# Instructions HEINE X CHANGE System Smartphone Adapter for BETA X Otoscope

With the X CHANGE System Smartphone Adapter, the BETA X Otoscope can be connected to any smartphone to take digital otoscopic images as needed. It is optimised for use with the Apple iPhone\* in conjunction with the HEINE Auris app, which is available free of charge from the App Store\*.

Take a little time to set up the adapter and familiarise yourself with the optimal procedure.



### 1. Function of the smartphone adapter

Your BETA  $\times$  Otoscope is a high-quality analogue otoscope. With the practical adapter and a smartphone, its functionality can be expanded to take photos and videos.



#### 2. Overview

The smartphone adapter magnetically attaches the BETA  $\bowtie$  Otoscope to a smartphone. The adapter is supplied with two fixing buttons at different depths. You will also need the otoscope and a smartphone with a compatible mobile phone case with a hard polycarbonate or acrylic glass back. Keep the fixing button [01] separate from the magnet before attaching it to the phone case!



If both are still stuck together, separate the screw [02] from the adapter arm. Turn the screw directly into the thread of the magnet holder and push the two elements apart.



















## 3. Identifying the preferred cameras on the smartphone

Identify the preferred camera or cameras on your smartphone. This is usually the lower or middle lens.

### a. If you are using an iPhone\* and the Auris app:

Download the Auris app to your smartphone. Install and open it. Now cover each camera lens one after the other. This will make it very easy to find out which camera the app is working with.

#### b. If you are using a different smartphone and the normal camera function:

First, select your preferred camera settings (zoom, etc.). We recommend a test run with approximately 14x zoom, as with the Auris app. Then cover each camera lens one by one to determine which camera is being used. Now test how changes to the zoom affect the camera response.

## 4. Correct attachment of the fixing button to the smartphone

Select one of the two fixing buttons. The raised button L is suitable for protruding camera lenses. For all other models, choose the flatter button.

Align the smartphone adapter with the previously identified camera. Do not stick it down yet. This will allow you to find the correct position of the magnet that gives you a clear image. The distance between the fixing button and the lens should be as small as possible.

Check the image on your smartphone before you decide on a final position of the button. If in doubt, stick the fixing button on so that all cameras are accessible with the adapter.

Remove the protective film and press the fixing button firmly onto the mobile phone case.

# 5. Attaching the adapter to the otoscope

Release the XX CHANGE System Magnifier Module with a twisting motion and remove it from the otoscope.

In place of the Magnifier Module, position the smartphone adapter so that it is flush, and turn it clockwise to secure it. Check that the adapter is sitting completely flat against the entire surface and is fully engaged.









#### 6. Fine-tuning the otoscope and smartphone

Place a disposable tip on the otoscope. For best results, use HEINE AllSpec Disposable Tips (2.5 mm or 4 mm).

Switch on the otoscope's illumination (middle button). We recommend using the lower brightness setting (press the button twice) to reduce glare. Now place the otoscope on the adapter.

For fine tuning, adjust the smartphone camera with the smartphone adapter on the otoscope so that a clear image is visible on the switched-on display. We recommend starting with a zoom of approx. 14x, as with the Auris app.

Only then tighten the screw on the adapter.

Then familiarise yourself with the additional weight of the smartphone on the otoscope and how to handle it before taking otoscopic images for the first time.

With a little practice, you can take clear, stable images - ideal for documentation and patient education.

- \*iPhone and AppStore are trademarks of Apple Inc.
- \*\*The smartphone and phone case are not included in the scope of delivery.

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