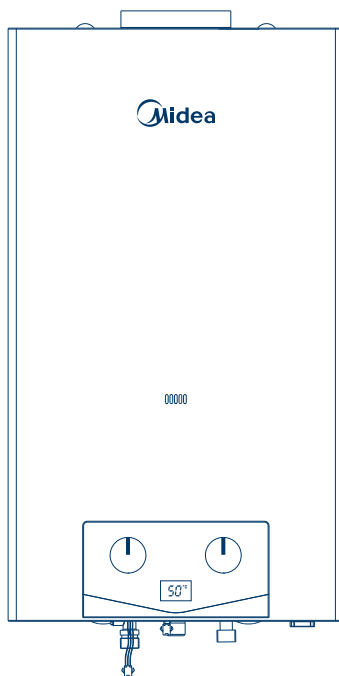




**WATER HEATER**

GAS WATER HEATER

# Instruction Manual



Thank you very much for purchasing our water heater. Before installing and operating your water heater, please read this manual carefully and keep it for future reference.

Model: JSD12-6DH4  
JSD20-10DH4

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	<p>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.</p> <p><b>Information about manufacturer</b></p> <p>The heater corresponds to requirements of CE standard, and accord with the following directives:</p> <ul style="list-style-type: none"> <li>●90/396/EWG; legal Facilities directives of the Member States for Natural Gas Installation.</li> <li>●89/336/EWG; Directives for the electromagnetic compatibility.</li> <li>●EN 26; water heaters in the sanitary equipped with atmospheric gas burner with natural gas as fuel.</li> <li>●EN 50165; non-electronic electrical apparatuses for home use and other similar uses.</li> <li>●EN 55014; electromagnetic compatibility. Requirements of electromagnetic appliances, electronic tools and other similar apparatuses.</li> <li>●EN 61000-3; Electromagnetic compatibility (CEM)</li> <li>●EN 60335-1; non-electronic heating apparatuses for home use and other similar uses</li> </ul> <p><b>Supplying details</b></p> <ul style="list-style-type: none"> <li>●1 x gas water heater</li> <li>●1 x Installation instructions</li> <li>●4 x bolts and tube expander</li> <li>●2x coupling hose and linker</li> </ul> <p><b>Conditions on quality guarantee</b></p> <ul style="list-style-type: none"> <li>●All rights for quality guarantee can only be exercised in the country where the purchase of the heater occurs.</li> <li>●For more information about the quality guarantee, please contact the designated agent or importer.</li> </ul> <p><b>Transportation and storage</b></p> <p>To assure heaters without any possible damages, the heaters must be transported in well packing. The allowable temperatures for transportation and storage are between -50°C and +70°C.</p>

# Professional installers/ users

## 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.
- Professional refers to a person who is familiar with technical knowledge relevant to heating technology and drinking water supply.
- 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 operation 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.

## Precautions for the water heater








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!

## Repair and maintenance

- Repair and maintenance for the heater should be provided once at least every year. It is recommended to provide repair and maintenance after a period of heating.
- All repair and maintenance should be carried out by authorized professionals.

# Instructions

## Signs

-  indicates a danger of possible accident, possible wrong debugging, or possible installation.
-  indicates a special danger, especially for the danger in state of electrical connection.
-  indicates heat gain in the parts on which any touch will cause injuries.
-  indicates specific environments.
-  indicates that there are relevant documents for reference or information attached.
-  indicates an interruption of installation or operation.
-  Indicates further information for the installer or the user.

## In case of gas smell

- Disconnect the heater immediately.
- Close the gas valve.
- 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.





## Precautions for fire

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

## 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. The exhaust pipe should be installed by professionals.
- Only for natural gas: a color change of the flame from blue to yellow indicates that other gas and air is mixed into the natural gas. Please immediately make contact with its installer.

## Disorders elimination

-  Any nonobservance of the following indications will pose a danger of death!
-  Any try on private repair is not allowed under any conditions.
-  No operation can be conducted to the heater with malfunction under any conditions.
-  Please use exclusively original spare parts. Otherwise, manufacturer would not be responsible for quality guarantee.

## Modification and renewal

Consultation should be held with professionals after any constructive modification. Constructive modifications refer to modification of the volume of the room, the installation of windows or the closure of the windows and the assembly of mechanical equipment for ventilation (smoke extractor, and air extractor in washroom for example). Constructive modifications of exhaust equipment refer to changes of environmental temperature and the humidity caused by installation of sauna and pool in the room with gas equipment.

# Service instruction

## Ignition

The heat will be lit automatically as you turn on the water faucet. If no flame is generated after ignition, 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.

## 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:

## 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.



Please keep the sealing valve at the cold water inlet completely open. Don't reduce the water circulation by means of closing the valve.

## Control panel



Low energy



Hot water with low temperature



High energy



Hot water with high temperature

## Anti-freezing measures and putting out of service

If you don't use the heater for a long period, please conserve the heater in the following ways:

- Close the switch of the gas.
- Extract the batteries from the battery compartment.
- Close the sealing valve at the cold water inlet.
- Adjust the temperature regulator to the lowest temperature.
- Turn on hot water switch.
- Open the empty valve to empty out the water inside
- Close the empty valve.

## Failure of the flame during the operation of the heater

When flame goes out during the operation, the heater will activate security thermostat. In this case the gas feeding will be cut off automatically. Only after the heater has cooled off can it ignite once again:

- Please remain adequate ventilation of the exhaust outlet with caution.
- Cool the heater off.
- Turn off the water faucet and turn it on again.

If the heater fails to start the operation, please refer to the general table of failures in the troubleshooting chapter. If there is still the failure, please make contact with its installer for solution.

## Anti-blockage function

The GWH have the anti-blockage function inside the exhaust system. In case the exhaust duct being blocked, the thermostat on the fume collector would shut off the gas of the GWH in order to keep safety.

When the GWH accidentally shut off, please check the exhaust duct is blocked or not and keep it well exhaust. After that, you can use the GWH again. Provided that you still could not use it. Please contact the after-sale service or the professional maintenance. The thermostat is for safety. Don't remove it or make it short circuit.


When the thermostat on the fume collector cannot work properly and needs replacing. It is requested to use the same device of the same model provided by the manufacturer. Check whether the device can work normally after replace by restarting the gas water heater.


The thermostat is for safety. Don't remove it or make it short circuit.


# Installation instruction

## Model of B11BS heater

The heater is equipped with an exhaust security thermostat. If the exhaust outlet is not completely open, the thermostat is activated. Once the gas valve is closed, the heater will have an ignition once again after it has cooled off.

 The operation of exhaust monitor is disabled or put out of service.

 The operation of exhaust monitor can cause damages to the health or even the death.

 This heater only can be installed in a room with good ventilation.

## Installation

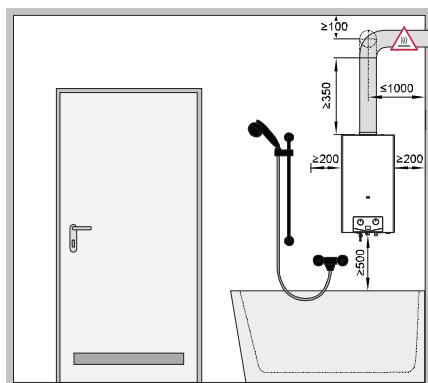
- The heater can only be installed inside a room.
- No installation of the heater in frost places.
- Keep the heater with good ventilation.
- No cables or electric appliances can be placed on the heater.
- Keep the heater away from heat sources such as hearth.
- Please fulfill the cleaning and the maintenance 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 <sup>3</sup> /h)
JSD12-6DH4	I <sub>3</sub> B/P(30)	18
	I <sub>3</sub> +(28-30/37)	
JSD20-10DH4	I <sub>2</sub> H, I <sub>2</sub> E,	12
	I <sub>3</sub> B/P(30)	29
	I <sub>3</sub> +(28-30/37)	
	I <sub>2</sub> H, I <sub>2</sub> E,	19

## Installation order


- Confirm the drilling position according to the installation scheme or installation chart in the Specification 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.


## Minimum distance/ ventilation





 Please pay attention to the special regulations for installation required by the local country.

## Installation of the heater

 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.

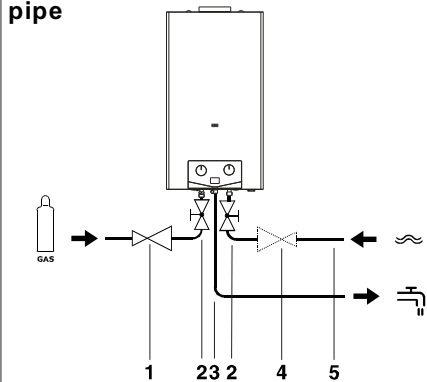
 Please pay attention to the related regulations on the bonding pressure of gas and gas types on the nameplate of the heater.

 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 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)

## Installation of water pipe and gas pipe




- |   |                     |   |  |
|---|---------------------|---|--|
| 1 | Reductor            | 5 | Input of cold water                                      |
| 2 | Sealing valve       | 6 | output pipe with smell-proof sealing facility (optional) |
| 3 | Output of hot water |   |  |
| 4 | Reductor (optional) |   |  |

## Installation of water pipe

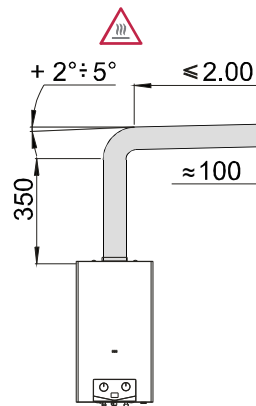
- A sealing valve shall be installed on the pipe of cold water, as shown in the following figure.
- The manufacturer recommends the installation of a reductor on the cold water pipe.
- In case of corrugated pipes, the minimum bending radius shall be 20mm.
- Connect the sealing valve to the attached cold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

## Exhaust pipe



# Trial running / Maintenance

## 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
- Check the trial running of nozzle according to the nozzle table.
- 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.

## Troubleshooting

No flame	Different types of gases as fuel	Open the gas valve For connection with use of butane: Check the gas cylinder, if necessary, please replace it with a new one.
	Air in the gas feeding	Close and open the distributor for several times
	The battery is null or placed in wrong direction	Please check the polarity of the batteries, if necessary, please replace them with new ones.
	No hot water	Open the distributor of hot water
Low water temperature	The gas valve is not completely on	Open the gas valve completely
During the operation of the water heater, flame goes out	The exhaust system is blocked	Check whether the exhaust pipe is fluent or not
	When the water pressure is too low, the rectifier of water pressure will be disconnected from the water heater	Reduce some energy and check the connecting state of water



If there is any failure, please make contact with the corresponding technical service department or an installer!

## 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 5 mm.
- 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.

### Maintenance and repair of butane facility



If a hosepipe is used to connect the gas, please replace it with a new hosepipe once a year.





# Specifications

Model		JSD12-6DH4				JSD20-10DH4			
CE-Pin		0063CR7751				0063CR7674			
Appliance Type		B11BS		B11BS		B11BS		B11BS	
Ignition		Battery Ignited		Battery Ignited		Battery Ignited		Battery Ignited	
Rated Voltage	V.dc	3		3		3		3	
Gas									
Gas Category		I3B/P(30)	I3+(28-30/37)		I2H, I2E,	I3B/P(30)	I3+(28-30/37)		I2H, I2E,
Gas Type		G30	G30	G31	G20	G30	G30	G31	G20
Gas pressure	mbar	29	28-30	37	20	29	28-30	37	20
Power									
Nominal Heat Input(Q)	kW	12		12		20		20	
Nominal Useful Output	kW	10.2		10.4		17.2		17	
Minimum Heat Input	kW	6.8		4.7		9.5		11.7	
Minimum Useful Output	kW	6		4.1		8.5		10	
Efficiency of energy sources		85%		86%		86%		85%	
Water supply pressure									
Max. water pressure	bar	10		10		10		10	
Min. water pressure	bar	0.5		0.5		0.5		0.5	
Max. water flow (2bar)	L/min	6		6		10.3		10.3	
Min. water flow (2bar)	L/min	2.3		2.3		5.2		5.2	
Connections									
Gas connection	inch	1/2"		1/2"		1/2"		1/2"	
Cold water connection	inch	1/2"		1/2"		1/2"		1/2"	
Hot water connection	inch	1/2"		1/2"		1/2"		1/2"	
Flue gas pipe diameter	mm	φ 100		φ 100		φ 110		φ 110	
Maximum temperature of exhaust pipe Q Hi **		140				150			
Flue gas pipe length									
Max. horizontal flue gas pipe	m	3		3		3		3	
Max. vertical flue gas pipe	m	0.9		0.9		0.9		0.9	
Net dimensions / net weight									
Dimensions	mm	493x320x146		493x320x146		590x330x195		590x330x195	
Weight	kg	6		6		9.3		9.3	
Gross dimensions / net weight									
Dimensions	mm	590x370x200		590x370x200		685x400x270		685x400x270	
Weight	kg	7.1		7.1		11.4		11.4	

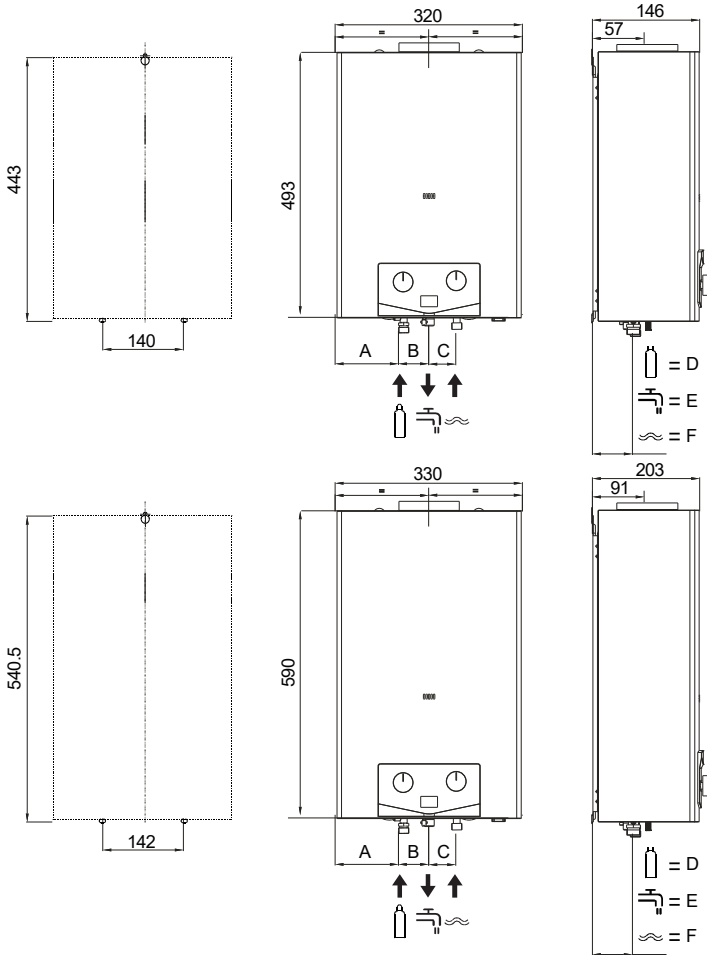
Table of nozzle pressure

Nozzle									
Diameter of nozzle	mm	φ 0.7		φ 1.10		φ 0.71		φ 1.14	
Quantity of nozzle	unit	6		6		10		10	



**Re-equipment or changing into other gas types is not allowed!**

# Dimensions and Specifications



	786064	786104
A	106.5	112
B	53.5	53
C	53	48
D	45.6	67
E	34.5	53
F	42	71

## Maintenance registration table

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Authenticator for maintenance

Maintenance content:

Maintenance personnel:

" Company Stamp/ signature:#

Authenticator for maintenance

Maintenance content:

Maintenance personnel:

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**make yourself at home**