

# P-AIMS

Air Conditioning Intelligent  
Management System

Système intelligent de gestion de  
la climatisation

Klimaanlagen Intelligentes  
Verteilungssystem

Sistema di gestione intelligente  
per impianti di condizionamento

Sistema de Gestão Inteligente de  
Ar Condicionado

Sistema de gestión inteligente  
del aire acondicionado

**Operation Manual**

**Manuel d'instructions**

**Betriebsanleitung**

**Manuale d'uso**

**Manual de Operação**

**Manual de funcionamiento**

# CZ-CSWBC2

BACnet™ Software

Logiciel de BACnet™

BACnet™ -Software

Software di BACnet™

Software de BACnet™

Software de BACnet™

- After reading it, store it, in a convenient location for easy reference.
- Après l'avoir lu, rangez-le en lieu sûr afin de pouvoir vous y reporter facilement.
- Bewahren Sie sie danach an einem Ort auf, an dem Sie schnell auf sie zugreifen können.
- Dopo la lettura, conservarlo in una posizione comoda per farvi riferimento facilmente.
- Depois de o ler, guarde-o num local conveniente para fácil consulta.
- Tras leerlo, almacénelo en un lugar accesible para facilitar su consulta.

EN

FR

DE

IT

PT

ES

## Air Conditioning

## Intelligent Management System

# CZ-CSWBC2

## BACnet™ Software

# P-AIMS

Thank you for purchasing our monitoring and control system.

Before using the system, be sure to read this manual carefully. After reading it, store it in a convenient location for easy reference.

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## ■ Precautions on Using This Product

### ★ IMPORTANT ★

- Before you can use the BACnet Software for the P-AIMS system, you need to first perform a work procedure called "license certification".  
Please perform the license certification referring to "6.License certification".
- Duplication of all or part of this software and documentation without the express consent of the holder of the rights to the above, and transfer of the software to another party, are prohibited by law.
- In principle, each set of this software is purchased for use on a single computer.
- Panasonic bears no responsibility whatsoever for any damage or loss to the user or any third party that may arise from the use of this software or documentation. Furthermore, Panasonic bears no responsibility whatsoever for any hindrance to BACnet communication caused by faults in this software etc.
- The specifications of this software and contents of this manual are subject to change without notice.
- The content of this manual is limited to the explanation of how to use this software. It does not cover usage methods for the operating computer or optional features, or for the OS etc., so refer also to the relevant manuals for those elements.
- Displays and operations may differ from the examples in this manual depending of the OS version used.
- Refer to "Please Read Before Use" for the warranty terms for this software.
- Panasonic will not be liable for any violation of the rights of any third party stemming from use of information in this manual, or for violation of other rights.
- Microsoft, Windows XP and Microsoft Excel are trademarks of Microsoft Corporation in the United States and other countries.
- BACnet is a trademark of the American Society of Heating, Refrigerating and Air-Conditioning Engineers.  
Other product names are trademarks or registered trademarks of the corresponding companies.  
Other products are copyrights of the corresponding companies.

# 1. Introduction

BACnet™ Software is a communication control software for air conditioning units connected via the BACnet/IP, which is designed to provide a building automation service with increased added value for Air Conditioning Intelligent Management System (referred to below as the P-AIMS system). This software uses the international standard building automation communication protocol BACnet (ISO 16484-5) for communication between building equipments.

This instruction manual describes the operation and setting methods as well as the specifications of BACnet/IP. However, this manual does not contain details on other basic communication functions that are shared with the “Basic Software Instruction Manual”. Therefore, please also refer to the CZ-CSWKC2 “Basic Software Instruction Manual” and the instruction manuals for other optional software as well as this manual.

## 2. Startup and exit

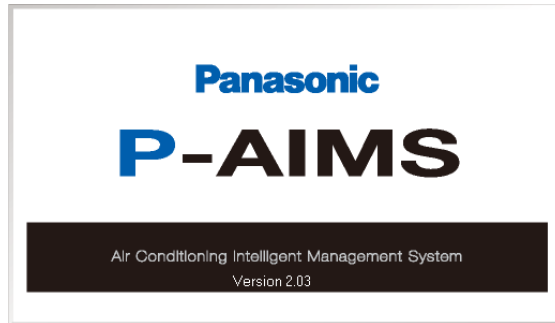
### 2-1. Startup

---

1. Double click on the P-AIMS shortcut on the desktop.



The following window appears:

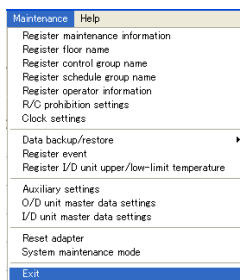


The system starts up and the Status/Operation screen is displayed.

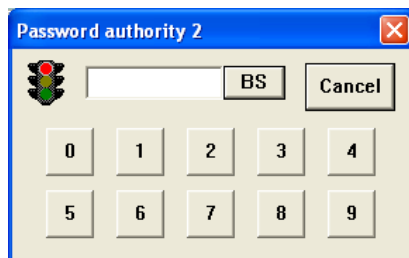
### 2-2. Exit

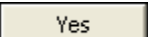
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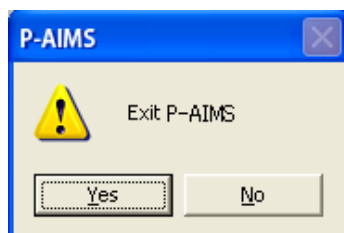
1. From the Menu bar, select "Maintenance" - "Exit".



2. The Password Input screen is displayed. Input the password.



3. The System Exit screen is displayed. Click on the  button.



# 3. Quick Reference

## Menu List

Main menu		Sub menu
1. Layout	1. Layout	Layout (options)
2. List display	2. List display	Status/Operation Filter sign & I/D unit information O/D unit information Operation/Status change log Alarm list & alarm log
3. Schedule	3. Schedule	Schedule/results Mode settings (Calendar) Schedule operation time settings Update schedule
4. Print	4. Print	Print screen EXCEL output Auto EXCEL output setting Print list List Print preview
5. Distribution ratio	5. Distribution ratio	Distribution ratio (optional)
6. Demand	6. Demand	Demand (optional)
7. BACnet	7. BACnet	BACnet basic settings BACnet indoor unit number settings BACnet setting CSV output Create exception schedule T/S ON operation time I/D unit settings (capacity) BACnet maintenance settings
8. Facility Control	8. Facility Control	Facility Control (optional)
9. Web	9. Web	Web (optional)
10. Maintenance	10. Maintenance	Register maintenance information Register floor name Register control group name Register schedule group name Register operator information R/C prohibition settings Clock settings Data backup/restore •Data backup •Restore data •Cancel data restore •Auto backup settings Register event Register I/D unit high/low-limit temperature Auxiliary settings O/D unit master data settings I/D unit master data settings Reset adapter System maintenance mode Exit

p5

p6

\* indicates the security code protection screen.

# 4. Using the system

## 4-1. BACnet

### 4-1-1. Operation time with thermostat on

[Procedure]

On the menu bar, select "BACnet" – "T/S ON operating time".

The BACnet number, I/D unit capacity, high, mid., low, and weighting factor total are displayed.

No.	Address	Name	BACnet number	I/D cap.	High	Mid.	Low	Weighting factor total
1	01020101	Line1 Adapter2 I/D unit1	1	22	3912.11	62.26	36.10	8823.43
2	01020102	Line1 Adapter2 I/D unit2	2	22	2967.59	141.00	130.16	7126.21
3	01020103	Line1 Adapter2 I/D unit3	3	22	2542.20	146.22	35.30	5993.14
4	01020104	Line1 Adapter2 I/D unit4	4	22	575.30	82.01	136.48	1747.29
5	01020105	Line1 Adapter2 I/D unit5	5	22	4334.33	126.15	24.18	9867.13
6	01020106	Line1 Adapter2 I/D unit6	6	22	2250.00	49.36	94.39	5267.21
7	01020107	Line1 Adapter2 I/D unit7	7	22	1127.23	62.01	20.02	2660.45
8	01020108	Line1 Adapter2 I/D unit8	8	22	571.26	60.45	105.25	1622.43
9	01020109	Line1 Adapter2 I/D unit9	9	22	4339.09	38.12	19.35	9673.15
10	01020110	Line1 Adapter2 I/D unit10	10	22	2221.57	61.19	105.25	5255.06
11	01020111	Line1 Adapter2 I/D unit11	11	22	1124.53	61.59	19.35	2654.11
12	01020112	Line1 Adapter2 I/D unit12	12	22	565.10	88.48	105.23	1670.34
13	01020113	Line1 Adapter2 I/D unit13	13	22	4388.18	38.12	19.35	9737.23
14	01020114	Line1 Adapter2 I/D unit14	14	22	2211.47	52.18	105.22	5212.47
15	01020115	Line1 Adapter2 I/D unit15	15	22	1118.56	61.59	19.35	2636.42
16	01020116	Line1 Adapter2 I/D unit16	16	22	561.11	52.18	105.22	1581.28

- BACnet number :Number assigned to the indoor unit by BACnet communication with the central monitor.
- I/D cap. :Displays the capacity of the indoor unit. (Weighted value)
- High, Mid., Low :Operating time of each mode.
- Weighting factor total :Total weighted operating time; this value is output on BACnet.
- Fan weigh.fact. :Displays the weighted valued for each fan speed.

\* To return to the Status/Operation screen, select List Display - Status/Operation from the menu.

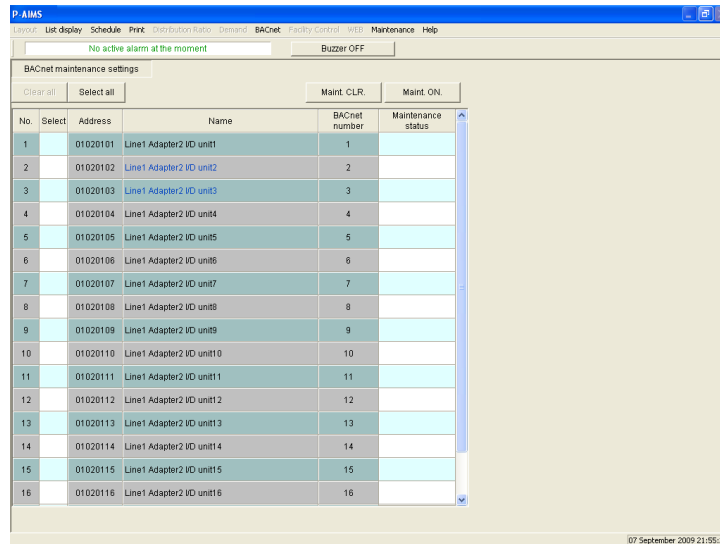


## 4-1-2. BACnet Maintenance Settings

[Procedure]

From the menu bar, select "BACnet" – "BACnet maintenance settings".

These maintenance settings are used to temporarily stop monitoring an indoor unit with a BACnet indoor unit number during construction work or if a fault has occurred with the unit. Cancelling maintenance can also be performed from this screen.



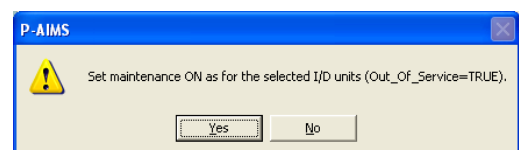
- BACnet number :Number assigned to the indoor unit from BACnet communication with the central monitor.
- Maintenance status :Displays the maintenance setting status.

### 4-1-2-1. Setting Method

1. Click the I/D unit to be set to add a check to the selection column.

No.	Select
1	<input checked="" type="checkbox"/>

2. When **Maint. ON.** is clicked, the "Set maintenance ON as for the selected I/D units (Out\_Of\_Service=TRUE)" message is displayed.



- :Settings are performed.
- :Settings are not performed.

3. When the settings are performed, "Executing maintenance..." is displayed in the maintenance status column.

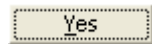
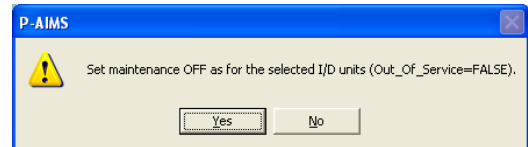
Maintenance status
Executing maintenance...

#### 4-1-2-2. Cancellation Method

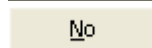
1. Click the indoor unit to be cancelled to add a check mark to the selection column.

No.	Select
1	<input checked="" type="checkbox"/>

2. When  is clicked, the "Set maintenance OFF as for the selected I/D units (Out\_Of\_Service=FALSE)" message is displayed.



:Settings are performed.



:Settings are not performed.

# 5. Supplementary Information

- This system is installed on the computer that is running the CZ-CSWKC2 basic software. Please refer to this along with the Supplementary Information section of the CZ-CSWKC2 basic software instruction manual.
  
- Selecting Objects (Control Items)  
If the maximum 256 air conditioning units are connected and the number of object specifications is increased, the processing speed decreases because the number of objects to be controlled increases. If faster processing speeds are required, it is necessary to increase the number of BACnet computers to reduce the number of air conditioning units connected to each.
  
- Restarting P-AIMS  
When shutting down and restarting the P-AIMS system, wait for more than 10 seconds after shutdown before restarting the system. When BACnet is operating, the programs that are performing various operations require time to shut down, and may not restart if the system is restarted too soon.
  
- BACnet Standby Time  
Approximately 10 seconds ~ 5 minutes time is required for BACnet connection to start after P-AIMS is started (differs depending on the number of air conditioners connected). We do not recommend restarting unless absolutely necessary.
  
- Instance Number  
The instance number is assigned to each item (function) that is controlled on each air conditioning unit. The number decided by the central monitor manufacturer cannot be changed without permission from the central monitor manufacturer. Changing this number may cause malfunctions such as communication errors.
  
- Vendor ID  
ID of the BACnet device vendor. Each vendor obtains a different vendor ID. The vendor ID for Sanyo Electric CO., Ltd. is 146.
  
- BACnet™  
BACnet™ is the abbreviation for the Building Automation and Control networking protocol, and is the protocol for the building automation system proposed by ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers). Furthermore, for details on the BACnet/IP specifications stipulated by ASHRAE, refer to the specifications published by ASHRAE, or the BAS standard interface specifications (IEIE/P-003 2000) and addendum (IEIEJp-A) published by the Institute of Electrical Installation Engineers of Japan.

## References

1. ANSI/ASHRAE 135-1995 BACnet:A Data Communication Protocol for Building Automation and Control Networks, 1995
2. ANSI/ASHRAE Standard 135-2001 BACnet:A Data Communication Protocol for Building Automation and Control Networks, 2001
3. Institute of Electrical Installation Engineers of Japan BAS Standard Interface Specifications (IEIEJ-P-0003:2000), 2000
4. Institute of Electrical Installation Engineers of Japan BAS Standard Interface Specifications(IEIEJ-P-0003:2000-a), 2002

## 6. License Certification

Before using the BACnet Software in the P-AIMS system, you need to first perform a work procedure called "License Certification".

To perform license certification, make an inquiry by sending the inquiry key to the inquiry e-mail address below. You will be registered as a user and issued a release key, and then receive a reply.

### <Contact Information>

Product ID Issuance Desk,

E-mail address: [cmc\\_productid\\_desk@gg.jp.panasonic.com](mailto:cmc_productid_desk@gg.jp.panasonic.com)

When you make an inquiry, send the following information together with the inquiry in order to be registered as a user and issued a release key.

- (1) Product name
- (2) Company name/contact person
- (3) Phone number
- (4) E-mail address
- (5) Inquiry key

- \* If you do not input a release key, you will no longer be able to use the system after 30 days elapses. Obtain a release key and perform license certification as soon as possible.
- \* Make an inquiry as soon as possible because it may sometimes take several days to be issued a release key.

### License Certification Procedure

The procedure from after the P-AIMS system is installed up until the end of license certification is described below.

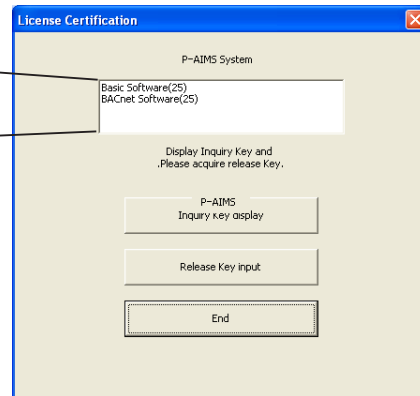
- (1) Check the inquiry key from the License Certification screen.
- (2) Send the inquiry key to the Product ID Issuance Desk ([cmc\\_productid\\_desk@gg.jp.panasonic.com](mailto:cmc_productid_desk@gg.jp.panasonic.com)).  
Also notify us of the product name, company name/contact person, phone number, and e-mail address.
- (3) A release key is issued.  
You are registered as a user and a release key is issued. A reply is sent to the registered mail address.
- (4) Input the release key from the License Certification screen.
- (5) The license certification procedure is finished.

## Performing License Certification

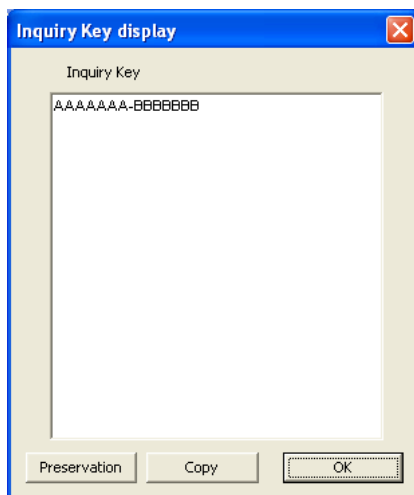
1. A License Certification screen such as the following appears when you start a P-AIMS systems for which license certification is not finished.

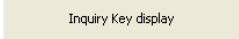
Basic Software(25)  
BACnet Software(25)

“Basic Software (25)” means that the number of remaining days that you can use the Basic Software is “25.” It is not displayed after you finish license certification.



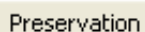
\* After you start a P-AIMS system for which license certification is not finished, the License Certification screen will appear at 9:00 a.m. and 3:00 p.m. This screen is not displayed after you finish license certification. If you install optional software, the License Certification screen will appear until license certification is finished for all of the software.



2. If you click the  button in the License Certification screen, the Inquiry Key display screen appears, and the inquiry key is displayed in the screen. Send the key displayed in this screen to the Product ID Issuance Desk ([cmc\\_productid\\_desk@gg.jp.panasonic.com](mailto:cmc_productid_desk@gg.jp.panasonic.com)) by e-mail. At the same time, also notify us of the following items.

- (1) Product name (required)
- (2) Company name/contact person
- (3) Phone number
- (4) E-mail address (required)

You will be registered as a user and issued a release key.

 Preservation

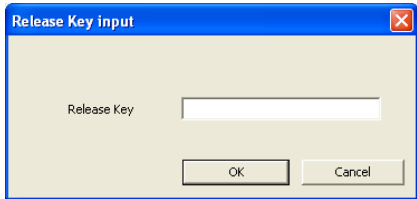
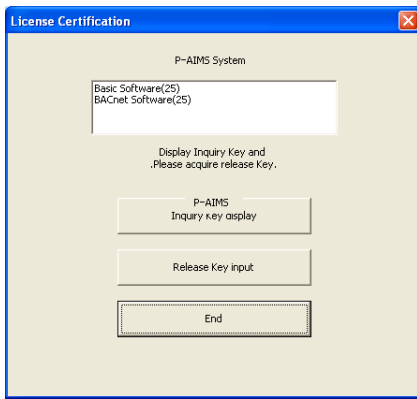
:Clicking this button saves the inquiry key as a text file. Follow the instructions on the screen to save the text file. Enter the product name, company name/contact person, phone number, and e-mail address in this saved text file, and send the text file to the Product ID Issuance Desk by e-mail.

 Copy


:Clicking this button copies the inquiry key to the Windows clipboard. Paste the inquiry key into your mail.

 OK

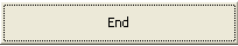
:Clicking this button closes the Inquiry Key display screen.

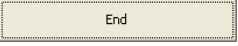


3. When you receive the release key, restart the P-AIMS system. See "2. Startup and shutdown" for how to restart the P-AIMS system, and then restart the system.

If license certification is not finished for the P-AIMS system, the License Certification screen on the right appears before the P-AIMS system restarts. Click the  button to display the Release Key input screen, and enter the release key.

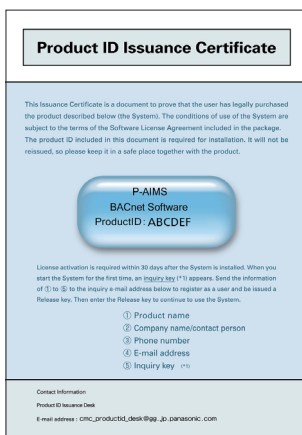
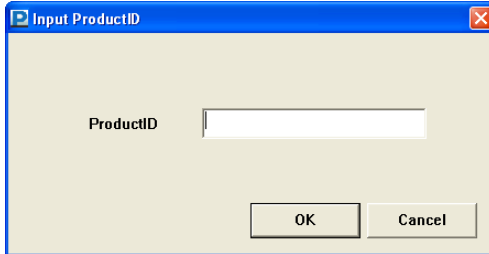
\* If you install multiple P-AIMS system software, the same number of license certifications is required. In such a case, the number of release keys sent will be the same as the number of inquiry keys.  
Enter all of the received release keys sequentially, and perform license certification. (There is no set order for entering release keys, so they can be entered in any order.)

License certification is finished once all of the release keys have been entered. Click the  button. The License Certification screen closes, and the P-AIMS system starts.

\* The P-AIMS system will start even if you click the  button without entering the release key. You can use the system as is until license certification is finished. (The system can be used for a period of 30 days.)

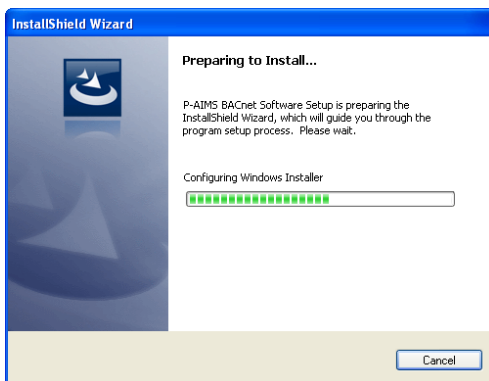
# 7. Preparation

## 7-1. Installation



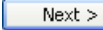
1. First, stop the P-AIMS system. Insert the BACnet Software CZ-CSWBC2 CD for your total air conditioning system (P-AIMS system) into the CD-ROM drive. The program on the CD-ROM starts automatically and makes preparations for installation. If installation does not start, double-click "Setup.exe" of the CD-ROM drive to start it. Enter the Product ID in the Input Product ID screen that appears. For the Product ID, see the "Product ID Issuance Certificate" supplied with the software.

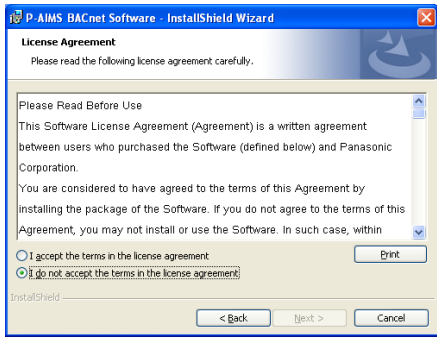
\* Keep the "Product ID Issuance Certificate" in a safe place. The Product ID is required to install the air-conditioning integrated system. The "Product ID Issuance Certificate" will not be reissued.

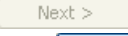
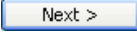


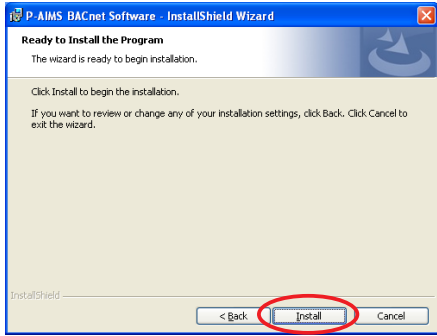
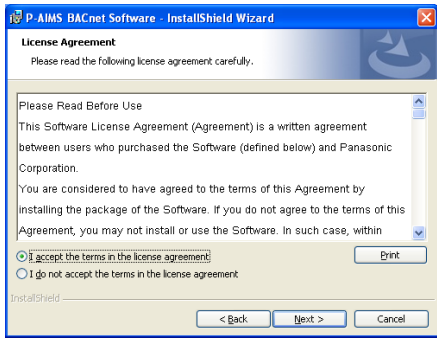
2. The InstallShield(R) Wizard prepares to install the P-AIMS system.




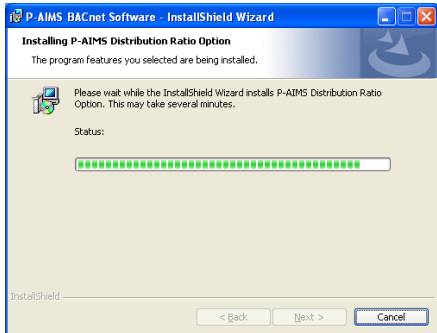
3. After a short while, the "The InstallShield(R) Wizard will install P-AIMS BACnet Software on your computer. To continue, click Next." message appears. Click the  button.



4. Next, the License Agreement screen appears. Carefully read the license agreement, and click “I accept the terms in the license agreement” if you agree to the terms of the license agreement. The  button becomes active. Click the  button. (The software cannot be installed if you do not agree to the terms of the license agreement.)

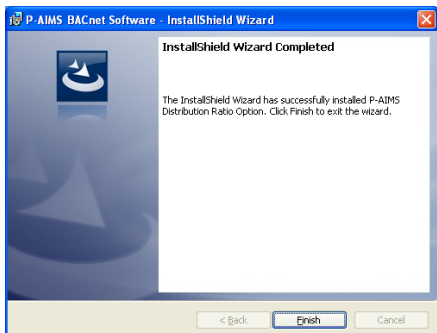


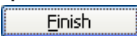
5. The “The wizard is ready to begin installation. Click Install to begin the installation.” message appears. Click the  button.



The installation of the P-AIMS system begins.

Please wait a while.



6. When the P-AIMS system setup is finished, the installation complete screen appears. Click the  button to complete the installation.

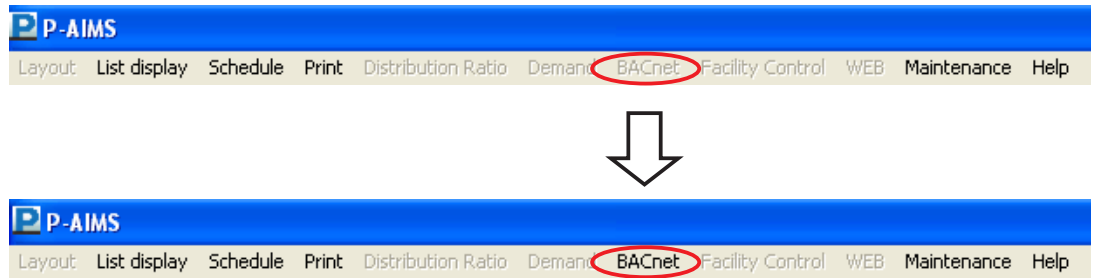
\* When installing the BACnet Software, it is possible to install this system without stopping the P-AIMS system. However, the BACnet Software functions are not added. In this case, restart the P-AIMS system.



## 7-2. Display at restart

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After restart, the BACnet functions become active and “BACnet” can be selected in the menu.



## 7-3 Settings

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After installation is completed, registration and settings such as “BACnet basic settings” and “BACnet indoor unit number settings” are required.

Entrust the registration of “BACnet basic settings” and “BACnet indoor unit number settings” to the place of purchase or a service company.

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## User memo space

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If you fill this out at the time of purchase, it is convenient when ordering repairs etc.

Serial No.	
Date of installation	
Dealer	Telephone No. ( )

