BWA2.0

User’s Manual

BWA2.0 User's Manual for Measurement Guide and Setup

Thank you for purchasing the BWA2.0. This User's Manual describes all the features of the BWA2.0.

Please read before use and keep it in a safe place. By following properly these instructions, you will be able to use the BWA2.0 more safely and effectively.

Intended Use and Medical Indication

BWA2.0 in mainly used for healthy and acute or chronically ill populations in hospitals, medical practices and inpatient care facilities in accordance with national regulations. It can be used to assist in the assessment of nutritional status, obesity and muscle balance. Body composition analysis is important in preventive medicine since it provides the basis of appropriate physical activity and dietary habits for improving personal daily routine. It can be also usefully applied to follow-up studies of patients treated for various diseases.

- Medical check-up: Four body composition analysis can be identified for the risk of developing diseases that are highly related to body composition imbalance like obesity, malnutrition, fluid imbalance and osteoporosis for medical check-up
- Obesity: Percent body fat has been recommended rather than BMI to ensure proper weight loss and improvements in long-term health, tracking changes for adjusting/developing customized treatments
- Pediatric obesity: Body composition measurement is an essential part of health assessments for children and adolescents. Percent Body fat is better than the indicators of weight status to identify children and adolescents with unfavorable lipid profile.
- Sarcopenia: InBody provides a quick, easy to perform test that provides a calculation for skeletal muscle index (SMI), the sum of the lean mass in the arms and legs, normalized for height. This marker is useful in identifying low muscle in the appendages, which increases frailty risk.
- Diabetes & endocrinology: Diabetes is often associated with excess fat, however having insufficient muscle mass is just as detrimental and increases diabetes risk. And visceral fat plays a key role in the development of metabolic and cardiovascular disease.
- Edema: Over-hydration as assessed by ECW ratio(ECW/TBW) is prevalent in dialysis patients, and is associated with loss of residual renal function, inflammation, malnutrition and hypertension. Monitoring the ECW ratio (ECW/TBW) provides an assessment of fluid accumulation in the extracellular space resulting from compromised cardiovascular function. The patients who did not have ascites originally but have higher ECW/TBW had a higher incidence of ascites in liver cirrhosis.
- Segmental fluid retention: InBody objectively measures each region of the body separately and provides segmental ECW ratio measures for each of the arms, legs and the trunk, and these measures can be used to detect fluid imbalances resulting from the development or progression of lymphedema.
- Nutrition: The four primary components of the nutritional assessment are summarized by the mnemonic ABCD, with A standing for anthropometric measurements including stature, body weight, BMI and body composition. Body composition analysis can reveal changes in body composition (body water, protein, minerals and body fat) that cannot be known by changes in body weight.
- Fitness: Strength training greatly stimulates muscle growth, exercise burn the calories strengthens cardiorespiratory capacity, which reduce the risk of diabetes, heart disease, and other health concerns and result in the various changes in body composition. Body composition analysis shows skeletal muscle mass and lean in each segment of body, it helps focusing on building more muscle or correct imbalance.

* The BWA2.0 is not a diagnostic device. To make an accurate diagnosis, the physician needs to commission thorough examinations and take their results into account in addition to the results of the BWA2.0.
* The BWA2.0 is not used in home healthcare environment.

Please note the important information below before reading this manual.

Warning

Failure to observe these precautions can result in personal injury or equipment damage.

Caution

Failure to comply with safety precautions can damage the equipment.

Note

Referring to notes can help improve equipment use.

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BWA 2.0

Table of Contents

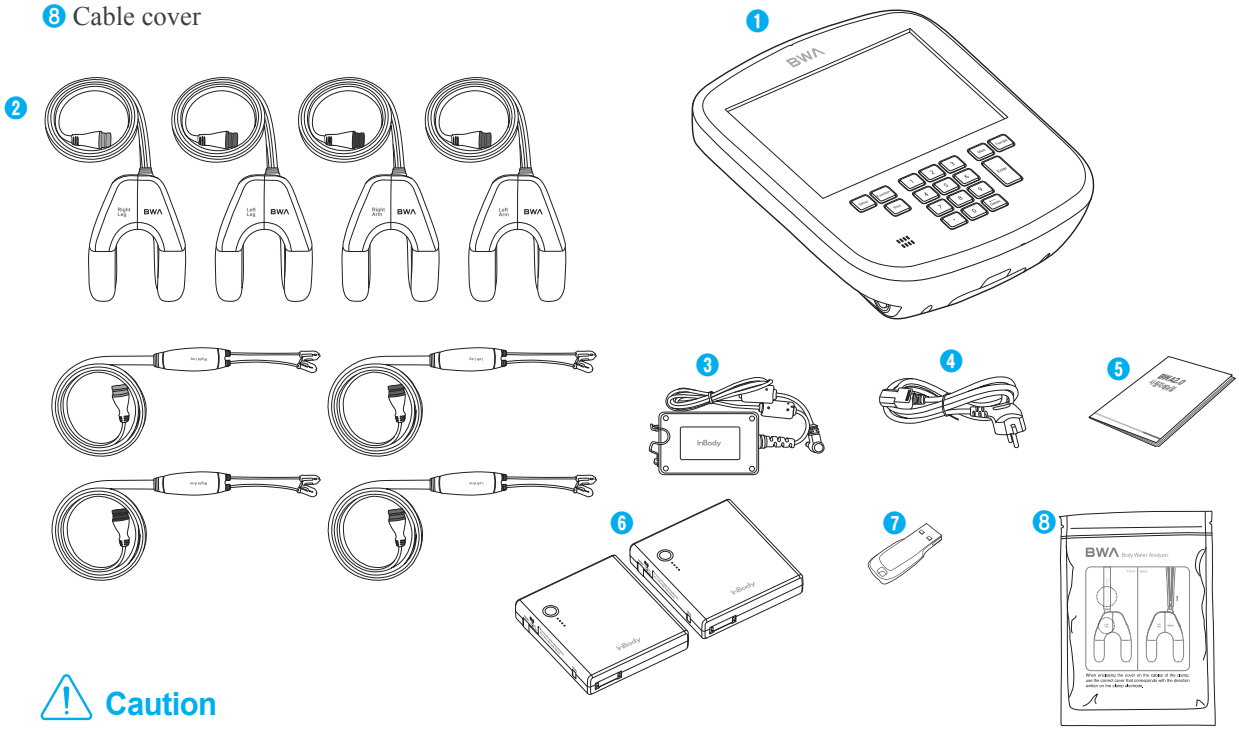
I. Installing the BWA2.0

A. Product Components

The BWA2.0 consists of the following components. Make sure all of the following components are present.

* Please check each component of the system for damage prior to installation.

1. BWA2.0 main unit
2. Four clamp electrodes (Contact type) or forceps electrodes (Adhesion type)
3. Power adapter
4. Power cable
5. User's Manual
6. Two batteries (IB Battery 220)
7. USB memory stick
8. Cable cover

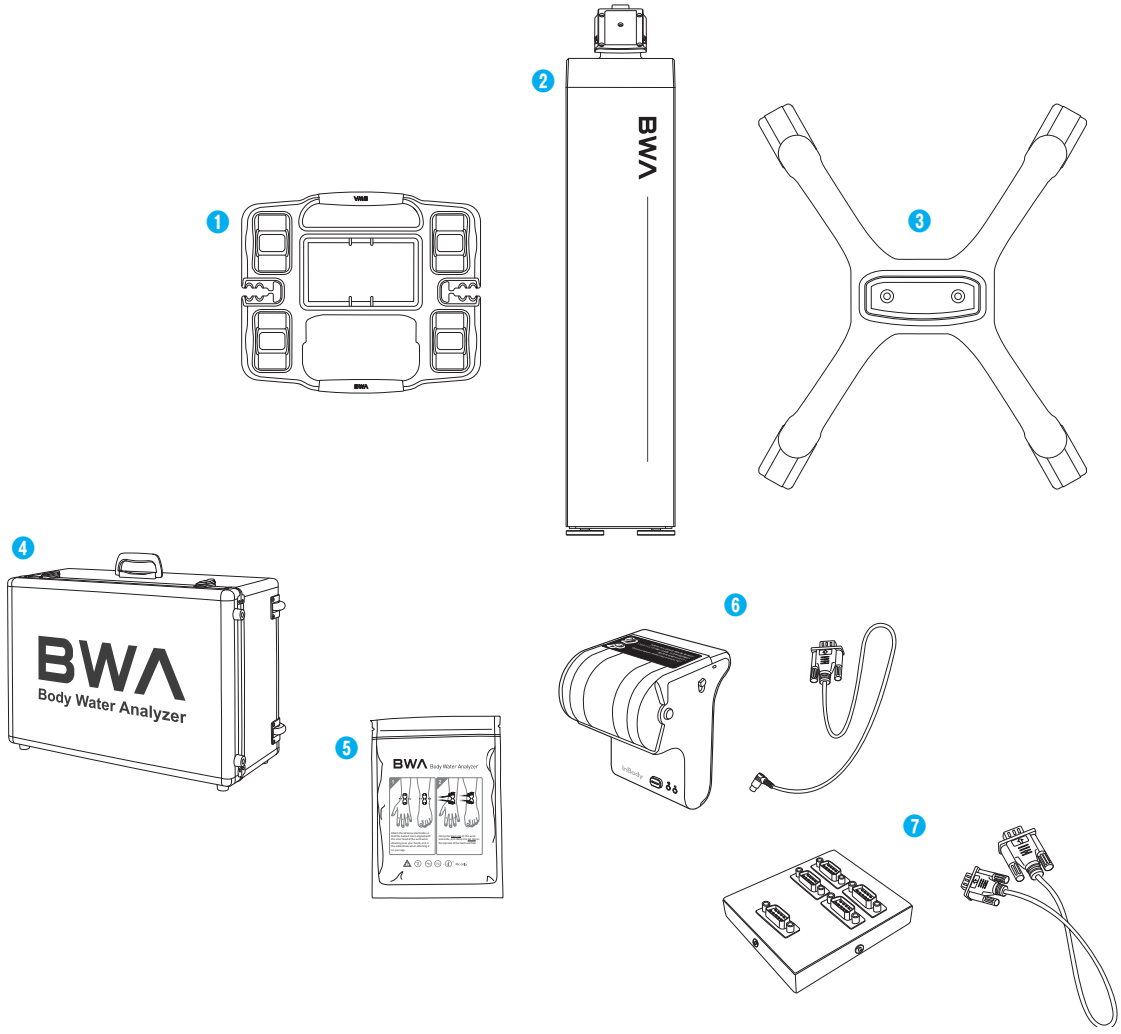


Caution

- For BWA2.0 electrodes, you can purchase and use either a clamp or forceps type.
- The optional disposable electrode (BWA-ES100) is available when purchasing the forceps electrode.
- The battery (IB Battery 220) is designed to connect to the BWA2.0.
- Do not use the battery for purposes other than connecting it to the BWA2.0.
- The BWA2.0 is supplied with two batteries.
- One battery can be used with the main unit while the other battery is charged or stored separately.
- The battery should be stored under the following conditions:
  a. Please store in a pack or box in a cool state where is not exposed to direct sunlight.
  b. Long-term storage may accelerate the battery self-discharge and degrade battery performance.
  c. For long-term storage, store in a dry place where is low in humidity and temperature range of -20°C to +30°C.
  d. If charging for the first time after long-term storage, the capacity may be reduced.
  e. Fully charge and discharge the battery several times to restore the original performance.
  f. When the battery is stored for more than six months, it must be charged at least every six months to prevent performance degradation due to solution leakage or self-discharge.

B. Accessories

1. Portable cart basket
2. Portable bag stand
3. Portable cart lower body part
4. Portable bag
5. Disposable electrode (BWA-ES100)
6. Thermal printer (TP100)
7. Serial distributor (SD400)



Attention

- The BWA2.0 can be installed in the portable cart or portable bag, both are available for purchase.

C. Installation Environment

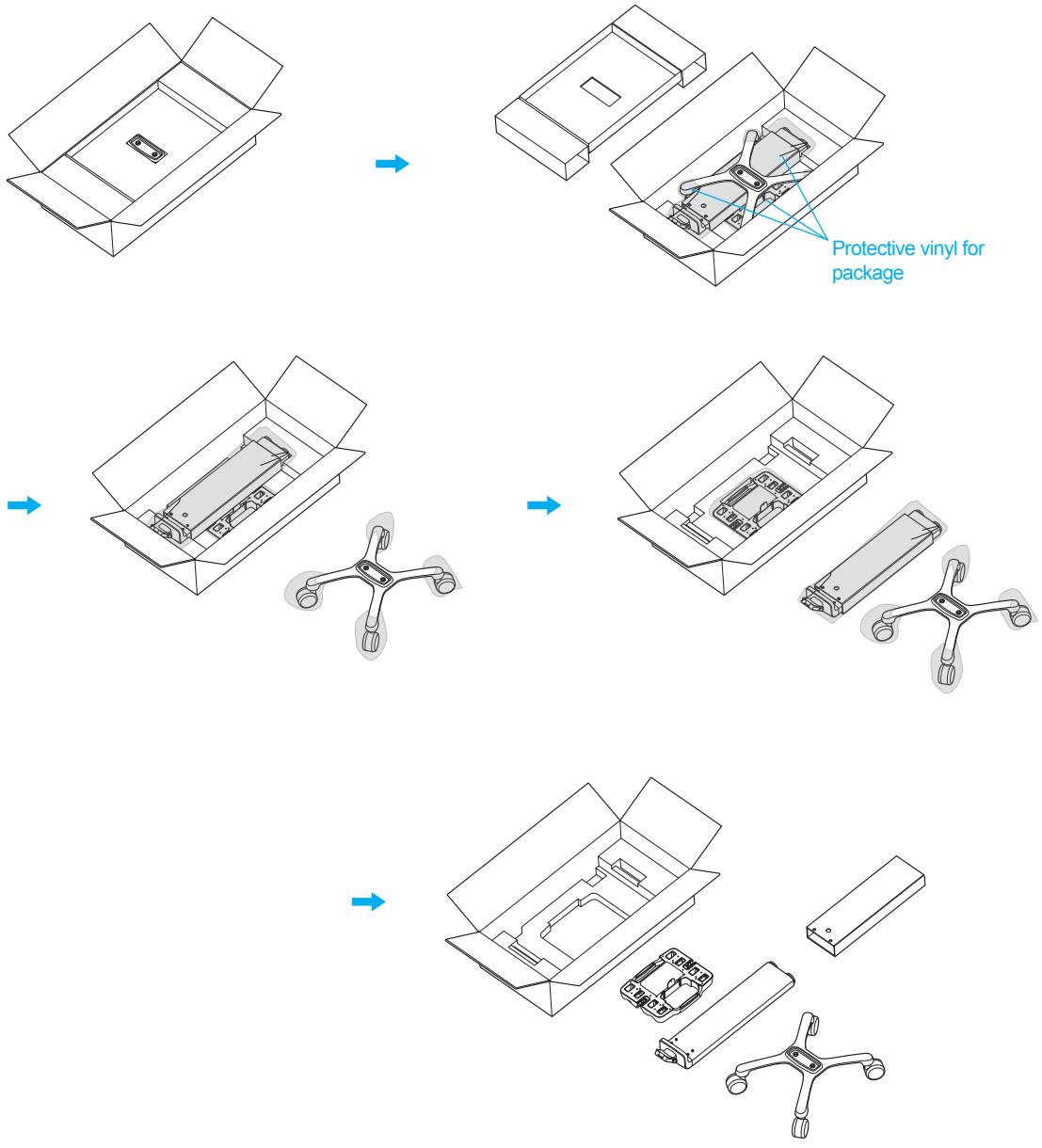
Check the environment before installing the BWA2.0. This equipment is suitable for indoor use. If installing the equipment outdoors, the following requirements must be fulfilled.

Temperatures range	10 ~ 40°C (50 ~ 104°F)
Relative humidity	30 ~ 75% RH
Atmospheric pressure range	70 ~ 106kPa

D. Installation

1. Installation for cart user

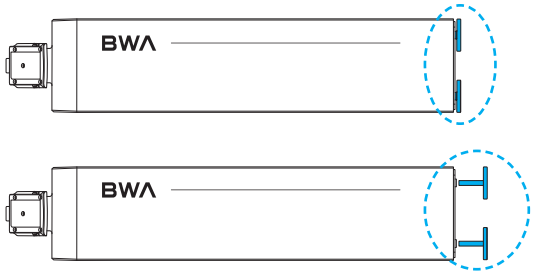
1) Open the cart packing box and remove the inner material. In this order, take out the lower body part, stand, and basket from the box.



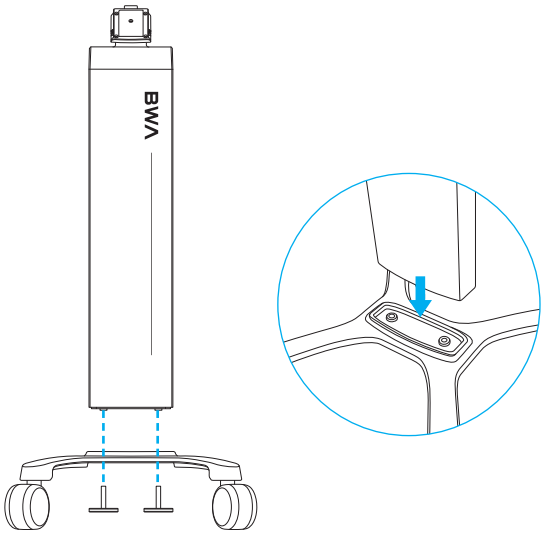
Caution

- For repackaging the BWA2.0 at a later time, the supplied packing materials should be kept.
  Other wastes should be disposed of according to relevant local laws and regulations.
- Be careful not to get your hands or feet caught by the packaging box.
- Be careful for children not to enter the packaging box.
- Do not put vinyls for the packing box on your face.

2) Turn the two knobs on the bottom of the stand counterclockwise to remove them.



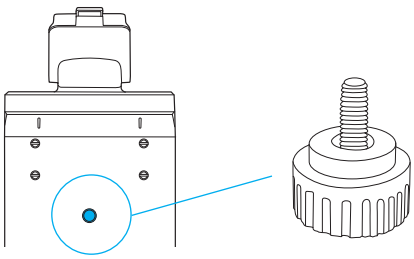
3) After aligning the two bolt positions of the stand and the lower body part, turn the knob clockwise to fix them. When aligning the stand on the lower body part, pay attention to the direction of the stand so the stand properly fits into the shape of the lower part.



Caution

- When turning the knob bolt, be careful not to get your hands or other body parts caught.
- One person of a team of two people should hold the upper side of the stand while the other person removes the knobs at the lower side.

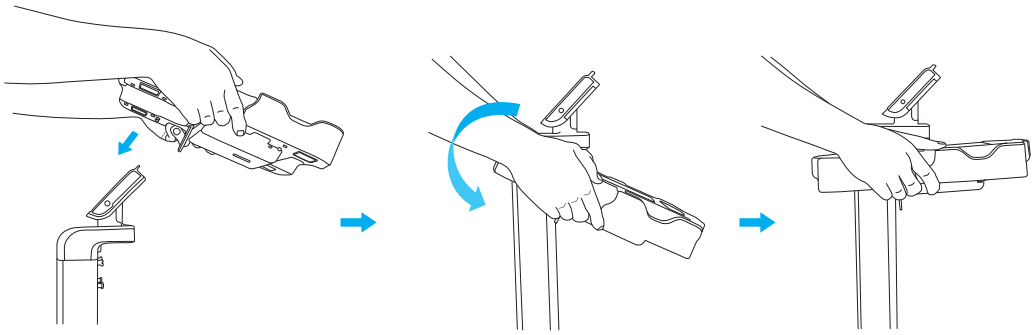
4) Turn the knob counterclockwise on the back of the stand to remove it.



Note

- When removing the knob, keep it well, so as not to lose it.

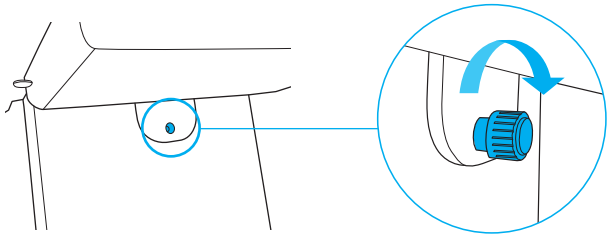
5) Tilt the basket to insert it into the top of the stand as shown below. Hang it by aligning the four grooves with the four knob positions on the back of the stand.



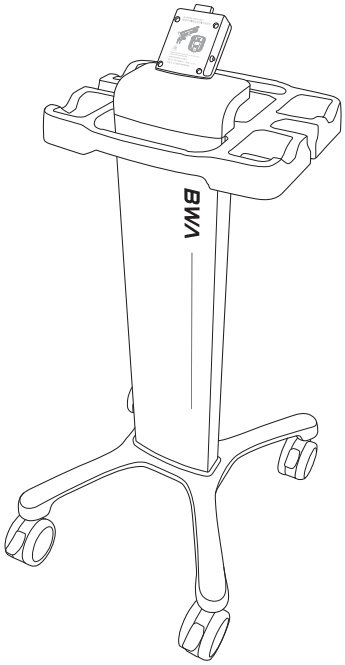
⚠ Caution

- When hanging the basket on the top of the stand, be careful not to get your hands or other body parts caught.

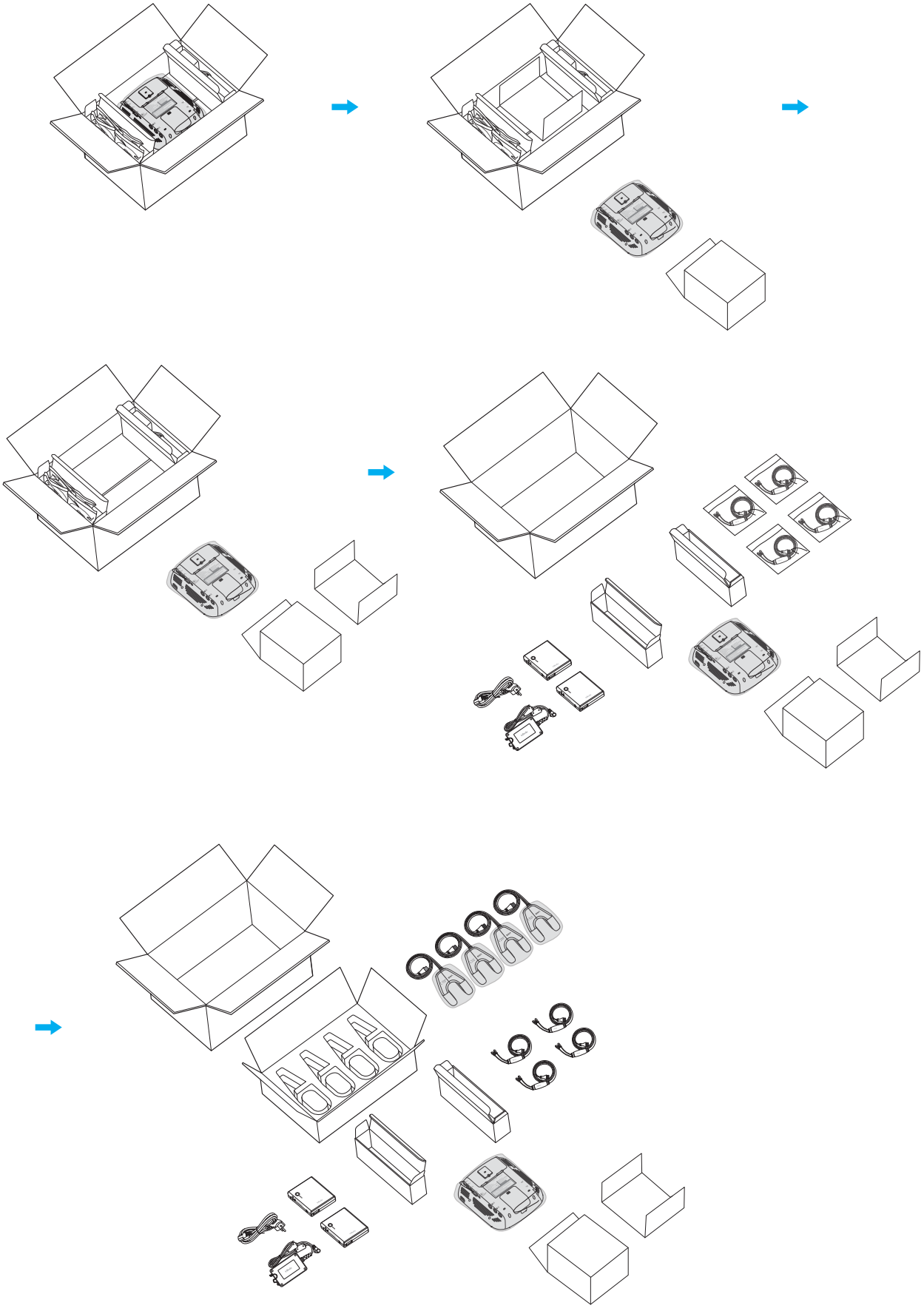
6) Align the knob removed in Step 4 with the position, then turn it clockwise to fix it.



7) Refer to the figure below after completing the assembly of the portable cart.

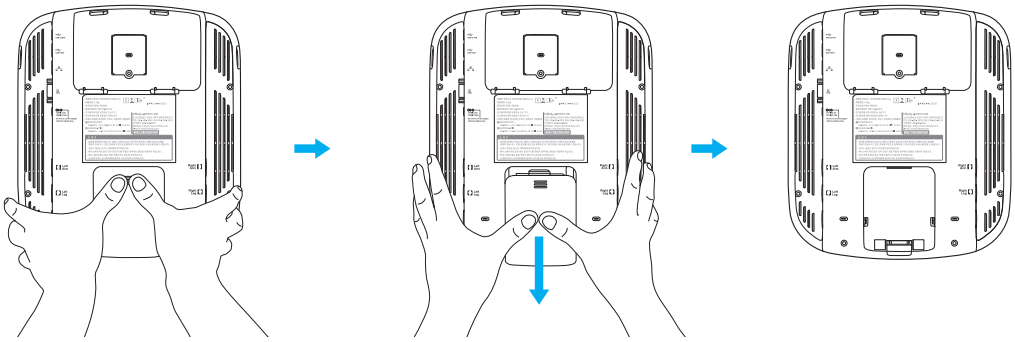


8) Open the main unit packing box and remove the packing pad. Take out the BWA2.0 main body, clamp electrodes (or forceps electrodes) and batteries from the box. Then remove the protective packaging material from the main unit and the electrodes.

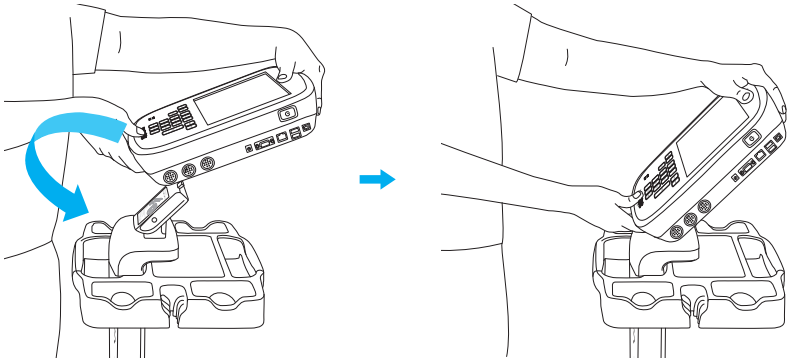


9) Press the cover located on the back of the main unit and pull it down to remove the cover.

(Store the cover separately.)



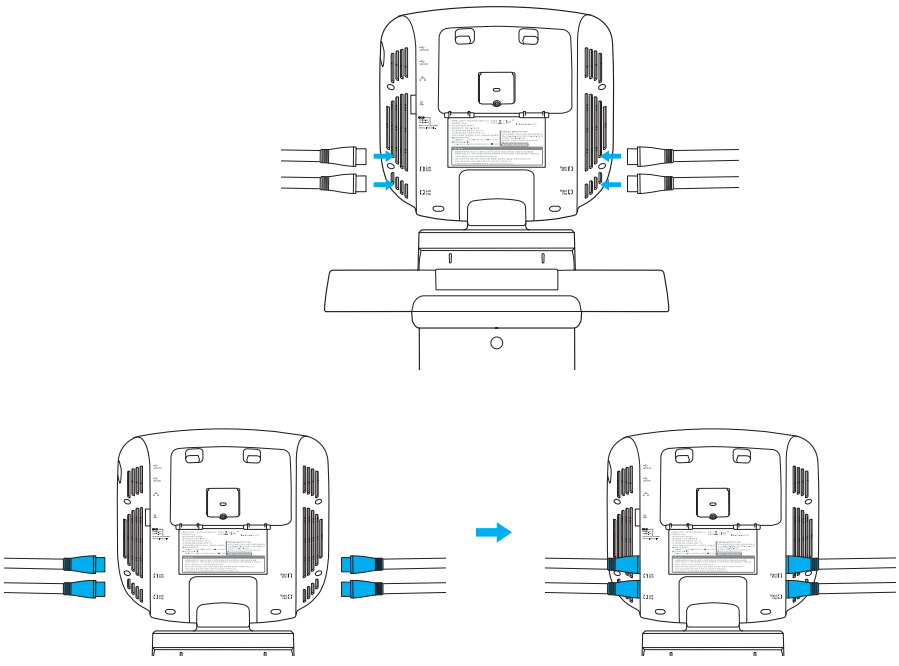
10) Align the main unit into the mounting part of the cart, and then lower the main body downward to insert it.

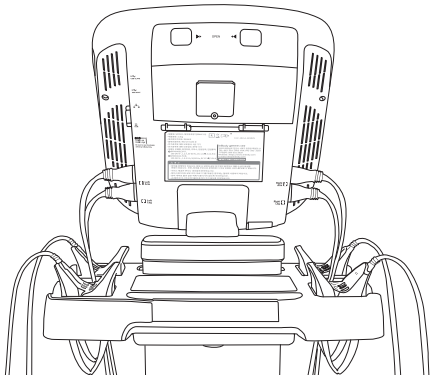


Caution

- When inserting the main unit to the mounting part of the cart, be careful not to get your hands or other body parts caught.

11) Connect the electrode cables to the main unit. Connect the electrode cables labelled Right Arm (black), Left Arm (red), Right Leg (yellow), and Left Leg (blue) to each position of the main unit according to the color.

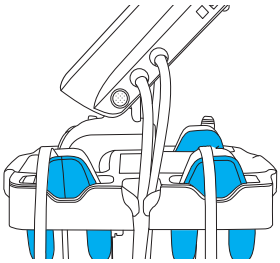




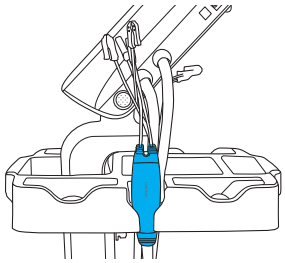
Caution

- When connecting or disconnecting the cable, grasp the connector part and not the cable. Otherwise, the cable may break.

12) Mount the electrodes to the cart basket electrode mounting groove as shown below.



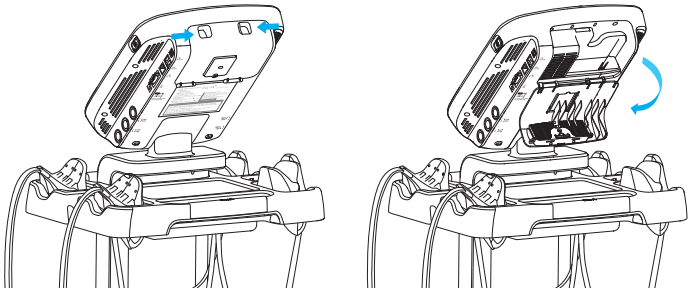
When mounting clamp electrodes



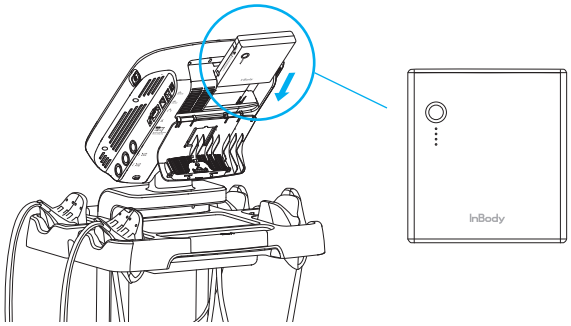
When mounting forceps electrodes

13) Inserting battery

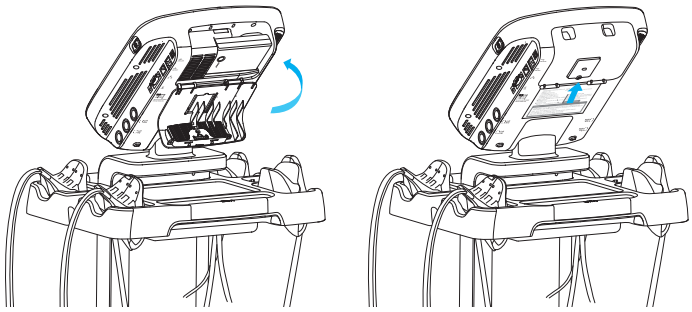
❶ Place your fingers on both sides of the OPEN mark on the rear of the main unit. Press the buttons in the direction of the arrows and then pull the cover down to open.



❷ With the battery button visible, push the battery into the main unit until it clicks.



❸ Lift the cover up and press the cover inward until it clicks. If the cover does not close, make sure that the battery is inserted properly.



⚠ Warning

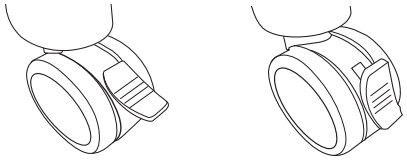
- Read carefully the following items. Improper usage of the components may lead to battery leakage, explosion, or combustion.
  a. Do not drop or throw batteries into water.
  b. Do not use or store the battery nearby a heat source(e.g. fire or heater, above 60°C).
  c. When charging, please use the adapter provided by InBody.
  d. Do not connect the battery directly to a wall outlet or socket in a vehicle.
  e. Do not burn or heat up the batteries.
  f. Do not short-circuit the terminals of the battery with conductors or other metallic objects, and do not carry or store the batteries along with other metallic objects such as necklaces.
  g. Do not apply shock or mechanical vibration to the battery.
  h. Do not crush or hammer the battery.
  i. Do not touch fingernails or other sharp objects to batteries, and avoid tapping or hitting it with a hammer.
  j. Do not weld the battery terminals directly.
  k. Do not attempt to disassemble the battery in any way.
  l. Do not charge the battery in a fire or extremely high temperatures.
  m. Do not place batteries in microwave ovens.
  n. Do not use the batteries when they smell, heat up, deform, discolor or have other abnormalities. Take batteries out of the device or charger to stop using them if they are in use or charging.
  o. Keep the batteries away from children.
  p. Remove the battery from the machine immediately if there is a leakage or foreign smell.
  q. A fire or explosion may occur from a leaked electrolyte.
  r. Do not rub your eyes if the leaked electrolyte gets into your eyes. Immediately wash them with running water. Then consult a physician immediately. The eyes may be further damaged if not properly treated.

⚠ Caution

- Do not install batteries with wet hands.
- Do not use the batteries for other purposes except the BWA2.0 operation.
- Remove the batteries from the battery compartment when not in use for a long period.
- Do not touch any leakage. If it gets on your skin or clothes, wash it off with running water.

- Do not connect the battery terminals to metal wires, necklaces, chains, etc.
- To avoid damage or malfunction, do not drop the battery.
- Do not disassemble the battery.
- If the terminals of the battery get dirty, clean the battery before using it.
- Otherwise, power loss or charging failure may occur by a loose battery contact.
- Do not use the battery if there are any abnormalities such as smell, deformation, discoloration, etc.
- If the battery goes underwater, it may malfunction. Do not use that battery.
- Do not use high temperature (over 60℃) packaging materials.
- Dispose of the batteries according to local regulations and guidelines.
- Improper use of batteries may cause the performance degradation of the BWA2.0 or a fire which may damage the BWA2.0.

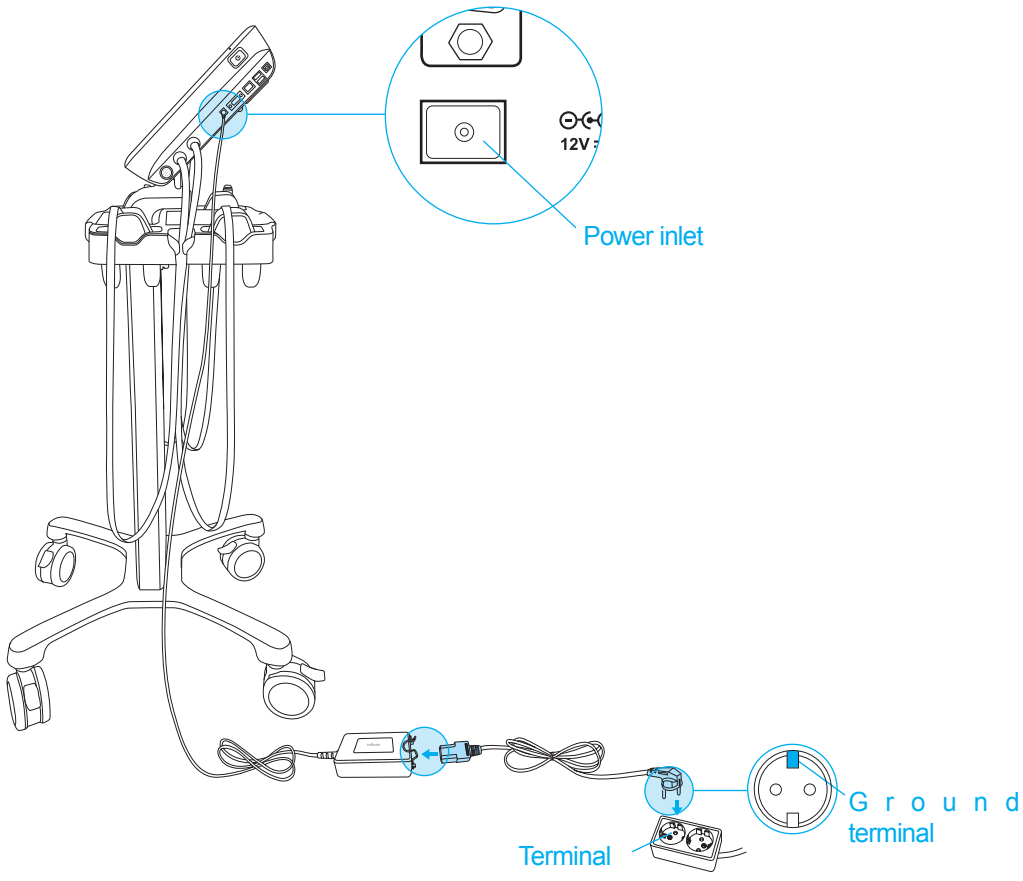
14) The cart has wheels for easy transport. The wheels can be locked/unlocked as shown below.



Wheel unlocked Wheel locked

15) Connect the power adapter to the power inlet on the right-side port of the BWA2.0. Connect the power cable to the power adapter. Plug in the power cable to a 3-terminal outlet with a ground terminal.

* The BWA2.0 can be connected to optional test equipment and PC programs such as stadiometer, blood pressure monitor and LookinBody120. For steps to connect, please refer to "F. Connecting External device" in "I. Installing the BWA2.0".



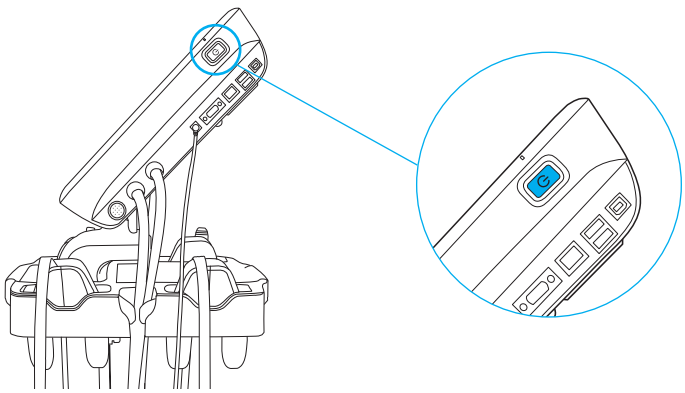
⚠ Warning

- Do not pull the power cord violently.
- Do not plug or disconnect the power cable with wet hands. Otherwise, it may cause an electric shock.
- Always use an outlet supplied to the right power supply (AC 100-240 V). Otherwise, it may cause a fire or malfunction.
- When using a power surge protector, make sure that the outlet or the extension cable has adequate power capacity.
- Do not disassemble the equipment. This may cause electric shock or injury, product malfunction, and inaccurate results, and it will not be covered by the manufacturer's warranty.
- Do not directly connect the BWA2.0 with any other electronic device when the BWA2.0 is on. This may cause an electric shock.
- If your are not using the BWA2.0 for a long time, unplug the power code.

⚠ Caution

- Using the BWA2.0 in a dry environment or on a carpet may result in static electricity and damage to the equipment. Use an antistatic mat if you need to install in such an environment.
- Install the BWA2.0 on a floor that is flat and vibration-free. If the equipment is installed where the floor is not flat, the test results may be inaccurate.
- Do not clean the electrodes with detergent. If a liquid cleaner touches the electrode, it may cause corrosion and equipment failure. For cleaning, use an InBody tissue (wet tissue) with an antibacterial agent.
- The equipment may be damaged by electrical shock and malfunction if it is plugged into an ungrounded outlet. The test results may also be inaccurate.
- If the BWA2.0 is subjected to electrical interference, the test results may be inaccurate. Do not install the BWA2.0 in proximity with fluorescent lights, large AC motor equipment such as treadmills, vibrators, refrigerators, air conditioners, compressors, high-frequency heat treatment devices, and heating devices that cause electrical interference. Unplug and plug them into different power outlets when the BWA2.0 and a device that causes electrical interference are connected to the same power outlet.
- If you are connecting the BWA2.0 to another electrical device, then turn on the other device first. When turning off the power, turn off the power of the BWA2.0 first, and then turn off the power of the other device. This can minimize the electric shock from the BWA2.0.
- Use the adapter provided by InBody. The BWA2.0 may malfunction if using other adapters.
- Do not use the BWA2.0 near heat sources such as heating appliances. It may cause deformation, breakdown, or a fire.
- Use the BWA2.0 in a location where it is not exposed to direct sunlight. It may cause discoloration or damage to equipment.

16) Press the power button on the right-side of the BWA2.0 to turn it on.



* How to turn the Power On/off

Turning the power on: Press the Power button briefly if the BWA2.0 has been turned off.

Turning the power off: Press and hold the Power button for about three seconds if the BWA2.0 has been turned on.

* Operation status according to the LED color of the Power button

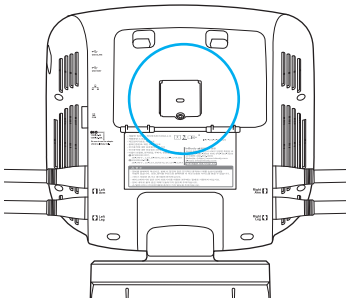
LED color of the power button	Operation status
Blue	BWA2.0 is turning on.
Red	The battery is plugged into the BWA2.0 with the power turned off, and the battery is being charged with the adapter connected.
Green	The battery is plugged into the BWA2.0 with the power turned off, and the battery is completely charged with the adapter connected.

* 2. How to install the Thermal Printer

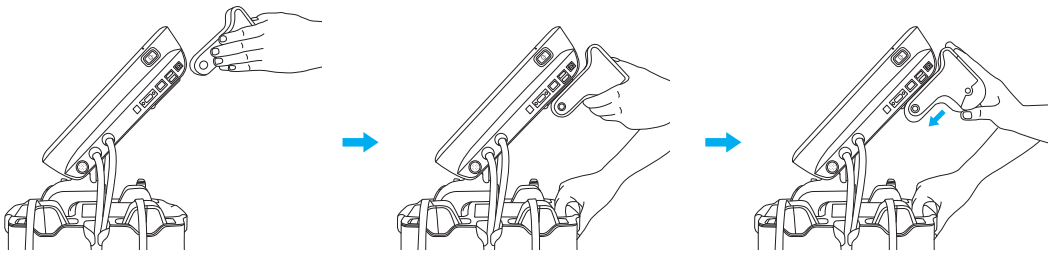
Caution

- The thermal printer is sold separately.

1) There is a part to connect the thermal printer on the rear of the BWA2.0.



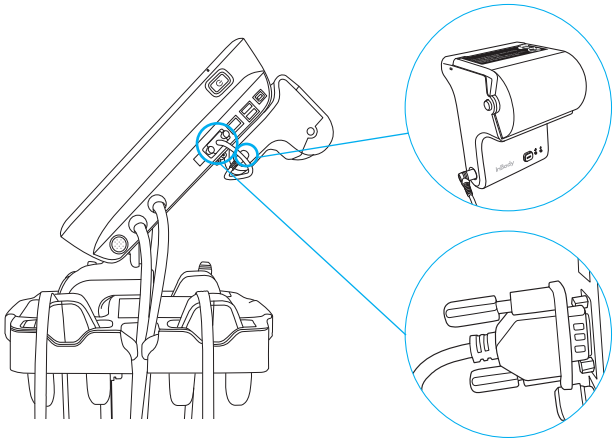
2) Insert the thermal printer into the groove on the rear of the BWA2.0 and slide it down.
Hold the cart with one hand and push the thermal printer into the part to be fixed.



Caution

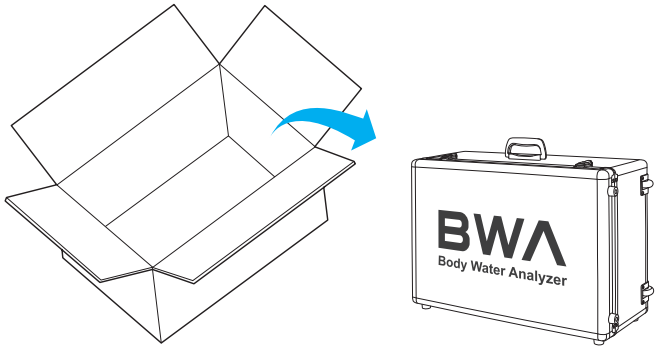
- When you insert the thermal printer to the BWA2.0, do not place your hands or other body parts on the main unit and the thermal printer fastening area. There is a risk of getting the hand or other body parts caught.

3) Connect the BWA2.0 to the thermal printer with a thermal printer cable.

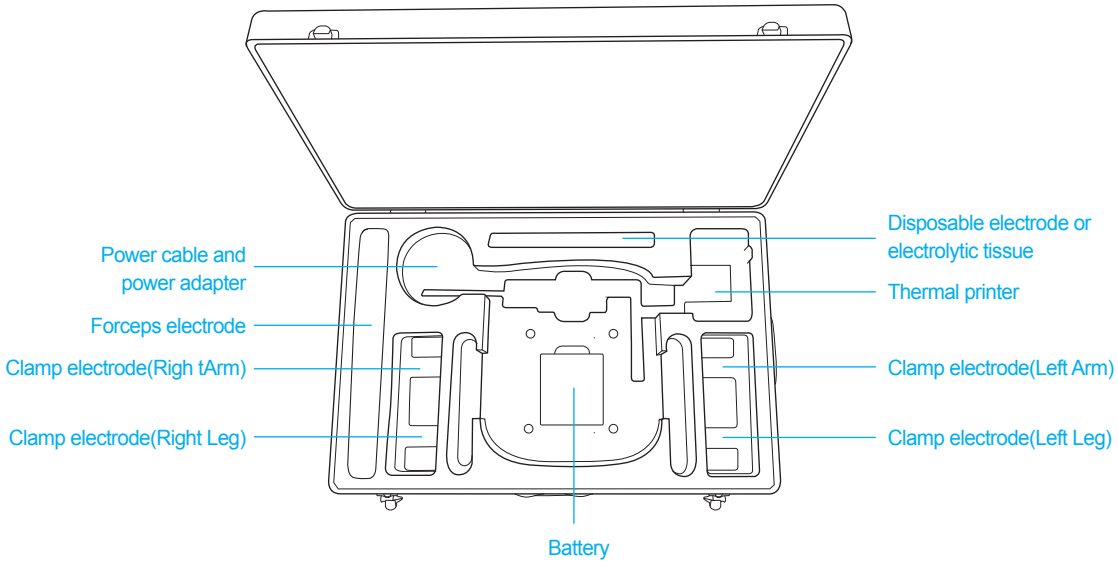


3. How to Install the Portable Bag

1) Open the box and take out the bag.



2) Put the BWA2.0, four clamps (or forceps) electrodes, two batteries, power cable, power adapter, thermal printer, disposable electrode, and electrolyte tissue into the portable bag.



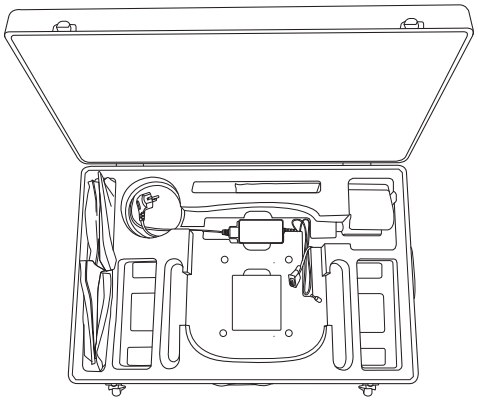


Figure of storage except for the main unit and clamp electrodes

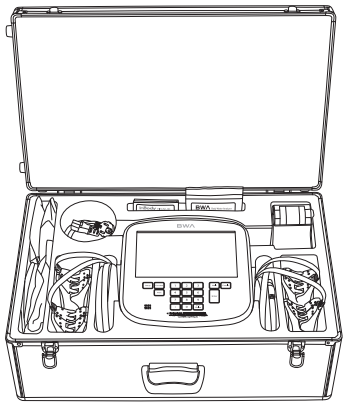


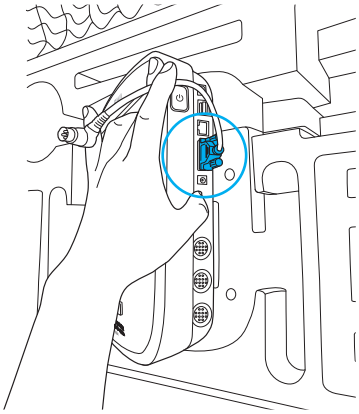
Figure of all components storage

3) Connect the clamp (or forceps) electrode to the cable and the BWA2.0.

Connect the electrode cables labeled Right Arm (black), Left Arm (red), Right Leg (yellow), and Left Leg (blue) to the BWA2.0 according to the cable color marked on the sides of the BWA2.0. Make sure the cables are plugged firmly into each location.

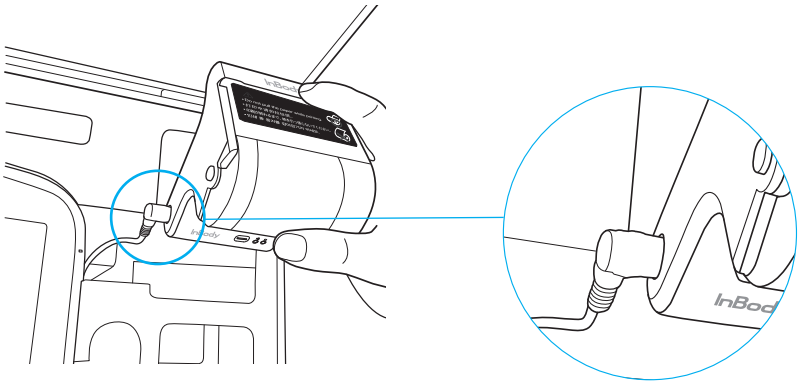
4) Connect the thermal printer to the COM port on the BWA2.0 using the thermal printer cable.

Gently lift the side of the BWA2.0 and connect the thermal printer cable to the COM port on the BWA2.0 first.

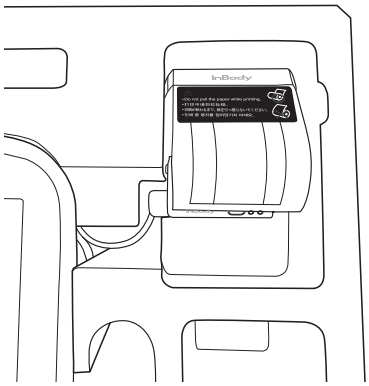


- Place the BWA2.0 in the original position and put the cable into the cable groove.

- Connect the thermal printer cable to the thermal printer.



- Make sure the 'InBody' logo of the thermal printer is visible from above and that the thermal printer cable fits into the groove.

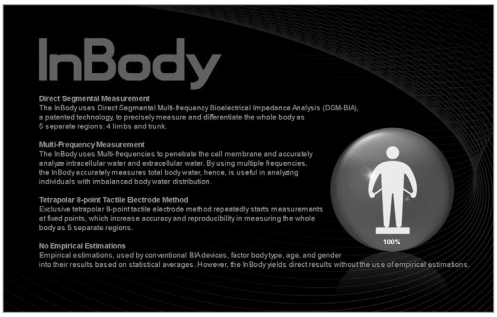


⚠ Caution

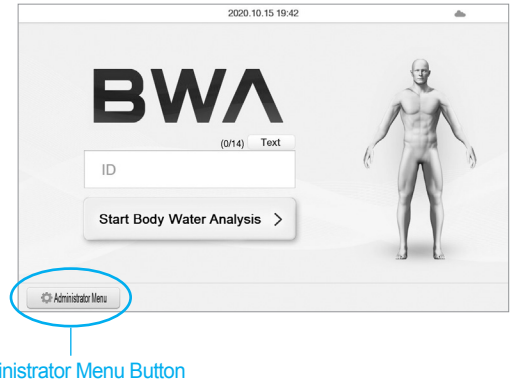
- The thermal printer is sold separately.

E. Initial Setup

1. The BWA2.0 will automatically start booting up when turned on.

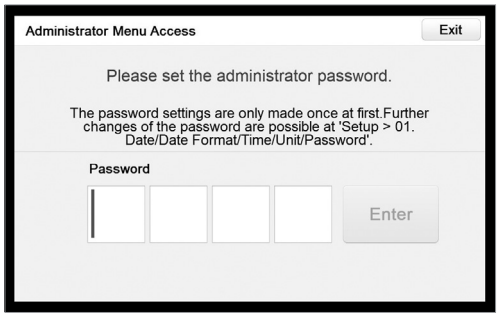


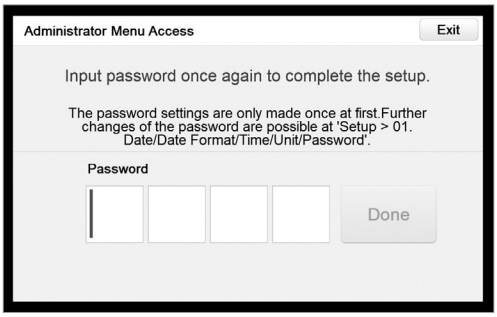
2. Press the [Administrator Menu] button on the test standby screen.



Administrator Menu Button

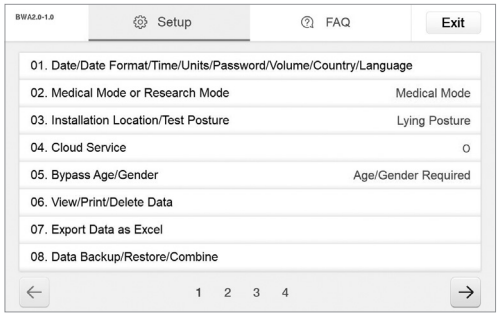
3. Enter the administrator password to set the password. This screen will appear only once for the initial password setup.



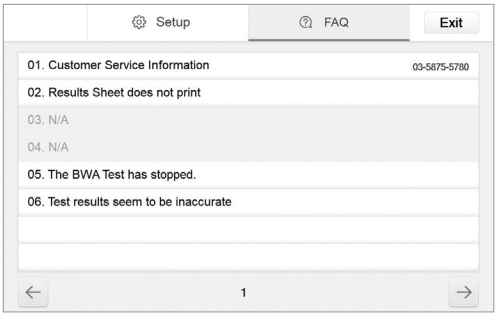


∗ Be careful not to forget the password you set. If you have forgotten your password, please contact InBody Customer Service.

4. You will see ‘Setup' and ‘FAQ’ on the Administrator Menu.



Setup



FAQ

1) Setup: BWA2.0 settings and data can be managed to suit your test environment.

01. Date/Date Format/Time/Unit/Password/Volume/Country/Language
: This option allows changing the basic settings of the BWA2.0.

02. Medical Mode or Study Mode
: This option allows switching between the medical mode, which is the basic test mode of the BWA2.0, and study mode, which provides additional impedance.
(You can check additional impedance by setting the study mode when using clamp electrode.)

03. Location of Installation/test posture
: This option allows selecting and saving the location where the BWA2.0 is installed. The data shown on the results screen varies by the installation location selected after completing the test.
- Nephrology: Body Water Results sheet screen
- Intensive care unit: Impedance Results sheet screen
- Rehabilitation Medicine: Muscle, Fat Results sheet screen
- Others: Body Water Results sheet screen
Depending on the measurement environment, you can select the test posture (lying posture, sitting posture, and standing posture).

04. Cloud service
: This is a service that can be used after agreeing to the privacy policy and allows sending the results to the website (www.inbodycare.com) so that members can check and manage the BWA results themselves. If you are entering the mobile number during the test, the measurement results will be sent to the website.

05. Bypass Age/Gender
: This option allows omitting age/gender input when testing in an adult-only or specific gender-only environment.

06. View/Print/Delete Data
: This option allows checking, printing or deleting the test result stored in the BWA2.0 as membership number or mobile number.

07. Export Data as Excel
: This option allows copying the test result saved in the BWA2.0 to USB memory as an Excel file format. The test result can be checked through an Excel file on the computer.

08. Data Backup/Restore/Combine
: This option allows saving the test results to USB memory for backup or restores the test results backed up to the BWA2.0. If you are using multiple products, the data can be merged together.

09. Printer Setup
: This function allows setting the printer to connect to the BWA2.0. The Results Sheet can be printed when the printer is connected to the BWA2.0.

10. Results Sheet Types
: This option allows setting and selecting the Results Sheet to print among Results Sheets (Body Water Results Sheet, Body Composition Results Sheet, Body Composition Results Sheet for Children, Evaluation Results Sheet, Research Results Sheet, Comparative Results Sheet, and Thermal Results Sheet) which the BWA2.0 offers.

11. Automatic Printing Options
: This function allows setting the Results Sheet to be printed automatically after completing the test. You can print up to two Results Sheets per each Results Sheet type at one time.

12. Paper Types
: This function allows setting the paper to use during printing Results Sheet. You can set one of either printer-exclusive paper, provided by the BWA2.0, or A4 plain paper.

13. Outputs/Interpretations for Results Sheet
: This function allows setting the items or explanations to be printed on the Body Water Results Sheet, Body Composition Results Sheet, Body Composition Results Sheet for Children, and Thermal Results Sheet.

14. Results Sheet Custom Logo
: You can preview the logo printed on the upper right of the Results Sheet.
* For inserting and changing the logo, contact InBody Customer Service.

15. Printing Alignment
: This option allows adjusting the position of the result to be printed on the Results Sheet.

16. Connect to the Internet
: This option allows connecting the BWA2.0 to the Internet via Wi-Fi or wired LAN. Once the BWA2.0 is connected to the Internet, the BWA2.0 test results can be sent to the website (www.inbodycare.com), or the LookinBody120, the personal membership management PC application that can be connected remotely.

17. Bluetooth
: This function allows setting up the Bluetooth so that the BWA2.0 can connect to LookinBody120, membership management PC application, or to the stadiometer.
* Refer to "Connecting External device" for details of Bluetooth connection.

18. N/A

19. N/A

20. Normal Range
: This option allows setting the normal range of BMI, Percent Body Fat, and Waist-Hip Ratio.
* For BMI, the normal value can also be set.

21. Body Type Results Sheet Normal Range
: This option allows setting the normal value provided by the Body Type Results Sheet.

22. Standard Child Growth Curve
: This option allows setting the kinds of standard child growth curve used in the growth curve of the Body Composition Results Sheet for Children.

23. Touchscreen Alignment
: This function allows calibrating the accuracy of the BWA2.0 touch screen.

24. Customer Service Information
: This option allows saving the information about the customer service facility where you purchased the BWA2.0. It can be used when there is an inquiry or a problem.

25. Auto-Lock
: This function allows setting the time before the screen is locked and the corresponding password to restrict using the BWA2.0.

26. Serial Connect
: This function allows setting for the BWA2.0 to connect to the LookinBody, membership management PC application or other devices through a serial connection.

2) FAQ: This option provides a checklist for frequently encountered problems while using the equipment.

01. Customer Service Information

: This function allows seeing the information stored in "Setup 24. Customer Service Information" if you have any questions about the BWA2.0 or have a problem.

02. Results Sheet does not print

: This option provides a checklist if printing does not work on the printer connected to the BWA2.0.

03. N/A

04. N/A

05. The BWA Test has stopped

: This option provides a checklist if the BWA test was stopped.

06. Test results seem to be inaccurate

: This option provides a checklist if the value of checked results may be abnormal.

F. Connecting External Devices

To connect an external device to the BWA2.0, first, check the communication method of the external device. There are two ways of communication: wired connection such as USB or RS-232C (9-pin serial terminal, Female), and wireless connection (Bluetooth).

1. Wired connection

1) Printer

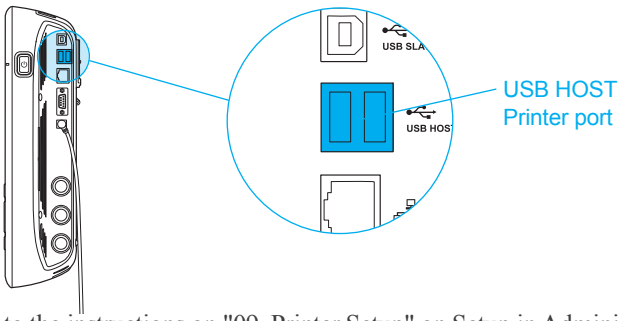
The Results Sheet can be printed when the printer is connected to the BWA2.0.

* Please visit the following website for detailed printers to be connected with the BWA2.0:https://www.inbodyservice.com.

❶ Turn off the BWA2.0.

* When the BWA2.0 is already turned on, it may not be properly connected to the printer.

❷ Connect the USB cable supplied with the printer to the USB HOST printer terminal on the right-side port of the BWA2.0. Connect the other end of the USB cable to the USB connection terminal of the printer.



❸ Turn on the printer.

❹ Connect the printer according to the instructions on "09. Printer Setup" on Setup in Administrator Menu.

❺ You can set the result sheet related settings from "10. Results Sheet Types" to "15. Printing Alignment" in the Administrator Menu.

2) Thermal printer

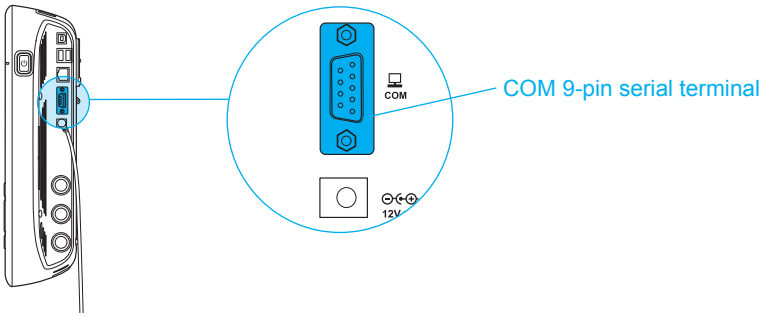
The Thermal Results Sheet can be printed when the thermal printer is connected to the BWA2.0.

* When the BWA2.0 is already turned on, it may not be properly connected to the thermal printer.

❶ Turn off the BWA2.0.

* When the BWA2.0 is already turned on, it may not be properly connected to the thermal printer.

❷ Connect the thermal printer cable supplied with the thermal printer to the COM 9-pin serial terminal on the right-side port of the BWA2.0. Connect the other end of the cable to the serial terminal of the thermal printer.



❸ Turn on the thermal printer.

❹ Turn on the BWA2.0. Set up the thermal printer at "26. Serial Connect" on Setup in Administrator Menu.

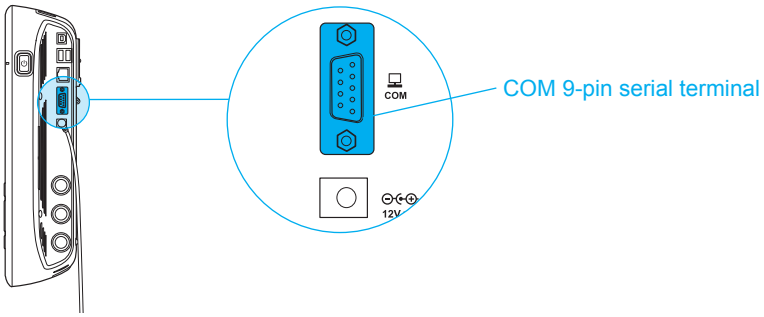
❺ You can set the result sheet related settings from "10. Results Sheet Types" to "15. Printing Alignment" in the Administrator Menu.

3) Stadiometer

The height values measured by the stadiometer are sent to the BWA2.0 when it is connected to the BWA2.0.

* Make sure to connect only the InBody stadiometer.

1. Turn off the BWA2.0.
   * When the BWA2.0 is already turned on, it may not be properly connected to the stadiometer.
2. Connect the serial cable supplied with the stadiometer to the COM 9-pin serial terminal on the right-side port of the BWA2.0. Connect the other end of the cable to the serial terminal of the stadiometer.



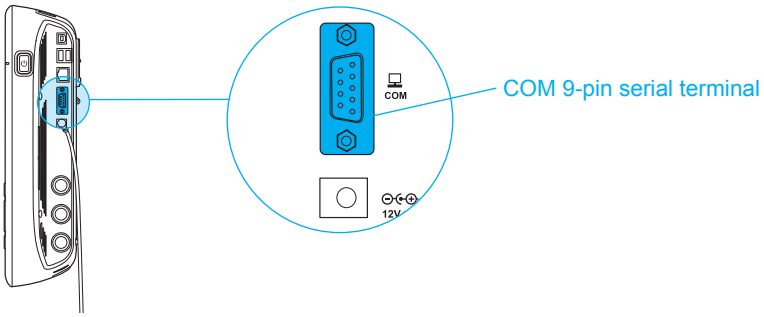
3. Turn on the stadiometer.
4. Turn on the BWA2.0. When the stadiometer is connected, the (Stadiometer) icon will be displayed in the upper left of the test standby screen.

4) Blood pressure monitor

The blood pressure values measured by the blood pressure monitor are sent to the BWA2.0 when it is connected to the BWA2.0.

* Make sure to connect only the InBody blood pressure monitor.
* If you select the type of Results Sheet at "13. Outputs/Interpretations for Results Sheet" on Setup in Administrator Menu and select blood pressure in the sub-options, then you can print the blood pressure value on the BWA Results Sheet..

1. Turn off the BWA2.0.
   * When the BWA2.0 is already turned on, it may not be properly connected to the blood pressure monitor.
2. Connect the serial cable supplied with the blood pressure monitor to the COM 9-pin serial terminal on the right-side port of the BWA2.0. Connect the other end of the cable to the serial terminal of the blood pressure monitor.



3. Turn on the blood pressure monitor.
4. Turn on the BWA2.0. When the blood pressure monitor is connected, (the blood pressure monitor) icon will be displayed in the upper left of the test standby screen.

5) Barcode reader

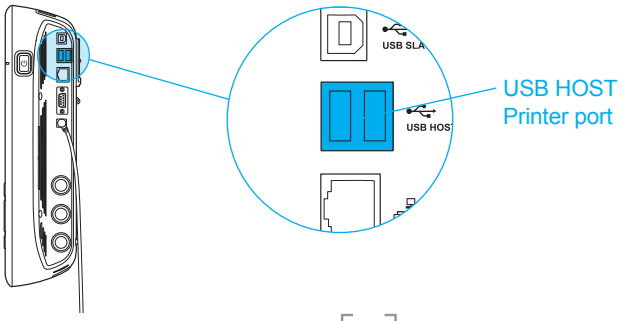
You can enter the membership number automatically by connecting the barcode reader to the BWA2.0.

* If the barcode reader is not recognized, please contact InBody Customer Service.

❶ Turn off the BWA2.0.

* When the BWA2.0 is already turned on, it may not be properly connected to the barcode reader.

❷ Connect the USB cable of the barcode reader to the USB HOST port on the right-side port of the BWA2.0.



❸ Turn on the BWA2.0. When the barcode reader is connected, (the barcode reader) icon will be displayed in the upper left of the test standby screen.

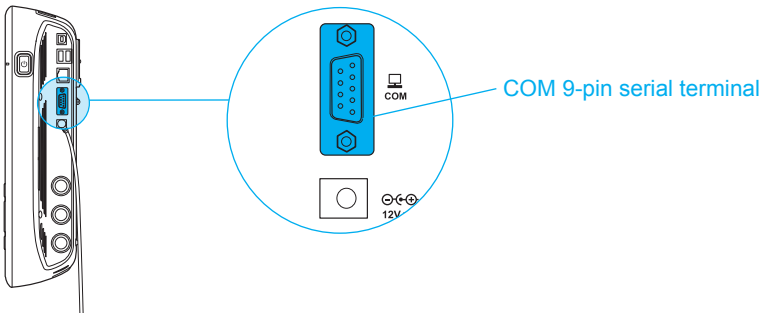
6) Serial distributor (SD400)

You can connect a stadiometer and a blood pressure monitor at the same time if you connect a serial distributor to the BWA2.0.

❶ Turn off the BWA2.0.

* When the BWA2.0 is already turned on, it may not be properly connected to the stadiometer and the blood pressure monitor.

❷ Connect the serial cable supplied with SD400 to the COM 9-pin serial terminal on the right-side port of the BWA2.0. Connect the other end of the cable to the serial terminal of the SD400.



❸ Connect each device (stadiometer and blood pressure monitor) via serial cable to each port of SD400 and turn on each device.

❹ Turn on the BWA2.0. Set the SD400 at "26. Serial Connect" on Setup in Administrator Menu, and set the device connected to each port of the SD400.When each device is connected, the device icon will be displayed in the upper left of the test standby screen.

7) LookinBody

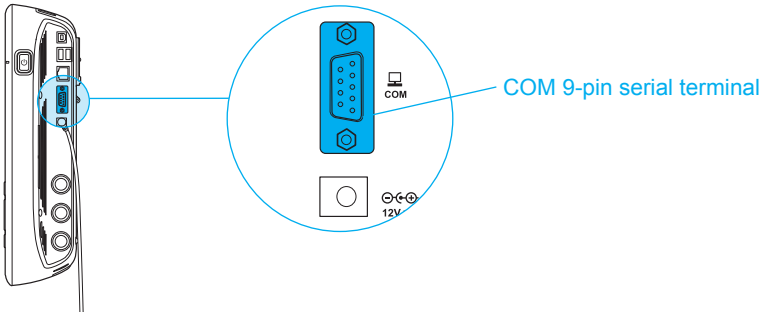
By connecting LookinBody to the BWA2.0, you can use the measurement data management function.

* If LookinBody is not recognized, please contact InBody Customer Service.

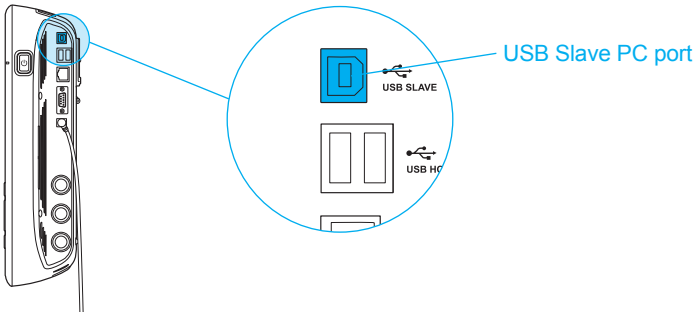
❶ Turn off the BWA2.0.

* When the BWA2.0 is already turned on, it may not be properly connected to LookinBody.

❷ If your PC has a serial port, connect the serial cable provided with LookinBody to the COM 9-pin serial terminal on the right-side port of the BWA2.0, and connect the other end of the serial cable to your PC.



If there is not a serial port on your PC, you can connect a normal USB-AB type cable to the USB SLAVE port on the right-side port of the BWA2.0 instead of the serial cable above. Connect the other end of the USB cable to the USB port of the PC.



❸ Turn on the BWA2.0. Then launch LookinBody installed on your PC and follow its instructions to connect to the BWA2.0.

⚠ Caution

- Be careful not to pull the device when you are connecting the cable to the device with external devices.
- Avoid laying cables connected to external devices infrequently traveled passages because individuals may trip over cables and become injured.
- Do not connect external devices that are not specified from InBody to the BWA2.0. Otherwise, it may fail and malfunction.

2. Connecting Bluetooth

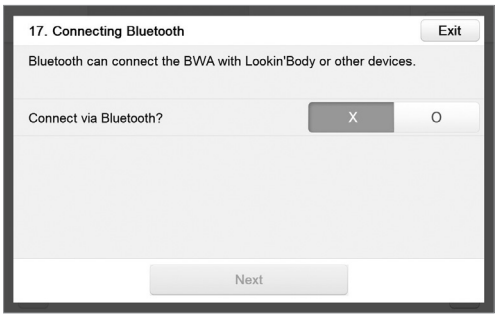
1) Press the [Administrator Menu] button on the test standby screen.

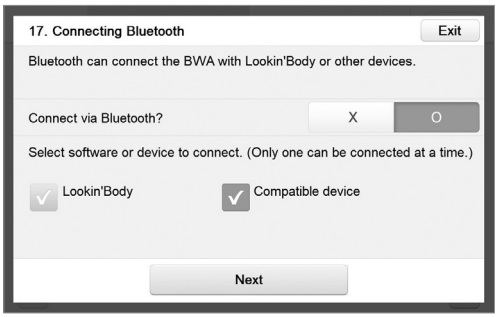
2) Enter the password to enter the Administrator Menu.

3) Enter the "17. Bluetooth" in Setup.

4) If "O" is selected on "Connect via Bluetooth?", then you can select a program or a stadiometer to connect.

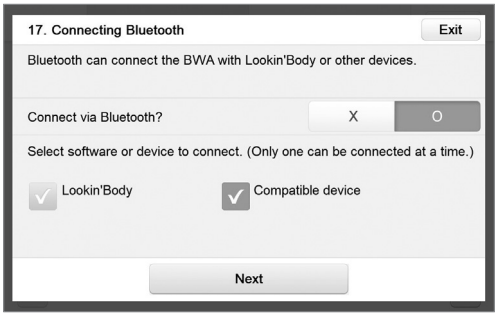
∗ If LookinBody and the BWA2.0 are already connected with Bluetooth, the connection will stop between LookinBody and the BWA2.0 when you are selecting an external device.





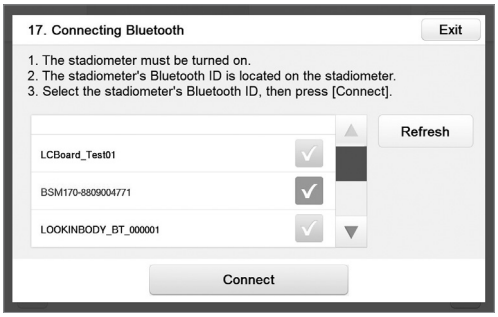
5) Check the product name and serial number on the sticker attached to the stadiometer after turning on the stadiometer.

6)Select the stadiometer and then press the Next button.

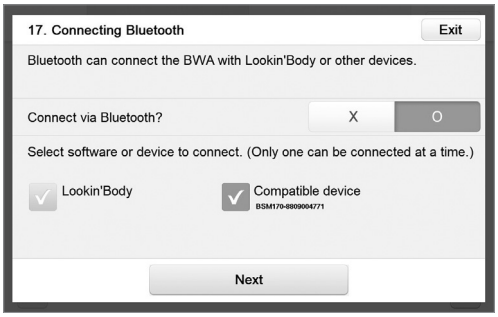


7) The stadiometer's Bluetooth ID consists of "ProductName-Serial Number". Select the Bluetooth ID of the device to be paired and press the Connect button.

∗ If the Bluetooth ID does not appear or the connection is not stable, please contact InBody Customer Service.

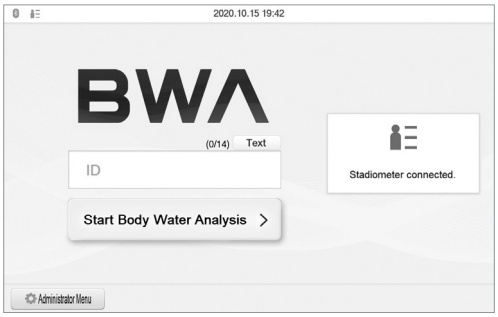


8) If the stadiometer is registered properly, the Bluetooth ID of the compatible device connected to the BWA2.0 will appear as shown below.



9) Press the Exit button to return to the test standby screen, and the Bluetooth icon and the stadiometer icon will be displayed in the upper left corner after a while.

* The screen below shows the stadiometer connected.



3. Connecting to the Internet

Once the BWA2.0 is connected to the Internet, you can use it to connect with cloud services or LookinBody.

* If the cloud service does not work or if LookinBody is not recognized, please contact InBody Customer Support.

1) Connecting LAN

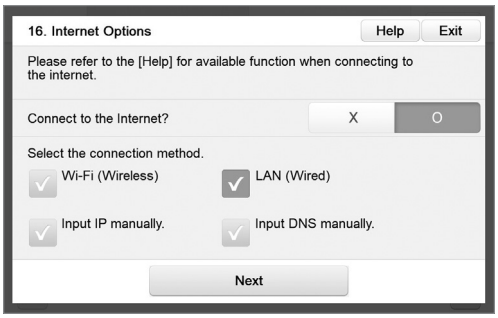
❶ Press the [Administrator Menu] button on the test standby screen.

❷ Enter the password to enter the Administrator Menu.

❸ Enter "16. Connect to the Internet".

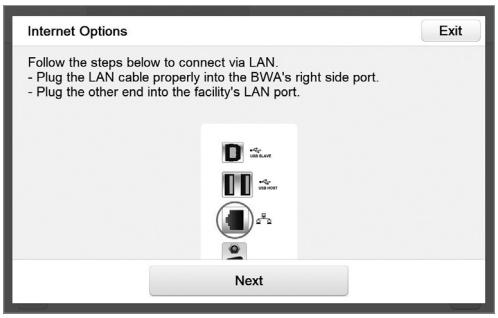
❹ Press LAN and then press the Next button.

* You may need to enter the IP address or DNS address manually depending on the service area. In this case, press the corresponding button to enter manually.

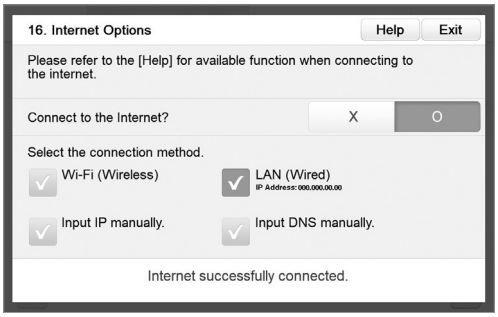


❺ Connect the LAN cable to  the shape port on the right-side port of the BWA2.0.

* LAN cable should be used by connecting to a cable connected to a terminal registered with Internet service or to a connector registered with an Internet service.



❻ You can connect to LookinBody or use the cloud service through LAN after completing an internet connection.

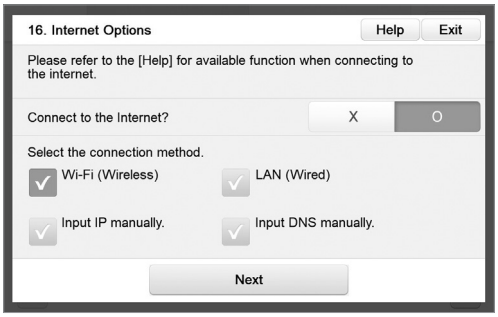


2) Connecting Wi-Fi

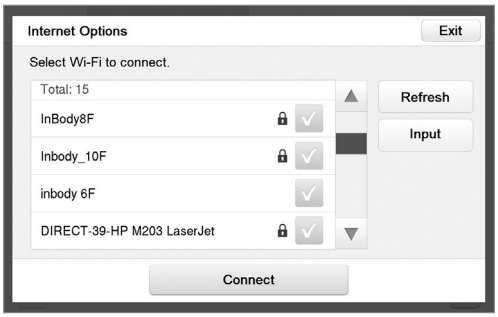
1. Press the [Administrator Menu] button on the test standby screen.
2. Enter the password to enter the Administrator Menu.
3. Enter "16. Connect to the Internet".
4. Press Wi-Fi and press the Next button.

∗ Depending on the service area, you may need to enter the IP address or DNS address manually.

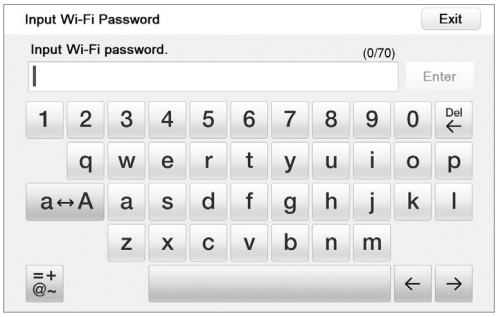
In this case, press the corresponding button to enter manually.



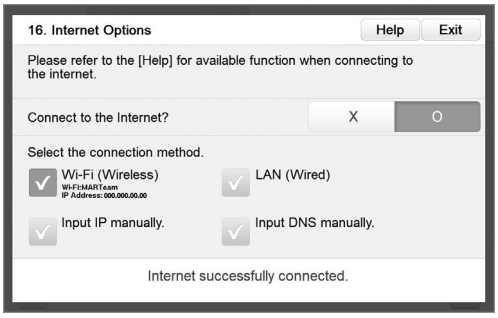
5. Select the wireless router to connect.



6. Enter the Wi-Fi password if the wireless router has a password.



7. You can connect to LookinBody or use the cloud service through Wi-Fi after completing the setup.



G. Precautions for Maintenance

⚠ Caution

- Be careful not to pull the electrode cable by force.
- Always be careful not to drop or drag the electrode cable on the floor.
- Do not apply excessive force to the equipment.
- Be careful not to get injured by your feet caught in the wheels of the equipment.
- Turn off the equipment when it is not used for more than one day.
- For long term storage, unplug the power cable from the wall outlet.
- When moving the equipment with the power on, be careful not to damage the equipment.
- Be careful not to let foreign objects such as food, drinks or liquid cleaners into the equipment.

  Any foreign objects that enter the equipment can cause serious damage to electronic components.
- Clean the exterior of the equipment gently with a lint-free cloth once a week.

  Be especially careful not to scratch the LCD screen while cleaning the equipment.
- Packing material and other wastes should be disposed of according to the relevant laws and regulations.
- Turn off the BWA2.0 first. Then turn off other equipment. It can minimize electric shock to the equipment.
- Be careful not to drop the clamp (or forceps) electrode on the floor.

  This can cause serious damage to electronic components inside the electrode.
- Do not clean the clamp (or forceps) electrode with detergent.

  If liquid cleaner runs into the electrode, it may cause corrosion and equipment failure.

  Wipe the electrode gently with an InBody tissue containing alcohol or saline solution.
- If you have an infectious disease or open cut, do not touch or use the equipment.

II. BWA2.0 Test

A. Precautions for Measurement

⚠ Warning

- A person who is equipped with a medical device that is essential for life support, such as pacemakers or patient monitoring devices, is not recommended to use the BWA2.0. Weak electric current flows in the human body during the test, which may lead to medical device failure and life risk.
- The bioelectrical impedance (BIA) method does not harm the human body because it uses minute electric current. However, if you are pregnant, please consult your doctor or specialist.
- Be careful not to get injured by your feet caught in the wheels of the equipment.
- Children or people with restricted mobility should be tested with the help of a manager or assistant.
- If you have an infectious disease or open cut, do not touch or use the equipment.

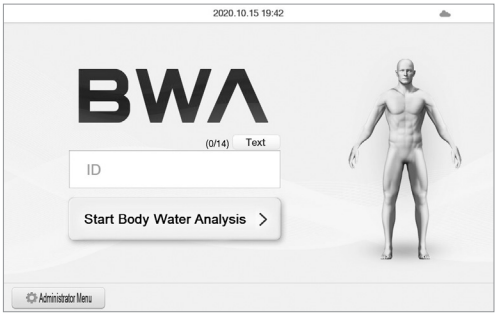
⚠ Caution

- Stay at least 10-15 minutes in the posture you want to measure and test before measuring.
  Body fluid can shift during the BWA test and affect the test results if you stand, lie down, or sit for a long time.
- Test on an empty stomach. Food intake affects your weight and is considered part of the body composition, which may affect your test results.
- Test after using the bathroom. Food in your stomach affects your weight and is considered part of the body composition, which may affect your test results.
- Test before exercising. Even light exercise can temporarily change body composition.
- Avoid using the sauna or bath before measuring.
- Make sure that no conductive objects such as steel structures touch your body while measuring.
- Measure at room temperature (20℃ -25℃). The human body remains stable at room temperature, but the body composition may change temporarily in cold or hot conditions.
- Test in the morning if possible. In the afternoon, body water tends to be driven to your lower body, which can affect your test results.
- If your wrists and ankles are dry or if you have a lot of dead skin cells, the test may not work well, due to poor electrical contact between the electrode and the body.
  Clean your wrist and ankles with an InBody tissue (wet tissue) before measuring.

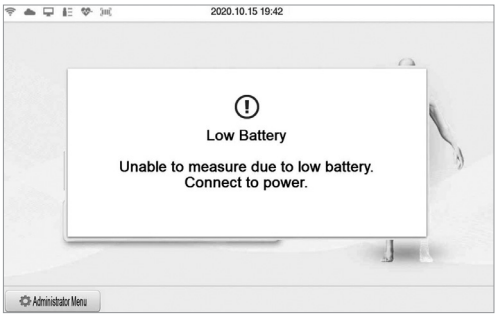
B. Test Instructions

1. Make sure that the battery is sufficiently charged in the main unit.At least 20% or more charge is required for measurement.

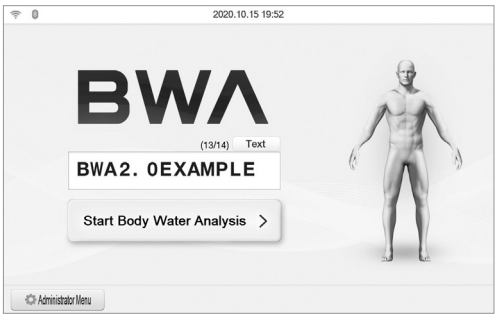
2. Stay at least 10-15 minutes in the posture you want to measure before measuring so that the body fluid distribution can be stable.



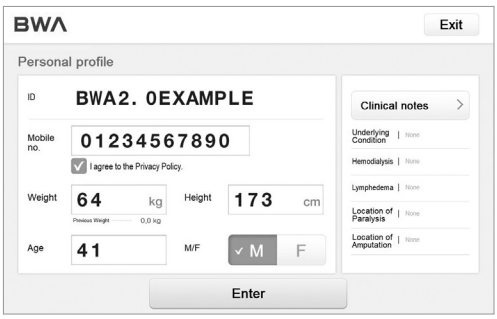
If the following error screen appears, the measurement will not proceed if the battery charge is low.
Replace the battery with a charged one, or charge using the dedicated AC adapter.



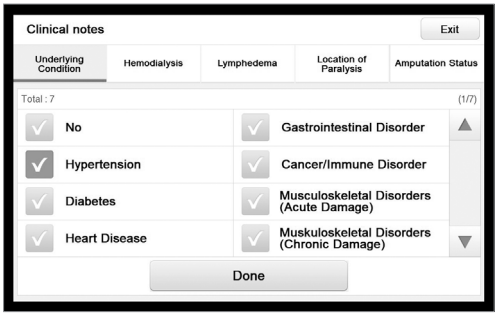
3. Enter your ID for measurement.

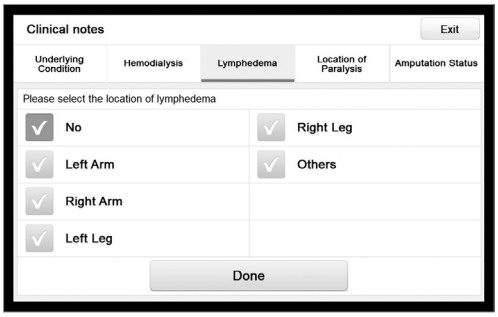


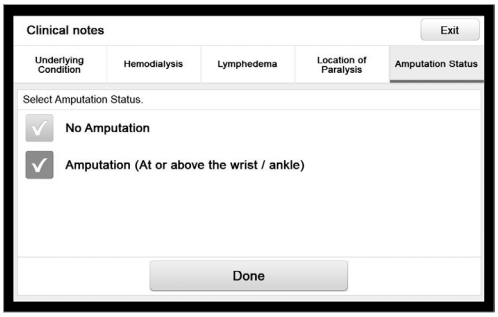
4. Enter your age along with your weight and height. Choose a gender between male and female.



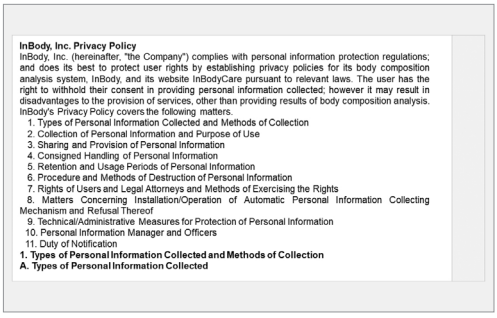
5. Press the Clinical note button to select information for underlying disease, such as hemodialysis, lymphedema, paralysis region, and amputation status.



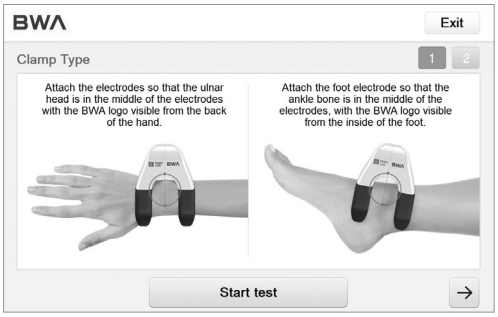


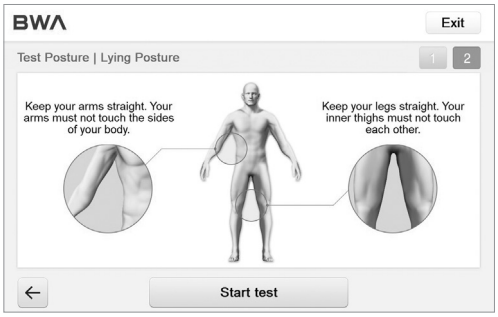


6. Press the "Accept Privacy Policy" section, and then the "Privacy Policy" screen will appear as shown below. Read the contents of the Privacy Policy of InBody.

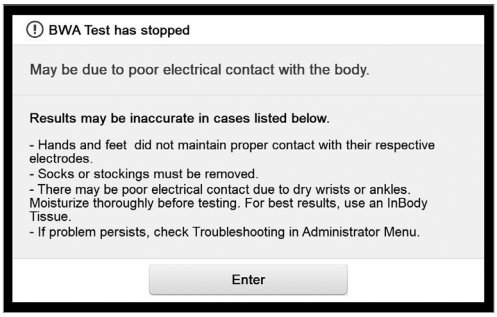


7. Make sure that the electrodes are properly attached in the correct positions after entering the personal information. The guide screen for the electrode attachment position and measurement posture appears as shown below. When you are ready for measuring, press the "Start" button as shown below to start the BWA test.





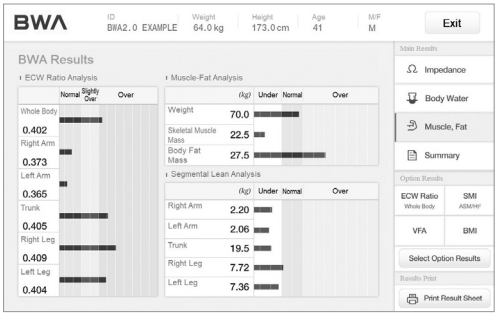
If the skin is dry and cannot be measured, an error screen will appear as shown below. Wipe the electrode contact surface well with the electrolyte tissue provided by InBody and press the "OK" button to re-measure.

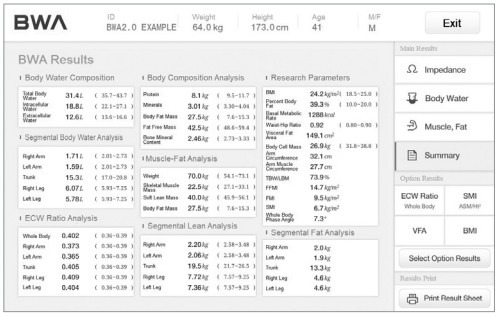


8. The BWA testing screen appears as follows when the test starts.

9. The measurement result screen appears as shown below after finishing the BWA test. You can check the measurement information according to the selected type of Results Sheet if a printer is connected to the BWA2.0.

∗ You can set the result sheet related settings from "10. Results Sheet Types" to "15. Printing Alignment" in the Administrator Menu.





C. Electrode Connection Method

1. Clamp electrode (Contact type)

1) Wrist

Attach the Left Arm clamp onto the left hand and attach the Right Arm clamp onto the right hand.

Insert the electrode to the center of the carpal so that the side marked 'BWA' in red faces the back of the hand and the unmarked side faces the palm.

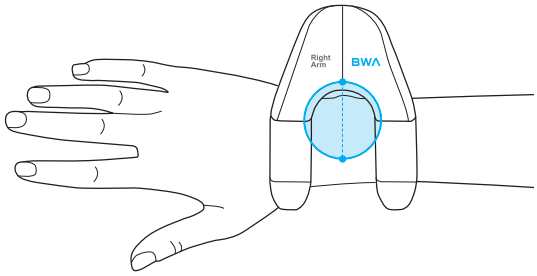


Figure of a wrist with electrode inserted

2) Ankle

Attach the Left Leg clamp to the left foot and attach the Right Leg clamp to the right foot.

Place the foot electrode so that the malleolus is positioned in the center of the electrode, and that the wider area of the electrode touches the ankle as much as possible.

Place the side marked 'BWA' in red to touch inside the ankle, and the unmarked side to touch outside the ankle.

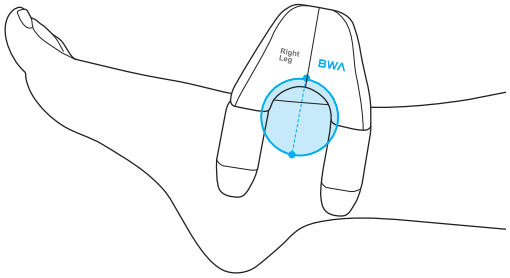


Figure of the ankle with electrode inserted

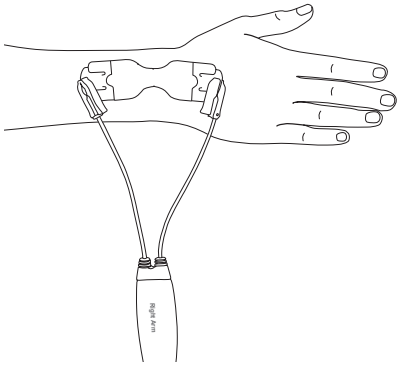
⚠ Caution

- Make sure that the side marked 'BWA' in red is facing inside the ankle.
- Be careful properly attaching the foot electrode well due to the raised malleolus when standing or sitting.
- If you have a dry wrist or ankle, you may not be able to measure well, or the test may not be accurate.
  Wipe the electrode contact area with an electrolyte tissue and then measure.

2. Forceps electrode (Adhesion Type)

1) Wrist

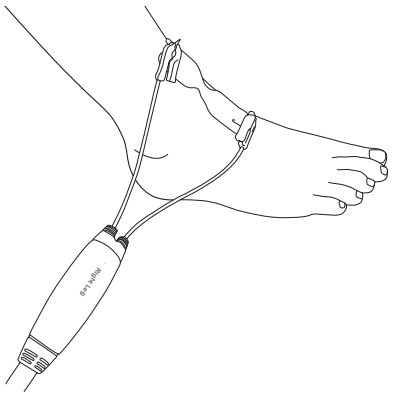
Attach the disposable electrode (BWA-ES100) to the center of the back of the hand with the carpal positioned in the center as shown below. Attach the disposable electrode (BWA-ES100) so that the red electrode is placed over the back of your hand and the black electrode is placed over the wrist.



2) Ankle

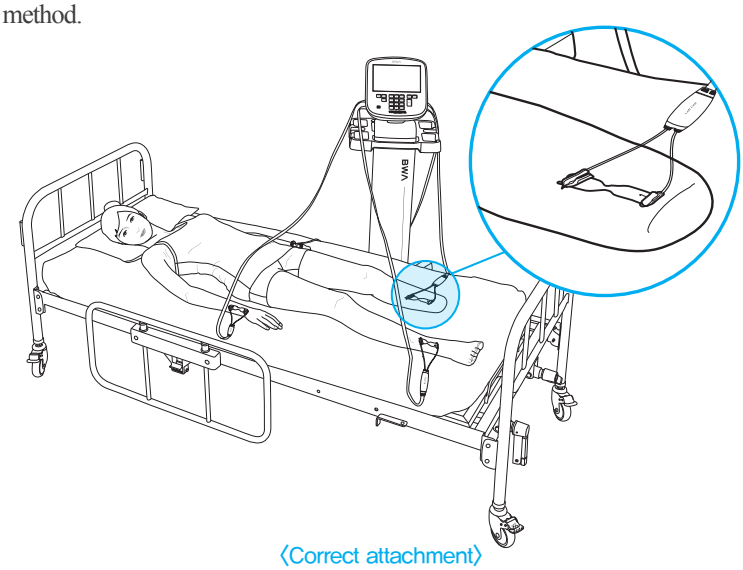
Attach the disposable electrode (BWA-ES100) around the center of the top side of the foot with the malleolus positioned in the center. Attach the disposable electrode (BWA-ES100) so that the red electrode is placed over the top side of the foot and the black electrode is placed over the ankle.

Use a disposable electrode (BWA-ES100) only.

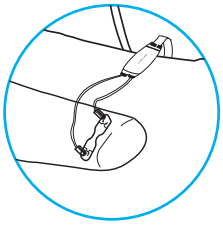


⚠ Caution

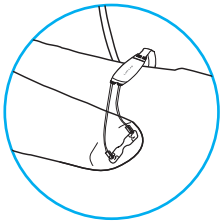
- Four electrodes of the same type must be connected to proceed with the test.
- When attaching electrodes to the amputation site, attach the electrodes to the end of the site as much as possible.
- However, a certain distance is required between the two electrodes, so refer to the image below for the correct attachment method.



〈Correct attachment〉



〈Wrong attachment 1〉



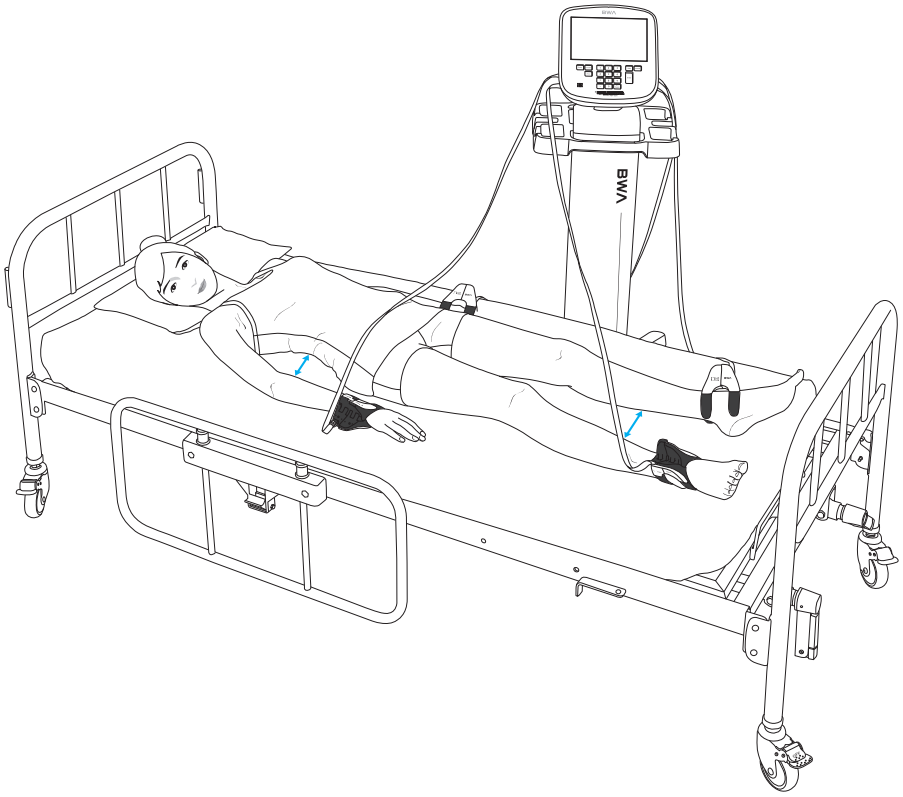
〈Wrong attachment 2〉

D. Test Posture

In order to use the BWA2.0 correctly, it is necessary to understand the correct measuring posture.

Maintain consistent measurement posture for high reproducibility and reliable results.

1) Lying Posture



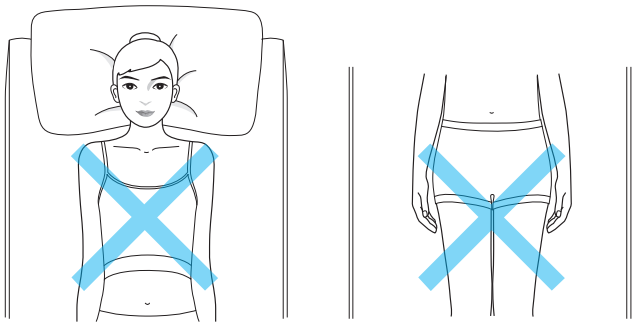
Accurate posture

Measurement Posture

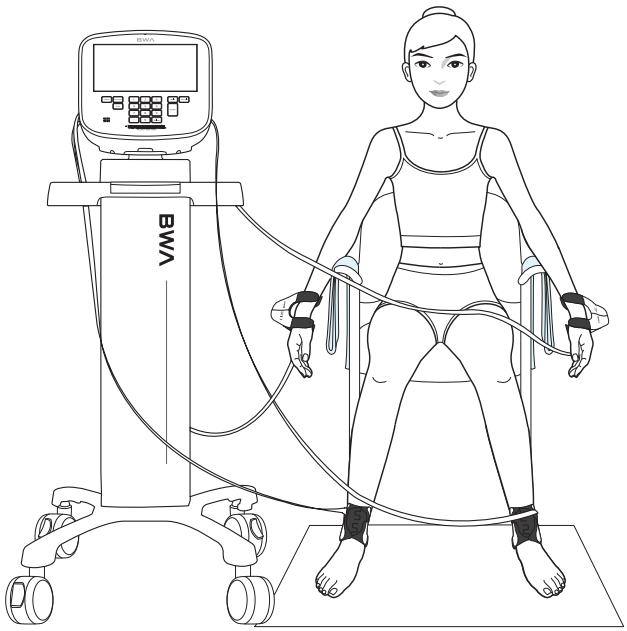
- The BWA2.0 is located next to the knee as shown above.
- Open your arms slightly beyond 15 degrees to keep your arms and torso from touching.
- Keep your legs slightly open to shoulder width to prevent thighs from touching.
- Measure after lying down for at least 10-15 minutes.

⚠ Caution

- Be careful not to touch the electrode cable and body parts with the frame when measuring on a bed with an iron frame.
- If there is a heating mat (electric blanket) on the floor or mat, be sure to turn it off and unplug the power cable if possible.
- Disposable electrode (BWA-ES100) may detach due to the weight of the electrode cable when you are using forceps electrode. Please be careful.



2) Seated Posture



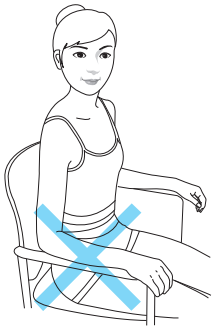
Accurate posture

Measurement Posture

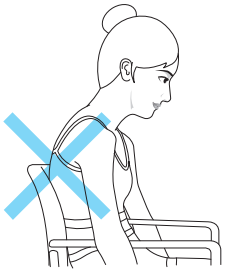
- Sit in a chair with your back straight against the backrest.
- Put a cushion behind your back.
- Make arms naturally descend as if standing.
- Spread your legs wide enough to keep your thighs from touching each other.
- Do not set your legs up at right angles but spread slightly as the illustration.
- Test after checking the seated posture correctly.
- Hold the sitting position for at least 10-15 minutes before measuring.

⚠ Caution

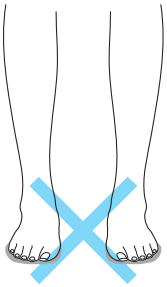
- Test after checking the seated posture correctly.
- Hold the sitting position for at least 10-15 minutes before measuring.
- Do not measure directly on the floor. The measurement value may be inaccurate if your bare feet touch the floor directly. Place a mat on the floor and lift it up over the floor at least 3 cm.
- When measurement is taken on a chair or a wheelchair with any conductive materials on frame, any exposed frame should be covered by an insulating materials such as blankets.
- Do not allow bare feet to touch the floor or the steel structure of the chair.
- Disposable electrode (BWA-ES100) may detach due to the weight of the electrode cable when you are using forceps electrode. Please be careful.



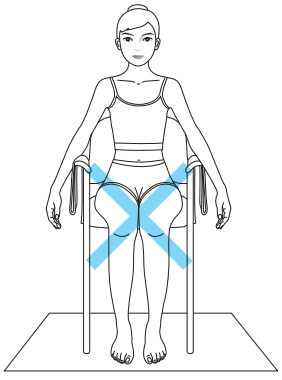
Do not put your arm on the armrest.



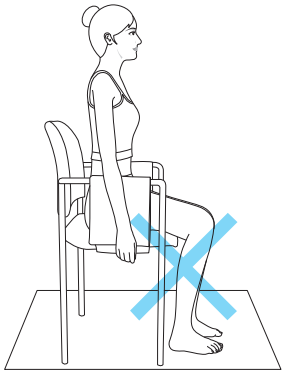
Do not bend your waist.



Do not measure directly on the floor barefoot.

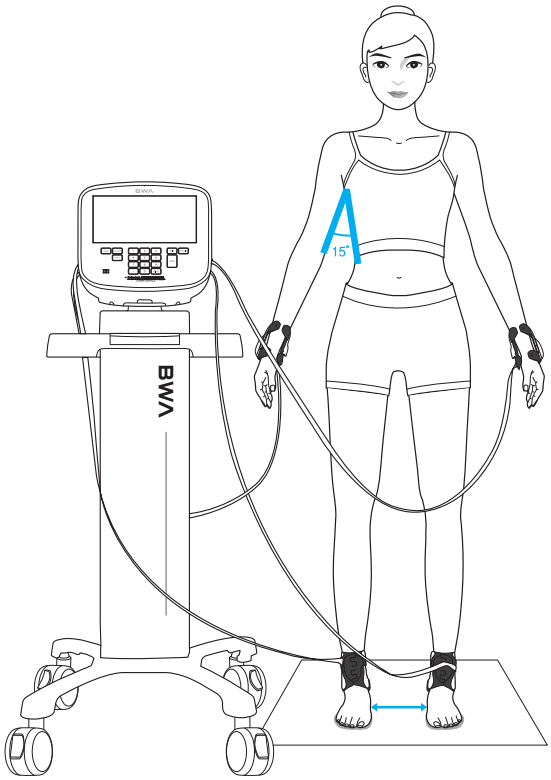


Measure on a mat where the current does not flow.
Keep thighs from touching each other.



Spread legs forward as possible rather than bending them at right angles.

3) Standing Posture



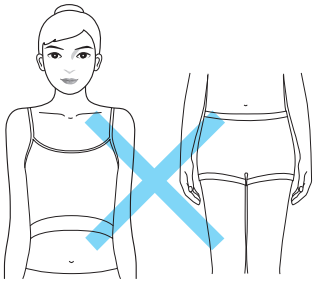
Accurate posture

Measurement Posture

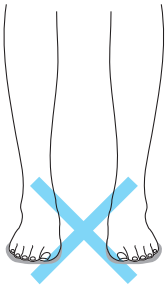
- Stand up facing the back side of the equipment.
- Step up on a mat where the current does not flow out of your bare feet onto the floor.
- Open your arms slightly beyond 15 degrees to keep your arms and torso from touching.
- Make arms naturally descend.
- Keep your legs slightly open to shoulder width to prevent thighs from touching.
- Measure after standing for at least 10-15 minutes.

⚠ Caution

- Do not measure directly on the floor. The measurement value may be inaccurate if your bare feet touch the floor directly. Place a mat on the floor and lift it up over the floor at least 3 cm.
- When you are using a clamp electrode, please note that the electrode may be difficult to attach because the malleolus is raised or is poor in flesh.
- If you have a dry wrist or ankle, you may not be able to measure well, or the test may not be accurate.
  Wipe the electrode contact area with an electrolyte tissue and measure.
- A disposable electrode may detach due to the weight of electrode cable when you are using forceps electrode (Adhesion type). Please be careful.
- Make sure that the electrode cables do not touch the floor when you are connecting the electrodes.
  Hang the cables on the cart basket.



Keep the arms and torso from touching and keep the thighs from touching to each other.



Do not measure directly on the floor barefoot.
Measure on a mat where the current does not flow.

III. Transportation and Storage

A. Caution during Transportation

To transport the BWA2.0 safely, two people should keep the equipment horizontal as follows.

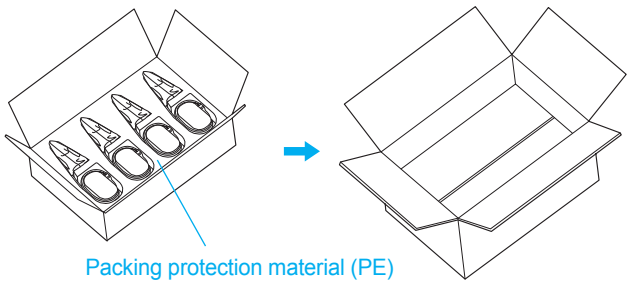
B. Repacking Instructions

Do not transport the equipment frequently once the BWA2.0 has been installed. If you need to transport the BWA2.0, transport after repackaging it in the following order.

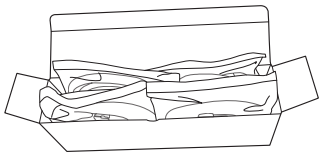
1. Turn off the BWA2.0.

2. Remove the electrode cable connected.

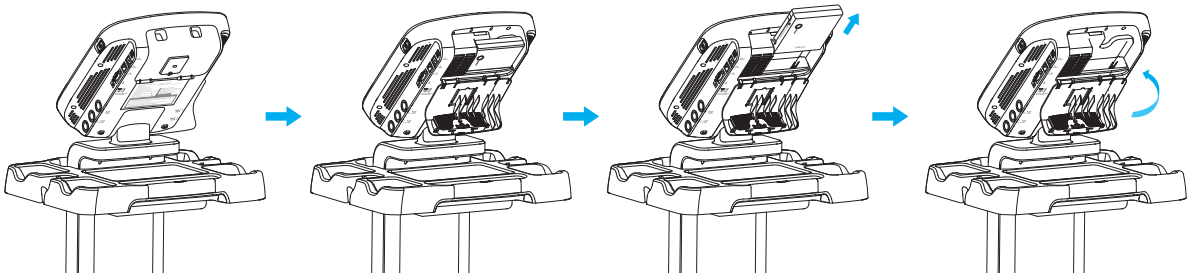
   - For clamp electrodes, put them in the packing box and place it at the bottom of the main unit packing box.
   - For the forceps electrode, put the empty box with PE foam on the bottom of the main unit box.



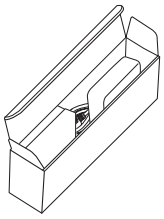
   - For forceps electrode, roll up the cable and put it in the vinyl package and then place it in the accessory box.
   (For clamp electrode, put the empty box in the main unit box.)



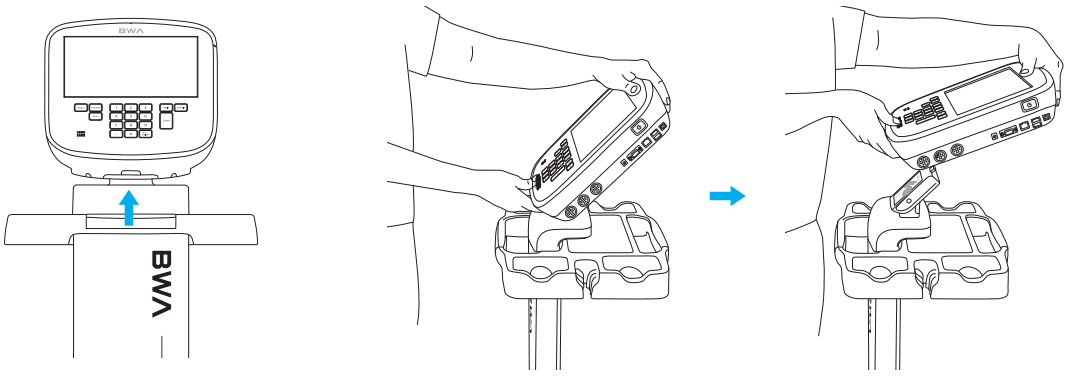
3. Remove the power adapter and batteries.



- Put the removed power adapter, power cable, and batteries in the accessory box.



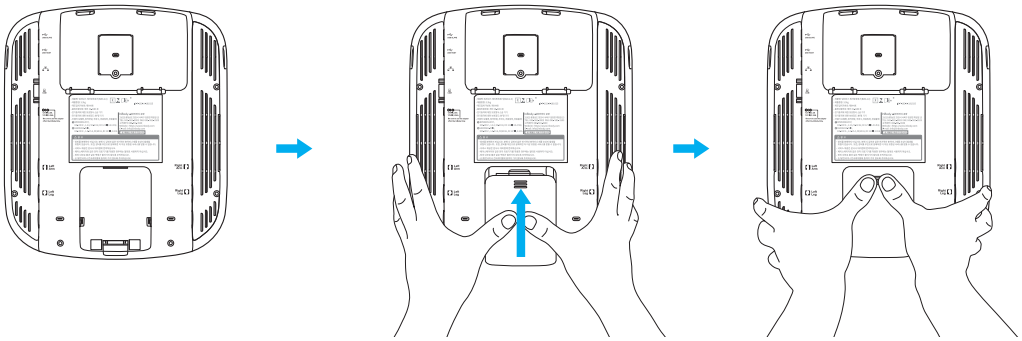
4. With one hand grasping the 'BWA' logo on the top of the BWA2.0 main unit, tilt the main unit slightly back by pressing the button on the bottom of it and lifting it up.
   - Be careful not to let your hands that hold the main unit slip when you are tilting it slightly.



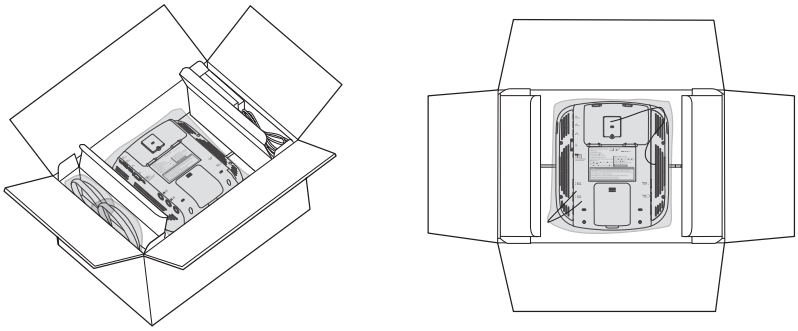
⚠ Caution

- Be careful not to get your hands or other body parts caught when you are removing the main unit from the cart mount.

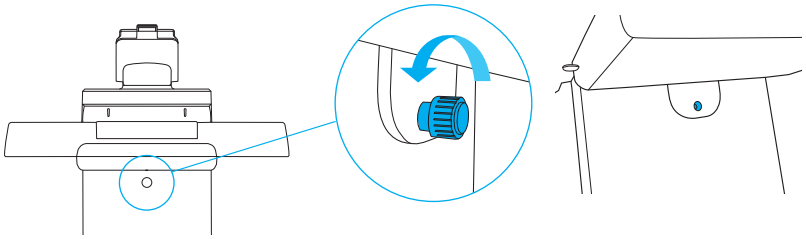
5. Place the separately stored cover on the cart connection part and slide it up to close it.



6. Wrap the BWA2.0 in protective vinyl and place it along with the two accessory boxes over the box containing the clamp electrodes after placing it in the air cell, and seal them as shown below.

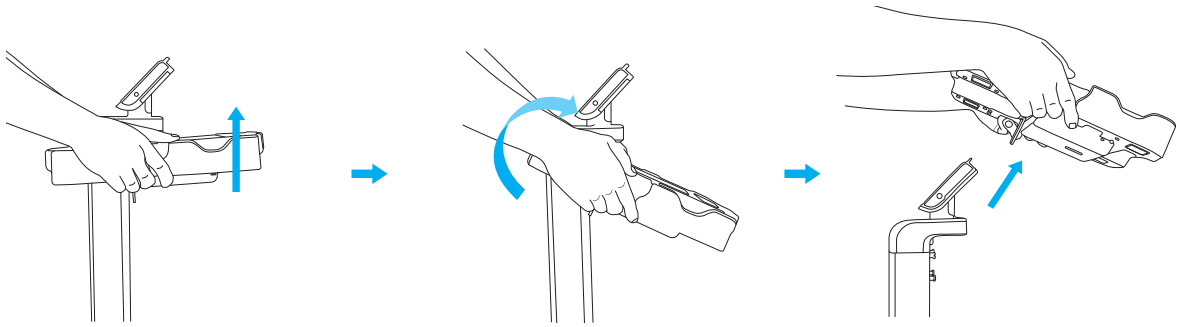


7. Turn the knob on the lower part of the portable cart basket counterclockwise to remove it.



8. Hold the basket with both hands as shown below, lift the basket about 20 mm in the vertical direction of the floor, and tilt it backward to remove so that it does not hit the top of the stand.

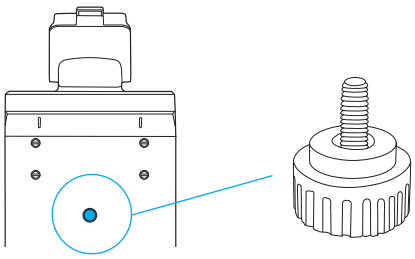
   - The removed basket should be wrapped in the protective vinyl provided at time of purchase.



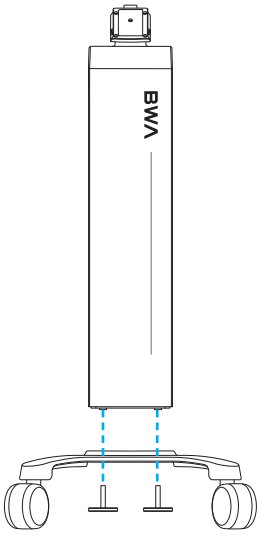
⚠ Caution

- Be careful not to get your hands or other body parts caught when you are removing the basket from the cart upper part.

9. Tighten the knob removed from the lower part of the cart basket by turning it clockwise on the back of the stand to avoid losing it.



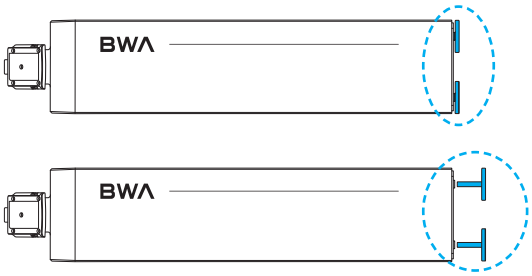
10. Turn the two knobs that have fastened the cart stand and the lower body part counterclockwise to remove.



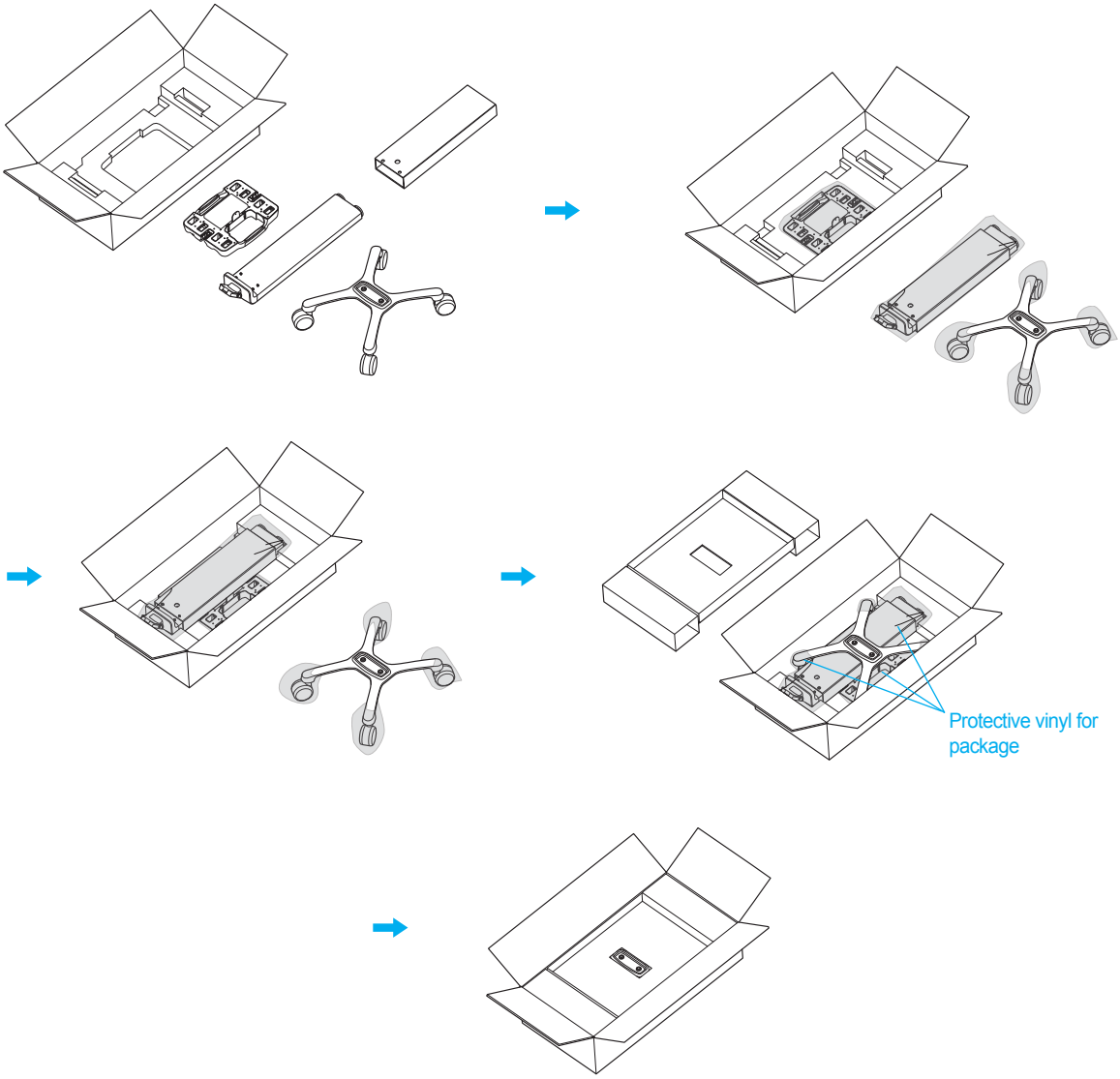
⚠ Caution

- Be careful not to get your hands or other body parts caught when you are removing the knobs.
- One person of a team of two people should hold the upper side of the stand while the other person removes the knobs at the lower side

11. Tighten the two knobs that have fastened at the bottom of the lower body part by turning them clockwise to avoid losing them.
    - The stand and lower body parts should be wrapped in the protective vinyl provided at the time of purchase.



12. Put the removed lower body part, stand, and basket in the packaging box as shown below.



⚠ Caution

- When repacking the equipment, the protective packing materials provided by InBody must be used.

C. Transportation and Storage Environment

The BWA2.0 should be transported or stored under the following conditions.

Temperatures range	-10 ~ 70°C (14 ~ 158°F)
Relative humidity	10 ~ 80% RH (No Condensation)
Atmospheric pressure range	50 ~ 106kPa

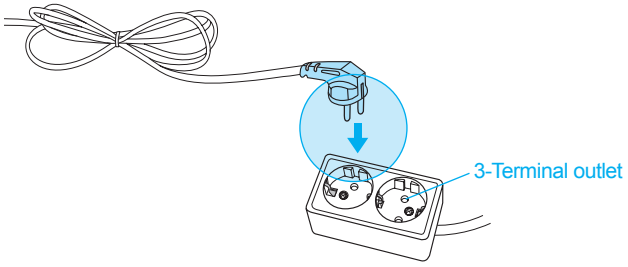
IV. FAQ

This section includes frequently asked questions and answers for the BWA2.0. If a problem persists even after checking below, please contact the Customer Service Center of InBody Co., Ltd. For contact information, please check "01. Customer Service Information" at "FAQ" in the Administrator Menu of the BWA2.0.

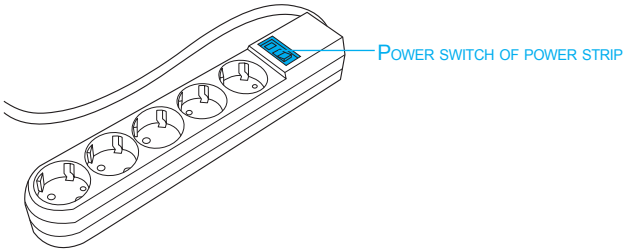
A. Regarding the Equipment

If a problem occurs while using the BWA2.0, first check the "FAQ" in Administrator Menu of the BWA2.0. "FAQ" guides users through frequent problems so they can fix the problems themselves. If you can't check through "FAQ", check the questions and answers below.

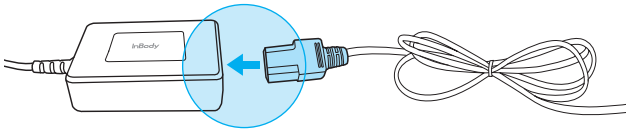
Question	Answer
Power is not turned on.	• Plug the power cable fully only into a proper 3-terminal outlet.



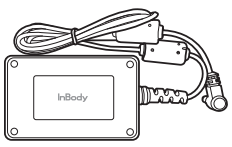
• When using a power strip, the power will not turn on when the power switch of the power strip is turned off. Check the power strip with the power cable connected.



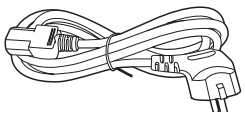
• It may occur when the power cable is not firmly plugged into the adapter connector Insert it firmly into the adapter connector and secure it with the adapter clip.



• It may occur when the adapter that is not provided by InBody is connected. Be sure to connect the power adapter provided by InBody.



Power adapter



Power cable

Question	Answer
The touch screen does not work well.	• Calibrate the touchscreen under Settings of the Administrator Menu '23. Touchscreen Alignment'. under Setup of the Administrator Menu. • The touch screen used for the BWA2.0 is pressure sensitive. Press firmly to optimize touchscreen response.
I want to know how to connect with the accessories.	• Refer to "F. Connecting External device" in "I. Installing the BWA2.0" in this User's Manual.

B. Regarding the Test

The question and answers regarding the BWA test are as follows.

Question	Answer
Do I have to remove my socks or stockings?	• If the test is carried out while wearing socks or stockings, the current will not flow smoothly, and the test may not be performed correctly. The skin must be in direct contact with the electrode for testing.
Is it OK to test, wearing accessories or metallic materials?	• If accessories or metallic objects do not touch the electrodes, they will not have a significant effect on the human body. However, it is not recommended to wear it for accurate test results.
Is there any case where I must not take a BWA test?	• A person who is equipped with a medical device that is essential for life support, such as pacemakers or patient monitoring devices, must not test. Electronic medical devices may malfunction due to the current flowing through the human body during the test.
Is it OK if I have a metallic object inserted in my body?	• Patients who have a metallic material inserted into their bodies may have different conductivity that may affect the results of the test.
Do I have to use electrolyte tissue? Can't I use a normal wet towel?	• The electrolyte tissue provided with the BWA2.0 is specially designed for optimal measurement, unlike general wipes. Use electrolyte tissue for accurate measurements.
Is the current flowing in the test harmless to the human body?	• The BWA2.0 does not harm the human body because it uses minute electric current. The safety of the BWA2.0 has been proven and is being used by many medical institutions because the BWA2.0 has already obtained the national and European medical device licenses.
How often should I have a BWA test?	• Testing every other week or once a month can effectively track BWA test results for exercise prescriptions, hormonal prescriptions, obesity, and rehabilitation. • It's good to check up often, but it's also important to keep track of your body's changes over time through steady tests. * Body changes can be seen on the BWA result screen and the BWA Results Sheet.
What precautions should I follow to ensure accurate test results?	• Refer to "Precautions before Measurement" in "BWA Test" in this User's Manual.

V. Others

A. Exterior and Functions

The names and functions of each part of the BWA2.0 are as follows.

* Please check each component of the system for damage prior to installation.

1. Front view

❶ Display: It displays each step of the test, guide, and test result. It enables entering the data required for the test, setting the test environment, and checking the test results by touching the screen.

❷ Number button: Used to enter numeric data such as age and height.

❸ Setup button: Used to enter the "Setup" in Administrator Menu from the test standby screen.

❹ Function button: Used to enter the "FAQ" in Administrator Menu from the test standby screen.

❺ Print button: Used to reprint test results.

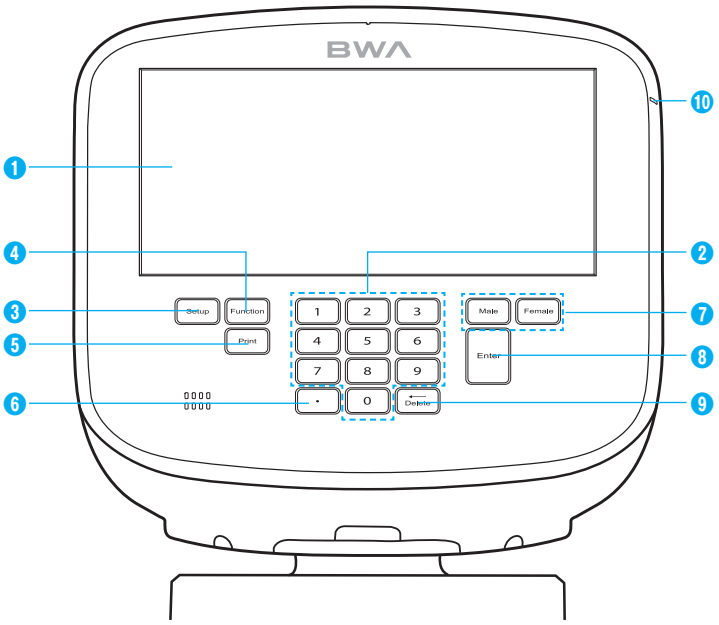
❻ Decimal point button: Used to enter the decimal point in ID, height, age, and weight.

❼ Gender button: Used to enter the gender. (Male:Man, Female:Woman)

❽ Enter button: Used when input is completed, or changes are saved in the Administrator Menu.

❾ Delete button: Used to delete the entered data.

❿ Power LED: LED to indicate power on/off status.



2. Rear view

❶ Battery cover: Used when replacing the batteries.

❷ LAN port (10/100T-Base): Used to connect the BWA2.0 to the Internet or LookinBody120 installed on the PC via a wired connection.

* You can connect the BWA2.0 to LookinBody120 installed on the PC even if only one of ❷, ❹, ❺ ports is connected.

❸ USB HOST port: Used to connect printer, USB storage device and barcode reader.

❹ USB SLAVE port: Used to connect the BWA2.0 to LookinBody120 installed on PC.

* You can connect the BWA2.0 to LookinBody120 installed on the PC even if only one of ❷, ❹, ❺ ports is connected.

❺ 9-pin Serial terminal (Female, RS-232C): You can set the port according to "26. Serial Connect" in the Administrator Menu.

- COM: Used to connect the BWA2.0 to a stadiometer, blood pressure monitor, or LookinBody120 installed on the PC.

* Make sure to connect only to the InBody stadiometer and blood pressure monitor of InBody Co., Ltd.

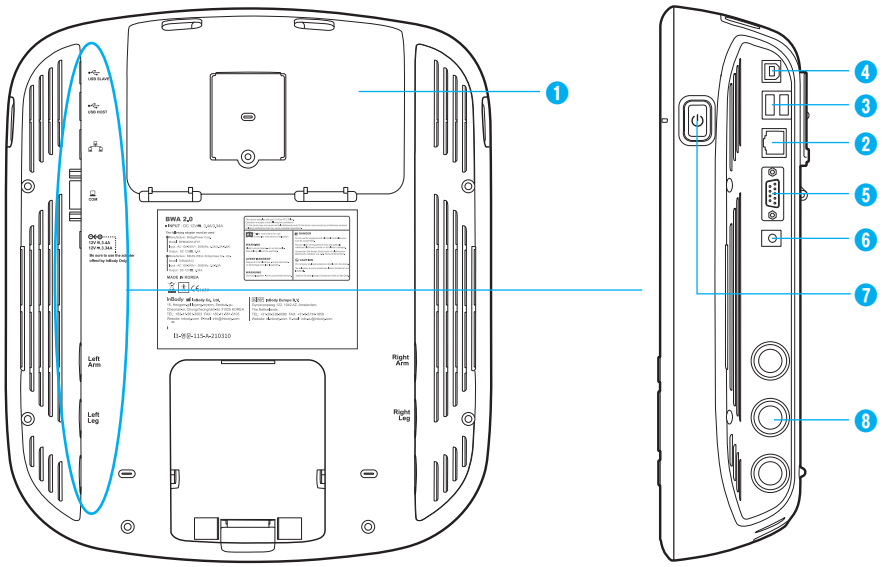
* You can connect the BWA2.0 to LookinBody120 installed on the PC even if only one of ❷, ❹, ❺ ports is connected.

❻ Power jack:Used to connect a power adapter.

* Use the adapter provided by only InBody.

❼ Power button: Used to turn the equipment on and off.

❽ Electrode cable connection part: Connect the electrode cable to the circuit inside the main unit.



Caution

- Be careful not to let foreign objects such as food, drinks or liquid cleaners into the control and connections. Any foreign objects that enter the equipment can cause serious damage to electronic components.
- Be sure to connect the power adapter provided by InBody to the power jack.

Caution

- When you are connecting the power adapter cable to the main unit, insert the power adapter cable firmly into the power jack.
- Peripheral devices including accessories connected to the BWA2.0 must be provided by InBody.

B. Using and Charging the Battery

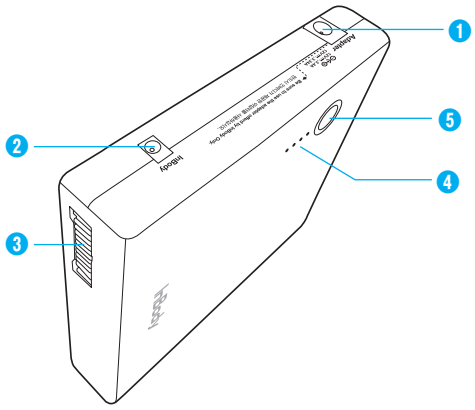
The battery (IB Battery 220) is designed to connect the BWA2.0 of InBody Co., Ltd. Do not use the battery for purposes other than connecting it to the BWA2.0.

When you are using the BWA2.0 indoors with frequent movements, it is inconvenient to turn it on and off every time. To compensate for this inconvenience, if you are connecting the battery between the BWA2.0 and the adapter, the BWA2.0 will not be turned off even if the power cable is disconnected.

⚠ Caution

- It is recommended to use the battery at room temperature that is not too humid because the battery lifespan is affected by the environment.

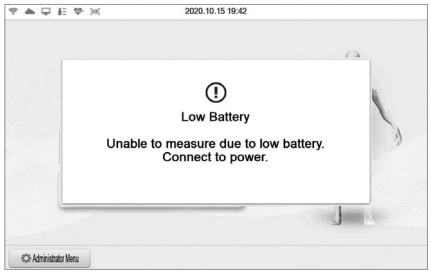
1. Battery configuration
   1) Function of Parts
      ❶ Power adapter connection socket: This socket is used to connect the adapter when the battery is stand-alone charging.
      ❷ BWA2.0 external connection socket: This socket is used to connect the BWA2.0 to the battery with an external cable.
      ❸ BWA2.0 connector: Used to connect directly the BWA2.0 to the battery.
      ❹ Battery level indicator LED: This LED shows the remaining level in the battery.
      ❺ Battery level check button: Press and hold the button on the battery until it sounds "Beep".
      "Beep" sounds and the 4 LEDs display the remaining level after about three seconds.



2. Battery operation
   1) On first use
      Check the battery level. Press and hold the Battery level check button until it produces a "Beep".
      "Beep" sounds, and the 4 LEDs display remaining level after about three seconds.
   2) On charging
      The battery level indicator LED blinks while the adapter is connected and is charging.
      If all four LEDs light up and stop flashing, charging is complete.

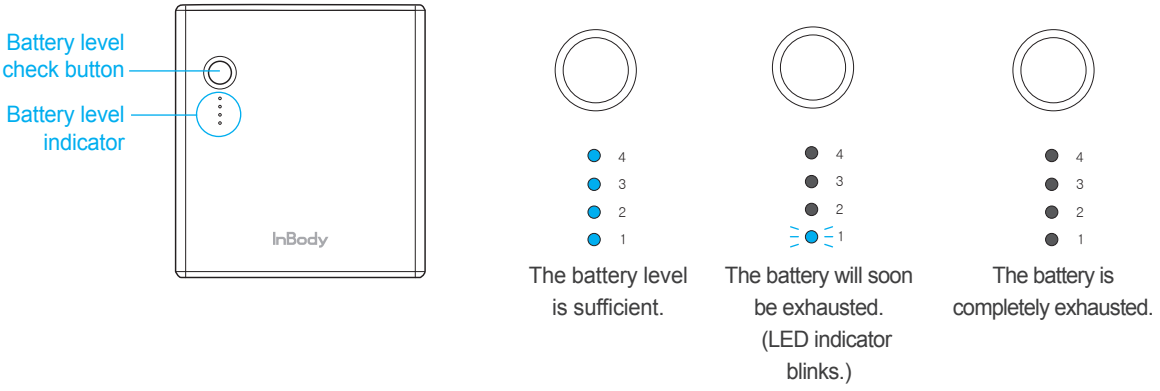
3) When to charge

The percentage value and battery level are displayed on the upper right when you are charging the adapter by connecting it to the BWA2.0 main unit. If the following error screen appears or if the battery level drops below 20%, charge it again.



4) Checking the battery level

Press and hold the button on the battery until it produces a "Beep". "Beep" sounds, and remaining battery level is displayed through four LEDs after about 3 seconds. Before the battery runs out, the last remaining LED level indicator blinks and it sounds alarm. If you hear the alarm sound, please charge the battery.

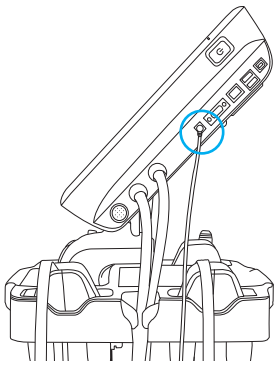


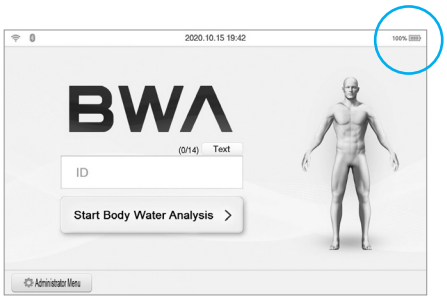
3. How to charge the battery

The charging method of the battery can be selected using the ON/OFF switch of BWA2.0 unit's power while the BWA2.0 unit is connected to the battery.

1) When the BWA2.0 is powered ON:

On the right upper corner of the screen, the % and remaining chage amount is displayed. The percentage value and battery level are displayed in the upper right corner of the screen.





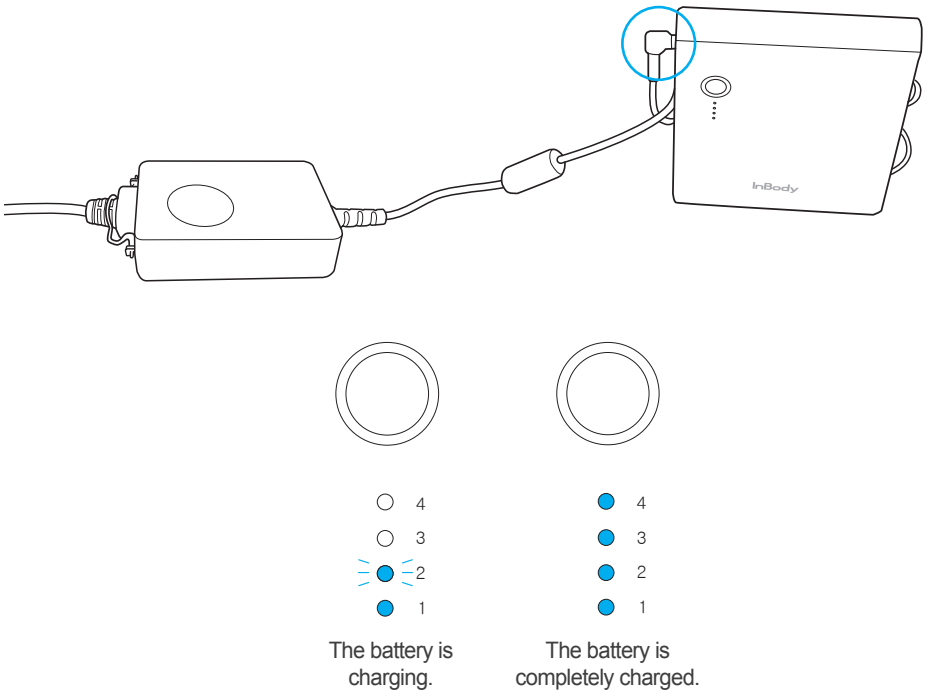
: The battery level is sufficient.

: The battery will soon be exhausted.

: The battery is completely exhausted. Charge the battery.

2) When the BWA2.0 is powered OFF(Fast Charging)

The battery may be charged via exclusive adaptor provided with BWA2.0 The battery's state of charge(charge level) can be confirmed by the LED light; the LED blinks while charging in progress.



The battery is charging.

The battery is completely charged.

Caution

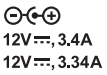
- Be sure to use the power adapter provided with the BWA2.0 to charge it.

C. Safety Information

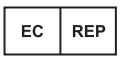
Marks

	9-pin serial terminal (Female, RS-232C)
	LAN port (10/100T-Base)
	USB port

Safety Symbols

	Danger high voltage
	Warning / Caution
	Note
	BF-type equipment
	Power adapter terminal

Etc. Symbols

	Manufacturer		Serial number
	Authorized representative in the EUROPEAN COMMUNTY		Alternating current
	European Conformity		Operating Instructions
	Unique Device Identification		

⚠ Caution

- This device is a class A electromagnetic wave compatible device and can be used in all areas.
- There is a possibility of radio interference during operation of the radio equipment and may not be used in areas where safety is of concern.
- Bluetooth uses the same frequency band as many electronic devices, which can cause radio interference between the devices.
- The user should be responsible for illegal use or data transmission problem caused by using Bluetooth.

D. Product Classification

Classifications	Body Composition Analyzer of Direct Segmental Multi-frequency Bioelectrical Impedance Analysis Method	
	Types of protection against electric shock	Class I
	Type of the applied parts	BF Type
	EMC Immunity / EMC Emission	Level A, CLASS A
	Degree of protection against water infiltration	IPX0

E. Specification

Bioelectrical Impedance Analysis (BIA) Measurement Items	Bioelectrical Impedance (Z)	40 Impedance Measurements by Using 8 Different Frequencies (1kHz, 5kHz, 50kHz, 250kHz, 500kHz, 1MHz, 2MHz, 3MHz) at Each of 5 Segments (Right Arm, Left Arm, Trunk, Right Leg, and Left Leg)
	Reactance (Xc)	15 Impedance Measurements by Using 3 Different Frequencies (5kHz, 50kHz, 250kHz) at Each of 5 Segments (Right Arm, Left Arm, Trunk, Right Leg, and Left Leg)
Electrode Method	Octa-polar 16 Point Tactile Clamp Type Electrode Tetra-polar 8 Point Tactile Adhesive Type Electrode	
Measurement Method	Direct Segmental Multi-frequency Bioelectrical Impedance Analysis Method (DSM-BIA) Simultaneous Multi-frequency Impedance Measurement (SMFIM)	
Body Composition Calculation Method	No Empirical Estimation	
Outputs (Body Water Results Sheet)	Results and Interpretations • Body Water Composition (Total Body Water, Intracellular Water, Extracellular Water) • ECW Ratio Analysis (ECW Ratio) • Segmental Body Water Analysis(Right Arm, Left Arm, Trunk, Right Leg, Left Leg) • Segmental Body Water Analysis(Right Arm, Left Arm, Trunk, Right Leg, Left Leg) • Segmental ICW Analysis(Right Arm, Left Arm, Trunk, Right Leg, Left Leg) • Segmental ECW Analysis (Right Arm, Left Arm, Trunk, Right Leg, Left Leg) • Body Water Composition History(Weight, Total Body Water, Intracellular Water, Extracellular Water, ECW Ratio) • Body Composition Analysis(Protein, Minerals, Body Fat Mass, Fat Free Mass, Bone Mineral Content) • Muscle-Fat Analysis(Weight, Skeletal Muscle Mass, Soft Lean Mass, Body Fat Mass) • Obesity Evaluation(BMI, Percent Body Fat) • Research Parameters(Basal Metabolic Rate, Waist-Hip Ratio, Waist Circumference, Visceral Fat Area, Visceral Fat Level, Obesity Degree, Body Cell Mass, Arm Circumference, Arm Muscle Circumference, Total Body Water/Fat Free Mass, FFMI, FMI, SMI, Extracellular Mass/Body Cell Mass, Total Body Water/Weight, Skeletal Muscle Mass/Weight) • Results Interpretation QR Code • Blood Pressure (Systolic, Diastolic, Pulse, Mean Artery Pressure, Pulse Pressure, Rate Pressure Product) • QR Code • Whole Body Phase Angle(50kHz: the right side of the body) • Segmental Phase Angle(5kHz, 50kHz, 250kHz: Right Arm, Left Arm, Trunk, Right Leg, Left Leg) • Impedance(Each segment and each frequency Graph)	
InBody Results Sheet	Results and Interpretations • Body Composition Analysis(Total Body Water, Protein, Minerals, Body Fat Mass, Weight) • Muscle·Fat Analysis(Weight, Skeletal Muscle Mass, Body Fat Mass) • Obesity Analysis (Body Mass Index, Percent Body Fat) • Segmental Lean Analysis (Based on ideal weight/Based on current weight: Right Arm, Left Arm, Trunk, Right Leg, Left Leg) • Segmental Body Fat Analysis (Based on ideal weight/Based on current weight: Right Arm, Left Arm, Trunk, Right Leg, Left Leg) • Segmental Body Water Analysis (Based on ideal weight/Based on current weight: Right Arm, Left Arm, Trunk, Right Leg, Left Leg)	

InBody Results Sheet	• Segmental ICW Analysis (Based on ideal weight/Based on current weight: Right Arm, Left Arm, Trunk, Right Leg, Left Leg) • Segmental ECW Analysis (Based on ideal weight/Based on current weight: Right Arm, Left Arm, Trunk, Right Leg, Left Leg) • ECW Ratio Analysis (ECW Ratio) • Body Composition History (Weight, Skeletal Muscle Mass, Percent Body Fat, ECW Ratio) • InBody Score • Visceral Fat Area (Graph) • Weight Control(Target Weight, Weight Control, Fat Control, Muscle Control) • Body Type(Athletic Shape, Mild Obesity, Obesity, Muscular Shape, Slim Muscular, Thin, Slim, Slightly Thin, Average, Overweight, Sarcopenic Obesity) • Nutrition Evaluation(Protein, Minerals, Fat Mass) • Obesity Evaluation (BMI, Percent Body Fat) • Body Balance Evaluation(Upper, Lower, Upper-Lower) • Waist-Hip Ratio(Graph) • Visceral Fat Level(Graph) • Segmental Circumference (Neck, Chest, Abdomen, Hip, Right Arm, Left Arm, Right Thigh, Left Thigh) • Research Parameters (Extracellular Water, Intracellular Water, Skeletal Muscle Mass, Fat Free Mass, Basal Metabolic Rate, Waist-Hip Ratio, Waist Circumference, Visceral Fat Level, Visceral Fat Area, Obesity Degree, Bone Mineral Content, Body Cell Mass, Arm Circumference, Arm Muscle Circumference, FMI, FFMI, SMI, recommended calorie intake per day, Calorie Expenditure of Exercise, Extracellular Mass/Body Cell Mass, Total Body Water/Weight) • Blood Pressure(Systolic, Diastolic, Pulse, Mean Artery Pressure, Pulse Pressure, Rate Pressure Product) • Results Interpretation QR Code • QR Code • Whole Body Phase Angle(50kHz: the right side of the body) • Segmental Phase Angle (5kHz, 50kHz, 250kHz: Right Arm, Left Arm, Trunk, Right Leg, Left Leg) • Impedance(Each segment and each frequency Graph)
InBody Result Sheet for Children	Results and Interpretations • Body Composition Analysis (Total Body Water, Protein, Minerals, Body Fat Mass, Weight) • Muscle-Fat Analysis (Weight, Skeletal Muscle Mass, Body Fat Mass) • Obesity Analysis (Body Mass Index, Percent Body Fat) • Growth Graph (Height, Weight, BMI) • Body Composition History (Height, Weight, Skeletal Muscle Mass, Percent Body Fat) • Growth Score • Nutrition Evaluation (Protein, Minerals, Fat Mass) • Obesity Evaluation (BMI, Percent Body Fat) • Body Balance Evaluation (Upper, Lower, Upper-Lower) • Segmental Lean Analysis (Right Arm, Left Arm, Trunk, Right Leg, Left Leg) • Segmental Body Water Analysis (Right Arm, Left Arm, Trunk, Right Leg, Left Leg) • Research Parameters (Intracellular Water, Extracellular Water, Skeletal Muscle Mass, Basal Metabolic Rate, Child Obesity Degree, FMI, Body Cell Mass, FFMI, SMM/WT, Extralcellular Mass/Body Cell Mass, Total Body Water/Weight) • Results Interpretation QR Code • Blood Pressure(Systolic, Diastolic, Pulse, Mean Artery Pressure, Pulse Pressure, Rate Pressure Product) • QR Code • Whole Body Phase Angle(50kHz: the right side of the body) • Segmental Phase Angle (5kHz, 50kHz, 250kHz: Right Arm, Left Arm, Trunk, Right eg, Left Leg) • Impedance(Each segment and each frequency Graph)
Research Results Sheet	• Body Composition Summary (Soft Lean Mass, Fat Free Mass, Body Fat Mass, Intracellular Water, Extracellular Water, Total Body Water, ECW Ratio, Weight, Right arm, Left arm, Trunk, Right leg, Left leg, Whole body) • Body Composition Analysis (Soft Lean Mass, Intracellular Water, Extracellular Water, Body Fat Mass, ECW Ratio, Evaluate 'Whole body, Right arm, Left arm, Trunk, Right leg, Left leg' respectively) • Research parameters (BMI, Percent Body Fat, Waist-Hip Ratio, Visceral Fat Area, Obesity Degree, Waist Circumference, FMI, Skeletal Muscle Mass, Soft Lean Mass, FFMI, SMI, Protein, Body Cell Mass, Minerals, Bone Mineral Content, Basal Metabolic Rate, Arm Circumference, Arm Muscle Circumference, TBW/FFM) • Whole Body Phase Angle(50kHz: the right side of the body) • Segmental Phase Angle (5kHz, 50kHz, 250kHz: Right Arm, Left Arm, Trunk, Right eg, Left Leg) • Impedance(Each segment and each frequency Graph)

Option Result Sheet	• Skeletal Muscle mass Index: (T-Score, Z-score) • Whole Body ECW Ratio: (T-Score, Z-score) • Visceral Fat Area: (T-Score, Z-score) • Body Mass Index: (T-Score, Z-score) • Weight: (T-Score, Z-score) • Bioeletrical Impedance Vector Analysis(BIVA) • Whole Body Phase Angle_50kHz: (T-Score, Z-score) • ECW Ratio(ECW/TBW) Balance(Right Arm, Left Arm, Right Leg, Left Leg): Evaluation • Percent Body Fat: (T-Score, Z-score) • Fat Mass Index: (T-Score, Z-score) • Fat Free Mass Index: (T-Score, Z-score) • Lean Mass Balance(Right Arm, Left Arm, Right Leg, Left Leg): Amount, Evaluation • Skeletal Muscle Mass and ECW Ratio • Skeletal Muscle Mass Index and ECW Ratio • Waist-Hip Ratio: (T-Score, Z-score) • Body Cell Mass: (T-Score, Z-score) • Outer Circumference • ECW/BCM: (T-Score, Z-score) • Skeletal Muscle Mass/Weight • Extracellular Mass/Body Cell Mass • Total Body Water/Weight
Comparison Results Sheet	• Weight, Skeletal Muscle Mass, Body Fat Mass, ECW Ratio, Phase Angle: Whole Body (Today's Results, Recent Results, Differences) • Fat Free MassECW Ratio, Phase Angle: Right Arm, Left Arm, Trunk, Right Leg, Left Leg (Today's Results, Recent Results, Differences) • Segmental Body Cole-Cole Plot (Today's Results, Recent Results)
Thermal Result Sheet	• Muscle-Fat Analysis (Weight, Skeletal Muscle Mass, Soft Lean Mass, Body Fat Mass) • Obesity Analysis (Body Mass Index, Percent Body Fat) • Segmental Lean Analysis (Right Arm, Left Arm, Trunk, Right Leg, Left Leg) • Segmental ECW/TBW Analysis (Right Arm, Left Arm, Trunk, Right Leg, Left Leg) • Body Water Analysis (Total Body Water, Intracellular water, Extracellular water) • Body Composition Analysis (Protein, Minerals, Body Fat Mass, Fat Free Mass, Bone Mineral Content) • Segmental Body Water Analysis (Right Arm, Left Arm, Trunk, Right Leg, Left Leg) • Segmental Body Fat Analysis (Right Arm, Left Arm, Trunk, Right Leg, Left Leg) • Segmental Lean Analysis&Segmental ECW/TBW Analysis (Human Model Graph) • Research Parameters (Intracellular Water, Extracellular Water, ECW/TBW, Skeletal Muscle Mass, Protein, Minerals, Bone Mineral Contents, Body Cell Mass, Waist-Hip Ratio, Waist Circumference, Visceral Fat Area, Obesity Degree, Basal Metabolic Rate, Arm Circumference, Arm Muscle Circumference, FFMI, FMI, SMI, TBW/FFM, Skeletal Muscle Mass/Weight, Extracellular Mass/Body Cell Mass, Total Body Water/Weight) • Whole Body Phase Angle(50kHz: the right side of the body) • Segmental Phase Angle (5kHz, 50kHz, 250kHz: Right Arm, Left Arm, Trunk, Right eg, Left Leg) • Impedance(Each segment and each frequency Graph)

F. Feature Specification

Evaluation Results Sheet	Stadiometer, Blood pressure monitor, Thermal Printer, SD400 and battery pack from InBody
Logo	Name, Address, and Contact Information can be shown on the InBody Results Sheet.
Digital Results	LCD Monitor, Web, Data management software LookinBody
Types of Results Sheet	Body Water Results Sheet, Body Composition Results Sheet, Body Composition Results Sheet for children, Research Results Sheet, Evaluation Results Sheet, Comparison Results Sheet, Thermal Result Sheet
Voice Guidance	Provides audible indication for the test in progress, test complete, and successfully saved settings changes.
Database	Test results can be saved if the member ID is utilized. The InBody can save up to 100,000 results.
Test Mode	Medical Mode, Research Mode
Administrator Menu	Setup: Configure settings and manage data FAQ: Additional information to help use the BWA2.0
USB Thumb Drive	Copy the BWA2.0 (can be viewed on Excel or LookinBody data management software), backup, or restore the BWA2.0
Barcode Reader	The member ID will be automatically inputted when the barcode ID is scanned.
Backup Data	Backup data saved in the BWA2.0 by using a USB Thumb Drive, Restore results on the BWA2.0 from a backup file.
QR Code	If you scan the QR code, the InBody result will be transmitted to the website (InBodyCare) so that you can confirm it.

* "QR Code" is registered trademark of DENSO WAVE INCORPORATED.

G. Other Specifications

Applied Rating Current	70μA(±10μA) @1kHz 300μA(±30μA) @5kHz, 50kHz, 250kHz, 500kHz, 1MHz, 2MHz, 3MHz		
Adapter	Bridgepower (BPM040S12F07)	Power Input	AC 100-240V, 50/60Hz, 1.2A(1.2A-0.6A)
		Power Output	DC 12V⎓, 3.4A
	Mean Well (GSM 40A12)	Power Input	AC 100-240V, 50/60Hz, 1.0-0.5A
		Power Output	DC 12V⎓, 3.34A
Display Type	1280 × 800 10.1 inch Color TFT LCD		
Internal Interface	Touchscreen, Keypad, Bluetooth 2.1, Bluetooth 4.2		
External Interface	RS-232C 1EA, USB HOST 2EA, USB SLAVE 1EA, LAN (100/10T) 1EA, Bluetooth 1EA, Wi-Fi 1EA		
Compatible Printer	Laser/Inkjet Printers (Printers recommended by InBody) * A list of printers compatible with the InBody can be found at inbodyservice.com		
Dimension	322 (W) X 282 (L) X 81.5 (H): mm 12.7(W) X 11.1L) X 3.2(H) : inch		
Equipment Weight	3.3 kg (7.4lb)		
Testing Time	Medical Mode About 70 seconds, Research Mode About 140 Seconds		
Operation Environment	10 ~ 40°C (50 ~ 104°F), 30 ~ 75% RH, 70 ~ 106 kPa		
Storage Environment	-10 ~ 70°C (14 ~ 158°F), 10~80% RH, 50~106kPa(No Condensation)		
Testing Weight Range	10 ~ 250kg (22.0 ~ 551.2lb)		
Testing Age Range	3 ~ 99 years		
Height Range	95 ~ 220cm (3ft 1.40in ~ 7ft 2.6in)		

* Specifications are subject to be changed without prior notice.
* This product is a medical device. Please read the WARNINGS and PRECAUTIONS before you use it.

inbody.com

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