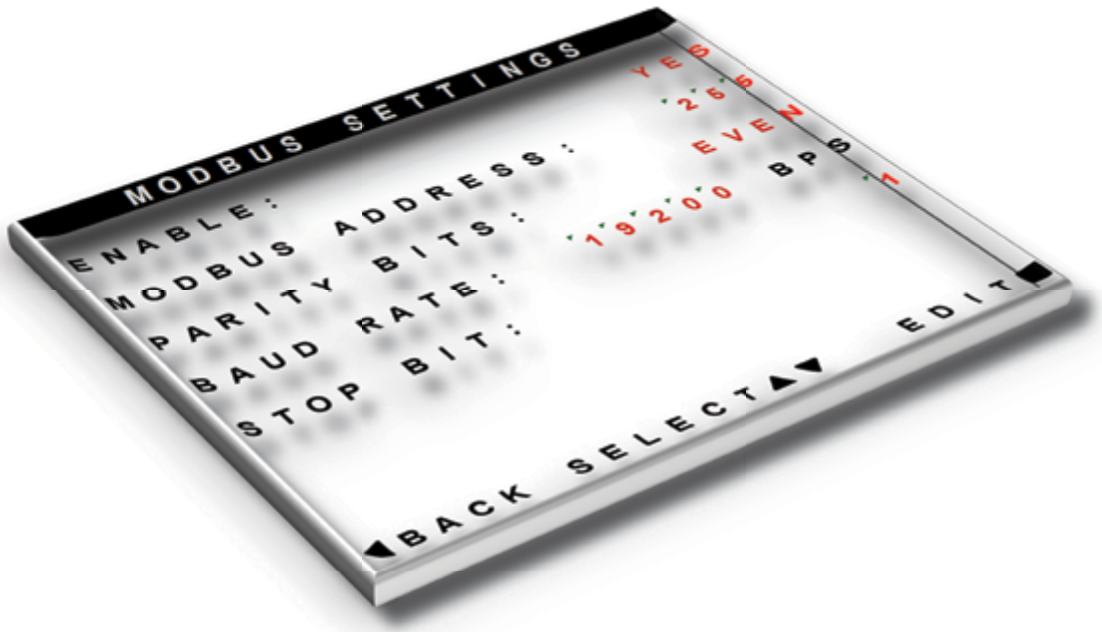
WEIL-McLAIN®

EVERGREEN® Pro

CONDENSING GAS BOILER
220/299/300/399

Modbus Supplement

Software Interface Specification - Evergreen Modbus Interface



⚠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 550-100-216/1220

Contents

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

I M P O R T A N T

THE OUTDOOR SENSOR SUPPLIED WITH THE BOILER MUST BE INSTALLED UNLESS EXEMPTED BELOW:

In accordance with **Section 303 of the 2007 Energy Act**, this boiler is equipped with a feature that saves energy by reducing the boiler water temperature as the heating load decreases. This feature is equipped with an override which is provided primarily to permit the use of an external energy management system that serves the same function.

THIS OVERRIDE MUST NOT BE USED UNLESS AT LEAST ONE OF THE FOLLOWING CONDITIONS IS TRUE:

- An external energy management system is installed that reduces the boiler water temperature as the heating load decreases.
- This boiler is not used for any space heating.
- This boiler is part of a modular or multiple boiler system having a total input of 300,000 BTU/hr or greater.
- This boiler is equipped with a tankless coil (not applicable to Evergreen).

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 **Evergreen™** Boiler Installation 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.

Part number 550-100-216/1220

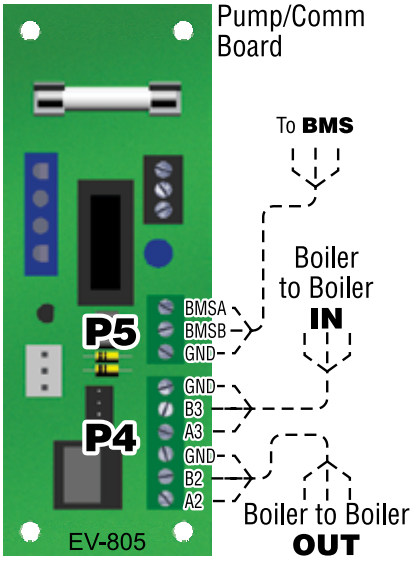
Software Interface Specification

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 19,200 BPS (Match this rate ot the BMS Baud Rate)
Stop Bit	1 or 2

A. Multiple Boiler and BMS Connections

Terminal Strips P4 and P5 on Pump/Comm Board *(control tray, left side)*

1. The boiler control is capable of multiple boiler communication and control of up to eight **Evergreen** boilers in one installation.
2. The boiler control is also capable of BMS (Building Management System) communication.
3. See wiring at right and in the wiring diagram (Figure 15, page 28) of **Evergreen**™ Advanced Manual.
4. Use shielded 3-wire cable. Do not exceed 1,000 feet wire length.
5. Boiler to Boiler wiring connections
   a. Connect 3-wire cable between Boiler-to-Boiler OUT (P4-GND,B2,A2) on one boiler to Boiler-to-Boiler IN (P4-GND,B3,A3) on the next boiler.
   b. Continue this wiring until all boilers are interconnected.
6. MODBUS to BMS (Building Management System)
   a. The control is equipped with MODBUS communication to communicate with a BMS.
   b. Use terminal P5 (P5-BMSA,BMSB,GND) to wire to the BMS control.
   c. If the BMS uses BACnet protocol, install a BACnet converter between the BMS and the Evergreen MODBUS-to-BMS terminals (P5).



MODBUS addressing

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x9101	0001	Boiler Model	Read	UINT8	Boiler Model: Value Model 0 = EVG 220 1 = EVG 220 High Altitude 2 = EVG 299 3 = EVG 299 High Altitude 4 = EVG 399 5 = EVG 399 High Altitude 64 = EVG 220 LP 65 = EVG 220 LP High Altitude 66 = EVG 299 LP 67 = EVG 299 LP High Altitude 68 = EVG 399 LP 69 = EVG 399 LP High Altitude 128 = SlimFit 550 129 = SlimFit 550 High Altitude 130 = SlimFit 750 131 = SlimFit 750 High Altitude 192 = SlimFit 550 LP 193 = SlimFit 550 LP High Altitude 194 = SlimFit 750 LP 195 = SlimFit 750 LP High Altitude
0x9105	0005	Relay Output Status	Read	UINT8 Bitmapped	Bit map: 7 (0x80) = Boiler Circulator ON (set) 6 (0x40) = N/A 5 (0x20) = N/A 4 (0x10) = Additional Heat Demand ON (set) 3 (0x08) = Circulator 3 ON (set) - tied to input 3 2 (0x04) = Circulator 2 ON (set) - tied to input 2 1 (0x02) = Circulator 1 ON (set) - tied to input 1 0 (0x01) = Gas Valve ON (set)
0x9106	0006	Boiler Out 1 Temperature	Read	UINT8	-20˚- 232˚ (1˚F precision)† Special values: 233 = No Sensor 234 = Shorted Sensor 235 = Open Sensor
0x9109	0009	Active Target Supply Temperature	Read	UINT8	50˚- 190˚ (1˚F precision)†
0x910C	0012	Boiler Status 2	Read	UINT8 Bitmapped	Bit map: 7 (0x80) = Warm Weather Shutdown (WWSD) 6 (0x40) = N/A 5 (0x20) = Freeze Protection 4 (0x10) = Modulation Sensor (1 = system supply sensor, 0 = boiler out sensor) 3 (0x08) = Flue Temperature Warning 2 (0x04) = N/A 1 (0x02) = N/A 0 (0x01) = N/A
0x910E	0014	Fan Speed	Read	UINT16	RPM
0x910F	0015	Flame Sense Value	Read	UINT8	Number indicating the presence and quality of the flame
0x9112	0018	Outdoor Temp	Read	UINT8	-20˚- 232˚ (1˚F precision)† Special values: 233 = No Sensor 234 = Shorted Sensor 235 = Open Sensor
0x9113	0019	System Time (Minutes)	Read/Write	UINT8	0-59
0x9114	0020	System Time (Hours)	Read/Write	UINT8	0-23
0x9115	0021	System Date (Day)	Read/Write	UINT8	1-31
0x9116	0022	System Date (Month)	Read/Write	UINT8	1-12
0x9117	0023	System Date (Year)	Read/Write	UINT8	14-99
0x911A	0026	0-10V Input	Read	UINT8	Current 0-10VDC Input (0.1V precision)††
0x911D	0029	Circulator Exercise/Freeze Protection	Read/Write	UINT8 Bitmapped	Bit map: 7 (0x80) = Freeze Protect Boiler Circulator ON (set) 6 (0x40) = Freeze Protect Circulator 3 ON (set) 5 (0x20) = Freeze Protect Circulator 2 ON (set) 4 (0x10) = Freeze Protect Circulator 1 ON (set) 3 (0x08) = Exercise Boiler Circulator ON (set) 2 (0x04) = Exercise Circulator 3 ON (set) 1 (0x02) = Exercise Circulator 2 ON (set) 0 (0x01) = Exercise Circulator 1 ON (set)

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x911F	0031	Priority 1 Settings	Read	UINT8 Bitmapped	Bit map: 7 (0x80) = Run Boiler Pump setting 6 (0x40) = Run Aux Pump/Output setting 4-5 (0x30) = Target Adjustment (0 = None, 1 = 0-10V, 2 = ODT) 0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x9120	0032	Priority 1 Supply Max Target	Read/Write	UINT8	60˚- 190˚ (1˚F precision)†
0x9121	0033	Priority 1 Supply Min Target	Read/Write	UINT8	60˚- 190˚ (1˚F precision)†
0x9122	0034	Priority 1 OD Reset/Volts Max	Read/Write	UINT8	Outdoor Reset Max: 50˚- 100˚ (1˚F precision)† Volts For Max: 5V - 10V (0.1V percision)
0x9123	0035	Priority 1 OD Reset/Volts Min	Read/Write	UINT8	Outdoor Reset Min: 50˚- 100˚ (1˚F precision)† Volts For Min: 0V - 4.9V (0.1V percision)
0x9124	0036	Priority 1 Max Boiler Temperature	Read/Write	UINT8	60˚- 190˚ (1˚F precision)†
0x9125	0037	P3 Max Rate Volts	Read/Write	UINT8	SlimFit Only – Maximum voltage on setting for 0-10V output for a local priority 2 call
0x9127	0039	Active Network Priority's Boiler Off Diff	Read	UINT8	2°F - 10°F (1˚F precision)†
0x9128	0040	Priority 1 System On Diff	Read/Write	UINT8	2°F - 10°F (1˚F precision)†
0x9129	0041	Priority 1 Max On Time Setting	Read/Write	UINT8	0 = OFF, 1-240 = Minutes
0x912A	0042	Priority 1 Post Pump Time	Read/Write	UINT8	0 = OFF, 1-240 = Seconds
0x912B	0043	Priority 1 Boost Time	Read/Write	UINT8	0 = OFF, 1-240 = Minutes
0x912C	0044	Input 1 Priority	Read	UINT8 Bitmapped	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x912D	0045	Priority 1 Pre Pump Time	Read/Write	UINT8	0 = OFF, 1-240 = Seconds
0x912F	0047	Priority 1 Boiler On Diff	Read/Write	UINT8	2°F - 20°F (1˚F precision)†
0x9130	0048	Priority 1 Boiler Off Diff	Read/Write	UINT8	2°F - 10°F (1˚F precision)†
0x9131	0049	Priority 1 Max Rate	Read/Write	UINT8	(Min Rate + 1)% <-> 100%
0x9132	0050	Priority 1 Min Rate	Read/Write	UINT8	10% <-> (Max Rate -1)
0x9133	0051	Active Network Priority's Max BLR Temp	Read	UINT8	60˚ <-> (High Limit Temp - 10˚) (1˚F precision)†
0x9134	0052	Active Network Priority's Boiler On Diff	Read	UINT8	2°F - 10°F (1˚F precision)†
0x9136	0054	Priority 2 Setting	Read	UINT8	Bit map: 7 (0x80) = Run Boiler Pump setting 6 (0x40) = Run Aux Pump/Output setting 4-5 (0x30) = Target Adjustment (0 = None, 1 = 0-10V, 2 = ODT) 0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x9137	0055	Priority 2 Supply Max Target	Read/Write	UINT8	60˚- 190˚ (1˚F precision)†
0x9138	0056	Priority 2 Supply Min Target	Read/Write	UINT8	60˚- 190˚ (1˚F precision)†
0x9139	0057	Priority 2 OD Reset/Volts Max	Read/Write	UINT8	Outdoor Reset Max: 50˚- 100˚ (1˚F precision)† Volts For Max: 5V - 10V (0.1V percision)
0x913A	0058	Priority 2 OD Reset/Volts Min	Read/Write	UINT8	Outdoor Reset Min: 50˚- 100˚ (1˚F precision)† Volts For Min: 0V - 4.9V (0.1V percision)
0x913B	0059	Active Network Prepump Time	Read	UINT8	0 = OFF, 1-240 = Seconds
0x913D	0061	Priority 2 Min On Time Setting	Read/Write	UINT8	0 = OFF, 1-240 = Minutes
0x913E	0062	Priority 2 Max On Time Setting	Read/Write	UINT8	0 = OFF, 1-240 = Minutes
0x913F	0063	Priority 2 Post Pump Time	Read/Write	UINT8	0 = OFF, 1-240 = Seconds
0x9140	0064	Priority 2 Boost Time	Read/Write	UINT8	0 = OFF, 1-240 = Minutes
0x9141	0065	Boiler Control Type	Read	UINT8	0 = Single Boiler, 1 = Master Boiler, 2 = Shadow Boiler

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x9142	0066	Priority 1 Pre Pump Time	Read/Write	UINT8	0 = OFF, 1-240 = Seconds
0x9143	0067	Priority 2 System Off Diff	Read/Write	UINT8	2°F - 10°F (1˚F precision)†
0x9144	0068	Network Minimum On Time	Read	UINT8	The minimum amount of time a network call will run before switching to a higher Local Priority call. See registor 770 to change value.
0x9145	0069	Priority 2 Boiler On Diff	Read/Write	UINT8	2°F - 20°F (1˚F precision)†
0x9146	0070	Priority 2 Boiler Off Diff	Read/Write	UINT8	2°F - 10°F (1˚F precision)†
0x9147	0071	Priority 2 Max Rate	Read/Write	UINT8	(Min Rate + 1)% <-> 100%
0x9148	0072	Priority 2 Min Rate	Read/Write	UINT8	10% <-> (Max Rate -1)
0x914B	0075	Active Network Priority Post Pump Time	Read/Write	UINT8	0 = OFF, 1-240 = Seconds
0x914C	0076	Single Boiler: Priority 3 Setting OR Master Boiler: Network 1 Priority Setting	Read	UINT8	Bit map: 7 (0x80) = Run Boiler Pump setting 6 (0x40) = Run Aux Pump/Output setting 4-5 (0x30) = Target Adjustment (0 = None, 1 = 0-10V, 2 = ODT) 0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x914D	0077	Priority 3/Net1 Supply Max Target	Read/Write	UINT8	60˚- 190˚ (1˚F precision)†. Can only write a value equal or less than Max Boiler Temp - Boiler OFF Diff
0x914E	0078	Priority 3/Net1 Supply Min Target	Read/Write	UINT8	60˚- 190˚ (1˚F precision)†
0x914F	0079	Priority 3/Net1 OD Reset/Volts Max	Read/Write	UINT8	Outdoor Reset Max: 50˚- 100˚ (1˚F precision)† Volts For Max: 5V - 10V (0.1V percision)
0x9150	0080	Priority 3/Net1 OD Reset/Volts Min	Read/Write	UINT8	Outdoor Reset Min: 50˚- 100˚ (1˚F precision)† Volts For Min: 0V - 4.9V (0.1V percision)
0x9151	0081	Network Max On Time	Read	UINT8	Max On Time for both Network Priorities (0 = OFF, 1 - 240 min)
0x9152	0082	Priority 3/Net1 System On Diff	Read/Write	UINT8	2°F - 10°F (1˚F precision)†
0x9153	0083	Priority 3 Min On Time Setting	Read/Write	UINT8	0 = OFF, 1-240 = Minutes (Used only in single boiler priority 3)
0x9154	0084	Priority 3/Net1 System Off Diff	Read/Write	UINT8	2°F - 10°F (1˚F precision)†
0x9155	0085	Priority 3/Net1 Post Pump Time	Read/Write	UINT8	0 = OFF, 1-240 = Seconds
0x9156	0086	Priority 3/Net1 Boost Time	Read/Write	UINT8	0 = OFF, 1-240 = Minutes
0x9157	0087	Priority 2 Max Boiler Temperature	Read/Write	UINT8	60˚- 190˚ (1˚F precision)†
0x9158	0088	Priority 3/Net1 Pre Pump Time	Read/Write	UINT8	0 = OFF, 1-240 = Seconds
0x9159	0089	Boiler Status 3	Read	UINT8 Bitmapped	Bit map: 7 (0x80) = N/A 6 (0x40) = N/A 5 (0x20) = N/A 4 (0x10) = N/A 3 (0x08) = N/A 2 (0x04) = Modulation was Reduced because Boiler Out temperature exceeded (MAX_BLR_TEMP - BOILER_ON_DIFF) 1 (0x02) = Target was Reduced because 45˚Δ between Boiler In & Boiler Out 0 (0x01) = Target was Reduced because Flue Temperature exceeded 200˚F
0x915B	0091	Priority 3/Net1 Boiler On Diff	Read/Write	UINT8	2°F - 20°F (1˚F precision)†
0x915C	0092	Priority 3/Net1 Boiler Off Diff	Read/Write	UINT8	2°F - 10°F (1˚F precision)†
0x915D	0093	Priority 3 Max Rate (for single)	Read/Write	UINT8	(Min Rate + 1)% <-> 100%
0x915E	0094	Priority 3 Min Rate (for single)	Read/Write	UINT8	10% <-> (Max Rate -1)
0x915F	0095	P3 Max Boiler Temp	Read/Write	UINT8	60˚- 190˚ (1˚F precision)†
0x9160	0096	Network Run Pumps	Read	UINT8 Bitmapped	Bit map: 7 (0x80) - Run Boiler Pump 6 (0x40) - Run Circulator 3 5 (0x20) - Run Circulator 2 4 (0x10) - Run Circulator 1 3 (0x08) - Turn on Additional Heat Contact
0x9161	0097	High Limit Temp	Read/Write	UINT8	Manual Reset High Limit Temp (50°F - 200°F)
0x9162	0098	WWSD Temp	Read/Write	UINT8	Warm Weather Shutdown Temp (OFF - 100°F)
0x9163	0099	P1 More Settings	Read/Write	UINT8 Bitmapped	Bit Map: 4-5 (0x30) - SlimFit ONLY - Additional Heat Below Setpoint setting (1 = 1st, 2 = 2nd) 3 (0x08) - SlimFit ONLY - Additional Heat temperature dependent. 2 (0x04) - Priority 1's target ModSensor (0 = Boiler out, 1 = System) 0-1 (0x03) - Priority 1's activate Contact Setting (0 = off, 1 = 1st, 2 = 2nd)
0x9164	100	P1 Min Rate Volts	Read/Write	UINT8	SlimFit ONLY - Minimum voltage on setting for 0-10v output for a local priority 1 call.
0x9165	0101	P2 More Settings	Read/Write	UINT8	Bit Map: 4-5 (0x30) - SlimFit ONLY - Additional Heat Below Setpoint setting (1 = 1st, 2 = 2nd) 3 (0x08) - SlimFit ONLY - Additional Heat temperature dependent. 2 (0x04) - Priority 1's target ModSensor (0 = Boiler out, 1 = System) 0-1 (0x03) - Priority 1's activate Contact Setting (0 = off, 1 = 1st, 2 = 2nd)
0x9166	0102	Outdoor Temp Correction	Read/Write	SINT8	ODT Sensor Calibration (-10°F - 10°F)

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x9167	0103	P3 More Settings	Read/Write	UINT8	Bit Map: 4-5 (0x30) - SlimFit ONLY - Additional Heat Below Setpoint setting (1 = 1st, 2 = 2nd) 3 (0x08) - SlimFit ONLY - Additional Heat temperature dependent. 2 (0x04) - Priority 1's target ModSensor (0 = Boiler out, 1 = System) 0-1 (0x03) - Priority 1's activate Contact Setting (0 = off, 1 = 1st, 2 = 2nd)
0x9169	0105	P1 System Off Diff	Read/Write	UINT8	This is the System Off Diff if Target Mod Sensor is set to System Sensor. If Target Mod Sensor is Boiler Out then this is the Priority 1's Boiler Off Diff
0x916B	0107	P2 Min Rate Volts	Read/Write	UINT8	SlimFit ONLY - Minimum voltage on setting for 0-10v output for a local priority 2 call.
0x916C	0108	Boiler Model Number	Read	UINT8	Bit fields: 0x01 - High Altitude (>= 5500 ft) 0x3E = 0 - Evergreen Model 220 or SlimFit Model 550 (Commercial bit set) 1 - Evergreen Model 299 or SlimFit Model 750 (Commercial bit set) 2 - Evergreen Model 399 0x40 - LP Gas 0x80 - Commerical Boiler (550 or greater)
0x916D	0109	P3 Min rate Volts	Read/Write	UINT8	SlimFit ONLY - Minimum voltage on setting for 0-10v output for a local priority 3 call.
0x9172	0114	P2 System On Diff	Read/Write	UINT8	2°F - 10°F (1˚F precision)†
0x9173	0115	P1 Response Time	Read/Write	UINT8	Priority 1's Activate Contact Response Time in Minutes
0x9174	0116	P2 Response Time	Read/Write	UINT8	Priority 2's Activate Contact Response Time in Minutes
0x9175	0117	P3 Response Time	Read/Write	UINT8	Priority 3's Activate Contact Response Time in Minutes
0x9178	0120	Input 2 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x9179	0121	Input 3 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x917B	0123	Burner Hours	Read	UINT16	Number of hours the burner has been on. (This register has to be multiplied by two to get the correct amount of burner hours)
0x9180	0128	Boiler Out 1	Read	UINT8	This register will show the Boiler Out Temperature 1 of the Local Boiler -20˚- 232˚ (1˚F precision) Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x9183	0131	Boiler Out 2	Read	UINT8	This register will show the Boiler Out Temperature 2 of the Local Boiler -20˚- 232˚ (1˚F precision) Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x9187	0135	Available to run	Read	UINT8	Bit Mapped: 1 (0x01) - Set when the timer has expired for the currently active running input.
0x9188	0136	Boiler In Temperature	Read	UINT8	This register will show the Boiler In Temperature of the Local Boiler -20˚- 232˚ (1˚F precision) Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x9189	0137	Boiler Status	Read	UINT8 Bitmapped	Bit map: 7 (0x80): Local Priority 3 running (Single Boiler) or Network priority running (Master or Shadow) 6 (0x40): Local Priority 2 running 5 (0x20): Local Priority 1 running 4 (0x10): Running DHW (Domestic Hot Water) 0-3 (0x07): 7: Lockout 6: Post Purge 3 - 5: Heating 2: Ignition 1: Pre Purge 0: Standby
0x918B	0139	Input Status	Read	UINT8 Bitmapped	Bit map: 7 (0x80) = Flow Switch Open (clear) Closed (set) 6 (0x40) = Air P-Switch Open (clear) Closed (set) 5 (0x20) = Low Water Cutoff Open (clear) Closed (set) 4 (0x10) = Auto Limit Open (clear) Closed (set) 3 (0x08) = Manual Limit Open (clear) Closed (set) 2 (0x04) = Input 3 active (set) 1 (0x02) = Input 2 active (set) 0 (0x01) = Input 1 active (set)
0x918C	0140	Flue Temperature 1	Read	UINT8	This register will show the Flue Temperature 1 of the Local Boiler if a sensor is connected -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x918D	0141	Local Supply Temp	Read	UINT8	This register will show the Supply Temperature of the Local Boiler if a sensor is connected -20˚- 232˚ (1˚F precision) Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x918E	0142	Flue Temperature 2	Read	UINT8	This register will show the Flue Temperature 2 of the Local Boiler if a sensor is connected -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x918F	0143	P1 Max Rate Volts	Read	UINT8	SlimFit ONLY - Maximum voltage on setting for 0-10v output for a local priority 1 call.
0x9191	0145	Local Outdoor Temperature	Read	SINT8	This register will show the Outdoor Temperature of the Local Boiler if a sensor is connected -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x9193	0147	Network Outdoor Temperature	Read	SINT8	This register will show the Outdoor Temperature of the Network if a sensor is connected -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x9194	0148	Network Supply Temperature	Read	UINT8	This register will show the Supply Temperature of the Network if a sensor is connected -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x9195	0149	Local Supply Temperature	Read	UINT8	The supply temperature of the boiler from the local sensor -20˚- 232˚ (1˚F precision)
0x9196	0150	Local Return Temperature	Read	UINT8	The return temperature of the boiler from the local sensor -20˚- 232˚ (1˚F precision)
0x9199	0153	Bad EEPROM Count	Read	UINT16	This register as well as Bad RAM Count(0154) and Default Count(0155) add up to be what is displayed as Control Faults in the Past Errors Screen.
0x919A	0154	Bad Ram Count	Read	UINT16	This register as well as Bad EEPROM Count and Default Count add up to be what is displayed as Control Faults in the Past Errors Screen.
0x919B	0155	Default Count	Read	UINT16	This register as well as Bad EEPROM Count and Bad RAM Count add up to be what is displayed as Control Faults in the Past Errors Screen.
0x919C	0156	Ignition Retries	Read	UINT16	This register shows the number of times the boiler has tried to ignite but has failed
0x919E	0158	Manual Lockout Count	Read	UINT8	Number of Manual Lockouts

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x919F	0159	Sensor Warnings	Read	UINT8 Bitmapped	Bit Mapped: 8 (0x80): Gas Valve Fault 4 when Lockout History 1 Hard Lockout Errors(0x91A1) or Lockout History 1 Soft Lockout Errors (0x91A2) bit 0x2000 set. 7 (0x40): Gas Valve Fault 3 when Lockout History 1 Hard Lockout Errors(0x91A1) or Lockout History 1 Soft Lockout Errors (0x91A2) bit 0x2000 set. 6 (0x20): Gas Valve Fault 2 when Lockout History 1 Hard Lockout Errors(0x91A1) or Lockout History 1 Soft Lockout Errors (0x91A2) bit 0x2000 set. 5 (0x10): Gas Valve Fault 1 when Lockout History 1 Hard Lockout Errors(0x91A1) or Lockout History 1 Soft Lockout Errors (0x91A2) bit 0x2000 set. DHW (Domestic Hot Water) Disabled when bit 0x2000 clear. 4 (0x08): Not Configured 3 (0x04): Outdoor Temperature Sensor Error 2 (0x02): Return Sensor Error 1 (0x01): Supply Sensor Error
0x91A0	0160	Auto Lockout Count	Read	UINT8	Number of Auto Lockouts
0x91A1	0161	Lockout History 1 Hard Lockout Errors	Read	UINT16 Bitmapped	Bit Mapped: (256 = Manual Reset Limit Open) 16 (0x4000): Low Water Cutoff 15 (0x2000): Gas Valve Fault - see Sensor Warnings (0x919F) 14 (0x1800): Air Pressure Switch Fault 13 (0x1000): Expansion Board Fault - see Lockout History 1 Expansion Board Errors (0x919D) or if Lockout History 1 Expansion Board Errors is 0, Hardware Fault. 12 (0x0800): Blower Fault 11 (0x0400): High Temp Limit 10 (0x0200): Ignition Fault 9 (0x0100): Flame Fault 8 (0x0080): Flue Temp Too High 7 (0x0040): Temperature Sensor 6 (0x0020): Supply 58F > Return 5 (0x0010): Temp Rise Too Quickly 4 (0x0008): Return > Supply Temp 3 (0x0004): Return Water Temp High 2 (0x0002): Flow Switch Fault (if Flow Switch Open) or System Temp High Fault 1 (0x0001): Limit Open
0x91A2	0162	Lockout History 1 Soft Lockout Errors	Read	UINT16 Bitmapped	Bit Mapped: 16 (0x4000): Low Water Cutoff 15 (0x2000): Gas Valve Fault - see Sensor Warnings (0x919F) 14 (0x1800): Air Pressure Switch Fault 13 (0x1000): Expansion Board Fault - see Lockout History 1 Expansion Board Errors (0x919D) or if Lockout History 1 Expansion Board Errors is 0, Hardware Fault. 12 (0x0800): Blower Fault 11 (0x0400): High Temp Limit 10 (0x0200): Ignition Fault 9 (0x0100): Flame Fault 8 (0x0080): Flue Temp Too High 7 (0x0040): Temperature Sensor 6 (0x0020): Supply 58F > Return 5 (0x0010): Temp Rise Too Quickly 4 (0x0008): Return > Supply Temp 3 (0x0004): Return Water Temp High 2 (0x0002): Flow Switch Fault (if Flow Switch Open) or System Temp High Fault 1 (0x0001): Limit Open
0x91A3	0163	Lockout History 1 Minutes	Read	UINT8	0-59
0x91A4	0164	Lockout History 1 Hours	Read	UINT8	0-23
0x91A5	0165	Lockout History 1 Day	Read	UINT8	1-31
0x91A6	0166	Lockout History 1 Month	Read	UINT8	1-12
0x91A7	0167	Lockout History 1 Year	Read	UINT8	14-99
0x91A9	0169	Lockout History 1 Input Status	Read	UINT8	Bit map: 7 (0x80) = Flow Switch Open (clear) Closed (set) 6 (0x40) = Air P-Switch Open (clear) Closed (set) 5 (0x20) = Low Water Cutoff Open (clear) Closed (set) 4 (0x10) = Auto Limit Open (clear) Closed (set) 3 (0x08) = Manual Limit Open (clear) Closed (set) 2 (0x04) = Input 3 active (set) 1 (0x02) = Input 2 active (set) 0 (0x01) = Input 1 active (set)
0x91AA	0170	Lockout History 1 Relay Output Status	Read	UINT8	Bit map: 7 (0x80) = Boiler Circulator ON (set) 6 (0x40) = N/A 5 (0x20) = N/A 4 (0x10) = Additional Heat Demand ON (set) 3 (0x08) = Circulator 3 ON (set) - tied to input 3 2 (0x04) = Circulator 2 ON (set) - tied to input 2 1 (0x02) = Circulator 1 ON (set) - tied to input 1 0 (0x01) = Gas Valve ON (set)

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x91AB	0171	Lockout History 1 Flame Signal MSB	Read	UINT8	Number indicating the presence and quality of the flame
0x91AC	0172	Lockout History 1 Flame Signal LSB	Read	UINT8	Number indicating the presence and quality of the flame
0x91AD	0173	Lockout History 1 Outdoor Temperature	Read	SINT8	This register will show the Outdoor Temperature of the Network if a sensor is connected -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91AE	0174	Lockout History 1 Flue Temperature 2	Read	UINT8	This register will show the Flue Temperature 2 of the Local Boiler if a sensor is connected -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91AF	0175	Lockout History 1 Boiler Out Temp 2	Read	UINT8	This register will show the Boiler Out Temperature 2 of the Local Boiler -20˚- 232˚ (1˚F precision) Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91B2	0178	Lockout History 1 Flue Temperature 1	Read	UINT8	This register will show the Flue Temperature 1 of the Local Boiler if a sensor is connected -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91B3	0179	Lockout History 1 Boiler Out Temp 1	Read	UINT8	This register will show the Boiler Out Temperature 1 of the Local Boiler -20˚- 232˚ (1˚F precision) Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91B4	0180	Lockout History 1 Heat Exchanger Temp 1	Read	UINT8	SlimFit ONLY - This register will show the Boiler InTemperature of the Local Boiler -20˚- 232˚ (1˚F precision) Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91B5	0181	Lockout History 1 Supply Temperature	Read	UINT8	This register will show the Supply Temperature of the Network if a sensor is connected. -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91B6	0182	Lockout History 1 Return Temperature	Read	UINT8	This register will show the Return Temperature of the Network if a sensor is connected. -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91B7	0183	Lockout History 1 Boiler In Temperature	Read	UINT8	This register will show the Boiler InTemperature of the Local Boiler -20˚- 232˚ (1˚F precision) Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91B8	0184	Lockout History 1 0-10V Output	Read	UINT8	SlimFit ONLY - The 0-10V output value when the Last Error Occurred
0x91B9	0185	Lockout History 1 Blower Speed (RPM)	Read	UINT16	RPM (Speed of the blower motor)
0x91BA	0186	Lockout History 2 Hard Lockout Errors	Read	UINT16	Bit Mapped: 16 (0x4000): Low Water Cutoff 15 (0x2000): Gas Valve Fault - see Sensor Warnings (0x919F) 14 (0x1800): Air Pressure Switch Fault 13 (0x1000): Expansion Board Fault - see Lockout History 2 Expansion Board Errors (0x919D) or if Lockout History 2 Expansion Board Errors is 0, Hardware Fault. 12 (0x0800): Blower Fault 11 (0x0400): High Temp Limit 10 (0x0200): Ignition Fault 9 (0x0100): Flame Fault 8 (0x0080): Flue Temp Too High 7 (0x0040): Temperature Sensor 6 (0x0020): Supply 58F > Return 5 (0x0010): Temp Rise Too Quickly 4 (0x0008): Return > Supply Temp 3 (0x0004): Return Water Temp High 2 (0x0002): Flow Switch Fault (if Flow Switch Open) or System Temp High Fault 1 (0x0001): Limit Open

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x91BB	0187	Lockout History 2 Soft Lockout Errors	Read	UINT16	Bit Mapped: 16 (0x4000): Low Water Cutoff 15 (0x2000): Gas Valve Fault - see Sensor Warnings (0x919F) 14 (0x1800): Air Pressure Switch Fault 13 (0x1000): Expansion Board Fault - see Lockout History 2 Expansion Board Errors (0x919D) or if Lockout History 2 Expansion Board Errors is 0, Hardware Fault. 12 (0x0800): Blower Fault 11 (0x0400): High Temp Limit 10 (0x0200): Ignition Fault 9 (0x0100): Flame Fault 8 (0x0080): Flue Temp Too High 7 (0x0040): Temperature Sensor 6 (0x0020): Supply 58F > Return 5 (0x0010): Temp Rise Too Quickly 4 (0x0008): Return > Supply Temp 3 (0x0004): Return Water Temp High 2 (0x0002): Flow Switch Fault (if Flow Switch Open) or System Temp High Fault 1 (0x0001): Limit Open
0x91BC	0188	Lockout History 2 Minutes	Read	UINT8	0-59
0x91BD	0189	Lockout History 2 Hours	Read	UINT8	0-23
0x91BE	0190	Lockout History 2 Day	Read	UINT8	1-31
0x91BF	0191	Lockout History 2 Month	Read	UINT8	1-12
0x91C0	0192	Lockout History 2 Year	Read	UINT8	14-99
0x91C2	0194	Lockout History 2 Input Status	Read	UINT8	Bit map: 7 (0x80) = Flow Switch Open (clear) Closed (set) 6 (0x40) = Air P-Switch Open (clear) Closed (set) 5 (0x20) = Low Water Cutoff Open (clear) Closed (set) 4 (0x10) = Auto Limit Open (clear) Closed (set) 3 (0x08) = Manual Limit Open (clear) Closed (set) 2 (0x04) = Input 3 active (set) 1 (0x02) = Input 2 active (set) 0 (0x01) = Input 1 active (set)
0x91C3	0195	Lockout History 2 Relay Output Status	Read	UINT8	Bit map: 7 (0x80) = Boiler Circulator ON (set) 6 (0x40) = N/A 5 (0x20) = N/A 4 (0x10) = Additional Heat Demand ON (set) 3 (0x08) = Circulator 3 ON (set) - tied to input 3 2 (0x04) = Circulator 2 ON (set) - tied to input 2 1 (0x02) = Circulator 1 ON (set) - tied to input 1 0 (0x01) = Gas Valve ON (set)
0x91C4	0196	Lockout History 2 Flame Signal MSB	Read	UINT8	Number indicating the presence and quality of the flame
0x91C5	0197	Lockout History 2 Flame Signal LSB	Read	UINT8	Number indicating the presence and quality of the flame
0x91C6	0198	Lockout History 2 Outdoor Temperature	Read	SINT8	This register will show the Outdoor Temperature of the Network if a sensor is connected -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91C7	0199	Lockout History 2 Flue Temperature 2	Read	UINT8	This register will show the Flue Temperature 2 of the Local Boiler if a sensor is connected -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91C8	0200	Lockout History 2 Boiler Out Temp 2	Read	UINT8	This register will show the Boiler Out Temperature 2 of the Local Boiler -20˚- 232˚ (1˚F precision) Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91CB	0203	Lockout History 2 Flue Temperature 1	Read	UINT8	This register will show the Flue Temperature 1 of the Local Boiler if a sensor is connected -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91CC	0204	Lockout History 2 Boiler Out Temp 1	Read	UINT8	This register will show the Boiler Out Temperature 1 of the Local Boiler -20˚- 232˚ (1˚F precision) Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x91CD	0205	Lockout History 2 Heat Exchanger Temp 1	Read	UINT8	SlimFit ONLY - This register will show the Boiler InTemperature of the Local Boiler -20˚- 232˚ (1˚F precision) Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91CE	0206	Lockout History 2 Supply Temperature	Read	UINT8	This register will show the Supply Temperature of the Network if a sensor is connected. -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91CF	0207	Lockout History 2 Return Temperature	Read	UINT8	This register will show the Return Temperature of the Network if a sensor is connected. -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91D0	208	Lockout History 2 Boiler In Temp 1	Read	UINT8	This register will show the Boiler InTemperature of the Local Boiler -20˚- 232˚ (1˚F precision) Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91D1	0209	Lockout History 2 0-10V Output	Read	UINT8	SlimFit ONLY - The 0-10V output value when the Previous Error Occurred
0x91D2	0210	Lockout History 2 Blower Speed (RPM)	Read	UINT16	RPM (Speed of the blower motor)
0x91D3	0211	Lockout History 3 Hard Lockout Errors	Read	UINT16	Bit Mapped: 16 (0x4000): Low Water Cutoff 15 (0x2000): Gas Valve Fault - see Sensor Warnings (0x919F) 14 (0x1800): Air Pressure Switch Fault 13 (0x1000): Expansion Board Fault - see Lockout History 3 Expansion Board Errors (0x919D) or if Lockout History 3 Expansion Board Errors is 0, Hardware Fault. 12 (0x0800): Blower Fault 11 (0x0400): High Temp Limit 10 (0x0200): Ignition Fault 9 (0x0100): Flame Fault 8 (0x0080): Flue Temp Too High 7 (0x0040): Temperature Sensor 6 (0x0020): Supply 58F > Return 5 (0x0010): Temp Rise Too Quickly 4 (0x0008): Return > Supply Temp 3 (0x0004): Return Water Temp High 2 (0x0002): Flow Switch Fault (if Flow Switch Open) or System Temp High Fault 1 (0x0001): Limit Open
0x91D4	0212	Lockout History 3 Soft Lockout Errors	Read	UINT16	Bit Mapped: 16 (0x4000): Low Water Cutoff 15 (0x2000): Gas Valve Fault - see Sensor Warnings (0x919F) 14 (0x1800): Air Pressure Switch Fault 13 (0x1000): Expansion Board Fault - see Lockout History 3 Expansion Board Errors (0x919D) or if Lockout History 3 Expansion Board Errors is 0, Hardware Fault. 12 (0x0800): Blower Fault 11 (0x0400): High Temp Limit 10 (0x0200): Ignition Fault 9 (0x0100): Flame Fault 8 (0x0080): Flue Temp Too High 7 (0x0040): Temperature Sensor 6 (0x0020): Supply 58F > Return 5 (0x0010): Temp Rise Too Quickly 4 (0x0008): Return > Supply Temp 3 (0x0004): Return Water Temp High 2 (0x0002): Flow Switch Fault (if Flow Switch Open) or System Temp High Fault 1 (0x0001): Limit Open
0x91D5	0213	Lockout History 3 Minutes	Read	UINT8	0-59
0x91D6	0214	Lockout History 3 Hours	Read	UINT8	0-23
0x91D7	0215	Lockout History 3 Day	Read	UINT8	1-31
0x91D8	0216	Lockout History 3 Month	Read	UINT8	1-12
0x91D9	0217	Lockout History 3 Year	Read	UINT8	14-99

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x91DB	0219	Lockout History 3 Input Status	Read	UINT8	Bit map: 7 (0x80) = Flow Switch Open (clear) Closed (set) 6 (0x40) = Air P-Switch Open (clear) Closed (set) 5 (0x20) = Low Water Cutoff Open (clear) Closed (set) 4 (0x10) = Auto Limit Open (clear) Closed (set) 3 (0x08) = Manual Limit Open (clear) Closed (set) 2 (0x04) = Input 3 active (set) 1 (0x02) = Input 2 active (set) 0 (0x01) = Input 1 active (set)
0x91DC	0220	Lockout History 3 Relay Output Status	Read	UINT8	Bit map: 7 (0x80) = Boiler Circulator ON (set) 6 (0x40) = N/A 5 (0x20) = N/A 4 (0x10) = Additional Heat Demand ON (set) 3 (0x08) = Circulator 3 ON (set) - tied to input 3 2 (0x04) = Circulator 2 ON (set) - tied to input 2 1 (0x02) = Circulator 1 ON (set) - tied to input 1 0 (0x01) = Gas Valve ON (set)
0x91DD	0221	Lockout History 3 Flame Signal MSB	Read	UINT8	Number indicating the presence and quality of the flame
0x91DE	0222	Lockout History 3 Flame Signal LSB	Read	UINT8	Number indicating the presence and quality of the flame
0x91DF	0223	Lockout History 3 Outdoor Temperature	Read	SINT8	This register will show the Outdoor Temperature of the Network if a sensor is connected -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91E0	0224	Lockout History 3 Flue Temperature 2	Read	UINT8	This register will show the Flue Temperature 2 of the Local Boiler if a sensor is connected -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91E1	0225	Lockout History 3 Boiler Out Temp 2	Read	UINT8	This register will show the Boiler Out Temperature 2 of the Local Boiler -20˚- 232˚ (1˚F precision) Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91E4	0228	Lockout History 3 Flue Temperature 1	Read	UINT8	This register will show the Flue Temperature 1 of the Local Boiler if a sensor is connected -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91E5	0229	Lockout History 3 Boiler Out Temp 1	Read	UINT8	This register will show the Boiler Out Temperature 1 of the Local Boiler -20˚- 232˚ (1˚F precision) Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91E6	0230	Lockout History 3 Heat Exchanger Temp 1	Read	UINT8	SlimFit ONLY - This register will show the Boiler InTemperature of the Local Boiler -20˚- 232˚ (1˚F precision) Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91E7	0231	Lockout History 3 Supply Temperature	Read	UINT8	This register will show the Supply Temperature of the Network if a sensor is connected. -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91E8	0232	Lockout History 3 Return Temperature	Read	UINT8	This register will show the Return Temperature of the Network if a sensor is connected. -20˚- 232˚ (1˚F precision) Special values: 233 = No Outdoor Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91E9	0233	Lockout History 3 Boiler In Temp 1	Read	UINT8	This register will show the Boiler InTemperature of the Local Boiler -20˚- 232˚ (1˚F precision) Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x91EA	0234	Lockout History 3 0-10V Output	Read	UINT8	SlimFit ONLY - The 0-10V Output Value when 3 errors ago occurred
0x91EB	0235	Lockout History 3 Blower Speed (RPM)	Read	UINT16	RPM (Speed of the blower motor)
0x91EC	0236	P2 Max Rate Volts	Read	UINT8	SlimFit ONLY - Maximum voltage on setting for 0-10v output for a local priority 2 call

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x91EE - 0x91FC	0238-0252	Installer Name	Read	UINT8[15]	15 Characters available to enter the Installer's Name
0x91FE - 0x9203	0254-0259	Installer Phone	Read	UINT8[6]	10 Digit phone number of the Installer
0x9204	0260	Last Maintenance Reminder Month	Read	UINT8	1-12
0x9205	0261	Last Maintenance Reminder Day	Read	UINT8	1-31
0x9206	0262	Last Maintenance Reminder Year	Read	UINT8	14-99
0x9207	0263	Maintenance Reminder Interval	Read/Write	UINT8	Number of months between Maintenance Reminders (OFF - 36)
0x9208	0264	Installation Month	Read	UINT8	1-12
0x9209	0265	Installation Day	Read	UINT8	1-31
0x920A	0266	Installation Year	Read	UINT8	14-99
0x920B	0267	Last Maintenance Performed Month	Read	UINT8	1-12
0x920C	0268	Last Maintenance Performed Day	Read	UINT8	1-31
0x920D	0269	Last Maintenance Performed Year	Read	UINT8	14-99
0x920E - 0x9214	0270-0276	Boiler CP Number	Read	UINT8[7]	Boiler CP Number
0x921E	0286	Lockout History 1 Boiler Status 2	Read	UINT8	Bit map: 7 (0x80) = Warm Weather Shutdown (WWSD) 6 (0x40) = N/A 5 (0x20) = Freeze Protection 4 (0x10) = Modulation Sensor (1 = system supply sensor, 0 = boiler out sensor) 3 (0x08) = Flue Temperature Warning 2 (0x04) = N/A 1 (0x02) = N/A 0 (0x01) = N/A
0x921F	0287	Lockout History 2 Boiler Status 2	Read	UINT8	Bit map: 7 (0x80) = Warm Weather Shutdown (WWSD) 6 (0x40) = N/A 5 (0x20) = Freeze Protection 4 (0x10) = Modulation Sensor (1 = system supply sensor, 0 = boiler out sensor) 3 (0x08) = Flue Temperature Warning 2 (0x04) = N/A 1 (0x02) = N/A 0 (0x01) = N/A
0x9220	0288	Lockout History 3 Boiler Status 2	Read	UINT8	Bit map: 7 (0x80) = Warm Weather Shutdown (WWSD) 6 (0x40) = N/A 5 (0x20) = Freeze Protection 4 (0x10) = Modulation Sensor (1 = system supply sensor, 0 = boiler out sensor) 3 (0x08) = Flue Temperature Warning 2 (0x04) = N/A 1 (0x02) = N/A 0 (0x01) = N/A
0x9221	0289	Lockout History 1 10 Volt Input	Read	UINT8	0-10VDC Input (0.1V precision)†† for Lockout History 1
0x9222	0290	Lockout History 2 10 Volt Input	Read	UINT8	0-10VDC Input (0.1V precision)†† for Lockout History 2
0x9223	0291	Lockout History 3 10 Volt Input	Read	UINT8	0-10VDC Input (0.1V precision)†† for Lockout History 3
0x9226	0294	Ignore Flame Signal Shutdown	Read	UINT8	When a 0x01 is written to this register, the boiler will ignore Flame Signal Shutdown
0x9229	0297	Number of Failed Ignitions	Read	UINT8	Number of failed ignition attempts
0x9232	0306	Boiler Modulation Rate	Read	UINT8	10% - 100%
0x9400	0768	Shadow Number	Read	UINT8	The number of the Shadow Boiler in the Network. This is set to 1 for a Master Boiler
0x9401	0769	Max Time Network	Read/Write	UINT8	The maximum amount of time a network call will run before switching to a lower priority local call (OFF - 240)
0x9402	0770	Min Time Network	Read/Write	UINT8	The minimum amount of time a network call will run before switching to a higher Local Priority call. (0 = OF, 1 - 240 mins)
0x9403	0771	Max Rate Network	Read/Write	UINT8	(Min Rate + 1)% <-> 100%
0x9404	0772	Min Rate Network	Read/Write	UINT8	10% <-> (Max Rate -1)
0x9405	0773	High Temp Limit	Read/ Write	UINT8	Manual Reset High Limit Temp (50°F - 200°F)
0x9406	0774	Days Passed	Read	UINT16	Number of days that have elapsed since the last time the boiler order has changed.
0x9407	0775	Base Rate High	Read/ Write	UINT8	The Base Rate High modulation rate a boiler will run when turning boilers on/off of a network
0x9408	0776	Base Rate Low	Read/Write	UINT8	The Base Rate Low modulation rate a boiler will run when turning boilers on/off of a network
0x9409	0777	Sequence Type	Read	UINT8	Bit Mapped: (0x03) 2 = Series 1 = Parallel 0 = Smart
0x940A	0778	Boiler Rotation Method	Read/Write	UINT8	Bit Mapped: (0x03) 3 = Incremental Hours 2 = Total Hours 1 = by Boiler ID 0 = Off
0x940B	0779	Force Lead Rotate	Read/Write	UINT8	When a 0x01 is written to this register, Force Lead Boiler Rotation is set to On.
0x940C	0780	User Mode	Read	UINT8	When a 0x00 is written to this register, the boiler will be put into Basic mode. When a 0x01 is written to this register, the boiler will be put into Advanced mode.

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x9416	0790	Net1 Priority, System Add Boiler Diff	Read/Write	UINT8	(2-9) Minimum degree differential between target and system temp in order to add a boiler.
0x9417	0791	Net1 Priority, System Drop Boiler Diff	Read/Write	UINT8	(2-9) Minimum degree differential between target and system temp in order to drop a boiler.
0x9418	0792	Net1 Priority, Mod Delay Time	Read/Write	UINT8	(1-15) Time in minutes to wait for the system to stabilize after adding a boiler.
0x9419	0793	Net1 Priority, Stabilization Time	Read/Write	UINT8	(1-30) Time in minutes to allow the boilers to use the PID loop before considering adding or dropping a boiler
0x941A	0794	Net1 Priority, Drop Delay Time	Read/Write	UINT8	(30-240) Time in minutes to wait for the system to stabilize after dropping a boiler.
0x941B	0795	Net1 Priority, Max Sys Rate	Read	UINT8	The maximum amount of BTU's the system can produce. (OFF - 3,200,000)
0x941C	0796	Net1 Priority, Min Boilers	Read	UINT8	(1-8) Minimum number of Boilers to run on network 1 call
0x941D	0797	Net1 Priority, Max On Time	Read/Write	UINT8	(0 = OFF, 1-240 = Minutes) Maximum on time in minutes for switching from a Network 1 Priority call to a Network 2 Priority Call
0x941E	0798	Rotation Frequency	Read/Write	UINT16	(1-365) Number of days to run before rotating the boilers.
0x941F - 0x9426	0799-0806	Boiler Order	Read	UINT8[8]	Each register will have it's own Boiler ID. There are 1-8 available Boiler ID's depending on the number of boilers in the Network. These registers will also show the Current Boiler Rotation Order.
0x9427	0807	Net2 Priority, System Type	Read/Write	UINT8	Bit map: 0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x9428	0808	Net2 Priority, target Mod Sensor	Read	UINT8	Target Mod Sensor for Network 2 (0 = Boiler out, 1 = System)
0x9429	0809	Net2 Priority, target Adjust	Read/Write	UINT8	Target Adjust to Network 2 (0 = None, 1 = 0-10V, 2 = ODT)
0x942A	0810	Net2 Priority, supply Max	Read/Write	UINT8	60˚- 190˚ (1˚F precision)†
0x942B	0811	Net2 Priority, supply Min	Read/Write	UINT8	60˚- 190˚ (1˚F precision)†
0x942C	0812	Net2 Priority, Outdoor Reset Max	Read/Write	UINT8	Outdoor Reset Max: 50˚- 100˚ (1˚F precision)†
0x942D	0813	Net2 Priority, Outdoor Reset Min	Read/Write	UINT8	Outdoor Reset Min: 50˚- 100˚ (1˚F precision)†
0x942E	0814	Net2 Priority, Volts Max	Read/Write	UINT8	Volts For Max: 5V - 10V (0.1V percision)
0x942F	0815	Net2 Priority, Volts Min	Read/Write	UINT8	Volts For Min: 0V - 4.9V (0.1V percision)
0x9430	0816	Net2 Priority, Boost Time	Read/Write	UINT8	0 = OFF, 1-240 = Minutes
0x9431	0817	Net2 Priority, System Off Differential	Read/Write	UINT8	2°F - 10°F (1˚F precision)†
0x9432	0818	Net2 Priority, System On Differential	Read/Write	UINT8	2°F - 10°F (1˚F precision)†
0x9433	0819	Net2 Priority, System Add Boiler Differential	Read/Write	UINT8	2°F - 9°F Minimum degree differential between target and system temp in order to add a boiler.
0x9434	0820	Net2 Prioirty, System Drop Boiler Diff	Read/Write	UINT8	2°F - 9°F Minimum degree differential between target and system temp in order to drop a boiler.
0x9435	0821	Net2 Priority, Mod Delay Time	Read/Write	UINT8	(1-15 Min) Time in minutes to wait for the system to stabilize after adding a boiler.
0x9436	0822	Net2 Priority, Stabilization Time	Read/Write	UINT8	(3-30 Min) Time in minutes to allow the boilers to use the PID loop before considering adding or dropping a boiler
0x9437	0823	Net2 Priority, Drop Delay Time	Read/Write	UINT8	(30-240 Sec) Time in minutes to wait for the system to stabilize after dropping a boiler.
0x9438	0824	Net2 Priority, Max Boiler Temp	Read/Write	UINT8	60˚- 190˚ (1˚F precision)†
0x9439	0825	Net2 Priority, Boiler On Diff	Read/Write	UINT8	2°F - 20°F (1˚F precision)†
0x943A	0826	Net2 Priority, Boiler Off Diff	Read/Write	UINT8	2°F - 10°F (1˚F precision)†
0x943C	0828	Net2 Priority, Min On Time	Read/Write	UINT8	0 = OFF, 1-240 = Minutes Minimum Time in Minutes to run a Network Priority 2 call before switching back to a Network Priority 1 call.
0x943D	0829	Net2 Priority, Run Boiler Pump	Read	UINT8	Writing a 0x01 to this register will set the Run Boiler Pump to On
0x943F	0831	Net2 Priority, Pre Pump Time	Read/Write	UINT8	0 = OFF, 1-240 = Minutes
0x9440	0832	Net2 Priority, Post Pump Time	Read/Write	UINT8	0 = OFF, 1-240 = Minutes
0x9441	0833	Net2 Priority, Max Rate	Read/Write	UINT8	(Min Rate + 1)% <-> 100%
0x9442	0834	Net2 Priority, Min Rate	Read/Write	UINT8	10% <-> (Max Rate -1)
0x9443	0835	Net2 Priority, Max Sys Rate	Read/Write	UINT8	The maximum amount of BTU's the system can produce. (OFF - 3,200,000)
0x9444	0836	Net2 Priority, Min Boilers	Read	UINT8	(1-8) Minimum number of Boilers to run on network 2 call
0x9445	0837	Net2 Priority, Activate Contact Setting	Read/Write	UINT8	0-1 (0x03) - Priority 1's activate Contact Setting (0 = off, 1 = 1st, 2 = 2nd)
0x9446	0838	Net2 Priority, Response Time	Read/Write	UINT8	Network 2's Activate Contact Response Time in Minutes
0x9447 - 0x9453	0839-0851	Custom Type String	Read	UINT8[13]	(1-13 available ASCII letters, one for each register) Name of Custom System Type for Local Priority 1 spelled in ASCII letters.
0x945B - 0x9461	0859-0865	Master Boiler Commanded Modulation Rates	Read	UINT8[7]	Each byte is a modulation rate for each shadow boiler to run at.

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x9462	0866	Master Boiler, Net1 or Net2	Read	UINT8	If this register displays a 1 then a Network 1 call is currently running If this register displays a 2 then a Network 2 call is currently running
0x9463	0867	Master Boiler Max Boiler Temp	Read	UINT8	60˚- 190˚ (1˚F precision)†
0x9464	0868	Master Boiler, Boiler On Diff	Read	UINT8	2°F - 20°F (1˚F precision)†
0x9465	0869	Master Boiler, Boiler Off Diff	Read	UINT8	2°F - 10°F (1˚F precision)†
0x9466	0870	Master Boiler, Pre Pump Time	Read	UINT8	0 = OFF, 1-240 = Minutes
0x9467	0871	Master Boiler, Post Pump Time	Read	UINT8	0 = OFF, 1-240 = Minutes
0x9468	0872	Master Boiler, Number of Boilers on Network	Read	UINT8	Number of shadow boilers on the network (1 - 7)
0x9469	0873	Master Boiler, Supply Temp	Read	UINT8	The Supply Temperature read from the Network sensor. Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x946A	0874	Master Boiler, Return Temp	Read	UINT8	The Return Temperature read from the Network sensor Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x946B	0875	Master Boiler, Outdoor Temp	Read	UINT8	The Outdoor Temperature read from the Network sensor Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x946C	0876	Master Boiler, System Types	Read	UINT8	Bit map: The Upper Nibble is used for Net 1and the Lower Nibble is used for Net 2 0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x946D	0877	Shadow 2, Input 1 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x946E	0878	Shadow 2, Input 1 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x946F	0879	Shadow 2, Input 2 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x9470	0880	Shadow 2, Input 2 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x9471	0881	Shadow 2, Input 3 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x9472	0882	Shadow 2, Input 3 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x9473	0883	Shadow 2 Input Status	Read	UINT8	Bit map: 7 (0x80) = Flow Switch Open (clear) Closed (set) 6 (0x40) = Air P-Switch Open (clear) Closed (set) 5 (0x20) = Low Water Cutoff Open (clear) Closed (set) 4 (0x10) = Auto Limit Open (clear) Closed (set) 3 (0x08) = Manual Limit Open (clear) Closed (set) 2 (0x04) = Input 3 active (set) 1 (0x02) = Input 2 active (set) 0 (0x01) = Input 1 active (set)
0x9474	0884	Shadow 2 Boiler Status	Read	UINT8	Bit map: 7 (0x80): Local Priority 3 running (Single Boiler) or Network priority running (Master or Shadow) 6 (0x40): Local Priority 2 running 5 (0x20): Local Priority 1 running 4 (0x10): Running DHW (Domestic Hot Water) 0-3 (0x07): 7: Lockout 6: Post Purge 3 - 5: Heating 2: Ignition 1: Pre Purge 0: Standby
0x9475	0885	Shadow 2 Supply Temp (local)	Read	UINT8	The Supply Temperature read from the local sensor. Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x9476	0886	Shadow 2 Return Temp (local)	Read	UINT8	The Return Temperature read from the local sensor Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x9477	0887	Shadow 2 Outdoor Temp (local)	Read	UINT8	The Outdoor Temperature read from the local sensor Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x9478	0888	Shadow 2 Boiler 1 Out Temp	Read	UINT8	-20˚- 232˚ (1˚F precision)† Special values: 233 = No Sensor 234 = Shorted Sensor 235 = Open Sensor

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x9479	0889	Shadow 2 Relay Output Status	Read	UINT8	Bit map: 7 (0x80) = Boiler pump on (set) 6 (0x40) = N/A 5 (0x20) = N/A 4 (0x10) = Additional Heat Demand on (set) 3 (0x08) = Circulator Pump 3 on (set) - tied to input 3 2 (0x04) = Circulator Pump 2 on (set) - tied to input 2 1 (0x02) = Circulator Pump 1 on (set) - tied to input 1 0 (0x01) = Gas Valve
0x947A	0890	Shadow 2 Model Number	Read	UINT8	Boiler Model: Value Model 0 = EVG 220 1 = EVG 220 High Altitude 2 = EVG 299 3 = EVG 299 High Altitude 4 = EVG 399 5 = EVG 399 High Altitude 64 = EVG 220 LP 65 = EVG 220 LP High Altitude 66 = EVG 299 LP 67 = EVG 299 LP High Altitude 68 = EVG 399 LP 69 = EVG 399 LP High Altitude 128 = SlimFit 550 129 = SlimFit 550 High Altitude 130 = SlimFit 750 131 = SlimFit 750 High Altitude 192 = SlimFit 550 LP 193 = SlimFit 550 LP High Altitude 194 = SlimFit 750 LP 195 = SlimFit 750 LP High Altitude
0x947B	0891	Shadow 2 Burner Hours	Read	UINT16	Number of Burner Hours for Shadow 2 Boiler (multiply by 2)
0x947C	0892	Shadow 2 Min Rate	Read	UINT8	(Min Rate + 1)% <-> 100%
0x947D	0893	Shadow 2 Max Rate	Read	UINT8	10% <-> (Max Rate -1)
0x947E	0894	Shadow 2 Modulation Rate	Read	UINT8	10% - 100%
0x947F	0895	Shadow 2 Boiler Status 3 and Available Status	Read	UINT8	Bit map: 7 (0x80) = N/A 6 (0x40) = Modulation was Reduced because Boiler Out temperature exceeded (MAX_BLR_TEMP - BOILER_ON_DIFF) 5 (0x20) = Target was Reduced because 45˚Δ between Boiler In & Boiler Out 4 (0x10) = Target was Reduced because Flue Temperature exceeded 200˚F 3 (0x08) = N/A 2 (0x04) = N/A 1 (0x02) = N/A 0 (0x01) = Set when the timer has expired for the currently active running input
0x9480	0896	Shadow 3, Input 1 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x9481	0897	Shadow 3, Input 1 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x9482	0898	Shadow 3, Input 2 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x9483	0899	Shadow 3, Input 2 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x9484	0900	Shadow 3, Input 3 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x9485	0901	Shadow 3, Input 3 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x9486	0902	Shadow 3 Input Status	Read	UINT8	Bit map: 7 (0x80) = Flow Switch Open (clear) Closed (set) 6 (0x40) = Air P-Switch Open (clear) Closed (set) 5 (0x20) = Low Water Cutoff Open (clear) Closed (set) 4 (0x10) = Auto Limit Open (clear) Closed (set) 3 (0x08) = Manual Limit Open (clear) Closed (set) 2 (0x04) = Input 3 active (set) 1 (0x02) = Input 2 active (set) 0 (0x01) = Input 1 active (set)
0x9487	0903	Shadow 3 Boiler Status	Read	UINT8	Bit map: 7 (0x80): Local Priority 3 running (Single Boiler) or Network priority running (Master or Shadow) 6 (0x40): Local Priority 2 running 5 (0x20): Local Priority 1 running 4 (0x10): Running DHW (Domestic Hot Water) 0-3 (0x07): 7: Lockout 6: Post Purge 3 - 5: Heating 2: Ignition 1: Pre Purge 0: Standby
0x9488	0904	Shadow 3 Supply Temp (local)	Read	UINT8	The Supply Temperature read from the local sensor. Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x9489	0905	Shadow 3 Return Temp (local)	Read	UINT8	The Return Temperature read from the local sensor Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x948A	0906	Shadow 3 Outdoor Temp (local)	Read	UINT8	The Outdoor Temperature read from the local sensor Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x948B	0907	Shadow 3 Boiler 1 Out Temp	Read	UINT8	-20˚- 232˚ (1˚F precision)† Special values: 233 = No Sensor 234 = Shorted Sensor 235 = Open Sensor
0x948C	0908	Shadow 3 Relay Output Status	Read	UINT8	Bit map: 7 (0x80) = Boiler pump on (set) 6 (0x40) = N/A 5 (0x20) = N/A 4 (0x10) = Additional Heat Demand on (set) 3 (0x08) = Circulator Pump 3 on (set) - tied to input 3 2 (0x04) = Circulator Pump 2 on (set) - tied to input 2 1 (0x02) = Circulator Pump 1 on (set) - tied to input 1 0 (0x01) = Gas Valve
0x948D	0909	Shadow 3 Model Number	Read	UINT8	Boiler Model: Value Model 0 = EVG 220 1 = EVG 220 High Altitude 2 = EVG 299 3 = EVG 299 High Altitude 4 = EVG 399 5 = EVG 399 High Altitude 64 = EVG 220 LP 65 = EVG 220 LP High Altitude 66 = EVG 299 LP 67 = EVG 299 LP High Altitude 68 = EVG 399 LP 69 = EVG 399 LP High Altitude 128 = SlimFit 550 129 = SlimFit 550 High Altitude 130 = SlimFit 750 131 = SlimFit 750 High Altitude 192 = SlimFit 550 LP 193 = SlimFit 550 LP High Altitude 194 = SlimFit 750 LP 195 = SlimFit 750 LP High Altitude
0x948E	0910	Shadow 3 Burner Hours	Read	UINT16	Number of Burner Hours for Shadow 3 Boiler
0x948F	0911	Shadow 3 Min Rate	Read	UINT8	(Min Rate + 1)% <-> 100%
0x9490	0912	Shadow 3 Max Rate	Read	UINT8	10% <-> (Max Rate -1)
0x9491	0913	Shadow 3 Modulation Rate	Read	UINT8	10% - 100%
0x9492	0914	Shadow 3 Boiler Status 3 and Available Status	Read	UINT8	Bit map: 7 (0x80) = N/A 6 (0x40) = Modulation was Reduced because Boiler Out temperature exceeded (MAX_BLR_TEMP - BOILER_ON_DIFF) 5 (0x20) = Target was Reduced because 45˚Δ between Boiler In & Boiler Out 4 (0x10) = Target was Reduced because Flue Temperature exceeded 200˚F 3 (0x08) = N/A 2 (0x04) = N/A 1 (0x02) = N/A 0 (0x01) = Set when the timer has expired for the currently active running input
0x9493	0915	Shadow 4, Input 1 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x9494	0916	Shadow 4, Input 1 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x9495	0917	Shadow 4, Input 2 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x9496	0918	Shadow 4, Input 2 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x9497	0919	Shadow 4, Input 3 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x9498	0920	Shadow 4, Input 3 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x9499	0921	Shadow 4 Input Status	Read	UINT8	Bit map: 7 (0x80) = Flow Switch Open (clear) Closed (set) 6 (0x40) = Air P-Switch Open (clear) Closed (set) 5 (0x20) = Low Water Cutoff Open (clear) Closed (set) 4 (0x10) = Auto Limit Open (clear) Closed (set) 3 (0x08) = Manual Limit Open (clear) Closed (set) 2 (0x04) = Input 3 active (set) 1 (0x02) = Input 2 active (set) 0 (0x01) = Input 1 active (set)

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x949A	0922	Shadow 4 Boiler Status	Read	UINT8	Bit map: 7 (0x80): Local Priority 3 running (Single Boiler) or Network priority running (Master or Shadow) 6 (0x40): Local Priority 2 running 5 (0x20): Local Priority 1 running 4 (0x10): Running DHW (Domestic Hot Water) 0-3 (0x07): 7: Lockout 6: Post Purge 3 - 5: Heating 2: Ignition 1: Pre Purge 0: Standby
0x949B	0923	Shadow 4 Supply Temp (local)	Read	UINT8	The Supply Temperature read from the local sensor. Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x949C	0924	Shadow 4 Return Temp (local)	Read	UINT8	The Return Temperature read from the local sensor Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x949D	0925	Shadow 4 Outdoor Temp (local)	Read	UINT8	The Outdoor Temperature read from the local sensor Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x949E	0926	Shadow 4 Boiler 1 Out Temp	Read	UINT8	-20˚- 232˚ (1˚F precision)† Special values: 233 = No Sensor 234 = Shorted Sensor 235 = Open Sensor
0x949F	0927	Shadow 4 Relay Output Status	Read	UINT8	Bit map: 7 (0x80) = Boiler pump on (set) 6 (0x40) = N/A 5 (0x20) = N/A 4 (0x10) = Additional Heat Demand on (set) 3 (0x08) = Circulator Pump 3 on (set) - tied to input 3 2 (0x04) = Circulator Pump 2 on (set) - tied to input 2 1 (0x02) = Circulator Pump 1 on (set) - tied to input 1 0 (0x01) = Gas Valve
0x94A0	0928	Shadow 4 Model Number	Read	UINT8	Boiler Model: Value Model 0 = EVG 220 1 = EVG 220 High Altitude 2 = EVG 299 3 = EVG 299 High Altitude 4 = EVG 399 5 = EVG 399 High Altitude 64 = EVG 220 LP 65 = EVG 220 LP High Altitude 66 = EVG 299 LP 67 = EVG 299 LP High Altitude 68 = EVG 399 LP 69 = EVG 399 LP High Altitude 128 = SlimFit 550 129 = SlimFit 550 High Altitude 130 = SlimFit 750 131 = SlimFit 750 High Altitude 192 = SlimFit 550 LP 193 = SlimFit 550 LP High Altitude 194 = SlimFit 750 LP 195 = SlimFit 750 LP High Altitude
0x94A1	0929	Shadow 4 Burner Hours	Read	UINT16	Number of Burner Hours for Shadow 4 Boiler
0x94A2	0930	Shadow 4 Min Rate	Read	UINT8	(Min Rate + 1)% <-> 100%
0x94A3	0931	Shadow 4 Max Rate	Read	UINT8	10% <-> (Max Rate -1)
0x94A4	0932	Shadow 4 Modulation Rate	Read	UINT8	10% - 100%
0x94A5	0933	Shadow 4 Boiler Status 3 and Available Status	Read	UINT8	Bit map: 7 (0x80) = N/A 6 (0x40) = Modulation was Reduced because Boiler Out temperature exceeded (MAX_BLR_TEMP - BOILER_ON_DIFF) 5 (0x20) = Target was Reduced because 45˚Δ between Boiler In & Boiler Out 4 (0x10) = Target was Reduced because Flue Temperature exceeded 200˚F 3 (0x08) = N/A 2 (0x04) = N/A 1 (0x02) = N/A 0 (0x01) = Set when the timer has expired for the currently active running input

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x94A6	0934	Shadow 5, Input 1 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x94A7	0935	Shadow 5, Input 1 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x94A8	0936	Shadow 5, Input 2 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x94A9	0937	Shadow 5, Input 2 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x94AA	0938	Shadow 5, Input 3 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x94AB	0939	Shadow 5, Input 3 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x94AC	0940	Shadow 5 Input Status	Read	UINT8	Bit map: 7 (0x80) = Flow Switch Open (clear) Closed (set) 6 (0x40) = Air P-Switch Open (clear) Closed (set) 5 (0x20) = Low Water Cutoff Open (clear) Closed (set) 4 (0x10) = Auto Limit Open (clear) Closed (set) 3 (0x08) = Manual Limit Open (clear) Closed (set) 2 (0x04) = Input 3 active (set) 1 (0x02) = Input 2 active (set) 0 (0x01) = Input 1 active (set)
0x94AD	0941	Shadow 5 Boiler Status	Read	UINT8	Bit map: 7 (0x80): Local Priority 3 running (Single Boiler) or Network priority running (Master or Shadow) 6 (0x40): Local Priority 2 running 5 (0x20): Local Priority 1 running 4 (0x10): Running DHW (Domestic Hot Water) 0-3 (0x07): 7: Lockout 6: Post Purge 3 - 5: Heating 2: Ignition 1: Pre Purge 0: Standby
0x94AE	0942	Shadow 5 Supply Temp (local)	Read	UINT8	The Supply Temperature read from the local sensor. Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x94AF	0943	Shadow 5 Return Temp (local)	Read	UINT8	The Return Temperature read from the local sensor Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x94B0	0944	Shadow 5 Outdoor Temp (local)	Read	UINT8	The Outdoor Temperature read from the local sensor Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x94B1	0945	Shadow 5 Boiler 1 Out Temp	Read	UINT8	-20˚- 232˚ (1˚F precision)† Special values: 233 = No Sensor 234 = Shorted Sensor 235 = Open Sensor
0x94B2	0946	Shadow 5 Relay Output Status	Read	UINT8	Bit map: 7 (0x80) = Boiler pump on (set) 6 (0x40) = N/A 5 (0x20) = N/A 4 (0x10) = Additional Heat Demand on (set) 3 (0x08) = Circulator Pump 3 on (set) - tied to input 3 2 (0x04) = Circulator Pump 2 on (set) - tied to input 2 1 (0x02) = Circulator Pump 1 on (set) - tied to input 1 0 (0x01) = Gas Valve
0x94B3	0947	Shadow 5 Model Number	Read	UINT8	Boiler Model: Value Model 0 = EVG 220 1 = EVG 220 High Altitude 2 = EVG 299 3 = EVG 299 High Altitude 4 = EVG 399 5 = EVG 399 High Altitude 64 = EVG 220 LP 65 = EVG 220 LP High Altitude 66 = EVG 299 LP 67 = EVG 299 LP High Altitude 68 = EVG 399 LP 69 = EVG 399 LP High Altitude 128 = SlimFit 550 129 = SlimFit 550 High Altitude 130 = SlimFit 750 131 = SlimFit 750 High Altitude 192 = SlimFit 550 LP 193 = SlimFit 550 LP High Altitude 194 = SlimFit 750 LP 195 = SlimFit 750 LP High Altitude
0x94B4	0948	Shadow 5 Burner Hours	Read	UINT16	Number of Burner Hours for Shadow 5 Boiler

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x94B5	0949	Shadow 5 Min Rate	Read	UINT8	(Min Rate + 1)% <-> 100%
0x94B6	0950	Shadow 5 Max Rate	Read	UINT8	10% <-> (Max Rate -1)
0x94B7	0951	Shadow 5 Modulation Rate	Read	UINT8	10% - 100%
0x94B8	0952	Shadow 5 Boiler Status 3 and Available Status	Read	UINT8	Bit map: 7 (0x80) = N/A 6 (0x40) = N/A 5 (0x20) = N/A 4 (0x10) = N/A 3 (0x08) = N/A 2 (0x04) = Modulation was Reduced because Boiler Out temperature exceeded (MAX_BLR_TEMP - BOILER_ON_DIFF) 1 (0x02) = Target was Reduced because 45˚Δ between Boiler In & Boiler Out 0 (0x01) = Target was Reduced because Flue Temperature exceeded 200˚F
0x94B9	0953	Shadow 6, Input 1 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x94BA	0954	Shadow 6, Input 1 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x94BB	0955	Shadow 6, Input 2 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x94BC	0956	Shadow 6, Input 2 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x94BD	0957	Shadow 6, Input 3 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x94BE	0958	Shadow 6, Input 3 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x94BF	0959	Shadow 6 Input Status	Read	UINT8	Bit map: 7 (0x80) = Flow Switch Open (clear) Closed (set) 6 (0x40) = Air P-Switch Open (clear) Closed (set) 5 (0x20) = Low Water Cutoff Open (clear) Closed (set) 4 (0x10) = Auto Limit Open (clear) Closed (set) 3 (0x08) = Manual Limit Open (clear) Closed (set) 2 (0x04) = Input 3 active (set) 1 (0x02) = Input 2 active (set) 0 (0x01) = Input 1 active (set)
0x94C0	0960	Shadow 6 Boiler Status	Read	UINT8	Bit map: 7 (0x80): Local Priority 3 running (Single Boiler) or Network priority running (Master or Shadow) 6 (0x40): Local Priority 2 running 5 (0x20): Local Priority 1 running 4 (0x10): Running DHW (Domestic Hot Water) 0-3 (0x07): 7: Lockout 6: Post Purge 3 - 5: Heating 2: Ignition 1: Pre Purge 0: Standby
0x94C1	0961	Shadow 6 Supply Temp (local)	Read	UINT8	The Supply Temperature read from the local sensor. Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x94C2	0962	Shadow 6 Return Temp (local)	Read	UINT8	The Return Temperature read from the local sensor Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x94C3	0963	Shadow 6 Outdoor Temp (local)	Read	UINT8	The Outdoor Temperature read from the local sensor Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x94C4	0964	Shadow 6 Boiler 1 Out Temp	Read	UINT8	-20˚ - 232˚ (1˚F precision)† Special values: 233 = No Sensor 234 = Shorted Sensor 235 = Open Sensor
0x94C5	0965	Shadow 6 Relay Output Status	Read	UINT8	Bit map: 7 (0x80) = Boiler pump on (set) 6 (0x40) = N/A 5 (0x20) = N/A 4 (0x10) = Additional Heat Demand on (set) 3 (0x08) = Circulator Pump 3 on (set) - tied to input 3 2 (0x04) = Circulator Pump 2 on (set) - tied to input 2 1 (0x02) = Circulator Pump 1 on (set) - tied to input 1 0 (0x01) = Gas Valve

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x94C6	0966	Shadow 6 Model Number	Read	UINT8	Boiler Model: Value Model 0 = EVG 220 1 = EVG 220 High Altitude 2 = EVG 299 3 = EVG 299 High Altitude 4 = EVG 399 5 = EVG 399 High Altitude 64 = EVG 220 LP 65 = EVG 220 LP High Altitude 66 = EVG 299 LP 67 = EVG 299 LP High Altitude 68 = EVG 399 LP 69 = EVG 399 LP High Altitude 128 = SlimFit 550 129 = SlimFit 550 High Altitude 130 = SlimFit 750 131 = SlimFit 750 High Altitude 192 = SlimFit 550 LP 193 = SlimFit 550 LP High Altitude 194 = SlimFit 750 LP 195 = SlimFit 750 LP High Altitude
0x94C7	0967	Shadow 6 Burner Hours	Read	UINT16	Number of Burner Hours for Shadow 6 Boiler
0x94C8	0968	Shadow 6 Min Rate	Read	UINT8	(Min Rate + 1)% <-> 100%
0x94C9	0969	Shadow 6 Max Rate	Read	UINT8	10% <-> (Max Rate -1)
0x94CA	0970	Shadow 6 Modulation Rate	Read	UINT8	10% - 100%
0x94CB	0971	Shadow 6 Boiler Status 3 and Available Status	Read	UINT8	Bit map: 7 (0x80) = N/A 6 (0x40) = N/A 5 (0x20) = N/A 4 (0x10) = N/A 3 (0x08) = N/A 2 (0x04) = Modulation was Reduced because Boiler Out temperature exceeded (MAX_BLR_TEMP - BOILER_ON_DIFF) 1 (0x02) = Target was Reduced because 45˚Δ between Boiler In & Boiler Out 0 (0x01) = Target was Reduced because Flue Temperature exceeded 200˚F
0x94CC	0972	Shadow 7, Input 1 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x94CD	0973	Shadow 7, Input 1 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x94CE	0974	Shadow 7, Input 2 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x94CF	0975	Shadow 7, Input 2 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x94D0	0976	Shadow 7, Input 3 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x94D1	0977	Shadow 7, Input 3 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x94D2	0978	Shadow 7 Input Status	Read	UINT8	Bit map: 7 (0x80) = Flow Switch Open (clear) Closed (set) 6 (0x40) = Air P-Switch Open (clear) Closed (set) 5 (0x20) = Low Water Cutoff Open (clear) Closed (set) 4 (0x10) = Auto Limit Open (clear) Closed (set) 3 (0x08) = Manual Limit Open (clear) Closed (set) 2 (0x04) = Input 3 active (set) 1 (0x02) = Input 2 active (set) 0 (0x01) = Input 1 active (set)
0x94D3	0979	Shadow 7 Boiler Status	Read	UINT8	Bit map: 7 (0x80): Local Priority 3 running (Single Boiler) or Network priority running (Master or Shadow) 6 (0x40): Local Priority 2 running 5 (0x20): Local Priority 1 running 4 (0x10): Running DHW (Domestic Hot Water) 0-3 (0x07): 7: Lockout 6: Post Purge 3 - 5: Heating 2: Ignition 1: Pre Purge 0: Standby
0x94D4	0980	Shadow 7 Supply Temp (local)	Read	UINT8	The Supply Temperature read from the local sensor. Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x94D5	0981	Shadow 7 Return Temp (local)	Read	UINT8	The Return Temperature read from the local sensor Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x94D6	0982	Shadow 7 Outdoor Temp (local)	Read	UINT8	The Outdoor Temperature read from the local sensor Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x94D7	0983	Shadow 7 Boiler 1 Out Temp	Read	UINT8	-20˚ - 232˚ (1˚F precision)† Special values: 233 = No Sensor 234 = Shorted Sensor 235 = Open Sensor

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x94D8	0984	Shadow 7 Relay Output Status	Read	UINT8	Bit map: 7 (0x80) = Boiler pump on (set) 6 (0x40) = N/A 5 (0x20) = N/A 4 (0x10) = Additional Heat Demand on (set) 3 (0x08) = Circulator Pump 3 on (set) - tied to input 3 2 (0x04) = Circulator Pump 2 on (set) - tied to input 2 1 (0x02) = Circulator Pump 1 on (set) - tied to input 1 0 (0x01) = Gas Valve
0x94D9	0985	Shadow 7 Model Number	Read	UINT8	Boiler Model: Value Model 0 = EVG 220 1 = EVG 220 High Altitude 2 = EVG 299 3 = EVG 299 High Altitude 4 = EVG 399 5 = EVG 399 High Altitude 64 = EVG 220 LP 65 = EVG 220 LP High Altitude 66 = EVG 299 LP 67 = EVG 299 LP High Altitude 68 = EVG 399 LP 69 = EVG 399 LP High Altitude 128 = SlimFit 550 129 = SlimFit 550 High Altitude 130 = SlimFit 750 131 = SlimFit 750 High Altitude 192 = SlimFit 550 LP 193 = SlimFit 550 LP High Altitude 194 = SlimFit 750 LP 195 = SlimFit 750 LP High Altitude
0x94DA	0986	Shadow 7 Burner Hours	Read	UINT16	Number of Burner Hours for Shadow 7 Boiler
0x94DB	0987	Shadow 7 Min Rate	Read	UINT8	(Min Rate + 1)% <-> 100%
0x94DC	0988	Shadow 7 Max Rate	Read	UINT8	10% <-> (Max Rate -1)
0x94DD	0989	Shadow 7 Modulation Rate	Read	UINT8	10% - 100%
0x94DE	0990	Shadow 7 Boiler Status 3 and Available Status	Read	UINT8	Bit map: 7 (0x80) = N/A 6 (0x40) = N/A 5 (0x20) = N/A 4 (0x10) = N/A 3 (0x08) = N/A 2 (0x04) = Modulation was Reduced because Boiler Out temperature exceeded (MAX_BLR_TEMP - BOILER_ON_DIFF) 1 (0x02) = Target was Reduced because 45˚Δ between Boiler In & Boiler Out 0 (0x01) = Target was Reduced because Flue Temperature exceeded 200˚F
0x94DF	0991	Shadow 8, Input 1 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x94E0	0992	Shadow 8, Input 1 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x94E1	0993	Shadow 8, Input 2 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x94E2	0994	Shadow 8, Input 2 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x94E3	0995	Shadow 8, Input 3 Priority	Read	UINT8	Bit map: 7 (0x80) = Source is set to 0-10V 3-6 (0x78) = Value Aux Pump/Output Type 0 - Always ON 1 - External Switch 2 - Outdoor Below WWSD 3 - Any TT Input 4 - Any TT Input by Priority Setting 5 - Any Burner Demand 0-2 (0x07) = Single Boiler 0 = Priority 1, 1 = Priority 2, 2 = Priority 3, 3 = Aux, 4 = OFF Master or Shadow Boiler 0 = Local 1, 1 = Net1, 2 = Net2, 3 = Local 2, 4 = Aux, 5 = OFF
0x94E4	0996	Shadow 8, Input 3 System Type	Read	UINT8	0-3 (0x0F) = Value System Type 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 - DHW (Domestic Hot Water) 9 - Custom
0x94E5	0997	Shadow 8 Input Status	Read	UINT8	Bit map: 7 (0x80) = Flow Switch Open (clear) Closed (set) 6 (0x40) = Air P-Switch Open (clear) Closed (set) 5 (0x20) = Low Water Cutoff Open (clear) Closed (set) 4 (0x10) = Auto Limit Open (clear) Closed (set) 3 (0x08) = Manual Limit Open (clear) Closed (set) 2 (0x04) = Input 3 active (set) 1 (0x02) = Input 2 active (set) 0 (0x01) = Input 1 active (set)
0x94E6	0998	Shadow 8 Boiler Status	Read	UINT8	Bit map: 7 (0x80): Local Priority 3 running (Single Boiler) or Network priority running (Master or Shadow) 6 (0x40): Local Priority 2 running 5 (0x20): Local Priority 1 running 4 (0x10): Running DHW (Domestic Hot Water) 0-3 (0x07): 7: Lockout 6: Post Purge 3 - 5: Heating 2: Ignition 1: Pre Purge 0: Standby
0x94E7	0999	Shadow 8 Supply Temp (local)	Read	UINT8	The Supply Temperature read from the local sensor. Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x94E8	1000	Shadow 8 Return Temp (local)	Read	UINT8	The Return Temperature read from the local sensor Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor

MODBUS addressing *(continued)*

Address (hex)	Address (dec)	Parameter	Read/Write	Format	Note
0x94E9	1001	Shadow 8 Outdoor Temp (local)	Read	UINT8	The Outdoor Temperature read from the local sensor Special values: 233 = No Supply Sensor 234 = Shorted Sensor 235 = Open Sensor
0x94EA	1002	Shadow 8 Boiler 1 Out Temp	Read	UINT8	-20˚- 232˚ (1˚F precision)† Special values: 233 = No Sensor 234 = Shorted Sensor 235 = Open Sensor
0x94EB	1003	Shadow 8 Relay Output Status	Read	UINT8	Bit map: 7 (0x80) = Boiler pump on (set) 6 (0x40) = N/A 5 (0x20) = N/A 4 (0x10) = Additional Heat Demand on (set) 3 (0x08) = Circulator Pump 3 on (set) - tied to input 3 2 (0x04) = Circulator Pump 2 on (set) - tied to input 2 1 (0x02) = Circulator Pump 1 on (set) - tied to input 1 0 (0x01) = Gas Valve
0x94EC	1004	Shadow 8 Model Number	Read	UINT8	Boiler Model: Value Model 0 = EVG 220 1 = EVG 220 High Altitude 2 = EVG 299 3 = EVG 299 High Altitude 4 = EVG 399 5 = EVG 399 High Altitude 64 = EVG 220 LP 65 = EVG 220 LP High Altitude 66 = EVG 299 LP 67 = EVG 299 LP High Altitude 68 = EVG 399 LP 69 = EVG 399 LP High Altitude 128 = SlimFit 550 129 = SlimFit 550 High Altitude 130 = SlimFit 750 131 = SlimFit 750 High Altitude 192 = SlimFit 550 LP 193 = SlimFit 550 LP High Altitude 194 = SlimFit 750 LP 195 = SlimFit 750 LP High Altitude
0x94ED	1005	Shadow 8 Burner Hours	Read	UINT16	Number of Burner Hours for Shadow 8 Boiler
0x94EE	1006	Shadow 8 Min Rate	Read	UINT8	(Min Rate + 1)% <-> 100%
0x94EF	1007	Shadow 8 Max Rate	Read	UINT8	10% <-> (Max Rate -1)
0x94F0	1008	Shadow 8 Modulation Rate	Read	UINT8	10% - 100%
0x94F1	1009	Shadow 8 Boiler Status 3 and Available Status	Read	UINT8	Bit map: 7 (0x80) = N/A 6 (0x40) = N/A 5 (0x20) = N/A 4 (0x10) = N/A 3 (0x08) = N/A 2 (0x04) = Modulation was Reduced because Boiler Out temperature exceeded (MAX_BLR_TEMP - BOILER_ON_DIFF) 1 (0x02) = Target was Reduced because 45˚Δ between Boiler In & Boiler Out 0 (0x01) = Target was Reduced because Flue Temperature exceeded 200˚F
0x94F2 - 0x94FE	1010-1026	Custom Type String 2	Read	UINT8[13]	(1-13 available ASCII letters, one for each register) Name of Custom System Type for Local Priority 2 or Network Priority 1 spelled in ASCII letters.
0x94FF - 0x950B	1027-1039	Custom Type String 3	Read	UINT8[13]	(1-13 available ASCII letters, one for each register) Name of Custom System Type for Local Priority 3 or Network Priority 2 spelled in ASCII letters.
0x950C - 0x9518	1040-1052	Custom Type String 4	Read	UINT8[13]	(1-13 available ASCII letters, one for each register) Name of Custom System Type for Local Priority 2 (MASTER) spelled in ASCII letters.
0x9519	1053	Net Priority 1 Add Boiler Delay	Read/Write	UINT8	(30-240 Sec) Time in minutes to wait for the system to stabilize after adding a boiler to Network 1
0x951A	1054	Net Priority 2 Add Boiler Delay	Read/Write	UINT8	(30-240 Sec) Time in minutes to wait for the system to stabilize after adding a boiler to Network 2

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