

User Manual of NC-AP233(P)/NC-AP231





Thank you for purchasing NC-Link In-Wall Access Point. This manual will instruct you how to configure and the AP, enable you to use it in a perfect status. Please check the Package before use it.

Package Contents

Item	Description	Unit	QTY
1	Access Point	PCS	1
2	Mounting Accessory	Set	1
3	Quick Installation Guide	PC	1

1. Manual Instruction

This manual is subject to tell users how to use this Wireless Access Point properly. Contents include description of this platform's properties, and how to configure this platform. Pre-reading this manual before operation is highly recommended.

1.1 Target Reader

This manual is for those familiar with basic networking knowledge and terminology

2. Product Introduction

NC-AP233P/NC-AP233/NC-AP231 are highly performance In-Wall Access Point with internal antennas, complied with IEEE 802.11n/g/b. They can support up to 10-15 clients, suitable for hotel guest room and small meeting room etc. NC-AP224 is 300Mbps @2.4GHz

2.1 Product Layout 2.1.1 Interface



Reset: Press the Reset button about 15 seconds, then release to resetLAN: Then LAN port is used for bridgingUSB Charger: The USB Charger can provide 5V/1A output charge



Power Button: To power **ON/OFF** of the device The default IP address is **192.168.188.253** Default user name & password are **admin**

RJ45 Connector

NC-AP233P with 1 x 10/100Mbps auto-negotiation RJ45 LAN Port NC-AP233 with 1 x 10/100Mbps auto-negotiation RJ45 LAN Port NC-AP231 with 1 x 10/100Mbps auto-negotiation RJ45 LAN Port



WAN: The WAN port is used to connect to the power and Internet NC-AP233P with $1 \times 10/100$ Mbps auto-negotiation RJ45 WAN Port NC-AP233 with $1 \times 10/100$ Mbps auto-negotiation RJ45 WAN Port NC-AP231 with $1 \times 10/100$ Mbps auto-negotiation RJ45 WAN Port

3. Login

Connect your PC to the In-Wall Access Point's **LAN Port**, then login Web Management Page with default IP Address: <u>http://192.168.188.253</u> Default username & password: **admin**. Below base on **Chrome** browser. Note:

Before login the Web Management Page, configure your PC with a fixed IP address, 192.168.188.X (X between 2 to 252) since default mode is AP Mode.

Login Steps:

Open Chrome browser, input http://192.168.188.253 in the address bar to login Access Point



Input the default user name & password: admin, then click "Log In"

Authenticatio	n Required	×
http://192.168.18 password.	8.253 requires a username and	
Your connection	to this site is not private.	
User Name:		
Password:		

After login, you can see below Web page.

NC-LIN	300M Wireless AP/Router
Quick Setup Image: Quick Se	
Wireless Repeater	Operation Mode:AP Mode
🛜 Wireless Coverage	LAN IP192.168.188.253 MAC78:D3:8D:ED:05:6C
System Tools	Location Information
Advanced Settings	Device Name Wireless Configuration
CPU Frequency:600MHz System Memory:256M CPU Usage:7% Memory Usage:60%	Wireless StatusEnable Client List Client Number 0 SSIDNC-LINK_Wireless AuthenticationWPAPSK/WPA2PSK-AES Channel7
Software Version: NC-AP233-2T2	R-V1.4-B20160701145517 Hardware Version: V1.0.0 System uptime: 0Day 0:5:54

Default operating mode is **AP Mode**.





4. Repeater Mode Configuration

a) In Wireless Repeater, click "Scan AP"

Quick Setup	
Device Status	
Internet Settings	
🚓 Wireless Repeater	Wireless Repeater(Basic structure of the network graph)
	Connection Setting
The Wireless Coverage	Connection Setting 7[2.442GHz] 🔻 Scan AP
Sustan Taola	Authentication Open System 🔻
System tools	Encryption 🔍 None 🔍 WEP64 🔍 WEP128 🔍 TKIP 🔍 AES
Advanced Settings	Wireless
	SSID NC-LINK_Wireless
	Regional ETSI V Channel 7 [2.442 GHz] V Intelligent Analysis
CPU Frequency:600MHz	Authentication WPAPSK/WPA2PSK •
System Memory:256M	Encryption 🔍 None 🔍 WEP64 🔍 WEP128 🔍 TKIP 🔍 AES 🔍
CPU Usage:12%	Key nclink66666666
Memory Herene 600/	Apply
Memory Usage.58%	

b) Select the AP signal you want to repeat







c) Fill in the Password of the repeated signal and set AP's wireless parameters.



d) Click "Apply" to complete the configuration







e) Configuration completed, device will reboot



- 5. AP Mode Configuration
- a) Select "Wireless Coverage"





b) Set the parameter SSID, Authentication and Password



c) Click " $\ensuremath{\text{Apply}}''$ then click " $\ensuremath{\text{OK}}''$ to complete setting

Quick Setup	Prevent this page from creating additional dialogs. English
Device Status	OK Cancel
Internet Settings	
🧩 Wireless Repeater	Wireless Coverage(Basic structure of the network graph)
🛜 Wireless Coverage	Location Information
System Tools	Device Name Wireless
Advanced Settings	SSID NC-LINK_Wireless
	Authentication WPAPSKWPA2PSK V
CPU Frequency:600MHz	Encryption None • WEP64 • WEP128 • TKIP • AES •
System Memory:256M	KIP/AES Key Inclink666
CPU Usage:8%	Apply
Memory Usage:57%	
PAGE NOT A PAGE PAGE PAGE PAGE PAGE PAGE PAGE PA	





d) Configuration completed, device will reboot



- 6. Gateway Mode Configuration Dynamic IP
 - a) Click "Internet Setting"



b) If Internet to LAN Port is **Dynamic IP**, only need to fill in the wireless parameters. Like **SSID**, **Authentication**, **Password**



NC-LİNK	300M Wireless AP/Router
Quick Setup	
Device Status	(🖸) h. (📇) (🌐)
Internet Settings	
Wireless Repeater	Internet Settings(Basic structure of the network graph)
	WAN Setting
🛜 Wireless Coverage	WAN Setting Dynamic IP 🔻
System Tools	PPPOE(ADSL)
Advanced Settings	Wireless
	SSID NC-LINK_Wireless
CPU Frequency:600MHz	Regional ETSI 🔻 Channel 7 [2.442 GHz] 🔻 Intelligent Analysis
System Memory:256M	Authentication WPAPSK/WPA2PSK 🔻
CPU Usage:7%	Encryption None 🔍 WEP64 🔍 WEP128 🌑 TKIP 🔍 AES 🔍
	TKIP/AES

c) Then "**Apply**" and click "**OK**" to complete the configuration.







d) Configuration completed, the device will reboot

NC-LINK	300M Wireless AP/Router
	System is rebooting,please wait

7. Advanced

7.1 Status

7.1.1 Basic info

Quick Setup	Status Opera	tion Mode Wireless Network Management	🕐 Help
Basic Info	WiFi Status LAN]	English
asic Info			





7.1.2 Wi-Fi Status

Quick Setup	Status	Operation Mode	Wireless	Network	Managemer	ıt	🕐 Help
Basic Info	WiFi Status	LAN					English
Vireless Confi	guration						
		ireless StatusOpen					
		SSIDNC-LI					
			SK/WPA2PSK				
			t All				
		ireless Client Clien	t List				

7.1.3 LAN Status

Quick Setup	Status	Operation	n Mode	Wireless	Network	Management	🔞 Help
Basic Info	WiFi Status	LAN					English
N Configurati	on						





7.2 Wireless

7.2.1 Basic Settings

Quick Setup Status	Operation Mode	Wireless Netw	ork Management		🕐 Help
Basic Settings Virtual Al	P VLAN Settings	Access Control	Advanced Settings		English v
lasic Setting					
Statu	S O Fnable	• Di	sable		
	NC-LINK_Wireless		Mode <mark>B,G,N</mark> ▼		
	I ETSI 🔻		Channel 7 [2.442 GHz]	Intelligent Analysis	
	• • Enable	• Di	sable		
	O Enable	Di	sable		
	WPAPSK/WPA2PSI	K 🔻			
	None WEP6	54 🔍 WEP128 🔍 T	KIP 🔍 AES 🔍 TKIP/AE	S	
	y 66666666				

- Status: ON/OFF the 2.4GHz wireless
- SSID: Set the SSID
- Mode: Set the operating mode
- Regional: Set the Country or Region
- Channel: Set the Channel of the wireless signal
- Intelligent Analyzer: Analyze the wireless signal around help to choose a better channel to avoid interference
- Broadcast: Enable or Disable broadcast SSID
- WMM: Enable or Disable WMM function
- Authentication: Set the authentication method
- Encryption: Choose the encryption type or open
- Key: Set the key/password of your Wi-Fi



7.2.2 Virtual AP

/~							
Quick Setup S	tatus Operation M	ode Wire	ess Netw	ork Managemen	t		🕐 Help
Basic Settings	Virtual AP VLAN S	ettings Ac	cess Control	Advanced Setting	5	Engli	sh 🔻
Virtual AP							
		• Enable	Disable				
	SSID	WLAN1					
		• Enable	Disable				
		Enable	Disable				
	Authentication	WPAPSK/WPA	2PSK V				
		None	WEP64 🔍 WI	ep128 🔍 tkip 🔍 a	es 🔍 tkip/ai	ES	
	Key						
							Apply
Virtual AP List							
aill	WLAN1						0
ull	WLAN2						•
lin.	WLAN3			OPEN	OPEN		•

- Status: ON/OFF the Virtual AP
- SSID: Set the SSID
- Broadcast SSID: Enable or Disable broadcast SSID
- WMM: Enable or Disable WMM function
- Authentication: Set the authentication method
- Encryption: Choose the encryption type or open
- Key: Set the key/password of your Wi-Fi

Note:

First need to select the Virtual AP in bottom list, so that can do the rest of setting.



7.2.3 VLAN Setting

Quick Setup State	us Operation Mode	Wireless	Network Ma	anagement	() Help
Basic Settings Vir	tual AP VLAN Settings	Access Co	ntrol Advanc	ed Settings	English	Ŧ
1 AN Setting						
LAN Setting	SSID			VLANID		
	NC-LINK Wirele					
	VAP1			0	_	
	VAP2			0	_	
	VAP3			0	_	
_	VAP3			0		

7.2.4 Access Control

Quick Setup	Status Op	eration Mode	Wireless Net	work Management	🕐 Help
Basic Settings	Virtual AP	VLAN Settings	Access Control	Advanced Settings	English v
ccess Control					
				Acceptall	
_	_	_		Accept all	Appl
Register Wire	elss MAC List		Delete	Drop Register MAC Address	Add Refres

Allow or deny the Access Control based on MAC address



7.2.5 Advanced Setting

			Network	Managemen	t	0	Help
Basic Settings V	irtual AP VLAN Settin	gs Access	s Control Adv	vanced Settings	5	English	٣
dvanced Settings							
	Beacon Interval 100	r	ns (50 ~ 1024)				
	Fragment Threshold 2346	6 b	ytes (256~2346)				
	BandWidth 20 M	/Hz ▼					
	TX Burst Ena	ble 🔻					
	Short Slot Ena	ble 🔻					
	Preamble Type Sho	rt Preambi 🔻					
	BG Protection Auto) ▼					
	RF Output Power 🧿	100% 🔍 7	5% 🔍 50%	0 25%	0 12.5%		
	RTS Threshold 2347	7 b	ytes (1~2347)				
	Aggregation Ena	ble 🔻					
	Client Isolation Disa	able 🔻					
	Coverage Threshold -90	dBm (-65	i~-95)				

- Bandwidth: set the bandwidth of the Wi-Fi
- RF Output Power: 100%, 75%, 50%, 25%, 12.5%
- RST Threshold: limit the number of connect client base on RSSI
- Client Isolation: enable or disable client isolation
- Max Station: limit the number of connect client
- Other advanced Setting: Professional installation or maintenance person can set it accordingly. General, keep it default. Click Apply after setting



7.3 Network

7.3.1 LAN Settings

Quick Setup	Status	Operation Mode	Wireless	Network	Management			🕐 Help
LAN Settings							Englis	sh 🔻
LAN IP Setting								
				Setting Static	IP 🔻			
				ddress DHC	IP . 25	3		
				et Mask <mark>255</mark>	. 255 . 255 . 0			
				AC IP 192	. 168 . <mark>188</mark> . 1			
DHCP Server Set	ting							
				Server 🔵 Er	nable O Di	sable		
				lient IP <mark>192</mark> .	168 . <mark>188</mark> . 2	- 192 . 168 . 1	88 . 252	

Setting the Access Type of Internet

7.4 Management

7.4.1 System

Guick Setup	o Status	Operation Mode Wireless Network Management	🕐 Help
System	User Logs	Upgrade Firmware System Time	English
ave/Reload S	ettings		
B	Backup	Save the configuration file to your computer	
Choose File	No file chosen		
R	lestore	Using the saved conliguration life recovery conliguration	
Res	et Default	Restore the factory default settings, please press this button	

System: from here you can reload the backup file to restore the system, or restore to factory default, reboot the CPE through firmware





7.4.2 User

Ouick Satur	Status Operation Mode Wireless Network Management	.
Quick Setup		W Help
System Us	er Logs Upgrade Firmware System Time	English
ser Settings		
	User Name admin	
	User Name admin Password •••••	

User: Set the User Name and Password of the device

7.4.3 Logs



Logs: The system logs can be enable or disable, user can view the system log





7.4.4 Upgrade Firmware

Quick Setup Status	Operation Mode Wireless Network Management	🕐 Help
System User Logs	Upgrade Firmware System Time	English 🔻
Ingrada Eirmuara		
Software Version		
For software upgrade 1. Click on [Browse] and select th 2. Click [upgrade] button Choose File No file chosen	e software to be upgraded	
A Note	opgiuse	
Upgrade software may cause the		

Upgrade Firmware: Upgrade new firmware to access stable function of device

7.4.5 System time

Quick Setup	Status Operation Mode Wireless Netwo	ork Management	🕐 Help
System Use	Logs Upgrade Firmware System Time		English •
ystem Time	System Time 2014-01-01 00-22-48	Synchronization with the host	
		Synchronization with the nost	
	NTP Server time.nist.gov	,	
■ Cu	stom NTP server		
	Time Zone (GMT+08:00)Beijing, Chongqing, Re-	Hong Kong, Urumqi 🔹	
	When device running at 0:00 T Aut	tomatic reboot	

System Time: Set the Access Point's time



8. Trouble Shooting

- Q: Client can not find the SSID
- A: To check wireless setting about the broadcast SSID whether enable
- Q: Client can not connect to the SSID

A: Firstly, check client quantity whether reach the limit; secondly, check client's RSSI whether lower than the threshold limit; thirdly, check the client whether in the deny list of setting

Q: Client can connect to SSID but can not surf the Internet A: This mainly due to the DNS issue, check the gateway router for the DNS setting

Q: Client network speed is low

A: Check the link rate of your connection. If it is low, change other place to get better signal. If it is high, need to check whether has QoS in the gateway router then do some adjustment