INSTALLATION MANUAL FOR "DRAIN UP KIT" FOR FDUH (UH-DU-E)

PJC012D205

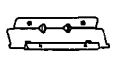
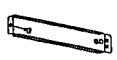
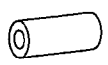
This manual is for the installation of DRAIN UP KIT FOR FDUH.
For electrical wiring work (Indoor), refer to the electrical wiring work installation manual.

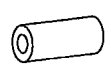
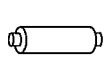
As for SAFETY PRECAUTIONS , refer to the installation manual of an indoor unit (FDUH).

① Before installation

- Install correctly according to the installation manual.
- Confirm the following points:
  - ○ Unit type
  - ○ Pipes/Wires/Small parts
  - ○ Accessory items

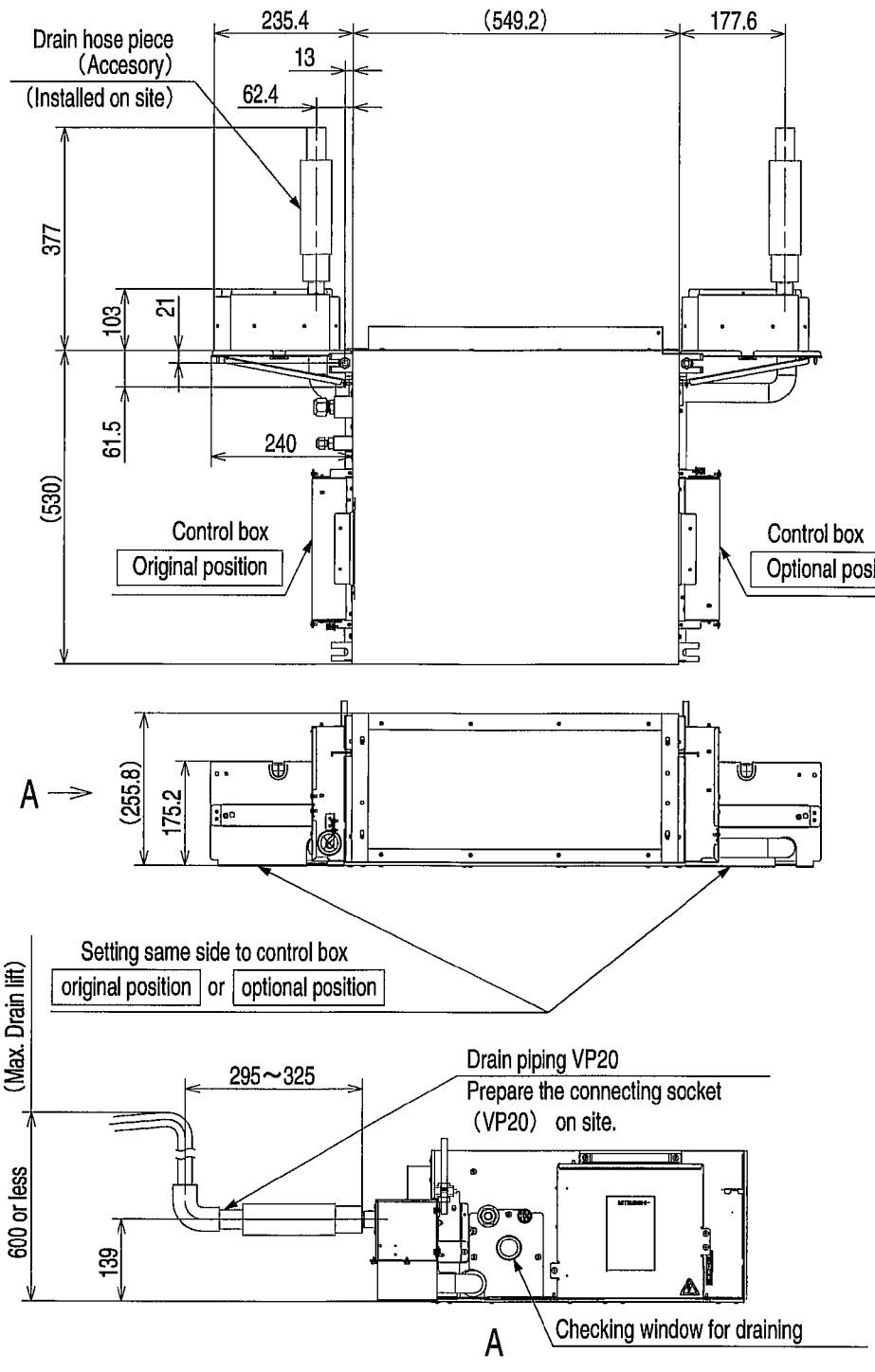
Accessory itme

For kit hanging					
Bracket	Drain hose	Plate	Wiring	Tapping screw	Cover(S)
					
1	1	1	1	6	1
For unit hanging	For drain pipe connecting	For rainforcement	Connecting Drain pump to PCB	For the mounting kit, 4mm(dia.) × 25mm(length)	For heat insulation

For kit hanging	For drain pipe			
Cover(L)	Pipe cover(big)	Pipe cover(small)	Drain hose	Hose clamp
				
1	1	1	1	1
For heat insulation	For heat insulation of drain socket	For heat insulation of drain socket	For drain pipe connecting	For drain hose mounting

② Preparation before installation

- As for installation of unit, refer to installation manual of indoor unit.

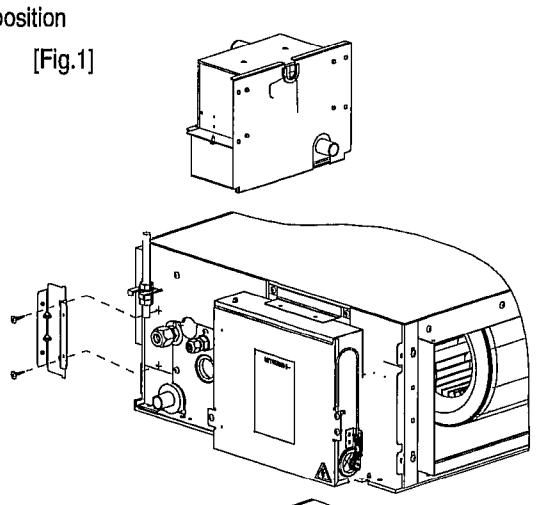


③ Installation of Drain up kit

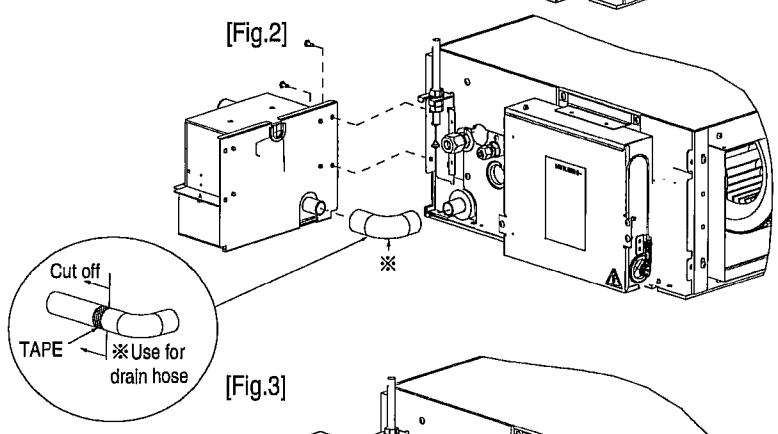
1. Confirm the location of control box, and set drain up kit same side.
2. Fix attached bracket by attached two (2) screw. [Fig.1]
   (As for location of screw, there are two (2) Cross (+) gap on insulation near outlet of inside unit.)
3. Fix the bracket of drain up by attached two (2) screw. [Fig.2]
4. If Control box location is original position, cut off attached drain hose at elbow shape side of marking tape.
5. Put attached cover (s) or (L) to drain hose for following cases.
   Case.1 : Control box location is original position ⇒ cover (s)
   Case.2 : Control box location is optional position ⇒ cover (L)
6. Connect attached drain hose to both drain pan socket between indoor unit and drain up, and fix attached two (2) band(*) to both end. [Fig.2]
   (*); Fix band directry drain hose, NOT over the cover.
7. Fix attached plate for rainforcement by attached two (2) screw. [Fig.3]

▷ Control box locate original position

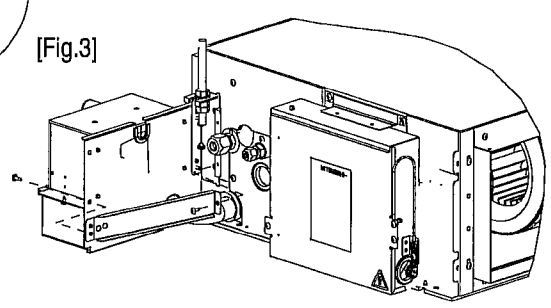
[Fig.1]



[Fig.2]

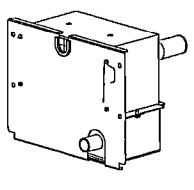


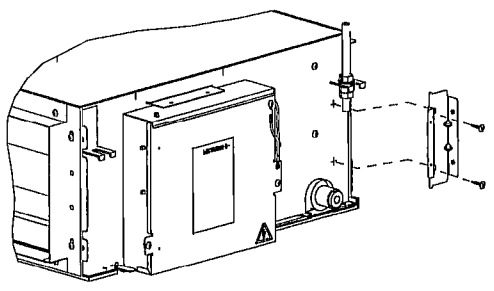
[Fig.3]



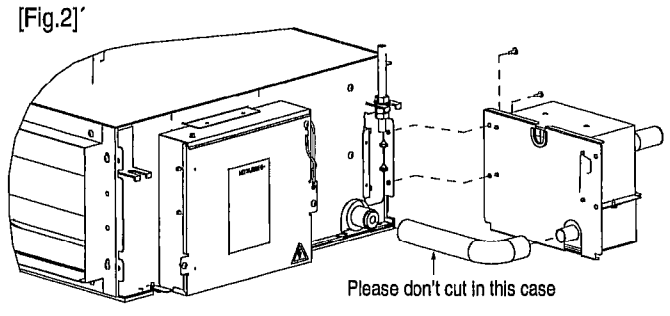
▷ Control box locate optional position

[Fig.1]´

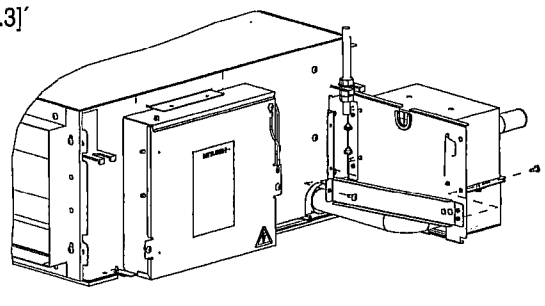




[Fig.2]´



[Fig.3]´



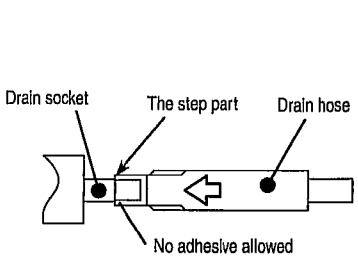
④ Drain pipe

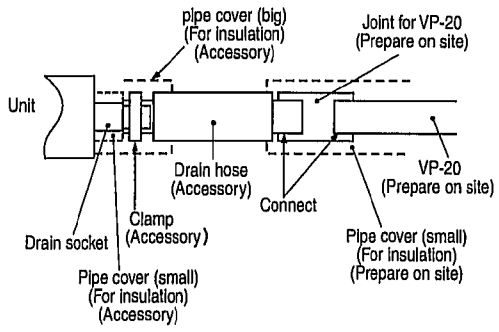
Caution

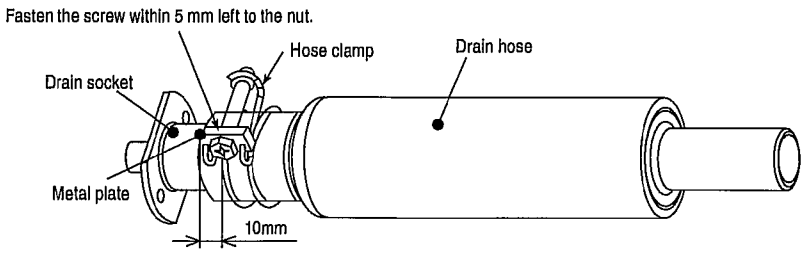
- Install the drain pipe according to the installation manual in order to drain properly. Imperfection in draining may cause flood indoors and wetting the household goods etc.
- Do not put the drain pipe directly into the ditch where toxic gas such as sulfur, the other harmful and inflammable gas is generated. Toxic gas would flow into the room and it would cause serious damage to user's health and safety (some poisoning or deficiency of oxygen). In addition, it may cause corrosion of heat exchanger and bad smell.
- Connect the pipe securely to avoid water leakage from the joint.
- Insulate the pipe properly to avoid condensation drop.
- Check if the water can flow out properly from both the drain outlet on the indoor unit and the end of the drain pipe after installation.
- Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway. In addition, do not put air vent on the drain pipe. Check if water is drained out properly from the pipe during commissioning. Also, keep sufficient space for inspection and maintenance.

Work procedure

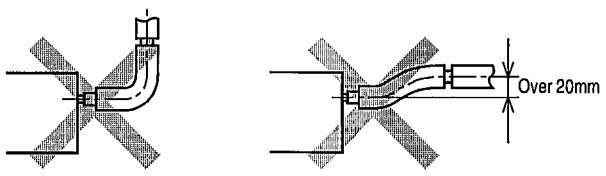
1. Make sure to insert the drain hose (the end mode of soft PVC) to the end of the step part of drain socket.
   Attach the hose clamp to the drain hose around 10mm from the end, and fasten the screw within 5mm left to the nut.
   - Do not apply adhesives on this end.



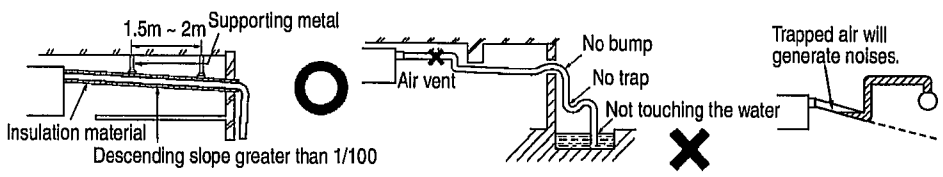




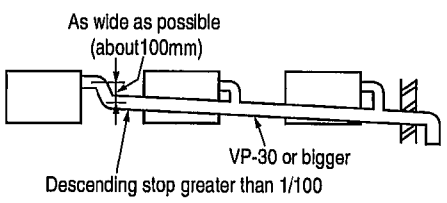
2. Prepare a joint for connecting VP-20 pipe, adhere and connect the joint to the drain hose (the end made of rigid PVC), and adhere and connect VP-20 pipe (prepare on site).
   ※ As for drain pipe, apply VP-20 made of rigid PVC which is on the market.
   - Make sure that the adhesive will not get into the supplied drain hose. It may cause the flexible part broken after the adhesive is dried up and gets rigid.
   - Do not bend or make an excess offset on the drain hose as shown in the picture. Bend or excess offset will cause drain leakage.



3. Make sure to make descending slope of greater than 1/100 and do not make up-down bend and/or trap in the midway.
   - Pay attention not to give stress on the pipe on the drain up kit side, and support and fix the pipe as close place to the unit as possible when connecting the drain pipe.
   - Do not set up air vent.



   - When sharing a drain pipe for more than one unit or kit, lay the main pipe 100mm below the drain outlet of the unit or kit. In addition, select VP-30 or bigger size for main drain pipe.

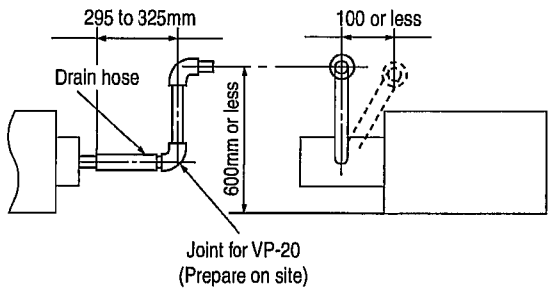


4. Insulate the drain pipe.
   - Be sure to insulate the drain socket and rigid PVC pipe installed indoors otherwise it may cause dew condensation and water leakage.
     ※ After drainage test implementation, cover the drain socket part with pipe cover (small size), then use the pipe cover (big size) to cover the pipe cover (small size), clamps and part of the drain hose, and fix and wrap it with tapes to wrap and make joint part gapless.

④ Drain pipe (continued)

Drain up

- The position for drain pipe outlet can be raised up to 600mm from the unit bottom. Use elbows for installation to avoid obstacles inside ceiling. If the horizontal drain pipe is too long before vertical pipe, the backflow of water will increase when the unit is stopped, and it may cause overflow of water from the drain pan on the droin up kit or indoor unit. In order to avoid overflow, keep the horizontal pipe length and offset of the pipe within the limit shown in the figure below.



Drain test

- After installation of drain pipe, make sure that drain system work in good condition and no water leakage from joint and drain pan. Check if the motor sound of drain pump is normal or not.
- Do drain test even if installation of heating season.
- For new building cases, make sure to complete the test before hanging the ceiling.

1. Pour water of about 1000cc into the drain pan in the indoor unit by pump so as not to get the electrical component wet.
2. Make sure that water is drained out properly and there is no water leakage from any joints of the drain pipe at the test.
   Confirm that the water is properly drained out while the drain motor is operating. At the drain socket (transparent), it is possible to check if the water is drained out properly.
3. Unplug the drain plug on the indoor unit to remove remaining water on the drain pan after the test, and re-plug it. And insulate the drain pipe properly finally.

Drain pump operation

○ In case electrical wiring work finished
Drain pump can be operated by remote controller (wired).
For the operation method, refer to Trial operation of drain pump in the installation manual for wiring work.

○ In case electrical wiring work not finished
Drain pump will run continuously when the dip switch"SW7-1" on the indoor unit PCB is turned ON, the Connector CNB is disconnected, and then the power supply (220-240VAC on the terminal block Ⓛ and Ⓝ) is turned ON.
Make sure to turn OFF "SW7-1" and reconnect the Connector CNB after the test.

⑤ Wiring-out position and wiring connection

1. Remove a lid of the control box (2 screws).
2. Lead Float-Switch line and Drain-pump line into control box through grommet "A".
3. After take off dummy connector at "CNI", connect the connector of Float-Switch line directly.
4. Connect Drain pump line to "CNR" using "attached wiring".
   Push all conneting point into control box.
5. Install the removed parts back to original place.
6. Fix Float-Switch line and Drain-pump line to attached plate by band.