KNOX KEYDEFENDER™
QUICK START INSTALLATION GUIDE

Knox KeyDefender is a key retention and programmer/charger for the Knox eKey and/or Knox mechanical master key. With vehicle use, it can be mounted using a RAM® Mount system. Please consult the *KeyDefender User Guide* and *Networking Guide* for programming and set up information.

KeyDefender Specifications

MECHANICAL SPECIFICATIONS						
KeyDefender				**Mounting Brackets**		
Models	KD-1KE1	KD-1KM1	KD-1KD2	KD-MB-R5	KD-MB-R7	KD-MB-R11
Description	Supports one eKey	Supports one Mechanical Key	Supports one eKey and one Mechanical Key	5" Mount	7" Mount	11" Mount
Dimensions	4.3"W X 4.5"H X 3.0"D	3.5"W X 4.5"H X 3.0"D	5.5"W X 4.5"H X 3.0"D	2.5"W X 5.0"H	2.5"W X 7.0"H	2.5"W X 11.0"H
Weight	1.4 lb	1.4 lb	1.8 lb	0.9 lb	1.1 lb	2.1 lb
Materials	Composite materials			Aluminum		
ELECTRONIC SPECIFICATIONS						
Operating Temp	-20 to +65° C			**Wiring**		
Storage Temp	-40 to +80° C			Power		2-Wire 18 AWG
Humidity	95% RH			Programming		USB A Male to C Male
Memory	Up to 16,000 audit events			**Networking**		
	Up to 5,000 PIN			Wifi		802.11 b/g/n (2.4 gHz)
Power	2A @ 12VDC					
Real Time Clock Battery	CR123-A Lithium 5 Year Replaceable					

KeyDefender Package Contents

- KeyDefender (Dual or single)
- Wiring pigtail 18 AWG
- USB A Male to C Male
- Heat Shrink Tubing 3/8" ID
- Terminal Butt Splice 14-18 AWG

Required Tools & Materials

- Socket screwdriver for 1/4" hex shank
- Tool Hand Wire Crimper
- Heat Source
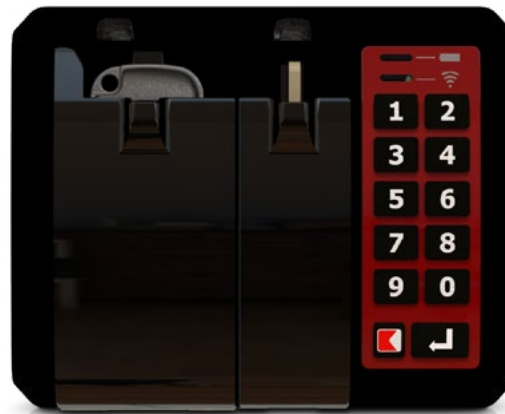
FCC NOTICE:

This device complies with Part 15 A of FCC Rules. The 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 A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada. This Device Contains: FCC ID: 2AOVI-KNOX- RAS, IC: 23479-KNOXRAS.

OPE-ESYSLR-0550

Getting Started

1. Prior to beginning the installation process, power down both the vehicle and the KeyDefender. **Observe safe practices when working with power and electrical components.**

    IMPORTANT: Use a power source controlled by the ignition switch to power the KeyDefender. Constant power is not required.

2. Use minimum 18 AWG to connect device to power.

3. KeyDefender requires 2A @ 12VDC max power or use

4. Knox recommends programming the KeyDefender before installation. To configure the KeyDefender for network access, see the *Knox Networking Guide* by logging into your portal at knoxconnect.net or contact Knox Technical Support.

PROGRAMMING INSTRUCTIONS

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

Requirements

Set up will require:

- A computer/laptop with Windows 10
- USB A Male to C Male connector (Included with KeyDefender)
- Access to KnoxConnect Software Management System
- Knox *Device Sync App*

Editing the KeyDefender Device Configuration

1. Login to KnoxConnect
    - **KnoxConnect Cloud:** Log into the KnoxConnect™ Management System at **knoxconnect.net**
2. From the main menu select **KeySecure/ KeyDefender**
3. Find the KeyDefender serial number (SN) and select **Edit** 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 Networking Guide for configuring Wi-Fi and ethernet connectivity.
4. Once settings are configured select the **Save** button, and then the **Back** button, to return to the KeyDefender primary screen.
5. To assign user PINs to the KeyDefender, 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 with Wi-Fi.
    - **KnoxConnect Local:** Device settings and PIN assignments take effect when the KeyDefender is connected to the Admin computer via USB cable (for KeyDefender single mechanical key only)

Applying Power

6. Connect the pigtail to power wire connected to vehicle power and ground. KeyDefender should be wired to ignition and does not require continuous power.
7. Plug pigtail connector into power port on the back of KeyDefender

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NOTE: KeyDefender will have a brief red, yellow, green LED sequence to indicate the unit is powered. Keypad backlight will illuminate and LED lights will indicate security status of the key(s).

8. Power must be **ON** and the *Disable eKey Retention Left* setting must be unchecked in the KnoxConnect device configuration for the eKey charging port to lock and secure the Knox eKey™ in the KeyDefender.

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.**

Installation

Refer to the KeyDefender Mounting instructions to properly mount the KeyDefender

1. Mount KeyDefender to Bracket
   - Use the supplied 4 security fasteners and the tamper resistant T15 Torx bit (in the KeyDefender Mounting package) to mount the KeyDefender to the RAM® Mount base. There are 4 hole locations on the back of the KeyDefender to align with the mounting base. The fastener size is 8-32 X 3/8" Note if you are not using a RAM mount please only use fasteners with a maximum length of 5/8".

2. Once KeyDefender has power, install keys

NOTES:
- To reset the KeyDefender, press and hold the arrow key (return key) for 10 seconds. Release after LEDs and the keypad backlight turn off.
- The battery is replaceable with a CR123A lithium battery
- Contact Knox Technical Support for assistance at (800) 552-5669

To access additional KeyDefender technical documents, log into your KnoxConnect.net account.