

Start the program with the command **Trace into (in Task)** from the menu **Debug** or by pressing **F6**. The program is compiled and transmitted to the module where it is started automatically, but its execution is immediately stopped. The next program line to be executed is highlighted with a green bar.

Now open the window **Watches** by pressing **CTRL-F5**. In this window click the right mouse button and choose the menu item **Add expression**. Enter the variable **X** and confirm with OK. Immediately the variable and its value is shown in the window. Add as second expression the variable **Y**. To have the values of **X** and **Y** refreshed automatically, activate under **Debugger** in the menu **Options** the item **Refresh watches every step**.

Now you can step through the program line by line by pressing **F6**. Each time you press **F6** the watched expressions (variables) **X** and **Y** are refreshed.

Note: When executing the command `WAIT_DURATION` pressing **F6** doesn't take you directly to the next program line, but waits for the duration set in the program (here: 1 s). After this time you have to press **F6** again to jump to the next command.

This should give you a first impression on working with the BASIC Tiger™ Starter Kit. Detailed information about hardware, the development environment and many other topics can be found in the supplied PDF manuals, which after installation, are located in the subdirectory **Manuals**.

Have fun working with BASIC-Tiger™!

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## BASIC-Tiger™ Starter Kit

## Quick Start / First Steps

Directly after installation of hardware and software you can try out the supplied applications and sample programs.

### *1. With Tiger Terminal*

If you have the Tiger Terminal connected, you can comprehend sample programs with text outputs and possibly keyboard inputs directly as described in the manuals. As example we here use a program that uses a LCD as well as a keyboard.

Load the application with the command **Open** from the menu **File**. You will find the program under the name **KEYS.TIG** in subdirectory **Applications**, which is located in the installation directory.

Ensure that the module is in PC mode:

- Switch on Prototyping Board to position “PC”.
- Module has been reset.

Start the program with the command **Run** from the menu **Start** or by pressing **F5**. The program will be compiled first, then transmitted into the module, where it is started automatically.

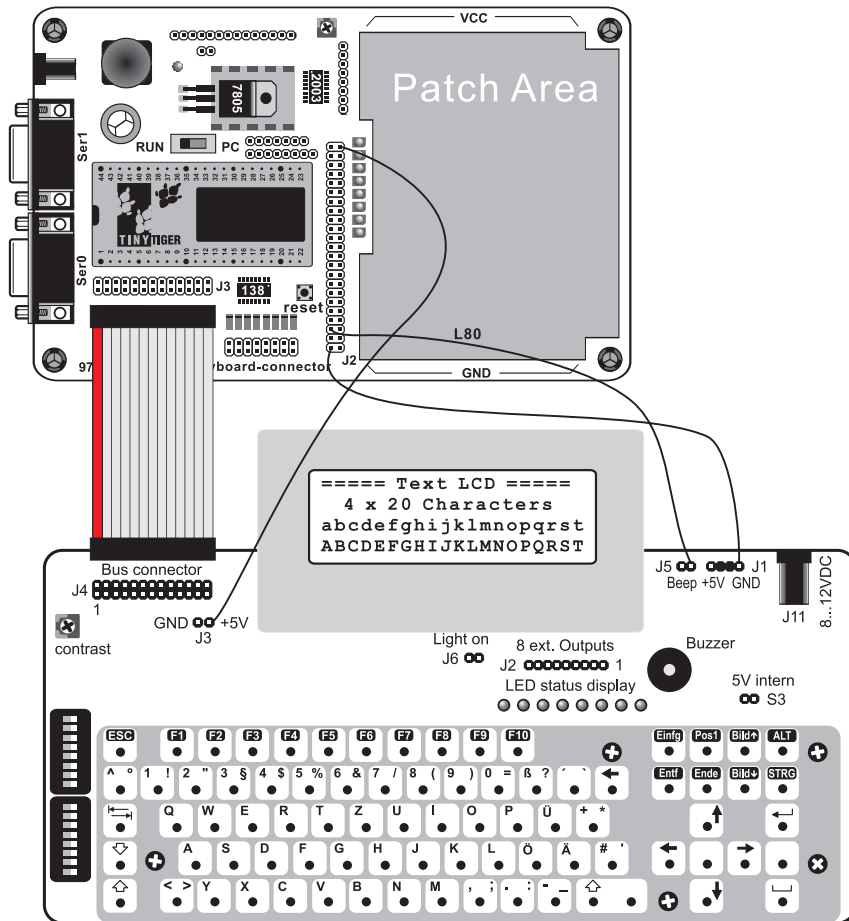
In the first line of the LCD you will see a heading with the program name. Once you press a key on the Tiger Terminal, in the second line of the LCD the ASCII code of the pressed key appears in decimal and in hexadecimal format, while in the third line the pressed key itself is displayed.

### *2. Without Tiger Terminal*

In case you don't have a Tiger Terminal connected, you naturally won't see any text output of running programs. Nevertheless, you can check without any display if a program is running and if its delivered results make any sense.

For this we use a program that calculates the products of an exponent  $X$  to a base of 2 in a loop. Open the program **EXP.TIG** in the subdirectory **Examples** as described above.

Connecting the Terminal to the Prototyping Board:



Connect the Tiger Terminal to the Prototyping Board with the supplied ribbon cable. Vcc and GND have to be connected to the appropriate pins (2 & 45) of J2 on the Prototyping Board with jumper cables. The buzzer is connected to pin 41 of J2, according to the sample programs for Tiny Tiger. The pin for the buzzer can be adjusted within the programs.

For details please see the description for Tiger Terminal.

This concludes the installation of the Hardware.

## BASIC-Tiger™ Starter Kit

Welcome to the BASIC-Tiger™ Starter Kit.

This short description is intended to give you a quick start to working with the BASIC-Tiger™ Starter Kit.

First an overview about the contents of the Starter Kit:

- CD-ROM including Tiger-BASIC™ Lite Version
- TINY-Tiger™ Prototyping Board
- Tiger-Terminal with connection cable (in Starter Kit II)
- TINY-Tiger™ Module
- Power Supply
- Serial DB9 connection cable

### Manuals

Included in the Starter Kits are the manuals as PDF files on CD-ROM. A set of three printed manuals is available separately. The manuals describe all of the instructions, functions and device drivers with easy to follow sample programs. These samples are running directly on the various hardware platforms as described in the manuals. These are: the “Plug & Play Lab“ of the standard development environment and the boards of the Starter Kits. For graphical output the sample programs are suitable for the “Graphic Toolkit“ and the “Graphic Demokit“.

Many examples are using a LC display for outputs. If you don't use a LCD within your testing environment, the programs nevertheless will run without any changes. To visualize results in that case you will use the facilities of the development environment to show the contents of strings and numerical variables, set breakpoints and to single-step through the program code.

### Connection Starter Kit II (Terminal)

## Installation

Start with installation of the development environment on your PC:

- Close all running windows applications
- Put the installation CD into your CD-ROM drive
- Usually the setup program is started automatically. In case it's not, start the program "SETUP.EXE" on the CD.
- The setup program comes up with a welcome screen. From there on please follow the instructions on the screen.

The installation of the hardware is also done in just a few simple steps:

- Plug the TINY-Tiger™ module into the socket of the Prototyping Board. Pin 1 is in the lower left corner (see pic 1).
- Connect port "ser1" of the Tiny-Tiger™ Prototyping Board to a serial port of your PC, using the serial cable coming with the Starter Kit.
- Connect the Prototyping Board to the power supply.
- Start the development environment on your PC.
- Choose **Communication** from the menu **Options** and in the dialog box set the COM port to which the Prototyping Board is connected. The baudrate is always 38,400 Bd.
- Put the switch directly above the TINY Tiger™ module to "PC-Mode" (towards the patch area) and press the **RESET** button.
- Choose **Tiger status** from the menu **View** and you'll get a detailed report containing type and status of the connected Tiger module. Now a correct connection between the units has been established.

The following picture shows the setup of the Prototyping Board:

