

## Error 203 - Invalid PPM

This guide will take you through solved error 203 on Palette.

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## INTRODUCTION

Error 203 means an invalid PPM value which refers to a problem with one of the calibration values that is calculated during the printer calibration step. PPM (pulses per millimeter) tells Palette how much to move each drive to drive 1 mm of filament.

## Step 1 — Update Firmware

Edit Settings	Tool	s Window Help														
cont octorigo		Enable Advanced Settings			1											
Open GCode		Update Palette Firmware	Ctrl+Shift								Ed	it [	Makerbot	t T	Save f	or Printe
		Generate Palette Config File	Curtestine	*1	-											
		Convert Slicer Profile for Chrom	a													
		Convert MSF to Plain														
		Generate Custom MSF														
		Reset App Settings			22	11	2	V	N	11	N	VV	N	N		
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- (i) Make sure that you are using the most up-to-date version of Chroma and Palette firmware as older versions may be affecting the PPM values in your files. To check which version of firmware your Palette is using, access "Diagnostics" on Palette's screen.
- To update firmware, open Chroma and you'll find *Tools > Update Palette Firmware*.

## Step 2

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<u>File Edit Format View H</u> elp	
MSF1.3	1
cu:1111	
ppm:4190a8a7	
lo:8386	
hf:00fa	
ns:0028	
np:0002	
nh:0000	
(00,43390cc8)	
(01,43b13d36)	
(02,43ce756e)	
(03,43e9e7a5)	
(00,440ef3da)	
(01,4423956c)	
(02,443bf929)	
(03,44533e62)	
(00,4467f9e6)	
(01,4480e1c2)	
(02,44882fd0)	
(03,448f0c5e)	
(00,44975751)	
(01,44a14efc)	
(02,44abebcc)	
(03,44b62364)	

 Re-calibrate your printer and Palette. The values in your MSF files may be too low, making the value invalid for Palette to read. To check your PPM value, open the MSF file created by Chroma. You'll see the PPM value near the top.

• You can transpose this value on this website, which will convert the hexidecimal value to a decimal value. Please add 0x to the beginning of the hex number (Using this example, 0x4190a8a7). The PPM value should be around 30, so if you find a value which is much lower or higher, it would be best to re-calibrate.

If you have any questions, please contact us at [mailto:support@mosaicmfg.com|support@mosaicmfg.com].