

# QUICK GUIDE

## SMARTKEY PRO 7

### PC MOTORBIKE SMART KEY PROFESSIONAL PROGRAMMER



## I. INTRODUCTION

- **SMARTKEY PRO 7** is a smart key programmer for motorbikes. It has manufactured by DTDAuto Vietnam. A solution using MOTODATA software is installed on computer and connect directly with SCU via cables for HONDA, YAMAHA, SUZUKI manufacturers::

+ **HONDA:** LEAD 125 (2017-2021), AIR BLADE (2018-2021), VISION (2018-2021), CLICK 125i (2018-2021), VARIO 125/150 (2018-2021), SH 125/150/125D/150D/SM (2016-2021), FORZA, ADV, X-ADV, SH 300i ABS (2016-2017), PCX (2016-2021), SH MODE (2017-2020), SCOOPY (2018-2021), SUPER CUB 2021

+ **YAMAHA:** TMAX, XMAX, NMAX, SMAX, AEROX, GRANDE, LEXI, QBIX, JANUS Limited, JANUS Premium, FREEGO S, NVX 155 ABS, NVX Deluxe, NVX Douxou

+ **SUZUKI:** GSX-R150

- Low cost solution for users, easy to use



## 1.1 APPLICATION & FUNCTION

### a. Program Smart key system for motorbikes

LIST OF VEHICLE		FUNCTION
	LEAD 125 (2017-2021)	- Find KeyID# and ECMID directly from SCU
	AIR BLADE (2018-2021)	- Backup KeyID# and ECMID to computer when reading is successful
	SCOOPY (2018-2021)	- Create SCU data that only have 01 KEYID when registered SCU has full 04 KEYID
	CLICK 125i (2018-2021)	- Copy data from SCU (A) to SCU (B) when replace SCU - Rescue SCU data to repair software from saved data or sample data of similar SCU
	VARIO 125/150 (2018-2021)	- Edit data to perform advanced functions
	SH 125/150/ 125D/150D/ SM (2016-2021)	- Read KeyID# and ECMID directly from SCU - Delete KEYID# in SCU when it has full 04 KEYIDs in memory
	SH 300i ABS (2016-2017)	- Deactivate and activate again FOB# when lost key to avoid lost vehicle
	SH MODE (2017-2020)	- Activate simultaneous use multiple key (FOB) for a vehicle
PCX	- Automatic synchronize SCU & ECM without FOB (SCU)	

	(2016-2021)	only)
	FORZA	- Copy KeyID# from SCU (A) to SCU (B) to activate one
	ADV	key (FOB) to use simultaneously for multiple vehicles
	X-ADV	- Copy data from SCU (A) to SCU (B) when replace other SCU
	VISION (2018-2021)	- Backup SCU data when reading is successful
	SUPER CUB 2021	- Rescue SCU data to repair firmware from backup data - Edit data to perform advanced functions
	AEROX	- Read KeyID directly from SCU - Delete KEYID# in SCU when it has full 06 KEYIDs in memory - Copy data from SCU (A) to SCU (B) when replace SCU - Backup SCU data when reading is successful - Rescue SCU data to repair firmware from backup data - Edit data to perform advanced functions
	GRANDE	
	QBIX	
	JANUS	
	FREEGO S	
	NVX	
	LEXI	
	SMAX	
	NMAX	
	XMAX	
TMAX		

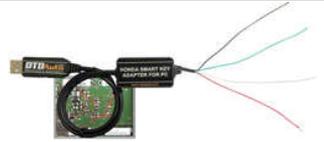
	<p>GSX-R150</p>	<ul style="list-style-type: none"> <li>- Read KeyID directly from SCU</li> <li>- Delete KEYID# in SCU when it has full 06 KEYIDs in memory</li> <li>- Copy data from SCU (A) to SCU (B) when replace SCU</li> <li>- Backup SCU data when reading is successful</li> <li>- Rescue SCU data to repair firmware from backup data</li> <li>- Edit data to perform advanced functions</li> </ul>
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**b. Look up repair data for motorbikes**

- Lookup electrical wiring diagrams of systems
- Support automatic calculation feature for motorcycle electronics repairmen
- Lookup IC solder pin diagram for odometer correction by MOTOBOX
- Lookup smart key diagram to read KeyID for HONDA, YAMAHA motorcycles
- Lookup power pin diagram and signal pin of ECMs for PIAGGIO programming key
- Lookup ACU, SCU, ECM connector pin outs
- Lookup immobilizer diagram for PIAGGIO/ VESPA motorcycles
- Lookup repair procedure for smart key system
- Lookup oil indicator reset procedure
- Lookup the compression ratio of the engine combustion chamber
- Lookup cylinder pressure of engine
- Lookup current leakage and charging current
- Lookup ignition timing advance
- Look up wiring color code, acronym of electrical system
- Lookup fault codes and troubleshooting for engine system, ABS system and immobilizer system

- Lookup fault location on motorcycle and electrical system diagram
- Lookup fault location by fault code on electrical diagram
- Lookup ABS & Smart key system diagram for HONDA, YAMAHA, PIAGGIO (designed by DTDAuto)
- Lookup mechanical and electrical specifications
- Lookup location of components and signal pins: sensor, ECU, actuator vv...
- Lookup measurement procedure and checking, determine preliminary damage
- Guide mechanical removal/installation
- Maintenance process, online question and answer
- Free and automatically updated the newest version
- Manage vehicle information in workshop (License, brand, model, owner ...)
- Manage repair services, repair invoices and log of repaired vehicles
- Manage spare parts in stock, update data when purchase spare parts
- Manage finance, expenditure by date, month, year and report income
- Manage personnel, worker in the workshop, the amount of actual working days, day off...
- Remind periodic maintenance, oil changing

## 1.2 PACKAGE

NO.	DESCRIPTION	IMAGE
1	SMK-LV cable to connect SCU with computer Use for <b>HONDA</b> : LEAD 125 (2017-2021), AIR BLADE (2018-2021), SCOOPY (2018-2021), CLICK 125i (2018-2021), VARIO 125/150 (2018-2021), VISION (2018-2021), PCX 2021	
2	SMK-SP cable to connect SCU with computer Use for <b>HONDA</b> : SH 125/150/125D/150D/SM (2016-2021), SH 300i ABS, (2016-2021), FORZA, PCX 2016-2020, SH MODE (2017-2020), ADV, X-ADV, SUPER CUB 2021	
3	SMK-YS cable to connect SCU with computer Use for: <b>YAMAHA</b> : AEROX, GRANDE, QBIX, JANUS, FREEGO S, NVX, LEXI, SMAX, NMAX, XMAX, TMAX <b>SUZUKI</b> : GSX-R150	
4	<b>MOTODATA</b> software on computer <i>(Notes: requires a software renewal fee: 15\$/each year for next time)</i>	
5	Quick guide	

### 1.3 IMPORTANT NOTES

- When you connect SMART KEY cable to computer, please wait for 15 seconds to computer identify COM port.
- **When you change cable to read different SCU types you have to restart your computer so that the connection is successful**
- Check that the wire and footprint soldering is correct according to the guide diagram.
- Good soldering contact, good connector, not wrong, short-circuit with other points electrical power of computers must be stable, not to let the computer power off, hang up, stop operating or restart during the read is processing.
- Do not place SCU on conductors or near spark sparking sources
- Turn off all other applications running in parallel on the computer and all antivirus software
- Absolutely do not use the mouse, keyboard or other operations with the computer while computer is reading data
- If the computer hangs during work, it must wait for more time.
- Please contact WhatsApp: +84913555416/ +84912216555, Gmail: [dtdauto@gmail.com](mailto:dtdauto@gmail.com) for assistance.

### 2. GUIDE INSTALL MOTODATA SOFTWARE

You need to prepare:

- Computer use Windows operating system (do not support for other operating systems) and have USB port
- The computer is connected to Internet and installed TeamViewer
- Open Teamviewer and send "Your ID" and "Password" to WhatsApp: +84913555416/ +84912216555 or Gmail: [dtdauto@gmail.com](mailto:dtdauto@gmail.com)

**Notes:** You should choose the PC stability and long-term use because MOTODATA is copyrighted software, installing to other computer will take a lot of time

### 3. USE MOTODATA FOR SMARTKEY PRO 7

**Important note:** You must choice cable type as item 1.2

#### 3.1 READ KEYID# AND ECMID

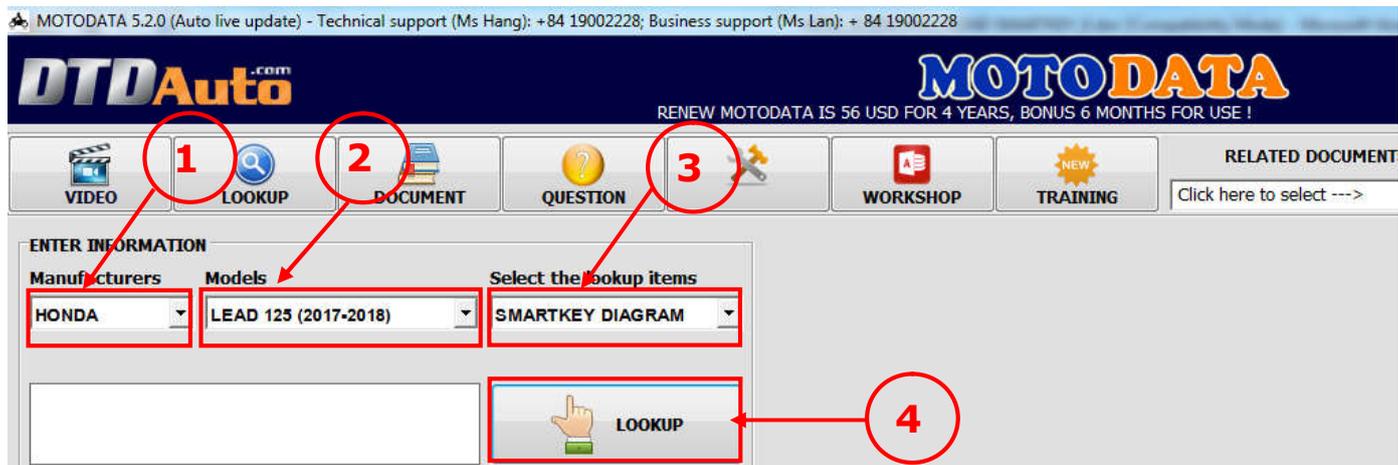
**Step 1:** Open MOTODATA software on the desktop screen



**Step 2:** Select "LOOK UP" on main screen of MOTODATA



**Step 3:** Select model of HONDA manufacturer that you want to read KeyID and ECMID  
(Follow 1, 2, 3, 4 instructions as below)



**Step 4:** Connect SMK-SP cable with SCU. Check that the wire and footprint soldering is correct according to the guide diagram. Good soldering contact, good connector, not wrong, short-circuits with other points by welding.

**Step 5:** Plug SMK-SP\* cable into COM port of computer and then click to **"CONNECT TO SCU"** button to MOTODATA connect to SCU.

**Notes:** - You set COM port is 8 for SMK-SP cable and SMK-YS cable  
- You set COM port is 9 for SMK-LV cable

HONDA - SH MODE 2019 - PROGRAM SMART KEY

CONNECT TO COMPUTER     
  CONNECT TO MOTOSCAN OR EASYKEY

**COMPUTER (MÁY TÍNH)**

HONDA SMART KEY ADAPTER FOR PC

Yellow/Vàng

Red/Đỏ

Black/Đen

Black/Đen

Red/Đỏ

Yellow/Vàng

BKGD

**CONNECT TO SCU**

**SH MODE SMART KEY**

PART CODE: K29

SMART KEY PROCEDURE

PROCESS KEYID	KEYID 1	KEYID 2	KEYID 3	KEYID 4
ECMID				
READ KEYID	DELETE KEYID	ON/OFF KEYID	SYNC SCU TO ECM	COPY KEYID

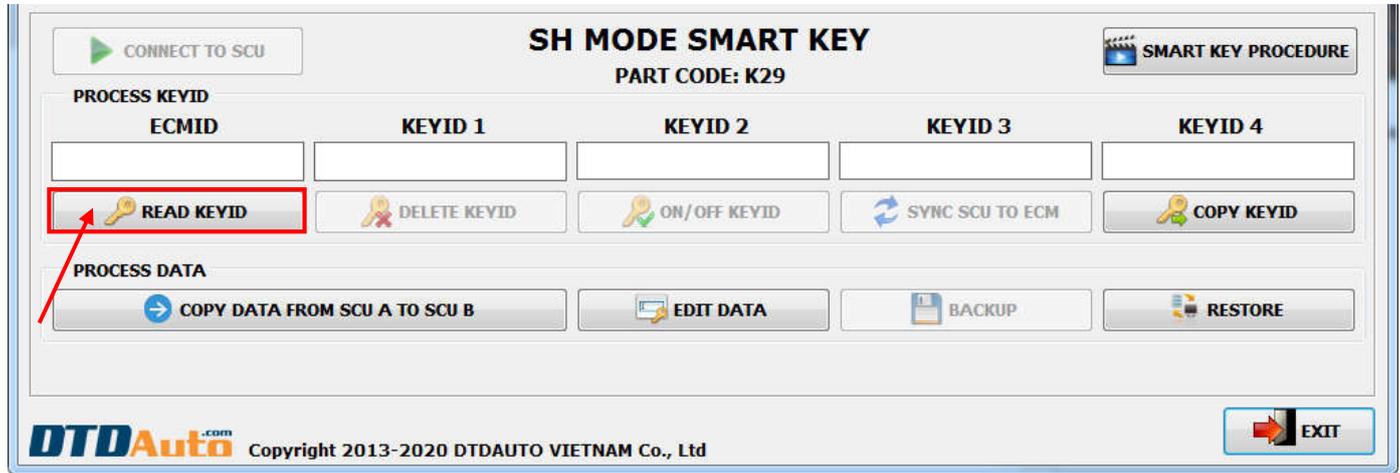
PROCESS DATA

COPY DATA FROM SCU A TO SCU B	EDIT DATA	BACKUP	RESTORE
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EXIT

**Step 6:** Click to "READ KEYID" to read KEYID# and ECMID



If reading is successful then the screen display as below:

HONDA - SH MODE 2019 - PROGRAM SMART KEY

CONNECT TO COMPUTER
  CONNECT TO MOTOSCAN OR EASYKEY

**COMPUTER (MÁY TÍNH)**

**HONDA SMART KEY ADAPTER FOR PC**

Yellow/Vàng  
Red/Đỏ  
Black/Đen

Black/Đen  
Red/Đỏ

**SH MODE SMART KEY**  
PART CODE: K29

CONNECT TO SCU

SMART KEY PROCEDURE

PROCESS KEYID	KEYID 1	KEYID 2	KEYID 3	KEYID 4
ECMID 123456789	259343376	153141806	013463180	151800394
READ KEYID	DELETE KEYID	ON/OFF KEYID	SYNC SCU TO ECM	COPY KEYID

PROCESS DATA

COPY DATA FROM SCU A TO SCU B    EDIT DATA    BACKUP    RESTORE

EXIT

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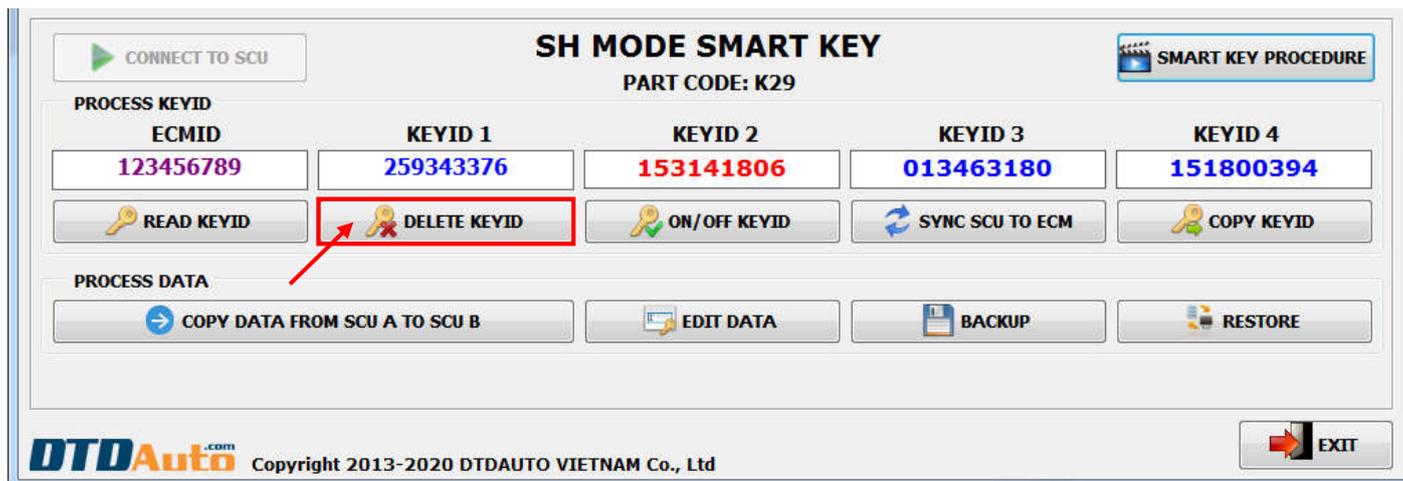
If reading is unsuccessful then check your connection then do it again.

## 3.2 DELETE KEYID

You use this function when SCU memory is full, you need delete KEYID or cancel KEYID when lost FOB to avoid lost of vehicle.

**Step 1:** Connect cable with SCU and COM port of computer then read KEYID as item **3.1**

**Step 2:** Select "**DELETE KEYID**" from function table (example: delete KEYID for HONDA SH MODE)



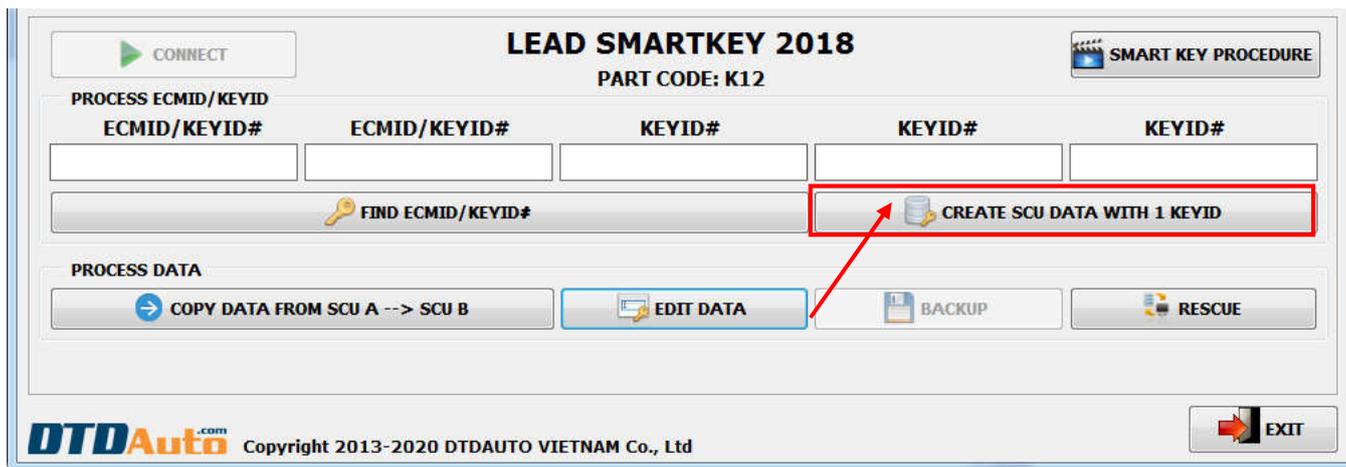
**Step 3:** Click to KEYID that you want to delete

### 3.3 CREATE SCU DATA WITH 01 KEYID

When SCU memory is full, you cannot add new FOB so you need to delete KEYID stored in memory. You use "**CREATE SCU DATA WITH 01 KEYID**" function is the same as "**DELETE KEYID**" of other SCU.

**NOTES:** You must to do full steps as guide procedure on software.

**Step 1:** Click to "**CREATE SCU DATA WITH 01 KEYID**"



**Step 2:** Follow the steps as below:

HONDA - LEAD 125 (2017-2018) SMART KEY - CREATE SCU DATA WIDTH 1 KEYIDS

### CREATE SCU DATA WIDTH 1 KEYID

**STEP 1:** GET ECMID OF SCU BY READING DIRECTLY FROM SCU

1
→

**FIND ECMID FROM SCU**
[Connection diagram](#)

You have find data from SCU successfully!

---

<b>ECMID</b>	<b>ECMID</b>	<b>ECMID</b>
<b>034330163</b>	<b>034330152</b>	<b>No key</b>

*Notes: - Please enter above ECMIDs to check  
- You should capture ECMID information before you write data to SCU*

**STEP 2:** WRITE DATA WITH 1 KEYID TO CURRENT SCU

2
→

**WRITE DATA TO SCU**

You have written data successfully!

---

<b>ECMID</b>	<b>KEYID 1</b>
<b>036342511</b>	<b>036342517</b>

**STEP 3:** SYNC SCU AND ECM BY EASYKEY TOOL OR SMART KEY PROCEDURE AS BELOW

3
→

**SMART KEY PROCEDURE**

**EXIT**

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HONDA - LEAD 125 (2017-2018) SMART KEY - SMART KEY PROCEDURE

**SELECT WORKS**

**C. PROCEDURE WHEN REPLACE NEW SCU OR SECOND-HAND ECM**

**PROGRAM WITHOUT MOTORBIKES**

**4**

**PROGRESS AND CONTENT FOR WORK**

**STEP 1** → **STEP 2** → **STEP 3** → **STEP 4**

**SET MODE**

- INSTALL SCU/ECM INTO VEHICLE
- FOB: ON
- START INPUT: ON (L)
- START INPUT: ON (L) >4S (wait LED SMK flash)
- START INPUT: ON (L) (1 FD SMK ON)
- FOB: OFF
- START INPUT: ON (L) (LED SMK ON)
- FOB: ON 2 times -> START: ON Repeat 3 times to long beep
- ENTRY MODE: ON (H) (LED SMK: OFF)

Note: SMK is Smart key

**PROGRAM WITH MOTORBIKES**



**EXIT**

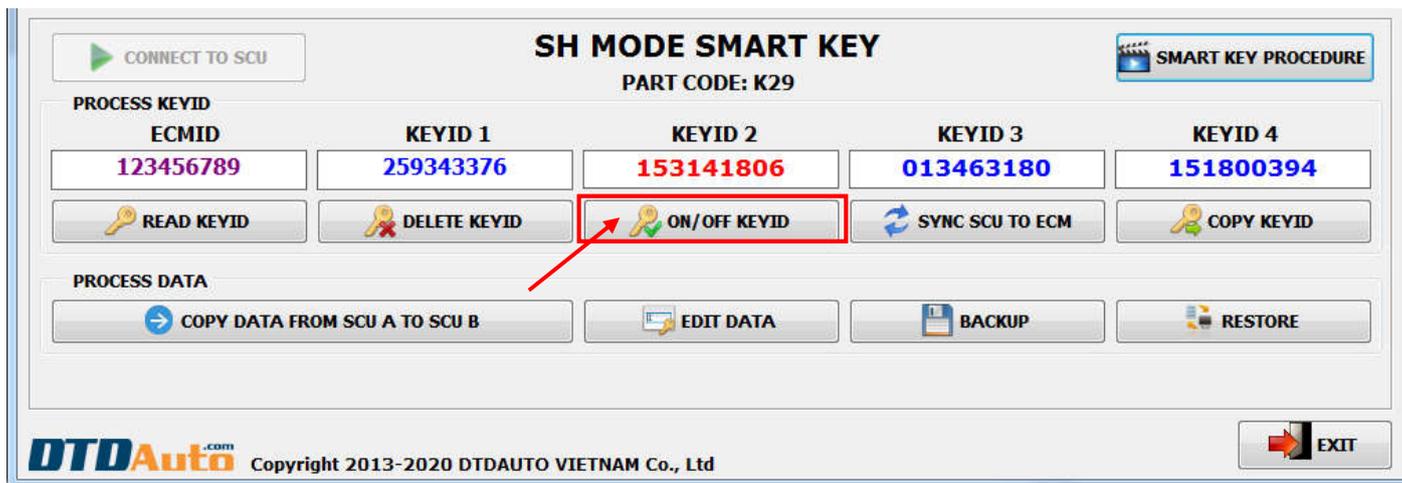
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### 3.4 ON/OFF KEYID

You use this function to activate (ON) or deactivate (OFF) KEYID.

**Step 1:** Connect SMK-SP cable with SCU and computer then read KEYID as item **3.1**

**Step 2:** Click to "ON/OFF KEYID"



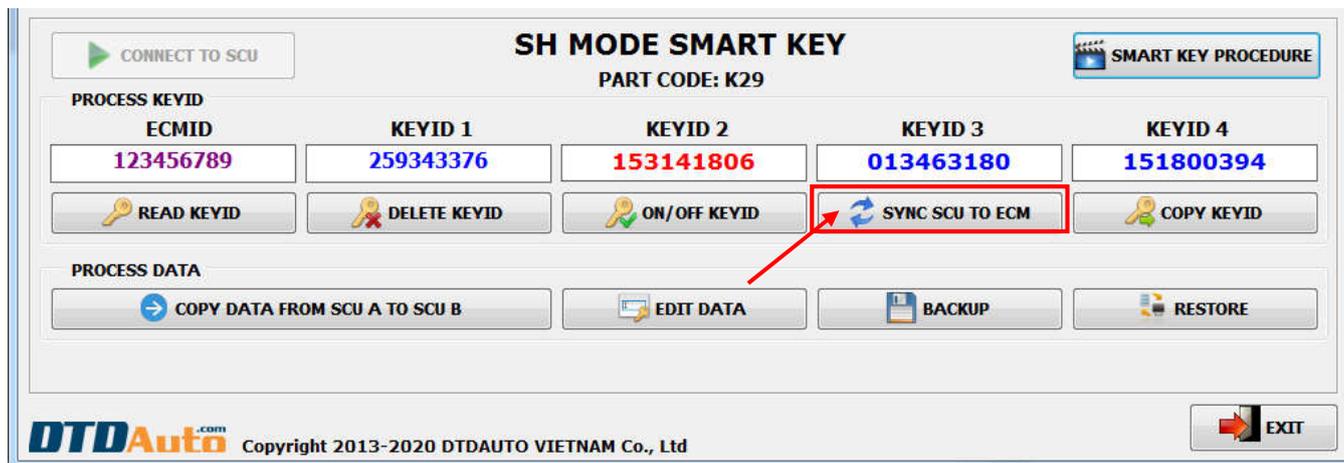
**Step 3:** Click to right button to "ON→OFF" or "OFF→ON" KEYID then click to "SELECT".



### 3.5 SYNC SCU TO ECM

Used to write ECMID of current ECM to synchronized SCU for HONDA.

**Step 1:** Click to “**SYNC SCU TO ECM**” from function table



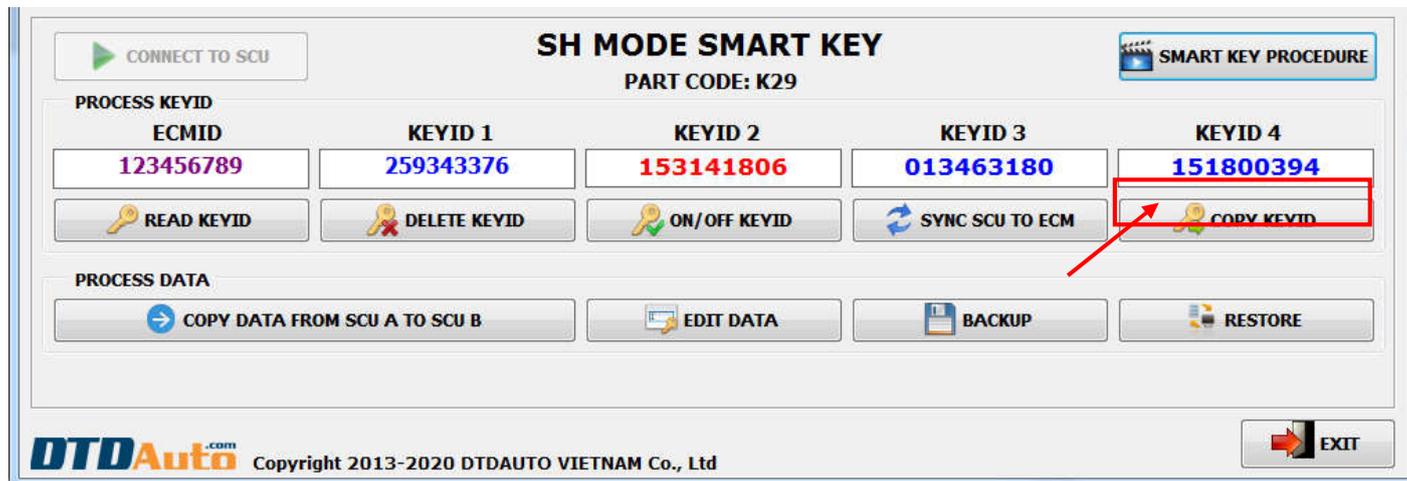
**Step 2:** Enter ECMID inside synchronized ECM then click to **"SYNC"** to write ECMID to SCU.



### 3.6 COPY KEYID FROM SCU A TO SCU B

You select this function when you have 2 SCUs (SCU A and SCU B) and want to copy KEYID# from SCU A to SCU B or from SCU B to SCU A.

**Step 1:** Click to “**COPY KEYID**” button



**Step 2:** Connect SCU A to SMK-SP cable, check that the wire is correct according to the guide diagram then click to “**CONNECT TO SCU A**”. You read KEYID from SCU A or saved file then disconnect to SCU A.

**Step 3:** Connect SCU B to SMK-SP cable, check that the wire is correct according to the guide diagram then click to “**CONNECT TO SCU B**” and read KEYID from SCU B or saved file.

**Step 4:** Click to “**COPY**” button to select KEYID position to desired position

**NOTE:** You must complete all the steps according to the instructions on software until the finish.

HONDA - SH MODE 2019 SMART KEY - COPY KEYID FROM SCU A TO SCU B

### COPY KEYID FROM SCU A TO SCU B

#### SCU A

**READ KEYID#**

↓

**KEYID# INFORMATION**

KEYID 1:	259343376	
KEYID 2:	153141806	
KEYID 3:	013463180	
KEYID 4:	151800394	

#### SCU B

**READ KEYID#**

↓

**KEYID# INFORMATION**

KEYID 1:	No key	
KEYID 2:	146017342	
KEYID 3:	No key	
KEYID 4:	No key	

**WRITE DATA**

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### 3.7 COPY DATA FROM RESOURCE SCU TO TARGET SCU

Used to copy data from SCU to your current SCU.

**NOTE: You must complete all the steps according to the instructions on software until the finish.**

**SH MODE SMART KEY**  
PART CODE: K29

CONNECT TO SCU

SMART KEY PROCEDURE

PROCESS KEYID

ECMID	KEYID 1	KEYID 2	KEYID 3	KEYID 4
123456789	259343376	153141806	013463180	151800394
READ KEYID	DELETE KEYID	ON/OFF KEYID	SYNC SCU TO ECM	COPY KEYID

PROCESS DATA

COPY DATA FROM SCU A TO SCU B

EDIT DATA

BACKUP

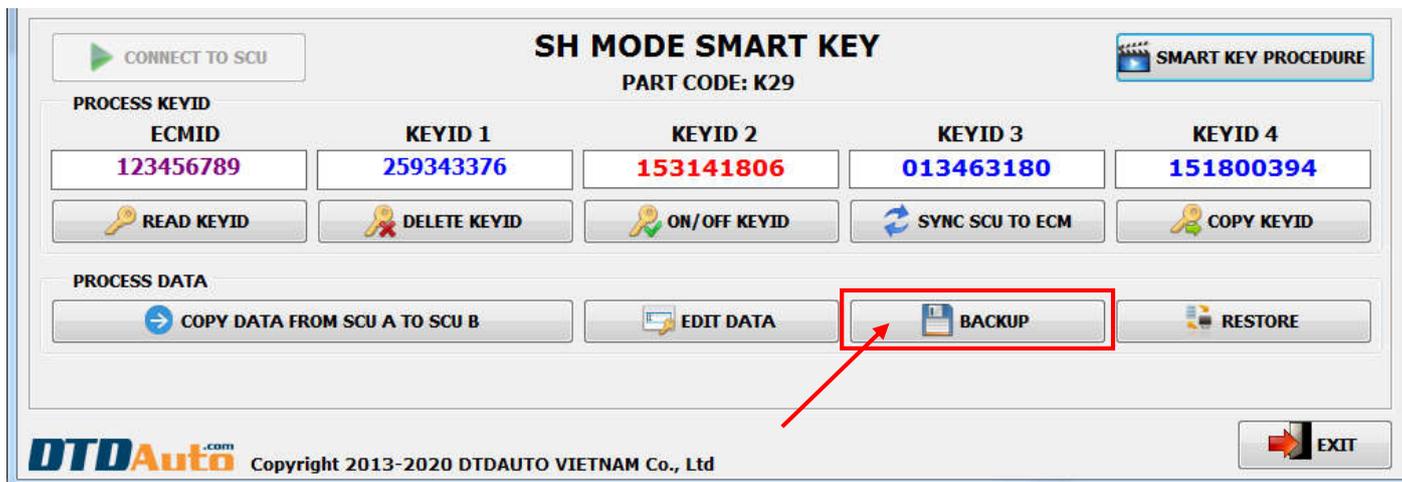
RESTORE

EXIT

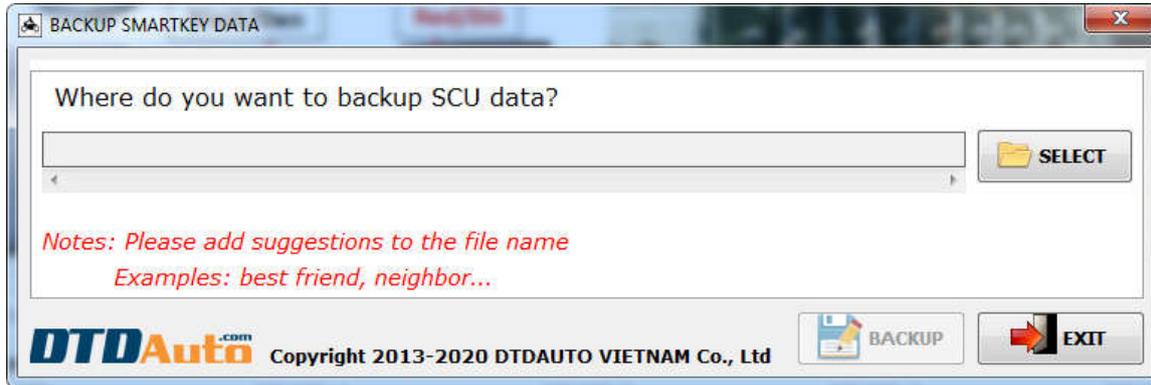
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### 3.8 BACKUP SCU DATA

**Step 1:** Click to “**BACKUP**” to backup SCU data to folder in your computer.



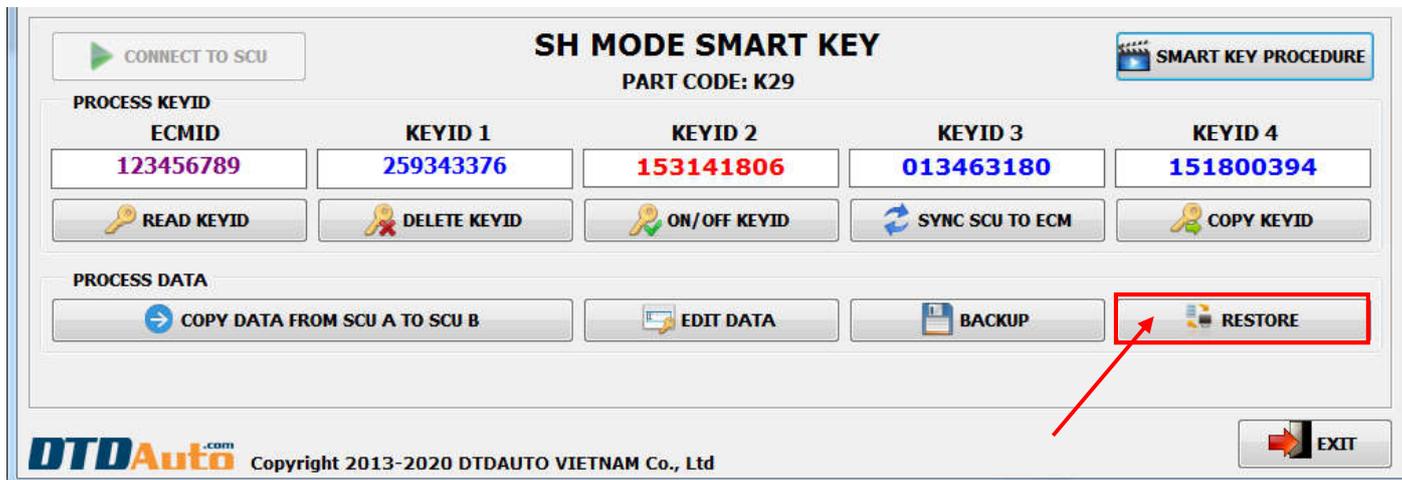
**Step 2:** You select folder that you want to save SCU data then click to **"BACKUP"**



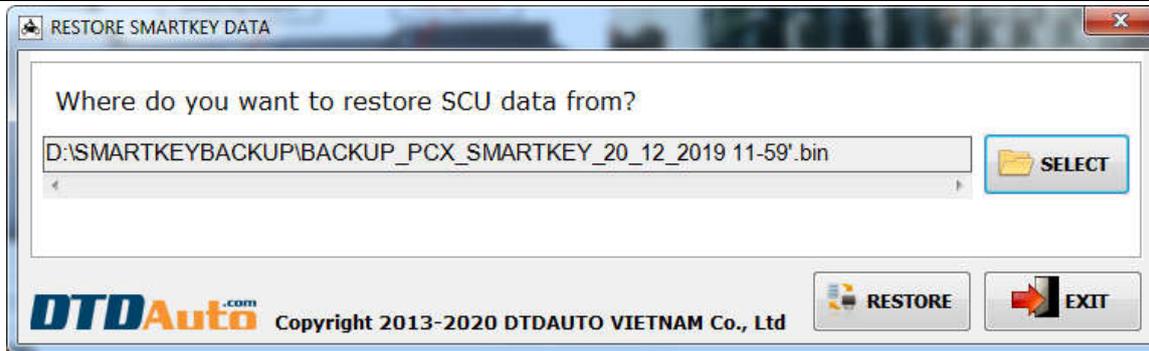
### 3.9 RESTORE SCU DATA

If you want to restore SCU data from data that you saved at computer then you click to **"RESTORE"** button and do as instruction on the screen.

**Step 1:** Click to "RESTORE" button



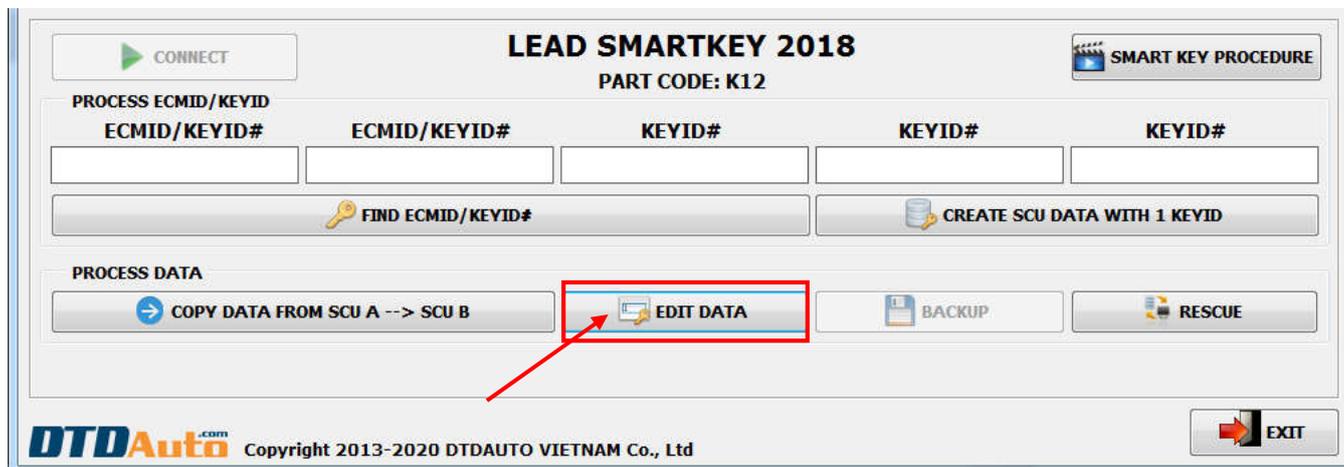
**Step 2:** You select data file that you want to restore data for SCU:



You click to “**RESTORE**” to restore SCU data.

### 3.10 EDIT DATA TO PERFORM ADVANCE FUNCTION

You click to “**EDIT DATA**” button to perform advance function for editing SCU data.



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