

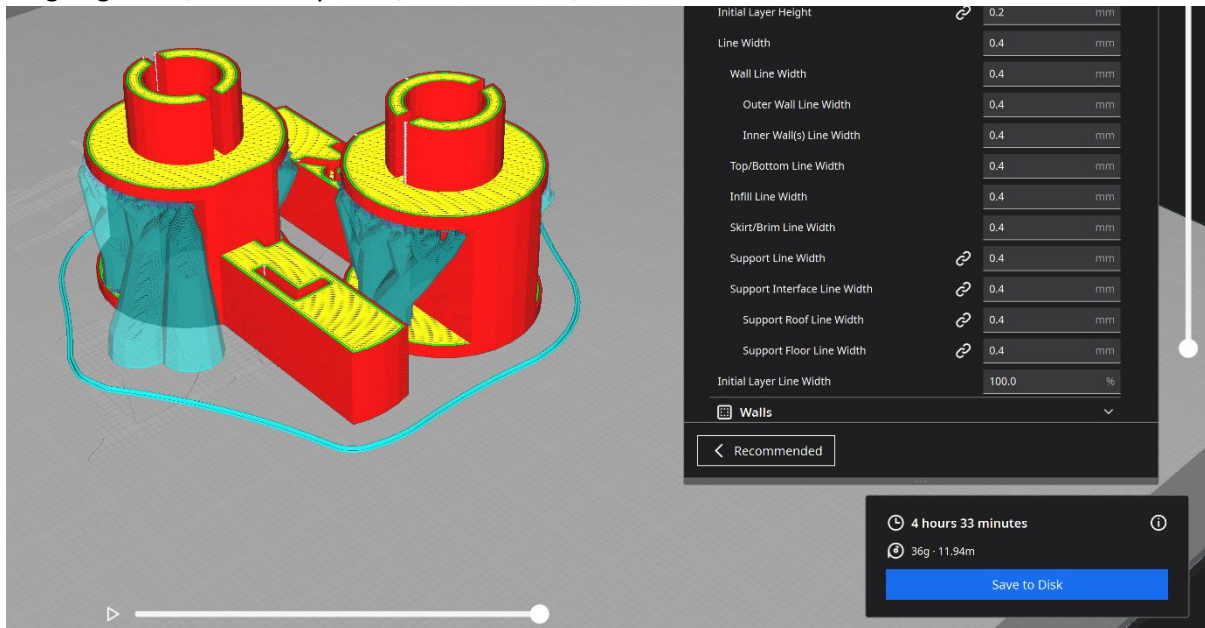
Introduction

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.

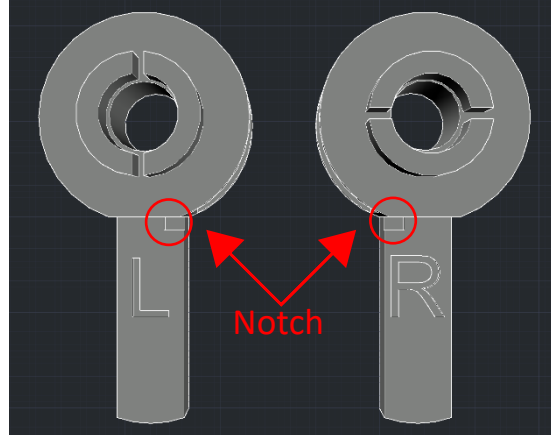
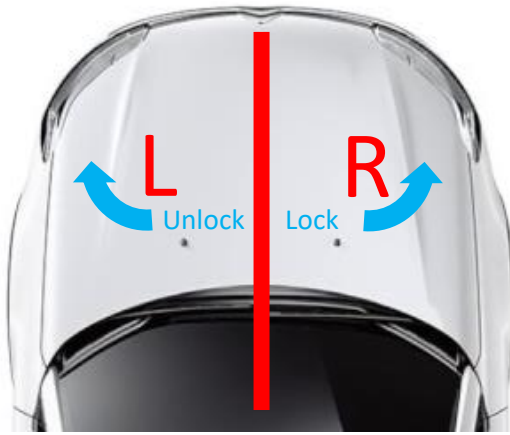
Manufacturing

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 100%. The remaining settings are up to you. Print time will depend on your printer and settings, but it should be approximately 4h, 33m. I printed the prototypes in PLA, but they didn't hold up to temperature cycles and ended up fatiguing. PETG, ABS or any other, more durable, filament is recommended.



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. 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 tolerances are quite tight.
2. Now that you know they fit properly, pull the bulbs off and put a couple of drops of superglue or superglue gel on the outside surface of the key and/or in the grooves between the two prongs. DO NOT put glue on the top surfaces of the prongs as they don't make contact with anything.



3. Remove your blown bulbs (may the force be with you). Turn the key clockwise when looking from above to unlock.
4. To fit, surrender your arm to the car, find the socket, insert the bulb and turn the key anti-clockwise. The socket will only go in one way, so don't force it, let it find its place.
5. Turn your engine over to make sure the bulbs are locked into place and glowing.
6. If they glow, job done. If not, make sure you've turned them all the way and that bulb isn't blown and that your light stalk is set to 0 or auto if it's bright out.
7. 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.