Central Controller G-50A
With Web Server Function

Mitsubishi Electric
Quality

More than Air-Conditioning

MITSUBISHI ELECTRIC
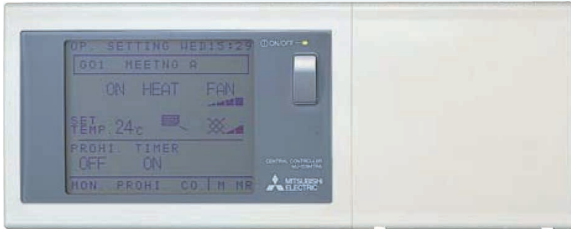*Changes for the Better*
Air Conditioning
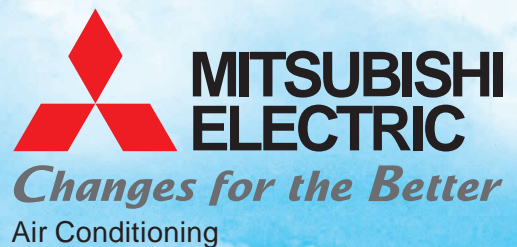
The New Central Controller G-50A –
# The Next Controller Generation

The first controller with Web Server Functions!

The LCD display of the G-50A allows you to monitor and operate up to 50 individual or grouped indoor air-conditioning units comfortably.

Or use a standard web browser via your PC. Centralised or decentralised. Via Intranet or your phone connection. Each G-50A has its own homepage with multiple functions.

The operation? Simple – with your Internet Browser
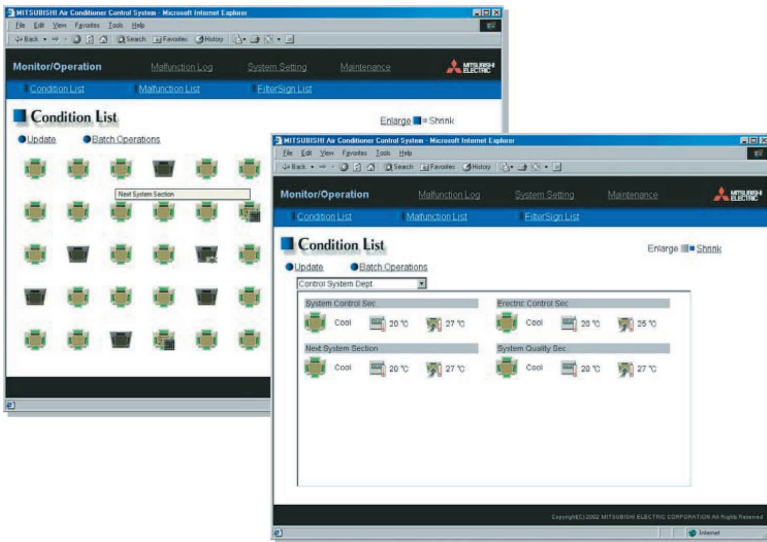
Connect the G-50A to your local Intranet and you can operate it comfortably with your PC. The excellent graphics display is self-explanatory and easy to understand. The relevant software is already integrated in the G-50A.

A few mouse clicks enable you to find errors or to control the air-conditioners individually.

Everything under control at a glance

EXAMPLE OF DISPLAY ICONS (AIR-CONDITIONER ICONS)			
Operation		Operation/ Occurence of a filter filter sign	
Stop		In timer operation	
Malfunction		Lossnay on	
Occurence of abnormality		Under energy-saving control	

Easy to understand and clearly recognisable symbols allow you to view the status of your air-conditioning unit at first glance and to react promptly.

The tedious search of the whole system is redundant.

This saves time and costs.

The 7 Benefits of the G-50A

1 Simple and flexible

The central controller G-50A is equally suitable for small and large systems.

2 Web browser

Use a standard web browser on your PC, e.g. Microsoft Internet Explorer™, to operate and monitor the air-conditioning unit, which is connected to your local Intranet, in comfort.

3 Integrated software

The easy to understand operating software is already integrated in the G-50A. This represents Mitsubishi Electric's own innovation and is not Windows-based. It is therefore impossible for hackers to spy in your system data.

4 Three password levels

You can safeguard against unauthorised access to the air-conditioning system on three operating levels which are individually protected by passwords of your choice.

- Access to an air-conditioning unit (or group), e.g. for each office/floor but without the possibility to change the system settings
- Access to group and maintenance functions, e.g. for in-house technicians
- Access to the entire system, e.g. for the system administrator

5 Remote access

You can also operate your air-conditioning system with your PC by remote control via your local Intranet or phone connection. The access is protected by a password of your choice.

6 Automatic alarm

If an error occurs, the G-50A sends a message with the most important information to a mobile phone (SMS) or an email to an address of your choice.
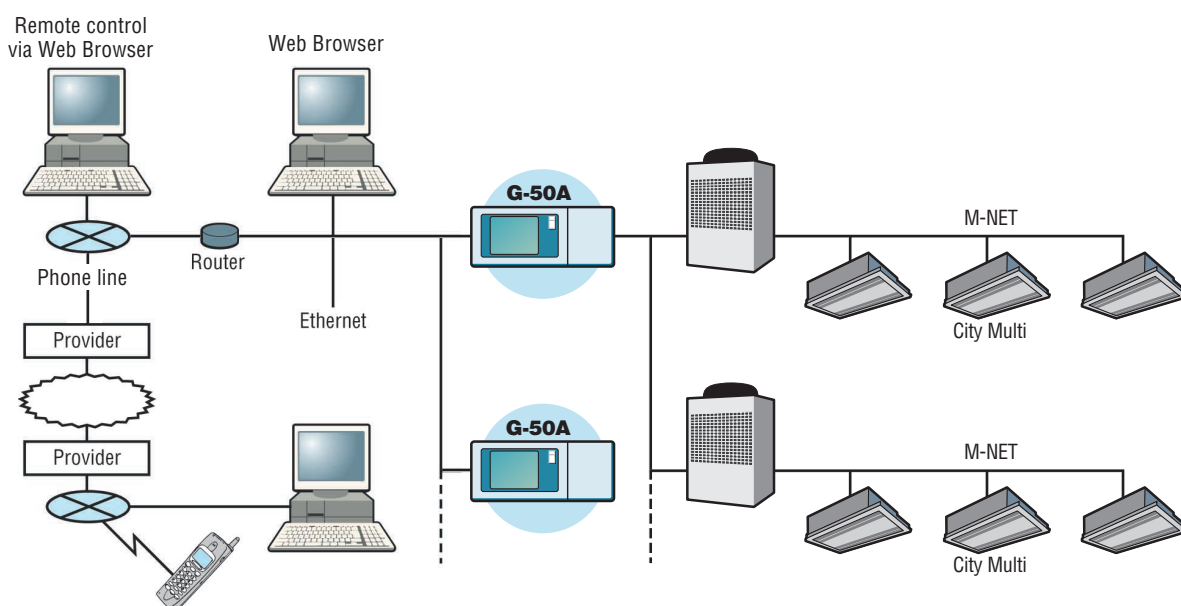
7 Always up-to-date

Upgrades with continuously updated special functions are available for the G-50A.

Examples:

- Energy consumption data for individual cost statements
- Special economy programmes
- Annual schedules

System Structure

It Is This Easy To Use The Air-Conditioning System...

The already integrated software of the G-50A offers you the easiest operation of an air-conditioning system ever – it takes only a few mouse clicks if you connect the G-50A to your local Intranet. Internet Explorer grants you access to the entire system.
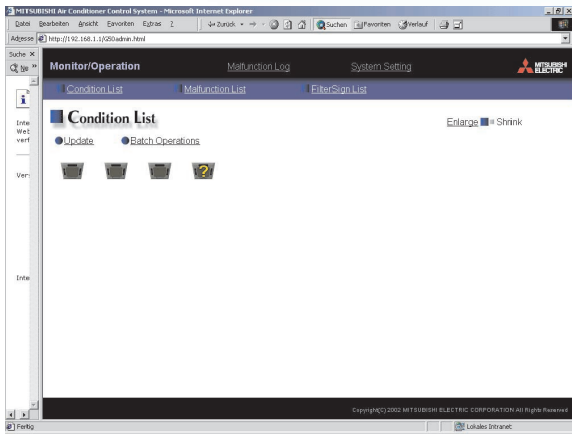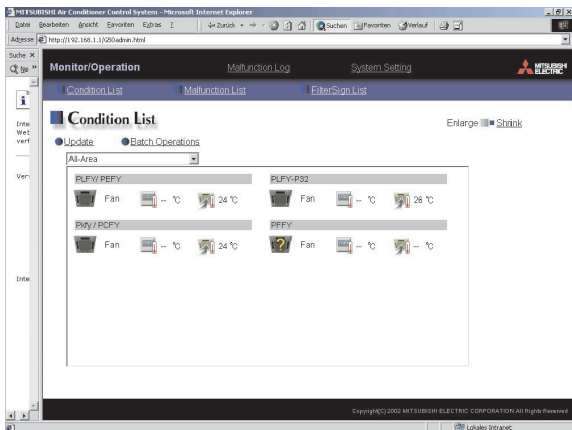

The control panel

Clear overall display

The connected air-conditioning units can be seen at first glance in the *Condition List* menu. You immediately see the up-to-date status of the indoor units or if an indoor unit is malfunctioning.

Click *Enlarge* to activate detail view.

Everything at a glance

The detail view in the *Condition List* clearly shows you the most important operating characteristics of the indoor units at a glance. Unit type or room description, set temperature, room temperature and operating mode are scanned and displayed up-to-date.

Click an indoor unit symbol to select the settings for this indoor unit individually.

Click *Batch Operation* to select the settings for all indoor units.
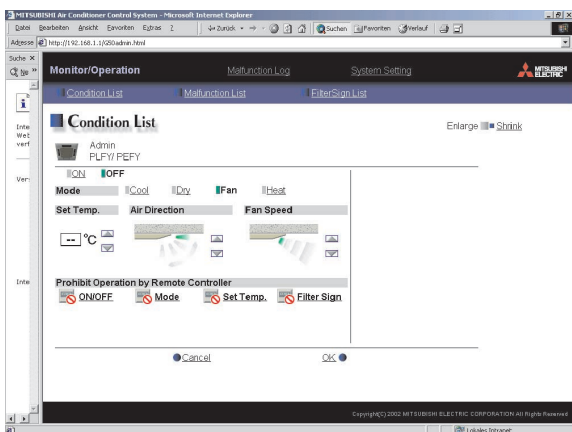
Settings – It´s a child's play

The clear display of the symbols allows you to see immediately which settings were selected for the indoor unit. Simply use your mouse to change the operating status and mode, set temperature, air direction or fan level. Use the lower bar to set if and which functions of the local remote controller should be blocked.

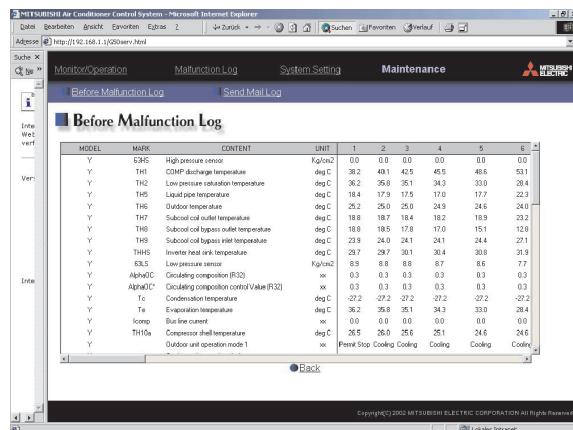Click the *OK* and the settings will be accepted.

If An Error Has Occurred...

No panic! Only a few mouse clicks will lead you to the cause of the malfunction. Just try it...
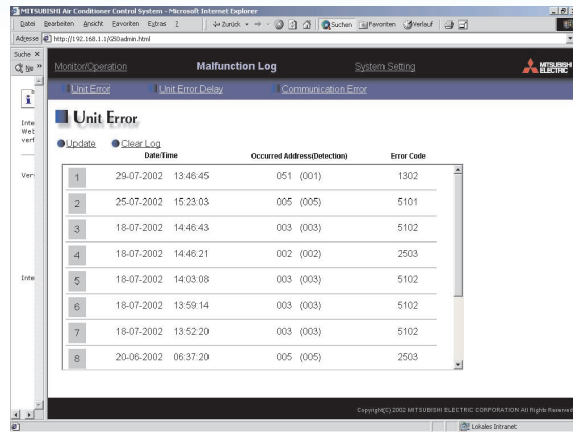

Error messages for each unit

If an indoor unit displays a question mark symbol, click on *Malfunction List* and the error list complete with unit location, error code and other details will be displayed.

Malfunction history

The error messages and operating status are saved by the controller. Click *Before Malfunction Log* and you will see all the important system data prior to the malfunction event.

This will enable you to find the cause of the problem quickly.
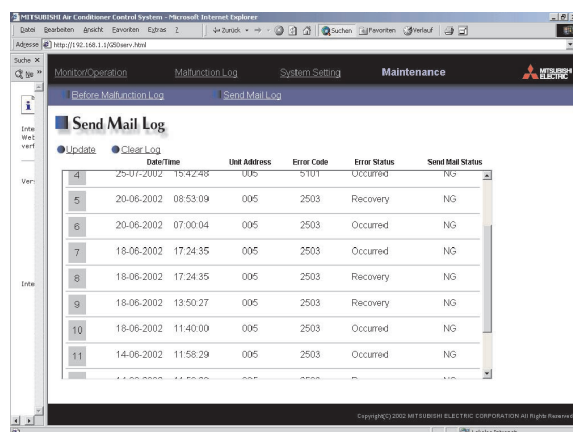
Automatic alarm

If a malfunction occurs, the central remote controller G-50A can send an email or SMS containing the error code to an address of your choice. This means that you will receive an alert even if you have no online connection to the system.

The *Send Mail Log* menu saves all sent error messages for future use.

Multi-functional, Fully Graphic TG-2000 Operating Software

The central controller becomes a building management system

The optional TG-2000 software will open the door to the existing building management systems for your central remote controller G-50A. The G-50A can be integrated into the existing building management system without a problem by using additional functions and the option to export data.

Ready for the future: The central remote controller G-50A and the TG-2000 operating software

You only need a standard PC, a LAN-network or a phone connection: The TG-2000 operating software grants you access to additional extensive and useful special functions.

Centralised air-conditioning management

Individual systems are easily connected via a network or phone lines and are centrally operated and monitored. This saves staff, time and therefore costs.

The software allows you to handle regular cost statements for each individual customer. Simply export the relevant data to your EDP.

Multi-G-50A-operation

It is possible to interconnect up to 255 G-50A central controllers in a network even without the software. However, you will only be able to view the relevant homepage of one G-50A. You will require the TG-2000 software to view all characteristics of the indoor units.

2000 indoor units? No problem!

The TG-2000 operating software offers you the integration of up to 40 G-50A remote controllers with 50 air-conditioning units each in a network. This means that you can operate 2000 air-conditioning units with one PC and just a few mouse clicks.

Economy programmes

Individual indoor units, groups or entire G-50As can switch the economy saving operation on or off to conserve energy.

Export your data for EDP

All the important data, e.g. the trends of room or set temperatures can be monitored, recorded, saved and exported to the EDP for processing.

This makes it easy and fast to determine time periods in which the air-conditioning system has to fulfil specific requirements, e.g. in the morning before the start of business or to create individual air-conditioning profiles for customers or users of the system.

The data can be transferred in graphic or tabular format to the external EDP. If the G-50A is integrated in a local network, the data export is easy to execute, e.g. as CSV-file which can be processed by all current EDP-programmes.
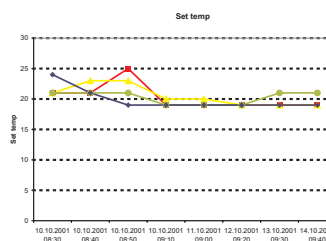
Trend graphic example:
Trend of the set temperature within the period
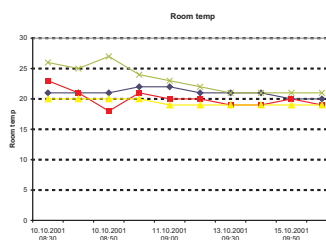
Trend graphic example:
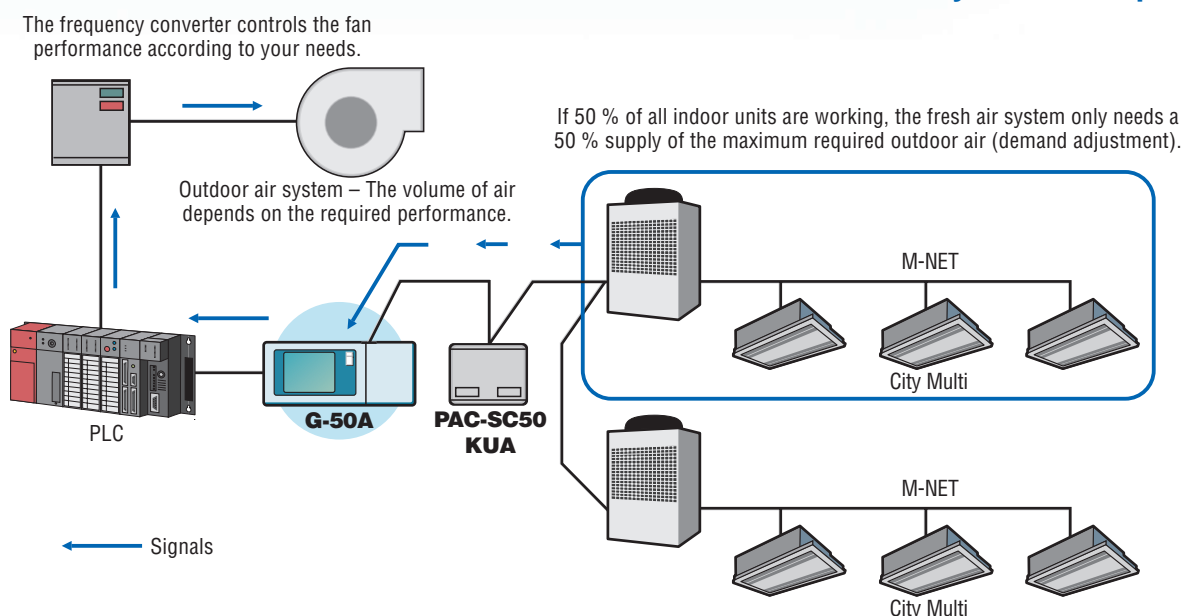Trend of the room temperature within the period

Table example:
Trend of the set temperature within the period

	PMFY	PLFY	PCFY	PEFY	PMFY	PLFY
	Set temp	Set temp	Set temp	Set temp	Room temp	Room temp
10.10.2001 08:30	24	21	21	21	21	23
10.10.2001 08:40	21	21	23	21	21	21
10.10.2001 08:50	19	25	23	21	21	18
10.10.2001 09:10	19	19	20	19	22	21
11.10.2001 09:00	19	19	20	19	22	20

Control Outdoor Applications Via PLC

The G-50A offers the possibility to deliver signals to external applications. Connect a PLC to the integrated RS232 interface to control e.g. an outdoor air system according to your needs.

The frequency converter controls the fan performance according to your needs.

If 50 % of all indoor units are working, the fresh air system only needs a 50 % supply of the maximum required outdoor air (demand adjustment).

Outdoor air system – The volume of air depends on the required performance.

M-NET

City Multi

M-NET

City Multi

G-50A

PAC-SC50 KUA

PLC

Signals

Specifications

G-50A-E

Item	Desciption
Air conditioner to be connected	Multi-split air conditioner (City Multi) Air conditioner for shops (Mr. Slim)
Manageable number of units to be connected	50 indoor units per unit of G-50
Power supply	DC 12 V, DC 24 V (supplied by exclusive power supply unit: Model Name is PAC-SC 50KUA-E)
Outer dimensions (H × W × D)	120 mm × 300 mm × 79 mm
Weight	1.0 kg
Rated current	0.2 A (DC 12 V), 0.02 A (DC 24 V)
Rated power	3 W
Environment for use	Ambient temperature: 0 – 40 °C, Ambient humidity 30 – 90 % (as no dew condensation)

FUNCTIONS

Operation and setting of the air conditioner	● Operate/stop
	● Operation mode change
	● Temperature setting
	● Air speed change
	● Air direction change
Monitoring of the air	● Operating state (operate/stop)
	● Operation mode monitoring
	● Set temperature monitoring
	● Trouble monitoring
	● Air speed change
	● Air direction change
Schedule function	Scheduled operation for a week is possible
External input and output function	It is possible to send out operation, stop and abnormality outputs. It is possible to perform emergency stop, and to start and stop operation externally.

7

Mitsubishi Electric
Quality

CE

TÜV CERT
DIN ISO 9001 /
EN 29001

EUROVENT
CERTIFIED PERFORMANCE

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