

Lifting motor noise resolution

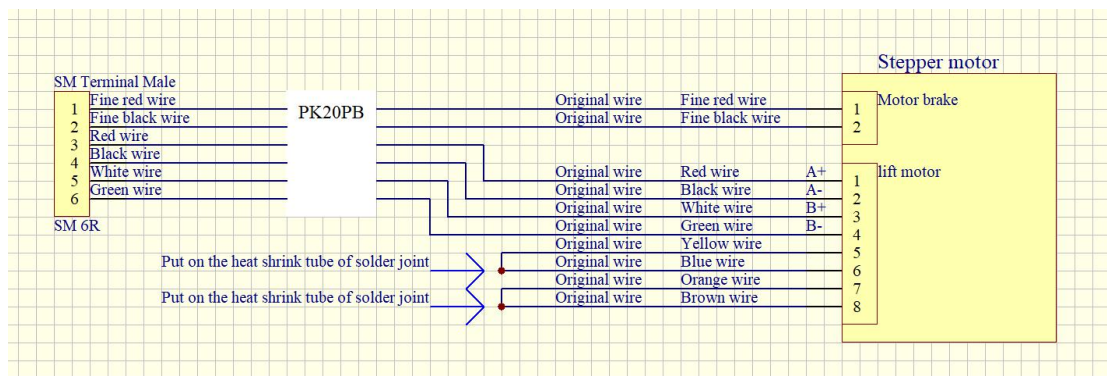
Problem: When lifting motor is running, it will make a lot of noise.

The main reasons:

1. The motor cables have some problems.
2. The motor driver Dial-up setting have some problems.
3. Motor braking function have problem.

➤ **How to judge whether the abnormal noise of lifting motor belongs to reason 1:**

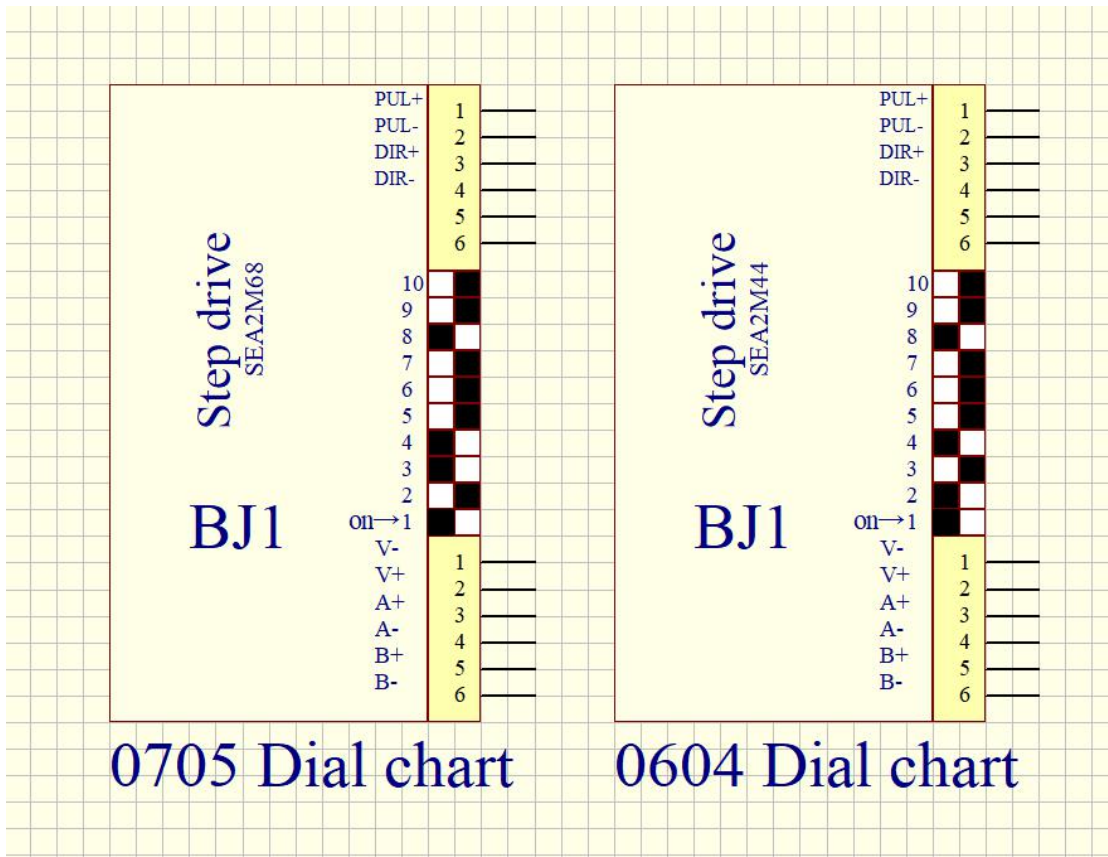
- 1) Check whether the cable SM plug of the motor is consistent as shown in the figure, and the cable colors is consistent with the drawing;
- 2) Check whether the cable connection is reliable, especially if the heat shrinkable tube of the welding spot is not broken and then short circuit to other cables.



Result of reason 1: Motor running is shaky, and throw the step; The motor brake does not work, resulting in the motor shaft running with the brake, resulting in too much noise.

➤ **How to judge whether the abnormal noise of lifting motor belongs to reason 2:**

- 1) Check whether the dial code setting of the motor driver is formal on the electrical box .



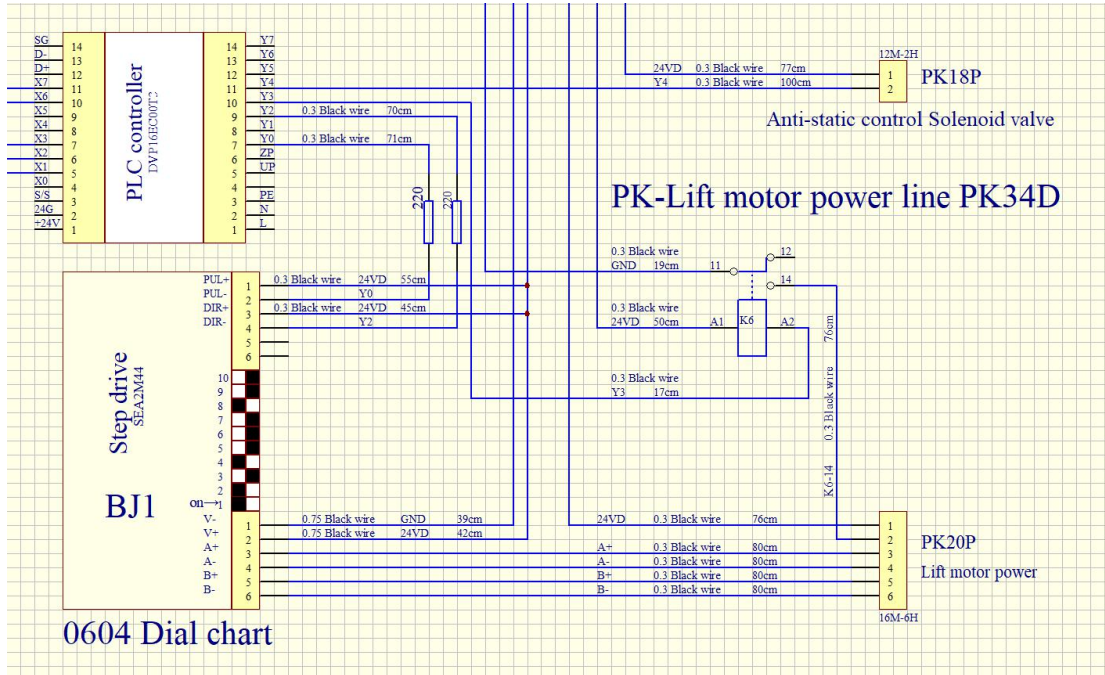
Result of reason 2: Motor running is shaky, and throw the step.

➤ **How to judge whether the abnormal noise of lifting motor belongs to reason 3:**

- 1) Check the connection of the brake control cables inside the electrical box to the lifting motor;
- 2) Check whether the cables of K6 relay is normal;
- 3) When the motor running is normal , the indicator light of PLC -OUT-3 will be on ,and the indicator light of K6 relay will be on, 1 pin and 2 pin will have 24v on PK20P by multimeter .When the motor is not running , 1 pin and 2 pin will not have 0v. So we can judge whether

the motor cable have some problems according to voltage of 1 pin and 2 pin on SM plug, and judge whether motor power is normal.

- 4) If all the above checks are ok, then it can be determined that the stepper motor noise is caused by the motor itself, and the motor needs to be replaced.



PLC:



Result of reason 3: Motor running is shaky, and throw the step.