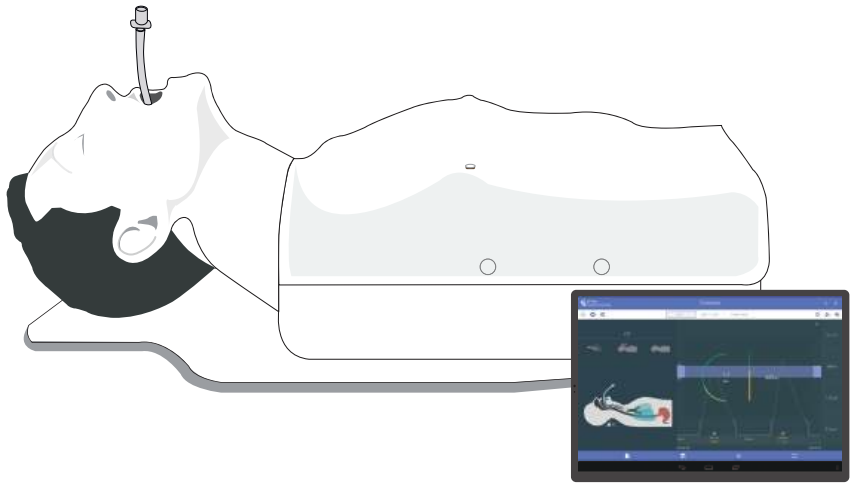


BT-CSIE

# Airway Management Simulator

## USER'S GUIDE



S/W User Guide



## Product Information

Product Name	Airway Management Simulator
Model Name	BT-CSIE
Manufacturer	BT Inc.
Country of Origin	Republic of Korea
Certification	

(Contains FCC ID : S7A-IW05)

## Product Specification

Dimensions	700 X 300 X 240mm
Weight	8.5kg
Power Converter	Input AC100-240~, 50/60Hz, 0.4A Output DC 12V, 1.5A
Battery	LR6 - 8개(AA 타입, 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, Deogyang-Gu, Goyang-Si, Gyeonggi-do, 10594, 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

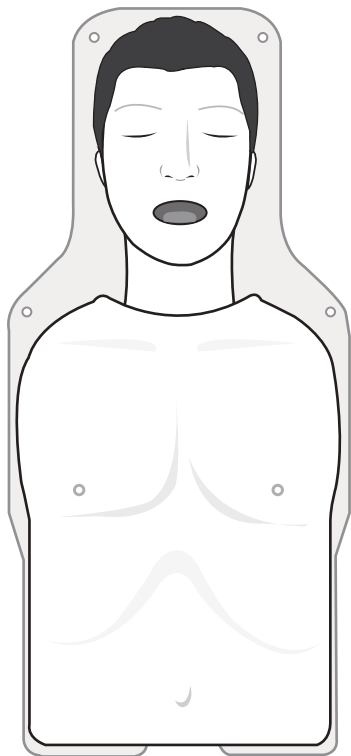
\* Please follow the regulations of corresponding area for the disposal of used batteries.

# Cautions

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

- Ⓢ Use only components provided or approved by BT Inc.
- Ⓢ 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 from 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 chemical 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.

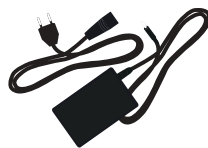
# Components



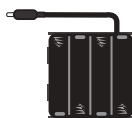
**Adult Torso Manikin**



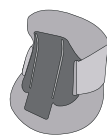
**Tablet PC  
(Option)**



**Power adapter**



**Battery Holder**



**Cervical collar**



**Lubricant**

\* Etc - Storage case, Skin fixing pin(8ea)

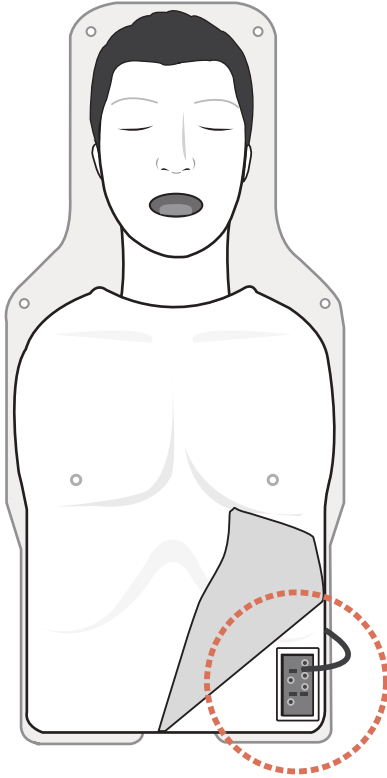
## Consumables & Recommended Clinical Supply Sizes

Consumables	
<ul style="list-style-type: none"> <li>• Skin(face, torso, head)</li> <li>• Lubricant</li> </ul>	<ul style="list-style-type: none"> <li>• Airway for replacement</li> </ul>

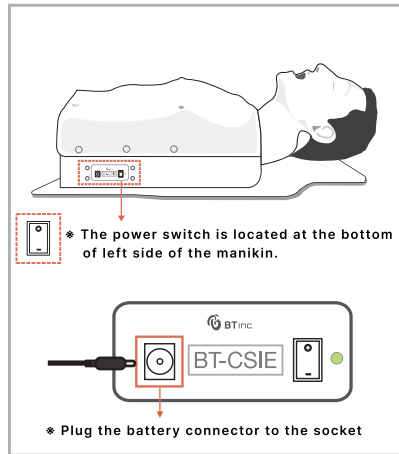
Recommended Clinical Supply Sizes	
ETT	I.D. 7.0~8.0mm
I-gel / LMA	#3, #4
Combi-tube	37Fr
OPA	88mm(Green)
NPA	6~7(24~28Fr)

- The following clinical supply sizes are recommended for use with BT-CSIE model.
- Other sizes may cause damage to the products.
- Lifetime of the consumables may differ depending on the skill level of the users.

# Insert / Replace Batteries



**Battery Holder  
for 8 units of AA size Batteries**

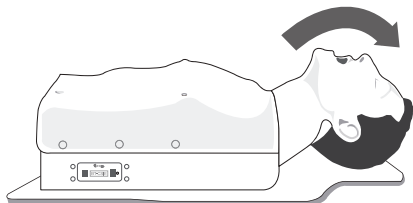


\* The power switch is located at the bottom of left side of the manikin.

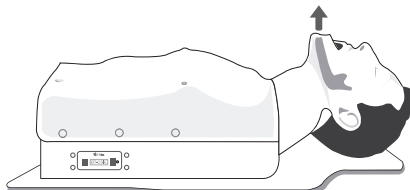
\* Plug the battery connector to the socket

- ① Take off the skin, and pull out the battery holder which is located at the left side of manikin.
- ② Insert the 8 batteries with correct polarities.
- ③ Plug the battery connector into the socket at the left side of the manikin.

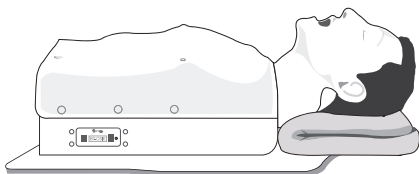
# Basic Functions of Manikin



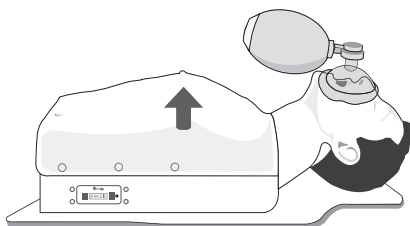
1. Head tilt



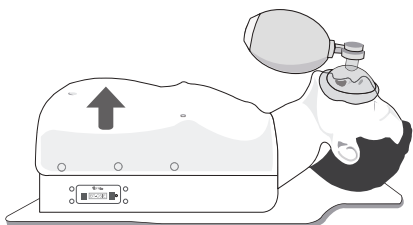
2. Jaw thrust maneuver



3. Sniffing position

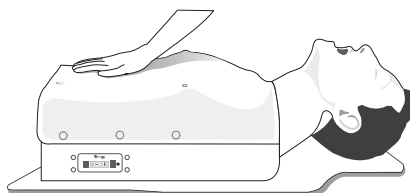


4. Ventilation with the bag valve mask



5. Gastric inflation

\* The gastric inflation may happens by too strong, too much, too frequent ventilaion or esophageal intubation.



6. Deflation by hand

\* If the gastric inflation happens, press the abdomen softly to discharge the air.

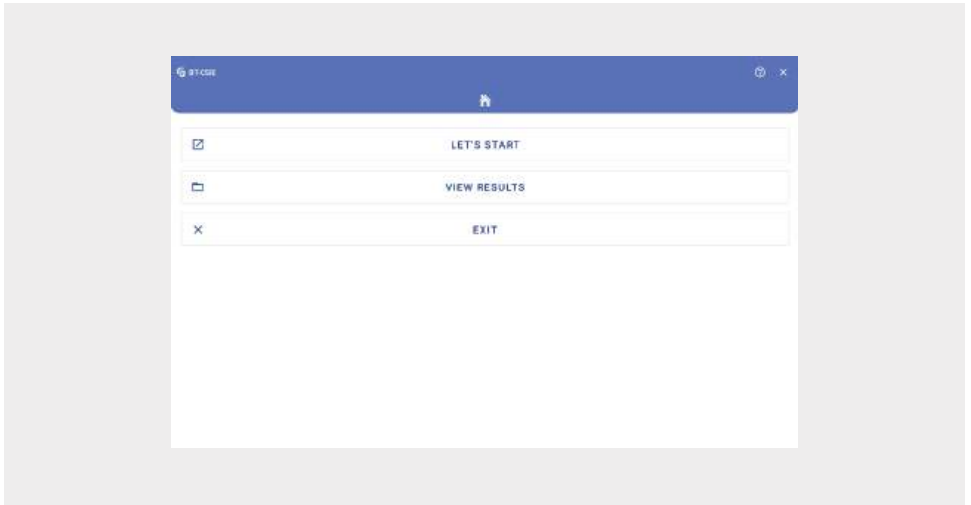
# Software

## 1. Screen layout





## 2. Home (Main screen)

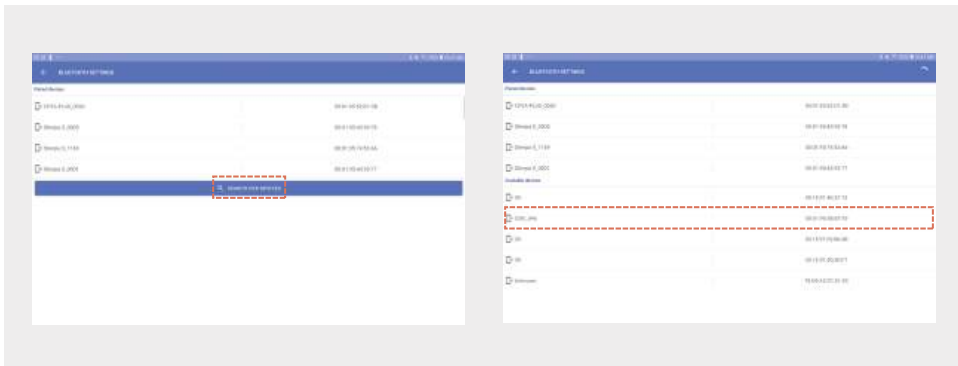


① LET'S START : You can select the ETT, LMA/l-GEL, COMBITUBE modes to practice airway management.

② VIEW RESULTS : Saved result can be seen in "View Results".


### 3. Bluetooth Connection

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



- ① First, check the manikin's power is on.
- ② Click the Bluetooth icon to make sure the pairing with device.
- ③ If devices are not paired, Select the device that user wants to connect from the pairing device list.

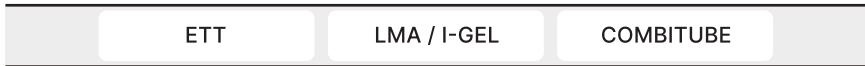


- ④ After selecting the device, enter the Pin Code as below.
  - \* Pin Code : 56789
- ⑤ In the paired devices list, check the connection of the device.
- ⑥ Once connection is complete, the device & tablet PC will connect automatically.
  - \* Reconnection Icon : 

#### 4. Let's start










#### Ⓞ Mode selection



- 'ETT', 'LMA / I-GEL', 'COMBITUBE' modes are available.

#### Ⓞ Top bar icon

Icon	Description	Icon	Description
	Start Training		Stop Training
	View Result		Setting
	Sound feedback - Activated		Sound feedback - Inactivated
	Simulator Setting		



Setting



Guideline Setting



Evaluation Setting



Checklist Setting

- Setting : 

- Guideline Setting : Editable guideline for ventilation.
- Evaluation Setting : Editable evaluation items and points.
- Checklist Setting : Editable checklist items and points.








Simulator Setting

- Simulator Setting : 

- Set the value of Head extension angle( $n^\circ$ ) / Force on incisor (N)

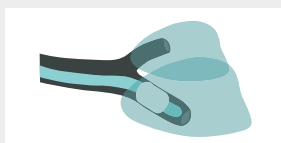
⊙ Bottom bar icon

Icon	Description	Icon	Description
	Checklist		History
	Line Graph		Bar Graph
	Full Screen		

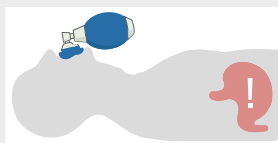
⊙ Training Screen



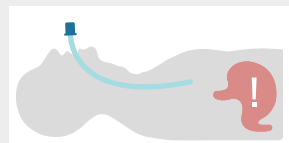
a. Wrong Intubation - Displaying right mainstem intubation, gastric inflation, esophageal intubation.



Right mainstem intubation

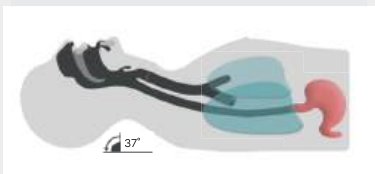


Gastric inflation by BVM

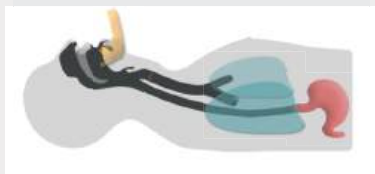


Esophageal intubation

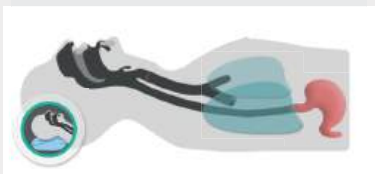
b. Training date is displayed in real time.



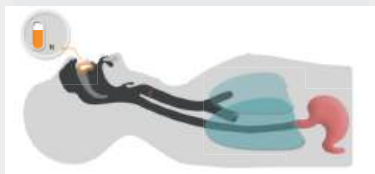
Head-tilt / Chin-lift maneuver



Jaw-thrust maneuver

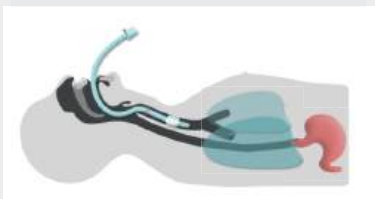


Sniffing position

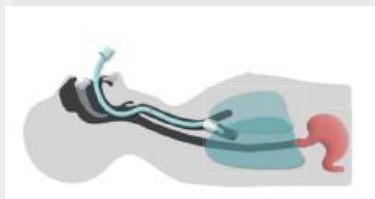


Force on incisor (N)

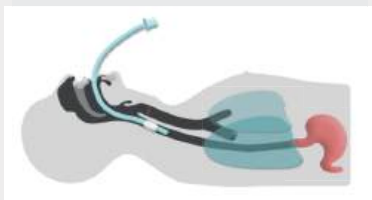
- ETT intubation



Correct ETT intubation



Right mainstem intubation



Esophageal intubation

- LMA / I-GEL & COMBITUBE intubation

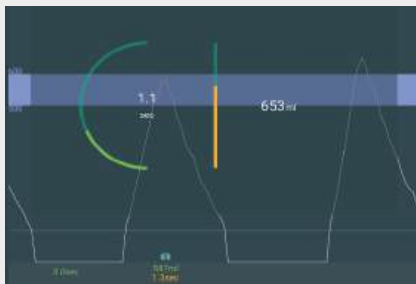


LMA / I-GEL intubation



COMBITUBE intubation

c. Ventilation Graph



Line Graph



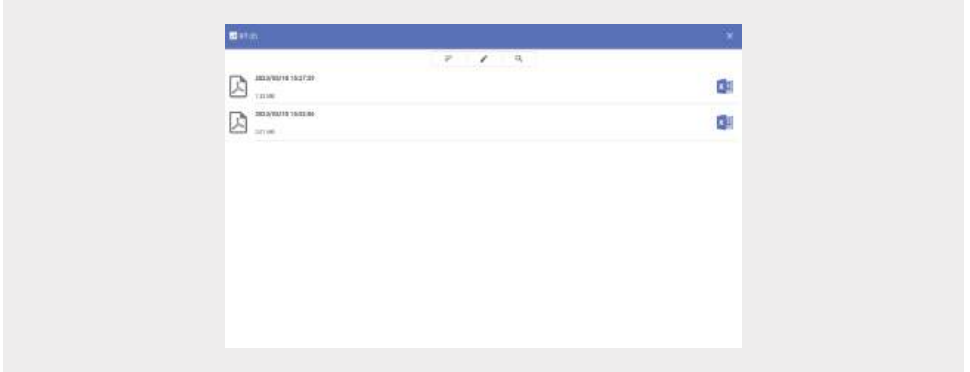
Bar Graph

- You can select the graph type (Line Graph / Bar Graph)
- Displaying ventilation number, ventilation time, time interval and etc.
- Training Screen icon

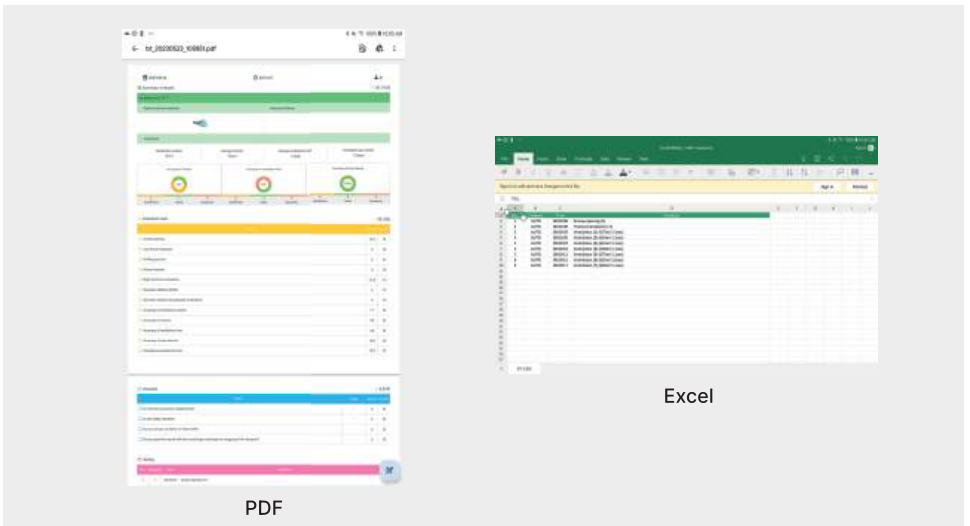
Icon	Description	Icon	Description
	Ventilation after correct ETT intubation		Ventilation after right mainstem intubation
	Ventilation with Bag-valve-mask		

## 5. View Results

- Saved result can be seen in "View Results".



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



PDF

Excel

- ⊙ Click the file to see the result in PDF or Excel format.
- ⊙ Save result can be shared or transmitted to e-mail.



BT-CSIE

# Airway Management Simulator

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

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