



Home » nyle » nyle R513A BMSe Gateway Instruction Manual 📆

Contents [hide]

- 1 Nyle R513A BMSe Gateway
- 2 Description
- 3 Safety Precautions
- 4 Specifications
- 5 FAQS
- 6 Documents / Resources
 - 6.1 References



Nyle R513A BMSe Gateway



- HeatWater.com
- WaterSales@nyle.com
- 1(844) 432-8420



Description

The BMS Gateway accessory for e-Series and R513A C-Series heat pumps allows direct communication from a heat pump to building management systems programmed by third parties. It allows commands and data to be transferred in both directions. Older R134A C-Series heat pumps are compatible with this accessory; however, some points will not be available on older units. BMS-C gateways are recom-mended with R134A C-Series heat pumps The gateway is installed inside the heat pump's elec-trical enclosure on a factory-supplied DIN rail. Then, it is wired to the BMS system through Ethernet and/or control wiring terminals. One gateway accessory package is required for each heat pump that is to be connected to a BMS system. Systems with Main Control Panels do not need this accessory if the BMS Gateway option was selected for the MCP, and the MCP installation manual should be consulted for configuration information for those systems.

Your gateway may be field-installed, or it may be factory-installed. If factory-installed, refer only to the "Field Supplied Items Required" and "Configuration and BMS Integration" sections of this manual.

Safety Precautions

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER.

Ensure control power is OFF at the control panel when wiring accessories to the unit to prevent injury or death due to electrical shock.

WARNING

To prevent inductive power transfer, do not run sensor or communication wiring in parallel with any wires carrying 120v or greater voltage power. If this is unavoidable, use shielded wire or conduit for sensor wiring.

Dimensions, Specifications, and Required Items

Part Number	Description
65330002	BMS Gateway Accessory for R513A Heat Pumps

Included in kit:

- 1x BMS Gateway unit
- 1x Power Wire
- 1x Communication Wire

Field requirements for installation:

- Active BACnet® IP or MSTP BMS system
- Ethernet cable to BACnet IP BMS, OR
- 22-3 minimum twisted/shielded wire to BACnet MSTP BMS
- Ethernet cable to laptop for configuration
- Small phillips head screwdriver
- Multimeter
- Laptop for configuration
- BMS integrator responsible for final programming.

Specifications

	Specifications
Connections	One 3-pin Phoenix connector with: RS-485/RS-232 (Tx+ / Rx- / gnd) BaseTport
	One 3-pin Phoenix connector with: RS-485 (+ /- / gnd)
	One 3-pin Phoenix connector with: Power port (+ /- / Frame-gnd)
	One Ethernet 10/100
	Input Voltage 12-24VDC or 24VAC
Power	Max Power 3 Watts
rowei	Current Draw 24VAC 0.125A
	Current Draw 12-24VDC 0.25A @12VDC
	4"H x 1.1"W x 2.7"D
Physical	0.4 pounds
Filysical	-4 to 158 Deg. F. operating temperature range
	10-95% non-condensing operating relative humidity range
	FCC part 15 B
	BTL Marked
	DNP 3.0 and Modbus conformance tested, ODVA conformant
Approvals	UL 60950-1 and CAN/CSA C22.2
	EN IEC 62368-1
	CAN ICES-003(B)/NMB-003(B)
	CE, REACH, RoHS3, UKCA, and WEEE compliant
Baud	9600, 19200, 38400, 57600, 768000
Points	1,000

Installation

- Mounting
- Note: If the gateway unit was factory-installed, please skip this section.
- To mount the gateway:

DANGER

Power the heat pump off at the breaker so no live voltage power is present at the unit to prevent injury or death due to electrical shock.

- 1. Open the door to the electrical enclosure.
- 2. Identify the mounting location. The heat pump will have a vacant DIN rail space in the electrical enclo-sure box available to mount the gateway. The exact location of the vacant DIN rail space varies by heat pump or main control panel, and can be found in the installation manuals for those products in their "Control Wiring" sections. The gateway unit can be mounted vertically or horizontally
- 3. Hook the Gateway unit over the top DIN rail in the specified mounting location.

Wiring

Note: If the gateway unit was factory-installed, please skip this section.

DANGER

Power the heat pump offat the breaker, so no live power is present at the unit to prevent

injury or death due to electrical shock.

Within the heat pumps electrical enclosure:

1. Wire the Gateway R1: TX+/RX-/GND terminals to the heat pump's communication

module with 22-3 minimum twisted pair cable. Refer to Figure 1.

2. Wire the Gateway FG/N-/L terminals to the heat pump's Terminal Block 1 (TB1) with

18-3 minimum solid or stranded wire.

3. Make wiring connections from the enclosure to the building BMS systems.

1. BACnet® IP systems use ethernet

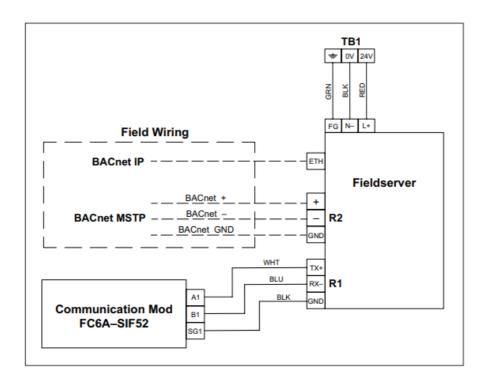
2. BACnet MSTP systems use 22-3 minimum twisted pair cable

For MSTP Systems Only:

• NOTICE: Refer to your BMS System's manual for specifics on how to set up the

termination and bias resistors on the BMS Gateway component.

Figure 1: BMS Gateway Wiring



Configuration and BMS Integration

WARNING: DO NOT connect the heat pump to the building network before gateway configuration! This will potentially overwrite the default IP address of the gateway and make finding the gateway on the network more difficult. If this occurs, it may be necessary to find the gateway on the network using the MAC address on the gateway label.

Configuration Prep and Login

- 1. Power up the heat pump, and allow it to finish its startup, before attempting to configure the BMS gateway. After startup is completed, connect a laptop or PC directly to the gateway, using the ethernet port on the gateway.
- 2. Open a web browser and connect directly to https://192.168.1.24
- 3. You may get a "Web Server Security Uncon-figured" message. It is ok to proceed with HTTPS from that warning message.
- 4. You may get a "Your Connection is not Pri-vate" message. If so, click "Advanced", and click "proceed to 192.168.1.24 (unsafe)".
- 5. Login to the gateway web interface. Username is "admin". Password is written on the gateway's la-bel, and is also available via QR code on the gate-way. It may be necessary to temporarily unseat the gateway from the DIN rail to read the label.
- 6. On the first login, the security mode will need to be set. Nyle recommends "Basic

- HTTP" or "HTTPS with own trusted certificate".
- 7. After selecting a mode, you will get a "redirecting" message, and then the Fieldserver GUI should open.

Network Settings

- To configure network settings, on the GUI land-ing page, click on the "Settings" tab.
 Within "Set-tings", click on the "Network" tab.
- 2. On the first connection, you will get a warning message that you are about to leave the reg-istration process. Click "Exit Registration".
- 3. You should now see a page with "ETH 1" and "Routing" tabs. Click the "Routing" tab.
- 4. Select the default connection in the first row of the table.
- 5. Click the "Add Rule Button" to add a new row.
- 6. Set a new Destination Network, Netmask, and Gateway IP Address as needed.
- 7. Set the priority for each connection from 1 (highest) to 255 (lowest).
- 8. Click the "Save" button.
- 9. Now click the "ETH 1" tab to access the ethernet settings.
- 10. Be advised, if IP addresses are changed, you will need to reconnect to the gateway via your browser using the new IP address before you can continue with configuration settings! Only proceed once ready to connect to the building's network.
- 11. DHCP to automatically accept IP settings can be enabled here, or IP settings can be manually configured.
 - For manual configuration, set IP Address, Netmask, Default Gateway, and Domain Name Server.
 - 2. If the gateway will be connected to a router, the gateway MUST set the "Gateway" field to the IP address of the router.
- 12. Click "Save" to activate the settings changes.

Protonode Configuration

- 1. To configure the protonode, start from the "Device List" page in the GUI and click "Settings".
- 2. 10. Choose "Configuration", and click the "Profiles Configuration" Button.
 - Set the "protocol_select" field
 - Set to 1 for BACnet IP

- Set to 2 for BACnet MSTP
- Set to 3 for BACnet MSTP (Single Node)
- Hit "submit" after entering the correct value.
- 3. Selecting a protocol will change the list of visible param-eters to only parameters applicable to your protocol.
- 4. Set the remaining parameters according to the needs of your network and BMS system. Press "submit" to save each value.
- 5. Refer to "Table 1: Configuration Parameters for BMS Gateway" on page 8
- 6. If your gateway was factory installed, this step was done in the factory. Click the "Add Profile" Button.
 - Choose profile "Group 1" for the e360 heat pump.
 - Choose profile "Group 2" for all C-Series heat pumps.
 - Verify the chosen profile is in the "Active Pro-files" list.
 - When verified, press the 'System Restart" button.
- 7. Connect the gateway to the building network.
- 8. Reconnect to the new gateway IP address with your web browser, if necessary. Verify communi-cations in accordance with the "Testing" instructions in the next section.
- 9. The gateway should now allow for building man-agement system integration. Points lists for dif-ferent heat pumps are available at the end of this section for this process.

Table 1: Configuration Parameters for BMS Gateway

Table 1: Configuration Parameters for BMS Gateway

Parameter	Protocol	Values	Description
protocol_select	All	1,2,3	Protocol Selector: set to 1: BACnet IP. 2: BACnet MSTP. 3: BACnet MSTP (single node).
mod_baud_rate	All	9600-19200-38400-57600	Set to the Modbus RTU baud rate required.
mod_parity	All	None,Even,Odd	Set to the Modbus parity required (Factory Set)
mod_data_bits	All	7,8	Set to the Modbus data bits required (Factory Set)
mod_stop_bits	All	1,2	Set to the Modbus stop bits required (Factory Set)
network_nr	1, 3	1 - 65535	Sets the BACnet network number for the gateway.
node_offset	1, 3	0 - 4194303	Sets the BACnet device instance (Device address plus offset).
bac_ip_port	1	1 - 65535	Set to the BACnet IP port required for the gateway.
bac_cov_option	ALL	enable, disable	Enables or Disables COVs for the BACnet application
bac_bbmd_option	1	BBMD, -	Enables or Disables BBMD for the BACnet application
bac_virt_nodes	1, 3	No, Yes	No: single heat pump on gateway. Yes: multiple heat pumps on gateway.
bac_device_id	2	1 - 4194303	Sets this BACnet device instance
bac_mac_addr	2, 3	1 - 127	Sets the BACnet MSTP MAC address
bac_baud_rate	2, 3	9600-19200-38400-76800	Sets the BACnet MSTP Baud Rate
bac_max_master	2, 3	1 - 127	Sets the BACnet MSTP max master
bac_max_info_fr	2, 3	1 - 65535	Sets max number of frames before token must be passed

The Group 1 profile for e360 Heat Pumps allows access to the following points:

Table 2: Relevant Data Points for BMSe Profile "Group 1": Writable Values

Profile Description	Profile Name	Description of Operation
Set system on	SetCycle_Start	Set Bit to "1" to Enable operation
Set system off	SetCycle_Stop	Set Bit to "1" to Disable operation
1 - heat demand 0 - no demand	Set_HeatCall	Set Bit to "1" to create a heat demand. "0" stops the heat demand. For External/Remote Mode.
Tank Mode Cut-Out Diff	TankDiff	Value subtracted from Target tank temp to start/stop single-pass demands in tank mode. (Deg F)
External Mode Cut-Out Diff	ExtDiff	Value subtracted from LWT_Target to start/stop compressor on EWT in external mode. (Deg F)
Purge Cut-Out Temp	PurgeCutOut	Temperature at which end of heat demand post-purge stops. (Deg F)
Max Purge Duration	MaxPurgeTime	Maximum time for end of heat demand post-purge (Seconds)
Max Condensation Pan Drain Duration	DrainTime	Maximum time to allow condensate pan to drain (Seconds)
Target Tank Temp	TankTemp_Target	Desired temperature of primary storage tank in tank mode. (Deg F)
Target Leaving Water Temp	LWT_Target	Target water temperature from the heat pump. (Deg F)

Table 3: Relevant Data Points for BMSe Profile "Group 1": Read-Only Values

Profile Description	Profile Name	Description of Operation
1 - system on 0 - system off	Cycle_Status	Current on/off or "ready" status of the heat pump. "1" is on/ready, "0" is off.
1 - Tank Mode 0 - External Mode	DemandMode	Current mode of the heat pump. "1" is Tank Mode and "0" is External Mode.
Actual Tank Temp	TankTemp_Actual	Current tank temperature. (Deg F)
Actual Leaving Water Temp	LWT_Actual	Current leaving water temperature at the heat pump. (Deg F)
Alarm Register1	AlarmRegister1	Value greater than zero indicates an active alarm on this register
AlarmRegister2	AlarmRegister2	Value greater than zero indicates an active alarm on this register
Entering Water Temp	EWT	Current entering water temperature at the heat pump. (Deg F)
suction line pressure	SLP	Current Suction Line Pressure (PSI)
Suction line temperature	SLT	Current Suction Line Temperature (Deg F)
Discharge Line Pressure	DLP	Current Discharge Line Pressure (PSI)
Liquid Line Solenoid Valve: 0 - closed 1 - open	LLSV	Current solenoid status: "1" is open, "0" is closed.
Current Value of Compressor Countdown	Comp_CTD	Current time remaining on compressor cycle delay. (Seconds)
Compressor Status: 0 - Off 1 - On	Comp_status	Current compressor status. "1" is on, "0" is off.
Cumulative Compressor Run Hours	CompRunHRS	Current total accumulated run time for this compressor. (Hours)
Pump Status: 0 - Off 1 - On	Pump_Status	Current pump status: "1" is on, "0" is off.
Outlet FLow (GPM)	OutletFlow	Current flow rate through the heat pump. (GPM)
Percent of Max Fan speed	FanSpeed	Current heat pump fan speed percentage.
Ambient Air Temp	AmbAir	Current Ambient air temp. (Deg F.)
High Pressure Alarm	HPAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Low Pressure Alarm	LPAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Defrost Alarm	DefrostAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Condensor Flow Alarm	CondFLowAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Evap Overheat Alarm	AOTSAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Compressor Oil Pressure Alarm	OilPressAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Blower Overload Alarm	BlowerAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Compressor Motor Protection Alarm	MPMAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Tank Sensor Alarm	TankSensorAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Cold Ambient Air Alarm	ColdAmAirAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Hot Ambient Air Alarm	HotAmAirAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Drain Pan Hold Alarm	DrainAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Power Monitor Alarm	PMAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Fan Motor Fault Alarm	FanMotorAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Conflictinf Heat Call Alarm	HeatCallConflictAalrm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Defrost Max Duration Alarm	DefrostFaultAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Freeze Protection 2 Alarm	FreezePro2Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Evap Temp Probe Fault	EvapProbeAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
High Temp Inlet Water Alarm	HighInletAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
High Temp Outlet Water Alarm	HighOutletAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.

Relevant Data Points for BMSe Profile "Group 1": Read-Only Values (Continued)

Profile Description	Profile Name	Description of Operation
Leaving Water Temp Probe Fault	LWTProbeAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Short Cycle Alarm	ShortCycleAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Entering Water Temp Probe Fault	EWTProbeAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Pump Down Safety Alarm	PumpDownAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Fan Prove Alarm	FanProveAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Ambient Air Probe Fault	AmAirProbeAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Superheat Controller Communication error	K2ComErrAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Freeze Protection 1 Alarm	FreezePro1Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Condensate Pan Feeze Protection	CPHFreezeAlarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.

The Group 2 profile for R513A C-Series heat pumps allows access to the following points:

Table 4: Relevant Data Points for BMSe Profile "Group 2": Writable Values

Profile Description	Profile Name	Description of Operation
Heat demnd for heat pump in REMOTE mode	HeatCall_BMS	Set to "1" to create a heat demand. "0" stops the demand.
set to 1 for tank mode. Value not retained	Tank_Mode_Set	Set to "1" to make heat pump control itself in Tank Mode.
set to 1 for remote mode. Value not retained	Remote_Mode_Set	Set to "1" to set heat pump to respond only to external demands.
Tank storage set point	Tank_Storage_Temp	Desired temperature of primary storage tank in tank mode. (Deg F)
demand cut in dead band	Demand Diff	Value subtracted from Target tank temp to start/stop single-pass demands in tank mode. (Deg F)
Condenser Leaving water temperature set point	LWT_Set	Target water temperature from the heat pump. (Deg F)
demand cut in set point for "cold" tank sensor	ColdSensor_CutIn	Multi-pass cold sensor temperature to start heat demand in tank mode (Deg F)
demand cut in set point for "Hot" tank sensor	HotSensor_CutIn	Multi-pass warm sensor temperature to start heat demand in tank mode (Deg F)
set to 1 to turn system ON. Value not retained	Start_Cycle	Set Bit to "1" to Enable operation
set to 1 to turn system OFF. Value not retained	Stop_Cycle	Set Bit to "1" to Disable operation

Table 5: Relevant Data Points for BMSe Profile "Group 2": Read-Only Values

Profile Description	Profile Name	Description of Operation
"1: tank mode, heat demand from heat pump's tank sensor(s) 0: remote mode, heat demand from remote source (BMS, remote enable switch, or master control panel)"	Demand_Mode	Current mode of the heat pump. "1" is Tank Mode and "0" is Remote Mode.
"1: system ON 0: system OFF"	System_Cycle_Status	Current on/off or "ready" status of the heat pump. "1" is on/ready, "0" is off.
Current value of compressor start delay timer	Comp_CTD	Current time remaining on compressor cycle delay. (Seconds)
Compressor status	Comp_Status	Current compressor status. "1" is on, "0" is off.
Cummulative compressor run hours	Comp_RunHrs	Current total accumulated run time for this compressor. (Hours)
suction line pressure	SLP	Current Suction Line Pressure (PSI)
discharge line pressure	DLP	Current Discharge Line Pressure (PSI)
liquid line solenoid valve status	LLSV_Status	Current solenoid status: "1" is open, "0" is closed.
"Air source: evaporator fin temp Water source: evaporator leaving water temp"	Evap1_EvapLWT	Current leaving temperature of the evaporator (water source or air source) (Deg F)
evap 2 fin temp. for dual evap only	Evap2_C250Aonly	Current leaving air temperature on 2nd evaporator for dual evaporator heat pumps
"Air source: ambient air temp Water source: evaporator entering water temp"	AmbAir_EvapEWT	Current entering/ambient temp for the evap (ambient air or entering water) (Deg F)
Condenser leaving water temp	Cond_LWT	Current load side leaving water temperature at the heat pump. (Deg F)
Condenser entering water temp	Cond_EWT	Current load side entering water temperature at the heat pump. (Deg F)
condenser flow	Cond_GPM	Current load side flow rate through the heat pump. (GPM)
"Single-pass: tank probe temp Multi-pass: ""cold"" tank probe temp"	Tank_MPCold	Current tank temperature at Tank Sensor 1. (Deg F)
"Single-pass: tank probe temp Multi-pass: ""hot"" tank probe temp"	Tank_MPHot	Current tank temperature at Tank Sensor 2, multi-pass only. (Deg F)
current superheat	Superheat	Current superheat across the evaporator (Deg F)
suction line temp	SLT	Current Suction Line Temperature (Deg F)
"internal circulator pump status 1 - pump OFF 0 - pump ON"	Pump_Status	Current pump status: "1" is on, "0" is off.
Encoded alarm value reg1	Alarm_Reg1	Lockout Alarms. Value greater than zero indicates an active alarm on this register
Encoded alarm value reg2	Alarm_Reg2	Lockout Alarms. Value greater than zero indicates an active alarm on this register
Encoded alarm value reg3	Alarm_Reg3	Warning Alarms. Value greater than zero indicates an active alarm on this register
high pressure alarm	HP_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
power fault alarm	PowerFault_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
condenser flow alarm	Cond_Flow_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
evaporator flow alarm	Evap_Flow_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
mudbus communication fault	Modbus_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Air overtemperature switch alarm	AOTS_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
defrost alarm	Defrost_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
	_	

Relevant Data Points for BMSe Profile "Group 2": Read-Only Values (Continued)

Profile Description	Profile Name	Description of Operation
emergency stop alarm	Estop_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
ambient air out of range	Amb_Range_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
condenser freeze protection active	Cond_FrzPro_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
evaporator freeze protection active	Evap_FrzPro_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
Low pressure alarm	LP_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
sensor fault alarm	Sensor_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
lockout alarm active	Lockout_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
high pressure lockout alarm	HP_Lockout_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
power fault lockout alarm	PowerFault_Lock- out_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
condenser flow lockout alarm	Cond_Flow_Lock- out_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
evaporator flow lcoktou alarm	Evap_Flow_Lock- out_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
oil pressure safety switch alarm	OPSS_Lockout_ Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
low pressure lockout alarm	LP_Lockout_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
pump down safety lockout alarm	PDS_Lockout_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
defrost fault lockout alarm	Defrost_Lockout_ Alarm	Status of this particular alarm. *1" this alarm is present, "0" this alarm is not present.
motor protection moduel lockout alarm	MPM_Lockout_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
tank probe (MP - cold) alarm	Tank_Probe_Cold_ Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
tank probe (MP - hot) alarm	Tank_Probe_Hot_ Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
condenser LWT probe alarm	Cond_LWT_Probe_ Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
condenser EWT probe alarm	Cond_EWT_Probe_ Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
evaporator probe alarm	Evap_Probe_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
ambient air probe alarm	Amb_Air_Probe_ Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
SLT probe alarm	SLT_Probe_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
high pressure transducer alarm	HP_Sensor_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
low pressure transducer alarm	LP_Sensor_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.
flow meter alarm	Flow_Meter_Alarm	Status of this particular alarm. "1" this alarm is present, "0" this alarm is not present.

Testing

Good practice will include thorough verification that values reported by the heat pump match the values received in the BMS system. Ideally, this would include monitoring through an active heat demand and comparing BMS-reported values to heat pump-reported values. In addition, system communication can be checked. For serial connections, check that the TX and RX LEDs are rapidly ashing. You can also log into the field server GUI with a web browser, as in the "configuration" section. From there, clicking on "Diagnostics and Debugging" and then on "connections", shows you a table of communication connections. The "errors" column would indicate if there are errors requiring additional troubleshooting. Communication errors are usually caused by:

- Baud rate, parity, data bits, or stop bits set incorrectly
- Device addresses incorrectly
- Wiring problems
- Device not listed in the Web Configurator
- IP Addressing incorrect.

If communication errors cannot be troubleshot, a "Di-agnostic Capture" can be taken and emailed to Nyle Water Heating for assistance.

- 1. Connect to the field server GUI with your web browser
- 2. Click on "Diagnostics"
- 3. Select "Full Diagnostic"
- 4. Set the capture time period
- 5. Click Start. When the capture period is finished, a download button will appear.
- 6. Download the capture
- 7. Email the capture to NWHScontrols@nyle.com, along with any supporting information needed to describe your problem.

Service Log

Issue Description

Date

Servicer

Servicer

690 Maine Ave Bangor, ME 04401 1 (844)-432-8420

Nyle Water Heating Systems engages in continuous improvement. Sequences, features and capabilities can change without notice at any time. Refer to most current

documentation prior to installation or commissioning of all equipment.

FAQS

Q: Can older R134A C-Series heat pumps use the BMS Gateway accessory?

A: Older R134A C-Series heat pumps are compatible with the BMS Gateway accessory, but some points may not be available on older units. It is recommended to use BMS-C gateways with R134A C-Series heat pumps.

Q: How do I know if I need the BMS Gateway accessory for my Main Control Panel?

A: Systems with Main Control Panels do not need the BMS Gateway accessory if the BMS Gateway option was selected for the MCP. Refer to the MCP installation manual for configuration information for those systems.

Documents / Resources



nyle R513A BMSe Gateway [pdf] Instruction Manual R513A BMSe Gateway, R513A, BMSe Gateway, Gateway

References

- User Manual
 - BMSe Gateway, gateway, nyle, R513A, R513A BMSe
- nyle Gateway

Leave a comment

Your email address will not be published. Required fields are marked *

Comment *

Name		
Email		
<u> </u>		
Website		
☐ Save my name, email, and website in this browser for the next time I com	nment.	
Post Comment		
Search:		
e.g. whirlpool wrf535swhz	Search	

Manuals+ | Upload | Deep Search | Privacy Policy | @manuals.plus | YouTube

This website is an independent publication and is neither affiliated with nor endorsed by any of the trademark owners. The "Bluetooth®" word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. The "Wi-Fi®" word mark and logos are registered trademarks owned by the Wi-Fi Alliance. Any use of these marks on this website does not imply any affiliation with or endorsement.