



'17-'23 KTM Headlight Frame for Diode Dynamics LED SSC2



tsukworks

[VIEW IN BROWSER](#)

updated 19. 12. 2023 | published 19. 12. 2023

Summary

Headlight frame to fit 2 Diode Dynamics SSC2 LED pods to 17-23 KTM enduro headlight masks. Hardware and wiring required.



23.52 hrs



2 pcs



0.20 mm



0.40 mm



ABS



168 g



Prusa
MK3/S/S+

[Hobby & Makers](#) > [Automotive](#)

Tags: [dd](#) [led](#) [dirt](#) [2020](#) [bike](#) [moto](#) [headlight](#) [2017](#)
[2019](#) [diode](#) [2016](#) [2018](#) [2015](#) [2021](#) [ktm](#)
[topographic](#) [dynamics](#) [2022](#) [enduro](#) [exc](#) [xcf](#) [ssc2](#)
[excf](#) [2023](#)

Change Log

V3

- **Lower light bolt hole moved forward to allow for greater range of motion for lower light**
- **Reinforced the slot in the frame that interfaces with the lower headlight mount of the headlight mask.**

V2

- Overhangs improved for more reliable printing
- Modeled-in brim to reduce warping when printing in ABS
- Added relief in frame to allow for 8mm socket to counter-hold nylock nut for light mount

Required Hardware:

- 4x M3x~5mm heatserts
- 4x M3x8mm stainless steel countersunk bolts
- 2x M5x5 to 8mm heatserts
- 2x M5x10mm stainless steel bolts
- 1x M5x25mm stainless steel bolt
- 1x M5 standard nut
- 2x M5x60mm stainless steel bolts
- 2x M5 nylock nuts
- 4x M5 nylon washers

Wiring:

KTM Wiring:

- Brown - 12v Negative/Earth
- White - Low Beam
- Blue - High Beam
- Green - Parking Light

KTM connector to mate to factory wiring:

4 position MTW - Hitachi Type Connector for .110 - 2.8mm Terminal

Recommended upgraded connector: (requires specialized crimping tools)

Sumitomo 4 pin MT .090 - 2.3mm sealed connector

Lights:

This LED headlight frame uses 2x Diode Dynamics SSC2 LED light pods. I chose the SSC2 Pro lights—one with a SAE driving optic and one with a “combo” optic.

- “Pro” power consumption (per light): Main Beam: 25.6w, Backlight: 0.7w
 - [Diode Dynamics - SSC2 Pro Pod](#) (No affiliation or monetary gain)
- “Sport” power consumption (per light): Main Beam: 7.7w, Backlight: 0.7w
 - [Diode Dynamics - SSC2 Sport Pod](#) (No affiliation or monetary gain)

Note: If you have a carbureted bike, consider if the stator output is enough to handle the output of the lights. Baja Designs [published an excellent chart](#) that lists the outputs of each model & year.

Fitment:

This works with 2017 through 2022 (competition)/2023 (enduro) KTM dirt bike headlight masks.

It is possible to upgrade a ‘12-’16 KTM with the ‘17-’23 headlight mask and fender, but be sure to do your own research to confirm fitment before attempting.

Printing tips:

- ABS, PA, PA-CF/GF recommended. Scaling the model as needed on the X, Y, and Z axis may be necessary, depending on your printer and filament. I recommend dimensional calibration on smaller objects to dial in the scale percentage for your filament.
- For strength, ≥ 4 perimeters and $\geq 30\%$ infill is recommended
- Orient the headlight frame face-down on the build plate. Some supports required.
- Add a brim to minimize warping to both the faceplate and the frame.

Model files



topo-faceplate.stl



v3-headlight-frame-with-brim.stl



v3-headlight-frame.stl

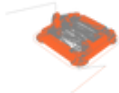


v3-headlight-frame.3mf



v3-headlight-frame-with-brim.3mf

Print files



v3-headlight-frame-with-brim-abs.gcode

⚙ ABS ⚙ 0.40 mm ⚙ 0.20 mm ⌚ 11.92 hrs ⚖ 85 g 🖨 Prusa MK3/S/S+



v3-headlight-frame-abs.gcode

⚙ ABS ⚙ 0.40 mm ⚙ 0.20 mm ⌚ 11.60 hrs ⚖ 83 g 🖨 Prusa MK3/S/S+

License

This work is licensed under a
[Creative Commons \(4.0 International License\)](https://creativecommons.org/licenses/by-nc-sa/4.0/)



Attribution—Noncommercial—Share Alike

- ✖ | Sharing without ATTRIBUTION
- ✔ | Remix Culture allowed
- ✖ | Commercial Use
- ✖ | Free Cultural Works
- ✖ | Meets Open Definition