

DUAL MANUAL KEYBOARD



DDK-7 Version 1.13 and 1.20 New Functions

The firmware updater has been divided and released in two version steps.

Version 1.13: not including Ad Hoc mode Version 1.20: including Ad Hoc mode

The Ad Hoc mode can be used from a version 1.20. For details on the Ad Hoc mode, please see pages 6 and 9.

Since the Electone Internet Direct Connection service is no longer available, the corresponding "Internet Direct Connection" function is no longer available. Also, the compatibility with smart devices, such as iPhone and iPad, has been added. This has changed the setting method of the wireless LAN setting. For up-to-date instructions about the setting method of the wireless LAN, refer to this manual.

Added and deleted functions

Deleted the Internet Direct Connection function

Since the Electone Internet Direct Connection service has been discontinued, the "Internet Direct Connection" function is no longer available.

Added compatibility with smart devices, such as iPhone and iPad

You can now connect smart devices, such as iPhone and iPad, to this Electone. Electone-compatible apps provide many more convenient, enjoyable ways to use this Electone.



Connections

Connecting to an iPhone/ **iPad**

You can connect a smart device such as an iPhone or iPad to the instrument. By using an application tool on your smart device, you can take advantage of convenient functions and get more enjoyment out of this instrument.

For details on connections, refer to the "iPhone/iPad Connection Manual" on the website.

http://download.yamaha.com/

For information about compatible smart devices and application tools, access the following page:

http://www.yamaha.com/kbdapps/

Connection with a USB wireless LAN adaptor (sold separately)

The USB wireless LAN adaptor lets you connect the Electone to an iPhone/iPad wirelessly. For details about the USB wireless LAN adaptor, contact your nearest Yamaha representative or the distributor listed at the end (or beginning) of your Owner's Manual. Or you can access the following website and contact Yamaha support at your location.

http://www.yamaha.com/contact/

To enable a wireless connection between the Electone and an iPhone/iPad, follow the instructions in the "iPhone/ iPad Connection Manual" on the website, and also refer back to "Wireless LAN settings" in this manual for the specific Wireless LAN settings you'll need to make for wireless connection.

NOTE

MIDI and [USB TO HOST] terminals are automatically disabled when the USB wireless LAN adaptor is connected.

Wireless LAN settings

Start wireless connection according to the instructions in the "iPhone/iPad Connection Manual" on the website, then make sure to make appropriate setups from the following instructions: "Automatic Setup by WPS," "Displaying available networks in the wireless LAN and connecting to a network," "Manual Setup" or "Connecting by the Ad Hoc Mode." Refer to pages 3 – 6 in this Manual, then set up as required. If there is no access point, follow the instructions in "Connecting by the Ad Hoc Mode" (page 6).

The Ad Hoc mode can be used from version 1.20.



Reference Page

- Wireless LAN Detailed Settings (page 7)
- Initialize the wireless LAN settings (page 9)

- · When you use the instrument along with an application on your iPhone/iPad, we recommend that you first set "Airplane Mode" to "ON" then set "Wi-Fi" to "ON" on your iPhone/iPad in order to avoid noise caused by communication.
- · Do not place your iPhone/ iPad in an unstable position. Doing so may cause the device to fall and result in

NOTE

The [USB TO DEVICE] terminal on the instrument can be connected to a USB wireless LAN adaptor. Before using the [USB TO DEVICE] terminal, be sure to read "Precautions when using the [USB TO DEVICE] terminal" in the Owner's Manual.

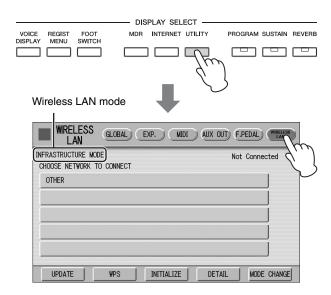
Automatic Setup by WPS

If your access point supports WPS, you can easily connect the instrument to access point by WPS, without making settings, such as key input, etc.

NOTE

Check whether your access point supports WPS by referring to the owner's manual for the access point you are using.

- 1 Connect the USB wireless LAN adaptor.
- Press the [UTILITY] button, then press the [WIRELESS LAN] button on the display to call up the WIRELESS LAN Page.



3 Make sure that the wireless LAN mode is set to Infrastructure Mode.

If the wireless LAN mode is set to Ad Hoc Mode, press the [MODE CHANGE] button in the display to switch to the Infrastructure Mode (page 6).

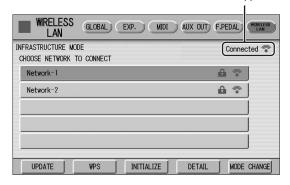
4 Press the [WPS] button in the WIRELESS LAN Page.

A message appears prompting confirmation of operation. You can cancel the operation at this point by pressing the [CANCEL] button.

5 Press the [OK] button to start WPS setup, then press the WPS button on your access point within two minutes.

The "Connected" indication appears when connection between the instrument and the access point is successful.

"Connected" indication appears.

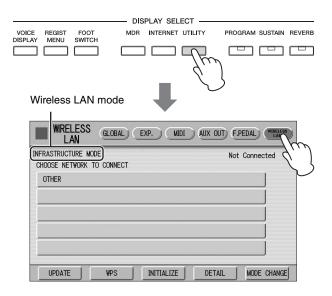


6 After successfully enabling connection between the instrument and the access point, connect the iPhone/iPad to the access point by referring to the "iPhone/iPad Connection Manual."

Displaying available networks in the wireless LAN and connecting to a network

Select the desired Network for connection from the Network list in the display by following the steps below.

- Connect the USB wireless LAN adaptor.
- Press the [UTILITY] button, then press the [WIRELESS LAN] button on the display to call up the WIRELESS LAN Page.



3 Make sure that the wireless LAN mode setting is Infrastructure Mode.

When the wireless LAN mode is Ad Hoc mode, press the [MODE CHANGE] button in the display to switch to the Infrastructure Mode (page 6).

4 Press the [UPDATE] button in the display to call up the network list.

For a network with a lock icon (), you need to enter the proper password.

5 Select the desired network by pressing the button shown the name of the network in the display.

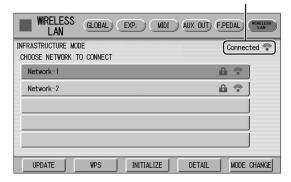
For a network without a lock icon:

Connecting starts.

For a network with a lock icon:

You need to enter the proper password, which is identical to that in the settings on the Access Point. For details on how to enter characters, refer to the "Changing the Song Name" in the Owner's Manual. After entering the password, press the [OK] button in the display to finalize the setting. This operation starts connecting automatically.

The "Connected" indication appears when the instrument and the access point have been successfully connected.



6 After successfully enabling connection between the instrument and the access point, connect the iPhone/iPad to the access point by referring to the "iPhone/iPad Connection Manual."

Manual Setup

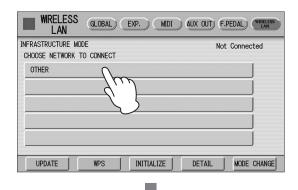
If you cannot find the desired network on the display, it may be a network that is closed or hidden. In this case, you will need to manually input SSID, Security and Password settings for connection.

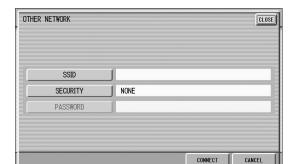
NOTE

About the confirmation and changes in the access point settings, refer to the manual of the access point.

- Perform the same operation as in steps 1 3 in the "Displaying available networks in the wireless LAN and connecting to a network" instructions on page 4.
- Press to select [OTHER] at the bottom of the network list.

The OTHER NETWORK display will be shown.





3 Set the SSID, Security and Password to the same as the settings on the access point.

Set the same contents with the setting contents by the access point side.

SSID

Press the [SSID] button in the display to call up the display for SSID input, then enter the SSID. For details on how to enter the characters, refer to the "Changing the Song Name" in the Owner's Manual. Up to 32 characters (half size), alphanumeric characters, marks can be entered. After entering the SSID, press the [OK] button to finalize the setting.

SECURITY

Press the [SECURITY] button in the display to call up the display for security select, then press either the [NONE], [WPA2-PSK (AES)] or [WEP] button.

PASSWORD

Press the [PASSWORD] button to call up the display for Password input, then set the password in the same way as SSID. Press the [OK] button to finalize the setting.

NOTE

The password cannot be set when you select [NONE] for the security setting.

4 Press the [CONNECT] button to start connection.

The "Connected" indication appears when the instrument and the access point have been successfully connected.



After successfully enabling connection between the instrument and the access point, connect the iPhone/iPad to the access point by referring to the "iPhone/iPad Connection Manual."

Connecting by the Ad Hoc Mode

Set the Wireless LAN mode to "Ad Hoc Mode."

Refer to "Wireless LAN Mode."

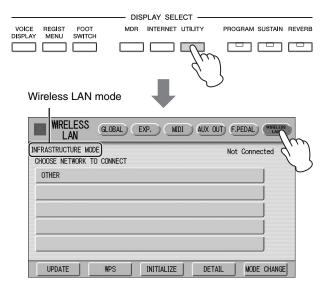
2 The settings for the instrument are complete if you do not need to change the SSID and so on. Connect the iPhone/iPad to the instrument by referring to the "iPhone/iPad Connection Manual."

You can change the SSID, Security, etc. from the DETAIL display.

- Reference Page
- Wireless LAN Detailed Settings (page 7)

Wireless LAN Mode

- 1 Connect the USB wireless LAN adaptor.
- Press the [UTILITY] button, then press the [WIRELESS LAN] button on the display to call up the WIRELESS LAN Page.



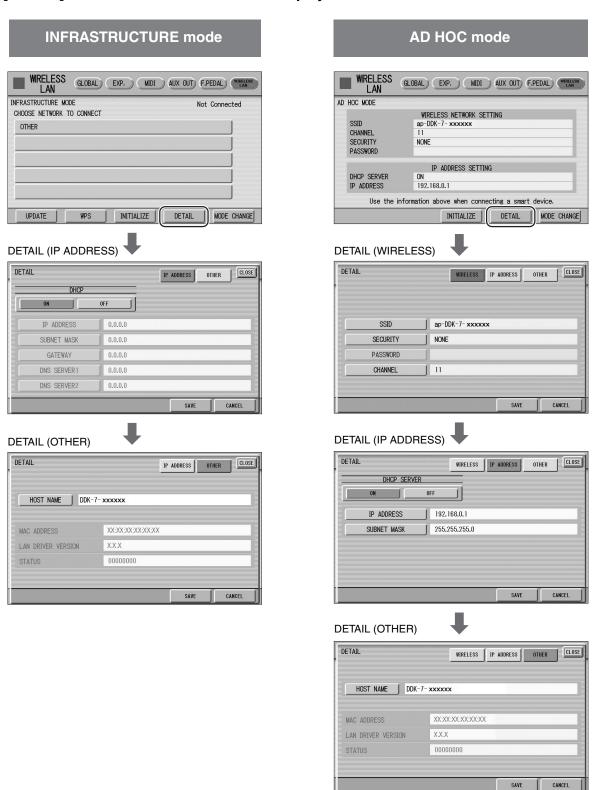
3 Set the Wireless LAN mode.

You can set between two modes: INFRASTRUCTURE and AD HOC. Press the [MODE CHANGE] button on the display to call up a message prompting confirmation of the operation, then press the [OK] button to execute the operation.

Wireless LAN Detailed Settings

You can set the detailed settings for each mode: INFRASTRUCTURE and AD HOC. There is no need to change or make any settings if you've enabled connection between the iPhone/iPad and instrument.

- Reference Page
- Wireless LAN Mode (page 6)
- Set the Wireless LAN mode, then call up the display for detailed settings by pressing the [DETAIL] button in the WIRELESS LAN display.



$2 \ \ \, \text{As necessary, set the detailed settings.}$

Wireless LAN mode	Display	Item	Default setting	Setting/Input
INFRASTRUCTURE mode	DETAIL (IP ADDRESS) display	DHCP	ON	Determines whether or not DHCP is used. If your router is compatible with DHCP, select [ON] (set DNS automatically) here. Select on or off by pressing [ON] or [OFF] button on the display.
		IP ADDRESS	0.0.0.0	Set the wireless LAN detailed settings. IP Address, Subnet Mask, Gateway, DNS Server1, DNS Server2 can be set when DHCP is set to Off but cannot be set when DHCP set to On. For details on confirmation and changes in the setting of the access point on the router side, refer to the owner's manual for the product you are using. For details on how to enter characters, refer to the instructions "Changing the Song Name" in the Owner's Manual. The setting range is 0.0.0.0 – 255.255.255.255.
		SUBNET MASK	0.0.0.0	
		GATEWAY	0.0.0.0	
		DNS SERVER 1	0.0.0.0	
		DNS SERVER 2	0.0.0.0	
AD HOC mode	DETAIL (WIRELESS) display	SSID	ap-DDK-7-(last 6 characters of MAC address in lowercase); or simply "ap-DDK-7," if MAC address cannot be used.	To find the specific MAC address, see "MAC address" below. SID, Security and Password can be set in the same way as those described in the section "Manual Setup" on page 5. The last 6 characters of the MAC address must be entered in lowercase. Press the number button which appears by pressing the [CHANNEL] button on the display then, select the channel. DHCP and IP Address can be set in the same way as those of INFRASTRUCTURE mode in this table. Subnet Mask can be selected in the list.
		CHANNEL	11	
		SECURITY	_	
		PASSWORD	_	
	DETAIL (IP ADDRESS) display	DHCP	ON	
		IP ADDRESS	192.168.0.1	
		SUBNET MASK	255.255.255.0	
INFRASTRUCTURE mode / AD HOC mode	DETAIL (OTHER) display	HOST NAME	DDK-7-(last 6 characters of MAC address in lowercase); or simply "DDK-7," if MAC address cannot be used.	Set the Host name. Up to 57 characters (half size) including alphanumeric characters, the "_" (underscore) and "-" (hyphen) character. For details on how to enter characters, refer to the instructions "Changing the Song Name" in the Owner's Manual. After entering the characters, press the [OK] button on the display to finalize the setting. The last 6 characters of the MAC address must be entered in lowercase.
		MAC ADDRESS	-	Shows the MAC address of the USB wireless LAN adaptor. You cannot change the MAC address here.
		LAN DRIVER VERSION	-	This only displays the version of the LAN driver; the setting cannot be made.
		STATUS	0000000	Shows the error code of network function. "00000000" means no error.

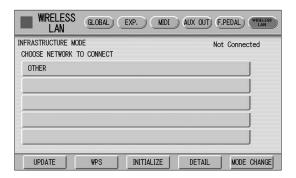
3 Save the settings.

Set the detailed settings, then press the [SAVE] button on the display. When the saving operation is completed, the detailed settings display returns to the previous display.

Initialize the wireless LAN settings

"Factory Set (Initializing the DDK-7)" in the Owner's Manual does not affect the wireless LAN settings, which can be initialized by the following procedure. Be careful when executing initialize, since it erases all the wireless LAN settings and replaces them with the factory defaults.

Press the [UTILITY] button, then press the [WIRELESS LAN] button on the display to call up the WIRELESS LAN Page.



$2 \quad \text{Initialize the wireless LAN settings.} \\$

Press the [INITIALIZE] button on the display. A message appears prompting confirmation of operation. Press the [OK] button to execute the operation, or the [CANCEL] button to cancel.

Glossary of Terms

Access point	A device which acts as a base station when transmitting data by wireless LAN. Some access points are combined with modem functions.		
Ad Hoc mode	Communication method for performing data communication with the terminal and other devices directly without using a relay device, such as an access point of a wireless LAN.		
DHCP	A standard or protocol by which IP addresses and other low-level network configuration information can be dynamically and automatically assigned each time the computer and the instrument connect to the Internet.		
DNS server	A server that maps names to actual IP addresses of devices connected to a network.		
Gateway	A Gateway is a link between two computer programs or systems.		
Infrastructure mode	Communication method for performing data communication with each terminal via a relay device, such as an access point of the wireless LAN.		
IP address	A string of numbers assigned to each computer connected to a network that indicate the device's location on the network.		
LAN	Short for Local Area Network, this is a data-transfer network that connects a group of computers at a single location (such as an office or home) by means of a special cable.		
Router	A device that allows multiple devices (e.g., computers, your Yamaha instrument) to share the same Internet connection.		
Site	Short for "website," this refers to the group of web pages that are opened together. For example, the collection of web pages whose addresses begin with "http://www.yamaha.com/" is referred to as the Yamaha site.		
SSID	A name used to identify a particular access point, or the wireless networks set as the access point.		
Subnet mask	The structure for dividing a large-scale network.		
Wireless LAN	A LAN connection that allows data transfer through a wireless, cable-free connection.		
WPS	A structure to easily make a setting of wireless LAN by pushing only the WPS buttons of an access point and the wireless LAN device.		