



presents the

25th Annual

*Emergency & Municipal Apparatus
Maintenance Symposium*

September 25 thru 29, 2017
at the

OHIO FIRE ACADEMY

The Ohio Association of Emergency Vehicle Technicians will present it's 25th Annual Emergency & Municipal Apparatus Maintenance Symposium September 25 thru 29, 2017.

Classes will be conducted at the Ohio Fire Academy 8895 E. Main St. Reynoldsburg, Ohio.

SCHEDULE OF EVENTS

- Sept. 25-Monday **REGISTRATION AND OPENING REMARKS**
Registration 7:00 to 8:30 and Opening Remarks at 8:30

- Sept. 25 thru 29 **PRESENTATION OF CLASSES**
Monday - Friday Class Instruction starts at 9 AM
Monday - Thursday, class ends at 4 PM. Friday, class ends at noon.

- Sept. 26-Tuesday **KIMBALL MIDWEST DISTRIBUTION WAREHOUSE TOUR & BBQ**
Tour of distribution warehouse. Sales presentation, product tour and dinner provided.
Transportation provided by Kimball Midwest. Bus will leave host hotels promptly at 4:45 PM.

- Sept. 27-Wednesday **OAEVT ANNUAL BANQUET AND AWARDS CEREMONY**
Held at the Tall Timbers Banquet Center 13831 St Rt 40, Reynoldsburg, OH 43068.
Social time: 5:30 PM, Meal 6:00 PM
Advanced reservations are required. See Tuition Information.

- Sept. 27-Wednesday **OAEVT ANNUAL MEETING**
Held at the Tall Timbers Banquet Center 13831 St Rt 40, Reynoldsburg, OH 43068,
following the banquet and awards ceremony. Starting time 7:00 PM.
Admission is free to OAEVT members not attending the banquet.

- Sept. 28-Thursday **EMERGENCY VEHICLE TECHNICIAN CERTIFICATION TESTING**
Sept. 29-Friday **Ohio Fire Academy. Time: 4:00 PM Thursday, 8:00 AM Friday.**
Applicants must have preregistered and paid the required fees to the
EVT Certification Commission prior to testing. Registration deadline,
September 7, 2017. EVT Cert. Comm, P.O. Box 894, Dundee, IL 60118, 847-426-4075
Testing is not required to attend the symposium.

LODGING

Students are responsible for their own lodging. However, a group of rooms have been blocked at the Best Western Executive Suites 1899 Winderly Lane, Pickerington, OH 43147. Phone 614-860-9804. Confirmation OAEVT # 1597, with a special rate of \$72.00 per night for all style rooms, which includes a full breakfast bar. Second host hotel @ Hampton Inn – East 1890 Winderly Lane, Pickerington, OH 43147 OAEVT Group pricing \$104.00 per night, C-OAE is the reservation code. Phone 614-864-8383. Be sure to mention that you are attending the OAEVT Symposium to receive this rate. The Ohio Fire Academy also has hotel style rooms available; please call 1-888-726-7731 for details and cost. Hotel reservations must be made by August 31, 2017.



ATTENDEE REGISTRATION FORM

2017 OHIO ASSOCIATION OF EMERGENCY VEHICLE TECHNICIANS EMERGENCY & MUNICIPAL APPARATUS MAINTENANCE SYMPOSIUM

NOTE: PLEASE PRINT or TYPE all information. This form must be filled out completely or it will be returned to you. DEADLINE for registration is September 15, 2017. All late registrations after 9-15-17 will be required to pay a fee of \$25 per day/class or \$125 total for the week. Full registration refund prior to 8-25-17. 50% refund prior to 9-8-17. No refund after 9-8-17.

Name _____

Preferred Address _____

City _____ State _____ Zip _____

Cell Phone () _____ Work Phone () _____

E-mail _____

Fire Dept./ Agency / Company _____

Address _____ Zip _____

Do you plan to attend Wednesday night Banquet? () Yes () No

Tee-Shirt Size _____

REGISTRATION

Carefully fill out the registration form and send it along with full tuition or payment verification: (for example purchase order number from your employer)

Scan and email completed registration to pguhde@aol.com or by mail,

**Ohio Association of Emergency Vehicle Technicians, Inc.
P.O. Box 303 • Avon, Ohio 44011**

Use class selection number — PLEASE indicate second choice!

	Monday	Tuesday	Wednesday	Thursday	Friday
First Choice					
Second Choice					

Form may be photocopied as needed.

TUITION INFORMATION

REGISTRATION CLOSSES SEPTEMBER 15, 2017

Late registration rate will be required. \$25 per day/class.

FULL PACKAGE

Includes the 5 day symposium, daily lunch, and the Wednesday night Banquet:

\$425.00 _____

Daily Rate - Any Class..... \$150.00 _____

The Wednesday Night Banquet-

ADDITIONAL TICKETS \$30.00 _____

TOTAL ENCLOSED _____

Late Registration after 9-15-17 Full Week..... \$125.00 _____

Per Day/Class..... \$25.00 _____

TOTAL INCLUDING LATE REGISTRATION _____

***Send registration form along with full tuition or payment verification:
(for example, purchase order number from your employer)***

**Registration: Monday 7:00 AM to 8:30 AM Welcome & Opening Remarks: 8:30 AM
Class Times: Classes are Monday thru Thursday from 9 AM to 4 PM, with one hour for
lunch and two 15 minute breaks. Friday 9 AM - 12 PM**

Lunch will be in the Ohio Fire Academy cafeteria. Meal tickets will be issued to each student. Some classes are limited in size due to hands-on training. Register early, classes will be filled on a first come, first served basis.

Class registrations must be postmarked by September 15, 2017. Electronic or scanned registrations are encouraged; send to pguhde@aol.com.

Certificates of attendance will be awarded upon payment of all fees and verification of attendance.

Students are responsible for providing suitable personal protective equipment, i.e., eye protection, hearing protection, as may be needed for the hands-on portion of any class.

O.A.E.V.T. reserves the right to cancel or substitute classes due to conditions beyond our control. Reasonable efforts have been made to confirm the classes and instructors scheduled.

Please call Pat Guhde (440) 476-8707 or E-mail at pguhde@AOL.com

- Class 050 Vehicle Maintenance Justification, Safety & Liability** **3 Hrs.**
 This class will help the technician and end user with concepts for today's challenging times, to include specification, training and while the vehicles are in service. Chief Ober has been in the trenches and has information to share with you to avoid the common pitfalls, he also now understands both sides of the fence as Chief and will share his experiences that have played out and worked well regarding funding from his City Administration. He also has been intimately involved in the design and safety of apparatus to improve safety and liability for the drivers, passengers, and any pt. occupants in ambulances. This segment will finish up the important role of the work of the EVT, as well as some liability issues to think about, and should not be missed by anyone.
Chief Mark Ober, Anderson Twp. Fire Rescue
- Class 200 Pump Repair & Maintenance by Waterous (Tues – Wed)** **12 Hrs.**
 This two (2) day class covers the care, operation and maintenance of the Waterous mid-ship pump, using actual training pump components, the gearbox, impeller assembly and all valves normally supplied with the pump will be removed, explained, examined and re-assembled. Components will be Waterous specific, and class will be a terrific refresher or can be used as a prep class.
Instructor: Jay Rought, Waterous Corp
- Class 300 EVT Prep Class, F - 6 Allison Automatic Transmissions (Mon & Tues)** **12 Hrs.**
 This class prepares the technician to understand The EVTCC F – 6 exam which covers the basic design and performance requirements of Allison Automatic transmissions, components of electrical systems, and preventive maintenance and troubleshooting activities. Required text, NFPA 1911, Allison Publications, Mechanics tips booklets and Operators Manuals. Note; Student Must be Pre-Registered with the EVTCC to take test on 9-28-17 & 9-29-17
Instructor: Al Conkle, Executive Director
- Class 400 EVT Prep F – 5 Aerial Apparatus Wednesday & Thursday** **12 Hrs.**
 This class prepares the technician to understand the EVTCC F – 5. This should assist the technician to further understand, and add to the students knowledge and experience to understand the learning objectives of Aerial Fire Apparatus. Textbook Recommended NFPA 1901, NFPA 1911. This is a two day class Note; Student Must be Pre-Registered with the EVTCC to take test on 9-28-17 or 9-29-17
Instructor: John Taylor, Sutphen Corporation
- Class 100 EVT Prep Class for F-3 Fire Pumps and Accessories** **6 Hrs.**
 Class prepares the technician to understand the general design, performance and testing standards for pumper apparatus, per the NFPA 1901 & 1911. The technician will understand the hydraulic principles of water movement in pumping operations, learn the terms that relate to the basic hydraulic principles used in the fire service, understand the mechanical principles of pumps, pump controls and accessories during pumping operations, understanding the procedures necessary to overhaul a fire pump and the procedures of performing a pump service test. (Textbooks Recommended: NFPA 1901, NFPA 1911, NFPA 1915, Standards for Fire Apparatus Preventative Maintenance Program, IFSTA Pumping Apparatus Driver/Handbook, second edition. Note; Student Must be Pre-Registered with the EVTCC to take test on 9-28-17 or 9-29-17
Instructor: Jay Rought, Waterous Corp.
- Class 101 Basic Electrical Troubleshooting** **6 Hrs.**
 This class is designed to instruct technicians on the repair and maintenance of Basic Electrical Systems. The class will start at the basics with power and ground and work up from there. Class includes lecture, demonstration, and hands- on instruction.
Instructor: Mike O'Neil, Spartan Chassis
- Class 102 FRC Products and Foam Pro Systems** **6 Hrs.**
 This class taught by a trainer from FRC and Foam Pro corporations will review all the items listed to include specifying, care, maintenance and calibrations for the products for this standard. Electronic Controls and Calibration will be covered in depth with hands on the component experience .Foam Pro, Turbo Foam, and Accu Max Products operation, maintenance, troubleshooting, and calibration will finish up this day.
Instructor: Norbe Puroll, FRC & Dan Richardson, Foam Pro
- Class 103 EVT Prep E-0 & F – 1 Maintenance, Inspection, and Testing of Ambulances & Fire Trucks** **6 Hrs.**
 This class covers the Maintenance, Inspection, and Testing of Ambulances as covered in NFPA 1917 and the Federal Specification for the Star of Life Ambulance, Meritor Preventive Maintenance and Lubrication, and NFPA 1911, Standard for the Inspection, Maintenance, Testing and Retirement of In-Service Fire Apparatus. Note; Student Must be Pre-Registered with the EVTCC to take test on 9-28-17 and/or 9-29-17
Instructor: John Merrifield, Spartan Chassis
- Class 104 International Engine Maintenance and After Treatment** **6 Hrs.**
 This class will cover the Diamond Logic and ISIS systems used by International Truck to diagnose and repair the engine and chassis systems. Joel will present material for the DT and V8 Engine product line as well as maintenance tips and tricks for the exhaust after treatment systems.
Instructor: Joel Crist & Tim White, International Truck – Rush International
- Class 105 Hydraulic Principles and Theory – Smart Power Generators** **6 Hrs.**
 This class taught a senior trainer and manager in the field of hydraulic generators. Class will cover the hydraulic principles and theories and then get into the care and maintenance and proper installation of the smart power products. The instructor's will also offer some common troubleshooting and repair procedures.
Instructor: Jordan Rautiola & Scott Jones, Smart Power
- Class 106 Wheel Bearing, Seal, & Brake Clinic** **6 Hrs.**
 This class will cover wheel seals, and bearings, and the proper technique for the installation, maintenance, and torquing. Also covered in the classroom setting will be a brake clinic, with a hands on chance to get the feel of these critical adjustments.
Instructor: Michael Gerrick, Federal Mogul
- Class 107 EVT Prep E-1 Design & Performance Standards of Ambulances** **6 Hrs.**
 This class covers the general design and performance standards for ambulances as described in NFPA 1917, Standard for Automotive Ambulances, and general principles of preventive maintenance and servicing. . Note; Student Must be Pre-Registered with the EVTCC to take test on 9-28-17 and/or 9-29-17
Instructor: Kenny Stevens, EVTS – Emergency Vehicle Technical Support Inc.
- Class 108 Intermediate Electrical Troubleshooting by Spartan** **6 Hrs.**
 This class is designed to instruct technicians on the repair and maintenance of Electrical Systems. The class will continue to test your basic knowledge with power and ground and work up to become an Intermediate electrical troubleshooter.. Class includes lecture, demonstration, and hands- on instruction.
Instructor: Mike O'Neil, Spartan Chassis

- Class 109 Sutphen Custom Pumper Maintenance 6 Hrs.**
 This class will cover the recommended maintenance practices specifically for the Sutphen product. Class will consist of classroom and an actual truck for hands-on.
Instructor: John Taylor, Sutphen Corporation
- Class 110 Spartan Air Conditioning Maintenance and Repair 6 Hrs.**
 This class taught by John should say it all, but he will go over in the classroom basics and theory first and then move to the demo to do some hands on. Class will include maintenance, troubleshooting and repair of the air conditioning systems in fire apparatus.
Instructor: John Merrifield, Spartan Chassis
- Class 111 Cummins Engines ISB, ISC, ISL Maintenance and common failures 6 Hrs.**
 This class will cover the Cummins product line from years back to current production to include the 5.9, 8.3, and the big block family. This technical trainer comes from Cummins Bridgeway Columbus branch and needless to say he has seen a bunch. Don't miss this.
Instructor: Ron Heitman, Cummins Bridgeway
- Class 112 Stryker EMS 6 Hrs.**
 This class will go over the Stryker EMS product line on proper installation, use, cleaning and maintenance, and repairs. The products will include cot, power load, stair chairs and other EMS products. Note: This class will not enable certified repairs to be done, but will help the users and maintenance personal understand, maintain, and diagnose issues.
Instructor: Sean Hall & Allyson Wright, Stryker Medical
- Class 113 Tuesday 120 Volt Line Voltage AC Elec. Theory and Generator Power on Vehicles 6 Hrs.**
- Class 120 Tuesday 120 Volt Line Voltage AC Elec. Theory and Generator Power on Vehicles 6 Hrs.**
 This class will start out with 120 volt AC theory and actually the power plant. This class was originally designed for Firefighter safety and awareness, Mike will take you from the power plant, transmission lines to the household outlet and then continue on to the vehicle mounted generators and you will also see some material for the EVT F – 4A test. Mike will discuss safety for generator installations, wire sizing and any additional 120 volt power needs that you may planning.
Instructor: Mike Santilli, Fire House Electrical
- Class 114 EVT Prep Class, E- 2 & F – 4 Ambulance & Fire Truck Electrical Systems 6 Hrs.**
 This class prepares the technician to understand The EVTCC E-2 exam which covers the basic design and performance requirements of ambulance electrical systems, components of electrical systems, and preventive maintenance and troubleshooting activities. Also The EVTCC F-4 exam which covers the basic design and performance requirements of fire apparatus electrical systems, components of electrical systems, and preventive maintenance and troubleshooting activities. Required text, KKK-A-1822E Federal Spec for the Star-of-Life Ambulance, Heavy Duty Manual by Interstate Battery, Auto Electricity & Electronic Technology, Any Heavy Duty Truck Electrical Manual & Fire Dept. Pumping Apparatus Maintenance.
 Note; Student Must be Pre-Registered with the EVTCC to take test on 9-28-17 and/or 9-29-17
Instructor: Kenny Stevens, EVTS – Emergency Vehicle Technical Support Inc.
- Class 115 Advanced Electrical Troubleshooting 6 Hrs.**
 This day class is designed to instruct the technician on the repairs and maintenance of Fire Apparatus Electrical Equipment. Students should either have EVT F- 4 or have been through an intermediate class first or have a good understanding of power and ground, volts, and amps as then apply to Apparatus. Class includes lecture, demonstration, and hands-on instruction. The Weldon Multiplex system will be include in the segment.
Instructor: Mike O'Neil, Spartan Chassis
- Class 116 EVT Prep DO1 Driver Operator Inspection 6 Hrs.**
 This class covers the material of the Driver Operator to do a daily/ weekly check that will satisfy the new requirements of NFPA 1911 Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Emergency Vehicles 2017 edition. Note; Student Must be Pre-Registered with the EVTCC to take test on 9-28-17 & 9-29-17
Instructor: Alan Conkle, OAEVT Executive Director
- Class 117 Disc & Drum Air Brake Maintenance and Repair 6 Hrs.**
 This class will cover air brake theory and proper set –up to enable the technician to understand the air brake system and properly troubleshoot and repair them. John will focus on the Air Drum and Air Disc systems and will have hands on demonstration stands for students to work on.
Instructor: John Merrifield, Spartan Chassis
- Class 118 Kussmaul Electronics Battery Conditioners and Pumps Wednesday 6 Hrs.**
- Class 126 Kussmaul Electronics Battery Conditioners and Pumps Thursday 6 Hrs.**
 This class will review basic electric and chassis electrical troubleshooting. Also included in this class is the troubleshooting and repair of the Kussmaul Electronic Products. Class repeated twice 118 on Wednesday 126 on Thursday
Instructor: Phil Sgroi & Danny Graham, Kussmaul Electronics
- Class 119 Horton Electrical 6 Hrs.**
 This class will enable you to understand and troubleshoot Horton's Electrical Systems used throughout the years, The System 2000 will be discussed and Kevin will take you through the upgrades and revisions of today's Intelliplex. The second half of the day will be spent with, lecture and hands on actual Freightliner M2 chassis.
Instructor: Kevin Handlin, Horton Emergency Vehicles
- Class 121 EVT Prep E-3 Ambulance HVAC 6 Hrs.**
 This class covers basic design, requirements and components of these systems.
 Note: Student Must be Pre-Registered with the EVTCC to take test on 9-28-17 and/or 9-29-17
Instructor: Kenny Stevens, EVTS – Emergency Vehicle Technical Support Inc.
- Class 122 EVT Prep F-7 Foam Systems 6 Hrs.**
 Class prepares the technician to understand the general design, performance and testing standards for Foam Systems, per the NFPA 1901 & 1911. Note; Student Must be Pre-Registered with the EVTCC to take test on 9-28-17 or 9-29-17
Instructor: Jay Rought, Waterous Corp.
- Class 123 Data Link Diagnostics, Code Reading via gauges, DVM, 6 Hrs.**
 This class is designed to instruct the participant on how to extract information from the fire truck electronics used the above methods. Mike knows his way around the truck and will help you use the trucks technology to help diagnose issues that you have. Bring your electronic tools and he will also be able to show you how to use them.
Instructor; Mike O'Neil, Spartan Chassis

Class 124 Advance Electrical / Multiplexing By Weldon**6 Hrs.**

This class is designed to instruct technicians on the repair and maintenance of V-Mux Electrical Systems. The class will start at the basics with power and ground and work up from there. Class includes lecture, demonstration, and hands-on instruction.

Instructor: Markus Kelly, Weldon – Akron Brass

Class 125 EVT Prep E-0 & F – 1 Maintenance, Inspection, and Testing of Ambulances & Fire Trucks**6 Hrs.**

This class covers the Maintenance, Inspection, and Testing of Ambulances as covered in KKK-A-A822 Federal Specification for the Star of Life Ambulance, Meritor Preventive Maintenance and Lubrication, and NFPA 1911, Standard for the Inspection, Maintenance, Testing and Retirement of In-Service Fire Apparatus. Note; Student Must be Pre-Registered with the EVTCC to take test on 9-28-17 and/or 9-29-17

Instructor: John Merrifield, Spartan Chassis

Class 127 Fire Pump Familiarization**6 Hrs.**

This class is designed for the technician to familiarize and understand Fire Pump operations and all the components of Fire Pump operation as used by the Firefighter. The class will enable practical evolutions to enable the technician to fully understand the common practices used at fire scenes and theory to back it up which will help identify problems or find specific problems or repairs when faced with them. Perfect class for the Technician that wants to know why all those chrome gauges, handles and labels.

Instructor: Dave Woodward, Retired Violet Township Fire

Class 128 EVT Prep Class, E- 2 & F – 4 Ambulance & Fire Truck Electrical Systems**6 Hrs.**

This class prepares the technician to understand The EVTCC E-2 exam which covers the basic design and performance requirements of ambulance electrical systems, components of electrical systems, and preventive maintenance and troubleshooting activities. Also The EVTCC F-4 exam which covers the basic design and performance requirements of fire apparatus electrical systems, components of electrical systems, and preventive maintenance and troubleshooting activities. Required text, KKK-A-1822E Federal Spec for the Star-of Life Ambulance, Heavy Duty Manual by Interstate Battery, Auto Electricity & Electronic Technology, Any Heavy Duty Truck Electrical Manual & Fire Dept. Pumping Apparatus Maintenance.

Note: Student Must be Pre-Registered with the EVTCC to take test on 9-28-17 & 9-29-17

Instructor: Mike Santilli, Fire House Electrical

Class 129 EVT Prep E-4 Ambulance Cab, Chassis, & Power Train**6 Hrs.**

This class covers basic design, requirements and components of these system sand which are unique to Ambulances.

Note; Student Must be Pre-Registered with the EVTCC to take test on 9-28-17 and/or 9-29-17

Instructor: Kenny Stevens, EVTS – Emergency Vehicle Technical Support Inc.

OAEVT MAINTENANCE SYMPOSIUM

SCHEDULE SEPTEMBER 25 THROUGH 29

MONDAY 9-25	TUESDAY 9-26	WEDNESDAY 9-27	THURSDAY 9-28	FRIDAY 9-29
EVT Prep F-3 Fire Pump 100	Fire Pump Maintenance & Repairs by Waterous 200 <i>Day 1 of 2</i>	Fire Pump Maintenance & Repairs by Waterous 200 <i>Day 2 of 2</i>	EVT Prep F-7 Foam 122	Vehicle Maint. Justification, Safety, & Liability 050
Basic Electrical By Spartan 101	Intermediate Electrical By Spartan 108	Advanced Electrical by Spartan 115	Data Link Diagnostics Electrical Accessory Installation 123	
EVT Prep Allison Trans. F-6 300 <i>Day 1 of 2</i>	EVT Prep Allison Trans. F-6 300 <i>Day 2 of 2</i>	EVT Prep D01 Driver Operator 116	Weldon Multiplex 124	
FRC/Foam Pro Install ,Maint, & Repairs 102	Sutphen Custom Pumper Chassis Maint. 109	EVT Prep F-5 Aerial <i>Day 1 of 2</i> 400	EVT Prep F-5 Aerial <i>Day 2 of 2</i> 400	
EVT Prep F-1 & E-0 Maint & Inspection 103	Air Conditioning Maint. & Repair by Spartan 110	Disc & Drum Brakes - Maint. & Troubleshooting 117	EVT Prep F-1 & E-0 Maint. & Inspection 125	
International Engine Maint. & after Treatment 104	Cummins ISB,ISC,ISL Maintenance 111	Kussmaul Battery Conditioners and Pumps 118	Kussmaul Battery Conditioners and Pumps 126	
Hydraulic Principles and Generators 105	Stryker EMS Products Maintenance 112	Horton Ambulance Electrical 119	Fire Pump Familiarization 127	
Wheel bearing, Seal & Brake Clinic 106	120V Line Voltage Electrical & Generator power on Apparatus 113	120V Line Voltage Electrical & Generator power on Apparatus 120	EVT Prep E-2 & F-4 Electrical 128	
EVT Prep E-1 Design & Performance 107	EVT Prep E-2 & F-4 Electrical 114	EVT Prep E-3 HVAC 121	EVT Prep E-4 Cab, Chassis, Power Train 129	
	Kimball Midwest Tour & BBQ 4:30 – 9:30 <i>buses will leave promptly from the host Hotels at 4:45</i>	Annual Banquet & Meeting 5:30 – 9:00 • Tall Timbers	EVT Testing 4:00 PM Ohio Fire Academy Site # OH92817	EVT Testing 8:00 AM Ohio Fire Academy Site # OH92917

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Avon, Ohio 44011

FIRST CLASS MAIL
DATED MATERIAL

