

BPBIO250

User's Manual

BPBIO250 User's Manual for Measurement Guide and Setup

Thank you for purchasing the BPBIO250. This user's manual describes all the features of the BPBIO250.

Please read before use and keep it in a safe place. By following the manual instructions, you will be able to use the BPBIO250 more safely and effectively.

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.

 Note

Referring to notes can help improve equipment use.

 Avertissement

Le non-respect des consignes de sécurité et des règlements peut causer des blessures graves ou la mort.

 Attention

Le non-respect des consignes de sécurité et des règlements peut causer des blessures ou des dommages matériels.

 Remarque

Se référer aux notes peut aider à améliorer l'utilisation de l'appareil.

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Visit our website (inbody.com) to view and download additional information about the BPBIO250.

InBody Co., Ltd. reserves the right to modify the appearance, specifications, etc. of this product to improve its quality, without prior notice.

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Intended Use:

The BPBIO250 is a digital monitor intended for use in measuring blood pressure and pulse rate in user population with upper arm circumference ranging from 17cm to 42cm (7-inch to 17-inch). The systolic blood pressure and diastolic blood pressure are measured by non-invasive blood pressure (“NIBP”) measuring method. The BPBIO250 may provide useful clinical information about the current health status of not only the users who are diagnosed with hypertension but also those who are not diagnosed with hypertension. Warnings and cautions described in the user’s manual should be observed at all times.

*This device is not designed for use in home environment.

BPBIO250

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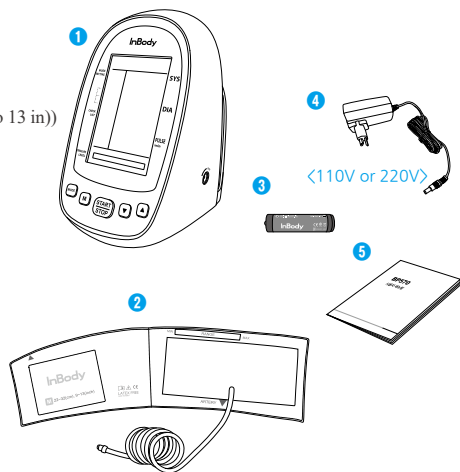
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I. Introduction for BPBIO250

This product is a professional automatic blood pressure monitor used by medical professionals. Five measurement modes can be selected according to various medical environments. Rechargeable batteries can be used without replacing batteries. The user can measure blood pressure even in dark environments.

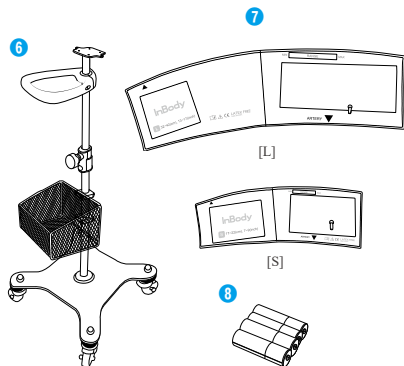
A. Standard Components

- ① Main unit (1EA)
- ② M-size one-touch cuff
(For the arm-circumference of 22 to 32cm (9 to 13 in))
- ③ Lithium-ion battery
(DC 3.63 V, 2600 mAh, 9.438 Wh)
- ④ AC adapter 110V or 220V
(Input power: 100-240 V~, 50/60 Hz, 0.5 A
Output power: DC 6.0 V, 2.0 A)
- ⑤ User's manual

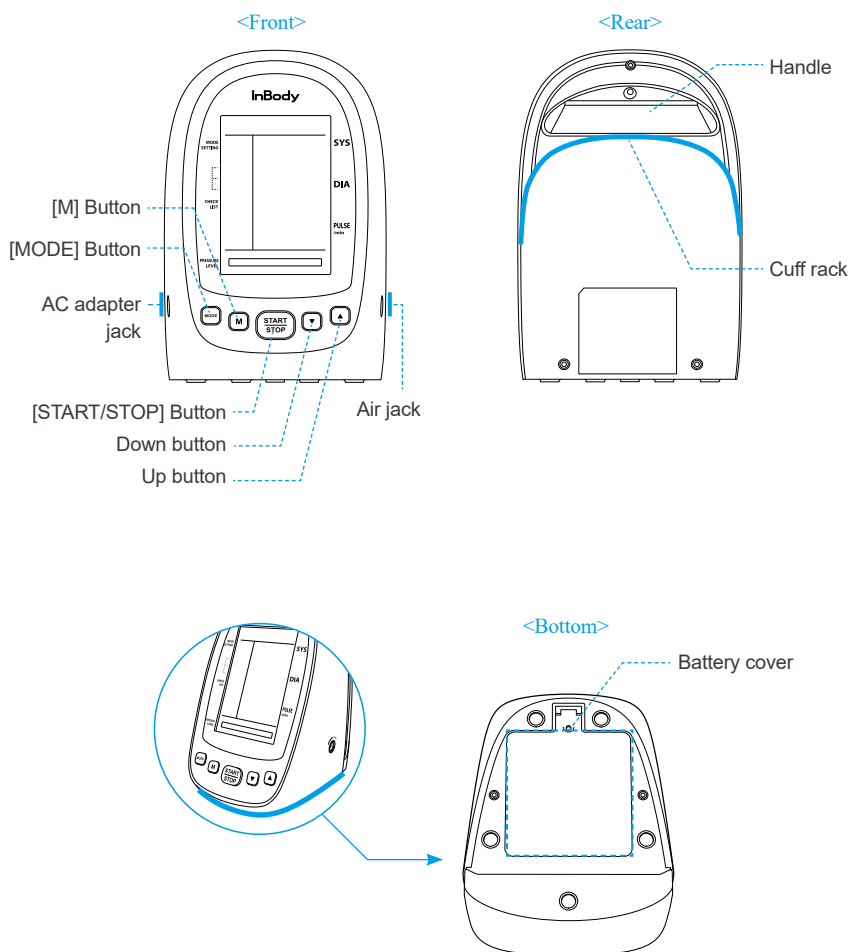


* Optional Components

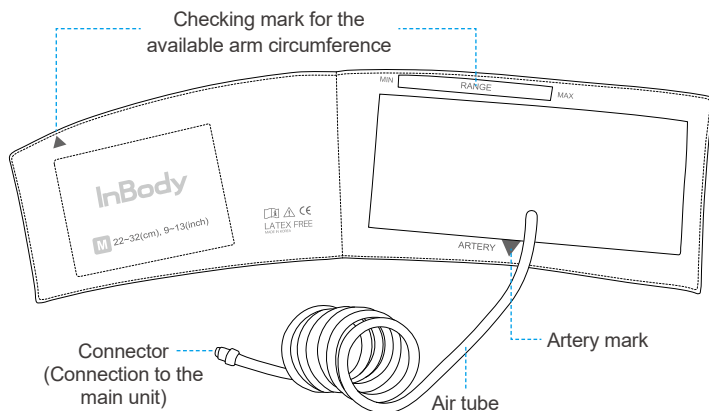
- ⑥ Cart
- ⑦ S-size one-touch cuff, L-size one-touch cuff
(S: 17 to 22cm (7 to 9 in) only, L: 32 to 42cm (13 to 17 in) only)
- ⑧ "AA" alkaline batteries
(1.5 V, 4 EA)



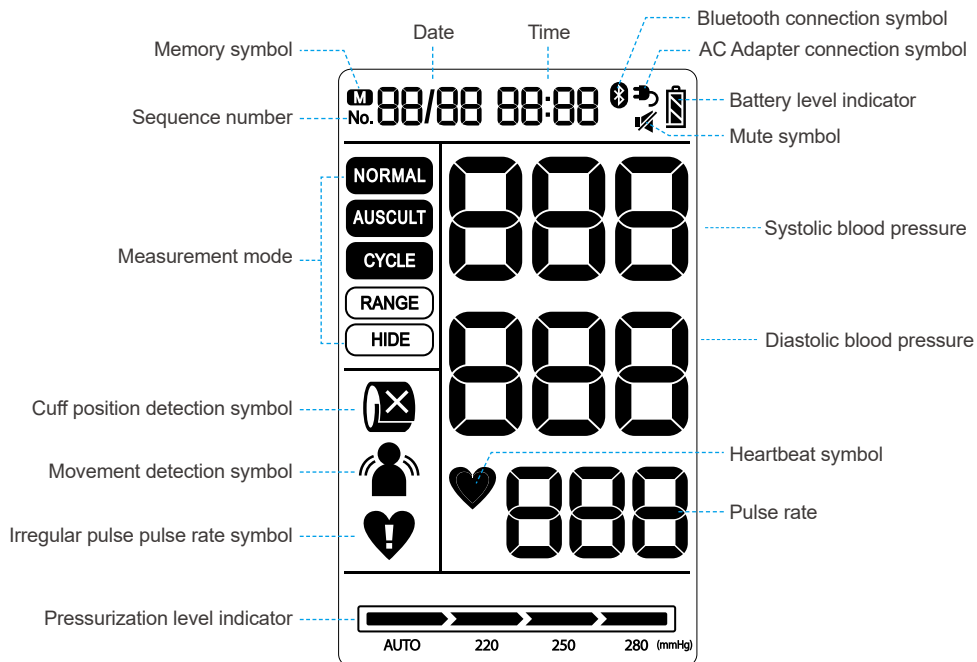
* Main Unit Parts



* Cuff Parts



* Display Screen Parts



B. Operating Environment

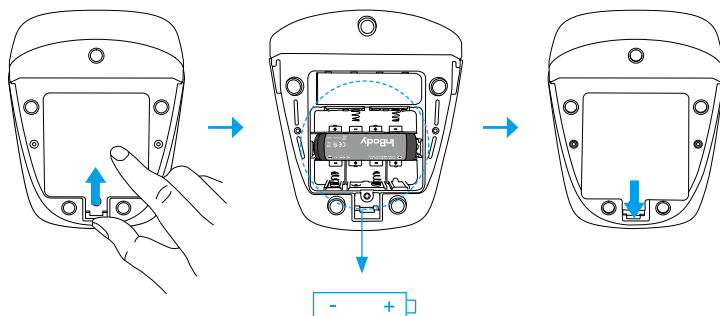
Please make sure the environment is appropriate for the BPBIO250 installation. This equipment is designed for indoor use. If installing the equipment outdoors, the following requirements must be met.

Temperature range	10°C to 40°C (50°F to 104°F)
Relative humidity	15 to 85% RH
Atmospheric pressure range	70 to 106kPa

C. Preparation for Measurement

(1) Inserting/replacing the lithium-ion battery

- ❶ Remove the battery cover on the bottom of the main unit.
- ❷ Insert the lithium-ion battery in the right direction as shown below.
- ❸ Close the battery cover.



⚠ Caution

- Do not install the batteries with wet hands.
- Make sure that the polarities (+) and (-) are correct when lithium-ion battery is installed.
- Use only the lithium-ion battery provided for the BPBIO250.
- Use the lithium-ion battery only for operating the BPBIO250.
- Remove the lithium-ion battery from the battery tray if it will not be used for a long time.
- Wash thoroughly with running water if the battery fluid gets on your skin or clothes.
- Dispose of the lithium-ion battery according to the local regulation.
- Using a wrong lithium-ion battery may cause the device performance to deteriorate or damage the device and cause a fire.

⚠ Attention

- Ne pas installer les batteries avec les mains mouillées.
- S'assurer que les polarités (+) ou (-) sont correctes quand la batterie en lithium est installée.
- Utiliser uniquement la batterie en lithium recommandée pour BPBIO250.
- Utiliser les batteries uniquement pour les mesures de la tension artérielle.
- Enlever la batterie en lithium du compartiment de batterie quand l'appareil n'est pas utilisé pour un long moment.
- Laver vos vêtements ou votre peau s'ils entrent en contact avec le liquide de batterie.
- Se débarrasser de la batterie en lithium selon la réglementation locale.
- L'utilisation de la mauvaise batterie en lithium pourrait détériorer la performance de l'appareil ou l'endommager et provoquer un feu.

Note

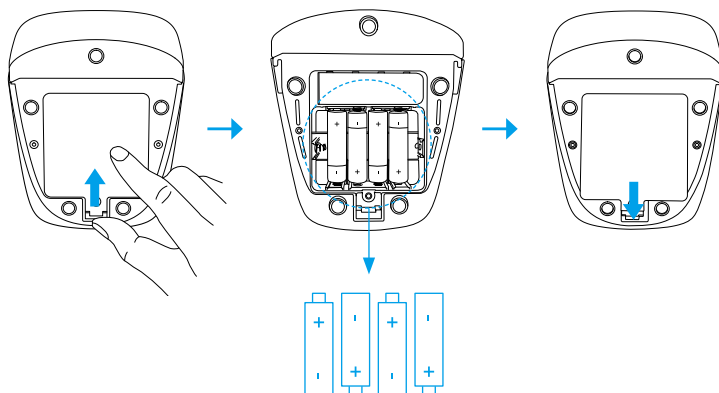
- The lithium-ion battery is provided as the basic component of BPBIO250.
AA batteries can also be used if a lithium-ion battery is unavailable.

Remarque

- La batterie en lithium est fournie comme composant de base du BPBIO250.
La batterie AA peut aussi être utilisée si la batterie en lithium n'est pas disponible.

(2) Inserting/replacing the AA batteries

- ❶ Remove the battery cover on the bottom of the product.
- ❷ Insert four AA size batteries in the right direction as shown below.
- ❸ Close the battery cover.



Caution

- Do not install the batteries with wet hands.
- Make sure that the polarities (+) and (-) are correct when batteries are installed.
- Use 1.5V AA-size alkaline or manganese batteries.
- Do not use new and used batteries together.
- Replace all four AA batteries at the same time when replacing batteries.
- Remove the batteries from the battery tray if the BPBIO250 will not be used for a long time.
- Dispose of the used batteries at designated locations according to the local regulation.
- Check battery level shown on the battery icon after inserting the AA batteries.
- In case of low battery level, refer to the battery replacement (page 11) and use BPBIO250 after the battery replacement.

Attention

- *Ne pas installer les batteries avec les mains mouillées.*
- *S'assurer que les polarités (+) ou (-) sont correctes quand les batteries sont installées.*
- *Utilisez des piles alcalines ou au manganèse de taille AA 1.5 V.*
- *Ne pas utiliser d'anciennes et de nouvelles batteries en même temps.*
- *Remplacer les quatre batteries à la fois au moment opportun.*
- *Enlever batteries en lithium du compartiment de batterie quand l'appareil n'est pas utilisé pour un long moment.*
- *Se débarrasser des batteries usagées dans le lieu indiqué.*
- *Vérifiez le niveau de charge des piles affiché sur l'icône des piles après avoir inséré les premières piles AA.*
- *Si le niveau de charge s'avérait faible, lisez les directives de remplacement (p. 11), et utilisez l'appareil BPBIO250 seulement une fois les piles remplacées.*

Note

- AA batteries and lithium-ion batteries cannot be used at the same time.

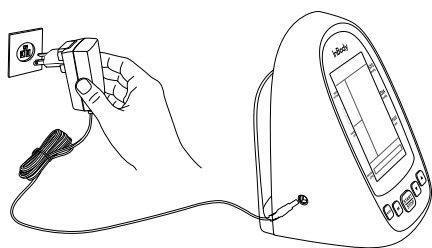
Remarque

- *Les batteries AA et les batteries au Lithium ne peuvent pas être utilisées au même moment.*

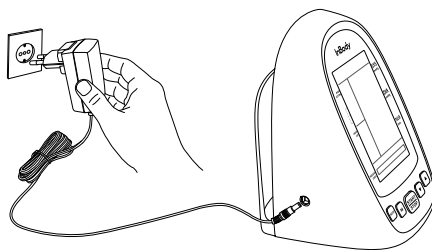
(3) Using the AC adapter

- ❶ Connect the AC adapter plug to the AC adapter jack of the main unit.
- ❷ Connect the AC adapter to the electrical outlet.

*When the BPBIO250 is used with the AC adapter connected, no AA batteries or lithium-ion battery are needed to operate.



<Plug Type B>



<Plug Type F>

Warning

- Do not connect or disconnect the AC adapter with wet hands.
- Do not put heavy objects above the AC adapter cable.
- Do not use the AC adapter if it is damaged.

Avertissement

- *Ne pas brancher ni débrancher l'adaptateur CA avec des mains mouillées.*
- *Ne pas poser d'objets lourds sur le câble de l'adaptateur CA.*
- *Ne pas utiliser l'adaptateur CA s'il est endommagé.*

Caution

- Plug the AC adapter into the electrical outlet securely.
- When unplugging the AC Adapter, grasp the adapter body to pull out.
- To disconnect the AC adapter, unplug the AC adapter from the electrical outlet first and then remove the AC adapter from the main unit.
- Do not apply excessive force to the AC adapter body and plug.
- Keep the AC adapter connector away from foreign objects.
- Use only the AC adapter provided by InBody.
- Do not use it for other purposes except the blood pressure measurement.
- Do not place the BPBIO250 in an area where it is difficult to disconnect the AC adapter.

*** Specifications of the AC adapter**

Manufacturer	XP Power Limited
Model Name	VEP15US06-XA1122A
Rated	Input: 100-240 V~, 0.5 A, 50/60 Hz Output: DC 6 V, 2 A
Type	Class II, Direct Plug-in Type
Approval	IEC 60601-1: 2005 + A1: 2012

 Attention

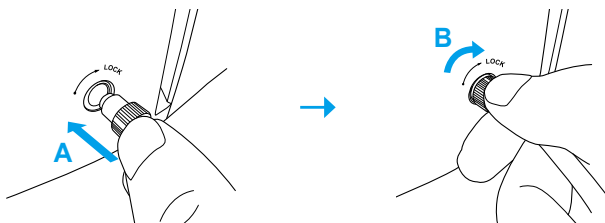
- Brancher l'adaptateur CA dans la prise au mur de manière sécurisée.
- Pour débrancher l'adaptateur CA, tenez le corps de l'adaptateur et tirez.
- Déconnecter l'adaptateur CA par étape de la prise au mur au BPBIO250.
- Ne pas appliquer une force excessive sur le corps de l'adaptateur et sa fiche.
- Maintenir la fiche de l'adaptateur CA loin des matériaux étrangers.
- Utiliser uniquement un adaptateur CA fourni par InBody Co., Ltd.
- Ne pas l'utiliser à d'autres fins excepté pour la mesure de tension artérielle.
- Ne pas placer le BPBIO250 dans une zone où il est difficile de déconnecter l'adaptateur CA.

*** Spécifications de l'adaptateur CA**

Le fabricant	XP Power Limited
Nom du modèle	VEP15US06-XA1122A
Évaluation	entrée: 100-240 V~, 0.5 A, 50/60 Hz Sortie: 6.0 Vd.c., 2.0 A
Type	Class II, Direct Plug-in Type
Approbation	IEC 60601-1: 2005 + A1: 2012

(4) Connecting cuff

- ❶ Insert the connector into the air jack on the main unit.
- ❷ Press lightly as shown in A and turn it clock-wise as shown in B to tighten.



Note

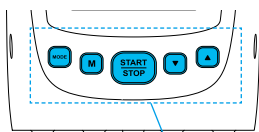
- To remove the cuff, press the connector slightly in the direction of the arrow A and turn it in the opposite direction of the arrow B.

Remarque

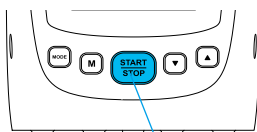
- Pour enlever la manchette, appuyer sur l'entrée d'air de la manchette doucement en direction de la flèche A et la tirer dans la direction opposée de B.

(5) Turning the power on/off

- The blood pressure monitor will be turned on by pressing any of the five buttons on the main unit.
 - The blood pressure monitor will be turned off by pressing and holding the [START/STOP] button.
 - The BPBIO250 provides power saving function.
- If there is no operation within five minutes, the blood pressure monitor automatically turns off.



Press shortly to turn on the power.



Press and hold to turn off the power.

Note

- The operation of the blood pressure monitor will be different depending on which button is pressed to switch on the device.

[START/STOP] button: Turning ON → Starting measurement in NORMAL mode

[MODE], [M], [▼], [▲] buttons: Turning on → NORMAL mode standby screen

Remarque

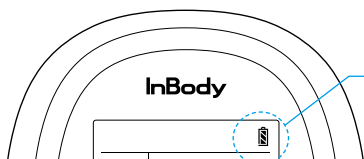
- *Le fonctionnement du moniteur de tension artérielle sera différent selon le bouton qui est appuyé pour allumer l'appareil.*

Bouton [Arrêt/Marche] : Allumer → Commencer la prise de mesure en mode NORMAL

Les boutons [MODE], [M], [▼], [▲] : Allumer → NORMAL mode écran de veille.

(6) Battery level indicator

- The user may check the remaining battery level in the upper right corner of the screen while using the blood pressure monitor.
- When using the AC adapter, the battery level is not displayed, and instead the AC adapter connection symbol () appears.



: The capacity of the batteries is sufficient.



: Battery level is low.

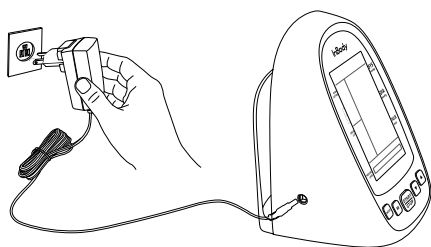


: Battery is exhausted. Charge the lithium-ion battery or replace with the new "AA" batteries.

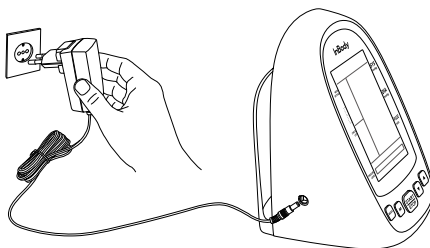
(7) Charging the lithium-ion batteries

- The lithium-ion batteries can be charged with the AC adapter.
- When the lithium-ion batteries are drained, charge (four hours for full charge) before using it.

- 1 Make sure the lithium-ion batteries are inserted in the main unit.
- 2 Insert the AC adapter plug into the AC adapter jack on the side of the main unit.



<Plug Type B>



<Plug Type F>

- 3 Plug the AC adapter into an electrical outlet.
- 4 After a while, the following indication will appear and charging begins.



: The batteries are being charged.



: The batteries are fully charged.

Caution

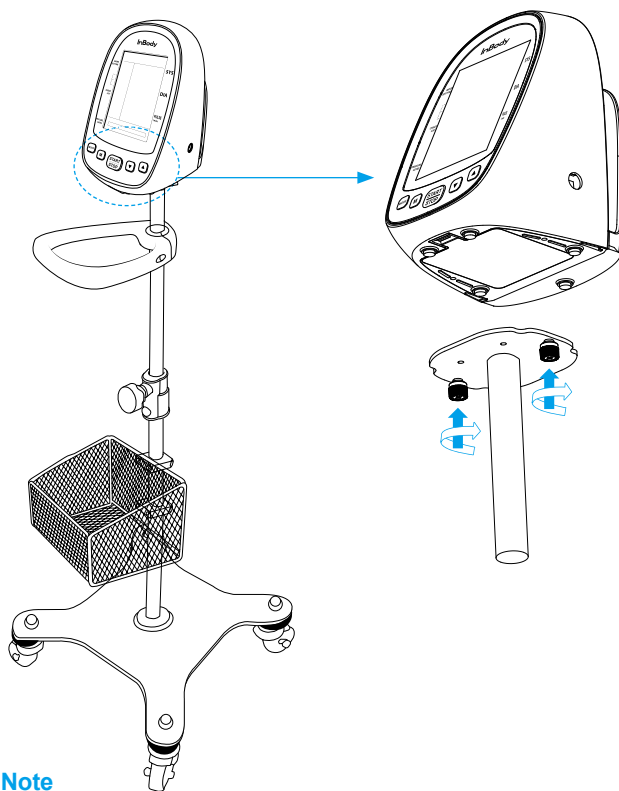
- AA batteries will not be charged even if the AC adapter is plugged in.
- Charge the lithium-ion batteries once a month even if the blood pressure monitor is not being used.

Attention

- Les batteries AA se rechargeront pas même si l'adaptateur CA recommandée est branchée.
- Recharger les batteries au lithium une fois par mois même si le moniteur de tension artérielle n'est pas utilisé.

(8) Cart (optional) assembly

- The main device can be secured on the cart.
- It allows you to move the device around conveniently.
- The cart has a basket so you can store various size cuffs
- You can secure the BPBIO250 by placing it on the platform (top of the cart) and tightening the anchor bolts



Note

- Make sure to insert the lithium-ion batteries before securing the device to the cart.
- Two anchor bolts for assembly are pre-installed
- Please check the assembly manual for more details.

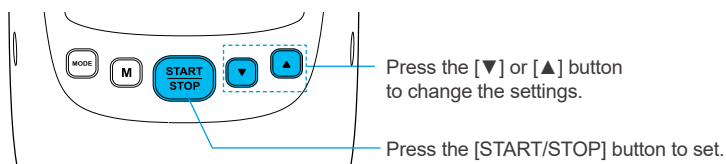
Remarque

- Assurez-vous que la pile au lithium est bien insérée avant de la sécuriser au support mobile.
- Deux (2) boulons d'ancrage aux fins d'assemblage sont préinstallés.
- Veuillez consulter le manuel d'assemblage pour plus de détails.

D. User Settings

1. User setting mode

- Press and hold the [MODE] button for three seconds to set the measurement mode and function.
- The settings (F01 ~ F08) are displayed.
- Press the [▼] or [▲] button to change the settings and press the [START/STOP] button to set it.
- Press and hold the [MODE] button for three seconds again to exit the User Setup screen.



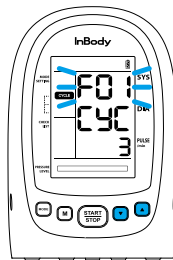
(1) Summary of user settings

Setting Items	Display	Description	Remarks
F01	CYC	Setting number of repeated measurements in the CYCLE (RANGE, HIDE) Mode	1 to 6 times
F02	Int	Setting the standby time in the CYCLE (RANGE, HIDE) Mode	10, 30, 60, 90, 120 seconds
F03	S-H	Setting the systolic blood pressure range in the CYCLE RANGE Mode	Setting maximum and minimum value
F04	d-H	Setting the diastolic blood pressure range in the CYCLE RANGE Mode	Setting maximum and minimum value
F05	Sound	Setting sound ON / OFF	
F06	Clr	Deleting saved results	
F07	-	Setting date and time	
F08	SPd	Setting Fast / Slow precision measurement	

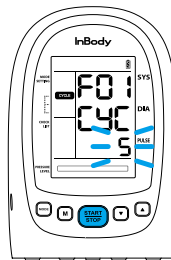
(2) F01: Setting the number of repeated measurement

- The number of repeated measurements can be set in the CYCLE (RANGE, HIDE) mode.

- 1 Press and hold the [MODE] button for three seconds to enter the User Setting Mode.
- 2 Press the [▼] or [▲] button to set **F01**.
- 3 Press the [START/STOP] button to switch to the repeat count setting.
- 4 Press the [▼] or [▲] button to select the number of measurements.
- 5 When the selection is completed, press the [START/STOP] button to complete the settings.
- 6 After the setting is completed, press and hold the [MODE] button for three seconds, and return to the previous screen.



F01 Screen Setting



Setting Repeat Count

 Note

- To access the settings directly, press the [▼] or [▲] buttons.
- The number of measurements can be set from 1 to 6 times.

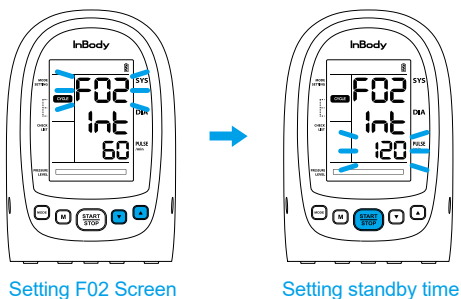
 Remarque

- Appuyer le bouton [▼] ou [▲] rapidement pour changer les paramètres.
- Le temps de veille peut être défini à 1 à 6 fois.

(3) F02: Setting the standby time

- The standby time between the repeated measurements can be set in the CYCLE (RANGE, HIDE) Mode.

- 1 Press and hold the [MODE] button for three seconds to enter the user settings mode screen.
- 2 Press the [▼] or [▲] button to set **F02**.
- 3 Press the [START/STOP] button to enter the standby time setting.
- 4 Press the [▼] or [▲] button to select the standby time.
- 5 When the selection is completed, press the [START/STOP] button to complete the setting.
- 6 After setting is completed, press and hold the [MODE] button for three seconds, and return to the previous screen.



Note

- Press and hold [▼] or [▲] button to quickly change the setting.
- Standby time can be set from 10, 30, 60, 90, 120 Seconds.

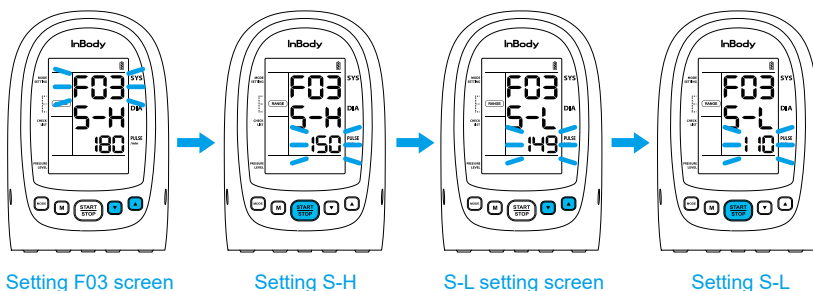
Remarque

- Appuyer le bouton [▼] ou [▲] rapidement pour changer les paramètres.
- Le temps de veille peut être défini à 10, 30, 60, 90, 120 Seconds.

(4) F03: Setting the systolic blood pressure range

- The systolic blood pressure range can be set in the CYCLE RANGE mode.

- 1 Press and hold the [MODE] button for three seconds to enter user settings.
- 2 Press the [▼] or [▲] button to set **F03**.
- 3 Press the [START/STOP] button to enter the maximum value (S-H) for systolic blood pressure range settings.
- 4 Press the [▼] or [▲] button to select the maximum value for systolic blood pressure range.
- 5 When the selection is completed, press the [START/STOP] button to complete the setting.
- 6 Set to minimum value for the systolic blood pressure range.
Press the [▼] or [▲] button to select the minimum value (S-L) for systolic blood pressure range.
- 7 When the selection is completed, press the [START/STOP] button to complete the setting.
- 8 After setting is completed, press and hold the [MODE] button for three seconds, and return to the previous screen.



 Note

- Press and hold [▼] or [▲] button to quickly change the settings.
- The minimum value (S-L) can be set after setting the maximum value (S-H).
- S-H can be set to '1 to 300' and S-L can be set to '0 to S-H'.

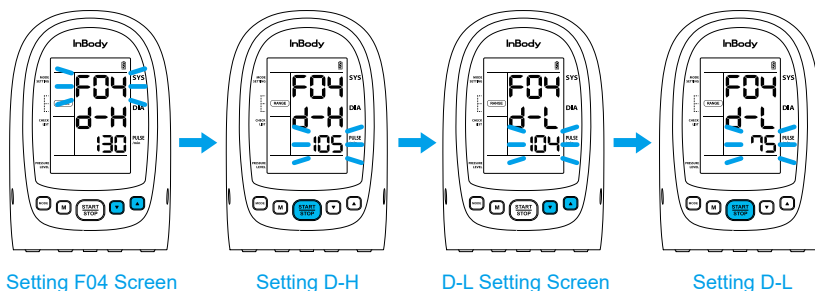
 Remarque

- Appuyer le bouton [▼] ou [▲] rapidement pour changer les paramètres.
- La valeur minimale (S-L) doit être définie après avoir défini la valeur maximale (S-H).
- S-H peut être défini de "1 à 300", et S-L peut être défini de "0 - S-H".

(5) F04: Setting the diastolic blood pressure range

- The diastolic blood pressure range can be set in the CYCLE RANGE mode.

- 1 Press and hold the [MODE] button for three seconds to enter user settings mode screen.
- 2 Press the [▼] or [▲] button to set **F04**.
- 3 Press the [START/STOP] button to enter the maximum value (d-H) for diastolic blood pressure range settings.
- 4 Press the [▼] or [▲] button to select the maximum value for diastolic blood pressure range.
- 5 When the selection is completed, press the [START/STOP] button to complete the setting.
- 6 Set to minimum value for the diastolic blood pressure range.
Press the [▼] or [▲] button to select the minimum value (d-L) for diastolic blood pressure range.
- 7 When the selection is completed, press the [START/STOP] button to complete the setting.
- 8 After setting is completed, press and hold the [MODE] button for three seconds, and return to the previous screen.



 Note

- Press and hold [▼] or [▲] button to quickly change the settings.
- The minimum value (d-L) can be set after setting the maximum value (d-H).
- d-H can be set to '1 to 300' and d-L can be set to '0 to d-H'.

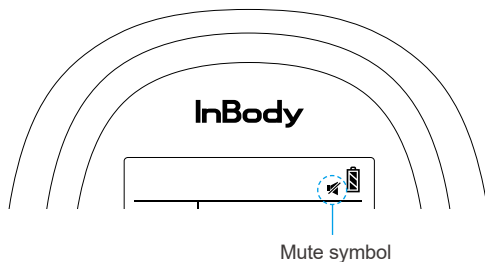
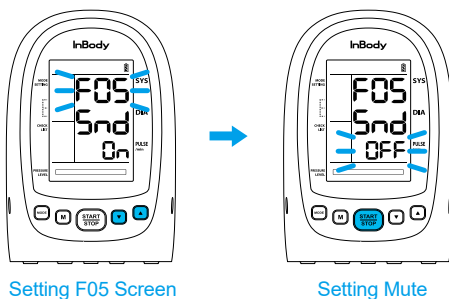
 Remarque

- Appuyer sur le bouton [▼] ou [▲] et le maintenir enfoncé pour changer rapidement les paramètres.
- La valeur minimale (d-L) pourra être définie après avoir défini la valeur maximale (d-H).
- La valeur d-H peut être paramétrée de 1 à 300; la valeur d-L de 0 à la valeur d-H paramétrée.

(6) F05: Mute

- If the user doesn't want the sound, it can be muted.

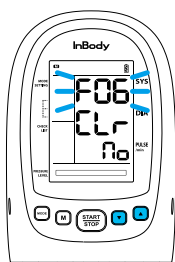
- 1 Press and hold the [MODE] button for three seconds to enter under settings.
- 2 Press the [▼] or [▲] button to set **F05**.
- 3 Press the [START/STOP] button to enter the sound settings.
- 4 Press the [▼] or [▲] button to select the sound ON/OFF.
- 5 When the selection is completed, press the [START/STOP] button to complete the setting.
- 6 After setting is completed, press and hold the [MODE] button for three seconds, and return to the previous screen.



(7) F06: Deleting memory

- The saved blood pressure measurement can be deleted.

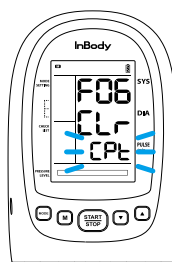
- 1 Press and hold the [MODE] button for three seconds to enter user settings.
- 2 Press the [▼] or [▲] button to set **F06**.
- 3 Press the [START/STOP] button to enter the delete settings.
- 4 Press the [▼] or [▲] button to select the NO or YES.
- 5 When the selection is completed, press the [START/STOP] button to start deleting the memories.
- 6 "CPT" appears in the pulse column and the memory deletion is completed.
- 7 After setting is completed, press and hold the [MODE] button for three seconds, and return to the previous screen.



Setting F06 Screen



Selecting memory deleting

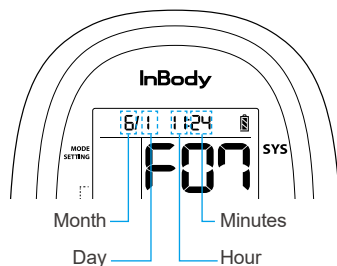
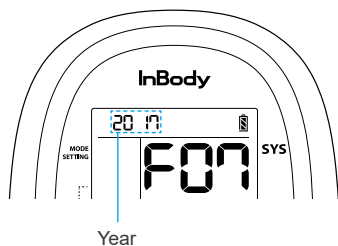


Memory deleting completed

(8) F07: Setting date and time

- The user can set the date and time.

- 1 Press and hold the [MODE] button for three seconds to enter user settings.
- 2 Press the [▼] or [▲] button to set **F07**.
- 3 Press the [START/STOP] button to enter the date and time settings.
- 4 Set the clock in the order of year, month, day, hour and minute.
(The number being set flashes.)
- 5 Press the [▼] or [▲] button to specify the year, and press the [START/STOP] button to save the settings.
- 6 Set the month, day, hour, and minute in the same way.
- 7 After setting is completed, press and hold the [MODE] button for three seconds, and return to the previous screen.



 Caution

- For a correct blood pressure management, please set date and time first, and then use the blood pressure monitor.
- When the batteries are replaced, the clock is reset.

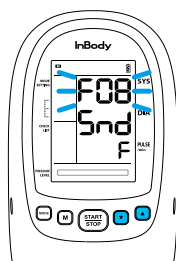
 Attention

- Pour une gestion adéquate de la tension artérielle, bien vouloir définir la date et le temps d'abord, avant d'utiliser le moniteur de tension artérielle.
- Lorsque les batteries sont remplacées, l'horloge se réinitialise.

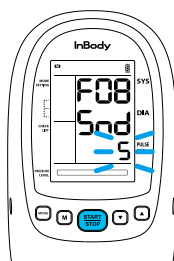
(9) F08 : Setting Fast / Slow precision measurement

- Slow precision measurement mode ensures the measured results even if there was a disturbance such as the movement of a patient. But, the measurement speed will be slower than the fast measurement mode.

- 1 Press and hold the [MODE] button for three seconds to enter user settings.
- 2 Press the [▼] or [▲] button to set **F08**.
- 3 Press the [START/STOP] button to enter the Fast / Slow precision settings.
- 4 Press the [▼] or [▲] button to select the F(Fast measurement mode), S(Slow Precision measurement mode).
- 5 After setting is completed, press and hold the [MODE] button for three seconds, and return to the previous screen.



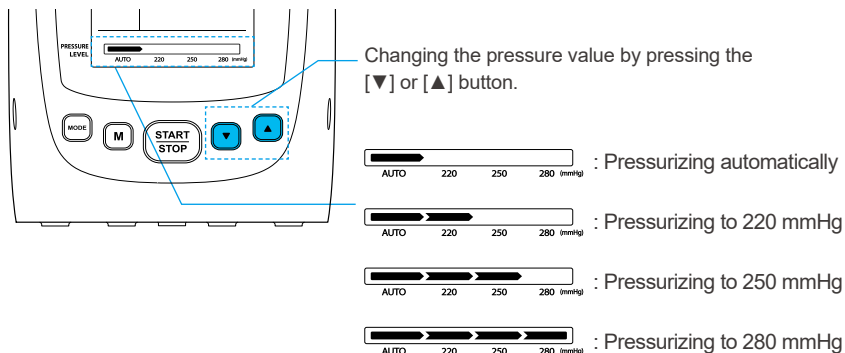
Setting F08 Screen



Changing measurement mode

2. Pressurization value setting

- The user can set the desired pressure value by pressing the [▼] or [▲] button before measuring blood pressure.
- The pressure value can be set from Auto, 220, 250 or 280.



Caution

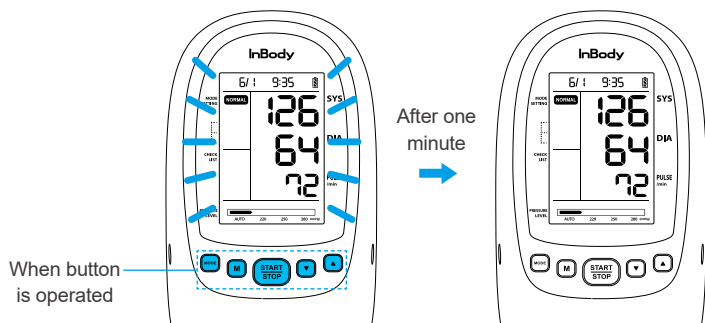
- Do not pressurize more than necessary.
- Pressurizing more than necessary may cause pain.

Attention

- *Ne pas pressuriser plus que nécessaire.*
- *Pressuriser plus que nécessaire peut causer des douleurs.*

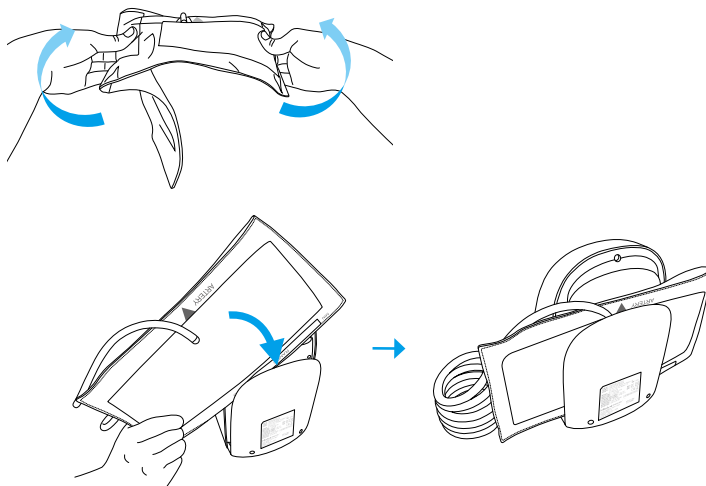
3. LCD back-light

- The LCD back-light function allows the user to measure blood pressure even in dark conditions.
- The LCD back-light turns on automatically by pressing buttons.
- The LCD back-light turns off after one minute when buttons are not operated.



E. Precautions for Maintenance

- (1) Always maintain the blood pressure monitor in a clean state.
- (2) Wipe the stains on the main unit with a smooth and lint-free cloth.
- (3) Unfold the one-touch cuff and keep it in the cuff rack.



Note

- To unfold the cuff, hold the both sides of the cuff and stretch them in the opposite direction that the cuff winds.
- If the cuff is contaminated and can no longer be used, please replace with a new cuff.
- Please contact Product Support to purchase the cuff.

Remarque

- Pour déplier le brassard aux extrémités et étirez-les dans le sens contraire de l'enroulement.
- Si le brassard est contaminé, et qu'il ne peut plus être utilisé, veuillez le remplacer par un nouveau brassard.
- Communiquez avec le représentant InBody de votre région pour vous procurer des brassards additionnels.

Caution

- Keep the blood pressure monitor away from water, heat, humidity, direct sunlight, dust, bleach or corrosive gas.
 - Do not store blood pressure monitor in a place subject to vibration or impact.
 - Do not store blood pressure monitor in a place that is easily accessible to the patient.
 - Do not use volatile liquids, benzene thinner, etc. when cleaning the main unit or cuff.
 - Cuffs cannot be washed. Be careful not to expose the cuff to water.
 - Do not bend or press the cuff with force. Otherwise, the cuff may be damaged.
 - Do not operate the blood pressure monitor with the cuff in the cuff rack.
- Otherwise, the blood pressure monitor may be damaged.
- Use UV sterilizer to disinfect the cuff.

Attention

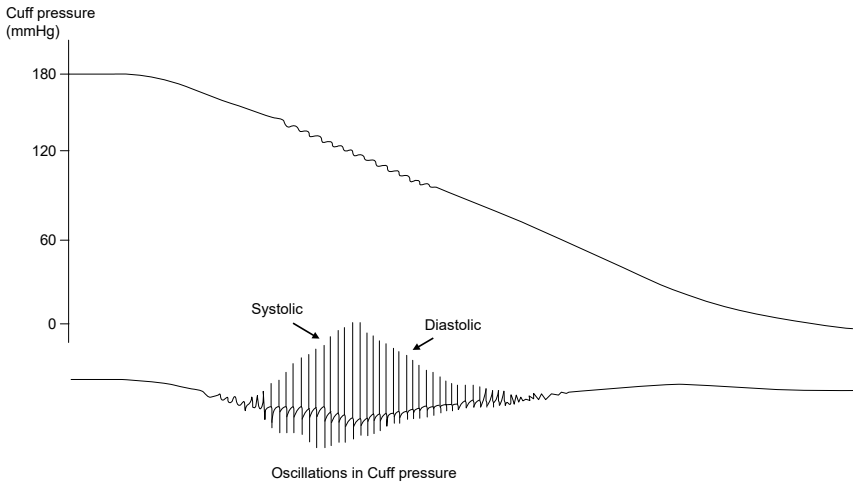
- *Gardez le moniteur de pression artérielle à l'écart de l'eau, l'humidité, lumière directe, poussière, javellisant, émission de gaz, etc.*
- *N'entrez pas l'appareil dans un endroit sujet aux vibrations ou impacts.*
- *N'entrez pas l'appareil dans un endroit facilement accessible aux patients.*
- *Lors du nettoyage, n'utilisez pas de liquide volatil ni de dissolvant à base de benzène.*
- *Les brassards ne peuvent pas être lavés, veuillez les tenir à l'écart de l'eau.*
- *Ne pliez pas et n'appuyez pas fortement sur les brassards, cela pourrait les endommager.*
- *N'utilisez pas l'appareil lorsque le brassard est placé dans le support à cet effet, cela pourrait endommager l'appareil.*
- *Utilisez un stérilisateur UV pour désinfecter le brassard.*

II. Blood Pressure Measurement

A. Non-invasive Blood Pressure (NIBP)

Oscillometric method

Blood pressure is a measurement of changes in the pressure on the blood vessels. Blood pressure can be measured by direct or indirect measurement. This equipment supports indirect measurement using a cuff. This equipment tracks and analyzes the blood flow oscillations under the pressure using the cuff from the highest to the lowest pressure as shown by the figure below when the minute pressure speed is determined by the heartbeat. This equipment adopts oscillometric method using a cuff for blood pressure measurement. It determines the systolic, diastolic and average pressure on the basis of the blood flow oscillations measured through the cuff. The point where the maximum amplitude of the blood flow oscillation appeared is the average pressure, the points where the 70% and 60% amplitudes appeared are the systolic and the diastolic pressure respectively.



B. Precautions Before Measurement



Warning

1. Do not use blood pressure monitor near Magnetic Resonance Imaging (MRI) equipment.
2. Do not use the blood pressure monitor near the equipment that generates noise, such as equipment which uses frequencies or electric scalpel. Otherwise, it may cause failure and malfunction.
3. Do not use blood pressure monitor together with the defibrillator. Otherwise, it may cause an electric shock.
4. Do not use blood pressure monitor together with the high pressure oxygen therapy equipment.
5. Do not use blood pressure monitor at the same time with other medical devices or electronic devices.
6. Do not use blood pressure monitor near radios or mobile phone.
7. Do not use blood pressure monitor in an environment where flammable gas is generated or chemicals are stored.
8. Do not use blood pressure monitor in an environment where there is moisture or risk of gas or flame.
9. Do not use blood pressure monitor in an unstable environment such as area with vibration such as an emergency helicopter or an ambulance.
10. This device has not been validated for use on pregnant woman or infants.
11. Sanitize the cuffs when used in patients with skin disorders.
12. Check the condition of a mastectomy patient if the blood pressure monitor was used.
13. Check the condition of the patient regularly if the patient needs to use the cuff for a long time.
14. Do not measure blood pressure on the arm that is on intravenous injection, transfusing, or dialysis.
15. Do not measure blood pressure on the arm attached to a catheter, oxygen saturation concentration (SpO2) sensor, or other equipments.
16. If the measured readings seem inaccurate due to any reason, check the patient's blood pressure by using the palpatory method or the auscultatory method.
17. Measured results can only be interpreted by experienced healthcare professionals and cannot be used for diagnosis, medication or other treatment performed at the consumer's discretion without a prescription.
18. Do not connect multiple blood pressure monitors simultaneously on one patient.
19. Do not move the main unit by holding the AC adapter or cuff. There is a danger of device falling to the patient if a cable or cuff is removed from the main unit.
20. Do not allow strong impact to the main unit. Otherwise, it may cause failure and malfunction.
21. There is a possibility of death due to injury or suffocation if the air tube is wrapped around the neck.

Avertissement

1. *Ne pas utiliser le moniteur de tension artérielle près d'un équipement d'imagerie à résonance magnétique (IRM).*
2. *Ne pas utiliser le moniteur de tension artérielle près d'un équipement qui génère du bruit, tels que les équipements qui utilisent des fréquences ou un bistouri électrique. Sinon, il peut tomber en panne ou ne pas fonctionner.*
3. *Ne pas utiliser le moniteur de tension artérielle en même temps qu'un défibrillateur. Sinon, il peut causer une électrocution. Sinon, il peut tomber en panne ou ne pas fonctionner.*
4. *Ne pas utiliser le moniteur de tension artérielle en même temps qu'un équipement de thérapie d'oxygène à haute pression.*
5. *Ne pas utiliser le moniteur de tension artérielle en même temps que d'autres appareils électroniques ou médicaux.*
6. *Ne pas utiliser le moniteur de tension artérielle près d'une radio ou d'un téléphone mobile.*
7. *Ne pas utiliser le moniteur de tension artérielle dans un environnement où du gaz inflammable s'échappe ou des produits chimiques sont stockés.*
8. *Ne pas utiliser le moniteur de tension artérielle dans un environnement où il y a de l'humidité ou un risque de gaz ou de flamme.*
9. *Ne pas utiliser le moniteur de tension artérielle dans un environnement instable sujet à des vibrations tels qu'un hélicoptère d'urgence ou une ambulance.*
10. *Ne pas utiliser le moniteur de tension artérielle pour un nouveau né ou une femme enceinte.
La valeur mesurée peut être incorrecte.*
11. *Désinfecter les manchettes lorsqu'elles sont utilisées pour des patients ayant des problèmes cutanés.*
12. *Vérifier l'état d'un patient ayant subi une mastectomie si le moniteur de tension artérielle est utilisé.*
13. *Vérifier l'état du patient régulièrement si le patient a besoin d'utiliser la manchette pendant un long moment.*
14. *Ne pas prendre de mesure de tension artérielle sur un bras qui reçoit une injection intraveineuse, une transfusion ou une dialyse.*
15. *Ne pas prendre de mesure de tension artérielle sur un bras qui est attaché à un cathéter, à une détecteur de concentration de saturation d'oxygène (SpO2) ou à d'autres appareils.*
16. *Le résultat de la mesure pourrait être erroné pour plusieurs raisons, vérifier la tension artérielle du patient en utilisant une méthode facilitatrice ou la méthode auscultatoire. L'état du patient peut se détériorer.*
17. *Les résultats mesurés ne peuvent être interprétés que par un professionnel de santé expérimenté, et ne peuvent être utilisés pour un diagnostic, une prescription ou un traitement par le client sans aucune prescription médicale.*
18. *Ne pas connecter plusieurs moniteurs de tension artérielle sur un patient au même moment.*
19. *Ne pas déplacer l'unité principale en tenant l'adaptateur CA ou la manchette. Il y a un risque que l'unité principale ne tombe sur le patient si le câble ou la manchette se détache.*
20. *Ne pas donner des coups à l'unité principale. Sinon, il peut tomber en panne ou ne pas fonctionner.*
21. *Il y a risque de mort par blessure ou par suffocation si le tube à air s'attache autour du cou.*

 Caution

1. Do not use the blood pressure monitor without wrapping the cuff on the arm.
2. Do not use or store the blood pressure monitor in an environment where the cuff and the air tube are pressed by heavy objects or the cuff and the air tube can be pressed.
3. Please note that the cuff and air tube can be damaged by a sharp object.
4. Excessive repeated measurements may cause temporary internal bleeding (bruising) due to the compression.
5. Take a sufficient amount of resting for at least five minutes before taking the measurement.
6. Excessively high or low temperatures, humidity and pressure may affect the operation of the equipment and may cause malfunction. Use blood pressure monitor within the range specified in the product specifications.
7. Measured values may be inaccurate in the following cases. Check the following list before using the device:
 - A patient with arrhythmia
 - A patient with aortic disease
 - A patient with tremor
 - A patient using artificial heart or artificial lung
 - A patient whose body temperature is significantly low or whose circulation is poor
 - When the other equipments are attached to the arm to which the cuff is wrapped
 - When an improperly sized cuff is wrapped around the arm
 - When measuring blood pressure while wearing thick clothes
 - When measuring blood pressure with sleeves rolled up
 - When talking or moving during the measurement
 - When the position of the cuff is lower or higher than the heart
8. Do not use blood pressure monitor in a place where the main unit can fall easily.
9. If blood pressure monitor was not used for a long time, always test before use.
10. Do not disassemble or modify the equipment.
11. Use only the cuff provided for BPBIO250 for accurate measurements.
12. Keep away from children and infants.
13. Stop the measurement immediately when the patient feels severe pain during the measurement or feels an abnormality.
14. Packing material and other wastes should be disposed according to the relevant laws and regulations.
15. Repair and inspection can be done only by the authorized staff of InBody. For repair and inspection, please contact Product Support.
16. Operation of a radio equipment may interfere with the measurement.
17. Please note the following when using the Bluetooth function of BPBIO250.
 - This product is compatible with Android 4.3(Jellybean) with BLE or newer and iPhone 4S/iOS7 or newer.
 - Connect only the devices or programs provided by InBody.

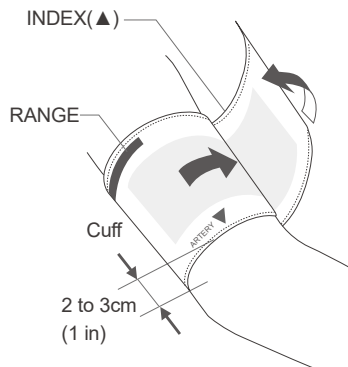
Attention

1. Ne pas utiliser le moniteur de tension artérielle sans avoir attaché la manchette sur le bras.
2. Ne pas utiliser ou conserver le moniteur de tension artérielle dans un environnement où la manchette ou le tube à air sont pliés ou écrasés par de lourds objets.
3. Bien vouloir noter que le tube à air et la manchette peuvent être endommagés par une morsure profonde.
4. Des prises de mesure répétitives et excessives pourraient causer une hémorragie interne temporaire (égratignure) dû à la compression.
5. Prendre suffisamment de repos pendant au moins 5 minutes avant de prendre la mesure.
6. Des températures excessivement hautes ou basses, l'humidité et la pression peuvent affecter le fonctionnement de l'appareil et l'endommager. Utiliser le moniteur de tension artérielle dans le cadre spécifié dans les spécifications du produit.
7. Les valeurs mesurées peuvent être inexactes dans les cas suivants. Vérifier la liste suivante avant d'utiliser l'appareil.
 - Un patient ayant une arythmie
 - Un patient ayant une maladie de l'aorte
 - Un patient ayant des tremblements
 - Un patient qui utilise un cœur artificiel ou un poumon artificiel.
 - Un patient dont la température corporelle est très basse ou dont la circulation sanguine est faible.
 - Quand d'autres équipements sont fixés au bras où la manchette est attachée.
 - Quand la manchette est trop grosse pour le bras.
 - Lorsque la tension artérielle est mesurée au-dessus de vêtements épais.
 - Lorsque la tension artérielle est mesurée avec des manches roulées.
 - Lorsque vous marchez ou bougez pendant la prise.
 - Quand la position de la manchette est plus basse ou plus haute que le cœur.
8. Ne pas utiliser le moniteur de tension artérielle dans un lieu où l'unité principale peut facilement tomber.
9. Si le moniteur de tension artérielle n'a pas été utilisé pendant un long moment, toujours faire un test avant utilisation.
10. Ne pas démonter ou modifier l'équipement.
11. Utiliser uniquement la manchette indiquée pour des mesures exactes.
12. Maintenir à distance des enfants ou des nourrissons.
13. Arrêter la prise de mesure immédiatement si le patient ressent une douleur pendant la mesure ou se sent mal.
14. Les emballages et les autres déchets doivent être débarrassés selon les lois et réglementations en vigueur.
15. Les réparations et l'inspection peuvent être réalisées uniquement par le personnel autorisé de InBody Co., Ltd. Pour des réparations et l'inspection, bien vouloir contacter Inbody.
16. Le fonctionnement d'un équipement radio pourrait interférer avec la prise de mesure.
17. Bien vouloir noter les informations suivantes lors de l'utilisation de la fonction Bluetooth du BPBIO250.
 - Ce produit est compatible avec un Android 4.3 (Jellybean) avec BLE ou plus récent ou un iPhone 4S/iOS7 ou plus récent.
 - Connecter uniquement les appareils ou les programmes fournis par InBody.

C. Blood Pressure Measurement

(1) Wearing the cuff

- 1 Wrap the cuff around the arm, about 2 to 3cm (1 inch) above the elbow.
- 2 Make sure that the index mark (▲) on the cuff is located within the RANGE bar, and replace the cuff with the proper size if the index deviates from the RANGE.
- 3 Place the cuff so that the artery mark (▼) is located right on the artery.
- 4 Tighten the cuff so that you can fit one finger in between the cuff and the arm.



Caution

- For correct measurement, wrap the cuff properly.
- If the cuff is loosely wrapped, the result can be inaccurate.
- If there is a wound in the arm, follow doctor's instructions.



Attention

- Pour une mesure correcte, porter la manchette convenablement.
- Si la manchette n'est pas assez serrée, la mesure pourrait être incorrecte.
- Si vous avez une blessure sur le bras, bien vouloir suivre les instructions du médecin.



Note

- The cuff provided as one of the basic components is the M-size cuff, which is appropriate for measuring arm of 22 to 32 cm (9 to 13in) in circumference.
If arm circumference is bigger or smaller, use the L-size 32 to 42cm (13 to 17 in) or S-size 17 to 22cm (7 to 9 in) cuffs.

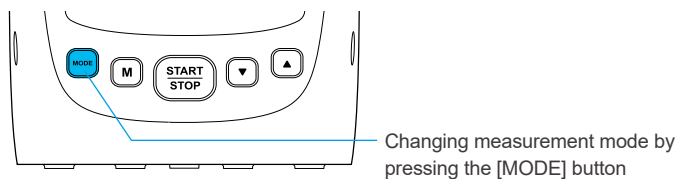


Remarque

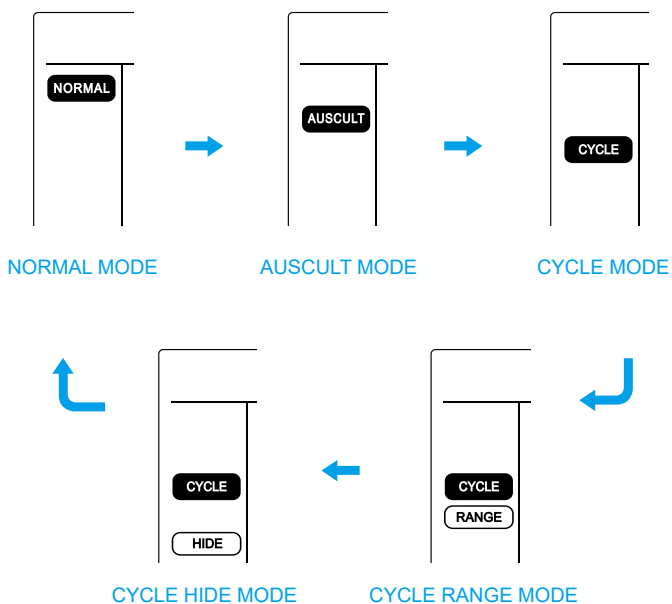
- La manchette fournie est de taille M. Elle convient au bras dont la circonférence varie entre 22 et 32cm. Si la circonférence du bras est plus large ou plus petite, utiliser la taille (L -32 et 42 cm) ou la taille (S -17 et 22 cm).

(2) Changing the Measurement Mode

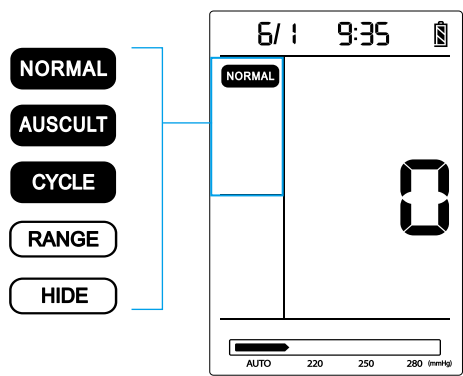
- Measurement mode can be changed by pressing the [MODE] button.



- Measurement mode changes in sequence: NORMAL → AUSCULT → CYCLE → CYCLE RANGE → CYCLE HIDE → NORMAL.



- Five measurement modes of the BPBIO250 can be selected according to various medical environments.
- The measurement mode can be checked in the upper left corner of the LCD screen.



- Each measurement mode can be used in the following situations.

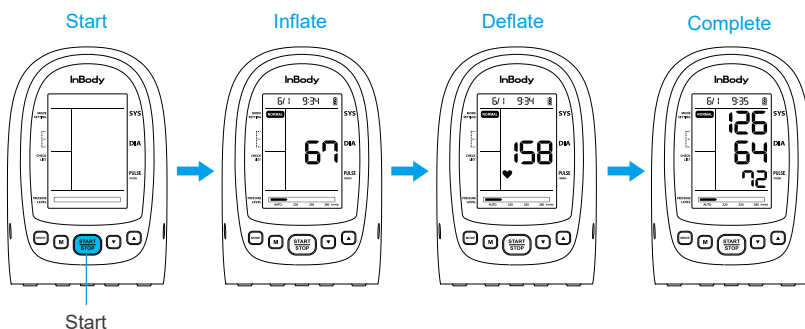
Measurement	Icon display	Description
NORMAL mode	NORMAL	Automatic one-time measurement using the general measurement mode.
AUSCULT mode	AUSCULT	Auscultatory method (manual) one-time measurement Used for manual blood pressure measurement with the use of a stethoscope
CYCLE mode	CYCLE	Measurement on automatic repeat from 1 to 6 times. Used for several repeated blood pressure tests
CYCLE RANGE mode	CYCLE RANGE	Measurement on automatic repeat + Able to set the range (RANGE function: The test results outside the set range can be checked in the MEMORY Mode.)
CYCLE HIDE mode	CYCLE HIDE	Measurement on repeat + Able to hide the results (HIDE function: The results are not shown on the screen in order to eliminate psychological factors that could affect blood pressure. The results can be checked in the MEMORY Mode.)

* NORMAL Mode

- NORMAL Mode is used for normal blood pressure measurement.

<Measurement Order>

- 1 Make sure that the cuff is correctly worn and the measurement posture is correct again.
- 2 Press the [START/STOP] button of the blood pressure monitor to start blood pressure measurement.
- 3 The BPBIO250 begins to inflate the cuff, and when it reaches a certain pressure point, it slowly deflates the cuff and measures the blood pressure.
- 4 When the measurement is completed, the blood pressure is displayed on the screen and is automatically saved.



⚠ Caution

- Do not talk or move during the measurement.
 - During the measurement, look at the patient's condition near the patient.
- If the user feels pain or has problems during the measurement, press the [START/STOP] button. If problem still occurs, remove the air tube from the device or cuff from the arm.

⚠ Attention

- Ne pas parler ou bouger pendant la mesure.
 - Pendant la mesure, observer l'état du patient.
- Ne pas parler ou bouger pendant la mesure. Si l'utilisateur a mal ou rencontre tout autre problème pendant la mesure, appuyer sur le bouton [Arrêt / Marche]. Si le problème persiste, enlever le tube à air ou la manchette du bras.

📖 Note

- Month / Day Hour: Minute is displayed only when date and time are set.
- For more information on how to set the date and time, refer to "D. User Settings".

📖 Remarque

- Mois / Jour Heure : La minute s'affiche uniquement lorsque la date et l'heure s'affiche.
- Pour plus d'informations, sur comment déterminer la date et l'heure, se référer à D. Paramètres Utilisateur.

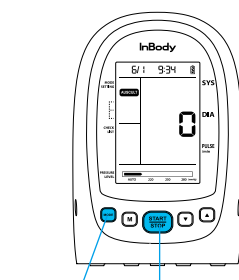
* AUSCULT Mode

- This mode is used when measuring blood pressure with stethoscope.
- This mode can replace aneroid or mercury blood pressure monitor.
- The systolic and diastolic blood pressure can be recorded through marking during the deflation.
- Manual pressurization is possible during the deflation.

<Measurement Order>

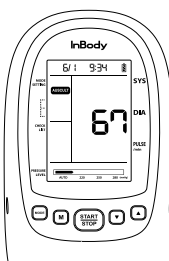
- 1 Check once again, whether the cuff is properly worn and whether the measurement posture is proper.
- 2 Place the stethoscope on the brachial artery.
- 3 Set to AUSCULT mode by pressing the [MODE] button.
- 4 Press the [START/STOP] button to start the blood pressure measurement.
- 5 When the pressure reaches to a certain level, the cuff will begin to slowly deflate.
- 6 Listen to the auscultation sound during exhaust and press the [M] button to mark the systolic and diastolic blood pressure.
- 7 After measurement, the result is displayed and saved automatically.

Setting and starting mode



Setting mode Start

Inflate

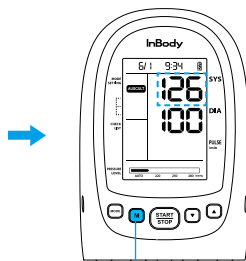


Deflate

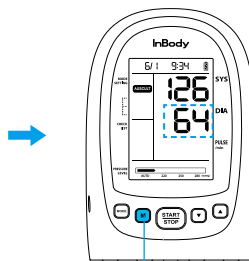


Mark systolic
blood pressure

Measurement complete
after displaying
the diastolic blood pressure



Marking



Marking

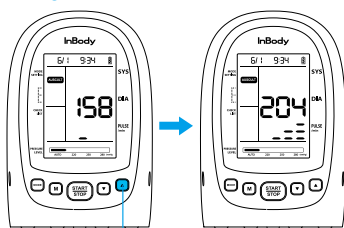
Note

- The month, day, hour and minute are displayed only when the date and time are set.
- For more information on how to set the date and time, refer to "D. User Settings".
- AUSCULT mode does not automatically measure blood pressure.
- AUSCULT mode does not detect heartbeats.
- In AUSCULT mode, pulse is not displayed.
- In AUSCULT mode, motion and irregular pulse rates are not detected.
- If no marking is performed, the measurement is automatically terminated at a certain pressure or less.

Remarque

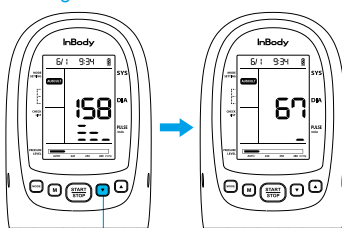
- Le mois, le jour, l'heure et les minutes ne sont affichés que lorsque la date et l'heure sont définies.
 - Pour savoir comment définir la date et l'heure, consultez le menu : "D. Paramètres de l'utilisateur".
 - La pression sanguine n'est pas automatiquement mesurée lorsque l'appareil est réglé au mode AUSCULTATION.
 - Le rythme cardiaque n'est pas détecté lorsque l'appareil est réglé au mode AUSCULTATION.
 - Le pouls n'est pas affiché lorsque l'appareil est réglé au mode AUSCULTATION.
 - Les mouvements cardiaques et le pouls irréguliers ne sont pas détectés lorsque l'appareil est réglé au mode AUSCULTATION.
 - Si aucune base de référence n'est notée (M), la prise de mesure se terminera automatiquement lorsqu'elle atteindra une certaine valeur.
- The AUSCULT mode allows manual pressurization to be performed at the desired pressure during exhaust in case the auscultation sound of the patient cannot be heard.
 - 1 Press and hold the [▲] button during exhaust.
 - 2 The manual pressure indicator is displayed while pressing this button, and the inflation begins.
 - 3 Release the [▲] button after the appropriate pressurization, and the pressure stops.
 - If rapid exhaust is required, manual exhaust is possible to achieve desired pressure.
 - 1 Press and hold the [▼] button during exhaust.
 - 2 The manual pressure indicator is displayed while pressing this button, and rapid exhaust begins.
 - 3 Release the [▼] button after the appropriate pressurization, and the rapid exhaust stops and switch to normal exhaust speed.

During exhaust



Press and hold to start the manual pressurization

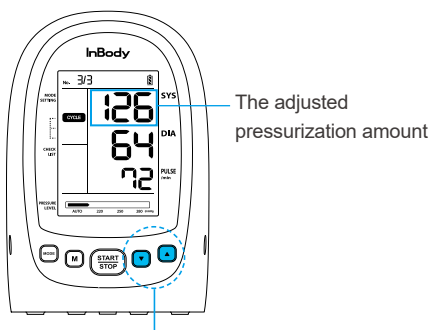
During exhaust



hold to start the rapid exhaust

- If the pressurization range is set to Auto, the amount of pressurization can be adjusted by pressing the [▲], [▼] buttons during the pressurization.

- 1 Press the [▲] or [▼] button during the pressurization.
- 2 The pressurization range you set will be displayed in the place of systolic blood pressure.



Note

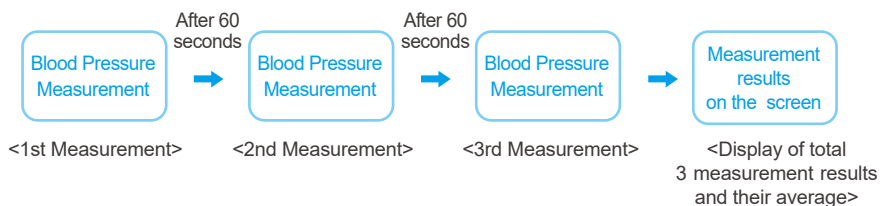
- If pressure exceeds 300 mmHg, the measurement is terminated and an error is displayed.
- Use the manual pressure function while checking the patient's condition. Long term pressurization may cause pains.

Remarque

- Si la tension dépasse les 300 mmHg, la mesure se termine et un message d'erreur s'affiche.
- Utiliser la fonction de prise de tension manuelle pendant que vous vérifiez l'état du patient.
Une pressurisation longue peut provoquer des douleurs.

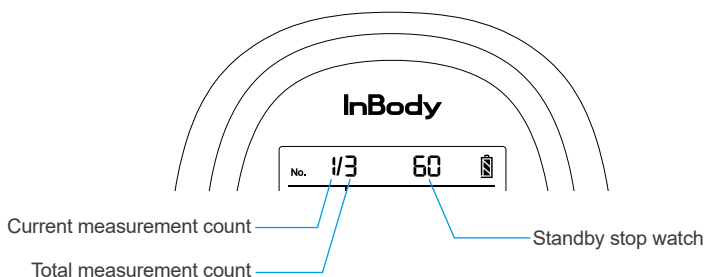
* CYCLE Mode

- In CYCLE mode, the user can measure blood pressure repeatedly.
- The number of measurements and standby time can be set.
- If the measurement count is set to three times and the standby time is set to 60 seconds, the operation in the CYCLE mode will be performed shown below.



<Measurement Order>

- 1 Check once again, whether the cuff is properly worn and whether the measurement posture is proper.
- 2 Set to CYCLE mode by pressing the [MODE] button.
- 3 Press the [START/STOP] button to start the blood pressure measurement.
- 4 The BPBIO250 begins to inflate the cuff, and when it reaches a certain pressure point, it slowly deflates the cuff and measures the blood pressure.
- 5 After measurement, the result is displayed and saved automatically.
- 6 The current number of measurements is changed.
- 7 After the standby time has elapsed, the next measurement starts.

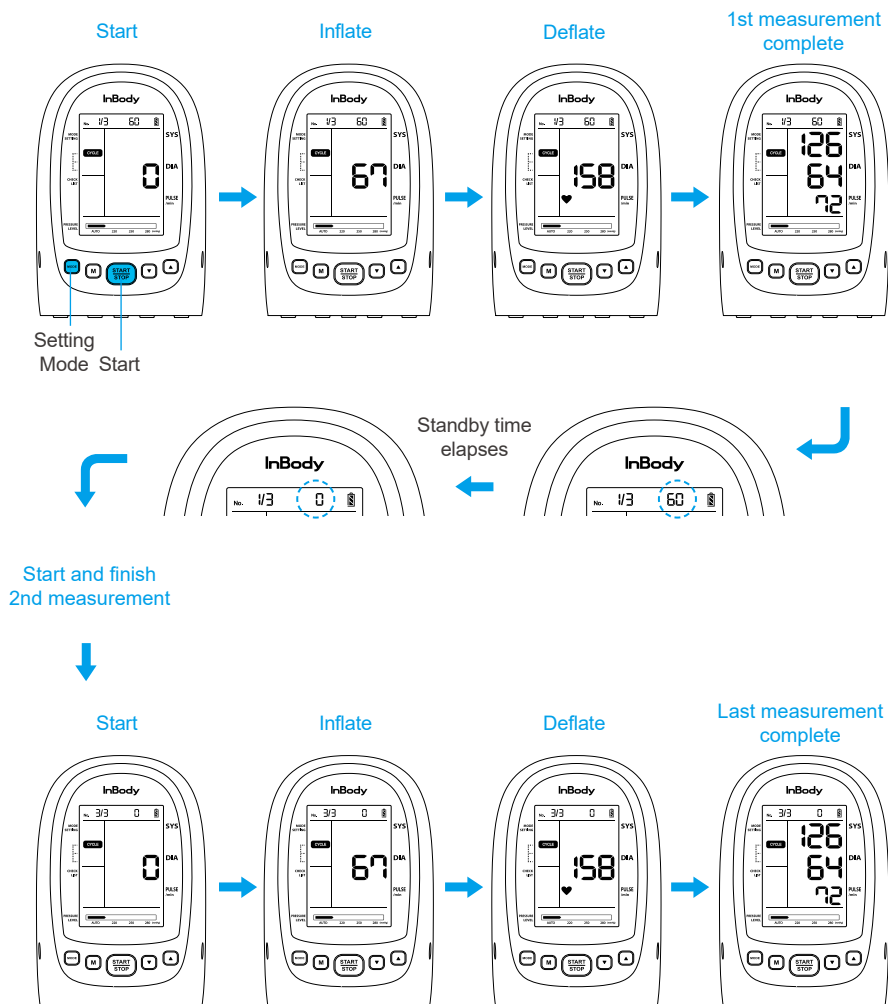


Note

- The current number of measurements / the total number of times and the standby time are shown in date and time display field.
- For more information about how to set the number of measurements and standby time, refer to “D. User Settings” (page 19).
- The measurement date and time can be checked in the MEMORY Mode.

Remarque

- Le nombre actuel de mesure / le nombre total de fois et le temps de veille s'affichent dans la zone de date et heure.
- Pour plus d'informations, sur comment déterminer le nombre de mesure et le temps de veille, se référer à D. Paramètres Utilisateur
- La date et heure de la mesure peut être consultés dans le mode MEMORY.



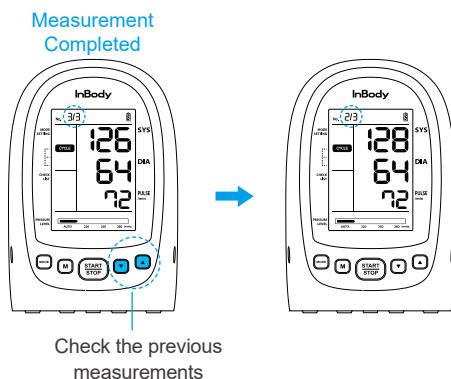
Note

- The next measurement can be started immediately by pressing the [START / STOP] button while the standby time is elapsing.
- All remaining measurements can be canceled during measurement by pressing the [START/STOP] button.

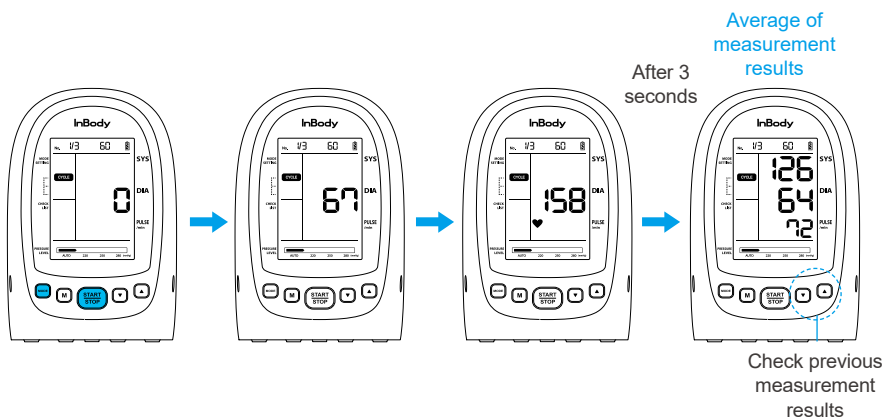
Remarque

- *La prochaine mesure peut commencer immédiatement en appuyant sur le bouton [Arrêt/Marche] pendant que le temps de veille est réduit.*
- *Toutes les mesures restantes seront annulées pendant la mesure en appuyant sur le bouton Arrêt/Marche.*

- In the CYCLE Mode, the previous measurement results can be checked.
- If all measurements are completed for the set number of times, the previous measurement result can be checked by pressing the [▼] or [▲] button.



- The average of measurement results will be shown in the screen three seconds after the last measurement result is shown. Use the [▼] or [▲] button to check the previous results. (The average is not shown in the Memory Mode.)



Note

- The previous measurements can only be checked when all the measurements have been completed for the set number of times.

Remarque

- Les mesures précédentes peuvent être vérifiées uniquement quand le nombre de mesure défini a été entièrement réalisé.

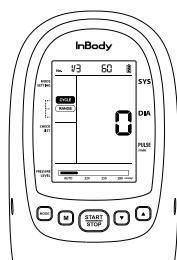
* CYCLE RANGE Mode

- CYCLE RANGE Mode is a mode that uses the range setting function for repeated blood pressure tests. (RANGE function: Set the range for the systolic and diastolic blood pressure, and record whether or not the test result is outside the set range)
- Before the measurement, the set range can be checked on the standby screen.
- The operation of CYCLE RANGE mode is the same as CYCLE mode.
- The measurement results can be recalled in the MEMORY Mode.

<Measurement Order>

- 1 Check once again, whether the cuff is properly worn and whether the measurement posture is proper.
- 2 Set to CYCLE mode by pressing the [MODE] button.
- 3 Press the [START/STOP] button to start the blood pressure measurement.
- 4 When pressurization starts and the pressure reaches to a certain level, the measurement begins while air is exhausting slowly.
- 5 When the measurement is completed, the blood pressure is displayed on the screen and is automatically saved.
- 6 The current number of measurements changes.
- 7 After the standby time has elapsed, the next blood pressure measurement starts.

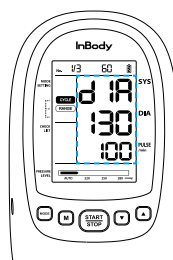
[Measurement-standby screen]



Show current pressure



Show systolic pressure
RANGE (160-180)



Show diastolic pressure
RANGE(100-130)

Note

- The RANGE value and the current pressure value will alternate on the screen.
- The current number of measurements / the total number of measurements and the standby time are displayed in date and time display field.
For more information on how to set the number of measurements, standby time, and RANGE, refer to “D. User Settings”(page 19).
- The previous measurement can be checked by pressing the [▼] or [▲] button after all measurements are completed.

Remarque

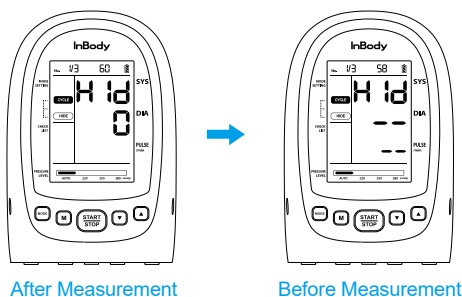
- *La valeur de la GAMME et la valeur actuelle de la tension peuvent s'afficher sur l'écran alternativement.*
- *Le nombre actuel de mesure / le nombre total de fois et le temps de veille s'affichent dans la zone de date et heure.*
Pour plus d'informations, sur comment déterminer le nombre de mesure et le temps de veille, se référer à D. Paramètres Utilisateur
- *La mesure précédente peut être vérifiée en appuyant su le bouton [▼] or [▲] après que toutes les mesures soient prises.*

* CYCLE HIDE Mode

- In the CYCLE HIDE mode, the user can measure the patient's blood pressure repeatedly and also hide the measured results from the screen.
(HIDE function: It does not display measurements on the screen.)
- The measurement operation is the same as the CYCLE mode.
- The measurement result can be checked in the MEMORY mode after the measurement is completed.

<Measurement Order>

- 1 Check once again, whether the cuff is properly worn and whether the measurement posture is proper.
- 2 Set to CYCLE HIDE mode by pressing the [MODE] button.
- 3 Press the [START/STOP] button of the blood pressure monitor to start the blood pressure measurement.
- 4 When pressurization starts and the pressure reaches a certain extent, the measurement begins while air is exhausting slowly.
- 5 When the measurement is completed, the '--' is displayed on the screen and is automatically saved.
- 6 The current number of measurements is changed.
- 7 After the standby time has elapsed, the next blood pressure measurement starts.



Note

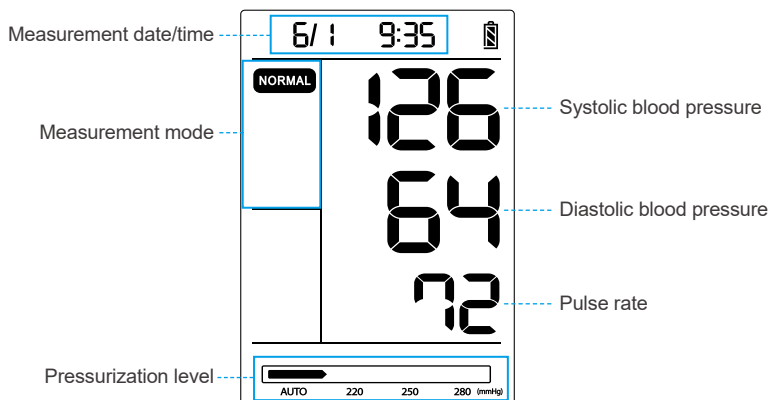
- In the CYCLE HIDE Mode, the measured values are not displayed on the screen.
- The blood pressure measured with the HIDE function can be checked in the MEMORY mode.

Remarque

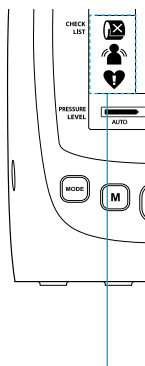
- En mode CYCLE HIDE, les valeurs mesurées ne s'affichent pas sur l'écran.
- La tension artérielle mesurée avec la fonction HODE peuvent être consultés en mode MEMORY.

3. Checking measurement results

- 1 Check the basic information of the blood pressure and proper cuff status.



- 2 Checking the proper cuff status, movement detection, and irregular pulse rate.



Cuff position detection:

The cuff was loosely worn. Please wear the cuff properly and measure again. In the case of wearing thick clothes, please take them off before measuring again.



Movement detection:

Movement was detected during the measurement. Please measure again.



Irregular pulse rate detection

Irregular pulse rates were detected. Please measure again.

Note

- Irregular pulse rate is detected when there is a difference in the pulse of more than 25% of the reference pulse.
- Irregular pulse rate may be detected by physical movement during measurement.

Remarque

- Un pouls irrégulier est détecté lorsque le pouls présente un écart de 25 % par rapport au pouls de référence.
- Un pouls irrégulier peut être dû à un mouvement lors de la prise.

4. Checking saved measurements (MEMORY MODE)

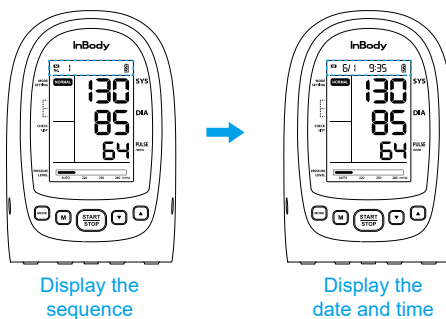
- (1) Press the [M] button to check the saved measurements.
- (2) The sequence and measurement date and time are displayed.
- (3) Press the [▼] or [▲] button to check the stored results in turn.



: To the older results



: To the more recent results

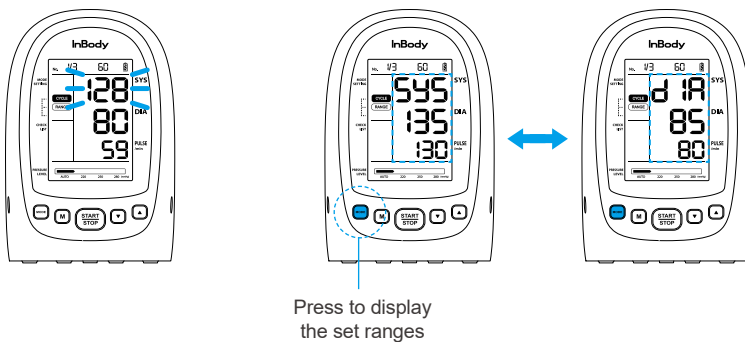


(4) Recorded results in CYCLE RANGE mode are displayed as below.

- If the measured value is out of the set range, the measured value will blink.
- The set range can be checked while the [MODE] button is held down.

Values which are out of the range blinks

Systolic & Diastolic values setting



(5) Press the [M] button again to exit the MEMORY mode.

Note

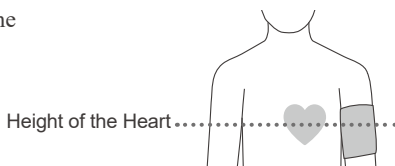
- Up to 99 measurements can be saved.
- Press and hold the [▼] or [▲] button to check quickly the past or recent results.
- Month / Day Hour: Minute is displayed only when date and time are set.
- ‘--’ is displayed if there is no saved blood pressure.
- The saved blood pressure measurement value can be deleted. For more information on how to delete the results, refer to “D. User Settings”(page 19).

Remarque

- 99 mesures peuvent être sauvegardées.
- Appuyer et maintenir le bouton [▼] ou [▲] pour consulter rapidement les résultats.
- Mois / Jour Heure : La minute s'affiche uniquement lorsque la date et l'heure s'affiche.
- "--" s'affiche lorsqu'il n'y a aucune tension artérielle sauvegardée.
- La valeur sauvegardée de la mesure de la tension artérielle peut être supprimée. Pour plus d'informations, sur comment supprimer les résultats, se référer à D. Paramètres Utilisateur.

D. Proper Measurement Posture

- 1 Place the left arm so that the middle of the cuff is at the patient's heart position.
- 2 Allow the patient to relax in a comfortable posture.



Caution

- The measurement posture may affect the blood pressure measurement.
- Please take correct posture for accurate blood pressure measurement.
- Measure blood pressure without twisting or crossing the legs.
- When in a seated position, keep the feet on the ground without twisting or crossing the legs.

Attention

- *La posture de mesure peut affecter les valeurs de la tension artérielle.*
- *Bien vouloir prendre une posture appropriée pour la prise de mesure de la tension artérielle.*
- *Prendre sa tension artérielle avec le dos et les bras adossés.*
- *Dans la position assise, poser les pieds au sol sans les tordre.*

III. Storage

A. Transportation and Storage Environment

The BPBIO250 should be transported or stored under the following conditions.

Temperature range	-10°C to 70°C (14°F to 158°F)
Relative humidity	15 to 85% RH (No condensation)
Atmospheric pressure range	50 to 106 kPa

IV. Troubleshooting

A. Error Message

If a problem happens, **Err** is displayed in the systolic blood pressure column and a letter or number appears in the diastolic blood pressure column.

Error	Reason	Solution
Err 1	Fault in pressurization on cuff · Not connected with the cuff · Wearing the cuff, too loosely · Air is leaking from the cuff	· Check the cuff connection and how it is worn. · If the air leaks out from the cuff, replace cuff with a new one.
Err 2	The pressure in the cuff unexpectedly changes during pressurization · Moving severely · The air tube is folded · The cuff is released · The air tube falls out	· Measure the blood pressure in a stable state after checking the device connection and the cuff.
Err 3	The pressure in the cuff unexpectedly changes during exhaustion · Moving severely · The air tube is folded · The cuff is released · The air tube falls out	
Err 4	The signal of a blood pressure is too weak · Measured in thick clothes · The pulse is weak by nature	· If the blood pressure was measured over clothing, remove the clothing and measure on the bare skin. · Check how the cuff is worn.
Err 5	The pressure exceeds 300 mmHg · The user carried out the manual pressurization excessively · Severely moves	· When manual pressure is applied, pressurize the appropriate amount. (Pressurize 30 to 40 mmHg higher than the expected blood pressure.) · Measure the blood pressure in a stable state.
Err 6	Check the AC adapter - Appropriate AC adapter is not being used. - Adapter malfunctioning.	- Use the 6.0V, 2.0A AC adapter sold by InBody or designated InBody local representative - Please contact Product Support to purchase the 6.0V, 2.0A adapter.
Err 7	It is a failure due to malfunction	Please contact the InBody Product Support.
Lo	Low battery voltage	Charge the lithium-ion batteries or replace the AA batteries with new ones.

B. Regarding Device

The checklist is organized in the order which you need to follow to resolve the malfunction problem, supposing that the user has tried the basic usage tips. If the problem still occurs after applying countermeasure, please contact the InBody customer service center.

Problem	Cause	Solution
There is no response even if the button was pressed.	The lithium-ion batteries or AA batteries are incorrectly inserted.	Check the direction of lithium-ion batteries or AA batteries, and reinsert the batteries in the correct way according to the '+' and '-' marks.
	Lithium-ion batteries or AA batteries are discharged.	Charge the lithium-ion batteries or replace the AA batteries with new ones.
There is no sound from the blood pressure monitor.	The mute setting is on.	The beep sound of this blood pressure monitor can be turned on and off. Refer to the 'Setting mute' (page 24).

C. Regarding Measurement

Problem	Cause	Solution
The exhaust is too fast.	The cuff is loosely wrapped around the arm.	Wrap the cuff properly, and measure again.
Pressurization is lower or higher than the blood pressure.	The patient moves during the blood pressure measurement	Make sure that the patient is relaxed without moving or talking during the blood pressure measurement.
	The pressure value setting is not Auto	Refer to 'Pressurization value setting' (page 28) to pressurize.

IV. Others

A. Safety Information

Safety Symbols

	Warning/Caution
	Note
 6V $\sim$, 2A	Power adapter connection terminal
	BF-type equipment
	Operating instructions
	CLASS II equipment (AC adapter)

Other Symbols

	Disposal guidelines
	Disposal guidelines (Lithium-ion battery)
	Recycling lithium-ion (Lithium-ion battery)
	Manufacturer
	Authorized representative in the EUROPEAN COMMUNITY
	European conformity
	Serial number
	NRTL mark (MET)



* MET symbols apply to products sold in the United States and Canada.



Disposal of old Electrical & Electronic Equipment

(Application in the European Union and other European countries with separate collection system.) This symbol indicates that this product shall not be treated as household waste. Instead, it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. For more detailed information about recycling this product, please refer to local governing ordinances and recycling plans.

B. Product Classification

- Type of protection against electric shock: Class 2 equipment or Internal power source typed equipment
- Level of protection against flooding: General Equipment (No special protection against external water infiltration)
- Operation mode: Continuous operation
- Level of protection against electric shock: BF-type equipment

C. Specifications

Product Name	BPBIO250
Display Method	Digital Display Method (Custom Segment LCD)
Test Instructions	Oscillometric
Measuring Part	Left or Right Upper Arm
Test range	Pressure: 0 to 300 mmHg, Pulse: 30 to 240 bpm
Measurement Pressure Range	Systolic: 60 to 250 mmHg, Diastolic: 40 to 200 mmHg
Degree of Precision	Pressure: Within ± 3 mmHg, Pulse: Within $\pm 3\%$
Minimum Scale Unit	1 mmHg
Cuff	Cuff for the Use of 22 to 32cm (9 to 13 in) in Arm Circumference (M size cuff)
Measurement Results	Systolic Blood Pressure, Diastolic Blood Pressure, Pulse
Measurement Time	Approx. 30 seconds on average (20 to 50 seconds depending on the pulse and blood pressure value)
Pressurization Time	Approx. 15 seconds
Pressurization	Automatic Pressurization Method
De-pressurization	Automatic Exhaust Method
Exhaust	Automatic Rapid Exhaust Method
Save	Saved 99 blood pressure information
Rated Range of Cuff Pressure	0 to 300 mmHg
Communication Method	Bluetooth 4.0 Low Energy (BLE)
Used Frequency	2402 MHz to 2480 MHz
RF-Power (max)	BT: 7.19 dBm, BLE: 8.21 dBm (EIRP)
Rated Power	DC 6V, 2A (four 1.5V AA-size batteries or AC adapter) or Rechargeable Lithium-ion Battery Pack DC 3.63 V, 2600 mAh, 9.438 Wh

Rated Input (AC Adapter)	Input: 100 to 240 V~, 50/60 Hz, 0.5 A
Equipment Weight	Approx. 1.1 kg (2.4 lb) (Main unit: Approx. 767 g (1.7 lb), Lithium-ion battery: Approx. 47 g (0.1 lb), Cuff: Approx. 144 g (0.3 lb), AC adapter: Approx. 147 g (0.3 lb))
Dimension	Approx. 150(L) × 122(W) × 195(H) mm Approx. 5.9(L) × 4.8(W) × 7.7(H) in
Manufacturing Country	Republic of Korea
Manufacturing Company	InBody Co., Ltd.

* Specifications are subject to change without notice.

* This product is a medical device. Please read the guide and precautions before using this blood pressure monitor.

D. EMC Declaration

This EUT is intended for use in the electromagnetic environment specified below. The customer or the user of the EUT assure that it is used in such an environment.

Immunity Test	IEC 60601-1-2 Test Level	Compliance Level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	± 8 kV contact ± 2 kV, ± 4 kV, ± 8 kV, ± 15 kV air	± 8 kV contact ± 2 kV, ± 4 kV, ± 8 kV, ± 15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transients (burst a) z) o)	IEC 61000-4-4	± 2 kV 100 kHz repetition frequency	Mains power quality should be that of a typical commercial or hospital environment.
Surges a) b) j) o) Line-to-line	IEC 61000-4-5	$\pm 0,5$ kV, ± 1 kV	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips f) p) r) IEC 61000-4-11	IEC 61000-4-11	0 % U_T , 0.5 cycle s) At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° q)	Mains power quality should be that of a typical commercial or hospital environment. If the user of the EUT image intensifier requires continued operation during power mains interruptions, it is recommended that the EUT image intensifier be powered from an uninterruptible power supply or a battery.
		0 % U_T , 1 cycle and 70 % U_T ; 25/30 cycles h) single phase: at 0°	
Voltage interruptions f) i) o) r)	IEC 61000-4-11	0 % U_T ; 250/300 cycle h)	
RATED power frequency magnetic fields d) e)	IEC 61000-4-8	30 A/m s) 50 Hz or 60 Hz	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

Conducted disturbances induced by RF fields ^{c) d) o)}	IEC 61000-4-6	3 V ^{m)} 0,15 MHz - 80 MHz 6 V ^{m)} in ISM bands between 0,15 MHz and 80 MHz ⁿ⁾ 80 % AM at 1 kHz ^{e)}	Portable and mobile RF communications equipment should be used no closer to any part of the EUT image intensifier, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance: $d = \left[\frac{3.5}{V_1} \right] \sqrt{P}$ $d = \left[\frac{3.5}{E_1} \right] \sqrt{P} \quad 80 \text{ MHz to } 800 \text{ MHz}$ $d = \left[\frac{7}{E_1} \right] \sqrt{P} \quad 80 \text{ MHz to } 2.7 \text{ GHz}$
Radiated RF EM fields ^{a)}	IEC 61000-4-3	3 V/m ^{l)} 80 MHz - 2,7 GHz ^{b)} 80 % AM at 1 kHz ^{e)}	Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer, and d is the recommended separation distance in meters(m). ^b Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, ^c should be less than the compliance level in each frequency range. ^d Interference may occur in the vicinity of equipment marked with the following symbol: 

Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communications equipment

Test frequency (MHz)	Band ^{a)} (MHz)	Service ^{a)}	Modulation	Maximum power (W)	Distance (m)	Immunity test level (V/m)
385	380 – 390	TETRA 400	Pulse modulation 18 Hz	1.8	0.3	27
450	430 – 470	GMRS 460, FRS 460	FM ± 5 kHz deviation 1 kHz sine	2	0.3	28
710	704 – 787	710	Pulse modulation 217 Hz	0.2	0.3	9
745						
780						
810	800 – 960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation 18 Hz	2	0.3	28
870						
930						
1,720	810	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation 217 Hz	2	0.3	28
1,845						
1,970						
2,450	2,400 – 2,570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation 217 Hz	2	0.3	28
5,240	2,400 – 2,570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation 217 Hz	0.2	0.3	9
5,500						
5,785						

