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Mindful Lab

(NRW4004 & NRW4002)

User manual

Note: Please read this instruction manual in its entirety before using the Mindful Lab.

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Further information

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Use this instruction manual

This manual provides guidance on the installation and use of the *Mindful Lab* system. Users should read and ensure that they understand the content of this manual in detail before using this product, and operate in strict accordance with the instructions of this manual to ensure the safety and effectiveness of the operation. If you have any questions or comments about the use of the equipment, please contact Neuracle Technology (Changzhou) Co., Ltd.

The following general conventions are used in this manual:

Symbol	Illustrate
⚠ **Warning**	"Warning" is an alert that indicates a potentially hazardous situation related to the use or misuse of a device that, if not avoided, could result in serious injury or death.
Attention！	"Attention" is an alert that indicates a potentially hazardous situation related to the use or misuse of a device that, if not avoided, could result in minor or moderate injury. It can also be used to warn of unsafe behavior or potential equipment damage.
Suggest：	Provide users with an explanatory prompt for ancillary information that they are interested in.

Description of the symbol

Symbol	Illustrate
	Consult the instruction manual when using
	Manufacturer
	The user should consult the important warning information of the instructions for use
	Power button
	BF type application part
	Wireless
	The water temperature is 40°C, and the washing is mechanical at room temperature
	Do not chlorine bleaching
	Hand wash with care
	Do not soak
	Dry in the shade
	Do not expose to the sun
	Avoid rain
	Temperature limits
	Placed upwards
	Handle with care
	Fragile
SN	Serial number
	Date of manufacture
	Do not throw it away

Safety Guidelines

- ✧ This product should be operated in strict accordance with the safety precautions and instructions for use specified herein.
- ✧ This product must be installed and maintained by a *Neuracle* approved technician.
- ✧ It is forbidden to modify the system in any way; Any attempt to disassemble, repair or modify this product by any person other than *Neuracle*'s authorized service technician may pose a risk to the test subject or operator and may result in damage to the equipment; Equipment that has been dismantled, repaired, altered or modified by non-authorized personnel is not covered by the *Neuracle* Warranty and is not guaranteed in any way.
- ✧ If there is an unsafe condition, the use of the product is prohibited.
- ✧ If the product fails, stop the operation immediately and contact the authorized service technician.

Warnings and precautions

When using this product, please observe the following and the warnings and precautions in each section.

⚠ Warnings

- It is forbidden to connect any item or device that is not part of this product to be used in conjunction with this product without the consent of Bricon, and the device should not be stacked with other devices, and if it must be stacked, it should be observed to verify that it works properly in the configuration it is using.

- Do not pour liquids such as water or beverages into the equipment, as this may cause electrical and machine parts to malfunction, which could lead to accidents, fires, or equipment failures.

Attention！

- Do not violently impact this product and do not drop any part of this product.
- The equipment is a precision electronic product, please waterproof, moisture-proof, dust-proof, keep it clean and dry.
- Performance may be affected when the ambient temperature and humidity of the product is stored or used outside the range specified by the manufacturer.
- Please dispose of end-of-life equipment in accordance with the provisions of relevant local environmental protection laws and regulations, and do not pollute the environment.
- When unplugging the wire and accessories, grasp the plug part instead of pulling the wire directly.

Electrical safety

- ✧ If a broken wire or cracked wire is detected, it is forbidden to operate the device. Please contact the after-sales service personnel in time for maintenance and repair.
- ✧ Conductive liquids flowing into the product's active circuit components can cause short circuits.

Electromagnetic compatibility

This product generates and radiates radio frequency energy. The device can cause radio frequency interference to other equipment as

well as to radio communication devices. This product provides reasonable protection against such interference. If you suspect that the product is interfering with other nearby electrical equipment, turn off the power to the product to see if the interference is eliminated. If it is determined that the product is a source of interference, the product or adjacent equipment can be sub-shielded or relocated as necessary.

Note: High-frequency communication equipment (e.g., mobile phones, routers, etc.) may interfere with the normal use of this electrical equipment. Because electromagnetic fields may affect the functional reliability of the device, it is important to use this equipment away from devices that emit electromagnetic fields.

Only parts manufactured or specified by *Neuracle* are permitted for use with this equipment. The use of third-party vendor parts may result in enhanced emissions or reduced noise immunity performance or other issues with the device.

1. Overview

1.1. Product Description

Mindful Lab is a portable wearable EEG device developed and designed by Neuracle Technology (Changzhou) Co., Ltd. for the needs of neuro electro physiology research.

This product recognizes the EEG signal through the electrode, amplifies and filters it, converts it into a digital signal through analog-to-digital, and transmits it to the computer through the wireless network for data display and storage.

After configuring relevant supporting accessories, the system can receive signals such as sound, light and buttons, and can record and store the activity of the epidermal electrical signals of the human head and various physiological signals such as skin electro derma and electrocardiogram under different signal sources (sound, light, and buttons) at the same time.

1.2. Applicability

This product is used for the simultaneous study of multimodal data of multiple people with the portable multi-modal synchronous acquisition equipment of Mindful Lab system, which is only used for Laboratory neuroscience research and shall not be used as a medical device, and only technicians who have received relevant professional training and qualified can use this product.

1.3. Product Models

The Mindful Lab series products are categorized into two models—NRW4002 and NRW4004—based on their probe types.

While the amplifier shape remains consistent across all models, the number of channels varies between each one.

1.4. Operating environment and working conditions

- ✧ Ambient temperature: +5°C~+40°C
- ✧ Relative humidity: 30%~75% (non-condensing)
- ✧ Atmospheric pressure: 700hpa~1060hpa
- ✧ Power requirements: 3.7 lithium battery

2. Composition and function of the product

2.1. Overview of the product composition

Figure 1 Examples of the main components

Mindful Lab system（Figure 1）is mainly composed of Mindful Hub、Triggerbox、Auxiliary sensor、EEGcap (including electrode), software-Collect etc，the configuration is as follows:

	Device	Quantity	Description
Mindful Hub Package	Mindful Hub	1	multimodal data storage unit
	Li-ion battery	2	
	Battery charger	1	
	Silicon shell and straps	1	
Triggerbox Package	Triggerbox	1	a wireless/wired sync system, with a patented protocol which accurately broadcasts time markers with millisecond precision, to reduce latency and jitter (≤1ms)
	Triggbox power adapter	1	for triggerbox power supply
	USB cable	1	serial port trigger input; or power supply
	Optical cable	1	flashing visual trigger input

	TriggerIN/OUT cable	2	DB25 Pin (female & male), customized is available
	Extended triggerbox I	1	multiple trigger input, like pedaling and pressing happen simultaneously
	N.EVENT cable	1	connect Extended triggerbox I to Main triggerbox
	N.EVENT cable	1	connect Extended triggerbox I to Mindful Hub
EEG Package	A/D Connector-64channel	1	connect EEGCap to Mindful Hub
	EEGCap	1	choose from optional item
Multi-modal Package	Auxiliary sensor	1	built-in IMU（3 ACC/ 3 GYR/ 3 MAG）; integrated ECG、SPO2、GSR
	Sensor cable	1	connect auxiliiary sensor to Mindful Hub
	Wrist strap	1	velcro, to fix the auxiliiary sensor
	SPO2 package	1	3 channels, SPO2/ HR/ Pulse
	ECG package	1	1 channel, bipolar lead
	GSR package	1	1 channel, bipolar lead (two types of electrodes)
	Disposable electrodes	1	for EOG、ECG、GSR etc.
Software	Collect	1	
	Dongle	1	permanent authority
optional	N.LINK（optional）	1	for wired data transmission

Note！

- The actual component composition (options and gifts) is subject to the packing list at the time of delivery.

2.2. EEG Amplifier

The Mindful Hub is powered by a rechargeable Li-ion Battery to obtain EEG data, which is connected to the EEG cap through a A/D Connector Figure 2, and the data is transmitted to a computer through a Wi-Fi module using a router.

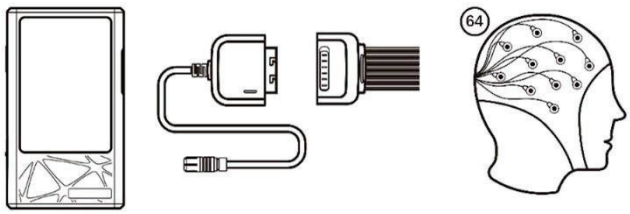


Figure 2 Wearing of Mindful Hub and EEG caps

Figure 3 shows the appearance and structure of the Mindful Hub, which are described as follows:

Figure 2 Schematic design of the NRW4004

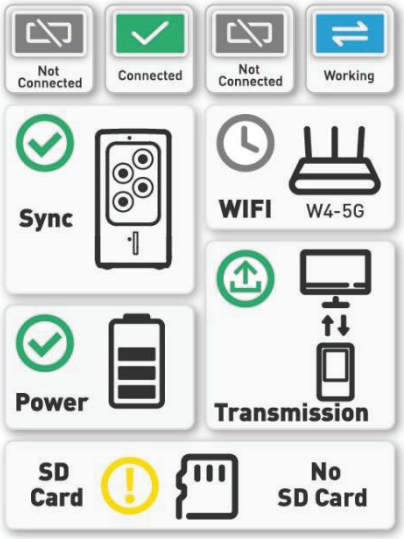


Figure 4 Mindful Hub screen display

Structure	Description of the function
Neuracle	Company logo
Power switch	Control the device on and off. When turning on or off, press and hold this button until the display brightens or dims.
Battery slide switch	Pull up the slide switch to open the battery compartment and remove the battery. And push the battery into the battery compartment to set up.

	In order: wired connection, EEG Amplifer, Physiological Signal Module, and personal event devices. Synchronization status display, and there are two statuses: synchronization success and synchronization failure Wifi status display, connection successful, connection failed, and connecting. The battery level display, the normal battery is green, and the low battery is red. Data transfer status. The total capacity and used capacity of the SD card will be displayed on the right side of the card, and if it exceeds 80%, a warning will be reported
Serial Number	The serial number used to identify the product.

2.3. Trigger Box

Figure 5 Trigger Box

Trigger Box is used to calibrate the data received from each sensor or interface and transfer the timestamp to a computer via Wi-Fi or wire. For a detailed introduction and trial method of the trigger box, please refer to the "Trigger Box Manual".

2.4. Extended triggerbox I

The Mindful Lab system consists of three types of event box, personal event box, Multiplayer event interaction box, and public event box.

Figure 6 Extended triggerbox Ⅰ

The event box is used to connect the trigger box/host and external input events, including light sensor, button, analog signals, audio events, etc.

Figure 7 N.TRIG- Front

The Multiplayer Event Interaction Box can connect up to 8 serial external event triggering devices to the trigger box.

Figure 8 N.TRIG-Back

A public event box is used to extend the parallel port of the trigger box connection to the external triggering event device.

2.5. Flat-cap

The Flat-cap is used to position the EEG electrodes and integrate the electrode wires. One end of the electrode wire of the Flat-cap is connected to the electrode, and the other end is connected to the Terminal through the EEG amplifier. There are many models of Flat-

caps used in the system, and users can confirm the selection with the sales staff of *Neuracle* as needed.

Figure 9 Flat-Cap

Note！

- Please use the Flat-cap provided or licensed by *Neuracle*, otherwise the system performance may be affected.

2.6. Auxiliary sensor

The Mindful hub can synchronously collect a variety of physiological signals through the Auxiliary sensor Module, including GSR、ECG 、IMU（3 ACC/ 3GYR/ 3 MAG）、SPO2

Figure 10 Auxiliary sensor

2.7. Computer

The Mindful Hub is wirelessly connected to the computer through the router, and the computer needs to run the EEG acquisition and analysis software provided by *Neuracle*. See Table 1 for the most basic configuration requirements for the computer. *Neuracle* can provide computer models for users to choose.

Table 1 Basic PC requirements

Project	Require
OS	Windows 7 and up
CPU	Frequency 2GHz
Disk	100GB
Memory	4GB
Network	Wi-Fi，5GHz

⚠Note

2.8. software

The EEG acquisition and analysis software is a desktop software for

computer working with Mindful Hub, which can realize the functions of EEG signal acquisition control, real-time display, data storage, data playback and so on. For the detailed introduction and use of EEG acquisition and analysis software, please refer to the "Collect Software Manual".

2.9. Other Accessories

Components	Description of the function	Icon
Li-ion Battery	Power the device	
Battery Charger	Charge the Li-ion battery	
N.Link hub	For wired connection terminals	
Conducting Gel	During the experiment, Conducting Gel is injected between the electrode and the scalp to increase the conductivity between the two	
Cleaning brush	It is used to clean the electrode	

Flexible rule	It is used to measure the head circumference	
Device Case	Place, carry, protect all product components	-

3. Instructions

3.1. Requirements of environment

⚠Note

- Choose a room with infrastructure, must have a power supply system and grounding, and the frequency and voltage of the AC power supply should meet the requirements.
- There should be no high-power equipment such as high-voltage cables, X-rays, ultrasound and electrotherapy machines near the equipment.
- Avoid contact with water, avoid use in places where the air pressure is too large, the humidity and temperature exceed the specified standard, the ventilation is poor, the dust content is too large, or there are sulfur, salt, alkali gases, chemicals or gas leakage hazards.

Note！

- The equipment should be placed on a flat horizontal workbench to avoid excessive vibration and impact when moving.

3.2. Hardware connections

For specific procedures, please refer to the following steps:

1) Open the device case and take out the parts from each layer. Start by assembling the router with its power adapter and connecting it to a power source.
2) Connect your computer to the router via Wi-Fi, network

name: NeusenW4-5G, password: neuracle0519.

3) Connect the trigger box to the power supply through the power adapter, turn on its power switch, and wait for the network indicator to display; According to the needs of the experiment, connect the corresponding accessories. (Optional step)
4) Load the terminal with battery, press and hold the power button for 2 seconds until the display of the device lights up, display the power and confirm that the power meets the experimental needs, and fix it to the EEG cap as shown in Figure 10, the screen can display the connection of the probe, and the connection is normal when it is working normally.

Tip：

When the device is connected and assembled with the Flat-cap in the boot state, the firmware self-test will be automatically started to confirm whether the hardware is successfully connected. If the connection is successful, the probe indicator will be displayed as normal; If the connection is unsuccessful, the probe indicator will show that the connection is abnormal, you can remove the probe and reconnect with the host until the normal connection is displayed.

5) Wear an Flat-cap on the subject's head.

Figure 11 Schematic diagram of the connection between the amplifier and the cap

3.3. Software Procedure

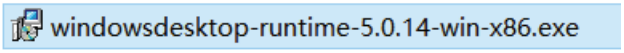
Tip：

The EEG acquisition and analysis software and related drivers have been installed in the supporting computer, and the detailed software installation and using instructions can refer to the "Collect Software Manual".

3.3.1 Install

（1）Install the Collect software and the required driver software

Neuro+Setup1.0.exe



After the software installation is completed, double-click to open the Collect software (the test computer needs to be connected to the wireless: NeusenW4-5G)

（2）Login interface

The system platform has four functional areas: Acquire, Replay, Setting, and DataManager.

Acquire: online real-time viewing and recording of EEG data, etc

Replay: Playback of recorded waveform data

Setting: Set the English display in the system

DataManager: Convert the format of the recording file

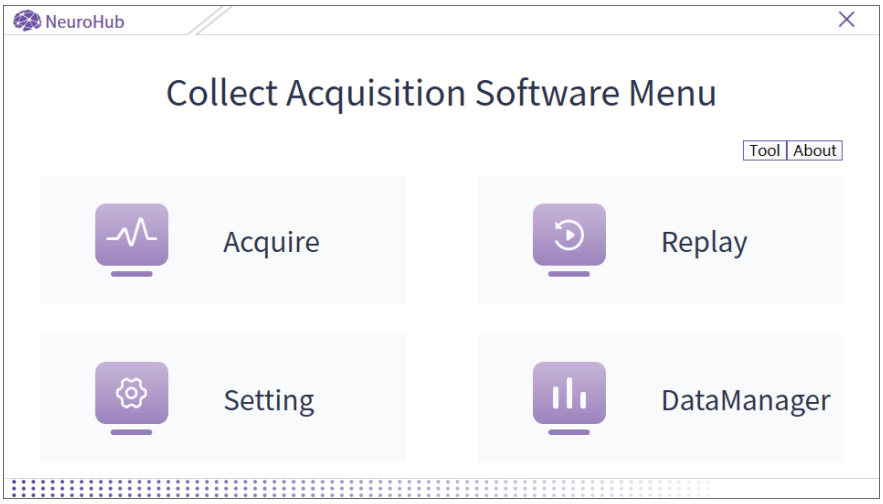


Figure 11 Login interface

3.3.2 Acquire

（1）Log in to the platform interface and click "Acquire"

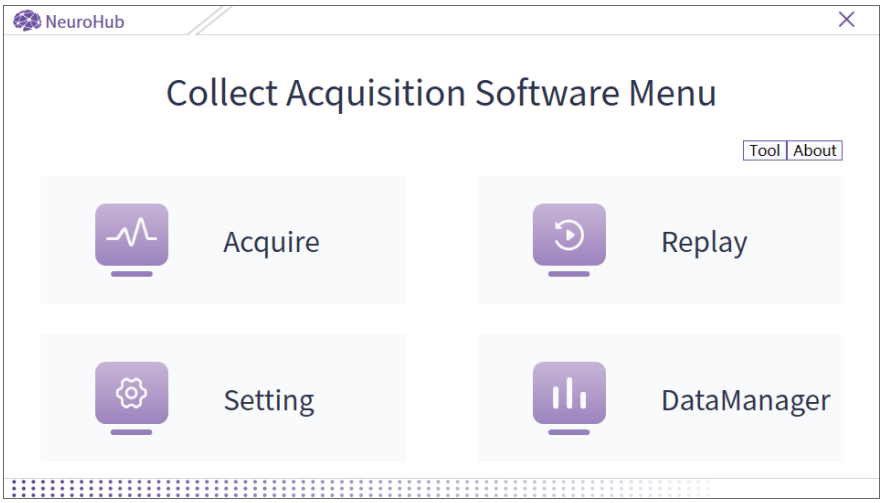


Figure 12 Acquire interface

（2）Experiment preparation

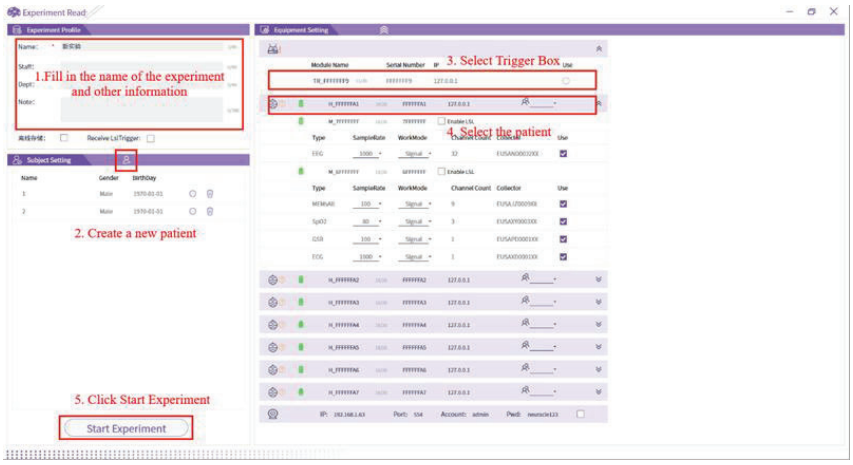
1) Fill in the name of the experiment and other information;

2) Create a new patient (if the patient file has already been built, you can ignore this step), and the contact information must be filled;

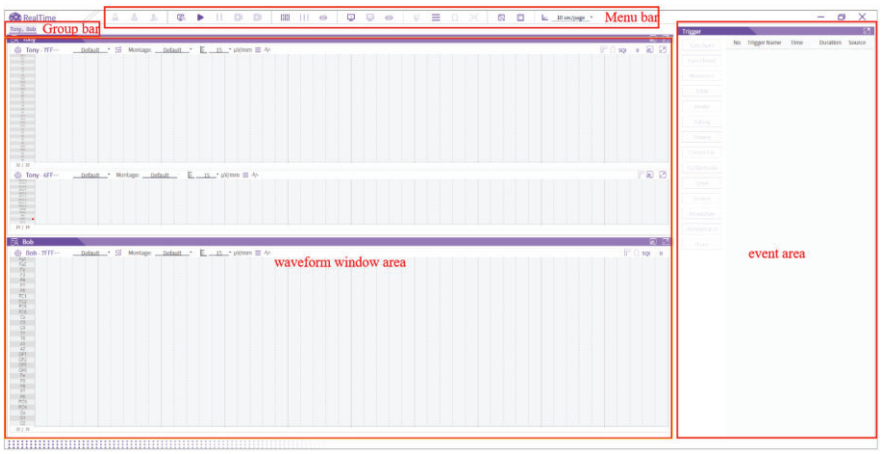
3) Select Trigger Box and tick the box.

4) Select the patient in the drop-down box of the host name line;

5) Click Start Experiment.

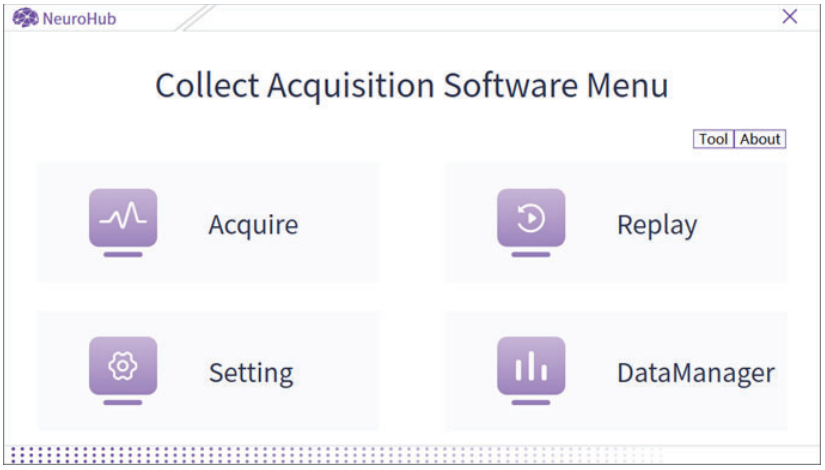


（3）Click "Start", after the signal appears, wait for the "Start Recording" button to light up, and then click this button to start recording; After clicking on the "Stop Recording" key. The data recording is complete.



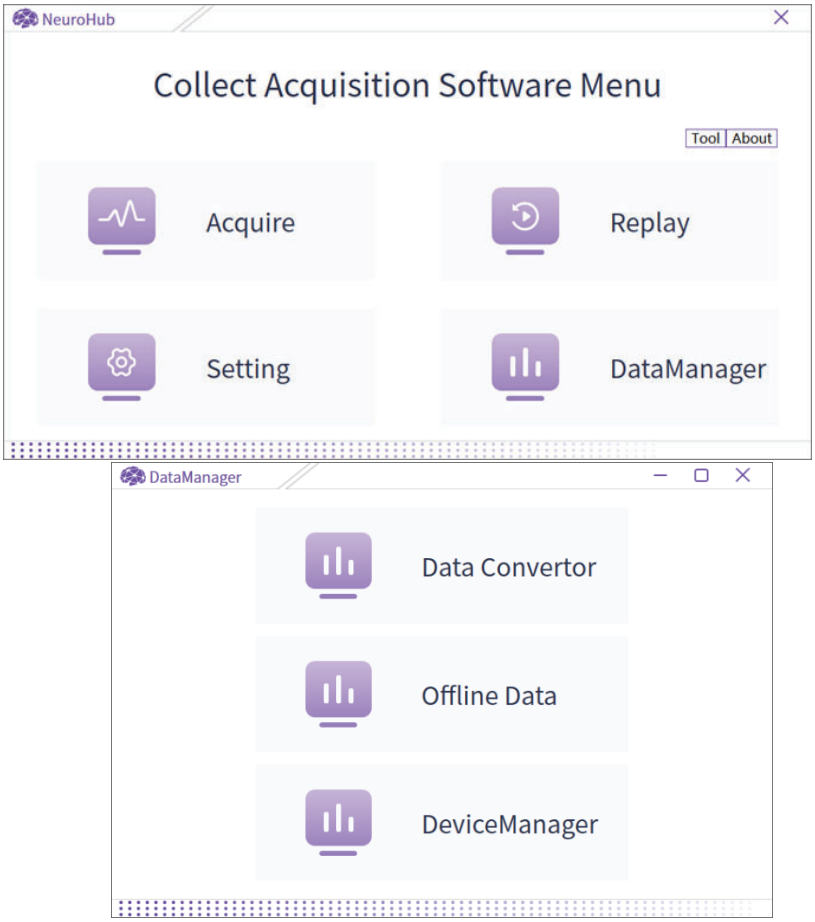
3.3.3 Replay

Click “Replay”, and in the file storage path, you can select the file you want to play back.

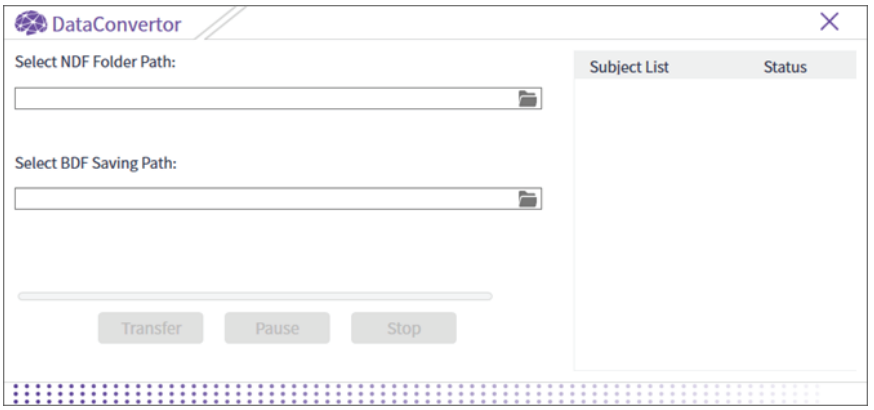


3.3.4 DataManager

(1) Click "Data Management" to jump out of the data conversion interface and click "Data Conversion"



（2）Select the path of the NDF file stored by the system, and select the folder of the file to be converted. Then select the path and folder where the converted BDF file needs to be saved.


DataConvertor
Select NDF Folder Path:
Subject List
Status
Select BDF Saving Path:
Transfer
Pause
Stop

DataConvertor
Select NDF Folder Path:
D:\NeuroHub\Data\20231115155209_静息态
Subject List
Status
1
0%
Select BDF Saving Path:
Transfer
Pause
Stop

DataConvertor
Select NDF Folder Path:
D:\NeuroHub\Data\20231115155209_静息态
Subject List
Status
1
0%
Select BDF Saving Path:
C:\Users\tangj\Desktop
Transfer
Pause
Stop

（3）After selecting the two folders, click "Transfer", and wait for the progress bar to display 100%, and the conversion will be completed.

3.4. Shutdown

Perform the following steps to shut down a Mindful Hub.

1) Close the software
2) Turn off the power of the terminal
3) Disconnect the terminal from the EEG cap
4) Remove the cap from the subject's head
5) Turn off the relevant devices such as the router

4. Cleaning and maintenance

Note！

- The cleaning and maintenance of this equipment must be carried out by experienced professionals.
- Before cleaning and maintenance, please confirm that the device has been disconnected from the power.
- All parts and accessories of this equipment must be regularly maintained and overhauled (at least once every six months).
- The EEG device is a measuring device, and the user shall send it to the legal measurement unit for inspection according to the requirements of the "Regulations for the Verification of Digital EEG Instrument and EEG Topographic Mapper", and the inspection period shall not exceed 1 year.
- The components of this device do not need to be replaced regularly during their useful life.
- It is recommended to check the cables and connectors on the cap daily for signs of wear. If so, please contact *Neuracle* or your dealer for repair.
- Regularly (weekly or if necessary) wipe the plastic parts of the wireless EEG amplifier and cable with a clean, soft, slightly damp cloth.

4.1. Flat-cap maintenance

The Flat-cap should be thoroughly cleaned after use to remove organic matter such as Conducting Gels, mucus, and body fluids attached to it, and disinfect if necessary. The specific cleaning

methods are as follows:

1) After each EEG test, remove the Flat-cap from the subject's head and place it in warm water (avoid touching the interface of amplifier with water or alcohol during cleaning, and fix the electrode holder end on the outside of the container with clips and other tools) for 10-15 minutes, and wait for the conductive paste to dissolve. A small amount of conducting gel remaining on the electrode can be scrubbed with the included cleaning brush. (Note: 1. It is forbidden to scratch the electrodes with sharp objects; 2. When washing the electrode cap, use a basin immersed in water to clean, and it is strictly forbidden to wash with high-pressure water)

2) Wipe the surface of the electrode with 75% alcohol for disinfection if necessary.

3) Hang the cleaned cap in a ventilated place to dry.

4) If the electrode surface of the cap turns white due to oxidation, please replace the electrodes or EEG cap.

5) Bending or knotting at a small angle will shorten the service life of the electrode wire, please straighten the electrode wire as much as possible when using.

6) Whether the conduction of the electrode wire is good can be tested with a multimeter. During the test, the resistance between each pin from the surface of the electrode to the plug of the lead wire is less than 10Ω is qualified, and if it is unqualified, please

replace it.

4.2. Computer maintenance

Follow the instructions in the User manual provided by the manufacturer.

4.3. Battery replacement and charging

Each set of Mindful Hub is equipped with two Li-ion batteries, one battery charger (including charging head), and one power adapter for the router, and the respective parameters are shown in Table 2.

Table 2 Battery and charger parameters

Components	Object	Parameters
Battery	Voltage	3.7V ⎓
	Battery capacity	4000mAh
Battery charger	Input	AC 100-240~50/60Hz， Max100mA
	Output	4.2V ⎓ 2000mA
Router power adapter	Input	AC 100-240~50/60Hz， 0.5A
	Output	12V ⎓ 1A

When the battery is low, follow these steps to replace the battery and recharge:

1) Pull up the battery slide switch of the terminal, take out the battery, load the full battery into it, and return to the experiment according to the usual steps.

2) Set the battery to be charged in the charger according to the positive and negative indications, and the charger display light

will not light up at this time.

3) Connect the charger to the 120V AC power for charging. When charging, the indicator light will be on, when saturated, the indicator light will light up yellow when charging, and it will turn green after charging.

5. Repair details

Note！

Neuracle will not be responsible for the safety and effectiveness of this device if:

- Assemble, expand, readjust, improve and repair the equipment by persons not approved by the company;
- Personnel without professional and technical training are responsible for the operation, maintenance and storage of this equipment;
- The operator fails to perform the operation in accordance with the operating specifications specified in this manual;
- Connect with this device using accessories or external devices that are not approved by *Neuracle*.

5.1. Warranty

The warranty period of the hardware system of this equipment is 1 year, and if there is a quality problem within 1 year from the date of sale, we will be responsible for solving all aspects of the problem, such as repair materials and equipment performance. The warranty period of the equipment will not be extended by purchasing other parts and accessories from the company. Without the permission of *Neuracle* or its authorized agents, Service, technical support, or other actions of others that may cause changes in the performance of the product may void this warranty.

The 1-year warranty period is a commitment under normal use of the equipment, and this commitment does not apply to the following situations:

- ✧ Damage caused by the crushing of other objects, the dumping of equipment, the spillage or immersion of liquids;
- ✧ Damage caused by fire, flood, hurricane, earthquake or lightning;
- ✧ *Neuracle*'s original number, Label or manufacturing mark is replaced or torn off;
- ✧ Damage caused by an inappropriate operating environment;
- ✧ Damage caused by connections and operations to the hardware system beyond the design;
- ✧ Damage caused by unauthorized erroneous maintenance and overhaul;
- ✧ Damage caused by incorrect power connections;
- ✧ Damage caused by misuse and abuse in violation of operational procedures;

5.2. After-sales service line

If it needs to be repaired or replaced, the user can contact the user service department by telephone, email, etc., and inform the product model and serial number (which has been marked in the Label and packing list); In addition, the product must be accompanied by a fault description, and the device will be shipped to *Neuracle* or its

authorized agent after approval by the user service department, and the user shall bear the shipping cost (including customs fees).

Neuracle maintenance contact information:

Address	Neuracle Technology (Changzhou) Co., Ltd. 6-B602 R&D HUB Changzhou Science and Education Town No.18 Changwu RD,Wujin District, Changzhou City,Jiangsu Province,China
Zip code	213164
Telephone	+86 519 8100 1682
Fax	+86 519 8100 1682
Email	info@neuracle.cn

6. Transportation and storage

6.1. Dismounting

Note！

- When transporting or storing the equipment for a long time, all components must be placed in the dedicated device box that comes with the random equipment according to the requirements or repacked properly.
- It must be disassembled and packed according to the steps below.

1) Place the equipment, wires, and other accessories in an appropriate manner and place them in the device case.

2) Clean the Flat-cap according to the instructions in 5.1 and put it in the device box in an appropriate manner.

6.2. Transportation

It can be transported by general means of transport, and the environmental conditions of transportation are the same as those of storage.

Note!

- It shall not be mixed with toxic, harmful and corrosive substances during transportation.
- Severe vibration and collision should be avoided during transportation.
- The equipment should be moisture-proof, dust-proof and inverted during transportation.

6.3. Storage

Store the boxed device on a stable floor or countertop. The environmental requirements for storage or transportation are as follows:

- ✧ Temperature: -20°C~55°C
- ✧ Relative humidity: ≤90%
- ✧ Atmospheric pressure: 700hPa~1060hPa
- ✧ The warehouse should be well ventilated and free of corrosive gases

7. Disposal

According to the corresponding national laws and regulations, the disposal of end-of-life electronic equipment shall: generally, the end-of-life trigger box should be packaged with cardboard and protective plastic and sent to a recycling institution, which should be able to handle materials such as printed circuit boards, wires and cables, plastics and metal parts.

Note!

■ The product bears this mark, please comply with the relevant provisions of the Waste Electrical and Electronic Equipment Directive (WEEE), and the product shall not be disposed of as household waste.

8. Product specifications

8.1. Physical parameters

Object	Parameters
Terminal size (L*W*H)	121*70*24mm
Terminal weight	200g (including 74g battery)

Note !

■ The parameter error is not more than 10%.

8.2. Performance parameters

Object	Parameters
Sample rate	1000Hz/2000Hz/4000Hz/8000Hz/16000Hz
Common-mode rejection ratio	≥120dB
System noise	≤1uVrms
Analog-to-digital conversion rate	24 bit
Input signal range	±375mV$_{p-p}$
Pass band	DC coupling amplification to preserve all low-frequency signals
Event synchronization input	Wireless synchronization, time accuracy < 1ms
Impedance check	It supports routine offline check and real-time online check.
Amplifier power mode	Rechargeable Li-ion battery
Amplifier operating time	Built-in hot swap battery for seamless switch.

9. Statement

9.1. FCC Statement

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

9.2. RF Exposure Statement

This device meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

The exposure standard for wireless devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. *Tests for SAR are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands.

This portable device is designed to meet the requirements for expsire to radio waves established by the FCC. These requirements set a SAR limit of 1.6 W/kg averaged over one gram of tissue. The highest SAR value reported during product certification is < 1.6 W/kg.

The FCC has granted an Equipment Authorization for this device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR infromation on this device is on file with the FCC and can be found under the Display Grant section of http://www.fcc.gov/oet/fccid after searching on FCC ID: 2BGXN-NRW03.

9.3. ISED Statement

This device complies with Innovation, Science and Economic Development Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:
(1) this device may not cause interference, and
(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est confrome aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:
(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement

9.4. RF Exposure Statement

This device meets the government's requirements for exposure to

radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the ISED.

The exposure standard for wireless devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the ISED is 1.6 W/kg. *Tests for SAR are conducted using standard operating positions accepted by the ISED with the device transmitting at its highest certified power level in all tested frequency bands.

This portable device is designed to meet the requirements for expsire to radio waves established by the ISED. These requirements set a SAR limit of 1.6 W/kg averaged over one gram of tissue. The highest SAR value reported during product certification is < 1.6 W/kg .

L'appareil répond aux exigences gouvernementales en matière d'exposition aux ondes radio. L'appareil est conçu et fabriqué de manière à ne pas dépasser les limites d'émission fixées par ISDE pour l'exposition à l'énergie des radiofréquences (RF).

Les normes d'exposition pour les appareils sans fil utilisent une unité de mesure appelée taux d'absorption spécifique (SAR). La limite SAR établie par ISDE est de 1,6 W / kg. * Les essais SAR sont effectués à l'aide d'un poste d'exploitation standard accepté par ISDE et l'équipement émet au niveau de puissance certifié le plus élevé dans toutes les bandes d'essai.

Cet appareil portable est conçu pour répondre aux exigences d'expansion des ondes radio établies par ISDE. Ces exigences établissent une limite SAR moyenne de 1,6 W / kg par gramme de tissu. La valeur SAR la plus élevée rapportée lors de la certification du produit était < 1,6 W / kg

The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems

L'appareil destiné à fonctionner dans la bande 5150–5250 MHz est uniquement destiné à une utilisation en intérieur afin de réduire le risque d'interférences nuisibles avec les systèmes mobiles par satellite co-canal.

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