

AUTOMATIC PAINT SHAKER

NT18-03

OPERATION MANUAL



**ONE
TECH**

ONETECH

Tools

1. SAFETY INSTRUCTIONS



ATTENTION! PLEASE READ THIS MANUAL BEFORE USING THE AUTOMATIC PAINT SHAKER (EQUIPMENT).

IMPROPER USE OF EQUIPMENT MAY CAUSE INJURY AND/OR PROPERTY DAMAGE!

ONLY QUALIFIED AND SPECIALLY TRAINED PERSONNEL FAMILIED WITH THESE INSTRUCTIONS IS ALLOWED TO USE AND MAINTENANCE OF THE EQUIPMENT.

This manual contains description, safety rules and all the information necessary for the correct use of the equipment.

Safety recommendations contained in present manual are in addition to general safety regulation in force in the region of tool usage, and do not replace it.



➤ Materials (paints, solvents, etc.) can be harmful to health. Always read all labels, safety data sheets and follow any recommendations for the material. If in doubt, contact your material supplier. The use of respiratory protective equipment is recommended at all times.



➤ Always wear safety glasses and gloves when handling or cleaning equipment.

➤ Rotating parts may cause injury or cause liquid to splash onto your skin or eyes.



➤ Static electricity can be generated by fluid and/or air. To prevent ignition sources from static discharges, earth continuity must be maintained to the equipment and other metallic equipment used.

➤ Electric shock hazard.



➤ Check if the voltage and frequency are accordance with what on the nameplate that stuck.

➤ The equipment is constructed for the treatment of non-explosion materials. It is forbidden to use this machine with inflammable or explosion vapors.

➤ The equipment should be placed in dry and well-ventilated space.

➤ The equipment must be placed on leveling solid ground.

➤ The equipment should be equipped with well grounding.

➤ Forbid running the equipment in inflammable and explosive environment. The concentration of hazardous vapors around all electrical components was less than 30%.

➤ Forbid to put a distorted or leaking can inside the equipment.

➤ It's forbidden to stock inflammable materials or other materials inside the machine.

➤ It's forbidden to use free flames, incandescent objects or equipment that are able to create sparks in the local where the machine is installed.

➤ Do not use inflammable liquid to clean the equipment.

➤ All maintenance work must be done after both equipment halt and power supply disconnected. No maintenance without disconnect power supply or during working.

➤ Children are forbidden to approach the equipment.

➤ Motor will get hot during working, and be careful during repair.

➤ If occurs a failure or a crash during the process of initialization or clamping, pls press the emergency stop button to re-initialize the equipment!

➤ If the paint can has a handle, make sure the handle is fixed, otherwise, take away the handle before mixing.

➤ When the equipment is connected to a voltage of 220-240 V, the source current must be more than 16 A (with the leakage current being 30 mA).

➤ Take the paint can out from the machine at the end of the work. If you don't use the machine any more, cut off its power supply.

2. IDENTIFICATION PLATE

AUTOMATIC SHAKER	
Model:	NT18-03
Serial No:	010124(...040124)
Voltage:	AC 220V/50Hz
Rated power:	750W
Net weight:	210Kg


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3. INSTALLATION OF EQUIPMENT

All operators must read! If not follow the instructions, it is not under warranty

1. Make sure remove the metal plate on both sides, which just used for fixation during transportation before running the equipment.
2. The iron rod which is inserted in the bottom of the equipment must be removed. Otherwise the equipment will get damaged.
3. Do not remove the legs of the equipment, otherwise the equipment will get damaged.
4. The equipment must be removed from the pallet and placed on the ground.
5. Adjusted to four legs to make the equipment about 5 cm above the ground, and ensure the equipment lands stably and does not shake (see «HOW TO ADJUST THE LEGS»).
6. Make sure place the bucket in the central position of the inside tray to guarantee equal force on the equipment. Otherwise, the machine easy get damaged.
7. When abnormal vibration or noise occurs in the equipment, press the emergency stop button immediately to find out the cause and troubleshoot before restarting the operation!
8. When the equipment need to be transported again, the screw rod must be reinstall back to the equipment before transporting.



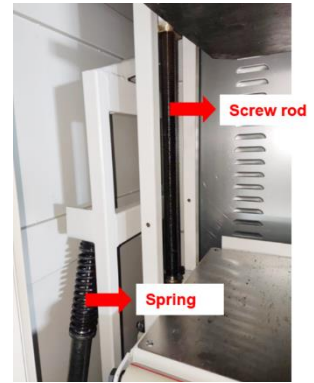
1. Remove the metal plate of both sides.



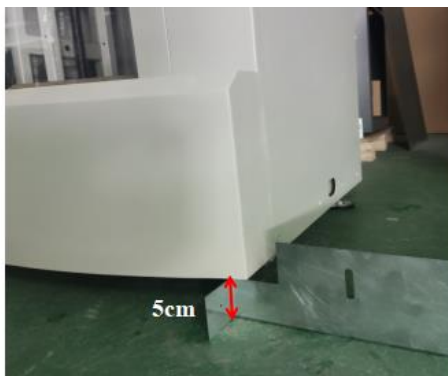
2. Remove the screw rod by hand.

4. MAINTENANCE OF THE MACHINE

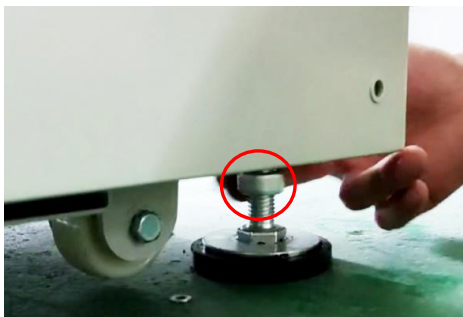
- The machine only can be maintained by trained personnel.
- Prior to any maintenance and inspection of the machine, disconnect the power cord from the outlet mains. Make sure that the machine cannot be started unexpectedly.
- After daily using, pls clean the spilled paint and other dirt, keep the inside tray, screw rod, spring clean.
- Lubricate the screw rods and the springs on both sides of the machine with oil every one to three months (depending on the frequency of use)!
- Do not leave any tools inside in the machine after maintenance.



5. HOW TO ADJUST THE LEGS



1. Put the lower position of metal plate under the machine and near the leg which need to adjust.



2. Loosen the upper screw with spanner

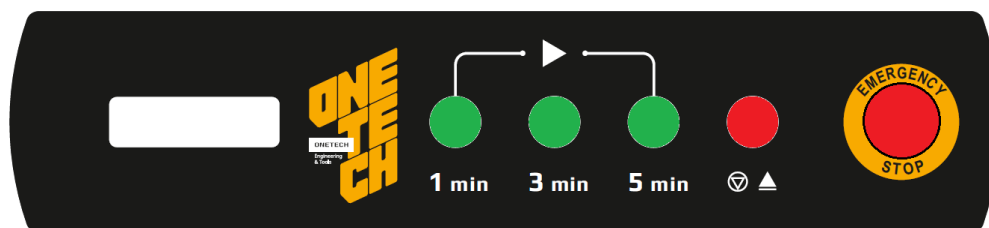


3. Rotate the lower screw to adjust the height, make the machine bottom touch the edge of the metal plate (about 5 cm above the ground)



4. After finishing adjust the height, tighten the upper screw back to its position.

6. CONTROL PANEL INTRODUCTION



- **Press button «1 min»:** the clamping plate will automatically clamp the canister. The mixing time will continue for **1 minute**.
- **Press button «3 min»:** the clamping plate will automatically clamp the canister. The mixing time will continue for **3 minutes**.
- **Press button «1 min» + «3 min» simultaneously:** the clamping plate will automatically clamp the canister. The mixing time will continue for **4 minutes**.
- **Press button «5 min»:** the clamping plate will automatically clamp the canister. The mixing time will continue for **5 minutes**.
- **Press button «1 min» + «5 min» simultaneously:** the clamping plate will automatically clamp the canister. The mixing time will continue for **6 minutes**.
- **Press button «3 min» + «5 min» simultaneously:** the clamping plate will automatically clamp the canister. The mixing time will continue for **8 minutes**.
- **Press button «1 min» + «3 min» + «5 min» simultaneously:** the clamping plate will automatically clamp the canister. The mixing time will continue for **9 minutes**.

ATTENTION:

The timer buttons are only available for setting when the machine is under state of «Ready».



«STOP» or «LIFT» button

1. When machine is in the state of «Mixing» or «Clamping», LCD shows «Mixing» or «Clamping». At this time, press this button, machine will stop mixing or clamping and lift the clamping plate.
2. When machine is in the «Ready» state, LCD shows «Ready». At this time, press this button, the clamping plate will lift up, and stop when you release the button.



«EMERGENCY STOP» button:

Press «EMERGENCY STOP» button to stop machine if some abnormality happened. Turn clockwise this button to reinitialize machine to let the clamping plate move up to initial place.

7. OPERATION INSTRUCTION

Please know well the following points to make sure smooth operation after machine is installed.

1. Check if the power switch of machine is at off state before plugging in.
2. Make sure Emergency button is released, and the transparent door is closed.
3. Canister must be well sealed and without damages. It should be placed on the centre of loading plate.

Operation Steps:

1. Plug in and switch on the power at back of the machine. LCD will show the serial no. Of the machine, and start to initialize. After initialization, LCD shows «Ready». It means the machine is ready for working.
2. Open the transparent door, place the canister onto the plate, and push to the centre of loading plate. If the canister has handle, then use spring hook to draw the handle. Then shut the door.
3. According to the mixing time needed, press the time button to set up the time. Now, the clamping plate automatically moves downwards. LCD shows «Clamping» & «Mixing time». After the canister clamps for 2 ÷ 3 seconds, the machines starts high speed shaking mixing. LCD shows «Mixing» & the balance mixing time (counting down).
4. When time is up, the machine stops mixing. After 3 seconds, the clamping plate automatically lift up and loosen the canister. LCD shows «Pls wait», and the plate will lift up to a initial height.
5. The LCD shows “finish mixing”, open the door and take out the pail of paint.

ATTENTION:

- if need to mix one more time, you need to open the door then close again, otherwise, it won't mix.
- never use a load with a weight over 35 kg.
- everyday after use, please clean the dirty things or spilled paints. Keep the inside machine and screw rods clean.
- no mixing with empty load!
- frequent start the machine is forbidden. The machine could not be started over 20 times within one hour.
- please press «EMERGENCY» button in case there is any accidental noise. Find out the reasons, and solve the trouble. After this, you can restart again.
- if you come across any failure during initialization or clamping, please press «**EMERGENCY**» button to reinitialize the machine.

8. PARAMETER SETTING INSTRUCTION

1. Press the button  and turn on the power in the same time until the LCD shows «big can pressure», then release the button and press «**5 min**» button to choose the parameter you want to set.
2. When you press «**1 min**» button, the number will add «1» each click. If you don't release the «**1 min**» button, the number will increase continuous automaticall; When you press «**3 min**» button, the number will reduce «1» each click. If you don't release the «**3 min**» button, the number will decrease continuous  automaticall; press to save the parameter when finish setting.

You can set the parameter of item as below:

1. **Big can force:** for the can with height more than 300 mm
2. **Middle can force:** for the can with height 110 ÷ 300 mm
3. **Small can force:** for the can with height less than 110 mm
4. **Up speed:** upper clamping plate move up speed
5. **Up force:** upper clamping plate move up distance
6. **Down speed:** upper clamping plate move down speed
7. **Down force:** upper clamping plate move down distance
8. **Reset speed:** upper clamping plate move up speed when turn on the machine
9. **Reset force:** upper clamping plate move up distance when turn on the machine
10. **Language select:** only Chinese or English can be choose

Noted:

All above parameter is relative value rather than absolute value. Please adjust the parameter according to the actual situation on site. The number bigger, the pressure bigger, the speed faster.

9. TECHNICAL SPECIFICATIONS

Model:	NT18-03
Type:	Vibrational shaker
Clamping function:	Automatic
Clamping force:	Adjustable
Shaking time, min:	1 – 9
Shaking speed:	Up to 710 shakes per minute
Type of cans:	Round / Square / Oval
Suitable can height, mm:	80 – 380
Maximum can diameter, mm:	350
Multiple can handling:	Yes (the can must be the same height)
Maximum can weight, kg:	35
Power Supply, V:	220 ± 10% (50 Hz)
Rated Power, W:	750
Dimensions (LxWxH), mm:	720 x 710 x 1045
Footprint, m ² :	0.57
Weight, kg:	206

10. TROUBLES SHOOTING

Failure	Reason analysis	Solution
Shaking starts immediately when power is on	- Electronic board broken - Solid state relay breaks.	Disconnect no. 3 or 4 of solid state relay. If the machine stops shaking, means electronic board broken. If it's still shaking, means solid state relay breaks.
No mixing	- Electronic board broken - Solid state relay broken - Shaking motor broken - Motor capacitance broken - Motor wire breaks.	Short circuit no. 1 and 2 of solid state relay, and see if it's shaking. - If it's not shaking, then observe if there is «buzz» noise when motor is electrified: - If yes, replace the motor capacitance. And replace the motor if still not shaking after replacing the motor capacitance; - If no, please check wire. If it's normal, then change motor. - If it's shaking, check «D11» light of the electronic board when LCD shows “mixing”. If «D11» light is on, means no problem of the electronic board. If «D11» off, means electronic board broken.
Keyboard doesn't work	- Buttons broken - Connecting cable breaks - Electronic board broken	- If it's only a certain buttons don't work, then check if that button is broken. - If all buttons don't work, then check flat cable. If flat cable no problem, then replace the electronic board.

Failure	Reason analysis	Solution
No display on LCD	1. LCD broken 2. Flat cable breaks 3. Electronic board broken 4. Fuse broken 5. Transformer broken	1. Check «LED 2» and «D5» light on the electronic board: - If «LED 2» not twinkle and «D5» off, then check the transformer and fuse; - If «LED 2» twinkle and «D5» on and there's backlight on the LCD , then replace the LCD; - If «LED 2» twinkle and «D5» on and there's no backlight on the LCD, then replace the flat cable. If after replacing flat cable, there still no display on LCD, then replace the electronic board. 2. Please check the transformer with multimeter.
Shaking is weak	Belt loose	Adjust the belt accordingly.
Clamping system failure	1. Clamping motor broken 2. Electronic board broken 3. Synchronous belt broken 4. Parameter incorrect 5. Sensor broken	1. Check the carbon brush of the clamping motor. 2. Replace the electronic board. 3. Replace the synchronous belt. 4. Reset the parameter 5. Replace the sensor

11. TERMS OF WARRANTY

The warranty on this equipment is 12 months.

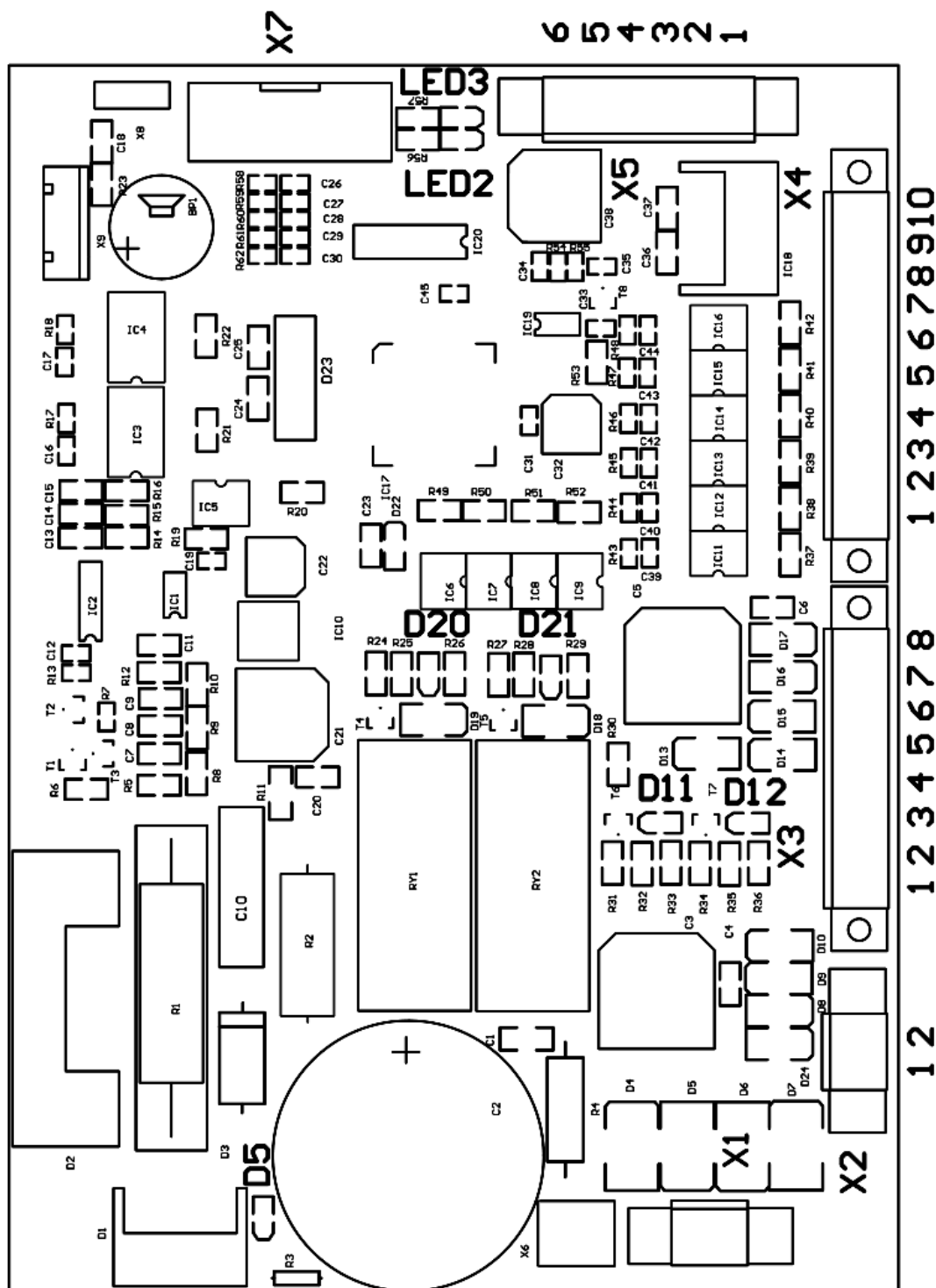
The user must keep the machine in a proper working condition. Broken parts and accessories must be replaced with original appropriate parts of the machine.

The manufacturer's warranty expires under below conditions:

- Twelve months after date of invoicing;
- In case of improper use or misuse;
- In case of non-original spare parts and accessories;
- In case of repairing/adaptation of the machine without written approval and/ or by unauthorized personnel;
- In case of non-fulfillment of the maintenance, operation or other instructions reflected in this manual.

12. INDICATOR LIGHT and WIRING POSITION DIAGRAM

- **D5**: Direct current motor power indicator
- **D11**: Mixing motor working indicator, if the light is on but mixing motor not work, it's possible that the solid-state relay or the mixing motor broken.
- **D13**: spare
- **D20**: when clamping plate move down, the light is on.
- **D21**: When clamping plate move up, the light is on.
- **LED2**: The light twinkle means the CPU is running. The light off, the power may have problem. The light on but not twinkle, CPU system may have problem.



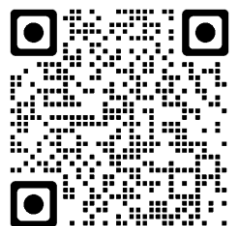
13. SPARE PARTS

No.	Part No.	Description	Picture
1	NT18S-0030	Main board	
2	NT18S-0031	LCD board	
3	NT18S-0032	Clamping motor	
4	NT18S-0033	Shaking motor	
5	NT18S-0034	Transformer	
6	NT18S-0035	Rubber plate	
7	NT18S-0036	Solid-state relay	
8	NT18S-0014	Fuse box	
9	NT18S-0038	Fuse (20A)	
10	NT18S-0039	Wire (which connect the maid board and the power board)	
11	NT18S-0040	Counting sensor /Home sensor	
12	NT18S-0041	Electric-magnetic lock (12V)	
13	NT18S-0042	Spring	

NOTES

[illegible]

Other languages:



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