

Service Support Spirit

How to ALM alarm appears in the system --Thunder-XPRO

➔ Problem: ALM alarm appears in the system --Thunder-XPRO;

Solution overview: 1. Reinstall the motor for the Y1 and y2 axes, Check whether the motor is impacted by external force, causing driver alarm and system alarm;

2. Emergency stop switch turned on, causing alarm.

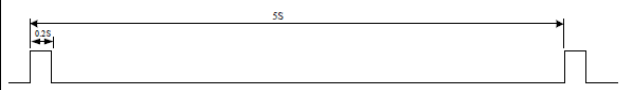
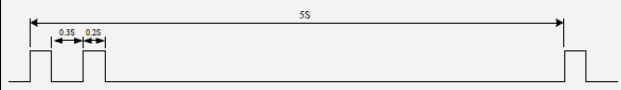

3. Drive is damaged.

Problem analysis:

✳ 1. Reinstall the motor for the Y1 and y2 axes; As: The machine received an external impact; The single-motor movement of the Y-axis causes the machine to deform;

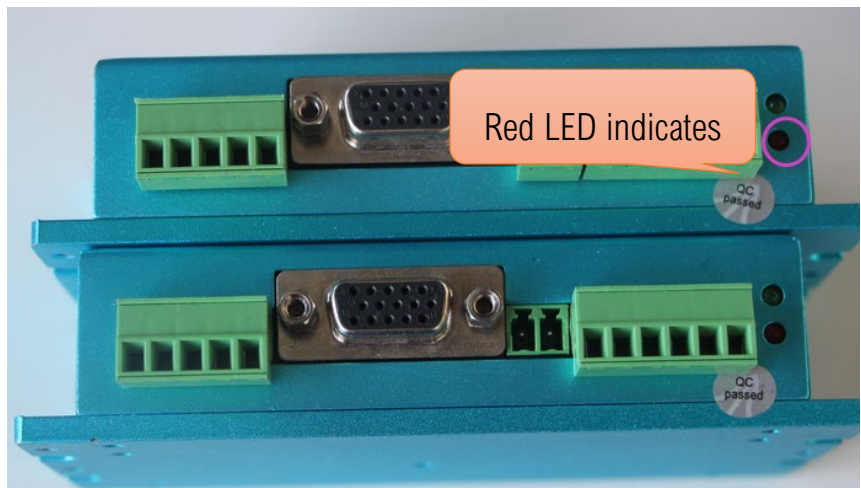
Red LED indicates status description:

See the following protection Indications table for displaying priorities.

Priority	Time(s) of Blink	Sequence wave of RED LED	Description
1st	1		Over-current protection
2nd	2		Over-voltage protection
3rd	7		Position Following Error

When the drive fails, the drive will stop and the user needs to power off.

When the power is turned on again, the fault can be cleared.



As: The machine received an external impact; The single-motor movement of the Y-axis causes the machine to deform; causing driver alarm and system alarm;

Solution: Step 1- Separate the gears of the Y1 and y2 motors from the rack, Move the motor to the direction of arrow, as Pic shows,



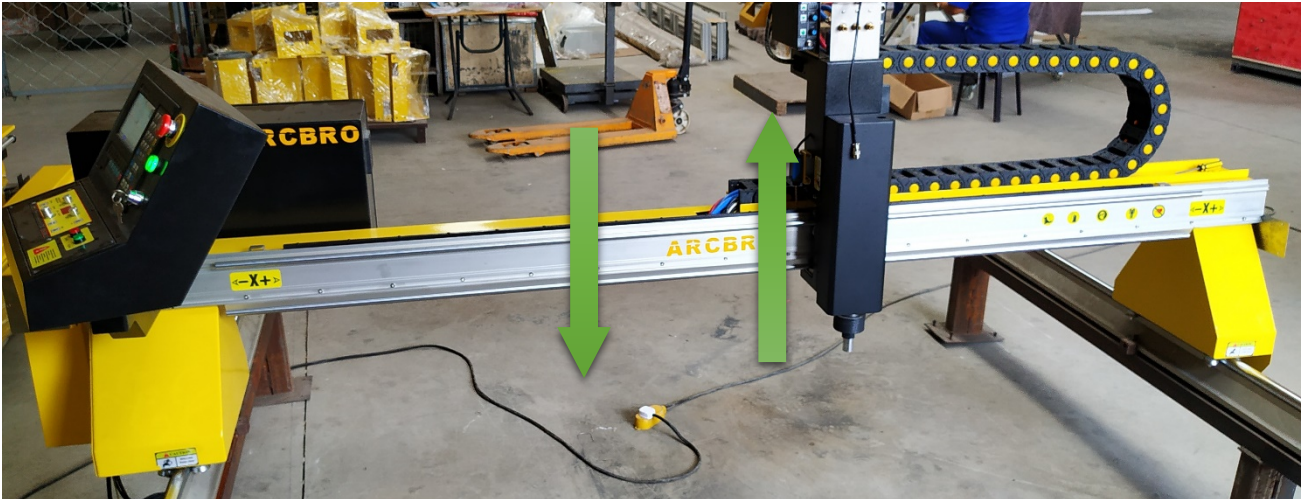
Ensure the rack and gears are separated. Then tighten the one bolts on fix plate

The same method separates the gear of the Y2 axis motor from the rack;

Step2: Push the beam by hand, Make a round-trip motion as indicated by the arrow; made the machine in a free state;

Note: The position of the push is in the middle of the beam.

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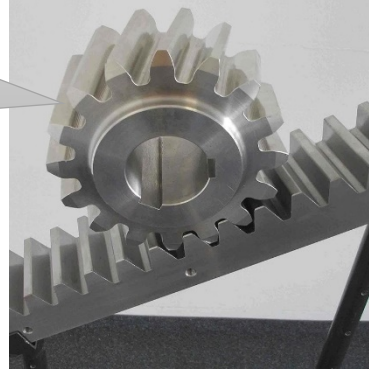


Step3: Reinstall the motor of the Y1 axis; Move the motor following the direction of arrow and ensure the rack and gears are meshing. Then tighten the bolts on fix plate.



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Mesh status



Note: Ensure the rack and gears are meshing;

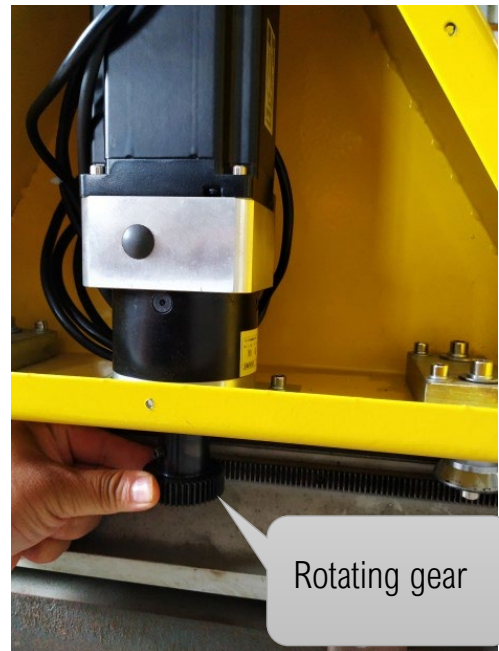
Step4: Reinstall the motor of the Y2axis; Move the motor following the direction of arrow and ensure the rack and gears are meshing.



If the gear and the rack are misaligned during the meshing, rotate the gear to adjust the degree of meshed;

Note: Please do not push the beam to modify the degree of meshing

Then tighten the bolts on fix plate.



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Problem analysis:

- ✦ 2. Emergency stop switch turned on, causing alarm.

Solution: Step 1- Emergency stop switch turned off, as Pic shows,



Problem analysis:

- ✦ 3. Drive is damaged.

Solution: If Y-axis drive damaged; Switch the alarm driver to the X-axis driver-Beam axis. **So**

This can be tested without removing the motor;

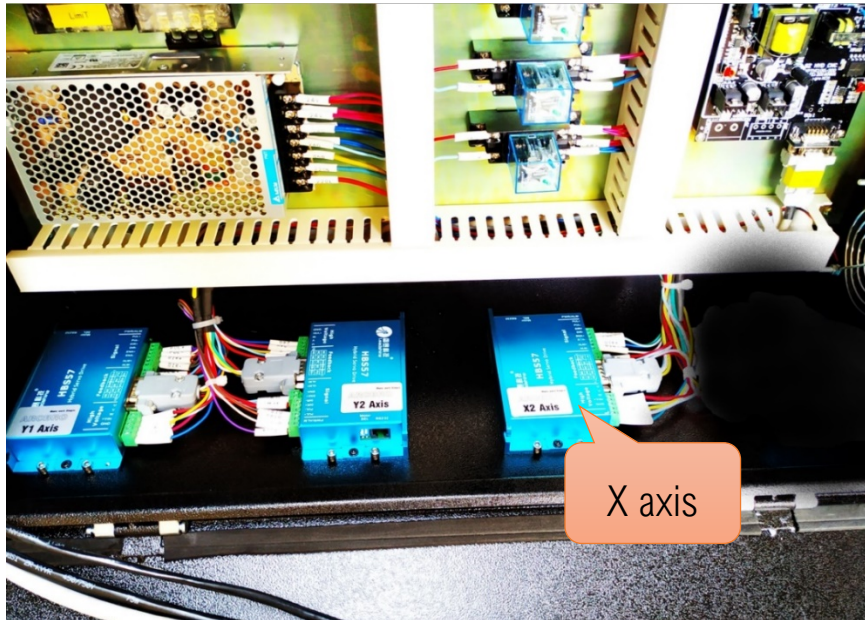
If Y-axis drive damaged; Switch the alarm driver to the X-axis driver-Beam axis. **So This can be tested without removing the motor;**

Switch the alarm driver to the X-axis driver-Beam axis. → Press the X axis direction key on the system keyboard.

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If the drive does not alarm, the X-axis motor is running; It proves that the motor driven by the alarm is damaged; **The motor needs to be replaced;**

If the drive does alarm; It proves that the driven is damaged; **The Drive needs to be replaced;**



If X-axis drive damaged; Switch the alarm driver to the Y-axis driver-Beam axis; Need remove the motor for the Y1 and y2 axes; --Then test;

Step 1- Separate the gears of the Y1 and y2 motors from the rack, Move the motor to the direction of arrow, as Pic shows,



Ensure the rack and gears are separated. Then tighten the one bolts on fix plate. The same method separates the gear of the Y2 axis motor from the rack;

Note: The rack and gears are separated, In order to ensure the synchronization of Y1 and Y2

Switch the alarm driver to the Y1-axis driver. → Press the Y axis direction key on the system keyboard.

If the drive does not alarm, the Y1-axis motor is running; It proves that the motor driven by the alarm is damaged; **The motor needs to be replaced;**

If the drive does alarm; It proves that the driven is damaged; **The Drive needs to be replaced;**