



Technical Education & Training Equipment

General Catalog 2020 V.1





About K&H

Superior product design and good quality control have enabled K&H MFG. CO., LTD. to offer high-end educational products to the market since its founding in 1979, Taipei, Taiwan. With this unbeatable track record, K&H has earned the reputation as a manufacturing leader in the educational market in Taiwan.

Our product lines have covered widely from breadboard, its accessories, and testing instruments to versatile electronic, electrical, and mechanical training equipment as well as several products with relevant fields, including Data Communication and Networking, Communication System, Microcomputer Control, Electronic Circuits, Biomedical Measurement, Industrial Control, Electrical Machine / Power Electronics / Driver Engineering, Refrigeration / Air Condition System, Automatic Control, AutoTronic, Green Energy.

So far, we have grown into a company of close to 200 employees in Taiwan. We have dedicated ourself to developing educational products, for example using multimedia to create an easy-to-learn, easy-to-understand, and high quality educational environment.

K&H MFG. CO., LTD. has become one of the leading professional manufacturers of educational training equipment in the world. In the future, we will continue our efforts to provide our customers the best products and best service.

Scope of Business

- Project Planning
- Project Organization
- Project Implementation
- Training & Maintenance
- School System, Course and Curriculum Development
- Lab Equipment Purchasing, Installation and Testing
- Train the Instructors & Trainers



Knowledge & Hope



Contents

Section	Page
 Data Communication and Networking -----	1
 Communication System -----	3
 Microcomputer Control Equipment -----	5
 Electronic Circuits Equipment -----	9
 Biomedical Measurement Equipment -----	11
 Industrial Control Equipment -----	12
 Electrical Machine / Power Electronics -----	14
 Refrigeration / Air Condition Equipment -----	15
 Automatic Control Equipment -----	19
 Autotronic System -----	22
 Green Energy Equipment -----	23
 Testing Instrument -----	25
 Electronic Training Equipment & Breadboard / Accessories -----	27
 Aviation Training Equipment -----	32



DCN-100 IP-PBX Training System



IP-PBX (Internet Protocol-Private Branch Exchange) is an Internet phone system. In comparison with a traditional PBX network, IP-PBX transmits all calls via data packets over a TCP/IP network. The IP-PBX Training System (DCN-100) is an ideal platform for exploring the functions of the IP-PBX. It utilizes the SIP (Session Initiation Protocol) technology to establish audio and video communication within data network. Along with DCN-100, the open source software – “Wireshark Network Analyzer”, is used to capture and observe the SIP packets. In recent years, the protocol extensions of the SIP have lead to the continuous expansion of the SIP application scope. As a result, the SIP has emerged to be one of the next generation key technologies in data networking / telecommunication / communication networking realm.

DGS-200 GSM / GPS Experimental Set



● Features

It's a powerful platform for wireless communication experiments when training and integrating GSM / GPRS with GPS modules, FAX Class1, TCP / IP, NMEA0183, 3GPP TS 27.005 and 3GPP TS 27.007 protocols to be one set.

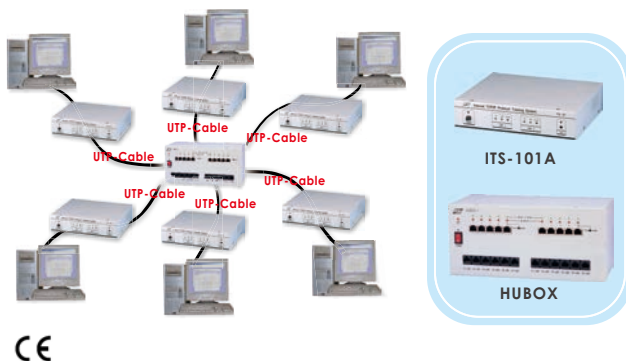
COS-100 Android APP Experiment Module



COS-100 offers easy-to-follow courses available for users to learn Android APP development environment setup and Android APP programming. In addition to the introduction for basic principles of the Android development environment, experiments of some of APPs are also designed. Topics included in the course: understanding the Eclipse operating environment, capture of images from a USB UVC camera, discussion of the Android APP version compatibility issues, introduction and application of e-books, application of accelerometer, application of touch panel control. Moreover, ZigBee Transceiver Module and ZigBee Sensor Module are also provided for making experiments.



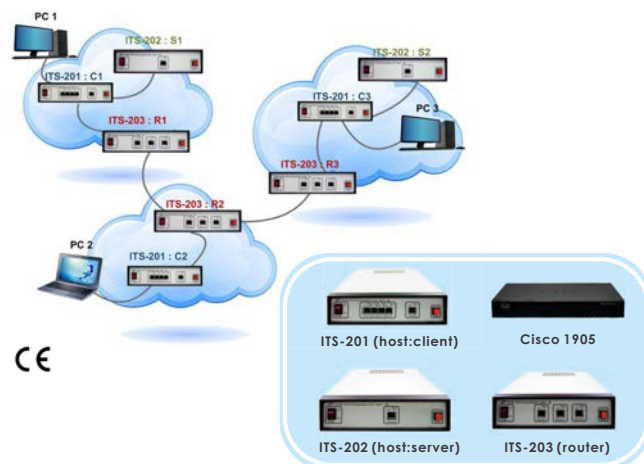
ITS-101A Internet TCP / IP Protocol Training System



Features

1. Real-time packet monitor
 - Observe TCP segments, IP datagrams, ICMP datagrams, UDP datagrams and ethernet frames
2. Packet generator
 - Generate actual TCP segments, IP datagrams, ICMP datagrams, UDP datagrams and ethernet frames
 - Manual or programmable packet generation (packet size up to 1500 bytes)
3. Congestion generator
 - User programmable packet generation speed up to 1.2 Mbps
 - User programmable packet delay, error and lost
4. Programmable router
 - Configurable as a router or host
 - Can emulate as a firewall or NAT
 - Provide a platform to install user-defined network message procedures for experiment

ITS-200 series IPv6 Training System



Explosive growth in network device diversity and mobile communications, along with global adoption of networking technologies, have overwhelmed IPv4 and have driven the development of a next-generation Internet Protocol (IPv6).

In addition to providing more address space, IPv6 not only increases routing efficiency and network-layer security(built-in the IPSec encryption mechanism) but also creates new ways of addressing and more advanced QoS mechanisms, as the protocol develops.

The design purpose of ITS-200 series is to provide learners with a clear and comprehensive understanding of the protocol and operating behavior of the IPv6 specification. The complete system includes ITS-201(host:client) , ITS-202(host:server) and ITS-203(router). The interaction of these three devices can perform experiment as a group or stand alone.

IOT-100 Innovative IoT Experiment Platform

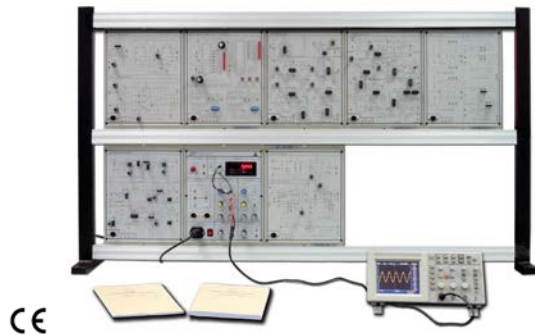


The Innovative IoT Experiment Platform (IOT-100) is a module based solution to IoT experiment systems. It is constructed by various communication node boards, sensor modules, wireless integrated gateway, and open-source applications. The experiment topics include not only traditional "wireless sensing technology", but also embedded system development, intelligent sensing technology, IoT composition technology, IoT chip control technology, and IoT engineering applications.

IOT-100 adopts 4 different wireless protocols: ZigBee, Bluetooth, WiFi, and EnOcean. Users can select one (or more) wireless sensing technology and transmit data to wireless integrated gateway via MQTT (Message Queuing Telemetry Transport) protocol for observation.



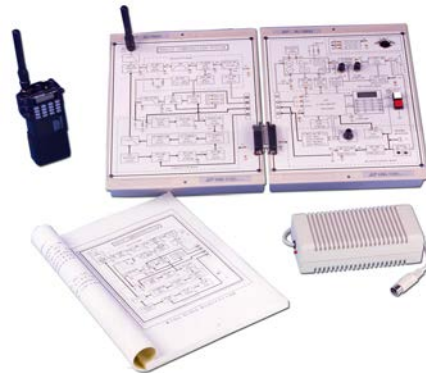
KL-900A Basic Communication System



Features

1. The trainer includes modules with experimental circuits. It offers the beginner complete courses in basic analog and digital communication.
2. KL-900A is equipped with power supply and signal unit. Students only have to adopt the oscilloscope to complete various experiments independently.
3. System modularity maximizes flexibility and variety for experimentation, and allows the possibility for expansion and customization.

KL-900B Analog Communication System



144MHz VHF FM Transceiver Trainer

KL-900B Analog Communication System discloses the secret of the walky-talky based on the 144MHz VHF band. The circuitry of walky-talky is shown as blocks : receiver block, transmitter block, audio amplifier block and microphone amplifier block.

Block diagrams are printed clearly on the panel of the module, giving students a comprehensive view of how walky-talky works.

KL-900C AM / FM / ASK / FSK Transmitter & Receiver System



The KL-900C AM/FM/ASK/FSK Transmitter and Receiver System is a comprehensive and self-contained system and is suitable for carrying out AM/ASK and FM/FSK transmission experiments.

The complete system contains KL-900C1 and KL-900C2, eight separated modules including:

- AM transmitter & receiver modules
- FM transmitter & receiver modules
- ASK/AM transmitter & receiver modules
- FSK/FM transmitter & receiver modules

KL-900D Fiber Optic Transmission Training System



Fiber Optic communication is one of the most popular technologies in the modern days due to its high transfer speed and large capacity. KL-900D uses fiber optic as a transmission media for the whole experiment.

Four different methods of data transmission (self-module transmission, module-to-module transmission, PC-to-module transmission and module-to-PC transmission) and various different modulation / demodulation methods (CVSD, ASK, etc.) are introduced in the training system. Users can obtain a clear view of how fiber optic transmission works.



KL-900E Near Field Communication (NFC) Trainer



Features

1. 8 antenna modules
2. Adjustable antenna module holder
3. LED / LCD / BUTTON user interface
4. Standard NFC SOC Module
5. Mifare S50 card and Ultralight card
6. NDEF, NDEF vCard and P2P data transmission,...etc
7. Complete learning experimental instrument that covers NFC physical to application layer

KL-910 Advanced Communication System



Features

1. Essential theories and techniques in modern communication system including digital encoding / decoding techniques, various digital serial ports, DTMF signal system, ASK / FSK / QPSK / TDM / PAM / FDM modulation/demodulation and filters...etc.
2. KL-910 offers users not only the comprehensive experiments of advanced communication system but also various peripherals including analog / digital function generator, frequency meter, and V-F converter...etc. All of the experiments are carried out appropriately with the help of oscilloscope, spectrum analyzer and logic analyzer.

KL-920 Advanced Digital Communication System



Features

1. Complete digital transmitting data format including start bit, preamble, identifier, data with FEC coding, CRC coding, and stop bit.
2. All digital transmitting data are encoded with Manchester code before transmitting via ASK or FSK modulator.
3. Programmable data, data rate, preamble, identifier, and noise from DIP switches
4. FEC encoding, CRC mechanism, and Manchester coding can be included or ignored before wireless ISM transmission.
5. Transmit and receive 3 sets of audio signals in TDMA channel via STS1 and STM1 frame
6. Dual channel TDM transmission with audio signal modulated by PCM or A-Law/ μ -Law compander

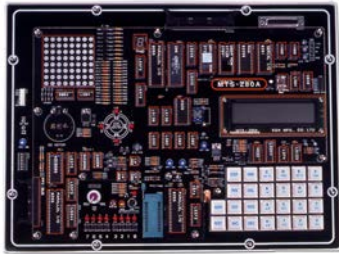
EMC-100 EMI Training System



EMC-100 contains two parts. One part is a measurement instrument designed to measure electromagnetic interference (EMI), including conductivity of electromagnetic interference and radiated electromagnetic interference. It provides electromagnetic interference verification on products before inspection. Another part is training modules which allow students to easily implement the experiments and learn the basic concepts of electromagnetic interference and suppression countermeasure. Beginners are able to learn electromagnetic interference theories, measurement and suppression techniques as being to prepare themselves an EMC engineer.



MTS-Z80A Z-80 Microcomputer Trainer



MTS-Z80A helps students to understand the architecture and programming of Z-80 computer. The system contains five main parts: (1) a Z-80 CPU (2) system and user memory (3) world standard chip sets (4) input and output devices, and (5) external interface.

Students edit and make a assembly program codes from PC and observe instant results after they download and execute programs from system memory. Debug functions are also available via PC or system keypad interface.

MTS-86C 8086 Microcomputer Trainer



MTS-86C helps students to understand the architecture and programming of 8086 computer. The system contains five main parts : (1) an 8086 CPU (2) system and user memory (3) world standard chip sets (4) input and output devices, and (5) external interface.

Students edit and make a assembly program codes from PC and observe instant results after they download and execute programs from system memory. Debug functions are also available via PC or system keypad interface.

MTS-33T Intelligent Micromouse Trainer



MTS-33T allows students to carry out 3 types of micromouse experiments on a lab table individually including wall maze solver, line maze solver, and line follower. With provided maze wall, post, and line track pad, students can setup corresponding experiment environments efficiently and flexibly.

Learning MCU programming for micromouse is an important course topic on MTS-33T. Students can see the behavior of micromouse instantly after MCU code is programmed, downloaded and executed.

The provided simulation software allows students to create the map of line maze and wall maze so as to observe how micromouse solves the maze.

MTS-51 8051 Microcomputer Trainer

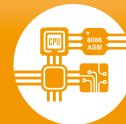


8051 is the original chip of MTS-51 family devices which is originated from Intel. This chip is a stand-alone, powerful 8-bit single-chip microcomputer and is commonly used for real-time control applications. MTS-51 microcomputer trainer is designed for learning 8051 core architecture and instructions.

MTS-52 ICE (Option)

1. 32K byte In-Circuit-Emulator
2. Toggle break point
3. Step into / step over
4. Full run
5. Register & memory editor





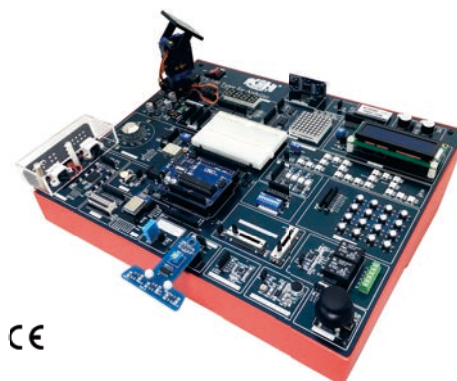
MTS-54 MSP430 Training Lab



MSP430 training lab is a training platform designed for learning MSP430 microcontroller from Texas Instruments (TI). The microcontroller used is MSP430F5438A, which is featured with ultralow-power and consists of several peripheral modules targeted for various analog and digital applications.

This trainer integrates various I/O devices. It's available for several application examples, ranging from basic I/O control to advanced topics. Users will be able to learn the control of MSP430 chip in more efficient way.

MTS-100 Tutor For Arduino



CE

MTS-100 is the most powerful training system of Arduino. This system contains most popular sensors and input / output modules. Such as wifi/Bluetooth/Temperature sensor / Servo motor / Stepper motor / LCDs...etc

Students can program the Arduino code from PC and observe instant result after they upload code to Arduino main board. More than thirty example code and teaching materials are available.

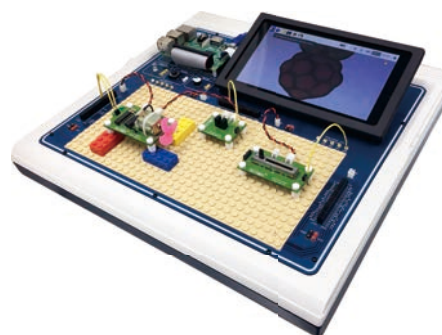
MTS-887 PIC16F Training Lab



MTS-887 PIC16F Training Lab which uses Microchip's PIC16F887 is a 8-bit microcontroller to implement various I/O control experiments. This controller contains most of the powerful functions in modern MCUs nowadays. Moreover, it can be used for automation, motor control, device measurement, and mechanical controls...etc. PIC16F is popular and well known due to its economic cost, wide applicability, high accessibility and reliable stability.

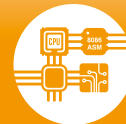
MTS-887 contains several peripheral devices from basic LED to advanced capacitive sensing module. The integration of these devices enable end users to create and implement different kind of control experiments. Together with our user friendly experiment manual, end users can learn the control of PIC MCU more conveniently and efficiently.

MTS-200 Tutor for Raspberry Pi

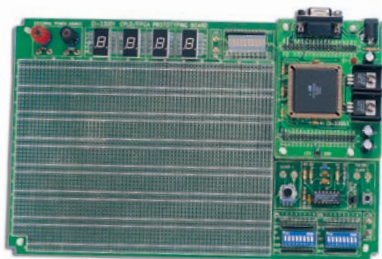


The Raspberry Pi is a mini computer allowing people of all ages to explore the world of computers and to learn how to code in programming languages, such as Scratch or Python. Just like a desktop PC, this credit card sized computer is capable of browsing the internet, playing videos, making spreadsheets, processing word document, and playing games.

The MTS-200 Tutor for Raspberry Pi provides an environment for Raspberry Pi to interact with the outside world through different forms of electronics (16 faya-nugget electronic blocks). Students can efficiently learn and create various digital maker projects through simple connections and simple Python codes in the tutorials provided.



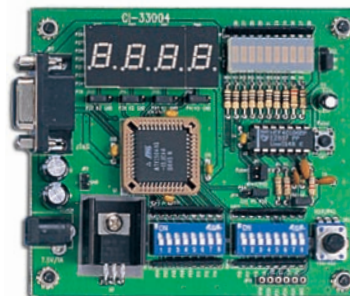
CI-33001C CPLD / FPGA Prototyping Board



● Features

1. Atmel ATF1508-15 CPLD chip, compatible with Altera MAX 7128, contains 128 microcells over 2500 usable gates which is able to reprogram over 10k times.
2. Adopting Altera MAX+PLUS® II for chip development, users can use graphic or text editor (HDL syntax) to design, simulate and implement digital circuit easily.
3. The program is downloaded from PC to CPLD chip via series port with JTAG technology.
4. Provide some simple I/Os for design efficiency
5. Reserve large hardware design area best for circuit prototyping and student project implementation
6. Best solution for the shortages of budget

CI-33004 CPLD / FPGA Experiment Board



● Features

1. Atmel ATF1504-15 CPLD chip, compatible with Altera MAX 7064, contains 64 microcells over 1000 usable gates which is able to reprogram about 10k times.
2. Adopting Altera MAX+PLUS® II for chip development, users can use graphic or text editor (HDL syntax) to design, simulate and implement digital circuit easily.
3. The program is downloaded from PC to CPLD chip via series port with JTAG technology.
4. Provide some simple I/Os for design efficiency
5. Suitable for new FPGA designers
6. Best solution for the shortages of budget

CIC-310 CPLD / FPGA Development System



CIC-310 CPLD/FPGA Development System is self contained system which contains stabilized DC power supplies, Development Board and Experiment Board. CIC-310 also provides digital system designers for hardware verification which enables students to learn digital system design efficiently.

● Features

1. FPGA (FLEX 8000) download board (84pin)
2. I/O experiments board
3. MAX+PLUS® II development software (student version)
4. Program manager software for program download and In-System-Programming
5. Experiment manual

CIC-560 Advanced FPGA Development System



● Features

1. CIC-560 is well equipped for complex digital circuit design.
2. It provides AD/DA converter, keypad, LCD display, PS/2, VGA, UART, SCI interface, LEDs, 8-digit 7-segment LED display, step motor and DC motor driver circuits.
3. Suitable for the curriculum training in electronics, electrical engineering, information, communication and automation field
4. Ideal for professional IC designers, R&D engineers, undergraduate and graduate students to learn IC design and software development
5. Develop and verify basic and advanced digital circuit, digital signal processing and CPU / MCU with large-element and multi-pin FPGA chip



■ LV-200 LabVIEW™ I/O Interface Lab



LV-200 LabVIEW™ I/O Interface Lab is a platform of hardware / software development. It offers a variety of I/O and peripheral devices used in real life and adopts National Instruments LabVIEW™ (G programming language) as development software. Data transfer between LV-200 Lab and computer is performed via USB interface. LV-200 also provides a comprehensive Experiment Manual which describes the operation of I/O circuits and peripheral devices as well as the programming of control programs (Virtual Instruments) using G programming language.

■ CIC-500 DSP Development and Experiment System



● Features

1. FPGA (FLEX 8000) download board (84pin)
2. Program manager software for program download and In-System-Programming
3. Additional training content :
DC motor, stepper motor, temperature and PLC I/O controls
4. I/O expanded socket is included

■ CIC-800A Interface Lab



USB 2.0, RS-232C and Centronics Interface

CIC-800A contains multi-purpose interfaces modules, inclusive of serial port (RS-232C), parallel port (Centronics) and universal serial bus (USB2.0) that can be used for various peripheral devices. Add-on modules are available for experiment purpose. The RS-232C and centronics interface firmware adopt Atmel's chipset modules, and use Microsoft visual C++ 6.0 as developing tools.

The USB 2.0 interface firmware adopts cypress's chipset modules, and uses Microsoft visual C++ 6.0 as developing tools. By learning traditional and popular interfaces, users can reap the benefits. Additionally, we also provide source codes and execution files for further studying.

■ CIC-910A PSoC Training Lab



● Features

CIC-910A adopts cypress chip Cy8c27443 (28 pins) powerful harvard architecture processor with following specialized features:

1. M8C processor speed up to 24 MHz
2. Provide 12 analog and 8 digital PSoC blocks
3. 16K bytes flash program storage with 50,000 erase / write cycles
4. 256 bytes SRAM data storage
5. Making the best trade-offs between price and performance



KL-100 Linear Circuit Lab (1) - Electric Circuits Lab



+ Simulation

The KL-100 Linear Circuits Lab (1) Electric Circuits Lab is a comprehensive and self-contained system suitable for tuition and experimentation with electric circuits.

All the necessary equipment for electric circuit experiments such as power supply, function generator, analog and digital meters are installed on the main unit.

The 11 modules cover a wide variety of essential topics for electric circuit. It is indeed a time and cost saver for both students and engineers interested in training, developing and testing prototype circuits.

KL-200 Linear Circuit Lab (2) - Electronic Circuits Lab



+ Simulation

Features

1. Ideal for electronic circuit experiments and design exercises
2. Integrated experimental circuit and trainer with comprehensive experiment curriculum
3. Supply complete training device with easy and effective for experiments
4. With universal breadboard for circuit designing and prototypes
5. All modules equipped with an 8-bit DIP switch for fault simulations
6. Individual keeping case of all modules for easy carrying and storage facilities
7. Including Computer - based Training.

ide@Lab-200 Intelligent Digitize Emulated Achievement Lab



ide@Lab-200 is a digitized based training system, which utilizes integrated Hardware Platform, Experimental Modules and Software Platform to help students to learn various electronic based subjects. Hardware Platform is composed of multiple measuring instruments such as digital storage oscilloscope, logic analyzer, frequency synthesizer, digital multi-meters and programmable power supply as well as output display unit. Experimental Modules contain versatile electronic based topics for students to carry out, including basic electricity, electronic circuits and digital logic circuits.

KL-300 Digital Logic Lab



+ Simulation

Features

1. Suitable for combination logic, sequential logic and microprocessor circuits design and experiments
2. Ideal tool for learning the basics of digital logic circuits
3. Comprehensive power, signal supply and testing devices for convenient experiments
4. Experiments are expandable and flexible with universal breadboard
5. Capable of processing TTL, CMOS, NMOS, PMOS and ECL circuits
6. All supply units are equipped with overload protection for safety purpose
7. All modules equipped with 8-bit DIP switch for fault simulations
8. Individual storage cases for all modules to be easy kept and carried
9. All signal generators have independent and simultaneous TTL and CMOS level output terminal.
10. Including Computer - based Training.



KL-310 Advanced Digital Logic Lab



CE

The KL-310 Advanced Digital Logic Lab is designed for students and engineers interested in developing and testing prototype circuits. The lab includes combinational logic, sequential logic, memory, ADC/DAC, experiment circuits and offers several application circuits (PWM, timer, motor control..etc.).

All the necessary equipment for digital logic experiments such as power supply, clock generator, switches, displays are built-in on the main unit. The lab has 10 experiment modules and one CPLD & breadboard experiment module.

ETS-8000A General Digitized Training System



CE

Features

1. Suitable for combination logic, sequential logic experiments and design
2. Ideal tool for learning the basic digital logic circuits
3. Comprehensive power, signal supply and measurement devices for making experiments easily
4. Expandable and flexible experiments with the combination of the universal breadboard
5. All supply units are equipped with overload protection for safety
6. Human-computer interaction includes simulation software & emulation hardware.

ETS-3000 Digital-Analog Training System



CE

Features

1. Suitable for basic electric circuits, linear circuits, combinational logic, sequential logic, microprocessor circuits, and FPGA.
2. User-friendly comprehensive power supply, function generator / counter, digital meter, analog meter and testing devices.
3. Universal breadboard(1440 tie points) for circuit design, faya-Nugget breakout boards NGT-series and prototyping.
4. Tie points fitting solid leads AWG#22~30 (0.3~0.8mm).
5. USB Interface for optional fayaduino Nano board, FPGA, MCU.
6. Peripheral hardware:
LED, Joy Stick switch, Rotate switch, Potentiometer, Pulser switch, Rotary encoder, Data switches, Speaker, Power supply, Digital displays, Function generator / counter, DCV/DCA meter, Analog meter, etc,
7. Options: FPGA board (with USB Blaster), MCU board, faya-Nugget Combo Pack.

ETS-9000 Advanced Digital Training System



CE

Features

1. Suitable for combinational logic, sequential logic, microprocessor circuits, FPGA, etc.
2. User-friendly comprehensive power supply, function generator / counter and testing devices.
3. Universal breadboard(1440 tie-points) for circuit design, faya-Nugget breakout boards NGT-series and prototyping.
4. Tie points fitting solid leads AWG#22~30 (0.3~0.8mm).
5. USB Interface for optional fayaduino Nano board, FPGA, MCU.
6. Peripheral hardware:
LED(3 mode), Potentiometer, Pulser switch, Rotary encoder, Data switches, Speaker, Power supply, Digital displays, Universal counter, Function generator, Logic probe.
7. All signal generators have TTL and CMOS level, controlled by CMOS / TTL switch.
8. Options: FPGA board (with USB Blaster), MCU board, faya-Nugget Combo Pack.

KL-210 Basic Electrical / Electronic Circuit Lab



CE

+ Simulation

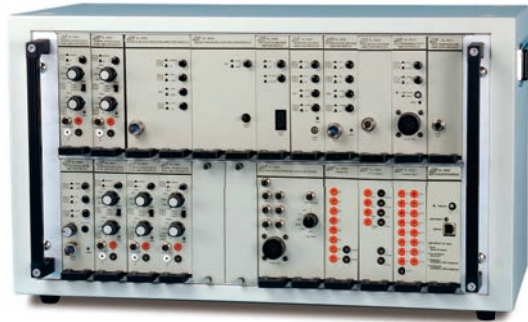
KL-210 Basic Electrical / Electronic Circuit Lab is ideal for electrical, mechanical, automotive, science, civil & electronics engineering learning.

All the necessary equipment for electric circuit experiments such as power supply, function generator, analog and digital meters are installed on the main unit for the requirement of experiment.

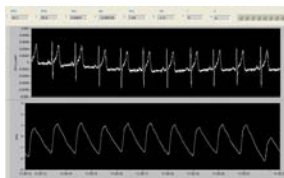
The whole essential topics of electrical circuit learning are studied by different modules.



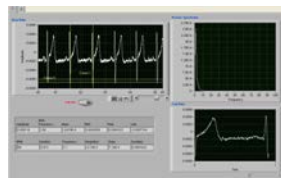
KL-710 Biomedical Measurement Data Acquisition System



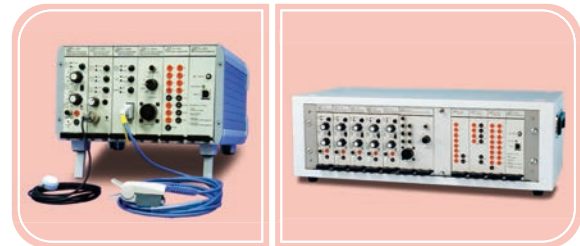
CE



ECG_PPG



ECG_PPG



Features

The software allows you to edit data and control the experiment process appearing on the screen. It performs four general functions:

1. Control the data acquisition process including the analog input, analog output, digital input, digital output and trigger start.
2. Perform real-time calculation including the math functions, digital filter, wave analysis, rate detection and power spectrum.
3. Perform off-line analysis including the statistics, math functions, wave analysis, rate detection and power spectrum.
4. Data can be saved in various formats.

KL-730 Biomedical Measurement Training System



CE

The Biomedical Measurement Training System (KL-730) provides a platform for students to learn how to extract various body signals using bio-electronics sensors. There are a total of 12 modules covering a variety of topics, including: Electrocardiogram (ECG), Electromyogram (EMG), Electrooculogram (EOG), Electroencephalogram (EEG), Blood pressure (BP), Photoplethysmogram (PPG), Respiratory ventilation detection, Pulse meter measurement, Body impedance detection, Doppler ultrasound blood velocity measurement, and Respiration flow/vital capacity meter measurement.

Through the system, students can construct a circuit to process and convert signals into readable forms for further observation and analysis. Also, hands-on practices and experiments allow students to understand the characteristics of various bio-electronics sensors and transducers.



KL-500 Industrial Electronic Trainer



The KL-500 Industrial Electronic Trainer is a self-contained training equipment allowing students to learn more than 70 experiments through a power supply unit and 16 replaceable modules.

Various types of industrial electronic devices, such as UJT, PUT, SCR, SCS, DIAC, TRIAC, JFET, MOSFET, IGBT are introduced in this system. For each device, students are able to learn its characteristic, trigger circuit. Moreover, application circuits provide students a comprehensive understanding of related knowledge in this technology field.

KL-600 Advanced Sensor Experimental System



The KL-600 Advanced Sensor Experimental System is a comprehensive sensor / transducer control training system that incorporates industrial-grade components with various control circuits and load units. Its modular and closed-loop control circuits allow implementation of open-ended, individual control loops used in industrial applications.

KL-600 provides quantitative experiments, also with different sensors and transducers, but it's possible to measure more precisely the relationship between analog signals and voltage. The analog signals (like temperature or pressure) can be set and represented by a value.

The KL-600 uses only industrial-standard sensors / transducers (0~10V, 4~20mA) with USB interface.

KL-620 Basic Sensor Experimental Lab



The KL-620 Basic Sensor Experimental Lab is a comprehensive sensor / transducer control training system. Its modular and closed-loop control circuits allow implementation of open-ended, individual control loops used in industrial applications.

KL-620 provides qualitative experiments, it uses different sensors or transducers for experiments. With KL-620, we give attention to observe the relationship between analog signals (like temperature or pressure) and voltage. The analog signals (like temperature or pressure) can not be measured and represented by a value.

The KL-620 uses only industrial-standard sensors / transducers (0~10V, 4~20mA) with USB interface.



KL-630 MEMS Training System



MEMS (Micro-electromechanical Systems) based sensors such as accelerometer, gyroscope and magnetometer are crucial components used in smart portable devices, like smart phone and tablet PC. The demand of MEMS sensors has been increased dramatically and identified as one of the most promising technologies nowadays.

K&H develop world's first series of MEMS-based training system to facilitate students learning various MEMS functions and applications more systemically. 4 different types of MEMS based sensors are introduced in this training system, including 3-axis accelerometer, 3-axis gyroscope, barometer and magnetometer. To ensure quality results for experiment, module with XYZ-Axis Rotation Stand is specially designed to carry out three - dimensional motion experiments with operation of accelerometer and gyroscope module.

ACS-1000 Analog Control System



CE

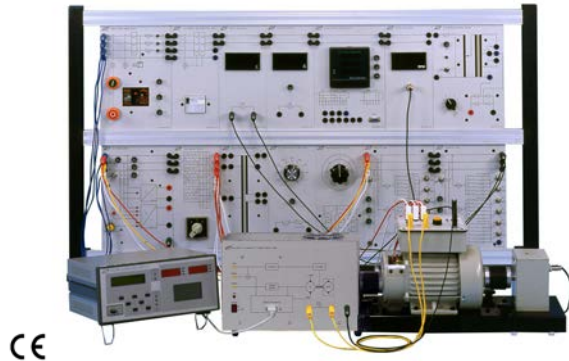
ACS-1000, covered with many technical disciplines, explicates the central significance of Analog Control System. It applies particularly in mechanical and electrical engineering, and as well in production and process technology. It is indispensable to plant and system technology.

In the automation field, important optimization tasks would be quite impossible to be accomplished without closed-loop control technology. In line with its increasing importance, closed-loop control has become an essential subject in professional training and further education for many professions.

In the newly formulated training curriculum, this technology plays an important role covering a number of subjects in syllabuses for training in industry and the crafts.



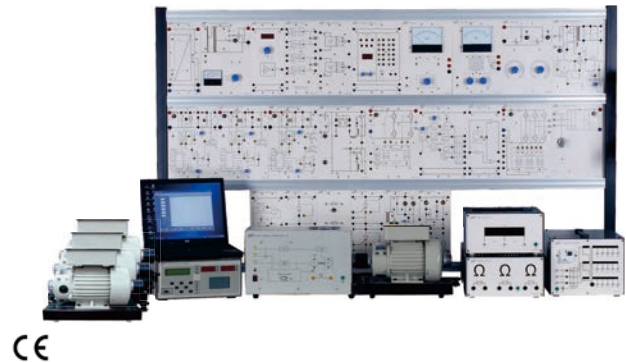
EM-3000 Electrical Machine System



The electrical machines system leads students to distinguish the mechanical similarity and difference among all electrical machinery.

Students study and turn all kind of electrical machinery into circuit models for the foundation. Moreover, it enhances students ability for further application and control. Besides facilitating teaching, it makes students be familiar with a different kind of electrical mechanical test.

PE-5000 Power Electronics Training System



Features

The PE-5000 is the combination of power, electronics, and control. It has a wide applications of solid-state electronics for the control and conversion of electric power. Popular circuits of power electronics contain rectifiers, choppers and inverter.

The experimental for PE-5000 modules includes converter, power supply, load, control and testing modules. These experimental modules and instruments will be introduced and demonstrated in the subsequent experiments.

EM-3350 Cutaway Model of Electrical Machine

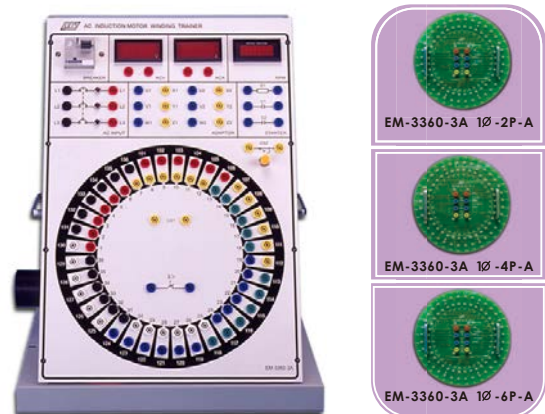


Cutaway models are made from normal electrical machines.

The stator is cut away by 1/4 over the entire length to enable an optimum view of the internal construction of the machine and it is still operating. The cutaway surfaces are protected against corrosion.

DC Permanent-magnet Motor (EM-3350-1A)
Single-phase Induction Motor (EM-3350-1C)
DC Shunt Wound Motor (EM-3350-1D)
DC Compound Wound Motor (EM-3350-1F)
Three-phase Salient Pole Synchronous Motor (EM-3350-3A)
Three-phase Rotor Winding Motor (EM-3350-3B)
Three-phase Squirrel Cage Motor (EM-3350-3C)

EM-3360-3A AC Induction Motor Winding Trainer



EM-3360-3A AC Induction Motor Winding Trainer can be configured for various poles as the self-starting three-phase induction motor and single-phase induction motor which is used with the resistor or capacitor starting.

Students can learn the different types of motor winding through the simple winding connection. In addition, with external load torque provided by Magnetic Powder Brake Unit (EM-3320-1C), Brake Controller (EM-3320-1N) and Three-phase Power Supply (EM-3310-1E), students can see the characteristics of different types of motor.



KR-101 Refrigerator Model Training System



The Refrigerator Model Training System (KR-101) is in fact a real refrigerator. Once students understand the operation principles of a refrigerator, they will be able to connect the components correctly and easily because KR-101 locates all essential refrigerator components on the front panel of the system. The meters are also located on the front panel to allow students to record the status of the components during the operation of KR-101.

The four major elements, including Condenser, Compressor, Evaporator, and Capillary Tube are located at the rear side of the system for students to touch and feel them. Through observing these 4 elements, students can also draw the Mollier Chart to record the characteristics of the refrigerant during different phases of the refrigeration cycle.

KR-102 Refrigerator Training System



The Refrigerator Training System (KR-102) is designed for the skill training of a refrigerator, including refrigerator circuit constructing, system processing, and copper tube welding. Modified from an actual refrigerator, KR-102 is installed with safety plug and terminals. In addition, for welding and refrigeration process exercises, the system consists of 3 low pressure manual valves and 1 high pressure manual valves.

KR-270 Automotive Air Conditioner Training System

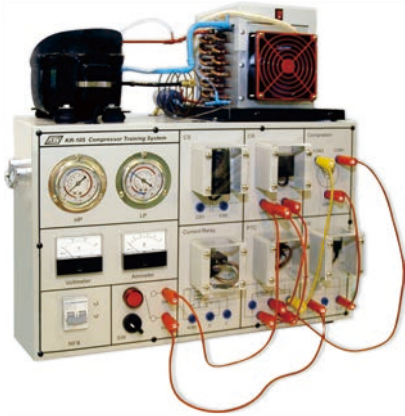


The structure of KR-270 is based on a real air conditioner of an automotive system. The evaporator is protected by plastic acrylic so that students can easily observe the internal structure of the evaporator. It also allows students to safely observe how fan door switches the function of air conditioner between cooler and heater when the system is operating.

The system adopts a three phase motor with varied speed to simulate the function of the engine so as to drive the air compressor. The circulating water originally heated by hot engine for heater application is completed by an integrated heating coil.



KR-105 Compressor Training System



The Compressor Training System (KR-105) provides a training platform for circuit wiring of compressors. The system has 2 start-up methods (current-mode and PTC). Students are able to comprehend the operating principles of the start-up circuit by observing and measuring the signals from the terminals of the circuit.

Inside KR-105, there is a refrigeration system, so the start-up circuit can successfully drive a real compressor after the correct wiring is complete. Besides, several meters are embedded in the front panel and connected with the compressor at the back for convenient observation and measurement during the operation of the system.

KR-112 Mini Ice Plant Training System



KR-112 adopts an industrial way of ice plant. Forced air cooling and water cooling are two cooling methods in the system. Different from forced air cooling by a fan under similar room temperature at a time, our transparent cooling tower enables users to simulate different heat dissipation capacity by water cooling and with variable air volume. Students can observe different effects on ice plant from changes in surrounding temperature. The Forced air cooling and water cooling can be used at the same time or separately to test different effects.

System should include the Human Machine Interface with build in programs which are the standard control method for the system operation, and the control interface is modifiable (the system provides the original program).

KR-351 Chilled Water Refrigeration System Control Trainer



● Features

1. The commonly-used control components of chilled water unit are mounted on the panel layout for easy learning.
2. Three-phase motor is used in place of compressor. The learner can proceed their hands-on practicing step by step from basics like interlocking circuit, motor start-up and control circuit of forward / reverse rotation, to the advanced exercises such as the complete control circuit of reciprocating / screw type chilled water unit, etc..
3. The pressure component used on this trainer is triggered by direct vapor-pressurizing so the system can be close to the real one. On the contrary, the traditional components used for teaching in the past that have to be actuated by bolt or screwdriver can be discarded.



KR-115 Refrigeration Cycle and Heat Pump System



KR-115 is designed to learn the theory of Heat Transfer in refrigeration engineering. With proper setup, KR-115 can be emulated as a Refrigeration or Heat Pump system. All system components are mounted on the front panel so students can directly observe, touch the components, and hear the noise produced by the components while it is running under either Refrigeration or Heat Pump cycle.

KR-115 offers three expansion devices available for the refrigerant to pass through; they are pressure expansion valve, capillary tube, and thermal expansion valve. Students can use the control panel to switch the preferred expanding path from three expansion devices and compare the corresponding performance under Refrigeration or Heat Pump cycle.

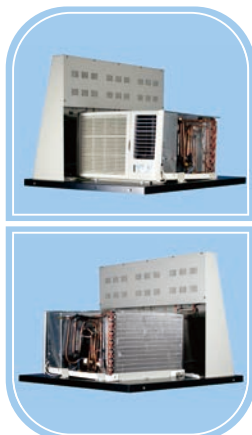
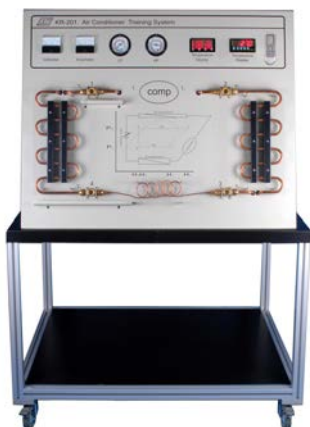
KR-115B Refrigeration Cycle and Heat Pump System with HMI



KR-115 offers three expansion devices available for the refrigerant to pass through; they are pressure expansion valve, capillary tube, and thermal expansion valve. Students can use the control panel to switch the preferred expanding path from three expansion devices and compare the corresponding performance under Refrigeration or Heat Pump cycle.

Using HMI control system, touch panel can easily control and check system's experiment status for students; the panel will display system working status, temperature and pressure numbers, units easy to choose and change.

KR-201 Air Conditioner Training System



The main composition of KR-201 is a window type air conditioner just like real one in our daily life. What makes it special is that students are able to observe the operation of the internal components and the state of the refrigerant while the air conditioner is running.

From the front panel, there are four refrigerant sight glasses, which provide students an excellent view to observe the state of the refrigerant before and after passing through four major elements: Compressor, Condenser, Capillary Tube, and evaporator.

Students can also use built-in gauges/meters to draw the Mollier Chart and so as to understand the performance of this air conditioner. Combining the observation of refrigerant state during different phases of the refrigeration cycle, KR-201 helps students to understand the operating principle of the window type air conditioner easier and faster.



KR-221 Packaged Air Conditioner Training System



● Features

1. The Packaged Air Conditioner Training System used is the same equipment as that of market one teaching and market no gap.
The design of this system is consistent with Packaged Air Conditioners available on the market. So it is not only suitable for educational training, but also applicable for professional practice in student's future career.
2. Designed to facilitate the operation of the overall equipment at a glance, So students can clearly see the water pipe connection and understand the direction of water flow and how to use the water pump.
3. There are flow meters and thermometers in the water pipe line, students can understand the state of water flow and analyze the operation status of KR-221 from the data.
4. Designed to bring together devices that were originally installed around the building to facilitate the teaching process and interpretation of the system. Moreover, the trainees are more likely to understand the relevance of each device and can easily move their equipment.
5. The connection lines are extended to the front panel for easy practice and a clear understanding of how the board is connected to the line.

KR-212 Single-Split Type Cooling / Heating Air Conditioner Training System



Due to its lower level of indoor noise and higher flexibility of installation, Split Type Air Conditioner becomes more and more popular in nowadays. KR-212 itself is a real split type air conditioner especially designed for teaching purpose. Both indoor and outdoor units are installed on the demonstration stand so students can learn the operating principle of both units at the same time. User can easily observe and record the status of both units while running under different setup by remote controller such as temperature, fan speed, or operating mode (cooler, heater, dehumidifier...)

Four valves are intentionally designed to be located at the front panel of the demonstration stand to allow students handily install the connection pipes (gas pipe and liquid pipe) between indoor and outdoor units. This helps students further to realize how Indoor and Outdoor Units cooperate with each other as well as to understand the refrigerant path during its circulation cycle.

Students can use the built-in gauges / meters and additional measurement tools to record the experimental data and further to draw the Psychrometric Chart and Mollier Chart so as to understand the performance of this air conditioner.

PLC-100 Programmable Logic Controller (FATEK PLC) Trainer



PLC-100 is a self-contained trainer which consists of a FATEK PLC main unit and commonly used I/O devices for simulation. It provides students with a thorough understanding of the theories and applications of programmable logic controllers. This trainer enables students to learn step by step from the fundamentals of PLC to more advanced controls used in industry.

PLC-200 Programmable Logic Controller (SIEMENS S7-200) Trainer



PLC-200 is a self-contained trainer which consists of a SIEMENS PLC main unit and commonly used I/O devices for simulation. It offers students excellent theories and wide applications of programmable logic controllers. This trainer enables students to learn step by step from the fundamentals of PLC to more advanced controls used in industry.

PLC-220 Programmable Logic Controller (SIEMENS S7-1200) Trainer



PLC-220 is a self-contained trainer which consists of a SIEMENS PLC main unit and commonly used I/O devices for simulation. It offers students excellent theories and wide applications of programmable logic controllers. This trainer enables students to learn step by step from the fundamentals of PLC to more advanced controls used in industry.

PLC-310 Programmable Logic Controller (MITSUBISHI PLC) Trainer



PLC-310 is a self-contained trainer which consists of a MITSUBISHI PLC main unit, I/O devices for simulation and I/O devices that are commonly used. It provides students with a thorough understanding of the theories and applications of programmable logic controllers. This trainer enables students to learn step by step the fundamentals of PLC and more advanced controls used in industry.

MS-7200 Portable Mechatronics Training System (for PLC-200)



MS-7200 contains two independent mechatronics training modules. They are automatic sorting robot and linear positioner. These two modules can be controlled by PLC-200 directly or by other PLC systems through its digital input and output ports on control panel. Each model provides at least ten training courses, beginning from learning the characteristic of every mechatronic component to controlling of whole mechatronic system. It provides an efficient way to build solid knowledge and concept of "Factory Automation" control.

MS-7400 Portable Mechatronics Training System (for MCU)



MS-7400 provides two independent mechatronics training modules. They are automatic sorting robot and linear positioner. These two modules can be controlled by MS-C100 directly or other microcontrollers through its digital input and output ports on control panel. Each model offers at least ten training courses, beginning from learning the characteristic of every mechatronic components to controlling of whole mechatronic system. It provides an efficient way to build solid knowledge and concept of "Factory Automation" control.

MS-7600 Portable Mechatronics Training System (for PLC-310)



MS-7600 contains two independent mechatronics training modules. They are automatic sorting robot and linear positioner. These two modules can be controlled by PLC-310 directly or other PLC systems through its digital input and output ports on control panel. Each model offers at least ten training courses, beginning from learning the characteristic of every mechatronic component to controlling of whole mechatronic system. It provides an efficient way to build solid knowledge and concept of "Factory Automation" control.

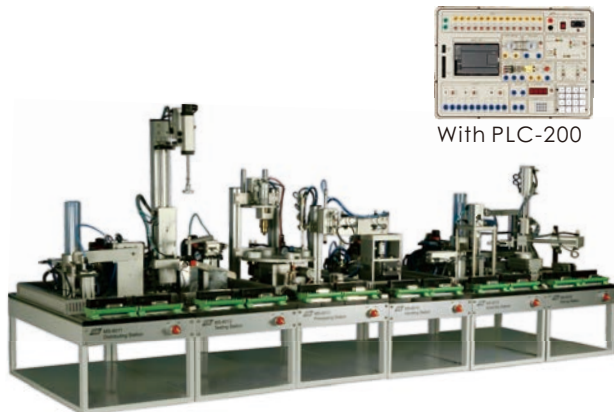
PS-1000 Pneumatic Training System



It is well known that "Factory Automation" is an indispensable measure to reduce labor cost, improve production efficiency and achieve higher product quality. It is widely adopted by electronic, semiconductor, LCD and mechanical factories. In factory automation, "air pressuring" plays a very essential and critical role.

The "PS-1000" is launched to offer enriched knowledge from basic air pressure components, advanced air-pressure loop design to PLC-based electrical control system. The trainee can prepare themselves to be a high-level automation engineer with the help of the "PS-1000" trainer system.

MS-6200 Mechatronics Training System (for PLC-200)

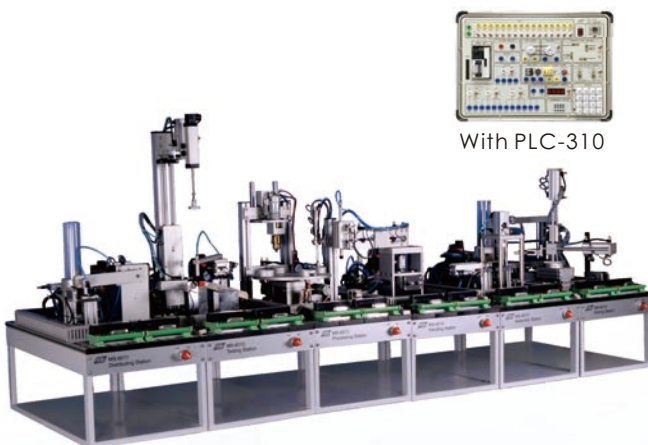


Since PLC (Programmable Logic Controller) was firstly introduced in 1970, it has been widely applied to various industrial uses such as machine and process controls.

The Modular Production System stations allow various simulations of real production processes that exist in industrial field. The system is universal, industry-based, modular and flexible for further expansion. Students can learn the entire process of production, such as feeding, processing, etc.

Each station simplifies the training of operation and can be expanded sequentially step by step through building complex automated procedure.

MS-6600 Mechatronics Training System (for PLC-310)



Since PLC (Programmable Logic Controller) was firstly introduced in 1970, it has been widely applied to various industrial uses such as machine and process controls.

The Modular Production System stations allow various simulations of real production processes that exist in industrial field. The system is universal, industry-based, modular and flexible for further expansion. Students can learn the entire process of production, such as feeding, processing, etc.

Each station simplifies the training of operation and can be expanded sequentially step by step through building complex automated procedure.

HS-2000 Hydraulic Training System

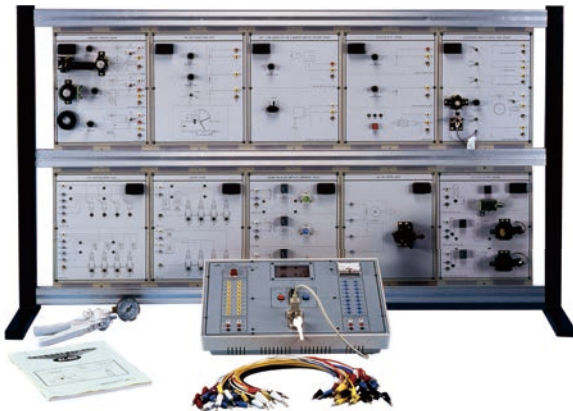


It is well known that "Factory Automation" is an indispensable measure to reduce labor cost, improve production efficiency and achieve higher product quality. However, it is widely adopted by electronic, semiconductor, LCD and mechanical factories. In factory automation, oil pressuring" plays a very essential and critical role.

The "HS-2000" is launched to offer enriched knowledge from basic oil pressure components, advanced oil-pressure loop design to PLC-based electrical control system. The trainee can prepare themselves to be a high-level automation engineer with the help of the "HS-2000" trainer system.



KL-800 Autotronic Training System



Interactive Computerized Automotive System

The whole system has been modularized to provide electronic and automotive courses with step-by-step experiments on educational technology training.

All theoretical, experimental and practical learning procedures are supported by personal computer assisted supervision and dedicated software.

The KL-800 can simulate the operation of fuel injection system, ignition system, and the control of exhaust gas, etc. Experiments include the characteristics, and operation of various sensors and actuators, monitored by microprocessor on the main unit.

Features

1. Can be assembled as the injection system
2. With trouble-shooting simulation function
3. Switch-off input / output function when trouble-shooting is made

KL-800A CAN BUS Autotronic Training System



Controller Area Network

The KL-800A CAN BUS Autotronic Training System is a distributed control system supported by advanced serial bus system CAN (Controller Area Network). CAN is a multi-master bus with an open, linear structure with one bus line and equal nodes. The number of nodes is not limited by the protocol.

Each module of KL-800A system is an ECU or the interoperable device (node) on CAN BUS. Data transfer between modules is achieved by the micro - controllers over CAN BUS. When signals and data are sent to a personal computer, the computer monitoring system displays the current status and data of module on PC screen and turns on the warning light if something is wrong.

The KL-800A system can simulate the operation of fuel injection system, ignition system and exhaust gas control. Experiments include the characteristics and operation of various sensors and actuators used in automobiles.



GES-100 Solar Cell Trainer



The GES-100 Solar Cell Trainer is an easy and self contained trainer designed for learning the basic configuration and characteristics of a solar cell.

Through the use of different irradiancies for various load units, students study the photoelectric effect of solar cells and plot the current-voltage curve as well as charging / discharging curves.

GES-300 H₂/O₂ Fuel Cell Trainer



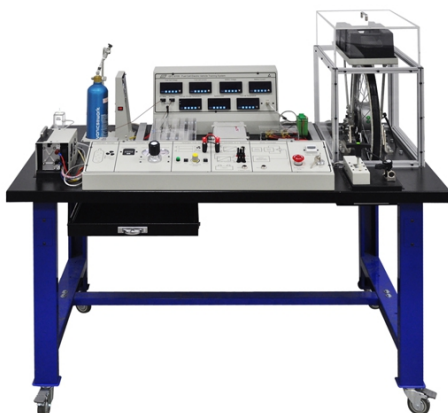
Features

1. GES-300 is a basic trainer of the Proton Exchange Membrane Fuel Cell (PEMFC).
2. Open system configuration with modularized-design elements
3. Understand the combination of water by electrolysis
4. The voltage and current can be measured.
5. A complete fuel cell database can be constructed for study, research and development.
6. The brightness of the simulated sunlight is adjustable.



GES-33001
The lid can be separated

GFC-6100 Fuel Cell Electric Vehicle Training System



A Fuel Cell Electric Vehicle (FCEV) is a hydrogen vehicle which produces electricity to power. Its on-board electric motor uses hydrogen fuel cell. It provides an effective solution saving natural resource and alleviating environmental pollution. In the progress of fuel cell technology, the importance of the topics such as how to use fuel cell in an electric vehicle system and how to integrate fuel cell control with other subsystems has been enhanced. GFC-6100 Fuel Cell Electric Vehicle Training System is designed to demonstrate the application of fuel cells onto electric vehicles, including the FCEV mechanism, fuel cell system, hydrogen supply system, and motor controller.



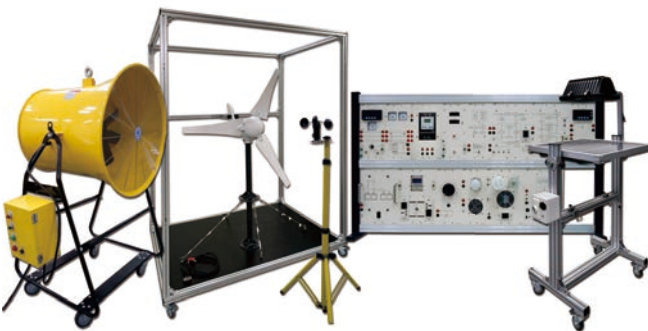
GES-200 Wind Energy Trainer



The GES-200 Wind Energy Trainer is an easy and self contained trainer designed for learning the basics and characteristics of wind energy.

The current-voltage characteristic curves and charging / discharging curves are obtained through the use of different wind speeds, load units and wind generators.

GES-500 Wind and Solar Hybrid System



GES-500 (Wind and Solar Hybrid System) is composed of Solar Panel, Battery Bank Module, MPPT Solar Charging Controller Module, DC-AC Inverter Module, Grid-tie Inverter Module, Wind Generator Set, Wind Energy Monitor Module, Three-phase Rectifier Module, Wind and Solar Hybrid Controller Module, Load Module and Meters. By means of combining all these control systems, a teaching platform for implementation of the wind power, solar power and hybrid experiments is presented. It can help students understand the theory of on-grid and off-grid solar power, wind power generation system, hybrid system and further create practical applications.

GFC-3100 PEM Fuel Cell Hybrid Training System



Features

1. An open system architecture & a flexible panel designed for easy replacement of parts
2. A specific fuel-cell database provided for learning and R&D application
3. Data can be displayed and stored in the software
4. Real-time operation status of the system can be observed using a digital meter
5. Safety plugs are equipped with all the input and output terminals for the purpose of easy and safe connection during experiments.
6. Polarity reversal protection is provided to prevent damage from reverse polarity of the supply voltage.
7. An effective and efficient solutions are provided for the fundamental learning of hydrogen PEM fuel cells, the method for storing hydrogen, and related safety norms.



KI-3020A Semiconductor Curve Tracer



Curve tracing on a scope could be made easily by KI-3020A. However, only a Sync. Oscilloscope is required. Characteristic curves of all types of semiconductor-transistor such as FET, diodes, zener diode, SCR, TRIAC, DIAC, UJT etc, are accurately displayed. By examining these curves you can determine all of the operating characteristics of the device you are testing including gain (β), cutoff current, leakage current, output admittance and any other measurable specifications. It is far superior to the general transistor tester for checking quality. Uniquely, it is intended for testing semiconductors in production line and lab as well as making troubleshooting by technicians.

KI-3020D Digitized Semiconductor Curve Tracer



KI-3020D is designed to create a digital curve for testing 2-pin / 3-pin semiconductor devices, such as Diodes, NPN / PNP Transistors, FET, IGBT, UJT, SCR, TRIAC, etc... All results are displayed on built-in TFT LCD screen without additional oscilloscope or PC. It also provides the touchscreen for intuitive manipulation—simply touchscreen buttons to set up desired measuring conditions, including device type, voltage bias, or current steps, etc...

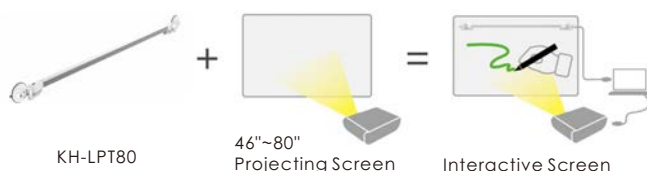
KH-LPT80 Portable Interactive Device



Compatible with a projector, KH-LPT80 makes a display interactive and brings smooth writing and drawing experience to the new display area.

- Adjustable and portable
- For 46"~80" display
- Easy installation and quick calibration

※ Best solution is supported by a short throw projector.
 ※ The whiteboard and projector are not included.



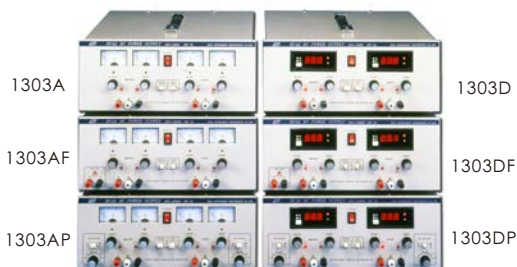
DF-600 Differential Active Probe



DF-600 Differential Active Probe is a high input impedance and low input capacitance probe that is compatible with any 50 Ω input oscilloscope and provides both Differential and Single-Ended measurement modes. The user can use attenuator switch to select the desired attenuation upon measurement needs.



DPS-1000 Series Dual DC Power Supply



DPS Series

Dual Output

Model	Output Voltage	Output Current	N.W(kg)
DPS-1303A	0~±30V	3A	11.6kg
DPS-1306A	0~±30V	6A	13.6kg
DPS-1603A	0~±60V	3A	13.6kg
DPS-1303D	0~±30V	3A	12kg
DPS-1306D	0~±30V	6A	14kg
DPS-1603D	0~±60V	3A	14kg

Dual Output With Six Pre-set Voltage(3,5,6,9,12,24V)

Model	Output Voltage	Output Current	N.W(kg)
DPS-1303AP	0~±30V	3A	11.8kg
DPS-1306AP	0~±30V	6A	13.8kg
DPS-1603AP	0~±60V	3A	13.8kg
DPS-1303DP	0~±30V	3A	12kg
DPS-1306DP	0~±30V	6A	14kg
DPS-1603DP	0~±60V	3A	14kg

Triple Output With One 5V/3A Fixed Output

Model	Output Voltage	Output Current	N.W(kg)
DPS-1303AF	0~±30V	3A	13kg
DPS-1306AF	0~±30V	6A	15kg
DPS-1603AF	0~±60V	3A	15kg
DPS-1303DF	0~±30V	3A	13.2kg
DPS-1306DF	0~±30V	6A	15.2kg
DPS-1603DF	0~±60V	3A	15.2kg

Dimension(H x W x L) : 133 x 300 x 345(mm)

DPS-2303DF Digitized Semiconductor Curve Tracer



The DPS-2303DF are linear DC power supplies with 3 channels, 195W output. In constant voltage and current operations, the power supply provides high regulation and low ripple & noise. Auto series and parallel operations double output voltage and current. A particular feature of the DPS-2303DF is the USB output with fixed 5V/2A. The USB 5V/2A output can be used for charging various small electronic devices and for some special logic circuits. The output ON/OFF control and preset voltage & current function protect the power supply and related loads from unexpected damages. The DPS-2303DF are widely used in applications of powering operational amplifier, push pull stages, logic circuit and definition systems.

AFG-1005 Arbitrary Waveform/Function Generator



The AFG-1005 are arbitrary waveform / function generators with maximum frequency of 5MHz, based on Direct Digital Synthesis (DDS) technology providing flexible performance and system features for basic scientific and industrial requirements.

AFG-1025 Arbitrary Waveform/Function Generator



The AFG-1025 are arbitrary waveform/function generators with maximum frequency of 25MHz, based on Direct Digital Synthesis (DDS) technology, providing high fidelity, low jitter performance function signal and arbitrary waveform signal.

TB-1000 Training Bench

Order Information



TB-1101
(BTC-11001&WTA-36)



TB-1102
(BTC-11001*2&WTA-36)



TB-1103
(BTC-11001&EM-3380-1B)



TB-1104
(BTC-11001*2&EM-3380-1B)



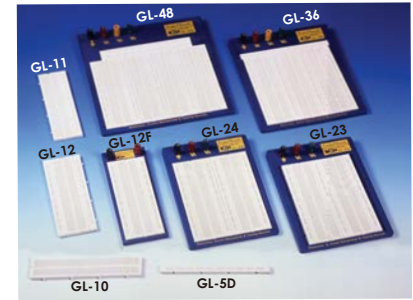
AD Series



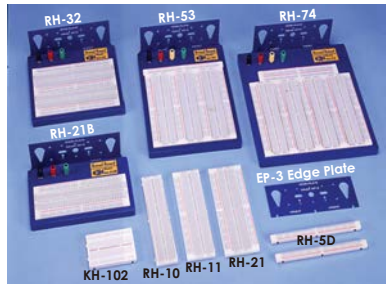
UIB Universal Interface Breadboard



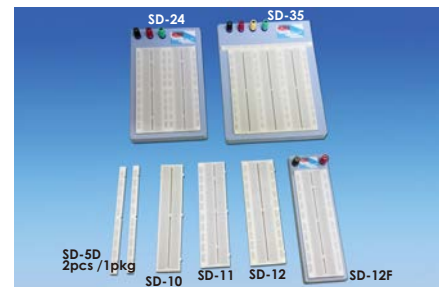
GL Series



RH Series & KH-102



SD Series



PSB-01 AC/DC Power Supply for Breadboard



With Built-In Short-Proof Regulated Power Supply

1. Power switch with lamp
2. Just plug in and start to use
3. Compact and lightweight
4. For both digital / analog circuits

For Breadboard

LA-60 Breadboard for Brick, ARDUINO



Test Leads





Logic Probe



LP-2800

LP-3500

Logic Pulser



LP-540H

Logic Probe & Pulser



LP-2001

LP-1001

SY-805 Computer Servicing Tool Kit(1)



SY-703 Computer Servicing Tool Kit(2)



SY-815 Computer Servicing Tool Kit(3)



SY-9457 Computer Servicing Tool Kit(4)





Universal Project & Potting Box



Universal Project Box(PX Series)



Potting Case(AX Series)



Potting Case(BX Series)



Circuit Box(CB-01)



Project Case (DX-01)



Project Case (EX-01)

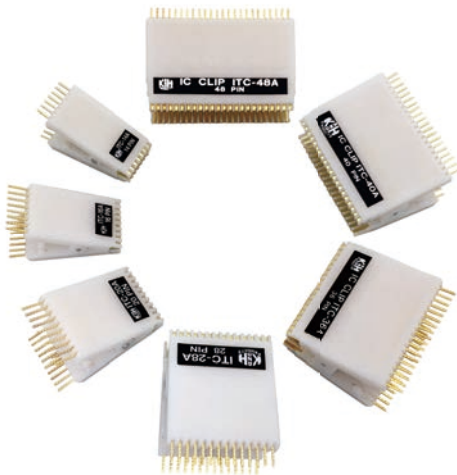


Hand Held Cases



Universal PC Board

IC Test Clips



IC Tools



Breadboard & Accessories



KS-350



SWS-01

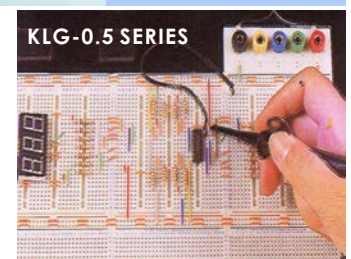
SWS-02
SWS-03

SWS-04



TS-150

TS-1000PY



KLG-0.5 SERIES



■ IDL-400 Logic Trainer



■ IDL-600A Analog Lab



■ IDL-800A Digital Lab



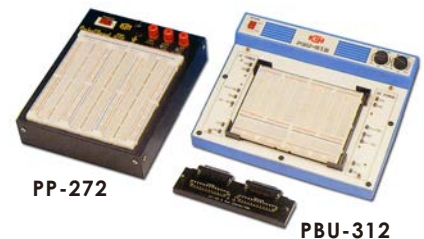
■ ETS-5000 Advanced Digital Training System



■ ETS-7000A Digital-Analog Training System



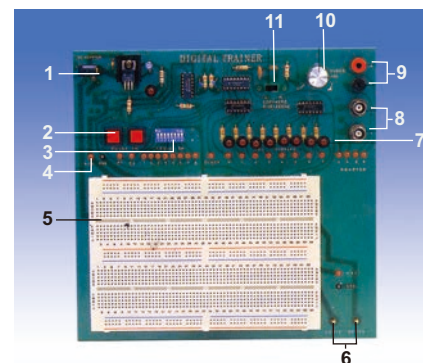
■ PP-272 / PBU-312 Power project board / Circuit Lab



■ DT-01 Digital Trainer



With components sourced by users, the following experiments can be constructed by DT-01 hardware and user's guide: LED display, Getting a pulse, Setting a logic level, Getting a clock and using the logic probe, AND/OR/NOT/NAND/NOR/XOR Gate, Three state buffer, RS latch, JK Flip Flop, Monostable multivibrator, and Asynchronous up/down counter.



● Specifications

1. AC adaptor jack : I/P DC + 8V, 1.5A
2. Pulse switch : Two bounce-free push-buttons
3. Logic switch : Eight logic level switches in DIP type
4. DC O/P : DC + 5V, 750mA for user
5. B-023 breadboard : Solderless breadboard with 1580 interconnected tie points
6. Clip terminal : Logic probe clip terminal
7. LED display : Eight LED buffered logic level indicators.
8. BNC jacks.
9. Banana jacks.
10. Clock adjustment : Fine adjustment of clock frequency
11. Select switch : Clock range selection
L : 10-40Hz. H : 1K-20KHz.



OLS-1000 Analog Overlay Learning System



OLS-2000 Digital Overlay Learning System



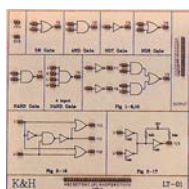
Features

1. The OLS-1000 Analog Overlay Learning System is compatible with K&H IDL-600A Analog Lab Training System and ETS-7000A Digital - Analog Training System.
2. The OLS-2000 Overlay Learning System is compatible with K&H IDL-800A Digital Lab, DT-01 Digital Trainer, ETS-5000 Advanced Digital System and ETS-7000A Digital Analog Training System.

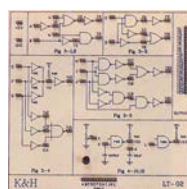
To assemble and examine experiment is laborious. OLS Series will help the students to visualize the function of experiment circuit. Electronic theory will be taught straightly out of book accordingly.

The main objective of this trainer is to teach the student of electronic circuits rather than focusing on the assembly of the components.

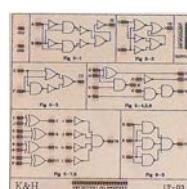
LT-1000 Digital Learner's Teacher



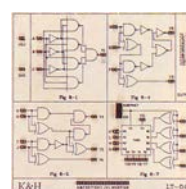
LT-01



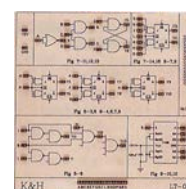
LT-02



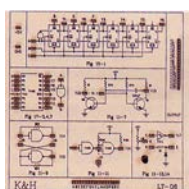
LT-03



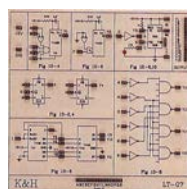
LT-04



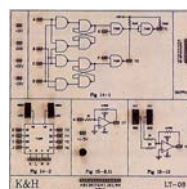
LT-05



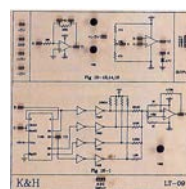
LT-06



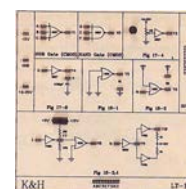
LT-07



LT-08



LT-09



LT-10

Features

1. With 10 modules including 18 experiments
2. Step-by-step exercises and application
3. Compatible with ETS-7000A digital-analog system and ETS-5000 advanced digital system
4. Modules can be changed easily
5. With experiment manual

Specifications

1. 10 experiment modules
2. Symbols of element for experimental circuit are printed on the modules.
3. Weight : 4Kg



The High Quality Training System

In Aviation field, K&H offer pilot simulator, avionics training, maintenance skill development, and troubleshooting solutions

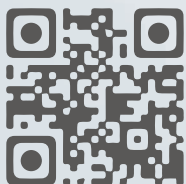




KNOWLEDGE AND HOPE



K&H MFG. CO., LTD.



E-mail: education@kandh.com.tw
Tel: 886-2-2286-0700(Rep.) 886-2-2286-7786
Fax: 886-2-2287-3066, 886-2-2287-9704
5F., No. 8, Sec. 4, Ziqiang Rd., Sanchong Dist,
New Taipei City 241, Taiwan (R.O.C.)
www.kandh.com.tw

