

The PICee development system

The series of labs you will perform all work with the single-board computer PICee which is a microprocessor development system. The PIC16F84 contains a programmable Flash Memory controller that is electrically erasable. This is why it is designation the PICee (electrically erasable).

The microprocessor board is formatted in a special so-called "European Size". Besides having the PICee microprocessor, the board also contains a variety of LEDs, push buttons, as well as an expansion board connector and a two-line LCD display matrix. This allows great flexibility when developing and testing programs.

The PIC16F84 is a RISC style microprocessor with only 35 instructions that can make use of the entire PICee system. The microprocessor comes with a development environment called MPLAB that is used for the development of programs. MPLAB contains a program editor, simulator, and compiler. The PIC16F84 is physically programmed with the use of a serial connection and the IC Programmer software. When you are programming the PICee you must make sure that the three options WDT, PWRT and CP (right side of the IC Programmer Software window) are DEACTIVATED, otherwise it will not function correctly. You must also specify the clock that is used when programming the PIC16F84 (RC or XT with the external 4MHz quartz). These parameters can be specified within the actual assembler program with the so-called Configuration Bits.

Illustration 1 shows the development system, while Illustration 2 shows the connection diagram for the board. Using jumpers S4, S8, S9 and S10 you can activate the appropriate parts of the boards. Jumper S2 however, is used to specify the clock (RC or XT).

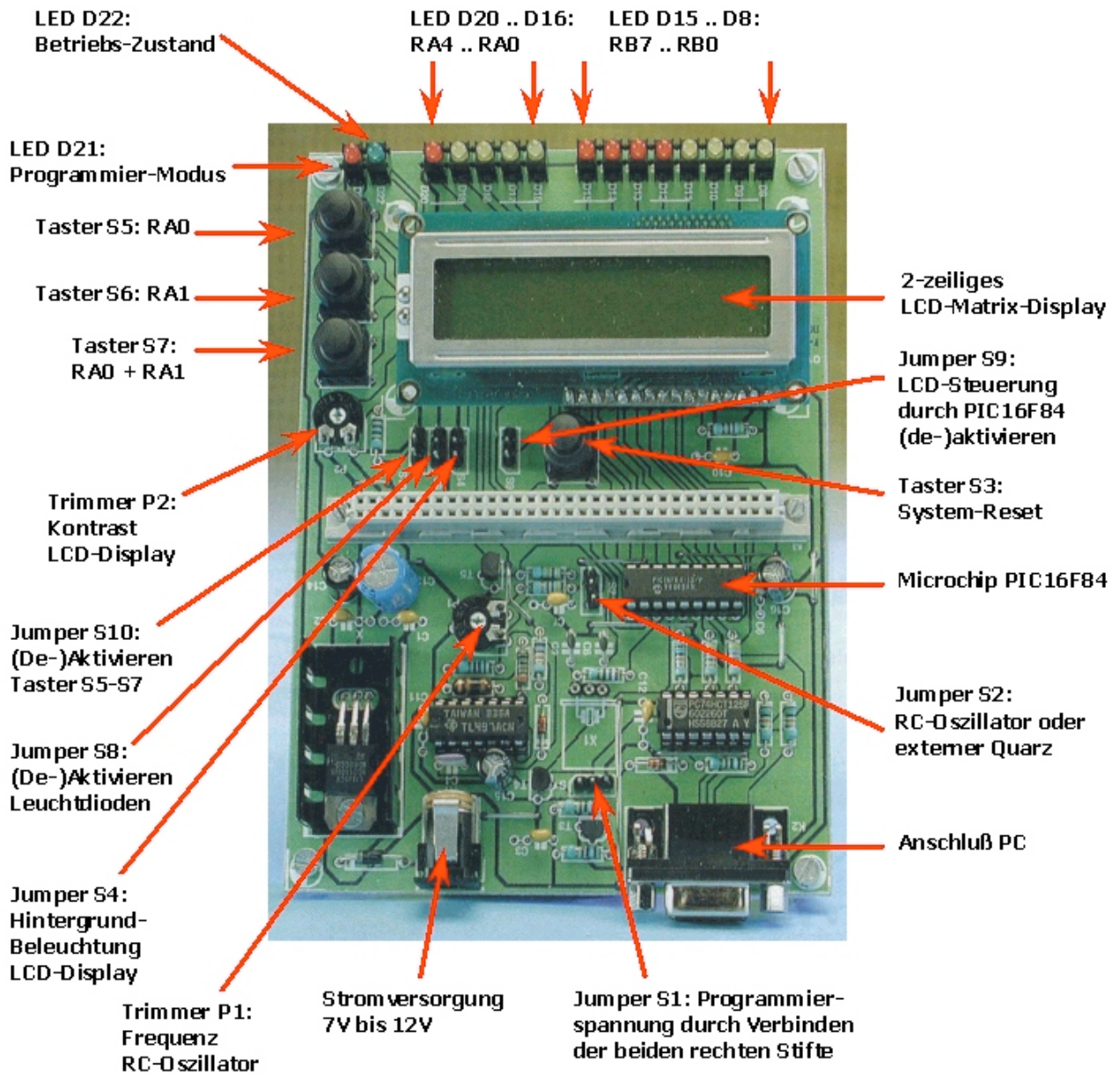


Illustration 1: PICee Development System

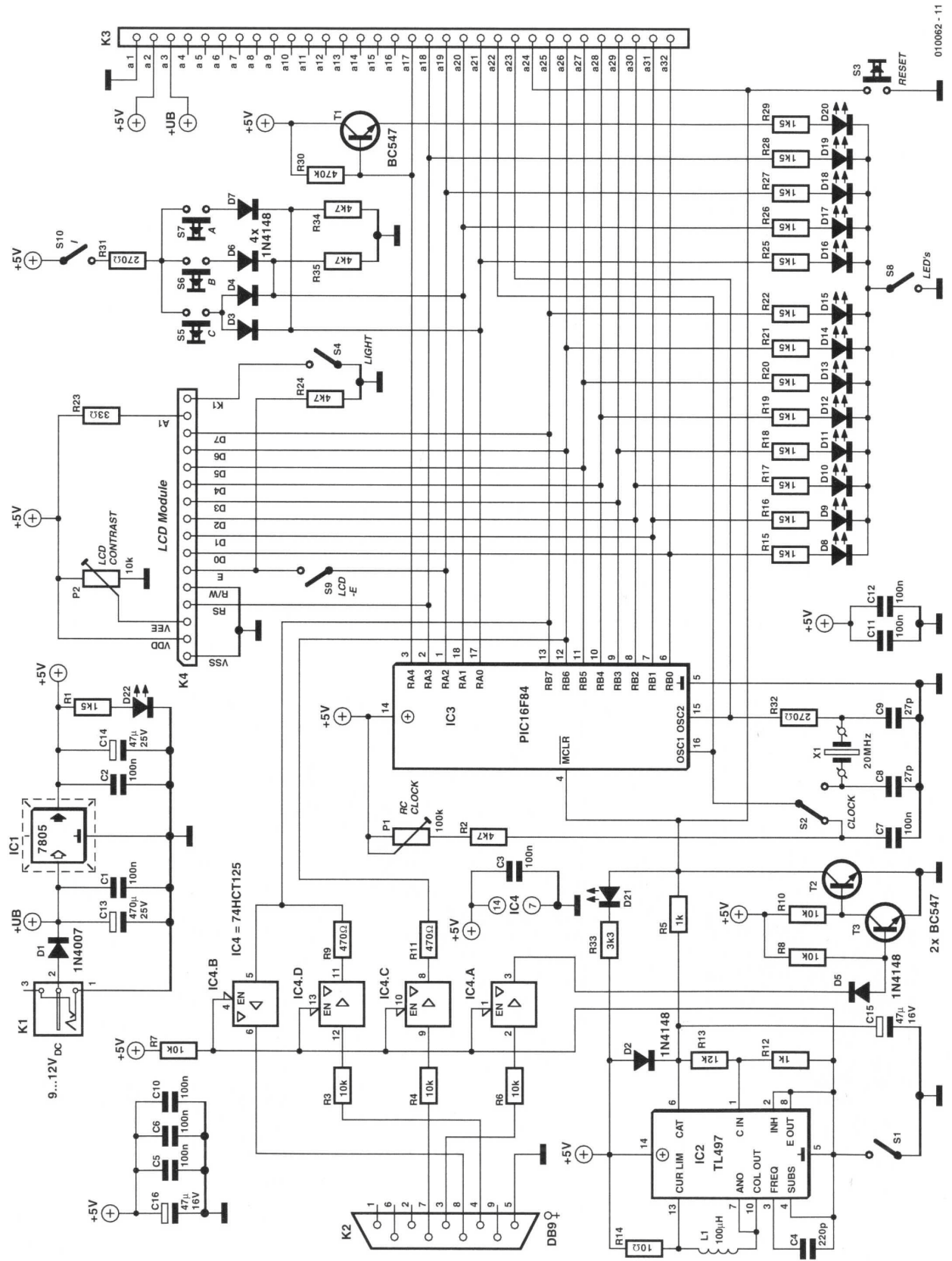


Illustration 2: Connection Diagram