



AIRScouter

WD-370B Quick Setup Guide

English

Before using the AiRScouter, make sure you read the *Product Safety Guide* first. Then read this *Quick Setup Guide* for correct setup and use of the AiRScouter, and keep it for future reference.

Note that product options and accessories may vary depending on the country of sale.

■ **Product Safety Guide (included in the box)**

This guide provides important safety information for the AiRScouter. Read it carefully before use.

■ **Quick Setup Guide (this guide)**

This guide provides basic information about setting up and using the AiRScouter, as well as detailed tips for troubleshooting problems that may occur.

■ **User's Guide (available online at Brother Solutions Center)**

This guide provides additional information on settings, operation, troubleshooting, and maintenance. Visit the Brother Solutions Center at support.brother.com, select Manuals, and search for your product.



Unpack the machine and check the components

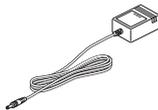
Before using the AiRScouter, make sure that you have all the components shown below.



Head Display Unit



Control Box



AC Adapter



Li-ion (Lithium Ion)
Rechargeable Battery



Cable Clip*1



Rear Band



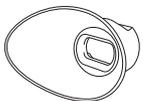
Flexible Arm
(For Right Eye)



Quick Setup Guide
(This Guide)



Product Safety Guide



Large Eyecup



Case*2



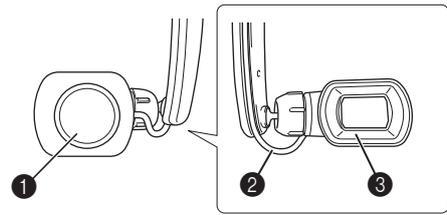
Belt Pouch

*1 The cable clip may be used to attach the head display cable to your clothing to keep it out of your way. Loop the string of the cable clip around the head display cable as shown.

*2 The case is used for storage only. If the product falls or receives a strong impact while in the case, it may become damaged.

Names and functions of key components

Head Display



① **Focus Adjustment Dial**

Adjusts the focus of the image on the head display by changing the focal length of the optics (from 30 cm to infinity).

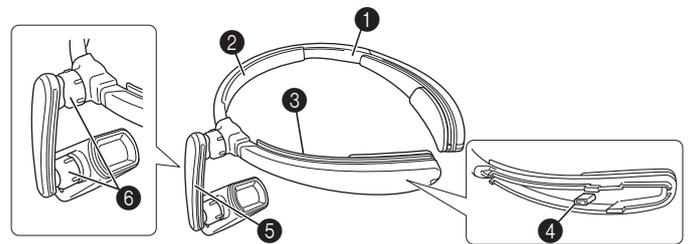
② **Head Display Cable**

Connects the head display to the control box and transmits power and video signals to the head display.

③ **Eyecup**

When attached, prevents the head display from touching the user's eye.

Harness



① **Head Band**

Attaches the AiRScouter to the user's head and distributes the weight of the unit.

② **Forehead Pad**

Cushions the headband and prevents it from slipping down the user's forehead.

③ **Cable Channel**

Holds the head display cable in place along the head band.

④ **Rear Band Attachment Post**

Allows the user to attach the rear band and tighten the head band around the head to prevent slippage.

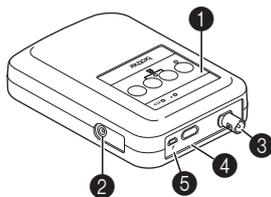
⑤ **Flexible Arm**

Allows the user to adjust the position and angle of the head display relative to the eye.

⑥ **Joint Dial**

Loosens the ball joint to allow for adjustment of the flexible arm, or tightens it to fix the flexible arm's position and angle.

Control Box



1 Control Panel

Includes control buttons, status LEDs, and a battery level indicator.

2 AC Adapter Port

Allows the user to connect the included AC adapter to power the control box, or to recharge the internal battery.

3 SDI Input Port

Allows the user to connect the control box to SDI-compatible devices, using a BNC coaxial cable.

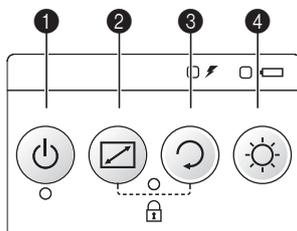
4 Head Display Cable Port

Allows the user to connect the head display to the control box.

5 Micro-USB B Port

Allows the user to connect a third-party USB battery to power the control box (note that this port cannot be used to charge the internal battery.)

Control Panel Buttons



1 Power Button

Press this button to power on the AiRScouter, and press and hold this button for two seconds to power off the AiRScouter (note that the AiRScouter will automatically power off if there is no input from a video source.)

2 Mode Button

Press this button to select the zoom mode.

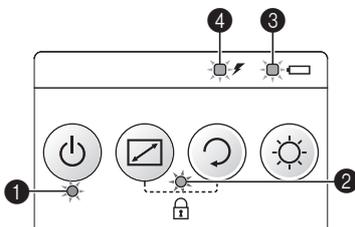
3 Image Rotation Button

Press this button to rotate the image by 180°.

4 Brightness Button

Press this button to select the next brightness level; note that the AiRScouter has five levels of brightness. To toggle between the full-colour and monochrome display, press and hold this button for two seconds.

Control Panel Status LEDs



1 Display LED (Green)

Lights up when the AiRScouter is on and an image is being projected onto the display.

2 Key Lock LED (Orange)

Lights up when button operation on the control box is disabled.

3 Internal Battery LED (Orange)

Lights up when the control box is being powered by the internal battery.

4 External Power LED (Orange)

Lights up when the control box is being powered by the AC adapter or by an external battery (for example, a third-party USB battery).

LED Indications

○ lit ◐ flashing ● off

1 Display LED (Green)

State	Name	Explanation
○	Display ON	The AiRScouter is receiving a compatible video signal from an external device.
◐ (Slowly)	Operating	The control box is processing the video signal.
◐ (Quickly)	No input	The AiRScouter is not receiving a compatible video signal from an external device.
●	Power OFF	The AiRScouter is powered off. To power it on, press the power button.

2 Key Lock LED (Orange)

State	Name	Explanation
○	Key lock ON	Button operation on the control box is disabled.
●	Key lock OFF	Button operation on the control box is enabled.

3 Internal Battery LED (Orange)

State	Name	Explanation
○	Battery level high	The internal battery is fully charged.
◐ (Slowly)	Battery level medium	The internal battery is half charged.
◐ (Quickly)	Battery level low	The internal battery is almost completely discharged.
●	No battery	The internal battery is fully discharged.

4 External Power LED (Orange)

When the AC adapter is connected:

State	Name	Explanation
○	Working	The AiRScouter is being powered by the AC adapter.
◐ (Slowly)	Charging	The internal battery is being charged by the AC adapter.
◐ (Quickly)	Charging error	An error occurred while the internal battery was charging.
●	Full charge	The internal battery is fully charged.

4 External Power LED (Orange)

When an external battery is connected:

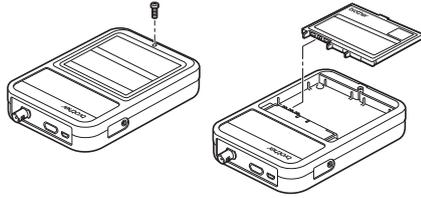
State	Name	Explanation
○	Working	The AiRScouter is being powered by an external battery.
◐ (Quickly)	Connection error	An error occurred while an external battery was supplying power.
●	No battery	The external battery's capacity is low. If the internal battery is charged, the AiRScouter will switch to using it for power (see 3 Internal battery LED.)

Before using the AiRScouter

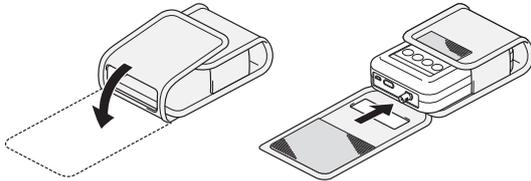
How to assemble the AiRScouter

Ensure the AiRScouter is powered and correctly connected according to the following procedure:

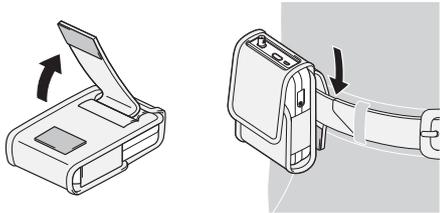
1. Insert the internal battery into the control box:
 - a) Remove the screw from the back of the control box and slide open the cover panel.
 - b) Insert the Li-ion rechargeable battery.
 - c) Replace the cover panel and tighten the screw on the back of the control box.
2. Connect the AC adapter to the AC adapter port on the control box, and fully charge the internal battery.



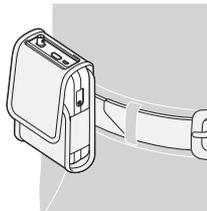
3. Open the belt pouch and slide the control box into it as shown, so that the ports are still accessible when the flap is closed.



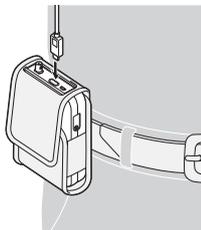
4. Pass your belt through the belt loop on the rear of the belt pouch.



5. Attach the control box firmly to your body as shown below.



6. Connect the head display cable from the head display to the head display cable port on the control box.



7. Attach the video input cable to the SDI input port on the control box, and the BNC connector on the other end to the SDI port of an input source.

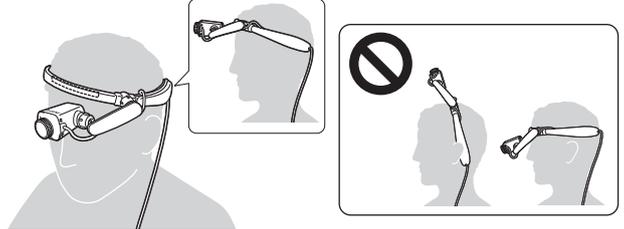


Note

The only supported resolutions for input sources are those covered by the HD-SDI standard. If an input source with a higher or unsupported resolution is connected, the image may not display correctly on the head display screen. If this occurs, check the output resolution of the video source.

How to wear the AiRScouter

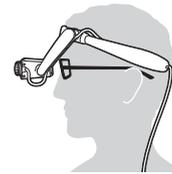
1. Place the head band onto the head as shown. The band should be positioned just above the forehead.



Note

If the head band feels loose or starts to slip down the forehead, it is recommended that you attach the rear band and use it to tighten the fit on your head.

If you wear glasses

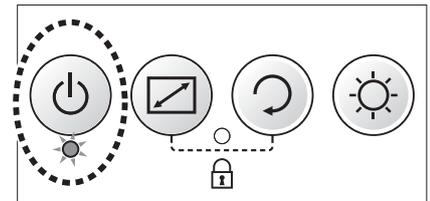


2. To secure the head display cable to your clothing, use the cable clip.

Adjusting the display

Turn the power on

Press the power button to turn the AiRScouter on. (The LED under the power button will turn green.)



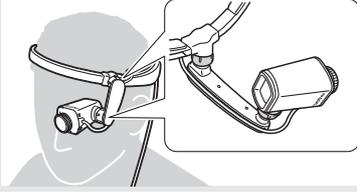
Adjust the position of the Head Display

Loosen the ball joints by turning the dials on either end of the flexible arm counter-clockwise. Adjust the position and angle of the head display so that it is easy to view. Tighten the ball joints by turning the dials on either end of the flexible arm clockwise, to fix the head display in place.



Note

- If the ball joints become loose after adjusting the position of the head display, turn the dials on either end of the flexible arm clockwise to fix the head display in place.
- If you cannot see the full image after adjusting the flexible arm, you may have to adjust the position of the head band to bring the display into your field of view.



Adjust the focus of the image

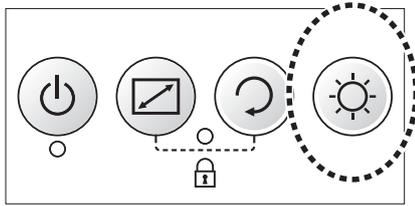
Turn the focus adjustment dial to either side until the image on the head display is in focus. The focal length of the optics can be changed from 30 cm to infinity.



Adjusting the Settings

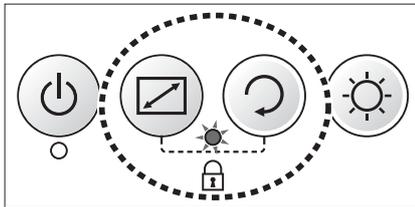
Adjust brightness

Press the brightness button on the control panel to adjust the brightness of the image on the head display. There are five levels of brightness, and each press will increase the brightness by one level. If the button is pressed while at maximum brightness, the brightness will return to the lowest level.



Lock the buttons of the control panel

To prevent unintentional operation, activate the key lock function by pressing the mode button and the rotate button on the control panel simultaneously. The key lock LED will turn orange when the control panel buttons are disabled.



Note

To disable the key lock function, press the mode button and the rotate button on the control panel simultaneously again.

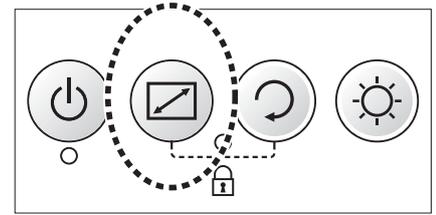
Enlarge or reduce the size of the image

Press the mode button to enlarge or reduce the size of the image on the head display. The following zoom modes are available:

- Normal - the image is displayed at the original resolution
- Enlarge - the centre portion of the image is enlarged to fit the head display screen.

This mode is useful for focussing or to check fine details in the image

- Reduce - the image is reduced in size to fit the head display screen; this mode is useful if you cannot clearly see details around the edges of the image in Normal mode



Normal → Enlarge → Reduce
↑

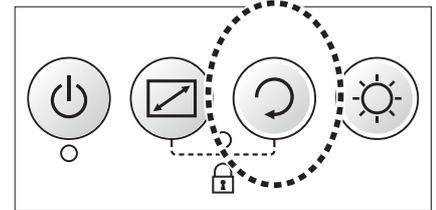
Pressing the mode button will change the zoom mode in the following order: Normal, Enlarge, Reduce, Normal...

Note

The zoom modes use a fixed percentage to resize the image, which is not user-configurable.

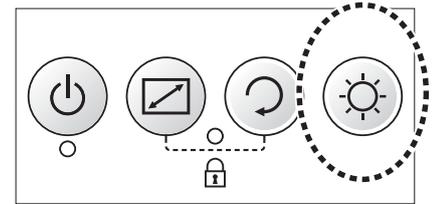
Rotate the image

Press the image rotation button on the control panel to rotate the image by 180°.



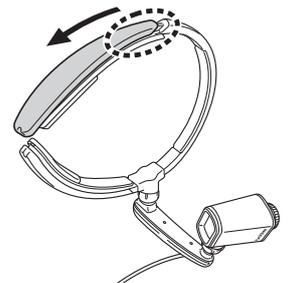
Change colour mode

Press and hold the brightness button for two seconds to change the head display from full-colour to monochrome. Press and hold the brightness button for two seconds again to return to full-colour mode. The shades of white vary on each head display.

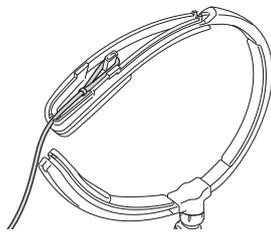


Attach the rear band

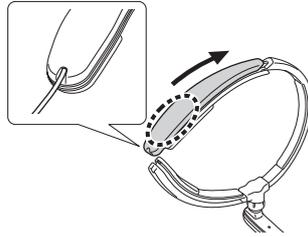
1. Press the area highlighted in the image below, and slide the head band cover towards the end of the band to remove it.



- Slide the loop at one end of the rear band over the attachment post as shown in the illustration, and feed the rear band through the opening at the end of the head band.

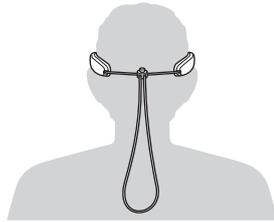


- Replace the head band cover as shown, ensuring that the rear band is fed through the cut-out on the end of the cover. Press the area highlighted in the illustration and slide the cover back into place.

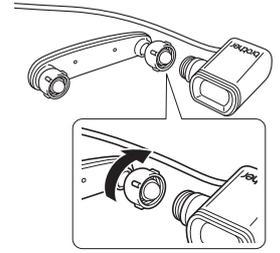


- Repeat Steps 1-3 to attach the other end of the rear band to the other end of the head band.

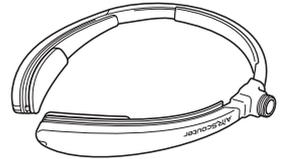
- Adjust the rear band's length using the slider.



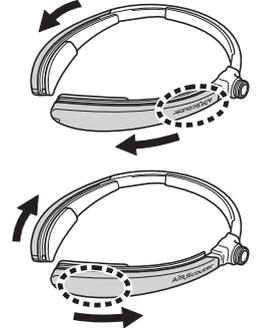
- Rotate the dial on the ball joint between the flexible arm and the head display clockwise, until the flexible arm is separated from the head display.



- Turn the head band over so that the threads of the ball joint face the other way, and the AiRScouter logos on the head band covers are upside-down.



- Remove the two head band covers as shown, by pressing the area highlighted in the image below and sliding the cover to the end of the head band. Swap the two covers and replace them as shown, so that the AiRScouter logos are now facing the correct direction.



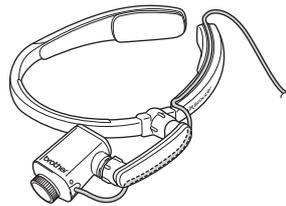
Switch the head display to be viewed with the right eye

While the AiRScouter is supplied with the head display screen on the left side of the head band, the flexible arm may be switched to allow the head display to be positioned over the right eye instead.

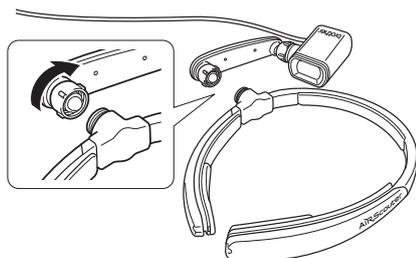
Note

The flexible arm for left eye and the flexible arm for right eye are two separate parts that are included in the AiRScouter box. Because of its design, the flexible arm for right eye cannot be used for left-eyed viewing, and vice versa.

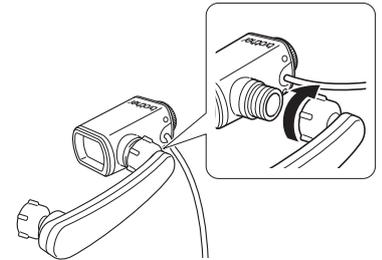
- Ensure that the AiRScouter is powered off and that the head display cable is disconnected from the control box before continuing.
- Remove the head display cable from the cable channel on the head band, and from the cable channel on the flexible arm.



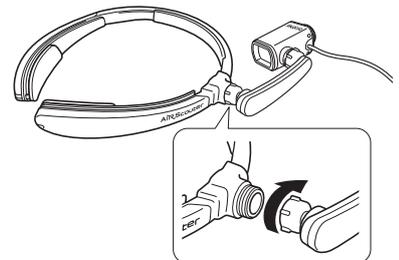
- Rotate the dial on the ball joint between the flexible arm and the head band clockwise, until the flexible arm is separated from the head band.



- Attach the flexible arm for right-eyed viewing (the other arm that is included in the box) to the head display, by lining up the narrow end of the flexible arm with the threads on the head display, and rotating the dial on the ball joint clockwise to tighten.



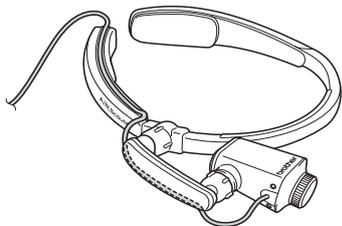
- Attach the flexible arm to the head band by lining up the wide end of the flexible arm with the threads on the head band, and rotating the dial on the ball joint clockwise to tighten.



Note

To increase the stiffness of the arm during operation, you can tighten one or both ball joints by rotating their respective dials clockwise.

- Run the head display cable through the cable channel on the flexible arm, and then through the cable channel on the top of the head band. Secure the head display cable into the clip on the end of the head band, to prevent it from coming loose during operation.



Note

When attaching the head display cable to the flexible arm and head band, ensure that you leave enough slack so that you do not pull the head display cable during adjustment and operation.

- Connect the head display cable to the control box and press the power button to turn the AiRScouter on. Press the image rotation button to rotate the image by 180° so that it is no longer upside-down.

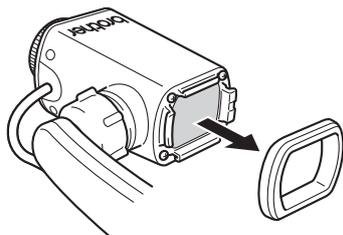
Note

To return the AiRScouter to left-eyed viewing, follow the same instructions, using the flexible arm for left eye instead of the flexible arm for right eye.

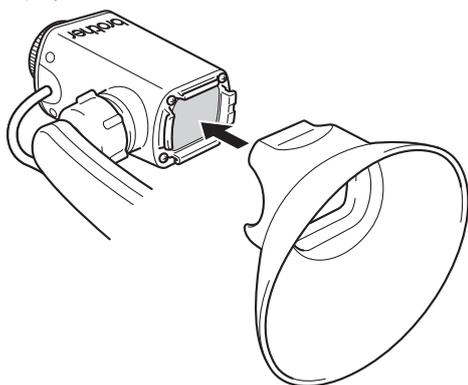
Replace the Eyecup

Depending on your task or environment, you may want to replace the small eyecup attached to the head display with the large eyecup that is included in the box. The large eyecup will isolate your eye and the screen from your working environment.

- Carefully remove the small eyecup from the head display as shown.



- Correctly align the large eyecup, and then gently press the eyecup to attach it to the head display.



Important

- Be careful to avoid touching the lens while changing the eyecup. You may dirty or damage the lens if you touch it.
- Be careful to align and attach the eyecup correctly. The eyecup or head display may be damaged if it is incorrectly aligned or forced into place.

Power supply

Important

- The AiRScouter can use the following power supplies:
 - The AC adapter supplied in the box
 - The internal battery supplied for use inside the control box
 - An external battery (for example a third-party USB battery) that supplies a voltage of DC 5 V and a current of at least 1 A
- If multiple power supplies are connected to the AiRScouter at the same time, they will be prioritised in this order:
 - AC adapter
 - External battery
 - Internal battery

Example:

- If an external battery is disconnected while the AiRScouter is in use, the system will switch to using the internal battery.
- If an external battery is connected while the AiRScouter is using the internal battery, the system will switch to using the external battery.
- The internal battery will not charge while the AiRScouter is turned on. To charge the internal battery, you must power off the AiRScouter and connect the AC adapter.
- The external battery cannot be used to charge the internal battery. The internal battery can only be charged by the AC adapter.
- You cannot charge the AiRScouter by connecting it to a computer with a USB cable.
- If a USB-AC conversion adapter is used as the external power supply for the AiRScouter, ensure that the adapter supplies a voltage of DC 5 V and a current of at least 1 A.
- If the AiRScouter becomes hot to the touch due to continuous use, or if the environmental conditions are outside of the recommended range, the external power LED will begin to flash quickly. While the AiRScouter is in this state, the internal battery cannot be charged.

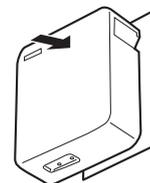
■ Using an External Battery

You can use a third-party USB battery as an external power source to extend the operating time of the AiRScouter beyond that supported by the internal battery.

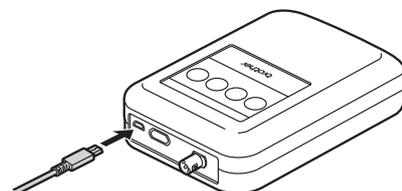
Important

- Only use a third-party external battery that can supply a voltage of DC 5 V and a current of at least 1 A.
- The external battery cannot be used to charge the internal battery. The internal battery can only be charged by the AC adapter while the AiRScouter is powered off.

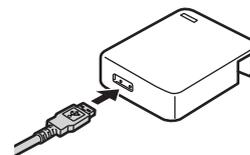
- Before connecting an external battery to the control box, ensure that the external battery has been fully charged. (For more information on charging a third-party USB battery, see the battery's manual.)



- Connect the Micro-USB B plug of a USB Type-A to Micro-USB B cable to the Micro-USB B port of the control box.



- Connect the USB Type-A plug to the USB Type-A port of the external battery.



- The external power LED on the control panel will turn orange when an external battery is connected and supplying power to the AiRScouter.
 - The external power LED will turn off when the external battery is discharged.
 - If the internal battery is charged, the system will automatically switch to use the internal battery.

Troubleshooting

If a problem occurs while you are using this product, resolve it by using the following methods:

Problem	Check	Action
The screen is blank.	Is the head display cable connected correctly?	Check that the head display cable is connected correctly, and that the connector is fully inserted.
	Is the AiRScouter turned off?	Press the power button to turn the AiRScouter on.
	Has the internal battery for the control box discharged?	Connect the AC adapter to the AiRScouter to charge the internal battery.
	Have both the internal battery and the external battery discharged?	Connect the AC adapter to the AiRScouter to charge the internal battery. Alternatively, try using a charged external battery.
	Is the resolution of the input device set to the input resolution of the AiRScouter?	Check the product specification and set the resolution of the input device to the input resolution of the AiRScouter.
	Is the video input cable connected correctly?	Disconnect the cable from the AiRScouter and from the input device, and then reconnect it.
Pressing and holding the power button does not switch the control box OFF.	-	Press and hold the power button for eight seconds to force the power to turn off.
The image has frozen.	Is the video input cable connected correctly?	Disconnect the cable from the control box and the input device, and then reconnect it.
	-	Reset the control box by powering it off and back on again. Press and hold the power button for eight seconds until the control box powers off, and then press the power button to turn the control box back on.
The internal battery cannot charge.	Is the internal battery overheating?	If the internal battery overheats from continuous use or for any other reason, it cannot charge even when the AC adapter is plugged in (the external power LED flashes quickly). Unplug the AC power cord and check the amount of charge on the internal battery LED. After the battery has cooled down, reconnect the power cord to resume charging.
	Is the external environment suitable for charging?	Charging is possible in an environment with temperature between 10°C and 33°C.
	Is the AiRScouter turned on?	Turn the AiRScouter OFF while charging the internal battery.
	Is the internal battery over-discharged?	If the internal battery has been left unused at a low or zero charge for too long, it may be over-discharged. An over-discharged battery cannot be recharged and must be replaced. Contact your Brother dealer for more information about purchasing a replacement battery.
The internal battery cannot be charged from an external battery.	-	Connect the AC adapter to the AiRScouter to charge.
There is no power supply, even when an external battery is connected (the external power LED (orange) does not light).	Does the external battery provide the current of at least 1 A?	Use an external battery that provides a voltage of 5 V DC and current of at least 1 A.

Problem	Check	Action
The internal battery discharges almost immediately.	Is the internal battery fully charged?	Fully charge the internal battery before using it.
	Does the internal battery discharge very quickly after it was fully charged?	The internal battery has reached the end of its service life and must be replaced. Contact your Brother dealer for more information about purchasing a replacement battery.
The edges or corners of the image on the display screen are not visible.	Has the position of the head display unit been correctly adjusted?	Adjust the position and angle of the flexible arm and head display until you can see the complete image.
The display screen is blurry.	Is the focal length adjusted correctly?	Turn the focus adjustment dial on the head display right and left to adjust the focal length.
The display screen is too dark, or too bright.	Is the brightness set correctly?	Press the brightness button to adjust the brightness.
The display screen is too dark to see.	Is the current environment extremely bright?	Check whether direct sunlight is getting in, and whether anything in the surrounding area is emitting extremely bright light.
The display is monochrome.	Is monochrome mode set?	Press and hold the brightness button for two seconds to return to the colour screen.
The full image is not displayed on the screen.	Is the zoom mode set to Enlarge?	Press the mode button.
The image displayed on the screen is too small.	Is the zoom mode set to Reduce?	Press the mode button.
The image displayed appears to have dirt on it.	Is there dirt on the lens of the head display unit?	Clean the lens of the head display unit with a soft cloth.
	If you are using a camera as an input device, is there dirt on the lens of the camera?	Clean the lens of the camera.
The fit of the head band feels loose.	Are you using the rear band?	Use the rear band to tighten the head band.
	Is the fit still loose when you are using the rear band?	If the head band has been over-stretched, it will not return to its original shape and may have to be replaced. Contact your Brother dealer for more information about purchasing a replacement part.
The head band fits poorly on the head when wearing glasses.	Does the head band touch the arms of your glasses?	If possible, use glasses with curved arms (that follow the shape of the ears) so that they do not touch the head band.
The movement of the flexible arm is too tight or too loose.	Has the tightness of the ball joint been adjusted?	Turn the dials of the ball joints between the flexible arm and the head band, and between the flexible arm and the head display, to adjust their tightness.

If, after reading the troubleshooting tips, you are unable to resolve your problem, visit the Brother Solutions Center at support.brother.com



The Li-ion Rechargeable Battery

■ Important notes on charging and using the Li-ion Rechargeable Battery

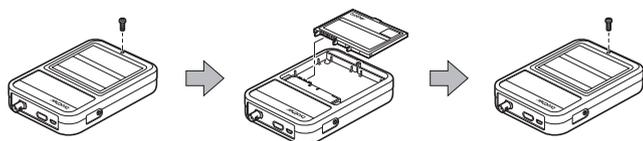
- Make sure to completely charge the Li-ion battery before using the AiRScouter.
- The Li-ion battery is designed to be charged and used within specific ranges of environmental conditions. The Li-ion rechargeable battery included with the AiRScouter can only be charged in an environment between 10°C and 33°C. If you attempt to charge the battery at higher temperatures, the external power LED will flash rapidly and the battery will not charge.

■ Characteristics of the Li-ion Rechargeable Battery

When you know the characteristics of the Li-ion rechargeable battery, you are able to use the Li-ion rechargeable battery provided with the product correctly.

- Using or storing the Li-ion rechargeable battery in places that are too hot or cold may cause them to deteriorate more quickly. In particular, usage at a high charge rate (90% or more) in a hot place greatly accelerates the deterioration of the Li-ion rechargeable battery.
- If this product will not be used for a month or more, take the Li-ion rechargeable battery out of the control box, and store it in a cool place out of direct sunlight.
- Charge the Li-ion rechargeable battery every six months if it is left unused for a long period.
- The device may feel warmer if it is touched while the Li-ion battery is charging. This is normal, and the device can be used safely. Stop using the device if the control box gets extremely hot.

■ Inserting the Li-ion Rechargeable Battery into the Control Box

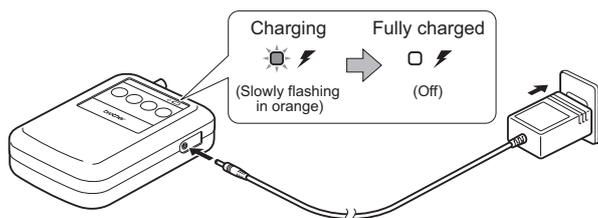


If the Li-ion rechargeable battery was removed, perform the steps listed above in reverse to insert it again.

■ How to charge the Li-ion Rechargeable Battery

The Li-ion rechargeable battery can be charged only by using the included AC adapter. To charge the battery, follow these steps:

1. Power off the control box (note that the battery will not charge while the AiRScouter is operating.)
2. Plug the included AC adapter into the correct electrical socket.
3. Connect the AC adapter to the AC adapter port on the control box.



Note

It takes about three hours to fully charge the Li-ion rechargeable battery after it is completely discharged.

■ Stopping the charging of the Li-ion Rechargeable Battery

To stop the Li-ion rechargeable battery charging, unplug the cable from the AC adapter.

Requesting repairs

Before requesting repairs make sure you have performed the tasks listed in the *Troubleshooting* section.

If that does not solve the problem, note the following information and contact your Brother dealer:

- Your AiRScouter's serial number
- Problem symptoms
- Problem context (for example, what you did and what you expected to happen)
- Problem occurrence frequency (for example, always or intermittently)

Part retention period:

The minimum part retention time of functional parts for repair of this product is five years from the end of manufacturing (two years for printed materials).

For FAQs, troubleshooting and more, visit the Brother Solutions Center at support.brother.com

