



IP Tador Technologies Panel:

- Panel can light 5V button (Bypass button)
- Magnetic lock/electric lock supported
- The speaking panel is available in Hebrew/English/Arabic upon request in advance and according to the version.
- If the panel is connected without a router, is it mandatory (!) to define static IP addresses for the system.
- Before starting the installation, it is recommended to talk to the communication provider and make sure that there are no communication blockages!
(VOIP + SIP + Video)

- **Please note that in order for the installation to go smoothly and quickly, you must be equipped with the following items:**

1. Laptop

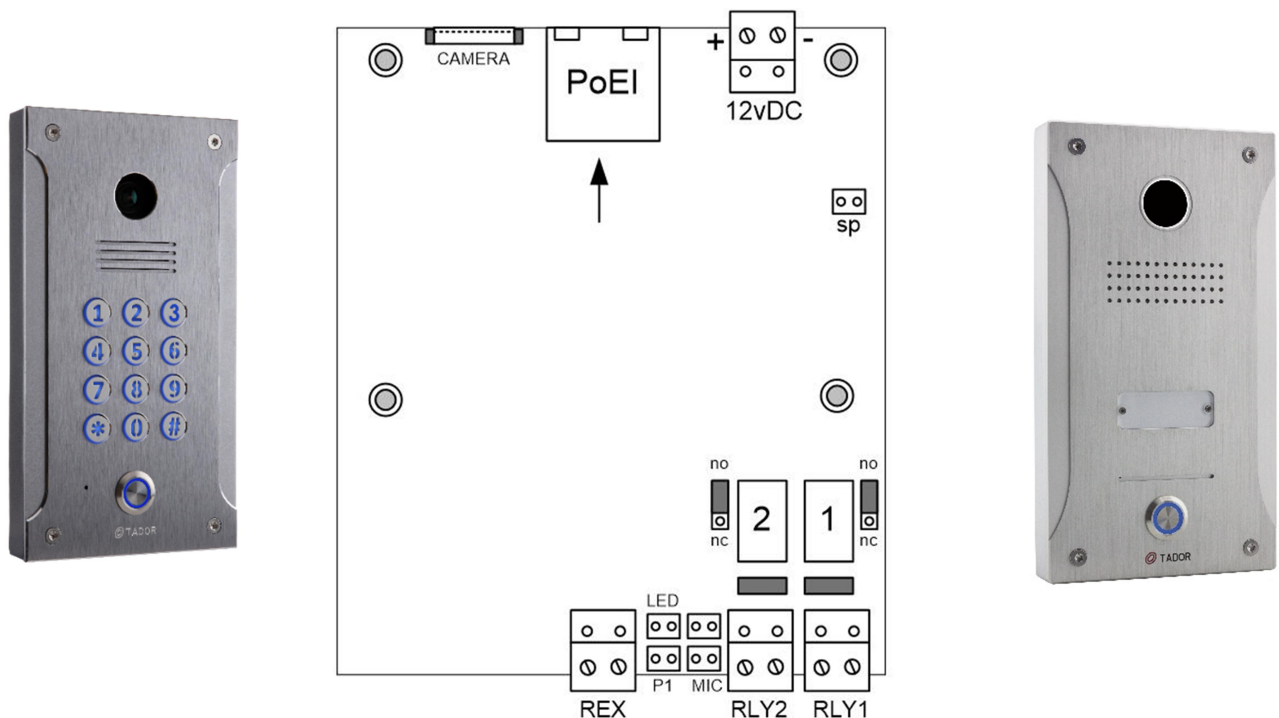
2. Please request the following details from the communications provider/network manager/switchboard manager:

IP address of the switchboard / IP PBX: _____

- An extension number that will be assigned to the IP panel: _____

- Password for the extension of the IP panel: _____

IP panel circuit diagram



Types of IP intercom installations - direct IP dialing without the need for an IP switchboard or router

- The panel will call dial directly to the IP address of an IP phone without a switchboard.
- The panel can dial up to 5 IP address simultaneously
- When dialing simultaneously video preview will not be available prior to call answering.
- If video preview will be set to on, only one monitor randomly will have the preview.
- The panel can be connected via a POE router/or via external electrical power
- **It is advised to set A static IP address to the panel and IP Phone**

Diagram of a direct dialing connection via a POE router - without an IP switchboard

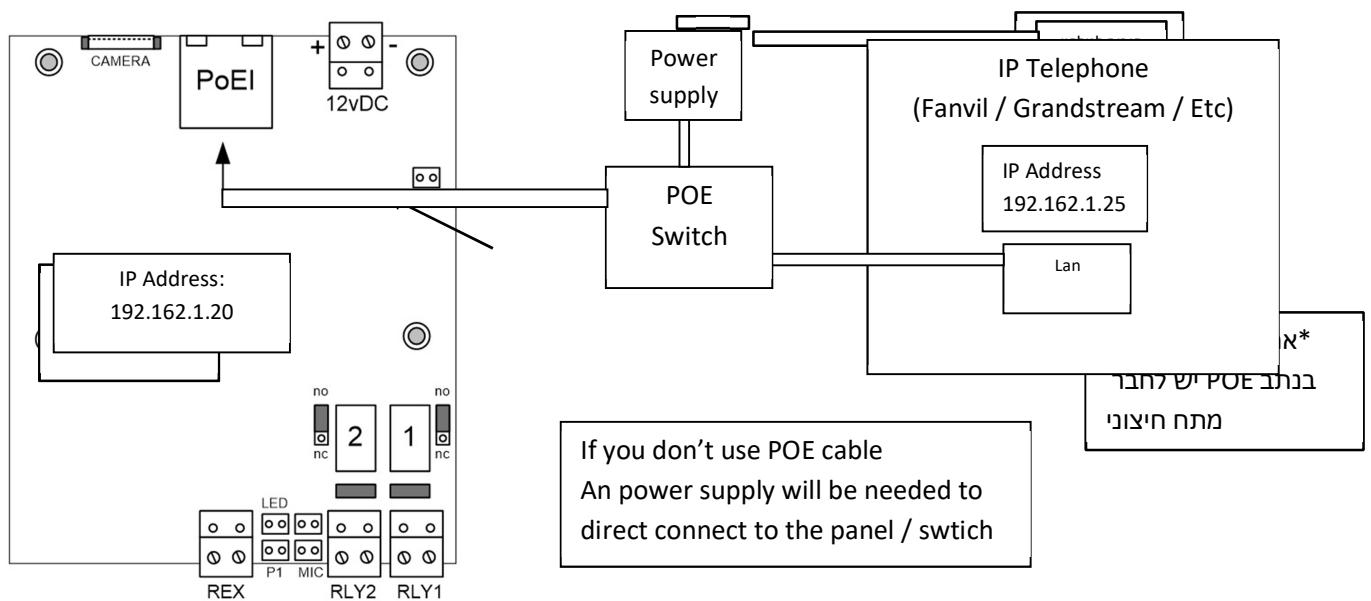
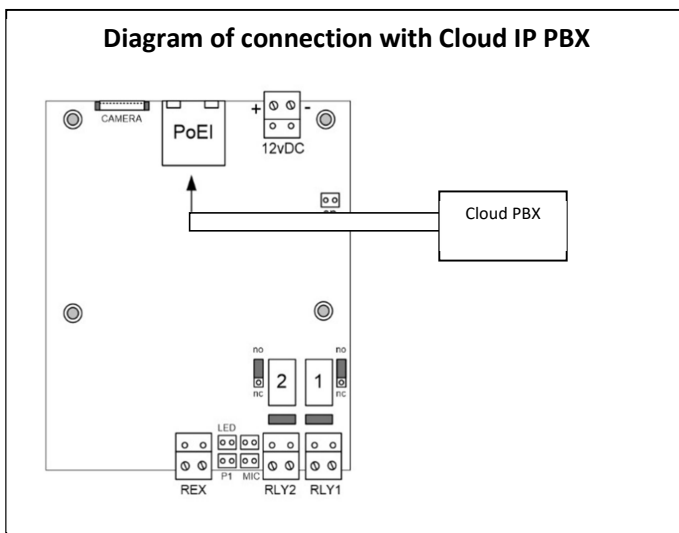


Diagram of connection with Cloud IP PBX



If you don't know the unit IP address it is possible to force the unit to read the address:

1. Disconnect the panel from the electricity
2. Push the calling button
3. Connect the unit to electricity

keep holding the bell/call button until the unit starts reading the address out loud in English

- Open FILEZILA/Chrome browser
- Connect to the circuit: 192.168.1.100:8085
User: admin
Password: 1234
- Please note that the port for connecting to the panel is 8085, the port mentioned above must be entered into every IP that the panel receives in order to connect

Basic settings of IP panel - Network

1. DHCP

When **ON**, the panel will receive an automatic IP address from the router to which it is connected

When **OFF**, the panel can be assigned a fixed static IP address

IP Address

if you want to give the panel a Static IP address

2. Play IP address

ON: The panel will read its IP address after turnin
Off: The panel will not read its IP address

3. Gateway IP

IP address of the router (gateway)

4. TFTP IP:

The panel can transmit all its information to a TFTP server or a virtual server on the computer in order to analyze and detect faults. Please consult before activation if necessary

Voip Bell server -

1. Ring

Dialing time of the panel to the switchboard/extension/telephone

2. Account 1 – Voip Bell

ON: when you want the panel to connect to the Tador server

Off: when you want the panel to connect to an IP extension
(local IP switchboard on the server)

3. SIP Port

This is the port to which the panel accesses the switchboard/server

* Please note that if the panel fails to register to the switchboard after 4 minutes, it will reset and try to register again

The screenshot shows the configuration interface for a Voip Bell server. On the left is a dark sidebar with a menu containing 'Basic', 'Syslog', 'Web Configuration', 'UDP Terminal', 'SIP', 'Audio RTP', 'Video RTP', 'Access Control', 'Audio', 'Door Phone', 'Relays', 'Actions', and 'Files'. The 'SIP' menu item is selected. At the top of the sidebar, a 'Save' button is highlighted with a red rectangle. The main configuration area is titled 'General Params' and contains several sections. Section 'Account 1 settings' includes 'SIP Port' (5060), 'Ring (wait for answering) time' (30), 'Account 1 - VoIP Bell' (ON), 'Register SIP PBX' (ON), and 'STUN required' (OFF). Section 'STUN Parameters' includes 'Extension' (70-b3-d5-5c-e1-8f), 'Password' (70-b3-d5-5c-e1-8f), 'Server Domain' (eu1.voipbell.net), 'Server Sub-Domain' (eu1.voipbell.net), 'Server Port' (5071), 'Registration expires time' (1800), 'Send OPTIONS to server' (OFF), 'OPTIONS frequency' (30), 'Registered' (OFF), 'STUN Server' (eu1.voipbell.net), 'STUN Port' (3478), 'Enable whitelist' (OFF), and 'IP 1' (empty). Numbered boxes 1 through 5 are placed next to the following fields: 1. Ring (wait for answering) time: 30. 2. Account 1 - VoIP Bell: ON. 4. STUN required: OFF. 5. Extension: 70-b3-d5-5c-e1-8f. 3. Server Port: 5071.

4. STUN required

Usually when it comes to a switchboard in the cloud, the STUN function should be activated, in some cases, it is not necessary

* In case it doesn't work with ON: STUN, it is recommended to check when it is set to the OFF mode

5. Extension

IP extension defined for the panel (the extension number will be defined by a communication provider/switchboard manager)

*** Request the extension number assigned to the panel**

Password

Password that was been defined to send the IP address of the panel (the password will be defined by a communication provider/switchboard manager)

Server Domain + Server Sub-Domain

On this page, we will register the switchboard address (the address will be provided by the communication provider/switchboard manager)

6. Server Port

This is the port that the panel accesses on the switchboard/server

7. Registered

When the panel registers to the IP switchboard, it will show ON, as long as the panel fails to register, it will show OFF

8. Enable whitelist

This function allows the panel to receive information only from specific IP addresses, any communication from other addresses will not be received

Preview function – Call Settings

In preview setting you can enable video preview before answering the door call , so once a visitor will dial the doorbell a video preview will appear before you answer the phone.

1. Early media : On

will enable preview

- **Note** : this function currently supports only one IP phone preview ,so if you have more than one IP Phone / Monitor connected in the system only one of the IP Phone will receive the preview video
- The phone that will pick up the call will automatically get the new video
- Function need to be validate before as there are many types of IP phones and monitors in the market and some has limitation
- We suggest you to use the distributor advised model.

Save

CALLS CONFIGURATION

☒ ON ☐ OFF Auto answer

60 Max call time

30 Ring (wait for answering) time

☐ ON ☒ OFF Early media 1

TONE

☐ ON ☒ OFF Vocal call progress

☐ ON ☒ OFF Play audios through DTMF

AUDIO CODEC

G711 uLaw PCMU Audio Codec

CALL WITH PREMABLES

Tone preamble Preambles

Defining the camera in the panel – VIDEO RTP

The system has two IP addresses, one address is for the panel and a second address is for the IP camera. This allows the camera to transmit the video to the NVR in addition to IP calls, meaning that the video of the camera can be transferred directly to the NVR and be watched through the camera on the screen.

In addition, the camera can be configured to transfer video calls to IP Phones that support video and video-supported cloud services.

Therefore, in order to set up the IP camera for Video calls the camera address must be defined for the panel.

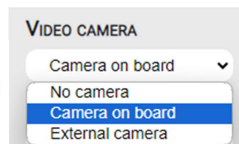
Go to "Video" page:

1. Video Camera settings

It is possible to use an external camera but such setting will require to contact the distributor to verify the external

Camera on board :

when use tador camera



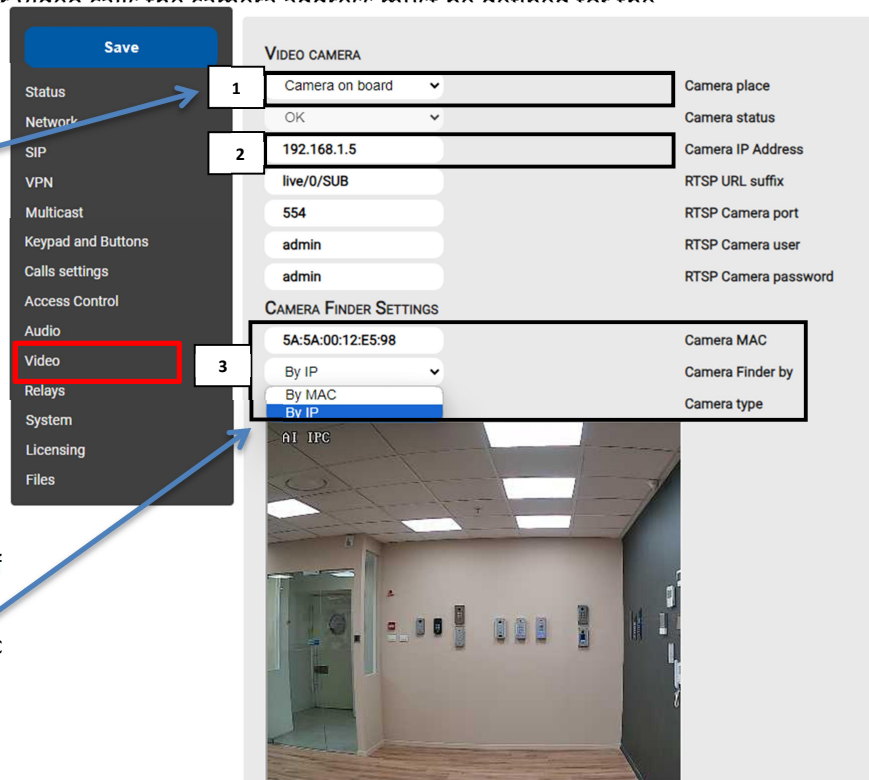
2. Camera IP address:

Here we will write down the IP address of the camera.

The panel will import the video and broadcast it in a video call when a call is made from the panel.

3. Camera finder by

this function will allow the panel to find the camera IP address from his MAC address.



Please Note, in order to receive optimal results, it is recommended to assign the camera a permanent IP address, and to type the camera IP address in the field marked "2"

Once we define a Search using an IP, you will have to input the IP address of the camera

The IP address of the camera can be found by searching for the camera on the network using the following software's:

- * **Advanced IP scanner:** Software that scans all IP addresses on the network
- * **SADP Tool :** Hikvision camera tracking software , **any other software that can search IP address**
- **The first dial will not always present a video because the panel draws settings from the camera, and therefore you must dial again**

Sound and speech codec settings - AUDIO

1. Change Speaker Volume
Volume setting of the speaker in the panel

2. Change Microphone Volume
Microphone audio volume setting
(When talking to the panel > hearing on the IP phone)

3. Mute Amplifier out call
ON: silent mode, keypad will not beep when pressing the keyboard
OFF: normal mode, will beep when pressing keys

4. Audio Codec
Most switchboards use a PCMU Codec. In case no speech is heard, please contact support and check what is supported by the switchboard that is connected to the panel

Setting up a dial button and bypass button - Keypad and buttons

1. There are two buttons in the panel
Each button can be assigned with an action which can be choosed :

- Dialing an IP address (XXX.XXX.XXX.XXX)
- Dialing an IP extension
- Opening relay 1 or relay 2

In the example:

Button 1 will dial to extension number / IP addr
Button 2 will open relay number 1

Button behavior: what the button will do

Call: will dial an IP address or extension

Rel temp act: will open a relay when pressed

Call destination: to which IP address or extension to call

Relay to activate: which relay will open when the button is pressed

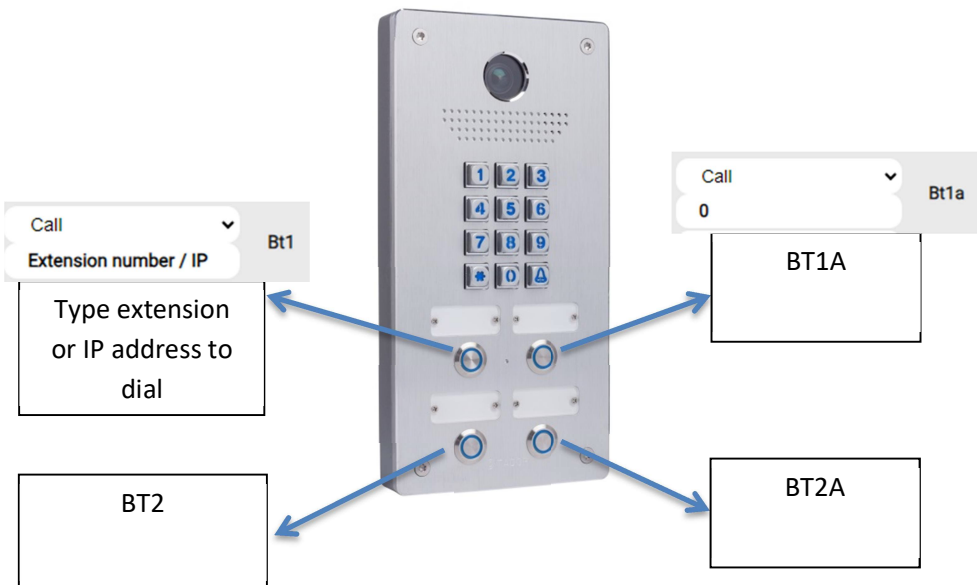
Programming 4 calling button panel

1. Programming 4 buttons to the panel:
2. Enable additional buttons : on (BT1)
Enable additional buttons : on (BT2)
3. Once additional buttons are programmed to be on
You can program each of the buttons calling destination

A. if dial to an extension number, write the extension number

B. if calling to a Direct IP address type the address

- After programming please check that each of the buttons is calling to the correct IP or extension number if not adjust accordingly



Setting the door opening key - RELAYS

Here we will choose what the panel will do once it hear the following DTMF

Temp Activate Rel 1 command

activate the relay for limited time

In the example :

After answering the Doorbell call if the telephone will pressed 31 the relay will be opened

Active Rel 1 time val

The amount of time that the relay will be open / activated

***In the example:** when pushing "31", a command will be given to open relay number 1 for 4 seconds

DTMF Code	Action
31	Temp Activate Rel 1 command
4	Active Rel 1 time val
41	Manual On Rel 1 command
51	Manual Off Rel 1 command
61	Alternate Rel 1 command
3	Alternate Rel 1 time val
71	Remote Relay command
32	Temp Activate Rel 2 command
4	Active Rel 2 time val
42	Manual On Rel 2 command
52	Manual Off Rel 2 command
62	Alternate Rel 2 command
3	Alternate Rel 2 time val

Manual on Rel 2 command

This setting allows the relay to remain open until a command is given to close the relay.

In the example: when 42 will be pressed, relay number 2 will open until 52 is pressed, then relay number 2 will close.

REL 1 : Refers to relay no. 1

REL 2 : Refers to relay no. 2

Setting the keyboard for direct dialing (each key will dial to a separate IP address or extension)

1. Select the “keypad and buttons” page
2. On this page you can choose:
Key calls exts/IP address
This means the keyboard keys will dial to the extension or IP address that is written

3. Call dest key 1

Refers to the destination that will be dialed after pressing on key number 1 the destination can be :

Direct IP call such as (10.0.0.100)

Extension (100)

For example if we write 10.0.0.100 on call dest key 1 when being pressed it will dial the address 10.0.0.100

If we write 100 it will dial to extension number 100 when key number 1 on the keyboard is pressed

Dialing simultaneously to several IP addresses (without an IP switchboard)

Several monitors / ip phones can be dialed simultaneously if chosen not to use an IP switchboard.

Please note that this function does not support all ip phones/ monitors and might require contacting your distributor to test this function.

1. Choose: Keypad and Button

General Params

In this column, we will register the beginning of the IP network address of the IP phones / monitors: 192.168.1.XXX

In the example, the panel will dial 3 monitors / IP Phones simultaneously.

The Monitors will be at following addresses:

Screen 1: 192.168.1.196

Screen 2: 192.168.1.176

Screen 3: 192.168.1.198

* Possible to dial up to 5 ip address together

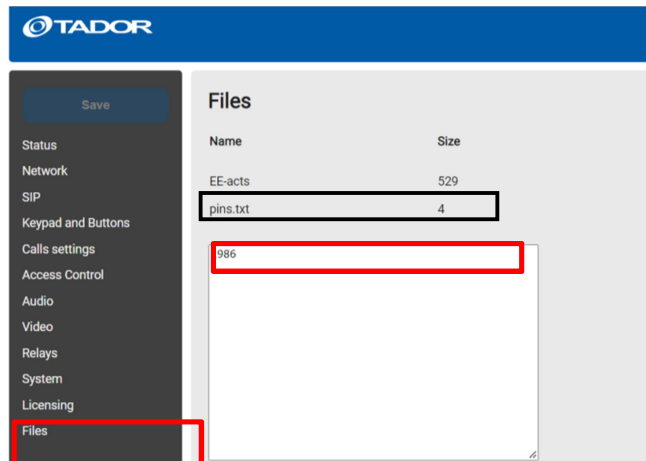
See following chart to explain:

Device		IP Phone 1	IP Phone 2	IP Phone 3
IP address of telephones		192.168.1.196	192.168.1.176	192.168.1.198
What will we type	Genera Prams	192.168.1		
What will we type	Button 1	&196	&176	&198
Result		When pressing the button it will dial all 3 ip phones simultaneously		

* Please note, each screen must be separated using the following sign: “|”

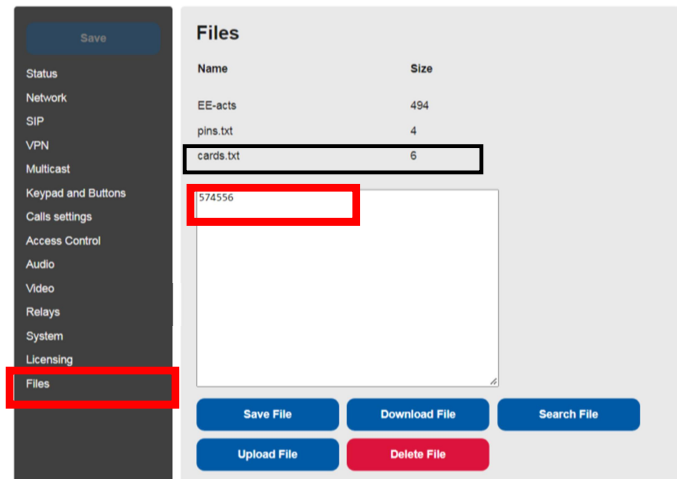
Setting up a access code (recommended)

1. Choose Files
2. Click on Pins.txt
3. A white window will open.
In this window, we will type the required access code to open the door
in the example: “1986” click Save and Rese
4. **Pin Digit qty :**
amount of number of keys that
the code will have
5. **Simple Access Code :**
Here you will type the access code that is
required to open the door
6. click Save
7. Reboot the unit to update the settings.



Setting up an rfid Tag :

1. Choose Files
2. Click on card.txt
3. A white window will open. In this window,
we will type the card number that you would
like the unit to open the door while it
presented to the rfid tag reader
in the example : 574556 is number of the tag
4. click Save
5. Reset the unit to update the settings.



Calling IP PBX Extension + Voipbell server together:

Using this programming, when the panel is dialed, it will initiate simultaneous dialing to both the Tador server and the IP PBX.

Refer to the following example if you need to configure a call to reach everyone:

100|&18|&19|345,2

General Params : This refers to the IP address that the panel will dial, with only the first three segments of the address being utilized

100 : will dial Tador mobile Server
(Voipbell server)

| : separator

&18 : dial IP address which ends with 18
(192.168.1.18)

| : separator

&19 : dial IP address which ends with 19
(192.168.1.19)

The screenshot shows the configuration interface. On the left, a sidebar menu has 'Keypad and Buttons' highlighted. The main area shows 'GENERAL PARAMS' with '192.168.1.' in the 'Net prefix (&) for IP calls' field. Below, 'BUTTON 1' is configured with 'Call' as the action and '100|&18|&19' as the code. 'BUTTON 2' is also configured with 'Rel. tmp. act' and 'Relay 1' as actions. At the bottom, 'KEYPAD' settings show 'Access PIN' as '3' and '*PIN - #HANG UP' as the action.

Setting up different code for each of the relays

Version and above : v0.1.6-52

4. It is possible to set a different code for each of the relay in the unit doing it by advanced programming :
5. Go to "Files"
6. Press on "pins.txt"

7. Type :
1111,1 -> this will make 1111 to be the opening code_for relay 1
"1111" = code
",1" = relay 1

2222,2 -> this will make 2222 to be the opening code for relay 2
",2" = relay 2

The screenshot shows the 'Files' management interface. A table lists files: 'EE-acts' (626), 'pins.txt' (14), and 'cards.txt' (1). The 'pins.txt' file is highlighted. Below the table, the content of 'pins.txt' is displayed as '1111,1' and '2222,2'. At the bottom, there are buttons for 'Save File', 'Download File', 'Upload File', and 'Delete File'. Below these are buttons for 'Audio Files (TFTP)' including 'Get Digits Audio Files', 'Get Call Audio Files', 'Get DTMF Audio Files', and 'Get API Audio Files'.

Setting up a smart IP monitor - setting up access to the IP camera without speaking

1. Connect to the screen management software:
XXX.XXX.XXX.XXX (192.168.1.111) For example
 2. User name: user
Password :1234
 3. Choose Menu:
 4. IPC (IPC This is the number of cameras we would like to define access to)
We will write:1
 5. Name of the camera: Camera 1
 6. IP address of the camera: URL
Here we will enter the IP address of the camera
Example:
rtsp://admin:admin@192.168.1.175:554/1/1
The following address will open a video channel with a camera with the following address:
192.168.1.175
- Please note that the following address will only fit Tador Technologies cameras, if you are using different cameras you should check if they work with Tador Technologies.
In some cases, a special adjustment will be required in order for it to support the camera



The screenshot shows a web interface titled "Streaming Media Solution" with a green header. On the left is a green sidebar menu with links: "Main", "IPC", "Logout", and several empty lines. The main content area is titled "IP Camera Settings" and contains the following fields:

- "Max:" with a dropdown menu showing "1".
- "Camera 1:" with a text input field containing "Camera 1".
- "URL:" with a text input field containing "rtsp://admin:admin@192.168.1.175:554/1/1".
- A "Submit" button at the bottom.

Setting up a smart IP screen - using up an Ackuvox monitor

1. Connect to the screen management software:
XXX.XXX.XXX.XXX (192.168.1.111) For example

2. User name: admin
Password: admin

3. In order to set an IP extension on the screen: (the above settings are with a Tador Technologies server)

Account active: is the account active and trying to register on the switchboard

User name: user name on switchboard number/extension

Password: Extension password/ user name

4. Setting up a video camera on the camera access button screen:

Choose: Phone

Choose: monitor

Column: Door Phone

Enter the following settings:

RTSP ADDRESS

Camera IP address

Device Name

Name of device/camera

Choose whichever name you wish

Write Submit + Edit at the end of the action

Index	Number	Name	URL	User Name	Display
1	camera	camera	http://192.168.1.45:80/onvif/device_service		Disabled
2					
3					
4					
5					
6					
7					
8					
9					
10					

Max length of characters for input box:
 255: Broadsoft Phonebook server address
 127: Remote Phonebook URL & AUTOP Manual Update Server URL
 63: The rest of input boxes
 Warning :
 Field Description :
 Submit

Device Number: camera, Device Name: camera, RTSP Address: http://192.168.1.45:80/onvif, User Name: , Password: *****
 Display in Call: Disabled

Submit, Cancel

Advanced settings - FILES - Keyboard settings for direct IP dialing (old versions only)

In certain cases, special settings are required, such as for a certain key to dial a specific IP address, for example, pressing the number “1” key will dial to the IP addresses: 192.168.1.111

These settings are made on the FILES page by defining the “EE-acts” file which is in the panel management system

We shall do it as follows:

1. Choose the Files page
2. Click on EE-acts
3. The following message will open in a white window:

In the red window, we can define to where each key in the keyboard will dial

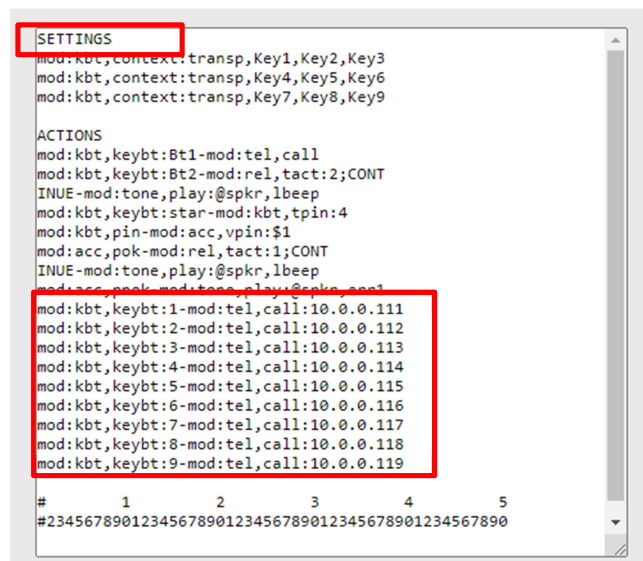
Mod:kbt,keybt:1-mod ->refers to key number 1

Call: 10.0.0.111 -> This line determines where the key will dial

For example:

Mod:kbt,keybt:1-mod:tel,call:10.0.0.111

When key 1 is pressed, it will dial to IP address: 10.0.0.111



```
SETTINGS
mod:kbt,context:transp,Key1,Key2,Key3
mod:kbt,context:transp,Key4,Key5,Key6
mod:kbt,context:transp,Key7,Key8,Key9

ACTIONS
mod:kbt,keybt:Bt1-mod:tel,call
mod:kbt,keybt:Bt2-mod:rel,tact:2;CONT
INUE-mod:tone,play:@spkr,lbeep
mod:kbt,keybt:star-mod:kbt,tpin:4
mod:kbt,pin-mod:acc,vpin:$1
mod:acc,pok-mod:rel,tact:1;CONT
INUE-mod:tone,play:@spkr,lbeep
mod:acc,pnok-mod:tone,play:@spkr,err1
mod:kbt,keybt:1-mod:tel,call:10.0.0.111
mod:kbt,keybt:2-mod:tel,call:10.0.0.112
mod:kbt,keybt:3-mod:tel,call:10.0.0.113
mod:kbt,keybt:4-mod:tel,call:10.0.0.114
mod:kbt,keybt:5-mod:tel,call:10.0.0.115
mod:kbt,keybt:6-mod:tel,call:10.0.0.116
mod:kbt,keybt:7-mod:tel,call:10.0.0.117
mod:kbt,keybt:8-mod:tel,call:10.0.0.118
mod:kbt,keybt:9-mod:tel,call:10.0.0.119

# 1 2 3 4 5
#234567890123456789012345678901234567890
```

4. In the following link you can download the settings file shown the image

Special settings - Files: Setting bypass button will open relay 1 or 2

(if it was defined that the keyboard will dial only directly or old versions prior to version 0.1.1-14)

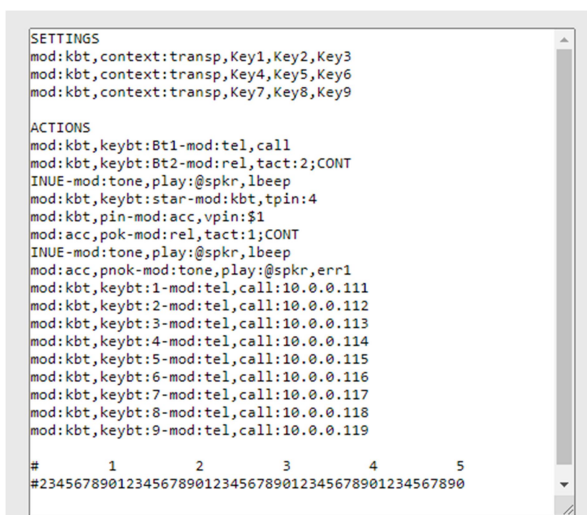
In the red window, you can define which relay the bypass button will open

Mod:kbt,keybt:Bt2-mod:rel,tact:2;CONT

This command indicates the bypass button to open relay number 2. See highlighted in red: the relay that will open

If we wish to change the bypass button to open relay number 1, we do it as follows:

Mod:kbt,keybt:Bt2-mod:rel,tact:1;CONT



```
SETTINGS
mod:kbt,context:transp,Key1,Key2,Key3
mod:kbt,context:transp,Key4,Key5,Key6
mod:kbt,context:transp,Key7,Key8,Key9

ACTIONS
mod:kbt,keybt:Bt1-mod:tel,call
mod:kbt,keybt:Bt2-mod:rel,tact:2;CONT
INUE-mod:tone,play:@spkr,lbeep
mod:kbt,keybt:star-mod:kbt,tpin:4
mod:kbt,pin-mod:acc,vpin:$1
mod:acc,pok-mod:rel,tact:1;CONT
INUE-mod:tone,play:@spkr,lbeep
mod:acc,pnok-mod:tone,play:@spkr,err1
mod:kbt,keybt:1-mod:tel,call:10.0.0.111
mod:kbt,keybt:2-mod:tel,call:10.0.0.112
mod:kbt,keybt:3-mod:tel,call:10.0.0.113
mod:kbt,keybt:4-mod:tel,call:10.0.0.114
mod:kbt,keybt:5-mod:tel,call:10.0.0.115
mod:kbt,keybt:6-mod:tel,call:10.0.0.116
mod:kbt,keybt:7-mod:tel,call:10.0.0.117
mod:kbt,keybt:8-mod:tel,call:10.0.0.118
mod:kbt,keybt:9-mod:tel,call:10.0.0.119

# 1 2 3 4 5
#234567890123456789012345678901234567890
```

Version update

1. Action page - version update

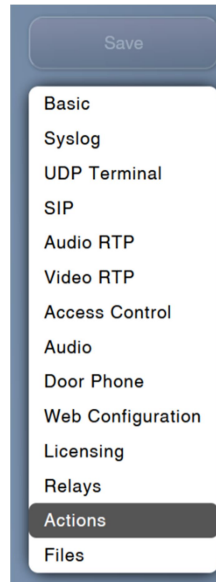
Choose Firmware upgrade

“Browse”

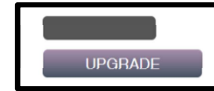
“Upload”

updated software File

Click “Upload”, wait for the
Version update



Firmware file (TFTP)



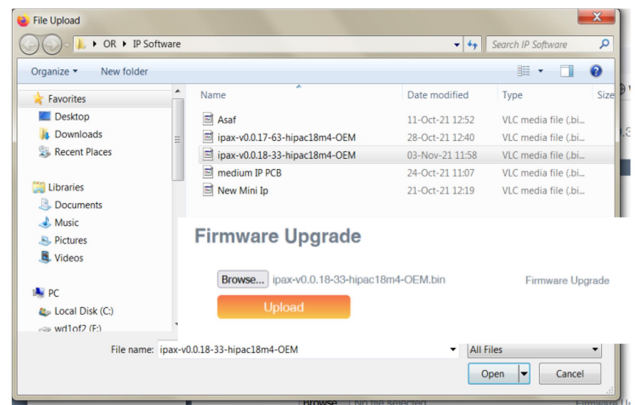
Click

Click

Select an

Click open

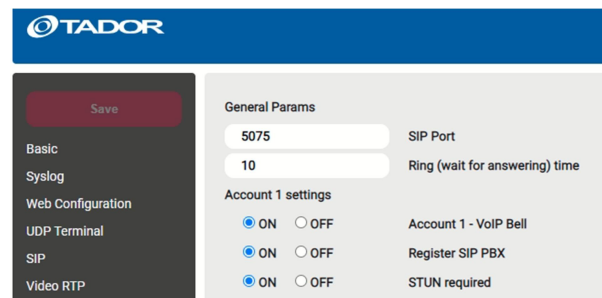
Firmware Upgrade



Compatibility with different routers

1. Open a Checkpoint port:

SIP Port: 5075



Questions and Answers

1. The panel resets every few minutes and reads its IP address:

- Fault: because the panel fails to connect to the switchboard, it resets and tries to reconnect
- Solution:
Connect to the panel,
Choose the column "SIP"
Account 1 - VoIP Bell: OFF
Register SIP PBX: OFF
The panel will stop trying to register, will not reset and will not reconnect.

2. The panel does not read an IP address during activation:

Solution:
Connect to the panel
Choose the column Basic
Define: Play IP Address: ON
The panel will start reading its IP address during activation

3. There is no sound when talking in the panel:

Solution:
Is the switchboard a cloud switchboard? If so:

- Connect to the IP address of the panel
- Choose "SIP"
- Define: ON: STUN required

If the problem is still not solved, please examine the following solution:

- Connect to the IP address of the switchboard
- Choose "AUDIO"
- Define: PCMAAudio Codec:

4. Currently does not support infrastructure, provider

Primo
099

5. If you can't find the panel in the network two solutions:

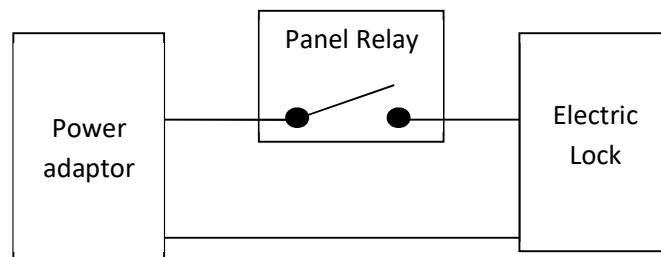
Solution 1 :

1. Turn off the panel electricity:
2. Press the rounded calling button long press
3. Connect the panel to the electricity
4. Keep the button pressed until the panel will read the IP address of the unit.

6. **Solution 2 :**

1. Turn off the panel electricity
2. Put three jumpers on the side of the panel
3. Connect the panel to the electricity
4. Panel should receive the following IP address: 192.168.1.100:8085
5. ***Please note that after connecting to the panel and configuring, the jumper must be removed
Otherwise, the panel will continue to receive the address "192.168.1.100"

7. *Electric lock connection drawing.*



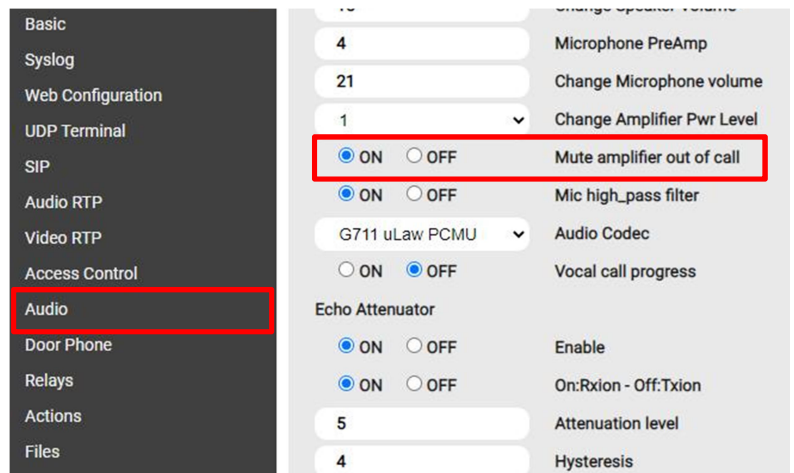
8. Cannot hear a beep when pressing the keyboard

Define:

Mute Amplifier out call

ON: silent mode, will not beep when pressing the keyboard

OFF: normal mode, will beep when pressing keys



9. Settings for switchboards:

Partner: Centrix Stun: OFF 172.22.22.4 Mic Polarity: White left side	Binat Stun: ON	Panasonic HTS switchboard: Example: Extension: phone-019 Server IP : 10.0.0.101 Server domain : 5.5.5.5 Check on switchboard: Domain for Sip Extension 5.5.5.5 Extension name: phone-019 Trunk – Sip Trunk property G.711MU None, None	IPECS LG switchboard 1. SIP Data 2. SIP Phone Attributes 3. Type extension number 4. Go to DTMF Type: 2833 (Column 23) SAVE. Save settings STUN: ON / OFF Check both ON and OFF
Check Point Opening port: 5075	Omnitelecom Stun: OFF		



KX-T918-SIP-2P



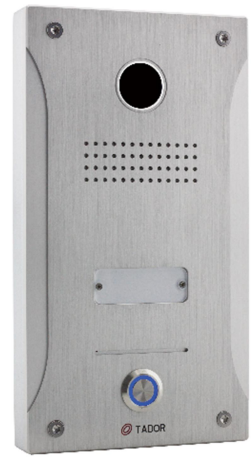
KX-T918-SIP-1P



KX-T927-SIP-2P



KX-T927-SIP-1P



Application for Cloud services
VOIPBELL

Thank you for purchasing our product, Tador Technologies Ltd.

www.tador.co.il / www.tador.com

Phone: 03-9226351 Fax: 03-9220461

Blue and White Made In Israel

All rights reserved to Tador Technologies Ltd.©