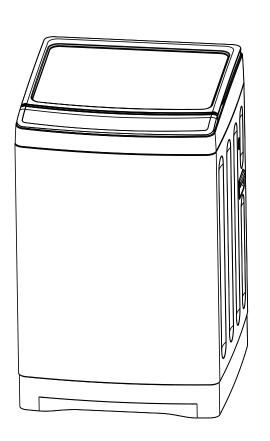


# SERVICE MANUAL

Order NO.Order NO.TL1708S006V1.1

### **Automatic Washing Machine**

**Model Number: LMA2120WBAB0** 



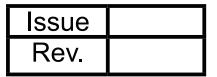
LMA3120WBAB0
LMAE4120WBAB0
LMAE4120WBCL0
LMA6120WBCL0
LMAM2120WBCL0
LMA2120WGCL0
LMA4120WPAB0
LMA4120WBAB0
LMA4120WBBB0
LMA4120WBBB0

### **! WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death`

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#### 1-2. General Guidelines

When servicing observe the original lead dress. If a short circuit is found, replace all parts which are overheated or damaged by the short circuit. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed. Confirm that the screws, parts and wiring which were removed in order to service are put in the original positions, or whether there are the portions which are deteriorated around the service places serviced or not. And be sure safety of that.

#### 1-3. Caution and Warning symbols

(You will see them in "Matters needing attention")



Any instructions in this service manual with this Warning sign must be followed strictly.



To prevent damage to the washing machine, any instructions in this manual with this Stop sign must be followed strictly.

#### 1-4. Function indication symbols

(You will see them in the specification table)



Signify the washing machine has this function.



Signify the washing machine doesn't have this function.

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### **Chapter 2: Product Features**

#### 2-1. Features

- Soak wash make cleaner wash
- Fashionable appearance, transparent top lid
- Efficaciously reduce noise
- Automatically power off function
- Self-adjustment to unbalance of laundry in spinning
- Fuzzy computer control, self-program function, more convenient washing
- Basin pulsator, washing more clean
- Tub drying technology dry the inner tub and the out tub which can avoid growing mildew

Model No:MABE-1789 **2-2. Specification** 

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Model		LMA2120WBAB0 LMA3120WBAB0 LMAE4120WPAB0 LMAE4120WBAB0 LMA4120WPAB0 LMA4120WBAB0	LMA6120WPCL0 LMA6120WBCL0 LMAM2120WBCL0 LMA2120WGCL0	LMA4120WPBB0 LMA4120WBBB0
Free standing		√		
Built under			×	
EAN code			-	
Features for use				
Wash capacity	kg		10	
Spin capacity	kg		10	
Level/Volume			1/21, 2/27, 3/33, 4/39, 5/45,	
	L		6/51, 7/57, 8/63, 9/68, 10/73	
Preset	Н		✓	
Residual dampness	%		<115	
Control model				
controller			×	
Normal computerized			×	
Fuzzy computerized			√	
Frequency conversion			×	
Service features				
Programs			8	
Short cycle			√	
Inlet heating select			×	
Heating selection			×	
Spinning cycle (selector)			×	
Spinning cycle (variable)		×		
Start/Pause			√	
Automatic balancing			<i>√</i>	
Aesthetics		<b>-</b>		
Cabinet material		Z		
(P=Plastic/Z=Zincking/C=Cold )				
Rolled stainless steel				
Inner drum(stainless steel=s/plastic=p)		s		
Drain type		UP		
Door (glass=g / plastic=p)		G G		
Adjustable feet				
Technical data			•	
	\//LI=	127V/60Hz	220V/50Hz	220V/60Hz
Voltage/frequency Wash power	V/Hz	IZI VIOUTIZ	480	
Spin power	W		380	
Special function	W		300	
Air-Bubble	1		×	
Feet wheel			×	
Water fall current			×	
Dimensions (measurements)			<del></del>	
Height / built under	1		970	
Width	mm	970		
Depth / with open door	mm	580 590		
Dimensions packed	mm		3 <b>3</b> 0	
( measurements packed)				
Height	mm	1050		
Width	mm		661	
Depth	mm		670	
Net weight	kg		40	
Gross weight	kg		46	
40H'Container load	Sets	102		
NOTE: "√" FOR AVAILABLE, "×"	FOR NO	T AVAILABLE "-" FOR NOT APPLIC	ABLE	

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### **Chapter 3: SAFETY PRECAUTIONS**

3-1. Safety



- Please insert the power cord into special receptacle with rated voltage. Be sure to use single-phase three pins receptacle. The earthing terminal of the receptacle must be earthed reliably. If possible, please adopt electric leakage protector.
- The washing machine must be positioned so that the plug is accessible. Be sure to pull the plug off and close the water faucet in following cases: power failure, delivering the machine, setting the machine idle or cleaning the machine.
- Do not plug or pull the power plug with wet hand.
- Do not bend ,extend, twist, bind by force. Do not press or nip it with weight.
- Keep the pin of the power plug clean, if the power plug is polluted with dust, please wipe with dry cloth carefully.
- If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.

#### 3-2. Warning and Cautions

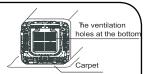


 Do not let the machine share one receptacle with other electric appliances. If the plugging into the receptacles loose, do not use the plug any more.





 In case the washing machine is installed on ground with carpet, do not block the ventilation hole with carpet. Ensure carpet does not obstruct the opening in the bases.





 Do not put the machine at damp place like the bathroom. Never wash it with water. Do not put wet laundries on the control panel.





 Do not wash water-proof laundries like the raincoat, bike covers etc. to avoid abnormal vibrations in spinning. Wash the clothes that can float on the water surface easily, please be careful especially, for fear damage.





 Do not stretch hands into the working machine. It is dangerous even if the rotation is slow. Take special care of the children.

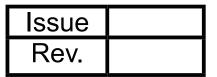


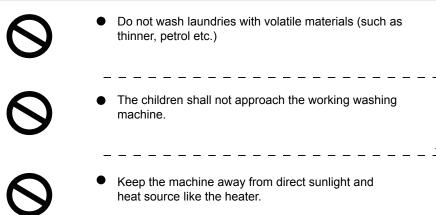


 Do not put any hot or heavy items (such as the kettle with hot water) on the washing machine.

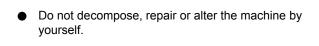


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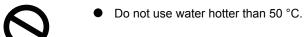






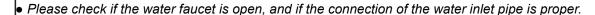








- Please keep the lint filter in good condition, and install it to proper position during washing.
   If the lint filter is lost or damaged, please contact the customer care agent of our company. install
- To protect your laundries and washing machine, please take out all of the coins, buttons, sand, hairpin and other foreign materials before washing.



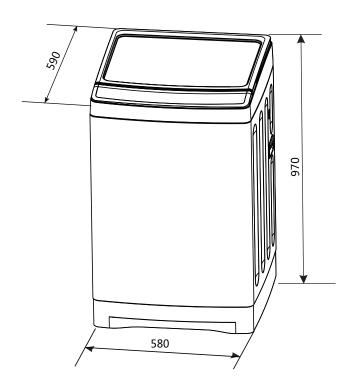
dismantle

- It is suggested to use foamless washing powder.
- To change the direction of drain pipe, please contact the customer care agent of our company.
- Please don't use the washer in the environment below 0 °C; if the washer has been stored below 0°C, please be sure to ensure the washer is placed under the room temperature for 2~4 hours and then use otherwise the washing effects may be lowered or the washer may be damaged.

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#### 3-3. Net Dimensions



Unit: mm

### **Chapter 4: Installation and accessory parts**

#### 4-1. Key points in installation

Please install and adjust the machine according to the requirement of the mannual.

It is very important to your security and correct operating the machine.

#### 4-2. Install the bottom plate

After you open the package, please lean the washing machine gently down on soft items (like the towel cloth, blanket, etc.). Install the bottom plate to the bottom of the machine, then lift the machine up gently. See to the figure: Back Two claws at the bottom cover shall Soft items Bottom plate be inserted in two bar-shaped holes Section I enlarging in the stand. Make sure the claws are firmly in place. Fasten the bottom plate to base frame with one screw

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#### 4-3. Adjustment of the installation position

The largest allowable slope of the shank base of the machine is ≤2°. The slanting or rough ground will result in unstable running or stoppage of the machine. Please adjust it with following methods:

•Confirm it's horizontal:

Hang the lead line to check if it is horizontal

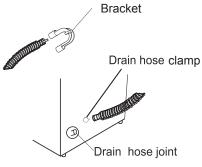
•Adjust the adjustable foot:

To twist the adjustable foot, please first lift up the side of the foot slightly, and then you can twist the two adustable feet. Please make sure to keep the washing maching in balance.

The adjustable foot

#### 4-4. Install drainage hose

- First connect the drainage hose to the connection point on the lower back side of the cabinet and fasten with drain hoseclamp(provided).
- Connect drain hose guide on to the outside of drainage hose. To guide the drain hose over the tub or standpipe, the bracket MUST be fitted to the drain hose.

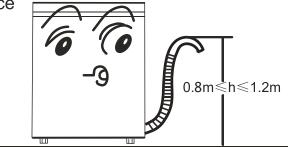


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### 4-5. Placement of Drainage Hose

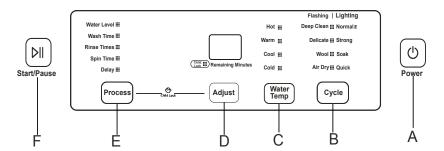
- The height of the standpipe or tub should be between 800 1200 mm.
   To avoid syphoning, the drain hose should not be submerged in the water.
- Ensure drainage hose is held in place to avoid leaks or spills.



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#### 4-6. Usage of operation buttons



#### Indicator display

- Off
- On: Indicates the program is about to run and indicates the selected cycle and options
- : Flashing: Indicates the program is running and indicates the selected cycle and options

#### Display

- Displays total time remaining during current, in progress wash cycle
- Displays remaining time when the "Delay" program is used (hours)
- Displays error codes (see page 15)



	B " Cycle "button					
	Flashing	Application	Lighting	Application		
	Deep clean To clean very dirty clothes		Normal	Use this cycle for normally soiled cottons and mixed fabric loads.		
Cycle	Delicate	Washing for light-soil saving laundries	Strong	Use this cycle for heavily soiled durable garments.		
	Wool	Machine washable woolen items	Soak	This cycle is suitable for soiled items which require soak		
	Air Dry	Dries the laundries to avoid the growth of mildew	Quick	Quick washing for normal laundries		

Note: "Air Dry" program running time is 60 minutes. The purpose is to dry the laundries ,at the same time can dry the outer tub and the inner tub, which can avoid growing mildew on the outer tub and the inner tub. The max drying capacity of the laundries is 1.5kg.

#### A "Power" button

- Push the "Power" button to switch on the power.
- Under power-on mode, push it to switch off the power.
- Push the "Power" button to switch on the power. If the "Start/Pause" button is not pushed, the machine will switch off the power automatically after 5 minutes.

### C "Water Temp" button

• Press the "Water Temp" button to select you wash temperature.

#### F "Start/Pause" button

- After the power is switched on, press it to start the machine
- During working, push it to pause.
- During pause, push this button to restart and go on working

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#### E "Process" button

 To select water level, wash time, rinse times, spin time and Delay. When the process is selected, push "Adjust" button and then adjust the parameters.

#### Child lock function

• The function is intended for children safety and preventing the washing program from accidental changes by children.

Set the desired washing program, after seting, press the Start/Pause button, and washing machine begin to run. Then hold the water level button and delay botton at the same time for more than 3 seconds, you will hear three beep sound, digital tub display "CL", and the child lock will activate. All of the bottons are locked, and will no function.

Release the child lock function:
 Press the water level button and delay botton at the same time for more than 3 seconds,
 After three beep sound the child lock function is released.

Note: If you open the lid when he child lock activate, digital tube display "E2", and beep ,you need close the lid and press the Start/Pause to cancel,or washing machine will drain after 10 seconds,and power off after 10minutes.

#### **D** "Adjust" button

- To adjust the water level, wash time, rinse times, spin time and delay time.
- When the corresponding process light flashing, you can adjust the parameter by press the "adjust" button.
- Water Level: it can be choosed between 1 to 10, the different cycle have different default water level. When you choose Wool cycle, the water level can be choosed between 4 to 10
- Wash Time: it can be choosed between 0 mins to 15 mins, the different cycle
  have different default wash time. When you do not want to use the wash
  process, you can press the "Adjust" button to adjust the wash time to 0 mins.
  When you choose Wool cycle, the wash time can be choosed between 0 min
  to 10 min
- Rinse Times: it can be choosed between 0 times to 3 times, the different cycle have different default rinse times. When you do not want to use the rinse process, you can press the "Adjust" button to adjust the rinse times to 0 times.
- Spin time: it can be choosed between 4 min to 9 min the different cycle have different default spin time. When you do not want to use the spin process, you can press the "Adjust" button to adjust the spin time to 0 mins. When you choose Wool cycle, the spin time can be choosed between 3 min to 5 min
- Delay: it can be choosed between 1 hours to 48 hours, the default delay time is 0 hours
- The default settings is on page 17

#### Operating procedure

- 1 Press the " (b)" button to switch power on/off
- 2 Turn the "Cycle" button to select automatic program

When the power is switched on "Normal" cycle is automatically set. Turn the "cycle" button to select automatic program.

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3. Push the Process button, select suitable procedure

After switching on the power, when the normal program is selected, the washing machine will execute fuzzy program automatically to detect the cloth. After detection, it can set the water level automatically.

- 4. Push the Adjust button to select suitable water level, wash time, rinse times and spin time
- 5. Push the bll button, close the top lid

Start/Pause

If the top cover is opened , the washing machine will stop running and tweet during spinning, then close the lid,you must push the START/PAUSE again to continue running.

#### 4-7. Key points in disassembly

#### 4-7-1 Points of attention in maintance

1) General attention

- Be sure to pull off the power plug in disassembly or maintenance
- Use stipulated crimp terminals in connecting the wires between the conducting wires as far as possible, and fix with suitable tools; and insulate with insulation tape competely
- In inserting the conducting wires, be sure to plug the pins to the root and make it hard to be pulled out.
- If welding is needed, be careful not to touch the plastic or other insulation parts with the iron.
- When connecting the wires, be sure not to make the wire touch the mobile parts like the belt, radiating pulley and jib etc., and the sharp protruding parts and the parts with high temperature (motor). Connect and fix the wires as per their original mode.
- If there's metal object at the wire fixing point, be sure to insulate with insulation materials.

Retain the diamantled screws for future usage in installation.

2)Points of attention in usage of electric components

In case that the power is on, the earthing circuit of the computer sequencer can have 120V voltage to earth. Take care not to get electric shock.

• Store the computer sequencer and driver under 4°C -30°C . Avoid direct sunlight.

In trouble-shooting, it may require hot-line work. Please be extremely carefull

The part of control panel seat

1)Method of opening the control panel

- A Open the back cover Loosen the three locking belt fixed on the cabinet(used in inner wiring),to loosen the inner wiring.
- B Loosen the four screws used to install the control panel seat(rear and side).

Lift the rear upwards. Loosen the control panel seat from the inlay cabinet

Attention:

- Do not Lift the control panel seat by force ,otherwise the safty switch control rod may get transformed, and the jointer part of the conncting pipe of the water lever sensor may be loosened, therefore influence the normal operation of the microswitch and water level sensor
- After opening the control panel seat, hole it with one hand or lean it on supporter like the wall. Do not
  put it down.

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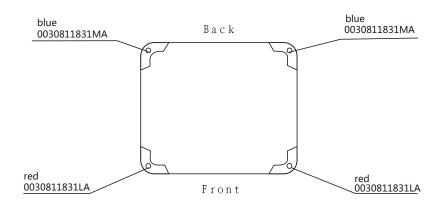
#### 4-7-2 Points of attention in assembly

- Fix the wiring in the control panel seat to its original position. Do not make it touch sharp corner
  and mobile position. The space surrounding the computer sequencer is rather narrow. Please
  dispose it carefully and do not make the transformer press the wires.
- Cofirm that the control panel seat is installed to proper position of the cabinet. Pay attention on the adjusting of the gap between the control panel seat and the cabinet.

#### The cabinet and other tub component

- 1) Method of disassembling
- A. Loosen the two motor bolt unit to dismantle the motor. To adjust the tension of the belt, loosen the bolts and move the motor left and right .
- B. Loosen the four fastening screws to dismantle the delivery shield.
- C. Loosen the three fastening bolts to dismantle the drain motor.
- D. In dismantling the drain valve, first loosen the screws, then rotate slowly to make it loose. Then dismantle the drain valve.
- E. In dismantling the inner tub, first take off the outer tub cover, then dismantle the pulsator, finally dismantle the inner tub. Handle with care when taking the inner tub off from the outer tub.
  - 2) Points of attention in assembly
- In installation of the drain valve, please smear a piece of 801 glue at the connection part between the drain valve and outer tub and between the overflow hose and drain hose to guarantee that the drain valve will not leak.
- In fastening the screws, make it tight without sliding.
- Take care not to scratch the cabinet and influence the appearance of the Machine.

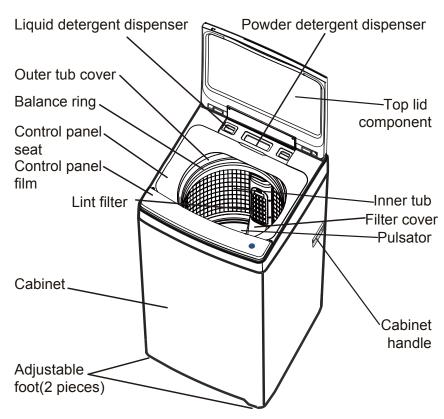
#### 4-7-3 Chang Damping Component

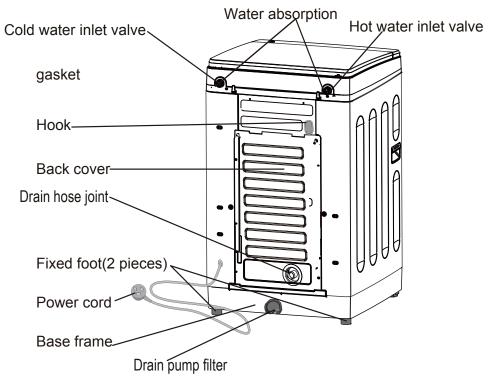


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### **Chapter 5: PARTS AND FUNCTIONS**





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### **Chapter 6: MAINTENANCE SERVICE AND TROUBLE SHOOTING**

#### 6-1. Trouble alarm and solve method

If there is a fault or the machine does not operate correctly, remove the power plug before checking the machine. Using diagnostic list below, please check if the machine requires repair. If a repair is required, please contact our Customer Care Team, do not try to fix it yourself.

Problem		Possible causes	What to do
The machine of drain or drains The display sh	slowly.	<ul><li>Is the drain hose blocked?</li></ul>	Remove the blockage.     Push the Start/Pause button once.
The machine s running. The d shows E2.		• The top lid is not closed.	Close the top lid. Push the Start/Pause button once.
The machine spin. The disp		<ul> <li>Has the laundry been place unevenly in the machine?</li> <li>Is the machine level?</li> </ul>	<ul> <li>Redistribute the load evenly. Push the Start/Pause button once.</li> <li>Level the machine. The machine will start 10 seconds after being leveled correctly.</li> </ul>
The display sh	nows E4.	<ul> <li>Is the water tap closed or has the water supply been interrupted?</li> <li>Is the water inlet valveblocked?</li> <li>Is the water pressure too low?</li> <li>Is the drain hose set too low?</li> </ul>	Open the water tap. Push the Start/Pause button once     Clean the water inlet valve. then push the Start/Pause button once.     Use after the water pressure is normal.     The height of the end of the drain hose should be between 800mm-1200mm
The display s	hows FA.	<ul> <li>The water level sensor has failed.</li> </ul>	Please contact Customer Care.
The machine	Will not wash	<ul> <li>Is there a power failure?</li> <li>Is the power plug inserted tightly?</li> <li>Has the water level reached preset position?</li> </ul>	<ul> <li>Wait for the power supply to be restored.</li> <li>Insert the power plug tightly.</li> <li>Wait for water to fill to the preset level.</li> </ul>
does not work.	Will not spin	<ul><li>Is the power plug inserted tightly?</li><li>Is the top lid closed?</li><li>Is the laundry distributed unevenly in the machine?</li></ul>	<ul> <li>Insert the power plug tightly.</li> <li>Close the top lid.</li> <li>Redistribute the laundry.</li> </ul>
There are abr sounds inside machine.		<ul><li>Is the machine level?</li><li>Has the laundry been placed unevenly in the machine?</li><li>Are there any foreign objects inside the bowl?</li></ul>	<ul> <li>Level the machine.</li> <li>Redistribute the load evenly. Close the top lid.</li> <li>Remove the foreign object.</li> </ul>
The water tap	leaks.	<ul><li>Is the water inlet hose loose?</li></ul>	Fasten the inlet hose.
The display sh	ows F2.	Is the water level too high?	Please contact Customer Care.
The display sh	ows EL.	Is the laundry too much?	Put part of the laundry out,then push the Start/Pause button.

Note: when the digital tube displays the abnormal symbol during working, it buzzs once in succession every two minutes, then the power will be cut automatically after ten minutes

phenomena	Exlpalanation
●The spinning is intermittent when it starts.	Balance the laundries to avoid slanting
●The wash procedure is paused.	The cloth sensor is checking the cloth,it will add water after 48 seconds.
Push the PROGRAM button to select SPIN,but it doesn't work.	•The program is setting the drain time. Some time is needed before it starts spinning.
•The pulsator pauses during water inlet in wash and rinse.	●It is to avoid splashing during water inlet.
•There may be some water flowing out of the drain hose in the first use of the machine.	It is the water remained in the factory inspection of performance.

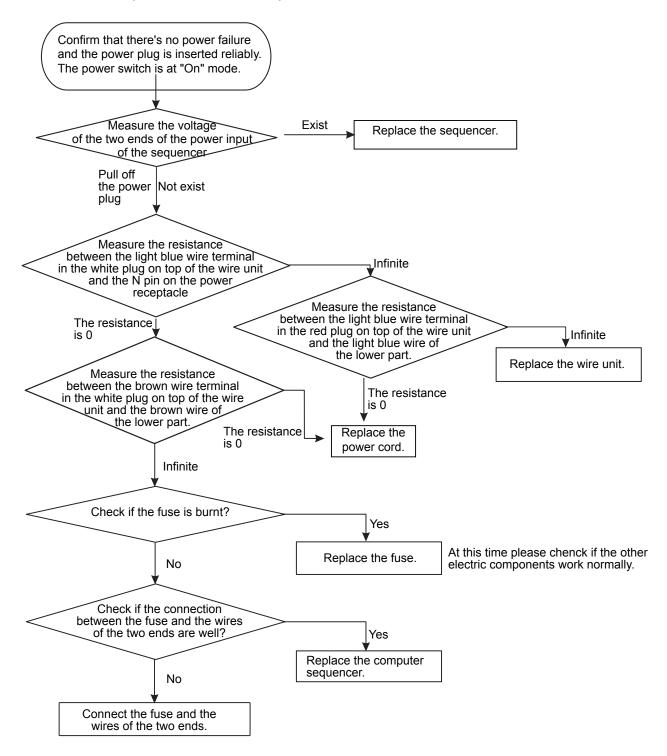
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#### 6-2. Trouble-shooting charts

If you replace the computer sequencer without checking the other components carefully, the computer sequencer may be damaged again. Therefore, please first check if the other components working normally before replacing the computer sequencer in maintence.

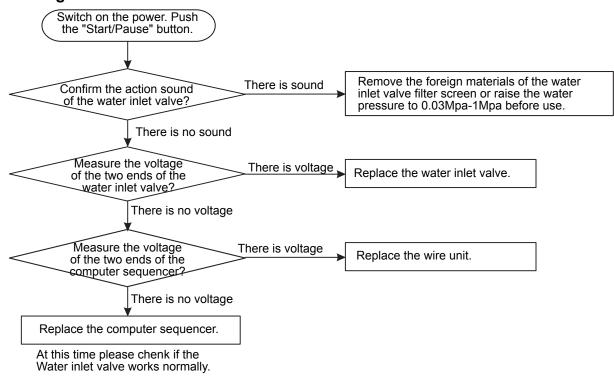
#### 6-2-1 No action (The indicator is off)



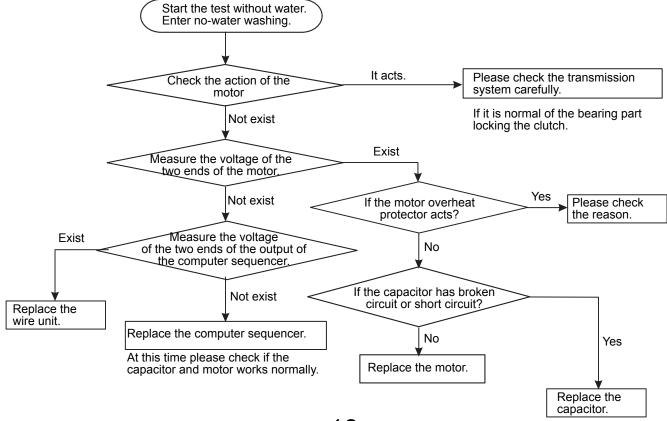
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#### 6-2-2 No water filling

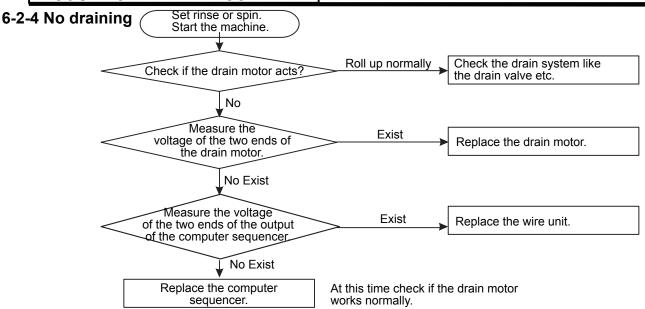


#### 6-2-3 No rotation in washing (or rotate to one direction only)

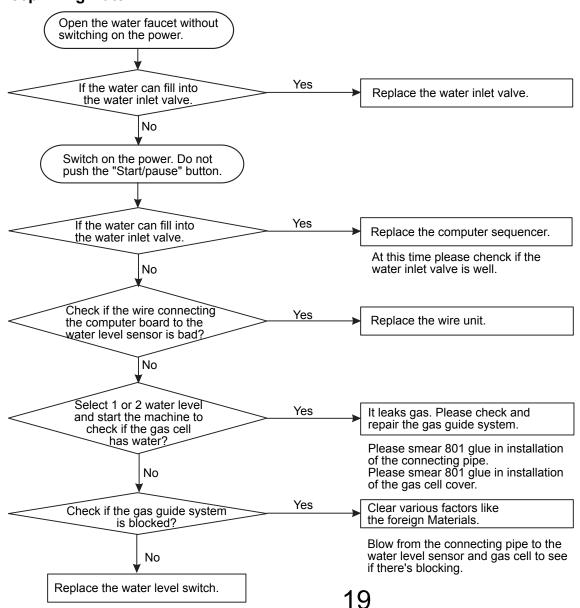


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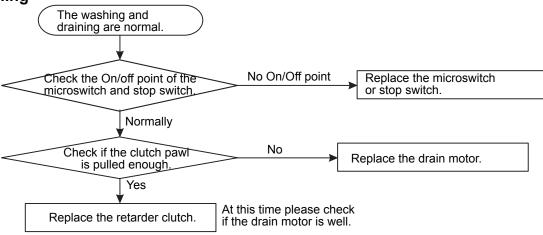
#### 6-2-5 Keep filling water



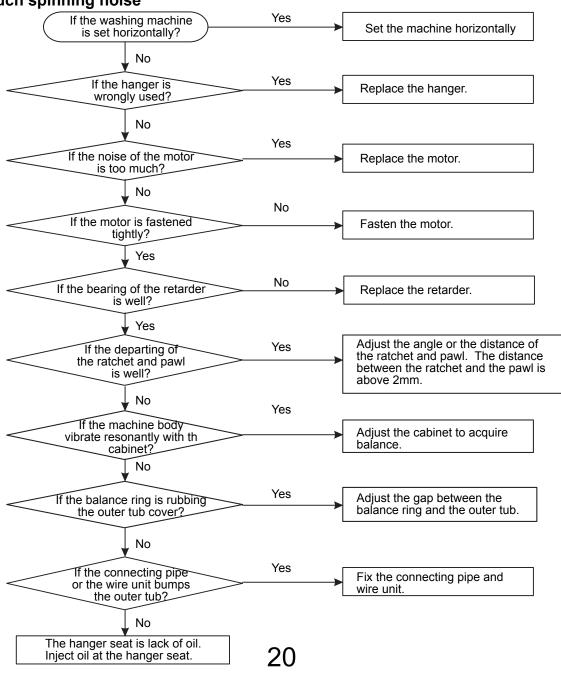
Model No:MABE-1789

Issue Rev.

6-2-6 No spinning



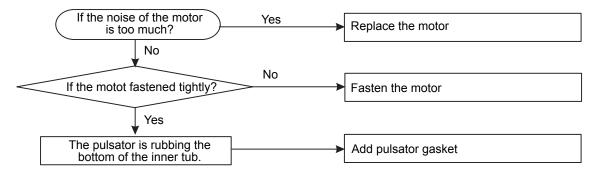
6-2-7 Too much spinning noise



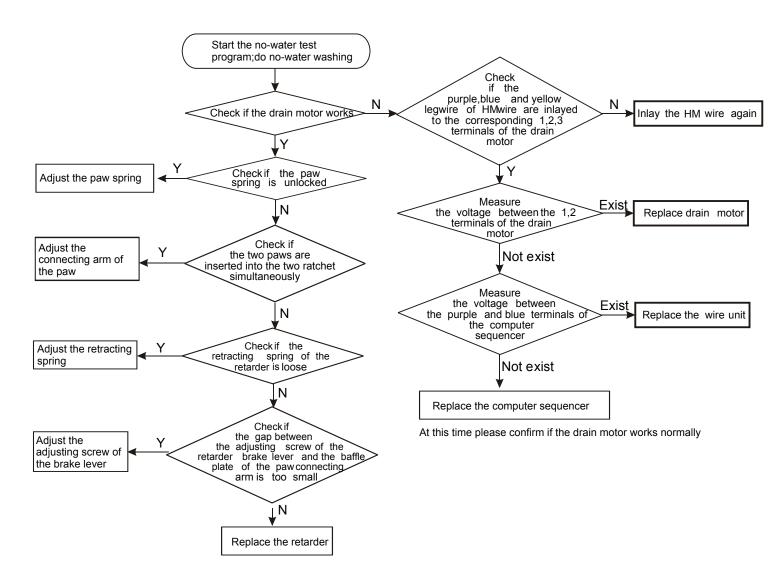
Model No:MABE-1789

Issue	
Rev.	

#### 6-2-8 Too much noise in washing



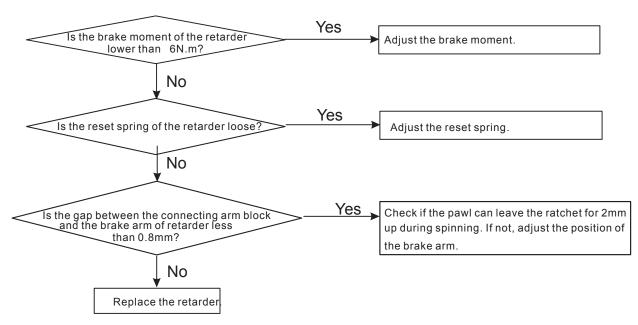
#### 6-2-9 The tub rotate to one direction(in washing)



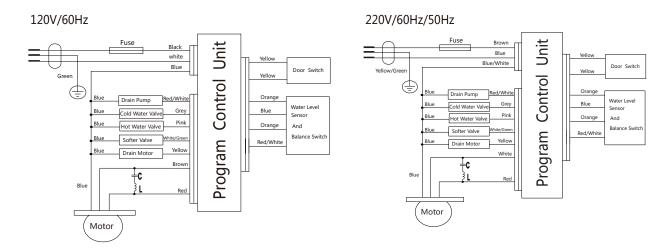
Model No:MABE-1789

Issue	
Rev.	

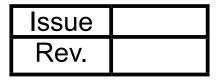
#### 6-2-10 Brake time out



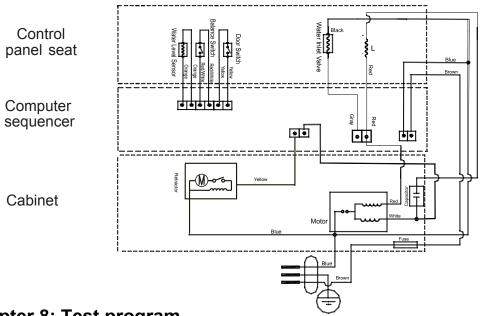
### **Chapter 7: WIRING DIAGRAM**







- There is overload protector installed in the motor. In case that the motor is overload or meets breakdown in working, the protector will act and stop the motor. When the breakdown is removed, the motor will resume normal working.
- Actual Circuit Diagram



- **Chapter 8: Test program**
- Software break :The show board of all models have to be break by software,the methord is follows:

  Frist press "Power",then"Process" and "Cycle" at the same time.Digital tub display

  "b1",then hold "Process" to 22, hold "Start/Pause" finally.
- C1 Test: Hold 'Cycle' and 'Water Temp' at the same time,then press 'Power'.Digital tube displays 'C1'. All lights are lit.1s after the digital tube and all the lights flashing out 3 times, while the buzzer rang 3 times, and then power off.
- C2 Test: Then press 'Water Temp' in three seconds. Digital tube displays '22'. Then Perform washing process.
- C3 Test: On the basis of above C2 test, press 'Water Temp' again, the digital tube display '5', then perform spin process for 5min, during this process, you can check the 'E2', 'E3' alarm.

# Sincere Forever

# **Haier Group**

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