

# AEL-A Motorized Test Stand

## I. Overview

### 1.1 Main usage and scope of application

The AEL-A motorized test stand is an integrated test machine designed to test tensile or compression. It replaces the traditional electric (manual) test machine + digital display test mode, which enhances the accuracy of the test and the convenience of operation. It is suitable for testing such as push-pull force, insertion force and break force test in rubber and plastics, light industrial textiles, building doors and windows, composite materials, wire and cable, auto parts, power machinery, scientific research institutions, etc.

### 1.2 Product Features

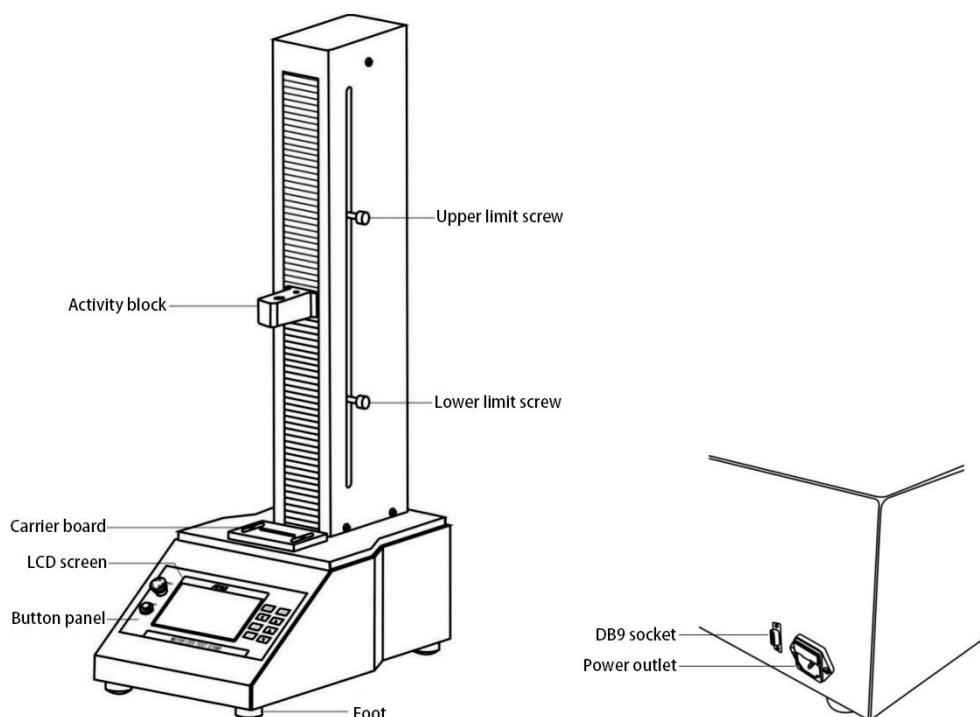
- 1.2.1 7-inch large-screen LCD display;
- 1.2.2 Real-time force value and displacement display;
- 1.2.3 Two measurement mode: real-time/peak;
- 1.2.4 Two working mode: automatic/manual;
- 1.2.5 Has the function of continuously increasing/decreasing speed;
- 1.2.6 Has an emergency stop function.

## 2, Product model specifications

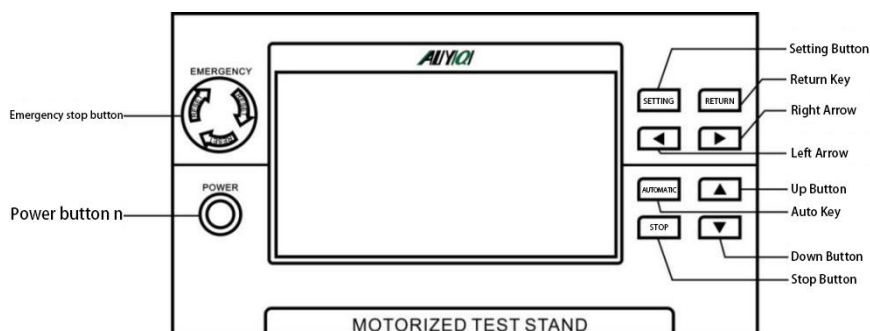
Model	AE L-A -2	AEL-A -3	AEL-A -5	AEL-A -10	AEL-A -20	AEL-A -30	AEL-A -50	AEL-A -100	AEL-A -200	AEL-A -300	AEL-A -500	AEL-A -1000
Maximum Load	2N	3N	5N	10N	20N	30N	50N	100N	200N	300N	500N	1000N
	0.2 kg	0.3kg	0.5kg	1kg	2kg	3kg	5kg	10kg	20kg	30kg	50kg	100kg
	0.4 5L b	0.65Lb	1.1Lb	2.2Lb	4.5Lb	6.5Lb	11Lb	22Lb	45Lb	65Lb	110Lb	220Lb
Load division value	0.001N			0.01N				0.1N				
	0.0001kg			0.001kg				0.01kg				
	0.0001Lb			0.001Lb				0.01Lb				
Accuracy	±0.5%											±1%
Effective stroke	400mm											
Test speed	1-300mm/min											
Working voltage	AC:110V or AC:220V											
Dimension	290mm*500mm*900mm											
Net weight	37kg											

### 3, The overall structure of the product

#### 3.1 Exterior structure



#### 3.2 Key Description



3.2.1 Emergency stop button: When an emergency occurs, the user can press the emergency stop button to cut off the power and stop the instrument. To restart the machine, turn the emergency stop button to the right and then press the power button to turn it on.

3.2.2 Power button: On/Off button. When the power is turned on, after pressing this button, the instrument is turned on; when pressed again, the instrument is turned off.

3.2.3 Setting button: Press and hold this button for 4 seconds in the measurement interface to release the system setting interface; short press to switch the real-time/peak mode.

3.2.4 Return key: Clear/return. Press this button in the measurement interface to clear the force value; press and hold this button for 4 seconds to release the current displacement to zero; press this button in the setting interface to return to exit.

3.2.5 ◀ (Left) button: Deceleration. Short press this button, the “speed” of the measurement interface will be reduced by 1mm; long press this button for 4 seconds and then release, the “speed” of the measurement interface will decrease continuously; in the system setting interface, press this button to select the numerical position. number.

3.2.6 ▶ (Right) button: Acceleration. Short press this button, the “speed” of the measurement interface will increase by 1mm; press and hold this button for 4 seconds to release, the “speed” of the measurement interface will increase continuously; in the system setting interface, press this button to select the number of digits.

3.2.7 Auto Key: Auto Run Key. Press this button to start the automatic operation mode and check the

box in the automatic box.

3.2.8 Stop button: In the automatic mode, press this button, the activity block will stop running; in the system setting interface, it can be used to switch the setting items.

3.2.9 ▲ (up) button: Run up. Press this button, the activity block will move up one “single step distance”; long press this button for 4 seconds and then release, the active block will run up until it touches the upper limit screw; in the system setting interface, this button is available To set the value size.

3.2.10 ▼ (down) key: Run down. Press this button, the activity block will move down a “single step distance”; long press this button for 4 seconds and then release, the active block will run down until it touches the lower limit screw; in the system setting interface, this The key can be used to set the value.

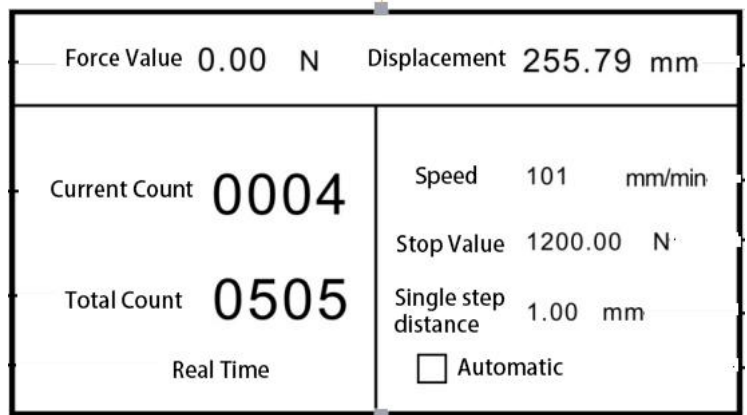
## 4, Usage and operation

### 4.1 Operation and description in use

#### 4.1.1 Boot display

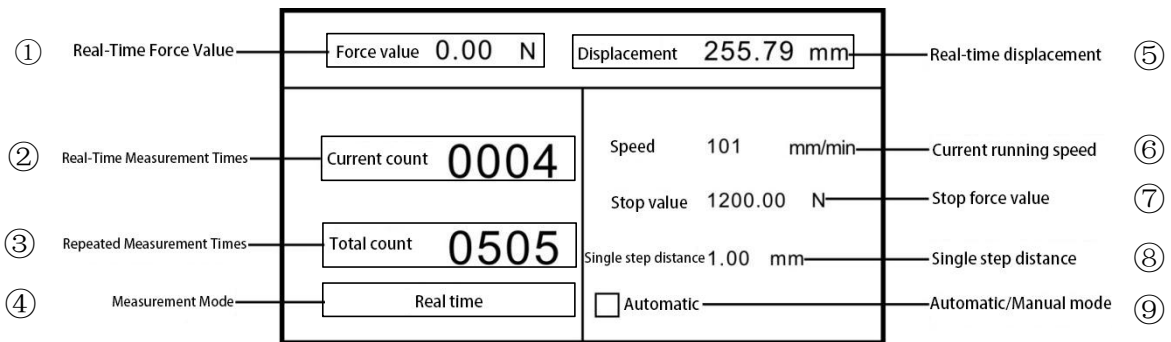


Model specification



Measurement interface

#### 4.1.2 Measurement interface



①The measured force value is displayed.

②Record the number of real-time trial round trips.

③The total number of automatic test presets.

④Measurement mode: Press the “Set” button to switch between real-time peaks.

⑤The displacement value is displayed.

⑥Preset speed value.

⑦The preset stop value.

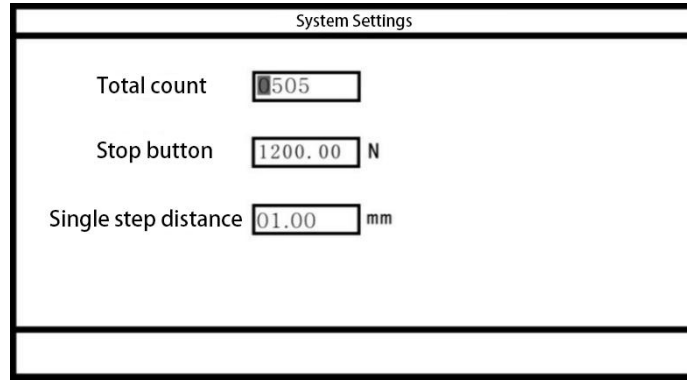
⑧In the manual mode, press the “▲” or “▼” button to move the distance value of the active block up or down.

⑨Auto/manual mode.

#### 4.1.3 Set interface

In the measurement interface, press and hold the “Settings” button for 4 seconds, then enter “System

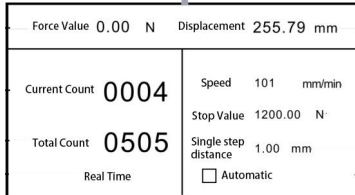
Settings” as shown below:



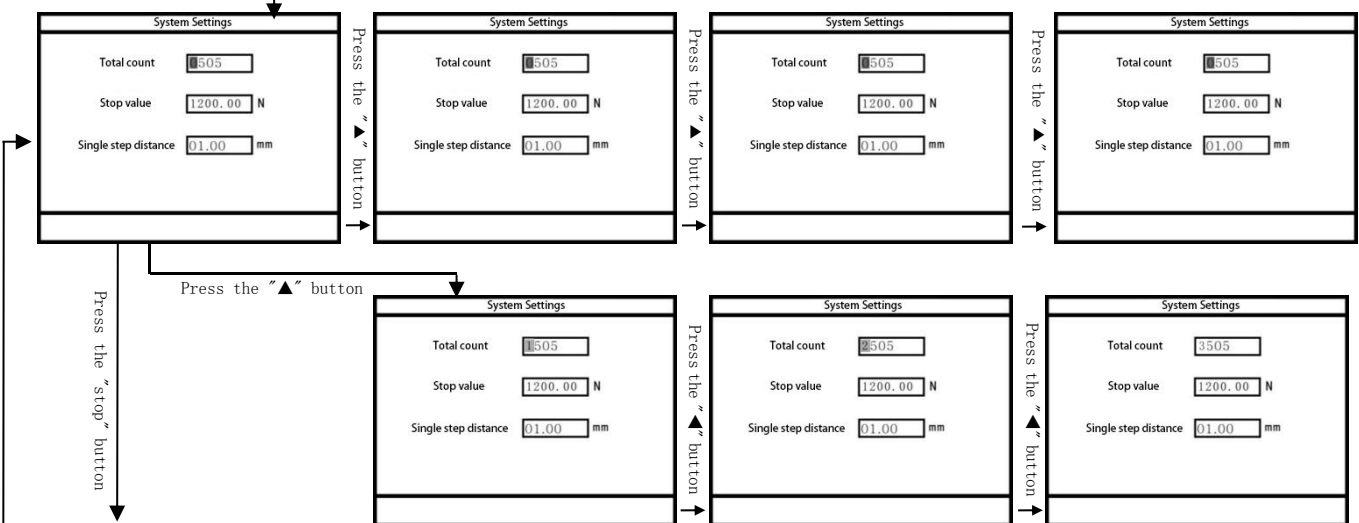
a, total count: preset value, can be set within the range of 1~9999. For example, if the user performs continuous test on a certain product, the number of tests is set to 505 times. In the measurement interface, press “Auto” button to perform 505 tests; after the instrument runs 505 times, it will automatically stop, and the total count is only for automatic mode; After the user setting is completed, press the “Settings” button to save, then press the “Back” button to exit.

b. Stop value: For automatic mode, the maximum can be set to 120% of full scale. For example, if the stop value is set to “1200N”, when the detection force reaches 1200N, the instrument will automatically stop running; after the user setting is completed, press “Set” to save, then press “Back” to exit. If the detected force value reaches the stop value in the automatic mode, the instrument will stop running and exit the automatic mode.

c. Single step distance: In manual mode, press “▲” or “▼” button, the moving block will move up or down a “single step distance”, and the single step distance can be set to 0.01~10mm. After the user setting is completed, press the “Settings” button to save, then press the “Back” button to exit.



Long press the "Settings" button for 4 seconds





## 4.2 Operation steps

### 4.2.1 How to use automatic mode:

- (1) Confirm that the power cord is connected;
- (2) Confirm whether the emergency stop button is in the released state;
- (3), turn on the power button;
- (4), press and hold the "Set" button for 4 seconds to enter the system setting interface. On the "Total Count" option, first press the "▶" (right) button to move the cursor, then press the "▲" (up) button to adjust it. To the desired number; press the "Stop" button to select the "Stop value" option, continue to press the "▶" (right) button to move the cursor, then press the "▲" (up) button to adjust it to the desired Number
- (5) Press the "Set" button to save the setting data, then press the "Back" button to return to the measurement interface;
- (6), press the "Settings" button to switch to select the desired measurement mode (real time or peak);
- (7), the object to be tested is loaded, and the upper and lower limit screws are used for position adjustment;
- (8), debug 0 o'clock position, and press the "return" button to clear the force value, long press the "back" button to clear the displacement;
- (9) Press the "Auto" button to mark the box on the screen.

(10) Adjust the appropriate speed according to your needs: short press “◀” (left) key, speed value minus 1, long press “◀” (left) key, the speed value decreases continuously until 1 is up; short press “▶” (Right) button, the speed value is increased by 1, long press “▶” (right) button, the speed value increases continuously until 300 is up;

(11), press “▲” or “▼” to start the test.

#### 4.2.2 How to use manual mode:

(1) Confirm that the power cord is connected;

(2) Confirm whether the emergency stop button is in the released state;

(3), turn on the power button;

(4), long press the "Settings" button for 4 seconds to enter the system setting interface, press the "Stop" button to jump to the "single step distance" option, I take the single step distance as an example, first press the "▶" (right) button will Move the cursor and press the “▲” (up) button to adjust it to the desired number;

(5) Press the “Settings” button to save the setting data, then press the Back button to return to the measurement interface;

(6), press the "Settings" button to switch to select the desired measurement mode (real time or peak);

(7), load the object to be tested, press the "return" button to clear the force value, long press the "back" button to clear the displacement;

(8) Press the “Auto” button to remove the check box from the box on the display;

(9) Adjust the appropriate speed according to your needs: short press “◀” (left) key, the speed value will decrease by 1, long press “◀” (left) key, the speed value will decrease continuously until 1 is up;

short press “▶” (Right) button, the speed value is increased by 1, long press “▶” (right) button, the speed value increases continuously until 300 is up;

(10), according to the need, 0 point approval;

(11) Press the “▲” or “▼” button to start the test.

## 5, Routine maintenance and care

5.1 The environment should be kept clean and free of liquids, iron filings and other substances from entering the inside of the instrument and damaging the electronic components.

5.2 Clean the instrument with a soft cloth, immerse the cloth in water with detergent, wring it out and remove dust and dirt.

Note: Do not use volatile chemicals to clean the instrument (such as volatiles, thinners, alcohol, etc.).

5.3 Do not operate the unit in the following environments

a, wet environment

b, dusty environment

c. Where oil or chemicals are used

d, where there is a source around

5.4 When not in use for a long time, the power plug should be unplugged to prevent dust and moisture.

## 6, Packing List

1	Machine	1 set
2	Power cord (Europe/Chinese placed one)	1 Pcs
3	Instruction manual	1 copy
4	Certificate and Warranty Card	1 piece
5	Desiccant	1 piece
6	AJJ-023 fixture	2 pieces
7	Hex nut M6	2
8	Double screw M6*45	2
9	Hexagon socket head cap screws M6*16	4
10	Allen key M6	1