

JingZhun Machinery

Keep Tension Yarn Feeder Installation Instructions

Version: V1.0 Date: 22.11.15

1. Specifications

The JZKT-1 Keep tension yarn feeder is type of yarn guide feeder for separating coil, which is designed for the feeding of both elastic and non-elastic yarns at a constant tension into the braiding machine or loom machines.

Voltage: DC24V

Current: 0.5A (Depends on actual application)

Max Power: 50W

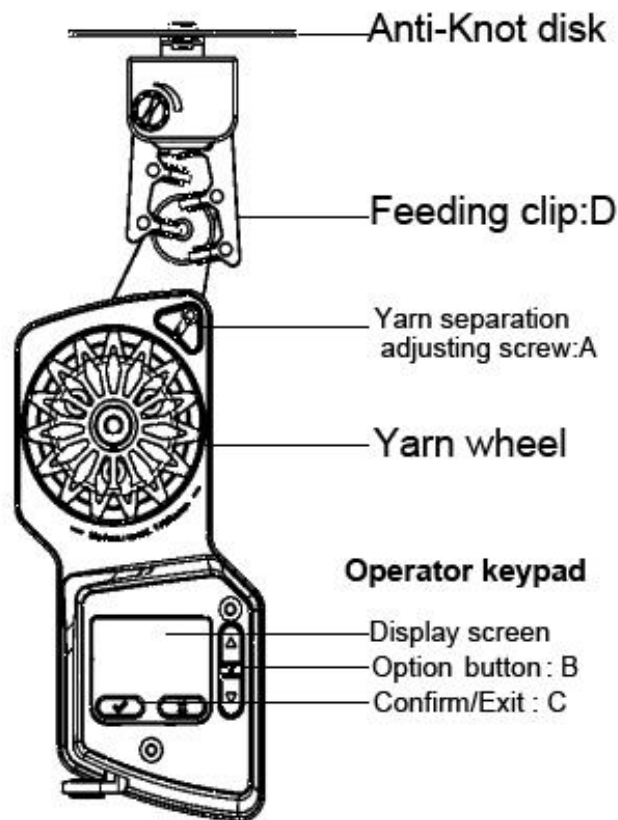
Average Power: 12W (Depends on actual application)

Yarn Diameter Allowance: 20D-1000D

Max Yarn Feeding Speed: 1200 meter/min

Weight: 500g

2. Main Parts & Switches

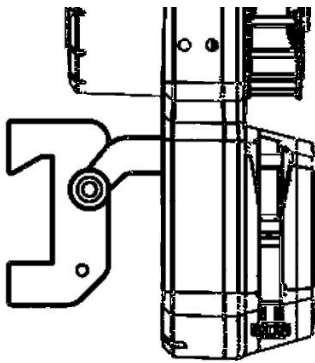


Switches / Sockets	Function
A.Yarn Separation adjusting screw	Adjusting coil separation on the yarn wheel
B.Option bottom	Scroll the options in the display
C.Confirm/Exit button	Select or cancel in-display options
D.Feeding clip	Adjust the yarn tension of the input yarn

3. Installation and Assembly

3.1 Installation

Keep tension yarn feeder is fixed by the back rear compact structure as below



3.2 Port Definition

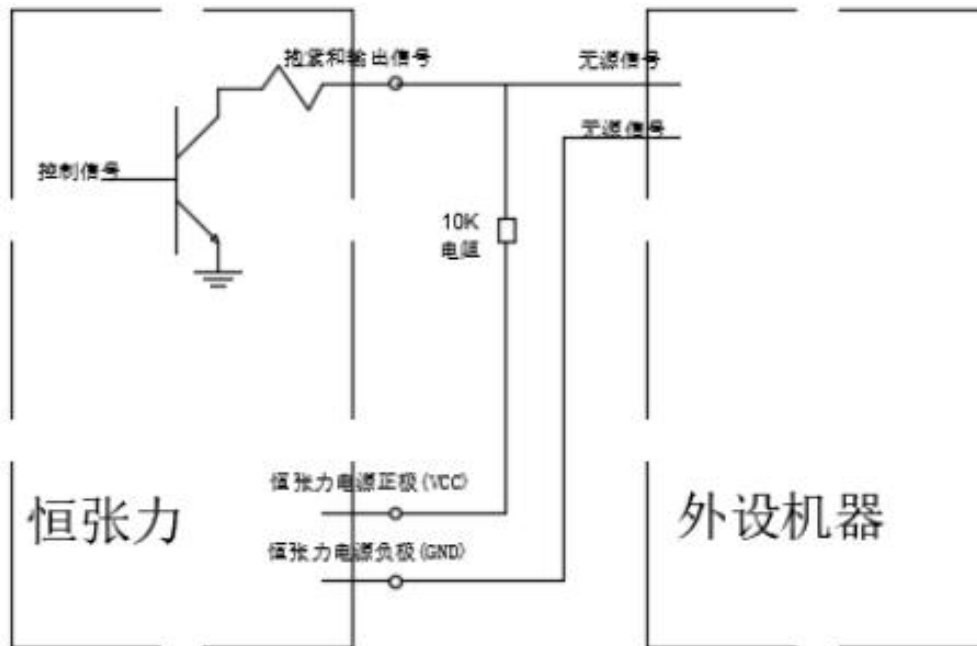
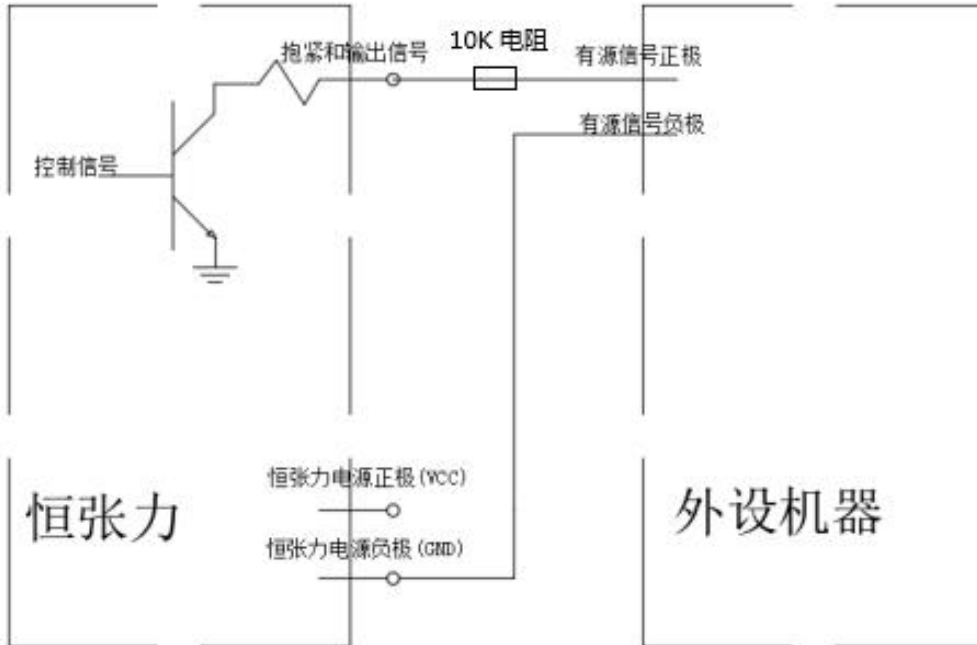
Power supply: VCC and GND are power terminals, which are connected to 24V power supply. Ports are defined as follows:

	CANH	CANL
	ID	STOP
	GND	VCC
	DEC	INC

3.3 STOP sensor

STOP is the alarm output, and the principle is shown

in the below figure:



4.Operation

4.1 Key description

4.1.1、 “ ✓ ” Confirm button

- The Confirm button can be used to access the reference tension programming function and submenus and to confirm an item. The purpose of this button depends on the menu you are in. In addition, this button allows you to: -- Restore the equipment when it is in the winding (or threading) state of "waiting for winding A";

4.1.2、 “ X ” Exit button

The exit button can be used to cancel the alert (if the alert displayed can be canceled), exit the submenu, and exit the value editing page.

The purpose of this button depends on the menu you are in. In addition, this button allows you to:

- Restore the equipment when it is in the state of "waiting for winding A";
- Under the alarm state displayed on the display screen, the alarm signal can be reset by holding the button for about 5 seconds;

4.1.3、 “▲” Up button

This button is used to scroll up the selection menu. In addition, it can be used to add value to the data entry/editing screen.

This button can also be used to restore the device when it is in the thread state "waiting for winding A".

4.1.4、 “▼” Down button

This button can be used to scroll down menus and submenus. In addition, it can be used to reduce values in the data entry/editing screen.

This button can also be used to restore the device when it is in the thread state "waiting for winding A".

4.1.5、 “✓” & “ ✕ ”Simultaneously press

Toggle step value. For entering/editing parameters that may have a very large range of values, then edit the values (0.1g/1g) by pressing the "▲" and "▼" keys at the same time.

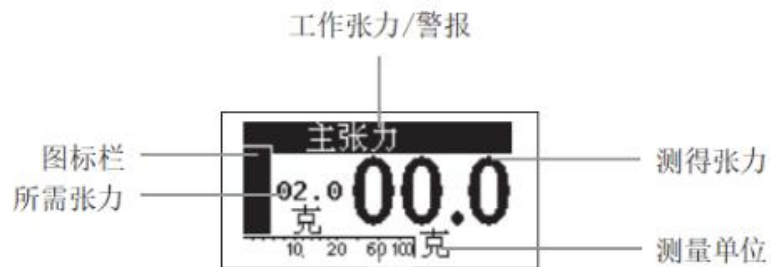
In addition, at the main tension interface, it is used to switch "threading mode A".

4.1.6、 “▲”&“▼”Simultaneously press

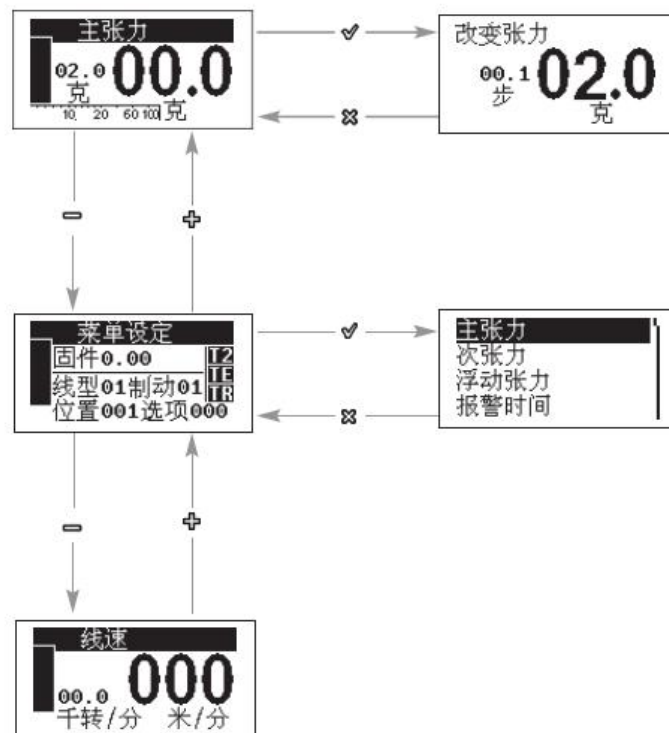
At the main tension interface, for switching "Threading Mode B"

4.2 Interface Description

4.2.1 Main Interface



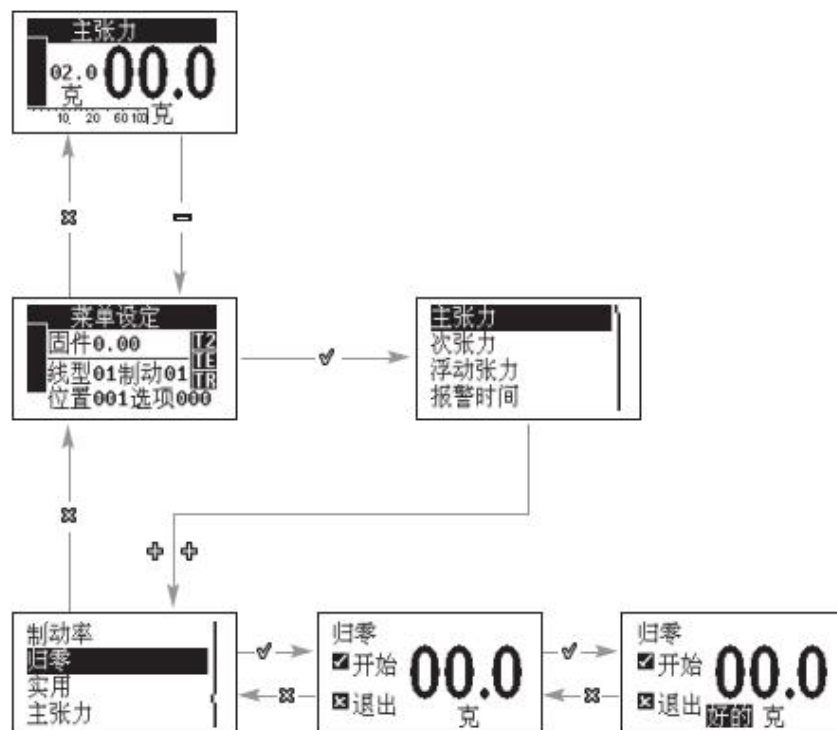
4.2.2 Change the order of all interface



4.3 Pre-use operation

Return to zero sum calibration

The yarn feeder will be on once it has been installed on the machine, connected to the power supply and started, or restarted after power failure. Please return the weighing sensor to zero as described below:



The calibration process is similar to the return to zero operation, except that the calibration requires placing weights and calibrating first 0g (lower limit) and then 50g (upper limit), and the interval between the two operations is not more than 1 minute. Note: at 0g, there is no need to hang weights; At 50 grams, you need a weight.

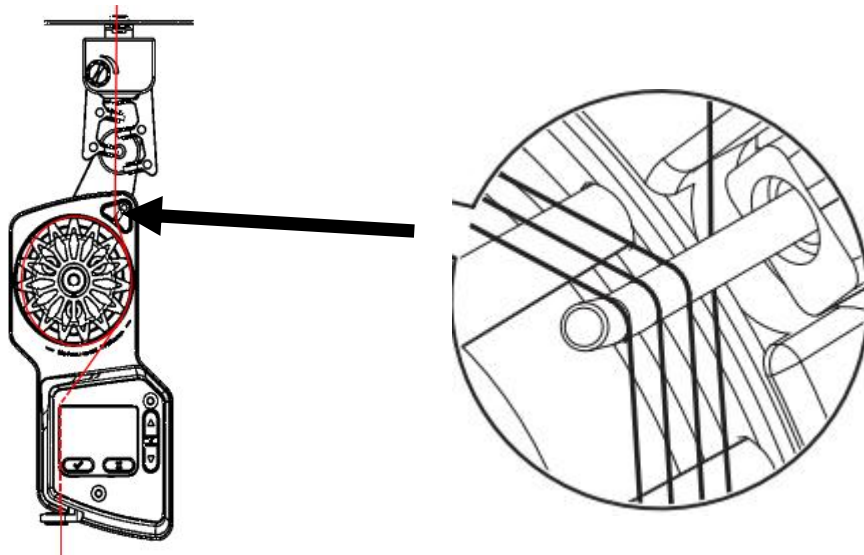
4.4 Threading

The winding function has two different modes of operation:

(1) the need to manually restore equipment can be in accordance with the "✓" and "✗" at the same time, to enable this feature, the light is normally on the upper right corner above)

2) The device can automatically resume operation (this function can be enabled by pressing "▲" and "▼" at the same time, and the indicator below the upper right corner will be on)

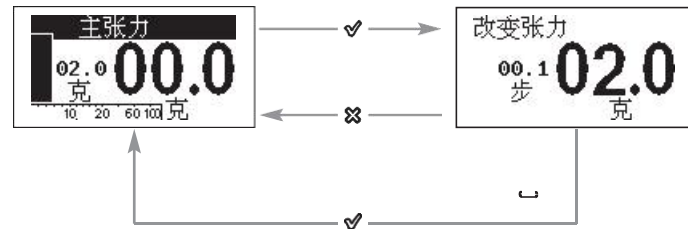
The difference between the two modes is that the former only envisage a manual reset by pressing one of the buttons, while the latter (self-recovery) also resets the device by running the yarn across the tension sensor.



As shown that the first loop wound on the wheel should pass between the spinning rod and the wheel, and the subsequent yarns should pass through the outside of the spinning rod.

4.5 Quick start

Set desired tension



- ▲ Can be used to increase
- ▼ can be used to reduce
- Can be used for confirmation
- ✓ + ✗ can be used to switch the step length

Remember that the modified reference value will be "primary tension" if the device is operating at T1, and "secondary tension" if the device is operating at T2.

T1 is used by default, and once the tension is set, the machine can be started.

5.Menu parameter setting

5.1 Principal tension

The value range is 0.5g to 50g. By default, this value is set to 1.5 grams. At the same time "✓" and "✗" button can be set up to increase the step length. Increments can alternate between 0.1 and 1.0.

Use "▲" and "▼" to scroll through the parameters and use "▲" and "▼" to set the desired tension



5.2 times tension

If this parameter is not set to "OFF", the relevant icon (T2) in the Menu Settings page will be enabled. This value can be set to "OFF" or 0.5g to 50g. By default, this value is set to "OFF". At the same time "✓" and "✗" button can be set up to increase step value. Increments can alternate between 0.1 and 1.0.

Use "▲" and "▼" to scroll through the parameters and use "▲" and "▼" to set the desired tension



5.3 Floating tension

This is the maximum yarn tension change allowed during constant tension operation. For the set value. If yarn tension exceeds the selected reference tension plus or minus TE tension, then a "floating tension" alert will be activated. If the measured tension is less than 0.4 g, an alarm will be triggered in any case, as this will be detected as broken yarn. TE alerts can be enabled by setting the Alarm Time parameter to a value other than OFF, in which case the dedicated icon (TE) will light up on the Menu Settings page.

Conversely, if the parameter Alarm Time is set to OFF(off), the icon will not appear in Menu Settings and the floating tension alarm will never be activated. TE is only triggered if you are working with T1 instead of T2.

Example: If the reference tension is set to 4 grams and the TE is set to 0.5 grams, the Alarm will be activated after a TA-Time Alarm delay if the tension value is greater than 4.6 grams or less than 3.4 grams. If the reference tension is set to 1 gram and the TE is set to 2 grams, the alarm will be activated after the "alarm time" delay if the tension value is greater than 3.1 grams or less than 0.4 grams. This value can be set from 0.1g to 50g. By default, this value is set to 1 gram. At the same time "✓" and "✗" button can be set up to

increase step value. Increments can alternate between 0.1 and 1.0.

Use "▲" and "▼" to scroll through the parameters and use "▲" and "▼" to set the desired tension



5.4 Alarm time

This is the minimum length of time that yarn tension must exceed the limit set by "TE" to activate the "False tension" alarm. If the yarn tension exceeds the allowable limit (set tension plus or minus TE) for less than the time set by TA, the False Tension alarm will not activate. The default setting for this value is "OFF".

At the same time "✓" and "✗" button can be set up to increase step value. Increments can alternate between 0.1 and 1.0.

Use "▲" and "▼" to scroll through the parameters and use "▲" and "▼" to set the desired tension



5.5 Increase and decrease

Increments can alternate between 0.1 and 1.0. This value can be set from 0.1g to 25g. The default setting for this value is 0.1g.

Use "▲" and "▼" to scroll through the parameters and use "▲" and "▼" to set the desired tension



5.6 The length measurement

The amount of thread consumed by the feeder can be calculated.

A value in meters corresponding to the length of the yarn will be set, at which point the device must stop (indicating machine stop).

With this value set, the feeder will begin to measure the amount of thread consumed. After reaching the preset value, the constant tension device will stop the machine with the help of the end of the count alarm "end of length".



This alert can be reset by pressing X on the main page. When the alarm is reset, the counter is also reset. At the same time press "✓" and "X" key step length can be set up to increase the value. The increase step size may vary from 1, 100, or 10000.

6 Alarms and exceptions

6.1 Abnormal Motor

Abnormal motor phenomenon, the upper right corner light flashing, and display prompt box will be an alarm

6.2 Abnormal Tension

If the floating tension is abnormal, the indicator light of the display screen will blink, and the display prompt box will have an alarm, triggering the "alarm time" set in item 5.4.

6.3 Cable Disconnection alarm

When the tension is less than 0.5g and lasts for a certain time, the indicator light of the display screen will blink, and the prompt box of the display screen will have an alarm, triggering the "alarm time" set in item 5.4.