SMART AERIAL +

EN

Operating manual

Translation of the original instructions

vers. 1.0

dormakaba Group

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USING THE MANUAL

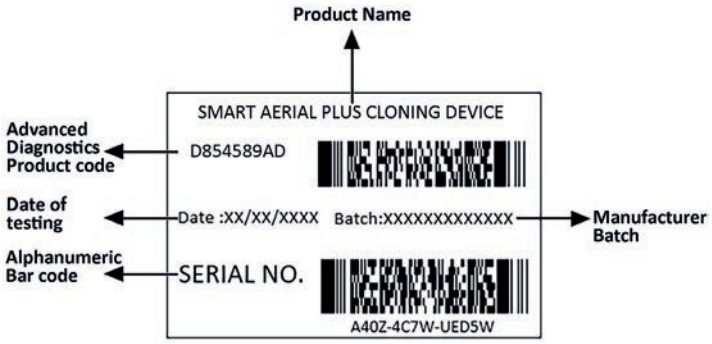
This manual has been drawn up by the manufacturer and is an integral part of the equipment.
The manual provides a series of information which must be known by the operator and which enables the device to be used in safe conditions.

Instruction manual
This user manual is indispensable for the correct use of SMART AERIAL + and for any maintenance operations that may be necessary.
The manual must be kept carefully throughout the life of the device, including the decommissioning phase.
It must be kept in a dry place near the device and must, in any case, always be available to the user.

It is MANDATORY to read the user manual carefully before using the device.

Characteristics of the addressees
This manual must be used by the personnel in charge after reading and learning its contents.

Manufacturer identification
SMART AERIAL + is fitted with an identification plate containing the serial number, located on the device packaging.



GENERAL WARNING

The SMART AERIAL + device has been designed in accordance with the principles of European (CE) regulations.
Solutions have already been adopted in the design phase to eliminate risks to the operator in all phases of use: transport, adjustment, use and maintenance.
The materials used in the construction are non-hazardous and make the device compliant with current standards.
In its construction, all components of the device are safe.

In order to operate correctly and reliably, keep the device away from any source of radio interference such as:

- WIRELESS TELEPHONES
- VIDEO TERMINALS
- NEON LIGHTS
- Do not place the SMART AERIAL + device close to the WI-FI source (e.g. above the wi-fi router a few centimetres away)

RESIDUAL RISKS

SMART AERIAL + has no residual risk.

PROTECTION AND SAFETY PRECAUTIONS FOR THE OPERATOR

The operations for which the device was designed are easily performed without any risk to the operator.
It is a safe device in all its components.

TRANSPORT

SMART AERIAL + is easily transported and is not dangerous to handle. The packed device can be carried by one person.

PACKAGING

The packing is designed to ensure safe transportation and protect the device and all its parts.

Keep dry

Handle with care

WARNING: **the complete packaging must be kept for any possible movement of the device.**

ONLINE DOCUMENTATION

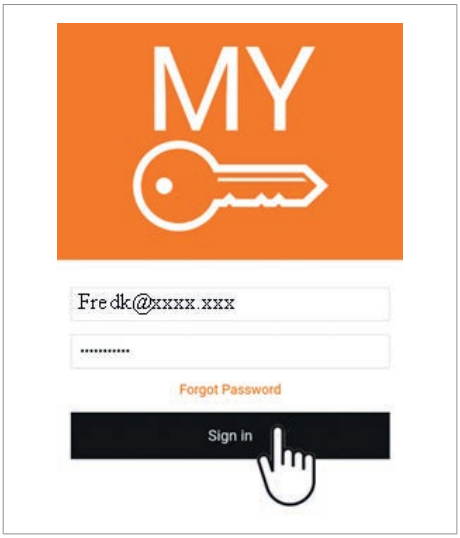
For the latest documentation visit **www.silca.biz** regularly or use the MYKEYSPro application.

1 FIRST OPERATION TO BE PERFORMED: DEVICE REGISTRATION WITH MYKEYS Pro

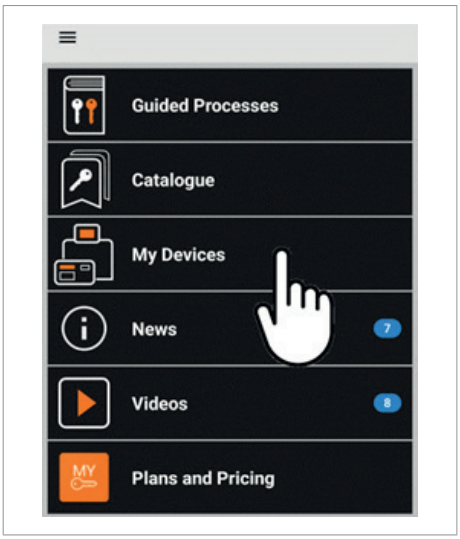
Download MYKEYS Pro from Play Store for Android or APP Store for iOS devices

Android	iOS

To register your Advanced Diagnostics device a MYKEYS Pro account is needed.
Login to your MYKEYS Pro account or go to “Create Account” and follow the procedure.

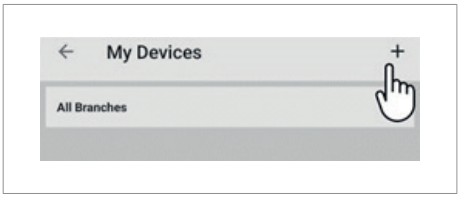


Ensure the device to register is powered ON and charging (connected to the USB port of a computer). From MYKEYS Pro APP main menu, tap “My Devices” option.

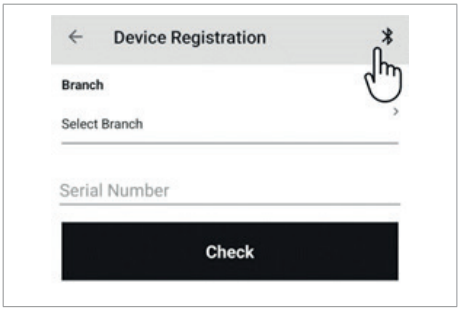


Select the device to register

Tap on “+” symbol

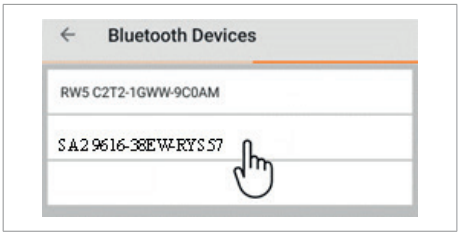


then on Bluetooth symbol

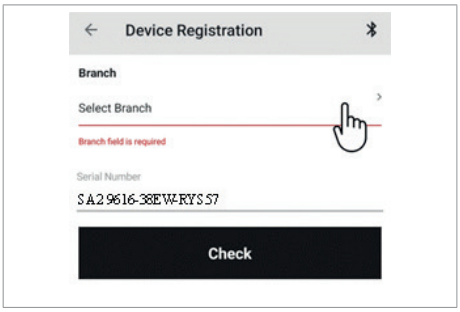


Select the device from the list

Note: It is possible to register the device by manually entering the serial number in the appropriate field.
(An authentication label indicating the serial number is located on the device’s packaging)

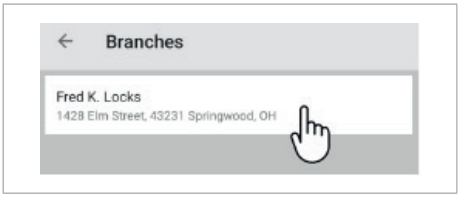


Tap the “Select Branch” field

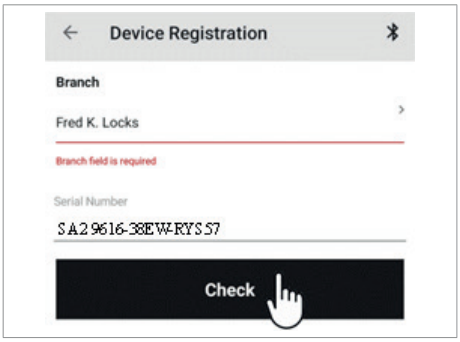


Select the Branch

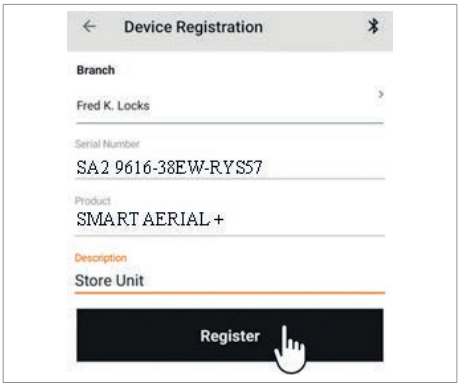
Note: If a branch is not specified, complete the “Business” and “Branch” forms under your Account Details



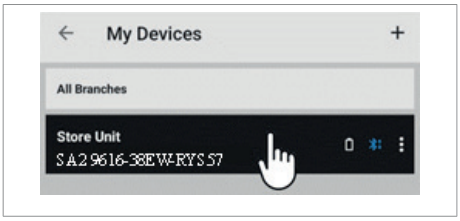
Tap the Check button



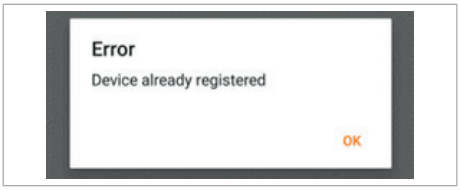
Add a description and tap Register button



The device is now registered. Tap device box to start using it and finalize configuration.



Note: If you are trying to register an already registered device, the following error message will appear



1.1 FIRST UPDATE AFTER DEVICE REGISTRATION

After registration, the device must be updated.
This should only be done the first time, afterwards SMART AERIAL + will update automatically when it is connected to the internet.
Before starting the procedure, make sure the device is switched on and powered (connected to the USB port of a computer).
Start the MYKEYS Pro APP and connect the device to a WI-FI network (see chapter 4.2).
Once connected to the WI-FI network, the device will automatically connect to the Cloud and start downloading the first update.
The various steps of the process can be seen by looking at the Cloud connection icon in the connection status bar:

Process steps:

Cloud connection in progress

Downloading the update in progress. (duration 1-10 minutes depending on internet connection speed)

Download completed

Once the download is complete, unplug the power cable. The device will switch off after a short time. To restart the device, reconnect the power cable.
Note: Once the power is reconnected, restarting the device may take up to two minutes.
IMPORTANT: Once the device has been restarted, the connection to the WI-FI network must be reconfigured.

2 DEVICE DESCRIPTION

The SMART AERIAL + is an interface that connects to the mobile devices through MYKEYS Pro App.

2.1 WORKING PARTS

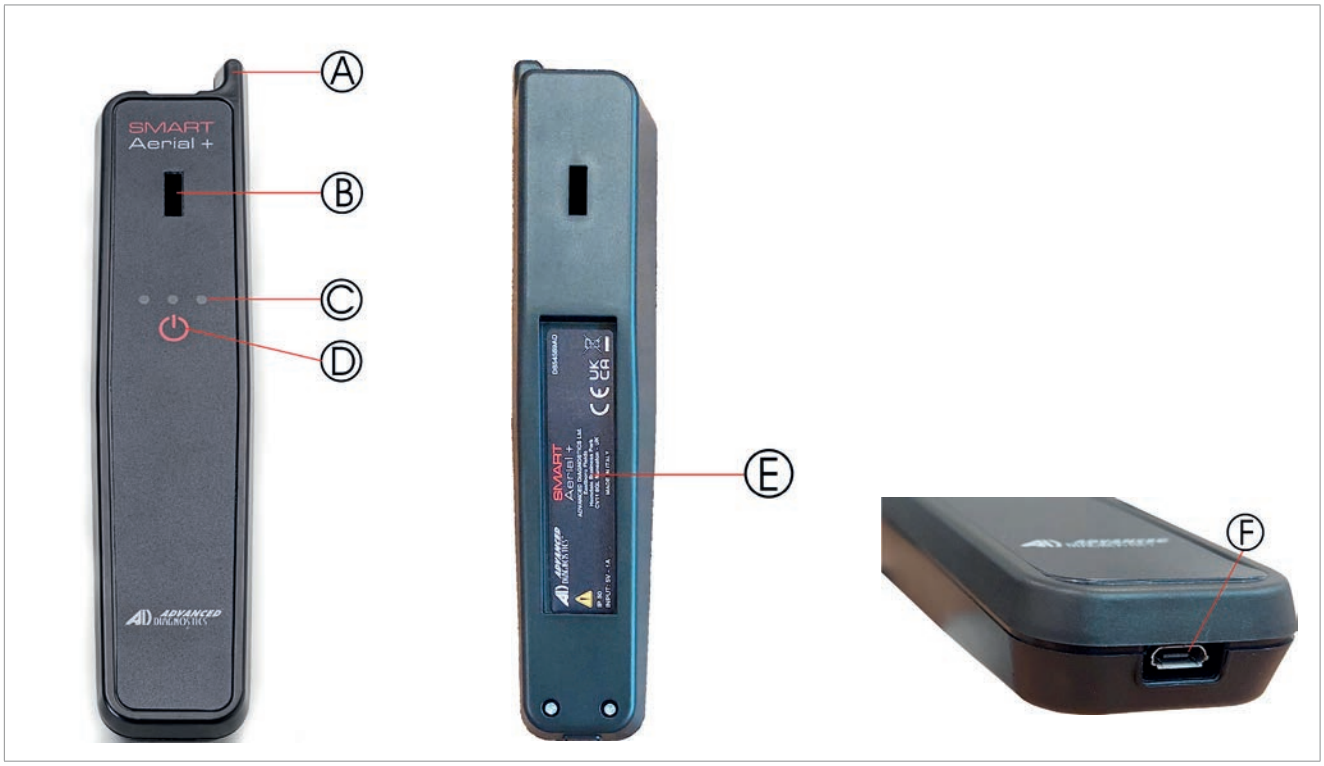


Fig. 1

- **A** - SNOOP Antenna
- **B** - Transponder read and write area
- **C** - Status LEDs
- **D** - ON/OFF button - CANCEL button
- **E** - Product and certificate information label
- **F** - Communication / charging port (USB 2.0 Micro-B)

2.2 TECHNICAL DATA

Power supply:	The device is powered by a non-removable 3.7V lithium-polymer rechargeable battery. It can also be powered by connecting it to the USB port of a computer.	
Technical specifications:	Supply voltage: 5 VDC with an external power supply unit Supply voltage: 3.7 VDC with battery Current consumption: 500 mA	
Antenna range frequencies:	Wi-Fi and BLE antenna: 2.4 GHz LF antenna: 125 - 134 KHz Snoop antenna: 125 KH	
Maximum power radiated	**Wi-Fi 802.11b/g/n**	• Operating frequency range: 2.412 - 2.484 GHz • Maximun transmission power: +20 dBm(100mW)
	BLE (Bluetooth Low Energy)	• Operating frequency range: 2.400 - 2.484 GHz • Maximun transmission power: +9 dBm (8mW)
Environmental conditions:	The device operates at an ambient temperature between 0°C and 50°C	
Dimensions:	Length: 210 mm Width: 45 mm Depth: 30 mm Weight: 120 g	
EN 62368-1 compliant	This product meets the requirements of the international standard EN 62368-1	
 	**WARNING** Lithium battery inside. If you notice abnormal overheating of the unit, deformation or leakage of liquids, promptly contact service for instructions on the correct course of action/appropriate intervention. Keep out of the reach of children.	

2.3 FUNCTIONS

- Identifies transponder types by determining the brand and code.
- Checks whether a copy can be made and indicates the Silca transponder to be used.
- Generates blank, pre-coded transponders ready to be programmed on vehicles.

NOTE: most copy operations allowed by the device require an active internet connection.

2.4 ACCESSORIES PROVIDED

The following components are also included in the device package, packed separately:

USB A to Micro-B cable

2.5 POSITIONING THE KEY INTO THE BASE

2.6 POSITIONING SMART AERIAL + ON VEHICLE'S IGNITION LOCK

Place the SNOOP antenna in way that it stays as close as possible to ignition during key rotations.

3 SWITCHING THE DEVICE ON AND OFF

To switch the device on, briefly press the power button:

Switching off the device is possible only from mobile APP.

The device will switch off automatically after 2 minutes of inactivity.

3.1 SOFT RESET OF THE DEVICE - FORCED REBOOT

In the event that the device does not respond, freezes or cannot be switched off normally, press and hold the power button for 5 seconds and release it, the device will restart automatically.

3.2 STATUS LEDS

Green LED
- ON = device turned on
- BLINKING = device is in update state or is snooping data

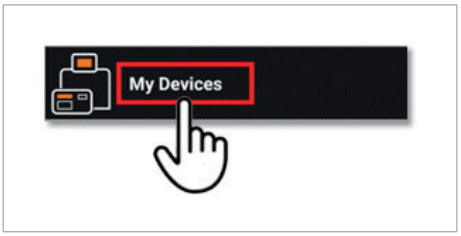
Yellow LED
- ON = battery in charge
- OFF = battery not in charge
- BLINKING = battery needs charge

Red LED
- OFF = normal status
- ON = error condition
- BLINKING = device is snooping data

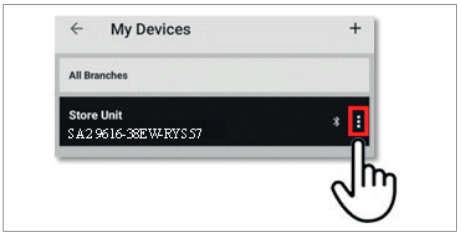
4 USING THE DEVICE FROM MYKEYS Pro

4.1 DEVICE MANAGEMENT MENU

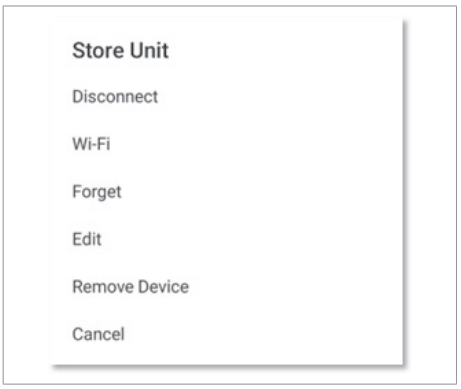
From the MYKEYS Pro APP main menu, tap the “My Devices” option:



The list of registered devices will be shown, tap the menu icon “ ⋮ “



The following Box menu appears:



Description of menu items:

Connect / Disconnect: Tap to connect or disconnect a registered and paired device

Wi-Fi: Tap to enter the Wi-Fi management settings of the device

Forget: Remove the selected device from the list of paired devices

Edit: Tap to edit the device description

Remove Device: Remove and unregister the device from the account

Cancel: Tap to exit this menu

4.2 CONNECTING THE DEVICE TO A WI-FI NETWORK

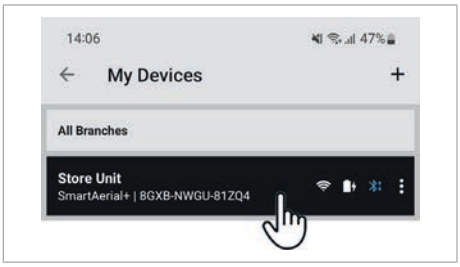
From the DEVICE MANAGEMENT menu, select the 'Wi-Fi' item, make sure Wi-Fi is switched on (1), then select the wireless network (2) to be connected from the available list:

Enter the password of the chosen network:

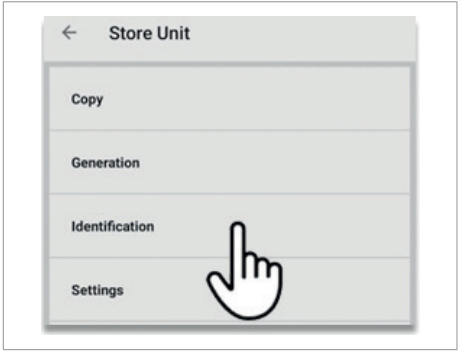
Note: Enable the 'Automatically connect to this network' checkbox to enable the device to automatically connect to the chosen network.

4.3 IDENTIFY A KEY

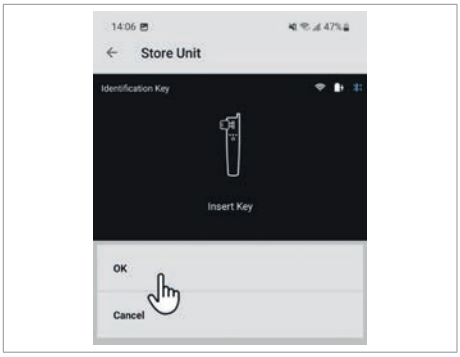
From the device list, select device SMART AERIAL +



From the proposed menu items, select 'Identification"

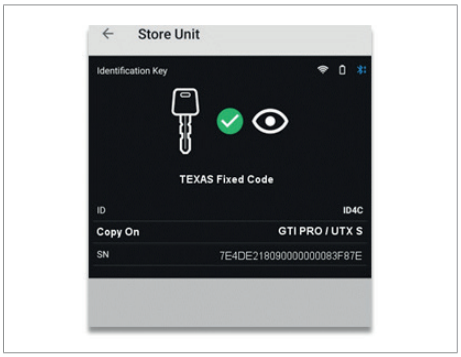


Enter the key to be identified on the device, tap the OK button when ready:



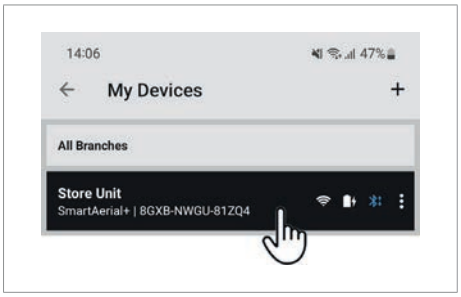
The identification process starts:

After a few seconds, the transponder type and the transponder to be used for copying will be displayed:

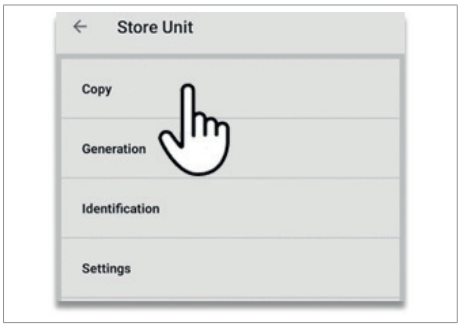


4.4 COPYING A KEY

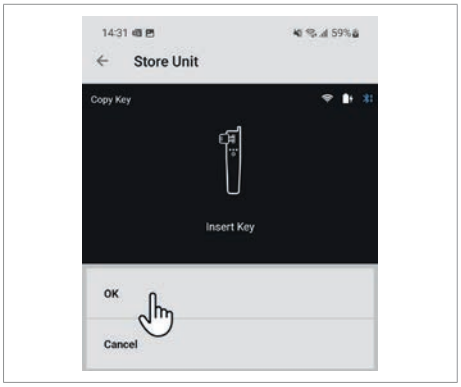
From the device list, select device SMART AERIAL +



From the proposed menu items, select ‘Copy’



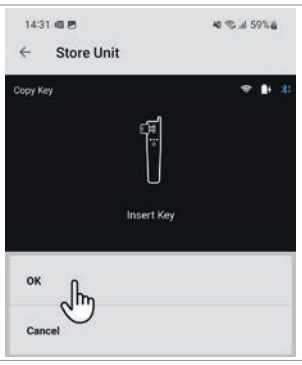
Enter the key to be copied and press OK to start the process and follow the on-screen instructions



(Pressing Cancel will return the device and programme to the previous selection menu)

4.5 COPY A TRANSPONDER KEY FOR WHICH SNOOPING IS NOT REQUIRED

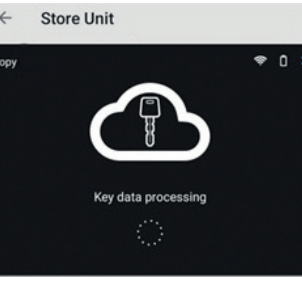
Enter the key to be copied and press OK to start the process.



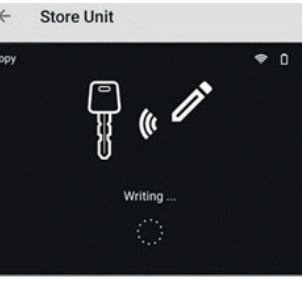
After reading the original transponder, it will be necessary to enter a transponder to authenticate the server for data processing; press OK when ready.

After that, processing of the key data will begin and the transponder copy will be made; this message sequence will be displayed on the screen:

Key data processing

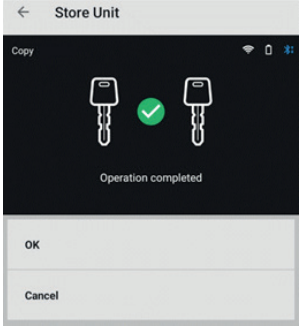


Writing process



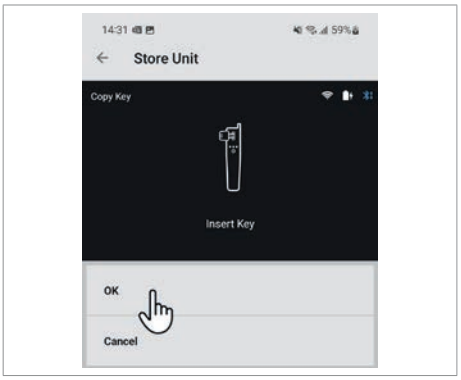
When finished copying, press Cancel to return to the main menu or press OK to make further copies.

Press OK again to confirm the start of further copies or Cancel to return to the main menu.

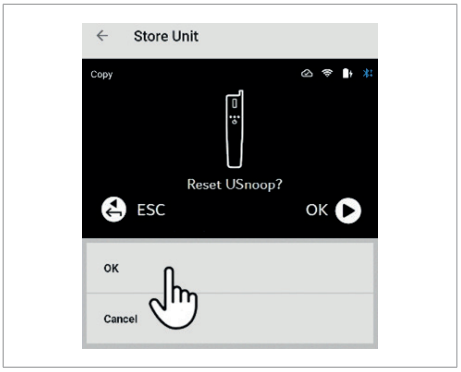


4.6 COPY A TRANSPONDER KEY FOR WHICH A SNOOP IS REQUIRED

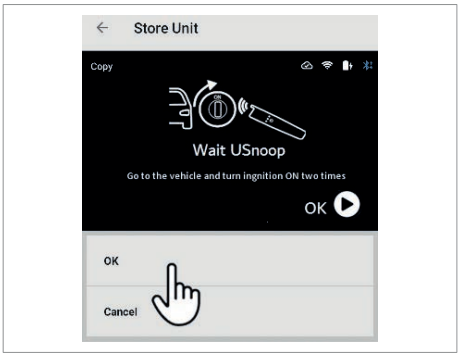
Enter the key to be copied and press OK to start the process.



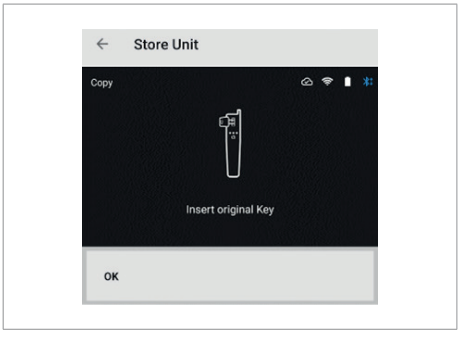
After reading the original transponder, the device enters in SNOOPING mode, confirm “SA-Snoop reset” to discard data acquired previously pressing OK button.



Once the SNOOP has been reset, go to the vehicle and switch on the ignition for the number of times indicated by the program (in this case two); once the vehicle data have been collected, press OK.

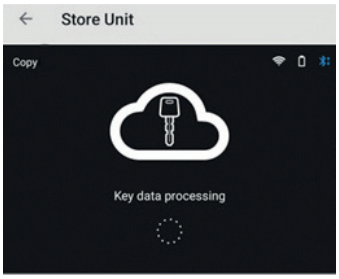


The device will ask to insert the original key, insert it and press OK button to continue:

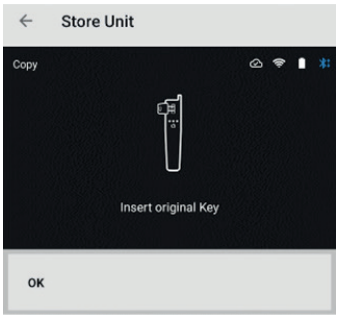


After reading the original key, it will be necessary to enter a transponder to authenticate the server for data processing; press OK when ready.

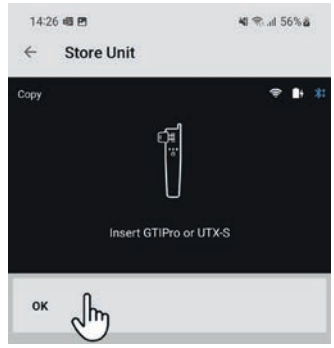
Data processing will start:



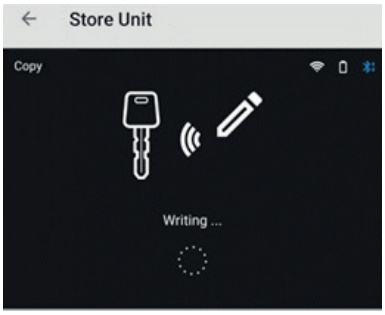
When data processing is complete, re-insert the original key and press OK:



The original key will be checked to confirm that the data match, when finished, insert the transponder proposed by the device and press OK when ready:

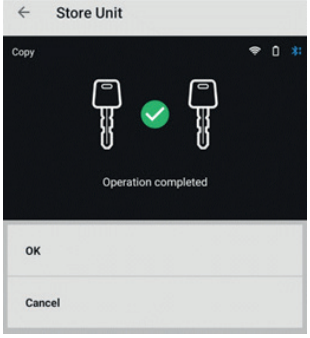


Writing process will start:



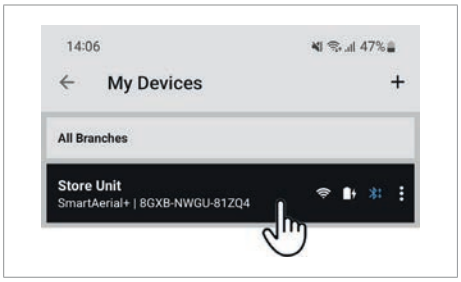
When finished copying, press Cancel to return to the main menu or press OK to make further copies:

Press OK again to confirm the start of further copies or Cancel to return to the main menu:

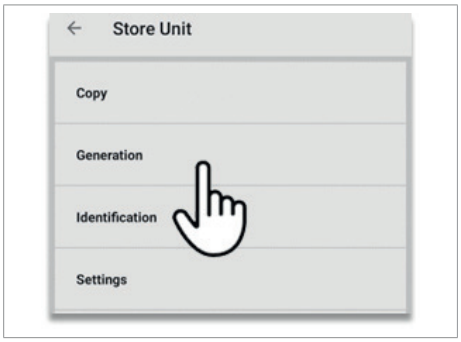


4.7 GENERATE A TRANSPONDER

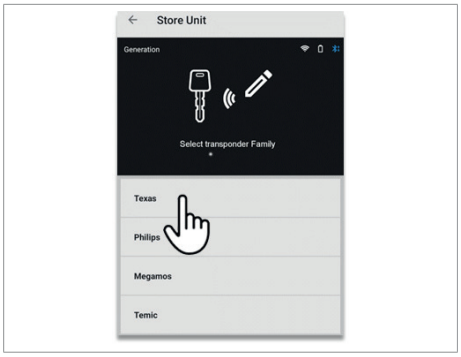
From the list of devices, select SMART AERIAL +:



From the proposed menu items, select Generation:



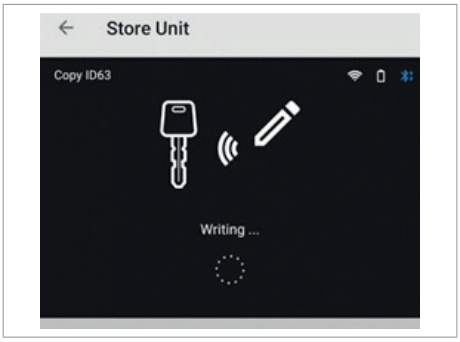
Select the type of transponder to be generated (in this case Texas®):



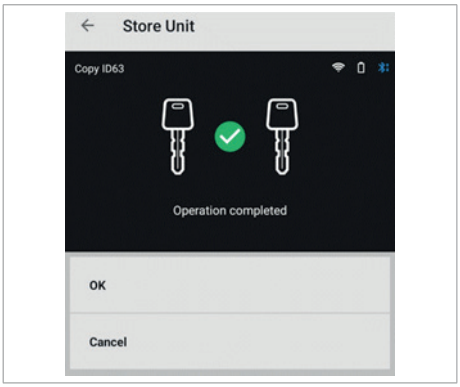
And choose the type of transponder to be generated:

Once confirmed, enter the transponder proposed by the device and press OK when ready:

The writing process will start:



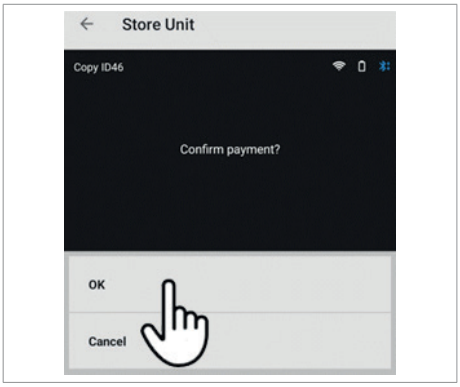
When finished, press Cancel to return to the main menu or press OK to generate more transponders.



4.8 COPY OR GENERATE A KEY ON A TRANSPONDER FOR WHICH PAYMENT BY CREDIT CARD IS REQUIRED

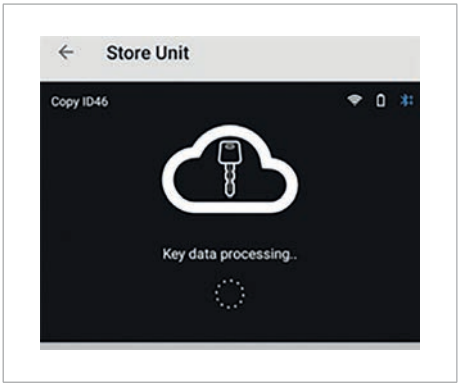
When using transponders that require payment, the device will ask you to confirm payment via a registered credit card (see MYKEYS Pro instructions for guidance on credit card registration).

Confirmation of payment may be required to authenticate the server for data processing or before writing to the transponder. Press OK to continue or Cancel to abort.

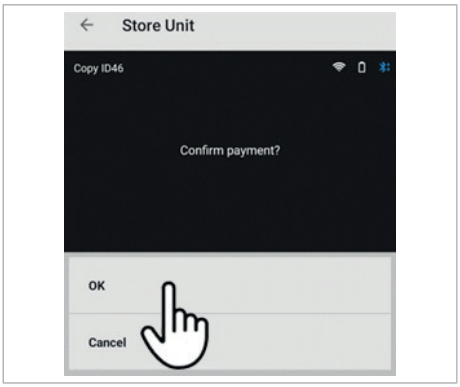


NOTE: payment will only be made after the copying process has been completed

Then processing of the key data will begin:



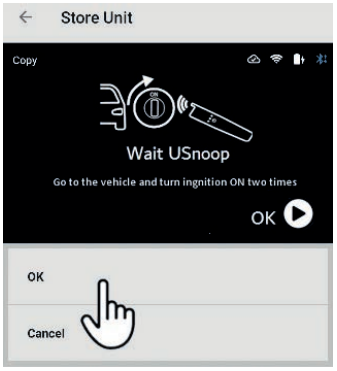
Before starting the writing process on the transponder, press OK to continue.



5 SNOOPING DATA PROCEDURES

5.1 USE ON THE VEHICLE

Once the SNOOP has been set, go to the vehicle and switch on the ignition for the number of times indicated by the program.



Place the SNOOP antenna in way that it stays as close as possible to ignition lock during key rotations.

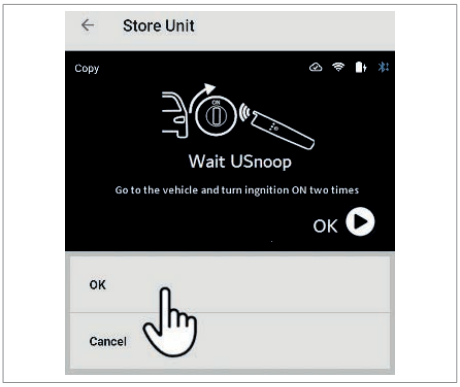
Meaning of the LEDs during the snopping phases:

Condition:	Green LED	Red LED
Invalid/uninterpretable data	OFF	ON for 2 seconds
Successful acquisition	ON for 2 seconds	ON for 1 second
Acquisition identical to the previous one	OFF	ON for 2 seconds
All acquisitions collected (2 or 3 depending if ID46/49 or 48)	ON for 2 seconds	ON for 2 seconds

CASE 1: ID46 and ID49-1C (only for some Honda vehicles)
(The ignition needs to be turned on twice)

1. Insert the key into the ignition lock taking the SNOOP antenna close to ignition and key head.
2. Turn on the ignition lock; Green LED will flash for a few seconds to indicate that the first data reading operation has been successful.
3. When green LED goes out, turn off the ignition lock and remove the key.
4. Wait 10-20 seconds or until the immobilizer warning light (if present) starts flashing
5. Insert the key into the ignition lock again.
6. Turn on the ignition lock; Green and RED LEDs will flash for a few seconds to indicate that all necessary data has been collected. (Turning the ignition lock again will put the Green and RED LEDs permanently ON)

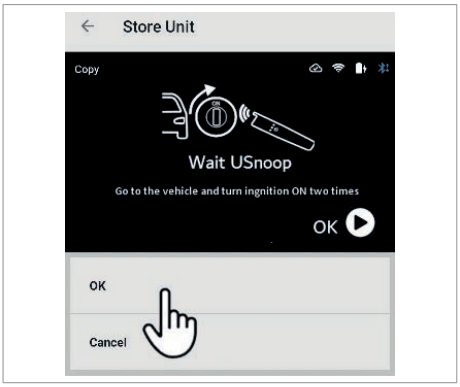
7. Press OK button on APP interface to continue with copy process:



CASE 2: ID48
(The ignition needs to be turned 3 times)

1. Insert the key into the ignition lock taking the SNOOP antenna close to ignition and key head.
2. Turn on the ignition lock; Green LED will flash for a few seconds to indicate that the first data reading operation has been successful.
3. When green LED goes out, turn off the ignition lock and remove the key.
4. Wait 10-20 seconds or until the immobilizer warning light (if present) starts flashing.
5. Insert the key into the ignition lock again.
6. Turn on the ignition lock; Green LED will flash for a few seconds to indicate that the second data reading operation has been successful.
7. When green LED goes out, turn off the ignition lock and remove the key.
8. Wait 10-20 seconds or until the immobilizer warning light (if present) starts flashing.
9. Insert the key into the ignition lock again.
10. Turn on the ignition lock; Green and RED LEDs will flash for a few seconds to indicate that all necessary data has been collected. (Turning on ignition lock again will put the Green and RED LEDs permanently ON.

11. Press OK button on APP interface to continue with copy process:



If you should encounter difficulties during the data acquisition procedure (LEDs do not light up) try to:

- Position the SNOOP antenna differently so that once the key is inserted into the ignition switch, it is further away or closer to the ignition switch itself.
- Wait 15-30 seconds between ignitions (in some cases it may be necessary to wait a couple of minutes).
- Close and open the vehicle doors with the central locking control.
- Start the engine for a few seconds.
- Quickly switch the instrument panel on and off about ten times without starting the engine.

Note: In some vehicles, data are acquired by simply inserting the key into the ignition switch, which is indicated by the LEDs lighting up. In these cases, simply inserting and removing the key two or three times from the ignition switch is sufficient.

6 SETTINGS MENU

From APP's main select "Setting" item:

The available options are:

Wi-Fi: to manage and register wireless networks
Language: to set application language interface
Snoop: To reset Snoop data
Info: shows serial number and firmware version

7 MAINTENANCE

WARNING: When repairing or replacing parts for maintenance purposes, the 'CE' marking is only guaranteed if original spare parts supplied by the manufacturer are used. The device does not require any special maintenance.

WARNING: do not use compressed air

WARNING: do not under any circumstances open the device

7.1 TROUBLESHOOTING

Before contacting a Silca Service Centre, try the following solutions:

- **Device does not switch on**
  - If the battery is completely discharged, the device will not switch on. Fully charge the battery before switching on the device.
- **The device displays a network or service unavailable error message**
  - If you are in an area with weak signal or poor reception, the network may not be available. Move to another area and try again.
  - If the problem persists, try connecting to another Wi-Fi network with working Internet access.
  - If the problem is not resolved, contact a Silca Service Centre.
- **The device freezes**
  - If the device freezes and does not respond, press and hold the power on/off button for at least 5 seconds. SMART AERIAL + will restart automatically.
- **The battery icon is empty**
  - The battery is empty. Charge the battery.
- **The battery is not charging properly**
  - Make sure the device is connected correctly to the computer.
  - Contact a Silca Service Centre to carry out the necessary checks.
- **The battery discharges rapidly**
  - If the device is exposed to very cold or very hot temperatures, its autonomy may decrease.
  - The battery is perishable and the charge capacity decreases over time.

8 DISPOSAL

For correct disposal please refer to current standards.

INFORMATION FOR USERS OF PROFESSIONAL EQUIPMENT

Pursuant to Article 24 of Legislative Decree No. 49 of 14 March 2014 , n. 49 Actuation of Directive 2012/19/EU regarding Waste Electrical and Electronic Equipment (WEEE)"

The symbol of a crossed waste bin found on equipment or its packing indicates that at the end of the product's useful life it must be collected separately from other waste so that it can be properly treated and recycled.
In particular, separate collection of this professional equipment when no longer in use is organised and managed:

a) directly by the user when the equipment was placed on the market before 31 December 2010 and the user personally decides to eliminate it without replacing it with new equivalent equipment designed for the same use;

b) by the manufacturer, that is to say the subject which was the first to introduce and market new equipment that replaces previous equipment, when the user decides to eliminate equipment placed on the market before 31 December 2010 at the end of its useful life and replace it with an equivalent product designed for the same use. In this latter case the user may ask the manufacturer to collect the existing equipment;

c) by the manufacturer, that is to say the subject which was the first to introduce and market new equipment that replaces previous equipment, if it was placed on the market after 31 December 2010;

With reference to portable batteries/accumulators, when such products are no longer in use the user shall take them to suitable authorised waste treatment facilities.

Suitable separate collection for the purpose of forwarding discarded equipment and batteries/accumulators for recycling, treatment or disposal in an environmentally friendly way helps to avoid possible negative effects on the environment and human health and encourages re-use and/or recycling of the materials making up the equipment.

To remove batteries/accumulators, consult the manufacturer's specific instructions: (see relevant chapter in the users' manual)

The sanctions currently provided for by law shall apply to users who dispose of equipment, batteries and accumulators in unauthorised ways.

EU DECLARATION OF COMPLIANCE

Advanced Diagnostics Ltd.
Eastboro Fields | Hemdale | Nuneaton | Warwickshire
CV11 6GL | United Kingdom

Declares under its own responsibility that the **Duplicating device for Transponder Keys** model:

Smart Aerial +

complies with the requirements of the following European Directives:

European Union **DIRECTIVE 2014/53/EU** (RED)
European Union **DIRECTIVE 2014/30/EU** (Electromagnetic Compatibility)
European Union **DIRECTIVE 2014/35/EU** (Low Voltage)
European Union **DIRECTIVE 2011/65/EU** (RoHS3)
European Union **DIRECTIVE 2012/19/EU** (WEEE)

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and with the following Standards:

EN 55032:2015 + A11:2020
ETSI EN 301 489-1 V.2.2.3
ETSI EN 301 489-17 V.3.2.4
ETSI EN 300 330 V2.1.1
EN 300 328 V2.2.2
EN 62479:2010
EN 50364: 2010
EN 55035:2017
ETSI EN 301 489-3 V.2.1.1

The Technical File is available in the follow site:

Company:	Silca S.p.A.
Place of issue:	Via Podgora 20 (Z.I.) Vittorio Veneto (TV) - ITALY
Date:	04-10-2022
Function and Name:	CEO, Michele Gazzola

Signature:

CE

Advanced Diagnostics Ltd.
Eastboro Fields | Hemdale | Nuneaton | Warwickshire - CV11 6GL | United Kingdom

UKCA DECLARATION OF COMPLIANCE

Advanced Diagnostics Ltd.
Eastboro Fields | Hemdale | Nuneaton | Warwickshire
CV11 6GL | United Kingdom

Declares under its own responsibility that the **Duplicating device for Transponder Keys** model:

Smart Aerial +

complies with the requirements of the following European Directives:

Radio Equipment Regulations 2017
Electromagnetic Compatibility Regulations 2016
Electrical Equipment (Safety) Regulations 2016
The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (As amended)
The Waste Electrical and Electronic Equipment Regulations 2013 (As amended)

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and with the following Standards:

BS EN 55032:2015 + A11:2020
BS ETSI EN 301 489-1 V.2.2.3
BS ETSI EN 301 489-17 V.3.2.4
BS ETSI EN 300 330 V2.1.1
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SMART Aerial +

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