CELL COMMAND, INC.

HIGH SECURITY BEACONS

Instruction Manual

Model CCICWE2

FCC ID: 2ASUA-CCICWE2

FCC Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful 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:

– Reorient or relocate the receiving antenna.

– Increase the separation between the equipment and receiver.

– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

– Consult the dealer or an experienced radio/TV technician for help.

Introduction: The Cell Command Beacons are high security precision transmit devices designed to work in conjunction with Cell Command's high security cell phone protocols. The CCI Beacons are low power, limited range devices designed to trigger a specific protocol instruction to limit certain device functionality in a mobile phone within a well defined area or environment. The CCI beacons are smart devices and precisely configurable for trained technicians. This manual provides step-by-step instructions how to change the configurable settings.

IMPORTANT: For security measures and battery conservation, the beacon auto disconnects from the APP when connected longer than 5 minutes without use. Changed values only effectuate after saved in software and beacon reboot.

STEP 1.   DOWNLOAD AND START THE CCI BEACON CONFIGURATION APP ON YOUR PHONE:

    1.1 Turn on your Mobile Device's Bluetooth.

    1.2 Download the CCI BEACON APP from the link provided.

    1.3 Click the CCI BEACON icon on your phone to open the configuration APP.

      (Note - If you do not see the CCI BEACON icon, click into your phone's System settings; then click into APPS; then click on CCI BEACON app to open.

    1.4 When the CCI BEACON app opens, it will auto detect and list all beacons within range.
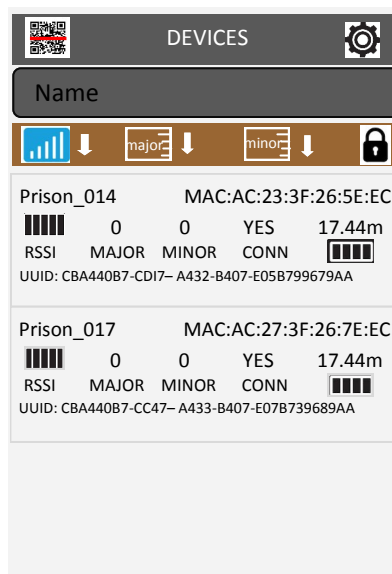   (Screen should look like figure 1 directly below)

figure 1

CONFIGURABLE PARAMETERS: The CCI BEACONS have ten parameters which can individually be configured by a trained technician: UUID, MAJOR, MINOR, MEASURED DISTANCE, TRANSMISSION POWER, BROADCASTING INTERVAL, SERIAL ID, BEACON NAME, CONNECTION MODE, PASSWORD.

2. DEFAULT SETTINGS (figure 2 below): The CCI BEACON operating system software is configured with the following default settings unless otherwise noted:

CHARACTERISTIC	ITEM	DEFAULT SETTING	RANGE
0xFFF1	UUID	CWA440B7-CCI7– B4070-E05B799679 (Proximity UUID)	128 bits
0xFFF2	MAJOR	0	0 - 65535
0xFFF3	MINOR	0	0 - 65535
0xFFF4	MEASURED DISTANCE	-59 (0xC5)	Recommended
0xFFF5	TRANSMISSION POWER	6 (0 dBm)	0 - 7
0xFFF6	CHANGE PASSWORD	CCIBEACON1	8 Characters (MUST)
0xFFF7	BROADCASTING INTERVAL	9 (900 mS)	1 - 100 (1 - 10 recommended)
0xFFF8	SERIAL ID	Random (Unique Serial ID)	0 - 99999
0xFFF9	BEACON NAME	CCI Beacon_	10 characters (max)
0xFFFE	CONNECTION MODE	0 = Connectable/Configuration Mode 1 = Non-Connectable/Deployment Mode	0 , 1
0xFFFF	REBOOT BEACON	CCIBEACON1	———

Figure 2

CONFIGURABLE PARAMETERS

UUID - Universally Unique Identifier. It contains 32 hexadecimal digits, split into 5 groups, separated by hyphens. Each of the 5 groups must contain the following number of characters per section: First section: 8; Second section: 4; Third section: 4; Fourth section: 4; Fifth section: 12. Characters should be numbers from 0 - 9, or letters from A to F. A group can be made entirely of just numbers or letters or a combination of both. The UUID is a standard identifying system which allows a 'unique' number to be generated for a device (or in the case of Beacons, manufacturer, application or owner). The purpose of the ID is to distinguish Beacons in your network, from all other beacons in networks outside your control. By default, you will be assigned only one UUID when ordering Beacons. Technically an organization can use multiple UUIDs if needed, for example, to identify venues in different locations or to identify different business units.

MAJOR - Major and Minor values are numbers assigned to your Beacons, in order to identify them with greater accuracy than using UUID alone. Minor and Major are unsigned integer values between 0 and 65535. Major values are intended to identify and distinguish a group – for example, all beacons in on a certain floor or room in your venue could be assigned a unique major value.

MINOR - Major and Minor values are numbers assigned to your Beacons, in order to identify them with greater accuracy than using UUID alone. Minor and Major are unsigned integer values between 0 and 65535. Minor values are intended to identify and distinguish an individual – for example distinguishing individual beacons within a group of beacons assigned a major value.

MEASURED DISTANCE - Measured Distance is a factory-calibrated constant which indicates what's the expected RSSI at a distance of 1 meter to the beacon. Combined with RSSI (Received Signal Strength Indicator), it allows you to estimate the distance between the device and the beacon

TRANSMISSION POWER - The power with which the beacon broadcasts its signal. The more power, the longer the range. Increasing the power can also make the signal more stable, but keep in mind it can have a negative effect on battery life.

CHANGE PASSWORD - The CCI beacon password should be changed immediately upon putting the beacons into place to insure the highest level of security possible.

BROADCASTING INTERVAL - Beacons do not broadcast constantly. They 'blink' instead. A broadcast Interval describes the time between each blink. The broadcasting Interval on beacons can be adjusted. The CCI beacons have ten broadcasting options ranging from 100ms - 1000ms. The shorter the interval, the more stable the signal. Adjusting the broadcast interval can significantly impact the battery life.

SERIAL ID - The serial ID is another way to identify a particular set of beacons.

BEACON NAME - The beacon name is an identifier which is also visible in Admin Apps without actually having to connect to the beacon device. The Beacon name is also transmitted in a scan response packet.

CONNECTION MODE - The Connection mode determines whether the Beacon is configurable (O) or in deployment mode (1). If connectable, then the beacon can be configured. If non-connectable, the Beacon is in deployment mode and cannot be configured.

3. CHANGING THE PARAMETERS:

    3.1   With the CCI Beacon app open showing the list of devices (as shown in figure 3 below), click on the device you would like to modify. A CONFIG screen should appear listing the configurable items as shown in Figure 4 below.
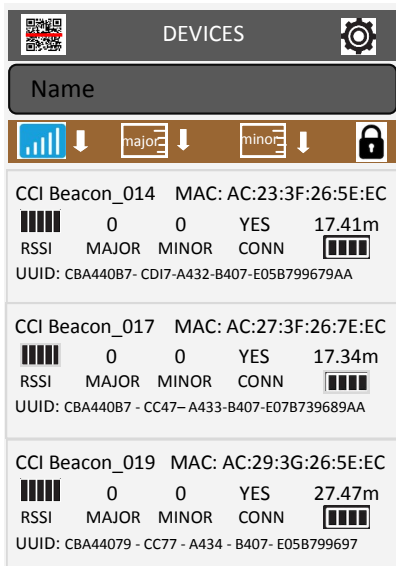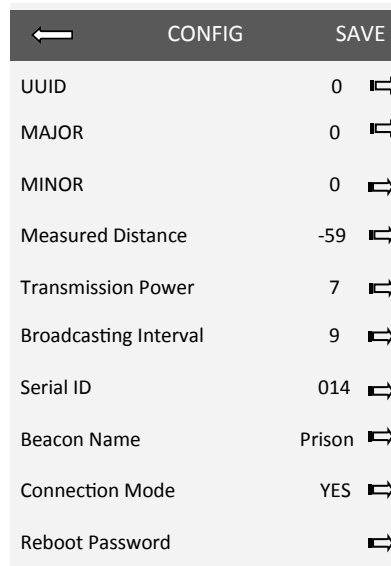

Figure 3	Figure 4

    3.2   Click any of the items you wish to change and modify accordingly. When finished click SAVE. You will be taken back to the CONFIG screen. CLICK the next item you wish to modify—when finished click SAVE. Once you are finished changing all the parameters according to your needs, click SAVE again from the CONFIG screen.

    3.3   After clicking SAVE from the CONFIG screen, a Reboot Beacon pop-up will appear asking for the password. Enter the proper password and click OK.
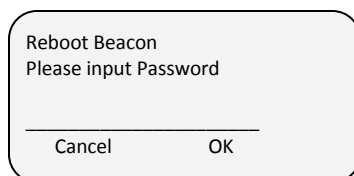
    3.4   After entering the password and then clicking OK, a small SET SUCCESS pop-up screen should briefly appear before taking you back to the DEVICE screen.

SET SUCCESS
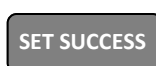
    3.5   The CCI Beacon is ready for use.