# Installation & Operations Manual

## Cellular Pool Phones
### 2300-614GSM4, 970GSM4, 2100-986GSM4, 2300-614VER4, 970VER4, 2100-986VER4

**2 YEAR WARRANTY**

# RATH

Thank you for purchasing a RATH® Cellular Pool Phone. We are the largest Emergency Communication Manufacturer in North America and have been in business for over 35 years.

We take great pride in our products, service, and support. Our Emergency Products are of the highest quality. Our experienced customer support teams are available to remotely assist with site preparation, installation, and maintenance. It is our sincere hope that your experience with us has and will continue to surpass your expectations.

Thank you for your business,

*The RATH® Team*

## Table of Contents

**\*\*<u>Note:</u> Cellular devices search for the closest cell tower. If the device is being installed in an area where cell towers are limited, the location area may be too broad for first responders. In those instances, please contact your local 911 service to see if they are able to associate address details with your new cellular number.\*\***

# Mounting

**2300-614GSM4, 2300-614VER4**

**Items Needed:**
• 120vac power
• Drill
• Drill bit or knockout set
• Mounting screws
• #10 spanner bit (provided)
• Conduit with water tight connector
• Wire nuts
• Screwdriver
• Active standard size SIM Card (25mm x 15mm) with GSM or CDMA carrier
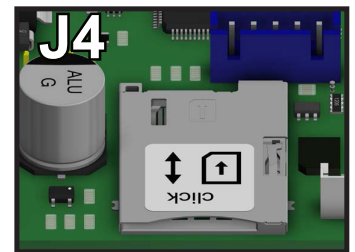
**Installation:**
1. Using the supplied spanner bit, remove the 4 screws holding the front cover in place and remove the cover.
2. Using a drill bit or knockout set, drill a hole in the bottom of the enclosure large enough for the water tight connector.
3. Using appropriate mounting screws, screw the enclosure onto the wall.
4. Open the Cellular Gateway by unscrewing the screw on the left side of the front cover with a Phillips screwdriver and gently pull up on the left side.
5. Insert standard size SIM card (25mm x 15mm) into J4 with the perforated edge first and the gold contact side facing downward. Push until you hear it click. If SIM card does not click into place, the wrong size SIM card is being used.
   **Note:** Do NOT use a nano or micro size SIM card with an adapter. The adapter edge can catch and cause permanent damage.
6. Wait for the LED lights to turn on. Check the SIM LED to make sure it is amber colored. If it is flashing red, check that the SIM card has been inserted correctly and has an active 4G data/voice plan.
7. A signal strength test is recommended. Check the signal strength by using the built-in network signal strength scanner. To use the scanner function, turn on SW1 dipswitch 1 to ON (check that dipswitch 4 is also ON). When finished, turn SW1 dipswitch 1 back to "OFF". See Figure 1 on page 7.
8. The RUN LED should change color to flashing green when the main power connection is made. If you see any other color, please consult Figure 2 on page 7.
9. Place the lid back on the top of the Cellular Gateway and fasten the lid with the screw.
10. Run 120vac in the conduit and water tight connector. Connect 120vac to the supplied transformer in the enclosure using proper wire nuts. Red is hot, black is neutral, and green is ground.
    **Note:** The transformer is wrapped separately in the box.
11. Plug power into a battery backed up power source or RATH® RP7700107.
12. Turn on the electrical power.
13. Phone is preset to dial 911. If required to call an alternate number not given to RATH® at time of purchase, please follow programming instructions on page 6. If phone is calling 911, screw internal plate back into place. Unit is ready for testing.

**Items Needed:**
• 120vac power
• Drill
• Drill bit or knockout set
• Mounting screws
• #10 spanner bit (provided)
• Conduit with water tight connector
• Wire nuts
• Screwdriver
• Active standard size SIM Card (25mm x 15mm) with GSM or CDMA carrier

**Installation:**

**1.** Using the supplied spanner bit, remove the 4 screws holding the front cover in place and remove the cover.

**2.** Using a drill bit or knockout set, drill a hole in the bottom of the enclosure large enough for the water tight connector.

**3.** Using appropriate mounting screws, screw the enclosure onto the wall.

**4.** Open the Cellular Gateway by unscrewing the screw on the left side of the front cover with a Phillips screwdriver and gently pull up on the left side.

**5.** Insert standard size SIM card (25mm x 15mm) into J4 with the perforated edge first and the gold contact side facing downward. Push until you hear it click. If SIM card does not click into place, the wrong size SIM card is being used.
**Note:** Do NOT use a nano or micro size SIM card with an adapter. The adapter edge can catch and cause permanent damage.

**6.** Wait for the LED lights to turn on. Check the SIM LED to make sure it is amber colored. If it is flashing red, check that the SIM card has been inserted correctly and has an active 4G data/voice plan.

**7.** A signal strength test is recommended. Check the signal strength by using the built-in network signal strength scanner. To use the scanner function, turn on SW1 dipswitch 1 to ON (check that dipswitch 4 is also ON). When finished, turn SW1 dipswitch 1 back to "OFF". See Figure 1 on page 7.

**8.** The RUN LED should change color to flashing green when the main power connection is made. If you see any other color, please consult Figure 2 on page 7.

**9.** Place the lid back on the top of the Cellular Gateway and fasten the lid with the screw.

**10.** Run 120vac in the conduit and water tight connector. Connect 120vac to the supplied transformer in the enclosure using proper wire nuts. Red is hot, black is neutral, and green is ground.
**Note:** The transformer is wrapped separately in the box.

**11.** Plug power into a battery backed up power source or RATH® RP7700107.

**12.** Turn on the electrical power.

**13.** Phone is preset to dial 911. If required to call an alternate number not given to RATH® at time of purchase, please follow programming instructions on page 6. If phone is calling 911, screw internal plate back into place. Unit is ready for testing.

**Items Needed:**
• 120vac power
• Drill
• Drill bit or knockout set
• Mounting screws
• #10 spanner bit (provided)
• Conduit with water tight connector
• Wire nuts
• Screwdriver
• Mounting feet (provided)
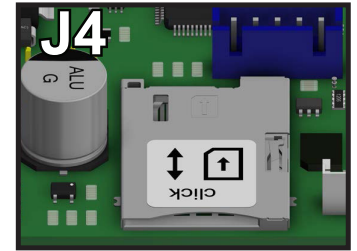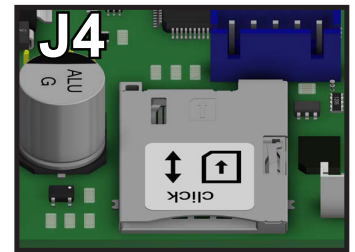• Active standard size SIM Card (25mm x 15mm) with GSM or CDMA carrier

**Installation:**
1. Using the supplied spanner bit, remove the 4 screws holding the front cover in place and remove the cover.
2. Using a drill bit or knockout set, drill a hole in the bottom of the enclosure large enough for the water tight connector.
3. Turn enclosure over and screw 1 mounting foot onto each mounting hole on the back of the enclosure using the supplied screws.
4. Open the Cellular Gateway by unscrewing the screw on the left side of the front cover with a Phillips screwdriver and gently pull up on the left side.
5. Insert standard size SIM card (25mm x 15mm) into J4 with the perforated edge first and the gold contact side facing downward. Push until you hear it click. If SIM card does not click into place, the wrong size SIM card is being used.
   **Note:** Do NOT use a nano or micro size SIM card with an adapter. The adapter edge can catch and cause permanent damage.
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12. Turn on the electrical power.
13. Phone is preset to dial 911. If required to call an alternate number not given to RATH® at time of purchase, please follow programming instructions on page 6. If phone is calling 911, screw internal plate back into place. Unit is ready for testing.

# Programming

## Handset Phones:

Most Pool Phones are already pre-programmed to call 911. Only perform the following if you want the phone to call somewhere other than 911.

**Programming Telephone Numbers (Standard Phone Line)**
**Note:** When programming, ignore messages or busy tones in the background.
**1.** Start with phone handset hung up
**2.** Press and hold **Program**, lift handset off hook, then release **Program** button
**3.** Press the **#** key 10 times (you will hear confirmation tones in the handset)
**4.** Press **3, #,** then the phone number you want the phone to dial
**5.** Press ***, #** to exit Programming Mode, then hang up the handset

## Speaker Phones:

Most Pool Phones are already pre-programmed to call 911. Only perform the following if you want the phone to call somewhere other than 911.

**Programming Telephone Numbers (Standard Phone Line)**
**1.** Press **ENTER** to begin programming
**2.** Press **1**, **ENTER**, key in the phone number you want the phone to dial, **STOP**
**3.** Press and hold **STOP** for 3 seconds to exit programming

See Signal Strength Chart and LED Indication Chart on page 7. Once lights are in the correct state, phone is ready for testing.

# Programming Location Message (Optional)

**NOTE: LOCATION MESSAGES CAN ONLY BE PROGRAMMED ON SPEAKERPHONE MODELS**

Cellular devices connect to the closest tower which may impact the location. If the device is installed in areas where cell towers are limited, the location may be too broad for first responders. In those instances, please contact your local 911 service to see if they are able to associate address details with the cellular number.
If unit is a speakerphone model, a location message can be programmed into the device to provide location information. Follow the steps below to record a location message on the device. This message will play when the call is answered. After the message plays twice, two-way communication will begin automatically.

**1.** Press **ENTER** to begin programming
**2.** Press **1**, **3, ENTER, 2**
**3.** Press **6, RECORD,** after the beep speak location message, press **STOP**
**4.** Press **6, PLAY/PAUSE** to relay message.
**4.** Press and hold **STOP** for 3 seconds to exit programming

# Adjusting the Volume

## Handset Phones

On underside of handset, turn volume wheel to increase or decrease volume.

## Speaker Phones

**Adjusting the Microphone:**
If the person you are calling reports your voice is not loud enough, increase the Microphone Sensitivity by adjusting VR2 a 1/4 turn clockwise (requires a small Phillips screwdriver).

**Adjusting the Speaker:**
If the voice of the person you call is not loud enough in the phone speaker, increase the volume by adjusting VR1 a 1/4 turn clockwise.

RATH® SmartPhone

Volume Adjust VR1

Mic Sensitivity VR2
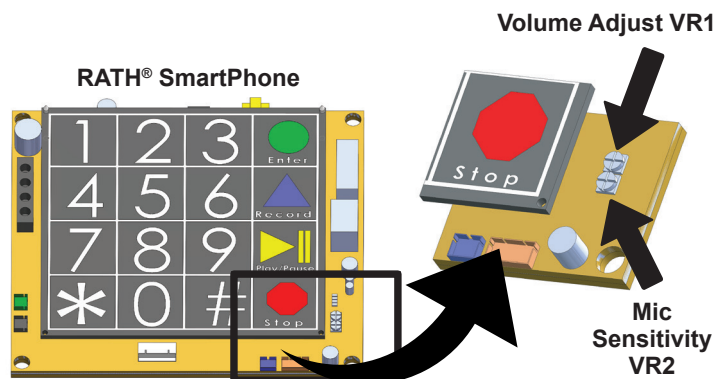
# Turning Ringer On/Off

## 2300-614GSM4, 2300-614VER4

1. Open door on unit and remove 4 screws securing the red internal plate. Lift the plate out and flip it over to expose the keypad.
2. Above and slightly underneath the keypad will be a small dipswitch labeled "ON" and "OFF". Slide dipswitch to "ON" to enable the ringer or "OFF" to disable the ringer.
3. Screw internal plate back into place and shut the door on the unit.

## 970GSM4, 2100-986GSM4, 970VER4, 2100-986VER4

These models do not have ringer option. When unit is called, it will auto-answer and allow for two-way communication instantly.
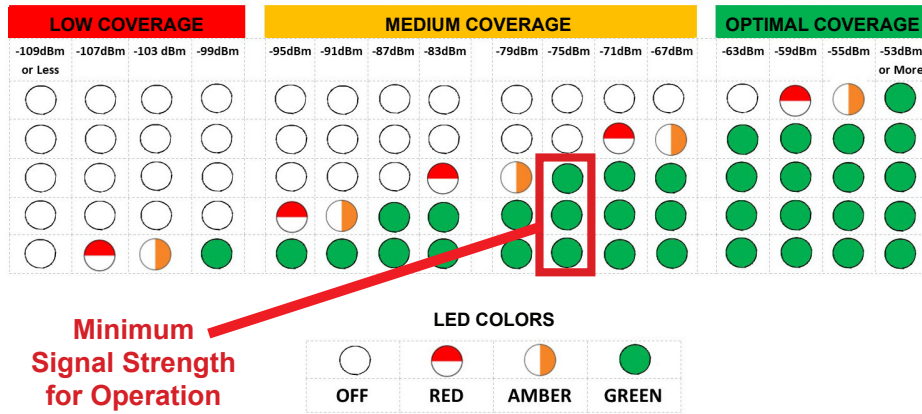
# Appendix

## Figure 1: Signal Strength Chart



| LOW COVERAGE | | | | MEDIUM COVERAGE | | | | | | | | OPTIMAL COVERAGE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -109dBm or Less | -107dBm | -103 dBm | -99dBm | -95dBm | -91dBm | -87dBm | -83dBm | -79dBm | -75dBm | -71dBm | -67dBm | -63dBm | -59dBm | -55dBm | -53dBm or More |

**Minimum Signal Strength for Operation**

**LED COLORS**

| OFF | RED | AMBER | GREEN |
|---|---|---|---|

## Figure 2: LED Indication Chart



| RUN LED FLASHES GREEN | POWER SUPPLY IS OK |
|---|---|
| BAT LED IS ALWAYS ON | BATTERY IS OK |
| SIM LED IS AMBER | DEVICE IS CONNECTED TO THE NETWORK |
| COVERAGE LED IS GREEN OR AMBER | GOOD COVERAGE |
| SLIC LED IS GREEN | DEVICE IS IN STANDBY |