

## AIPC National Winners 2003



From Left to Right:

Front Row - National Runners Up:

**Huey West - Automotive Instructor, Delaware CC, Delaware**

**Sonny Reeves - Automotive Instructor, Technical Education Center of Carroll County, Georgia**

**Denis Ashton - Automotive Instructor, East Valley Institute of Technology, Arizona**

**Les Pike - Auto/Diesel Technology Dept. Chair, Elizabethtown Technical College, Kentucky**

Back Row - National Winners:

**Fred Hines - President, ATech Training, Kentucky (AIPC Industry Chairman)**

**John Wilson - Automotive Instructor, GM ASE Program, Ranken Technical College, Missouri**

**Mary Hutchinson - Executive Director of NATEF, (AIPC Secretary)**

**Scott Hall - Department Chair/Instructor, Skagit Valley College, Washington**

**Wayne Baysinger - Automotive Instructor, Central Nine Career Center, Indiana**

**Rick Ciesla - Global Technical Training, DaimlerChrysler, MI, (AIPC Treasurer)**

**Gene Pierce - Assistant Superintendent, Tuscola Intermediate School District, MI, (AIPC Education Chairman)**

**Prize Package  
Described on  
Page 7**

The Automotive Industry Planning Council is a national advisory group of industry leaders, vocational/technical educators, and educational policy makers whose mission is to promote communication, cooperation, and excellence in automotive service training programs. One of the methods they use to accomplish this mission is the Automotive Award of Excellence in Automotive Technician Training Program. Each year, all ASE/NATEF Certified Schools are invited to participate. State winners are recognized in three categories:

- Secondary Program
- Post Secondary - Generic Program
- Post Secondary - Manufacturer Affiliated Program

Programs eligible to apply are Automobile Technician, Collision Repair/Refinishing, and Medium/Heavy Duty Truck.

The local entries are submitted to a State Coordinator where State winners are selected in each category. The State winners are then submitted to AIPC where a National winner and two runners up are selected in each category. The National winners receive their trophies/awards each year at the Association for Career and Technical Education Convention (ACTE). Each of this year's National winners received over \$75,000.00 in equipment for their programs.

Donations were given by ACDelco, American Honda, ASE, ATech Training, AutoTap, DaimlerChrysler, Fluke, NATEF, and the North American Council of Automotive Teachers (NACAT). Additional information is available at

[www.autoipc.org](http://www.autoipc.org)

# The Next Generation of GM S.E.T.

## GM S.E.T. Troubleshooting Trainer



**GM S.E.T. Troubleshooting Trainer 18002TT**

ATech designed the original General Motors Specialized Electronic Training (S.E.T.) hardware and is now introducing the next generation of S.E.T. hardware. The new Troubleshooting S.E.T. allows all of the Stage 1, 2, and 3 circuits to be constructed using the same reliable banana plug connection technology as the original trainer. All components are permanently mounted - no more lost modules or storage problems. A locking suitcase provides security and ease of storage. The trainer is light weight - 25 pounds, suitable for mobile labs or portable instruction.

The **S.E.T. Troubleshooting Trainer** was designed in response to many requests from Education and Industry users. Both groups want to take the S.E.T. program to the natural next level; troubleshooting instruction. The Trainer includes a keypad and 2 line LCD display for student response and local fault insertion. Faults can be inserted by: selecting a number on the keypad, through a computer connected to the trainer, or by ATech's Instructor's Management Program when the Trainer is connected to a standard network. Network connection requires the use of a network adapter available from ATech.

The Instructor Management Program (IMP), through the ATech Network System (ANS), monitors/displays student logon to the Trainers, allows creation and reuse of fault files, provides automated fault selection, and

**ATech Model 18002TT. General Motors S.E.T. Troubleshooting Trainer for use with General Motors "Electrical/Electronics Stage 1, 2, and 3" course:**

- Includes components for all three stages and original "faulted" components.
- Local and Network Fault insertion
- Fault insertion selection by circuit number, ex.3-2
- Fault insertion selection by module
- Instructor can develop circuits and faults at component level
- Network display and storage of student's performance
- Compatible with ATech's Network System and Instructor Management Program

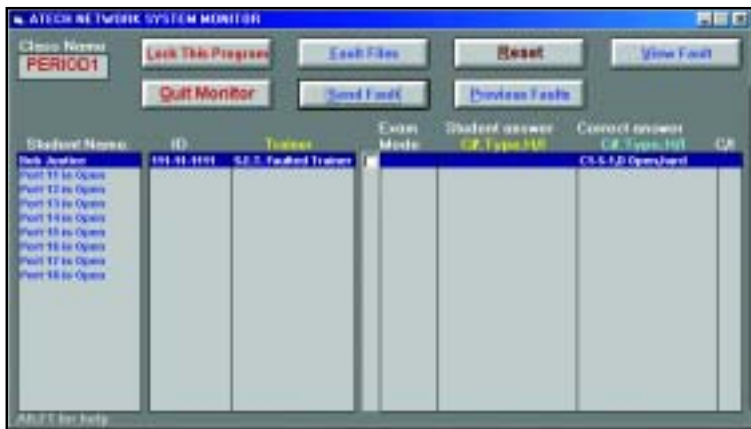
transmission of selected faults to each student. Student responses on the keypads to inserted faults are shown on the ANS monitor screen along with correct answers (Figure 1). Records of student responses can be stored in Instructor designated hard-disk directories.

One of the major goals in the original design concept of the GM

S.E.T. Troubleshooting Trainer was to make fault selection quick and easy. The typical Instructor does not have time to look through tables or lists of faults, determine what effect the fault will have in the circuit, then decide if it is an appropriate fault for a particular

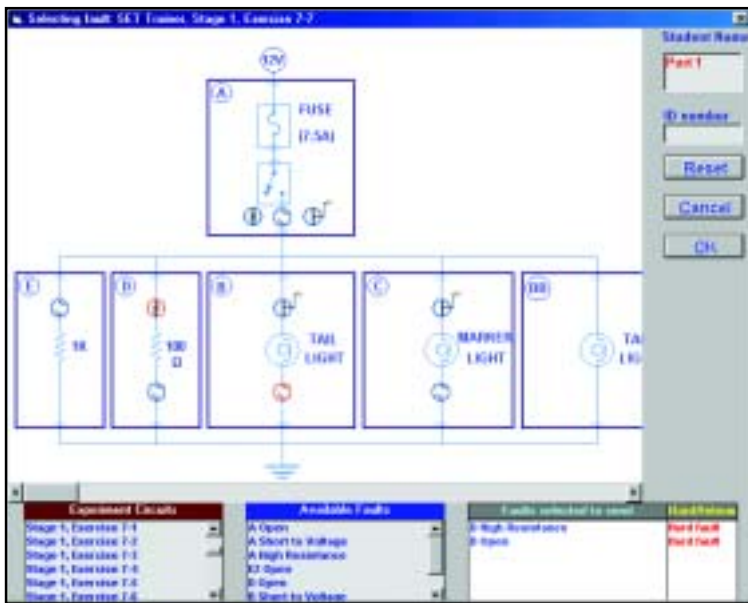
student. After many discussions with Instructors, ATech developed the "Schematic Based Fault Insertion" process used in all new ATech Training systems. It is quick and





**ATech Network Monitor Screen (Fig. 1)**

efficient with maximum transfer of information to the Instructor in minimum time. This is an absolute requirement if an Instructor wants to have effective “hands-on” instruction in a lecture or class room setting. These techniques are demonstrated and discussed at length in ATech’s Inva-



**Fault Selection by S.E.T Exercise Number (Fig. 3)**

desired component is on the visible portion of the screen, clicking on the fault indicator, and then selecting hard or intermittent with “On” and “Off” times. These “special circuit” fault selections can be saved for future use.

Both individual and multiple Trainers can be faulted with single or multiple faults. For classroom group instruction, a single fault can be sent to all Trainers. The Instructor can then lead a class discussion of each step in the troubleshooting process including what the importance of a particular measurement is and what should be the next logical step in locating the fault. Testing can be easily accomplished by sending multiple faults to a Trainer and recording the student’s responses.

The **ATech Next Generation S.E.T. Training System** was designed with the Instructor in mind. Ease of use and flexibility were the primary goals. By utilizing the ATech Network System and the ATech Instructor’s Management Program, both goals have been accomplished.

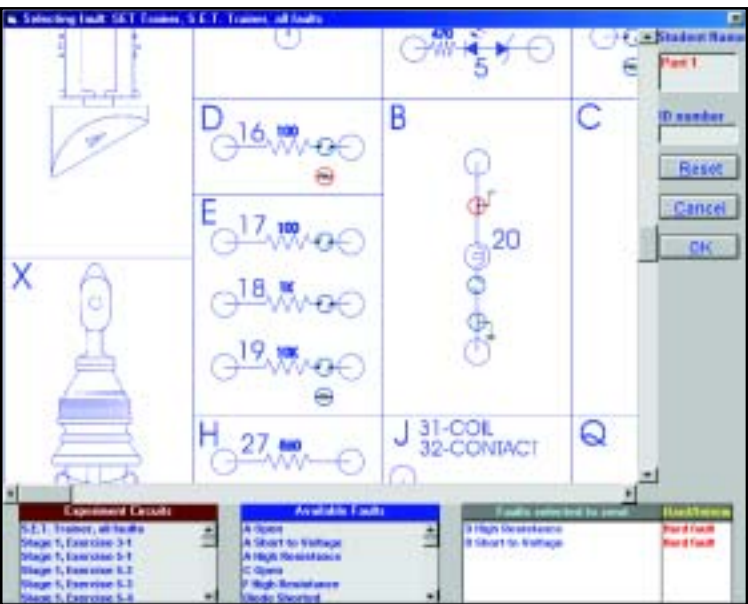
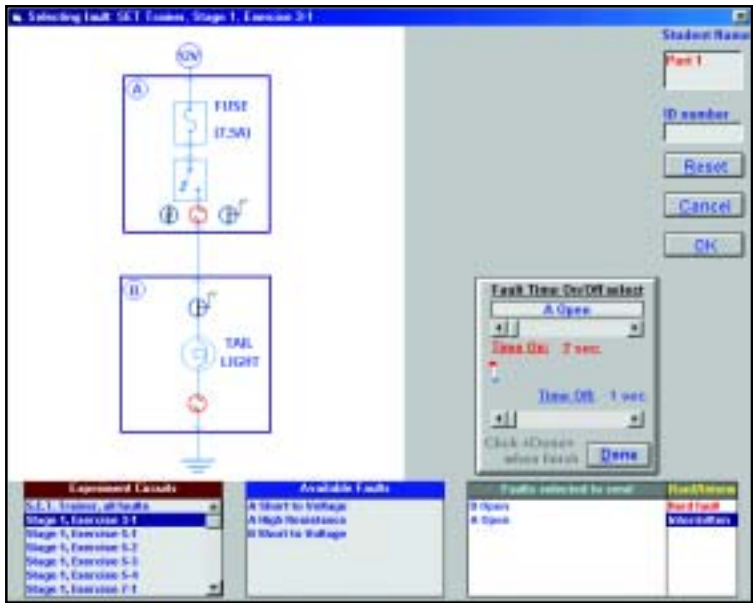
**Int. Fault “On” and “Off” Time Adjustment (Fig. 2)**

tional workshops.

Using ATech’s “Instructor’s Management Program” (IMP), faults can be selected by two methods:

1. Select the S.E.T. experiment number and circuit schematic with available faults will be shown on the computer screen. This method is shown in Figure 3. Clicking on a fault indicator will make it active. The type of fault can then be selected - hard or intermittent. An intermittent fault also allows adjustment of the “On” and “Off” times (Figure 2).

2. Every Instructor, at some time, needs to build a special circuit for specific instruction needs. The Trainer allows the Instructor to “Build your own Circuit” and select the faults to be included. For this capability, the entire Trainer front panel with all components and faults is shown on the computer screen in a scrollable format (Figure 4). Fault selection is accomplished by simply scrolling until the



**“Build your own Circuit” Fault Selection (Fig. 4)**

**NEW**

# Dual Air Bag System



**Dual Air Bag System Trainer - Model 1551**

## Air Bag Components Include:

- Steering Wheel Module Air Bag\*
- IP Module Air Bag\*
- Steering Wheel w/ Module Connector
- Clockspring Assembly
- Diagnostic Connector
- Airbag Indicator Light
- Front End Discriminating Sensor
- Arming Sensor (part of SDM unit)
- IP Module
- Ignition Switch w/Indicator Light
- Power ON Switch w/Indicator Light
- Fuse Block
- Scantool Mode Keypad
- Scantool Mode Display
- System Ground Terminal
- System Power Terminal
- Airbag Deployment Indicators
- IP Module Connector

**The ATech Dual Air Bag Training System allows system demonstrations of:**

- Crash simulation using sensor impact push switches and bag deployment strobes
- Practice of service precautions as outlined in the service manual
- Study of removal and installation of system components
- Performing airbag disposal procedures
- Service Manual Diagnostic Procedures
- Tech2™ Class 2 Bus Monitor Mode
- Airbag system “self test”

The built in system control panel has two modes of operation:

- User mode which allows local fault insertion via the keypad and/or student response to faults inserted through local network connection.
- Scan tool mode which allows keypad and LCD display to function similar to a Tech2™ scan tool.

If desired, a Tech2 Scan Tool can be connected to the Training System through the Trainers standard OBD II connector. All related Scan Tool functions are identical to those seen on the vehicle.

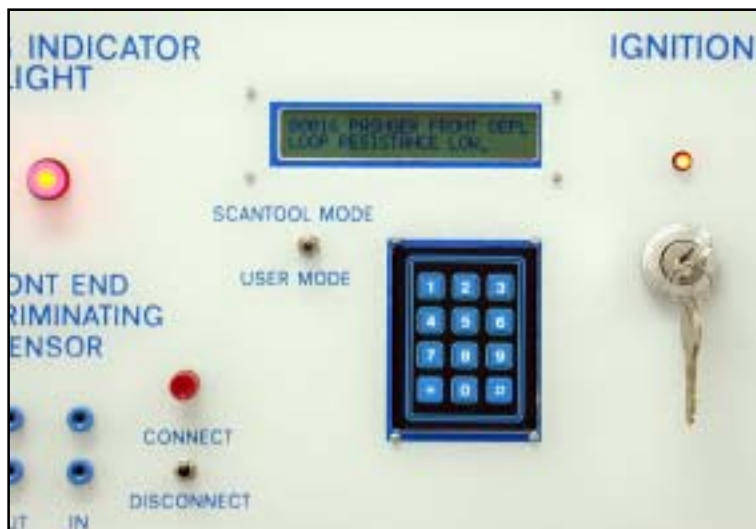
The Air Bag Training System can be connected to a

\*The Air Bag Modules provided with the ATech trainer are harmless. The Flammable sodium azide propellant has been removed and the igniter circuit has been opened.

standard network with the ATech Network System. Faults can then be inserted over the network from a designated Instructor computer using ATech’s copyrighted “Schematic Based Fault Insertion”. Student responses are monitored and recorded over the network by the ATech Instructor’s



**Air Bag Training System Control Panel**



**Scan Tool Mode Fault Readout**



**Scan Tool Mode Data Readout**

Management Program (IMP). Training system includes complete courseware package and photocopy site license to allow distribution of student manual. Courseware is presented in Adobe PDF file format on CD-Rom. Courseware materials include a NATEF Task Record Keeping Sheet to assist the instructor in recording the progress of each student as NATEF tasks are completed.

The courseware includes a Student Manual containing worksheets written specifically for use with the ATech Supplemental (Airbag) Inflatable System (SIR) Trainer, Reference Book, and Service Manual Information. An Instructor Guide, providing information and answers, is included to assist in management of the program. The units of instruction are based on NATEF tasks.

**The SIR Program Activities include:**

- Program Overview
- Service Manual Usage
- Electrical Subsystem
- Driver/Passenger Air Bag Subsystem
- System Operation
- Air Bag Self-Diagnostic Systems
- Handling & Disposal Procedures
- Service Precautions
- Diagnostic Guidelines
- Sample Diagnostic Pinpoint Tests
- Diagnostic Pinpoint Tests
- Removal & Installation

Trainer includes a 3Amp internally mounted filtered and regulated power source with fused protection. Power connection is by North America (Nema 5-15) 110VAC/15Amp electrical outlet. A power switch with indicator light to control the power supply is included.



**Tech2™ Connected to Training System**



**Tech2™ Module Information Readout**



## Ford Donates Equipment to AIPC

Ford Motor Company has donated excess training equipment valued at over \$250,000.00 to the Automotive Industry Planning Council. ATech Training Inc. has agreed to refurbish the equipment for subsequent donation to schools across the Country. The equipment is the ATech 1800 series Automotive Electricity/Electronics Training System. These training systems are the most widely used "Troubleshooting" Electricity/Electronics training equipment in the United States. They allow automotive circuits to be constructed, measurements taken, and then faults inserted for extensive practice in troubleshooting. Circuits that can be constructed include Starting Circuit, Fan Circuit, Head Lights Circuit, Horn Circuit, etc..

Ford and ATech have agreed to work together on this project to make available some desperately needed training equipment to Automotive programs in the public school system. "Ford and the individuals at Ford, who caused this to happen should be applauded for their efforts to support public education and the Automotive Industry Planning Council" - Fred Hines, President of ATech Training and Industrial Chairman of AIPC. The people at Ford are:

Dave McClain  
Technical Training Manager,  
Technical Support Operations

Al Rocker  
Manager,  
North American Technical Training Development  
Technical Support Operations

Jay Klamer  
Technical Training Developer  
Ford Technical Training



## Education Foundation

### Educational Grant Opportunity

The IMACA Education Foundation was formed in 1999 to promote educational training and assistance to persons or organizations for the advancement and improvement of automotive air conditioning education and related technology. The Foundation operates exclusively for charitable or educational purposes within the meaning of Section 501(c)(3) of the Internal Revenue Code.

In furtherance of that general purpose, the Foundation performs the following specific activities:

1. Awards financial assistance to qualified organizations for the advancement and improvement of automotive air conditioning education in order to benefit specific schools, educators and students;
2. Awards grants and endowments to advance and improve the automotive air conditioning industry by supporting vocational institutions, high schools, private and public colleges and universities.

The Foundation will make awards and payments of various grants using the Foundation's funds as determined by the Foundation's Board of Directors.

If your organization is a qualified tax exempt, charitable or governmental entity and has an interest in seeking additional funds to support qualified training programs, please submit to the Foundation a one-page, type written letter briefly describing the general purposes for which the proposed grant would be used. The letter, with appropriate contact name and address for the Applicant, should be mailed to:

**Executive Director, IMACA Education Foundation, 6410 Southwest Blvd., Suite 212, Fort Worth, TX 76109.**

**Editor's Note:** This is a great opportunity to receive some additional funds for your program. All that is required is a one page letter describing your need. **Sample letter illustrating key points is available on [www.autoipc.org](http://www.autoipc.org).** ATech through AIPC is offering special pricing on ATech Air Conditioning Training Systems if purchased with an IMACA grant. Request specifications on the ATech systems from [sales@atechtraining.com](mailto:sales@atechtraining.com). Don't miss out on this opportunity, time and funds are limited!



## AIPC 2004 Awards Program

The 2004 Guidelines and Application are available on the AutoIPC website, [www.autoipc.org](http://www.autoipc.org). Registration is required at the website to receive the documents in an email. Ensure that the email address you enter is correct. In year 2003, 99% of the problems with receiving the documents was due to an incorrect email address. The first year for registration was 2002 and proved to be very valuable in tracking submissions from schools and obtaining input on improving the process.

The entry process requires some time and effort, but the materials you produced for NATEF certification are an excellent resource. You must perform a thorough self evaluation of your program and involve other members of your school, including the administration. The improvements in your program that will result from going through the process are worth the effort.

The prizes for this year's program have not been determined as they depend on donations and commitments received by AIPC during the year. If you know of any organizations or individuals who might participate in supplying items for the winners, please email [fhines@autoipc.org](mailto:fhines@autoipc.org) with the information. Additional funding for operations is also being solicited.

## ACDelco Opens Training to School Instructors

One of AIPC's primary goals is to increase the availability of OEM and high quality Aftermarket training to the Automotive Technology instructor in the public school system, hopefully at low or zero cost. Through the efforts of Susan Christophersen, manager of product service and training development, ACDelco has agreed to open their many training programs to public school instructors. These openings are on a space available basis. It is recommended that Instructors register their desired training classes as soon as possible.

To enroll the first time, please contact the ACDelco Enrollment Center at 800-925-5886. To view the current training schedule, go to [www.acdelcotechconnect.com](http://www.acdelcotechconnect.com) and click on the training button.



## What They Won!

### 2003 Prize Total Over \$500,000.00

Each year the membership of the Automotive Industry Planning Council requests equipment and tool donations to be distributed to the winners of the Awards of Excellence in Automotive Training program. Therefore, each year's awards are different. Along with trophies and plaques, this year's winners received:

#### National Category Winner

1. \$12,000.00 Snap-On Tool Certificate donated by ASE
2. NACAT Conference Registration Fees and one year membership donated by NACAT
3. A DaimlerChrysler Car donated by DaimlerChrysler
4. A Honda Car donated by Honda
5. \$1000.00 Travel Assistance Grant from AIPC
6. ACDelco Training Materials
7. AutoTap Scantool from B&B Electronics
8. Model 88 Multimeter from Fluke

#### National Category Runner Up

1. \$7,500.00 Snap-On Tool Certificate donated by ASE
2. A DaimlerChrysler Car donated by DaimlerChrysler
3. A Honda Car donated by Honda
4. NACAT one year membership donated by NACAT
5. Model 78 Multimeter from Fluke

#### State Winners

1. \$1,000.00 Snap-On Tool Certificate donated by ASE

### The Troubleshooter Program

The AIPC/ATech Troubleshooter Training Program has been very successful. The program has had many downloads and instructors are using it in many innovative ways. Both regular classes and evening technician upgrade classes have found it effective. The program has been used as a pretest for transfer students, a post test for students finishing the electrical area, and as a self evaluation for practicing technicians. If you think your electrical/electronics training section is doing the job, let your students try to identify the faults in these circuits.

Some instructors have asked for additional support materials, for example - student activity sheets. If instructors would like to develop those or other support materials and wish to share them with all instructors, send them to [fhines@autoipc.org](mailto:fhines@autoipc.org). They will be placed on the AIPC website for everyone to download.



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## ATech Training is a member of:



Automotive Industry Planning Council



Automotive Training Managers Council

## And actively supports:



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