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The Mobile Electronics Certified Professional (MECP) versus the Automotive Service Excellence (ASE) A6 Certification

Many schools or repair shops have traditionally utilized ASE A6 Electronic/Electrical Systems automotive certification as their leading resource for knowledge required to properly service and repair things associated with the vehicle electrical system. While this is a worthy certification, the proliferation of aftermarket components and the broad range of other electronic/electrical system related services that are offered in today's automotive marketplace mean that another certification, the Mobile Electronics Certified Professional (MECP) program, has additional complimentary benefits as well as specific elements to aftermarket products that ASE A6 does not address.

Background of the Certifications

ASE Certification

ASE offers both paper tests (at 700+ locations) as well as computer based testing (at 200+ locations), however the tests are only offered two (2) times per year and advance registration is required. The ASE A6 is an electrical certification in the ASE "Automobile and Light Truck" technician series of certifications intended to cover most of the repair disciplines. If a technician passes all eight of the tests in the exam series, they will earn the "Master Automobile Technician" designation. Participants are given 4 hours and 15 minutes in which to complete each ASE exam.

To become ASE certified, the participant must have two years of hands on work experience in the motor vehicle industry. ASE will allow formal schooling as a substitute for a portion of this experience prerequisite (up to one year of substitution for 2-3 full years of automotive schooling).

MECP Certification

All MECP certification exams are delivered through supervised, computer based testing. The tests are delivered at over 1000 Prometric testing centers or via the network of MECP partners such as vocational schools or industry proctors. Tests can be taken at any time based on the availability of an open seat in a Prometric testing center or the schedule of the proctor. Participants are given three hours in which to complete each MECP exam. There are three technician levels and one level for sales professionals offered by MECP that apply to vehicle electrical and electronic systems:

- Basic Installer
- Advanced Installer
- Master Installer
- Mobile Product Specialist (MPS)

Depending on the level of MECP certification the participant wishes to achieve, there may or may not be any experience or prior testing prerequisite. Entry level certification (Basic Installer) requires no experience to take the exam, however formal training is strongly recommended to be able to achieve a passing result. Once an installation technician moves to Advanced or Master Level Certification, experience prerequisites are mandatory.

Details of the Certifications

ASE A6

The knowledge that a technician must have to pass the A6 ASE test covers the following items: Vehicle electrical/electronic system, battery, starting system, charging system, lighting systems, gauges, horn, wiper/washer and power accessories diagnostic information, including symptom descriptions and their causes, as well as testing procedures, with the interpretation of test results. This test also includes repair information, including detailed disassembly, cleaning, inspection, repair, adjustment and assembly procedures of these same vehicle systems.

There are a total of 50 questions on the ASE A6 exam and the certification is valid for five (5) years.

<u>ASE A6 Subject Matter</u>	<u>% of Exam</u>
A. General Electrical/Electronic System Diagnosis	26%
B. Battery Diagnosis and Service	8%
C. Starting System Diagnosis and Repair	10%
D. Charging System Diagnosis and Repair	10%
E. Lighting Systems Diagnosis and Repair	12%
F. Gauges, Warning Devices, and Driver Information Systems.....	12%
G. Horn and Wiper/Washer Diagnosis and Repair	6%
H. Accessories Diagnosis and Repair	16%

MECP Basic Installer Certification

The MECP Basic Installer Certification is the industry's "apprentice level" certification. This is what many of the industry training schools offer as well as what many MECP-supporting retailers require as a prerequisite for employment. The study guide for this level is the *MECP Basic Installer Study Guide*. The exam covers basic electronics including Ohm's Law, series and parallel circuits, shop safety, and the basics of the 4 important technologies installers work with everyday - autosound, security, navigation, and wireless communications. The intent of this certification is to demonstrate a candidate's ability to understand the fundamentals required on the job. It is expected that the individual will follow the exam by gaining on-the-job experience and challenge themselves to move on to the next level. This exam contains 150 questions and the certification is valid for two years. At some point during the two-year period, the candidate should consider the Advanced Certification as their next move. This study guide and exam are now also available in Spanish.

<i>MECP Basic Installer Subject Matter</i>	<i>% of Exam</i>
A. Ohm's Law.....	6%
B. Electronic Components.....	14%
C. Measurements and Applications.....	12%
D. Component Applications and Usage in Installations.....	6%
E. Troubleshooting and Analysis in Installations.....	19%
F. Power and Hand Tool Knowledge.....	5%
G. Safety Issues.....	2%
H. Wireless Communications (Basic Knowledge)	9%
I. Security Systems (Basic Knowledge).....	9%
J. Navigation Systems (Basic Knowledge).....	9%
K. Autosound (Basic Knowledge).....	9%

Advanced Installer Certification

The MECP Advanced Installer Certification was formerly known as the "First Class" level. Installers who hold current First Class certifications will be required to take the Advanced Installer exam when it comes time to recertify. This level requires a minimum of one-year experience working professionally in the field. The Advanced Installer Certification is much more applicable to technicians who have both foundational knowledge and on-the-job experience.

The *MECP Advanced Installer Study Guide* is more comprehensive than the *MECP Basic Installer Study Guide*. This exam and study guide covers a greater depth of electronics and vehicle electrical systems, installation knowledge and technique, mobile audio and video systems, security and remote starters, in vehicle information systems and troubleshooting installations of all those disciplines. It's the current and relevant exam for individuals with at least one year of on-the-job experience. The study guide is also an excellent resource to have in the install bay as a day to day reference. This exam contains 200 questions and the certification is valid for four years. If the individual is currently employed in the industry and is working professionally (meeting the experience requirement), this is the target certification for them. It is also necessary to obtain this certification before moving up to the Master Installer level.

<i>MECP Advanced Installer Subject Matter</i>	<i>% of Exam</i>
A. Ohm's Law.....	5%
B. Electronic Components.....	11%
C. Measurements and Applications.....	7%
D. Component Applications and Usage in Installations.....	4%
E. Troubleshooting and Analysis in Installations.....	8%
F. Power and Hand Tool Knowledge.....	5%
G. Fabrication and Shop Safety.....	4%
H. Mobile Audio and Video Systems	22%
I. Security and Convenience Systems.....	22%
J. In Vehicle Information Systems (Navigation, Wireless, etc.).....	12%

Master Installer Certification

The MECP Master Installer Certification is the "best of the best". This certification requires a current Advanced Installer Certification (or "First Class" if it is still valid) and three years of on-the-job experience to take the exam. A study guide is not currently available for this exam, although one is in development for release in early 2007. Several outside reading resources are recommended for this exam, including the *Loudspeaker Design Cookbook* by Vance Dickason; *Understanding Automotive*

Electronics, Sixth Edition by William Ribbens and *How to Diagnose and Repair Automotive Electrical Systems* by Tracy Martin. These reading resources rely upon the participant's on-the-job experiences for comprehension. Of course a working knowledge of the wide variety of modern mobile electronic products and how they install into today's vehicles is also required to do well on this exam. The MECP Master Installer Exam is a very exclusive credential particularly geared toward the electrical and troubleshooting side of the discipline, including Master-level troubleshooting, audio, electronic components, OEM audio and video integration, security/remote start, wireless communications with modern technologies and vehicle electrical systems. This exam currently contains 180 questions and the certification is valid for four years.

<u>MECP Master Installer Subject Matter</u>	<u>% of Exam</u>
A. Ohm's Law.....	6%
B. Electronic Components.....	18%
C. Measurements and Applications.....	12%
D. Troubleshooting and Analysis in Installations.....	16%
E. Mobile Audio and Video Systems	24%
F. Security and Convenience Systems.....	24%

Mobile Product Specialist (MPS)

The MECP Mobile Product Specialist (MPS) Certification is for sales professionals in the industry. The purpose of this certification is to help sales people and installation technicians see eye-to-eye on many technical issues. This certification is intended to empower the sales people who go beyond the act of "selling boxes" to understand system design, some very basic electrical concepts, technologies in audio, video, security, remote starters, and navigation, as well as identifying what customers are telling them.

The *MECP Mobile Product Specialist Study Guide* is easy to read and has been praised by many sales professionals as the bridge between the sales floor and the installation bay. It is an effective tool both for studying for the MPS Exam as well as polishing the fundamental knowledge a mobile sales professional should have. This exam contains 150 questions and the certification is valid for 4 years. If you are selling mobile electronics, you know how challenging it can be to keep up with technology, and the MPS certification gives you a credible difference above other people who sell "boxes" without knowing what they do or how they benefit the customer.

<u>MECP Mobile Product Specialist Subject Matter</u>	<u>% of Exam</u>
A. Basic Industry Terminology	6%
B. Source Unit Applications (New Units and Integrating into OEM).....	20%
C. Specifications (what they mean and how they apply).....	8%
D. Basic Audio Theory and Analysis.....	17%
E. Mobile A/V Components and Applications	13%
F. Mobile A/V Terminology.....	4%
G. Security and Convenience Components.....	12%
H. Security and Convenience Applications.....	9%
I. Wireless Communications Components.....	6%
J. Security, Convenience, and Wireless Terminology.....	5%

What are some of the basic differences between ASE and MECP?

The ASE certifications do not address any aftermarket security, communication, entertainment or productivity equipment. Without the ability to evaluate a technician's ability to deal with aftermarket

equipment and installation possibilities, a technician is really limited only to the tools provided by the vehicle manufacturer or supporting partners. These tools would be wiring guides, electrical schematics of the vehicle, electronic diagnostic tools and anything made specifically for the vehicle. While those tools are valuable, they tell the technician nothing about the aftermarket equipment or installation practices.

MECP certified installation professionals benefit from having knowledge of aftermarket products and recommended practices for installation techniques. In addition, the areas of the installation professional's job in the aftermarket covers a much broader range of skills than an automotive mechanic or technician would encounter. As professionals across all automotive disciplines become more interactive with aftermarket products for the purposes of security, communications, productivity, and entertainment in the vehicle, so should their certification. Obtaining an MECP certification at the appropriate level says to customers, co-workers, and employers that the individual is capable of understanding aftermarket electronic components and systems that are installed into vehicles, especially those for entertainment or security purposes.

Everyone knows that customers in today's market have numerous choices for their vehicle entertainment, security and wireless communication needs. While vehicles are coming from the factory with many upgraded systems, the cost of replacement or upgrade with original equipment often leads the customers down the aftermarket path. Many times aftermarket choices are broader, more cost effective for a given range of features, and can be installed to function more to the user's liking rather than the same "cookie cutter" factory installed components. Often the two types of components must co-exist which is why a good understanding of the vehicle's electronics as well as the aftermarket electronics is critically important. In many ways, one can think of it as ASE covering the "original parts and services" side of the coin whereas MECP focuses on the "aftermarket parts and services", yet with a strong influence on the vehicle electronics that are used in conjunction with the aftermarket electronics.

For more information about the Mobile Electronics Certified Professional (MECP) program, please visit www.MECP.com or email mecp@mecp.com.