

# Lyric-3G/Lyric-3GC & Lyric-CDMA Installation Instructions

### **General Information**

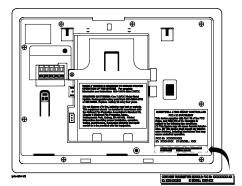
The Lyric-3G/Lyric-3GC and Lyric-CDMA Communication Modules allow the Lyric Controller to communicate with the Central Station via the cellular radio network.

NOTE: The Lyric-CDMA Module is available only in the continental United States, Alaska and Hawaii.

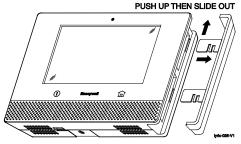
FIRST TIME INSTALLATION NOTE: Before performing the first time installation of the communication module, make sure power (both AC and battery) is removed from the controller and follow the Installing the Module (First Time Installation) steps.

### Installing the Module (First Time Installation)

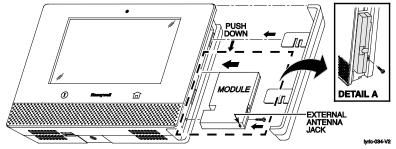
- 1. Install the provided FCC/IC label on the control's case back. (Lyric-3G/3GC: P/N 800-19687; Lyric-CDMA: P/N 800-19688)
- Remove bezel from right-hand side of control to expose the communication module slot. To remove the bezel, push upward then slide it out.
- 3. Insert the module into the slot. Push firmly to mate the edge connector. Install the securing screw to ensure proper connection and operation.
- 4. Replace the bezel.
- 5. After all other connections are made, power up the controller.
- 6. Program and register the module during the controller's initial association with its AlarmNet 360™ account. Refer to the controller's Programming Guide for details.



Typical FCC/IC Label Location



Removing the Bezel



Installing the communicator Module

- 7. Check the signal strength before permanently locating the Lyric Controller. See Checking Signal Strength section.
- 8. Test the communication paths.

Master User: Security - Tools - [Master code] - Advanced - Comm. Test Installer: Security - Tools - [installer code] - Program - Comm. Diagnostics - [✓] - Test Communication

Press Send Cellular Message. Wait for "Ack Received" message.

Press **Send Ethernet Message**. Wait for "Ack Received" message.

"Ack Received" indicates successful communication.

If acknowledgement is not received, try one of the following:

- a. Use an external antenna (see Using an External Antenna section).
- b. Replace the radio with an alternate technology radio (ex. if using 3G, try CDMA).
- c. Set the communication path to Wi-Fi-only.

### Checking Signal Strength

When choosing a suitable mounting location, check the communicator's signal strength to ensure proper operation. For most installations, using the module's internal antenna, mounting the Lyric controller as high as practical, and avoiding large metal components provides adequate signal strength.

Use the Lyric Controller "Cellular Information" screen to display signal strength (in dBm):

Security - Tools - [installer code] - Program - Comm. Diagnostics - Cellular Information

Lyric-3G/3GC: Compare the RSCP (received signal code power

[3G]) or RSSI (received signal strength indicator [2G]) number displayed to the Signal Strength Guide at right to ensure adequate signal strength.

Lyric-CDMA: Compare the RSSI (received signal strength

indicator) number displayed to the Signal Strength Guide at right to ensure adequate signal strength.

If necessary, relocate the Controller to obtain better signal strength (press **Cellular Information** again to refresh the reading). If adequate signal strength cannot be achieved, an external antenna should be used.

### Using an External Antenna

If an external antenna is needed (adequate signal strength cannot be achieved with the internal antenna), use external antenna kit model: CELL-ANTST.

Connect the external antenna's adapter cable to the module as shown. Mount the antenna according to the instructions provided with the kit.

# Signal Strength Guide Lyric 3G/3GC

RSCP (3G) - if module is using the 3G Network Good....... -20 to -90 dBm

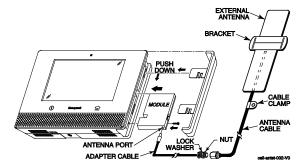
OK ...... -91 to -100 dBm Marginal... -101 to -106 dBm Bad..... -107 to -120 dBm

RSSI (2G) - if module is using the 2G Network

Good...... -20 to -89 dBm OK ..... -90 to -98 dBm Marginal... -99 to -104 dBm Bad..... -105 to -120 dBm

### Lyric-CDMA

RSSI:
Good....... -20 to -90 dBm
OK ...... -91 to -100 dBm
Marginal... -101 to -106 dBm
Bad...... -107 to -120 dBm



Connecting an External Antenna

### Communication Module Replacement

This procedure is intended only for replacement of existing communication modules previously installed and registered in the Controller.

In the event the communication module needs to be replaced, the Lyric Controller must first be put in module replacement mode ("Install Cellular Module") to avoid causing a tamper alarm or damaging the module. Module replacement mode deactivates tamper protection and removes power from the module connector for about 15

IMPORTANT: AC power must be present when using this procedure to replace or install a radio if the Controller is already powered.

1. Select the Install Cellular Module button.

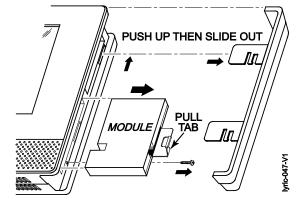
Master User: Security -Tools - [master code] - Advanced - Install Cellular Module

Installer: Security - Tools - [installer code] -Test - Install Cellular Module

- a. Select Yes at the prompt to continue.
- b. A popup window displays steps for module replacement. Keep this window open until replacement is completed.
- 2. Remove the side bezel. See diagram at right.
- 3. Remove the screw that secures the module.
- 4. Remove the communication module from its connection slot by using the pull tab.
- 5. Insert the new module into the slot. Push firmly to mate the edge connector. Replace the screw.
- 6. Replace the bezel.
- 7. When installation is complete, press **OK** at the replacement steps window. Confirmation of proper installation appears. Press **OK** to exit.
- 8. Reboot the Controller.

Security -Tools - [master code] - Advanced - Reboot Press Reboot, then press Yes to "Are you sure?" to restart the Controller. Wait for the Controller to reboot.

Test the communication path. See step 8 in Installing the Module section above.



Replacing the Module

### RF EXPOSURE WARNING

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 7.8 in (20 cm) from all persons and must not be co-located or operated in conjunction with any other transmitter except in accordance with FCC multi-transmitter product procedures.

Mise en Garde

Exposition aux Fréquences Radio: L'antenne (s) utilisée pour cet émetteur doit être installée à une distance de séparation d'au moins 7,8 pouces (20 cm) de toutes les personnes.

FEDERAL COMMUNICATIONS COMMISSION (FCC) & INDUSTRY CANADA (IC) STATEMENTS

The user shall not make any changes or modifications to the equipment unless authorized by the Installation Instructions or User's Manual. Unauthorized changes or modifications could void the user's authority to operate the equipment.

### FCC CLASS B STATEMENT

This equipment has been tested to FCC requirements and has been found acceptable for use. The FCC requires the following statement for you

information:

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

If using an indoor antenna, have a quality outdoor antenna installed.

Reorient the receiving antenna until interference is reduced or eliminated.

- Reorient the receiving antenna until interference is reduced or eliminated. Move the radio or television receiver away from the receiver/control. Move the antenna leads away from any wire runs to the receiver/control. Plug the receiver/control into a different outlet so that it and the radio or television receiver are on different branch circuits.
- Consult the dealer or an experienced radio/TV technician for help.

INDUSTRY CANADA CLASS B STATEMENT
This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du

## FCC / IC STATEMENT This device complies with Part 15 of the FCC Rules, and RSS-210 of IC.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference (2) This device must accept any interference received, including interference that may cause undesired operation.

Cet appareil est conforme à la partie 15 des règles de la FCC & de RSS-210 des Industries Canada. Son fonctionnement est soumis aux conditions suivantes: (1) Cet appareil ne doit pas causer d'interférences nuisibles. (2) Cet appareil doit accepter toute interférence reçue y compris les interférences causant une réception indésirable

### SUPPORT & WARRANTY

ne latest documentation and online support information, please go to: https://mywebtech.honeywell.com/ For the latest do For the latest warranty information, please go to: www.honeywell.com/security/hsc/resources/wa. For patent information, see www.honeywell.com/patents







### Specifications

**Dimensions:** ....2-5/8"W x 3-1/8"L x 1/2"D Voltage Input .. 5V (provided by the controller)

Current Lyric-3G/3GC

Idle .....60mA, standby Transmit ..... 500mA

Lyric-CDMA

Idle .....75mA, standby Transmit ..... 500mA

### **Environmental**

Operating temperature: -20°C to +55°C, (for compliance agency: 0°C to +49°C) Storage temperature: -40° to +70°C

Humidity: 0 to 95% relative humidity, non-condensing (for compliance agency 0% to 85%)

### Lyric-3G/3GC Frequency Bands

2G GSM/GPRS/EDGE

Quad Band 850/900/1800/1900 MHz

3G UMTS Band V, Band II 850/1900MHz WCDMA **HSUPA HSDPA** 

### Lyric-CDMA RF Features

- Dual-band support for both the 800MHz cellular and 1.9GHz PCS bands.
- Adheres to CDMA authentication as specified in CDMA 1X.
- Support for IS-95A/B and CDMA 1X Release O/A.

### External Antenna Kit: Cell-ANTST

### IMPORTANT NOTE ABOUT EXTERNAL ANTENNAS

If an external cellular ONLY by a professional installer

### TO THE INSTALLER - Lyric-3G

m directional gain (including cable loss) of 3.2 dBi at 850 MHz and 2.3 dBi at 1900 MHz.

TO THE INSTALLER – Lyric-CDMA
The external antenna must not exceed a maximum directional gain (including cable loss) of 9.3 dBi at 850 MHz and 8.2 dBi at 1900 MHz.



