



***E**mergency*

***V**ehicle*

***T**echnician*



## Certification Program

---

**EVT Certification Commission, Inc.**

**P.O. Box 894, Dundee, IL 60118**

**847-426-4075 Fax: 847-426-4076**

**Web site: [www.evtcc.org](http://www.evtcc.org) E-Mail: [evtcert@evtcc.org](mailto:evtcert@evtcc.org)**

---

**Emergency Vehicle Technician  
Certification Commission, Inc.**

**Board of Directors**

*President*

Stephen Wilde

*Secretary/Treasurer*

Terry M. Sutphen

*Assistant Secretary*

Michael Thorn

***Directors***

Mike Brown

Alan Conkle

Terry Eckert

Chuck Kneff

Christian Koop

Marge Washburn

**Program Manager**

Sherry Wilde

**Administrative Assistant**

Shannon LaForce

## Table of Contents

Why a Certification Program?	2
What is the EVT Certification Commission?	2
What Benefits are There to Being Certified?	2
Who is Eligible?	2
When & Where are the EVT Exams Administered?	2
What are the EVT Exams Like?	3
How to Register for EVT Examinations	3
Is There a Recertification Requirement?	3
Who will Know the Results of the Exams?	3
Tips for Preparing for an EVT Exam	3
How Does the EVT Certification Program Work?	4
How to Become a Level I, II, or Master EVT Certified Technician	4
The ASE Program	4
Canadian Equivalency	4
EVT Certification Tracks	4
Fire Apparatus Technician Exams	5
Reference List	5
Fire Apparatus Level Requirements	6
Ambulance Technician Exams	7
Reference List	7
Ambulance Level Requirements	7
Airport Rescue and Fire-Fighting Technician Exams	8
Reference List	8
ARFF Level Requirements	8
Law Enforcement Vehicle Technician Exam	9
Reference List	9
Management Exams	
Reference List	9
List of Mechanic's Associations, Seminars, and Trade Shows contact information	10
Exam Registration form	11

## ***WHY A CERTIFICATION PROGRAM?***

The emergency service has always ensured that response and rescue personnel are trained and certified to appropriate levels based on “accepted standards,” such as the NFPA standards for firefighters and fire officers. A great deal of emphasis is placed on maintaining the condition of the apparatus and equipment used by these personnel, but what about the people who maintain and repair the vehicles and equipment? What level of training have they received to keep a sophisticated piece of machinery in proper operating order? Unfortunately, many emergency vehicle technicians are often neglected in emergency response agencies, and in many cases they are part of the cadre of technicians who work on many different types of vehicles other than emergency vehicles. The emergency vehicle technicians’ need for training, education, and recognition are the same as it is for emergency response and rescue personnel. However, these needs are often unfulfilled. The EVT Certification Commission, Inc. was created to help meet those needs.

## ***WHAT IS THE EVT CERTIFICATION COMMISSION?***

The Emergency Vehicle Technician Certification Commission, Inc. (EVT) is a non-profit corporation dedicated to improving the quality of emergency vehicle service and repair throughout the United States and Canada. EVT is governed by a Board of Directors that represents emergency response agencies, emergency vehicle maintenance service associations, and the educational community.

EVT began as The Fire Apparatus Mechanics Certification Program, sponsored by the International Association of Fire Chiefs (IAFC). In 1988, the IAFC introduced this certification program in an effort to elevate the standards of emergency vehicle maintenance and the personnel who perform the work. In addition, the IAFC sought to provide technicians recognition for the education, training, and experience they have in the field of service and repair of emergency vehicles. While the IAFC no longer directly oversees the EVT Certification Program, the IAFC continues to support the continued development and operation of the EVT Certification Program.

The primary function of EVT is to test and certify emergency vehicle technicians. EVT also encourages the development of effective training programs which address the training and educational needs of the emergency vehicle technician.

## ***WHAT BENEFITS ARE THERE TO BEING CERTIFIED?***

The benefits of being certified are personal and professional. Being certified as an Emergency Vehicle Technician shows departments, governing boards and apparatus service center customers that the technician has proven himself knowledgeable in diagnosing and repairing emergency vehicle mechanical problems.

- ◆ Being certified can potentially mean better pay, increased job opportunity and improved status with the technician’s employer.
- ◆ Certification can increase respect, recognition and credibility in the industry and profession.
- ◆ Technicians will have a nationally recognized certification that may allow both lateral as well as upward movement in the fire apparatus and/or ambulance maintenance field.
- ◆ The servicing of emergency fire apparatus and ambulances by certified technicians will provide more reliable equipment, thus enhancing the safety of the public and emergency personnel.
- ◆ An emergency response agency or vehicle service center employing certified EVT personnel will benefit by having knowledgeable technicians who are trained to work on emergency vehicles. This will influence the organization’s reputation and customer assurance that quality work will be performed.

## ***WHO IS ELIGIBLE?***

Anyone may register to take the examination. There are no prerequisites to register. The examinations have been constructed to identify those who possess the knowledge and skills needed to perform their job. The EVT Certification Program is structured for individuals to utilize independent study.

## ***WHEN & WHERE ARE THE EVT EXAMS ADMINISTERED?***

EVT exams are offered twice a year at sites across the country. In addition, many mechanics’ seminars, workshops and schools which offer training in various fields of maintenance have made testing sites available during their activities. The dates, times and locations of these testing sites can be found on the test site list or by calling the EVT office at 847-426-4075 or on the **web site at [evtcc.org](http://evtcc.org) in the “Test Dates and Sites” section.**

## ***WHAT ARE THE EVT EXAMS LIKE?***

Each regular exam has 75 to 110 multiple-choice questions and each re-certification exam has 25 -50 multiple-choice questions. The questions are written by a panel of technical experts from the emergency apparatus and ambulance industry, certified emergency vehicle technicians, component systems experts and vocational educators.

Reference material lists and study objectives, on which the examinations are based, are found later in this pamphlet. These objectives should be used as a basis for preparing to take the EVT examinations. Each individual is encouraged to obtain the reference materials listed and review the objectives to insure that he or she is ready to take an EVT exam.

## ***HOW TO REGISTER FOR EVT EXAMINATIONS***

**Complete the Examination Application Form**, include the "one-time" \$ 20.00 non-refundable registration fee and the exam fees and mail or fax to the EVT Certification Commission. The registration form must be received at the EVT office at least **21 days prior to the scheduled exam date**. There will be **No "Walk-In" registration**. Confirmation of exam registration will be mailed to the technician within a week after it is received by the EVT office.

**Number of tests allowed.** Four hours are allotted for each testing date. A time limit of two hours is allowed for each regular exam and one hour is allowed for each re-certification exam. Any combination of regular and/or re-certification exams cannot exceed four hours. For instance, two regular exams = four hours, or four re-certification exams = four hours, or a combination of one regular exam and two re-certification exams = four hours.

## ***IS THERE A RE-CERTIFICATION REQUIREMENT?***

**YES!** Vehicle technology and service techniques are changing rapidly. Technicians must keep up-to-date with modern repair practices and standards. This program provides an incentive for emergency vehicle technicians to keep their knowledge and skills current and assures credible proof of one's ability. Re-certification is an integral part of the Emergency Vehicle Technician Certification Program. The EVT Certification Commission will require the applicant to pass the current EVT re-certification examination every five (5) years.

## ***WHO WILL KNOW THE RESULTS OF THE EXAM?***

A letter will be sent to the technician with exam results. If an exam is not passed, a report identifying areas of knowledge will be sent. EVT reserves the right to affirm or dis-affirm to its constituents and the public whether the technician does or does not hold EVT certification and in what specialty. EVT will not release test scores to any other party in a manner that the scores can be identified with a specific technician, unless a written request is received from that technician

Registration for an EVT exam signifies to the EVT Commission and others that the participant has an interest in elevating his knowledge of maintenance and repair of emergency response vehicles. One aspect of EVT's mission is to encourage and assist in the development of maintenance training programs. Accordingly, EVT will use these records to communicate with the technician, or to facilitate communications by others about education, training, state associations, and award programs judged to be of potential benefit to the technician.

## ***TIPS FOR PREPARING FOR AN EVT EXAM***

### **Register Early**

Allow time to obtain reference material, some of the reference material may take several weeks to obtain.

### **Study**

This is a learning experience. The purpose of this program is to elevate and improve the standards of emergency response vehicle technicians. We recommend you briefly preview the outline of the learning objectives to become familiar with the topics covered. Then, read each objective carefully. Highlight or underline objectives not known or not understood. Look up the items you have highlighted in recommended reference material and refer to other shop manuals to refresh knowledge of proper techniques. Some of the objectives may be hands on/accepted practice type items.

## ***How to answer questions***

Read each question completely, do not skim or jump to conclusions. Read through **all** the answers, **then** choose the answer that is most correct. Do not leave any question unanswered. A **blank** answer is counted as a **wrong** answer.

## **HOW DOES THE EVT CERTIFICATION PROGRAM WORK?**

There are two options for technicians to become certified.

### **Option 1:**

Technicians may choose to take only EVT exams and become certified in the individual test areas. The technician will receive an EVT Test Certificate stating the area(s) in which he/she is certified. When a technician passes his first exam he will receive an "EVT Certified" patch.

### **Option 2:**

Technicians may choose to obtain the highest EVT Certification by taking a combination of the EVT exams and the ASE (National Institute for Automotive Service Excellence) exams, or the appropriate Canadian Provincial License. Level Certification will be granted to the technician who successfully completes these requirements. Technicians have the option of obtaining **Level I, II, or Master EVT Technician** in the Fire Apparatus, Ambulance Track, and ARFF Vehicle Track.

### **HOW TO BECOME A LEVEL I, II, OR MASTER EVT CERTIFIED TECHNICIAN**

Once all of the required EVT and ASE exams for Level I, II, or Master have been taken, the technician will need to complete the "EVT Certification Level Application Form" and mail with copies of the required ASE or Canadian equivalency certificates to the EVT Certification office. ASE or EVT exams may be taken in any order; however, **the technician must apply for each level in sequence**. For example, Level I requirements would have to be completed before or concurrent with applying for Level II, or Master.

**THE ASE PROGRAM** - ASE's primary function is to test and certify automobile technicians and truck technicians. The ASE program consists of a series of written tests given biannually. These tests measure diagnostic and repair knowledge in various technical areas. When a technician passes one or more tests, and has completed two years of related work experience, he/she receives documentation for those areas of certification. ASE offers certification tests in the Spring and Fall each year. Tests are given at locations across the country. For further information regarding the ASE tests, contact: National Institute for Automotive Service Excellence, 1-877-273-8324

**Canadian Equivalency** - Canada has specific requirements for mechanics. Canadian applicants may substitute copies of a current Provincial Mechanics License in place of ASE certification to meet the requirements for level certification. Note: Canadian applicants applying for Ambulance Master Level Certification must have an Automotive Provincial License and Bus / Transport License or if the applicant only has an Automotive Provincial License he must obtain two ASE truck certifications (T-4 & T-5).

## **EVT CERTIFICATION TRACKS**

There are five EVT Certification Tracks

- Fire Apparatus Technician Track
- Ambulance Technician Track
- ARFF Vehicle Technician Track
- Law Enforcement Vehicle Technician Track
- Management Track

A description of these tracks can be found on the following pages.

## **FIRE APPARATUS TECHNICIAN CERTIFICATION TRACK**

This track is for those technicians who service and maintain fire department pumpers, squads, aerial devices, tankers, wild land apparatus, etc. The exams cover design and performance standards, specialized systems and equipment, and accepted practices used in the service and maintenance of fire apparatus. Reference material lists to prepare for the EVT exams are shown in the description of each exam. An outline of the areas to study, "Learning Objectives", are available online at [www.evtcc.org](http://www.evtcc.org) and are mailed at time of registration.

### **Fire Apparatus Technician Exams**

#### **F-1 Maintenance, Inspection, & Testing of Fire Apparatus**

#### **F-2 Design & Performance Standards of Fire Apparatus**

#### **F-3 Fire Pumps and Accessories**

#### **F-4 Fire Apparatus Electrical Systems**

#### **F-5 Aerial Fire Apparatus**

#### **F-6 Allison Automatic Transmissions**

\***FA-4 Advanced Electrical Systems** - Pre-requisite requirement of F-4 or E-2

\***F-7 Foam Systems**

\***F-8 Hydraulic Systems**

\*Please note that FA-4, F-7 and F-8 are not required for EVT Level Certification as described at bottom of page 6

#### **F-1 Maintenance, Inspection, & Testing of Fire Apparatus**

NFPA reference listed below - National Fire Protection Association (800) 344-3555 or [www.nfpa.org](http://www.nfpa.org)

NFPA 1911, **Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus** 2007 edition, including annexes

NFPA 1071, **Professional Qualification Standard for Emergency Vehicle Technicians**

**OSHA 1926.550 Crane and Derricks section a7 (wire rope)**

[http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=10760](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10760)

**Meritor Preventive Maintenance and Lubrication.** Chapters 1, 2, 4, 6, 7 & 8, Download for no charge at:

[http://www.meritorhvs.com/MeritorHVS\\_Documents/mm1.pdf](http://www.meritorhvs.com/MeritorHVS_Documents/mm1.pdf)

**Pumping Apparatus DRIVER/OPERATOR Handbook**, 2nd edition, Oklahoma State University, Stillwater, OK. (800) 654-4055 or [www.ifsta.org](http://www.ifsta.org) ; Chapters 2, 3,10, 16, & appendix C

#### **F-2 Design & Performance Standards and Preventive Maintenance of Fire Apparatus**

**Pumping Apparatus DRIVER/OPERATOR Handbook**, International Fire Service Training Association (IFSTA) Chapters 3,4,6,10,11,16, Glossary & Appendix A. To order, call (800) 654-4055 or [www.ifsta.org](http://www.ifsta.org)

NFPA 1901, **Standard for Automotive Fire Apparatus**, Chapters 1-25 & appendix.

NFPA 1911, **Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus**, National Fire Protection Association, Quincy, MA 800-344-3555. Or order online at [www.nfpa.org](http://www.nfpa.org)

#### **F-3 Fire Pumps & Accessories**

**Pumping Apparatus DRIVER/OPERATOR Handbook**, Oklahoma State University, Stillwater, OK. (800) 654-4055 or [www.ifsta.org](http://www.ifsta.org) ; Chapters 3, 6, 9, 10, 11, 12, 15, 16, glossary, & appendix a-e

NFPA reference listed below - National Fire Protection Association, Quincy, MA, (800) 344-3555 or [www.nfpa.org](http://www.nfpa.org)

NFPA 1901, **Standard for Automotive Fire Apparatus**,

NFPA 1911 **Standard for Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus**

Any fire pump manufacturer's repair manual (such as Hale, Waterous, etc.)

#### **F-4 Electrical Systems**

NFPA 1911 **Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus**

**Heavy Duty ProClinic Manual** by Interstate Battery call Jeff Barron at 469-221-4655 for your local dealer ordering info  
OR

**Auto Electricity & Electronics**, by James Duffy, can be ordered from [www.Amazon.com](http://www.Amazon.com) or Goodheart-Wilcox 1-708-687-5000

Any emergency apparatus service and operator manual (OEM)

**FA-4 Advanced Electrical Systems**- *Technicians must be certified in F-4 or E-2 Electrical before taking this advanced exam*

NFPA 1901, **Standard for Automotive Fire Apparatus**, Chapters 1-25 & appendix

NFPA 1936, **Standard for Powered Rescue Tool Systems**

to order NFPA documents call 800-344-3555 or order online at [www.nfpa.org](http://www.nfpa.org)

**Getting Started in Electronics**, Forrest Mims, \$17.95 plus shipping [www.w5yi.org](http://www.w5yi.org) or 1-800-669-9594

**Auto Electricity & Electronics**, James Duffy, can be ordered from [www.Amazon.com](http://www.Amazon.com) or Goodheart-Wilcox 1-708-687-5000

**Guide to Hydraulic Power Generation**, Russell Scott Dixon. Call the EVT office at 847-426-4075 to request a copy to be emailed to you for no charge for a limited time, compliments of Scott Dixon.

**Class One ES-Key/USM Network Multiplexing Manual**, page 1 thru 11, can be download for no charge from [http://www.class1.com/\\_Downloads/class1/manuals/ES-Key-USM.pdf](http://www.class1.com/_Downloads/class1/manuals/ES-Key-USM.pdf)

**V-MUX 6-Step Troubleshooting Guide**, can be downloaded for no charge from

<http://www.weldoninc.com/pages/downloads/Sixsteps.pdf>

<http://weldoninc.com/pages/downloads/RelationshipsReport.pdf>

## F-5 Aerial Fire Apparatus

NFPA 1901, **Standard for Automotive Fire Apparatus**, NFPA, Quincy, MA, (800) 344-3555 or [www.nfpa.org](http://www.nfpa.org).

NFPA 1911, **Standard for Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus Introduction to Hydraulic Technology Student Workbook**. order online from [www.eatonhydraulics.com](http://www.eatonhydraulics.com), click on training, training products, training manuals.

**Any hydraulic reference material with symbols such as Fluid Power Designer Lightning Reference Handbook**, 8th edition. Available at [www.ifps.org/Store/ord\\_form.htm#books](http://www.ifps.org/Store/ord_form.htm#books)

## F-6 Allison Automatic Transmissions

**NFPA 1911**, *Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus*. National Fire Protection Association, Quincy, MA, (800) 344-3555 or [www.nfpa.org](http://www.nfpa.org)

**Allison Publications:** The new EVS (Emergency Vehicle Series) lineup will include the 3000EVS and 4000EVS close ratio models and the 3500EVS and 4500EVS wide ratio models.

**Mechanics tips booklets and Operators Manuals can be downloaded online for no charge** at [www.allisontransmission.com](http://www.allisontransmission.com)

### Mechanics Tips Booklets:

HT 700, # MT1366EN

HT 700 Electronic, #MT1958EN

MT4007EN - 1000/2000 4<sup>th</sup> gen

MT4015EN - 3000/4000 4<sup>th</sup> gen

3004EN 3190EN

### Operators Manuals:

# OM3656EN, 3000/4000 EVS

MT/MTB 648/HT/HTB 741 # OM1957EN

1000/2000 EVS OM 3761EN

SA3360EN

### Preventive Maintenance Manuals

AT/MT/HT # PM2572EN

Miscellaneous Manuals

MD/HD Product Lines Principles of

Operation # PO2454EN

### Troubleshooting Manuals

Drive line Troubleshooting # TS2714EN

WT Troubleshooting # TS2470EN

WTEC III Troubleshooting #TS2973EN

On-Highway Troubleshooting #TS1838EN

### In-Chassis Maintenance:

1000/2000 GN4008EN

Optional Service Manuals (not required)

MT 600 #SM1317EN

HT 700 # SM1270EN

HT 700 Electronic #SM2004EN

CEC 1 Electronic Controls #TS2712EN

MD Products, # SM2148EN

HD Products, # SM2457EN

1000/2000 TS3977EN

3000/4000 TS3989EN

go to [www.allisontransmission.com](http://www.allisontransmission.com)

for additional info such as:

Technician Tips

Fluid & filter information

Service tool information

Downloadable technical publications

Warranty information

Transmission identification

Shift Selector operation

Note: Allison "DOC" for PC-service tool has a digital full version of all series electronic troubleshooting manuals imbedded in the computer program.

## F-7 Foam Systems

NFPA 1901, **Standard for Automotive Fire Apparatus**, Chapters 20-21 and appropriate annex

NFPA 1911 **Standard for Inspection, Maintenance, Testing and Retirement of In-Service Automotive Fire Apparatus** Chapters 11, 12, 18 and appropriate annex

IFSTA **Principals of Foam Firefighting** Chapters 2, 3, 4, glossary and appendix

IFSTA **Driver/Operator Handbook**, Chapters 15, 16, glossary and appendix

Fire pump manufacturer's operations manual

Hale CAFS Pro System User Operation Training Manual. To download, go to [www.haleproducts.com](http://www.haleproducts.com), then downloads, manuals, CAFS ProManual.

Hale FoamLogix Rotary Gear Manual Page I-19: [www.haleproducts.com/\\_Downloads/hale/product\\_manuals/FoamLogix%20Manual.pdf](http://www.haleproducts.com/_Downloads/hale/product_manuals/FoamLogix%20Manual.pdf)

Waterous "Eclipse" CAFS System Operation and Maintenance Form F1031 Section 2412. To download go to

[www.waterousco.com/servicemanual/Eclipse/SEC2412.PDF](http://www.waterousco.com/servicemanual/Eclipse/SEC2412.PDF)

Waterous 200P PTO Driven Compressor Kit Installation and Operations Instructions. To download go to:

[www.waterousco.com/servicemanual/foam/200-p.pdf](http://www.waterousco.com/servicemanual/foam/200-p.pdf)

Manufacturer's web sites go to [www.waterousco.com](http://www.waterousco.com) or [www.wsdarley.com](http://www.wsdarley.com) or [www.foammpro.com](http://www.foammpro.com)

## F-8 Hydraulic Systems

**Mobil Hydraulics Manual**. Can be ordered online from [web.fluidpower.eaton.com/ssl/listproducts\\_manuals.asp](http://web.fluidpower.eaton.com/ssl/listproducts_manuals.asp)

**Fluid Power Designer Lightning Reference Handbook**, 8th edition.

Available at [web.fluidpower.eaton.com/ssl/listproducts\\_manuals.asp](http://web.fluidpower.eaton.com/ssl/listproducts_manuals.asp)

## Fire Apparatus Technician Level Certification Requirements Chart

### Level I

#### ASE Exams:

T-4 Heavy-Duty Truck, Brakes

T-5 Heavy-Duty Truck, Suspension and Steering

T-8, PMI (after Jan 1, 2011 you must take the new EVT

F-1 exam instead of this ASE exam)

#### EVT Exams:

F-1 Maintenance, Inspection, & Testing of Fire Apparatus-  
available beginning in October of 2010

F-2 Design & Performance of Fire Apparatus

### Level II

#### ASE Exams:

T-2 Heavy-Duty Truck, Diesel Engines

T-3 Heavy-Duty Truck, Drive Train

T-6 Heavy-Duty Truck, Electrical Systems

#### EVT Exams:

F-3 Fire Pumps and Accessories

F-4 Electrical Systems

### Master Level III

#### ASE Exams:

T-1 Heavy-Duty Truck, Gasoline Engines

T-7, Heating and Air-Conditioning

#### EVT Exams:

F-5 Aerial Fire Apparatus

F-6 Allison Automatic Transmissions

# AMBULANCE TECHNICIAN CERTIFICATION TRACK

This track recognizes that some technicians work only on ambulances. The exams cover the design and performance standards, the specialized systems and equipment, and the accepted practices used in the service and maintenance of ambulances. Reference material lists to prepare for the EVT exams are shown in the description of each exam. An outline of the areas to study, "Learning Objectives", are available online at [www.evtcc.org](http://www.evtcc.org) and are mailed at time of registration.

## Ambulance Technician Exams

### **E-0 Maintenance, Inspection & Testing of Ambulances**

#### **E-1 Design & Performance Standards and Preventive Maintenance of Ambulances**

#### **E-2 Ambulance Electrical Systems**

#### **E-3 Ambulance Heating, Air-Conditioning, and Ventilation Systems**

#### **E-4 Ambulance Cab, Chassis, and Body**

### **E-0 Maintenance, Inspection & Testing of Ambulances**

#### **NFPA 1911, Standard for Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus**

NFPA (800) 344-3555 or [www.nfpa.org](http://www.nfpa.org)

KKK-A-1822F **Federal Specification for the Star-of-Life Ambulance**, download for no charge at:

<http://www.ntea.com/WorkArea/showcontent.aspx?id=1352>

Meritor Preventive Maintenance and Lubrication. Download for no charge: [http://www.meritorhvs.com/MeritorHVS\\_Documents/mm1.pdf](http://www.meritorhvs.com/MeritorHVS_Documents/mm1.pdf)

**The Service Technician's Guide To Compression Ignition Fuel Quality** - can be downloaded for no charge at

[http://www.biodiesel.org/pdf\\_files/Changes\\_In\\_Diesel\\_Fuel.pdf](http://www.biodiesel.org/pdf_files/Changes_In_Diesel_Fuel.pdf)

Chassis Manufacturers Service Manual

### **E-1 Design & Performance Standards and Preventive Maintenance of Ambulances**

**Ambulance Performance Standards**, AMD 001-015, Available for free at <http://www.ntea.com/WorkArea/showcontent.aspx?id=1346>

KKK-A-1822F **Federal Specification for the Star-of-Life Ambulance**, <http://www.ntea.com/WorkArea/showcontent.aspx?id=1352>

OSHA Publications: Online order form for OSHA- <http://www.osha.gov/pls/publications/publication.html> or call 202-693-1999

#3084 *Chemical Hazard Communication*, #3186 *Model Plans and Programs for the OSHA Bloodborne Pathogens and Hazard Communications Standard*.

Any general truck repair maintenance manual and any Material Safety Data Sheet

### **E-2 Ambulance Electrical Systems**

KKK-A-1822F **Federal Specification for the Star-of-Life Ambulance**, download for no charge at

<http://www.ntea.com/WorkArea/showcontent.aspx?id=1352>

**Ford Ambulance QVM** Guide, [www.fleet.ford.com/truckbbas/non-html/qpg/2004/ambulanceguidelines04.pdf](http://www.fleet.ford.com/truckbbas/non-html/qpg/2004/ambulanceguidelines04.pdf)

Any good automotive or electrical repair manual. The following are *suggested* reference materials

**Auto Electricity & Electronics** by James Duffy, Goodheart-Wilcox 708-687-5000, order from [www.Amazon.com](http://www.Amazon.com)

OR **Heavy Duty ProClinic Manual** by Interstate Battery-Call Jeff Barron at 469-221-4655 for your local dealer ordering information

### **E-3 Ambulance Heating, Air Conditioning, and Ventilation**

**Motor Age T-7 and A-7 Heating & A/C Self-Study** Guide, call 800-240-1968 \$17.95 order online [www.PassTheASE.com](http://www.PassTheASE.com)

**Ambulance Performance Standards**, AMD 001009, Available for free <http://www.ntea.com/WorkArea/showcontent.aspx?id=1346>

KKK-A-1822F **Federal Specification for the Star-of-Life Ambulance**, download for no charge at

<http://www.ntea.com/WorkArea/showcontent.aspx?id=1352>

### **E-4 Ambulance Body and Chassis**

**Ambulance Performance Standards**, AMD 001-015, no charge at <http://www.ntea.com/WorkArea/showcontent.aspx?id=1346>

KKK-A-1822 **Federal Specification for Star-of-Life Ambulance**, <http://www.ntea.com/WorkArea/showcontent.aspx?id=1352>

OSHA Publications #3186 *Model Plans and Programs for the OSHA Bloodborne Pathogens and Hazard Communications Standard*.

Online order form for OSHA Publications- <http://www.osha.gov/pls/publications/publication.html> or call 202-693-1999

NFPA 1911, **Standard for Inspection, Maintenance, Testing, & Retirement of In-Service Fire Apparatus**

National Fire Protection Association, Quincy, MA. To order call (800) 344-3555 or [www.nfpa.org](http://www.nfpa.org)

**Ford Ambulance QVM** Guide, [www.fleet.ford.com/truckbbas/non-html/qpg/2004/ambulanceguidelines04.pdf](http://www.fleet.ford.com/truckbbas/non-html/qpg/2004/ambulanceguidelines04.pdf)

General shop manuals, such as: Ford 1-ton chassis, Freightliner Medium Duty, International/Navistar Medium Duty

Any Material Safety Data Sheet and Any service manual for OBD-2, Class 1 Diagnostic Service Codes

## Ambulance Technician Level Requirements Chart

### **Level I**

#### **ASE Exams:**

A-4 Automobile, Suspension and Steering

A-5 Automobile, Brakes

A-6 Automobile, Electrical Systems

A-8 Engine Performance

#### **EVT Exams:**

E-0 Maintenance, Testing, & Inspection of Ambulances-this exam

will be available Oct 2010 & will be required by Jan 1, 2011

E-1 Design and Performance of Ambulances

### **Level II**

#### **ASE Exams:**

A-1 Automobile, Engine Repair

A-3 Automobile, Manual Drive Train and Axle

A-7 Automobile, Heating and Air Conditioning

T-2 Heavy-Duty Truck, Diesel Engines

#### **EVT Exams:**

E-2 Ambulance Electrical Systems

E-3 Ambulance Heating, Air-Conditioning, & Ventilation

### **Master Level III**

#### **ASE Exams:**

A-2 Automobile, Automatic Transmission and Transaxle

T-4 Heavy-Duty Truck, Brakes

ASE T-5 Heavy-Duty Truck, Suspension and Steering

#### **EVT Exams:**

E-4 Ambulance Body and Chassis

# **AIRPORT RESCUE AND FIRE-FIGHTING TECHNICIAN LEVEL CERTIFICATION TRACK**

This track program recognizes technicians who work on airport rescue and fire-fighting vehicles. The exams cover the design and performance standard and preventive maintenance, chassis and vehicle performance, and the extinguishment systems of ARFF vehicles. Reference material lists to prepare for the EVT exams are shown in the description of each exam. An outline of the areas to study, "Learning Objectives", are available online at [www.evtcc.org](http://www.evtcc.org) and are mailed at time of registration.

## **ARFF Technician Exams**

### **A-1 Design & Performance Standards & Preventive Maintenance of Aircraft Rescue & Fire-Fighting Vehicles**

### **A-2 Chassis and Vehicle Components of Aircraft Rescue and Fire-Fighting Vehicles**

### **A-3 Extinguishment Systems of Aircraft Rescue and Fire-Fighting Vehicles**

#### **ARFF-1 Design & Performance Standards and Preventive Maintenance of Aircraft Rescue and Fire-Fighting Vehicles**

**FAA Advisory Circular, AC No: 150/5220-10D, Guide Specification for Water/Foam Aircraft Rescue and Firefighting Vehicle**, U.S.

Department of Transportation, Federal Aviation Administration, available at [www.faa.gov](http://www.faa.gov)

**NFPA 414 Standard for Aircraft Rescue and Fire-Fighting Vehicles**, National Fire Protection Association, Quincy, MA (800) 344-3555 or [www.nfpa.org](http://www.nfpa.org)

Any recognized Manufacturer's Training manual, Operator's manual or Service manuals. Must cover recommended methods, procedures, work instructions and maintenance intervals.

#### **ARFF-2 Chassis and Vehicle Components of Aircraft Rescue and Fire-Fighting Vehicles**

**FAA Advisory Circular, AC No: 150/5220-10D, Guide Specification for Water/Foam Aircraft Rescue and Firefighting Vehicle**

U.S. Department of Transportation, Federal Aviation Administration. [www.faa.gov](http://www.faa.gov)

**NFPA 1911, Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus**

**NFPA 414 Standard for Aircraft Rescue and Fire-Fighting Vehicles** National Fire Protection Association, Quincy, MA (800) 344-3555 or [www.nfpa.org](http://www.nfpa.org)

**Aircraft Rescue & Fire Fighting**, IFSTA, Oklahoma State University, Stillwater, OK. (800) 654-4055

**Fluid Power Designers' Lightning Reference Handbook**, 562-692-6912 \$13.50 - Graphical Symbols Section

Any recognized manufacturer's training manuals

#### **ARFF-3 Extinguishment Systems of Aircraft Rescue and Fire-Fighting Vehicles**

**Pumping Apparatus DRIVER/OPERATOR Handbook**, 2nd edition, International Fire Service Training Association (IFSTA), 800-654-4055 or [www.ifta.org](http://www.ifta.org); Ch. 5, 6, 11&10

**Aircraft Rescue & Fire Fighting**, IFSTA, Oklahoma State University, Stillwater, OK. (800) 654-4055 Chapters 6&9

**NFPA 1911, Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus**

NFPA, Quincy, MA, (800) 344-3555 or [www.nfpa.org](http://www.nfpa.org)

**NFPA 412 Standard for Evaluating Aircraft Rescue and Fire-Fighting Foam Equipment**, All Specified Chapters,

National Fire Protection Association, Quincy, MA (800) 344-3555 or [www.nfpa.org](http://www.nfpa.org)

**NFPA 414 Standard for Aircraft Rescue and Fire-Fighting Vehicles**

National Fire Protection Association, Quincy, MA. (800) 344-3555 or [www.nfpa.org](http://www.nfpa.org)

**FAA Advisory Circular 150/5220-10D Guide Specification for Water/Foam Aircraft Rescue and Firefighting Vehicle**

U.S. Department of Transportation, Federal Aviation Administration at [www.faa.gov](http://www.faa.gov)

**Halotron I Operating and Service Manuals**

Any Major Fire Pump Manufacturer Repair Manual

## **AIRPORT RESCUE AND FIRE-FIGHTING TECHNICIAN LEVEL REQUIREMENTS**

### **Level I**

#### **ASE Exams:**

T-2 Heavy-Duty Truck, Diesel Engine

T-4 Heavy-Duty Truck, Brakes

T-6 Heavy-Duty Truck, Electrical/Electronic Systems

T-8 Heavy-Duty Truck, PMI-only until Jan 1, 2011, then the F-1

will be required instead.

#### **EVT Exams:**

A-1 Design and Performance of ARFF Vehicles

F-1 Maintenance, Inspection, & Testing of Fire Apparatus

### **Level II**

#### **ASE Exams:**

T-3 Heavy-Duty Truck, Drive Train

T-7 Heavy-Duty Truck, HVAC

T-5 Heavy-Duty Truck, Suspension/Steering

#### **EVT Exams:**

A-2 Chassis & Vehicle Components of ARFF Vehicles

F-4 Fire Apparatus Electrical Systems

### **Master Level III**

#### **ASE Exams:**

L-2 Electronic Diesel Engine Diagnosis Specialist

#### **EVT Exams:**

A-3 Water/Foam and Ancillary Extinguishment Systems

## LAW ENFORCEMENT VEHICLE TECHNICIAN LEVEL CERTIFICATION TRACK

The Law Enforcement Vehicle Technician track program recognizes that some technicians work only on law enforcement vehicles. The exam covers the design and performance standards, installation of the specialized systems and equipment, and the accepted practices used in the service and maintenance of Law Enforcement Vehicles. A reference material list to prepare for the EVT exam is shown in the description of the exam. An outline of the areas to study, "Learning Objectives", are available online at [www.evtcc.org](http://www.evtcc.org) and are mailed at time of registration.

### Law Enforcement Vehicle Technician Exam

#### L-1 Law Enforcement Vehicle Installation Technician

##### Reference Materials:

Law Enforcement Preparation Guide may be downloaded from the EVT web site at [www.evtcc.org](http://www.evtcc.org), Exams and Preparation, or go directly to page by typing in: [http://www.evtcc.org/pdf\\_files/law%20enforcement%20vehicle%20technician%20prep%20guide.pdf](http://www.evtcc.org/pdf_files/law%20enforcement%20vehicle%20technician%20prep%20guide.pdf)

**Auto Electricity & Electronic Technology**, by James Duffy. Goodheart-Wilcox 1-708-687-5000 order from [www.Amazon.com](http://www.Amazon.com)  
OR

**Heavy Duty ProClinic Manual** by Interstate Battery call Jeff Barron at 469-221-4655 for your local interstate dealer ordering information  
Internet Resources:

<https://www.fleet.ford.com/downloads/specvehpolice/2008mguide.pdf>

[www.whelen.com](http://www.whelen.com)

[www.3m.com](http://www.3m.com)

[www.policetechnologies.com](http://www.policetechnologies.com)

[www.pro-gard.com](http://www.pro-gard.com)

[www.fedsig.com/service](http://www.fedsig.com/service)

[www.powersource.net](http://www.powersource.net)

[www.wattco.net](http://www.wattco.net)

[www.pfmmag.com](http://www.pfmmag.com)

[www.setina.com](http://www.setina.com)

[www.autoshop101.com](http://www.autoshop101.com)

## MANAGEMENT CERTIFICATION TRACK

The Fleet Management track program is based on the principals published by the Association of Equipment Management Professionals (AEMP) in *The Career Equipment Fleet Manager*. A reference material list to prepare for the EVT exam is shown in the description of the exam. An outline of the areas to study, "Learning Objectives", are available online at [www.evtcc.org](http://www.evtcc.org) and are mailed at time of registration.

### Management Exam

M-1 Level 1 Supervisor Exam

M-2 Level 2 Supervisor Exam

M-3 to be determined

#### M-1 and M-2 Management Supervisor

**The Career Equipment Fleet Manager**, Association of Equipment Management Professionals. Reference that you are taking an EVT exam to be eligible for member price of \$195.00 from 970-384-0510 or [www.AEMP.org](http://www.AEMP.org)

NFPA reference listed below - National Fire Protection Association (800) 344-3555 or [www.nfpa.org](http://www.nfpa.org)

1901, **Standard for Automotive Fire Apparatus**,

1911, **Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus**

KKK-A-1822F **Federal Specification for the Star-of-Life Ambulance**, download for no charge at

<http://www.ntea.com/WorkArea/showcontent.aspx?id=1352>

OSHA Publications: Online order form for OSHA <http://www.osha.gov/pls/publications/publication.html> or call 202-693-1999

#3084 **Chemical Hazard Communication**,

#3186 **Model Plans and Programs for the OSHA Bloodborne Pathogens and Hazard Communications Standard**.

EVT Certification Commission, Inc. encourages organizations that promote **training** for the emergency vehicle technician. Listed below are organizations that are of interest to the emergency response vehicle technician. Many of the seminars and shows provide the opportunity to sit for EVT Certification exams. Check the test site list for dates and times or visit the EVT web site at [www.evtcc.org](http://www.evtcc.org)

Emergency-One-Ocala, FL  
Preparation for the EVT Certification Exams.  
EVT exam is offered, pre-registration required.  
[www.e-one.com/training.asp](http://www.e-one.com/training.asp) or call 352-861-3612

Hale Pumps Conshohocken, PA  
EVT exam is offered following the training, pre-registration required [www.haleproducts.com](http://www.haleproducts.com)

Waterous South St. Paul, MN  
EVT exam is offered for those attending the training. Pre-registration required. Visit [www.waterousco.com](http://www.waterousco.com)

Fox Valley Technical College and Pierce Manufacturing  
Preparation classes for EVT Certification exams:  
The EVT exam will be offered following the training. Pre-registration for the test required  
[www.piercemfg.com/company/customer\\_service.cfm](http://www.piercemfg.com/company/customer_service.cfm)

Fire-Rescue International--IAFC Apparatus Maintenance  
Mechanics Workshop  
703-273-0911 [www.iafc.org](http://www.iafc.org)

Fire Department Instructor's Conference  
[www.fdic.com](http://www.fdic.com) 888-835-3342

Fire Department Safety Officer's Association Apparatus  
Maintenance Symposium (FDSOA)  
508-881-3114 [www.fdsoa.org](http://www.fdsoa.org)

Florida Association of Emergency Vehicle Technician's  
386-676-2744 [www.faevt.org](http://www.faevt.org)

ASE 1-877-273-8324 [www.ase.com](http://www.ase.com)

Arizona Fire Mechanics [www.azfiremechanics.com](http://www.azfiremechanics.com)

California Fire Academy 916-727-7019  
[www.cafiremech.com](http://www.cafiremech.com)

Oregon Mechanic's Assoc Seminar  
Rick Fletcher 877-631-3772 [www.ofaema.org](http://www.ofaema.org)

Colorado Fire Mechanic's Seminar  
Jay Powell 720-865-3850 [www.CO-fma.com](http://www.CO-fma.com)

Illinois Fire Apparatus Mechanic's  
Ben Brown 630.417.8249 [www.ifama.net](http://www.ifama.net)

Ohio Association of EVT's  
Ken Shrefler 440-476-0045 [www.oaevt.org](http://www.oaevt.org)

Wisconsin Association of EVT's Jon Coutts [www.waevt.com](http://www.waevt.com)

Long Island Fire Mechanics Chris LoPreto 516-589-0189  
[www.lievt.org](http://www.lievt.org)

Washington State Fire Mechanics  
Frank Moffat 425-556-2206 [www.wsfma.org](http://www.wsfma.org)

New England Fire Apparatus Maintenance  
Paul Lamoureux 508-326-3179

Lakeland College, Alberta, Canada  
Don Henry 403-853-8553

Northern California Fire Mechanics Association  
[www.ncfma.org](http://www.ncfma.org)

Southwest EVT Symposium  
Oklahoma Association of EVT's  
Robert Sanders 405-949-1861 [www.okevt.org](http://www.okevt.org)

Texas Association of EVT's  
Terry Slayton 903-597-0687 [www.taevt.org](http://www.taevt.org)

The Heartland Emergency Apparatus Technicians (HEAT)  
Association.  
[www.heatevt.com](http://www.heatevt.com) or email Boyd at [bpowers@sedgwick.gov](mailto:bpowers@sedgwick.gov).

Michigan Association of Fire Apparatus Supervisors  
MAFAS promotes education and training issues. Anyone  
interested in fire apparatus safety is welcome. Held bi-monthly on  
the third Wednesday of the month, 10 a.m. Call Phil Wagner at  
734-476-2360 or email [pwagner@ci.romulus.mi.us](mailto:pwagner@ci.romulus.mi.us)

Visit the EVTCC web site at [www.evtcc.org](http://www.evtcc.org)

