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# **GSM/CDMA Mini Repeater**

## **Product Manuals**

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## Product Overview

GSM/CDMA Mini Repeater is a mini power repeater which can provide immediate and easy mobile signal coverage for your house. It's a kind of public products, will be sold to members of the general public for their personal use.

When using repeater in conjunction with our antennas, the outdoor antenna will collect the cell tower signal and send it through the cable to the Signal Booster. The signal is amplified and retransmitted through the Indoor Antenna into the room. Cell phones in that area then communicate with the enhanced signals. When a cell phone or cellular device transmits, the signal is received by the Indoor Antenna, then amplified by the mini repeater and went back to the cell tower through the Outdoor Antenna.

The repeater has vantage of low cost, easy-install, easy-move, emission and solving coverage problem immediately. Our repeater is easy to install, which can be hung on pole or wall .Anyone who could understand the manual will know how to install. No need a professional engineer to install .If you want to buy a repeater, just give us a call, we can offer you. Or you could buy in a online shop.

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**1. Product photographs****2. Indicator status table**

Indicator Light	status	Introductions
trouble lamp(red Alarm)	on	Over-power instructions
	flicker	Self-excited instructions
	off	Normal work, please refer to the other indicator
synchronizing lamp (green State)	on	Program lost
	flicker	Output power normal
	off	Light broken
power light (green Power)	on	Power normal
	flicker	power failure
	off	Light broken

### 3. Package

Name	Description.	Qty.	Unit	Remark
Mini Repeater	NC-CG1900-SB	1	PC	
Power Adapter	AC 110-240V/DC 5V	1	PC	
Rubber antenna	Gain: 5dBi	1	PC	
Outdoor Antenna	Gain: 10dBi	1	PC	
Cable	impedance: 50Ω, 5dB cable loss	1	PC	
Screws	Screws	2	PC	

Note:

1. In the package list, the antennas, cables are authorized. You will find all of the parts in the production package.
2. Please use the antennas, cables. Unauthorized antennas, cables may lead to a lot of accidents.

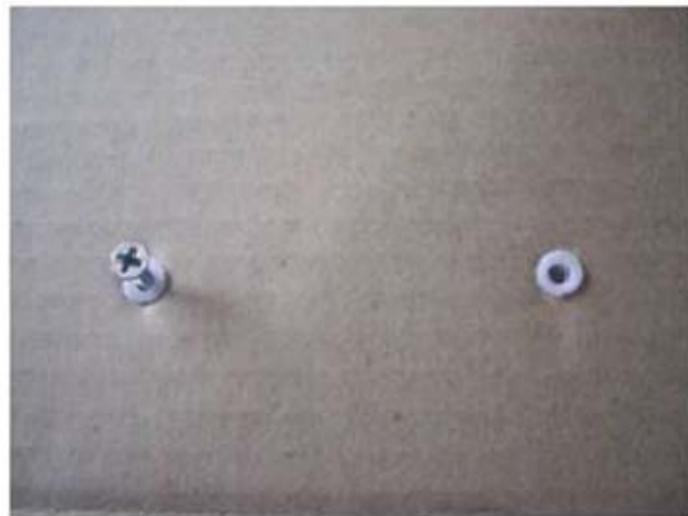
### 4. Installation instructions

- 1) The products suitable for hanging (or level placing) installation. Installation method as below :

(Picture 1) : Screws for hanging



(picture 2) : fix the screws on installation place as the picture (mid feather 85mm)



(picture3) : the two fixed hole on the back of repeater equipment



(picture 4) : Equipment installed



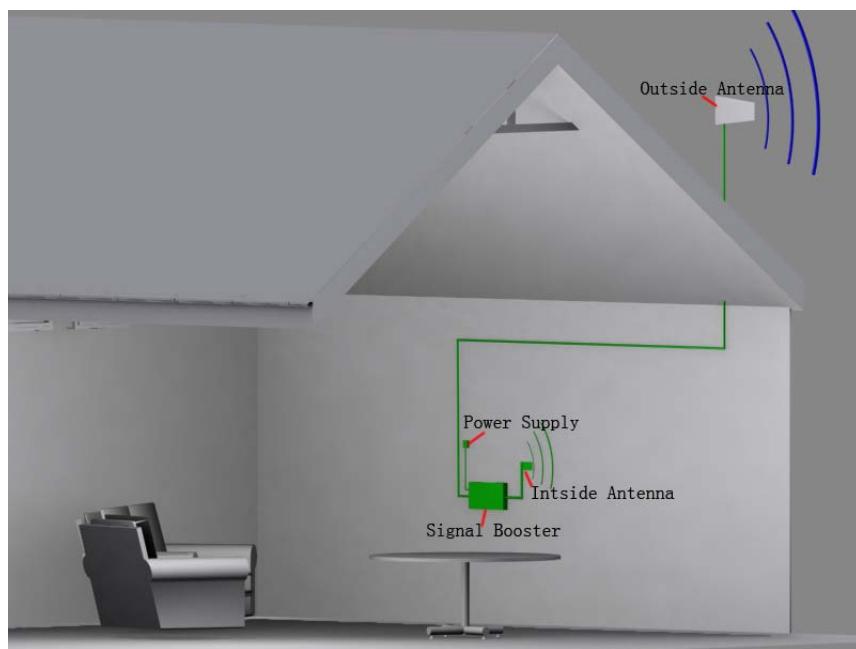
(picture 5) : BTS port: connect to outdoor Antenna



(picture 6) : ANT port: connect to Rubber antenna --indoor antenna (retransmission antenna)



- 2) Connect the outdoor antenna to BTS port through RF cable. then connect ANT port to retransmission antenna (rubber antenna, ceiling antenna, or suction cup antenna) ;The outdoor antenna installation refer to the below information about outdoor installation.
- 3) Connect the power adapter to the AC power supply AC 110-240V, and to the host output DC 5V power socket;
- 4) When no obstacles, please ensure the distance between the transmitting and receiving is more than 30 meters, if there are obstructions, the distance is more than 5 meters .To ensure the requirements of the isolation.



installation illustration

## 5. Outdoor Antenna installation illustration:

PLS install the Antenna as the illustration. There is a hole under the antenna, please confirm the hole is at the bottom as the illustration .Otherwise the rain may fall in to it and it can't work normally. (The details please refer to the Antenna manual)

Note: The outside antenna must not be co-located or operating in conjunction with any other antenna or booster.



## 6. Troubleshooting

### Common problem solving

- 1) Question 001: Mini Repeater's power indicator light is in "off" status.

Reasons :

- (a) Mini Repeater power is in "off" status.
- (b) Mini Repeater is not connected to the power

Solving:

- (a) Turn the Mini Repeater power in "on" status.
- (b) Keep the Mini Repeater connected with the power.

- 2) Question 002: Indicator light is normal, but there is no change of signal strength.

Reasons:

- (a) retransmission antenna damaged .
- (b) retransmission antenna is not installed firmly with ANT port .

Solving:

- (a) Check if the antenna is damaged, change the antenna if needed.
- (b) Check if the connector is loose, keep it firm.

### Notes:

- (1) Keep enough distance between two antennas, if there is a wall, it is the best. Avoiding to turn on the repeater when the distance is less than 10 meters, otherwise it can't work normally.
- (2) The direction of the Yagi antenna should point to the outdoor, point to the direction of receiving signal source.
- (3) The device connector and antenna connector should be tightened to avoid coverage ineffective.
- (4) The original repeater is equipped with AC 110V-240V adapter, please note the voltage range of power supply.
- (5) The repeater is designed for indoor use, the temperature range is -5 to 45 ° C, at the same time to avoid moisture, rain.

## 7. Warning label requirements:

This is a CONSUMER device.

**BEFORE USE**, you **MUST REGISTER THIS DEVICE** with your wireless provider and have your provider's consent. Most wireless providers consent to the use of signal boosters. Some providers may not consent to the use of this device on their network. If you are unsure, contact your provider.

You **MUST** operate this device with approved antennas and cables as specified by the manufacturer. Antennas **MUST** be installed at least 20 cm (8 inches) from any person.

You **MUST** cease operating this device immediately if requested by the FCC or a licensed wireless service provider.

**WARNING.** E911 location information may not be provided or may be inaccurate for calls served by using this device.

This device may be operated **ONLY** in a fixed location for in-building use.

### NOTE:

The following selected information about wireless providers Consumer Booster registration mechanisms supplements the requirements and information given in §§ 20.21, 22.9, 24.9, 27.9, and the FCC Signal Boosters website (<http://wireless.fcc.gov/signal-boosters/>).

- Sprint Nextel will allow consumers to register their signal boosters by calling their toll-free number. They have already trained their calling center and have designated an engineer to handle inquiries. They may eventually allow consumers to register on their website but they want to gauge how the process works via phone first.
- T-Mobile online registration link: ([www.T-Mobile.com/BoosterRegistration](http://www.T-Mobile.com/BoosterRegistration)); (<https://saqat.t-mobile.com/sites/SignalBooster#>).
- Verizon's online registration link: (<http://www.verizonwireless.com/wcms/consumer/register-signal-booster.html>).
- AT&T will allow online registration and will inform OET Lab with the weblink when it is ready.
- U.S.Cellular (<http://www.uscellular.com/uscellular/support/fcc-booster-registration.jsp>).

## 8. Safeguard Features

### (1) Digital ALC

The gain and level dynamic range can be adjusted automatically to ensure the high reliability and high stability of the repeater.

### (2) Anti-oscillation

When the signal booster cannot detect any input signal, but detect a high level output signal, that means self-oscillation. Then it will be restarted automatically or power off.

## 9. Safety Information

Don't expose this product to extreme low or high temperature (-30°C and 55°C).

There are no consumer serviceable or modifiable parts inside this booster product. Alteration or abuse of the booster or other components will void this product's warranty, and could be dangerous to the user.

To comply with the RF exposure requirements, please keep the human user's body at least 8" (20cm) from the repeater.

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