



Flip-Top Case for Reading Glasses



Netpackrat

[VIEW IN BROWSER](#)

updated 5. 1. 2023 | published 5. 1. 2023

Summary

A flip-top case to hold my reading glasses, with magnetic closure, and 2 different hardware options for the hinge pin.

[Gadgets](#) > [Other Gadgets](#)

Tags: [glasses](#) [spectacles](#) [readers](#)

Many years ago, I bought a pair of expensive sunglasses that came with a slick flip-top case. Sadly, the case was not nearly as long lived as the sunglasses, which I still have. That case was the inspiration for this one. I mainly intended it for use with my reading glasses, but I'm also looking forward to moving my sunglasses out of the boring case they have been in for the last few years.

This case uses a pair of 6mmx3mm cylindrical magnets for closure. A drop of glue can be used if desired to secure the magnets in place, but they are intended to be a press fit, so that should not be necessary. There are two different versions of the case bottom, which differ only in the type of hardware used for the hinge. The first one uses a 3mm diameter, 18mm long blind pin which can be made from an M3x40mm screw, with the unthreaded shank portion cut to length. This is also a press fit into the bottom case. The pin should rotate freely in the case lid, although if yours ends up a little tight, you can clean it up with a 3mm drill bit. The second version of the bottom uses an M3x16mm socket head cap screw for the

hinge pin, which is threaded into an M3x4mm brass heat set insert. Prior to final assembly, place a small drop of medium strength thread-locking compound on the threads of the threaded insert, and don't over-tighten the screw, or the lid will not open and close freely. Both versions of the bottom use the same lid.

I printed mine out of Overture PETG, with 4 perimeters and 20% infill, 5 top and bottom layers, and .2mm layer height (.4mm nozzle). I do not recommend reducing these settings. If you try to skimp on filament and the hinge breaks, don't blame me.

The screw-hinge version is intended to use an M3x4x4.2mm OD brass threaded heat set insert. If you wish to use the common M3x4x5 (aka "Voron" insert), this should work as well but you may need to enlarge the hole very slightly with an appropriate sized drill prior to installing your insert. The pin hinge version is a "blind" pin, in that the pin can be installed from one direction, but not removed by pushing it back out from the other side. This is so that once the pin is installed, if desired you can slightly melt over the open end of the hole on one side with a soldering iron, and this should prevent the pin from coming out should it ever get loose. But again, it is designed to be a press fit, so that step is optional.

As a final note, it would probably be a very good idea to line the inside of your case with some thin adhesive backed felt, to protect the glasses' lenses from rubbing/rattling directly against the plastic of the case.

Model files

reader_case_bot_screw.stl

reader_case_bot_pin.stl

reader_case_lid.stl

License

This work is licensed under a
Creative Commons (4.0 International License)



Attribution-ShareAlike

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