



Music Laboratory System

Application for Instructors

ML Touch

User's Guide

Introduction

In a classroom equipped with the Music Laboratory System, the iPad application “ML Touch” is software for instructors to operate the entire system while teaching the class.

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Operating Environment

Compatible operating systems	iOS12 or later
Compatible device	iPad supporting a compatible OS
Compatible instruments	MLA-200, MRX7-D & electronic musical instruments connected to MLA-200
Network connection	Wireless access point

NOTE

A network connection via a wired LAN is also possible. For a wired connection, a Lightning-USB 3 camera adapter or USB Ethernet adapter may need to be acquired separately. In addition, switch the connection offline.

Preparations

Setting up Wi-Fi

Set up the wireless access point according to the operation manuals for each device as well as the MLA-200 Installation Guide. We recommend using a security setting such as WPA in order to prevent external intrusions into the network.

Setting up Wi-Fi on the iPad

Use DHCP to set up the iPad.

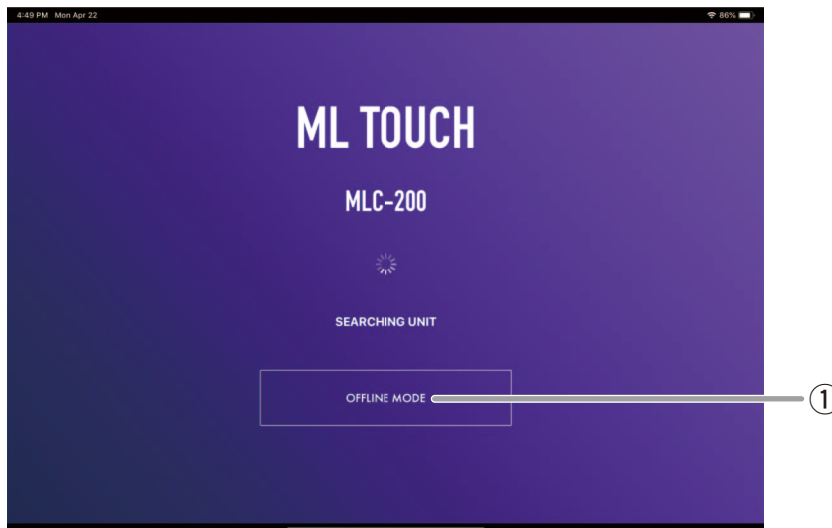
1. Open the Settings app on the iPad.
2. Select [Wi-Fi], and then select the wireless access point.
3. Tap the blue mark to the right of the currently selected wireless access point to display a screen for editing the IP address.
4. Select [DHCP], and then check that the iPad has received the settings for “IP Address”, “Subnet Mask”, “Router” and “DNS”.
5. If the settings have not been applied, tap [Renew Lease].
6. After the setup is finished, return to the Home window.

Setting up ML Touch

Perform the initial setup according to the MLA-200 Installation Guide.

1. Install ML Touch from the App Store.
2. Tap the ML Touch icon to start the application.

The initial setup window appears.



① OFFLINE MODE button

Open the HOME window in offline mode (limited functionality).

In offline mode, MIDI transmissions and audio connection switching cannot be performed, but the number of MLA-200s and the number of MRX7-Ds can be specified.

Then, if there are no problems, the HOME window appears.

If the following cases, an error occurs, and the HOME window does not appear.

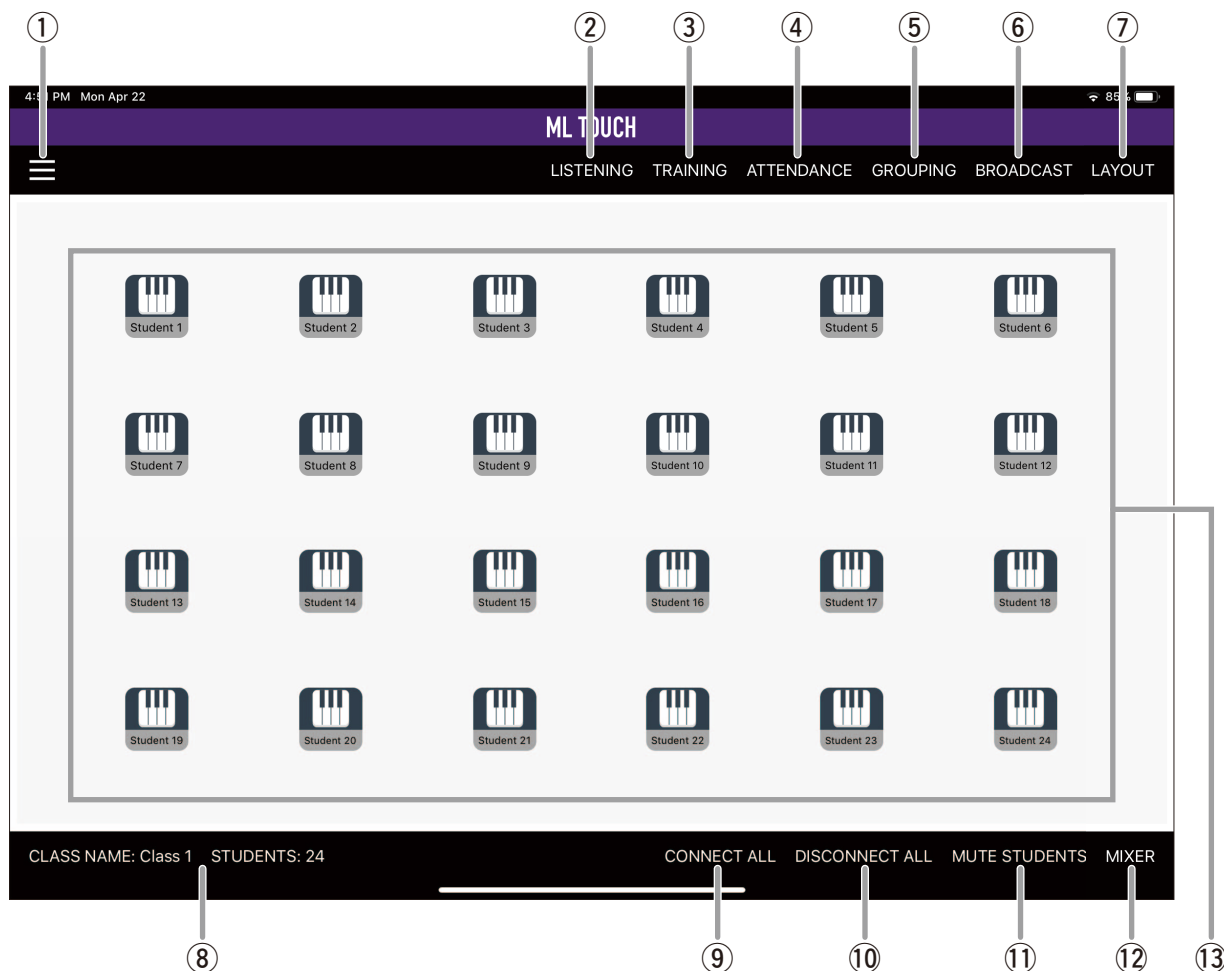
- Not even one connected MRX7-D can be detected.
- No MLA-200 is connected.

In this case, resolve the problem, and then restart ML Touch.

Part names and functions

HOME window

This is the main window for ML Touch. This window appears when the application is started.



① Settings button

Displays the SETTINGS window to specify various settings related to ML Touch. (→ page 22)

② LISTENING button

Displays the LISTENING window to listen to the performance of the selected student. (→ page 10)

③ TRAINING button

Displays the TRAINING window used in lessons. (→ page 11)

④ ATTENDANCE button

Displays the ATTENDANCE window to take attendance. (→ page 17)

⑤ GROUPING button

Displays the GROUPING window to specify groups of students. (→ page 16)

⑥ BROADCAST button

Displays the BROADCAST window to allow specific students and the instructor or the entire classroom to listen to a played-back song or the instructor's/student's performance. (→ page 14)

⑦ **LAYOUT button**

Displays the LAYOUT window to specify the arrangement of students displayed in the HOME window and the student icon display area. (→ page 20)

⑧ **CLASS NAME indicator / Class number indicator / STUDENTS indicator**

Display the class name, class number and number of students specified in the SETTINGS window. Tap to display the SETTINGS window. (→ page 22)

⑨ **CONNECT ALL button**

Connects the audio with all students.

⑩ **DISCONNECT ALL button**

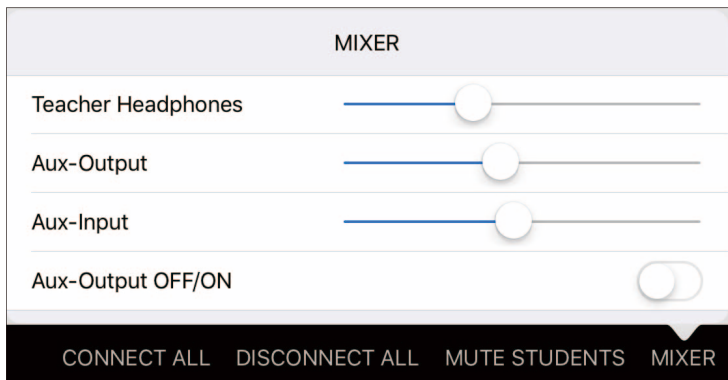
Disconnects the audio with all students.

⑪ **MUTE STUDENTS button**

Mutes the audio of all students when the audio with all students is connected. Students can hear audio only from the instructor. Tap the cancel button to undo.

⑫ **MIXER button**

Displays a window for adjusting the volumes of the instructor's headphones, speakers and AUX input as well as for turning on/off the speakers.



These are the same settings as those available from the Mixing Console menu in the SETTINGS window. (→ page 24)

⑬ **Student icons**

Tap an icon to connect the audio of that student and the instructor. Tap the icon again to disconnect.

Student icon indications and statuses (→ page 8)

Operations related to student icons (→ page 8)










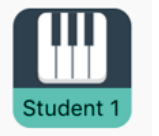
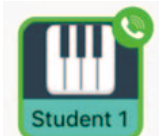
⑭ **Display lock button**

When the HOME window is pinched to zoom in, this button appears at the right side of the screen. Tap to lock the student icons at their current display positions. Tap again to unlock.

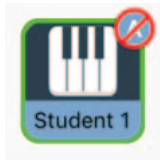
Student icon indications and statuses

The student icon changes depending on the status. If there are multiple statuses, their indications overlap.

The device ID of the MLA-200 appears on icons with no student assigned.


<p>① Student not assigned</p> 	<p>② Student assigned</p> 	<p>③ Group assigned</p> 
<p>④ Multiple students assigned</p> 	<p>⑤ Connection error</p> 	<p>⑥ Muted</p> 
<p>⑦ Student mic on while connected with student</p> 	<p>⑧ Student mic off while connected with student</p> 	<p>⑨ Call from student (flashing frame)</p> 

For example: A student icon with statuses ②, ③, ⑥ and ⑦ appears as shown below.



Operations related to student icons

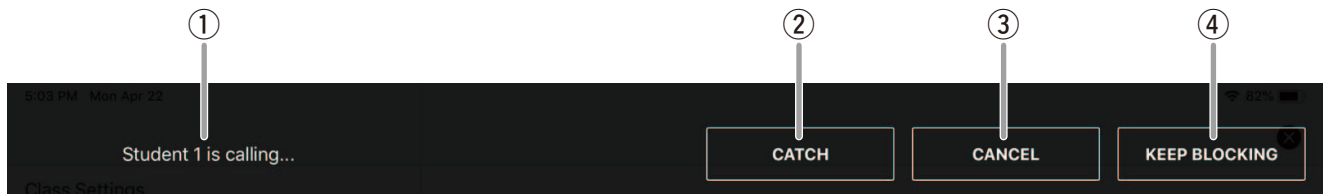
During the lesson, tap a student icon to perform an operation.

- Tapping the icon of a student whose audio is not connected allows the instructor and student to hear each other's performances and voices.
Tap the icon again to disconnect.
- Tapping the icon of a group-assigned student whose audio is not connected allows the instructor and all students in the group to hear each other's performances and voices.
Tap the icon again to disconnect the group. However, the student's mic will remain on.
- Tapping the icon of a student who is calling (student pressed the [CALL] button on the MLA-200) turns on that student's mic so that their voice can be heard. At that time, the performances of students other than the one who called cannot be heard. Tap the icon again to end the call. When the student's mic is on, the [MIC] button on the student's MLA-200 flashes.
- If a group-assigned student called, all students in the same group can hear the audio.
- During calls from students,  appears at the right side of the HOME window. Tap this icon to end calls with all students.
- If an error indication appears on a student icon, check the connection status, etc.

CALL window

This window appears when a call is received from a student while any window other than the HOME window is displayed.

Various operations can be performed in the displayed window, even during a call.



① Student indication

Indicates the student who is calling.

② CATCH button

Tap to accept a student's call and connect. If calls from multiple students are received at the same time, select the student whose call to accept. After accepting a call, tap this button to end the call.

③ CANCEL button

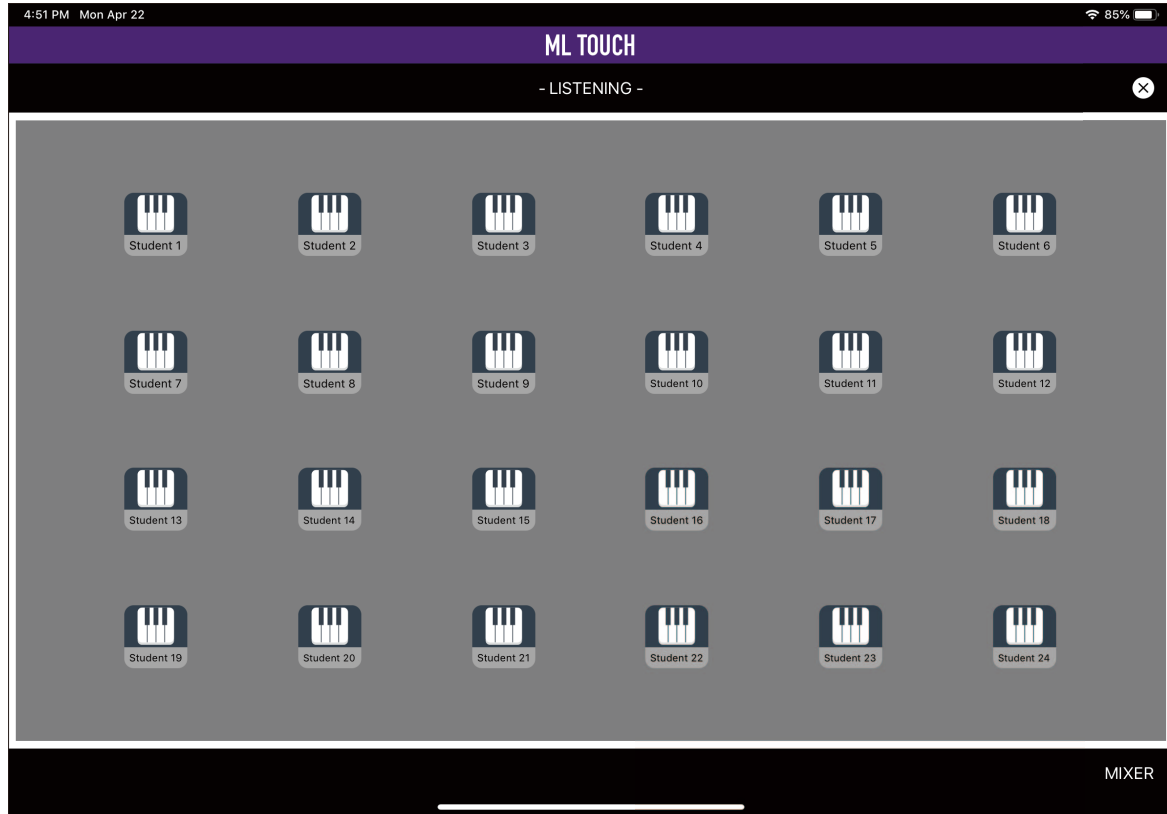
Tap to decline the student's call and not connect.

④ KEEP BLOCKING button

Tap to block a student's calls while the current window is displayed.
This setting is canceled after a different window is displayed.

LISTENING window

This window appears when listening to the performance of a selected student. The instructor can listen to only a selected student by tapping the icon. Even if the student is in a group, only the selected student can be heard.



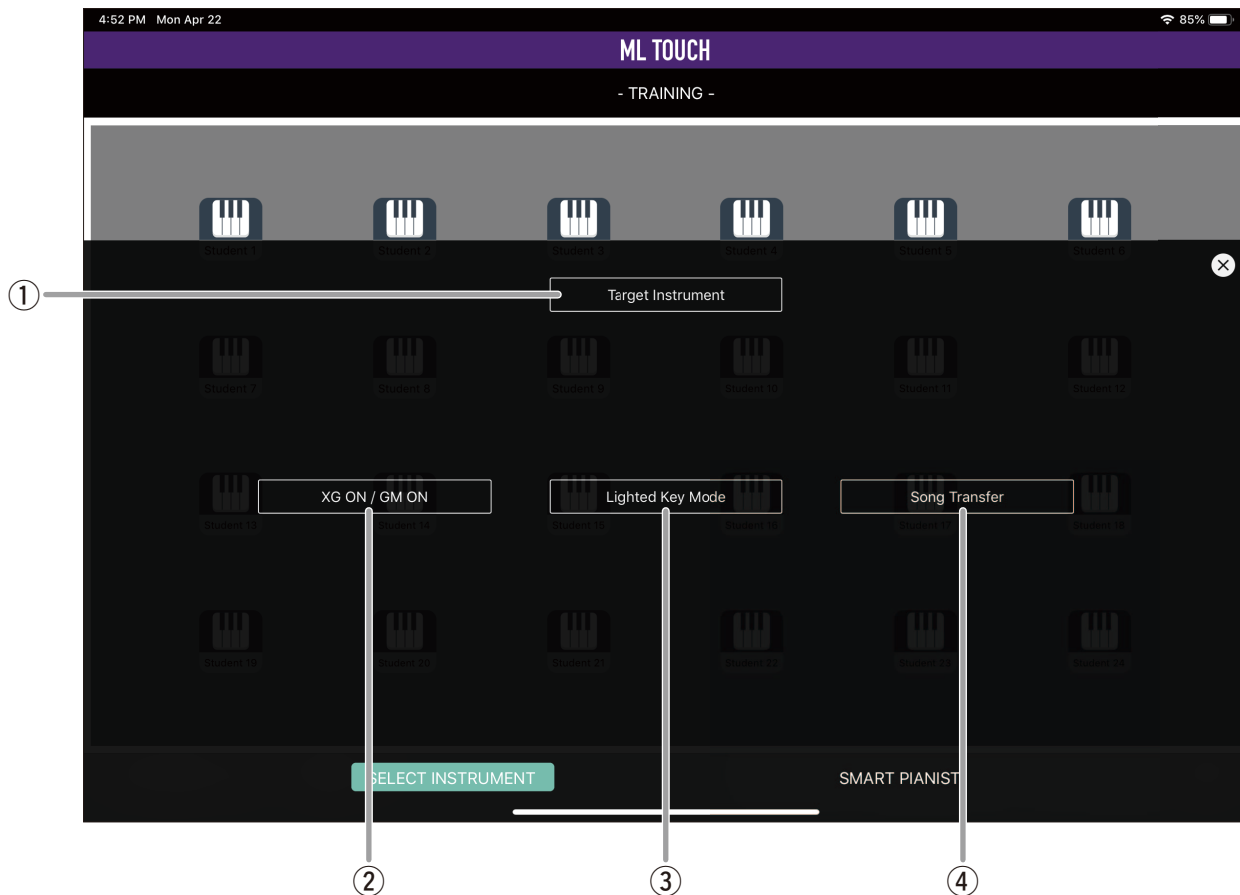
TRAINING window

This window is used to perform various useful functions during a lesson.

Switch the mode with the buttons at the bottom of the window.



SELECT INSTRUMENT mode



① Target Instrument button

Displays the TARGET INSTRUMENT window to select a target student or group. (→ page 13)

② XG ON/GM ON button

Sends XG ON/GM ON to reset the sound source on the instrument.

③ Lighted Key Mode button

Turns on/off the function for lighting the guide lamps on the student's instrument during the instructor's keyboard performance.

This can be used with instruments that support the guide lamp function. With other instruments, be sure to turn this off in order to prevent unnecessary communication.

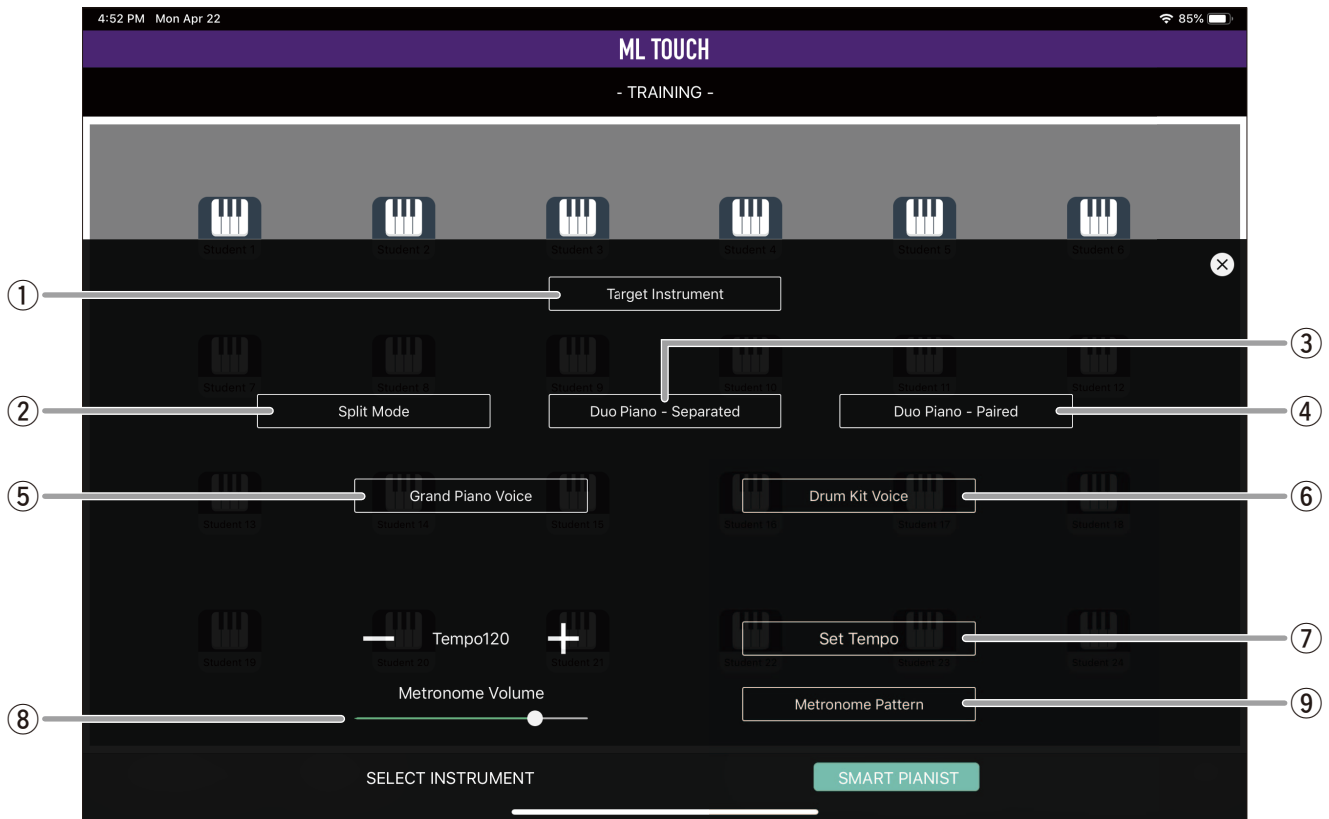
④ Song Transfer button

Sends a standard MIDI file imported with iTunes file sharing to the instrument of the student selected with the TARGET button. Tap this button to display the transmission status in a progress bar. If an error occurred, error details will appear. In addition, this function cannot be used with some instruments.

SMART PIANIST mode

This is a mode for specifying the status of a student's instrument. This function is available with some instruments that support Smart Pianist.

This mode is available when a USB cable is used to connect the MLA-200's [I/O] port and a Smart Pianist-compatible instrument.

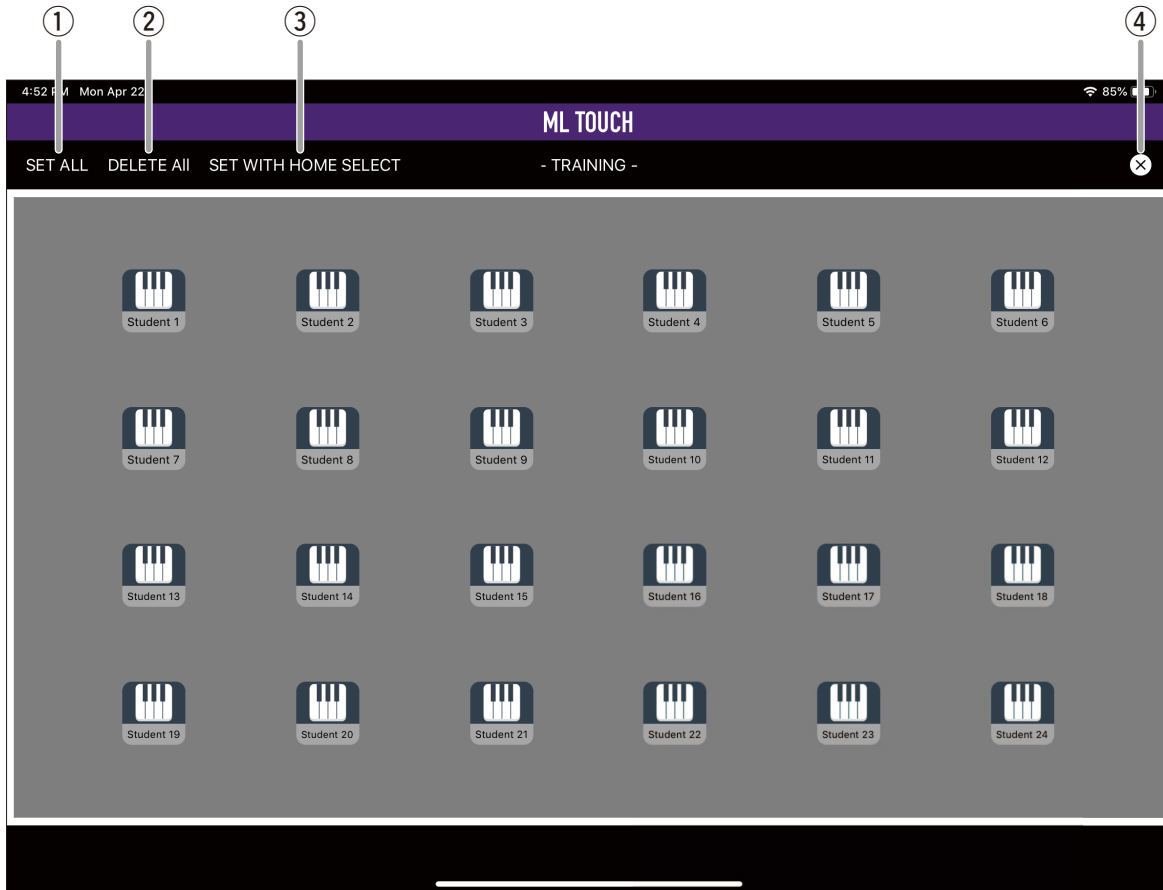


- ① **Target Instrument button**
Displays the TARGET INSTRUMENT window to select a target student or group. (→ page 13)
- ② **Split Mode button**
Switches the instrument to Split mode.
- ③ **Duo Piano – Separated button**
Sets the instrument to duo piano, and turns on the DUO mode on the MLA-200.
- ④ **Duo Piano – Paired button**
Sets the instrument to duo piano, and turns off the DUO mode on the MLA-200.
- ⑤ **Grand Piano Voice button**
Sets the tone of the instrument to the first “Piano”.
- ⑥ **Drum Kit Voice button**
Sets the tone of the instrument to “Drums/Percussion”.
- ⑦ **Set Tempo button / + (INC)/– (DEC) buttons**
Specifies the metronome tempo. This can be set within the range of 5 and 500.
- ⑧ **Metronome Volume slider**
Adjusts the metronome volume. The more the slider is moved to the right, the louder the volume will be.
- ⑨ **Metronome Pattern button**
Selects the metronome pattern.

TARGET INSTRUMENT window

This window appears when the Target Instrument button in the TRAINING window is tapped.

Tap a student icon in any area to select a target.

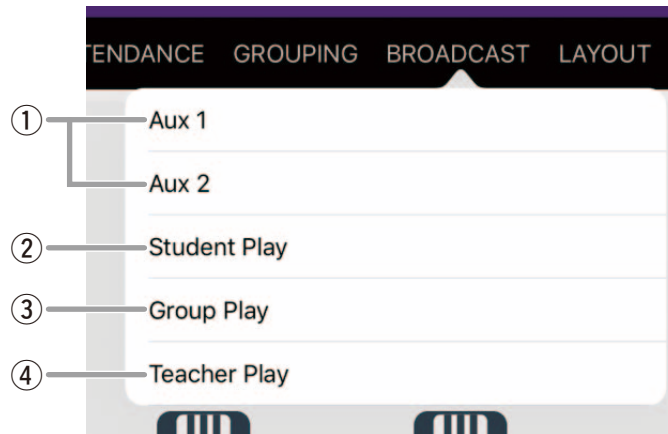


- ① **SET ALL button**
Selects all students.
- ② **DELETE ALL button**
Cancels all selections.
- ③ **SET WITH HOME SELECT button**
Selects the students selected in the HOME window.
- ④ **Close button**
Completes selecting targets and returns to the previous window.

BROADCAST window

The BROADCAST window is used to broadcast the selected input sound to everyone.

Tap the BROADCAST button in the HOME window to display a list of input sounds to be broadcast.



① **Aux 1/Aux 2**

Broadcasts the audio inputted to AUX IN1/AUX IN2 of the MRX7-D.

② **Student Play**

Broadcasts the performance of the selected student.

③ **Group Play**

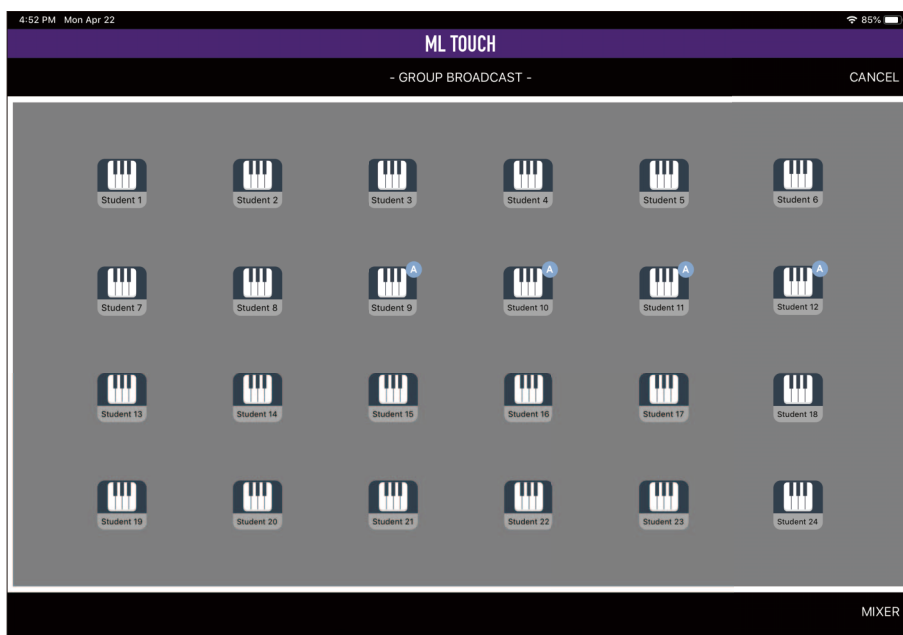
Broadcasts the performance of the selected group.

④ **Teacher Play**

Broadcasts the performance of the instructor.

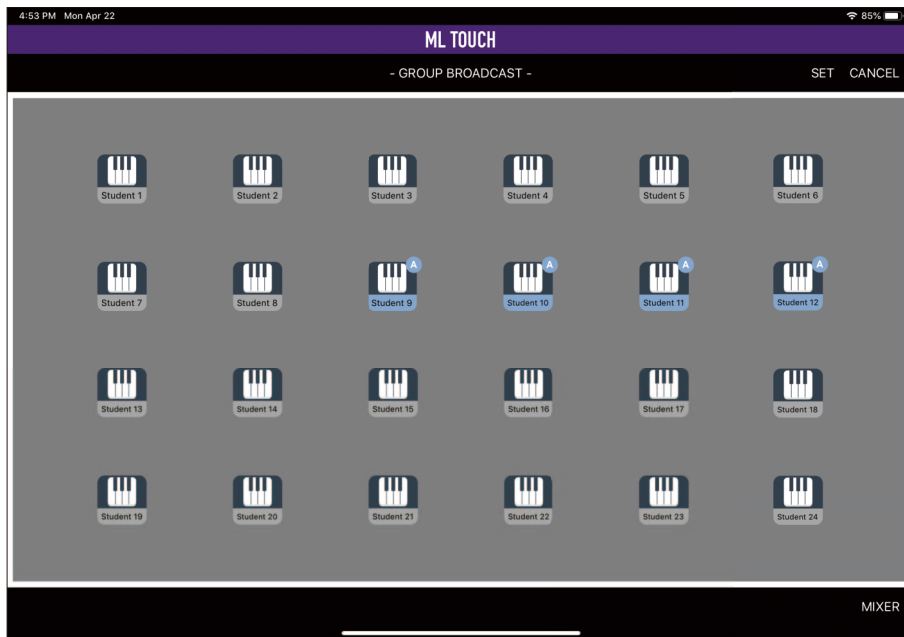
Window after selecting Student Play/Group Play

The following window appears when Student Play or Group Play has been selected.



Part names and functions

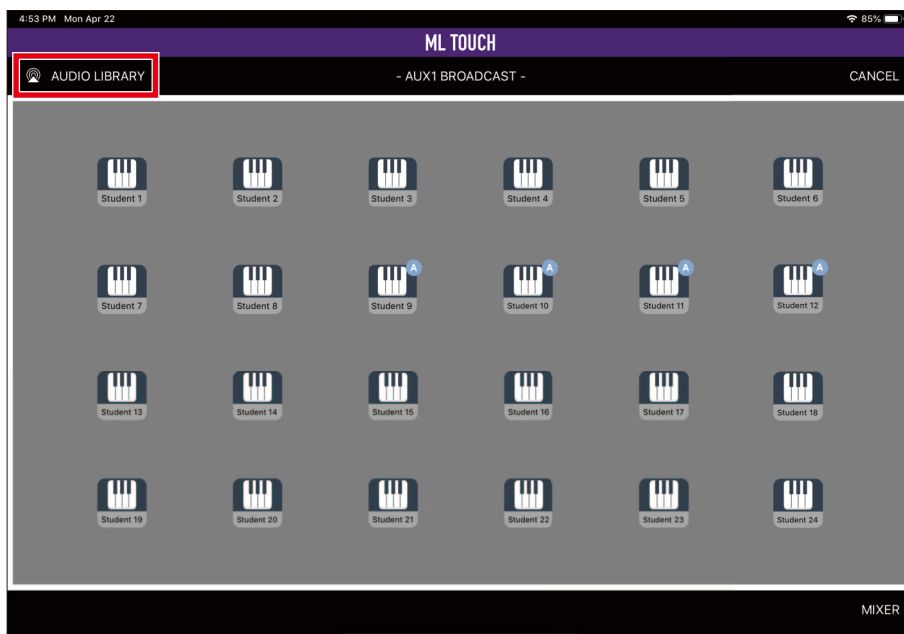
Tap a student icon to select the student or group to be broadcast.



Tap the SET button in the upper-right corner of the window to apply the setting. To cancel the setting, tap the CANCEL button.

AUX window

When Aux 1 or Aux 2 is selected, the AUDIO LIBRARY button appears in the upper-left corner of the window.



Tap this button to display the iOS AirPlay screen to broadcast audio data saved on the iPad.

GROUPING window

This window is used to specify student groups.

Twelve groups (A to L) can be specified.



① SAVE button

Saves the current group settings. A maximum of 8 sets can be saved.

② LOAD button

Loads saved group settings.

③ 2 PEOPLE button / 4 PEOPLE button / 8 PEOPLE button

These buttons form groups in the order of the IP addresses, starting from the top. 2-person, 4-person and 8-person groups are automatically assigned. Since groups are arranged in the order of the IP addresses, it is not always possible to group students sitting beside each other.

④ UNGROUP button

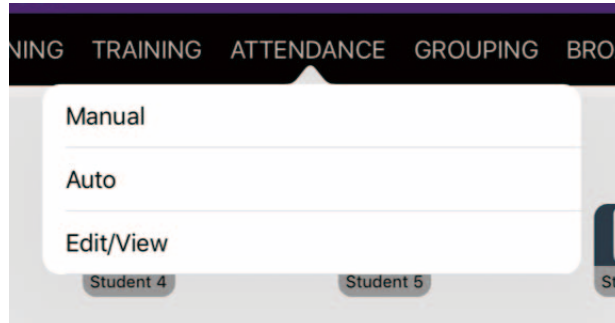
Cancels the group settings.

⑤ Group selection buttons

Select a group to be specified. Tap a group name to select it, and then tap a student icon to add the student to the selected group. Tap a student icon again to remove the student from the group. Tapping a new group, then tapping a student icon already in another group assigns that student to the new group.

ATTENDANCE window

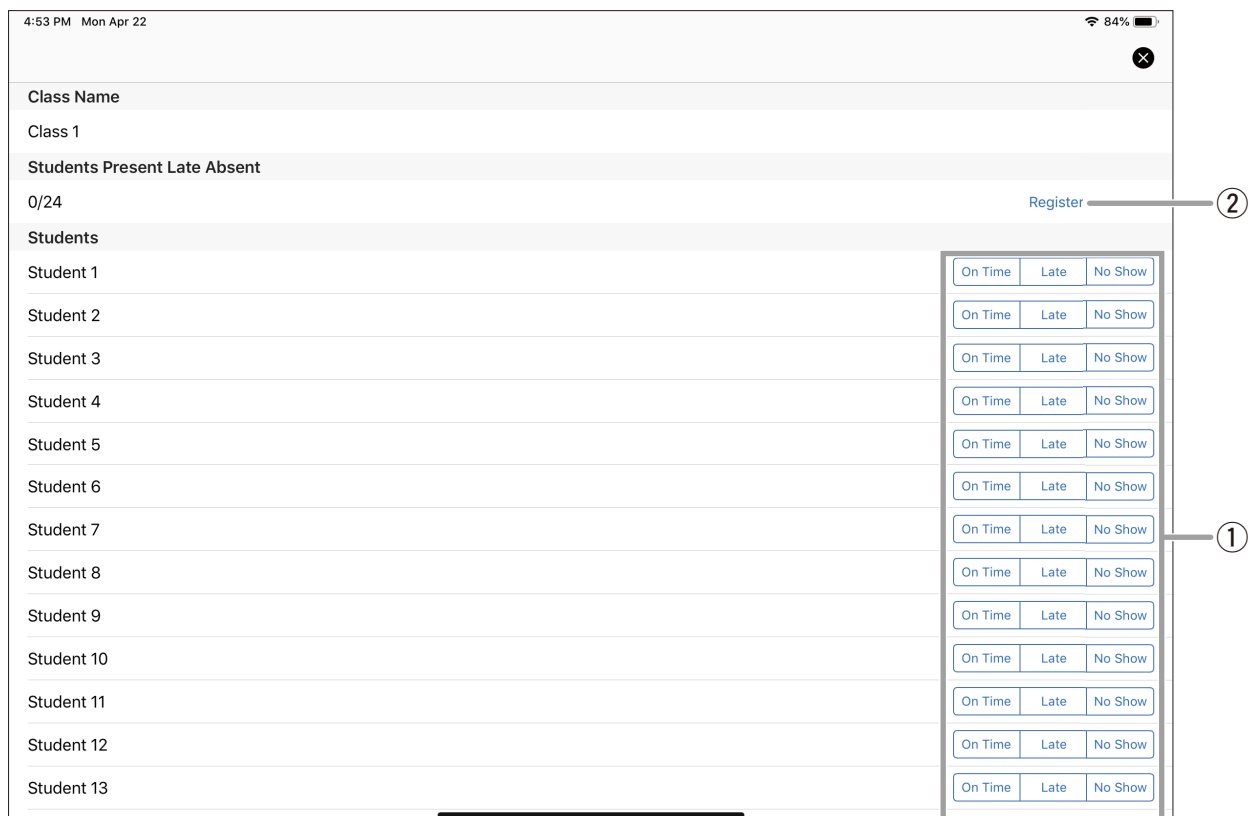
Tap the ATTENDANCE button in the HOME window to display the ATTENDANCE window for recording student attendance.



The ATTENDANCE window has three modes.

Manual mode

This mode is for manually entering student attendance.



① **Attendance status buttons**

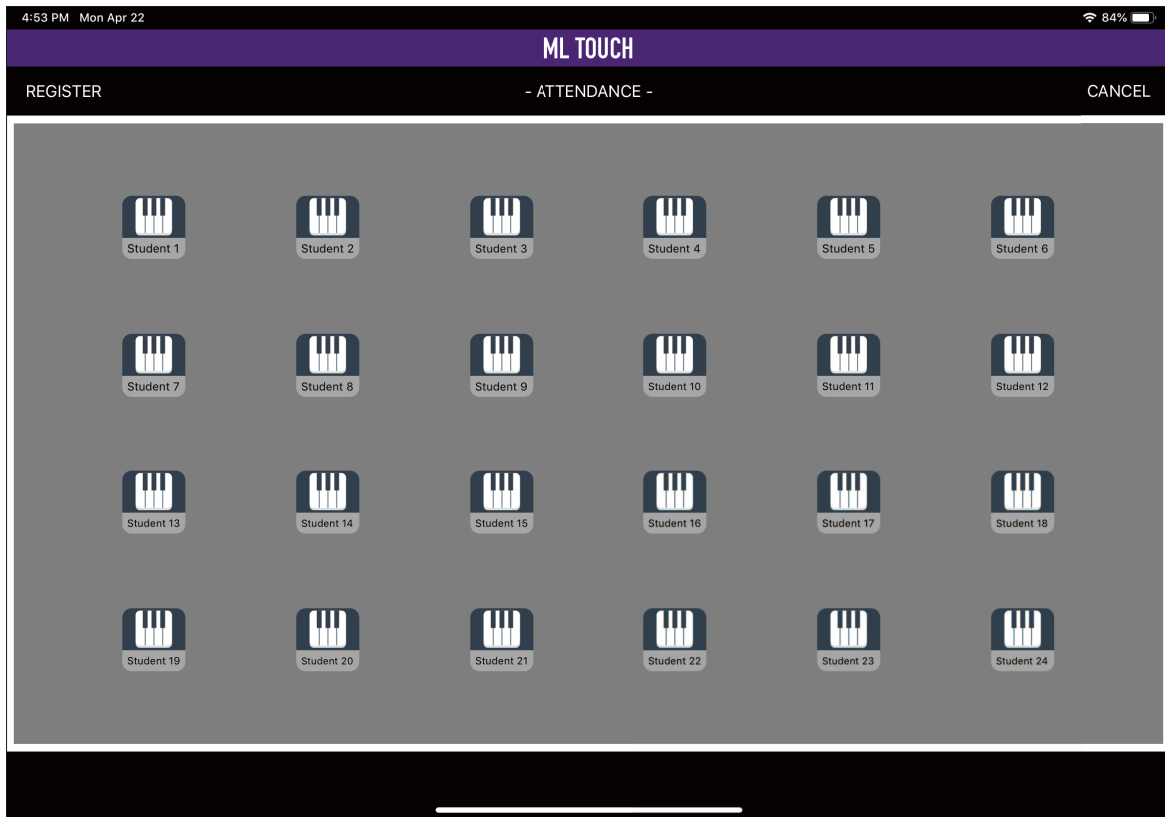
Enter the attendance status for each student. Select from On Time, Late and No Show.

② **Register button**

Saves the entered attendance statuses. The attendance statuses are saved in a CSV file. The saved attendance record can be exported to an external file using “Export Attendance CSV File” in the System menu in the SETTINGS window. The exported CSV file can be saved/edited on the computer via iTunes.

Auto mode

This mode is for automatically acquiring student attendance when the [CALL] button on the MLA-200 is pressed.



Once the Auto mode has been entered, it will wait for the appropriate student operation.

When a student presses the [CALL] button on their MLA-200, the corresponding student icon changes to green. In addition, the [CALL] button lights up.

When you have finished taking attendance, tap the REGISTER button in the upper-left corner of the window to save the attendance record.

When Auto mode is exited, the [CALL] buttons on the students' MLA-200s go off.

NOTE

In Auto mode, late attendance cannot be recorded. After pressing the REGISTER button, edit the record in Edit/View mode.

Edit/View mode

This mode is for checking and editing saved attendance records.



The screenshot shows a mobile application interface with a status bar at the top displaying '4:54 PM Mon Apr 22' and '84%' battery. Below the status bar is a close button (X). The main content area is titled 'Attendance Date' and contains a list of two records. Each record shows a date and time on the left and a count of students on the right, with a right-pointing arrow. The first record is '4/22/2019, 16:53:53' with '0/24 >'. The second record is '4/22/2019, 16:53:58' with '0/24 >'. There are three empty rows below the second record.

Attendance Date	
4/22/2019, 16:53:53	0/24 >
4/22/2019, 16:53:58	0/24 >

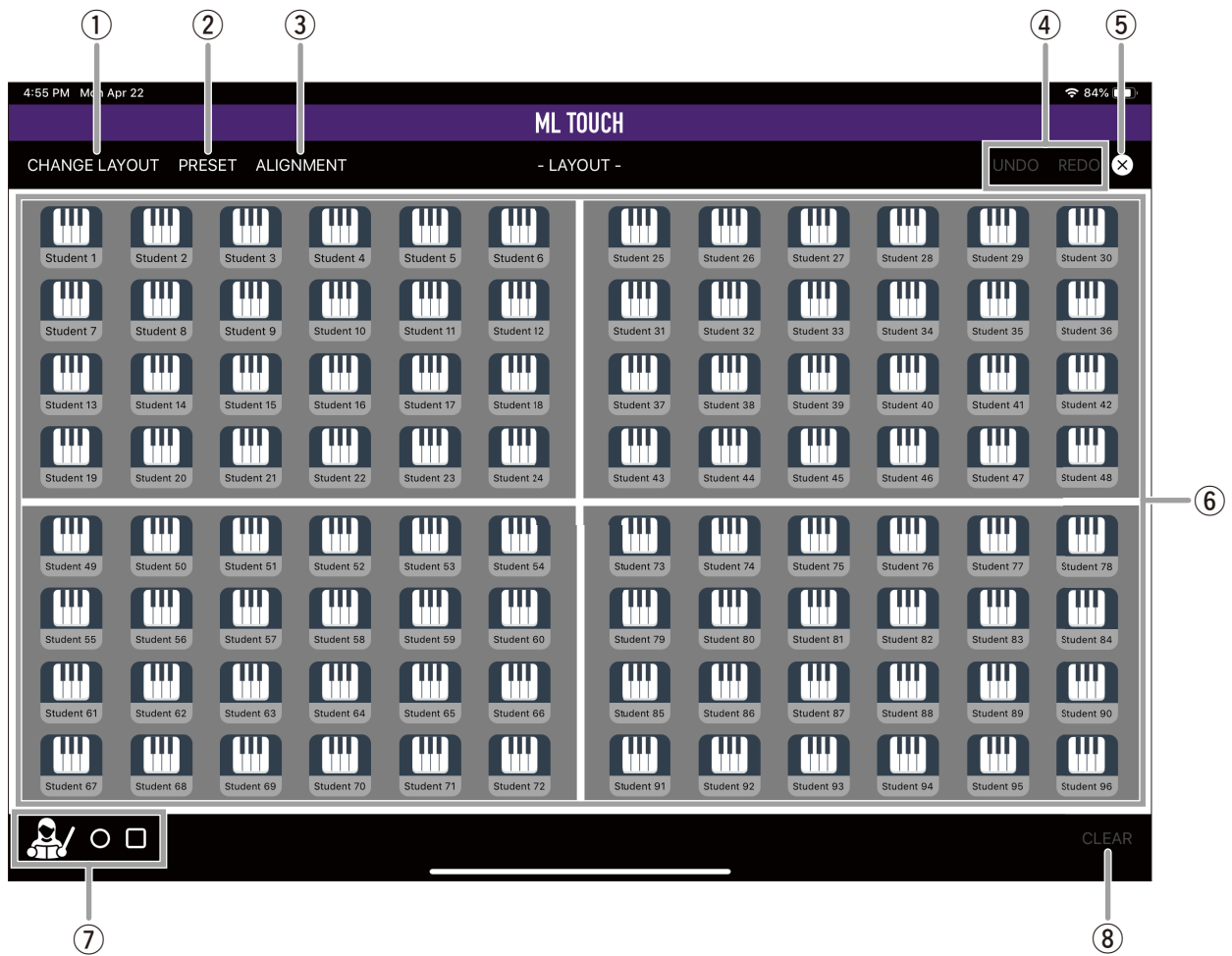
The date and time that attendance was recorded as well as the number of students who attended appear in a list.

Tap the record to be edited to display the window for Manual mode. Saving information that has been entered or changed overwrites the previous information. However, it will be saved with the date and time when it was initially saved.

To delete a record, swipe it to the left in the list.

LAYOUT window

This window is used to edit the layout on the iPad.



① CHANGE LAYOUT button

Changes the shapes of the areas. This cannot be used when there is only one MRX7-D.
Area layouts (→ page 21)

② PRESET button

Select a student icon arrangement from the presets. Two to six rows can be selected. In addition, selecting the optimizing setting will position the student icons in a well-balanced arrangement within the current layout.

③ ALIGNMENT button

Arranges manually dragged and dropped icons.

④ UNDO button / REDO button

Undoes or redoes layout change operations. Only one previous or later operation is saved.

⑤ Close button

Completes editing and returns to the HOME window.

⑥ **Areas**

Drag and drop student icons to move them.

Student icons can be freely moved within the same area.

⑦ **Object components**

These can be positioned anywhere. Only one teacher object can be added.

Added objects can be deleted by dragging them to their original positions.

⑧ **CLEAR button**

Removes all arranged objects.

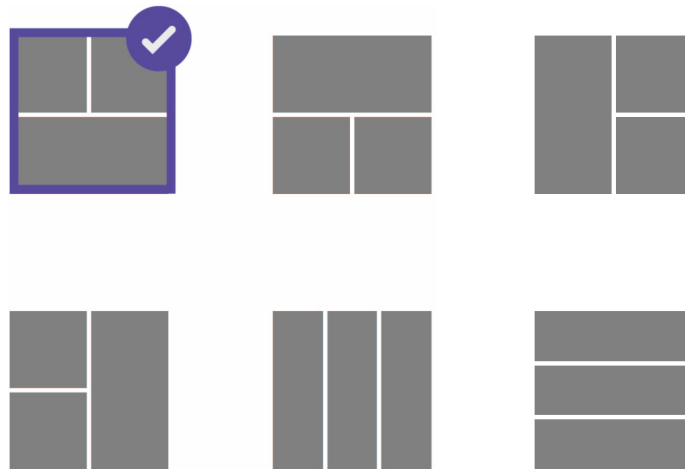
Area layouts

Tap the CHANGE LAYOUT button to select one of the following area layouts.

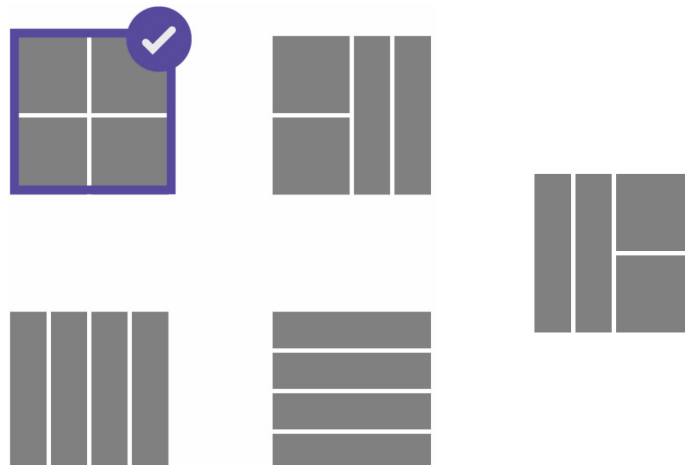
MRX7-D × 2



MRX7-D × 3

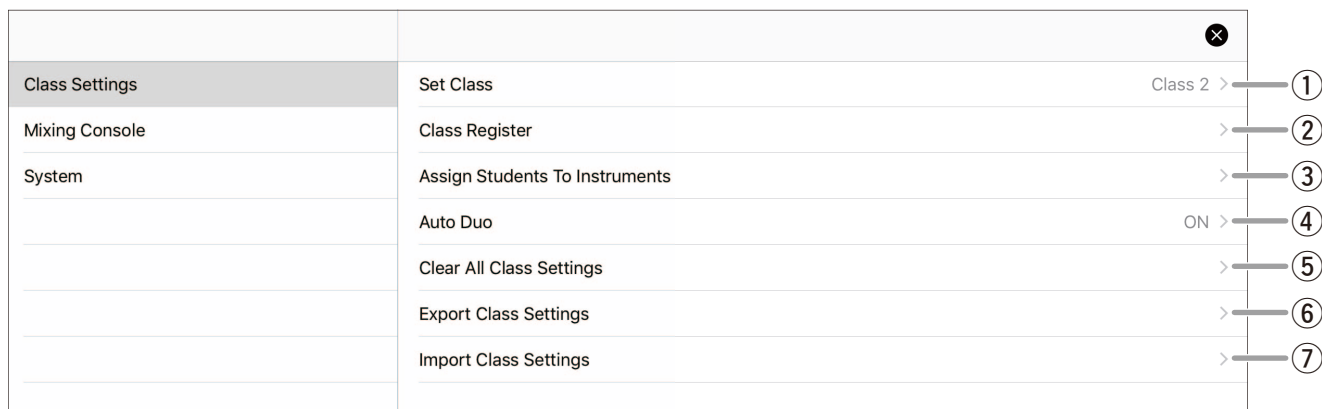


MRX7-D × 4



SETTINGS window

This window is used to specify various settings.



Class Settings menu

Used to specify class settings.

① Set Class

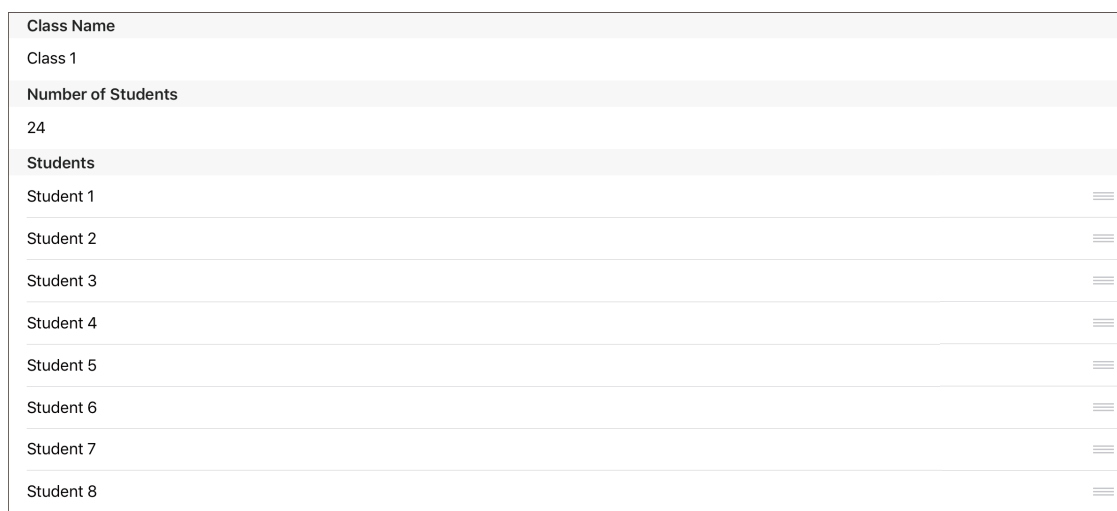
Selects the class to be taught.

Tap to display a list of classes. Tapping the class to be taught returns to the previous window.

② Class Register

Registers class and student information.

Tap to display a list of classes. Tapping the class whose information is to be registered displays the editing window.



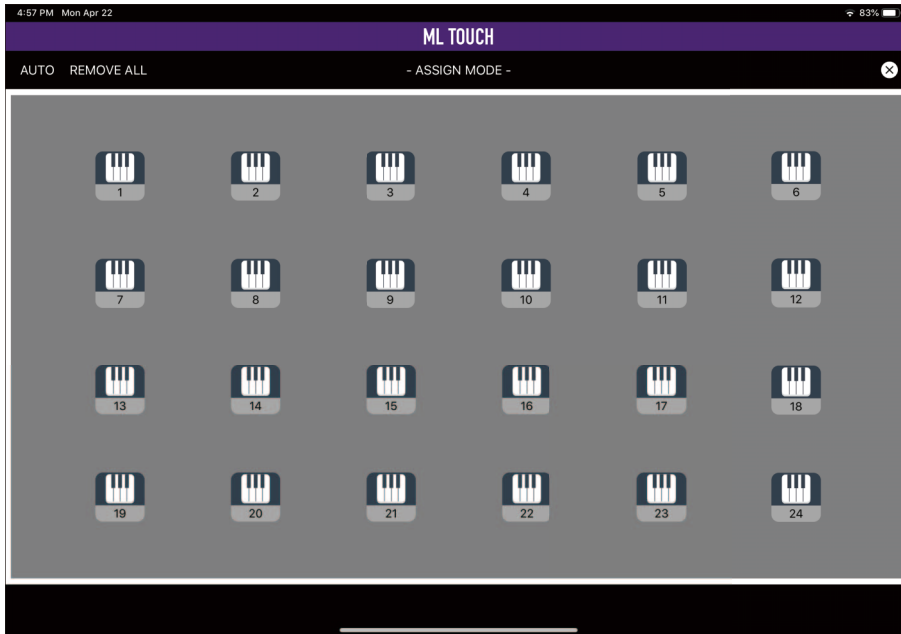
Class Name: Specify the name of the class. Tap to display a keyboard. A maximum of 24 classes can be registered.

Number of Students: Specify the number of students in the class. A maximum of 100 students can be registered in one class.

Students: Specify the student information. A name, ID and photo can be registered. Enter the necessary information, and then tap the save button to save the information.

③ Assign Students To Instruments

Assigns the registered class and student information to areas and student icons.



Two people can be registered to a single student icon. Tap a student icon, tap People 1 or People 2, and then select a student name.



AUTO: Automatically assigns student information, starting with student icon 1.

REMOVE ALL: Cancels all assignments to student icons.

Close (x mark): Closes the window.

④ Auto Duo

Sets whether to automatically switch to DUO mode when headsets are connected to both the [MAIN] and [DUO] jacks of an MLA-200. Switches automatically when set to ON.

⑤ Clear All Class Settings

Initializes all specified information.

⑥ Export Class Settings

Export the class information to an external file (classes.bup).

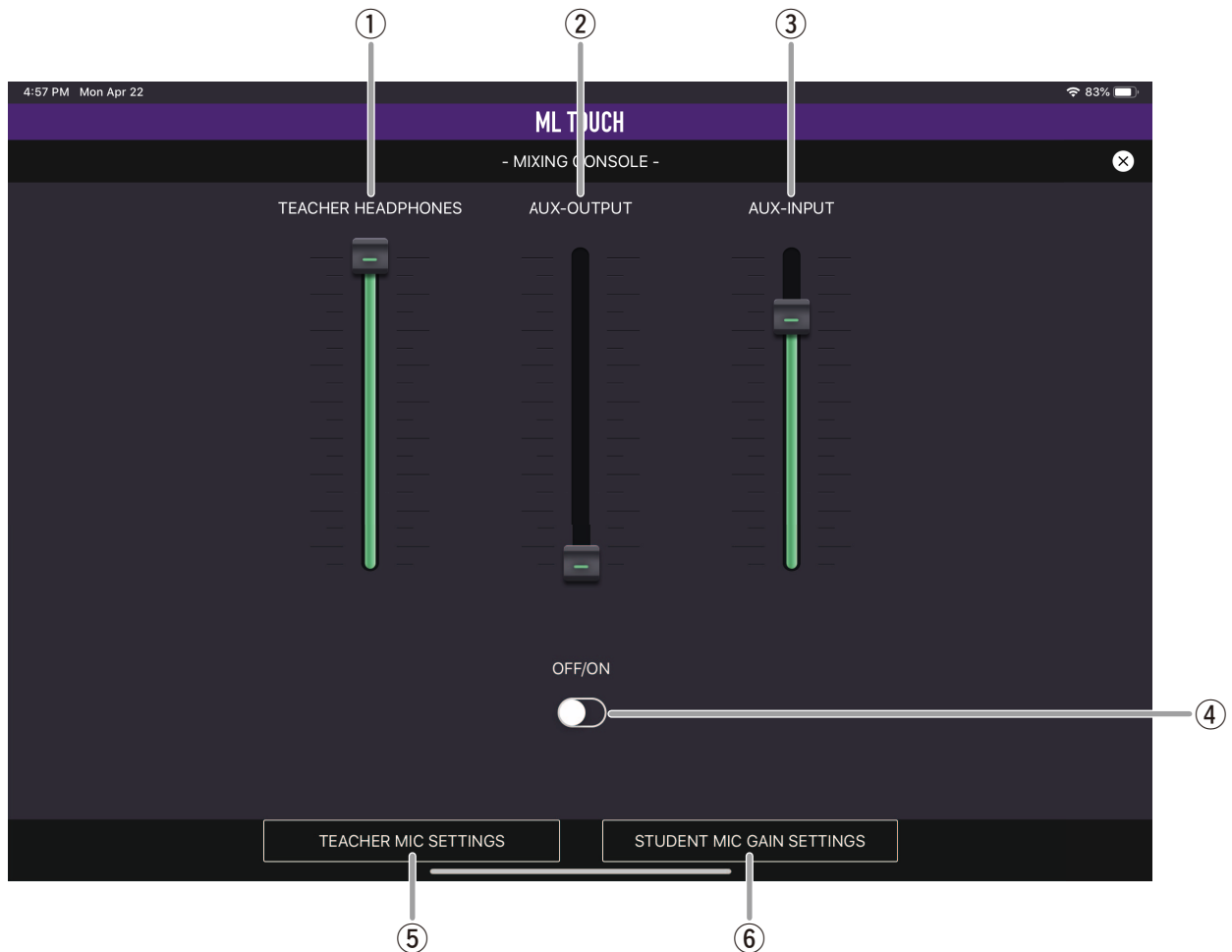
This file can be backed up to a different location by using iTunes file sharing, etc.

⑦ Import Class Settings

Imports a saved file of class information.

Mixing Console menu

Used to specify audio settings.



① **TEACHER HEADPHONES slider**

Adjusts the volume of the instructor's headphones.

② **AUX-OUTPUT slider**

Adjusts the volume of the classroom speakers.

③ **AUX-INPUT slider**

Adjusts the AUX volume on the MRX7-D.

④ **Speaker OFF/ON switch**

Turns on/off the classroom speakers. When turned on, all audio heard from the instructor's headphones are also output from the classroom speakers.

⑤ **TEACHER MIC SETTINGS button**

Displays a window for specifying settings for the instructor's mic.

Teacher Mic Settings pop-up window (→ page 25)

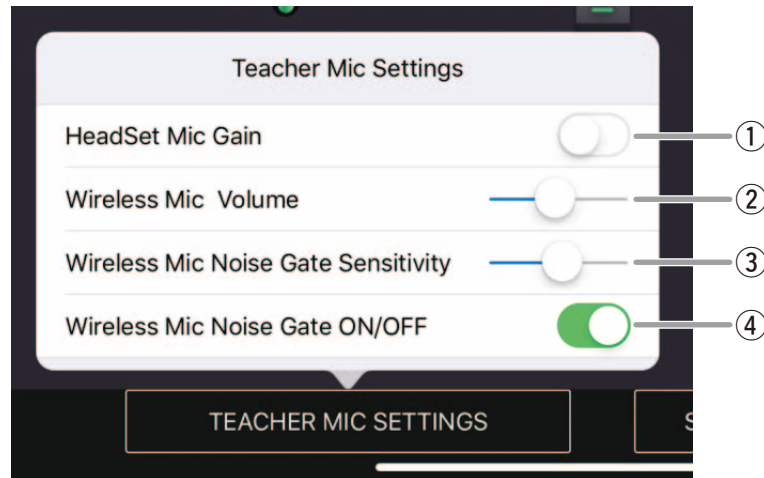
⑥ **STUDENT MIC GAIN SETTINGS button**

Displays a window for specifying gain settings for each student's headset mic.

Student HeadSet Mic Gain Settings pop-up window (→ page 26)

Teacher Mic Settings pop-up window

Used to specify the settings for the mic used by the instructor.



① HeadSet Mic Gain switch

Sets the mic gain when a wired mic is being used by the instructor. The default setting is off (Low). If the volume is insufficient, turn on (High).

② Wireless Mic Volume slider

Adjusts the volume of a wireless mic.

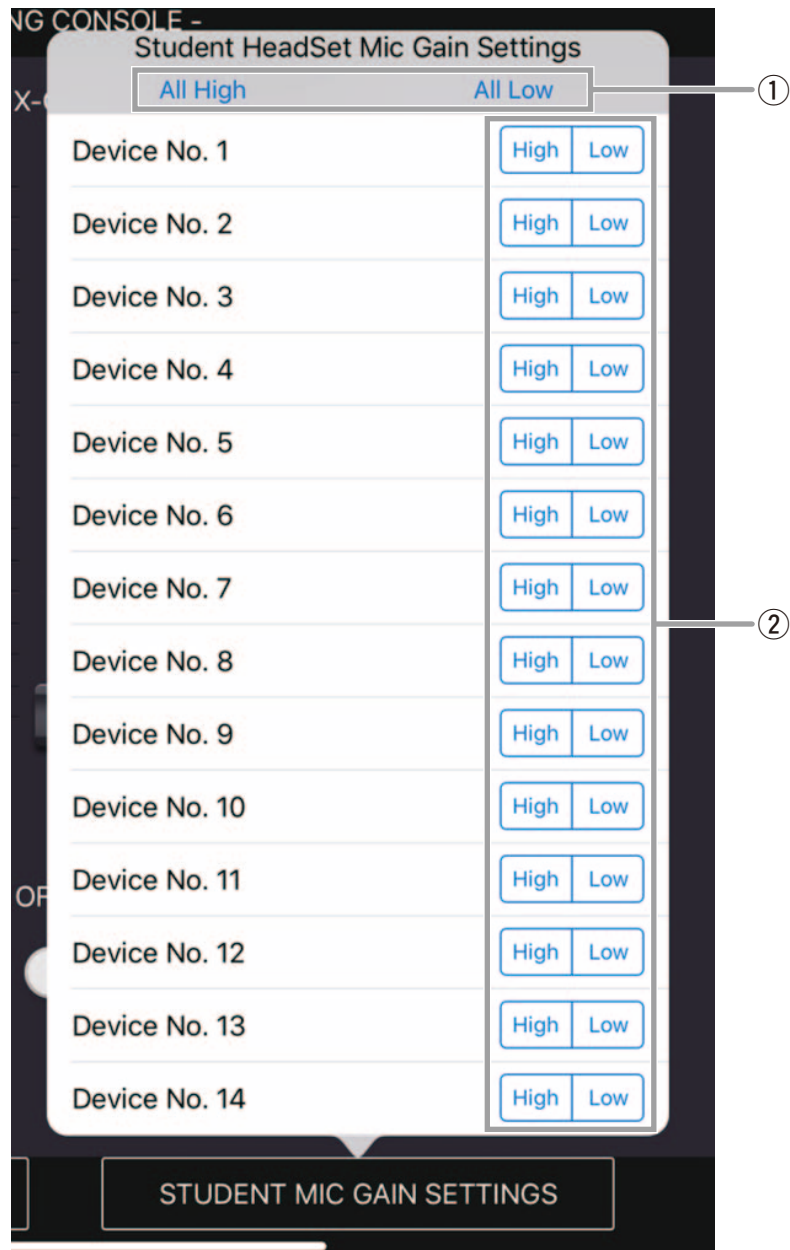
③ Wireless Mic Noise Gate Sensitivity slider

Sets the level at which a noise gate starts to be applied to a wireless mic. The more the slider is moved to the right, the stronger the noise gate will be. However, the sound may become unnatural.

④ Wireless Mic Noise Gate ON/OFF switch

Turns on/off the noise gate. Turn on when worried about noise while not talking.

Student HeadSet Mic Gain Settings pop-up window



① **All High button / All Low button**

Sets the headset mic gain of each student to High or Low.

② **High button / Low button**

Sets the headset mic gain for a student to High or Low.

System menu

Used to specify ML Touch and system settings.

	System	
Class Settings	App Version	1.1.0.0 ①
Mixing Console	Student Box Firmware Version	1.0.1.6 > ②
System	Language	English > ③
	User Manual	> ④
	Open Source License	> ⑤
	Initialize All App Settings	> ⑥
	Export Attendance CSV File	> ⑦
	Backup	⑧
	Restore	⑨
	Advanced Settings	> ⑩

① App Version

Displays the ML Touch version.

② Student Box Firmware Version

Displays the version of a connected MLA-200. The version that is displayed is for the first IP address. Tap to display a list of versions for all connected MLA-200s.

③ Language

Sets the display language for ML Touch. English, Japanese, or Chinese can be selected.

④ User Manual

Opens the ML Touch User's Guide (this manual).

⑤ Open Source License

Displays the open-source license used in the Music Laboratory System.

⑥ Initialize All App Settings

Reverts ML Touch to its initial condition. After tapping displays a confirmation message, tap the Yes button. To cancel initializing, tap the No button.

⑦ Export Attendance CSV File

Exports the saved attendance record to a CSV file. The exported CSV file can be used as an external file via iTunes.

⑧ Backup

Backs up all ML Touch settings. The backed-up data is saved on the iPad in a file with the name "System.bup".

⑨ Restore

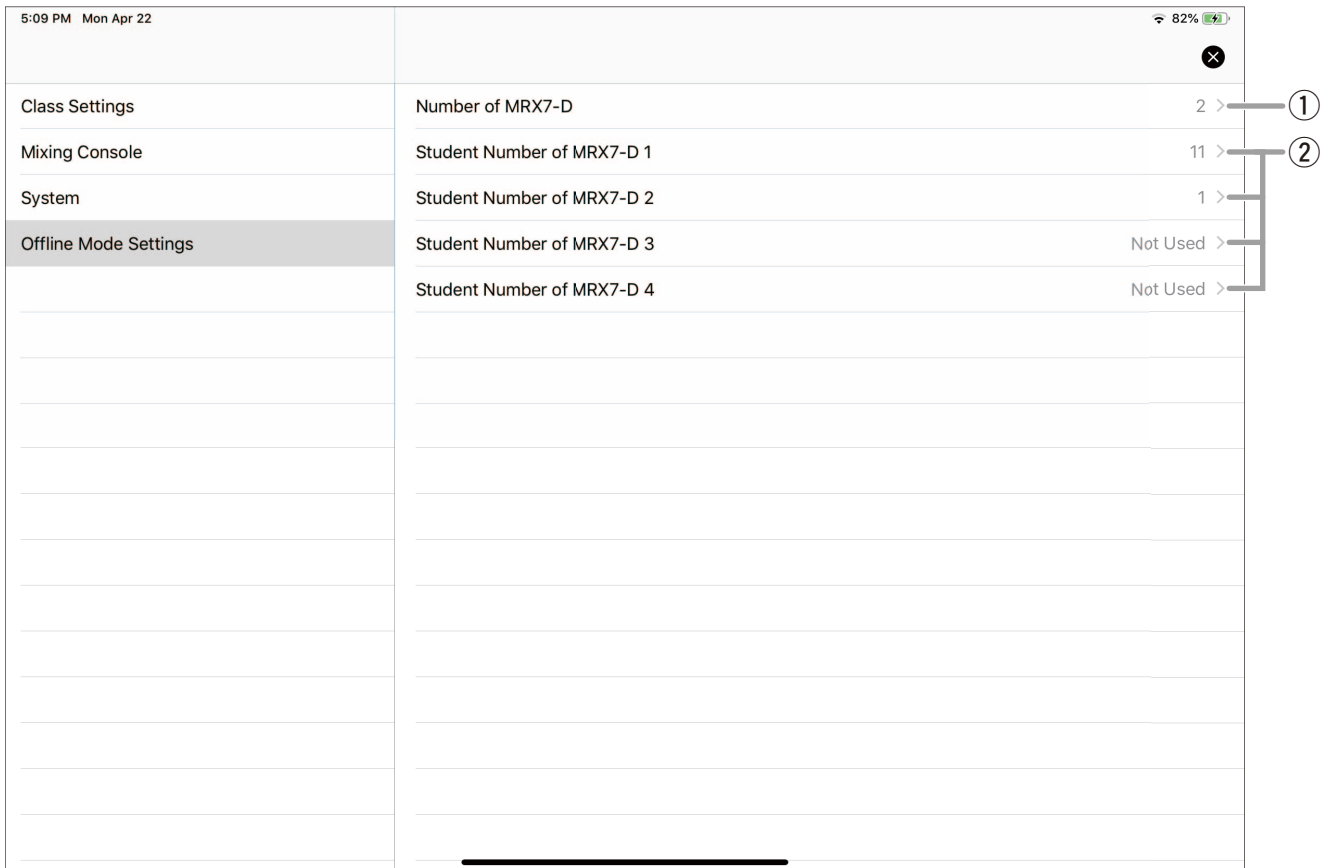
Restores the system from the backup file "System.bup".

⑩ Advanced Settings

Used when building the system. This menu is normally not used.

Offline Mode Settings menu

Used to specify environment settings when ML Touch is used offline.



① **Number of MRX7-D**

Specify the number of MRX7-Ds.

② **Student Number of MRX7-D 1 through 4**

Specify the number of MLA-200s for each MRX7-D.