

Maintenance Guide

SOURCE:

<https://support.zortrax.com/m300-dual-maintenance-guide/>

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Main

Activity		
ACTIVITY	FREQUENC SOLUTIONS TO THE PROBLEMS Y	NECESSARY ACCESSORIES
Cleaning the machine, its interior and surroundings, especially the bottom plate under the platform	Before each printing process	To remove material remains from the interior of the device, use a vacuum cleaner or compressed air
		– a vacuum cleaner, – cleaning products with a high evaporation rate

Hotends



ACTIVITY	FREQUENCY
Checking if the hotends and nozzles are not clogged	Before each printing process
Cleaning the nozzles	After finishing one spool of material
Checking if the screws that secure the heater and thermocouple are tightened (in both hotends)	Every 300 working hours

Platform



ACTIVITY	FREQUENCY	SOLUTIONS TO THE PROBLEMS	NECESSARY ACCESSORIES
Cleaning the perforated plate	Before each printing process	To remove material remains from the surface of the perforated plate, use a spatula	– a spatula
Checking the perforated plate for deformation	Before each printing process	–	–
Calibration	Every 200 working hours	If the platform calibration fails, move on – to the next step indicated in this table	–
Cleaning the heatbed and the underside of the perforated plate	Every 300 working hours	Unscrew the screws that secure the perforated plate and remove the residues from the underside of the plate using a spatula. The heatbed needs to be cleaned with a piece of cloth damped in acetone	– a spatula, – a piece of cloth, – acetone
Checking if the clips that secure the glass plate to the heatbed are properly installed and if the screws that secure the clips are tightened	Every 200 working hours	–	– a 2 mm Allen key

X/Y Axes; Extruder Guide Rails



ACTIVITY	FREQUENCY	SOLUTIONS TO THE PROBLEMS	NECESSARY ACCESSORIES
Checking if the axes and the extruder guide rails are clean from material remains and dust	Before each printing process	It is possible to feel slight resistance while checking if the extruder moves freely on the guide rails. In such case you should check if the X/Y axes and the extruder guide rails are covered with black grime. The axes and guide rails should be cleaned with a cloth damped in acetone and then lubricated with silicone oil	– silicone oil
Checking the tension of the drive belts on the X/Y axes	Every 300 working hours	In order to check the tension of the drive belts on the X/Y axes, move the extruder to the central point and gently tug the belts. If the belts are loosened, tighten the screws placed on the top part of the X/Y axes blocks	–
Checking the tension of the drive belts between the motors and the X/Y axes	Every 300 working hours	–	–
Checking if the screws on the X/Y axes and the motor pulleys are tightened	Every 300 working hours	–	–
Checking if the extruder moves freely when the printer is off	Every 300 working hours	–	–
Lubricating the X/Y axes and the extruder guide rails	Every 300 working hours	–	– silicone oil

Extruder



ACTIVITY

Checking if the extruder top cover and material guides are properly installed

Checking if both material guides are properly secured to the extruder cable with the material guide clamps

If you use the HEPA Cover, check if it does not press the extruder cable

Checking if the extruder cable is properly plugged into the extruder PCB

Checking if the extruder PCB is properly secured to the extruder block

Checking if the pins on the extruder cable connector are clean

Checking if the screws that secure the hotends are not loose, and, if necessary, tightening them

Removing the material remains and lumps from the extruder

Checking if the fans are working

Checking if the screws that secure the fan shroud on the extruder are tightened, and if it's necessary, tighten them

FREQUENCY

Before each start-up of the printer

Before each start-up of the printer

Before each start-up of the printer

Every 300 working hours

Every 300 working hours

Every 300 working hours

Every 300 working hours

Every 300 working hours

Every 300 working hours

Every 300 working hours

Suggested Part Replacement Time

The table shows approximate replacement time of components that are exposed to natural wear and tear. In order to maintain the printer in good condition and to provide the highest printing quality, it's advisable to replace particular components after an appropriate period of time indicated in the table.

NOTE! The lifespan of particular components highly depends on the type of filaments you use most often.

Nozzle	Hotend	Perforated Plate	Extruder Cable	Extruder Fans 40x40
Every 300 working hours	Every 400 working hours	Every 700 working hours	Every 500 working hours	Every 500 working hours