

## Binocular Autorefractor



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winner



### Short Manual 7

**“Documenting measurement results on paper”**

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This manual is a supplementary short manual. For important information about your Plusoptix device, such as its intended use, basic handling, technical information, maintenance, service, and warranty information, please refer to the user manual that was delivered with your device. This user manual can also be downloaded on our homepage [www.plusoptix.com](http://www.plusoptix.com), under support.

## List of further supplementary short manuals

1. Checking the scope of delivery and learning about the device
2. Adjusting settings and setting up WLAN
3. Preparing and performing a measurement
4. Viewing the measurement results
5. Entering, retrieving or deleting patient data
6. Documenting measurement results electronically
7. Documenting measurement results on paper
8. Exporting back-ups and reports (only plusoptiX A12C and A16)
9. Downloading software updates
10. Troubleshooting malfunctions and measurement interruptions

## 1 Documenting the measurement results – an overview

The measurement results can be documented electronically or on paper.

### Documenting on paper

Documenting on paper means that the measurement results can be printed out to attach them to a patient paper record. You can print a self-adhesive label on the wireless infrared label printer “plusoptix P12” or a Measurement report on any printer that is connected to your workplace computer. With the “plusoptiX A12C / A12R” model, it is also possible to print the Measurement report directly on a mobile USB printer, without using a workplace computer.

### Documenting electronically

Documenting electronically means that you can save Measurement reports (see figure 1) on your workplace computer and also attach them manually to your electronic patient records.

If the device is connected to your Electronic Medical Record system for csv data exchange, the Measurement report and the measurement values can even be saved automatically to your Electronic Medical Record system (refer to chapter 3.2”).

More information about documenting the measurement results electronically can be found in supplementary short manual 6.

## 2 Documenting the measurement results on paper

Touch the printer (1) button in the navigation bar of a results page to do this.

In the „plusoptiX A12C“ und „plusoptiX A16“ model, the patient data input screen is then displayed. Enter the patient data (see supplementary short manual 5), which should be displayed on the Measurement report and then touch the green checkmark (2) to confirm.

If the measurement results are to be documented anonymously, touch the checkmark (2) in the navigation bar without entering patient data. This will allow you to skip the patient data entry screen. The device then saves the measurement under a consecutive patient ID. This is composed as follows:

<last 4 digits of the serial number>-<consecutive number>-<date>-<time>



### **Note:**

The “plusoptiX A12R” model does not have an internal patient database. Touching the printer button after the measurement in the “plusoptiX A12R” model will display a single line to enter individual patient data. This data will be portrayed on the Measurement report and on the self-adhesive label.

After confirming the patient data entry or the anonymous, consecutive patient ID (see supplementary short manual 4), a print job for label printing is sent via the infrared interface and a Measurement report is saved to the inserted SD card (plusoptiX A12) or USB stick (plusoptiX 16) at the same time.



### 3 Printing Measurement reports



**Attention:**

Measurement reports can no longer be called up in the internal patient database at a later point in time. Save the Measurement report by adding it to your patient record or transferring it to your network computer (see 3.2”).



**Attention:**

Saving the Measurement report takes a few seconds and depends on the storage medium. If the SD card or USB stick is removed too soon or the URL is called up too early, the PDF file will not be saved.

The SD card or USB stick must then be reinserted in the device in order to save the Measurement report again on the SD card or USB stick. If the URL was called up too early, it must be called up again.

The Measurement report is used to document the measurement values and the last camera image. Depending on the time of entering patient data, the Measurement report is saved automatically or manually:

Time of entry	Storage of the Measurement report
Entry or Retrieval of patient data before the measurement (only A12C und A16)	The Measurement report is automatically saved as a PDF file at the end of every successful measurement. If you see the status message “Try again”, the Measurement report must be saved manually.
Entry or Retrieval of patient data after the measurement (only A12C und A16)	After the confirmation of patient data, the Measurement report is automatically saved as a PDF file at the end of every successful measurement.
No entry of patient data, documentation via patient ID number	The Measurement report is saved after entering or retrieving the patient ID as well as after confirmation of the anonymous, consecutive patient ID number.

To be able to allocate these Measurement reports to individual patients, the entered patient information can be found in the file names. In addition to the entered data, a date and time stamp and the measurement result are added.

PDF file name:

Last name\_FirstName-YYYYMMDD-HHMMSS.pdf

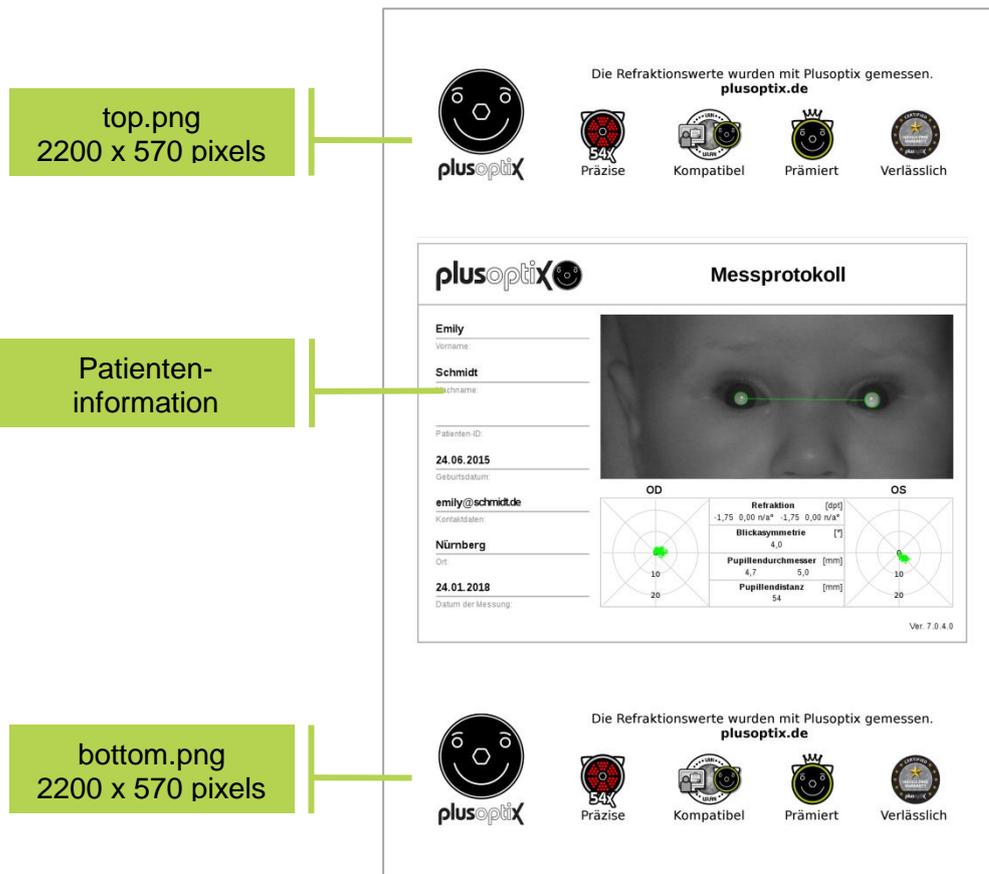


Figure 1: Measurement report (Letter-sized or DinA4)



**Note:**

If a patient ID has been entered instead of or as well as the patient name, this patient ID will be visible in the file name instead of the patient name

### 3.1 Adding an individual infographic

Infographics are found on the upper and lower edge of the measurement report. You can design them as you wish. Create your graphic in png format with a size of 2200 x 570 pixels (w x h) and name it “top” for the upper edge and “bottom” for the lower edge of the measurement report. Copy your graphic into the main directory of a USB stick. As soon as you connect the USB stick to the operational device your graphic will be uploaded automatically. You can find a sample graphic with the correct measurements for the information column in the download area on our homepage (plusoptix.com).

### 3.2 Printing Measurement reports on a network printer

To print a screening protocol on your network printer, you must open the Screening Protocol PDF file from a network computer or smartphone. There are four different access options:

plusoptiX A12C, A12R and A16:

- a) Connect the SD card or USB stick directly to the workstation.

plusoptiX A12C and A16:

- b) Manual network access via LAN / WLAN
- c) Automatic network access with the freeware plusoptiXconnect

Below you will find more detailed explanations.

## a) Manual connection of the SD card or USB stick to a workplace computer

Connect the SD card (plusoptiX A12) or USB stick (plusoptiX A16) to a workplace computer. The storage will be displayed as “removable medium” in your Windows Explorer or Apple Finder.

Open the folder “pdf” and choose the Measurement report you want to print. You can print it on any printer that is connected to your network or workplace computer.

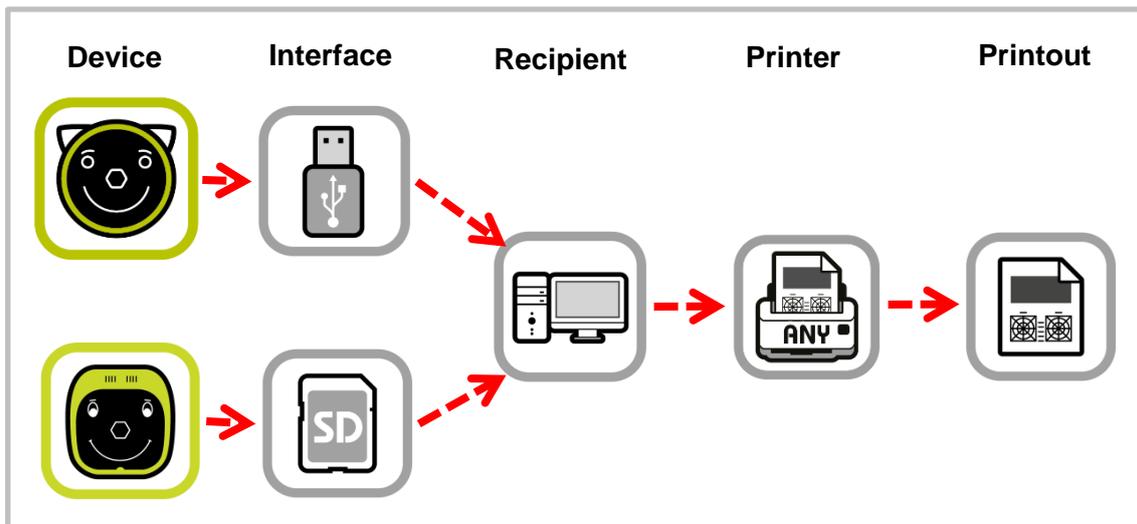


Figure 2: Manual connection of the storage device to a workplace computer

## b) Manual connection via LAN / WLAN

Open your Windows Explorer or Apple Finder. You can access the Measurement report at following URLs:

plusoptiX A12C:                    \\px12-xxxx\pdf (Windows Explorer)  
(WLAN)                                smb://px12-xxxx/pdf (Apple Finder)

plusoptiX A16:                    \\px16-xxxx\pdf (Windows Explorer)  
(LAN and WLAN)                    smb://px16-xxxx/pdf (Apple Finder)

The “xxx” place marker stands for the last four numbers of the serial number.

Open the folder “pdf” and choose the Measurement report you want to print. You can print it on any printer that is connected to your network or workplace computer.



### Note:

If the workplace computer displays the error message “Access denied”, restart Windows Explorer or Apple Finder.

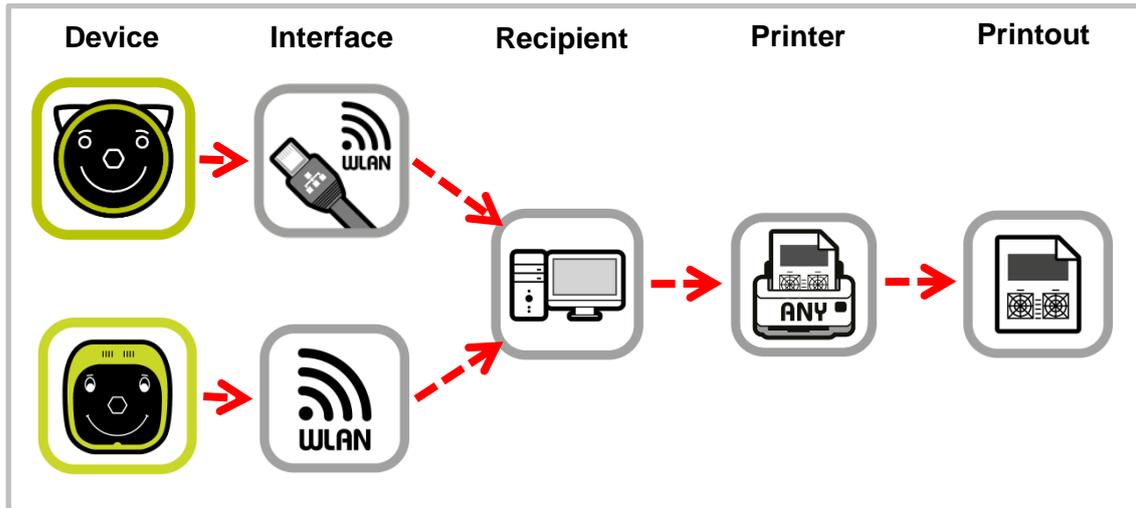


Figure 3: Manual network access via LAN / WLAN

### c) Automated connection with the freeware plusoptiXconnect

“plusoptiXconnect” is a freeware programme for automated connection and printing of Measurement reports. Once the freeware is installed on your workstation, you can automatically view, filter, or print on a printer connected to your workstation.

The device must be connected to the network via LAN or WLAN, too. The Measurement reports stored on the SD card or USB stick can now be portrayed and printed automatically on your workplace computer.

You can download the freeware and its user manual from our homepage ([plusoptix.com](http://plusoptix.com)), under support.

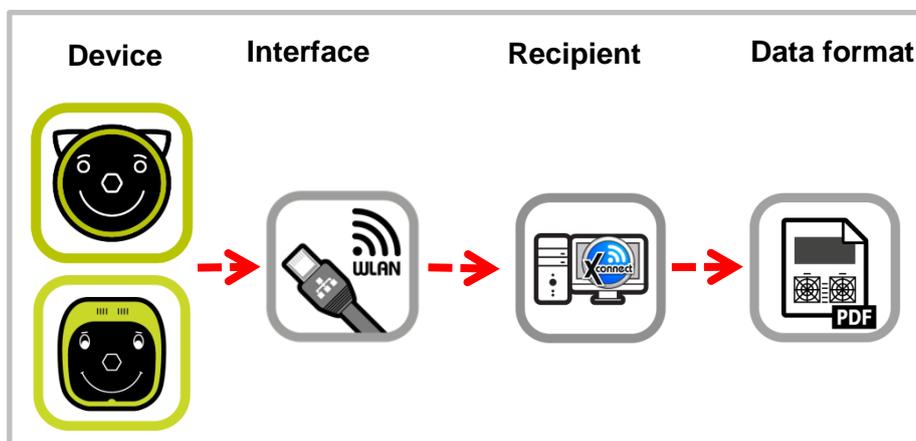


Figure 4: Automatic network connection via „plusoptiXconnect“

### 3.3 Printing Measurement reports on a mobile USB printer (only plusoptiX A12C/R)

If a workplace computer is not available or you want to print Measurement reports directly without using a workplace computer, a Measurement report on the “plusoptiX A12C/R” can also be printed directly on the mobile USB printer “HP OfficeJet 200”.

There are two different access options:

- a) Manual network access via a USB cable
- b) Manual network access via a hotspot on your smartphone (only plusoptiX A12C)

Below you will find more detailed explanations.

## a) Manual network access via a USB cable

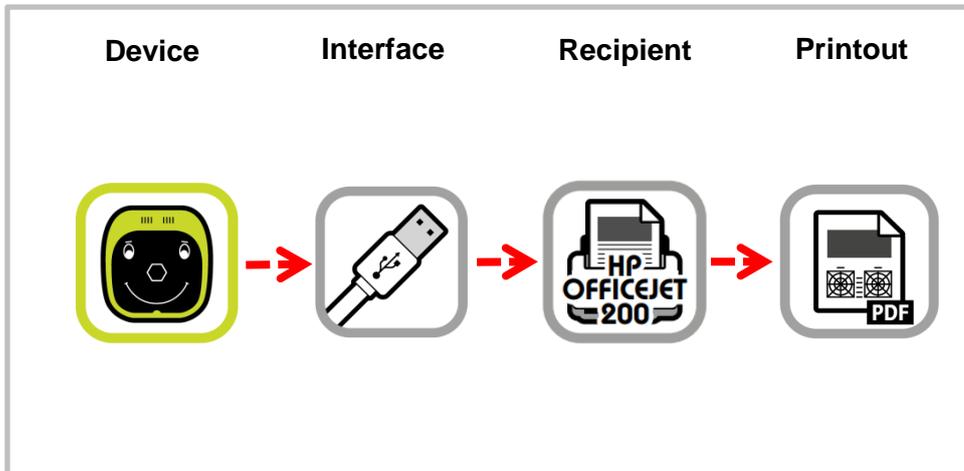


Figure 5: Printing Measurement reports via USB connection

To print a measurement report on the mobile USB printer “HP OfficeJet 200”, the mobile printer must be connected to the “plusoptix A12C/R” device via a USB cable. As soon as a measurement report is saved on the SD card, a print job is sent to the mobile USB printer “HP OfficeJet 200” and the measurement report will be printed.



**Attention:**

Do not disconnect the USB cable or switch off until the printer finished printing. If the cable is disconnected or the device switched off too early, the measurement report might not be printed completely.



**Note:**

The USB cable has to be connected in the moment the measurement report is saved on the SD card. When the measurement report is saved on the SD card, it might take some seconds until the USB printer starts printing.

## b) Manual connection via a hotspot on your smartphone (only plusoptix A12C)

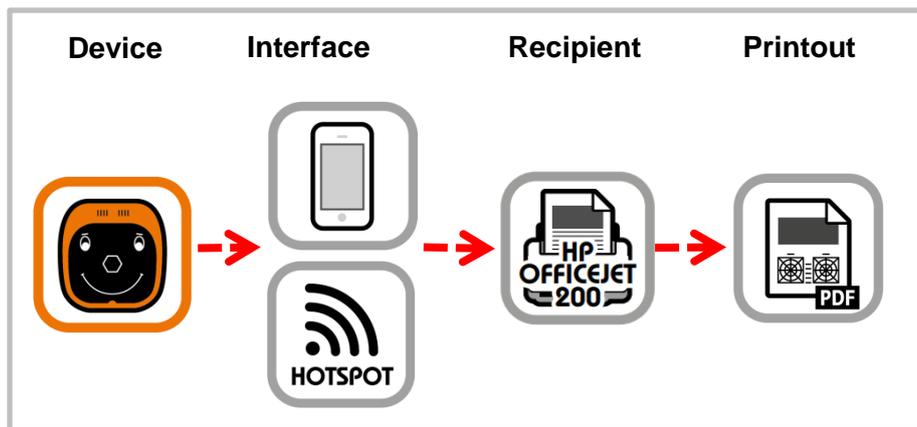


Figure 6: Manual connection via hotspot on your smartphone

- Set up a hotspot on your smartphone
- Connect the Plusoptix device with the established hotspot by selecting the network name and entering the password



Figure 7: Choose "hotspot" as network

- Download an app to manage documents (recommended: "FE File Manager"). Open the downloaded app and search for connected devices. If a selection of the operating system is required in the app beforehand, select "Linux".
- By selecting the appropriate device name „px12-1234“ (see Figure 6), you can access the documents stored on the SD card.



**Note:**

If the device is not displayed, you can search for the IP address "192-184.200.1" displayed on the Plusoptix device (see Figure 6). If a username and password is required, you must obtain the access data from the responsible network administrator.

- Open the "pdf" folder and select the desired measurement report.
- Now select the mobile printer "HP OfficeJet200" in the print settings and confirm the print.



**Note:**

Do not disable the hotspot and do not turn off the Plusoptix device or printer until the printer has finished printing. If the hotspot is disabled or a device is turned off too early, the Measurement report may not print completely.

## 4 Printing self-adhesive label with “plusoptiX P12” (optional accessory)

After confirming the entry of patient data or the anonymous measurement (see short manual 4), a print job for label printing is sent via the infrared interface and a Measurement report is saved to the inserted SD card (plusoptiX A12) or USB stick (plusoptiX A16) at the same time.

To print a self-adhesive label, you just need to hold the camera towards the “plusoptiX P12” label printer to print a self-adhesive label. The “plusoptiX P12” prints self-adhesive labels on heat-sensitive paper (i.e. no printer cartridges are required). It is battery-operated and has an infrared interface.

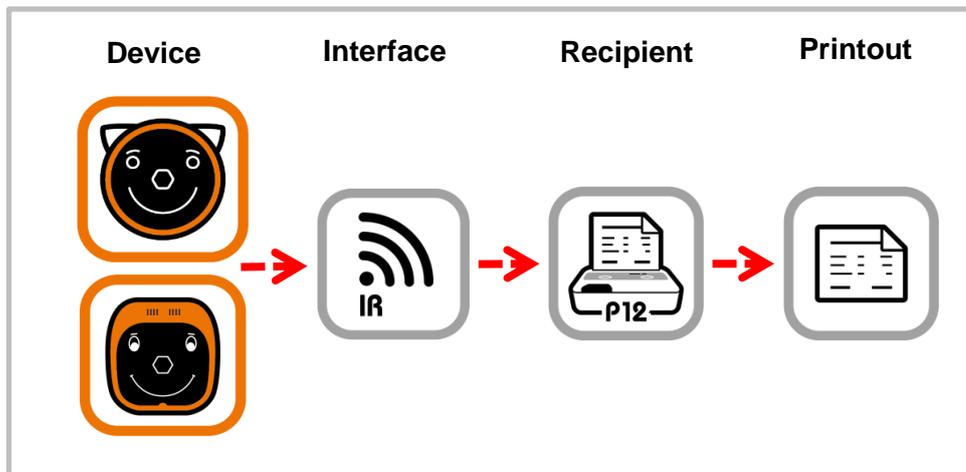


Figure 8: Printing self-adhesive labels



**Note:**

You can find information about operating the “plusoptiX P12” in its user manual. This can be downloaded from our homepage ([www.plusoptix.com](http://www.plusoptix.com)).

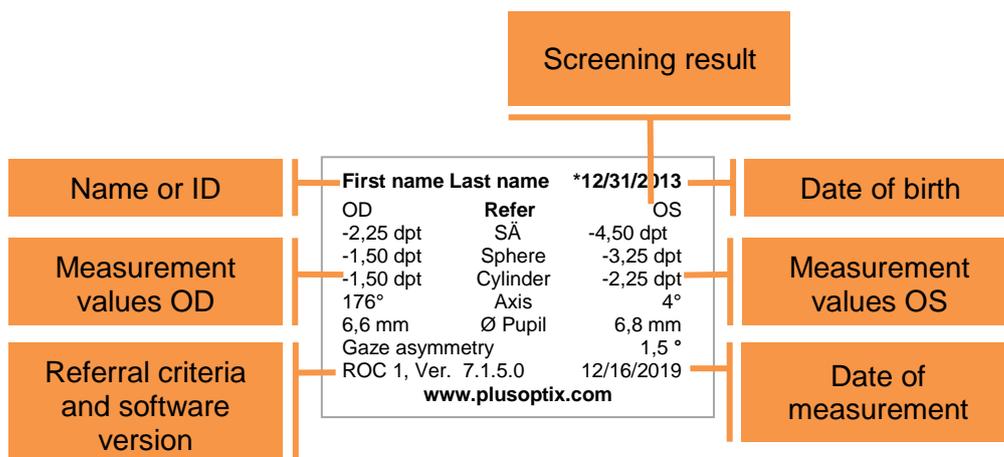


Figure 9: Self-adhesive label 2.91 x 1.9 inch (74 x 49 mm)