

# ATech Educator News

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November 2008

## ATech Trains Egyptian Air Force



L-R: Mike Joachim, Instructor- ATech Training, Inc.; Ahmed Ghania, Captain- Egyptian Air Force; Khaled Abdelaal, Captain- Egyptian Air Force; and Patrick Bonfield, Product Representative- ATech Training, Inc.

On September 3, 2008, two officers of the Egyptian Air Force (EAF) began extensive training on-site with ATech Training, Inc., in order to gain experience needed to implement a new automotive technology training program. The United States Air Force purchased the automotive training equipment from ATech and provided the funds to train the Egyptian Air Force Officers. This was the second group of EAF officers to attend training at ATech.

The goal was to have two officers fully trained before the grand opening of the Egyptian Air Force Automotive Technology Training School at Basatine, Cairo, on October 6. At that time the officers were expected to demonstrate to the Air Marshals some of the features of the school for which they are now responsible.

Captains Ahmed Ghania and Khaled Abdelaal completed 160 hours (96 % of this time was hands-on) instruction that included: engine electrical systems, body electrical systems, basic brakes, antilock brakes, basic steering and suspension, supplemental restraint, engine

performance, OBD II diagnostics, ignition systems, advanced emissions, heating and air conditioning, transmission and drive axles, and engine repair. Upon completion of the training, the two officers received training certificates from both ATech and the U.S. Air Force.

ATech provided a trip to a local high school, Hamilton High School, for a tour of an excellent automotive technology program equipped with many of ATech's products. Herb Dietz, Career & Technical Education Director, gladly assisted with the tour and shared with the officers a sample of his curriculum along with teaching methods he uses in the classroom.

### HAMILTON HIGH SCHOOL AUTOMOTIVE SERVICE TECHNOLOGY



L-R: Ahmed Ghania, Captain- Egyptian Air Force; Khaled Abdelaal, Captain- Egyptian Air Force; and Herb Dietz, Career & Technical Education Director- Hamilton High School.

Completion of this training will allow the Egyptian Air Force to implement a successful automotive training program, and we wish them much success in this effort.



**Career &  
Technical Expo**  
**December 4-6, 2008**  
**Charlotte, NC**  
**ATech Booth #201**

For registration information visit [www.acteonline.org](http://www.acteonline.org)

# Another Instructor Gets Cheated!

Do not assume that training systems you buy from other companies are going to be of the quality of ATech's. Also don't assume you will receive the same level of service from any other company as you get from ATech.

An instructor wanted an EVAP trainer. We informed him that ours wasn't ready, as we were still reverse engineering the scan tool interface to make it as realistic as possible. He decided to purchase one from another company. When it arrived, he was very upset, as he had previously purchased ATech systems and thought they would be similar.

Courseware for the trainer consisted of two activities on 23 pages, most of them are at least one half blank. There is one page on the fuel tank pressure sensor. Then the discussion switches to the MAP sensor and continues discussing the MAP sensor for the rest of the course. There are no activities that use the trainer, as a MAP sensor doesn't exist on the trainer, and no one would expect one. This is supposed to be about the Enhanced Evap system. Figure 1 is a picture of the trainer he received.



Figure 1

No scan tool interface exists on the trainer. How do you work on today's cars without starting with a scan tool? Purge and vent valve control are accomplished through toggle switches. How unrealistic is that?

The ATech EVAP training system, shown in Figure 2, has a built-in scan tool that displays the same messages and acts realistically like a Tech 2 scan tool. If you want to use a Tech 2 scan tool on the trainer, it will communicate with the scan tool very much the same as the PCM on the ve-



Figure 2

hicle. The purge and vent valves are controlled by an internal ATech PCM module.

Purge valve PWM percentage of open can be controlled directly from the LCD front panel interface or from a Tech 2 scan tool. An excellent activity while controlling the amount of purge is to use a Fluke meter or an oscillo-



Figure 3

scope to measure duty cycle. This helps the student understand that the frequency is not changing, only the duty cycle.

An actual "Drive Cycle" OBDII monitor sequence can be initiated from the front panel. The enhanced Evap



Figure 4

Service Bay test can be initiated from either the LCD - Keypad on the trainer front panel or from a Tech 2 scan tool connected to the DLC. Exactly like the connection to the vehicle.

Figure 3 shows a Tech 2 reading out the purge value that was set by the built-in scan tool.

Figure 4 shows purge control now being done

# Another Instructor Gets Cheated! Cont'd

from the Tech 2 scan tool.

In Figure 5, the EVAP Service Bay Test has been initialized by the Tech 2 Scan tool. The screen sequences and commands are exactly the same as done on the vehicle. Purge valve and vent valves are operated in exactly the same sequence as on the vehicle. Fuel tank pressure sensor values



Figure 5

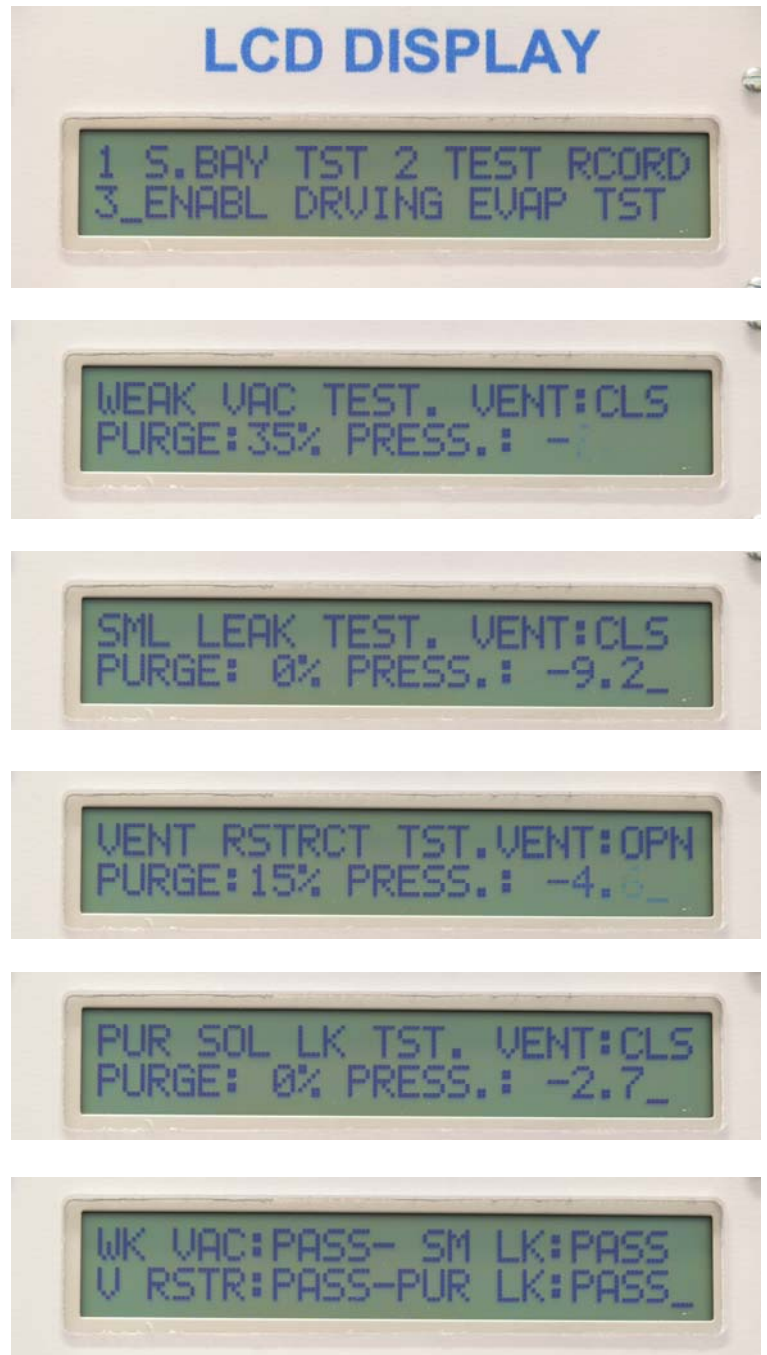
during the test are the same as on the vehicle. That means the student can graph pressure values in relationship to both the purge and vent valve operation. Figure 6 shows the Tech 2 scan tool reporting that the vehicle/trainer has passed the Service Bay Test.



Figure 6

The Service Bay Test can also be initiated from the built in LCD - Keypad interface. When the interface isn't being used as a scan tool, it can function as a student interface to the trainer, for local fault insertion, or communication with the ATech network faulting system.

The actual LCD readouts as the trainer runs the Ser-



vice Bay Evaporative Emission System Test are shown above. The final screen shows the results of the test. When the Service Bay Test is initiated for the internal scan tool, each step in the test is shown as it is performed.

One of the included activities has the student remove or loosen the gas cap, run either the Drive Cycle or the Service Bay test, and record the DTC produced. Then they can follow Trouble Trees or Smoke Test the system. **As real as it gets.**

Again, as I have said many times, if a company will not give you their standard price list or allow you to preview a trainer's courseware, **do not buy from them.**

Fred Hines

# Evaporative Emissions System—Model 640



This ATech trainer presents the live operation and study of a late-model General Motors Enhanced Evaporative Emissions (EVAP) system. Clear hoses allow the use of a smoke machine to visually demonstrate system operation. The trainer will run the GM Service Bay EVAP Test using either its built-in scan tool or a Tech 2. Realistic EVAP system faults, *including system leaks*, can be inserted via a built-in keypad, a local computer or via the optional ATech Network System (ANS) to give students troubleshooting practice. Students follow manufacturer's diagnostic procedures when troubleshooting system faults. System leaks can also be diagnosed using a smoke machine. Tech 2 and smoke machine are not included with the trainer.

## ACTIVITIES INCLUDE:

- Description and Operation of the EVAP System Trainer
- Analyzing and interpreting schematics and manufacturer's troubleshooting and service procedures
- System Diagnosing
- System Troubleshooting



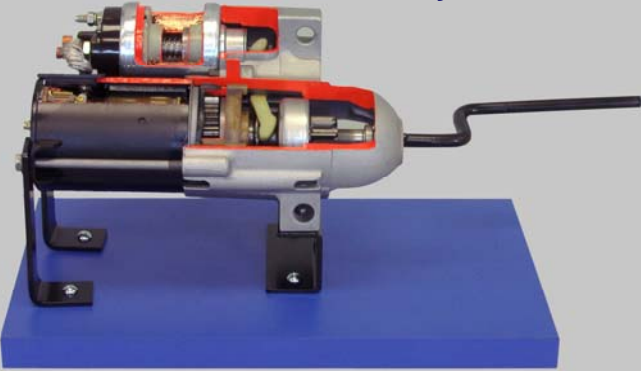
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# ATech

# New ATech Cutaways

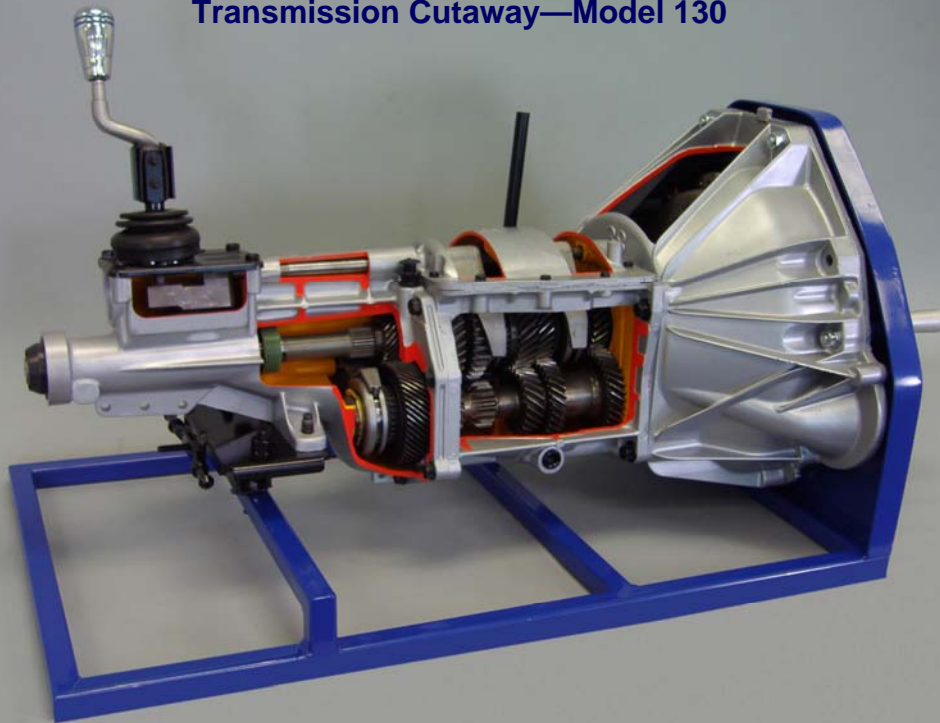
Starter Cutaway—Model 813



Alternator Cutaway—Model 814



Transmission Cutaway—Model 130



Rack & Pinion Cutaway  
Model 507

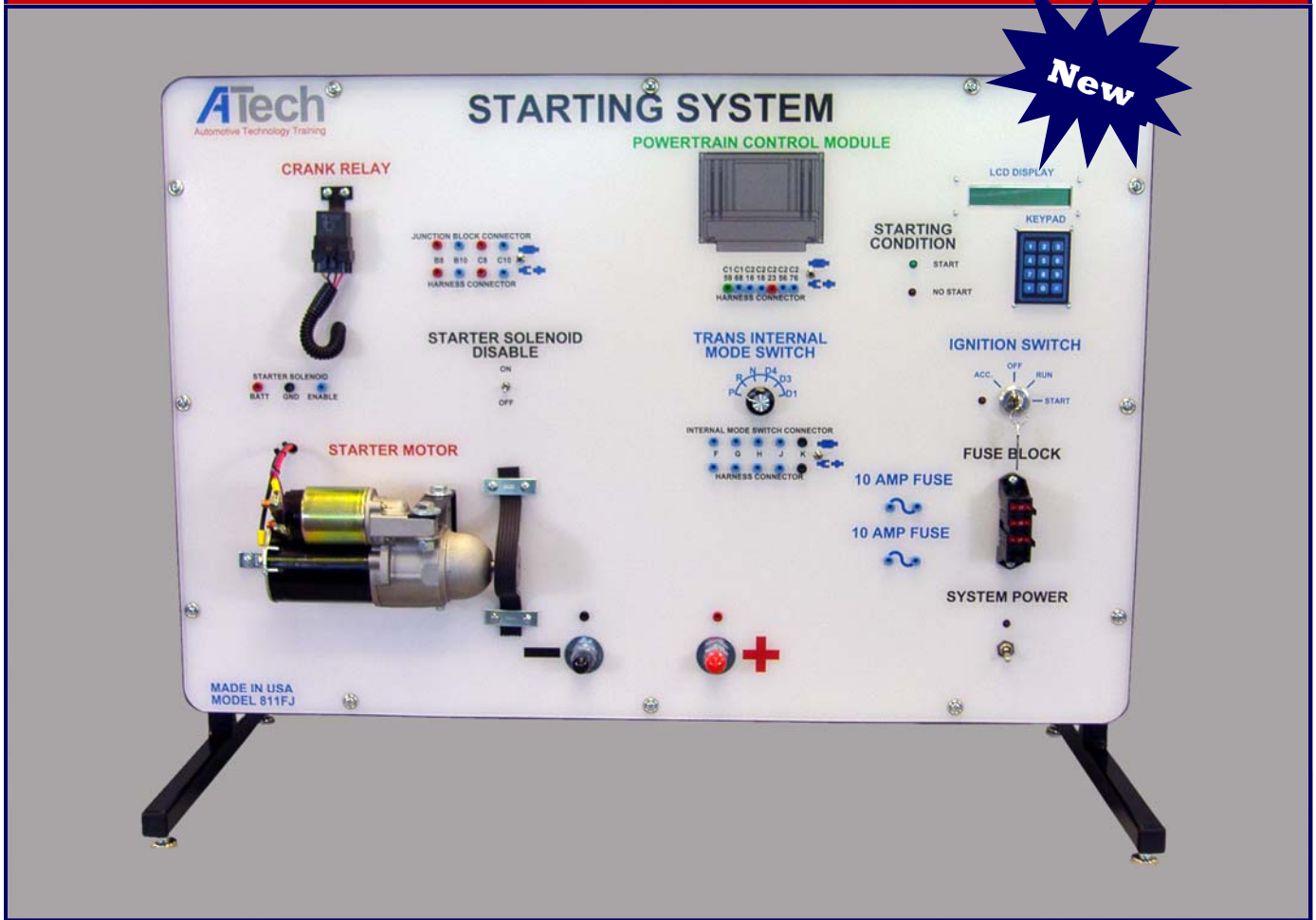


Power Steering Pump Cutaway  
Model 506



*Others talk about great product quality and service....ATech delivers them. Ask our customers.*

# Starting System—Model 811FJ



This ATech Starting System Trainer (model 811FJ) is part of an electrical systems program which presents the live operation and study of starter motor systems. Powered by a 12VDC automotive battery (not included). Includes courseware.

## FEATURES:

- Provides an advanced level of instruction by duplicating actual on-vehicle troubleshooting procedures.
- Actual new-vehicle components and connectors
- Faults can be inserted via keypad, local computer or ATech Network System (ANS).
- Software interface allows hard and intermittent faults to be entered and specified by the instructor.
- Courseware includes: Instructor Guide, Student Manual, and Service Manual Information



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# ATech

# ATech at CAT Fall Conference 2008



**L-R: John Overton, Instructor—Bret Harte High School, Angels Camp, CA; Thomas Broxholm, Instructor—Skyline College, San Bruno, CA.**

Cuyamaca College located in El Cajon, CA hosted the annual California Automotive Teachers (CAT) Fall Conference on October 18, 2008. The conference provided multiple workshops and a tradeshow attended by many vendors throughout the area.

ATech participated in the tradeshow where we showcased 2 of many new products rolled out this year; EVAP (model 640) and Power Door Lock System (model 850FJ). For more details on all of our products please visit the website at [www.atechtraining.com](http://www.atechtraining.com).

ATech also donated (2) \$1,000 Equipment Certificates as door prizes to be distributed to participating schools at the conference. The winners of the certificates were John Overton, Instructor—Bret Harte High School, Angels Camp, CA; Thomas Broxholm, Instructor—Skyline College, San Bruno, CA.

Chuck Jordan was the guest speaker for the event. Mr. Jordan graduated from Massachusetts Institute of Technology and began his career with General Motors in 1949 and retired in 1992 as Vice President of Design. Mr. Jordan spoke about the evolution of automobile design and how the design process works. One comment he made was that, “even with the advanced use of computers in the design of automobiles, the human touch is still very much needed to install the enthusiasm and passion for the automobile”.

We would like to express our sincere appreciation to Jim Custeau and the entire staff at Cuyamaca College for hosting such a wonderful event, and we look forward to the next CAT Conference to be held in April 2009 at Universal Technical Institute (UTI) in Sacramento, CA.

*Pat Bonfield, Product Representative  
ATech Training, Inc.*

# ATech



## EMPLOYMENT OPPORTUNITIES

ATech is once again in need of people. Our need at this time is for individuals to help with training both domestic and international, curriculum development, and product development. We recently worked with instructors from



**Figure 1**

Oman and from the Egyptian Air Force. Some international travel will be necessary to assist countries with the implementation of the ATech programs.

ATech has products planned for hybrid vehicles and alternative energy applications.

Part of these individual's time will also be allocated to assist fabrication in problem resolution.

Figure 1 shows one of two classroom areas that are used for both discussion and “hands-on” activities. Figure 2 shows a section of the “heavy metal” area. In the picture, four products are being assembled.



**Figure 2**



**Figure 3**

The entire product development area consists of 7,500 square feet with overhead crane and an instructional area of 5,000 square feet. Figure 3 shows the welding and sand blasting areas. Figure 4 shows the machine shop area.

All hand tools and factory scan tools will be provided. Typical ATech products can be seen on our website at [www.atechtraining.com](http://www.atechtraining.com).

This is an opportunity for individuals who want to have an impact in transportation/heavy equipment education and training in both the United States and around the world. ATech exports products to approximately 50% of all the nations in the world.

If you've always wanted the tools, equipment, space, and company support to develop the best training products in the world, this is your opportunity.



**Figure 4**

***What you can achieve is only limited by your desire, motivation, and talent.***

**Send resume to:  
[opportunities@atechtraining.com](mailto:opportunities@atechtraining.com)  
No Phone Calls Please**



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**A Tech Training is a member of:**



Automotive Industry Planning Council

**and actively supports:**



**INSIDE THIS ISSUE:**

- A Tech Trains Egyptian Air Force 1
- Another Instructor Gets Cheated! 2-3
- Evaporative Emissions Trainer- Model 640 *New* 4
- A Tech Cutaways *New* 5
- Starting System Trainer—Model 811FJ *New* 6
- A Tech at CAT Fall Conference 2008 7
- A Tech Employment Opportunities 7

**Let Us Help!**  
 Do you need help with advertising open positions within your automotive department? Let us help you by posting them on the A Tech and AIPC websites at no charge. Please send your information to kimjewell@atechtraining.com.