KEYSECURE® 5 & 6

ADMIN & USER GUIDE

KNOX®
When seconds matter™

1601 W. Deer Valley Road, Phoenix, AZ 85027
Phone: 800-552-5669 • Fax: 623-687-2290
knoxbox.com

RESTRICTED RIGHTS LEGEND

U.S. GOVERNMENT RESTRICTED RIGHTS. UNPUBLISHED—RIGHTS RESERVED UNDER THE COPYRIGHT LAWS OF THE UNITED STATES. Use, duplication, or disclosure is subject to restrictions set forth in the FAR Section 52.227-14 Alt. III(g)(3), FAR Section 52.227-19, DFARS 252.227-7014(b), or DFARS 227.7202, as amended from time to time.

IMPORTANT INFORMATION

FCC NOTICE

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".

Any changes or modifications could void the user's authority to operate the equipment.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.
This Device Contains: FCC ID: 2A0VI-KNOX-RAS, IC: 23479-KNOXRAS

CONTENTS

KEYSECURE® 5 & 6 OVERVIEW

KeySecure 5 and KeySecure 6 are key control devices that retain keys for security and accountability. The KeySecure 5 secures one or more mechanical master keys to support a traditional Knox Rapid Access System.

The KeySecure 6 is part of the Knox eLock system and will secure an eKey with an option to also secure a mechanical master key

MODEL	DESCRIPTION
KS-6K1	KeySecure® 6, SUPPORTS 1 eKey ONLY
KS-6K2	KeySecure® 6, SUPPORTS 1 eKey and 1 Mechanical Key
KSM-200AC	AC ADAPTER, WALL MOUNT, KeySecure®5 & 6
KSM-200K1	KeySecure® 5, 1 MKEY, 1 PLUG, WiFi, ETHERNET, USB, W/ ANT.
KSM-200K2	KeySecure® 5, 2 MKEY, WiFi, ETHERNET, USB, W/ ANTENNA
KLS-AP	ADAPTER PLATE KIT, LEGACY BRACKETS, KeySecure® 5 & 6
KLS-FM	FLAT MOUNT BRACKET, KeySecure® 5 & 6
KLS-MB-60	MOUNTING BRACKET 60º ANGLE, KeySecure® 5 & 6
KLS-MB-90	MOUNTING BRACKET 90º ANGLE, KeySecure® 5 & 6

KeySecure 5 & 6 Features

- Managed by KnoxConnect Cloud Management System
- Accessed using a 4 to 8 digit Personal Identification Number (PIN) or SecurePIN dispatcher-issued temporary access code
- Supports optional two-PIN or supervisor-required PIN entry
- Keypad backlight for day or night operation
- Night and Blackout mode light control
- Stores up to 5,000 user PIN codes
- Records up to 16,000 audit trail events
- Capable of automatically authenticating and connecting to configured networks
- Supports automated upload of transaction history
- Supports automated PIN and hardware updates
- Stores Knox FDC wrench (wrench not included)
- Two key retention LED alerts
- Communicates via Ethernet or WiFi
- Mounts securely with optional mounting brackets (60°, 90° and flat-mount)

KeySecure 5 & 6 Operation

Upon shipment, KeySecures are assigned to the jurisdiction. Before use, the device must be configured in KnoxConnect. The Knox Device Sync app is then used to pass the configurations to each device via USB.

Users may be given permissions to use some or all devices. Users access keys retained in the KeySecure through entry of a valid PIN or SecurePIN temporary access code.

When a Key is released and removed, the notification LEDs will flash to provide indication that the key is no longer retained in the device. The alert will continue until the key is returned.

NOTE: KeySecure 6 units shipping prior to June 2019 were set for the Knox eKey retention slot deactivated. This function is selectable in KnoxConnect and can be reactivated by a device administrator.

Night/Blackout Mode: Users with Supervisor field capabilities may temporarily dim or turn off the KeySecure keypad and LED lights. Light adjustments expire after 8 hours, returning the keypad and LEDs to standard mode

Dual PIN Options: Devices can be set to require the entry of two valid PINs to release the keys. There are two options:

- Dual PIN: Release key upon entry of any two valid PINs
- Dual PIN Supervisor: Requires two valid PINs; one of any type and one Supervisor PIN.

SecurePIN Option: Devices can be set to allow use of a temporary access code issued by a Dispatcher for users who do not have PINs

INSTALLATION

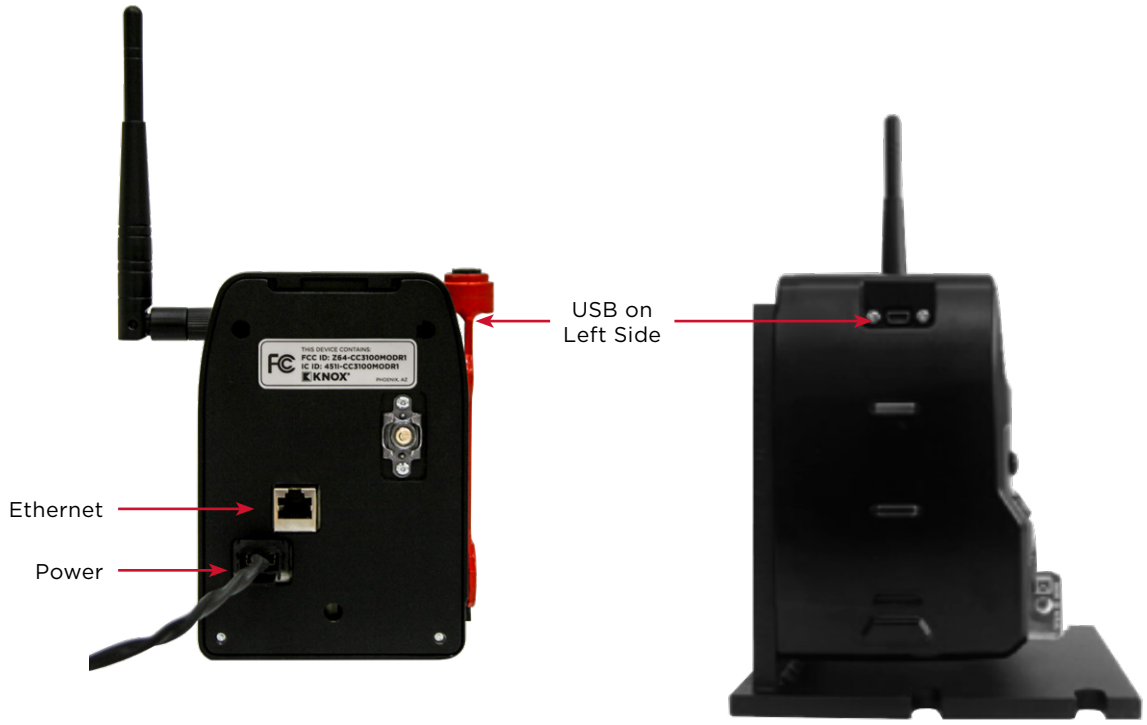
Power and Connectivity Requirements

- **Power:** use only a 7-amp @ 12-VDC vehicle power supply or Knox **KSM-200AC** AC to DC power adapter
- **IMPORTANT: Knox KeySecure devices are designed for use with shore power**
  - KeySecure 5 devices may be connected to power through the ignition switch; however the device will not be capable of communicating or releasing a key when power is off
  - KeySecure 6 must be constantly powered. **THE KEYSECURE 6 CHARGES THE eKEY AND REQUIRES USE OF A POWER SOURCE WHEN THE VEHICLE IGNITION IS OFF. FAILURE TO OBSERVE THIS REQUIREMENT MAY RESULT IN A DEAD BATTERY FOR THE eKEY OR THE VEHICLE.**
- **Power Wiring: 18 AWG (min)** Use the supplied MOLEX 44441-2002 pigtail. 14 AWG is recommended along with use of an inline fuse close to the power source (not supplied)
- **Communication:** The devices may be configured to use WiFi or Ethernet for communication with KnoxConnect Cloud
  - A mini USB connector on the left side of KeySecure 6 allows configuration of WiFi and Ethernet via a PC. A standard RJ45 ethernet cable should be used if the device will communicate through the vehicle's ethernet communication gateway

The KeySecure 6 syncs with KnoxConnect at a maximum interval of 10 minutes while internet access is available. If the interval has expired, or the unit is first powered up, the KeySecure 6 will sync immediately when Internet access is available.

NOTE: Refer to the Networking User Guide for configuring WiFi and Ethernet connectivity.

NOTE: *A mechanical Master Key may be returned to the key port while the device is powered down. The key will be locked and retained in the device until power is restored and a valid PIN code is entered. The device must be powered to secure or release the eKey.*



KeySecure back and side views

NOTE: See battery and mounting installations instructions below:

- A coin-cell battery within the unit maintains the date and time for the audit trail

Battery and Mounting Installation

Before using the KeySecure, the battery must be installed. To access the battery compartment, the back cover must be removed.

1. Always remove power from the KeySecure before attempting to replace the battery. Ensure the vehicle is powered down and disconnect the device power cable.
2. Remove the technician access lock (tech-lock):
   a. Locate tech-lock cover plate below the keypad
   b. Using security screw wrench, remove two security screws from the tech-lock cover
   c. Remove tech-lock cover plate
   d. Insert tech-key into tech-lock and turn counter-clockwise until the lock is loosened and remove the lock
3. Using 5/32 Allen wrench, remove the socket cap bolts on either side of unit by turning counter-clockwise.
4. Rotate bottom out, then lift unit up and off back cover.

   NOTE: Unit should slide easily off the back cover. Do not force. Contact Knox Customer Technical Support for assistance at 1-800-552-5669 x 3.
5. To install the battery (battery included with shipment):
   a. Remove plastic circuit board cover
   b. Locate the Battery socket in the upper right-hand corner of the circuit board
   c. Slide battery, with positive (+) terminal facing the outer edge, into the battery socket
   d. Replace circuit board cover
   e. Install/reinstall on back cover

   NOTE: When replacing the battery, use a 1/16" Allen wrench to move the battery down and out of the battery socket. Install new battery as described above.
6. When mounting a KeySecure 6 with the mounting bracket:
   a. Follow instructions included with the mounting bracket shipment
   b. **Do not place washers under hardware inside back cover - FAILURE TO OBSERVE THIS REQUIREMENT MAY RESULT IN DAMAGE TO THE UNIT!**

   NOTE: To mount flat, use the KSM-FM to protect the circuit board and battery.
7. To re-install the KeySecure back cover:
   a. Hook unit onto back plate and insert two (provided) #10-32 x 2" socket cap screws and tighten to snug, being careful to avoid the coin cell battery when hooking unit onto back plate
   b. Tighten tech-lock
   c. Replace cover and tighten security screws
8. Attach antenna to male connector on top right side of unit.
9. Wire pigtail to power wire connected to vehicle power and ground (crimp-on butt connectors and heat shrink included).
10. Plug pigtail connector and Ethernet cable (if applicable) into back of KeySecure device.

NOTE: Amber LED lights will flash five times to indicate the unit is powered. Keypad backlight will illuminate and LED lights will indicate security status of the key(s).

16. Power must be **ON** and the **Disable eKey Retention Right** setting must be unchecked in the KnoxConnect device configuration for the eKey charging port to lock and secure the Knox eKey in the KeySecure 6.

If the power is **ON** and the eKey charging port is not active, **check with your KnoxConnect software administrator to verify that the device has been enabled before contacting Knox Technical Support**

PROGRAMMING INSTRUCTIONS

Prior to initial use, the KeySecure must be configured with its network, device and user settings.

Requirements

- **Set up will require:**
  - A computer/laptop with Windows 10
  - USB to mini USB connector (Included with KeySecure)
  - Access to KnoxConnect Software Management System
  - Knox **Device Sync App** or **KnoxConfig** (depending on device)

Editing the KeySecure Device Configuration

1. Login to KnoxConnect:

- **KnoxConnect Cloud:** Log into the KnoxConnect™ Management System at **knoxconnect.net**
- **KnoxConnect Local:** With KnoxConnect Local installed on the Admin computer, select the KnoxConnect WebServer icon located on the desktop to log into KnoxConnect Local

2. Select **KeySecure** from the navigation menu.
3. Select the **Edit** button next to the KeySecure serial number (SN) to view device status and configure the following settings:
   - Device location and asset number
   - PIN attempts and lockout time
   - Disable left/right key retention ports
   - Network and connectivity settings (KnoxConnect Cloud)

   NOTE: Refer to the ***"KeySecure Networking Guide"*** for configuring WiFi and ethernet connectivity.
4. Once settings are configured, select the **Save** button and then the **Back** button to return to the KeySecure primary screen.
5. To assign user PINs to the KeySecure, select the User PINs **Edit** button for the device serial number, select the **Save** button when done:
   - **KnoxConnect Cloud**: Device settings and PIN assignments take effect when the device syncs via ethernet or WiFi
   - **KnoxConnect Local**: Device settings and PIN assignments take effect when the KeySecure is connected to the Admin computer via USB cable

SecurePIN

- Knox SecurePIN is a feature of the KnoxConnect Management System that enables dispatchers to create temporary access codes that are communicated to a user to release keys from Knox KeySecures.
- SecurePINs are single use access codes that are generated for a specific device, for users who do not have a personal identification number in the (PIN) system. Each request is recorded in the system along with details of the dispatch user and requester.

- A SecurePIN can be generated in advance or upon demand. SecurePINs are generated and used for the specific device selected. It becomes inactive after it is used and will also deactivate any previously generated SecurePINs generated for that device.

The device does not require a connection to KnoxConnect for a SecurePIN to be generated and used.

The feature can be used in conjunction with normal PIN use. For more information, see the ***SecurePIN Quick Start Guide.***

Dual PIN

- A primary or secondary administrator has the ability to enable the Dual-PIN feature for KeySecure units.

Dual-PIN requires users to enter 2 PINs to release a key on the KeySecure Units. Definitions of PIN features are below, and the default setting is single PIN.

- **Single PIN** (Independent PIN) — Only one PIN is required to release key for KeySecure units
- **Dual PIN** (Dependent PIN) — Two PINs of any type are required to release the keys
- **Supervisor PIN** — Supervisor PINs are non-dependent and do not require a second PIN. Also used for changing keypad/display brightness on KeySecure

Light Management

The brightness of a KeySecure's LEDs and keypad backlight can be adjusted to temporarily reduce intensity when driving at night or supporting operations requiring no lights. PIN users with Supervisor field capabilities assigned in KnoxConnect have permission to adjust settings.

Light Modes

- **Standard:** Default setting of keypad backlight and key retention LEDs
- **Night:** Reduces intensity of backlight and LEDs to 50%
- **Blackout:** Turns off all device lights

NOTE: If keys will be used while the unit is in Blackout Mode, Knox recommends removing prior to adjusting settings as keypad feedback and indicator lights will not be available.

Adjust Light Settings Using Device Keypad:

1. Enter valid Supervisor PIN
2. Press the Knox button. The light mode toggles in the following order:
   a. Press once for Night Mode
   b. Press twice for Blackout Mode
   c. Press three times to return to Standard Mode

TIP: Selection mode will time out after 5 seconds. The device will automatically revert to Standard Mode after 8 hours.

Programming and Updating the KeySecure

To conduct initial configuration of the KeySecure, you must use the provided USB cable to connect the KeySecure to a computer.

NOTE: The mini USB connection is on the top left side of the KeySecure:

- **KnoxConnect Cloud**: Download ***Device Sync App*** from KnoxConnect and follow prompts to update the KeySecure

NOTE: Refer to the ***"KeySecure Networking Guide"*** for KeySecure programming instructions:

- **KnoxConnect Local**: ***Download Device Sync App*** or ***KnoxConfig App*** from KnoxConnect and follow prompts to update the KeySecure

NOTE: Refer to the ***Knox Networking Guide*** for detailed communications setup instructions.

Resetting the KeySecure Device

- To reset the KeySecure, press and hold the arrow (return) key for 10 seconds. Release after LEDs and keypad backlight turn off.

Syncing the KeySecure Device

After initial configuration, most PIN, configuration and firmware updates will require the following:

- **KnoxConnect Cloud**: A KeySecure device must have access to the internet via WiFi or ethernet via a wireless hub in order to receive updates:
  - The KeySecure device syncs with KnoxConnect Cloud at a maximum interval of 10 minutes while internet access is available
  - If the interval has expired or the unit is first powered up the KeySecure device will sync immediately when internet access is available
- **KnoxConnect Local**: A computer/laptop with Windows is required along with a USB to mini USB connector (Included with KeySecure) in order to update the KeySecure:
  - Syncing is conducted by physically connecting the Admin computer (PC/laptop) with KnoxConnect Local via USB cable to the KeySecure 5

KEYSECURE® 6 USER INSTRUCTIONS

The Knox eKey can be charged and programmed via the KeySecure 6. When the Knox eKey is retained, the KeySecure will not display any LED lights. The Knox eKey, however, will slowly flash green while charging. Refer to the Knox eKey User Guide for information on the color status of the LEDs.

Remove and Return the Electronic Knox eKey

1. Enter a valid PIN, SecurePIN or two valid PINs if Dual PIN is enabled on the keypad. PIN entry should be followed by pressing the arrow (Return) key to complete the PIN entry:

- The Keypad numbers will dim upon each key press and illuminate upon each keypad release
- **Single PIN:** If a correct PIN is entered and only a single PIN is required, both amber LED lights will illuminate and the device will begin the key release process
- **Dual PIN:** If a correct PIN is entered both amber LED lights will fast flash. The second user will have 15 seconds to enter their PIN:
  - Flashing will discontinue upon the first keypress or the 15 second time out
  - When the correct second PIN is entered, both amber LED lights will illuminate and the device will begin the key release process
- If an incorrect PIN is entered, both amber LED lights will double flash. Repeat step 1 using a correct PIN
- **Key release process:**
  - The master key and eKey retainer will become physically unlocked (this may take several seconds - DO NOT attempt to remove the eKey or key during this time). The LED lights will then stay lit for an additional 5 seconds allowing the key or eKey to be removed.

2. To remove the key from the KeySecure device:

- **eKey:** Flip down the retention latch and remove it from the KeySecure

  NOTE: The amber LED light above the electronic key will flash, indicating the key is unsecured.
- **Mechanical key:** Turn the master key clockwise (right) and remove it from the KeySecure.

  NOTE: The amber LED light above the key will flash, indicating the key is unsecured

  NOTE: The key and eKey remain in a released position for five (5) seconds. If they are not removed within the specified release time they will be relocked. To release, repeat step 1.

3. Return the key to the KeySecure device:

- **eKey:** Insert the eKey and push the retention latch up to activate the retention motor. The LED on the KeySecure will display light solid red while the retention latch locks the eKey securely and verifies it, the LED light will then turn off.
- **Mechanical key:** Insert the master key and turn counterclockwise (left) to lock it into the retention port. The LED light on the KeySecure will stop flashing.

KEYSECURE® 5 USER INSTRUCTIONS

Remove and Return Mechanical Knox Master Key

1. Enter a valid PIN, SecurePIN or two valid PINs if Dual PIN is enabled on the keypad. PIN entry should be followed by pressing the arrow (Return) key to complete the PIN entry:

- The Keypad numbers will dim upon each key press and illuminate upon each keypad release
- **Single PIN:** If a correct PIN is entered and only a single PIN is required, both amber LED lights will illuminate and the device will begin the key release process
- **Dual PIN:** If a correct PIN is entered both amber LED lights will fast flash. The second user will have 15 seconds to enter their PIN:
  - Flashing will discontinue upon the first keypress or the 15 second time out
  - When the correct second PIN is entered, both amber LED lights will illuminate and the device will begin the key release process
- If an incorrect PIN is entered, both amber LED lights will double flash. Repeat step 1 using a correct PIN
- **Key release process:**
  - The master key retainer will become physically unlocked (this may take several seconds - DO NOT attempt to remove the eKey or key during this time). The LED lights above the key will then stay lit for an additional 5 seconds while the key is able to be removed, if not removed, the key will be relocked.

2. **To remove the key:** After the device has completed its key release process, remove the master key by turning it clockwise (right) and remove:

   NOTE: The LED light, located above the key, will flash, indicating the key has been removed or not in a locked position.

   NOTE: The key remains in a released position for five (5) seconds. If the key is not removed within the specified release time, repeat the PIN entry process

3. **To return the key:** Insert the key and turn it counterclockwise (left) to its original position. This will capture the key and lock the key retention unit. The LED light above the returned key turns off when fully locked.

KEYSECURE® LED LIGHT STATUS

The KeySecure 5 and 6 LEDs provide information about the current status of the unit. The left LED serves the mechanical key (if available). The right LED serves the electronic key. Both LEDs and keypad backlight indicate current PIN status.

CONDITION	LED AND BACKLIGHT INDICATION	ACTION
eKey in, retention latch closed	Charging, programmable, no amber LED	None
eKey out, retention latch open	Amber LED flashes above eKey port	Return eKey and close retention latch
eKey retention latch open/will not close	No amber LED flashes above eKey port	Enable eKey port in KnoxConnect and sync KeySecure
eKey in, PIN entered, retention latch closed	Amber LED on, and latch unlocks for approximately 5 seconds, then amber LED goes out and the latch locks	Flip retention latch down within 5 seconds; otherwise, re-enter PIN and start over
Mechanical key in, retained	No amber LED	None
Mechanical key out, not retained	Amber LED flashes above mechanical key port	Replace key and turn counterclockwise to lock
Mechanical key out, not retained	No amber LED flashes above mechanical port	Enable mechanical port in KnoxConnect and sync KeySecure
Mechanical key in locked position, PIN entered	Amber LED is on, and key unlocks for approximately 5 seconds, then amber light goes out and key locks	Remove key within 5 seconds; otherwise, re-enter PIN and start over
DC Power On	Keypad backlight is on, indicates fully functionality status	None
PIN entry	Keypad backlight flashes for every numeric key	Enter PIN and press arrow (Return) key
PIN good	Both amber LEDs are on for approximately 5 seconds	Remove eKey or Mechanical key
PIN bad	Both amber LEDs double flash simultaneously	Re-enter valid PIN
eKey in and retention latch is open	Amber LED flashes continuously, Knox eKey not charging	Close retention latch
eKey missing and the retention latch is closed	Amber LED continues to flash above eKey retention port	Replace eKey and close latch
KeySecure device is not syncing regularly with KnoxConnect		Ensure that KeySecure is successfully connecting to your network
Lockout	Continuous flash of keypad backlight	KeySecure is locked out due to excessive invalid PIN attempts
eKey from wrong jurisdiction or nonresponsive and retention latch is closed	Amber LED fast flashes above secured eKey	Error code saved in the audit trail - release and replace with correct eKey and close latch
No lights but able to release key with valid PIN entry	Blackout Mode	Enter Supervisor PIN and press Knox button to toggle to standard or Night Mode setting
Keypad lights are too dim	Night Mode	Enter Supervisor PIN and press Knox button to toggle to standard setting