

Airbus A320 Korrry style switch for 3mm panels



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Summary

Switch / Button used in many locations on overhead and MIP panels in A320 cockpit. Dimensionally similar to real Korrry.

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Korrry style switch used extensively in Overhead and MIP. Designed to look and feel similar to a real Korrry, with focus on a smooth button movement and even illumination, with no light bleed between top and bottom indicators. Tolerance between button light guide and housing is small to eliminate wobble. Overall size is correct, but legend is deliberately 1mm or so larger than real Korrry to give space for engraving slightly larger text.

Design uses three 3D printed parts, a PCB, an acrylic legend, plus electrical components.

Designed to fit in acrylic panel with 20.2mm square hole in top 3mm layer and 23.1mm square hole in rear layer (and if used, middle layer). Odd dimensions are to be compatible with Skalarki Overhead panels. PDF drawing for cut-out is included for download.

Skalarki version if you need this can be downloaded here:

Airbus A320 Korry style switch for Skalarki Overhead panels by Mark Ayton [MANTOGA] | Download free STL model | [Printables.com](https://www.printables.com)

3D printed parts are **Button Light Guide** and **Upper and Lower Housing**. Housing is in two parts to eliminate layer line on layer line friction and create smooth sliding action between parts. The Upper and Lower Housings are designed to fit snugly together and be easily glued with CA glue.

Housing and Button Light Guide are best printed in matte black PLA. 100% infill.

Dxf Files for both a full and half legend are included. These should be CNC machined or laser cut from 3mm Opal acrylic. The half legends can be painted black along edge before gluing to eliminate light bleed between the upper and lower illuminated indicators. The combined legend tile is then spray painted black and engraved. Hidden until lit appearance can be created by adding a layer of matt self-adhesive automotive tint film (Big thank you to santi luib iii for this idea). Forgive the over-bold text in the early prototype photos.

A ZIP file containing the PCB design is included for ordering from JLCPCB or similar. Being small, it is not expensive, I think I paid £25 for 200.

There is a LED assembly jig that can be 3D printed to aid alignment and assembly of the LEDs.

Assembly instructions:

1. Glue the two housing halves together
2. Solder switch, SMD resistors and header pins on PCB
3. Insert 4 LEDs into assembly jig, checking colours and alignment of anode and cathode (Long and short legs) are correct
4. Insert Light guide in housing
5. Slide housing & light guide onto jig, aligning LED leads with holes in Light guide
6. Align and glue pcb in recess on back of Housing with LED leads protruding through PCB holes. This automatically seats switch actuator in recess in Light Guide
7. Solder LED leads
8. Glue legend in place in recess on front of light guide

Optionally, a very small amount of silicone lubricant can be used between the light guide and housing to make the switch action super smooth.

Sounds a bit complicated, but it is quick and easy, if a bit fiddly until you have done one or two.

Parts Needed:

- 3D printed Upper Housing
- 3D printed Lower Housing
- 3D printed Light Guide
- 3mm Acrylic Opal legend tile
- Small square of matte automotive tint film
- Korrry PCB
- 8x8mm momentary, or self locking Switch
- 4 - 3mm LEDs (color dependent on particular switch)
- 4 - 470 Ohm 1206 SMD resistors (sorry, there wasn't space to fit thru-hole components on the PCB)
- 4 pin 0.1 "header
- 2 pin 0.1" header

Switches can be sourced here:

100PCS Self-locking / Unlocking Switch 5.8*5.8MM 7*7MM 8*8MM
8.5*8.5MM 6 Pin DPDT Mini Push Button Flat 7X7mm Micro Switch Kit
([aliexpress.com](https://www.aliexpress.com))

Buy more than you need, as some are smoother in operation than others.

LED's, resistors and headers are readily available from many places

Model files



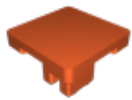
20mm-acrylic-dual-led-korrry-ma32-1-button-light-guide... .stl



20mm-acrylic-dual-led-korrry-ma32-3-upper-housing.stl



20mm-acrylic-dual-led-korrry-ma32-2-lower-housing.stl



20mm-acrylic-dual-led-korry-ma32-led-solder-jig.stl

20mm-acrylic-dual-led-korry-ma32-button-legend.dxf

20mm-acrylic-dual-led-korry-ma32-split-legend.dxf

Other files

apu-start-engraving-ma02.svg

4-panel-cut-out.pdf

20mm-korry-pcb-ma01.zip

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