

Instruction document

Model	Bolt and Bolt PRO	Date	22-08-17
Prepared by	Quinten de Korte		

Short title	Calibrating of wipers			
Classification	Troubleshooting	Firmware		Version control
	Software	Part information	X	Action required
X	Mechanical	Electrical		Service manual revision
	Filament path	Transmit / receive		Retrofit information
	Product safety	Other ()		Packaging

Necessities

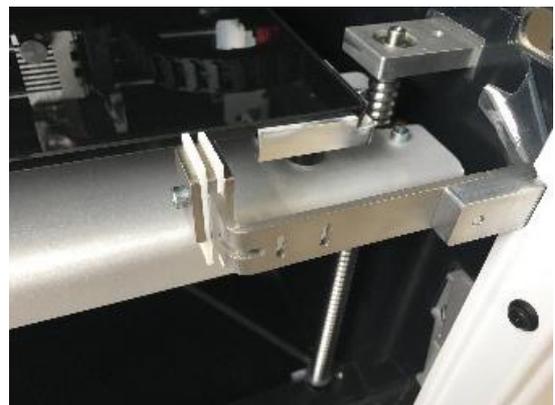
- Hex Key “Allen Wrench” nr.3

General information

This instruction document will describe how to calibrate the wiping silicons in relation to the nozzles. These cleaning wipers will clean the hot-end. A clean hot-end will result in better print quality. This is especially important when making dual material / color prints with many tool chances it is important that this calibration procedure is followed up on.

Postion of the cleaning wipers

When facing the machine from the front. You can see the silicon cleaning wipers. They are situated on the front of the machine. One of the left and one on the right. The cleaning wipers are pointed out by the red circles in the figure underneath.



Calibration procedure

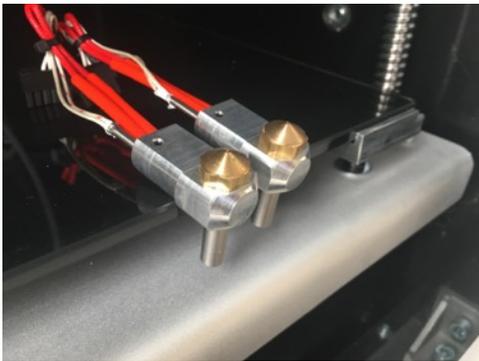
The goal of the calibration is to have silicon wipers just barely touching the nozzels when passing over them and thus cleaning the nozzels.

Note; when the wiper touch too much of the nozzels this may cause the filament to be flicked around in the machine which could cause random blobs of filament. When the wipers do not touch enough the nozzels will simply hover over the wipers and therefore will not be cleaned.

The calibration procedure consists out of three steps. 1. Moving the head to the right position 2. Adjusting the cleaning wipers 3. Finalizing calibration.

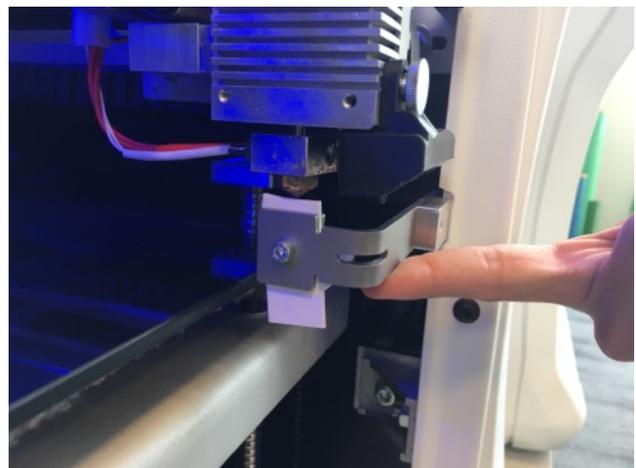
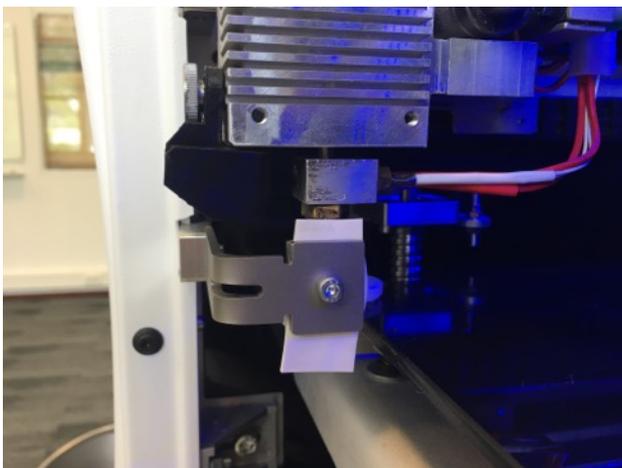
1. Make sure both nozzels are clean.

1. Please make sure the nozzels are clean before starting calibrating. Filament remainings on the nozzle tip will negatively affect the calibration process.



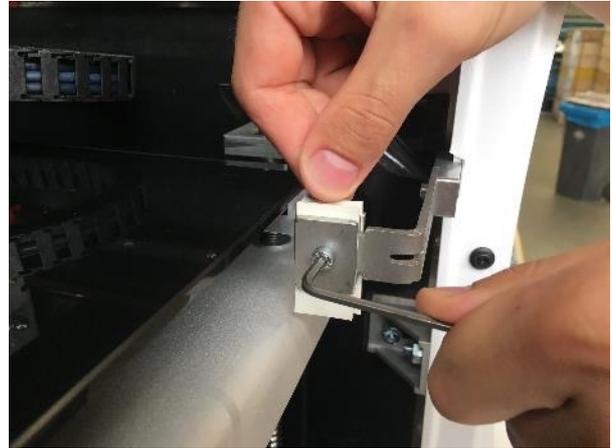
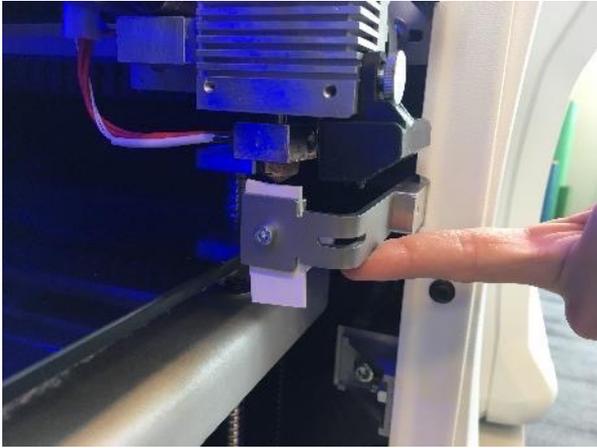
2. Moving the extruder heads towards the silicone wipers automatically.

1. The heads should be brought to the front of the machine next to the wipers. You can do this by putting the machine in head maintenance mode. (to put the machine in head maintenance mode go to; settings -> maintenance -> head maintenance -> click confirm)
2. Wait 65 seconds for the printheads to access manual movement mode
3. Now you should be able to freely move the printheads towards their associated silicone wipers.

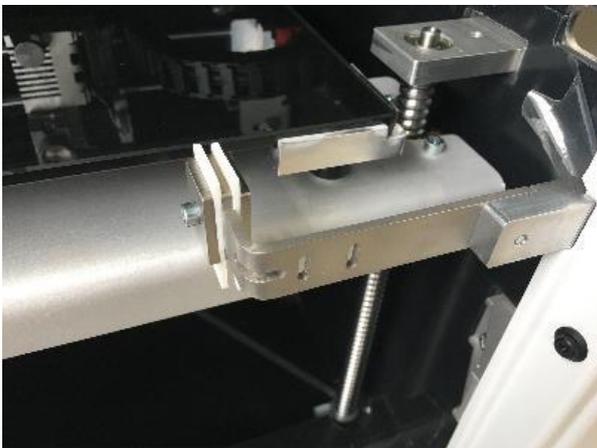


3. How to Adjust the cleaning wipers

1. The cleaning wipers are attached to the metal rod and are held in place by a socket Cap Screw. There are two parts that can be adjusted when calibrating the silicon wipers; the metal rod and the silicon wiper. Loosen the socket cap screw to adjust the silicon wiper for rough adjustments when finished tighten the socket cap screw. The socket cap screw can be adjusted with Hex Key nr.3 or Allen wrench nr.3. For fine (1-2mm) adjustments simply push the metal arm up or down.



Note ; the Bolt has one silicon wiper per extruder where the Bolt Pro has two silicon wipers per extruder. On the Bolt Pro the silicon wipers should all be calibrated at the same height.



4. **The perfect silicone wiper height**

The wipers are calibrated properly when the nozzle is just barely touching the silicon wiper when passing over them.

- **Bolt PRO:** All silicone wipers should be calibrated as seen on picture below

