Bookeye ® 4 V1A/V2/V3

Setup Instructions
English

06/2019

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Revision History

Date	Rev.	Name	Description of Change	Reason of Change
15.02.2019	1.0	JKN	First draft	First published version
03.06.2019	1.1	JKN	Second draft	New chapter Monitor Positions

Information about the Instructions and the Manufacturer

These instructions show you how to safely prepare and perform the setup for the book scanner Bookeye® 4 V1A/V2/V3. The Bookeye® 4 V1A/V2/V3 scanners are hereinafter referred to as "Scanner".

In these instructions, the start button is called "power button".

Keep Instructions with the Scanner

These instructions are a part of the scanner.

- ➢ Please always store these instructions together with the scanner.
- ➢ Ensure that the instructions are available for the user.
- ➢ Enclose the instructions when you sell the scanner or transfer it in any other way.

Design Features in Text

Many text passages in these instructions have been formatted to indicate specific elements, as illustrated below:

Normal text

BUTTONS OF THE SCREEN PAGE

"Menu names"

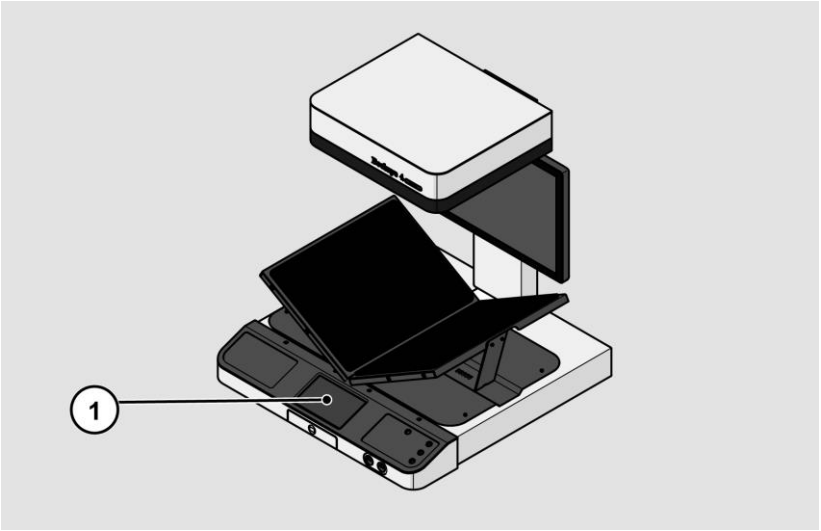
- ➢ Action steps
- • Enumeration of the first level

Cross-references

Tips contain additional information, such as special information to prepare for and perform the setup.

Design Features in Pictures

Where a reference is made to elements in a legend or in the text, these are marked with a number (1).



Associated Documents

In addition to these instructions, other documents associated with the operation of the scanner include:

- Unpacking and Repacking Instructions
- Legal Information (Declarations of Conformity, FCC Declaration, Safety & EMI Certificates, RoHS etc.).

Copyright

Trademarks

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Safety

Intended Use

The scanner is used for scanning images and documents. The documents must comply with the characteristics described in the technical specifications. The scanner is designed for use in enclosed spaces in the commercial sector.

Intended use also includes observing and following all information provided in these instructions, especially the safety instructions. Any other use is considered improper and will void the warranty and liability claims.

Ambient Conditions

Ensure that the scanner is used exclusively under the following environmental conditions:

- Ambient temperature during operation: +5 °C to +40 °C
- Storage temperature: 0 °C to +60 °C
- Relative humidity: 20 to 80%, non-condensing

➢ Ensure that the scanner is not exposed to direct sunlight.

Basic Safety Information

Avoid Injury or Death by Electric Shock

➢ Never open the housing of the scanner.

➢ Do not expose the scanner to dripping or splashing water and do not place any vessel filled with liquid on the scanner. Penetrating liquid can damage the scanner.

➢ Do not insert objects through existing slots or openings into the interior of the scanner.

➢ Only connect the scanner with the plug of the supplied AC adapter to a professionally installed and grounded outlet.

➢ Do not use the AC adapter if the power supply's housing or the cable are damaged. In this case, replace the power supply with a power supply of the same type.

➢ Do not use the scanner if it is visibly damaged. In this case, unplug the power cord from the wall outlet. Contact Image Access technical support, see section *Technical Support* starting at page 9.

Avoid Burns

- Do not cover the existing openings in the scanner housing. They serve to ventilate. Covering the openings could cause overheating.
- Do not place the scanner in front of air conditioning units, which produce high heat.

Avoid Fractures, Contusions and Bruises

Incorrect installation of the cables can cause tripping.

- Lay the connecting cables so that no one can trip over them.

The scanner weighs between 66 lb. / 30 kg and 170 lb. / 77 kg, depending on the model.

- Only carry the scanner with a second person.
- Place the scanner only on a stable, level and vibration-free surface that has sufficient strength for the weight of the scanner.

Avoiding Property Damage and Malfunctions

- Ensure adequate ventilation to comply with the environmental conditions.
- Do not place the scanner in the vicinity of devices that emit strong electromagnetic radiation.
- Always place the scanner on a suitable, stable table or the optional floor stand.
- Do not lean on the scanner.
- Do not use any cleaning agents containing abrasive additives, solvents or acids. Use a damp microfiber cloth.
- Operate the touchscreen only with your finger. Other objects can damage the touchscreen.
- Never lift the scanner by its neck.

Responsibility of the Owner

The scanner owner must ensure that only qualified personnel carry out the setup of the scanner.

Staff Qualifications

The staff that carries out the setup of the scanner must have knowledge in installing, connecting and putting computer accessories into operation.

Design Features of Warning Notices

In these instructions, the following warning information can be found:

⚠ WARNING	
	Notices with the word WARNING warn about a dangerous situation that could lead to death or serious injuries.

⚠ CAUTION	
	Notices with the word CAUTION warn about a situation that could lead to light or medium-scale injuries.

The following symbols are used in the warnings:

Symbol	**Explanation**
	Danger from electrical shock
	General danger symbol

Formatting of Information Regarding Property Damage

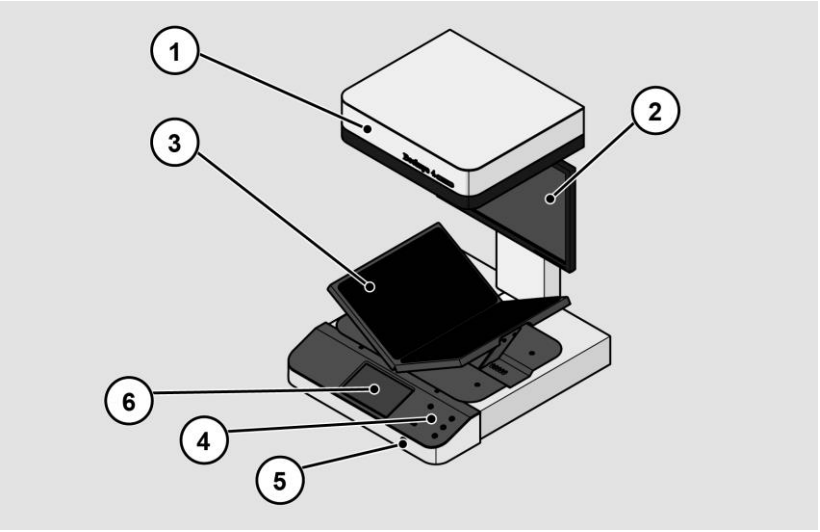
ATTENTION!	
	These notices warn of situations that can lead to property damage.

Description

Purpose and Function

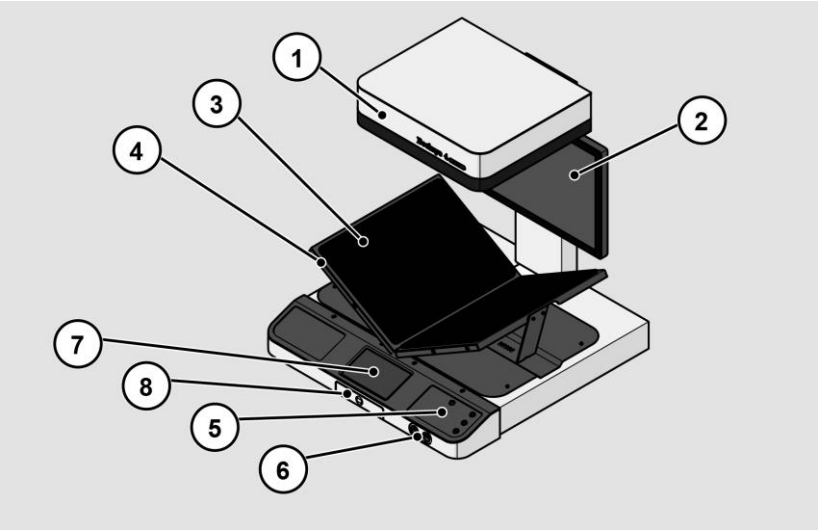
The scanner is used for scanning images and documents. It is designed for use in enclosed spaces in the commercial sector. Intended use also includes observing and following all instructions in these instructions, especially the safety instructions. Any other use is considered to be improper and will void the warranty and liability claims.

Bookeye® 4 V3 Overview



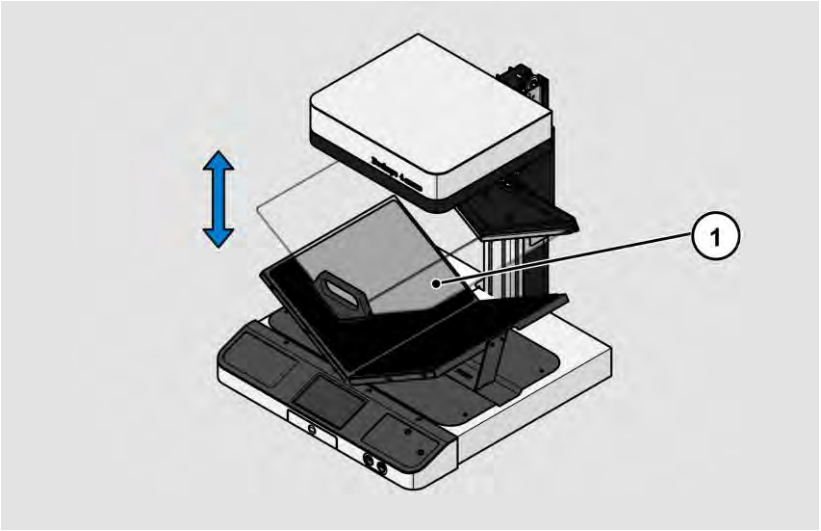
No.	Name
1	Camera head
2	TFT flat screen
3	V-shaped book cradle
4	Front panel
5	USB port
6	7" WVGA touchscreen

Bookeye® 4 V2 Overview



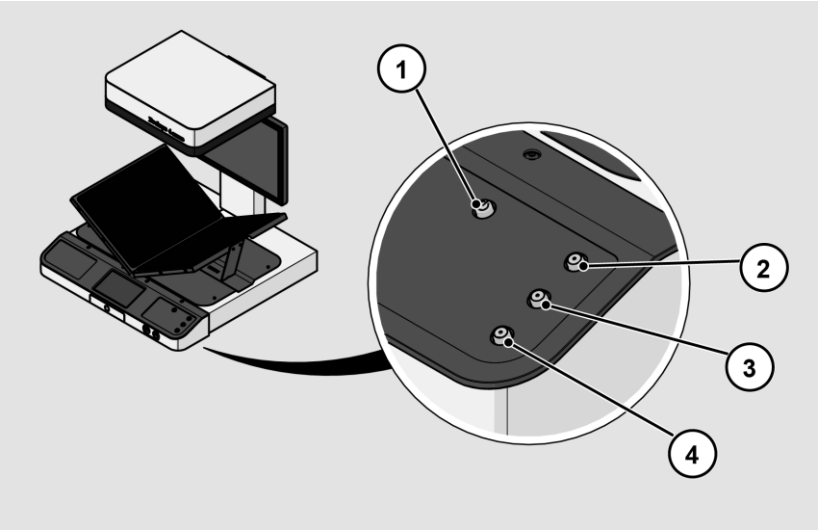
No.	Name
1	Camera head
2	TFT flat screen
3	V-shaped book cradle
4	Four additional start buttons
5	Front panel
6	Two USB ports
7	7" WVGA touchscreen
8	Pad holder (V2 Kiosk only)

Bookeye® 4 V2 Archive Overview



No.	Name
1	V-shaped glass plate which is manually lifted and lowered

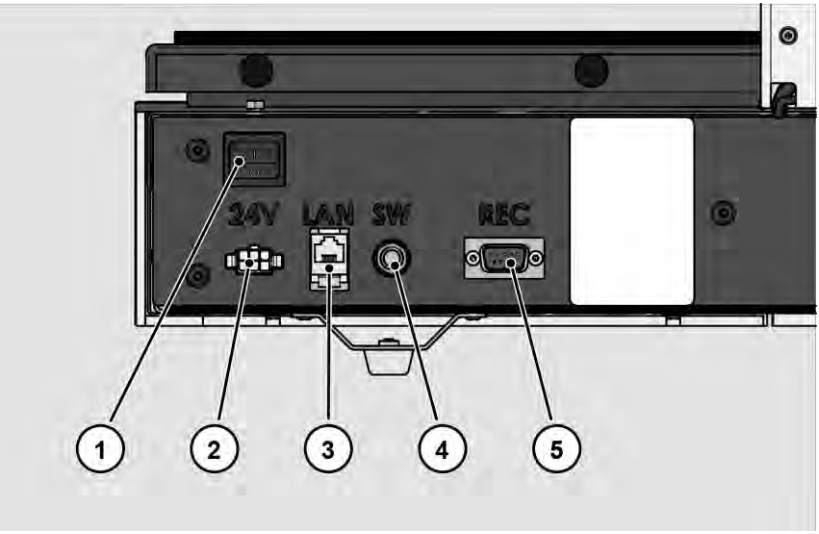
Keyboard Buttons



The key board of a Bookeye® 4 has, depending on the scanner model, two or more buttons with additional functions.

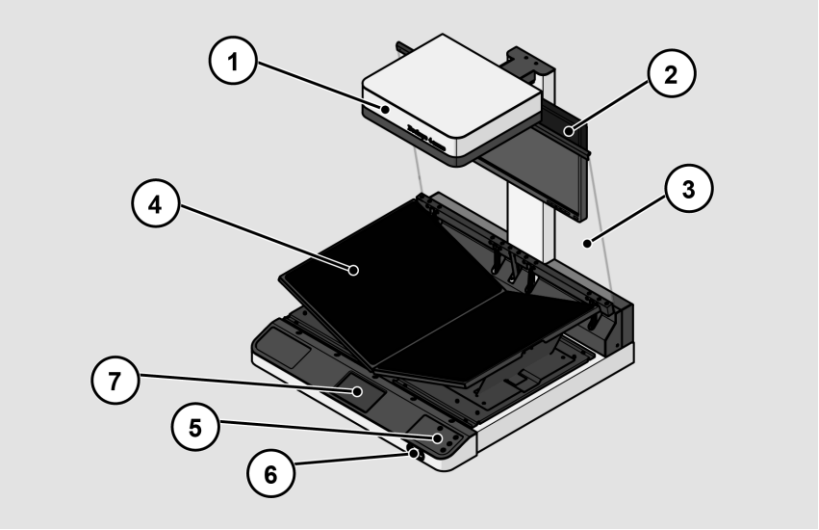
No.	Name	Function	Bookeye 4 V3	Bookeye 4 V2 Kiosk/Archive
1	Power	Power on/off	X	X
2	Start	Displays the ScanWizard job dialog	X	-
3	Scan	Starts a scan	X	X
4	Send	Displays the ScanWizard output dialog	X	-

Rear View



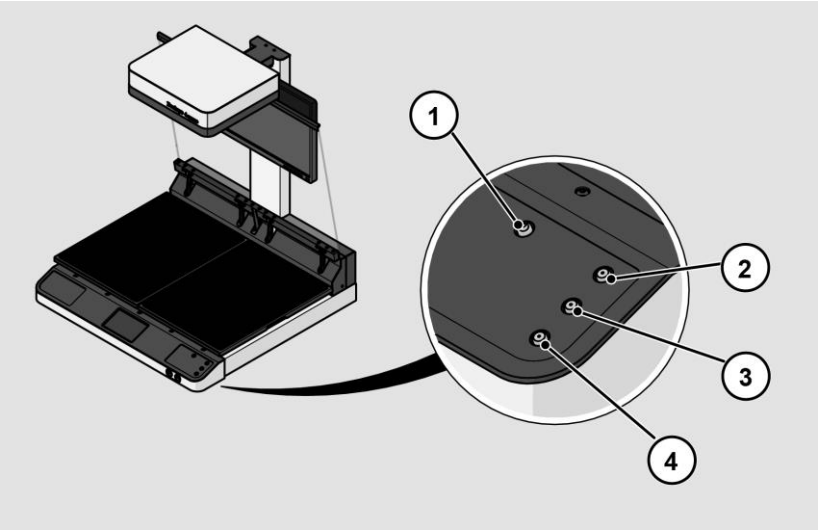
No.	Name
1	Main switch
2	24 Vdc connector for external power supply
3	Network connector
4	Foot switch connector
5	Recovery key connector

Bookeye® 4 V1A Overview



No.	Name
1	Camera head
2	TFT flat screen
3	Glass plate
4	V-shaped book cradle
5	Front panel
6	Two USB ports
7	7" WVGA Touchscreen

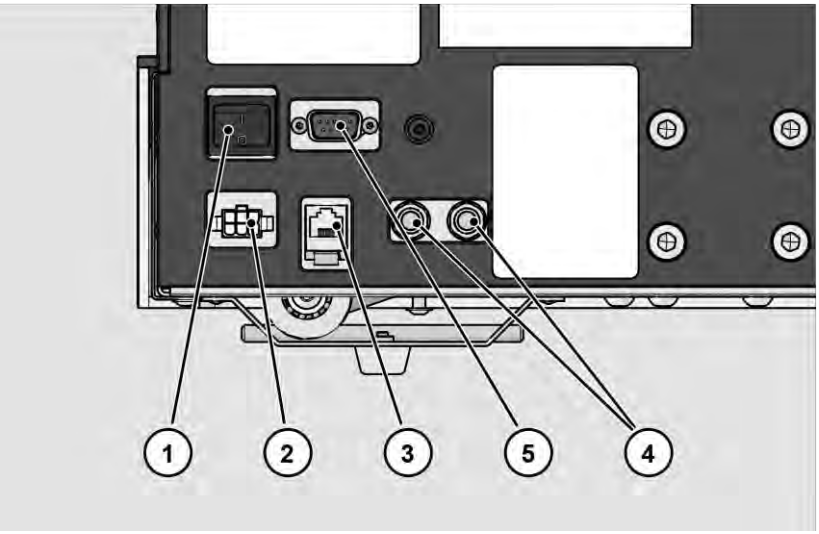
Keyboard Buttons



The key board buttons of a Bookeye® 4 1A.

No.	Name	Function	Bookeye 4 V1A
1	Power	Power on/off	X
2	Cradle Up	Drives the book cradle up (Bookeye4 V1A only)	X
3	Cradle Down	Drives the book cradle down (Bookeye4 V1A only)	X
4	Cradle Lock	Lock/unlock the scanner glassplate (Bookeye4 V1A only)	X

Rear View



No.	Name
1	Main switch
2	24 Vdc connector for external power supply
3	Network connector
4	Foot switch connectors
5	Recovery key connector

User Interfaces

The scanner can be operated in four ways.

- Via the integrated small touch screen and the ScanWizard App user interface.
- Via the externally connected former preview monitor, as touch screen for the ScanWizard Touch user interface.
- Via a standard web browser and the ScanWizard Client user interface.
- Via the optional internal wireless LAN module and the mobile Scan2Pad® application.
- Via the Batch Scan Wizard scan application connected over a network PC.

Setup Menu Overview Screen

No.	Name
1	Buttons and parameters
2	Menu name
3	Display the online help[1]
4	Button to exit the setup menu and return to the start screen
5	Serial number
6	IP address
7	Firmware version

[1] The display of the online help is only available when a second touchscreen is connected to the scanner.

Rating Plate

The rating plate is attached to the back of the scanner.

The following figure shows the Bookeye® 4 V3 rating plate.

The following figure shows the Bookeye® 4 V2 rating plate.

The following figure shows the Bookeye® 4 V1A rating plate.

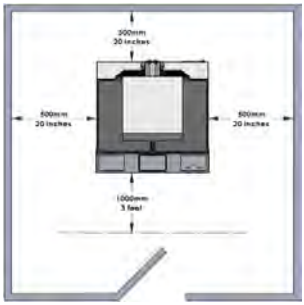
Device Location

Environment

Choose a location that complies with the temperature and humidity specifications.

Please allow

- a minimum distance of 500 mm (20 inches) from any side walls,
- a minimum distance of 500 mm (20 inches) from a back wall,
- a minimum distance of one meter (3 feet) from any door or entrance way.



Place the Bookeye® 4 scanner on a flat and solid base. The load bearing capacity of the base must correspond to the device weight. The dimensions of the base must match the floor space required by the scanner.

Before using the Bookeye® 4 scanner in the new environment allow at least one hour for temperature adaptation.

A fast change from cold to warm environmental conditions can build up condensation inside the housing.

This will result in unfavorable scanned images and could cause permanent damages to the unit.

The Bookeye® 4 location should have a controlled ambient light situation.
The light scenarios should avoid direct sunlight or spot light from light beams.
Also, light sources that cause sharp shadows on the document on the book cradles or high levels of ambient light could influence the scan result negative.

The Bookeye® 4 scanner is an open system with a built-in high quality light source. Open system means that the ambient light is added to the light seen by the camera.

Summary of a recommended location for a Bookeye® 4 scanner:

- The location is not exposed to daylight.
- It is evenly illuminated from the ceiling with fluorescent lamps with electronic ballasts. The light intensity measured on the book cradles should be approximately 300 lux.
- The light should not cause any shadows; therefore, the variation of the intensity across the scan area should be kept below 20%.

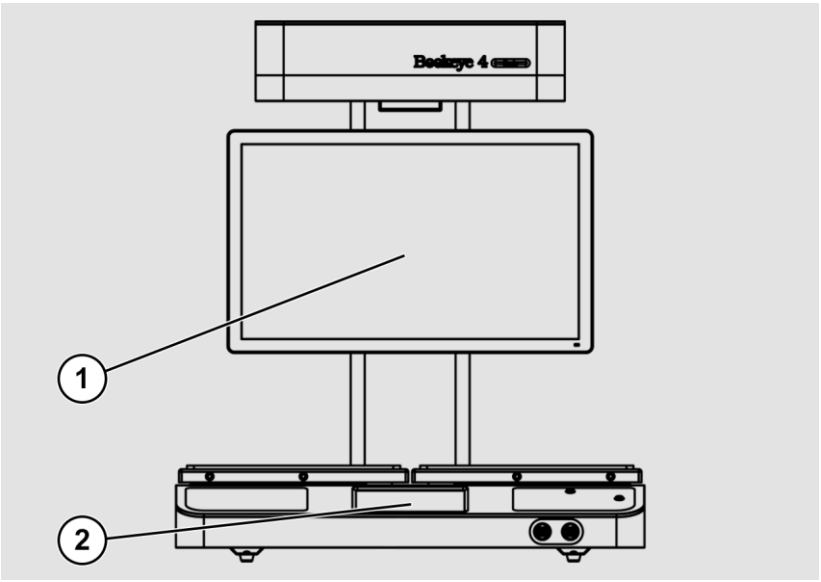
If the fluorescent lamps are powered by nonelectronic ballasts, they will produce a flicker twice the frequency of the main power supply (100Hz or 120Hz). If the intensity of this light becomes too high, vertical stripes of even distances of approx. 8-12 pixels will be visible on the scan.

Direct sunlight will vary over the day and will result in overexposed images. Sunlight can also produce distinct shadows.

Light beams from spotlights will also produce distinct shadows. In most cases, they emit a high level of infrared light. Infrared light is not visible to the human eye but to the camera. The light source of the Bookeye® 4 scanner itself has no infrared content at all, which means that the scanner does not have an image quality degrading infrared filter. Too much infrared content will result in overexposure.

The Bookeye® 4 scanner has an integrated “White Balance” function. This function will compensate ambient light influences. A “White Balance” calibration is recommended when the light scenario has changed.

Monitorpositions



The monitor attached to the scanner is mounted and delivered as a preview monitor.

For scanner operation, the small integrated touch screen is used via the ScanWizard user interface.

Alternatively, you can remove the preview monitor from the scanner neck and place it next to the scanner for scanner operation.

To be able to use the ScanWizard user interface via the touch function of the preview monitor, you must connect the USB cable, located in the scanner neck, to the USB interface of the preview monitor.

Required tool: Allen wrench 1.0 mm

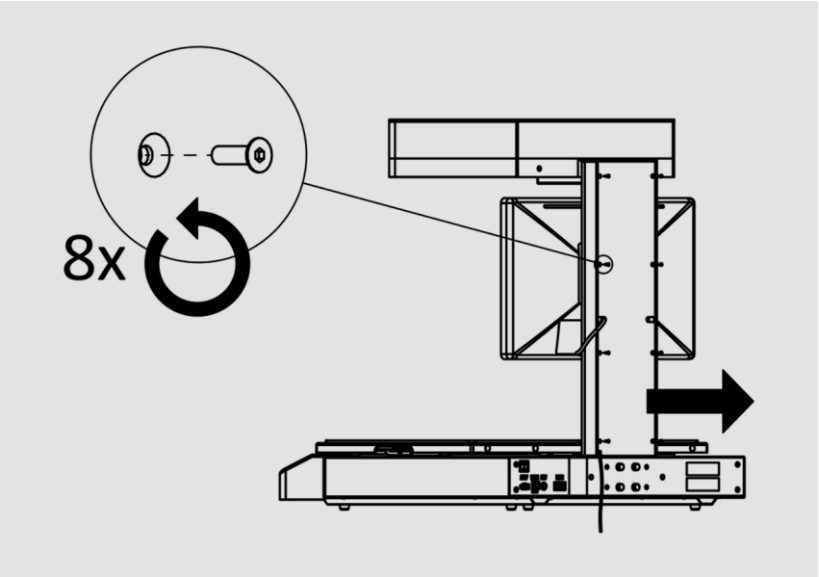
Preparations

- Place the scanner in its intended location.

For the following steps please make sure that both, the scanner and the monitor, are completely switched off, not in standby mode and do not yet have a connected power supply.

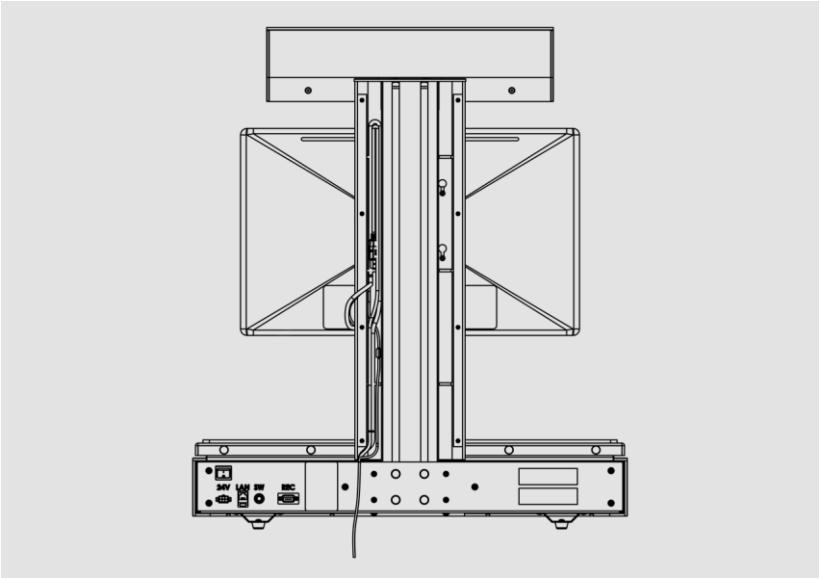
Open the back cover of the scanner neck

- Go to the back of the scanner.



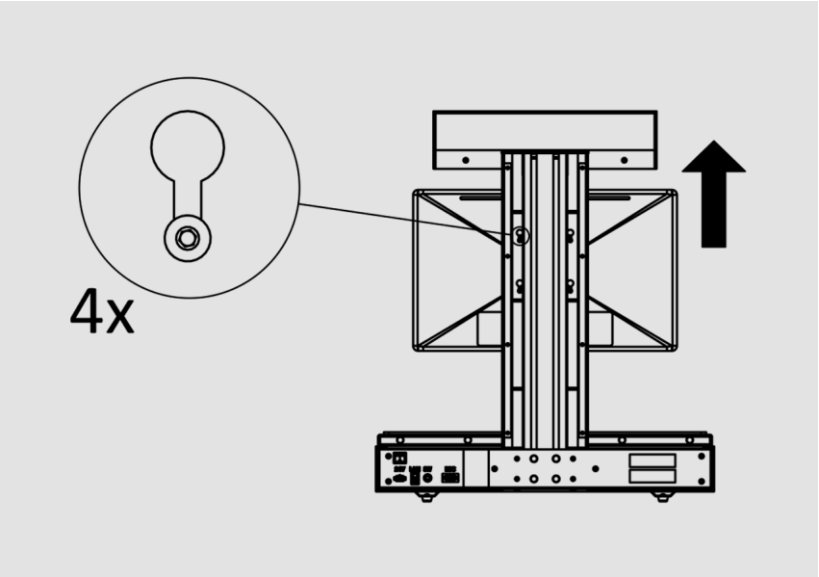
- Remove the eight Allen head countersunk screws (DIN 7991 / M3x10) on the rear neck cover using a 1.0 mm Allen wrench.
- Now remove the rear neck cover.

USB connection to the monitor

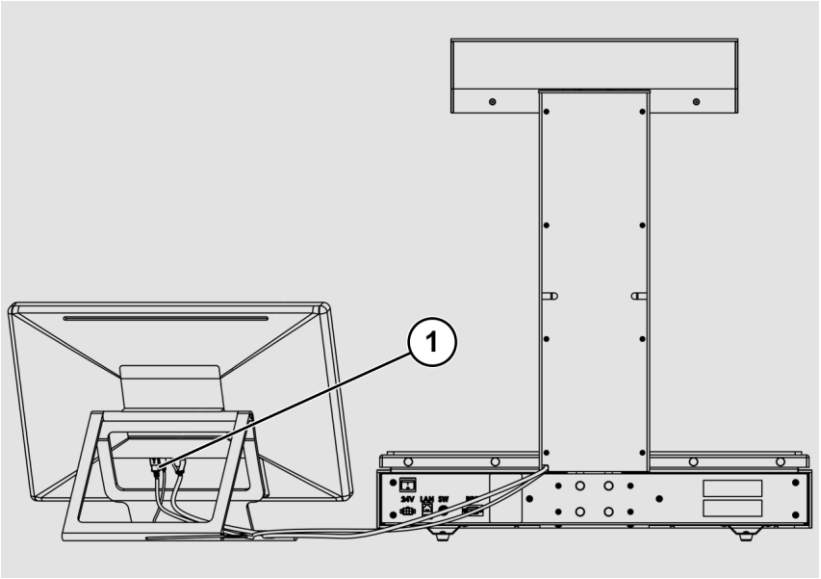


- Take the unconnected end of the monitor USB cable from the scanner.
- Connect the unconnected end of the monitor USB cable to the USB input on the monitor.

Removing the Preview Monitor from the Scanner Neck

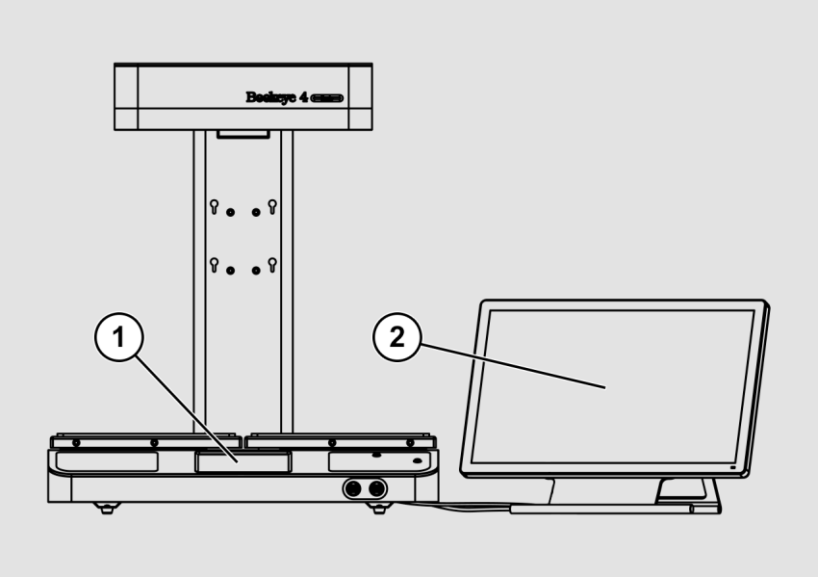


- Now loosen the four hexagon socket countersunk screws (ISO 10642 / M4x12) of the monitor holder until you can lift the monitor upwards.
- Please make sure that the USB and HDMI cable connections to the monitor (1) are not interrupted.
- Now fold out the monitor stand and place the monitor in its intended position.



➢ Now put the rear neck cover back in place and fasten it with its eight screws.

The following figure shows the former preview monitor (2) in its new function as primary touchscreen for the user interface ScanWizard, as well as the integrated touchscreen (1) in its new function as a new supplement for the ScanWizard user interface.



Prepare for Setup

Connect the Power Supply

⚠ WARNING
 Risk of electric shock due to incorrect connection. ➢ Ensure that the power receptacle intended for the connection is properly grounded. ➢ Ensure that the power receptacle intended for the connection of the scanner is properly fused.

⚠ CAUTION
 Incorrect laying of the connection cables can cause tripping. Fractures, contusions and bruises can be the result. ➢ Place the connecting cables so that no one can trip over them.

To connect the power supply, proceed as follows:

- ➢ Make sure that the main switch of the scanner is switched off (0 position).
- ➢ Use only the AC adapter and power cord supplied.
- ➢ Ensure the power cord is not damaged.
- ➢ Connect the connector from the power supply to the associated 24 Vdc connector on the back of the scanner.
- ➢ If not already done, connect the supplied power cable to the associated connector on the power supply.
- ➢ Connect the power plug of the power supply to a power receptacle of the correct voltage (100-240 Vac).

Establish the Network Connection

⚠ CAUTION
 Incorrect laying of the connection cables can cause tripping. Fractures, contusions and bruises can be the result. ➢ Place the connecting cables so that no one can trip over them.

To establish the network connection, proceed as follows:

- Connect one plug of the enclosed network cable to the network connector socket on the back of the scanner.
- Connect the second plug to the network socket of an existing network.

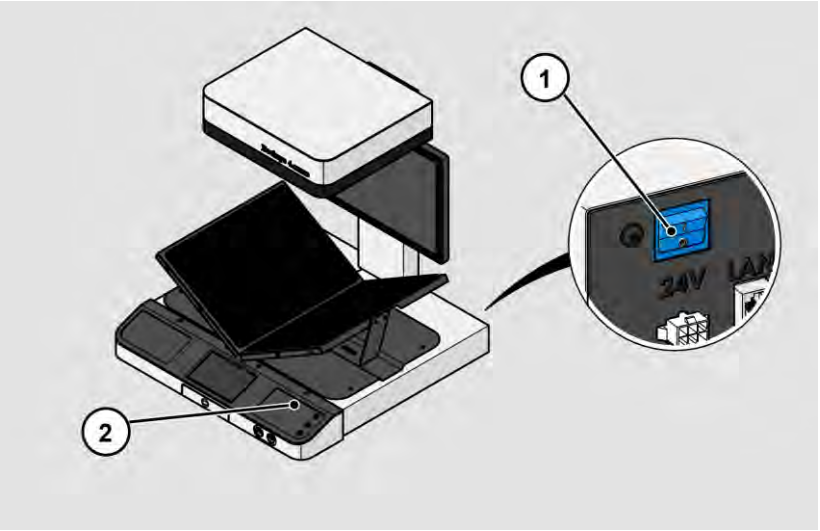
Connect the Optional Foot Switch

- Connect the plug of the foot switch to the connector socket for the foot switch, located on the back of the scanner.

Switch On the Scanner

To switch on the scanner, proceed as follows:

➢ Press the MAIN SWITCH (1) on the back to the "I" position.



The power button (2) lights up in red.

➢ Press the power button.

The power button lights up in blue.

The scanner performs a system test. After a short wait, the start screen is displayed on the touchscreen.

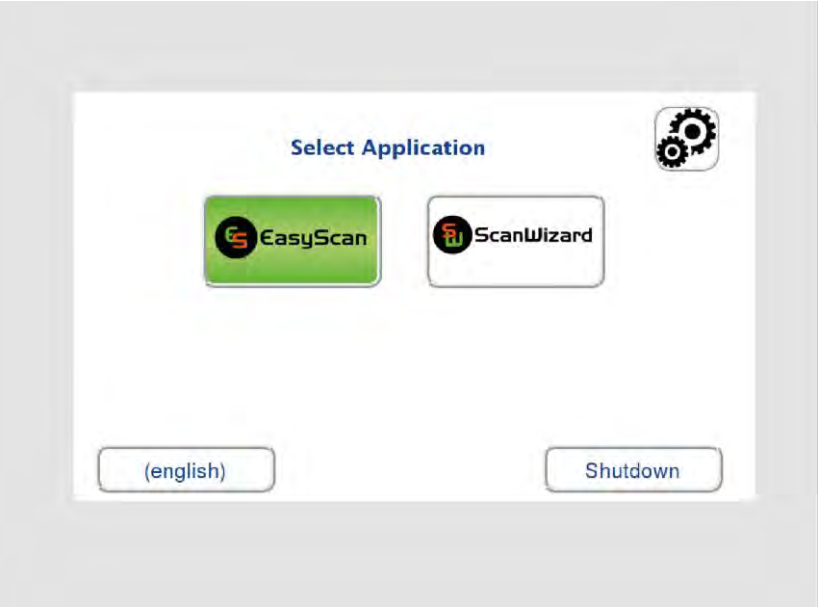
To start the scanner from standby mode, proceed as follows:

➢ Press the red illuminated power button.

The power button lights up in blue.

The scanner performs a system test.

After a short wait, the "Start screen" is displayed in English.



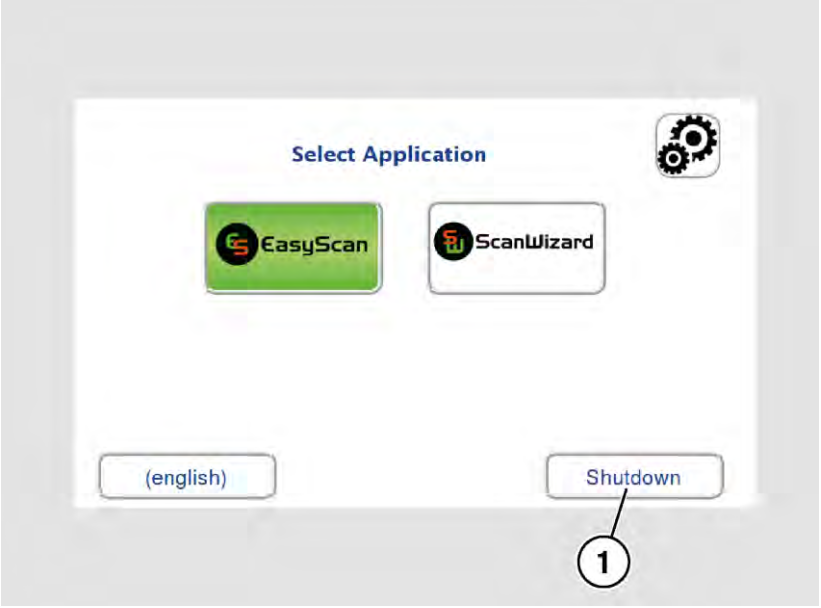
Switch Off the Scanner

To switch the scanner to standby mode after performing the setup, proceed as follows:

- ➢ On the "Start screen" screen tap on SHUTDOWN (1).
- ➢ Confirm with YES.

The scanner shuts down. This process can take up to 40 seconds.

The power button lights up in red. The scanner is in standby mode.



Alternatively, switch the scanner into the standby mode as follows:

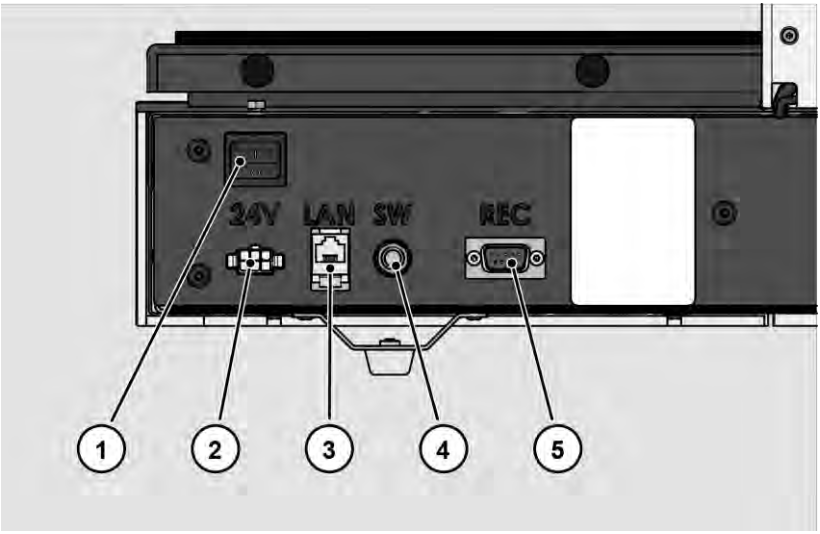
- ➢ Press the blue illuminated power button and hold it for six seconds.

The scanner shuts down. This process can take up to 40 seconds.

The power button lights up red. The scanner is in standby mode.

To switch off the scanner for longer periods, proceed as follows:

- Make sure that the scanner is in standby mode.
- Press the MAIN SWITCH (1) in the "0" position.

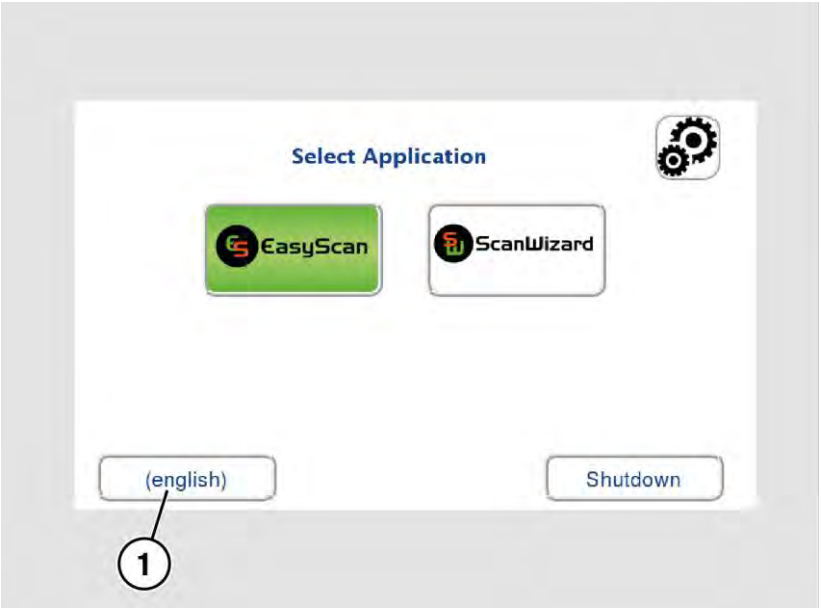


Perform Setup

Change the Menu Language

To change the menu language, proceed as follows:

➢ Tap the LANGUAGE (1) button to see all available languages.



A window for selecting the language appears.

➢ To display more languages, slide the scroll bar (1) downward.

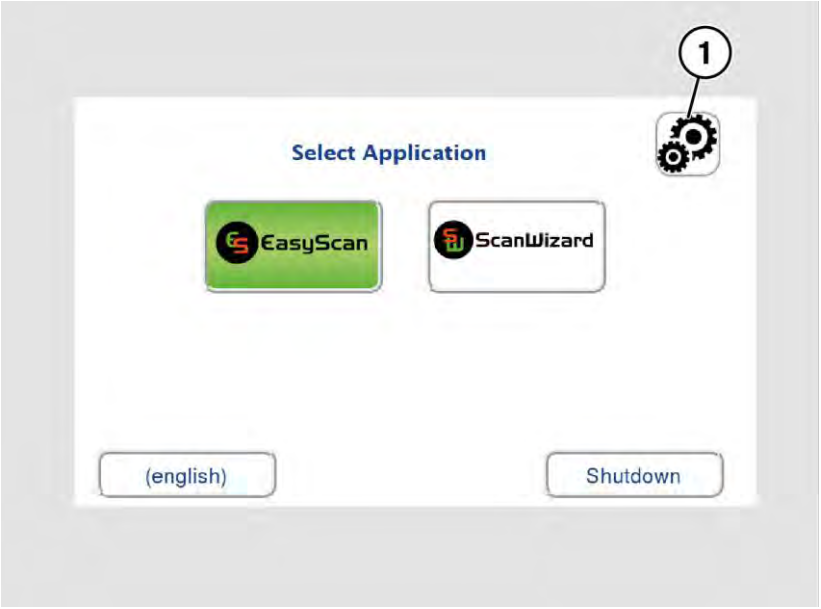
➢ Tap the desired language.

The window for selecting the language is closed. The "Start screen" is displayed.

Activate the Setup Menu

To activate the setup menu, you must log in on the scanner. Proceed as follows:

➢ Tap the GEAR SYMBOL (1).



The login window appears.

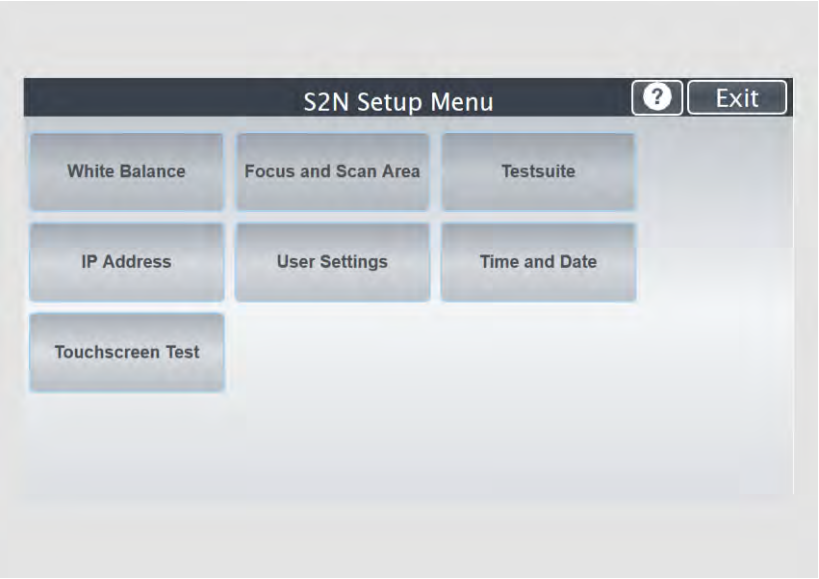
- In the login window, enter the login credentials.
- Tap on the "Username" input field.

The screen keyboard is displayed.

- Enter the word "Poweruser".
- Tap on the "Password" input field.
- Enter the word "Poweruser".
- Please note that the input is case sensitive in both entry fields.

➢ To complete the log in, press OK (1).

The "Setup Menu" screen is displayed.

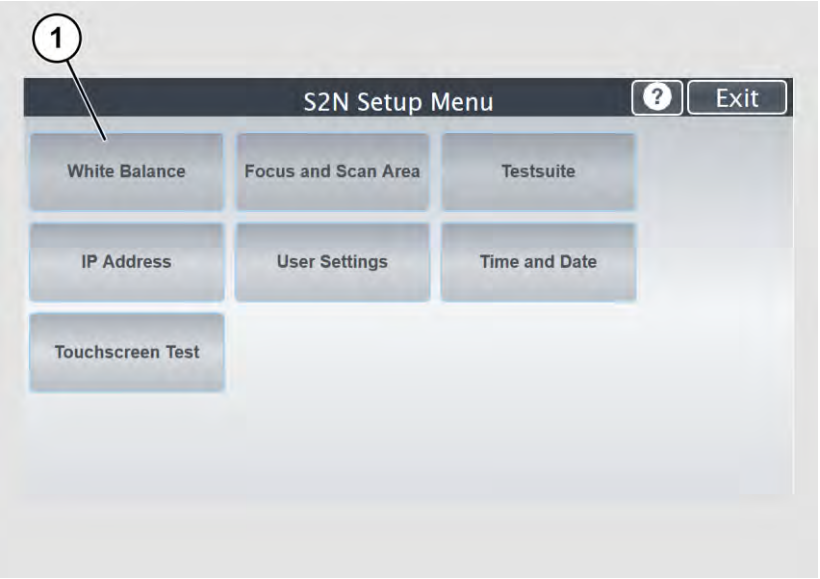


White Balance:	Display the "White Balance" submenu
Focus and Scan Area	Display the "Focus and Scan Area" submenu
Testsuite:	Display the "Test Suite" submenu
IP Address:	Display the "IP Address" submenu
User Settings:	Display the "User Settings" submenu
Time and Date:	Display the "Time and Date" submenu
Touchscreen Test:	Display the "Touchscreen Test" submenu

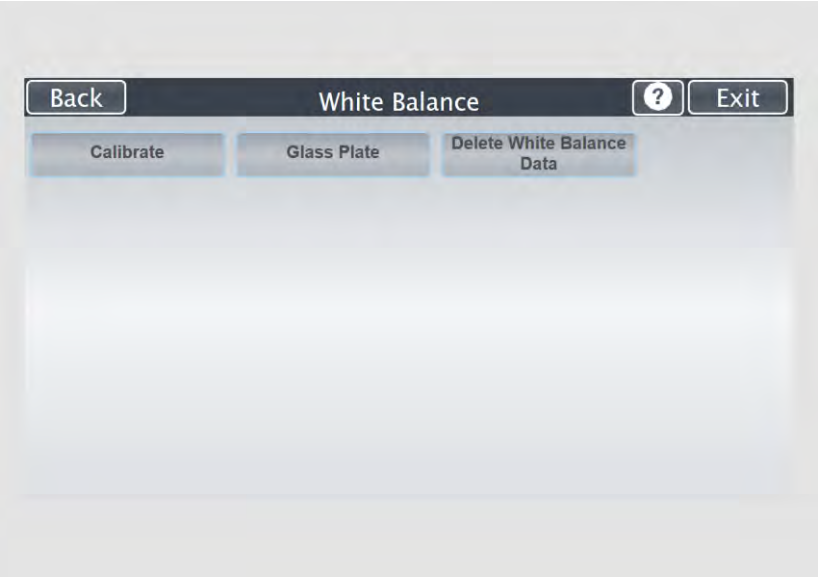
➢ To select a submenu from the "S2N Setup menu" screen, tap with your finger on the button of the screen.

Perform White Balance

➢ On the "Setup Menu" screen, tap on WHITE BALANCE (1).



The "White Balance" screen is displayed.



Calibrate:	Start white balance
Glass Plate:	Start white balance with closed glass plate
Delete White Balance Data:	Delete existing white balance data (not necessary under normal operating conditions)

The white balance is used to ensure the quality of the scan results. The white balance function is the most important function for consistent image quality. This is especially important in the type of open scanning environment present with overhead book scanners. During the white balance measurement, all internal and external light sources are combined and illuminate the target. The measurement results in a correction function for the scan area.
The white balance will be carried out using a test target.

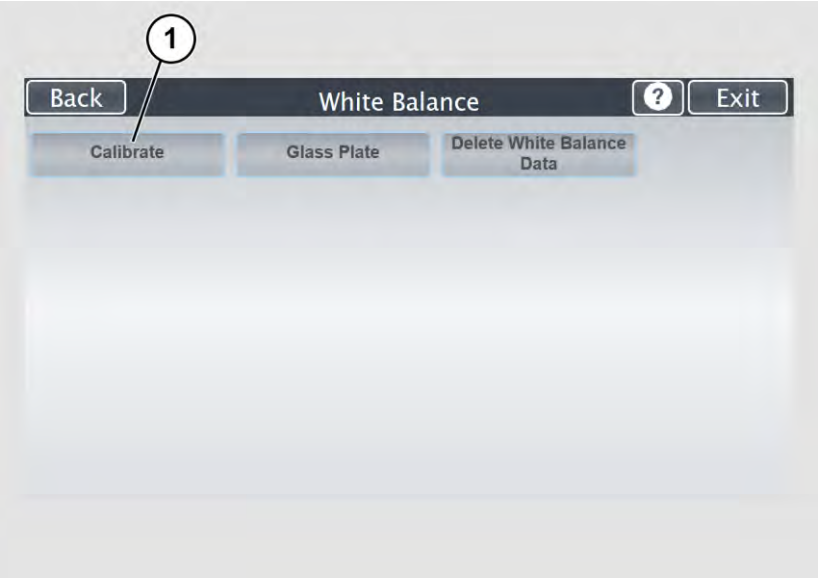
The test targets for book scanners are marked as follows:

- BE4-Z-V3-A
- BE4-Z-V2-A
- BE4-WA-V1-A

ATTENTION!	
	Impairment of the scan quality can occur if an improper test target for the white balance is used. ➢ Make sure that the test target is free from wrinkles, discolorations, cracks or other damage. ➢ Store the test target for the white balance in a safe place protected from daylight.

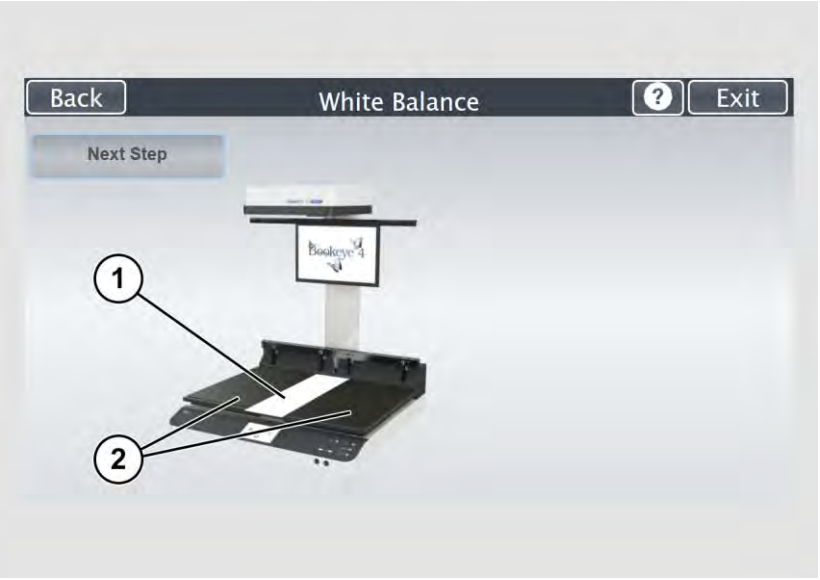
To perform the white balance, proceed as follows:

➢ Tap on CALIBRATE (1).



➢ Position the supplied test target (1) onto the closed book cradles as illustrated below (2).

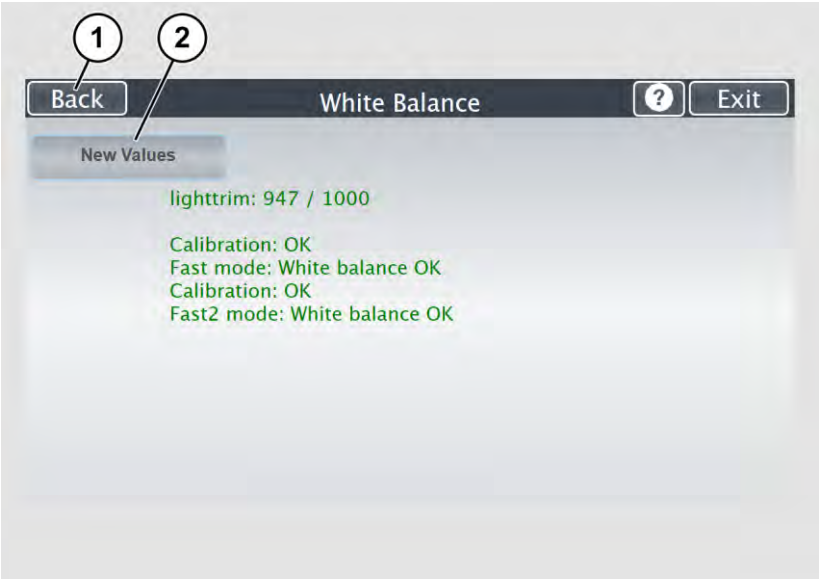
The test target must overlap the upper and the lower margins of the book cradle plate.



➢ Tap on NEXT STEP (1).

The white balance starts and the calibration is performed. During the white balance, a rotating icon appears. The entire white balance sequence takes about 40 seconds.

Then, the white balance result is displayed as shown on the example below.

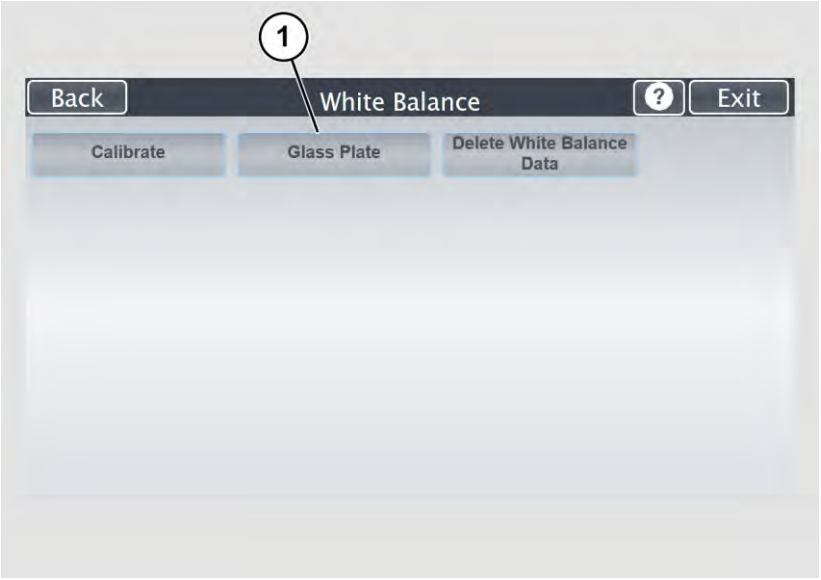


On an error-free white balance calibration, the result is displayed in green.
An incorrect result is displayed in red. If this is the case, repeat the white balance calibration again.

- To perform the white balance again, tap NEW VALUES (2).
- To return to the previous submenu, tap BACK (1).
- To return to the "Start screen", tap EXIT (3).
- Tap BACK (1) to return to the previous submenu.
- To delete the stored data of the white balance calibration, tap DELETE WHITE BALANCE DATA (2).
- After deleting the stored data, it is mandatory to run the white balance again, as described.
- If problems arise during the white balance calibration, contact Image Access technical support, see section *Technical Support* starting at page 9.

Perform White Balance - Glass Plate

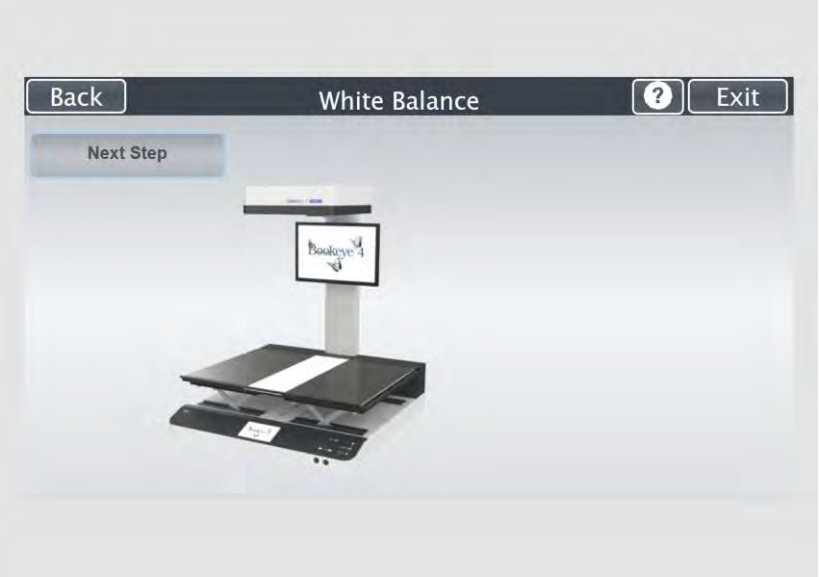
➢ Tap on GLASS PLATE (1).



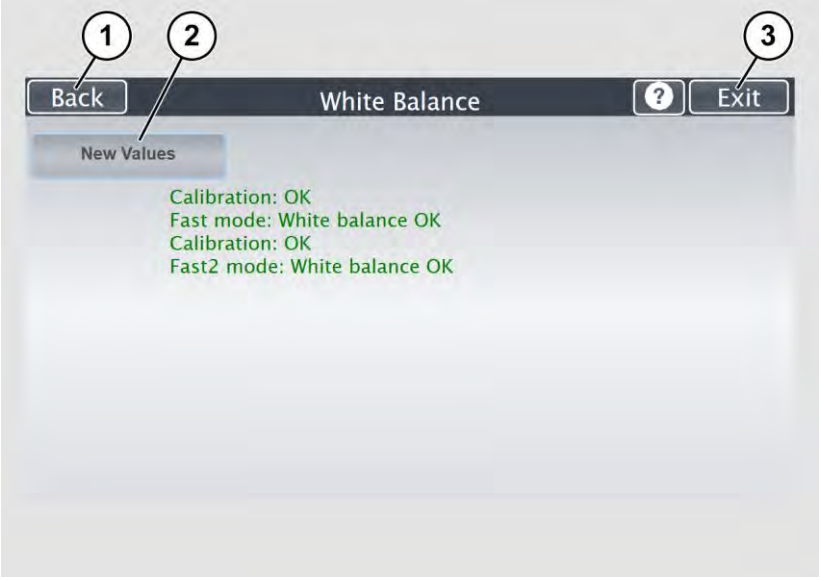
- Position the supplied test target onto the closed book cradles and under the closed glass plate as illustrated below.

The test target must overlap the upper and the lower margins of the book cradle plate and pressed firmly against the glass plate..

- Tap on NEXT STEP (1).



Then, the white balance result is displayed as shown on the example below.



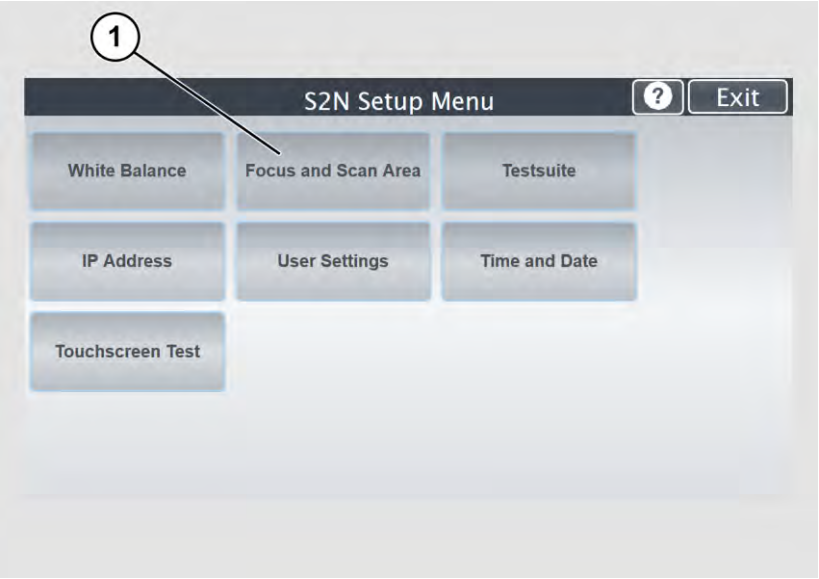
- To delete the stored data of the white balance calibration, tap DELETE WHITE BALANCE DATA (Only if a white balance is not possible or if it gives incorrect results).
- After deleting the stored data, it is mandatory to run the white balance again, as described.
- If problems arise during the white balance calibration, contact Image Access technical support, see section *Technical Support* starting at page 9.

After a successful white balance, proceed as follows:

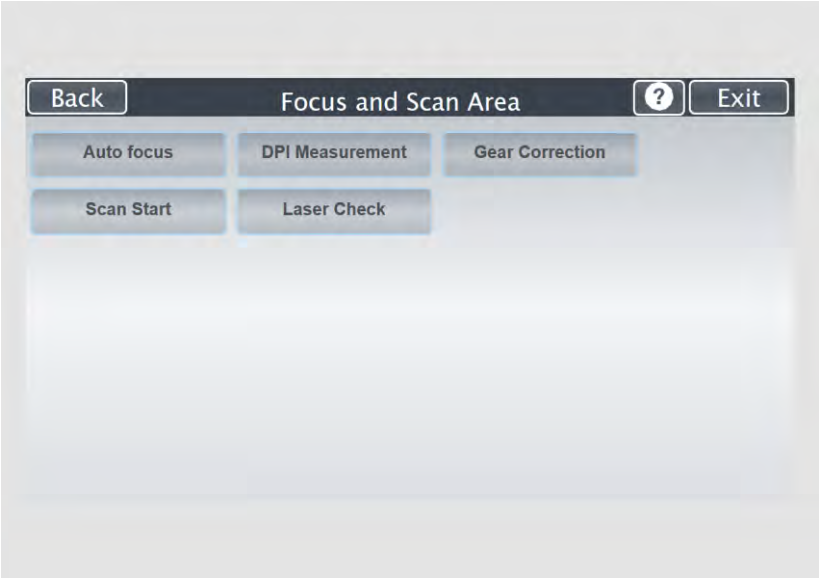
- Remove the test target.
- Store the test target in a place which is protected from daylight.
- Ensure that the test target is not damaged, bent or soiled.

Calibrate Focus and Scan Area

➢ On the "S2N Setup Menu" screen tap on FOCUS and SCAN AREA (1).



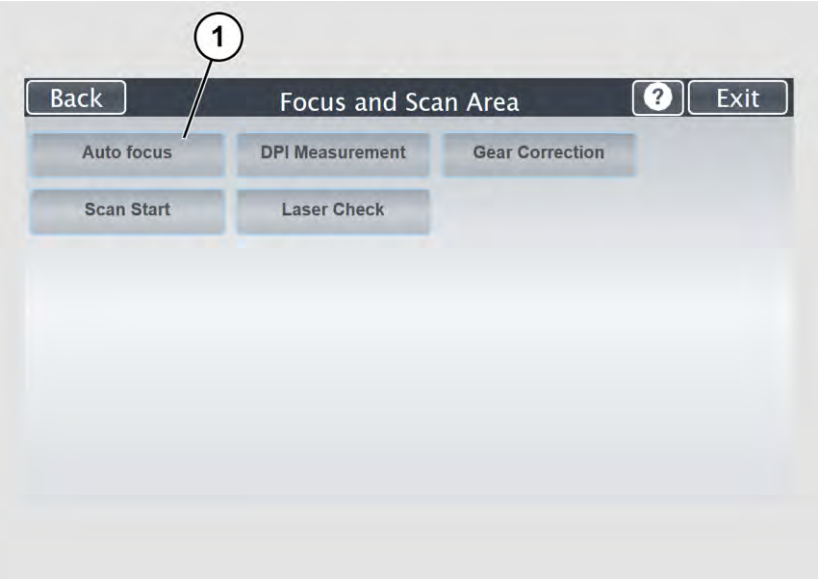
The "Focus and Scan Area" screen page appears.



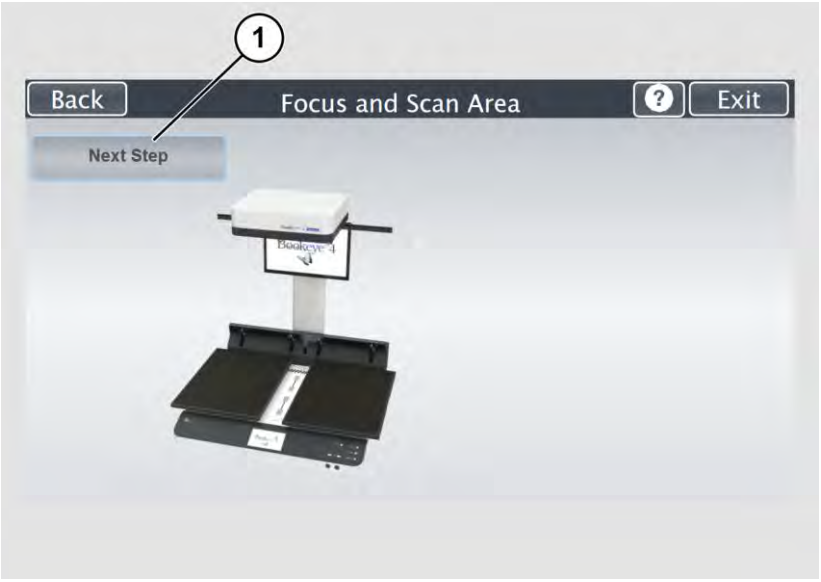
Autofocus

This function automatically locates the lens position for the highest level of sharpness and best image quality.

Tap on "AUTOFOCUS" (1).

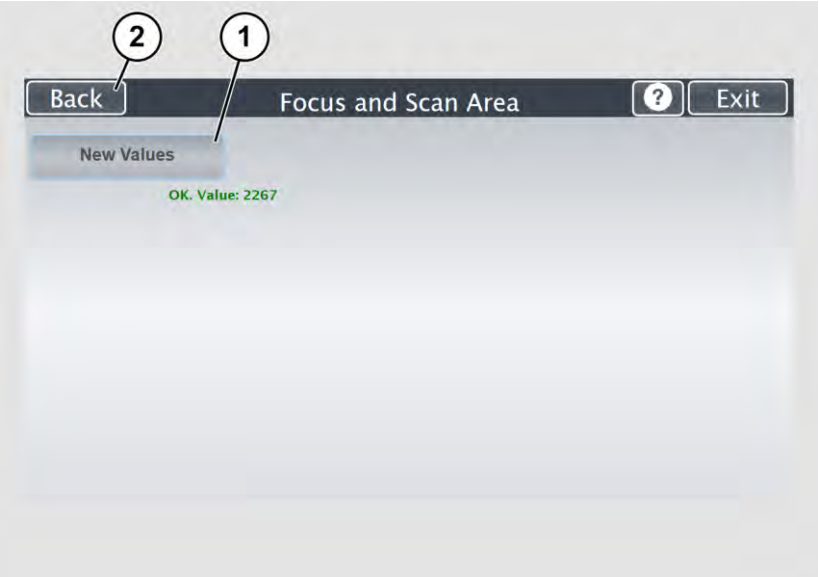


For autofocus measurement, the book cradle plates must be opened as shown on the touchscreen.



- Lift up the glass plate (if installed).
- Move the book cradle down and put it in flat position.
- Open the book cradles as displayed at the screen.
- Tap the NEXT STEP (1) button to start the measurement.

The result will be displayed.



Values displayed in green indicate valid results. Any error will be shown in red text, followed by explanatory remarks.

If the values are not OK, repeat the measurement with a tap on the NEW VALUES (1) button.

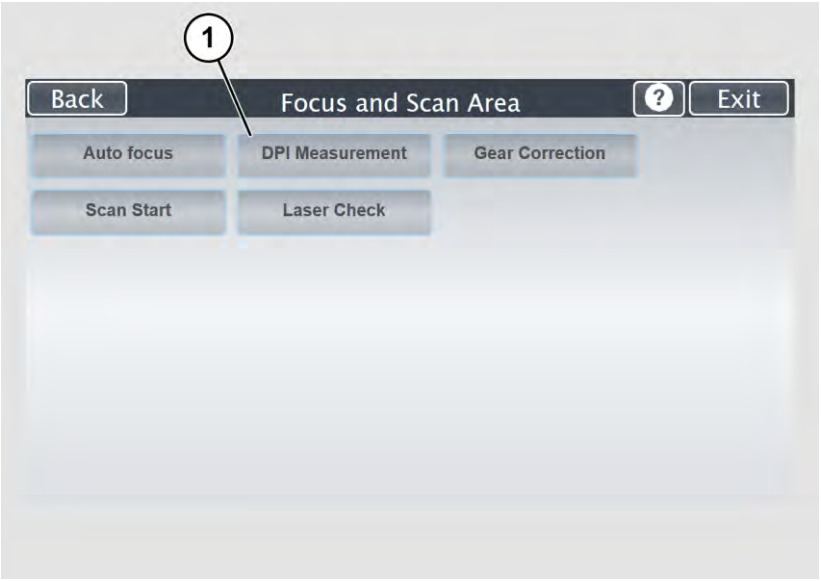
A variation of 50 – 100 in values when repeating the measurement is within the parameters.

Tap the BACK (2) button to return to the Focus and Scan Area menu.

DPI Measurement

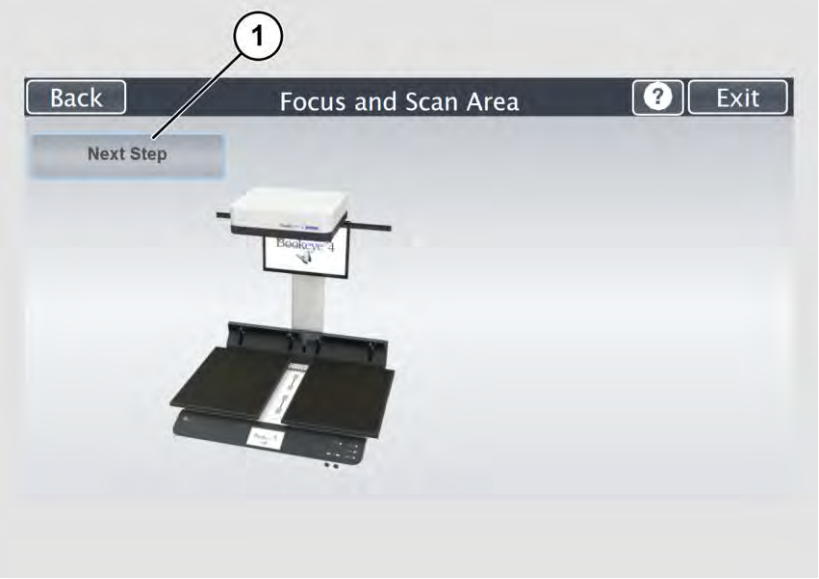
This function measures the resolution of the camera in relation to the distance between scan area and camera.

➢ Tap on "DPI MEASUREMENT" (1).

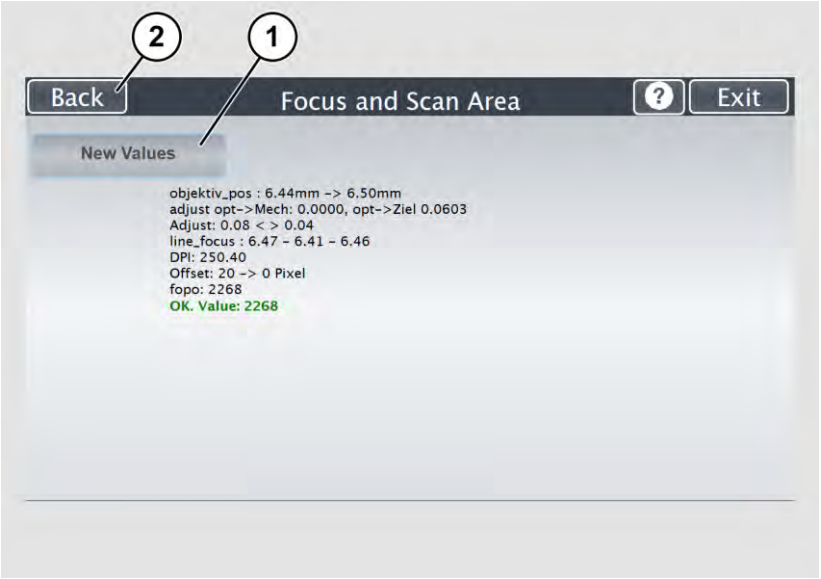


For the DPI measurement, the book cradle plates must be opened as shown on the touchscreen.

- Lift the glass plate up (if installed).
- Move the book cradle down and put it in the flat position.
- Open the book cradle as displayed on the screen.
- Tap the NEXT STEP (1) button to start the measurement.



The result will be displayed.



Values displayed in green indicate valid results. Any error will be shown in red text, followed by explanatory remarks.

Repeat the measurement with a tap on the NEW VALUES (1) button.

It is normal that the measurement will return different values each time the measurement is repeated.

Tap on BACK (2) button to return to the Focus and Scan Area menu.

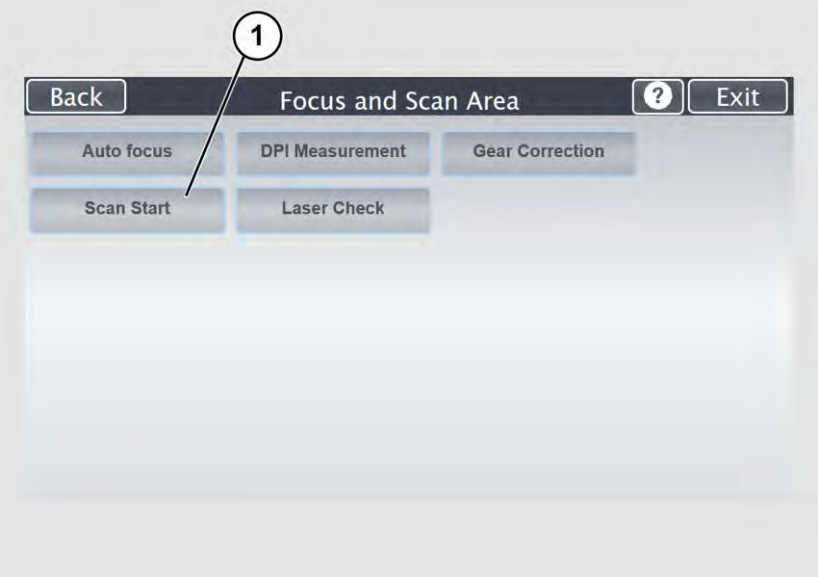
Scan Start

This function synchronizes the position of the CCD camera and the lamps position relative to each other.

The electronic gear is fine-tuned with this routine.

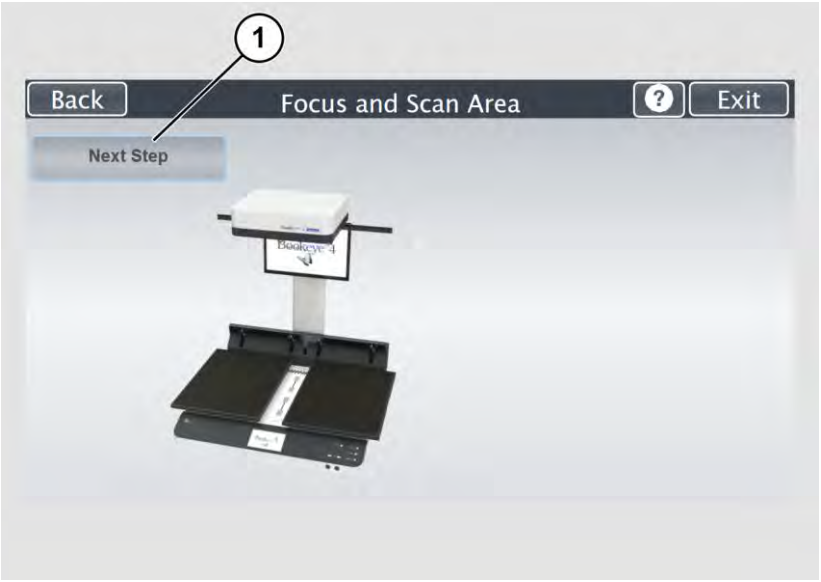
The measurement sequence will take a few moments.

➢ Tap on "SCAN START" (1).



For the scan start measurement, the book cradle plates must be opened as shown on the touchscreen.

- Lift the glass plate up (if installed).
- Move the book cradle down and put it in the flat position.
- Open the book cradle as displayed at the screen.
- Tap the NEXT STEP (1) button to start the measurement.



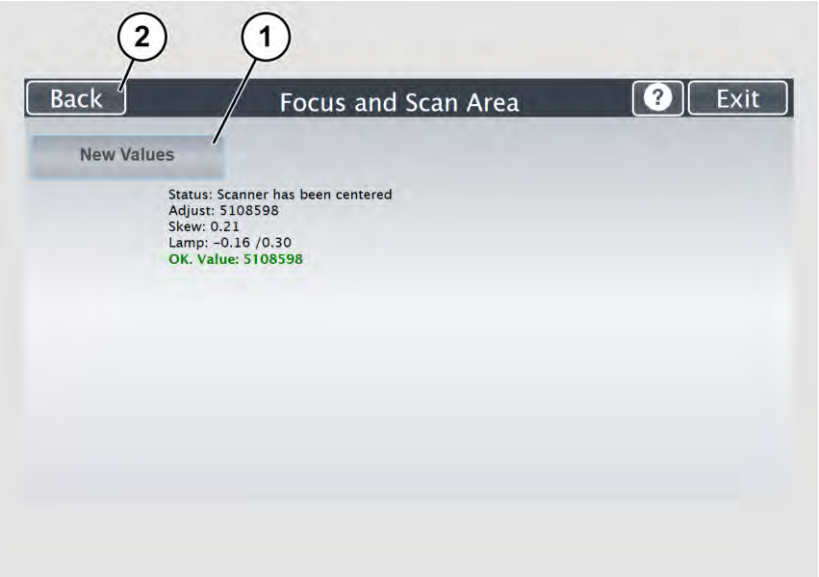
The sound of the moving camera mirror is audible.

After a moment, both lamps light up, positioned in the horizontal middle of the scan area.

The sound of the moving camera is audible again.

Finally, the light bar of each lamp moves over the scan area.

The result will be displayed.



Values displayed in green indicate valid results. Any error will be shown in red text, followed by explanatory remarks.

If the values are not OK, repeat the measurement with a tap on the NEW VALUES (1) button.

It is normal that the measurement will return different values each time the measurement is repeated.

Tap the BACK (2) button to return to the Focus and Scan Area menu.

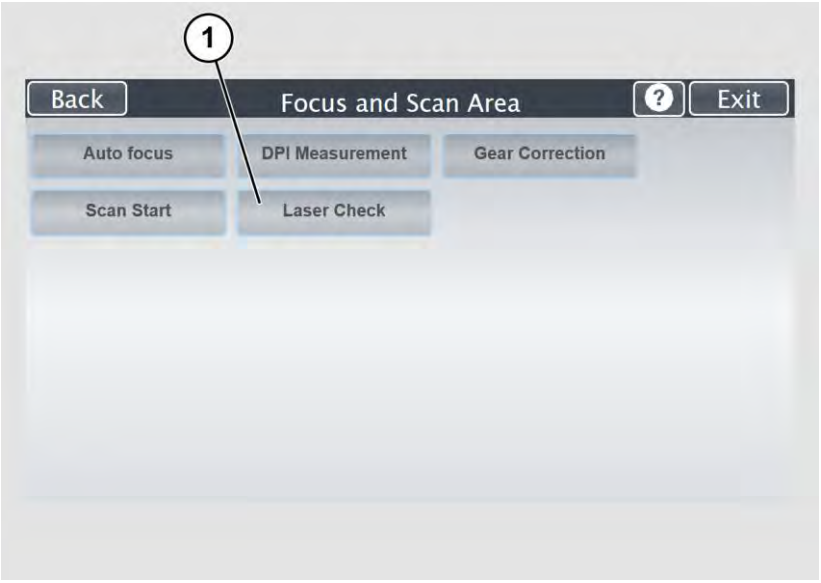
Laser Check

This function checks the integrity and position of the laser line.

The function will return skew and relative position to its ideal values and is used to track potential misalignment.

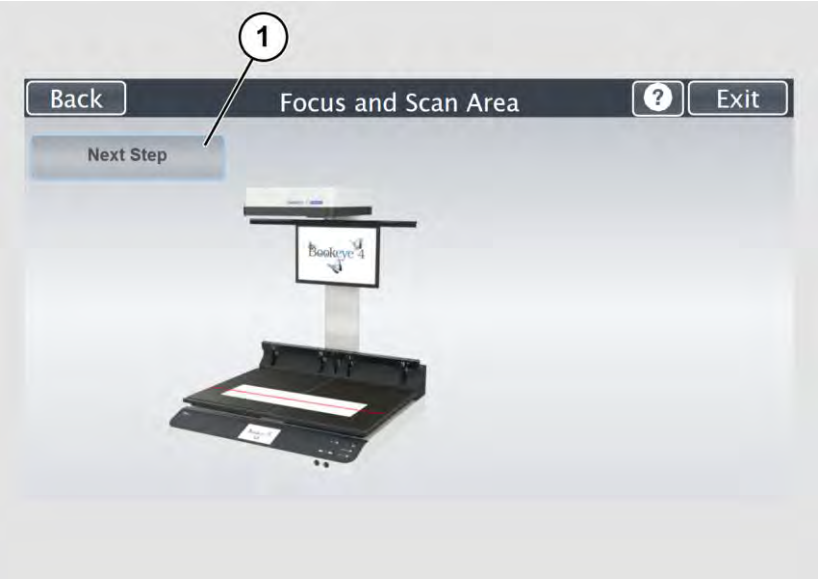
The laser line is used by the camera electronics to measure the document's contour and to calculate the correction for the curvature of the document binding.

➢ Tab on "LASER CHECK" (1).



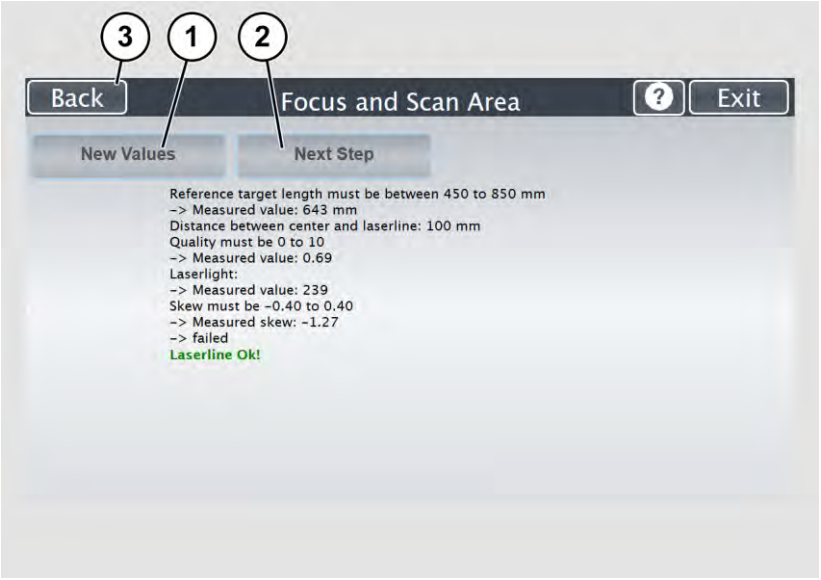
For the laser check measurement, the book cradle plates must be closed as shown on the touchscreen.

- Lift the glass plate up (if installed).
- Move the book cradle down and put it in the flat position.
- Close the book cradle as displayed on the screen.
- Place the Laser Check test target BE4-Z-V2-A or BE4-Z-V1-A as displayed at the screen.
- In the middle of each long side, the test target has a marking.
- Place the test target on the book cradles so that the vertical laser line covers these markings.
- Tap the NEXT STEP (1) button to start the measurement.



While the test sequence runs, the lamps will not light up.

The result will be displayed.

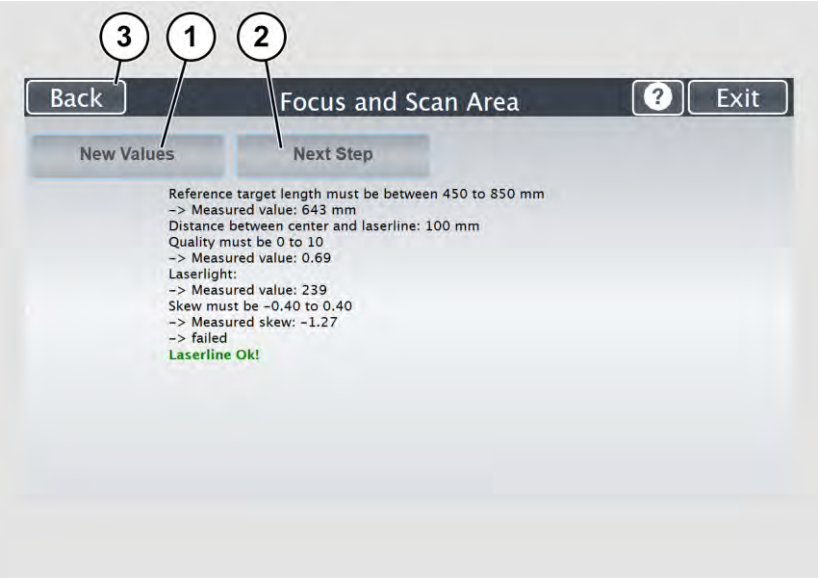


Values displayed in green indicate valid results. Any error will be shown in red text, followed by explanatory remarks.

If the values are not OK, repeat the measurement with a tap on the NEW VALUES (1) button.

It is normal that the measurement will return different values each time the measurement is repeated.

➢ Tap the BACK (2) button to return to the Focus and Scan Area menu.



➢ Click on NEXT STEP (2) button to execute the measurement with the book cradle in V-position.

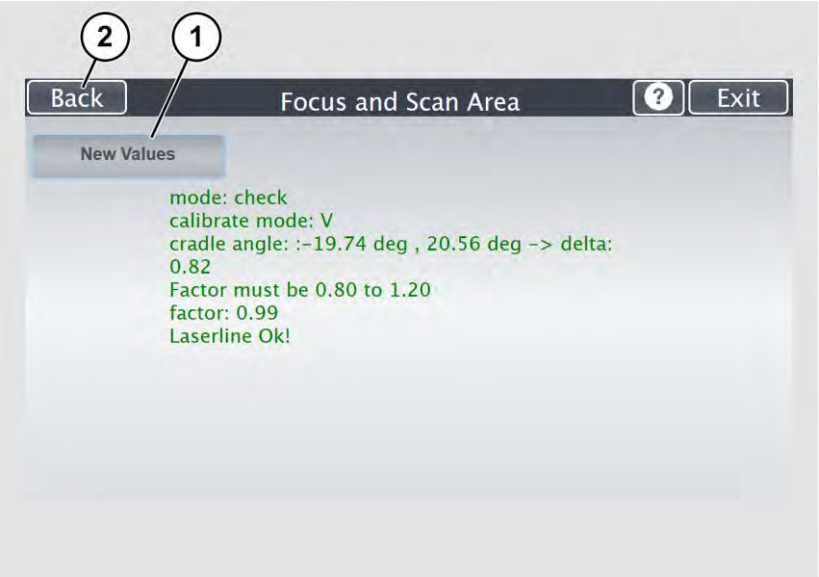
This is an optional measurement and does not need to be executed every time.

➢ Tap the NEXT STEP (1) button to start the measurement.

- Lift the glass plate up (if installed).
- Move the book cradle down and put it in the flat position.
- Close the book cradle as displayed on the screen.
- Set the book cradles in the V-position.
- Place two CSTT targets (back sides) as displayed on the screen.

While the test sequence runs, the lamps will not light up.

The result will be displayed.



Values displayed in green indicate valid results. Any error will be shown in red text, followed by explanatory remarks.

If the values are not OK, repeat the measurement with a tap on the NEW VALUES (1) button.

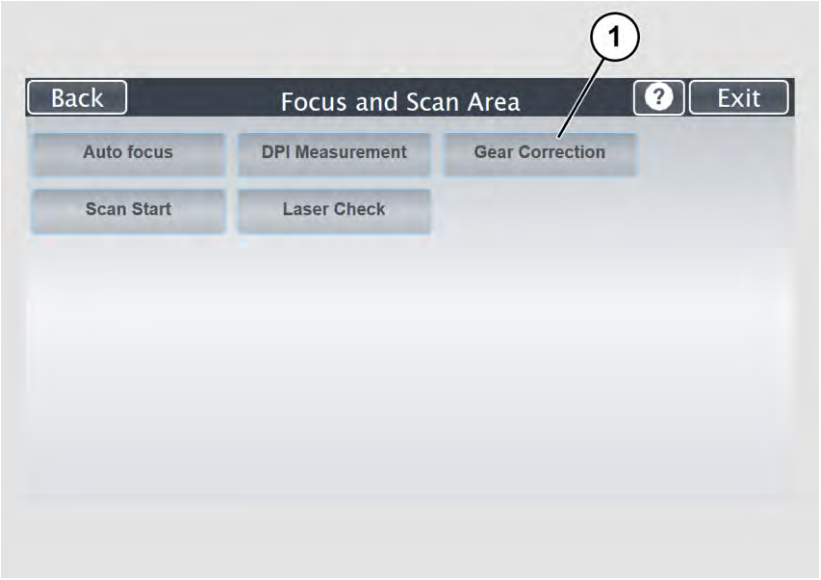
It is normal that the measurement will return different values each time the measurement is repeated.

➢ Tap the BACK (2) button to return to the Focus and Scan Area menu.

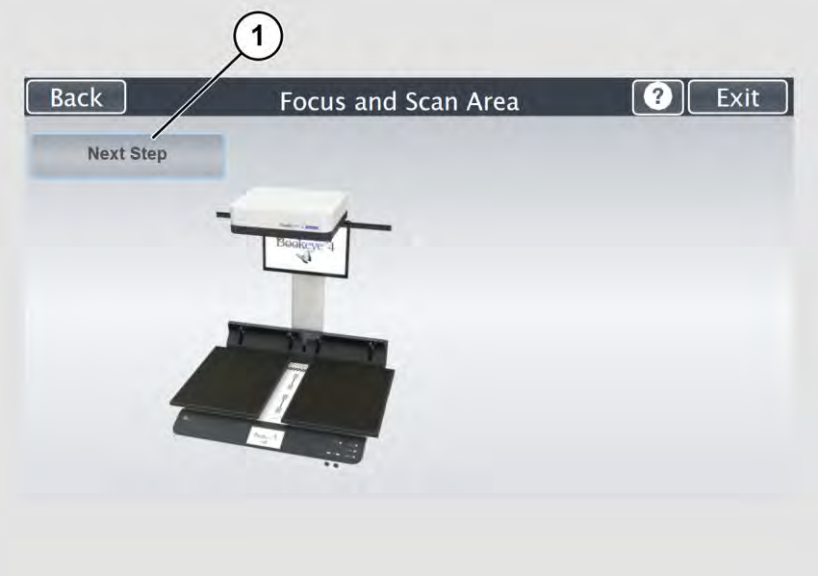
Gear Correction

This function performs a fine adjustment of the synchronization between the lamps and the camera

➢ Tab the GEAR CORRECTION button (1).



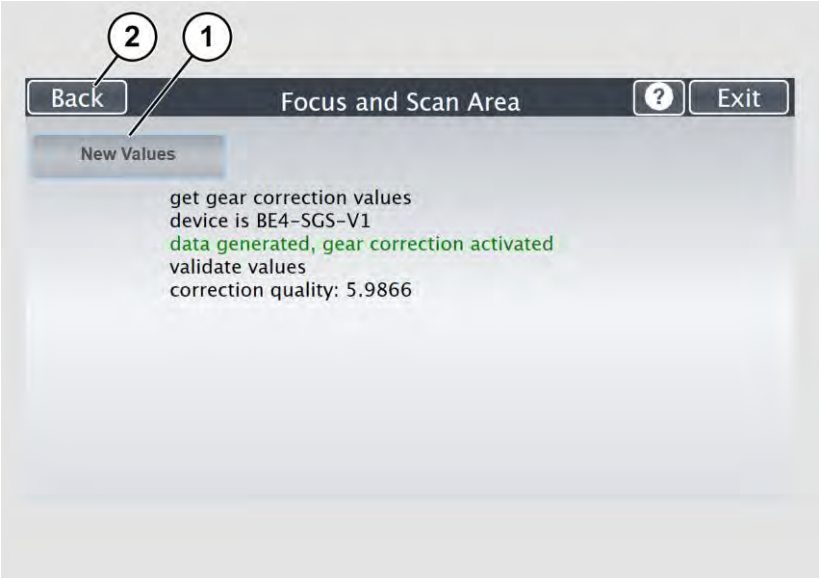
For the gear correction measurement, the book cradle must be opened as shown on the touchscreen.



- Lift up the glass plate (if installed).
- Move the book cradle down and put it in flat position.
- Open the book cradle as displayed at the screen.
- Tap the NEXT STEP (1) button to start the measurement.

The lamps light up and move over the scan area.

The result will be displayed.



Values displayed in green indicate valid results. Any error will be shown in red text, followed by explanatory remarks.

If the values are OK, repeat the measurement with a tap on the NEW VALUES (1) button.

It is normal that the measurement will return different values each time the measurement is repeated.

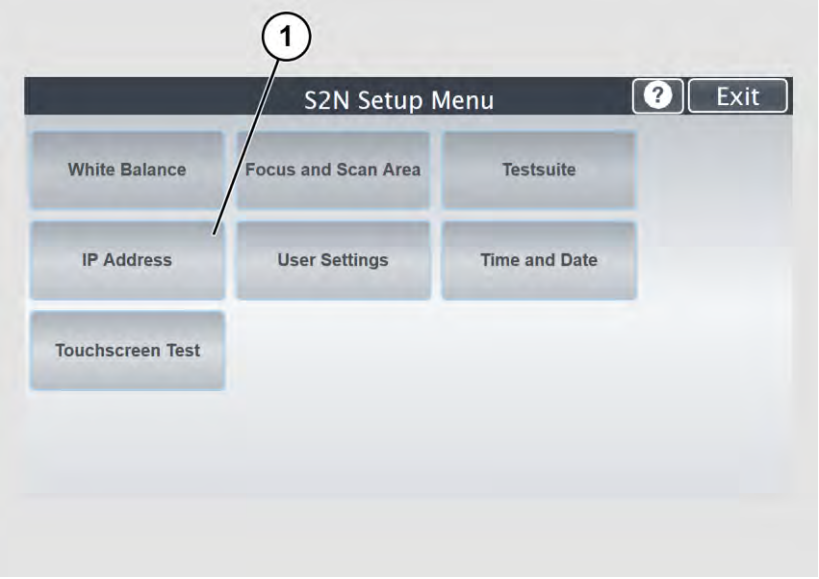
Tap the BACK (2) button to return to the Focus and Scan Area menu.

Assign the IP Address

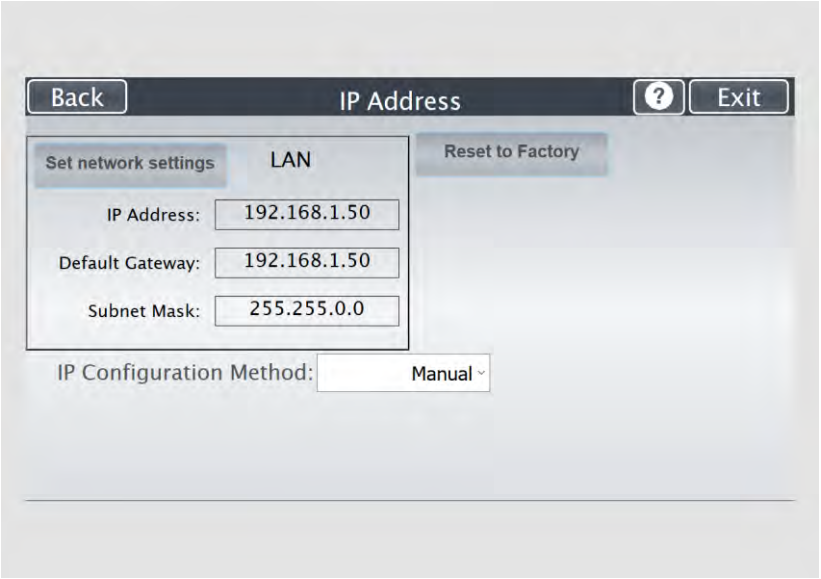
Manually Assign the IP Address

To manually assign the IP address, proceed as follows:

➢ On the "Setup Menu" screen, tap on IP Address (1).

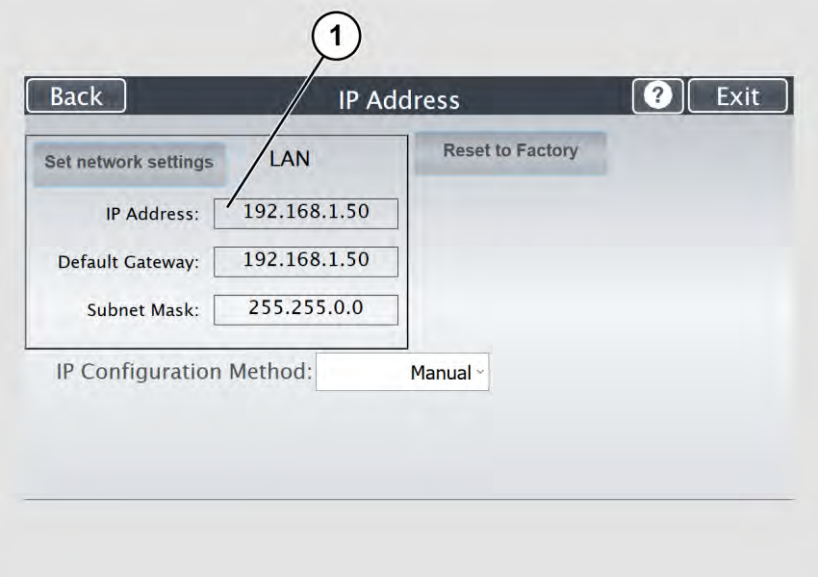


The "IP Address" screen is displayed.



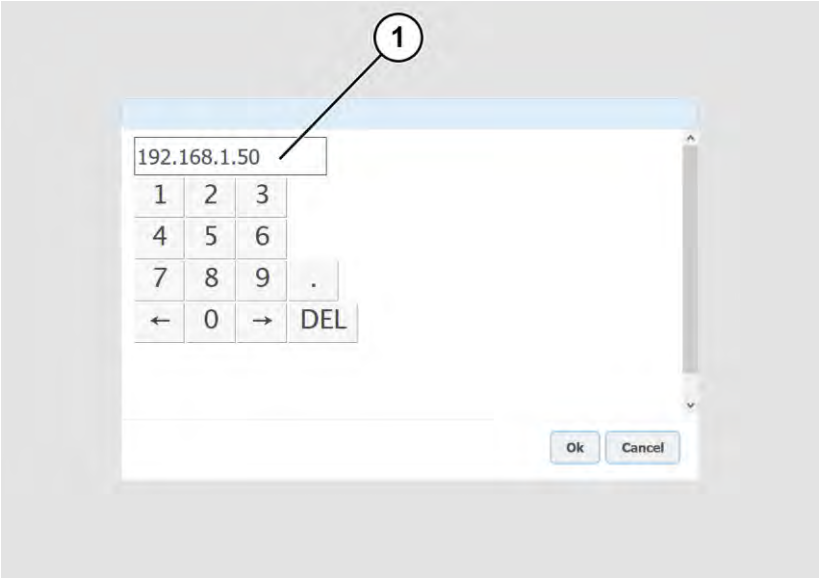
Set network settings:	Accept the network settings provided
Reset to Factory:	Reset to factory settings
IP Address:	Input field for the IP address
Default Gateway:	Input field for the gateway address
Subnet Mask:	Input field for data on the subnet mask
IP Configuration Method Manual/DHCP:	Assign an IP address manually or automatically

➢ Tap the "IP Address" (1) field.

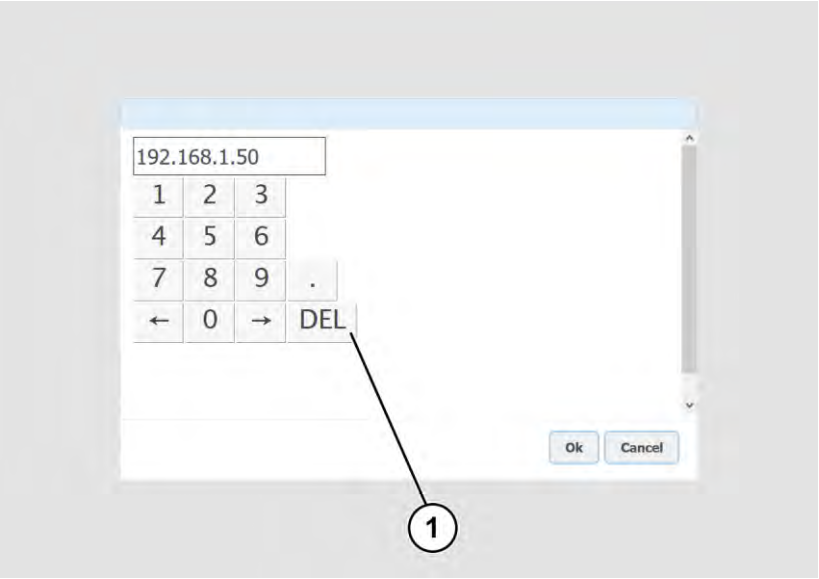


The "IP Address" window is displayed.

➢ Enter the IP address (1).

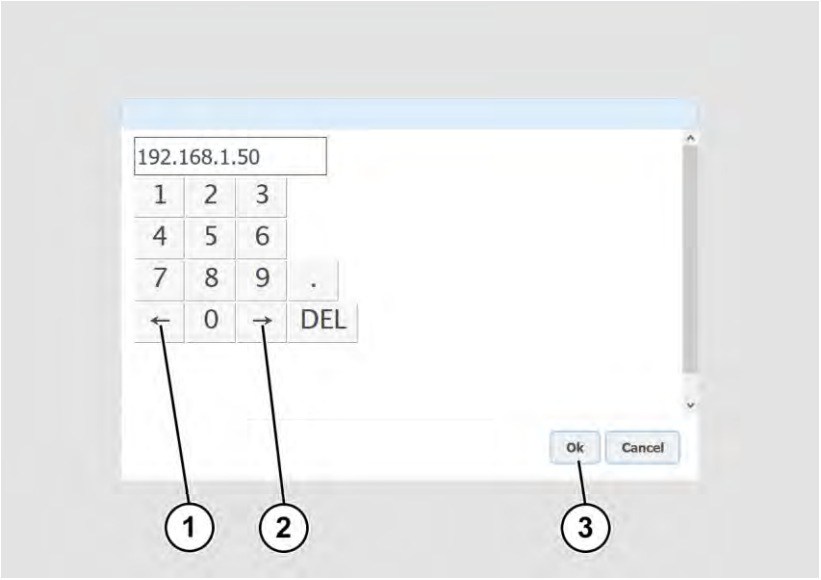


➢ To delete a digit, move the cursor to the right, behind the digit to be deleted and tap DEL (1).

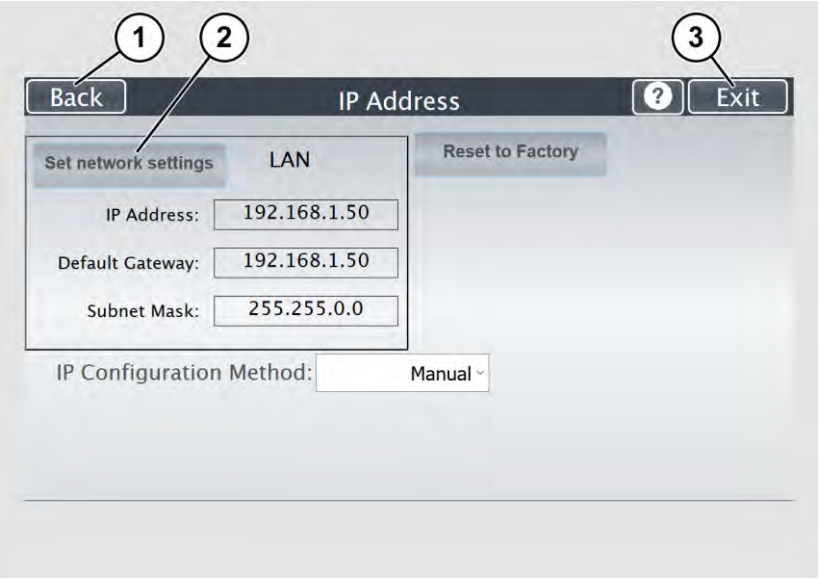


The arrow keys left (1) and right (2) next to the number "0" move the cursor within the chosen row.

- To complete the entry, press OK (3).
- Perform the settings for gateway and subnet mask in the same way.



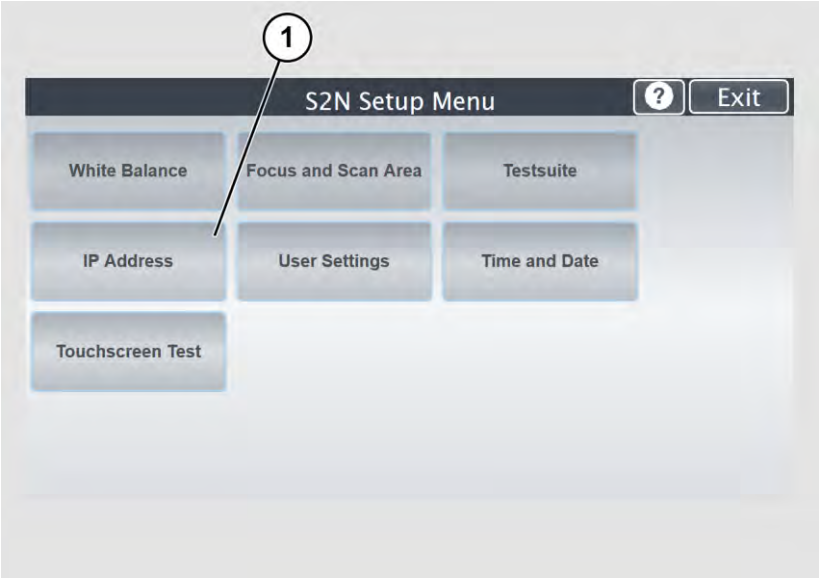
- To save the network settings, tap SET NETWORK SETTINGS (2).
- To return to the previous submenu, tap BACK (1).
- To return to the "Start screen", tap EXIT (3).



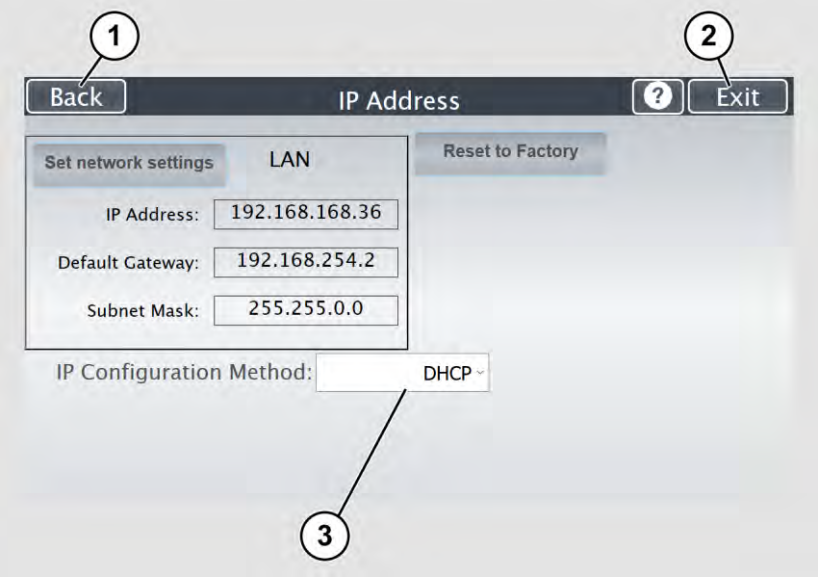
Automatically Assign the IP Address

To automatically assign the IP address, proceed as follows:

➢ On the setup menu screen, press the button IP ADDRESS (1).

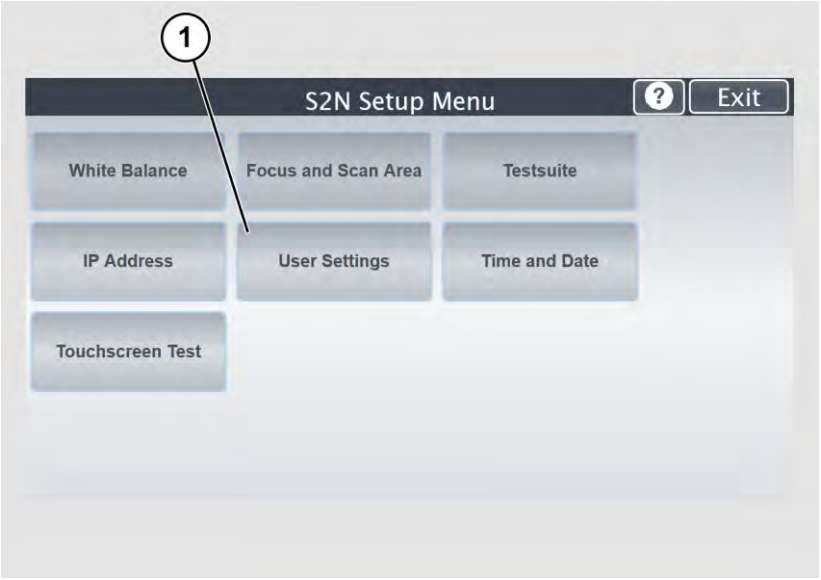


- In the selection menu "IP Configuration Method", select the "DHCP" (3) entry.
- To return to the previous submenu, tap BACK (1).
- To return to the "Start screen", tap EXIT (2).

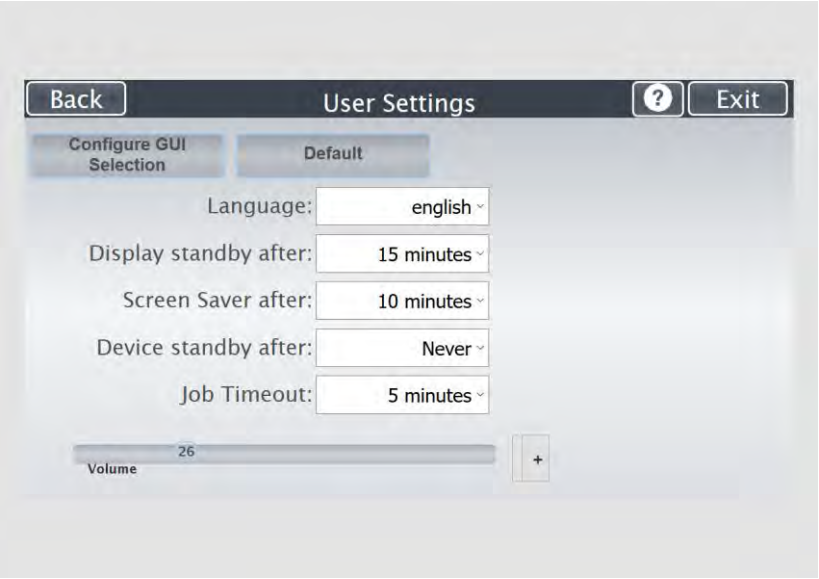


Modify User Settings

➢ On the "Setup Menu" screen, tap on USER SETTINGS (1).



The "User Settings" screen is displayed.

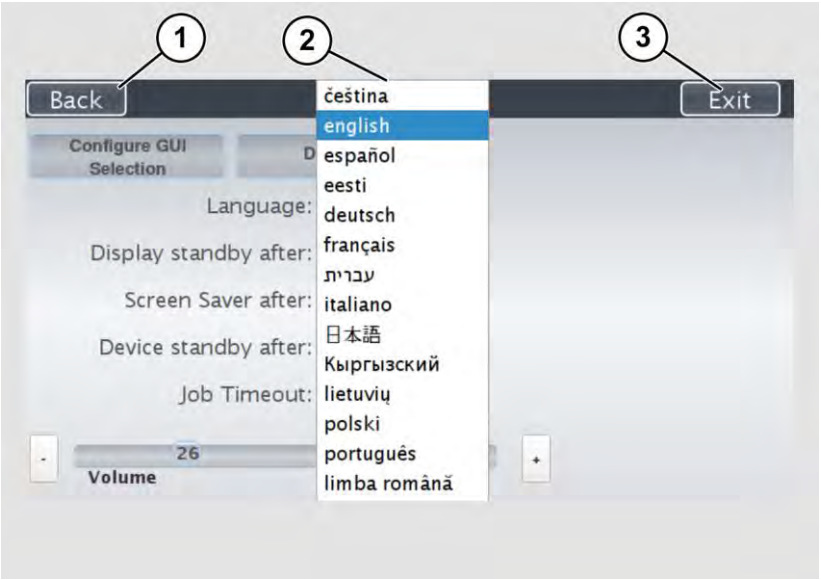


Configure GUI Selection:	Open the submenu for setting the application in the start screen
Default:	The scanner will be reset to the default settings
Language:	Select language
Display standby after:	Define the period of inactivity, until an optional external monitor and the touchscreen switch to the standby mode
Screen Saver after:	The period of inactivity until the screen saver is activated is defined
Device standby after:	The period of inactivity until the scanner goes into standby mode is defined
Job Timeout	The period of inactivity until the scan job will be terminated is defined.

Select Language

To select the language, proceed as follows:

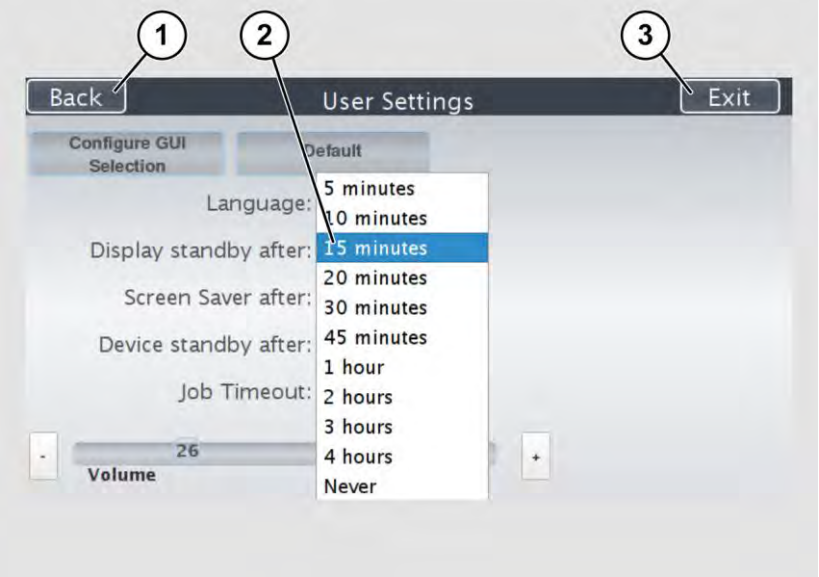
- Tap the on the selection arrow of the selection menu "Language" to display the list of languages.
- Tap the desired language (2).
- To return to the previous submenu, tap BACK (1).
- To return to the "Start screen", tap EXIT (3).



Set Standby Times

To set the standby times, proceed as follows:

- Tap the selection arrow of the selection menu.
- Tap on the desired entry (2).
- Perform the settings for the screen saver and the device standby in the same way.
- To return to the previous submenu, tap BACK (1).
- To return to the "Start screen", tap EXIT (3).



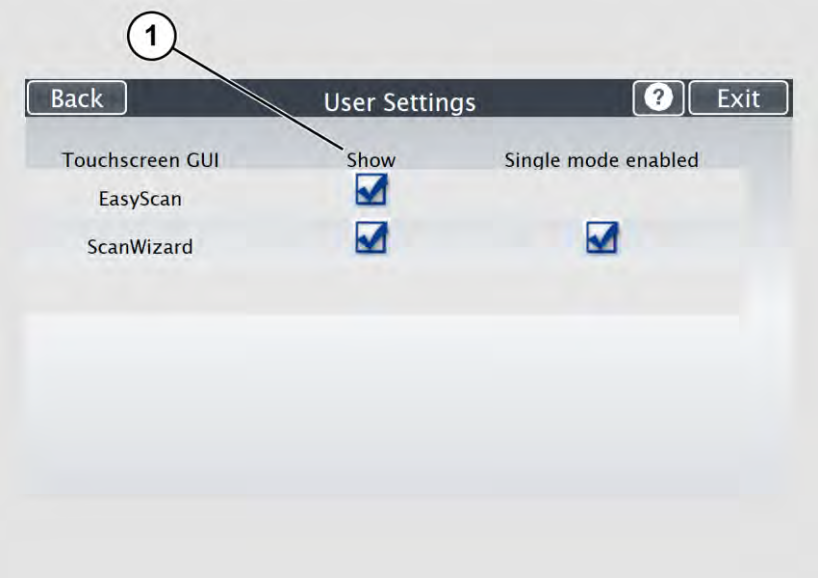
Configuring the GUI Selection

➢ Tap the "User Settings" screen on CONFIGURE GUI SELECTION (1).

The "Configure GUI Selection" screen is displayed.

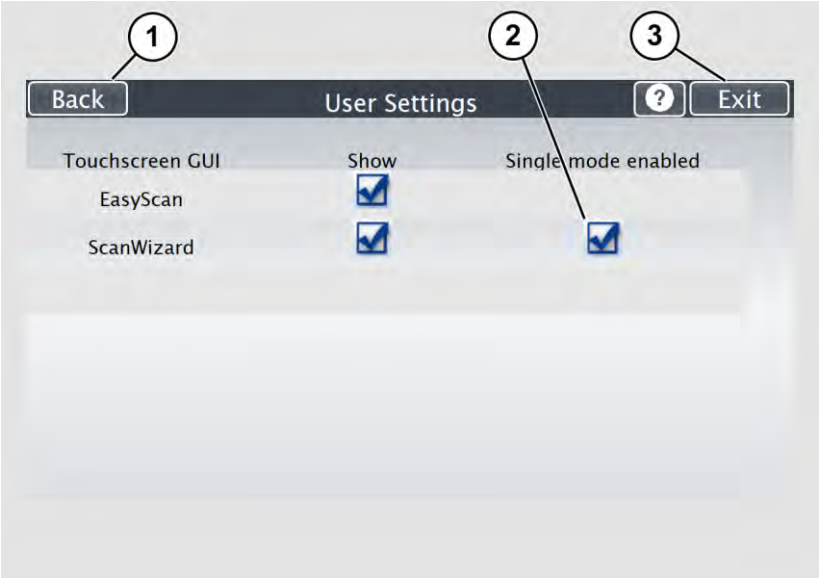
This menu displays the "EasyScan" and "ScanWizard" applications, which are available as a standard selection. If you want to display only one of the applications after system start, proceed as follows:

- Under "Displays" (1) disable the box corresponding to the application you do not want to display.



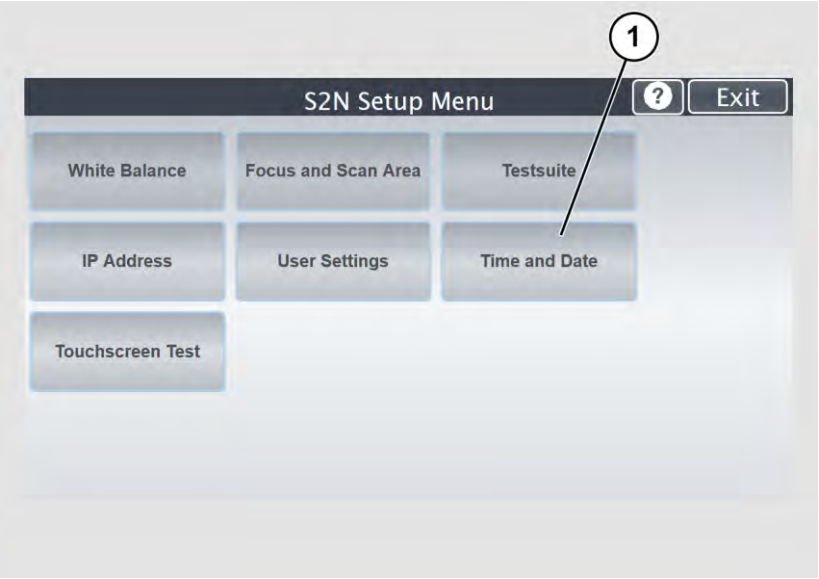
By default, single mode is defined (activate the checkbox "Single mode enabled").

- To start the application in job mode, uncheck the checkbox "Single mode enabled" (2).
- To return to the previous submenu, tap BACK (1).
- To return to the "Start screen", tap EXIT (3).

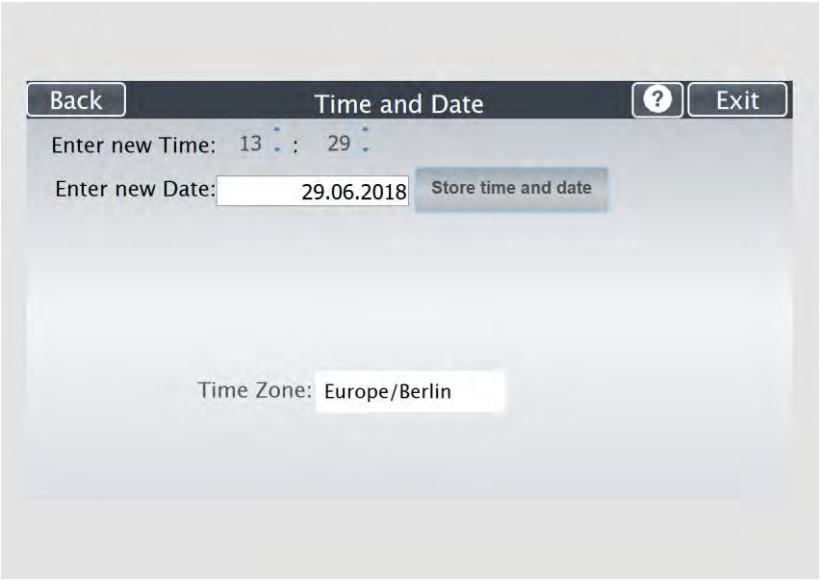


Set the Time and Date

➢ On the "Setup Menu" screen, tap on TIME and DATE (1).



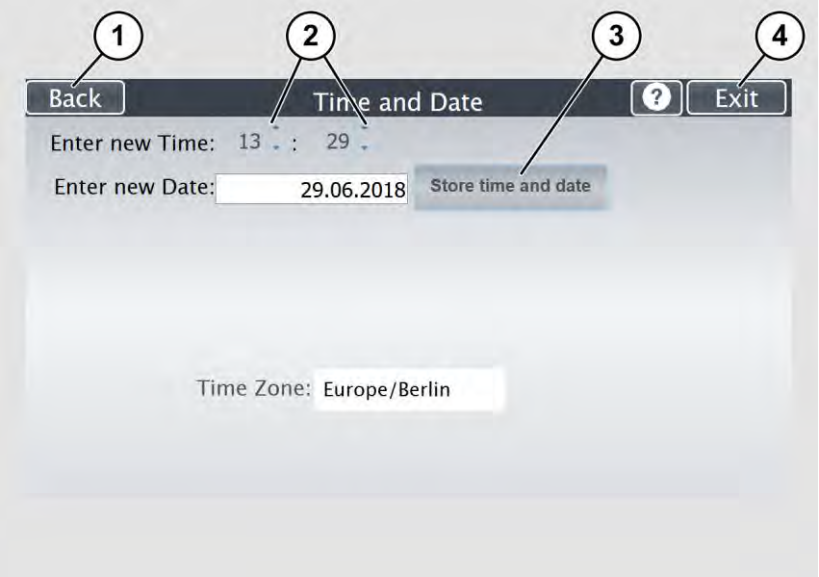
The screen "Time and Date" appears.



Enter new time:	Enter hours and minutes with the arrow keys
Enter new date:	Open a calendar to set the date
Store time and date:	Accept the set values
Time Zone:	Select a time zone

To set the time, proceed as follows:

- Tap the "Enter new time" field.
- To set the time later, tap the up arrow (2).
- To set the time earlier, tap the down arrow (2).
- To save the modified time, click STORE TIME AND DATE (3).
- To return to the previous submenu, tap BACK (1).
- To return to the "Start screen", tap EXIT (4).

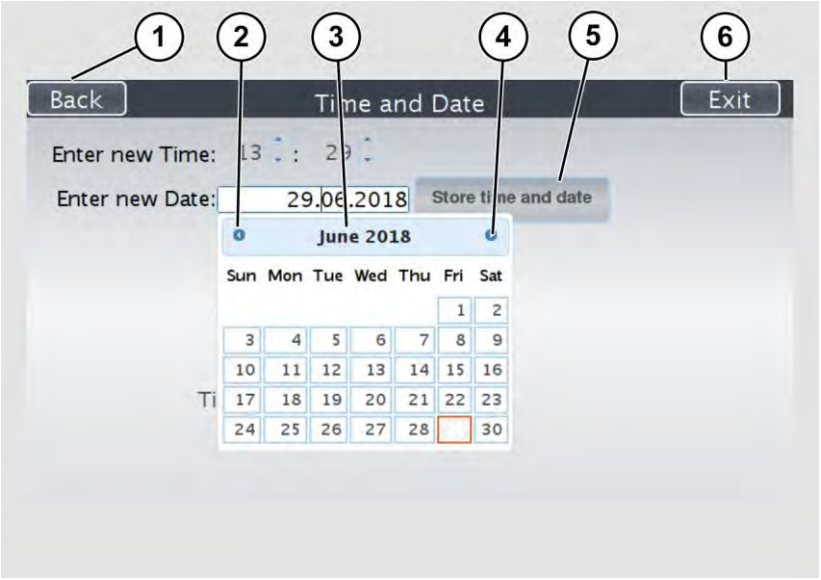


To set the date, proceed as follows:

- Tap the "Enter new date" field.

A calendar (3) is displayed.

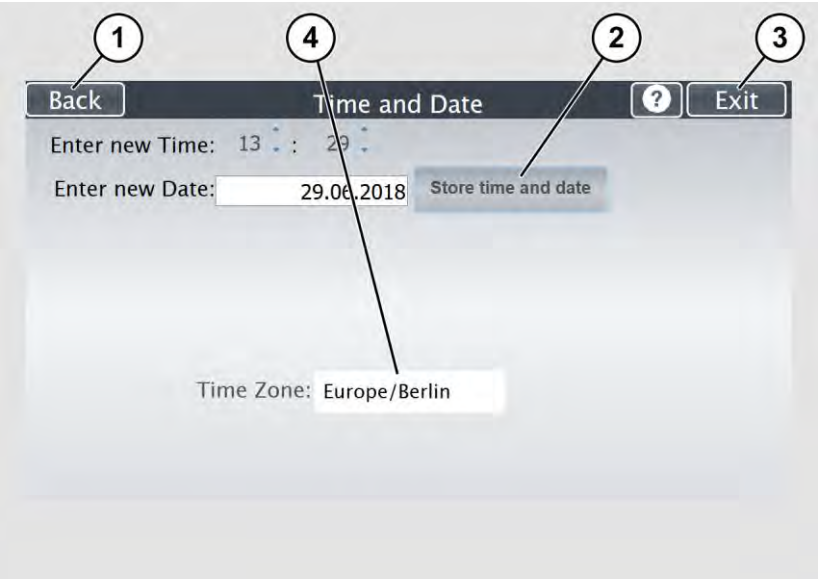
- Select the appropriate date in the calendar (3).
- To set the month and year, tap the arrow keys (2, 4) at the top of the calendar.
- To set the day, tap the corresponding day in the calendar.
- To save the date, click STORE TIME AND DATE (5).
- To return to the previous submenu, tap BACK (1).
- To return to the "Start screen", tap EXIT (6).



➢ To select the time zone, tap the selection arrow (4).

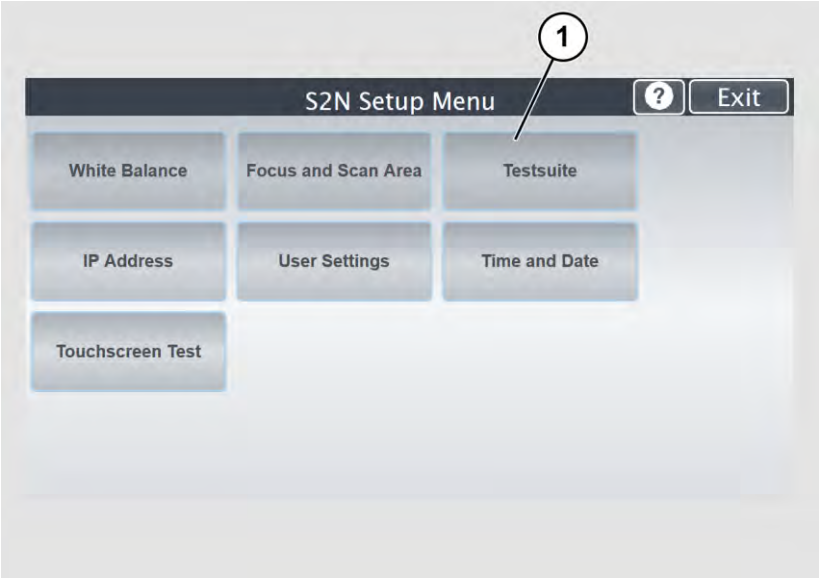
A selection list with available time zones is displayed.

➢ Select the appropriate time zone.
➢ To save the time zone, click STORE TIME AND DATE (2).
➢ To return to the previous submenu, tap BACK (1).
➢ To return to the "Start screen", tap EXIT (3).

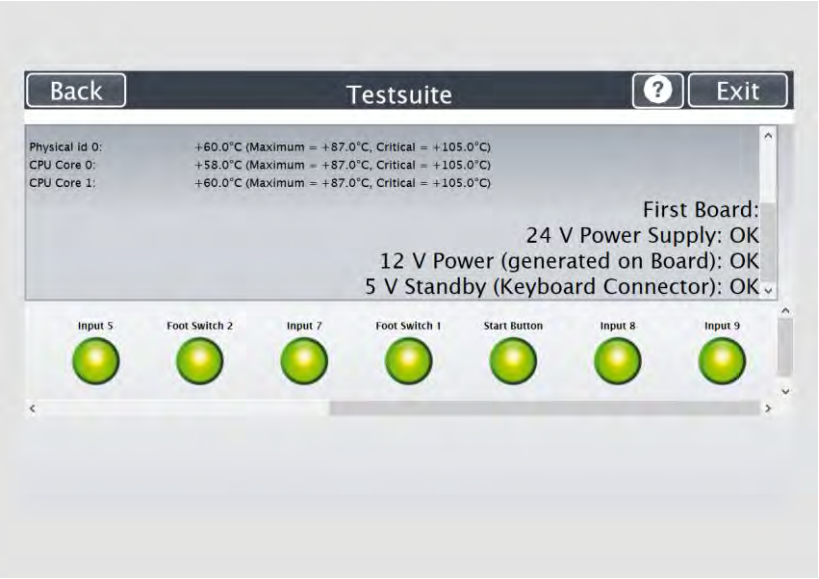


Perform Test Suite

➢ On the "Setup Menu" screen, tap on TESTSUITE (1).



The "Testsuite" screen is displayed.

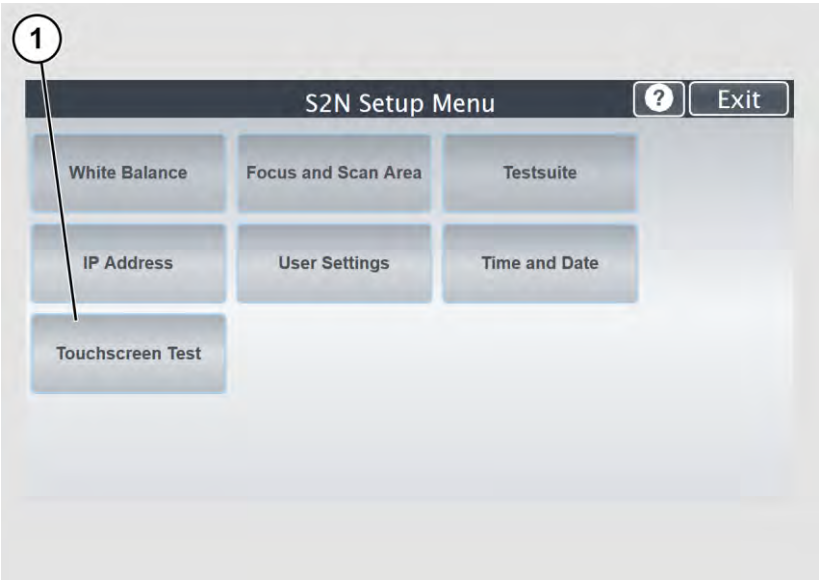


Information about the mainboard:	Display the current values for: Temperature of PCB and CPU cores, fan speed, PCB voltages
Information about the inputs:	Inputs will always appear green
Information on end position switches, foot switch and power button:	When the end position switches, the foot switch or the power button is pressed, the display changes from green to red, for as long as the switch or the button is pressed
Information about LED lamps:	Check function: Lamp off, on, top, bottom, default

Perform Touchscreen Test

To check the functionality of the touchscreen when touched, proceed as follows:

➢ On the "Setup Menu" screen tap the TOUCHSCREEN TEST (1) button.

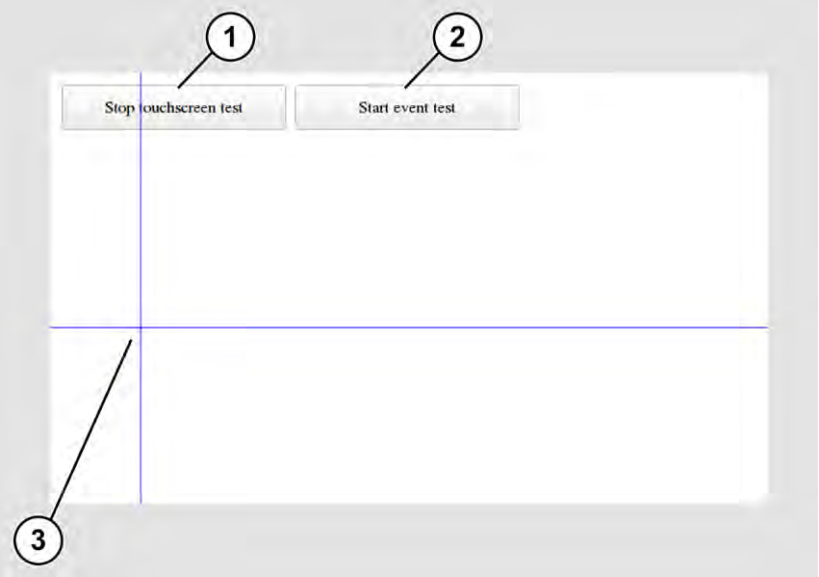


The "Touchscreen Test" screen is displayed.

➢ To perform the "Touchscreen Test" tap with your finger on the corresponding screen (3).

The crosshairs must occupy the same position as the finger.

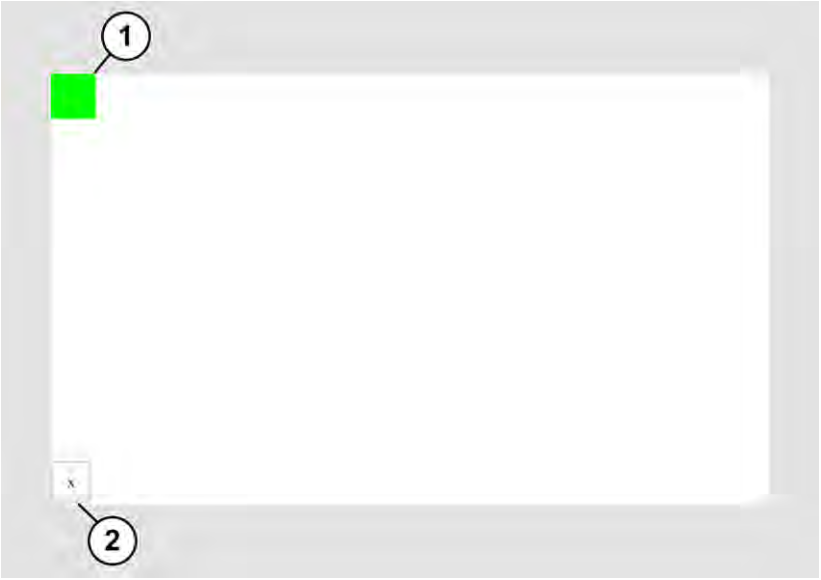
➢ To end the "Touchscreen Test", tap the STOP TOUCHSCREEN TEST (1) button.



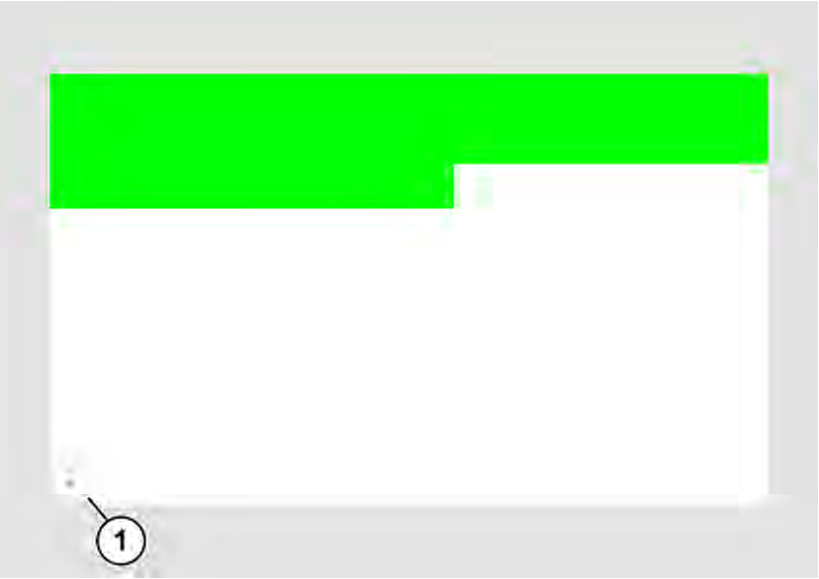
➢ Tap the START EVENT TEST (2) button.

The "Event Test" screen is displayed.

The X button (3) cancels the test and returns to the start screen "Touchscreen Test".



- Hold the upper left blinking green rectangle (1) with your finger.
- Swipe your finger from top left to top right over the touchscreen.



Green rectangles are drawn step by step.

These rectangles mark the area where the "Event Test" has detected the motion events.

- As soon as you arrive at the top right, move down one line and then move to the left again.
- Continue with this procedure until you have reached the lower right edge of the screen.

This test can be aborted at any time by pressing the X (1) button.

If the entire screen is green, the test ends automatically.

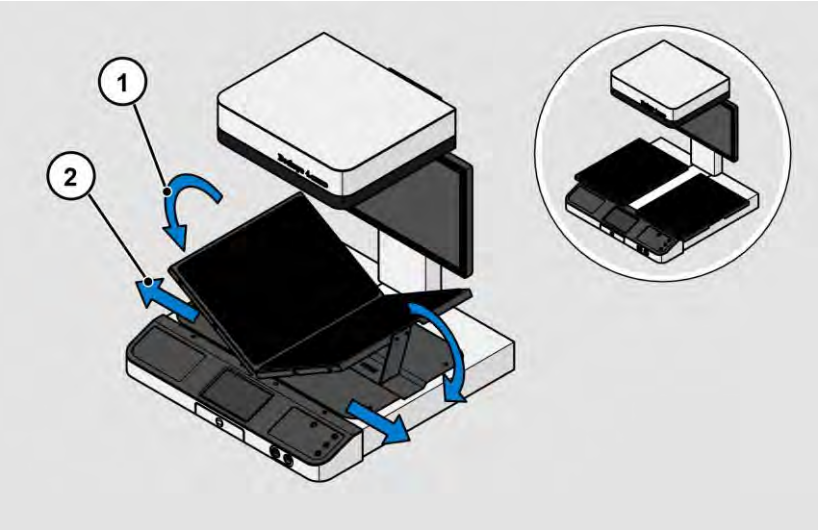
The start screen of the "Touchscreen Test" appears.

The "Start screen" is displayed.

Book Cradles - Bookeye4 V3/V2

The Bookeye® 4 V3/V2 scanner has a book cradle which can be operated in two modes.

The plates of the book cradle can be shifted horizontally apart from each other. This allows placing documents with a large spine in a position more beneficial for the book spine. The maximum distance between the book cradle plates is 85 mm (3.3 inch).



The plates can also be set to the “V” position, with an opening angle of 120 degrees. This is recommended for very delicate, old books and documents. The plates are held in position by a supporting leg on each side.

Additional Start Buttons - Bookeye4 V2

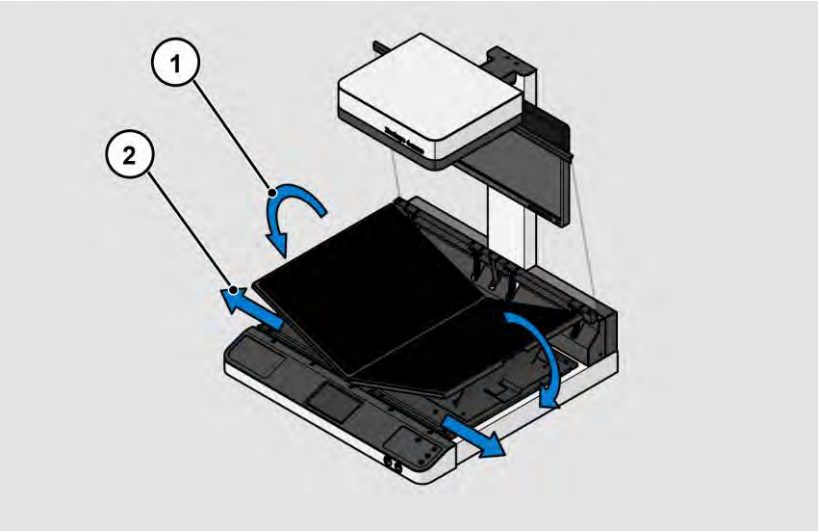
When operating the scanner using the WVGA color touchscreen or using an external application, the scan sequence can be started by pushing one of the four green start buttons.

For Bookeye® 4 V2 models only to easily operate the scanner while holding the document in the flat position, each book cradle plate is equipped with two start buttons on the front side.

Book Cradles - Bookeye4 V1A

The Bookeye® 4 V1A scanner has a motorized book cradle which can be operated in two modes.

Either in flat position



or in V position.

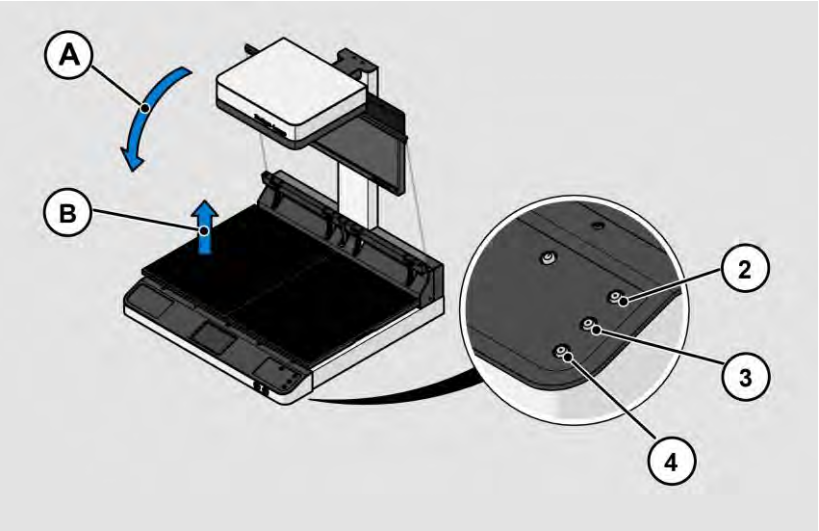
The V position is recommended for very delicate, old books and documents. The opening angle between the book cradle plates is 140 degrees.

When the book cradles are lifted to the “V” position, they are held by a supporting leg on each side.

In the “V” position, the plates can also be shifted horizontally apart from each other.

Operating the motorized book cradle - Bookeye4 V1A

The Cradle Lock Button

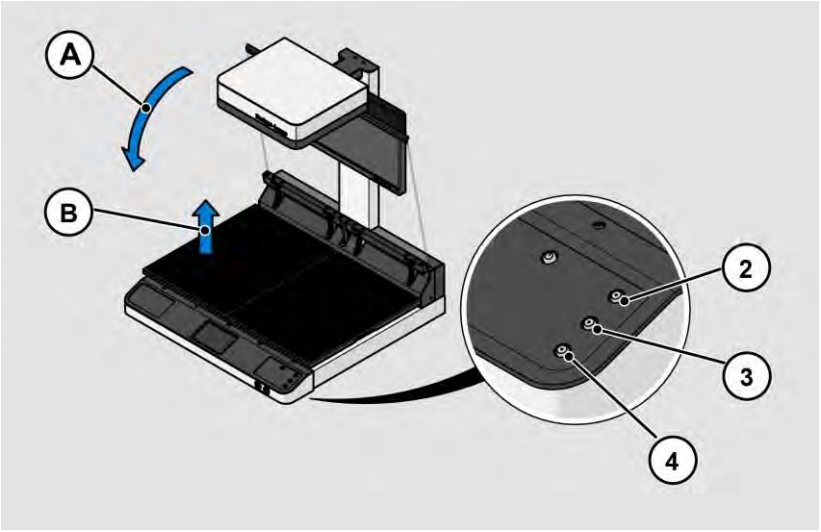


The automatic locking of the glass plate in the lowered state is switched on or off with the Cradle Lock button (4).

The button`s illumination color indicates the mode.

Illumination	Function
Off:	If the button light is off, the magnetic lock function is turned off
Blue:	If the button light is blue, the magnetic lock function of the glass plate is activated.
Red:	If the button light is red, the magnetic lock is engaged and the glass plate is held in the closed position. If the “Automatic mode" is selected, the scan sequence starts automatically.

The Cradle Up / Cradle Down Buttons



To move the book cradle to the desired position, press and hold the

- Cradle Up button (2) to lift the book cradle plates,
- Cradle Down button (3) to lower the book cradle plates.

Depending on the weight of the document placed on the book cradle, e.g. book or catalogue, lifting of the book cradle plates should be started on the side with the lighter load.

While moving the book cradle plates, the illumination in the respective buttons changes from blue to red.

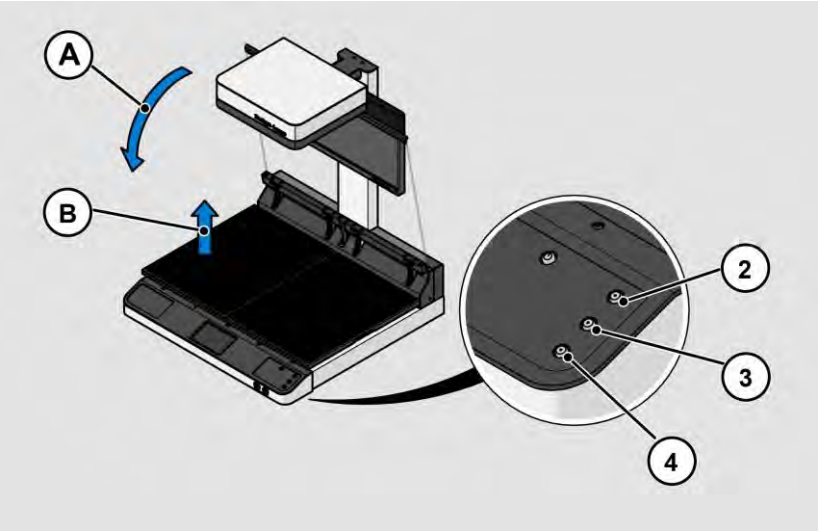
When the button is released the illumination returns to blue.

When both book cradle plates have been lifted completely, the motor stops.

If there is no weight on the cradles, the operator must press down the cradle plates manually while holding the Cradle Down (3) to get them down completely.

Glass Plate Functionality - Bookeye4 V1A

General Information



For security reasons, the opening force of the glass plate is limited.

Glass Plate Positions

Transport lock position

When the scanner is delivered, the glass plate (A) is fixed in its fully up position by two transport locks (two rubber bumpers).

The transport locks are positioned at the bottom side of the upper part of the camera neck, near the camera head.

When the transport locks are in place, the glass plate cannot be lowered.

- Loosen the transport locks by turning them counterclockwise. A tool is not necessary. Slide the transport locks a little in the camera head direction.
- Finally fasten the transport locks by hand again.

Fully up position

On the bottom side of the camera neck, four rubber bumpers are located. The rubber bumpers in front are the transport locks.

The two rubber bumpers in the back protect the TFT flat screen and limit movement of the glass plate.

The two back rubber bumpers may need adjustment from time to time.

- The tool needed to unlock them is an Allen wrench, size 4 mm.
- Unlock the rubber bumpers in the back just a little and adjust the position.
- The position should be set, so that the distance between glass plate and the lower edge of the TFT flat screen is at least five millimeters.
- Finally, fasten the rubber bumpers again with the Allen wrench.

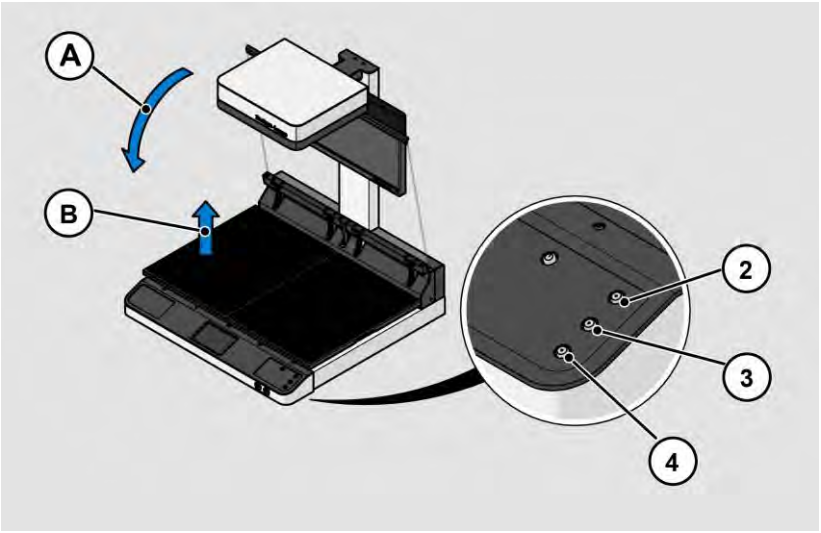
The 45 degree angled position

The glass plate can be stopped by the operator in the 45 degree position.

When stopped, the glass plate will be hold this position.

This is a stable position and the recommended working position when scanning with the glass plate.

Glass Plate Operating Modes - Bookeye4 V1A



The Bookeye® 4 V1A scanner has two operation modes for the glass plate (A):

- Manual mode
- Automatic mode.

Setting the Operation Modes

The scanner starts with the operation mode which was set before it was powered-down. To toggle between the modes, press and hold the Cradle Lock button (4) until the Cradle Up (2) and Cradle Down (3) buttons blink.

If both buttons blink in blue, the operation mode is set to automatic operation. If both buttons blink in red, the operation mode is set to manual operation. The current setting is also shown briefly (for approximately two seconds) on the touchscreen.

If the operation mode is set to automatic operation, the scan sequence starts automatically when the glass plate is closed. In the setup level User, a delay between closing the glass plate and scan start can be defined. It is recommended to set the operation mode to manual mode before starting a scan job.

Manual Mode

While working with the Bookeye® 4 scanner in manual mode, the Cradle Lock button (4) will only show if the magnetic lock is activated (blue) or not (not illuminated).

The glass plate will be held in closed position until

- a scan sequence is started and finished or
- the Cradle Lock button is pressed and the magnetic lock releases.

Automatic Mode

To increase productivity, the automatic mode is recommended.

Automatic mode differs from the manual mode in one point. After the glass plate is closed and the magnetic lock is engaged, a scan sequence is triggered automatically with the defined settings.

- Position the document.
- To activate the automatic mode, press down and hold the Cradle Lock button (4) until the Cradle Up (2) and Cradle Down (3) buttons blink and are illuminated in blue.

In automatic mode, the glass plate lock releases after each scan automatically and the glass plate moves to the 45 degree position.

Recovery

Hard Disk / Solid State Disk Software Failure

The file system and the Linux operating system of a Scan2Net scanner are very robust and forgiving. The file system has the ability to repair itself, even if the system loses power during a disk write operation, a condition which will almost certainly corrupt any Windows, Android or MAC OS based computer.

Nevertheless, under certain circumstances it could happen that the Scan2Net Linux software on the HD/SSD becomes corrupt. Unexpected power failures, hard power off cycles via the main power switch without a previously controlled shut down and other unexpected terminations of the operating system may cause this kind type of failure. Also, any uncontrolled interrupt of a firmware update procedure or other functions which involve writing to the main storage (HD or SSD) are a potential risk to the integrity of the firmware on the HD/SSD. The Scan2Net operating system of every WideTEK® or Bookeye® scanner is Linux based and although it happens very rarely, the Linux operating system can be corrupted like any other operating system; whether it is a Windows, Android, Mac or any other OS.

If the Linux operating system or other parts of the HD/SSD are corrupted, there is still no need to replace the HD/SSD, at least not before the recovery procedure is executed once. This procedure is similar to the procedures necessary to restore a Windows, Android or Apple OS to a previous state.

Recover the HD/SSD to Factory Default

In a Scan2Net® scanner, an image of the Scan2Net Linux operating system is stored on the Recovery Partition at certain times. The image is generated at the time of manufacturing, and also any time an HD/SSD needed to be replaced.

Preparations to Recover an HD/SSD

- Make sure that you know the scanner's IP address, subnet and gateway valid for the network or have the network administrator available.
- Login to the Image Access Customer Service Portal at http://portal.imageaccess.de and obtain the latest firmware for your device.

Step	Action
1	If still possible, shut down the scanner, either through the touch panel or through the currently used application or by pushing the start button on the scanner's housing. Otherwise, switch off the scanner at its main power switch.

Recovery Process

Make sure that the following process is not interrupted by a hard shut down or power failures.
If this process is interrupted, a loss of the recovery partition is possible, making it mandatory to physically replace the HD/SSD.

The following process cannot be influenced by the user.

Recovery Process 1

The recovery procedure is a simple multistage process.

Step	Action
2.1 - Scanner with recovery key	Wait until the scanner has powered down, then plug in the recovery key to the DB9 connector on the rear side of the scanner.
2.2 - Scanner with STOP button	Wait until the scanner has powered down.
3 - All scanners	Make sure that the main power is switched on.
4.1- Scanners with recovery key	Power up the scanner via the POWER button.
4.2 - Scanners with STOP button	Press and hold the red STOP button (1) before switching ON. Power up the scanner via the POWER button. Important: The red STOP button (1) must be pressed and then held until the red button is lit permanently.

Step	Action
5 - All scanners	The recovery procedure starts automatically. It replaces the corrupted content of the Scan2Net Linux partition with the content of the recovery partition. This process takes about 10 - 15 minutes. At the end, it powers down the scanner.
6 - All scanners	Wait until the scanner has powered down.
7 - All scanners	Switch it off via the main power switch.
8 - Scanners with recovery key	Remove the recovery key from the connector on the rear side of the scanner.
9 - All scanners	Switch on the scanner via its main power switch.
10 - All scanners	Power up the scanner via the start button.

After this procedure is complete, all network credentials are lost. Important: The default IP address is now reset to the factory default 192.168.1.50!

To set up your own network configuration, please refer to the chapter Assign the IP Address in this Setup and Instructions manual.

Recovery Process 2 - Update Scanner Firmware

Step	Action
11	In case the currently installed firmware of the scanner is not the latest version, connect the scanner via a web browser.
12	Select "Setup Device".
13	Login in as "Poweruser" with the user name "Poweruser" and the corresponding password. Default password is "Poweruser".
14	Select "Updates & Uploads".
15	In the section "Update Scanner Firmware", update the scanner with the firmware version you downloaded from the Customer Service Portal.

Recovery Process 3 - Adjustments

Finally, it is required to perform a few adjustments.

Note: All scanners require that you at least adjust the White Balance.

- Please refer to the Perform Setup chapter in the Setup & Instructions manual of your scanner for the necessity of further adjustments.

End of recovery process.

Maintenance

Ensure that no liquids penetrate the device housing.

Touchscreen

The touchscreen can be cleaned with a microfiber cloth.

Before cleaning the touchscreen, switch the Bookeye® 4 scanner off and set the main power switch to position 0.

Surfaces

Use a soft, dampened cloth to clean the housing of the scanner. Recommended is a micro fiber cloth.

Book Cradles

The rubber mats on the book cradles may only be cleaned dry!

Use a vacuum cleaner from time to time to clean the mats and remove dust and particles.

Repair

There are not any parts or components of the Bookeye® 4 scanner which can be repaired by the user.
All repairs and service works should be done by a trained technician only.

Technical Specifications

Bookeye® 4 V3 Optical System

Maximum document size	15.3 × 18.9 " (390 x 480 mm)
Scanner resolution	400 × 400 dpi (600 × 600 dpi [1])
Pixel size	9.3 + 9.3 µm
Minimum document size	4 × 4" (100 × 100 mm)
Camera	CCD camera 45.000 pixel (22.500 Color, 22.500 B&W)
Color depth	16-bit grayscale 48-bit color[1]
Scan output	24-bit color[1], 8-bit color indexed 8-bit grayscale, binary, enhanced halftone
File Formats	Multipage PDF (PDF/A) and TIFF, JPEG, JPEG 2000, PNM, PNG, BMP, TIFF (Raw, G3, G4, LZW, JPEG), AutoCAD DWF, JBIG, DjVu, DICOM, PCX, Postscript, EPS, Raw data

[1]Optionally available only for certain scanner models.

Bookeye® 4 V2 Optical System

Maximum document size	18 × 24.4" (460 × 620 mm)
Scanner resolution	400 × 400 dpi (600 × 600 dpi [1]
Pixel size	9.3 + 9.3 µm
Minimum document size	4 × 4" (100 × 100 mm)
Camera	CCD camera 45.000 pixel (22.500 Color, 22.500 B&W)
Color depth	48-bit color [1] 16-bit grayscale
Scan modes	24-bit color[1], 8-bit grayscale binary, enhanced halftone
File formats	Multipage PDF (PDF/A) and TIFF, JPEG, JPEG 2000, PNM, PNG, BMP, TIFF (Raw, G3, G4, LZW, JPEG), AutoCAD DWF, JBIG, DjVu, DICOM, PCX, Postscript, EPS, Raw data

[1]Optionally available only for certain scanner models.

Bookeye® 4 V1A Optical System

Maximum scan area	25 × 33.5" (635 × 850 mm)
Scanner resolution	600 × 600 dpi
Pixel size	9.3 + 9.3 µm
Minimum document size	4 × 4" (100 × 100 mm)
Camera	CCD camera, 45,000 pixels (22.500 Color, 22.500 B&W)
Color depth	48 bit color 16 bit grayscale
Scan modes	24-bit color, 8-bit grayscale, binary, enhanced halftone
File formats	Multipage PDF (PDF/A) and TIFF, JPEG, JPEG 2000, PNM, PNG, BMP, TIFF (Raw, G3, G4, LZW, JPEG), AutoCAD DWF, JBIG, DjVu, DICOM, PCX, Postscript, EPS, Raw data

Illumination System

Light source	White LEDs, tested according to IEC 62471
Warm-up time	None
Temperature dependency	None
UV / IR emission	None
Lamp lifetime	50,000 hour (typ.)

Electrical Specifications

External Power Supply

Voltage	100–240 Vac
Frequency	47 - 63 Hz
Inrush current	120 A max / 264 Vac
Efficiency	85 %
Operating temperature	0 ... +65°C
Operating humidity	20 ...80% RH, non-condensing
ECO Standard	CEC Level VI

Scanner

Voltage	24 Vdc
Current	Max. 5 A

Power Consumption Bookeye® 4 V3

Sleep mode	≤ 0.5 W
Standby	2.5 W
Ready to scan, monitor on	75 W
Scanning	130 W

Power Consumption Bookeye® 4 V2

Sleep	≤ 0.5 W
Standby	2.5 W
Ready to scan, monitor on	75 W
Scanning	130 W

Power Consumption Bookeye® 4 V1A

Sleep	≤ 0.5 W
Standby	2.5 W
Ready to scan, monitor on	75 W
Scanning	130 W

Dimensions and Weight Bookeye® 4 V3

Scanner outer dimensions (H × W × D)	31 × 19.7 × 22.9" (780 × 500 × 580 mm)
Scanner outer dimensions, book cradle opened (H × W × D)	31 × 23.4 × 22.9" (780 × 595 × 580 mm)
Weight of scanner	68lb. (31 kg)

Transport Box Bookeye® 4 V3

Dimension transport box (H × W × D)	28.5 × 35.4 × 24.8" (720 × 900 × 630)mm
Dimension transport box (Total shippping) (H × W × D)	33.4 × 35.4 × 24.8" (850 x 900 x 630)mm
Transport box weight	22lb. (10kg)
Totsl shipping weight	99lb. (45kg)

Dimensions and Weight Bookeye® 4 V2

Scanner outer dimensions (H × W × D)	30.7 × 26.4 × 26.4" (780 × 670 × 670 mm)
Scanner outer dimensions, bookcradle opened (H × W × D)	30.7 × 30.2 × 26.4" (780 × 765 × 670 mm)
Weight of scanner	90 lb. (41 kg)

Transpot Box Bookeye® 4 V2

Dimension transport box (H × W × D)	39.8 × 31.9 × 36.6" (1010 × 810 × 930 mm)
Transport box weight	86 lb. (39 kg)
Total shipping weight	189 lb. (86 kg)

Dimensions and Weight Bookeye® 4 V2 Professional Archive

Scanner outer dimensions (H × W × D)	30.7 × 26.4 × 29.1" (780 × 670 × 740 mm)
Scanner outer dimensions, bookcradle opened (H × W × D)	30.7 × 30.2 × 29.1" (780 × 765 × 740 mm)
Weight of scanner	126 lb. (57,5 kg)

Transpot Box Bookeye® 4 V2 Professional Archive

Dimension transport box (H × W × D)	39.8 × 31.9 × 36.6" (1010 × 810 × 930 mm)
Transport box weight	97 lb. (44 kg)
Total shipping weight	229 lb. (104 kg)

Dimensions and Weight Bookeye® 4 V1A

Scanner outer dimensions (H × W × D)	43.3 × 34.6 × 33.7" (1100 × 880 × 855 mm)
Scanner outer dimensions, bookcradle opened (H × W × D)	43.3 × 39.4 × 33.7" (1100 × 1000 × 855 mm)
Weight of scanner	170 lb. (77 kg)

Transport Box Bookeye® 4 V1A

Dimension transport box (H × W × D)	50 × 40.2 × 40.6 " (1270 × 1020 × 1030 mm)
Transport box weight	152 lb. (69 kg)
Total shipping weight	321 lb. (146 kg)

Ambient Conditions

Operating temperature	40 to 105 °F (+5 to +40°C)
Storage temperature	32 to 140 °F (0 to +60 C)
Relative humidity	20 to 80% (non-condensing)
Ambient luminance	< 300 Lux
Noise level	< 55 dB(A) (Book cradle motor active (Bookeye 4 V1A)) < 42 dB(A) (Operating) < 33 dB(A) (Standby)

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