KoolMore

User Manual

COMMERCIAL DISHWASHER

Commercial High-Temperature Hood/Door Type 4-Cycle Dishwasher, 240V in Stain-less-Steel

Model: KM-HTD-HT



Before use, please read these instructions carefully to ensure proper operation and optimal performance.

For any service related issues, please contact us:

718-576-6342 support@koolmore.com

Stay informed with the latest information for your KoolMore appliance.

Scan the QR code below to access the most up-to-date user manual.

If you need any assistance or have questions, our customer support team is here to help.

Phone: 718-576-6342 Email: support@koolmore.com

Please write down the model number and serial number below for future reference. Both numbers are located on the rating label on the back of your unit or inside the unit and are needed to obtain warranty service. You may also want to staple your receipt to this manual as it is your proof of purchase and may also be needed for service under warranty.

Model Number: _____
Serial Number: _____
Date of Purchase: _____

To better serve you, please do the following before contacting customer service:

If you received a damaged product, immediately contact the retailer or dealer that sold you the product.
Read and follow this User Manual carefully to help you install, use, and maintain your unit.
Refer to the Troubleshooting section of this manual as it will help you diagnose and solve many common issues.

Contents

Safety 4

Overview 5

Technical Data 6

Installation 8

Operation 12

Maintenance 16

Troubleshooting 18

Warranty 19

Safety

- Use only **potable water** with a hardness of **1.5–4.3 gpg (25–75 mg/L).**
- Thoroughly pre-rinse tableware before placing it in the dishwasher.
- Use only **commercial detergents, rinse aids, sanitizers, and descaling chemicals** intended for commercial dishwashers. Always follow the chemical manufacturer's instructions and recommended concentrations.
- At the end of each working day, remove food debris from the wash tank and thoroughly clean, rinse, and dry the dishwasher. Leave the door open to allow the interior to air dry.
- Descale the dishwasher regularly according to the recommendations of your chemical supplier and local water conditions.
- Use only cleaning products approved for stainless steel surfaces.
- Do not use household dishwashing detergents or cleaning products intended for residential dishwashers.
- Do not use steel wool, wire brushes, abrasive pads, or other abrasive cleaning materials on the dishwasher or tableware.
- Do not allow foreign objects, especially metal objects not intended for washing, to enter the dishwasher.
- Do not spray or rinse the exterior of the dishwasher with a hose, pressure washer, or other direct water source.

NOTICE
Installation, servicing, or repairs performed by unauthorized personnel, the use of non-genuine replacement parts, or unauthorized modifications may void the product warranty.

⚠ WARNING
Do not connect the dishwasher to a hot water supply exceeding 140°F (60°C).

Overview

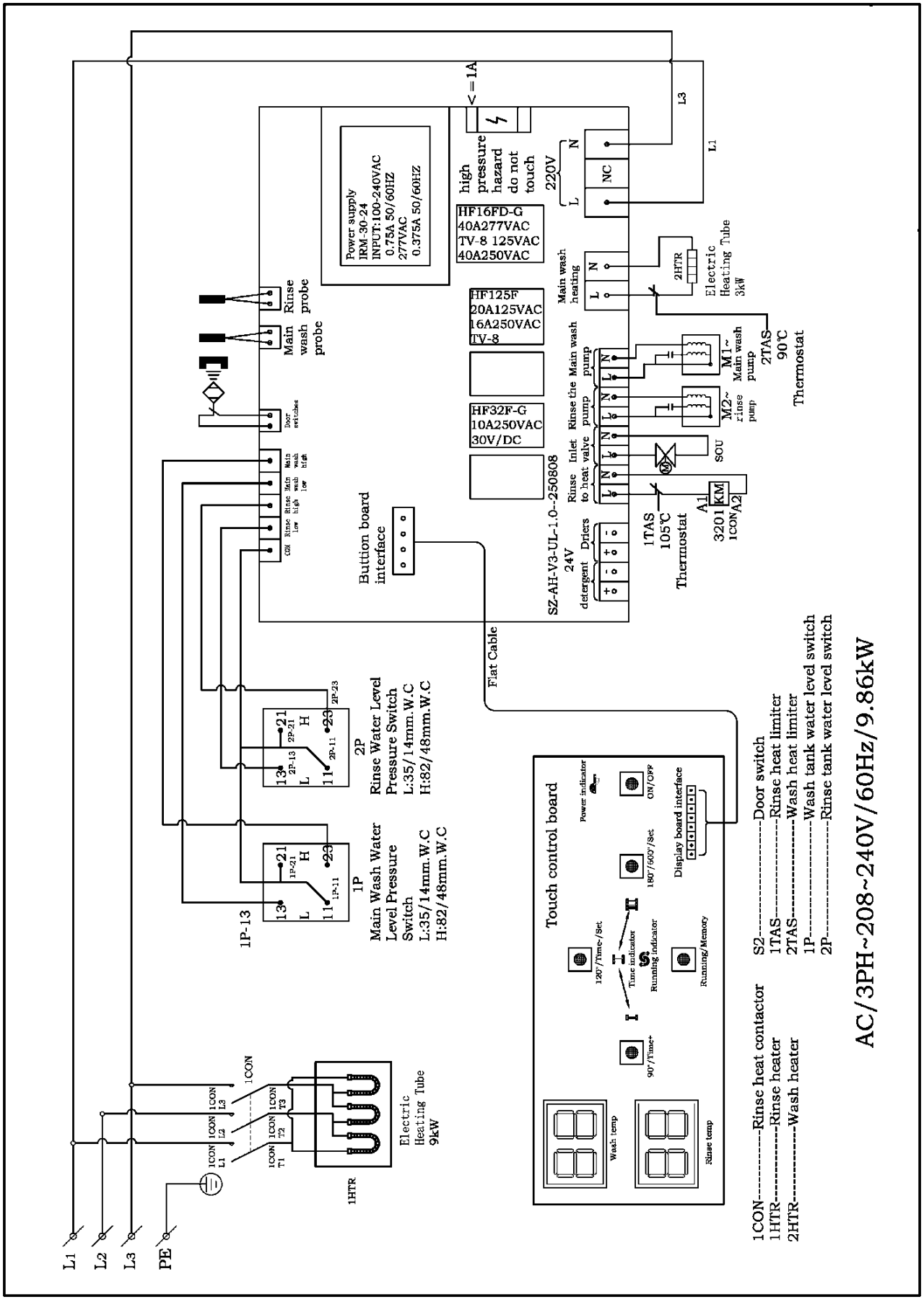
This equipment is a semi-automatic rack dishwasher. Raise the hood to load or remove the dish rack. When the wash tank water level is low, the dishwasher automatically fills the tank with water. Once the proper water level and operating temperature are reached, select the desired wash program and press the START button to begin the wash cycle.

The dishwasher features a built-in 9 kW rinse-water heating system and a 3 kW wash-tank heating system. The wash and rinse heating systems are interlocked for proper operation. The unit also includes a rinse pump, built-in chemical dispensers, water inlet filter, and solenoid valve.

Fig 1



Technical Data



Technical Parameters

Overall Dimension	28.1” x 31.5” x 56.1”/73.9”
Racks Per Hour	40
Water Inlet Temp	122°F-140°F (50°C-60°C)
Power Supply	208-240V / 60Hz/3 Phase
Total Power	9.86 kW
Max Wash Height	16.6” (422 mm)
Wash Heater Power	3 kW
Wash Pump Motor Power	0.71 kW
Water Consumption	0.66 gal/rack (2.5 L)
Water Tank Capacity	6.9 gallons (26 L)
Wash Temperature	140°F-149°F (60°C-65°C)
Rinse Water Temperature	181°F-194°F (83°C-90°C)
Rack Size	20” × 20” (500 × 500 mm)

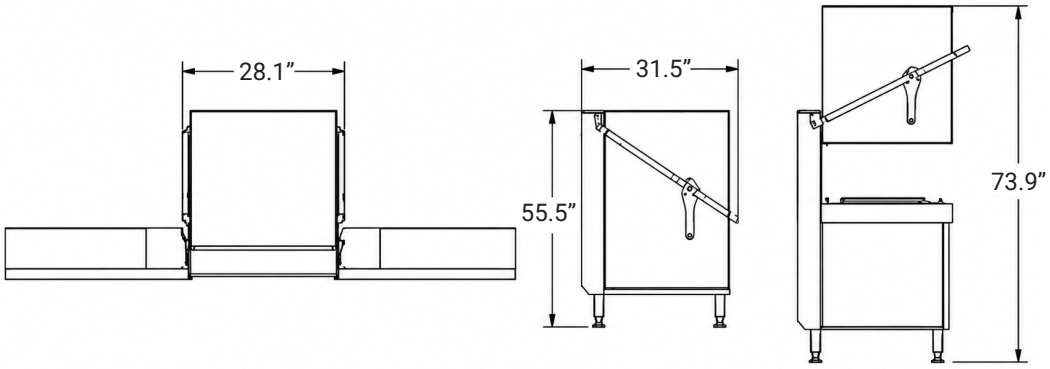
Installation

Before installing the dishwasher, verify that the electrical supply matches the voltage and frequency shown on the product rating label. Inspect the dishwasher immediately after unpacking. If shipping damage is found, retain all packaging materials and contact your dealer or carrier promptly.

Select the Appropriate Location

Place the dishwasher in the proper operating position. Install the dishwasher on a level, stable surface with adequate space for operation, maintenance, plumbing, electrical connections, and door opening. If equipped, allow sufficient space for the gas heater and automatic detergent dispenser.

To ensure the optimal use of the equipment, the equipment must be leveled. Level the dishwasher by turning the adjustable feet until the unit is stable and level.



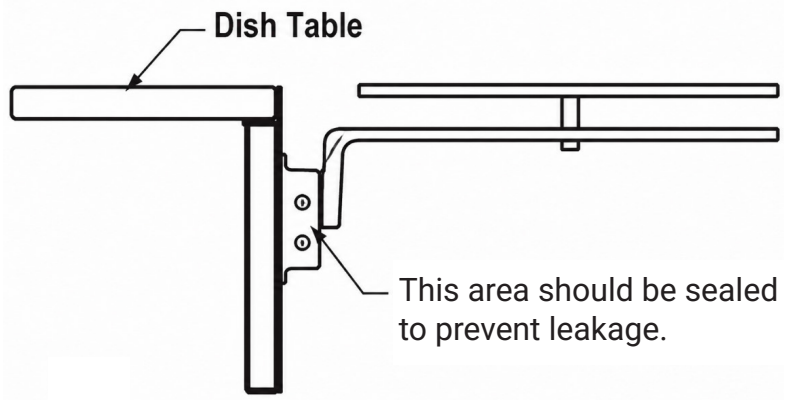
Connecting Dish Tables

The standard dish table height is 33.5 in. (850 mm). Specify the required height when ordering.

Before connecting the dish tables, water supply, drain, or electrical connections, make sure the dishwasher is positioned on a stable, level surface. Adjust the leveling feet as necessary.

Position the dish table against the dishwasher as shown in the figure below, ensuring that the table is properly aligned with the dishwasher opening. Secure the dish table in place according to the installation configuration.

Local codes may require the installation of an exhaust hood or ventilation system. If required, provide a minimum exhaust airflow of 206 CFM (350 m³/h).



Electric Connection
Electrical installation must be performed by qualified personnel in accordance with all applicable electrical codes.

Connect the dishwasher to a dedicated branch circuit using 6 mm² (approximately AWG 10) copper conductors or conductors of an equivalent ampacity as required by local electrical codes. Install an appropriately rated disconnecting means and ground-fault protection where required by local regulations.

WARNING: Electrical circuits and grounding connections must comply with the applicable provisions of the National Electrical Code and other local electrical codes.

WARNING: An independent all-pole disconnecting device, such as a disconnect switch, must be installed in the power supply circuit of this machine. See the circuit data sheet for electrical parameters.

WARNING: Disconnect the power supply and apply lockout/tagout procedures before servicing the dishwasher.

Please refer to the instructions on the power cord and the electrical schematic inside the bezel of the machine to correctly connect the different colored power cords to the power supply.


Equipotential

Equipotential
Equipotential means the terminal marked by the equipotential identification is the terminal that reaches the same potential for each part of the equipment or system used after being connected to each other, which is not necessarily the ground potential, such as a local connection (the equipotential connection part is below the equipment).


Protective Grounding

Protective Grounding
Grounding protection means the terminal marked by the grounding protection symbol refers to the terminal connected with the external protective conductor to prevent electric shock in case of fault, or the terminal connected with the protective earth electrode.

Model	Connection Type	Voltage (V)	Total Load (A)	Total Power (kW)	Pump Load (A)	Pump Power (kW)	Water Tank Power (kW)	Boiler Power (kW)
KM-HTD-HT	208–240 V, 60 Hz, 3 Ph~	208V	25.3	7.74	3.1	0.64	2.43	6.85
		220V	26.5	8.58	3	0.66	2.72	7.67
		240V	28.4	10	2.8	0.67	3.24	9.15

Check Motor Rotation Direction (Required for Three-Phase Machines Only)
The three-phase motor must rotate in the same direction as the arrow on the pump housing. If the rotation direction is incorrect, please cut off the power supply and interchange any two phase conductors to each other. Briefly operate the machine and verify that the motor rotates in the direction indicated by the arrow on the pump housing.
WARNING: When testing the machine for the first time after installation, you must first check whether the rotation direction of the washing pump motor is consistent with the indicated direction. Operating the wash pump with incorrect rotation may reduce washing performance and may damage the pump.

Duty Cycle Time Data

Duty Cycle (seconds)	I	II	III	IV
Cleaning Time (sec)	74	104	164	584
Pause Time (seconds)	4	4	4	4
Spray Time (sec)	12	12	12	12

WARNING: Plumbing connections must comply with relevant hygiene and safety standards and plumbing regulations.

Water Supply Connection

Connect the machine inlet hose to the water source (DN 20 female). The water supply specifications are shown in the table below:

Electric Heater Power	Water Inlet Temperature		Inlet Water Pressure	
	Celsius	Fahrenheit	PSI (kPa)	kg / cm
9kW	50~60	122~140	29–58 psi (200–400 kPa)	0.2~0.4

Drain Connection

Connect the 1¼ in. (32 mm) drain hose under the tank to the appropriate drain. If regulations require the installation of an oil trap, the flow rate should be at least 40 GPM (150 L/min).

After completing the water supply connection, check the inlet water pressure. If the flowing water pressure is below 29 psi (200 kPa), install a suitable booster pump. If the static water pressure exceeds 58 psi (400 kPa), install a suitable pressure-reducing valve.

Note: Use only insulated, sheathed wiring rated for 600 V or higher. Do not use bell wire, lamp cord, or other wiring not rated for this application.

Supply pressure of the rinse aid distributor: 0.05–0.10 MPa.

Supply pressure of the detergent distributor is 0.05–0.10 MPa.

Chemical Dispenser Connections

The detergent and rinse aid supply hoses are secured to the back of the dishwasher for shipping.

- Remove the shipping ties and separate the detergent and rinse aid hoses.
- Place each hose into the appropriate chemical container. Make sure the hose reaches the chemical and is not kinked or obstructed.
- Turn on the dishwasher.

- **Prime the detergent line:** Press and hold Program I until detergent has been drawn through the hose and reaches the dishwasher.
- **Prime the rinse aid line:** Press and hold Program III until rinse aid has been drawn through the hose and reaches the dishwasher.
- Release the corresponding button once the line is fully primed.

- **NOTICE:** Use only commercial dishwasher detergent and rinse aid. Follow the chemical manufacturer's instructions for proper concentration and use.

Operation



Fig 7

1. Open the water supply valve and turn on the main power switch. Verify that the detergent and rinse aid supplies are adequate. Ensure the filter and drain pipe are correctly installed.

2. Close the hood and press the power button. The power indicator light indicates that the machine is on. The dishwasher automatically fills the wash tank with water. Once the water reaches the correct level, the heater begins heating the water. When the set temperature is reached, the dishwasher is ready for operation.

3. Select and Start a Wash Program
1. Load the dish rack and close the hood.
2. Select Program I, II, or III for normal washing.
3. For the Program IV Low-Temperature Disinfection Cycle, press and hold the Program III button for approximately 3 seconds to select the low-temperature mode.
4. Press the START button to begin the selected program.
5. The work indicator illuminates while the cycle is operating. When the cycle is complete, the indicator turns off.

Low -Temperature Mode: Once Program IV is selected, the dishwasher remains in low-temperature mode for subsequent cycles until another program is selected.

Function	Description
Power Indicator	When the indicator lights up, it means the machine is turned on.
Work Instructions	When the indicator light is on, it means that the machine is in the process of cleaning. When the indicator light is off, it means that the cleaning process has ended.
Thermometer	Displays the wash tank temperature (upper display) and rinse tank temperature (lower display).
Start Button	After selecting Program I, II, or III, press the START button to begin the selected wash cycle.
Drain Pipe	When washing is finished, pull out the drain pipe in the tank and drain the water from the tank.

Recommended Operating Temperature

Parameter	Recommended Setting
Temperature of Washing Water	Set at 140–149°F (60–65°C).
Final Rinse Water Temperature	Set at 181–194°F (83–90°C).

Preparation Procedure

1. Put the sieve plate and sieve basket in the appropriate position on the cleaning tank, insert the drain pipe (please refer to Figure 8), and close the hood.
2. Press the power switch. The machine will automatically fill with water.
3. Once filling is complete, raise the hood and verify that the wash tank has filled to the proper water level. If an automatic detergent dispenser is installed, follow the dispenser manufacturer's instructions.
4. Allow the wash and rinse water to reach the recommended operating temperatures. Load the dish rack, close the hood, select the desired wash program, and press the START button to begin the wash cycle.



Fig. 8

Wash

1. Remove large food scraps from dishes before loading.
2. Pre-rinse or soak heavily soiled tableware in clean water as needed.
3. Load the tableware properly into the appropriate dish rack.
4. If necessary, pre-wash heavily soiled items before placing them in the dishwasher.
5. Select Program I, II, or III based on the type of tableware and the level of soil.

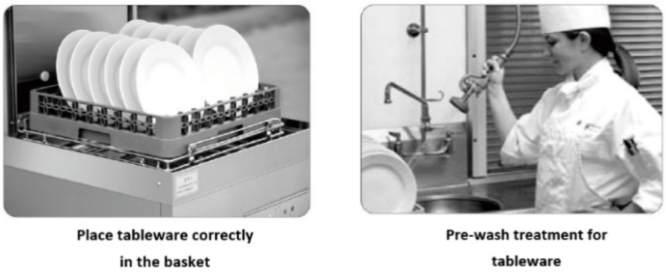
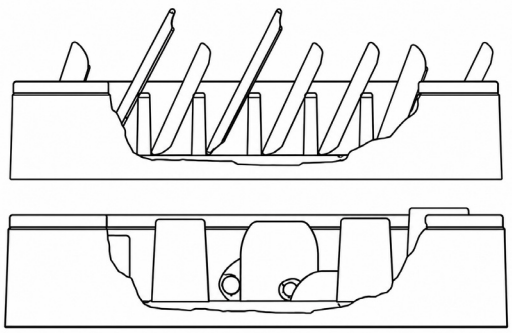


Fig. 9

Loading the Dish Rack

Place plates upright in the rack to allow water to reach both sides during the wash cycle.
Do not overload or stack dishes, as this may reduce washing performance.
Place cups, glasses, and bowls in the appropriate open rack with the openings facing downward to allow proper drainage.
Place flatware and small utensils loosely in the designated cutlery basket to ensure thorough cleaning.



Dishwashing Process

- Load the dish rack into the dishwasher and close the hood.
- Select Program I, II, or III according to the type of tableware and level of soil.
- Press the START button. The dishwasher will run the selected wash cycle.
- When the cycle is complete, raise the hood and remove the clean dish rack.
- If additional dishes are ready, load the next rack, close the hood, select the desired program, and press START to begin the next cycle.
- Allow cleaned tableware to air dry for approximately 1 minute before unloading or storing.

Wash Cycle Sequence

Main Wash → Pause → Final Rinse → Cycle Complete

When the cycle is complete, the program/work indicator turns off.
When the unit is in standby, the digital display shows the current temperatures for the wash and rinse cycles.

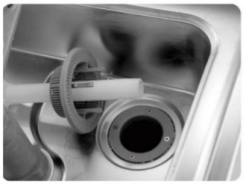
Cleaning the Dishwasher











Warning: Hot water and internal components may cause burns. Allow the dishwasher and wash water to cool before cleaning. Disconnect the dishwasher from the power supply before performing cleaning or maintenance.

1. Turn the dishwasher off, then disconnect the main power supply.
2. Close the water supply valve.
3. Raise the hood and remove the dish rack.
4. Remove the wash tank screens and drain pipe. Allow the wash tank to drain completely.
5. Remove food debris from the screens and wash tank. Thoroughly clean and rinse the interior of the dishwasher.
6. Remove and clean the pump suction screen.
7. Inspect the wash and rinse arms and remove any debris or buildup from the spray openings.
8. Inspect the heating elements for scale buildup and descale as necessary.
9. Reinstall the pump suction screen, drain pipe, and wash tank screens.
10. Leave the hood open and allow the interior to air dry.

Parameter Settings

The dishwasher controller includes adjustable parameters for temperature control, cycle timing, and chemical dispensing.

NOTICE: Parameter settings are factory configured for normal operation. Incorrect adjustments may affect washing performance, temperature control, chemical dispensing, or equipment operation. Parameter settings should only be adjusted when necessary.

Entering and Navigating Parameter Setting Mode

1. Turn the dishwasher on.
2. Press and hold **Program II and Program III simultaneously for approximately 5 seconds** to enter Parameter Setting Mode.
3. The display will show the first parameter.
4. Press **Program III** to advance to the next parameter.
5. Press **Program I** to decrease the displayed value or **Program II** to increase the displayed value.
6. Continue pressing **Program III** to cycle through the available parameters and make adjustments as needed.
7. Press the **Power** button to **save the settings and exit Parameter Setting Mode.**

Parameter Descriptions

Parameter	Description
P00	**Temperature Unit:** Selects the temperature display unit. **0 = °C; 1 = °F.**
P01	**Rinse Heater Upper Temperature:** Sets the upper temperature threshold for the rinse heater. The heater turns off when this temperature is reached.
P03	**Wash Heater Upper Temperature:** Sets the upper temperature threshold for the wash-tank heater. The heater turns off when this temperature is reached.
P04	**Wash Heater Restart Temperature:** Sets the temperature at which the wash-tank heater turns back on as the water temperature drops.
E02	**Program II Wash Time:** Sets the wash duration for Program II. Factory setting: 104 seconds.
E03	**Program III Wash Time:** Sets the wash duration for Program III. Factory setting: 164 seconds.
E04	**Short-Cycle Rinse Time:** Sets the final rinse duration for the short wash cycle.
E06	**Long-Cycle Rinse Time:** Sets the final rinse duration for the long wash cycle.
D01	**Detergent Dispensing Time:** Sets the detergent pump operating time, in seconds.
C01	**Rinse-Aid Pump Flow:** Controls the rinse-aid pump flow setting. Factory setting: 30.

Maintenance

WARNING:
Before starting any repair work, disconnect the power supply and hang a visible sign at the power switch to let others know that you are repairing the circuit.

Cleaning Arm Maintenance
The upper and lower cleaning arms and spray arms should be able to rotate freely. After rotating by hand, they should continue rotating on their own for a few seconds before stopping. Please switch off the power supply before turning the washing arm and remove all obstacles.

If the sieve basket or pump suction screen is not installed, foreign matter (such as food debris or bones) may cause the washing arm outlet nozzle to plug. The cleaning arm can be easily removed for cleaning.

To remove the wash arm and spray arm, loosen the knurled nut between the wash arm and spray arm to remove the wash arm and spray arm.

Spray Arm Removal (Refer to Figure 12)

Note: The pad sleeve on the lower cleaning arm shaft does not have to be removed.

When removing the upper washing arm and spray arm, please hold the washing arm firmly while loosening the knurled nut so that the washing arm does not fall off. The cleaning arm and spray arm are interchangeable between the upper and lower positions.

Daily Maintenance Items
1. Check the detergent and rinse aid levels daily and refill the containers as needed. Use only commercial dishwasher detergent and rinse aid recommended for this equipment.
2. Always keep the equipment clean. At the end of each day, clean the residue in the washing tub with a rag or brush, and remove the washing arm for cleaning. Check whether the rinsing nozzle is blocked every week. If a nozzle is blocked, remove the obstruction and rinse the nozzle thoroughly with clean water.
3. Clean stainless steel surfaces regularly with a rag or brush.
4. If the equipment is not equipped with a demineralized water device, it must be regularly descaled. After descaling, thoroughly remove any residual descaler and scale with clean water.
5. During machine operation, check the equipment parts, washing operation, and rinsing effect. If any abnormality is found, stop operation immediately, inspect the machine, troubleshoot the issue, and then continue working.
6. When not in use for a long time, clean the dirt inside the machine, dry it, pack it well, and store it in a ventilated and dry place.

Monthly Maintenance

Maintenance Item	Maintenance Content
Water Pump	• Check water pump tightness, seal ring, water pump rotation noise, direction of rotation, etc. • Check the suction of the pump. • Check whether the installation position and operation of the equipment filter screen are correct.
Washing System	• Check water level of the main washing tank. • Check the tightness of the washing line. • Check if the washing system is complete, sprays correctly, and if the main washing arm is in the center position.
Rinse System	• Check water pressure and tightness. • Check that the rinsing system is complete and sprays correctly.
Racks and Components	• Inspect the water tank, door, and equipment surfaces, and inspect the main wash tank screens. • Check rinse tanks, hoses, clamps, plastics, and seals. • Inspect the hood mechanism and other moving components for proper operation.
Water Inlet Device	• Check water level switch, solenoid valve, and clean the filter screen. • Check tightness of all connections. • Check water hardness, water softener, and softener for total or partial failure (if any).
Drain System	• Check tightness. • Check water pipe pressure and operation of the drain pump.
Electrical Equipment	• Check all fuses and tighten all relevant screws. • Check main wash and rinse heater wires, thermostat, and overheat protection switch.
Detergent Dispenser	• Check concentration and adjust if necessary.

Troubleshooting

This section allows you to try to solve the problem yourself, but if the problem persists after you check for possible causes, contact your local maintenance department and an authorized service unit immediately.

Problem	Possible Cause
The machine doesn't work	• Open the door for 2 seconds, then close it. • Power fuse burned out or circuit breaker tripped. • Check whether the control circuit fuse FU3 is damaged.
Wash Cycle Takes Too Long	• The temperature of the heating box does not reach the set temperature. • Check whether the preheating time is too short and whether the thermostat and heater are damaged.
Poor Washing Performance	• Cleaning pump suction plug caused by insufficient water pressure. Cut off the power supply and drain the water tank. Check whether there is foreign matter blocking the pump suction. • The water temperature is too low or the preheating time is too short. Check the thermostat and heater. • The amount of detergent is not correct. Please contact your detergent manufacturer representative. • Cleaning arm and spray arm have excessive scale deposits. Descaling may be required.
Spots on Cutlery, Glasses, and Dishes	• The tableware is incorrectly installed in the basket. • Spray water temperature is not high enough. • The water pump suction port is blocked and the water pressure is insufficient. • Water hardness is too high. • The detergent is not suitable for the water used. • The quick-drying agent is not suitable for the water used. • Cleaning agent or quick-drying agent concentration is not correct.
Poor Rinsing	• The water leakage filter is too dirty, causing the flow to slow down. Turn off the water source, open the inlet hose connector and solenoid valve inlet connector, remove the filter, clean it, and reinstall it. • Water supply pipeline pressure is too low.
Valve Leakage	• Foreign matter obstructs the normal operation of the valve. Note: Inspection after installing the machine is critical, as pipe compound or debris may fall into the valve during installation. Shut off the water supply, loosen the screws, remove the valve cap, clean the valve thoroughly, and reassemble it.
No Water Injection or Slow Water Injection	• The water leakage filter is too dirty, causing the flow to slow down. Turn off the water source, open the inlet hose connector and solenoid valve inlet connector, remove the filter, clean it, and reinstall it. • The water pressure in the water supply pipeline is too low.

WARRANTY

LIMITED WARRANTY

KoolMore Supply Inc. extends a limited warranty to the original purchaser, guaranteeing that this KoolMore product is free from manufacturing defects in material or workmanship for one year from the date of purchase.

Should you discover any such defect within the warranty period, KoolMore Supply Inc. reserves the right to repair or replace the product without charge, or to cover the cost of replacement parts and repair labor needed to correct defects present at the time of purchase or resulting from regular usage, when the appliance has been installed, operated, and maintained as per the instructions provided.

At its sole discretion, KoolMore Supply Inc. may decide to replace the product. In such an event, your replacement appliance will carry the warranty for the remaining term of the original unit's warranty period.

This warranty is valid exclusively to the original purchaser of the product and only applicable within the United States. The warranty commences from the date of original consumer purchase. Proof of the original purchase date will be required to obtain service under this warranty.

Under this limited warranty, your sole and exclusive remedy will be product repair, as outlined above. All services must be provided by a KoolMore designated service company.

KoolMore shall not be responsible or liable for any loss, spoilage, or damage to food, beverages, pharmaceuticals, medical supplies, or any other contents stored in the unit resulting from failure, malfunction, defects, improper installation, improper use, power interruption, or any other cause. Any such losses are expressly excluded from coverage under this warranty.

To claim warranty or request repair service:
Email support@koolmore.com. Please include your name, address, phone number, warranty repair request, and a copy of your proof of purchase receipt. Alternatively, visit koolmore.com and use the Contact Us page. A KoolMore customer service representative will promptly arrange service for your appliance.

We thank you for choosing KoolMore.

WARRANTY EXCLUSIONS

This limited warranty will not cover:

1. Failure of the product to perform during power failures or interruptions, or due to inadequate electrical service.
2. Damage incurred during transportation or handling.
3. Damage caused by accidents, vermin, lightning, winds, fire, floods, or acts of God.
4. Damage resulting from accidents, alterations, misuse, abuse, improper installation, repair, or maintenance. This includes using any external device that alters or converts the voltage or frequency of electricity.
5. Unauthorized product modifications, repairs by unauthorized centers, or use of non-approved replacement parts.
6. Abnormal cleaning and maintenance not aligned with the user's manual.
7. Use of incompatible accessories or components.
8. Any costs associated with repairs or replacements under these excluded circumstances shall be the responsibility of the consumer.


KoolMore