# SureCall<sup>TM</sup> CM2020 65dB Dual Band Universal Inbuilding Repeater

# **User Manual**



Model: CM2020 65dB FCC ID: RSNDUAL-65UNDER CANADA IC:7784A-D65UNDER



#### CONTENTS OF THE PACKAGE



- 1. CM2020 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 log on to Cellphone-Mate website (www.k dqubih/bbug.com') or call us toll free at 8++!)-(!)+\*\*.

#### SAFETY NOTES

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

Don't expose this product to extreme high or low temperature. For example, putting the Amplifier under direct sunshine 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: This wireless amplifier can also be used for boat and other applications, but not recommended for small vehicles.

#### INSTALLATION INSTRUCTION

Warning: Never power on the unit before completing the installation.

Always refer to the picture on the next two pages. It is there to help you through each step of the installation.

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

STEP 2. Connect the Inside Antenna to the side that shows "MS". (Mobile Station)

STEP 3. Connect the Outside Antenna to the side that shows "BS" (Base Station): For best performance, please try to mount the outdoor antenna at the location where best possible cellular signal can be found. The outside antenna should be located in an area with at least 12" radius clear of obstructions, and other radiating elements.

NOTE: Keep the separation distance between the inside and outside antennas to at least 75 ft apart to avoid RF oscillation. If not, then the amplifier gain must be reduced accordingly using dip switches on both side of the unit for both uplink and downlink, both PCS and Cellular band.

STEP 4. Connect the Power Cord.

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

WARNING: after power is on, before making any cellular phone calls, if uplink lights that marked "full" is on (either band), that means the oscillation is happening. You should POWER OFF the unit immediately, then please reduce both the uplink gain and downlink gain via the dip switches, or increase separation distance, or do both until uplink "Full" light of neither bands are on while you are not making cellular phone calls.

Note: 1. Power lights should always be on after you power up.

2. During Cellular phone conversations, it's normal to see uplink "Full" light of either or both bands blinking.

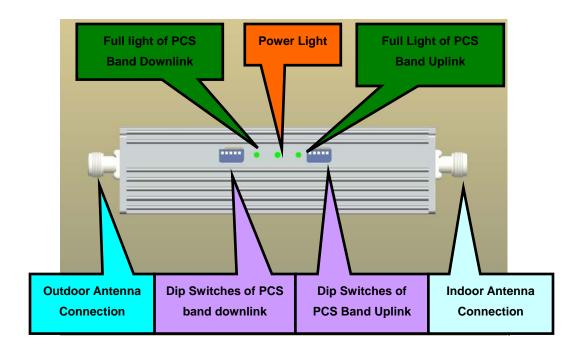
STEP 5. After resolving all oscillation problems, users can make cellular phone calls to test how the repeater system works, further adjust gain if needed.

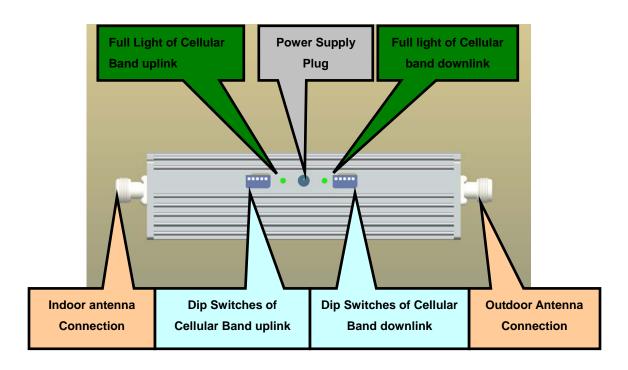
Safety Warning:

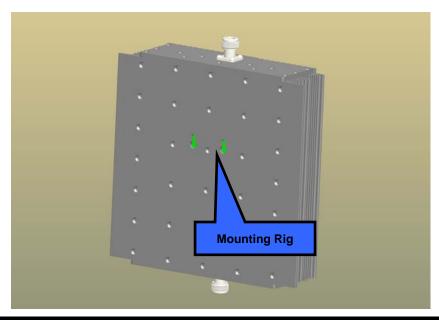
- 1. The input voltage for the Amplifier is 9V. DO NOT use this Amplifier with a regular 12V or higher power supply. If a 12-volt or higher power supply is connected directly to this Amplifier, it could be damaged.
- 2. Never plug in the power supply to the amplifier without the outdoor antenna and indoor antenna cables been attached to the

#### amplifier first.

- 3. Please ensure that the distance between inside and outside antennas is a minimum of 75 feet.
- 4. If the Uplink "Full" light of either band 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.







# Amplifier Gain Control

Dip switches are used to adjust the gains on all four links. Each attenuation switch, when turn on, add certain amount of signal loss, the exact dB values of each dip switch is marked on the side of the dip switches. Those values are 16, 8, 4, 2, and 1 dB for the five switches respectively.

# TROUBLESHOOTING GUIDE

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 call us or sending e-mail to us at:

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k dgUbhYbbUg@k dgUbhYbbUg.com

Or write to:

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#### WARRANTY

- 1. Cellphone-Mate, Inc. warrants to the Buyer that each of its products when shipped will be free from defects in material and workmanship and will perform in full accordance with applicable specifications. The limit of liability under this warranty is, at Cellphone-Mate, Inc.'s option, to repair or replace any product or part thereof which shall within ONE YEAR of purchase as determined by examination by Cellphone-Mate, Inc., as proving defective in material and/or workmanship. Cellphone-Mate Inc must first authorize warranty returns in writing. Disassembly of any Cellphone-Mate, Inc. product by anyone other than an authorized representative of Cellphone-Mate, Inc. voids this warranty in its entirety. Cellphone-Mate, Inc. reserves the right to make changes in any of its products without incurring any obligation to make the same changes on previously delivered products.
- 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 fulfill the performance requirements that were published in the product specification literature, or in accordance with samples provided by Cellphone-Mate, Inc. This warranty shall not apply to any products or parts thereof, which have been subject to accident, negligence, alteration, abuse, or misuse. Cellphone-Mate, Inc. makes no warranty whatsoever in respect to accessories or parts not supplied by it.
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- 6. All matters regarding this warranty shall be interpreted in accordance with the laws of the State of California and any controversy that cannot be settled directly, shall be settled by arbitration in California in accordance with the rules then prevailing of the American Arbitration Association, and judgment upon the award rendered may be entered in any court having jurisdiction thereof.
- 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.