



CAC Web-based Remote Monitoring and Control System

Owner's Manual

Air Conditioners

Models: FE31-33/AD(BM)

- Thank you for choosing Air Conditioners, please read this owner's manual carefully before operation and retain it for future reference. If you have lost the Owner's Manual, please contact the local agent or visit www.gree.com or sent email to global@gree.com.cn or electronic version.
- GREE reserves the right to interpret this manual which will be subject to any change due to product improvement without further notice.
- GREE Electric Appliances, Inc. of Zhuhai reserves the final right to interpret this manual.

Preface

For correct installation and operation, please read all instructions carefully. Before reading the instructions, please be aware of the following items:

(1) For the safe operation of this unit, please read and follow the instructions carefully.

(2) During operation, total capacity of indoor units should not exceed the total capacity of outdoor units. Otherwise, poor effect of cooling or heating may result.

(3) Direct operators or maintainers should well keep this manual.

(4) If this unit fails to operate normally, please contact our service center as soon as possible and provide the following information:

- Content on the nameplate(model number, cooling capacity, production code, ex-factory date).
- Malfunction details(before and after the malfunction occurs).

(5) Each unit has been strictly tested and proved to be qualified before ex-factory. In order to prevent units from being damaged or operating normally because of improper disassembly, please do not disassemble the unit by yourself. If you need to disassemble and check units, please contact our service center. We will send specialists to guide the disassembly.

(6) All graphics in this manual is only for your reference. For sales or production reasons, these graphics are subject to change by manufacturer without prior notice.

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1 General

CAC Web-based Remote Monitoring and Control System is such an internet/LAN-based intelligent management system that can realize the remote and automatic control to the air conditioning system, including remote monitoring, warning, visualized management, and energy management etc, so as to always keep the air conditioning system under in-time, safe and effective control.

CAC Web-based Remote Monitoring and Control System will greatly reduce the labor and management cost and allow the user to operate the air conditioning system through a browser (like IE, Firebox, Chrome), including viewing its running status, start or stop it and setting its parameters

etc. anywhere the internet is accessible.

2 Requirements on the System Configuration

WARNING: this software only supports the operation system of Windows Serer 2003 R2 or higher version, or window 7. Windows Server 2003 R2 is preferred.

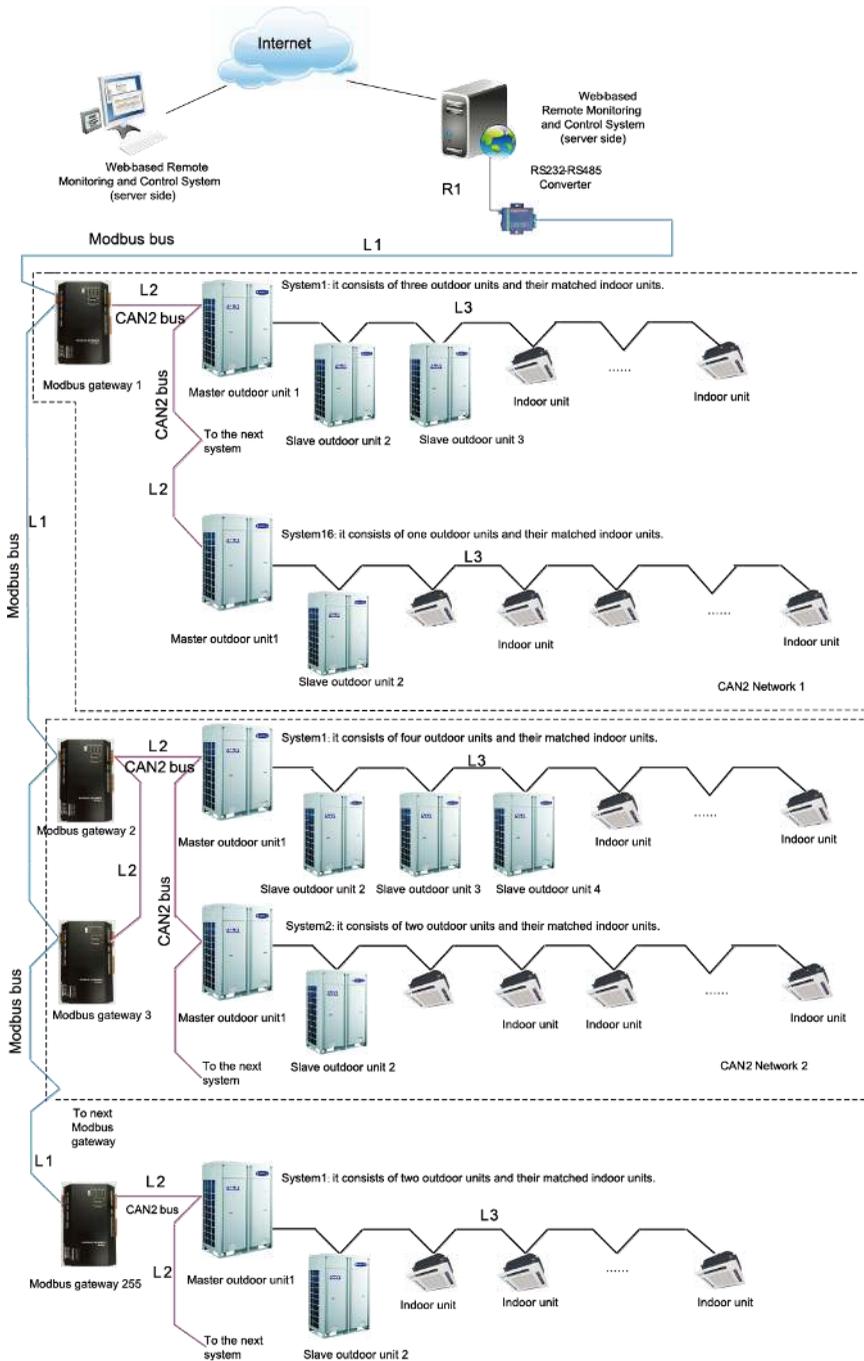
Software Required	Internet Information Server (IIS6.0) or higher Message Queue Server
Browser	Internet Explorer 7.0 or higher Other browsers
Memory	1 GB at a minimum 2 GB or above is preferred.
Hard Disc	10 GB available
CPU	Core 2 or higher 1 GHz at a minimum 2 GHz or higher is preferred.
Operation System	Windows Server 2003 R2 or higher Windows 7

3 Preparation before Installation

Before installation, be sure if the Modbus or BACnet gateway has been ready for the air conditioning system and via commissioning has had a normal connection with the computer which the CAC Web-based Remote Monitoring and Control System is going to be installed.

- (1) When the Modbus gateway is selected, it is required to be connected to the computer with a converter and serial port lines, as shown in the figure below.

CAC Web-based Remote Monitoring and Control System



Modbus bus: L1 represents the Modbus bus which can support up to 255 Modbus gateways.

CAN2 bus: L2 represents the CAN2 bus which is the link to the Modbus gateway and the master outdoor unit.

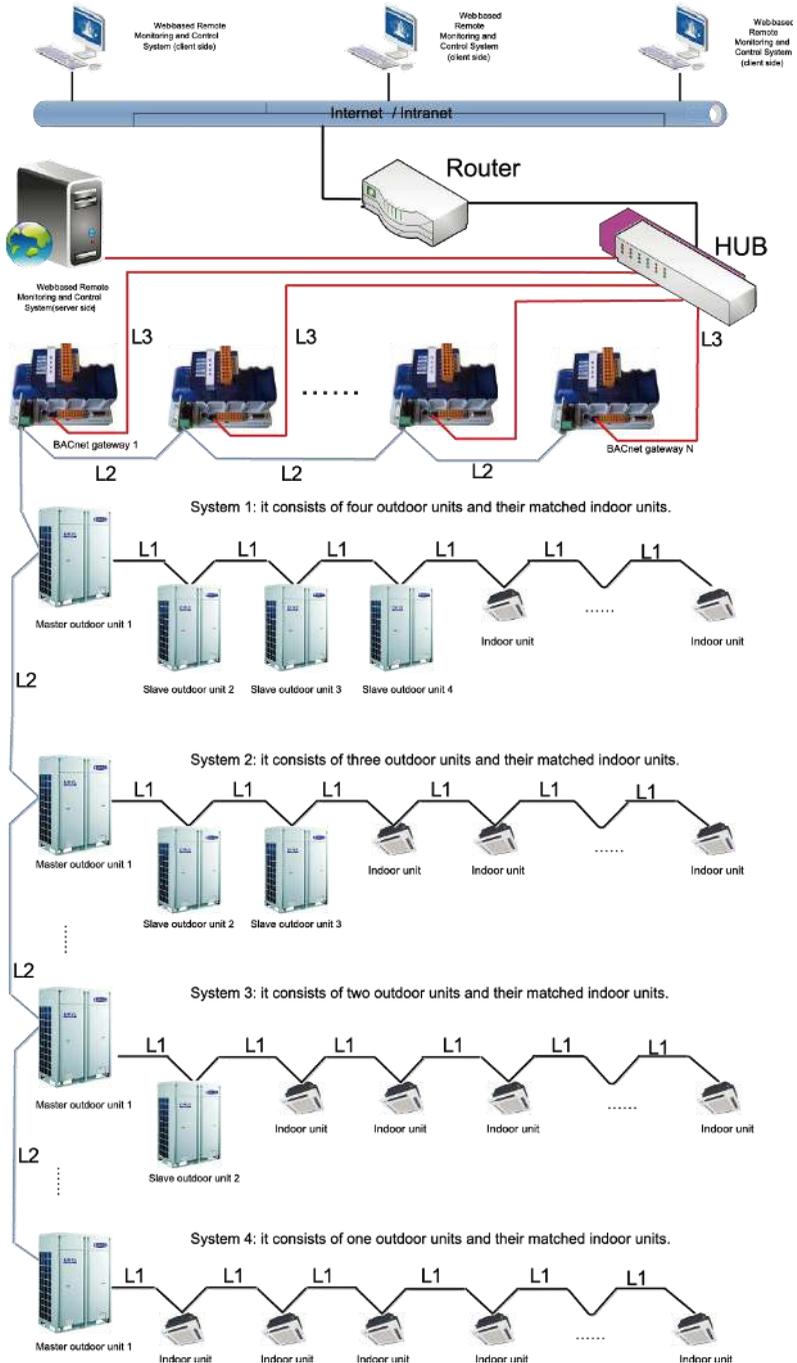
CAN2 network: in one CAN2 network, a maximum of 2 Modbus gateways and 16 air conditioning systems (each system includes at most 4 outdoor units and the total maximum allowable indoor units is 255) are allowed. If exceeded, the CAN2 network should be divided into two.

Air conditioning system: one air conditioning system consists of at most four outdoor units (among them one is the master unit) as well as the matched indoor units.

Allowable number accessible to the gateway: one Modbus gateway can support at most 16 outdoor units and 128 indoor units. If exceeded, another Modbus gateway will be required as shown in the topological diagram.

- (2) When the BACnet gateway is selected, it can be connected directly to the computer or LAN with twist pairs, as shown in the figure below.

CAC Web-based Remote Monitoring and Control System



Topological Structure of the System Network

The system network consists of three parts, as stated below.

The first part indicates the remote monitoring system.

The second part indicates the data transfer equipment between the air conditioning system and the monitoring system, like BACnet as shown in the figure above, which is a key link in the whole system. The network should be installed in a centralized control cabinet for convenient installation and service in future.

The third part indicates the air-conditioning network, which can be connected personally as shown in the figure above.



CAUTION!

Each BACnet has an IP address which is not allowed to be repeated in the same network. As shown in the figure above, the total length of L2 cannot exceed 500m. At each end of L2 should be there a matched resistance, and more details please refer to Operation Instructions of the BACnet Gateway-Communication Interface.

When the fire wall in your system is activated, please make the port 47808 in use so as to keep normal communication between the software and the BACnet gateway.

4 Installation Instructions



CAUTION!

All installation instructions herein are based on the Windows Server 2003 R2, also applicable to Windows 7 except for some differences to be noted hereafter.

Please log in Windows 7 as a super administrator and start the installation as an administrator.

4.1 Installation of the CAC Web-based Remote Monitoring and Control System

By clicking the file “Launcher.exe” in the software disk, you will access to the installation wizard of CAC Web-based Remote Monitoring and Control System and then proceed to the installation following the steps stated below.

Step 1: select the desired operation system, Windows Server 2003 or Windows 7 and access to the Installation Wizards.



Step 2: If Windows Installer 4.5 has not yet been installed, a window as shown below will pop up and then click “Accept” to allow Windows Installer 4.5 to be installed automatically.



Step 3: If Microsoft.NET Framework 4 has not yet been installed, a window as shown below will pop up and then click “Accept” to allow Microsoft.NET Framework 4 to be installed automatically.



Step 4: If Microsoft SQL Server 2008 R2 Express has not yet been installed, a window as shown below will pop up and then click “Accept” to allow Microsoft SQL Server 2008 R2 Express to be installed automatically.

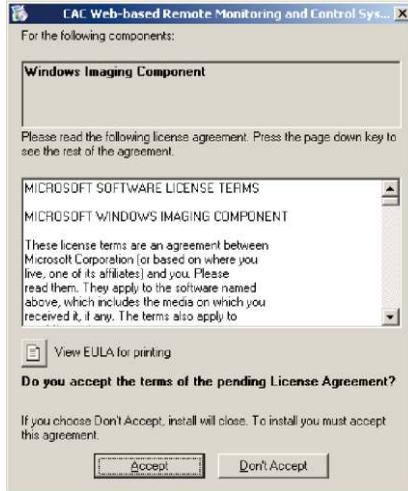


Step 5: If Windows Image Component has not yet been installed, a window as shown below will pop up and then click “Accept” to allow Windows Image Component to be installed automatically.

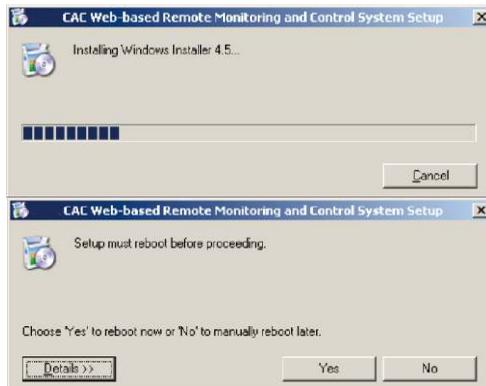


CAUTION!

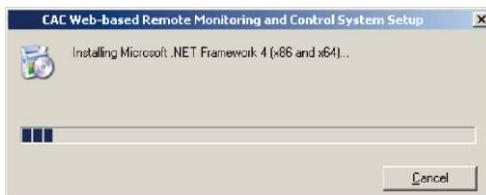
if Windows Image Component is required for Windows 7, then skip over Step 5 and go directly to Step 6.



Step 6: After Windows Imaging Component has been installed, reboot the computer to proceed to the installation of Windows Installer 4.5.



Step 7: Microsoft .NET Framework 4.0 will be installed automatically when the computer has been rebooted.



 CAUTION!

If the window "Installing Microsoft. Net Framework 4 (x86 and x64)..." as shown

above failed to pop up, click the file “Launcher.exe” to access to the wizard again and then Microsoft .NET Framework 4.0 will be installed directly.

Step 8: Following the completion of the installation of Microsoft .NET Framework 4.0, Microsoft SQL Server 2008 R2 Express then will be installed, which will takes a long time and patient waiting is needed. (If Microsoft SQL Server 2008 R2 Express has been installed, this step will be skipped.)



Step 9: When Microsoft SQL Server 2008 R2 Express has been installed, the installation wizard will automatically check if IIS 6.0 or above and MSMQ have been installed. If not, a window as shown below will pop up and then click “Yes” to allow them to be installed automatically.



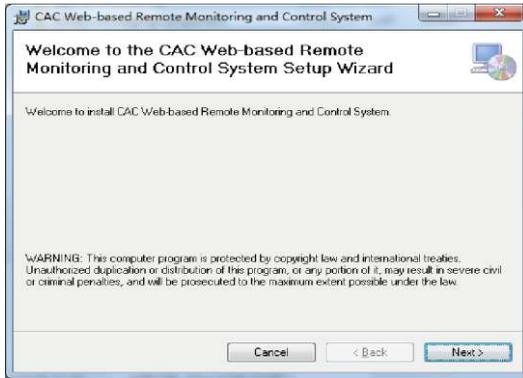
Step 10: During installation for IIS or MSMQ, do not close the window as shown below. It will be closed automatically as soon as installation is completed.

 **CAUTION!**

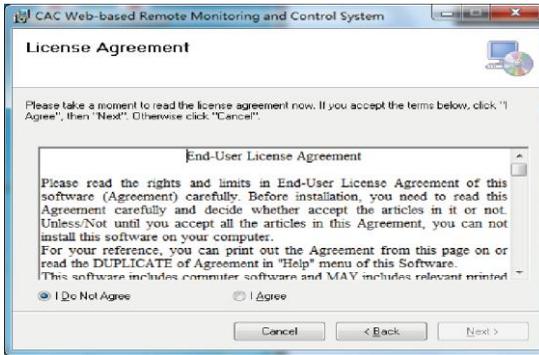
please wait patiently as Windows 7 takes quite long time for installation.



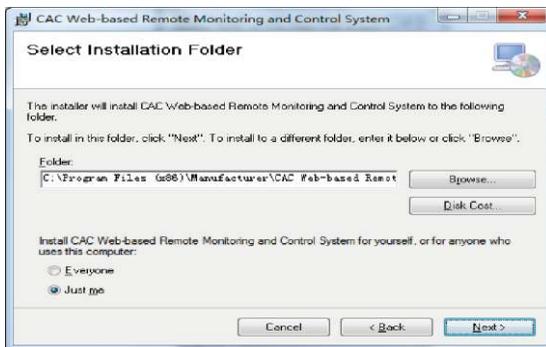
Step 11: After the installation of IIS and MSMQ is completed, the window of “Welcom to CAC Web-based Remote Monitoring and Control System Setup Wizard” will pop up and then click “Next”.



Step 12: Click “I Agree” and “Next” in the pop-up window.



Step 13: Select the expected folder and click “Next” and then click “Next” in another pop-up window to start the automatic installation.



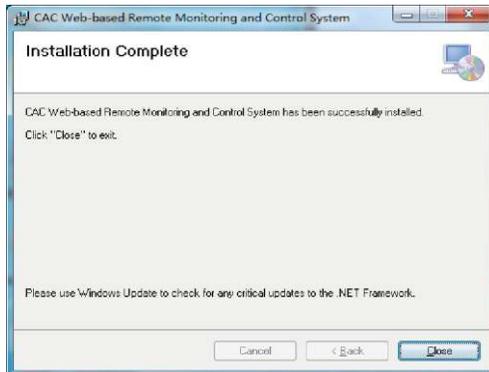
Step 14: The “BAS Manager” window will pop up after CAC Web-based Remote Monitoring and Control System is successfully installed. It is needed necessarily and do not “Stop” it.



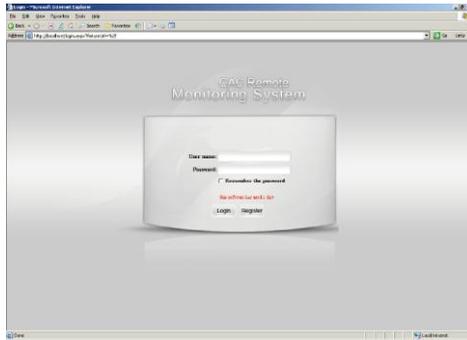
CAUTION!

After the computer with Window 7 is rebooted, BAS Manager will not run automatically, but it will by right click it and then select “Run as administrator”.

Step15. Installation will be finished several seconds later after the “BAS Manager” pops up,



Step 16: When the software is installed successfully, open the browser and input the server’s IP address, or input “http://localhost” when the server is accessible. When the computer at other client side is used, input the Servers IP address like “http://192.168.0.122”. After that, if the computer goes to the status as shown in the figure below, it indicates it has entered the normal use. The default username is “admin” and the password is “admin”.



4.2 Registration of the CAC Web-based Remote Monitoring and Control System

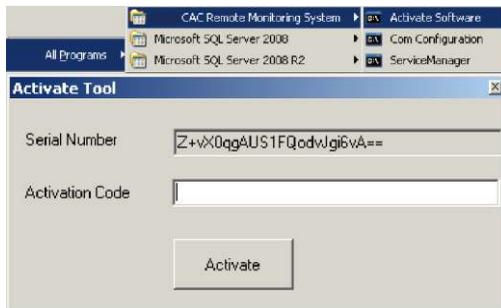
CAUTION!

this software can be put into normal use after activation. If not, only 30-day tryout is allowed, and then you are not allowed to use or log in this software.

Access to “Startup”->“Programs”->“CAC Remote Monitoring System”->” Activate Software”, and then input the codes to register this software.

CAUTION!

as for software activation for Windows 7, right click “Activate Software” and then select “Run as administrator”



5. Uninstallation Instructions

CAC Remote Monitoring System can be uninstalled by following the steps stated below.

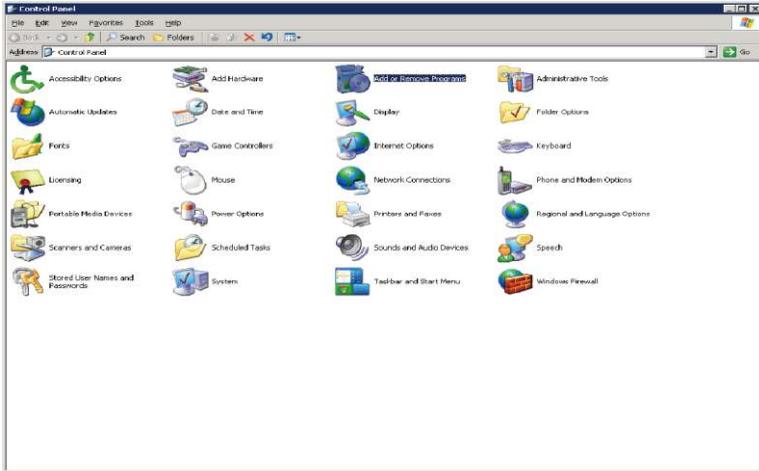
Step 1: stop the “BAS Manager”



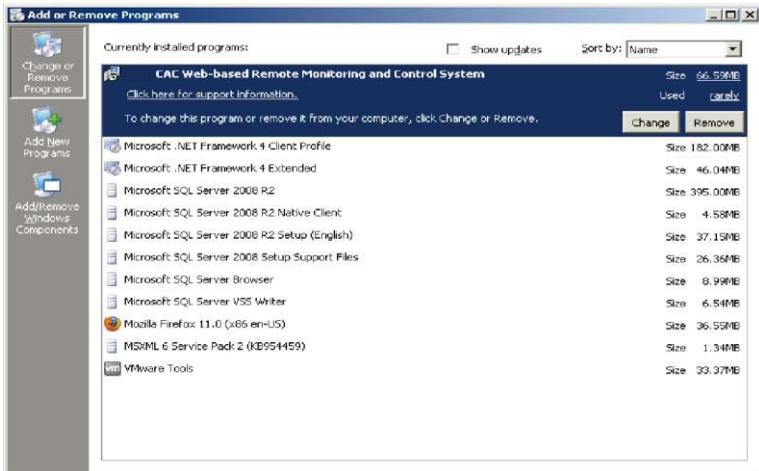
CAUTION!

stop BAS Manager before uninstalling or restoring the software, or the tree network will not be saved.

Step 2: access to “Startup”->“Setting”->“Control Panel”->“Add or Remove Programs”



Step 3: select “CAC Web-based Remote Monitoring and Control System” and then click“Remove”. After that, the uninstallation is completed.



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