Training is Essential

It is common knowledge that a trained operator works more efficiently than a novice. This is especially true when performing complex tasks such as PCB repair. Many companies do not have the time or money to effectively train all their employees, so on-the-job learning is essential. However, without additional training aides, this task can become frustrating.

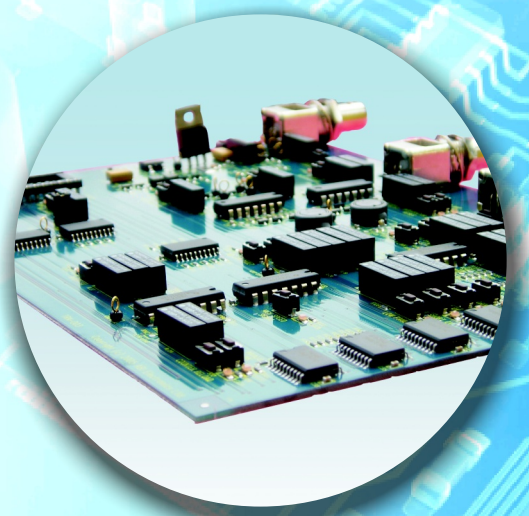
A Versatile Learning Tool

ABI Electronics have created a Training Board for such a purpose. It is a learning platform for the BoardMaster and SYSTEM 8 ranges. Its flexible design teaches operators the many uses of the BoardMaster 8000 and SYSTEM 8 modules, giving a variety of circuit conditions and highlighting fault conditions that can be seen on all types of PCBs. With the many instruments available in the BoardMaster 8000, it is essential that the operator is aware of all the features provided in order to gain maximum benefit from the equipment.

PIC Controlled Conditions

The Training Board features PIC controlled circuit fault conditions, with SMT and dual in-line technologies. It provides the operator with an understanding of digital mid-levels, signals, shorts, links and loads; handling digital clocks and data buses; custom programming devices and digital V-I testing.

The Training Board can perform a full array of analogue tests including matrix testing, OP-AMP/Comparator functional testing, analogue V-I tests and discrete testing.
The signal generation, counter and amplifier functions of the Training Board allow full utilisation of the Multiple Instrument Stations' counter, DSO and DMM instruments, highlighting its versatility in test and diagnosis.



An Educational Tool

The Training Board will teach its operator general electronic principles including R/L/C circuits and Ohms law, transistor operation including MOSFET and FET operation, DAC/ADC circuits, and operational amplifiers.

An Effective Solution

With the knowledge gained from using the Training Board operators can transfer their skills to all kinds of PCB repair. Operators will become more proficient, saving time and money for your organisation.

The Training Board is designed for use with the BoardMaster and SYSTEM 8 ranges utilising

Analogue
Digital
In circuit
PC
PC required

- Educational training
- Equipment training
- Digital fault diagnosis
- Analogue fault diagnosis
- Waveform and signal comparisons
- PIC controlled operation
- Automatic calculations
- Over 150 different learning functions

Training Board

Train yourself to use SYSTEM 8 Premier in a controlled environment utilising the latest circuit technologies. ABI's Training Board will show you the way.

abi

www.abielectronics.co.uk

Technical Specifications

Board Fault Locator Functions

Digital Test:	Test types
	CCT conditions
	Loop testing
	Logic trace
	Thresholds
	Digital V-I
	Invalid conditions
	Grounding issues
	Tri-state testing
	Open collector testing
	Guarding
	Comparison tolerance
	Live comparison
Graphical Test Generator:	Configuring the graphical test generator
	Setting the thresholds
	Inputting waveforms
	Defining responses
	Auto-learning responses
IC identifier	Equivalent Functions
	Use of thresholds
Short locator:	Operation
	Ranges
EPROM verifier:	Loading and saving EPROM files
	Effect of bus shorts
	Use of BDO signals

Analogue Test Station Functions

Analog V-I:	Effect of varying voltage and impedance
	Effect of varying waveform
	Difference between VI, VT and IT tests
	Dual probe mode
	Storing test result
	Comparison tolerance
	Clip testing
	MultiProbe testing
	Probe compensation
	Matrix VI
	Use of pulse output
	Testing Relays

AICT Functions

Analogue functional test:	Test types
	Device conditions
	Supply range
	Test analysis box
	Loop testing
	Analogue trace
	Generic type versus part number
Discrete Testing:	Use of special channels
	Measuring gain and voltage
	Effect of parallel components

Multiple Instrument Station Functions

Function generator:	Low frequency waveforms
	Higher frequency with duty cycle
	Changing wave shape, amplitude and offset
	Use of single pulse mode
	Effect of phase lock
	Effect of modulation
	Sweep mode
Frequency counter:	Measuring frequency/period
	Using event mode
	Setting target values
	Changing tolerances and display ranges
	Calculator
DSO	Use of controls
	Acquisition modes
	Aliasing
	ERS mode
	Automatic measurements
	Waveform storing and comparison
	Adjusting comparison tolerances
Multimeter	LM324 circuit
	Calculating op amp gain and DAC values
	Logging data
MIS Power Supply	Simple operation
MIS Universal I/O	Simple discrete circuit (diode, transistor)
	Analogue output voltage and current
	Measuring voltage and current
	Testing transistors and diodes

Electronic Principles Covered

Ohms Law
R/L/C Circuits
Diode Operation
Transistor Operation
MOSFET and FET Operation
Op Amp Operation
Comparator Operation

Other specifications

Electrical input:	Powered by MIS power supply or via external 6-way Molex through-hole connector. (typical) 5V, 600 mA (max) (typical) +12V 100 mA (typical) -12 V, 100 mA
Dimensions:	209 x 165 x 19 mm
Weight:	222g

Accessories

Standard	1 x power connector 1 x SYSTEM 8 Premier test flow files and manual

Options

Cables:	3 x BNC cables for MIS 10-way cable for MIS

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