

● **Data measurement**

When the operation is stabilized, measure operation data as explained below.

➤(4) Press the [TEMP] buttons (and) to select the desired refrigerant address.

[Screen ⑧]

➤(5) Select the type of data to be displayed.

After selecting, go to step (6).

Compressor information

button

[Display ⑨]

Outdoor unit information

button

[Display ⑩]

Indoor unit information

button

[Display ⑪]

(6) Press the **FILTER** () button to confirm the setting.

[Display example for accumulated operating time]

Display ⑫ Blinking 1234
Waiting for response After approx. 10 seconds 12,340 hours

(7) Data is displayed on the display (at ⑫).

To check the data for each item, repeat steps (5) to (7).

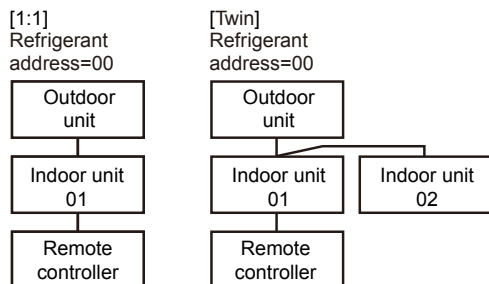
(8) To cancel maintenance mode, press the **TEST** button for 3 seconds or press the button.

■ **Refrigerant address**

Single refrigerant system

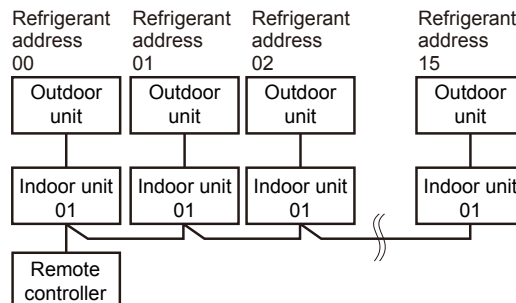
In the case of single refrigerant system, the refrigerant address is "00" and no operation is required.

Simultaneous twin, triple units belong to this category (single refrigerant system).



Multi refrigerant system (group control)

Up to 16 refrigerant systems (16 outdoor units) can be connected as a group by 1 remote controller. To check or set the refrigerant addresses.



11-2.GUIDE FOR OPERATION CONDITION

Inspection item			Result				
Power supply	Loose con- nection	Terminal block	Breaker	Good		Retightened	
			Outdoor Unit	Good		Retightened	
			Indoor Unit	Good		Retightened	
		(Insulation resistance)				MΩ	
		(Voltage)				V	
Com- pressor	① Accumulated operating time				Time		
	② Number of ON/OFF times				Times		
	③ Current				A		
Outdoor Unit	Temperature	④ Refrigerant/heat exchanger temperature		COOL	°F	HEAT	°F
		⑤ Refrigerant/discharge temperature		COOL	°F	HEAT	°F
		⑥ Air/outside air temperature		COOL	°F	HEAT	°F
		(Air/discharge temperature)		COOL	°F	HEAT	°F
	Cleanli- ness	Appearance		Good		Cleaning required	
		Heat exchanger		Good		Cleaning required	
		Sound/vibration		None		Present	
Indoor Unit	Temperature	⑦ Air/intake air temperature		COOL	°F	HEAT	°F
		(Air/discharge temperature)		COOL	°F	HEAT	°F
		⑧ Refrigerant/heat exchanger temperature		COOL	°F	HEAT	°F
		⑨ Filter operating time*				Time	
	Cleanliness	Decorative panel		Good		Cleaning required	
		Filter		Good		Cleaning required	
		Fan		Good		Cleaning required	
		Heat exchanger		Good		Cleaning required	
		Sound/vibration		None		Present	

* The filter operating time is the time that has elapsed since the filter was reset.

Check Points

Enter the temperature differences between ⑤, ④, ⑦ and ⑧ into the graph given below.

Operation state is determined according to the plotted areas on the graph.

For data measurements, set the fan speed to "Hi" before activating maintenance mode.

Classification	Item	Result	
Cool	Inspection	Is "000" displayed stably in Display ⑩ on the remote controller?	Stable Unstable
	Temperature difference	(⑤ Discharge temperature) – (④ Outdoor heat exchanger temperature)	°F
		(⑦ Indoor intake air temperature) – (⑧ Indoor heat exchanger temperature)	°F
	Inspection	Is "000" displayed stably in Display ⑩ on the remote controller?	Stable Unstable
Heat	Temperature difference	(⑤ Discharge temperature) – (⑧ Indoor heat exchanger temperature)	°F
		(⑧ Indoor heat exchanger temperature) – (⑦ Indoor intake air temperature)	°F
	Inspection	Is "000" displayed stably in Display ⑩ on the remote controller?	Stable Unstable
	Inspection	Is "000" displayed stably in Display ⑩ on the remote controller?	Stable Unstable

Notes:

1. Fixed Hz operation may not be possible under the following temperature ranges.

A) In cool mode, outdoor intake air temperature is 104°F or higher or indoor intake air temperature is 73°F or lower.

B) In heat mode, outdoor intake air temperature is 68°F or higher or indoor intake air temperature is 77°F or lower.

2. If the air conditioner is operated at a temperature range other than the ones above but operation is not stabilized after 30 minutes or more have elapsed, carry out inspection.

3. In heat mode, the operation state may vary due to frost forming on the outdoor heat exchanger.

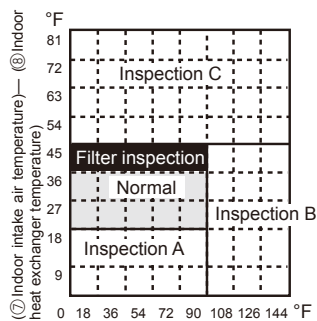
Area	Check item	Judgment	
		Cool	Heat
Normal	Normal operation state		
Filter inspection	Filter may be clogged.*		
Inspection A	Performance has dropped. Detailed inspection is necessary.		
Inspection B	Refrigerant amount is dropping.		
Inspection C	Filter or indoor heat exchanger may be clogged.		

Note: The above judgment is just guide based on Japanese standard conditions. It may be changed depending on the indoor and outdoor temperature.

* It may be judged as "filter inspection" due to the outdoor and indoor temperature, even though it is not clogged.

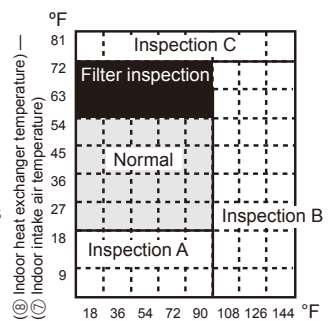
Result

Cool mode



[⑤ Discharge temperature] – [④ Outdoor heat exchanger temperature]

Heat mode



[⑤ Discharge temperature] – [⑧ Indoor heat exchanger temperature]

11-3. INITIAL SETTINGS FOR REFRIGERANT LEAKAGE DETECTION FUNCTION

11-3-1. PAR-30MAA/PAR-31MAA

Refrigerant leakage is detected after a long time.

To enable this function, the refrigerant volume must be saved (initial learning) after installation. Always operate this function in the following manners after installation.

- Always perform test run before using this function, and confirm that the air conditioner operates normally.
- To accurately detect refrigerant leaks, set the wind speed to strong, and execute this operation.

"Refrigerant leak check" is valid only with models which support the refrigerant leak check function.

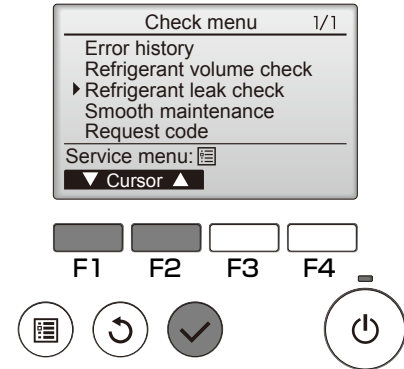
- ① Select "Service" from the Main menu, and press the  button.



Select "Check" with the **F1** or **F2** button, and press the  button.



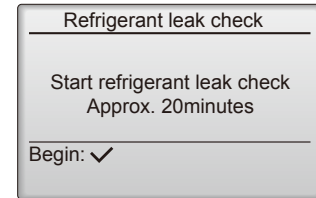
Select "Refrigerant leak check" with the **F1** or **F2** button, and press the  button.



- ② Stable mode will start.

Press the  button, stable mode(*) will start.

*Stable mode will take approx. 20 minutes.



- ③ The operation data will appear.

The following value is the reference for the refrigerant volume check. If the refrigerant is leaking, "NG" will appear.

The refrigerant volume check reference value can be changed with the function selection.

Default value RP71 – : 80%
– RP50 : 70%

Refrigerant leak check 1/2			
Add	Cond	Add	Cond
0	OK	4	OK
1	OK	5	NG
2	OK	6	–
3	NG	7	–
Check menu: 			
Page			

<Resetting the initial learning data>

- If the unit has been relocated or if refrigerant has been additionally charged, the initial learning data must be reset and learning performed again.

How to reset the data:

1. Turn the main power OFF.
2. Attach the short-circuit pin for the emergency operation connector (CN31) on the outdoor controller board to the ON side.
3. Turn ON the test run switch (SW4-1) on the outdoor controller board.
4. The data will be reset when the main power is turned ON.
5. Turn the main power OFF.
6. Turn OFF the test run switch (SW4-1).
7. Return the short-circuit pin for the emergency operation connector (CN31) to the OFF side.

- Under the following conditions, it may not be possible to carry out stable operation or accurately detect refrigerant leaks.
 - When the outdoor intake temperature is 40°C or higher, or when the indoor intake temperature is 23°C or less.
 - When the indoor fan speed is not set to strong.

12-1. UNIT FUNCTION SETTING BY THE REMOTE CONTROLLER

Each function can be set according to necessity using the remote controller. The setting of function for each unit can only be done by the remote controller. Select function available from the table 1.

(1) Functions available when setting the unit number to 00 (Select 00 referring to ④ setting the indoor unit number.)

<Table 1> Function selections

Function	Settings	Mode No. Wired remote controller (RF thermistor)	Setting No.	● : Initial setting (when sent from the factory)	Remarks
Power failure automatic recovery	Not available	01	1		The setting is applied to all the units in the same refrigerant system.
	Available	(101)	2	●	
Indoor temperature detecting	Average data from each indoor unit	02 (—)	1	●	
	Data from the indoor unit with remote controllers		2		
	Data from main remote controller		3		
LOSSNAY connectivity	Not supported	03 (103)	1	●	
	Supported (indoor unit does not intake outdoor air through LOSSNAY)		2		
	Supported (indoor unit intakes outdoor air through LOSSNAY)		3		
Power supply voltage	230V	04 (104)	1	●	
	208V		2		
Frost prevention temperature	2°C [36°F] (Normal)	15 (115)	1	●	
	3°C [37°F]		2		
Humidifier control	When the compressor operates, the humidifier also operates.	16 (116)	1	●	
	When the fan operates, the humidifier also operates.		2		
Change of defrosting control	Standard	17 (117)	1	●	
	For high humidity		2		

Meaning of "Function setting"

Mode02 : indoor temperature detecting

No.	Indoor temperature(ta)=		Diagram 1: Two indoor units (A, B) with main and sub remote controllers (C, D)	Diagram 2: Two indoor units (A, B) with main remote controller (C) and sub remote controller (D)	Diagram 3: One indoor unit (A) with main and sub remote controllers (C, D)	Diagram 4: One indoor unit (A) with main remote controller (C)
No1.	Average data of the sensor on all the indoor units	Initial setting	$ta=(A+B)/2$	$ta=(A+B)/2$	$ta=A$	$ta=A$
No2.	Data of the sensor on the indoor unit that connected with remote controller		$ta=A$	$ta=B$	$ta=A$	$ta=A$
No3.	Data of the sensor on main remote controller		$ta=C$	$ta=C$	$ta=C$	$ta=C$

- (2) Functions available when setting the unit number to 01-03 or AL (07 in case of IR wireless remote controller)
- When setting functions for an indoor unit in an independent system, set the unit number to 01 referring to ④ setting the indoor unit number.
 - When setting functions for a simultaneous twin indoor unit system, set the unit number to 01 to 03 for each indoor unit in case of selecting different functions for each unit referring to ④ setting the indoor unit number.
 - When setting the same functions for an entire simultaneous Twin-indoor unit system, set refrigerant address to AL (07 in case of IR wireless remote controller) referring to ④ setting the indoor unit number.

Function	Settings	Mode No. ----- Wired remote controller (RF thermistor)	Setting No.	●: Initial setting (Factory setting) - : Not available			
				4-Way cassette	Ceiling suspended	Wall mounted	
				PLA-BA	PCA-KA	PKA-HA(L)	PKA-KA(L)
Filter sign	100h	07 (107)	1			●	●
	2500h		2	●	●		
	"Clean the filter" indicator is not displayed		3				
Air flow (Fan speed)	Quiet	08 (108)	1			-	
	Standard		2	●	●	●	●
	High ceiling		3				-
No. of air outlets	4 directions	09 (109)	1	●	-	-	-
	3 directions		2		-	-	-
	2 directions		3		-	-	-
Optional high efficiency filter	Not supported	10 (110)	1	●	●	-	-
	Supported		2			-	-
Vane setting	No vanes (Vane No.3 setting : PLA only)	11 (111)	1			-	-
	Vane No.1 setting		2	●	●	-	-
	Vane No.2 setting		3			-	-
Optional humidifier (PLA only)	Not supported	13 (113)	1	●	-	-	-
	Supported		2		-	-	-
Vane differential setting in heating mode (cold wind prevention)	No.1 setting (TH5: 75-82°F (24-28°C))	14 (114)	1				
	No.2 setting (Standard, TH5: 82-90°F (28-32°C))		2	●	●	●	●
	No.3 setting (TH5: 90-100°F (32-38°C))		3				
Swing	Not available : Swing	23 (123)	1				
	Available : Wave air flow } PLA-BA		2	●	●	●	●
Set temperature in heating mode (4 deg up) *1	Available	24 (124)	1	●	●	●	●
	Not available		2				
Fan speed when the heating thermostat is OFF	Extra low	25 (125)	1	●	●	●	●
	Stop		2				
	Keeping fan speed set by remote controller		3				
Fan speed when the cooling thermostat is OFF	Keeping fan speed set by remote controller	27 (127)	1	●	●	●	●
	Stop		2				
Detection of abnormality of the pipe temperature (P8)	Detect	28 (128)	1	●	●	●	●
	Neglect		2				

*1. PKA-HA(L)/KA(L): 3.6°F (2°C) up.

Mode No.11

Setting No.	Settings	PLA-BA	PCA-KA
1	Vane No.3 setting No Vanes	Less smudging (Downward position than the standard)	No vane function
2	Vane No.1 setting	Standard	Standard
3	Vane No.2 setting	Less draft * (Upward position than the standard)	Less draft * (Upward position than the standard)

* Be careful of the smudge on ceiling.

PEAD-AA

Function	Settings	Mode No. ----- Wired remote controller (RF thermistor)	Setting No.	● : Initial setting (Factory setting)
Filter sign	100h	07 (107)	1	
	2500h		2	
	No filter sign indicator		3	●
External static pressure	35/50/70/100/125Pa	08 (108)	Refer to the right table	
		10 (110)	Refer to the right table	
Set temperature in heating mode (4 deg up)	Available	24 (124)	1	●
	Not available		2	
Fan speed during the heating thermo OFF	Extra low	25 (125)	1	●
	Stop		2	
	Set fan speed		3	
Fan speed during the cooling thermo OFF	Set fan speed	27 (127)	1	●
	Stop		2	
Detection of abnormality of the pipe temperature (P8)	Available	28 (128)	1	●
	Not available		2	

External static pressure	Setting No.		Initial setting (Factory setting)
	Mode No. ----- Wired remote controller	Mode No. ----- Wired remote controller	
35Pa	2	1	
50Pa	3	1	●
70Pa	1	2	
100Pa	2	2	
125Pa	3	2	

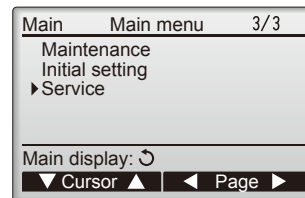
12-1-1. Selecting functions using the wired remote controller <PAR-30MAA> <PAR-31MAA>

<Service menu>

Maintenance password is required

- ① Select "Service" from the Main menu, and press the  button.

*At the main display, the menu button and select "Service" to make the maintenance setting.



- ② When the Service menu is selected, a window will appear asking for the password.

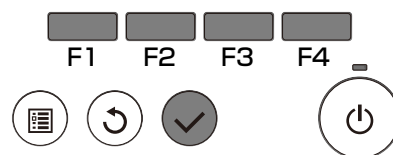
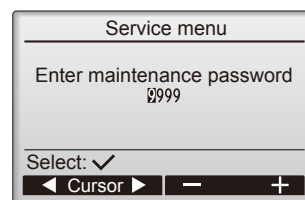
To enter the current maintenance password (4 numerical digits), move the cursor to the digit you want to change with the **F1** or **F2** button.



Set each number (0 through 9) with the **F3** or **F4** button.



Then, press the  button.



Note: The initial maintenance password is "9999". Change the default password as necessary to prevent unauthorized access. Have the password available for those who need it.

: If you forget your maintenance password, you can initialize the password to the default password "9999" by pressing and holding the **F1** and **F2** buttons simultaneously for three seconds on the maintenance password setting screen.

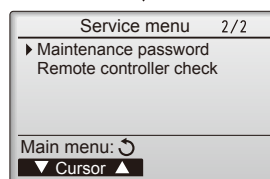
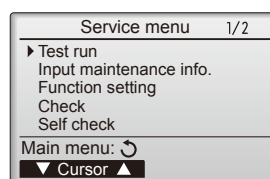
- ③ If the password matches, the Service menu will appear.

The type of menu that appears depends on the connected indoor units' type.

Note: Air conditioning units may need to be stopped to make certain settings. There may be some settings that cannot be made when the system is centrally controlled.



A screen will appear that indicates the setting has been saved.



Navigating through the screens

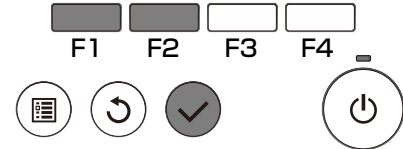
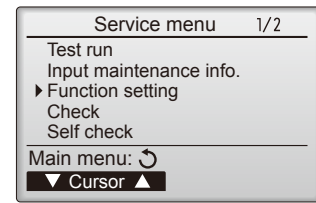
- To go back to the Main menu  button
- To return to the previous screen.....  button

<Function setting>

- ① Select "Service" from the Main menu, and press the  button.



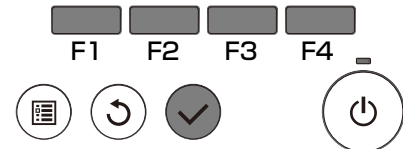
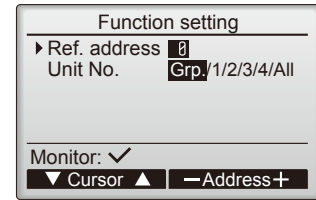
Select "Function setting" with the **F1** or **F2** button, and press the  button.



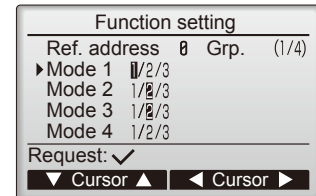
- ② Set the indoor unit refrigerant addresses and unit numbers with the **F1** through **F4** buttons, and then press the  button to confirm the current setting.

<Checking the indoor unit No.>

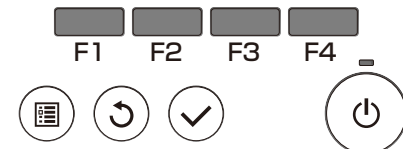
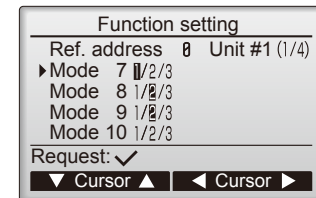
When the  button is pressed, the target indoor unit will start fan operation. If the unit is common or when running all units, all indoor units for the selected refrigerant address will start fan operation.



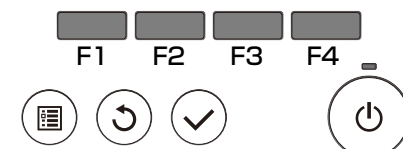
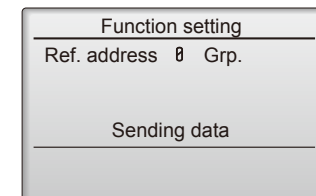
- ③ When data collection from the indoor units is completed, the current settings appears highlighted. Non-highlighted items indicate that no function settings are made. Screen appearance varies depending on the "Unit No." setting.



- ④ Use the **F1** or **F2** button to move the cursor to select the mode number, and change the setting number with the **F3** or **F4** button.



- ⑤ When the settings are completed, press the  button to send the setting data from the remote controller to the indoor units. When the transmission is successfully completed, the screen will return to the Function setting screen.



- Note:**
- Make the above settings only on Mr. Slim units as necessary.
 - The above function settings are not available for the City Multi units.
 - Table 1 summarizes the setting options for each mode number. Refer to the indoor unit Installation Manual for the detailed information about initial settings, mode numbers, and setting numbers for the indoor units.
 - Be sure to write down the settings for all functions if any of the initial settings has been changed after the completion of installation work.

[Operating Procedure]

- ① Check the setting items provided by function selection.
If settings for a mode are changed by function selection, the functions of that mode will be changed accordingly. Check all the current settings according to steps ② to ⑦, fill in the "Check" column in Table 1, then change them as necessary. For initial settings, refer to the indoor unit's installation manual.

- ② Switch off the remote controller.

- Ⓐ Hold down the **(FILTER)** (mode is 15 to 28) and **(TEST)** buttons simultaneously for at least 2 seconds. **FUNCTION SELECTION** will start to blink, then the remote controller's display content will change as shown below.



If the unit stops after **FUNCTION SELECTION** blinked for 2 seconds or "88" blinks in the room temperature display area for 2 seconds, a transmission error may have occurred. Check to see if there are any sources of noise or interference near the transmission path.

Note: If you have made operational mistakes during this procedure, exit function selection (see step ⑩), then restart from step ②.

- ④ Set the indoor unit number.

- Ⓓ Press the **(ON/OFF)** button so that "-" blinks in the unit number display area.



To set modes 01 to 06 or 15 to 22, select unit number "00".

To set modes 07 to 14 or 23 to 28, carry out as follows:

To set each indoor unit individually, select "01" to "04".

To set all the indoor units collectively, select "AL".

- ⑤ Confirm the refrigerant address and unit number.

- Ⓔ Press the **(MODE)** button to confirm the refrigerant address and unit number.

After a while, "-" will start to blink in the mode number display area.



"88" will blink in the room temperature display area if the selected refrigerant address does not exist in the system.

Furthermore, if "F" appears and blinks in the unit number display area and the refrigerant address display area also blinks, there are no units that correspond to the selected unit number. In this case, the refrigerant address and unit number may be incorrect, so repeat steps ② and ③ to set the correct ones.

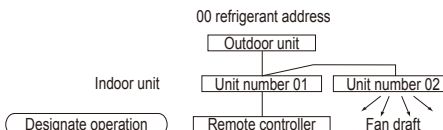
- ③ Set the outdoor unit's refrigerant address.

- Ⓒ Press the **(CLOCK)** buttons (**(V)** and **(A)**) to select the desired refrigerant address. The refrigerant address changes from "00" to "15". (This operation is not possible for single refrigerant systems.)

- Ⓒ Press the **(CLOCK)** buttons (**(V)** and **(A)**) to select the unit number of the indoor unit for which you want to perform function selection. The unit number changes to "00", "01", "02", "03", "04" and "AL" each time a button is pressed.

- Ⓔ When the refrigerant address and unit number are confirmed by pressing the **(MODE)** button, the corresponding indoor unit will start fan operation. This helps you find the location of the indoor unit for which you want to perform function selection. However, if "00" or "AL" is selected as the unit number, all the indoor units corresponding to the specified refrigerant address will start fan operation.

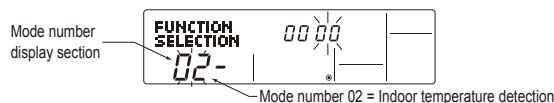
Example: When the refrigerant address is set to 00 and the unit number is 02.



When grouping different refrigerant systems, if an indoor unit other than the one to which the refrigerant address has been set to perform fan operation, there may be another refrigerant address that is the same as the specified one. In this case, check the DIP switch of the outdoor unit to see whether such a refrigerant address exists.

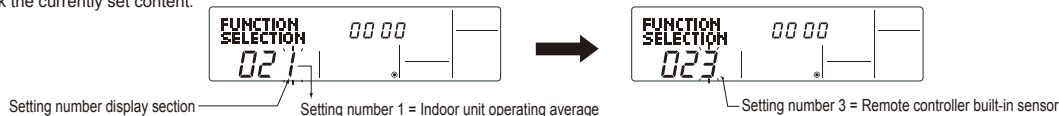
- ⑥ Select the mode number.

- Ⓕ Press the **(TEMP)** buttons (**(V)** and **(A)**) to set the desired mode number. (Only the selectable mode numbers can be selected.)



- ⑦ Select the setting content for the selected mode.

- Ⓖ Press the **(MENU)** button. The currently selected setting number will blink, so check the currently set content.



- ⑧ Register the settings you have made in steps ③ to ⑦.

- Ⓔ Press the **(MODE)** button. The mode number and setting number will start to blink and registration starts.

The mode number and setting number will stop blinking and remain lit, indicating the end of registration.



If "-" is displayed for both the mode number and setting number and "88" blinks in the room temperature display area, a transmission error may have occurred. Check to see if there are any sources of noise or interference near the transmission path.

- ⑨ If you wish to continue to select other functions, repeat steps ③ to ⑧.

- ⑩ Complete function selection.

- Ⓐ Hold down the **(FILTER)** (mode is 15 to 28) and **(TEST)** buttons simultaneously for at least 2 seconds. After a while, the function selection screen will disappear and the air conditioner OFF screen will reappear.

Do not operate the remote controller for at least 30 seconds after completing function selection. (No operations will be accepted even if they are made.)



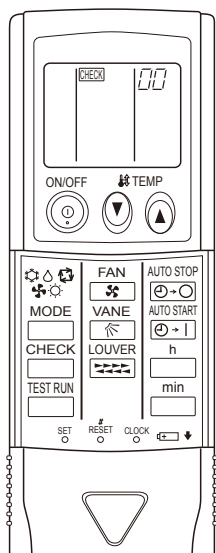
Note:

If a function of an indoor unit is changed by function selection after installation is complete, make sure that a "O" mark, etc., is given in the "Check" column of Table 1 to indicate the change.

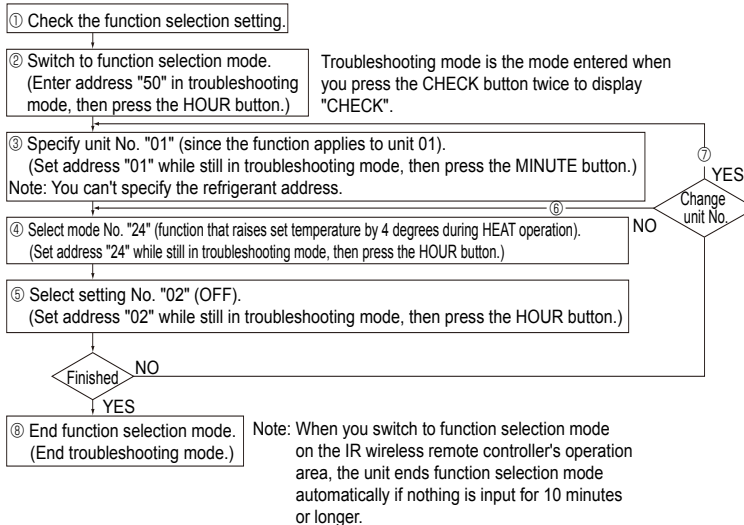
12-1-2. Selecting functions using the IR wireless remote controller (Type C)

Functions can be selected with the IR wireless remote controller. Function selection using IR wireless remote controller is available only for refrigerant system with wireless function. Refrigerant address cannot be specified by the IR wireless remote controller.

[Flow of function selection procedure]



The flow of the function selection procedure is shown below. This example shows how to turn off the function that raises the set temperature by 4 degrees during HEAT operation. The procedure is given after the flow chart.



[Operating instructions]

① Check the function settings.

② Press the button twice continuously. → is lit and "00" blinks.

Press the TEMP button once to set "50". Direct the IR wireless remote controller toward the receiver of the indoor unit and press the button.

③ Set the unit number.

Press the TEMP button to set the unit number. (Press "01" to specify the indoor unit whose unit number is 01.)

Direct the IR wireless remote controller toward the receiver of the indoor unit and press the button.

(By setting unit number with the button, specified indoor unit starts performing fan operation.

Detect which unit is assigned to which number using this function. If unit number is set to AL, all the indoor units in same refrigerant system start performing fan operation simultaneously.)

Notes:

1. If a unit number that cannot be recognized by the unit is entered, 3 beeps of 0.4 seconds will be heard. Reenter the unit number setting.
2. If the signal was not received by the sensor, you will not hear a beep or a "double ping sound" may be heard. Reenter the unit number setting.

④ Select a mode.

Press the TEMP button to set a mode. Press "24" to turn on the function that raises the set temperature by 4 degrees during heat operation. Direct the IR wireless remote controller toward the sensor of the indoor unit and press the button.

→ The sensor-operation indicator will blink and beeps will be heard to indicate the current setting number.

Current setting number: 1 = 1 beep (one second)
2 = 2 beeps (one second each)
3 = 3 beeps (one second each)

Notes:

1. If a mode number that cannot be recognized by the unit is entered, 3 beeps of 0.4 seconds will be heard. Reenter the mode number.
2. If the signal was not received by the sensor, you will not hear a beep or a "double ping sound" may be heard. Reenter the mode number.

⑤ Select the setting number.

Press the TEMP button to select the setting number. (02: Not available)

Direct the IR wireless remote controller toward the receiver of the indoor unit and press the button.

→ The sensor-operation indicator will blink and beeps will be heard to indicate the setting number.

Setting number: 1 = 2 beeps (0.4 seconds each)
2 = 2 beeps (0.4 seconds each, repeated twice)
3 = 2 beeps (0.4 seconds each, repeated 3 times)

Notes:

1. If a setting number that cannot be recognized by the unit is entered, the setting will turn back to the original setting.
2. If the signal was not received by the sensor, you will not hear a beep or a "double ping sound" may be heard. Reenter the setting number.

⑥ Repeat steps ④ and ⑤ to make an additional setting without changing unit number.

⑦ Repeat steps ③ to ⑤ to change unit number and make function settings on it.

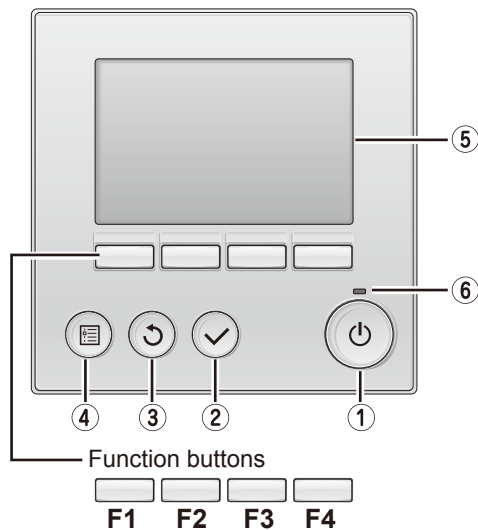
⑧ Complete the function settings

Press button.

Note: Do not use the IR wireless remote controller for 30 seconds after completing the function setting.

12-2. FUNCTION SELECTION OF REMOTE CONTROLLER

12-2-1. PAR-30MAA/PAR-31MAA



① ON/OFF button

Press to turn ON/OFF the indoor unit.

② SELECT button

Press to save the setting.

③ RETURN button

Press to return to the previous screen.

④ MENU button

Press to bring up the Main menu.

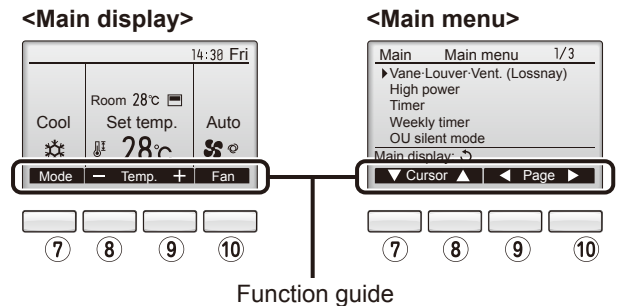
⑤ Backlit LCD

Operation settings will appear.
When the backlight is off, pressing any button turns the backlight on and it will stay lit for a certain period of time depending on the screen.

When the backlight is off, pressing any button turns the backlight on and does not perform its function. (except for the  (ON/OFF) button)

The functions of the function buttons change depending on the screen. Refer to the button function guide that appears at the bottom of the LCD for the functions they serve on a given screen.

When the system is centrally controlled, the button function guide that corresponds to the locked button will not appear.



⑥ ON/OFF lamp

This lamp lights up in green while the unit is in operation. It blinks while the remote controller is starting up or when there is an error.

⑦ Function button **F1**

Main display : Press to change the operation mode.
Main menu : Press to move the cursor down.

⑧ Function button **F2**

Main display : Press to decrease temperature.
Main menu : Press to move the cursor up.

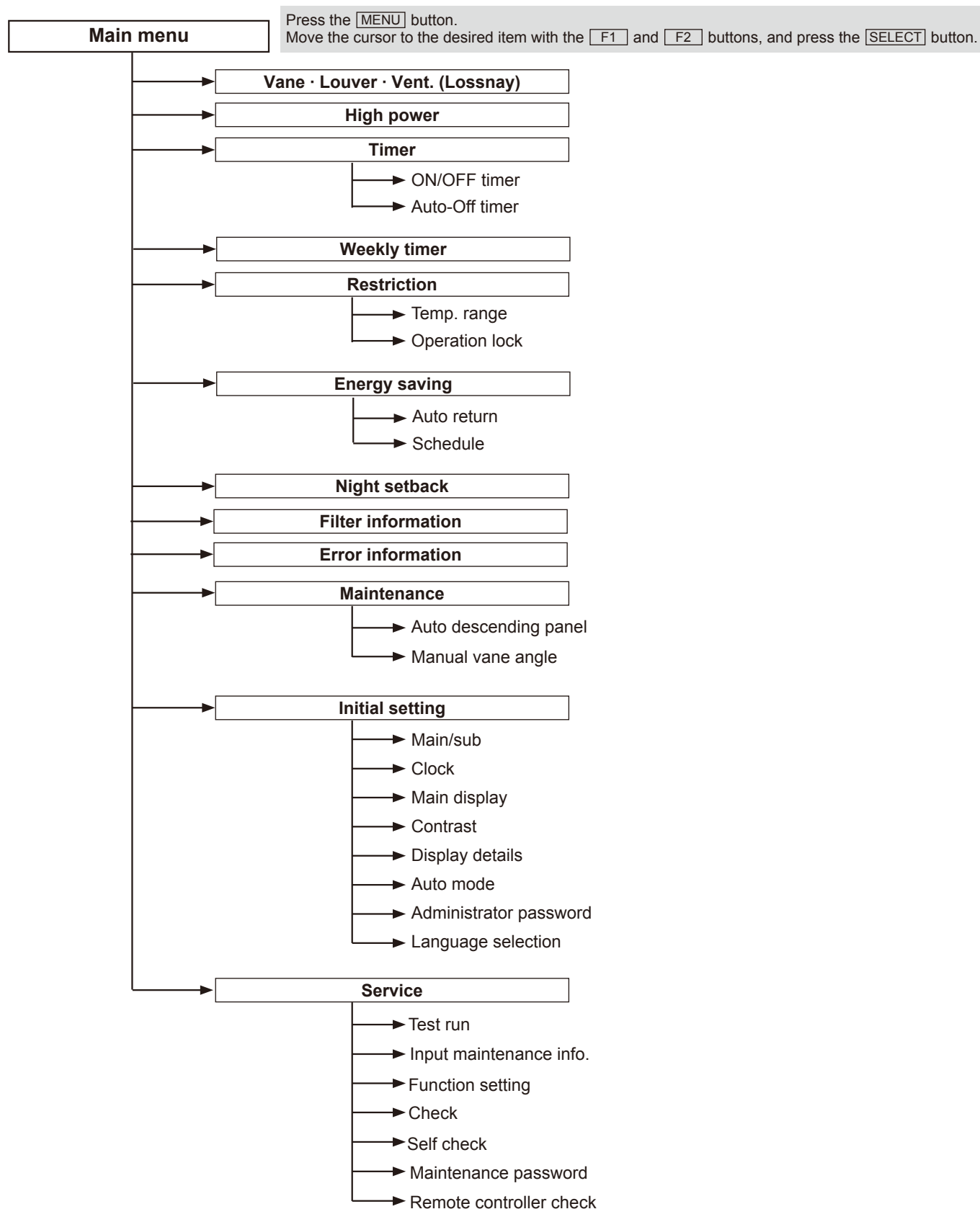
⑨ Function button **F3**

Main display : Press to increase temperature.
Main menu : Press to go to the previous page.

⑩ Function button **F4**

Main display : Press to change the fan speed.
Main menu : Press to go to the next page.

Menu structure



Not all functions are available on all models of indoor units.

Main menu list

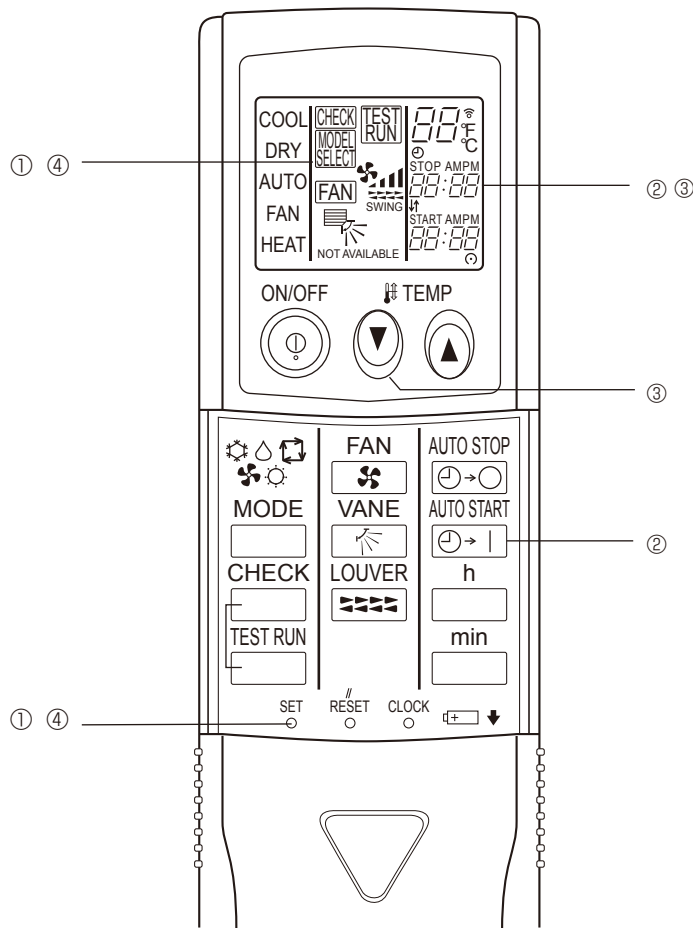
Setting and display items		Setting details
Vane · Louver · Vent. (Lossnay)		Use to set the vane angle. • Select a desired vane setting from five different settings. Use to turn ON/OFF the louver. • Select a desired setting from "ON" and "OFF." Use to set the amount of ventilation. • Select a desired setting from "Off," "Low," and "High."
High power		Use to reach the comfortable room temperature quickly. • Units can be operated in the High-power mode for up to 30 minutes.
Timer	ON/OFF timer*	Use to set the operation ON/OFF times. • Time can be set in 5-minute increments.
	Auto-Off timer	Use to set the Auto-Off time. • Time can be set to a value from 30 to 240 in 10-minute increments.
Weekly timer*		Use to set the weekly operation ON/OFF times. • Up to 8 operation patterns can be set for each day. (Not valid when the ON/OFF timer is enabled.)
Restriction	Temp. range	Use to restrict the preset temperature range. • Different temperature ranges can be set for different operation modes.
	Operation lock	Use to lock selected functions. • The locked functions cannot be operated.
Energy saving	Auto return	Use to get the units to operate at the preset temperature after performing energy-save operation for a specified time period. • Time can be set to a value from 30 and 120 in 10-minute increments. (This function will not be valid when the preset temperature ranges are restricted.)
	Schedule*	Set the start/stop times to operate the units in the energy-save mode for each day of the week, and set the energy-saving rate. • Up to 4 energy-save operation patterns can be set for each day. • Time can be set in 5-minute increments. • Energy-saving rate can be set to a value from 0% or 50 to 90% in 10% increments.
Night setback*		Use to make Night setback settings. • Select "Yes" to enable the setting, and "No" to disable the setting. The temperature range and the start/stop times can be set.
Filter information		Use to check the filter status. • The filter sign can be reset.
Error information		Use to check error information when an error occurs. • Check code, error source, refrigerant address, unit model, manufacturing number, contact information (dealer's phone number) can be displayed. (The unit model, manufacturing number, and contact information need to be registered in advance to be displayed.)
Maintenance	Auto descending panel	Auto descending panel (Optional parts) Up / Down you can do.
	Manual vane angle	Use to set the vane angle for each vane to a fixed position.
Initial setting	Main/Sub	When connecting two remote controllers, one of them needs to be designated as a sub controller.
	Clock	Use to set the current time.
	Main display	Use to switch between "Full" and "Basic" modes for the Main display. • The initial setting is "Full."
	Contrast	Use to adjust screen contrast.
	Display details	Make the settings for the remote controller related items as necessary. Clock: The initial settings are "Yes" and "24h" format. Temperature: Set either Celsius (°C) or Fahrenheit (°F). Room temp. : Set Show or Hide. Auto mode: Set the Auto mode display or Only Auto display.
	Auto mode	Whether or not to use the Auto mode can be selected by using the button. This setting is valid only when indoor units with the Auto mode function are connected.
	Administrator password	The administrator password is required to make the settings for the following items. • Timer setting • Energy-save setting • Weekly timer setting • Restriction setting • Outdoor unit silent mode setting • Night set back
	Language selection	Use to select the desired language.
Service	Test run	Select "Test run" from the Service menu to bring up the Test run menu. • Test run • Drain pump test run
	Input maintenance	Select "Input maintenance Info." from the Service menu to bring up the Maintenance information screen. The following settings can be made from the Maintenance Information screen. • Model name input • Serial No. input • Dealer information input
	Function setting	Make the settings for the indoor unit functions via the remote controller as necessary.
	Check	Error history: Display the error history and execute "delete error history". Refrigerant leak check: Refrigerant leaks can be judged. Smooth maintenance: The indoor and outdoor maintenance data can be displayed. Request code: Details of the operation data including each thermistor temperature and error history can be checked.
	Self check	Error history of each unit can be checked via the remote controller.
	Maintenance password	Use to change the maintenance password.
	Remote controller check	When the remote controller does not work properly, use the remote controller checking function to troubleshoot the problem.

* Clock setting is required.

12-3. Function selection of IR wireless remote controller

TEMPERATURE DISPLAY °C/°F SETTING (Change of temp mode from °F to °C)

- ① Press the set button with something sharp at the end. **MODEL SELECT** blinks.
- ② Press the  button. “°F” blinks.
- ③ Press the  button. “°C” blinks.
- ④ Press the set button with something sharp at the end. **MODEL SELECT** is lighted for 3 seconds, then turned off.



13-1. HOW TO "MONITOR THE OPERATION DATA"

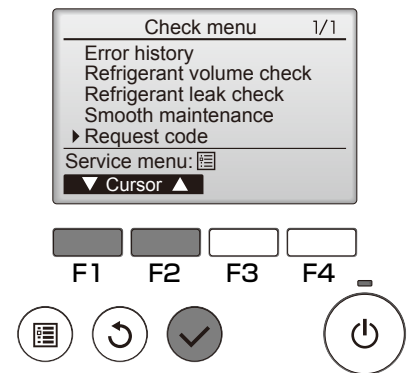
13-1-1. PAR-30MAA/PAR-31MAA

Details on the operation data including each thermistor temperature and error history can be confirmed with the remote controller.

- ① Select "Service" from the Main menu, and press the  button.

Select "Check" with the **F1** or **F2** button, and press the  button.

Select "Request code" with the **F1** or **F2** button, and press the  button.



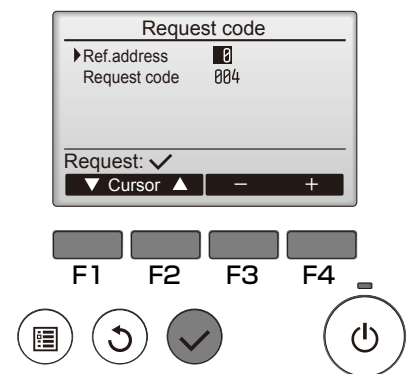
- ② Set the Refrigerant address and Request code.

Select the item to be changed with the **F1** or **F2** button.

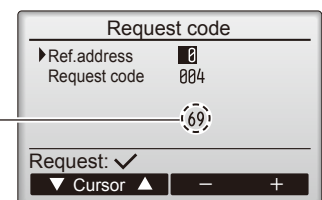
Select the required setting with the **F3** or **F4** button.

- <Ref.address>setting [0] – [15]
- <Request code>setting

Press the  button, Data will be collected and displayed.



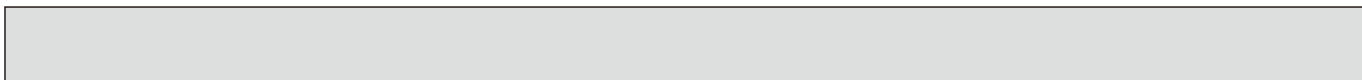
Request code: 004
Discharge temperature: 69°C



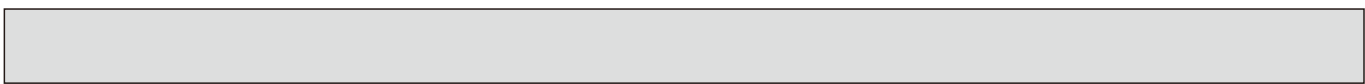
13-2. REQUEST CODE LIST

Certain indoor/outdoor combinations do not have the request code function; therefore, no request codes are displayed.

Request code	Request content	Description (Display range)	Unit	Remarks
0	Operation state	Refer to 13-2-1. Detail Contents in Request Code.	—	
1	Compressor-Operating current (rms)	0–50	A	
2	Compressor-Accumulated operating time	0–9999	10 hours	
3	Compressor-Number of operation times	0–9999	100 times	
4	Discharge temperature (TH32)	37–327	°F	
5	Outdoor unit - Liquid pipe 1 temperature (TH3)	–58–194	°F	
6	Outdoor unit - Liquid pipe 2 temperature	–40–194	°F	
7	Outdoor unit-2-phase pipe temperature (TH6)	–58–190	°F	
8	Suction temperature (TH33)	–58–194	°F	
9	Outdoor unit-Outside air temperature (TH7)	–58–190	°F	
10	Outdoor unit-Heatsink temperature (TH8)	–40–327	°F	
11				
12	Discharge super heat (SHd)	0–327	°F	
13	Sub-cool (SC)	0–234	°F	
14				
15				
16	Compressor-Operating frequency	0–255	Hz	
17	Compressor-Target operating frequency	0–255	Hz	
18	Outdoor unit-Fan output step	0–10	Step	
19	Outdoor unit-Fan 1 speed (Only for air conditioners with DC fan motor)	0–9999	rpm	
20	Outdoor unit-Fan 2 speed (Only for air conditioners with DC fan motor)	0–9999	rpm	"0" is displayed if the air conditioner is a single-fan type.
21				
22	LEV (A) opening	0–500	Pulses	
23	LEV (B) opening	0–500	Pulses	
24				
25	Primary current	0–50	A	
26	DC bus voltage	180–370	V	
27				
28				
29	Number of connected indoor units	0–4	Units	
30	Indoor unit-Setting temperature	62–86	°F	
31	Indoor unit-Intake air temperature <Measured by thermostat>	46–102	°F	
32	Indoor unit-Intake air temperature (Unit No. 1) <Heat mode-4-deg correction>	46–102	°F	"0" is displayed if the target unit is not present.
33	Indoor unit-Intake air temperature (Unit No. 2) <Heat mode-4-deg correction>	46–102	°F	↑
34	Indoor unit-Intake air temperature (Unit No. 3) <Heat mode-4-deg correction>	46–102	°F	↑
35	Indoor unit-Intake air temperature (Unit No. 4) <Heat mode-4-deg correction>	46–102	°F	↑
36				
37	Indoor unit - Liquid pipe temperature (Unit No. 1)	–38–190	°F	"0" is displayed if the target unit is not present.
38	Indoor unit - Liquid pipe temperature (Unit No. 2)	–38–190	°F	↑
39	Indoor unit - Liquid pipe temperature (Unit No. 3)	–38–190	°F	↑
40	Indoor unit - Liquid pipe temperature (Unit No. 4)	–38–190	°F	↑
41				
42	Indoor unit-Cond./Eva. pipe temperature (Unit No. 1)	–38–190	°F	"0" is displayed if the target unit is not present.
43	Indoor unit-Cond./Eva. pipe temperature (Unit No. 2)	–38–190	°F	↑
44	Indoor unit-Cond./Eva. pipe temperature (Unit No. 3)	–38–190	°F	↑
45	Indoor unit-Cond./Eva. pipe temperature (Unit No. 4)	–38–190	°F	↑
46				
47				
48	Thermo ON operating time	0–999	Minutes	
49	Test run elapsed time	0–120	Minutes	← Not possible to activate maintenance mode during the test run.



Request code	Request content	Description (Display range)	Unit	Remarks
50	Indoor unit-Control state	Refer to 13-2-1.Detail Contents in Request Code.	—	
51	Outdoor unit-Control state	Refer to 13-2-1.Detail Contents in Request Code.	—	
52	Compressor-Frequency control state	Refer to 13-2-1.Detail Contents in Request Code.	—	
53	Outdoor unit-Fan control state	Refer to 13-2-1.Detail Contents in Request Code.	—	
54	Actuator output state	Refer to 13-2-1.Detail Contents in Request Code.	—	
55	Error content (U9)	Refer to 13-2-1.Detail Contents in Request Code.	—	
56				
57				
58				
59				
60	Signal transmission demand capacity	0–255	%	
61	Contact demand capacity	Refer to 13-2-1.Detail Contents in Request Code.	—	
62	External input state (silent mode, etc.)	Refer to 13-2-1.Detail Contents in Request Code.	—	
63				
64				
65				
66				
67				
68				
69				
70	Outdoor unit-Capacity setting display	Refer to 13-2-1.Detail Contents in Request Code.	—	
71	Outdoor unit-Setting information	Refer to 13-2-1.Detail Contents in Request Code.	—	
72				
73			—	
74			—	
75				
76			—	
77			—	
78			—	
79			—	
80			—	
81			—	
82			—	
83				
84	M-NET adapter connection (presence/absence)	"0000": Not connected "0001": Connected	—	
85				
86				
87				
88				
89	Display of execution of replace/wash operation	"0000": Not washed "0001": Washed	—	
90	Outdoor unit-Microprocessor version information	Examples) Ver 5.01 → "0501"	Ver	
91	Outdoor unit-Microprocessor version information (sub No.)	Auxiliary information (displayed after version information) Examples) Ver 5.01 A000 → "A000"	—	
92				
93				
94				
95				
96				
97				
98				
99				
100	Outdoor unit - Error postponement history 1 (latest)	Displays postponement code. (" - - " is displayed if no postponement code is present)	Code	
101	Outdoor unit - Error postponement history 2 (previous)	Displays postponement code. (" - - " is displayed if no postponement code is present)	Code	
102	Outdoor unit - Error postponement history 3 (last but one)	Displays postponement code. (" - - " is displayed if no postponement code is present)	Code	

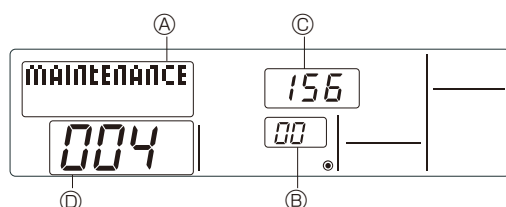


Request code	Request content	Description (Display range)	Unit	Remarks
103	Error history 1 (latest)	Displays error history. ("--" is displayed if no history is present.)	Code	
104	Error history 2 (second to last)	Displays error history. ("--" is displayed if no history is present.)	Code	
105	Error history 3 (third to last)	Displays error history. ("--" is displayed if no history is present.)	Code	
106	Abnormal thermistor display (TH3/TH6/TH7/TH8)	3 : TH3 6 : TH6 7 : TH7 8 : TH8 0 : No thermistor error	Sensor number	
107	Operation mode at time of error	Displayed in the same way as request code "0".	—	
108	Compressor-Operating current at time of error	0–50	A	
109	Compressor-Accumulated operating time at time of error	0–9999	10 hours	
110	Compressor-Number of operation times at time of error	0–9999	100 times	
111	Discharge temperature at time of error	37–327	°F	
112	Outdoor unit - Liquid pipe 1 temperature (TH3) at time of error	–40–194	°F	
113	Outdoor unit - Liquid pipe 2 temperature at time of error	–40–194	°F	
114	Outdoor unit-2-phase pipe temperature (TH6) at time of error	–38–194	°F	
115				
116	Outdoor unit-Outside air temperature (TH7) at time of error	–38–194	°F	
117	Outdoor unit-Heatsink temperature (TH8) at time of error	–40–327	°F	
118	Discharge super heat (SHd) at time of error	0–327	°F	
119	Sub-cool (SC) at time of error	0–234	°F	
120	Compressor-Operating frequency at time of error	0–255	Hz	
121	Outdoor unit at time of error • Fan output step	0–10	Step	
122	Outdoor unit at time of error • Fan 1 speed (Only for air conditioners with DC fan)	0–9999	rpm	
123	Outdoor unit at time of error • Fan 2 speed (Only for air conditioners with DC fan)	0–9999	rpm	"0" is displayed if the air conditioner is a single-fan type.
124				
125	LEV (A) opening at time of error	0–500	Pulses	
126	LEV (B) opening at time of error	0–500	Pulses	
127				
128				
129				
130	Thermo ON time until operation stops due to error	0–999	Minutes	
131				
132	Indoor - Liquid pipe temperature at time of error	–38–190	°F	Average value of all indoor units is displayed if the air conditioner consists of two or more indoor units (twin, triple, quad).
133	Indoor-Cond./Eva. pipe temperature at time of error	–38–190	°F	Average value of all indoor units is displayed if the air conditioner consists of two or more indoor units (twin, triple, quad).
134	Indoor at time of error • Intake air temperature <Thermostat judge temperature>	–38–190	°F	
135				
136				
137				
138				
139				
140				
~				
146				
147				
148				
149				
150	Indoor-Actual intake air temperature	–38–190	°F	
151	Indoor - Liquid pipe temperature	–38–190	°F	
152	Indoor-Cond./Eva. pipe temperature	–38–190	°F	



Request code	Request content	Description (Display range)	Unit	Remarks
153				
154	Indoor-Fan operating time (After filter is reset)	0-9999	1 hour	
155	Indoor-Total operating time (Fan motor ON time)	0-9999	10 hours	
156				
157	Indoor fan output value (Sj value)	0-255 Fan control data	—	For indoor fan phase control
158	Indoor fan output value (Pulsation ON/OFF)	"00 *** ****" indicates fan control data.	—	For indoor fan pulsation control
159	Indoor fan output value (duty value)	"00 *** ****" indicates fan control data.	—	For indoor DC brushless motor control
160				
161				
162	Indoor unit-Model setting information	Refer to 13-2-1 Detail Contents in Request Code.	—	
163	Indoor unit-Capacity setting information	Refer to 13-2-1 Detail Contents in Request Code.	—	
164	Indoor unit-SW3 information	Undefined	—	
165	Wireless pair No. (indoor control board side) setting	Refer to 13-2-1 Detail Contents in Request Code.	—	
166	Indoor unit-SW5 information	Undefined	—	
167				
~				
189				
190	Indoor unit-Microprocessor version information	Examples) Ver 5.01 → "0501"	Ver	
191	Indoor unit-Microprocessor version information (sub No.)	Auxiliary information (displayed after version information) Examples) Ver 5.01 A000 → "A000"	—	
192				
~				
764				
765	Stable operation (Heat mode)	This request code is not provided to collect data. It is used to fix the operation state.		
766	Stable operation (Cool mode)	This request code is not provided to collect data. It is used to fix the operation state.		
767	Stable operation cancellation	This request code is not provided to collect data. It is used to cancel the operation state that has been fixed by request codes "765" and "766".		

13-2-1. Detail Contents in Request Code



[Example) Request code "004"
Discharge temperature 156°F
Refrigerant address "00"]

A: Mode display
B: Refrigerant address
C: Data display area
D: Request code display area

[Operation state] (Request code : "0")

Data display

Relay output state

Operation mode

Operation mode

Display	Operation mode
0	STOP • FAN
C	COOL • DRY
H	HEAT
d	DEFROST

Relay output state

Display	Power currently supplied to compressor	Compressor	Four-way valve	Solenoid valve
0	—	—	—	—
1				ON
2			ON	
3			ON	ON
4		ON		ON
5		ON		ON
6		ON	ON	
7		ON	ON	ON
8	ON			
A	ON		ON	

[Indoor unit – Control state] (Request code : "50")

Data display

Unit No. 4 state

Unit No. 3 state

Unit No. 2 state

Unit No. 1 state

Display	State
0	Normal
1	Preparing for heat operation.
2	—
3	—
4	Heater is ON.
5	Anti-freeze protection is ON.
6	Overheat protection is ON.
7	Requesting compressor to turn OFF.
F	There are no corresponding units.

[Outdoor unit – Control state] (Request code : "51")

Data display	State
0 0 0 0	Normal
0 0 0 1	Preparing for heat operation.
0 0 0 2	Defrost

[Compressor – Frequency control state] (Request code : "52")

Data display

Frequency control state ②

Frequency control state ①

Frequency control state ①

Display	Current limit control
0	No current limit
1	Primary current limit control is ON.
2	Secondary current limit control is ON.

Frequency control state ②

Display	Discharge temperature overheat prevention	Condensation temperature overheat prevention	Anti-freeze protection control	Heatsink temperature overheat prevention
0				
1	Controlled			
2		Controlled		
3	Controlled	Controlled		
4			Controlled	
5	Controlled		Controlled	
6		Controlled	Controlled	
7	Controlled	Controlled	Controlled	
8				Controlled
9	Controlled			Controlled
A		Controlled		Controlled
b	Controlled	Controlled		Controlled
C			Controlled	Controlled
d	Controlled		Controlled	Controlled
E		Controlled	Controlled	Controlled
F	Controlled	Controlled	Controlled	Controlled

[Fan control state] (Request code : "53")

Data display 0 0 * *

Fan step correction value by heatsink temperature overhear prevention control

Fan step correction value by cool condensation temperature overhear prevention control

Display	Correction value
- (minus)	- 1
0	0
1	+1
2	+2

[Actuator output state] (Request code : "54")

Data display 0 0 * *

Actuator output state ①

Actuator output state ②

Actuator output state ①

Display	SV1	Four-way valve	Compressor	Compressor is warming up
0				
1	ON			
2		ON		
3	ON	ON		
4			ON	
5	ON		ON	
6		ON	ON	
7	ON	ON	ON	
8				ON
9	ON			ON
A		ON		ON
b	ON	ON		ON
C			ON	ON
d	ON		ON	ON
E		ON	ON	ON
F	ON	ON	ON	ON

Actuator output state ②

Display	52C	SV2	SS
0			
1	ON		
2		ON	
3	ON	ON	
4			ON
5	ON		ON
6		ON	ON
7	ON	ON	ON

[Error content (U9)] (Request code : "55")

Data display 0 0 * *

Error content ①

Error content ②

Error content ①

● : Detected

Display	Overvoltage error	Undervoltage error	L1-phase open error	Power synchronizing signal error
0				
1	●			
2		●		
3	●	●		
4			●	
5	●		●	
6		●	●	
7	●	●	●	
8				●
9	●			●
A		●		●
b	●	●		●
C			●	●
d	●		●	●
E		●	●	●
F	●	●	●	●

Error content ②

● : Detected

Display	Converter Fo error	PAM error
0		
1	●	
2		●
3	●	●

[Contact demand capacity] (Request code : "61")

Data display

0	0	0	*
---	---	---	---

 Setting content

Setting content

Display	Setting value	Setting	
		SW7-1	SW7-2
0	0%		
1	50%	ON	
2	75%		ON
3	100%	ON	ON

[External input state] (Request code : "62")

Data display

0	0	0	*
---	---	---	---

 Input state

Input state

● : Input present

Display	Contact demand input	Silent mode input	Spare 1 input	Spare 2 input
0				
1	●			
2		●		
3	●	●		
4			●	
5	●		●	
6		●	●	
7	●	●	●	
8				●
9	●			●
A		●		●
b	●	●		●
C			●	●
d	●		●	●
E		●	●	●
F	●	●	●	●

[Outdoor unit – Capacity setting display] (Request code : "70")

Data display	Capacity
9	12
10	18
11	24
14	30
20	36
25	42

[Outdoor unit – Setting information] (Request code : "71")

Data display

0	0	*	*
---	---	---	---

 Setting information ①
Setting information ②

Setting information ①

Display	Defrost mode
0	Standard
1	For high humidity

Setting information ②

Display	Single-/3-phase	Heat pump/cooling only
0	Single-phase	Heat pump
1		Cooling only
2	3-phase	Heat pump
3		Cooling only

[Indoor unit – Model setting information] (Request code : 162)

Data display

0	0	*	*
---	---	---	---

See the table on the right.

Display	Model setting state	Display	Model setting state
00	PEAD-A-AA	20	
01	PEAD-A-AA	21	
02		22	
03		23	
04		24	
05		25	PLA-A-BA
06		26	
07		27	
08		28	
09		29	
0A		2A	
0b		2b	
0C		2C	
0d		2d	
0E		2E	
0F		2F	
10		30	PEA-A-AA
11		31	PCA-A-KA
12		32	PKA-A-HA(L)/KA(L)
13		33	
14		34	
15		35	
16		36	
17		37	
18		38	
19		39	
1A		3A	
1b		3b	
1C		3C	
1d		3d	
1E		3E	
1F		3F	

[Indoor unit – Capacity setting information] (Request code : 163)

Data display

0	0	*	*
---	---	---	---

See the table on the right.

Display	Capacity setting state	Display	Capacity setting state
00		10	42
01		11	
02		12	
03		13	
04		14	
05		15	
06	12	16	
07		17	
08		18	
09	18	19	
0A		1A	
0b	24	1b	
0C		1C	
0d	30	1d	
0E		1E	
0F	36	1F	

[Wireless pair No. (indoor control board side) setting] (Request code : 165)

Data display

0	0	*	*
---	---	---	---

See the table on the right.

Display	Pair No. setting state
00	No. 0
01	No. 1 J41 disconnected
02	No. 2 J42 disconnected
03	No. 3 J41, J42 disconnected

PUZ-A18NHA6
PUY-A12/18NHA6

PUZ-A18NHA6-BS
PUY-A12/18NHA6-BS

OPERATING PROCEDURE

1. Removing the top panel, service panel, front panel and back panel

- (1) Remove the top panel fixing screws (4×10), one from the right and two from the left side, and detach the top panel.
- (2) Remove 1 service panel fixing screw (4×10) and detach the service panel by pulling it downward. (See Photo 1)
- (3) Remove the front panel fixing screws (4×10), 5 from the front, 2 from the right and 2 from the left side, and detach the front panel.
- (4) Remove the conduit cover and cord cover fixing screw (2 pcs. 4×10), and detach the conduit cover and cord cover. (See Photo 2)
- (5) Remove the back panel fixing screws (4×10), 4 from the right and 3 from the rear side, and detach the back panel.

PHOTOS

Photo 1

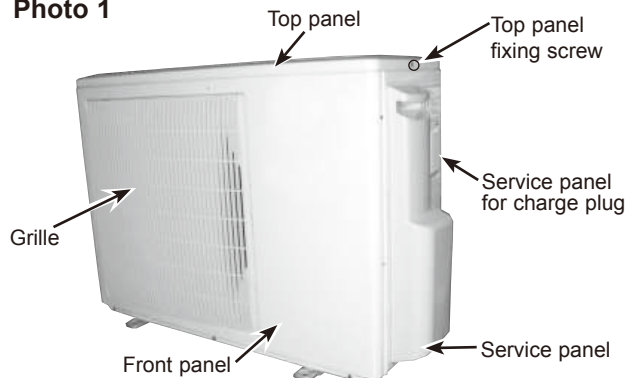
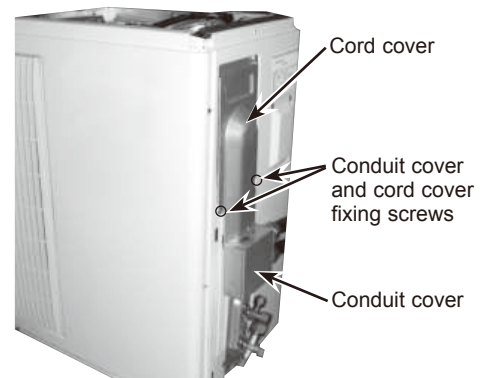


Photo 2



2. Removing the fan motor

- (1) Remove the top panel. (See Photo 1)
- (2) Remove the front panel. (See Photo 1)
- (3) Remove 1 nut (M6, left-screw) and detach the propeller.
- (4) Disconnect the connector CNF1 on the controller circuit board in the electrical parts box.
- (5) Loosen the clamp for the lead wire in the motor support.
- (6) Remove 4 fan motor fixing screws (4×18) and detach the fan motor. (See Photo 3)

Photo 3

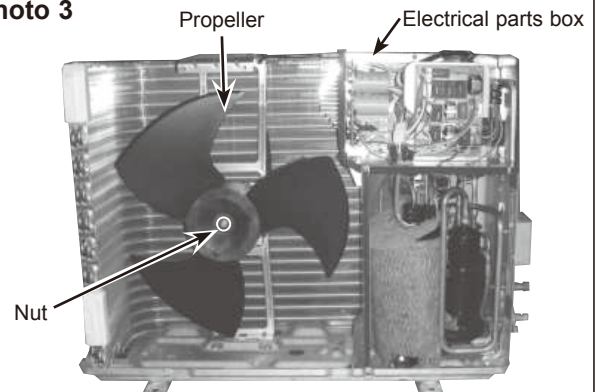
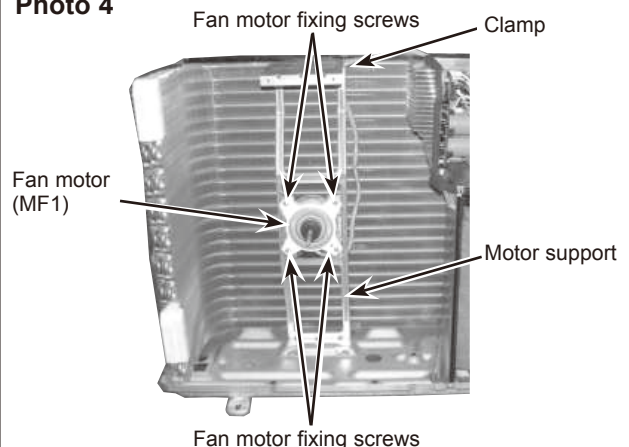


Photo 4



OPERATING PROCEDURE

3. Removing the electrical parts box

- (1) Remove the service panel. (See Photo 1)
- (2) Remove the top panel. (See Photo 1)
- (3) Remove the front panel. (See Photo 1)
- (4) Disconnect the indoor/outdoor connecting wire from terminal block.
- (5) Remove all the following connectors from controller circuit board; fan motor, linear expansion valve, thermistor<Outdoor pipe>, thermistor<Shell>, thermistor<Outdoor 2-phase pipe>, thermistor<Outdoor>, high pressure switch, four-way valve and bypass valve.
Pull out the disconnected wire from the electrical parts box.
<Diagram symbol in the connector housing>
 - Fan motor (CNF1)
 - Linear expansion valve (LEV-A)
 - Thermistor <Liquid> (TH3)
 - Thermistor <Comp. surface> (TH32)
 - Thermistor <2-phase pipe, Ambient> (TH6/7)
 - High pressure switch (63H)
- (6) Remove the terminal cover and disconnect the compressor lead wire.
- (7) Remove the electrical parts box fixing screws, 1 from the front, the right and the rear side, and detach the electrical parts box by pulling it upward.

4. Removing the thermistor <2-phase pipe> (TH6), thermistor <Liquid> (TH3) and thermistor <Suction> (TH33)

- (1) Remove the service panel. (See Photo 1)
- (2) Remove the top panel. (See Photo 1)
- (3) Remove the front panel. (See Photo 1)
- (4) Remove the conduit cover and cord cover.
- (5) Remove the back panel fixing screws, 4 from the right and 3 from the rear side, and detach the back panel. (See Photo 1)
- (6) Disconnect the connector TH3 (white) or TH6/7 (red) or TH33 (yellow) on the controller circuit board in the electrical parts box.
- (7) Loosen the clamp for the lead wire in the rear of the electrical parts box.
- (8) Pull out the thermistor <Liquid> (TH3) and thermistor <2-phase pipe> (TH6) and thermistor <suction> (TH33) from the sensor holder.

Note: Replace the thermistor <2-phase pipe> (TH6) and the thermistor <Ambient> (TH7) together since they are combined.
Refer to No. 5. to remove the thermistor <Ambient> (TH7).

PHOTOS

Photo 5

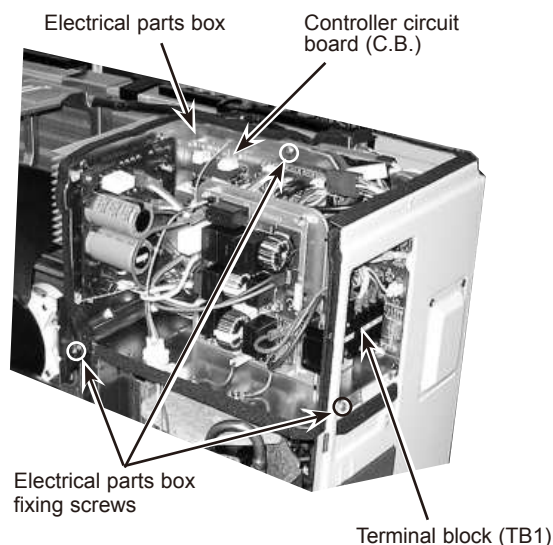
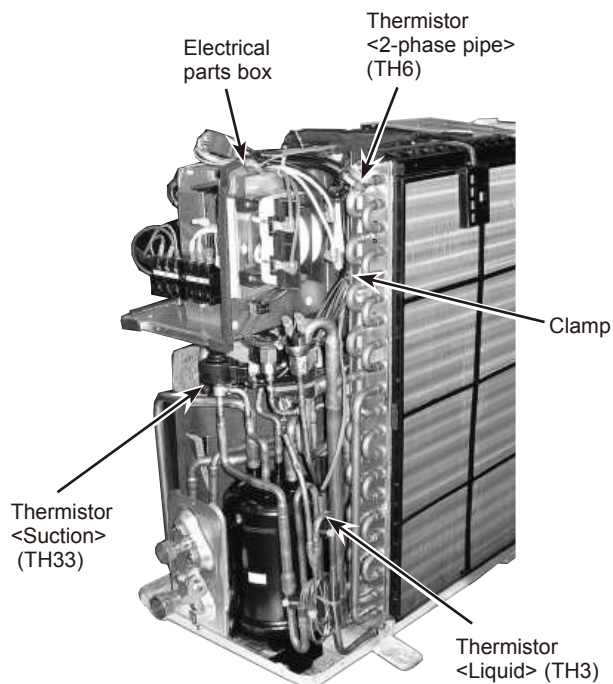


Photo 6



OPERATING PROCEDURE

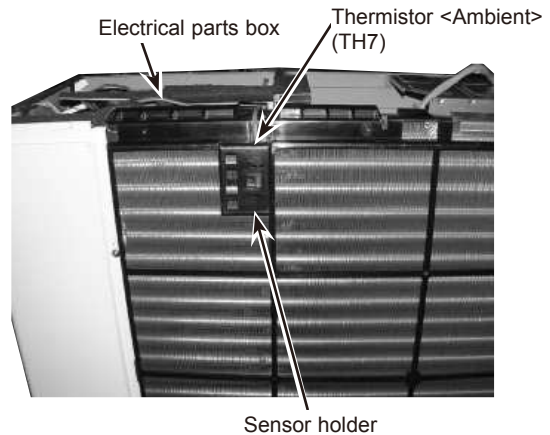
5. Removing the thermistor <Ambient> (TH7)

- (1) Remove the service panel. (See Photo 1)
- (2) Remove the top panel. (See Photo 1)
- (3) Disconnect the connector TH7 (red) on the controller circuit board in the electrical parts box.
- (4) Loosen the clamp for the lead wire in the rear of the electrical parts box. (See Photo 4)
- (5) Pull out the thermistor <Ambient> (TH7) from the sensor holder.

Note: In case of replacing thermistor <Ambient> (TH7), replace it together with thermistor <2-phase pipe> (TH6), since they are combined together.
Refer to No.4. to remove thermistor <2-phase pipe>.

PHOTOS

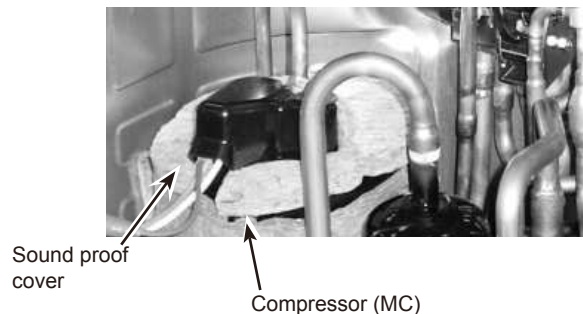
Photo 7



6. Removing the thermistor <Comp. surface> (TH32)

- (1) Remove the service panel. (See Photo 1)
- (2) Remove the top panel. (See Photo 1)
- (3) Remove the front panel. (See Photo 1)
- (4) Remove the back panel. (See Photo 1)
- (5) Remove the electrical parts box. (See Photo 5)
- (6) Remove the sound proof cover (upper) for compressor.
- (6) Pull out the thermistor <Comp. surface> (TH32) from the holder of the compressor shell.

Photo 8



7. Removing the 4-way valve coil (21S4) and linear expansion valve coil (LEV-A)

- (1) Remove the service panel. (See Photo 1)
- (2) Remove the top panel. (See Photo 1)
- (3) Remove the front panel. (See Photo 1)
- (4) Remove the conduit cover and cord cover.
- (5) Remove the back panel. (See Photo 1)
- (6) Remove the electrical parts box. (See Photo 5)

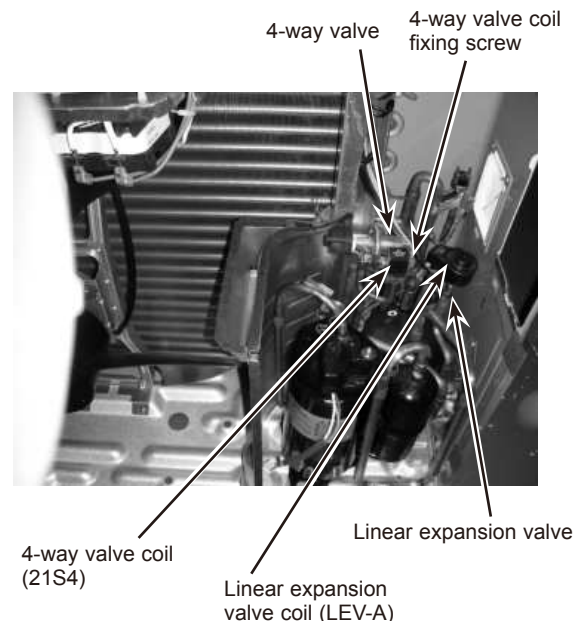
[Removing the 4-way valve coil (21S4)]

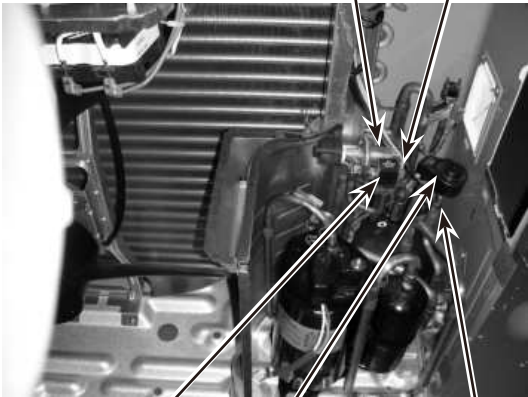
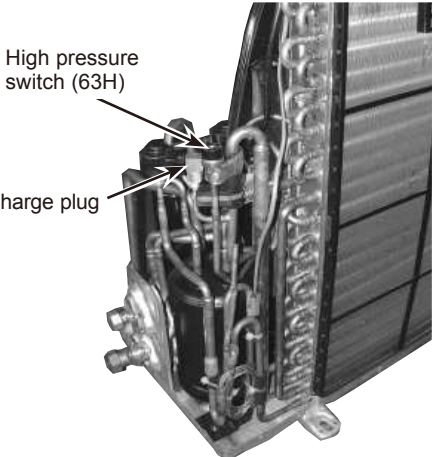
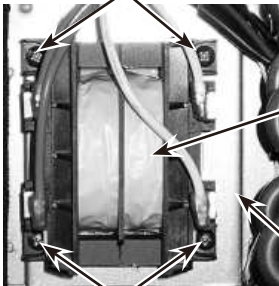
- (7) Remove 1 4-way valve coil fixing screw (M4 × 6).
- (8) Remove the 4-way valve coil by sliding the coil to the right.

[Removing the linear expansion valve coil (LEV-A)]

- (9) Remove the linear expansion valve coil by sliding the coil upward.

Photo 9



OPERATING PROCEDURE	PHOTOS
8. Removing the 4-way valve (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the front panel. (See Photo 1) (4) Remove the conduit cover and cord cover. (See Photo 2) (5) Remove the back panel. (See Photo 1) (6) Remove the electrical parts box. (See Photo 5) (7) Remove the 4-way valve coil (See Photo 8) (8) Recover refrigerant. (9) Remove the welded part of four-way valve. Note 1: Recover refrigerant without spreading it in the air. Note 2: The welded part can be removed easily by removing the right side panel. Note 3: When installing the four-way valve, cover it with a wet cloth to prevent it from heating (250°F or more), then braze the pipes so that the inside of pipes are not oxidized.	Photo 10  4-way valve 4-way valve coil fixing screw 4-way valve coil (21S4) Linear expansion valve Linear expansion valve coil (LEV-A)
9. Removing linear expansion valve (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the front panel. (See Photo 1) (4) Remove the conduit cover and cord cover. (See Photo 2) (5) Remove the back panel. (See Photo 1) (6) Remove the electrical parts box. (See Photo 5) (7) Remove the linear expansion valve coil . (See Photo 10) (8) Recover refrigerant. (9) Remove the welded part of linear expansion valve. Note 1: Recover refrigerant without spreading it in the air. Note 2: The welded part can be removed easily by removing the back panel. Note 3: When installing the linear expansion valve, cover it with a wet cloth to prevent it from heating (250°F or more), then braze the pipes so that the inside of pipes are not oxidized.	Photo 11  High pressure switch (63H) Charge plug
10. Removing the high pressure switch (63H) (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the front panel. (See Photo 1) (4) Remove the conduit cover and cord cover. (See Photo 2) (5) Remove the back panel. (See Photo 1) (6) Remove the electrical parts box. (See Photo 5) (7) Pull out the lead wire of high pressure switch. (8) Recover refrigerant. (9) Remove the welded part of high pressure switch. Note 1: Recover refrigerant without spreading it in the air. Note 2: The welded part can be removed easily by removing the back panel. Note 3: When installing the high pressure switch, cover it with a wet cloth to prevent it from heating (210°F or more), then braze the pipes so that the inside of pipes are not oxidized.	Photo 12  Reactor fixing screws Reactor (ACL) Electrical parts box Reactor fixing screws
11. Removing the reactor (ACL) (1) Remove the service panel. (See Photo 1) (2) Remove the top panel. (See Photo 1) (3) Remove the front panel. (See Photo 1) (4) Remove the back panel. (See Photo 1) (5) Remove 3 reactor fixing screws (4 × 20) and remove the reactor. Note: The reactor is attached to the rear of the electrical parts box.	

OPERATING PROCEDURE

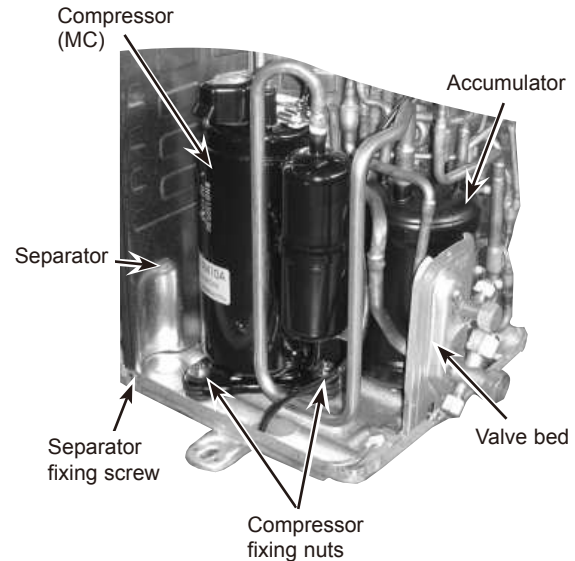
12. Removing the compressor (MC)

- (1) Remove the service panel. (See Photo 1)
- (2) Remove the top panel. (See Photo 1)
- (3) Remove the front panel. (See Photo 1)
- (4) Remove the conduit cover and cord cover. (See Photo 2)
- (5) Remove the back panel. (See Photo 1)
- (6) Remove the electrical parts box. (See Photo 5)
- (7) Remove 3 separator fixing screws (4 × 10) and remove the separator.
- (8) Remove the thermistor <Comp. surface> (TH32). (Refer to procedure 6)
- (9) Recover refrigerant.
- (10) Remove 3 compressor fixing nuts by using spanner or adjustable wrench.
- (11) Remove the welded pipe of motor for compressor inlet and outlet.

Note: Recover refrigerant without spreading it in the air.

PHOTOS

Photo 13

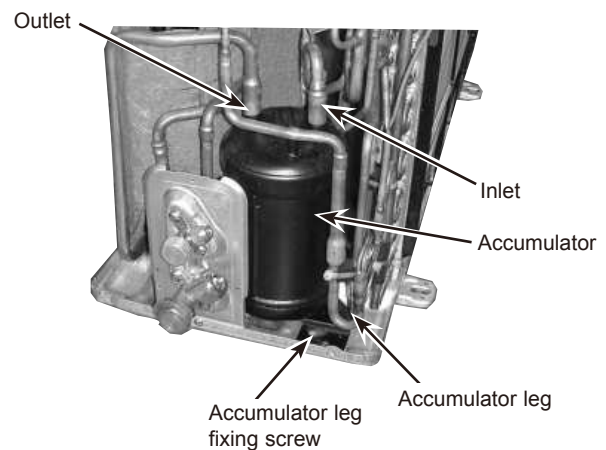


13. Removing the accumulator

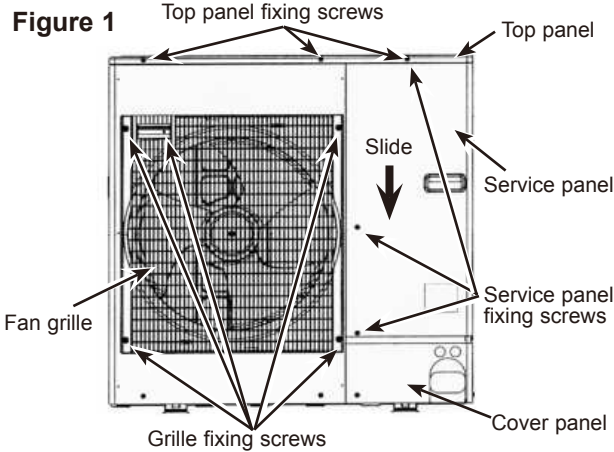
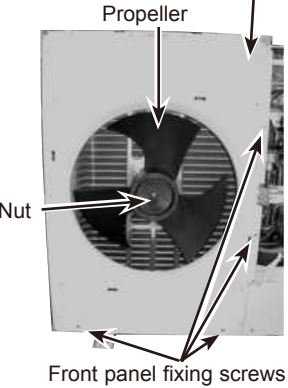
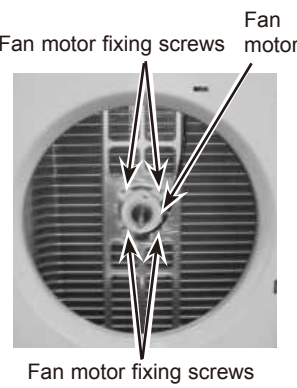
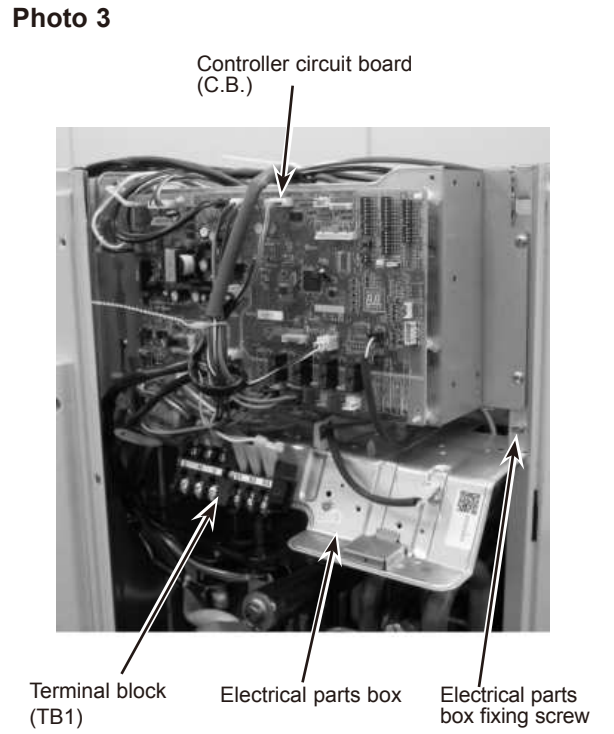
- (1) Remove the service panel. (See Photo 1)
- (2) Remove the top panel. (See Photo 1)
- (3) Remove the front panel. (See Photo 1)
- (4) Remove the conduit cover and cord cover. (See Photo 2)
- (5) Remove the back panel. (See Photo 1)
- (6) Remove the electrical parts box. (See Photo 5)
- (7) Recover refrigerant.
- (8) Remove 2 welded pipes of accumulator inlet and outlet.
- (9) Remove 2 accumulator leg fixing screws (4 × 10).
- (10) Remove the accumulator together with the receiver leg.

Note: Recover refrigerant without spreading it in the air.

Photo 14



PUZ-A24/30/36NHA6(-BS) PUY-A24/30/36NHA6(-BS)

OPERATING PROCEDURE	PHOTOS & ILLUSTRATION
1. Removing the service panel and top panel (1) Remove 3 service panel fixing screws (5 × 12) and slide the hook on the right downward to remove the service panel. (2) Remove screws (3 for front, 3 for rear/5 × 12) of the top panel and remove it.	Figure 1 
2. Removing the fan motor (MF1) (1) Remove the service panel. (See Figure 1) (2) Remove the top panel. (See Figure 1) (3) Remove 5 fan grille fixing screws (5 × 12) to detach the fan grille. (See Figure 1) (4) Remove a nut (for right handed screw of M6) to detach the propeller. (See Photo 1) (5) Disconnect the connector CNF1 on controller circuit board in electrical parts box. (6) Remove 4 fan motor fixing screws (5 × 25) to detach the fan motor. (See Photo 2)	Photo 1  Photo 2 
3. Removing the electrical parts box (1) Remove the service panel. (See Figure 1) (2) Remove the top panel. (See Figure 1) (3) Disconnect the indoor/outdoor connecting wire from terminal block. (4) Remove all the following connectors from controller circuit board, fan motor, linear expansion valve, thermistor<Liquid>, thermistor<Comp. surface>, thermistor<2-phase pipe>, thermistor<Ambient>, high pressure switch, 4-way valve and bypass valve. Pull out the disconnected wire from the electrical parts box. <Diagram symbol in the connector housing> • Fan motor (CNF1) • Linear expansion valve (LEV-A) • Thermistor <Liquid> (TH3) • Thermistor <Comp. surface> (TH32) • Thermistor <2-phase pipe, Ambient > (TH6/7) • High pressure switch (63H) • 4-way valve coil (21S4) • Bypass valve coil (SV2) (5) Remove the terminal cover and disconnect the compressor lead wire. (6) Remove an electrical parts box fixing screw (4 × 10) and detach the electrical parts box by pulling it upward. The electrical parts box is fixed with 2 hooks on the left and 1 hook on the right.	Photo 3 

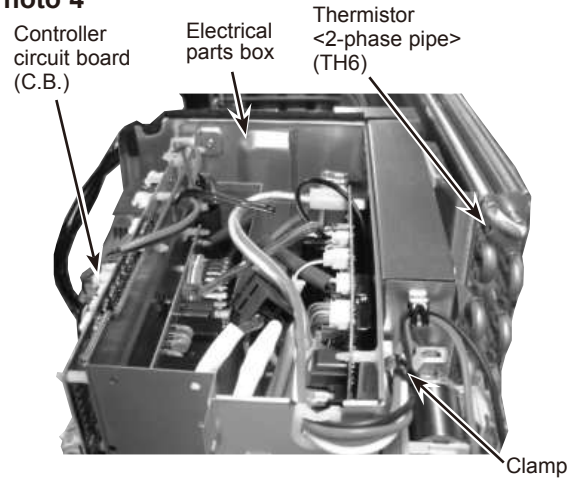
OPERATING PROCEDURE

4. Removing the thermistor <2-phase pipe> (TH6)

- (1) Remove the service panel. (See Figure 1)
- (2) Remove the top panel. (See Figure 1)
- (3) Disconnect the connectors, TH6 and TH7 (red), on the controller circuit board in the electrical parts box.
- (4) Loosen the clamp for the lead wire in the rear of the electrical parts box.
- (5) Pull out the thermistor <2-phase pipe> (TH6) from the sensor holder.

Note: In case of replacing thermistor <2-phase pipe> (TH6), replace it together with thermistor <Ambient> (TH7), since they are combined together.
Refer to No.5 below to remove thermistor <Ambient>.

Photo 4

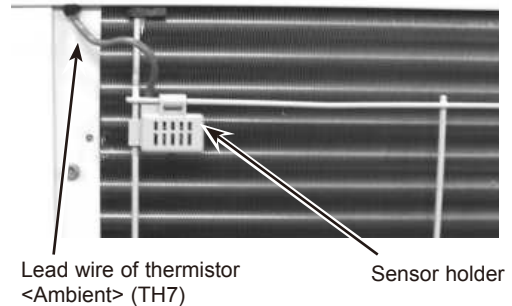


5. Removing the thermistor <Ambient> (TH7)

- (1) Remove the service panel. (See Figure 1)
- (2) Remove the top panel. (See Figure 1)
- (3) Disconnect the connector TH7 (red) on the controller circuit board in the electrical parts box.
- (4) Loosen the clamp for the lead wire in the rear of the electrical parts box. (See Photo 4)
- (5) Pull out the thermistor <Ambient> (TH7) from the sensor holder.

Note: In case of replacing thermistor <Ambient> (TH7), replace it together with thermistor <2-phase pipe> (TH6), since they are combined together.
Refer to No.4 above to remove thermistor <2-phase pipe>.

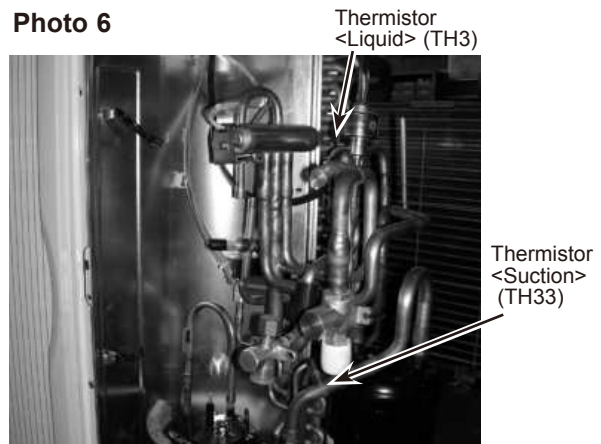
Photo 5



6. Removing the thermistor <Liquid> (TH3)

- (1) Remove the service panel. (See Figure 1)
- (2) Disconnect the connector TH3 (white) on the controller circuit board in the electrical parts box.
- (3) Loosen the clamp for the lead wire in the rear of the electrical parts box. (See Photo 4)
- (4) Pull out the thermistor <Liquid> (TH3) from the sensor holder.

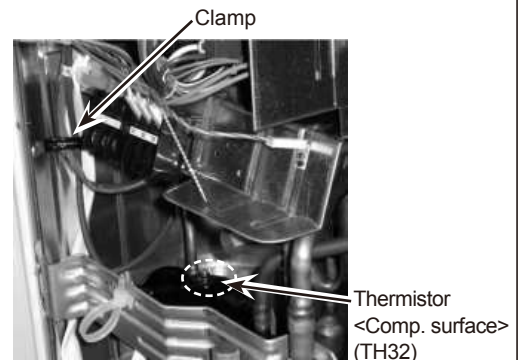
Photo 6

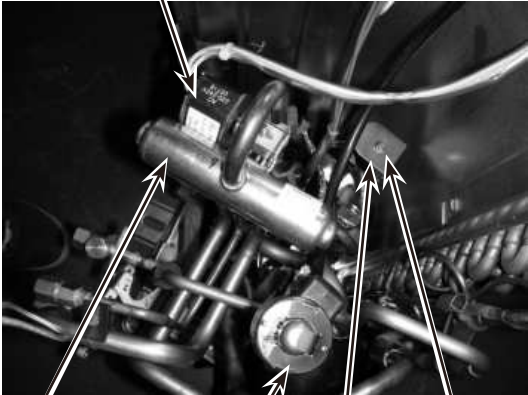
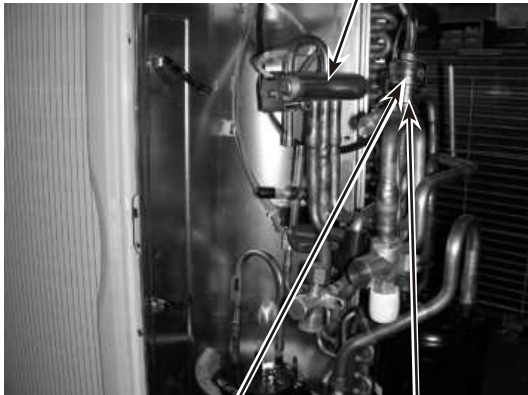


7. Removing the thermistor <Comp. surface> (TH32) and thermistor <Suction> (TH33)

- (1) Remove the service panel. (See Figure 1)
- (2) Disconnect the connector TH32 (black) or TH33 (yellow) on the controller circuit board in the electrical parts box.
- (3) Loosen the clamp for the lead wire under the electrical parts box. (See Photo 4)
- (4) Pull out the thermistor <Comp. surface> (TH32) and thermistor <Suction> (TH33) from the holder of the compressor shell. (See Photo 6)

Photo 7



OPERATING PROCEDURE	PHOTOS
8. Removing the 4-way valve coil (21S4), linear expansion valve coil (LEV-A) and bypass valve coil (SV) (1) Remove the service panel. (See Figure 1) (2) Remove the top panel. (See Figure 1) (3) Remove the electrical parts box. (See Photo 3) [Removing the 4-way valve coil] (4) Remove 4-way valve coil fixing screw (M4 × 6). (5) Remove the 4-way valve coil by sliding the coil toward you. (6) Disconnect the connector 21S4 (green) on the controller circuit board in the electrical parts box. [Removing the linear expansion valve coil] (4) Remove the linear expansion valve coil by sliding the coil upward. (5) Disconnect the connectors, LEV-A (white), on the controller circuit board in the electrical parts box. [Removing the bypass valve coil] (4) Remove the bypass valve coil fixing screw (M4 × 6). (5) Remove the bypass valve coil by sliding the coil upward. (6) Disconnect the connector SV2 (blue) on the controller circuit board in the electrical parts box.	Photo 8  4-way valve coil 4-way valve Linear expansion valve coil (LEV-A) Bypass valve coil (SV) Bypass valve coil fixing screw
9. Removing the 4-way valve (1) Remove the service panel. (See Figure 1) (2) Remove the top panel. (See Figure 1) (3) Remove the electrical parts box. (See Photo 3) (4) Remove 3 valve bed fixing screws (4 × 10), 4 ball valve and stop valve fixing screws (5 × 16), then remove the valve bed. (5) Remove 3 right side panel fixing screws (5 × 12) in the rear of the unit and then remove the right side panel. (6) Remove the 4-way valve coil. (See Photo 8) (7) Recover refrigerant. (8) Remove the welded part of 4-way valve. Note 1: Recover refrigerant without spreading it in the air. Note 2: The welded part can be removed easily by removing the right side panel. Note 3: When installing the 4-way valve, cover it with a wet cloth to prevent it from heating (250°F or more), then braze the pipes so that the inside of pipes are not oxidized.	Photo 9  4-way valve Linear expansion valve coil (LEV-A) Linear expansion valve
10. Removing the linear expansion valve (1) Remove the service panel. (See Figure 1) (2) Remove the top panel. (See Figure 1) (3) Remove the electrical parts box. (See Photo 3) (4) Remove 3 valve bed fixing screws (4 × 10), 4 ball valve and stop valve fixing screws (5 × 16), then remove the valve bed. (5) Remove 3 right side panel fixing screw (5 × 12) in the rear of the unit and then remove the right side panel. (6) Remove the linear expansion valve. (See Photo 8) (7) Recover refrigerant. (8) Remove the welded part of linear expansion valve. Note 1: Recover refrigerant without spreading it in the air. Note 2: The welded part can be removed easily by removing the right side panel. Note 3: When installing the linear expansion valve, cover it with a wet cloth to prevent it from heating (250°F or more), then braze the pipes so that the inside of pipes are not oxidized.	

OPERATING PROCEDURE

11. Removing the bypass valve

- (1) Remove the service panel. (See Figure 1)
- (2) Remove the top panel. (See Figure 1)
- (3) Remove the electrical parts box. (See Photo 3)
- (4) Remove 3 right side panel fixing screws (5 × 12) in the rear of the unit and remove the right side panel.
- (5) Remove the bypass valve coil. (See Photo 8).
- (6) Recover refrigerant.
- (7) Remove the welded part of bypass valve.

Note 1: Recover refrigerant without spreading it in the air.

Note 2: The welded part can be removed easily by removing the right side panel.

12. Removing the high pressure switch (63H)

- (1) Remove the service panel. (See Figure 1)
- (2) Remove the top panel. (See Figure 1)
- (3) Remove the electrical parts box. (See Photo 3)
- (4) Remove 3 right side panel fixing screws (5 × 12) in the rear of the unit and remove the right side panel.
- (5) Pull out the lead wire of high pressure switch.
- (6) Recover refrigerant.
- (7) Remove the welded part of high pressure switch.

Note 1: Recover refrigerant without spreading it in the air.

Note 2: The welded part can be removed easily by removing the right side panel.

Note 3: When installing the high pressure switch, cover it with a wet cloth to prevent it from heating (210°F or more), then braze the pipes so that the inside of pipes are not oxidized.

13. Removing the reactor (ACL) (A24)

- (1) Remove the service panel. (See Figure 1)
- (2) Remove the top panel. (See Figure 1)
- (3) Remove the electrical parts box. (See Photo 3)
- (4) Remove 3 reactor fixing screws (4 × 16) and remove the reactor.

Note: The reactor is attached to the rear of the electrical parts box.

PHOTOS

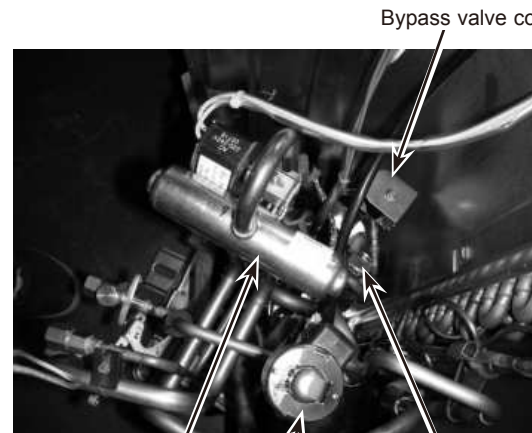
Photo 10



Bypass valve
fixing screw

Bypass valve

Photo 11



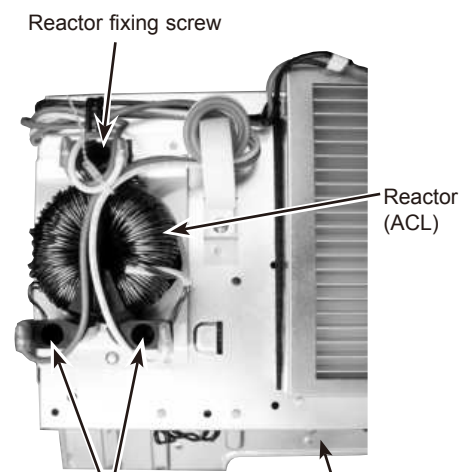
Bypass valve coil

4-way valve

Linear expansion
valve coil (LEV-A)

High pressure
switch (63H)

Photo 12

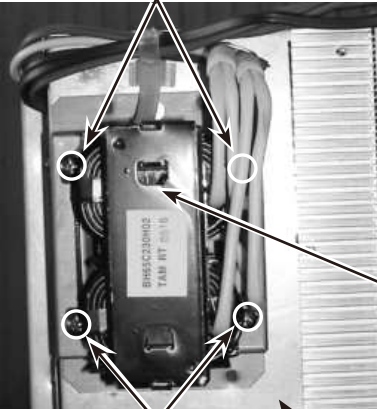
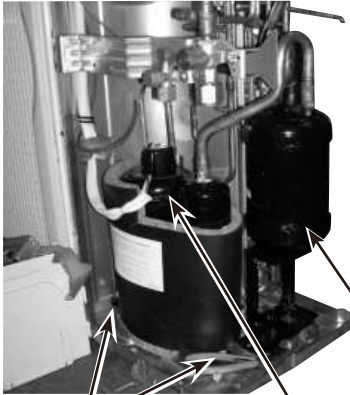
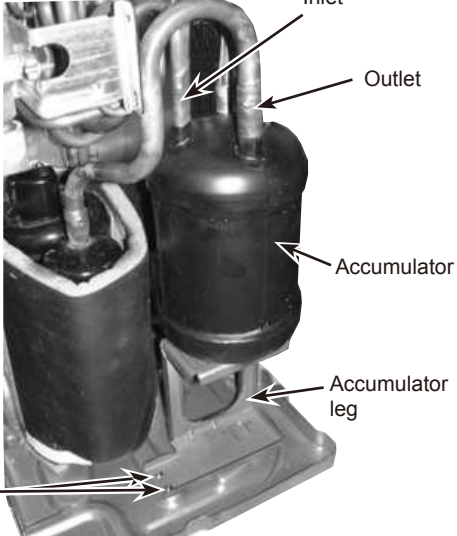


Reactor fixing screw

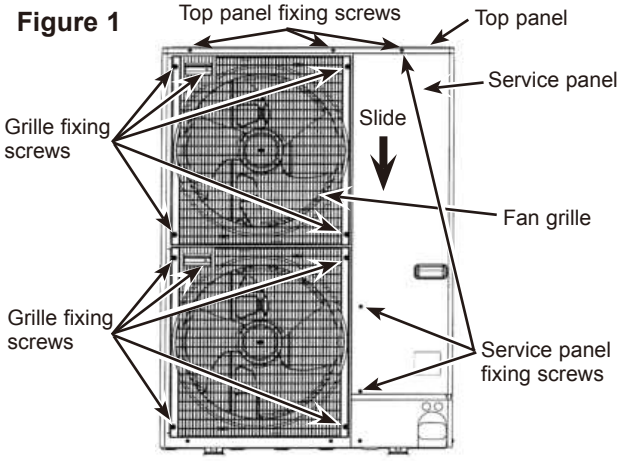
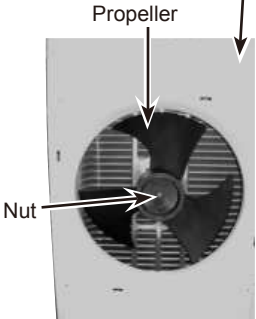
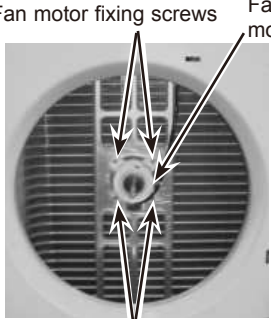
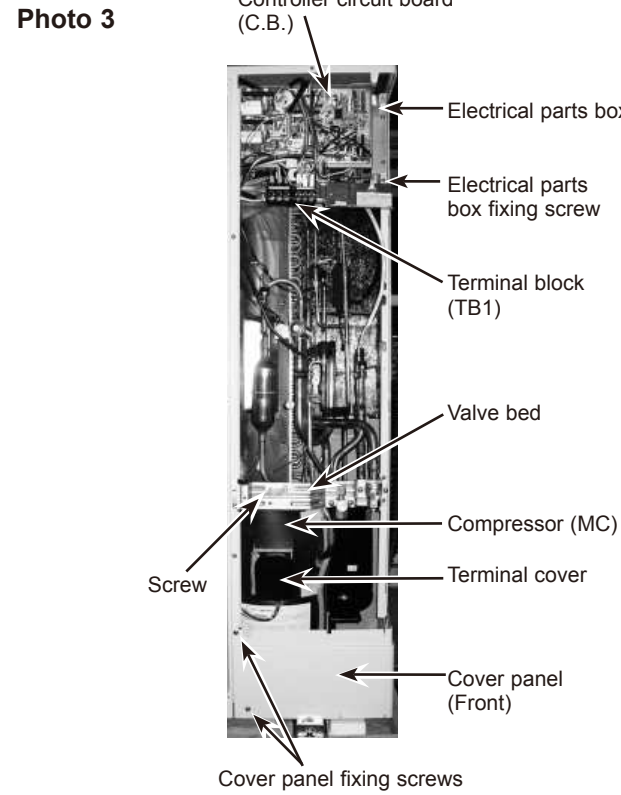
Reactor
(ACL)

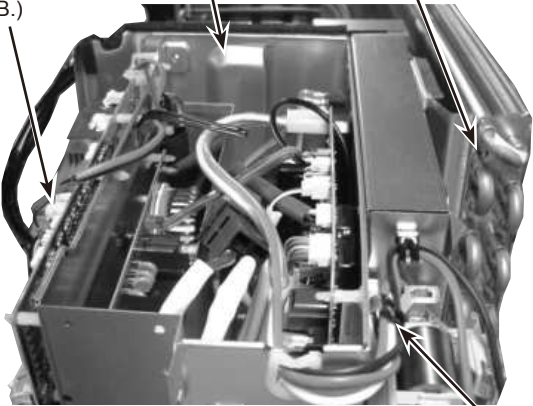
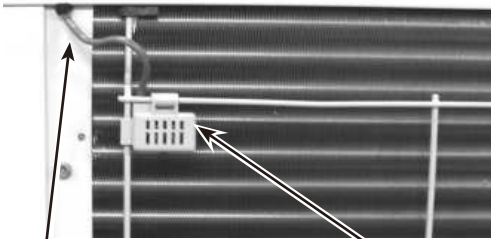
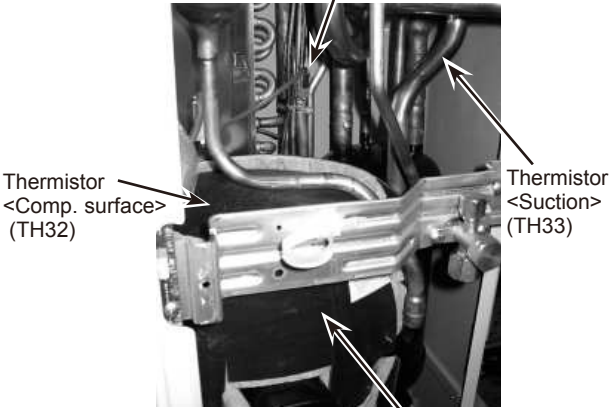
Reactor fixing screws

Electrical parts box

OPERATING PROCEDURE	PHOTOS
14. Removing the reactor (DCL) (A30, 36) (1) Remove the service panel. (See Figure 1) (2) Remove the top panel. (See Figure 1) (3) Remove the electrical parts box. (See Photo 3) (4) Remove 4 reactor fixing screws (4 × 10) and remove the reactor. Note: The reactor is attached to the rear of the electrical parts box.	Photo 13 Reactor fixing screws  Reactor (DCL) Reactor fixing screws Electrical parts box
15. Removing the compressor (MC) (1) Remove the service panel. (See Figure 1) (2) Remove the top panel. (See Figure 1) (3) Remove 2 front cover panel fixing screws (5 × 12) and remove the front cover panel. (See Figure 1) (4) Remove 2 back cover panel fixing screws (5 × 12) and remove the back cover panel. (5) Remove the electrical parts box. (See Photo 3) (6) Remove 3 valve bed fixing screws (4 × 10), 4 ball valve and stop valve fixing screws (5 × 16), then remove the valve bed. (7) Remove 3 right side panel fixing screws (5 × 12) in the rear of the unit and then remove the right side panel. (8) Remove 3 separator fixing screws (4 × 10) and remove the separator. (9) Remove the thermistor <Comp. surface> (TH32). (Refer to procedure 7) (10) Recover refrigerant. (11) Remove the 3 points of the motor for compressor fixing nut using spanner or adjustable wrench. (12) Remove the welded pipe of motor for compressor inlet and outlet and then remove the compressor. Note: Recover refrigerant without spreading it in the air.	Photo 14  Compressor fixing nuts Compressor (MC) Accumulator
16. Removing the accumulator (1) Remove the service panel. (See Figure 1) (2) Remove the top panel. (See Figure 1) (3) Remove 2 front cover panel fixing screws (5 × 12) and remove the front cover panel. (See Photo 3) (4) Remove 2 back cover panel fixing screws (5 × 12) and remove the back cover panel. (5) Remove the electrical parts box. (See Figure 1) (6) Remove 3 valve bed fixing screws (4 × 10), 4 ball valve and stop valve fixing screws (5 × 16), then remove the valve bed. (7) Remove 3 right side panel fixing screws (5 × 12) in the rear of the unit and then remove the right side panel. (8) Recover refrigerant. (9) Remove 2 welded pipes of accumulator inlet and outlet. (10) Remove 2 receiver leg fixing screws (4 × 10). Note: Recover refrigerant without spreading it in the air.	Photo 15  Inlet Outlet Accumulator Accumulator leg Accumulator leg fixing screws

PUZ-A42NHA6(-BS) PUY-A42NHA6(-BS)

OPERATING PROCEDURE	PHOTOS & ILLUSTRATION
1. Removing the service panel and top panel (1) Remove 3 service panel fixing screws (5 × 12) and slide the hook on the right downward to remove the service panel. (2) Remove screws (3 for front, 3 for rear/5 × 12) of the top panel and remove it.	Figure 1 
2. Removing the fan motor (MF1, MF2) (1) Remove the service panel. (See Figure 1) (2) Remove the top panel. (See Figure 1) (3) Remove 5 fan grille fixing screws (5 × 12) to detach the fan grille. (See Figure 1) (4) Remove a nut (for right handed screw of M6) to detach the propeller. (See Photo 1) (5) Disconnect the connectors, CNF1, CNF2 on controller circuit board in electrical parts box. (6) Remove 4 fan motor fixing screws (5 × 25) to detach the fan motor. (See Photo 2)	Photo 1  Photo 2 
3. Removing the electrical parts box (1) Remove the service panel. (See Figure 1) (2) Remove the top panel. (See Figure 1) (3) Disconnect the indoor/outdoor connecting wire from terminal block. (4) Remove all the following connectors from controller circuit board; fan motor, linear expansion valve, thermistor <Liquid>, thermistor <2-phase pipe>, thermistor <Ambient>, high pressure switch, low pressure switch, 4-way valve coil. Then remove a screw (4 × 8) from the valve bed to remove the lead wire. Pull out the disconnected wire from the electrical parts box. <Diagram symbol in the connector housing> • Fan motor (CNF1, CNF2) • Linear expansion valve (LEV-A) • Thermistor <Liquid> (TH3) • Thermistor <Comp. surface> (TH32) • Thermistor <2-phase pipe, Ambient> (TH6/7) • Thermistor <Suction> (TH33) • High pressure switch (63H) • Low pressure switch (63L) • 4-way valve coil (21S4) (5) Remove the terminal cover and disconnect the compressor lead wire. (6) Remove an electrical parts box fixing screw (4 × 10) and detach the electrical parts box by pulling it upward. The electrical parts box is fixed with 2 hooks on the left and 1 hook on the right.	Photo 3 

OPERATING PROCEDURE	PHOTOS
4. Removing the thermistor <2-phase pipe> (TH6) (1) Remove the service panel. (See Figure 1) (2) Remove the top panel. (See Figure 1) (3) Disconnect the connectors, TH6 and TH7 (red), on the controller circuit board in the electrical parts box. (4) Loosen the clamp for the lead wire in the rear of the electrical parts box. (5) Pull out the thermistor <2-phase pipe> (TH6) from the sensor holder. Note: In case of replacing thermistor <2-phase pipe> (TH6), replace it together with thermistor <Ambient> (TH7) since they are combined together. Refer to No.5 below to remove thermistor <Ambient>.	Photo 4  Controller circuit board (C.B.) Electrical parts box Thermistor <2-phase pipe> (TH6) Clamp
5. Removing the thermistor <Ambient> (TH7) (1) Remove the service panel. (See Figure 1) (2) Remove the top panel. (See Figure 1) (3) Disconnect the connector TH7 (red) on the controller circuit board in the electrical parts box. (4) Loosen the clamp for the lead wire in the rear of the electrical parts box. (See Photo 4) (5) Pull out the thermistor <Ambient> (TH7) from the sensor holder. Note: In case of replacing thermistor <Ambient> (TH7), replace it together with thermistor <2-phase pipe> (TH6), since they are combined together. Refer to No.4 above to remove thermistor <2-phase pipe>.	Photo 5  Lead wire of thermistor <Ambient> (TH7) Sensor holder
6. Removing the thermistor <Liquid> (TH3), thermistor <Comp. surface> (TH32) and thermistor <Suction> (TH33) (1) Remove the service panel. (See Figure 1) (2) Disconnect the connectors, TH3 (white), TH32 (black) and TH33 (yellow), on the controller circuit board in the electrical parts box. (3) Loosen the clamp for the lead wire in the rear of the electrical parts box. (See Photo 4) (4) Pull out the thermistor <Liquid> (TH3), thermistor <Comp. surface> (TH32) and thermistor <Suction> (TH33) from the sensor holder.	Photo 6  Thermistor <Liquid> (TH3) Thermistor <Comp. surface> (TH32) Thermistor <Suction> (TH33) Compressor (MC)

OPERATING PROCEDURE

7. Removing the 4-way valve coil (21S4) and linear expansion valve coil (LEV-A)

- (1) Remove the service panel. (See Figure 1)
- (2) Remove the top panel. (See Figure 1)

[Removing the 4-way valve coil]

- (3) Remove 4-way valve coil fixing screw (M4 × 6).
- (4) Remove the 4-way valve coil by sliding the coil toward you.
- (5) Disconnect the connector 21S4 (green) on the controller circuit board in the electrical parts box.

[Removing the linear expansion valve coil]

- (3) Remove the linear expansion valve coil by sliding the coil upward.
- (4) Disconnect the connectors, LEV-A (white), on the controller circuit board in the electrical parts box.

8. Removing the 4-way valve

- (1) Remove the service panel. (See Figure 1)
- (2) Remove the top panel. (See Figure 1)
- (3) Remove 3 valve bed fixing screws (4 × 10), 4 ball valve and stop valve fixing screws (5 × 16), then remove the valve bed.
- (4) Remove 4 right side panel fixing screws (5 × 12) in the rear of the unit and then remove the right side panel.
- (5) Remove the 4-way valve coil. (See Photo 7)
- (6) Recover refrigerant.
- (7) Remove the welded part of 4-way valve.

Note 1: Recover refrigerant without spreading it in the air.

Note 2: The welded part can be removed easily by removing the right side panel.

Note 3: When installing the 4-way valve, cover it with a wet cloth to prevent it from heating (250°F or more), then braze the pipes so that the inside of pipes are not oxidized.

9. Removing linear expansion valve

- (1) Remove the service panel. (See Figure 1)
- (2) Remove the top panel. (See Figure 1)
- (3) Remove 3 valve bed fixing screws (4 × 10), 4 ball valve and stop valve fixing screws (5 × 16), then remove the valve bed.
- (4) Remove 4 right side panel fixing screws (5 × 12) in the rear of the unit and then remove the right side panel.
- (5) Remove the linear expansion valve. (See Photo 7)
- (6) Recover refrigerant.
- (7) Remove the welded part of linear expansion valve.

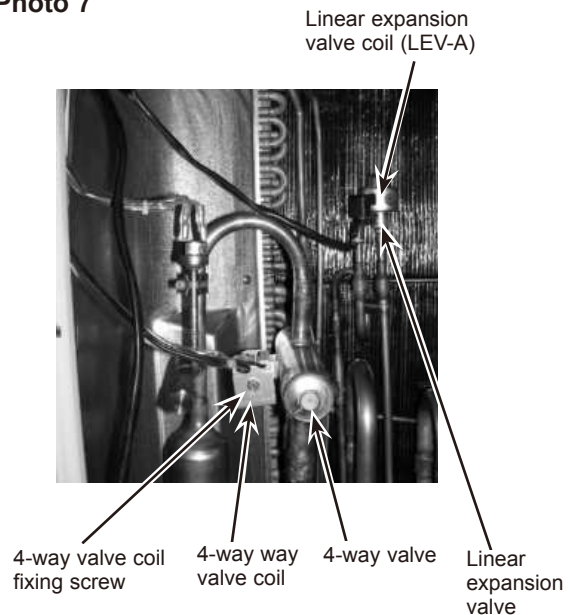
Note 1: Recover refrigerant without spreading it in the air.

Note 2: The welded part can be removed easily by removing the right side panel.

Note 3: When installing the linear expansion valve, cover it with a wet cloth to prevent it from heating (250°F or more), then braze the pipes so that the inside of pipes are not oxidized.

PHOTOS

Photo 7



OPERATING PROCEDURE

10. Removing the high pressure switch (63H)

- (1) Remove the service panel. (See photo 1)
- (2) Remove the top panel. (See photo 1)
- (3) Remove 3 right side panel fixing screws (5 × 12) in the rear of the unit and remove the right side panel.
- (4) Pull out the lead wire of high pressure switch.
- (5) Recover refrigerant.
- (6) Remove the welded part of high pressure switch.

Note 1: Recover refrigerant without spreading it in the air.

Note 2: The welded part can be removed easily by removing the right side panel.

Note 3: When installing the high pressure switch, cover it with a wet cloth to prevent it from heating (210°F or more), then braze the pipes so that the inside of pipes are not oxidized.

PHOTOS

Photo 8



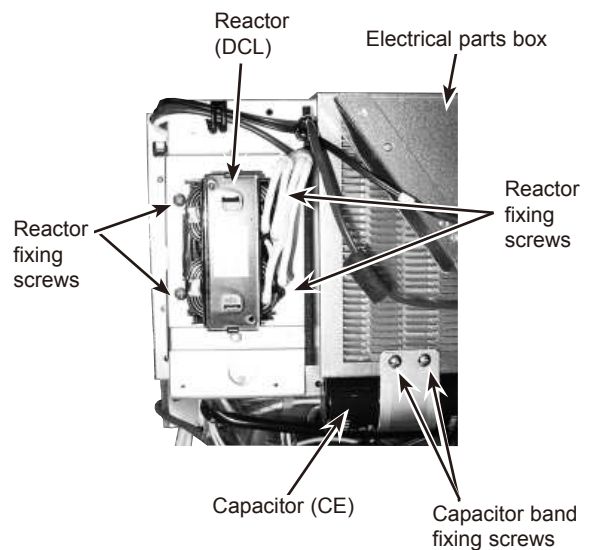
High pressure switch (63H)

11. Removing the reactor (DCL) and capacitor (CE)

- (1) Remove the service panel. (See Figure 1)
- (2) Remove the top panel. (See Figure 1)
- (3) Remove the electrical parts box. (See Photo 3)
- <Removing the reactor>
- (4) Remove 4 reactor fixing screws (4 × 10) and remove the reactor.
- <Removing the capacitor>
- (4) Remove 2 capacitor band fixing screws (4 × 10) and remove the capacitor.

Note: The reactor and capacitor is attached to the rear of the electrical parts box.

Photo 9



OPERATING PROCEDURE

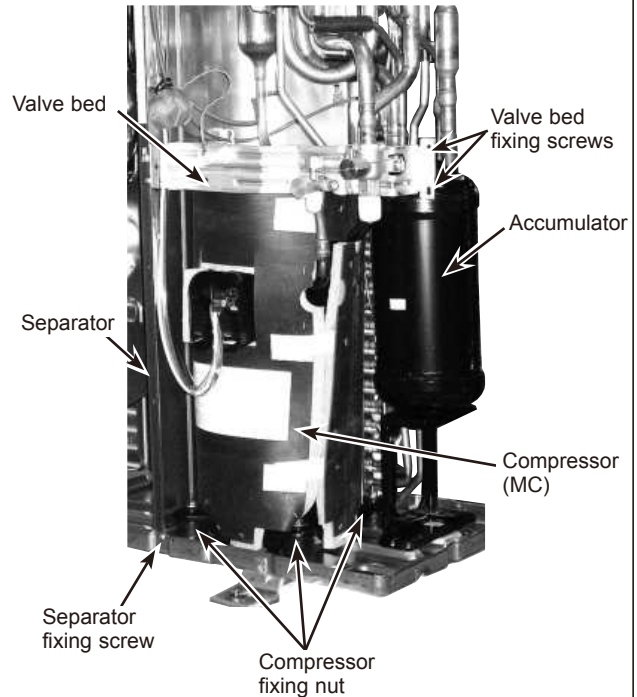
12. Removing the compressor (MC)

- (1) Remove the service panel. (See Figure 1)
- (2) Remove the top panel. (See Figure 1)
- (3) Remove 2 front cover panel fixing screws (5 × 12) and remove the front cover panel. (See Photo 3)
- (4) Remove 2 back cover panel fixing screws (5 × 12) and remove the back cover panel.
- (5) Remove the electrical parts box. (See Photo 3)
- (6) Remove 3 valve bed fixing screws (4 × 10), 4 ball valve and stop valve fixing screws (5 × 16), then remove the valve bed.
- (7) Remove 3 right side panel fixing screws (5 × 12) in the rear of the unit and then remove the right side panel.
- (8) Remove 3 separator fixing screws (4 × 10) and remove the separator.
- (9) Recover refrigerant.
- (10) Remove the 3 points of the motor for compressor fixing nut using spanner or adjustable wrench.
- (11) Remove the welded pipe of motor for compressor inlet and outlet and then remove the compressor.

Note: Recover refrigerant without spreading it in the air.

PHOTOS

Photo 10

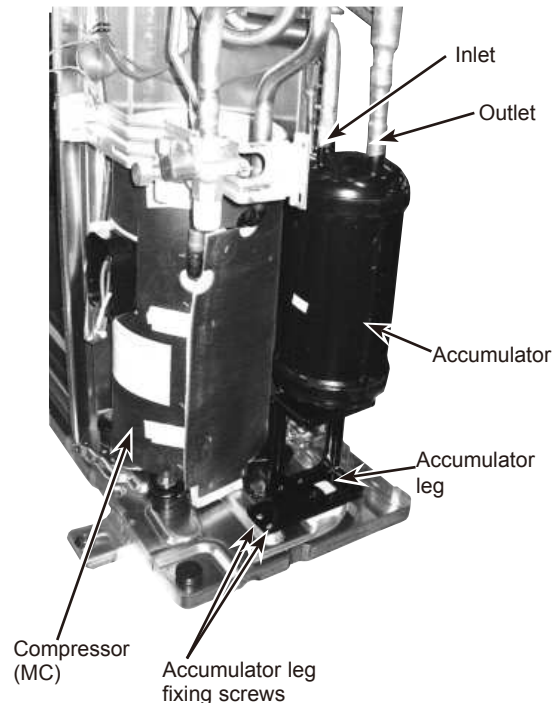


13. Removing the accumulator

- (1) Remove the service panel. (See Figure 1)
- (2) Remove the top panel. (See Figure 1)
- (3) Remove 2 front cover panel fixing screws (5 × 12) and remove the front cover panel. (See Photo 3)
- (4) Remove 2 back cover panel fixing screws (5 × 12) and remove the back cover panel.
- (5) Remove the electrical parts box. (See Photo 3)
- (6) Remove 3 valve bed fixing screws (4 × 10), 4 ball valve and stop valve fixing screws (5 × 16), then remove the valve bed.
- (7) Remove 3 right side panel fixing screws (5 × 12) in the rear of the unit and then remove the right side panel.
- (8) Recover refrigerant.
- (9) Remove 2 welded pipes of accumulator inlet and outlet.
- (10) Remove 2 accumulator leg fixing screws (4 × 10).

Note: Recover refrigerant without spreading it in the air.

Photo 11



MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE : TOKYO BLDG., 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN