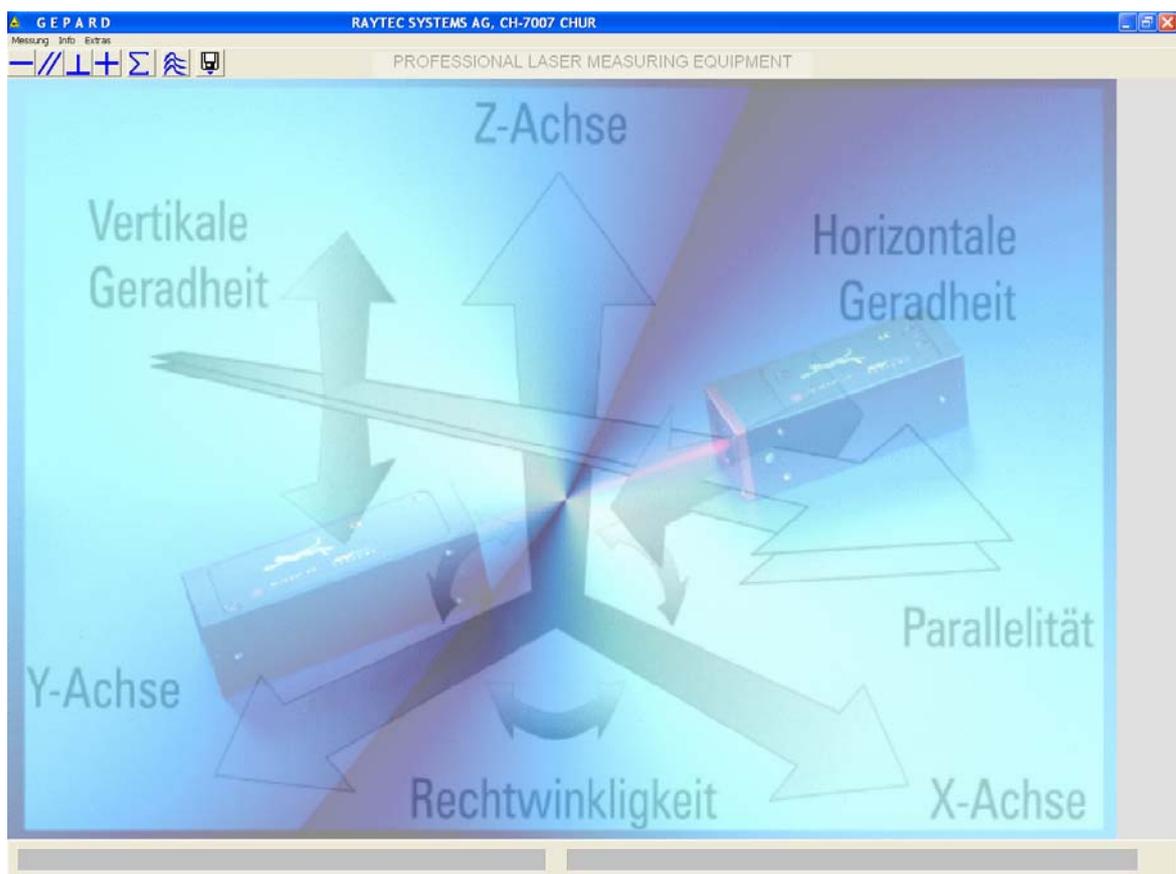




RAYTEC SYSTEMS

GEPARD™

Laser Geometrical measuring and alignment system



WIN-GEPARD installation instructions

(valid for SW version 6.00 and higher)





WIN-GEPARD v6.14





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WIN-GEPARD SOFTWARE

INTRODUCTION

The measurement data capture and evaluation software for the **RAYTEC GEPARD™** laser geometrical measuring and alignment system can run on MICROSOFT WINDOWS. This program allows the user to make quick, qualified measurements using the WIN-GEPARD function modules:

- ***Straightness***
- ***Parallelism***
- ***Right angle*** ***measurement***
- ***Angle***
- ***Position***

Any inaccuracies due the setup of the measurement device are elegantly eliminated: the WIN-GEPARD software recognises alignment errors between the transmitter and applies a mathematical compensation process.

The Personal Computer (PC) screen shows the measured values in both graphical and numerical format during the recording process, while a large-digit display allows read-off from greater distances. This function (one-man measurement/operation) is supported by the use of an IR remote control which allows the operator to trigger measurement directly from a specific location.

Once a series of measurements has been completed, additional functions can be activated. The measurements can be standardised against reference points of your choice (alignment line method) or the measurements can be displayed based on a straight-line regression in accordance with ISO 1101.

Comprehensive statistics functions can be activated at the click of a mouse from within the relevant measurement program.

An additional "statistical evaluation for straightness measurements" allows comprehensive statistical reporting of measurement results across multiple series of measurement.

As a standard feature, sequences of measurements and the settings can be printed out on a measurement log and also saved for further use. The saved measurement data files are in ASCII format and can therefore be used further in popular spreadsheet or database programs without any problems.





REQUIREMENTS

User knowledge

Users of this system should be familiar with the WINDOWS user interface and user philosophy. The explanations of the WIN-GEPARD software below assume basic knowledge of using WINDOWS.

System requirements

In order for WIN-GEPARD to run properly and the background data processing in measurement mode not to take up too much time, we recommend using a modern high-performance personal computer (laptop or desktop) with adequate memory. The hard drive used for the WIN-GEPARD programs and data must have at least 250 Mb free space to allow additional measurement data to be saved in the future.

- ☞ *We also recommend using the latest WINDOWS operating system available - i.e. WINDOWS 7/Vista (or WINDOWS XP SP3). Older operating systems should be avoided at all costs as generally there is poor support for the USB drivers!*

Requirements for installing and running the software.

*Before installing and running WIN-GEPARD programs on your PC, make sure you have unrestricted administrator rights (log in as **Administrator!**).*

No other applications should be running while you install the Bluetooth driver and the WIN-GEPARD software. Any anti-virus software needs to be deactivated in advance (and reactivated after installation).





INSTALLATION OF SW DRIVERS FOR BLUETOOTH ADAPTOR

Before starting the WIN-GEPARD software, you need a working interface between the PC and the **RAYTEC GEPARD™** receiver. As of GEPARD Version 5.0, this data interface is a wireless connection which is enabled by means of a Bluetooth implementation (BT, for mre information see: www.bluetooth.com).

It requires a BT wireless module each on the **RAYTEC GEPARD™** and the PC. This is built into the **RAYTEC GEPARD™** receiver, while the BT module for the PC comes in the form of a USB stick provided by RAYTEC. Alternatively, you can use a modern notebook which already incorporates the Bluetooth implementation.

If you are using a notebook with a built-in Bluetooth interface, you DO NOT need to install the BT driver software. This also applies to later WINDOWS operating systems (WINDOWS XP [SP3], WINDOWS Vista AND WINDOWS 7).

The BT driver software is included in the basic WINDOWS configuration.

This means the only configuration required is assigning the BT interface as a serial port, which is described in detail in the "[Bluetooth Manager](#)" chapter.

Therefore, the following only describes installing the Bluetooth adapter and the necessary SW drivers for a PC **WITHOUT** the BT interface pre-installed.

General: Essentially, you should proceed in accordance with the instructions provided with the BT adapter!

1. Install the software for the USB Bluetooth adapter (only applies for older WINDOWS operating systems **NOT INCLUDING WINDOWS XP (SP3) / WINDOWS VISTA / WIN-7 / WIN-8.**
2. Connect the Bluetooth adapter to your computer.

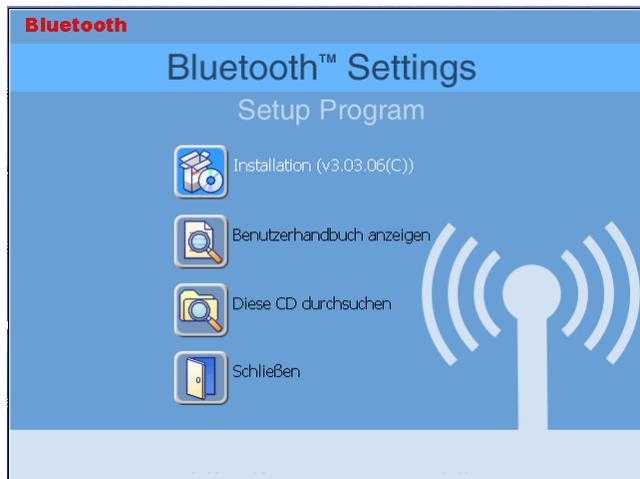




HOW TO INSTALL THE BT ADAPTER AND THE BT SOFTWARE

(IMPORTANT: this step is NOT necessary for WINDOWS XP / VISTA / WIN-7 / WIN-8!!!)

Simply follow the instructions on the CD provided!



Start "*Installation*" and follow the installation program instructions.

The next step of the installation is to assign the BT module to a PC COM port.

All the steps are documented below - please follow these instructions step by step to ensure the interface is defined successfully.

This configuration of the BT module to a serial port MUST be carried out in all operating system variants (so also for XP, Vista and 7)!

Comment: The pictures shown below can look completely different depending on your operating system and BT driver software - but the procedure is always the same!



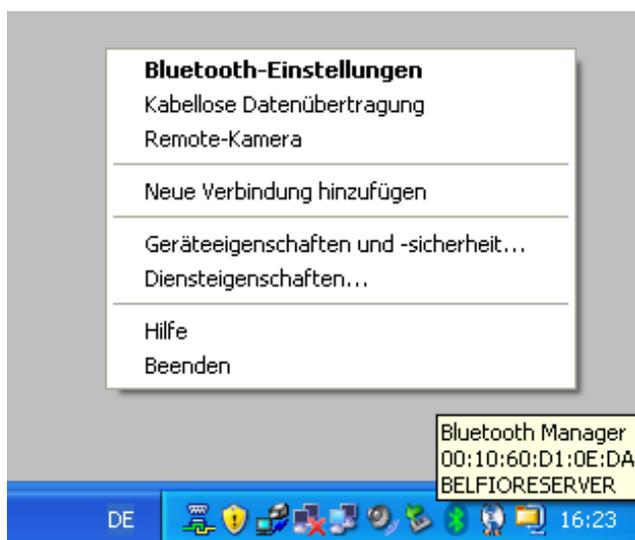


Bluetooth Manager

For the next stages of the configuration process, the BT USB stick needs to be plugged into the PC and the RAYTEC GEPARD™ receiver needs to be switched on!

Restart the PC, then you will find the new Bluetooth Manager symbol  in the status bar on the bottom right.

Now right-click on the Bluetooth Manager symbol in the status bar. This starts the Bluetooth Manager:

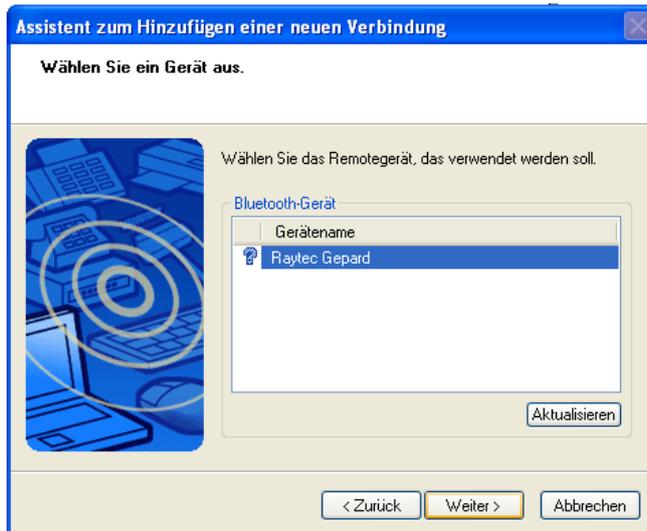


Click on "Bluetooth Manager" - this brings up a new window.



Select "User-defined mode" and click on "Next". This starts the wizard to add a new device and also searches for the devices with a Bluetooth interface. If a **RAYTEC GEPARD™** receiver is found, this and its name appear in the Bluetooth devices window.





Activate the "RAYTEC GEPARD" entry by clicking on it and continue by pressing "Next".

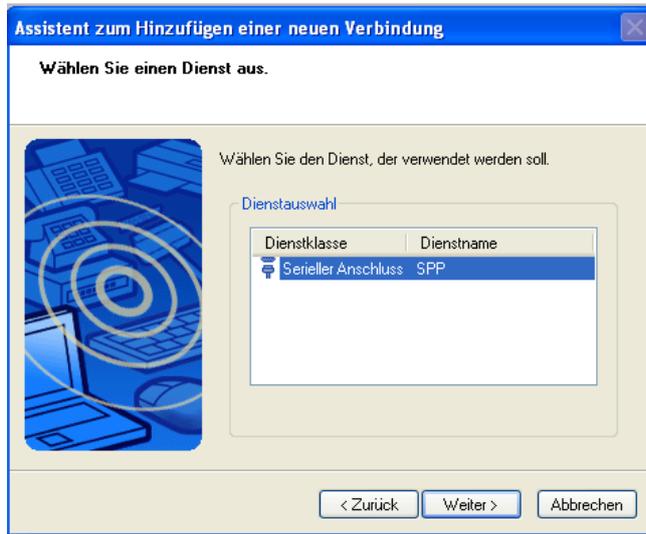


You now need to assign a key for your Bluetooth device in order to allow perfect wireless data communication with the **RAYTEC GEPARD™** receiver.

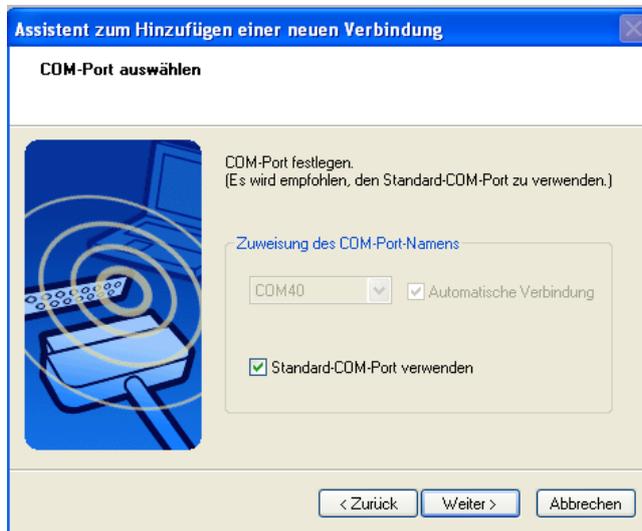


Enter the Bluetooth key as the serial number of **RAYTEC GEPARD™** receiver exactly as it appears on the delivery note for your new device (e.g. 09005). Confirm the setting by clicking "OK".





When selecting a service, click on "Serial Connection" and confirm this setting by clicking "Next".



Deactivate the "Use standard COM port" setting by clicking on the selection box.



Click OK to confirm your selection.





Now select a free COM port which can be used for data exchange with the **RAYTEC GEPARD™** receiver (here, for example, **COM9**).

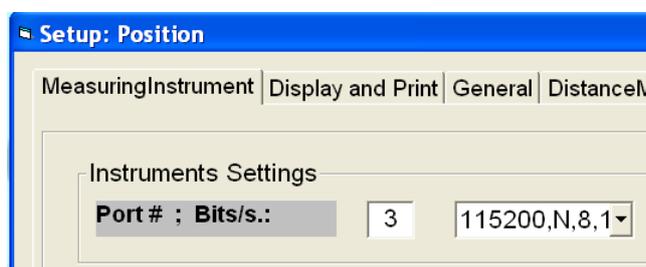
Important: the COM port number must be between COM1 and COM16 – otherwise the WIN-GEPARD software cannot administer the interface and data exchange cannot take place!

Then confirm your choice by clicking on "Next".

This completes the configuration of the Bluetooth USB interface.

COM PORT SETTING IN WIN-GEPARD

Manual COM port setting



The last step is to set the COM port in the WIN-GEPARD software to the identical COM port number (e.g. **COM9**).

The data transfer rate should be set to 115,200 BPs (only applies to *GEPARD_{bt}* and *GEPARD-M4* devices!).

For more details, see below in this manual. "Basic settings", "Measurement object selection card", "COM port".

COM port automatic setting (Autoscan)

From WIN-GEPARD version 5.50, it is no longer necessary to manually set the parameters of the serial interface. During startup of WIN-GEPARD, the software itself checks whether a GEPARD receiver is connected to a COM port and is switched on. If no device is connected or the receiver is switched off, the following error message is displayed.



'Cancel' exits the program and the user can activate an existing receiver and then restart the program to correct the settings.

'OK' allows WIN-GEPARD to be used in demo mode without a measuring instrument. It also allows the connection settings to be checked and adapted to the hardware so that a receiver can be set up at a later date.





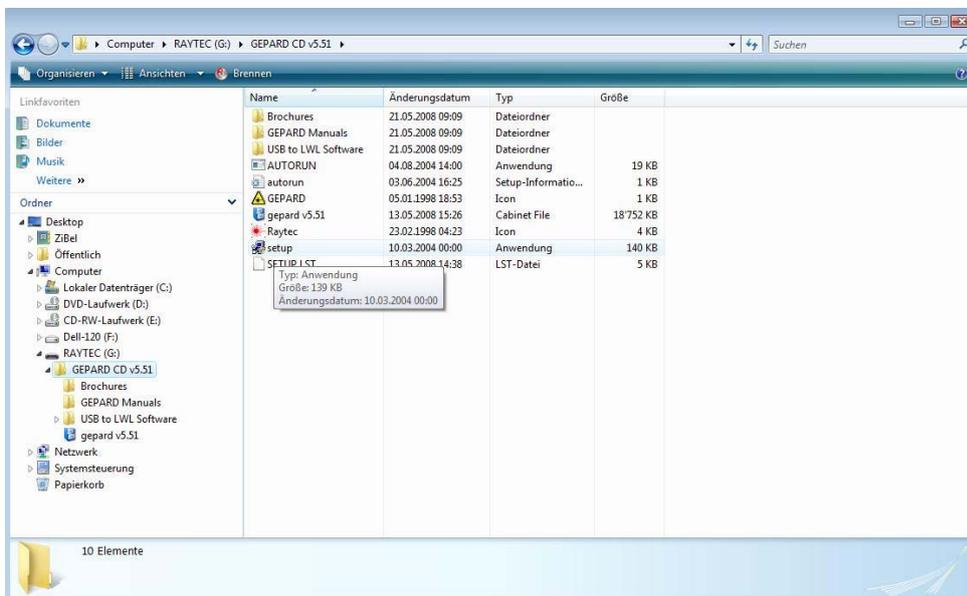
INSTALLING WIN-GEPARD EVALUATION SOFTWARE

The **RAYTEC GEPARD™** is supplied with a USB stick. This contains the necessary WIN-GEPARD programs and the setup software. The USB stick also contains all the user handbooks and additional information.

Once you plug the USB stick in, Windows automatically asks what action you would like to take:



Start Windows Explorer by clicking on "Open folder".



Open the "GEPARD CD v6.01" directory. It contains all the necessary programs and information for your GEPARD system.

To install the program, start the "Setup" application by double-clicking on it.





WIN-GEPARD setup now starts. You are asked which folder you wish to install the WIN-GEPARD files in. Confirm the default or enter the folder of your choice.



Start the installation of the WIN-GEPARD application software by clicking on the "Setup" button. This automatically installs the software and makes the appropriate entries into the WINDOWS system.

Once the installation has been carried out successfully, the GEPARD files can be found in the folder C:\PROGRAM FILES\GEPARD\



The GEPARD icon is entered under programs in the start bar and can be started from here.

When you first start the WIN-GEPARD program, you should have your company name - as included on the delivery note under "Licence text" - and your licence number to hand. When you first start the program, you are asked to enter these. The following input window appears:



If you do not have a valid licence number available, click on "Demo". You can now test WIN-GEPARD thoroughly for a limited period as an "UNREGISTERED DEMO VERSION".

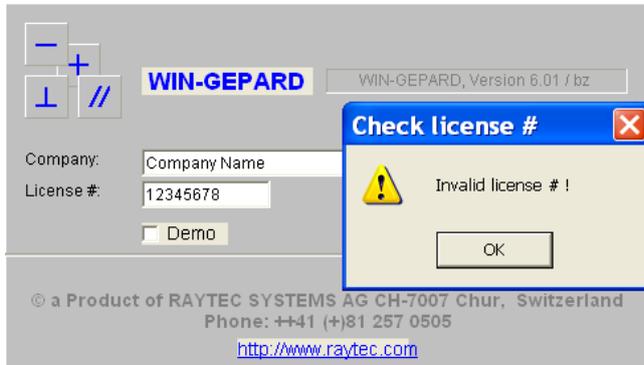
This window no longer appears once you have entered the valid company name and licence number.

In the demo version, this has to be reinitiated every time you start the program.





The following error message appears if you enter the details incorrectly:



you can reactivate this input window by clicking on Info button and enter the correct company name and your personal license number.

If the data is correct, the program continues and you can move over to measurement mode or test the latest demo version.

GENERAL NOTES ON USING GEPARD

- ☞ **While Bluetooth data transmission is being used, it is vital that the fibre optic sockets on the GEPARD receiver are covered with the plastic plugs supplied at delivery (see illustration below). If the fibre optic sockets are not covered, the GEPARD receiver may malfunction!**

Plastic stopper for FO socket



FO socket on GEPARD with plastic stopper







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Laser Geometrical measuring and alignment system
WIN-GEPARD installation instructions V6.14 EN, item no.: 19102111

