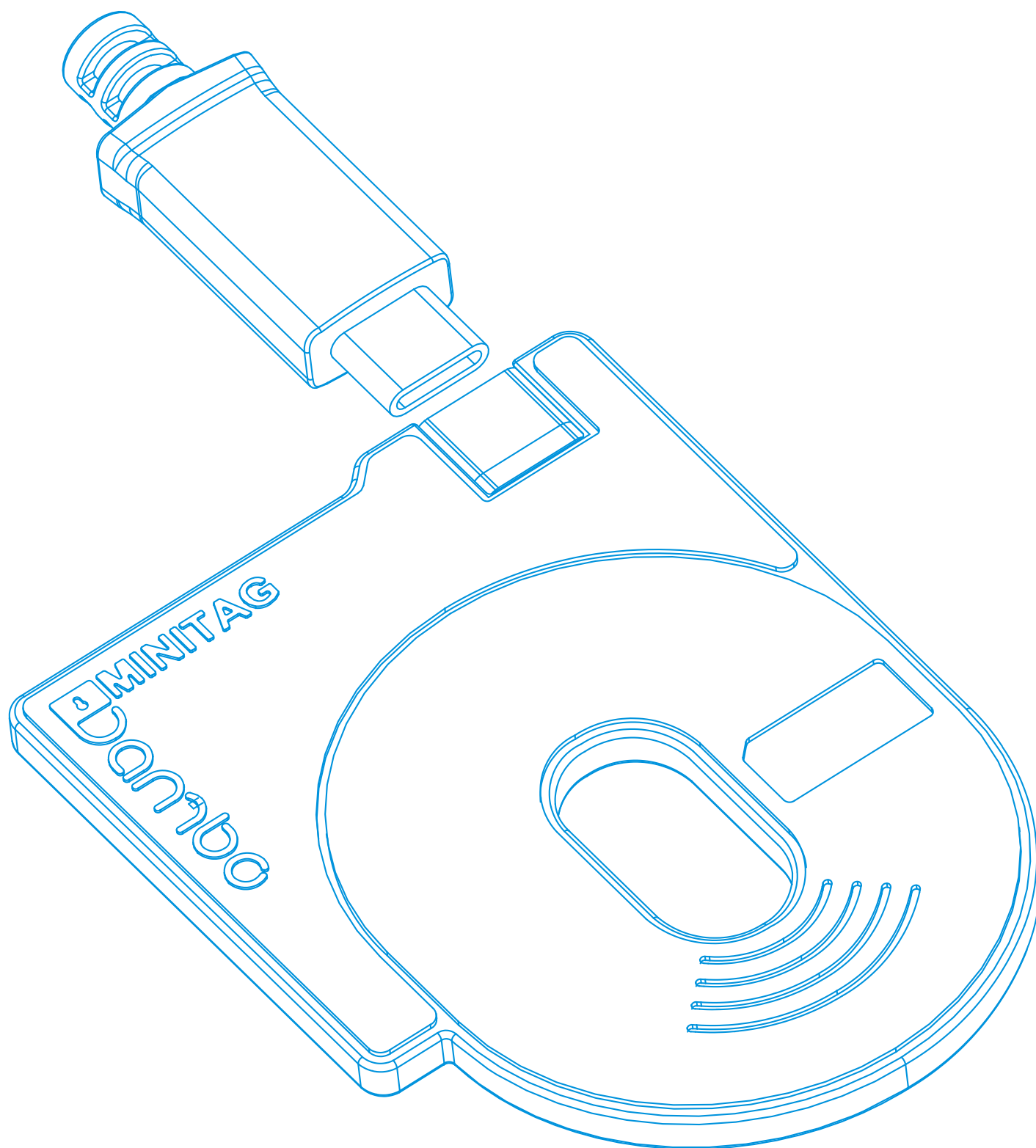


**MINITAG Key Programmer.**  
**General Information.**

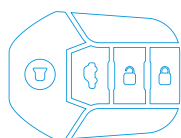


## 1.0 INTRODUCTION

MINITAG device has been designed to work with a vast range of RFID (125/134 KHz) transponders, automotive remotes (312/315/434/868/902MHz) and Keyless Entry Solutions on the market place today.

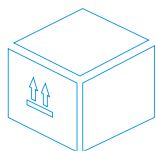
Device can be used with KEYTOOL software designed by DAMBO. KEYTOOL PC software is supplied to user with device.

### KEY WORKSHOP



- Detect, identify and clone transponders
- Show various allowed key and vehicle data (like PIN, VIN, FCCID, etc.)
- Use various allowed TOOLS for detected key (like PIN Extractor, Unlocker, etc.)
- \* See [SECTION 2](#) for more information

### KEY PRODUCTION



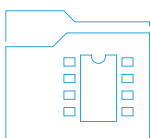
- Prepare General OEM transponders (learned to car with PIN code)
- Prepare Special Dealer Key using some special data (PIN, VIN, CS, immodata, etc.)
- remote functionality onto ID46 virgin remotes.
- \* See [SECTION 3](#) for more information

### TRANSPONDERS RW TOOLS



- Read/Write Transponders Data (Registers, Extended memory, Keys)
- Read/Write Transponders Configuration (Access modes, Locks, Memory partition, etc.)
- Supported All allowed Configurations and Access modes
- \* See [SECTION 4](#) for more information

### DUMP TOOLS



- Supported various automotive modules memory dump files and other binary data.
- Autodetect file.
- Show allowed module data (like keys, VIN, PIN, P/N and other data).
- More available software tools:
  - Error Correction
  - Data Editors
  - Export/Import Data
  - Add/Copy/Remove Keys
  - etc.
- \* See [SECTION 5](#) for more information

### RADIO TOOLS



- \* See [SECTION 6](#) for more information

## 1.1 SUPPORTED TRANSPONDERS FAMILY:

### *-Hitag Security Transponders:*

- Hitag-2/2+
- Hitag-2 +EE
- Hitag-Ext
- Hitag-3
- Hitag-AES
- Hitag-PRO
- Hitag-BMW
- Hitag-VAG

### *-TEXAS Digital Signature Transponders:*

- DST40 (4D/4E)
- DST Plus
- DST80
- DST128

### *-TEXAS TRIS Transponders:*

- TIRIS 4C

### *-Philips Programmable Identification Transponders (PIT):*

- PCF7930/31
- PCF7935

### *-Megamose Crypto Transponders:*

- Megamose 48
- Megamose 8E

### *-Fixed Code Transponders:*

- Temic 11
- Temic 12
- Megamose 13
- Megamose 8C

### *-Special trnsponders for Key Copy:*

*\*See Supported ID on next page*

## 1.2 SUPPORTED TRANSPONDERS IDs:

ID	TYPE	COPY	Copy Transponder
ID11	TEMIC		
ID12	TEMIC		
ID13	MEGAMOSE	YES	T5
ID14	MEGAMOSE		
ID33	PHILIPS PIT		
ID40	PHILIPS PIT	NO	
ID41	PHILIPS PIT		
ID42	PHILIPS PIT	YES	PCF7935
ID44	PHILIPS PIT		
ID45	PHILIPS PIT		
ID46	HITAG-2	YES	CN3, 46C, TPX3/4
ID47	HITAG-3		
ID49	HITAG-PRO		
ID50	HITAG-VAG		
ID51	HITAG-AES		
ID52	HITAG-3		
ID4C	TIRIS	YES	EH2, CN1, CN2
ID64	DST40-4E	YES	EH2, CN5, CN64, LKP02
ID60	DST40		
ID61	DST40 -MITSUBISHI		
ID62	DST40 -MITSUBISHI		
ID62	DST40 -SUZUKI Moto		
ID62	DST40 -KAWASAKI Moto		
ID63	DST40 -FORD/MAZDA		
ID65	DST40 -SUZUKI	YES	EH2, CN1, CN2, CN5, CN64, TPX2, LKP02
ID66	DST40 -SUZUKI		
ID67	DST40 -TOYOTA		
ID68	DST40 -TOYOTA		
ID69	DST40 -YAMAHA Moto		
ID70	DST40 -TOYOTA		
ID70E	DST40 -TOYOTA		
ID71	DST40 -TOYOTA		
ID83	DST80 -FORD/MAZDA		
ID70	DST80 -KIA	YES	CN5, CN64, LKP02
ID72G	DST80 -TOYOTA G		
ID74	DST128 -TOYOTA H	YES	LKP04
ID75	DST128 - KIA		
ID48	MEGAMOSE CRYPTO		
TP22	MEGAMOSE CRYPTO		
TP23	MEGAMOSE CRYPTO	NO	
TP24	MEGAMOSE CRYPTO		
TP25	MEGAMOSE CRYPTO		
ID8E	MEGAMOSE CRYPTO II	NO	
ID8C	TEMIC CRYPTO	NO	



## 2.0 FUTURES:

### *-Transponder Identification*

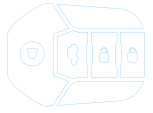
- Show Transponder Family
- Show Transponder Type
- Show Transponder s/n
- Show Transponder Lock/Write Status

### *-Key Type Identification*

- Show Chip Coding (ID)
- Show Allowed Key Data:
  - Vehicle Manufacturer
  - Key P/N
  - Key Description (Service/Comfort/ etc...)
  - FCCID
  - Remote Frequency
  - Key Blade Type
- Show Allowed Vehicle Data:
  - VIN Code
  - PIN
  - Odometer
  - etc...

### *-Show Allowed Tools for identified Key:*

- Key Cloner
- PIN Extractor
- Vehicle Data Editors
- Transponder R/W tool
- Remote Frequency tester
- Remote Data Decoder
- etc...



## 2.1 KEY IDENTIFICATION EXAMPLE:



General Motors Keyless Entry Key based Hitag2-Ext Security Transponder.

### KEY IDENTIFICATION:

#### Transponder:

Family..... Hitag Security Transponders  
 Type..... Hitag2-Ext  
 Chip..... PCF7941E  
 s/n..... E43214B3  
 Encoding..... Manchester  
 Access..... Locked  
 Rewrite..... Locked

#### Key:

Chip Coding ..... ID46  
 Brand..... GM  
 Part number..... 13508278  
 Sub-Brand..... CHEVROLET  
 FCC ID..... HYQ1AA  
 Description..... Keyless Entry Key Fob 6-button  
 Remote Freq..... 314.90 MHz  
 Key Blade..... HU100  
 VIN..... \*\*\*\*\*HR219236  
 State..... Used/Non-Blank

#### Tools:

Transponder R/W..... [Hitag R/W Tool](#)  
 Copy..... [ID46 Cloner](#)  
 Remote Test..... [Frequency Scanner](#)  
 Remote Test..... [GM Remote Data Decoder](#)



Kia Ceed 3 Button Remote Key. p/n 95430-A2100.  
 DST 80bit.

### KEY IDENTIFICATION:

#### Transponder:

Chip Family..... Texas Crypto  
 Chip Type..... DST-80 /Mode:80bit  
 s/n..... DA68E9 82

#### Key:

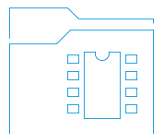
Chip Coding..... ID70  
 Brand..... KIA/HUINDAY  
 Key Type..... KIA Remote Flip Key

#### Vehicle data:

PIN Code:..... 571425

#### Tools:

Transponder R/W..... [DST R/W Tool](#)  
 Make Copy..... [ID70 Copy Tool](#)  
 Remote Test..... [Frequency Scanner](#)



## 5.1 DUMP TOOL EXEMPLE:

```

Open file:
FileName..... Data.bin
Size..... 65536Bytes
Recognise File..... Successful

Module Description:
System..... BCM2 Central Convenience Unit
Memory device..... uPD70F3634 Renesas MCU
Memory type..... D-Flash memory (65536 bytes)

Check Dump:
Data segments..... 113
Corrupted segments..... 0

Module Id:
Module p/n..... 4H0907064BC
Hardware number..... 4H0907064BC
SW Version..... 0333
HW Version..... H31
Software Coding..... 0106023A00FA440480B0080002050000

Advanced Identification:
Serial number..... 0167054224
Identification..... HLH-W41
Revision..... 00002001
Date..... 05.01.12
Manufacturer..... 1002
Test Stand No..... 1130
Dataset Number..... 4G0909501C
Dataset Version..... 0049

Fault Codes Count..... 0

Immodata:
VIN..... WAUDFAF..... :13600
Power Class..... 88
ELV Status..... Enable
TCU Status..... Enable

BCM Mac..... 567F
ELV Mac..... 9401
TCU Mac..... 3818
ECU Mac..... A17B

BCM CS..... EFD62F5FB0017405420E3A214525C7D8
ELV CS..... ***
TCU CS..... ***
ECU CS..... ***

Programmed Keys..... 01
P0..... Key0 0DCC5A9A Comfort 315Mhz
P1..... Unused 33CE2999
P2..... Unused 09C92999
P3..... Unused FFFFFFFF
P4..... Unused FFFFFFFF
P5..... Unused FFFFFFFF
P6..... Unused FFFFFFFF
P7..... Unused FFFFFFFF

Tools:

Repair Errors

Export BCM Immodata

Import BCM Immodata

Add Spare Key

Check Existing Key

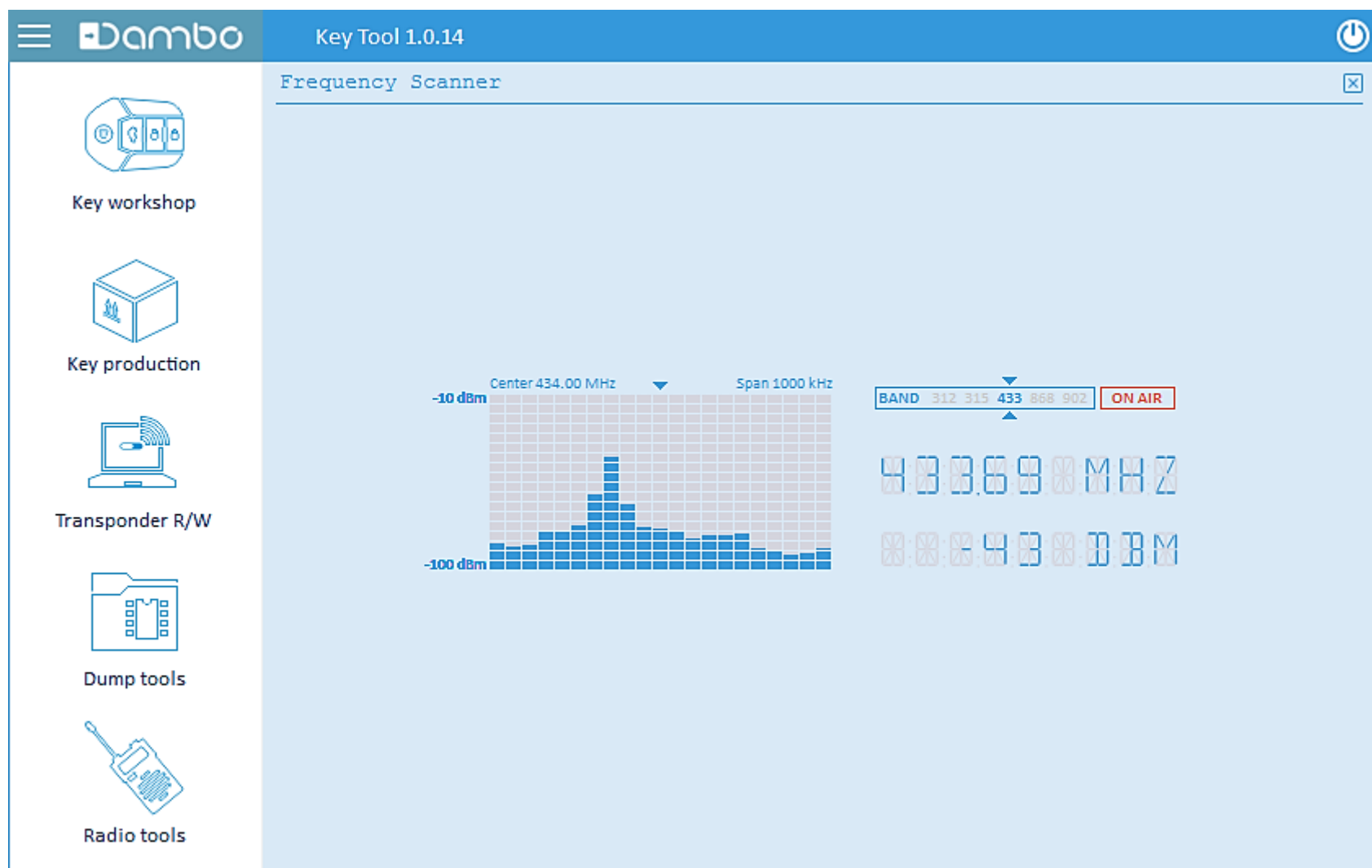
```



## 6.1 REMOTE FREQUENCY TESTER

- Bands: 312MHz, 315MHz, 434MHz, 868MHz, 902MHz
- Modulations: FSK/ASK
- Automatic Band Detect
- Automatic Frequency/Power meter

- \* Put the remote control about 20-100 cm to the device
- \* Press any button on the remote control
- \* The indicator that turns on is the frequency:





## COMPANY DETAILS

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SUPPORT: [www.carprotool.com](http://www.carprotool.com)