MITSUBISHI HEAVY INDUSTRIES THERMAL SYSTEMS, LTD.

INSTALLATION MANUAL FOR REMOTE CONTROL RC-ES1

PJZ012D155A 202403

ORIGINAL INSTRUCTIONS

MITSUBISHI

1. Safety precautions

•Please read this manual carefully before starting installation work to install the unit properly.

- Every one of the followings is important information to be observed strictly.
- **WARNING** Failure to follow these instructions properly may result in serious consequences such as death, severe injury, etc.

CAUTION Failure to follow these instructions properly may cause injury or property damage.

It could have serious consequences depending on the circumstances.

•The following pictograms are used in the text.

Never do.

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Always follow the instructions given.

•Keep this manual at a safe place where you can consult with whenever necessary. Show this manual to installers when moving or repairing the unit. When the ownership of the unit is transferred, this manual should be given to a new owner.

• Consult your dealer or a professional contractor to install the R/C. Improper installation made on your own may cause electric shocks, fire or dropping of the R/C.

- Installation work should be performed properly according to this installation manual. Improper installation work may result in electric shocks, fire or break-down.
- Be sure to use accessories and specified parts for installation work.
- . Use of unspecified parts may result in drop, fire or electric shocks.
- Install the R/C properly to a place with sufficient strength to hold the weight.
- If the place is not strong enough, the R/C may drop and cause injury.
- Be sure to have the electrical wiring work done by gualified electrical installer, and use exclusive circuit.
- Power source with insufficient and improper work can cause electric shock and fire.
- Shut OFF the main power supply before starting electrical work.
- Otherwise, it could result in electric shocks, break-down or malfunction.
- Do not modify the R/C. It could cause electric shocks, fire, or break-down.
- Be sure to turn OFF the power circuit breaker before repairing/inspecting the R/C. Repairing/inspecting the R/C with the power circuit breaker turned ON could cause electric shocks or injury.
 - Do not install the R/C in appropriate environment or where inflammable gas could generate, flow in, accumulate or leak.
 - If the R/C is used at places where air contains dense oil mist, steam, organic solvent vapor, corrosive gas (ammonium, sulfuric compound, acid, etc) or where acidic or alkaline solution, special spray, etc. are used, it could cause electric shocks, break-down, smoke or fire as a result of significant deterioration of its performance or corrosion.
- Do not install the R/C where water vapor is generated excessively or condensation occurs. It could cause electric shocks, fire, or break-down. • Do not use the R/C in a place where it gets wet, such as laundry room.
- It could cause electric shocks, fire, or break-down.
- Do not operate the R/C with wet hands. It could cause electric shocks.
- Do not wash the R/C with water.
- It could cause electric shocks, fire, or break-down.
- Use the specified cables for wiring, and connect them securely with care to protect electronic parts from external forces.
 - Improper connections or fixing could cause heat generation, fire, etc.
- Seal the inlet hole for R/C cable with putty.
 - If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down. If dew or water enters the unit, it may cause screen display anomalies.

When installing the R/C at a hospital, telecommunication facility, etc., take measures to suppress electric noises. It could cause malfunction or break-down due to hazardous effects on the inverter, private power generator, high frequency

medical equipment, radio communication equipment, etc. The influences transmitted from the R/C to medical or communication equipment could disrupt medical activities, video broadcasting or cause noise interference.

• If you have a cardiac pacemaker or implantable cardioverter defibrillator, keep at least 15 cm away from the R/C.

It could cause the malfunction of medical devices.

• Do not install the R/C near automatic control equipment such as an automatic door or fire-alarm device. Such improper installation may cause an accident due to malfunction of equipment.

 Do not leave the R/C with its upper case removed. If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down.

- Do not install the R/C at following places.
 - (1) It could cause break-down or deformation of R/C.
 - · Where it is exposed to direct sunlight
 - · Where the ambient temperature becomes 0 °C or below, or 40 °C or above
 - Where the surface is not flat
 - Where the strength of installation area is insufficient
 - (2) Moisture may be attached to internal parts of the R/C, resulting in a display failure.
 - Place with high humidity where condensation occurs on the R/C
 - Where the R/C gets wet
 - (3) Accurate room temperature may not be detected using the temperature sensor of the R/C.
 - Where the average room temperature cannot be detected
 - · Place near the equipment to generate heat
 - Place affected by outside air in opening/closing the door
 - Place exposed to direct sunlight or wind from air conditioner
 - · Where the difference between wall and room temperature is large

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• The communication distance between the R/C and the smartphone could be decreased. When there are obstructions, shielding objects, or radio wave interference with other devices.

2. Accessories & Prepare on site

Following parts are provided.

Accessories R/C main unit, wood screw (Ø3.5 x 16) 2 pcs, Quick reference, Sheet installation (this document)

Following parts are arranged at site.

Prepare them according to the respective installation procedures.

Item name	Q'ty	Remark
European standard junction box	1	This is not required when installing directly on a wall. If not embedding the box in a wall, it shall be insulating material of at least 1mm thick for supplementary insulation.
Lacing (JIS C8425 or equivalent)	As required	Necessary to run R/C cable on the wall. This is required when the R/C cable is run on a wall. It shall be insulating mate- rial of at least 1mm thick for supplementary insulation.
Putty	Suitably	For sealing gaps
Molly anchor	As required	
R/C cable (0.3 mm ² x 2 pcs)	As required	See right table when longer than 100 m

When the cable length is longer than 100 m, the max size for wiring used in the R/C case is 0.5 mm². Connect them to wirings of larger size near the outside of R/ C. When wirings are connected, take measures to prevent water, etc. from entering inside.

≦ 200 m	0.5 mm ² x 2-core
≦ 300 m	0.75 mm ² x 2-core
≦ 400 m	1.25 mm ² x 2-core
≦ 600 m	2.0 mm ² x 2-core

3. Installation place

Cautions for wiring connection

Use wirings of no larger than 0.5 mm^2 for wiring running through the R/C case.



Secure the installation space shown in the figure.

<Installation space>





<Dimension>

Fix the lower case on the wall by using screws. See the above diagram for the fixing position.

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(14.5)

4. Installation procedure

<When the wirings are retrieved "Backward">

- ① Embed the junction box* and the R/C wirings beforehand. * Not necessary if not used
- 2 When wirings are passed through the lower case, fix the lower case at 2 places on the junction box*.

* If not used, fix the case directly on the wall

③ Connect wirings from X and Y terminals of R/C to X and Y terminals of indoor unit.

The R/C wirings (X, Y) have no polarity. After connecting them to the terminals, store them in wiring guides. Ensure that the wirings do not get stuck with the case.

- ④ Seal the inlet hole for the R/C wirings with putty.
- (5) Install the upper case with care not to pinch wirings of R/C. Ensure that the upper and lower case fit completely. 6 Remove the protective film from the front screen of the R/C.





<When the wirings are taken out from the "upper left" of R/C>

(1) Cut out the thin wall sections on the cases

Take care not to damage the PCB and not to leave any chips of cut thin wall inside.

- 2 Fix the lower R/C case on a flat surface with two wood screws.
- 3 Connect wirings from X and Y terminals of R/C to X and Y terminals of indoor unit.

The R/C wirings (X, Y) have no polarity. After connecting them to terminals, store them in wiring guides.

Ensure that the wirings do not get stuck.

- ④ Install the upper case with care not to pinch wirings of R/C
- (5) Seal the inlet hole for the R/C wirings with putty.
- 6 Attach the lacing to the wirings running on the wall.
- (7) Remove the protective film from the front screen of the R/C.



Take care not to pinch the sheath.

Tighten the wiring connection by hand (0.7N·m or less).

Do not tighten it by electric driver. It may cause failure or deformation.



To disassemble the R/C case into the upper and lower cases.

- · With a flathead screwdriver inserted into the concave portion in the lower part of the R/C, open the upper case. It is recommended that the tip of the screwdriver be wrapped with tape to avoid damaging the case.
- · Be careful not to injure your hand on the wall.
- Take care to protect the removed upper case from moisture or dust.



5. Main/Sub setting when more than one remote controls are used

R/C operations

Backlight lighting time

Operation sound

Language

Up to two units of R/C can be used at the maximum for 1 indoor unit or 1 group. One is main R/C and the other is sub R/C. Operating range is different depending on the main or sub R/C.

Indoor unit	
80	R/C cable (No polarity)
<u> </u> ⊗⊙ R/C "Main"	⊗⊗ R/C "Sub"

Set the "Main" and "Sub" as described at Section 8.

J	P screen			Main
	Run/Stop	0	0] [
	Set temp	0	0	1
	Fan speed	0	0	1 II
p	eration settings			1 E
	Operation mode	0	0	s
	High power	0	0	s
	Ventilation	0	0	1
	Set ON/OFF timer by hour	0	0]
	Set ON/OFF timer by clock	0	0	11 L
	Upper/lower flap	0	0] T
	Zone ON/OFF	0	0	
	Left/right flap	0	0] L
D	mmon settings] [] [
	Bluetooth			
	Bluetooth ON/OFF	0	0	
	Pairing mode	0	0	
	QR code for the app	0	0	
	Display & sound]
	Backlight brightness	0	0	

Main Sub

0 0

0 0

0 0

R/C operations	Main	Sub		
Maintenance mode				
IU address	0	0		
Main/Sub of R/C	×	0		
IU capacity	0	0		
Error history	0	0		
Saving IU settings	0	0		
Special settings				
Delete IU address	0	×		
CPU reset	0	0		
Factory reset	0	×		
Test run				
Cooling test run	0	\times		
Drain pump test run	0	×		
Installation date	0	×		
\bigcirc : operable \times	: not op	perable		

*These charts do not indicate all the functions

Advice: Operation by smartphone application

Installing the dedicated app enables you to configure more detailed settings in addition to those shown on the above charts using your own smartphone. The app is free of charge, but downloading the app and some operations may require communication charges. Download the app from "Google Play™" or "AppStore". Refer to section 9 for details on how to operate the R/C.



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iOS is the name of the OS of Apple Inc. IOS is a trademark or registered trademark of Cisco in the US and other countries which has been licensed for use. App Store is a service mark of Apple Inc.

6. Functions and menu items of the remote control



Power on and initial sotting

7. Power on and initial setting

Set the main and sub R/C units according to the display at the power on.

- · Main/Sub setting not performed \Rightarrow (1)
- · Main/Sub setting performed \Rightarrow (2)
- (1) When the main and sub are not yet set,

Select "Main/Sub". The initial setting configuration starts. If Main/Sub setting is made incorrectly, it can be changed after the initial setting process. (See 8. ③ Main/Sub of R/C)

When using two R/Cs for one IU or one group, if the first one is set for the Main, the second is set for the Sub automatically.



Sub is selected \Rightarrow (2)





Maintenance mode

in a specific order.

Enter ☑ 스 🗉

8. Installation settings and test run

Installation setting and test run are performed from the maintenance mode



Holding down the \sum " \equiv " key on the TOP screen.



 IU address

 Start/stop the fan operation on the selected IU by pressing 'OK'

 000
 001
 002
 003

 004
 005
 006
 007

 008
 009
 010
 011

 012
 013
 014
 014a

2 IU address (Sample)

When the $\underset{o_{K}}{\blacksquare}$ key is tapped after selecting an IU address, the fan of the selected IU can be operated. Tap the $\underset{o_{K}}{\blacksquare}$ key again to stop the operation.



Date and time when error occurred, IU address and Error code are displayed.



A specific code is required to operate

this mode. Enter this code as follows:

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Use this when changing the Main/ Sub setting of R/C.



The indoor unit setting can be saved.

2 Common settings

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*** -**

The Bluetooth icon is displayed on

the TOP screen when Bluetooth is

Select "Bluetooth".

19:45

turned ON.

Common settings

Bluetooth

"⊔≍ 4

⑦ Special settings

(8) Delete IU address

9 CPU reset

CPU reset

9. Connection with smartphone

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The selected screen is displayed.

④ IU capacity (Sample)

Capacities of IUs connected

to the R/C are displayed.

19:45 🕑 🛠

Tap the \blacksquare key on the

*--

IU

IU capacity

Capacity



CPU reset

Factory rese

The selected screen is displayed.



Settings on R/C and IU connected are initialized. (State of factory default)



The selected screen is displayed.



Select the date using \bigwedge / \bigvee keys, and tap the $\underline{\equiv}_{ok}$ key to enter the date.

Delete IU	address
Do you want to delete IU address? *Restart after reset. *New pairing setting is required.	
► Yes	No

Memory of the IU address for multi (KX) unit is deleted.

12 Cooling test run

Cooling

Start

Test run will begin for 30 min at 5°C in cooling

This can be operated while cool-

temperature is too low to start the cooling test run, it operates for

30 minutes by decreasing the set

temperature to 5 °C.

ing is stopped. When the room



Microcomputers of IU and OU connected are reset. (State of restoration after power failure.)

13 Drain pump test run

Drain pump

Start

Drain pump can be operated

independently.



The selected screen is displayed.



This screen is displayed when the smartphone app requests a connection. Check the R/C and app passkeys are the same, then tap the \equiv_{ok} key to authorize the connection on the app. (See Quick Reference for how to operate with the app.)



The QR code for app is displayed. Scan the QR code to download the app.

Some other settings can be set from the smartphone app. To set from app, the smartphone and R/C have to be connected via Bluetooth[®].



Select the "Common settings" using \bigwedge / \bigvee keys and tap the \equiv key.



Turn Bluetooth ON/OFF. Even if turning ON, the connection has not been completed yet.



The Bluetooth No. of the R/C is displayed. The R/C can be selected correctly when connecting from the Android app.