OPERATING MANUAL

LABSTAC

TUBE ROLLER

MIX21-80RS

INDEX

Chapter 1 Introduction

The tube roller MIX21-80RS is compact designed with DC brushless motor. It is widely used in mixing blood sample, sticky substance and Solid-liquid suspension, etc. It provides two operation modes – rolling and swinging to improve mixing efficiency and safety. It is applied in preventing blood clotting, immunoprecipitation, and other similar using.

Features:

1. Compact and firm designed, simple operation, LED display time and speed.
2. Two types choosable – rolling type and rolling & swinging type. Continuous working mode, safe and stable.
3. With stable performance motor, operation speed adjustable, max. speed to 80rpm. Low noise, long using life.
4. Can compatible with different sizes of tubes. Large range of applications.
5. Built with DC brushless motor, maintenance free.

Chapter 2 Specifications

1. The Normal Operation Condition
Ambient Temperature: 4°C ~ 45°C
Relative Humidity: ≤70%
Power: AC100-240V~ 1.5
2. The Basic Parameters and Specifications

| Type	MIX21-80RS
Operation Mode	rolling & swinging
Amplitude	25mm
Max. Capacity	4kg
Roller Quantity	6 rollers
Motor	DC motor
Speed Accuracy	1rpm
Roller Length	280mm
Speed Range	5-80 rpm
Dimension (DxWxH)	450 x 260 x 120mm
Net Weight	3.7kg
Voltage	AC100~230V 50/60HZ
Power	25W

Chapter 3 Preparation

This chapter mainly describes the instrument's mechanical structure, the keyboard and functions of each key, as well as preparations before power on. Please learn this chapter well before the tube roller is to be operated at the first time.

1. Structure Description
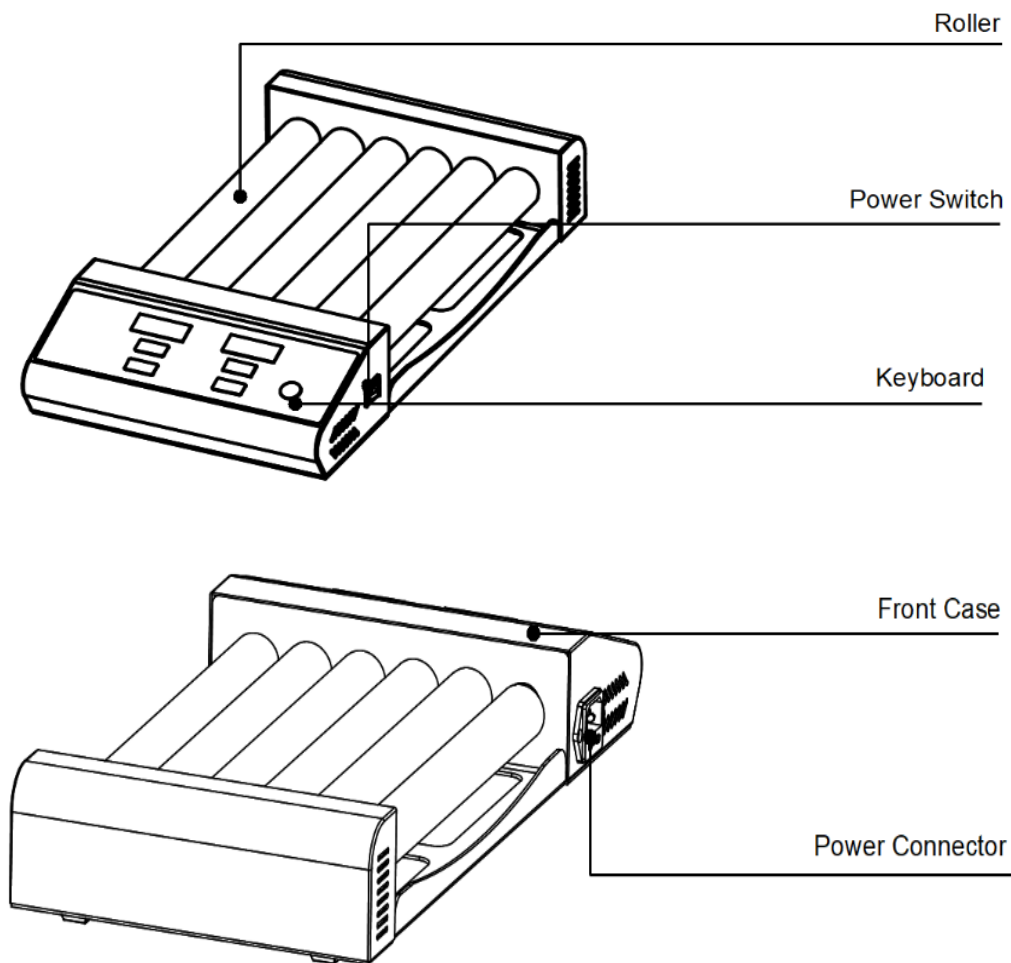
2. Keyboard and Display Panel
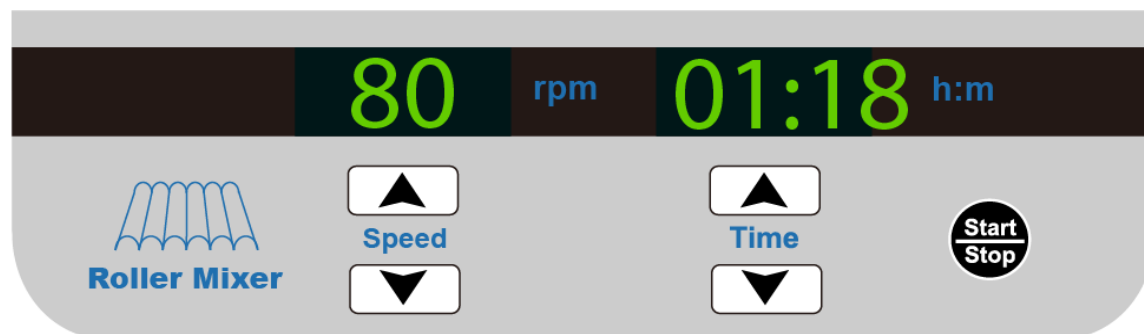
3. Key Function

▼ Decrease the time value or speed value

▲ Increase the time value or speed value

START/STOP Key for start or stop. Press Start/Stop key to start or stop the program.

4. Power Connection

Put the instrument on a horizontal and even working table. Connect power as below figure. DC socket is on the rear part of the instrument. Voltage should be between 100V and 230V.
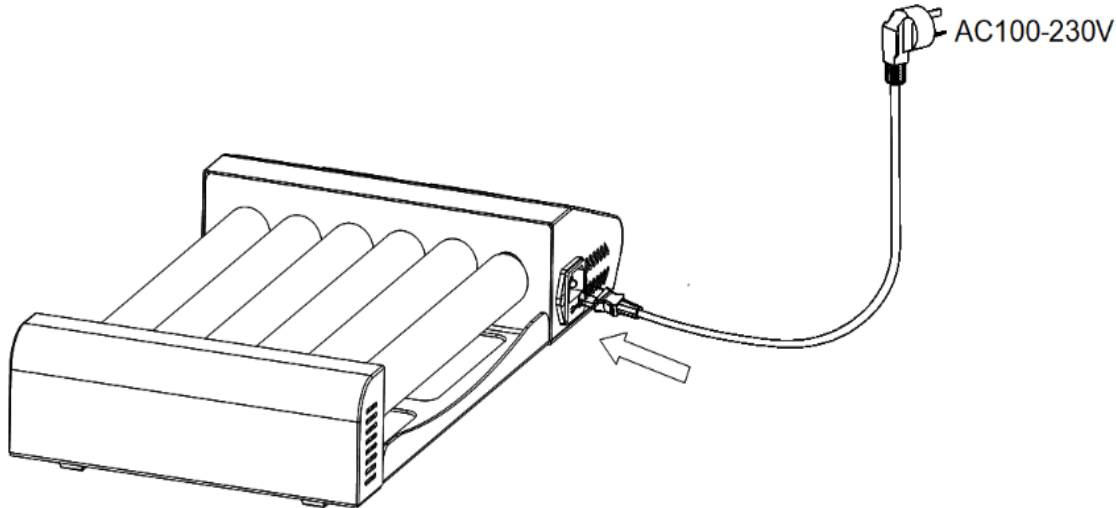

Chapter 4 Operation Guide

1. Speed and Timing Setting

a) All digital of LED display ⯳ as the right chart when power on. The instrument enters into the initial program with beep.

Press ▲ or ▼ of speed key. It displays last running speed. Refer to the right chart, it is "60"rpm. The unit digit flickers. Press ▲ or ▼ of speed key to adjust the speed value. Continuously pressing leads the value to increase or decrease from unit digit, tens digit to hundreds digit.

E.g., to set the speed to 70rpm, continuously press " ▲ " till speed value displays "70", release the " ▼ " key. The instrument confirms and saves the setting value "70".
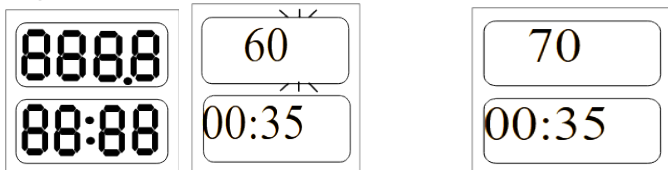
b) Press ▲ or ▼ of time key. It displays last setting time. Refer to the right chart, it is "00:35" (timing is 35 minutes). The last digit flickers. Press ▲ or ▼ of time key to adjust the timing value. Continuously pressing leads the value increase or decrease in X10 speed.

E.g., to set the timing at 1hour 20 minutes, press " ▲ " until time value displays "01:20", release ▼ the key. The instrument confirms and saves the setting value "01:20".

70		70
00:35		01:20
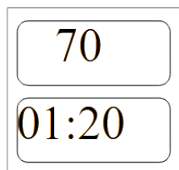
NOTICE: The timing value displays 00:00 means running timing is ∞.

2. Stop / Start

a) Press "start/stop" key to start or stop the program.

b) Press "start/stop" to run the program after speed and timing are set as requested. When times up, instrument stops running and alerts.

c) Press "stop/start" to stop the running program.

d) When the program completes, or program stopped by pressing "stop/start" key, the instrument will be in ready mode. In ready mode, press or of speed key or timing key to reset speed and timing.

e) Press "start/stop" directly without adjust speed or timing in ready mode, the instrument operate the program as last time.
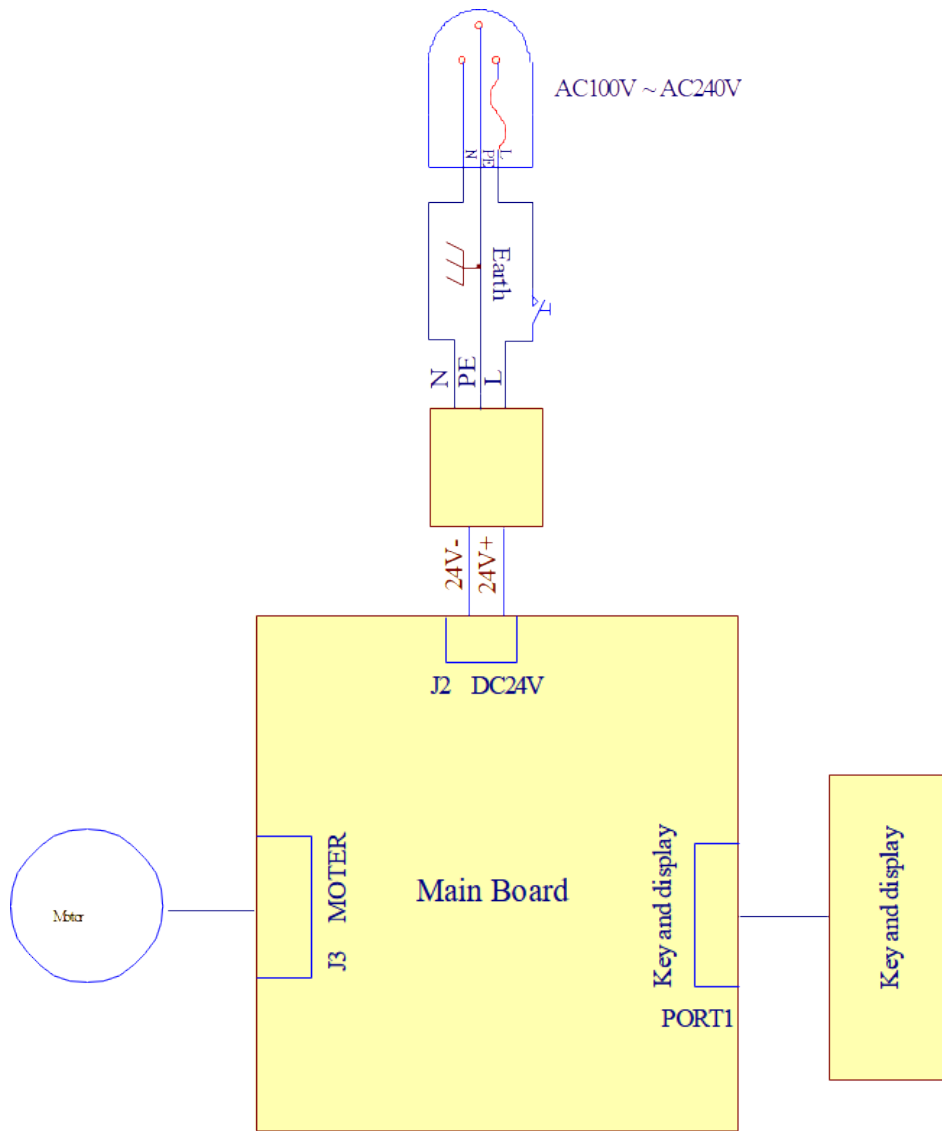
Chapter 5 Failure Analysis and Trouble Shooting

Failure Analysis and Processing Procedures

No.	Phenomenon	Possible Causes	Processing Procedure
1	No signal display when power on.	No power	Check the power
		Broken switch	Exchange the switch
		Others	Contact with the seller
2	Actual speed and displayed speed are not matching	Broken controller	Contact with the seller
3	Err displays	Speed out of control	Contact with the seller

Appendix A：Wiring Diagram of MIX21-80RS
（Below diagram is just for reference. It is subject to change without prior notice.）

AC100V ~ AC240V

N PE L

Earth

N PE L

24V- 24V+

J2   DC24V

Motor

J3   MOTER

Main Board

Key and display

PORT1

Key and display

LABSTAC

Labstac LLC
82 Wendell Avenue, STE 100, Pittsfield, MA, 01201, USA
Email: contact@labstac.com | Website: labstac.com