

Yscope

User's Manual

Yscope User's Manual for Measurement Guide and Setup

Thank you for purchasing the Yscope. This user's manual describes all the features of the Yscope.

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

Intended Use and Medical Indication

Yscope is mainly used for healthy and obese patients in hospitals, medical practices and inpatient care facilities in accordance with national regulations. It can be used to assist in the assessment of the abdominal obesity. Body Fat distribution analysis is an important factor 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.

- Obesity: Percent body fat is considered to be more appropriate but the distribution of body fat may be more important to health than the classification of obesity or the total amount of body fat. Visceral fat obesity is more frequently accompanied by circulatory disorders, and the aging is therefore associated with a shift of fat to a more central fat deposition, especially to the visceral.
- Diabetes & Endocrinology: Diabetes is often associated with excess fat, however having insufficient muscle mass is just as detrimental and increases diabetes risk. Visceral fat also plays a key role in the development of metabolic and cardiovascular disease.

* The Yscope is not a diagnostic device. To make an accurate diagnosis, a physician must go through a thorough examinations and take their results into account in addition to the results of the Yscope.

* The Yscope is not used in home healthcare environment.

Please note the important information below before reading this manual.

Warning

Failure to comply with safety warnings and regulations can cause serious injury or death.

Caution

Failure to comply with safety cautions and regulations can cause injury or property damage.

InBody

InBody Co., Ltd. [HEAD OFFICE]

625, InBody Bldg., Eonju-ro, Gangnam-gu, Seoul 06106 Republic of Korea

TEL: +82-2-501-3939 FAX: +82-2-578-5669 Website: inbody.com E-mail: info@inbody.com



InBody Co., Ltd. [MANUFACTURER]

15, Heugam-gil, Ipjang-myeon, Seobuk-gu, Cheonan-si, Chungcheongnam-do 31025 KOREA

TEL: +82-41-581-3003 FAX: +82-41-581-3103 Website: inbody.com E-mail: info@inbody.com

©2021 InBody Co., Ltd. All rights reserved.

Reproduction, adaptation, or translation of this manual is prohibited without prior written consent from InBody Co., Ltd. under the copyright laws. This manual might have typographical errors, and its content can be changed without a prior notice. InBody Co., Ltd. shall not be liable for any errors, incidental, or consequential damages that occurred by not complying with the content of the User's Manual.

Visit our website inbody.com to view and download further information about the functions of the Yscope the explanation of results output, and more. InBody Co., Ltd. reserves the right to modify the appearance, specifications, and etc. of the Yscope to improve the quality of the product, without prior notice for reasons of performance improvement.

Representative & Sponsor Information

InBody Europe B.V.

Gyroscoopweg 122, 1042 AZ, Amsterdam, The Netherlands

TEL: +31-20-238-6080 FAX: +31-6-5734-1858 Website: nl.inbody.com E-mail: info.eu@inbody.com

Australian Sponsor. [AUSTRALIA]

Emergo AUSTRALIA. Level 20, Tower II, Darling Park, 201 Sussex Street, Sydney, NSW 2000, AUSTRALIA

TEL: +61-2-9006-1662 FAX: +61-2-9006-1010 Website: emergogroup.com E-mail: Sponsor@emergogroup.com

Customer Service Information

InBody USA [USA]

13850 Cerritos Corporate Dr. Unit C Cerritos, CA 90703 USA

TEL: +1-323-932-6503 FAX: +1-323-952-5009 Website: inbodyusa.com E-mail: info.us@inbody.com

InBody Japan [JAPAN]

Tani Bldg., 1-28-6, Kameido, Koto-ku, Tokyo 136-0071 Japan

TEL: +81-3-5875-5780 FAX: +81-3-5875-5781 Website: www.inbody.co.jp E-mail: inbody@inbody.co.jp

InBody China [CHINA]

904, XingDiPlaza, No.1698 YiShanRoad, Shanghai 201103 China

TEL: +86-21-64439705 FAX: +86-21-64439706 Website: inbodychina.com E-mail: info@inbodychina.com

InBody Asia [ASIA]

Unit 3A-11, Oval Damansara, 685 Jalan Damansara Kuala Lumpur, WP KL 60000 Malaysia

TEL : +60-3-7732-0790 FAX: +60-3-7733-0790 Website: inbodyasia.com E-mail: info@inbodyasia.com

InBody India [INDIA]

57/57 A, 1st Floor, Raj Industrial Complex, Military Road, Marol, Andheri (East). Mumbai- 400059, Maharashtra, India

TEL : +91-22-6223-1911 Website: inbody.in E-mail: india@inbody.com

Yscope

User's Manual Contents

I. Yscope Installation	
A. Product Components	4
B. Installation Environment	5
C. Installation Instructions	5
D. Connecting to InBody	8
E. Preference	9
F. Precautions for Maintenance	10
II. Abdominal Impedance Measurement	
A. Precautions for Measurement	11
B. Measuring Posture and Measuring Method	12
III. Waist Circumference Measurement	
A. Precautions for Measurement	14
B. Measuring Posture and Measuring Method	14
IV. Transportation and Storage	
A. Cautions during Transportation	16
B. Repacking Instructions	16
C. Transportation and Storage Environment	16
V. Frequently Asked Questions (FAQ)	
A. Regarding the Equipment	17
B. Regarding the Test	17
VI. Others	
A. Exterior and Functions	19
B. Safety Information	20
C. Product Classification	21
D. Specifications	21

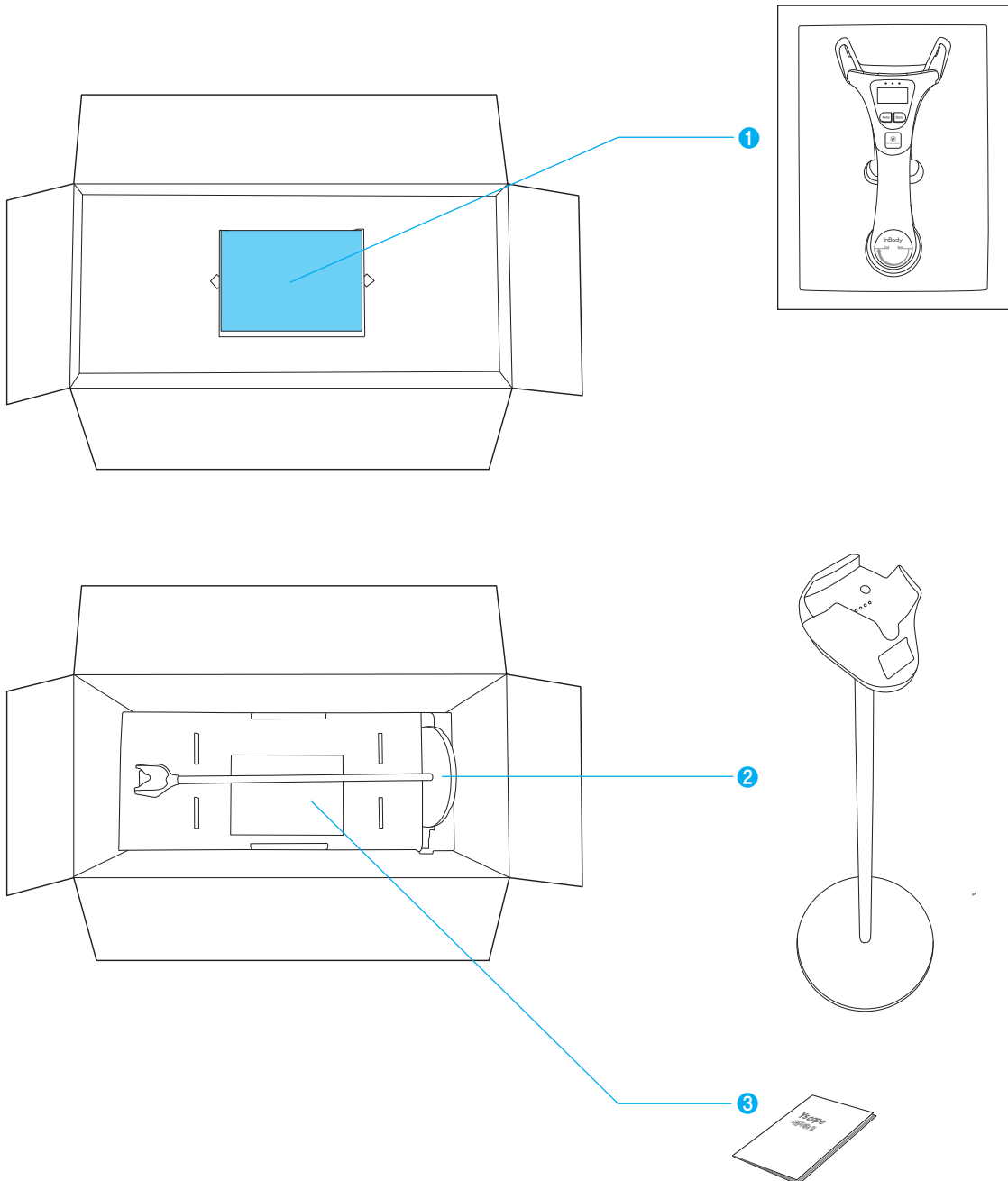
I. Installing the Yscope

A. Product Components

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

* Please check each component of the system for damage prior to installation. If you have any issues, contact our Product Support team.

- ❶ Yscope 1EA
- ❷ Charging Stand 1EA
- ❸ User's Manual 1EA



B. Installation Environment

Check that the environment is suitable before installing the Yscope. This device is suitable for indoor use. If installing this equipment outdoors, the following requirements must be met:

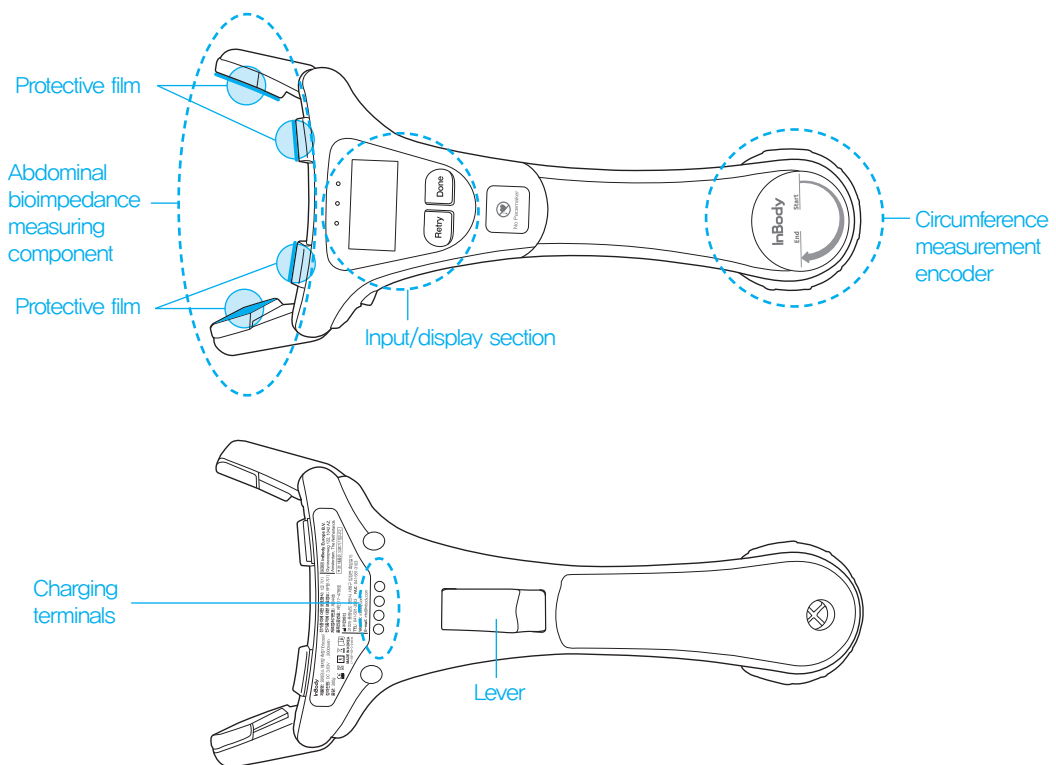
Temperature range	10 ~ 40°C (50 ~ 104°F)
Relative humidity	30 ~ 75%RH
Atmospheric pressure	70 ~ 106kPa

Caution

- Please avoid using the Yscope in wet conditions as extreme temperatures, humidity, and air pressure can affect its performance.
- Generally, internal batteries have an appropriate storage temperature of 10 to 40 degrees Celsius.
- Storage at temperatures higher than 40 degrees Celsius may lead to faster natural discharge.
- Do not store the device at high temperatures.

C. Installation Instructions

1. Remove the equipment and the charging stand from the packaging box and remove the protective film.



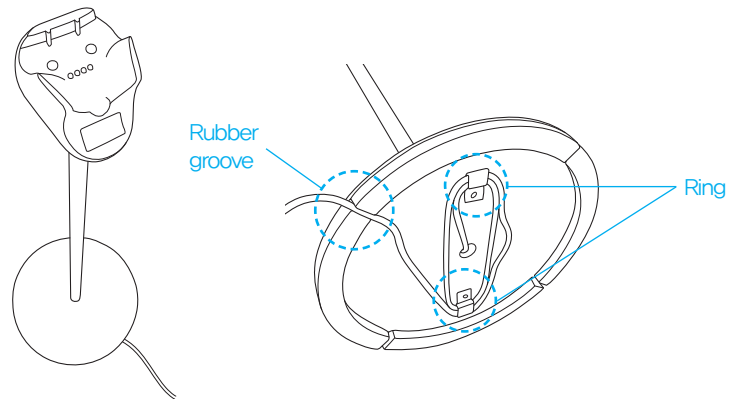
Caution

- Remove the protective film before using abdominal impedance measurement.
- Do not wash the electrodes of the abdominal bioimpedance measuring component with detergent.
- Liquid cleaners may cause corrosion and equipment failure.
- To clean the Yscope, wipe it down with an InBody Tissue.
- For convenient repackaging, save the supplied packing materials.
- Dispose of all waste according to relevant local laws and regulations.

2. Place the charging stand in a flat position.

* Adjust the charging cable to the right length at the bottom of the charging station and place it in the ring.

* When connecting the charging cable, adjust the remaining length by fitting it into the rubber groove located on the bottom of the station.

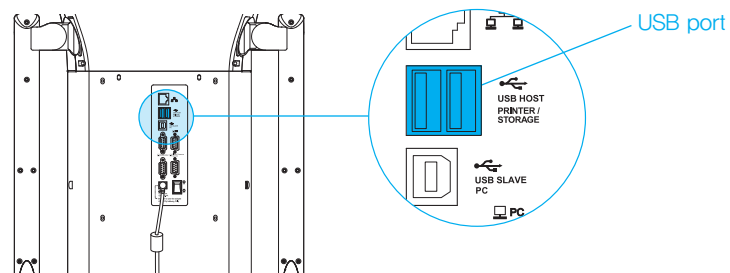


Caution

- Install the charging station on a flat and vibration-free floor.
- If installed on an uneven floor, there is a risk of the Yscope dropping if the charging station falls or shakes.
- If the charging cable is not inserted into the rubber groove, the cable may be damaged, causing problems with the product, and the charging station may shake.
- Connect the charging cable to a USB port, as found on an InBody device or computer.
- InBody must be powered on.
- Check the charging status after mounting Yscope on the charging station.
- Battery charge status is displayed on the LED at the top of the unit.

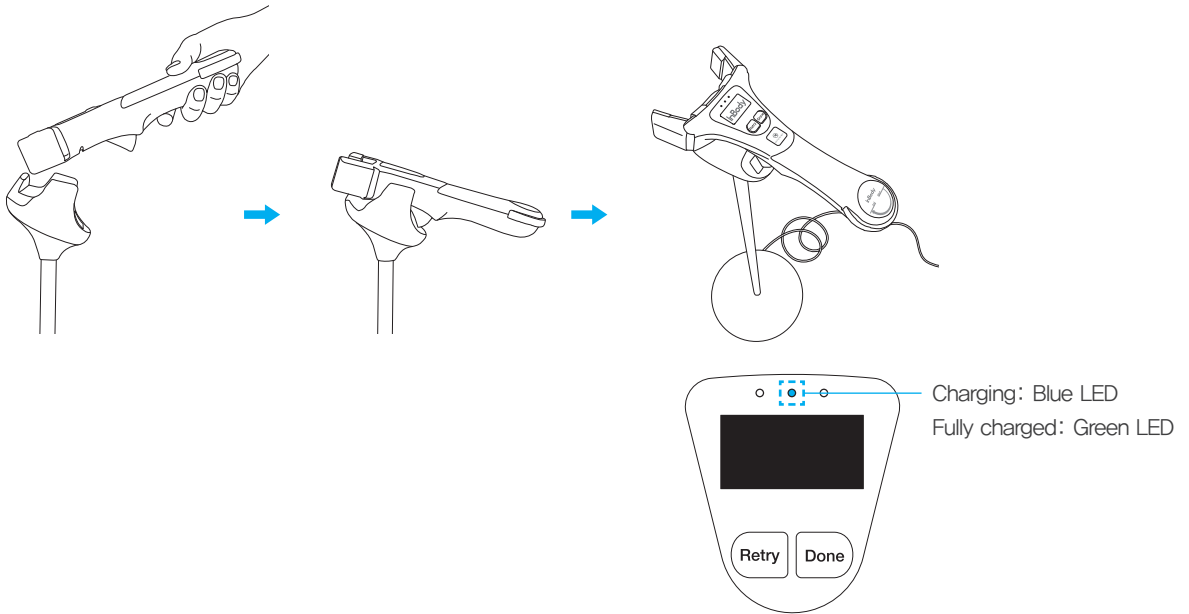
3. Connect the charging cable to a USB port, as found on an InBody device or computer.

* InBody must be powered on.



4. Check the charging status after mounting Yscope on the charging station.

* Battery charge status is displayed on the LED at the top of the unit.

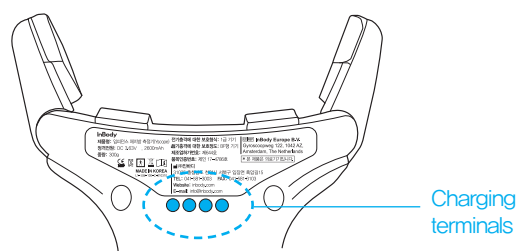


Warning

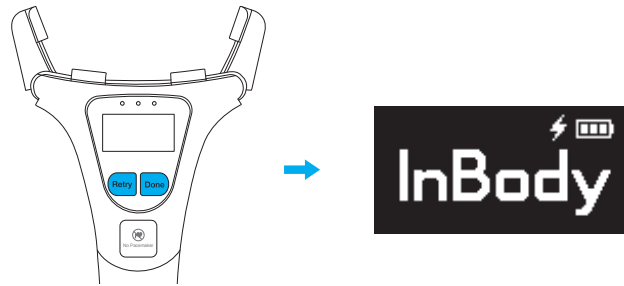
- Do not place the Yscope in contact with other electronic devices while connected to power, as it may cause an electric shock.
- Do not plug in or unplug the power cable with wet hands, as it may cause an electric shock.
- When using a USB hub with multiple terminals, make sure that you have enough power.
- Do not disassemble the equipment arbitrarily.
- This may cause electric shock or injury, product malfunction, and inaccurate results, as well as void the manufacturer's warranty.

Caution

- If the Yscope is subjected to electrical interference, the test results may be inaccurate.
- Do not install the Yscope near fluorescent lights, large AC motor equipment such as treadmills, vibrators, refrigerators, air conditioners, compressors, as well as high-frequency heat treatment devices, and heating devices that cause electrical interference.
- If the Yscope does not charge, make sure that the charging cable is connected, the connected InBody (or PC) is turned on, and there is no foreign substance in the Yscope charging terminal.



5. Disconnect the product from the charging station and press the **Retry** button and the **Done** button at the same time for 5 seconds or longer to turn it on.



Caution

- Do not operate the product during charging.
- The product button is disabled during charging.
- If you operate the buttons on the Yscope from the charging station, the product may drop and break.
- The battery can be fully discharged if it is kept separate while the power is on.

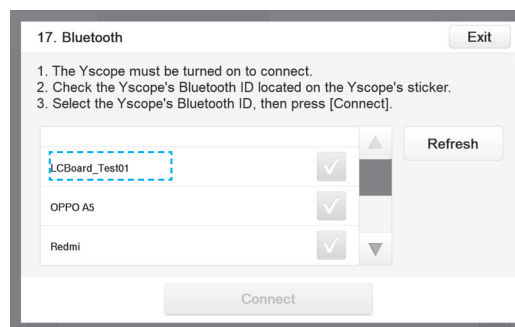


Example of low battery notification

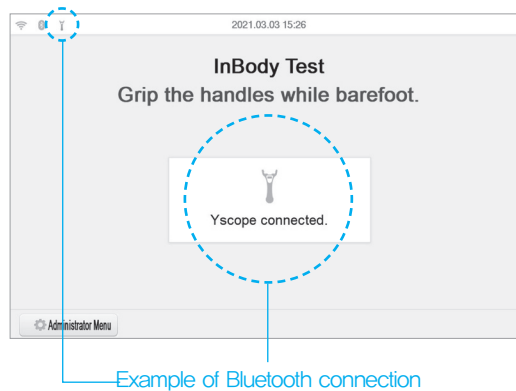
D. Connecting to InBody

- * This product can be measured in conjunction with the InBody, which provides synchronization with the Yscope.
- * For information about products that can be synced, please refer to the InBody website.

1. Enter InBody's admin menu to connect.
2. Please search for your device in Setup > Bluetooth.
3. Search the product's serial number to connect to the device. The serial number can be found at the rear of the product.
 - * If the product cannot be found, refresh to search again.

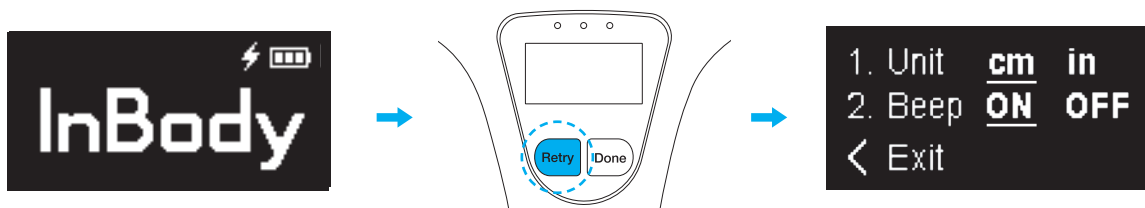


4. When synced with the InBody, the connection display appears at the top and the center of the InBody's screen, as shown below.



E. Preferences

This product lets you choose unit settings and audio notification settings under Preferences.



1. On the standby screen, press and hold the **Retry** button to enter Preferences.
2. You can select items to change (Unit, Beep) with the **Retry** button.
3. You can set the value of each item with the **Done** button.
 - *The line at the bottom displays the currently selected value.
 - *If you set Beep to OFF, audio notifications will be disabled.
4. When finished, go to the "Exit" with the **Retry** button and press the **Done** button.

F. Precautions for Maintenance

Caution

- Do not apply an excessive shock or force to the equipment.
- The product may be damaged if dropped.
- Do not place the product in an area where rigorous physical activity occurs.
- Be careful not to let foreign objects such as food, drinks or liquid cleaners into the equipment.
- Any foreign objects that have entered the equipment can cause serious damage to electronic components.
- Clean the exterior of the equipment gently with a clean lint-free cloth once a week. Be careful not to scratch the LCD screen.
- Do not arbitrarily disassemble the product. It can cause electrical shock or injury, product failure, or errors in measurement.
- InBody is not responsible for any damages and related losses to Yscope caused by the user's tampering.
- Do not use it for purposes other than the measurements presented in this user manual.
- Foreign substances may affect the measurement electrode. Wipe it with a clean, soft cloth after each use.
- The battery may be completely discharged if the system is switched on when stored.
- Avoid using this product if you have a contagious illness.
- After use, wash the device with a soft, clean cloth and sterilant such as ethyl alcohol.
- When using a sterilant, do not pour liquid on the product, as it may cause product failure and electric shock by leakage.
- The qualifications of employees who provide A/S services are limited to employees who have been trained for more than one year at InBody Co., Ltd.
- Service can only be performed by InBody's A/S staff.
- For inspections and repairs, contact the InBody Product Support.
- Please dispose of waste in accordance with applicable laws and regulations.
- Do not operate the product during charging.
- The product button is disabled during charging.

II. Abdominal Impedance Measurement

A. Precautions for Measurement

Warning

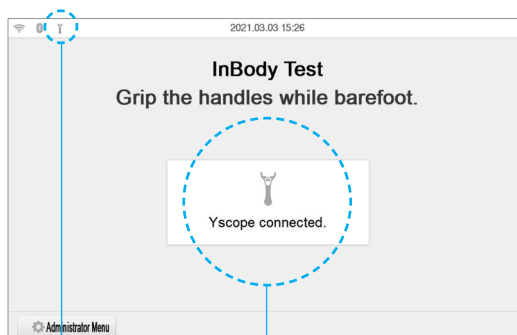
- Do not use the product with life support equipment such as pacemakers, or medical devices like patient monitors.
- During measurement, a weak current flows through the body, which can lead to patient injury.
- Bioelectrical Impedance Analysis (BIA) uses minute currents which do not harm the subject.
- However, pregnant women should consult their doctor or specialist before use.

Caution

- Test on an empty stomach.
- Eating can affect your weight and therefore alter your examination results.
- Test before you exercise.
- Even light exercise can temporarily alter body composition.
- Test in the morning, if possible.
- Body water tends to collect in the lower body in the afternoon and may influence the results of an examination.
- Since breathing affects the accurate measurement of the abdominal impedance, please measure with light exhalation.
- If the subject has difficulty breathing, it is recommended to stabilize or stop breathing temporarily to measure.
- Those who are too skinny may not have good contact with the electrodes.
- In this case, apply a diagonal force to ensure that the electrode is in good contact with the abdomen.
- All electrodes must be fully in contact with the abdomen to achieve accurate measurements.
- When measuring, refer to the user manual and measure in order.
- Please measure in comfortable clothes.
- If you measure while wearing a waist belt made of metal, the measurement value may be skewed.
- If the abdominal skin is dry, it may be hard to measure or result in inaccurate measurements.
- Wipe the measured area thoroughly with an InBody Tissue or wet tissue.
- Check the charge status before use.
- You can check the battery charge status by the battery level indicator on the upper right of the standby screen.



- Please check the sync status with the InBody.
- The sync status can be checked via the display on the InBody screen.



Example of Sync Status with InBody

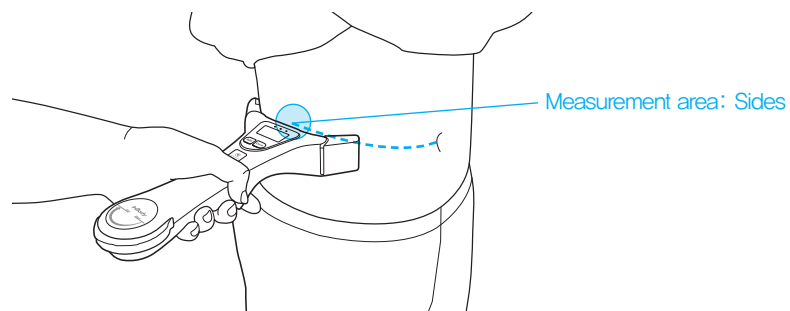
B. Measuring Posture and Measuring Method

1. Press the **Done** button to switch to impedance measurement mode.

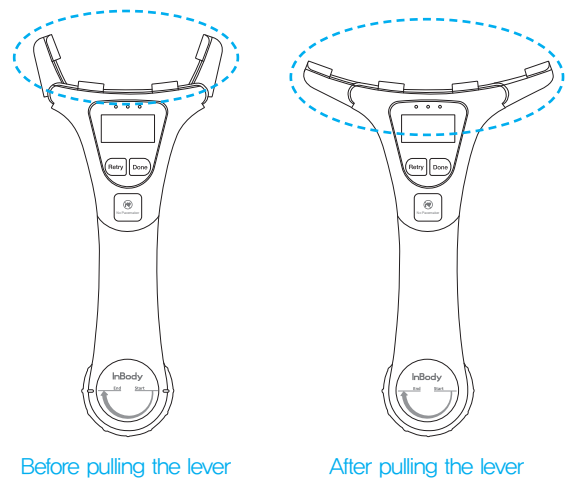


2. Wet the side of the subject with an InBody Tissue (or wet tissue) and place the electrode on the measurement area. Push it so that all the electrodes in the product are attached to the measurement area. All electrodes must be in full contact with the abdomen to achieve accurate measurements. If the electrode contact is inadequate based on the body type of the subject, apply diagonal force toward product with the measuring area.

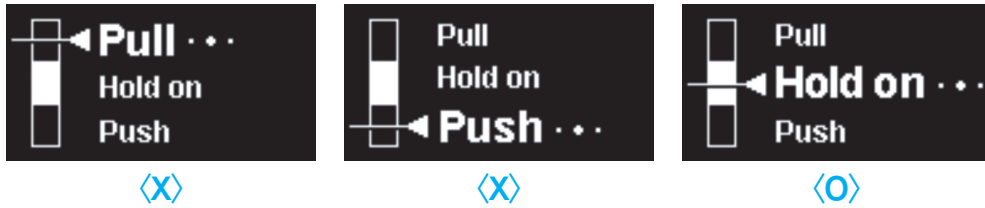
(For accurate measurement, the subject should stand with their arms folded in front of their chest, providing clear access to the abdomen.)



- * Pulling the lever at the rear of the product widens the electrodes.
Pull the lever to make contact between the electrode and the abdomen.
- * Please measure with all electrodes of the product in close contact with the measurement area.
- * Pull or loosen the lever to allow the electrode to be attached to the abdomen and maintain proper pressure until the measurement is complete.



3. Maintain the proper pressure so that the screen's scales come to the center (Hold on).



* If the pressing force is too strong or weak, measurement may not occur.

* In case of error, refer to the manual (V. Frequently asked questions and answers), or call Product Support.

4. When the measurement is completed, "Complete" is displayed on the screen along with a 'beep' sound.

When the measurement is completed by pressing the **Done** button on the product, the measured data will be transferred to the linked InBody device. After transmission, the device automatically switches to waist circumference measurement mode.



III. Waist Circumference Measurement

A. Precautions for Measurement

 **Caution**

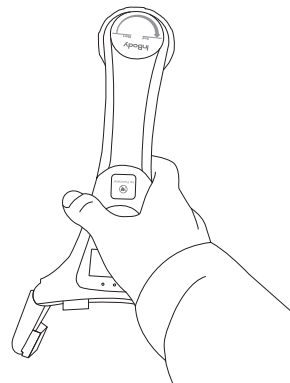
- Please wear comfortable clothing during measurement.
- For accurate waist circumference measurement, do not wear heavy clothing or accessories.
- Please measure the subject while they are standing as straight as possible.
- Measurement of waist circumference is affected by breathing. Please instruct the subject to exhale lightly during measurement.

B. Measuring Posture and Measuring Method

1. Once the abdominal impedance measurement is completed, the device switches to waist circumference measurement mode. Grab your equipment for waist circumference measurements, as shown below.

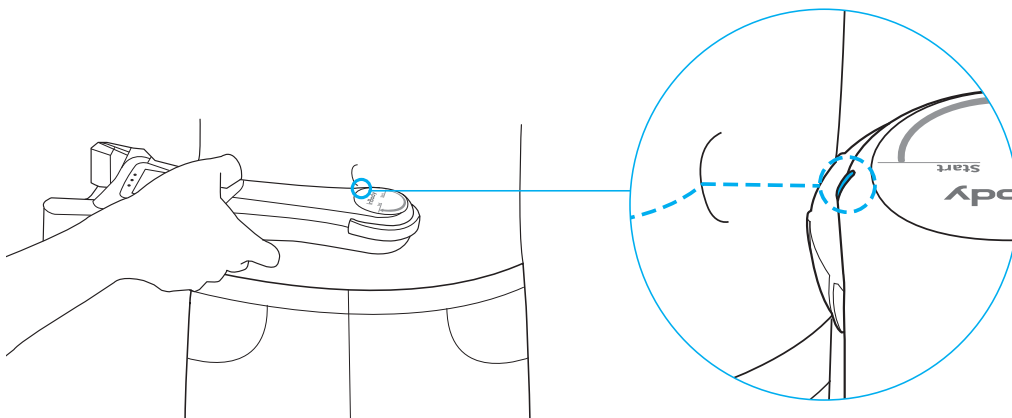


Waist circumference measurement



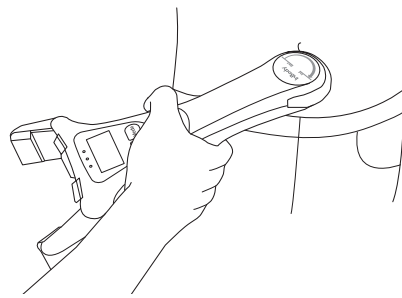
Proper posture for waist circumference measurement

2. The waist measurement should measure the right half of the subject. Stand on the right side of the subject and let the wheel come next to the navel.

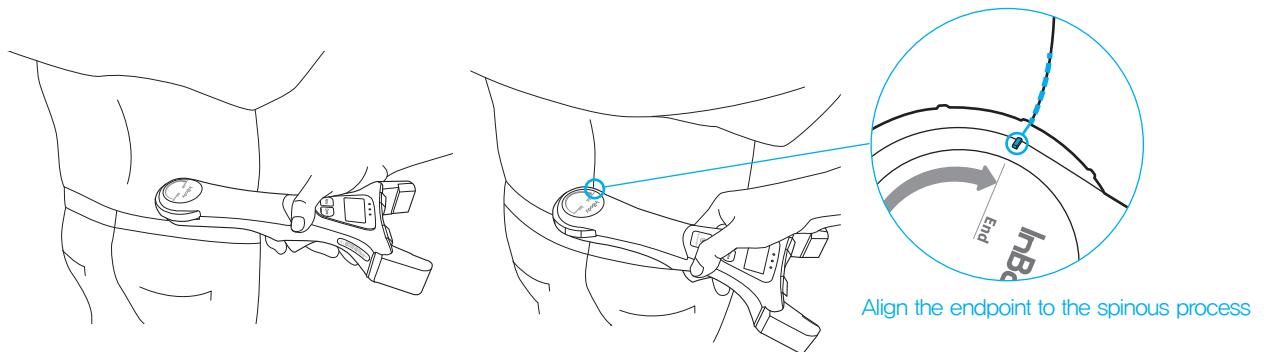


⟨Adjust the starting point to the navel⟩

3. Turn the wheel horizontally at the navel level.



4. Roll the wheel up to the spinous process and check the waist circumference value.



* If you press the instrument too hard or too lightly, you may not be able to rotate the wheel properly. If there is no measurement sound, the wheel is not rotating.

5. After checking the waist circumference, press the **Done** button on the product, and the measurement data is transmitted to the linked InBody device.

* Since the Yscope estimates the total waist circumference by measuring the waist circumference of the right half of the body, it may be different from the actual waist circumference.



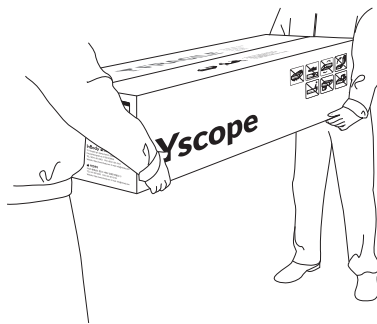
Waist circumference
measurement complete screen

6. If the waist circumference value is not measured correctly, press the **Retry** button and measure it again.

IV. Transport and storage

A. Cautions during Transportation

To transport the Yscope safely, two people should keep the equipment in a horizontal position.



B. Repacking Instructions

1. Press and hold the **Retry** button and the **Done** button simultaneously (3-5 seconds) to turn off the power.
2. Separate all connected cables and place the manipulator on the corresponding insert.

Wrap the equipment in packaging and place it in the packaging box, then seal the package securely with tape.

Caution

- For repackaging, use the packaging protection supplied by the manufacturer.

C. Transportation and Storage Environment



The Yscope should be transported or stored under the following conditions.

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



V. Frequently Asked Questions (FAQ)

Below, you will find solutions to common issues with the product. If you require additional assistance, please contact Product Support.

A. Regarding the Equipment

Question	Answer
<ul style="list-style-type: none"> I can't connect to my InBody. 	<p>1) If the Bluetooth icon  at the top of the InBody screen is enabled, wireless communication may be delayed immediately after the device is turned on. Wait 60 seconds, then try measuring again. If the Yscope connection status screen is not visible on the InBody screen, please reconnect the product from the InBody admin menu > Setup > Bluetooth item. (Refer to p. 8)</p> <p>2) If the Bluetooth icon  at the top of the InBody screen is not enabled, the product and InBody are not connected. Go to InBody's admin menu > Setup > Bluetooth item, search for, and connect the product. (Refer to p. 8)</p>

B. Regarding the Test

Question	Answer
<ul style="list-style-type: none"> During the test, the screen indicates that the results are abnormal. The impedance test result is abnormal. /The values vary slightly. 	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p><Impedance is not stabilized></p> </div> <div style="text-align: center;">  <p><3 or more measurements failed></p> </div> </div> <ul style="list-style-type: none"> Make sure that clothing did not prevent contact between the electrodes and skin during measurement. This may be caused by the electrodes being released during the test. Place the electrodes close to the stomach and measure the electrodes according to the pressure gauge. pressure, and try measuring again. Those who are very thin may have this problem because they do not have sufficient contact with the electrodes. In this case, apply the electrode by using diagonal force to the measurement area. This may be caused by dry electrode contact with the stomach. In this case, wipe the contact area with an InBody Tissue or wet tissue. Check the installation location of the Yscope. Do not install the device near fluorescent lights, large AC motor equipment (such as running machines, shaking equipment, refrigerators, air conditioners, and compressors), or high-frequency heat treatment equipment or heaters, as test results may be inaccurate due to the effects of electromagnetic waves. If the same problem persists after taking the above measures, try measuring other subjects. If the measured value of other test subjects is also abnormal, please contact Product Support. Since the impedance of our body is constantly changing, measure in the correct measuring posture at the same time of day and the same environment. If you have this issue more than 3 times, please contact Product Support.

Question	Answer
<ul style="list-style-type: none">• Impedance measurement is not complete and continues to show in progress.	<ul style="list-style-type: none">• When the subject breathes and the abdomen moves during measurement, the impedance takes time to stabilize. Briefly pause breathing for about 5 seconds during measurement. If the measurement is performed without maintaining the proper pressure, the impedance value may be inaccurate, so please observe the measurement method.
<ul style="list-style-type: none">• The waist circumference value is measured differently than the tape measure.	<ul style="list-style-type: none">• Since the Yscope estimates the total waist circumference by measuring the waist circumference of the right half of the body, it may be different from the waist circumference measured with a tape measure. The Yscope's waist measurement is based on the CT measurement section line-the navel line.

VI. Others

- * The Yscope was produced following InBody's quality control procedures. InBody Co., Ltd. complies with international quality systems ISO9001 and ISO13485.
- * This equipment meets IEC60601-1 (EN60601-1), the international safety standard for electronic medical equipment. The equipment also meets the IEC60601-1-2 (EN60601-1-2), the international standard for electronic conformity.

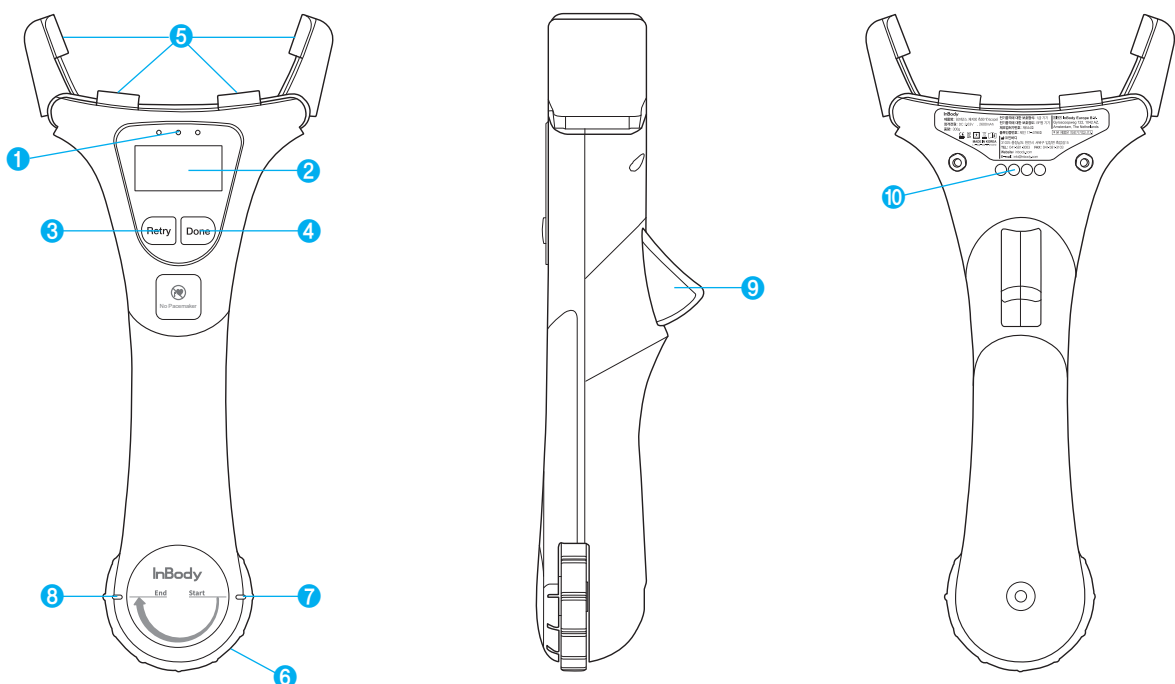
A. Exterior and Functions

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

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

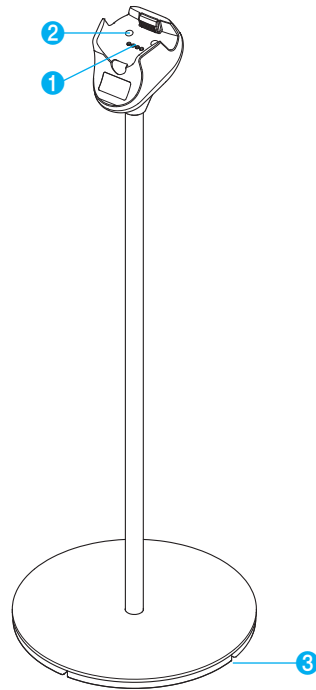
1. Yscope main unit

- 1 LED status light: Charge status
- 2 Display screen: Measurement mode, pressure check during measurement, waist measurement check
- 3 Retry button: Used when setting preferences, measuring abdominal impedance, and measuring errors during waist circumference measurement
- 4 Done button: Used during the first measurement to check and send the result to the InBody
- 5 Abdominal impedance measurement electrode: Part of the abdominal impedance measurement that makes contact with the abdomen
- 6 Circumference measuring wheel (wheel): The part that rotates in contact with the abdomen in waist measurement
- 7 Circumference measurement starting point: Waist measurement starting point (contact with the navel)
- 8 Circumference measuring endpoint: Waist circumference measuring endpoint (contact with the spiny process)
- 9 Lever: Used to widen the measuring electrode for measuring abdominal impedance
- 10 Charging terminal: Component used in the charging station for charging the Yscope



2. Charging station

- ① Charging terminal: Accepts the Yscope main unit for charging
- ② Mounting magnet: Component that orients the Yscope in a fixed position
- ③ Cable groove: Organizes the cable to the bottom of the station



B. Safety Information



Warning/caution



Operating instructions



BF-type equipment



DC Voltage

C. Product Classification

- Type of protection against electric shock: internal power type
- Degree of protection against water: ordinary equipment (equipment with an exterior that does not protect against water intrusion)
- Equipment not suitable for use in air, flammable anesthetic gas, oxygen, or nitrogen dioxide
- Type of the applied parts: BF type (Electrodes)

D. Specifications

Bioelectrical Impedance (BIA) Measurements	2 impedance measurements at 2 frequencies (50 kHz, 250 kHz)
Electrode System	Bipolar 4-point Tactile electrodes
Measurement Method	Direct Segmental Bioelectrical Impedance Analysis Method
Body Composition Calculation Method	No Empirical Estimation
Outputs	Abdominal circumference, Visceral Fat fat level, Subcutaneous fat thickness, Impedance (each frequency)
Applied Rating Current	350uA
Power Input	DC 3.63V 2600mAh (lithium ion battery)
Charging Voltage	DC 5.0V
Digital Result	OLED
Color	White
Dimension	Yscope: 126.7(W) × 269.3(L) × 63.5(H) mm (5.0(W) × 10.6(L) × 2.5(H) in) Charging station: 260 X 260 X 790 mm (10.2 × 10.2 × 31.1 in)
Equipment Weight	Main unit 0.3 kg (0.7 lb), Charging station 2.5 kg (5.5 lb)
Testing Time	Impedance measurement: within 5 seconds
Operation Environment	10~40°C(50~104°F), 30~75%RH, 70~106kPa
Storage Environment	-10~70°C (14~158°F), 10~80%RH, 50~106kPa (No Condensation)
Testing Age Range	Ages 3-99

* Specifications are subject to change without prior notice.

* This product is a "medical device." Please read the precautions and instructions carefully before use.

inbody.com

CE 1639

©2021 InBody Co., Ltd. All rights reserved. IM-ENG-L1-C-211105
