

User Manual

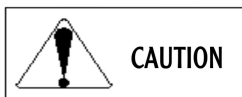
1. Notes

Dear users,

Thank you for choosing our products !

In order to facilitate your use, please read the instructions carefully and operate according to the steps in the instructions. Due to the improvement of the product, the instructions may be changed without further notice. We sincerely apologize.

Please keep the instruction manual safe for your reference.



When used incorrectly, it can cause dangerous situations, which may lead to equipment damage or accelerated damage









When used incorrectly, it can cause dangerous situations and may cause personal injury or death





2. Panel introduction









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Button icon	Function description
 <p>Strengthen wash</p>	<p style="text-align: center;">Strengthen wash</p> <p>Press to strengthen washing, then press to stop washing, and so on.</p>
 <p>Soft wash</p>	<p style="text-align: center;">Soft wash</p> <p>Press to perform gentle washing, then press to stop washing, and so on.</p>
 <p>Standard wash</p>	<p style="text-align: center;">Standard wash</p> <p>According to the implementation of standard washing, and then stop washing, so cycle.</p>
 <p>Cold water 1</p>	<p style="text-align: center;">Cold water 1</p> <p>Press this button, if the actual water level is less than the set water level, add cold water and the cold water light will be on; Press again, stop, the cold water lamp is off;</p> <p>If automatic water replenishment is turned on, if the actual water level reaches the set water level, the cold water lamp will flash and wait for water replenishment;</p>
 <p>Cold water 2</p>	<p style="text-align: center;">Cold water 2</p> <p>Press this button, if the actual water level is less than the set water level, add cold water and the cold water light will be on; Press again, stop, the cold water lamp is off;</p> <p>If automatic water replenishment is turned on, if the actual water level reaches the set water level, the cold water lamp will flash and wait for water replenishment;</p>
 <p>Hot water</p>	<p style="text-align: center;">Hot water</p> <p>Press this button, if the actual water level is lower than the set water level, then heat the water and the hot water lamp will be on; If the current water level is lower than the heating water protection level, the heating water will be turned off, the hot water lamp will flash, and the cold water will be automatically turned on. When the water level reaches the heating water protection level, the cold water will be turned off, and the heating</p>





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	<p>water will be turned on. Press again, stop heating water, the hot water lamp is off;</p> <p>If automatic water replenishment is turned on, if the actual water level reaches the set water level, the light will flash and wait for water replenishment;</p>
 <p>Heat button</p>	<p style="text-align: center;">Heat</p> <p>Press this button, if the actual temperature is less than the set temperature, then heat, heating light on ;If the current water level is lower than the heating protection water level, the heating is turned off, the heating light flashes, and the cold water is turned on automatically. When the water level reaches the heating protection water level, the cold water is turned off, and the heating light is turned on; Press again, stop. If automatic heating is turned on, if the actual temperature reaches the set temperature, the lamp will flash and wait for heating;</p>
 <p>Drainage 1</p>	<p style="text-align: center;">Drainage 1</p> <p>Press, perform drainage 1 operation, press again, stop drainage 1 operation ;In case of dehydration, the key is invalid when opened before entering uniform cloth drainage, and invalid when closed after entering uniform cloth drainage.</p>
 <p>Drainage 2</p>	<p style="text-align: center;">Drainage 2</p> <p>Press, perform drainage 2 operation, press again, stop drainage 2 operation. In case of dehydration, this button is invalid when opened before entering uniform cloth to drain water.</p>
 <p>Middle dehydration</p>	<p style="text-align: center;">Middle dehydration</p> <p>Perform middle dehydration ,</p>
 <p>Dehydration key</p>	<p style="text-align: center;">Dehydration</p> <p>If the number of high shedding is selected as 4, press down to perform the operation of high shedding 1, press down again to perform high shedding 2, press down again to perform high shedding 3, press down again to perform high shedding 4, and press down again to stop the operation of high shedding 5 times.</p>

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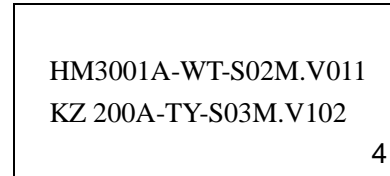
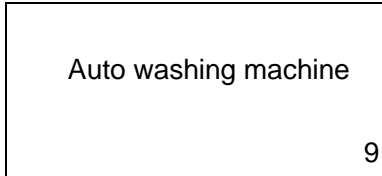
 <p>SUPPLY1</p> <p>Soap cup 1</p>	<p style="text-align: center;">Soap cup 1</p> <p>When "manual", press this button, and the soap cup will automatically stop after working for 20 seconds (the time can be adjusted in the parameter setting). It can also be stopped manually.</p>
 <p>SUPPLY2</p> <p>Soap cup 2</p>	<p style="text-align: center;">Soap cup 2</p> <p>When "manual", press this button, and the soap cup will work for 20 seconds (this time can be adjusted in the parameter setting) and then stop automatically. It can also be stopped manually.</p>
 <p>SUPPLY3</p> <p>Soap cup 3</p>	<p style="text-align: center;">Soap cup 3</p> <p>When "manual", press this button, and the soap cup will automatically stop after 3 working for 20 seconds (the time can be adjusted in the parameter setting). It can also be stopped manually.</p>
 <p>SUPPLY4</p> <p>Soap cup 4</p>	<p style="text-align: center;">Soap cup 4</p> <p>When "manual", press this button, and the soap cup will automatically stop after 4 working for 20 seconds (this time can be adjusted in the parameter setting). It can also be stopped manually.</p>
 <p>SUPPLY5</p> <p>Soap cup 5</p>	<p style="text-align: center;">Soap cup 5</p> <p>When "manual", press this button, and the soap cup will automatically stop after 5 working 20 seconds (this time can be adjusted in the parameter setting). It can also be stopped manually.</p>
 <p>Take clothes forward</p>	<p style="text-align: center;">Take clothes forward</p>

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 <p>Take the clothes to reverse</p>	<p>Take the clothes to reverse</p>
 <p>Run/confirm</p>	<p>Run/confirm</p> <p>In the lock/close state, if this key is pressed, the selected program is executed .The selection of the program is through the "up" and "down" key. When programming or setting parameters, press this key to indicate a confirmation message or enter. Press this button in the process of operation, and the machine will enter the suspended state. Press the button again to reset the suspended state and continue the work before the suspended state.</p>
 <p>Stop/cancel</p>	<p>Stop/cancel</p> <p>In the state of "door closing" or "door lock", perform the operation of locking or unlocking the door. If there is water in the cylinder, the lock cannot be unlocked . When in manual state, if this key is pressed, the current operation is stopped. When in auto state, if this key is pressed, the current running program is stopped. If this button is pressed in the clothes taking state, the clothes taking operation will be stopped. When the machine failure, the computer will automatically alarm, and issued a continuous alarm sound, at this time can press this key, the alarm sound stop, to troubleshoot, then press this key, if the fault has been eliminated, or can be ignored, the computer will return to the "door open", "door closed", "door lock" state; Otherwise, the computer will call the police again. When setting parameters or programming, if this key is pressed, it means exit or return to the previous menu.</p>
 <p>Forward/forward reset</p>	<p>The key is valid: please set relevant parameters in the parameters Leaning forward button: the machine enters the leaning forward work; Forward tilt reset button: the machine enters forward tilt reset work;</p>

3. Interface introduction

3.1. Start interface



After the computer

is powered on, the LOGO of the manufacturer will be displayed for about 5 seconds, such as "automatic washing machine computer", and then the software version will be displayed for about 5 seconds.

3.2. Set interface

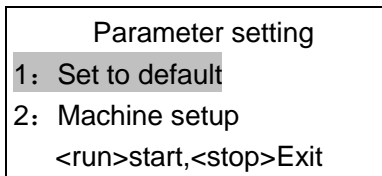


Figure 1

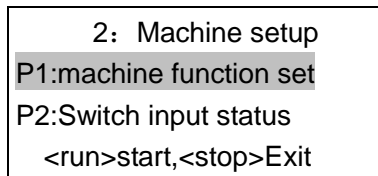


Figure 2

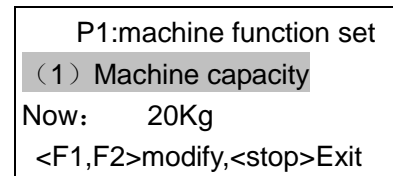


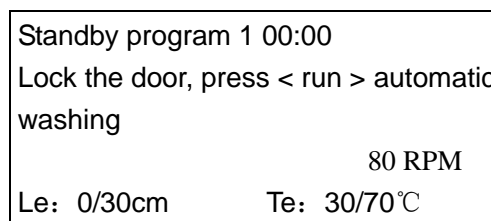
Figure 3

Figure 1 is the main interface for parameter setting. The first line shows the interface title, the second and third lines show the setting item, press down and up keys to select the setting item, and the fourth line shows the operation prompt.

Figure 2 shows parameter Settings -- machine Settings interface, similar to figure 1.

Figure 3 shows the parameter Settings -- machine Settings -- item 1: machine type Settings interface, similar to figure 1, except that line 3 shows the current Settings.

3.3. Standby interface



Line 1 shows the standby status, current program, and running time.

The second and third lines display the operation prompt message. If the frequency converter RS485 controls, the speed will be displayed. If the weighing function is effective, the linen weight and frequency converter speed will be displayed alternately in the speed area of the frequency converter.

The fourth line shows the current value/set value of the liquid level and temperature. For example, 0 in 0/30cm represents the current liquid level, and 30 represents the set liquid level.

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3.4. Manual interface

Manual program 1	00:10
Standard wash, cold water, heated water,	
Heating	
Le: 0/30cm	Te: 30/70°C

Line 1 shows the manual status, and running time.

current program, and

The second and third lines display the action information. If the frequency converter RS485 controls, the speed will be displayed. If the weighing function is effective, the linen weight and frequency converter speed will be displayed alternately in the speed area of the frequency converter.

The fourth line shows the current value/set value of the liquid level and temperature. For example, 0 in 0/30cm represents the current liquid level, and 30 represents the set liquid level.

3.5. Automatic interface

3.5.1. Automatic main interface

When the auto program is started, the auto master interface is displayed, as shown below.

Auto Prog1 Step1	02:00
Standard wash, add cold water, heat water,	
Heating	80 RPM
Le: 0/30cm	Te: 30/70°C

Automatic main interface

Line 1 shows the automatic status, current program, current step, and step time.

The second and third lines display the action information. If the frequency converter RS485 controls, the speed will be displayed. If the weighing function is effective, the linen weight and frequency converter speed will be displayed alternately in the speed area of the frequency converter.

The fourth line shows the current value/set value of the liquid level and temperature. For example, 0 in 0/30cm represents the current liquid level, and 30 represents the set liquid level

3.5.2. Program remaining time interface

In the automatic main interface, if there are no keys for 5 seconds in a row, the interface will switch to the remaining time of the program, as shown below. If any key is pressed, the interface will switch to the automatic main interface.

Auto Prog1 Step1	02:00
00:55:05	
Le: 0/30cm	Te: 30/70°C

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Program remaining time interface

3.6. Programming interface

Edit	Prog1	Step1	02:00
Standard wash, cold water, heated water,			
Heating		80 RPM	
Le:	0/30cm	Te:	30/70°C

Line 1 shows the program status, current program, current step, and step time.

The second and third lines display the action information, and display the speed if the frequency converter RS485 controls

The fourth line shows the current value/set value of the liquid level and temperature. For example, 0 in 0/30cm represents the current liquid level, and 30 represents the set liquid level.

Refer to the programming section for details.

3.7. Fault interface

Idle	Prog1	00:00	
#03 Motor overload			
Le:	0/30cm	Te:	30/70°C

The second line displays the fault information, please refer to the troubleshooting section.

4. Operating instructions

4.1. Power on

After the computer is powered on, the LOGO of the manufacturer will be displayed for about 5 seconds, such as "fully automatic washing machine computer", and then the software version will be displayed for about 5 seconds. After the countdown, the computer will enter the idle state.

- In the countdown time, press 'down' key and 'up' key at the same time to enter parameter setting, and parameter setting can be carried out ; See the **parameter Settings** section for a detailed description;

4.2. standby mode



Possible free interface as shown below:

Idle	Prog1	00:00	
Door open ,load machine			
Press key take the cloth			
Le:	0/30cm	Te:	30/70°C

Idle	Prog1	00:00	
The door is closed, please press < stop > key to lock the door			
Le:	0/30cm	Te:	30/70°C

Idle	Prog1	00:00	
Lock the door, press < run > automatic washing			
Le:	0/30cm	Te:	30/70°C

In idle state:

- Select the 、 key, need to run the program, press the button for 3 seconds programming can

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enter the programming mode, see **programming instructions**;

4.3. Manual mode

4.3.1. Manual mode

- After the computer is powered on, close the door and enter the "door close" state. Press the stop button to lock the door and enter the "lock" state.
- "In the state of "door closing" or "door lock", press any key below to enter the state of "manual". In the case of "door closing", the door will be automatically locked: **cold**、**hot**、**drainage1**、**drainage2**、**dehydration**、**Wash**、**Cup1**、**Cup2**、**Cup3**、**Cup4**、**Cup5**

4.3.2. Manual timing

In the "manual" mode, press the **switch** key cursor switch to set time points or seconds highlighted by the **↓**、**↑** key, can modify the settings, press the **↓**、**↑** key does not put down, can quickly add time, after 5 seconds automatically exit the setting interface.

Manual program 1	00:10
Standard wash, add cold water, heat water, Heating	
Le: 0/30cm	Te: 30/70°C

4.3.3. Modify temperature

In the "manual" mode, press the **switch** key cursor switch to set temperature highlighted by the lower, the **↓**、**↑** key can modify the set value, automatically after 5 seconds to exit the setting interface.

Manual program 1	00:10
Standard wash, add cold water, heat water, Heating	
Le: 0/30cm	Te: 30/70°C

4.3.4. Modify level

In the "manual" mode, press the **switch** key to switch to set the cursor highlighted by the lower level, and the **↓**、**↑** key can modify the set value, automatically after 5 seconds to exit the setting interface. Can also change the level set by the liquid **Level** key, switch low water level, medium water level, high water level, zero water level.

Manual program 1	00:10
Standard wash, add cold water, heat water, Heating	
Le: 0/30cm	Te: 30/70°C

4.3.5. Stop

In the manual operation, directly press the **stop** button will end the current action, if the current is off or high action to delay to stop.

4.3.6. Quit manual mode

In the "manual" state, press the **stop** button will be returned to the "door lock" state; then press the master to open the door lock, into the "door off" state; open the door, then enter the "door open" state.

4.4. Automatic mode

4.4.5. Auto mode

In the "Idle" and "close the door" or "lock" state, according to the case, select the **↓**, **↑** key needed to run the program, press the run button to start running the program currently selected.。

Auto Prog1 Step1	02:00
Standard wash, add cold water, heat water, Heating	
Le: 0/30cm	Te: 30/70°C

4.4.6. Jump step

If the parameter "automatic manual intervention" is set to "yes", the parameter "automatic program with no jump step" is set to "yes" ,

Automatically run the program, you can jump. Press the **↓** keys will be the end of the current step, automatically enter the next step of the program.。

4.4.7. Manual intervention at run time

If the parameter "automatically allows manual intervention" set to "yes", then automatically run the program, you can manually intervene.

- Press the **wash** key such as washing will increase the operation of this action.
- Press **switch** and other settings to modify the time, temperature, liquid level, the operation is similar to manual mode.

4.4.8. Exit auto mode

- Automatic operation, all the effective steps (with the action and the steps of time is not zero) after the end of the automatic program. After the end of the automatic program, the buzzer sounded 60

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seconds, press the stop button to stop the direct exit back to the door lock state.

- Automatic program running process, press the stop button, the end of automatic operation, return to the "door lock" state.

4.5. Unlock

In the "door lock" state, press the door lock key to unlock, turn to "door off" state, if the cylinder water is greater than the "unlock safety level" or temperature is greater than the "unlock safety temperature", can not unlock.。

4.6. Take the clothes

In the "door open" state, press the key to take the clothes, then the drum to take action to take off, then stop taking clothes, returned to the door open state;

Note:

1. when the clothing mode is set to "no", the key is invalid.
2. set to "manual", according to the first positive, the second reversal.。

(Note: the positive and negative rotation time of the drum is limited by the parameter "the maximum protection time for manual clothes taking". After the maximum protection time is exceeded, the drum will automatically stop, and only when the button is released and pressed can the drum be rotated again.)

5. Programming instructions

The controller consists of 30 sets of procedures, the first five sets are preset to program 1 (standard), 2 (sheets), 3 (cloth), application program 4 (shirt) program 5, (towel) five sets of procedures, the remaining 25 sets of programs are preset to standard procedures. Each program has a total of 30 steps, each step can edit action, time, temperature, liquid level. Users can write or modify as needed.

5.1. Create new program

5.1.1. Selection procedure

In the "Idle" state, press the 、, select the need to edit the program number.。

5.1.2. Enter programming

After selecting the program, press and hold the key and key at the same time to display the password input interface :

Enter password(8 bits):




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Please input in order: light wash, standard wash, medium wash, high wash, light wash, standard wash, medium wash, high wash

In this screen, a " * " will be displayed for each key input. Press the "run" key to clear the current password input, and press the "stop" key to exit this screen. After entering the correct password, it will enter the "programming" interface, such as:

Edit	Prog1	Step1	02:00
Standard washing, Cold water			
Le:	0/30cm	Te:	30/70°C

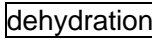
5.1.3. Selection step

In the "programming interface", if the number 1 step 1 is highlighted, press the ,  key directly, select Edit steps; if it is not highlighted, press the  key to highlight.

Edit	Prog1	Step 1	02:00
80 RPM			
Le:	0/30cm	Te:	30/70°C

5.1.4. Editing steps

5.1.4.1. Editing action

6. In the programming interface, directly press the action button, the effective key indicator light, said the action has been incorporated into the program, The  key can be pressed repeatedly, dehydration, high dehydration1, high water 2 ... Switch between. See the description of the key section for each action interlock relationship.

Edit	Prog1	Step1	02:00
High dewater1			
80 RPM			
Le:	0/30cm	Te:	30/70°C

5.1.4..2. Edit soap

In the "programming interface", press a number of soap 1 to soap cup 5 can be added in the current step soap action, while the liquid soap LED light.

Edit	Prog1	Step1	02:00
Standard washing , soap			
80 RPM			
Le:	0/30cm	Te:	30/70°C

6.1.1.1. Edit time

In the programming interface, press the  key cursor switch to set time points or seconds




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highlighted by the 、key, can modify the settings, press the 、key, up arrow on fast and time

```

Edit Prog1 Step1 02:00
Standard washing, Cold water
                        80 RPM
Le: 0/30cm   Te: 30/70°C
  
```





6.1.1.2.Edit temperature

In the programming interface, press the  key cursor switch to highlight the temperature value, then press the 、 key, can change the temperature value.

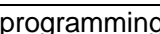
```

Edit Prog1 Step1 02:00
Standard washing, Cold water
                        80 RPM
Le: 0/30cm   Te: 30/70°C
  
```

6.1.1.3.Edit level

In the programming interface, press the  key to switch to the level value of the cursor is highlighted, then press the 、 key, can change the level of value. Can also change the level set by the liquid  key, switch low water level, medium water level, high water level, zero water level



6.1.2. End programming

Programming is completed, according to the  key to exit the "interface", and then choose whether to save the file, if you select Yes, save before modifying the program, and choose "no", before the changes are not saved .

7. Parameter setting



All parameters have been set before the machine, without special needs, should not be changed, so as not to affect the normal operation of the machine!

Computer power on the countdown stage, and press the 、key, display the password input interface:

```

Enter password(8 bits):
  
```

- In this screen, a "*" will be displayed for each key input. Press the "run" key to clear the current password input, and press the "stop" key to exit this screen.

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- User initial password: gentle wash, standard wash, medium take off, high take off, gentle wash, standard wash, medium take off, high take off; User passwords can only set user-level permission parameters.

When you enter a user password or manufacturer password, will enter the parameter settings interface” :

```

Parameter setting
1:Set to default
2:Machine setup
<run>enter,<Stop>3SQuit
  
```

- Enter the "parameter setting interface", press the 、 key, can choose the parameter setting, press the key to enter into the project.
- Enter the item and press the 、 key, optional items, to modify items, press the 、 key, you can modify the parameters (hold down the button can quickly modify settings), press the key to exit the parameter modification.
- After completing the modification, press and hold the key for 3 seconds to exit the parameter setting and enter the free interface.。

7.1. Machine setting

In the main interface of parameter setting, select "2: machine setting" and press the "run" button to enter the machine setting interface。

```

2: Machine setting
P1 : Machine function
Settings
P2: Switching input state
<run>enter, <Stop> Quit
  
```

Press 、 to select
 Press 、 to modify
 Press to confirm or enter
 Press to cancel or back or quit

8. USB Functional operation instructions

- 1、 Insert the U disk when the computer board is power off.2, power on the computer board, the computer board will automatically detect whether the U disk is inserted, if the detection is successful, first show "detected U disk",
- 2、 seconds later, and then show "please enter the password (8 bits) :".
- 3、 Enter the manufacturer password or user password, and enter the main interface of U disk operation.

```

Welcome to the USB function
1: Import machine parameters from
the USB flash drive
2: Import the auto program from the
USB flash drive
<run>enter,<Stop>3SQuit
  
```



CAUTION

Factory password can be used for all operations, user password can only parameters, automatic program import, export.

- 4、 Press 、 to select program, Press to enter this program.
- 5、 After the operation, press and hold the button for 3 seconds to exit to the standby interface and pull out the U disk.

8.1. Import machine parameters from the U disk

In the main interface of U disk operation, select "1: import machine parameters from U disk" and press the "run" key to enter the interface of machine parameters import.

```

Welcome to the USB function
1 : Import machine
parameters from the USB
flash drive
<run>enter, <Stop> Quit
  
```

Press the run key to confirm, start importing machine parameters, and press the stop key to cancel.



CAUTION

When importing machine parameters, the machine parameters file should be stored in the root directory of U disk.

8.2. Import the automatic program from the U disk

In the main interface of U disk operation, select "2: import automatic program from U disk" and press the "run" key to enter the interface of automatic program import.

```

Welcome to the USB function
2: Import the auto program
from the USB flash drive
<run>enter, <Stop> Quit
  
```

Press the run key to confirm and start importing the automatic program. Press the stop key to cancel.



CAUTION

When importing automatic program, automatic program files should be stored in the root directory of U disk.

8.3. Export machine parameters to U disk

In the main interface of U disk operation, select "3: export machine parameters to U disk" and press the "run" button to enter the interface of machine parameters export.

```
Welcome to the USB function
3 : Export machine
parameters to U disk
<run>enter, <Stop> Quit
```

Press the run button to confirm, start exporting machine parameters, and press the stop button to cancel.



When exporting machine parameters, the machine parameters file will be automatically stored in the root directory of U disk.

8.4. Export the automatic program to the U disk

In the main interface of U disk operation, select "4: export automatic program to U disk" and press the "run" key to enter the interface of automatic program import.

```
Welcome to the USB function
4: Export auto program to U disk
<run>enter, <Stop> Quit
```

Press the run button to confirm and start exporting the automatic program. Press the stop button to cancel.



Export automatic program, automatic program files will be automatically stored in the U disk root directory.

Parameter group	Parameter item	Default value	Setting range	Type	Parameter explanation
P1:machine function set	(1)Machine capacity	20KG	1~200KG	Factory	Machine capacity.
	(2) language	Chinese	Chinese and English	User	Select the language to display
	(3) Temperature unit	Celsius	Celsius and Fahrenheit	User	Select temperature display unit.
	(4) Enable the door bolt?	No	Yes、No	Factory	Yes: Door lock switch should be installed. No: Door lock switch not installed.
	(5) Drain1 while door open	Yes	Yes、No	Factory	Yes: Drain 1 active automatically once door open. No: Drain 1 not active while door open.
	(6) Drain valve output status	Close	Closed、Open	Factory	Open: drain, disconnect relay. Closure: when drainage, drainage relay closed.
	(7) Manual intervention while auto running?	Yes	Yes、No	User	Yes: Manual intervention is permit while auto running. No: Manual intervention is not permit while auto running.
	(8) Automatic program with no jump step?	Yes	Yes、No	User	In the process of automatic program running, whether to allow the jump step, the parameter "automatically run when the manual intervention" is set, this parameter is valid.
	(9) Time not counting down until level and temperature reach?	No	Yes、No	User	Yes: The setting time will not count down until the temperature and level are reached the setting value. No: The setting time will count down regardless of temperature or level.
	(10) LOGO	default	Custom, default	Factory	Custom: display custom LOGO, you need to download the LOGO controller. Default: display factory default LOGO, such as "fully automatic off-line computer".
P2:Switch input status	(1) Door closed	Closed	Closed、Open	Factory	Closed: The door switch closed means door is closed. The door switch open means door is open. Open: The door switch open means door is closed. The door switch closed means door is open.

(2) Motor overload	Closed	Closed、 Open	Factory	<p>Closed: The motor overload switch closed means motor is overload. The motor overload switch open means motor is working well.</p> <p>Open: The motor overload switch open means motor is overload. The motor overload switch closed means motor is working well.</p>
(3) Imbalance	Closed	Closed、 Open	Factory	<p>Closed: The imbalance switch closed means machine is imbalance. The imbalance switch open means Motor is working well.</p> <p>Open: The imbalance switch open means machine is imbalance. The imbalance switch closed means motor is working well.</p>
(4) Compressed air pressure low	Closed	Closed、 Open	Factory	<p>Closed: The air pressure switch closed means air pressure too low. The air pressure switch open means air pressure is OK.</p> <p>Open: The air pressure switch open means air pressure too low. The air pressure switch closed means air pressure is OK.</p>
(5) Emergency stop	Closed	Closed、 Open	Factory	<p>Closed: The emergency stop switch closed means emergency stop pushed.</p> <p>Open: The emergency stop switch open means emergency stop pushed. The emergency stop switch closed means no emergency stop pushed.</p>
(6) Door locked	Closed	Closed、 Open	Factory	<p>Closed: The door lock switch closed means door is fully locked. The door lock switch open means door lock is fully unlocked.</p> <p>Open: The door lock switch open means door is fully locked. The door lock switch close means door lock is fully unlocked.</p>
(7) Inveter error	Closed	Closed、 Open	Factory	<p>Closed: The inverter error switch closed means inverter error occurs. The inverter error switch open means inverter is working well.</p> <p>Open: The inverter error switch open means inverter error occurs. The inverter error switch</p>

					closed means inverter is working well.
	(8) Inverter brake overheat	Closed	Closed、 Open	Factory	Closed: The brake resistor switch closed means brake resistor is overheat. The brake resistor Switch open means brake resistor is working well. Open: The brake resistor switch open means brake resistor is overheat. The brake resistor switch closed means brake resistor is working well.
P3:level and water set	(1) Zero level	0cm	0~99cm	Factory	Set the level value of the bottom position of the the drum.
	(2) Low level	20 cm	0~Middle level	User	Set the value of low level.
	(3) Middle level	30 cm	Low level~High level	User	Set the value of middle level.
	(4) High level	40 cm	Middle level~overflo w level	User	Set the value of high level.
	(5) Overflow level	90 cm	High level~99cm	User	Set the value of overflow level.
	(6) Auto water filling if level fall down?	Yes	Yes、 No	User	Yes: If water level falls down ,open the water filling valve to fill water till the water level reaches the setting value automatically. No:Water filling valve will not be opened regardless of the water level falling down
	(7) Water level differetial for auto water filling	4cm	0~99cm	User	Water level differencial for auto filling. For example.if this value is 4,it means the water filling valve will be opened if water level falls down to lower than setting level-4.
	(8) Max time for water filling	10 Min	0~255 Min	User	Set Max time to reach the setting level while filling. 0 means this safety protction is invalid and the controller will not alarm to remind user if the filling time is too long.
	(9) Safety level for heating	10cm	0~99cm	User	Set the safety water level for heating. Heating is not permit if level is lower than this setting value.

	(10) Intelligent hot water filling?	Yes	Yes、No	User	Yes:Hot water filling is controlled by both temperature and level. No: Hot water filling is just controlled by level,not by temperature.
P4:Temp and heat set	(1) Lowest working temperature	0℃	0~Max temperature	User	Mimimum drum temperature for machine working. Controller will alarm if the actual temperature is lower than this setting value.
	(2) Highest working temperature	90℃	Minimum temperature ~100℃	User	Max drum temperature for machine working. Controller will alarm if the actual temperature is higher than this setting value.
	(3) Default temperature for manual operation	70℃	Minimum temperature ~Max temperature	User	Default setting temperature for manual operation.
	(4) Auto reheating active?	Yes	Yes、No	User	Yes: The heating valve will active automatically if temperature falls down. No: The heating valve will not active if temperature falls down.
	(5) Temperature differential for auto reheating	4℃	0~100℃	User	Temperature differential for auto reheating. For example,if the setting temperature is 70,this value is 4,the heating valve will active if the temperature falls down to 66.
	(6) Safety time for heating	10 Min	0~255 Min	User	Safety time for heating. If the temperature has not reached the setting value within this safety time,the controller will stop heating and alarm to remind user. 0 means no safety time for heating.
	(7) Safty level for heating	10 cm	0~100cm	User	Safety level for heating. If the water level is not higher than this setting value,the heating valve can not be activated.
P5:Soup set	(1) water stop if add soap?	No	Yes、No	User	Yes: Cold water valve will be closed if chemical supply active. No: Cold water valve is not controlled by this condition.
	(2) Safety level for soup	10cm	0~100cm	User	Safty level for chemical supply. The chemical supply will not active if the water level is lower than this value.
	(3) Soap 1 run time	20 Sec	0~999 Sec	User	Chemical supply 1 working time for manual mode.
	(4) Soap 2 run time	20 Sec	0~999 Sec	User	Chemical supply 2 working time for manual mode.
	(5) Soap 3 run time	20 Sec	0~999 Sec	User	Chemical supply 3 working time for manual mode.

	(6) Soap 4 run time	20 Sec	0~999 Sec	User	Chemical supply 4 working time for manual mode.
	(7) Soap 5 run time	20 Sec	0~999 Sec	User	Chemical supply 5 working time for manual mode.
P7:Washing set	(1) Minimum interval between forward and reverse rotation	5 Sec	1~255 Sec	Factory	Minimum interval between forward and reverse rotation. This time is in order to protect the inverter. The inverter can not run in another direction immediately till this time waiting.
	(2) Rotation time when standard wash	25 Sec	1~255 Sec	User	Rotation time for standard wash in manual operation.
	(3) Pause time when standard wash	5 Sec	1~255 Sec	User	Pause time for standard wash in manual operation.
	(4) Rotation time when delicate wash	15 Sec	1~255 Sec	User	Rotation time for delicate wash in manual operation.
	(5) Pause time when delicate wash	5 Sec	1~255 Sec	User	Pause time for delicate wash in manual operation.
	(6) Rotation time when heavy wash	35 Sec	1~255 Sec	User	Rotation time for heavy wash in manual operation.
	(7) Pause time when heavy wash	5 Sec	1~255 Sec	User	Pause time for heavy wash in manual operation.
P8:Dehydration set	(1) High extract number	3	1~4	User	Select the number of high extract.
	(2) Safety level for extract	20cm	0~100cm	User	The safety water level for extract. The water will be filled automatically if level is lower than this value when extracting.
	(3) Max level before medium extract	5cm	0~100cm	User	Safety level for mid extract. The water should be drained out before mid extract. If the water level is higher than this value before mid extract(after balance with drain),the controller alarms "Dain overtime" to remind the user to check the drain valve.
	(4) Rotation forward time for extract	10 Sec	1~255 Sec	User	Rotation forward time for extract in manual operation.
	(5) Balance time(without drain)	30 Sec	1~255 Sec	User	Balance time(without drain) for extract in manual operation.
	(6) Balance time(drain)	60 Sec	1~255 Sec	User	Balance time(with drain) for extract in manual operation.

	(7) Medium extract time	60 Sec	1~255 Sec	User	Medium extract time for extract in manual operation.
	(8) High extract 1 time	60 Sec	1~255Sec	User	High extract 1 time for extract in manual operation.
	(9) High extract 2 time	60 Sec	1~255Sec	User	High extract 2 time for extract in manual operation.
	(10) High extract 3 time	60 Sec	1~255Sec	User	High extract 3 time for extract in manual operation.
	(11) Time of the last high extract	7 Min	1~255 Min	Factory	Max time of the last high extract.
	(12) Time delay for end of medium extract	60 Sec	10~255 Sec	Factory	Time delay for end of medium extract.
	(13) Braking time for end of medium extract	30 Sec	1~255 Sec	Factory	Braking time for end of medium extract.
	(14) Time delay for end of high extract	90 Sec	20~255 Sec	Factory	Time delay for end of high extract.
	(15) Braking time for end of high extract	40 Sec	1~255 Sec	Factory	Braking time for end of high extract.
	(16) Braking active time	4 Sec	0~255 Sec	Factory	Braking active time while braking.
	(17) Braking pause time	2 Sec	0~255 Sec	Factory	Braking pause time while braking.
	(18) Imbalance retry times	3	0~20	User	Imbalance retry times. The controller will alarm to remind user to check the machine if the machine can not retry successfully after imbalance.
	(19) Wash time when balance retry	60 Sec	0~255 Sec	User	Wash time when balance retry.
	(20) Time delay for end of balance	30 Sec	0~255 Sec	Factory	Time delay for end of balance.
P9:Access settings	(1) Unload mode	Manual	Manual、Auto	User	Manual : User should press and hold the unload key or button (not release),once user releases the unload key or button,drum stops immediately. Auto: Press and hold unload key or button for a short time longer than setting time as parameter 172, drum rotate clockwise and counterclockwise automatically.
	(2) Duration of key pressed in auto unload mode	2 Sec	0~255 Sec	User	In auto unload mode,unload key or button should be pressed and hold longer than this setting time to start the auto unload process. But user can stop auto

					unload process by pressing unload key or button just once ,not need to hold it.
	(3) Rotation time in auto unload mode	4 Sec	0~255 Sec	User	Rotation time in auto unload mode. It is the time for rotation clockwise and counterclockwise.
	(4) Pause time in auto unload mode	2 Sec	0~255 Sec	User	Pause time in auto unload mode. It is the time for the pause time between rotation clockwise and counterclockwise.
	(5) Safety rotation time in manual unload mode	2 Sec	0~10Sec	User	In manual unload mode,it is not safe if the drum rotates too fast. This parameter means the max time drum rotates. The drum will stop automatically despite of user pressing and holding the unloading key or button. If it is set to be 0,no limit for the speed but the max speed is the wash speed. It is not suggested.
P10:Door lock set	(1) Safety temperature for door unlock	50℃	0~90℃	User	Safety temperature for door unlock. The door lock can not be unlocked if temperature is higher than the setting safety value.
	(2) Safety level for door unlock	5cm	0~99cm	User	Safety level for door unlock. The door lock can not be unlocked if water level is higher than the setting safety value.
	(6)Active time in pulse door lock mode	10 Sec	0~99 Sec	Factory	In pulse door lock working mode, door lock relay active time after user pressing unlock to unlock the door.

8.fault diagnosis

8.1.Fault reset

- Manual or automatic operation, the machine failure, enter the fault alarm interface, stop all actions.
- Fault alarm interface second lines display fault information. When there is a fault, the buzzer sounded, press the stop key, the buzzer sound, and then press the stop key to re detect the fault, such as the failure has not been resolved, continue to alarm; if the fault has been resolved, you can continue to run.

8.2.Fault information and troubleshooting

NO.	Error name	Error type	Reset way		Reasons	Trouble shooting
			MAN UALL Y	Auto		
#1	1#Commnication error with control board.	Stop	√		Communication error between HM601A and control board KZ200A.	<ol style="list-style-type: none"> 1. Check if the communication cable is firmly connected; 2. Check if the terminal of RS485 is right; 3. Check if the power supply of HM601A and KZ200A is OK.
#2	Emergency stop	Stop	√		Emergency stop input is valid.	<ol style="list-style-type: none"> 1. Check if the emergency stop switch is pushed; 2. Check if the setting for emerbency stop input is right.
#3	Motor overload	Stop	√		Motor overload input is valid.	<ol style="list-style-type: none"> 1. Check if the motor overload switch is open/closed; 2. Check if the setting for motor overload input is right.
#4	Inverter error	Stop	√		Inverter error input is valid.	<ol style="list-style-type: none"> 1. Check if the inverter error switch is open/closed; 2. Check if the setting for inverter error input is right.
#5	Brake resistor overheat	Stop	√		Brake resistor overheat input is valid.	<ol style="list-style-type: none"> 1. Check if the brake resistor overheat switch is open/closed; 2. Check if the setting for brake resistor overheat input is right.
#6	Imbalance	Stop	√		Imbalance retry failure	<ol style="list-style-type: none"> 1. Check if the imbalance switch is OK; 2. Check if the machine mechanic is OK.
#7	Air pressure low	Stop	√		Air pressure low input is valid.	<ol style="list-style-type: none"> 1. Check if the air pressure switch is OK; 2. Adjust the air pressur switch.
#8	Door status not correct	Stop	√		Door switch status is not correct.	<ol style="list-style-type: none"> 1. Check if the door switch working well; 2. Check if the parameter setting for door switch input is right.
#9	Door lock switch not correct	Stop	√		Door lock switch status is not correct.	<ol style="list-style-type: none"> 1. Check if the door lock switch working well. 2. Check if the parameter setting for door lock switch input is right.

#10	Filling overtime	Stop	√		The level is not reached the setting value in limited time.	<ol style="list-style-type: none"> 1. Check if the water filling pipe is OK; 2. Check if the water sensor pipe is OK; 3. Check if the water pressure is OK; 4. Adjust the parameter setting for the limited time.
#11	Heating overtime	Stop	√		The temperature is not reached the setting value in limited time.	<ol style="list-style-type: none"> 1. Check if the heating valve is OK; 2. Check if the heating unit such as steam is OK; 3. Adjust the parameter setting for the limited time.
#12	Draining overtime	Stop	√		The level is not reached the setting value when balance with drain.	<ol style="list-style-type: none"> 1. Check if the drain pipe and valve are OK; 2. Check if the drain pipe is blocked.
#13	Temperature too high.	Stop	√		The temperature is too high .	<ol style="list-style-type: none"> 1. Check if the heating valve is OK(with steam leak); 2. Check if the parameter setting value is right.
#14	Temp sensor open-circuit	Stop	√		Drum temperature sensor open-circuit.	<ol style="list-style-type: none"> 1. Chek if the sensor is connected to controller firmly; 2. Check if the sensor open-circuit.
#15	Temp sensor short-circuit	Stop	√		Drum temperature sensor short-circuit.	<ol style="list-style-type: none"> 1. Chek if the sensor is connected to controller firmly; 2. Check if the sensor open-circuit.
#16	Control board software wrong	Stop	√		The software code is not matched with The back panel	<ol style="list-style-type: none"> 1. Check if the control board KZ200A or HM601A is belongs to other models of controller.
#19	Parameter checksum error	Stop	√		Parameters check error.	<ol style="list-style-type: none"> 1,Contact with supplier for further help.
#20	Level ratio not calibrated	Stop	√		Level ratio is zero	<ol style="list-style-type: none"> 1,Calibrate this ratio in diagnosis page.

