

# SRSTS-WL-UX

## User's Guide

(V1.0)

Xi'an Excellent Electromechanical Co., Ltd.

Technical File of SRSTS-WL-UX Wire rope tension test system

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**Notice:** In any case, we are only responsible for the quality of the products during the warranty period.

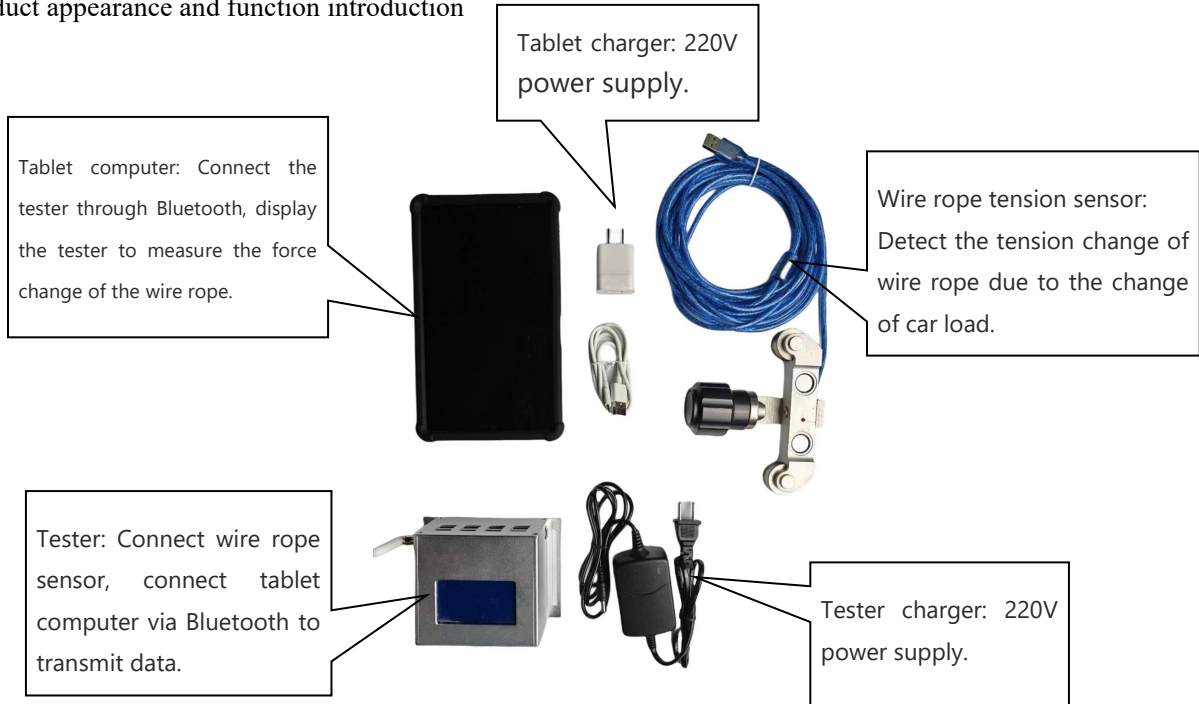
**Disclaimer:** Due to technological progress, the company reserves the right to change the product; For technical specifications, please refer to the manual delivered with the product.

# Technical File of SRSTS-WL-UX Wire rope tension test system

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## 一.Product Overview

### 1.Product appearance and function introduction

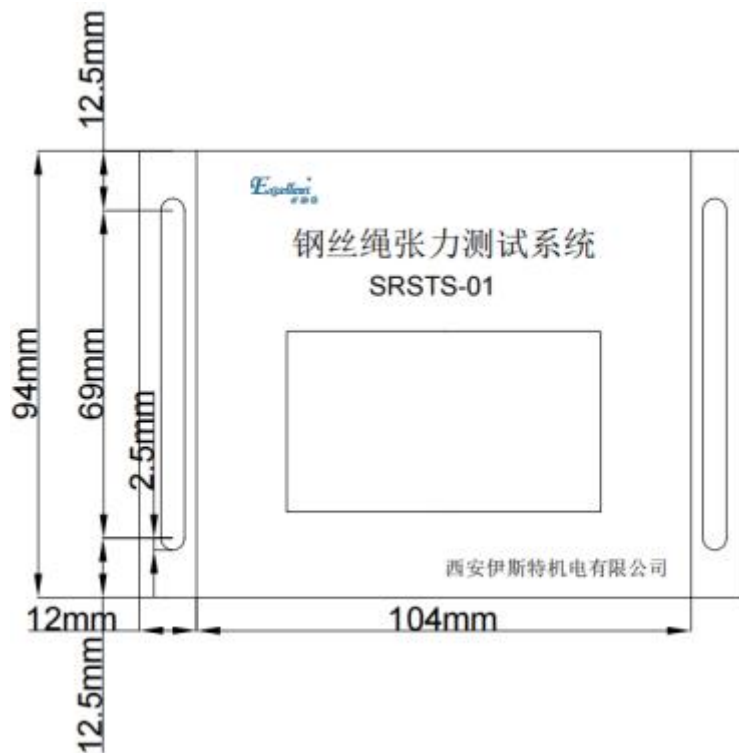


### 2.Wire rope tension tester SRSTS-WL-UX sensor interface description

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Wire rope tension tester SRSTS-WL-UX sensor interface description			
Added custom port option	Bit number and identification	Function and definition	Remark
Input port	IN1	Wire rope tension sensor input port 1	
	IN2	Wire rope tension sensor input port 2	
	IN3	Wire rope tension sensor input port 3	
	IN4	Wire rope tension sensor input port 4	
	IN5	Wire rope tension sensor input port 5	
	IN6	Wire rope tension sensor input port 6	
	IN7	Wire rope tension sensor input port 7	
	IN8	Wire rope tension sensor input port 8	
Charger interface	DC IN	Charger interface, input AC 220V, output DC8.4V	
power switch	ON/OFF	power switch	
Bluetooth antenna	ANT	Bluetooth antenna interface	

### 3. Dimensions of the tester



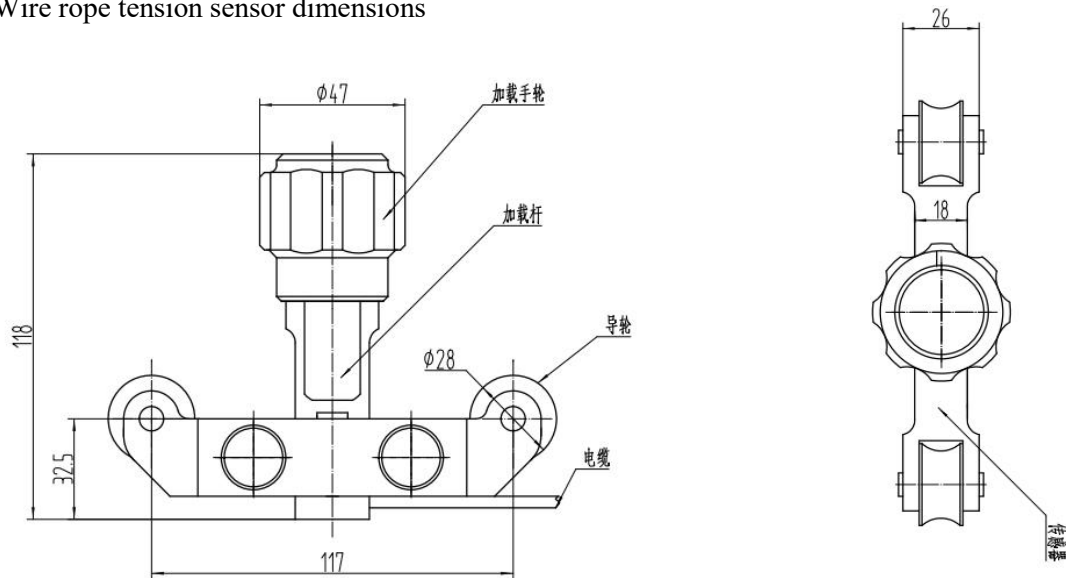
二.Sensor

1.Dimensions and installation diagram

Picture	Installation diagram
	

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### 2. Wire rope tension sensor dimensions

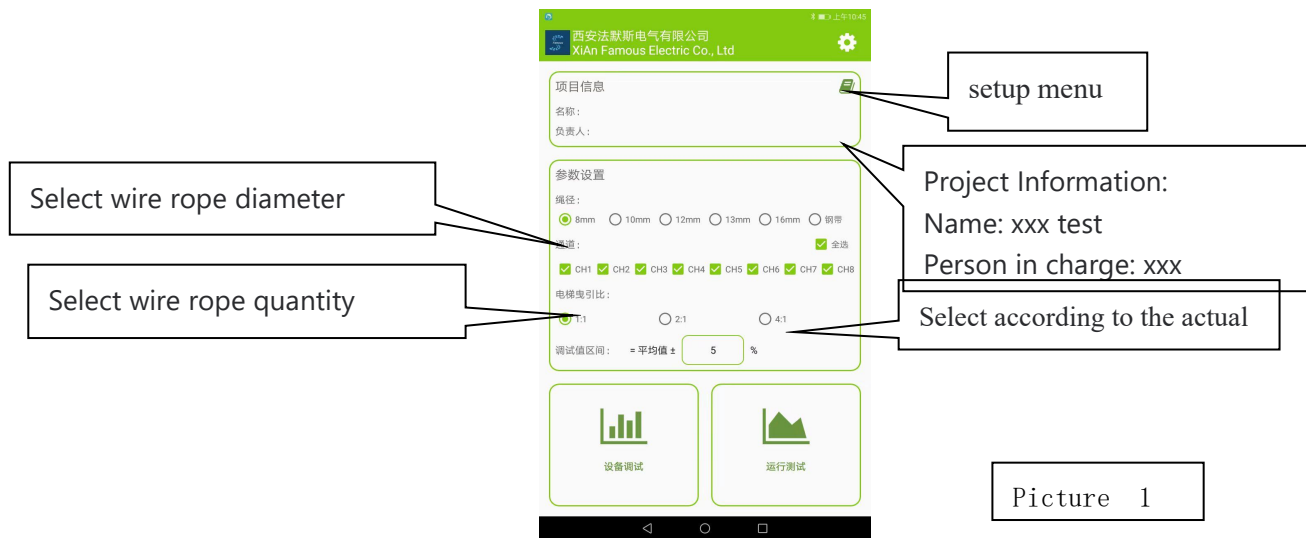


### 三、 Method and description of wire rope tension tester

1、 Install the wire rope tension sensor and connect the sensor USB ports to IN1-IN8 input ports of the tester in sequence. The actual number of sensors selected can be selected according to the number of wire rope, and the sensor can be installed on the wire rope under the car rope head (can measure the car weight and the load in the car) or on the wire rope under the heavy rope head (can measure the weight of the weight).

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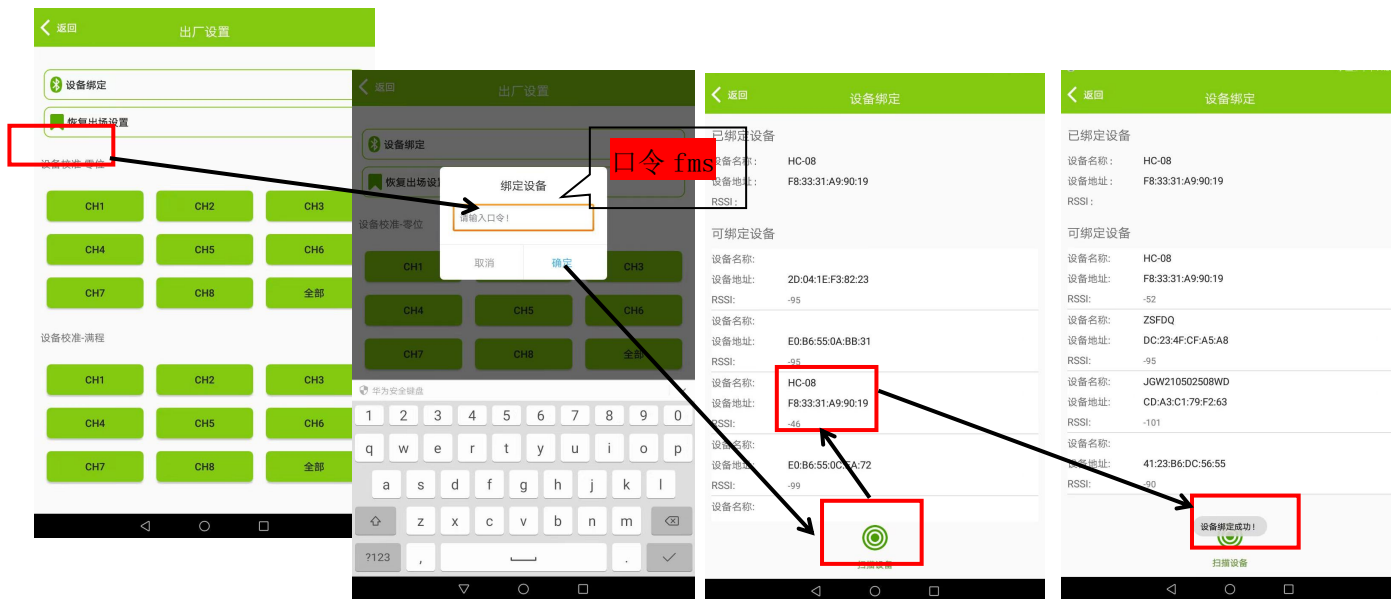
- 1、 Press the ON/OFF switch power button of the tester. After the tester is turned on, turn on the red indicator in the middle of each sensor.
- 2、 Enter the Farmer APP on the tablet as shown in Figure 1, add test items and fill in the project leader.
- 3、 As shown in Figure 1, the tablet enters the Farmer APP software, adds the test items and fills in the project leader
- 4、 Select the corresponding button according to the number of elevator wire ropes (1-8 wire ropes correspond to CH1-CH8, for example :6 wire ropes can be clicked to select CH1-CH6 button), and select the corresponding wire rope diameter button according to the rope diameter. Select the corresponding button according to the actual traction ratio. Enter the Settings menu for Bluetooth binding.





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5、After entering the setting menu, enter password "fms" as shown in Figure 2 for binding devices, click "Scan device" as shown in Figure 4 to scan the wire rope tension tester, select the device named "HC-08" to connect to the wire rope tension tester through Bluetooth.



Picture 2

Picture 3

Picture 4

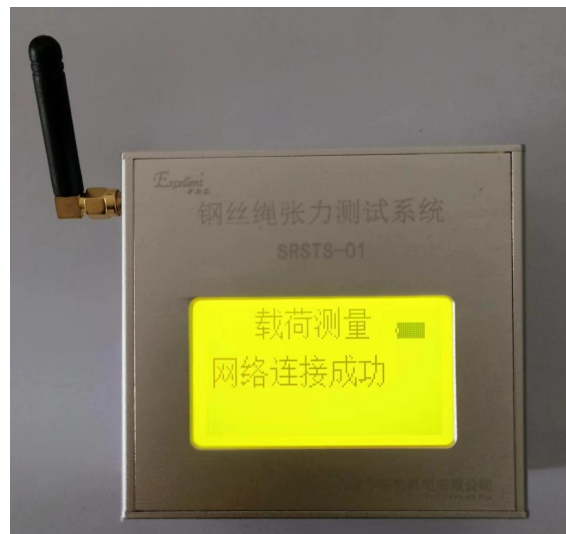
Picture 5

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6、 As shown in Figure 6, the screen of the wire rope tension tester changes from "network connection" to "network connection successful", marking the completion of the Bluetooth connection between the tablet computer and the wire rope tension tester.



Picture 6



Picture 7

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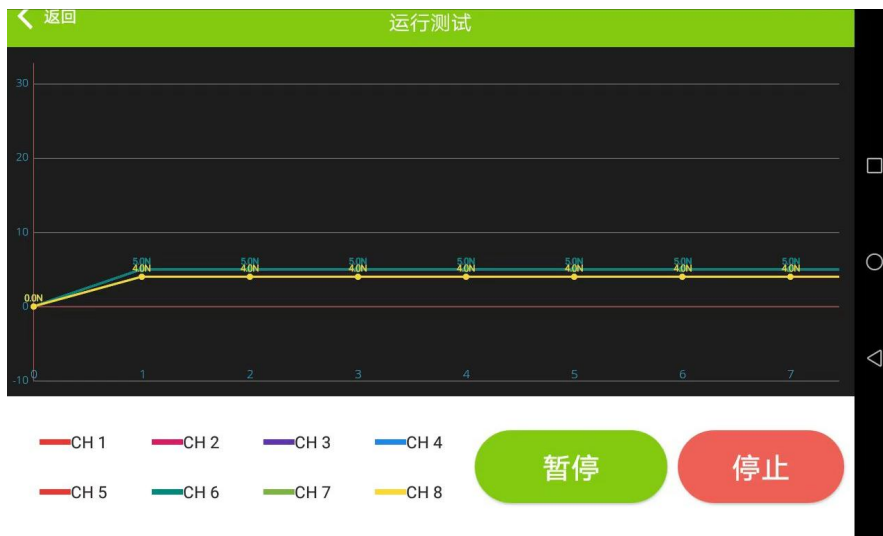
7、Click "Equipment debugging" to enter the stress column diagram of each steel wire rope as shown in Figure 8. The stress of the steel wire rope can be adjusted by adjusting the tightness of the tie rod nut of the steel wire rope head. When all the columns are even, each wire rope is stressed evenly.



Picture 8

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8、Click "Run test" to enter the stress line diagram of each steel wire rope as shown in Figure 9, and you can intuitively see the stress situation of each steel wire rope during the operation of the elevator.



Picture 9

### 四. Application scope Working principle and main features

#### 1. Wire rope tension tester application range

Wire rope tension tester has been widely used in many fields. First, it is often used in construction projects to test the tension of lifting equipment, lifting machinery or other similar devices. Secondly, it is also necessary to use the tester for the detection of ship mooring lines, various guides and buoys on offshore platforms in ocean engineering. In addition, there is also a greater demand in the mining industry, bridge construction and giant mechanical transport.

#### 2. "Wire rope tension tester" working principle

Wire rope tension tester is a special equipment for measuring wire rope tension. When the wire rope is stretched, there is a strain, that is, a change in the shape and size of the object. This strain can be detected by a tension sensor mounted on the wire rope and connected to a digital display or computer. When the wire rope is stressed, the tension sensor will measure and convert into the corresponding electrical signal, and the data will be transmitted to the display screen or computer through the cable for processing and output, so as to achieve the working function of the wire rope stress test.

#### 3. main feature

- (1) The device can accurately measure the tension of the wire rope and provide reliable data as a reference.
- (2) It can effectively help to check and evaluate the health of the wire rope, timely detection and avoidance of potential failures and safety hazards.

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(3) In addition, this test instrument is simple, convenient and flexible to operate, and is suitable for a variety of different specifications and types of wire rope.

### 五. Technical Specifications

1	Applied range	Suitable for tensile test of wire rope on traction elevators, lifting equipment or other similar devices
2	weighting error	$\leq 1.5\%$ (-20~55℃)
3	Output form	Wire rope stress column diagram and line diagram
4	Communication mode	100m point-to-point visual transmission distance (with gain antenna)
5	Transmission distance	100m
6	Operating temperature	-20~55℃
7	Power supply	AC 220V rechargeable, built-in battery
8	Function extension	Connect the Bluetooth tablet for viewing
9	Dimension parameter	Diameter of wire rope: 8-16mm Sensor size: 180*150*50mm <sup>3</sup> Wire rope tension tester size : 94*128*55mm <sup>3</sup> Tablet size: 205*125*10mm <sup>3</sup>

❖\*: If the strength exceeds the limit parameters listed above, it may cause the wire rope tension tester to work abnormally or cause permanent damage.

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### promise

- 1.The wire rope tension tester in the factory within one year product quality problems, free replacement (product seal damage will not be accepted).
- 2.If you have special functional requirements, please write to us.
- 3.If the wire rope tension tester is abnormal during use, please contact us directly.

### Other

1. Attachments:			
user's manual	1piece	sensor	8set
Wire rope tension tester	1set	Wire rope tension tester charger	1set
tablet PC	1set	Tablet charger	1set
2.Address book: :			
Xi'AN EXCELLENT ELECTROMECHANICAL CO.,LTD			
TEL	(029)88416613 85565714 (029) 85568478		
fax	029-85565714-886		
Address	7D, Block A, Olympic Building, 14th Chang An North Road, Xi'an, Shaanxi,China		
postcode	710061		

**Technical Support: 0086-18092639752      0086-18092639750**