

CITY MULTI MITSUBISHI ELECTRIC
Changes for the Better

CONCEPT

- AI controller can measure either inside or outside Temperature or Humidity readings
- Temperature or Humidity reading can be monitored from G-50A Web browser or TG-2000A as long as Web browser pin code is purchased
- Switching ON/OFF of Indoor units with the increase/decrease in temperature or humidity readings
- An alarm can be output if Temperature or Humidity reading fall outside the limited which have programmed

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System Configuration

AI controller has only 2 channels per devise so max. 2 sensors can be connected

The diagram illustrates the system configuration. A Power supply unit PAC-SC50KUA is connected to a Centralized control line. This line branches into an M-NET and an Indoor control line. The M-NET connects to a G-50A or GB-50A unit, which is also connected to a LAN. The Indoor control line connects to an AI controller. The AI controller is connected to a 24VDC Power supply and has four terminals (1, 2, 3, 4) for sensors and alarms. Terminals 1 and 2 are for Temperature sensor, humidity sensor, etc. Terminals 3 and 4 are for Alarm output. The AI controller is also connected to Air conditioning equipment City Multi, Mr. SLIM. A G-50A Web or TG-2000A unit is connected to the AI controller via a LAN. A note states: 'Up to 50 AI units (100 channels) per 1G-50 system. However, the indoor unit is included in the maximum of 50 units that can be connected. AI + IC = 50'.

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System Configuration

Using Non-voltage contact output
when driving a load directly, use power supply within the ranges of up to DC24V/5W.
(In case of use with AC power supply, an external relay is needed.)

This diagram is identical to the one in the top-right slide, showing the system configuration with the AI controller, power supply, and various components.

1 : Channel 1 temperature or humidity sensor input
2 : Channel 2 temperature or humidity sensor input
3 : Channel 1 upper/lower limit alarm output
4 : Channel 2 upper/lower limit alarm output

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AI Controller

TG-2000A or Web

The diagram shows the AI controller connected to a TG-2000A or Web browser. The AI controller has a green box labeled 'AI' and a red arrow labeled 'ALARM'. It is connected to a Humidity sensor and a Temperature sensor. A callout bubble says: 'Temp/humidity exceeds upper or lower limit'. Below the diagram, it says: '1) INPUT: AI (Th, RH) 2) OUTPUT: AI-alarm'.

Monitoring of temperature and humidity sensor are only possible from Web or TG-2000A. Confirmation of temperature or humidity status is not possible from G-50A body screen.

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AI Controller Interlock Capabilities

Interlock is possible:

Input Target : Temp/Humidity value
(only 1 condition)

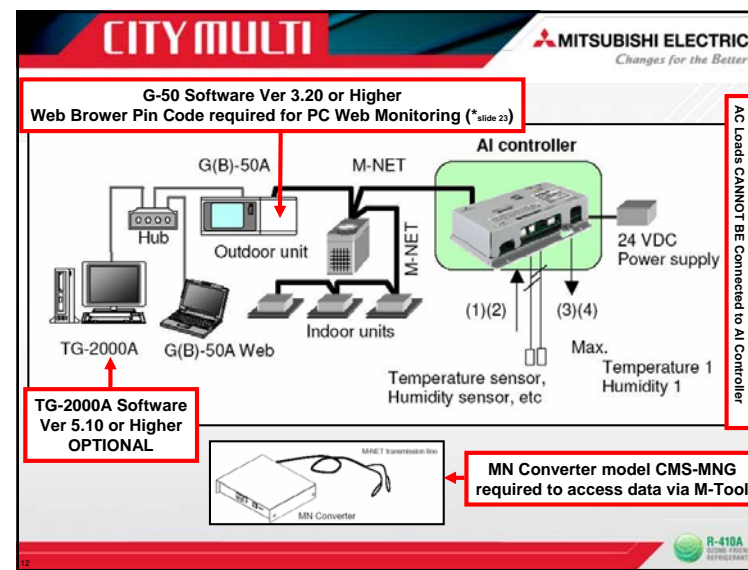
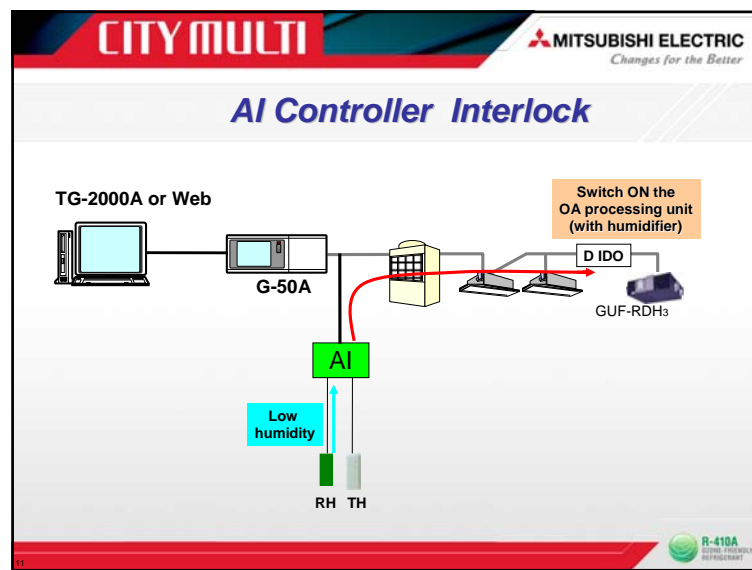
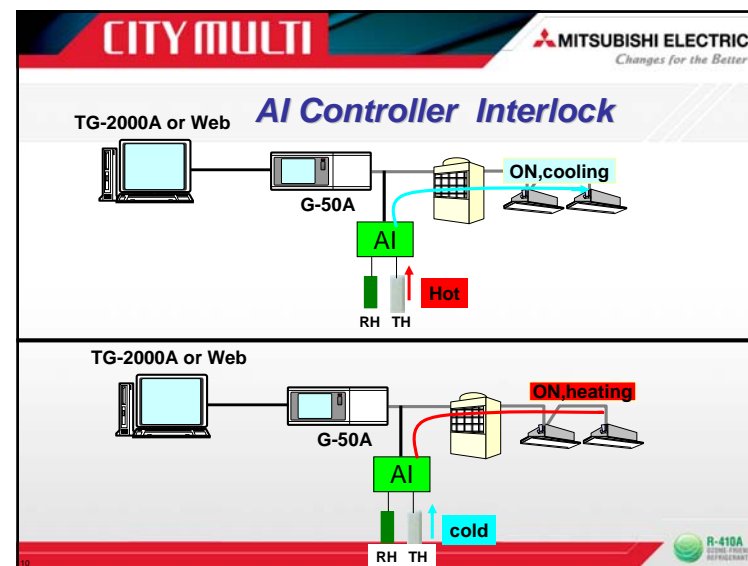
Output Target : - Indoor unit ON/OFF
- Mode change
- Temperature setting
- DIDO ON/OFF

Setting: Max. 24 settings

Note: Please use the interlock control with systems that has G-50A connection.

Note: Interlock function is set at AI using maintenance tool.

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Item	Description				
Power Supply	24 VDC±10%; 5 W				
Interface	M-NET communication	17 to 30 VDC (*1)			Screw terminal block (M3)
	Ch	Sensor	Measurement range	Measurement error	External connection method
	Ch1	Pt100 (3-wire system) 4 to 20 mA DC 1 to 5 VDC	Temperature (Set by system controller)	±0.3°F/±0.1°C (0.18°F/0.1°C) [at 25°C (77°F)]	Screwless terminal block (3 poles)
	Ch2	Analog 4 to 20 mA DC 1 to 5 VDC	Temperature/humidity (Set by system controller)	±0.5°F/±0.1°C (0.18°F/0.1°C) [at 25°C (77°F)]	Screwless terminal block (2 poles)
	Output	Upper/lower limit alarm output (non-voltage contact)	Applied load MAX. 24 VDC, 5 W MIN. 5 VDC, 2 mW AC loads cannot be connected		Screw terminal block (M3.5)
Interlock Function	Interlock M-NET devices according to measurement data values. (*4)				
Environment Conditions	Temperature		Operating temperature range 0 to 40°C (32°F to 104°F) Storage temperature range -20 to 60°C (-4°F to 140°F)		
	Humidity		30 to 90%RH (no condensation)		
Dimensions	200 (W) × 120 (H) × 45 (D) mm / 7 7/8 (W) × 4 3/4 (H) × 1 3/4 (D) in				
Weight	0.6 kg / 1.3 lb				
Current Time Power Failure Backup	If the power is cut, an internal capacitor will normally keep counting the current time for approximately one week. (The internal capacitor takes approximately a day to charge. Replacement of a battery is not necessary.)				
Installation Environment	Inside a control panel (indoors) * Use this product in a hotel, a business office environment or similar environment.				

*1: Supply electric power from a power supply unit for the transmission line or an outdoor unit. Furthermore, the power consumption factor of the M-NET circuitry of this unit is "1/4" (equivalent to one ME Remote Controller).
*2: Configure the dip switch settings for the analog input method to use while referring to "Switch List".
*3: The measurement error for the system includes the measurement error for this unit, sensor, and wiring.
*4: Settings for the interlock function are performed from the maintenance tool. For details, refer to the instruction manual for the Maintenance Tool.

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Required Part	Specification
Unit fixing screws	M4 screw × 4
Power supply for this unit	Power source: 24 VDC±10% 0.2 A (Minimum loading). SELV circuit, power line with grounding terminal Ripple noise: Lower than 200 mVp-p Compatible specification Authorized or CE marked products Subject to regulations: - IEC60950 (or EN60950) - CISPR22/24 (or EN55022/24) - IEC61000-3-2/3-3 (or EN61000-3-2/3-3)
Power supply for sensors	A separate power supply for sensors may be required. In the case of 24 VDC voltage, the capacity of the power supply for this unit can be increased so that the power supply can be shared.
Power line	Use a sheathed vinyl cord or cable. At least 0.75 mm² (AWG18)
M-NET transmission line	Type of the cable: Sheathed vinyl cords or cable which comply with the following specifications or equivalent. • CPEV: ϕ 1.2 mm to ϕ 1.6 mm • CVVS: 1.25 mm² to 2 mm² (AWG 16 to 14) • CPEV: PE insulated PVC jacketed shielded communication cable • CVVS: PVC insulated PVC jacketed shielded control cable PE: Polyethylene PVC: Polyvinyl chloride Power needs to be supplied to the M-NET circuitry of this device. Use an outdoor unit or a separately purchased power supply unit for the transmission line.
Signal lines (Sensor input lines)	Shows the size of the electric wire (copper wire) that is adapted to the terminal block of this device. Refer to the usage and cautionary items of the sensor when performing settings. However, use a line with shielded line. Electric wire size: (1) Solid wire: ϕ 0.65 mm (AWG21) - ϕ 1.2 mm (AWG16) (2) Stranded wire: 0.75 mm² (AWG18) - 1.25 mm² (AWG16) Single strand: At least ϕ 0.18 mm

[Parts to be Purchased Separately]

Name	Model	Application	Remark
Power supply unit	PAC-SC50KUA	Power supply to the M-NET transmission line	This is not required when power is to be supplied from an outdoor unit.

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Unit: mm (in)

Note: The space dimensions shown does not include space for any other accessories (ex. power supply)

Depending on the wiring and accessories used ensure enough space is appropriated for your installation.

Device is not waterproof, while needing to be located indoors preferably installed in a control panel strong enough to withstand a weight of 0.6 kg (1.3 lbs)

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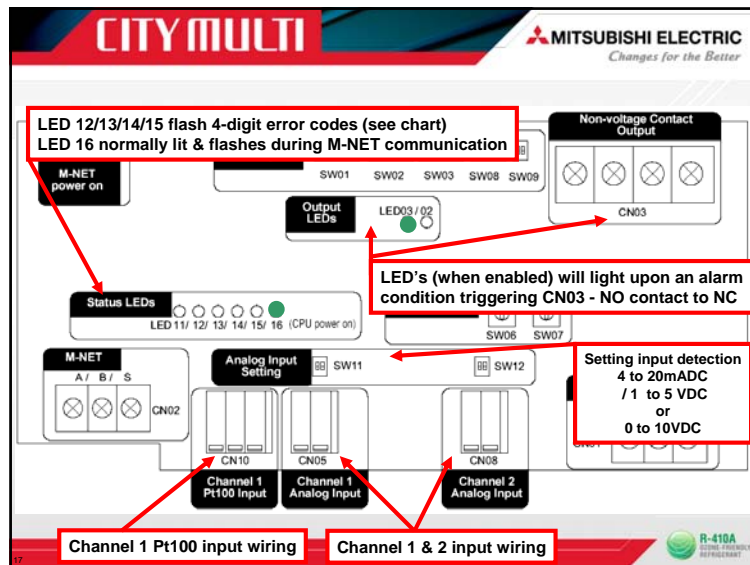
LED will light (Green) whenever 24VDC voltage is present

Device channel configuration setting (see chart)

M-NET addressing setting dials

M-NET Wiring from TB7 or TB3/TB5 terminals

24VDC power supply (Field supplied)



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SW	Supported Channel	Function	OFF	ON	Remark
SW01	1	Selection of the input to use	No	Yes	Specify whether to use the channel 1 input terminal.
	2	Selection of the analog input type (1)	4 to 20 mADC / 1 to 5 VDC detection	0 to 10 VDC detection	Set the type of analog input for channel 1 (1). * This should also be set in accordance with the selection of analog input type (2) (SW11-1 and 2). * The setting of SW01-2 is disabled when SW01-1 is ON.
	3	Unused		Pt100 detection	Set to OFF
	4	Selection of upper/lower limit alarm interlock output use	No	Yes	Specify whether to use channel 1 upper/lower limit alarm interlock output.
	5	Unused			Set to OFF
	6	Unused			Set to OFF
	7	Unused			Set to OFF
	8	Unused			Set to OFF
SW02	1	Selection of the input to use	No	Yes	Specify whether to use the channel 2 input terminal.
	2	Selection of the analog input type (1)	4 to 20 mADC / 1 to 5 VDC detection	0 to 10 VDC detection	Set the type of analog input for channel 2 (1). * This should also be set in accordance with the selection of analog input type (2) (SW12-1 and 2). * The setting of SW02-2 is disabled when SW02-1 is ON.
	3	Unused			Set to OFF
	4	Selection of upper/lower limit alarm interlock output use	No	Yes	Specify whether to use channel 2 upper/lower limit alarm interlock output.
	5	Unused			Set to OFF
	6	Unused			Set to OFF
	7	Unused			Set to OFF
	8	Unused			Set to OFF

Note: ALL SW08 and SW09 DIPSW are not used and to remain in the OFF position

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SW03	1	Measurement data backup interval	SW03-1	SW03-2	Set to back up measurement data to the fixed memory. Excess past data will be erased.
SW03	2	1-minute interval: (2 hours worth) 2-minute interval: (4 hours worth) 5-minute interval: (10 hours worth) 10-minute interval: (20 hours worth)	OFF	OFF	
	3	Unused	ON	ON	
	4	Unused	OFF	OFF	Set to OFF
	5	Unused	ON	ON	Set to OFF
	6	Unused	OFF	OFF	Set to OFF
	7	Unused	ON	ON	Set to OFF
	8	Unused	OFF	OFF	Set to OFF
	8	Unused	ON	ON	Set to OFF
SW06	M-NET address		(Address 10s) 0 to 9 (decimal)	An address from 01 to 50 can be set. Set an address that is not the same as that of another unit.	
SW07			(Address 1s) 0 to 9 (decimal)		
SW11	1	Selection of analog input type (2)	SW11-1	SW11-2	Set the type of analog input for channel 1 (2). *1: This setting is not necessary when SW01-2 is ON.
	2	Channel 1	0 to 10 VDC detection : OFF 1 to 5 VDC detection : ON Setting not possible : ON 4 to 20 mADC detection : ON	OFF : OFF ON : ON OFF : OFF ON : ON	
SW12	1	Selection of analog input type (2)	SW12-1	SW12-2	Set the type of analog input for channel 2 (2).
	2	Channel 2	0 to 10 VDC detection : OFF 1 to 5 VDC detection : ON Setting not possible : ON 4 to 20 mADC detection : ON	OFF : OFF ON : ON OFF : OFF ON : ON	

Note: ALL SW08 and SW09 DIPSW are not used and to remain in the OFF position

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Display Item	Display LED	Content
		Note ● On, ○ Off, ✱ Flashing
Power supply status	(1) Power supply to CPU	LED16 (CPU power on) ● : Lights when the CPU is energized.
	(2) Power supply to M-NET circuit	LED17 (M-NET power on) ✱ : Flashes during M-NET communication. ● : Lights when the M-NET is energized.
Output status	Ch1, 2	(1) Upper/lower limit alarm interlock output status
Error status (*1)	(1) 4-digit error code	LED12/13/14/15 (Status display LEDs) Refer to "10-2. Error Status Display".

*1: When a sensor error or communication error occurs, the error status is displayed.

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If a sensor error or communication error occurs, a 4-digit error code will be repeatedly displayed according to the steps shown below.

Error status display consists of the following 10 steps. This operation is performed repeatedly to indicate the 4-digit error code for the error.

Note ● On, ○ Off, ✱ Flashing

	LED11	LED12	LED13	LED14	LED15	Function	Remark
	Common	Error code display (Binary number indication)					
		2 ³ =8	2 ² =4	2 ¹ =2	2 ⁰ =1		
STEP1	○	✱	✱	✱	✱	"Error Status Display" Starting Point Indication	LEDs 12 to 15 flash 3 times
STEP2	○	○	○	○	○	Blank	Turn Off
STEP3	●	●	●	●	●	Error code 1000's digit	Error code 1000's digit indication In the case of 8: ●●●○
STEP4	○	○	○	○	○	Blank	Turn Off
STEP5	●	●	●	●	●	Error code 100's digit	Error code 100's digit indication In the case of 8: ●●●○
STEP6	○	○	○	○	○	Blank	Turn Off
STEP7	●	●	●	●	●	Error code 10's digit	Error code 10's digit indication In the case of 0: ○●●○
STEP8	○	○	○	○	○	Blank	Turn Off
STEP9	●	●	●	●	●	Error code 1's digit	Error code 1's digit indication In the case of 7: ○●●○
STEP10	○	○	○	○	○	Blank	Turn Off

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The error codes that are displayed for M-NET communication errors are as shown below.

Error Code	Description of Error	Error Code	Description of Error
6600	Multiple address error	6607	No ACK error
6601	M-NET polarity unset error	6608	No return of response frame
6602	Transmission processor hardware error	5010	Sensor trouble in Channel 1
6603	Transmission bus-busy error	5020	Sensor trouble in Channel 2
6606	Communications with transmission processor error		

Error code Example

Note ● On, ○ Off, ✱ Flashing

	LED11	LED12	LED13	LED14	LED15	Function	Remark
	Common	Error code display (Binary number indication)					
		2 ³ =8	2 ² =4	2 ¹ =2	2 ⁰ =1		
STEP1	○	✱	✱	✱	✱	"Error Status Display" Starting Point Indication	LEDs 12 to 15 flash 3 times
STEP2	○	○	○	○	○	Blank	Turn Off
STEP3	●	●	●	●	●	Error code 1000's digit	Error code 1000's digit indication In the case of 8: ●●●○
STEP4	○	○	○	○	○	Blank	Turn Off
STEP5	●	●	●	●	●	Error code 100's digit	Error code 100's digit indication In the case of 8: ●●●○
STEP6	○	○	○	○	○	Blank	Turn Off
STEP7	●	●	●	●	●	Error code 10's digit	Error code 10's digit indication In the case of 0: ○●●○
STEP8	○	○	○	○	○	Blank	Turn Off
STEP9	●	●	●	●	●	Error code 1's digit	Error code 1's digit indication In the case of 7: ○●●○
STEP10	○	○	○	○	○	Blank	Turn Off

1 = Error active
2 = All flash OFF
3 = L13 (4) + L15 (1) = 5
4 = All flash OFF
5 = No Yellow lights = 0
6 = All flash OFF
7 = L15 (2) blinks = 2
8 = All flash OFF
9 = No Yellow lights = 0
10 = All flash OFF

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Controller Wiring Examples

- Installation Manual Wiring Explanations
- Temperature / Humidity Wiring Terminals
- Demo Kit Wiring Configuration Example
- Demo Kit Controller DIPSW settings

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Connecting the Sensors

- For channel 1, select one of the following four types: Pt100 detection, 4 to 20 mA DC, 1 to 5 VDC, or 0 to 10 VDC analog input.
- For channel 2, select one of the following three types: 4 to 20 mA DC, 1 to 5 VDC, or 0 to 10 VDC analog input.
- The wire length depends on the specifications of the sensor. However, since the use of long wires makes the device susceptible to noise, using wires shorter than 12 m is recommended. Use a shielded line for the sensor line and connect to the FG terminal on this unit or the FG terminal on the control panel.

Channel 1 Pt100 Input

To use these, various settings need to be configured.

Pt100 (3-wire system)

Caution:

- Use a 3-wire system for Pt100.
- A/B polarity is important for Pt100. Be sure to match the polarity when using Pt100.
- Do not install the sensor input line parallel to or near the M-NET or power line. Also avoid loop wiring.
- Furthermore, confirm the precautions for the sensor.
- Strip 12±1 mm (15/32 ±1/32 in) of the wire coating and insert firmly into the terminal.
- Make sure that the copper wiring is not short-circuiting the plates (cover, lower case) or neighboring wires.
- Perform wiring so that the terminal block is not strained. If strained, use a wire guide or junction terminal to alleviate the stress on the terminal block.

Pt100 Input only available on Ch.1

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Channel 1 (Channel 2) Analog Input (4 to 20 mA DC, 1 to 5 VDC, 0 to 10 VDC)
To use these, various settings need to be configured.

(a) When 1 to 5 VDC, 0 to 10 VDC, or 4 to 20 mA DC (type for which power is supplied to the sensor) is connected

(b) When 4 to 20 mA DC (type for which power is supplied to the signal line) is connected

Caution:

- Select a power supply that is suitable for the sensor to be used.
- Do not install the sensor input line parallel to or near the M-NET or power line. Also avoid loop wiring. Furthermore, confirm the precautions for the sensor.
- Strip 12±1 mm (15/32 ±1/32 in) of the wire coating and insert firmly into the terminal.
- Make sure that the copper wiring is not short-circuiting the plates (cover, lower case) or neighboring wires.
- Perform wiring so that the terminal block is not strained.
- If strained, use a wire guide or junction terminal to alleviate the stress on the terminal block.

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Connecting Upper/Lower Limit Alarm Outputs (Non-voltage Contacts)

The maximum wire length is 100 m. However, since the use of long wires makes the device susceptible to noise, using wires no more than 10 m long is recommended.

Caution:

- To use X1 relay, obtain one that satisfies the following specifications.
Operating coil
[Applied load]
MAX: 24 VDC, 5 W (Built-in diode)
MIN: 5 VDC, 2 mW (Built-in diode)
*1 AC loads cannot be connected.
*2 Provide a power supply (V1, V2) that matches the load and relay to be used.
- To drive a direct load, use ones within the following.
[Applied load]
MAX: 24 VDC, 5 W
MIN: 5 VDC, 2 mW
* AC loads cannot be connected.
- Make sure that the copper wiring is not short-circuiting the plates (cover, lower case) or neighboring wires.
- Perform wiring so that the terminal block is not strained. If strained, use a wire guide or junction terminal to alleviate the stress on the terminal block.
- Do not connect the wires directly from the top of the control panel to the terminal block. Moisture may enter this device along the wiring and cause electric shock or fire.

Tightening torque for terminal screws: 1 N·m.

* The contact of the internal relay is always ON during detection of an upper/lower limit alarm. (Level output)

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Temperature Sensor

Humidity Sensor

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AC Loads CANNOT BE Connected to AI Controller

77F Series - 4-20mA

Power Supply 12 to 24 VDC 0.6A
DIGITAL CONTROL
Temperature 0-20mA
Humidity 0-20mA

0-5 or 0-10 VDC 500 Output to DDC Controller
(Control or Signal Controller for AC 4-20mA and Voltage Output Transmitters only)
+10 to 30 VDC or 24 VAC Supply Voltage
(1) 4 to 20 mA Current Loop Output to DDC Controller
(2) 0-5 or 0-10 VDC Output to DDC Controller

Wire Access Hole
Mounting Hole

CH2
CH1

TB7 or TB3/TB5 Terminal Block (M-NET)

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Channel 1 Settings

SW01-1	SW01-2	SW01-3	SW01-4	SW01-5	SW01-6	SW01-7	SW01-8
OFF	ON						

Remarks
Specify whether to use the CH1 input terminal
Specify use of 0 to 10 VDC analog input
Unused - Remains OFF
Specify use of CH1 upper/lower alarm interlock output
Unused - Remains OFF
Unused - Remains OFF
Unused - Remains OFF

CH1 selections of analog input type of 0 to 10 VDC detection

SW11-1: ☐ OFF
SW11-2: ☐ ON

Channel 2 Settings

SW02-1	SW02-2	SW02-3	SW02-4	SW02-5	SW02-6	SW02-7	SW02-8
OFF	ON						

Remarks
Specify whether to use the CH2 input terminal
Specify use of 4 to 20 mA DC analog input
Unused - Remains OFF
Specify use of CH2 upper/lower alarm interlock output
Unused - Remains OFF
Unused - Remains OFF
Unused - Remains OFF

CH2 selections of analog input type of 4 to 20 mA DC detection

SW12-1: ☐ OFF
SW12-2: ☐ ON

General Settings
OFF ON
Measurement data backup interval setting
10 minute interval (20 hours worth)
MANET Address (Item counter)
MANET Address (Zone counter)

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Web Browser Set-up and Functions

- Logging into G-50 Initial Setting Web Brower
- Initial Setting Passwords
- Web Brower Screen Layout and Terminology
- Controller Address Assignment
- Trend Data and Email Function
- Input of Temperature & Humidity Specification
- Group Setting Screen Layout and Terminology

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Step 1: Open "G-50 Initial Setting Web Brower"

Step 2: Type Address to access Initial Web Browser Settings

<http://192.168.1.2/g-50/en/administrator.html>
/fr/ (for French)
G(B)50-A assigned IP Address

Note: Default IP address of G(B)50-A is "192.168.1.1" (Factory setting)

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Login Page

Type your user name and password.

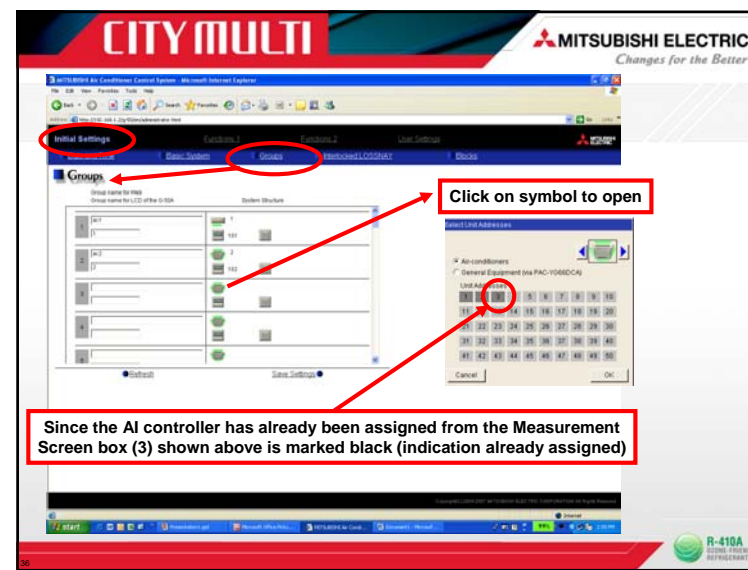
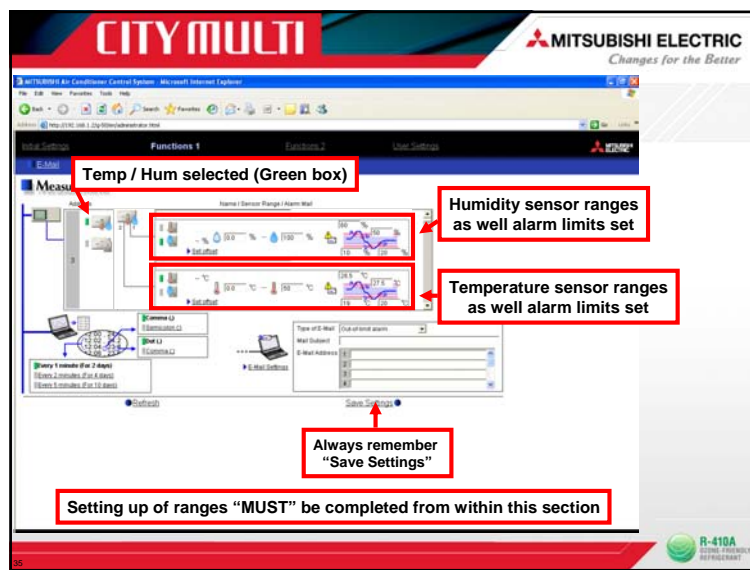
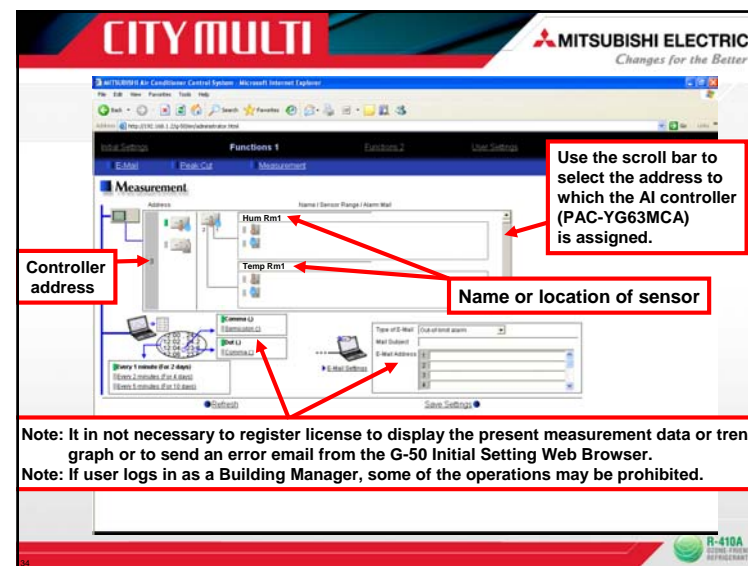
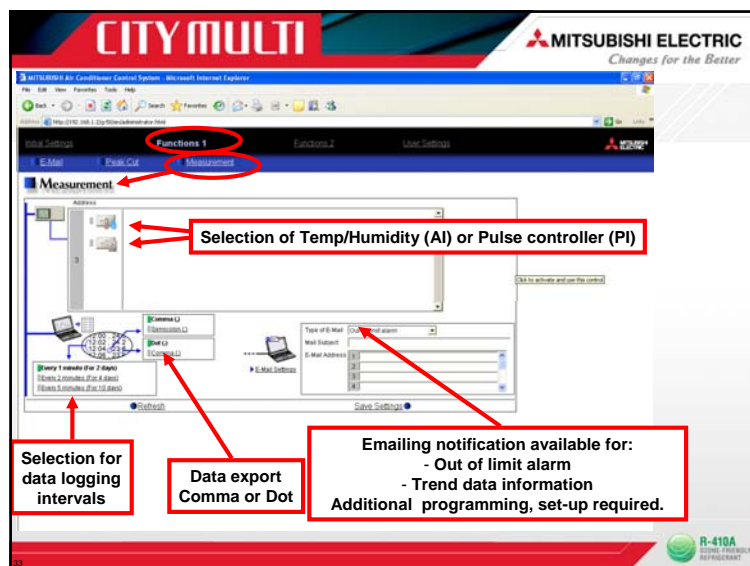
User name:
Password:

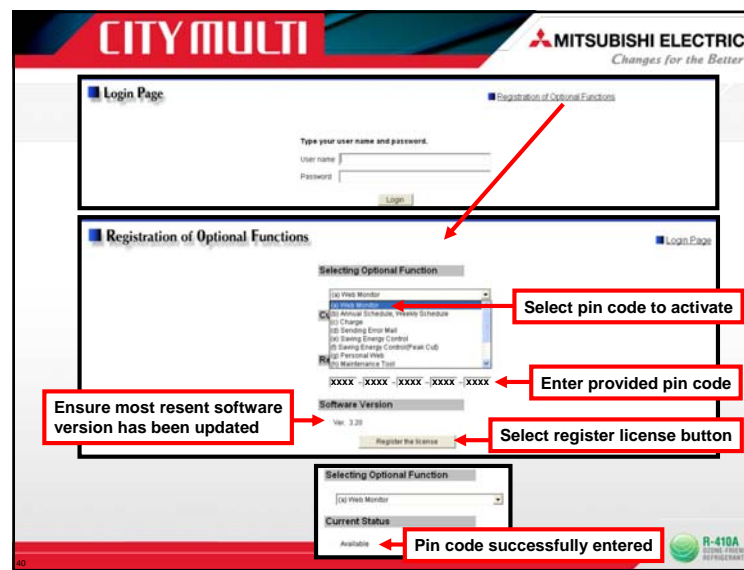
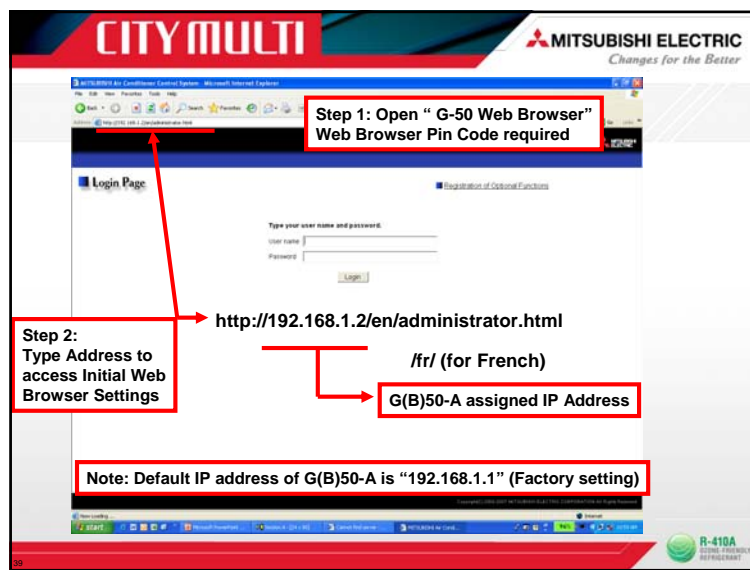
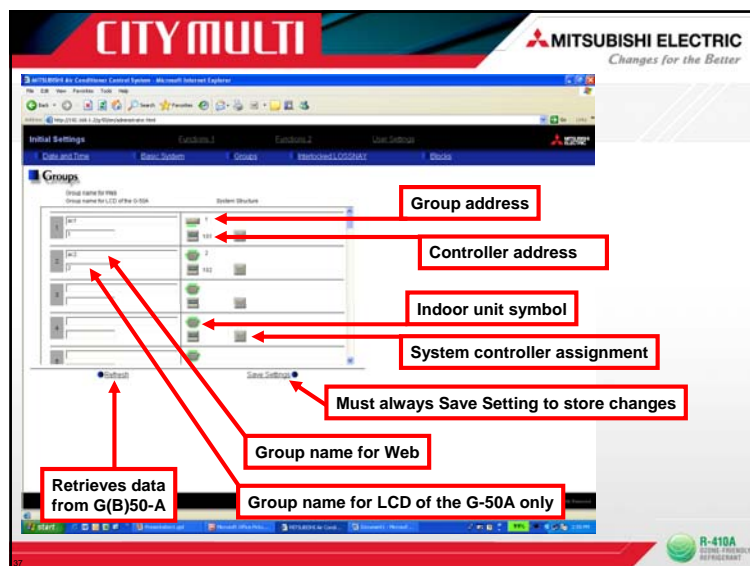
Login

User	Default user name	Default password	Available functions
Maintenance user	initial	init	Initial settings Date and Time, Basic System, Groups, Interlocked LOSSNAY, Blocks
			Functions 1 E-Mail, Peak cut, Measurement
			Functions 2 Set Temperature Range Limit, Night Mode Schedule, Auto-changeover
Building manager	administrator	admin	Out of the functions listed above, the items to which access rights have been given on the user settings screen are available.

Note: The user name and the password for building manager are the same as those of the building manager of the Web for monitoring/operation.
Note: Maintenance users can make available to the administrator only the information necessary for normal operations (group name setting etc.)
Note: It is recommended to change the user name and password not to allow users other than the building manager to change the settings.

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MITSUBISHI Air-Conditioner Control System - Microsoft Internet Explorer

Login Page

Type your user name and password

User name:
Password:

User	Web page address	Default user name	Default password	Accessible functions
Public users	http:// [IP address of G-50A] /index.html	guest	guest	Monitor / operation
Managers	http:// [IP address of G-50A] /administrator.html	administrator	admin	Monitor / operation Measurement monitor Schedule settings (Optional function) Malfunction log monitor Date/time adjustment User registration Send mail log monitor Optional function registration

Note: You can register a maximum of 50 public users and it is possible to individually specify which air conditioners can be operated by each user. (The use of this function requires a license registration.)
Note: It is recommended to change the user name and password not to allow users other than the building manager to change the settings.

R-410A
GLOBAL FREONLESS REFRIGERANT

CITY MULTI MITSUBISHI ELECTRIC
Changes for the Better

MITSUBISHI Air-Conditioner Control System - Microsoft Internet Explorer

Monitor/Operation

Measurement List

Room T (R) 32.5% Room T (T) 24.5°C

Temperature and Humidity sensor reading are available for display

Above icon will change colour in the event of an alarm condition

R-410A
GLOBAL FREONLESS REFRIGERANT

CITY MULTI MITSUBISHI ELECTRIC
Changes for the Better

MITSUBISHI Air-Conditioner Control System - Microsoft Internet Explorer

Monitor/Operation

Measurement List

Room T (R) 32.5% Room T (T) 24.5°C

Sensor overridden to 100%

High limit line

Low limit line

.xls CSV file

R-410A
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CITY MULTI MITSUBISHI ELECTRIC
Changes for the Better

MITSUBISHI Air-Conditioner Control System - Microsoft Internet Explorer

Monitor/Operation

Measurement List


Room T (R) 32.5% Room T (T) 24.5°C


High limit line

Low limit line

.xls CSV file

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Changes for the Better

M-Tool Set-up and Functions

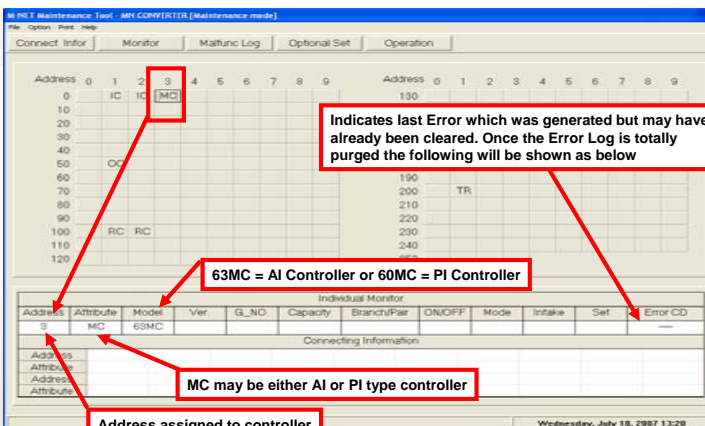
- M-Tool Screen Layout Terminology
- Controller Interlock Enable/Disable Function
- Controller Setting & Interlock Terminology
- DIP Switch Monitoring
- Measurement Value History Data
- Alarm History Data
- Interlock Screen Layout Terminology







Changes for the Better





Indicates last Error which was generated but may have already been cleared. Once the Error Log is totally purged the following will be shown as below


63MC = AI Controller or 60MC = PI Controller

MC may be either AI or PI type controller

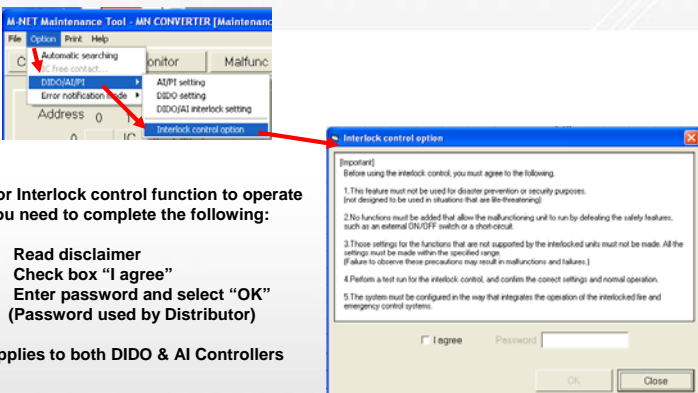
Address assigned to controller








Changes for the Better





For Interlock control function to operate you need to complete the following:

- 1) Read disclaimer
- 2) Check box "I agree"
- 3) Enter password and select "OK"
(Password used by Distributor)

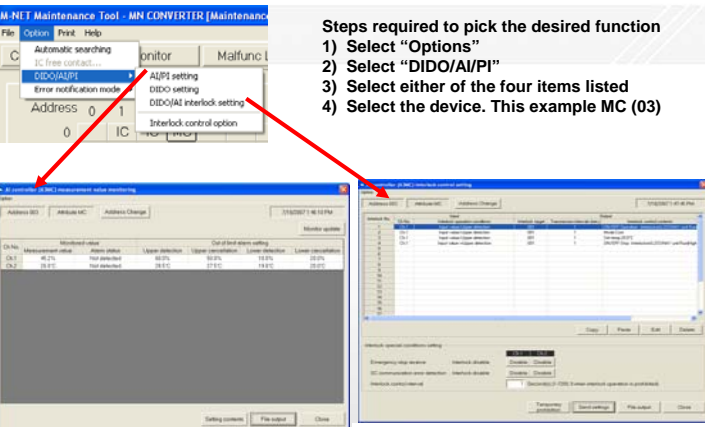
Applies to both DIDO & AI Controllers








Changes for the Better



Steps required to pick the desired function

- 1) Select "Options"
- 2) Select "DIDO/AI/PI"
- 3) Select either of the four items listed
- 4) Select the device. This example MC (03)

Note: for enable Interlocks a password is required



CITY MULTI MITSUBISHI ELECTRIC
Changes for the Better

AI controller (63MC) measurement value monitoring

Address 003 Attribute MC

Monitor Date: 7/18/2007 14:07:35

Ch.1: 47.2% (Humidity) Not detected
Ch.2: 25.6°C (Temp) Not detected

AI controller (63MC) setting

Ch.1 setting: Category: Humidity(%) Measurement range: 10.0 to 90.0 Alarm level value: 50.0
Upper limit value: 100.0 Upper detection: 50.0
Lower limit value: 0.0 Upper cancellation: 50.0
Offset value: 0.0 Lower cancellation: 20.0
Lower detection: 10.0

Ch.2 setting: Category: Temp(°C) Measurement range: 0.0 to 30.0 Alarm level value: 28.5
Upper limit value: 50.0 Upper detection: 28.5
Lower limit value: 0.0 Upper cancellation: 27.5
Offset value: 0.0 Lower cancellation: 20.0
Lower detection: 19.0

Time setting: 2007/7/18 14:07:35

Buttons: [Setting contents] [File output] [Close] [Send settings] [Close]

NOTE:
When G(B)-50A or TG-2000A is connected, the setting must be made on G(B)-50A Web Browser or TG-2000A.
When the settings are made on Maintenance Tools, the setting change is not applied to G(B)-50A or TG-2000A.

Temporary changes are possible from M-Tool, BUT will not be applied to G(B)50-A or TG2000A

R-410A STABLE FREQUENCY REFRIGERANT

CITY MULTI MITSUBISHI ELECTRIC
Changes for the Better

AI controller (63MC) measurement value monitoring

Address 003 Attribute MC

Monitor Date: 7/18/2007 14:07:35

Ch.1: 47.2% (Humidity) Not detected
Ch.2: 25.6°C (Temp) Not detected

MntTool32 dialog: Please select symbols for use as delimiters. Use: [Use] [Use:] [Cancel]

Select which format you wish

Buttons: [Setting contents] [File output] [Close]

Address 003 Attribute MC

Monitor Date: 7/18/2007 14:36

Ch No.	Measurement value	Alarm status	Upper detection	Upper cancellation	Lower detection	Lower cancellation
Ch.1	47.20%	Not detected	60.00%	50.00%	10.00%	20.00%
Ch.2	25.6°C	Not detected	28.5°C	27.5°C	19.0°C	20.0°C

Data which is provided

R-410A STABLE FREQUENCY REFRIGERANT

CITY MULTI MITSUBISHI ELECTRIC
Changes for the Better

AI controller (63MC) measurement value monitoring

Option: DIP switch setting monitoring... [Change]

Monitoring of the correction value for Pt100 detection...
Measured value history...
Out-of-limit alarm history...
Measurement category setting history...

Ch.1: 47.2% (Humidity) Not detected
Ch.2: 25.6°C (Temp) Not detected

DIP switch setting monitoring

SW01 SW02 SW03 SW08 SW09
1 ON ON ON OFF OFF
2 ON OFF ON OFF OFF
3 OFF OFF OFF OFF
4 OFF OFF OFF OFF
5 ON ON OFF OFF

DIPSW changes ONLY permitted on actual device. Ensure device power is OFF before making changes.

Address 003 Attribute MC

Monitor Date: 7/18/2007 14:36

Data which is provided

The pressed (sunken) button shows the current status. Ex, SW1-1 ON

R-410A STABLE FREQUENCY REFRIGERANT

CITY MULTI MITSUBISHI ELECTRIC
Changes for the Better

AI controller (63MC) measurement value monitoring

Option: DIP switch setting monitoring... [Change]

Monitoring of the correction value for Pt100 detection...
Measured value history...
Out-of-limit alarm history...
Measurement category setting history...

Ch.1: 47.2% (Humidity) Not detected
Ch.2: 25.6°C (Temp) Not detected

Monitoring of the correction value for Pt100 detection

Reference offset point No. Correction value
No.1 867
No.2 1705
No.3 3558

Buttons: [File output] [Close]

Address 003 Attribute MC

Monitor Date: 7/18/2007 15:00

Data which is provided

Reference offset point No. Correction value
No.1 867
No.2 1705
No.3 3558

R-410A STABLE FREQUENCY REFRIGERANT

CITY MULTI

AI controller (63MC) measurement value monitoring

Option

DIP switch setting monitoring...

Monitoring of the correction value for Pt100 detection...

Measured value history...

Out-of-limit alarm history...

Measurement category setting history...

MITSUBISHI ELECTRIC
Changes for the Better

Ch No.	Measurement value	Alarm status
Ch.1	47.2%	Not detected
Ch.2	25.6°C	Not detected

Data which is provided

Date/Time	Ch.1 Measurement value	Ch.2 Measurement value
7/18/2007 15:00	48.80%	25.1°C
7/18/2007 14:50	47.50%	25.3°C
7/18/2007 14:40	48.10%	25.5°C
7/18/2007 14:30	47.10%	25.6°C

CITY MULTI

MITSUBISHI ELECTRIC
Changes for the Better

AI controller (63MC) measurement value monitoring

Option

DIP switch setting monitoring...

Monitoring of the correction value for P100 detection...

Measured value history...

Out-of-limit alarm history...

Measurement category setting history...

Change

Ch.No.	Monitored value	
	Measurement value	Alarm status
Ch.1	47.2%	Not detected
Ch.2	25.6°C	Not detected

Purge Data

Address 003
Attribute MC

Monitor Date 7/18/2007 15:11

[Ch.1]

Date/Time	Interlock signal contact output	Alarm status	Measurement value
7/17/2007 15:29	No output	Upper alarm cancellation	47.10%
7/17/2007 15:25	Signal being output	Upper alarm detection	100.00%

Address 004
Attribute MC

Monitor Date 7/18/2007 15:11

[Ch.2]

Date/Time	Interlock signal contact output	Alarm status	Measurement value
7/17/2007 15:29	No output	Upper alarm cancellation	47.10%
7/17/2007 15:25	Signal being output	Upper alarm detection	100.00%

Data which is provided

Address 005
Attribute MC

Monitor Date 7/18/2007 15:11

[Ch.1]



Date/Time	Interlock signal contact output	Alarm status	Measurement value
7/17/2007 15:29	No output	Upper alarm cancellation	47.10%
7/17/2007 15:25	Signal being output	Upper alarm detection	100.00%

Address 006
Attribute MC

Monitor Date 7/18/2007 15:11

[Ch.2]

Date/Time	Interlock signal contact output	Alarm status	Measurement value
7/17/2007 15:29	No output	Upper alarm cancellation	47.10%
7/17/2007 15:25	Signal being output	Upper alarm detection	100.00%

Changes for the Better

AI controller (63MC) measurement value monitoring

Option

DIP switch setting monitoring...
Monitoring of the correction value for Pt100 detection...
Measured value history...
Out-of-limit alarm history...
Measurement category setting history...

Ch No.	Measurement value	Alarm status
Ch.1	47.2%	Not detected
Ch.2	25.6°C	Not detected

Measurement category setting history

7/18/2007 3:27:40 PM

Date/Time	Ch No.	Measurement category
7/17/2007 11:49:29	Ch.2	Temp
7/17/2007 11:49:29	Ch.1	Humidity
6/19/2007 15:17:09	Ch.2	Temp
6/19/2007 15:17:09	Ch.1	Humidity
6/19/2007 14:13:00	Ch.2	Temp
6/19/2007 14:12:59	Ch.1	Humidity
6/19/2007 14:12:54	Ch.2	Temp
6/19/2007 14:12:53	Ch.1	Humidity
6/19/2007 11:46:25	Ch.2	Temp
6/19/2007 11:46:25	Ch.1	Humidity


File output Close

Address 003 Attribute MC

Monitor Date 7/18/2007 15:27

Data which is provided

Date/Time	Ch No.	Measurement category
7/17/2007 11:49	Ch.2	Temp
7/17/2007 11:49	Ch.1	Humidity



R-410A
NON FLUORIDE
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CITY MULTI

MITSUBISHI ELECTRIC
Changes for the Better

AF controller (63MC) Interlock control setting

Option:

Address 003 Attribute MC Address Change 7/18/2007 1:47:45 PM

Interlock No.	Ch No.	Input	Interlock operation conditions	Interlock target	Transmission intervals (min.)	Output	Interlock control contents
1	Ch.1	Input value<Upper detection	Interlock start/stop condition	001	1	ON/OFF	ON/OFF Operation, Interlock start/stop condition
2	Ch.1	Input value<Upper detection	Interlock start/stop condition	001	1	Mode Cool	Interlock start/stop condition
3	Ch.1	Input value<Upper detection	Interlock start/stop condition	001	1	Set temp. 30.0°C	Interlock start/stop condition
4	Ch.1	Input value<Upper detection	Interlock start/stop condition	001	1	ON/OFF Stop, Interlock start/stop condition	Interlock start/stop condition
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							

Interlock special condition setting

Emergency stop request Interlock disable Disable Disable

SC communication setting

Interlock control interlock

Copy Paste Edit Delete

As long as the input interlock conditions is met, the interlock control operation will keep being output continuously at the set intervals.

Interlock operation (start/stop etc.) is shown

The unit address of the interlock target is shown

The Ch No. of the interlock source and the interlock condition. (conditions based on the measurement value) are shown

The pattern No. of interlock setting is shown. Up to 24 patterns can be set.

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R418A
REFRIGERANT

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Changes for the Better

AI controller (63MC) Interlock control setting

Option: Address 003 Attribute MC Address Change 7/18/2007 1:47:45 PM

Interlock No.	Ch No.	Interlock operation conditions	Interlock target	Transmission intervals (min.)	Interlock control contents
1	Ch.1	Input value-Upper detection	001	1	ON/OFF-Operation Interlocked LOSSNAY unit:Run
2	Ch.1	Input value-Upper detection	001	1	Mode Cool
3	Ch.1	Input value-Upper detection	001	1	Set temp:20.0°C
4	Ch.1	Input value-Upper detection	001	1	Ch.1/Off-Stop Interlocked LOSSNAY unit:Run/High

Interlock special conditions setting

Emergency stop receive Interlock disable

SC communication error detection Interlock disable

Interlock control interval 1 Second(s) (1-7200, 0 when interlock operation is prohibited)

Temporary prohibition Send settings File output Close

R-410A

Each Interlock No. 1-24 represents an individual operation

Upon upper detection alarm (High alarm):

Line 1 = Turns Interlock target "ON"

Line 2 = Puts Interlock target to "Mode Cool"

Line 3 = Puts Interlock target to "20°C"

Upon alarm clearing (No more High Alarm)

Line 4 = Turns interlock target "OFF"

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Changes for the Better

Interlock operation enable/disable setting

Ch.1 Disable Enable

Ch.2 Disable Enable

Quick and simple way to disable each channel

Send settings Close

Set-up of Interlock Setting can only be preformed via CMS-MNG interface converter. Do not forget to "SEND SETTING"

Monitor Date 15:34

Data which is provided

Interlock No.	Ch No.	Interlock operation conditions	Interlock target	Transmission intervals (min.)	Interlock control contents
1	Ch.1	Input value-Upper detection	1	1	ON/OFF-Operation Interlocked LOSSNAY unit:Run(High)
2	Ch.1	Input value-Upper detection	1	1	Mode Cool
3	Ch.1	Input value-Upper detection	1	1	Set temp:20.0°C
4	Ch.1	Input value-Upper detection	1	1	Ch.1/Off-Stop Interlocked LOSSNAY unit:Run/High

R-410A

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Changes for the Better

AI controller (63MC) Interlock control setting

Option: Address 003 Attribute MC Address Change 7/18/2007 1:47:45 PM

When the emergency stop command is received from G(B)-50A, whether to enable or disable the interlock operation depending on the change in measurement values can be set for each channel

Emergency stop receive: Interlock disable setting

Input channel Ch.1 Ch.2

Interlock disable Disable Disable

Change in measurement values

Emergency stop command

Interlock operation

Interlock special conditions setting

Emergency stop receive Interlock disable

SC communication error detection Interlock disable

Interlock control interval 1 Second(s) (1-7200, 0 when interlock operation is prohibited)

Temporary prohibition Send settings File output Close

R-410A

CITY MULTI MITSUBISHI ELECTRIC
Changes for the Better

AI controller (63MC) Interlock control setting

Option: Address 003 Attribute MC Address Change 7/18/2007 1:47:45 PM

When the communication error between G(B)-50A occurs, whether to enable or disable the interlock operation depending on the change in measurement values can be set for each channel

SC communication error detection: Interlock disable setting

Input channel Ch.1 Ch.2

Interlock disable Disable Disable

Change in measurement values

Communication error

Interlock operation

Interlock special conditions setting

Emergency stop receive Interlock disable

SC communication error detection Interlock disable

Interlock control interval 1 Second(s) (1-7200, 0 when interlock operation is prohibited)

Temporary prohibition Send settings File output Close

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