

Dear Client,

Thank you for purchasing our TC-10kVA Transformer Control Console. Please read the manual in detail prior to first use, which will help you use the equipment skillfully.



Our aim is to improve and perfect the company's products continually, so there may be slight differences between your purchase equipment and its instruction manual. You can find the changes in the appendix. Sorry for the inconvenience. If you have further questions, welcome to contact with our service department.



The input/output terminals and the test column may bring voltage, when you plug/draw the test wire or power outlet, they will cause electric spark. PLEASE CAUTION RISK OF ELECTRICAL SHOCK!

## 🕒 **SERIOUS COMMITMENT**

All products of our company carry one year limited warranty from the date of shipment. If any such product proves defective during this warranty period we will maintain it for free. Meanwhile we implement lifetime service. Except otherwise agreed by contract.

## 🕒 **SAFETY REQUIREMENTS**

Please read the following safety precautions carefully to avoid body injury and prevent the product or other relevant subassembly to damage. In order to avoid possible danger, this product can only be used within the prescribed scope.

*Only qualified technician can carry out maintenance or repair work.*

--To avoid fire and personal injury:

### **Use Proper Power Cord**

Only use the power wire supplied by the product or meet the specification of this produce.

### **Connect and Disconnect Correctly**

When the test wire is connected to the live terminal, please do not connect or disconnect the test wire.

### **Grounding**

The product is grounded through the power wire; besides, the ground pole of the shell must be grounded. To prevent electric shock, the grounding conductor must be connected to the ground.

Make sure the product has been grounded correctly before connecting with the input/output port.

### **Pay Attention to the Ratings of All Terminals**

To prevent the fire hazard or electric shock, please be care of all ratings and labels/marks of this product. Before connecting, please read the instruction manual to acquire information about the ratings.

### **Do Not Operate without Covers**

Do not operate this product when covers or panels removed.

### **Use Proper Fuse**

Only use the fuse with type and rating specified for the product.

### **Avoid Touching Bare Circuit and Charged Metal**

Do not touch the bare connection points and parts of energized equipment.

### **Do Not Operate with Suspicious Failures**

If you encounter operating failure, do not continue. Please contact with our maintenance staff.

### **Do Not Operate in Wet/Damp Conditions.**

### **Do Not Operate in Explosive Atmospheres.**

### **Ensure Product Surfaces Clean and Dry.**

## — **Security Terms**

---

Warning: indicates that death or severe personal injury may result if proper precautions are not taken

---

Caution: indicates that property damage may result if proper precautions are not taken.

---

## Contents

I、 Outline .....	6
II、 Main Characteristics .....	6
III、 Technical Parameter .....	7
IV、 Connection Wire Sketch drawing of It and High Voltage Test Transformer .....	7
V、 Manual Explanation .....	7
VI、 Usage and Maintenance .....	8
VII、 Supplementary Explanation: .....	9

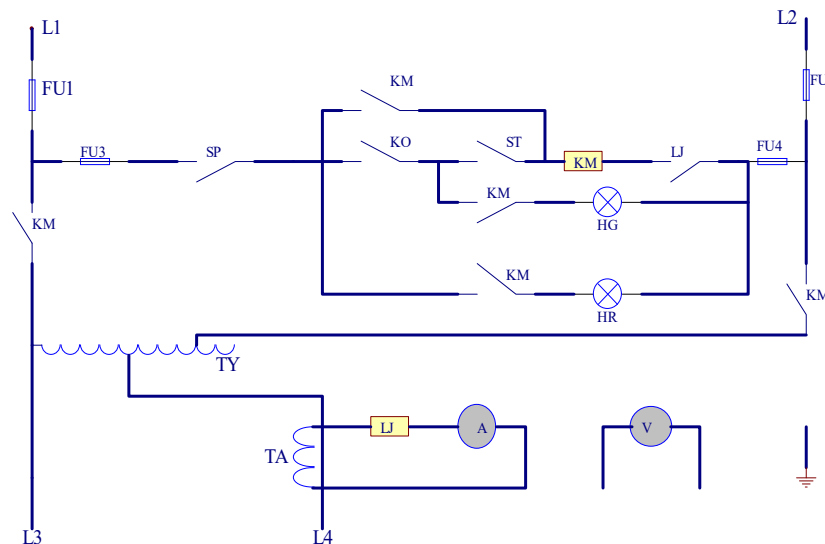
## I、 Outline

TC series control station is a complete set of equipment of high voltage test transformer, it and the test transformer carry out resistance pressure and leakage test. This product is in according with electric industrial standard *DL/T848.2-2004*.

## II、 Main Characteristics

This series product has characteristics, such as beautiful appearance, small volume, light weight, simply operation and conveniently maintenance.

This series control station is consists of touch type voltage adjustor and circuit on control, measure and signal. After goes through work frequency power 220V/380V, adjust the output voltage of voltage adjustor(namely the input voltage of test transformer), then accept the required test high voltage(the pressure value which is tester) , which work principle is as the follow drawing.

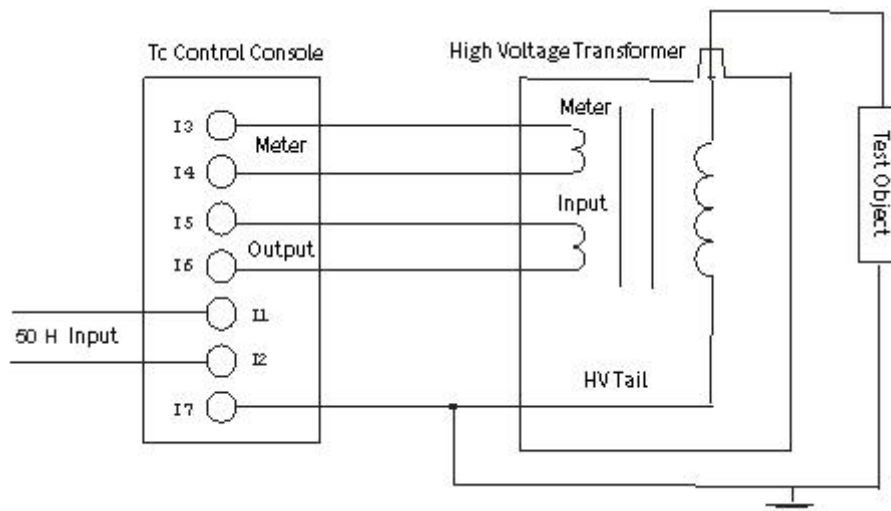


KM AC Touch Machine      HG、 HR Indicator      TY Auto Voltage Adjustor  
 LJ Current Relay      TA Current Mutual Inductance      KO Zero Switch

### III、 Technical Parameter

Model	Power		Output		Mass (kg)
	Voltage (V)	Frequency (HZ)	Voltage (V)	Current (A)	
TC-10	220	50	0-250	40	55

### IV、 Connection Wire Sketch drawing of It and High Voltage Test Transformer



### V、 Manual Explanation

1. As the table shows, please connect the control station with the test transformer, also please do not forget to connect with the floor line. After careful examination, you can make electricity go through it.

2. When the electricity goes through, please turn the voltage adjustor to Null, Zero Switch turns on and the signal turns on too(which indicate that the

output of the voltage adjustor is Zero).

3. Press the Start Button, connect with touch machine, and plug the voltage adjustor in, at the same time, the power signal light will turn off, but working signal light will turn on.

4. Whirl the voltage adjustor slowly and clockwise, and read carefully the voltage meter, when it reaches the required voltage, please stop whirling and change the opposite direction to whirl until it reaches back to Zero.

5. After the examination, please press Stop Button, to shut off the touch machine, and the working signal light will turn off, but the Zero Signal Light will turn on.

6. This equipment is installed with over-current protection. Over-current relay should be chosen when you get the data by examination. But the relay always is setting to be 80% of the rated data. When it look a little over-loaded, please reset it according to the loaded current, to guarantee the safety of this equipment. During the voltage is becoming higher and higher, this experimental equipment will be proved not to be qualified if it becomes short-current, over-loaded relay, and the power were shut down. When it happens, you should whirl the adjustor to Zero Level.

## **VI、 Usage and Maintenance**

1. When you open the box, you need to check whether it's in good condition or not, especially you need to check whether the connection ports become loose or not, and the carbon brush connects with the voltage adjustor well or not.

2. Strictly follow the procedure, please read the manual first.

3. If it has been not in use for a long time, you should check main circuit



floor insulating resistance by 2500V MΩ meter, and the data should not below 1.5MΩ.

## **VII、 Supplementary Explanation:**

TCWJH series control station is another set of equipment of light test transformer, it has characteristics, perfect capacity, beautify appearance, small volume, light weight, beside, also has the function of switch on and timing, which manual explanation is same as TC control station.

1、 Over-current rated value= Over-current relay dial reading ×**K**

Among which, K is as a state value of change/excise (-SA) switch of current power, respectively for as 1, 2, ∞., K of the switch in ×1、×2 shift is as 1 and 2 respectively, excise shift is as +∞(in normal condition without using it to avoid damaging the equipment due to lost the protection for transformer.

2、 Electric control station is normally above 30KVA. As for client convenience, it adopts the methods of increasing voltage, decreasing voltage. The method of voltage increasing is same as manual, firstly fast, secondly slow. When the required voltage of increasing voltage is coming, don't press the button forever, it'd better loose a little (press and loose by turns). During the voltage decreasing, press the button of decreasing voltage until charcoal brush back to zero, then the zero signals light is on, you can press the button of stop. Finally, shut off the general switch (air switch).

3、 Panel drawing of control station and connection drawing, see the annex.

4、 This control station could measure the high voltage leak current of the tester. Please measure the high voltage leak current after accomplish the test of the AC voltage during in using to prevent occurring short circuit phenomenon and produce high voltage which exist dangers for operator. The specific

procedure is as following:

First, connect the back connection board of the control station in specific wire, and then carry out the AC voltage test. Second, link the high voltage end part of the control station and test transformer (see the wiring sketch drawing in the next page) namely could read the value of the high voltage current