



## GUIDE BOOK

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## I. INTRODUCTION



### 1. GENERAL INTRODUCTION

- SMARTTOOL 2 is a perfect product of AUTOSHOP SJC. We research, develop and distribute it all the world. The aim of SMARTTOOL 2 tend to become a multi-functions device, "All in one" such as: Engine diagnostic, ABS diagnostic, LED Headlights test, programing magnetic key, Smart key and ODO correction for all brands such as: HONDA, YAMAHA, PIAGIO, SUZUKI, SYM, KYMCO.
- It is useful for motorbike, motorcycle repair workshop and locksmiths. The handset is convenient without computer.
- Support editing, reading, erasing, erasing KeyID and automatic registration, sync keys and Smart key control Unit (SCU) on SMARTTOOL
- Simple interface
- Many languages: English, Vietnamese
- Free online update: 12 months
- Warranty: 12 months



## 2. FEATURES

### 2.1. DIAGNOSTIC FUNCTION

#### 2.1.1. Scan engine

- Read/erase DTC current
- Read/erase DTC history
- Show engine data
- Active test actuator
- Upgrade ECM soft
- Reset ECU (initialize ECU to factory reset value)
- Analysis emission
- Reset IACV value
- Set A/F value
- Save/watch engine data
- Reset TPS
- ECU info


#### 2.1.2. Scan ABS

- Read/erase DTC
- Show engine data
- Active test actuator
- ACU info

#### 2.1.3. Support function list


- All for HONDA, YAMAHA, PIAGGIO, SYM, SUZUKI và KYMCO

#### 2.1.4. Function table

	AUTO CONNECT	READ/ERASE DTC CURRENT, HISTORY	RESET ECU	ENGINE DATA	ACTIVE TEST	ANALYSIS EMISSION	SET A/F VALUE	RESET TPS	UPGRADE ECM SOFT	RESET IACV VALUE	READ/ERASE DTC ABS	ECU ABS DATA	ACTIVE TEST	SAVE/WATCH ENGINE DATA	RESET ECMID IN ECM
AIRBLADE(08-10)	✓	✓	✓	✓		✓				✓					
AIRBLADE(10-12)	✓	✓	✓	✓		✓				✓				✓	
AIRBLADE(13- now)	✓	✓	✓	✓		✓				✓				✓	
AIRBLADE SMARTKEY	✓	✓	✓	✓		✓				✓	✓	✓	✓	✓	✓
CBR 250	✓	✓	✓	✓		✓				✓				✓	
CLICK-I	✓	✓	✓	✓		✓				✓					
CLICK-125I/ 150I	✓	✓	✓	✓		✓				✓				✓	
LEAD 110/ SCR 110	✓	✓	✓	✓		✓				✓					




## SMARTTOOL 2 – SMART CHOICE FOR MOTORCYCLE SHOP

	AUTO CONNECT	READ/ERASE DTC CURRENT, HISTORY	RESET ECU	ENGINE DATA	ACTIVE TEST	ANALYSIS EMISSION	SET A/F VALUE	RESET TPS	UPGRADE ECM SOFT	RESET IACV VALUE	READ/ERASE DTC ABS	ECU ABS DATA	ACTIVE TEST	SAVE/WATCH ENGINE DATA	RESET ECMID IN ECM
LEAD 125	✓	✓	✓	✓		✓				✓				✓	
LEAD 125 SMARTKEY	✓	✓	✓	✓		✓				✓				✓	✓
FUTURE FI	✓	✓	✓	✓		✓				✓				✓	
PCX (08-15)	✓	✓	✓	✓		✓				✓				✓	
PCX (16-20)	✓	✓	✓	✓		✓				✓	✓	✓	✓	✓	✓
PCX SMART KEY	✓	✓	✓	✓		✓				✓	✓	✓	✓	✓	✓
X-ADV	✓	✓	✓	✓		✓				✓	✓	✓	✓	✓	✓
PS	✓	✓	✓	✓		✓				✓				✓	
VISION	✓	✓	✓	✓		✓				✓				✓	
VISION SMART KEY	✓	✓	✓	✓		✓				✓				✓	✓
SONIC 150	✓	✓	✓	✓		✓				✓				✓	
SH 125i/ 150i	✓	✓	✓	✓		✓				✓				✓	
SH125/150 SMART KEY	✓	✓	✓	✓		✓				✓	✓	✓	✓	✓	✓
SH 300i	✓	✓	✓	✓		✓				✓				✓	✓
SH 300i ABS	✓	✓	✓	✓		✓				✓	✓	✓	✓	✓	✓
SH MODE	✓	✓	✓	✓		✓				✓	✓	✓	✓	✓	✓
SUPPER CUB C125	✓	✓	✓	✓		✓				✓				✓	
WAVE RSX FI	✓	✓	✓	✓		✓				✓				✓	
WINNER 150	✓	✓	✓	✓		✓				✓				✓	
WINNER X	✓	✓	✓	✓		✓				✓				✓	
MSX 125	✓	✓	✓	✓		✓				✓				✓	
SCOOPI-i	✓	✓	✓	✓		✓				✓				✓	
VARIO 150	✓	✓	✓	✓		✓				✓				✓	✓
WAVE 110i	✓	✓	✓	✓		✓				✓				✓	
WAVE 125i	✓	✓	✓	✓		✓				✓				✓	
ZOOMER-X	✓	✓	✓	✓		✓				✓				✓	




## SMARTTOOL 2 – SMART CHOICE FOR MOTORCYCLE SHOP

	AUTO CONNECT	READ/ERASE DTC CURRENT, HISTORY	RESET ECU	ENGINE DATA	ACTIVE TEST	ANALYSIS EMISSION	SET A/F VALUE	RESET TPS	UPGRADE ECM SOFT	RESET IACV VALUE	READ/ERASE DTC ABS	ECU ABS DATA	ACTIVE TEST	SAVE/WATCH ENGINE DATA	RESET ECMID IN ECM
ACZURO	✓	✓	✓	✓	✓	✓	✓			✓				✓	
CUXI	✓	✓	✓	✓	✓	✓	✓			✓				✓	
JANUS	✓	✓	✓	✓	✓	✓	✓							✓	✓
EXCITER 150 GP	✓	✓	✓	✓	✓	✓	✓							✓	
EXCITER 150i 2019	✓	✓	✓	✓	✓	✓	✓							✓	
FREEGO 2019	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓
FZ 150	✓	✓	✓	✓	✓	✓	✓			✓				✓	
TFX	✓	✓	✓	✓	✓	✓	✓							✓	
YZC	✓	✓	✓	✓	✓	✓	✓			✓				✓	
YBR	✓	✓	✓	✓	✓	✓	✓			✓				✓	
JUPITER FI	✓	✓	✓	✓	✓	✓	✓							✓	
LATTE 2019	✓	✓	✓	✓	✓	✓	✓			✓				✓	
LUVIAS GTX FI	✓	✓	✓	✓	✓	✓	✓			✓				✓	
NM-X	✓	✓	✓	✓	✓	✓	✓							✓	
NOZZA	✓	✓	✓	✓	✓	✓	✓			✓				✓	
NOUVO LX	✓	✓	✓	✓	✓	✓	✓							✓	
NOUVO SX RC	✓	✓	✓	✓	✓	✓	✓			✓				✓	
NVX 155	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓
NVX 155 ABS	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓
RIS	✓	✓	✓	✓	✓	✓	✓			✓				✓	
SIRIUS RC FI	✓	✓	✓	✓	✓	✓	✓							✓	
GRAND. Fi	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓
FZ1 FAZER	✓	✓	✓	✓	✓	✓	✓			✓				✓	
YZF-R3	✓	✓	✓	✓	✓	✓				✓				✓	

**Note:** (\*) Updating



## SMARTTOOL 2 – SMART CHOICE FOR MOTORCYCLE SHOP

 <b>PIAGGIO</b>	AUTO CONNECT	READ/ERASE DTC CURRENT, HISTORY	ENGINE DATA	ACTIVE TEST	ANALYSIS EMISSION	SET A/F VALUE	RESET TPS	UPGRADE ECM SOFT	IC/ECM INFO	READ/ERASE DTC ABS	ECU ABS DATA	ACTIVE TEST	SMART KEY	ODO METER
BEVERLY 125/350/300 MIUG3	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
FLY 125/150 MIUG3	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
FLY 125/150 3V MIUG3	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
FLY 125/150 AC191/201AC191/201	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
FLY 125/150 AC II/21/51/81/131	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
LIBERTY 3V PGN04/PGS02/PGT01/ PGU09	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
LIBERTY 125/150 AC191/201	✓	✓	✓	✓			✓		✓				✓	✓
LIBERTY 125 AC II/21/51/81/131	✓												✓	✓
LIBERTY 150 3V MIUG3	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
LIBERTY ABS PGS06	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓
X10 125 MIUG3	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
X10 350 MIUG3	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
MEDLEY 125 PGQ16	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓
MEDLEY 150 PGQ16	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓
VESPA 946 125/150 3v MIUG3	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
GTS 125/150 MIUG3	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
LXV 125/150 3V MIUG3	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
GTS 125/300 ABS MIUG3	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
LT 125/150 3V MIUG3	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
LX 125/150 MIUG3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
LX 125/150 AC191/201 AC191/201	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
LX 125/150 ACII/ 21/51/81/131	✓												✓	✓
LX 125/150 3V PGN04/ PGS02/PGT01/PGU09	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
LXV125 2V MIUG3	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓	✓
LXV 125/150 3V MIUG3	✓	✓	✓	✓	✓	✓			✓				✓	✓





## SMARTTOOL 2 – SMART CHOICE FOR MOTORCYCLE SHOP

	AUTO CONNECT	READ/ERASE DTC CURRENT, HISTORY	ENGINE DATA	ACTIVE TEST	ANALYSIS EMISSION	SET A/F VALUE	RESET TPS	UPGRADE ECM SOFT	IC/ECM INFO	READ/ERASE DTC ABS	ECU ABS DATA	ACTIVE TEST	SMART KEY	ODO METER
PRIMAVERA 125/150 MIUG3	✓	✓	✓	✓	✓	✓			✓				✓	✓
PRIMAVERA 125/150 PGN04/ PGS02/ PGT01/ PGU09	✓	✓	✓	✓	✓	✓			✓				✓	✓
PRIMAVERA ABS	✓	✓	✓	✓	✓	✓			✓				✓	✓
S 125/150 MIUG3	✓	✓	✓	✓	✓	✓			✓				✓	✓
S 125/150 3V MIUG3	✓	✓	✓	✓	✓	✓			✓				✓	✓
SPRINT 125 3V PGN04/ PGS02/ PGT01/ PGU09	✓	✓	✓	✓	✓	✓			✓			✓	✓	✓
SPRINT 150 3V PGN04/ PGS02/ PGT01/ PGU09	✓	✓	✓	✓	✓	✓	✓	✓					✓	✓
SPRINT ABS	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓

	AUTO CONNECT	READ/ERASE DTC CURRENT, HISTORY	ENGINE DATA	ACTIVE TEST	ANALYSIS EMISSION	SET A/F VALUE	RESET TPS	UPGRADE ECM SOFT	ECU INFO
ATTILA-V SMART IDLE	✓	✓	✓	✓	✓	✓			✓
ELIZABETH SMART IDLE	✓	✓	✓	✓	✓	✓			✓
ELIZABETH 110	✓	✓	✓	✓	✓	✓			✓
ELIZABETH SMART	✓	✓	✓	✓	✓	✓			✓
JOYRIDE	✓	✓	✓	✓	✓	✓			✓
SHARK 125 FI	✓	✓	✓	✓	✓	✓			✓
PASSING EFI	✓	✓	✓	✓	✓	✓			✓
POWER EFI	✓	✓	✓	✓	✓	✓			✓
VENUS EFI	✓	✓	✓	✓	✓	✓			✓
VENUS 125 SMART IDLE	✓	✓	✓	✓	✓	✓			✓



	AUTO CONNECT	READ/ERASE DTC CURRENT, HISTORY	ENGINE DATA	ACTIVE TEST	ANALYSIS EMISSION	SET A/F VALUE	RESET TPS	UPGRADE ECM SOFT	ECU INFO
PEOPLE S FI	✓	✓	✓	✓	✓	✓			✓
PEOPLE 16 FI	✓	✓	✓	✓	✓	✓			✓
MANY MACAROL FI	✓	✓	✓	✓	✓	✓			✓
MANY FI	✓	✓	✓	✓	✓	✓			✓
LIKE FI	✓	✓	✓	✓	✓	✓			✓
JOCKEY FI	✓	✓	✓	✓	✓	✓			✓

## 2.2. Tuning/Remapping

### 2.2.1. Function

- Tuning or Remapping is the same. Tuning is the editing of the fuel and fire maps, Remapping is a refresh of the fuel and fire maps in ECM. Revolving is opening the rpm limit within the permissible limit to meet the mechanical part of the manufacturer
- Adjusting the Air/Fuel ratio (A / F)
- Improved engine performance in accordance with the different working modes and terrain conditions and operating environments of the motobike
- Compensate for small mechanical wear (eg, injector mechanical ...) or error due to aging of sensor, leading to drift of sensor value range.
- Handling some car fuel consumption cases high injection time, fuel saving, low Garanti
- Open the rpm limit or return the manufacturer zin
- For a different driving experience - more realism

### 2.2.2. Support list

THE LIST OF REMAPPING HONDA MODELS							
RPM	Tuning	Upgrade ECM soft	Models	Year	ECM code	ECM ID	Package
✓			Future 125 2019	2019-2020	38770-K73-V42	103141101	Tuning
✓			Future 125	2016-2018	38770-K73-V02	102671101	Tuning
✓			WAVE RSX 110 Fi_2019	2019-2020	38770-G90-V02	102681101	Tuning
✓			WAVE FI 125	2019-2020	38770-K90-VC1	01038D1101	Tuning
✓			WAVE 110 2014	2014-2015	38770-K001	101891101	Tuning
✓			WAVE 125 Fi 2019 TH	2019-2020	38770-K73-TC1	01033E0D01	Tuning
✓			WINNER 150 V1	2017-2018	38770-K56-V01	0101CB1101	Tuning



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✓			WINNER X 150	2019-2020	38770-K56-V51	103591101	Tuning
✓			SONIC 150	2019-2020	38770-K56-N01	0101C90F01	Tuning
✓			GTR-150 V2 2020 WINNER X 2020	2019-2020	38770-K56-NJ1	0103920F01	Tuning
✓			GTR 150 V1	2017-2018	38770-K56-N11	0101CA0F01	Tuning
	✓		SH ITALIA 150/ PS 150	2007-2008	16400-KTG-641	01001D0101	Tuning
	✓		SH ITALIA 150	2009-2009	16400-KTG-922	100940101	Tuning
	✓		SH 125	2007-2008		01001C0101	Tuning
	✓		SH ITALIA 125cc - 2010	2010-2011	16400 KTF 982	100930101	Tuning
✓			FUTURE/ WAVE RSX 110	2012-2013	38770-KYZ-T03	0100FB0E02	Tuning
✓			FUTURE/ WAVE RSX 110	2014-2015	38770-KYZ-V71	01015F1101	Tuning
✓			FUTURE/ WAVE RSX 110	2012-2013	38770-KYZ-V21	01010C1101	Tuning
	✓		SCR 110	2010-2012	38770-GFM-902	0100200E02	Normal
	✓		LEAD 110	2010-2011	38770-GGE-901	0100B41101	Normal
	✓		AIR BLADE 110	2008-2010	38770-KVG-V21	0100C81101	Normal
	✓		AIR BLADE 110 THAILAND	2008-2010	38770-KVG-A31	01009A0D01	Normal
	✓		AIR BLADE 110	2011-2013	38770-KVG-V42	0100F91103	Normal
	✓		AIR BLADE 110	2011-2013	38770-KVG-V41	0100F91102	Normal
✓			VISION 110	2012	38770-KZL-E71	101621101	Tuning
✓			VISION 110	2011	38770-KZL-E13	101021102	Tuning
	✓		MSX 125	2014-2016	38770-K26-901	101350101	Normal
	✓		MSX 125	2014-2016	38770-K26-911	101350501	Normal
		✓	AIR BLADE 125	2013-2015	30400-K27A V01	101411101	Normal
		✓	AIR BLADE 125	2013-2015	30400-K27A V51	0101AB1101	Normal
		✓	LEAD 125	2013-2015	30400-K12A-901	01012F1101	Normal
		✓	SH MODE	2013-2015	30400-K29 -901	101461101	Normal

### 2.3. Smart key/ Keyless Honda, Yamaha and Suzuki

#### 2.3.1. Manual programming:

- Add key by key.
- OFF/Disable the missing keys.
- Register new keys in the all keys lost case.
- Sync SCU-ECM.
- Replace new ECM.

#### 2.3.2. Auto programming:

- Read KEYID and ECMID.
- Erase KEYID.
- Register new keys by RESET CODE. (\*)
- OFF/Disable the missing keys by dump.
- Sync SCU automatically.
- Change new ECMID automatically
- Check the synchronization between FOB and SCU



### 2.3.3. Special functions


- Change ON / OFF key status
- Edit, Sync, Change new ECMID
- **Read/reset ECMID in ECM**
- Sync FOB - SCU automatically.
- Reflash EEPROM or Main data of SCU
- Change the part number of SCU. (\*)
- Erase the missing key code.
- Register up to 6 keys at once bike Honda SH, PCX, X-ADV 750, FORZA 300

### 2.3.4. Smart key list

- HONDA: AIRBLADE (2018-2021), CLICK 125i (2018-2021), LEAD 125 (2017-2021), PCX(2016-2021), SH 125/150/300(2016-2021), SH MODE (2016-2020), VISION (2018-2021), VARIO 125/150 (2018-2021), **X-ADV 750, FORZA 300 (2018-2020).**
- YAMAHA : AEROX (2018-2020), GRANF FILANO, JANUS (2018-2021), NVX(2018-2021) , QBIX, XMAX, NMAX, **T-MAX 530i\*, T-MAX DX\*, T-MAX DX\*, T-MAX SX SPORT\*, T-MAX IRON MAX\***
- SUZUKI: RAIDER FI (2016-2020), GSX FI (2016-2020).

### 2.3.5. Detailed function table

- **HONDA**

	Manual Programming					Auto Programming							Edit Data SCU									
	Add key by key	OFF key	All keys lost	Replace new SCU	Replace new ECM	Read KEYID	Read ECMID	Erase KEYID	All keys lost	OFF key	Replace new SCU	Replace new ECM	Display key registered	Status ON / OFF key register	Writer ECMID to SCU	One key used many bike	Re-use the Honda "used FOB"	Register new keys by RESET CODE	Reflash EEPROM	Change the part number of SCU	Check the synchron-ization FOB and SCU	Register up to 6 keys at once bike
AIR BLADE (2018-2021)	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓				✓		✓	
CLICK 125i (2018-2020)	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓				✓	✓	✓	
LEAD 125 (2018-2021)	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓				✓		✓	
PCX (2015-2021)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VISION (2018-2021)	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓				✓	✓	✓	
SH 125 (2015-2021)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SH 150 (2015-2021)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SH 300i ABS (2015-2020)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SH MODE (2017-2020)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓



## SMARTTOOL 2 – SMART CHOICE FOR MOTORCYCLE SHOP

Super Cub C125	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
VARIO (2017-2020)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
X-ADV 750	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FORZA (2018-2020)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

### • YAMAHA

	Add key by key	OFF key	All keys lost	Replace new SCU	Read KEYID	Erase KEYID	Read ECM ID	Status ON / OFF key register	Reflash EEPROM
AEROX (2018-2020)	✓	✓	✓	✓	✓	✓	Updating	Updating	✓
GRANDE (2019)	✓	✓	✓	✓	✓	✓	Updating	Updating	✓
GRANF FILANO (2018-2020)	✓	✓	✓	✓	✓	✓	Updating	Updating	✓
FREE GO (2019)	✓	✓	✓	✓	✓	✓	Updating	Updating	✓
LEXI (2018-2020)	✓	✓	✓	✓	✓	✓	Updating	Updating	✓
NMAX (2018-2020)	✓	✓	✓	✓	✓	✓	Updating	Updating	✓
JANUS PREMIUM (2018-2020)	✓	✓	✓	✓	✓	✓	Updating	Updating	✓
NVX 125 DELUXE (2017-2020)	✓	✓	✓	✓	✓	✓	Updating	Updating	✓
NVX 155 ABS (2017-2020)	✓	✓	✓	✓	✓	✓	Updating	Updating	✓
QBIX	✓	✓	✓	✓	✓	✓	Updating	Updating	✓
XMAX	✓	✓	✓	✓	✓	✓	Updating	Updating	✓
TMAX 530i*	✓	✓	✓	✓	✓	✓	Updating	Updating	✓
TMAX DX*	✓	✓	✓	✓	✓	✓	Updating	Updating	✓
TMAX SX SPRORT*	✓	✓	✓	✓	✓	✓	Updating	Updating	✓
TMAX IRON MAX*	✓	✓	✓	✓	✓	✓	Updating	Updating	✓

### • SUZUKI

	Add key by key	OFF key	All keys lost	Replace new SCU	Read KEYID	Erase KEYID	Read ECM ID	Status ON / OFF key register	Reflash EEPROM
GSX 150 FI (2017-2019)	✓	✓	✓	✓	✓	✓	Updating	Updating	✓
RAIDER FI (2017-2019)	✓	✓	✓	✓	✓	✓	Updating	Updating	✓





## 2.4. PIAGGIO/VESPA

### 2.4.1. Function

- Register the new keys in the all keys lost case.
- Reset, erase all keys of IC / ECM.
- Support register new keys.
- Support list : AC13I, AC19I, AC19I, AC20I, AC21I, AC23I, AC24I, AC25I, AC27I, AC32I, AC5I, AC8I, ACI600, AC601, ACI602, ACI603, ACII, AC2I, AC5I, AC8I, AC13I, MIU1, MIU2, MIU G3/RIU1, MIU4, PGU09, PGN04/PGS02/PGS06/PGT01.

### 2.4.2. List function

	Add key by key	All keys lost	Reset, erase all keys of IC / ECM		Add key by key	All keys lost	Reset, erase all keys of IC / ECM
BEVERLY 125 MIUG3	✓	✓	✓	VESPA 125/150 3V MIUG3	✓	✓	✓
BEVERLY 300 MIUG3	✓	✓	✓	GTS 125/150 MIUG3	✓	✓	✓
BEVERLY 350 MIUG3	✓	✓	✓	LXV 125 3V MIUG3	✓	✓	✓
FLY 125 MIUG3	✓	✓	✓	GTS 125/300 ABS MIUG3	✓	✓	✓
FLY 150 MIUG3	✓	✓	✓	LT125/150 3V MIUG3	✓	✓	✓
FLY 125 3V MIUG3	✓	✓	✓	LX125 MIUG3	✓	✓	✓
FLY 150 3V MIUG3	✓	✓	✓	LX 125 AC19I/AC20I	✓	✓	
FLY 125 AC19I/20I	✓	✓		LX 125 AC19I/AC20I	✓	✓	
FLY 150 AC 19I/20I	✓	✓		LX 125 ACII/AC2I/AC5I	✓	✓	
FLY 125 AC 19I/20I	✓	✓		LX 125/150 E1MIUG3	✓	✓	✓
FLY 150 AC 19I/20I	✓	✓		LX 150 3V MIUG3	✓	✓	✓
FLY AC II/AC2I/	✓	✓		LX 150 AC19I/AC20I	✓	✓	
AC5I/AC8I	✓	✓		LX 150 AC19I/AC20I	✓	✓	
LIBERTY 125 3V PGN04/PGS02/PGT01	✓	✓		LX 150 ACII/AC2I/AC5I	✓	✓	
LIBERTY 150 3V MIUG3	✓	✓		LX 125/150 3V PGN04/PGS02/PGT01	✓	✓	
LIBERTY 150 3V PGN04/PGS02/PGT01	✓	✓		LXV 125/150 2V/3V MIUG3	✓	✓	✓
LIBERTY 125 AC19I/20I	✓	✓		PRIMAVERA 125/150 MIUG3	✓	✓	✓
LIBERTY 150 AC19I/20I	✓	✓		PRIMAVERA 125 150/PGN04/PGS02/PGT01	✓	✓	
LIBERTY 125 AC19I/20I	✓	✓		PRIMAVERA ABS	✓	✓	
LIBERTY 150 AC19I/20I	✓	✓		S125/150 MIUG3	✓	✓	✓
LIBERTY AC II/AC2I/AC5I/AC8I	✓	✓		S125/150 3V MIUG3	✓	✓	
LIBERTY ABS PGS06	✓	✓		SPRINT 125 3V PGN04	✓	✓	
MEDLEY 125 PGQ16	updating	updating	updating	SPRINT 150 3V PGN04	✓	✓	
MEDLEY 150 PGQ16	updating	updating	updating	SPRINT ABS	✓	✓	
X10 125 MIUG3	✓	✓	✓	X10 350 MIUG3	✓	✓	✓

## 2.5. Odometer adjustment

### 2.5.1. Function

- Correct odometer value of motorcycle dashboard.



- Restore the original data
- All Honda, Yamaha, Suzuki and Piaggio.
- Read data EEPROM and save to SD card
- Automatic program ODO, no need to select the correct vehicle name (for models using EEPROM 93CXX)

### 2.5.2. List function

HONDA	EEPROM	Connection diagrams	Read ODO	Adjustment ODO	RESET ODO	YAMAHA	EEPROM	Connection diagrams	Read ODO	Adjustment ODO	RESET ODO
AIR BLADE (2013- 2014)	93C66	✓	✓	✓	✓	ACRUZO	93C66	✓	✓	✓	✓
AIR BLADE (2015-2017)	93C66	✓	✓	✓	✓	JANUS	PIC16Fxx	✓	✓	✓	✓
AIR BLADE (2018 - 2019)	93C66	✓	✓	✓	✓	NVX	PIC16Fxx	✓	✓	✓	✓
AIR BLADE 2020)	24C04	✓	✓	✓	✓	TFX	PIC16Fxx	✓	✓	✓	✓
BEAT (2018-2019)	93C66	✓	✓	✓	✓	MSLAZ	PIC16Fxx	✓	✓	✓	✓
CBR 15DR/150/250	24C04	✓	✓	✓	✓	GRANDE 2016	93C66	✓	✓	✓	✓
CBR1000	93C56	✓	✓	✓	✓	EXCITER (2015-2018)	93C66	✓	✓	✓	✓
CBR 150 (2019)	24C04	✓	✓	✓	✓	EXCITER 150 (2019)	93C66	✓	✓	✓	✓
SUPPER CUB (2018-2019)	24C04	✓	✓	✓	✓	FZ150/150/FZ16	93C66	✓	✓	✓	✓
CLICK (2013)	24C04	✓	✓	✓	✓	GRANDE (2018)	93C66	✓	✓	✓	✓
CLICK (2014-2015)	24C04	✓	✓	✓	✓	GRANDE 2019	93C66	✓	✓	✓	✓
CLICK (2016-2017)	24C04	✓	✓	✓	✓	NOUVO LX/4	93C56	✓	✓	✓	✓
CLICK (2018 - 2019)	24C04	✓	✓	✓	✓	NOUVO SX/5	93C66	✓	✓	✓	✓
FUTURE NEO FI	93C46	✓	✓	✓	✓	NOVO ELEGENCE	93C56	✓	✓	✓	✓
FUTURE X	93C46	✓	✓	✓	✓	QBIX (2017-2019)	93C66	✓	✓	✓	✓
LEAD 125 (2013-2016)	93C66	✓	✓	✓	✓	R15 2016	24C04	✓	✓	✓	✓
LEAD 125 (2017-2019)	93C66	✓	✓	✓	✓	FREE GO 2019	93C66	✓	✓	✓	✓
MSX 125/150	93C66	✓	✓	✓	✓	GRAND FILANO	93C66	✓	✓	✓	✓
PCX (2008-2013)	24C04	✓	✓	✓	✓	XMAX (2017-2019)	93C66	✓	✓	✓	✓
PCX (2014-2017)	24C04	✓	✓	✓	✓	TMAX(2017-2019)	93C86	✓	✓	✓	✓



## SMARTTOOL 2 – SMART CHOICE FOR MOTORCYCLE SHOP

HONDA	EEPROM	Connection diagrams	Read ODO	Adjustment ODO	RESET ODO	YAMAHA	EEPROM	Connection diagrams	Read ODO	Adjustment ODO	RESET ODO
PCX (2018-2019)	24C04	✓	✓	✓	✓	MT07 (2018-2019)	93C86	✓	✓	✓	✓
SCOOPI-I	93C66	✓	✓	✓	✓	MT09 (2018-2019)	93C86	✓	✓	✓	✓
SH 125/150 (2015-2016)	93C56	✓	✓	✓	✓	NMAX ABS 2018	93C66	✓	✓	✓	✓
SH 125/150 (2017-2019)	93C66	✓	✓	✓	✓	R15 (2017-2018)	93C66	✓	✓	✓	✓
SH 125/150 (2020)	24C04	✓	✓	✓	✓	GRANDE FILANO	93C66	✓	✓	✓	✓
SH 300I ABS 2007	93C56	✓	✓	✓	✓	FREEGO	93C66	✓	✓	✓	✓
SH 300I ABS (2008-2016)	93C66	✓	✓	✓	✓	<b>SUZUKI</b>					
SH MODE (2015-2016)	93C66	✓	✓	✓	✓	RAIDER	R5F	✓	✓	✓	✓
SH MODE (2017-2019)	93C66	✓	✓	✓	✓	GSX	R5F	✓	✓	✓	✓
SONIC (2016/2017)	93C66	✓	✓	✓	✓	AN 150	93C56	✓	✓	✓	✓
SONIC (2018)	93C66	✓	✓	✓	✓	EN 150	93C56	✓	✓	✓	✓
VARIO (2013-2016)	24C04	✓	✓	✓	✓	RAIDER	93C56	✓	✓	✓	✓
VARIO (2017-2019)	24C04	✓	✓	✓	✓	RAIDER (2013-2015)	93C66	✓	✓	✓	✓
WAVE 125	93C46	✓	✓	✓	✓	GSX (2009-2015)	93C66	✓	✓	✓	✓
WINNER 150	93C66	✓	✓	✓	✓	SYM GTS 125	24C02	✓	✓	✓	✓
WINNER X 2019	24C04	✓	✓	✓	✓	<b>KAWASAKI</b>					
ZOOMER X	93C66	✓	✓	✓	✓	Z1000R	93C66		✓	✓	
CBR 500	93C66	✓	✓	✓	✓	Z125	93C66		✓	✓	
FORZA 2018	93C76	✓	✓	✓	✓	NINJA 250	93C56		✓	✓	
SCOOPI 2018	93C66	✓	✓	✓	✓	VERSY 650	93C66		✓	✓	
XADV 2018	93C66	✓	✓	✓	✓	Z300	93C46		✓	✓	
FORZA	93C66	✓	✓	✓	✓	Z900	93C66		✓	✓	
<b>PIAGGIO/ VESPA</b>											
LIBERTY (2017-2019)	93C66	✓	✓	✓	✓	LIBERTY (2014-2016)	R5F	✓	✓	✓	✓
PRIMAVERA(2017-2019)	93C66	✓	✓	✓	✓	PRIMAVERA (2014-2016)	R5F	✓	✓	✓	✓
SPRINT (2017-2019)	93C66	✓	✓	✓	✓	SPRINT (2014-2016)	R5F	✓	✓	✓	✓

**NOTE: (\*) Depending on the product package and depending on the distribution market, the device will have different functions**





### 3. SPECIFICATIONS

#### 3.1. Main





### 3.2. List of accessories



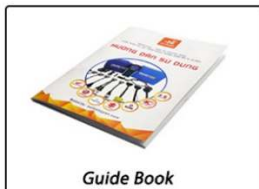
Adapter 12V



Handbag



Adapter ODO



Guide Book



Remap ACG



Adapter SD Card



Power Cable 12V



Adapter LED



Update Cable



Diagnostic Main



Smartkey Honda 1



Diagnostic Piaggio



Remap suzuki, yamaha Cable



Diagnostic CAN



Smartkey Honda 2



Diagnostic SYM



Smartkey Tmax



Diagnostic Yamaha



Smartkey Yamaha



Diagnostic SH 2020



LED cable



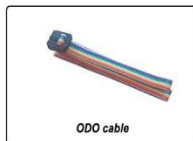
Diagnostic Honda



Smartkey Honda 3



Diagnostic other



ODO cable

**Note:** Depending on the function of the device package will have accessories attached



## II. DETAILED FUNCTIONS GUIDE

### 1. DIAGNOSTIC

#### 1.1. ENGINE – PGM FI SCAN

##### 1.1.1. Parameter meaning

No	PARAMETER	CONTENT	UNIT
1	Eng. Speed	Engine Speed	V/p
2	Injector	Injector	ms
3	IGN Advance	Ignition Advance	*C
4	Throttle Pos	Throttle Position Sensor	*C, mV
5	O2 Sensor	Oxygen Sensor	mV
6	Eng. Temp	Engine Temperature	*C, mV
7	Air Temp	Intake Air Temperature	*C, mV
8	MAP	MAP Sensor	Kpa, mV
9	Battery	Battery	V
10	Fuel Stream	Fuel Stream	
11	Environment	Environment	
12	VSS Speed	Vehicle Speed Sensor	Km/h
13	Fuel Pump	Fuel Pump	ON/OFF
14	Side Stand	Side Stand	ON/OFF
15	Start SW	Start Switch	ON/OFF
16	Start Status	Start Status	ON/OFF
17	SCS	Service Check	ON/OFF
18	MIL	Malfunction Indicator Light	ON/OFF
19	IACV	Intake Air Control Valve	
20	FISV	Fast Idle Speed Valve	ON/OFF
21	ISC	Idle Speed Control Valve	Step
22	IGT Pulse	IGT Pulse	ms
23	IACV Target	IACV Target	Step
24	Engine Status	Engine Status	ON/OFF/Run
25	Throttle	Throttle Status	Close/Open/Full
26	Start Engine	Start Engine Status	Yes/No
27	DTC	DTC No	
28	Total DTC	Total DTC	
29	Atmospheric	Atmospheric	Kpa
30	Tilt angle	Tilt angle	mV
31	IGN Standard	IGN Standard Valve	*
32	Key	Key	
33	O2 Heater	O2 Heater	
34	First set	First set	
35	Hall 1	Hall 1	
36	Hall 2	Hall 2	
37	Hall 3	Hall 3	
38	Sta&Stp Light	Start & Stop Light	ON/OFF
39	Oil Pressure	Oil Pressure	
40	Start SW	Start SW	ON/OFF
41	Running Eng	Running Engine Status	
42	Stop Eng	Stop Engine Status	
43	Air Temp	Air Temp	*
44	Pulse ISC	Pulse Idle Speed Control Valve	ms
45	Pulse Fa/Cos	Pulse Fa/Cos Headlight	%
46	Incorrect key	Incorrect key	
47	Antenna fault	Antenna fault	
48	Gear Pos.	Gear Position	
49	IGN Sys.	IGN System Status	Good/Bad



### 1.1.2. OBD Connector Position

BRAND	OBD PORT ON THE VEHICLE	SMARTTOOL CABLE
HONDA		
Red connector, near battery		
YAMAHA	 	
	Type 1: 3 pins – white connector	
	 	
Type 2: 1 pin – green male pin		
PIAGGIO		
	Yellow or Red Connector, 2-3 pins	



BRAND	OBD PORT ON THE VEHICLE	SMARTTOOL CABLE
SUZUKI		
	White connector, 6 pins	
SYM		
	Black connector, in the rear	
KIMCO		
	3 pins connector, near battery	

### 1.1.3. Detailed instruction

#### a) Read/ Erase DTC

- **Manipulation**
  - Connect DLC Cable
  - Turn ON IG
- **On Smarttool**



Step 1: Select "SCAN ENGINE"



Step 2: Select model



```
►READ DTC
ERASE DTC
RESET ECM
ENGINE DATA
ACTIVE TEST
ANALYSIS EMISSION
RESET TPS
UPGRADE ECM SOFT
```

Step 3: Select "READ DTC"

```
DTC-----Total DTCs
P1338-----1/02
Crankshaft Position
Sensor (CKP)
Circuit Malfunction
EXIT ERASE READ
```

Step 4 : Press(←) or (→) to show other fault. Press (↑) to select erase quickly

### b) Erase DTC

```
READ DTC
►ERASE DTC
RESET ECM
ENGINE DATA
ACTIVE TEST
ANALYSIS EMISSION
RESET TPS
UPGRADE ECM SOFT
```

Step 1: Select "ERASE DTC"

```
Erase DTC
Are you sure?
No Yes
```

Step 2: Press ENT

```
Erase DTC
Success!
Exit Read
```

Step 3: Erase success

### c) View Engine Data

```
READ DTC
ERASE DTC
RESET ECM
►ENGINE DATA
ACTIVE TEST
ANALYSIS EMISSION
RESET TPS
UPGRADE ECM SOFT
```

Step 1: Select "ENGINE DATA"

```
Eng. Temp.: 110°C
Throttle Pos. 2%
Engine: N/A
Injector: 0.0ms
IGN Standard: 10*
IGN Advance: -20*
O2 Sensor: 4958mV
Fuel Stream: 0%
```

```
Air Temp.: 32°C
Battery: 12.00V
Fuel Pump: OFF
IACU: OFF
Side Stand: ON
Key: 0
Engine Status: OFF
Standard Sp 2200U/P
```

Step 2: Press(←) or(→) to show the full information

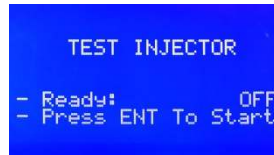
### d) Active Test Component

```
READ DTC
ERASE DTC
RESET ECM
ENGINE DATA
►ACTIVE TEST
ANALYSIS EMISSION
RESET TPS
UPGRADE ECM SOFT
```

Step 1: Select "ACTIVE TEST"

```
►ISC VALVE
INJECTOR
IGNITION COIL
COOLING FAN
FA/COS HEADLIGHT
VVA VALVE
RESET ISC
ERASE HISTORY DTC
```

Step 2: Select the system to activate



Step 3: Press ENT to start testing

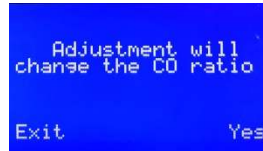
### e) Set A/F Value



Step 1: Select "SET A/F VALUE"



Step 3: Turn off then turn on Ignition Switch and Press ENT



Step 2: Press ENT to select "YES"



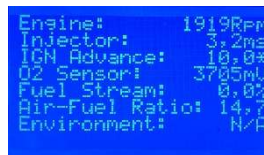
Step 4: Press(←) or(→) to select the value

- **Note:**
- (+) icon: it means increase A/F ratio, tend to rich A/F
- (-) icon: it means decrease A/F ratio, tend to lean A/F

### f) Analysis emission

This function is used for electronic fuel injection models of Honda, Yamaha

- **Operate**



Select "ANALYSIS EMISSION"

- **Note**
- Analysis of the A/F based on 2 conditions: engine temperature is higher than 70°C, the voltage of the oxygen sensor is lower than 1000mV
- The A/F: <14,7 pale (dark petrol)
- The A/F: >14,7 dark (pale petrol)

### g) Save/watch engine data

This function is used for electronic fuel injection models of Honda, Yamaha





```
READ CURRENT DTC
READ HISTORY DTC
ERASE DTC
RESET ECM
ENGINE DATA
ANALYSIS EMISSION
▶SAVE ENGINE DATA
WATCH ENGINE DATA
```

Step 1: Select "SAVE ENGINE DATA"

```
Saving Engine
Live Data To SD Card
Pls wait...
15
```

Step 2: - Saving engine data  
- Press ESC to stop

```
READ CURRENT DTC
READ HISTORY DTC
ERASE DTC
RESET ECM
ENGINE DATA
ANALYSIS EMISSION
SAVE ENGINE DATA
▶WATCH ENGINE DATA
```

Step 3: Select "WATCH ENGINE DATA"

```
Engine:      2062RPM
Injector:    4.1ms
IGN Advance: 8.0*
Throttle Pos 0.0*
Throttle Pos 507mV
MAP:         62KPa
O2 Sensor:   3763mV
ECU Stream:  - 1%
```

Step 4: Saved data

### h) Reset ECM

Restore ECU settings to the factory original state of HONDA, PIAGGIO motorcycle

```
READ DTC
ERASE DTC
▶RESET ECM
ENGINE DATA
ACTIVE TEST
ANALYSIS EMISSION
RESET TPS
UPGRADE ECM SOFT
```

Step 1: Select "RESET ECM"

```
RESET ECU
Are you sure?
No                Yes
```

Step 2: Press ENT to select "Yes"

```
Reset ECU Success
- IG: OFF -> ON
- Start engine
- Run 10 mins
```

Step 3: Start engine in 10 mins

- **Note:** After reset, pls run engine 10 minutes at idle speed, ECM will configure parameter automatically

### i) Upgrade ECM Software

Support Piaggio: upgrade new software or upload the original manufacturer's software, in order to fix software errors during engine operation

#### ❖ Auto - upgrade

```
READ DTC
ERASE DTC
RESET ECM
ENGINE DATA
ACTIVE TEST
ANALYSIS EMISSION
RESET TPS
▶UPGRADE ECM SOFT
```

Step 1: Select "UPGRADE ECM SOFT"

```
ECU/IC INFO
-----
Model:      26M3G1HW
Part No:    CM088116
Soft SN:    4528CG08
Software:    AUTOSHOP
Update:     15-10-2020
```

Step 2: Press ENT





```
Start to upgrade  
new ECM software ver  
Are you sure?  
  
No                Yes
```

Step 3: Press ENT

```
Processing...  
setup new data  
into ECM  
Pls wait 2-3 mins.
```

Step 5: Wait about 2-3 mins

```
Throttle Position  
Sensor  
is being setting  
Please wait!
```

Step 7: Wait

```
♦AUTOMATIC  
MANUAL  
  
Pls select correct  
CMxxx code  
If not,  
ECM can be error
```

Step 4: Select "AUTOMATIC"

```
Upgrading New  
ECM Firmware...  
12%  
Don't turn OFF IG
```

Step 6: Software upgrading

```
New software  
upgrade successfully  
TURN OFF -> ON IG  
to complete
```

Step 8: Upgrade successfully

### ❖ **Manual – upgrade**

- This function is used when customers entered the wrong spare part code

```
AUTOMATIC  
♦MANUAL  
  
Pls select correct  
CMxxx code  
If not,  
ECM can be error
```

```
CM088103  
CM088105  
CM088109  
CM088111  
CM088112  
CM088113  
♦CM088116  
CM088117
```

- The next steps are similar to auto-upgrade
- **Note**
  - Ensure good battery power. Don't turn OFF IG when device upload data
  - When it show success screen, OFF -> ON IG SW, then press ENTER

### j) **Reset TPS sensor Piaggio/ Vespa**

```
READ DTC  
ERASE DTC  
RESET ECM  
ENGINE DATA  
ACTIVE TEST  
ANALYSIS EMISSION  
♦RESET TPS  
UPGRADE ECM SOFT
```

Step 1: Select "RESET TPS"

```
Reset TPS value  
Are you sure?
```

Step 2: Press ENT



Pls set  
TPS Full Close

Step 3: Full close

Pls set  
TPS Full Open

Step 4: Full Open

Setup TPS  
100% Finish.

Step 5: Setup successfully

- **Note**

- If not success, check sensor, wires and ECM then try again

### k) Clear data buffer (DTC P0611) for Piaggio/Vespa

HONDA  
YAMAHA  
▶PIAGGIO/VESPA  
SYM  
SUZUKI  
KYMCO

Step 1: Select "PIAGGIO/VESPA"

▶CLEAR DATA BUFFER  
IC/ECM INFO

Step 2: Select "CLEAR DATA BUFER"

ECM Data Duffer  
Clear successfully

Successfull

### l) IC/ECM info

▶IC/ECM INFO

Step 1: Select "IC/ECM INFO"

ECM INFO  
-----  
ECM/IC Model128M3G1HW  
Part No: CM088113  
Soft SN: 4528CD15  
Software: AUTOSHOP  
Update: 06-06-2020

Step 2: Show ECM info

## 1.2. ABS SCAN

### 1.2.1. Parameters meaning

NO	PARAMETER	CONTENT	UNIT
1	Front Spd	Front Speed Sensor	Km/h
2	Rear Spd	Rear Speed Sensor	Km/h
3	Front Sensor	Front Sensor Status	



NO	PARAMETER	CONTENT	UNIT
4	Rear Sensor	Rear Sensor Status	
5	Brake SW	Brake Switch	ON/OFF
6	Relay Pump	Relay Pump	
7	Battery	Battery	V
8	Pump ABS	Pump ABS	V
9	Relay Protect	Relay Protect Power Supply To Pump	
10	Frt Hold Valve	Front Hold Valve	
11	Frt Release Val	Front Release Valve	
12	Rear Hold Valve	Rear Hold Valve	
13	Rear Release Val	Rear Release Valve	
14	ABS Light	ABS Light	
15	Ampe Battery	Current of Battery	A
16	First set	First set Value	

## 1.2.2. Detailed Functions

### a) Read DTC

- **Manipulation**
  - Connect SmartTool to motorcycle via OBD connector
  - Turn ON Ignition SW
- **On SmartTool**

```

SCAN ENGINE
♦SCAN ABS
SMART KEY
ODO METER
LED HEADLIGHT
SMARTTOOL 2
  
```

Step 1: Select "SCAN ABS"

```

♦READ DTC
ERASE DTC
ECU ABS DATA
ACTIVE TEST
ACU INFO
  
```

Step 3: Select "READ DTC"

```

HONDA
YAMAHA
♦PIAGGIO/VESPA
  
```

Step 2: Select brand

```

DTC ----- Total DTCs
C1043 1/02
Front Wheel
Speed Sensor
Circuit Malfunction
EXIT ERASE READ
  
```

Step 4: Press button (←) or (→) to show other fault ABS

### b) Erase/ Clear DTC

```

READ DTC
♦ERASE DTC
ECU ABS DATA
ACTIVE TEST
ACU INFO
  
```

Step 1: Select "ERASE DTC"

```

Erase DTC
Are you sure?

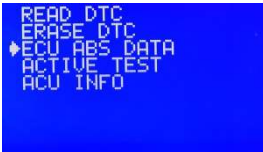
No Yes
  
```

Step 2: Press ENT



Step 3: Erase success

### c) View ECU ABS Data



Step 1: Select "ECU ABS DATA"



Step 2: Press button (←) or (→) to Display more specifications ABS

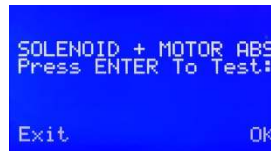
### d) Active Test Component



Step 1: Select "ACTIVE TEST"

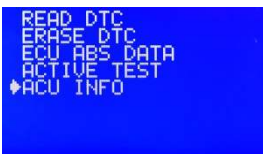


Step 2: Select the system to activate



Step 3: Press ENT to active

### e) ECU ABS/ ACU Info



Step 1: Select "ACU INFO"



Step 2: Show info

## 2. TUNING/REMAPPING

### 2.1. Purpose

- Tuning or Remapping is the same. Tuning is the editing of the fuel and fire maps, Remapping is a refresh of the fuel and fire maps in ECM. Revolving is opening the rpm limit within the permissible limit to meet the mechanical part of the manufacturer



- Adjusting the Air/Fuel ratio (A / F)
- Improved engine performance in accordance with the different working modes and terrain conditions and operating environments of the motobike
- Compensate for small mechanical wear (eg, injector mechanical ...) or error due to aging of sensor, leading to drift of sensor value range.
- Handling some car fuel consumption cases high injection time, fuel saving, low Garanti
- Open the rpm limit or return the manufacturer zin
- For a different driving experience - more realism

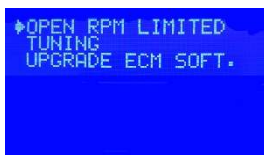
### 2.2. Operate



Step 1: Select "REMAP-TUNING"



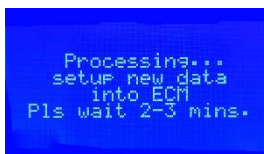
Step 2: Select "HONDA"



Step 3: Select "OPEN RPM LIMITED"



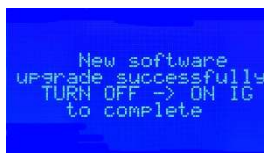
Step 4: Select 11500Rpm or 12500Rpm



Step 5: Wait about 2-3 mins



Step 6: Upgrading



Step 7: Turn OFF → ON to complete

#### Note:

- Select 10500v/p to reload the original data
- Tuning function, upgrade ECM soft do the same

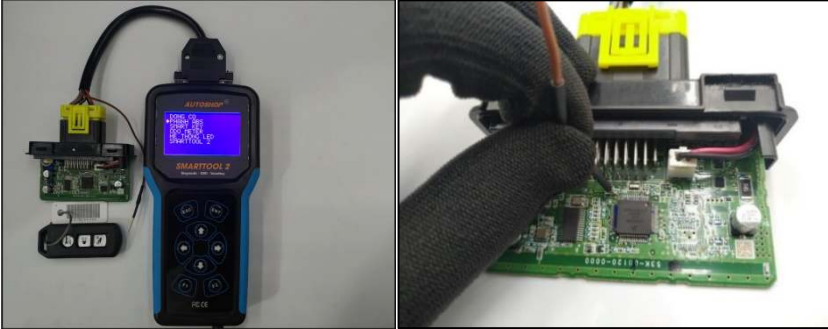


### 3. PROGRAM KEY

#### 3.1. Auto program for Honda

##### 3.1.1. SCU 1 connector

Search diagram on the "ALLMOTO"



#### a) Read KEYID - ECMID store in SCU and auto OFF/ON FOB

- **Purpose**
  - Read KEYID and ECMID to add new key.
  - OFF or ON FOB without the original FOB.

- **The steps taken on the Smart Tool**

Select "SMART KEY" → "HONDA" → "SCU- 1 CONNECTOR" → "AUTO PROGRAM"

```
♦READ FULL KEYID
ERASE KEYID
RESTORE KEYID
COPY KEYID
WRITE KEYID
COPY SCU
WRITE NEW ECMID
```

Step 1: Select "READ FULL KEYID"

```
SCU : K77V0
ECM : 112000110
+KEY1: 142978572 ON
KEY2: 199149050 ON
KEY3: .....
KEY4: .....
KEY5: .....
KEY6: .....
```

Step 2: KEYID and ECMID

```
SCU : K77V0
ECM : 112000110
+KEY1: 142978572 OFF
KEY2: 199149050 ON
KEY3: .....
KEY4: .....
KEY5: .....
KEY6: .....
```

Step 3(if need): Use "(→) or (←)" symbol to ON/OFF

- **Notes:**
  - Check cable, connection points carefully.
  - To ON/OFF use the left button or the right button on SMART TOOL and press ENT

#### b) Erase KEYID.

- **Purpose:**
  - Add more new FOB When SCU data is full of KeyID
  - Erase KeyID of the FOB that has been dropped.



- **The steps taken on the SmartTool**

Select "SMART KEY" → "HONDA" → "SCU- 1 CONNECTOR" → "AUTO PROGRAM"

```
READ FULL KEYID
→ERASE KEYID
RESTORE KEYID
COPY KEYID
WRITE KEYID
COPY SCU
WRITE NEW ECMID
```

Step 1 : Select "ERASE KEYID"

```
The deleted KEY will
no longer be used
Are you sure?

NO      YES
```

Step 2 : Press ENT

```
Select Erase KEYID
-----
KEY1: 142978572 ON
→KEY2: 199149050 ON
KEY3: .....
KEY4: .....
KEY5: .....
KEY6: .....
```

```
Are you sure
you want to erase
this KEYID?

NO      YES
```

Step 3: Select KEYID to erase

Step 4: Press ENT

```
Select Erase KEYID
-----
→KEY1: 142978572 ON
KEY2: .....
KEY3: .....
KEY4: .....
KEY5: .....
KEY6: .....
```

Step 5: Erased successfully

- **Notes:**

- Check cable, connection points carefully.
- Select "RESTORE KEYID" to restore the erased KeyID if you did wrong step

### c) Restore KeyID

- **Purpose:**

- We can restore the erased KeyID.

- **The steps taken on the Smart Tool.**

Select "SMART KEY" → "HONDA" → "SCU- 1 CONNECTOR" → "AUTO PROGRAM"

```
READ FULL KEYID
ERASE KEYID
→RESTORE KEYID
COPY KEYID
WRITE KEYID
COPY SCU
WRITE NEW ECMID
```

Step 1: Select "RESTORE KEYID"

```
RESTORE KEYID INTO:
-----
→KEY1: 199149050 ON
KEY2: .....
KEY3: .....
KEY4: .....
KEY5: .....
KEY6: .....
```

Step 2: Select KEYID to restore

```
NOTE:
You should select
an empty position
to write new key
```

```
WRITE KEYID INTO:
-----
KEY1: 142978572 ON
→KEY2: .....
KEY3: .....
KEY4: .....
KEY5: .....
KEY6: .....
```

Step 3: Press ENT

Step 4: Select write KEYID into



```
RESTORE_KEYID  
SUCCESSFULLY
```

Step 5: Restore successfully

- **Notes:**

- Check cable, connection points carefully.
- Select the empty position to write.

**d) Copy KEYID.**

- **Purpose:**

- Register 1 FOB for many bikes.
- Replace new SCU and keep all of the used key

- **The steps taken on the Smart Tool:**

Select "SMART KEY" → "HONDA" → "SCU- 1 CONNECTOR" → "AUTO PROGRAM"

```
READ FULL KEYID  
ERASE KEYID  
RESTORE KEYID  
→ COPY KEYID  
WRITE KEYID  
COPY SCU  
WRITE NEW ECMID
```

Step 1: Select "COPY KEYID"

```
Select Copy KEYID  
-----  
KEY1: 142978572 ON  
→KEY2: 199149050 ON  
KEY3: .....  
KEY4: .....  
KEY5: .....  
KEY6: .....
```

Step 2: Select KEYID to copy

```
Connect the SCU#2  
Select KEYID number  
you want to write
```

```
NOTE:  
You should select  
an empty position  
to write new key
```

Step 3 : Connect the 2<sup>nd</sup> SCU

Step 4: Press ENT

```
WRITE KEYID INTO:  
-----  
KEY1: 142978572 ON  
→KEY2: .....  
KEY3: .....  
KEY4: .....  
KEY5: .....  
KEY6: .....
```

Step 5: Select write KEYID into

```
Copy Key ID  
Success
```

Step 6: Copy success

**e) Write KEYID**

- **Purpose:**

- Make 1 FOB work for 2,3,4... many bikes.
- Reuse the registered FOB.

- **The steps taken on the Smart Tool.**

Select "SMART KEY" → "HONDA" → "SCU- 1 CONNECTOR" → "AUTO PROGRAM"





```
READ FULL KEYID
ERASE KEYID
RESTORE KEYID
COPY KEYID
♦WRITE KEYID
COPY SCU
WRITE NEW ECMID
```

Step 1 : select "WRITE KEYID"

NOTE:  
You should select  
an empty position  
to register new key

Step 2 : Press ENT

```
-----
SELECT KEYID INTO:
KEY1: 063429150 ON
♦KEY2: .....
KEY3: .....
KEY4: .....
KEY5: .....
KEY6: .....
```

Step 3 : Select position to write

Enter KEYID  
098191110  
^

Step 4 :Enter KEYID

```
Enter RESET FOB code
1219091130
^
```

Step 5 : Enter RESET FOB code

Successful  
New FOB Registration  
Write next KEYID?

Step 6 : Write successful

- **Notes:**

- Check cable, connection points carefully.
- Select the blank position to register a new KEYID. Shouldn't select the position had code.
- Use Mobile app "ALLMOTO" to get Reset Code
- Download from CH PLAY, APPSTORE or website: [www.autoshopvn.com](http://www.autoshopvn.com)

### f) Copy SCU

- **Purpose:**

- Replace SCU by copy SCU function without synchronization ECM
- Keep FOB of the old SCU.

- **The steps taken on the Smart Tool.**

Select "SMART KEY" → "HONDA" → "SCU- 1 CONNECTOR" → "AUTO PROGRAM"

```
READ FULL KEYID
ERASE KEYID
RESTORE KEYID
COPY KEYID
WRITE KEYID
♦COPY SCU
WRITE NEW ECMID
```

Step 1 : Select "COPY SCU"

WARNING!  
This function will  
program main data  
NO YES

Step 2 : Press ENT



```
Connect SCU #1
Press ENTER
to copy org. data
from SCU #1
```

Step 3: Connect the 1<sup>st</sup> SCU  
to copy data

```
Connect SCU #2
Press ENTER
to write new data
into SCU #2
```

Step 4: Connect the 2<sup>nd</sup> SCU to  
write data

```
Copy successfully
```

Step 5 : Copy success

### g) Edit ECMID.

- **Purpose:**
  - Edit ECMID
  - Sync ECM & SCU without bikes
  - Advantages: easy to manipulate, high accuracy, save time.
- **The steps taken on the Smart Tool.**

Select "SMART KEY" → "HONDA" → "SCU- 1 CONNECTOR" → "AUTO PROGRAM"

```
READ FULL KEYID
ERASE KEYID
RESTORE KEYID
COPY KEYID
WRITE KEYID
COPY SCU
♦WRITE NEW ECMID
```

Step 1: Select "WRITE NEW ECMID"

```
Enter ECMID
250281030
X
```

Step 2: Enter ECMID

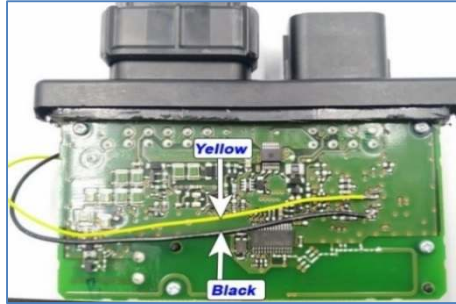
```
SCU Replace
Success
```

Step 3: Successfully

- **Notes:**
  - Check cable, connection points carefully.
  - This function changes data of SCU.
  - To know ECMID, select "READ KEYID".

### 3.1.2. SCU 2 Connector

Search diagram on the "ALLMOTO"



### a) Read KeyID

- **Purpose:**
  - When all keys lost
  - Read KeyID to register new FOB.
- **Special notes:**
  - Check cable, solder, make sure the machine is firmly fixed.
  - When reading KeyID, don't touch and move the smart box
  - Wait to complete 100% reading KeyID and display KeyID.
  - During reading, if the connection was disconnected or loose the solder, the device will automatically calculate the KeyID at the moment. Then to repair SCU, use the function "REFLASH SCU" and "REPLACE SCU" to synchronize the data for SCU.
  - If unsuccessful reading (not enough 100%, unread ID), pls continue reading 2, 3 times until finish 100% and get KeyID on the screen.
  - Should read by menu "QUICK READ KEYID". If unsuccessful reading, try "FULL READ KEYID".
- **The steps taken on the Smart Tool**
  - Way 1:** Select "READ KEY ID" (priority)

```
SCU - 1 CONNECTOR
▶SCU - 2 CONNECTORS
```

Step 1: Select "SCU-2 CONNECTORS"

```
▶READ KEYID
READ FULL KEYID
READ ECMID
VIEW THE LASTEST ID
RESTORE SCU DATA
COPY SCU
```

Step 3: Select "READ KEYID"

```
▶AUTO PROGRAM
MANUAL PROGRAM
RESET SCU
RESET ECM

*SCU LIST*
K12,K44,K59,K66...
```

Step 2: Select "AUTO PROGRAM"

```
NOTE:
- May lose data if
- Bad Power supply
- Bad connection
---o0o---
PLS! MAKE GOOD
power, solder point,
connector in reading
```

Step 4: Press ENT



Step 5: Wait to 100%

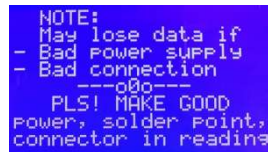


Step 6: Key ID code

**Way 2:** Select " READ FULL KEYID" (when the 1st way can't be showed KeyID)



Step 1: Select "READ FULL KEYID"



Step 2: Press ENT



Step 3: Wait to 100%



Step 4: Key ID code

• **Notes:**

- Check the connection points, cable carefully.
- QUICK READ KEYID"- it take about 1 - 1,5 minutes to read KEYID
- Ensure a stable power source.
- If the reading KeyID is faulty, continue reading until 100%.

**b) Read ECMID**

• **Purpose:**

- When SCU is broken, it is necessary to replace.
- Reading ECMID from SCU.
- ECMID need to synchronize between the engine box (ECM) and Smart key box (SCU).

• **The steps taken on the Smart Tool**

Select "SMART KEY"→"HONDA"→"SCU- 2 CONNECTORS" →"AUTO PROGRAM"



Step 1: Select "READ ECMID"



Step 2: ON Key (FOB)



```
KEY NOT FOUND OR  
KEY TURNED OFF  
Pls check again  
NO YES
```

Case 1: Key not Found or  
Key turned OFF

```
ECMID CODE:  
039280012  
www.autoshopvn.com
```

Case 2: ECMID code

- **Notes:**

- Reading ECMID without soldering.
- To read ECMID, the FOB must be synced with SCU

### c) View the latest ID

- **Purpose:**

- View the latest KeyID without reading again.

- **The steps taken on the Smart Tool.**

Select "SMART KEY"→"HONDA"→"SCU - 2 CONNECTORS"→"AUTO PROGRAM"

```
READ KEYID  
READ FULL KEYID  
READ ECMID  
♦VIEW THE LATEST ID  
RESTORE SCU DATA  
COPY SCU
```

Select "VIEW THE LATEST ID"

- **Notes:**

- Reading KeyID successfully before using this function.

### d) Restore SCU

- **Purpose:**

- Restore data of SCU, repair the SCU which software error

- **The steps taken on the Smart Tool.**

Select "SMART KEY"→"HONDA"→"SCU - 2 CONNECTORS"→"AUTO PROGRAM"

```
READ KEYID  
READ FULL KEYID  
READ ECMID  
♦VIEW THE LATEST ID  
♦RESTORE SCU DATA  
COPY SCU
```

Step 1: Select " RESTORE SCU DATA"

```
♦AIR BLADE (18-19)  
AIR BLADE 2020->  
BEAT  
CLICK  
LEAD (18-19)  
LEAD 2020->  
VARIO  
VISION
```

Step 2 : Select model

```
WARNING!  
This function will  
program main data  
NO YES
```

Step 3: Press ENT

```
Are you sure  
to program this SCU?  
NO YES
```

Step 4: Press ENT



```
Enter ECMID
041794782
X
```

Step 5: Enter ECMID of SCU

```
Reflash successfully
Done!
KEY1: 041794782
```

Step 6: Reflash successfully

- **Notes:**

- When restoring data of SCU then all old data is erased.
- In step 4 enter ECMID of ECM or ECMID previously read from SCU
- In step 5 enter KEYID random or not enter and select ENT

### e) Copy SCU

- **Purpose:**

- Replace SCU by copy SCU function without synchronization ECM
- Keep FOB of the old SCU.

- **The steps taken on the Smart Tool.**

Select "SMART KEY" → "HONDA" → "SCU - 2 CONNECTOR" → "AUTO PROGRAM"

```
READ KEYID
READ FULL KEYID
READ ECMID
VIEW THE LASTEST ID
RESTORE SCU DATA
♦COPY SCU
```

Step 1: Select "COPY SCU"

```
WARNING!
This function will
program main data
NO YES
```

Step 2: Press ENT

```
Do you want to
Read/ Write SCU data
WRITE READ
```

Step 3: Press ENT to select "READ"

```
Connect SCU #1
Press ENTER
to copy org. data
from SCU #1
```

Step 4: Connect to old SCU

```
NOTE:
May lose data if
- Bad power supply
- Bad connection
---000---
PLS! MAKE GOOD
Power, solder point,
connector in readings
```

Step 5: Press ENT

```
SCU Reading...
2%
Pls wait 3 minutes
```

Step 6: Wait about 4-5 minutes

```
NOTE: The SCU data
will be changed
Are you sure?
NO YES
```

Step 7 : Press ENT to select "YES"

```
Connect SCU #2
Press ENTER
to write new data
into SCU #2
```

Step 8: Connect to new SCU



Copy successfully

Step 9: Copy successfully

### 3.2. Manual program function

#### 3.2.1. Add key by key:

- **Purpose:**
  - Add new key (FOB)
  - On FOB again
- **The steps taken on the Smart Tool.**

Select "SMART KEY" → "HONDA" → "SCU – 1 CONNECTOR" → "AUTO PROGRAM"



♦ADD NEW KEY  
ALL KEYS LOST  
REPLACE NEW SCU  
REPLACE NEW ECM  
OFF THE MISSING KEY  
CHECK FOB <--> SCU

Step 1: Select "ADD NEW KEY"




1. ON ORIGINAL KEY  
2. ON THE NEW KEY  
Press key button  
LED: Red -> Green

Step 2: On original Key and new KEY



OFF THE ORIGINAL FOB  
Press key button  
LED: Green -> Red

Step 3: Turn OFF the original FOB



Successful  
New FOB Registration

Step 4: Successfully

- **Notes:**
  - Only use when the original FOB is available.
  - Turn OFF all unused keys.

#### 3.2.2. All keys lost:

- **Purpose:**
  - Register new key when all keys lost
- **The steps taken on the Smart Tool.**

Select "SMART KEY" → "HONDA" → "SCU – 1 CONNECTOR" → "MANUAL PROGRAM"



♦ADD NEW KEY  
♦ALL KEYS LOST  
REPLACE NEW SCU  
REPLACE NEW ECM  
OFF THE MISSING KEY  
CHECK FOB <--> SCU

Step 1:Select "ALL KEYS LOST"



Enter KEYID  
199149050  
^

Step 2: Enter KEYID



```
ON THE FOB
Press key button
LED: Red -> Green
```

Step 3: Turn on FOB

```
Pls wait...
ID Digits: 2
Number: 9
Thank you!
```

Step 4: Wait in 2-3 minute

```
Successful
New FOB Registration
```

Step 5: Successfully

- **Notes:**

- Quick step to program new key by F2 button after reading KEYID
- Turn OFF all FOBs are not used.

### 3.2.3. OFF the missing FOB

- **Purpose:**

- OFF all keys except the original key.

- **The steps taken on the Smart Tool:**

Select "SMART KEY" → "HONDA" → "SCU – 1 CONNECTOR" → "MANUAL PROGRAM"

```
ADD NEW KEY
ALL KEYS LOST
REPLACE NEW SCU
REPLACE NEW ECM
♦OFF THE MISSING KEY
CHECK FOB <--> SCU
```

Step 1: Select "OFF THE MISSING KEY"

```
ON THE FOB
Press key button
LED: Red -> Green
```

Step 2: Turn on FOB

```
OFF THE FOB
Press key button
LED: Green -> Red
```

Step 3: Turn off FOB

```
Successful
OFF KEY
```

Step 4: Successfully

### 3.2.4. Test SCU ↔ FOB

- **Purpose:**

- After registering FOB, we should test sync between SCU and FOB.

- **The steps taken on the Smart Tool:**

Select "SMART KEY" → "HONDA" → "SCU – 1 CONNECTOR" → "MANUAL PROGRAM"





```
ADD NEW KEY
ALL KEYS LOST
REPLACE NEW SCU
REPLACE NEW ECM
OFF THE MISSING KEY
♦CHECK FOB <--> SCU
```

Step 1: Select "CHECK FOB<→FOB"

```
NO - Registration
between FOB & SCU

Exit      Again
```

Case 1: FOB has not been registered

```
ON THE FOB
Press key button
LED: Red -> Green
```

Step 2: Turn on FOB

```
GOOD - Registration
between FOB & SCU

Exit      Again
```

Case 2: FOB has been registered

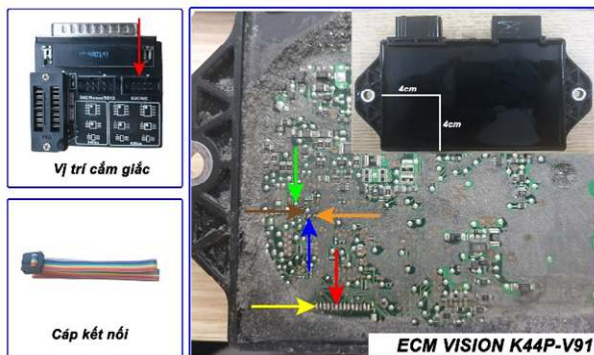
### 3.3. READING/RESETTING FUNCTION ECMID CODE INSIDE ECU ENGINE

#### 3.3.1. The purpose of use

- When customer lost ECMID with a damaged SCU and can not read ECMID from SCU or they buy a used ECU with no ECMID
- Smarttool can help them to read/reset ECMID code inside ECU to reuse the used ECU also to save the cost when changing a new ECU

#### 3.3.2. Process

- Customers need to open the ECU box first
- On allmoto App customers choose "Search -> Honda -> motor with correct year-> Connect SMARTTOOL -> OTHERS" to find out connection diagram and the position will be gouged
- Customers use ODO adapter and 8 colors cable to connect, connection port into 93C like the following picture For example ECM of Vision 2018 – 2019 (K44P-V91)



For example, ECU of Vision (2018-2019) K44P - V91



- **Read ECMID**

Select "SMART KEY" → "HONDA" → "SCU- 2 CONNECTOR"

```
AUTO PROGRAM
MANUAL PROGRAM
▶RESET ECM
RESET SCU

*SCU LIST*
K01,K29,K35,K53,K77
K96,K97,XADU...
```

Step 1: Chọn "RESET ECM"

```
▶READ ECMID CODE
ERASE ECMID CODE
```

Step 3: Select "READ ECMID CODE"

```
SH125I K01-
SH150I K02-
SH125I K77-
SH150I K78-
LEAD K12-
SH MODE K29_961
SH MODE K29_081
*VISION K44-
```

Step 2: Select model

```
ECMID CODE:
047816121
www.autoshopvn.com
```

Step 4: Read success

- **Reset ECMID**

```
READ ECMID CODE
▶ERASE ECMID CODE
```

Select "ERASE ECMID CODE"

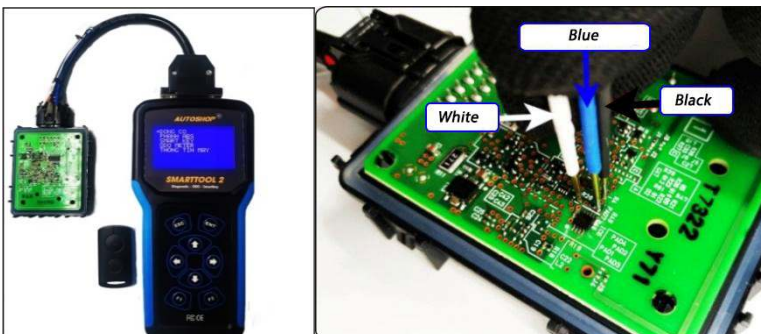
```
ERASE ECMID CODE
SUCCESS!
```

Reset success

### 3.4. YAMAHA, T-MAX AND SUZUKI

#### 3.4.1. AUTO PRGRAM

Search diagram on the "ALLMOTO"



#### a) Read KEYID

- **Purpose:** Read KeyID and register the new key when all keys lost
- **The steps taken on the Smart Tool.**

Select "SMART KEY" → "YAMAHA"



```
♦SCU(12 PINS)  
SCU(18 PINS_TMAX)
```

Step 1: Select "SCU (12 PINS)"

```
♦READ FULL KEYID  
ERASE KEYID  
COPY SCU
```

Step 3: Select "READ FULL KEYID"

```
♦AUTO PROGRAM  
MANUAL PROGRAM  
RESET SCU  
RESET ECM
```

Step 2 : Select "AUTO PROGRAM"

```
*SCU LIST*  
JANUS, NUX, FREEGO  
LATTE, GRANDE...D
```

```
CTY AUTOSHOP  
-----  
SCU INFORMATION  
  
SCU S/N: BJ7H626500  
KEYID: 213123  
TOTAL KEYS: 3  
ECMID: 183910724574
```

Step 4: Show KEY ID

- **Notes:**

- Check connection points, cable carefully.
- After reading, save it.

**b) Erase KEYID.**

- **Purpose:** If SCU is full of 6 keys code, we can delete the unused KEYID and add new key.

- **The steps taken on the Smart Tool.**

Select "SMART KEY" → "YAMAHA" → "AUTO PROGRAM"

```
READ FULL KEYID  
♦ERASE KEYID  
COPY SCU
```

Step 1: Select "ERASE KEYID"

```
Delete KEYID from  
the selected one  
to KEYID6  
Are you sure?
```

Step 2 : Press ENT

```
Connect SCU  
Erase KEYID 2  
Select KEYID number  
by button </>
```

Step 3 : Step 3: Use </> button

```
Erase Successfully!
```

Step 4 : Erase success

to select location of the KEYID

- **Notes:**

- The FOB of the KEYID can't use after erasing it
- Step 3, use "</>" on keyboard to control.
- Should erase from the 2<sup>nd</sup> KEYID.



### c) Copy SCU.

- **Purpose:** Replace SCU by "Copy SCU" without programming ECMID.
- **The steps taken on the Smart Tool:**  
Select "SMART KEY " → "YAMAHA" → "AUTO PROGRAM"

```
READ FULL KEYID  
ERASE KEYID  
*COPY SCU
```

Step 1 : Select "COPY SCU"

```
WARNING!  
This function will  
program main data  
NO YES
```

Step 2 : Press ENT

```
Connect SCU #1  
Press ENTER  
to copy org. data  
from SCU #1
```

Step 3 : Connect to old SCU

```
Connect SCU #2  
Press ENTER  
to write new data  
into SCU #2
```

Step 4 : Connect to new SCU

```
Copy successfully
```

Step 5 : Copy success

- **Notes:**
  - After copying, data of the 2<sup>nd</sup> SCU will be changed.
  - Check connection points, cable carefully.

### 3.4.2. Manual program

#### a) Add FOB

- **Purpose**
  - Register new key when all keys lost, or add new FOB
  - Add new FOB on the table, without bike.
- **The steps taken on the Smart Tool:**  
Select "SMART KEY" → "YAMAHA" → "MANUAL PROGRAM"

```
*ADD NEW KEY  
ALL KEYS LOST  
OFF THE MISSING KEY  
CHECK FOB <-> SCU
```

Step 1 : Select "ADD NEW KEY"

```
TURN OFF FOB  
Press key button  
RED LED:Fast -> Slow
```

Step 2 : Off old FOB



Enter KEYID  
213123

Step 3 : Enter KEYID



ON THE NEW FOB  
Press key button  
RED LED:Slow -> Fast

Step 4 : On new FOB



Pls wait...  
ID Digits: 3  
Number: 1  
Thank you!

Step 5: Wait 1-2 mins



PRESS THE NEW KEY  
1 times within 5s  
if the red light: ON

Step 6: Press key button of FOB



Successful  
New FOB Registration

Step 7: Success

- **Note**

- KeyID code is the code read from SCU or can pry the original FOB cover to get the KeyID
- Quick step to program new key by F2 button after reading KEYID

**b) All keys lost:**

- **Purpose:** Register new key when all keys lost
- **The steps taken on the Smart Tool:**  
Select "SMART KEY" → "YAMAHA" → "MANUAL PROGRAM"



ADD NEW KEY  
ALL KEYS LOST  
OFF THE MISSING KEY  
CHECK FOB <--> SCU

Step 1: Select "ALL KEYS LOST"



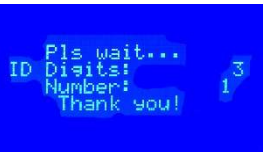
ON THE NEW FOB  
Press key button  
RED LED:Slow -> Fast

Step 2: On new FOB



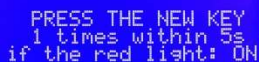
Enter KEYID  
213123

Step 3: Off FOB



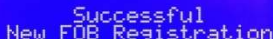
Pls wait...  
ID Digits: 3  
Number: 1  
Thank you!

Step 4: Wait 1-2 mins



PRESS THE NEW KEY  
1 times within 5s  
if the red light: ON

Step 5: Press key button of FOB



Successful  
New FOB Registration

Step 6: Success

- **Note** : Quick step to program new key by F2 button after reading KEYID

### c) OFF the missing FOB.

- **Purpose:** Turn OFF the FOB which lost or not used.

- **The steps taken on the Smart Tool:**

Select "SMART KEY" → "YAMAHA" → "MANUAL PROGRAM"



ADD NEW KEY  
ALL KEYS LOST  
OFF THE MISSING KEY  
CHECK FOB <-> SCU

Step 1: Select "OFF THE MISSING KEY"



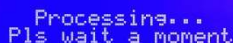
TURN OFF FOB  
Press key button  
RED LED:Fast -> Slow

Step 2 : Off FOB



Enter KEYID  
213123

Step 3: Enter KEYID



Processing...  
Pls wait a moment

Step 4: Wait 1-2 mins



ON THE NEW FOB  
Press key button  
RED LED:Slow -> Fast

Step 5: On FOB



Successful  
OFF KEY

Step 6 : Off success

- **Notes:**
  - After the FOBs turn OFF, we can't use them.
  - After entering KeyID, you use SMTF04 - Yamaha cable to connect to SCU.

### 3.5. HÃNG PIAGGIO/VESPA

Search diagram on the "ALLMOTO"



### 3.5.1. Read IC/ECU ACI6XX

- **Purpose:** Register new FOB when all keys lost.
- **Steps taken on the Smart Tool:**  
Select "SMART KEY" → "PIAGIO/VESPA"

```
MIUG1/MIUG2/MIUG4
ACI6XX
MIUG3/RIU1
ACXX1/ACXX1
PGN04/PGS02/PGT01
```

Step 1: Select "ACI6XX"

```
Connecting
IC/ECU
Pls wait 3 minutes
```

Step 3: Wait 2-3 mins

```
REQUEST:
TURN ON IG
```

Step 2: On IG (if directly connect)

```
IMMOBILIZER KEYS
KEYID_CHINH
7D5F7D5F7D5F7D5F
KEYID_PHU
7D5F7D5F7D5F7D5F
```

Step 4: Success

- **Notes**
  - Way 1: Connect directly to OBD - diagnostic connector by OBD – Kline cable (near battery)
  - Way 2: Connect on the table, to IC/ECU connector. Search diagram on mobile app "ALLMOTO"
  - After reading keyID, write T5 immo chip by TmPro, CnMini, VVDI, KDX2, KDYZ...  
(Do the same for the other IC series of Piaggio/Vespa)

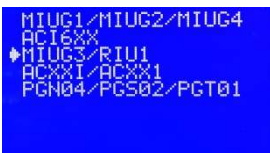
### 3.5.2. Reset KEYID MIUG3/ RIU1

- **Purpose**
  - Turn OFF the lost keys.
  - When using "reset KeyID" function, we have to register FOB manually.



- **Steps taken on the Smart Tool:**

Select " SMART KEY" → "PIAGIO/VESPA"



```
MIUG1/MIUG2/MIUG4
ACI6XX
♦MIUG3/RIU1
ACXX1/ACXX1
PGN04/PGS02/PCT01
```

Step 1: Select "MIUG3/RIU1"



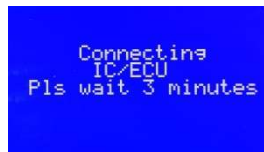
```
READ KEYID
♦RESET KEYID
```

Step 2: Select RESET KEYID




```
REQUEST:
TURN ON IG
```

Step 3: On IG (if directly connect)



```
Connecting
IC/ECU
Pls wait 3 minutes
```

Step 4: Wait 2-3 mins



```
Reset successfully
Done!
```

Step 5: Reset success

- **Notes**

- When using "reset KeyID" function, we can register FOB by manual procedure on the motorcycle.

## 4. ODO METTER

### 4.1. Overview

- Odometer of each bikes have general principles is the value is saved in internal of external EEPROM memory, so the fact is that we change ODO value means we change the EEPROM data on the processor.

### 4.2. Function ODO auto program

#### 4.2.1. Smart ODO

##### a) Function

- An unique function of SMARTTOOL 2, this is "SMART ODO". It automatically searches and reads the current odometer value and corrects new value exactly without name of the vehicles
- Adjust ODO values for both cars and motorcycles
- Support 93Cxx series chips

##### b) Steps taken on the Smart Tool:

- The first, connecting dashboard with Smarttool via ODO cable, connection diagram can be searched on "ALLMOTO" app





Jack plug position EEPROM 93Cxx

Select "ODO METER" → "ODO SMART"

```

SMART ODO
HONDA
YAMAHA
PIAGGIO/VESPA
SUZUKI
KAWASAKI
READ/WRITE EEPROM
    
```

Step 1: Select "SMART ODO"

```

SMART 1_93C46
SMART 1_93C56
SMART 1_93C66
SMART 1_93C76
SMART 2_93C46
SMART 2_93C56
SMART 2_93C66
SMART 2_93C76
    
```

Step 2: Select type EEPROM

```

OLD ODO:
      1210Km

NO      YES
    
```

Step 3: Press ENT to select "YES"

```

NEW ODO:
      000990Km
      ^

EXIT      OK
    
```

Step 4: Enter new value

```

New ODO
Success!
    
```

Step 5: Success

## c) Note

- If "SMART 1" read incorrectly, pls select "SMART 2" menu
- If the device reads correctly the current kilometer, continue to adjust ODO
- If not, pls check the name of chip, soldering points position, wires connection
- Another way, take the chip and solder it into the extend board, plug the EEPROM into the corresponding position as image below, then continue



solder, plug position EEPROM 93Cxx

### 4.2.2. Function READ/WRITE EEPROM

#### a) Function

- Support adjusting ODO value for new motorcycles or big one
- Backup EEPROM data to the memory card
- Restore the original data

#### b) Steps taken on the Smart Tool:

- **Read data**
- Select "ODO METER" → "READ/WRITE EEPROM"

```
SMART ODO
HONDA
YAMAHA
PIAGGIO/VESPA
SUZUKI
KAWASAKI
♦ READ/WRITE EEPROM
```

Step 1: Select "READ/WRITE EEPROM"

```
IC 93C46
IC 93C56
♦ IC 93C66
IC 93C76
IC 93C86
IC 24C02
IC 24C04
```

Step 2: Select type chip

```
♦ READ DATA
WRITE DATA
```

Step 3: Select "READ DATA"

```
Read EEPROM
100% Success!
```

Step 4: Read success

- **Write data**

```
READ DATA
♦ WRITE DATA
```

Step 1: Select "WRITE DATA"

```
100% completed
Success!
```

Step 2: Reflash successfull



### 4.3. Odometer Correct Function

#### 4.3.1. EEPROM 93Cxx (ex: AIR BLADE (2018 - 2019) \_93C66)

##### a) Connect diagram:

Search diagram on the "ALLMOTO"



##### b) Steps taken on the Smart Tool

- Select "ODO METER" → "HONDA"

```
AirBlade(13-15)_C66
AirBlade(16-17)_C66
♦AirBlade(18-19)_C66
Click(2014)_24C04
Click(2016)_24C04
Click(2018)_24C04
CBR 150R_24C04
CBR 250_24C04
```

Step 1: Select "Airblade(18-19)\_C66"

```
♦SET NEW ODO
RESTORE ORG. DATA
```

Step 2: Select "SET NEW ODO"

```
OLD ODO:
10300Km

NO YES
```

Step 3: Press ENT to select "YES"

```
NEW ODO:
002200Km
^
EXIT OK
```

Step 4: Enter new ODO

```
New ODO
Success!
```

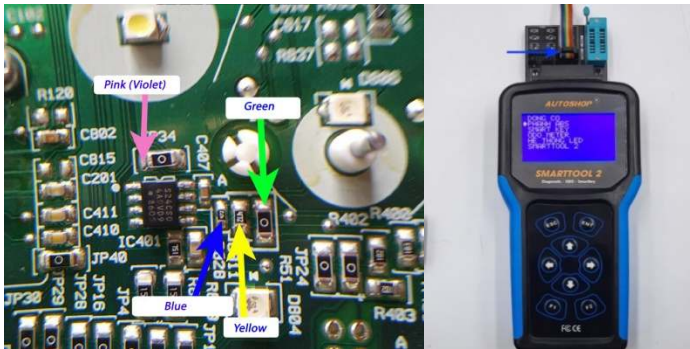
Step 5: Success



#### 4.3.2. EEPROM 24Cxx (ex: CLICK 2013\_24C04)

##### a) Connect diagram:

Search diagram on the "ALLMOTO"



##### b) Steps taken on the Smart Tool

- Select " ODO METER" → "HONDA"

```
CBR 500_93C66
Forza 2018_93C76
Scoopy 2018_93C66
XADV 2018_93C66
CUB_93C66
Winner X_24C04
Click 2013_24C04
Beat 2018_93C66
```

Step 1: Select "CLICK (2014)\_24C04"

```
OLD ODO:
      7679Km

NO                      YES
```

Step 3: Press ENT to select "YES"

```
SET NEW ODO
RESTORE ORG. DATA
```

Step 2: Select "SET NEW ODO"

```
NEW ODO:
      000310Km

EXIT                      OK
```

Step 4: Enter new ODO

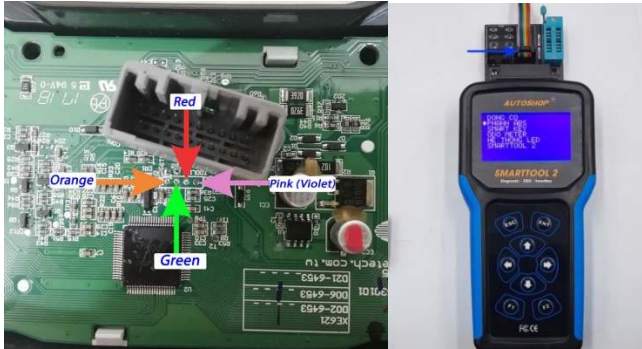
```
New ODO
Success!
```

Step 5: Success

#### 4.3.3. R5F (ex : Suzuki Raider FI (R5F))

##### a) Connect diagram:

Search diagram on the "ALLMOTO"



## b) Steps taken on the Smart Tool

- Select "ODO METER → SUZUKI"

```
SMART ODO
HONDA
YAMAHA
PIAGGIO/VESPA
SUZUKI
KAWASAKI
READ/WRITE EEPROM
```

Step 1: Select "SUZUKI"

```
Select New ODO
1188 Km
by button </>
Exit OK
```

Step 3: Press → or ← to select new ODO

```
Raider(16->)MCU R5F
GSX(16->)MCU R5F
An 150_93C56
En 150_93C56
Raider(2012)_93C56
Raider(13-15)_93C66
GSX(09-15)_93C66
SYM GTS 125_24C02
```

Step 2: Select "Raider MCU R5F"

```
New ODO
Success!
```

Step 4: Success

## 4.3.4. PIC 16F (Ex: Yamaha Janus 16F1947)

### a) Connect diagram

Search diagram on the "ALLMOTO"





## b) Steps taken on the Smart Tool

Select " ODO METER" → " YAMAHA"

```
Nouvo SX/5_93C66
Fz_9346
Nmax_ABS_2018_93C66
R15_2016_24C04
R15_2018_93C66
Grand Filano_93C66
NUX
♦Janus
```

Step 1: Select "Janus"

```
OLD ODO:
091920Km

NO      YES
```

Step 3: Press ENT to select "YES"

```
♦SET NEW ODO
RESTORE ORG. DATA
```

Step 2: Select "SET NEW ODO"

```
NEW ODO:
002200Km
^
EXIT      OK
```

Step 4: Enter new ODO

```
New ODO
Success!
```

Step 5: Success

### 4.3.5. Reset ODO function:

- Used when EEPROM data of ODO is error:
  - The ODO screen shows (-----)
  - Show wrong speed, fuel meter (fuel is available but notify empty)
  - The ODO screen don't show the kilometer value.
  - Used for : 93Cxx, 24Cxx, PIC 16F

Ex: Reset ODO for Yamaha Yanus 16F 1947

```
SET NEW ODO
♦RESTORE ORG. DATA
```

Step 1: Select "RESTORE ORG. DATA"

```
EEPROM Data will be
changed to org. data
Are you sure?
No      Yes
```

Step 2: Press ENT

```
♦ABS-SMART KEY
SMART KEY
STANDARD
```

Step 3: Select model

```
100% completed
Success!
```

Step 4: Reflash successfull



## 5. USER GUIDE OF AUTOMATIC UPDATING

### 5.1. Preparation:

- ❖ Computer
- ❖ SMARTTOOL 2, update cable

### 5.2. Perform

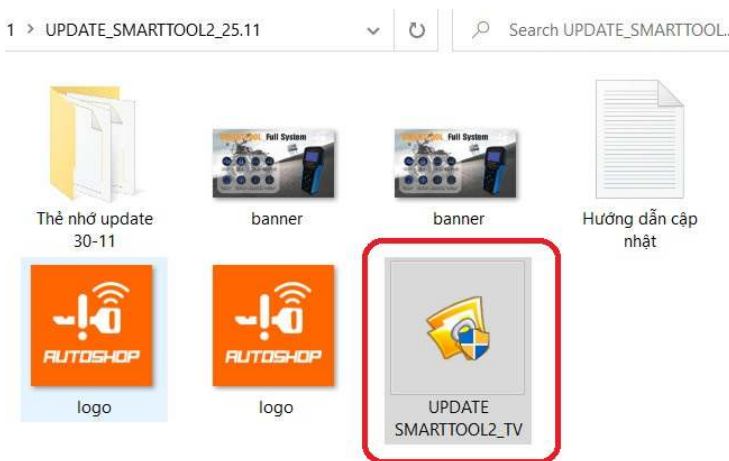
**Step 1:** Download update software of Autoshop on website

:<http://autoshopvn.com/update>

**Step 2:** Connect SMARTTOOL 2 with computer by update cable



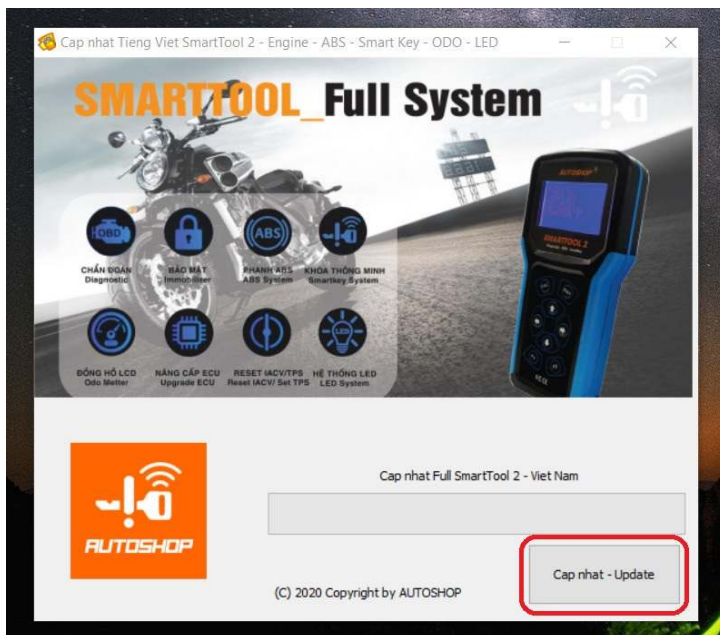
**Step 3:** Double click to software “Update”







**Step 4:** Click "Update", wait about 3 minute to the software updates auto.



### Step 5: Update data for SD card

- ❖ Remove SD card from Smarttool2 and put it into SD adapter or SD USB then plug in the laptop
- ❖ Delete all the old data in SD card and copy the file " The nho update ngay ..." into the SD card then wait 1-2 minutes for the copy process done and final plug the SD card in Smarttool2
- ❖ Scan QR code or click the following link to watch the updated instruction video:
- ❖ **Link:** [https://youtu.be/QlCw8uZE\\_K8](https://youtu.be/QlCw8uZE_K8)
- ❖ **Open Camera app then scan QR code**



**Note: If the customer can not update by yourself, please contact to Autoshop technical department or our agents that the customer bought for support**

**Many thanks**





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- **Youtube:** [youtube.com/c/AUTOSHOPVIETNAM](https://www.youtube.com/c/AUTOSHOPVIETNAM)
- **Website:** [Autoshopvn.com](http://Autoshopvn.com)
- **Fanpage:** <https://www.facebook.com/autoshopvn>
- **Groups Facebook support:**  
[facebook.com/groups/Autoshopsupport](https://www.facebook.com/groups/Autoshopsupport)

**the repair and update document on Jan 16th, 2021**

**We greatly appreciate your kind words!!!**