

LUPINE®

LIGHTING SYSTEMS



BETTY UPGRADE 26°

Betty Upgrade Kit Art. No. 648
Yellow LED Platine 2200 Lumen, Cree 7 XM-L LEDs,
7x LED Lensarray 26°, Allen Key, Manual

Make sure your working place is well-lit and reasonably quiet before you start upgrading your Betty. In addition to the upgrade kit and the allen key included, **you will need a small flat-nose pliers**; otherwise, you will not be able to remove the old circuit board.



Step 1:

Make sure that your Betty is not connected to the battery. Open the lamp by turning the cap anti-clockwise. The cap may be stuck fast to the casing; try to twist it off the housing without bending the cap.



Step 2:

Undo all seven inner-hex bolts with the allen key and carefully draw them out of the housing. Pick the old lens and put it away to prevent mixing it up with the new lens.

The two lenses are very difficult to distinguish from one another.



Step 3:

You will now need the flat pliers to pull the circuit board out of the housing. Grap the two center pins on the board with the pliers. A gentle pull, and the LED board will slide out of its socket.



Step 4:



NOTE: Avoid touching the LEDs as you remove the new LED board from the packaging. Soiling will reduce the lighting power of the LED; to remove dirt only use compressed air. Only touch the lens board at the edge. Fingerprints inside the lens will be very difficult to remove.

Step 5:

NOTE: Make sure you insert the new LED board the right way into the socket. The contact pins are asymmetrically arranged, so if you insert the LED circuit board incorrectly, it is basically impossible to assemble it the wrong way.



Step 6:

Always make sure avoid touching the LED surfaces. The six holes on the yellow board should be roughly aligned to the housings holes.

Make sure that the six holes on the board are in alignment over the threaded holes in the housing, otherwise you will not be able to mount the lens, or insert and tighten the bolts to the housing. You may need to turn the yellow board by a few degrees to reach alignment.

Step 7:

Insert the six inner hex bolts into their respective holes. Gently move and jiggle them backwards and forwards until they find their way through to the holes in the housing.



Step 8:

The whole unit should now lie completely on the inner edge without you tightening the bolts. Gently turn the unit to check that everything is positioned correctly.



Step 9:

Tighten the bolts now. Remember to tighten the bolts in diagonal sequence as you would when changing a car wheel. First, only gently tighten the bolts. After the lens has reached the right position to fit, tighten the bolts hand-tight in diagonal sequence. If you use the allen key as shown in the picture, you will not over-tighten the bolts.

After tightening, check the lens and the whole inside of the casing for dust or soiling; usually, a gentle blow of air will get rid of it.



Step 10:

The new lens array is slightly thicker than before, in case there is an O-ring inside your cap remove it from the cap. Remove the O-ring gently with a small knife or screwdriver – it is not fastened to the cap, and should be easy to remove. Make sure you avoid soiling the lens from the inside.

You will only be able to tighten the cap completely without the O-ring.



Step 11:

Now screw the cap back on. Make sure you avoid cross-threading – the cap should easily and smoothly turn onto the housing; if not, immediately screw it back off and try again.

Remember that the fine thread will not take impatience lightly.

Now completely tighten the cap; you should not be able to see any gap between the cap and the housing. Check that the light works, and your upgrade is completed – and your Betty is ready to face new challenges.



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