

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-CSWAC2

Distribution Ratio Software

Logiciel de rapport de distribution

Abrechnungsverhältnis-Software

Software rapporto di distribuzione

Software da razão de distribuição

Software de relación de distribución

- 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-CSWAC2

Distribution Ratio 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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Operation Manual

Air Conditioning
Intelligent Management System

CZ-CSWAC2

Distribution Ratio Software

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Note

■ Precautions on Using This Product

★ IMPORTANT ★

- Before you can use 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.
- This software and manual are not to be reproduced, in whole or in part, without permission.
- In principle, each set of this software is purchased for use on a single computer.
- Please note that we bear no responsibility for any effects resulting from the use of this software and manual.
Panasonic will not be liable for any claim based on errors in calculations of distribution ratios and utility usage caused by faults in this equipment or software.
- The specifications of this software, and the content of this manual, are subject to change without notice, for the sake of improvement.
- This software is used to calculate distribution ratios and charges according to the load ratios estimated for each indoor unit.
It is not based on the Measurement Act, so it cannot be used for public transactions and similar purposes.
- The content of this manual is limited to explanation of how to use this software.
It does not cover the usage methods for the operated machinery and optional features, or for the OS etc., so refer also to the relevant manuals for those elements.
- The screen image examples presented in this manual are intended to illustrate the explanation of layouts, and do not represent actual operating conditions. The tenant names displayed are also fictional.
- Displays and operations may differ from the examples in this manual, depending on versions of Excel and the OS 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.
Other product names are trademarks or registered trademarks of the corresponding companies.
Other products are copyrights of the corresponding companies.

1. Introduction

This distribution ratio software (referred to below as "the system") is intended to calculate distribution ratios, total values and charges in Air Conditioning Intelligent Management System (referred to below as the P-AIMS system).

This system is installed on the personal computer which runs the P-AIMS System (basic software).

It gathers data for each distribution group and tenant name, and calculates distribution ratios.

Data can be output as CSV files, which are readable by Microsoft Excel. Automatic output timing can be coordinated with the monthly cut-off day, but output is possible at any time.

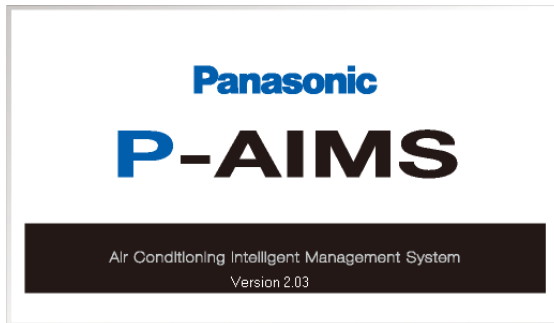
2. Startup and exit

2-1. Startup

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

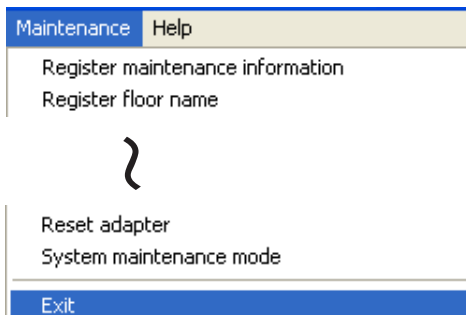


The window below appears. The system starts up and the Status/Operation screen is displayed.

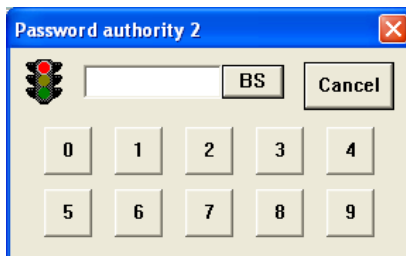


2-2. Exit

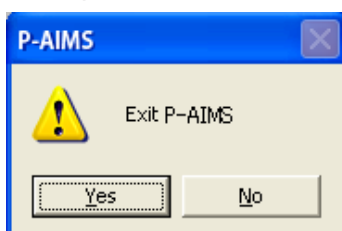
1. From the Menu bar, select "Maintenance" - "Exit".



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

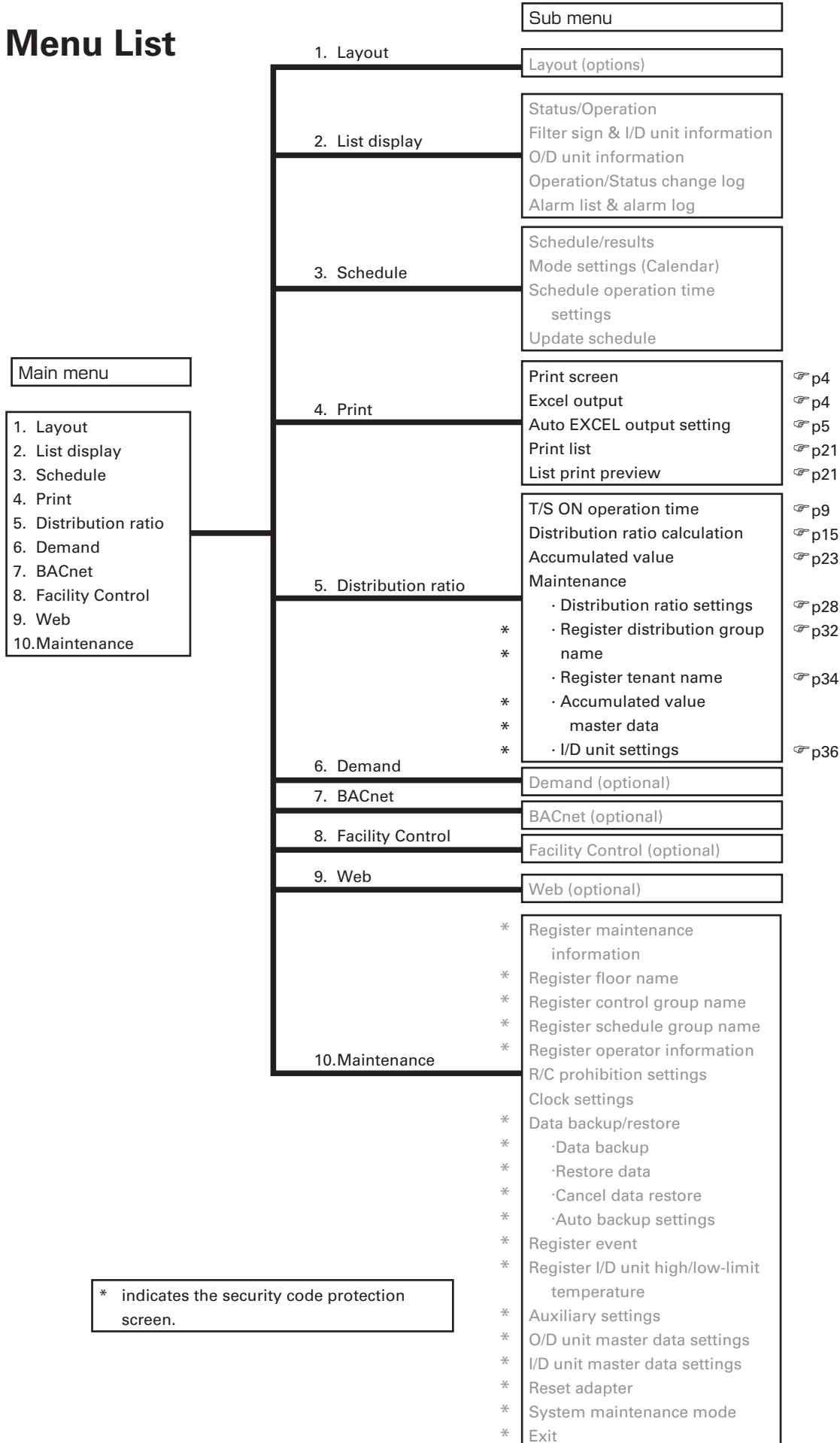


3. The System Exit screen is displayed. Click on the button.



3. Quick reference

Menu List



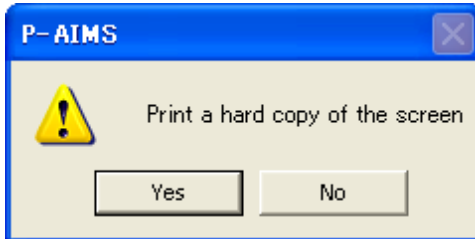
4. Using the system

4-1. Print

4-1-1. Print screen

[Procedure]

On the menu bar, select "Print" - "Print screen".



Print the currently-displayed screen.

This menu cannot be selected on screens that cannot be printed.

Click on the button to print the screen.

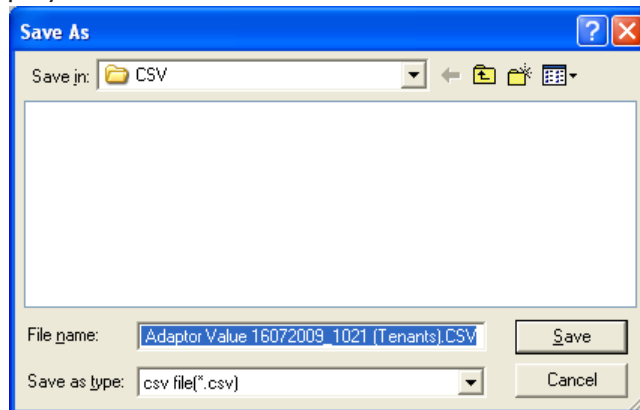
Click on the button to exit without printing.

4-1-2. Excel output

[Procedure]

On the menu bar, select "Print" - "Excel output".

Currently displayed data can be saved as a file in CSV format, which can be displayed by Microsoft Excel and similar applications. The data currently displayed on the screen becomes the file, so make sure the data to place in the file is displayed on the screen.



The file name is assigned automatically.

TS ON Adaptor Value 16072009_1021(Tenants).CSV
Name DDMMYYYY hhmm

* This file is for T/S ON Adaptor Value.

Click on the button to save the file to the folder specified under "Save in".

Click on the button to exit without saving.

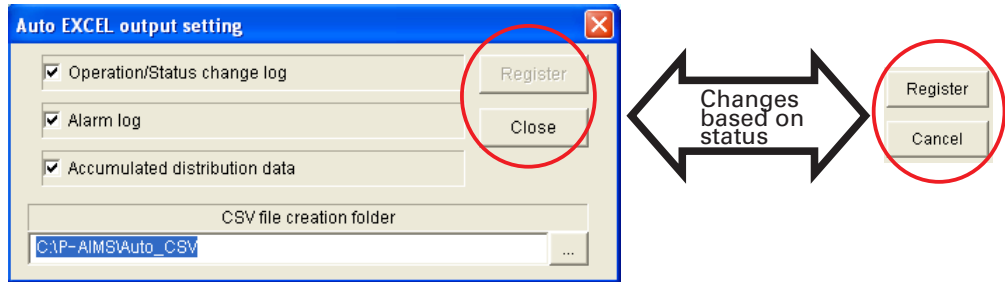
* Unless a different save folder has been specified, the saved file is saved to the folder Auto_CSV in the folder to which the P-AIMS system was installed (e.g. C:\P-AIMS).

4-1-3. Setting for automatic Excel output

[Procedure]

On the menu bar, select "Print" - "Auto EXCEL output setting".
(Password level 1)

"Operation/Status change log" and "Alarm log" can be saved automatically, every day, in CSV format, which can be displayed in Microsoft Excel. Data is saved after midnight, so the data up to the previous day can be checked.



- Operation/Status change log :Specify the file to save the Operation/Status change log to.
- Alarm log :Specify how to save the alarm log files.
- Accumulated distribution data :Specify how to save files related to distribution ratios.
- Register :Registers the set content.
- Cancel :Reverts to the previously registered content.
- Close :Closes the window.
- ... :Changes the backup creation folder.

4-1-3-1. Settings for saving the operation/status log

To automatically save the "Operation/status change log" file, click on Operation/Status change log, and add the check mark. Saving is enabled with the check mark added.

Click again to remove the check mark.

The file name is assigned automatically. (Files are saved for each date).

Operation status change log 15072009 1.CSV

Name DDMMYYYY Serial number

(* The serial number increments to 2 when there are over 60,000 items for the first file. Up to 400,000 items can be saved per day).

4-1-3-2. Settings for saving the alarm log

To automatically save the "Alarm log" file, click on Alarm log, and add the check mark. Saving is enabled with the check mark added. Click again to remove the check mark.

The file name is assigned automatically. (Files are saved in one-month units).

Alarmlog 072009.CSV

Name MMYYYY

4-1-3-3. Settings for saving distribution ratio data

To automatically save the "Distribution ratio-related" files, click on

Accumulated distribution data, and add the check mark. Saving is enabled with the check mark added. Click again to remove the check mark.

The file name is assigned automatically.

Accumulated value Total value 14062009 to 13072009.CSV

Name Start date Cut-off date *1

Accumulated value Adaptor value 16072009 _ 1026.CSV

Name DDMMYYYY hhmm *2

Distribution Ratio calculation (***) 14062009 to 13072009.CSV

Name Start date Cut-off date *1

Tenant total (***) 14062009 to 13072009.CSV

Name Start date Cut-off date *1

Weigh. factor balance total (***) 14062009 to 13072009.CSV

Name Start date Cut-off date *1

Balance total (***) 14062009 to 13072009.CSV

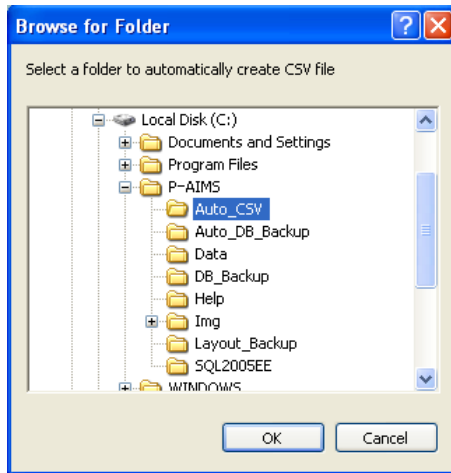
Name Start date Cut-off date *1


TS ON operation time-Adaptor Value 16072009 _ 1026.CSV

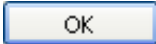
Name DDMMYYYY hhmm *2


- | |
|--|
| <ul style="list-style-type: none">* The (***) portion within the file name is one of four patterns: Regular hours, Out of hours, Specified day and All hours.* *1 means that the results of collating data for one month are placed in a file, on every day after the cut-off date.*2 means data is placed in the file every day at the time displayed in the file name. |
|--|

4-1-3-4. Changing the CSV file creation folder for automatic Excel output



Click on the  button to display the “Browse for Folder” screen, which can be used to change the folder in which files are saved.

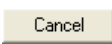
Click on the  button to apply the selected save destination and return to the Auto Backup Settings screen.

Click on the  button to return to the Auto Backup Settings screen without doing anything.

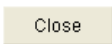
4-1-3-5. Registering settings

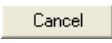
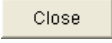
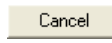
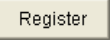
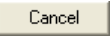
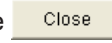
Click on the  button to register the set content.

4-1-3-6. Deleting settings

Click on the  button to delete the set content and revert to the previously registered content.

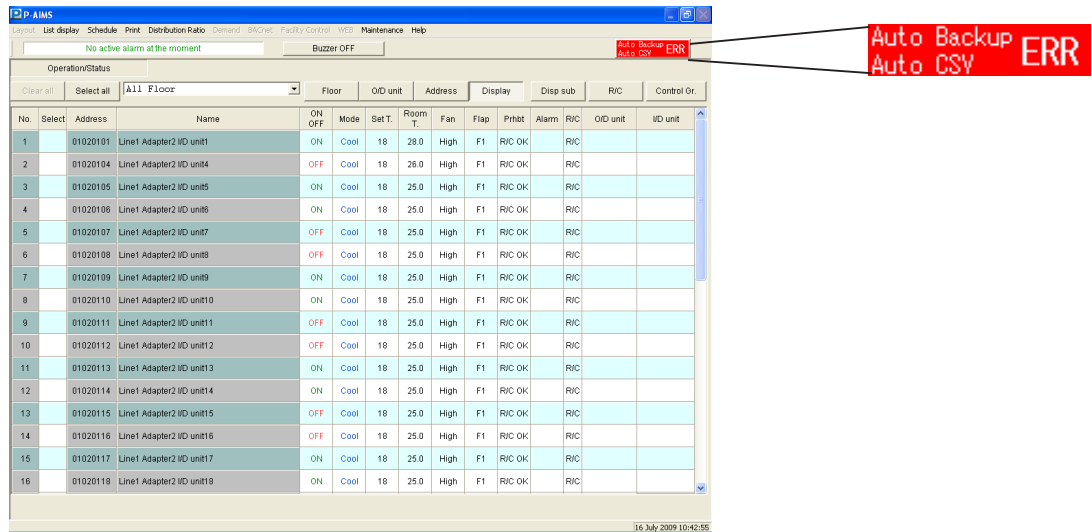
4-1-3-7. Deleting

Click on the  button to close the Auto Backup Settings screen.

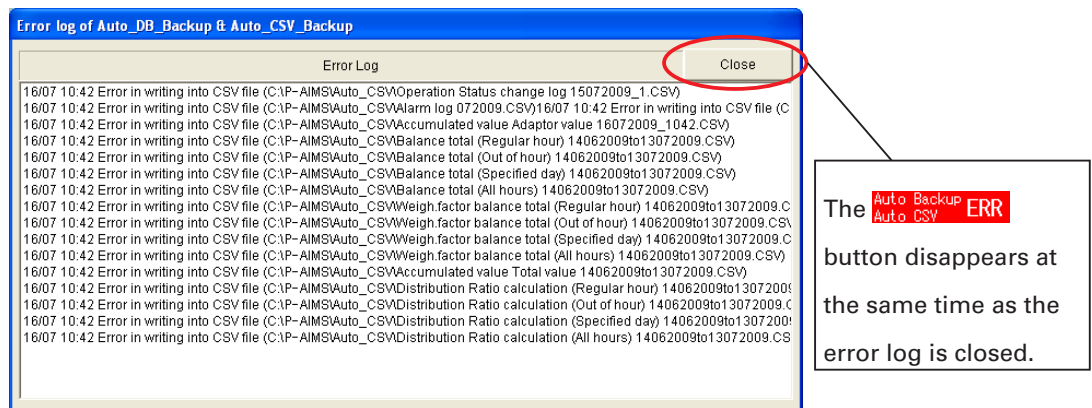
- * The  and  buttons change to the  button when settings are made. Clicking on the  and  buttons change them to the  button.
- * Unless a different save folder has been specified, automatic backup files are saved to the folder Auto_DB_Backup in the folder to which the P-AIMS system was installed (e.g. C:\P-AIMS).

4-1-3-8. What to do when data could not be saved

If an error occurs while the backup file is being saved, a red button marked "Auto Backup, Auto CSV ERR" is displayed in the upper right of the screen.



Click on the **Auto Backup Auto CSV ERR** button to display the "Error log of Auto_DB_Backup & Auto_CSV_Backup" screen and the content of the error.



* If this Error button is displayed, an error may have occurred on the storage disk. Take appropriate action, with reference to the instruction manual for the device concerned.

4-2. Operation time with thermostat on

[Procedure]

On the menu bar, select "Distribution ratio" - "T/S ON operation time".

Thermostat data held by the adapter or indoor unit, or thermostat on/off times for the air conditioner are indicated. The time for each fan speed with the thermostat on is balanced in units of xx minutes, and the cumulative total of those balance values can be tabulated, as can the products of the values set for thermostat on time conversion coefficients of various settings multiplied by the fan speed conversion values.

- Adapter values

The thermostat on/off data held by each indoor unit communication adapter can be checked.

No.	Address	Name	Ten ant	ONHigh	ONMid	ONLow	Total T/S ON	Total T/S OFF	T/S ON T/S OFF
1	01020101	Line1 Adapter2 V/D unit1	1	965.10	62.26	31.44	1059.20	79.39	1137.59
2	01020102	Line1 Adapter2 V/D unit2	1	443.51	141.00	130.30	715.21	0.00	715.21
3	01020103	Line1 Adapter2 V/D unit3	1	274.36	146.22	35.44	456.42	0.01	456.43
4	01020104	Line1 Adapter2 V/D unit4	1	173.15	62.01	137.02	392.18	0.00	392.18
5	01020105	Line1 Adapter2 V/D unit5	1	899.08	126.15	20.05	1045.28	0.00	1045.28
6	01020106	Line1 Adapter2 V/D unit6	1	432.21	49.36	94.52	576.49	0.00	576.49
7	01020107	Line1 Adapter2 V/D unit7	1	232.22	62.01	20.15	314.38	0.00	314.38
8	01020108	Line1 Adapter2 V/D unit8	1	145.14	60.45	105.38	311.37	0.00	311.37
9	01020109	Line1 Adapter2 V/D unit9	1	899.24	38.12	19.49	957.25	0.00	957.25
10	01020110	Line1 Adapter2 V/D unit10	1	401.51	61.19	105.39	568.49	0.00	568.49
11	01020111	Line1 Adapter2 V/D unit11	1	232.23	61.59	19.49	314.11	0.00	314.11
12	01020112	Line1 Adapter2 V/D unit12	1	145.15	88.48	105.37	339.40	0.00	339.40
13	01020113	Line1 Adapter2 V/D unit13	1	892.05	38.12	19.49	950.06	0.00	950.06
14	01020114	Line1 Adapter2 V/D unit14	1	401.52	52.18	105.35	559.45	0.00	559.45
15	01020115	Line1 Adapter2 V/D unit15	1	232.23	61.59	19.49	314.10	0.00	314.10
16	01020116	Line1 Adapter2 V/D unit16	1	145.15	52.18	105.35	303.08	0.00	303.08

Adapter values

Display for individual indoor units

Detailed display with thermostats off

Display for tenant units

- Balance total

The balance is taken in units of xx minutes for each thermostat on fan speed held in the adapter or indoor unit, and the cumulative value of the balance values is displayed.

No.	Address	Name	Ten ant	ONHigh	ONMid	ONLow	Total T/S ON	Total T/S OFF	T/S ON T/S OFF
1	01020101	Line1 Adapter2 V/D unit1	1	28.02	0.00	0.00	28.02	14.85	42.87
2	01020102	Line1 Adapter2 V/D unit2	1	21.28	0.00	0.00	21.28	0.00	21.28
3	01020103	Line1 Adapter2 V/D unit3	1	11.97	0.00	0.00	11.97	0.00	11.97
4	01020104	Line1 Adapter2 V/D unit4	1	5.97	0.00	0.00	5.97	0.00	5.97
5	01020105	Line1 Adapter2 V/D unit5	1	42.87	0.00	0.00	42.87	0.00	42.87
6	01020106	Line1 Adapter2 V/D unit6	1	21.28	0.00	0.00	21.28	0.00	21.28
7	01020107	Line1 Adapter2 V/D unit7	1	11.97	0.00	0.00	11.97	0.00	11.97
8	01020108	Line1 Adapter2 V/D unit8	1	5.97	0.00	0.00	5.97	0.00	5.97
9	01020109	Line1 Adapter2 V/D unit9	1	42.87	0.00	0.00	42.87	0.00	42.87
10	01020110	Line1 Adapter2 V/D unit10	1	21.28	0.00	0.00	21.28	0.00	21.28
11	01020111	Line1 Adapter2 V/D unit11	1	11.97	0.00	0.00	11.97	0.00	11.97
12	01020112	Line1 Adapter2 V/D unit12	1	5.97	0.00	0.00	5.97	0.00	5.97
13	01020113	Line1 Adapter2 V/D unit13	1	42.87	0.00	0.00	42.87	0.00	42.87
14	01020114	Line1 Adapter2 V/D unit14	1	21.28	0.00	0.00	21.28	0.00	21.28
15	01020115	Line1 Adapter2 V/D unit15	1	11.97	0.00	0.00	11.97	0.00	11.97
16	01020116	Line1 Adapter2 V/D unit16	1	5.97	0.00	0.00	5.97	0.00	5.97

Balance total

Calculation term specification for balance total

Display for individual indoor units

Detailed display with thermostats off

Display for tenant units

• Weighting factor balance total

The value set under Distribution ratio setting – Total data – Conversion factor, indoor unit capacity and cumulative time at each fan speed, are multiplied, then summed up and displayed.

The screenshot shows the 'T/S ON operation time' table in the P-AMS software. The table has columns for No., Address, Name, Ten, ON/High, ON/Mid, ON/Low, Total T/S ON, Total T/S OFF, and T/S ON + T/S OFF. The 'Tenants' and 'I/D unit' columns are circled in red. Callouts from the left point to the 'Weighting factor balance total' and 'Calculation term specification for weighting factor balance total' columns. Callouts from the right point to the 'Tenants' and 'I/D unit' columns.

- Adapter Value** :Displays thermostat times.
- Balance total** :Displays thermostat time balance total values.
- Weigh.factor balance total** :Displays the weighting factor balance total values for thermostat times.
- Term setting** :Use to specify the term for which to display values.
- Tenants** :Selects the display order.
- I/D unit** :Selects the display order.
- T/S OFF details** :Displays details of thermostat off times.

- Key**
- Address :Displays the addresses of indoor units.
 - Name :Displays indoor unit names or tenant names.
 - Tenant :Displays tenant numbers.
 - ON/High :Displays the time of operation with the thermostat on and high fan speed.
 - ON/Mid :Displays the time of operation with the thermostat on and medium fan speed.
 - ON/Low :Displays the time of operation with the thermostat on and low fan speed.
 - Total T/S ON :Displays the total time of operation with the thermostat on and high, medium and low fan speed.
 - OFF/High :Displays the time of operation with the thermostat off and high fan speed. (If thermostat off detailed display is used)
 - OFF/Mid :Displays the time of operation with the thermostat off and medium fan speed. (If thermostat off detailed display is used)
 - OFF/Low :Displays the time of operation with the thermostat off and low fan speed. (If thermostat off detailed display is used)
 - Total T/S OFF :Displays the total time of operation with the thermostat off and high, medium and low fan speed.
 - T/S ON + T/S OFF :Displays the total operation time at all fan speeds, with the thermostat both on and off.
 - Electric heater ON :Displays the time of operation with the electric heater ON.

- * Use Distribution ratio – Maintenance – Indoor unit settings on the menu bar to assemble tenant groups and sort their display order.
- * The fan speed conversion coefficients for weighting factor balance totals are set using Distribution ratio - Maintenance - Distribution ratio settings screen on the menu bar.
 - Weighting factor balance :The total of balances calculated from the conversion coefficients for each fan speed and the capacities of indoor units, only for thermostat On (high, medium, low fan speed) time.
Weighting factor = (fan speed x fan speed conversion value) x indoor unit capacity
- * The Adapter value display uses the same time (hhmm) as the adapter, but the Balance total and Weighting factor balance total displays use the time with minutes converted to the equivalent number of hours.
For example 3:30 becomes 3.50. (The same is true for Excel output, so this method is used to facilitate time calculations when the data is loaded into Excel).

4-2-1. Display method

4-2-1-1. Selecting the display type

The thermostat times are displayed when the button has been clicked on and remains depressed.

The thermostat time balance total value for the specified term is displayed when the button has been clicked on and remains depressed.

The weighting factor balance total value for thermostat time in the specified term is displayed when the button has been clicked on and remains depressed.

* Any button can be selected. It is not possible to select multiple buttons at the same time.

4-2-1-2. Sorting lists

Click on one of the sort buttons to change the display order of a list. The currently pressed button is the one which determines the sort order.

The list is displayed in tenant units when the button has been clicked on and remains depressed.

The list is displayed for individual indoor units when the button has been clicked on and remains depressed.

Click on the buttons to change the list orders.

- * Any button can be selected. It is not possible to select multiple buttons at the same time.
- * The order for sorting by tenant units is to display in order of tenant number.

4-2-1-3. Detailed display with thermostats off

Details of thermostat off time are displayed on the list when the button has been clicked on and remains depressed.

T/S OFF details

No.	Address	Name	Ten ant	ONHigh	ONMid	ONLow	Total T/S ON	OFFHigh	OFFMid	OFFLow
1	01020101	Line1 Adapter2 V/D unit1	1	28.02	0.00	0.00	61.63	14.65	0.00	0.
2	01020102	Line1 Adapter2 V/D unit2	1	21.28	0.00	0.00	46.82	0.00	0.00	0.
3	01020103	Line1 Adapter2 V/D unit3	1	11.97	0.00	0.00	26.32	0.00	0.00	0.
4	01020104	Line1 Adapter2 V/D unit4	1	5.97	0.00	0.00	13.12	0.00	0.00	0.
5	01020105	Line1 Adapter2 V/D unit5	1	42.67	0.00	0.00	93.87	0.00	0.00	0.
6	01020106	Line1 Adapter2 V/D unit6	1	21.28	0.00	0.00	46.82	0.00	0.00	0.
7	01020107	Line1 Adapter2 V/D unit7	1	11.97	0.00	0.00	26.32	0.00	0.00	0.
8	01020108	Line1 Adapter2 V/D unit8	1	5.97	0.00	0.00	13.12	0.00	0.00	0.
9	01020109	Line1 Adapter2 V/D unit9	1	42.67	0.00	0.00	93.87	0.00	0.00	0.
10	01020110	Line1 Adapter2 V/D unit10	1	21.28	0.00	0.00	46.82	0.00	0.00	0.
11	01020111	Line1 Adapter2 V/D unit11	1	11.97	0.00	0.00	26.32	0.00	0.00	0.
12	01020112	Line1 Adapter2 V/D unit12	1	5.97	0.00	0.00	13.12	0.00	0.00	0.
13	01020113	Line1 Adapter2 V/D unit13	1	42.67	0.00	0.00	93.87	0.00	0.00	0.
14	01020114	Line1 Adapter2 V/D unit14	1	21.28	0.00	0.00	46.82	0.00	0.00	0.
15	01020115	Line1 Adapter2 V/D unit15	1	11.97	0.00	0.00	26.32	0.00	0.00	0.
16	01020116	Line1 Adapter2 V/D unit16	1	5.97	0.00	0.00	13.12	0.00	0.00	0.

* It is possible to use this in combination with adapter value, balance total and weighting factor balance total.

4-2-1-4. How to specify the display range term

Click on the **Term setting** button to display the Term setting screen.

Click on the buttons on the right of the date display spaces to display the calendar. Click on the calendar dates to select the term of data items to display.

Refer to "4-3. Calendar" in the basic software operation manual for the calendar operation method.

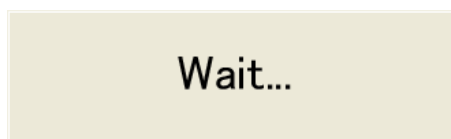
Specify the start and end dates.

Alternatively, click on the **Previous month** or **Current month** button.

Previous month: The term is set to the month leading up to the cut-off date of the preceding month.

Current month: The term is set to the period from the day after the preceding cut-off date to the present.

Specify the display term and click on the **OK** button to begin data collation.




No other operations can be performed during data collation.

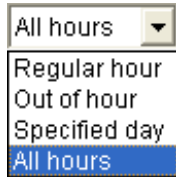
Once data collation is complete, the balance total or the weighting factor balance total for the term is displayed.

To close the Term setting screen, click on the **Cancel** button.

4-2-1-5. Specifying the time range

Click on the  button on the right of the term setting space to display the list of display types.

Term setting | 01/06/2009 | to | 30/06/2009 | All hours  Select the type to display.



Regular hour : The time value set as the regular hours range setting on the Distribution Ratio Setting screen.

Out of hour : The value for time other than that set as the regular hours range setting on the Distribution Ratio Setting screen.

Specified day : Days displayed in red on the calendar on the Distribution Ratio Setting screen.
(0:00-24:00)

All hours : All hours (including regular hours, out of hours and specified days)

Once data collation is complete, the balance total or the weighting factor balance total for the term is displayed.

* If data has been collated for a specified term, the displayed data can be switched just by changing the display type.

4-2-1-6. Excel output

Currently displayed history can be saved as a file in CSV format, which can be displayed by Microsoft Excel and similar applications. Refer to "4-1-2 Excel output" for the operation method. The file name is assigned automatically.

- Adaptor values

TS ON Adaptor Value 16072009_1056(Tenants).CSV
Name DDMMYYYY hhmm

No.	Address	Name	Tenant	ON/High	ON/Mid	ON/Low	Total T/S ON	OFF/High	OFF/Mid	OFF/Low	Total T/S OFF	T/S ON + T/S OFF
1	1020101	Line1 Adapter2 I/D unit1	1	3278:02:00	62:26:00	96:10:00	3376:38:00	31:00:00	22:00:00	11:00:00	64:00:00	3440:38
4	1020102	Line1 Adapter2 I/D unit2	1	2333:50:00	141:00:00	130:16:00	2605:06:00	00:00:00	00:00:00	00:00:00	00:00:00	2605:06
5	1020103	Line1 Adapter2 I/D unit3	1	1908:11:00	146:22:00	35:30:00	2090:03:00	00:00:00	00:00:00	00:00:00	00:00:00	2090:03
6	1020104	Line1 Adapter2 I/D unit4	1	497:06:00	82:01:00	136:48:00	715:55:00	00:00:00	00:00:00	00:00:00	00:00:00	715:55
7	1020105	Line1 Adapter2 I/D unit5	1	3672:25:00	126:15:00	24:18:00	3822:58:00	00:00:00	00:00:00	00:00:00	00:00:00	3822:58
8	1020106	Line1 Adapter2 I/D unit6	1	1925:20:00	49:36:00	94:39:00	2069:35:00	00:00:00	00:00:00	00:00:00	00:00:00	2069:35
9	1020107	Line1 Adapter2 I/D unit7	1	374:00:00	62:01:00	20:02:00	1056:03:00	00:00:00	00:00:00	00:00:00	00:00:00	1056:03
10	1020108	Line1 Adapter2 I/D unit8	1	493:00:00	60:40:00	105:25:00	659:10:00	00:00:00	00:00:00	00:00:00	00:00:00	659:10
11	1020109	Line1 Adapter2 I/D unit9	1	3676:58:00	38:12:00	19:35:00	3734:45:00	00:00:00	00:00:00	00:00:00	00:00:00	3734:45
12	1020110	Line1 Adapter2 I/D unit10	1	1897:15:00	61:19:00	105:25:00	2063:59:00	00:00:00	00:00:00	00:00:00	00:00:00	2063:59
11	1020111	Line1 Adapter2 I/D unit11	1	971:30:00	61:59:00	19:35:00	1053:04:00	00:00:00	00:00:00	00:00:00	00:00:00	1053:04
14	1020112	Line1 Adapter2 I/D unit12	1	482:48:00	88:48:00	105:23:00	676:59:00	00:00:00	00:00:00	00:00:00	00:00:00	676:59
15	1020113	Line1 Adapter2 I/D unit13	1	3706:10:00	38:12:00	19:35:00	3763:57:00	00:00:00	00:00:00	00:00:00	00:00:00	3763:57
16	1020114	Line1 Adapter2 I/D unit14	1	1887:08:00	52:18:00	105:22:00	2044:48:00	00:00:00	00:00:00	00:00:00	00:00:00	2044:48
17	1020115	Line1 Adapter2 I/D unit15	1	963:33:00	61:59:00	19:35:00	1045:07:00	00:00:00	00:00:00	00:00:00	00:00:00	1045:07
18	1020116	Line1 Adapter2 I/D unit16	1	482:48:00	52:18:00	105:22:00	640:28:00	00:00:00	00:00:00	00:00:00	00:00:00	640:28
19	1020117	Line1 Adapter2 I/D unit17	1	3706:10:00	38:12:00	19:35:00	3763:57:00	00:00:00	00:00:00	00:00:00	00:00:00	3763:57
20	1020118	Line1 Adapter2 I/D unit18	1	1887:08:00	52:18:00	105:22:00	2044:48:00	00:00:00	00:00:00	00:00:00	00:00:00	2044:48
21	1020119	Line1 Adapter2 I/D unit19	1	963:33:00	61:59:00	19:35:00	1045:07:00	00:00:00	00:00:00	00:00:00	00:00:00	1045:07
22	1020120	Line1 Adapter2 I/D unit20	1	605:01:00	52:18:00	533:15:00	1190:34:00	00:00:00	00:00:00	00:00:00	00:00:00	1190:34
23	1020121	Line1 Adapter2 I/D unit21	1	507:38:00	38:12:00	19:35:00	565:25:00	00:00:00	00:00:00	00:00:00	00:00:00	565:25
24	1020122	Line1 Adapter2 I/D unit22	1	298:02:00	52:18:00	533:15:00	883:35:00	00:00:00	00:00:00	00:00:00	00:00:00	883:35
25	1020123	Line1 Adapter2 I/D unit23	1	968:12:00	61:59:00	19:35:00	3763:46:00	00:00:00	00:00:00	00:00:00	00:00:00	3763:46
26	1020124	Line1 Adapter2 I/D unit24	1	3257:19:00	52:28:00	533:15:00	3843:02:00	00:00:00	00:00:00	00:00:00	00:00:00	3843:02
27	1020125	Line1 Adapter2 I/D unit25	1	1911:00:00	38:32:00	19:35:00	1969:07:00	00:00:00	00:00:00	00:00:00	00:00:00	1969:07

- Balance total

TS ON Balance total 14062009to13062009 (All hours, Tenants).CSV
 Name Specified display term Display type

No.	Address Name	Tenant	ON/High	ON/Mid	ON/Low	Total T/S ON	OFF/High	OFF/Mid	OFF/Low	Total T/S OFF	T/S ON + T/S OFF	Elec
1	1020101 Line1 Adapter2 I/D unit1	1	526.25	0	0	526.25	0	0	0	0	526.25	
2	1020102 Line1 Adapter2 I/D unit2	1	528.27	0	0	528.27	0	0	0	0	528.27	
3	1020103 Line1 Adapter2 I/D unit3	1	528.27	0	0	528.27	0	0	0	0	528.27	
4	1020104 Line1 Adapter2 I/D unit4	1	35.83	0	0	35.83	0	0	0	0	35.83	
5	1020105 Line1 Adapter2 I/D unit5	1	557.87	0	0	557.87	0	0	0	0	557.87	
6	1020106 Line1 Adapter2 I/D unit6	1	296.08	0	0	296.08	0	0	0	0	296.08	
7	1020107 Line1 Adapter2 I/D unit7	1	191.73	0	0	191.73	0	0	0	0	191.73	
8	1020108 Line1 Adapter2 I/D unit8	1	56.72	0	0	56.72	0	0	0	0	56.72	
9	1020109 Line1 Adapter2 I/D unit9	1	547.53	0	0	547.53	0	0	0	0	547.53	
10	1020110 Line1 Adapter2 I/D unit10	1	296.1	0	0	296.1	0	0	0	0	296.1	
11	1020111 Line1 Adapter2 I/D unit11	1	191.73	0	0	191.73	0	0	0	0	191.73	
12	1020112 Line1 Adapter2 I/D unit12	1	56.72	0	0	56.72	0	0	0	0	56.72	
13	1020113 Line1 Adapter2 I/D unit13	1	557.87	0	0	557.87	0	0	0	0	557.87	
14	1020114 Line1 Adapter2 I/D unit14	1	296.08	0	0	296.08	0	0	0	0	296.08	
15	1020115 Line1 Adapter2 I/D unit15	1	191.73	0	0	191.73	0	0	0	0	191.73	
16	1020116 Line1 Adapter2 I/D unit16	1	56.72	0	0	56.72	0	0	0	0	56.72	
17	1020117 Line1 Adapter2 I/D unit17	1	557.87	0	0	557.87	0	0	0	0	557.87	
18	1020118 Line1 Adapter2 I/D unit18	1	296.1	0	0	296.1	0	0	0	0	296.1	
19	1020119 Line1 Adapter2 I/D unit19	1	191.75	0	0	191.75	0	0	0	0	191.75	
20	1020120 Line1 Adapter2 I/D unit20	1	230.33	0	0	230.33	0	0	0	0	230.33	
21	1020121 Line1 Adapter2 I/D unit21	1	56.72	0	0	56.72	0	0	0	0	56.72	
22	1020122 Line1 Adapter2 I/D unit22	1	104.3	0	0	104.3	0	0	0	0	104.3	
23	1020123 Line1 Adapter2 I/D unit23	1	557.87	0	0	557.87	0	0	0	0	557.87	
24	1020124 Line1 Adapter2 I/D unit24	1	557.87	0	0	557.87	0	0	0	0	557.87	
25	1020125 Line1 Adapter2 I/D unit25	1	296.1	0	0	296.1	0	0	0	0	296.1	

- Weighting factor balance total

TS ON Weigh.factor balance total 14062009to13072009 (All hours, Tenants).CSV
 Name Specified display term Display type

No.	Address Name	Tenant	ON/High	ON/Mid	ON/Low	Total T/S ON	OFF/High	OFF/Mid	OFF/Low	Total T/S OFF	T/S ON + T/S OFF	Elec
1	1020101 Line1 Adapter2 I/D unit1	1	526.25	0	0	1157.75	0	0	0	0	1157.75	
2	1020102 Line1 Adapter2 I/D unit2	1	528.27	0	0	1162.18	0	0	0	0	1162.18	
3	1020103 Line1 Adapter2 I/D unit3	1	528.27	0	0	1162.18	0	0	0	0	1162.18	
4	1020104 Line1 Adapter2 I/D unit4	1	35.83	0	0	78.83	0	0	0	0	78.83	
5	1020105 Line1 Adapter2 I/D unit5	1	557.87	0	0	1227.3	0	0	0	0	1227.3	
6	1020106 Line1 Adapter2 I/D unit6	1	296.08	0	0	651.38	0	0	0	0	651.38	
7	1020107 Line1 Adapter2 I/D unit7	1	191.73	0	0	421.8	0	0	0	0	421.8	
8	1020108 Line1 Adapter2 I/D unit8	1	56.72	0	0	124.77	0	0	0	0	124.77	
9	1020109 Line1 Adapter2 I/D unit9	1	547.53	0	0	1204.57	0	0	0	0	1204.57	
10	1020110 Line1 Adapter2 I/D unit10	1	296.1	0	0	651.42	0	0	0	0	651.42	
11	1020111 Line1 Adapter2 I/D unit11	1	191.73	0	0	421.8	0	0	0	0	421.8	
12	1020112 Line1 Adapter2 I/D unit12	1	56.72	0	0	124.77	0	0	0	0	124.77	
13	1020113 Line1 Adapter2 I/D unit13	1	557.87	0	0	1227.3	0	0	0	0	1227.3	
14	1020114 Line1 Adapter2 I/D unit14	1	296.08	0	0	651.38	0	0	0	0	651.38	
15	1020115 Line1 Adapter2 I/D unit15	1	191.73	0	0	421.8	0	0	0	0	421.8	
16	1020116 Line1 Adapter2 I/D unit16	1	56.72	0	0	124.77	0	0	0	0	124.77	
17	1020117 Line1 Adapter2 I/D unit17	1	557.87	0	0	1227.3	0	0	0	0	1227.3	
18	1020118 Line1 Adapter2 I/D unit18	1	296.1	0	0	651.42	0	0	0	0	651.42	
19	1020119 Line1 Adapter2 I/D unit19	1	191.75	0	0	421.85	0	0	0	0	421.85	
20	1020120 Line1 Adapter2 I/D unit20	1	230.33	0	0	506.73	0	0	0	0	506.73	
21	1020121 Line1 Adapter2 I/D unit21	1	56.72	0	0	124.77	0	0	0	0	124.77	
22	1020122 Line1 Adapter2 I/D unit22	1	104.3	0	0	229.45	0	0	0	0	229.45	
23	1020123 Line1 Adapter2 I/D unit23	1	557.87	0	0	1227.3	0	0	0	0	1227.3	
24	1020124 Line1 Adapter2 I/D unit24	1	557.87	0	0	1227.3	0	0	0	0	1227.3	
25	1020125 Line1 Adapter2 I/D unit25	1	296.1	0	0	651.42	0	0	0	0	651.42	

- * Even if the screen display is set to display only T/S ON data, the file output as CSV will include T/S OFF data.
- * The worksheet name used for Excel can have up to 31characters. If the CSV file name exceeds 31characters, it is not possible to display all of them as the worksheet name.
- * In Excel, it is not possible to calculate for times exceeding 10,000 hours, so balance total and weighting factor balance total are handled as numerical values. The unit is "hours".

4-3. Distribution ratio calculation

[Procedure]

On the menu bar, select "Distribution ratio" – "Distribution ratio calculation".

The distribution ratio calculation for the air conditioner within the specified term is displayed. There are two types of distribution ratio calculation: Simple distribution and Load distribution. To switch between Simple distribution and Load distribution, select "Distribution ratio" - "Maintenance" - "Distribution ratio settings" from the menu bar and select Distrib. mode in the Distribution ratio settings dialog box.

- * Simple distribution
With simple distribution, the distribution can be set for outdoor unit electricity and for indoor unit electricity. Make settings under "Distribution ratio" - "Maintenance" - "Distribution ratio settings" on the menu bar. Gas distribution for outdoor units is performed automatically.
- * Load distribution
With load distribution, it is not possible to set electricity distributions for individual indoor units. We recommend use of simple distribution if it is necessary to distribute electricity between indoor units.

4-3-1. Screen display

4-3-1-1. Simple distribution

• Tenant calculation

If multiple distribution groups are registered for a given tenant, the same tenant name is displayed for each distribution group, so it is necessary to recalculate for each tenant. Click on the **Tenant Total** button to calculate for each tenant.

No.	Address	Name	Ten unit	O/D Dist	O/D Elec cost (€)	O/D Gas ratio (%)	O/D Gas usage (m3)	O/D Gas cost (€)	ID Dist	ID Elec ratio (%)	ID Elec usage (kWh)	ID Elec cost (€)
1		Tenant 1	1		1000.02	100.0001	10000.01	1000.02		100.0001	10000.01	1000.02
2		Tenant 3	3		0.00					133.3397	0.00	
3		Tenant 4	4		0.00					166.6604	0.00	
4		Distrib. group 1	1		1000.02	100.0001	10000.01	1000.02				
5		Distrib. group 2	2						2	100.0001	10000.01	1000.02
6		Distrib. group 3	3		0.00							
7		Distrib. group 4	4		0.00							
8		Distrib. group 5	5		0.00							
9		Distrib. group 6	6		0.00							
10		Distrib. group 7							7	100.0001	0.00	
11		Distrib. group 8							8	100.0000	0.00	
12		Distrib. group 9							9	100.0000	0.00	

* On the Tenant Calculation screen, it is not possible to display tenant units, individual indoor units and basic data.

• Individual indoor units

Distribution ratios for electricity and gas are displayed for individual indoor units.

Distribution method display

Balance total calculation term specification

Display for individual indoor units

Basic data display

Tenant Total

- Tenant units
Distribution ratios for electricity and gas are displayed for tenant units.

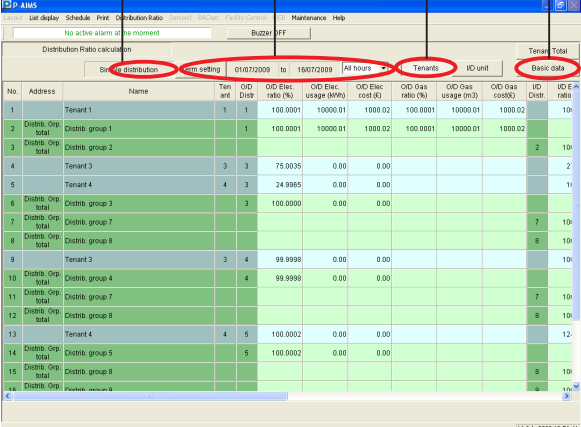
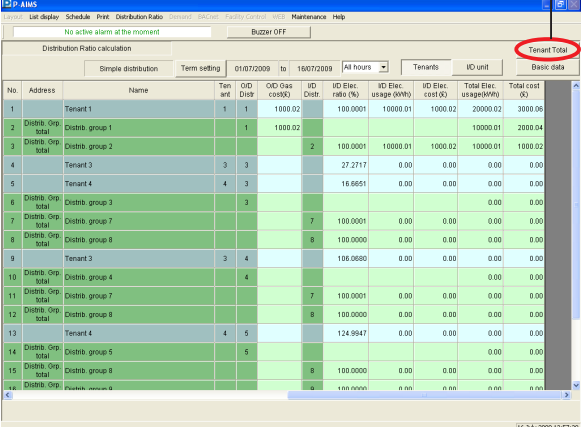
Distribution method display

Calculation term specification

Display for tenant units

Basic data display

Tenant Total

- Term setting :Use to specify the term for which to display values.
- Tenant Total :Calculate in tenant units.
- Tenants I/D unit :Selects the display order.
- Basic data :Displays basic data.

Key

Simple distribution

- Address :Displays the addresses of indoor units.
- Name :Displays indoor unit names or tenant names.
- Tenant :Displays tenant group numbers.
- O/D Distr. :Displays distribution group numbers for outdoor units.
- *1 • WF:T/S ON time :Displays weighted thermostat On operation times.
(When basic data is displayed)
- *1 • WF:T/S ON/OFF :Displays the total weighted thermostat On and Off operation times.
(When basic data is displayed)
- *2 • O/D Elec. ratio (%) :When used with PAC, the distribution ratio for each distribution group is calculated on the basis of thermostat On operation time.
With GHP systems, the distribution ratio for each distribution group is calculated on the basis of weighted thermostat On and Off times.
- *2 • O/D Elec. usage (kWh) :The electricity used during thermostat On time is calculated from the electricity distribution ratio.
- *2 • O/D Elec. cost (£) :The amount of electricity used is multiplied by the price rate of electric power to calculate the charge.
(Calculated for charges within the same price band).
- *3 • O/D Gas ratio (%) :The distribution rate for each distribution group is calculated, on the basis of the thermostat On operation time, and displayed.
(Only for GHP systems)
- *3 • O/D Gas usage (m³) :The amount of gas used is calculated from the distribution ratio within the thermostat On operation time.
(Only for GHP systems)
- *3 • O/D Gas. cost (£) :Calculated by multiplying the gas usage by the price rate of gas.
(Calculated for charges within the same price band).

- *4 • I/D Distr :Displays distribution group numbers for indoor units.
- *4 • I/D Elec. ratio (%) :The distribution ratio for each indoor distribution group is calculated on the basis of weighted thermostat On and Off times.
- *4 • I/D Elec. usage (kWh) :The electricity used during thermostat On time is calculated from the indoor electricity distribution ratio.
- *4 • I/D Elec. cost (£) :The amount of electricity used indoors is multiplied by the price rate of electric power to calculate the charge.(Calculated for charges within the same price band).
- *4 • Total Elec. Usage (kWh) :The total electricity used by the outdoor units and indoor units is displayed.
- Total cost (£) :The total of the electricity charge and gas charge is displayed.

*1: This is displayed when the Basic data button is pressed.
 *2: This is displayed when Yes is selected for Outdoor electricity distribution under Distribution ratio settings.
 *3: This is displayed if GHP is used.
 *4: This is displayed when Yes is selected for Indoor electricity distribution under Distribution ratio settings.
 * Use "Distribution ratio" - "Maintenance" - "I/D unit master data settings" screen to assemble the indoor unit included within tenant groups.

4-3-1-2. Load distribution

- Tenant calculation

If multiple distribution groups are registered for a given tenant, the same tenant name is displayed for each distribution group, so it is necessary to recalculate for each tenant. Click on the **Tenant Total** button to calculate for each tenant.

No.	Address	Name	Tenant	O/D Distr	O/D Elec. ratio (%)	O/D Elec. usage (kWh)	O/D Elec. cost (£)	O/D Gas ratio (%)	O/D Gas usage (m3)	O/D Gas cost (£)	Total cost (£)
1		Tenant 1	1		100.0000	10000.00	999.99	0.0000	0.00	0.00	999.99
2		Tenant 3	3		175.0035	0.00	0.00				0.00
3		Tenant 4	4		224.9861	0.00	0.00				0.00
4		Distrib. group 1	1		100.0000	10000.00	999.99	0.0000	0.00	0.00	999.99
5		Distrib. group 3	3		100.0000	0.00	0.00				0.00
6		Distrib. group 4	4		100.0000	0.00	0.00				0.00
7		Distrib. group 5	5		99.9987	0.00	0.00				0.00
8		Distrib. group 6	6		99.9999	0.00	0.00				0.00

- Individual indoor units

Distribution ratios for electricity and gas are displayed for individual indoor units.

No.	Address	Name	Tenant	O/D Distr	O/D Elec. ratio (%)	O/D Elec. usage (kWh)	O/D Elec. cost (£)	O/D Gas ratio (%)	O/D Gas usage (m3)	O/D Gas cost (£)	Total cost (£)
1	01020101	Line1 Adapter2 I/D unit1	1	1	7.3521	735.21	73.52	0.0000	0.00	0.00	735.21
2	01020102	Line1 Adapter2 I/D unit2	1	1	7.3524	735.24	73.52	0.0000	0.00	0.00	735.24
3	01020103	Line1 Adapter2 I/D unit3	1	1	7.3521	735.21	73.52	0.0000	0.00	0.00	735.21
4	01020104	Line1 Adapter2 I/D unit4	1	1	0.8562	85.62	8.56	0.0000	0.00	0.00	85.62
5	01020105	Line1 Adapter2 I/D unit5	1	1	7.3934	739.34	73.93	0.0000	0.00	0.00	739.34
6	01020106	Line1 Adapter2 I/D unit6	1	1	3.7897	378.97	37.90	0.0000	0.00	0.00	378.97
7	01020107	Line1 Adapter2 I/D unit7	1	1	1.8380	183.80	18.39	0.0000	0.00	0.00	183.80
8	01020108	Line1 Adapter2 I/D unit8	1	1	0.9173	91.73	9.17	0.0000	0.00	0.00	91.73
9	01020109	Line1 Adapter2 I/D unit9	1	1	7.3941	739.41	73.94	0.0000	0.00	0.00	739.41
10	01020110	Line1 Adapter2 I/D unit10	1	1	3.7897	378.97	37.90	0.0000	0.00	0.00	378.97
11	01020111	Line1 Adapter2 I/D unit11	1	1	1.8387	183.87	18.39	0.0000	0.00	0.00	183.87
12	01020112	Line1 Adapter2 I/D unit12	1	1	0.9166	91.66	9.17	0.0000	0.00	0.00	91.66
13	01020113	Line1 Adapter2 I/D unit13	1	1	7.3941	739.41	73.94	0.0000	0.00	0.00	739.41
14	01020114	Line1 Adapter2 I/D unit14	1	1	3.7881	378.81	37.89	0.0000	0.00	0.00	378.81
15	01020115	Line1 Adapter2 I/D unit15	1	1	1.8384	183.84	18.39	0.0000	0.00	0.00	183.84
16	01020116	Line1 Adapter2 I/D unit16	1	1	0.9166	91.66	9.17	0.0000	0.00	0.00	91.66

- Tenant units
Distribution ratios for electricity and gas are displayed for tenant units.

- Term setting** :Use to specify the term for which to display values.
- Tenant Total** :Calculate in tenant units.
- Tenants** **I/D unit** :Selects the display order.
- Basic data** :Displays basic data.

Key

Load distribution

- Address :Displays the addresses of indoor units.
- Name :Displays indoor unit names or tenant names.
- Tenant :Displays tenant group numbers.
- O/D Distr :Displays distribution group numbers for outdoor units.
- *1 • Electric operation :Displays the electrical operation capacity.
- *1 • Gas operation capacity :Displays the gas operation capacity.
- O/D Elec ratio (%) :Distribution ratios are calculated for each distribution group, based on the load distribution specification of each PAC Espa, PAC Multi and GHP.
- O/D Elec usage (kWh) :The electricity used during thermostat On time is calculated from the electricity distribution ratio.
- O/D Elec cost (£) :The amount of electricity used is multiplied by the price rate of electric power to calculate the charge. (Calculated for charges within the same price band).
- *2 • O/D Gas ratio (%) :Distribution ratio for each distribution group are calculated on the basis of load distribution specifications. (Only for GHP systems)
- *2 • O/D Gas usage (m³) :The amount of gas used is calculated from the gas distribution ratio. (Only for GHP systems)
- O/D Gas cost (£) :Calculated by multiplying the gas usage by the price rate of gas. (Calculated for charges within the same price band).
- Total cost (£) :The total of the electricity charge and gas charge is displayed.

*1: This is displayed when the Basic Data button is pressed.
 *2: This is displayed if GHP is used.
 * :Use Distribution ratio - Maintenance - I/D Unit Settings screen to assemble the indoor unit included within tenant groups.

4-3-2. Display method

4-3-2-1. Selecting the display type

When the button has been clicked on and remains depressed, the total distribution calculation ratios are displayed for tenant units.

When the button has been clicked and does not remain depressed, the distribution ratio is calculated depending on the pressed status of the following buttons.

When the button has been clicked on and the "I/D unit" remains depressed, the distribution calculation ratios are displayed for indoor units.

When the button has been clicked on and the "Tenants" remains depressed, the distribution calculation ratios are displayed for tenant units.

- * When you first access this screen, the display shows the previously specified term.
- * If the display type is switched after the display term has been specified, it will be possible to display tenant total, indoor units and tenant units for the specified term.

4-3-2-2. How to specify the display range term

Click on the button to display the Term Setting screen.

Click on the buttons on the right of the date display spaces to display the calendar. Click on the calendar dates to select the term of data items to display.

Refer to "4.3 Calendar" in the basic software operation manual for the calendar operation method.

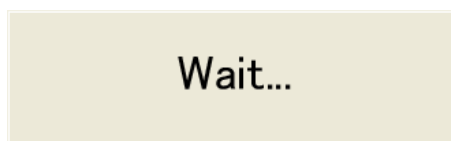
Specify the start and end dates.

Alternatively, click on the or button.

: The term is set to the month leading up to the cutoff date of the preceding month.

: The term is set to the period from the day after the preceding cutoff date to the present.


Specify the display term and click on the button to begin data collation.





No other operations can be performed during data collation.

Once data collation is complete, the balance total or the weighting factor balance total for the term is displayed. To close the Term Setting screen, click on the button.

4-3-2-3. Specifying the time range

Click on the  button on the right of the term setting space to display the list of display types.

Term setting 01/06/2009 to 30/06/2009 All hours  Select the type to display.

- All hours 
- Regular hour
- Out of hour
- Specified day
- All hours

Regular hour : The time value set as the regular hour range settings on the Distribution Ratio Setting screen.

Out of hour : The value for time other than that set as the regular hours range settings on the Distribution Ratio Setting screen.

Specified day : Days displayed in red on the calendar on the Distribution Ratio Setting screen.
(0:00-24:00)

All hours : All hours (including regular hours, out of hours and special days)

The results are displayed once data calculation is complete.

* If data has been calculated for a specified term, the displayed data can be switched just by changing the display type.

4-3-3. Printing

4-3-3-1. Print screen

Refer to "4-1-1 Print screen" for details of how to operate this screen.

4-3-3-2. Excel output

Currently displayed history can be saved as a file in CSV format, which can be displayed by Microsoft Excel and similar applications.

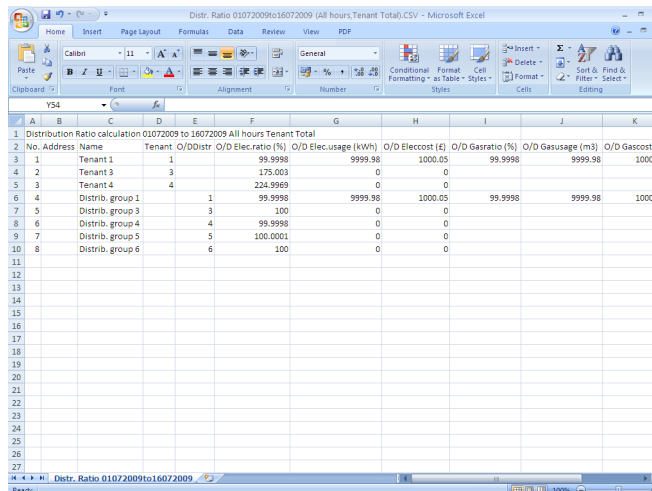
Refer to "4-1-2 Excel output" for the operation method.

The file name is assigned automatically.

- Tenant calculation

Distr. Ratio 01072009to16072009 (All hours, Tenant Total).CSV

Name Specified display term Display type



No.	Address	Name	Tenant	O/D Distr	O/D Elec. ratio (%)	O/D Elec. usage (kWh)	O/D Eleccost (E)	O/D Gasratio (%)	O/D Gasusage (m3)	O/D Gascost
1		Tenant 1	1		99.9998	9999.98	1000.05	99.9998	9999.98	1000.
2		Tenant 3	3		175.003	0	0			
3		Tenant 4	4		234.9969	0	0			
4		Distrib. group 1		1	99.9998	9999.98	1000.05	99.9998	9999.98	1000.
5		Distrib. group 3		3	100	0	0			
6		Distrib. group 4		4	99.9998	0	0			
7		Distrib. group 5		5	100.0001	0	0			
8		Distrib. group 6		6	100	0	0			

- Individual indoor units
Distr. Ratio 01072009to16072009 (All hours, ID unit).CSV

Name Specified display term Display type

No.	Address	Name	Tenant	O/D Distr	O/D Elec. ratio (%)	O/D Elec. usage (kWh)	O/D Eleccost (E)	O/D Gasratio (%)	O/D Gasusage
1	1020101	Line1 Adapter2 I/D unit1	1	1	7.3556	735.56	73.56	7.3556	
2	1020102	Line1 Adapter2 I/D unit2	1	1	7.3559	735.59	73.56	7.3559	
3	1020103	Line1 Adapter2 I/D unit3	1	1	7.3556	735.56	73.56	7.3556	
4	1020104	Line1 Adapter2 I/D unit4	1	1	0.8553	85.53	8.55	0.8553	
5	1020105	Line1 Adapter2 I/D unit5	1	1	7.3969	739.69	73.97	7.3969	
6	1020106	Line1 Adapter2 I/D unit6	1	1	3.7862	378.62	37.86	3.7862	
7	1020107	Line1 Adapter2 I/D unit7	1	1	1.8374	183.74	18.37	1.8374	
8	1020108	Line1 Adapter2 I/D unit8	1	1	0.9158	91.58	9.16	0.9158	
9	1020109	Line1 Adapter2 I/D unit9	1	1	7.3975	739.75	73.98	7.3975	
10	1020110	Line1 Adapter2 I/D unit10	1	1	3.7862	378.62	37.86	3.7862	
11	1020111	Line1 Adapter2 I/D unit11	1	1	1.837	183.7	18.37	1.837	
12	1020112	Line1 Adapter2 I/D unit12	1	1	0.9158	91.58	9.16	0.9158	
13	1020113	Line1 Adapter2 I/D unit13	1	1	7.3975	739.75	73.98	7.3975	
14	1020114	Line1 Adapter2 I/D unit14	1	1	3.7855	378.55	37.86	3.7855	
15	1020115	Line1 Adapter2 I/D unit15	1	1	1.8367	183.67	18.37	1.8367	
16	1020116	Line1 Adapter2 I/D unit16	1	1	0.9158	91.58	9.16	0.9158	
17	1020117	Line1 Adapter2 I/D unit17	1	1	7.3975	739.75	73.98	7.3975	
18	1020118	Line1 Adapter2 I/D unit18	1	1	3.7855	378.55	37.86	3.7855	
19	1020119	Line1 Adapter2 I/D unit19	1	1	1.8367	183.67	18.37	1.8367	
20	1020120	Line1 Adapter2 I/D unit20	1	1	1.8367	183.67	18.37	1.8367	
21	1020121	Line1 Adapter2 I/D unit21	1	1	0.9158	91.58	9.16	0.9158	
22	1020122	Line1 Adapter2 I/D unit22	1	1	0.9158	91.58	9.16	0.9158	
23	1020123	Line1 Adapter2 I/D unit23	1	1	7.3975	739.75	73.98	7.3975	
24	1020124	Line1 Adapter2 I/D unit24	1	1	7.3975	739.75	73.98	7.3975	
25	1020125	Line1 Adapter2 I/D unit25	1	1	3.7855	378.55	37.86	3.7855	

- Tenant units
Distr. Ratio 01072009to16072009 (All hours, Tenants).CSV

Name Specified display term Display type

No.	Address	Name	Tenant	O/D Distr	O/D Elec. ratio (%)	O/D Elec. usage (kWh)	O/D Eleccost (E)	O/D Gasratio (%)	O/D Gasusage (m3)	O/D
1	1	Tenant 1	1	1	99.9998	9999.98	1000.05	99.9998	9999.98	
2	2	Distrib. Grp. total Distrib. group 1	1	1	99.9998	9999.98	1000.05	99.9998	9999.98	
3	3	Tenant 3	3	3	75.0032	0	0	0	0	
4	4	Tenant 4	4	3	24.9968	0	0	0	0	
5	5	Distrib. Grp. total Distrib. group 3	3	3	100	0	0	0	0	
6	6	Tenant 3	3	4	99.9998	0	0	0	0	
7	7	Distrib. Grp. total Distrib. group 4	4	4	99.9998	0	0	0	0	
8	8	Tenant 4	4	5	100.0001	0	0	0	0	
9	9	Distrib. Grp. total Distrib. group 5	5	5	100.0001	0	0	0	0	
10	10	Tenant 4	4	6	100	0	0	0	0	
11	11	Distrib. Grp. total Distrib. group 6	6	6	100	0	0	0	0	

4-3-3-3. Print list

[Procedure]

On the menu bar, select "Print" – "Print list".

This is only enabled on the I/D unit distribution ratio calculation screen.

This prints out the table of I/D unit distribution ratio calculation, as displayed on the screen. The printed range is the entire page. Other tables cannot be printed.

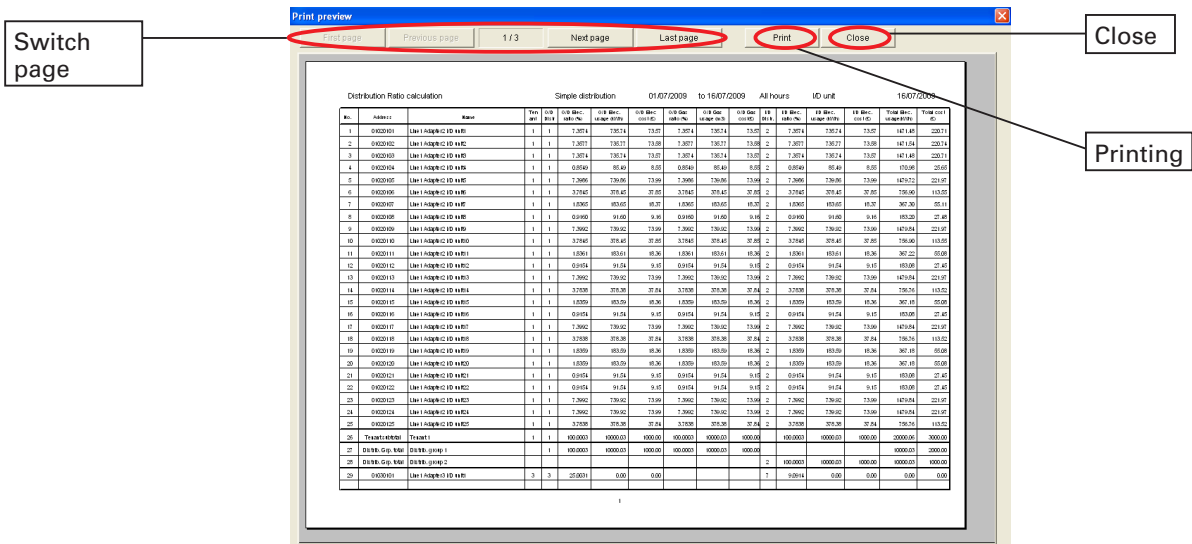
4-3-3-4. List print preview

[Procedure]

On the menu bar, select "Print" – "List print preview".

This is only enabled on the I/D unit distribution ratio calculation screen.

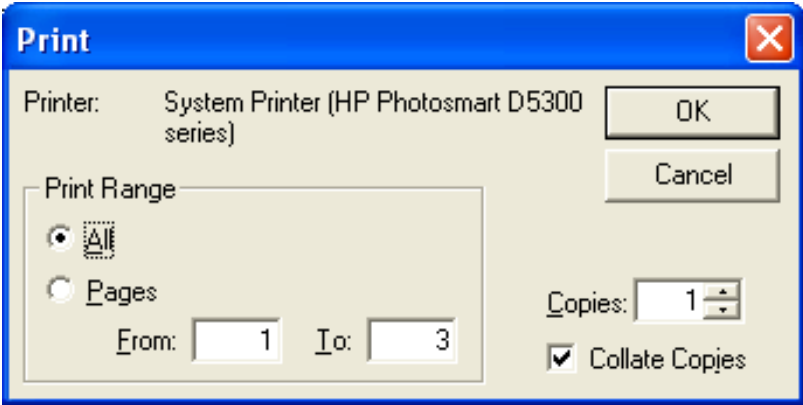
This displays a print preview of the table of I/D unit distribution ratio calculation, as displayed on the screen. Other tables cannot be printed.



- First page** : Move to the first page.
- Previous page** : Move to the preceding page.
- 1 / 3** : The current displayed page number / the total number of pages
- Next page** : Move to the next page.
- Last page** : Move to the last page.
- Print** : Specify a range to print out.
- Close** : Closes the window.

• Printing

Click on the **Print** button to display the dialog box for specifying the print range. The dialog box can be used to specify the range that will be printed.



The default printer (*****) will use (*****) to print. Print all pages or specify which pages to print in the Print Range. Under Copies, specify the number of copies to print.

Click on the [OK] button to start printing. Click on the [Cancel] button to close the dialog box.

• Form printing

Distribution Ratio calculation Simple distribution 01/07/2009 to 16/07/2009 All hours ID unit 16/07/2009

No.	Address	Name	Term	0:0 Rec. rate-%	0:0 Rec. Usage (kWh)	0:0 Rec. cost (€)	0:0 Gas rate-%	0:0 Gas Usage (m3)	0:0 Gas cost (€)	10 Rec. rate-%	10 Rec. Usage (kWh)	10 Rec. cost (€)	10 Gas rate-%	10 Gas Usage (m3)	10 Gas cost (€)	Total Rec. Usage (kWh)	Total cost (€)
1	0102001	Line1 Adapter(2) ID #101	1	1	7.3574	7.3574	73.27	7.3574	73.274	73.27	7.3574	73.27	7.3574	73.27	73.27	141.148	2207.1
2	0102002	Line1 Adapter(2) ID #102	1	1	7.3577	7.3577	73.28	7.3577	73.277	73.28	7.3577	73.28	7.3577	73.28	73.28	141.154	2207.4
3	0102003	Line1 Adapter(2) ID #103	1	1	7.3574	7.3574	73.27	7.3574	73.274	73.27	7.3574	73.27	7.3574	73.27	73.27	141.148	2207.1
4	0102004	Line1 Adapter(2) ID #104	1	1	8.8549	8.8549	8.85	8.8549	8.8549	8.85	8.8549	8.85	8.8549	8.85	8.85	170.58	2635
5	0102005	Line1 Adapter(2) ID #105	1	1	7.3696	7.3696	73.99	7.3696	73.996	73.99	7.3696	73.99	7.3696	73.99	73.99	147.972	22197
6	0102006	Line1 Adapter(2) ID #106	1	1	3.7845	3.7845	37.85	3.7845	37.845	37.85	3.7845	37.85	3.7845	37.85	37.85	756.90	11355
7	0102007	Line1 Adapter(2) ID #107	1	1	1.8365	1.8365	18.37	1.8365	18.365	18.37	1.8365	18.37	1.8365	18.37	18.37	367.30	5511
8	0102008	Line1 Adapter(2) ID #108	1	1	0.9190	0.9190	9.19	0.9190	9.190	9.19	0.9190	9.19	0.9190	9.19	9.19	183.20	2745
9	0102009	Line1 Adapter(2) ID #109	1	1	7.3692	7.3692	73.99	7.3692	73.992	73.99	7.3692	73.99	7.3692	73.99	73.99	147.974	22197
10	0102010	Line1 Adapter(2) ID #110	1	1	3.7845	3.7845	37.85	3.7845	37.845	37.85	3.7845	37.85	3.7845	37.85	37.85	756.90	11355
11	0102011	Line1 Adapter(2) ID #111	1	1	1.8361	1.8361	18.36	1.8361	18.361	18.36	1.8361	18.36	1.8361	18.36	18.36	367.22	5506
12	0102012	Line1 Adapter(2) ID #112	1	1	0.9154	0.9154	9.15	0.9154	9.154	9.15	0.9154	9.15	0.9154	9.15	9.15	183.09	2745
13	0102013	Line1 Adapter(2) ID #113	1	1	7.3692	7.3692	73.99	7.3692	73.992	73.99	7.3692	73.99	7.3692	73.99	73.99	147.974	22197
14	0102014	Line1 Adapter(2) ID #114	1	1	3.7838	3.7838	37.84	3.7838	37.838	37.84	3.7838	37.84	3.7838	37.84	37.84	756.76	11352
15	0102015	Line1 Adapter(2) ID #115	1	1	1.8359	1.8359	18.36	1.8359	18.359	18.36	1.8359	18.36	1.8359	18.36	18.36	367.18	5506
16	0102016	Line1 Adapter(2) ID #116	1	1	0.9154	0.9154	9.15	0.9154	9.154	9.15	0.9154	9.15	0.9154	9.15	9.15	183.09	2745
17	0102017	Line1 Adapter(2) ID #117	1	1	7.3692	7.3692	73.99	7.3692	73.992	73.99	7.3692	73.99	7.3692	73.99	73.99	147.974	22197
18	0102018	Line1 Adapter(2) ID #118	1	1	3.7838	3.7838	37.84	3.7838	37.838	37.84	3.7838	37.84	3.7838	37.84	37.84	756.76	11352
19	0102019	Line1 Adapter(2) ID #119	1	1	1.8359	1.8359	18.36	1.8359	18.359	18.36	1.8359	18.36	1.8359	18.36	18.36	367.18	5506
20	0102020	Line1 Adapter(2) ID #120	1	1	1.8359	1.8359	18.36	1.8359	18.359	18.36	1.8359	18.36	1.8359	18.36	18.36	367.18	5506
21	0102021	Line1 Adapter(2) ID #121	1	1	0.9154	0.9154	9.15	0.9154	9.154	9.15	0.9154	9.15	0.9154	9.15	9.15	183.09	2745
22	0102022	Line1 Adapter(2) ID #122	1	1	0.9154	0.9154	9.15	0.9154	9.154	9.15	0.9154	9.15	0.9154	9.15	9.15	183.09	2745
23	0102023	Line1 Adapter(2) ID #123	1	1	7.3692	7.3692	73.99	7.3692	73.992	73.99	7.3692	73.99	7.3692	73.99	73.99	147.974	22197
24	0102024	Line1 Adapter(2) ID #124	1	1	7.3692	7.3692	73.99	7.3692	73.992	73.99	7.3692	73.99	7.3692	73.99	73.99	147.974	22197
25	0102025	Line1 Adapter(2) ID #125	1	1	3.7838	3.7838	37.84	3.7838	37.838	37.84	3.7838	37.84	3.7838	37.84	37.84	756.76	11352
26	Transfer: adapter	Transfer1	1	1	100.0003	1000.003	1000.00	100.0003	1000.003	1000.00	100.0003	1000.003	1000.00	100.0003	1000.003	2000.00	3000.00
27	0102026	0102026	1	1	100.0003	1000.003	1000.00	100.0003	1000.003	1000.00	100.0003	1000.003	1000.00	100.0003	1000.003	2000.00	3000.00
28	0102027	0102027	2	2	100.0003	1000.003	1000.00	100.0003	1000.003	1000.00	100.0003	1000.003	1000.00	100.0003	1000.003	2000.00	3000.00
29	0102028	Line1 Adapter(3) ID #101	3	3	0.0001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4-4. Accumulated value

[Procedure]
On the menu bar, select "Distribution ratio" – "Accumulated value".

The accumulated values from the electricity and gas meters connected to the adaptor are displayed.

• Adapter values

This displays the current value of the adaptor's accumulated pulses.

The screenshot shows the P.AIMS software interface. At the top, there is a menu bar with options like 'List display', 'Schedule', 'Print', 'Distribution Ratio', 'Sensor', 'Display', 'Pulse Control', and 'Maintenance'. Below the menu bar, there is a status bar indicating 'No active alarm at the moment' and a 'Buzzer OFF' button. The main window displays a table titled 'Accumulated value'. The table has columns for 'No.', 'Address', 'Name', 'Distr.', 'Type', 'Adapter value', and 'Meter value'. The 'Adapter value' column is circled in red, and a box labeled 'Adapter values' points to it. The table contains 9 rows of data for different pulse counters, showing their addresses, names, distribution groups, types, and current adapter and meter values.

No.	Address	Name	Distr.	Type	Adapter value	Meter value
1	C010201	Line1 Adapter02 PulseCounter1	1	Gas	12100 m3	11100 m3
2	C010202	Line1 Adapter02 PulseCounter2	1	Elec.	12100 kWh	12100 kWh
3	C010203	Line1 Adapter02 PulseCounter3	2	Elec.	12100 kWh	12500 kWh
4	C010401	Line1 Adapter04 PulseCounter1	3	Elec.	12600 kWh	12600 kWh
5	C010402	Line1 Adapter04 PulseCounter2	5	Elec.	12600 kWh	12600 kWh
6	C010403	Line1 Adapter04 PulseCounter3	6	Elec.	12600 kWh	12600 kWh
7	C010601	Line1 Adapter06 PulseCounter1	7	Elec.	13600 kWh	13600 kWh
8	C010602	Line1 Adapter06 PulseCounter2	8	Elec.	13600 kWh	15000 kWh
9	C010603	Line1 Adapter06 PulseCounter3	9	Elec.	13600 kWh	15000 kWh

Key

- Address :Displays the addresses of indoor units.
- Name :Displays the names of accumulated pulse meters.
- Distr. :Displays distribution group numbers.
- Type :Displays the types of pulse meter.
- Adapter value :Displays the current values of the adapters on the pulse meter.
- Meter value :This displays the value with the addition of balance data between an arbitrary value for the pulse meter and the adapter value.

- Total value

This displays the total value of accumulated pulses on the adapter over the specified term.

The screenshot shows the 'Accumulated value' screen in the P-AMS software. The table below represents the data displayed in the interface:

No.	Address	Name	Distr.	Type	All hours	Regular hour	Out of hour	Specified day
1	C010201	Line1 Adapter02 PulseCounter1	1	Gas	0 m3	0 m3	0 m3	0 m3
2	C010202	Line1 Adapter02 PulseCounter2	1	Elec.	0 kWh	0 kWh	0 kWh	0 kWh
3	C010203	Line1 Adapter02 PulseCounter3	2	Elec.	0 kWh	0 kWh	0 kWh	0 kWh
4	C010401	Line1 Adapter04 PulseCounter1	3	Elec.	0 kWh	0 kWh	0 kWh	0 kWh
5	C010402	Line1 Adapter04 PulseCounter2	5	Elec.	0 kWh	0 kWh	0 kWh	0 kWh
6	C010403	Line1 Adapter04 PulseCounter3	6	Elec.	0 kWh	0 kWh	0 kWh	0 kWh
7	C010601	Line1 Adapter06 PulseCounter1	7	Elec.	0 kWh	0 kWh	0 kWh	0 kWh
8	C010602	Line1 Adapter06 PulseCounter2	8	Elec.	0 kWh	0 kWh	0 kWh	0 kWh
9	C010603	Line1 Adapter06 PulseCounter3	9	Elec.	0 kWh	0 kWh	0 kWh	0 kWh

Annotations in the image point to the 'Total value' column and the 'Term setting' field in the table header.

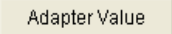
Key


- Address :Displays the addresses of indoor units.
- Name :Displays the names of accumulated pulse meters.
- Distr :Displays distribution group numbers.
- Type :Displays the types of pulse meter.
- All hours :Displays the meter values for all hours (regular hours, out of hours and special days) within the specified term.
- Regular hour :Displays the time value set as the Regular hour range settings on the Distribution Ratio Setting screen.
- Out of hour :Displays the time value set as the out of Regular hour range settings on the Distribution Ratio Setting screen.
- Specified day :Displays days for which the calendar display is set to red on the Distribution Ratio Setting screen.
(0:00-24:00)

- * Register accumulated value masters under "Distribution ratio" - "Maintenance" - "Accumulated value" screen on the menu bar.
- * The current value is updated at 15-minute intervals.
- * Meter values are displayed as the total of an arbitrary value plus balance data.
- * Make settings for special days and regular hours under "Distribution ratio" - "Maintenance" - "Distribution Ratio Settings" screen on the menu bar.

4-4-1. Display method

4-4-1-1. Selecting the display type

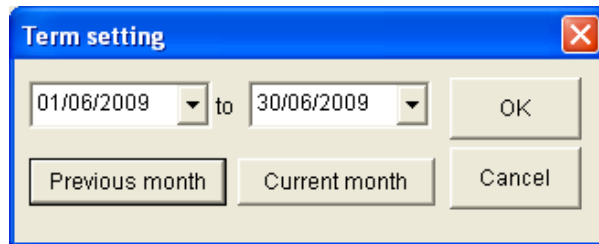
The adaptor values and meter values are displayed when the  button has been clicked on and remains depressed.


The total of meter values for the specified term is displayed when the  button has been clicked on and remains depressed.

* Any button can be selected. It is not possible to select multiple buttons at the same time.

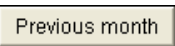
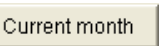
4-4-1-2. Term setting (term total value)


Click on the  button to display the Term setting screen.




Click on the  buttons on the right of the date display spaces to display the calendar. Click on the calendar dates to select the term of data items to display. Refer to "4.3 Calendar" in the basic software operation manual for the calendar operation method.

Specify the start and end dates.

Alternatively, click on the  or  button.


: The term is set to the month leading up to the cutoff date of the preceding month.

: The term is set to the period from the day after the preceding cutoff date to the present.

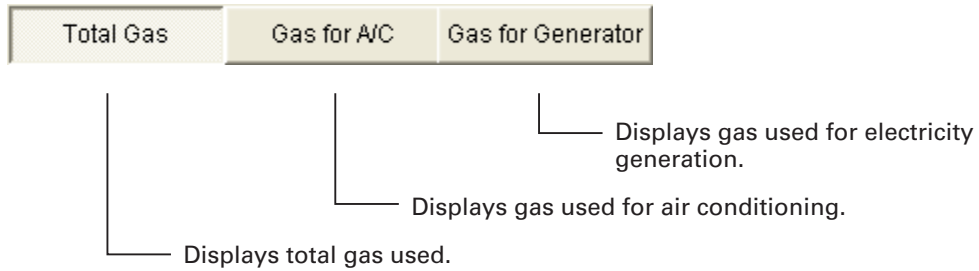
Specify the display term and click on the  button to begin data collation.

Wait...

No other operations can be performed during data collation.

Once data collation is complete, the balance total or the weighting factor balance total for the term is displayed. To close the Term Setting screen, click on the  button.

4-4-1-3. Display selection for the gas calculation method



Display when Total Gas is selected.
 Display of items that are inapplicable when Gas for A/C or Gas for Generator is selected.

No.	Address	Name	Distr.	Type	All hours	Regular hour	Out of hour	Specified day
1	C010201	Line1 Adapter02 PulseCounter1	1	Gas	31629 m3	31629 m3	0 m3	0 m3
2	C010202	Line1 Adapter02 PulseCounter2	1	Elec.	31629 kWh	31629 kWh	0 kWh	0 kWh
3	C010203	Line1 Adapter02 PulseCounter3	2	Power Generation	0 m3	0 m3	0 m3	0 m3

Display of only items that are applicable when Gas for A/C or Gas for Generator is selected.

4-4-2. Changing the meter value

Elec.	12100 kWh	12600 kWh	Meter value settings
Elec.	12600 kWh	12600 kWh	

Move the cursor to the row to change the meter value for, then right click to display the Meter Value Settings menu and click on it.

The password screen appears, so input password level 2.

The Meter value settings screen appears. Use it to change the Meter pulse count.

After completing the change, click on the **OK** button to update the data.

Click on the **Cancel** button to revert to the data from before the change.

Click on the **Close** button to close the Meter value settings screen.

4-4-3. Printing

4-4-3-1. Print screen

Refer to "4-1-1 Print screen" for details of how to operate this screen.

4-4-3-2. Excel output

Currently displayed history can be saved as a file in CSV format, which can be displayed by Microsoft Excel and similar applications.

Refer to "4-1-2 Excel output" for the operation method.

The file name is assigned automatically.

Accumulated value Total value 01072009to16072009.CSV
Name Display type Specified display term

No.	Address Name	Distr.	Type	unit	All hours	Regular hour	Out of hour	Specified day
1	C010201	Line1 Adapter02	PulseCounter1	1 Gas m3	10000	10000	0	0
2	C010202	Line1 Adapter02	PulseCounter2	1 Elec. kWh	10000	10000	0	0
3	C010203	Line1 Adapter02	PulseCounter3	2 Elec. kWh	10000	10000	0	0
4	C010401	Line1 Adapter04	PulseCounter1	4 Elec. kWh	0	0	0	0
5	C010402	Line1 Adapter04	PulseCounter2	5 Elec. kWh	0	0	0	0
6	C010403	Line1 Adapter04	PulseCounter3	6 Elec. kWh	0	0	0	0
7	C010601	Line1 Adapter06	PulseCounter1	7 Elec. kWh	0	0	0	0
8	C010602	Line1 Adapter06	PulseCounter2	8 Elec. kWh	0	0	0	0
9	C010603	Line1 Adapter06	PulseCounter3	9 Elec. kWh	0	0	0	0

4-5. Distribution ratio setting

[Procedure]

On the menu bar, select "Distribution ratio" – "Maintenance" - "Distribution ratio settings".

(Password level 1)

Make settings for Distribution mode, Specified days, Regular hour range setting, Cut-off days, Conversion factors and charge Price rate.

The screenshot shows the 'Distribution Ratio settings' window. Key elements are circled in red and labeled as follows:

- Distrib. mode:** Radio buttons for 'Simple' and 'Load'.
- Specified day settings:** A calendar for 'This month' (JUL 2009) with dates 1-31.
- Register/cancel/Close:** 'Register' and 'Cancel' buttons.
- Cut-off date setting:** A dropdown menu for 'Cut-off day' set to 'End of Month'.
- Price rate of electric power:** Input fields for Regular hour, Out of hour, Specified day, and All hours.
- Price rate of gas cost:** Input fields for Regular hour, Out of hour, Specified day, and All hours.
- Regular hour range settings:** Input fields for Regular hour: Valid, Hr., and Min.
- Conversion coefficient settings:** Dropdown menus for High, Mid, and Low conversion factors.

4-5-1. Setting distribution method

Set the distribution method. If the air conditioner is compatible with new distribution, loaded distribution can be selected for the calculation, but calculation will be disabled if it is selected with a non-compatible air conditioner. In that case, select simple distribution. For details of the distribution methods, refer to the distribution ratio calculation methods in the Reference appendix to the manual. For more information, contact your dealer or service provider.

When Simple Distribution is selected

Distrib. mode	<input checked="" type="radio"/> Simple	<input type="radio"/> Load
Gas distr/PwrGen	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Charge tenant	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Billing method	<input checked="" type="radio"/> Distrib. ratio	
	<input type="radio"/> I/D unit capacity	
	<input type="radio"/> The number of I/D	
Energy saving distrib.	<input checked="" type="radio"/> O/D system	
	<input type="radio"/> Distrib. group	
O/D ele. Distr.	<input checked="" type="radio"/> Yes	<input type="radio"/> No
I/D ele. Distr.	<input checked="" type="radio"/> Yes	<input type="radio"/> No

When Loaded Distribution is selected

Distrib. mode	<input type="radio"/> Simple	<input checked="" type="radio"/> Load
Gas distr/PwrGen	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Charge tenant	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Billing method	<input checked="" type="radio"/> Distrib. ratio	
	<input type="radio"/> I/D unit capacity	
	<input type="radio"/> The number of I/D	
Energy saving distrib.	<input checked="" type="radio"/> O/D system	
	<input type="radio"/> Distrib. group	
O/D ele. Distr.	<input checked="" type="radio"/> Yes	<input type="radio"/> No
I/D ele. Distr.	<input type="radio"/> Yes	<input checked="" type="radio"/> No

4-5-1-1. Selecting distribution method

Distrib. mode	<input type="radio"/> Simple	<input checked="" type="radio"/> Load
---------------	------------------------------	---------------------------------------

: Select simple distribution or load distribution.

4-5-1-2. Settings for simple distribution

The following can be selected when simple distribution is used.

O/D ele. Distr.	<input checked="" type="radio"/> Yes	<input type="radio"/> No
-----------------	--------------------------------------	--------------------------

: Sets whether or not to use simple distribution for outdoor unit electricity.

Yes : Use simple distribution for outdoor unit electricity.

No : Do not use simple distribution for outdoor unit electricity.

I/D ele. Distr.	<input checked="" type="radio"/> Yes	<input type="radio"/> No
-----------------	--------------------------------------	--------------------------

: Sets whether or not to use simple distribution for indoor unit electricity.

Yes : Use simple distribution for indoor unit electricity.

No : Do not use simple distribution for indoor unit electricity.

* The distribution of electricity for indoor units and outdoor units can be calculated separately for individual distribution groups.(This function is only for simple distribution).

4-5-1-3. Settings for load distribution

The following can be selected when load distribution is used.

Gas distr/PwrGen	<input checked="" type="radio"/> Yes	<input type="radio"/> No
------------------	--------------------------------------	--------------------------

: Select whether or not to distribute gas used for power generation.

Yes : Gas for air conditioning and gas for power generation will be separated.

No : All gas will be treated as air conditioning gas, without distinction between gas for air conditioning and gas for power generation.

Charge tenant	<input checked="" type="radio"/> Yes	<input type="radio"/> No
---------------	--------------------------------------	--------------------------

: Select whether or not to bill tenants for gas used for power generation.

Yes : Gas used for power generation will also be calculated for the tenants.

No : Gas used for power generation will not be calculated for the tenants.
(In that case, the amount of gas used for power generation will not be calculated, and will be at the expense of the owner.)

Billing method	<input checked="" type="radio"/> Distrib. ratio
	<input type="radio"/> I/D unit capacity
	<input type="radio"/> The number of I/D

: Specify the distribution method to use for gas for power generation. Add gas for air conditioning to the power generation gas distributed to tenants.

Distrib. ratio

: Assign it to each tenant proportionally to their distribution ratio.

I/D unit capacity

: Assign it to each tenant proportionally to the total capacity of indoor units included for that tenant. If the tenant has a smaller number of units, but of larger capacity, it will be assigned more than others.

The number of I/D

: Assign it to each tenant proportionally to the total number of indoor units included for that tenant. This method is unrelated to the size of indoor units. Even if the indoor units are of high capacity, the amount assigned to the tenant will be smaller than others if the number of units is lower.

Energy saving distrib.	<input checked="" type="radio"/> O/D system
	<input type="radio"/> Distrib. group

: Select whether operating efficiency improvements achieved by running energy-saving model, such as 3-way systems or ice heat accumulation, should be shared only within the system concerned or shared throughout the distribution group, which also includes ordinary model.

4-5-2. Editing specified day

4-5-2-1. Changing the calendar



Click on the button to display the preceding month.

Click on the button to display the next month.

Click on the button to return to the current month.

4-5-2-2. Setting specified day

To set a day as a specified day, click on the day. Its color will change to . Click again to cancel the setting. The color for that day reverts to .

4-5-3. Setting the regular hour range settings

4-5-3-1. Setting enable/disable for the regular hour range

To enable the setting for the regular hour range, click on Regular hour: Valid, and add the check mark. Click there again to remove the check mark, disabling the setting.

4-5-3-2. Setting times for Regular hour

Set the start and end times for Regular hours.

00
01
02
03
04
05
06
07

To set times, click on the button next to the hour or minute of the

<input type="text" value="08"/>	Hr.	<input type="text" value="00"/>	Min.
---------------------------------	-----	---------------------------------	------

A dropdown list of 0–23 is displayed for the hour, and of 0, 30 for the minutes. Use them to select the right time.

<input type="button" value="00"/>
<input type="button" value="00"/>
<input type="button" value="30"/>

4-5-4. Setting accumulated data

4-5-4-1. Setting the cut-off day

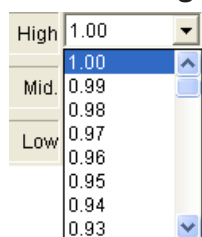
End of a Month
22
23
24
25
26
27
28
End of a Month

Set the monthly cut-off day for accumulated data. Click on the button to the right of the cut-off day to display a drop-down list offering 1–28 and month end. Select the right date.

If the cut-off date is set to "20", one month's data is from the 21st of the preceding month to the 20th of the current month, and the accumulated data is calculated accordingly.

* Among the accumulated distribution data set under Automatic Excel Output, the files related to cut-off date are created on the day after the cut-off date set here.

4-5-4-2. Setting conversion factor



When calculating the distribution for the weighting factor balance total, applying weighting according to fan speeds.

Click on the  button to the right of High, Mid. and Low.

Drop down lists showing the range 1.00–0.50 in steps of 0.01 are displayed, so select the relevant coefficients.

For example, if High is set to 1.00 and Mid. to 0.80, the distribution calculation would apply a 20% lower weighting to operation at medium fan speed than to operation at high fan speed.

4-5-5. Registering unit prices

4-5-5-1. Registering Price rate of electric power

Set Price rate of electric power. The distribution ratios, calculated using simple distribution or Load distribution, are multiplied by the electricity usage calculated from the power quantity from the pulse meter, and then by the electricity unit price to produce the charge for each tenant.

Unit price can be set in the range 0.000–9.999£/kWh.

If the time zone totals calculation function is used for the calculation, separate unit prices are set for regular hours, out of hours, and specified days, so it is possible to set, for example, a slightly higher rate for out of hours usage, to vary the level of billing with the time zone. Conversely, if the unit price was set for "All hours", a single calculation can be performed, regardless of time zones.

The results of these two calculation types are displayed together in the "All hours" list.

4-5-5-2. Registering Price rate of gas cost

Set the unit price for gas charges. The distribution ratios, calculated using simple distribution or Load distribution, are multiplied by the gas usage calculated from the gas quantity from the pulse meter, and then by the gas unit price to produce the charge for each tenant.

Unit price can be set in the range 0.000–9.999£/m³.

If the time zone totals calculation function is used for the calculation, separate unit prices are set for regular hours, out of hours, and special days, so it is possible to set, for example, a slightly higher rate for out of hours usage, to vary the level of billing with the time zone. Conversely, if the unit price was set for "All hours", a single calculation can be performed, regardless of time zones.

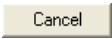
The results of these two calculation types are displayed together in the "All hours" list.

4-5-6. Registering settings

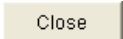
4-5-6-1. Registering settings

Click on the  button to register the set content.

4-5-6-2. Deleting settings

Click on the  button to delete the set content and revert to the previously registered content.

4-5-6-3. Deleting

Click on the  button to close the Distribution Ratio Settings screen.

4-6. Register distribution group name

[Procedure]

On the menu bar, select "Distribution ratio" – "Maintenance" - "Register distribution group name".

(Password level 1)

Distribution groups can be added and deleted. Distribution groups must be registered on this screen before they can be selected on the Accumulated Value master and the Indoor Unit master.

Registering distribution groups/cancel

No.	Name	Valid	Display	No.	Registered I/D unit
1	Distrib. group 1	<input checked="" type="checkbox"/>	1	1	01020101 Line1 Adapter2 I/D unit1
2	Distrib. group 2	<input checked="" type="checkbox"/>	2	2	01020102 Line1 Adapter2 I/D unit2
3	Distrib. group 3	<input checked="" type="checkbox"/>	3	3	01020103 Line1 Adapter2 I/D unit3
4	Distrib. group 4	<input checked="" type="checkbox"/>	4	4	01020104 Line1 Adapter2 I/D unit4
5	Distrib. group 5	<input checked="" type="checkbox"/>	5	5	01020105 Line1 Adapter2 I/D unit5
6	Distrib. group 6	<input checked="" type="checkbox"/>	6	6	01020106 Line1 Adapter2 I/D unit6
7	Distrib. group 7	<input checked="" type="checkbox"/>	7	7	01020107 Line1 Adapter2 I/D unit7
8	Distrib. group 8	<input checked="" type="checkbox"/>	8	8	01020108 Line1 Adapter2 I/D unit8
9	Distrib. group 9	<input checked="" type="checkbox"/>	9	9	01020109 Line1 Adapter2 I/D unit9
10	Distrib. group 10	<input type="checkbox"/>	10	10	01020110 Line1 Adapter2 I/D unit10
11	Distrib. group 11	<input type="checkbox"/>	11	11	01020111 Line1 Adapter2 I/D unit11
12	Distrib. group 12	<input type="checkbox"/>	12	12	01020112 Line1 Adapter2 I/D unit12
13	Distrib. group 13	<input type="checkbox"/>	13	13	01020113 Line1 Adapter2 I/D unit13
14	Distrib. group 14	<input type="checkbox"/>	14	14	01020114 Line1 Adapter2 I/D unit14
15	Distrib. group 15	<input type="checkbox"/>	15	15	01020115 Line1 Adapter2 I/D unit15
16	Distrib. group 16	<input type="checkbox"/>	16	16	01020116 Line1 Adapter2 I/D unit16

Registered indoor units

Register :Register settings.

Cancel :Revert to the previously registered state.

Key

- Name :Displays distribution group names.
- Valid :Sets enabled/disabled.
- Display :Displays the order in which the distribution groups are displayed.
- Registered I/D unit :This displays the names and other information on the indoor units that have been registered to the distribution group concerned.


* If the display order numbers are the same, tenants in the same distribution group will be displayed ahead of other tenants. In that case, the display order will be as specified in the tenant name registration.

4-6-1. Editing distribution groups

4-6-1-1. Editing distribution group names

To register distribution group names, input the registered names in the item cells to register. The previously displayed name is deleted and replaced by the new name. To edit, double click on the item cell to revise. The cursor is displayed in the selected item cell, enabling editing.

4-6-1-2. Enabling/disabling registration

 To enable registration, a check mark, as illustrated on the left, must be added to this enabled cell.


 (Click to add the check mark. Click again to remove the check mark.)

4-6-1-3. Registering display orders


When a distribution group is registered to another master, the pulldown list is displayed. Input the display order on the list. ("0" means display at the end of the list.)

4-6-2. Saving and revising edited distribution groups

After editing, the Register and Cancel buttons are enabled.

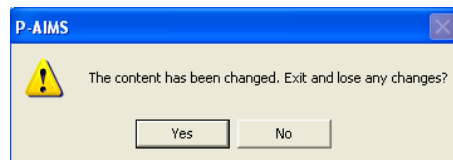
Once you have finished editing the distribution group, click on the  button at top of the screen.

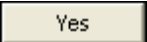
The edited distribution group is saved.

Click on the  button to return the edited distribution group to its previous state, without registering changes. Added and deleted items are also restored to their previous states.

4-6-3. Change confirmation

If you have changed the distribution groups and attempt to switch to another screen without first saving the changes, the change confirmation message is displayed.



Click on the  button to discard changes and switch screens.

Click on the  button to continue using this screen.

4-7. Register tenant name

[Procedure]

On the menu bar, select "Distribution ratio" – "Maintenance" - "Register tenant name".

(Password level 1)

Register tenant names.

Registering tenant names/cancel

Registered indoor units

No.	Name	Valid	Display
1	Tenant 1	<input checked="" type="checkbox"/>	1
2	Tenant 2	<input checked="" type="checkbox"/>	2
3	Tenant 3	<input checked="" type="checkbox"/>	3
4	Tenant 4	<input checked="" type="checkbox"/>	4
5	Tenant 5	<input checked="" type="checkbox"/>	5
6	Tenant 6	<input type="checkbox"/>	6
7	Tenant 7	<input type="checkbox"/>	7
8	Tenant 8	<input type="checkbox"/>	8
9	Tenant 9	<input type="checkbox"/>	9
10	Tenant 10	<input type="checkbox"/>	10
11	Tenant 11	<input type="checkbox"/>	11
12	Tenant 12	<input type="checkbox"/>	12
13	Tenant 13	<input type="checkbox"/>	13
14	Tenant 14	<input type="checkbox"/>	14
15	Tenant 15	<input type="checkbox"/>	15
16	Tenant 16	<input type="checkbox"/>	16

No.	Registered I/D unit
1	01020101 Line1 Adapter2 I/D unit1
2	01020102 Line1 Adapter2 I/D unit2
3	01020103 Line1 Adapter2 I/D unit3
4	01020104 Line1 Adapter2 I/D unit4
5	01020105 Line1 Adapter2 I/D unit5
6	01020106 Line1 Adapter2 I/D unit6
7	01020107 Line1 Adapter2 I/D unit7
8	01020108 Line1 Adapter2 I/D unit8
9	01020109 Line1 Adapter2 I/D unit9
10	01020110 Line1 Adapter2 I/D unit10
11	01020111 Line1 Adapter2 I/D unit11
12	01020112 Line1 Adapter2 I/D unit12
13	01020113 Line1 Adapter2 I/D unit13
14	01020114 Line1 Adapter2 I/D unit14
15	01020115 Line1 Adapter2 I/D unit15
16	01020116 Line1 Adapter2 I/D unit16

Register : Register settings.

Cancel : Revert to the previously registered state.

Key

- Name : Displays the name of the billed party (the tenant) for the invoice.
- Valid : Sets enabled/disabled.
- Display : Indicates the order in which tenants are displayed on the list screen.
- Registered I/D unit : Displays the names and other information on the indoor units that have been registered to the tenant name concerned.

* If the display order numbers for the distribution group are the same, the tenant in the same distribution group will be displayed ahead of the other tenant. In that case, the display order will be as specified in the tenant name registration.

4-7-1. Editing tenants

4-7-1-1. Editing tenant names

To register tenant names, input the registered names in the item cells to register. The previously displayed name is deleted and replaced by the new name.

To edit, double click on the item cell to revise. The cursor is displayed in the selected item cell, enabling editing.

4-7-1-2. Enabling/disabling registration



To enable registration, a check mark, as illustrated on the left, must be added to this enabled cell.

(Click to add the check mark. Click again to remove the check mark.)

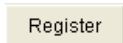
4-7-1-3. Registering display orders

When a distribution group is registered to another master, the pulldown list is displayed. Input the display order on the list.

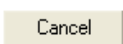
("0" means display at the end of the list.)

4-7-2. Saving and discarding edited tenants

After editing, the Register and Cancel buttons are enabled.

Once you have finished editing the tenant, click on the  button at top of the screen.

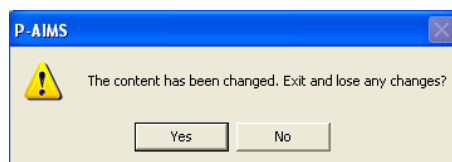
The edited tenant is saved.

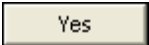
Click on the  button to return the edited tenant to its previous state, without registering changes.

Added and deleted items are also restored to their previous states.

4-7-3. Change confirmation

If you have changed the tenants and attempt to switch to another screen without first saving the changes, the change confirmation message is displayed.



Click on the  button to discard changes and switch screens.

Click on the  button to continue using this screen.

4-8. Indoor unit settings

[Procedure]

On the menu bar, select "Distribution ratio" – "Maintenance" - "I/D unit settings".
(Password level 2)

Set associations between indoor units, distribution groups and tenants. Also set the current added values etc. for electric heaters and indoor fans.

Line number Adapter Address

Display connected items
Display registered items

No.	Address	Connect	Cap.	Name	Tenant	O/D Distribution group	I/D Distribution group
1	01020101	Yes	22	Line1 Adapter2 I/D unit1	1.Tenant.1	1.Distrib. group 1	2.Distrib. group 2
2	01020102	Yes	22	Line1 Adapter2 I/D unit2	1.Tenant.1	1.Distrib. group 1	2.Distrib. group 2
3	01020103	Yes	22	Line1 Adapter2 I/D unit3	1.Tenant.1	1.Distrib. group 1	2.Distrib. group 2
4	01020104	Yes	22	Line1 Adapter2 I/D unit4	1.Tenant.1	1.Distrib. group 1	2.Distrib. group 2
5	01020105	Yes	22	Line1 Adapter2 I/D unit5	1.Tenant.1	1.Distrib. group 1	2.Distrib. group 2
6	01020106	Yes	22	Line1 Adapter2 I/D unit6	1.Tenant.1	1.Distrib. group 1	2.Distrib. group 2
7	01020107	Yes	22	Line1 Adapter2 I/D unit7	1.Tenant.1	1.Distrib. group 1	2.Distrib. group 2
8	01020108	Yes	22	Line1 Adapter2 I/D unit8	1.Tenant.1	1.Distrib. group 1	2.Distrib. group 2
9	01020109	Yes	22	Line1 Adapter2 I/D unit9	1.Tenant.1	1.Distrib. group 1	2.Distrib. group 2
10	01020110	Yes	22	Line1 Adapter2 I/D unit10	1.Tenant.1	1.Distrib. group 1	2.Distrib. group 2
11	01020111	Yes	22	Line1 Adapter2 I/D unit11	1.Tenant.1	1.Distrib. group 1	2.Distrib. group 2
12	01020112	Yes	22	Line1 Adapter2 I/D unit12	1.Tenant.1	1.Distrib. group 1	2.Distrib. group 2
13	01020113	Yes	22	Line1 Adapter2 I/D unit13	1.Tenant.1	1.Distrib. group 1	2.Distrib. group 2
14	01020114	Yes	22	Line1 Adapter2 I/D unit14	1.Tenant.1	1.Distrib. group 1	2.Distrib. group 2
15	01020115	Yes	22	Line1 Adapter2 I/D unit15	1.Tenant.1	1.Distrib. group 1	2.Distrib. group 2
16	01020116	Yes	22	Line1 Adapter2 I/D unit16	1.Tenant.1	1.Distrib. group 1	2.Distrib. group 2

Line 1 CZ-CFUNC2 Adaptor address 1

Connected

Registered

Register

Cancel

:Specify communication line numbers and adaptor addresses.

:Only displayed when the connection column is "Yes".

:Only those that are registered in the I/D unit master data settings are displayed.

:Register settings.

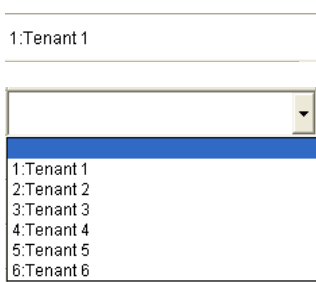
:Revert to the previously registered state.

Key

- Address : Displays the addresses of indoor units.
- Connect : Displays "Yes" for data that is connected to indoor units.
- Cap. : Displays the capacities of indoor units.
- Name : Displays the names of indoor units.
- Tenant : Specify associations with tenant names.
- O/D distribution group : Specify associations with distribution groups for outdoor units.
- I/D distribution group : Specify associations with distribution groups for indoor units.
(This is displayed when "Yes" is selected for indoor distribution under Distribution ratio settings).
- Elec. heater : Specify electric heater capacities.
- I/D fan : Specify current added values for fans of indoor units.
- Fix cap. : Specify the capacities of indoor units.

4-8-1. Registering indoor units


4-8-1-1. Registering tenants



1: Tenant 1

1: Tenant 1
2: Tenant 2
3: Tenant 3
4: Tenant 4
5: Tenant 5
6: Tenant 6

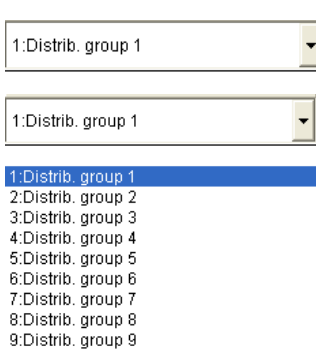
To specify tenants registered under Register Tenant Name, click on the tenant column for the indoor unit concerned, to display a combo box.

Click on the  button on the right to display the pulldown menu, then click on the relevant tenant.

The pulldown menu displays the tenants registered under Register Tenant Name.

The same procedure can be used to make changes.

4-8-1-2. Registering distribution groups




1: Distrib. group 1

1: Distrib. group 1
2: Distrib. group 2
3: Distrib. group 3
4: Distrib. group 4
5: Distrib. group 5
6: Distrib. group 6
7: Distrib. group 7
8: Distrib. group 8
9: Distrib. group 9

To specify distribution groups registered under Register

Distribution group name, click on the distribution group column for the indoor unit concerned, to display a combo box.

Click on the  button on the right to display the pulldown menu, then click on the relevant distribution group.

The pulldown menu displays the distribution groups registered under Register Distribution Group Name.

The same procedure can be used to make changes.

4-8-1-3. Registering electric heater capacities

Specify the electric heater capacities of indoor units that are equipped with electric heaters. Input capacities in kW units. They are used in loaded distribution calculations.

4-8-1-4. Registering indoor fans

When calculating loaded distribution, input the indoor fan current added values required for calculating the fan power of indoor units.

The initial value is set to "0.02".

4-8-1-5. Registering fixed capacities

The capacities of indoor units are acquired automatically and displayed in the Cap column. There are some models from which the data cannot be acquired automatically, so input the capacities of those in kW units. If the value in the Fix cap. column is "0", the data in the Cap. column will be used to calculate distribution.

4-8-1-6. Enabling/disabling registration



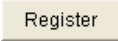
Valid

To enable registration, a check mark, as illustrated on the left, must be added to this enabled cell.

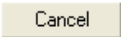
(Click to add the check mark. Click again to remove the check mark.)

4-8-2. Saving and discarding edited indoor unit settings

After editing, the Register and Cancel buttons are enabled.

Once you have finished editing the indoor unit settings, click on the  button at top of the screen.

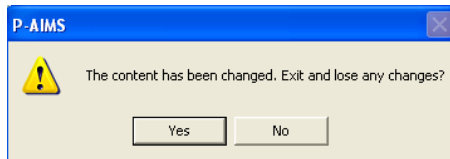
The edited tenant is saved.

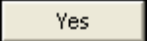
Click on the  button to return the edited tenant to its previous state, without registering changes.

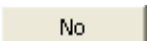
Added and deleted items are also restored to their previous states.

4-8-3. Change confirmation

If you have changed the indoor unit settings and attempt to switch to another screen without first saving the changes, the change confirmation message is displayed.



Click on the  button to discard changes and switch screens.

Click on the  button to continue using this screen.

5. Supplementary Information

- **Personal Computers**
Use a personal computer exclusively for the P-AIMS System.
Sharing the PC with any other system could cause problems.

- **Data backup**
The PC used with the P-AIMS System could break down, so you are advised to back up data to an external hard drive or other storage. For more information, contact your dealer or service provider.
NOTE: When the drive name of an external hard disk drive is changed, it is not possible to back up.

- **Power outages**
We recommend use of a UPS device (uninterruptible power supply) to protect the P-AIMS in the event of a power outage. For more information, contact your dealer or service provider.

- **Please note that we will not provide compensation in the following circumstances:**
Any fault caused by a third party becoming aware of a password.
Any fault caused by sharing a PC between P-AIMS and another application.

- **Acquisition of accumulated data**
When accumulated data is acquired, it passes through two communication lines, from the indoor unit group to the AMY adapter, and from there to the P-AIMS system. Please note, it is possible that regular hours data may be received as out of hours data, due to the timing of communications and any related delays.

- **Limitations on changing settings**
Some types of air conditioners are limited in the settings which they support.
For example, cooling-only air conditioners cannot be set to heating.
Floor-type models typically support only high fan speeds.
Ceiling mounted models do not have flaps, and therefore cannot change the fan direction.
You should be aware of the limitations of the air conditioner models in your system.
For more information, contact your dealer or service provider.

- **Standby power**
The system performs distribution calculations on the basis of indoor unit operating time.
Therefore it does not count power consumed while stopped (on standby).
For example, if no units are operated over the course of a month, no standby power consumption is distributed to any tenant. However if a unit is operated for even one minute, then all of the standby power consumption is distributed to the corresponding tenant.
For load distribution, distribution is made with standby power added.

- **Only alarm codes are displayed in the notification bar and alarm log display.**
The content of an alarm can vary for different models, even if the alarm code is the same.
Consult the documentation of the various models to determine the content of the alarm.

- **Because of data transmission delay, the totals and distribution data displayed by the system for different time zone (regular hours, out of hours, special days) may not be counted in a completely accurate fashion.**

- Cut off processing for the previous day is performed every day for a few minutes after midnight. The system may not respond to user input during this processing.
- After the settings of an indoor unit are changed from the P-AIMS System, the display may revert temporarily to the former settings. This is more likely to occur with all-unit operations. The cause is communications delay, not any malfunction in the system. If you wait a few minutes, the display will show the correct information.

- When errors occur while operating during a thunderstorm or because of electromagnetic interference.
Power the terminal off and then on again.
As a rule, the system should be powered off only in cases such as the above.
Correct management of air conditioning is not possible when the system is powered off.

- About distribution ratios and energy usage
The formulas used by this system to calculate air conditioning distribution ratios and energy usage are only approximations. They normally do not yield the same amounts that appear on bills from electric and gas utilities.
Depending on operating conditions, there may be a margin of error between distribution ratios and actual air conditioning amounts.
There may also be a small margin of error between the following, due to the rounding algorithms used in distribution ratio calculations.
 - "Distribution ratios of tenants in a group" and "100.0000%"
 - "Total of distribution ratios" and "Overall tenant distribution ratio"
 - "Total of usage by each tenant" and "Total usage indicated by pulse meters"
 - "Total of usage during regular hour, out of hours, and specified days time zones" and "Total of all hours time zones"
 This product does not measure energy directly, but uses the ratios of loads estimated for each indoor unit to calculate distribution (proportional allocation). The results of the calculations should be regarded as approximations.

- About operating time totals
Air conditioning distributions and air conditioner operating times are calculated only for periods in which the system is powered on and in which there are no communications errors between the system and the air conditioners.
Therefore, no totals are accumulated for times when the system is powered off or in which communications errors occur.
You should be aware that errors in distribution ratios will become larger if conditions like the above continue for a longer period of time.

- Situations in which major errors are likely to occur in calculations of distribution ratios etc.
In some of the semi-central-type and floor-type air conditioners and older models with electric heaters, major errors are likely to occur in calculations of air conditioning distribution ratios and other figures.
Also, if pan-type humidifiers with high power consumption are used, the distribution calculation does not reflect humidification operation time, so major errors result.
For more information, contact your dealer or service provider.

- Setting the current date and time
The current date and time should be set on a regular basis, since the clock of an ordinary PC can gain or lose up to about two minutes per month.

- Passwords
Passwords should be recorded and saved in a safe place. They should never be disclosed to third parties.
If you forget your password, contact your dealer or service provider.

■ Interface adaptors (sold separately)

Interface adaptors (CZ-CAPC2)

You can use on/off local adaptors to connect equipment that can be turned on and off (fans, room air conditioners and so on) to the system.

However, note that the following limitations apply.

For details, refer to the documentation of the equipment or contact your dealer or service provider.

▶ About distribution calculations **Important**

[1] Fan speed data

Accumulated operation time for each fan speed is fixed at medium fan speed.

Accumulated time for thermostat On is counted as fixed to Medium fan speed even when a thermostat On signal input is connected to the local adapter.

[2] Indoor unit capacity value

Values cannot be loaded automatically.

Contact your dealer or service provider about settings.

[3] Product type

It is not possible to distinguish between PAC and GHP models.

Contact your dealer or service provider about settings.

[4] Distribution between indoor units

They are only compatible with simple distribution. No load distribution can be made.

Contact your dealer or service provider for details.

▶ As long as it conforms to the contact specifications of the interface adaptors, any type of equipment can be connected to the system. However, you should avoid connecting equipment whose operation can have grave consequences for life or property.

6. License Certification

Before you can use the Distribution Ratio Software for 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

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.

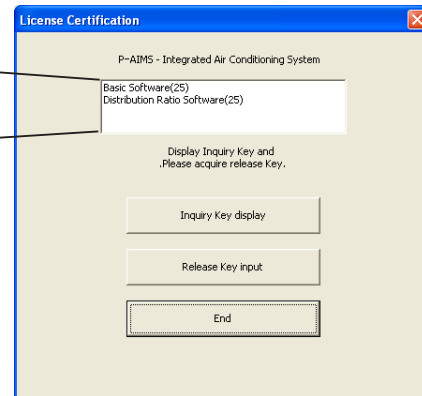
- (1) Check the inquiry key from the License Certification screen.
- (2) Send the inquiry key to the Product ID Issuance Desk (cmc_productid_desk@gg.jp.panasonic.com).
Also notify us of the product name, company name/contact person, phone number, and e-mail address.
- (3) A release key is issued.
You 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.

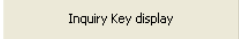
Basic Software(25)
Distribution Ratio Software(25)

"Distribution Ratio Software (25)" means that the number of remaining days that you can use the Distribution Ratio Software is "25." It is not displayed after you finish license certification.



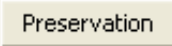
* After you start a P-AIMS system for which license certification is not finished, the License Certification screen will appear at 9:00 a.m. and 3:00 p.m. This screen is not displayed after you finish license certification. If you install optional software, the License Certification screen will appear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

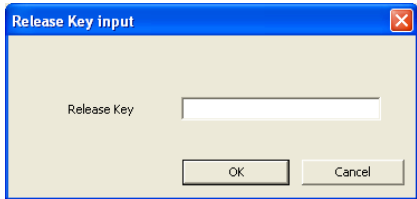
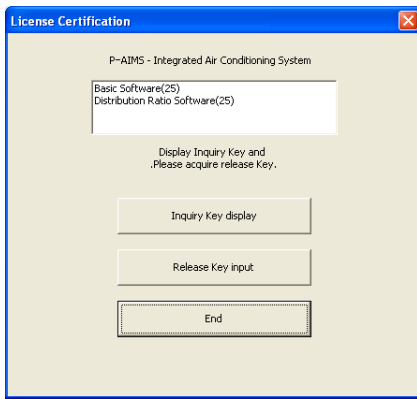
:Clicking this button saves the inquiry key as a text file. Follow the instructions on the screen to save the text file. Enter the product name, company name/contact person, phone number, and e-mail address in this saved text file, and send the text file to the Product ID Issuance Desk by e-mail.

 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.

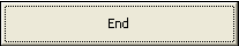


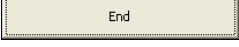
3. When you receive the release key, restart the P-AIMS system. See "2. Startup and shutdown" for how to restart the P-AIMS system, and then restart the system.

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.)

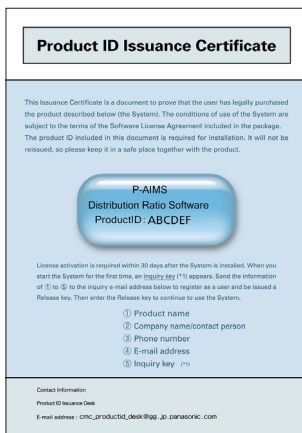
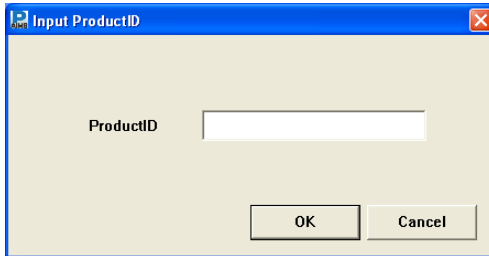
License certification is finished once all of the release keys have been entered.

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.)

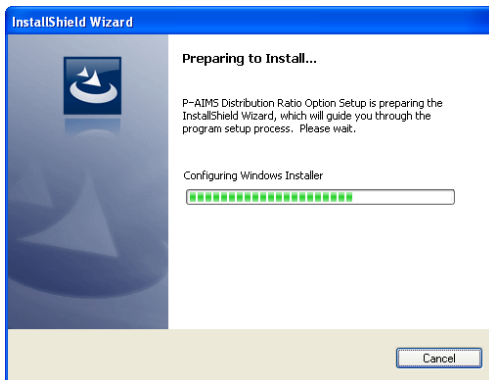
7. Preparation

7-1. Installation

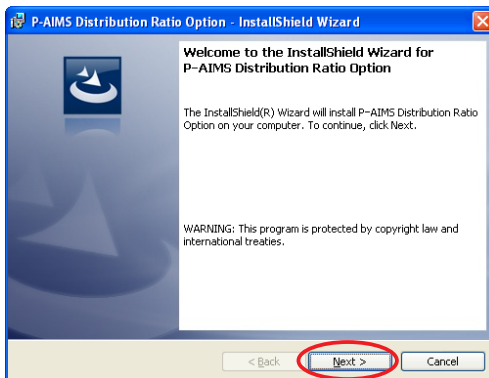


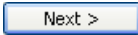
1. First, stop the P-AIMS system. Insert the Fare Calculate Software CZ-CSWAC2 CD of the air-conditioning integrated system (P-AIMS system) you purchased into the CD-ROM drive. The program on the CD-ROM starts automatically and makes preparations for installation. If installation does not start, double-click "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.

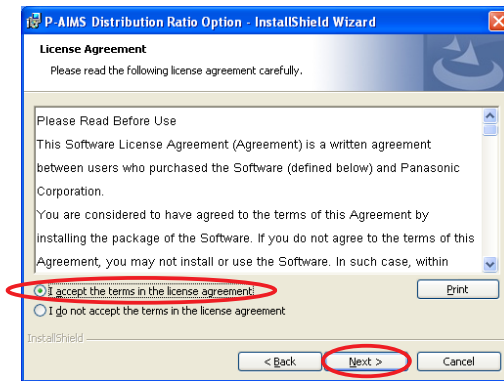
* Keep the "Product ID Issuance Certificate" in a safe place. The Product ID is required to install the air-conditioning integrated system. The "Product ID Issuance Certificate" will not be reissued.



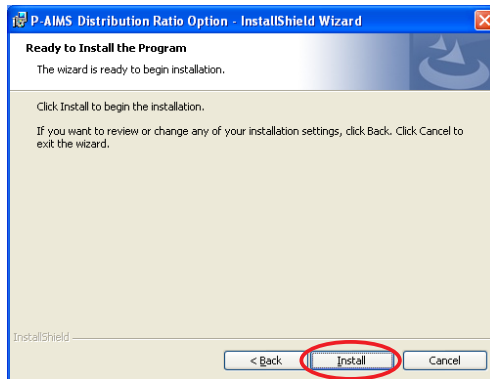
2. The InstallShield(R) Wizard prepares to install the P-AIMS system.



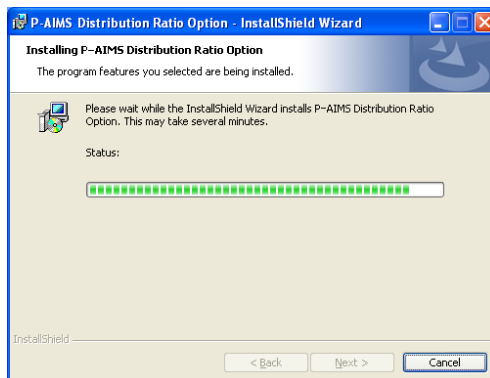
3. After a short while, the "The InstallShield(R) Wizard will install P-AIMS Distribution Ratio Option on your computer. To continue, click Next." message appears. Click the  button.



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.)

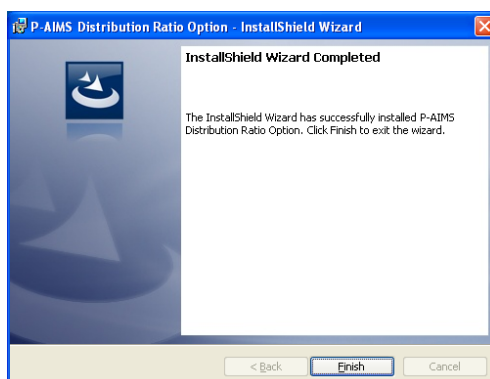


5. The "The wizard is ready to begin installation. Click Install to begin the installation." message appears. Click the button.



6. The installation of the P-AIMS system begins.

Please wait a while.

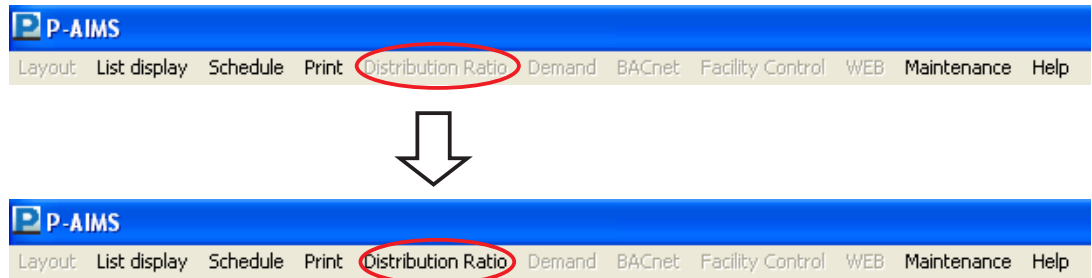


7. When the P-AIMS system setup is finished, the installation complete screen appears. Click the button to complete the installation.

* When installing the Distribution Ratio software, it is possible to install this system without stopping the P-AIMS system, but the functions of the Distribution Ratio software will not be added. Restart the P-AIMS system.

7-2. Display after restart

After the system restarts, the fee calculation functions are enabled and the menu item Distribution ratio is selectable.



7-3 Settings

Once installation is complete, you must make registrations and settings such as "Distribution ratio setting," "Register distribution group name," "Register tenant name," "Accumulated value master data," and "I/D unit master data." Refer to the explanations in the corresponding sections for information on these settings.

Entrust the registration of "Accumulated value master data" and "I/D unit settings" to the place of purchase or the service company.

Reference

■ Distribution ratio calculation (for simple distribution)

This section explains how air conditioning consumption distribution ratio and charges etc. are calculated by the P-AIMS system. The P-AIMS system is a common product for both electric package air conditioners (PAC) and gas heat pump air conditioners (GHP), so distribution ratios and air conditioning consumption are calculated by different methods for PAC and GHP.

1. Parameters as listed below are used for calculations:

- ① RHHi : Accumulated operation time for indoor unit i (High fan speed)
- ② RHi : Accumulated operation time for indoor unit i (Medium fan speed)
- ③ RLi : Accumulated operation time for indoor unit i (Low fan speed)
- ④ SHHi : Thermostat ON accumulated time for indoor unit i (High fan speed)
- ⑤ SHi : Thermostat ON accumulated time for indoor unit i (Medium fan speed)
- ⑥ SLi : Thermostat ON accumulated time for indoor unit i (low fan speed)
- ⑦ PSi : Capacity of indoor unit i (equivalent kW value)
- ⑧ α_{HH} : Weighting coefficient for high fan speed (0.50-1.00).
- ⑨ α_H : Weighting coefficient for medium fan speed (0.50-1.00).
- ⑩ α_L : Weighting coefficient for low fan speed (0.50-1.00).

- * ①-③ are the sums of thermostat On accumulated operation time and thermostat Off accumulated operation time at each fan speed.
- ④-⑥ are the thermostat On accumulated operation times at each fan speed.

2. Distribution ratio calculation formulae

Use the following formulae to find suitable power consumption indices for indoor unit i.

(1) Outdoor unit distribution

For a PAC system

The convenient outdoor power consumption index TEO_i for indoor unit i is

$$TEI_i = (SHHi \times \alpha_{HH} + SHi \times \alpha_H + SLi \times \alpha_L) \times PSi$$

The convenient outdoor energy consumption index TG_i for indoor unit i is

$$TG_i = 0$$

For GHP systems

The convenient outdoor power consumption index TEO_i for indoor unit i is

$$TEI_i = (RHHi \times \alpha_{HH} + RHi \times \alpha_H + RLi \times \alpha_L) \times PSi$$

The convenient outdoor energy consumption index TG_i for indoor unit i is

$$TG_i = (SHHi \times \alpha_{HH} + SHi \times \alpha_H + SLi \times \alpha_L) \times PSi$$

(2) Indoor unit distribution

Common for both PAC and GHP

The convenient outdoor power consumption index TEI_i for indoor unit i is

$$TEI_i = (RHHi \times \alpha_{HH} + RHi \times \alpha_H + RLi \times \alpha_L) \times PSi$$

The outdoor electricity consumption index $TOTALO_e$ and outdoor gas consumption index $TOTAL_g$, and indoor electricity consumption index $TOTALI_e$ for the distribution group as a whole are the totals of TEO_i , TG_i and TEI_i for all indoor units in the group (m units).

$$TOTALO_e = TEO_1 + TEO_2 + \dots + TEO_m$$

$$TOTAL_g = TG_1 + TG_2 + \dots + TG_m$$

$$TOTALI_e = TEI_1 + TEI_2 + \dots + TEI_m$$

Therefore, the outdoor electricity consumption distribution ratio REO_i , outdoor gas consumption distribution ratio RG_i and indoor electricity consumption distribution ratio REI_i for indoor unit i are the ratios of the consumption indices between the indoor unit concerned and the group as a whole, so

$$REO_i(\%) = TEO_i \div TOTALO_e \times 100$$

$$RG_i(\%) = TG_i \div TOTAL_g \times 100$$

$$REI_i(\%) = TEI_i \div TOTALI_e \times 100$$

(Distribution groups can be set separately for outdoor units and indoor units.)

Outdoor electricity usage distribution ratio NEO_j , outdoor gas usage distribution ratio NG_j and indoor electricity usage distribution ratio NEI_j in tenant units can be calculated as follows, where n is the number of indoor units belonging to tenant j .

$$NEO_j(\%) = REO_1 + REO_2 + \dots + REO_n$$

$$NG_j(\%) = RG_1 + RG_2 + \dots + RG_n$$

$$NEI_j(\%) = REI_1 + REI_2 + \dots + REI_n$$

*Distribution ratios are rounded at the fifth decimal place and shown to the fourth decimal place.

3. Air conditioning usage calculation method

- ① NEO_j : Outdoor electricity usage distribution ratio (%) for tenant j .
- ② NGI_j : Outdoor gas distribution ratio (%) for tenant j .
- ③ NEI_j : Indoor electricity usage distribution ratio (%) for tenant j .
- ④ PeO : Accumulated outdoor electricity usage value for the group concerned.
- ⑤ PeI : Accumulated indoor electricity usage value for the group concerned.
- ⑥ Pg : Accumulated outdoor gas value for the group concerned.
- ⑦ @E : Unit charge for electricity charges (£) (0.000-9.999).
- ⑧ @G : Unit charge for gas charges (£) (0.000-9.999).

Air conditioning usage for each tenant is found by allocating the usage for the group as a whole according to the distribution ratio for each tenant, so in the following formulae, MME_j is the electricity usage and MMG_j is the gas usage for tenant j .

$$MMEO_j(\text{kWh}) = PeO \times NEO_j$$

$$MMG_j(\text{m}^3) = Pg \times NG_j$$

$$MMEI_j(\text{kWh}) = PeI \times NEI_j$$

Outdoor electricity usage charge MEO_j , outdoor gas usage charge MG_j , and indoor electricity usage charge MEI_j for tenant j are

$$MEO_j(\text{£}) = MMEO_j \times @E$$

$$MG_j(\text{£}) = MMG_j \times @G$$

$$MEI_j(\text{£}) = MMEI_j \times @E$$

4. Screen Display

NEO_j (%) is displayed in the outdoor electricity distribution ratio space.

NG_j (%) is displayed in the outdoor gas distribution ratio space.

NEI_j (%) is displayed in the indoor electricity distribution ratio space.

$MMEO_j$ (kWh) is displayed in the outdoor electricity usage space.

MMG_j (m³) is displayed in the outdoor gas usage space.

$MMEI_j$ (kWh) is displayed in the indoor electricity usage space.

MEO_j (£) is displayed in the outdoor electricity charge space.

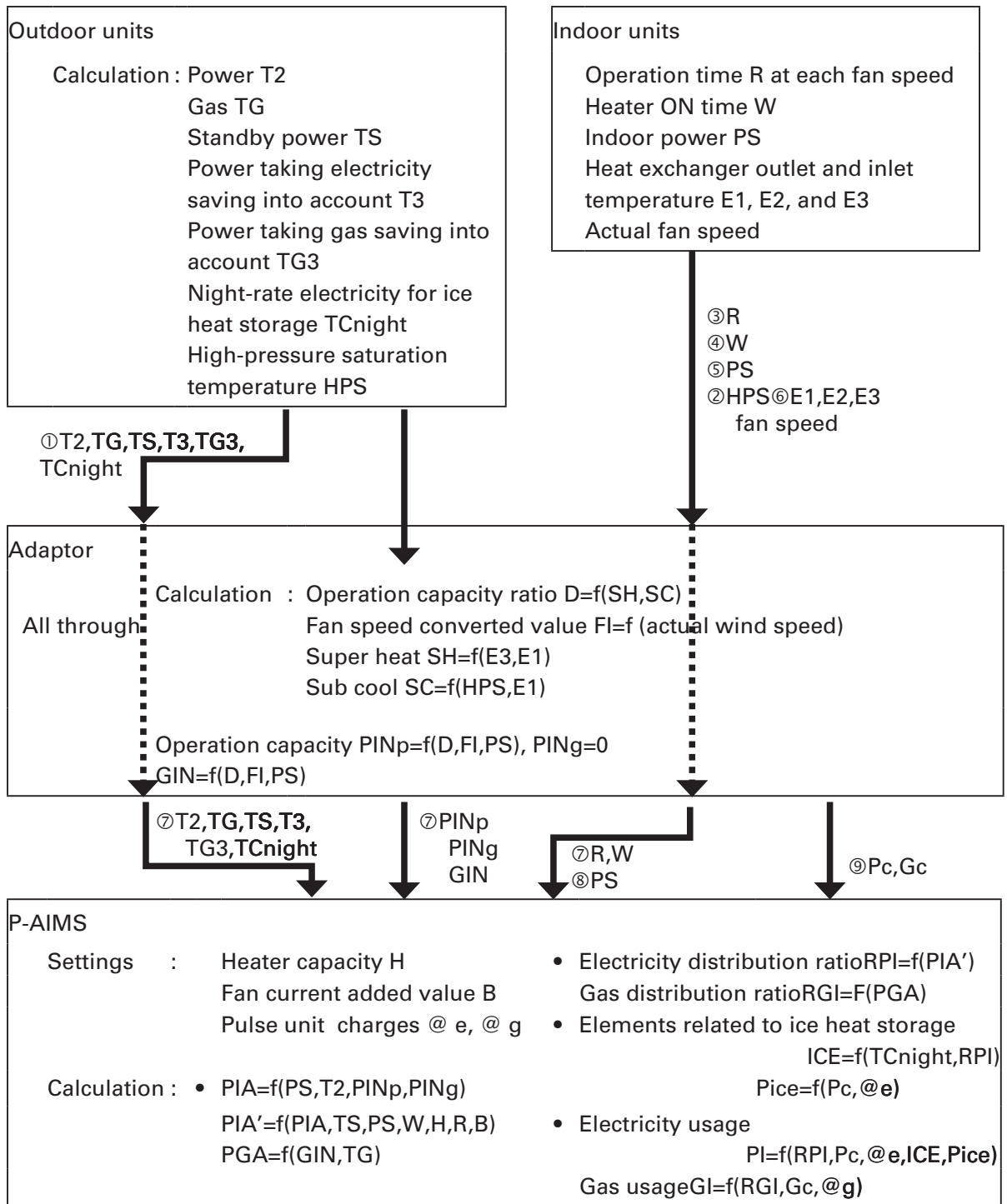
MG_j (£) is displayed in the outdoor gas charge space.

MEI_j (£) is displayed in the indoor electricity charge space.

$MEO_j(\text{£}) + MG_j(\text{£}) + MEI_j(\text{£})$ Is displayed in the total charge space.

■ Distribution ratio calculation (for loaded distribution)

1. Data flow chart



“f” means function. For example:

Operation capacity ratio $D=f(SH,SC)$

means that the operation capacity ratio is calculated using super heat SH and sub cool SC.

2. Distribution ratio calculation method

The following parameters are used.

- ① NE_j : Electricity distribution ratio (%) for tenant j
- ② NG_j : Gas distribution ratio (%) for tenant j
- ③ PE1 : Accumulated pulse value from electricity meter 1 for the group concerned.
- ④ PE2 : Accumulated pulse value from electricity meter 2 for the group concerned.
- ⑤ PG : Accumulated pulse value from the gas meter for the group concerned.
- ⑥ @E : Unit charge for electricity usage (£/kWh) (0.000-9.999).
- ⑦ @G : Unit charge for gas usage (£/m³) (0.000-9.999).

③, ④ and ⑤ are the accumulated pulse counter values of the electricity and gas meters registered for the use of the group concerned.

When multiple pulse meters are registered for a single distribution group, the totaled values each for electricity and for gas are used.

⑥ and ⑦ are user-specified currency values indicating the £ equivalent of a unit of usage input from the pulse meter.

The usage charge for each tenant is found by allocating the usage charge for the distribution group as a whole according to the distribution ratio for each tenant, so in the following formulae, ME_j is the electricity usage charge and MG_j is the gas usage charge for tenant j.

$$\begin{aligned}ME_j(\pounds) &= (PE1 \times @E) \times NE_j \\MG_j(\pounds) &= (PG1 \times @G) \times NG_j\end{aligned}$$

For PAC systems, NG_j=0%, so MG_j is Y0.
However, for a HOT system,

$$MG_j(\pounds) = (PG1 \times @G) \times NG_j$$

Note

User memo space

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. ()

