

Instant Electric Water Heater

USER MANUAL

DSF55EA1(W)

Warning: All the contents of this Guide have been checked carefully. If there are any printing errors OR misunderstanding, please contact Midea customer service team.

It will be compiled into the new version of the guide without any notice if there are any technical improvements. The diagram above is just for reference. Please treat the appearance of the actual product as final.

Thank you for choosing Midea! Please read this user manual be carefully before using this new appliance to ensure that you have a better understanding of the product features, and know how to operate this product in a safe way.

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SAFETY INSTRUCTIONS

Intended Use

The following safety guidelines are intended to prevent unforeseen risks or damage from unsafe or incorrect operation of the appliance. Please check the packaging and appliance upon arrival to make sure everything is intact and ensure a safe operation. If you find any damage within 7days after purchase, please contact the retailer or dealer. Please note that modifications or alterations to the appliance are not allowed due to the safety concern. Unintended use may cause hazards and loss of warranty claims. Please refer to the terms & conditions at the warranty card or Midea HK official website.

Explanation of Symbols



Warning

This signal indicates a hazard with a medium level of risk which, if not avoided, may result in death or serious injury.



Note

This signal indicates important information (e.g. damage to property), but no danger involved.



Caution

This signal indicates a hazard with a low level of risk which, if not avoided, may result in minor or moderate injury.

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!

↑ CAUTION

To prevent personal injury, injury to others and property damage, the instructions below must be followed. Incorrect operation due to failure to follow instructions will cause harm or damage.

Special Cautions

- This water heater is for household, and it can be installed wherever place that need hot water.
- Plug is not used for this water heater; this water heater must be connected directly with power switch that comes with leakage-protection. Please distinguish live line (red/brown), neutral line (blue) and earth line (green/yellow) during installation.
- Please check whether the amperes of the household wiring is enough before installation. Dedicated circuit must be used for such installation.
- Before installing this water heater, check and confirm that the earth electrode on the socket is reliably earthed without electricity pass through.
- The hot water from the water heater may cause scald, please test the temperature of the hot water before use.
- The distance between where the water heater installed and the water output should be as nearby as possible in order to avoid heat loss.

↑ CAUTION

- The electric water heater may be damaged if the water hardness is too high. To ensure longer product lifespan, please install and use under the condition that local water hardness is less than 450mg/L (CaCO3)
- In time of lightning/thunder, switch "Off" the Miniature Circuit Breaker (MCB) in advance to protect the water heater against possible damage.
- · Cut-off power supply before any maintenance. Any maintenance or alteration towards this product by non-professional is highly prohibited.
- If the power cord is damaged, please stop use the appliance immediately and contact Midea customer service center for product maintenance.
- In order to avoid a hazard due to inadvertent resetting of the Earth Leakage Circuit Breaker (ELCB), this appliance must not be able to have electricity supplied through an external switching device, such as timer or connected to a circuit that is regularly switched "On" and "Off" by the utility.
- For any improper installation and incorrect operation of this product, our company will not be liable for any responsibility.
- This water heater can be used for different purpose, eg. Washing hands, dishes or foods, and so on. (Multi directional water supply is not available).
- We declare that DSF55HK unit be connected only to a supply with the relevant system. impedance no more than 0.161 ohm. Restrictions to connection may be imposed by the supply authority on the use of equipment in the actual relevant system impedance at the interface point on the user's premise exceeds 0.161 ohm.

Warning

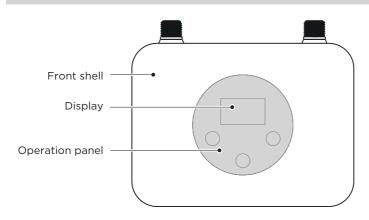
- The water heater should be earthed before use. Please ensure that the resistance of household earth wire is $< 4\Omega$. Installing device without earthed is highly prohibited.
- The means for disconnection from the supply mains having a contact separation in all poles that provide full disconnection under overvoltage category III conditions must be incorporated in the fixed wiring in accordance with the wiring rules.
- The way of fixation described do not involve the use of adhesives as they are not considered as one of the reliable fixation methods.
- The water inlet of this appliance shall not be connected to inlet water obtained from any other water heating system.
- This device is not intended for the use of drinking water supply.
- This appliance can be used by children aged 3 and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning the use of the appliance in a safe way and understand the hazards involved.
- Cut off power supply before maintenance, to avoid danger like electric shock. Children shall not play with the appliance. Cleaning and maintenance shall not be made by children without supervision.
- The water inlet pressure shall not exceed the value marked on the rating label. If it does, a pressure reducing valve must be installed.

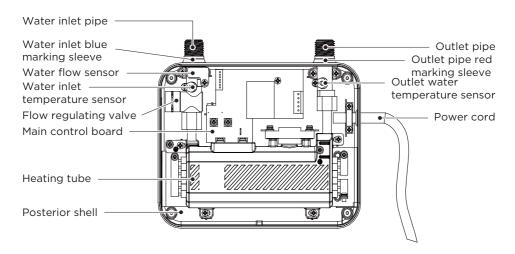
SPECIFICATIONS

Product Model	DSF55EA1(W)
Rated Voltage	220-240V~
Rated Frequency	50Hz
Rated Power	5700W
Rated Current	24.7A
Wire Specification	2.5mm ²
Air Switch Specification	≥25A
Leakage protection action current	15mA
Maximum Water Pressure	0.8MPa
Starting Water Flow	1.5Liters/minute
Ending Water Flow	0.8Liters/minute
Protection Class	1
Water Proof Class	IPX4
Products Size	220×185×70 mm
Net Weight	1.7kg

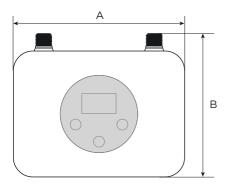
PRODUCT OVERVIEW

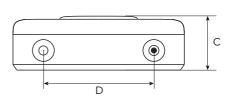
Product introduction





Pruduct structure

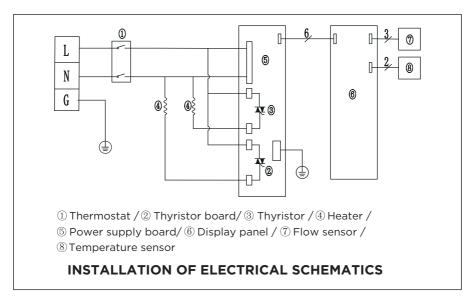




DSF55EA1(W)				
А	220			
В	185			
С	70			
D	142			

(Note:All dimensions are in mm)

Internal Wire Diagram



Accessories

Plastic expansion tube



Mounting screws



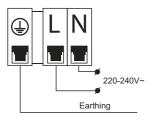
QUICK START GUIDE

Before First Use



Note

- 1. The water heater is correctly installed as required
- 2. For the first time, water shall be supplied before power supply
- 1. Connecting the power cord



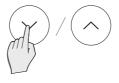
2. Turn on the tap



3. Start up



4. Temperature adjustment



5. If necessary, the water flow can be adjusted, for example, when the temperature cannot reach the preset setting



 MAX



PRODUCT INSTALLATION

Installation Instruction

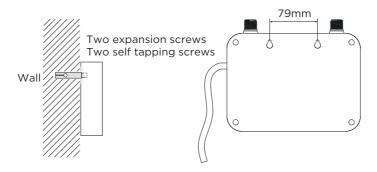
- 1. Check the capacity of power circuit;
- 2. Water heater installation;
- 3. Plumbing connection;
- 4. Power cord installation;
- 5. Water Supply.

Check the capacity of power circuit

- 1. To install DSF55EA1(W), the copper wire core of the wire must be greater than 2.5mm². The air switch with leakage protection should be greater than 25A.
- 2. The meter specification is greater than 40A.
- 3. The ground wire must be reliably grounded.

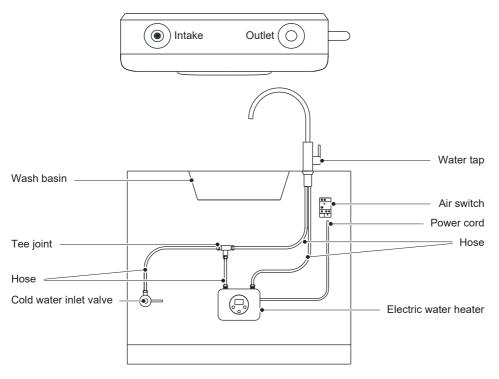
Water Heater Installation

- 1. The water heater should be installed in an unobstructed position under the basin to facilitate user operation.
- 2. The distance between the water heater and the surrounding walls should be more than 20cm, which is convenient for future maintenance.
- 3. According to the installation hole position of the rear shell of the machine, draw lines on the wall to mark the position, then drill holes on the solid wall with an electric drill.
- 4. Put a plastic expansion pipe into the hole and fix the water heater to the wall with screws.
- 5. The distance between the hot water outlet of the water heater and the hot water use point should be as short as possible to reduce heat loss and for water saving.
- 6. The installation position of air switch must be higher than the valve and the product inlet / outlet pipe.



Plumbing Connection

- 1. Put a gasket on the water inlet joint of the water heater.
- 2. Put a gasket on the water outlet connector of the water heater and connect the hose assembly of the faucet as shown in the figure.





Blue marker stands for water inlet, red marker stands for water outlet. Do not overexert to avoid damaging the water heater.

Power Cord Installation

- 1. Cut off the power supply.
- Connect the power line to the air switch with leakage protection, and pay attention to
 the screw that it must be tighten but not loosened. otherwise it will cause fire (red or
 brown is the live line L, blue is the zero line N, and yellow or green is the ground line
 E.)

Water Supply

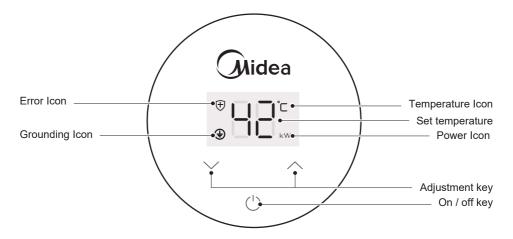
After all the plumbing connection is completed, open water inlet valve of the product and supply water to the unit to drain away air inside until there is stable water flow comes out from watertap. Check whether there is leakage at joints. If so, check whether the connecting parts are fastened, then re-supply water.

OPERATION INSTRUCTIONS

Methods of using

- 1. To make the water heater work automatically, the water pressure at inlet should be no less than 0.03MPa and water flux should be no less than 1.5L/min.
- 2. The water heater begins to work after the outlet valve and the power switch being switched on, Whereas, the water heater stop working after the valve and the power switch being switched off. We can change the water temperature at outlet by adjusting the valve.

Operation interface



Operation instructions

1. On / off:

After the power is turned on, press the on / off key to start and shut down the machine.

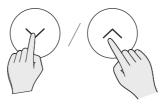


2. Set temperature

When the machine is turned on, press the adjustment key to adjust the temperature, With each click, set the temperature to increase or decrease by 1 $^{\circ}$ C, and set the temperature adjustment range: 30-48 $^{\circ}$ C; If there is no operation for 5 seconds, the setting result is automatically confirmed, and the system enters the working state.

3. Power selection

In the power on state, press the plus / minus temperature adjustment key at the same time to enter the limited maximum power selection mode.



4. Power function setting description

Long press the plus or minus temperature adjustment key to enter the power selection state. The kW icon is lit up, showing that power and flashing. In this state, press the up and down temperature adjustment keys to switch the power. The maximum power is adjusted between 3.6kW, 4.4kW and 5.7kW. 5S passed without operation, the power selection is confirmed, the kW Icon is off, the setting is successful, and the power selection mode is exited.

5. Flow settting

Adjust the flow regulating valve on the left side of the machine to regulate the inlet water flow, so as to limit the flow and make the outlet water temperature can meet the set temperature requirements. Operation method: Insert a slotted screwdriver into the hole of the regulating valve on the left side of the machine and rotate in an anti-clockwise direction. The larger the rotation angle is, the smaller the flow is. (the maximum rotation angle is 90 °.)





The factory default adjustment is at the maximum position

6. Grounding indication

When the icon is on, it means that the machine has no potential safety hazards and can be used safely:

When the icon flashes once a second, it indicates that the ground wire is not connected or in a poor connection.



7. Error indication

When the error icon is on, it means that the machine has no fault and can be used normally. When the icon flashes once a second, it means that the machine has an error, and the machine will not be able to use, so it is necessary to be repaired.



Other functions

- 1. Swtich on and off the heating function: In standby mode, the "safety sign" is on, which can turn on and off the heating and adjust the water temperature. If the heating is not started within 5 minutes, the display screen will only display the "safety sign" and the "grounding sign".
 - (1) Start the heating function: using the flow sensor to detect only. When the detected flow is greater than 1.5L/min, the water heater starts to work and enters the heating state. At this time, the "°C" icon is on
 - (2) Turn off the heating function: using the flow sensor to detect only. When the detected water flow is less than 0.8L/min, the water heater will stop heating and the icon of "°C" will be gone. The water heater will be in standby state. If the heating is not restarted after 5 minutes, the display screen is off and only 'safety sign' and 'grounding sign' are left.
- 2. Grounding prompt function: In standby mode, prompt whether the water heater is connected to the ground
 - (1) Normal connection: when the water heater is connected with the ground wire, the "grounding identification" icon is on
 - (2) Not normally connected: when the ground wire of the water heater and the home ground wire are not normally connected, the "grounding identification" icon flashes every second
- 3. Temperature adjustment function: The default initial setting temperature of the water heater is 38 °C, which can be adjusted by pressing the key to set the target temperature of the outlet water. The allowable temperature adjustment range is 30 °C 48 °C.



Under the full power heating, when the difference between the outlet water temperature and the set temperature is more than 2 °C, the "°C" icon and the set temperature flash once a second to remind the user to reduce the flow.

- 4. Constant temperature function: The water heater tracks the inlet temperature and inlet flow, and automatically calculates the output power to ensure that the outlet temperature is stable within the range near the set temperature
- 5. Error protection function: In the standby state, check the quality of hardware such as inlet and outlet temperature sensors
 - (1) Function of detecting the outlet water temperature sensor: when the outlet water temperature sensor is detected to be open circuited or short circuited, the "set temperature" icon on the display screen will flash (once a second) to display E1, which cannot be heated and maintenance is needed.
 - (2) Function of detecting the water inlet temperature sensor: when the water inlet temperature sensor is detected to be short circuited or open circuited, the "set temperature" icon on the display screen will flash (once a second) to display E2, which cannot be heated and maintenance is needed.
 - (3) Overtemperature protection function: when the outlet water temperature exceeds 85 °C, disconnect the relay and stop working. The display screen displays E3 (flashing once a second). After the error is fix, it can be recovered after power off

CLEANING AND MAINTENANCE

- This electric water heater should be installed at a place without sunshine or rain spray. Please cut off power supply it is not used for a long time.
- If the device hasn't been used for a long time, please double-check the water heater before using again. Make sure no filth in water inlet hose, water outlet hose and sprayer. Electrify only after the water flow become stable.
- Do not spray water to switch or heater body directly, to avoid humidity.
- Please cut off the power under thunder and rain to avoid damaging the water heater.
- Check the power cord connection terminals frequently to make sure that they are in good condition and reliably connected, no overheating, and grounding is good.
- It is suggested to clean the water heater and sprayer frequently. After closing the valve and switching off the power, wipe off all the dirt with a clean cloth. If necessary, the outer shell can be washed as well. However, you must dry up the housing after cleaning. If the water flow is not smooth, please loosen the screws to clean up the sprayer and the filter in the water heater.

DECLARATION:

This water heater can only be maintained by authorized technicians. Incorrect installation and using method may cause serious injury or loss of property.

TROUBLESHOOTING

SYMPTOMS	REASONS	SUGGESTIONS	
Plug in the power supply but there is no display on the screen	Power failure	Check whether there is power failure	
	Action of high temperature protection	Inform professionals to repair	
	Power board failure	Inform professionals to repair	
Display E1	Water outlet temperature sensor short circuit or open circuit fault	Replace the outlet water temperature sensor	
Display E2	Water inlet temperature sensor short circuit or open circuit fault	Replace the water inlet temperature sensor	
Display E3	• If the outlet water temperature exceeds 85 °C, it is defined as dry burning error	Inform professionals to repair	
Low temperature or low water output	The current set temperature is low	Set the temperature higher	
	Not powered on	Press the start button to start the machine	
No hot water from hot water outlet	Water cut off	Waiting for normal water supply	
	Water pressure too low	Use when the water pressure rises	
	Inlet valve not opened	Open the water inlet valve	
The security icon	Poor contact of ground wire	Stop using it immediately	
flashes	Electric water heater is not reliably grounded	and inform the professional maintenance personnel	
The outlet water temperature is unstable,	The water pressure is unstable, and the water flow is varying	Use after the water flow is stable	
sometimes cold and sometimes hot	Main control board fault	Notify professional mainte- nance personnel to repair	
Water heater does not start heating	• Inlet water flow is less than starting flow (1.5I/min)	Increase inflow flow	
	Blocked flow sensor	Backwash from the water outlet for several minutes before use;Inform the professional maintenance personnel to clean the impurities in the flow sensor	

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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.

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 date being processed for direct marketing purposes, please contact us via MideaDPO@midea.com. To find further information, please follow the QR Code.



