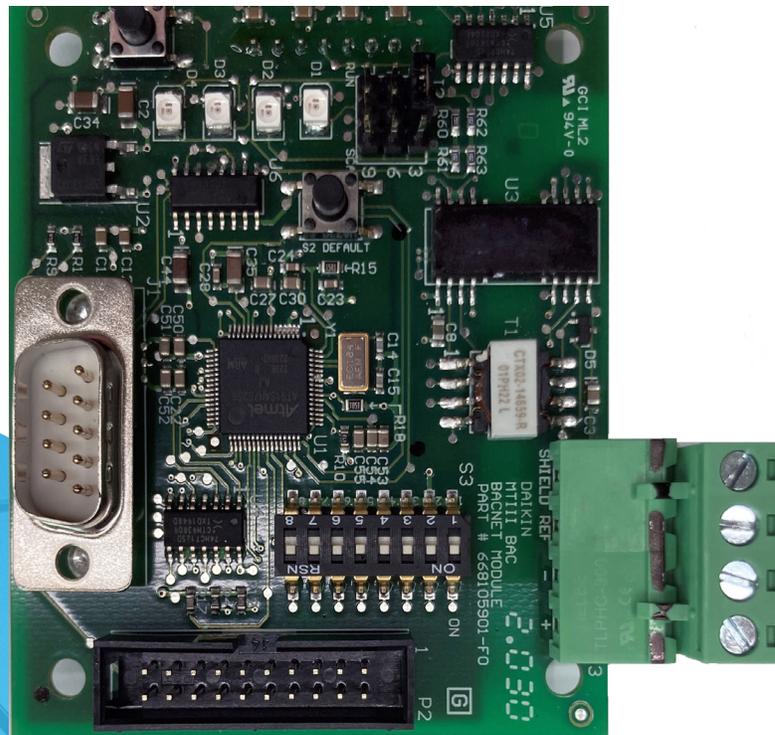


BACNET® MS/TP COMMUNICATION MODULE

MICROTECH® MT2300 WATER SOURCE HEAT PUMP UNIT CONTROLLER



- SMARTSOURCE® HORIZONTAL UNITS
- MODELS: SCH/SDH, SMH/SNH, AND SSH/STH
- R32 REFRIGERANT



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Introduction

This manual explains how to install and configure a BACnet® communication module on a MicroTech® MT2300 SmartSource WSHP unit controller. The MicroTech application supports SmartSource® Single/Two Stage and Dual Compressor R32 models.

When properly connected, the BACnet communication module enables the unit controller to pass data to a BAS (building automation system) over BACnet MS/TP. The communication module is a factory or field-installed option.

This guide is intended for technicians or other qualified personnel who are familiar with standard BACnet terminology and concepts. For technical support, contact the Daikin Applied Controls Customer Support group at 866-462-7829 or email DaikinControls@daikinapplied.com.

Reference Documents

Number	Company	Title	Source
ANSI/ASHRAE	American Society of Heating, Refrigerating, and Air Conditioning Engineers	A Data Communication Protocol for Building Automation and Control Networks	www.ashrae.org
ED 19129	Daikin Applied	SmartSource MT2300 WSHP Network Protocol Information Manual	www.DaikinApplied.com
OM 1364		SmartSource MT2300 WSHP Unit Controller Operation Manual	
OM 1362		SmartSource MT2300 WSHP Download and Configuration Operation Manual	
IM 956		Temperature Sensors for WSHP Unit Controllers	

Hazardous Information Messages

CAUTION

Cautions indicate potentially hazardous situations, which can result in personal injury, serious injury, death, or equipment damage if not avoided.

WARNING

Warnings indicate potentially hazardous situations, which can result in personal injury, serious injury, death, or equipment damage if not avoided.

DANGER

Dangers indicate a hazardous electrical situation which will result in death or serious injury if not avoided.

NOTICE

Notices give important information concerning a process, procedure, special handling or equipment attributes.

Product Information

Description

The BACnet communication module is a printed circuit board that mounts directly to the WSHP unit controller (baseboard) with four standoffs (Figure 1). The communication module is a rectangular printed circuit board that mounts directly on the top side of the controller baseboard using four standoffs.

Application

The BACnet communication module enables the unit controller to pass objects between the unit controller and the network. It supports the BACnet MS/TP (EIA 485) protocol. Refer to the MicroTech Smartsource Compact WSHP Unit Controller operation manual for additional information. See [Reference Documents](#) for more information.

Components

The following section describes the key physical components of the communication module and their functions. It has four LED indicators, a network connector, two pushbuttons, a physical address switch, SPI header, jumper header, network transceiver, and connection ports. Figure 1 shows the important features referenced in this section.

Table 1 describes the BACnet communication module hardware specifications. Connections mentioned in the specifications are described in the following section.

Table 2 shows the MicroTech controller hardware and software part numbers.

Table 1: Communication Module Specifications

General	
PCB Dimensions	W x H: 3.06 in x 2.61 in (77.61 mm x 66.31 mm)
Operating	
Temperature	-40 - 158°F (-40 - 70°C)
Humidity	<90% RH
Atmospheric Pressure	Min. 10 psi (70kPa), corresponding to max. 9,842 ft (3,000 m) above sea level
Storage and Transportation	
Temperature	-40 - 158°F (-40 - 70°C)
Humidity	<95% RH
Atmospheric Pressure	Min. 3.77 psi (26 kPa), corresponding to max. 32,808 ft (10,000 m) above sea level
Electrical	
Power/SPI Connections	P4 (8-pin) connector: +5 VDC power and SPI communication interface 24 VAC output bus connector, max. 270 mA
Bus Connections	Galvanically isolated P1+, P2-, P3-GND, P4-shield
Bus Termination	High voltage termination standard ¼" quick connect
Transceiver	Isolated transceiver with 8kV ESD protection 1/8 unit load
Network Cable	RS-485 (ANSI/EIA-485) 3-wire twisted pair, shielded
Agency Listings (MT2300 Unit Controller Baseboard)	
UL Listing	UL916, UL873
FCC Compliance	Class B digital device, part 15 FCC
Canada	CSA C22.2M205

Figure 1: BACnet Communication Module Features

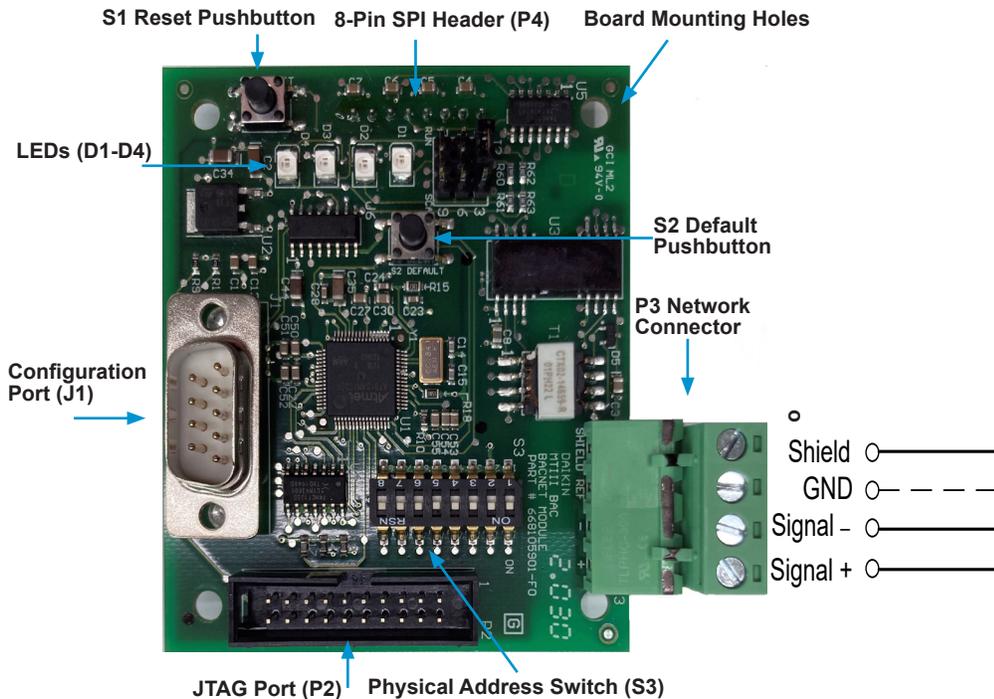


Table 2: Hardware and Software Part Numbers

Part Numbers	Hardware	Software
MT2300 Unit Controller (Baseboard)	910384405	2507441020
I/O Expansion Module	910384386	2507442020
BACnet Communication Module	668105901	2507443020

BACnet Network Connector (P3)

The P3 connector is the 4-pin port that integrates the communication module to the BACnet MS/TP network.

Pin	Designation	Function
1	+	Non-inverting signal input
2	-	Inverting signal input
3	GND	Reference used where isolated device requires a reference
4	Shield	Shield (isolated terminal for connection of shields)

BACnet Pushbuttons

The S1 and S2 pushbuttons are used to restore the communication module to previous settings or to default parameters.

Switch	Designation	Function
S1	Reset	Resets the communication module
S2	Default	Resets the communication module to default parameters

Configuration Ports

The J1 and P2-P4 ports are used to configure, program, connect to the network, and attach the communication module to the WSHP unit controller.

Plugs	Function
J1	Configures the communication module
P2	Programs the communication module
P3	BACnet MS/TP network connection port
P4	8-pin header plug that connects the communication module to the unit controller

S3 Physical Address Switch

The S3 switch settings are used to determine the MAC address of the communication module. Table 3 and Table 4 provide a description of the S3 address switch states, positions and their respective values. Figure 3 gives an example of the dipswitch settings for a common network address.

NOTE: The switches on the communication module are numbered: 8, 7, 6, 5, 4, 3, 2, 1 from left to right when the communication module is attached on the unit controller. This assumes the unit controller has not been rotated inside of the control enclosure.

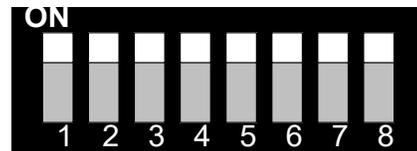
Table 3: Explanation of Physical Dipswitch (S3) States

Address Switch State	Description
ON	Closed = dipswitch in down position = 1
OFF	Open = dipswitch in up position = 0

Table 4: Address Switch Values When Switch is ON (Closed)

Switch #	Value	Value When Switch is ON (Closed)
1	2 to the zero power	1
2	2 to the 1 st power	2
3	2 to the 2 nd power	4
4	2 to the 3 rd power	8
5	2 to the 4 th power	16
6	2 to the 5 th power	32
7	2 to the 6 th power	64
8	2 to the 7 th power	128

Figure 2: BACnet Communication Module Physical Address Switch (S3) – Default Settings to ON (Closed)



The S3 address switch specifies a numeric value in binary format. Numeric values are always read from the highest significant digit first. Switch 8 is the most significant bit (MSB), and Switch 1 is the least significant bit (LSB) of the binary address switch. The switch positions in the example below result in a numeric value of (MSB) 01001100 (LSB) in binary, and the equivalent of 4C in hexadecimal. This provides an address of 76 decimal. In this example, the S3 address switch is set to 76, so the Device Instance Number is assigned to 3101076 (AV:412 = 3101000) and the Device Name is assigned to MT2300_WSHP_Ser2_3101076 or MT2300_WSHP_SS2C_3101076.

Figure 3: BACnet Communication Module Address Switch (S3) - Example of a Manual Network Address Setting



$$0 + 0 + 4 + 8 + 0 + 0 + 64 + 0 = 76 \text{ (Decimal)}$$

8-Pin SPI Header

P4 is an 8-pin serial peripheral interface (SPI) connection port on the back side of the communication module. It matches up to the 8-pin header on the WSHP unit controller.

Network Transceiver

The EIA-485 network transceiver has the following electrical specifications:

- Unit Loading: 68kΩ receiver input impedance (¼ unit load) that allows up to 128 node connections
- ESD Protection: 8kV ESD protection on driver outputs and receiver inputs
- Safety: Fail-safe feature defaults to a high output state when the receiver inputs are open or shorted

Jumper J2

Jumper J2 is used for internal development and testing purposes. It can also be used to erase the programming logic in the microprocessor. Contact the Daikin Applied Controls Customer Support group at 866-462-7829 or email DaikinControls@daikinapplied.com prior to accessing the J2 jumper.

The communication module may already be attached to the unit controller or it can be installed and configured in the field.

The communication module mounts on the WSHP unit controller with connector pins. It is held in place with four plastic locking standoffs. The communication module joins with the BACnet network at the connector plug, P3 (Figure 1).

Diagnostic Light Emitting Diodes (LEDs)

The communication module has four LEDs to indicate communication activity and status.

LED	Function	Description
D1	Program Running	Flashes with software application main loop activity
D2	SPI Message Transmit	Flashes with SPI communications with unit controller
D3	MS/TP Transmit	Flashes when transmitting an MS/TP message
D4	MS/TP Receive	Flashes when receiving an MS/TP message

Installation and Mounting

This section describes how to field install a new BACnet communication module or replace an existing module on the unit controller. The communication module is a factory or field-installed option.

WARNING

Electric shock hazard. The terminals on the WSHP unit controller are high voltage. Disconnect power to avoid electrical shock potential, which may result in personal injury, serious injury, death, or equipment damage.

This equipment must be properly grounded. Connections and service to the unit controller must be performed only by personnel knowledgeable in the operation of the equipment being controlled.

Getting Started

The BACnet MS/TP communication module requires the following items:

- BACnet MS/TP communication module (provided with field installation kit)
- Four plastic stand-offs (provided with field installation kit)
- Four-pin network connector (attached to the communication module). See [Figure 1](#) for wiring schematic (provided with field installation kit)
- Flat head screwdriver (field-supplied)
- Twisted, shielded network cable; 2 or 3-wire, depending on application (field-supplied)
- DAT/RAT temperature sensors and LWT water temperature sensor (provided with field installation kit)

NOTE: See [Service Information](#) section to order a replacement communication module or a field installation kit. Note that the network cable is not included in the kit.

Installing a new Communication Module

Follow these steps to install a new communication module on the WSHP unit controller so that it can be integrated into a BACnet MS/TP network.

1. Disconnect power from the WSHP unit controller board.
2. Remove the unwired network cable plug-in connector terminal block in P3 ([Figure 1](#)).
3. Locate the four mounting holes on the communication module.
4. Insert each of the four standoffs into the WSHP unit controller board mounting holes. ([Figure 4](#)).
5. Orient the communication module so that the side with the components faces out and the connector socket can mate with the 8-pin header on the unit controller.

6. Push the communication module onto the connector pins and standoffs. A faint click indicates the locking standoffs have secured the communication module in place.
7. Connect the network wires into the network plug using a flat head screwdriver.
8. Insert the network cable plug into the communication module P3 network connector socket.
9. Verify correct network wiring ([Figure 1](#)).
10. Apply power to the unit controller.

NOTE: The communication module software version requires compatibility with the unit controller software version. Refer to MicroTech SmartSource Software Download and Configuration OM 1362 (www.DaikinApplied.com).

Replacing a Communication Module

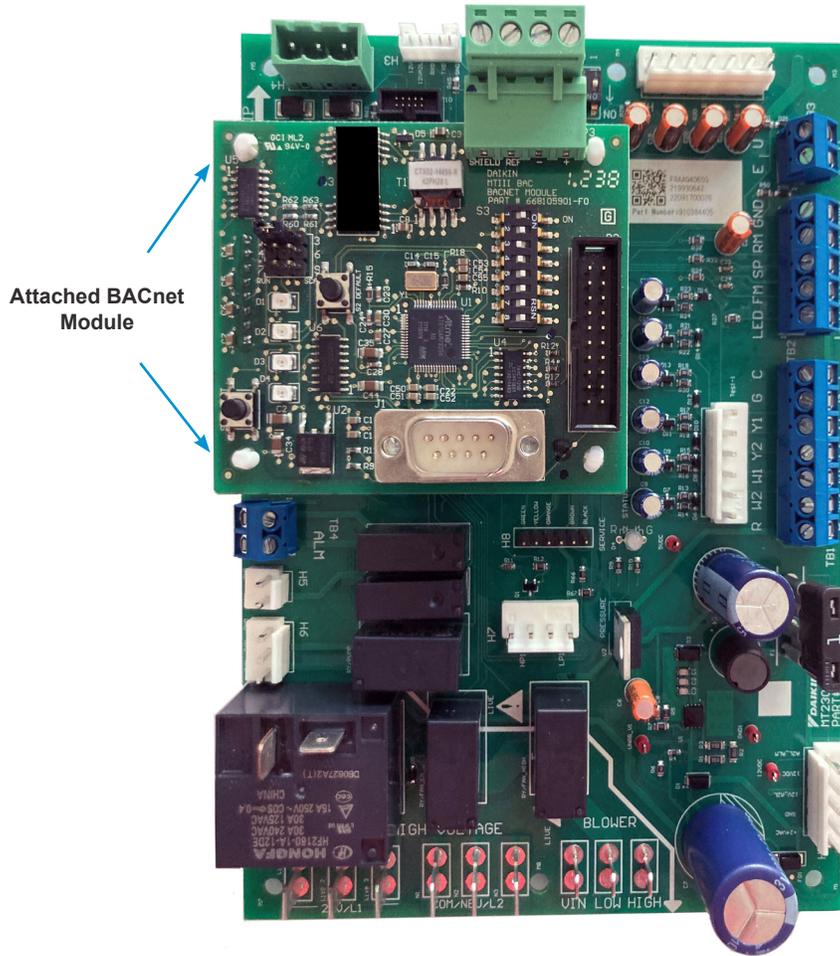
Follow these procedures to remove an existing communication module, replace it, and incorporate it into the network.

1. Disconnect power from the WSHP unit controller.
2. Record the MAC Address set in Address Switch S3.
3. Remove the network cable plug-in connector terminal block P3 ([Figure 1](#)).
4. Locate the four standoffs for the communication module from the unit controller ([Figure 4](#)).
5. Depress the barb on one standoff and gently pull the corner of the communication module over the barb. Do not bend the communication module or mis-align the connector pins.
6. Proceed to the other three corners, by carefully removing the communication module from each standoff, and pulling it over the standoffs.
7. Gently lift the communication module from the unit controller.
8. Locate the empty connector pins and four standoffs on the unit controller ([Figure 4](#)).
9. Orient the communication module so that the side with the components faces out and the connector socket can mate with the 8-pin header on the unit controller.
10. Push the communication module onto the connector pins and standoffs. A faint click indicates the communication module is locked securely in place.
11. Insert the network cable plug into the communication module P3 network connector socket.
12. Verify correct network wiring ([Figure 1](#)).
13. Apply power to the unit controller. Verify correct network wiring ([Figure 1](#)).

NOTE: The communication module can function as either a 2-wire device (+ shield) or as a 3-wire device (+ shield). Use of the GND (or reference) terminal is optional. The GND terminal can be used to terminate a reference conductor should one exist. Therefore, if a reference conductor does not exist, the GND terminal is not applicable. The shield terminal is also optional. In all EIA-485 networks, the shield should be continuous throughout the entire MS/TP trunk. However, it does not need to be tied together using the shield terminal (for example, wire nuts are frequently used as an alternative). The optional shield terminal is provided for convenience when tying together the segments of the shield.

Figure 4: BACnet Communication Module Mounting Location

The BACnet communication module connects to the unit controller baseboard via the 8-pin SPI header and P4 plug on the back of the communication module.



Network Configuration

Figure 5: BACnet Communication Module Mounting, Standoffs Inserted



BACnet Configuration Setup

Follow these steps to set up the unit controller for BACnet network configuration:

1. Connect the unit controller to the network by replacing the network cable plug in P3 (Figure 1). The polarity of the signal must be maintained throughout the network. Always connect + to + and - to -.
2. Address the unit controller to establish the primary BACnet parameter settings. Set the physical S3 address switch settings on the communication module (Figure 1, Table 3 and Table 4). The settings depend on which one of the four addressing methods, as described in the next section, is desired.
3. Configure the unit controller for the remaining network parameters. This step is done at the BAS or with the BACnet configuration menu (BACnet Configuration Menu), and is typically the responsibility of the network integrator. Refer to the MicroTech Network Protocol Document, ED 19129 (www.DaikinApplied.com) for a comprehensive list of the available BACnet objects and network integration details.
4. Apply power to the unit controller.

These BACnet parameters require configuration in order for each unit to communicate properly on the network:

- **MAC Address** (must be unique on the MS/TP trunk)
- **Device Instance Number** (must be unique on the network)
- The Device Instance Number must not be set to 300.
- The Device Instance Number of 300 is reserved for the “unconfigured” state.
- **Device Name** (must be unique on the network)
- **MS/TP Baud Rate** (must be the same throughout the MS/TP trunk)
- **MS/TP Max Masters** (set to the value of the highest MAC address on the MS/TP trunk). There are four

procedures that can be used to set the BACnet addressing parameters for each unit. Initial network setup requires the user to follow only one of these procedures. However, it is possible to use another method at some point in the future, if desired (i.e. if a new unit(s) is added to the network and the user wishes to take advantage of auto-addressing).

The following describes the four methods. Table 5 provides default values and other information related to setting the network parameters using these methods.

Manual Addressing

Use this method only if it is not necessary to change the Baud Rate, Device Instance Number, and/or the Device Name default values (Table 5). The remaining parameters are automatically determined based on the MAC Address value. If any one of these parameters requires configuration, use the Manual plus Serial Terminal Device method.

Procedure

1. Assign the MAC Address by physically setting the eight-position S3 address dip switch on the communication module (Figure 1, Table 3 and Table 4). The allowable range is between 0-127. Note that the communication module ships with a default MAC Address of 255. Bit 0 of the address/mode corresponds to switch position 1, and bit 7 of the address/mode corresponds to switch position 8.
2. Verify the default Baud Rate is 38400 bps.
3. The Device Instance Number is set to 3101000 + MAC Address as determined by the S3 address switch.

Manual plus Serial Terminal Device Addressing

Set the MAC Address via the 8 dip-switches, and then use a serial terminal device to adjust remaining parameters (Device Instance Number, Device Name, Baud Rate, Max Masters, etc).

Requires

- Laptop with a serial port
- Serial terminal device application such as HyperTerminal or PuTTY (required for steps 2-4)
- Null modem serial cable for establishing communication between the laptop and the serial terminal device application

Procedure

1. Assign the MAC Address by setting the eight-position S3 address switch on the communication module (Figure 1) for location.
2. Change the default 38400 Baud Rate, if necessary. The Baud Rate can only be modified using a serial terminal device application in conjunction with the BACnet Configuration Menu (BACnet Configuration Menu).
3. The Default Device Instance Number is set by physical S3 address switch. It can be changed to an available valid value using a serial terminal device application.
4. The Default Device Name can be modified to an available valid value using a serial terminal device application.

Auto Addressing

This method uses the room sensor timed override button to activate the auto-assignment process.

Optional

The following items are required only if it is necessary to change the Baud Rate, Device Instance Number, and/or the Device Name from their default values as shown in Table 5.

- Laptop with a serial port
- Room sensor with timed override button
- Serial terminal device application such as HyperTerminal or PuTTY
- Null modem serial cable for establishing communication between the laptop and the serial terminal device application

NOTE: In the unconfigured state (i.e. prior to activating the auto-addressing process as described below), the communication module is connected to the network and is “listening” to network traffic. It is not actively communicating. While in the unconfigured state, it is compiling a set of used MAC Addresses from other devices. The following procedures describe how a room sensor is used to commission the unit controller from an unconfigured state to an active, communicating state on the network.

Procedure

1. Confirm the physical S3 address switches are set to the default value of 255 (Figure 1).
2. Apply power to the unit controller and verify other devices are available on the network.
3. Allow the communication module a minimum of two minutes to analyze the network traffic so that it can determine which MAC addresses are currently being used by other devices.
4. Press the timed override button on the room sensor for 11 or more seconds to activate the auto-assignment process.
5. The communication module is automatically assigned the highest available MAC Address. The assignment process begins at the highest value of 127. If 127 is already taken by another device, it uses the next lowest available address.
6. Change the default 38400 Baud Rate, if necessary. The Baud Rate can only be modified using a serial terminal device application (BACnet Configuration Menu).
7. The Device Name is assigned a value of MT2300_WSHP_Ser2 or MT2300_WSHP_SS2C + Device Instance Number.

Auto-Addressing using Network Variables

Use this method to configure BACnet Analog Value objects AV:412 (System Minimum Instance) and AV:411 (MAC Address) from the BAS.

Requires

Room sensor with timed override button

Optional

The following items are required only if it is necessary to change the Baud Rate, Device Instance Number, and/or the Device Name from their default values as shown in Table 5.

- Laptop with a serial port
- Serial terminal device application such as HyperTerminal or PuTTY
- Null modem serial cable for establishing communication between the laptop and the terminal device application

Procedure

1. Confirm the S3 switch on the communication module is set to the default value of 255.
2. Apply power to the unit controller and verify other devices are available on the network.
3. The default Baud Rate is 38400 bps as indicated in [Table 5](#). The Baud Rate can only be changed using serial terminal device application ([BACnet Configuration Menu](#)).
4. From the BAS, set AV:412 to the new desired System Minimum Device Instance Number.
5. Allow the communication module a minimum of two minutes to analyze the network traffic so that it can determine which MAC addresses are currently being used by other devices.
6. Press the timed override button on the room sensor for 11 or more seconds to activate the auto-assignment process.

NOTE: The communication module is automatically assigned the highest available MAC Address. The assignment process begins at the highest value of 127. If 127 is already taken by another device, it uses the next lowest available address.

7. The Device Instance Number is automatically configured to be the System Device Instance Number selected by the user at AV:412 + MAC Address.
8. The Device Name Property is assigned a value of MT2300_WSHP_Ser2 or MT2300_WSHP_SS2C + Device Instance Number.

NOTE: If the Device Instance Number and/or Device Name have been changed from default values via the BAS system or a Serial Terminal Device application, it will no longer be automatically configured. However, restoring the communication module to default values allows auto-configuration to occur (see [Restoring Default Values](#)).

Refer to MicroTech WSHP Download and Configuration OM 1362 for more information (www.DaikinApplied.com).

Table 5: BACnet Parameters and Addressing Methods

BACnet MS/TP Parameter	Default	Range	Network Addressing Methods				Notes
			Manual	Manual plus Serial Terminal Device	Auto-Addressing	Auto-Addressing using Network Variables	
Baud Rate	38400	9600, 19200, 38400, 76800	38400	9600, 19200, 38400, or 76800	38400	38400	Must be set to match the speed of the BACnet network. This must be done from the BACnet module configuration menu using a terminal device application.
MAC Address (AV:411)	255	0 - 127, and 255 128 - 254 are not valid addresses	Physical S3 switch setting	Physical S3 switch setting	First available (high to low) starting at 127	First available (high to low) starting at 127	<p>Must be set according to the BACnet network requirements. When the dip switch address is set to 255 (factory default), the MAC Address is dynamically acquired during the commissioning process. Once commissioned, the MAC Address can be adjusted from the network using AV:411, or through a terminal device application.</p> <p>When the dip switch address is not set to 255, the static MAC Address directly matches the dip switch value.</p>
Device Instance Number	300	0-4194302 300 not allowed	3101000 + MAC Address	3101000 + MAC Address or user-selected	3101000 + MAC Address	AV:412 + MAC Address	<p>The commissioning process initializes the Device Instance Number to</p> <p>MAC Address + System Minimum Instance (AV:412) or is manually adjustable.</p>
Device Name	MT2300_WSHP_Ser2_0000300 or MT2300_WSHP_SS2C_0000300	Up to a 31-character Device Object Name	MT2300_WSHP_Ser2 or MT2300_WSHP_SS2C+ Device Instance	MT2300_WSHP_Ser2 or MT2300_WSHP_SS2C+ Device Instance or user-selected	MT2300_WSHP_Ser2 or MT2300_WSHP_SS2C+ Device Instance	MT2300_WSHP_Ser2 or MT2300_WSHP_SS2C + Device Instance	The commissioning process initializes the Device Object Name to "MT2300_WSHP_Ser2_".
System Minimum Instance (AV:412)	3101000	0-4194303					Writeable only through the network. "Present Value" is used during the commissioning process to determine the Device Instance and Name.
Max Masters	127	1-127					Set to the highest address of a MS/TP master on the network segment to reduce the MS/TP token traffic and increase response time of the unit controller. This must be done using a terminal device application.

Service Information

Troubleshooting

If you can control the unit from the room sensor, but not able to communicate with the unit via the MS/TP network:

- Verify the Program Running LED (D1) is flickering.
- Verify the SPI Message Transfer LED (D2) is flickering.
- Verify the MS/TP Transmit LED (D3) is flickering.
- Verify the network (bus) wiring.
- Check the network communication parameters in the BACnet communication module for proper settings.
- Verify the logical MAC Address is unique, and in the valid range of 0 to 127 (Master).
- Verify the Device Instance Number is unique, and in the valid range of 1 to 4194302 (see [Table 5](#)).
- Verify the Device Object Name is configured, and is unique in the network.
- Verify the MS/TP Baud Rate matches the network communication data rate.
- Verify the MS/TP Max Masters matches the network setting, and in the valid range of 1 to 127.

NOTICE

The MT2300 software is not compatible with the previous MicroTech III hardware. The MT2300 BACnet communication module cannot be used as a replacement for a MicroTech III board.

Network Device Testing

The BACnet communication module implements a unit identification mode command to the unit controller by using the BACnet "ReinitializeDevice" request, with a Cold or Warm Start request handle, and a password of "wink" (all lower case). The "wink" unit identification function allows verification of an individual unit network address without opening the unit access panels. The Wink command can be used during all operating and non-operating (ex. Alarm) modes except for the following conditions:

- Invalid Configuration Alarm
- Incompatible Software Alarm
- Compressor Low Voltage Brownout Alarm
- Emergency Shutdown Mode
- Defrost Process

Upon receiving a wink command from a network management node, the unit controller exhibits the following identification sequence (all occur simultaneously):

- Room Sensor LED: flashes ON 3 seconds, then OFF 3 seconds for 15 total seconds, unless an alarm condition exists.
- Fan: the fan turns off for 5 seconds then on 5 seconds, then off again for 5 seconds.

Restoring Default Values

It is necessary to restore the communication module default settings under the following conditions:

- When new application software was loaded into the communication module
- When the commissioning process does not work as expected

Follow these steps to set the communication module back to default configuration settings:

1. Confirm that the communication module S3 address switch is set to the desired value. Use values 0 to 127 for manual addressing, and 255 for auto-addressing.
2. Press and hold the S2 Default pushbutton ([Figure 1](#)).
3. While holding the S2 switch, press and release the S1 Reset pushbutton. The LEDs should flash once, turn off and turn on one after another.
4. Release the S2 Default pushbutton (once all four LEDs are ON steady) to restore the communication module to default values.

Parts

To find your local parts office, visit www.DaikinApplied.com or call 800-37PARTS (800-377-2787).

Description	Part Number
MT2300 WSHP BACnet field installation kit Includes communication module, four stand-offs, 4-pin network connector, DAT and RAT temperature sensors and LWT water temperature sensor For use on units with baseboard controller hardware PN 910384405 and software PN 2507441020. Provide unit serial number or sales order number when ordering	910128889
MT2300 BACnet replacement module Includes: BACnet module only For use on units with baseboard controller hardware PN 910384405 and software PN 2507441020. Provide unit serial number or sales order number when ordering	668105901

Technical Support

Contact the Daikin Applied Controls Customer Support group at 866-462-7829 or email DaikinControls@daikinapplied.com for additional assistance.

Refer to MicroTech SmartSource WSHP Unit Controller Operation Manual for additional information about unit parameters and modifying unit setpoints. Also refer to the MicroTech SmartSource Download and Configuration Guide, OM 1362 and BACnet Protocol Document, ED 19129 (www.DaikinApplied.com).

BACnet Configuration Menu

The BACnet communication module's configuration menu is accessed through the DB-9 serial connector on the module itself. Any serial terminal device or application (such as Windows HyperTerminal) can be used to view the menu and change the configuration parameters.

Follow these steps to connect to the BACnet configuration menu (Figure 6):

1. Verify that the terminal application communication settings are set to: 19200 bps, 8-data bits, 1-stop bit, no parity, and no flow control.
2. Use a null modem serial cross over cable to connect the computer to the BACnet communication module.
3. Once connected, press the 'Enter' key to display the menu shown in Figure 6.
4. If desired, use the BACnet configuration menu to change the terminal EIA-232 baud rate. For proper operation, the terminal device software baud rate must match the BACnet MS/TP baud rate setting. This avoids losing communication with the configuration menu.
5. Change the following device parameters, if desired: Instance, Name, Location, Description, and Units.
6. Press 'S' to save the BACnet configuration settings.
7. Verify "Flash write – success" is shown for configuration pages 1 and 2. Otherwise, save the settings again.

Figure 6: BACnet Configuration Menu

```

Daikin Applied - MT2300_WSHP_Ser2
BACnet FW HP4 v2.0  UnitApp HP4 BB=v2.0,IO=v2.0
===== SW PN 2507443 =====
DEVICE
1) Instance ..... 3101127
2) Name ..... MT2300_WSHP_Ser2_3101127
3) Location .....
4) Description .....
5) Units .....English
MS/TP
6) Baudrate .....38400
7) MaxMasters .....127
M) MAC Address ..... 127
TERMINAL
8) EIA-232 Baudrate ... 19200
B) Backup Configuration
R) Restore Configuration
S) Save settings
-----
    
```

Revision History

Revision	Date	Description of Changes
IM 1363	December 2023	Initial release.
IM 1363-1	May 2024	Updated v2.0 app software part number to Table 2, Figure 6 and Parts table. V2.0 software supports single/two stage and dual compressor WSHP R32 models.

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