Technical Support Information

For Technical Support, call toll free: 866-896-1818
Email: techsupport@ipdatatel.com
Web: www.ipdatatel.com

ipDatatel, LLC
13110 Southwest Freeway
Sugar Land, TX 77478
Toll Free: 866-896-1818

Revision Notes

<table>
<thead>
<tr>
<th>Revision</th>
<th>Notes</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Initial Release</td>
<td>4/29/2013</td>
</tr>
<tr>
<td>2.1</td>
<td>Included Instructions for both Ethernet/CDMA Firmware Upgrade as well as CDMA provisioning.</td>
<td>5/23/2013</td>
</tr>
<tr>
<td>2.2</td>
<td>Fixed minor programming instructions</td>
<td>8/13/2013</td>
</tr>
</tbody>
</table>
**QUICK REFERENCE**

*See Supported Panels section page 23*

GE:

*See page 18 for details*

Programming on GE NetworX:

<table>
<thead>
<tr>
<th>Section</th>
<th>Cellular BAT-CDMA as Sole Communicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device 0</td>
<td></td>
</tr>
<tr>
<td>Location 0</td>
<td>Enter the Phone Number</td>
</tr>
<tr>
<td>Location 1</td>
<td>Enter Account Number</td>
</tr>
<tr>
<td>Location 2</td>
<td>Enter ‘13’ for Contact ID</td>
</tr>
</tbody>
</table>

VISTA:

*See page 15 for details*

Programming on Vista:

<table>
<thead>
<tr>
<th>Section</th>
<th>Cellular BAT-CDMA as Sole Communicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>Enter Phone Number</td>
</tr>
<tr>
<td>43</td>
<td>Enter Account Number</td>
</tr>
<tr>
<td>193</td>
<td>Enter 1, 0. Enable to turn on Address 20</td>
</tr>
</tbody>
</table>

DSC:

*See page 11 for details*

Programming on DSC:

<table>
<thead>
<tr>
<th>Section</th>
<th>Cellular BAT-CDMA as Sole Communicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>301</td>
<td>Enter Phone Number</td>
</tr>
<tr>
<td>310</td>
<td>Enter Account Number</td>
</tr>
<tr>
<td>350</td>
<td>Enter ‘03’ for Contact ID</td>
</tr>
</tbody>
</table>
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Introduction

ipDatatel’s Cellular Broadband Alarm Transceiver - CDMA ("Cellular BAT-CDMA" or "Product") is a multi-path Cellular radio and wired internet connected alarm panel transceiver. The Product transmits alarms over broadband Internet via hardwired RJ45 Ethernet connection or via Verizon’s Cellular CDMA network.

The Cellular BAT-CDMA is compatible with any alarm control panel that transmits Contact ID (CID) format from its digital dialer communicator. The Product also connects to the Keypad Bus of compatible alarm control panels (Honeywell, DSC, and GE NetworX) to provide additional interactive services.

The end user has virtual keypad access via smartphone and the web, as well as alarm monitoring notifications via text, email, and computerized voice call.

ipDatatel’s proprietary uDownloader software enables remote management of Honeywell, DSC, and GE NetworX alarm panels that are connected to the Cellular BAT-CDMA, Wifi BAT, and BAT products.

Key Features

Broadband Internet Connectivity
The Cellular BAT-CDMA technology replaces outdated conventional phone lines to provide high-speed IP alarm monitoring transmissions over the Internet. By capturing the data transmission from the alarm control’s digital dialer output, the Product emulates an alarm receiver.

The Product also resolves the communication problems that VOIP services create that chop up alarm signal transmissions.

IP Alarm transmissions are made using Contact ID format and can be sent to your alarm receiver via landline, or can be transmitted directly by IP to your central station.
Alarm monitoring signals such as open/close, trouble, supervisory, latch-key, and monitoring of special devices, can be routed directly to your alarm monitoring station or to the customer. These automated features of the Product gives you control over what signals are sent to the central station, helping save on monitoring costs.

**Cellular BAT – CDMA Connectivity**

ipDatatel’s Cellular BAT-CDMA is a multi-path solution, giving you two separate transmission paths to your central station. The alarm panel can be set up to have hard wired Ethernet connectivity, and a “fail-over” to Cellular radio connectivity, if hard wired connectivity is lost for any reason (power outage, lines cut, etc.) A customer may also wish to run their alarm monitoring using Cellular connectivity exclusively. This provides for alarm monitoring at alarm sites that lack Internet and/or phone line service.

**Remote Universal Downloader (uDownloader)**

ipDatatel’s Universal Downloader software, the “uDownloader,” installs on a Windows Machine in the Service Tray, and enables remote management of alarm panels that are connected to the Cellular BAT-CDMA via the Internet (CDMA or hardwired). uDownloader supports Honeywell Compass, GE NetworX DL900, and DSC DLS IV& DLS 5. The uDownloader software is available for download at [www.alarmdealer.com](http://www.alarmdealer.com) in the Dealer Resources section.

**Virtual Keypad Access**

Your customers can operate their alarm system using ipDatatel’s ipFob app using their smartphone, or web browser. The ipFob gives the customer a virtual keypad to their alarm panel, and provides a quick connection time. The ipFob is very useful for quick and convenient arming and disarming as well as periodic alarm history checks. ipFob is compatible with iPhone and Android platforms, and is free to download at the App Store or the Google Play Store – Search for “ipFob”. The virtual keypad is also available as a web application on alarmdealer.com that runs from any Internet connected browser.

**Alarm Notifications via Text and Email**

The Cellular BAT-CDMA also provides notifications for alarm, supervisory, trouble, and open/close signals. Notifications by text
and email identify the alarm system address, alarm signal and zone, and description.

**Computerized Voice Alarm Notifications**
ipDatatel also provides an exclusive feature of notifications via computerized voice for customers who wish a phone call, where they may not want text or email messages.

**Tamper Switch Monitoring**
The Cellular BAT-CDMA provides a tamper switch that is activated with the plastic enclosure on the device is opened. This allows an event/alarm to be tracked and or reported, based on your company’s policies.

**Installation Guide**

**CDMA Service Provisioning**

**Overview**

The Cellular BAT-CDMA module requires it be registered with Verizon and an Over The Air Service Provisioning (OTASP) be completed. During an OTASP the Product module obtains an IP address with the nearest cell tower and provides IP connectivity to the device.

**Resolution**

These steps will provision the Product with the Verizon network for connectivity.

**Service Provisioning Steps**

1. To begin, ensure that the board is powered appropriately with 12Volts either from a battery or the Customer Control Panel.
2. Press and release the SW1 switch 3 times (I.E. triple click the switch)
3. Once released, the unit will auto power cycle. When it re-initializes you should see LEDs 3 – 6 scrolling
4. Once acquired into the network, you will see the signal strength indicated on the board via LEDs 3 – 6.
5. Wait approximately 5 minutes before sending signals.
General Considerations

- Before installation, your Cellular BAT-CDMA must also be setup using the dealer Branded Portal www.alarmdealer.com.
- The Product should be installed securely in the supplied plastic housing, and be mounted next to your alarm control panel.
- Where available, proximity to the hard-wired Ethernet Internet connection should be taken into consideration when routing wires.
- Choose a location with good Cellular reception by monitoring the Product's signal strength LEDs with a pre-wire power up.
- The Product must be completely powered down before starting the wire up.
- Programming is simple using the alarm control panel. Written instructions are included in the “Wiring & Programming” section of this manual starting on page 10.

Pre-Installation

Hardware Registration

Before installation of your Cellular BAT-CDMA, it must be registered at www.alarmdealer.com.

Here are the steps needed to register your hardware:

- Log in to alarmdealer.com with the dealer login information that was emailed to you.
- Navigate to ‘Dealer Menu’->’Hardware Registration’
- Enter the MAC address for the board you wish to register

Adding a Cellular BAT-CDMA to a Customer Account

After registering the hardware, the Product must be added to a Customer Account. To do this, follow these steps:

- Log in to alarmdealer.com with the dealer login information that was emailed to you.
- Navigate to ‘Dealer Menu’->’User Accounts’, then click ‘Create Account’
- Fill in the customer information
- Click ‘Add Hardware’
- Find and select the Product you registered earlier. You can search for it by MAC address.
- Follow other registration steps and options as found on this page, then click ‘Save’ to complete the registration.
Locating and Installing the Cellular BAT-CDMA
The Product connects to the alarm panel’s power connections, Telco, virtual keypad bus (if available), and keyswitch connections (optional).

The Cellular BAT-CDMA should be connected to the Internet via a hard-wired (RJ45) internet connection located on the lower-right hand side to the circuit board. If a hard-wired Internet connection is not available then the Cellular connection will be used. The Product automatically seeks an IP address. There is no need to program routers or switches.

Telco - Digital Dialer
The Cellular BAT-CDMA’s signal collection expects Contact ID format from the digital dialer on the alarm panel. Most control panels made in the last decade are capable of this. Wire the Telco side of the alarm control's Tip & Ring to the Product's Tip & Ring.

Virtual Keypad Connection
The Cellular BAT-CDMA connects to most panels as a Virtual Keypad, allowing the customer full virtual keypad access after they authenticate using the customer username and password you have assigned them in the pre-installation phase. This allows the customer to use our ipFob mobile phone and web interfaces. You will need to refer to the wiring diagram for your specific panel because the panel side the Virtual Keypad connection has various labels (Data in-Data out, YEL-GRN, or just Data). This connects to the G/RX, Y/TX connections on the Product.

Power Connection
The last step is to wire the alarm panel’s 12VDC auxiliary power and ground to Product’s positive (pin 3) and negative (pin 4) terminals. See Illustration on page 30.

Basic Programming
Because the Cellular BAT-CDMA simulates telephone service to the panel, general programming for the control is limited to configuring the signal format as Contact ID, as well as inputting a telephone number to dial. In our case the actual telephone number does NOT matter and is NOT used in the signal delivery process.
Full Virtual Keypad Programming
For panels that are “Interactive Ready” (See Supported Panels section page 23) the following programming will give you full virtual keypad access to where the customer can enter their 4 digit code to arm & disarm the system, when using ipFob mobile and web interfaces.

DSC Panels: No programming required to make the virtual keypad operate.

GE Panels: Enter & Exit programming, Cellular BAT-CDMA will enroll as a Keypad (240) in the panel.

Honeywell Vista Panels: Enable *193 with (1,0) to turn on Address 20.

Troubleshooting Diagnostic Information
Under normal operation the Activity light will periodically blink. A power cycle is recommended if the Activity light is not periodically blinking.

Validating the Installation
After the unit is properly connected to the Alarm Panel and powered up, use the following steps to validate that the system is functioning properly:

- Ensure that virtual keypad functionality works through alarmdealer.com, or the ipFob mobile app.
- Ensure that alarm signals reach your central station.

Wiring & Programming for Popular Panels
The following pages are organized by Alarm Panel type. Wiring and programming instructions are given for:

- Digital Security Control (DSC) Alarm Panels
- Ademco & Honeywell Vista Alarm Panels
- GE NetworX Alarm Panels
DSC Panel Wiring and Programming

DSC Control Panel

RED BLK YEL GRN RING TIP

BAT-CDMA

16 Z2 out
15 Z1 out
14
13
12 RXD PC-Link
11 TXD
10 A RS-485
  B
9
8 Rx RS-232
  Tx
7 G / Rx
6 Y / Tx
5 - Neg Power
  + Pos
4 Ring
3 Tip
2
1

DSC Keybus & Tip/Ring Wiring

Cellular BAT –CDMA Installation Guide Rev. 2.2
DSC PC-Link connection
This allows for remote downloader functionality with ipDatatel’s Universal Downloader (uDownloader) software. (Not Required)

DSC PC-Link Wiring

R Wire = Terminal 11  
B Wire = Terminal 12  
G & W = Terminal 4
DSC Panel Programming
See Supported Panels section on page 23. Perform the TELCO Programming if Tip & Ring is being used. If for whatever reason you cannot use Tip & Ring to send Signals then you can wire a PC-Link from the Product to the Panel and perform PC-Link Programming. Otherwise, ALWAYS do TELCO Programming.

TELCO Programming: General Concept Programming on DSC (Cellular BAT-CDMA as Sole Communicator):

<table>
<thead>
<tr>
<th>Section</th>
<th>As Sole Communicator</th>
<th>Code Summarization</th>
</tr>
</thead>
<tbody>
<tr>
<td>301</td>
<td>Enter a Receiver Number</td>
<td></td>
</tr>
<tr>
<td>310</td>
<td>Enter Account Number</td>
<td></td>
</tr>
<tr>
<td>350</td>
<td>Enter ‘03’ to send Contact ID</td>
<td>Panel default is ‘04’, SIA</td>
</tr>
</tbody>
</table>

Note: Ensure All Report Codes are in, and signals can be sent.

PC-Link Programming: DSC Programming for Communications - GSM Emulation: If GSM is used, it must be in dialer capture mode.

<table>
<thead>
<tr>
<th>Sec</th>
<th>Cellular BAT as Sole Communicator</th>
<th>Cellular BAT as Failover w/ Add'l Communication Device</th>
<th>Cellular BAT as Dual Reporting w/ Add'l Communication Device</th>
<th>Code Summarization</th>
</tr>
</thead>
<tbody>
<tr>
<td>015</td>
<td>Disable Option 7</td>
<td>If GSM, Disable Option 7</td>
<td>If GSM, Disable Option 7</td>
<td>Option 7 turns on/off telephone line supervision.</td>
</tr>
<tr>
<td>167</td>
<td>Set ‘060’ Seconds</td>
<td>Set ‘060’ Seconds</td>
<td>Set ‘060’ Seconds</td>
<td>Sets T-Link acknowledgement delay to 60 secs.</td>
</tr>
<tr>
<td>301</td>
<td>Set ‘CAAF’</td>
<td>Set ‘CAAF’</td>
<td>Set ‘CAAF’</td>
<td>‘CAAF’ has to be set for the panel to send signals to the PC-Link</td>
</tr>
<tr>
<td>302</td>
<td>N/A</td>
<td>N/A</td>
<td>Set ‘Central Station Receiver #’</td>
<td>Second telephone number goes here.</td>
</tr>
<tr>
<td>303</td>
<td>N/A</td>
<td>Set ‘Central Station Receiver #’</td>
<td>Set ‘Central Station Receiver #’</td>
<td>This section is the telephone backup of section 301.</td>
</tr>
<tr>
<td>350</td>
<td>Set ‘04’ / ‘04’</td>
<td>Set ‘04’ / ‘03 for Contact ID, 04 for SIA FSK’ **</td>
<td>Set ‘04’ / ‘03 for Contact ID, 04 for SIA FSK’ **</td>
<td>Format sent as either contact ID (03), or SIA FSK (04). The PC-Link / BAT can ONLY receive signals via SIA FSK (04).</td>
</tr>
</tbody>
</table>

Continued on next page.
**PC-Link Programming**: DSC Programming for Communications (GSM Emulation): If GSM is used, it must be in dialer capture mode.

<table>
<thead>
<tr>
<th>Sec</th>
<th>Cellular BAT as Sole Communicator</th>
<th>Cellular BAT as Failover w/Add'l Communication Device</th>
<th>Cellular BAT as Dual Reporting w/Add'l Communication Device</th>
<th>Code Summarization</th>
</tr>
</thead>
<tbody>
<tr>
<td>351</td>
<td>Enable Option 1</td>
<td>Enable Option 1, 5</td>
<td>Enable Option 1, 2, 5</td>
<td>Options to turn on/off alarm/restore for telephone 1 (option 1), telephone 2 (option 2), and alternate communications (option 5).</td>
</tr>
<tr>
<td>359</td>
<td>Enable Option 1</td>
<td>Enable Option 1, 5</td>
<td>Enable Option 1, 2, 5</td>
<td>Options to turn on/off tamper/restore for telephone 1 (option 1), telephone 2 (option 2), and alternate communications (option 5).</td>
</tr>
<tr>
<td>367</td>
<td>Enable Option 1</td>
<td>Enable Option 1, 5</td>
<td>Enable Option 1, 2, 5</td>
<td>Options to turn on/off opening/closing for telephone 1 (option 1), telephone 2 (option 2), and alternate communications (option 5).</td>
</tr>
<tr>
<td>375</td>
<td>Enable Option 1</td>
<td>Enable Option 1, 5</td>
<td>Enable Option 1, 2, 5</td>
<td>Options to turn on/off maintenance for telephone 1 (option 1), telephone 2 (option 2), and alternate communications (option 5).</td>
</tr>
<tr>
<td>376</td>
<td>Enable Option 1</td>
<td>Enable Option 1, 5</td>
<td>Enable Option 1, 2, 5</td>
<td>Options to turn on/off testing for telephone 1 (option 1), telephone 2 (option 2), and alternate communications (option 5).</td>
</tr>
<tr>
<td>380</td>
<td>Enable Option 1</td>
<td>Enable Option 1, 5</td>
<td>Enable Option 1, 5</td>
<td>Option 1 turns on/off communications. Option 5 turns on/off 3rd phone number.</td>
</tr>
<tr>
<td>381</td>
<td>Disable Option 3, Enable Option 5</td>
<td>Disable Option 3, Enable Option 5, 6</td>
<td>Disable Option 3, Enable Option 5, 6</td>
<td>Option 3 turns on/off code reporting. Options 5 &amp; 6 turns on/off communication with phone lines 1/3 &amp; 2 respectively.</td>
</tr>
<tr>
<td>382</td>
<td>Enable Option 5</td>
<td>Enable Option 5</td>
<td>Enable Option 5</td>
<td>Option 5 enables/disables T-Link/PC-Link.</td>
</tr>
<tr>
<td>389</td>
<td>Set ‘003’ Seconds</td>
<td>Set ‘003’ Seconds</td>
<td>Set ‘003’ Seconds</td>
<td>The time it will take to periodically check for faults on the T-Link/PC-Link.</td>
</tr>
</tbody>
</table>
Vista Keybus & Tip & Ring Wiring
Honeywell Vista Panel Programming

See Supported Panels section on page 23. Perform the TELCO Programming if Tip & Ring is being used. If for whatever reason you cannot use Tip & Ring to send Signals then you can perform ECP Bus Programming. Otherwise, ALWAYS do TELCO Programming.

**TELCO Programming:** Programming on Vista (BAT as Sole Communicator):

<table>
<thead>
<tr>
<th>Section</th>
<th>Cellular BAT as Sole Communicator</th>
<th>Code Summarization</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>Enter Phone Number</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Enter Account Number</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>Enter 5</td>
<td>For All Communications to BAT</td>
</tr>
<tr>
<td>54</td>
<td>Enter 0</td>
<td>No Delay Between Communicators</td>
</tr>
<tr>
<td>55</td>
<td>Enter 0</td>
<td>Phone Line Communicates First</td>
</tr>
<tr>
<td>65 &amp; 66</td>
<td>Enter 1</td>
<td>If you want Opening/Closing Reports</td>
</tr>
<tr>
<td>193</td>
<td>Enter 1, 0</td>
<td>Enable to turn on Address 20</td>
</tr>
</tbody>
</table>
### ECP Bus Programming: Vista Programming for Communications - GSM Emulation:

<table>
<thead>
<tr>
<th>Sec</th>
<th>Cellular BAT as Sole Communicator</th>
<th>Cellular BAT in use with another Communication Device for Failover</th>
<th>For Dual Reporting</th>
<th>Code Summarization</th>
</tr>
</thead>
<tbody>
<tr>
<td>*29</td>
<td>Enter 1</td>
<td>Enter 1</td>
<td>Enter 1</td>
<td>This enables GSM. The BAT Emulates a GSM.</td>
</tr>
<tr>
<td>*42</td>
<td>N/A</td>
<td>Enter Central Station Receiver Number</td>
<td>Enter Central Station Receiver Number</td>
<td>Secondary Phone Number</td>
</tr>
<tr>
<td>*43</td>
<td>Enter Account Number</td>
<td>Enter Account Number</td>
<td>Enter Account Number</td>
<td>This is the central station account number</td>
</tr>
<tr>
<td>*49</td>
<td>Enter 5</td>
<td>Please refer to panel manual for your particular application requirements</td>
<td>Please refer to panel manual for your particular application requirements</td>
<td>Dual Reporting; Setting to 5 sends all reporting to both primary and secondary.</td>
</tr>
<tr>
<td>*54</td>
<td>Enter 0</td>
<td>Enter 2</td>
<td>Enter 0</td>
<td>The time it takes for the communicator to switch from primary to secondary.</td>
</tr>
<tr>
<td>*55</td>
<td>Enter 1</td>
<td>Enter 1</td>
<td>Enter 1 (BAT is Primary Communicator)</td>
<td>Setting to 1 gives signal priority to GSM (BAT).</td>
</tr>
<tr>
<td>*65</td>
<td>Enter 1</td>
<td>Enter 1</td>
<td>Enter 1</td>
<td>Report Code for Openings.</td>
</tr>
<tr>
<td>*66</td>
<td>Enter 1, 1</td>
<td>Enter 1, 1</td>
<td>Enter 1, 1</td>
<td>Report Code for Arming in Away and Stay.</td>
</tr>
<tr>
<td>*193</td>
<td>Enter 1, 0</td>
<td>Enter 1, 0</td>
<td>Enter 1, 0</td>
<td>1 turns on/off keypad address. 0 sets sound to beep.</td>
</tr>
</tbody>
</table>

See Supported Panels section on page 23 to verify your panel’s revision number and GSM emulation programming.
GE Panel Wiring and Programming

GE Control Panel

GE Keybus & Tip & Ring Wiring

<table>
<thead>
<tr>
<th>BAT-CDMA</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Z2 out</td>
</tr>
<tr>
<td>15</td>
<td>Z1 out</td>
</tr>
<tr>
<td>14</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>RXD</td>
</tr>
<tr>
<td>11</td>
<td>PC-Link</td>
</tr>
<tr>
<td>10</td>
<td>A</td>
</tr>
<tr>
<td>9</td>
<td>RS-485</td>
</tr>
<tr>
<td>8</td>
<td>B</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Tip
Ring

+ Pos
- Neg
Com
Data

Power

RS-232
TSX
Z1 out
Z2 out
G / Rx
Y / Tx

GE Control Panel

Pos
Com
Data
T
R
GE Panel Programming

See Supported Panels section on page 23.

**Recommended**: General Concept Programming on GE NetworX:

<table>
<thead>
<tr>
<th>Section</th>
<th>BAT as Sole Communicator</th>
<th>Code Summarization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device 0, Location 0</td>
<td>Enter the Phone Number</td>
<td></td>
</tr>
<tr>
<td>Device 0, Location 1</td>
<td>Enter Account Number</td>
<td></td>
</tr>
<tr>
<td>Device 0, Location 2</td>
<td>Enter ‘13’ Recommended value</td>
<td>Contact ID</td>
</tr>
</tbody>
</table>

Programming for Communications (GSM Emulation):
As with existing devices in the NetworX family, the BAT is automatically enrolled with the control panel when the panel exits programming mode.

The Cellular BAT-CDMA registers as a keypad and a communications device on addresses 240 and 76, respectively. All signals are read directly from the panel memory, so any call directions and/or reporting codes programmed are specifically for other communication devices, such as the panel dialer.

For Central Station monitoring, the Account Number for the customer MUST be entered into alarmdealer.com. If this is not done, all alarm signals sent to the Central Station will arrive with an incorrect account number attached. The Cellular BAT-CDMA must be power-cycled after making this change.

**To have this enabled so the Cellular BAT-CDMA gets signals from the key bus, you must contact ipDatatel. Otherwise use the TELCO to send signals.**
Generic Keypad Bus Tip & Ring Wiring

**Generic Alarm Panel Programming**

- Program the panel Phone Number into the panel
- Program the Customer Account Number into the panel
- Program Reporting codes into the panel
- Program panel to transmit in Contact ID format
Generic Keyswitch Wiring and Programming

For basic keyswitch interactive services with the Cellular BAT-CDMA, the following alarm panel wiring is needed.

- A programmable output on the alarm panel will be used to signal to the Product (Y/Tx terminal) that the panel has entered Arm/Disarmed State.
- The Z1 output on the Product will be used as a key switch connecting to a ‘zone’ terminal on the alarm panel.
Generic Keyswitch Programming

Keyswitch state programming examples for Ademco, Digital Security Controls, and GE NetworX for Keyswitch and panel state program output operations are given below.

Most alarm panel manufacturers will have the capability to configure a zone as a keyswitch and generally have at least one on-board programmable output that can be configured to activate on a number of different control state conditions. Reference the alarm panel installation manual for details on your specific installation.

Ademco/Honeywell Vista (General Concept)
56 program zone as type 77
80 Menu LED Outs
Program 17 and 18 zone type 78 and 79

DSC PowerSeries (General Concept)
Program zone as '22'
PGM Output '6'

DSC Alexor (General Concept)
Wiring:
Y/Tx -> I/01
G/Rx -> I/02
6.2k ohms resistor from + -> Y/Tx

Programming:
Section 009 - '06''22'
Section 013 - Enable 2 & Disable 1
Section 134 - Enable 14 (Press 9, then 6) This makes it normally closed.
Section 501 - Enable 3

GE NetworX (General Concept)
Program zone as '11'
LED Status
Location 47 Segment 1: 21
Location 47 Segment 2: 0
### Supported Panels

#### Ademco / Honeywell Vista

<table>
<thead>
<tr>
<th>Panel</th>
<th>Revision</th>
<th>Digital Full Dialer</th>
<th>Interactive GSM Emulator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vista-10P</td>
<td>2.6+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-10PSIA</td>
<td>4.0+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-128BP</td>
<td>3.0+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-128BPE</td>
<td>1.0+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-128FB</td>
<td>1.0+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-128FBP</td>
<td>2.0+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-128FBPE</td>
<td>1.0+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-128SIA</td>
<td>2008+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-15</td>
<td>2+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-15CN</td>
<td>2.6+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-15P</td>
<td>2.6+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-15PCN</td>
<td>2.6+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-15PSIA</td>
<td>4.0+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-20P</td>
<td>2.6+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-20PCN</td>
<td>2.6+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-20PI</td>
<td>5+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-20PS</td>
<td>2.6+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-20PSIA</td>
<td>4.0+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-21IP</td>
<td>1.0+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-21IPSIA</td>
<td>1.0+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vista-32FB</td>
<td>1.0+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>First Alert FA130</td>
<td>2.6+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>First Alert FA148</td>
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<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>First Alert FA168</td>
<td>2.6+</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>ADT Safewatch Pro 3000/3000EN</td>
<td>2.6+</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
### DSC (Digital Security Control)

<table>
<thead>
<tr>
<th>Panel</th>
<th>Revision</th>
<th>Digital Full Dialer</th>
<th>Interactive</th>
<th>GSM Emulator</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC5010</td>
<td>Any</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>PC1616</td>
<td>4.13+</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>PC1832</td>
<td>4.13+</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>PC1864</td>
<td>4.13+</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Alexor</td>
<td>ALL</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
</tbody>
</table>

### GE NetworX

<table>
<thead>
<tr>
<th>Panel</th>
<th>Revision</th>
<th>Digital Full Dialer</th>
<th>Interactive</th>
<th>GSM Emulator</th>
</tr>
</thead>
<tbody>
<tr>
<td>NX-4V2</td>
<td>V2+</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>NX-6V2</td>
<td>V2+</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>NX-8V2</td>
<td>V2+</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

For non-supported panels: Bridge 12 VDC to "Y/TX" Terminal with any type of radial resistor with a value of 2.7k to 10k as a weak "pull up".

**Note:** Any Control Panel NOT on this list is supported as long as it provides Tip & Ring and transmits Contact ID. If the panel has the ability to use a Dedicated Open Zone that acts as a Keyswitch, you can Arm/Disarm from the Website or Mobile Phone.

### Firmware Upgrade Instructions

#### Firmware Upgrade via Ethernet

**Overview**
For Board manufactured prior to May 2013 (with firmware version prior to 000F), it is STRONGLY recommended that Firmware upgrades are accomplished via Ethernet.
Check the MAC address / date sticker on your Product board. If there is no date printed or the date is before May 2013, then this upgrade procedure is recommended in order to ensure that future Over-the-Air Firmware upgrades will be successful.

Resolution
These steps will upgrade the firmware on the Cellular BAT-CDMA while connected to an Ethernet network.

Firmware Upgrade Steps
1. Connect the Ethernet port to an Internet router.
2. Once you have provided the board an Internet connection, the unit must be powered using a 12 Volt power source.
   a. NOTE: Please ensure to connect the positive lead of the power supply to pin 3 of the board and the negative lead of the power supply to pin 4 of the board.
3. Call the ipDatatel Network Operations Center (toll free at 866-896-1818) with the MAC Address located on the face of the unit.
4. ipDatatel’s Network Operations Center will push firmware immediately to the device remotely this will take anywhere from 2 to 3 minutes.
5. Upon completion of remote upgrade the unit will automatically restart. Do not unplug the BAT unit its reboot has completed.
6. Once reboot has completed, LED1 (Status) will blink 5 times.
7. Once the BAT has rebooted, the board will display the service bars denoting tower connectivity strength.

Firmware Upgrade via Cellular BAT-CDMA

Overview

For boards with Firmware version 000F or later, it is possible to upgrade the remote equipment using the Product module.

To confirm the date of manufacture, please refer to the MAC address / date sticker on the Product board. If there is no date printed or the date is before May 2013, then this upgrade
Resolution
These steps will upgrade the firmware on the Cellular BAT-CDMA while connected to an Ethernet network.

Firmware Upgrade Steps
1. Power on the Product with a 12V power source (either through a battery or a control panel).
   a. NOTE: Please ensure to connect the positive lead of the power supply to pin 3 of the board and the negative lead of the power supply to pin 4 of the board.
2. Ensure that CDMA Service Provisioning has been accomplished and that the Product module is active and in-network. If unsure, please contact the ipDatatel Network Operations Center with the MAC address located on the face of the unit.
3. ipDatatel’s Network Operations Center can push firmware immediately to the device remotely this can take anywhere from 20 to 30 minutes, depending on connectivity.
4. Upon completion of remote upgrade the unit will automatically restart. Do not unplug the Product.
5. Once reboot has completed, LED1 (Status) will blink 5 times.
6. Once the Product has rebooted, the board will display the service bars denoting tower connectivity strength.
Warranty Information

LIMITED WARRANTY
ipDatatel, LLC (hereinafter referred to as “Seller”), Located at 13110 Southwest Freeway, Sugar Land Texas 77478, warrants its Product to be in conformance with the Product specification, and to be free from defects in materials and workmanship under normal use and service for a period of twelve (12) months from the date of original purchase. Seller’s sole obligation shall be limited to repairing or replacing, at its option, free of charge for materials or labor, any Product which is proven not to be within Seller’s specifications of the Product, or proven defective in materials or workmanship under normal use and service.

Any device purchased which is enclosed within a plastic case must remain in the plastic case for installation and regular use after installation. At no point should the device be removed and mounted without the plastic case, in doing so you may void the device warranty.

LIMITED LIABILITY
Seller shall have no liability or obligation under this Limited Warranty or otherwise for merchantability or fitness for any particular use; nor shall it extend its Limited Warranty, if the Product is altered, or improperly installed, repaired, or serviced. There are no warranties, express or implied, that extend beyond those contained within this document. In no case shall Seller be liable to person or entity for any consequential, or any other basis of law or liability whatsoever, whether or not such loss or damage is caused by Seller’s own negligence or fault.

Seller does not represent that the Product may be compromised or circumvented, or that it will provide the service intended; or that the Product will prevent any personal injury or property loss by burglary, robbery, or otherwise; or that the Product in all cases will provide adequate warning or detection.

Customer understands that a properly installed and maintained alarm system may only reduce the risk of burglary, robbery, or other such events occurring without providing an alarm, but is not insurance or guarantee that such will not occur or that there will be no personal injury or property loss as a result.
Consequently, Seller shall have no liability for any personal injury, property damage or any other loss based on a claim that the Product or services there from, failed to give warning. However, if seller is held liable, directly or indirectly, for any loss or damage arising under this Limited Warranty or otherwise regardless of cause or origin, Seller maximum liability shall not in any case exceed the purchase price of the Product, which shall be the complete and exclusive remedy against Seller.

This Limited Warranty replaces any previous warranty, and is the only warranty made by Seller for this Product. No increase or alteration, written or verbal.

**FCC and Industry Canada Regulatory Compliance**

**FCC Warning / IC Statement**

This device complies with Part 15 of the FCC Rules and with ICES-003, Issue 4 of Industry Canada. 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.

**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.
Canada Avertissement de la FCC / IC Déclaration
Cet appareil est conforme à la Partie 15 des règlements de la FCC et ICES-003, 4e édition d'Industrie Canada. Son fonctionnement est soumis aux deux conditions suivantes:
(1) Cet appareil ne doit pas causer d'interférences nuisibles et
(2) Cet appareil doit accepter toute interférence reçue, y compris les interférences qui peuvent perturber le fonctionnement.

Note:Cet équipement a été testé et trouvé conforme aux limites pour un dispositif numérique de classe B, conformément à la Partie 15 des règlements de la FCC. Ces limites sont conçues pour fournir une protection raisonnable contre les interférences nuisibles dans une installation résidentielle. Cet équipement génère, utilise et peut émettre des fréquences radio et, s'il n'est pas installé et utilisé en conformité avec les instructions, peut causer des interférences nuisibles aux communications radio. Cependant, il n'existe aucune garantie que des interférences ne se produiront pas dans une installation particulière. Si cet équipement provoque des interférences nuisibles à la réception radio ou de télévision, qui peut être déterminé en mettant l'équipement hors tension, l'utilisateur est encouragé à essayer de corriger l'interférence par un ou plusieurs des mesures suivantes:

• Réorienter ou déplacer l'antenne de réception.
• Augmenter la distance entre l'équipement et le récepteur.
• Branchez l'appareil dans une prise sur un circuit différent de celui auquel le récepteur est connecté.
• Consulter le revendeur ou un technicien radio / TV.
Cellular BAT-CDMA Circuit Board Details
Specifications

Radio
- Frequencies CDMA 1x 800 MHz/1900 MHz

Power
- Externally provided 12v DC
- Typical Current 130 mA
- Max Current 180 mA

Environmental
- Temperature Range - 30° to +70° C (- 22° to +158° F)
- Humidity 0 to 95% non-condensing

Physical
- Height 7.05 inches
- Width 4.45 inches
- Depth 1.5 inches

Troubleshooting Diagnostic Information

Under normal operation the Activity light will periodically blink. A power cycle is recommended if the Activity light is not periodically blinking.

**LED – 1:** Status LED
- Flashing - Normal operation.
- Solid – Communicating with Verizon.

**LED – 2:** Activity LED: "is used for UACS or AlarmStack status. Indicates there is communication between the Product & Alarm Panel."

**LEDs – 3 to 6:** Verizon Signal Strength. LED 3 being the lowest and LED 6 being the highest signal strength. The minimum recommended operation is two bars (LEDs 3 & 4 Solid).
Go to www.ipDatatel.com to view on-line installation videos.