

SureCall™
CM2020 80dB
Universal Building Repeater



User Manual

Model: CM2020 80 dB
FCC ID: RSNDUAL-85UNDER
Canada IC: 7784A-D85UNDER



1. CM2020 80 dB Amplifier with connectors: N female type
2. Mounting Kit
3. 110V AC Power Adaptor
4. User Manual (this document)

The following items need to be purchased separately before installation:

1. Dome antenna or other type of indoor antenna.
2. Yagi antenna or omni-directional antenna for outdoor use.
3. Low loss RF cable that connects indoor antenna with the repeater. Length depends on actual situation.
4. Low loss RF cable that connects outdoor antenna with the repeater. Length depends on actual situation.

For further help, *please consult the Cellphone-Mate website (www.Cellphone-Mate.com) or call toll free at 888-365-MATE.*

The human body should always be separated from the indoor antenna of the Amplifier by at least 25 cm (10").

To meet 2 watts EIRP limit in PCS Band, the gain of antenna used with the amplifier must be offset by the coaxial cable loss.

Don't expose this product to extreme high or low temperature. For example, putting the Amplifier under direct sunlight for too long may cause it to overheat, thereby damaging the electronic components inside.

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

NOTE: The wireless amplifier can also be used for boat and other applications, but is not recommended for small vehicles since there is not enough separation between inside and outside antenna.

Warning: Never power on the units before completion of the installation.

The signal is received by the outside antenna from the cell tower, then AMPLIFIED and transmitted to your phone through the inside antenna. When the phone transmits, the signal is received by the inside antenna, then AMPLIFIED and transmitted to the cell tower through the outside antenna.

STEP 1. Install the CM2020 80 dB on the wall with the mounting kits supplied.

STEP 2. Connect the Inside Antenna to the side that shows "Indoor Ant."

STEP 3. Connect the Outside Antenna: Select an outside mounting location. For best performance, try to keep the antenna on top of the roof. The outside antenna should be located in an area with at least a 12" radius clear of obstructions, and other radiating elements.

NOTE: Keep the separation distance between the inside and outside antennas at least 80 ft apart to avoid RF oscillation. If this separate is not achievable, then the amplification gain must be reduced with gain control switches on both sides of the unit for uplink and downlink.

STEP 4. Connect the Power Cord.

Warning: *To prevent damage to the Amplifier, before you plug the Amplifier into an AC power outlet, please make sure that both sides are already connected with the cables from the outdoor and indoor antennas.*

WARNING: After power is on, and before making any cellular phone calls, if either 800 MHz or 1900 MHz UPLINK lights marked "full" is on, that means that oscillation is about to happen or already has happened and ALC, automatic level control circuits, are starting to work. You should POWER OFF immediately, then reduce both the uplink gain and downlink gain via the gain control switches, or further increase separation distance, or do both until neither of the uplink lights are on when you are not making cellular phone calls.

Note: 1. Power lights for both uplink and down link will always be on after you power up.

2. During Cellular phone Conversations, it's normal to see uplink full light turn on and off.

STEP 5. After solving all oscillation problems, users can make cellular phone calls to test how the repeater system works, further adjusting the gain as needed.

Safety Warning:

- 1. The input voltage for the Amplifier is 9V. DO NOT use this Amplifier with a regular 12V power supply. If a 12-volt power supply is connected directly to this Amplifier, it will be damaged.**
- 2. Never plug in the power supply to the amplifier without the outdoor antenna and indoor antenna cables having been attached to the amplifier.**
- 3. Ensure that the distance between inside and outside antennas is a minimum of 80 feet for the amplifier.**
- 4. If the Uplink Full light is on when you are not making cellular phone calls, DO NOT use the amplifier, turn it off immediately, since it may cause damage to the amplifier.**

Each Attenuation Gain Switches control a certain level of gain. Each button has a certain dB gain, which is on the top of the amplifier. Those values are 16, 8, 4, 2, and 1 for the five switches respectively.

During operation, if the Amplifier interferes with your radio or other electronic receivers, move the Amplifier further away from those devices.

For a list of Frequently Asked Questions and a complete and up-to-date Troubleshooting Guide, please visit our website at:

www.Cellphone-Mate.com/FAQ.htm

You can also consult a Cellphone-Mate technical specialist directly by e-mailing us at:

info@Cellphone-Mate.com

Or write to:

**Cellphone-Mate, Inc.
48820 Kato Road Suite 300B
Fremont, CA 94538, U.S.A.**

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2. As a condition to the warranties provided for herein, the Buyer will prepay the shipping charges for all products returned to Cellphone-Mate, Inc. for repair and Cellphone-Mate, Inc. will pay the return shipping with the exception of products returned from outside the United States in which case the Buyer will pay the shipping charges.
3. The Buyer will pay the cost of inspecting and testing any goods returned under the warranty or otherwise which are found to meet the applicable specifications or which are not defective or not covered by this warranty.
4. Products sold by Cellphone-Mate, Inc. shall not be considered defective or non-conforming to the Buyers' order if they satisfactorily

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7. If one or more provisions provided herein are held to be invalid or unenforceable under applicable law, then such provision shall be ineffective and excluded to the extent of such invalidity or unenforceability without affecting in any way the remaining provisions hereof.