RC-II Weft-Break Detector

1. Introduction :

The RC-II Weft-Break Detector is an advanced system for circular looms . It can stop the circular loom correctly when weft is broken or finishing . It doesn't need to be adjusted when fabrics winding diameter is changing . The RC-II can run correctly in many sorts of circular loom , including 4 shuttle's , 6 shuttle's , 8shuttle's , etc. and also covering all SPCL series.

2. Main Technical Specification

a. power supply : AC 220v , 50-60 HZ

b. output : relay control

c. reacting time : less or equal to 200 ms

3. Description

The RC-II includes Generators , a Receiver , and a Controller . The Generators are set in every shuttle . When you start the circular loom the Generator rotates , the transmitter (white plastic case at back of Generator or beside of Generator)will receive an electronic signal when the transmitter passes by . So when the circular loom is running , you can see the Receiver indicator blinking . If the weft is broken , the Generator will stop rotating with the weft core and the transmitter will stop transmitting . When the shuttle passes by the Receiver and the Receiver doesn't receive a signal , the Controller will stop the circular

loom .

Notice :

1). Every shuttle must have generator on it , otherwise the RC-II will stop the circular loom .

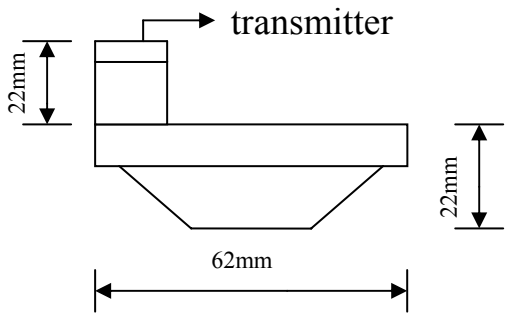
2). Generator's bearing must be checked regularly about once a week .

3). The RC-II begin to work after the main motor shifts from low speed(start) to high speed (normal running) .

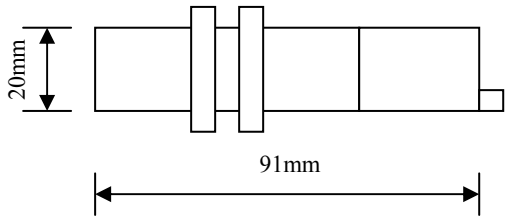
4). In case of any discrepancy between the Chinese and English texts ,the Chinese should be followed .

4. Sketch of sensor installment

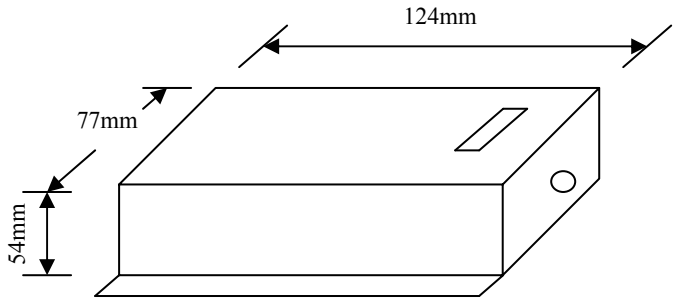
a. Dimensions of parts



Generator

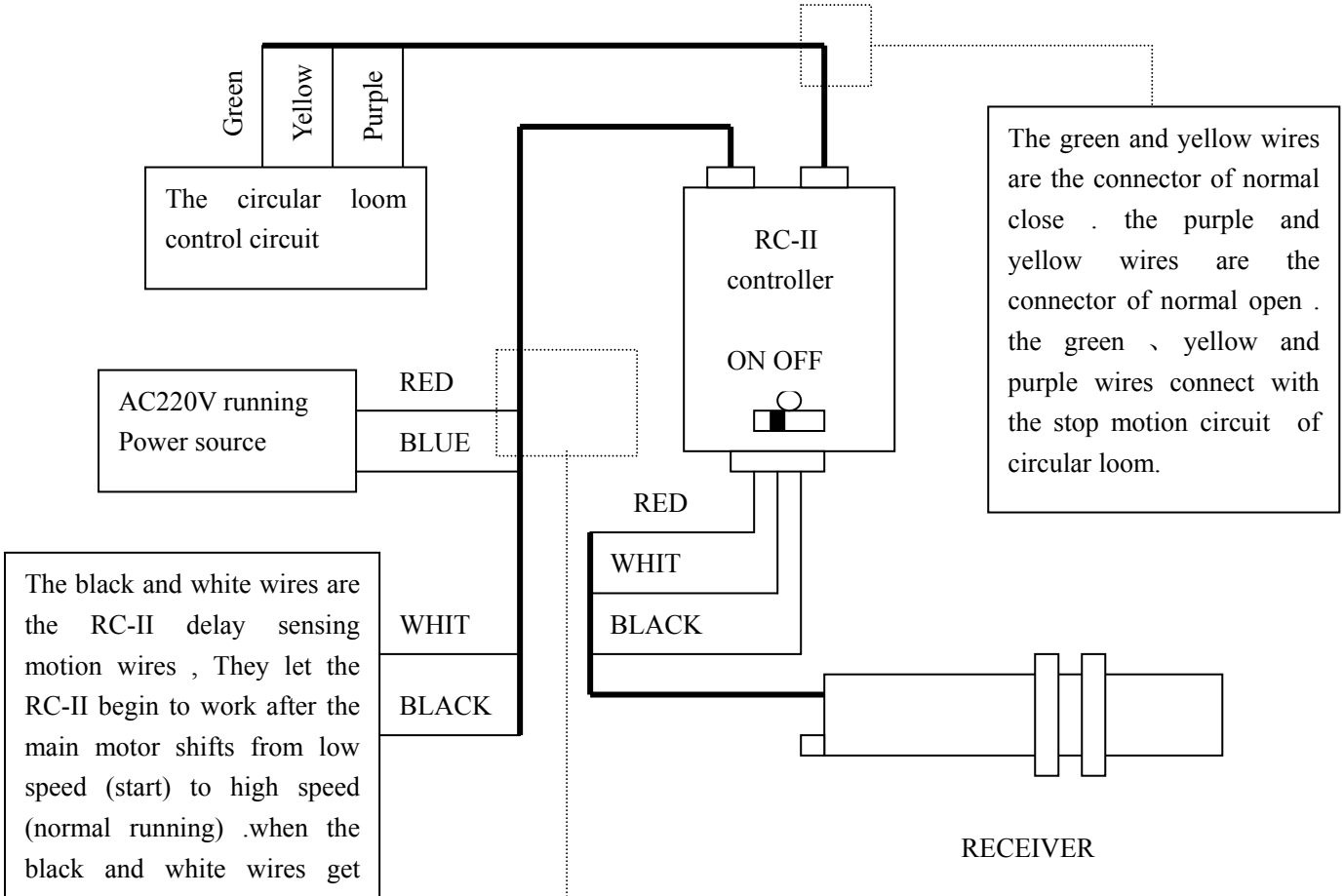


Receiver



Controller

b. Wiring diagram



Check :

After you have installed the RC-II weft-break sensor system in the circular loom , make sure every wire is connected correctly . Then turn on the main power switch , push the inch button to move the shuttle . let a shuttle's transmitter move under the receiver , take the weft core out of the shuttle and use your finger to quickly rotate the generator's rotary . you should see the receiver's indicator light glowing . If the indicator's light still dark , you should check the distance between the receiver and the transmitter(7 cm normally) , the generator , or the RC-II's power (red and blue wires) . Do this to check every shuttle's generator . Be sure every generator makes the receiver's indicator light glow when they rotate .

Note :

In controller, there are 6 bits of the switch from sw1 to sw6 that we can set them to appropriate many sorts of circular loom : 4 shuttle's , 6 shuttle's , 8 shuttle's , etc . setting up method are as followed :

1). calculating Time "t1" from one shuttle to the next shuttle .

$t1=1000\times60/s\times v$ (millisecond)

s : Number of shuttles of circular loom

v : Running speed of circular loom . the unit is rotation's number of per minute.

2). Setting control time : t2

Setting principle : 2×t1> t2 >t1

Generally setting : t2 similarly equal to 1.5×t1

3). Setting relative Switch is on " on " state .

The following list is corresponding of the Time and the Switch-No. .

(unit : millisecond)

Switch-No.	1	2	3	4	5	6
Time	293	146.5	18.3	9.16	36.6	73.2

The Switch is effective on " on " state . For example : if Switch-No.1,5=ON , then t2=293+36.6=329.6 (ms)

NOTE : SW8=OFF

If you have any problems ,please contact with us .