CORTICAL ACTIVITY INDEX

THE DEPTH OF ANESTHESIA MONITORING

BrainU

VET CAI *Instruction for Use*

VCAI-IFU-001

Ver 1.2.0

2024.08.20

CORTICAL ACTIVITY INDEX

THE DEPTH OF ANESTHESIA MONITORING

BrainU

VET CAI *Instruction for Use*

VCAI-IFU-001

Ver 1.2.0

2024.08.20

<Contents>

FCC Compliance Statement
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.

FCC Interference Statement
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 correct the interference by one 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 which the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help.

FCC Caution
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

I. About VET CAI

1. VET CAI Characteristics

The **VET CAI** from BrainU Co., Ltd. is a medical device designed for animals that records electrical activity signals from the brain by attaching two or more electrodes to the animal's head. It provides users with information on the brain activation status of the animal during surgery.

A. Product Specifications

Category	Diagnostic device for animal medical examination		
Name of article	LA3301700, Neuro Monitoring	**Classification**	Class 2
Product Name	VET CAI		
Manufacturer	BrainU Co., Ltd.		
Country of Manufacture	Republic of Korea		

B. Manufacturer Information

1) Manufacturer : BrainU Co., Ltd.

2) Address : 7, Yatap-ro 105beon-gil, 3rd Floor (Yatap-dong, Hanju Building), Bundang-gu, Seongnam-si, Gyeonggi-do, South Korea

3) Manufacturing License Number : No. 448

4) Customer Service
   A) TEL : 031-707-1788
   B) e-mail : support@brainu.co.kr

C. Principle of VET CAI

The **VET CAI** is designed to monitor the brain activation status of animals by analyzing brainwaves measured from the animal's forehead. It provides quantified information about brain activation levels ranging from 0 to 100.

The computed result is referred to as the "Arousal Index" or "**VCAI Index,**" which is closely related to the level of brain activation in the animal.

To enhance user convenience, **VET CAI** offers several features, such as adjusting the amplitude of real-time brainwaves and monitoring events occurring during surgery.

The information provided by VET CAI includes:

1) Real-time VCAI* Index
2) VCAI Index Trend Graph
3) Real-time EEG Graph
4) Quantified Various Signal Indicators (SQI, BSR, DSA)
5) Warning Indicators and Alert Messages

※ VCAI = Veterinary Cortical Activity Index

D. Main Features of VET CAI

1) Compact Device Design
2) Wireless Communication via Bluetooth
3) Biological Signal Collection Through Electrodes
4) User-Centric UI/UX Design
5) Application Control Through Simple Touch Operations
6) Monitoring Animal Consciousness via Trend Graphs

2. VET CAI Components

No.	Name	Description
1	Monitor (Tablet) (Optional)	Device that displays VET CAI Application on screen
2	VET CAI Application	Program for collecting and analyzing brainwave data * Installed and run on the optional tablet
3	Sensor Cable	Cable connecting the VET CAI amplifier and sensor
4	VET CAI Amplifier	Device that amplifies brainwave signals
5	Power Adapter / Cable	Power supply cable for the VET CAI amplifier
6	VET CAIs (Sensor)	Sensor for measuring animal brainwaves * External medical electrode, registered product

A. VET CAI Amplifier

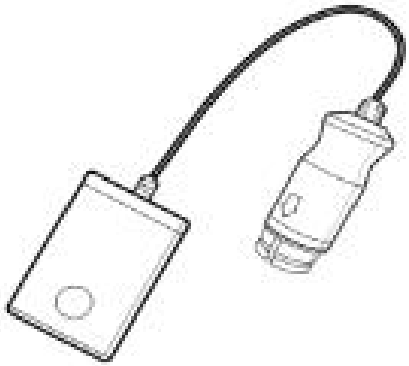
< VET CAI Amplifier >

The **VET CAI amplifier** is a device designed to amplify biological signals, specifically brainwaves, and transmit data in real-time to a monitor (tablet) via wireless communication.

The **VET CAI amplifier** includes an amplification module for biological signals and a communication module.

It also features a built-in 3.7 V, 2000 mAh Li-Polymer battery, along with terminals for sensor cable connection and charging.

B. Sensor Cable

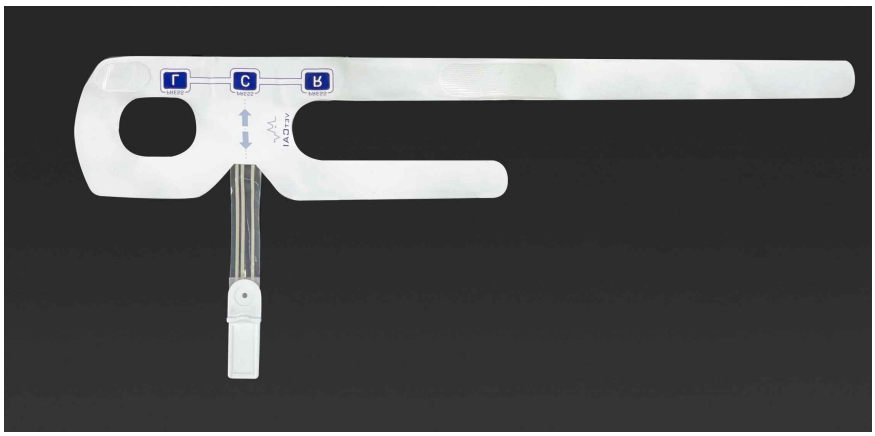


< Sensor Cable >

The sensor **cable** connects to the **sensor** and transmits the data collected from the electrode to the VET CAI amplifier.

Caution	The VET CAI prohibits the connection of products other than the dedicated components. Do not apply excessive force when connecting the sensor cable. If excessive force is required, please check the connector. When disconnecting the product, grip the connector and pull it out. Pulling on the cable itself may damage it.

C. VET CAIs Animal - Specific Sensor - Available for Separate Purchase



< VET CAIs Animal-Specific Sensor – Front >

< VET CAIs Animal-Specific Sensor - Back >

The **VET CAIs animal-specific sensor** is designed to be attached to an animal's head to collect brainwave signals.

	It must be used as an external medical electrode, and only registered products should be used.
Caution	**VET CAIs animal-specific sensor are single-use only; they must be properly disposed of after use*.** Please refer to the user manual of the VET CAIs animal-specific sensor for instructions on handling and usage. * Dispose of according to hospital waste disposal procedures.

The sensors are sold separately.
For purchase inquiries, please contact the customer support center of BrainU Co., Ltd. or your local distributor.

D. Power Adapter / Cable (for VET CAI Amplifier)

< Adapter Specifications >

Protection Class	Class I Equipment
Input	100 – 240 V, 50-60 Hz, 0.5 A
Output	DC 5 V, 2.0 A

Warning: To avoid the risk of electric shock, this device must be connected only to a power supply with protective grounding.

This **power adapter/cable** is used to supply power to the VET CAI amplifier. Connect the power adapter/cable to the charging terminal of the VET CAI amplifier. The battery level of the VET CAI amplifier can be checked via the LED indicator on the device.

Caution

Do not connect products other than the designated components.

When connecting components, avoid applying excessive force to the charging terminal. If excessive force is needed, check the condition of the charging terminal on the VET CAI amplifier.

To disconnect the product, grasp the connector part and pull it out. Avoid pulling on the cable itself, as this may damage it.

Ensure that the adapter is not placed in a location where it is difficult to disconnect, as this may pose issues with the ME equipment.

E. Monitor (Tablet) - Separate Purchase Item / VET CAI Application

< **Monitor (Tablet)** >

< **VET CAI Application** >

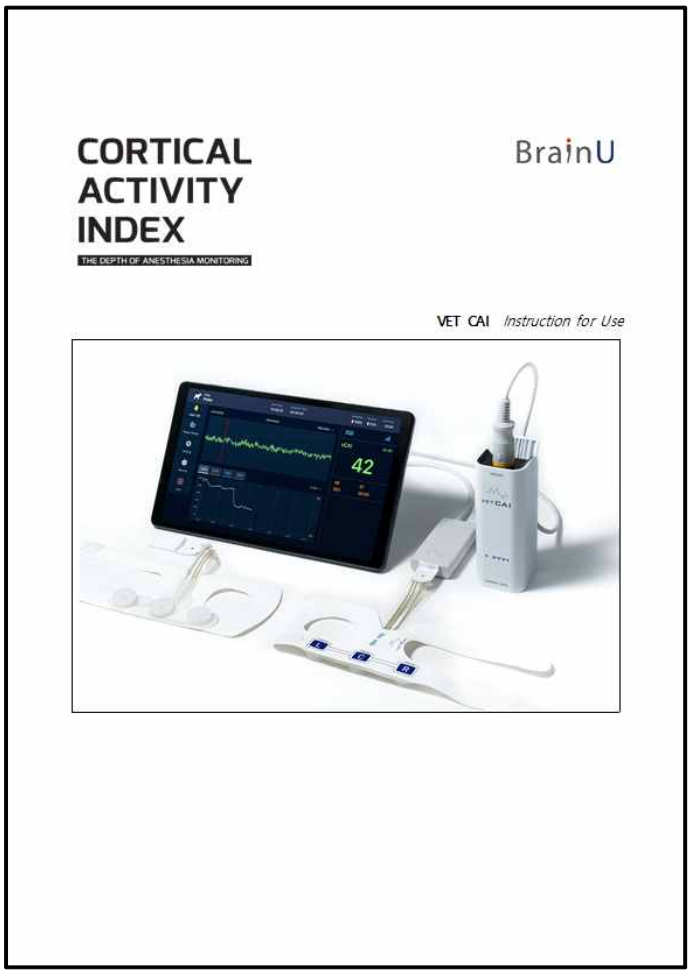
The VET CAI Application displays the brainwave signals collected from the **sensor** through the VET CAI amplifier on the monitor.

Caution	The monitor (tablet) is for use exclusively with the VET CAI Application. * The monitor (tablet) is a separate purchase item. The installation of applications from unknown sources or unnecessary applications is prohibited. Users are responsible for preventing and managing threats from malicious codes and viruses due to these restrictions.

This equipment may be affected by or cause electromagnetic interference when used in close proximity to other devices.

Reference	The VET CAI must be used in accordance with the electromagnetic compatibility requirements of IEC 60601-1-2. Please refer to Section 4, "Electromagnetic Compatibility Guidelines."

F. User Manual



The user manual contains instructions for operating and using the VET CAI.

Caution	Please ensure you thoroughly read and understand the user manual before operating or using the VET CAI. The quick guide provides summarized instructions and should only be used as a reference after reviewing the full user manual.

3. VET CAI Specifications

A. VET CAI Specifications

No.	SPECIFICATIONS	QUALITY
1	Channel number	1 Channels
2	Input noise	Less than 6 μV_{RMS}
3	Bandwidth	EEG : 2.5 Hz ~ 45 Hz (-3 dB)
4	Resolution	15 bits
5	Sampling rate	250 Hz
6	Monitor OS	Android

B. Wireless (Bluetooth) Specification

Model name	VCAI-001
Output	6 mW
Available service of range	10 m
Frequency	2402 ~ 2480 MHz
Notice	
"This wireless device has possible electric signal interference during operation." "Due to possible electric signal interference, this wireless device cannot provide human life safety related service."	

C. Operating Frequency Range & Transmit Power

Frequency range	Output power (MAX.)
2402 MHz ~ 2480 MHz	+ 8 dBm

D. Antenna Gain

Antenna gain	0.6 dB

4. Operating Environment

A. Operating Conditions

1) Temperature : 10 ~ 40 ℃
2) Humidity : 30 ~ 75 %
3) Pressure : 700~ 1060 hPa

Caution

Operating outside these conditions may affect the reliability of the product. Ensure proper management.

VET CAI must not be used in environments where flammable gases or vapors are present.

B. Storage Conditions

1) Temperature : 10 ~ 60 ℃
2) Humidity : 30 ~ 95 %
3) Pressure : 700~ 1060 hPa

Caution

Regularly check the battery for emergency use. Ensure the equipment is stored with the power off.
Protect VET CAI and electrodes from sudden temperature changes and maintain a temperature and humidity similar to room conditions before use.
Do not store in places with metal or magnetic materials or where magnetic fields may have an impact.

C. Transportation Conditions

1) Temperature: -30 ~ 100 ℃
2) Humidity: 10 ~ 100 %
3) Pressure: 700 ~ 1060 hPa

Reference

For stable transportation, it is recommended to discharge the battery before transport. Ensure the equipment is powered off during transportation.
The batteries included in the VET CAI are certified to meet transportation conditions.

D. Electromagnetic Compatibility (EMC) Conditions

VET CAI should only be used with the power adapter supplied by BrainU Inc.
This system must be installed and used according to the guidelines specified in Section 4, "Electromagnetic Compatibility Guidelines."

Caution

The VET CAI is intended for use in accordance with IEC 60601-1-2 electromagnetic compatibility requirements.

Use of this equipment at close range may cause or be subject to electromagnetic interference. If electromagnetic interference occurs, see Chapter III, Section 1, "A. Precautions 8. Electromagnetic Interference Prevention"

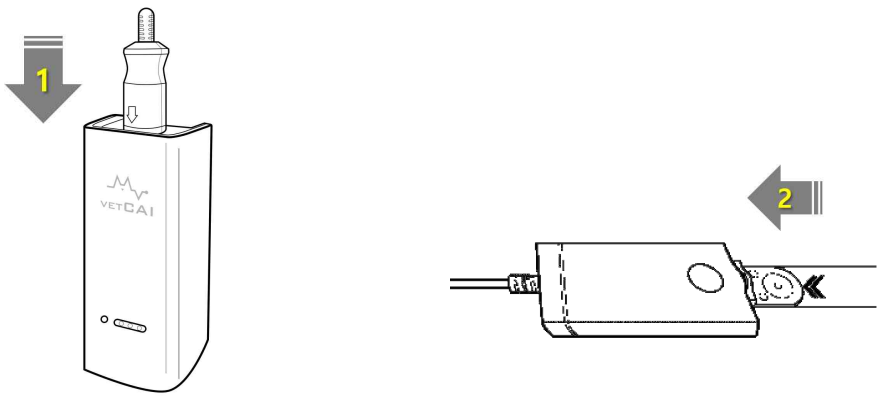
II. VET CAI Operating Instructions

1. Pre-Operation Preparation

A. Turning On the VET CAI

Connect the VET CAI sensor and sensor cable to the VET CAI amplifier. The power/operation status LED will light up white, indicating that the device is in standby mode.

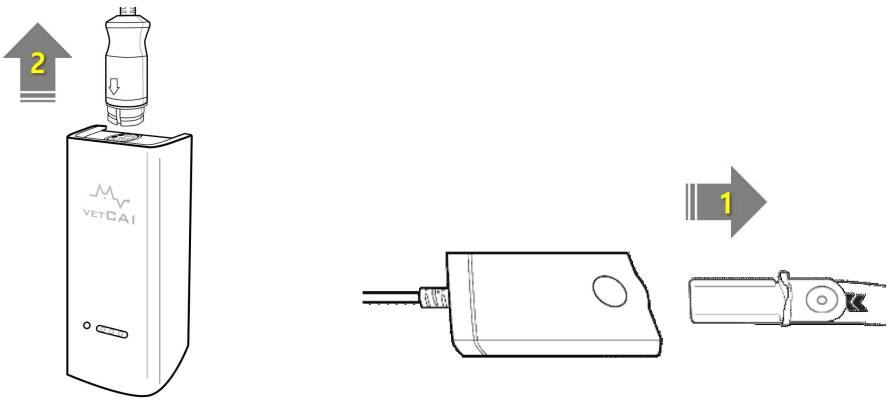
※ For details on how to connect to the VET CAI Application, refer to "Chapter 2, Section 3 Operation, 3. Running the VET CAI Application".



< Turning On the VET CAI Amplifier >

B. Turning Off the VET CAI

Disconnect the sensor cable and VET CAI sensor from the VET CAI amplifier. This will turn off the power to the VET CAI amplifier.

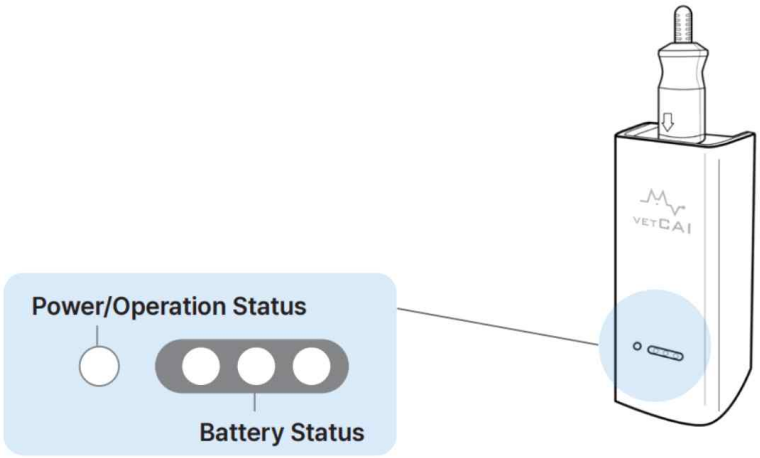


< Turning Off the VET CAI Amplifier >

C. Checking VET CAI Power / Battery Status

1) VET CAI Status LED

The VET CAI amplifier has two types of status LED : one for power/operation status and three for battery status. The status LED are as follows:



A) Power/Operation Status LED

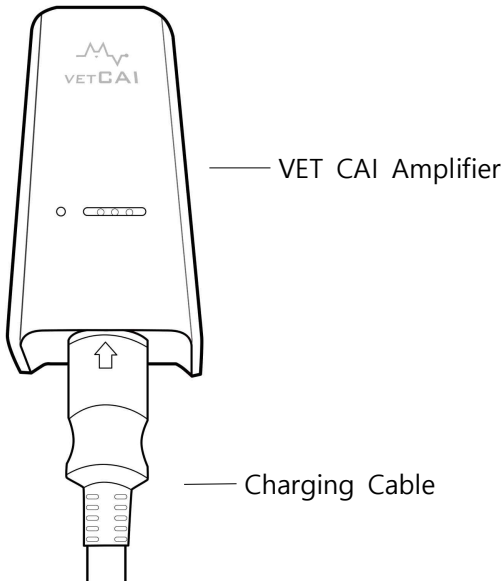
Power	Operation	LED
OFF	-	● (-)
ON	Stanby Mode	○ (white LED)
ON	Monitoring Mode	● (blue LED)

B) Battery Status LED

Battery Capacity	LED
33% or below	○●●
34% ~ 66%	○○●
67%~100%	○○○
Fully Charged	○○○

2) VET CAI Amplifier Charging Method

Connect the power adapter/cable to the VET CAI amplifier's charging port. During charging, the status is indicated by the number of white LEDs turned ON. Due to circuit characteristics, the LED indicator may not match the exact battery level during charging. (However, the LED indicator will match the battery level when fully charged.)



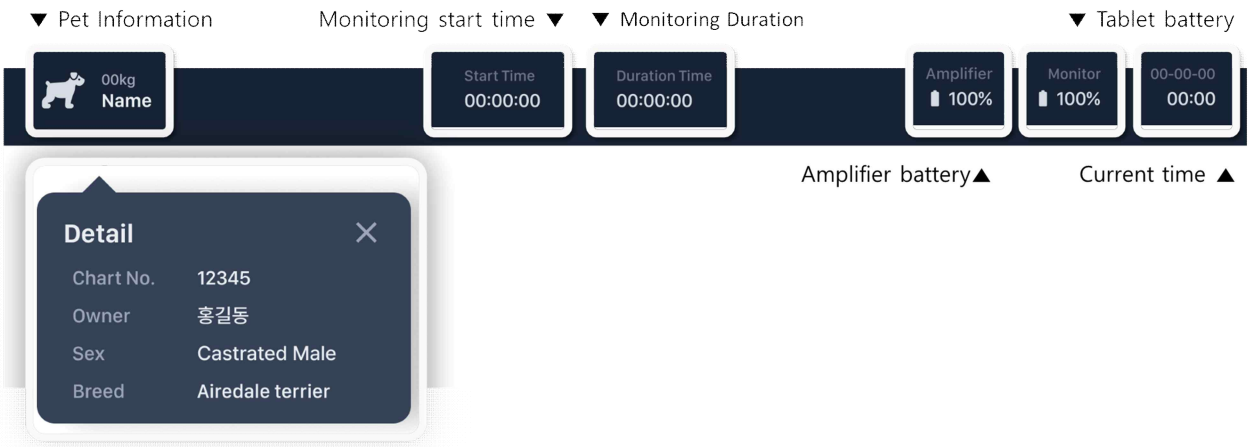
< VET CAI Amplifier Charging Status >

3) Monitor (Tablet) Charging Method

The monitor (tablet) is a standard display device. If the battery is low, it can be continuously used and charged via an external power source.

The VET CAI Application's top status bar allows you to check the power status of both the VET CAI amplifier and the monitor (tablet), along with additional information.

< VET CAI Application Top status bar (Home) >



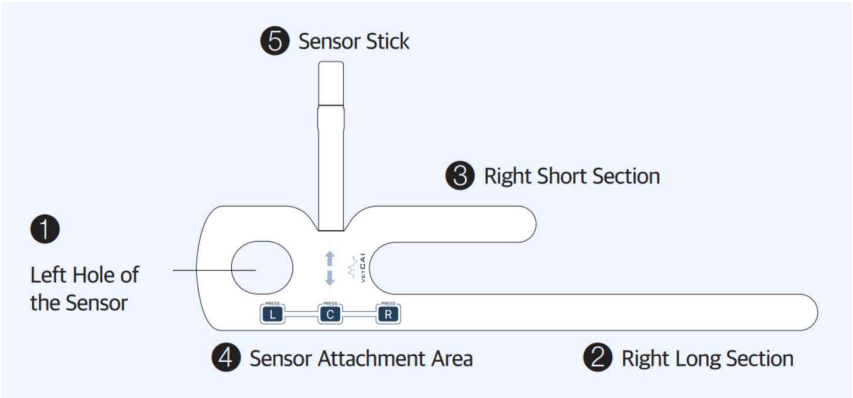
< VET CAI Application Top status bar (Monitoring) >

Reference	If the VET CAI amplifier's battery level drops below 10%, a "Low Battery Power (Amplifier)" alert will be triggered. If the monitor (tablet)'s battery level drops below 10%, a "Low Battery Power (Monitor)" alert will be triggered.

2. How to operate

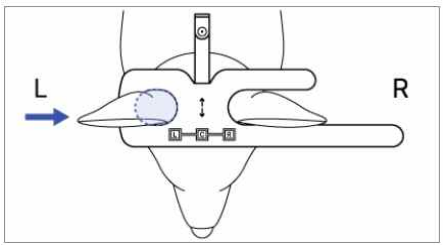
A. Attaching the VET CAI Sensors

1) Configure VET CAIs



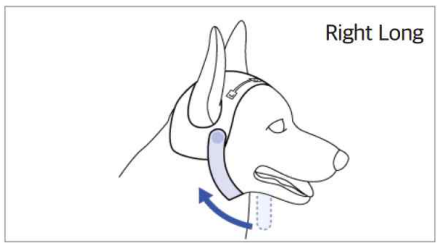
2) How to Attach VET CAIs

Step 1. Fix the animal's right ear into the left hole of the sensor.

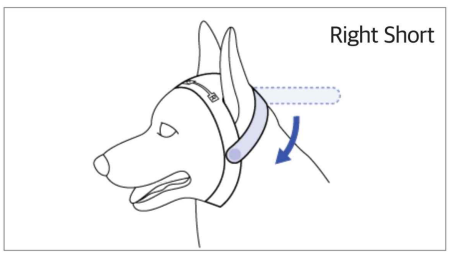


Step 2. Wrap the long part of the sensor around the animal's jaw and attach it to the Velcro on the left end to prevent the sensor from moving or lifting.

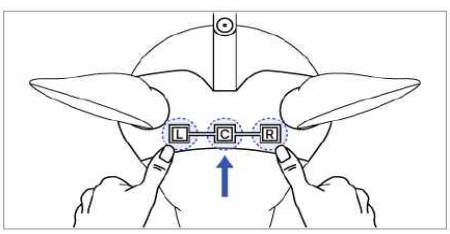
※ The Velcro can be adjusted to fit the head size.



Step 3. Attach the Velcro on the back of the short right part and the front of the long part to secure the sensor.

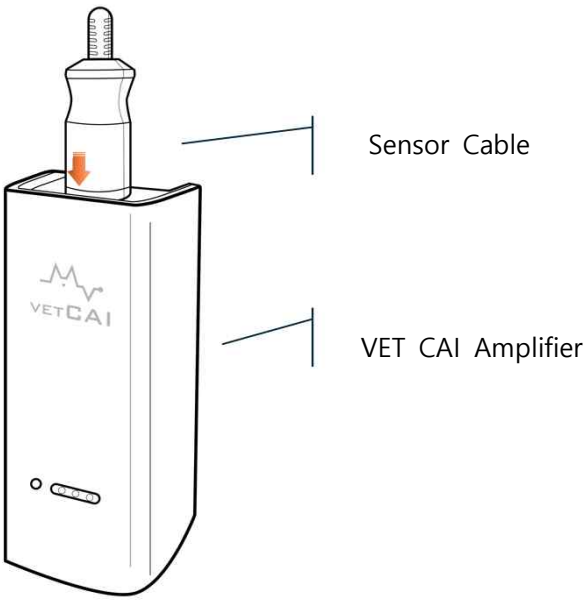


Step 4. Press the [L-C-R] part of the sensor to ensure the EEG gel makes good contact with the animal's skin through the fur.



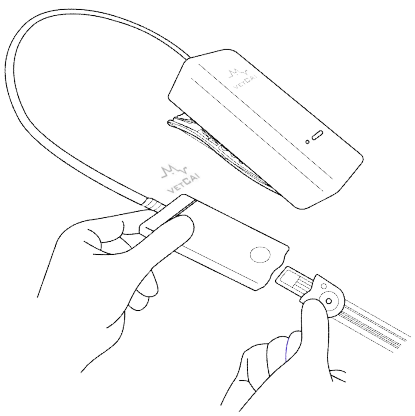
B. Connecting VET CAI and Sensor

Step 1. Connect the sensor cable to the VET CAI amplifier.



< Connecting VET CAI and Sensor Cable>

Step 2. Insert the stick part of the VET CAI sensor into the sensor cable connector until you hear a "click" sound. (See illustration below)

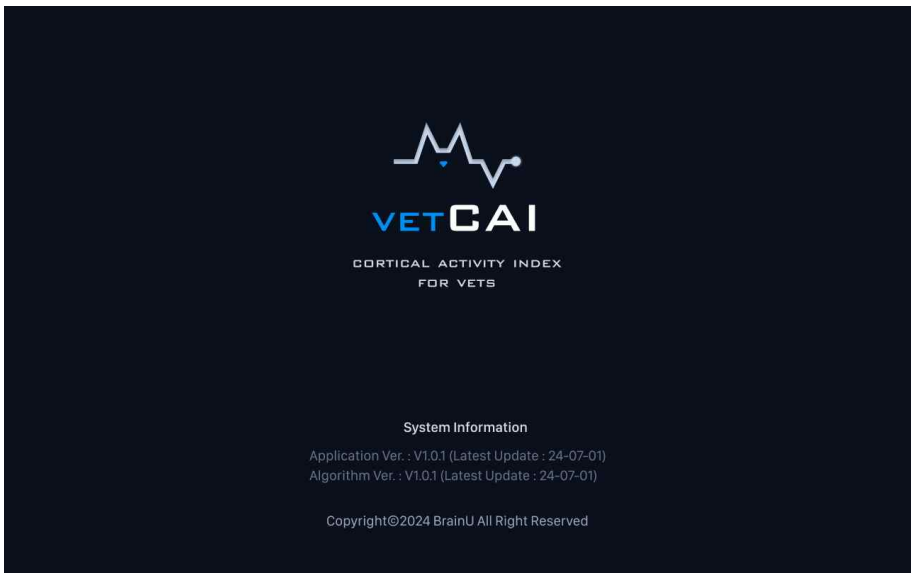


<Connecting the VET CAI Sensor>

C. Run the VET CAI Application

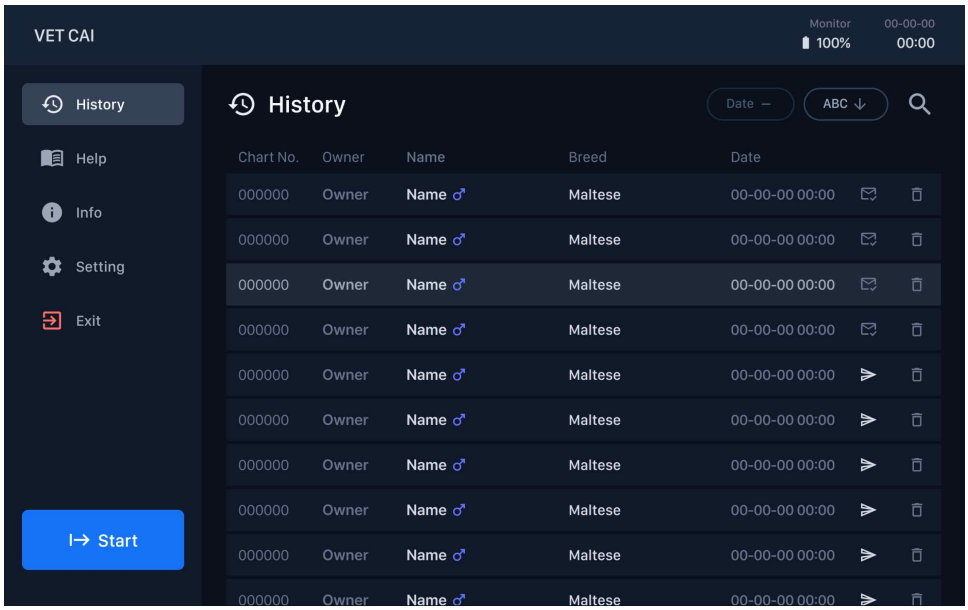
1) Once the booting process of the monitor (tablet) system is complete, launch the "VET CAI Application."

2) After launching the VET CAI Application, you can check the Application version information on the loading screen.



<Loading screen after launching the VET CAI Application>

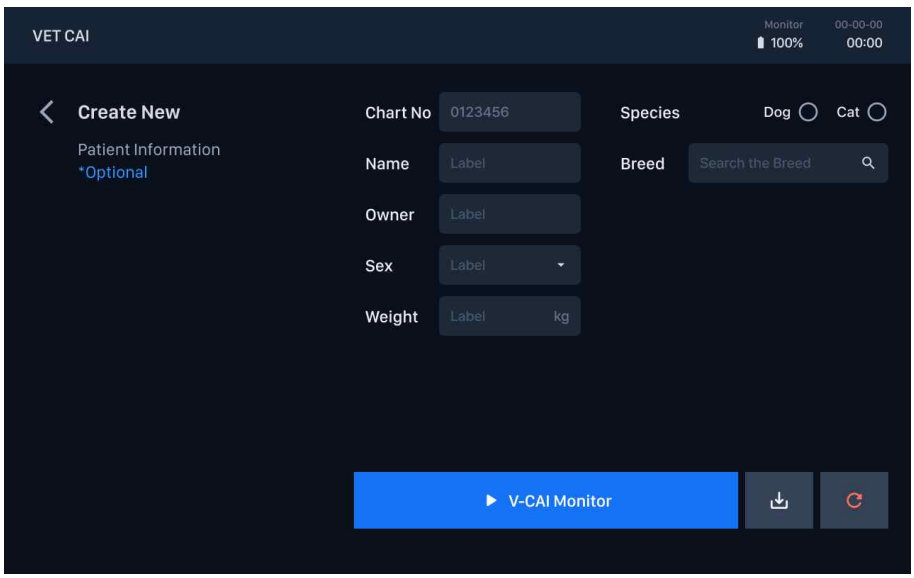
3) On the Home screen, press I→ Start to proceed to the next screen.



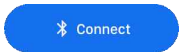
< **Home Screen** >

4) On the Start screen, input the following information: "Chart No" (required, automatically entered), "Name" (optional), "Owner" (optional), "Sex" (optional), "Weight" (optional), "Species" (optional), "Breed" (optional).

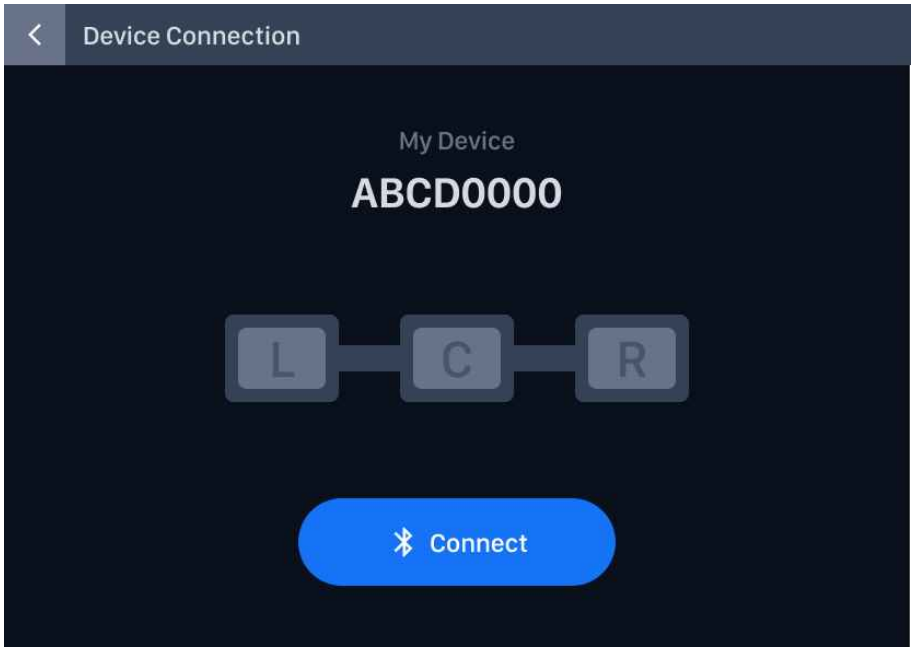
5) Then, press the ▶ V-CAI Monitor to proceed.



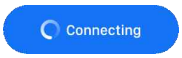
< **Start Screen** >

6) A popup screen for wireless connection with the VET CAI amplifier will appear. Press 

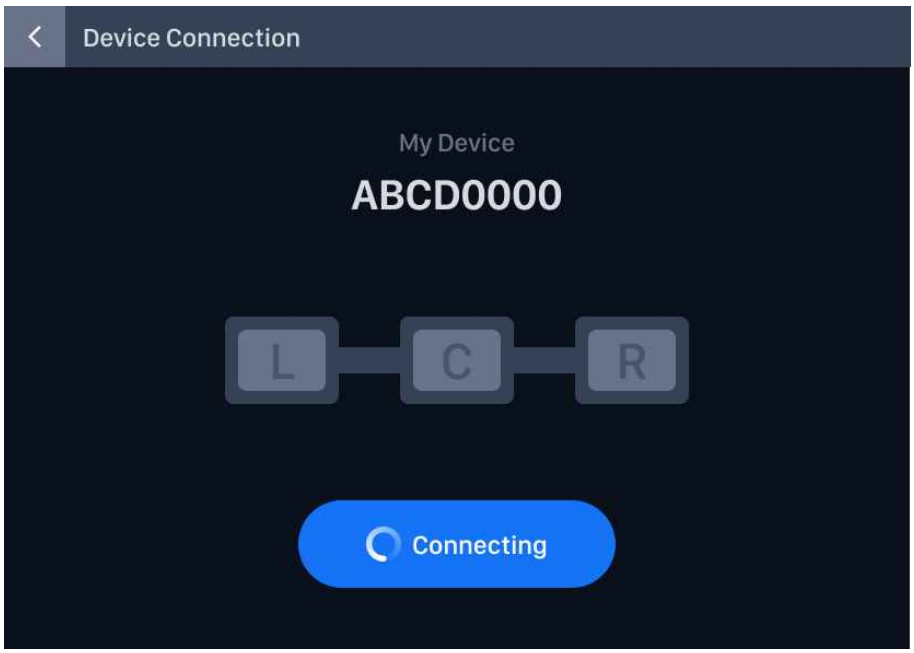
to start the Bluetooth connection with the VET CAI amplifier.



< Device Connection Screen >

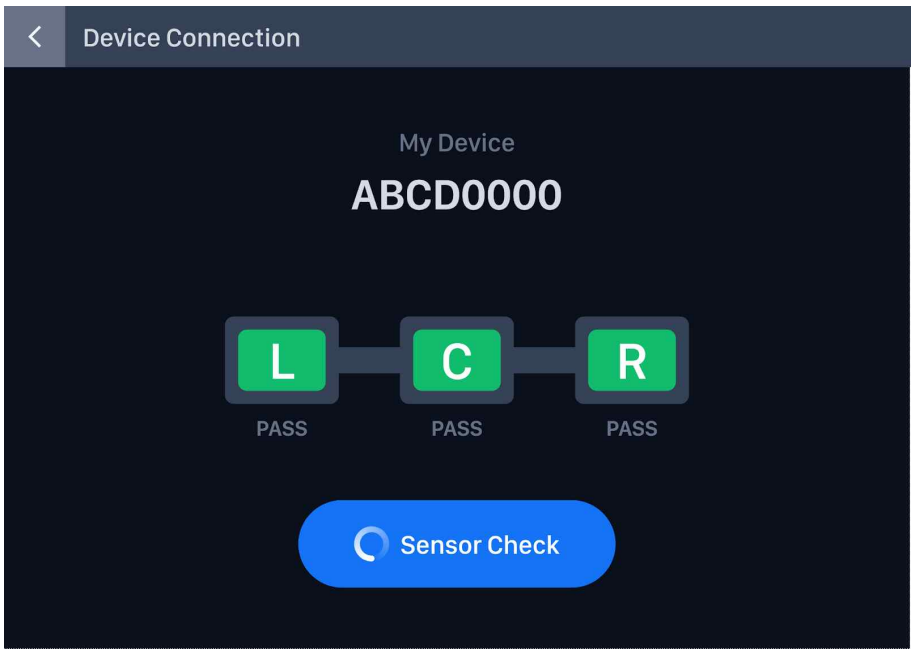
7) The screen will display 

as it automatically searches for nearby VET CAI amplifiers.



< Device Connecting Screen >

8) Once connected wirelessly to the VET CAI amplifier, the sensor check will be performed, and when the check is completed, it automatically switches to the monitoring screen.

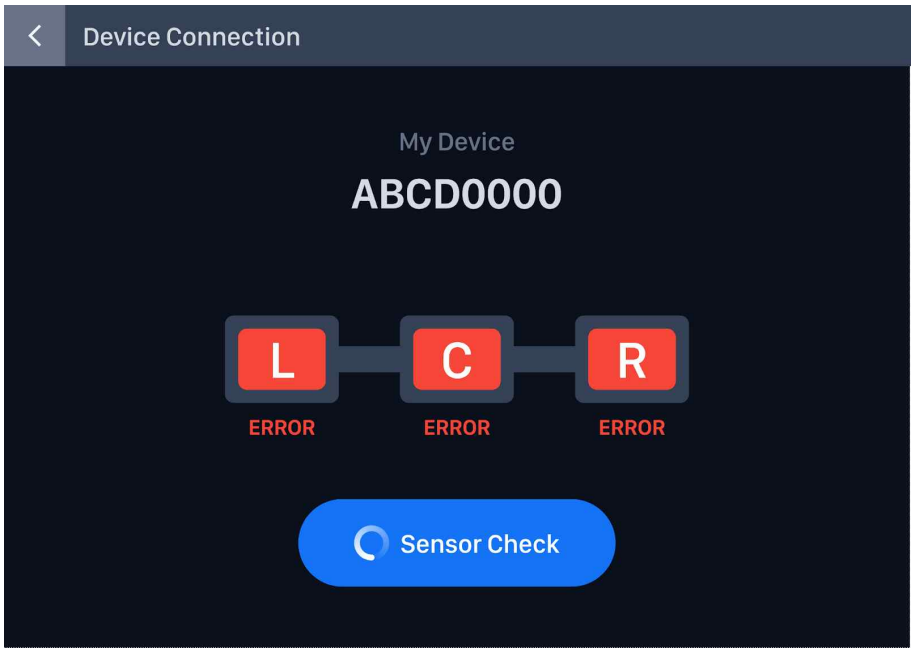


< VET CAIs Sensor Check >

9) Start monitoring the animal's anesthesia depth directly from the switched monitoring screen.

< Monitoring Screen >

§ *When the sensor is improperly attached* §



< When the VET CAI electrodes are improperly attached >

※ When the electrode resistance is within the appropriate range:

→ *If all electrodes are normal, monitoring will automatically begin.*

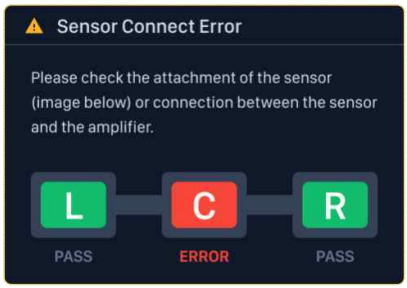
※ When the electrode resistance is not within the appropriate range:

→ *In this case, the user should press down on each electrode attached to the animal to ensure they are securely fixed.*

§ Sensor Check §

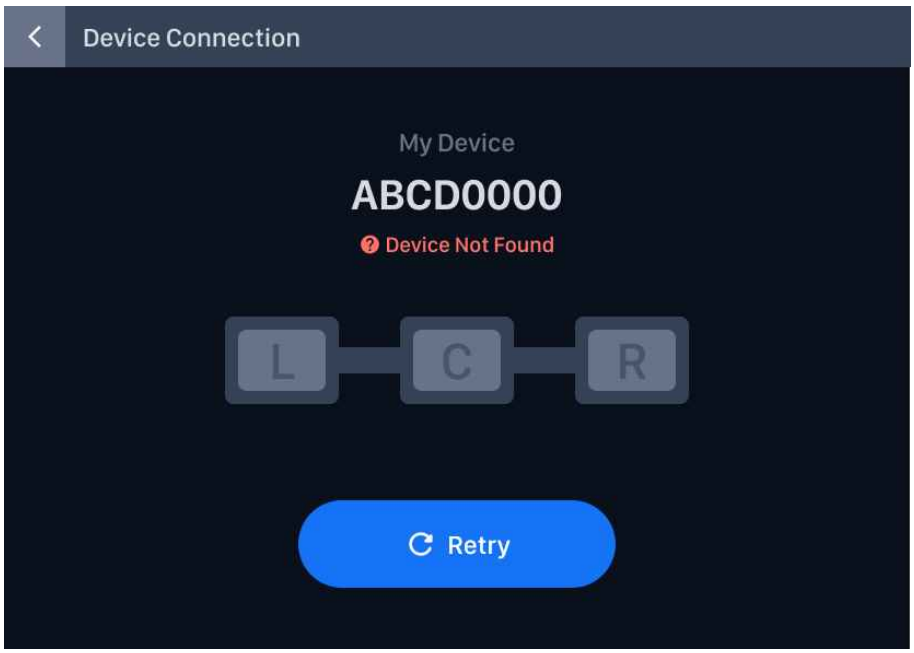
If the issue continues to persist, remove the sensor, check for any contaminants on the animal's head, and reattach the sensor securely or replace it with a new one.

< Sensor Check Icon >



< Sensor Connect Error >

§ When Bluetooth Connection Fails §



< When the VET CAI amplifier is not wirelessly connected >

→ If "Device Not Found" is displayed as shown in the image above, it means the amplifier is not connected via Bluetooth. Reboot the VET CAI amplifier and try again.

D. Using the VET CAI Application

1) VCAI Index Data Screen Display

On the monitoring screen, you can check the following information:

< Monitoring Screen >

A) Calculation Method

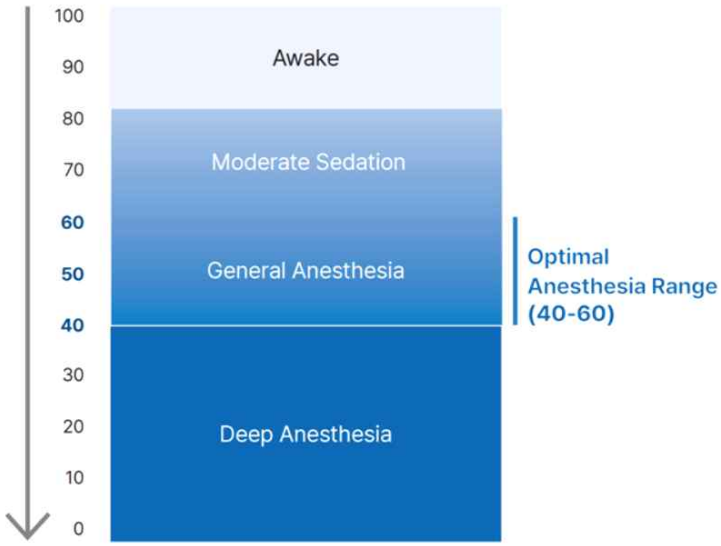
The VCAI calculation separates the collected EEG into delta, theta, alpha, beta, and gamma waves, combining the activity in each frequency band and offsetting the EEG suppression ratio (BSR, Burst Suppression Ratio) to compute the final VCAI index.

2) VCAI Index Value (Range: 0 - 100)

The VCAI index is derived from continuous processing of EEG parameters and is correlated with the animal's brain activation level.

The VCAI index alone should not be used as the sole indicator for adjusting the dosage of anesthetic agents. For most animals, a VCAI index value of "80" or higher indicates a conscious state. However, some animals, especially those that are immobile or sedated, may still be conscious even when the VCAI index drops to around "60."

The table below provides descriptions of the VCAI index range.



3) Signal Quality Index (SQI, Range 0 – 100)

The Signal Quality Index measures the sensitivity of the EEG signal and is calculated based on resistance values, interference factors, and other variables.

4) EEG (Electroencephalography) Waveform Display

EEG activity is visualized on the screen in various scales. You can adjust the Y-axis scale of the EEG from 0.1 ㎜/㎶, 0.05 ㎜/㎶, to 0.01 ㎜/㎶.

5) BSR (Burst Suppression Ratio, Range 0 – 100%)

BSR is a parameter derived from EEG, typically occurring in deep anesthesia states. It represents the percentage of time during which the signal is suppressed over a 16-second period, indicating the frequency of suppression events.

6) DSA (Density Spectral Array)

DSA visualizes frequency changes over time and is used to assess the distribution across frequency bands.

7) Faulty Signal Detection

The VET CAI is designed to provide only the most reliable data. It is engineered and configured to exclude faulty signals from the calculations.

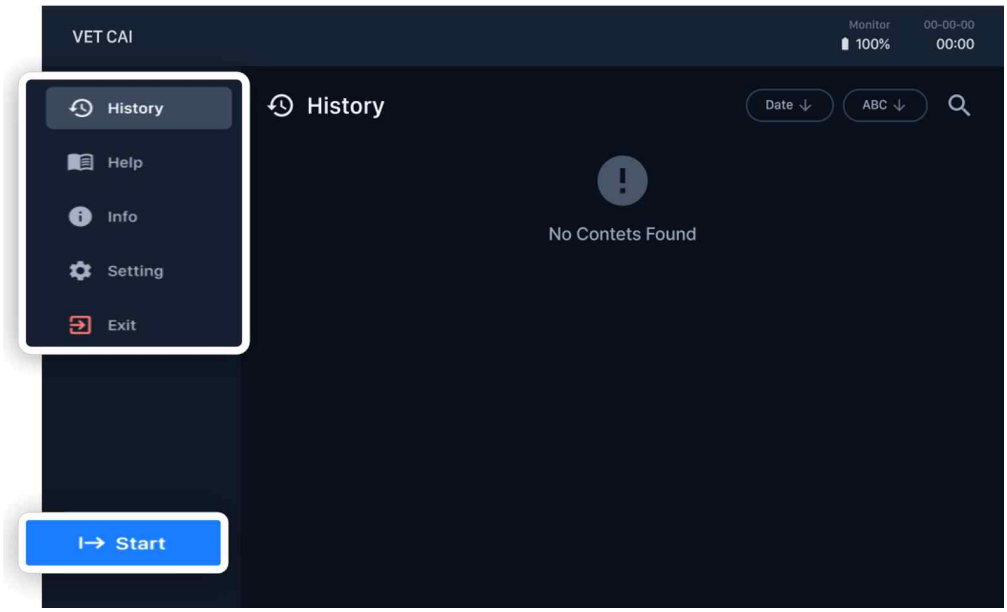
8) VCAI Trend Graph

The VCAI Trend Graph shows changes in the VCAI index value over time. It is displayed as a thick white line, with the scale shown on the left 'X' axis. To display other index values on the graph, select 「**VCAI**」, 「**BSR**」, 「**SQI**」, 「**DSA**」 from the top-left of the VCAI Trend Graph.

If more than 10% of the packets received in the last second have unstable signal sensitivity, you will see the message "Artifact".

9) Home Menu Button

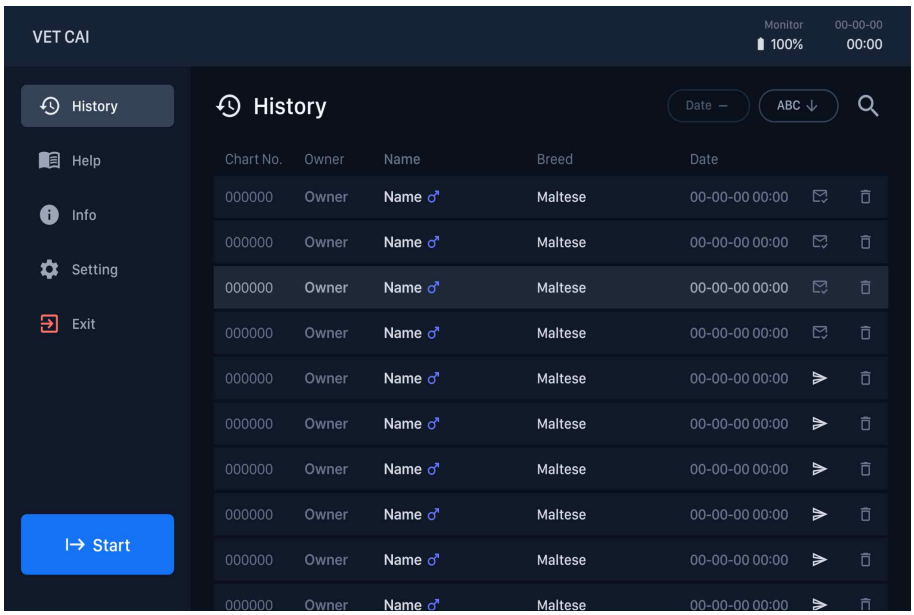
Before starting monitoring with VET CAI, the VET CAI application offers maximum convenience by allowing users to navigate to the menu through the icons on the left. The Home screen includes menus for viewing monitoring history, accessing help, checking information about the device and app, and making settings.



< Home Screen >

(1) History

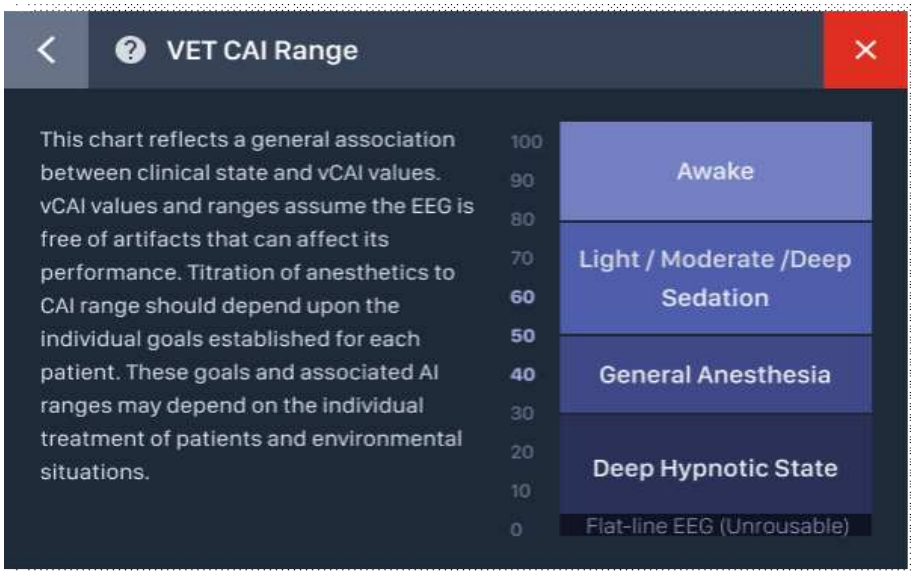
History allows you to view, modify, and export past data.



< History Screen >

(2) Help

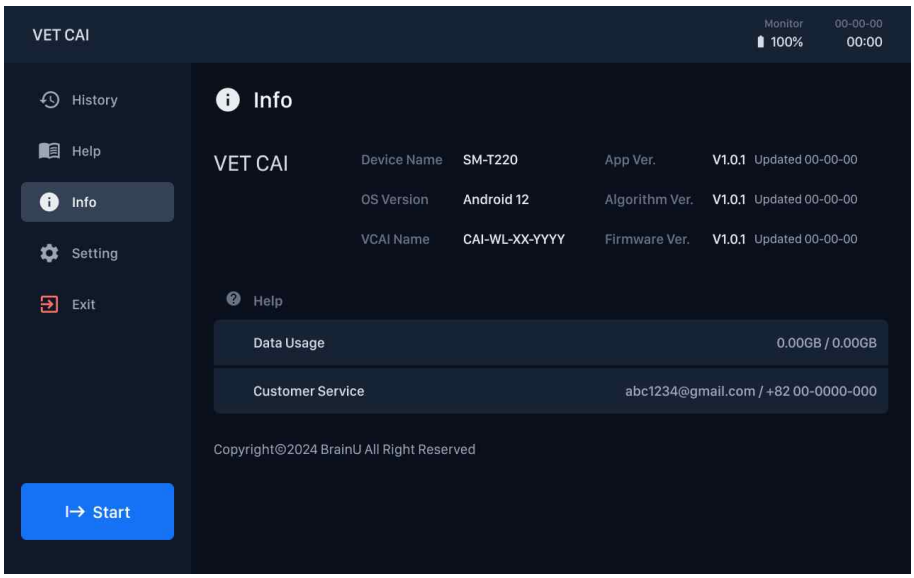
The Help menu provides explanations on the VCAI index, sensor attachment, steps to check if EEG signals are abnormal, and sensor attachment procedures. This helps users with the operation of the VET CAI device and VET CAI Application.



< Help Screen >

(3) Info

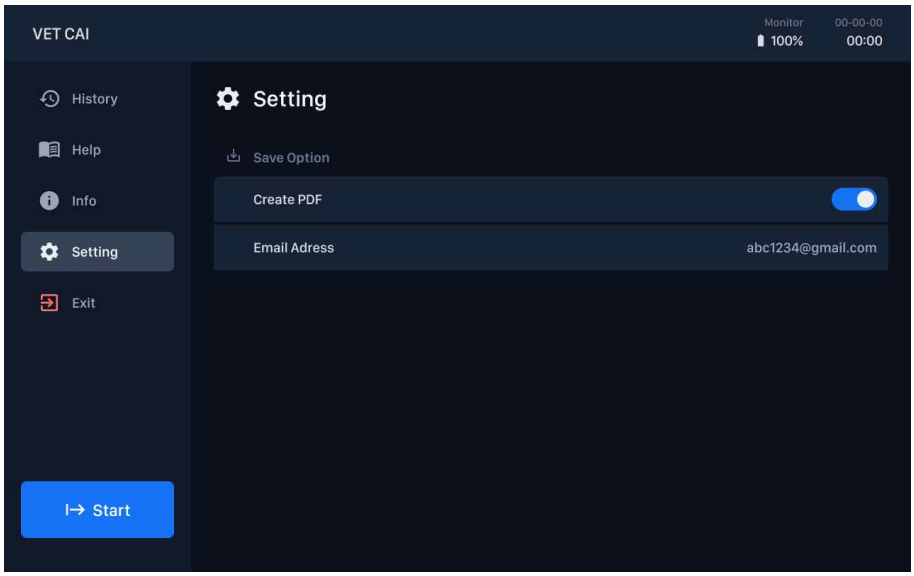
You can check the information of the VET CAI Amplifier, VET CAI Application, storage capacity and the customer support contact details.



< Info Screen >

(4) Setting

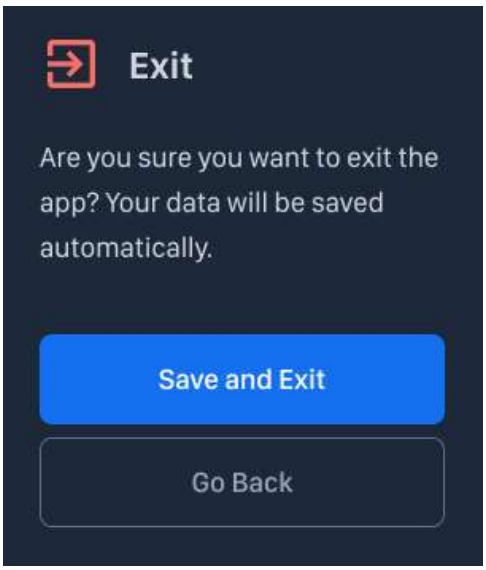
You can make settings for saving monitoring data. You can turn on/off PDF generation and set a default email to export PDFs to.



< Setting Screen >

(5) Exit

A popup window asking to confirm the exit of the VET CAI Application will be activated.

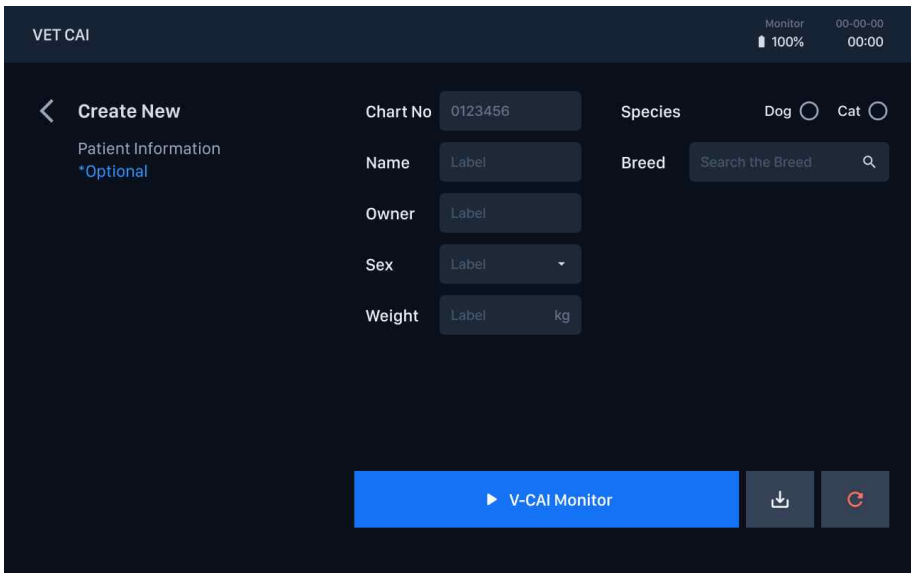


<VET CAI Application Exit Popup>

(6) Start

This is a screen to enter the pet's information before starting monitoring, and is configured to enter Chart No, Name, Owner, Sex, Weight, Species, Breed * If you do not enter the animal/owner information, the value is randomly generated.

If the chart number is duplicated, an error message will appear in the lower left corner, and you can switch to a screen showing the status data for that chart number through a button. After entering the information, click the ▶ V-CAI Monitor button to check the device connection and sensor attachment status.



< Start Screen >

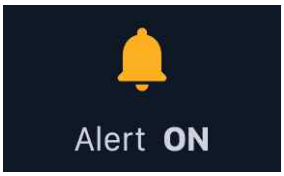
10) Monitoring Menu Button

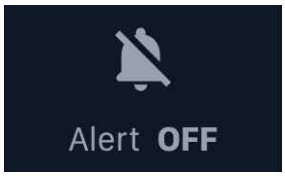
To provide maximum convenience to users, VET CAI has four frequently used shortcut icons on the left side of the screen during animal monitoring.

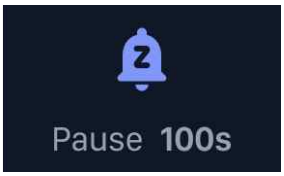
< Monitoring Screen >

(1) Alert

During monitoring, users can set alarms using touch controls. The settings available are 「**Alert ON**」, 「**Alert OFF**」, 「**Pause 100s**」

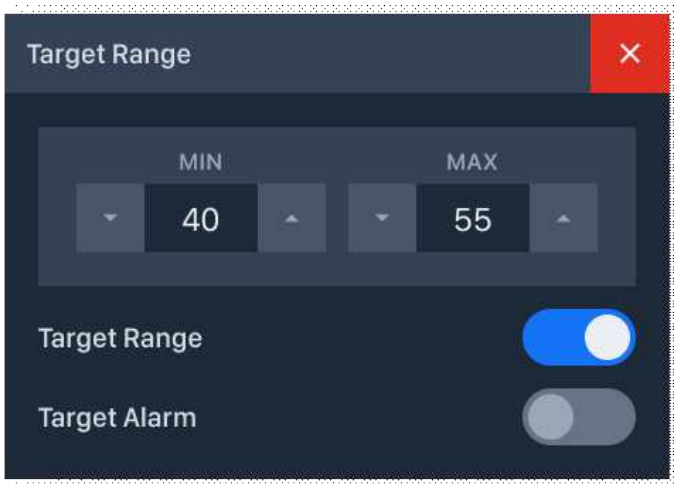






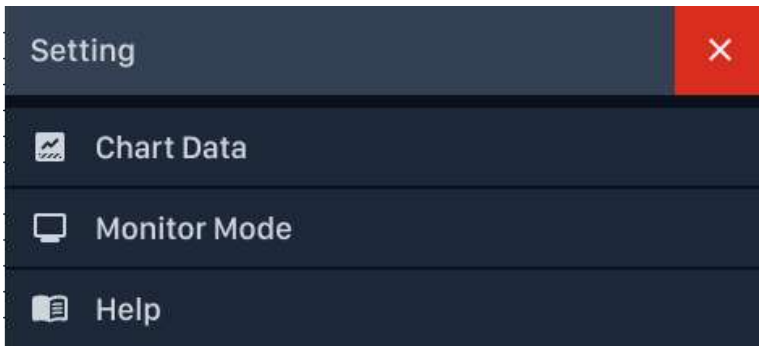
(2) Target Range

Given the nature of real-time monitoring and the changing condition of the animal, it is essential to observe the VCAI index changes. The Target Range menu allows users to set a specific VCAI index range, and a popup alarm will be triggered when the index falls within the defined range.



(3) Setting

The Setting menu includes three submenus: 'Chart Data', 'Monitor Mode', and 'Help'. Selecting each submenu will display the corresponding results



(4) Chart Data

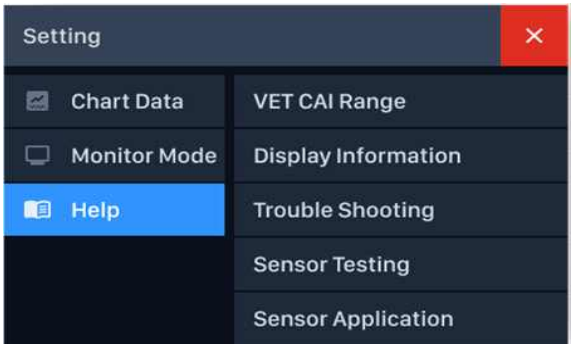
Displays information obtained from past processing according to the interval set by the user. The Interval Time can be configured to 1, 2, 3, 5, or 10-minute intervals.

(5) Monitor Mode

Allows users to check the current settings, including Target Range (Min/Max) and Alarm On/Off status.

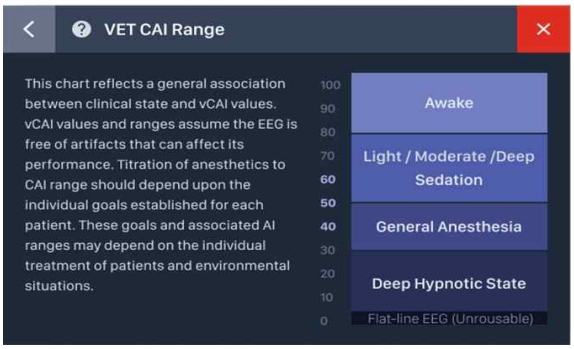
(6) Help

Descriptions of features and terms related to VET CAI, such as VCAI Range, VCAI Display Information, Trouble Shooting, Sensor Testing, and Sensor Application, will be displayed.



(a) VET CAI Range

Screen displaying the description of the VCAI index.

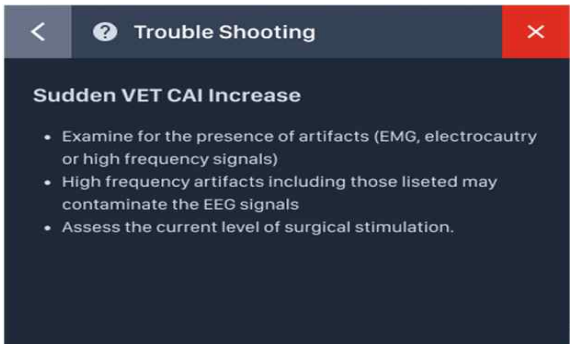


(b) Display Information

Screen showing explanations of the VCAI index display, including the indices and graphs on the main screen.

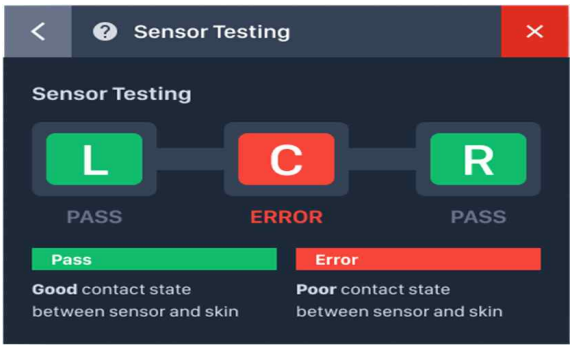
(c) Trouble Shooting

This screen displays the issues to check when the quality of the EEG signal significantly deteriorates or when noisy signals are received.



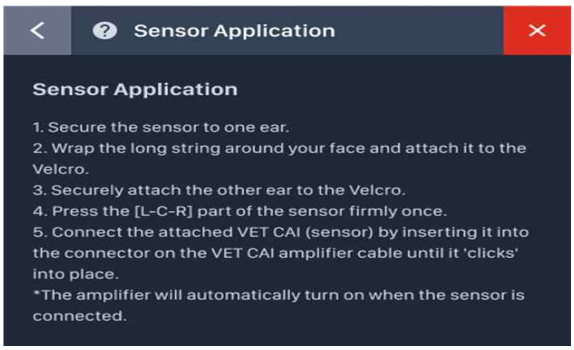
(d) Sensor Testing

Screen providing explanations on sensor attachment



(e) Sensor Application

The notification for device connection and abnormal sensor attachment shows explanations regarding sensor attachment and detachment.

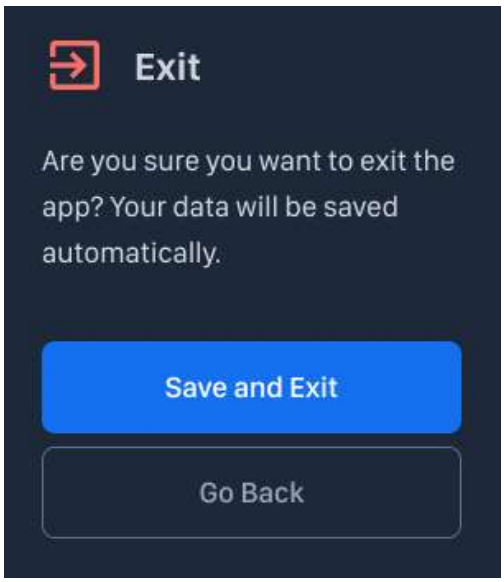


(f) HW Info

Displays information about the VET CAI Amplifier, VET CAI Application, and other related details.

(7) Exit

Activates a popup asking for confirmation to exit and save the VET CAI Application.



< VET CAI Application Exit Popup>

E. Ending VET CAI Use

To end the use of VET CAI, please follow these steps:

1) Press and pull the sensor cable connected to the VET CAI Amplifier to disconnect it

2) Avoid pulling on the cable to prevent issues with power supply and signal processing during the next use.

3) Remove the attached VET CAI sensor from the animal.

4) The VET CAI sensor is designed for single use only and cannot be reused. Dispose of it after use.

5) Store the VET CAI Amplifier with the sensor cable connected to prevent loss of parts.

6) After the last use of the day (surgery), disconnect the sensors and store the sensor cable and VET CAI Amplifier.

7) Once the surgery is complete, clean and store the VET CAI in the designated area for the next use. (If the device comes into contact with blood or other substances, clean it before storing.)

8) Charge the VET CAI Amplifier and monitor (tablet) for battery readiness before the next use.

F. Alarm Messages

Alarms for 「VET CAI Main Unit」, 「Sensor」, and 「VCAI Index」 appear in the center of the screen, and alarms for 「Signal (Noise)」 and 「Battery」 appear in the lower right corner.

< Warning Screen 1 > < Warning Screen 2 >

Category	Situation	Alarm Message	Action Plan
VET CAI Amplifire	When the amplifier power is off or the amplifier and monitor are disconnected from the Bluetooth connection	Amplifier Off	- Check the amplifier's battery - Check sensor and sensor cable connections - Check Bluetooth connectivity
Sensor	When the sensor is not properly attached	Sensor Connect Error	- Check the sensor attachment on the animal's forehead - Verify the connection between the sensor and the unit
VCAI	When the VCAI value exceeds the set range	VCAI Out of Target Range	- Check the animal's condition - Verify the set range
Signal (noise)	When there is excessive noise due to animal movement or strong external interference	Excessive Artifact Detected	- Remove sources of noise around the sensor and unit
Battery	When the monitor (tablet) battery is below 15%	Low Battery Power (Monitor)	- Charge the monitor (tablet)
	When the amplifier battery is below 15%	Low Battery Power (Amplifier)	- Charge the VET CAI unit

G. Troubleshooting

If you encounter any issues while using the product, please refer to the following action steps.

Situation	Action
If the sensor is not properly attached	1. Ensure the sensor is attached to the correct location on the animal's fur without any debris. 2. Press the [L-C-R] section of the sensor firmly to ensure the conductive gel is in good contact with the skin. 3. Tighten the band if it is loose or likely to move or peel off. 4. Check that the cable connecting the unit and sensor is properly connected. 5. Insert the cable fully until no visible damage is seen.
If signal quality is poor or noisy signals persist	
If the depth of anesthesia index value does not appear even after the device is activated	
If the depth of anesthesia index is too high	
If the amplifier is not detected	1. Check the battery level of the amplifier 2. Verify that the serial number (SN) of the unit matches that of the APP. 3. If the battery is depleted, connect the unit to a power source to charge it, as it cannot transmit signals when the battery is low.
If the EEG graph appears as a straight line	
If no biometric signal information is received	
If the main unit does not connect to the APP after starting	
If the main unit is powered off	1. Check the battery of the main unit. 2. Ensure the cable connected to the main unit is properly connected to the sensor.

3. Post-Use Storage and Maintenance

A. Regular inspections should be conducted to ensure readiness for emergency use.
B. Protect the VET CAI and sensor from sudden changes in temperature and humidity. Use them only after maintaining conditions similar to room temperature and humidity.
C. If contaminants are present, clean the product with a soft cloth.
D. For the next use, regularly inspect the product, parts, and accessories for functionality, battery charge, and damage.
E. Avoid exposing the product to direct sunlight for extended periods.
F. For repairs, contact the designated repair service or customer support.
G. Store the equipment with the power turned off.
H. Do not store the equipment near metal or magnetic fields.
I. Avoid storing the equipment in places with conductive foreign materials (liquids, dust, metal particles, etc.) that could affect its operation.
J. Do not store the equipment near flammable or explosive materials.

4. Equipment Cleaning

When blood or other potentially infectious materials or contaminants come into contact with the equipment or its parts, clean the equipment thoroughly to maintain hygiene and prevent malfunction.

Additionally, if the VET CAI system comes into contact with liquids or blood, a system check is necessary to prevent future operational issues.

III. Precautions / Maintenance

1. Precautions / Safety Measures

A. Precautions

To ensure the safety of the product, please provide training to comply with the following items and thoroughly review the user manual before use.

1) Warnings

A) This product should not be used for purposes other than its intended use.

B) Do not replace any part or all of the provided components with others without contacting or reporting to the manufacturer.

C) Do not use if there is any defect in the cable insulation or any other issue with the provided cables.

D) If liquids or similar substances penetrate the monitor (tablet) or the VET CAI Amplifier and components, turn off the equipment immediately, disconnect the cables, and contact the manufacturer.

E) Do not use if any form of electrical malfunction occurs.

F) Do not use if there is any mechanical damage, performance deviation from the original, or loose parts.

G) If any part is missing or lost inside or outside the equipment, do not use the equipment.

H) Do not use on injured areas. Additionally, do not attach to any part of the body other than the forehead; ensure accurate placement.

I) This product can be used for monitoring anesthesia levels but should not be used as the sole indicator for adjusting anesthesia drug dosages.

J) This product cannot be used for determining brain death.

K) If there is a power outage exceeding 30 seconds, turn off and then turn on the VET CAI Amplifier. Restart the VET CAI Application and check for data corruption on the monitor (tablet).

L) In all the above situations, the user must inform the manufacturer. Any issues related to product safety or unauthorized modifications are not covered under our warranty, and we will not be responsible for them.

2) Electrical and Shock Hazards

A) The VET CAI unit, sensor cable, and VET CAI sensors should not come into contact with conductive materials or any other conductive parts that include grounding.

B) The presence of the VET CAI near devices that deliver electrical shocks or defibrillators may result in errors in EEG signal collection and analysis.

C) To prevent errors in EEG signal analysis and ensure safety, do not use the VET CAI in conjunction with defibrillators or equipment that delivers high electrical shocks.

(1) Shock Hazard: Do not connect or disconnect the VET CAI unit and sensors with wet hands. Ensure that your hands are clean and dry when handling the sensors.
(2) Electrical Shock Hazard: Do not remove the cover of the VET CAI unit while it is powered on.
(3) Electrical Shock Risk and Safety Precautions: Although the manufacturer ensures that the equipment meets safety standards for leakage current and animal safety, it is recommended to have the equipment inspected at least once a year for electrical safety.

D) If blood or any other liquids come into contact with the product, immediately stop using the equipment, clean it thoroughly, and have it inspected by the manufacturer or a qualified engineer.

E) The product contains an internal Li-polymer battery. The battery has overcharge protection, and any replacement of the battery must be done through the manufacturer.

Caution

Disassembly and replacement of the product by anyone other than the manufacturer or authorized dealer's engineers are prohibited.
Do not connect any unauthorized products other than the adapters and cables provided by the manufacturer.

3) High-Frequency Risk

A) The VET CAI should not be used in MRI (magnetic field) environments.

B) When using high-frequency surgical equipment, position the sensors or electrodes as far away as possible.

C) Considerations when using Electroconvulsive Therapy (ECT) equipment:

(1) If ECT equipment is used while VET CAI is in operation, ensure that ECT electrodes are positioned away from the VET CAI sensors connected to the Amplifier to minimize signal interference.
(2) Certain ECT equipment may cause malfunction of the VET CAI, so check compatibility between equipment before surgery.
(3) If there is a defect in the neutral electrode connection of the HF surgical device, do not use the sensor electrodes.

4) Explosion Risk

Do not use the VET CAI in flammable environments or in locations where flammable anesthetic gases or oxygen may accumulate.

5) User Cautions

A) Ensure that the monitor (tablet) is securely mounted in a suitable location before use to prevent injuries to users and animals.
B) Handle the cables connected to the VET CAI body with care to minimize the risk of strangulation for animals.
C) Follow preventive guidelines to avoid contact with blood or other infectious materials. Dispose of infectious materials in specially managed waste containers.

D) Prevent liquid ingress into the connections of the VET CAI body and sensor cables. Contact with liquids at the sensor connection points can significantly impact performance.

E) If the VET CAI becomes contaminated with liquid or blood, cease use immediately and inspect before reuse.

F) The VET CAI is designed to be used with sensors. Always use the sensor cables provided by the manufacturer when using sensors.

G) Do not disconnect cables from the VET CAI during use. This could result in errors in real-time data transmission.

(1) Avoid bending cables excessively or dropping the device, as severe impacts can damage the product.

(2) Use only genuine accessories and components provided or approved by BrainU, including power adapters and cables.

(3) Store in a dust-free environment. Dust or foreign objects can cause malfunctions and increase the risk of fire or electric shock.

(4) The monitor (tablet) is a general-purpose display device. Use it only for the VET CAI application.

(5) Monitor (tablet) storage space is limited. Regularly back up and delete data to ensure adequate storage space.

6) Cleaning

High-pressure cleaning and high-pressure sterilization of the VET CAI are prohibited. Most parts of the VET CAI may be damaged in high-pressure cleaning and sterilization environments.

7) Electromagnetic Interference Prevention

A) The VET CAI meets the electromagnetic compatibility requirements of IEC 60601-1-2, but its operation may be affected by electromagnetic interference (EMI) from other equipment.

B) To prevent or mitigate electromagnetic interference:

(1) Maintain distance between the VET CAI amplifier and other equipment.

(2) Keep the VET CAI amplifier at least 15 cm away from other equipment to minimize electromagnetic interference.

(3) Adjust the position of cables and wires of other equipment.

(4) Limit the use of mobile communication devices as they may affect the operation of the VET CAI amplifier.

(5) Do not place the VET CAI amplifier directly next to or on top of other equipment.

 Caution	If it is unavoidable to use the VET CAI close to other equipment, ensure that the VET CAI operates correctly in the normal environment before use. Using accessories and parts not specifically mentioned in this user manual may increase the electromagnetic emission of the VET CAI and decrease its electromagnetic immunity.

 Reference	Maintenance, repair, parts replacement, and software updates must be carried out only by biomedical technicians authorized by the manufacturer and qualified engineers. Our VET CAI is designed and manufactured to comply with the animal medical device standards of the Animal and Plant Quarantine Agency, ensuring it is provided as a compliant product.

B. Safety Measures

1) Important Information for Using VET CAI

A) For Professional Use

VET CAI must only be used under the proper supervision and management of individuals who are licensed professionals or have completed training in the use of the equipment. Additionally, access to this system should be restricted to authorized hospital personnel only.

B) VET CAI Usage Standards

The VCAI index is one of several indicators displayed by this device, which can be used as a reference to monitor the effects of specific anesthetic agents. Furthermore, using this device may lead to a reduction in the amount of primary anesthetic used when combined with specific anesthetic agents, as well as potentially reducing emergency situations and recovery times.

VET CAI is a product that employs complex monitoring technology. It is essential that it is used alongside clinical judgment based on skilled experience.

In clinical situations, the interpretation of the VCAI index should always be done in conjunction with other vital signals. Relying solely on the VCAI index for managing anesthetic drug administration during surgery is not recommended. Various sources of noise or artifacts used in animal monitoring can lead to inaccurate VCAI readings. Potential artifacts may arise from improper skin contact of electrodes (high impedance), muscle activity or rigidity, movements of the head and body, persistent eye movement, inaccurate sensor placement, and unusual or excessive electrical interference.

2) Before Use

User handling or operational errors may lead to accidents, so before using the device in clinical practice, make sure to thoroughly understand the key functions by reading the user manual.

After confirming the electrode placement, attach it to the animal's head. Proper electrode attachment is essential for accurate VCAI index calculation and for obtaining the monitored animal's status information.

Modifications to the device, component replacements, or the reuse of consumable parts such as sensors are not covered by our warranty, and the company is not liable for any issues arising from such actions. If there is a need for equipment modification or any potential issues, please consult with the manufacturer in advance.

Users of this product must be familiar with safety precautions and contraindications, and beginner users should be trained in relevant safety measures.

This product is designed to monitor the brain activity of animals. Decisions regarding the administration of anesthesia or assessment of the vital signs of anesthetized animals during surgery cannot be based solely on the information provided by this product. The interpretation of data from this product must be used in conjunction with other available vital signs.

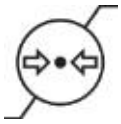
Monitoring information on the device’s monitor (tablet) will be stored for a certain period.

C. Labeling and Marking Information

1) Label information

Symbol Marks	Reference Standard	Description
	ISO 7010-W001	Caution
	-	Reference
	ISO 7000-1641	Operator's Manual
	IEC 60417-5333	Type BF Applied Part
	ISO 7000-1051	Do not re-use
	ISO 7010-M002	Follow the instructions in the user manual
	WEEE	Waste Electrical and Electronic Equipment Directive
	ISO 7000-2498	Serial number
IPN.N.	IEC 60529	N = 0 No protection 1 Protection against solid foreign objects larger than 50mm in diameter 2 Protection against solid foreign objects larger than 12.5mm in diameter 3 Protection against solid foreign objects larger than 2.5mm in diameter 4 Protection against solid foreign objects larger than 1.0mm in diameter 5 Protection against dust 6 Dust tight protection

		N = 0 No protection 1 Protection against vertically falling water droplets 2 Protection against vertically falling water droplets when the enclosure is tilted at 15 degrees 3 Protection against water spray 4 Protection against water splashes 5 Protection against water jets 6 Protection against powerful water jets 7 Protection against temporary immersion in water 8 Protection against continuous immersion in water Note: There is no requirement to specify the characteristic numbers. They can be replaced with the letter "X." (If both numbers are omitted, use "XX").
	ISO 7000-0626	Keep away from rain
	ISO 7000-0621	Fragile; handle with care
	ISO 7000-0623	This way up
	ISO 7000-2606	Do not use if package is damaged
	ISO 7000-2607	Use by date
	ISO 7000-2497	Date of manufacture
	ISO 7000-3082	Manufacturer

	ISO 7000-0632	Temperature limit
	ISO 7000-2620	Humidity limitation
	ISO 7000-2621	Atmospheric pressure limitation

2) Marking Information

A) VET CAI Amplifier (Width: 80 mm, Height: 25 mm)

품목명 : **신경감시장치[2]** 제품명(모델명) : **VETCAI** (VCAI-001)
제조자 : **주식회사 브레인유** 주소 : 경기도 성남시 분당구 야탑로 105번길 7, 3층
제조업번호 : **제 448호** 품목인증번호 : **제 448-001 호**
사용목적 : 개개의 신경 또는 신경다발의 기능을 모니터하는 장치.
외상 또는 마취 등으로 인한 수술 중 변화의 유무 및 변화한 시점을 확인하기 위함
제조번호/제조년월 : 별도표시 고객센터 : 031-707-1788 / support@brainu.co.kr
제품의 특성 중량 및 포장단위 : **1 Set**
- 정격전원 : 1급기기 : 100-240Vac, 0.5A, 5.0Vdc, 2.0A, 내부전원형기기 : DC 3.7V, 2000mAh
- 전기충격에 대한 보호 형식 및 보호정도에 의한 분류 : 1급기기-BF형 장착부, 내부전원형기기-BF형 장착부

본제품은 " 동물용의료기기 " 임

B) VET CAI Package Box (Width: 80 mm, Height: 25 mm)

제품명: 신경감시장치(VET CAI) 모델명: VCAI-001
제조자 : 주식회사 브레인유
주소: 경기도 성남시 분당구 야탑로105번길 7, 3층
Tel: +82-031-707-1788, E-mail: support@brainu.co.kr, Homepage: www.brainu.co.kr
제조업번호: 제448호, 품목인증번호: 제448-001호
사용목적: 개개의 신경 또는 신경다발의 기능을 모니터하는 장치. 외상 또는 마취 등으로 인한 수술 중 변화의 유무 및 변화한 시점을 확인하기 장치
제조번호/제조년월 : 별도표시
제품의 특성
-정격 전원 : 1급 기기 : 100-240Vac, 0.5A, 5.0Vdc 2.0A, 내부전원형기기 : DC 3.7V, 2,000mAh
-전기충격에 대한 보호 형식 및 보호정도에 의한 분류: 1급 기기, BF형 장착부, 내부전원형기기 BF형 장착부

본제품은 "동물용 의료기기"임

2. Maintenance

The equipment must be inspected by a technician approved by the manufacturer at least once every two years.

A. Equipment Cleaning

If blood, potentially infectious materials, or contaminated substances come into contact with the equipment or its components, it is essential to clean them thoroughly to maintain hygiene and prevent equipment malfunction.

Additionally, when the VET CAI system comes into contact with or is contaminated by liquids or blood, the system should be inspected to prevent future operational errors.

B. Cleaning the VET CAI Amplifier and Display Monitor

If blood or liquid is spilled on the VET CAI amplifier or monitor (tablet), immediately wipe off the contaminants with a lint-free absorbent cloth. (If blood is left for too long, it will coagulate and become difficult to remove.)

For a more thorough cleaning, dampen a cloth with detergent and lukewarm water, wipe the surface, and finish by wiping it with alcohol and ensuring it is completely dry. (Residual moisture may affect connector contact.)

For disinfection, use a 10% bleach solution or disinfectant (such as Lysol® Professional Disinfectant Foam Cleaner Spray or PDI Disinfecting Disposable Cloth) and wipe with a lint-free absorbent cloth.

When cleaning the monitor's display screen, use a commercial display screen cleaner or a neutral detergent solution. (Do not use abrasive cleaners to prevent scratches on the screen.)

Caution

If blood or liquid is not wiped off and the equipment continues to be used, leakage current may occur. Additionally, mixing disinfectant solutions (such as bleach and ammonia) can produce harmful gases.
Do not use high-pressure steam sterilization, as it may damage the product's components.
Avoid letting liquid come into contact with the cables connected to the animal, as it may interfere with the sensor connectors' performance.

1) Maintenance

The VET CAI system is designed to operate without periodic adjustments or calibrations, but routine maintenance should be inspected regularly.

A) Regular Inspection Items

(1) Check the battery level of the VET CAI Amplifier and monitor (tablet). If there are any issues with the battery power supply, contact the manufacturer. (Even if the battery has been fully charged in the past (at least 6 hours), regular battery checks are necessary through product operation.)

(2) After connecting the sensors to the VET CAI Amplifier, ensure it operates correctly.

(3) Sensor cables are considered consumables, and wear is expected with continuous use. Check for contamination, contact issues, or damage to the cables. (For sensor cables and connector parts used continuously for over 6 months, testing for operational status is recommended, and replacement should be considered if any issues arise.)

(4) If the VET CAI Amplifier and monitor (tablet) battery lasts less than 1 hour, they should be replaced with new equipment.

3. VET CAI Inspection

A. Leakage Current Inspection

Leakage current is a basic indicator that reflects the risk of electric shock to individuals who come into contact with the exposed external surfaces of the device.

The manufacturer carefully inspects leakage current to ensure it meets the safety standards of IEC 60601-1-1 and IEC 60601-1-1. Leakage current must be regularly checked at least once a year.

It is important to note that liquids such as blood, saline solution, and Ringer's solution are all conductors. Do not touch any part of the system with wet hands. Always handle with clean and dry hands.

Upon inspection by the manufacturer, it was confirmed that the ground leakage current and animal safety current are below the limits set by the safety standards. To maintain safety, institutions should perform regular testing to verify these currents. In the event of blood or liquid leakage, always perform a test before using the equipment.

VET CAI has passed animal medical device testing and certification and is manufactured in accordance with the standards set by the Animal and Plant Quarantine Agency. Relevant information is displayed on the product box or label on the product

B. Device Identification

Identification information is displayed on the product and packaging box. This information includes the device model, serial number, power rating, precautions, and manufacturer details.

C. Software Information

The software version is displayed at the bottom of the standby screen.
The application version, algorithm version, and recent update information are displayed separately.

4. Warranty Information

A. Warranty Coverage

Brainu Co., Ltd. guarantees the following:

- The equipment is free from any defects in components and has been assembled without issues for use by individuals with professional licenses or who have completed training on equipment use, with a warranty period of 12 months from the date of delivery to the user.

- Accessories and all materials and components of the equipment are free from defects and are safe for use by individuals with professional licenses or who have completed training, with a warranty period of 60 days from the date of delivery to the user.

- If repairs are needed during the warranty period, please contact the designated local dealer or manufacturer.

- Repairs or replacements may be made based on the warranty period.

- For equipment service needs, please contact the Brainu customer support center or local dealer.

- When sending products for service, ensure they are packaged securely to prevent loss or damage of parts. Damage or loss during transportation will not be covered under warranty.

- This warranty applies only to the original purchaser, and resale is not covered under this warranty.

- Costs related to repair or replacement deemed to fall under warranty coverage, including transportation fees, will be borne by the manufacturer. However, damage due to the purchaser's negligence or physical harm will be the purchaser's responsibility.

B. Exclusions from Warranty

The following circumstances are not covered by the product warranty:

- Products that have been abused, neglected, or accidentally damaged.
- Products damaged due to external reasons such as power outages or electrical failures.
- Products used in violation of the safety precautions specified for this product.
- Products that have been attached to non-standard accessories.
- Products with removed or illegible serial numbers (or lot numbers).
- Products with removed security labels or evidence of reattachment.
- Products modified or repaired by third parties or individuals not designated by the manufacturer.
- Products disassembled, serviced, or reassembled by third parties or individuals not designated by the manufacturer.

The manufacturer has no obligation to repair, replace, or modify products that are partially or fully worn out due to normal wear and tear.

No warranty is provided for products purchased from unauthorized dealers or sold under different brand names other than Brainu Co., Ltd.

C. Software License Information

The computer software (hereinafter referred to as "Licensed Software") running on the monitor (tablet) (or system) is licensed for use only under the terms of this license and is not sold as a separate product. Brainu Co., Ltd. retains all rights not expressly granted to you. While you own the system, Brainu Co., Ltd. retains all ownership, rights, and authority over the Licensed Software itself.

1) **License:** Grants you a non-exclusive right to use the Licensed Software in connection with the specific system that provided the Licensed Software.

2) **Restrictions:** You may not transfer the Licensed Software from the system to any other computer or system in any manner without the prior written consent of Brainu Co., Ltd. You may not distribute copies of the Licensed Software or its related documentation to others. You may not modify or translate the Licensed Software or its related documentation without the prior written consent of Brainu Co., Ltd. The Licensed Software contains trade secrets, and to protect these, you must not decompile, reverse engineer, disassemble, or create a human-readable form of the Licensed Software. You have the right to transfer the Licensed Software, provided the transferee agrees to be bound by the terms of this license agreement.

3) **Termination:** This license remains in effect until terminated. If you fail to comply with the terms of this license, it will automatically terminate without notice from Brainu Co., Ltd. Upon termination of this license, you may no longer use the Licensed Software.

4) **Warranty Limitation:** The Licensed Software is provided "as is," without any explicit or implied warranties, including warranties of merchantability or fitness for a particular purpose. Brainu Co., Ltd. does not warrant that the functions contained in the Licensed Software will meet your requirements, that its operation will be uninterrupted or error-free, or that such errors will be corrected.

5) **Remedy and Damage Limitation:** Regardless of the reason, all liability of Brainu Co., Ltd. to you for actual damages is limited to the amount paid for the system that includes the Licensed Software, and this is your sole remedy.

D. Service Center

For service and support for VET CAI, please contact Brainu Co., Ltd. Customer Support Center or your local dealer. A unique ID will be provided for service support.
e-mail: support@brainu.co.kr

- Before sending your VET CAI for service, please prepare the following:
- Send all components and parts, except for the sensor used when the issue occurred, to the Brainu Customer Support Center or your local dealer.
- Pack the equipment using the original packaging materials to ensure product protection.
- Clean the equipment to remove any sources of infection before sending it. Include a detailed description of the VET CAI's abnormal condition.

5. Wireless Certification Information

Country	Certification	Symbol
South Korea	KC	R-R-BrU-CAIPlus Equipment Name: Specific Low Power Wireless Device (Wireless Device for Wireless Data Communication Systems)
United States	FCC	FCC ID: 2BBOF-VETCAI
Europe	CE RED	CE
Japan	TELEC	R 020-230125

IV. IEC60601-1-2 Electromagnetic Compatibility Guidelines

The specifications for the electromagnetic compatibility guidelines of VET CAI are provided in IEC 60601-1-2.

<table>
<tr><th colspan="3">Electromagnetic Interference</th></tr>
<tr><td colspan="3">VET CAI is intended for use in the electromagnetic environments specified below.
Customers and users of VET CAI must ensure it is used in such environments.</td></tr>
<tr><th>Radiated Emission Tests</th><th>Compliance Status</th><th>Electromagnetic Environment - Guidance</th></tr>
<tr><td>Radiated Emissions KN 11</td><td>Class 1</td><td>VET CAI must emit electromagnetic energy to perform its designated functions. Nearby electronic devices may be affected.</td></tr>
<tr><td>Radiated Emissions KN 11</td><td>Class A</td><td rowspan="3">VET CAI is suitable for use in facilities directly connected to the low-voltage public power supply network that supplies buildings used for non-domestic purposes.</td></tr>
<tr><td>Harmonics Interference
IEC 61000-3-2</td><td>Not applicable</td></tr>
<tr><td>Voltage Fluctuations / Flicker Interference
IEC 61000-3-3</td><td>Not applicable</td></tr>
</table>

<table>
<tr><th colspan="4">Electromagnetic Immunity</th></tr>
<tr><td colspan="4">VET CAI is intended for use in the electromagnetic environments specified below. The purchaser or user of VET CAI must ensure that it is used in such environments.</td></tr>
<tr><th>Immunity Tests</th><th>IEC 60601 Test Level</th><th>Compliance Level</th><th>Electromagnetic Environment - Guidance</th></tr>
<tr><td></td><td></td><td></td><td>Portable or mobile communication devices should not be used closer to any part of VET CAI, including cables, than the recommended separation distance calculated using the equation applicable to the transmitter frequency.
Recommended Separation Distance</td></tr>
<tr><td>Conducted RF
KN
61000-4-6</td><td>3 Vrms
Frequency Range:
150kHz to 80MHz</td><td>3 V</td><td>$d = 1.2\sqrt{P}$</td></tr>
<tr><td>Radiated RF
KN
61000-4-3</td><td>3 V/m
Frequency Range:
80MHz to 2.5GHz</td><td>3 V/m</td><td>$d = 1.2\sqrt{P}$ 80 MHz ~ 800 MHz</td></tr>
<tr><td></td><td></td><td></td><td>$d = 2.3\sqrt{P}$ 800 MHz ~ 2.5 GHz</td></tr>
<tr><td></td><td></td><td></td><td>Where P is the maximum output power (in watts) specified by the transmitter manufacturer, and d is the recommended separation distance (in meters). The electromagnetic field strength E from fixed RF transmitters determined by electromagnetic test areas must be lower than the compliance level for each frequency range. Interference may occur in the vicinity of devices indicated by the symbols below.
  </td></tr>
<tr><td colspan="4">Note 1: Higher frequency ranges apply at 80 MHz and 800 MHz.
Note 2: These guidelines may not apply in all situations. Electromagnetic propagation can be affected by absorption or reflection from structures, objects, or people.</td></tr>
</table>

Electromagnetic Immunity

[a] The electromagnetic field strength from fixed transmitters such as wireless (mobile/cordless) phones, base stations for land mobile radio, amateur radio, and AM/FM radio and TV broadcasts cannot be accurately predicted theoretically. To assess the electromagnetic environment caused by fixed RF transmitters, electromagnetic testing should be considered. If the measured electromagnetic field strength in the location where VET CAI is used exceeds the corresponding RF compliance level, monitoring is necessary to ensure that VET CAI operates normally. If abnormal performance is observed, additional measures such as reorientation or repositioning of VET CAI may be required.

[b] The electromagnetic field strength in the frequency range of 150 kHz to 80 MHz must be below 3 V/m.

Recommended Separation Distances Between Portable and Mobile RF Communication Devices and VET CAI

To use VET CAI in an electromagnetic environment controlled for radiated RF interference, the purchaser or user of VET CAI can prevent electromagnetic interference by maintaining the minimum distances recommended below between portable and mobile RF communication devices (transmitters) and VET CAI, based on the maximum output power of the communication device.

Maximum Rated Output Power of the Transmitter (W)	**Recommended Separation Distance (m)**		
	150 kHz~80 MHz $d = 1.2\sqrt{P}$	**80 MHz~800 MHz** $d = 1.2\sqrt{P}$	**800 MHz~2.5 GHz** $d = 2.3\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters with a maximum output power rating not listed above, the recommended separation distance (m) can be determined using the applicable equation for the frequency of the transmitter, where P is the maximum output power rating in watts (W) specified by the transmitter manufacturer.

Note 1: Higher frequency ranges apply at 80 MHz and 800 MHz.

Note 2: These guidelines may not apply in all situations. Electromagnetic propagation can be affected by absorption and reflection from structures, objects, or people.

Manual Revision History

Date	Version	Details
2024.01.11	1.0.0	Initial CAI+ certification from the Ministry of Food and Drug Safety
2024.01.24.	1.1.0	Product name changed from CAI+ to VET CAI after approval from the Animal Quarantine Agency
2024.08.20.	1.2.0	Change approval due to modifications in the application's UI/UX, etc.

BrainU

Manufacturer : BrainU Co., Ltd.
Address : 3F, 7, Yatap-ro 105beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea, 13506
Tel : 031-707-1788 e-Mail : support@brainu.co.kr