Armstrong International – Hot Water Group – Technical Service Bulletin

221 Armstrong Blvd., Three Rivers, Michigan 49093 – U.S.A. Phone: (269) 279-3602 / Fax: (269) 279-3130

AHWG TSB#10 – SAGE™ BS BAS Bacnet Setup

Product: SAGE™ BS
Technical Assessment Reference: N/A

Topic/Problem Replacement & Resolution: Configuring SAGE™ BS for specific BAS Bacnet Settings

The following will explain the procedure to configure a SAGE™ BS for specific Building Automation System (i.e. BAS) protocol settings for the Bacnet MSTP or Bacnet Metasys N2 protocols.

In order to successfully connect to and utilize the Bacnet protocol via the SAGE™ BS system there needs to be a Bacnet specific ProtoCessor module plugged into the SAGE™ BS board ***(see Figure 1)***. This would have either been specified at time of order and subsequently shipped already installed OR would have been requested after the order and thus shipped out and installed onsite.

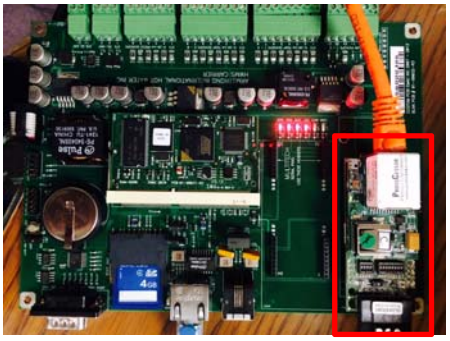


Figure 1: ProtoCessor Module

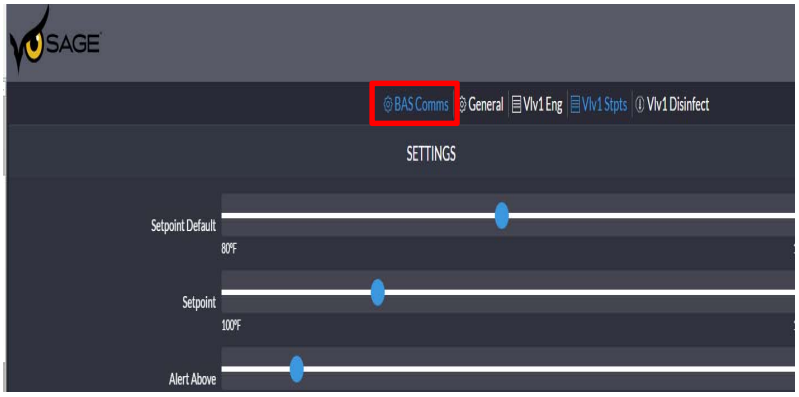
Tools Required:

- Ethernet Cable
- Computer with Admin access (Windows 7 Operating System)

Replacement Process/Steps:

1. Before proceeding, follow all steps included in TSB#5–SAGE BS Ethernet Access; this will allow you to connect to the SAGE™ BS web browser and continue with the steps below

2. Once connected to the SAGE™ BS web browser and the initial system graphic page is up click on the icon labeled ***'BAS Comms' OR 'Admin Configuration'*** depending on SW vintage ***(see Figure 2)***



OR

Figure 2: Initial System Graphic Page

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IF SOLD AFTER JAN., 2017 AS SAGE™ BS:

3. Ensure the ***'Protocessor Port'*** is ***ON*** & the ***Protocessor Port Baud Rate set to 38400 (see Figure 3)***

4. If **Bacnet MSTP** is the desired protocol change the following to the specific settings
   - '***Type' = BACnet/Modbus***
   - ***Protocessor Port MAC Address = 1-127***
   - ***Protocessor Port Node ID = 1-60000***
     - ***Aka 'Instance'***
   - Protocessor Port Modbus TCP/IP Address = Leave as is

5. If **Bacnet Metasys N2** is the desired protocol change the following to the specific settings
   - ***'Type' = Metasys N2***
   - Protocessor Port MAC Address = Leave as is
   - ***Protocessor Port Node ID = 1-127***
     - ***Aka 'Instance'***
   - Protocessor Port Modbus TCP/IP Address = Leave as is

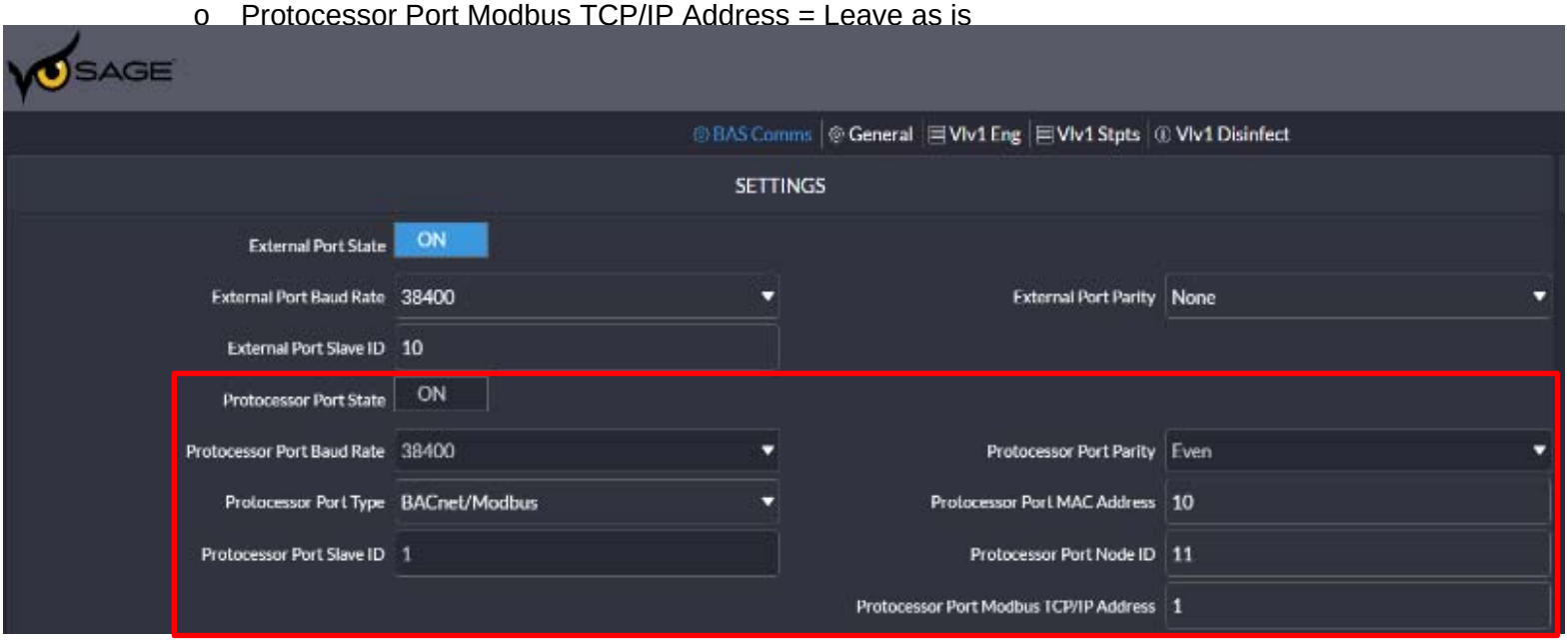

Figure 3: BAS Comms Page

6. Go to ProtoCessor Module & set 'B' bank of dip switches per the required baud rate ***(see Figure 4)***

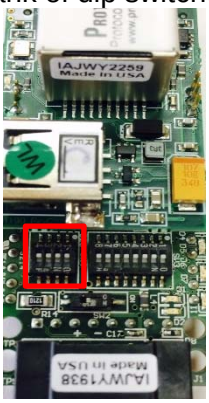

Figure 4: ProtoCessor Dip Switch's

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IF SOLD PRIOR TO JAN., 2017 AS BRAINSCAN:

3. Go to the section titled ***'Modbus Configuration'*** and ensure the settings for ***'Protocessor Port'*** and ***'External Port'*** match those shown below ***(see Figure 5)***; do not change these

4. The section titled ***'Protocessor Settings'*** is what will be changed per specific BAS protocol setting desires

5. If **Bacnet MSTP** is the desired protocol change the following to the specific settings
   a. '***Type' = BACnet***
   b. MAC Address = 1-127
   c. Node ID = 1-60000
      i. Aka 'Instance'
   d. Modbus TCP ID = Leave as is

6. If **Bacnet Metasys N2** is the desired protocol change the following to the specific settings
   a. 'Type' = Metasys N2
   b. MAC Address = Leave as is
   c. Node ID = 1-127
      i. Aka 'Instance'
   d. Modbus TCP ID = Leave as is

7. Go to ProtoCessor Module & set 'B' bank of dip switches per the required baud rate ***(see Figure 6)***

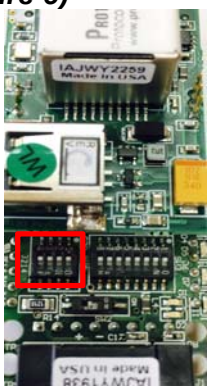

Figure 6: ProtoCessor Dip Switch's

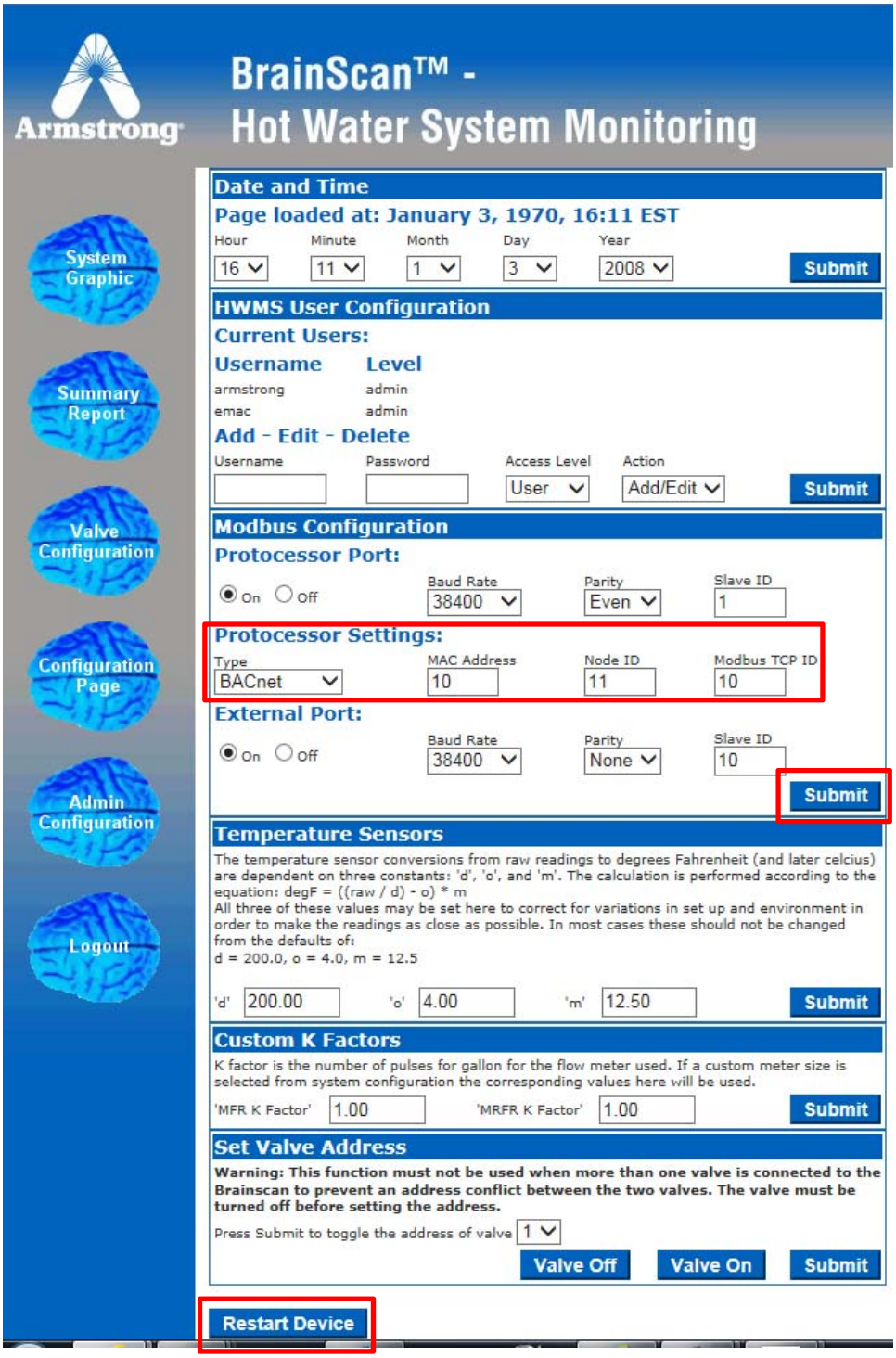

Figure 5: Admin Configuration Page

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ProtoCessor Dip Switch Settings:

1. Only required for Metasys N2 Protocol; MSTP may auto find; if not, then set per below
2. The following are the dip switch baud rate settings ('On' is denoted on dip switch bank):

B1	B2	B3	B4	Baud
Off	Off	Off	Off	Auto
On	On	On	Off	9600
Off	Off	Off	On	19200
On	On	Off	On	38400
On	Off	On	On	76800
Off	On	On	On	115200

- Click ***'Submit'***
- After clicking ***'Submit'***; click ***'Restart Device';*** you will be logged out and brought back to main log in screen
- You are now done & should be able to bring the register map points in to the BAS protocol system