Overview and Configuration Manual

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Manual Revisions

The *BAClink Overview and Configuration Manual* is catalog number 808-965 Rev. 7/03. It replaces the *BAClink Overview and Configuration Manual* 808-965, Rev. 1/99. The following changes were made:

Section/Chapter	Changes
Configuration	1. Revised Table 1-1, BACnet-CCN Force Priorities 2. Revised the Special Considerations section to include a new topic entitlted BAClink and CCN Alarms.

Section/Chapter	Changes
Factory-configured Databases	7. Removed the following lists of database points: HydroSource System Manager, and HydroSource Loop Controller. Added the following database points lists: Air Manager and 19XR PIC II.

Introduction

Introduction

About this Manual

This manual contains information about the functions of BAClink and how you configure the BAClink Module to have it perform those functions.

The manual is divided into the following sections:

- Introduction
- Hardware Installation
- Configuration
- Service-Configuration
- Maintenance
- Configuration Sheets
- Factory-Configured Databases

The Introduction consists of this description of the manual and an overview of BAClink.

Hardware Installation provides details about setting up all BAClink hardware.

The Configuration and Service-Configuration sections include detailed lists of the decisions for each BAClink configuration and service-configuration table. Each list entry includes the decision's purpose, the range of values that may be entered, and the default values that will appear in the decision if you do not configure it.

The Maintenance section includes detailed lists of the decisions for each BAClink maintenance table. Each list entry includes the decision's purpose and the range of values that may be displayed.

The Configuration Sheets section consists of a list of configuration decisions arranged in a table format. These sheets are provided so that they may be photocopied for use as worksheets and hard copy records when configuring the BAClink Module.

The Factory Configured Databases section consists of the list of points in each of the BAClink module's factory-configured databases.

Product Description

BAClink serves as an interface device between a BACnet network and the controllers on a Carrier Comfort Network (CCN). It allows a BACnet device to read data from and write data to CCN points and schedules. The CCN points and schedules exist as BACnet objects within BAClink. BAClink also passes alarm, alert, and return-to-normal messages from selected CCN controllers to the BACnet LAN.

The BAClink package includes a standard Carrier CIO Module along with a compact industrial grade PC containing BAClink software.

BAClink conforms to the Class 3 ASHRAE BACnet standard, and supports the following BACnet standard application services:

BACnet Term	CCN Term
Read Property	Read point data
Read Property Multiple	Read multiple point data
Write Property	Write point/config data
Write Property Multiple	Write multiple point data
Who Is	Query network device for address
I Am	Device response to query
Who Has	Query network/device for point
I Have	Device response to query
Time Synchronization	Time broadcast
Reinitialize Device	
Confirmed Event Notification	Alarms

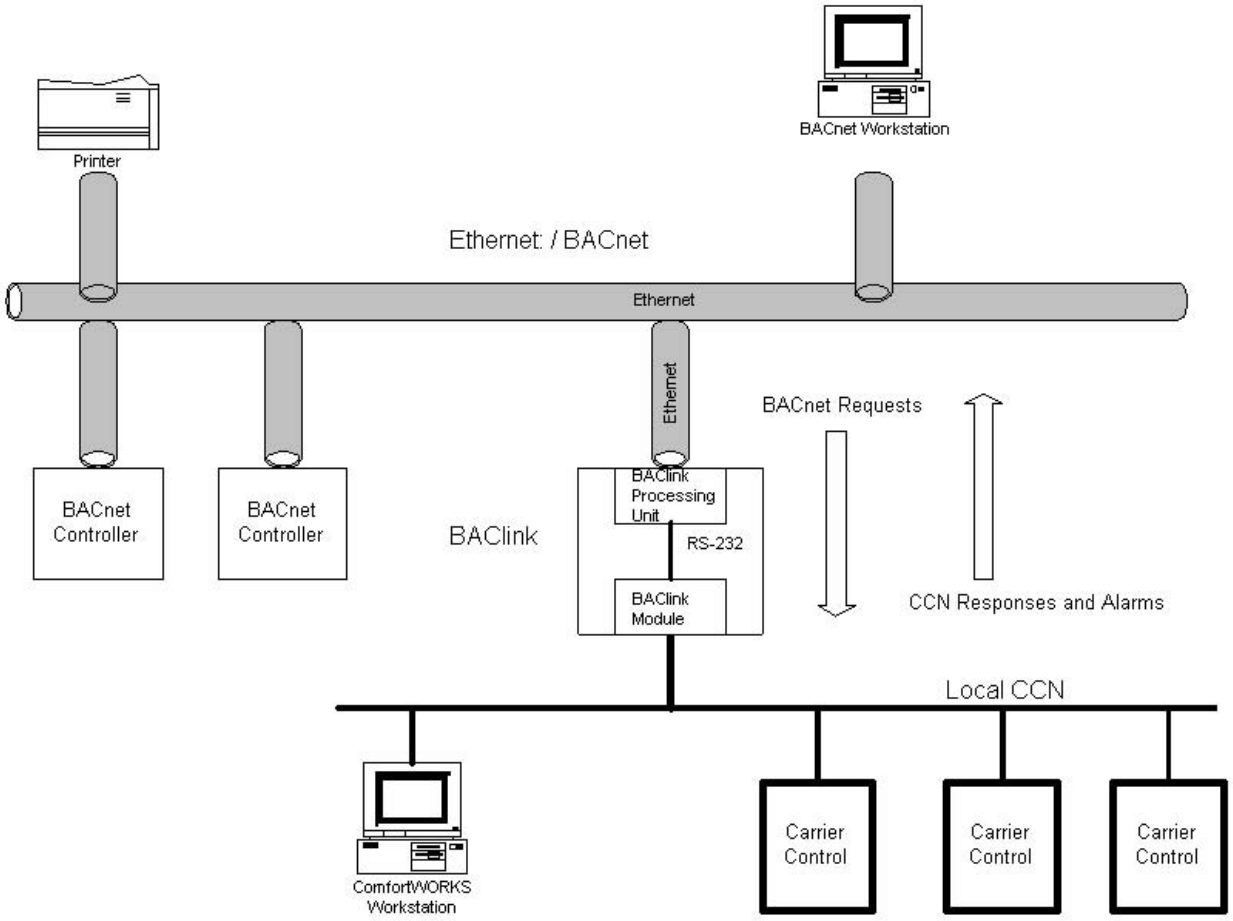
BAClink supports the following BACnet standard object types:

- Analog Input, Analog Output, Analog Value
- Binary Input, Binary Output, Binary Value
- Device
- Multi-state Input, Multi-state Output
- Schedule Object
- Calendar Object
- Notification Class Object.

BAClink contains factory-configured databases of up to 100 points each for each type of supported equipment. You can select up to 24 of these factory-configured points for BACnet access in each piece of equipment. There are also up to 4 user-configurable databases provided in support of Carrier's general purpose field installed controller (Comfort Controller).

BAClink also supports foreign language operation and BACnet metric operation.

Figure 1
BACnet Network
Overview



Hardware Installation

Hardware Installation

Hardware Components

Your BAClink package includes the following hardware:

- (1) Entron PC with power cable
- (1) serial cable (PC to CIO Module)
  Note: Cable pin-outs are as follows:

Entron Female DB-9	CIO Male DB-25
2	2
3	3
5	7

- (1) BAClink CIO Module

The following hardware must be customer supplied:

- (1) RJ-45 Ethernet cable. This cable should be of sufficient length to connect your building's Ethernet network to the Entron PC. Maximum length from the network hub to the Entron PC is 328 feet.
- (2) 24 Vdc or 18/20 Vac power supplies to provide CIO Module power. Two supplies are required because a separate and isolated power supply must be used for the module's secondary port, PWR2, to isolate the COMM2 port from the CCN.
- (1) enclosure (optional). The enclosure should be of sufficient size to house the CIO Module flush mounted (11.25 in H x 1.875 in W x 6.30 in D) and PC (16.45 in W x 6.30 in H x 6.30 in D) with ample clearances around both, to allow for access to connectors and PC cards as described in Steps 1 and 2 below. The enclosure should also have ventilation holes on each side to permit for proper PC operation.
- #8 drill bit and (4) #8 screws for mounting the PC.

Required Conditions

Prior to beginning your BAClink installation, the following conditions must exist:

- An Ethernet connection must available at the BAClink installation site. Note that both the PC and BAClink Module will be installed at this location.
- The CCN Bus wire must be available to connect the BAClink CIO Module to the CCN.
- (3) power outlets (for the 2 power cubes and the Entron PC power cord) must be available at the installation location.
- The optional enclosure must be mounted.

Step-by-Step Instructions

Follow the instructions below to install the BAClink CIO Module and PC. Refer to Figures 2 and 3.

1. Mount the CIO Module flush to the wall or enclosure using #8 screws and connecting the green wire to building ground. Be sure to leave ample clear space around the module to allow access to the power and communication connectors.
2. Mount the PC at the same location as the CIO Module. Be sure to leave ample clearance around both ends of the PC to allow access to its power cord, RJ-45 Ethernet and COM1 connectors, and potentially, a keyboard and monitor connection. Also allow sufficient clearance above the PC to permit potential removal or addition of computer cards (such as video or Ethernet cards).
3. Connect the CCN Bus to the CIO Module's COMM1 connector.
4. Connect the serial cable between the CIO Module's 25 pin COMM2 connector and the PC's COM1 connector.
5. Using the customer-supplied Ethernet cable, connect the building's Ethernet to the PC's RJ-45 Ethernet connector.
6. Connect the PC's power cable to the power connector.
7. Connect power to the CIO Module's PWR1 and PWR2 connectors.

Figure 2
Entron PC and
BAClink CIO Module

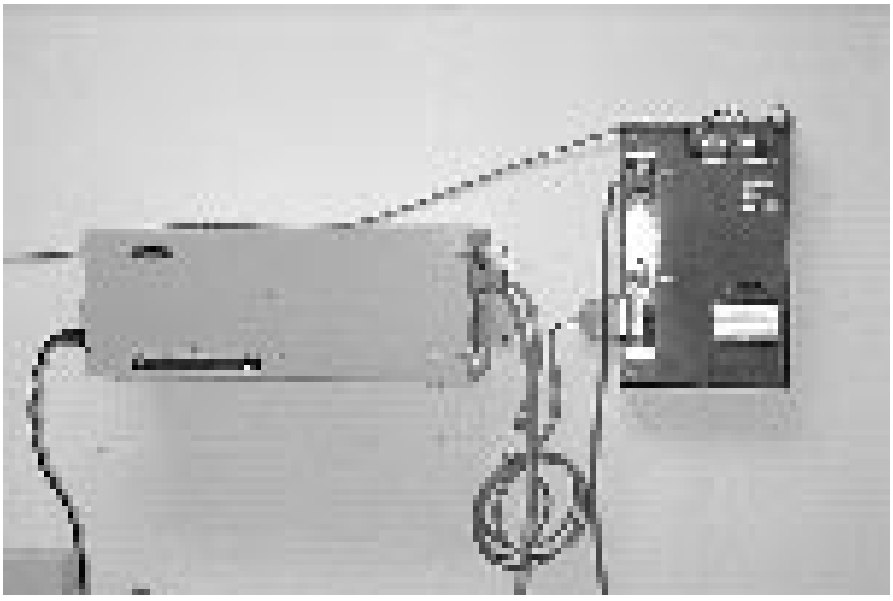
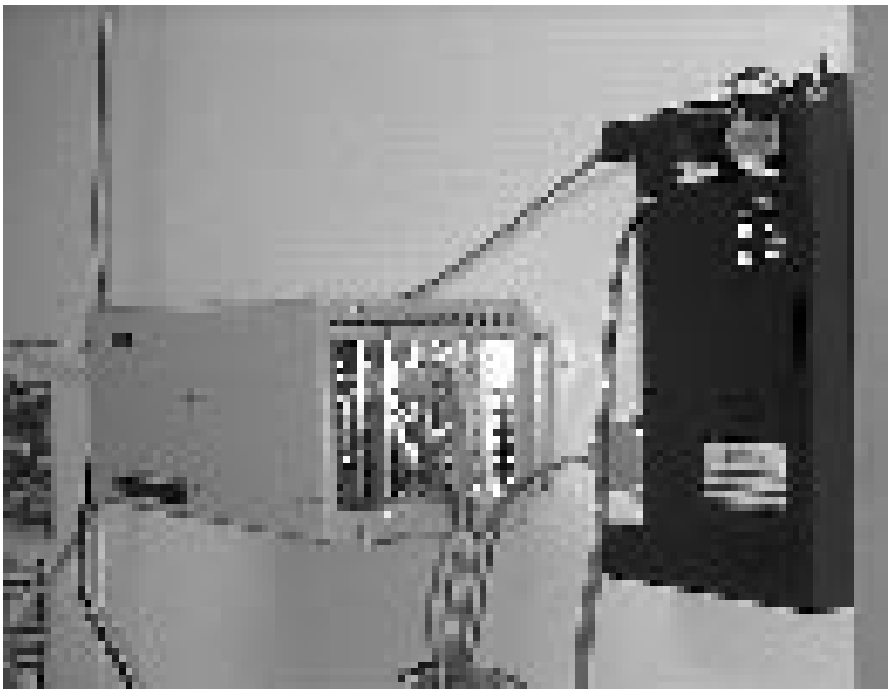


Figure 3
Entron PC — Side View



Configuration

Configuration

The operation of BAClink is controlled by parameters entered in a group of configuration tables. Each BAClink Module contains the following configuration tables:

BNETCFG	BAClink Configuration Table
BRODEFS	Broadcast Configuration Table
Ctlr-ID	Controller Identification Table
HOLIDEF	Holiday Configuration Table

Configuration Overview

Follow the steps below to configure the BAClink Module. You must configure the BAClink tables in the order presented below. A complete description of each configuration table, along with accompanying table decision descriptions, follows this overview.

1. Determine the CCN controllers that BACnet will access. Make a list of each controller's CCN address and equipment type (30 GN Chiller, 20-70 Ton Rooftop, etc.).

2. If your BAClink Module will not be communicating with Comfort Controllers, skip to Step 3.

   If your module will be communicating with Comfort Controllers, you must now set up your Comfort Controller databases. Unlike other equipment types, whose databases are factory configured in the BAClink Module, Comfort Controller databases must be user configured.

   To set up your Comfort Controller databases, configure, download, and save the Comfort Controller Points Configuration (CC_PNTS) Table.

3. Verify that your equipment types are supported by the BAClink Module. To do this, display the Equipment Maintenance (EQP*nn*-*nn*) Tables. Add the Equipment Type number that corresponds to each of your equipment types to the list that you started in Step 1.

4. Configure, download, and save the BAClink Configuration (BNETCFG) Table.

The BNETCFG Table is where you specify network parameters such as BACnet and CCN network identification numbers, equipment type, and the address of the up to 15 CCN controllers that will be communicating with the BAClink Module.

Add the device numbers that are contained in this table (Device 1 to Device 15) next to the appropriate CCN controllers in the list that you started in Step 1.

Note: In this step, keep the Create BACnet Objects decision set to its default value, which is *No*. You will be returning to this table and creating your BACnet database later in this configuration procedure.

Whenever you modify and download any of the BNETCFG Table's 15 Equipment Type decisions, the BAClink Module loads the corresponding controller's Point Selection Service Configuration (PT_SELCT) Table with those database points that have been factory (or, in the case of Comfort Controllers, user) specified as defaults for the equipment type database.

5. View the 24 default points to which BACnet will have access in each CCN controller. Then, modify these points, if desired.

   a. To do this, display and upload the Point Selection Service Configuration (PT_SELCT) Table.

      You will be presented with a list, DEVCE01 to DEVCE15. The items in this list correspond to the CCN controller device numbers that you noted when configuring the BNETCFG Table in Step 3.

   b. Select the item from this list that corresponds to the CCN controller whose points you wish to view.

      The selected controller's PT_SELCT Table will be displayed. The table's Status column will display index numbers that correspond to the points that have been specified as defaults for this controller's equipment type database.

Note: To determine the CCN controller point corresponding to each index number, display the Point Profiles (PROFILES) Maintenance Table.

c. If the default point selections are acceptable, simply save the data.

   Otherwise, enter the index number corresponding to another point in this controller's equipment type database. Then, download and save.

d. Repeat Step 5 to view and/or modify the BACnet-accessible points in the remainder of the CCN controllers communicating with this BAClink Module.

6. Create the BAClink database by displaying the BNETCFG Table and setting the Create BACnet Objects decision to *Yes*. Then, download and upload the table.

   Note: Do not save the table with the Create BACnet Objects decision set to *Yes*.

7. Review the database for correctness by displaying the Objects Maintenance (OBJECTS) Table, and scrolling through the display page by page.

   If you discover an error, correct the error by modifying the BNETCFG or PT_SELCT Table, create a new database by repeating Step 6, then return to this step to confirm the database.

8. Cycle power to the BAClink PC.

Special Considerations

BAClink is a router/gateway module that supports up to 15 different CCN controllers. As such, the BAClink system setup requires you to specify a BACnet Network Number for the CCN to which the BAClink Module is a gateway. This is because the CCN will appear as a BACnet sub-network. The BAClink product presents the CCN as a virtual BACnet network. You must assign a BACnet device identification number to each device on the CCN that is to be represented to BACnet. You assign the Device IDs and the BACnet Network Number using the standard Carrier Network Service Tool.

The Carrier installer uses the Network Service Tool to specify which CCN points are to be made available to BACnet. These points are selected from a list of recommended defaults contained in the BAClink product.

Addressing Carrier Controllers From BACnet

The BAClink Module does not buffer incoming BACnet messages. The BACnet workstation must wait for a response from the BAClink Module before requesting additional information. If multiple objects must be read simultaneously, you must use the Read Property Multiple command.

MAC Addressing: The BAClink Module generates a unique Medium Access Control (MAC) address for each CCN controller, including the BAClink Module itself. This Mac address is generated by taking the value of the BNETCFG Table's CCN Network Number decision (default value of 96), converting that to hexadecimal (60), and placing that value in the first two bytes of the MAC address. The third byte of the MAC address is the device instance. The BAClink Module itself is Instance 0, the CCN controller configured as Device 1 is Instance 1, Device 2 is Instance 2, etc. The remaining 3 bytes of the MAC address are 0. For example, the MAC address for CCN Device 1, which is located under a BAClink Module with a configured CCN Network Number of 96 would be 006001000000.

Device ID Addressing: The device ID of the BAClink Module corresponds to the value of the BNETCFG Table's Base Device ID decision (default value of 160). Each BAClink Module can support up to 15 CCN controllers. Therefore, the BAClink Module allocates 15 device IDs in order to support potential configuration. Each CCN

controller will have a device ID that corresponds to its instance number (1-15) added to the Base Device ID (default value of 160). Therefore, the device ID of the first CCN controller configured in the BAClink Module would be 161.

BACnet to CCN Force Priorities

The following table illustrates the different BACnet force priorities and their equivalent CCN force levels.

Table 1-1
BACnet-CCN Force Priorities

BACnet Prioritization Level	CCN Force Level
0 No force	0 No force
1 Manual-Life Safety	1 Fire Override
2 Automatic-Life Safety	2 Internal Safety Override
3 Unassigned	3 Service Force
4 Unassigned	4 Supervisor Force
5 Critical Equip Control	5 Remote Monitor
6 Minimum On/Off	6 Minimum Off/On
7 Unassigned	7 Controlling POC
8 Manual Operator	7 Controlling POC
9 Unassigned	7 Controlling POC
10 Unassigned	9 Temperature Override
11 Unassigned	10 Loadshed
12 Unassigned	11 Unassigned
13 Unassigned	12 Unassigned
14 Unassigned	13 Unassigned
15 Unassigned	14 Unassigned
* 16 Default	15 Unassigned

* It is recommended that the BACnet workstation/client use Prioritization Level 16 when controlling Carrier objects (points).

BAClink and CCN Alarms

BAClink can be configured to send out CCN alarms onto the BACnet bus. In order for this to happen requires the BAClink module to be configured from both the Carrier CCN and the BACnet bus. The following describes how you must configure BAClink in order to transmit alarm/alert messages received from CCN system elements out to the BACnet bus.

Carrier CCN Configuration Requirements: In order for BAClink to recognize alarm/alert messages on the Carrier CCN side, you must perform the following configuration procedures. First, every CCN system element whose alarm/alert messages are to be transmitted onto the BACnet bus must have its Alarm Routing decision set such that BAClink will receive the alarm. This is done by setting the 4th bit in the BAClink Configuration Table's Alarm Routing decision to a *1*, Second, you must set the 4th bit in the BAClink Configuration Table's Alarm Filtering decision to a *1*. See the BAClink Configuration Table section of this manual for additional information. Also in the BAClink Configuration Table, you must enable the Alarm Acknowledger decision if there is not already an alarm acknowledger on the Carrier CCN bus.

BACnet Configuration Requirements: BAClink uses the BACnet Confirmed Event Notification Service to send alarm/alert messages out onto the BACnet bus. The messages that it sends are text messages that contain the same alarm/alert information as would be seen in the Alarm History table of the Carrier system element that initiated the alarm. BAClink will send alarm/alert messages to the BACnet device(s) that are listed in the Recipient List of the Notification Class Object. It is there required that the Recipient List in the Notification Class Object be written to over BACnet with the identity of the BACnet device(s) that is to receive the alarm/alert message (either Device ID or MAC Address). This configuration must be done over BACnet. It cannot be done through the Carrier CCN system.

Note: BAClink stores the Notification Class Object configuration in RAM on the industrial computer. Therefore, if power is lost to the industrial computer, it will be necessary to reconfigure the Notification Class Object with the appropriate Recipient List information.

BAClink Configuration (BNETCFG) Table

Figure 2 illustrates the BAClink Configuration Table. The table specifies BACnet "system-type" parameters such as network and starting point identification numbers, and alarm processing designations.

The BACnet network administrator should determine the information to enter in this table, and information should not be changed without network administrator authorization.

Figure 2
BAClink Configuration (BNETCFG) Table

Database Only - BACnet::BACNET::BNETCFG: Configuration

BACnet Engineering Units

DESCRIPTION	VALUE	UNITS	NAME	NOTES
BACnet Engineering Units	U.S.		ENGUNITS	
Create BACnet Objects	No		CREATE	
Restore BACnet Objects	No		RESTORE	
BACnet Network Number	0		BACNETNO	
CCN Network Number	0		CONNETNO	
Base Device ID	0		BASEID	
Alarm Acknowledger	No		ALRM_ACK	
Alarm Routing	00000000		ALRM_MSK	
Device 1 Equipment Type	0		DEV1_TYP	
Device 1 Bus Number	0		DEV1_BUS	
Device 1 Element Number	0		DEV1_ADR	
Device 2 Equipment Type	0		DEV2_TYP	
Device 2 Bus Number	0		DEV2_BUS	
Device 2 Element Number	0		DEV2_ADR	
Device 3 Equipment Type	0		DEV3_TYP	
Device 3 Bus Number	0		DEV3_BUS	
Device 3 Element Number	0		DEV3_ADR	
Device 4 Equipment Type	0		DEV4_TYP	
Device 4 Bus Number	0		DEV4_BUS	
Device 4 Element Number	0		DEV4_ADR	
Device 5 Equipment Type	0		DEV5_TYP	
Device 5 Bus Number	0		DEV5_BUS	
Device 5 Element Number	0		DEV5_ADR	
Device 6 Equipment Type	0		DEV6_TYP	
Device 6 Bus Number	0		DEV6_BUS	
Device 6 Element Number	0		DEV6_ADR	
Device 7 Equipment Type	0		DEV7_TYP	
Device 7 Bus Number	0		DEV7_BUS	
Device 7 Element Number	0		DEV7_ADR	
Device 8 Equipment Type	0		DEV8_TYP	
Device 8 Bus Number	0		DEV8_BUS	
Device 8 Element Number	0		DEV8_ADR	
Device 9 Equipment Type	0		DEV9_TYP	
Device 9 Bus Number	0		DEV9_BUS	
Device 9 Element Number	0		DEV9_ADR	
Device 10 Equipment Type	0		DEV10_TYP	
Device 10 Bus Number	0		DEV10_BUS	
Device 10 Element Number	0		DEV10_ADR	
Device 11 Equipment Type	0		DEV11_TYP	
Device 11 Bus Number	0		DEV11_BUS	
Device 11 Element Number	0		DEV11_ADR	
Device 12 Equipment Type	0		DEV12_TYP	
Device 12 Bus Number	0		DEV12_BUS	
Device 12 Element Number	0		DEV12_ADR	
Device 13 Equipment Type	0		DEV13_TYP	
Device 13 Bus Number	0		DEV13_BUS	
Device 13 Element Number	0		DEV13_ADR	
Device 14 Equipment Type	0		DEV14_TYP	
Device 14 Bus Number	0		DEV14_BUS	
Device 14 Element Number	0		DEV14_ADR	
Device 15 Equipment Type	0		DEV15_TYP	
Device 15 Bus Number	0		DEV15_BUS	
Device 15 Element Number	0		DEV15_ADR	

BAClink Engineering Units

An explanation of each configuration decision follows.

Use this decision to specify BAClink's engineering units — customary US or metric. Selecting *US* will cause BAClink to use customary US units. Selecting *Metric* will cause BAClink to use metric units.

Note: If this value is changed, you must cycle power to the BAClink PC.

Allowable Entries
US
Metric

Default Value
US

Create BACnet Objects

Use this decision last, after configuring all other BNETCFG Table decisions, the PT_SELCT Table, and the CC_PNTS Table (if necessary, for Comfort Controllers) to create a new BAClink database. Setting this decision to *Yes* clears the BAClink Module memory (flushes RAM) and creates a new database based on the CCN controllers you specify using the Device 1 to Device 15 Equipment Type, Bus Number, and Element Number decisions, and on information that you specify in the PT_SELCT or CC_PNTS Tables.

Note: You must configure this decision last — after you have completed all other configuration functions. Also, do not save the BNETCFG Table with this decision set to *Yes*.

Allowable Entries
No
Yes

Default Value
No

Restore BACnet Objects

This decision is designed for use by diagnostic/engineering personnel only. This decision differs from the Create BACnet Objects decision in that it only updates (refreshes) the existing database, versus creates a new database.

Allowable Entries
No
Yes

Default Value
No

BACnet Network Number

The BACnet network administrator would typically determine the value to enter into this decision, which specifies the number of the BACnet network to which the BAClink Module is connected. You must assign each BACnet network a unique network number.

This value, combined with the device number, is used to generate a unique Medium Access Control (MAC) address for each CCN controller. For additional information on Mac addresses, refer to Special Considerations, which appears earlier in this Configuration chapter.

Allowable Entries 0 - 65535

Default Value 1

Note: If there is a router on the BACnet network, you must change this BACnet Network Number from 1 so that it matches the subnet number.

If this value is changed, you must cycle power to the BAClink PC.

CCN Subnet Under BACnet

The BACnet network administrator would typically determine the value to enter into this decision. Use this value to differentiate each CCN sub-network connected to a BAClink Module or BAClink Module(s) on the same BACnet Network number. You must assign unique CCN Network Numbers to each BAClink Module.

For example, if you have two BAClink Modules, each connected to the same BACnet network, and each connected to the same or different CCN networks, you would assign unique CCN Network Numbers to each BAClink Module.

Allowable Entries 0 - 65535

Default Value 96

Note: If this value is changed, you must cycle power to the BAClink PC.

Base Device ID

Use this decision to specify the BAClink Module's BACnet controller identification numbers. The number that you enter here will be the starting BACnet controller identification number of the series of CCN controllers connected to the BAClink Module. The BAClink Module automatically assigns this device number to itself and the remaining CCN controller identification numbers based on the starting value that you enter here. The BACnet network administrator would typically determine this value. The CCN Network Number, the Base Device ID, and each resulting CCN controller identification number must be unique.

If there is more than one BAClink Module in a system, you must assign each module a unique Base Device ID number. Each identification number must also be at least 16 apart. For example, 160 and 176.

Allowable Entries 0 - 4194289

Default Value 160

Note: If this value is changed, you must cycle power to the BAClink PC.

Alarm Acknowledger?

Use this decision to specify whether the BAClink Module will act as the alarm acknowledger for its CCN. There can only be one alarm acknowledger per CCN.

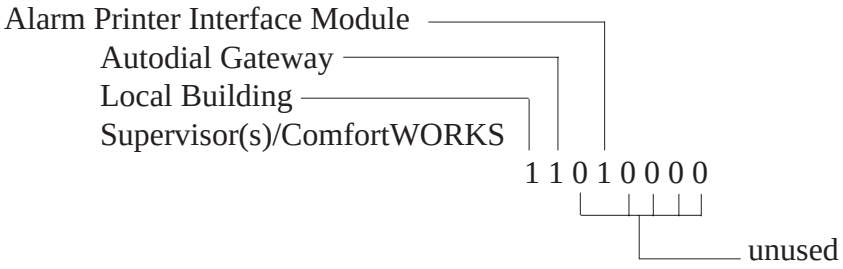
Allowable Entries Yes/No

Default Value No

Alarm Filtering

Use this decision to define which CCN system element alarms the BAClink Module will send to BACnet. The BAClink Module will process all alarms, alerts, and return-to-normal messages from those system elements which have their Alarm Routing decisions such that at least one of the bits set to *1* matches the same bit set in this decision.

Input for the decision consists of eight binary digits, each of which can be set to either *0* or *1*. Setting a digit to *1* allows the BAClink Module to process alarms from the system element that corresponds to that digit. Setting a digit to *0* disables alarm processing of the corresponding system element's alarms. Digits in this decision correspond to CCN system elements in the following manner:



Allowable Entries 0 = Disabled
1 = Enabled

Default 00000000

Device 1 to 15 Equipment Type

Use this decision to select an equipment type for each of the up to 15 CCN controllers that can communicate with the BAClink Module. The controller equipment types, along with a list of points that can be accessed in each type of controller, have been factory-configured into the BAClink Module's database. Example equipment types include reciprocal chillers, rotary chillers, or 39 Series air handlers. You select the equipment type by entering a number into this decision, ranging from 1 to 25. To view the list of controller types corresponding to each number, display the BAClink Module's Equipment Maintenance (EQP1-10, EQP11-20, EQP21-25) Tables.

Whenever you modify an equipment type decision and download this table, the BAClink Module loads those database points that have been specified as default points in the Point Select (PT_SELCT) Table. If you wish to modify the default points to which BACnet will have access, you must display the PT_SELCT Table and edit them before you set the Create BACnet Objects decision to *Yes*.

Note: To change a controller's equipment type, you can simply enter the new device type and address, and then set the Create BACnet Objects decision to *Yes*, before entering the new equipment type number in this decision.

To remove an entry, change this value and the Bus and Element Number decisions to *0* and then set Create BACnet Objects decision to *Yes*.

Allowable Entries 0 - 25

Default 0

Device 1 to 15 Bus Number

Use this decision to specify the CCN bus number of each of the up to 15 CCN controllers that can communicate with the BAClink Module.

Allowable Entries 0 - 239 (CCN bus number)

Default 0

Device 1 to 15 Element Number

Use this decision to specify the CCN system element number of each of the up to 15 CCN controllers that can communicate with the BAClink Module.

Allowable Entries 0 - 239 (CCN system element number)

Default 0

Broadcast Configuration (BRODEFS) Table

The BAClink Module has one Broadcast Configuration (BRODEFS) Table by which you can configure it to be the CCN's broadcaster, responsible for transmitting the time, outside temperature, humidity, and holiday flags to all system elements. There must be only one broadcaster in a CCN, so this table should not be configured if any other system element is acting as broadcaster.

If you set the Activate decision to *Yes*, the BACnet network will have the ability to set the time, date, and day of week in the BAClink Module. The module will detect a time change and will in turn broadcast the BACnet time and date to the entire CCN.

Figure 3 below shows the BRODEFS Table. The figure is followed by descriptions of the table's individual decisions.

Figure 3
Broadcast Configuration (BRODEFS) Table

Local - BACnet::BACNET::BROCASTS: Broadcast Supervisory

Activate

DESCRIPTION	VALUE	UNITS	NAME	NOTES
Activate	No			
OAT Broadcast			OATSYSNM	
Controller Name			OATBUSNM	
Bus #	0		OATLOCAD	
Element #	0			
OARH Broadcast			OARHSYNM	
Controller Name			OARHBSNM	
Bus #	0		OARHLCAD	
Element #	0			
DAYLIGHT SAVINGS START				
Month	1		ENTDMON	
Day	1		ENTDDAY	
Time	02:00		STRTTIME	
Minutes to add	60		ADDMIN	
DAYLIGHT SAVINGS STOP				
Month	1		LVDSMON	
Day	1		LVTSDAY	
Time	02:00		STOPTIME	
Minutes to subtract	60		SUBMIN	

Activate

This decision enables and disables the broadcast function. When it is set to *Yes*, the BAClink Module will make periodic broadcasts on the CCN. When it is set to *No*, the BAClink Module is not the broadcaster and there is no need to configure the other decisions in this table.

Setting this decision to Yes also permits the BACnet network to set the time and date in the BAClink Module, which will in turn, broadcast the BACnet time to the CCN.

In each Carrier Comfort Network there must be only one system element with its broadcast function enabled.

Allowable Entries Yes/No

Default No

(OAT Broadcast) Controller Name

In this decision you specify the name of the system element that has the Outside Air Temperature sensor connected to it. The BAClink Module will broadcast the OAT value it gets from that system element.

Allowable Entries 1 to 8 alphanumeric characters

Default blank

(OAT Broadcast) Bus Number

In this decision you specify the bus number of the system element that has the Outside Air Temperature sensor connected to it.

Allowable Entries 0

Default 0

(OAT Broadcast) Element Number

In this decision you specify the system element number of the system element that has the Outside Air Temperature sensor connected to it.

Allowable Entries 0

Default 0

(OARH Broadcast) Controller Name

In this decision you specify the name of the system element that has the Outside Air Relative Humidity sensor connected to it. The BAClink Module will broadcast the OARH value it gets from that system element.

Allowable Entries 1 to 8 alphanumeric characters

Default blank

(OARH Broadcast) Bus Number

In this decision you specify the bus number of the system element that has the Outside Air Relative Humidity sensor connected to it.

Allowable Entries 0

Default 0

(OARH Broadcast) Element Number

In this decision you specify the system element number of the system element that has the Outside Air Relative Humidity sensor connected to it.

Allowable Entries 0

Default 0

(Daylight Savings Start) Month

In this decision you specify the month in which the broadcaster will adjust its time for the start of daylight saving time.

Allowable Entries 1 to 12 (months of the year)

Default 1

(Daylight Savings Start) Day

In this decision you specify the day of the month on which the broadcaster will adjust its time for the start of daylight saving time.

Allowable Entries 1 to 31 (days of the month)

Default 1

(Daylight Savings Start) Time

In this decision you specify the time of day at which the broadcaster will adjust its time for the start of daylight saving time.

Allowable Entries 00:00 to 23:59

Default 2:00

(Daylight Savings Start) Minutes to Add

In this decision you specify the number of minutes by which the broadcaster will adjust its time for the start of daylight saving time.

Note: BAClink can receive daylight saving time changes from the BACnet network. When this is the case, you must disable the BAClink daylight saving function by setting this decision to *0*.

Allowable Entries 1 to 1440 (minutes)

Default 60

(Daylight Savings Stop) Month

In this decision you specify the month in which the broadcaster will adjust its time for the end of daylight saving time.

Allowable Entries 1 to 12 (months of the year)

Default 1

(Daylight Savings Stop) Day

In this decision you specify the day of the month on which the broadcaster will adjust its time for the end of daylight saving time.

Allowable Entries 1 to 31 (days of the month)

Default 1

(Daylight Savings Stop) Time

In this decision you specify the time of day at which the broadcaster will adjust its time for the end of daylight saving time.

Allowable Entries 00:00 to 23:59

Default 2:00

(Daylight Savings Stop) Minutes To Subtract

In this decision you specify the number of minutes by which the broadcaster will adjust its time for the end of daylight saving time.

Note: BAClink can receive daylight saving time changes from the BACnet network. When this is the case, you must disable the BAClink daylight saving function by setting this decision to *0*.

Allowable Entries 1 to 1440 (minutes)

Default 60

Controller Identification (Ctlr-ID) Table

In the BAClink Module there is one Controller Identification Table. It contains product identification information that is input when the module is assembled. By changing the information that appears in this table, you can change the name, description, and location that appears for the BAClink Module in the Building Supervisor's Carrier Controls List or ComfortWORKS Controller List window.

Holiday Configuration (HOLIDEF) Table

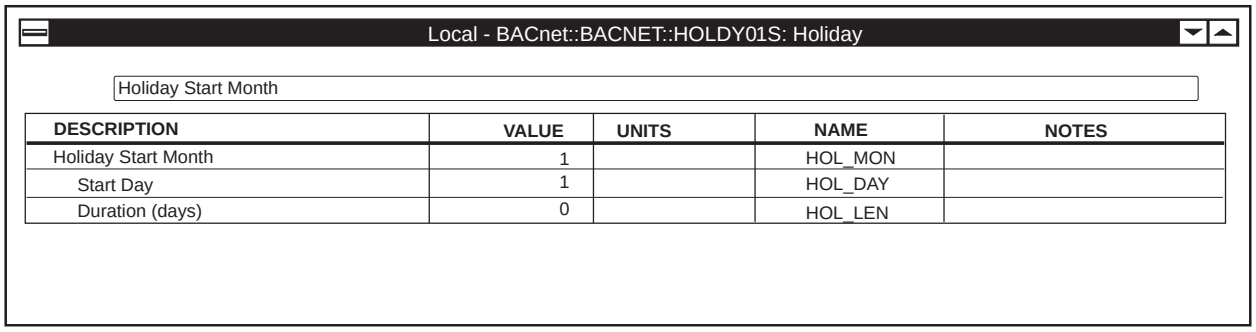
BAClink has 18 Holiday Configuration (HOLIDEF) Tables named HOLDY01S through HOLDY18S. In each table you can configure a day or series of days to be treated as a holiday. On holidays the module's occupancy software will use the holiday occupancy schedule instead of the day of the week schedules it would normally use.

If the BAClink Module is the broadcaster for its CCN, you should configure its HOLIDEF Tables. The holidays you configure will be in effect at the BAClink Module and they will also be transmitted to all system elements in the CCN. If the BAClink Module is not the broadcaster, there is no need to configure its HOLIDEF Tables because in that case the BAClink Module's occupancy schedules will accept only holiday flags transmitted by a CCN broadcaster.

The BACnet network also has the ability to read from and write to the BAClink Module's HOLIDEF Tables.

An example of this table is shown in Figure 4. Descriptions of the individual decisions follow the figure. Each description includes the purpose of the decision, its allowable entries, and the default value that it contains before it is configured.

Figure 4
Holiday Configuration
(HOLIDEF) Table



Holiday Start Month

In this decision you specify the month in which the holiday will begin.

Allowable Entries 1 to 12 (months of the year)

Default 1

Start Day

In this decision you specify the day of the month on which the holiday will begin.

Allowable Entries 1 to 31 (days of the month)

Default 1

Duration (days)

In this decision you specify how many consecutive days the holiday will last.

Allowable Entries 0 to 99 (days)

Default 0

Service-Configuration

Service Configuration

The BAClink Module contains the following service configuration tables:

Comfort Controller Point Selection (CC_PNTS) Table
Point Selection (PT_SELCT) Table

Comfort Controller Points Service Configuration (CC_PNTS) Table

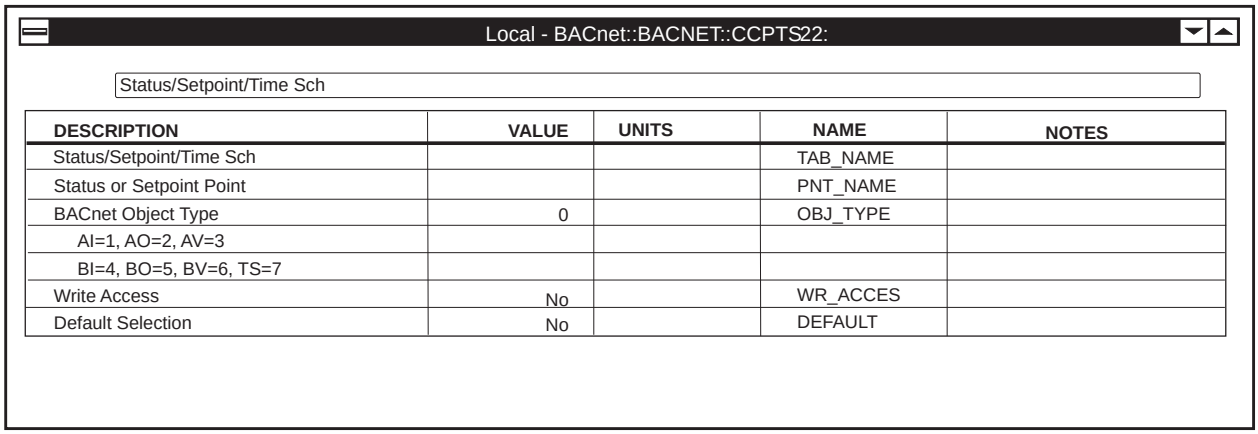
The CC_PNTS Table is where you set up the BAClink Module's Comfort Controller equipment type databases. The BAClink Module contains 21 factory-configured databases for different Carrier equipment types. In addition to these 21 pre-configured equipment databases, you can custom configure up to 4 databases each consisting of up to 100 Comfort Controller points.

When you select the CC_PNTS Table from the list of service configuration tables, you will be presented with a list of the up to 4 Comfort Controller equipment types, CCPTS22 to CCPTS25. Select the custom database that you wish to create or modify. The first point's-worth of data will be displayed. Use the << or >> toolbar button (in ComfortWORKS) or press the Page Down key (in Building Supervisor) to access the configuration data for each subsequent point.

After you set up a custom database, use would use the PT_SELCT Table to select the 24 database points to which BACnet will have access in each CCN controller.

Figure 5 shows the CC_PNTS Table. The figure is followed by descriptions of the table's individual decisions.

Figure 5
Comfort Controller Points Service Configuration (CC_PNTS) Table



DESCRIPTION	VALUE	UNITS	NAME	NOTES
Status/Setpoint/Time Sch			TAB_NAME	
Status or Setpoint Point			PNT_NAME	
BACnet Object Type	0		OBJ_TYPE	
AI=1, AO=2, AV=3				
BI=4, BO=5, BV=6, TS=7				
Write Access	No		WR_ACCES	
Default Selection	No		DEFAULT	

Status/Setpoint/Time Schedule

Use this decision to specify the up to 8 character name of the Comfort Controller status display, setpoint, or time schedule table that contains the point to which you wish to assign BACnet access.

Allowable Entries

Status Display: HWP01-32, HWP33-64, SWP65-96 } CC6400
HWP01-16, SWP17-32 } CC1600
Setpoint: SETPT0*nn**
Time Schedule: OCCPC*nn*S

Default blank

* or, if you used ComfortWORKS to enter a custom setpoint table name, the up to 8-character custom name..

Status or Setpoint Point

Use this decision to specify the up to 8 character point name of the Comfort Controller status display or setpoint point to which you wish to assign BACnet access.

This decision is applicable to status display and setpoint points only. For occupancy points, leave this decision blank.

Allowable Entries up to 8 alphanumeric characters

Default blank

BACnet Object Type

Use this decision to specify the BACnet data classification of this Comfort Controller point.

Allowable Entries

0 = Unused
1 = AI (Analog Input)
2 = AO (Analog Output)
3 = AV (Analog Value)
4 = BI (Binary Input)
5 = BO (Binary Output)
6 = BV (Binary Value)
7 = TS (Time Schedule)

Default

0

Write Access

Use this decision to specify the BACnet read-write access that will be permitted for this Comfort Controller point.

Allowable Entries

Yes = BACnet write access permitted (BACnet is permitted both Read and Write Access)
No = Write access prohibited (BACnet is permitted Read Only Access)

Default

No

Default Selection

Use this decision to specify whether this point will appear in the list of 24 default points that the BAClink Module loads into the corresponding controller's Point Selection Configuration (PT_SELCT) Table following modification of any of the BNETCFG Table's Equipment Type decisions.

Allowable Entries

Yes/No

Default

No

Point Selection Service Configuration (PT_SELCT) Table

The BAClink Module's PT_SELCT Table is where you view and modify the 24 points to which BACnet will have access in each CCN controller.

When you select the PT_SELCT Table from the list of configuration tables, you will be presented with a list, DEVCE01 to DEVCE15. Each item in this list corresponds to a CCN controller that was specified using the BNETCFG Table's Device 1 to 15 Equipment Type, Bus Number, and Element Number decisions. Select the item from this list that corresponds to the CCN controller whose PT_SELCT Table you wish to view. If necessary, display the BNETCFG Table to determine which item to select (DEVCE01 to DEVCE15).

When you display a PT_SELCT Table following modification of any BNETCFG Table Equipment Type decision, the table's Status column will contain index numbers, which correspond to the 24 points that have been either factory (or, for Comfort Controller databases, user) configured as default points in this controller's associated equipment type database. To determine the actual CCN controller point that corresponds to each index number, display the PROFILES Maintenance Table.

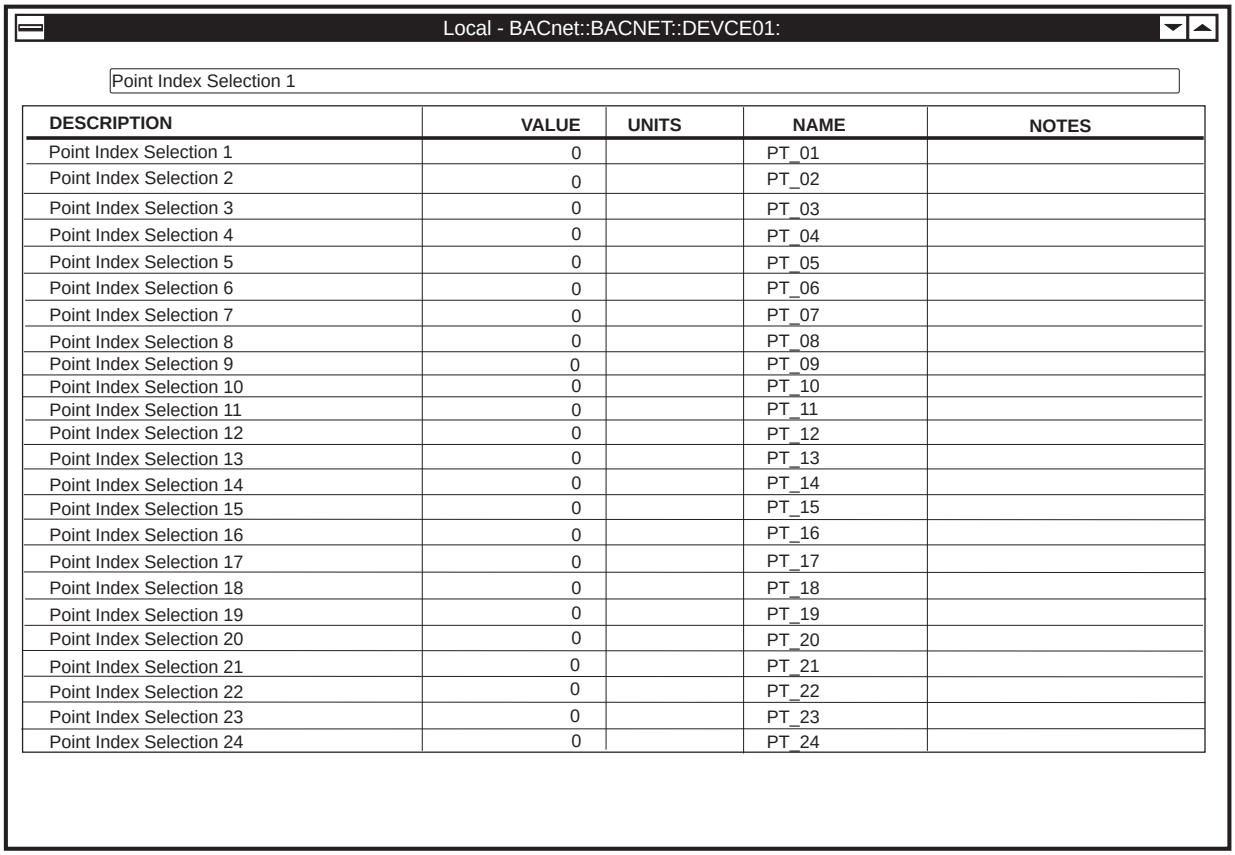
You can accept these default points, or enter the index number corresponding to another point in this controller to which you wish to assign BACnet access.

After you have configured the PT_SELCT Table, you must display the BNETCFG Table and set the Create BACnet Objects decision to *Yes* to create this BAClink Module's BACnet point database.

After database creation, the table and point name of each point that you select in the PT_SELCT Table will display in the OBJECTS Maintenance Table along with each point's BACnet object and state type and write access assignment.

Figure 6 shows the PT_SELCT Table. The figure is followed by descriptions of the table’s individual decisions.

Figure 6
Point Selection Service Configuration (PT_SELCT) Table



DESCRIPTION	VALUE	UNITS	NAME	NOTES
Point Index Selection 1	0		PT_01	
Point Index Selection 2	0		PT_02	
Point Index Selection 3	0		PT_03	
Point Index Selection 4	0		PT_04	
Point Index Selection 5	0		PT_05	
Point Index Selection 6	0		PT_06	
Point Index Selection 7	0		PT_07	
Point Index Selection 8	0		PT_08	
Point Index Selection 9	0		PT_09	
Point Index Selection 10	0		PT_10	
Point Index Selection 11	0		PT_11	
Point Index Selection 12	0		PT_12	
Point Index Selection 13	0		PT_13	
Point Index Selection 14	0		PT_14	
Point Index Selection 15	0		PT_15	
Point Index Selection 16	0		PT_16	
Point Index Selection 17	0		PT_17	
Point Index Selection 18	0		PT_18	
Point Index Selection 19	0		PT_19	
Point Index Selection 20	0		PT_20	
Point Index Selection 21	0		PT_21	
Point Index Selection 22	0		PT_22	
Point Index Selection 23	0		PT_23	
Point Index Selection 24	0		PT_24	

Point Index Selection 1 to 24

Use these decisions to specify the index numbers of the 24 controller points to which you wish to assign BACnet access. To determine which CCN controller points correspond to each index number, display the PROFILES Maintenance Table.

Allowable Entries 0 - 100

Default 0

Maintenance

Maintenance

The BAClink Module contains the following maintenance tables:

EQP01-10	Equipment Maintenance Table (Types 1-10)
EQP11-20	Equipment Maintenance Table (Types 11-20)
EQP21-25	Equipment Maintenance Table (Types 21-25)
OBJECTS	Objects Maintenance Table
PROFILES	Profiles Maintenance Table
STATCOD1	Status Codes 1 Maintenance Table
STATCOD2	Status Codes 2 Maintenance Table

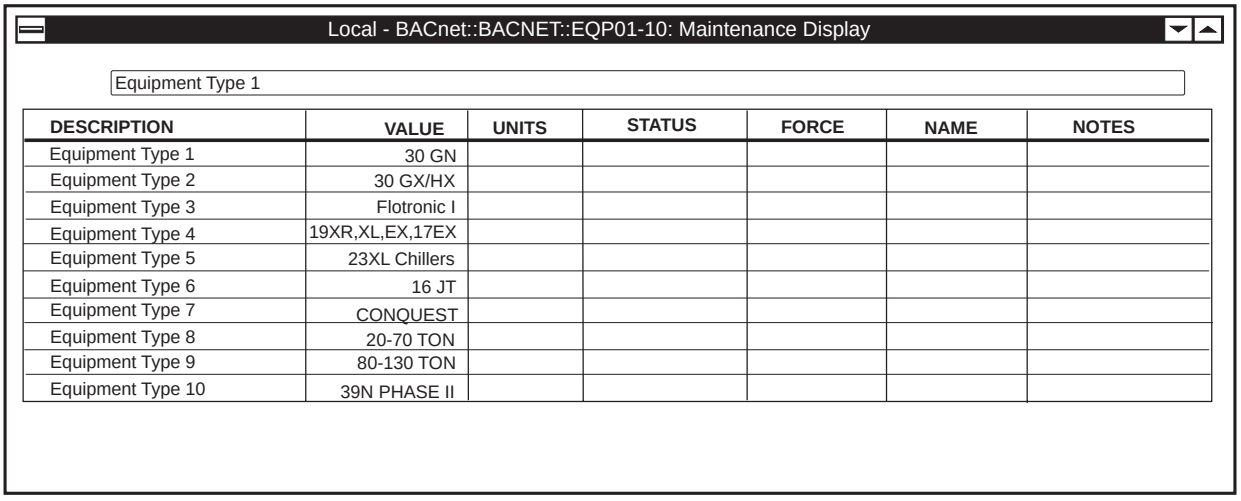
Equipment (EQP*nn-nn*) Maintenance Table

The EQP*nn-nn* Maintenance Tables display the equipment type number and description of the up to 25 CCN controller equipment types that are supported by the BAClink Module.

When you select an EQP*nn-nn* Table from the list of maintenance tables, you will be presented with a list of equipment types and descriptions.

Figure 7 illustrates the EQUIPMNT Maintenance Table.

Figure 7
Equipment (EQUIPMNT) Maintenance Table



DESCRIPTION	VALUE	UNITS	STATUS	FORCE	NAME	NOTES
Equipment Type 1	30 GN					
Equipment Type 2	30 GX/HX					
Equipment Type 3	Flotronic I					
Equipment Type 4	19XR,XL,EX,17EX					
Equipment Type 5	23XL Chillers					
Equipment Type 6	16 JT					
Equipment Type 7	CONQUEST					
Equipment Type 8	20-70 TON					
Equipment Type 9	80-130 TON					
Equipment Type 10	39N PHASE II					

Objects Maintenance (OBJECTS) Table

The OBJECTS Maintenance Table displays the 24 points that have been selected for BACnet access in each CCN controller. The points displayed in this table have been selected from the factory-configured database using the BID's PT_SELCT Configuration Table. When you select the OBJECTS Table from the list of maintenance tables, you will be presented with a list, DEVCE01 to DEVCE15. Each item in this list corresponds to a CCN controller that was specified using the BNETCFG Table's Device 1 to 15 Equipment Type, Bus Number, and Element Number decisions. Select the item from this list that corresponds to the CCN controller whose point list you wish to view.

The data that is displayed will include the table name, sub-table name (if applicable), and the point name of the first point selected for BACnet access in the selected controller.

To display the previous or next point, press the Page Up or Down (Building Supervisor) or << or >> keys (ComfortWORKS) .

Figure 8 below shows the OBJECTS Table. The figure is followed by descriptions of the table's individual decisions.

Figure 8
Objects Maintenance (OJBECTS) Table

Local - BACnet::BACNET::DEVCE01:

CCN Definition Tab. Name

DESCRIPTION	VALUE	UNITS	NAME	NOTES
CCN Definition Tab. Name	HWP01-32		TAB1NAME	
CCN Data Table Name			TAB2NAME	
CCN Point Name	LCW		PNT_NAME	

CCN Definition Table Name

This field displays the table name for the CCN point.

Note that certain CCN tables contain sub-tables. For example, the occupancy table OCCDEFCS contains the sub-table OCCPC01S. In cases like these, this field will display the main table name (OCCDEFCS) and the CCN Data Table field will display the sub-table name (OCCPC01S).

Valid Display 1 to 8 alphanumeric characters

CCN Data Table

Certain CCN tables contain sub-tables. For example, the occupancy table OCCDEFCS contains the sub-table OCCPC01S. In cases like these, this field will display the sub-table name (OCCPC01S) and the CCN Definition Table Name field will display the main table name (OCCDEFCS). If a table does not contain a sub-table, this field will appear blank.

Valid Display 1 to 8 alphanumeric characters

CCN Point Name

This field displays the CCN point name.

Valid Display 1 to 8 alphanumeric characters

Point Profiles (PROFILES) Maintenance Table

The PROFILES Maintenance Table displays the 100 points that exist in each of the BAClink Module's up to 25 equipment type databases. 21 of the BAClink Module's databases are factory-configured in the module and 4 (Comfort Controller equipment types) are user configured using the CC_PNTS Service Configuration Table.

You would typically use this table to determine the point index numbers that you must enter in the PT_SELCT Table to specify the 24 controller points to which BACnet will have access.

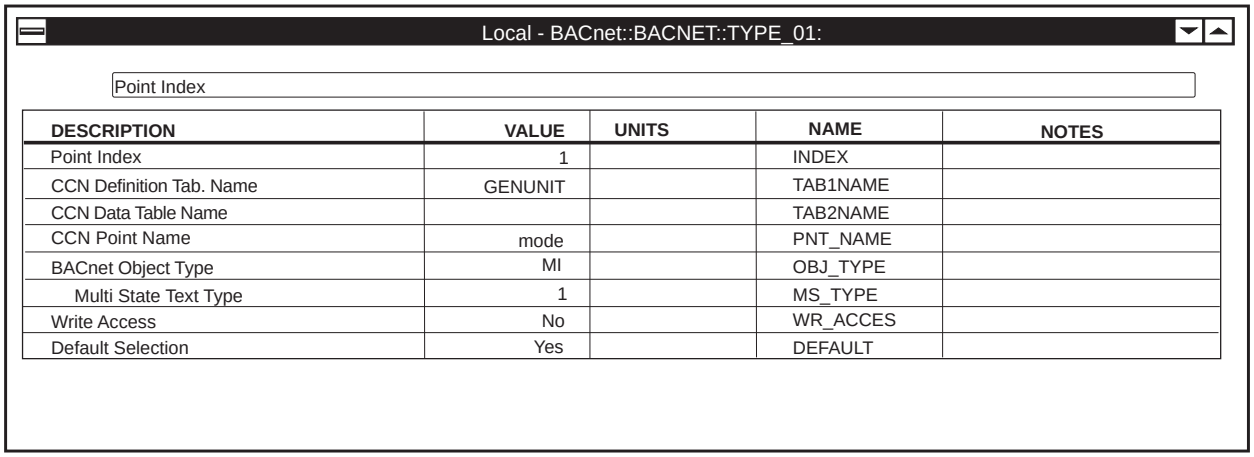
When you select the PROFILES Maintenance Table from the list of maintenance tables, you will be presented with the list of equipment types, TYPE_01 to TYPE_25. Select the equipment type database that you wish to view. To determine the name of the equipment type that corresponds to each list item, display the EQP*nn-nn* Maintenance Tables.

The data that is displayed will present the index number, table name, sub-table name (if applicable), object type, read/write accessibility, and default selection information about the first point in the selected database.

To display the previous or next point, press the Page Up or Down (Building Supervisor) or << or >> keys (ComfortWORKS).

Figure 9 illustrates the PROFILES Maintenance Table. An explanation of each maintenance value follows the illustration.

Figure 9
Point Profiles (PROFILES)
Maintenance Table



DESCRIPTION	VALUE	UNITS	NAME	NOTES
Point Index	1		INDEX	
CCN Definition Tab. Name	GENUNIT		TAB1NAME	
CCN Data Table Name			TAB2NAME	
CCN Point Name	mode		PNT_NAME	
BACnet Object Type	MI		OBJ_TYPE	
Multi State Text Type	1		MS_TYPE	
Write Access	No		WR_ACCES	
Default Selection	Yes		DEFAULT	

Point Index

This field displays this CCN point's index number. You use this number in the PT_SELCT Table to select this point .

Valid Display 1 to 100

CCN Definition Table Name

This field displays the table name for the CCN point associated with the displayed Point Index number.

Note that certain CCN tables contain sub-tables. For example, the occupancy table OCCDEFCS contains the sub-table OCCPC01S. In cases like these, this field will display the main table name (OCCDEFCS) and the CCN Data Table field will display the sub-table name (OCCPC01S).

Valid Display 1 to 8 alphanumeric characters

CCN Data Table Name

Certain CCN tables contain sub-tables. For example, the occupancy table OCCDEFCS contains the sub-table OCCPC01S. In cases like these, this field will display the sub-table name (OCCPC01S) and the CCN Definition Table Name field will display the main table name (OCCDEFCS). If a table does not contain a sub-table, this field will appear blank.

Valid Display 1 to 8 alphanumeric characters

CCN Point Name

This field displays the name of the CCN point associated with the displayed Point Index number.

Valid Display 1 to 8 alphanumeric characters

BACnet Object Type

This field displays the BACnet data classification of the CCN point.

Valid Display

AI = Analog Input
AO = Analog Output
AV = Analog Value
BI = Binary Input
BO = Binary Output
BV = Binary Value
MI = Multistate Input
MO = Multistate Output
TS = Schedule

Multi State Text Type

This field is only applicable to points that are Bacnet object type MI (Multistate Input) or MO (Multistate Output). The field displays a number from 0 to 20 that corresponds to the ASCII status display text that will be displayed for this point.

For example, if you are displaying information on the 30GN Chiller's STATUS01 Status Display Table's Chiller Control Mode (MODE) point, and this field is displaying the value *2*, the corresponding status display text strings that will be displayed for the point will be *Off*, *CCN*, *Local*, or *Reset*.

Valid Display 0 to 20

Write Access

This field displays the BACnet read-write access that will be permitted for this CCN point.

Valid Display

0 = Write Access Prohibited (BACnet is permitted Read Only Access)
1 = Write Access Permitted (BACnet is permitted both Read and Write Access)

Default Selection

This field indicates whether, when this equipment type database was factory (or, in the case of Comfort Controllers, user) configured, this point was designated to be one of the 24 default points. To expedite database configuration, 24 of each database's 100 CCN points are designated as default points. These default points are automatically downloaded and displayed in the BID's PT_SELCT Table whenever any of the BNETCFG Table's Equipment Type decisions are modified. You can accept these default points, or select other CCN points for BACnet access.

Valid Display

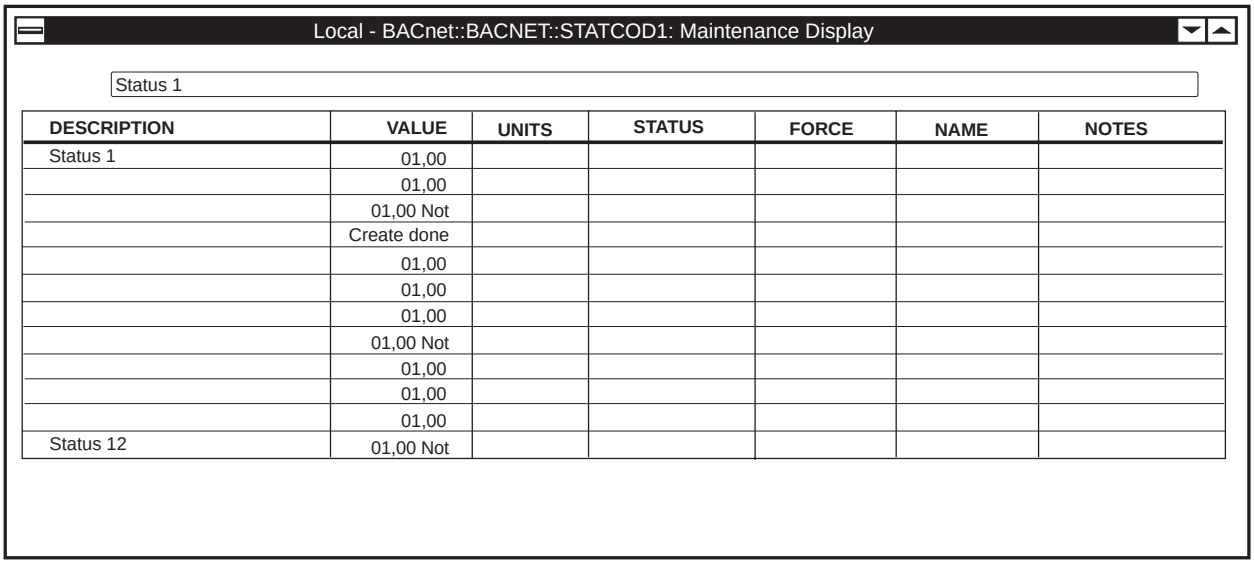
0 = No, this is not a default point
1 = Yes, this is a default point

Status Code 1(STATCOD1) Maintenance Table

The STATCOD1 Maintenance Table is designed as a diagnostic tool to help you determine the exact cause of any malfunctions within the BID as well as the current BAClink operation status.

Figure 10 illustrates the STATCOD1 Maintenance Table. An explanation of each maintenance value follows the illustration.

Figure 10
Status Code 1
(STATCOD1)
Maintenance Table



DESCRIPTION	VALUE	UNITS	STATUS	FORCE	NAME	NOTES
Status 1	01,00					
	01,00					
	01,00 Not					
	Create done					
	01,00					
	01,00					
	01,00					
	01,00 Not					
	01,00					
	01,00					
	01,00					
Status 12	01,00 Not					

Status 1 to Status 12

These fields display the last 12 BAClink errors detected, ranging from oldest (in Status 1) to newest (in Status 12). The error messages indicate configuration errors and other system malfunctions in the format shown in the Valid Display below. Refer to Table 1 for a description of each error message.

Valid Display

dd pp message text
where: *dd* = hexadecimal CCN device number
pp = hexadecimal point number
message text = up to 24 alphanumeric characters

Table 1 BAClink Error Messages

Message	Origin	Description
Create done	BID PC	Creation of BACnet objects complete.
Init done	BID PC	Initialization of BACnet objects complete.
Rebuild done	BID PC	Restoration of BACnet objects complete.
No calendar	BID PC	BACnet calendar object not supported.
dd pp Not found	BID PC	Requested BACnet object not present.
dd pp Not created	BID PC	BID could not create indicated object.
dd pp syn command	BID CIO	Command syntax error detected.
dd pp syn device no	BID CIO	Invalid device number detected.
dd pp syn point no	BID CIO	Invalid point number detected.
dd pp syn time value	BID CIO	Invalid time value detected.
dd pp syn date value	BID CIO	Invalid date value detected.
dd pp syn dow value	BID CIO	Invalid day of week value detected.
dd pp syn pid value	BID CIO	Invalid PID value detected.
dd pp syn time sched	BID CIO	Invalid time schedule reference detected.
dd pp syn calendar	BID CIO	Invalid calendar reference detected.
dd pp db dev not cfg	BID CIO	Indicated device not configured.
dd pp db pnt not cfg	BID CIO	Indicated point not configured.
dd pp db no variable	BID CIO	Point has no variable number.
dd pp db no data tab	BID CIO	Database is missing a CCN option data definition table.
dd pp db inv tab typ	BID CIO	Table specified is not supported (restricted).
dd pp db no alarms	BID CIO	Alarm buffer is empty.
dd pp db inv value	BID CIO	Pont does not contain numeric data.
dd pp db pnt not fnd	BID CIO	Specified point could not be located.
dd pp db inv tim sch	BID CIO	Time schedule contains invalid data.
dd pp limit exceeded	BID CIO	Write limit exceeded for indicated point.
dd pp not forceable	BID CIO	Point cannot be forced.
dd pp LII drvr ee ss	BID CIO	LII driver encountered error ee while attempting communication at state ss of the BACnet command processor.
dd pp CCN resp ee ss	BID CIO	CCN network request was NAC'ed while attempting communication at state ss of the BACnet command processor.

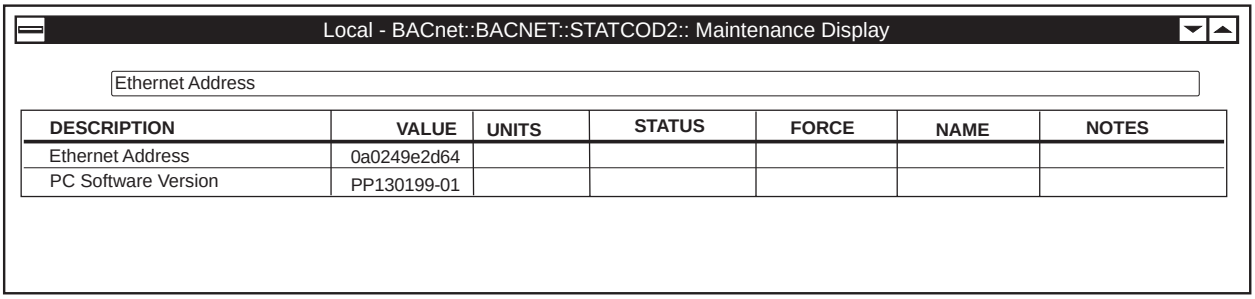
dd = device number (0 - 15) (0=BAClink)
pp = point number (0-24)
ee = driver or CCN error code in hex
ss = code state where error occurred

Status Code 2 (STATCOD2) Maintenance Table

The STATCOD2 Maintenance Table displays the Ethernet address that the BAClink Module is detecting. Knowledge of this address will help facilitate Ethernet troubleshooting activities.

Figure 11 illustrates the STATCOD2 Maintenance Table.

Figure 11
Status Code 2 (STATCOD2) Maintenance Table



Ethernet Address

This field displays the BAClink Module's Ethernet address in ASCII hexadecimal format.

Valid Display up to 12 alphanumeric characters.

PC Software Version

This field displays the version number of the factory loaded software that is in the BAClink PC.

Valid Display up to 16 alphanumeric characters.

Configuration Sheets

Carrier COMFORT NETWORK

Controller Name:_____ Bus #_____ Element #_____

Table Description:_____ Table Name: BROCASTS

BROADCAST (BRODEFS) CONFIGURATION SHEET			
Description	*Limits*	*Units*	*Value*
Activate	**Yes/No**		
OAT Broadcast			
Controller Name	**8 characters**	**Text**	
Bus Number	**0-256**	**Bus #**	
Element Number	**0-256**	**SE #**	
OARH Broadcast			
Controller Name	**8 characters**	**Text**	
Bus Number	**0-256**	**Bus #**	
Element Number	**0-256**	**SE #**	
Daylight Savings Start			
Month	**1-12**		
Day	**1-31**		
Time	**00:00-23:59**	**HH:MM**	
Minutes To Add	**1-1440**	**Minutes**	
Daylight Savings Stop			
Month	**1-12**		
Day	**1-31**		
Time	**00:00-23:59**	**HH:MM**	
Minutes To Subtract	**1-1440**	**Minutes**	

Controller Name:_____ Bus #_____ Element #_____

Table Description:_____ Table Name: HOLDY___S

HOLIDAY (HOLDEF) CONFIGURATION SHEET			
Description	*Limits*	*Units*	*Value*
Holiday Start Month	**1-12**		
Start Day	**1-31**		
Duration	**0-99**	**Days**	

Table Description:_____ Table Name: HOLDY___S

HOLIDAY (HOLDEF) CONFIGURATION SHEET			
Description	*Limits*	*Units*	*Value*
Holiday Start Month	**1-12**		
Start Day	**1-31**		
Duration	**0-99**	**Days**	

Table Description:_____ Table Name: HOLDY___S

HOLIDAY (HOLDEF) CONFIGURATION SHEET			
Description	*Limits*	*Units*	*Value*
Holiday Start Month	**1-12**		
Start Day	**1-31**		
Duration	**0-99**	**Days**	

Controller Name:_____ Bus #_____ Element #_____

Table Description:_____ Table Name: CC_PNTS

COMFORT CONTROLLER POINTS (CC_PNTS) SERVICE CONFIGURATION SHEET			
Description	*Limits*	*Units*	*Value*
Status/Setpoint/Time Sch	8 characters	Text	
Status or Setpoint Point	8 characters	Text	
BACnet Object Type	0-7		
Write Access	Yes/No		
Default Selection	Yes/No		

Controller Name:_____ Bus #_____ Element #_____

Table Description:_____ Table Name: PT_SELCT

POINT SELECTION (PT_SELCT) CONFIGURATION SHEET			
Description	*Limits*	*Units*	*Value*
Point Index Selection 1	0-100		
Point Index Selection 2	0-100		
Point Index Selection 3	0-100		
Point Index Selection 4	0-100		
Point Index Selection 5	0-100		
Point Index Selection 6	0-100		
Point Index Selection 7	0-100		
Point Index Selection 8	0-100		
Point Index Selection 9	0-100		
Point Index Selection 10	0-100		
Point Index Selection 11	0-100		
Point Index Selection 12	0-100		
Point Index Selection 13	0-100		
Point Index Selection 14	0-100		
Point Index Selection 15	0-100		
Point Index Selection 16	0-100		
Point Index Selection 17	0-100		
Point Index Selection 18	0-100		
Point Index Selection 19	0-100		
Point Index Selection 20	0-100		
Point Index Selection 21	0-100		
Point Index Selection 22	0-100		
Point Index Selection 23	0-100		
Point Index Selection 24	0-100		

Controller Name:_____ Bus #_____ Element #_____

Table Description:_____ Table Name: BNETCFG

BACLINK CONFIGURATION (BNETCFG) SHEET			
Description	*Limits*	*Units*	*Value*
BACnet Engineering Units	US/Metric		
Create BACnet Objects	Yes/No		
Restore BACnet Objects	Yes/No		
BACnet Network Number	0-65535		
CCN Network Number	0-65535		
Base Device ID	0-4194289		
Alarm Acknowledger	Yes/No		
Alarm Routing	0-1		
Device 1 Equipment Type	0-25	Type #	
Device 1 Bus Number	0-239	Bus #	
Device 1 Element Number	0-239	SE #	
Device 2 Equipment Type	0-25	Type #	
Device 2 Bus Number	0-239	Bus #	
Device 2 Element Nunber	0-239	SE #	
Device 3 Equipment Type	0-25	Type #	
Device 3 Bus Number	0-239	Bus #	
Device 3 Element Number	0-239	SE #	
Device 4 Equipment Type	0-25	Type #	
Device 4 Bus Number	0-239	Bus #	
Device 4 Element Number	0-239	SE #	
Device 5 Equipment Type	0-25	Type #	
Device 5 Bus Number	0-239	Bus #	
Device 5 Element Number	0-239	SE #	
Device 6 Equipment Type	0-25	Type #	
Device 6 Bus Number	0-239	Bus #	
Device 6 Element Number	0-239	SE #	
Device 7 Equipment Type	0-25	Type #	
Device 7 Bus Number	0-239	Bus #	
Device 7 Element Number	0-239	SE #	

Controller Name:_____ Bus #_____ Element #_____

Table Description:_____ Table Name: BNETCFG

BACLINK CONFIGURATION (BNETCFG) SHEET			
Description	*Limits*	*Units*	*Value*
Device 8 Equipment Type	0-25	Type #	
Device 8 Bus Number	0-239	Bus #	
Device 8 Element Number	0-239	SE #	
Device 9 Equipment Type	0-25	Type #	
Device 9 Bus Number	0-239	Bus #	
Device 9 Element Number	0-239	SE #	
Device 10 Equipment Type	0-25	Type #	
Device 10 Bus Number	0-239	Bus #	
Device 10 Element Number	0-239	SE #	
Device 11 Equipment Type	0-25	Type #	
Device 11 Bus Number	0-239	Bus #	
Device 11 Element Number	0-239	SE #	
Device 12 Equipment Type	0-25	Type #	
Device 12 Bus Number	0-239	Bus #	
Device 12 Element Number	0-239	SE #	
Device 13 Equipment Number	0-25	Type #	
Device 13 Bus Number	0-239	Bus #	
Device 13 Element Number	0-239	SE #	
Device 14 Equipment Type	0-25	Type #	
Device 14 Bus Number	0-239	Bus #	
Device 14 Element Number	0-239	SE #	
Device 15 Equipment Type	0-25	Type #	
Device 15 Bus Number	0-239	Bus #	
Device 15 Element Number	0-239	SE #	

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Reader's Comments

Your comments regarding this manual will help us improve future editions. Please comment on the usefulness and readability of this manual, suggest additions and deletions, and list specific errors and omissions.

Document Name: _____ **Publication Date:** _____

Usefulness and Readability:

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