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products for the visually impaired - Development - Production - Sales



Vario 440

User Guide

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VisioBraille - see with different eyes

We continue the products of BAUM Retec AG!

The company VisioBraille is convinced of the CCTV readers from the VISIO family, the VARIO Braille displays and Poet text-to-speech readers!

Encouraged by the overwhelming positive reactions of customers and distributors, VisioBraille decided to continue to produce the products of the former company BAUM Retec AG and ensure the service.

On this basis, our customers will be provided with newly developed devices in the future.

With these innovative tools, we want to balance the limitations of blind and visually impaired people in the best possible way, strengthen your independence and provide assistance on the way to an independent everyday life.

We reach this aim through our strong commitment developing quality products, through years of experience in this field, through our excellent Know-how and proven expertise, using state-of-the-art technologies that significantly improve the quality of life of our customers. Ergonomics, design and quality of the products developed and produced in Germany fulfill the highest demands.

In the private sector, as well as in education and work, you can break down barriers using our high-quality products, and continue to drive your success.

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1 About this user guide

Thank you for choosing a Vario 440 from VisioBraille. The purpose of this user guide is to provide the end user and/or their service provider with details on how to use Vario 440.

Vario 440 is a high-quality, German-made braille display, which will provide you many years of reliable service. This user guide contains everything you need to know to use your new device.

As you will learn, Vario 440 is very easy to use. In addition to instructions on how to operate the device, this user guide also includes recommendations what to do if anything goes wrong with the device, and important safety guidelines.

We advise that you store this user guide in a safe place for future reference.

Notice for End Users in Germany/Europe

This user guide is a part of the Vario 440 product, and should be kept with the product at all times. In the event Vario 440 is ever sold to a new end user, this user guide must be provided to them.

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2 About Vario 440

The Vario 440 is our new refreshable braille display of VisioBraille. It was design to be a high quality yet affordable braille display for computer users in need of a compact device. It has 40 braille cells and 6 display buttons. Vario 440 features a reversible USB Type C port, which means it doesn't matter which direction the USB plug is facing. No more need for testing and finding the right way to plug it in. Also the power will be delivered over the USB-Port. The device is so power efficient that no battery or additional power plug is needed. Like other VisioBraille refreshable braille displays, Vario 440 is a Human Interface Device (HID), which means a driver does not need to be installed to use it.

3 Purpose

According to EU regulation 2017/745 (MDR), this product is a class I medical device.

This medical product is used to compensate for the disability of severely visually impaired or blind people.

For this medical product, the Medical Product Law Implementation Act (MPDG) applies from May 26th, 2021.

The Medical Devices Operator Ordinance (MPBetreibV) must be observed.

This product may only be used in residential and commercial areas.

In medical facilities, this product may only be used in office space.

The expected lifetime of the medical device is 7 years.

In order to achieve the expected service life of the product, a complete professional cleaning by VisioBraille GmbH's technical service is recommended at intervals of maximum 2 years. This service is chargeable.

4 Safety instructions

This user manual must be read carefully before using the medical device.

The medical device may only be put into operation by the operator if

- this medical device has been subjected to a functional test by VisioBraille GmbH or an authorized person at the operating site, and
- the user has been instructed by VisioBraille GmbH or an authorized person using the instructions for use and safety-related information.

The product may only be commissioned by instructed persons.

Evidence of the instruction is to be provided by the operator.

The device may only be put into operation if there is no visible damage to the device or the supply lines and no malfunctions are to be expected.

The medical device may only be used with the intended original parts and the combination products intended by VisioBraille. If a combination with products from other manufacturers is required, these must comply with the applicable legal provisions.

WARNING

Only operate this device in a dry environment. The device must never get wet, otherwise there is a health risk from electric shocks.

- Do not open the device (high voltage).
- Do not insert objects into the braille module channels.
- Never clean the Braille modules yourself.

CAUTION

- Never expose the device to direct sunlight or moisture (rain).
- Keep the device away from heat sources such as electric heaters.
- Protect the device from dust.
- The ambient temperature should be between -10C and +50C and the humidity should be between 30% and 80%.
- Avoid locations subject to rapid or extreme changes in temperature or humidity.
- Do not use the device near liquids or corrosive chemicals.

- Do not place heavy objects on the device. Do not subject the device to strong pressure or drop objects on the device. This could damage the device or stop it from working properly.
- Do not place the device near objects that generate strong magnetic or electromagnetic fields (e.g. loudspeakers of a stereo system).

General Precautions

The design of our products ensures optimum safety and reduces the health burden of overexertion. Nevertheless, by observing a few precautionary measures, you can help to avoid health problems or damage to the product.

Place the device in a position that ensures comfortable posture and safety.

Place the device on a level surface and at a comfortable height and distance.

Set up the device so that it is directly in front of you when working and make sure that there is enough space to operate the peripheral devices. Longer breaks and relaxation exercises are recommended to avoid straining your hands and wrists from prolonged use of the controls and reading the Braille display. In specialist shops you will find literature on the ergonomic setup of a workplace and on posture, which can be used to reduce overexertion.

If a mobile phone is used, a minimum distance of 30 cm must be maintained between the medical device and the mobile phone.

Cleaning

Avoid getting dirt on your hands and fingers.

The surface of the Braille display - but not the Braille modules - can be cleaned with a soft, slightly damp cloth.

Never use harsh cleaners or soap.

Packaging and Transport

To avoid damage, remove all lines from the product before transporting it. The device bag should be used to transport mobile devices.

The original packaging must be used to send the product.

5 Before you begin

Please read the safety instructions at the end of this user guide and check the contents of the packaging.

5.1 What`s in the box

- 1 Vario 440 Braille Display
- 1 USB C cable
- 1 manual

6 Vario 440: Getting to know the Device



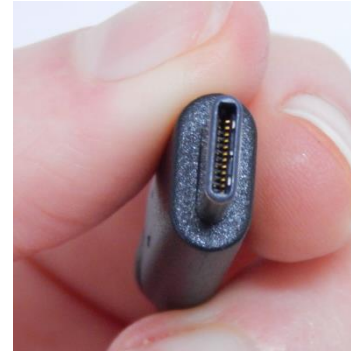
6.1 Top Side

The top of Vario 440 features a refreshable braille display with 40 braille cells, cursor routing buttons, 6 display buttons. Three of the display buttons are located on the left side of the braille cells, the other three on the right side. Let's take a closer look.

6.1.1 Braille Display and Display Buttons

To the left and right side of the braille display, you will find three small, round buttons. These are the display keys, which we refer to as D1, D2, D3, D4, D5, and D6. Think of these 6 buttons as a braille cell split in two, with D123 on the left and D456 on the right. These buttons are used to navigate the display left and right, up and down, and used to control the screen reader on a computer.

6.2 Right Side



On the right side of Vario 440 you can find the USB port, which is USB type C. Special about the USB Type C port is, that it doesn't matter which direction the USB plug is facing. No more finding the right position of the plug.

With this USB Port and the included cable the Vario 440 is connected to a computer. The cable is simultaneously used for power supply and USB connection.

The Vario 440 needs that less power, so it can be used as a low power device at the USB port. That means that in case it is used with a battery powered notebook, the runtime of the notebook is nearly not reduced.

As Vario 440 has no battery, you are never in need to change one.

7 First steps

As soon as Vario 440 gets power via USB connection the device name and version number is shown on the braille cells. This message will disappear automatically after short time or when the screenreader sends his data.

7.1 Updates for Vario 440

From time to time, new Vario 440 firmware updates will become available for download on our website. Please visit “Support” at <http://www.visiobraille.de>

7.1.1 Performing firmware updates

A small PC tool must be executed to install a new firmware version on Vario 440. Therefore Vario 440 must be switched on and connected to the computer. During the installation the braille display shows a progress bar. After the process is finished, Vario 440 will restart automatically and shows the new version number. The update process will take a few minutes to be completed.

8 The Vario 440 System Menu

As soon as Vario 440 receives power (after connecting it to a PC with the USB cable), the first line of the System Menu appears on the Braille cells. This menu contains information relating to the Braille display. If necessary, some settings can be change here. They will be saved immediately.

Usually you will pay no attention to the System Menu, as it disappears as soon as data are transferred from the PC to the Braille display or your screen reader reads out some text, so that you can work with the Braille display.

The System Menu consists of five lines giving the name of the device, its serial number, the communication channel/port being used, and the protocol/emulation used.

It will often prove necessary to install special settings or values, which must be done on the advanced System Menu which can be accessed directly with its own key combination.

The lines in the System Menu can be accessed upwards with D1 (top left), and downwards with D3 (bottom left).

Whenever the System Menu is called up the first line will be displayed.

The active or selected item is indicated with Braille dots 7 and 8. The lines of the System Menu will be described below.

Automatically as soon as data has been exchanged between the PC and the Braille display.

NB:

How do you open the System Menu when Vario 440 is connected to the computer?

Stop the screen reader and reconnect the device. An alternative is to connect the Vario 440 with an USB power supply.

8.1 The System Menu

8.1.1 First line: Name of the Braille display

This is the first entry in the System Menu. It displays the name of the Braille display.

It is ending with the variants of 40, 64 and 80 characters.

VisioBraille Vario 4xx

V i s i o B r a i l l e V a r i o 4 4 0

V i s i o B r a i l l e V a r i o 4 6 4

V i s i o B r a i l l e V a r i o 4 8 0

8.1.2 Second line: Version information

The firmware version displayed here.

Version: xx

V e r s i o n : 3 3

8.1.3 Third line: Serial number

This shows the serial number with the variant of the Braille display

SN: 45xxxxVV

S N : 4 5 0 0 0 1 8 0

- 45 = Prefix of Vario 4
- xxxx = Counter number (1-9999)
- VV = Variant (40, 64 or 80 characters)

8.1.4 Fourth line: Protocol

The protocol can be set here.

Protocol: braille baum

P r o t o c o l : b r a i l l e b a u m

braille

Uses the new „HID-Standard-**Braille**“ protocol. It's a requirement for Apple.

baum

Uses the older „**Baum**-Protocol“, which is required for JAWS.

8.1.5 Fifth line: Auto-power-off

Here you set the time after which the braille display switches off automatically when no more data is transmitted and no button has been pressed.

You can choose: 5min or 15min. Press the position button above the desired setting. The default value is 5min.

Auto power: 5min 15min

A u t o p o w e r : 5 m i n 1 5 m i n

9 Braille Display Functions

9.1 Introduction to Braille Display Functions

The following sections will explain how to connect the Vario 440 to other devices and use it as a refreshable braille display.

9.1.1 Use Vario 440 as a refreshable Braille Display

Insert the USB type C cable in the USB type C port on Vario 440. You do not need to check which side is up and down, because the cable on this end is reversible. Connect the other end of the USB cable into the USB port of your computer. The computer will recognize Vario 440 automatically as a USB HID Braille display. There is no need to install specific device driver.

You may have to install a driver for the screen reader; further details can be found in the manual of your screenreader.

9.2 Screenreader-Settings (Protocol)

Since not all screen readers are currently using the newer protocol for HID braille displays, (HID Standard for Braille Displays), the protocol of the Vario 4 must be changed accordingly in the system menu.

Here is a list of the supported protocols and devices to be selected in the well-known systems and screen readers.

	HID-Standard-Braille	BAUM-Protocol
APPLE	Yes Automatic detection	No
NVDA	Yes, with the following selection Standard-HID-Braille	Yes, with the following selection Braillezeilen von Baum / Humanware...
JAWS	No	Yes, with the following selection BAUM SuperVario 40 BAUM SuperVario 64 BAUM SuperVario 80
Dolphin SuperNova	No (in progress)	Yes, special driver files are required until the next release. Please contact our support team. Select: Vario4 40

10 Common problems and solutions

The device does not work.

Check if Vario 440 is connected to USB port and computer.

11 Defects and repair

If Vario 440 is defective – what to do?

- Did you check all settings and connections according to the user guide?
- Are you sure the power is live?

Do not use a broken device! Unplug broken device from mains! Please do not hesitate to contact your local VisioBraille GmbH dealer or VisioBraille GmbH.

You can reach VisioBraille GmbH at telephone number (+49) 3641 2816-400 in Germany. We will help you check your Vario 440 in case it is broken we can mail a service box for shipping Vario 440 to our repair department.

12 Compliances

12.1 Environmentally friendly disposal according to EU-Directive 2012/19/EU



The symbol (crossed garbage can), which is also attached to the device, states that this device and its accessories, once come to the end of its lifetime, should not be regarded as household waste. An environmentally friendly way of final disposal is compulsory.

This device contains electronic components. In order to avoid risks or dangers for the environment through non-professional waste disposal, the disposal of this device and its accessories must correspond to the valid EC-Directives or other local regulations. Please check your local regulations for proper disposing of this device or consult your local distributor.

For data privacy protection reasons, please remove all personal data from the device prior to disposal.

Konformitätserklärung (Declaration of conformity)
(nach der Europäischen Verordnung für Medizinprodukte 2017/745/EU)

Wir, die Firma
We, company

VisioBraille GmbH
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07745 Jena
Germany
Email: info@visiobraille.de
Internet: www.visiobraille.de

erklären in alleiniger Verantwortung für alle unsere Systeme, dass diese mit den folgenden Richtlinien übereinstimmen.

declare under our sole responsibility for all our systems that they comply with the following regulations.

Produktname: Vario 440

(Productname)

UDI: 426241046 006 5

Klassifikation:
Richtlinie 2017/745/EU
Medical Device Regulation (MDR)
Klasse I nach Anhang VIII

Classification:
Regulation (EU) 2017/745
medical devices risk class I
according to Annex VIII

Erklärung (Declaraton):

Wir bestätigen, dass das Produkt der EU-Verordnung 2017/745 entspricht.
We confirm that the product complies with EU regulation 2017/745.

Unser Qualitätsmanagementsystem ist zertifiziert nach DIN EN ISO 9001:2015.
Our quality management system is certified according to DIN EN ISO 9001:2015.

Die Firma VisioBraille GmbH trägt die alleinige Verantwortung für die Ausstellung der Konformitätserklärung und deren Einhaltung.
VisioBraille GmbH bears sole responsibility for issuing the declaration of conformity and compliance with it.

Gültig bis zur Änderung des Produktes, längstens aber bis zum 31.12.2028
Valid until the product is changed, but no longer than December 31, 2028

Unterzeichner: Herr Thomas Lucas – Geschäftsführer und verantwortliche Person für die Einhaltung der regulatorischen Vorschriften.
Signed by Mr. Thomas Lucas *CEO and responsible person for regulatory compliance*

Thomas Lucas, Geschäftsführer (SEO)

Jena,
24.02.2023

.....
Ort und Datum der Ausstellung
Place and date of issue


.....
Name und Unterschrift
Name and signature

13 Warranty

VisioBraille GmbH warrants the device, effective from the date of delivery, to be free of any defects in material and workmanship. Warranty is not transferable and does not apply to groups, multi users or agencies. This device has been designed for the individual purchaser to be used in home or office environments. VisioBraille GmbH reserves the right to repair or replace with a similar or better product. In no event shall VisioBraille GmbH or its distributors be liable for indirect or consequential damages. The original users' remedies are limited to replacement of devices modules/parts. This warranty is valid only when service is done in the country of original purchase and with intact warranty seals. For additional warranty claims or service during or after warranty period, please refer to your local distributor. VisioBraille GmbH does not take responsibility for use of this device other than described in this Manual.

- Warranty on new devices is 24 months.
- Warranty on used or refurbished devices is 12 months.
- Warranty on Consumable parts (Batteries, Braille Pins, Data carriers etc.) is 6 months.
- Warranty on storage media (SD-cards, CD-ROMS, DVD's, etc.) is 90 days.
- Warranty on repairs and spare parts is 12 months.

All defects caused by improper use or users fault are not covered by this warranty.

Warranty will be void if warranty seal is damaged.

Parts replaced during repair are transferred into ownership of VisioBraille GmbH and will not be returned to the customer.

In case of repair the device must be properly packed into its original shipping box.

Costs for packing, shipping and insurance are not covered by VisioBraille GmbH.

14 Important notes

Important note: Failure to observe the following warnings may invalidate the guarantee and could cause damage of the device or serious injury.

Please check the contents of package before you use the device. If parts are damaged or missing, please do not hesitate to inform your dealer.

Please keep the shipping box, so you can safely pack the device in case you have to ship it for service, etc. Improper packaging could cause loss of warranty. In case you need a new shipping box, your dealer can send you one.

Please carefully read the user guide and safety instructions before you use the device for the first time.

This device may only be used in a home or office environment.

Do not place on an instable surface. It may fall causing serious damage to the device or injury to the user. Please follow the instruction on how to place the device especially in respect to avoidance of tilting and falling down by keeping proper space to edges of table.

Do not use the device if you find any damages at device or wires.

If the device appears to be operating abnormally, or to be damaged in any way, please contact your VisioBraille GmbH dealer as soon as possible.

If you smell smoke or an odor coming out of the device, unplug the USB-cable.

Do not try to repair the device yourself. Opening or removal of housing may cause damage or injury.

Do not allow sand or dust to come into contact with the device as this may lead to serious damage and could make repair impossible.

Use the device with clean hands only.

Do not use in locations where strong radio waves are emitted or where there is radiation. Keep a distance of at least 30cm to mobile phones.

Only use original accessories. Use of second source accessories may damage the device or cause malfunction or safety issues.

Avoid liquids and food near the device.

Do not use or store the device in any of the following places as this may cause damage:

- Inside cars parked with the windows closed in the hot sun.
- In direct sunlight or close to heaters, radiators, etc.
- Locations subject to severe vibration such as on top of a washing machine.
- Locations subject to strong magnetism such as near loudspeakers.
- Humid places (bath room), in water, or near water.
- In rain or snow
- Do not use or store below 0°C / 41°F or above 40°C / 104°F.
- Humidity shall be within 20% to 80%
- Avoid fast temperature changes

If you bring the device from cold places into a warm room, humidity may condensate. Wait until the device is dry and well-tempered to room temperature before use.

Unplug from mains before cleaning.

Wipe dust and dirt from the device with a soft cloth dampened with a diluted neutral detergent, then wipe dry with a cloth. Do not bring in contact with water.

Do not insert objects into openings.

Do not use device during thunderstorms. Unplug from mains during thunderstorms. We recommend use of an overvoltage protection adapter

for your computer or notebook, which can be bought from your local electro store. Please note, this does not provide a 100% protection from overvoltage.

Do not insert or remove the plug with wet hands.

Do not heat in a microwave oven, on a cooker or similar.

Never disassemble, attempt to repair or modify device yourself.

If liquids or metal fragments should enter device, remove the USB-cable immediately.

Do not pull the plug out by the lead when removing the cable.

Avoid shock. Do not throw or let fall.

Repairs may only be carried out by VisioBraille GmbH service personal or by service technicians authorized by VisioBraille GmbH.

Care and Maintenance

Avoid damp and water.

Use only a clean, dry cloth to clean the housing of the device. Do not use any cleaning fluids or solvents. Wipe dust and dirt from the housing of the device with a soft cloth dampened with a diluted neutral detergent (stay clear from the Braille cells and Roll-bars!), then wipe dry with a cloth. Do not attempt to clean the Braille cells and/or Roll-bars yourself. Contact your dealer for intensive and professional cleaning of your device.

Protect the device from extreme heat, e.g. from the sun, heating units, hot cars etc.

With extreme cold and frost the device becomes inoperable and must be brought slowly back to room temperature. Under no circumstances must

the device be warmed up or “thawed out” in a conventional oven, microwave oven or any other heating device!

Avoid any mechanical damage to the housing or accessories.

15 Technical details

- 40 Braille cells with integrated Cursor Routing buttons
- HID - Human Interface Device
- Six function keys
- USB Type C Port
- Housing: Aluminum, brushed
- Measurements: 310 x 17 x 60 mm
- Weight: 440 g
- Power supply via USB
- Charging rate: 100mA max.

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Please be advised that this user guide may contain errors, and is therefore subject to being changed or updated without prior notice.