

TOSHIBA AIR CONDITIONER (SPLIT TYPE) Installation manual

R32 or R410A

Branch kit 1:3	
Model name:	
RBC-TRP100E	

Installation manual

English

NOTES

Be careful of the following items before installation

- 1. This Installation Manual is for the branch pipe using for triple simultaneous system.
- Check the combination of indoor unit, outdoor unit and branch pipe again before installation.
- 3. Be sure to install the indoor unit in the same room and to observe the application of floor space.
 - Should the refrigerant leaks and exceeds the limit concentration, accumulation of highly concentrated refrigerant occurs, cause an oxygen deficiency accident or a fire.
- 4. For installation for indoor or outdoor unit, please read the Installation Manual supplied with indoor or outdoor unit.
- 5. Make sure to observe the cautions for each contents.

 Be sure to follow the wiring or the setting procedure in the Installation Manual.

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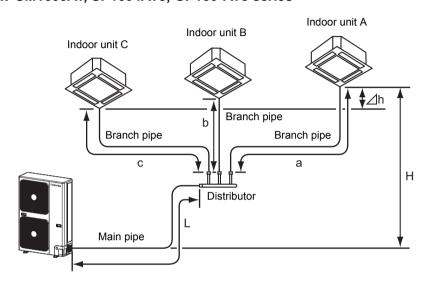
1 COMPONENT

The following parts are supplied as accessories of the branch pipes. Check them when opening the carton box.

Distributor		Part name		Quantity
Liquid side	Gas side	Different-size joint		
Ø9.5 🖳		Liquid pipe	Ø12.7 → Ø9.5	1
	Ø15.9 페	Liquid pipe	Ø9.5 → Ø6.4	3
Ø9.5 🖳	Ø15 0 —		Ø25.4 → Ø28.6	1
Ø9.5 🚐	Ø15.9 💳	Gas pipe	Ø25.4 → Ø15.9	1
T	Ø15.9 💳		Ø15.9 → Ø12.7	3
Ø12.7 🛚	Ø25.4 ∐	Branch pipe heat ins	ulator	2
QTY:1	QTY:1	Installation Manual		1

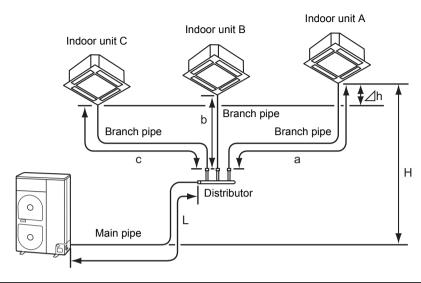
2 REFRIGERANT PIPING

■ Tolerance of pipe length and Height difference <RAV-SM1603AT, SP1604AT8, GP160*AT8 series>



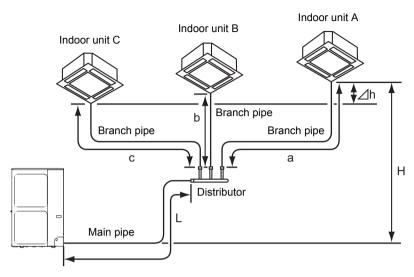
	Pipe length	Total length $(L + a, L + b, L + c)$		50 m
		Branch pipe length (a, b, c)		15 m
Refrigerant pipe specifications		Maximum difference between indoor units (a - b , b - c , c - a)		10 m
		Between indoor units (∆h)		0.5 m
	Height difference	Between indoor	When outdoor unit is higher (H)	30 m
	umor or loo	unit and outdoor unit	When outdoor unit is lower (H)	30 m
Number of bent portions			10 or less	

<RAV-SM2244AT8, SM2804AT8 series>



		Total length (L + a, L + b, L + c)		70 m
	Pipe length	Branch pipe length (a, b, c)		20 m
(one way) Refrigerant pipe		Maximum difference between indoor units (a - b , b - c , c - a)		10 m
specifications		Between indoor units (Δh)		0.5 m
	Height difference	Between indoor	When outdoor unit is higher (H)	30 m
	dinoronoo	unit and outdoor unit	When outdoor unit is lower (H)	30 m
Number of bent portions			10 or less	

<RAV-SM2246AT8, SM2806AT8 series>



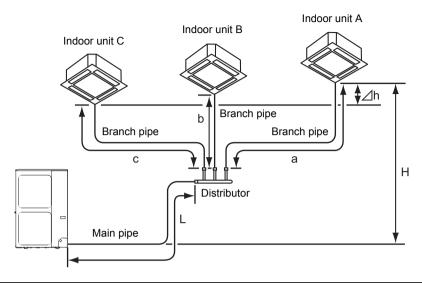
	Pipe length	Total le	100 m	
		Branch pipe length (a, b, c)		20 m
Refrigerant pipe	(one way)	Maximum difference between indoor units (a - b , b - c , c - a)		10 m
specifications			Between indoor units (∆h)	
	Height difference	Between indoor	When outdoor unit is higher (H)	30 m
		unit and outdoor unit	When outdoor unit is lower (H)	30 m
Remarks : Total equivalent length 125 m or less				

♠ CAUTION

When planning a layout for Units A, B and C, comply with the following:

- 1. The lengths after branching ("a" and "b", "b" and "c", "a" and "c") should be equal if feasible. Install Units A, B and C so that the difference of the branching lengths becomes less than 10 m if the lengths cannot be equal due to the branch pipe position.
- 2. Install Units A, B and C on the same level. If Units A, B and C cannot be installed on the same level, the difference in level should be limited to 0.5 m or less.

<RAV-GM224*AT8, GM280*AT8 series>



	Pipe length	Total length (L + a, L + b, L + c)		50 m
		Branch pipe length (a, b, c)		20 m
Refrigerant pipe	(one way)	Maximum difference between indoor units (a - b , b - c , c - a)		10 m
specifications			Between indoor units (Δh)	
	Height difference	Between indoor unit and outdoor	When outdoor unit is higher (H)	30 m
	unit and outdoor unit	When outdoor unit is lower (H)	30 m	

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CAUTION

When planning a layout for Units A, B and C, comply with the following:

- 1. The lengths after branching ("a" and "b", "b" and "c", "a" and "c") should be equal if feasible. Install Units A, B and C so that the difference of the branching lengths becomes less than 10 m if the lengths cannot be equal due to the branch pipe position.
- 2. Install Units A, B and C on the same level. If Units A, B and C cannot be installed on the same level, the difference in level should be limited to 0.5 m or less.

6

■ Piping materials and sizes

<RAV-SM1603AT, SP1604AT8, GP160*AT8 series>

Use copper tube of Copper and copper alloy seamless pipes and tubes, with 40 mg/10 m or less in the amount of oil stuck on inner walls of pipe and 0.8 mm in pipe wall thickness for diameters 6.4, 9.5 and 12.7 mm and 1.0 mm, for diameter 15.9 mm. Never use pipes of thin wall thickness such as 0.7 mm.

Between outdoor unit and distributor

[Unit: mm]

Outdoor unit		
Main pipe	Gas side	Ø15.9 (1.0)
Wall pipe	Liquid side	Ø9.5 (0.8)

^{* ():} Pipe wall thickness

Between distributor and indoor unit

[Unit: mm]

Indoor unit		*M56 type
Branch pipe	Gas side	Ø12.7 (0.8)
Branch pipe	Liquid side	Ø6.4 (0.8)

^{* ():} Pipe wall thickness

<RAV-SM224*AT8, SM280*AT8, GM224*AT8, GM280*AT8 series>

Use general copper pipes with a wall thickness of 0.8 mm for Ø6.4 mm, Ø9.5 mm, and Ø12.7 mm, with a wall thickness of 1.0 mm for Ø15.9 mm, with a wall thickness of 1.2 mm for Ø19.1 mm, and with a wall thickness of 1.0 mm for Ø28.6 mm (half hard). Do not use any copper pipes with a wall thickness less than these thicknesses.

Between outdoor unit and distributor

[Unit: mm]

Outdoor unit		
Main pipe	Gas side	Ø28.6 (half hard 1.0)
I wan pipe	Liquid side	Ø12.7 (0.8)

^{* ():} Pipe wall thickness

Between distributor and indoor unit

[Unit: mm]

Indoor unit		*M80 type
Branch pipe	Gas side	Ø15.9 (1.0)
Branch pipe	Liquid side	Ø9.5 (0.8)

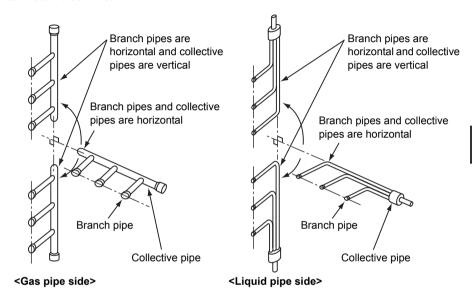
^{* ():} Pipe wall thickness

■ Distributor

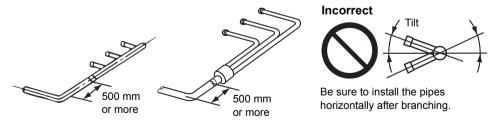
Now the refrigerant pipe is installed using distributor supplied as accessory.

- Bend and adjust the refrigerant piping so that the distributor and pipe after branching become horizontal.
- Fix the distributor onto a wall in a ceiling or onto a column.
- Provide a straight pipe longer than 500 mm in length as the main piping of the branches.

How to install distributor



Restrictions in length of the straight area of the branch pipe (main pipe side)
Provide a straight area of 500 mm or more on the main pipe side of the branch pipe (for both gas pipe and liquid pipe sides).

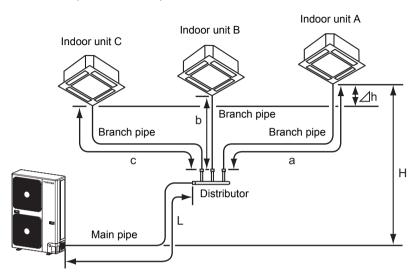


■ Air Purging

For the complete information, read the installation manual for outdoor units of air conditioner.

■ Additional Refrigerant Amount

<RAV-SM1603AT, SP1604AT8, GP160*AT8 series>



Formula for Calculating Additional Refrigerant Amount

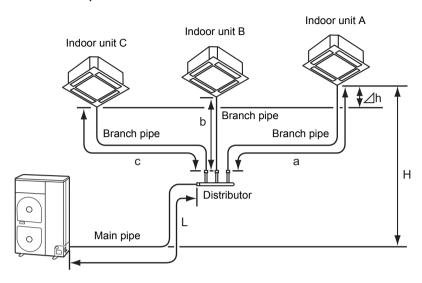
Do not remove the refrigerant even if the additional refrigerant amount becomes minus result as a result of calculations by the following formula and operate the air conditioner as it is.

Additional refrigerant amount (kg)	=	Main piping additional refrigerant amount (kg) + Branch piping additional refrigerant amount (kg)
	=	$\{\alpha \times (L-28)\} + \{\gamma \times (a+b+c-6)\}$

- α : Additional refrigerant amount per meter of actual main piping length (kg)
- γ : Additional refrigerant amount per meter of actual branch piping length (kg)
- L: Actual length of main piping (m)
- a, b, c: Actual length of branch piping (m)

	C	onnecting ¡ (Liqui	oipe diamete d side)		refrigerant a Meter (kg/m)		
	L	а	b	С	α	β	γ
SM160	Ø9.5	Ø6.4	Ø6.4	Ø6.4	0.04	_	0.02
SP160	Ø9.5	Ø6.4	Ø6.4	Ø6.4	0.04	_	0.02
GP160	Ø9.5	Ø6.4	Ø6.4	Ø6.4	0.04	_	0.02

<RAV-SM2244AT8, SM2804AT8 series>



Formula for Calculating Additional Refrigerant Amount

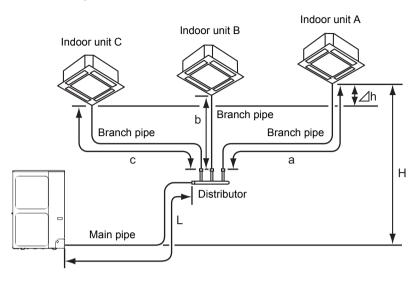
Do not remove the refrigerant even if the additional refrigerant amount becomes minus result as a result of calculations by the following formula and operate the air conditioner as it is.

Additional refrigerant amount (kg)	=	Main piping additional refrigerant amount (kg) +
		Branch piping additional refrigerant amount (kg)
	=	$\{\alpha \times (L-28)\} + \{\gamma \times (a+b+c-6)\}$

- α: Additional refrigerant amount per meter of actual main piping length (kg)
- γ : Additional refrigerant amount per meter of actual branch piping length (kg)
- L: Actual length of main piping (m)
- a, b, c: Actual length of branch piping (m)

	C		oipe diamete d side)	Additional refrigerant amount per Meter (kg/m)			
	Г	а	b	С	α	β	γ
SM2244 SM2804	Ø12.7	Ø9.5	Ø9.5	Ø9.5	0.08	_	0.04

<RAV-SM2246AT8, SM2806AT8 series>



Formula for Calculating Additional Refrigerant Amount

Do not remove the refrigerant even if the additional refrigerant amount becomes minus result as a result of calculations by the following formula and operate the air conditioner as it is.

Additional refrigerant amount (kg)	=	Main piping additional refrigerant amount (kg) +
		Branch piping additional refrigerant amount (kg)
	=	$\{\alpha \times (L-28)\} + \{\gamma \times (a+b+c-6)\}$

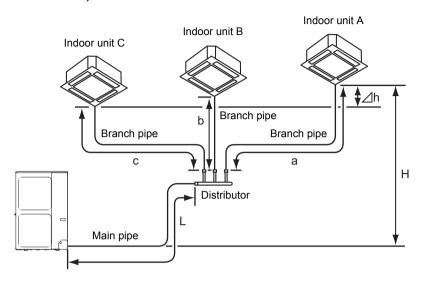
- α: Additional refrigerant amount per meter of actual main piping length (kg)
- γ : Additional refrigerant amount per meter of actual branch piping length (kg)
- L: Actual length of main piping (m)
- a, b, c: Actual length of branch piping (m)

	C	ر Connecting Liqui(oipe diamete d side)		refrigerant a Meter (kg/m		
	L	а	b	С	α	β	γ
SM2246 SM2806	Ø12.7	Ø9.5	Ø9.5	Ø9.5	0.090	-	0.045

⚠ CAUTION

- 1. Be certain to write the additional refrigerant amount, pipe length (actual length), head and other specification on the nameplate put on the outdoor unit for recording.
- 2. Seal the correct amount of additional refrigerant in the system.

<RAV-GM224*AT8, GM280*AT8 series>



Formula for Calculating Additional Refrigerant Amount

Do not remove the refrigerant even if the additional refrigerant amount becomes minus result as a result of calculations by the following formula and operate the air conditioner as it is.

Additional refrigerant amount (kg)	=	Main piping additional refrigerant amount (kg) +
		Branch piping additional refrigerant amount (kg)
	=	$\{\alpha \times (L-28)\} + \{\gamma \times (a+b+c-6)\}$

- α: Additional refrigerant amount per meter of actual main piping length (kg)
- γ : Additional refrigerant amount per meter of actual branch piping length (kg)
- L: Actual length of main piping (m)
- a, b, c: Actual length of branch piping (m)

	C		oipe diamete d side)		refrigerant a Meter (kg/m	•	
	L	а	b	С	α	β	γ
GM224* GM280*	Ø12.7	Ø9.5	Ø9.5	Ø9.5	0.080	-	0.040

↑ CAUTION

- 1. Be certain to write the additional refrigerant amount, pipe length (actual length), head and other specification on the nameplate put on the outdoor unit for recording.
- 2. Seal the correct amount of additional refrigerant in the system.

■ Gas Leak Test

 Use a leak detector manufactured specially for the HFC refrigerant (R32, R410A, R134a, etc.) when testing R32 or R410A.

The sensitivity of leak detectors for previous HCFC refrigerants (such as R22) lowers to about 1/40 when used with HFC refrigerants and these detectors cannot be used.

3 WIRING

Using the specified cables, ensure to connect the wires, and fix wires securely so
that the external tension to the cables do not affect the connecting part of the
terminals.

Incomplete connection or fixation may cause a fire, etc.

Be certain to install wires by connecting them to terminals of the same numbers according to the following wiring diagram.

2. Be sure to connect earth wire. (Grounding work)

Do not connect the earth wire to gas pipe, city water pipe, lightning rod, or the earth wire of telephone.

Incomplete earth causes an electrical shock.

3. For electric work, strictly follow the Local Regulation in each country, Indoor, outdoor, and this Installation Manual, and use an exclusive circuit.

Capacity shortage of power circuit or incomplete installation may cause an electrical shock or a fire.

■ Outdoor unit and Indoor unit Connection Wiring

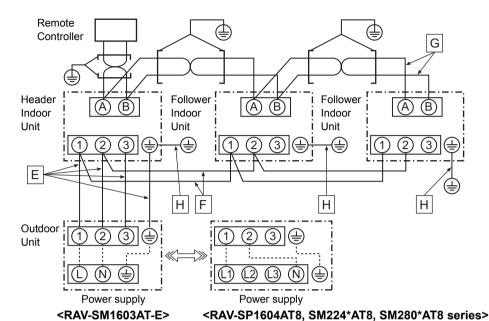
- 1. Install wires from the outdoor unit to the header unit as in usual wiring. (Wires (1), (2), (3) and earth wire.)
- 2. Install wires (1), (2) and earth wire only when installing connection wires from the header unit to the follower unit.

■ Remote Controller wiring

- Installing connection shield wires (MVVS 0.5 to 2.0 mm²) from the header unit to the follower unit to conform to EMC standard.
- Install shield wires between the header unit and follower unit. The shield wires of the remote controller have no polarities.

The remote controller circuits are low voltage circuits. These circuits must not be made to directly contact outdoor unit and indoor unit connection wires or contained in the same conduit tubes that house outdoor unit and indoor unit connection wires. (Otherwise malfunction will be caused by noise)

■ Wiring Diagram



REQUIREMENT

- The remote controller wiring has no polarity. Connections to terminals A and B of an indoor unit may be replaced with each other.
- The remote controller wires and power supply wire must not be in direct contact or in the same conduit pipe. (Doing so may cause a malfunction of the control system due to noise.)

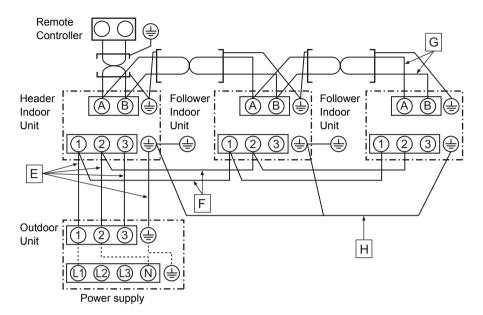
■ Wiring Specification

Specification of Wires Between Units and Numbers of Wires.

Outdoor unit - indoor unit	_	No. of wires	4 (Include earth wire)
(header unit)	E	Wire diameter	H07RN-F or 60245IEC66 1.5 mm ² or more
Indoor unit - indoor unit		No. of wires	2
(header unit) (follower unit)	E	Wire diameter	H07RN-F or 60245IEC66 1.5 mm ² or more
Remote controller wiring	G	No. of wires	2 (Shield wire)
Remote controller willing		Wire diameter	Between 0.5 mm ² and 2 mm ² (up to 200 m)
Earth wire of indoor unit ⊞			H07RN-F or 60245IEC66 1.5 mm ² or more

Procure necessary parts and perform all connection work locally.

<RAV-GP160*AT8 series>



REQUIREMENT

- The remote controller wiring has no polarity. Connections to terminals A and B of an indoor unit may be replaced with each other.
- The remote controller wires and power supply wire must not be in direct contact or in the same conduit pipe. (Doing so may cause a malfunction of the control system due to noise.)

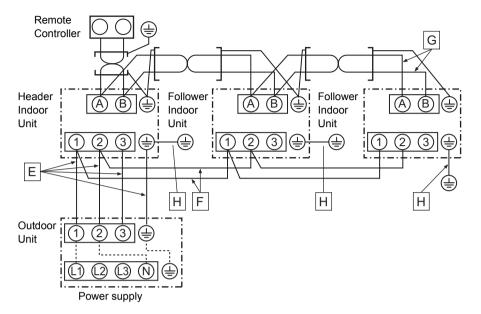
■ Wiring Specification

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Outdoor unit - indoor unit		No. of wires	4 (Include earth wire)
(header unit)	E -	Wire diameter	H07RN-F or 60245IEC66 1.5 mm ² or more
Indoor unit - indoor unit	E -	No. of wires	2
(header unit) (follower unit)		Wire diameter	H07RN-F or 60245IEC66 1.5 mm ² or more
Remote controller wiring	G –	No. of wires	2 (Shield wire)
Remote controller willing	٥	Wire diameter	Between 0.5 mm ² and 2 mm ² (up to 200 m)
Earth wire of indoor unit H			H07RN-F or 60245IEC66 1.5 mm ² or more

Procure necessary parts and perform all connection work locally.

<RAV-GM224*AT8, GM280*AT8 series>



REQUIREMENT

- The remote controller wiring has no polarity. Connections to terminals A and B of an indoor unit may be replaced with each other.
- The remote controller wires and power supply wire must not be in direct contact or in the same conduit pipe. (Doing so may cause a malfunction of the control system due to noise.)

■ Wiring Specification

Specification of Wires Between Units and Numbers of Wires.

Outdoor unit - indoor unit		No. of wires	4 (Include earth wire)
(header unit)	E -	Wire diameter	H07RN-F or 60245IEC66 1.5 mm ² or more
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Remote controller wiring	G –	No. of wires	2 (Shield wire)
Remote controller willing	٥	Wire diameter	Between 0.5 mm ² and 2 mm ² (up to 200 m)
Earth wire of indoor unit H			H07RN-F or 60245IEC66 1.5 mm ² or more

Procure necessary parts and perform all connection work locally.

<RAV-SM1603AT(Z)(ZG)-E>

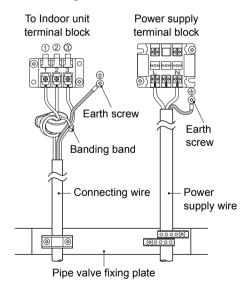
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WARNING

For simultaneous triple systems, perform the following to conform to EMC standards.

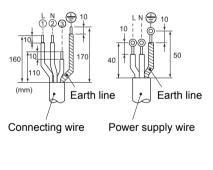
- 1. Be sure to use shield wire for remote controller wiring.
- 2. Connect earth wire independently to each indoor unit.
- Attach the ferrite core (white) supplied with the outdoor unit to indoor/outdoor connecting wires.
 - Pass indoor/outdoor connecting wires ① and ② through the supplied ferrite core
 and wind them making a single turn, and then connect them to the terminals of the
 outdoor unit. Connect the indoor/outdoor connecting wire ③ and earth wire directly
 to the outdoor unit terminals.
- Attach the clamp filter (gray) supplied with the outdoor unit to the outdoor fan motor lead wire.
 - Attach the supplied clamp filter securely to the fan motor lead wire (lower) in the electric parts box of the outdoor unit.
- For details on how to install the indoor unit, refer to the Installation Manual supplied with the indoor unit.

<1. Attaching the ferrite core>

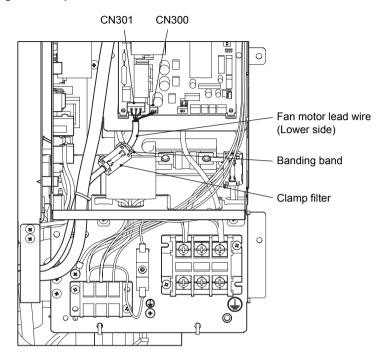


* Clamp the indoor/outdoor connecting wire ③ and the earth wire together with the ferrite core with the supplied banding band.

Stripping length power cord and connecting wire



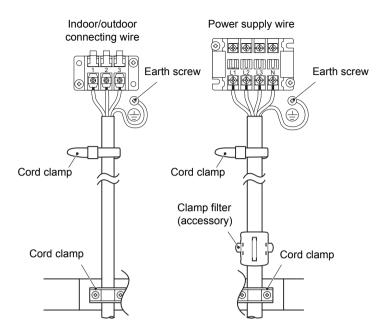
<2. Attaching the clamp filter>



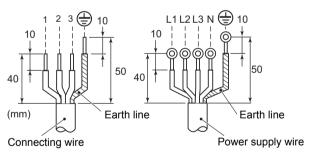
Attach the clamp filter supplied with the outdoor unit to the lower outdoor fan motor lead wire.

- · Make sure that the claw of the clamp filter is securely locked.
- Pass the banding band supplied with the outdoor unit through the upper hole of the clamp filter to clamp it together with the fan motor lead wire.
- The fan motor lead wires are connected to connectors CN301 and CN300 on the P.C. board of the outdoor unit.

<RAV-SP1604AT8, GP160*AT8 series>



Stripping length power cord and connecting wire

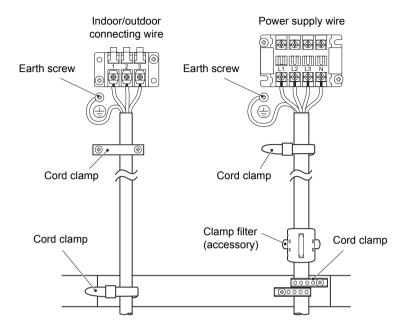


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WARNING

Be sure to attach the provided clamp filter to the power supply wire in order to conform to EMC standards.

<RAV-SM2244AT8, SM2804AT8 series>

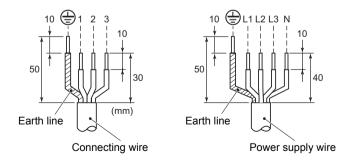


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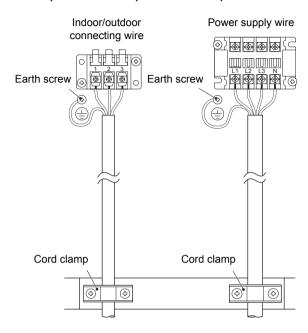
WARNING

Be sure to attach the provided clamp filter to the power supply wire in order to conform to EMC standards.

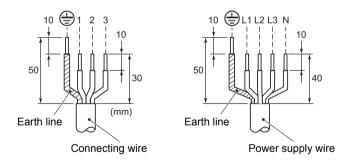
Stripping length power cord and connecting wire



<RAV-SM2246AT8, SM2806AT8, GM224*AT8, GM280*AT8 series>



Stripping length power cord and connecting wire



NOTE

When using the equipment at the first time, it will take a lot of time that the remote controller accepts an operation after power was on. However, it is not a trouble.

Automatic address

While automatic addressing, the operation can not be performed on the remote controller.

• For automatic addressing, Max. 10 minutes (generally, approx. 5 minutes) are required.

When power will be turned on after finish of automatic addressing;

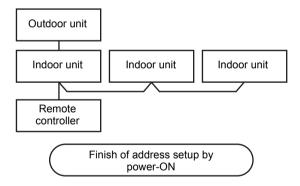
It will require Max. 10 minutes (generally, approx. 3 minutes) that outdoor unit starts
operation after power was on.

■ Indoor Unit operation when connected to multiple unit

Simultaneous triple system

A combination with an outdoor unit allows simultaneous ON/OFF operation of three indoor units for the triple system.

Triple system



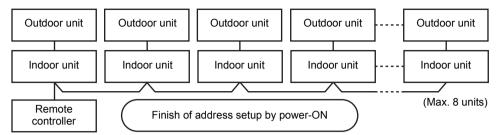
- For wiring procedure and wiring method, follow to the "Electric wiring" in this manual.
- When the power supply has been turned on, the automatic address setup starts and which indicates that address is being set up flashes on the display part.
 During setup of automatic address, the remote controller operation is not accepted.

Required time up to the finish of automatic addressing is approx. 5 minutes.

In case of group control for system of multiple units

One remote controller can control maximum 8 indoor units as a group.

In case of group control in single system



- For wiring procedure and wiring method of the individual line (Identical refrigerant line) system, follow to "Electric wiring".
- Wiring between lines is performed in the following procedure.
 Connect the terminal block (A/B) of the indoor unit connected with a remote controller to the terminal blocks (A/B) of the indoor units by wiring the inter-unit wire of the remote controller.
- When the power supply has been turned on, the automatic address setup starts and which indicates that address is being set up flashes on the display part. During automatic address setup, the remote controller operation is not accepted.

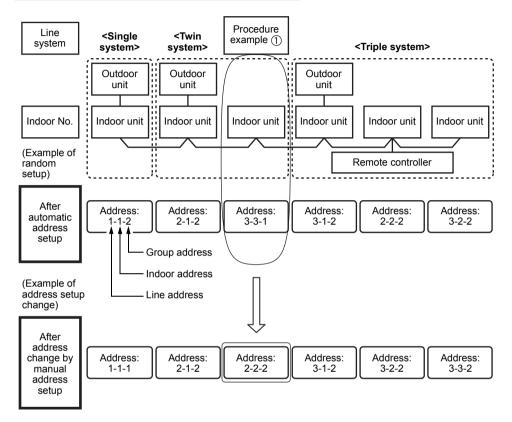
Required time up to the finish of automatic addressing is approx. 5 minutes.

NOTE

In some cases, it is necessary to change the address manually after setup of the automatic address according to the system configuration of the group control.

 A complex system in which a single system, twin system, and triple system are controlled by one remote controller as a group requires address setup change.

(Example) Group control for complex system

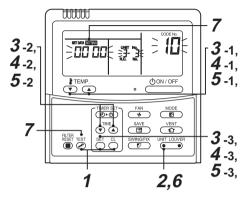


The above address is set by the automatic address setup when the power is turned on. However, line addresses and indoor addresses are set randomly. For this reason, change the setting to match line addresses with indoor addresses.

Procedure example ①

Manual address setup procedure

While the operation stops, change the setup. (Be sure to stop the operation of the unit.)

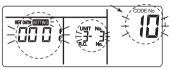


Procedure 1

Push simultaneously $\stackrel{\text{set}}{\bigcirc}$ + $\stackrel{\text{test}}{\bigcirc}$ buttons for 4 seconds or more. After a while, the display part flashes as shown below. Check the displayed CODE No. is [10].

When the CODE No. is other than [10], push button to erase the display and repeat procedure from the first step.
 (After pushing button, operation of the remote controller is not accepted for approx.1 minute.)

(For a group control, No. of the firstly displayed indoor unit becomes the header unit.)



(* Display changes according to the model No. of indoor unit.)

Procedure 2

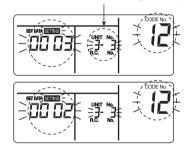
Every pushing \circ button, the indoor unit No. in the group control is displayed in order. Select the indoor unit of which setup is changed.

At this time, the position of the indoor unit of which setup is changed can be confirmed because fan and louver of the selected indoor unit operate.

Procedure 3

- Using temp. setup \(\bigsim\) / \(\bigsim\) buttons, specify CODE No. [12].
 (CODE No. [12]: Line address)
- Using timer time ▼/▲ buttons, change the line address from [3] to [2].
- Push [≦] button.
 At this time, the setup finishes when the display changes from flashing to lighting.

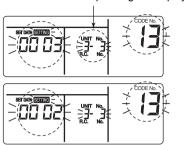
Indoor unit No. before setup change is displayed.



Procedure 4

- Using temp. setup buttons, specify CODE No. [13].
 (CODE No. [13]: Indoor address)
- Using timer time ▼/▲ buttons, change the indoor address from [3] to [2].
- 3. Push button.
 At this time, the setup finishes when the display changes from flashing to lighting.

Indoor unit No. before setup change is displayed.



Procedure 5

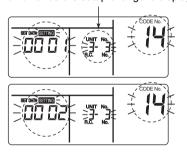
- Using temp. setup / buttons, specify CODE No. [14]. (CODE No. [14]: Group address)
- Using timer time ▼/▲ buttons, change the setup data from [0001] to [0002].

(Setup data [Header unit: **0001**] [Follower unit: **0002**])

3. Push ^{SET} button.

At this time, the setup finishes when the display changes from flashing to lighting.

Indoor unit No. before setup change is displayed.



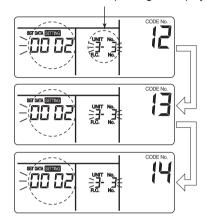
Procedure 6

If there is other indoor unit to be changed, repeat procedure **2** to **5** to change the setup. When the above setup has finished, push to select the indoor unit No. before change of setup, specify CODE No. [12], [13], [14] in order with temp. setup \(\bigvir) \left(\text{\tex

Address change check Before change: $[3-3-1] \rightarrow \text{After change: } [2-2-2]$

Pushing $\stackrel{\text{\tiny CL}}{\bigcirc}$ button clears the contents of which setup was changed.

Indoor unit No. before setup change is displayed.



Procedure 7

After check of the changed contents, push button. (Setup is determined.) When pushing button, the display disappears and the status becomes the usual stop status. (When pushing button the operation from the remote controller is not accepted for approx. 1 minute.)

* If the operation from the remote controller is not accepted even 1 minute or more passed after pushing [ES] button, it is considered that the address setup is incorrect.

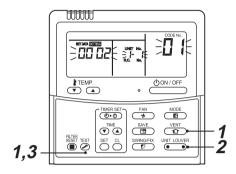
In this case, the automatic address must be again set up. Therefore repeat procedure of the

setup change from the Procedure 1.



To recognize the position of the corresponding indoor unit though the indoor unit No. is known

Check the position during operation stop. (Be sure to stop operation of the unit.)



Procedure 1

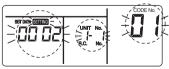
Push simultaneously $\overset{\text{TEST}}{\bigcirc}$ + $\overset{\text{VENT}}{\bigcirc}$ buttons for 4 seconds or more.

After a while, the display part flashes and the display appears as shown below. At this time, the position can be checked because fan and louver of the indoor unit operate.

For the group control, the indoor unit No.
is displayed as [] and fans and
louvers of all the indoor units in the
group control operate.

Check the displayed CODE No. is [01].

When the CODE No. is other than [01], push button to erase the display and repeat procedure from the first step. (After pushing button, operation of the remote controller is not accepted for approx. 1 minute.)



(* Display changes according to the model No. of indoor unit.)

Procedure 2

In the group control, every pushing button, the indoor unit No. in the group control is displayed in order.

At this time, the position of the indoor unit can be confirmed because only fan and louver of the selected indoor unit operate. (For a group control, No. of the firstly displayed indoor unit becomes the header unit.)

Procedure 3

After confirmation, push $\stackrel{\text{\tiny TEST}}{\nearrow}$ button to return the mode to the usual mode.

When pushing button, the display disappears and the status becomes the usual stop status. (When pushing button the operation from the remote controller is not accepted for approx. 1 minute.)



4 PIPING HEAT INSULATION

Heat insulation was produced locally.

Be certain to heat insulate the piping both on the liquid and gas sides.

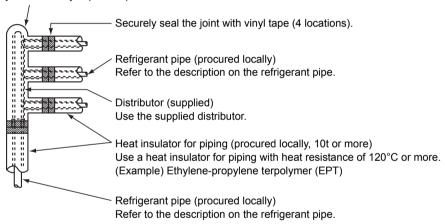
- Use heat insulating materials for piping higher than 120 degree in heat resistance.
 Example: EPT Ethylene, propylene, terpolymer
- Heat insulate the branch pipe sections using fitting covers (for tees) more than 10 mm in thickness or processing heat insulation materials as follows.
 (Heat insulation materials for the branch pipes are not supplied as accessories.)
- Seal the branch pipe sections tightly without producing gaps.

Heat insulator (supplied)

Use the supplied heat insulators.

The supplied heat insulators are provided with only tape for temporary attaching.

Seal joints with urethane foam material or equivalent to eliminate gaps, and then cover the joints with vinyl tape or equivalent to fix the heat insulators.



5 TEST RUN

Be certain to conduct a test run in accordance with the procedures contained in the operating and installation manual supplied with the indoor units.

6 DELIVERY TO CUSTOMER

- Make certain to hand over the installation manual supplied with the indoor units to the customer.
- Deliver the system after thoroughly explaining the contents of the installation manual.
 It is important to explain to the customer in details about simultaneously starting and stopping the three indoor units by operating one remote controller.