

# Repeater for WiFi Kit

RKK-EXT3



## Installation manual

How to install the repeater in a wifi kit



## What did you buy

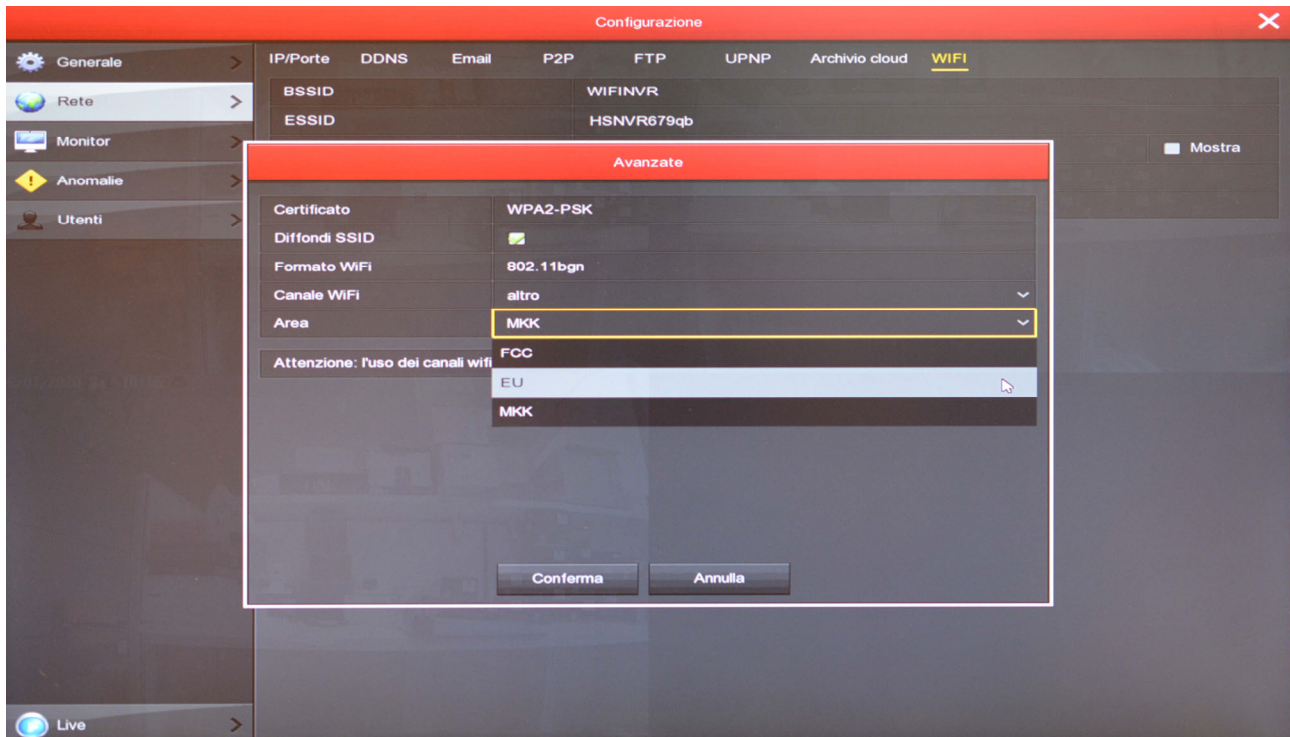
The RKK series WiFi kits allow a maximum distance between cameras and NVRs of about 3-4 rooms. If you place the RKK-KIT1 repeater in the coverage area of the kit, you will re-launch the signal for a further 3-4 rooms. You can use maximum 2 repeaters in one kit.

If you purchase the repeater together with the wifi kit, it will be delivered to you already configured with the kit

This manual explains how to install the repeater you buy later, by connecting it to one of our wifi kits that already works.

## Make the network of the NVR visible

The first thing you need to do to install a wifi repeater in your kit is to make the NVR's wifi network visible from external devices, such as a mobile phone. You can do this in the NVR settings in the NETWORK/WIFI section and by pressing the ADVANCED button



The important entry is AREA. Select AREA: EU and check that SPREAD SSID is ticked. At the end press CONFIRM and then APPLY. When finished, restart the NVR.

Don't worry for your kit, this modification doesn't change anything in the communication between NVR and cameras, but it simply makes the wifi network of the NVR visible, which will come in handy when installing the repeater.

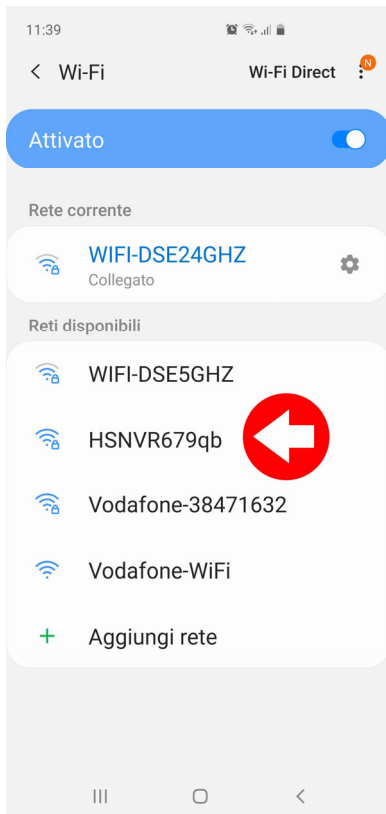
If you now explore the available wifi networks, with a mobile phone or tablet, you will find the NVR network among the wifi networks. The network name is called the SSID.

# INSTALLATION MANUAL

## RKK SERIES – RKK-EXT3 WIFI REPEATER



Page:4



In the wifi settings of the NVR you will also find the **Password to access the wifi network which by default is "lspassword"** (the first letter is a lowercase L)

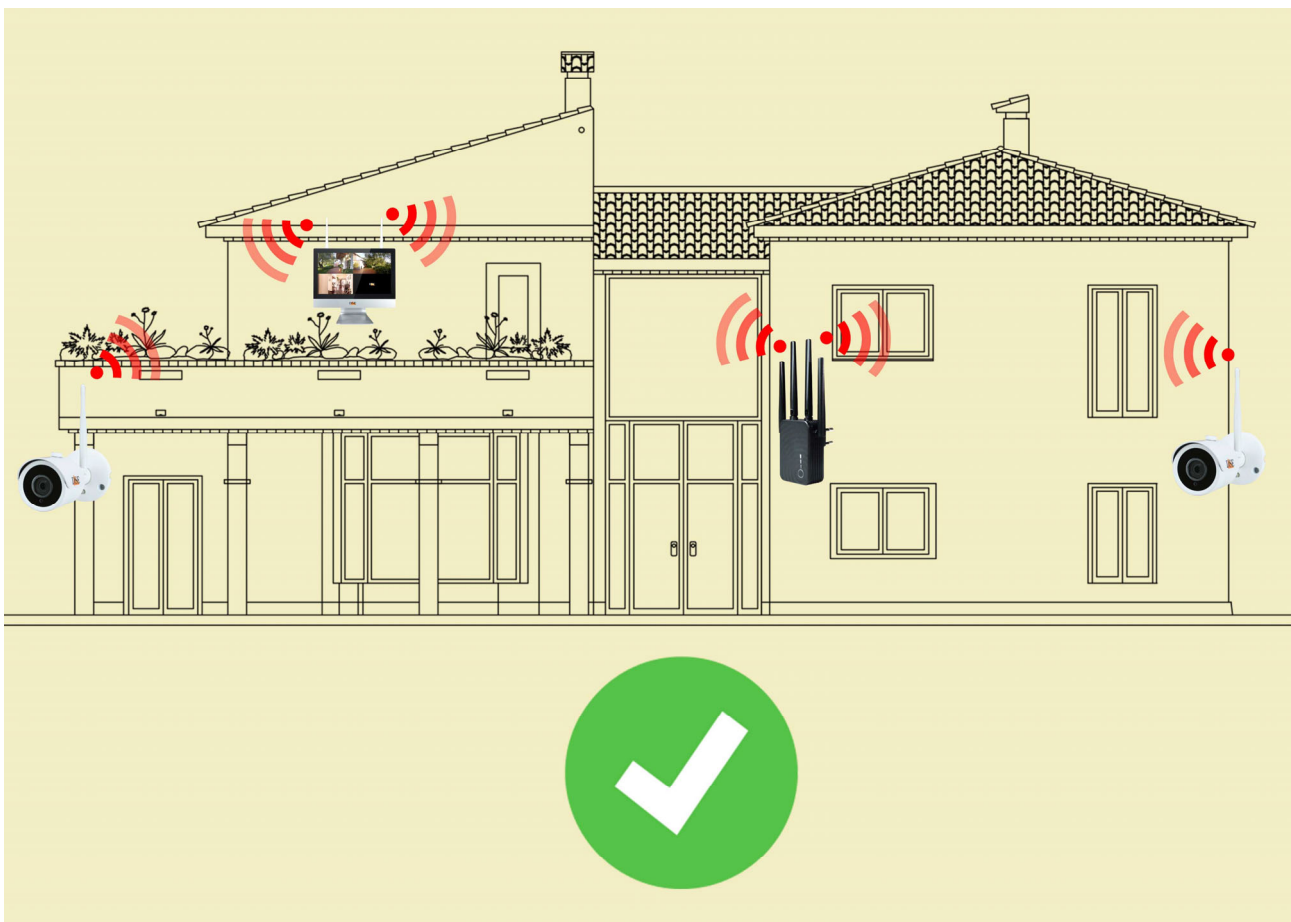
You now have full control over your NVR's wifi network: you can see the NVR's wifi network with other devices, know its name (SSID) and access password.

# Choose the location of the repeater

To install an RKK-EXT1 repeater you just need to plug it into the power outlet. However, the location you choose is crucial for proper functioning.

## 1 – ONLY ONE RKK REPEATER

The repeater must be installed at a certain distance from the NVR, but without leaving its wifi coverage. You can check the signal strength with a mobile phone. Once installed, the repeater also has a lighting around the front button: the red light indicates that the main network signal is insufficient, the blue light indicates that reception is correct. Here is an example of a repeater installation. Note that the left camera communicates with the NVR, while the right camera connects to the repeater



## 2 – TWO RKK REPEATERS

# INSTALLATION MANUAL

## RKK SERIES – RKK-EXT3 WIFI REPEATER



Page:6

To cover even large areas you can install up to 2 repeaters in your system. If you do this, remember that the two repeaters must be placed in opposite directions with respect to the NVR and never in the same direction. If you install the two repeaters on the same side in the NVR you risk that they connect to each other and your system would not work. It is not recommended to install more than two repeaters in a system.

See below an example of an installation with two repeaters.



# INSTALLATION MANUAL

## RKK SERIES – RKK-EXT3 WIFI REPEATER



Page:7





# Ignition sequence with repeater

If you use a repeater you must avoid that distant cameras, which must connect to the repeater, connect by mistake to the NVR, which has the same SSID. This could happen if the NVR network reaches, even if only weakly, the distant cameras.

To avoid this, you can respect this ignition sequence when you start up the system

- 1 - Turning on the repeater
- 2 - Switching on the remote cameras that need to connect to the repeater
- 3 - Turning on the NVR
- 4 - Turn on the nearby cameras that connect to the NVR





## **Connect the repeater purchased together with the RKK wifi kit**

If you bought the wifi repeater together with your wifi kit, you don't have to worry about any configuration, because it is delivered to you already paired with your NVR, ready to work. The cameras will automatically connect to the repeater if the NVR network is not available because it is too far away.

Insert the repeater halfway between the NVR and a camera too far away to allow reception. The repeater allows you to relaunch the wifi signal of the NVR to reach the farthest cameras.

If you bought the repeater with the kit, you can avoid studying the following chapters, which talk about setting up a repeater purchased separately.

# Set up a repeater not purchased with the kit.

If you didn't buy a repeater with the kit, don't worry. It is quite common to buy it later to solve problems of range due to unforeseen obstacles. In this case, before you can use the repeater, you must connect it to the wifi network of your NVR, following the instructions below.

Plug the repeater into a socket near the NVR. The front light comes on.

## 1 – SEARCH FOR THE REPEATER'S NETWORK

Search for wifi networks with your mobile phone and you will find the wifi network generated by the 2.4GHZ repeater as in this example with the name COM----



## 2 – CONNECT TO THE REPEATER'S NETWORK

Connect to the repeater's network. By default, no password is required.

If your mobile warns you that this network does not have Internet, choose to continue and

# INSTALLATION MANUAL

## RKK SERIES – RKK-EXT3 WIFI REPEATER



Page:11

keep the connection. Make sure you haven't activated functions on your phone that automatically leave wifi networks that don't allow access to the Internet. Check that the phone remains permanently connected to the new repeater network.

Don't worry if your mobile phone no longer has access to the Internet via wifi, at the end of the operations you can go back to your normal network.

This is what your device connected to the repeater's network looks like.



## 2 – ACCESS THE CONFIGURATION WITH THE BROWSER

To configure the repeater you do not need to download any app, just the Internet browser. Open your phone's Internet browser and enter in the address bar:

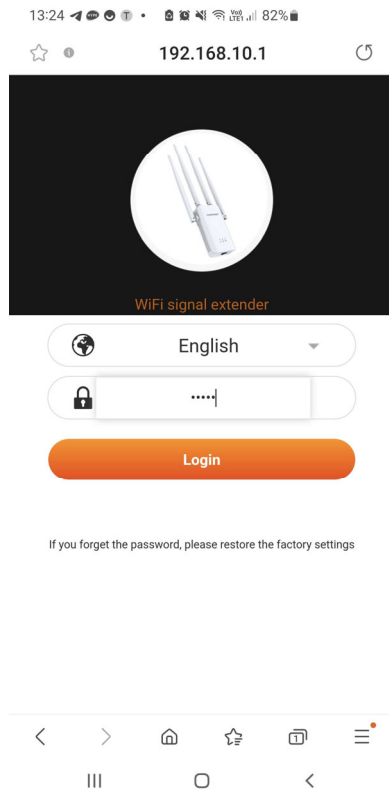
**192.168.10.1**, which is the factory IP address of the repeater.

# INSTALLATION MANUAL

## RKK SERIES – RKK-EXT3 WIFI REPEATER



Page:12



To access the device, choose the English language and then enter the factory password: **admin**

### FACTORY DEFAULT SETTINGS: IP:

**192.168.10.1**

**Password: admin**

### 3 - CONNECT THE REPEATER TO THE NVR NETWORK

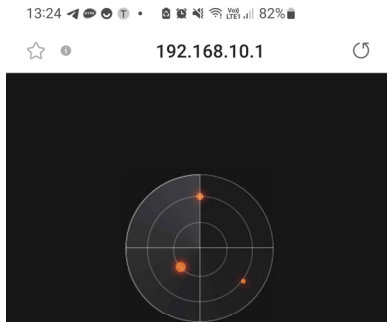
The repeater automatically searches for available wifi networks and will find that of the wifi NVR named HS-----

# INSTALLATION MANUAL

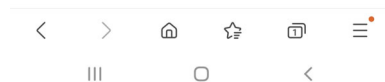
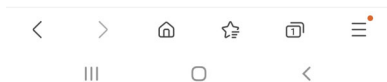
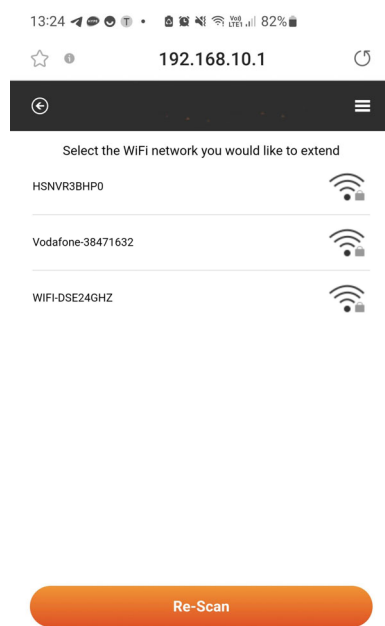
## RKK SERIES – RKK-EXT3 WIFI REPEATER



Page:13

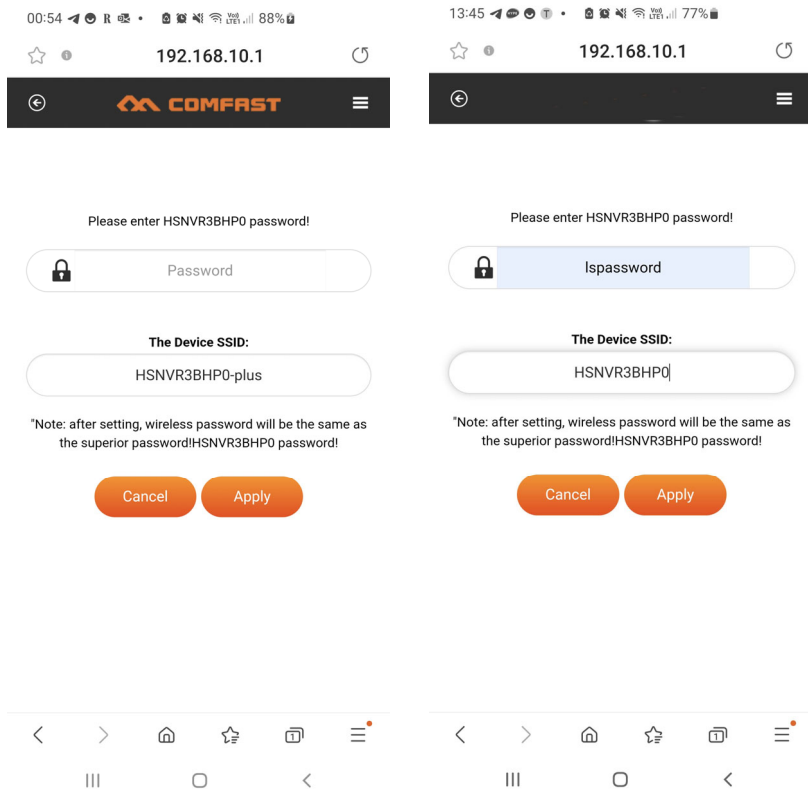


Scanning wireless signal  
Please Wait 7 seconds



Now it's time to connect the repeater to the NVR network. Touch the NVR network that starts with HS--- and do the following:

- enter the factory password "lspassword" (with the initial lowercase letter e).
- in THE DEVICE SSID box, delete the last "-plus" characters, which the system inserts automatically, so that the repeater's network name is exactly the same as that of the NVR.
- press APPLY to connect to the NVR. The repeater restarts.



It is very important to delete the final -plus characters in the SSID box to make sure that the repeater's SSID is the same as the NVR's original network. The cameras of our kits, in fact, search for the SSID of their NVR and must find the same SSID in the repeater in order to connect.

#### 4 – SET THE BRIDGE MODE

Now that the repeater is connected to the NVR network you need to set it in BRIDGE mode to prevent the repeater from creating its own subnet, with IPs different from those of the original network. This would not be good for your wifi setup. You must set the repeater in BRIDGE mode, so that it creates a network with the same address class as the main network, that of the NVR. Proceed as follows

- 1 - Turn off the NVR and leave only the repeater on. This is to be able to distinguish the repeater network from that of the NVR.
- 2 - Search the network of the repeater, which now has the network name of the NVR and connect by typing the password "Ispassword". In fact, the repeater network assumes the same password as the "mother" network of the NVR.

# INSTALLATION MANUAL

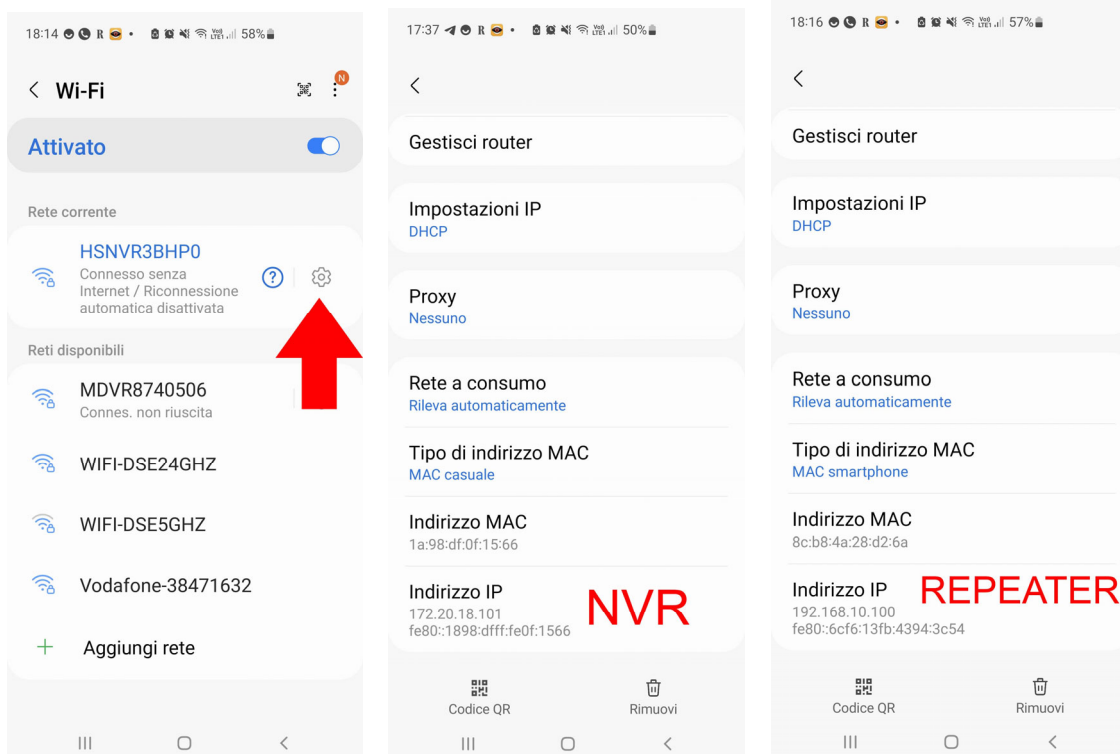
## RKK SERIES – RKK-EXT3 WIFI REPEATER



Page:15



3 - Check that you are connected to the wifi network of the repeater and not to the NVR. The two networks have the same name and if you have not turned off the NVR you may not distinguish them. To do this, touch the settings icon live on the wifi network and check the IP address your phone has



If the IP address is like 172.20.18 it means that you are connected to the NVR network and you will not be able

# INSTALLATION MANUAL

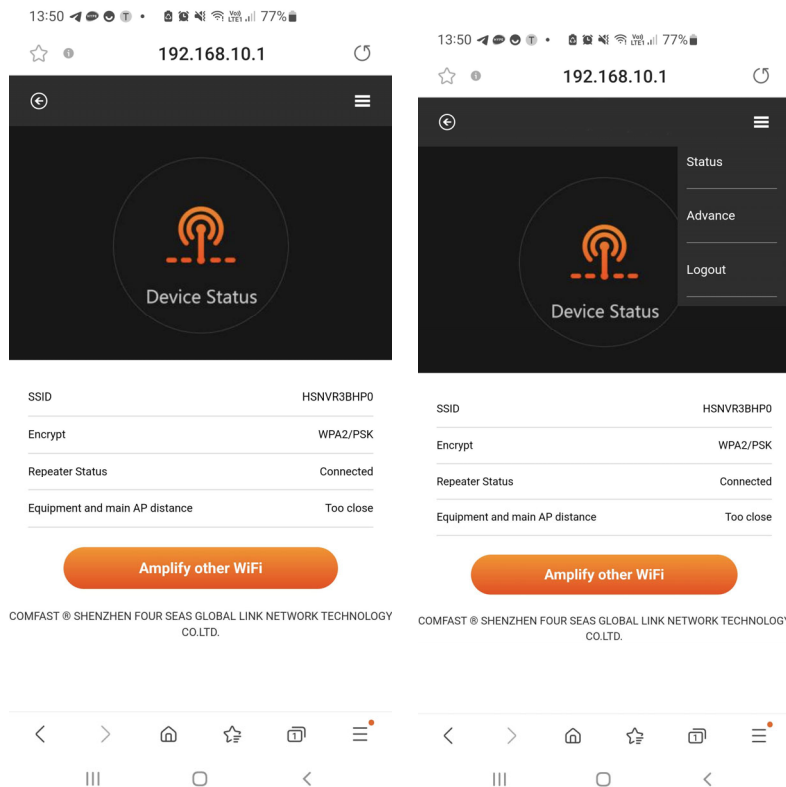
## RKK SERIES – RKK-EXT3 WIFI REPEATER



Page:16

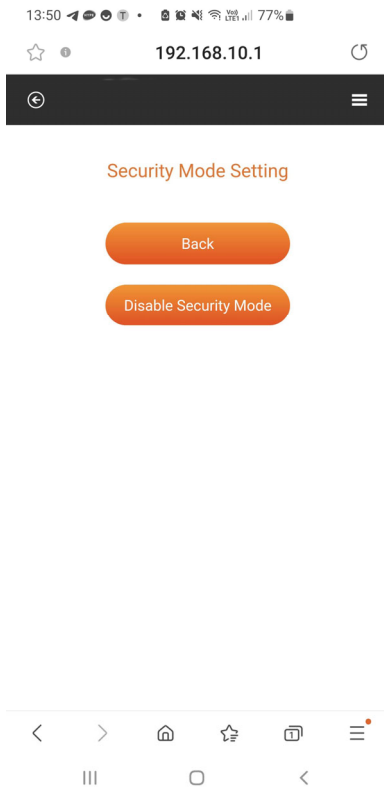
check the repeater. If instead you see an address of 192.168.10... then you are connected to the repeater and can continue

4 - Access the repeater configuration by connecting your browser to 192.168.10.1 5 - Click the menu at the top right and open the ADVANCE section



6 – Click DISABLE SECURITY MODE. This activates bridge mode. The repeater restarts.





### **FINISHED!**

Now the repeater has connected to the wifi network of the NVR and relaunches the signal.

The settings remain memorized even in the event of a power failure. You can now unplug the repeater from the socket and place it where it will really operate.

### **VERIFY**

To verify the correct configuration of the repeater, place it where it will operate, halfway between the NVR and the distant cameras. It must be within range of the NVR, with the wifi LED solid. Then go close to the distant cameras and connect to the HS--- wifi network. Since the NVR is far away, you will definitely connect to the repeater's network. Now check the IP address that your phone has assumed in the wifi network. If the repeater works correctly in bridge mode you will see an IP of the same class as the NVR 172.20.18...

# INSTALLATION MANUAL

## RKK SERIES – RKK-EXT3 WIFI REPEATER



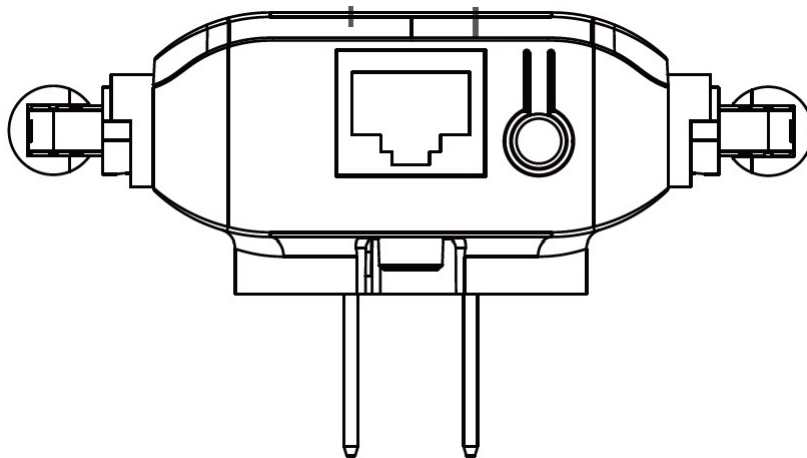
Page:18



## More features

### FACTORY RESET

To return to the factory parameters, with the repeater broadcasting its wifi networks, press and hold the front button for 8 seconds. After the reset, the repeater returns with the factory IP and, at the first access, it asks to set a new user password



### FRONT LEDS

POWER LED = indicates the device is working

SO = signals the wired network connection (usually off)

WIFI – Fixed access indicates wifi connection established, flashing indicates wifi anomaly

