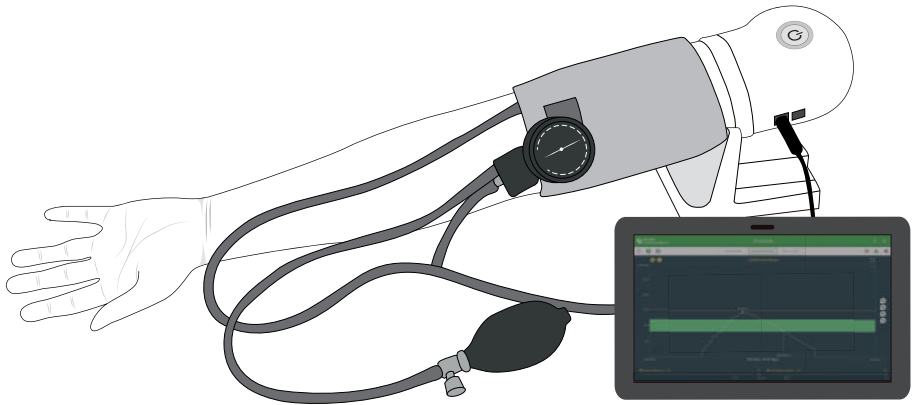


BT-CEAB2

# B.P / Pulse Assessment Simulator

## USER'S GUIDE



S/W User Guide



## Product Information

|                   |   |
|-------------------|---|
| Product Name      | B.P / Pulse Assessment Simulator  |
| Model Name        | BT-CEAB2  |
| Manufacturer      | BT Inc.   |
| Country of Origin | Republic of Korea   |
| Certification     |  |

(Contains FCC ID : S7A-IW05)

## Product Specification

|                 |   |
|-----------------|---|
| Dimensions      | 720 X 110 X 110mm                                   |
| Weight          | 1.2kg   |
| Power Converter | Input AC100-240~, 50/60Hz, 0.4A Output DC 12V, 1.5A |
| Battery         | 8EA of LR6 (AA, 1.5V)                               |

## Customer Service

|           |   |
|-----------|---|
| Website   | <a href="http://www.btinc.co.kr">www.btinc.co.kr</a>  |
| Address   | A-313, Samsung Techno-valley, 140, Tongil-ro,<br>Deogyang-Gu, Goyang-Si, Gyeonggi-do, 10594,<br>Republic of Korea |
| Telephone | +82-2-2038-2903   |
| E-mail    | <a href="mailto:bt@btinc.co.kr">bt@btinc.co.kr</a>  |



## Cautions for battery disposal

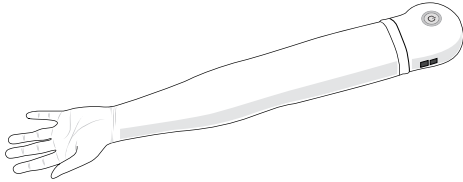
- \* Please follow the regulations of corresponding area for the disposal of used batteries.

# Cautions

Please read it carefully to ensure correct usage and user's safety through understanding of the product.

- Ⓢ Do not use the product for other purposes described in the manual.
- Ⓢ Do not use the product for other purposes described in this manual.
- Ⓢ If you disassemble or modify the product without any permission by BT Inc, you cannot get the warranty. Also, making imitated or altered products for commercial purposes are prohibited by law.
- Ⓢ During the usage, please contact us after any electricity power off when the product is overheated or smelled something burning
- Ⓢ Keep the product away form water or moisture. If the product gets wet, do not turn it on.
- Ⓢ Do not use the product near strong magnetic fields or high voltage power lines. The product might malfunction due to the electromagnetic waves.
- Ⓢ Do not use the product under a weather of lightning. It can cause the product malfunction and increases the risk of electric shock
- Ⓢ Do not use the product with temperatures below 0°C or above 40°C  
(Operation temperature : 0°C ~ 40°C, Storage temperature : -10°C ~ 50°C)
- Ⓢ Do not keep the product near hot places such as heaters. Deterioration of product or internal damage might occur
- Ⓢ Never clean the product with chemicla substances such as solvent, benzene or thinner, as these may Cause ignition or cause the surface deterioration.
- Ⓢ BT Inc. can change or adjust the product specification without any notice in order to improve the product.

# Components



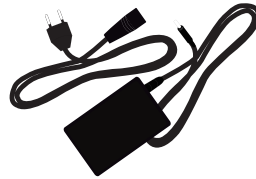
**Adult Arm model**



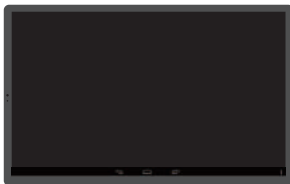
**Arm holder**



**Sphygmomanometer**



**Power converter**



**Tablet PC (Option)**

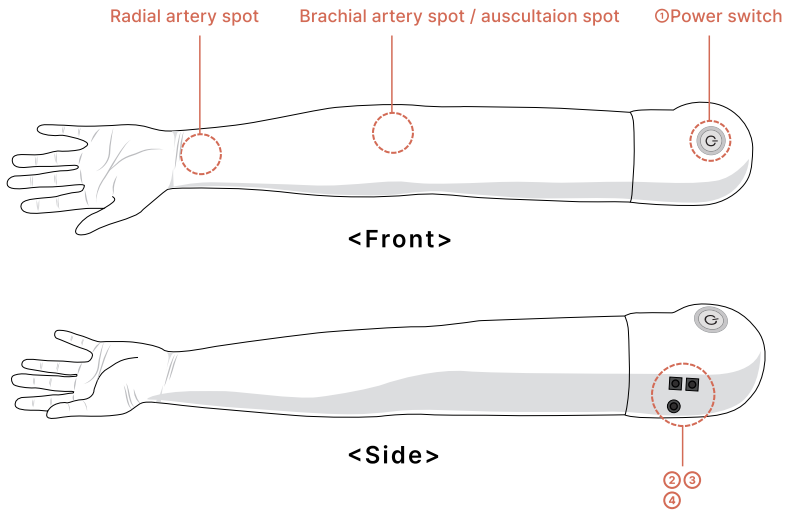


**Battery holder**

\* etc. - Storage case

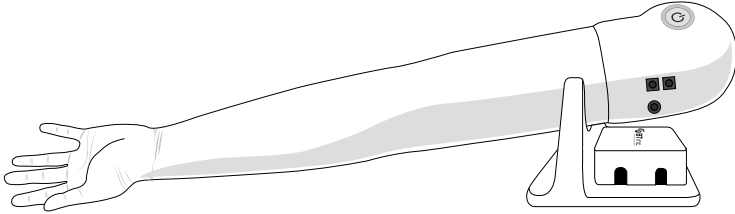
# Hardware

## 1. Features & Functions



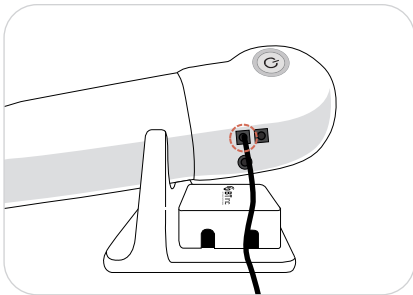
- ① Power switch : It is possible to turn On/Off the arm model.
- ② Power connector : Connect the power plug of power converter or battery.
- ③ Speaker connector : Connect the AUX speaker cable to the speaker connector of arm model.  
(\*Speaker is optional purchase.)
- ④ Cuff tube connector :  
Connect exclusive sphygmomanometer tube to the cuff tube connector of arm model.

## 2. Installation of Arm model on the holder

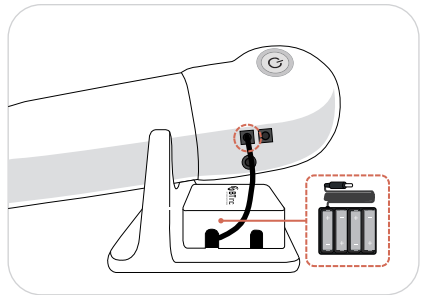


- The holder supports the position of the arm model for training.
- Install the arm model as shown above.

## 3. Power Connection



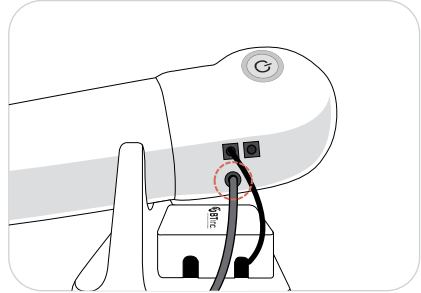
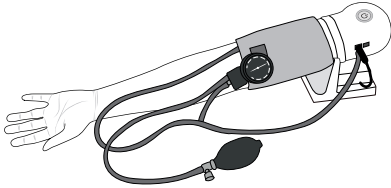
<External Power Connection>



<Battery Connection>

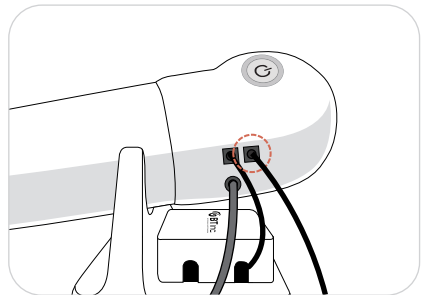
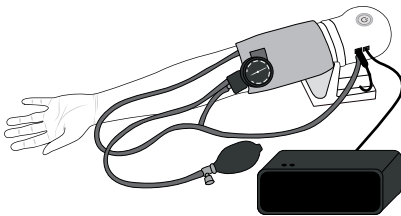
- The product can be powered by AC adapter or battery.
- When you use the battery, connect and use 8 LR6 (AA, 1.5V) batteries to the battery holder included in the component.

#### 4. Sphygmomanometer connection



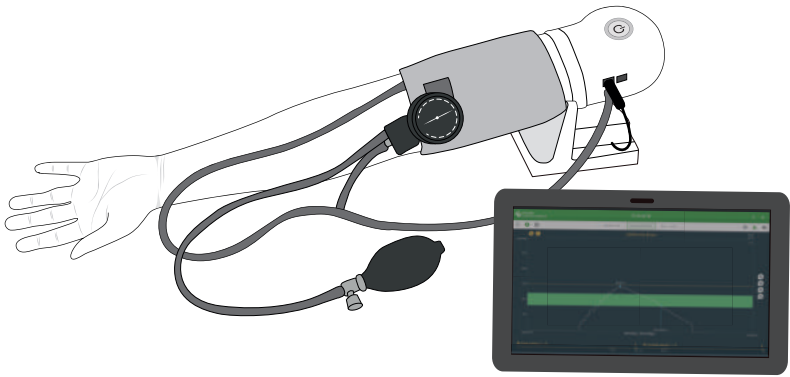
- Wrap the cuff around the upper arm.
- Connect the tube to the pressure sensor on the arm.

#### 5. AUX Speaker Connection



- Group training by hearing Korotkoff sound with an external speaker.  
(\*Speaker is an optional purchase.)
- Connect speaker cable to the speaker connector of arm.

## 6. Setting and Cautions



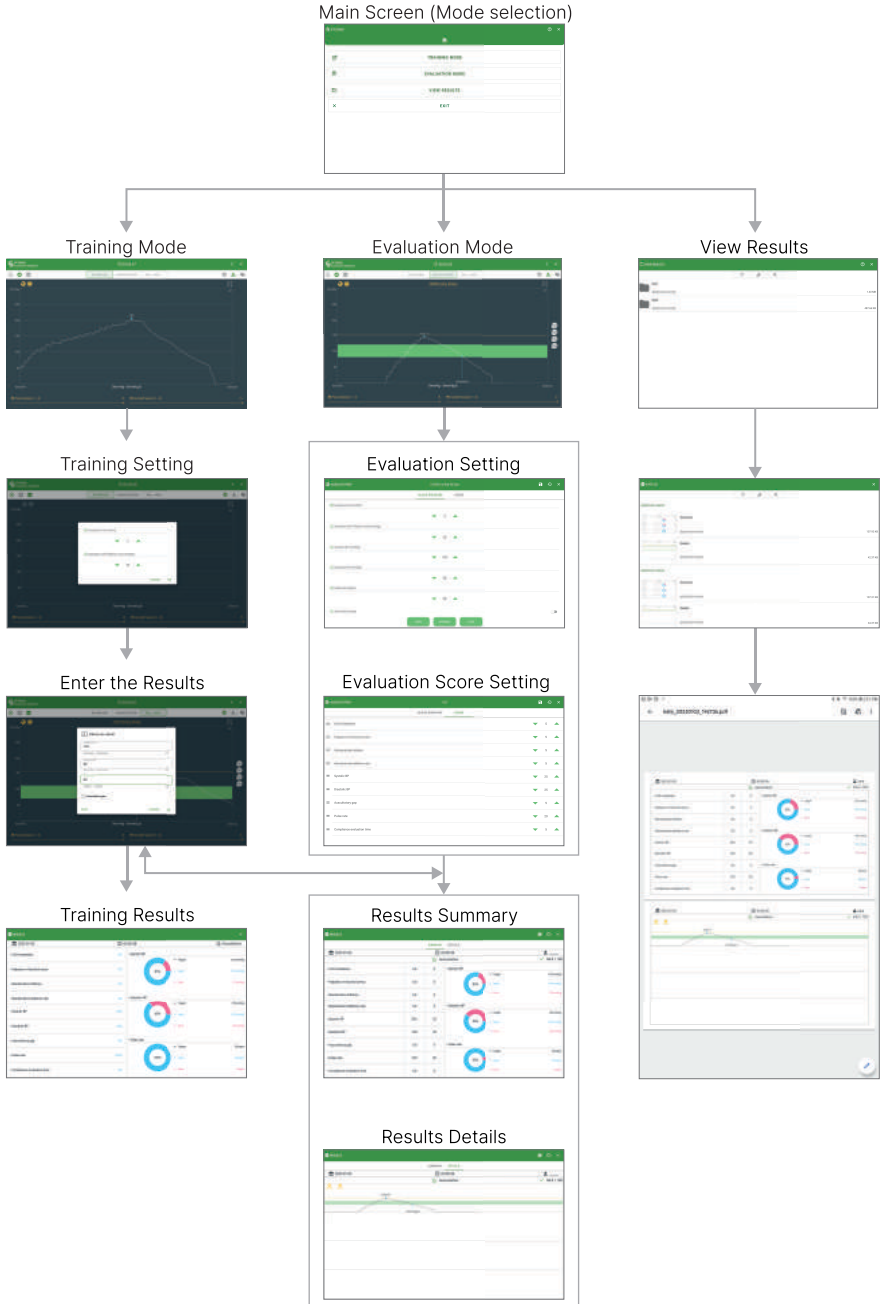
### < Complete set up of the Product >

- ① Connect the power converter, sphygmomanometer and holder to the arm model referring to the instructions of "Hardware".
- ② When setting is completed, turn the power of the arm model on.
- ③ Turn on the power of tablet PC, and then the BT-CEAB2 icon to launch the program.

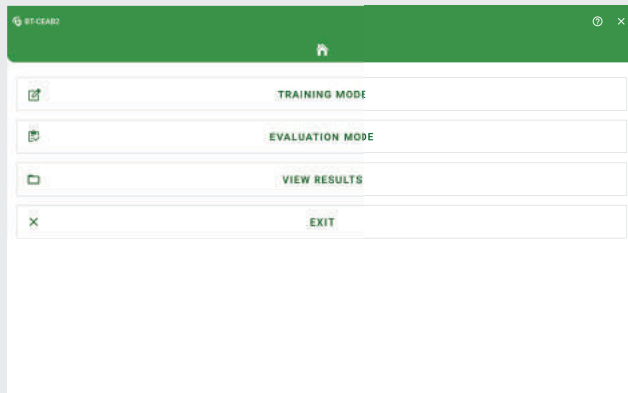


# Software

## 1. Screen layout



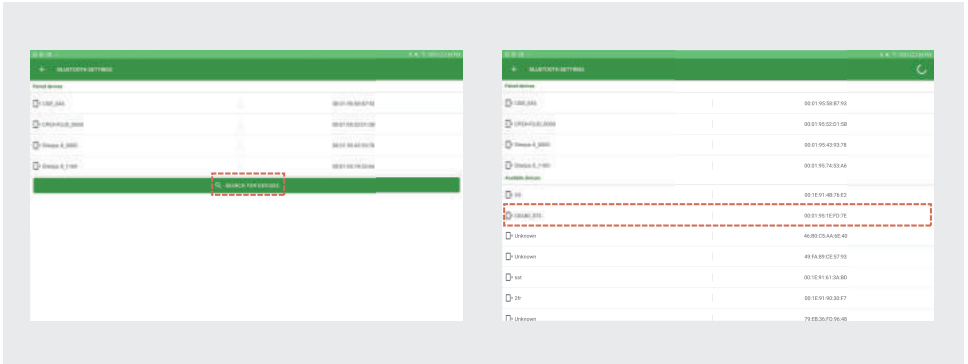
## 2. Home (Main Page)



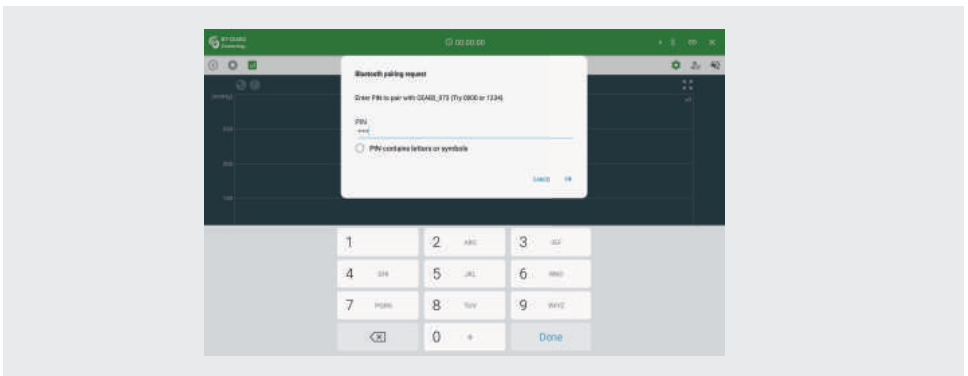
- ① Training Mode : Self-training mode used by a trainee.
- ② Evaluation Mode :  
Checklists and evaluation scores can be set, instructor can evaluate trainees in real time.
- ③ View Results : Saved result can be seen in "View Result"


### 3. Bluetooth Connection

- Arm model and Tablet PC are connected via Bluetooth communication.
- Please refer to the procedure below for Bluetooth connection.

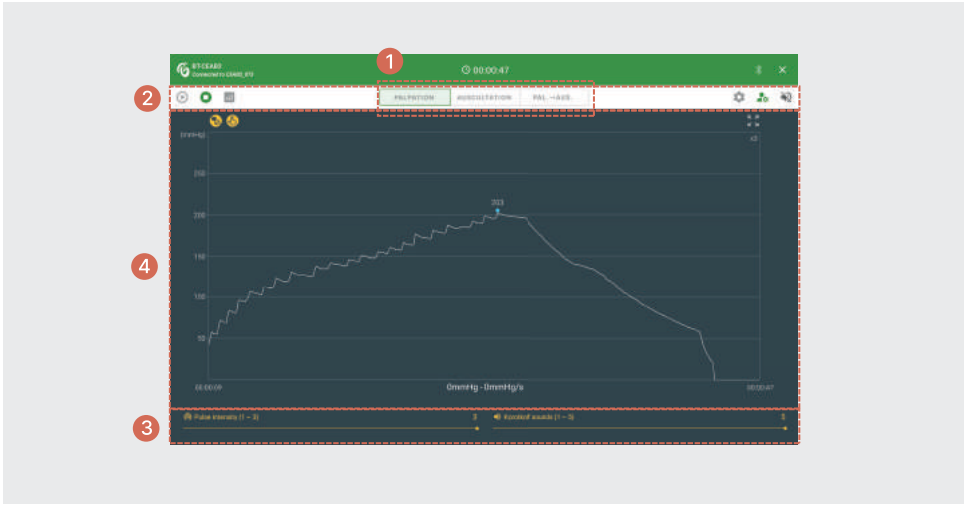


- ① First, check the power on of the arm model.
- ② Click the Bluetooth icon to make sure the pairing with device.
- ③ If you are not paired, Select the device that user wants at the pairing device list.



- ④ After selecting the device, enter the Pin Code as below.
  - \* Pin Code : 56789
- ⑤ In the paired devices list, check the connection of the device.
- ⑥ Once connection is complete, the device & tablet PC will connect automatically.
  - \* Reconnection Icon : 

## 4. Training Mode



### Ⓞ Mode Selection



- 'Palpation', 'Auscultaion', 'Palpation → Auscultation' modes are available.

### Ⓞ Top bar Icon

| Icon | Description                | Icon | Description                  |
|------|----------------------------|------|------------------------------|
|      | Start Training             |      | Stop Training                |
|      | Training Results           |      | Training Setting             |
|      | Sound feedback - Activated |      | Sound feedback - Inactivated |
|      | Zero Calibration           |      |                              |



Training Setting



Zero Calibration

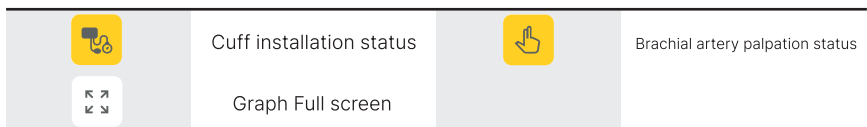
- Training Setting : Evaluation time and standard cuff inflation rate can be set.
  - Evaluatuin time : User can set the evaluation time from 1 minute to 60 minutes.
  - Standard cuff inflation rate : User can set the cuff inflation pressure limit within 10~50mmHg range.
- Zero Calibration : User can calibrate the pressure sensor of arm model.

#### ④ Pulse intensity / Korotkoff sounds Setting

- Pulse intensity : Pulse intensity setting is possible in real-time.
- Korotkoff : The intensity of Korotkoff sounds can be adjusted.

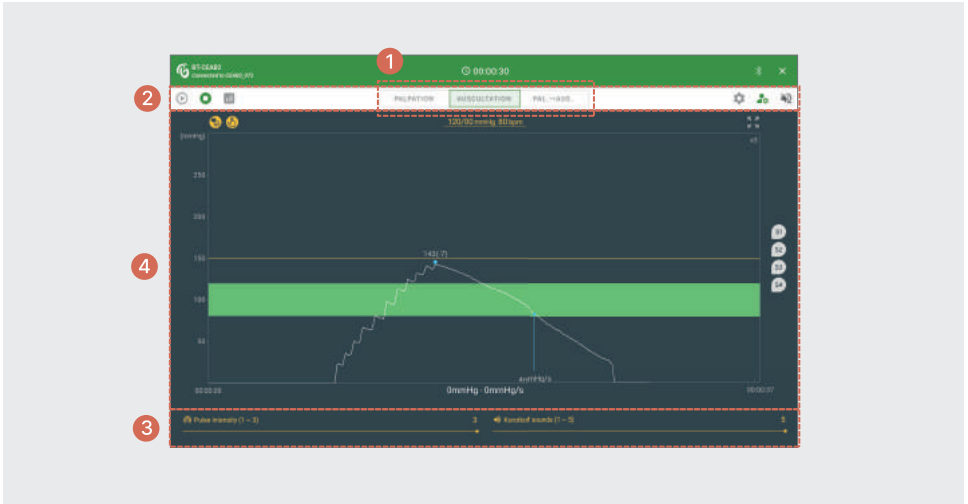
#### ④ Training Screen

- Training date is displayed in real time with a graph.
- Icon



- User can check cuff installation status and brachial artery palpation status in real-time.
- Graph can be set as a full screen or it's also adjustable.

## 5. Evaluation mode



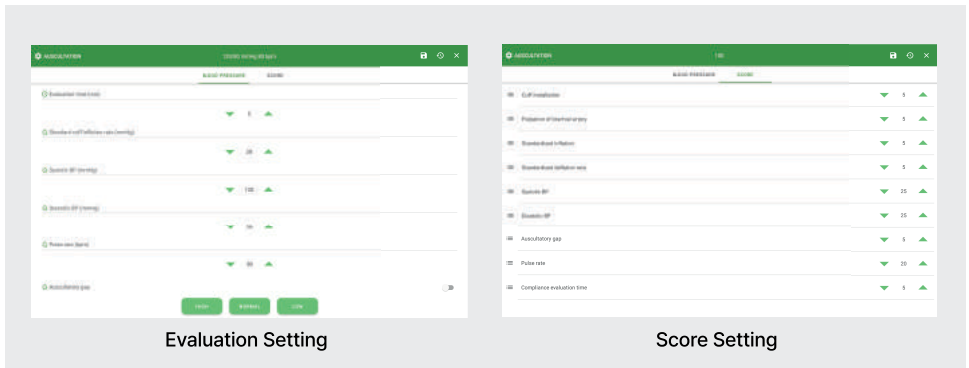
### Ⓞ Mode Selection



- 'Palpation', 'Auscultaion', 'Palpation→Auscultation' modes are available.

### Ⓞ Top bar Icon

| Icon | Description                | Icon | Description                  |
|------|----------------------------|------|------------------------------|
|      | Start Training             |      | Stop Training                |
|      | Training Results           |      | Training Setting             |
|      | Sound feedback - Activated |      | Sound feedback - Inactivated |
|      | Zero Calibration           |      |                              |



**- Evaluation Setting**

- Blood pressure cases : User can select 'high', 'normal', 'low' blood pressure cases.
- Evaluation time : 1 minute to 8 minutes.
- Maximum inflation Level : Within 10~50mmHg of over pressurizing.
- BP setting range : 35~240mmHg
- Pulse Rate setting range : 40~140bpm
- Auscultatory gap : Auscultatory gap will be set manually or automatically.

**- Score Setting : User can set score per item.**

**- When setting is saved, Evaluation will be started.**

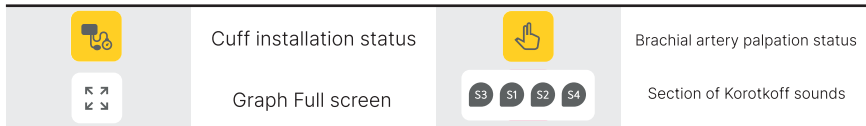
**- Zero Setting : User can calibrate the pressure sensor of arm model.**

**Ⓢ Pulse intensity / Korotkoff sounds Setting**

- Pulse intensity : Pulse intensity setting is possible in real-time.**
- Korotkoff : The intensity of korotkoff sounds can be adjusted.**

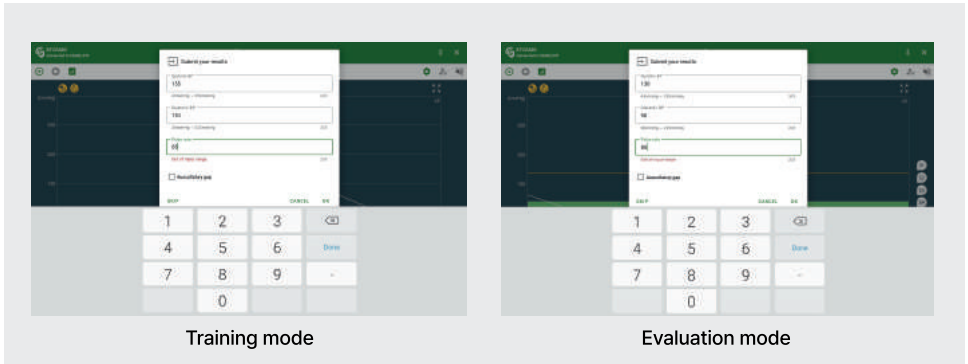
## ④ Training Screen

- Training status is displayed in real time with a graph.
- Icon



- User can check cuff installation status and brachial artery palpation status in real-time.
- Graph can be set as a full screen or it's also adjustable.

## 6. Input the test results

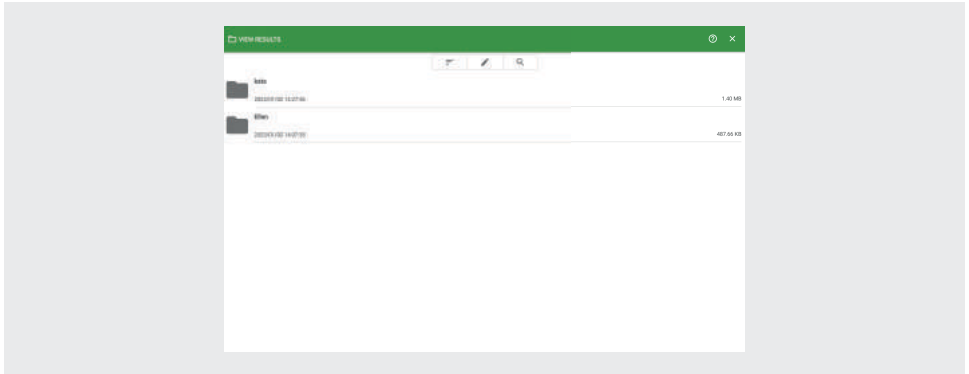


- According to the current training mode, input items are changed.
  - Palpation : Systolic BP, Pulse Rate
  - Auscultation : Systolic / Diastolic BP, Pulse Rate, Auscultatory gap
  - Palpation - Auscultation : Systolic / Diastolic BP, Pulse Rate, Auscultatory gap

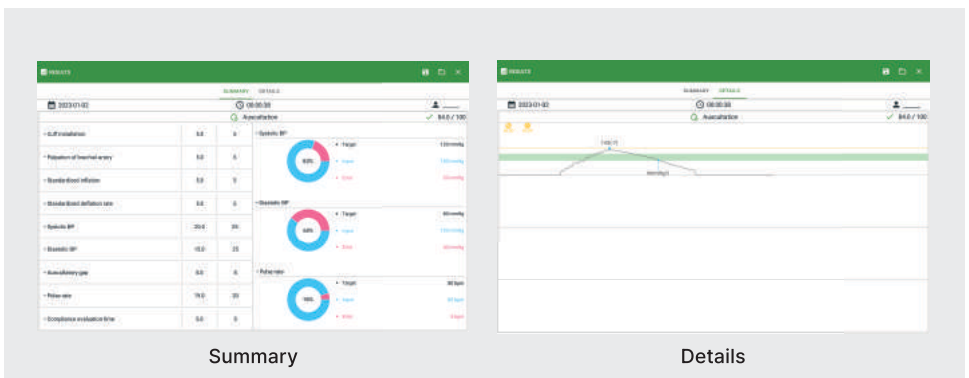


## 7. View Results

- Saved result can be seen in "View Result"



- ① Save result can be sorted, edited and searched according to the folders of the trainee's name.



- ② Click the file to see the result in PNG or PDF format.
- ③ Save result can be shared or transmitted to e-mail.

BT-CEAB2

# B.P / Pulse Assessment Simulaor

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Deogyang-gu, Goyang-si, Gyeonggi-do, 10594, Republic of Korea

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