



# **Configuration and Application of Phone and Door Control**

Version: <1.1>

Release date: <2018-5-11>



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# 1 Introduction

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## 1.1 Overview

The door control system employs a two-way communication system. It allows users to open and close the door, and monitor the environment with cameras. The door control system includes two parts: indoor intercom and outdoor intercom. Fanvil intercom can be used outdoors and phones can be used indoors. Both intercoms and phones support audio or video calls through IP or SIP. Using two of them can control the door and monitor environment. On the same LAN, each intercom or phone can match multiple devices. That is, 1-to-1 or N-to-N communication through IP or SIP can be implemented. In this document, i31s series intercom and indoor phone C600 running the Android system are used as an example.

## 1.2 Applicable Models

This document applies to Fanvil indoor phones and intercoms.

## 2 Operation Description

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### 2.1 Basic Settings of Indoor Phone

C600 is a video phone of the Android series. It has a good human-machine interaction interface, featuring clear screen and simple operation. After being registered with the same SIP server as the door control device, C600 can perform two-way audio and one-way video communication with the door control device. It can perform point-to-point audio or video communication with the door control device on the same LAN even if there is no SIP server.

After configuration options are set, C600 can communicate with the door control device to control the door. Ensure that the following configurations are correct.

Configuration Item	Status	Description
SIP registration	Registered	SIP is successfully registered with the same SIP server as the door control device.
DTMF	Inband	The key value cannot be parsed and the door cannot be opened.
	RFC2833	The key value can be read and the door can be opened.
	Info	The key value can be read and the door can be opened.
	Auto	Negotiate the DTMF mode with the peer.
Audio code	All audio codes enabled	If an audio code is not supported, communication may fail. To solve this problem, enable all audio codes.
Video code	H.264	The video code of the phone is different from that of the door control device (H.264), so video communication failed.
Contacts	After a number is configured as contacts, the name will be displayed for the incoming calls.	If there are multiple door control devices, their locations can be included in the names to distinguish them.

**Note:** 1. When the SIP server is used, the server must support DTMF traversal, which ensures that the DTMF key value can be sent to the terminal.

2. The video server must support H.264 to ensure the correct transmission of media information.

## 2.1.1 SIP Registration

Enter the account information to start SIP registration. Ensure that the SIP account and corresponding door control SIP are registered with the same SIP server.

Web-based configuration: Choose **VOIP > SIP > Basic Settings**.

For example:

Server address: 192.168.3.207

Server port: 5060

User name: 2006

Password: \*\*\*\*\*

Telephone number: 2006

Displayed name: 2006

Select **Enable Registration** and submit the configuration.

The screenshot shows the Fanvil F600 web-based configuration interface. The top navigation bar includes 'SIP', 'STUN', and 'DIAL PLAN'. The left sidebar contains a menu with options: BASIC, NETWORK, VoIP (selected), PHONE, FUNCTION KEY, MAINTENANCE, SECURITY, and LOGOUT. The main content area is titled 'SIP Line' and shows 'SIP 1' selected. Under 'Basic Settings >>', the 'Status' is 'Registered'. The configuration fields are as follows:

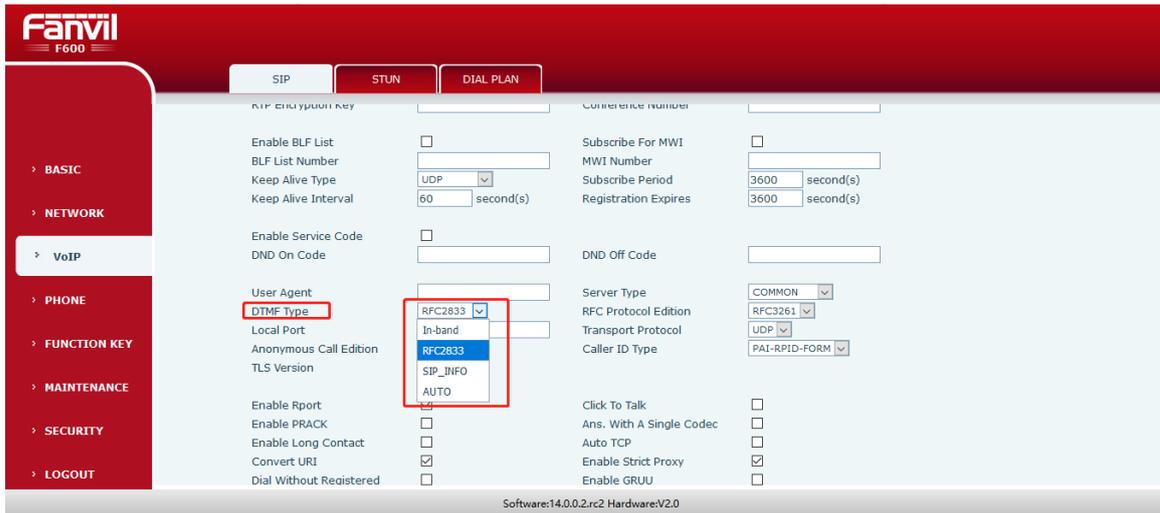
Status	Registered	Domain Realm	
Server Address	192.168.3.207	Proxy Server Address	
Server Port	5060	Proxy Server Port	
Authentication User	2006	Proxy User	
Authentication Password	*****	Proxy Password	
SIP User	2006	Backup Proxy Server Address	
Display Name	2006	Backup Proxy Server Port	5060
Enable Registration	<input checked="" type="checkbox"/>	Server Name	

Below the basic settings are sections for 'Audio Codecs >>', 'Video Codecs >>', and 'Advanced SIP Settings >>'. The footer indicates 'Software:14.0.0.2.rc2 Hardware:V2.0'.

## 2.1.2 DTMF Type

In the SIP advanced settings, check that the DTMF type is not inband. The key values of inband type cannot be parsed, so the password cannot be transmitted to the door control device. Therefore, the DTMF type of the phone connected to the door control device cannot be inband.

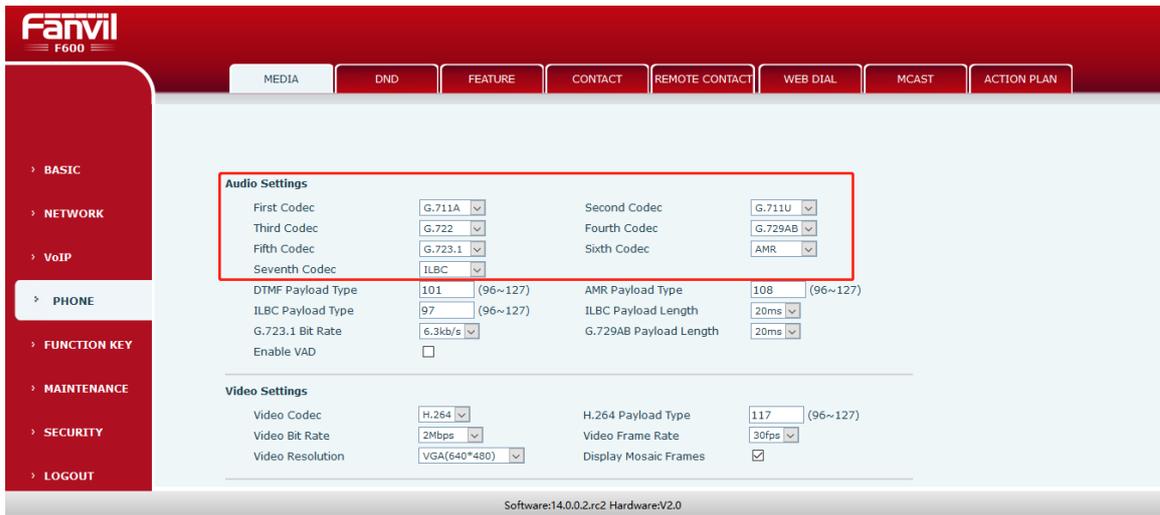
Web-based configuration: Choose **VOIP > SIP > Advanced Settings**.



### 2.1.3 Audio Code

The communication between devices must carry audio codes. The audio codes of the door control device can be configured. To ensure that the phone can communication with all door control devices in the LAN, enable all audio codes on the phone.

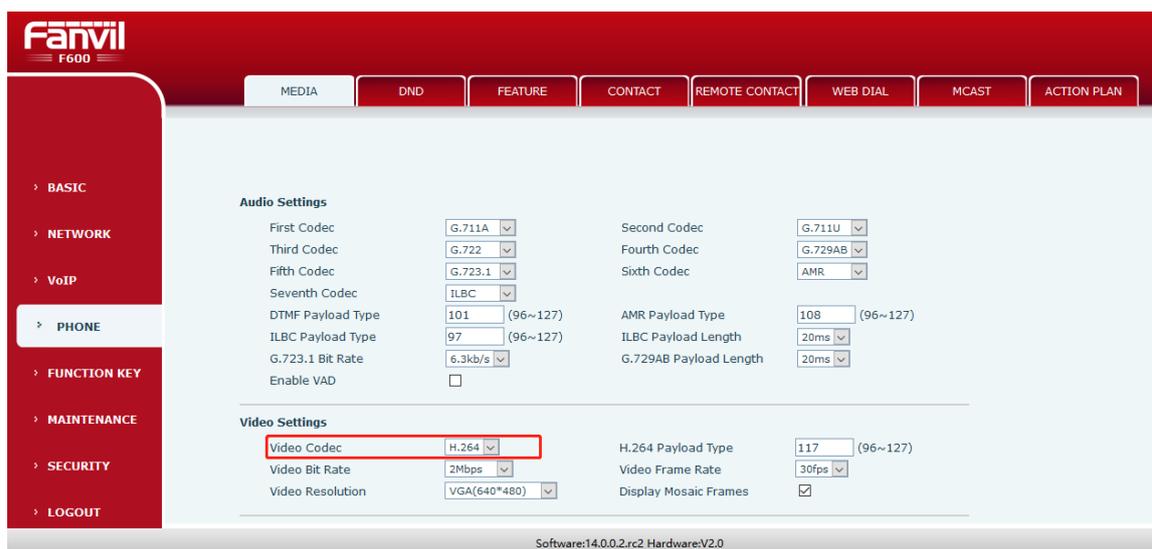
Web-based configuration: **PHONE > MEDIA > Audio Settings**.



### 2.1.4 Video Code

The door control device supports only the video codes of the H.264 type, so the phone must be configured with the same video codes as the door control device; otherwise, the video call will fail. Check that the video code type on the phone is H.264.

Web-based configuration: **PHONE > MEDIA > Video Settings**.



**Note:** In addition to the preceding configuration, you can configure intercom or multicast on C600 to communicate with the door control device. For details, see C600 configuration manuals.

## 2.2 Door Control Device i31s Configuration

i31s supports two-way audio communication and one-way video communication. It allows you to monitor the environment in the camera scope and see the visitors. When the visitor presses the doorbell, you can know that there is a visitor through the ringing tone of the video phone. After receiving the call, you can see the visitor through the video, talk to the visitor, and enter the remote password to open the door. i31s can work with phones to provide the door open and call functions.

The following are the configuration items of i31s for video phones:

Configuration Item	Status	Description
SIP registration	Registered	SIP is successfully registered with the same server as the phone.
Remote password	Customized	The password can contain only numerals and *.
App door open	Customized (disabled by default)	Enable door opening through app, and set the door opening password. Then when the phone calls the door control device, you can enter the password to open the door.
Access table	Enabled	The users in the access table can open the door only when the access table is enabled.
Remote code check length	Customized	Setting the remote code check length can avoid long waiting time.

Configuration Item	Status	Description
Number	It is the registered number of the indoor phone.	This number is the SIP account of the phone.
Access code	Customized	The door can be opened only when the correct access code is entered when the indoor phone calls the door control device.
Auto answer	Customized (enabled by default)	After this option is selected and the auto answer timeout is set, the call is answered within the timeout.

## 2.2.1 SIP Registration

Enter the account information to start SIP registration. Ensure that the SIP account and corresponding phone SIP are registered with the same SIP server.

Web-based configuration: Choose **VOIP > SIP > Basic Settings**.

For example:

Server address: 192.168.3.207

Server port: 5060

User name: 2008

Password: \*\*\*\*\*

Telephone number: 2008

Displayed name: 2008

Select **Enable Registration** and submit the configuration.

The screenshot displays the Fanvil i315 web-based configuration interface. The top navigation bar includes the Fanvil logo, a 'Keep Online' checkbox, language selection (English), a 'Logout' button, and a user profile '( admin )'. Below the navigation bar are buttons for 'Dial', 'Answer', and 'Hang Up'. The main content area is divided into a left sidebar with a tree view (System, Network, Line, EGS Setting, EGS Access, EGS Logs, Door Lock, Function Key, Alert) and a main configuration panel. The 'Line' section is selected, showing 'Line SIP 1' and 'Basic Settings >>'. The 'Line Status' is 'Registered'. The 'Basic Settings' section includes:
 

- Phone number: 2008
- Display name: 2008
- Authentication Name: 2008
- Authentication Password: \*\*\*\*\*
- Activate:
- SIP Proxy Server Address: 192.168.3.207
- SIP Proxy Server Port: 5060
- Backup Proxy Server Address: (empty)
- Backup Proxy Server Port: 5060
- Outbound proxy address: (empty)
- Outbound proxy port: (empty)
- Realm: (empty)

 Below the 'Basic Settings' are sections for 'Codecs Settings >>' and 'Advanced Settings >>'. An 'Apply' button is located at the bottom of the configuration panel. The footer indicates 'Current Software Version: 2.1.1.3486' and 'Fanvil Technology Co., Ltd. (C)2014 All Rights Reserved.'

## 2.2.2 Remote Password

The password can be customized (\* by default). When the door control device calls the phone, you need to enter this password after answering the call.

Web-based configuration: Choose **EGS Setting** > **Features** > **Common Settings**.

Note: The password can contain only numerals and \*.

The screenshot shows the Fanvil i31S web-based configuration interface. The left sidebar contains a navigation menu with options: System, Network, Line, EGS Setting (selected), EGS Access, EGS Logs, Door Lock, Function Key, and Alert. The main content area is titled 'Common Settings' and contains various configuration options. The 'Remote Password' field is highlighted with a red box. The 'Remote Password' field is currently set to a single asterisk (\*). Other visible settings include: Switch Mode (Monostable), Enable Card Reader (Enable), Card Reader HF Card Data Reverse (Disable), Limit Talk Duration (Enable), APP Door Open (Disable), Enable Indoor Open (Enable), Description (i31S IP Door Phone), Address of Open Log Server (0.0.0.0), Door Unlock Indication (Long Beeps), Switch-On Duration (5), Card Reader Working Mode (Normal), Talk Duration (120), Local password (\*\*\*\*), APP Password (\*), Enable Access Table (Enable), Open Log Server (Disable), Port of Open Log Server (514), and Remote Code Check Length (4). The 'Apply' button is located at the bottom of the settings area. The footer indicates the current software version is 2.1.1.3486 and is copyrighted by Fanvil Technology Co., Ltd. in 2014.

## 2.2.3 Access Table

Enable the access table (enabled by default). The phone accounts added to the access table are allowed to call the door control device. When the door control device answers the call and the password is entered on it, the door is opened. If the access table is disabled, the accounts in the access table cannot open the door.

Web-based configuration: Choose **EGS Setting** > **Features** > **Common Settings**.

The screenshot shows the Fanvil i31S web-based configuration interface, similar to the previous one. The left sidebar is the same. The main content area is titled 'Common Settings'. In this screenshot, the 'Enable Access Table' dropdown menu is highlighted with a red box and is set to 'Enable'. Other visible settings include: Switch Mode (Monostable), Enable Card Reader (Enable), Card Reader HF Card Data Reverse (Disable), Limit Talk Duration (Enable), Remote Password (\*), APP Door Open (Enable), Enable Indoor Open (Enable), Description (i31S IP Door Phone), Address of Open Log Server (0.0.0.0), Door Unlock Indication (Long Beeps), Switch-On Duration (5), Card Reader Working Mode (Normal), Talk Duration (120), Local password (\*\*\*\*), APP Password (\*), Open Log Server (Disable), Port of Open Log Server (514), and Remote Code Check Length (4). The 'Apply' button is located at the bottom of the settings area. The footer indicates the current software version is 2.1.1.3486 and is copyrighted by Fanvil Technology Co., Ltd. in 2014.

## 2.2.4 Remote Code Check Length

The remote code length can be customized (range: 1 to 11, default length: 4). After the length is set, when the code entered on the phone reaches the specified length, the password is sent to open the door, without waiting for timeout.

Web-based configuration: Choose **EGS Setting** > **Features** > **Common Settings**.

The screenshot shows the 'Common Settings' page in the Farvil i31S web interface. The 'Remote Code Check Length' field is highlighted with a red box and set to 4. Other settings include Switch Mode (Monostable), Switch-On Duration (5), Card Reader Working Mode (Normal), Limit Talk Duration (Enable), Talk Duration (120), Remote Password (masked), Local password (masked), APP Door Open (Enable), APP Password (masked), Enable Indoor Open (Enable), Enable Access Table (Enable), Description (i31S IP Door Phone), Open Log Server (Disable), Address of Open Log Server (0.0.0.0), Port of Open Log Server (514), and Door Unlock Indication (Long Beeps). The 'Apply' button is visible below the settings.

## 2.2.5 Number and Access Code

The number is the phone account, and the access code is used by the phone to call the door control device. When the door control device answers the call, the door can be opened by entering the access code.

Web-based configuration: Choose **EGS Access** > **Add Access Rule**.

The screenshot shows the 'Add Access Rule' page in the Farvil i31S web interface. The 'Number' and 'Access Code' fields are highlighted with red boxes. The 'Number' field contains 2006 and the 'Access Code' field contains 1234. Other settings include Name (fanvil), ID (0123456789), Location (1234), Fwd Number, Access Code (1234), Double Auth (Disable), Profile (None), and Type (Guest). The 'Add' and 'Modify' buttons are visible below the settings.

**Profile Setting**

Weekday	Statue	Start Time(00:00-23:59)	End Time(00:00-23:59)
Sunday	No	00:00	00:00
Monday	No	00:00	00:00
Tuesday	No	00:00	00:00
Wednesday	No	00:00	00:00
Thursday	No	00:00	00:00
Friday	No	00:00	00:00
Saturday	No	00:00	00:00

## 2.2.6 Auto Answer

After the auto answer function is enabled and the auto answer timeout is set, the call can be answered after timeout, without pressing any key. This function is applicable when visitors are not convenient to ring the doorbell. You can use the phone to actively call the door control device, and open the door by entering the access code or app door open password.

Web-based configuration: Choose **EGS Setting** > **Features** > **Basic Settings**.

The screenshot displays the Fanvil web-based configuration interface. The top navigation bar includes the Fanvil logo, a 'Keep Online' checkbox, a language dropdown set to 'English', a 'Logout' button, and a user name '( admin )'. Below this are buttons for 'Dial', 'Answer', and 'Hang Up'. The main interface is divided into a left sidebar and a main content area. The sidebar lists various configuration categories: System, Network, Line, EGS Setting (highlighted), EGS Access, EGS Logs, Door Lock, Function Key, and Alert. The main content area is titled 'Basic Settings >>' and contains a grid of configuration options. The 'Enable Auto Answer' option is highlighted with a red box. The 'Auto Answer Timeout' is set to 0 seconds. Other visible settings include 'Enable Auto Dial Out' (checked), 'Auto Dial Out Time' (5 seconds), 'Auto Hangup Timeout' (30 seconds), and 'Send length' (4).

Feature	Value
Remote Password	•
APP Door Open	Disable
Enable Indoor Open	Enable
Description	i31S IP Door Phone
Address of Open Log Server	0.0.0.0
Door Unlock Indication	Long Beeps
Local password	****
APP Password	*
Enable Access Table	Enable
Open Log Server	Disable
Port of Open Log Server	514
Remote Code Check Length	4 (1~11)

Setting	Value
Enable DND	<input type="checkbox"/>
Enable Intercom Mute	<input checked="" type="checkbox"/>
Enable Auto Dial Out	<input checked="" type="checkbox"/>
Enable Auto Answer	Lines and IP Call
No Answer Auto Hangup	<input type="checkbox"/>
Dial Fixed Length to Send	<input checked="" type="checkbox"/>
Dial Number Voice Play	Disable
Enable Delay Start	<input type="checkbox"/>
Voice Read IP	Enable
Ban Outgoing	<input type="checkbox"/>
Enable Intercom Ringing	<input checked="" type="checkbox"/>
Auto Dial Out Time	5 (3~30)Second(s)
Auto Answer Timeout	0 (0~60)Second(s)
Auto Hangup Timeout	30 (1~60)Second(s)
Send length	4
Voice Play Language	English
Delay Start Time	1 (1~180)Second(s)
Press "*" to Send	<input checked="" type="checkbox"/>