# **Quick Installation Guide**

☑ UC120☑ UC200

#### THANKS FOR CHOOSING DINSTAR'S IP PBX!

Please read this guide carefully before installing the device. If you need any technical support, please contact us. Tel: +86 755 61919966 Email: support@dinstar.com Web: www.dinstar.com

# 1 Product Models & Number of Ports

#### ▶ UC120/UC200

Ports Model	WAN	LAN	LTE	FXS	FXO
UC120-1V1S10	1	1	1	1	1
UC120-1V2S	1	1	1	2	NA
UC120-1V2O	1	1	1	NA	2
UC120-1S10	1	1	NA	1	1
UC120-2S	1	1	NA	2	NA
UC120-20	1	1	NA	NA	2
UC200-2S2O	1	1	NA	2	2

# 2 Description of Indicators

Indicators	Definition	Status	Description
DWD	Dowerladicator	ON	The device is switched on
PWR	Power indicator	OFF	The power is switched of f or there is no power supply
		Slow Flashing	The device is running properly
RUN	Running	Fast Flashing	The device is initializing
	Indicator	ON/OFF	The device is running improperly
		ON	FXS Port is in-use status
FXS	Telephone In-use Indicator	OFF	FXS port is faulty
		Slow Flashing	FXS port is in idle status
		ON	FXO Port is in-use status
FXO	FXO In-use Indicator	OFF	FXO port is faulty
		Slow Flashing	FXO port is in idle status
WAN/LAN	Notwork	Fast Flashing	The device is properly connected to network
	Network Link Indicator	OFF	The device is not connected to network or network connection is working in the improper way

	NetworkLink	Fast Flashing	The device is connected properly to network
GE	Indicator	OFF	The device is not connected to network or network connection is working in the improper way
	Network Speed	ON	Work at 1000Mbps speed
	Indicator	OFF	Network speed lower than 1000Mbps
		ON	Wi-Fi modular is faulty
Wi-Fi	Wi-Fi Enable/ Disable Indicator	OFF	Wi-Fi is disabled or faulty
		Fast Flashing	Wi-Fi is enabled
		Fast Flashing	SIM card is detected and registered to mobile network successfully. The indicator flashes every 2 seconds
SIM	LTE Indicator	Slow Flashing	The device cannot detect with LTE/GSM module, or LTE /GSM module is detected but SIM card is not detected; The indicator flashes every 4 seconds
RST	/	/	The port is used to restart device

Note: The above table does not contain all the indicator information. For more information, please refer to the user manual or contact technical support.

### 3 Indicators and Ports



### 4 Installation Attentions

- UC120 and UC200 are equipped with 12VDC power adapter, while UC350 accepts AC input voltage of 100-240V 50/60Hz. Please ensure safe and stable power supply.
- Please ensure there is enough network bandwidth to guarantee stabilized running of the device.
- To guarantee device works normally and to lengthen the service life of the device, the humidity of the equipment room where device is installed in temperature should be 0 °C~ 45 °C.
- To reduce the interference with telephone calls, it's highly recommended that telephone lines connected to the gateway should be placed away from power cables.
- Because of differences between product models, some parameters or supported ports may be different. Please contact technical support if they are not clearly stated or if they differ from the current parameters or ports.

### 5 Installation Instruction



UC120/UC200 supports router mode and bridge mode. The above figure shows the network connection in router mode. In router mode, the default IP of WAN port is DHCP, and the default IP of LAN port is 192.168.11.1. The above figure shows the network connection in bridge mode. In bridge mode, WAN and LAN port use the same IP address. The default IP address is 192.168.11.1.

Note: UC120 can also be connected through Wi-Fi. The default SSID of the device is "domain\_ [last 6 digits of MAC address] "without password.

• Antenna Installation (UC120)



Install Wi-Fi antenna (foldable antenna) and install LTE antenna (flat paddle antenna) on the rear panel.

 Insert SIM card to SIM slot (UC120-1V1S10 /UC120-1V2S/ UC120-1V2O)



Insert (with the chip facing downwards)

# 6 Modify PC's IP Address

To log in the Web Management System of the device, firstly, you need to modify the IP address of PC which is used to access the device and to make it at the same network segment with the device.

**()** On the PC, click 'Network (or Ethernet)  $\rightarrow$  Properties'.



#### Double-click 'Internet Protocol Version 4 (TCP/IPv4)'.

This connection uses the following items:

QoS Packet Scheduler	~
🗌 🛶 Microsoft Network Adapter Multiplexor Protocol	
Microsoft LLDP Protocol Driver	
🗹 斗 Link-Layer Topology Discovery Mapper I/O Driver	
Link-Layer Topology Discovery Responder	
Internet Protocol Version 6 (TCP/IPv6)	
Internet Protocol Version 4 (TCP/IPv4)	~
< >	
Install Uninstall Properties	



Select 'Use the following IP address', and then enter an available IP address '192.168.11.XXX' which is at the same network segment with '192 168 11 1'

Internet Protocol Version	4 (TCP/IPv4) Properties	х
General		
You can get IP settings assigned auto this capability. Otherwise, you need to for the appropriate IP settings. O Obtain an IP address automatica	matically if your network supports o ask your network administrator slly	
Our of the following IP address:		۱ ۲
IP address:	192 . 168 . 11 . 20	
Subnet mask:	255.255.255.0	
Default gateway:	192.168.11.1	

#### 7 Log in Web Management System

Open a web browser and enter the IP address of LAN port (the default IP is 192.168.11.1). You also can enter the IP address of WAN port, but it's required to modify the IP address of PC to make it at the same network segment with that of WAN port. Username: admin

Password: admin@123#

### 8 Check Network Status

Users can check network status on the "Status  $\rightarrow$  Overview" page. For LTE device, view the SIM card status and signal strength on the "status  $\rightarrow$ Overview" page, while for GSM devices, check the status on the "status  $\rightarrow$  PSTN" page.

System		Performance	
Device Model	UC120-1V1S10	CPU	3 / 100 (3%)
Device SN	D800-0520-1314-0001	Filesystem	13476 kB / 18240 kB (73%)
Hardware ID	4834-1308-2823	Memory	72484 KB / 212964 kB (34%)
Firmware Version	1.55.3.3 2023-03-14 15:38:51 CST +0800		
Local Time	26-05-2023 16:45:43		
Uptime	16 h 45 m 5 s		
Cloud Server	Disabled		
WAN Network		VoLTE Network	
MAC Address	F8-A0-3D-59-F7-1A	Module	READY
Туре	Static	SIM Card	SIM Not Inserted Detect
IP Address	172.19.211.110	Mode	Auto / Unknown / Unknown
Netmask	255.255.0.0	Carrier	UNKNOWN
Gateway	172.19.1.1	Signal	otti
Prefered DNS server	114.114.114.114	IP Address	0.0.0.0 Connect
Alternate DNS server	8.8.8.8	Prefered DNS server	0.0.0.0
RX / TX (Per Second)	1.98 KB (15 Pkts.) / 1.23 KB (4 Pkts.)	Alternate DNS server	
RX / TX (Total)	73.64 MB (711207 Pkts.) / 23.59 MB (85730 Pkts.)	RX / TX (Per Second)	0 Bytes (0 Pkts.) / 0 Bytes (0 Pkts.)
		RX / TX (Total)	0.00 B (0 Pkts.) / 0.00 B (0 Pkts.)
LAN Network		WIEL Network	
MAC Address	F8.40.3D.59.F7.19	MAC Address	F8-A0-3D-59-F7-18
Tune	Static	SSID	Training LIC120
ID Address	192 168 11 1	Channel	11
Netmask	255 255 255 0	Encountion	none
PX / TX /Per Second)	0 Rytae (0 Dite ) / 0 Rytae (0 Dite )	DX / TX /Per Second)	0 Rytes (0 Pirts ) / 0 Rytes (0 Pirts )
PX / TX (Total)	0.00 B (0 Pkts ) / 0.00 B (0 Pkts )	RY / TY (Total)	0.00 B (0 Pkts.) / 0.00 B (0 Pkts.)
(occorrectional)	0.00 D (0 F Ma.) F 0.00 D (0 FMB.)	(in the (interior	0.00 D (0 P ktd.) P 0.00 D (0 P ktd.)

# 9 Modify Network Configuration

Log into the device and click "Network  $\rightarrow$  Settings" at the top menu bar to configure IP addresses of network ports. Click "Save" and "reset" to make the settings take effect. After modification, you need to "apply" or click "Save" and "reset" to make the settings take effect.

Ne	twork / Setting		
Net	vork Model	Route ~	·
WAI	٧		
	Protocol	Static address 🗸	-
	IP Address	172.19.211.110	
	Netmask	255.255.0.0 ~	·
	Default Gateway	172.19.1.1	
	Prefered DNS server	114.114.114	
	Alternate DNS server	8.8.8.8	
	Disable Private Internets(RFC1918) DNS responses		
	Disable Private Internets(RFC1918) DNS responses		
	Disable Private Internets(RFC1918) DNS responses IP Address 2 Netmask 2	255 255 255 0 ✓	]
	Disable Private Internets(RFC1918) DNS responses IP Address 2 Netmask 2 MTU		
LAN	Disable Private Internets(RFC1918) DNS responses IP Address 2 Netmask 2 MTU	255.255.255.0 ~ 1500	-
LAN	Disable Private Internets(RFC1918) DNS responses IP Address 2 MTU IP Address	<ul> <li>255.255.255.0 ✓</li> <li>1500</li> <li>192.168.11.1</li> </ul>	
LAN	Disable Private Internets(RFC1918) DNS responses IP Address 2 MTU IP Address Netmask	<ul> <li>Z</li> <li>255.255.255.0 ✓</li> <li>1500</li> <li>192.168.11.1</li> <li>255.255.255.0 ✓</li> </ul>	
LAN	Disable Private Internets(RFC1918) DNS responses IP Address 2 MTU IP Address Netmask MTU	255 255 255 0 × 1500 192.168.11.1 255.255.255.0 × 1500	

Note: The default network mode of UC120 and UC200 is router mode, and it can be set to bridge mode. In router mode, the IP address of WAN port and LAN port should be in different network segments. The default IP address of WAN port is obtained by DHCP, while the default IP address of LAN port is 192.168.11.1. In bridge mode, WAN port and LAN port use the same IP address.

### 10 Modify Wi-Fi Settings

Wi-Fi is enabled by default. Go to "network  $\rightarrow$  WLAN" page to turn off the wireless or modify relevant parameters.

Network / WLAN	
SSID	Training_UC120
Channel	11 ~
Encryption	None 🗸
Status	Enable V
	Cancel Save Reset

The default SSID of the device is "domain"\_[last six digits of MAC address]". Except default SSID, users can create 3 more SSIDs. After modifying the WLAN parameters, you need to click "apply" to make the settings take effect.

## 11 Create SIP Extensions

Click "Extension  $\rightarrow$  SIP" to create the SIP extension. UC Series devices support batch add or import account files.

When add the extension, the profile should choose the corresponding one. After setting, you need to click "apply" to make the settings take effect. The registration status of SIP extension and SIP trunk can be checked on the "Status  $\rightarrow$  SIP" page.

If the status of the SIP account is "unregistered", it means that the device rejects to register the extension. If the status of a newly added SIP account is "registered", it means that the device accepts the registration of the extension.

Note: The number of SIP registered users is different for different models. Please visit the website or contact technical support to get more details.

Extension / S	SIP / New		
SIP Extension	SIP Phone		
Index		21	~
Name			
Extension			
Password		•••••	ø
Classification Tag			

# 12 Trunk Configuration

#### ► Configure SIP Trunk

SIP trunks are used to connect third party IPPBX or service providers. When add a SIP trunk, you should choose corresponding SIP profile based on your current network. The SIP trunk supports UDP/TCP/TLS.

Also, SIP trunk status can be checked under Status  $\rightarrow$  SIP page.

Trunk / SIP / New		
Index	4	~
Name		
Address		
Port		
Outbound Proxy		
Port		
Transport	UDP	~

#### Configure FXO

You can also create Trunk/FXO. It is an alternative to support calls through or from PSTN.

Trunk / FXO			
FXO Automatch Impe	dance Busytone Learning	I	
Trunk / FXO / Nev	w		
Slot		0	~
Port		1	~
Number			
Autodial Number			
AutoCLIP Profile		Off	~
Work Mode		Voice	~
Voice Output Mod		Telephone	~
Gain Configure Mode		General Settings	~

#### Configure E1/T1

Users can set up ISDN PRI/SS7/R2 connections via digital E1/T1 ports. Please be sure the E1/T1 physical connection is well connected, and PRI status is up and active before configuring the call routing.

Trunk / E1/T1		
E1/T1 Trunk E1/T1 Param		
Trunk / E1/T1 / New		
Slot	2	~
Туре	PRI	~
PRI Trunk		
Protocol	ISDN	~
Switch Side	User Side	~
Alerting Indication	ALERTING	~

#### 13 Configure Outbound / Inbound Rule

On the "Call Control  $\rightarrow$  Route" interface, you can configure routes for incoming calls and outgoing calls. For the outbound route rule, destination can be FXO trunk, GSM trunk and SIP trunk; For the inbound route rule, the destination can be SIP extension, FXS extension, local extension, ring group or IVR.

Call Control / Route / New		
Priority	299	~
Name		
e dute		
Condition		
Source	SIP Trunk / 1	~
Number Profile	Off	~
Caller Number Prefix		
Called Number Prefix		
Time Profile	Any	~
Action		
Callback		
Distinctive Ringtone(Alert-Info)	None	~
Manipulation	Off	~
Destination	SIP Trunk / 1	~

# 14 Basic Operation

- Dial \*158# to query the IP address of LAN port of the device ;
- Dial \*159# to query the IP address of WAN port of the device ;
- Dial \*114# to query the telephone number of a FXS port;
- Restart the device:

1 Dial \*111# to restart the device.

Olick "system->Reboot" menu to perform reboot.

RST button:

• Under normal running status, press RST button 3 to 6 seconds will restore default username/password, and network mode will be changed to route mode as well. Other configurations will keep the same.

② Under normal running status, press RST button 6 to 12 seconds, the device will restore factory default and reboot automatically.

• When the device is power off, press RST button more than 30 seconds after it power on, the device will clear all the configurations and restore to minisystem management.

Note: For UC350, please dial \*158# to query the IP address of GE0 port of the device is only available for FXO/FXS user boards. If your user board is E1/T1 boards, it has to query the IP address from CONSOLE.

# 15 More Details

This document only provides instructions for quick installation and basic configuration.

For detailed configuration and Parameter explanation, Please refer to User Manual or ask for technical support.

## **IP COMMUNICATION SOLUTIONS**

Shenzhen Dinstar Co., Ltd. Web: www.dinstar.com

