

MDV04U-013aW

HIGH-STATIC PRESSURE DUCT SPLIT TYPE  
AIR CONDITIONER

# **OWNER'S MANUAL**

2200019112

Please read this owner's manual carefully before using the air-conditioner and keep this manual for future reference.

## REPARATION

If any abnormality occurs, please turn off the unit and switch off the power immediately. Contact our dealer, particularize the model, operation condition and failure. Reparation must be done by professionals.

## TECHNICAL STANDARD

1. This air conditioner accords with JB8655-1997 《Safety standards for unitary air conditioner》 and GB/T17758-1999.
2. The worst working condition  
The working condition for max heating capacity specified in GB/T17758-1999.
3. Noise level  
Noise level is tested in half-anechoic room before delivery, which is above the national standard GB/T17758-1999.

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## TROUBLES AND CAUSES (concerning the remote controller)

Please check the following points before you ask for reparation or maintenance.

The function of conversion can not be set.		
Symptom	Checking points	Causes
The fan speed can not be changed.	Check whether the MODE indicated on the display is "AUTO" .	In AUTO mode, the fan speed of indoor unit will be shifted to "AUTO" automatically.
	Check whether the MODE indicated on the display is "DRY"	In DRY mode, the fan speed will be shifted to "AUTO" automatically. The fan speed can only be selected in modes COOL, HEAT and FAN.

The transmission indicator ▲ do not flash.		
Symptom	Checking points	Causes
Remote control signal can not be transmitted when pressing <b>ON/OFF</b>	Check whether the batteries in the remote controller are exhausted.	Without power supply, the remote control signal can not be transmitted.

The TEMP. Indicator is not lightened.		
Symptom	Checking points	Causes
The TEMP. Indicator is not lightened.	Check whether the MODE indicated on the display is "FAN" .	In FAN mode, temperature can not be set.

The display goes off.		
Symptom	Checking points	Causes
ON/OFF on display goes off.	Check whether the timer operation has come to an end.	The air conditioner will stop since the time set has passed.
TIMER ON goes off after a period of time	Check whether the timer operation has come to an end.	When it is the time being set to start, the air conditioner will start automatically and the corresponding indicator will go off.

No sound indicating the receipt of signal		
Symptom	Checking points	Causes
When pressing <b>ON/OFF</b> , no sound from indoor unit indicating the receipt of signal.	Check whether the signal transmitter of the remote controller aims at the receiver of the indoor unit. Check whether the power supply of air conditioner has been switched on.	Aim the transmitter of remote controller at the receiver of indoor unit, then press <b>ON/OFF</b> repeatedly.  The air conditioner can not receive the remote control signal if it is off.
Remote controller does not work.	Check the display screen of remote controller.	The buttons are locked.

## SAFETY PRECAUTIONS

For correct and safe operation , please read this manual carefully to prevent personal hurt and damage to property.

Before you come to the text, please be familiar with the following marks and icons and comply with the precautions.

### ■ Markers

Markers	Indication
<b>WARNING</b>	The risk of death or serious injury will be caused due to the wrong operation.
<b>CAUTION</b>	The risk of injury or damage to property will be caused due to the wrong operation.

### ■ Icons

Icons	Indication
	<b>FORBID</b> Followed by detailed illustration.
	<b>ENFORCEMENT</b> Followed by detailed illustration.




### NOTE:



1. Injury generally refers to hurt, burn or electric shock, which is not so serious for hospitalization.
2. Damage to property refers to the loss of property and material.

### **WARNING**





<b>Installation warning</b>	 <b>Installation Commitment</b>	<b>Please entrust the professionals to do the installation.</b> Nonprofessionals can not install the units, or the water leakage, electric shock, injury or fire may occur.
	 <b>Specific products</b>	<b>Please use the specific products in our company.</b> Please use the retail products like humidifying equipment specified in our company, or fire, electric shock, water leakage may occurs. Entrust the professionals to do the installation.
	 <b>Protection measures</b>	<b>In small room, please take some measures to prevent the refrigerant leakage from exceeding the critical thickness which will cause suffocation.</b> Please consult the dealer for details.
	 <b>GROUNDING</b>	<b>Confirm correct grounding.</b> Defective grounding may cause electric shock.

 **WARNING**

<b>Operation warning</b>	 <b>FORBID</b>	<b>Do not expose yourself to the cool air for a long time.</b> The air with too low temperature is harmful to people.
	 <b>FORBID</b>	<b>Do not put hands or objects into the air inlet or outlet.</b> The fan with high speed may cause serious injury.
	 <b>Switch off the power</b>	<b>In case of abnormality, switch off the power immediately and contact our dealer.</b> If the air-conditioner keeps running, electric shock or fire may occur.

<b>Moving and reparation warning</b>	 <b>FORBID</b>	<b>Please entrust the dealers or professionals to move and reinstall the air-conditioner.</b> Incorrect installation may cause electric shock, fire, injury or water leakage.
	 <b>FORBID</b>	<b>Please entrust the dealers or professionals to repair the air-conditioner.</b> Incorrect reparation may cause fire, electric shock, injury or water leakage.

 **CAUTION**

<b>Installation precautions</b>	 <b>Ensure the drainage</b>	<b>Make sure the drainage is unimpeded.</b> Incorrect installation of piping will cause leakage and the furniture will get wet.
	 <b>Creepage protection switch</b>	<b>Make sure the creepage protection switch is installed and the fuse capacity is suitable.</b> Electric shock or fire may be caused without creepage protection switch.
	 <b>Ensure the installation place</b>	<b>Do not install the air-conditioner in the place where the flammable gas is easy to leak.</b> If the flammable gas leaks, the fire will be caused around the outdoor unit.
	 <b>Ensure the foundation</b>	<b>Make sure the installation foundation is solid.</b> The outdoor unit may fall down from the unstable foundation, causing injury.

## TROUBLES AND CAUSES

- If any abnormality following occurs, please turn off the unit and switch off the power immediately. Then contact the local after-sale service center.
  - The working indicator light flashes rapidly (Twice per second). Switch off the power then switch it on again, the light still flashes rapidly.
  - Remote controller is invalid or ON/OFF operation is abnormal.
  - The fuse is melted frequently or the circuit breaks frequently.
  - Some substance or water goes into the air conditioner.
  - Water leakage occurs in indoor unit.
  - Other abnormalities occur.
- Besides the troubles mentioned above, please check the following points. If necessary, contact the after-sale service center.

Symptom	Causes	Solutions
Inoperative	<ul style="list-style-type: none"> <li>Power cut</li> <li>Power switch is disconnected.</li> <li>The fuse is melted or circuit breaker is tripped.</li> <li>Failure in remote controller or wire controller.</li> </ul>	Wait for the power. Switch on the power. Replace the fuse or check whether there is leakage. Check the remote controller or wire controller.
The wind blows but the unit does not cool.	<ul style="list-style-type: none"> <li>The temp. does not set properly.</li> <li>3-minute protection.</li> </ul>	Set the temp. below the room temp. while cooling or above the room temp. while heating. Wait for 3 minutes.
The unit starts and stops frequently.	<ul style="list-style-type: none"> <li>Too much or insufficient refrigerant.</li> <li>Air or uncondensable gas in refrigerant piping.</li> <li>Failure in compressor.</li> <li>The voltage is too high or too low.</li> <li>The refrigerant piping is blocked.</li> </ul>	Check the leakage, charge the right amount of refrigerant. Re-vacuum and charge the refrigerant. Repair or replace the compressor. Install a voltage regulator. Find out the cause and replace it.
Does not cool well.	<ul style="list-style-type: none"> <li>Condensers of indoor and outdoor unit are dirty.</li> <li>The air filter is blocked.</li> <li>The air inlet or outlet of the unit is clogged.</li> <li>Doors or windows are open.</li> <li>Exposed to the sunlight.</li> <li>Too many heat sources.</li> <li>Outdoor temp. is too high.</li> <li>Refrigerant leaks or the charging volume is insufficient.</li> </ul>	Clean the condensers. Clean the air filter. Clear away the blockage. Close the doors and windows. Draw the curtain or close the shade. Reduce the heat sources. Cooling capacity decreases.(normal) Check the leakage, charge the right amount of refrigerant.
Does not heat well.	<ul style="list-style-type: none"> <li>Outdoor temp. is lower than -7°C.</li> <li>Doors or windows are open.</li> <li>Refrigerant leaks or the charging volume is insufficient.</li> </ul>	Use heating equipment. Close the doors and windows. Check the leakage, charge the right amount of refrigerant.

## SYMPTOM OF NON MALFUNCTION

The following symptoms do not belong to malfunction.

### 1. Inoperative

- The air conditioner does not work immediately when pressing **ON/OFF**.

If the operation indicator light is lightened, it shows that the unit is in normal state. The protection function works to prevent the air conditioner from being overloaded for about 3 minutes. Then the compressor will run automatically.

If the defrosting/preheating indicator light is lightened, it is in heating mode. When starting the unit, "Warm air control" will be activated because of the low temp.

### 2. Mist of chilled air on air outlet

- Cooling in a room with high relative humidity(the place with much oil or dust).

The room temperature will be uneven if the inside of indoor unit is dirty. Cleaning is necessary. Please consult the local dealer or air conditioner after-sale service center for details. The cleaning must be done by professionals.

- If the mode shifts from defrosting to heating, the vapor will be expelled.

### 3. Noise

- A continuous low sound "hiss" can be heard while the air conditioner is working, which is caused by refrigerant flowing between indoor unit and outdoor unit.
- The sound "hiss" exists during the timer of defrosting or a short period after you turn off the unit, which is caused by refrigerant that stops flowing or changes its flow volume.

### 4. Dust is blown from air outlet




















- This occurs only in the first operation after a longtime rest.

### 5. Bad odor comes from indoor unit

- This is because the indoor unit gives off the smell which comes from the wall, furniture or smoking.

### 6. The mode shifts from COOL to FAN

- To prevent the heat exchanger from frosting, the air conditioner will shift to FAN mode automatically and it will return to COOL later.
- When the room temperature decreases to the set temperature, the air conditioner will turn off the compressor automatically and shift the mode to FAN; the compressor will restart when the temperature returns. In heating mode, the operation of compressor is reversed to that mentioned above.

OPERATION PRECAUTIONS		<b>Ventilate the room regularly when using the air conditioner with burning appliance.</b> Imperfect ventilation may cause the loss of oxygen in the room.	
		<b>Do not locate the burning appliance towards the air outlet.</b> Or it may cause imperfect combustion.	
		<b>Check whether the installation bracket has been worn out after being used for a long time.</b> The outdoor unit may fall down to cause injury if the bracket is damaged.	
		<b>Do not clean the air conditioner with water.</b> It may cause electric shock.	
		<b>Do not put animal or plant near the air outlet.</b> It is harmful to animal and plant.	
		<b>Do not put the flammable sprayer near the air conditioner or spray the air conditioner directly.</b> The fire may occur.	
		<b>Do not put water container on the air conditioner.</b> Immersion of water will reduce the ability of insulation and the electric shock will be caused.	
		<b>Do not operate the switch with wet hand.</b> The electric shock will be caused.	
		<b>The air conditioner can not be used to conserve food, plant, precision instrument and artworks etc..</b> The quality may be degraded.	
		<b>Be sure to turn off the unit and switch off the power when doing reparation.</b> The fan with high speed may cause injury.	
		<b>Choose the fuse specified in the installation manual.</b> Fuse with copper or iron wire may cause malfunction or fire. The power supply with rated voltage should be used.	
		<b>Air conditioner can not be used until an air filter is installed in air return inlet.</b> Or the dust may accumulate on the evaporator, which will reduce the performance of air conditioner.	

## REQUIREMENT FOR ELECTRIC SAFETY

1. Wiring should be carried out by qualified person.
2. All the wiring must accord with electric safety specification.
3. The main switch of air conditioner should be earthed well.
4. A separate power supply with rated specification for the air conditioner should be provided.
5. Specification :

Model		Power supply	Main switch	Fuse	
25、30kW	Indoor unit	Without auxiliary heater	220—240V~ 50Hz	40A	32A
		With auxiliary heater	380V 3N~ 50Hz	50A	40A
	Outdoor unit		380V 3N~ 50Hz	60A	50A

### CAUTION

- In no circumstance the ground wire of the main power switch should not be cut off.
- Do not use the broken wiring. If there is any, please replace it.
- Please preheat the air conditioner for at least 12 hours before operation. Do not switch off the power if you need to stop the unit for 24h or shorter time. (This is to heat the crank case heater to avoid the compulsive start of compressor.)
- Make sure the air inlet and outlet are not blocked, or it may degrade the performance of air-conditioner or start up protector which will stop the unit from running.

## FUNCTIONS AND FEATURES

- Duct/ceiling type, space-saving, luxurious.
- High blowing pressure, wide-range cooling/heating, more choices of installation location.
- Quick cooling/heating, high efficiency, energy-saving.
- Dual control design, remote control and wire control.
- Low noise level.
- Wide variety of optional accessories.  
Create comfortable and elegant environment for office, hospital, mall and family.

## MAINTENANCE

### NOTES:

- Maintenance work can only be done by professionals.
- The main power switch must be switch off before doing electric connection or cleaning the air filter.
- Do no use water or air with the temperature above 50°C to clean air filter and panel.
- It is suggested to check and maintain the duct biannually. Do cleaning and disinfection work every two years.
- If the air filter is blocked, it will reduce the efficiency of air conditioner. Please clean the filter every two weeks.
- If the indoor unit is installed in the place with much dust, please clean the air filter more frequently.
- Please replace the filter in case that it is difficult to do cleaning.

### The maintenance of outdoor unit

1. Injury may be caused by improper operation on the metal plates and coil fin with sharp blade.
2. Check the air inlet and air outlet of outdoor unit regularly to ensure that they are not blocked by filth or soot.
3. The duct and other parts of outdoor unit should be also cleaned regularly. Please contact the local dealer or Midea air conditioner after-sale service center.

### Treatment before longtime rest

- Select FAN mode for about a half day to dry the inside of the air conditioner.
- Press ON/OFF on remote controller or wire controller, then switch off the power.  
If you do not switch off the power, the power will be wasted.
- Remove the batteries from the remote controller.
- There will be some dirt in air conditioner after a longtime use, please check and repair it besides cleaning. Contact the local dealer or Midea air conditioner after-sale service center.

### Restart the unit after a longtime rest

#### 1) Check the following points

- Make sure that the air inlets and outlest of indoor and outdoor unit are not blocked.
- Make sure whether the grounding wire is earthed well.
- Check whether the condensed water is drained. (Cooling)
- Make sure the refrigerant piping and duct are insulated well.
- Make sure the installation base is not rusted.

#### 2) startup

- Switch on the power of outdoor unit, and then that of indoor unit.
- Start the switch of remote controller or wire controller, then turn on the air conditioner.

## OPTIMAL OPERATION

Please pay attention to the following points to ensure the operation of unit.  
Refer to the relevant section for details.

- 适当调节气流方向，避免气流直接吹向房间里的人。  
Adjust air flow direction to avoid blowing directly to the people in the room.
- Set the temperature properly to obtain a comfort ambient. Too low or too high is not recommended.
- Please shelter from direct sunlight with curtain or window shutter during cooling operation.
- Please close door and window to avoid the formation of convection that may decrease cooling effect.
- Please use your remote controller to set the desired run-time.
- Do not put anything near the inlet or outlet to block the airflow. Otherwise, it may decrease the effect of air conditioner, or stop the unit.



- Before longtime rest, please switch off the power and remove the batteries from remote controller. If you do not switch off the power, the power will be wasted. Preheat the unit for more than 12 hours before restart.
- If the air filter is blocked, it will reduce the efficiency of air conditioner. Please clean the filter every two weeks.

Cooling operation	Outdoor temperature: 17~43°C
	Indoor temperature: ≥17°C
Heating operation	Outdoor temperature: -7~24°C
	Indoor temperature: ≤30°C
Dry operation	Outdoor temperature: 17~43°C
	Indoor temperature: 17~32°C

NOTE: Malfunction may be caused if the air conditioner do not runs under the condition mentioned above.

## SPECIFICATION

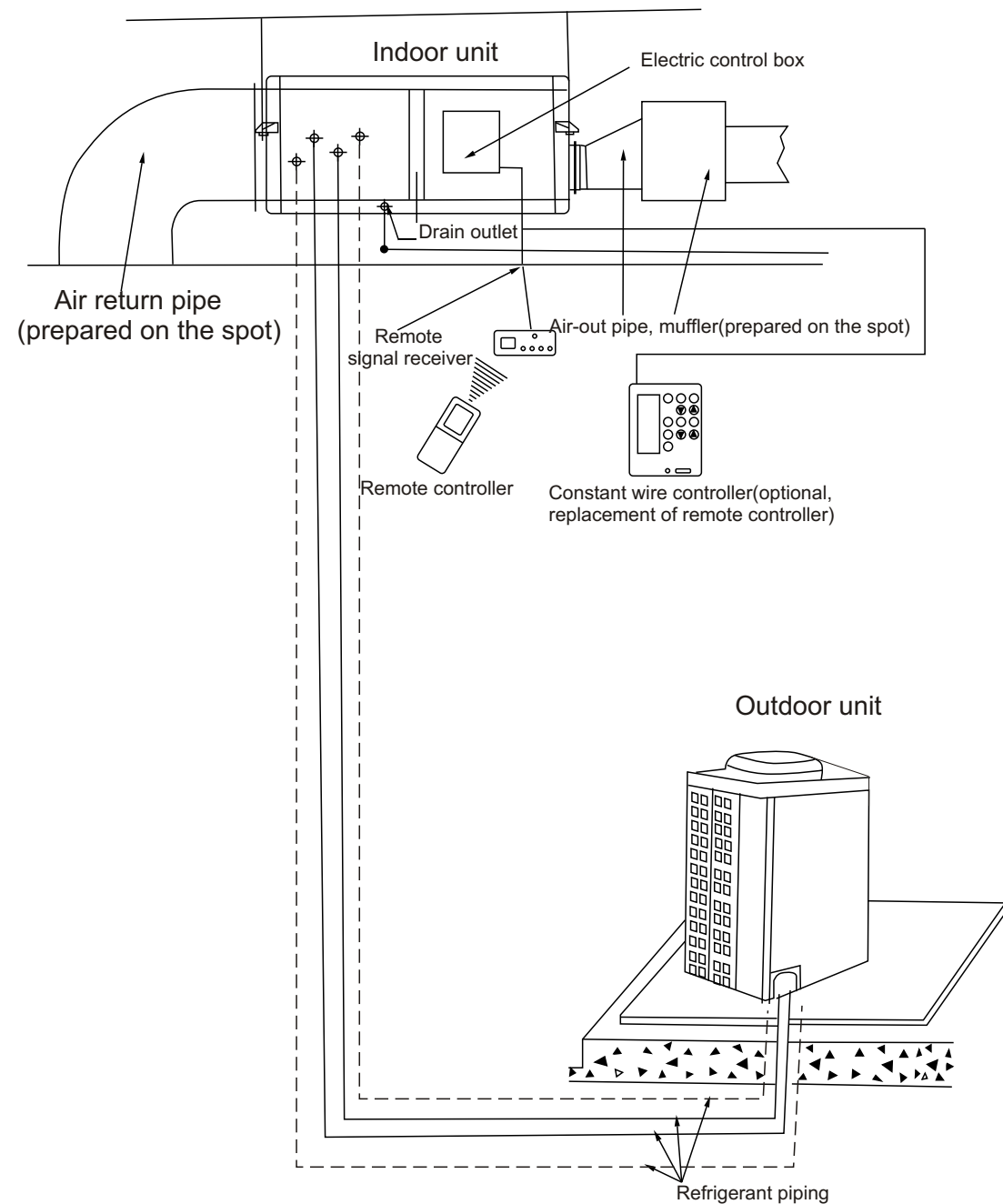
The parameter following is subject to change without notice. Please refer to the nameplate.

Model		30kW			25kW			
Parameter		102000			96000			
Cooling capacity (Btu/h)		102000			96000			
Heating capacity (Btu/h)		102000+20400(Auxiliary heater)	102000	—	96000+20400(Auxiliary heater)	96000	—	
Electric parameter	Cooling	Running current (A)		18.1		17.4		
		Power(kW)		11		10		
	Heating	Running current (A)		17.7+9(Auxiliary heater)	18.6	—	17.2+9(Auxiliary heater)	17.2
		Power(kW)		10.8+6(Auxiliary heater)	11	—	9.8+6(Auxiliary heater)	9.8
Power supply	Indoor unit	380 3N~ 50Hz	220V~ 50Hz	380 3N~ 50Hz	220V~ 50Hz			
	Outdoor unit	380 3N~ 50Hz						
Dimension	Indoor unit	1500 X 1250 X 570mm						
	Outdoor unit	997 X 880 X 1770mm						
Weight (kg)	Indoor unit	240						
	Outdoor unit	245						
Noise level dB(A)	Indoor unit	60						
	Outdoor unit	63						
Max input current (A)		23.5+9(Auxiliary heater)	23.5	—	21+9(Auxiliary heater)	21		
Max input power (kW)		14+6(Auxiliary heater)	14	—	11.5+6(Auxiliary heater)	11.5		
Air flow (m <sup>3</sup> /h) ( OPb )		5000						
Applicable area (m <sup>2</sup> )		140~200			120~160			
Control method		Remote control or wire control						

- Note: 1. Cooling capacity test condition: indoor dry bulb /wet bulb temp: 27°C/19°C; outdoor dry bulb/wet bulb temp:35°C/24°C. Heating capacity test condition : indoor dry bulb/wet bulb temp:20°C/15°C; outdoor dry bulb/wet bulb temp: 7°C/6°C. The actual cooling and heating capacity is proportional to the value of ambient temp and relative humidity.
2. Noise level is tested in half-anechoic room.
3. In actual situation, the outlet noise level will change according to different duct. The actual noise level is about 45dB(A) or smaller.

## PARTS NAMES AND THEIR FUNCTIONS

The air conditioner consists of indoor unit, outdoor unit, the connecting pipe and remote controller.



## OPERATION PRECAUTIONS

Before operation, please read the owner's manuals of air conditioner and remote controller or wire controller carefully. If there is any problem, please consult the local dealer. This air conditioner is designed to create a comfortable environment, only available for the functions specified in this manual.

### 1. Before operation

- Ensure the grounding wire is in good condition..
- Ensure the filter is well installed.
- Before you restart a longtime rest, please clean the filter. In frequent use, clean the filter every two weeks. Refer to "Maintenance" for details.
- Ensure the outlet and inlet of outdoor and indoor units is unblocked.

### 2. Safety precaution

- Do not get the indoor unit and remote controller moist.  
Or short circuit or fire will be caused.
- Keep the air conditioner away from fixture, sprayer, gasoline or such flammable gas or liquid. Or it may cause fire.
- Do not touch the plate when the air deflector is working.  
Otherwise the fingers may be nipped or the components of air deflector may be damaged.
- Do not use substandard fuse or wire as fuse replacement.  
If you use conductor or copper wire, the air conditioner may be damaged and fire may be caused.
- Do not put stick or such objects into the air inlet and air outlet.  
The fan with high speed may cause injury.
- Do not remove the fan cover of outdoor unit.  
The fan with high speed may cause injury.
- Start the air conditioner by pressing ON/OFF on remote controller or wire controller rather than connecting the switch of main power.
- Keep the children away from air conditioner.
- Do not repair the air conditioner by yourself.  
Please entrust the professional to the reparation.
- Switch off the power before cleaning the air filter and air conditioner. This unit is earthed well, which possesses double protection. Usually, it is safe to replace or clean the air filter.  
For safety, please switch off the power before maintenance work.