PHILIPS

HiTag2 Universal keys programmer

v. 3.1

Purpose:

Hitag-2 programmer is universal key programmer, with additional option of key programming from dump. Just insert blank key or appropriate transponder you need to program. Device detects transponder type and will do everything automatically!

Distinctive features of Hitag2 programmer:

ALL types of Hitag2 transponders are fully supported

Widest range of supported cars, using Hitag2 protocol

Deep research work, has allowed us to make device, as much as possible correctly adding keys in the car, without damage to its functionality!

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Key generation from dump is available for the following cars:

Make	Immobilizer type	EEPROM/MCU	Login is visible	Radio remote programming possibility	Cars for USA market are supported
BMW	CAS1/2/3/3+	912/9S12	-	Yes	Yes
AUDI	KESSY	93C86	Yes	Yes	Yes
VW	KESSY	93C86	Yes	Yes	Yes
PORSCHE	KESSY	93C86	Yes	Yes	Yes
BENTLEY	KESSY	93C86	Yes	Yes	Yes
CHRYSLER	SKIM	95040/95080	Yes	Yes	Yes
LAND ROVER	EWSx	9S12	-	-	Yes
NISSAN	NATS	95080	-	-	Yes
OPEL	CIM	9S12/93C66	Yes	Yes	Yes
RENAULT	UCH	93C66	Yes	Yes	Yes
SAAB	CIM	93LC66	-	Yes	Yes

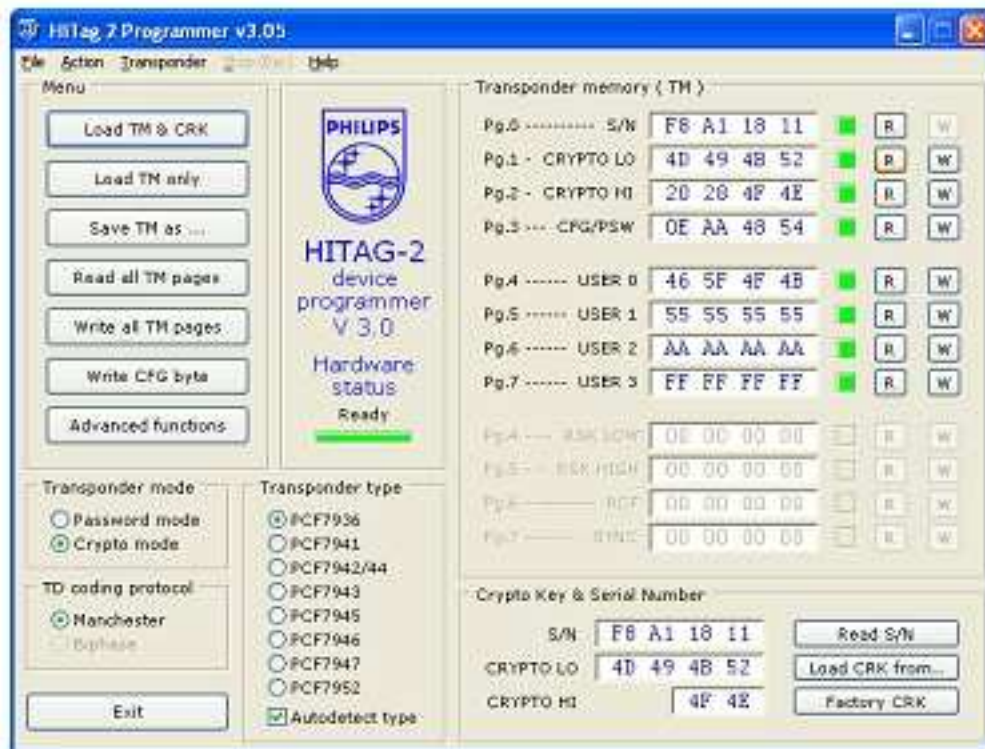### *Supported transponder types*

PCF7936

PCF7941

PCF7942/44

PCF7943

PCF7945

PCF7946

PCF7947

PCF7952

Supported transponder modes:

Password mode

Crypto mode

Supported protocols:

Manchester

Biphase

Software window view and description of the buttons:

Load TM & ... - Download "container" with transponder dump and crypto passwords
Load TM only - Download transponder dump only
Save TM as ... - Save "container"
Read all TM pages - To read all of transponder's fields
Write all TM pages - To write all of transponder's fields
Write CFG byte -To read transponder's configuration field
Advanced functions - Key generation by loaded dump

Transponder mode - Transponder's work mode
　　　Password mode - Password mode without additional data encryption
　　　Crypto mode - Data encryption mode

TD coding protocol - Data coding protocol
　　　Manchester - Self-synchronizing protocol with synchro impulses
　　　Biphase - Bi-phase modulated protocol

Exit - Exit

Transponder type - Types of supported transponders
Autodetect type - Autodetecting of transponder type

R - To read exact transponder's field
W - To write exact transponder's field

Read S/N - To identify transponder (read serial number)
Load CRK from... - Download crypto passwords from file
Factory CRK - Set factory default crypto passwords

*Key generation (**Advanced functions**):*

Key adding procedure is described for BMW E70 as for sample. Other models have identical procedure.

1. Read EEPROM or MCU dump from immobilizer
2. Insert blank key/transponder into Hitag2 programmer and press **"Read all TM pages"** button. Programmer will read all of transponder fields automatically, led from the right side should lit green (it means transponder is blank and ready to be programmed). If you are using PCF7936 type of transponder switch it to **"Crypto mode"** with help of **"Write CFG byte"** option.
3. Press **[Advanced functions]** button to access car select menu and available additional options.

Note:

Quantity of available options directly depends of transponder type. For ex. "Read Key info", "Remote control",

"EEPROM data" are unavailable for BMW keys with PCF7936 transponder inside.

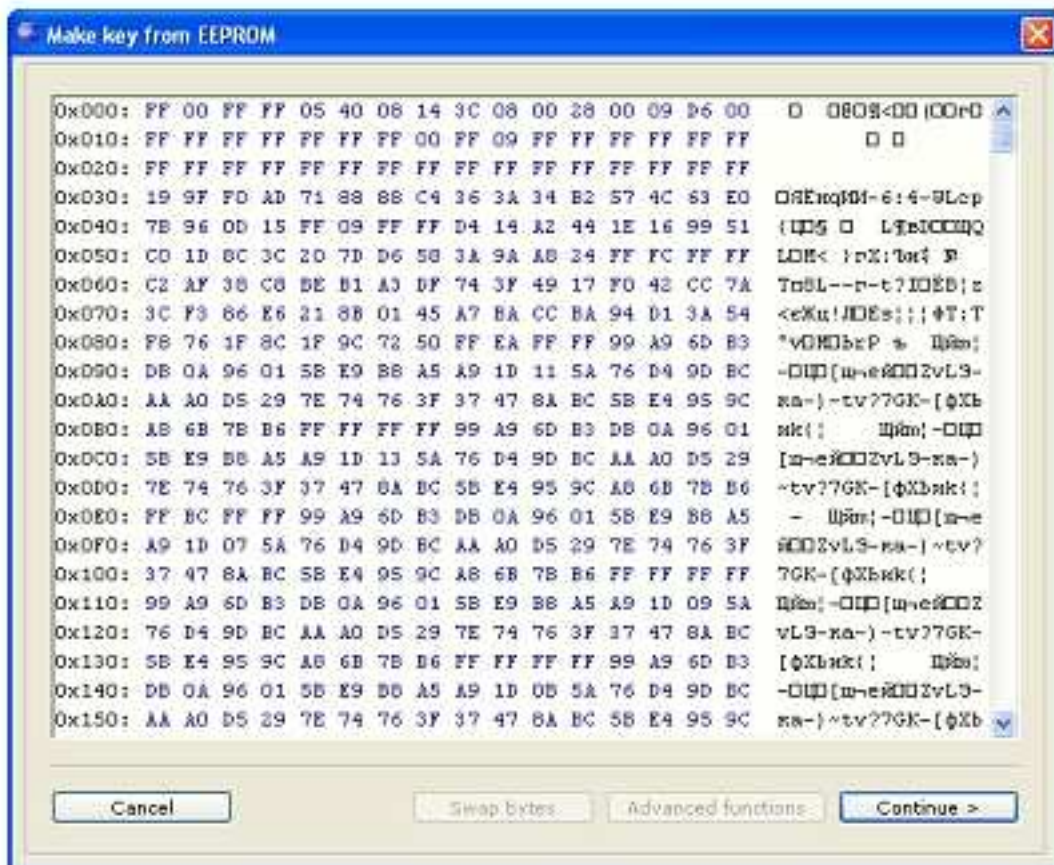4. Choose **"Key maker"** option, and load immobilizer dump.

Note:

If you see this reminder (unable to recognize downloaded dump configuration), try to press [Swap bytes] button at the bottom of the screen.

5. If dump configuration is recognized successfully, you will get the following message:

And HEX-editor windows showing downloaded data will appear.

Purpose of the buttons in **"Make key from EEPROM"** window:

"Cancel" - return to previous window
"Swap bytes" - Rearrangement of bytes for definition of EEPROM configuration
"Advanced functions" - Additional options *(Depending on the version used by you; reception of Login, editing of VIN-number, editing of mileage)*
"Continue" - Transition to programming data in a key or transponder

6. Press **[Continue >]** to start key/transponder programming. You will see the following message. Insert blank key into programmer and press **[OK]**.

7. Software will verify if inserted key is blank.
8. If key is blank, software let you to choose key number.
9. Device will write all necessary key data from dump to key.
10. After that, software suggests you to save new dump.
11. Write new dump back to immobilizer.

Additional options for BMW keys: *"Read key info" option:*

BMW keys based on PCF7942/44 type transponders contain internal memory in which is stored:

> VIN -number
> Mileage
> Last stored running time
> Mechanical key code
> Remote frequency
> Key number

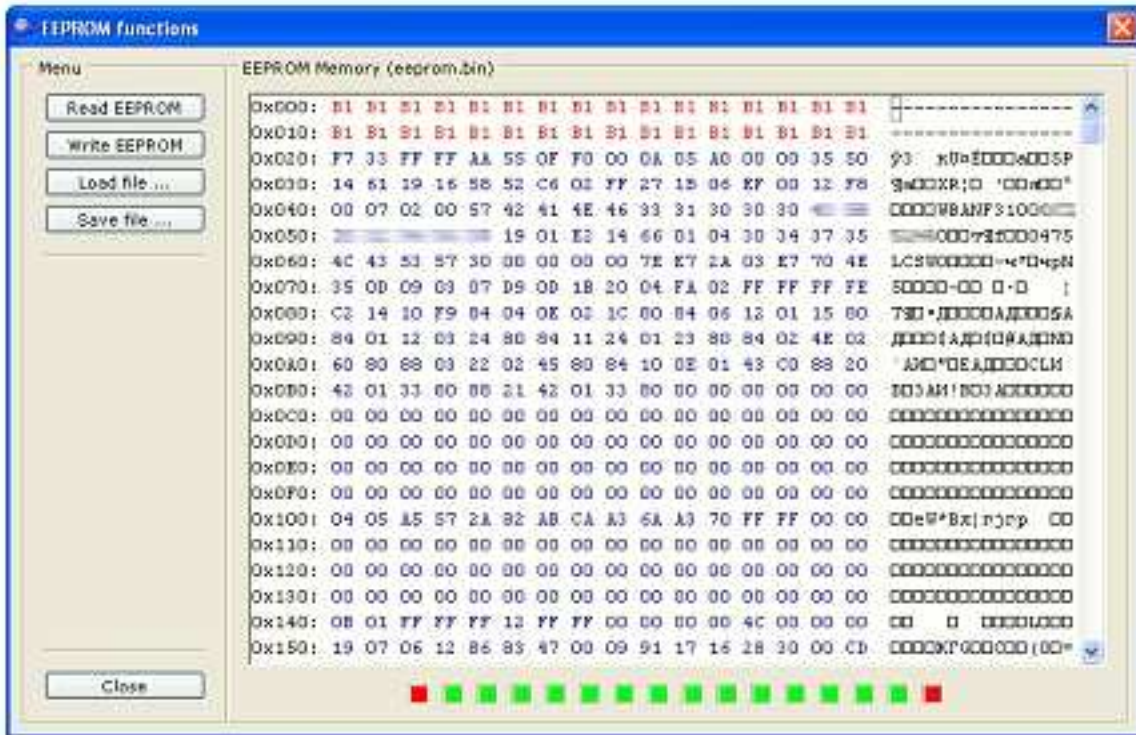This data can be read with help of **"Read key info"** option from option list designed for BMW keys.

Choose desired option;

> **Refresh info** - Reread key data
> **Close** - Close window

Additional options for BMW keys: Option "BMW EEPROM data":

Using this option you can read BMW key memory.

Choose desired option;

> **Read EEPROM** - Transponder's EEPROM reading option. There's a block read status at the bottom of the screen, each one contains 32 bytes of EEPROM. *Red indicator means block is closed and cannot be written.*
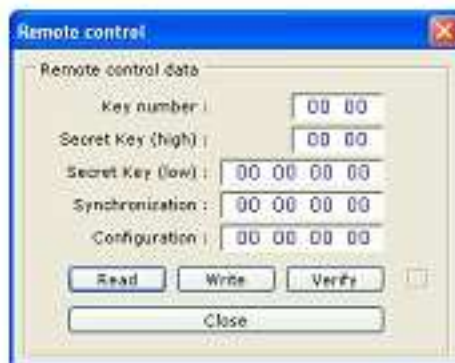>
> **Write EEPROM** - Transponder's EEPROM writing option.
>
> **Load file...** - Load key dump from file.
>
> **Save file...** - Write key dump into file.

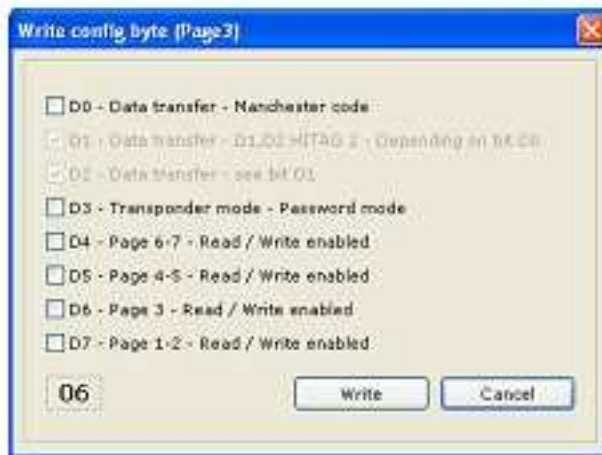**Additional options for BMW keys: Option "BMW Remote control":**

In BMW keys unlike of other cars, data of a radio channel are in external EEPROM and can be read/written using separate function.

Note: Remote control area will be closed after programming and cannot be read anymore!

Transponder configuration option "Write CFG byte":

Warning!!! Designed for advanced users only! Unintentionally you can damage key and it cannot be used anymore!

Bits value explanation:

Dx	Off	On	Note
D0	Manchester	Biphase	
D1	x	x	not used
D2	x	x	not used
D3	Password mode	Crypto mode	
D4	PAGE 6 and 7 read/write	PAGE 6 and 7 read only	
D5	PAGE 4 and 5 read/write	PAGE 4 and 5 read only	
D6	PAGE 3 read/write	PAGE 3 read only, CFG & Pass - fixed!	Only once programmable area!
D7	PAGE 1 and 2 read/write	PAGE 1 no read/no write PAGE 2 read only (in password mode) PAGE 2 no read/no write (in crypto mode)	Only once programmable area!