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# Operation Manual for RL-3000/3000D BASIC TYPE / DIGITAL TYPE

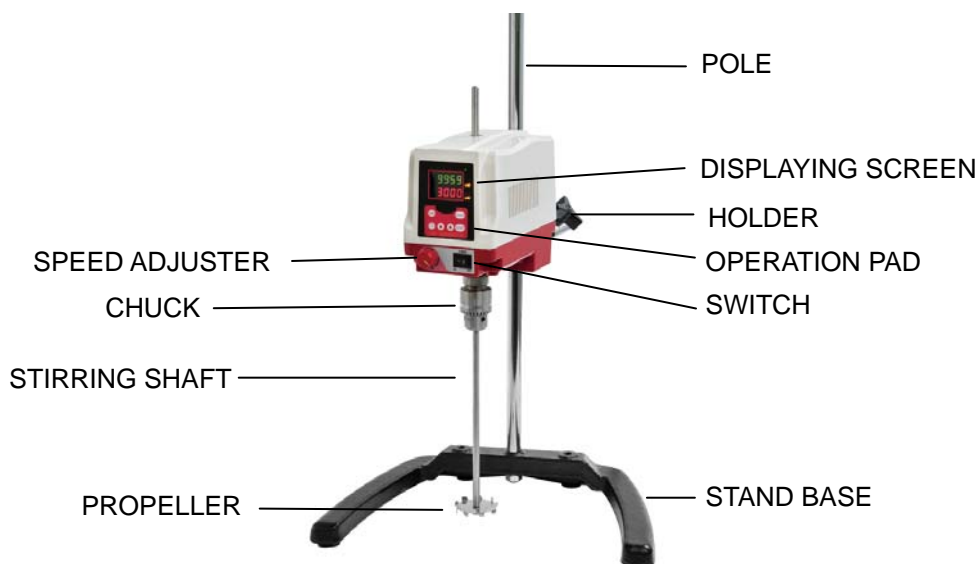


**PLEASE READ THIS MANUAL CAREFULLY BEFORE OPERATION**

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MRC.VER.01-1.11

## I、OUTLINE







## II、SPECIFICATION

MODEL NO.	TL-3020 / 3020D
Speed (rpm)	3000
Max. torque (kg-cm)	3.5
Viscosity ( $10^3$ cps / L)	5
Power	AC 110 / 220V, 50 / 60 Hz
Motor	DC 80W
Chuck	$\phi$ 1 ~ 10 mm
Electronic	Microprocessor Control System
Safety Device	Heat Breaker System
	Glass Fuse
Timer	0 ~ 99 Hour(s):59 Second(s)
Coating	Medicine-Resisting

### ***III 、ACCESSORIES***

1. Stirring Shaft (SUS#304):  $\phi 8 \times L500\text{mm}$ -----1 PC
2. Propeller (SUS#304): No.8 ,  $\phi 50\text{mm}$ -----1 PC
3. Stand Base: W400×D315×H54mm , 8Kg-----1 PC
4. Holder-----1 PC
5. Pole-----1 PC

### ***IV 、OPERATION INSTRUCTION***

1. Be sure to plug in correct power supply, then open the power switch.
2. Speed (rpm) setting:
  - A. Adjust the speed knob to increase speed gradually and to be the proper speed.
  - B. Press **【START】** , the machine can start stirring and get to the setting speed.
3. Kg-Cm and RPM options :
  - A. Press **【FN】** for getting Kg-Cm or RPM option.
4. Time setting:
  - A. Press [] (flash) → 00:00 (The first 0 is flashing.)
  - B. Press [] or [] to set time.
  - C. Press [] again to save the setting.
  - D. Press [START] to start the time to count down.
  - E. Press at any time during the stirring, the set time will be appeared.
  - F. The machine will stop automatically as soon as time is up.
5. When the temperature of the driver reaches 70°C, the motor will stop running for preventing from burning out and the re-performance will be allowed to start only when the temperature is less than 55°C (need around 30 mins). If the situation happens again after re-starting the machine, the machine should be reduced the loading on the stirrer.
6. Fuse will automatically burn out itself and cut off the source under over-low voltage,

over-load current and over-heat temp.

7. The choosing of propellers & stirring vessels depend on the temper of the materials (For example, consistency, viscosity, etc.)
8. Using more than 2 propellers at the same time is acceptable but need depend on the torque of the machine.

## ***V · ASSEMBLING***

1. Place pole onto the stand base, and lock the screw nut.
2. Insert the flat end of pole into the stirrer body, then lock the hatless screw tightly, and fasten in the holder slot.
3. Set the machine body and adjust the altitude to prepare the placement of stirring shaft.
4. Put the propeller on the flat side of screw, then fix it on one end of shaft.
5. Turn left to open the holder, get stirring shaft into the hole, then fasten it.

## ***VI · CAUTION***

1. Avoid using the same source with other electrical appliances.
2. Please assure the fan working.
3. The overload burden will exhaust and damage the gear, so it's necessary that using depends on the specifications.

## ***VII · INSPECTION***

1. the fuse burned out or not
2. the function key worked normally or not
3. the error message were disappeared after re-turning on.

\*If everything is okay but the error message is still appeared, please send it back to the agent for doing examination & maintenance.

## ***VIII · ERROR MESSAGES TROUBLESHOOTING***

Error message	What it indicate	Solution
E – 03	<ol style="list-style-type: none"> <li>1. Motor is overloaded.</li> <li>2. Wire terminal is loose.</li> <li>3. Unusual situation appears after turning on.</li> <li>4. Motor stopped during running because of some unusual situation.</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce the loading on the motor.</li> <li>2. Check the wire terminal.</li> <li>3. Check the motor or replace a new one.</li> <li>4. Check the driver or replace a new one.</li> </ol>
E – 04	<ol style="list-style-type: none"> <li>1. No feedback signal during the motor is running</li> <li>2. Unusual situation appears after turning on.</li> <li>3. Motor stopped during running because of some unusual situation.</li> </ol>	<ol style="list-style-type: none"> <li>1. Plug the motor wire terminal tightly.</li> <li>2. Check temp. switch or replace a new one.</li> </ol>
E – 05	<ol style="list-style-type: none"> <li>1. Driver detected an over-heat and stopped the motor running.</li> </ol>	<ol style="list-style-type: none"> <li>1. After temp. is cooler then to operate it again or reduce the load before starting it again.</li> <li>2. Check the fan working.</li> </ol>
	<ol style="list-style-type: none"> <li>2. Motor stopped running but shouldn't be an over-heat problem.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the motor or replace a new one.</li> <li>2. Check the driver or replace a new one.</li> </ol>

\*When error messages appeared, all the function keys on the operation pad should be useless. When the problem is solved, please turn off the machine for a few minutes and then turn it on again. The error messages could be disappeared through turning off and on, but please ensure no danger before switching again.

*IX · CIRCUIT DIAGRAM*

