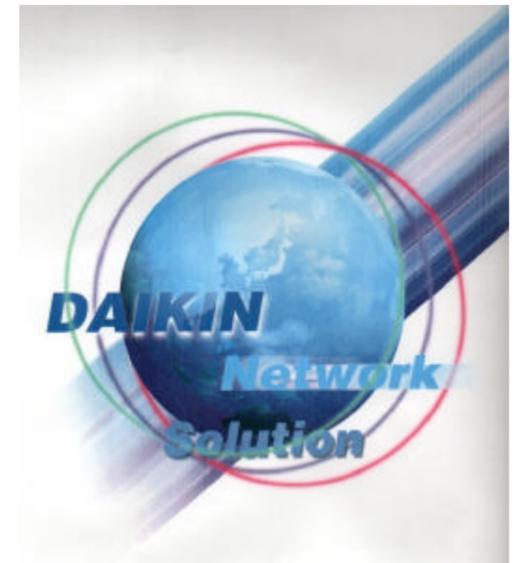


**DAIKIN**



# DS-net Engineering Data



## 1. Overview

For A/Cs used to cool facilities such as unmanned relay stations

- Local control (\*1) for uninterrupted operation, backup operation, rotation operation, etc.
- Remote error monitoring
- Remote control (Remote controller)

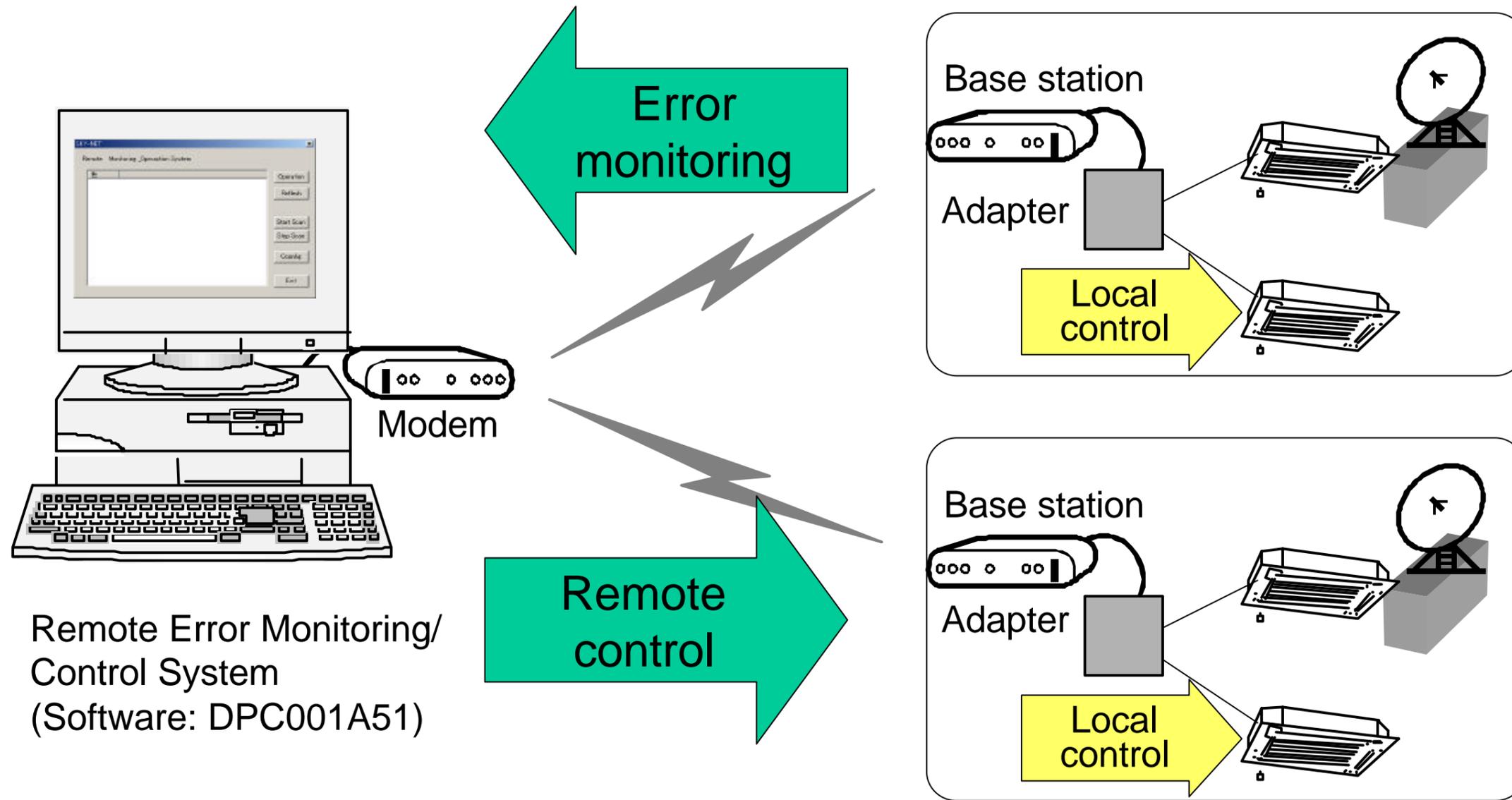
Light-structured system

- Error monitoring and local control ensured with moderately priced adapters
- Remote monitoring/control with any commercially available Windows PC or public phone lines

\*1: Uninterrupted operation is not a guaranteed function.



## 2-1. System Overview

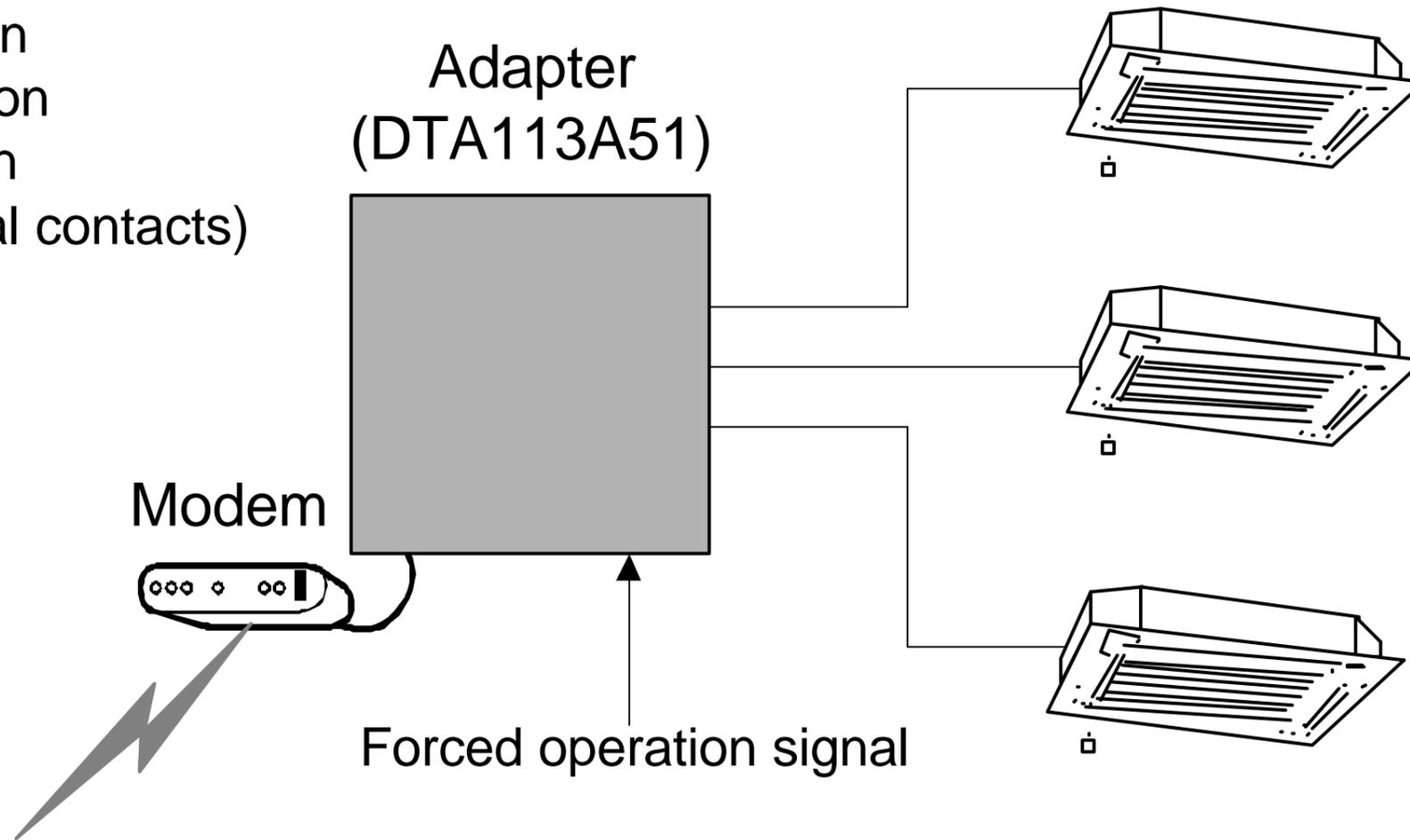




## 2-2. System Overview (Site)

### <Local Control>

- Backup operation
- Rotation operation
- Forced operation (through external contacts)



### <Remote Error Monitoring/Control>

- Errors are communicated to the monitoring system.
- Remote instructions are subsequently given.



## 3-1. Features (System)

### <Remote Error Monitoring Function>

- Error monitoring through real-time error reports sent from the adapters
- Status monitoring via automatic scanning with a PC up to four times a day
- Status monitoring via manual scanning of the entire system or individual units

### <Remote Control Function>

- Remote control function on the PC

Start/Stop, temperature setting, operation mode setting, etc. (equivalent to functions provided by a remote controller)

### <Others>

- Print/Data export
- Communications log functions
- Security functions via password management of adapters and PC software
- A single PC can be used for error monitoring and control of up to 50 sites (up to 150 air conditioners).



## 3-2. Features (Local Control)

### <Local Control Function>

- Automatic backup operation upon error occurrence
- Rotation operation that evens out A/C operation over the product's life cycle
- Controls the number of A/C units to be simultaneously operated
- Up to three A/C units can be monitored/controlled with one adapter.

### <Error Monitoring Function>

- Detected errors are immediately relayed to the PC.

### <Other>

- Forced Start/Stop operation through external signals
- Power supply from A/C units



## 3-3. Features (Monitoring software)

- Main Screen (Overview)

The screenshot shows the main interface of the DSNET monitoring software. It features a central data table, a right-hand control panel, and a separate error report window.

**Main Screen (Overview) Callouts:**

- Log-in / Log-out:** Located at the top center of the interface.
- Displays information obtained in the previous communication. Lettering will turn red when an error is detected.** Points to the data table where the 'A/C2' row has red text.
- Displays More Detailed Information:** Points to the right-hand control panel.
- Control Function - A/C operation - Adapter operation:** Points to the 'A/C' and 'Adapter' buttons in the control panel.
- Manual Scan Function - All/Individual:** Points to the 'Scanning' section with 'Individual' and 'All site' buttons.
- System Setting Print/Export:** Points to the 'System Setting', 'Print/Export', and 'Error Info.' buttons.

**Data Table (Main Screen):**

No	A/C na...	Adapte...	Lin...	Opeart...	Malf...	Ro...	Site na...	Latest co...	Comm
1	A/C1	10000...	0	'aZ~	00	0	SITE000	2001/08/...	0000
2	A/C2	20000...	0	'%~	A9	0	SITE001	2001/08/...	0000
3	A/C3	30000...	0	'aZ~	00	0	SITE001	2001/09/...	0000
4	A/C4	40000...	0	'aZ~	00	0	SITE001	2001/09/...	0000
5	A/C5	50000...	0	'aZ~	00	0	SITE001	2001/09/...	0000
6	A/C6	60000...	0	'aZ~	00	0		2001/09/...	0000
7	A/C7	70000...	0	'aZ~	00	0		2001/09/...	0000
8	A/C8	80000...	0	'aZ~	00	0		2001/09/...	0000

**Error Report Window (DSNetErr [F#DSNE]):**

No	A/C name	Adapter ID	Line No	Latest comm. time	Type of ...
2	A/C2	0000000000	0	2001/08/24 21:39:22	Malfuncti...

**Buttons in Error Report Window:** Buzzer OFF, Close



- Monitoring/Detailed Info

Operation status/detailed information on A/C units

Start/Stop, Operation mode, Room temperature, etc.

Detailed information on adapters

Local control parameters, Telephone number, etc.

Operation Status/Detailed Info on A/C units

The screenshot shows a window titled "Detailed information" with the following fields:

- Operation: 'aZ~
- Malfunction code: 00
- Room temperature (suction temp.): 0 ??
- Detailed information section:
  - Operation mode: 'g-[
  - Operation time: 2
  - Compressor operation time: 0
  - Compressor switching time: 0
  - Set point: 22 ??
  - Site telephone number: 100-0000-0000
  - Fan speed:
    - Fan 1: 1
    - Fan 2: 0

Buttons at the bottom: Adapter info., Close

Detailed Info on Adapters

The screenshot shows a window titled "Adapter information" with the following fields:

- Central telephone number: B2000000000000
- Number of dial retry: 10 times
- Number of ring: 2 times
- Valid A/C:
 

Line:0	Line:1	Line:2
1	0	0
- Interval of alternation: 0 hour
- Automatic backup operation: -3
- Minimum number of A/C: 0 unit

Button at the bottom: Close



## • Remote Operation

### A/C Operation

Start/Stop, Operation mode, Temperature setting, Airflow rate, etc.

### Adapter setting

Local control parameters, etc.

The image displays two software windows from the DAIKIN remote control interface. The 'A/C operation' window on the left includes controls for Start/Stop (Start, Stop, Sequential start), Operation mode (Cooling, Heating, Fan, Ventilation), and Set Point (Heating, Cooling). The 'Adapter setting' window on the right includes controls for Number of dial retry (10), Number of ring (2), Automatic backup (Invalid), Interval of alternation (0), and Minimum number of A/C (0). Callouts point to various settings: Start/Stop, Airflow rate, Temperature setting, Operation mode, Filter sign reset, Accumulation info reset, Number of dial retries, Automatic backup operation, Operation interval alternation, and Minimum number of A/Cs.



## 4-1. Specifications

### • Support A/C

Mid-level static pressure duct	FD(Y)M ~ F(A)	
Corner	FHYK-F	
Built-in	FHYB-F	
Wall-mounted	FAY-F	
Ceiling-suspended	FHY-B	[KRP1C93]
Floor-standing	FVY-L	[KRP4A95]
High static pressure duct	FDY ~ K(A)	[KRP1B100]
Four-way cassette	FHYC-K	[KRP1B98, Super Cassette for Asia]
Four-way cassette	FHYC-B	[RP1C98, New Super Cassette for Europe]
Wonderful	FUY-F	[KRP1B97]
Low static pressure duct	FDYB to K(A)	[KRP1B100]

Figures in parentheses [ ] denote the model codes on the installation plates and boxes.

\* RAs are not supported.

\* Contact your DAIKIN representative with regard to any matters pertaining to VRVs.



# DAIKIN DSnet System



- PC, Modem

## PC

- CPU: Celeron (500 MHz) or higher-grade CPU
- Memory: 64 MB min. (128 M recommended)
- HDD: 6 GB (Free space of at least 1G)
- Monitor: At least 800\*600 (256 colors)
- Windows: Windows 2000, Windows NT4.0 (SP4 or later version)  
(Windows95, 98 and Me are not supported)

Do not use PC functions such as standby and sleep because the PC is used for continuous error monitoring.

## Modem

Zoom, model 2948 or equivalent recommended.

\* The same type of modems must be used in the PCs and at the site(s) in order to maintain compatibility between these.



## 5. Q & A

Is it possible to operate air conditioners at a moment's notice in cases where the room temperature suddenly rises?

Yes, by sending a forced operation signal to the adapter with external sensors. However, the system does not communicate temperature errors and the like.

\* Contact your DAIKIN representative for details.

Does the system require a backup power supply?

Power supply for the adapter is taken from that intended for air conditioners so it depends on the A/C backup function.

In order to protect the PC from accidental power failures, the installation of a UPS (uninterruptible power supply) is recommended.

Is it possible to remotely monitor/control A/Cs other than SkyAir?

RAs are not supported.

Contact your DAIKIN representative with regard to any matters pertaining to VRVs.



# DAIKIN DSnet System



Is it possible to use multiple PCs to monitor the system?

No. The system is not designed to perform remote monitoring/control from a multiple number of PCs partly due to light structure concept. A single PC can adequately monitor/control up to 50 sites.

Is it possible to connect the system to one unique to a specific customer?

No. This system does not support connections between the DS-NET System and customer's host system.

The customers can, however, develop their own monitoring system (software) by utilizing adapters. Please inquire with your DAIKIN representative for further details.



# DAIKIN DSnet System



## What is the difference between AIRNET and DS-NET?

The DS-NET is a system that enables a customer to monitor/control its A/C system. Whereas, the AIRNET is a service whereby DAIKIN, instead of the customer, monitors the A/C system, which includes the detection of A/C malfunctions and prediction of possible errors.

## What is the difference between the intelligent Manager and DS-NET?

The intelligent Manager and intelligent Touch Controller are systems used for the centralized monitoring and energy efficient control of a multiple number of A/C units installed in a building and the like.