IoTIM

TIM Box and Application Quick Guide

INDEX

1 IOTIM APPLICATION ACCESS

Preconditions:
- Android/IOS Mobile IoTIM application installed;
- IoTIM Android TV App

NOTE that first time is mandatory to start IoTIM Android TV app, disable deep standby as prompted, complete login procedure and only then it will be possible to access TIM BOX through IoTIM Mobile app.

1.1 MOBILE APPLICATION

a. Launch IoTIM mobile application and select **Accedi** button from landing page
b. On Login page, Insert credentials and select **Accedi** button

Landing page and Login page

1.2 ANDROID TV APPLICATION

a. Launch IoTIM Android TV application and select **Entra**
b. Select **Accedi** (VERY IMPORTANT: first time you will be asked to disable deep standby)
c. On Login page, Insert credentials and confirm
   ➔ Home page accessed

Landing pages and Login procedure on Android TV app

IoTIM Android TV app Home page

Please note that, within **TIM Box** IoTIM app, it is possible to find Z-Wave devices only after their addition via IoTIM mobile a**p**p.

2 TIM BOX Z-WAVE DEVICES

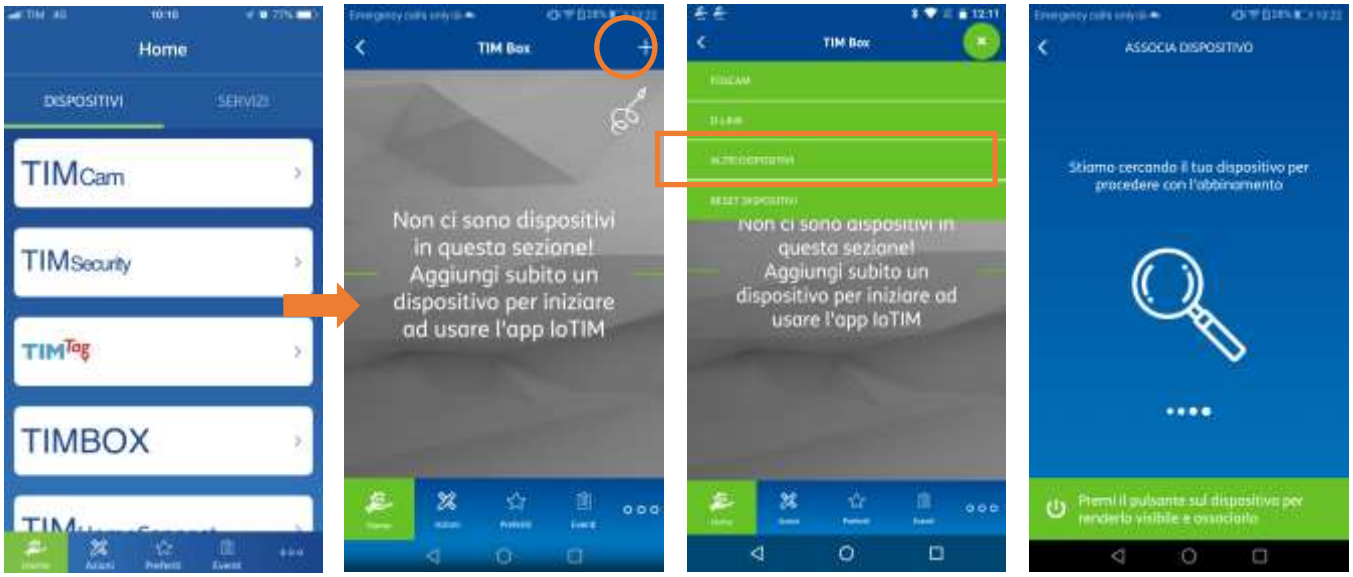
2.1 Z-WAVE DEVICES

A set of Z-Wave devices has been declared as compatible with TIM Box.
Using IoTIM mobile application it is possible to add and remove z-wave devices.

Vendor	Device
FIBARO	MOTION SENSOR FGMS-001
	DOOR/WINDOW SENSOR 1/2 FGK-10x/FGDW-002
	SMOKE SENSOR FGSD-002-EN-A-v1.1
	FLOOD SENSOR FGFS-101
	WALL PLUG FGWP-102
Everspring	INDOOR SIREN SE812
	TEMPERATURE / HUMIDITY DETECTOR WITH LCD ST814
	LENS CHANGEABLE PIR DETECTOR SP814
Aeotec	AEOTEC SMART SWITCH 6

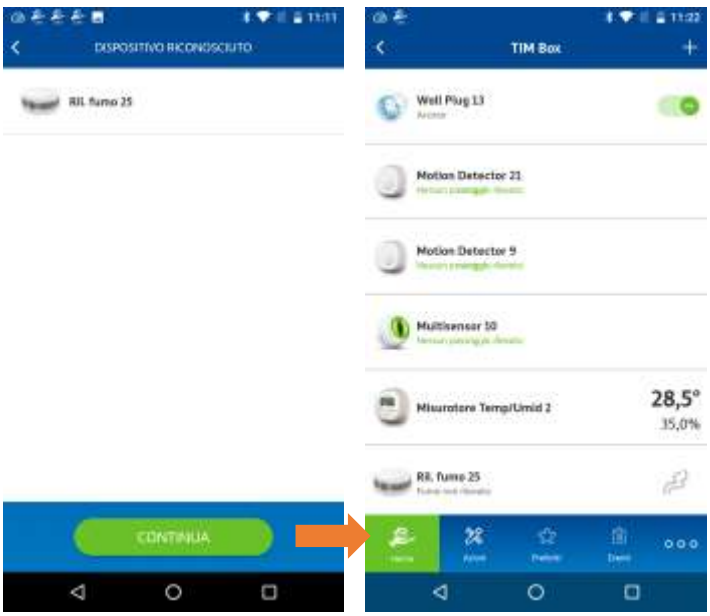
2.5 Z-WAVE S0 INCLUSION PROCEDURE

a. From Mobile app, access TIM Box section
b. Select **(+)** option
c. Select **Altri dispositivi** option
   ➔ Once green popup appears, addition procedure starts
d. Press Z-Wave device button in order to include it



Z-Wave S0 inclusion procedure

e. Once a device is recognized, select **Continua**
   ➔ Included device should appear within TIM Box device list



- Recognized device and TIM Box device list

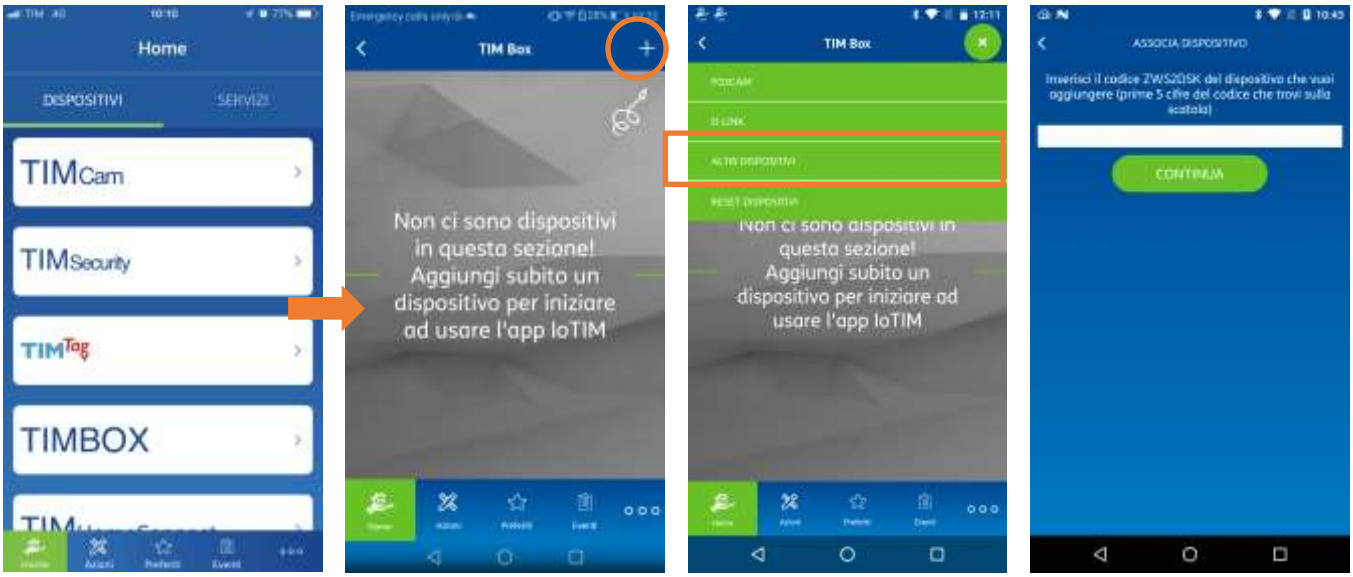
As described by manufacturers, it is also necessary to interact with the physical z-wave device in order to include it:

Vendor	Device	Z-Wave Inclusion
FIBARO	MOTION SENSOR FGMS-001	Adding (Inclusion) - Z-Wave device learning mode, allowing to add the device to existing Z-Wave network. To add the device to the Z-Wave network: 1. Open the cover. 2. Place the Sensor within the direct range of your Z-Wave controller. 3. Set the main controller in (security/non-security) add mode. 4. Quickly, press three times TMP button. 5. Wait for the adding process to end. 6. Successful adding will be confirmed by Z-Wave controller's message.
	DOOR/WINDOW SENSOR 1/2 FGK-10x/FGDW-002	Adding (Inclusion) - Z-Wave device learning mode, allowing to add the device to existing Z-Wave network. To add the device to the Z-Wave network: 1. Plug the device into a socket nearby the main Z-Wave controller. 2. LED ring will glow red signalling not being added (reset or remove the device otherwise). 3. Set the main controller in (security/non-security) add mode. 4. Quickly, triple click the B-button located on the casing. 5. Wait for the adding process to end. 6. Successful adding will be confirmed by Z-Wave controller message.
	SMOKE SENSOR FGSD-002-EN-A-v1.1	Fibaro Smoke Sensor inclusion: 1) Install the battery. Visual indicator will signal the Z-Wave network inclusion status (red - device ready for inclusion, green - device included, remove firstly). 2) Make sure the device is located within direct range of the Z-Wave controller. 3) Set the main controller into the learning mode 4) Quickly, triple click the B-button, located on Fibaro Smoke Sensor's casing. 5) Fibaro Smoke Sensor will be detected and included in the Z-Wave network.
EVERSPRING	FLOOD SENSOR FGFS-101	Adding (Inclusion) - Z-Wave device learning mode, allowing to add the device to existing Z-Wave network. To add the device to the Z-Wave network: 1. Open the cover. 2. Place the Sensor within the direct range of your Z-Wave controller. 3. Set the main controller in (security/non-security) add mode 4. Quickly, three times press the TMP button. 5. Wait for the adding process to end. 6. Successful adding will be confirmed by Z-Wave controller message.
	WALL PLUG FGWP-102	Adding (Inclusion) - Z-Wave device learning mode, allowing to add the device to existing Z-Wave network. To add the device to the Z-Wave network: 1. Plug the device into a socket nearby the main Z-Wave controller. 2. The LED ring will glow red signaling not being added (reset or remove the device otherwise). 3. Set the main controller in (security/non-security) add mode 4. Quickly, triple click the B-button located on the casing. 5. Wait for the adding process to end. 6. Successful adding will be confirmed by Z-Wave controller message.
	INDOOR SIREN SE812	1. Have Z-Wave Controller entered inclusion mode. 2. Pressing link key 3 times within 1.5 seconds will enter inclusion mode. Green LED is on and Siren beeps when link key is pressed.
	TEMPERATURE / HUMIDITY DETECTOR WITH LCD ST814	1. Have Z-Wave Controller entered inclusion mode. 2. Pressing C F/L key 3 times within 1.5 seconds will enter inclusion mode. L icon flashes

	LENS CHANGEABLE PIR DETECTOR SP814	1. Have Z-Wave Controller entered inclusion mode. 2. Pressing link key 3 times within 1.5 second will enter inclusion mode. The Detector will stay “awake” for 10 minutes to allow time for setting and device status enquiring. Detector beeps when link key is pressed.
AEOTEC (eon labs)	Aeotec Smart Switch 6	A. Short press one time send non-security Node Info frame. Add Smart Switch into an existing z-wave network: 1. Insert the Smart Switch to power socket, The purple LED will blink slowly. 2. Let the primary controller into inclusion mode 3. Press the Action button. 4. If the inclusion success, Smart Switch LED will keep turning on. Otherwise, the LED will still blink slowly, in which you need to repeat the process from step 2. B. Short press 2 times add Smart Switch into an existing z-wave network: 1. Insert the Smart Switch to power socket, The purple LED will blink slowly. 2. Let the primary controller into inclusion mode 3. Press the Action Button. 4. If the inclusion success, Smart Switch LED will keep turning on. Otherwise, the LED will still blink slowly, in which you need to repeat the process from step 2.

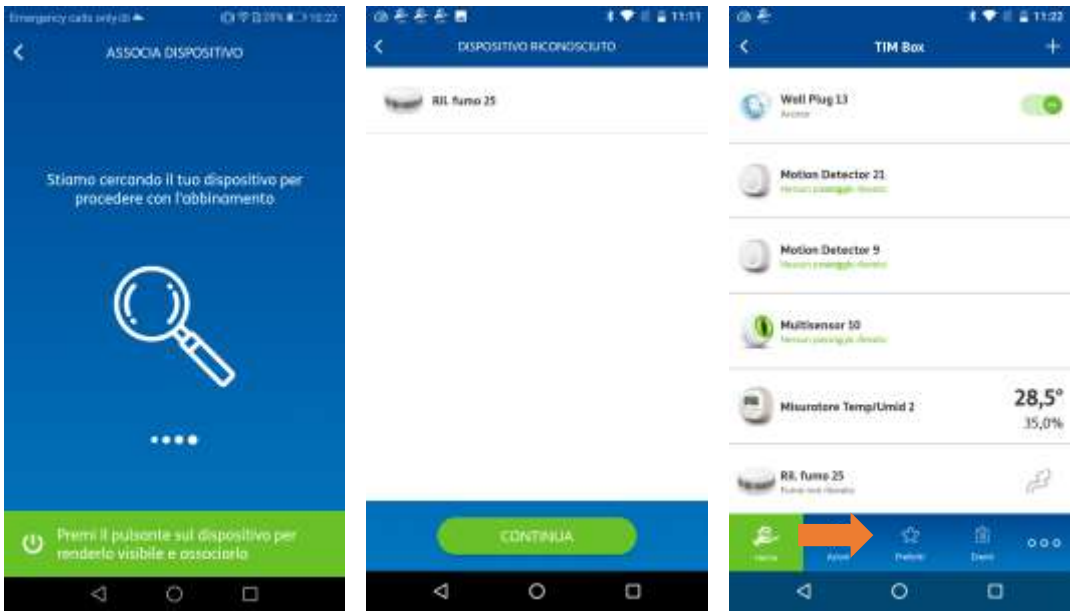
2.6 Z-WAVE S2 INCLUSION PROCEDURE

a. From Mobile app, access TIM Box section
b. Select **(+)** option
c. Select **Dispositivi S2 Security** option
d. Insert DSK device code (first 5 digits) and select **Continua**
   ➔ Once green popup appears, inclusion procedure starts



Z-Wave S2 inclusion procedure

e. Press Z-Wave device button in order to include it
f. Once a device is recognized, select **Continua**
   ➔ Included device should appear within TIM Box device list

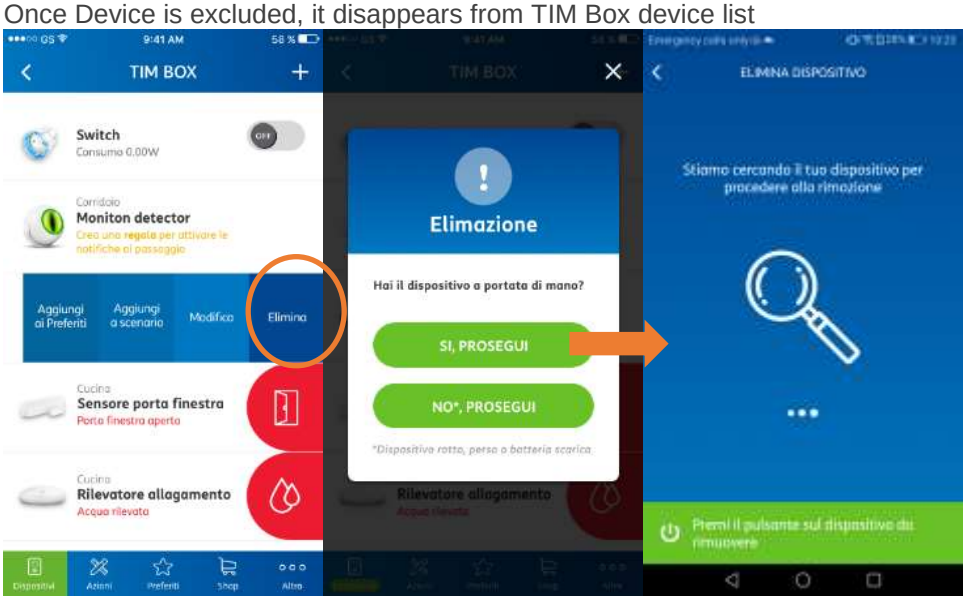


Recognized device and TIM Box device list

2.7 Z-WAVE EXCLUSION PROCEDURE

Standard removal procedure (available device)

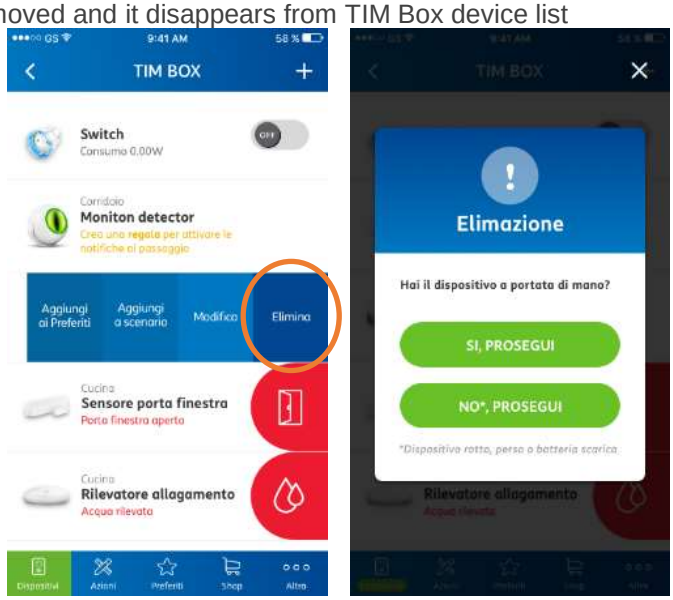
a. From Mobile app, access TIM Box section
b. Swipe on the desired z-wave device and select **Elimina**
c. Select **SI, Prosegui** option
g. Once green popup appears, exclusion procedure starts
d. Press Z-Wave device button in order to exclude it
h. Once Device is excluded, it disappears from TIM Box device list



Z-Wave Exclusion procedure

Direct removal procedure (lost or broken device)

a. From Mobile app, access TIM Box section
b. Swipe on the desired z-wave device and select **Elimina**
c. Select **NO, Prosegui** option
i. Device is directly removed and it disappears from TIM Box device list



Direct exclusion procedure

+

Vendor	Device	Z-Wave Exclusion
FIBARO	MOTION SENSOR FGMS-001	Removing (Exclusion) - Z-Wave device learning mode, allowing to remove the device from existing Z-Wave network. To remove the device from the Z-Wave network: 1. Open the cover. 2. Place the Motion Sensor within the direct range of your Z-Wave controller. 3. Set the main controller in remove mode 4. Quickly, three times press the B-button. 5. Wait for the removing process to end. 6. Successful removing will be confirmed by the Z-Wave controller's message.
	DOOR/WINDOW SENSOR 1/2 FGK-10x/FGDW-002	Removing (Exclusion) - Z-Wave device learning mode, allowing to remove the device from existing Z-Wave network. To remove the device from the Z-Wave network: 1. Place the Door/Window Sensor 2 within the direct range of your Z-Wave controller. 2. Set the main controller into remove mode 3. Quickly, three times press one of the TMP buttons (while the other button is pressed). 4. Wait for the removing process to end. 5. Successful removing will be confirmed by the Z-Wave controller's message.
	SMOKE SENSOR FGSD-002-EN-A-v1.1	Fibaro Smoke Sensor exclusion: 1) Make sure the sensor is connected to battery. 2) Set the main controller into the learning mode 3) Quickly, triple click the B-button, located on Fibaro Smoke Sensor's casing.

EVERSPRING	FLOOD SENSOR FGFS-101	Removing (Exclusion) - Z-Wave device learning mode, allowing to remove the device from existing Z-Wave network. To remove the device from the Z-Wave network: 1. Open the cover. 2. Place the Sensor within the direct range of your Z-Wave controller. 3. Set the main controller into remove mode 4. Quickly, three times press the TMP button. 5. Wait for the removing process to end. 6. Successful removing will be confirmed by the Z-Wave controller's message.
	WALL PLUG FGWP-102	Removing (Exclusion) - Z-Wave device learning mode, allowing to remove the device from existing Z-Wave network. To remove the device from the Z-Wave network: 1. Plug the device into a socket nearby the main Z-Wave controller. 2. The LED ring will glow green signaling being added (removing is not necessary otherwise). 3. Set the main controller into remove mode (see the controller's manual). 4. Quickly, triple click the B-button located on the casing. 5. Wait for the removing process to end. 6. Successful removing will be confirmed by the Z-Wave controller's message.
	INDOOR SIREN SE812	1. Have Z-Wave Controller entered exclusion mode. 2. Pressing link key 3 times within 1.5 seconds will enter exclusion mode. Green LED is on and Siren beeps when link key is pressed.
	TEMPERATURE / HUMIDITY DETECTOR WITH LCD ST814	1. Have Z-Wave Controller entered exclusion mode. 2. Pressing C F/L key 3 times within 1.5 seconds will enter exclusion mode L icon flashes Node ID has been excluded: The RF reading displays 00 (MODE 7)
	LENS CHANGEABLE PIR DETECTOR SP814	1. Have Z-Wave Controller entered exclusion mode. 2. Pressing link key 3 times within 1.5 second will enter exclusion mode. The Detector will stay "awake" for 10 minutes to allow time for setting and device status enquiring. Detector beeps when link key is pressed.
AEOTEC (eon labs)	Aeotec Smart Switch 6	A. Short press one time Send non-security Node Info frame. Remove Smart Switch from an existing z-wave network: 1. Insert the Smart Switch to power socket, The Smart Switch LED will follow the status (on/off) of its load' power level. 2. Let the primary controller of existing Z-Wave network into remove mode. 3. Press the Action button. 4. If the remove success, Smart Switch LED will blink slowly. If Smart Switch LED still follows that of load status, please repeat the process from step 2. B. Short press 2 times Remove Smart Switch from an existing z-wave network: 1. Insert the Smart Switch to power socket, The Smart Switch LED will follow the status (on/off) of its load' power level. 2. Let the primary controller of existing Z-Wave network into remove mode 3. Press the Action button. 4. If the remove success, Smart Switch LED will blink slowly. If Smart Switch LED still follows that of load status, please repeat the process from step 2.

2.8 Z-WAVE RESET PROCEDURE

If this controller is the primary controller for your network, resetting it will result in the nodes in your network being orphaned and it will be necessary after the reset to exclude and re-include all of the nodes in the network. If this controller is being used as a secondary controller in the network, use this procedure to reset this controller only in the event that the network primary controller is missing or otherwise inoperable.

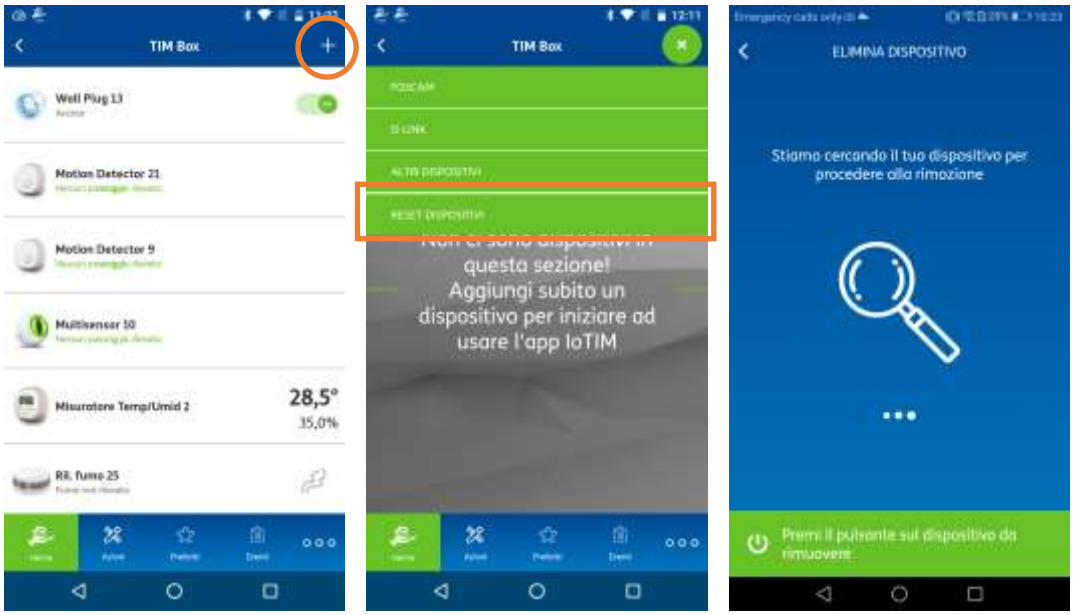
TIMBOX Reset procedure

TIMBOX Controller can be physically reset to its factory settings, in this case all informations about Z-Wave controller and user configuration will be deleted, this can be achieved only by selecting, on TIM BOX android Settings menu, IoTcontroller app and deleting it's data and cache after stopping it.

Note that this functionality is not available in IoTIM mobile application

Device Reset procedure (device not present within device)

a. From Mobile app, access TIM Box section
b. Select **(+)** option
c. Select **Reset dispositivi** option
j. Once green popup appears, removal procedure starts
d. Press Z-Wave device button in order to exclude it
e.



Reset device procedure

A Z-wave device can be also physically reset to its factory settings, in this case all informations about the Z-Wave controller and user configuration will be deleted.

Note that this functionality is not available in IoTIM mobile application.

The procedure to reset a Z-Wave device is local to the device itself, and is designed from the manufacturer:

Vendor	Device	Z-Wave Reset
FIBARO	MOTION SENSOR FGMS-001	The Fibaro Motion Sensor reset erases the memory, including all information on the Z-Wave network and the main controller. Fibaro Motion Sensor reset procedure: 1) Make sure the battery works and is in place. 2) Press and hold the B-button for 4-6 seconds until the LED glows yellow signaling the 2nd option of the menu mode. 3) Release the B-button. 4) Again, press the B-button briefly. Successful reset will be confirmed with the LED changing colour to red and fading.
	DOOR/WINDOW SENSOR 1/2 FGK-10x/FGDW-002	Reset procedure allows to restore the device back to its factory settings, which means all information about the Z-Wave controller and user configuration will be deleted. In order to reset the device: 1. Open the cover. 2. Remove the battery. 3. Install the battery while holding both TMP buttons. 4. Visual LED indicator will be flashing slowly for 5 seconds – keep holding the buttons. 5. Release one button when the LED indicator starts flashing quickly. 6. Click released button once to confirm launching of reset procedure. 7. Wait a few seconds until a long blink of the LED indicator. Do not remove the battery. 8. Visual LED indicator will blink 5 times quickly to confirm the reset.
	SMOKE SENSOR FGSD-002-EN-A-v1.1	Resetting the Fibaro Smoke Sensor erases the device memory, including all information on the Z-Wave network and the main controller. Fibaro Smoke Sensor reset procedure: 1) Make sure the device has the battery installed. 2) Press and hold the B-button for 3 seconds until visual indicator glows white. 3) Short signal will sound. 4) Release the B-button. 5) Wait until the visual indicator glows yellow, signaling entering the 4th menu option. 6) Press the B-button briefly to confirm your choice. Successful reset will be confirmed with the visual indicator changing colour to red and fading. At the same time, short beep will sound, same as at the power connection.
EVERSPRING	FLOOD SENSOR FGFS-101	Reset procedure allows to restore the device back to its factory set-tings, which means all information about the Z-Wave controller and user configuration will be deleted. 1. Make sure the sensor is powered. 2. Press and hold the TMP button. 3. Wait for the visual LED indicator to glow yellow (4th position of the MENU). 4. Release the TMP button. 5. Click the TMP button once to confirm selection. 6. After few seconds the device will restart with factory settings, which is signaled with the red visual indicator colour and an acoustic signal.

	WALL PLUG FGWP-102	Reset procedure allows to restore the device back to its factory settings, which means all information about the Z-Wave controller and user configuration will be deleted. 1. Make sure the device is powered. 2. Press and hold the B-button. 3. Wait for the LED ring to glow yellow (3rd menu position). 4. Release the B-button. 5. Click the B-button once to confirm selection. 6. After few seconds the device will restart with factory settings, which is signaled with the red ring colour.
	INDOOR SIREN SE812	1. Pressing link key 3 times within 1.5 seconds will enter reset mode. Orange LED is on and Siren beeps when link key is pressed. 2. Within 1 second, press link key again for 5 seconds until LED is off. One long beep is on for 5 seconds, and orange LED is off. 3. IDs are excluded; restore to factory default.
	TEMPERATURE / HUMIDITY DETECTOR WITH LCD ST814	1. Pressing C F/L key 3 times within 1.5 seconds will enter inclusion mode 2. Within 1 second, press C F/L key again and hold it until long beep tone is off L icon flashes 3. Node ID has been excluded; restore to factory default. The RF reading displays 00 (MODE 7)
	LENS CHANGEABLE PIR DETECTOR SP814	1. Press link key 3 times within 1.5 second. Detector beeps when link key is pressed. 2. Within 1 second, press and hold link key until beep stops. A long beep is sounded for 5 seconds. 3. IDs are excluded and all of preset value will be reset to factory default. 2-second on, 2-second off
AEOTEC (eon labs)	Aeotec Smart Switch 6	Press and hold 20 seconds Reset Smart Switch to factory Default: 1. Make sure the Smart Switch has been connected to the power supply. 2. Press and hold the Z-wave button for 20 seconds. 3. If holding time more than one second, the LED will blink faster and faster. If holding time more than 20seconds, the purple LED will be on for 2 seconds, it indicates reset success, otherwise please repeat step 2. Note: Reset Smart Switch to factory default settings will: sets the Smart Switch to not in Z- Wave network state; delete the Association setting, power measure value, Scene Configuration Settings and restore the Configuration setting to the default.

2.10 ASSOCIATION CC

TIM Box allows association to one group with this information:

Group ID = 1
Maximum number of devices (nodes) = 1
Description = Z-Wave plus lifeline
Sends: Command Class Device Reset Locally, Device Reset Locally Notification

3 OTHER VERTICALS

3.1 QUICK DESCRIPTION

With IoTIM application it is possible to handle also others non z-wave devices (verticals):

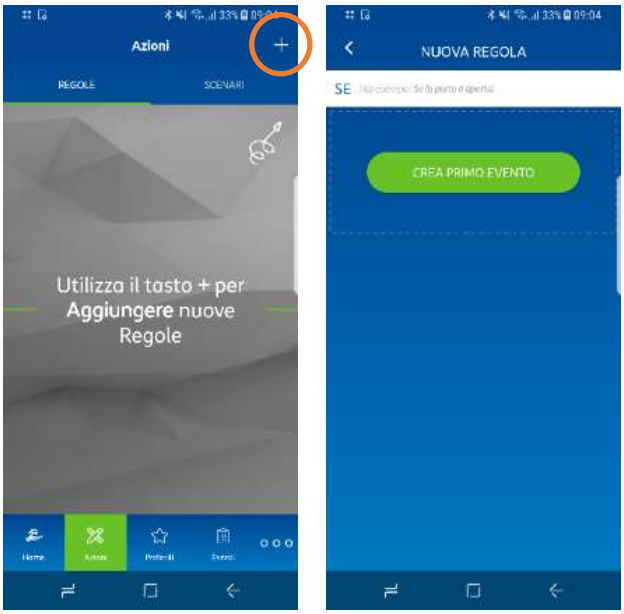
- **TIM CAM**
- **TIM Security** (smart home security system)
- **TIM Tag** (GPS tracker)
- **Netatmo** (thermostat)
- **iHealth** (weight scale, sphygmomanometer)
- **Philips hue** bulbs

IoTIM Home page

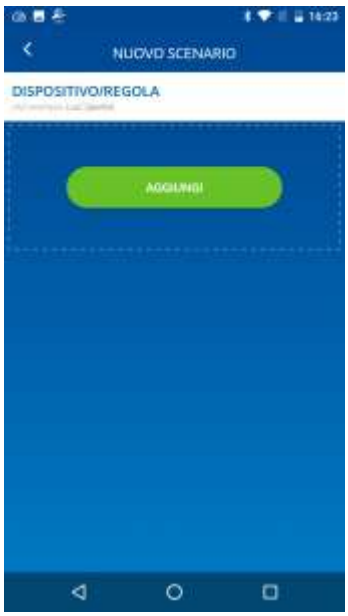
3.2 RULES AND SCENARIOS

Involving TIM Box devices and other verticals (e.g. Netatmo, Philips Hue, …), it is also possible to create, edit and personalize rules and scenarios:

- a **rule** is composed by trigger devices AND actuator devices (TIM Box or vertical devices)
- a **scenario** can be composed by devices (TIM Box or vertical devices) AND/OR rules.



Rules creation page



Scenarios creation page

4 SECURITY 2 DSK AND REPLICATION

Security S2 DSK can be retrieved through postman (www.getpostman.com) through Controller API using Start Learning Mode command as described on CONTROLLER API DESCRIPTION manual
Controller replication can be performed starting a shift command on the current SIS and then starting learn mode on the TIM Box.

Note that in TIM solution sold to users, TIM Box addition as a slave is not expecte
Note: this operation cannot be performed through mobile app

5 5 COMMAND CLASSES

5.1 CONTROLLED

Basic Command Class, Version 2

Association Command Class, Version 2

Device Reset Locally Command Class, Version 1

Manufacturer Specific Command Class, Version 2

Multi Channel Association Command Class, Version 3

Version Command Class, Version 2

Wake Up Command Class, Version 2

Z-Wave Plus Info Command Class, Version 2

CRC-16 Encapsulation Command Class, Version 1

Multi Channel Command Class, Version 4

4.1 Security 0 Command Class, Version 1

Security 2 Command Class, Version 1

Supervision Command Class, Version 1

Network Management Proxy Command Class, Version 2

Network Management Basic Node Command Class, Version 2

Network Management Inclusion Command Class, Version 2

Network Management Installation and Maintenance Command Class, Version 1

Z/IP Gateway Command Class, Version 1

Z/IP-ND Command Class, Version 1

5.2 SUPPORTED

Binary Sensor Command Class, Version 1

Binary Switch Command Class, Version 1

Meter Command Class, Version 1

Multilevel Sensor Command Class, Version 7

Application Status Command Class, Version 1

Association Command Class, Version 2

Association Group Information Command Class, Version 3

Device Reset Locally Command Class, Version 1

Manufacturer Specific Command Class, Version 2

Version Command Class, Version 2

Z-Wave Plus Info Command Class, Version 2

CRC-16 Encapsulation Command Class, Version 1

4.1 Security 0 Command Class, Version 1

Security 2 Command Class, Version 1

Supervision Command Class, Version 1

Transport Service Command Class, Version 2

Inclusion Controller Command Class, Version 1

Network Management Proxy Command Class, Version 2

Network Management Basic Node Command Class, Version 2

Network Management Inclusion Command Class, Version 2

Network Management Installation and Maintenance Command Class, Version 1

Powerlevel Command Class, Version 1