

# A Tech

**Automotive Technology**



**Interactive Multimedia**

## Automotive Fundamentals™

**Automotive Electricity and Electronics**  
**SERIES 1800**

**A new era of  
performance based training.**



## Automotive Electricity and Electronics Multimedia Programs

### Features:

- Automotive Electricity Computer Based Instruction (CBI) Software (model 1810W)
- Automotive Electronics Computer Based Instruction (CBI) Software (model 1820W)
- Hands-on and Computer Animation Hold Student Interest
- Provides Troubleshooting Practice and Competency Testing
- Classroom Management with Remote Fault Insertion Capability
- Student Record Keeping with Print-Outs



**Continuing Automotive  
Service Education**

**CERTIFIED TRAINING PROVIDER**

A-Tech Training, Inc

## Computer Based Programs

The #1 provider of Engine Performance Trainers continues to develop innovative computer based simulation programs...

ATech's automotive fundamentals programs have harnessed the power of computers to enhance the learning experiences with animations of important concepts.

Hands-on activities provide "need-to-know" reinforcement, while computer controlled diagnosis provides troubleshooting practice and competency testing.

Invites student interest and participation.

## Educationally Effective and Industry Proven

Introduced in 1986 and used at hundreds of public and private schools, ATech's Automotive Electricity and Electronic Program is designed specifically for automotive, autobody, and truck students.

This very popular program also provides corporate training for Ford, DaimlerChrysler, Nissan, and Bosch technicians, as well as the U.S. Postal Service, the Navy, and many other industry organizations.

## Model 1801B Trainer

ATech's Automotive Electricity and Electronic Program is supported by the model 1801B Troubleshooting Workstation. This Trainer supports all 1800 Series Courseboards to provide students with hands-on experience.



The model 1801B Troubleshooting Workstation also features:

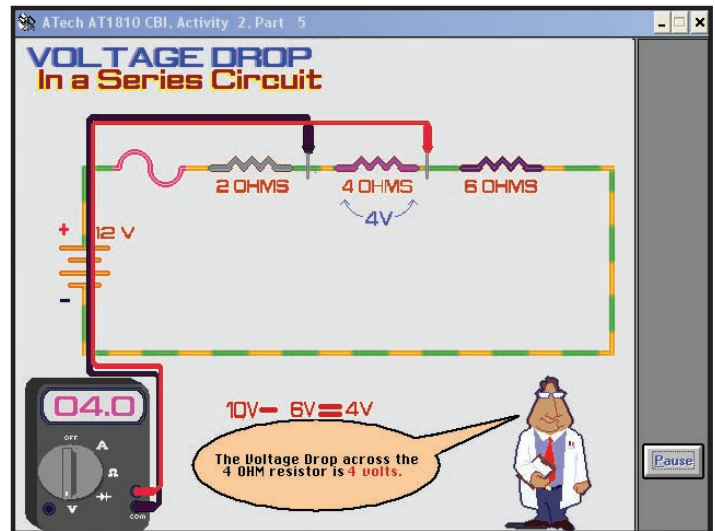
- **Internal 12 Volt DC Power Supply**  
The Trainer plugs into any standard electrical outlet. The power supply also includes a master on/off switch, POS and NEG Terminal Posts and Fused Protection. The Power Supply is protected from "dead shorts" or other over current concerns.
- **Simplified Digital Multimeter**  
The On-Trainer Digital Multimeter is scaled to simplified current, voltage, and resistance measurements and calculations throughout the 1810A Automotive Electricity Program. The Multimeter includes a circuit breaker to protect against incorrect hook-up.
- **Printed Circuit Fault Board**  
Mounted internally in the Workstation, the Micro-Controller based fault board offers 21 different computer controlled faults. A cable (provided with the Trainer) connects the Trainer to the PC's USB Port.
- **Carry/Storage Case**  
The ATech 1801B Workstation includes a convenient storage case constructed of durable plastic. Foam cut-outs accommodate the Workstation, up to four courseboards, meter leads, and other assorted supplies.

## 1810W CBI Automotive Electricity

This program consists of sixteen student activities with over sixty animations—designed to present the fundamentals of automotive electricity.

### Activity List:

1. Electrical Components
2. Voltage & Voltmeter, Series Circuit, Current & Ammeter, Ohmmeter
3. Electrical Faults: Open, High Resistance & Short to Ground, Fault Troubleshooting
4. Ohm's Law: Parallel Circuit
5. Relay: Trunk Release Circuit, Test Light
6. Horn Circuit: Relay #2, Jumper Wire
7. Back-up Light Circuit, Switches, Resetting-type Circuit Breaker
8. Tail Light & Brake Light Circuit
9. Starter Motor Circuit
10. Turn Signal Circuit
11. Ignition Key Warning Circuit
12. Electric Cooling Fan Circuit
13. Brake Warning Circuit
14. Heater Blower Circuit
15. Head Light Circuit
16. Dome Light Circuit



# ATech

## Automotive Technology

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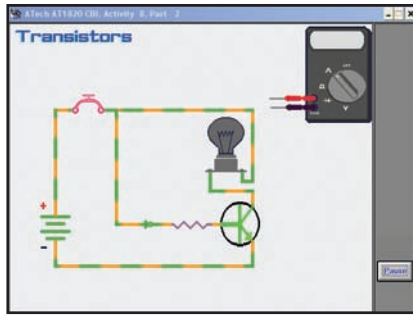
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## 1820W CBI Automotive Electronics

This program offers 13 activities with over 40 instructional animations—each designed to present the fundamentals of automotive electronics.



### Activity List:

1. Introduction to Electronics
2. Digital Multimeter and Scientific Notation
3. Diode: P-N Junction, Turn-On Voltage
4. Direct Current (DC), Alternating Current (AC)
5. Light Emitting Diode
6. Induction and Clamping
7. Zener Diode and Voltage Regulation
8. Transistors: PNP/NPN, Rheostat
9. Transistor Troubleshooting
10. Amplification and Darlington Pair
11. Capacitors, Noise, and Filtering
12. Photoresistor
13. Combined Electronics

### Student Record Keeping

Both programs provide student record keeping. Each student is issued a student record with a unique I.D. number and password. The student's performance record is recorded to his or her record as the student proceeds through the program.

### Classroom Management

Each program includes the Instructor Management Program (IMP) Software and Manual. With menu selections from the IMP Program, the student record is initialized. Records can be accumulated either by a central record location on the network or by student disk. The instructor can access the student records and insert faults for troubleshooting practice.

### Operations Manual

Each program includes an Operations Manual containing instructions for the Computer/Software functions as well as classroom management assistance.

## Advanced Technician Courses

Also available and compatible with the model 1801B Troubleshooting Workstation are:

- 1830 Automotive Sensors and Actuators Program
- 1840 Automotive Computer Concepts Program\*
- 1841 TP/MAP Component Board

These courses are provided with Ford factory reference book information in Adobe PDF file format on CD or USB.

\* Requires model 1802 Interactive Keypad

## Computer Requirements

### 1800 Series CBI System Requirements

The program requires, at a minimum, the following system configurations:

1. Personal Computer - Pentium 4, 1.6 GHz or better
2. 512 MB of memory (RAM)
3. 90 MB of free disk space on the hard disk
4. Windows Network
5. CD-ROM drive or available USB Port (for installation)
6. Mouse
7. Windows 7, Windows Vista, Windows XP, or Windows 2000
8. 3.5" Floppy Drive or USB Flash Drive (optional) for student disk record keeping
9. Available USB Port

### Other Configurations

The modular design of ATEch's 1800 Series allows various configurations:

- with or without computer based instruction
- economical workstations with easy updates

These products are proudly made in the USA.

# ATEch

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