

Troubleshooting Spectrum auto-alignment failures

There are four main reasons for an auto-alignment to fail on the Spectrum:

1. Error 40006 : Weak Sensor Reading

This error is caused by the auto-alignment sensor to be below a minimum acceptable value when initially checked on blank white powder.

Recommended corrective action:

- Clean the sensor window.
- Verify that the sensor was over white powder when the sensor was checked for contrast.
- Verify that the build piston is at the top with powder at the same level as the top of the build box.

2. Error 40008 : Can't pick reference head

This error is caused by insufficient contrast between the head with the darkest reflection and white powder, or any head which is below a minimum contrast level.

Recommended corrective action:

- Verify that the underlayer layers are smooth and solid. If not, restart the alignment with a new underlayer.
- Verify that the printed spots are solid. If not, purge the heads and retry, or replace the heads as necessary.

3. Error 40007 : Alignment of Axis X Failed

X indicates the axis failing alignment: 0 for Slow axis, 1 for Fast axis.

This error is usually caused by bad printing of the alignment pattern. When this failure occurs, four stripes will be printed for reference. Verify that the reference stripes are solid, with no streaking.

Recommended corrective action:

- Verify that the underlayer is smooth, with no ridges. If not, when printing the underlayer, allow sufficient layers to be printed to result in a smooth surface when done.
- Verify that the underlayer is a solid black or dark gray color. If not, the heads may need to be purged, or replaced.
- Make sure spreading is smooth / clean the spread roller.
- Alignment values may be too far from nominal – reseal the heads, clean the carriage stalls, restore default alignment values.
- Retry the alignment

4. Error 40005 : Can't update INI file

This indicates a system error, and not an alignment error. The alignment sequence was completed, but the system was unable to update the INI file to store the changes made to the alignment. This is an error which should be extremely infrequent, and the only remedy is to retry the alignment.