Settings in the Options Menu

If the option key titled OPTIONS in the menu bar is clicked on, or the [o] key is operated, the following options window appears on the screen.

PC adapter off/to LPT...

By clicking on the option key with the left mouse button you can select the parallel interface to which you wish to connect the PC adapter (see Chapter 2.8). The program automatically recognises how many parallel interfaces your computer has available. LPT1 is the default setting here. It is also possible to disconnect the PC adapter completely (PC *adapter off).*

Status indication...

By clicking on the option key with the left mouse button you determine whether, during external operation of the process simulation, the status of the inputs and outputs is to be indicated via LEDs (see Chapter 5).

Lettering on/off...

By clicking *Lettering on,* all the elements of the bottle filling system, such as the indicator lights, contactors and switches are labeled with the corresponding inputs and outputs of the PC adapter. This option can be switched on and off by clicking with the left mouse button.
Switch-over is achieved within the operating modes simply by pressing the [B] key.

Speed

The speed of the process simulation depends on the processor and clock frequency of the personal computer. The default speed has been optimally set for computers equipped with an 80286 or 80386SX processor (black bar set to maximum).
On faster processors, the simulation is much more rapid than in reality, so that slow controls (e.g. PLC with relay outputs) can no longer respond to the switching statuses of the system.
By clicking on the option keys with the right mouse button, the black bar becomes shorter, thus decreasing the speed of the process simulation. By clicking on the left mouse button, the speed can then be increased again. The speed setting is active in all operating modes.

Background Color

There are three bars in the primary colors red, green and blue for adjusting the background color. By varying the color composition, the background color can be mixed to individual requirements. If any of these option keys is clicked on with the left mouse button, the corresponding color component is increased. It is reduced with the right mouse button.
Naturally, the best contrast for legibility of the system lettering is achieved with dark background colors.

Save

All of the settings in the OPTIONS menu, except for the entry of defective bottles, can be saved by clicking on the option key SAVE with the left mouse button. On renewed start of the process simulation, all these settings are automatically active.

OK

By clicking on the option OK, the options window is closed. All the settings made are now active.

Installation of the PC Adapter (728 501)

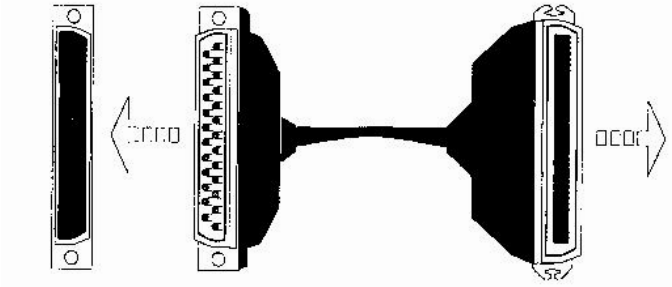
The PC adapter is connected to a free parallel interface of the computer. 16 digital inputs receive external signals for controlling the process simulation. The sensor statuses during process simulation are transmitted by the computer via 16 digital outputs for further processing by an external control. The PC adapter also has two analog inputs and outputs (0 - 10 V) which are not required for the bottle filling system though.

Because of its DINA4 height, the PC adapter can be easily integrated into the Leybold training panel system TPS. It is simply inserted into the panel frame, next to the control unit (e.g. A020PLUS 73062).

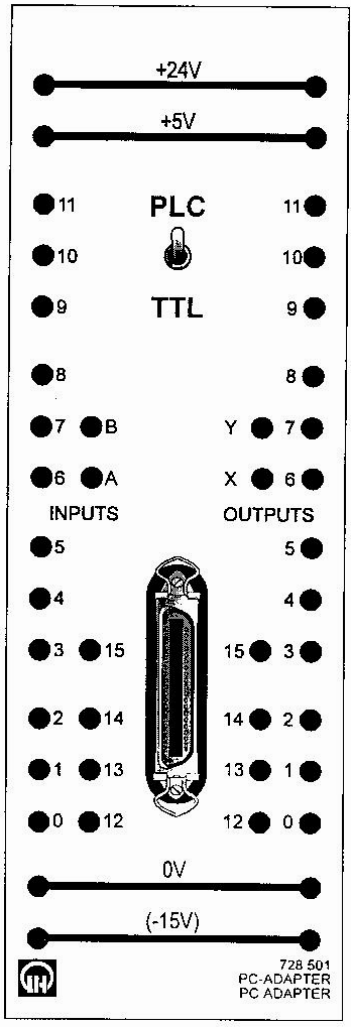
Connecting the PC Adapter to the Computer

The PC adapter is equipped with a Centronics plug; it is connected to a free parallel interface on the PC using a standard printer cable (728 069) with a Centronics coupling on one end and a 25- pole SUB-D connector (male) on the other end.

It can be connected to any parallel interface (e.g. LPT1 or LPT2). The interfaces are recognisable as 25-pole SUB-D sockets (female), normally located on the rear of the PC. The process simulation is informed of the selected interface via the OPTIONS menu.



LPT1 / LPT2 **Printer Cable (728 069) of the PC**



PLC-compatible Control

Should a PLC be used for the controlling the process simulation via the PC adapter, the following must be noted:
The PLC operates with 24V voltage levels, whereby 24V is interpreted as the 1 signal.
In order to make the PC adapter PLC-compatible, the changeover switch is moved up to the PLC position. A non-connected input is now registered as logical 0. The 24-V rail of the connector is connected to 24 V from an external voltage source or the PLC power supply, while the 0-V rail of the PC adapter is connected to the respective ground.

TTL-compatible Control

If a TTL-compatible control is used to control the process simulation (e.g. SIMULOG- control), the following must be noted:
A 5V voltage source (e.g. 728 84) is required for the voltage supply of PC adapter. Its 5V terminal is connected directly to the 5V rail of the PC adapter with a connecting lead. The 0V terminal of the voltage source is connected to the 0V rail. The changeover switch is set to the TTL position. Open inputs of the PC adapter are now identified as logical 1, as is standard in TTL technology.