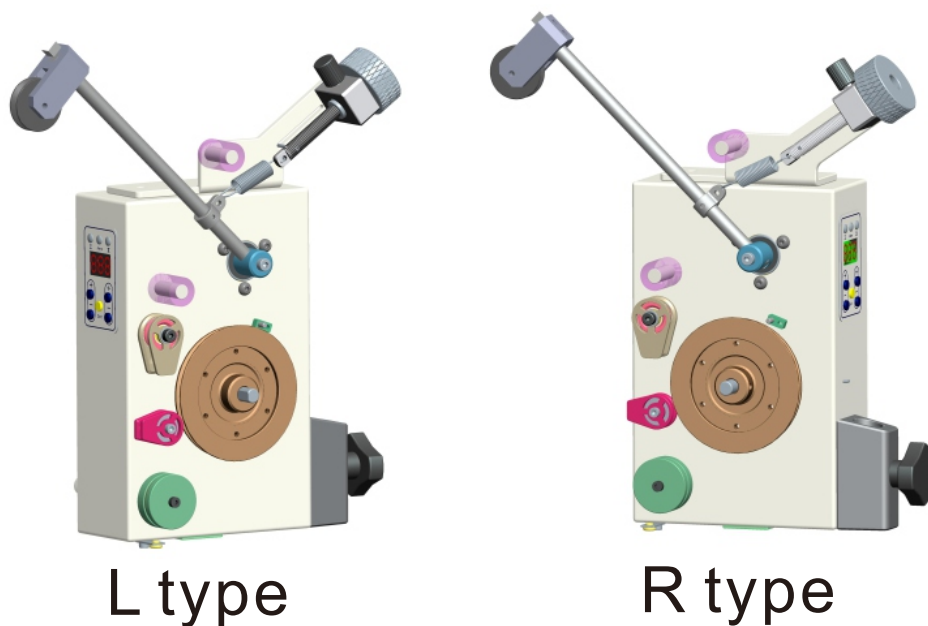


## RMA Series Electronic Tensioner Product Manual



☐ RMB-2000-R/RD

☐ RMB-2000L-R/RD



L type

R type

## ① Product Description

Features of RMB Series Electronic Tensioners:

1. Various tension values can be altered rapidly (output tension is reference to the setting value) by switching the signal input so that intelligent control is achieved

2. Remote control with the support of RS485 communication port.

**RMB-2000L-RD** Refers to RS485 communication

Electronic Tensioner

Refers to the maximum output tension value. The Prefix "A, B..." shows the version of upgrade, while A means the first generation.

Refers to RS485 communication

Represents the installation base on right, while it is on left for "L". B represents front output and E represents the new

Represents the display locates on left, while it is locates on right without "L".

Type reference table

model	Tension range (g. f)	Use the line-size range(mm)
RMB-2000-R/RD	200-2000	Φ0.3 - Φ0.6
RMB-2000L-R/RD	200-2000	Φ0.3 - Φ0.6

## Failure 3:

Tension pulley slips while operating

## Solution:

1. Change the wool felt if it is caused by oil or impurities on it.
2. Use the cotton thread with absolute alcohol, and then pull back and forth to clean the tension pulley

## Failure 4:

Tension pulsating exists

## Solution:

To enter the demagnetization mode. Turn the tension wheel during the demagnetization or it will be invalid.

## ⑨ Packing list

Welcome to buy our products, when you open the package, please check the following:

NO.	ITEMS	QUANTITY	PC	REMARKS
1	Electronic tensioner	1	Taiwan	Standard configuration
2	Tension rod	See the table below		
3	Fixed handle	1	a	Standard configuration
4	Tension spring	See the table below		
5	baize	2	slice	Standard configuration
6	Compression spring	1	article	Standard configuration
7	The power cord	1	article	Standard configuration
8	Line 485	1	article	Matching: Y N
9	Product description	1	part	Standard configuration

model	Tension rod	tension spring
RMB-2000-R/RD	SA4 SA9 1 the root	S5/S6/S7/S9 The article 2
RMB-2000L-R/RD	SA4 SA9 1 the root	S5/S6/S7/S9 The article 2

Remark: Should there are any missing parts or inconsistency with the above table, please contact your local dealer immediately.

## 6 Cautions

1. Do not touch or try to stop the tension arms and the wiring wheels or rolls.
2. Install the tensioner properly to prevent the falling of tensioner.
3. Adjust the pressure applied by the Baize Clip (avoid too high) and the force by spring to ensure the tension wheel is running properly.
4. Turn the tension wheel to eliminate the magnetism pulse when changing the current from large to small or it will affect the wiring performance.
5. Ensure the enameled wires go through the wire jump preventer and the wire wheels properly but not hanged over the contact roller so that the wheels rotate smoothly.
6. Keep away from oil contamination to the tension pulley, or it will affect the tensioner running smoothly. Use the cotton thread with absolute alcohol to clean it by pulling back and forth of the "O" shape part, if the oil contamination exists.
7. Baize clip, ceramic eyelet, wire roller and the tension arm are consumable parts. Charging is required for replacement even the tensioner is within the warranty period. Please contact our factory for the cost.
8. Over limit application or improper model using is prohibited. Repair or components disassembly can only be done in factory.
9. Clean the parts where wires passing through, especially for the waxed enameled wires are used. Periodically replace the Baize clip to keep the tension constant and avoid slipping. Otherwise, it will shorten the life of tensioner.

## 7 Maintance

1. Periodically clean the tensioner, wool-felt clip, tension wheel, ceramic eyelet, wire rollers according to the usage situation. Replace the wool-felt if necessary to ensure the tensioner works properly.

## 8 Failures

### Failures 1:

Enameled wires got stuck in the tension wheel to cause the rotation stop.

#### Solution:

Unscrew the fixing screw to take out the tension wheel and clean the impurities inside.

### Failure 2:

Wire get stuck with tension arm or wire roller or not running

#### Solution:

1. Too thin wires may get stuck outside the wire roller. Please examine carefully and wire again;
2. Replace the wire roller if it is caused by the ageing of wire roller after long time usage.

## 2 External Structure

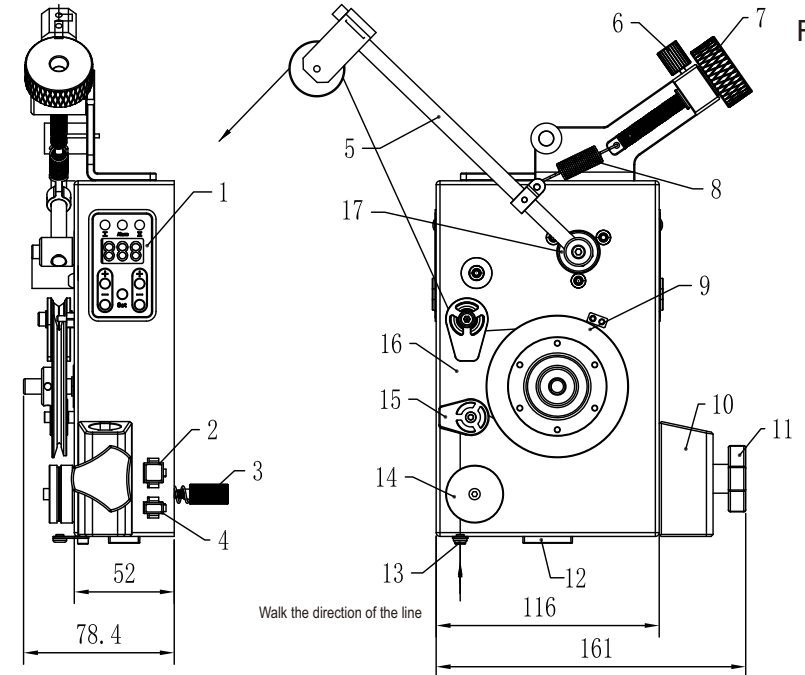


Figure 1

- ① Display screen ② 4 core port ③ Wool felt adjusting KNOB ④ 2 core port ⑤ Tension bar  
⑥ Locking KNOB ⑦ ANTI-TENSION KNOB ⑧ Tension Spring ⑨ Tension wheel  
⑩ Mounting seat ⑪ Fix The handle ⑫ 485 COMM interface ⑬ Porcelain Eye  
⑭ Wool felt clamp ⑮ Jumper arrester ⑯ Jumper arrester ⑰ Tension Rod holder

## 3 Cautions

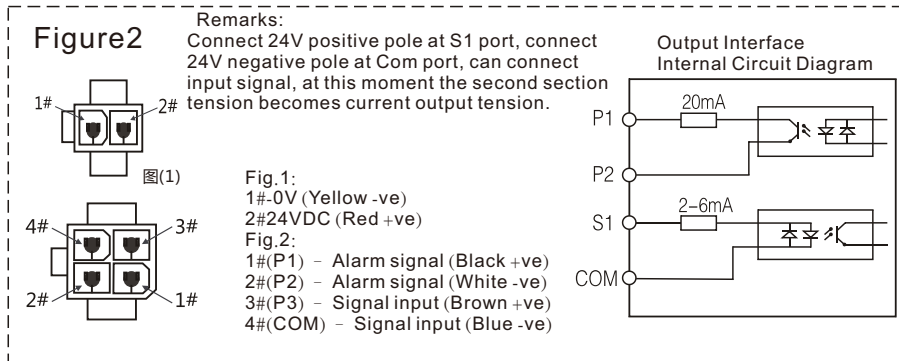
1. Temperature range: -5℃-40℃ Humidity range: 30%-80%.
2. Cleaning requirements of enamelled wire: Keep the enamelled wire without any oil, dust and impurity outside. If the surface of enamelled wire stuck with waxiness, you'd better clean wire rolling frequently and replace wool clamping regularly. Otherwise, it will cause frequent tension change or wire-through wheel skidding, and shorten operating life of O Ring in tension pulley.

## 4 Tensioner installation and commissioning

### 1. Installation

- Step 1: Insert the foot mounting into the fixed link and tighten it by fasten the handle.
- Step 2: Loosen the fastening nut on the fixing base of tension arm, and insert the tension arm into the rotating shaft and then tighten the fixing screw
- Step 3: Choose the appropriate tension arm and tension spring according to the range of wire diameter and tension value. The higher of tension applied, the thicker of tension arm is required.

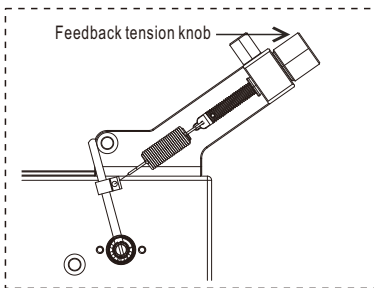
Step 4: Connect the terminals as figure 2 shows, with details below:  
Input power supply: 24VDC+/- 10% (1A) Input signal: 24VDC



## 1.Product tuning

Step1: Route the wire refers to the fig1 and use the wool felt regulator knob to adjust the tightness to the wire (clockwise turning to be tight, anticlockwise turning to be loose).  
Tightness of Baize clip depends on the value of tension. In small tension, tightness should be just enough to hold the wire from falling out from the Baize clip while it should be tight for large tension.

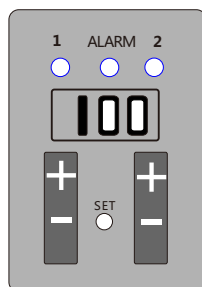
Step2: Tune the "feedback tension knob" to a back tension that is match with the operating tension (Stage1 and Stage2) according to the requirement. Change the spring to start again the process if the tension reaches the limit and cannot be tuned by the knob anymore.



**Figure3**

Rotate the feedback tension knob to adjust the back tension.  
Clockwise: Back tension increases  
Anti-clockwise: Back tension decreases

## 5 Interface menu:



This machine has 3 lights and 5 keys. The "ALARM" indicator light is always on to indicate the disconnection ALARM. The "1" indicator light is always on to show that the current tension in the first paragraph is effective. The display value of the Nixie tube is the set value of the first paragraph. The "2" indicator light is always on to show that the current second tension is effective, the display value of the Nixie tube is the set value of the second paragraph.

Steps 1  
1"indicator under the "+" "-" operation key, corresponding to adjust the first paragraph tension. At this time, "1" indicator light flashing to remind the user is setting the first tension, and for the current output tension, digital tube display for the first set value. If you need to exit after setting, you can press the "SET" button in the middle or wait for 60 seconds without operation to exit automatically

Steps 2  
2"indicator under the "+" "-" operation key, corresponding to adjust the second paragraph tension. At this time, "2" indicator light flashing to remind the user is setting the second tension, and for the current output tension, digital tube display for the second set value. If you need to exit after setting, you can press the "SET" button in the middle or wait for 60 seconds without operation to exit automatically

Steps 3 The "+" "-" key under the "2" indicator corresponds to an adjustable second tension. At this point, the "2" indicator light flashing, reminding the user is setting the second tension, and for the current output tension, digital tube display for the second set value. If you want to exit after setting up, you can press the "SET" key in the middle or wait for 60 seconds without any operation to exit automatically.

Steps 4 Long Press "SET" key, you can enter the parameter setting interface. There are four parameters, P01 ~ P04

Parameter serial number	Parameter name	Range	Notes
P01	First tension value	0~1000	
P02	Second tension	0-1000	
P03	Modbus communication station number	1-255	
P04	Alarm port output mode	0-1	0 means the alarm output signal is normally open, and 1 means normally closed

Here's how it works:

