HELP MENU

Introduction

System Operarion

Assessment

Trouble Shooting

Contact Information

DAM simulator
evaluation system

▶ Getting to know your product

▶ How to use the touch monitor

▶ Two learning modes

▶ Level of difficulty

Set Includes

DAM simulator
evaluation system

Parts Names

■ Monitor

■ Video Camera

■ Manikin

■ Storage shelf

■ Simulation unit power button
■ Terminal
  for video laryngoscope
■ USB port

Light: Power ON
No Light:Power OFF

■ Emergency button

*Subject to change

■ Power socket
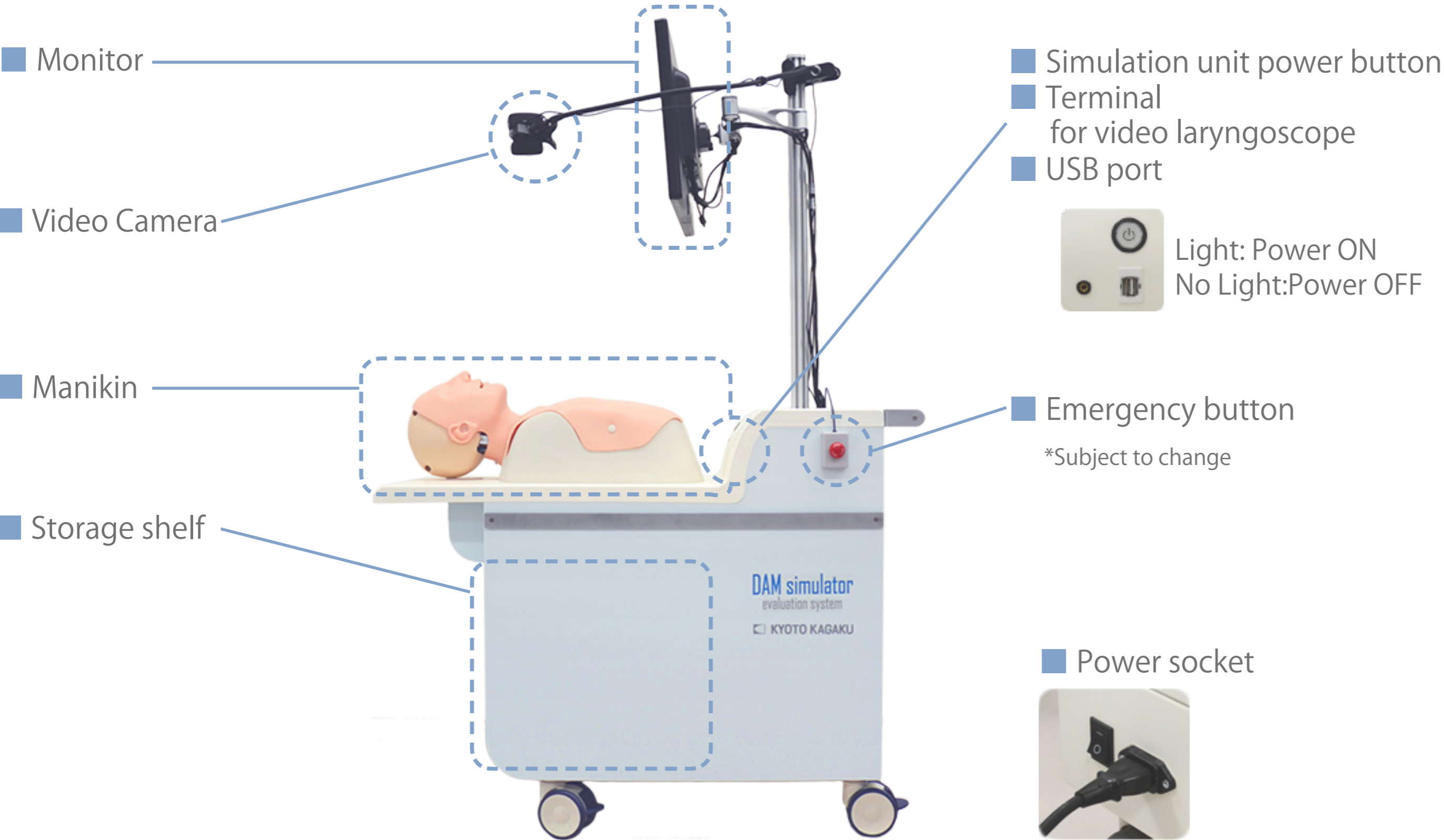
■ Side tables

■ Cable for video laryngoscope

■ Printer

■ Keyboard

■ Lubricant

DAM simulator
evaluation system
KYOTO KAGAKU

How to use the monitor

DAM simulator
evaluation system

Basic guidelines on how to use the monitor.

■ Touch operation

Operate the touch-screen monitor with your fingers or the touch-screen compatible pen attached to the monitor.

Tap the screen lightly to select the items on the screen and operate. All system operations can be controlled with this touch-screen feature.

⚠ **Do not press the power button on the touch-screen monitor.**

The touch-screen monitor will automatically power on when the simulator power switch is turned on. Please do not touch the power button on the touch-screen monitor. If the monitor does not turn on after the simuletor power switch has been turned on, verify if the monitor power button is ON.

Two learning modes

DAM simulator

Users can use the Difficult Airway Management Simulator Assessment System with either an Self-Learning Mode or a Guest-Learning Mode.

■ Self-Learning Mode

Log in as a registered user to use the function of saving and reviewing personal record of training.

When creating a Self-learning account, the account will require the following information is registered:

● User ID　　● Name　　● Password
● Nameo of Department/Organization
● Grade in School　　● Years of Experience

Related Help Pages

▶ **Creating a new account**

▶ **Self-Learning Mode**

■ Guest-Learning Mode

Log in as a guest user to take the assessment and see your results.
Results cannot be saved in the guest user mode.
This mode is useful for seminars.

Related Help Pages

▶ **Guest-Learning Mode**

Difficulty Levels

Back to
Introduction

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DAM simulator
evaluation system

Definitions of each difficulty level

■ Normal (Difficult Level:1)

Simulation of patient with no airway difficulties. Opening the mouth and retroflexion of the neck is most easy out of all four levels.

■ Lock Jaw (Difficulty Level:2)

Simulation of patient with locked jaw. Opening the mouth is more difficult.

■ Rigid Neck (Difficulty Level:3)

Simulation of patient with limitations in neck retroflexion. Users should experience complications when trying to rise the chin.

■ Micrognathia (Difficult Level:4)

Simulation of patient with micrognathism (recess of lower jaw). Opening the mouth as well as retroflexion of neck are more difficult.

Software screen

▶ Icons

Self-Learning Mode

▶ Log into an individual account

▶ Beginning assessment

▶ Displaying assessment results

▶ Overview of assessment results

▶ Exporting past assessment results

▶ Creating a new account

▶ Editing an existing account

▶ Changing an account

Guest-Learning Mode

▶ Guest-Learning Mode

Others

▶ Using a video laryngoscope (analog image output)

▶ Using a video laryngoscope (USB image output)

▶ Changing the assessment time limit

▶ Printing the result page

▶ Closing the system

Icons

DAM simulator
evaluation system

Following icons are on the top right corner of the screen.

Home
Return to the main sinario
selection menu

Data
Display all assessment
results data from the past

Accounts
Manage your accounts

Print
Print your assessment
results screen

Help
Open the help menu

Power
Log out of an account or
shut down the system

Log into an individual account

How to log into an individual account.

When the power is turned on, the log in screen will appear automatically.

1 Enter the user account ID and password.

2 Tap the Login button.

Related Help Page

▶ Creating a new account

Beginning assessment

DAM simulator

1 Select the difficulty level, case scenario and equipment you are using.

1) Select a case scenario and an equipment.
2) Then adjust the head of the manikin so that it lies parallel to the simulator table.
3) When the head is positioned correctly the indicator on the right side shows "OK" (see below).
   In case the manikin neck is rigid, press the button under the "Incorrect" indicator to release.
4) Then retry positioning till the indicator confirms "OK". Press "Next" to proceed.

In case of using video laryngoscope with USB output video, first turn on the video laryngoscope and connect the USB cable and press the "Next" button on this screen.

1. Select a case

2. Select the device

3. Adjust the model

4. Next

Beginning assessment

DAM simulator

② Initial positioning of model

Initial position and scenario are set automatically. Do not touch the manikin until the indicator gage reaches 100% and the display transits to a new screen.

Following message is shown when automatic initial position setting failed.
Press "Retry" to restart automatic setting.
Press "Manually" to start manual setting.

When manual setting is selected, following display appears. Adjust the head of the manikin until all three indicators show "OK". Once the manikin has been positioned correctly, "Next" button appears. Press "Next" to proceed.
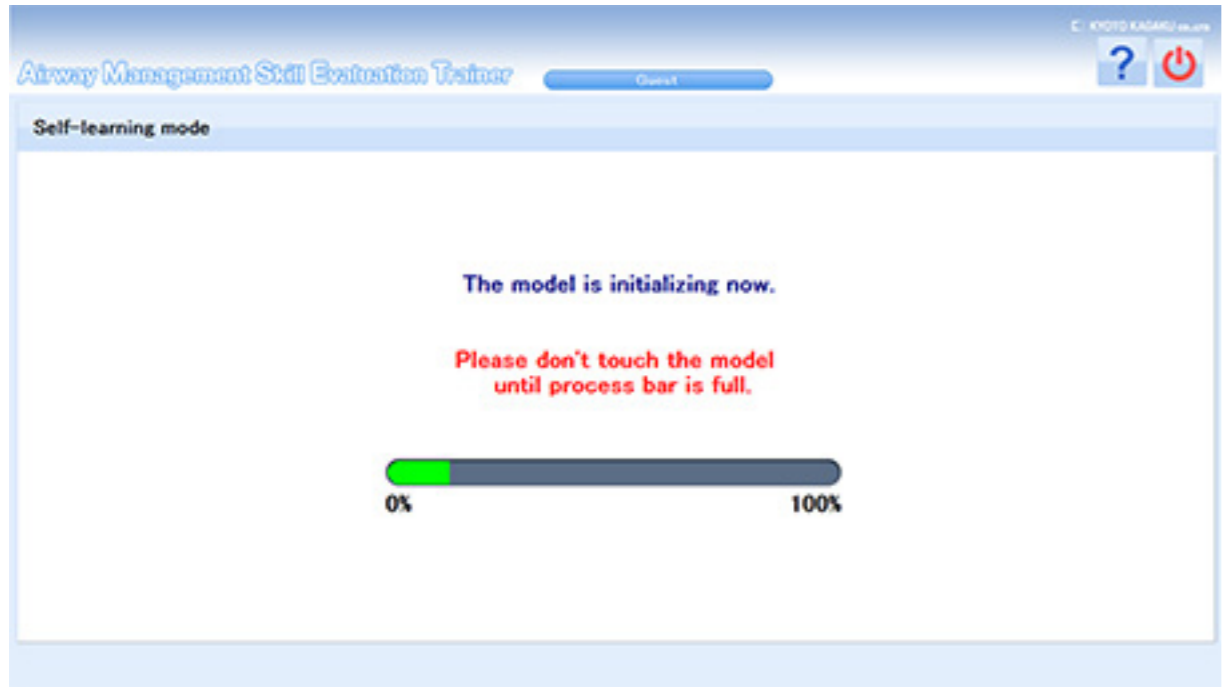
! Do not touch the model while the bar is loading.
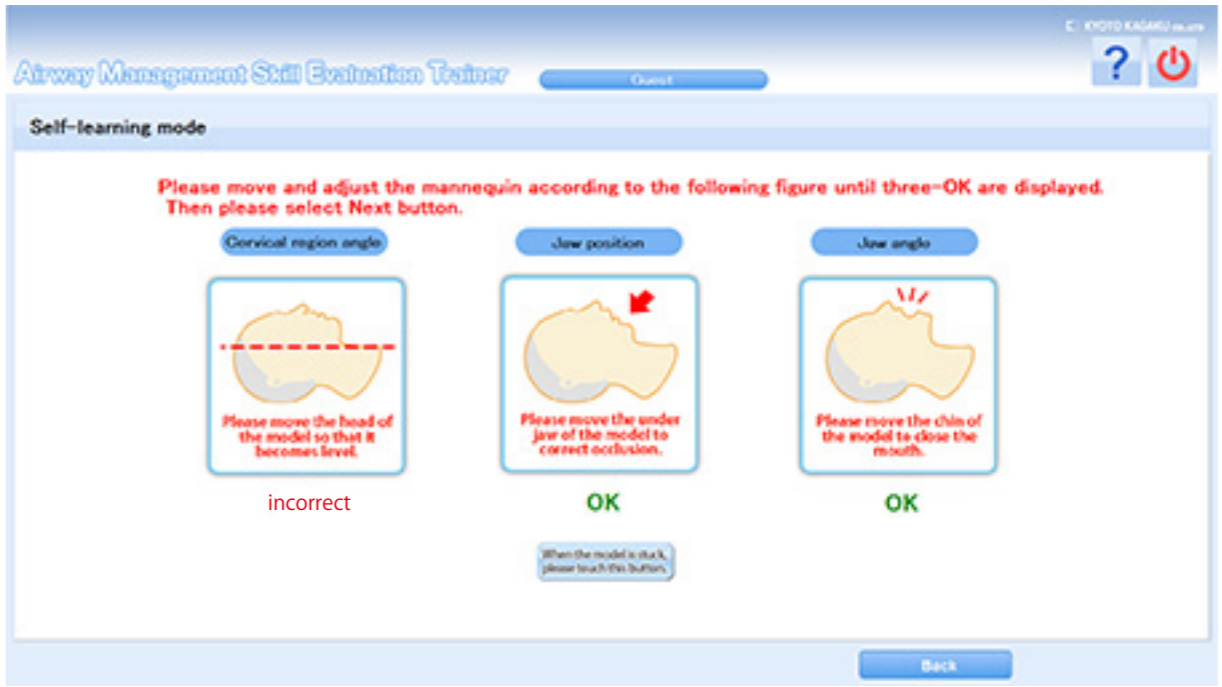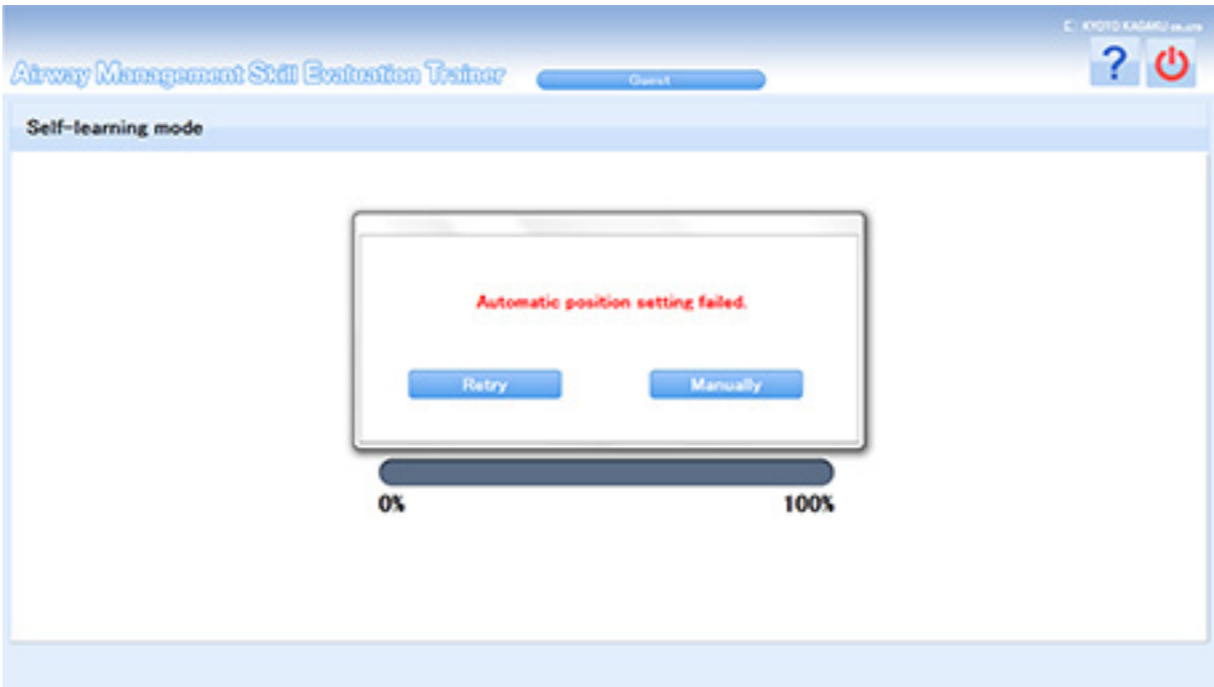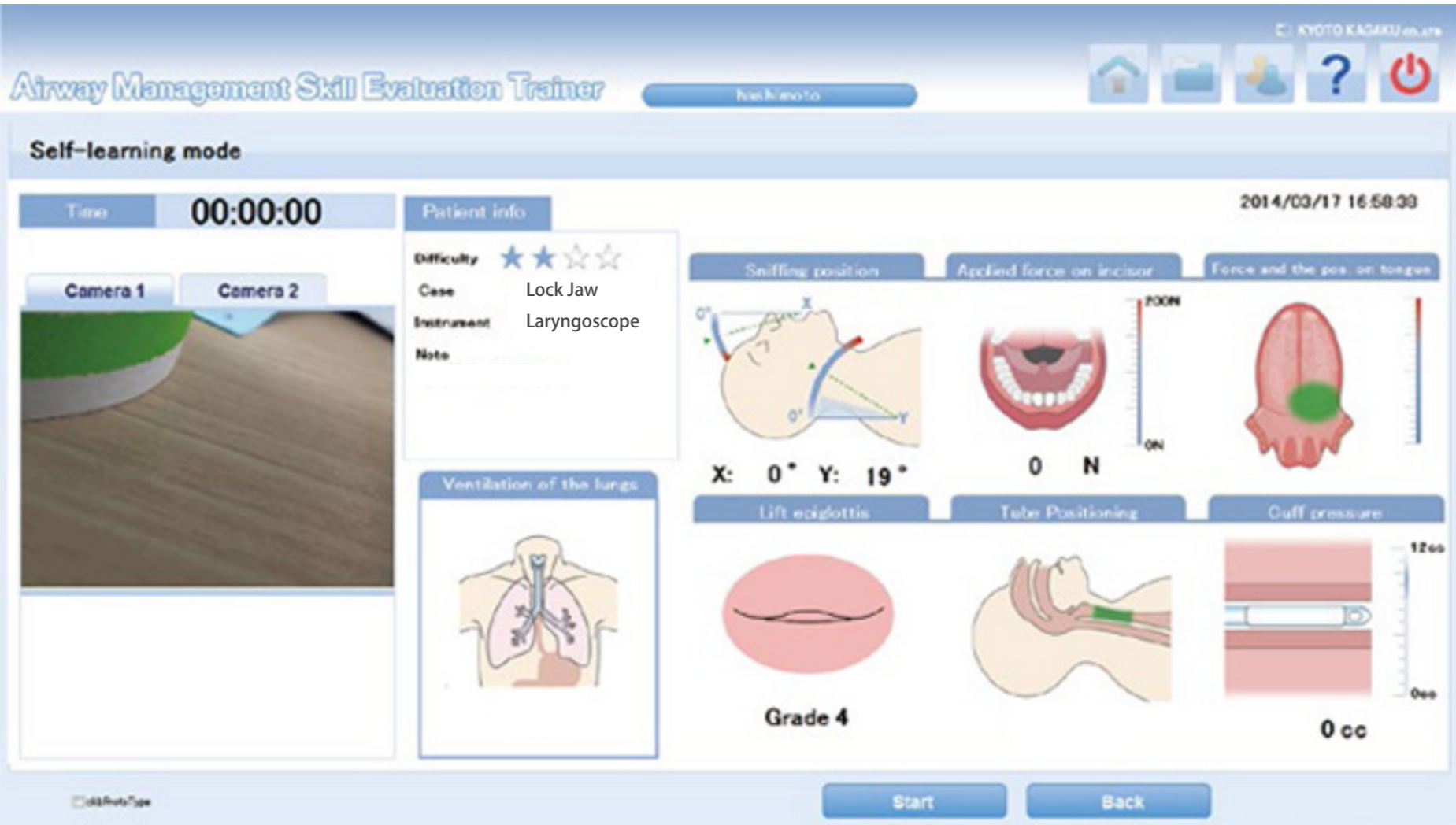
← **Back**

Next page →

Beginning assessment

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Basic Sytem Operation

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evaluation system

3 Beginning the assessment

When the positioning is complete, the below image will appear on the screen.

Adjust the camera to capture your hand motions for assessment recording as the image is displayed.

> **!** In order to measure the cuff pressure correctly, please release all air from the cuff before procedure implementation.
>
> Spray lubricant to intraoral, tube and blade before procedure implementation.

Tap on the Start button to begin your training. The video recor ding and sensor data recording will also begin.

When intubation is complete and air inflow is verified to both lu ngs, the assessment will automatically stop and the assessment results page will appear. You may also end your session manually by tapping on the Stop button.
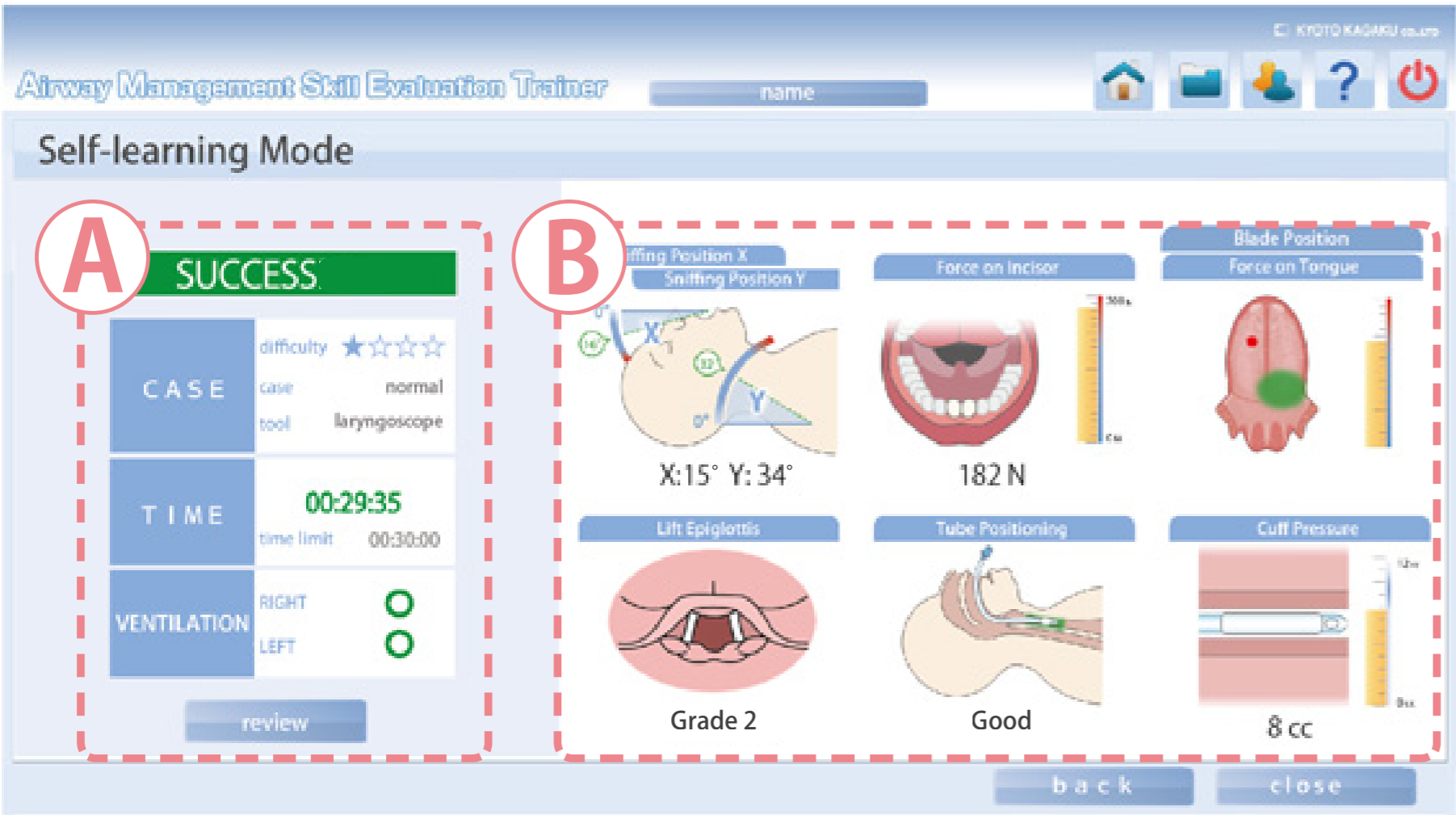
← **Back**

Displaying assessment results

DAM simulator

A guide through the assessment result page

1 Assessment Success or Fail

When the assessment is finished, a pop-up will appear as seen below.
To see your results, tap on the Result button. To take the assessment again, tap on the Retry button. To select a different case scenario, tap on the Case Selection button.

2 Checking your assessment results

A explanation of your results will appear.

A **Success or not assessment** When ventilation to lungs is completed under 30 seconds, the assessment is a successful. The time can be adjusted.

B **Skill assessment** Assessment of the amount of stress applied to the patient.

Related Help Page

▶ **Assessments**

Overview of assessment results

DAM simulator

Two methods to display past assessment results.

1 Displaying the 5 most recent assessment results

Tap on the "Performance" tab on the assessment results page. For each respective case scenario, the total number of assessments completed, the number of passing assessments completed, results of the 5 most recent assessments and the success rate of last 5 trials will display.

2 Overview of assessment results

To see an overview of past assessment results, tap on the Data Icon on the top right corner.

Each assessment result can be opened in sheet format by selecting the line and tapping on the "Sheet" button.

Exporting past assessment results

DAM simulator

How to export assessment results onto a USB drives.

1 Connect the USB drive

Insert your USB drive into the USB port below the simulation unit power switch.

2 Select the data to export

Tap on the Data Icon 📁 and display the assessment data. Select the data to export and tap on the Export button on the right bottom.

3 Connect the USB drive

Select your USB drive on the computer and save the data. The assessement video file, sensor file and an image of the assesment results page are saved.

Creating a new account

DAM simulator
evaluation system
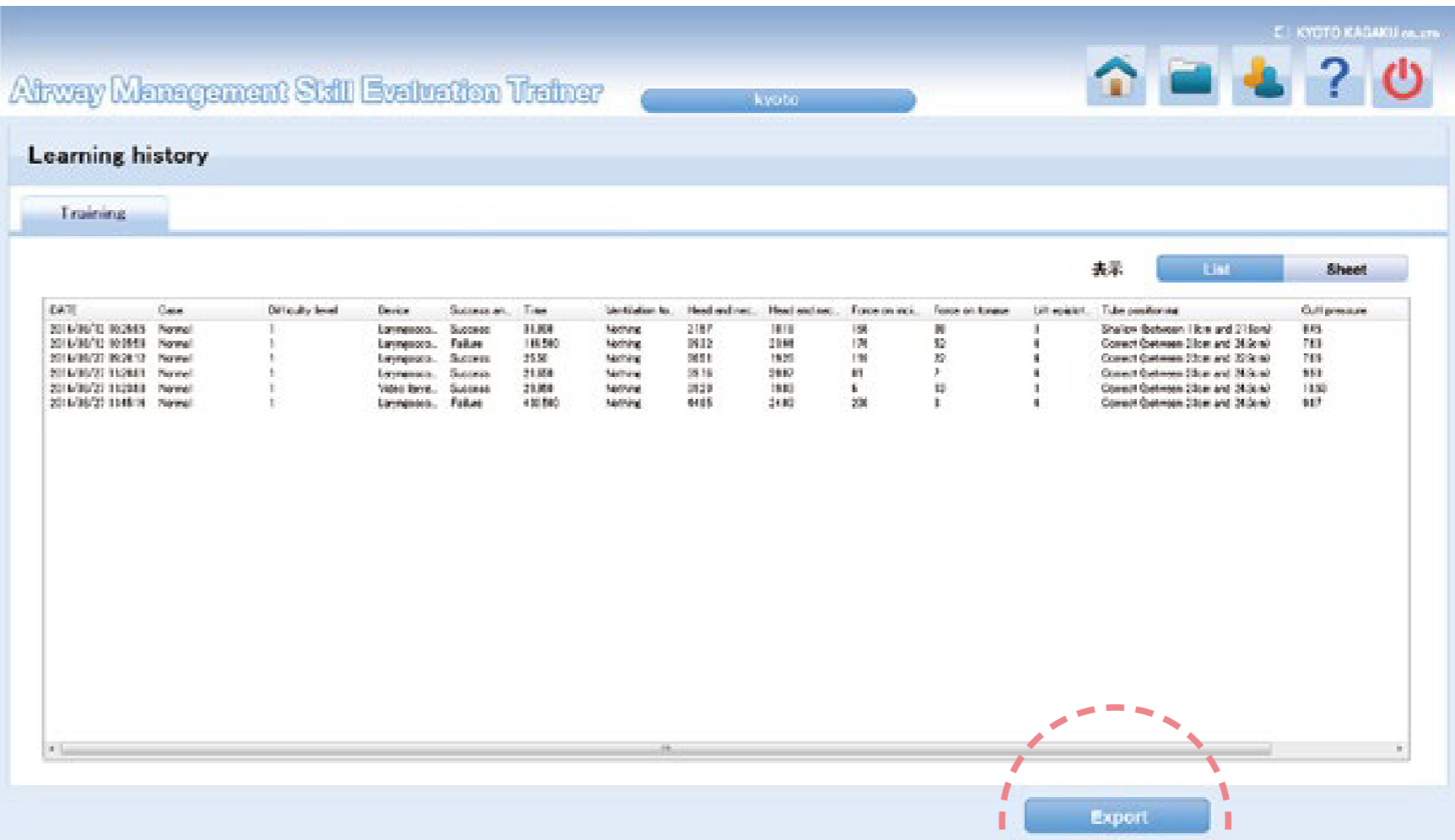
An individual user account needs to be created to save assessment data.

1 Open the "Creating an account" page

Tap on the "Create an account" link on the Log In screen.
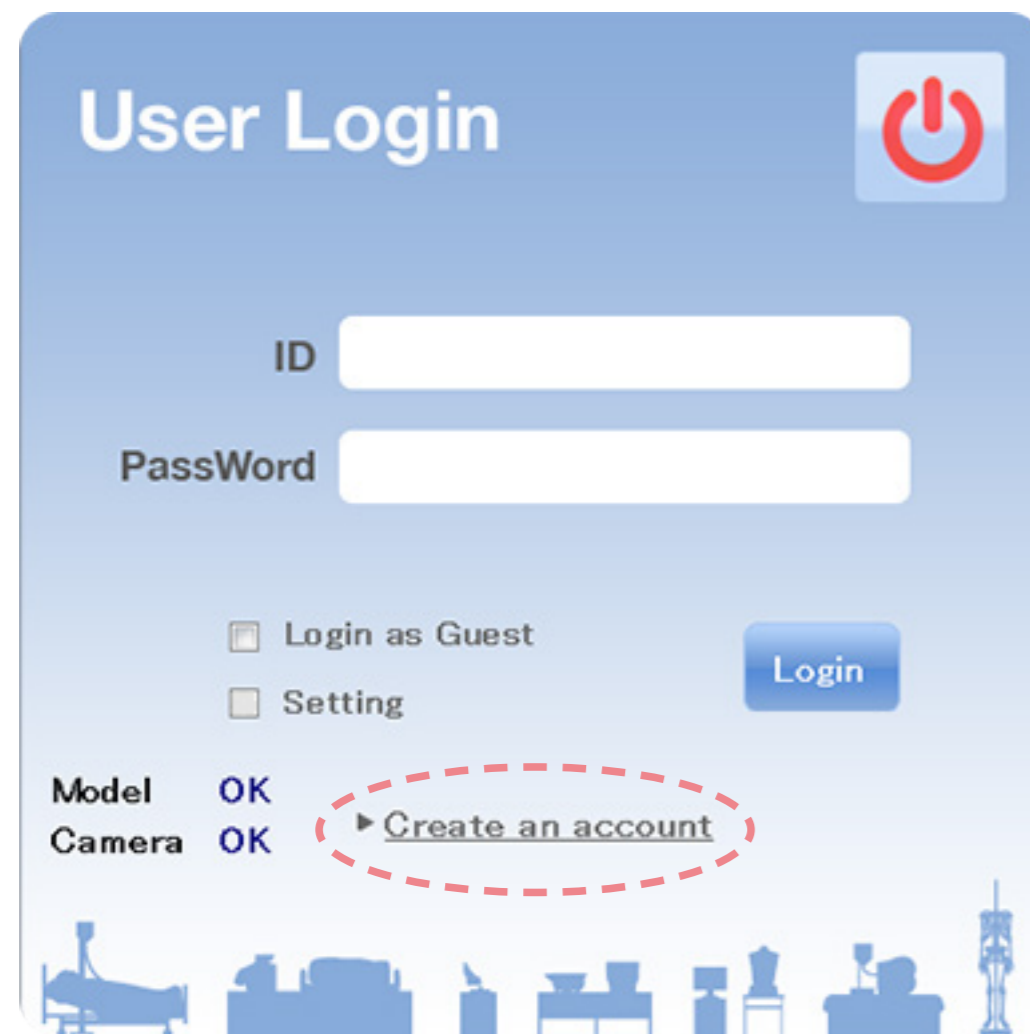
2 Account information

Input the following information for the new account.

- User ID
- Name
- Password
- Name of Department/Organization
- Grade in School
- Years of Experience

When all information is complete, tap on the Confirm button on the bottom right corner.

*Please enter N/A for unapplicable fields.
*Please enter your password twice for confirmation.

3 Verification of account information

Please verify your account information and tap on the Save button to submit.
Tap on the Change button to edit your account information.

Editing an existing account

DAM simulator
evaluation system

How to edit your account information

1 Open the account information page

Tap on the Accounts Icon on the top right corner to open the account information page.

2 Open the account editting page.

Tap on the change button on the bottom right corner to open the editing window.

3 Editing your account information

Edit the account information and tap on the Update button on the bottom right corner when finished.

To return to the assessment page, tap on the Home Icon on the top right corner.

Airway Management Skill Evaluation Trainer   KYOTO KAGAKU

Account information

ID   ABC

Name   KYOTO KAGAKU

Password   abcdef

Affiliation/Community   Kyoto Kagaku

Grade   5

Years of experience   3

Note

Change

Changing an account

DAM simulator
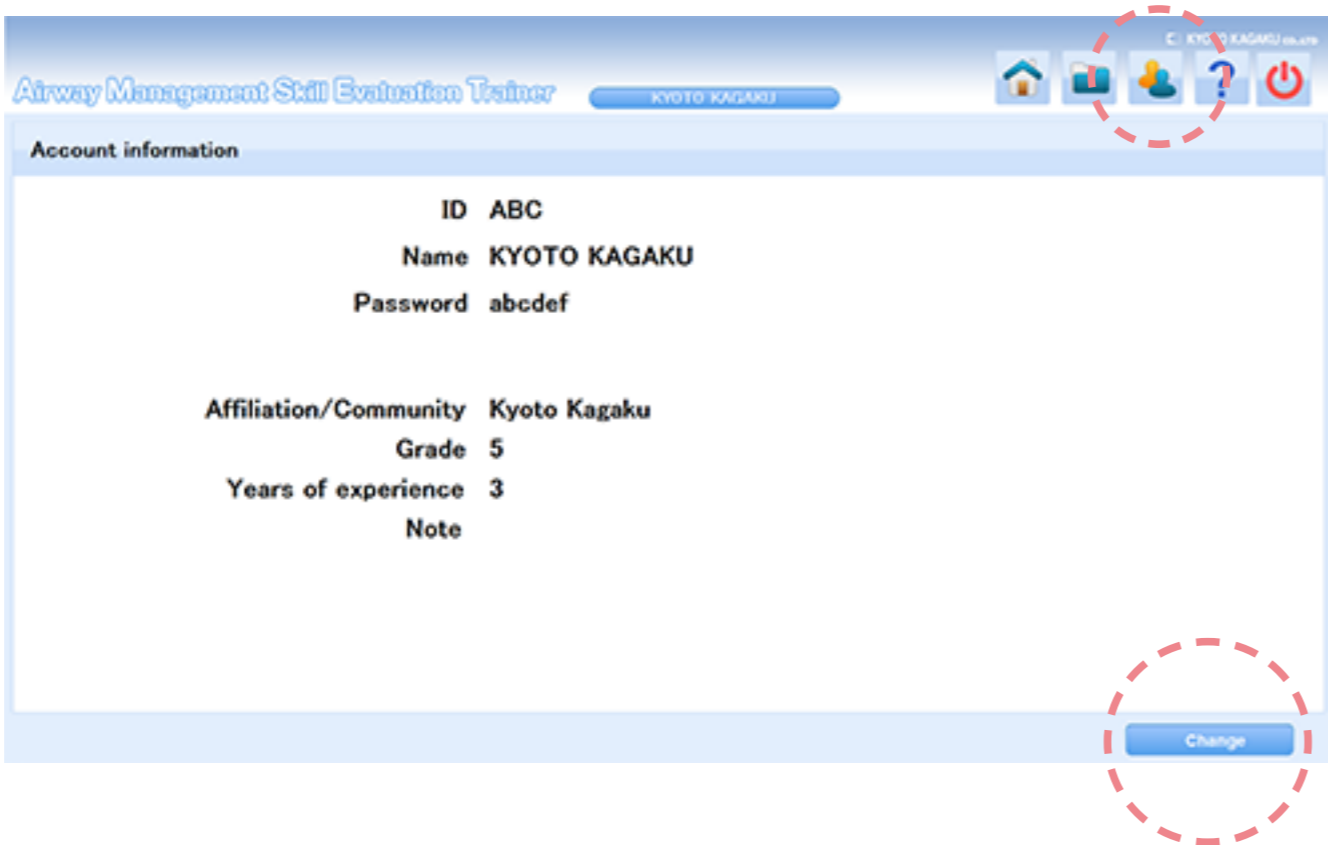
How to switch accounts

1 Open the Log In page

Tap on the power Icon ⏻
on the top right corner of your screen.

2 Log out

A pop up similar to the image will appear.
Tap on the Log Out button.

3 Return to the Log In page

Return to the Log In page and enter the
account user ID and password.

Guest Learning Mode

DAM simulator
evaluation system

How to log in as a guest user

User Login

ID

PassWord

☑ Login as Guest
☐ Setting

Login

Model   OK
Camera   OK   ▶ Create an account

① Go to the Login page, and check the Login as Guest option.   * ID and Password can remain blank

② Tap on the Login button.

After logging in, the guest user can select difficulty level, case scenarios and equipment and start the session in the same way as an individual account user.

Related Help Page

▶ **Beginning assessment**

Using a video laryngoscope (analog image output)

DAM simulator
evaluation system

To use the video larygoscope (analog image output) for assessment, the equipment must be connected to the simuletor machine before beginning the session.

1 Prepare the included cable for the video laryngoscope.

2 Insert one end of the cord into the port near the simulator powar switch, and connect to the video laryngoscope.
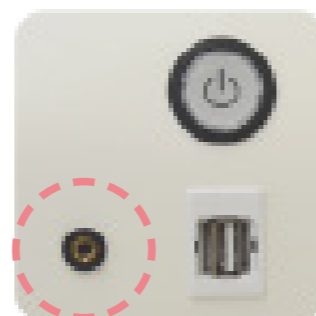
3 Then select the video laryngoscope on the screen. When you proceed to the assessment page, tap on the camera 2 tab to see the image captured by the video laryngoscope.

⚠ Use a video laryngoscope (analog image output) with a mini plug compatibility.

The simulator uses mini-plug to connect with a video laryngoscope. Be sure to use a device that is compatible with the mini-plug.
■ Recommended: Pentax Airway Scope - AWS S100L

camera1   camera2

Using a video laryngoscope (USB image output)

DAM simulator
evaluation system

To use the video larygoscope (USB image output) for assessment, the equipment must be connected to the simuletor machine before beginning the session.

1 Prepare the USB cable attached to the video laryngoscope.

2 Connect one of the plugs in the USB port near the simulator's switch, and the other one in the video laryngoscope.

3 After connecting the plugs, turn on the video laryngoscope and select "AWS S200". Once entering into the training page, select the tab "Camera 2" displayed on the video reproduction window. The images from the laryngoscope will be displayed on the screen.

⚠ Recommended the blade for AWS S200:
PBLADE (THINNER)

Changing the assessment time limit

DAM simulator
evaluation system

How to change the time limit (Default is 30 seconds)

1 Open the Login page

Tap on the Power Icon on the top right corner and log out.

2 Open the Settings page

Check the Setting option. Then ID will automatically fill in.
Enter in " **admini**" as the password.
Tap on the Login button.

3 Change the time limit

In the settings page, select the difficulty level on the top left corner, as well as the case scenario. The time limit for the chosen scenario can be changed on the lower right section of the screen. Tap on the "Configuration" button to save the change.

1. Select the case

2. Change the time limit

3. Save the change
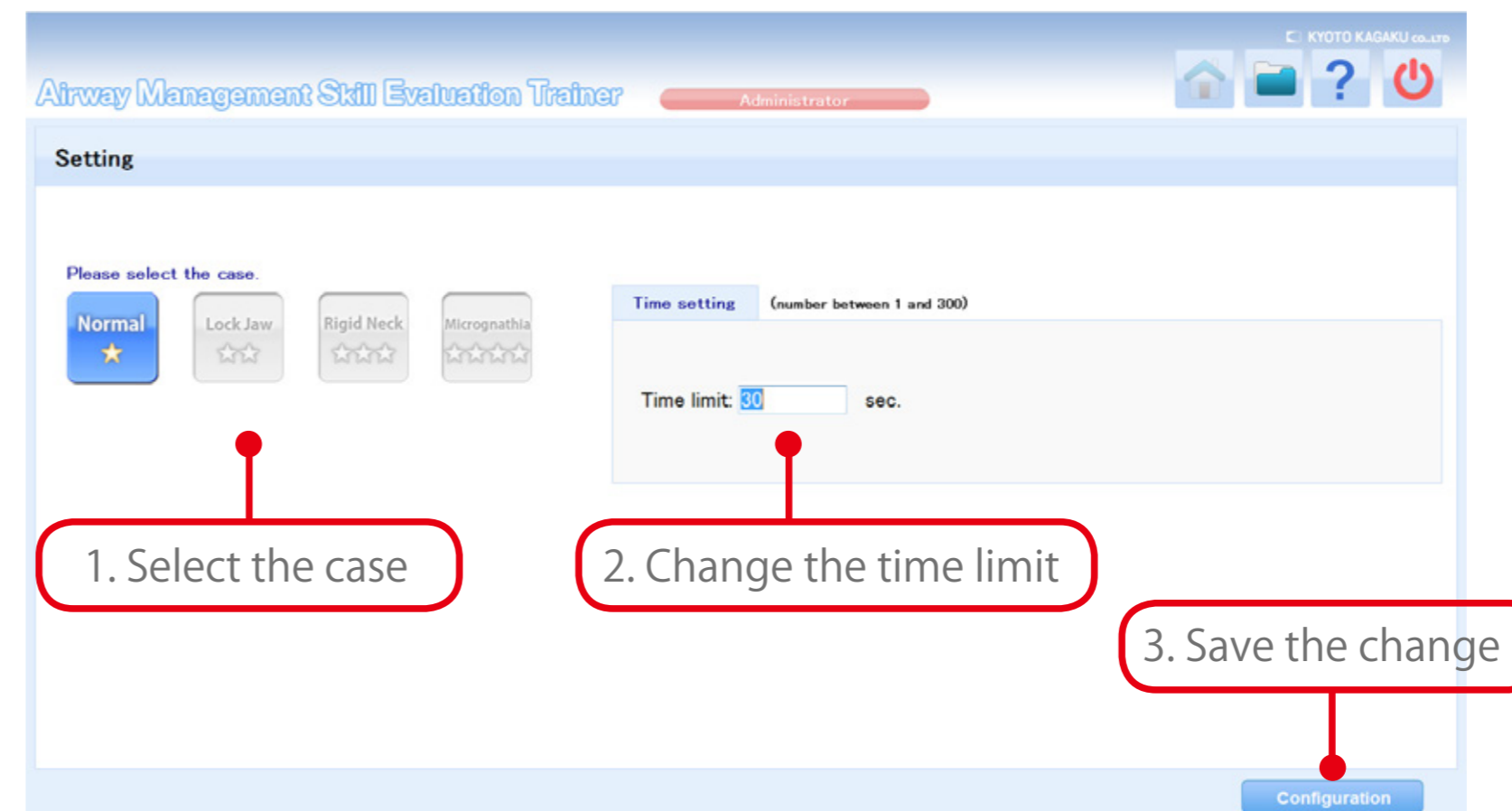
Printing the results page

Back to
Basic Sytem Operation

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DAM simulator
evaluation system

Use the included printer to print your assessment results.

1 Open the assessment results data to print and tap on the Print icon on the top right corner.

2 Press OK to print.

Airway Management Skill Evaluation

Do you print this screen?

OK   Cancel
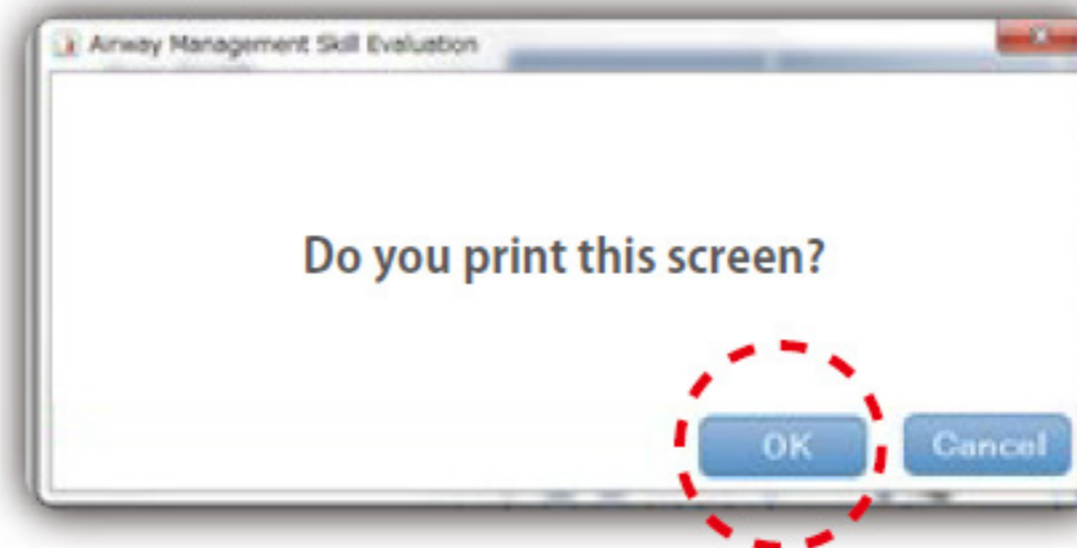
Closing the system

DAM simulator

How to exit the system and turn off the simulator power switch.

1 Tap on the Power icon

Tap on the Power icon on the top right corner of the screen.

2 Logout / Exit this software

A pop up will appear.

● To switch accounts
→ Tap on the "Logout" button to return to the Login page.

● To shut down
→ See step 3.

3 Exit this software / Power off

When you tap on the "Exit this software" button, the simulator power will automatically turn off. The simulation unit power button blinks dimly indicating "stand-by."

Once the light for the simulation power button changes to dim blinking, turn off the electricity power switch to the " ○ " mark and plug out the power cable.
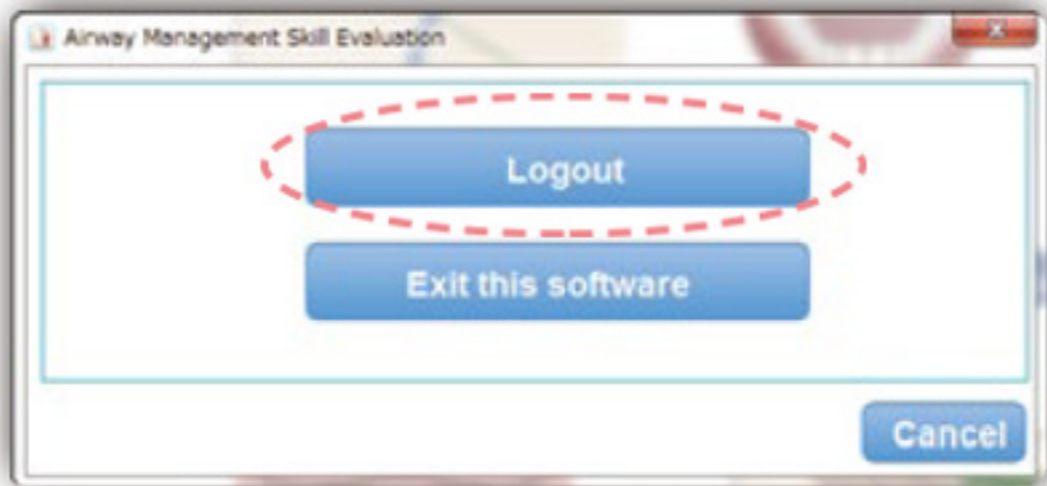
▶ Assessments

▶ Intubation Result

▶ Skill Assessments

Assessments

This simulator provide objective assessment and analysis of the user's performance.

Intubation result on the left of the screen is the Successful/ Failure assessment with criteria ① and ②, and on the right of the screen is the skills assessment with criteria ③ to ⑩ .

The sklls assessment focuses on the negative impact given to the patient during the procedure.

▶ Pass/Fail Assessment

▶ Skills Assessment

Intubation result

DAM simulator

Details of the intubation result.

Dual lung intubation completed under 30 seconds is defined to be successful.

1 Time limit

Displays the time the user took from start to successful ventilation of lungs. As default, the time limit is set to 30 seconds and can be changed.

▶ **Changing the assessment time limit**

2 Lung Ventilation

Ventilation to left and right lungs is indicated respectively.

▶ **Skills Assessment**

SUCCESS

CASE	difficulty	★☆☆☆
	case	normal
	tool	laryngoscope
TIME		00:29:35
	time limit	00:30:00
VENTILATION	RIGHT	◯
	LEFT	◯

review

DAM simulator
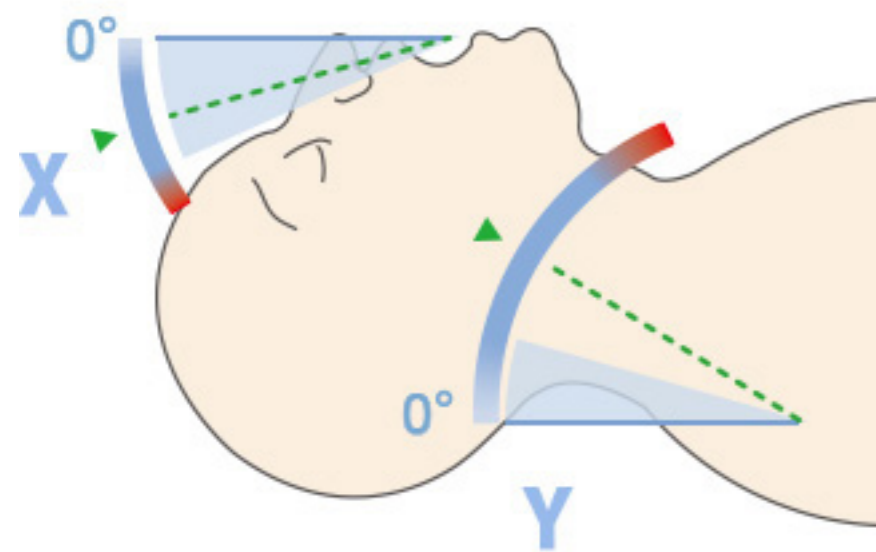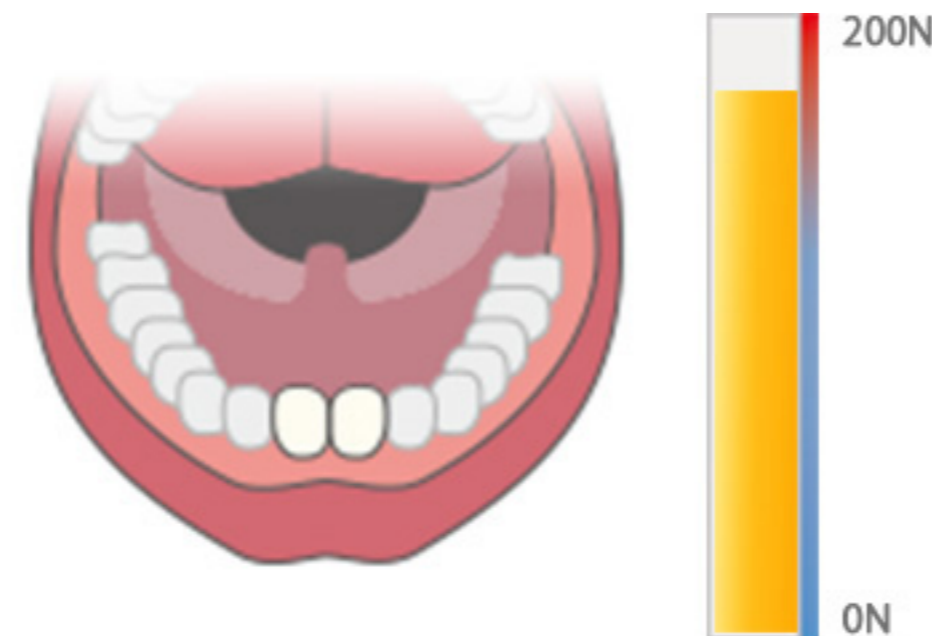evaluation system

③④ Sniffing Position

X is the angle of head extention at the occipital joint and Y is the angle of the cervical or neck flexure. Recommended angles are 15 degrees and 30 - 35 degrees respectively, and the dotted green lines indicate the ideal positioning. Maximum respective degrees during the session are shown on the assessment results page.

⑤ Force on incisor

The bar on the right indicates the amount of force applied to the front teeth. (Units are in Newtons) On average, front teeth break with approximately 200N of pressure applied. Maximum applied force during the session is shown on the assessment results page.

⑥ Blade Position

The central point applied force on the tongue with the blade is indicated by the red dot. The green region is the recommended area of force application. The position of blade at the time when the tube has passed the vocal cords is shown on the result page.
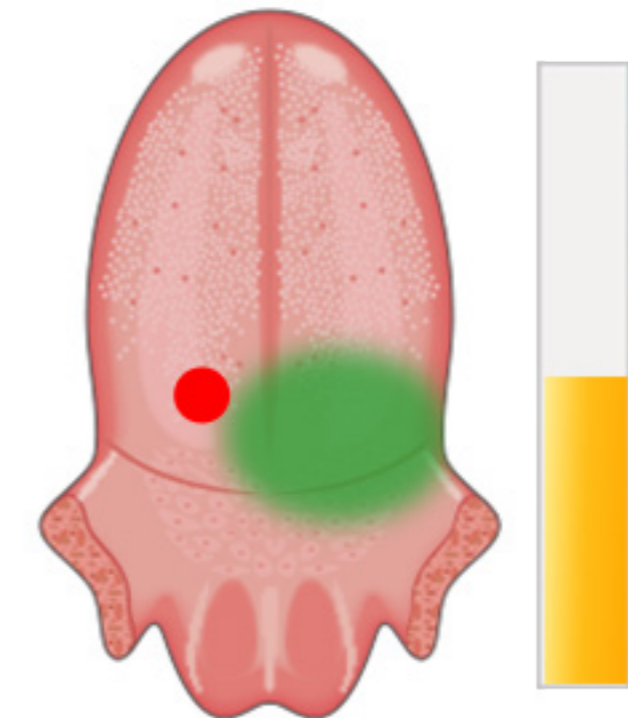
⑦ Force on Tongue

The bar indicates the force applied to the tongue. If the force exceeds the level indicated in blue, the force cannot be measured. The force on tongue at the time when the tube has passed the vocal cords is shown on the result page.

0°
X
0°
Y

200N
0N

* Janet B. Quinn, "A tooth broken after laryngoscopy: unlikely to be caused by the force applied by the anesthesiologist.", Anesthesia & Analgesia, pp.594-596, 2005.

Next page →

Skills Assessment

DAM simulator
evaluation system

8 Lift Epiglottis

The lift of the epiglottis is measured by the Cormack standard and is classified into Grades 1-4. The degree of lifting at the time when the tube has passed the vocal cords is shown on the result page
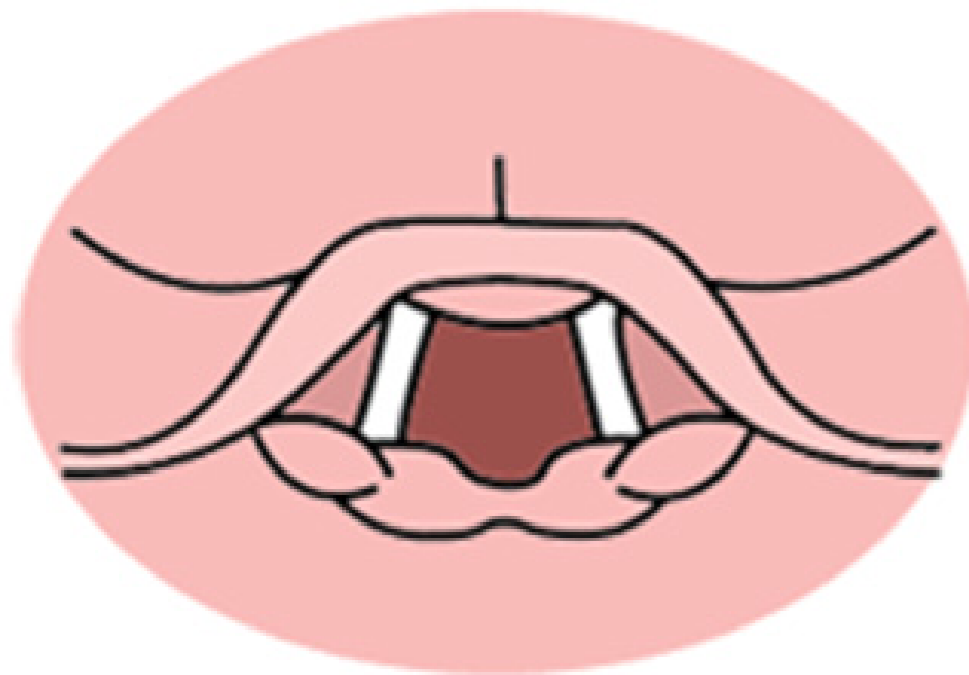
9 Tube Positioning

The insertion depth of the tube is assessed into 5 levels (18cm or less, 18cm to 22cm, 22cm to 23cm, 23cm to 25cm, and 25cm or more). The green highlighted area indicates the recommended positioning of the tube end. The final position of the tube is shown on the result page.
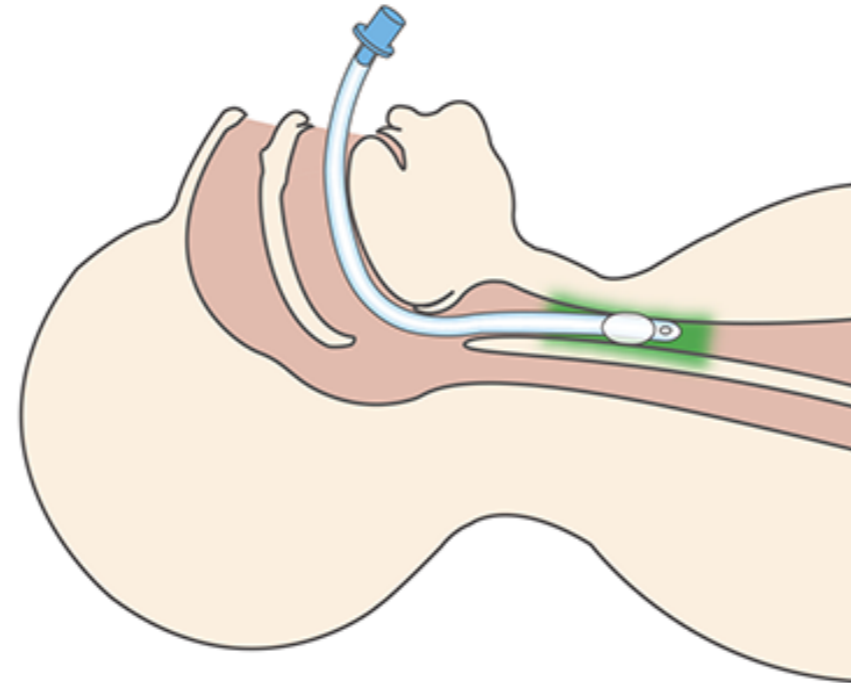
10 Cuff Pressure

This measures the amount of air pumped into the cuff. Units are in cc, and recommended amount ranges from 5cc to 11cc. (The assessment results and recommendations may vary with tubes that are not 7.5mm in diameter). The final result is displayed on the assessment results page.

Back
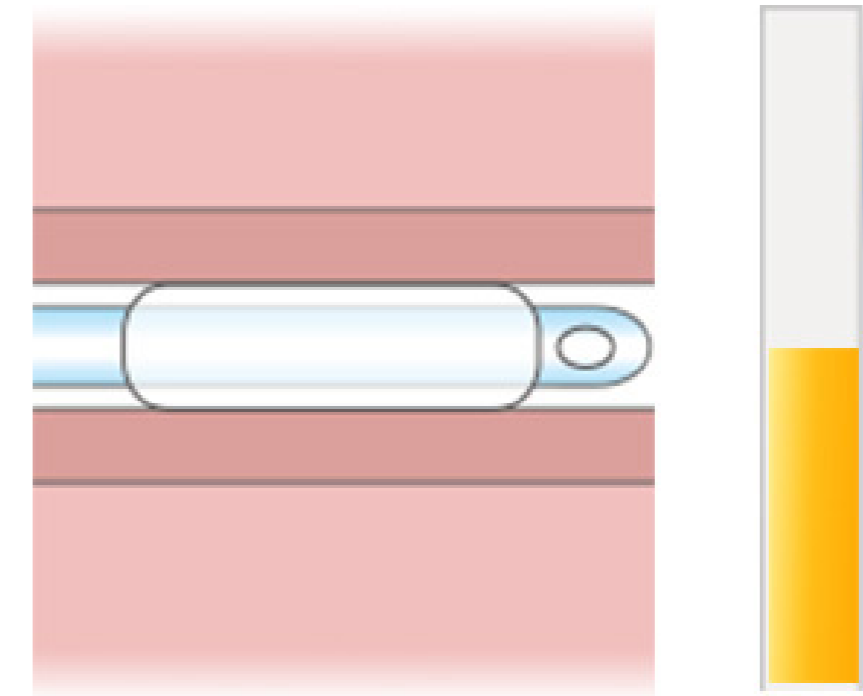
Trouble shooting

▶ The big difference of amount of the cuff

▶ Power falls on its own

▶ Abnormal operation of the chin

▶ In spite of being set to the normal mode, the manikin's neck or jaw is rigid.

▶ Touch monitor is not working

▶ The screen returns to the initial positioning display automatically.

▶ While training, the sensors do not react.

If you are experiencing difficulties not listed in this page, please restart your simulator and verify its status.

If the difficulty persists, please contact your local distributor or Kyoto Kagaku Co., LTD.

Contact
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The big difference of amount of the cuff

← Back to
Trouble shooting

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DAM simulator
evaluating system

There is a big difference between the actual amount of air injected into the cuff and the amount of air measured.

● Replace the tube.

The cuff of the trachea tube can be stretched and expanded by repeated use. This may result in variation between measured volume and real volume of the injected air.

If there is a big difference between the actual amount of air injected into the cuff and the amount of air measured, replace the trachea tube with a new one.

If you are experiencing difficulties not listed in this page, please restart your simulator and verify its status.
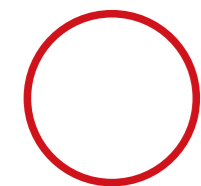
If the difficulty persists, please contact your local distributor or Kyoto Kagaku Co., Ltd.

Contact
Information

Power falls on its own

DAM simulator

The simulation unit does not work properly if the emergency button is pushed down.
Verify that the emergency button is set up correctly.

1 Verify that the emergency button is not pressed down.

Released
-Emergency button not actived

Pressed down
-Emergency button actived

If the button is pressed down, turn the button clockwise to release the lock.

2 Restart the simulator.

Turn off the simulator power switch and restart the machine. Check to see if the case scenarios will operate.

Q Power falls on its own immediately after turning on the simulation unit power button.

A Check emergency button.

If the emergency button isturned on when the simulator starts, the simulator will be force terminated for safety.

After having verified that power button indicates stand-by (dim-blinking), turn off the main power switch on the back bottom of the simulator and wait for about five minutes.
Then, release the emergency button and turn on the maini switch.

Abnormal operation of the chin

DAM simulator
evaluation system

If the jaw of the manikin closes during training and causes complications, please press the emergency stop button.

1 Press the emergency button to stop the monitor.

Cause of abnormal operation is what the motor that makes cases become unstable. Press the emergency button. The chin becomes free.

The simulator is turned off automatically for safety when the emergency switch is pressed. Once the simulation power switch indicates stand-by (dim blinking) , turn off the main power switch on the b ack bottom of the simulator and wait for about five minutes. Then, release the emergency button and turn on the main power switch.

2 Setting up the emergency stop button

If the emergency stop button is left pressed down, the case scenarios will not work. After the button has been pressed, please make sure that the button is released.

Turn the button in the direction of the arrows to return it to its normal position.

○ Released
-Emergency button not actived

✕ Pressed down
-Emergency button actived

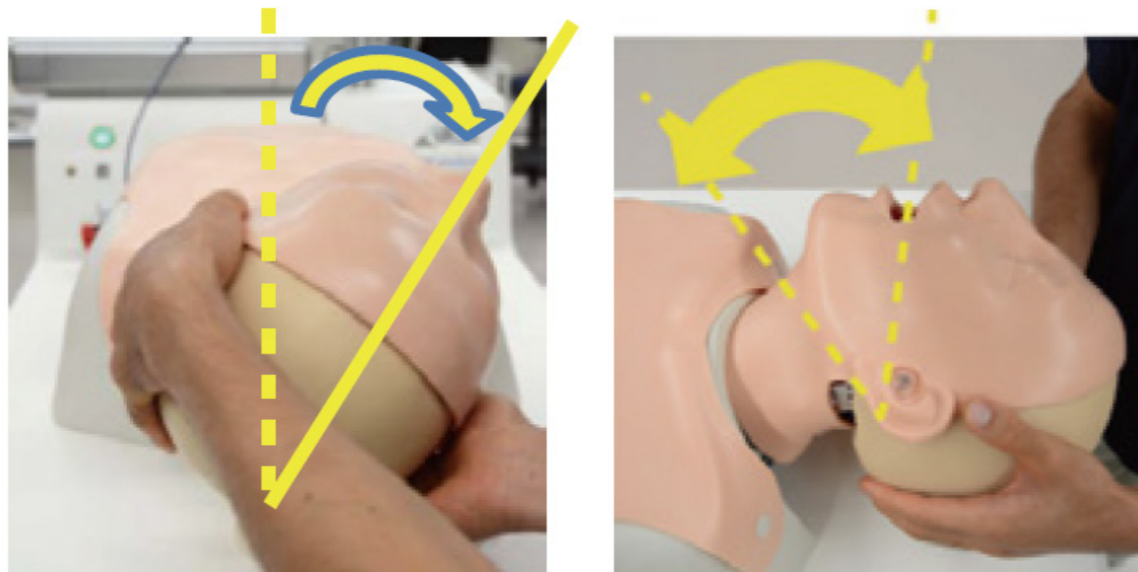# In spite of being set to the normal mode, the manikin s neck or jaw is rigid.

DAM simulator

● The manikin s neck is rigid.

Reset the neck with following procedures.
Move the head back and forth and turn the head to the right.
Place the head back in place with the face upright and re-adjust it
to meet settings requirements on the initial positioning screen.

● The manikin s jaw is rigid.

Reset the jaw with following procedures.
Move the chin back and forth and turn the face to the left. Place the
head back in place with the face upright and re-adjust it to meet
settings requirements on the initial positioning screen.
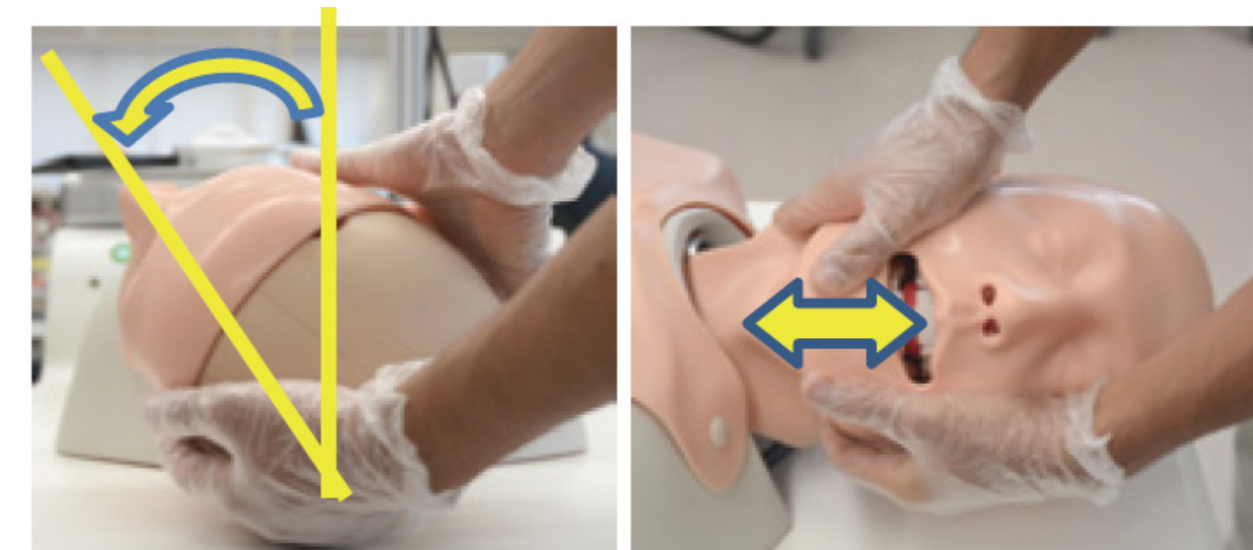
If you are experiencing difficulties not listed in this page, please restart your simulator and verify its status.

If the difficulty persists, please contact your local distributor or Kyoto Kagaku Co., Ltd.

Contact Information

Touch monitor is not working

DAM simulator
evaluation system

If your monitor does not turn on when the simulator is turned on, please see the following instructions:

● **Check the switch of the monitor.**

Initial setting of the monitor is "ON."
But if it might have been turned off, check wheter the monitor switch on the bottom of the monitor is turned on.
At the same time, check connection between the simulator and the monitor.

*Always keep the monitor's power turned on.

If you are experiencing difficulties not listed in this page, please restart your simulator and verify its status.

If the difficulty persists, please contact your local distributor or Kyoto Kagaku Co., Ltd.

Contact Information

Trouble Shooting
The screen returns to the initial positioning display automatically.

Back to
Trouble shooting

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DAM simulator
evaluation system

① The screen returns to the initial positioning display automatically
   when start button on measurement screen is not tapped for a while.
② Measurement finishes automatically if the procedure lasts longer than usual.

● The measurement screen is designed to be switched over after five minutes.

To prevent an abnormal heating of the monitor, the measurement screen returns to the initial positioning display automatically if the session has not started for over five minutes.

Also, to save the memory for recording data, measurement finishes automatically if the procedure takes up more than 5 minutes.

If you are experiencing difficulties not listed in this page, please restart your simulator and verify its status.

If the difficulty persists, please contact your local distributor or Kyoto Kagaku Co., Ltd.

Contact
Information

While training, the sensors do not react.

DAM simulator
evaluation system

While training, the sensors do not react.

⬤ Tap on the "Back" button circled in yellow and restart the initialization procedure on the installation screen.

If you are experiencing difficulties not listed in this page, please restart your simulator and verify its status.

If the difficulty persists, please contact your local distributor or Kyoto Kagaku Co., Ltd.

Contact
Information

Contact Information

For questions or concerns, please contact your local distributor or Kyoto Kagaku.

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Kyoto Kagaku America Inc.:
TEL：1-310-325-8860　FAX：1-310-325-8867

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