CPR Training Model

Sherpa X

USER'S GUIDE
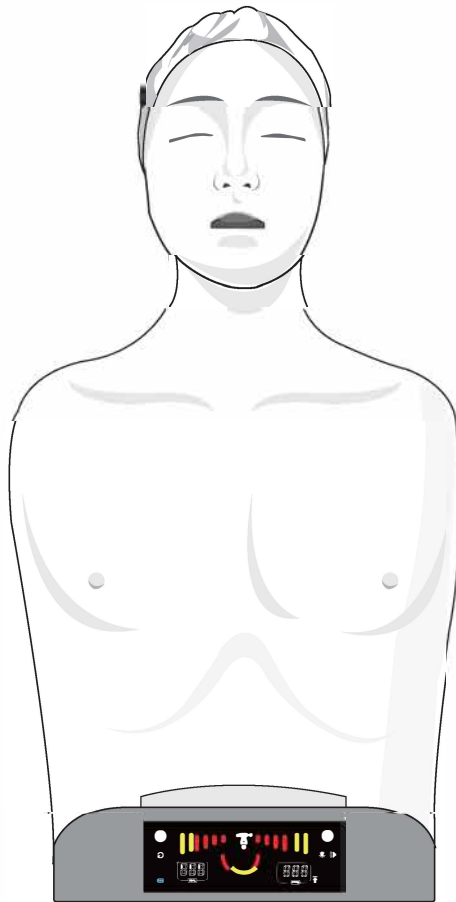
Product Information

Trade name	Sherpa X
Model name	BT-SEEM2
Certification	CE FC

(Contains FCC ID: S7A-IW05)

Product Specifications

Dimensions	335 x 650 x 215 ㎜
Weight	4.4㎏
Battery	6EA of LR14 (C-type, 1.5V)
Power Converter	Input : AC 100-240V ~, 50/60㎐, 0.4A
	Output : DC 12V, 1.5A

Cautions for battery disposal

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

▌Cautions

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

① Use only components provided or approved by the manufacturer.

② Do not use the product for purposes other than described in the manual.

③ If you disassemble or modify the product without any permission, the warranty will be void. Also, making imitated or altered products for commercial purposes are prohibited by law.

④ If the product is overheating or emits a burning odor during usage, turn off the power switch, unplug the power adaptor and call the customer service center.

⑤ Keep the product away from water and moisture area.

⑥ Do not use the product near strong magnetic fields or high voltage power lines.

⑦ Do not use the product and unplug the power adapter during lightning storms. It can cause malfunction of the product and increase the risk of an electric shock.

⑧ The product may malfunction under the extreme weather conditions.
(Operation temperature : 0℃~40℃ (32℉~104℉), Storage temperature : −10℃~50℃ (14℉~122℉)

⑨ Do not keep the product near hot or cold environments as possible. Deterioration of product or internal damage may occur from extreme weather conditions.

⑩ Never clean the product with chemicals such as solvent, benzene or thinner as these may cause fire ignition or surface deterioration.

⑪ Do not install other programs or software to the provided tablet. It may cause software malfunction.

⑫ The manufacturer can change or adjust the product specification without any notice in order to improve the product.

▌Start up

Thank you for purchasing the Sherpa X, CPR trainer.

CPR (Cardiopulmonary resuscitation) is an emergency procedure in which the heart and

lungs are made to work by compressing the chest overlying the heart and forcing air into the

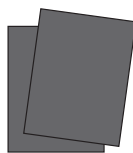lungs. CPR is used to maintain circulation when the heart has stopped pumping on its own.

The Sherpa X is an advanced CPR trainer for teaching the importance and correct procedures of CPR.
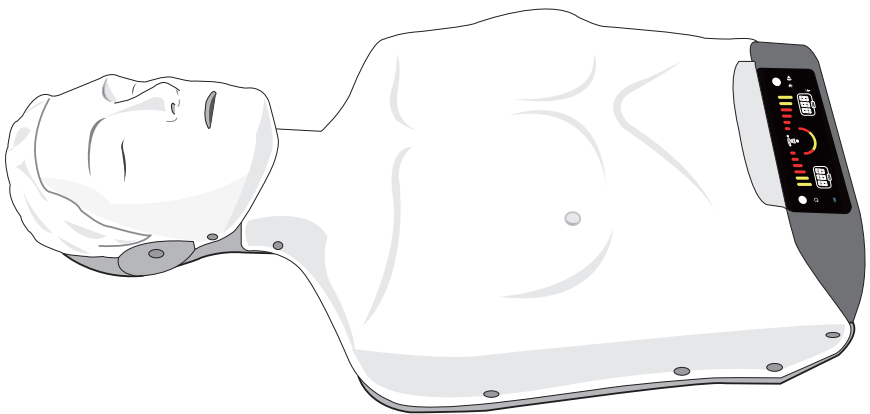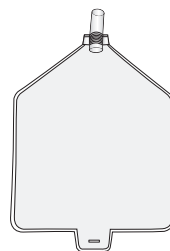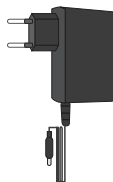
Components
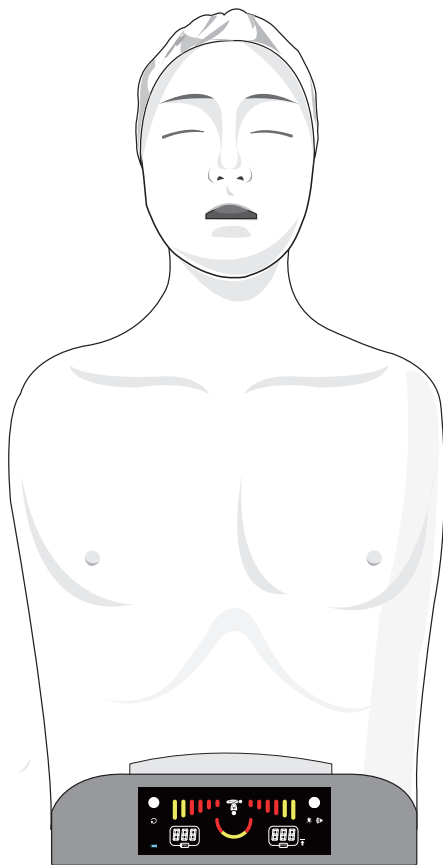
Adult Torso Manikin

Magnetic sticker
for AED trainer pads
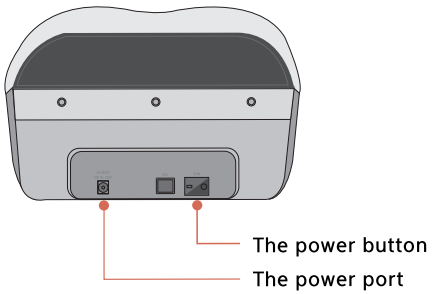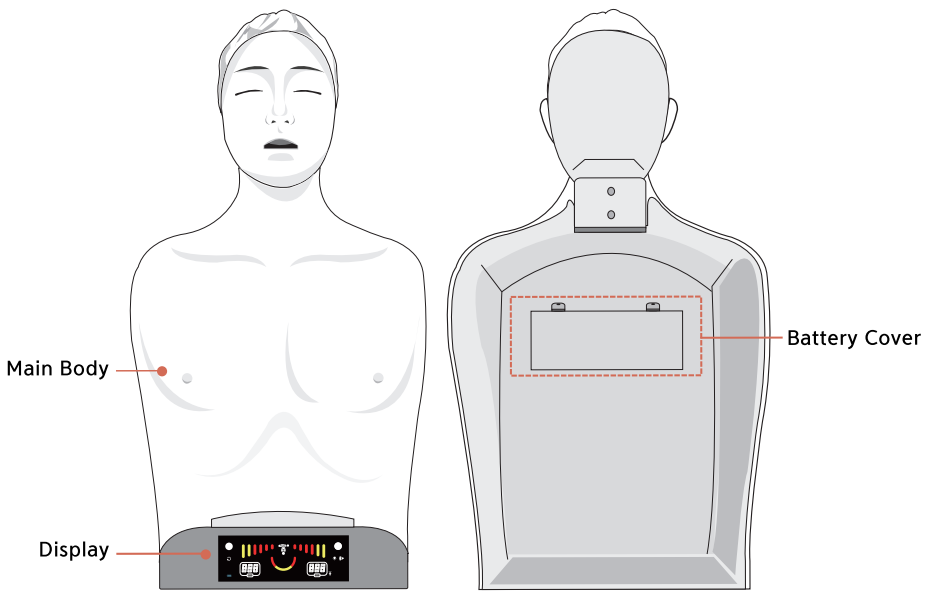
Lung bag

Power adaptor

Face Skin

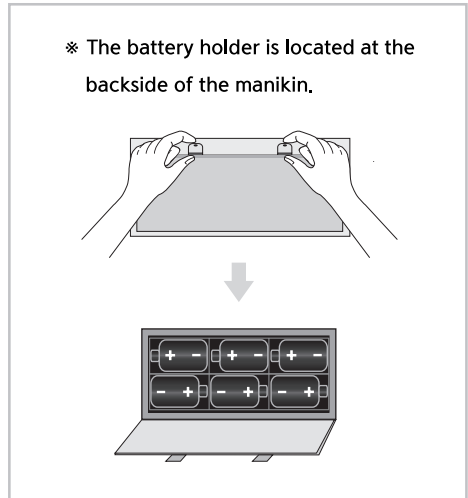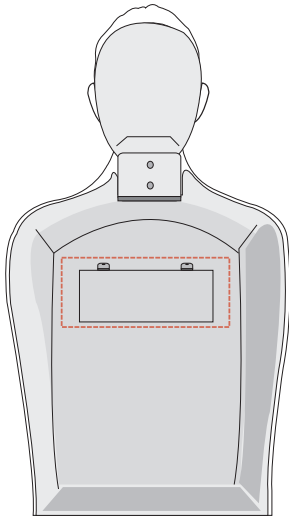※ Additional components – Storage case, User guide, USB Cable (Power bank connector)

※ Option (sold separately) : Tablet, Power bank

Component

Main Body

Display

Battery Cover

The power button

The power port

▋Power connections

\<Battery power supply\>

※ The battery holder is located at the backside of the manikin.

① Open the battery cover at the backside of the manikin by pressing the stoppers with both index fingers.

② Insert 6 batteries into the battery holder with correct polarities.

③ Use LR14 (C-type, 1.5V) standard batteries only.

\<External AC Power Supply \>
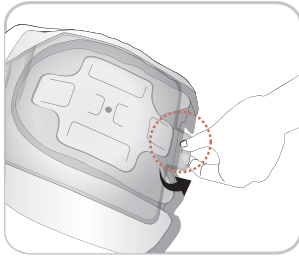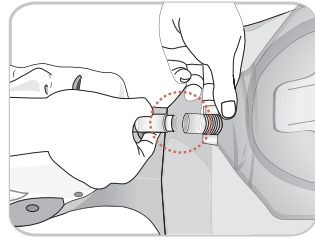

Plug the power connector into the socket
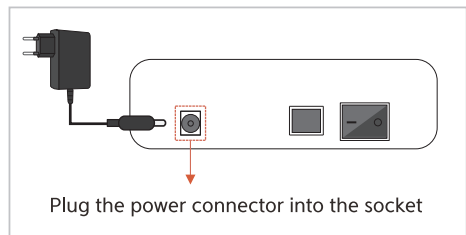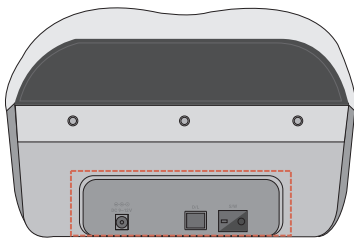
※ Use only the power converter supplied by manufacturer.

※ In case of using a power bank, please use an included USB cable.

※ Some models of power banks may not be compatible with product.

Change the lung airbag
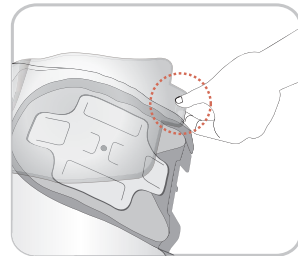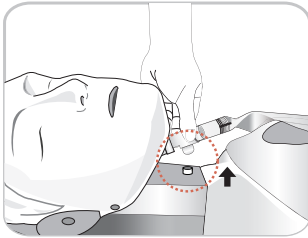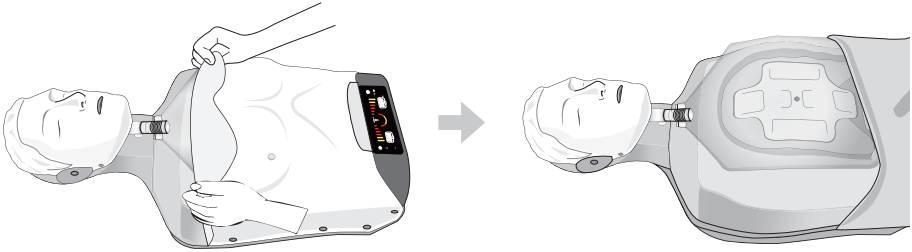
① Separate the chest skin from the manikin up to the abdomen.

② Disconnect the connector of the lung bag connected to the face of the manikin to disconnect it.

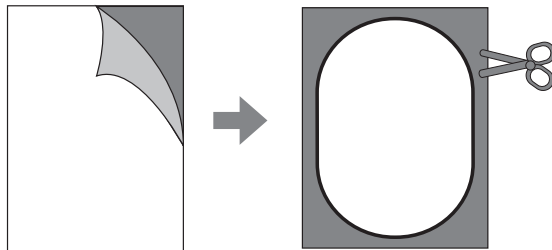③ Unhook the lower part of lung bag from the chest plate of manikin, take the lung out.

※ When connecting the lung bag, install it in reverse order.

Use the magnetic papers

<AED Pads>
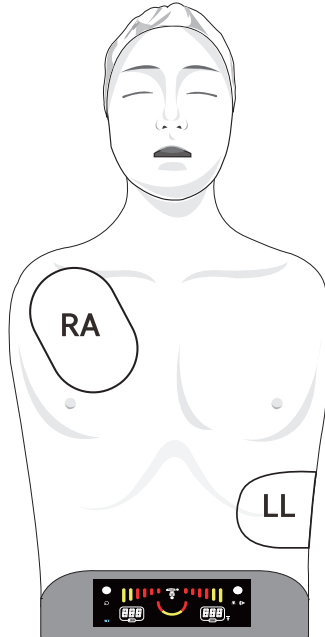
① Prepare the AED trainer.

② Remove the release liner from the provided magnetic stickers.

③ Put magnetic stickers on AED trainer's pads.

④ Cut the outer edge of magnetic stickers.

⑤ AED trainer's pad will be attached to the manikin due to embedded magnets
   inside of the manikin.

※ Adhesion may vary depending on the condition and location of pads.

Basic Functions

<Chest Compression>
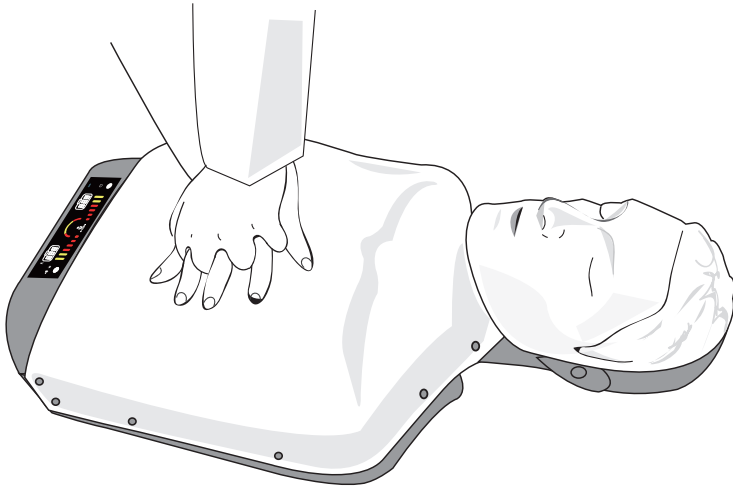
① Connect the power adaptor or insert fully charged batteries, then press and release the power button.

② When the display is on, select the display option and start the chest compression.

③ Location of hand, Compression depth, compression rate, total compression counts and correct compression counts are displayed on the LED panel.

Basic Functions

\<Opening Airway\>

\<Ventilation\>
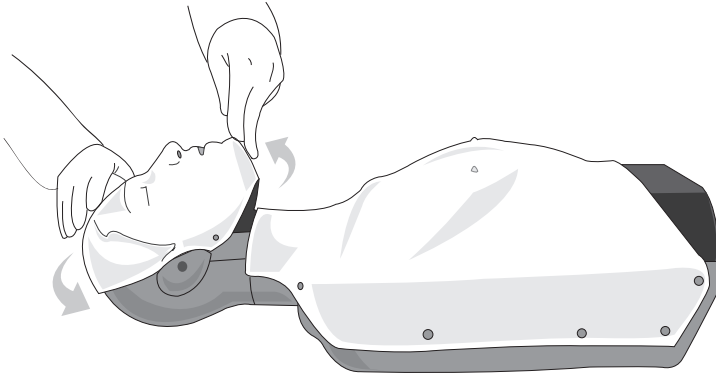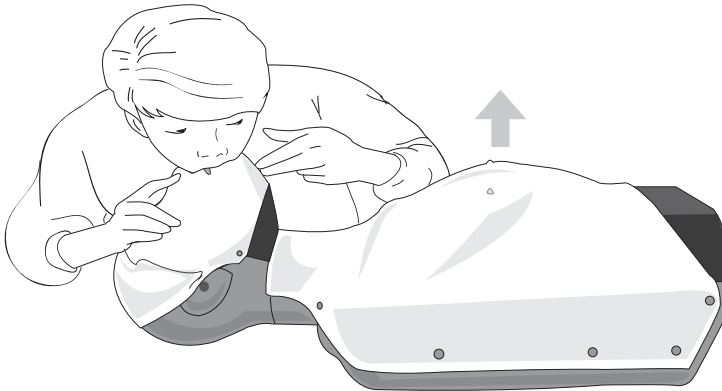
① Tilt the head back to open the airway.

② Pinch the nose of the manikin and conduct mouth to mouth resuscitation.

   (Pay attention to the chest rising.)

③ Ventilation number, expiratory time, the number of correct ventilation

   and total ventilation are displayed on the LED panel.

Basic Functions

<Layout of LED Panel >

① LED Displaying Chest compression On / LED Displaying Ventilation Off

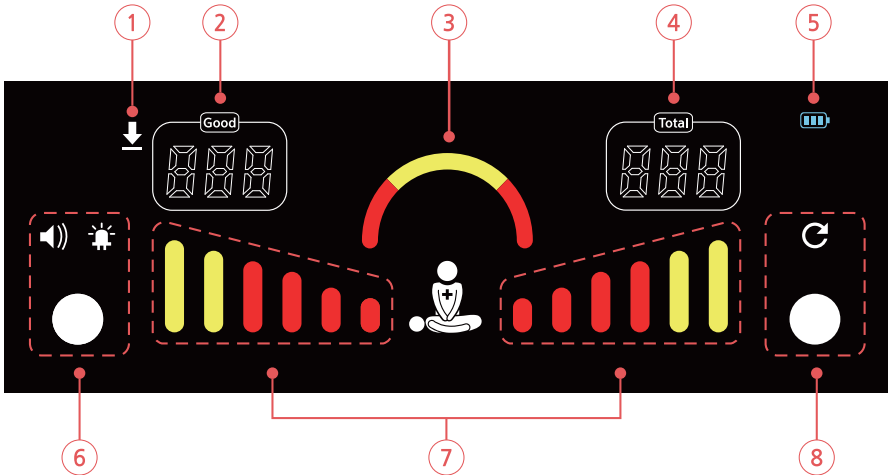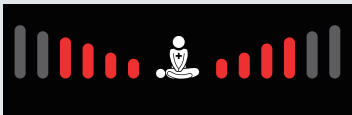② Number of Good chest compression / Hand location / Compression depth / Number of Good ventilation / Ventilation volume/

Hand location in real-time, Compression depth, Displaying the number of good compression after training

Ventilation volume in real-time, Displaying the number of ventilation after training

When there is no input, the number of good compression and the number of ventilation is being displayed repeatedly

③ Displaying Compression rate / Expiratory time during ventilation in 3 stages

④ Total compression number / ventilation number

⑤ Battery status

Option button in 4 stages (repeated)

Sortation	Stage 1	Stage 2	Stage 3	Stage 4
🔊 Sound	On	Off	Off	On
💡 LED	On	Off	On	Off

⑦ Compression Depth / Incomplete recoil / Volume of ventilation

⑧ Reset button
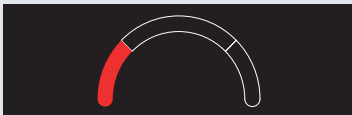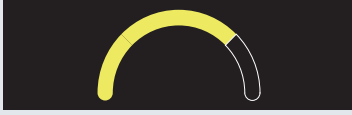
※ Battery saver mode will be automatically turned on and the LED panel will stop displaying when chest compressions are not detected for 60 minutes. Press the ⑥ or ⑧button to begin again.

▌Basic Functions

\<Compression Depth / Ventilation volume\>

LED	Compression Depth	Ventilation volume
	Insufficient	Insufficient
	Correct	Correct
	Over-compression	Excessive

\<Compression rate / Expiratory time \>

LED	Compression rate	Expiratory time
	Slow	Slow
	Correct	Correct
	Fast	Fast

Basic Functions

<Display layout>

Hand Position /Depth of compression in real-time

Position Compression depth   Position Compression depth
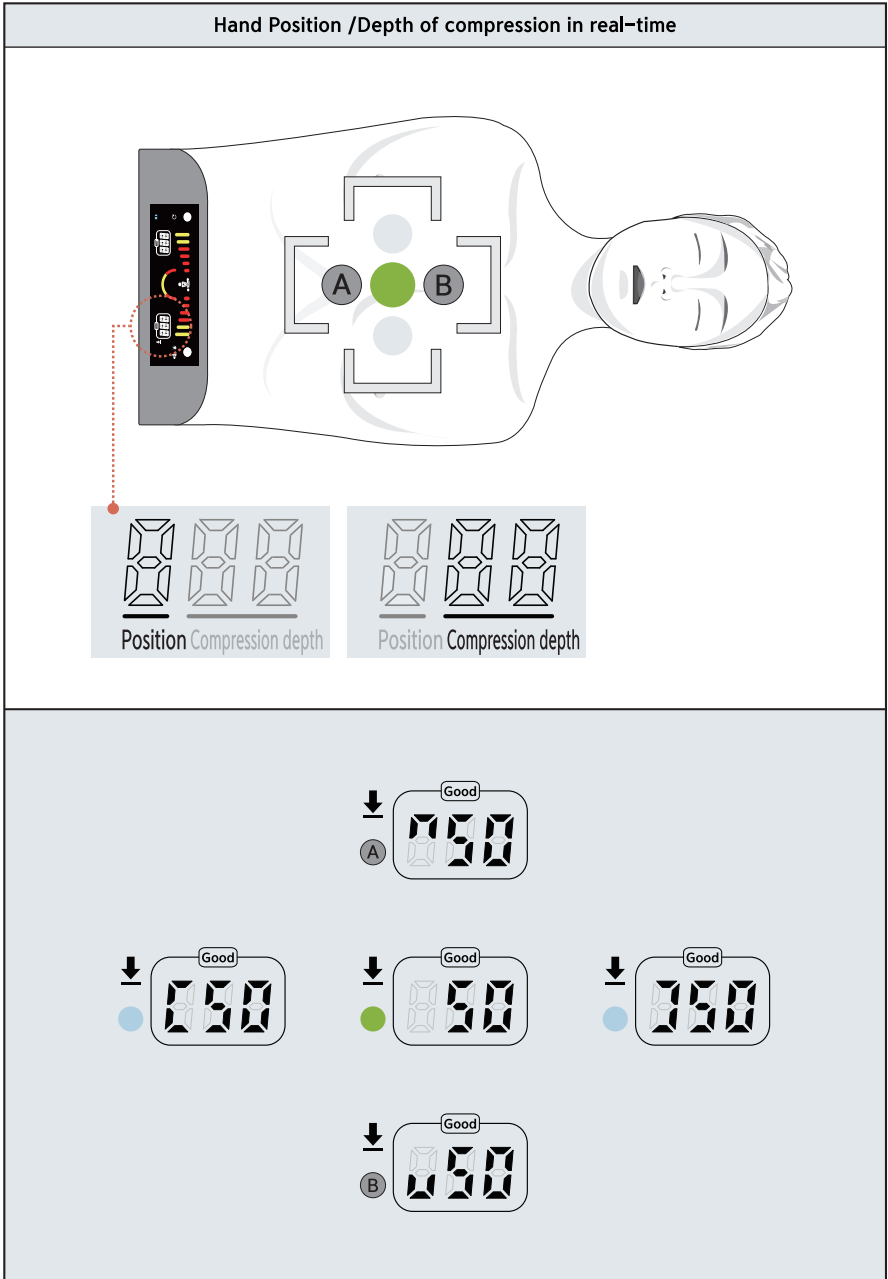
Software

<Bluetooth Connection>

① Turn on manikin and tablet PC.
② Select Sherpa X application.
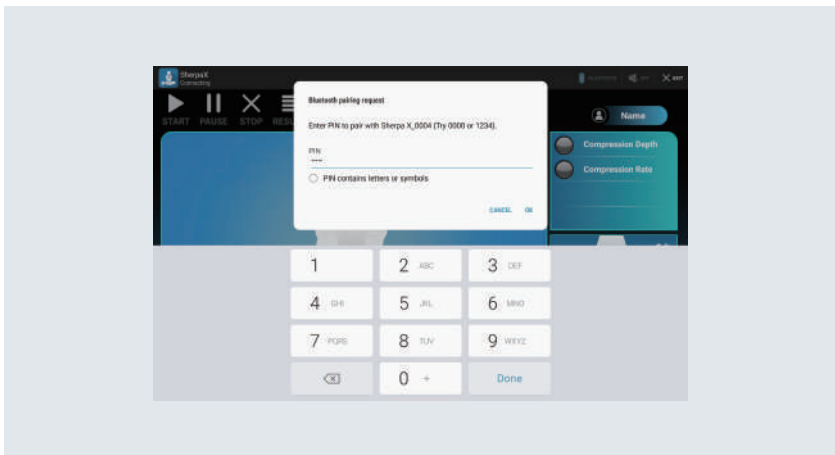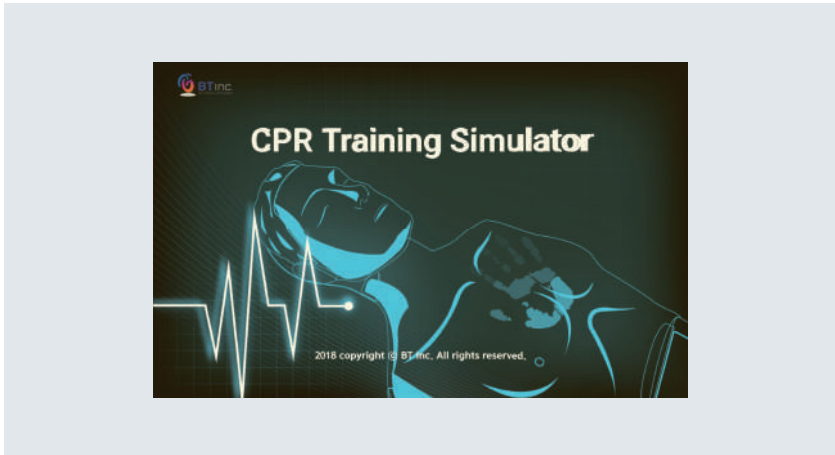
③ A Bluetooth pop-up screen will appear, Enter the pin code.
(PIN Code : 56789)
④ Once connected, it will automatically connect next time.
⑤ When it is now automatically connected, Pair Bluetooth by selecting Bluetooth icon.

※ Bluetooth connection may be limited depend on the tablet.

※ Please use a recommended tablet by BT.

▌Software

\<Layout\>

Logo Screen

Main Screen

Setting Guideline

Setting Program

Setting Standard

Game Mode

Training Mode

Evaluation Mode

Detailed

Game result

Training result

Score of Evaluation mode

Statistics

Evaluation mode
(Summarized result)

Comparison

Evaluation mode
(Detailed result)

Save result
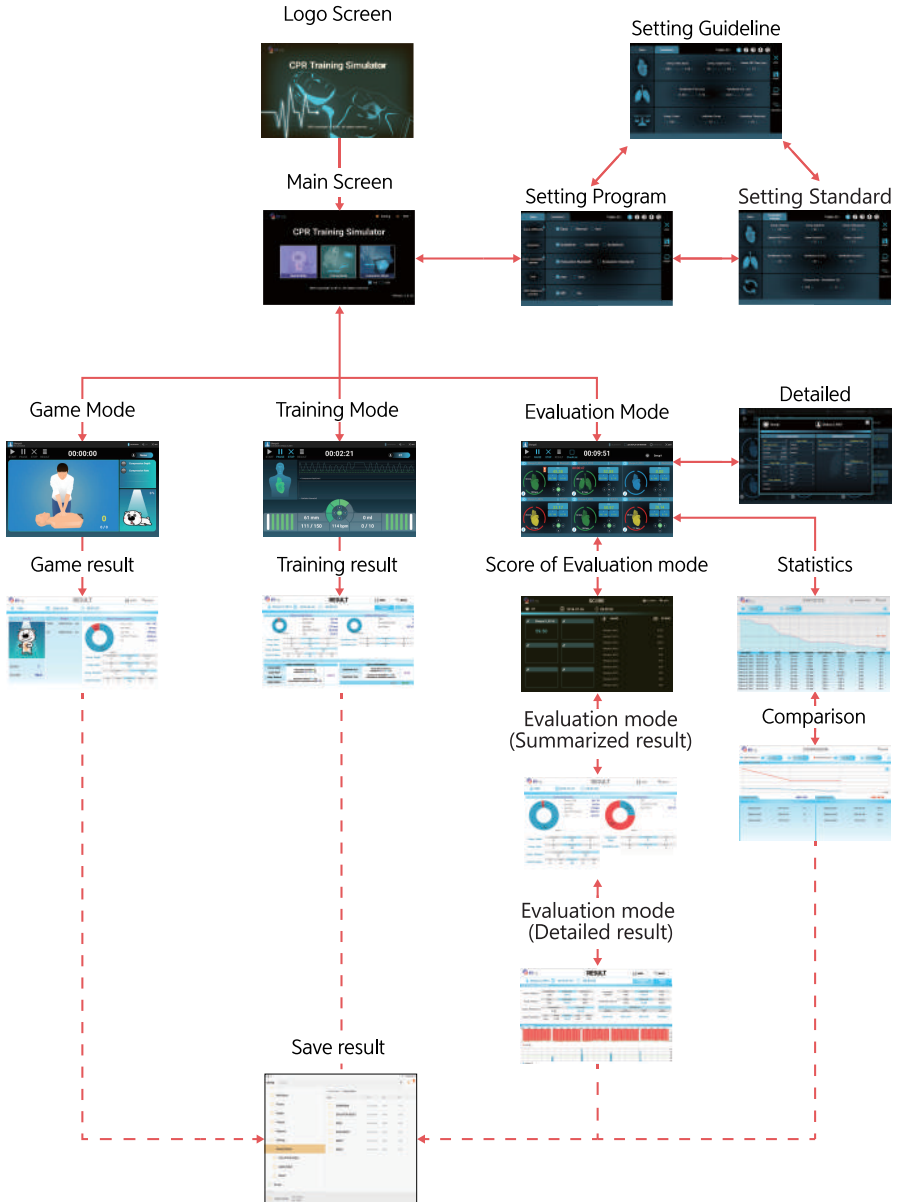
▎Software

<Main Screen>
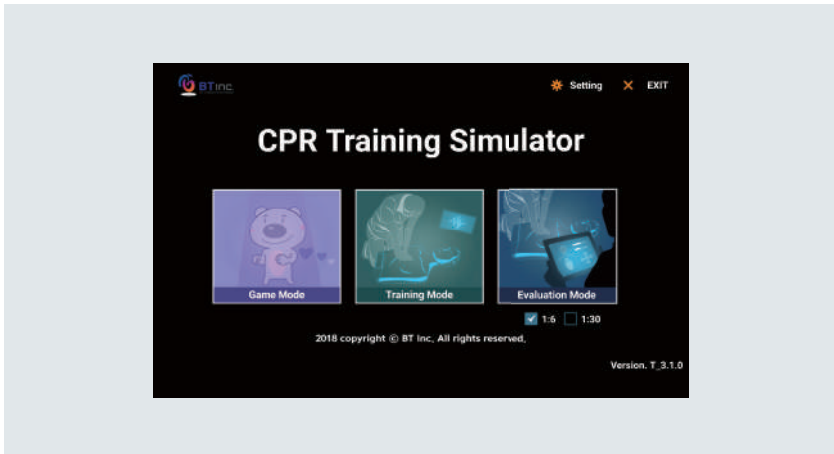
· Start training by selecting a mode among 'Game mode', 'Training mode' and 'Evaluation Mode'.

· In evaluation mode, you cal select between '1:6 mode' and '1:30 mode'.

  – In '1:6 mode', Sherpa X software is going to evaluate the training on its own.

  – In '1:30 mode', the evaluation is linked with Sherpa-XM software.

  ※ Refer to Sherpa-XM user guide for more information of 1:30 Mode.

· Guideline and scoring can be modified at ' Setting'.

· Select the desired number of devices when beginning 'Evaluation Mode'

· When ' Stop' is selected, the training will be finished.

▌Software

<Setting Program>
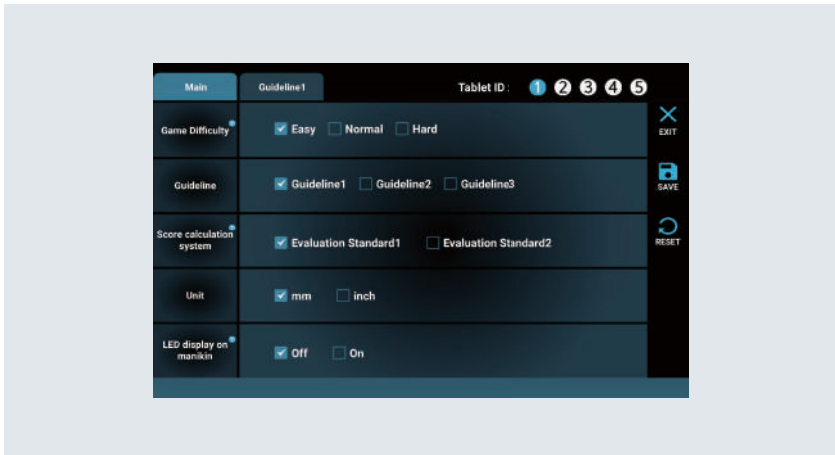
· When using '1:30 mode' for evaluation, you can number each tablet for a recognition.

　※ Refer to Sherpa-XM user guide for more information .

· At Game mode, the level of difficulty can be chosen 'Easy', 'Normal', 'Hard'.

· The pre-set guideline can be applied to the training.

· The score calcuation syestem can be chosen between Evaluation criteria 1 and 2.

· Inch and mm is offered for a default unit for compression depth.

· The display on the manikin can be ON/OFF. (At game mode, the display is off.)

Software

<Setting Guideline>

· Guideline can be modified easily according to the curriculum.

· Compression rate, Compression depth, Hands-off time.

· Ventilation time, Ventilation volume.

· Compression count, Ventilation count, Evaluation time.

Icon	Description
✕	Exit : Exit from "Setting"
💾	Save : Save the Setting value
↻	Reset : Reset the Setting value
📇	Guideline : Setting Guideline regarding chest compression and ventilation
📇	Evaluation Setting : Evaluation Setting regarding chest compression and ventilation

Software

<Standard 1>
- Score calculated according to the score ratio of each list

· Scoring can be set according to evaluation criteria.

· Set the evaluation ratio for Compression rate, Compression depth, Compression relaxation,

  Hands-off time, Hand position, Compression count.

· Set the evaluation ratio for Ventilation time, Ventilation volume, Ventilation count.

· Set the evaluation ratio for Ventilation : Chest compression.
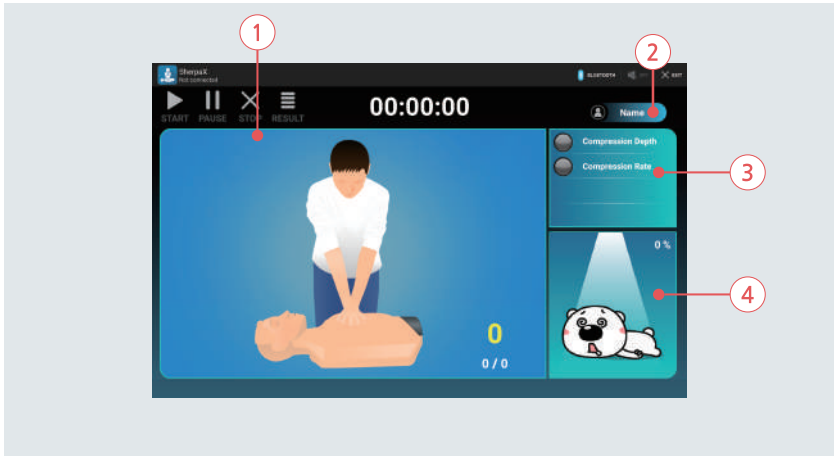
<Standard 2>
- Score calculated when all the lists are correct

· You can select the wanted evaluation item from the list according to the curriculum.

· Compression depth, hand position, recoil, rate

· Ventilation time, volume

· Set the percentage of score for Compression : Ventilation

Software

<Game Mode>

· At game mode, trainee can perform self-training only for chest compression.

<Screen Layout>

① The result for the chest compression is displayed in real-time.
   (Touch the screen to change the image.)

② User name can be changed.

③ The compression depth, compression rate, hand position, compression relaxation is being monitoring according to the level of difficulty.

④ The animation is changed according to the trainee's performance.
   (Touch the screen to change the character.)

Icon	Description
	Bluetooth : Setting Bluetooth
	Start / Stop / Pause : Start training / Stop training / Pause training
	Result : Check the result after training
	Switch the screen : Switch the screen to the different mode
	Trainee name : Insert the Trainee name
	Metronome : 100bpm / 110bpm / 120bpm / GOOD (Good compression) / OFF
	Stop : Go to main screen

Software

\<Game Mode – Result\>

· Result data can be checked and saved at 'Result' after training.

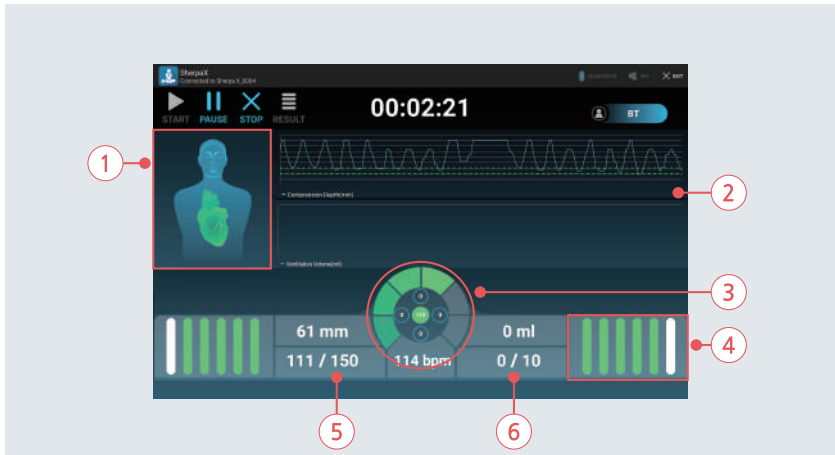· The result file is saved in JPEG format.

\<Screen Layout\>

① The ranking in game mode can be reset.

Icon	Description
📅	Calendar : Displaying the training date
🕐	Clock : Total training time

Software

\<Training Mode \>

· Trainees can practice by themselves in training mode.

\<Screen Layout\>

① The heart and lung are displayed during chest compression and ventilation and the
   color will be changed according to the result. Green(Good), Red(Not-good)

② Compression depth / ventilation volume is displayed in real-time.

③ Hand position / Compression count / compression rate / Ventilation time is shown in 3 stages.

④ Compression depth, Incomplete Compression relaxation, Ventilation volume is displayed.

⑤ The number of chest compression and compression depth are displayed in real-time.

⑥ The number of ventilation and ventilation volume are displayed in real-time.

█ Software

<Training Mode – Result>

· Result data can be checked and saved at 'Result' after training.

· The result file is saved in JPEG format.

▌Software

\<Evaluation mode\>

· Evaluation mode is to evaluate the trainee by trainer and it offers a group training by connecting up to 6 manikins.

\<Screen Layout\>

① Check the performed skills from the checklist.

② Practice time is being displayed according to the set time limit.

③ Change the trainee name.

④ Connect or disconnect the Bluetooth connection.

⑤ It displays the compression rate during chest compression and venilation rate during ventilation.
- Compression rate : Green(Good), Yellow(Slow), Red(Fast)
- Ventilation rate : Green(Good), Yelleow(Slow), Red(Fast)

⑥ It displays the compression depth during chest compression and venilation volume during ventilation.
- Compression rate : Green(Good), Yellow(Not enough), Red(Over compression)
- Ventilation rate : Green(Good), Yellow(Not enough), Red(Too much)

⑦ It displays the compression depth during chest compression and venilation volume during ventilation in number.

⑧ It displays the compression rate during chest compression and venilation rate during ventilation in number.

⑨ It shows the number of compression and ventilation and also the evaluation score in real time.

⑩ It displays the hand location ; It is green in the good location and it is red for the rest.

⑪ Check the real-time data for each individual.

Icon	Description
	Group : Name the group.
	Statistics : Switch the screen to the statistics.
	Detailed screen : Switch the screen to the detailed screen.

▌Software

\<Detailed screen>

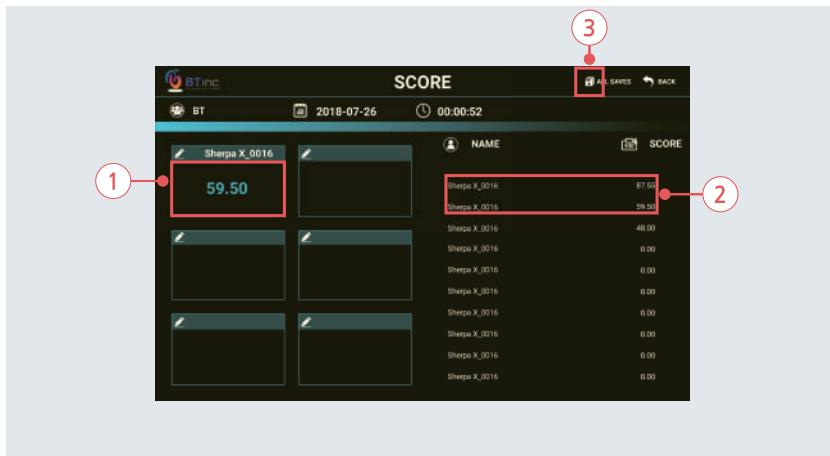· Data regarding chest compression and ventilation can be checked in real time.

Software

\<Score of Evaluation mode\>

· After the training, the rank and the score of the trainee will be displayed at 'Score and ranking'

\<Screen Layout\>

① Go to the individual training result by selecting the score of each trainee.

② The results will be listed automatically according to the score.
   (Please long tap the trainee's name to delete the releated training data.)
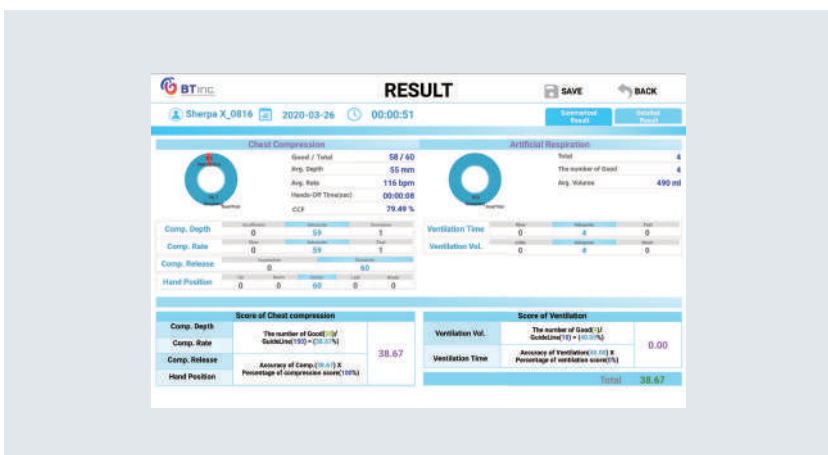③ Save the all results of trainees.

▌Software

Evaluaion mode - Summarized result (Evaluation criteria 1)
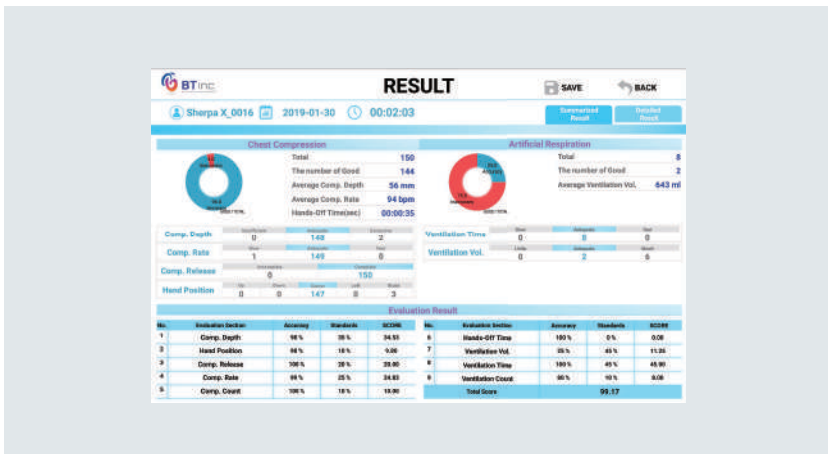
· After training the detailed result can be checked and saved at 'Result'.

· The result file is saved in JPEG format.

Evaluaion mode - Summarized result (Evaluation criteria 2)

· After training the detailed result can be checked and saved at 'Result'.

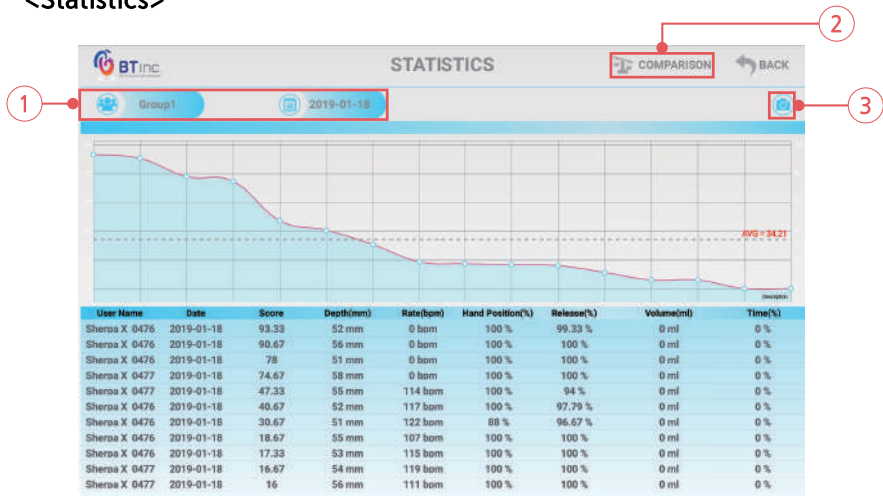· The result file is saved in JPEG format.

Software

Evaluaion mode - Detailed result

· After training the detailed result can be checked and saved at 'Result'.

· The result file is saved in JPEG format.

Software

\<Statistics\>

· Check the statistics of many results are save the excel and comparison graph.
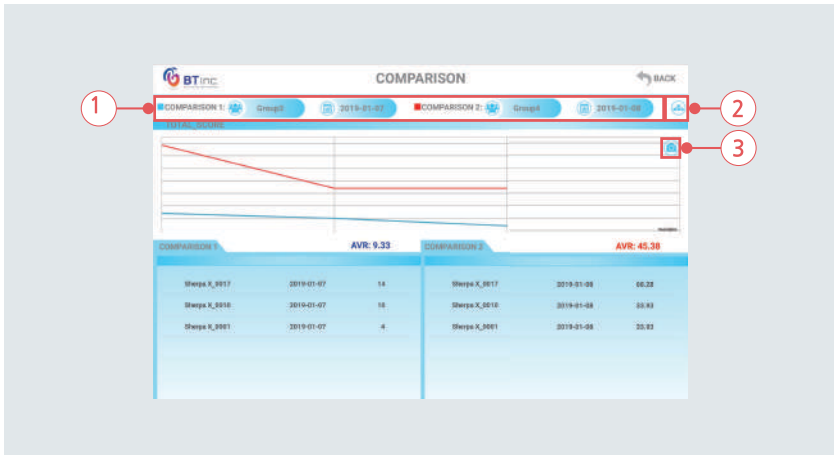
\<Screen Layout\>

① Select the group name and the date of training.

② 2 results can be compared by switching the screen to the comparison function.

③ Save the statistics graph.

Icon	Description
	Screenshot : Make a screenshot and save it.
	Comparison : Switch the screen to the comparison function.

▌Software

<Comparison>

· Select 2 targets for comparison, the data can be compared as graphs and saved.
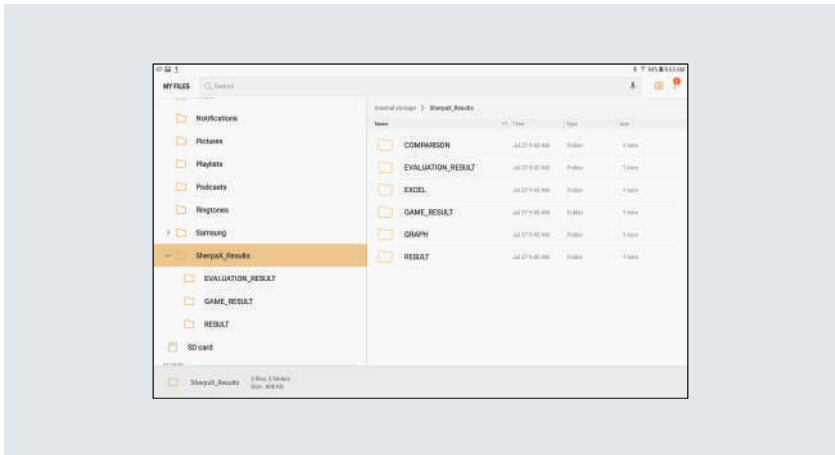
<Screen Layout>

① Select 2 targets by selecting the group name and the date of training.

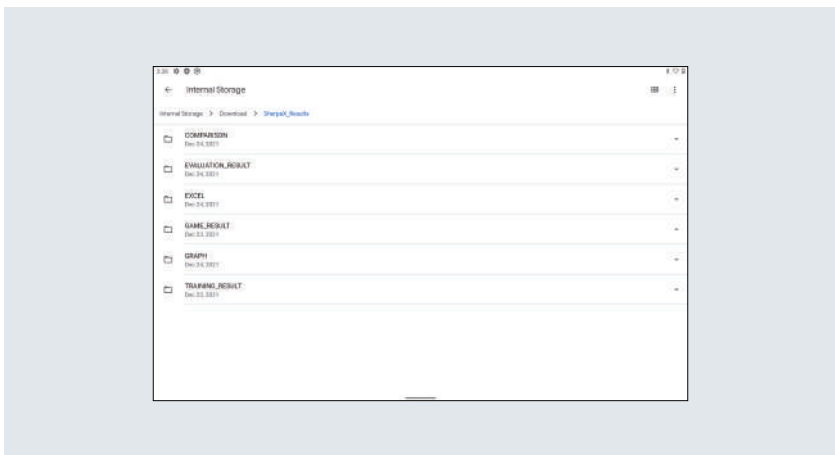② Select the item and compare the training results.

③ Save the comparison graph.

Icon	Description
	Search : Search the items which needed to be compared

Software

<Folder for saved results>

· If the Android version is lower than 10, please check the result at "Tablet PC > My Files > Internal Storage > Sherpa X_Results".

· If the Android version is greater than or equal to 10, please check the result at "Tablet PC > My Files > Internal Storage > Downlaod > Sherpa X_Results".

CPR Training Model

Sherpa X