

Setting repeater mode with 2x C54APM

This manual will help you to set repeater mode on the C54APM. To create a Repeater environment, you need 2x C54APM. 1 of the C54APM will function as a normal Access point in your wireless network, and the other C54APM will function as a Repeater, for a bigger distance in your network.

Important Notes:

- You need at least firmware version 2.28 to work with Repeater Mode. Lower firmware versions don't support the correct settings!!
- Make sure that both C54APM have a different IP address, for example C54APM nr1: 10.0.0.1 and C54APM nr2: 10.0.0.2 !!
- When changing settings on the C54APM, make sure you are connected with the supplied Ethernet cable instead of the wireless connection!!

Setting the first C54APM as an Access point

 Open Internet Explorer, and type in the adressbalk the IP address of the Access point. (Example: <u>HTTP://10.0.0.1/</u>)

7	GIN .
User name:	🛿 admin
Password:	•••••

2. Enter the Username and Password for the Access point (Default: admin / admin) (Username and password can be in capitals in some versions of the C54APM)



CONCEPTRONIC The Concept of Global Communication

CONCEPTRONIC®

The Concept of Global Communication

	CONCEPTRONIC
	The Concept of Global Communication
Mode Sta Currently Running Current Setup	Admin LAN •Client Mode •AP Mode •Repeater Mode •P2P Mode •PMP Mode •Client Mode •AP Mode •Repeater Mode •P2P Mode •PMP Mode
	Current Mode: AP Mode
Client Access Point	
Repeater	What's This? Setup
P2P	
PMP	What's This? Setup
	WEBSERVER

3. Select "Setup" at the <u>Access point</u> section.

If you want to use security on your wireless network, follow steps 4-8. If you don't want to use security, you can skip this section and continue at step 9.

	CONCEPTRONIC® The Concept of Global Communication
Mode Sta	tus Admin LAN
Currently Running Current Setup	•Client Mode •AP Mode •Repeater Mode •P2P Mode •PMP Mode . •Client Mode •AP Mode •Repeater Mode •P2P Mode •PMP Mode .
MODE	○ 802.11b ○ 802.11g Mixed
SSID	ACCESSPOINT
Broadcast SSID	🔿 Disable 🐵 Enable
Channel	Channel 11 👻
Security	O Disable O WPA Setup 4
Advanced Settings	Setup 4
Access Filter	Setup
	Apply Cancel

4. Select the option "WEP", and click on "Setup". (WPA is not supported in Repeater Mode)



CONCEPTRONIC

Th	e Concept of Global Communication
WEP	
Authentication Type	⊙ Open ○ Shared Key
WEP Length	© WEP-64 ⊛ WEP-128
$(5) \Rightarrow Mode$	🖲 HEX 🔘 ASCII
Passphrase	Generate
6 ⇒ Key 1	ADE13688368FB1CA6F29F8D14C
Key 2	AAAAAAAAA
Key 3	******
Key 4	*****
Default	💿 Key 1 🔘 Key 2 🔘 Key 3 🔘 Key 4
	Apply Close

- 5. Set the <u>Authentication Type</u> to "Open", the <u>WEP Length</u> to "WEP-128" and the <u>Mode</u> to "HEX".
- 6. Set the <u>Default TX Key</u> to "Key 1" and enter an encryption key in the field "Key 1". This key must be 26 characters and can contain the numbers 0 to 9 and the letters A to F. Remember this key! You will need it to configure the Repeater and the wireless card for connection!
- 7. Press "Apply".

The access point will display the following message:



8. Press "**OK**" to save the WEP security settings. The Access point will countdown for enabling the settings and after the countdown, it will return at the main configuration screen for Access point mode.



CONCEPTRONIC The Concept of Global Communication

.....

CONCEPTRONIC[®]

The Concept of Global Communication

	CONCEPTRONIC® The Concept of Global Communication
Mode Sta	tus Admin LAN
Currently Running Current Setup	•Client Mode •AP Mode •Repeater Mode •P2P Mode •PMP Mode . •Client Mode •AP Mode •Repeater Mode •P2P Mode •PMP Mode .
MODE	○ 802.11b ○ 802.11g ③ Mixed
SSID	
Broadcast SSID	O Disable 💿 Enable
Channel	Channel 11 💌
Security	◯ Disable
Advanced Settings	Setup 🗲 9
Access Filter	Setup
	Apply Cancel

9. Press "Setup" at the Advanced Settings option.

Beacon Interval	100 (msec, range: 20~1000, default: 100)
RTS Threshold	2347 (range: 256~2347, default: 2347)
DTIM Interval	2 (range: 1~255, default: 2)
Protection Mode	🛇 Disable 💿 Enable
Transmit Rate	Auto 💌
Preamble Type	🛇 Short 🖲 Long 🛇 Auto
Connect 10 ter	🔘 Disable 💿 Enable
	Repeater MAC Address 00:80:5A:28:CB:AB
	Repeater MAC Address 00:00:00:00:00:00
	Apply Close

- 10. Set Connect Repeater to "Enable" and enter the MAC address of the second C54APM in the first field of "Repeater MAC Address". If you use 2 Access points for repeating, you can enter the MAC Address of the third Access point in the second field of "Repeater MAC Address".
- 11. Press "Apply". The Access point will do a short configuration reboot, and return to the main configuration screen for Access point mode.
- 12. Set the <u>SSID</u> to "ACCESSPOINT" or any other name you want to use for the C54APM.
- 13. Press "Apply". The Access point will reboot again, and activate all changes.

Now the Access point is configured, you need to configure the other C54APM as a Repeater.



CONCEPTRONIC It's more than just a concept...COncept... It's a lifestyle... Your lifestyle!

The Concept of Global Communication



Setting the second C54APM as a Repeater

14. Open Internet Explorer, and type in the adressbalk the IP address of the Repeater. (Example: HTTP://10.0.0.2/)

EF	1808
<u>a</u>	
11	
User name:	🖸 admin 🕑 🧲
Password:	
	Remember my password
	Construct my parameters

15. Enter the Username and Password for the Repeater (Default: admin / admin) (Username and password can be in capitals in some versions of the C54APM)

	CONCEPTRONIC
	The Concept of Global Communication
Mode Sta	tus Admin LAN
Currently Running Current Setup	•Client Mode •AP Mode •Repeater Mode •P2P Mode •PMP Mode •Client Mode •AP Mode •Repeater Mode •P2P Mode •PMP Mode
	Current Mode: Repeater Mode
Client	What's This? Setup
Access Point	What's This? Setup
Repeater	⊙ What's This? Setup <= 16
P2P	What's This? Setup
PMP	What's This? Setup
	Appty

16. Select "Setup" at the *Repeater* section.

If you want to use security on your wireless network, follow steps 17-21. If you don't want to use security, you can skip this section and continue at step 22.



CONCEPTRONIC It's more than just a concept...Oncept... The Concept of Global Communication It's a lifestyle... Your lifestyle!

CONCEPTRONIC®

The Concept of Global Communication

	CONCEPTRONIC
	The Concept of Global Communication
Mode Sta	tus Admin LAN
Currently Running Current Setup	•Client Mode •AP Mode •Repeater Mode •P2P Mode •PMP Mode •Client Mode •AP Mode •Repeater Mode •P2P Mode •PMP Mode .
NOTE	Please note that all repeater settings are duplicated from Access Point
NOTE	settings. If you need to make changes please do so below. If these changes are applied, they will also be duplicated when you choose to active the Access Point.
Parent SSID	
Channel	Channel 11 💌
Parent MAC Address	00:80:5A:28:C8:D7 Enable Linked Repeater 00:00:00:00:00
MODE	○ 802.11b ○ 802.11g ④ Mixed
SSID	REPEATER
Broadcast SSID	O Disable 💿 Enable
Security	O Disable WEP WPA Setup
Advanced Settings	Setup
Access Filter	Setup Cancel

17. Select the option "WEP", and click on "Setup". (WPA is not supported in Repeater Mode)

WEP Authentication Type WEP Length 18 → Mode Passphrase	 Open Shared Key WEP-64 WEP-128 HEX ASCII Generate Clear
19 Key 1 Key 2 Key 3 Key 4 Default Key 20	ADE13688368FB1CA6F29F8D14C ************************************

 Set the <u>Authentication Type</u> to "Open", the <u>WEP Length</u> to "WEP-128" and the <u>Mode</u> to "HEX".

Set the <u>Default TX Key</u> to "Key 1" and enter the same encryption key in field "Key 1" as you entered in the first C54APM.

19. Press "Apply".



It's more than just a concept... Oncept... It's a lifestyle... Your lifestyle!

CONCEPTRONIC® The Concept of Global Communication



The Repeater will display the following message:



20. Press "**OK**" to save the WEP security settings. The Repeater will countdown for enabling the settings and after the countdown, it will return at the main configuration screen for Repeater mode.

	CONCEPTRONIC
	The Concept of Global Communication
Mode Sta	tus Admin LAN
Currently Running Current Setup	•Client Mode •AP Mode •Repeater Mode •P2P Mode •PMP Mode . •Client Mode •AP Mode •Repeater Mode •P2P Mode •PMP Mode .
NOTE	Please note that all repeater settings are duplicated from Access Point settings. If you need to make changes please do so below. If these changes are
Parent SSID	applied, they will also be duplicated when you choose to active the Access Point.
Channel	Channel 11 💌 🗲 22
Parent MAC Address	00:80:5A:28:C8:D7
	Enable Linked Repeater
MODE	○ 802.11b ○ 802.11g ③ Mixed
SSID	REPEATER \leftarrow 23
Broadcast SSID	O Disable 💿 Enable
Security	O Disable O WEP O WPA Setup
Advanced Settings	Setup
Access 24	Apply Cancel

- Set the channel on the same channel as the first C54APM, and enter the MAC Address of the first C54APM in the "Parent MAC Address" section.
 (If you want to repeat the signal 1 more time after this Repeater, activate the "Enable Linked Repeater" and enter the MAC Address for the second Repeater in this field)
- 22. Set the <u>SSID</u> to "REPEATER", or any other name you want to use for the Repeater.
- 23. Press "Apply". The Repeater will reboot again and activate all changes.

Important Note:

• Before connecting to the configured Repeater, make sure that the Repeater is not connected to a wired network!! This will cause the wireless connection to connect and break-up continuously.



It's more than just a concept...OnCept... It's a lifestyle...Your lifestyle!

CONCEPTRONIC

The Concept of Global Communication



Connecting your wireless computer to the Repeater

The following steps will show how to connect to the repeater, using a Conceptronic wireless adapter.

24. Connect your Wireless device to the computer.



25. Double-click on the Conceptronic Utility in the taskbar. The Conceptronic Utility will come up. You will see both C54APM in the utility if they are both in range, otherwise, only the Repeater will show up.

SSID		WLAN, click Add MAC(BSSID)	0.253.	Signal	6	curity	СН	Refresh	Add Mode	
1 REPE		00:80:5A:28:CB: 00:80:5A:28:CB:	AB	92%	<u>@</u> >>>	WEP WEP	11 11	2.462Ghz 2.462Ghz	g g	
Profile Gro	up Control		Prefe	rred WLAN	le:					
		anaprosente la						22 22 1		
	ect a profile g	roup to apply :	Autom	latically cor	nect to a	valiable v	VLAN per c	elow order:	New	
	ect a profile g	New		atically cor SSID	nect to a	Vallable V Secur		elow order:	New Remove	#(

- 26. Remove any existing <u>Preferred WLAN's</u> in the configuration panel. If there are no <u>Preferred</u> <u>WLAN's</u>, you can continue to step 28.
- 27. Select the SSID for the Repeater and press "Add".



CONCEPTRONIC The Concept of Global Communication

	Global Communication	
reless Network Pr	operties	
/ireless network name (S	SID) REPEATER	-
Wireless network key (\ This network requires a		
Authentication Mode:	Open System 👻	T
Data Encryption:	WEP V	
Data Encippiion.	IMEP _	
Key length: 12	8 bits (104+24) - 26 Hexadecima 💌	
Key 1:	*****	
Key 2:		
Key 3:		
Key 4:		
Default key: Key 1	•	
Enable 802.1X	Authentication Config	1
	Autoritication config	
	computer (ad hoc) network; no	
access points are use	9 0 .	1976
access points are use	ed.	102

XNICEDTDC/N

- 28. If you are using Security, set the <u>Authentication Mode</u> to "**Open System**", the <u>Data Encryption</u> <u>to</u> "**WEP**" and the <u>Key length</u> to "**128 Bits (104+24) 26 Hexadecimal**".
- 29. Enter the key from step 7 in the field of Key 1 and press "OK".

If you don't use security on the wireless network, set the <u>Authentication Mode</u> to "**Open System**", the <u>Data Encryption</u> to "**Disabled**" and press "**OK**".

The wireless computer will now connect to the Repeater, which is in contact with the Access point and the network behind it.

Copyright © 2005 2L International BV. All rights reserved.

a

It's more than just a concept... On Cept... It's a lifestyle... Your lifestyle! Written by Daniël Lassche.



The Concept of Globol Communication