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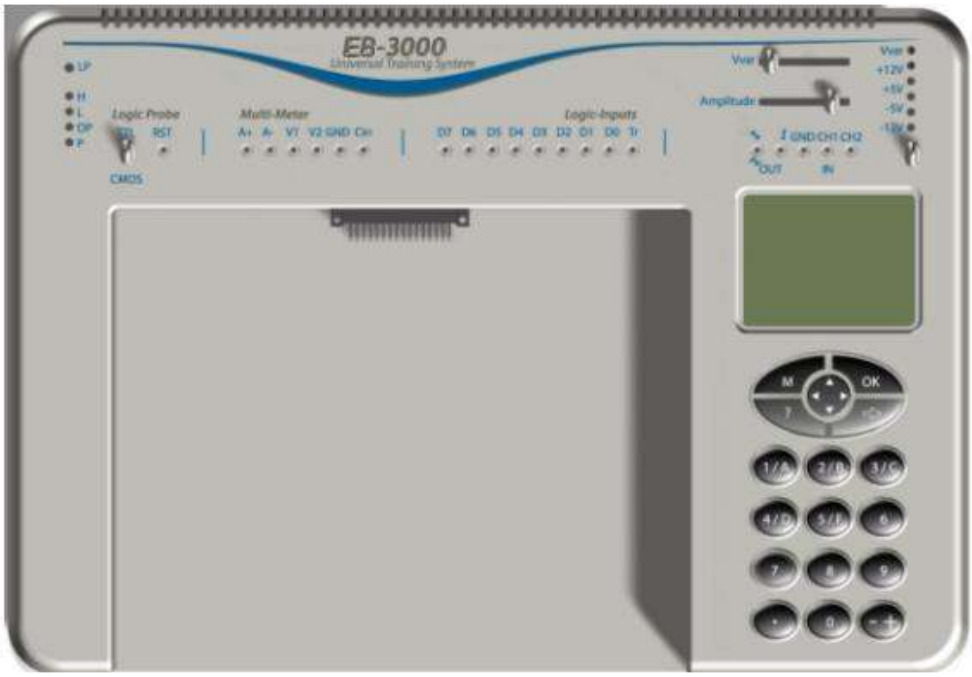
EB-3000

Base Unit



The EB-3000 is a base unit housed in a sturdy plastic case for the electronics and communications experiment plug-in cards.

The system includes all the lab instrument needs for electronics experiments: 5-voltage power supply (+12V, +5V, -5V, -12V and -12V to +12V variable voltage), 2 voltmeters, ammeter, frequency counter, logic probe, logic analyzer, 2-channel oscilloscope, function generator (sine, triangle and square signals).

The system contains a 3.2" color graphic display with touch panel for signal and measurement display.

The touch keyboard is used to program the oscilloscope and the function generator as well as the display options.

The system provides USB wire communication with the PC.

A 16-key keyboard expands and enhances the keying options of the system.

The system contains 10 relays for switching the plug-in cards or for inserting faults.

The plug-in cards are connected to the trainer through a 48-contact, very low resistance industrial connector.

Plugging a card and unplugging it is simple and safe.

The system can be operated with or without a PC.

Each plug-in card has its own controller for automatic identification by the main platform, for saving its required configuration and for automatic self diagnostics.

Specifications EB-3000

Description

The EB-3000 is a base unit packaged in a sturdy plastic case (36 x 26 cm) for accepting electronics and communications experiment plug-in cards.

The system uses an external switching power supply for safety reasons. The power supply low voltage output is converted to the 5 voltages by linear regulators to reduce noise.

Two potentiometers on the panel are used to setup the variable voltage and the function generator amplitude. Two toggle switches select CMOS/TTL level and sine wave / triangle wave.

The system cuts-off the voltages for an overload and displays an appropriate error massage.

The plug-in cards are connected directly to system without any flat cable to reduce noise and resistance.

The system is controlled by a very powerful, internal controller.

The 10 relays have change-over contacts that can switch active and passive components.

Every selection of a relay configuration is saved in non-volatile memory located on the connected plug-in card. This configuration feature does not require a PC.

The components are located on the board by the silk screen print of the actual circuit under test and component symbols. The central part of the experimenting board includes all the circuit block drawings, all hands on components, test points and banana sockets.

The protected components are located on the plug-in circuit board upper side, clearly visible to the student and protected by a sturdy transparent cover that is permanently mounted on the EB-3000platform.

Technical Characteristics

The system contains all the lab instrument needed for electronics experiments:

- Five-voltage power supply (+12V, +5V, -5V, -12V and 12V to +12V variable voltage)
- Two voltmeters
- Ammeter
- Frequency counter up to 1 MHz
- Logic probe (high, low, open, pulse, memory)
- Logic analyzer with 8 digital inputs and trigger input
- Two-channel oscilloscope (spectrum analysis requires a PC with a USB port)
- Function generator (sine, triangle and square signals) up to 1MHz
- 3.2" color graphic display with touch panel for signal and measurement display
- USB wire communication with the PC
- Sixteen-key terminal keyboard, one 4-way navigation button and one reset push button
- Ten relays for switching the plug-in cards or for inserting faults
- 48-pin very low resistance industrial connector for connecting to plug-in cards
- Transparent sturdy cover covers the protected area above the plug-in cards
- Set of patch cords

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