



Z41 Remote

Remote Control Application for Z41 / Z41 Pro



Document Version: 4.1

www.zennio.com

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CHANGELOG

Z41 REMOTE IOS UPDATES

App. Version	Changes	Page(s)
4.1.2	Support for Z41 COM Device type differentiation Direct access to device	- 18 12, 19
3.0.2	Support for Z41 Pro 3.1.0	25
2.4.1	Minor bug fixes.	-
2.3.4	Minor bug fixes. Optimisation for iOS 10.	-
2.3.1	Minor bug fixes.	-
2.3.0	Support for Z41 Pro 2.3.0.	-
2.2.5	Support for Z41 Pro 2.2.0. Support for 12 pages (up to 96 boxes) in Z41 Pro.	-
2.1.5	Support for LAN connectivity in: <ul style="list-style-type: none"> • Z41 version 3.3.2 or later, • Z41 Pro version 1.1.1 or later. 	19, 23, 24, 26
2.0.4	Support for Z41 Pro version 1.1.0.	-
1.4.7	Push notification service support. Compatibility with Z41 3.3 and the chrono-thermostat function. Multilanguage support. Gas and water monitoring support. 64-bit device support. Support for iPhone 6 and iPhone 6 Plus. Image and icon resolution improvement.	-
1.0.14	Minor bug fixes.	-
1.0.12	Security updates.	-
1.0.11	Improvements in notification messages	-
1.0.9	Support for iOS 7 or greater. New icons added.	-
1.0.6	Communication security enhancements. Usability and user interface enhancements.	-
1.0.4	Usability and user interface enhancements.	-

0.2	Terms and conditions update. New controls and indicators added.	-
0.1	Initial version.	-

Z41 REMOTE ANDROID UPDATES

App. Version	Changes	Page(s)
4.1.3	Support for Z41 COM Device type differentiation Direct access to device	- 18 12, 19
3.0.1	Support for Z41 Pro 3.1.0	25
2.5.0	Minor bug fixes.	-
2.4.0	Minor bug fixes.	-
2.3.1	Support for Z41 Pro 2.3.0. Optimisation involving graphics support.	-
2.2.6	Support for Z41 Pro 2.2.0. Support for 12 control pages (up to 96 boxes) in Z41 Pro.	-
2.1.9	Support for LAN connectivity in: <ul style="list-style-type: none"> Z41 version 3.3.2 or later, Z41 Pro version 1.1.1 or later. 	19, 23, 24, 26
2.0.6	Support for Z41 Pro version 1.1.0.	-
1.5.6	Optimisation involving the Google Play Services.	-
1.5.0	Push notification service support. Graphical interface compatibility enhancement.	-
1.4.2	Z41 3.3 and Chrono-thermostat support. Gas and water monitoring support. Modification in energy, CO ₂ and cost format. Alphabetical sorting of device pairings.	-
1.2.2	Initial version	-

INTRODUCTION

Versions 3.0 and later of Z41, 1.1 and later of Z41 Pro and 1.0 and later of Z41 COM, feature a specific function for the remote control of the device, which lets the user acting over the screen by means of remote iOS and Android based mobile devices in the same manner as during on-site interaction.

This document is offered as a guide for integrators who are willing to configure Z41, Z41 Pro or Z41 COM, for being controlled from these remote applications. Hence, reading this document together with the actual Z41 user manual is encouraged.

INSTALLATION

iOS / ANDROID COMPATIBILITY

iOS / Android versions compatible with Z41 Remote versions:

• iOS

Z41 Remote versions	iOS compatible versions (*)
1.0.0 – 1.4.7	iOS6
1.4.7 – 2.0.4	iOS6, iOS7, iOS8
2.1.5 – 2.3.1	iOS8, iOS9
2.3.2 – Current version	iOS8, iOS9, iOS10

(*) Later versions of iOS should also support the application, although full compatibility is not guaranteed.

• Android

All versions are compatible with Android 4.0 or later.

Note: Z41 Remote can be installed on tablet devices. However, it is listed as a mobile application and therefore is not included in the tablet-specific application list.

IOS INSTALLATION

Z41 Remote for iOS is available on the App Store. To install it, please perform a search for the application and push “Download” to proceed.

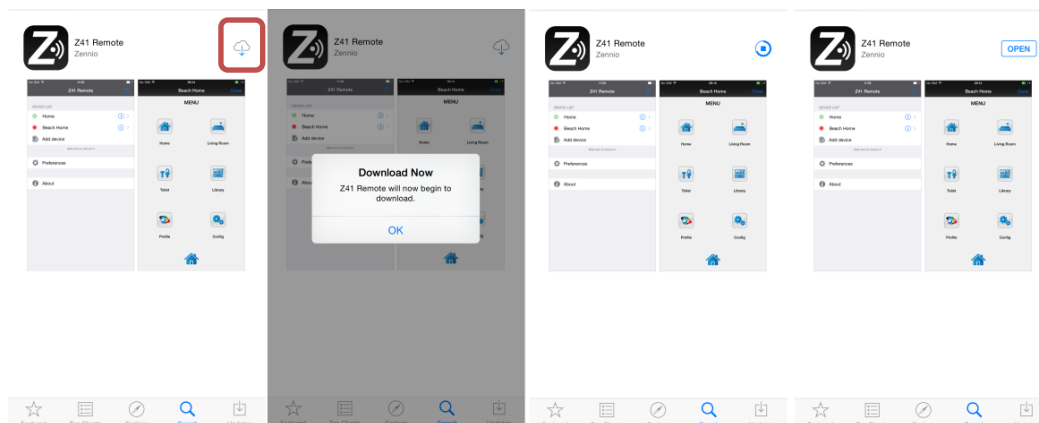


Figure 1. Z41 Remote Installation from iOS device.

To install it through a PC/Mac connected to the mobile device, please enter iTunes and access the [Z41 Remote page](#). Next, click the “Download” button to proceed.

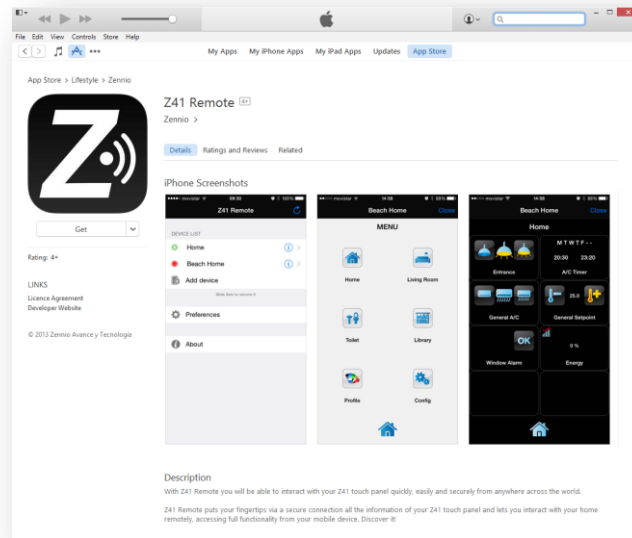


Figure 2. Z41 Remote Application on the App Store.

Once the application has been downloaded from iTunes, open the *Apps* section on the iPhone or iPad and click the “Install” button. This action will update the button text to “Will Install”. Finally, just click on the “Apply” button, as shown in Figure 3.

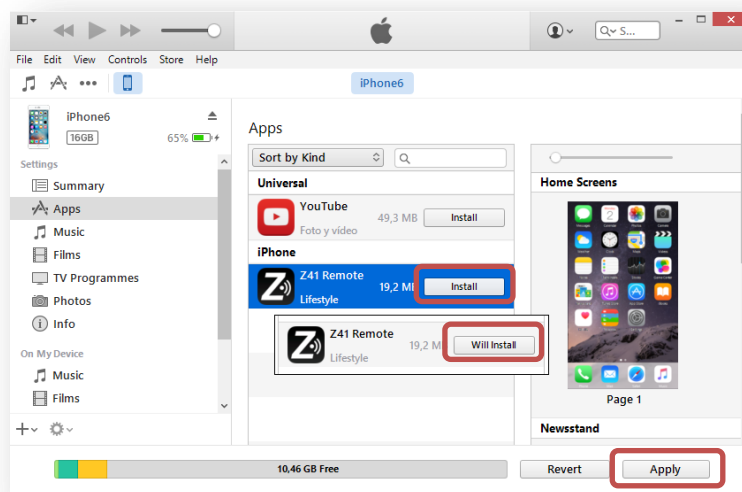


Figure 3. Z41 Remote iOS installation from iTunes for Mac/PC

Once installed, it may be launched by clicking on its icon, which is similar to the logo shown in Figure 2.

ANDROID INSTALLATION

The Z41 Remote application is available on the Google Play.

Once the application has been found through the browser on the Google Play Store, please click on the “Install” button, allow the download and wait for the process to complete, as shown in Figure 4:

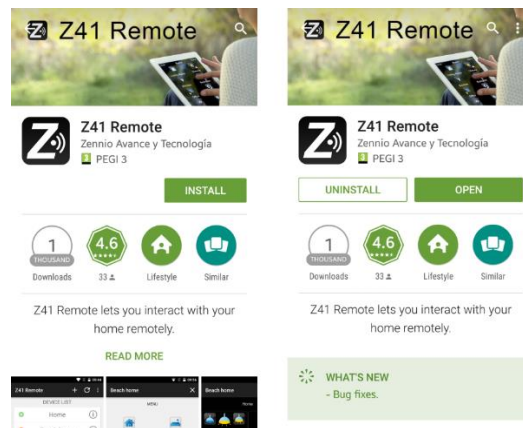


Figure 4. Z41 Remote installation on Android

To install the application through a PC/Mac, please log into Google Play with your Google account, go to the [application page](#) and click the “Install” button, selecting the device where the application should be installed.

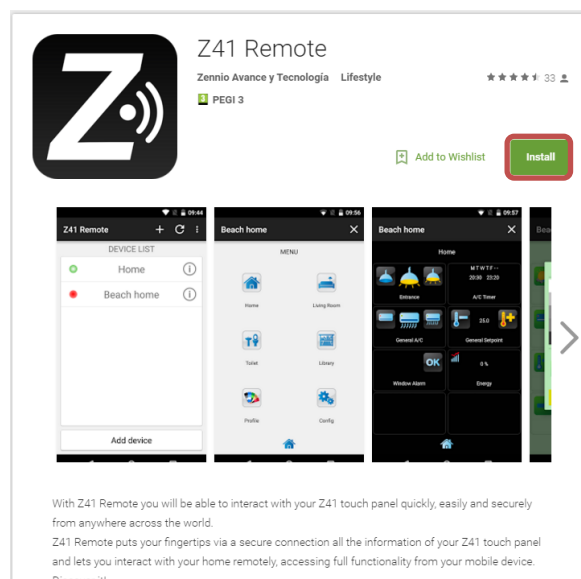


Figure 5. Z41 Remote installation from Google Play.

MAIN MENU

When Z41 Remote runs for the first time, the user will be shown the terms and conditions of use:

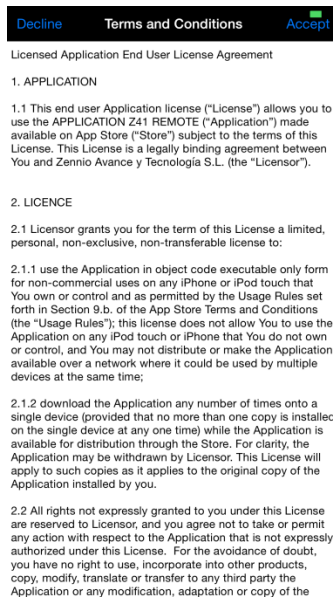


Figure 6. Terms and conditions.

After agreeing with the terms, the main window of the application will show up, as in Figure 7:

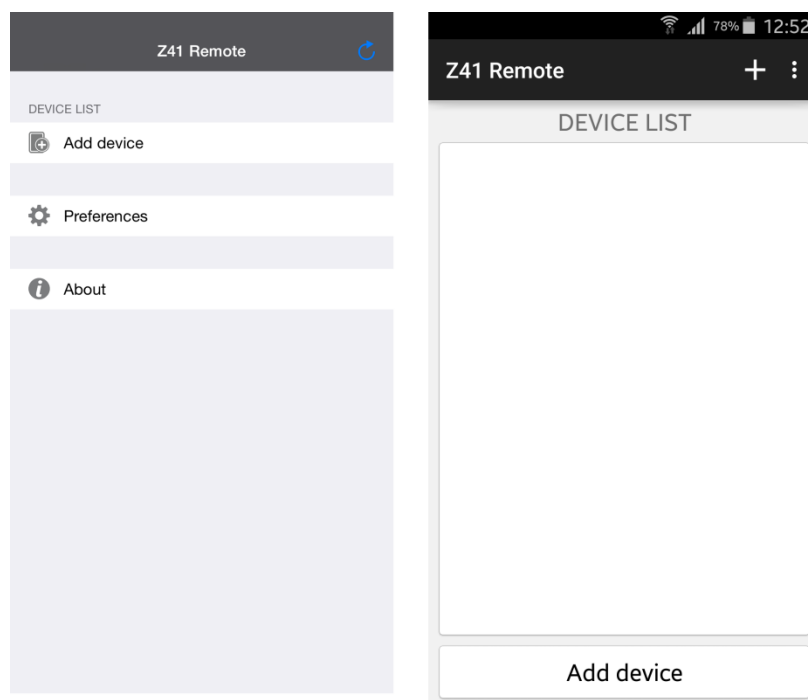



Figure 7. Main window (iOS / Android).

Four main elements can be identified:

- **Device list:** list of the devices already linked to the application through the pairing procedure. This list shows no elements on the first execution.
- **Add device:** button that brings up the Device Pairing window (see below).

Note: the Android version of the Z41 Remote application provides an additional button, , which also allows new pairing creation, as shown in Figure 7.

- **Preferences:** button that brings up the application settings, where the following options can be set:

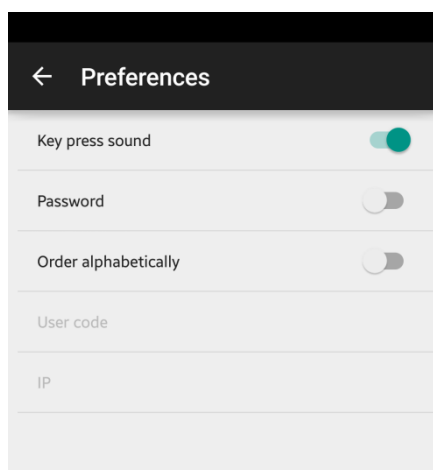


Figure 8. Preferences.

- **Key press sound:** enables or disables the beeps emitted by the application when the user remotely touches any of the Z41 (or Z41 Pro) buttons.
- **Password:** enables or disables the application start-up password protection. When enabled, the application will be only accessible by users knowing the password.

Note: if the password protection is active and the user types it wrong for three consecutive times during the start-up, the application will remain locked for 60 seconds prior to permitting further attempts. The user will be notified about this through a warning message and a countdown indicator.

After enabling this function, a pop-up dialogue will be displayed to enter the desired password (any combination of four digits). Entering the password a second time will be required in order to confirm it.

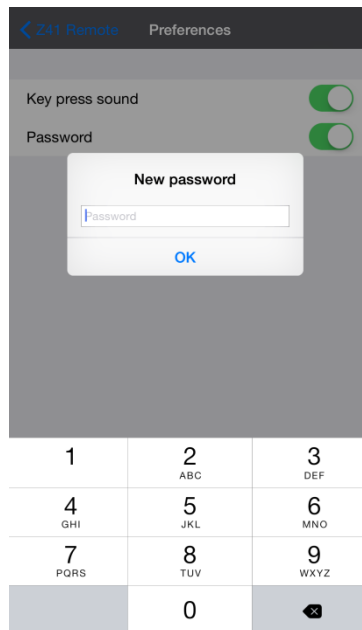


Figure 9. Password selection.

Note: to disable the password protection, the user will be required to type the password currently in use.

- **Z41 favourite:** sets a Z41 as favourite in order to access to it directly when opening the application, without entering in the list. This option is only available if there are more than one paired Z41.

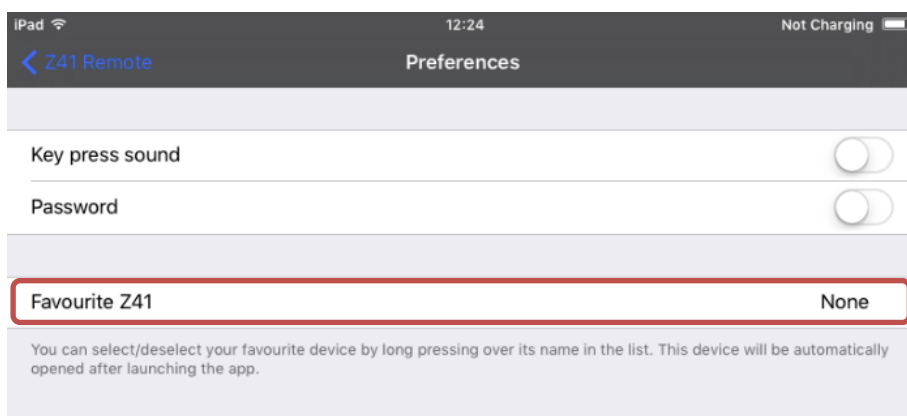


Figure 10. Z41 favourite

- **About:** displays a window containing information about the application (version, identification of the manufacturer, etc.) which also lets the user review the terms and conditions of use again.

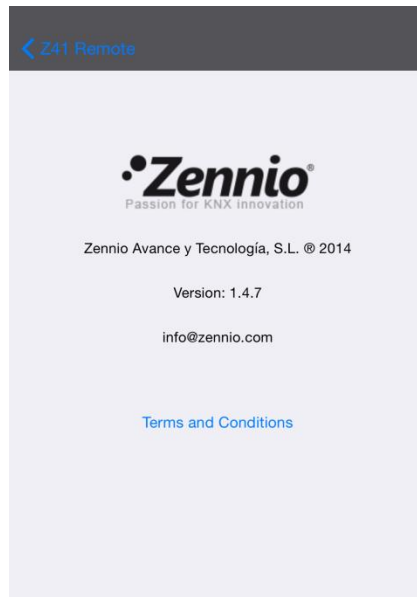



Figure 11. “About” window.

Note: the Android version of the Z41 Remote application requires pressing on  , which is located in the upper right corner, in order to gain access to this feature, as shown in Figure 12.

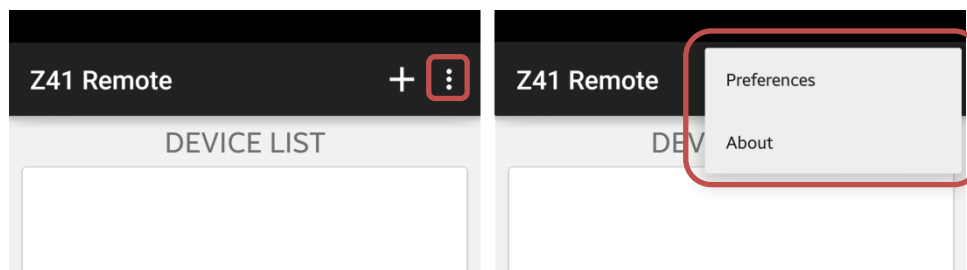


Figure 12. Z41 Remote Android Preferences and about menú.

- **Order alphabetically:** by selecting this option the device list will be displayed alphabetically sorted instead of using the default, last-accessed criteria. This feature is available only on the Android version.

- **User Code and IP:** these fields are reserved for use upon Zennio’s request. Please, refer to the [User Profiles](#) section for further information.

Note: the "User Code" on iOS devices can be found under the Main Configuration > "Z41 Remote" section, as shown in Figure 13.

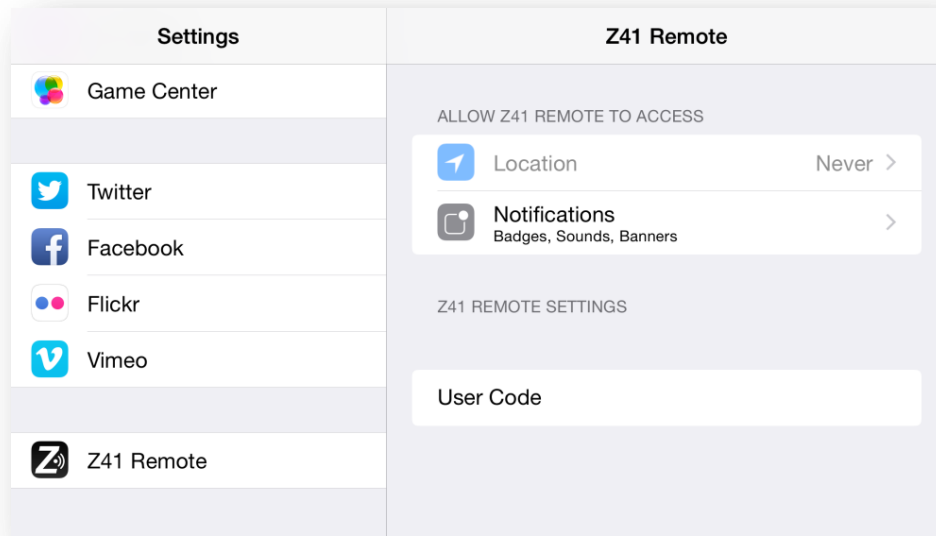


Figure 13. User Code (iOS devices).

DEVICE PAIRING

From the main window (Figure 7), the user may add as many Z41s as desired, by tapping on the Add Device button. A new pop-up window will open next, as in Figure 14.

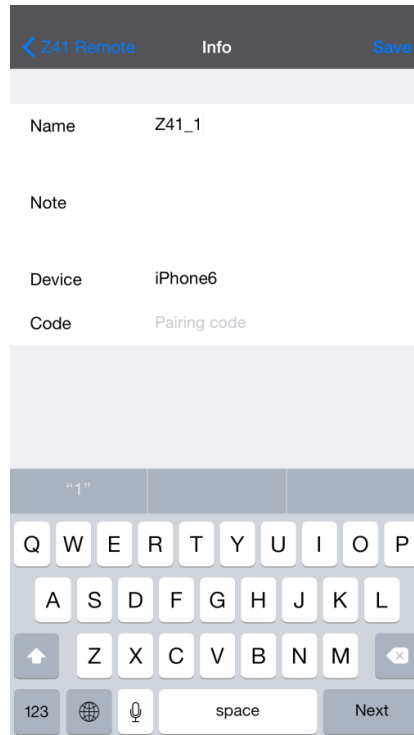


Figure 14. Add device.

Pairing the application to a certain Z41 requires filling the following fields:

- **Name:** text string that will identify the particular device within the entire device list shown by the application. Any name will be accepted although it is encouraged to select a name descriptive enough, particularly if planning to link multiple devices to the application.
- **Note:** a longer description for the device being paired to the application. Note that while in the device list of the main window (Figure 7), it is possible to retrieve the descriptive note of any of the already linked (Figure 2).

- Device:** name of the mobile device where the remote Z41 is being registered. By default, it will match the device name set by the user in the iOS settings or the one set by the manufacturer in the Android OS, although a different name can be set if desired. Once the pairing process ends, and for confirmation purposes, Z41 will show on screen the name of the mobile device (according to the value of this field) it has just been paired to, as shown in Figure 15.



Figure 15. Successful Z41 pairing.

- Code:** univocal pairing code that will let the mobile device identify the particular Z41 it must link to. This code needs to be obtained from the latter, which will display it on screen after requesting it from the pairing code service, as depicted in Figure 16 and described in “Pairing Procedure” under the Annex I of its User Manual.

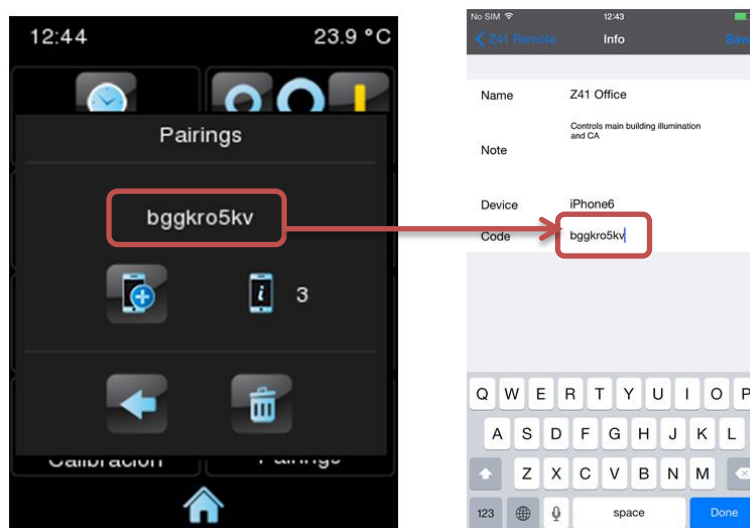



Figure 16. Z41Pairing code introduction.

Once the above parameters are set, the user must press on **Save**.

Note: under Android, saving is performed by pressing on .



Unless there are communication errors between the mobile device and Z41, the device list in the main window of the application will now include the device that has just been linked:

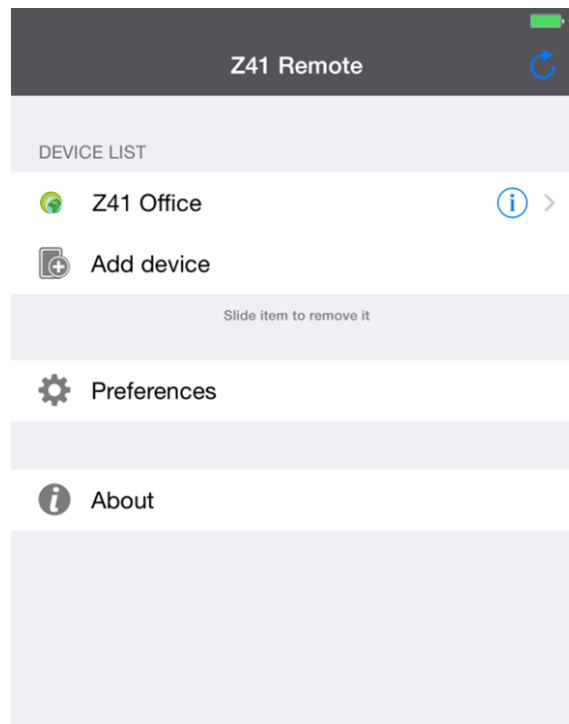



Figure 17. Paired device.

DEVICE CONTROLLING

In the list of paired devices, it is possible to access the detailed information on any of them by clicking on its corresponding icon . Then, a new pop-up similar to Figure 18, will be shown and will also give the user the option to:

- Modify the name and the associated note.
- Consult the Z41 type as well as the last access made to it. This information will not be shown if user has not accessed to that Z41 previously.
- Delete the pairing with the device, after which it will be removed from the list of the already-paired devices.



Figure 18. Pairing details.

A secondary method for deletion is available on iOS from the main window itself, by simply pressing on the desired device and dragging it to the left, which will bring up a new button labelled as **Delete**, as shown in Figure 19.

On the other hand, it is important to keep in mind that the device list only shows the five most recently accessed devices at a time. Should the user have more devices paired, those of them that have not been accessed for a long time will not be listed by default. In such case, it is necessary to press on **Show all**, which is visible only when there are actually more than five devices, as shown in Figure 20.

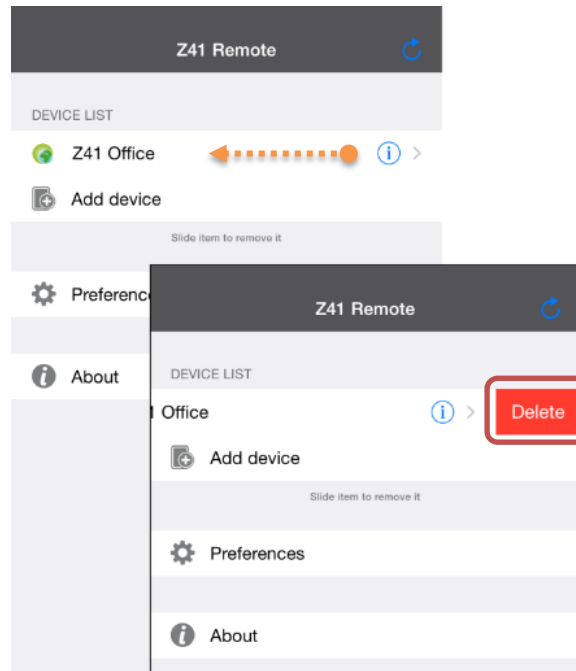


Figure 19. iOS Pairing deletion.

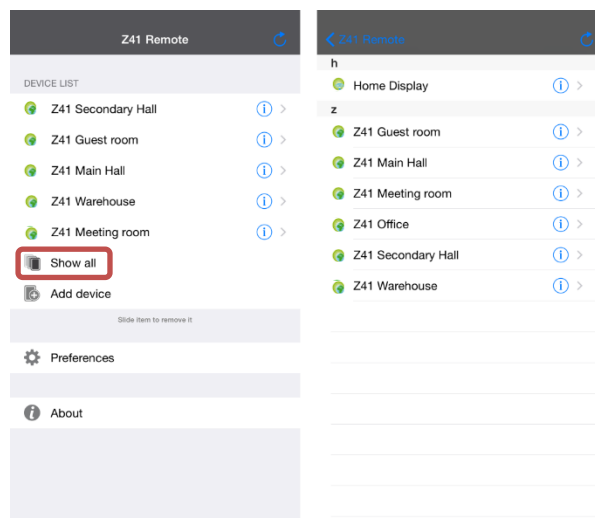


Figure 20. Complete list of paired devices (iOS)

If there are more than one paired devices, the user can set as Favourite one of them by pressing on his name for 3 seconds, after that, the favourite device will be shown shaded in the list (see). Another long press on a favourite device will remove this distinction.

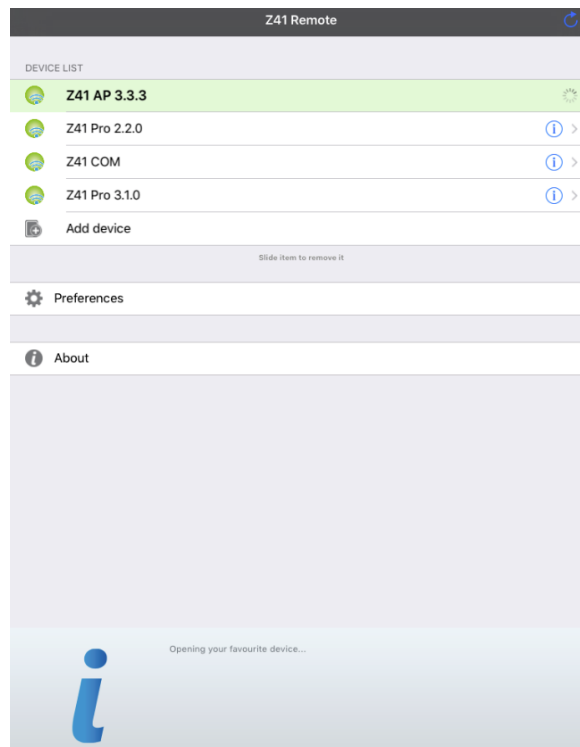







Figure 21. Favourite Device Pairing.

The Z41 devices in the list can be displayed in any of the following states:

-  **Available WAN:** the device is active and functioning normally **through an Internet / WAN connection.**
-  **Available LAN:** the device is active and functioning normally **through a LAN connection** (please refer to the [LAN Connectivity](#) section),
-  **Available Alarm:** the device is active, connected to the Internet but with **active alarms.**
-  **Not Available:** the device is not available or active.

These states are updated when pressing on the icon  located in the upper right corner on the screen.

Starting a remote control session on any of the Z41 paired devices can be done in the following ways:

- In case of existing a single paired device or a device set as Favourite, the remote control session will start on that Z41 device at each access to the Z41 Remote application.

- In case of existing more than one Z41 paired devices, pressing on a name in the list of Z41 paired devices will start the remote control on that Z41 device, provided that its status is available.

A few seconds later, a virtualisation of the Menu page of the remote Z41 will be represented on the mobile device (Figure 22), which will look analogous to the real Z41 interface the on-site user interacts with.

Note: *the application will always show a vertical arrangement of the interface, even if the Z41 device has been configured a **horizontal orientation**.*

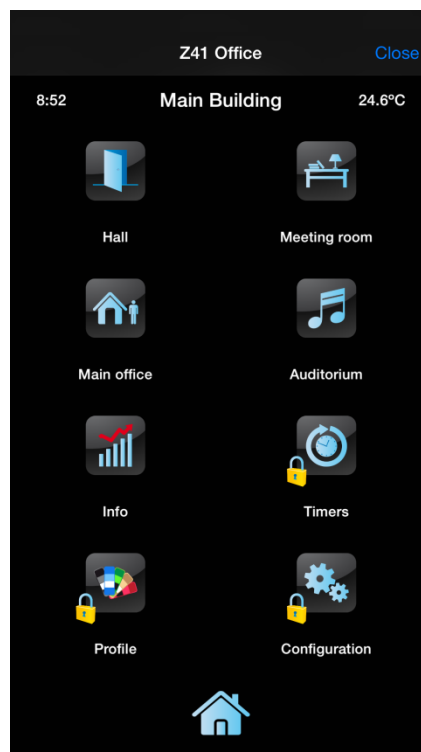


Figure 22. Z41 Connection.

From this point, the application behaves as the actual device, so the user can get rid of learning the usage of a new interface. In addition, any action implying changes on a control or an indicator will be notified to the real device, which will reflect equivalent changes on the screen and will also send the KNX bus the corresponding objects, when required.

Keep in mind that certain functions implemented by Z41 are **not controllable from the remote application** (in such case, icons and indicators show faded colours). They are the following:

- Profile: Contrast, Brightness and Volume.

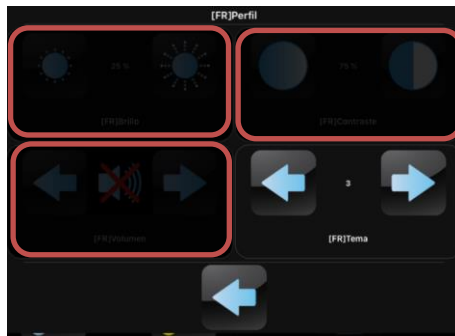


Figura 23. Perfil

- Device: Programming and Reset.

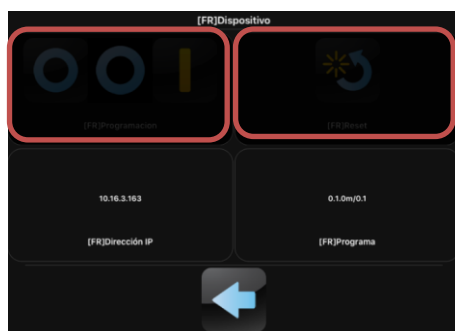


Figure 24: Device

- Configuration: Pairing and Intercom.

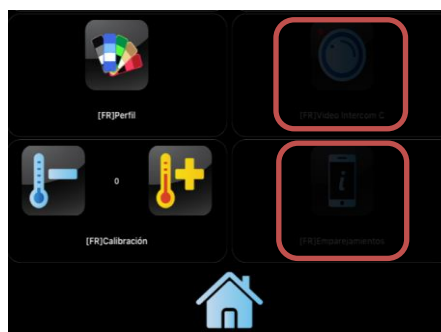


Figure 25. Configuration

- Boxes: Planner, Macros, Logical Funcions and some Intercom functions.



Figure 26. Boxes

Once the user interaction with the remote device is over, the user should finish the session by pressing on the **Close** button, available on the upper right corner of the application. Closing the session takes the user back to the main window (Figure).

Note: *in Android, closing the session is performed by pressing on .*



Note that if a **new remote control session** with the same device is started before 30 seconds after ending the previous session, the user will recover the control as it was before the interruption. However, more than 30 seconds after the interruption, new sessions will always begin from the Menu page of Z41.

In case the application is ordered to run in background, all active sessions will be interrupted.

PUSH NOTIFICATIONS

Version 3.3 or later of Z41, and version 1.1 or later of Z41 Pro and version 1.0 or later of Z41 COM, together with version 1.4.7 or later of Z41 Remote for iOS or version 1.5.0 or later of Z41 Remote for Android provide a “push” notification function which makes it possible for the remote user to receive a pop-up message on their mobile device as soon as an alarm event (activation, confirmation or deactivation) has taken place on any Z41 device has been paired with. This will happen even if the Z41 Remote application is not running on the mobile device when the event takes place.

For further information about this feature and on the alarm events being notified, please refer to the Z41 user manual.

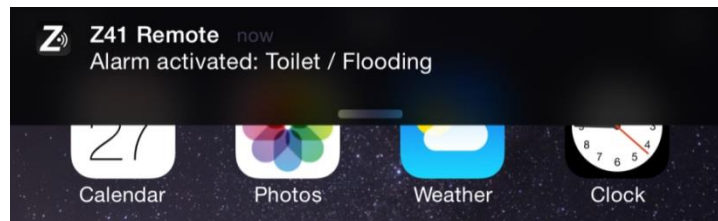


Figure 27. Push notifications.


Notes:


- *These messages will not be shown in case “push” notifications have been disabled on the operating system settings of the device. Please refer to the technical documentation provided by the manufacturer.*
- *Push notifications will be unavailable if Z41 device lacks of an active internet connection. In the event that Z41 device typically has an available internet connection and a network failure occurs when an alarm event is triggered, push notifications will be sent as soon as internet connection becomes available, as long as a power failure doesn't occur to the device.*
- *If an alarm event is triggered when a paired mobile device is turned off, notifications will be shown as soon as it turns on and is connected to the internet. In this case, due to Apple restrictions, iOS devices will only receive a single notification, whatever it is the number of alarm events triggered on its paired devices during this period.*
- *Zennio Avance y Tecnología S.L. does not accept any responsibility for losses of push messages due to network, hardware or software failures of any kind.*

LAN CONNECTIVITY

Versions 3.3.2 or later of Z41, versions 1.1.1 or later of Z41 Pro and versions 1.0 or later of Z41 COM, together with versions 2.1.9 or later of Z41 Remote for Android or versions 2.1.5 or later of Z41 Remote for iOS provide a feature that allows users to control their Z41 within a local area network without the need of a permanent Internet (or WAN) connection.

To do so, it is necessary to perform a regular pairing between Z41 and Z41 Remote (with an Internet connection in both sides). Once the pairing is accomplished, Z41 Remote will be able to connect to Z41 as long as they remain connected to the same local area network (LAN), even if no Internet connection is unavailable.

If a paired Z41 device is available through the LAN connection, the following icon will be shown next to it in the device list: . This icon means the Z41 device is paired and available in the local area network, regardless of whether it has an Internet connection or not.

If a paired Z41 device is available only via Internet (WAN), the following icon will be shown next to it in the device list: .


LAN connections are much faster than an Internet connection, so the device availability in LAN will be discovered almost immediately after launching the Z41 Remote application.

Important:

Older pairings between Z41 and Z41 Remote may not provide LAN connectivity. To make use of this feature, it may be necessary to perform a new pairing (the older one can be deleted, if desired).

The mobile application will notify the user about these cases by showing the following message: *“To achieve faster local connections to [Z41 Name] please delete this older link and add it again”*.

Notes:

- Alarm push notifications, as well as the detection of the alarm status in the already-paired devices (which is depicted through the  icon in the device list), necessarily require an active Internet connection.
- LAN functionality relies on a standard local area network topology and assumes that multicasting package sending is allowed. In case of doubt, ask your network administrator.
- Switching from WAN to LAN may introduce a delay of up to one minute in the reception of the status of alarm boxes and indicators, even if the application remains stable. This may also happen due to network issues.



On Android, the delay in the states of the alarm boxes and indicators could cause the momentary blocking of the controls. To recover its functionality you should exit and re-enter the Z41 where the problem has occurred.

DIFFERENCES BETWEEN Z41 AND Z41 REMOTE

Z41 Pro 3.1 (and later) and Z41 COM provide a set of advanced controls (Planner, Macro, Logical Function and Video Intercom) whose remote control via Z41 Remote is partially supported by Z41 Remote. Provided behaviour by the mobile application is explained below, as well as the differences with Z41 Pro and Z41 COM:

- **Planner:** Access to scheduler configuration menu (right-side button) is unavailable for the mobile application. Instead, enable / disable control (left-side button) is available.
- **Macro:** Access to macro configuration menu (right-side button) is unavailable for the mobile application. Instead, execute / stop macro control (left-side button) is available.
- **Logical Function:** Access to logical function configuration menu (right-side button) is unavailable for the mobile application. Instead, execute logical function control (left-side button) is available.
- **Video Intercom** (only in Z41 COM): The mobile application does not allow interaction with the Z41 COM Video Intercom functionality.

USER PROFILES

Note: *this function is intended to be used only upon Zennio's request.*





Z41 Remote allows switching to certain user profiles depending on the context where the application is going to be used. The different profiles do not entail differences in the functionality nor implications for the user, but they ensure that the data of users of a particular profile (e.g., users that are testing the application) and that of users of a different profile (e.g., those performing everyday use) remain separated, thus avoiding interference or interruptions in the normal service due to punctual requirements.






Therefore, if a particular profile needs to be set (upon Zennio's request), the user will need to make use of the specific configuration tool available within the iOS "Settings" panel, next to the configuration tools of the other applications installed on the device (see Figure 12).



To switch the user profile on the Android application, please enter the Preferences window (Figure 8) and press any of the volume control keys of the mobile terminal for ten times. This will enable the User Code field, so the user can enter the required information, as provided by Zennio. When necessary, the IP field will also become enabled.

TROUBLESHOOTING

Device	Message / Event	Verification	
Mobile device (iOS or Android)	Pairing error	Pairing code expired. Ask for a new one from your Z41.	
	Wrong pairing code	Check that the pairing code provided by your Z41 is correctly typed in your mobile device. Check that your Z41 is running the latest firmware available at the Zennio home site.	
	No Internet connection	Check Internet connectivity from your mobile device. Check connection speed (3G / WiFi). Can your Z41 reach the server? Check icon on Z41 (see below).	
	Z41 unavailable		
	Z41 not paired to this device	Your device is trying to connect to a Z41 with which it is not paired anymore (the pairing list may have been reset from Z41). Remove the pairing from your device and try to pair again.	
	Communication error	An internal error occurred during the communication between your Z41 and your device. Restart the Z41 Remote application.	
	Wait time exceeded	Can your Z41 reach the server? Check icon on Z41 (see below).	
	Alarms and indicators out of date	Switching from WAN to LAN may introduce a delay of up to one minute in the reception of the status of alarm boxes and indicators, even if the application remains stable. This may also happen due to network issues.	
	Icons shown by Z41 Remote (Paired Z41 status):		
		Z41 available (Internet).	Z41 (or Z41 Pro) is connected and available through Internet. Note: if this icon is shown even if both Z41 (or Z41 Pro) and the mobile device are connected to the same local network and are running a version that supports remote control through LAN, please consider performing a new pairing between them in order to achieve a significant increase in the service quality (see section LAN Connectivity).
		Z41 available (Local Area Network).	Z41 (or Z41 Pro) is connected and available through the local area network (LAN).
		Z41 unavailable.	Z41 (or Z41 Pro) is unavailable for remote control. Is Z41 connected to Internet? Is the mobile device connected to Internet? In case of a LAN with no access to Internet, are both Z41 and the mobile device connected to the same local network segment?
	Z41 available with active alarms (Internet)	Z41 is connected and available through Internet. Additionally, one or more alarm boxes are in the active alarm state.	

Z41 (or Z41 Pro)	Error message during pairing		Can your Z41 reach the server? Verify the Internet connectivity. Check the icon shown on Z41 (see below).
	Icons shown by Z41 (Device Pairing box):		
		No network connection.	Check that an IP address has been assigned by the router (the IP address is shown by Z41 during the startup). Is there another device with the same IP address within the same network?
		Server unreachable.	Connect the same Ethernet cable to a PC and check the Internet access. Note: <i>remote control through LAN will be still available, provided that both Z41 and the mobile device have been update to versions supporting this feature and have already been paired. Please refer to section <u>LAN Connectivity</u>.</i>
		Service unreachable.	Is the internal clock of Z41 properly set? Date must be later than 31 st / Nov / 2013. Note: <i>remote control through LAN will be still available, provided that both Z41 and the mobile device have been update to versions supporting this feature and have already been paired. Please refer to section <u>LAN Connectivity</u>.</i>
		Connection OK.	No issues – service available.
	Under remote control.	No issues – Z41 under remote control.	

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