



User manual HITAG-2 programmer



User Manual Doc Nr: 01
HITAG-2 Programmer Date: 15.04.2008/V4.0.0.0

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Revisions

Changes to the previous version are shown in italic.

Date Sym Description *new rev.

23-Feb-2008id Initial Release 1.0

03-Nov-2008 id Changes in document according applied new software version 4.0.0.0

08-Nov-2008 id Changes in document according applied new software version 4.0.0

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1 Introduction

HITAG-2 programmer is device programmer intended for programming of HITAG-2 transponders



Compatible with PHILIPS PCF7936 transponders. It can be used for reading/programming of following

Type transponders:

- PCF7936
 - PCF7941
 - PCF7942
 - PCF7944
 - PCF7946
 - Compatible with mentioned above
- Programmer supports both modes – PASSWORD and CIPHER mode



Fig.1 PCF7936 transponder

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2 Hardware requirements

- IBM compatible PC running Windows™ 95/98/ME/2000/NT4/XP
- VGA display card (800x600)
- USB port

3 Installation

Connect your programmer to USB port and follow instructions in the documents below depends of

your operation system.

Windows_98_Installation_Guide.pdf

Windows_XP_Installation_Guide.pdf

Windows_2000_Installation_Guide.pdf

Once driver installed your PC will be equipped with additional virtual COM port.

Go in "my computer/properties" -> "hardware" -> "device manager" -> "Ports" and check which

COM

port number is installed.

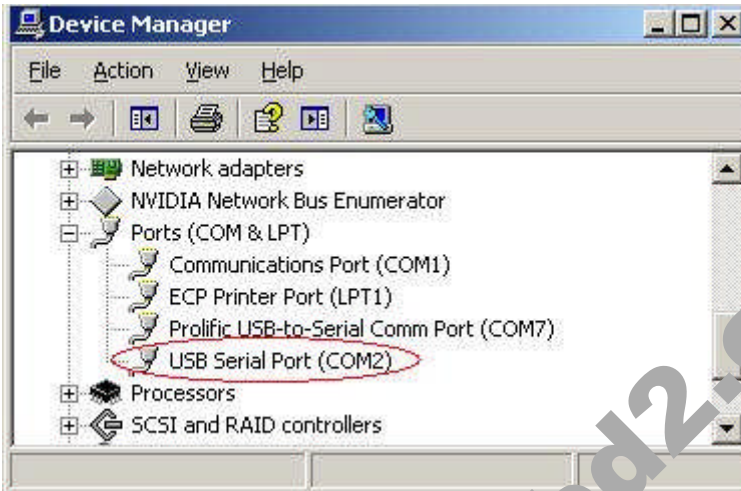
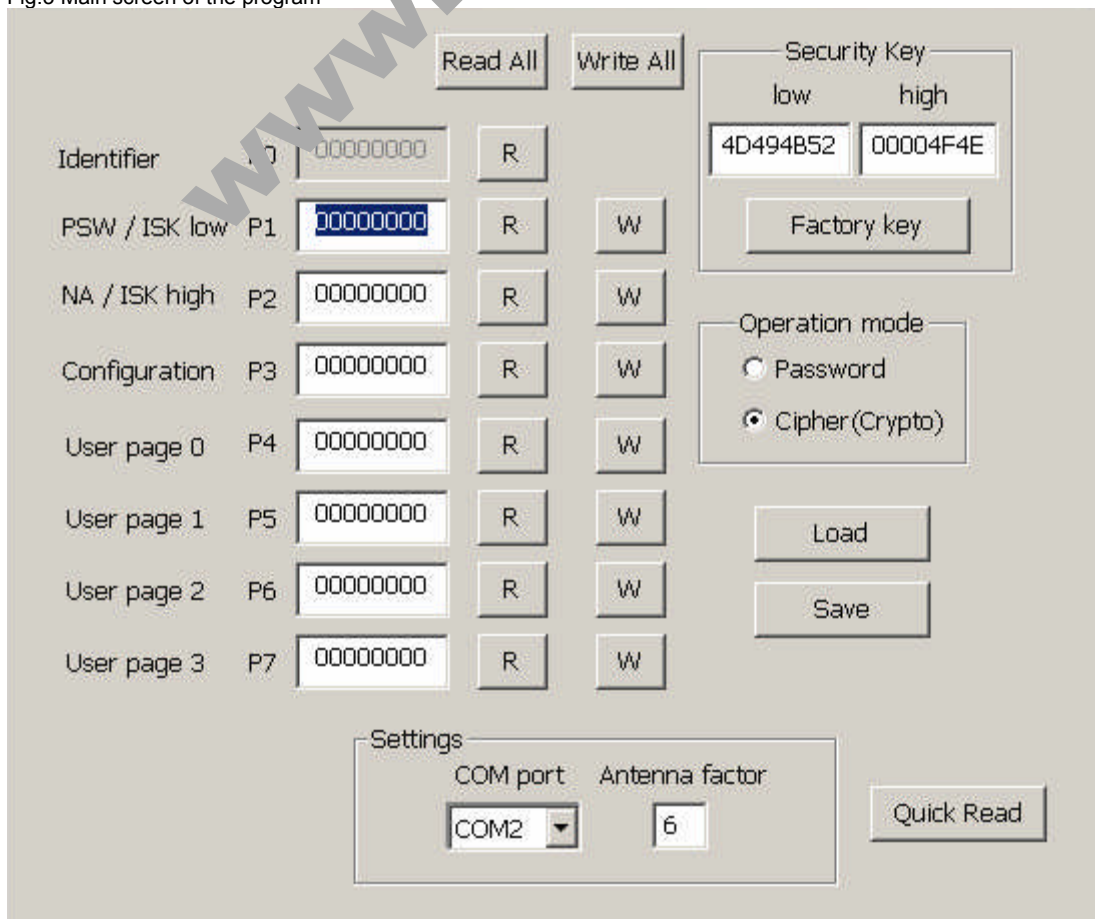


Fig.2 USB serial port

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Now you can start software of your programmer "HT2.exe" will appears following screen:
 Fig.3 Main screen of the program



From "Settings"->"COM port" you have to adjust number of "USB COM port" installed on your PC. Next urgent step before start working with programmer is to adjust your antenna factor. Adjusting can be done when reading some transponder using button "Quick Read" and change factor



to 4,5,6 and s.o. until is reached best reading (i.e. each attempt for reading leads to results like previous).

While manufactory programmers are adjusted to have best factor "6" but deviation are possible depends

Of your working place.

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4 Using of programmer

Put transponder on it place (refer Fig.4)



Fig.4 transponder place

Before reading or programming of transponder you must choice working mode of transponder PASSWORD or CIPHER mode.

Take into account that transponders can be read or program if you know PASSWORD of transponder

(PASSWORD/ CRYPTO WORDS LO+HI).

We have 9 different buttons for reading ("Read All" and 8 "R" separate for each page of transponder)

and also 8 buttons for programming ("Write All" and 7 "W" for each programmable page of transponder).

Bellow is example – content from key of Porsche Cayenne – PCF7946

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5 Notes about HITAG-2 transponders

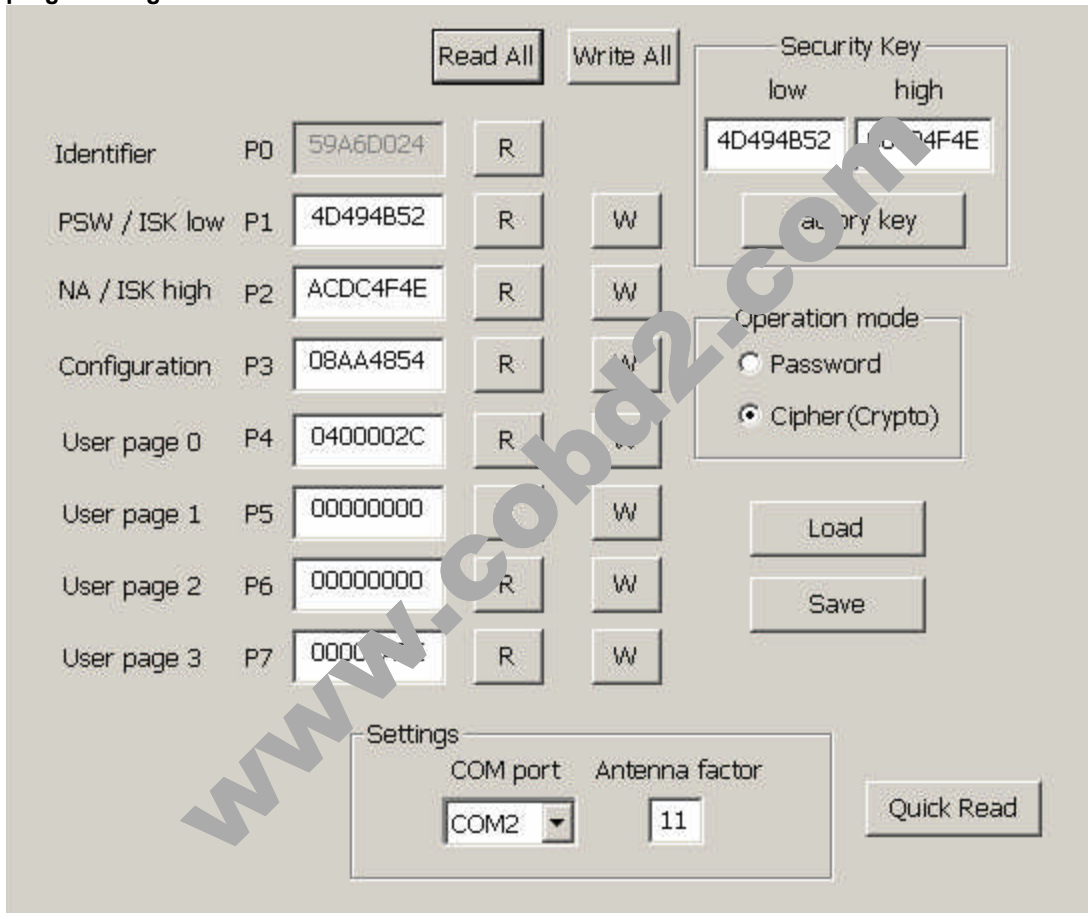
Please before programming of some transponder refer corresponding documents which describes features

of transponder.

Transponder must be programmed very carefully because in some of bits from configuration of transponder

can be programmed only once which leads partial reading or programming of transponder.

Additionally changing of password/ISK must be documented always to allow following reading or programming



Identifier	Address	Value	R	W
P0	59A6D024		<input type="button" value="R"/>	
PSW / ISK low	P1	4D494B52	<input type="button" value="R"/>	<input type="button" value="W"/>
NA / ISK high	P2	ACDC4F4E	<input type="button" value="R"/>	<input type="button" value="W"/>
Configuration	P3	08AA4854	<input type="button" value="R"/>	<input type="button" value="W"/>
User page 0	P4	0400002C	<input type="button" value="R"/>	<input type="button" value="W"/>
User page 1	P5	00000000	<input type="button" value="R"/>	<input type="button" value="W"/>
User page 2	P6	00000000	<input type="button" value="R"/>	<input type="button" value="W"/>
User page 3	P7	00000000	<input type="button" value="R"/>	<input type="button" value="W"/>

Security Key
low: 4D494B52 high: ACDC4F4E

Operation mode
 Password
 Cipher (Crypto)

Settings
COM port: COM2 Antenna factor: 11

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