

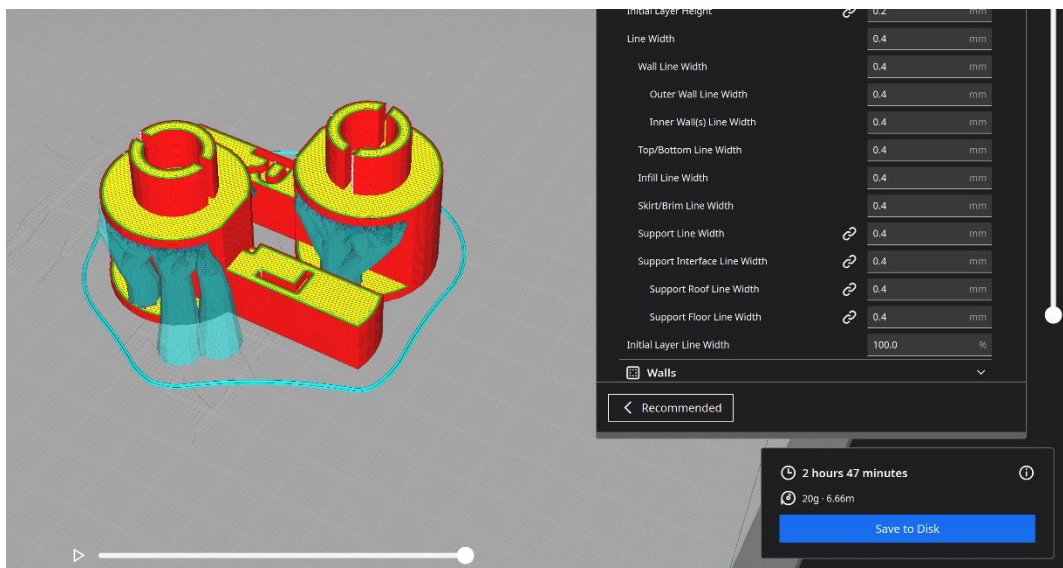
Introduction

All pre-facelift C5 X7 owners know the pain of replacing the halogen DRLs. This attempts to make that process less painful. I got fed up of accidentally dropping the T45 key into the bowels of the car every time I went to replace a bulb so I designed these keys.

It works almost identically to the Torx key and BluTack method, except you don't have to worry about extracting the key after the fact. You print these, mount them permanently and leave them be, they're meant to be non-reuseable / sacrificial. I've included a bypass hole so that you can still use a T45 in case the part fails. Unfortunately, this doesn't solve the arm amputation issue of the original method.

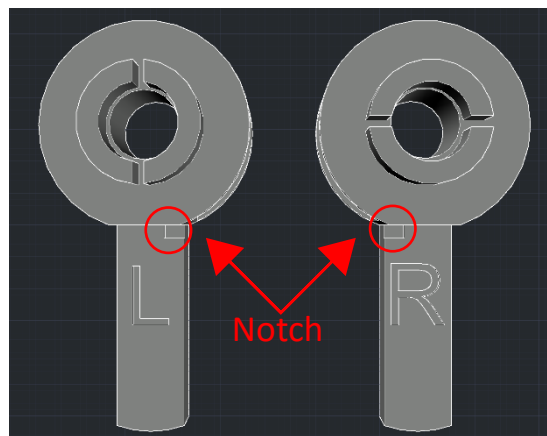
Manufacturing

Printing these is quite simple, place them on the bed such that the direction letters point up, enable support (I went for tree to reduce print time) and set your infill to 20%. The remaining settings are up to you. Print time will depend on your printer and settings, but it should be approximately 2h, 50m. I printed in PLA, but I'm not sure how it will hold up to the temperature cycles. You might want to print in high temperature PLA or even ABS.



Assembly & Installation

Left and right are defined by the position of the driver (i.e. right is the LDS-tank side, left is the battery side). Note that the two keys are slightly different, the slots are 90° out of phase with each other. Also note that each key has a notch above its letter.



1. The DRL has two tabs on its base, one large and one small. Align the bulbs such that the large tab is on the same side as the notch on the key.
2. Push the DRL onto the key until the lowest part of the DRL base touches the key. This should require a bit of force as the key is only held in by friction. I tested a set of prototypes for 240 miles over 4 days with just the friction mount and they seemed to hold.

If your tolerances aren't tight enough or if you're not confident, pull the bulbs off and put a couple of drops of superglue on the outside surface of the key. DO NOT put glue on the top surface as it doesn't make contact with anything.



3. Remove your blown bulbs (may the force be with you).
4. To fit, surrender your arm to the car, find the socket, insert the bulb and turn the key anti-clockwise (when looking from above). The socket will only go in one way, so don't force it, let it find its place.
5. Leave the key attached to the bulb.
6. Turn your engine over to make sure the bulbs are locked into place and glowing.
7. If they glow, job done. If not, make sure you've turned them all the way and that bulb isn't blown.
8. When the time comes to change the bulbs again, print a new set of keys and mount them to the new bulbs. Pulling the old bulbs out should be much easier as they already have keys mounted.