

Haier

Automatic Drum Washing Machine

Service Manual



Suited model:

HWD1000

Features

wd-8888-99

Sense the temperature in drum while drying, stop when clothes dry

Adjustable washing time

LED display

Memory the habit washing process in CUSTOM program

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PRODUCT CODE ILLUMINATION AND SERIES INTRODUCTION

Model code rule description

Model identification

HWD 1000

A B

A Serial code

B Max spin speed

FEATURES

Selling Point

Dry clothes intelligently and stop automatically when clothes are dry.

Benefits

Intelligent drying

Automatic washing program

Washing load selecting automatically

Technical Supports

Automatic moisture sensing for the clothes and stop of operation when the laundry is dried, saving energy and trouble.

Unique function of self-programming of washing procedure, washing at your pleasure.

Four display screens, the washing process being clear at a glance.

Six-level smart protection,

59-minutes standard procedures capable of remembering washing habits for time saving and convenient operation.

SPECIFICATION

<i>Proposal</i>		2006	New Sensor
Automatic Drum Washer and Dryer			HWD1000
1.	Product identification		
	Description of appliance		Washer and Dryer
	Type of appliance (FS = standing, BI = built-in)		FS
	Supplier own brand		Haier
	Supplier bar code	UPC	688057394381
	Mares computer code		/
	Commercial Brand / Model		/
	Commercial bar code	UPC	/
2.	Key-Features		
	Energy efficiency class		/
	Washing performance class		/
	Spin efficiency class		/
	Programs		6
	Capacity(washing)	kg	5
	Spin speed (max. / optional)	rpm	1000-400
	Noise level	dB(A)	72
	Energy consumption per wash circle *	kWh	/
	Water consumption*	l	53
	Residual dampness (spin result)	%	78.7%
	Spin speed selector switch (steps)	rpm	1000/800/600
	Spin speed variator (stepless)	rpm	-
	Adjustable thermostat (water temp. adjust from - to)	°C	-
	Drum capacity	l	47.8
	Auto water level adjust (depending on volume of filled in laundry)	AWL	
	Washing time (max.)	min	139
	Washing temperatures (program-controlled)		H/W/C
	Certification's (ETL)		ETL/CETL
	Approvals		ETL
	* EN 60456 (60°C cycle, full load without pre-wash) COLD	☐ =	/
3.	Basics data		
	Unit dimensions (H x W x D)	cm	85X59.5X55
	Net weight	kg	81
	Voltage/frequency	V/Hz	120V~60Hz
	Input power / main fuse (intensity)	W / A	1300/12
	Work top / removable		
	Control M = electromechanical, E = electronic, F = fuzzy		E
	Drum S = stainless steel / Z = zinc coated		S
	Tub P = Polyprop./ S = stainless steel		S
	Door:		
	aesthetic (R=round, Y=big eye, Q=square)		R
	Diameter	cm	30
	Outer door frame S= stainless steel / M = metal / P = plastic		P
	Inner door G =glass / P=plastic		G
	Detergent compartments	n°	3
	Removable compartment for liquid detergent		-

	Self cleaning suds pump		●
	Water inlet hose		●
	Water drain hose		●
	Adjustable feet	n°	4
4.	Safety systems		
	Auto door lock	ADL	●
	Motor overheating protection	MOP	●
	No heating without water	NHW	●
	Auto water cool-down (<i>before drain 80°C boiled water</i>)	AWC	/
	Water return protection	WRP	●
	Acqua Stop kit		-
	Child protection		●
5.	Programs		
	1) Standard		●
	2) Custom		●
	3) Quick		●
	4) Night		●
	5) Heavy		●
	Pre-wash		●
	Delicate / hand wash		● / -
	Wool / cashmere		-
	Soak		/
	Drain		●
	Easy ironing		-
	Optional function keys (additional program settings)		
	ON/OFF button		●
	Half load		-
	Rinse		●
	Spin exclusion		-
	Spin speed selection	rpm	●
	Program		●
	No Soak		-
	Dry		●
	Delicate		-
	Cold wash		-
	START/PAUSE		●
	Extra Rinse		-
	Water level		●
	Door lock indicator		●
	Temperature selection (H/W/C)		●
	5kg wash		-
	Prewash		●

Remark : "●" signify the washing machine has this function

"-" signify the washing machine does not have this function

Important safety instruction

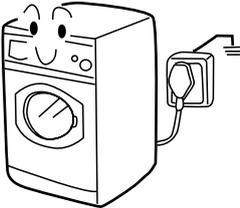
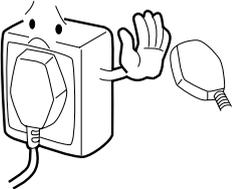
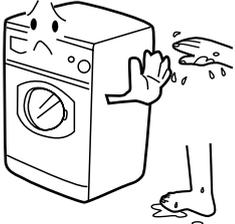
WARNING - To reduce the risk of fire, electric shock, or injury to persons when using your appliance, follow basic precautions, including the following:

- 1) Read all instructions before using the appliance.
- 2) Do not wash articles that have been previously cleaned in, washed in, soaked in, or spotted with gasoline, dry-cleaning solvents, or other flammable or explosive substances, as they give off vapours that could ignite or explode.
- 3) Do not add gasoline, dry-cleaning solvents, or other flammable or explosive substances to the wash water. These substances give off vapours that could ignite or explode.
- 4) Under certain conditions, hydrogen gas may be produced in a hot-water system that has not been used for 2 weeks or more. HYDROGEN GAS IS EXPLOSIVE. If the hot-water system has not been used for such a period, before using a washing machine, turn on all hot-water faucets and let the water flow from each for several minutes. This will release any accumulated hydrogen gas. As the gas is flammable, do not smoke or use an open flame during this time.
- 5) Do not allow children to play on or in the appliance. Close supervision of children is necessary when the appliance is used near children.
- 6) Before the appliance is removed from service or discarded, remove the door
- 7) Do not reach into the appliance if the tub or agitator is moving.
- 8) Do not install or store this appliance where it will be exposed to the weather
- 9) Do not tamper with controls.
- 10) Do not repair or replace any part of the appliance or attempt any servicing unless specifically recommended in the user maintenance instructions or in published user-repair instructions that you understand and have the skills to carry out.
- 11) If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.
- 12) The appliance must be positioned so that the plug is accessible.
- 13) Used new hose-sets and that old-sets should not be reused.
- 14) When connecting the washing machine for water supply and drainage, make sure the plug is within reach.
- 15) Keep the vent outlet at the bottom of the washing machine free from being blocked.
- 16) The appliance is intended for use only with fabrics that have been washed with water as a cleaning agent.

SAVE THESE INSTRUCTIONS!

Important safety instruction

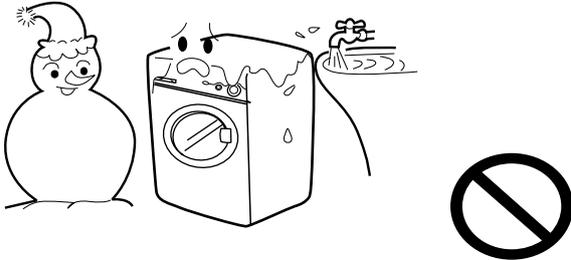
● Safety

<p>1. A separate earthed socket is required for the power supply. After installation of the washing machine the power plug must be accessible during normal operation.</p>  	<p>2. Pull the plug and not the electric cable when unplugging the washing machine.</p>  
<p>3. Fuses in the power circuit should be rated for 15A. Contact a washing machine technician or a designated service point for power cable replacement.</p>  	<p>4. For your safety, dry your hands before touching the washing machine and wear appropriate footwear.</p>  
<p>5. Do not use flammable detergents or dry cleaning agents; do not use flammable sprays near the washing machine; do not remove or insert the plug in the presence of flammable gas.</p>  	<p>6. The door of the washing machine becomes hot during the water heating or drying process. Avoid contact with the door during the heating or drying process. For safety, keep children away from the washing machine.</p>  
<p>7. Do not allow children to play with the packing materials after unpacking.</p>  	

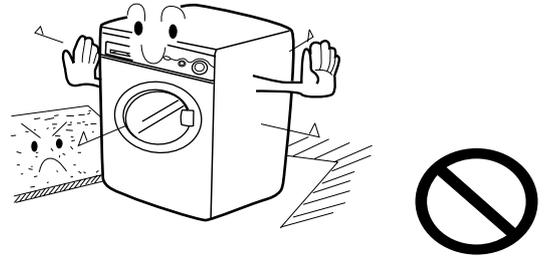
SAVE THESE INSTRUCTIONS!

Important safety instruction

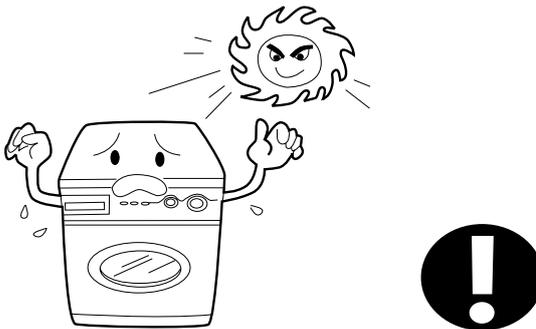
8. The washing machine must not be used in the open or in an area of high humidity as water droplets may form on the electrical components. Air dry the appliance if the washing machine components become wet.



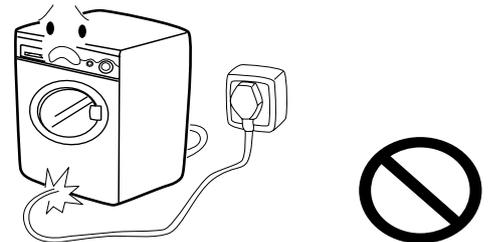
9. The washing machine should be placed in a well-ventilated area, leaving a space between the appliance and adjacent walls or furniture.



10. Keep away from heat sources and direct sunlight to prevent plastic and rubber components from ageing.



11. During installation, ensure that the electric cable is not trapped by the washing machine and damaged. Dear customer, For the machine and your own security, DO NOT REPAIR IT BY YOURSELF! DO NOT USE THE WASHING MACHINE WHICH SOME PARTS ARE LOST!

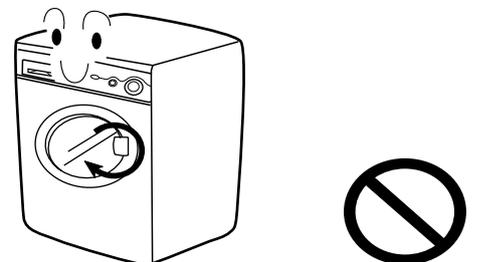


● Use

1. Make sure that the washing machine is securely connected to the water supply. Take the necessary precautions or contact the local service centre if the connection is poor or there is a water leak.



2. Fasten the door handle before opening the door and then close the porthole. Do not shut the door violently.



SAVE THESE INSTRUCTIONS!

Important safety instruction

3. Never place heavy objects, e.g. a heating appliance or water container, on the top panel of the washing machine.



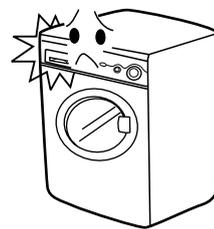
4. Do not wash foam rubber or similar sponge materials.



5. Before washing, close zippers, buttons, laces and repair damaged areas. Underwear and small items should be placed in a laundry bag or pillow slip. Do not wash clothes containing wire frames.



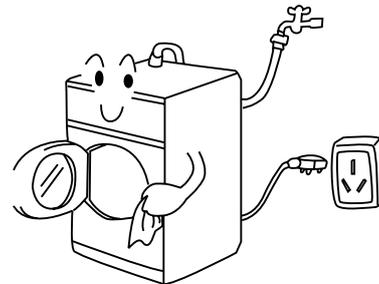
6. Do not open the detergent dispenser during the wash cycle. Otherwise, the water will spilt out from it and the detergent can not be washed out completely.



7. The door is fitted with a self-locking device and can be opened 2-3 minutes later. Do not open the door otherwise the self-locking device will be damaged and the operator will get hurt.



8. After washing, turn off the tap to prevent leaking; unplug the washing machine and wipe clean the lower part of the porthole.



9. Keep the door slightly open when the washing machine is not being used. Never cover the machine a plastic sheet.



10. The tumble dryer should not be used if industrial chemicals have been used for cleaning.

11. The appliance must not be installed behind a lockable door, a sliding door or a door with a hinge on the opposite to that of the tumble dryer.

SAVE THESE INSTRUCTIONS!

Installation

WARNING:

To reduce the risk of fire, this appliance must be fastened or otherwise secured to an uncovered concrete floor.

- As shown in Fig.1, remove all the packing materials (including the foam base). It is normal that there are some water drops on the plastic bag, the cushion and the porthole. It is because of the water testing before leaving the factory.

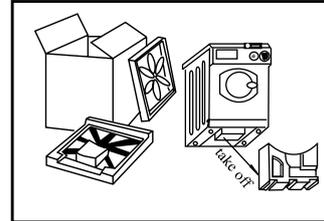


Fig.1

- Check attachments and materials

Name	Operational manual	Quality certificate	Water hose	Drain holder	Decompressor	Plastic plugs
Quantity	1	1	2	1	2	3

- Remove the packing screws as shown in Fig.2.

The packing bolts protect the appliance from impact damage during transportation. Follow the steps below before using the appliance.

1. Remove the rear panel of the washing machine;
2. Remove the three packing bolts from the rear panel of the washing machine, the rubber hose and then the shock absorption steel channel;
3. Refit the back plate;
4. Fill the holes left by the packing bolts with plastic plugs.

(Attention: the packing bolts and rubber hose should be kept in a safe place for later use)

There is a plastic jacket packing the door catch, please remove it when you unpack the machine. Do not let children touch it to void dangerous things.

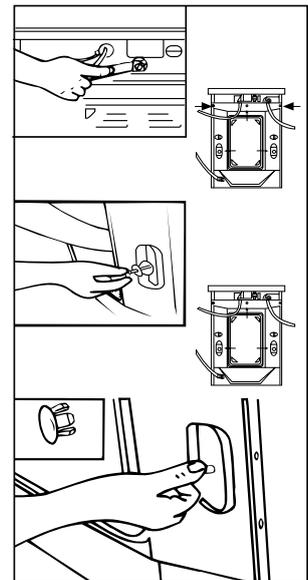


Fig.2

- Adjusting the position of the washing machine.

The washing machine is provide with adjustable feet. Before use, adjust the feet until the appliance is level, as shown in Fig.3.

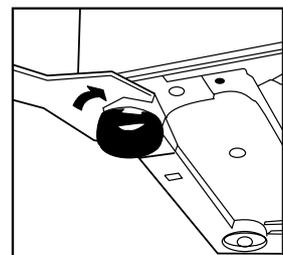


Fig.3

Installation

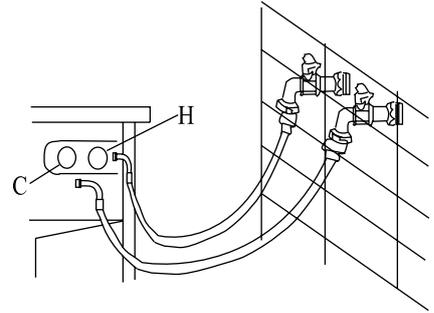
Connection of water inlet hose and washing machine

(Using new hose-set and old hose-set should not be reused.)

- Please connect the straight terminal of the inlet hose to the water tap and make sure to fasten it.
- Please connect the bended terminal of the inlet hose to the solenoid valve and make sure to fasten it.

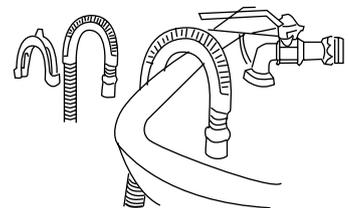
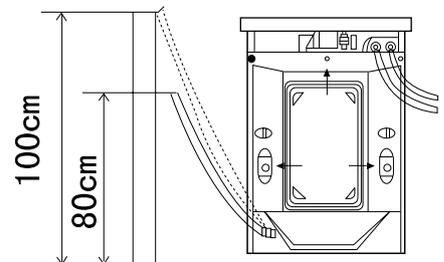
NOTE:

- Please be sure that the COLD inlet hose is connected with the solenoid valve for cold water (maked with "C"), the HOT inlet hose is connected with the solenoid valve for hot water (maked with "H").
- In order to be recognised easily, there is a Red line on the HOT inlet hose.



Water drainage hose

- The height of the terminal of the water drainage hose should be between 80-100cm. The water drainage hose must be securely placed on the clip on the back of the washing machine.
- Use the water drainage support supplied as an accessory for proper installation of the water drainage hose. Fix the water drainage hose support with waterproof string. Do not use an excessively long water drainage hose and contract the authorized technician if the water drainage hose needs to be extended. The water drainage hose should not be extended more than 250cm (longer extension will result in concurrent water inflow and outflow). The diameter of the extension hose should be the same as the original hose.



Caution: Water drainage hose must not be immersed in water.
The original and extension hoses should be tightly connected.

Installation

Connection of power supply

Check the following items before connection to the power supply.

- The socket conforms to the maximum power load (The maximum current load of the socket and power supply cable should not be less than 15A).
- Power supply voltage conforms to the required value.
- The power supply socket and the plug of the washing machine compatible, if they are compatible, refer to a washing machine technician or a designated service point for power cable replacement.
- USE SUPPLY CONDUCTORS RATED 105°C (221°F)

Grounding instructions

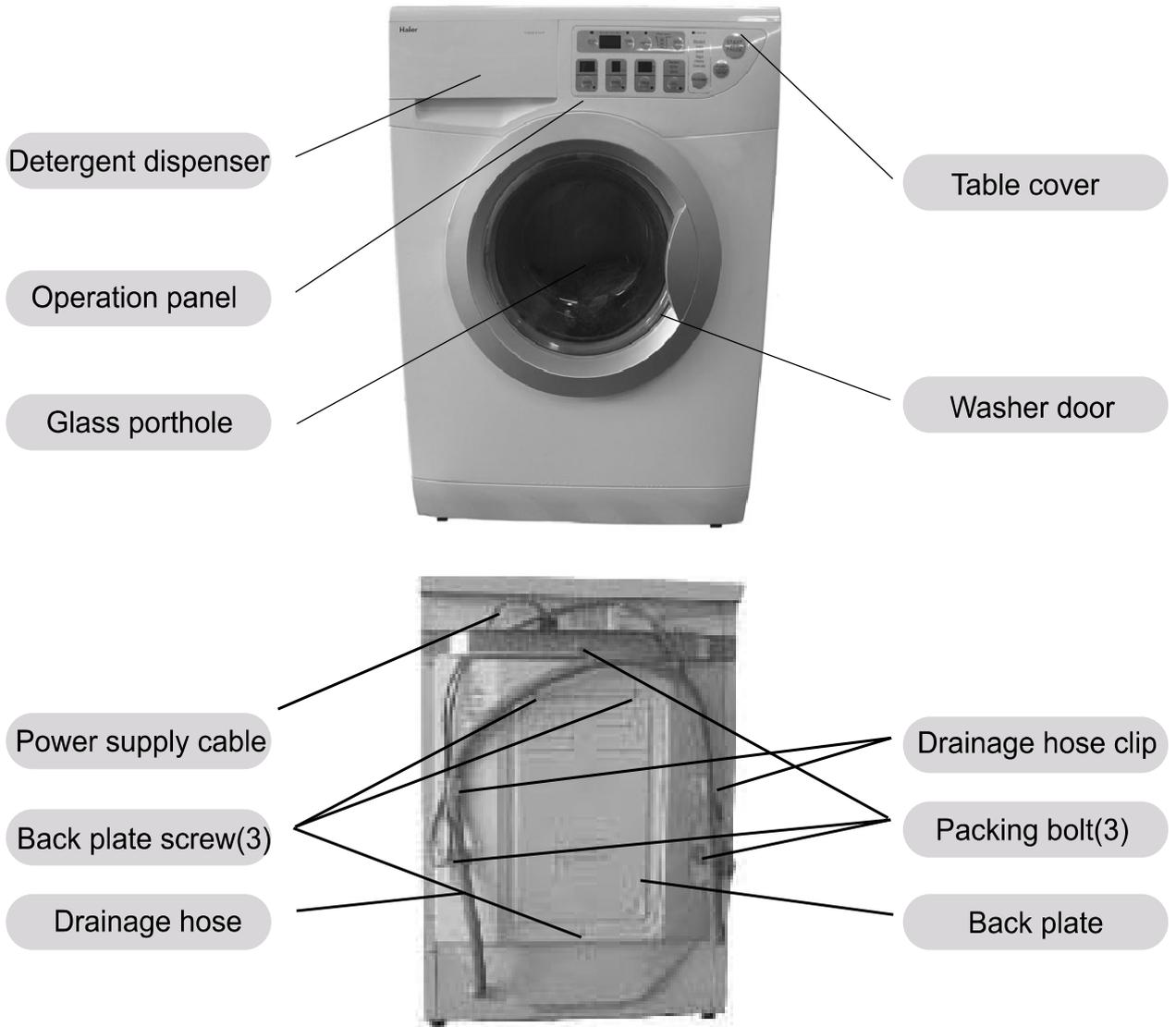
- This appliance must be grounded. In the event of malfunction or breakdown, grounding will reduce the risk of electric shock by providing a path of least resistance for electric current. This appliance is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.
- **WARNING** - Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the appliance is properly grounded.
Do not modify the plug provided with the appliance - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.
- **WARNING**
Certain internal parts are intentionally not grounded and may present a risk of electric shock only during servicing. Service Personnel – Do not contact the following parts while the appliance is energized: (list of ungrounded parts: Electromagnetic valve, Computer board, Door lock, Drain pump, Drying motor, Capacity bracket assembly, etc.)

Net Dimension

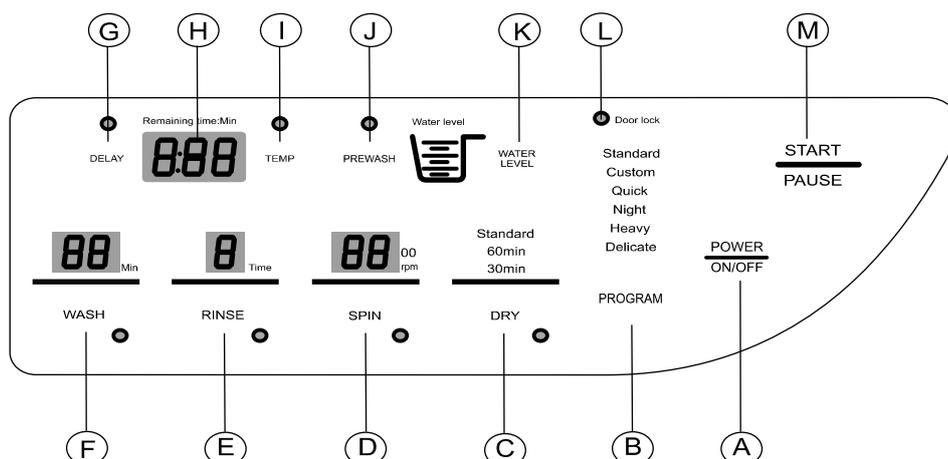


height: 850mm / width: 595mm / depth: 550mm

Name of the parts



Control panel



Operational functions

WARNING -- To reduce the risk of fire, electric shock, or injury to persons, read the **IMPORTANT SAFETY INSTRUCTIONS** before operating this appliance.

A. POWER ON/OFF

Touch this button to switch on the power if the machine is not on power, and touch this button to switch off the power if the machine is on power.

B. PROGRAM

Touch this button then you can select the washing programs as you wish from top to bottom in proper order. The backlight is bright while the program is selected. The machine will carry out the standard program if there is no program to be selected. Attention: The machine has the memory function for the "Custom" program.

C. DRY

The sequence of the dry program as follow as each time the button is touched after the washing program is set:

Whole auto dry program.

The standard program for the individual dry.

At this moment you can select either 60 min or 30 min program.

You can not select dry function while you have already selected the heavy or delicate program.

Attention: The maximal quantity of the laundry is 2.5kg if the dry function is selected.

D. SPIN

The different spinning speed can be selected by touching this button. For details please see the program setting guide.

The spinning speed is 1000rpm (800rpm for night washing) if the dry function is selected.

E. RINSE

Touch this button to select the rinsing time. The time is changeable each time when it is touched and 6 times are the maxim.

F. WASH

Touch this button to select the washing time. Increasing the washing period each time this button is pressed. The increasing step is one minute for one press.

Operational functions

G. DELAY

Setting the finished time of the scheduled washing by touching this button. The defaulted time for the scheduled washing is 9 hour. The washing time can be increased one hour by one touching of the button. If the button is pressed and held the time can be varied from 1 to 24 hour cyclically till the button is released. If the START/PAUSE button is pressed the current setting is confirmed after the scheduled washing program is ready.

If the time for the washing program is longer than the time of the scheduled washing then the program will work immediately after the START button is pressed.

Attention: There are some different between the setting time and actual time because of the water temperature, water pressure and the distributions of the laundry in the tube.

There is no scheduled washing function for "Delicate" program.

H. Remaining time: Min (Digital display screen)

This display unit is used for warning the washing time left and fault information. It can display the setting time of scheduled washing and heating temperature. The screen only display the hour if the time setting is over 10 hour.

I. TEMP (Children lock)

Touch this button to set washing with cold or hot water. The digital display screen shows "W", "C", "H". The default value is "W".

H--hot and cold water; W --hot water; C --cold water.

To lock button on the control panel by pressing this button for 3 second, which including the POWER button. These can be unlocked if this button is pressed for another 3 second.

J. PREWASH

The prewash function can be added into the washing program.

K. WATER LEVEL

The related time and water level in the drum can be selected by pressing this button in accord to the laundry quantity. The more bright the indicate light the more high the water level in the drum and the default washing time is longer with this height. The quantity indicator changes its position accordingly each time the laundry quantity button is pressed. We suggest using the first gear when the quantity is less than 1 kg. And using the second gear when the quantity is less than 2.5 kg. And using the last gear when the quantity more than 2.5 kg. All other program setting indicate the default values when the laundry quantity is set. For each setting range please see the program setting for reference. The default program will be carried out if the function is not selected.

L. Door lock indicator

This lamp is light when the door is locked and the machine is in the operation state and the door can not be opened. If the condition for opening the door is met, press the START /PAUSE button this lamp is off and the door is unlocked and the door can be opened.

M. START/PAUSE

The set program is carried out while this button is pressed. To pause the current program, just press this button and the program will not operate at the moment. Pressing this button again if you want to resume the operation. The program can not be reset in the process of running or pause state. Turning off the power and turning on it again if you want to reset programs.

Program selection

Program name	Option	Suitable condition	Quantity	Hot water Temperature (max)°C	Program and washing time			
					Wash (min)		Rinse (min)	
					Default	Range	Default	Range
Prewash	/	for dirty cloth	below 5 kg	/	add 12 minutes washing	/	/	/
Standard	wash/rinse /spin	ordinary cloths washing	below 5 kg	90	25	5-60	3	0-6
	wash/rinse /spin/dry		below 2.5 kg	90	21	5-60	2	0-6
	wash/rinse /spin/dry		below 1 kg	90	17	5-60	2	0-6
Custom	wash/rinse /spin	self defined washing program according to the habit of the operator	below 5 kg	90	25	5-60	3	0-6
	wash/rinse /spin/dry		below 2.5 kg	90	21	5-60	2	0-6
	wash/rinse /spin/dry		below 1 kg	90	17	5-60	2	0-6
Quick	wash/rinse /spin	for not very dirty cloths	below 5 kg	60	8	5-60	2	0-6
	wash/rinse /spin/dry		below 2.5 kg	60	6	5-60	2	0-6
	wash/rinse /spin/dry		below 1 kg	60	5	5-60	2	0-6
Night	wash/rinse /spin	for night washing	below 5 kg	60	25	5-53	3	0-6
	wash/rinse /spin/dry		below 2.5 kg	60	20	5-53	3	0-6
	wash/rinse /spin/dry		below 1 kg	60	15	5-53	3	0-6
Heavy	wash/rinse /spin	for thick or heavy cloths	below 5 kg	30	40	5-60	3	0-6
Delicate	wash/rinse /spin	cashmere and wool fabrics	below 2 kg	/	6	1-15	2	0-6
Standard	dry	dry the ordinary laundries	below 2.5 kg	/	120	/	/	/
60min	dry	dry the ordinary laundries	below 2.5 kg	/	60	/	/	/
30min	dry	anti-virus process for dried laundry	below 2.5 kg	/	30	/	/	/

Notice: ○ indicates that softener or bleach can be added if needed ★ indicates that detergent must be added
☆ indicates that detergent must not be added

Program selection

Program and washing time						The methods for using detergent		
Spin (rpm)		Temp (selecting hot/cold water)		Total time consume (min)		Partition1	Partition2	Partition3
Default	Range	Default	Range	Default	Range			
/	/	/	/	/	/	★	★	○
800	0/600/800/1000	W	C/H/W	59	7-130	☆	★	○
1000	0/600/800/1000	W	C/H/W	168	7-251	☆	★	○
1000	0/600/800/1000	W	C/H/W	103	7-190	☆	★	○
800	0/600/800/1000	W	C/H/W	59	7-130	☆	★	○
1000	0/600/800/1000	W	C/H/W	168	7-251	☆	★	○
1000	0/600/800/1000	W	C/H/W	103	7-190	☆	★	○
800	0/600/800/1000	W	C/H/W	32	7-128	☆	★	○
1000	0/600/800/1000	W	C/H/W	151	7-249	☆	★	○
1000	0/600/800/1000	W	C/H/W	89	7-188	☆	★	○
800	0/600/800	W	C/H/W	67	7-137	☆	★	○
800	0/600/800	W	C/H/W	184	7-259	☆	★	○
800	0/600/800	W	C/H/W	118	7-198	☆	★	○
600	0/600	W	C/H/W	77	7-139	☆	★	○
600	0/600	C	C	29	3-82	☆	★	○
/	/	/	/	120	120	☆	☆	☆
/	/	/	/	60	60	☆	☆	☆
/	/	/	/	30	30	☆	☆	☆

Attention: The above list is just for your reference since the temperature, water pressure and function you selected may verify for different laundry.

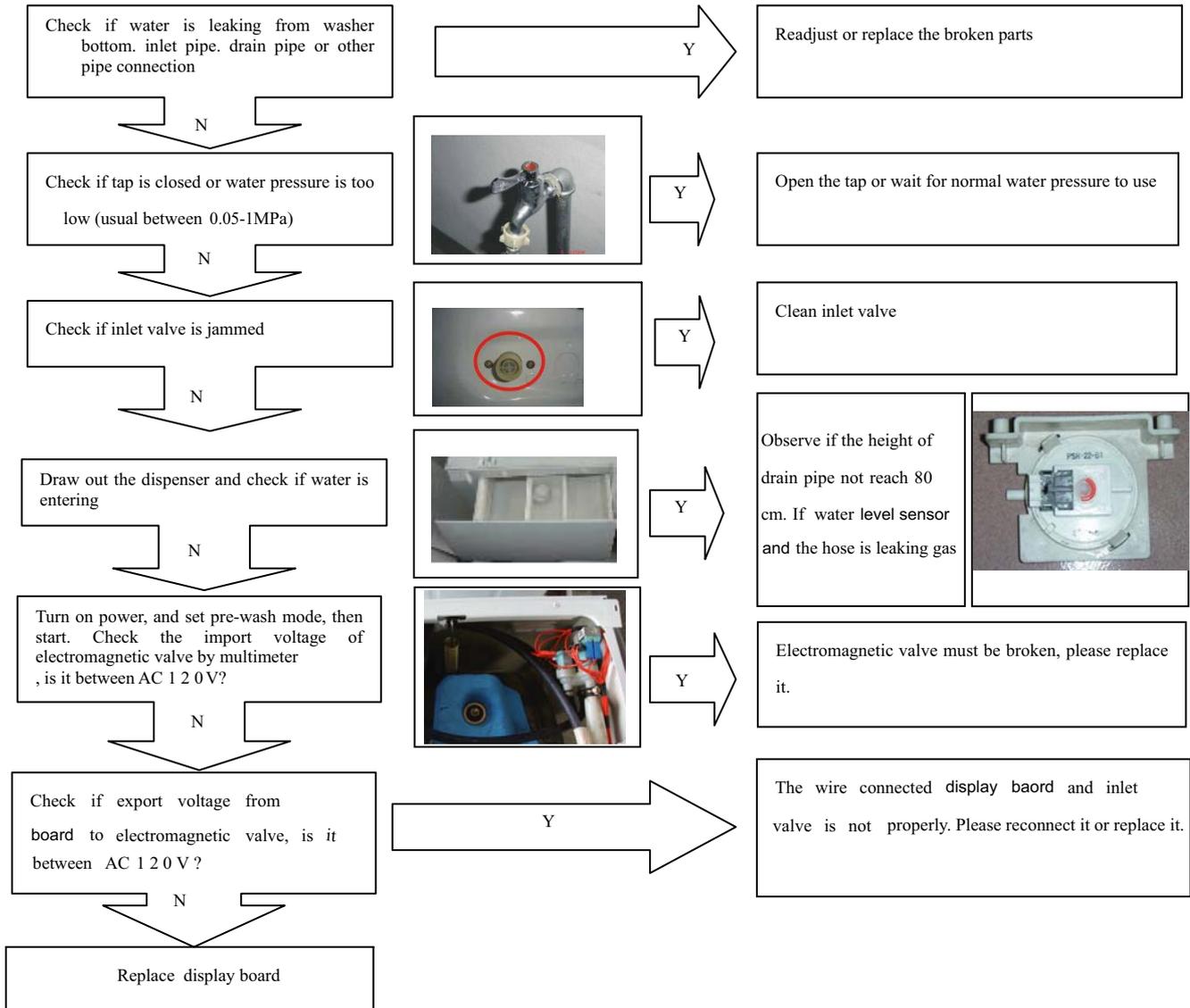
C: cold water, H: hot water, W: cold and hot water.

HWD1000 Error Display and Troubleshooting



Error message: The required water level is not reached within 8 min

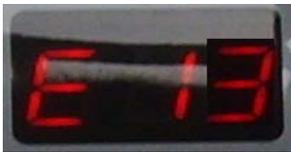
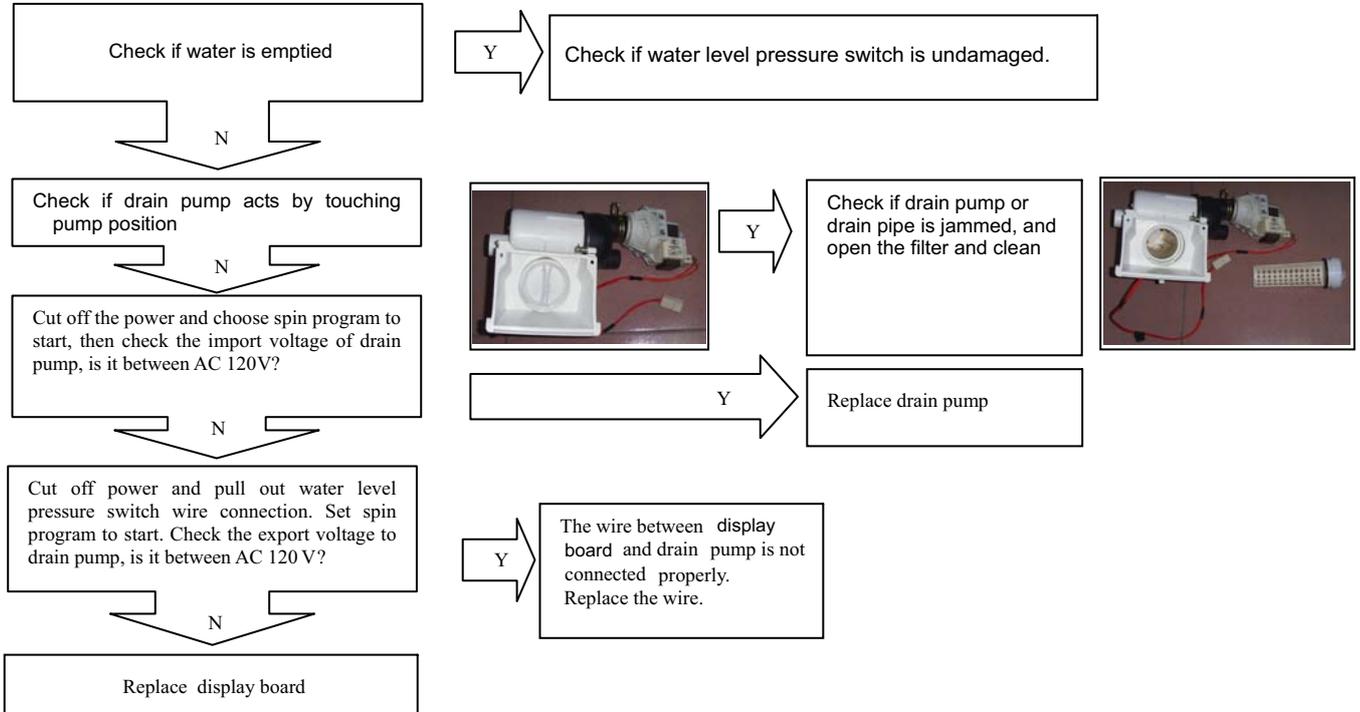
Troubleshooting:





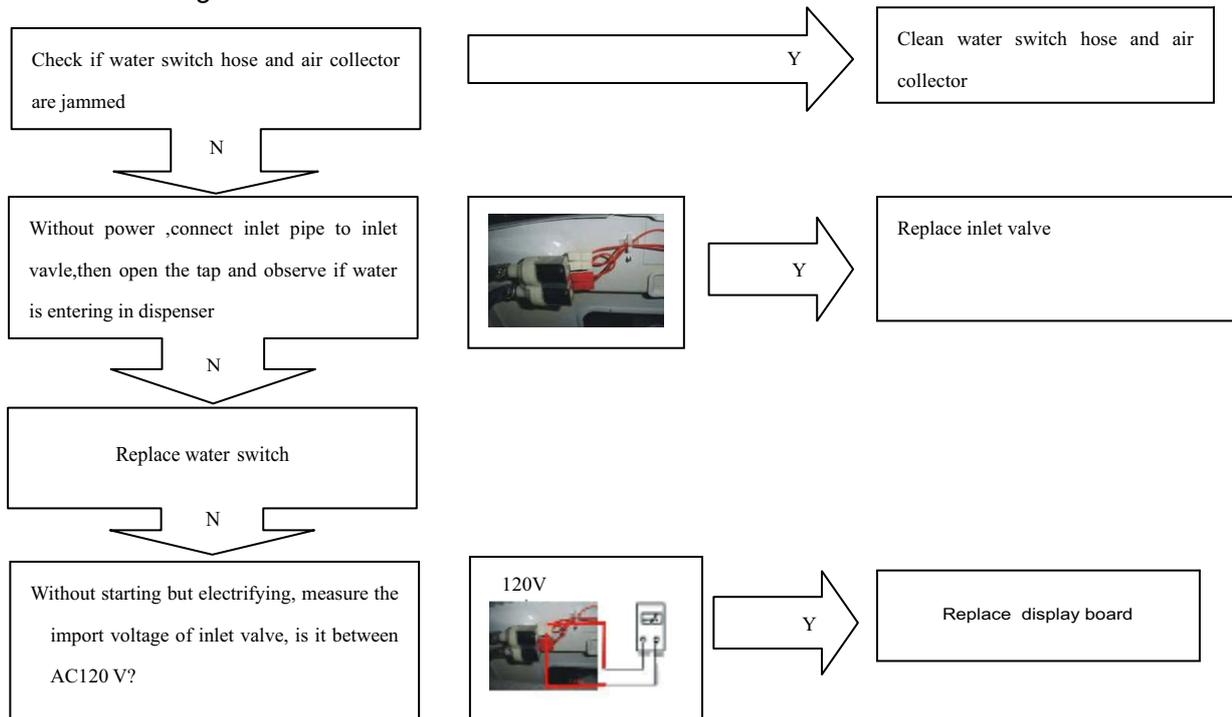
Error message: Drainage error, water not emptied within 5 min.

Troubleshooting:



Error message. Water level exceeds protective value.

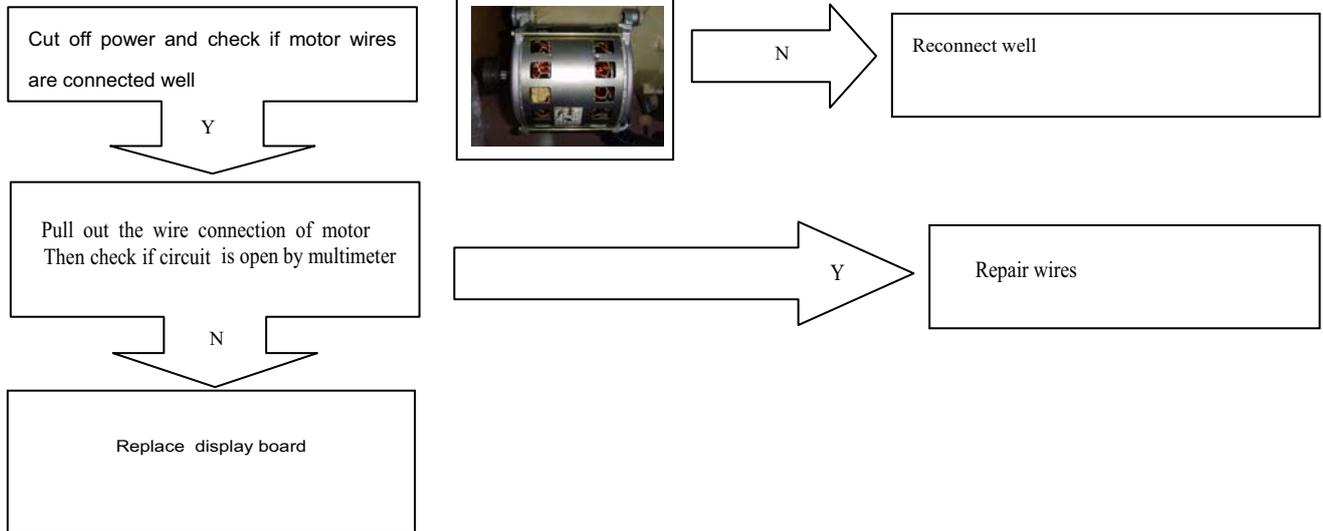
Troubleshooting:





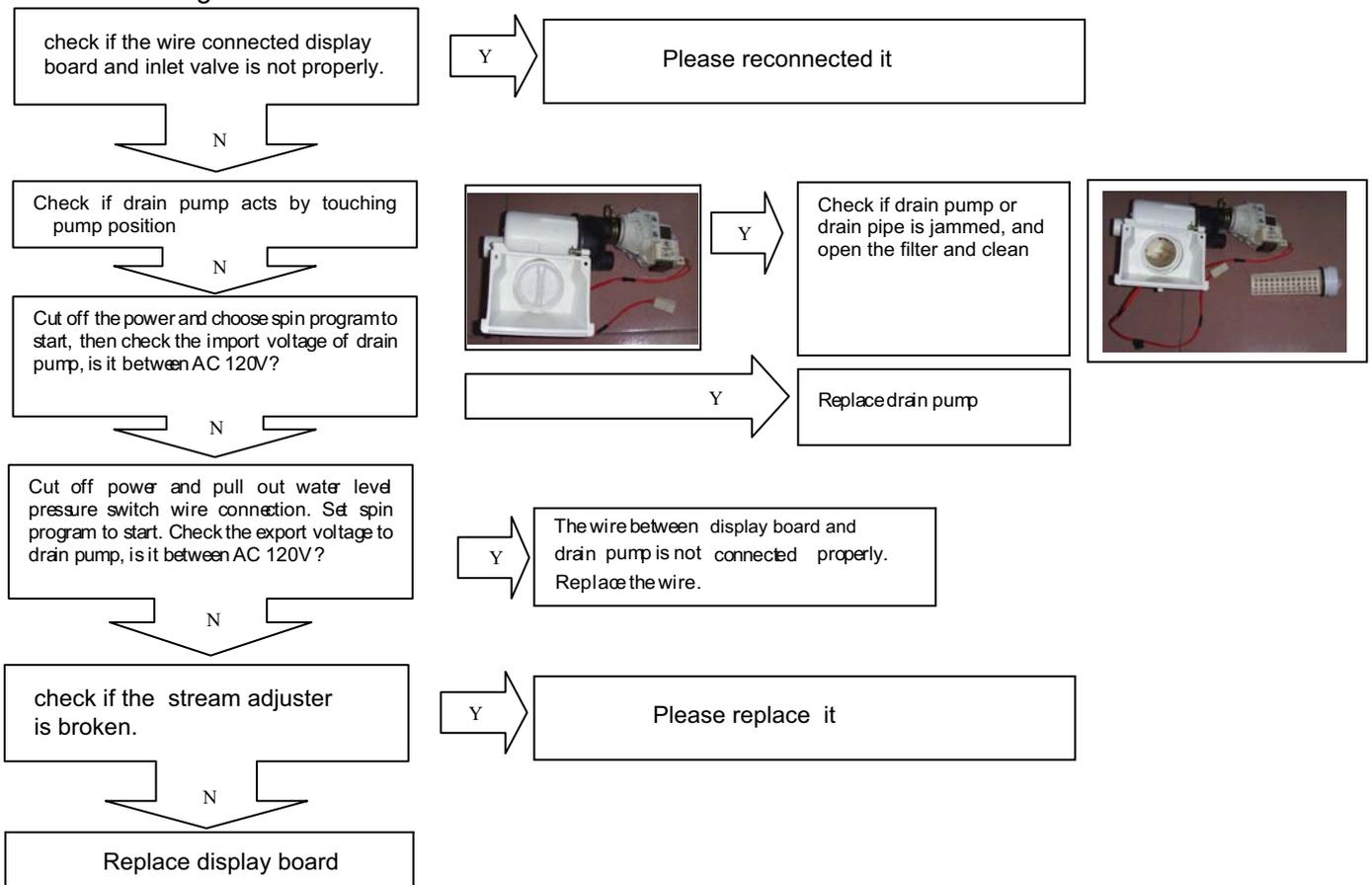
Error message. Motor overheat protection or is damaged.

Troubleshooting:



Error message: Water level is abnormal in the drying process

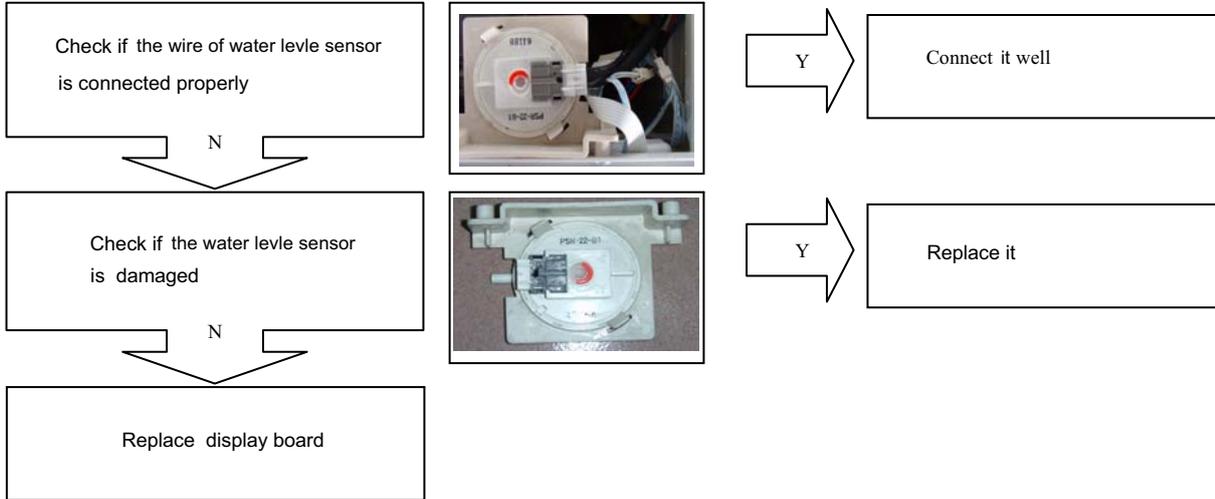
Troubleshooting:





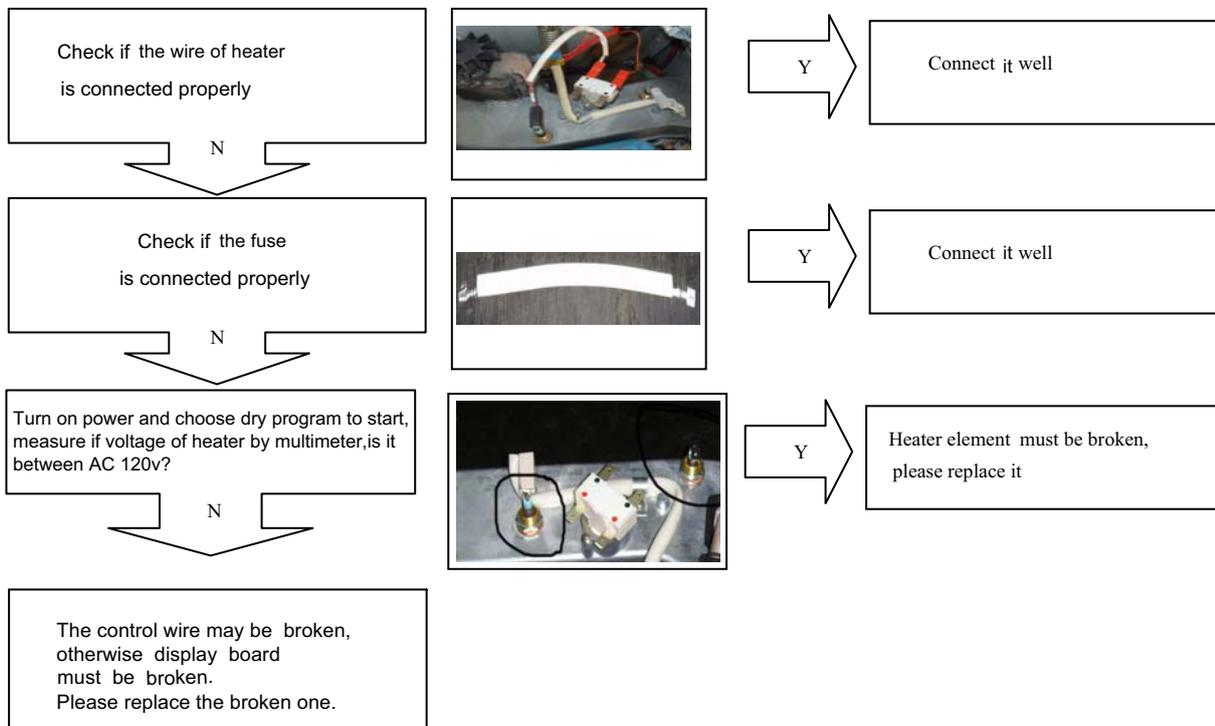
Error message: The water level sensor circuit short cut or open

Troubleshooting:



Error message: The temperature of air vent

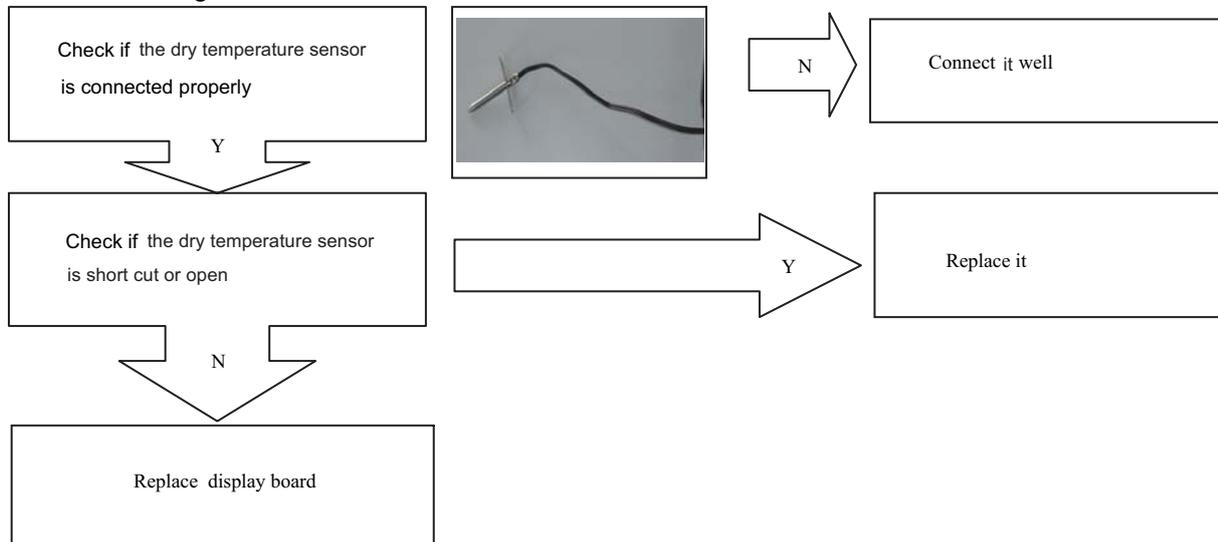
Troubleshooting:





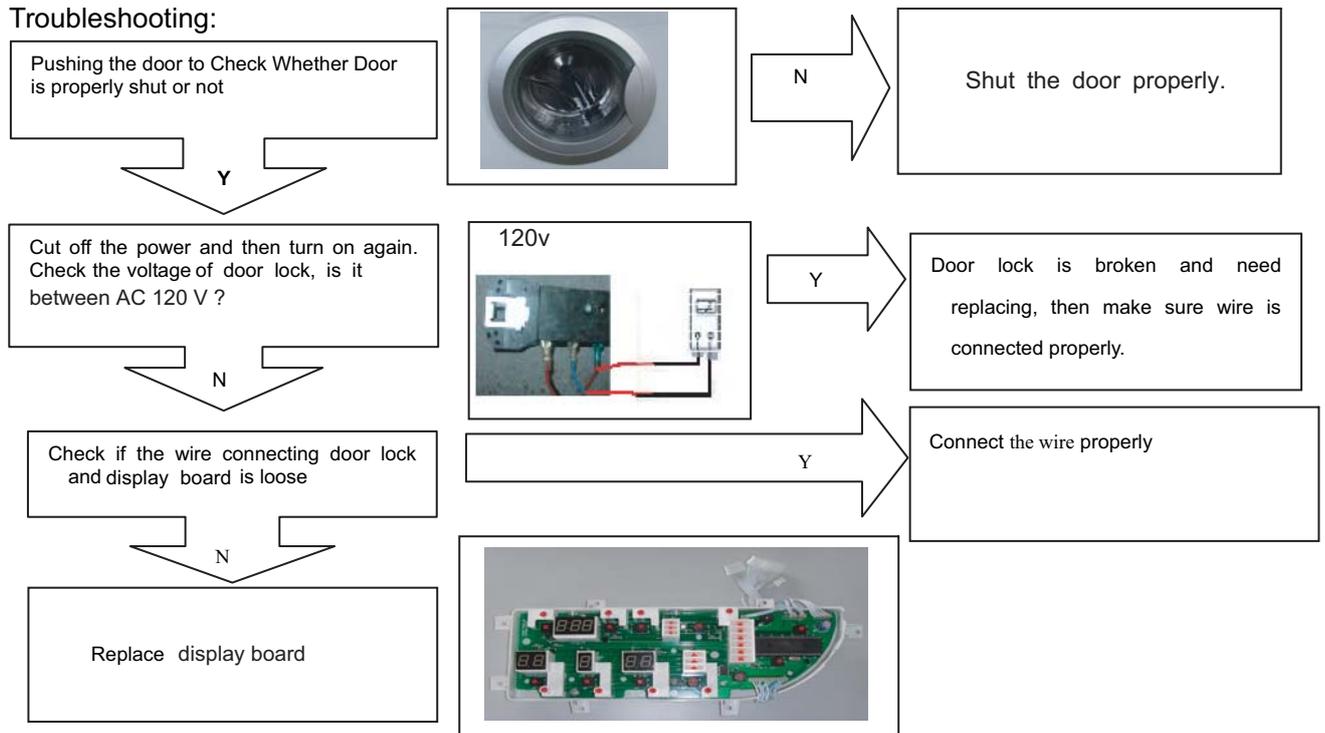
Error message: The dry temperature sensor short cut or open.

Troubleshooting:



Error message: Door is not properly shut 20s after program is started.

Troubleshooting:





Error message:Spin losidedly

Troubleshooting:

You can disperse the clothings evently in the tub and restart the SPIN program.



Error message: Unclose the door before start program

Troubleshooting:

Close the door properly



Error message: The memory function is failure

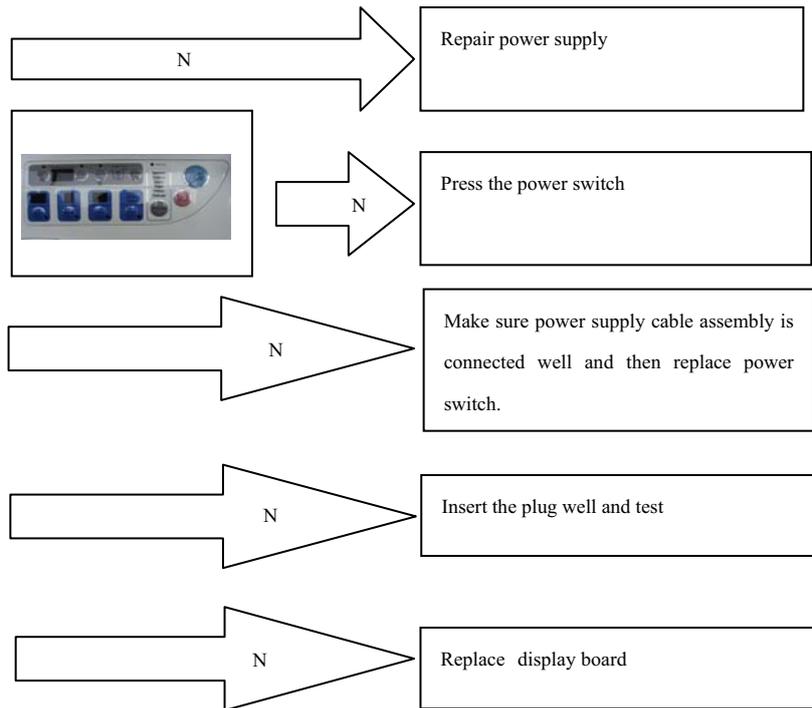
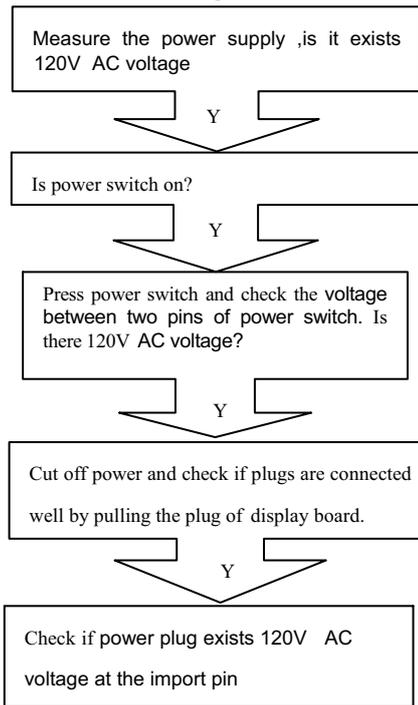
Troubleshooting:

The EEPROM may be go wrong , plese replace display board

HWD1000 Examination & Troubleshooting

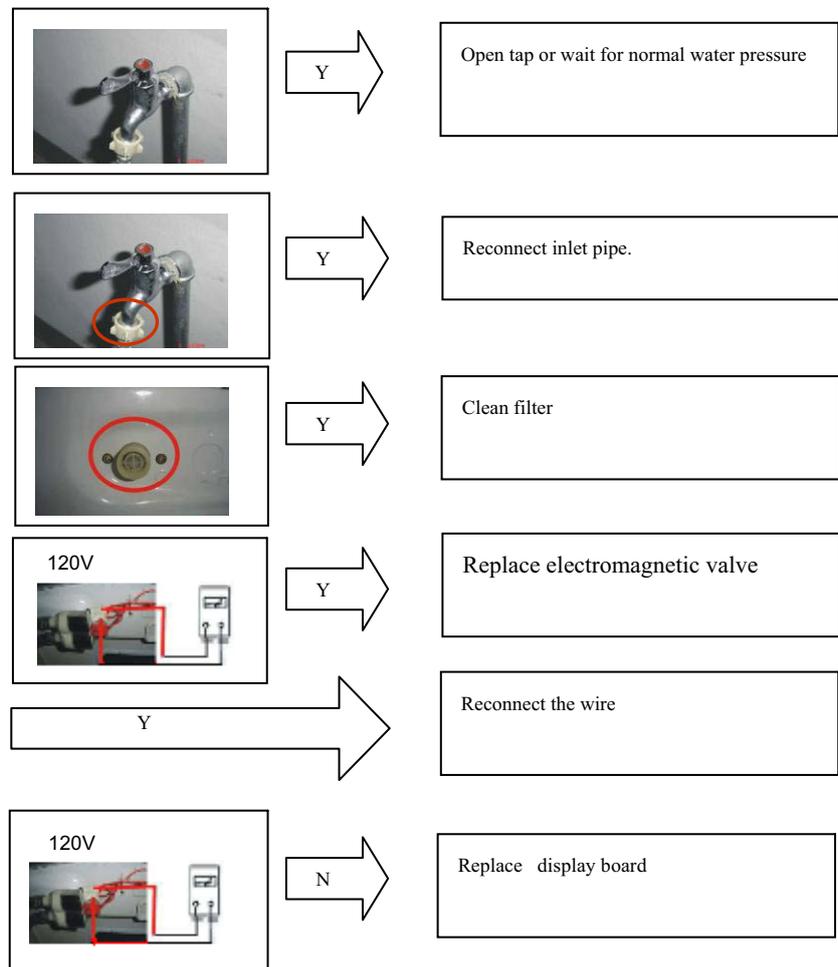
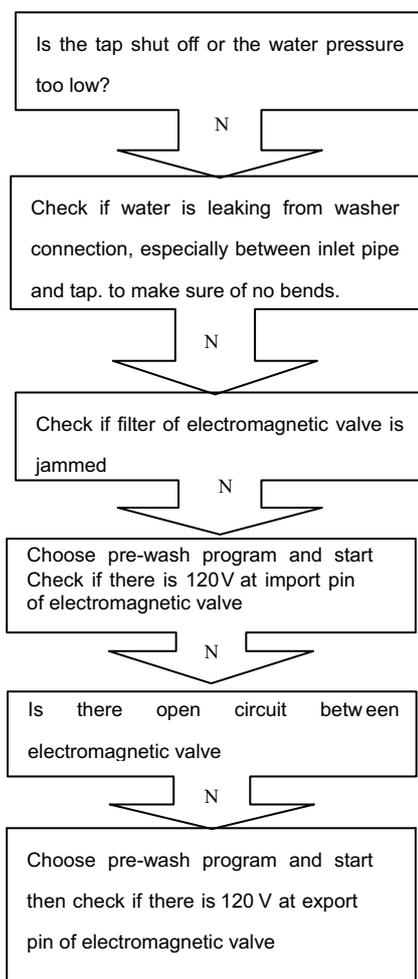
Failure:Display nothing

Troubleshooting:



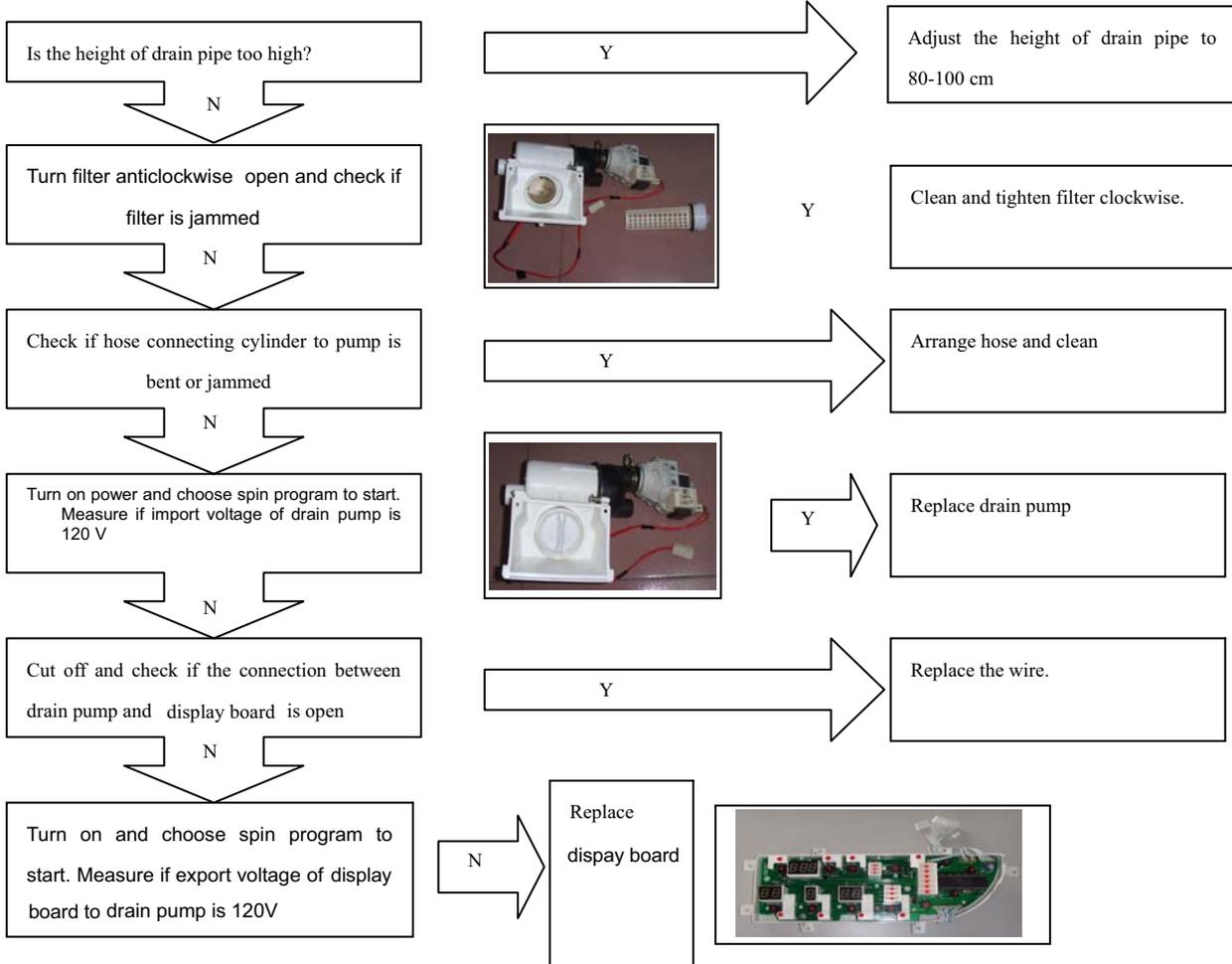
Failure:no water inletting

Troubleshooting:



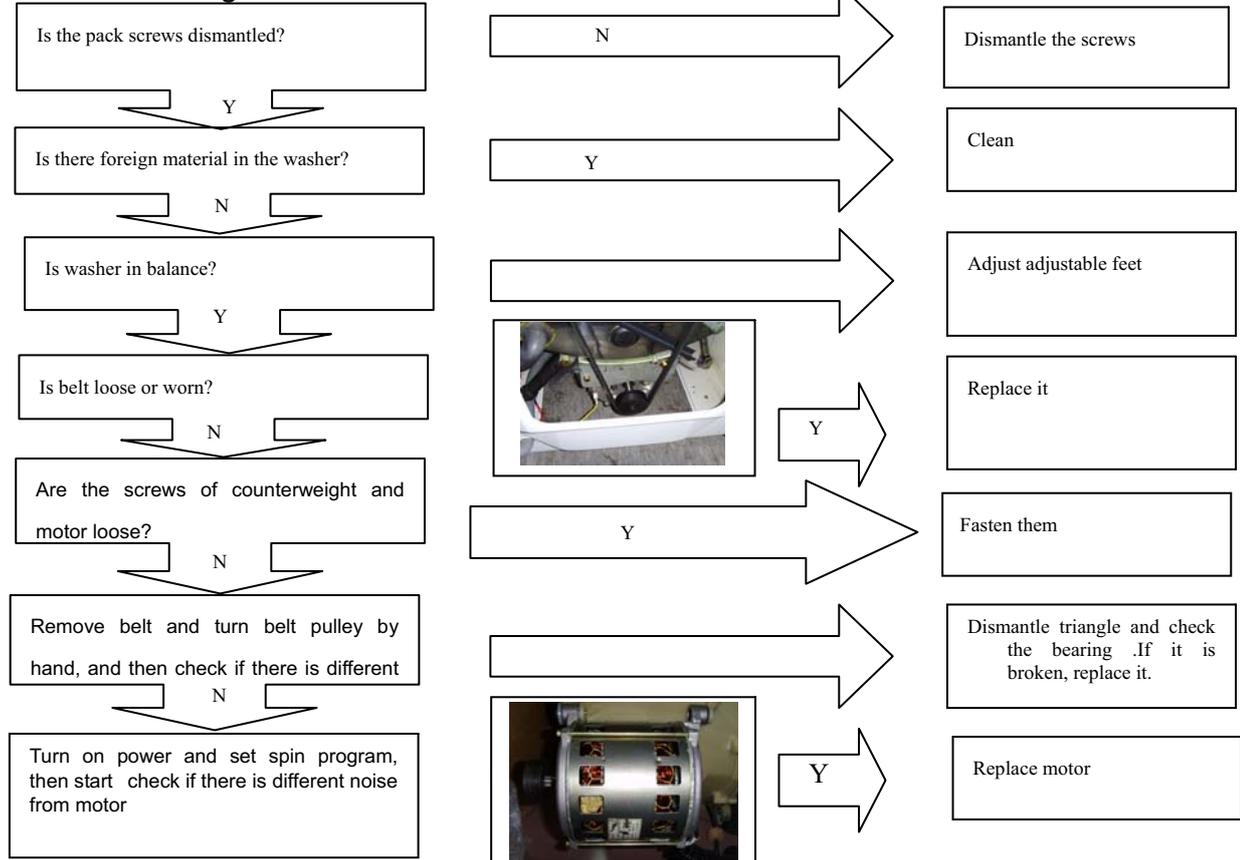
Failure:no draining

Troubleshooting:



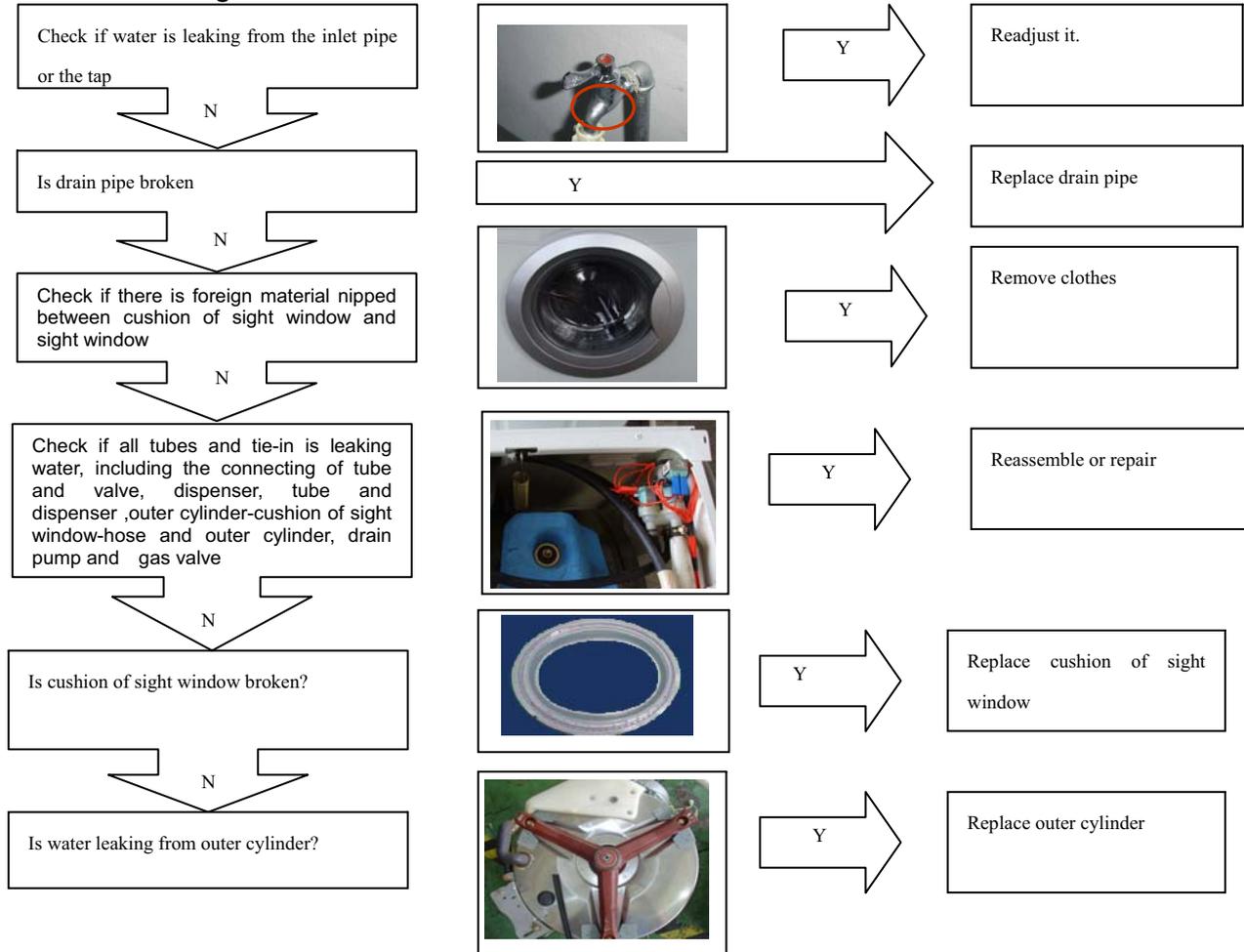
Failure :abnormal noise and vibration

Troubleshooting:

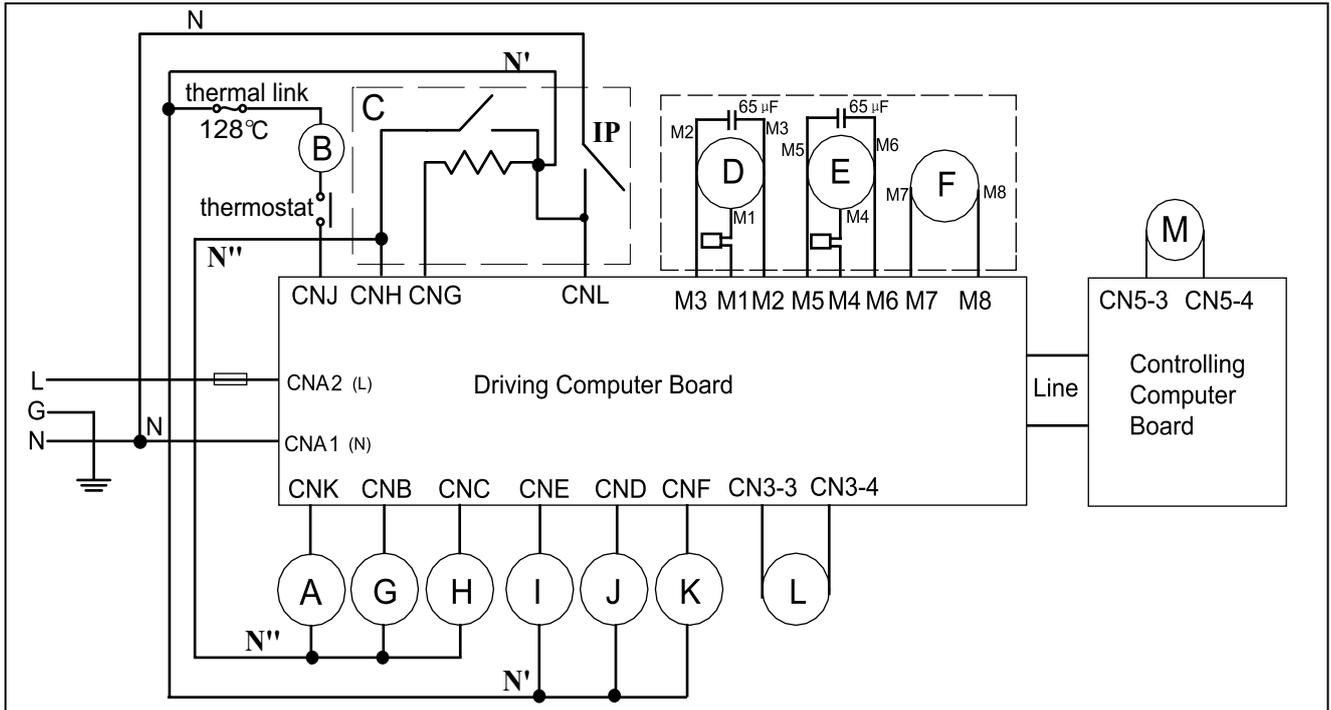


Failure:water leaking

Troubleshooting:



Electronic system diagram



A:water inlet electromagnetic valve for hot water

B:heater (for drying)

C:door engine(Micro-delay door switch)

D:low speed winding of motor

E:high speed winding of motor

F: speed test motor

G:water inlet electromagnetic valve for pre-washing

J:pump K: drying fan motor

H:water inlet electromagnetic valve for main washing

L:water level sensor

I:water inlet electromagnetic valve for drying

M:drying temprature sensor

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