



### ■ Manikin

Pupillary light sensors

Speakers ( Heart sounds, Lung sounds)

ECG Sensors

Speaker ( Bowel sounds )

Pulse generator

Blood pressure sensor (right arm)

Pulse generator



### ■ Terminal Box & Peripheral Device



- Foot switch
- Sphygmomanometer unit
- Terminal box
- PC
- Mouse
- Cables to connect

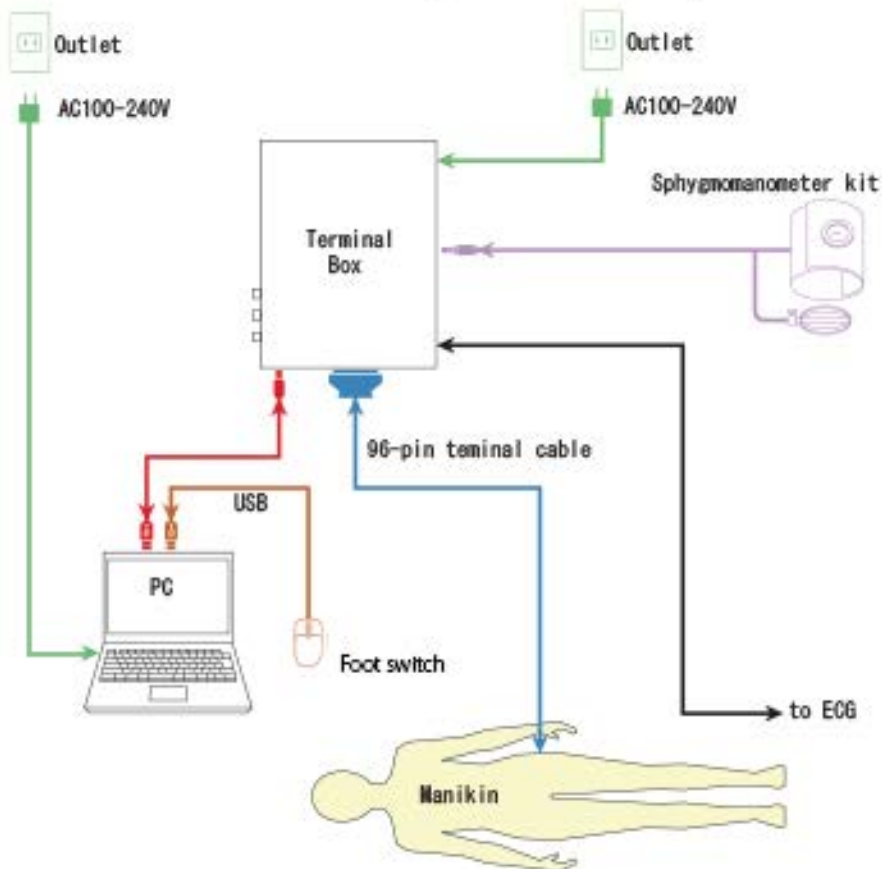


- 1) Handle the manikin carefully, like an actual patient. Excessive force or impact may damage the product or result in problems.
- 2) Don't mark on the manikin and other components with pen or leave any printed materials in contact with their surface. Ink marks of this sort will be permanent, due to pigment infiltration.
- 3) For cleaning, wipe the manikin with water or soap water. If stain persists, wipe with alcohol and when it has dried, powder the chest with talcum powder.
- 4) Store the manikin and other components away from high heat and direct sunlight.
- 5) When the manikin is used continually for a long period of time, it may encounter occasional malfunctions from overheating. In this case, shut the system down for about 30 minutes and restart.



### ■ Connect each device

Connect each device according to the following instructions and diagram.

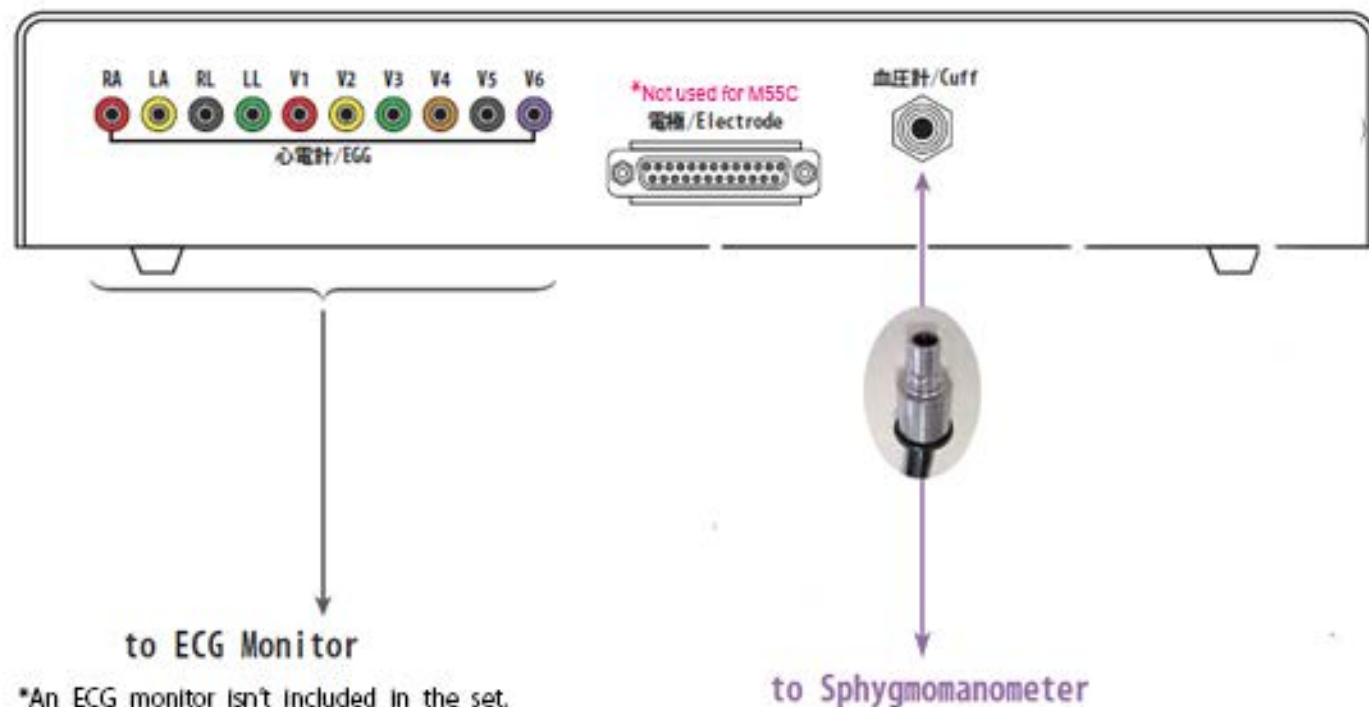


\*It is possible to connect the cable "to ECG" to a personal electrocardiographic monitor, but be aware of potential damages that it may cause to the PC or terminal box.  
\*Your ECG monitor may possibly not be compatible with the Physiko systems.



### ■ Back side of the Terminal Box

Connect the corresponding cables to each section according to the figure below of the back view of the terminal box.

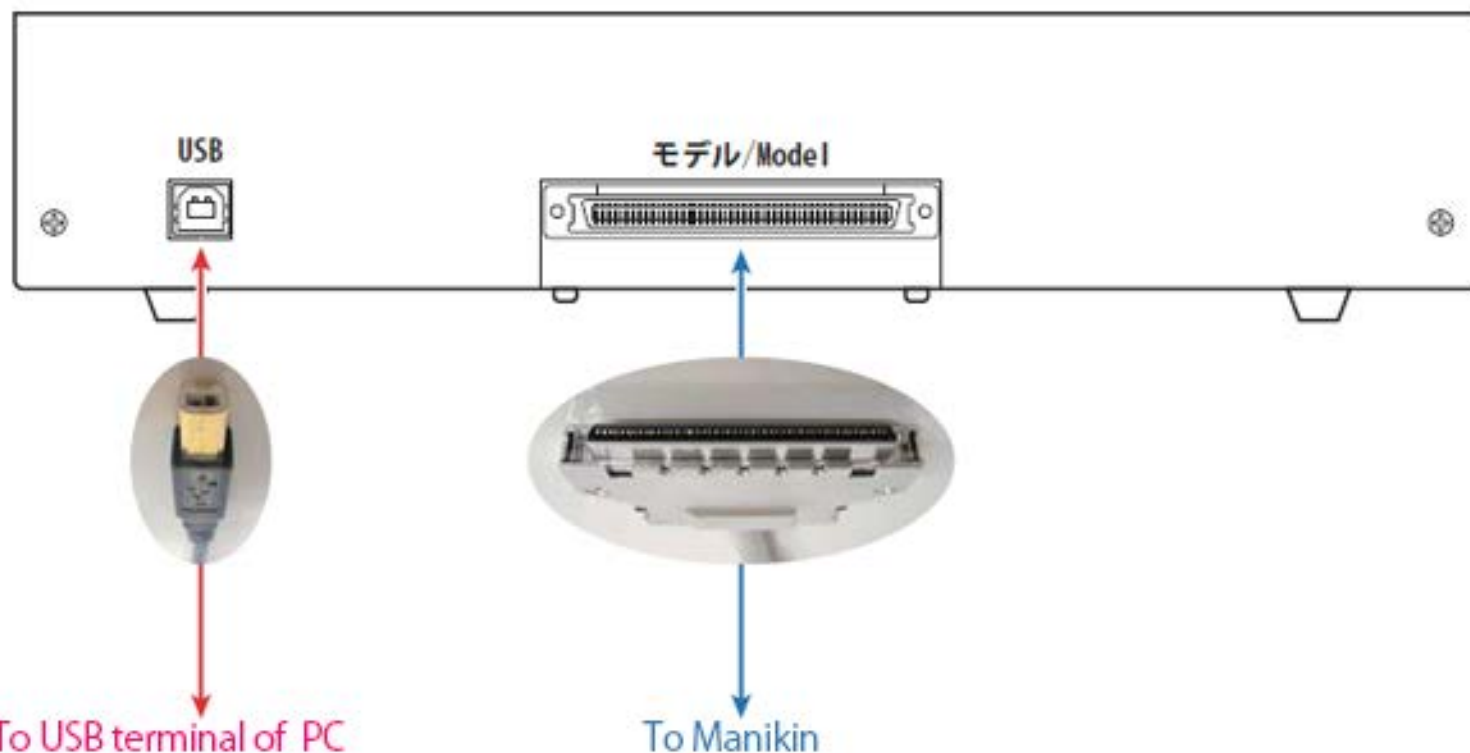


※Since it is specifically designed for the provided PC unit, please do not use the outlet of the Terminal Box for any other electronic device.



### ■ Side of Terminal Box

Connect each cable to suitable terminal carefully according to the figure of side of Terminal Box.



※ Since it is specifically designed for the provided PC unit, please do not use the outlet of the Terminal Box for any other electronic device.



### ■ Terminal side of PC

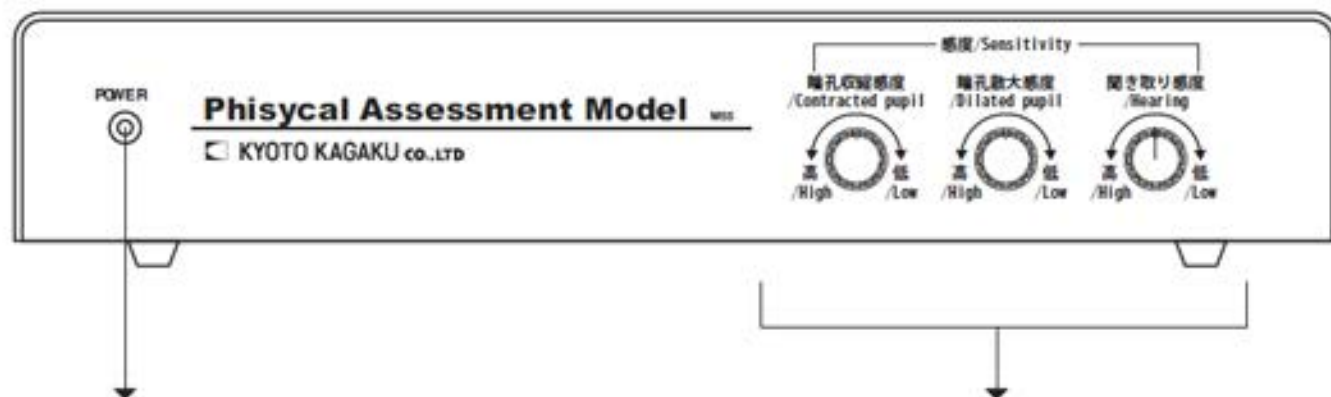
You may connect to any USB connectors of the terminal side of PC.



※ Although the location of the USB connections is subject to change according to the PC model, the properties of the connection itself do not change.



■ Front side of Terminal Box



The pilot lamp lights up when every connection is made correctly and the power of PC is turned on.

Refer to system configuration 4, 6 regarding how to adjust these adjusters.



**Q:** The message "Please confirm the connection with the device" has appeared on the screen.

**A:** Please consider the following possibilities.

1. The terminal BOX is not connected to the PC with a USB cable.

2. The power (AC 110-240V) is not supplied to Terminal Box.

\*Once the connection is established, click "OK" to close the message.

(The message does not automatically disappear.)

**Q:** The message "It is within ○○ minutes to run out of battery" has appeared on the screen.

**A:** The PC is running on battery when it is disconnected from its power (AC100-240V).  
Connect the PC power cable to the outlet.





**Q:** The screen has changed to Operation System (OS) mode/ The application program has frozen.

**A:** PC needs to be restarted.

【The screen has changed to the OS mode】

Click the "Menu (A)" icon at the bottom of screen. Choose the "Restart PC" bar on the opened menu and click "OK".

【The application program has frozen】

Press "Ctrl" key + "Alt" key + "Back space" key at simultaneously. If the screen has changed to the OS mode, restart your PC.

【The screen doesn't change to OS mode】

If you pressed "Ctrl" + "Alt" + "Back space" keys together but the screen did not change to the OS mode, press down on the power switch for more than 5 seconds to shut down the PC. Verify that the system has completely shut down, then press the power switch again to start the PC.

※ 1 The hard disk will make a small sound as it operates inside of the PC. Wait for the PC to become silent before turning it back on.

Don't shut down the PC this way after every use. If repeated, the PC may be damaged permanently. This way to shut down PC is only to be used when the application software has frozen.



**Q:** ECG sensors are malfunctioning.

**A:** When the manikin is stored under 50° F (10° C), ECG sensors might malfunction occasionally.

In this case, keep manikin at over 50° F (10° C) for a while and operate the system after it returns to room temperature.

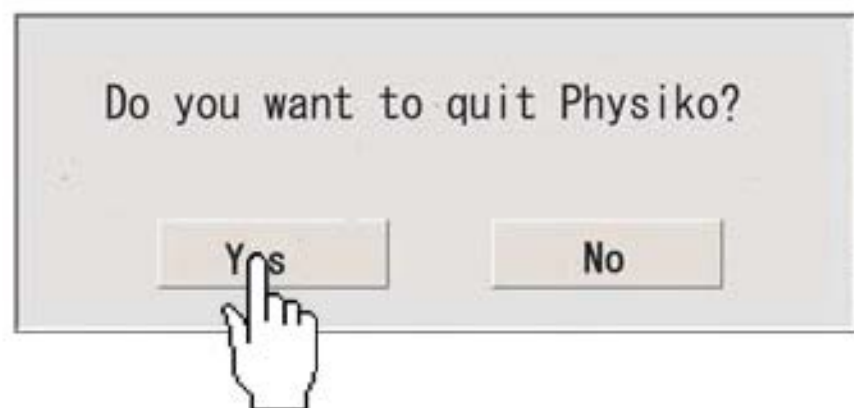
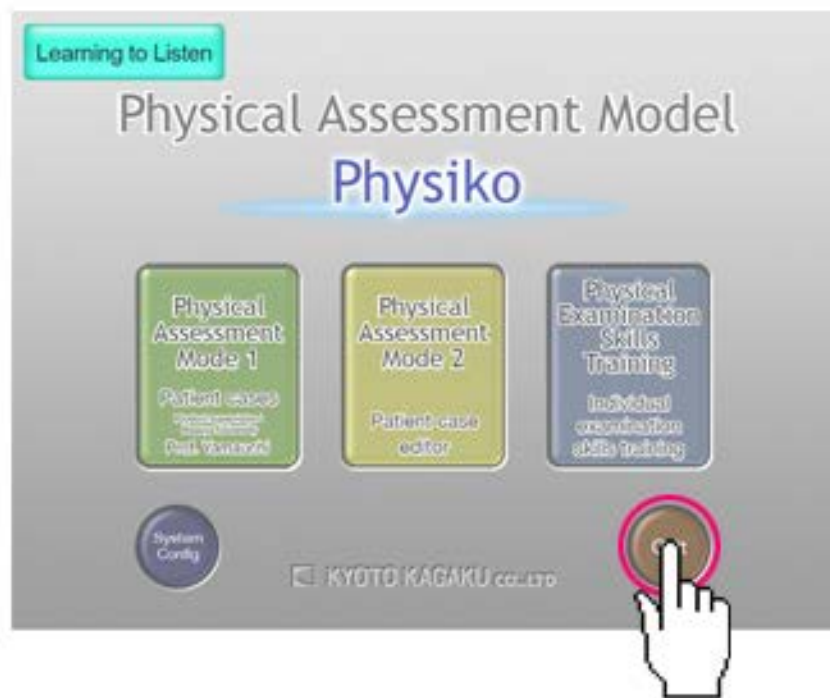
**CE version doesn't include ECG sensors.**



## How to quit Physiko

1) Click on the "Home" icon on the top right of each screen. Once the Top Menu page appears, click on "Quit" on the bottom right corner.

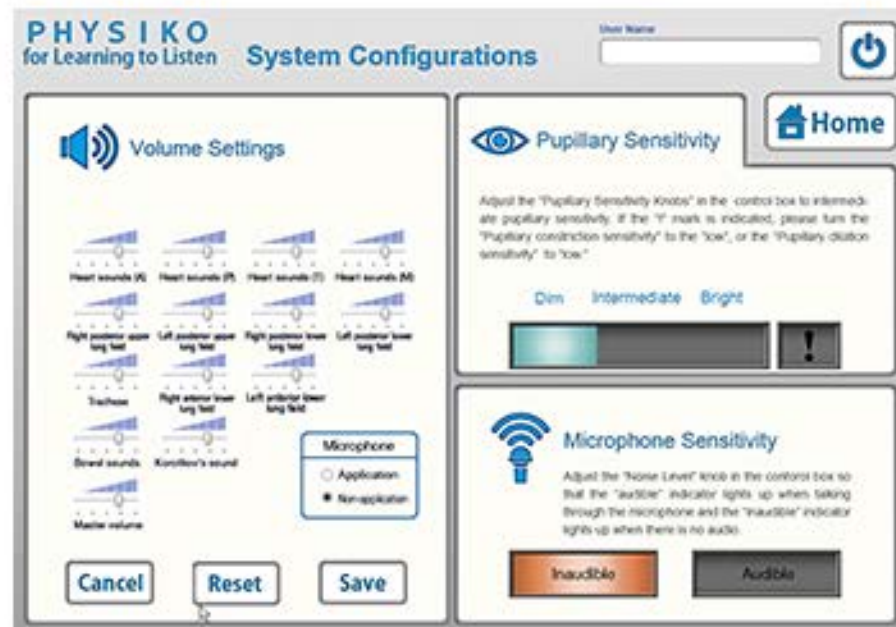
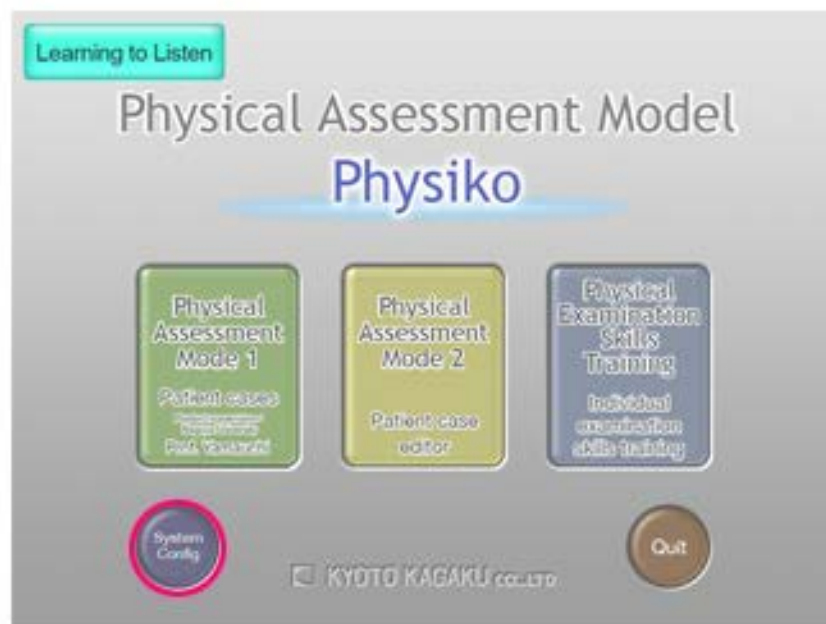
2) Click "Yes" to quit. The program ends and the PC shuts down automatically.





1) Click on the "System Configuration" button on the home screen of Physical Assessment Mode.

2) Various volume and sensitivity settings can be adjusted on this screen. When finished, click on "Home" at the top right corner of the screen.





## Volume setting

The window on left can be opened by click the "Volume Set" icon. Adjust the volume on the left side of the screen.

1) Move the slider left to right to adjust each volume.  
The volume becomes higher by moving it to the right.  
It becomes lower by moving it to the left.

2) Click "Save"-icon after changing volume setting.

3) Click on "Reset" to restore default setting.

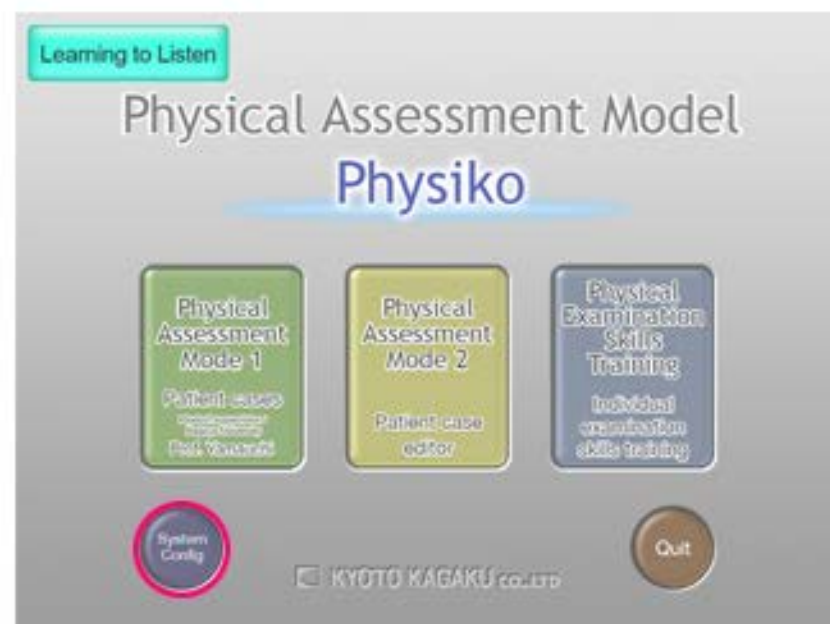
4) Click on "Cancel" to cancel your adjustments.



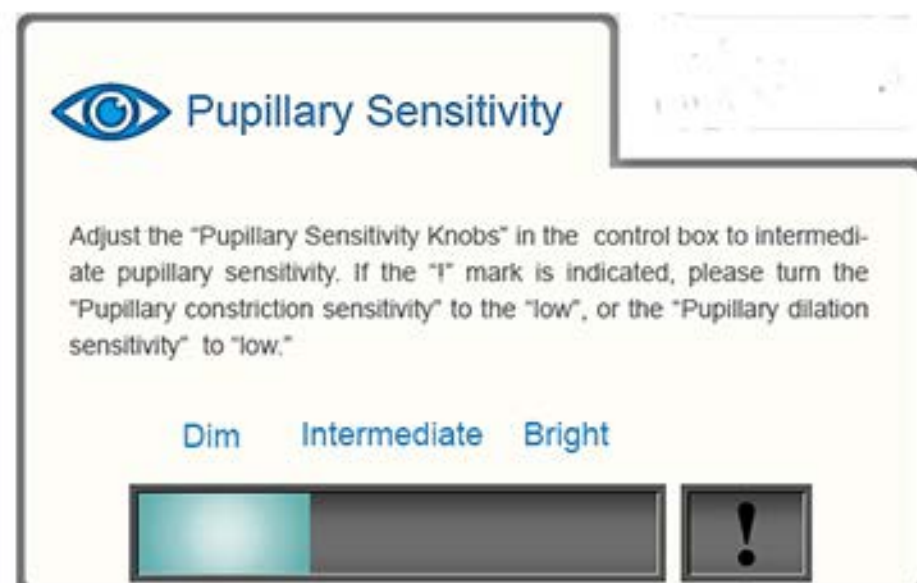


## How to adjust the pupil light sensors 1

1) Click on the "System Configuration"-button on the home screen of Physical Assessment Mode.



2) When adjusting the pupil contraction and dilation Knobs on the Terminal Box, use this evaluation bar to set the pupillary sensitivity to the "Intermediate" range.



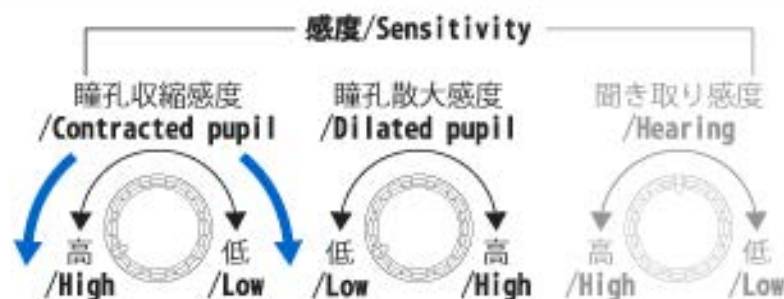


## How to adjust the pupil light sensors 2

### 3) Sensitivity setting for pupil contraction

To increase sensitivity, turn this knob counterclockwise.  
To decrease sensitivity, turn this knob clockwise.

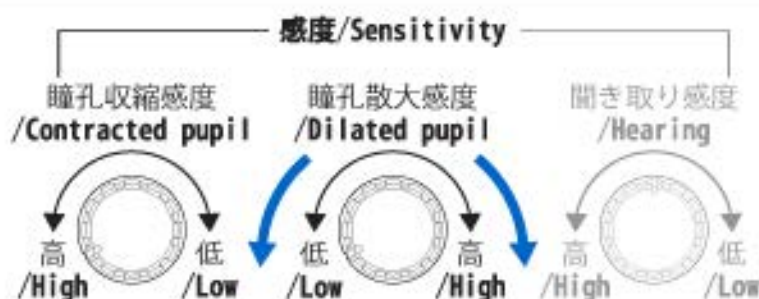
#### ▼ Terminal Box



### 4) Sensitivity setting for pupil dilation

To increase sensitivity, turn this knob clockwise.  
To decrease sensitivity, turn this knob counterclockwise.

#### ▼ Terminal Box

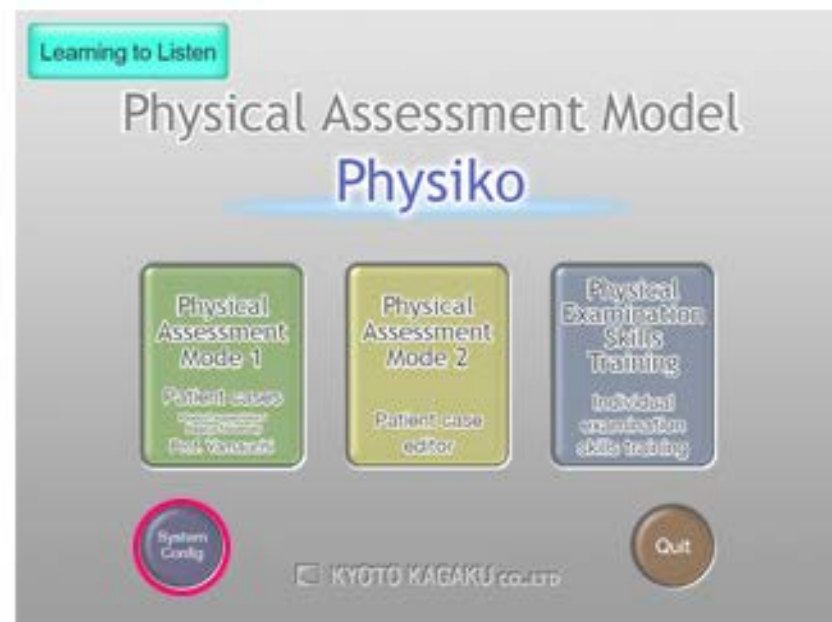


If the "!" logo lights up on the evaluation bar, this means that the surrounding light is too bright. To decrease the pupillary sensitivity, turn both knobs counterclockwise and re-adjust the sensors to a "Intermediate" range.

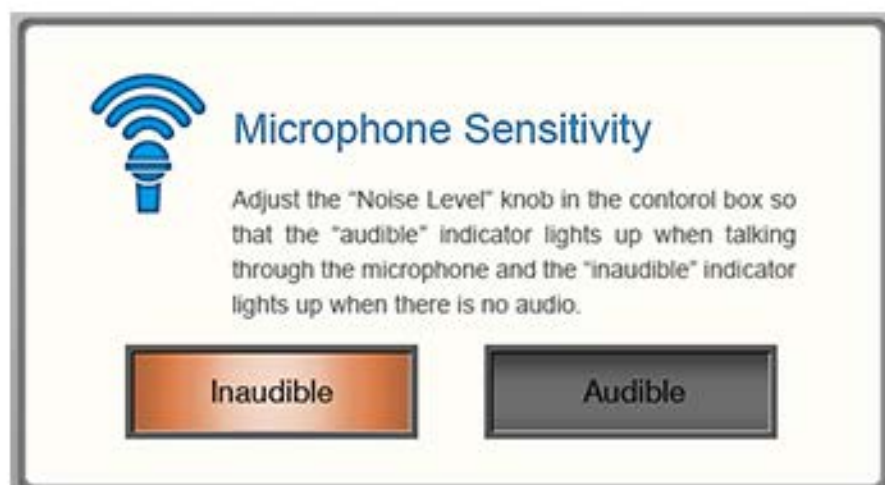


## How to adjust the microphone sensitivity

1) Click on the "System Configuration"-button on the home screen of Physical Assessment Mode.



2) When adjusting the microphone sensitivity, use this evaluation section to verify its setting. The "Audible" -sign will light up when the microphone detects sound, while the "Inaudible" sign will light up when the microphone detects no sound.

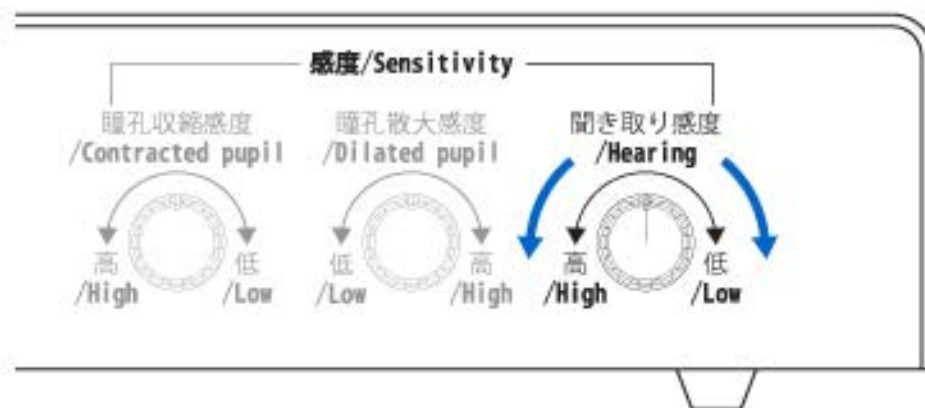






## How to adjust the microphone sensitivity

3) To increase sensitivity, turn this knob counterclockwise.  
To decrease sensitivity, turn this knob clockwise.





It is necessary to register accounts to use "Physiko for Learning to Listen" mode.  
Users can log in with an ID and password as shown below.

\*No need to log in for "Physical Assessment Mode."

▼ Login screen

The screenshot shows the login interface for Physiko. At the top left, the logo reads "PHYSIKO for Learning to Listen" with a small copyright notice for Kyoto Kagaku Co., Ltd. and a project collaboration note with the University of Illinois at Chicago. A power button icon is in the top right. The main area contains two input fields: "User ID" and "Password". To the right of these fields is a blue "Login" button. At the bottom left, there is a yellow button labeled "Physical Assessment Mode". At the bottom right, there is a blue "New User" button.



"Learning to Listen" modes descriptions

"Learning to listen" has 3 modes.

Home screens of administrator mode and Instructor mode have the same layout.

Only the administrator is allowed to create Instructor accounts.

	Administrator	Instructor	Student
Browse Account Information	✓	✓	✓
User Account Management	✓ All students and instructors' accounts	✓ All students' accounts	
Make New Instructor Accounts	✓		
Heart Sound Test	✓	✓	✓
Browse Heart Sound Test Result	✓	✓ All students' results	✓ her/his own' results
Select Heart Sound Test Mode	✓	✓	
System Configuration	✓	✓	
Browse User's Guide	✓	✓	



"Learning to Listen" screen descriptions

"Learning to listen" has 3 modes.

Both home screens of administrator mode and instructor mode are the same screen.

Only the administrator is allowed to create Instructor accounts.

Administrator mode

PHYSIKO for Learning to Listen  
Project Information: University of Health & Care Sciences, Faculty of Health Sciences

Module 1 Sinus Tachycardia	Module 2 PVC	Module 3 Physiologic Split S2	Heart Sound TEST RESULT
Module 4 Atrial Fibrillation	Module 5 Atrial Fibrillation	Module 6 S3 Gallop	
Module 7 Physiologic Split S2	Module 8 S3 Gallop	Module 9 Mitral Regurgitation	
Module 10 S4 Gallop	Module 11 S4 Gallop	Module 12 Innocent Murmur	Heart Sound TEST
Module 13 Aortic Stenosis	Module 14 Aortic Stenosis	Module 15 Aortic Regurgitation	Physical Assessment Mode
Module 16 Innocent (Flow) Murmur	Module 17 Mitral Regurgitation	Module 18 Mitral Stenosis	

Navigation: Make New Instructor Account, User Account Management, System Configuration, User's Guide, Logout

Instructor mode

PHYSIKO for Learning to Listen  
Project Information: University of Health & Care Sciences, Faculty of Health Sciences

Module 1 Sinus Tachycardia	Module 2 PVC	Module 3 Physiologic Split S2	Heart Sound TEST RESULT
Module 4 Atrial Fibrillation	Module 5 Atrial Fibrillation	Module 6 S3 Gallop	
Module 7 Physiologic Split S2	Module 8 S3 Gallop	Module 9 Mitral Regurgitation	
Module 10 S4 Gallop	Module 11 S4 Gallop	Module 12 Innocent Murmur	Heart Sound TEST
Module 13 Aortic Stenosis	Module 14 Aortic Stenosis	Module 15 Aortic Regurgitation	Physical Assessment Mode
Module 16 Innocent (Flow) Murmur	Module 17 Mitral Regurgitation	Module 18 Mitral Stenosis	

Navigation: Account Information, User Account Management, System Configuration, User's Guide, Logout

Student mode

PHYSIKO for Learning to Listen  
Project Information: University of Health & Care Sciences, Faculty of Health Sciences

Module 1 Sinus Tachycardia vs. Atrial Fibrillation	Module 2 PVC vs. Atrial Fibrillation	Module 3 Physiologic Split S2 vs. S3 Gallop	Heart Sound TEST RESULT
Module 4 Physiologic Split S2 vs. S4 Gallop	Module 5 S3 Gallop vs. S4 Gallop	Module 6 Mitral Regurgitation vs. Innocent Murmur	
Module 7 Aortic Stenosis vs. Innocent (Flow) Murmur	Module 8 Aortic Stenosis vs. Mitral Regurgitation	Module 9 Mitral Regurgitation vs. Innocent Murmur	

Navigation: Account Information, User's Guide, Logout



## Confirm the account information\_1

Account information of the user who is logged in can be confirmed.

1) Click "Account Information" button on the home screen.

2) The dialog is displayed as shown below.

▼ Home screen of the instructor mode

PHYSIKO for Learning to Listen  
Account Information

Module 1 Sinus Tachycardia vs. Atrial Fibrillation	Module 2 PVC vs. Atrial Fibrillation	Module 3 Physiologic Split S2 vs. S3 Gallop
Module 4 Physiologic Split S2 vs. S4 Gallop	Module 5 S3 Gallop vs. S4 Gallop	Module 6 Mitral Regurgitation vs. Innocent Murmur
Module 7 Aortic Stenosis vs. Innocent (Flow) Murmur	Module 8 Aortic Stenosis vs. Mitral Regurgitation	Module 9 Aortic Regurgitation vs. Mitral Stenosis

Heart Sound TEST RESULT  
Heart Sound TEST  
Physical Assessment Mode  
Logout

▼ Home screen of the student mode

PHYSIKO for Learning to Listen  
Account Information

Module 1 Sinus Tachycardia vs. Atrial Fibrillation	Module 2 PVC vs. Atrial Fibrillation	Module 3 Physiologic Split S2 vs. S3 Gallop
Module 4 Physiologic Split S2 vs. S4 Gallop	Module 5 S3 Gallop vs. S4 Gallop	Module 6 Mitral Regurgitation vs. Innocent Murmur
Module 7 Aortic Stenosis vs. Innocent (Flow) Murmur	Module 8 Aortic Stenosis vs. Mitral Regurgitation	Module 9 Mitral Regurgitation vs. Innocent Murmur

Heart Sound TEST RESULT  
Heart Sound TEST  
Physical Assessment Mode  
Logout

Account Information

User ID Kyoto

Password ●●●●●

Name Kyoto Taro

Group Kyoto University

Edit Back



## Confirm the account information\_2

3) Account information can be changed, click "Edit"-button.

**Account Information**

User ID Kyoto

Password ●●●●●●

Name Kyoto Taro

Group Kyoto Kagaku University

**Edit** Back

2) Click the column which you want to change, type the entry and retype the password, and then click on the "OK"- button.

**Modifying Account**

User ID Kyoto

Password ●●●●●●

Retype password ●●●●●●

Name Kyoto Jiro

Group Kyoto Kagaku University

Edit your account information.

**OK** Cancel



In user account management, instructor and administrator can;

- Search
- Edit
- Delete
- Save

1) Click "User Account Management" button.

▼ Home screen

The screenshot shows the PHYSIKO home screen. At the top, it displays the logo and project information. Below that, there's a navigation bar with "Instructor Mode" selected. The main content area is a grid of 9 modules, each with a name and a user name. The "User Account Management" button is highlighted with a red box in the bottom navigation bar. Other buttons include "Heart Sound TEST RESULT", "Heart Sound TEST", "Physical Assessment Mode", and "Logout".

Module 1	Module 2	Module 3
Mr. Reynolds Sinus Tachycardia	Mr. Star PVC	Kenny Star Physiologic Split S2
Mrs. Berger Atrial Fibrillation	Mrs. Moore Atrial Fibrillation	Mrs. Brown S3 Gallop
Mr. Lee Physiologic Split S2	Mr. Opaton S3 Gallop	Mr. Valdez Mitral Regurgitation
Mr. Swiss S4 Gallop	Mrs. Rush S4 Gallop	George Tate Innocent Murmur
Mr. Drake Aortic Stenosis	Mr. Hale Aortic Stenosis	Mr. Castro Aortic Regurgitation
Bob King Innocent (Flow) Murmur	Mrs. Anderson Mitral Regurgitation	Mrs. Langdon Mitral Stenosis



2) The dialog is displayed as shown below.  
Select category from the pull-down menu.

Category : ID / Password / Name / Group

▼ User account management screen

**User Account Management**

Pull-down menu

Search ID

ID	Password	Name	Group	Role	
1	aaa	aaa	FFF	aaa	stu11
2	aaa	aaa	aaa	aaa	stu17
3	aaa	aaa	aaa	aaa	stu23
4	text	text	text2	text2	stu25
5	ccc	ccc	ccc	ccc	stu27
6	aaa	Text	aaa	aaa	stu29
7	aaa	aaa	aaa	aaa	stu30
8	aaa	Text	aaa	aaa	stu29
9	1111	111	111	111	stu32
10	Kyoto	Kyoto	Kyoto Jiu	Kyoto University	stu33

Save Delete Back

3) Second, type in a key word for the selected category.

▼ User account management screen

**User Account Management**

Search ID bbb

ID	Password	Name	Group	Role	
1	aaa	aaa	FFF	aaa	stu11
2	aaa	aaa	aaa	aaa	stu17
3	aaa	aaa	aaa	aaa	stu23
4	text	text	text2	text2	stu25
5	ccc	ccc	ccc	ccc	stu27
6	aaa	Text	aaa	aaa	stu29
7	aaa	aaa	aaa	aaa	stu30
8	aaa	Text	aaa	aaa	stu29
9	1111	111	111	111	stu32
10	Kyoto	Kyoto	Kyoto Jiu	Kyoto University	stu33

Save Delete Back





## Revise accounts data

ID, password, name and group accounts can be changed.

1) Search or select accounts to revise on the user account management screen.

▼ User account management screen

**User Account Management**

Search

ID	Password	Name	Group	Role
1	aaa	fff	aaa	stu11
2	aaa	aaa	aaa	stu17
3	aaa	aaa	aaa	stu23
4	text	text2	text2	stu25
5	ccc	ccc	ccc	stu27
6	aaa	Text	aaa	stu29
7	aaa	aaa	aaa	stu30
8	333	333	333	333/stu31
9	1111	111	111	111/stu32
10	Kyoto	Kyoto	Kyoto Jiro	Kyoto University/ stu33

**Save** **Delete** **Back**

2) Click on a cell to revise and then enter new data. Then, click "Save"- button.

▼ User account management screen

**User Account Management**

Search

ID	Password	Name	Group	Role
1	aaa	fff	aaa	stu11
2	aaa	aaa	aaa	stu17
3	aaa	aaa	aaa	stu23
4	text	text2	text2	stu25
5	ccc	ccc	ccc	stu27
6	aaa	Text	aaa	stu29
7	aaa	aaa	aaa	stu30
8	333	333	333	333/stu31
9	1111	111	111	111/stu32
10	Kyoto	Kyoto	Kyoto Jiro	Kyoto University/ stu33

**Save** **Delete** **Back**



4 ) Search and select accounts to delete on the user account management screen.

▼ User account management screen

**User Account Management**

Search

ID	Password	Name	Group	Role
1	aaa	FFF	aaa	stu11
2	aaa	aaa	aaa	stu17
3	aaa	aaa	aaa	stu23
4	test	test2	test2	stu25
5	ccc	ccc	ccc	stu27
6	aaa	Test	aaa	stu29
7	aaa	aaa	aaa	stu30
<b>8</b>	<b>333</b>	<b>333</b>	<b>333</b>	<b>333/stu31</b>
9	1111	111	111	111/stu32
10	Kyoto	Kyoto	Kyoto Jiro	Kyoto University / stu33

5 ) Select and click "Delete "- button.

▼ User account management screen

**User Account Management**

Search

ID	Password	Name	Group	Role
1	aaa	FFF	aaa	stu11
2	aaa	aaa	aaa	stu17
3	aaa	aaa	aaa	stu23
4	test	test	test2	stu25
5	ccc	ccc	ccc	stu27
6	aaa	Test	aaa	stu29
7	aaa	aaa	aaa	stu30
<b>8</b>	<b>333</b>	<b>333</b>	<b>333</b>	<b>333/stu31</b>
9	1111	111	111	111/stu32
10	Kyoto	Kyoto	Kyoto Jiro	Kyoto University / stu33



## Delete accounts\_2

4) Click "OK" button.

▼ User account management screen

### User Account Management

Search ID

No.1

Do you really want to delete?

**OK**

★ Multiple accounts can be selected and deleted through the same procedure.

▼ User account management screen

### User Account Management

Search ID

ID	Password	Name	Group	Role
1	aaa	aaa	aaa	stu11
2	aaa	aaa	aaa	stu12
3	aaa	aaa	aaa	stu21
4	test	test	test2	stu25
5	ccc	ccc	ccc	stu27
6	aaa	Test	aaa	stu29
7	aaa	aaa	aaa	stu30
8	333 Ky		333	333 stu31
9	1111	111	111	111 stu32
10	Kyoto	kyoto	Kyoto Jrs	Kyoto University stu33



## Make new student accounts\_1

It is necessary to register accounts to be able to use "Physiko for Learning to Listen" mode.  
Student accounts can be made on the login screen.

1) Click "New User"- button.

2) The dialog is displayed as shown below .

### ▼ Login screen

PHYSIKO KYOTO KAGAKU  
for Learning to Listen Project collaboration,  
University of Illinois at Chicago and Kyoto Kagaku Co., Ltd.

User ID

Password

Login

Physical Assessment Mode

**New User**

PHYSIKO KYOTO KAGAKU  
for Learning to Listen Project collaboration,  
University of Illinois at Chicago and Kyoto Kagaku Co., Ltd.

**Account Registration**

User ID

Password

Retype password

Name

Group

Register Cancel

Physical Assessment Mode

**New User**



## Make new student accounts\_2

3) Click a blank field and type any string.  
Be noted that in the following cases the registration will not be accepted.

- A blank entry field remains
- Same ID and password are already registered
- Password is different from retyped password

Account registration screen

PHYSIKO for Learning to Listen  
Project collaboration: University of Illinois at Chicago and Kyoto Kagaku Co Ltd

**Account Registration**

User ID: Kyoto

Password: ●●●●●●

Retype password: ●●●●●●

Name: Kyoto Taro

Group: Kyoto Kagaku University

Register Cancel

PH Assessment Mode

New User

4) When finished typing, click "Register"- button.

PHYSIKO for Learning to Listen  
Project collaboration: University of Illinois at Chicago and Kyoto Kagaku Co Ltd

**Account Registration**

User ID: Kyoto

Password: ●●●●●●

Retype password: ●●●●●●

Name: Kyoto Taro

Group: Kyoto Kagaku University

Register Cancel

PH Assessment Mode

New User



5) If the account registration is successful, the below screen is shown.  
Click the "Confirm"- button.

▼ Account completion of registration screen

PHYSIKO for Learning to Listen  
Project collaboration: University of Illinois at Chicago and Kyoto Kagaku Co., Ltd.

Registration is completed

User ID Kyoto

Password ●●●●●●

Retype password ●●●●●●

Name Kyoto Taro

Affiliation Kyoto Kagaku University

Confirm

Login

Ph Assessment Mode

New User



## Make new instructor accounts\_1

Instructor accounts can be made on the administrator screen.  
The administrator is the only account which has the ability to register instructor accounts.

1) Login as administrator on the top screen.

2) Click "Make New Instructor Accounts"- button on the home screen of the administrator mode.

PHYSIKO for Learning to Listen KYOTO KAGAKU Project collaboration, University of Illinois at Chicago and Kyoto Kagaku Co Ltd

User ID

Password

Login

Physical Assessment Mode

New User

### Home screen

PHYSIKO for Learning to Listen KYOTO KAGAKU Project collaboration, University of Illinois at Chicago and Kyoto Kagaku Co Ltd

User ID: Administrator

Administrator Mode

Mr Reyes Sinus Tachycardia Module 1 Mrs Berger Atrial Fibrillation	Mr Star PVC Module 2 Mrs Moore Atrial Fibrillation	Kenny Star Physiologic Split S2 Module 3 Mrs Brown S3 Gallop
Dan Lee Physiologic Split S2 Module 4 Mr Swiss S4 Gallop	Mr Carter S3 Gallop Module 5 Mrs Ruth S4 Gallop	Mr Yarrow Mitral Regurgitation Module 6 George Tate Innocent Murmur
Mr Drake Aortic Stenosis Module 7 Bob King Innocent (Flow) Murmur	Mr Hale Aortic Stenosis Module 8 Mrs Anderson Mitral Regurgitation	Mr Castro Aortic Regurgitation Module 9 Mrs Langdon Mitral Stenosis

Heart Sound TEST RESULT

Heart Sound TEST

Physical Assessment Mode

Heart Sound Test Mode  
 Formative Mode  
 Summative Mode

Make New Instructor Accounts

User Account Management

System Configuration

User's Guide

Logout



3) The dialog is displayed as shown below .

4) Click a blank field and type any string.  
Be noted that in the following cases the registration will not be accepted.

A blank entry field remains  
Same ID and password are already registered  
Password is different from retyped password

Account registration screen

The screenshot shows the 'Account Registration' dialog box with the following fields: User ID, Password, Retype password, Name, and Group. All fields are empty. At the bottom of the dialog are 'Register' and 'Cancel' buttons. The background shows the main application interface with a sidebar menu and a top navigation bar.

The screenshot shows the 'Account Registration' dialog box with the following fields filled: User ID (Test Instructor), Password (masked with dots), Retype password (masked with dots), Name (Test Instructor), and Group (Kyoto University). At the bottom of the dialog are 'Register' and 'Cancel' buttons. The background shows the main application interface with a sidebar menu and a top navigation bar.





5) When finished typing, click the "Register"- button.

6) If the registration was successful, the below screen is shown.  
Click the "Confirm"- button.

PHYSIKO for Learning to Listen  
Project collaboration, University of Illinois at Chicago and Kyoto Kagaku Co.Ltd.

User ID: Administrator

### Account Registration

User ID: Test Instructor

Password: ●●●

Retype password: ●●●

Name: Test Instructor

Group: Kyoto University

Register Cancel

Make New Instructor Accounts User Account Management System Configuration User's Guide Logout

▼ Account completion of registration screen

PHYSIKO for Learning to Listen  
Project collaboration, University of Illinois at Chicago and Kyoto Kagaku Co.Ltd.

User ID: Administrator

### Registration is completed

User ID: Test Instructor

Password: ●●●

Retype password: ●●●

Name: Test Instructor

Affiliation: Kyoto University

Confirm

Make New Instructor Accounts User Account Management System Configuration User's Guide Logout



"Clinical Questions" provides knowledge about the case or descriptions of the selected patient.

1) Click "QA"- button to display the clinical question and answer.

2) Click "Answer"- button to display the answer to the clinical question.

The screenshot shows the PHYSIKO interface. On the left is a 3D illustration of a male patient. On the right is a data panel with the following sections:

- Header:** Patient ID, Family Doc, Home button.
- Navigation:** Head Sound TEST, Heart Sound (with a red heart icon), QA (highlighted with a red box), Switch Patient, Menu.
- Demographics:** Name: Mr. Reyes, Age: 48, Sex: Male, Blood Type, Height: 178cm, Weight: 70kg, Body Temperature: 39.2, Respiration, SpO2, HR.
- Findings:** Pupillary Reflex: Normal, Breathing Sounds, Heart Sounds, Blood Pressure: Systolic, Diastolic, Bowel Sounds: Normal, Ectocardiography.
- History:** Mr. Reyes, 48 years old, has a history of high blood pressure and high cholesterol; he takes his medications regularly and has both disorders under control. Mr. Reyes has been feeling unwell for the past 2 days with a productive cough, fever, and malaise. He has not eaten much and can only tolerate water and some juice without vomiting. He is not light-headed, has no palpitations.

The screenshot shows a dialog box titled "Clinical Question" with a close button (X) in the top right corner. It contains the following text:

**Question :**  
Why is Mr. Reyes experiencing tachycardia?

**Answer :**

With any increase in metabolic demands, the body responds with increased catecholamine release and a subsequent increase in heart rate. In this case, Mr. Reyes is ill with a fever and dehydrated; both lead to increased body stress and catecholamine surge.

At the bottom of the dialog box, the word "Answer" is highlighted with a red box.



3) When there are two or more questions, click the "Next"-button to display the next question.

**Clinical Question** ✕

Question :  
Why is Mrs. Berger having palpitations?

Answer :



1) The history of all the students can be reviewed in instructor mode. Double click on the ID that you want to review and the history of that student will be displayed.

The screenshot displays the 'PHYSIKO for Learning to Listen' interface in 'Instructor Mode'. The main heading is 'Heart Sound Test Results'. There is a 'User Name' input field with a power icon to its right. Below this are three buttons: 'Export This List', 'Export All Data', and 'Home'. A search bar is located below the buttons. The central part of the interface is a table with the following columns: ID, First Name, Last Name, Group, and Last Result. The table contains 13 rows of data, with the first row being highlighted in blue. The first row's data is: ID: 1, First Name: Jess, Last Name: Jess, Group: Module5\_10%\_05/07/2014\_13:04:20, Last Result: Module5\_10%\_05/07/2014\_13:04:20. The other rows contain similar data for various users and groups.

ID	First	Last	Group	Last Result
1	Jess	Jess	Module5_10%_05/07/2014_13:04:20	Module5_10%_05/07/2014_13:04:20
2	Change	2000	100	Module5_0%_05/07/2014_13:04:20
3	1000	1000	1000	Module5_0%_05/07/2014_13:04:20
4	1000	1000	1000	Module5_0%_05/07/2014_13:04:20
5	1000	1000	1000	Module5_0%_05/07/2014_13:04:20
6	1000	1000	1000	Module5_0%_05/07/2014_13:04:20
7	1000	1000	1000	Module5_0%_05/07/2014_13:04:20
8	1000	1000	1000	Module5_0%_05/07/2014_13:04:20
9	1000	1000	1000	Module5_0%_05/07/2014_13:04:20
10	1000	1000	1000	Module5_0%_05/07/2014_13:04:20
11	1000	1000	1000	Module5_0%_05/07/2014_13:04:20
12	1000	1000	1000	Module5_0%_05/07/2014_13:04:20
13	1000	1000	1000	Module5_0%_05/07/2014_13:04:20





4) Users may sort the result by selecting a category (e.g. "Date" or "Accuracy Rate") from the pull down menu.

5) To review the details of each test in the module history, double click on the line. Details such as the correct answer, your answer and the result will be displayed.

PHYSIKO for Learning to Listen Heart Sound Test Results  
Instructor Mode

User Name: [input field] [power icon]

ID: 000 Name: FFF Group: 000 [Back] [Home]

Module: All

Sort: Date (dropdown menu open showing Date and Accuracy Rate)

Module	Date	Accuracy Rate
281	Module1	05/08/2014 19:19:49 0%
282	Module1	05/08/2014 18:05:15 20%
281	Module1	05/07/2014 17:07:48 0%
280	Module1	04/23/2014 16:02:44 20%
278	Module1	01/20/2014 16:02:22 20%
278	Module1	01/20/2014 16:00:21 0%
277	Module1	01/16/2014 14:50:42 0%
276	Module1	01/14/2014 12:00:33 20%
275	Module1	01/07/2014 14:18:22 20%
274	Module1	10/02/2013 10:29:43 0%
273	Module1	10/02/2013 10:12:47 0%
272	Module1	10/01/2013 12:13:47 0%
271	Module1	10/01/2013 12:08:02 0%
270	Module1	10/01/2013 11:18:03 0%
269	Module1	10/01/2013 11:18:22 0%
268	Module1	09/30/2013 12:24:14 10%
267	Module1	09/30/2013 12:20:54 0%
266	Module1	09/25/2013 08:46:21 0%
265	Module1	09/12/2013 10:24:59 0%

PHYSIKO for Learning to Listen Heart Sound Test Results  
Instructor Mode

User Name: [input field] [power icon]

ID: 000 Name: FFF Group: 000 [Back] [Home]

Module: All

Sort: Date

Module	Date	Accuracy Rate
281	Module1	05/08/2014 19:19:49 0%
282	Module1	05/08/2014 18:05:15 20%
281	Module1	05/07/2014 17:07:48 0%
280	Module1	04/23/2014 16:02:44 20%
278	Module1	01/20/2014 16:02:22 20%
278	Module1	01/20/2014 16:00:21 0%
277	Module1	01/16/2014 14:50:42 0%
276	Module1	01/14/2014 12:00:33 20%
275	Module1	01/07/2014 14:18:22 20%
274	Module1	10/02/2013 10:29:43 0%
273	Module1	10/02/2013 10:12:47 0%
272	Module1	10/01/2013 12:13:47 0%
271	Module1	10/01/2013 12:08:02 0%
270	Module1	10/01/2013 11:18:03 0%
269	Module1	10/01/2013 11:18:22 0%
268	Module1	09/30/2013 12:24:14 10%
267	Module1	09/30/2013 12:20:54 0%
266	Module1	09/25/2013 08:46:21 0%
265	Module1	09/12/2013 10:24:59 0%

Detail: [button]

Correct Answer	Student Answer	Result
1	Normal	Normal
2	Crack	Normal
3	Crack	Normal
4	Crack	Normal
5	Normal	Normal
6	Normal	Normal
7	Normal	Normal
8	Normal	Normal
9	Normal	Normal
10	Normal	Normal
11	Normal	Normal
12	Normal	Normal
13	Normal	Normal
14	Normal	Normal
15	Normal	Normal



## Review history in the student mode\_1

1) Click on the "Heart Sound TEST RESULT" -button on the home screen to review the history of previous heart sound tests.

2) Then the display will open as shown below. Your ID, Password, Name, Group and Last Result will be displayed. "Last Result" is your most recent result. Double-click on the line surrounded with red line.

PHYSIKO for Learning to Listen  
Project collaboration, University of Illinois at Chicago and Kyoto Kagaku Co.Ltd.

Student Mode

Module 1 Sinus Tachycardia VS. Atrial Fibrillation	Module 2 PVC VS. Atrial Fibrillation	Module 3 Physiologic Split S2 VS. S3 Gallop
Module 4 Physiologic Split S2 VS. S4 Gallop	Module 5 S3 Gallop VS. S4 Gallop	Module 6 Mitral Regurgitation VS. Innocent Murmur
Module 7 Aortic Stenosis VS. Innocent (Flow) Murmur	Module 8 Aortic Stenosis VS. Mitral Regurgitation	Module 9 Mitral Regurgitation VS. Innocent Murmur

Heart Sound TEST RESULT

Heart Sound TEST

Physical Assessment Mode

Account Information User's Guide Logout

PHYSIKO for Learning to Listen  
Student Mode

### Heart Sound Test Results

Your Name: [input field]

Export All Data Home

ID	First Name	Last Name	Group	Last Result
1	[redacted]	[redacted]	[redacted]	[redacted]



3) If you double click on the row shown in red, the list of all results will be displayed, as shown below.

### Narrowing-down the results

1) If you would like to review the history of another module, select a different module from the pull-down menu. \*User can only select one module.

PHYSIKO for Learning to Listen Heart Sound Test Results Student Mode

User Name: [input field]

Back Home

Module: All

Sort: Date

Module	Date	Accuracy Rate
263_Module1	05/09/2014 10:19:40	0%
264_Module1	05/09/2014 10:05:16	20%
261_Module1	04/01/2014 11:27:48	0%
260_Module1	04/01/2014 10:32:44	20%
270_Module1	01/09/2014 14:02:22	20%
278_Module1	01/09/2014 14:05:21	0%
277_Module1	01/14/2014 13:55:42	0%
276_Module1	01/14/2014 12:02:31	20%
275_Module1	01/07/2014 14:18:22	20%
274_Module1	10/02/2013 10:29:42	0%
273_Module1	10/02/2013 10:12:47	0%
272_Module1	10/01/2013 12:13:57	0%
271_Module1	10/01/2013 12:08:02	0%
270_Module1	10/01/2013 11:14:03	0%
269_Module1	10/01/2013 11:15:22	0%
268_Module1	09/30/2013 12:24:14	10%
267_Module1	09/30/2013 12:23:59	0%
266_Module1	09/25/2013 08:54:21	0%
265_Module1	09/17/2013 10:24:59	0%

PHYSIKO for Learning to Listen Heart Sound Test Results Student Mode

User Name: [input field]

Back Home

Module: All

Sort: Date

Module	Date	Accuracy Rate
263_Module1	05/09/2014 10:19:40	0%
264_Module1	05/09/2014 10:05:16	20%
261_Module1	04/01/2014 11:27:48	0%
260_Module1	04/01/2014 10:32:44	20%
270_Module1	01/09/2014 14:02:22	20%
278_Module1	01/09/2014 14:05:21	0%
277_Module1	01/14/2014 13:55:42	0%
276_Module1	01/14/2014 12:02:31	20%
275_Module1	01/07/2014 14:18:22	20%
274_Module1	10/02/2013 10:29:42	0%
273_Module1	10/02/2013 10:12:47	0%
272_Module1	10/01/2013 12:13:57	0%
271_Module1	10/01/2013 12:08:02	0%
270_Module1	10/01/2013 11:14:03	0%
269_Module1	10/01/2013 11:15:22	0%
268_Module1	09/30/2013 12:24:14	10%
267_Module1	09/30/2013 12:23:59	0%
266_Module1	09/25/2013 08:54:21	0%
265_Module1	09/17/2013 10:24:59	0%





## Review history in the student mode\_3

2) The history of the selected module will be displayed.

3) To review the details of each test in the module history, double click on the line. Details such as the correct answer, your answer and the result will be displayed.

PHYSIKO for Learning to Listen Heart Sound Test Results  
Student Mode

User Name:

[Back](#) [Home](#)

Module:

Sort:

Module	Date	Accuracy Rate
21	Module1	05/08/2014 10:19:40 0%
20	Module1	05/08/2014 10:05:35 20%
19	Module1	05/01/2014 17:07:48 0%
18	Module1	04/23/2014 16:33:44 20%
17	Module1	01/20/2014 16:02:22 20%
16	Module1	01/20/2014 16:00:21 0%
15	Module1	01/14/2014 16:00:42 0%
14	Module1	01/14/2014 12:02:33 20%
13	Module1	01/07/2014 14:59:22 20%
12	Module1	10/02/2013 10:29:43 0%
11	Module1	10/02/2013 10:12:47 0%
10	Module1	10/01/2013 12:13:87 0%
9	Module1	10/01/2013 12:08:02 0%
8	Module1	10/01/2013 11:56:02 0%
7	Module1	10/01/2013 11:55:22 0%
6	Module1	09/30/2013 12:24:14 10%
5	Module1	09/30/2013 12:23:59 0%
4	Module1	09/25/2013 08:54:21 0%
3	Module1	09/12/2013 10:24:59 0%

PHYSIKO for Learning to Listen Heart Sound Test Results  
Student Mode

User Name:

[Back](#) [Home](#)

Module:

Sort:

Module	Date	Accuracy Rate
21	Module1	05/08/2014 10:19:40 0%
20	Module1	05/08/2014 10:05:35 20%
19	Module1	05/01/2014 17:07:48 0%
18	Module1	04/23/2014 16:33:44 20%
17	Module1	01/20/2014 16:02:22 20%
16	Module1	01/20/2014 16:00:21 0%
15	Module1	01/14/2014 16:00:42 0%
14	Module1	01/14/2014 12:02:33 20%
13	Module1	01/07/2014 14:59:22 20%
12	Module1	10/02/2013 10:29:43 0%
11	Module1	10/02/2013 10:12:47 0%
10	Module1	10/01/2013 12:13:87 0%
9	Module1	10/01/2013 12:08:02 0%
8	Module1	10/01/2013 11:56:02 0%
7	Module1	10/01/2013 11:55:22 0%
6	Module1	09/30/2013 12:24:14 10%
5	Module1	09/30/2013 12:23:59 0%
4	Module1	09/25/2013 08:54:21 0%
3	Module1	09/12/2013 10:24:59 0%

Detail:

Correct Answer	Student Answer	Result
1	Normal	Normal
2	Disturbance	Normal
3	Disturbance	Normal
4	Abnormal	Normal
5	Normal	Normal
6	Abnormal	Normal
7	Abnormal	Normal
8	Normal	Normal
9	Disturbance	Normal
10	Abnormal	Normal



4) Users may sort the result by selecting a category, (e.g. "Date" or "Accuracy Rate"), from the pull down menu.

PHYSIKO  
for Learning to Listen  
Student Mode

Heart Sound Test Results

User Name:

[Back](#) [Home](#)

Module:

Sort:  (dropdown menu open showing options: Date, Accuracy Rate)

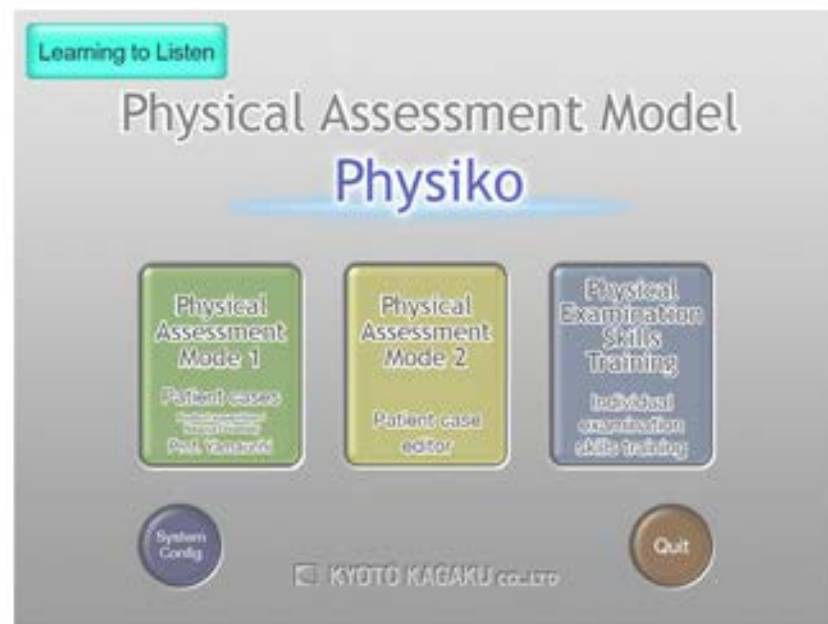
Module	Date	Accuracy Rate
263_Module1	05/08/2014 19:19:49	0%
262_Module1	05/08/2014 18:05:16	20%
261_Module1	04/07/2014 17:37:48	0%
260_Module1	04/07/2014 16:32:44	20%
259_Module1	07/06/2014 16:02:22	30%
258_Module1	07/06/2014 16:00:21	0%
257_Module1	07/06/2014 15:59:42	0%
256_Module1	07/06/2014 15:59:31	20%
255_Module1	07/07/2014 14:19:22	30%
254_Module1	10/02/2013 10:29:42	0%
253_Module1	10/02/2013 10:13:47	0%
252_Module1	10/01/2013 12:19:57	0%
251_Module1	10/01/2013 12:08:02	0%
250_Module1	10/01/2013 11:54:02	0%
249_Module1	10/01/2013 11:39:22	0%
248_Module1	09/30/2013 12:04:14	10%
247_Module1	09/30/2013 12:03:56	0%
246_Module1	09/29/2013 08:56:21	0%
245_Module1	09/11/2013 10:24:53	0%



"Physical Assessment Mode" can be displayed from "Learning to Listen" mode.

1) Click "Physical Assessment Mode"-button on the login screen in Learning to Listen mode.

2) "Physical Assessment Mode"- screen is displayed.





## "Physical Assessment" Mode Screen

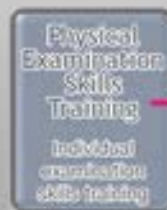
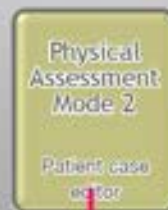
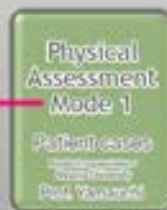
Physical Assessment Mode has 3 modes as shown below.

Switch to "Learning to Listen"  
-mode

Learning to Listen

### Physical Assessment Model Physiko

Normal Mode  
(12 pre-installed patient cases)



Individual procedure mode

System configuration



Case Creation Mode  
(Patient cases editor)



Quit the system



## Patients List

Physiko's twelve preset patients cover typical outpatient complaints such as chest pain or stifling sensations.

Case	Age, Sex	Condition
Chest Pain	58 yrs Male	Myocardial Infarction
	55 yrs Male	Dissecting Aortic Aneurysm
	76 yrs Female	Lung Infarction
	28 yrs Male	Intercostal Muscle Ache
Abdominal Pain	26 yrs Female	Ileus
	19 yrs Male	Diarrhea
Lie Unconscious	36 yrs Female	Brain Hypertension
Shortness of Breath	84 yrs Female	Pneumonia
	66 yrs Male	Chronic Obstructive Lung Disease
	70 yrs Male	Pulmonic Fibrosis
	73 yrs Male	Heart Failure
	21 yrs Female	Anemia



## Mode 1 (Patient cases) \_1

1) Mode 1 provides twelve preset patient cases. In this mode, the user cannot arbitrarily change the patient data. One may select Mode2 (Patient case editor) on the Top menu to create a new patient.

2) When you hover the cursor over the patient description on the left, the details of the patient will appear on the right. When you click on the green button, the screen will change to the physical assessment session after a slight pause.

**Physical Assessment** Home

Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)

Pupillary reflex :  
Normal

Breath sounds :  
Slightly rapid

Heart sounds :  
S2 split S1

Blood pressure :  
S1 108 S4 112 S5 110

Bowel sounds :  
Normal

Electrocardiography :  
Descending aortic aneurysm

Symptom :  
100 years old male. The patient had had hypertension for 50 years, and had consciousness following sudden paralysis.

**Physical Assessment** Home

Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)  
Normal (100 years old male)

Pupillary reflex :  
Normal

Breath sounds :  
Slightly rapid

Heart sounds :  
S2 split S1

Blood pressure :  
S1 108 S4 112 S5 110

Bowel sounds :  
Normal

Electrocardiography :  
Descending aortic aneurysm

Symptom :  
100 years old male. The patient had had hypertension for 50 years, and had consciousness following sudden paralysis.



## Mode 1 (Patient cases) \_2

Choose the skill you would like to practice.

Choose a skill to practice

Volume setting

Return to previous menu  
Return to top menu

Switch the screen between "The patient overview" and "Details of findings"

To details of the findings

To the patient overview

To details of the findings

To details of the findings

The screenshot shows a patient overview screen with a central image of a man and a right-hand panel with patient details and a findings list. The findings list includes:

- Pupillary reflex
- Breath sounds
- Heart sounds
- Blood pressure: S1 54 S2 55
- Chest sounds
- Otolaryngology



## Interpretation of findings

1) In each "Details of the findings"-screen, click on the "Interpretation of findings"-icon on the bottom right to view the medical interpretation of the patient's conditions, e.g. Pupillary reflex.

The screenshot shows the 'Pupillary condition' screen with an 'Interpretation of Findings' window open. The window title is 'Interpretation of Findings' and it contains the text: 'Case name : Normal' and 'Fast rate, regular rhythm. The unusual component of the ECG is the presence of QRS complexes at regular intervals, each preceded by a p-wave. The overall rate will be greater than 100 beats per minute. During physical exam the characteristic of sinus tachycardia is one of a fast but regularly spaced heart beat.' Below the window, there is a 'Close' button and a 'Case explanation' icon (a stethoscope with an exclamation mark) highlighted with a red box.

## Case explanation

2) The "Case explanation" icon on the bottom right will show the patient's diagnosis. This portion will be blank in "Patient case editor"-made patients.

The screenshot shows the 'Pupillary condition' screen with a 'Case explanation' window open. The window title is 'Case explanation' and it contains the text: 'Disorder : Myocardial infarction' and 'If you hear the word "pectoralgia", you should immediately consider myocardial infarction, dissecting aortic aneurysms, and pulmonary infarction. Myocardial infarctions are readily induced by sudden bursts of activity or cold stimulation. It is important to examine risk factors, such as age, previous history of hypertension, and the environment. We must not forget that 30-50% of patients with myocardial infarction do not complain of pectoralgia even if they have attacks.' Below the window, there is a 'Close' button and a 'Case explanation' icon (a stethoscope with an exclamation mark).





## Volume setting

For certain cases, the volume can be adjusted by clicking on the "Volume Setting"-icon.

The screenshot shows the software interface with the "Volume setting" menu open. The menu is titled "Volume Settings" and contains several volume sliders for different audio sources: Heart sounds (S1, S2), Right and Left pulmonary artery flow, Trachea, Bowel sounds, and Respiration's sound. The "Volume setting" icon in the top navigation bar is circled in red. On the right side of the interface, there are controls for H/R (bpm), Blood pressure (S1, S4, S5), and Depressurization rate (mmHg/SEC). A red banner at the bottom of the right panel reads "Under pressurization".

## Operation in ECG learning

By stepping on the foot switch, ECG waves are shown on the PC.

The screenshot shows the software interface with the "Electrocardiographic wave patterns" menu open. The menu displays a grid of ECG waveforms for leads I, II, III, aVR, aVL, aVF, V1, V2, V3, V4, V5, and V6. The "ECG learning" icon in the top navigation bar is highlighted. On the right side of the interface, there are controls for H/R (bpm) and Blood pressure (MAX, MIN). A diagram of a human torso is shown with a yellow area indicating the location of the ECG electrodes. At the bottom, there are icons for "Electrodes present" and "Electrodes absent".



In ECG patient screen, you can select ECG waves by clicking the ECG display switch shown below in the red box.

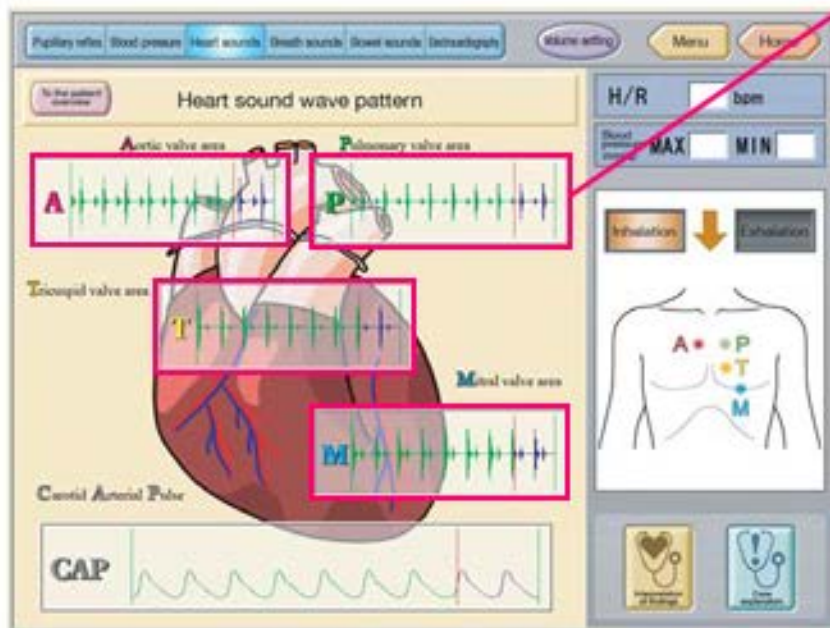
The screenshot shows the ECG patient screen interface. A red box highlights the 'ECG display switch' menu, which lists various ECG leads (I, II, III, aVR, aVL, aVF, V1, V2, V3, V4, V5, V6). A hand cursor is shown clicking on the 'V4' option. The interface includes a patient illustration, a top navigation bar with 'Pupillary reflex', 'Blood pressure', 'Heart sounds', 'Breath sounds', 'ECG', and 'Electrocardiography'. A patient profile section shows 'David Brown', 'Age 58', 'Sex Male', 'Weight 70kg', and 'Body temperature 36.8'. An ECG waveform is displayed in the center. A 'Findings' section at the bottom has checkboxes for 'Pupillary reflex', 'Breath sounds', 'Heart sounds', 'Blood pressure', and 'Electrocardiography', with 'Blood pressure' showing values of 11, 54, and 95.



## How to use the PC speakers

The Heart, Lung, and Bowel sounds can be listened to by the PC speakers. To play the sounds open the screen for one of these sounds and click the designated area.

E.g:  
For the heart sounds, the cursor will change when placed in the area surrounded by the red line.



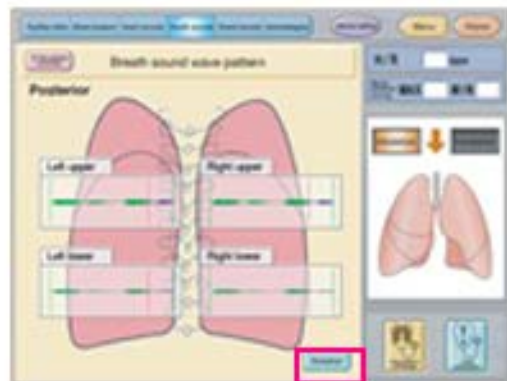
When the mouse is hovered over each Heart, Lung and Bowel sound indicator, the cursor will change to a stethoscope icon. Once you click within that area, the sounds for the selected area will be played through the PC speakers. To stop the sounds, click outside of that area.

※The PC speakers are best to be used for checking sound. For other uses, such as demonstrations in a classroom setting, use of the external speakers is recommended due to their built-in amplifiers.



## How to change the patient position in the lung sound mode

Patient positions for lung auscultation can be switched between anterior and posterior by clicking the icon framed by the red line.

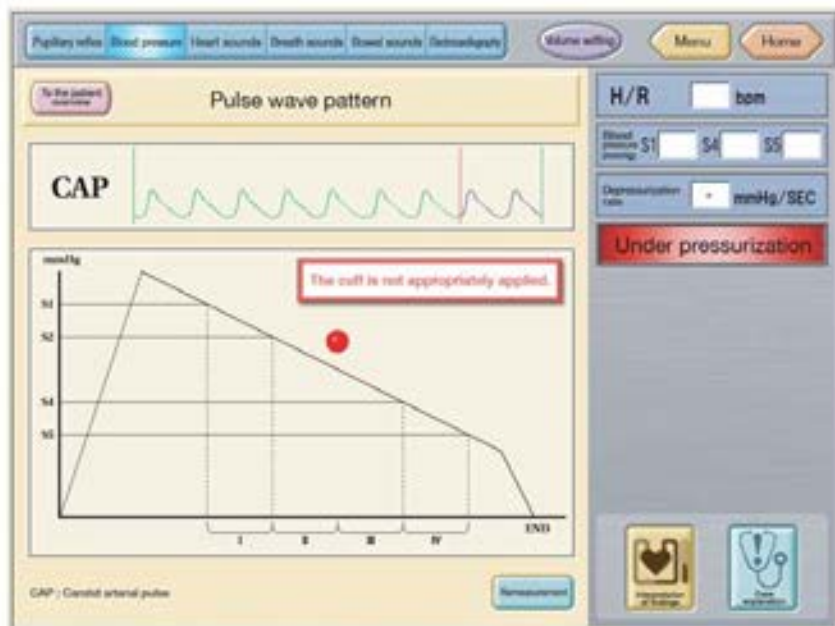




## Tips on blood pressure measurement

When the cuff is attached incorrectly to the right arm for blood pressure measurement, a warning message will appear. Please verify your cuff application while referring to the screen, as seen below.

※Please measure blood pressure only on the right arm, not on the left.





## Individual examination skills training : Case list

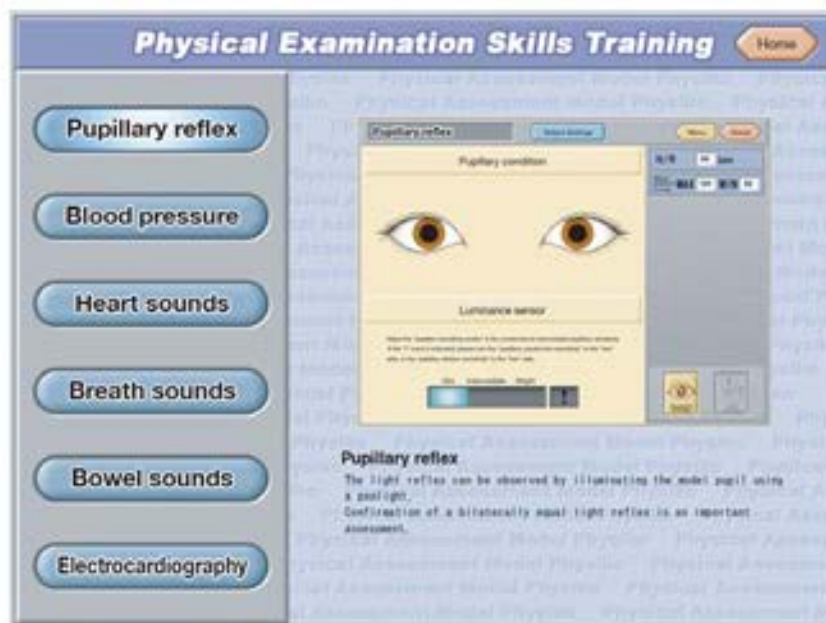
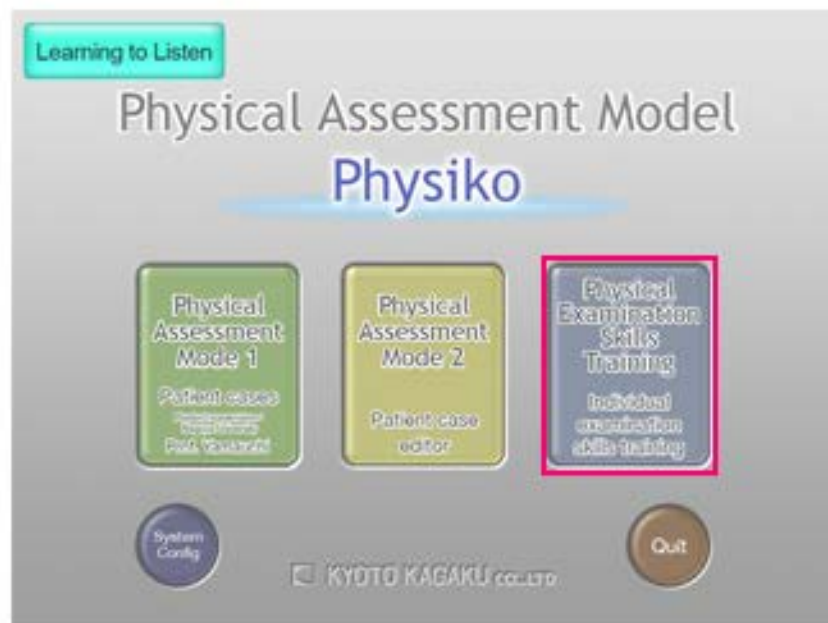
Assessment Item	Condition		
Pupillary reflex	Normal		
	Pupillary dilation		
	Pupillary constriction		
	Bilateral asymmetry		
Blood pressure	Can be set to any desired range		
Auscultation of breath sounds	Normal lung sounds	Coarse crackles	
	Weak in the left lung	Fine crackles	
	Absent in the right lung	Wheezes	
	Bronchial breathing	Rhonchi	
Auscultation of heart sounds	S2 split absent	Aortic stenosis	Atrial fibrillation
	S2 split present	Mitral regurgitation	Atrial flutter
	S3 gallop	Mitral stenosis	Premature ventricular contraction (single)
	S4 gallop	Aortic regurgitation	Ventricular flutter
	S3 and S4 gallop	Sinus tachycardia	Ventricular fibrillation
	Innocent murmur	Sinus bradycardia	Cardiac sound regulation
Auscultation of bowel sounds	Normal		
	Increased		
	Decreased		
	Obstruction (subileus)		
	Ileus		
ECG simulation	Normal	Ventricular flutter	
	Atrial fibrillation	Ventricular fibrillation	
	Atrial flutter	Myocardial infarction (acute stage)	
	Premature ventricular contraction	Myocardial infarction (subacute stage)	
	Ventricular tachycardia/ileus	Myocardial infarction (chronic stage)	



## Individual examination skills training\_1

1) Click on the "Physical Examination Skills Training"-button.

2) When the cursor is hovered over the skills button on the left side, the corresponding picture will appear. When you click on the skills button, you will be directed to the respective skills training page.





## Individual examination skills training\_2

1) Select a case (except for the BP measurement)  
When you click on the "Select findings"-icon on the top of the screen, you will see a drop down menu with cases to practice with.




\*For the blood pressure measurement, no drop down menu is provided.

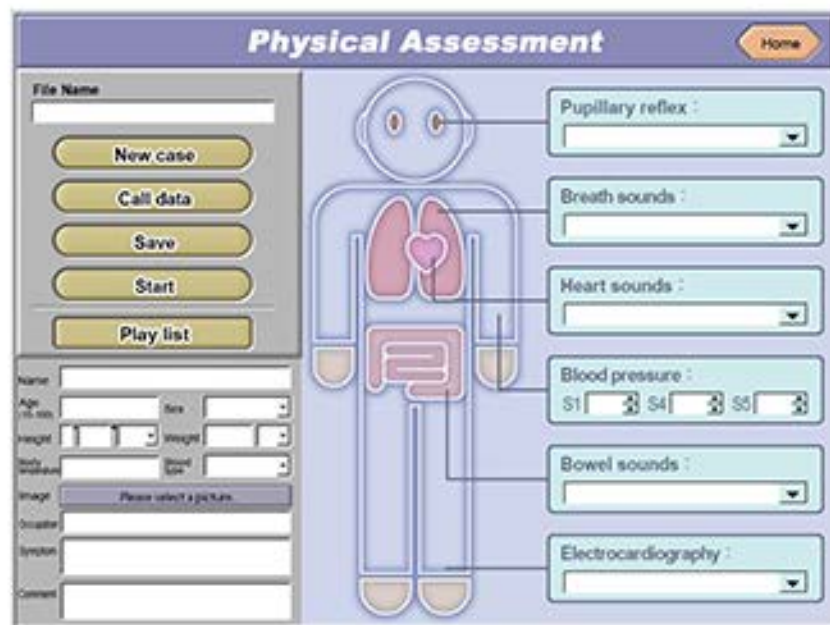
2) Set values for blood pressure  
The value of S1, S4 and S5 for blood pressure measurements is adjustable.  
When you click the "BP measurement"-icon on the bottom of the screen, a window will appear, where you can adjust the values accordingly.





1) Click "New case" on the left when creating patient case newly.

2) When clicking on  of each case, the pull-down list appears. Select one from the list. For the blood pressure, click  or , or simply click the number you would like to change and manually type the entry with the keyboard.



**Physical Assessment** Home

File Name:

New case  
Call data  
Save  
Start  
Play list

Name:   
Age (Y, Mo):   Sex:   
Height:   Weight:    
Body temperature:  Blood Sat:   
Image:  Please select a picture  
Occupier:   
Symptom:   
Comment:

Pupillary reflex:

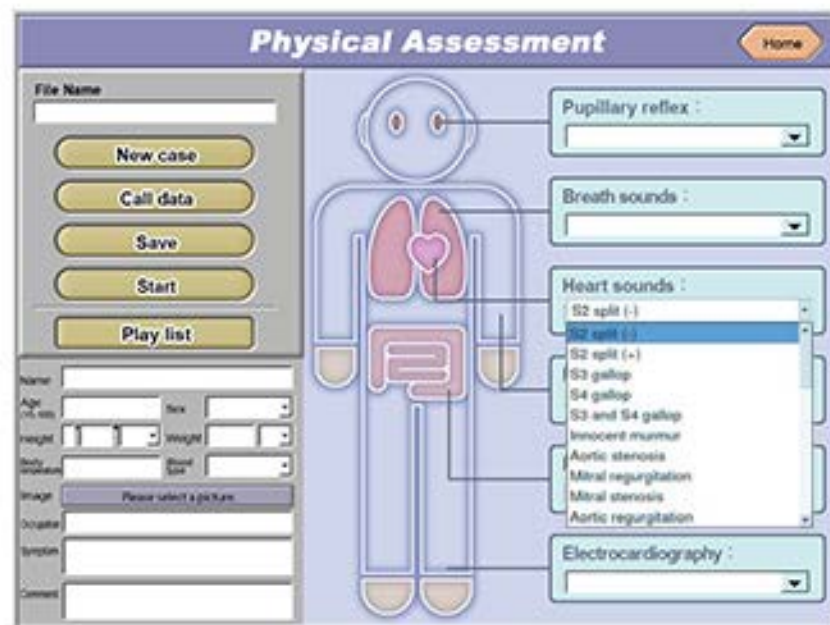
Breath sounds:

Heart sounds:

Blood pressure: S1  S4  S5

Bowel sounds:

Electrocardiography:



**Physical Assessment** Home

File Name:

New case  
Call data  
Save  
Start  
Play list

Name:   
Age (Y, Mo):   Sex:   
Height:   Weight:    
Body temperature:  Blood Sat:   
Image:  Please select a picture  
Occupier:   
Symptom:   
Comment:

Pupillary reflex:

Breath sounds:

Heart sounds:

- S2 split (-)
- S2 split (+)
- S2 split (-+)
- S2 gallop
- S4 gallop
- S3 and S4 gallop
- Innocent murmur
- Aortic stenosis
- Mitral regurgitation
- Mitral stenosis
- Aortic regurgitation

Electrocardiography:

You cannot input greater number to S4 than S5's.



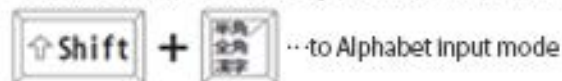
3) Fill in the blanks on the left.

\* Explanation about "Please select a picture"-button is on the next page.

• Here, "Age." is the only required item. Other items can be left blank, though, it is necessary to create a filename to save the data.

• The default setting of all the findings is normal.

How to input letters with the keyboard (In the case of Japanese version of PC). Alphabet input mode is set by default. If it is not, switch to alphabet mode by pressing the following keys.

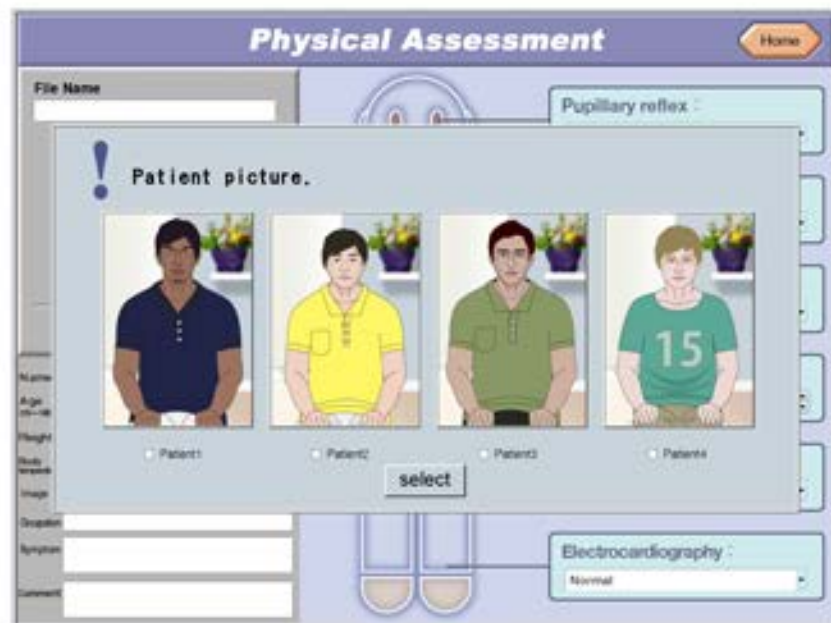
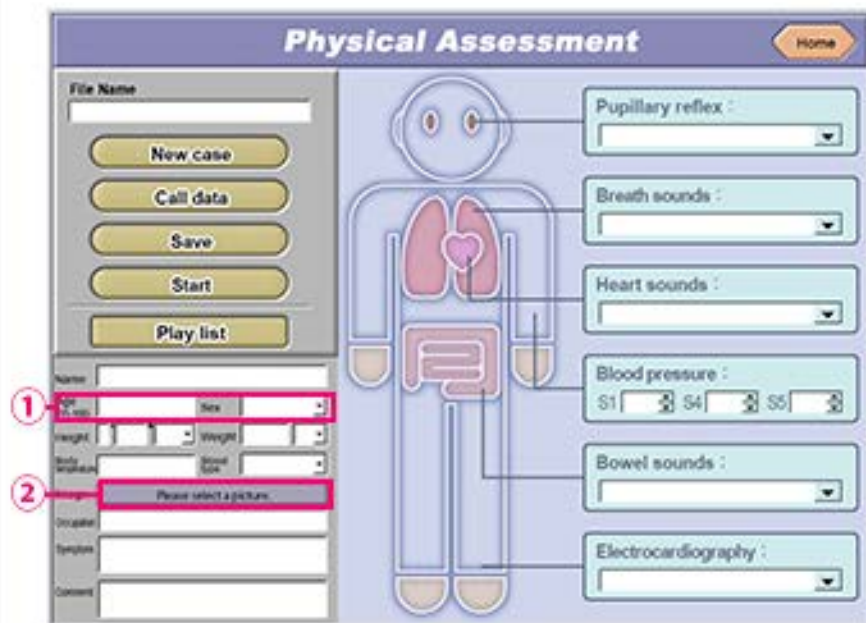




4) First, input "Age" and select "Sex". Then, click the "Please select a picture"-button. The age range is from 15 to 100 years old.

5) After completion of step 4), the below window will be displayed. Four pictures will be shown depending on the combination of age and sex chosen in step 4). Check the button under an image and click the "select"-button.

\*If you do not select a patient picture, the picture on the leftmost side will be selected by default.



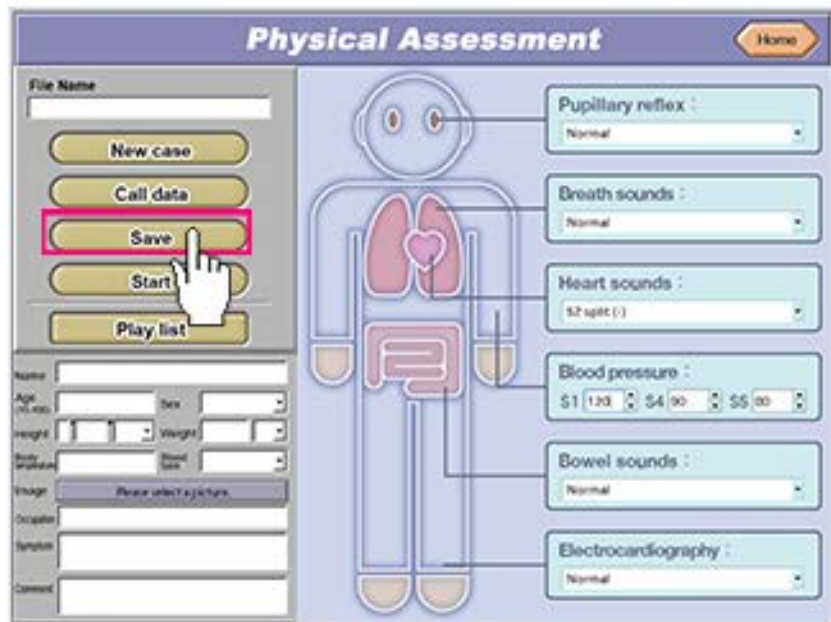


## How to save the file

1) When you save the created file, click "Save"-icon.

2) When the window is shown below, input file name to ① by keyboard and click "Save" icon ②.

\*If you input an already-existing filename, an overwrite dialog is shown. You may then change the filename to resave or overwrite the file.

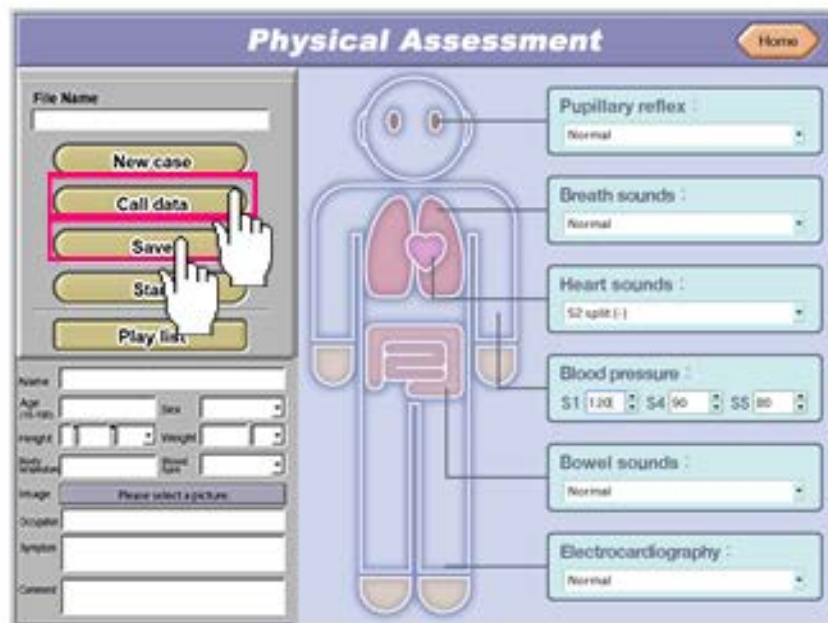




## How to delete a file\_1

1 ) To delete a file, click "Save" or "Call data".

2 ) After that the below window is shown. Click (1) the filename you want to delete and click (2) the "Delete"-button.

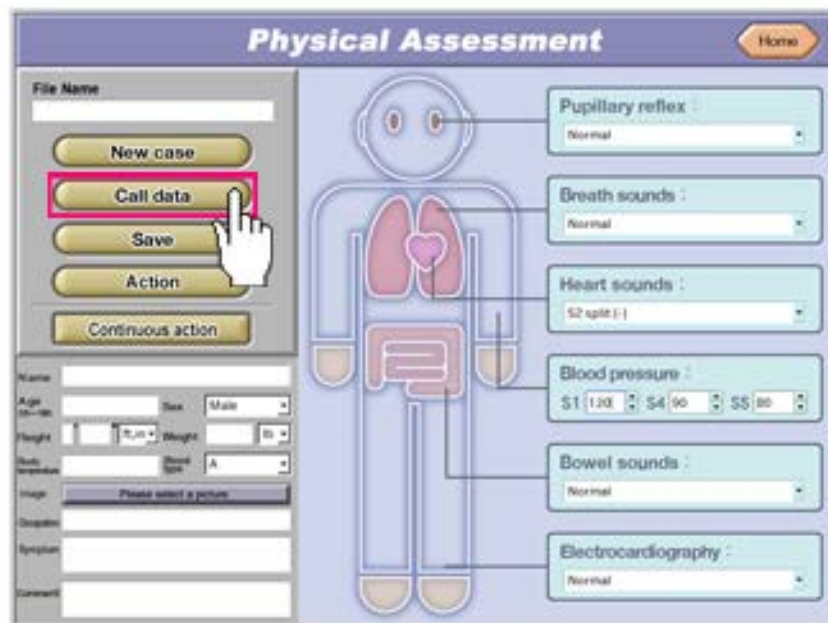




## How to call a file

1 ) When you want to open a custom-made case file, click the "Call data"-button. The window on the right side will pop up.

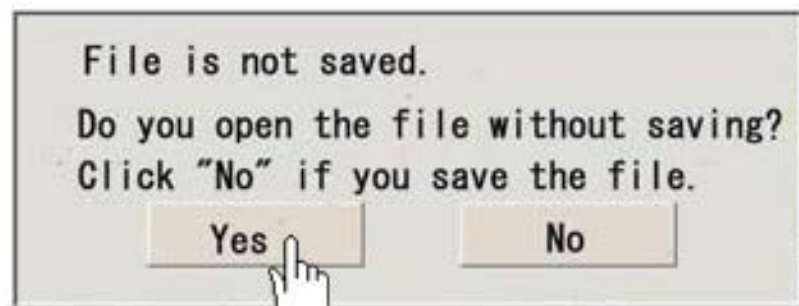
2 ) Click the filename of the case you want to use. Then click the "Open"-button to open the file.





### How to call a file\_3

3 ) If there is an unsaved file, the window below will be shown. Click "Yes" if you don't want to save the file and open the file Click "No" if you want to save the file, before opening the file.





## Play list

1) To run several files continuously in sequence, click the "Playlist"-button

The screenshot shows the 'Physical Assessment' software interface. On the left, there is a 'File Name' input field and a vertical stack of buttons: 'New case', 'Call data', 'Save', 'Start', and 'Playlist'. The 'Playlist' button is highlighted with a red rectangular box, and a hand cursor is pointing at it. Below these buttons is a patient information form with fields for Name, Age, Sex, Height, Weight, and Blood pressure, along with a 'Please select a picture' button. The central part of the interface features a stylized human figure with various organs highlighted. To the right of the figure are several dropdown menus for selecting physiological parameters: 'Pupillary reflex' (set to 'Pupillary dilation'), 'Breath sounds' (set to 'Weak in the left lung'), 'Heart sounds' (with a dropdown menu open showing options like 'S3 gallop', 'S4 gallop', 'S3 and S4 gallop', 'Innocent murmur', 'Aortic stenosis', 'Mitral regurgitation', 'Mitral stenosis', 'Aortic regurgitation', 'Sinus tachycardia', and 'Sinus bradycardia'), and 'Electrocardiography' (set to 'Myocardial infarction'). A 'Home' button is located in the top right corner.

To use the playlist, at least two files of custom made cases need to be saved beforehand. Up to three files can be included in one playlist.





1) Select files for the playlist. Select a file from the list and click "Select"-button to transfer the file to the "Playlist"-box.  
Repeat the task to select up to three files.



To use the playlist, at least two files of custom made cases need to be saved beforehand. Up to three files can be included in one playlist.

## Set the play time

1) Set the play time according to following order.  
Click the file in "Play list" box.





1) Click the "Play time"-box and select one from five options shown in the pull-down menu.

The screenshot shows the 'Patient case editor' interface. At the top, there is a table with columns 'FileName' and 'Date'. Below this is a 'Play list' section with a table containing two rows: '1 Sample 2019 1' and '2 Sample 2019 2'. Below the 'Play list' is a 'Play time' dropdown menu that is open, showing five options: '1min', '5min', '10min', '20min', and '30min'. A hand icon is pointing to the '1min' option. To the right of the 'Play time' dropdown are buttons for 'Cancel', 'Start', and 'All'.

FileName	Date
Sample 2019 1	2019-09-02
Sample 2019 2	2019-09-04
NewT	2021-11-04

Play list	Select ↓	Release ↑
1 Sample 2019 1	1min	▲ Upward
2 Sample 2019 2	1min	▼ Downward

Play time

- 1min
- 5min
- 10min
- 20min
- 30min

Cancel Start All

2) Repeat the process for all the files in the play list.

The screenshot shows the 'Patient case editor' interface. At the top, there is a table with columns 'FileName' and 'Date'. Below this is a 'Play list' section with a table containing two rows: '1 Sample 2019 1' and '2 Sample 2019 2'. Below the 'Play list' is a 'Play time' dropdown menu that is closed, showing the '1min' option. To the right of the 'Play time' dropdown are buttons for 'Cancel' and 'Start'.

FileName	Date
Sample 2019 1	2019-09-02
Sample 2019 2	2019-09-04
NewT	2021-11-04

Play list	Select ↓	Release ↑
1 Sample 2019 1	1min	▲ Upward
2 Sample 2019 2	1min	▼ Downward

Play time

- 1min
- 5min
- 10min
- 20min
- 30min

Cancel Start

When the play time is not edited, default setting for each file is one minute.



## Changing the order of files in the playlist

Click a file to change the position in the list. Then move it by clicking "Up" or "Down."

The screenshot shows a table with columns 'File/Name' and 'Date'. The rows are 'Sample 2019 1' (2019-08-02), 'Sample 2019 2' (2019-09-04), and 'New T' (2021-11-04). Below the table is a 'Play list' section with a 'Select' button and a 'Release' button. The playlist contains two items: '1 Sample 2019 1' and '2 Sample 2019 2'. A hand icon is pointing to the '2 Sample 2019 2' item. Another hand icon is pointing to the 'Up' button (represented by an upward-pointing triangle) next to the 'Release' button. Below the playlist is a 'Play time' section with a dropdown menu set to '5min', and 'Cancel' and 'Start' buttons.

File/Name	Date
Sample 2019 1	2019-08-02
Sample 2019 2	2019-09-04
New T	2021-11-04

Play list

Select ↓ Release ↑

1	Sample 2019 1	1min
2	Sample 2019 2	5min

Play time

5min

Cancel Start

## Removing a file from the playlist

Click the file to remove.  
Then click the "Release"-button".

The screenshot shows the same table as the previous image. Below the table is the 'Play list' section with 'Select' and 'Release' buttons. The playlist contains two items: '1 Sample 2019 1' and '2 Sample 2019 2'. A hand icon is pointing to the '2 Sample 2019 2' item. Another hand icon is pointing to the 'Release' button. Below the playlist is the 'Play time' section with a dropdown menu set to '5min', and 'Cancel' and 'Start' buttons.

File/Name	Date
Sample 2019 1	2019-08-02
Sample 2019 2	2019-09-04
New T	2021-11-04

Play list

Select ↓ Release ↑

1	Sample 2019 1	1min
2	Sample 2019 2	5min

Play time

5min

Cancel Start



## Play

Click "Start" after finishing configuration.

It takes time for the system to transfer data to the terminal box from the PC when you choose the next file in the playlist.

