



Management Team

Marketing

Sales
New cars

Sales
Used cars

After Sales

Administration

KeyReader

Operating instructions

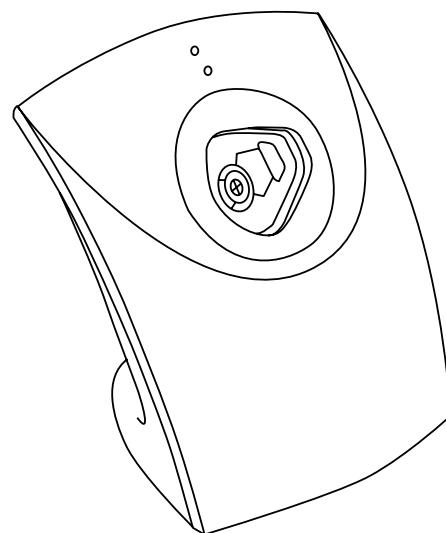
Introduction and installation

Operation

Service

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Introduction and installation

Introduction

Correct use

The BMW KeyReader reads out the service data from BMW vehicle keys. The data can then be processed further by the service acceptance module (SAM).

Trade marks

Windows, Windows NT and other names of Microsoft products which are mentioned in this manual are trade marks or registered trade marks of the Microsoft Corporation. Other trade marks and product names mentioned in this manual are trade marks belonging to their legal owners and are hereby acknowledged as such.

System requirements for operating the KeyReaders

So that you can install and start the KeyReader software, your system must meet the following minimum requirements :

- Pentium (at least 100) or higher processor
- Windows 95, 98, Windows NT 4.0, Windows 2000
- 9 MB free storage space
- A free serial interface
- CD ROM drive

Installation

Choice of location

Please do not install the KeyReader at locations in which the device is exposed to the following environmental conditions :

- Strong vibrations
- Strong electromagnetic fields.

For optimal use of the KeyReader, you should set up the device as follows :

- Near the computer on which the software has been installed (max. distance 2 m), whereby the distance to the nearest monitor should be at least 0.5 m
- On a level, stable surface
- Near an electrical socket.

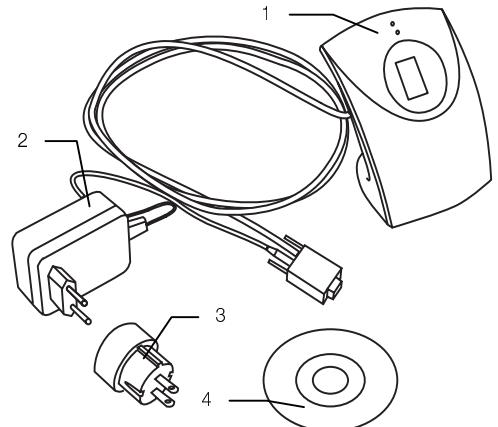
Unpacking the KeyReader

Please check the packaging for possible damage during transport. If the packaging is badly damaged, you should not install the device; in this case, please contact your IV partner or your BMW sales company / importer.

Scope of supply

- KeyReader with connection cable (1)

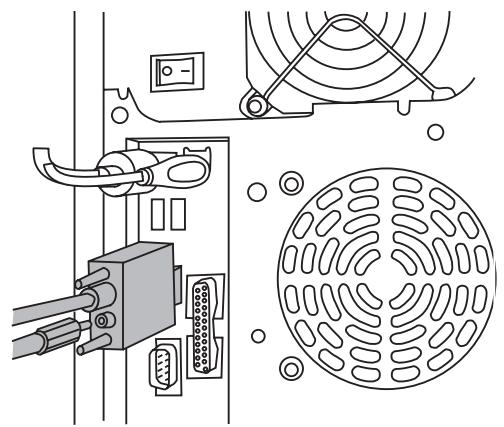
- Power pack with connection cable (2)
- Plug adapter, only required for America (3)
- Software installation booklet, Installation CD (4) with the operating instructions as a PDF file
- Installation sheet



Scope of supply

Installing the hardware

1. Switch off the computer to which the KeyReader is to be connected.
2. Plug the data cable coming from the KeyReader into a free serial connection on your computer.
3. Connect the output plug from the power pack to the socket of the data cable plug.



Connection to the computer

4. Plug the power pack into an electrical socket. It is best to use a multiple plug so that you always switch the computer and the KeyReader on and off together. The KeyReader must be supplied with mains power before the computer is ready to operate.

Installing the software

Installation of the software is described in the CD booklet.

First programme start

Restart your computer or call up the KeyReader programme (in the "Autostart" directory).



Main menu

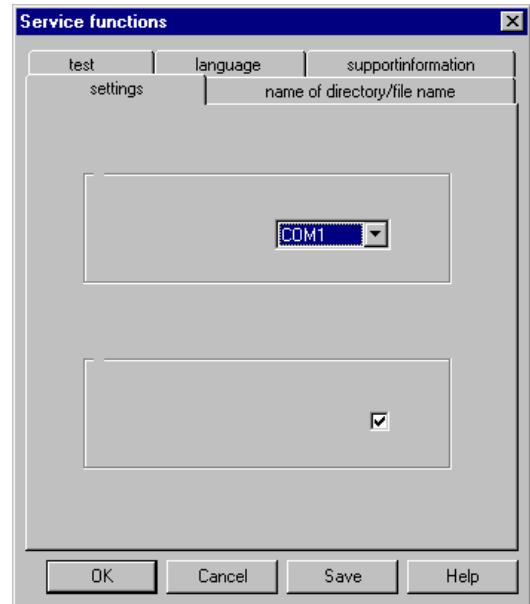
Click in the menu bar on the "Setup" menu.



Menu bar

Click on "Settings" to call up the service functions of the programme.

In the "Settings" register select the interface by which the KeyReader is connected to the computer (COM1 to COM4). Check whether the "signal tone" is activated.



Register "Settings"

Click on the "OK" button to save new settings and close the "Service Functions" window at the same time.

If you do not want to save the new settings, click on the "Cancel" button. The window will be closed and no changes will be saved.

Operation

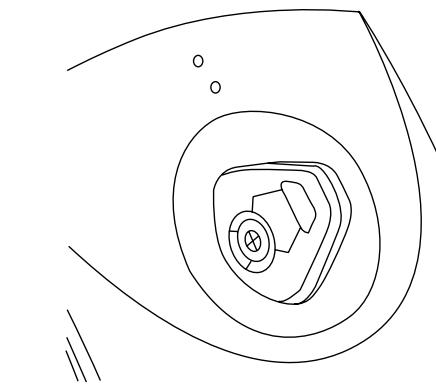
Operation

Ready to operate

In normal operation the KeyReader software runs in the background. The ready to operate status of the KeyReader is displayed by a green LED on the KeyReader.

Readout of a key

1. Insert the key which is to be read into the KeyReader's key slot. The orange LED will light up as long as the reading process lasts. A beep sounds on the computer as soon as the data has been read from the key. The orange LED goes out.



Key in KeyReader

2. Pull the key out of the KeyReader.

Call up the main menu

Click on the KeyReader symbol with the right mouse button. A selection window will appear.



Selection window

Click on "Maximise" with the left mouse button. The main menu will be displayed.



Main menu with key data

Errors during operation

As soon as an error occurs an error message is displayed on the monitor. When operating the KeyReader two different errors may occur :

Errors :

Reader not present or no voltage

Check the following :

- Is the KeyReader connected?
- Is the power pack DC 9 V output cable connected to the data cable plug socket?
- Is the power pack connected to an electrical socket?

Error :

Target file cannot be opened

Check the following :

- If the target directory still present?
- If the target directory is on a network : is the network running?

Service

Service menu

Calling up the service menu

Click in the menu bar of the main menu on the "Setup" menu.



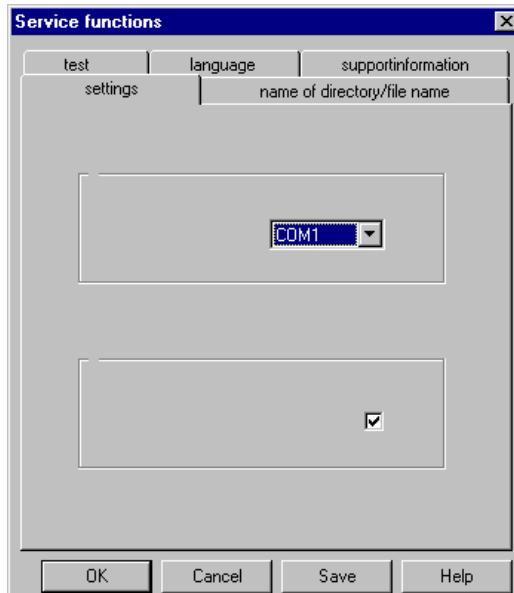
Menu bar

Click on "Settings" to call up the "Service Functions" menu. The menu consists of five registers.

If you have made changes to the settings, you must click on the "OK" button, so that the settings can be saved. The menu will be closed at the same time. If you do not want to save the new settings, click on the "Cancel" button. The "Service Functions" window will be closed and no changes will be saved.

Settings

The basic programme settings are made in this menu.



Basic programme settings

Interface selection

Select the interface by which the KeyReader is connected to the computer (COM1 to COM4).

Signal tone

If the signal tone is activated, a signal tone sounds on the computer as soon as the key data has been successfully written to the target directory.

Path / File name

The paths to the three target directories are set in this menu.

The read and formatted key data and errors are saved in the target directories. The target directories can also be located in the network environment.

Meaning of the files :

KEYREADER.BIN

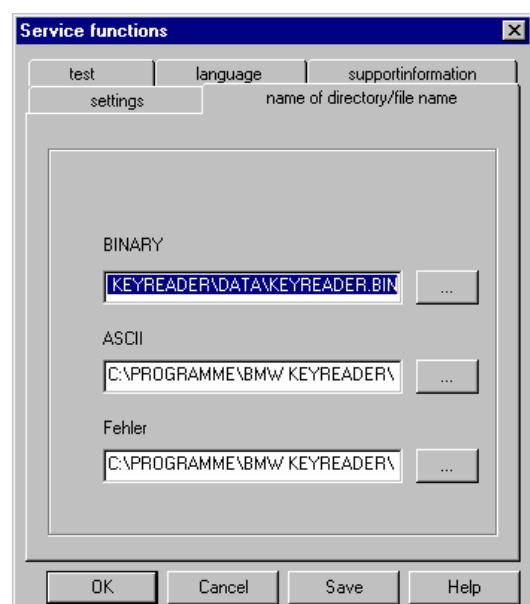
The key data read is saved in this file in binary form as it was read from the key.

KEYREADER.TXT

The key data read is saved in this file in ASCII code.

ERROR.TXT

All errors which occur during operation are saved in this file.



Setting the target directories

To change a proposed path you must click on the button on the right near the corresponding target directory. A selection window will appear for setting the new path.

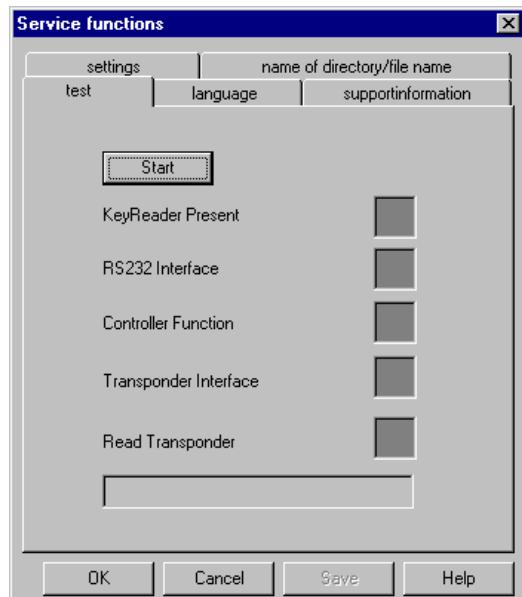


Setting a path

When you have set all the paths, you must save the setting. To do this, click in the service menu on the "Save" button". Please note that the SAM software then has to be restarted so that the changed values can take effect.

Test

This menu is used for testing the electrical connection (voltage supply and data transfer) to the KeyReader and for testing the function of the KeyReader.



Test functions

Proceed as follows :

1. Insert a vehicle key in the KeyReader slot.
2. Click on the "Start" button.

Five different tests will be carried out. A test is OK if a green "K" appears in the field on the right near the test designation. If the test was not error free, a red "K" appears.

Meaning of the five tests :

KeyReader present

A check is carried out as to whether a KeyReader is connected to the computer and is under voltage.

If this test is not error free, you should check the network connection and the power pack.

RS232 interface

The KeyReader's communication module is tested.

Please contact support if this test is not error free.

Controller function

The controller function is tested.

Please contact support if this test is not error free.

Transponder interface

The transponder function is tested.

Please contact support if this test is not error free.

Read transponder

The transponder located in the key is read out.

If this test is not error free, you should place another key in the KeyReader and repeat the test.

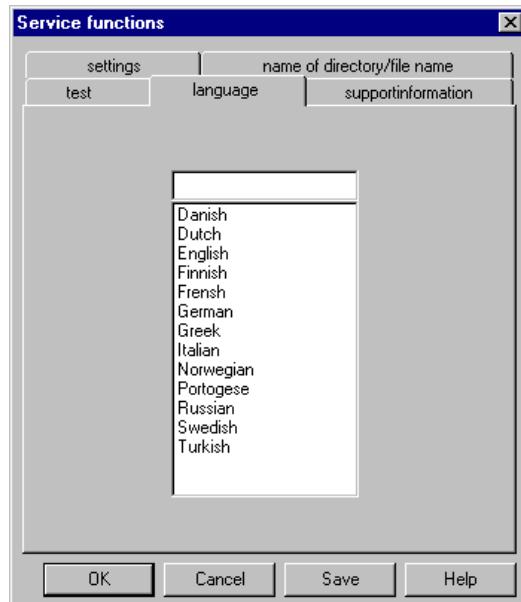
Please contact support if this test is not error free.

Language

Select the interface language in this menu.

Note :

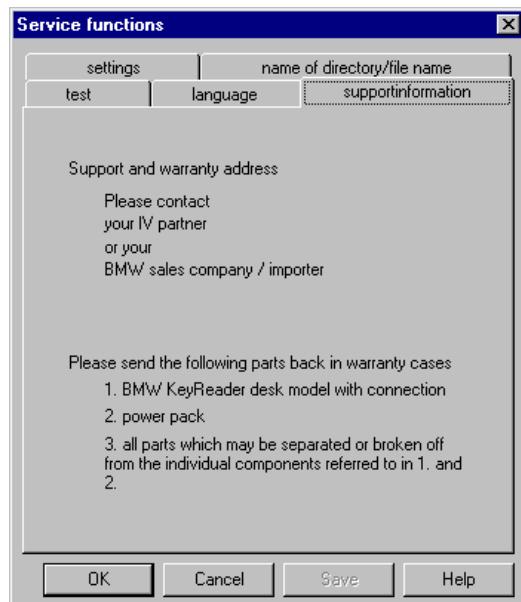
When you have changed the language the KeyReader programme restarts automatically.



Interface language selection

Support information

Here the support address and important information on warranty claims are displayed.



Support addresses

Software and firmware

Displaying the software and firmware version

Click on the KeyReader symbol with the right mouse button. A selection window will appear.



Selection window

Click on "Info about ..." with the left mouse button. The current software and firmware version will be displayed.



Software and firmware version

Updates

For updates of the software or firmware you will be sent a CD with detailed installation instructions.

Appendix

Technical Data

KeyReader

Dimensions H x W x D	130 x 125 x 115 mm
Weight	400 g
Supply voltage	8 - 12 V

COM Interface

Baud	19200
Data bits	8
Parity	even
Stop bits	1

Power pack

Type	KHD-0104
Manufacturer	KINGPRO
Mains connection	100 - 240 V AC 47 - 63 Hz
Output voltage	9 V DC
Output current	1.5 A

Licences

EU Guidelines

This device complies with the requirements of the following EU Guidelines :

- 89/336/EWG "Electromagnetic compatibility"
- 73/23/EWG "Electrical equipment for use within certain voltage limits".

The conformity of the device with the above guidelines is confirmed by the CE marking applied to the device.

Radio licence and operating conditions

Germany

...

USA

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

Note: Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Contact partners

Support and warranty address

Please contact your IV partner or your BMW sales company / importer.