OWNER'S MANUAL

Split Duct Ceiling Air Conditioner

Thank you very much for purchasing our air conditioner,
Before using your air conditioner , please read this manual carefully and keep it for future reference.

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1.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 precaution.

Markers

Markers	Indication
WARNING	The sign shows the risk of death or serious injury will be caused due to the wrong operation.
CAUTION	The sign shows the risk of injury or the damage to the property will be caused due to the wrong operation.(Note)

Icons

Icons	Indication
	Indicates forbidding. The subject-matter forbidden is indicated by icon or by images or characters aside.
	It indicates compulsory. The compulsroy subject-matter is indicated in the icon or by images or characters aside.

NOTE :
1.Harm means injury, burn and electric shock which needs long-term treatment but needs no hospitalization.
2. Property loss means loss of properties and materials.

INSTALLATION WARNING

Delegate professionals to perform installation	Delegate professionals to install the unit. Installation by unauthorized persons may lead to imperfect installation which may result in water leakage, electric shock or fire.
Use specified products	Other en-suite products must be those specified by the Company. Using the products other than specified may cause fire, electric shock or water leakage.Other en suite products must be installed by professionals.
Precautions against crosing the density threshold	In case the equipment is installed in a small room, take precautions to prevent the refrigerant leakage from crossing the density threshold which may result in personal suffocation. For specific precautions, consult the distributor.
Check ground wire	Check whether the unit is grounded properly. According to law, the unit must be grounded reliably. Imperfect grounding may cause electric shock.

OPERATION WARNING

Forbid	Do not blow yourself under the cool air excessively. Too low temperature harms personal health.
Forbid	Do not stretch fingers or sticks into the air inlet or outlet. The fast running fan in the unit may cause personal injury.
Cut off power supply	In case of exceptions, stop operation, turn off the power supply, and consult the distributor. Continuous operation in exceptions may cause fire or electric shock.

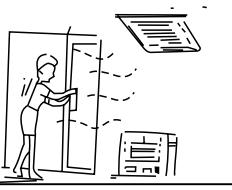
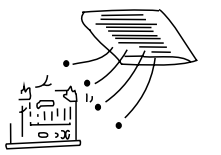
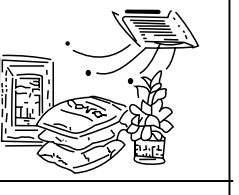
RELOCATION & REPAIR WARNING

Forbid	To relocate or reinstall the air conditioner, delegate the distributor or professionals to do it. Improper installation may cause fire, electric shock, personal injury or water leakage.
Forbid	Do not modify or repair the unit without permission. Improper repair may cause fire, electric shock, injury or water leakage. Delegate the distributor or professionals to repair if necessary.

INSTALLATION PRECAUTIONS

Check drain	Check whether the drain pipe can drain smooth. Improper piping may cause water leakage and moisten furniture.
Check RCCB	Check whether the Residual Current-operated Circuit Breaker (RCCB) is installed. RCCB must be installed. Otherwise, electric shock may occur.
Check installation site	Do not install the unit in a place vulnerable to leakage of flammable gases. Leakage of flammable gases around the indoor unit may cause fire.
Check fixing method	Confirm the installation base, lifting tool is solid and reliable. If the base and lifting tool is not firmly, the falling accident may be caused.

Operation precautions

Ventilation	When the unit is used together with a combustion device, conduct ventilation periodically. Insufficient ventilation may cause oxygen supply. 
Forbid	Do not put the combustion device directly at ventilation point of the air condition. Otherwise, the combustion of the combustion device may be incomplete. 
Make sure the erecting floor	After using the unit for a long period, check whether the erecting floor is worn out. If the erecting floor is worn out, the unit may fall and cause personal death or injury.
Forbid	Do not wash the air conditioner with water. Otherwise, electric shock may occur. 
Forbid	Do not put animals or plants directly at the air supply point of the air conditioner. Otherwise, it may harm the animals or plants. 
Forbid	Do not put flammable sprayer near the air conditioner put spray directly to the air conditioner. Otherwise, fire may occur. 
Forbid	Do not put water container onto the air conditioner Water intruding into the air conditioner will weaken the electric insulation and cause electric shock.
Forbid	Do not operate the switch with wet hands. Otherwise, electric shock may occur. 
Forbid	Do not use the unit for storing food, animals, plants, precision instruments, or art works. Otherwise, the quality will be deteriorated. 
Cut off power supply	Before performing maintenance, stop operation of the unit, and turn off the power supply. The fast running fan in the unit may cause personal injury.
Use correct fuse	Do not use the fuse with a capacity other than specified in the installation manual. Using iron or copper wire as fuse may cause fire or faults. The power supply must use specialized circuit of air conditioner under the rated voltage.

2.ELECTRIC SAFETY REQUIREMENT

1. Wire distribution must be performed by duly qualified electricians.
2. All wire distribution must comply with electric safety specifications.
3. Ensure that the air conditioner is grounded properly. Namely, the main switch of the air conditioner must have reliable ground wires.
4. Provide the air conditioner with a separate power supply comply with the rated parameter values.

NOTE :

- Do not cut off the ground wire of the main power switch in any circumstance.
- Do not use damaged power wires. Change the damaged power wires once they are detected.
- Connect the power supply of the air conditioner for preheating it for at least 12 hours before using the air conditioner. Keep the power supply connected if the air conditioner will stop service for short period about one day and night. (It is heating for cranecase which is to avoid the compressor from stoped by force.)
- Do not block the air supply inlet and air discharge outlet, which would degraded the air conditioning profromance or start up the protective device to lead the unit cannot run.

3.FUNCTION AND FEATURES

- Nested in the ceiling, space-saving and noble.
- High excessively pressure for wide range air supply, which give more place for you to choose installing site.
- High capacity of cooling/heating, efficient, and energy-saving.
- Double control ways, including standard remote control function and optional wire control function.
- Low noise design.
- You could choose your desired air outlet assembly depend on your different conditioning space.
- Providing a comfortable environment for the offices, hospitals, commercial sites and houses.

4. MODELS,SPECIFICATIONS & PARAMETERS

In case any parameters in the following table are changed, no other notice will be given. The parameters specified on the nameplate shall prevail.

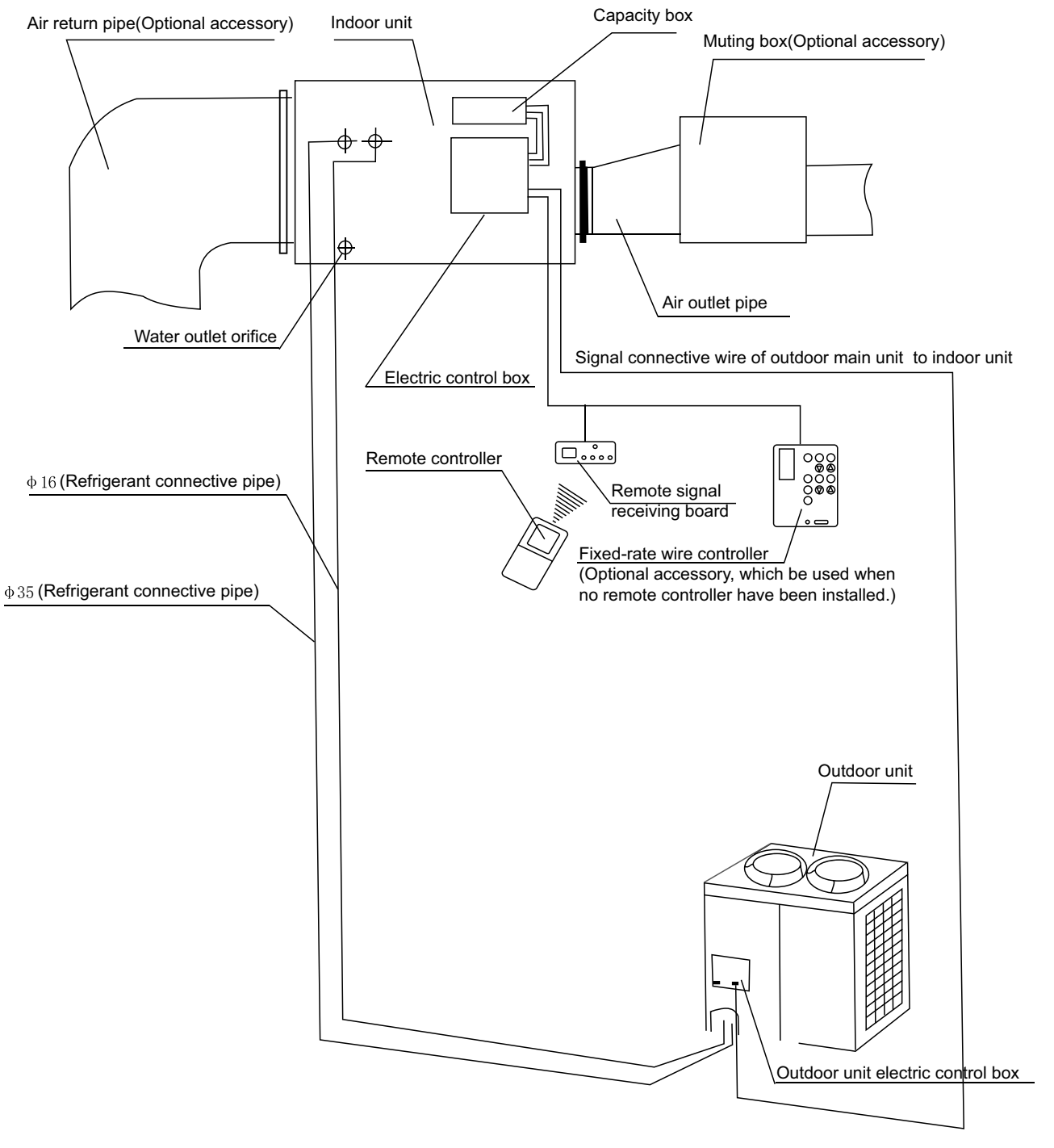
Parameter \ Model			MHA-150 HR	MOV-150 H
Cooling capacity (Btu/h)			150000	150000
Heating capacity (Btu/h)			165000	165000
Electric characteristics	Cooling	Operating current (A)	12.9	30
		Consumption power (kW)	2.7	16
	Heating	Operating current (A)	12.9	32
		Consumption power (kW)	2.7	17
Power supply		Indoor unit	See INSTALLTION MANUAL for details “Electric Connection”	
		Outdoor unit		
Outline dimensions		Indoor unit	1916mmx668mmx903mm	
		Outdoor unit	1380mmx1630mmx830mm	
Weight (kg)		Indoor unit	188	
		Outdoor unit	356	
Noise value dB(A)		Indoor unit	45	
		Outdoor unit	63	
Max. input current (A)			39	
Max. input power (kW)			24	
Circulating air volume(m^3/h)			7000×2	
Standard static pressure (Pa)			196	
Control mode			Remote control / wire control	

NOTE :

1. The cooling capacity of the air conditioner is measured in a standard environment where the indoor dry/wet bulb temperature is 35°C/24°C; the heating capacity is measured in a standard environment where the indoor dry/wet bulb temperature is 20°C/15°C and the outdoor dry/wet bulb temperaturCONTENTe is 7°C/6°C; and the actual cooling/heating capacity changes with the rise/fall of the indoor/outdoor environment temperature and relative humidity.
2. The noise of the unit is measured in the semi noise suppression lab according to the national standards.
3. At practical operation, the noise of the air outlet will be changed by the change of ventilation pipe. The actual experienced noise value is about 45Db(A), or even lower (after installing the quite deice.)
4. The above value 4400 m/h of air circulating volume was output at zero static pressure, which will be decrease by increase of air circulating volume.

5.NAMES AND FUNCTIONS OF AIR CONDITIONER COMPONENTS

This unit is compose by indoor unit, outdoor unit, connective pipe and remote controler.(See indication figures as below)



6.OPERATION PRECAUTIONS

Read this operation manual carefully before operating the unit. Grasp the key points in the manual, and seek help from the Midea distributor for any question.

This air conditioner is designed to provide a comfortable room environment, and is applicable to the purposes described in the manual only.

1. Inspection before operation

- Check whether the ground wire is broken or disconnected.
- Check whether the air filter is installed properly.
- If the air conditioner has been out of service for a long period, be sure to clean the filter before resuming the service of the air conditioner. Cleanse it biweekly during continuous service of the air conditioner. For details, see the chapter headed “Maintenance and Upkeep”.
- Check that the air inlet and outlet of the indoor/outdoor unit are not blocked.

2. Safety precautions

- Do not let the indoor unit or remote controller moistened.
  Otherwise, electric short-circuit or fire may occur.
- Do not use or store flammable gases or liquids near the air conditioner, e.g., hair styling jelly, paint and gasoline.
  Otherwise, fire may occur.
- Do not touch the deflector plate while the air deflector works.
  Otherwise, the fingers may be clipped or the driving parts of the indoor unit deflector may be damaged.
- When the fuse blows out, do not substitute any fuse of an improper nominal current value or other wires.
  Substituting conductor or copper wire for fuse may cause damage to the air conditioner or cause fire.
- Do not insert any objects like sticks into the air inlet or outlet.
  It is very dangerous when the blade touches any foreign objects during high-speed running of the fan.
- Do not remove the fan cover of the outdoor unit.
  The fan without any external cover is very dangerous during high-speed running.
- Do not use the main power switch to start up or shut down the air conditioner, but use the ON/OFF button on the remote controller.
- Do not let children toy with the air conditioner.
- Do not repair the air conditioner by yourself.
  Delegate professional maintainers to do the repair.
- Cut off the main power switch before cleansing the filter and the unit body. This unit is grounded and provides dual protection against accidental electric shock. No electric shock will occur when you normally replace or cleanse the filter or use a dry cloth to clean the unit body. HCheck the following issuesowever, to be on the safe side, cut off the power supply before performing maintenance or up-keep work.
- ElCheck the following issuesectric leakage protective device and electric master switch must be installed in the circuit.

7.BEST RUN OF THE UNIT

- Pay attention to the following issues to ensure that the system is in normal operation. For detailed operation procedure, see the corresponding instructions.
- Adjust the air flow direction properly, and do not aim the air flow at the persons in the room directly.
- Adjust the room temperature properly to get a comfortable environment. Avoid being too hot or too cold.
- In the cooling operation, use curtains or window shades to prevent direct sunlight.
- Close all windows and doors. If the doors and windows are open, the air in the room will flow out and the effect of cooling/heating will be compromised.
- Set the predetermined operation time through the remote controller.
- Do not put any objects near the air inlet or outlet which obstruct air flow.
  Otherwise, it will reduce efficiency of the air conditioner or even lead to system interruption.

NOTE :

- Before leaving the unit idle for a long period, cut off the main power switch, and remove the batteries in the remote controller.
  When the main power switch is turned on, a certain extent of electric power is consumed even if the air conditioner does not run. Turning off the main power switch can save energy. Please connect the main power supply for 12 hours before restart the unit for guarantee the normal operation of the units.
- Cleanse the air filter every another two weeks. The effect of cooling or heating will be compromised if the air filter is blocked. Consign the perfessional personnel to clean and maintain the ventilating slot, water drainage system regularly.

Cooling operation	Outdoor temperature:17~43°C
	Indoor temperature: ⩾17° C
	Precaution: The indoor relative humidity should be lower than 80%. If the air conditioner works in an environment with a relative humidity higher than mentioned above, the surface of the air conditioner may condensate. In this case, it is recommended to set the air speed of the indoor unit to high.
Heating operation	Outdoor Temperature：-7~24°C
	Indoor T emperature：⩽ 30°C
Dewetting operation	Outdoor Temperature：17~43°C
	Indoor Temperature ： 17~32°C

NOTE :

If the air conditioner works in other than the above circumstances, functions may fail.

8.MAINTENANCE & UPKEEP

Importants:

- Only the professionals can perform repair.
- Before performing operation for the electric connectors or cleansing the filter, turn off the main power switch.
- Do not use water or air with a temperature higher than 50°C to cleanse the filter or panel.
- Check and maintain the ventilating slot once every half years, wash and maintain with corresponding disinfection shall process once every two years are recommended. The filter can expel dust and other particles in the air. If it is blocked, the effect of the air conditioner will be degraded.Therefore, clean it every another two weeks if you use the air conditioner for a long period.
- If the indoor unit is installed in a place with heavy dust, clean the filter more often.
- If the stain is heavy and difficult to clean, replace the filter (the substitute filter is an optional assembly in the sale).
- Do not replace the power cable without permission. If the power cable is damaged, specialized power cable must be used as substitute. No not repair the air conditioner without permission. The foregoing operations must be performed by the local distributor or aftersales service office of Midea.

Maintenance & upkeep of outdoor unit

1.The edge of some sheet metal assemblies and the fin of the condenser are very sharp. Incorrect operation may cause harm. Be cautious when cleaning them up.
2.Check the air inlet and outlet of the outdoor unit periodically to see whether they are blocked by stain or lampblack.
3.Contact the distributor or the aftersales service center of Midea.

- **Operation required before leaving the air conditioner idle for a long period:**
- Let the air conditioner run in the air supply mode for about half a day, and let its interior be fully dry.
  Switch off the power by the button in remote controller, and then cut off the power supply.
  When the main power switch is turned on, a certain extent of electric power is consumed even if the air conditioner does not run. Turning
- off the main power switch can save energy.
  Remove the batteries out of the remote controller.
- After the air conditioner has been in service for several seasons, foreign substance accumulates inside the unit to an extent dependent on the working conditions. Therefore, shut down the air conditioner through the ON/OFF button of the remote controller, and then cut off the power supply.

Startup after a long period out of service

1) Check the following issues:
- Check whether the air inlet or outlet of the indoor unit and outdoor unit is blocked. Remove foreign substance if any.
- Check whether the ground wire is connected properly.
- Check whether the condensate water is discharged normally.(Cooling operation season)
- Check whether the insulation work of refrigerant circuit and ventilating duct is on sound status.
- Check whether the installing seat is corroded or rusted.

2) Startup
- Connect the indoor unit 12 hours after connect the outdoor unit to power supply.
- Switch on the power control of remote controller or wire controller, and than startup the air conditioning.

9. PHENOMENA NOT ATTRIBUTABLE TO FAULTS OF AIR CONDITIONER

The following phenomena do not indicate exception of air conditioner

1. The system does not run.
- After pressing the ON/OFF button, the system does not run immediately.
- If the RUN indicator is on, it indicates the air conditioner runs in the normal status.
- It does not run immediately because the safety device in the system is active to prevent overload.
- Three minutes later, the air conditioner compressor will run automatically.
- If the RUN indicator and the Defrost/Preheat indicator are on, it indicates you have selected the heating mode.
  At the beginning after startup, since the compressor does not run, the temperature of the indoor unit is too low. See the chapter headed "Cooling/Heating/Supply Air Operation Procedure".

2. The indoor unit gives out white aerosol
- This phenomenon may occur when the indoor relative humidity is too high and the unit runs in the cooling mode (in a place where there is much oil mist or dust).
- If the internal stain of the indoor unit is heavy, the temperature in the room will be distributed unevenly. In this case, the interior of the indoor unit must be cleaned.
  Contact the local distributor or the aftersales service center of Midea to inquire about the methods of cleaning the indoor unit. This job must be performed by professional maintainers.
- This phenomenon may also occur when the air conditioner shifts from defrosting operation to heating operation.
- That is because the moist generated by defrosting is expelled as steam.

3. Noise of air conditioner
- When the air conditioner runs in the cooling, dewetting or heating mode automatically, grave continuous sizzles may occur.
- That is the sound of flow of refrigerant between the indoor unit and the outdoor unit.
- The sizzles may be heard shortly after the unit stops running or when the unit runs in the defrost mode. That is the sound raised because the refrigerant stops flowing or changes the volume of flow.
- Squeak may occur when the air conditioner starts or stops running. That is the sound raised because the plastic assemblies inflate or deflate when the temperature changes.

4. Dust is blown out of the indoor unit.
- When the air conditioner resumes service after a long period out of service, the dust in the indoor unit will be blown out.

5. The indoor gives out smell
- The indoor unit absorbs the smell of the room, furniture or smoking, and gives it out when running.

6. Shift from cooling mode to air supply mode.
- In order to prevent frosting of the indoor heat exchanger, the air conditioner shifts to the air supply mode automatically, and resumes to cooling mode in a short time.
- When the room temperature decreases to the set temperature, the air conditioner will shut down the compressor automatically, and shifts to the air supply status. After the room temperature rises, the compressor will restart. The action of the compressor in the heating mode is the contrary.

10. FAULTS OF AIR CONDITIONER AND CAUSE

1. If any of the following exceptions occurs, stop operation of the air conditioner immediately. Turn off the power switch, and contact the local aftersales service center of Midea:
   The RUN indicator blinks quickly (2 blinks per second).
   After turning off the power switch and then turning it on again, that indicator still blinks quickly.
   The receiving function of the remote controller fails, or the start/shutdown operation is abnormal.
   The fuse blows out frequently, or the circuit breaker protection occurs frequently.
   Foreign substance or moist enters the air conditioner.
   The indoor unit leaks water.
   Other exceptions occur.
2. If the air conditioner fails but does not meet the foregoing phenomena obviously, check the system in the following procedure:

Symptom	Possible causes	Way of handling
The system does not run	• Power supply fails • The power switch is not connected • The fuse blows out or the circuit breaker snaps off. • The remote controller or the wire controller fails	Operate it after power supply resumes. Connect the power supply properly. Replace the fuse or check whether electric leakage occurs. Check the remote controller or wire controller.
The air condition -er sends air out but cannot pro -vide cool air at all	• The set temperature is improper. • 3-minute protection of the compressor	The set temperature is lower than the room temperature during the cooling. Or the set temperature is higher than the room temperature during the heating.
The unit keeps starting up and shutting down frequently	• The refrigerant is excessive or deficient. • Air or non-condensable gas exists in the refrigerant loop. The compressor fails. • The voltage is too high or too low. • The refrigerant loop is obstructed •	Detect leak, and fill the refrigerant of a correct quantity. Make a vacuum again and fill the refrigerant. Repair or replace the compressor. Install a voltage regulator. Locate the causes and replace the part.
The cooling effect is poor	• The condenser of the outdoor unit or indoor unit is too dirty. • The filter is blocked. • The intake orifice or exhaust orifice of the outdoor/indoor unit is blocked. • The door or window is open • Directly exposed to sunlight. • Too many heat sources. • Too high outdoor environment temperature • The refrigerant is leaked or the replenishment is deficient.	Cleanse the condenser. Cleanse the filter Remove foreign matters to keep well ventilated. Close all windows and doors. Use curtains or jalousie to obstruct sunlight. Reduce heat sources The cooling effect of the air conditioner is deteriorated (but normal). Detect leak, and fill the refrigerant of a correct quantity.
The heating effect is poor	•The outdoor environment temperature is lower than -7℃ •The door or window is not closed tightly. •The refrigerant is leaked or the replenishment is deficient.	Use a heating device. Close doors and windows properly. Detect leak, and fill the refrigerant of a correct quantity.

11. FAULTS OF REMOTE CONTROLLER AND CAUSE

Before requesting for maintenance or repair, inspect the following:

The shift function cannot be set		
Symptom	Check item	Cause
The wind speed cannot be shifted.	Check whether the mode marked on the screen is AUTO.	When you select the AUTO mode, the indoor unit will select "AUTO" for the air speed automatically.
	Check whether the mode marked on the screen is DEWET.	When you select the DEWET mode, the indoor unit will select "AUTO" for the air speed automatically. The air speed is selectable only in the “cooling”, “heating” and “supply air” mode.

The transmitting symbol “▲” does not blink		
Symptom	Check item	Cause
When you press the (ON/OFF) button, the remote controller signal cannot be transmitted.	Check whether the batteries of remote controller are low.	When the batteries are exhausted, the signals cannot be transmitted.

The temperature indicator does not light up		
Symptom	Check item	Cause
The temperature indicator does not light up.	Check whether the mode marked on the screen is Supply Air.	In the Supply Air mode, the temperature cannot be set.

The display disappears		
Symptom	Check item	Cause
After a while, the (ON/OFF) display disappears.	Check whether the time set on the timer has expired.	The air conditioner stops running because the set time has expired.
After a while, the TIMING ON display disappears	Check whether the time set on the timer has expired.	When it comes to the set time of starting operation of the air conditioner, the air conditioner will start running automatically, and the corresponding display will disappear.

No sound of receiving signal		
Symptom	Check item	Cause
When pressing the (ON/OFF) button, the air conditioner does not raise the receiving tone.	When the (ON/OFF) button is pressed, check whether the signal transmitting part of the remote controller is aligned with the receiving part of the indoor unit. Check whether the power switch of the air conditioner is connected properly.	Align the signal transmitting part of the remote controller with the receiving part of the indoor unit. Then press the (ON/OFF) button repeatedly. The air conditioner cannot receive the signals of the remote controller because it is shut down.
The buttons of the remote controller do not work	Check the screen of the remote controller	Lock buttons

12. REPAIR

In case your air conditioner fails to operate normally, shut down the unit and cut off the power supply promptly. Then contact the Midea distributor. Report the model, operation environment and fault information of the air conditioner in detail, request for sending technicians to repair, but do not fix it by yourself at your discretion.

13. DESCRIPTION OF APPLIED STANDARDS

1. Standards applied to the air conditioner

This unit is fully compliant with the national standard GB 4706.32-2004 Security Requirements of Electric Appliance for Unit Air Conditioner.

Applied standard: 18836-2002.

2. Worst work conditions

The maximum heating operation conditions set out in GB/T 18836-2002.

3. Noise

Noise data are values measured in the half-suppressed-noise room in the factory, where the technical requirements are higher than those set out in GB/T 18836-2002.

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