



SERVICE GUIDE for EYE-02

JR45304 – Lens exchange

**A guide how to exchange lens
in GSM camera EYE-02**

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2 VERSION HISTORY

Version	Date	Change Description	Author
JR45301	24.6.2010	First version	Kopriva
JR45302	13.7.2010	Added lens ordering possibilities, additional information	Horák
JR45303	31.8.2010	Added lens dimension drawing, added table with FOV	Kopriva
JR45304	8.10.2010	Updated lens dimension drawing, corrected focal length of recommended lenses (8.0mm)	Kopriva

3 WARNING

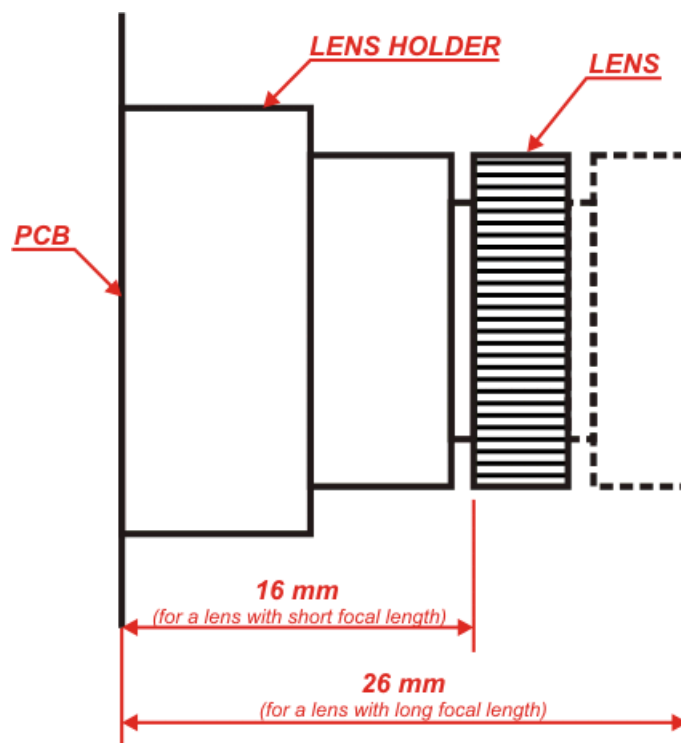
Described procedure can be done only in authorized service partners of JABLOCOM. The warranty voids if the lens were exchanged by unauthorized service or person.

This procedure must be done in a dustless environment to prevent pollution of optical parts of camera.

ESTIMATED TIME OF EXCHANGE: 5 MINUTES

4 NEEDED EQUIPMENT

- a) Lens for exchange with thread M12xP0.5mm with focal length from $f=8.0\text{mm}^1$ to $f=2.0\text{mm}^2$ (see the picture below for information about mechanical restrictions).
- b) Silicone coating Dow Corning DC3140 or similar non-corrosive rubber for electronics.
- c) cross-point screwdriver with diam. 3.0mm.
- d) PC with installed application JabloTool.



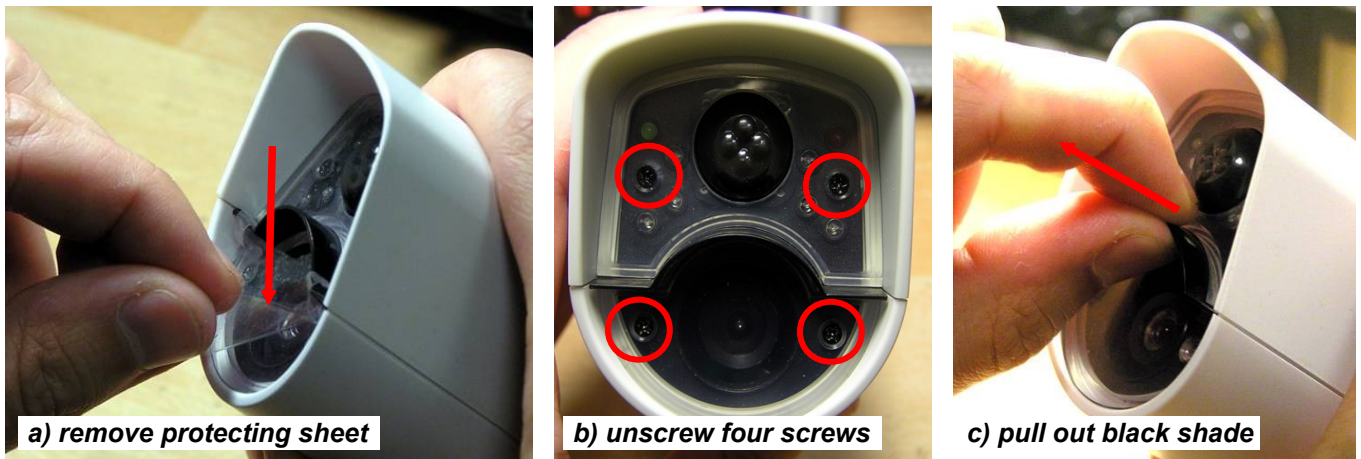
Maximal and minimal acceptable dimensions of the used lens

5 TRANSPARENT PARTS DISASSEMBLY

- a) Remove the protecting sheet from transparent plastic parts. Do not throw it away, it will be placed back.
- b) Unscrew the four screws fixing the transparent plastics. Use an appropriate screwdriver to avoid scratching screw heads!
- c) Remove the both transparent plastics and the black shade plastic incl. silicone insulation.

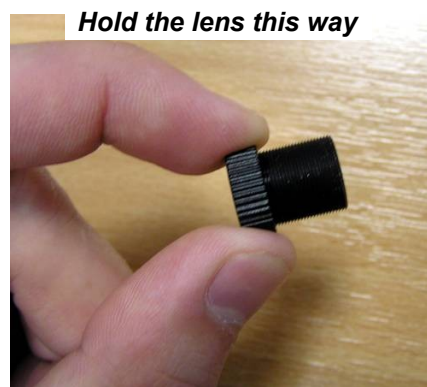
¹ Lens with longer focal distance usually does not fit under transparent cover or is not able to focus in used holder. In case you are going to use such lens be sure that its dimensions fit the camera according to the picture above.

² Lens can be ordered on internet. For example visit www.shopping.com and in section "Security Systems and Surveillance" search for "board lens". You can also ask local security systems vendor.



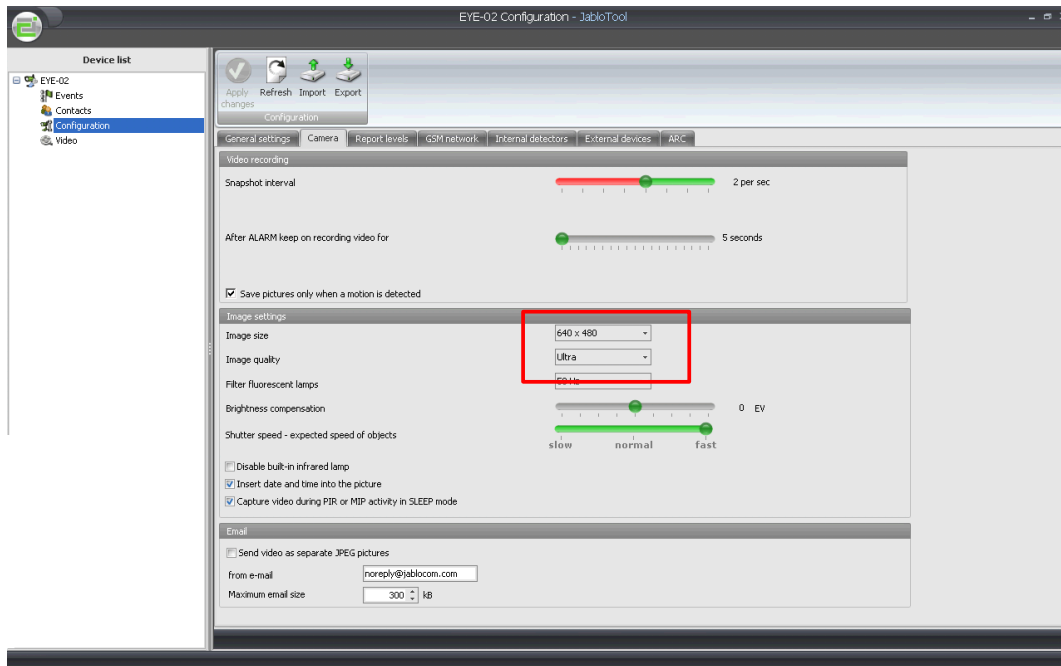
6 LENS EXCHANGE

- Unscrew the original lens from plastic holder by two fingers. The silicone ring keep on its place on the plastic holder, no need to remove it.
- To prevent any pollution of the image sensor, screw the new lens immediately after you remove the original one.
- During manipulation with the lens hold it only by the lens border (see the picture below). Never touch the front or back glass by fingers!
- Screw the new lens through the silicone ring into the plastic holder.



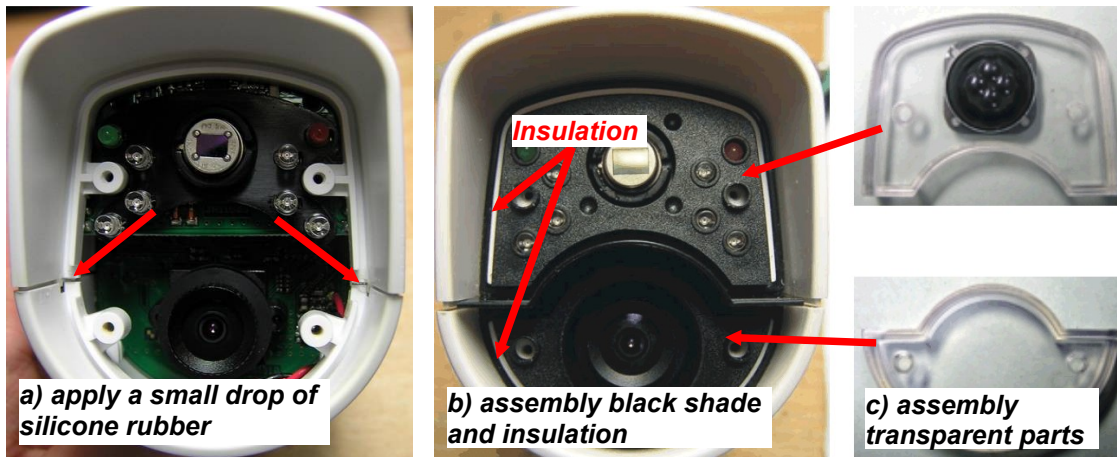
7 FOCUSING

- Insert charged battery to the camera and connect it to PC via USB cable.
- Launch the application JabloTool. (You can download it from www.jablocom.com)
- Point camera to testing scene:
- for wide lens ($f < 3 \text{ mm}$) the distance shall be 5 meters.
- for narrow lens ($f > 3 \text{ mm}$) the distance shall be 10 meters.
- In JabloTool switch to the menu VIDEO (in the left window) and screw the lens in or out until you can see sharp image in the right window. For indication of good focused picture you can also watch size of the picture in kB showing in the left down corner of the window. More sharp picture means bigger size for not changing scene.
- For more accurate focusing you should increase resolution and image quality in the menu CONFIGURATION (see the picture below).



8 TRANSPARENT PARTS ASSEMBLY

- (a) Before you install back the transparent parts, apply a small drop of silicone rubber DC3140 on each side of the camera like is shown in the picture below.
- (b) Then assembly back the black shade plastic incl. silicone insulation. The insulation o-ring press into the grooves in white plastics.
- (c) After that put back the both transparent parts and fix it with four screws.
- (d) Place back the adhesive protecting sheet onto transparent plastics if there were one. Be sure that there is not any dirt under the sheet.



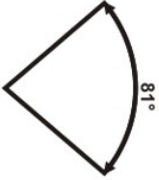
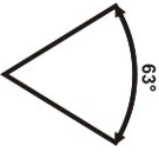
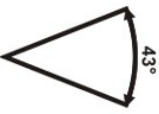

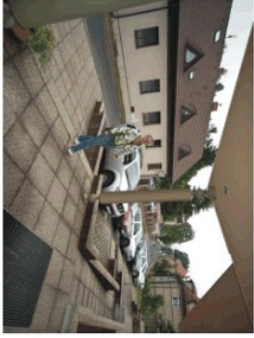



Focal Length	f = 2.1mm	f = 2.9mm	f = 4.6mm	f = 8.0mm
Typical Horizontal Field of View (HFOV)				
Sample Pictures				
Maximal Recommended Distance for Car Licence Number Identification	Not recommended	~ 4 meters	~ 7 meters	~ 13 meters
Typical Fields of View (HxVxD)	81°x65°x94°	63°x50°x75°	43°x33°x53°	25°x19°x31°

Table with typical fields of view and sample pictures