



Canon EF 35-80mm III Teardown

Partial disassembly to reach the Power Diaphragm unit to clean the lens.

Written By: Lawrence Lau



INTRODUCTION

This guide shows how I disassembled the lens in an attempt to clean it.

TOOLS:

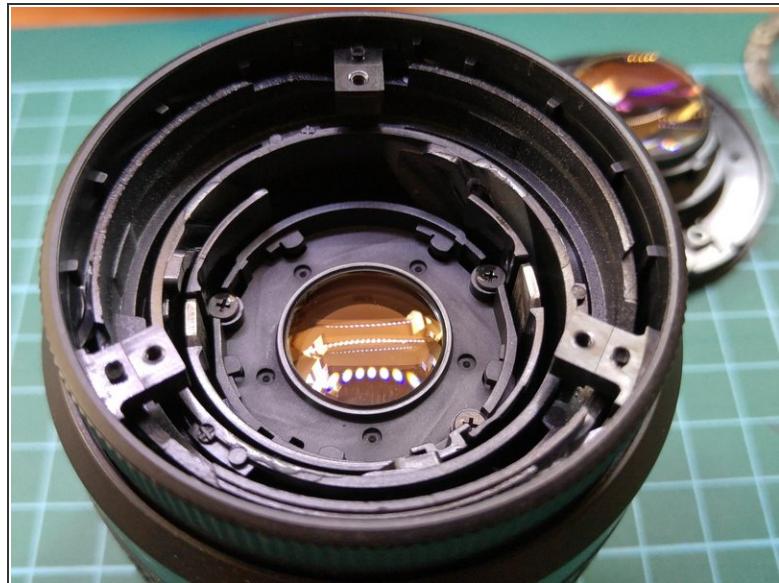
- Pro Tech Toolkit (1)

Step 1 — Remove the info sticker ring



- The glue is quite sticky - the sticker ring will never look the same again.

Step 2 — Removing the Front Lens Assembly



- Unscrew the 3 screws that hold the front lens assembly to the rest of the lens.
- It seems this partially disassembled lens can be used as a macro lens - I didn't try.

Step 3 — Separating the front and back halves



- Remove the rubber ring. This exposes the 3 screws and their metal collars.
- Take care not to drop the metal collars - they are like washers.

Step 4 — Disconnecting the flex cable



- Pull out the connector of the flex cable vertically while supporting the circuit board (I used a plastic spudger to push down the circuit while pulling the white connector). To insert it back, simply push it back into the slot. Note the orientation of the connector (Take lots of pictures)

- Note the black plastic pillar - the white focusing gear (obstructed in this shot) from the focusing ring

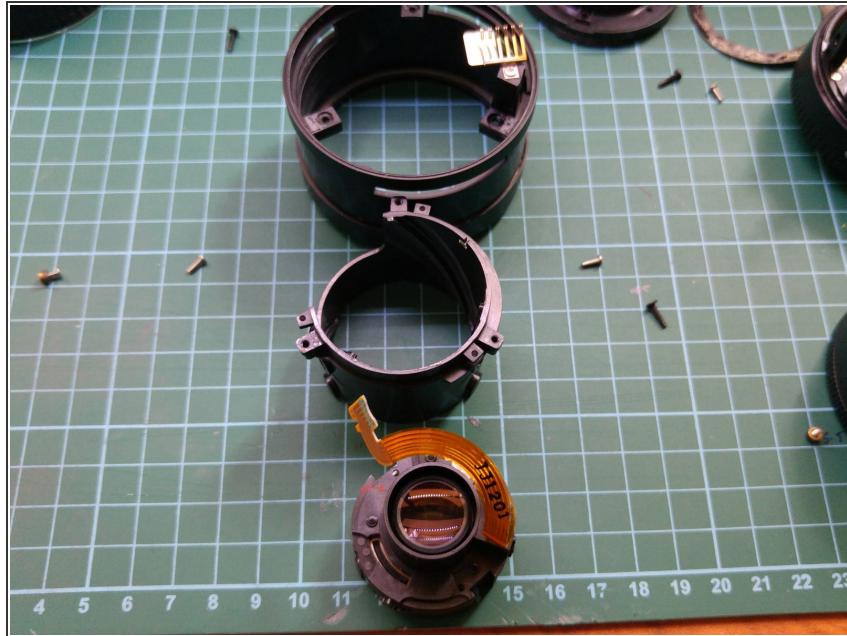
needs to go back inside this during re-assembly. It's a little tricky.

Step 5 — Removing the lens/Diaphragm unit



- Unscrew the 3 screws to release the barrel.
- Be careful not to damage the metal brush. It can be removed and re-installed easily.

Step 6 — Freeing the power diaphragm unit



- Once the barrel is freed, the rest of the assembly comes apart once the pieces are rotated - they are 'nested' within helical tracks inside each 'shell'
- Before you disassemble it, note carefully how each 'layer' is nested within the next one. Otherwise it will take a lot of trial-and-error to put it back.
- The focussing ring assembly also 'drops out'. To re-assemble it, align the 3 tabs in the barrel with the slots in the inner helicoid (inner part of the focussing ring), then turn it 45°.
- During re-assembly, ensure that: 1. the ribbon cable doesn't get snagged. 2. the white focusing gear needs to sit into the black pillar (highlighted in step 4)
- Useful document: [Parts Catalog for Canon EF 35-80mm III Lens](#)