

Instantaneous Gas Water Heater DLS SERIES

USER MANUAL

JSD22-11DLS
JSD28-14DLS

Warning notices: Before using this product, please read this manual carefully and keep it for future reference. The design and specifications are subject to change without prior notice for product improvement. Consult with your dealer or manufacturer for details.
The diagram above is just for reference. Please take the appearance of the actual product as the standard.

THANK YOU LETTER

Thank you for choosing Midea! Before using your new Midea product, please read this manual thoroughly to ensure that you know how to operate the features and functions that your new appliance offers in a safe way.

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SAFETY INSTRUCTIONS

Intended Use

Please pay attention to the precautions and notices as well as contents of installation instruction. Before installation, please read the installation instruction carefully. Installation and trial running must be carried out by professional installers. Illegal installation and improper repair may cause human injury and even death. Before the trial running, please read the service instruction. The heater can be only installed in a room with good ventilation. Quality guarantee can be applied for only after trial running operated by professionals.

Explanation of Symbols

	Danger This symbol indicates that there are dangers to the life and health of persons due to extremely flammable gas.
	Warning of electrical voltage This symbol indicates that there is a danger to life and health of persons due to voltage.
	Warning The signal word indicates a hazard with a medium level of risk which, if not avoided, may result in death or serious injury.
	Caution The signal word indicates a hazard with a low degree of risk which, if not avoided, may result in minor or moderate injury.
	Attention The signal word indicates important information (e.g. damage to property), but not danger.
	Observe instructions This symbol indicates that a service technician should only operate and maintain this appliance in accordance with the operating instructions.

Read these operating instructions carefully and attentively before using/commissioning the unit and keep them in the immediate vicinity of the installation site or unit for later use!

In case of gass mell

- Shut down the heater immediately.
- Close the gasvalve.
- Open all the windows and doors.
- Any lighting of fire or ignition or start-up of electric light is not allowed. Neither is any start-up operation which will generate sparkle.
- Inform its installer or gas supply company.

CAUTION: Precautions for fire

- During operation, don't get close to any flammable and combustible materials or other similar ones.

CAUTION: Precautions for toxication

- Operation should be carried out according to the indications of the attached documents and instructions from the authorized professional installers to avoid toxication accidents which may cause death.
- The heater can only be operated after being equipped with an exhaust pipe(Except for JSZ series). The exhaust pipe should be installed by professionals.
- Only for natural gas: a color change of the flame form blue to yellow indicates that other gas and air is mixed into the natural gas. Please immediately make contact with its installer.

WARNING

When the water heater is working, gas combustion would consume a large amount of oxygen and exhaust much carbon monoxide. In view of the great harm to the human health or even death caused by excessive carbon monoxide inhalation, the company sincerely advises all users that:

- Do not install the flue type(JSD Series) water heater in the bathroom or bedroom; Do not install the natural exhaust type(JSZ series) water heater indoors;
- Install and use the water heater strictly in accordance with the requirements stipulated in the instructions;
- For the flue type(JSD series), install a smoke pipe to exhaust waste gases to the outdoor; make sure the room installed with the water heater has enough fresh air and is well-ventilated.

SPECIFICATIONS

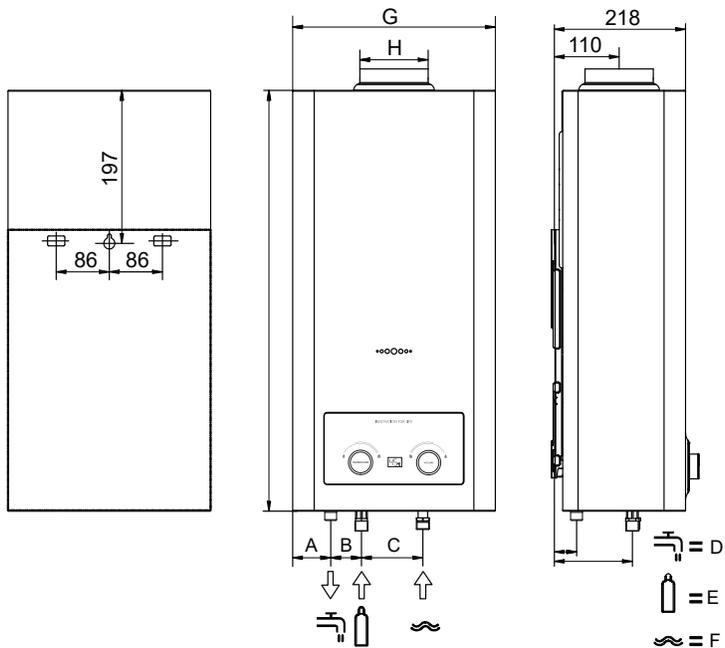
Product Model		JSD22-11DLS				JSD22-11DLS	
Appliance Type		B11BS				B11BS	
Ignition		Battery Ignited				Battery Ignited	
Rated Voltage	V.DC	3				3	
Gas Category		I3B/P(30)	I3+(28-30/37)		I3P(37)	I2H,I2E	
Gas Type		G30	G30	G31	G31	G20	
Gas pressure	mbar	29	28-30	37	37	20	
Nominal Heat Input(Q)	kW	22				22	
Nominal Useful Output	kW	19,4				19,4	19,4
Minimum Heat Input	kW	7,5				8	10,5
Minimum Useful Output	kW	6,8				7	9,2
Efficiency of energy sources		88%				88%	
Max. water pressure	bar	10				10	
Min. water pressure	bar	0,3				0.3	
Max. water flow(2bar)	L/min	11				11	
Min. water flow(2bar)	L/min	5,0				5,0	
Gas connection	inch	1/2"				1/2"	
Cold water connection	inch	1/2"				1/2"	
Hot water connection	inch	1/2"				1/2"	
Flue gas pipe diameter	mm	φ110				φ110	
Maximum temperature of Combustion products	°C	230				230	
Net Dimensions	mm	629×330×213				629×330×213	
Net Weight	kg	10,1				10,1	
Gross Dimensions	mm	740×400×295				740×400×295	
Gross Weight	kg	11,8				11,8	

Product Model		JSD22-11DLS	JSD22-11DLS
Diameter of nozzle	mm	φ0,4	φ0,64
Quantity of nozzle	unit	36	36
Declare load profile		M	M
Water heating energy efficiency class		A	A
Water heating energy efficiency	%	79	79
Daily gas consumption (Corrected)	kWh	7,071	7,071
Daily electrical consumption (Corrected)	kWh	0	0
AEC	kWh	0	0
Annual fuel consumption AFC	GJ	6	6
NOx	mg/kWh	38	23
Indoor sound power level	dB	62	62

Product Model		JSD28-14DLS				JSD28-14DLS	
Appliance Type		B11BS				B11BS	
Ignition		Battery Ignited				Battery Ignited	
Rated Voltage	V.DC	3				3	
Gas Category		I3B/P(30)	I3+(28-30/37)	I3P(37)	I2H,I2E		
Gas Type		G30	G30	G31	G31	G20	
Gas pressure	mbar	29	28-30	37	37	20	
Nominal Heat Input(Q)	kW	28				28	
Nominal Useful Output	kW	24,7				24,7	24,7
Minimum Heat Input	kW	12				9	14,2
Minimum Useful Output	kW	10,5				7,9	12,4
Efficiency of energy sources		88%				88%	
Max. water pressure	bar	10				10	
Min. water pressure	bar	0,3				0.3	
Max. water flow(2bar)	L/min	12				12	
Min. water flow(2bar)	L/min	5,9				5,9	
Gas connection	inch	1/2"				1/2"	
Cold water connection	inch	1/2"				1/2"	
Hot water connection	inch	1/2"				1/2"	
Flue gas pipe diameter	mm	φ120				φ120	
Maximum temperature of Combustion products	°C	240				240	
Net Dimensions	mm	629×330×213				629×330×213	
Net Weight	kg	11,3				11,3	
Gross Dimensions	mm	740×440×295				740×440×295	
Gross Weight	kg	13,1				13,1	

Product Model		JSD28-14DLS	JSD28-14DLS
Diameter of nozzle	mm	φ0,4	φ0,68
Quantity of nozzle	unit	45	45
Declare load profile		XL	XL
Water heating energy efficiency class		A	A
Water heating energy efficiency	%	82	82
Daily gas consumption (Corrected)	kWh	21,826	21,826
Daily electrical consumption (Corrected)	kWh	0	0
AEC	kWh	0	0
Annual fuel consumption AFC	GJ	18	18
NOx	mg/kWh	43	27
Indoor sound power level	dB	62	62

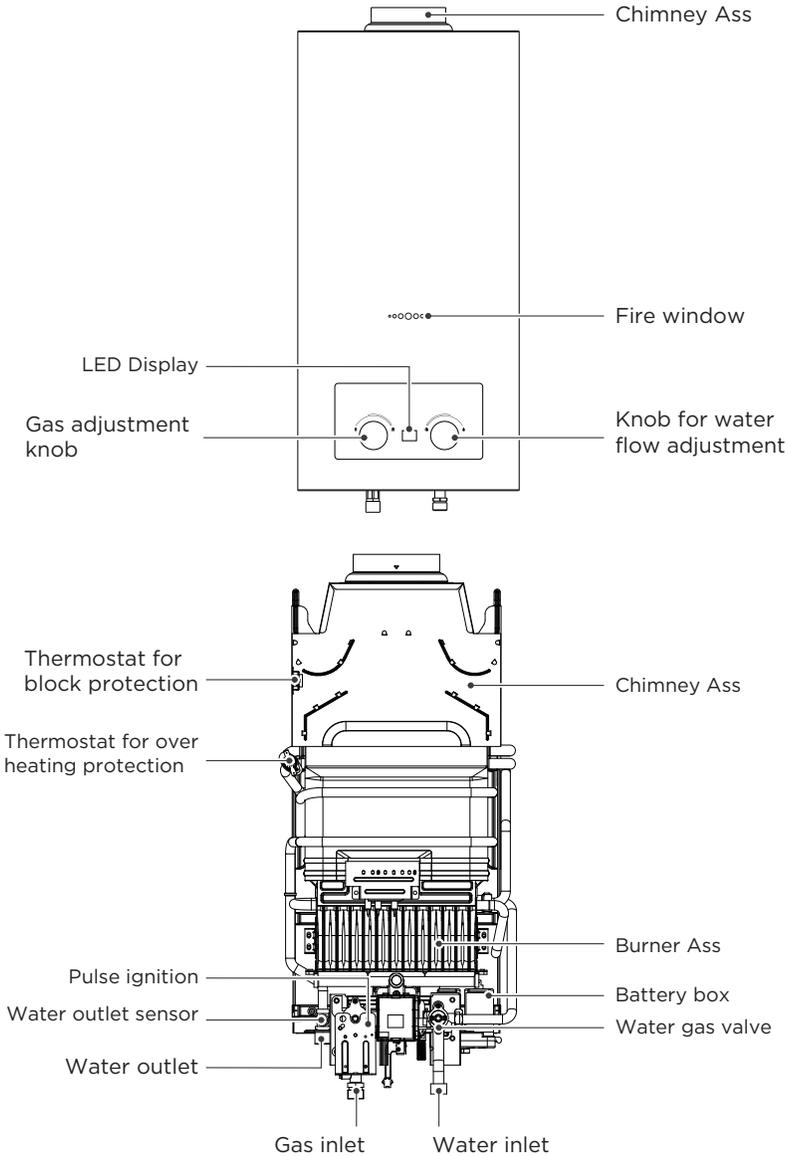
Dimensions and Specifications



	JSD22-11DLS	JSD28-14DLS
A	70	89
B	42	42
C	106	100
 D	32	32
 E	132	132
 F	128	132
G	330	370
H	110	120

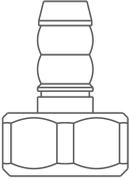
PRODUCT OVERVIEW

Product

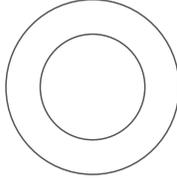


Accessories

Intake connector



Rubber Seal



Expansion screw



Cross pan head tapping screws x2



Rubber stopper x2



QUICK START GUIDE

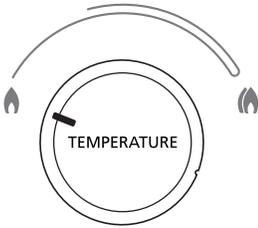
Before First Use

CAUTION

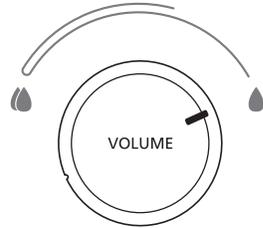
1. Before using, please make sure the gas water heater is installed properly.
2. Before first using, a trial running should be carried out by authorized professionals.
 - Open the battery compartment and put two batteries in (LR20, 1.5V).
 - Turn on the hot water faucet and wait for the water to flow out, and then turn it off.
 - Turn on the gas switch.
 - Turn the temperature knob to the maximum position.
 - Turn on the hot water faucet. Observe the flame from the viewpoint .
 - Turn off the hot water faucet

Control panel

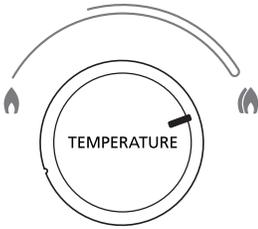
1. Low energy



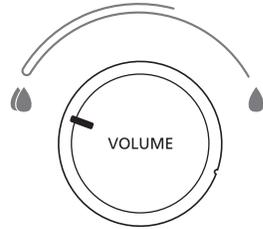
2. Hot water with low volume



3. High energy



4. Hot water with high volume



PRODUCT INSTALLATION

Notices for professional installers

- The instruction for operation and installation is absolutely necessary part of the heater and is provided along with the heater. Please read the documents to guarantee that you have comprehended all the data for an installation, operation and safe service.
- All specific adjustments and inspection for the heater must be provided with the documents which entail the company seal and signature of the installer.
- The heater can be only installed onto the wall of a room without frosts.
- The installation can only be operated by qualified personnel with reference to the instruction and additional documents provided by the manufacturer. Attention should be paid to the relevant prescriptions and norms as well as additional local regulations.
- The heater can only be put into use under the appropriate environmental condition.
- Debugging and the inspection for the quality of gas along with energy efficiency of the heater should be under the charge of qualified professional installers.
- As for user installation, specified adjustments should be done only within the chapter "PRODUCT INSTALLATION" peration Manual.
- During construction, the heater must be carefully protected from dirt and other pollution.
- The heater is only apt for the home water heating, and it should be connected to a home water system corresponding to the technical requirements of the heater.
- The heater can only be installed for the anticipated operation stated by manufacturer.
- Do not leave the packing materials (cardboards, nails, bolts, plastic plate and other similar materials) within reach of children.
- All maintenance and repair can only be operated by authorized professionals.
- If necessary, please cut off the power supply before initiating cleaning and maintenance.
- Neither the seals nor stamps can be destroyed.
- If it is necessary for definitive rupturing operation, please cut off all the connections respectively (electrical power, hydraulic power, gas feeding, exhaust pipe) and make sure all of them are disconnected. The heater and its components must be treated according to the locally effective prescriptions.

The manufacturer would not take responsibility for any damage caused by incorrect installation or use, or by violation of the corresponding prescriptions. Neither would the quality guarantee be offered.

Notices for the users

- Manual for installation and maintenance should be well kept. If replacing the heater, please provide this manual to its successor. For maintenance service, please give this manual to professional serviceman for reference.
- Maintenance, electric installation and inspection should be operated by professionals.
- In case of failure, please disconnect the power supply of the heater immediately and make contact with its installer. Private treatment to the failure is not allowed.
- Neither the seals nor stamps can be destroyed.
- Improper handling or manipulation may cause accidents.
- No touches on hot parts of the heater such as all the tubes and exhaust pipe. Any contact with hot parts can cause burn. Children and laymen must keep remote from the heater during its operation.
- For long-term nonuse of the heater, please close the valve and take out the batteries. If necessary, please disconnect power supply of the heater.
- Any leakage from the heater to be found can be caused by parts failure or deficient installation. Please make contact with its installer.
- For regular operation of the heater, don't close intakes on the door and wall.
- No exposure of the heater in a steamy and greasy environment such as place with a hearth.
- No exposure of the heater in a place with water splash such as bathroom and other wet environment.
- No objects on the water heater.
- Operation of the heater by children or laymen is not allowable, neither is improper operation.
- No blocking or obstruction at the entrance of the heater.

Installation

- The heater can only be installed inside a room. No installation of the heater in frost places. Keep the heater with good ventilation.
- No cables or electric appliances can be placed on the heater.
- Keep the heater away from heat sources such as hearth.
- Please fulfill the cleaning and the maintenance for the heater according to relevant requirements of interval.
- Please maintain a certain distance between vent-pipe and the ceiling of the room or other decorative objects.
- Inflammable materials are banned from being placed less than 500mm away from the heater. If necessary, please install an outer insulating layer.

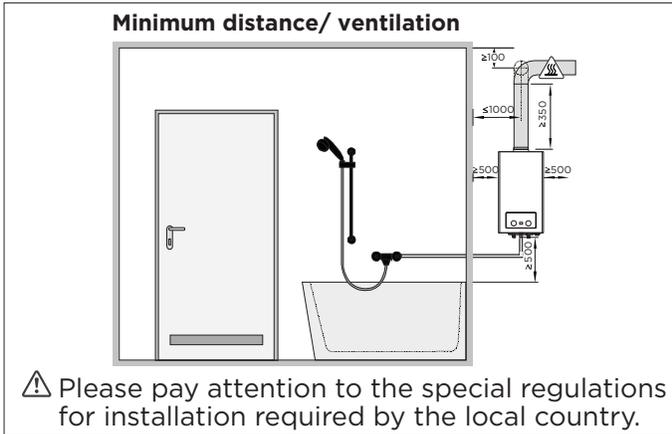
- The heater must be installed onto a vertical wall in a correct vertical way.
- The maximum pressure for which the appliance is designed, stating that even with the effects of water dilation, the water pressure in the appliance shall not exceed this value.
- The air flow in the circumstance around the gas water heater should be according to the follows

Model	Gas Category	Air consumption (m ³ /h)
JSD22-11DLS	I3P(37), I3B/P(30), I3+(28-30/37)	33
JSD22-11DLS	I2H, I2E	21
JSD28-14DLS	I3P(37), I3B/P(30), I3+(28-30/37)	42
JSD28-14DLS	I2H, I2E	26,8

Installation order

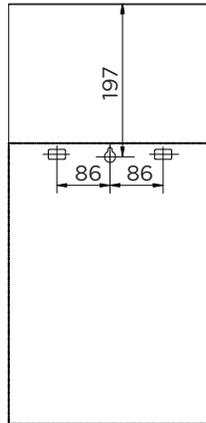
- Confirm the drilling position according to the installation scheme or installation chart in the Speciation Table.
- Open the close cover of the heater and pull out the operation button.
- Screw off the fixed bolts in the lower part of the casing and then take off the casing.
- Fix the heater.
- Take off the plastic hoods used for connections of the heater.
- Install the connectors.
- Mount the casing and then replace the operation button.

- ⚠ The operation of the installation can only be carried out by authorized professionals.
- ⚠ Please pay attention to the special requirements for installation made by the local country.
- ⚠ Please pay attention to the related regulations on the bonding pressure of gas and gas types on the nameplate of the heater.
- ⚠ Before connecting the gas pipe and water pipe to the heater, please pay attention to the cleanout of these pipes to remove impurities and other pollutants.



Installation of the Gas Water heater

- Keep the water heater vertical and not inclined during the installation. As shown in the right diagram, drill installation holes on the wall. Knock the expansion screws into the installation holes on the top for fixing.

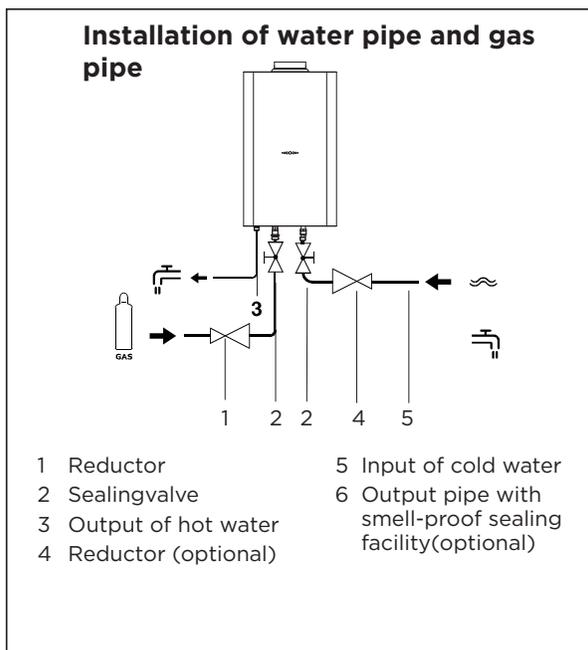


Installation of gas pipe

- A sealing valve of G1/2 must be installed on the gas supply pipe, as shown in the figure.
- If necessary, please install a reductor on the gas supply pipe(only for the butane supply)
- Place a rubber seal ring when using metal hoses.

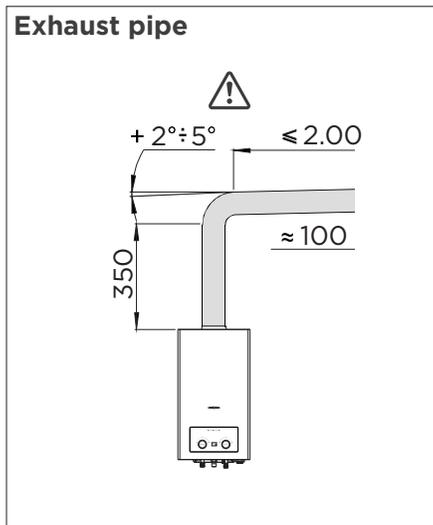
Installation of water pipe

- A sealing valve shall be installed on the pipe of cold water, as shown in the following figure.
- The manufacturer recommends the installation of a reducer on the cold water pipe.
- In case of corrugated pipes, the minimum bending radius shall be 20mm.
- Connect the sealing valve to the attached cold water pipe.
- Connect the sealing valve to the cold water input of the heater.
- Connect the hot water output of the heater to the hot water pipe.

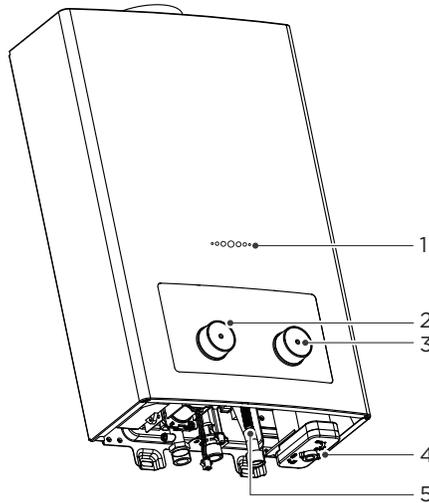


Installation of exhaust pipe

- ⚠ The heater should be equipped with an exhaust pipe or a chimney. Please pay attention to the specific regulations for installation required by the local country.
- Only after finishing the installation of the exhaust pipe can the heater be started for operation. Please pay attention to the requirements for the specification.
 - The parts of the exhaust pipe should be equipped with solid gas funnel with water tightness.
 - The exhaust pipe cannot be oriented to ceiling.
 - An air intake should be introduced into the space of installation in the place near ground.



OPERATION INSTRUCTIONS



	Description
No.1	<p>Ignition The heat will be lit automatically as you turn on the water faucet. If no flame is generated after ignit ion, please close the faucet and turn it on again after 10 minutes. Keep eyes away from the flame indicator window at a minimum safety distance of 300mm during ignition. Note : If the heater is not in operation for a long period, air may enter the gas system. In such case, please repeat the ignition procedures above for several times.</p>
No.2	<p>Power adjustment Gas regulation knob can be used to adjust the volume of gas circulation. This operation can adjust volume of gas circulation and the temperature of hot water.</p>
No.3	<p>Adjustment of water temperature The temperature regulation knob can be used to adjust the volume of water circulation. This operation can change temperature of hot water. If you want to increase the temperature of hot water, please turn the regulator of water temperature clockwise. If you want to reduce temperature of hot water, please turn the regulator of water temperature counterclockwise.</p>
No.4	<p>Install the battery before using the water heater. Turn on the lid of battery box, install 2 batteries and turn off the lid.</p>
No.5	<p>Anti-freezing valve If you don't use the heater for a long period, Open the empty valve to empty out the water inside; when the pressure of inlet water over 1.5Mpa, the valve will automatic pressure relief here.</p>

CLEANING AND MAINTENANCE

A clean and wet cloth can be used for the cleaning of the heater. Dissolvent products are not allowed for the cleaning! Please only clean exhaust pipe in cold state!

Trial running

Trial running should be carried out by authorized professionals. Please check the following items:

- Is the heater connected and installed according to the specifications provided by the manufacturer?
- Do indications of the power panel of the heater accord with the actual installation conditions?
- Are the air intake and the exhaust pipe correctly installed?
- Does the heater accord with the relevant requirements of ventilation? Is the channel of the air intake still not sealed?

Trial running

- Open the battery compartment and put two batteries in (LR20, 1.5V).
- Turn on the hot water faucet and wait for the water to flow out, and then turn it off.
- Turn on the gas switch.
- Turn the energy rectifier to the maximum energy.
- Turn on the hot water faucet.
- Check the flame current
- Please give instructions to users for the running and operation of the heater.

Important notices for repair and maintenance

All the repair and maintenance must be carried out by authorized technicians. The maintenance of the water heater must be fulfilled at least once a year. It is recommended to carry out the maintenance after a period of heating operation. The maintenance and repair must be kept in record. Before cleaning or maintenance and repair, please take off battery from the water heater and turn down the gas switch. Only the original spare parts for maintenance can be used.

If the spare parts used for maintenance are not original, the manufacturer does not assume any quality guarantee. The connecting pieces must be new.

Open the casing

Before maintenance and repair, please open the casing.

- Screw off the two bolts on the casing (at the lower part / back of casing) .
- Take out the operation button.
- Take off slipcover at the lower part of the casing gently: press it upwards and then take it off forwards.

Carrying out the following works of maintenance and repair:

- Check whether the operation of exhaust system is in the perfect state?
- Demount the burner and close the gas output in the case of no operation of the water heater. Please clean burner and the gas nozzle with a brush and a vacuum cleaner.
- Clean heat exchanger with a brush and a vacuum cleaner.
- Remount the burner.
- Check whether the ignition electrode and the controller are intact? If damaged, please replace them with the new ones.
- Check whether the distance between the ignition electrode and surface of fuel is reasonable. This distance should be between 3mm and 5mm .
- Check whether the ignition, operation and disconnection of the heater are in perfect state.
- Check whether the gas connection and the nozzle pressure under rated load are normal.
- Check the tightness of the water and gas.
- Check whether operation of the security device is normal.
- Check whether all the operation performance is in normal state.
- Check whether there is any gas leakage with a soapy solution at gas joint.
- Mount the casing and clean it with a wet rag and soapy water.

TROUBLESHOOTING

When abnormalities are detected such as a gas leak, abnormal combustion (such as tempering, flame lifting, yellow smoke or black smoke emission), peculiar smell and abnormal sound, or other emergent situations, immediately shut off the gas valve and contact the maintenance department or the gas company for treatment.

Problem	Probably Problem reason	Solution
The water heater cannot ignite	<ul style="list-style-type: none"> Wrong type of gas as fuel 	Check the type of gas and ensure the gas type correct
	<ul style="list-style-type: none"> The main gas valve is not opened 	Fully open the main gas valve
	<ul style="list-style-type: none"> There is air in the gas pipe 	Switch on and off the hot water outlet valve continuously until the air is completely exhausted
	<ul style="list-style-type: none"> The power is not switched on and the power fails 	Switch on the power
	<ul style="list-style-type: none"> The gas pressure is improper 	Contact the maintenance personnel to check the pressure regulation valve
	<ul style="list-style-type: none"> The water supply pressure is insufficient and the inlet valve is not opened fully 	Fully open the inlet valve and ask the maintenance personnel to check the water pressure
	<ul style="list-style-type: none"> The flue pipe is blocked and the air pressure is too great 	Ask the maintenance personnel to remove debris and reuse the water heater after the air pressure becomes low
	<ul style="list-style-type: none"> There is an internal failure(Normal no sound of ignite) 	Contact the maintenance department
No hot water flows out	<ul style="list-style-type: none"> The water inlet valve is not opened fully. (The water heater will flame out when the water flow is too low.) 	Fully open the water inlet valve
	<ul style="list-style-type: none"> The start-up time is too short 	Wait for a moment(depends on the distance between water and faucet)
	<ul style="list-style-type: none"> The water freezes 	Remove the ice

Problem	Possible reason	Solution
No hot water flows out	<ul style="list-style-type: none"> The gas is used up or not enough 	Add gas
The water is not hot enough	<ul style="list-style-type: none"> The water flow is too large and the heating capacity of the water heater is insufficient 	Lower the water flow
	<ul style="list-style-type: none"> The main gas valve is not opened fully 	Fully open the main gas valve
	<ul style="list-style-type: none"> The set temperature is too low 	Raise the temperature
The water is too high	<ul style="list-style-type: none"> The water flow is too low 	Increase the water flow
	<ul style="list-style-type: none"> The temperature is set too high 	Lower the temperature
Display error/ No display	<ul style="list-style-type: none"> The wire is broken 	Contact the maintenance department
stops working intermittently within 20mins	<ul style="list-style-type: none"> The smoke pipe is blocked 	Clean the smoke pipe

The following phenomena are not failures:

Problem	Root Causes and Corrective Actions
The vent release white smoke	The room temperature is too low, so the exhaust gas is condensed into white fog when meeting the outdoor cold air.
The hot water becomes cold because of low flow.	When the hot water is in low flow (below the start-up water pressure), the water heater blows out and hot water becomes cold. Therefore, do not leave the hot water in low flow.
In winter, the high-temperature water cannot flow out.	When the supply water temperature is too low and the water volume control knob is switched to the large mode, the heating capacity of the water heater may be insufficient. At this point, please switch the season change knob to the "Winter-Spring" mode or lower the water flow appropriately.
In summer, the low-temperature water cannot flow out.	When the supply water temperature is too high, the temperature is set low and the hot water faucet is turned down, the outlet hot water temperature may be too high. At this point, please switch the season change knob to the "Summer-Autumn" mode or increase the water flow appropriately.
The water heater flames out suddenly after being used for 20min.	In case of the lack of oxygen, some models have the 20-minute timing protection function, that is, after a 20-minute continuous use of the water heater, the water heater will automatically extinguish. Please turn off the hot water faucet and use the water heater after a while.

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All the described functions and instructions were up to date at the time of printing this manual. However, the actual product may vary due to improved functions and designs.

DISPOSAL AND RECYCLING

Important instructions for environment

Compliance with the WEEE Directive and Disposing of the Waster Product:
This product complies with EU WEEE Directive (2012/19/EU). This product bears a classification symbol for waster electrical and electronic equipment (WEEE).

This symbol indicates that this product shall not be disposed with other household wastes at the end of its service life. Used device must be returned to official collection point for recycling of electrical electronic devices. To find these collection systems please contact to your local authorities or retailer where the product was purchased. Each household performs important role in recovering and recycling of old appliance. Appropriate disposal of used appliance helps prevent potential negative consequences for the environment and human health.



Compliance with RoHS Directive

The product you have purchased complies with EU RoHS Directive (2011/65/EU). It does not contain harmful and prohibited materials specified in the Directive.

Package information

Packaging materials of the product are manufactured from recyclable materials in accordance with our National Environment Regulations. Do not dispose of the packaging materials together with the domestic or other wastes. Take them to the packaging material collection points designated by the local authorities.



DATA PROTECTION NOTICE

For the provision of the services agreed with the customer, we agree to comply without restriction with all stipulations of applicable data protection law, in line with agreed countries within which services to the customer will be delivered, as well as, where applicable, the EU General Data Protection Regulation (GDPR).

Generally, our data processing is to fulfil our obligation under contract with you and for product safety reasons, to safeguard your rights in connection with warranty and product registration questions. In some cases, but only if appropriate data protection is ensured, personal data might be transferred to recipients located outside of the European Economic Area.

Further information are provided on request. You can contact our Data Protection Officer via **MideaDPO@midea.com**. To exercise your rights such as right to object your personal data being processed for direct marketing purposes, please contact us via **MideaDPO@midea.com**. To find further information, please follow the QR Code.



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