

### **Product Description:**

The EKEY system is a passive keyless entry system that allows the end user to access and Push Start the vehicle and to remotely send commands to Lock/Unlock the Driver Door, Passenger, Cab, and Cargo using the Fob remote. It is comprised of the following 3 products:

- AX09, Car Module with BLE. Will be powered from car battery.
- AW26 Car sensors, it has two types of BLE and NFC sensors that can be installed at interior or exterior of the vehicle and be powered for vehicle's battery.
- AW18 keyfob, has a BLE and NFC tag and will be powered by coin cell battery CR2450.







Figure 1 AX09 Figure 2 AW26 Figure 3 AW18



### **EKEY System Diagram**

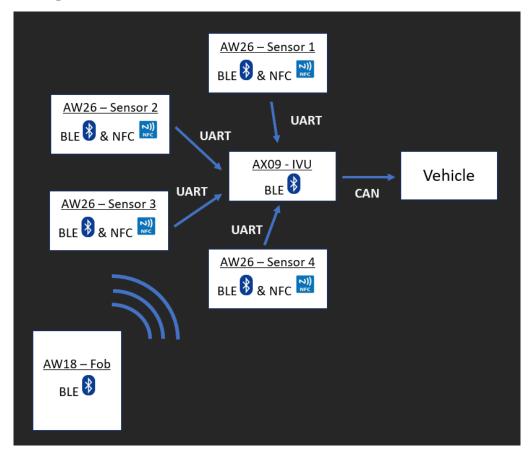


Figure 4: EKEY System Diagram

AW18 Fob sends BLE signal to the AW26 Sensors. It can also be placed near the sensor to scan NFC.

Sensors can be installed at interior or exterior of vehicle. This is placement and installation example:

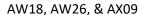
- Sensor 1 is placed near Cargo.
- Sensor 2 is placed near Passenger.
- Sensor 3 is placed near Driver.
- Sensor 4 is placed near Cab.

The sensors communicate Data Command over UART to the AX09 unit, which in turn processes the data and forwards it over CAN to the Vehicle.

The Fob communicates over BLE to AX09 module and to sensors to provide user location and has also an NFC tag to communicate with AX09 module through NFC reader installed on AW26 sensors.

For First time use, the Fob needs to be learnt by the system.

## **EKEY System**





### **Government Regulations**

This device complies with Part 15 of 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 undesirable operation.

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 and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, 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, 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.

To satisfy FCC RF exposure compliance requirements, the device and its antenna must maintain a separation distance of 20 cm or more from the person's body, except for the hand and wrists, to satisfy RF exposure compliance.

WARNING!: Changes or modifications not expressly approved by VOXX Electronics. could avoid user's authority to operate the equipment.

This device complies with Industry Canada license-exempt RSS-247 standards. Operation is subject to the following two conditions:

- 1. This device may not cause interference, and
- 2. This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme avec Industrie Canada exempts de licence standards RSS-247. Son fonctionnement est soumis aux deux conditions suivantes:

- 1. Cet appareil ne doit pas provoquer d'interférences et
- 2. Cet appareil doit accepter toute interférence, y compris celles pouvant causer un mauvais fonctionnement de l'appareil."

#### **Health Canada RF Exposure Warning:**

This device complies with Health Canada's Safety Code. The installer of this device should ensure that RF radiation is not emitted in excess of the Heath Canada's requirement. The device must maintain a separation distance of 20cm or more from the person's body, except for the hands and wrists. Information can be obtained at:

http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/radio guide-lignes direct/index-eng.php

### Lignes Directrices de Santé Canada sur l'exposition aux radiofréquences:

Cet appareil est conforme avec Santé Canada Code de sécurité 6. Le programme d'installation de cet appareil doit s'assurer que les rayonnements RF n'est pas émis au-delà des limites établies par Santé Canada. L'emplacement de l'appareil doit se situer à une distance de 20cm ou plus par rapport au corps de la personne, à l'exception des mains et des poignets. Les informations peuvent être obtenues à l'adresse Internet suivante:

http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/radio guide-lignes direct/index-fra.php

# **EKEY System**

AW18, AW26, & AX09



A VOXX INTERNATIONAL COMPANY

### Warranty Information

#### LIMITED ONE-YEAR CONSUMER WARRANTY

For a period of ONE YEAR from the date of purchase of a VOXX Electronics product, Voxx Electronics. ("Voxx") promises to the original purchaser, to repair or replace with a comparable reconditioned piece, the security or remote start accessory piece (hereinafter the "Part"), which proves to be defective in workmanship or material under normal use, provided the following conditions are met: the Part was purchased from an authorized VOXX Electronics dealer; and the Part is returned to VOXX Electronics, postage prepaid, along with a clear, legible copy of the receipt or bill of sale bearing the following information: consumer's name, address, telephone number, the authorized licensed dealer's name and complete product and Part description. This warranty is nontransferable and is automatically void if the Part has been modified or used in a manner contrary to its intended purpose or the Part has been damaged by accident, unreasonable use, neglect, improper service, installation, or other causes not arising out of defect in materials or construction.

TO THE MAXIMUM EXTENT ALLOWED BY LAW, EXCEPT AS STATED ABOVE, ALL WARRANTIES, INCLUDING BUT NOT LIMITED TO EXPRESS WARRANTY, IMPLIED WARRANTY, WARRANTY OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF NONINFRINGEMENT OF INTELLECTUAL PROPERTY, ARE EXPRESSLY EXCLUDED; AND VOXX Electronics NEITHER ASSUMES NOR AUTHORIZES ANY PERSON OR ENTITY TO ASSUME FOR IT ANY DUTY, OBLIGATION OR LIABILITY IN CONNECTION WITH ITS PRODUCTS. VOXX Electronics HEREBY DISCLAIMS AND HAS ABSOLUTELY NO LIABILITY FOR ANY AND ALL ACTS OF THIRD PARTIES INCLUDING DEALERS OR INSTALLERS. VOXX Electronics IS NOT OFFERING A GUARANTEE OR INSURANCE AGAINST VANDALISM, DAMAGE, OR THEFT OF THE AUTOMOBILE, ITS PARTS OR CONTENTS, AND VOXX Electronics x HEREBY DISCLAIMS ANY LIABILITY WHATSOEVER, INCLUDING WITHOUT LIMITATION, LIABILITY FOR THEFT, DAMAGE, OR VANDALISM. IN THE EVENT OF A CLAIM

OR A DISPUTE INVOLVING VOXX Electronics OR ITS SUBSIDIARY, THE PROPER VENUE SHALL BE SAN DIEGO COUNTY IN THE STATE OF CALIFORNIA. CALIFORNIA STATE LAWS AND APPLICABLE FEDERAL LAWS SHALL APPLY AND GOVERN THE DISPUTE. THE MAXIMUM RECOVERY UNDER ANY CLAIM AGAINST VOXX Electronics SHALL BE STRICTLY LIMITED TO THE AUTHORIZED VOXX Electronics DEALER'S PURCHASE PRICE OF THE PART. VOXX Electronics SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO, ANY CONSEQUENTIAL DAMAGES, INCIDENTAL DAMAGES, DAMAGES FOR THE LOSS OF TIME, LOSS OF EARNINGS, COMMERCIAL LOSS, LOSS OF ECONOMIC OPPORTUNITY AND THE LIKE. NOTWITHSTANDING THE ABOVE, THE MANUFACTURER DOES OFFER A LIMITED WARRANTY TO REPLACE OR REPAIR AT VOXX 'S OPTION THE PART AS DESCRIBED ABOVE.

This warranty only covers Parts sold within the United States of America and Canada. Parts sold outside of the United States of America or Canada are sold "AS-IS" and shall have NO WARRANTY, express or implied. Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights and you may also have other rights that vary from State to State. VOXX Electronics does not and has not authorized any person or entity to create for it any other obligation, promise, duty or obligation in connection with this Part. For further details relating to warranty information of VOXX Electronics products, please visit the support section of VOXX's website.

### THE WARRANTY IS VOID IF:

- 1. The product has been damaged, altered in any way or tampered with, without the explicit written consent of our certified technician.
- 2. The product is damaged due to accident, fire, flood, shipping and handling, misuse, neglect, or other conditions beyond the control of VOXX Electronics.
- 3. The product has been installed or repaired by anyone other than a certified technician.
- 4. The product has been improperly installed or used.

### THE WARRANTY DOES NOT COVER:

- 1. Scratched or worn 8812 module case.
- 2. Installation and/or removal charges for DS4WS module and accessories.
- 3. Shipping and handling charges incurred for product exchange or replacement.
- 4. Any material damage other than to the product itself.
- 5. Harnessing, LED lights, switches, relays, etc.

#### **FCC Statement**

- 1. 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.
- (2) This device must accept any interference received, including interference that may cause undesired operation.
- 2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

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

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

To comply with RF exposure requirements, a minimum separation distance of 20mm must be maintained between the user's body and the handset, including the antenna.

#### IC STATEMENT

This device complies with Industry Canada licence-exempt RSS standard(s)

Operation is subject to the following two conditions:

- (1) This device may not cause interference, and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Ce dispositif est conforme aux normes autoriser-exemptes du Canada RSS d'industrie

L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le

brouillage est susceptible d'en compromettre le fonctionnement.Cet équipement

est conforme avec l'exposition aux radiations IC définies pour un environnement

non contrôlé. L'utilisateur final doit respecter les instructions de fonctionnement spécifiques pour satisfaire la conformité aux expositions RF.