fault History 6 Network Priority 2	Read	UINT16	0 = Was Not Active 1 = Was Active
43513	0xA9F9	Fault History 6 Modulation Source	Read	UINT16	0 = Boiler Out 1 = System Supply 2 = DHW Out
43514	0xA9FA	Fault History 6 Input 1 Demand Status	Read	UINT16	0 = Demand 1 input is not active 1 = Demand 1 input is active
43515	0xA9FB	Fault History 6 Input 2 Demand Status	Read	UINT16	0 = Demand 2 input is not active 1 = Demand 2 input is active
43516	0xA9FC	Fault History 6 Input 3 Demand Status	Read	UINT16	0 = Demand 3 input is not active 1 = Demand 3 input is active
43517	0xA9FD	Fault History 6 Input 4 Demand Status	Read	UINT16	0 = Demand 4 input is not active 1 = Demand 4 input is active
43518	0xA9FE	Fault History 6 Manual Limit switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43519	0xA9FF	Fault History 6 Auto Limit switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43520	0xAA00	Fault History 6 Low Water cutoff switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43521	0xAA01	Fault History 6 Air pressure switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43522	0xAA02	Fault History 6 Closure switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43523	0xAA03	Fault History 6 Exhaust gas pressure switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43524	0xAA04	Fault History 6 Minimum air flow switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43525	0xAA05	Fault History 6 Gas Pressure Switch state	Read	UINT16	0 = Switch input is not active 1 = Switch input is active
43526	0xAA06	Fault History 6 Gas Valve state	Read	UINT16	0 = Off, 1 = On
43527	0xAA07	Fault History 6 Circulator 1 / 3 way valve DHW	Read	UINT16	0 = Off, 1 = On
43528	0xAA08	Fault History 6 Circulator 2	Read	UINT16	0 = Off, 1 = On
43529	0xAA09	Fault History 6 Circulator 3	Read	UINT16	0 = Off, 1 = On
43530	0xAA0A	Fault History 6 Circulator 4/ 3 way valve CH	Read	UINT16	0 = Off, 1 = On
43531	0xAA0B	Fault History 6 120v Boiler Pump	Read	UINT16	0 = Off, 1 = On
43532	0xAA0C	Fault History 6 Additional Heat	Read	UINT16	0 = Off, 1 = On
43533	0xAA0D	Fault History 6 Alarm	Read	UINT16	0 = Off, 1 = On
43534	0xAA0E	Fault History 6 Pilot/External Ignition Source	Read	UINT16	0 = Off, 1 = On
43535	0xAA0F	Fault History 6 Outdoor Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43536	0xAA10	Fault History 6 Flue 1 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43537	0xAA11	Fault History 6 Flue 2 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43538	0xAA12	Fault History 6 Boiler Out 1 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43539	0xAA13	Fault History 6 Boiler Out 2 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43540	0xAA14	Fault History 6 DHW Out 1 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43541	0xAA15	Fault History 6 DHW Out 2 Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43542	0xAA16	Fault History 6 Supply Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43543	0xAA17	Fault History 6 Return Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43544	0xAA18	Fault History 6 Boiler In Temperature	Read	INT16	Temperature in degrees F. Special values: 1233 = No sensor 1234 = Sensor is shorted 1235 = Sensor is open 1236 = Redundant sensor failed 1237 = Lost communications to sensor
43545	0xAA19	Fault History 6 Flame Sense Current	Read	UINT16	Flame current *10 in micro amps. Ex 23 = 2.3
43546	0xAA1A	Fault History 6 0-10V Output	Read	UINT8	0-10V Current voltage Output*10
43547	0xAA1B	Fault History 6 0 - 10 VDC input voltage	Read	UINT8	Input voltage *10. In 10ths of a volt. Ex. 54 = 5.4
43548	0xAA1C	Fault History 6 Modulation rate	Read	UINT16	Modulation rate 10% to 100%
43549	0xAA1D	Fault History 6 Combi water flow rate	Read	UINT16	Gallons per minute*10. 35 = 3.5 GPM
Fault Actions					
43570	0xAA32	Manual reset all faults	Read/ Write	UINT8	Any non zero value is the same as pressing manual reset on the dispay
43571	0xAA33	Clear fault history	Read/ Write	UINT8	Any non zero value will clear the fault history records
Fault Additions					
43584	0xAA40	Fault History 1 Status	Read	UINT16	BLOWER NEEDS CALIBRATING active or not
43585	0xAA41	Fault History 1 Status	Read	UINT16	VIRTUAL INPUTS ACTIVE active or not
43586	0xAA42	Fault History 1 Status	Read	UINT16	PREHEAT active or not
43587	0xAA43	Fault History 1 Status	Read	UINT16	ECOBOOST active or not
43588	0xAA44	Fault History 1 Status	Read	UINT16	UNCONFIGURED NET 1 active or not

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43589	0xAA45	Fault History 1 Status	Read	UINT16	UNCONFIGURED NET 2 active or not
43590	0xAA46	Fault History 2 Status	Read	UINT16	BLOWER NEEDS CALIBRATING active or not
43591	0xAA47	Fault History 2 Status	Read	UINT16	VIRTUAL INPUTS ACTIVE active or not
43592	0xAA48	Fault History 2 Status	Read	UINT16	PREHEAT active or not
43593	0xAA49	Fault History 2 Status	Read	UINT16	ECOBOOST active or not
43594	0xAA4A	Fault History 2 Status	Read	UINT16	UNCONFIGURED NET 1 active or not
43595	0xAA4B	Fault History 2 Status	Read	UINT16	UNCONFIGURED NET 2 active or not
43596	0xAA4C	Fault History 3 Status	Read	UINT16	BLOWER NEEDS CALIBRATING active or not
43597	0xAA4D	Fault History 3 Status	Read	UINT16	VIRTUAL INPUTS ACTIVE active or not
43598	0xAA4E	Fault History 3 Status	Read	UINT16	PREHEAT active or not
43599	0xAA4F	Fault History 3 Status	Read	UINT16	ECOBOOST active or not
43600	0xAA50	Fault History 3 Status	Read	UINT16	UNCONFIGURED NET 1 active or not
43601	0xAA51	Fault History 3 Status	Read	UINT16	UNCONFIGURED NET 2 active or not
43602	0xAA52	Fault History 4 Status	Read	UINT16	BLOWER NEEDS CALIBRATING active or not
43603	0xAA53	Fault History 4 Status	Read	UINT16	VIRTUAL INPUTS ACTIVE active or not
43604	0xAA54	Fault History 4 Status	Read	UINT16	PREHEAT active or not
43605	0xAA55	Fault History 4 Status	Read	UINT16	ECOBOOST active or not
43606	0xAA56	Fault History 4 Status	Read	UINT16	UNCONFIGURED NET 1 active or not
43607	0xAA57	Fault History 4 Status	Read	UINT16	UNCONFIGURED NET 2 active or not
43608	0xAA58	Fault History 5 Status	Read	UINT16	BLOWER NEEDS CALIBRATING active or not
43609	0xAA59	Fault History 5 Status	Read	UINT16	VIRTUAL INPUTS ACTIVE active or not
43610	0xAA5A	Fault History 5 Status	Read	UINT16	PREHEAT active or not
43611	0xAA5B	Fault History 5 Status	Read	UINT16	ECOBOOST active or not
43612	0xAA5C	Fault History 5 Status	Read	UINT16	UNCONFIGURED NET 1 active or not
43613	0xAA5D	Fault History 5 Status	Read	UINT16	UNCONFIGURED NET 2 active or not
43614	0xAA5E	Fault History 6 Status	Read	UINT16	BLOWER NEEDS CALIBRATING active or not
43615	0xAA5F	Fault History 6 Status	Read	UINT16	VIRTUAL INPUTS ACTIVE active or not
43616	0xAA60	Fault History 6 Status	Read	UINT16	PREHEAT active or not
43617	0xAA61	Fault History 6 Status	Read	UINT16	ECOBOOST active or not
43618	0xAA62	Fault History 6 Status	Read	UINT16	UNCONFIGURED NET 1 active or not
43619	0xAA63	Fault History 6 Status	Read	UINT16	UNCONFIGURED NET 2 active or not
43620	0xAA64	Fault History 1 High Outside Wind	Read	UINT16	0 = Inactive 1 = Active
43621	0xAA65	Fault History 1 Low Flame Shutdown	Read	UINT16	0 = Inactive 1 = Active
43622	0xAA66	Fault History 1 Return > Supply on Shadow #	Read	UINT16	0 = Inactive 1 = Active
43623	0xAA67	Fault History 1 Reduced Max Boiler Temp	Read	UINT16	0 = Inactive 1 = Active
43624	0xAA68	Fault History 2 High Outside Wind	Read	UINT16	0 = Inactive 1 = Active
43625	0xAA69	Fault History 2 Low Flame Shutdown	Read	UINT16	0 = Inactive 1 = Active

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43626	0xAA6A	Fault History 2 Return > Supply on Shadow #	Read	UINT16	0 = Inactive 1 = Active
43627	0xAA6B	Fault History 2 Reduced Max Boiler Temp	Read	UINT16	0 = Inactive 1 = Active
43628	0xAA6C	Fault History 3 High Outside Wind	Read	UINT16	0 = Inactive 1 = Active
43629	0xAA6D	Fault History 3 Low Flame Shutdown	Read	UINT16	0 = Inactive 1 = Active
43630	0xAA6E	Fault History 3 Return > Supply on Shadow #	Read	UINT16	0 = Inactive 1 = Active
43631	0xAA6F	Fault History 3 Reduced Max Boiler Temp	Read	UINT16	0 = Inactive 1 = Active
43632	0xAA70	Fault History 4 High Outside Wind	Read	UINT16	0 = Inactive 1 = Active
43633	0xAA71	Fault History 4 Low Flame Shutdown	Read	UINT16	0 = Inactive 1 = Active
43634	0xAA72	Fault History 4 Return > Supply on Shadow #	Read	UINT16	0 = Inactive 1 = Active
43635	0xAA73	Fault History 4 Reduced Max Boiler Temp	Read	UINT16	0 = Inactive 1 = Active
43636	0xAA74	Fault History 5 High Outside Wind	Read	UINT16	0 = Inactive 1 = Active
43637	0xAA75	Fault History 5 Low Flame Shutdown	Read	UINT16	0 = Inactive 1 = Active
43638	0xAA76	Fault History 5 Return > Supply on Shadow #	Read	UINT16	0 = Inactive 1 = Active
43639	0xAA77	Fault History 5 Reduced Max Boiler Temp	Read	UINT16	0 = Inactive 1 = Active
43640	0xAA78	Fault History 6 High Outside Wind	Read	UINT16	0 = Inactive 1 = Active
43641	0xAA79	Fault History 6 Low Flame Shutdown	Read	UINT16	0 = Inactive 1 = Active
43642	0xAA7A	Fault History 6 Return > Supply on Shadow #	Read	UINT16	0 = Inactive 1 = Active
43643	0xAA7B	Fault History 6 Reduced Max Boiler Temp	Read	UINT16	0 = Inactive 1 = Active
Time/Date					
43671	0xAA97	Minutes	Read/ Write	UINT8	Time of Day, Minutes (0 - 59)
43672	0xAA98	Hours	Read/ Write	UINT8	Time of Day, Hours (0 - 23)
43673	0xAA99	Day	Read/ Write	UINT8	Date, Day of Month (1 - 31)
43674	0xAA9A	Month	Read/ Write	UINT8	Date, Month (1 - 12)
43675	0xAA9B	Year	Read/ Write	UINT8	Date, Year (19 - 99)

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
Installer Information					
43695	0xAAAF	Installer Name	Read/ Write	UINT8	First character of Installer Name
43696	0xAAB0	Installer Name	Read/ Write	UINT8	
43697	0xAAB1	Installer Name	Read/ Write	UINT8	
43698	0xAAB2	Installer Name	Read/ Write	UINT8	
43699	0xAAB3	Installer Name	Read/ Write	UINT8	
43700	0xAAB4	Installer Name	Read/ Write	UINT8	
43701	0xAAB5	Installer Name	Read/ Write	UINT8	
43702	0xAAB6	Installer Name	Read/ Write	UINT8	
43703	0xAAB7	Installer Name	Read/ Write	UINT8	
43704	0xAAB8	Installer Name	Read/ Write	UINT8	
43705	0xAAB9	Installer Name	Read/ Write	UINT8	
43706	0xAABA	Installer Name	Read/ Write	UINT8	
43707	0xAABB	Installer Name	Read/ Write	UINT8	
43708	0xAABC	Installer Name	Read/ Write	UINT8	
43709	0xAABD	Installer Name	Read/ Write	UINT8	
43710	0xAABE	Installer Name	Read/ Write	UINT8	
43711	0xAABF	Installer Name	Read/ Write	UINT8	
43712	0xAAC0	Installer Name	Read/ Write	UINT8	
43713	0xAAC1	Installer Name	Read/ Write	UINT8	
43714	0xAAC2	Installer Name	Read/ Write	UINT8	Last character of Installer Name
43715	0xAAC3	Installer phone number	Read/ Write	UINT8	First character of Installer phone number
43716	0xAAC4	Installer phone number	Read/ Write	UINT8	
43717	0xAAC5	Installer phone number	Read/ Write	UINT8	

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43718	0xAAC6	Installer phone number	Read/ Write	UINT8	
43719	0xAAC7	Installer phone number	Read/ Write	UINT8	
43720	0xAAC8	Installer phone number	Read/ Write	UINT8	
43721	0xAAC9	Installer phone number	Read/ Write	UINT8	
43722	0xAACA	Installer phone number	Read/ Write	UINT8	
43723	0xAACB	Installer phone number	Read/ Write	UINT8	
43724	0xAACC	Installer phone number	Read/ Write	UINT8	Last character of Installer phone number
Maintenance Reminder					
43744	0xAAE0	Month maintenance last performed	Read	UINT8	Maintenance last performed month (1-12)
43745	0xAAE1	Day maintenance last performed	Read	UINT8	Maintenance last performed day of month (1-31)
43746	0xAAE2	Year maintenance last performed	Read	UINT8	Maintenance last performed year (19-99)
43747	0xAAE3	Maintenance interval	Read/ Write	UINT8	Number of months between Maintenance Reminders (0-36)
43748	0xAAE4	Month installed	Read	UINT8	Installation Month (1-12)
43749	0xAAE5	Day installed	Read	UINT8	Installation Day of Month (1-31)
43750	0xAAE6	Year installed	Read	UINT8	Installation Year (19-99)
43751	0xAAE7	Month of next reminder	Read	UINT8	Maintenance next month (1-12)
43752	0xAAE8	Day of next reminder	Read	UINT8	Maintenance next day of month (1-31)
43753	0xAAE9	Year of next reminder	Read	UINT8	Maintenance next year (19-99)
43754	0xAAEA	Additional Maintenance Interval	Read/ Write	UINT8	Number of months between Maintenance Reminders (0-36)
Calibration Points					
43774	0xAAFE	Last Power Cycle time Second	Read	UINT8	Last Power Cycle time, seconds (0-59)
43775	0xAAFF	Last Power Cycle time Minute	Read	UINT8	Last power cycle time, minutes (0-59)
43776	0xAB00	Last Power Cycle time Hour	Read	UINT8	Last power cycle time, Time of day, Hours (0-23)
43777	0xAB01	Last Power Cycle time Day	Read	UINT8	Last power cycle time, Date, Day of month (1-31)
43778	0xAB02	Last Power Cycle time Month	Read	UINT8	Last power cycle time, Date, Month (1-12)
43779	0xAB03	Last Power Cycle time Year	Read	UINT8	Last power cycle time, Date, Year (19-99)
43780	0xAB04	Last calibration time Second	Read	UINT8	Last calibration time, Seconds (0 - 59)
43781	0xAB05	Last calibration time Minute	Read	UINT8	Last calibration time, Minutes (0 - 59)
43782	0xAB06	Last calibration time Hour	Read	UINT8	Last calibration time, Time of Day, Hours (0 - 23)
43783	0xAB07	Last calibration time Day	Read	UINT8	Last calibration time, Date, Day of Month (1 - 31)
43784	0xAB08	Last calibration time Month	Read	UINT8	Last calibration time, Date, Month (1 - 12)
43785	0xAB09	Last calibration time Year	Read	UINT8	Last calibration time, Date, Year (19 - 99)

MODBUS addressing *(continued)*

Register (Dec)	Register (Hex)	Name	Read/ Write	Value Type	Description
43786	0xAB0A	Last factory reset time Second	Read	UINT8	Last factory reset time, Seconds (0 - 59)
43787	0xAB0B	Last factory reset time Minute	Read	UINT8	Last factory reset time, Minutes (0 - 59)
43788	0xAB0C	Last factory reset time Hour	Read	UINT8	Last factory reset time, Time of Day, Hours (0 - 23)
43789	0xAB0D	Last factory reset time Day	Read	UINT8	Last factory reset time, Date, Day of Month (1 - 31)
43790	0xAB0E	Last factory reset time Month	Read	UINT8	Last factory reset time, Date, Month (1 - 12)
43791	0xAB0F	Last factory reset time Year	Read	UINT8	Last factory reset time, Date, Year (19 - 99)
43792	0xAB10	Blower motor calibrated or not	Read	UINT8	Indicates if blower motor is calibrated or not
43793	0xAB11	Blower Calibration Point 1	Read	UINT16	
43794	0xAB12	Blower Calibration Point 2	Read	UINT16	
43795	0xAB13	Blower Calibration Point 3	Read	UINT16	
43796	0xAB14	Blower Calibration Point 4	Read	UINT16	
43797	0xAB15	Blower Calibration Point 5	Read	UINT16	
43798	0xAB16	Blower Calibration Point 6	Read	UINT16	
43799	0xAB17	Blower Calibration Point 7	Read	UINT16	
43800	0xAB18	Blower Calibration Point 8	Read	UINT16	
43801	0xAB19	Blower Calibration Point 9	Read	UINT16	
43802	0xAB1A	Blower Calibration Point 10	Read	UINT16	
43803	0xAB1B	Blower Calibration Point 11	Read	UINT16	
43804	0xAB1C	Blower Calibration Point 12	Read	UINT16	
43805	0xAB1D	Blower Calibration Point 13	Read	UINT16	
43806	0xAB1E	Blower Calibration Point 14	Read	UINT16	
43807	0xAB1F	Blower Calibration Point 15	Read	UINT16	
43808	0xAB20	Blower Calibration Point 16	Read	UINT16	
43809	0xAB21	Blower Calibration Point 17	Read	UINT16	
43810	0xAB22	Blower Calibration Point 18	Read	UINT16	
43811	0xAB23	Blower Calibration Point 19	Read	UINT16	
Micro Reset points					
44016	0xABF0	Number of seconds since reset	Read	UINT16	The number of seconds since the last reset
44017	0xABF1	Reason for last reset	Read	UINT8	The reason for the most recent reset 0 = Unknown 1 = Power Cycle 2 = Brownout 3 = Watchdog
44018	0xABF2	Number of watchdog resets	Read	UINT16	Number of times the control has been reset by watchdog
44019	0xABF3	Number of brownout resets	Read	UINT16	Number of times the control has been reset by brownout
44020	0xABF4	Number of power resets	Read	UINT16	Number of times the control has been reset by power
44021	0xABF5	Total number of resets	Read	UINT16	Combined number of resets no matter what the reason
44022	0xABF6	Power Up Second	Read	UINT8	When control last started, Seconds (0 - 59)
44023	0xABF7	Power Up Minute	Read	UINT8	When control last started, Minutes (0 - 59)
44024	0xABF8	Power Up Hour	Read	UINT8	When control last started, Time of Day, Hours (0 - 23)
44025	0xABF9	Power Up Day	Read	UINT8	When control last started, Date, Day of Month (1 - 31)
44026	0xABFA	Power Up Month	Read	UINT8	When control last started, Date, Month (1 - 12)
44027	0xABFB	Power Up Year	Read	UINT8	When control last started, Date, Year (19 - 99)

NOTES

WEIL-McLAIN®

Weil-McLain
500 Blaine Street
Michigan City, IN 46360-2388
http://www.weil-mclain.com