

How to solve Tube-MINI spindle can't be up and down

→ Problem: Main spindle can't be up and down normally.

- Solution overview:
1. Limit switch failure;
 2. Spindle motor failure;
 3. Positive inversion button failure;
 4. Positive inversion converter failure;
 5. Broken circuit;

Problem analysis:

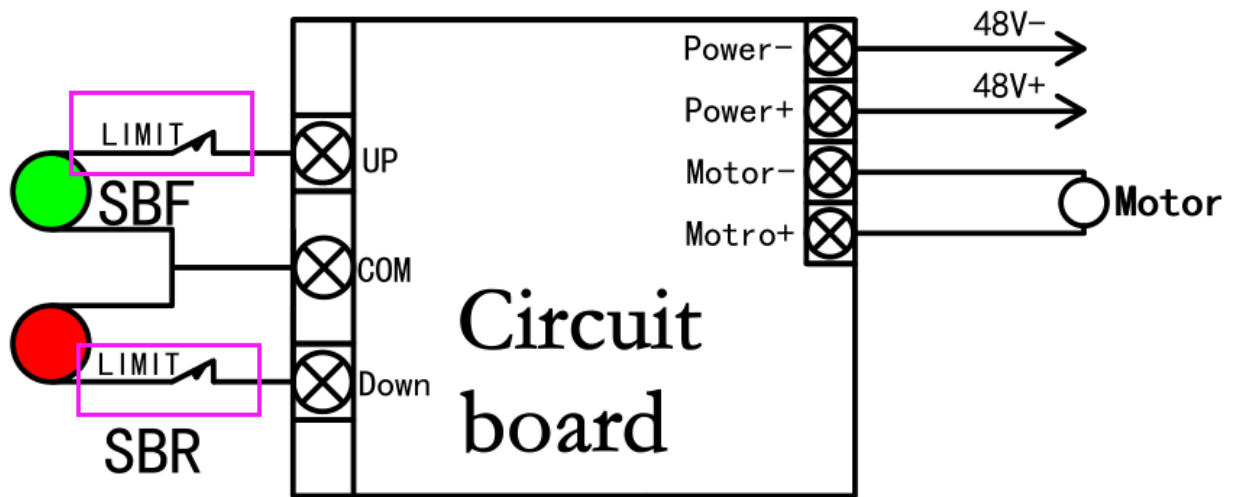
- ✱ 1. Limit switch failure;

Solution: Because the button **【SBF】** and **【SBR】** are connected to the limit switch; when the limit switch is damaged, the two buttons can't transmit signals; when press **【SBF】** , **【UP】** and **【COM】** are connected if checking by multimeter.

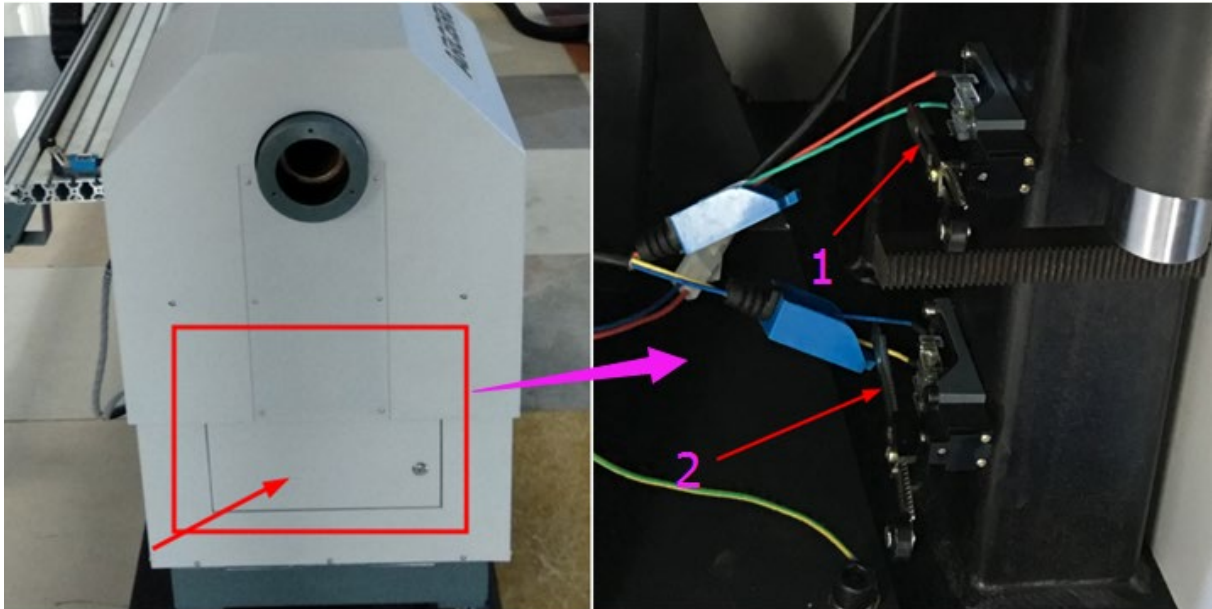
Doing same operation, press **【SBF】** , and **【Down】** and **【COM】** are also connected by checking with multimeter; if **【UP】** and **【COM】** or **【Down】** and **【COM】** are not connected, it proves that the limit switch is under working status or limit switch is damaged.

If limit switch damaged, 1 --- 2 NC is open circuit. (Limit switch in main spindle box is shown in Pic 2 and Pic 3);

Please: Keep the limit switch free status; change a new limit switch if it is damaged.



Pic1



Pic2



Pic3

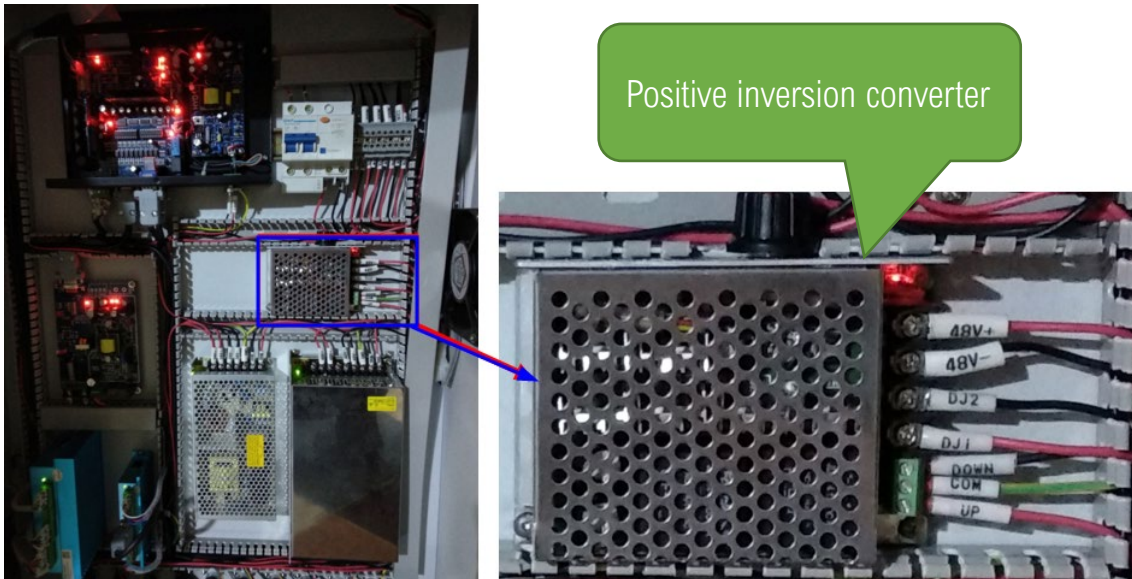
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Problem analysis:

✦ 2. Spindle motor failure;

Solution: Connect 【DJ1】 【DJ2】 to 【48V+】 【48V-】 (See Pic 4), if the motor move up and down normally, it proves spindle motor is no problem; otherwise, it proves spindle motor is damaged.

Please: Change a new spindle motor if motor damaged.



Pic4

Problem analysis:

✦ 3. Positive inversion button failure;

Solution: Checking button 【1】 and 【2】 are working or not by using multimeter; In working

status, press 【1】 or 【2】 , it's indicator light is on. If the light off, then button is damaged. (See Pic

5)

Pls change new buttons.



Pic5

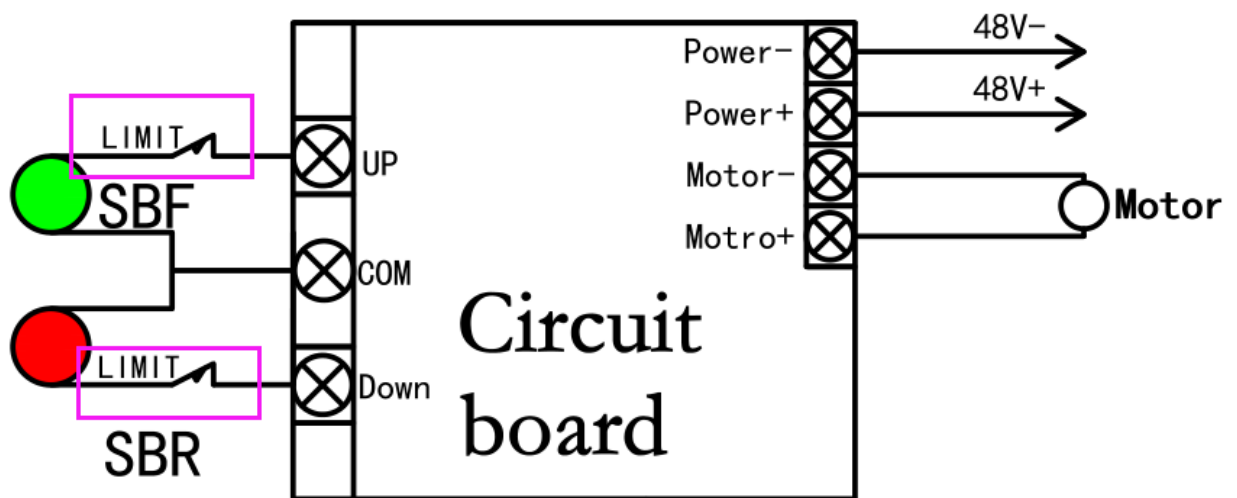
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Problem analysis:

✳ 4. Positive inversion converter failure;

Solution: Directly connect【UP】and【COM】by using a wire, measure the voltage of 【Motor+】 and 【Motor-】 . If it shows DC48V, then positive inversion converter is no problem; If Voltage 0 or too much low voltage, it proves positive inversion converter is damaged. (See Pic 6)

Pls change a new positive inversion converter.



Pic6

Problem analysis:

✳ 5. Broken circuit;

Solution: Checking wire which is connect 【UP】 , 【Down】 , 【COM】 working or not by using multimeter; checking【Motor +】 【motor-】 transmission cable working or not by using multimeter.