



Onity

DirectKey™ Toolkit

User Manual



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Preface

The *DirectKey™ Toolkit User Manual* includes instructions explaining:

- How to use the DirectKey Toolkit software
- How to troubleshoot the DirectKey Toolkit software

The following conventions are used in this document:

| | |
|--------------------|--|
| Bold | Menu items and buttons. |
| <i>Italic</i> | Emphasis of an instruction or point; special terms. |
| | File names, path names, windows, panes, tabs, fields, variables, and other GUI elements. |
| | Titles of books and various documents. |
| <i>Blue italic</i> | (Electronic version.) Hyperlinks to cross-references, related topics, and URL addresses. |
| Monospace | Programming or coding sequences. |

Safety Terms and Symbols

These terms may appear in this manual:

 **WARNING:** Warnings identify conditions or practices that may result in personal injury.

 **CAUTION:** Cautions identify conditions or practices that may result in damage to the equipment or other property.

NOTE: Notes provide additional information that precedes the procedure step.

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DirectKey Toolkit Overview

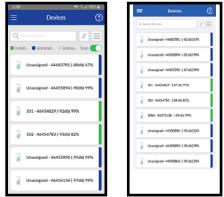
The DirectKey Toolkit (DKT) application can be used with locks that have been fitted with the DirectKey™ Bluetooth® module. The DirectKey Toolkit is used to install, manage, or troubleshoot locks and wall readers fitted with the DirectKey Bluetooth module or Lenel S2 BlueDiamond™ broker. It can be used with either a cell phone or with a tablet or computer using a Windows operating system.

NOTE: The DirectKey module is also referred to as a Broker.

Definitions

| Term | Description |
|---------------------------|---|
| Toolkit | DirectKey Toolkit application (installed on a tablet, laptop, or cell phone) enables the user to manage locks installed with the DirectKey module and devices. Installers also use the DKT to configure Bluetooth wall readers. |
| DirectKey module | DirectKey module and devices allow the lock to communicate with the DirectKey Toolkit through Bluetooth technology. |
| PIN | Personal Identification Number (PIN) allows personal access to the DirectKey Toolkit system. |
| Authorization code | Authorization code is provided with the DirectKey Toolkit software and allows use of the DirectKey Toolkit system. |
| Payload | The key card data. Payload updates the DirectKey Toolkit with the master key permissions. |
| Owner permissions | Owner permissions are required for the <i>Install</i> , <i>Diagnose</i> , and <i>Firmware</i> functions. |
| Device permissions | Device permissions are required to open the locks installed with the DirectKey modules. |

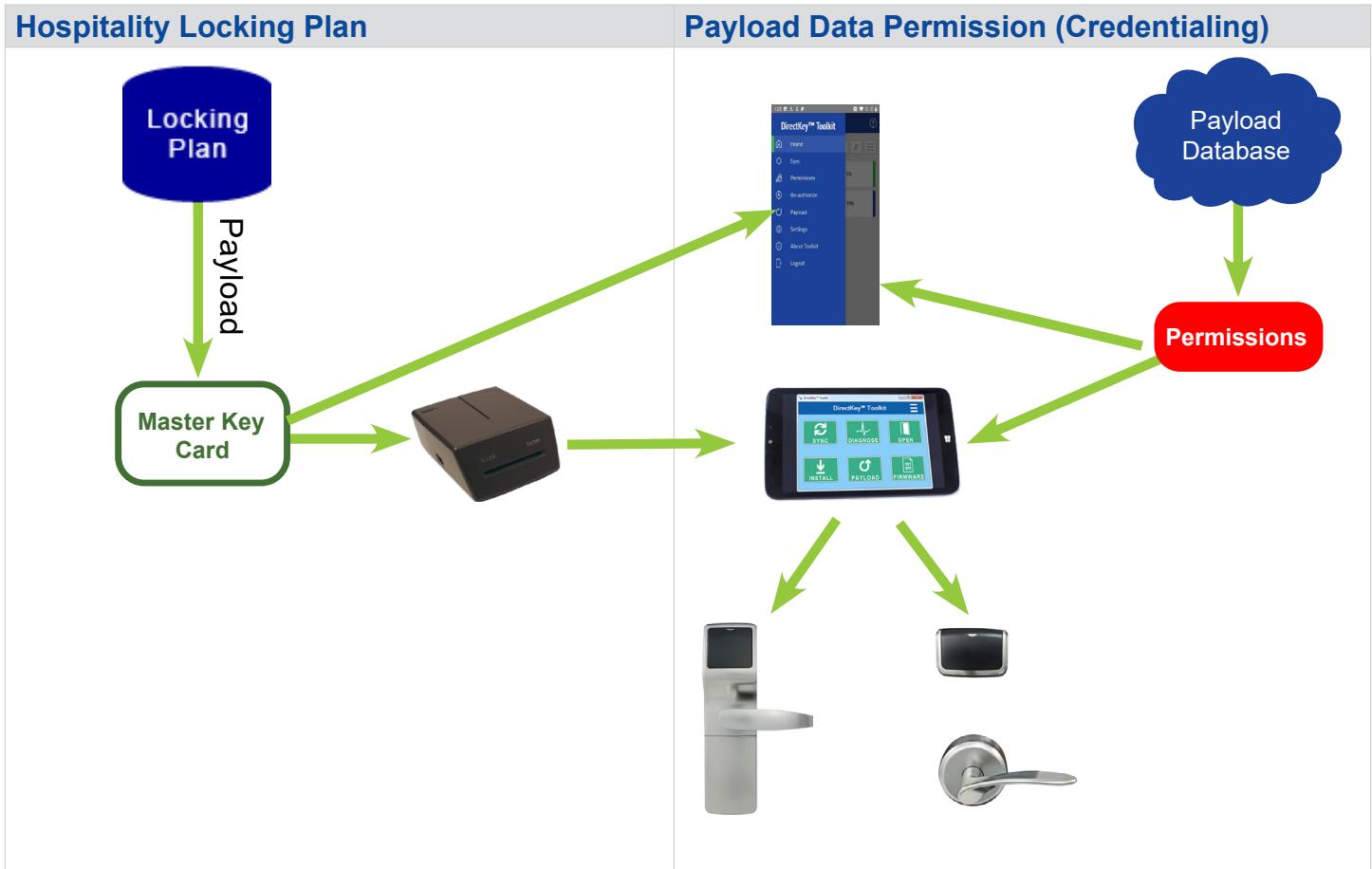
System Components for Cell Phone Use

| Image | Name | Description |
|---|---|--|
|  | DirectKey Toolkit software | DirectKey Toolkit software |
|  | Not supplied: Cell Phone | iOS version 12.0+ Android operating system 8.0+ |
|  | Optional: Online Access Control Reader (LenelS2) | LenelS2 BlueDiamond™ mobile reader |

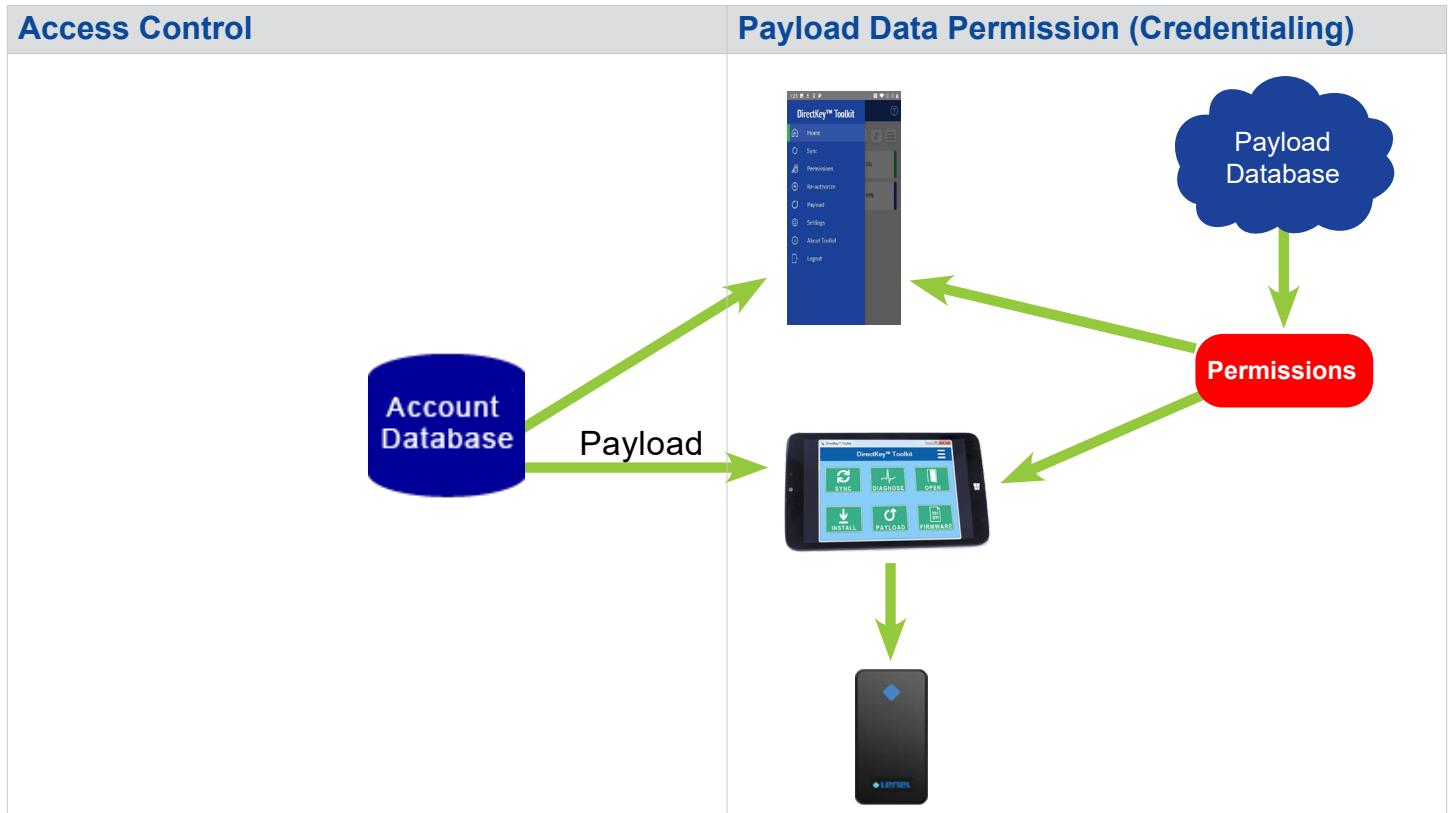
System Components for Windows

| Image | Name | Description |
|--|---|--|
|  | DirectKey Toolkit software | DirectKey Toolkit software |
|  | Optional: Bluegiga® BLEd112 Smart Dongle | Bluetooth smart integration USB tool |
|  | Not supplied: Tablet or laptop with USB charging cable | <p>Tablet or laptop not supplied.</p> <p>Required software and features:</p> <ul style="list-style-type: none"> Windows® 8.1 or above .NETFramework v4.6.1 or above 3-hour battery life USB port or Micro USB OTG to USB adapter, M/F |
|  | Optional: Encoder and USB cable (Onity) | OnPoint RFID Insertion Encoder |
|  | Optional: Online Access Control Reader (LenelS2) | LenelS2 BlueDiamond™ mobile reader |

Architecture



Architecture



Using DirectKey Toolkit with Cell Phones

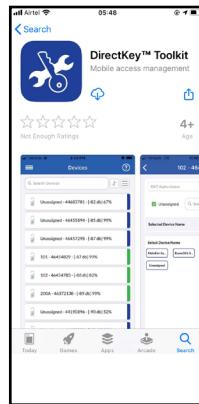
The DirectKey Toolkit application requires the provided Authorization Code and Personal Identification Number (PIN) code for operation. Wi-Fi coverage is required to authorize, upload activity data and download credentials from DirectKey System. The DirectKey Toolkit can now be used with your Android or iOS cell phone. To use DirectKey Toolkit with your phone, you'll need to download the DirectKey Toolkit app from the Playstore or App Store respectively.

NOTE: File names throughout this document use an “x” as a placeholder for the variable file version number.

Get the App

Visit your app store to download the DirectKey Toolkit App.

- [iPhone](#)
- [Android](#)



Get Permissions

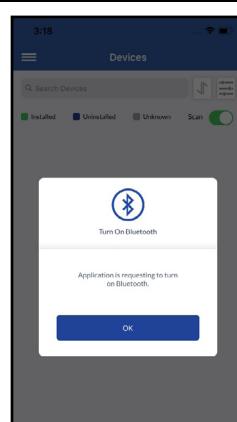
Send an email to your administrator to get access to the DirectKey Toolkit software. After approval, your administrator will send you an email with information required for the DirectKey Toolkit installation that includes:

- Installer PIN Code
- Host URL
- Authorization Code

Get Started

Install DirectKey Toolkit Application

- Download and install DirectKey Toolkit from App store or Play Store.
- Enter PIN code, eKEY URL, and Authorization Code.
NOTE: URL does not contain “https://”.
- Select **Terms & Conditions** and **Privacy Notice**.
- Tap **Authorize** button; application will be authorized successfully.
- Tap **OK** on “Turn on Bluetooth®” pop-up screen.

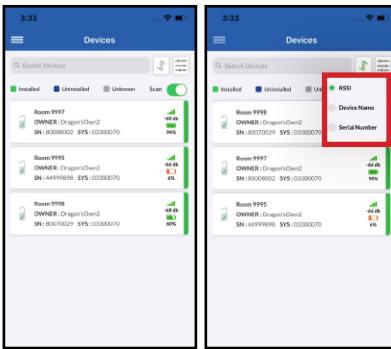


Functions

Scan and Sort Locks and Readers

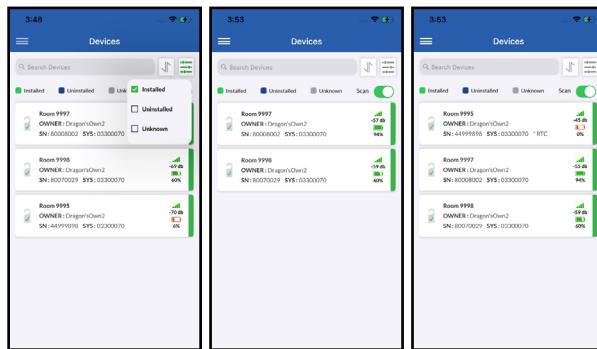
- a. Home screen will be displayed with Scan button enabled.
- b. List of nearby Bluetooth locks/readers will be displayed.
- c. Devices can be sorted by RSSI, Device Name, and Serial Number.

NOTE: Tapping on the Home button from the menu  in the upper left corner also triggers the scan function by default.



Scan and Filter Locks and Readers

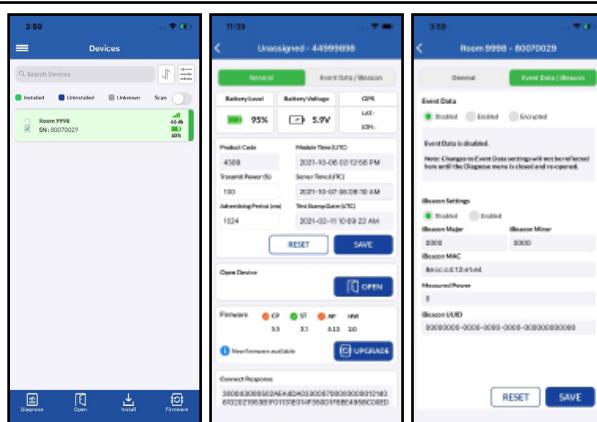
- a. You can choose which devices appear on the home screen by checking one of the following:
 - *Installed* - Filter for DirectKey modeules installed in the area nearby.
 - *Uninstalled* - Filter for uninstalled DirectKey modules that the Direct Key Toolkit has permission to install.
 - *Unknown* - Filter for DirectKey modules in the area but which have a different permission level.
- b. The *Scan* button in the upper right cornder indicates whether the scan is on or off.



Select a Device and Perform Diagnose Function

- a. After touching a device, the following menu will be displayed at the bottom of the screen:
 - *Diagnose*
 - *Open*
 - *Install*
 - *Firmware*
- b. Select **Diagnose** button.
- c. The *Diagnose* option brings up a screen that contains general and event data.
- d. *Transmit Power* and *Advertisement Period* can be modified in the General tab.
- e. *Event Data* and *iBeacon Settings* can be enabled/disabled in the other tab.

NOTE: *Transmit Power* and *Advertising Period* values are *default settings*. *Changing these values will change the performance of the device. For instance, if the Transmit Power value is set too low, the Bluetooth may not connect and the door will not open. Contact your administrator before changing these default settings.*



Select a Device and Perform Open Function

a. After touching a device, the following menu will be displayed at the bottom of the screen:

- *Diagnose*
- *Open*
- *Install*
- *Firmware*

b. Select **Open** button.

c. Application will start communicating with device and will display successful message after opening.

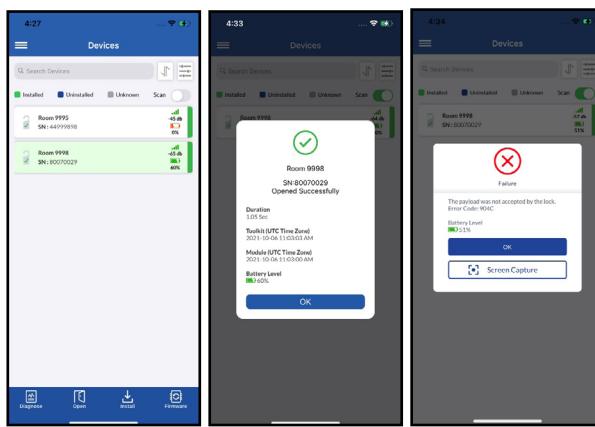
d. Error message will be displayed if payload is correct.

e. In case of any other open failures, refer to the *Troubleshooting Error Messages* section in this manual and try again.

NOTE: *Hospitality function only:*

f. If the room privacy lock **is** engaged, a privacy icon with a red circle will show on the room tile.

g. If the room privacy lock **is not** engaged, a privacy icon with a green checkmark will show on the room tile.



Select a Device and Perform Install Function

a. After touching a device, the following menu will be displayed at the bottom of the screen:

- *Diagnose*
- *Open*
- *Install*
- *Firmware*

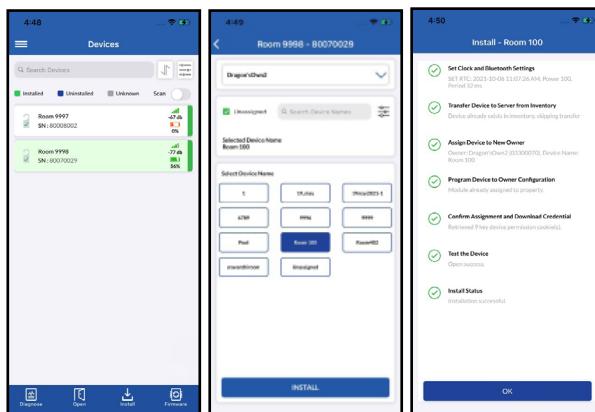
b. Select **Install** button.

c. A list of device names available in that commercial access facility/hotel property will be displayed.

d. Search for desired device name, select it, and tap **Install** button.

e. After it cycles through the install process, listen for lock to open and turn door handle to open door.

f. If the *Install* function fails, you will see the screen to the right. Follow the directions on the screen and try again.



Select a Device and Perform Firmware Upgrade/Downgrade Function

a. After touching a device, the following menu will be displayed at the bottom of the screen:

- *Diagnose*
- *Open*
- *Install*
- *Firmware*

b. Tap **Firmware** button.

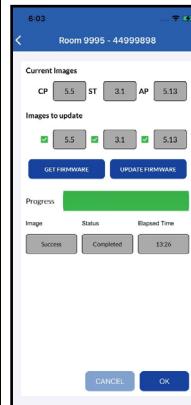
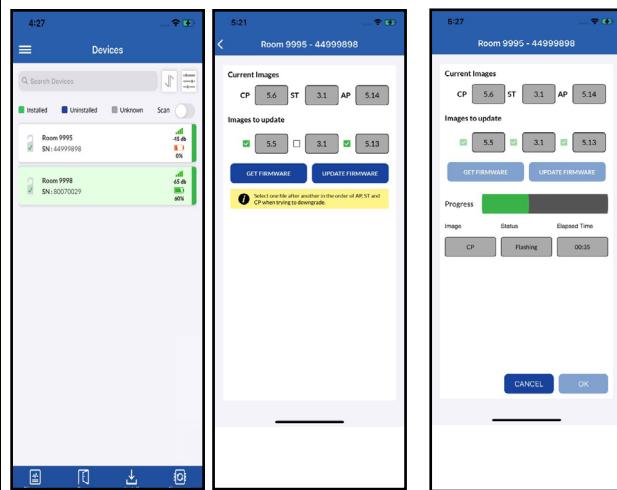
c. Firmware details will be loaded, current images and versions will be displayed for CP, ST, and AP.

d. Tap **Get Firmware** button.

NOTE: After Get Firmware is selected, the system checks for the firmware version. If there is a newer firmware version available, a checkmark automatically populates the checkbox. Flashing the firmware may take several minutes for each version.

e. Tap **Update Firmware** button to start upgrade or downgrade process.

NOTE: Select one file after another in the order of AP, ST, and CP when trying to downgrade.



Menu Options: EZ Firmware Update

NOTE: Internet connection required. It may take up to 30 seconds to initialize the feature.

a. Tap **Menu** and then tap **EZ Firmware Update**.

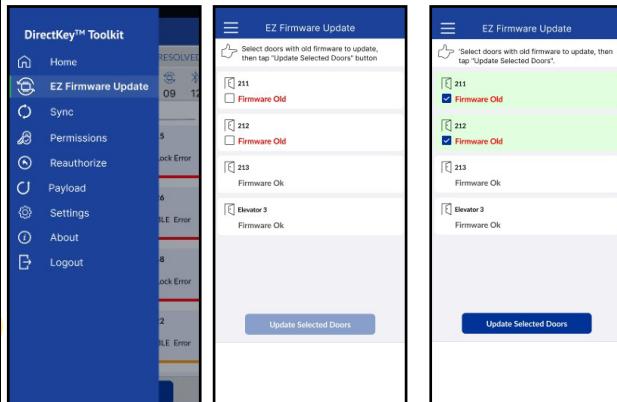
b. Nearby doors will display with their firmware status.

c. Select doors that indicate "Firmware Old" then tap the **Update Selected Doors** button.

Note: Remain near doors being updated. Firmware updates can take several minutes.

d. When firmware update is complete, tap **Open** to test each door.

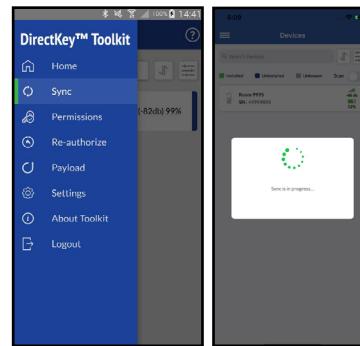
e. You will see a green thumbs-up icon indicating that the doors are now up to date and tested.



Menu Options: Sync

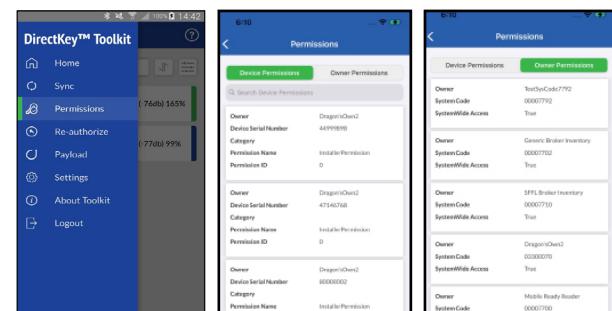
- Tap **menu** and then tap **Sync** button.
- Sync is used to synchronize data (activity, logs, and credentials) with the server.

NOTE: Sync will take up to 15 seconds with a good Internet connection.



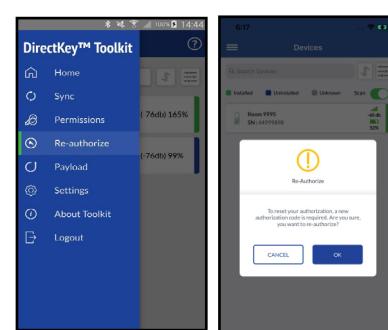
Menu Options: Permissions

- Tap **menu** and tap **Permissions** button.
- Device Permissions* and *Owner Permissions* will be displayed.
- Device Permissions can be searched by Device Serial Numbers and Owner Names.



Menu Options: Re-authorize

- Tap **menu** and tap **Re-authorize** button.
- A *Warning* pop-up will be displayed with CANCEL and OK buttons.
- Tap **OK** button to re-authorize DirectKey Toolkit application.



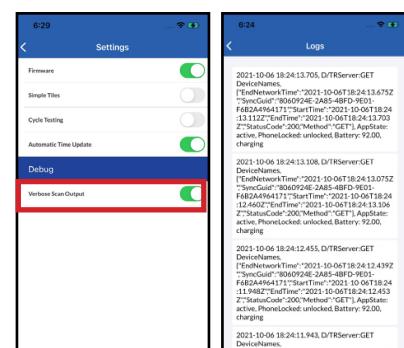
Menu Options: Logs

- When *Enable Debugging* is checked for DKT serial number in CoreAPI, a *Debug* option and a *Verbose Scan Output* toggle button will be available in the application settings.
- Tap **menu** and tap **Logs** button.
- Key and Server logs will be displayed.



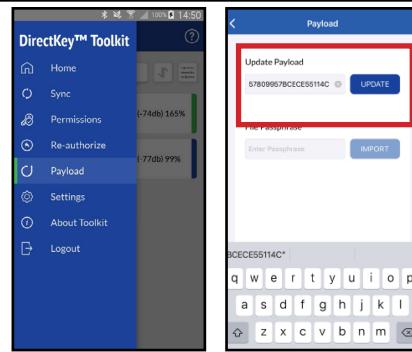
Menu Options: Logs - Verbose Scan Output

- Enable *Verbose Scan Output* option in Settings.
- Tap **menu** and tap **Logs** button.
- Verbose scan logs will be displayed.



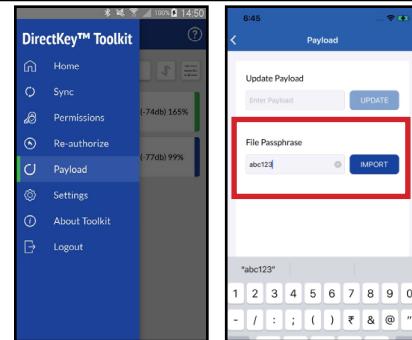
Menu Options: Update Payload

- Tap **menu** and tap **Payload** button.
- Manually enter payload and tap **Update** button.
- Updated payload will be synced to server.



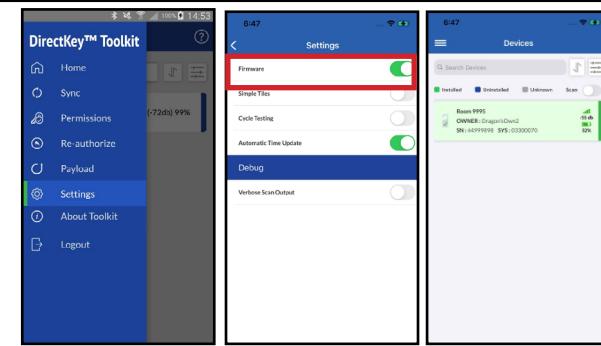
Menu Options: Import Payload

- Tap **menu** and tap **Payload** button.
- Manually enter file passphrase and tap **Import** button and select an encrypted file saved in your cell phone.
- Updated payload will be synced to server.



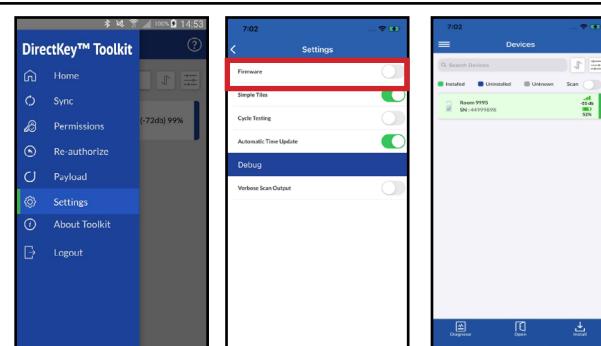
Menu Options: Settings - Enable Firmware

- Tap **menu** and tap **Settings** button.
- Enable **Firmware** button and tap **Home** button.
- Scan and select a device. Firmware button will be available at the bottom of the screen.



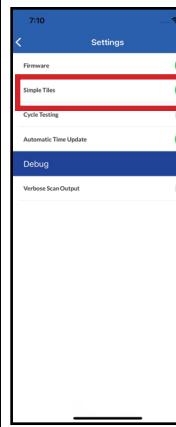
Menu Options: Settings - Disable Firmware

- Tap **menu** and tap **Settings** button.
- Disable **Firmware** button and tap **Home** button.
- Scan and select a device. Firmware button will not be available at the bottom of the screen.



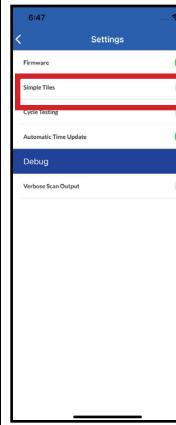
Menu Options: Settings - Enable Simple Tiles

- Tap **menu** and tap **Settings** button.
- Enable **Simple Tiles** and tap **Home** button.
- Scan and observe that devices will be displayed with limited information.



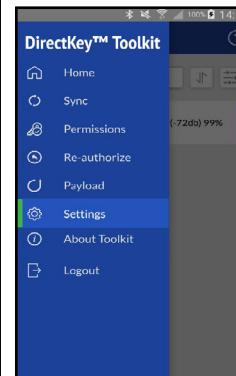
Menu Options: Settings - Disable Simple Tiles

- Tap **menu** and tap **Settings** button.
- Disable **Simple Tiles** and tap **Home** button.
- Scan and observe that devices will be displayed with additional information (e.g. Owner name, system code).



Menu Options: Settings - Cycle Testing

- The *Enable Cycle Test* feature allows developer functionality; however, this feature is not implemented in the current version of the application.

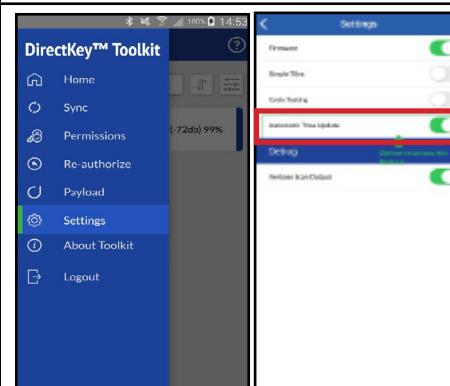


Menu Options: Settings - Automatic Time Update

- Tap **menu** and tap **Settings** button.
- Tap **Automatic Time Update**.

Note: This option is to adjust the BT module RTC when open operation is performed on the lock.

Note: Device must be connected to the Internet.

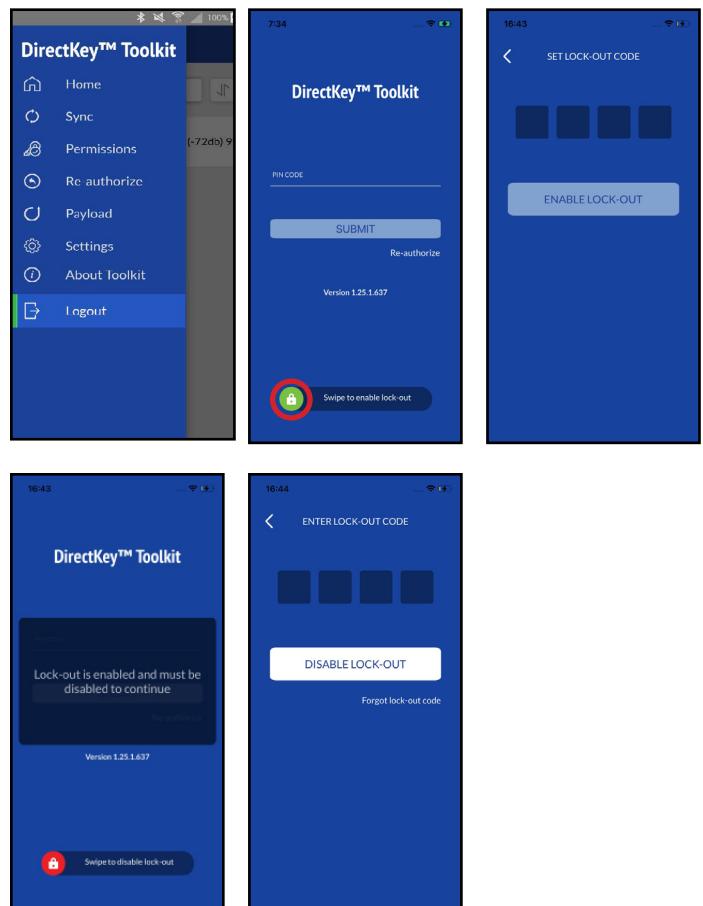


Menu Options: Logout

- a. Tap **menu** and tap **Logout** button.
- b. Application will display login screen with two options:
 1. PIN input for login at top
 2. App lockout button at bottom

Note: App logout is different from app lockout. App logout logs out the user from the app. App lockout locks the app until the lockout PIN is entered. Lockout PIN and login PIN can be different.

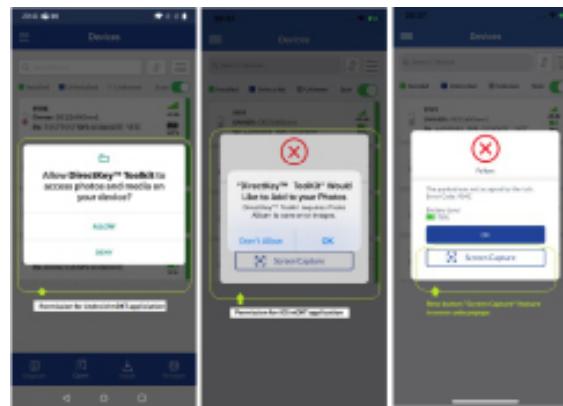
- c. To enable app lockout, swipe lockout button from right to left and set the lockout PIN. If lockout is enabled, the lockout PIN must be entered, followed by the login PIN.



Error Code Screen Capture

If an error occurs, there is now a way to capture the error screen and store it in mobile photo gallery

- a. When the first error occurs, tap the **Screen Capture** button. The app will request access to mobile photo storage so that screenshots can be stored in the photo gallery.
- b. These screenshots can be shared with Supra Support to help resolve the error.



Using DirectKey Toolkit with Windows

The DirectKey Toolkit system requires the provided authorization code and Personal Identification Number (PIN) code for operation. Wi-Fi coverage is required to launch or sync the DirectKey Toolkit.

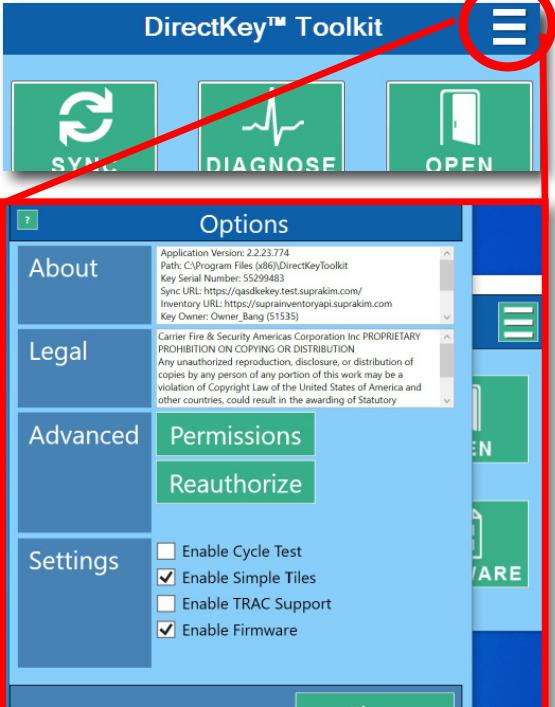
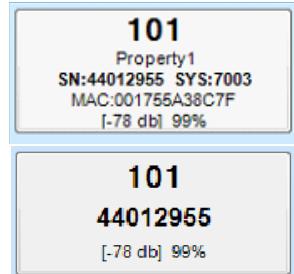
NOTE: File names throughout this document use an "x" as a placeholder for the variable file version number.

Home Screen

| Menu Buttons | Description |
|-----------------|--|
| Sync | Sync allows the DirectKey Toolkit system to connect to the UTC CCS database and retrieve room/door and lock information. |
| Diagnose | Diagnose allows you to troubleshoot locks or readers installed with the DirectKey module. |
| Open | The Open function opens locks that have been fitted with the DirectKey module. |
| Install | Install allows the DKT to assign a DirectKey component to a lock or reader. |
| Payload | Payload updates the DirectKey Toolkit with the Master Key permissions. |
| Firmware | Firmware shows the firmware version of the lock and is used to update the firmware (technical support personnel only). |



NOTE: The FIRMWARE button will not show if "Enable Firmware" is unchecked in the Toolkit Settings.

| Options Menu | Description |
|-------------------------|--|
| About | This section shows the system version, file path, key serial number, URL, key owner, key system code, device and owner permissions, and the firmware set. |
| Legal | Legal and trademark information is displayed. |
| Advanced Actions | View all active permissions with the Permissions button. Select Reauthorize to type in a new authorization code. |
| Toolkit Settings | <ul style="list-style-type: none"> The Enable Cycle Test feature allows developer functionality When Enable Firmware is unchecked, the FIRMWARE button on the home screen will not display When Enable Simple Tiles is unchecked, detailed information is displayed in the tiles <p>Unchecked</p>  <p>Checked</p>  |

NOTE: Buttons turn gray when they are not available to be selected.

Get Permissions

Send an email to your administrator to get access to the DirectKey Toolkit software. After approval, your administrator will send you an email with information required for the DirectKey Toolkit installation that includes:

- Microsoft® Windows® Installer via email or secure download or from a secure flash drive
- Installer PIN
- Host URL
- Authorization Code

Get Started Install Drivers

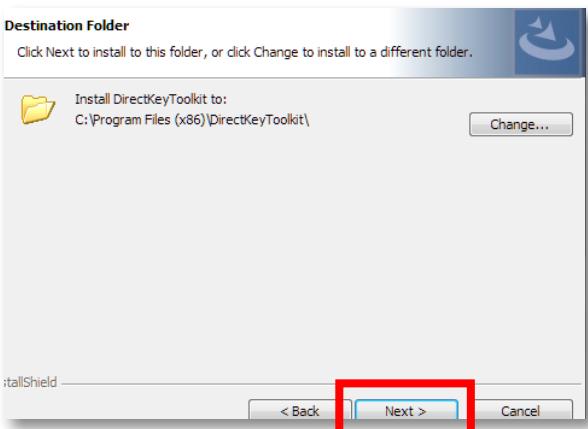
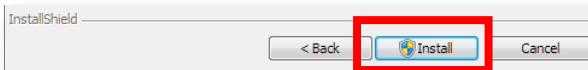
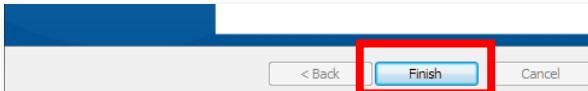
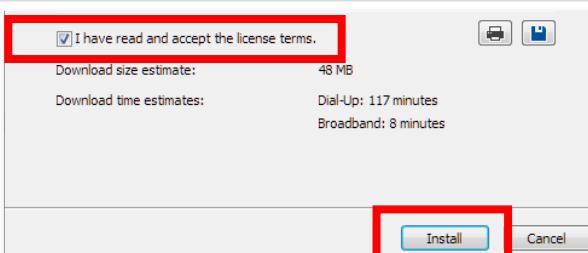
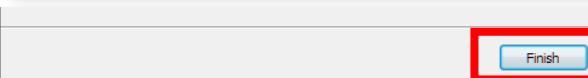
Downloading software requires administrator privileges.

| Step | Action |
|------|---|
| 1. | From the <i>Bluegiga</i> driver folder, run Bluegiga_ble-X.X.X-XXX.exe . |
| 2. | Plug in the Bluegiga dongle. |
| 3. | From the <i>Encoder Driver</i> folder, run the 32-bit or 64-bit executable file per your equipment setup. |

Download DirectKey Toolkit Software

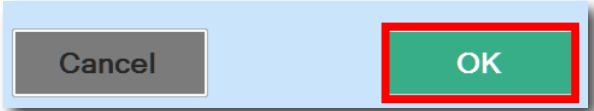
If the tablet or laptop does not have .NETFramework version 4.6.1 or above installed, the software will prompt installation at the end of this section.

| Step | Action | Image |
|------|---|-------|
| 1. | Double-tap or double-click on the DirectKeyToolkit-X.X.X.XXX.msi file. | |
| 2. | When the <i>DirectKey Toolkit - InstallShield Wizard</i> displays, tap or click Next . | |

| Step | Action |
|--|--|
| 4. | Tap or click Next for the destination folder. |
| |  |
| 5. | Tap or click Install . |
| |  |
| 6. | Tap or click Yes to allow changes to your computer. |
| 7. | Tap or click Finish . |
| |  |
| NOTE: A DirectKey Toolkit shortcut icon is automatically placed on the desktop. | |
| |  |
| 8. | If you do not have .NETFramework v4.6.1 or above, double-click the DirectKey Toolkit icon to install it, otherwise skip to the next section. |
| |  |
| 9. | Tap or click Yes in the user account control pop-up window. |
| 10. | Tap or click Yes to install the .NETFramework installation. |
| |  |
| 11. | Tap or click Run or Save in the install pop-up window. |
| 12. | Read the license agreement and tap or click I have read and accept the license terms and Install . |
| |  |
| 13. | When <i>Installation Is Complete</i> displays, tap or click Finish . |
| |  |
| 14. | Re-start tablet or laptop. |
| |  |

Launch DirectKey Toolkit

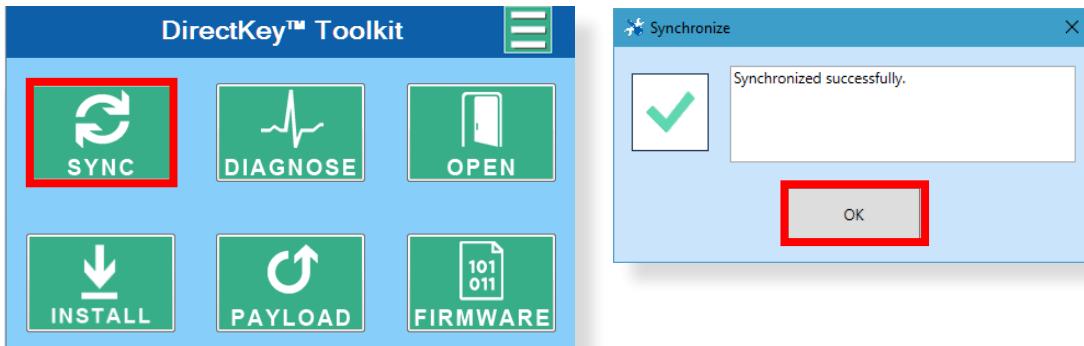
Internet is required for this section. The PIN code, URL, and authorization code are provided by a system administrator.

| Step | Action |
|------|---|
| 1. | On the tablet or laptop, double-tap or double-click the DirectKey Toolkit icon.  |
| 2. | Tap or click Yes in the User Account Control window. NOTE: When running the system for <u>the first time</u> , the PIN code and authorization code are required. After logging off, only the PIN code is required for the next log on. |
| 3. | Type in the PIN code.  |
| 4. | The URL field is pre-populated from the Toolkitconfig.ini file or you can type in a different SyncServerURL. NOTE: If a new authorization code is used, the payload must be re-entered. |
| 5. | Type in the authorization code.  |
| 6. | After the DirectKey Toolkit syncs to the server, select OK .  |
| 7. | If using an OnPoint Insertion Encoder, plug it into the DirectKey Toolkit device. |
| 8. | Tap or click the Payload button on the home screen.  |
| 9. | Tap or click Read Mag or Read Prox (depending on the reader and key card) and read the key card.  |
| 10. | Tap or click Update .  |
| 11. | Tap or click OK . |

Functions

Sync

The SYNC function can be performed at any time. Sync allows the DirectKey Toolkit to download DirectKey module permissions, receive new information from the server, and upload activity.



Scan for DirectKey Modules

When *DIAGNOSE*, *OPEN*, *INSTALL*, or *FIRMWARE* is selected, the DirectKey Toolkit scans for surrounding DirectKey modules. Select *Installed*, *Uninstalled*, or *Unknown* to filter and *RSSI*, *DeviceName*, or *SerialNumber* to sort the types of modules to display on the toolkit. When a serial number tile is selected, more information will display, depending on which function you are in.

NOTE: In the software, the room number and door name are interchangeable and function in the same way. For example, the Select Room button can also mean Select Door.

Displayed DirectKey modules information (default):

- Room number or door name
- Serial number
- RSSI
- Battery power
- Privacy indicator

Scan for DirectKey Modules

Filter: Installed Uninstalled Unknown

Sort: RSSI Device Name Serial Number

SCAN

| | |
|---|--|
| 419 Property 3 Sn:44029051 Sys:00008006 MAC: 001755A3BF6 [-52 db] 64% *RTC* | 202 Property 3 Sn:44019425 Sys:00008006 MAC: 001755A3A5C5 [-78 db] 68% *RTC* |
|---|--|

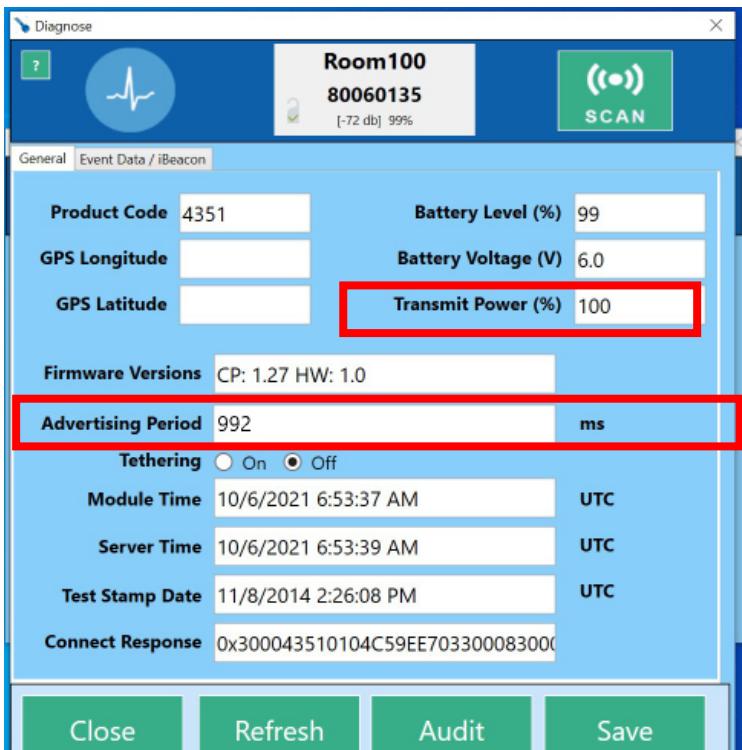
NOTE: When in a function that scans, click the SCAN button at any time to re-scan for DirectKey modules.

| Filter | Description |
|-------------|--|
| Installed | With this box checked, filter for DirectKey modules installed in the nearby area. |
| Uninstalled | With this box checked, filter for DirectKey modules that are not installed that the DirectKey Toolkit has permission to install. |
| Unknown | With this box checked, filter for DirectKey modules that are in the area but that have a different permission level. |

| Sort | Description |
|--------------|--|
| RSSI | Sort the displayed information by Received Signal Strength Indication (RSSI). A high RSSI value is perceived as being closer in proximity to the lock. Sorting by RSSI will put the higher RSSI values at the top of the list. |
| DeviceName | Sort the displayed information by device name. |
| SerialNumber | Sort the displayed information by serial number. |

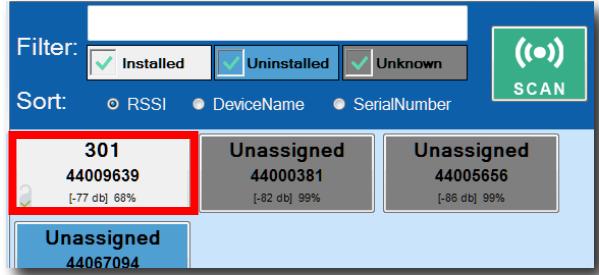
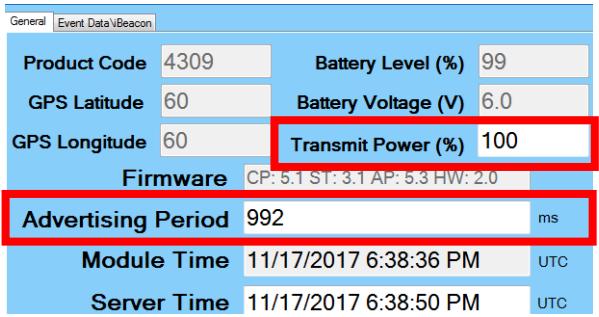
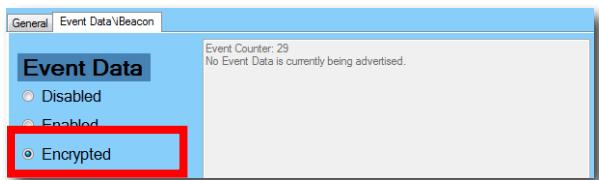
Diagnose

The *DIAGNOSE* function allows a user to view the details for DirectKey modules, change settings, and view audit information. After selecting a room number or door name, the *Diagnose* screen displays information about the selected module and allows the user to modify the transmit power, advertising period, and check the box to set the module time to the server time.



NOTE: Transmit Power and Advertising Period values are default settings. Changing these values will change the performance of the device. For instance, if the Transmit Power value is set too low, the Bluetooth may not connect and the door will not open. Contact your administrator before changing these value settings.

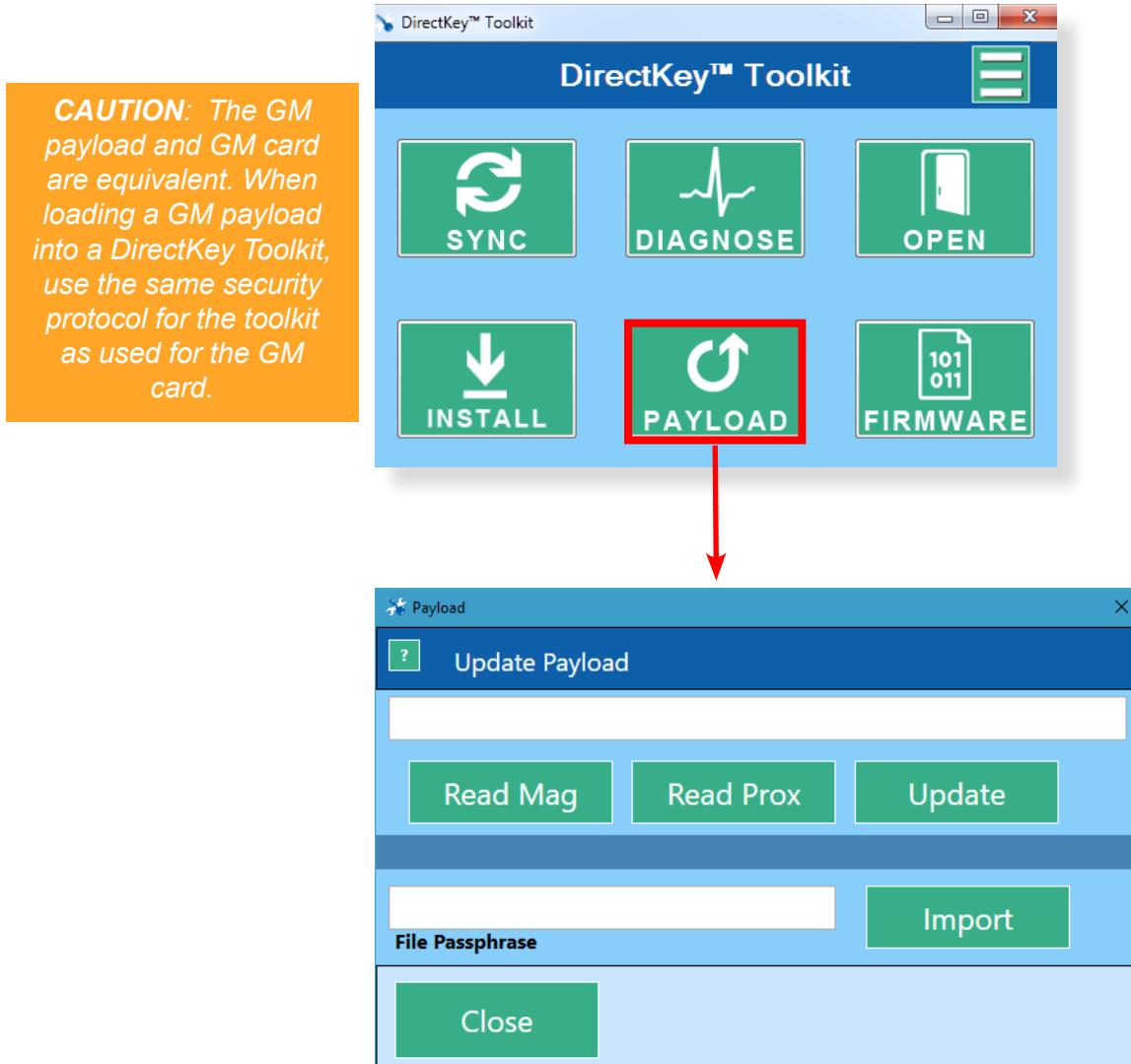
- Product Code** - This is the hardware family code plus the product code.
- GPS Latitude and Longitude** - Shows the coordinates of the DirectKey module.
- Battery Level** - The battery level status of the DirectKey module.
- Battery Voltage** - The current battery voltage of the DirectKey module.
- Transmit Power** - This is the transmit power of the DirectKey module. A lower transmit power will have a shorter discovery range.
- Firmware** - The current firmware and hardware version displays.
- Advertising Period** - This defines how frequently the DirectKey module will advertise.
- Module Time** - The *DirectKey Module Real Time Clock* (RTC) must be accurate for transaction timestamps to be logged correctly. The correct module time is displayed in Coordinated Universal Time (UTC) time.
- Server Time** - The current server time is displayed in UTC time.
- Test Stamp Date** - This may be used for troubleshooting information.
- Connect Response** - This may be used for troubleshooting information.
- Set module time to server time** - Select the *Set module time to server time* checkbox and **Save** to sync the module time with the server time.
- Refresh** - Requests current DirectKey module settings and displays them on the *Diagnose* screen.
- Audits** - This displays the previous backreads and audit logs.
- Save** - Save settings to the DirectKey module.

| Step | Action |
|------|---|
| 1. | At the main menu, tap DIAGNOSE . |
| |  |
| | <p>NOTE: When the DirectKey Scan screen appears, you can filter and sort to specific parameters. If the serial number is not visible, tap SCAN from this screen to refresh.</p> |
| 2. | Tap or click on the room or door for more details. |
| |  |
| | <p>CAUTION: Changing Transmit Power and Advertising Period values may cause performance issues. Do not change the values unless directed by an administrator.</p> |
| 3. | If directed by the administrator, change <i>Transmit Power</i> and <i>Advertising Period</i> information. |
| |  |
| 4. | Tap or click Save . |
| |  |
| | <p>NOTE: If event data was not pulled over from the API configuration, use these steps to configure the event data. This function is for Installers only. The host device must initialize module with encryption key for encrypted API communications and perform a key agreement after the module boots to enter encrypted communications mode to enable encrypted communication.</p> |
| 5. | Tap or click Enabled in the <i>Event Data\iBeacon</i> tab. |
| |  |
| 6. | Tap or click Encrypted . |
| |  |
| 7. | Tap or click Save . |
| |  |

Payload

The **PAYLOAD** function updates credentials from the Master Key card to the DirectKey Toolkit system. Internet is required for this section.

Depending on the type of card reader, either *Read Mag* (for a magnetic reader) or *Read Prox* (for an RFID reader) will appear.



NOTE: If a new authorization code is used, the payload must be re-entered.

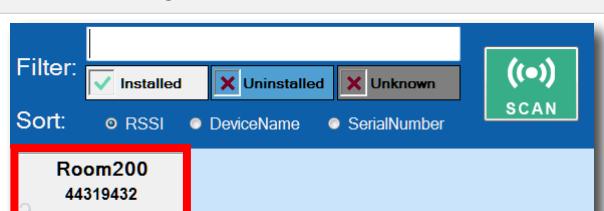
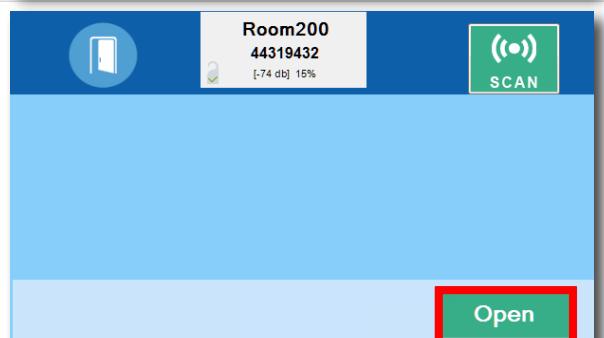
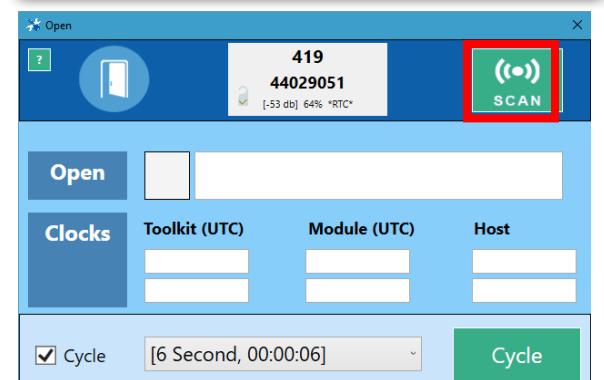
| Magnetic Reader | |
|-----------------|--|
| Step | Action |
| 1. | Tap or click Read Mag . |
| 2. | Insert the key card into the reader and remove. |
| 3. | Once the <i>Update Payload</i> field is populated, tap Update . |

| RFID Reader | |
|-------------|--|
| Step | Action |
| 1. | Tap or click Read Prox . |
| 2. | Put the key card on top of the reader. |
| 3. | Once the <i>Update Payload</i> field is populated, tap Update . |

Open

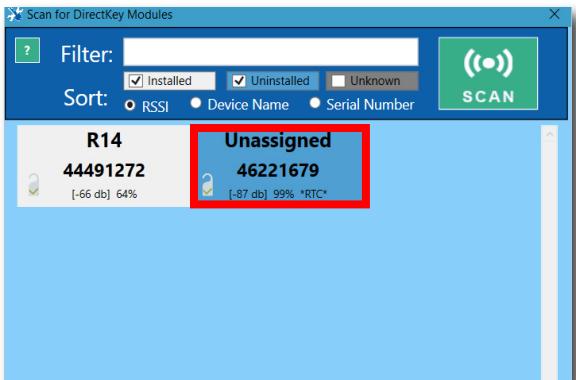
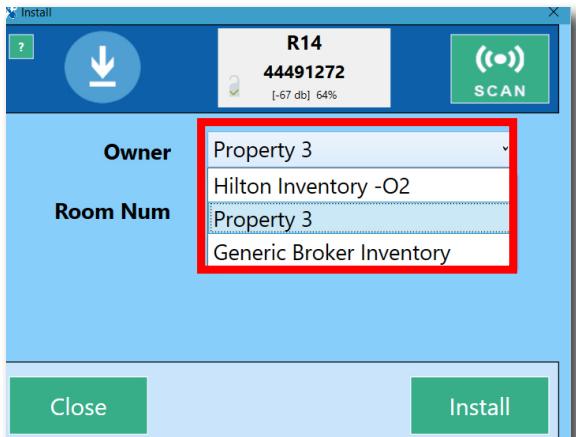
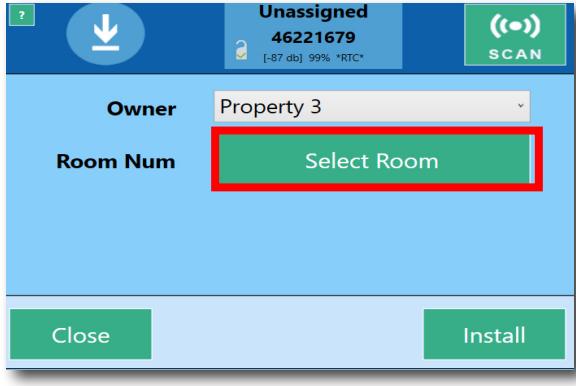
The **OPEN** function allows a user to scan for DirectKey modules and open a DirectKey-enabled lock.

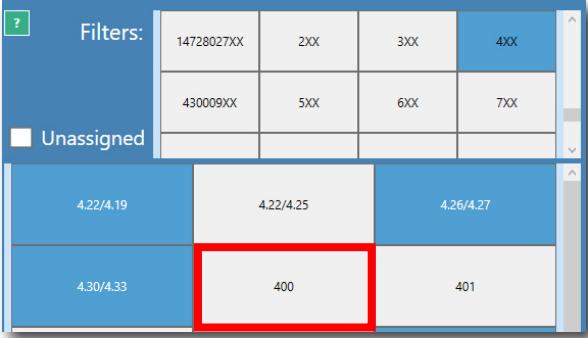
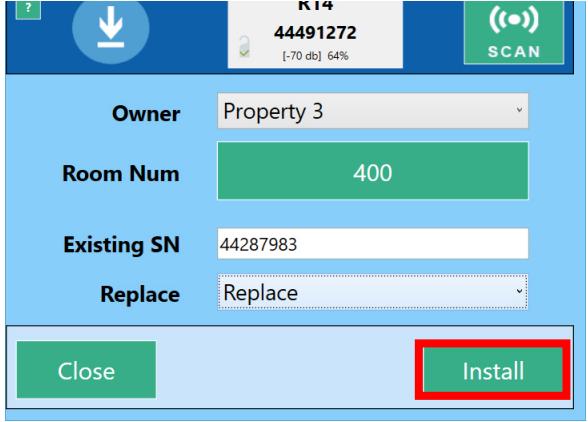
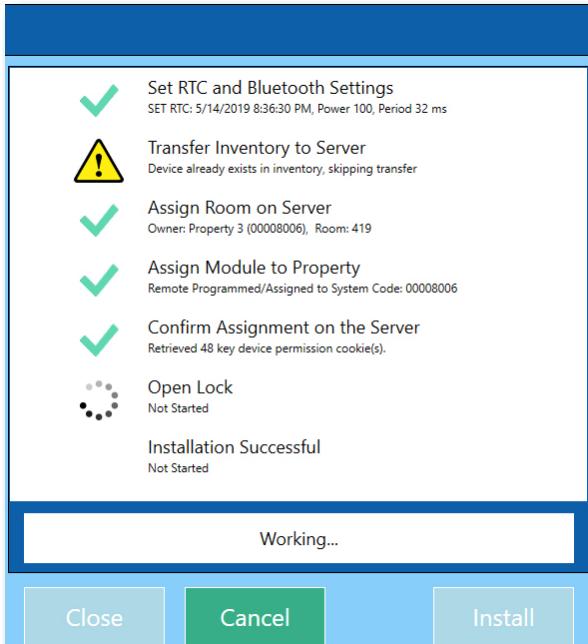
- **SCAN** - Scans for all broadcasting modules and returns their serial number to the DirectKey Toolkit
- **Open** - Sends an open message to the module

| Hospitality function only | |
|----------------------------------|--|
| | <p>If the room privacy lock is engaged, a privacy icon with a red circle displays on the room tile.</p>  |
| | <p>If the room privacy lock is not engaged, a privacy icon with a green check displays on the room tile.</p>  |
| Step | Action |
| | <p>NOTE: When the OPEN function is selected, it scans for DirectKey modules in the surrounding area.</p> |
| 1. | At the main menu, tap OPEN . |
| |  |
| | <p>NOTE: If you do not see the serial number you want, tap SCAN to scan again.</p> |
| 2. | Tap or click the serial number of the module to open. |
| |  |
| 3. | Tap or click Open . |
| |  |
| 4. | After the lock is opened, the Open and Clocks fields populate with information. Tap Open to open the lock again or tap SCAN to search for other modules. |
| |  |

Install

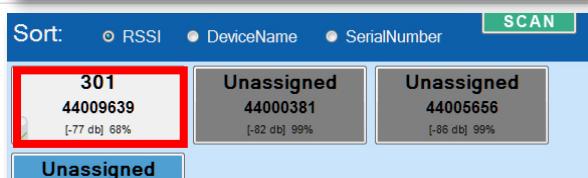
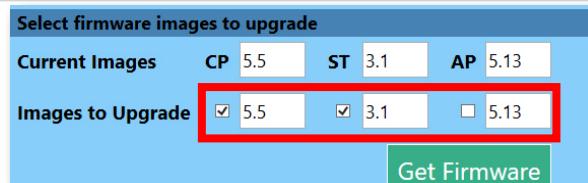
The **INSTALL** function is used to install a DirectKey module to a lock, allowing for digital performance. The room number or door name and DirectKey module serial number are required to perform the *Install* function.

| Step | Action |
|------|--|
| 1. | At the main menu, tap or click INSTALL . |
| |  |
| | <p>NOTE: When the DirectKey Scan screen appears, you can filter and sort to specific parameters. If you want to filter for only serial numbers that have not been installed, uncheck the Installed box.</p> |
| 2. | Tap or click the serial number to install. |
| |  |
| 3. | In the Owner drop-down list, tap or click the property code of the property. |
| |  |
| 4. | Tap or click Select Room . |
| |  |

| Step | Action |
|--|---|
| <p>NOTE: When the Select Room screen appears, you can filter by floors or by unassigned rooms. Select "All" to see all of the rooms. Select A-Z to filter alphabetically. Select 2XX, 3XX, 4XX, etc. to sort by floor. To filter for only the room numbers/door names that have not been installed, check Unassigned.</p> | |
| 5. | Tap or click a room number or door name. |
| |  |
| 6. Tap or click Install . | |
| |  |
| <p>NOTE: It is possible to install DirectKey-enabled locks without Wi-Fi. When the screen below shows a red "X" in the process, move into a Wi-Fi-enabled area and tap Retry. When the screen shows a red "X" in the process again, move back to the lock you are installing and tap Retry. Repeat this process until installation is successful.</p> | |
| 7. | After it cycles through the install process, listen for the lock to open and turn the door handle to open the door. |
| |  |
| 8. | Tap or click OK . |
| |  |

Firmware

The **FIRMWARE** function allows the DirectKey module to upload future firmware upgrades as they are released by the administration.

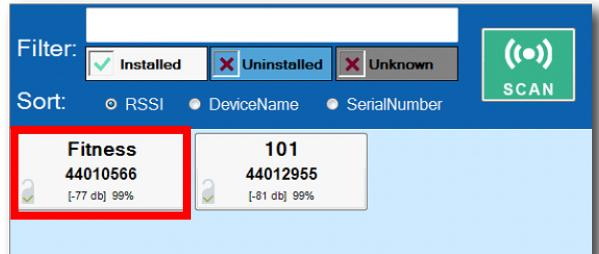
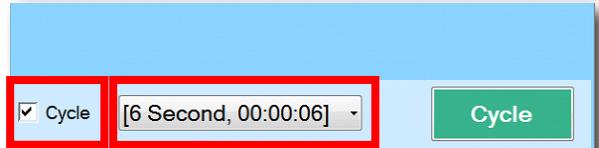
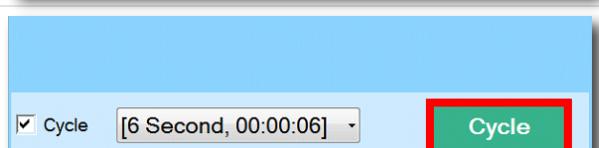
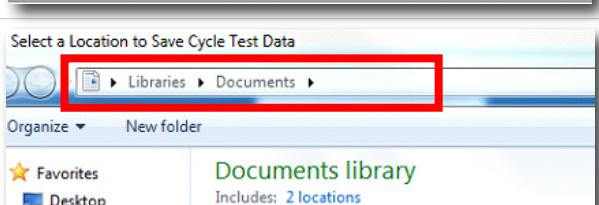
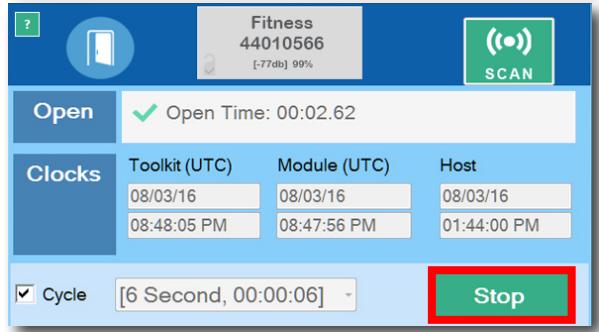
| Step | Action | |
|------|--|--|
| 1. | At the main menu, tap or click FIRMWARE . |  |
| 2. | Tap or click the serial number to upgrade. |  |
| 3. | Tap or click Get Firmware . |  |
| | <p>NOTE: After Get Firmware is selected, the system checks for the firmware version. If there is a newer firmware version available, a check automatically populates the checkbox. Flashing the firmware may take several minutes for each version.</p> | |
| 4. | Check the firmware checkboxes to upgrade. |  |
| 5. | Tap or click Upgrade . |  |

Cycle Testing

NOTE: Make sure Enable Cycle Testing is checked in Toolkit Settings of the Options screen.

NOTE: This function should not be used by hotel personnel unless requested by your administrator.

| Step | Action | |
|------|--|--|
| 1. | Tap or click OPEN . |  |
| | <p>NOTE: If the DirectKey module is not visible, tap SCAN.</p> | |

| Step | Action |
|------|--|
| 2. | Tap or click the serial number of the DirectKey module to cycle. |
| |  |
| 3. | Check Cycle and choose the time length between cycles from the drop-down menu (the default is 6 seconds). |
| |  |
| 4. | Tap or click Cycle . |
| |  |
| 5. | Select the location to save the cycle file and Save . |
| |  |
| 6. | Tap or click Stop to finish testing. |
| |  |

Troubleshooting

This section provides more information on:

- Frequently asked questions
- Configuration files
- How to update firmware
- Cycle testing
- Possible error messages

Frequently Asked Questions

| FAQs | Wi-Fi connection required Y/N | Authorization code required Y/N | Master key payload req. Y/N | Solutions |
|------------------------|-------------------------------|---------------------------------|-----------------------------|---|
| Authorize device | YES | YES | NO | If you try to enter your authorization codes while not connected to Wi-Fi, the error indicates that the authorization codes are incorrect. Verify your Wi-Fi connectivity first before trying another authorization code. Verify that the URL is set correctly. If you are connected to the Internet and get a “ <i>could not connect to Internet</i> ” message, verify that the device date/time and the time zone match. The date/time may be correct on the device, but if the time zone doesn’t match, the server interprets the device time as incorrect. |
| Master key input | YES | YES | YES | |
| Sync device | YES | YES | NO | |
| Install module to door | YES | YES | NO | Authorization codes are required but not a master key payload. |
| Test open | NO | YES | YES | Key payload is required to open a door. |
| Diagnose | NO | YES | NO | Authorization codes are required but not a master key payload. All diagnostics can be performed at the door, including date/time set, transmit power, advertising rate, etc. |

While the configuration file (ToolkitConfig.ini) comes pre-populated with a variety of relevant URLs, it is customizable and should be configured to point to desired URLs. Below are examples of URLs found in the configuration file.

Possible Error Messages - Cell Phones

Listed below are the most common error codes, message descriptions, and actions to perform when using DirectKey with a cell phone.

| If you see this... | It means... | Try this... |
|--|--|--|
| <i>Sync Errors</i> | | |
| Sync is in progress. Please wait and try again. | Key-related data is getting synced with server. | Please wait and try sync again. |
| The card data was not accepted by the lock. | This could be seen from the <i>Scan List</i> screen when trying to open lock with invalid payload. | Update the card payload or reprogram the lock. |
| Communication failure. Please try again. | Communication failure with Broker. | Please try again. |

| | | |
|---|---|---|
| Check your Internet connection and try again. | There is no internet access available in mobile phone. | Check and turn Internet connectivity ON in mobile phone. |
| Check your Bluetooth settings and try again. | There is a Bluetooth connectivity issue in mobile phone. | Please turn Bluetooth OFF and ON in mobile phone. If problem persists, restart mobile phone. |
| Please check your credentials and try again. | Entered Key details are incorrect. | Please check that entered key details are correct and try again. |
| Check your Internet connection and try again. | Entered URL may contain https://. For example, if URL is https://abc.suprakim.com (which contains https://), it may return error message "Check your Internet connection and try again." | Remove https:// from the text entered in URL. |
| Device Names Not Found in Install screen. | Latest data changes might be done in server. | Perform a manual sync and try install again. |
| Device Name not changed after new assignments. | Sync might be delayed in the background. | Perform a manual sync and scan again. |
| Contact Support Team | Install operation failed. | Device could be a Mobile Ready Reader; contact support team. |

Possible Error Messages - Windows

Listed below are the most common error codes, message descriptions, and actions to perform when using DirectKey with Windows operating system.

| If you see this... | It means... | Try this... |
|---|--|--|
| <i>Sync Errors</i> | | |
| Your device is not authorized | The DirectKey Toolkit is not authorized on the eKEY Server. | Reauthorize the system with a new authorization code. (Main Screen > Options > Reauthorize) |
| | | Verify that the URL points to the correct location, then re-enter the auth code. |
| No connection could be made because the target machine actively refused it | The DirectKey Toolkit could not communicate with the eKEY Server. | Verify internet connectivity and try the sync again. Go to an external site to verify that you can get through the property firewalls. |
| <i>DirectKey Module Errors</i> | | |
| Error code 4C: The lock cannot be opened because the payload was not accepted. | This can be seen from the <i>Install</i> screen. | Update the card payload or reprogram the lock. |
| Error code 80: The batteries are too low. | The batteries must be replaced. | Replace used batteries with new batteries. |
| Device time does not match server time | Error when opening the app or syncing with the module. | Set the time on the tablet with the local time and correct local time zone applied in the tablet. |
| <i>Communication Errors</i> | | |
| Communications time out | The DirectKey module was not able to respond to the DirectKey Toolkit. | Try the command again. |

| If you see this... | It means... | Try this... |
|---|---|--|
| Error code 28 Error 28: Not enough data was transmitted. Please try again. | Not enough data was transmitted. The payload data is incorrect or the payload data is expired or a new master key was issued and cancelled out the payload currently entered. | 1. Utilize the card reader to enter the master key data. If the action on Step1 does not resolve the issue: 2. Create a new physical master key and then utilize the card reader to input the master key data. |
| Error code 185: Timeout - Command or procedure failed due to timeout | The DirectKey module was not able to respond to the DirectKey Toolkit. | Try the command again. |
| Error code 86 Error 86: The DirectKey module timed out or used all of its retries and could not send the card data to the host successfully. | The DirectKey module disconnected from the DirectKey Toolkit. | Move closer to the module and try the command again. |
| Installer flag not set in the configuration cookie | The Installer flag is required for the DirectKey Toolkit to operate correctly. | The Installer flag is set by administrative staff via the CoreAPI User Interface. |
| Error FF | General error | Try the command again. |

Possible Error Messages - BlueDiamond Mobile Reader

Listed below are the most common error codes, message descriptions, and actions to perform when using Windows DirectKey Toolkit with LenelS2 BlueDiamond Mobile Reader.

| If you see this... | It means... | Try this... |
|---|--|--|
| Licenses Required with install button disabled | Need to purchase license for installing the reader. | Contact Administrator to purchase license and sync DirectKey Toolkit to install. |
| Licenses Exhausted and install button is disabled | License count is zero. | Contact Administrator to purchase license and sync DirectKey Toolkit to install. |
| Inventory Transfer is restricted between Device Inventory Owners | User is not allowed to transfer a device from a mobile-ready reader to the Generic Broker Inventory. Transferability will be restricted during Install process. | This is as per system design, please choose a different target owner. |
| Inventory Transfer is restricted between Device Inventory Owners | User is not allowed to transfer a device from the Generic Broker Inventory to a mobile ready reader. Transferability will be restricted during Install process. | This is as per system design, please choose a different target owner. |
| Transfer of Mobile Ready Reader is Restricted to Generic Broker Inventory | User is not allowed to transfer a device from the Generic Broker Inventory to a Mobile Ready Reader via Target Owner. Transferability will be restricted during Install process. | This is as per system design, please choose a different target owner. |
| Transfer of Generic Broker Inventory is Restricted to Mobile Ready Reader | User is not allowed to transfer a device from the Generic Broker Inventory to a Mobile Ready Reader via Target Owner. Transferability will be restricted during Install process. | This is as per system design, please choose a different target owner. |
| Unable to select a Mobile Ready Reader with system code 7700 as it shows in Unknown state. | Target owner does not have metering license. Install the reader with 7700 system code | Contact Administrator to purchase license and sync DirectKey Toolkit to install. |