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MECP Certification Examination Contents

BASIC INSTALLATION TECHNICIAN CERTIFICATION

The Basic Installation Technician Certification examination contains 150 multiple choice questions which are broken down into three 50 questions sections. The questions within the three sections can be further broken down into the 15 categories listed below. The numbers in parentheses indicate the approximate portion of the 50 section question devoted to each subject matter.

Basic Electrical Section Questions

- 1) **Ohm's Law** (18%) – These questions require basic knowledge and understanding of Ohm's Law and the math involved to solve specific problems. Since calculators are not allowed on the MECP Basic Installation Technician Exam, the actual math is considered to be at a basic grade school level.
- 2) **Electronic Components** (44%) – These questions deal with physical electronics components, such as resistors, capacitors, relays, diodes, batteries, etc. The section also covers related units of measure, such as Ohms, Farads, and Henries.
- 3) **Measurements and Applications** (38%) – This section test on measurement and application of learned principles. The section also covers units of measure such as volts, dBs, and amperes.

Installation Technique & Shop Safety

- 4) **Components Applications and Usage** (18%) – These questions pertain to the way that a component is applied or used in an installation. For example, selecting the appropriate size or type of wire.
- 5) **Troubleshooting, Measurements, and Analysis** (60%) – This section covers the identification and diagnosis of common installation errors and components that don't operate properly. This section also includes the use of tools that aid in diagnosis, most notably the Digital Multi-meter (DMM).
- 6) **Power and Hand Tools** (16%) – These questions are classified as tools that are not considered to be measurement and troubleshooting tools.
- 7) **Safety Issues** (6%) – This section includes questions directly related to shop safety and proper use of safety equipment.

Introduction to Mobile Electronics Components

Wireless (25% of Intro test section)

- 8) Components (17%)** – These questions include all that pertain to the equipment found in a wireless communication installation, such as antennas and hands free speakers.
- 9) Installation (83%)** – This section covers questions directly related to the installation of wireless communication products such as antenna and microphone placement.

Security (25% of Intro test section)

- 10) Components (53%)** – These questions directly related to the installation of mobile security and convenience products, such as proper fusing and programming.
- 11) Installation (47%)** – This section covers questions directly related to the installation of mobile security and convenience products, such as proper fusing and programming.

Navigation (25% of Intro test section)

- 12) Components (58%)** – These questions include all that pertain to the equipment found in a navigation installation, including all forms of data collection for location plotting.
- 13) Installation (42%)** – This section covers questions directly related to the installation of navigation products, such as antenna placement and wired connections.

Autosound (25% of Intro test section)

- 14) Basic Audio Theory and Analysis (83%)** – These questions deal with basic acoustic theory as it relates to sound in the mobile environment.
- 15) Installation (17%)** – This section covers questions directly related to the installation of a mobile audio system.

ADVANCED INSTALLATION TECHNICIAN CERTIFICATION

The Advanced Installation Technician Certification examination has 200 questions and is broken down into five sections. Each of the five sections contain questions specific to the corresponding chapter of the study guide. Each section contains various questions covering general range of topics indicated below. The sections can be further broken down into the categories listed below. The numbers in parenthesis denote what percentage of those questions within the section fall under that category.

Vehicle Electrical Section (45 Questions)

- 1) Ohm's Law (19%)** – These questions require the actual knowledge and understanding of basic Ohm's Law and the math involved to solve a specific problem.
- 2) Electronic Components (50%)** – These questions deal with the physical electronic components such as resistors, capacitors, relays, diodes, transistors, batteries, etc. The section also covers related units of measure such as Ohms, Farads, and Henries.
- 3) Measurements and Applications (31%)** – This section includes the situations where knowledge of measurement and application of learned principles is tested. The section also covers units of measure such as volts, dB's and amperes.

Installation Knowledge & Technique Questions

- 4) Components Applications and Usage (21%)** – These questions pertain to the actual way that a component is applied or used in an installation. An example is the appropriate size or type of wire.

- 5) **Troubleshooting, Measurements, and Analysis** (31%) – This section deals with the identification and vehicle circuits as well as diagnosis of common installation errors and components that do not operate properly. This section also includes the use of tools that aid in diagnosis, most notably the Digital Multi-meter (DMM).
- 6) **Fabrication Applications and Shop Safety** (22%) – This section covers the process of fabrication and/or proper use of related chemicals and compounds. This section also includes questions directly related to shop safety and proper use of safety equipment. An example is material storage and chemical mixing ratios.
- 7) **Power and Hand Tools** (26%) – These questions are classified as tools that are NOT considered to be measurement and troubleshooting tools. This section includes pneumatic tools.

Mobile Audio/Video Systems Questions

- 8) **Basic Audio Theory and Analysis** (50%) – These questions deal with basic acoustic and electrical theory as it relates to audio/video entertainment in the mobile environment. Some questions involve basic mathematical computation.
- 9) **Components** (22%) – These questions include all that pertain to the equipment found in a mobile audio video installation such as subwoofers, amplifiers, video screen and OEM interface devices.
- 10) **Installation** (23%) – This section covers questions directly related to the installation of a mobile audio or video system including placement, connection, and configuration.

Security and Convenience Systems Questions

- 11) **Components** (42%) – These questions include all that pertain to the equipment found in a mobile security installation, such as control units, interface devices and relays.
- 12) **Installation** (58%) – This section covers questions directly related to the installation of mobile security and convenience products such as proper fusing, configuration and programming.

In-Vehicle Information Systems Questions

- 13) **Location and Navigation Components** (38%) – These questions include all that pertain to the equipment found in a navigation and/or telematics installation, including all forms of data collection for location plotting.
- 14) **Communication Components** (28%) – These questions include all that pertain to communications equipment found in a mobile installation, including fee-based services such as wireless phones and satellite radio.
- 15) **Installation** (34%) – This section covers questions directly related to the installation of in-vehicle information and communication systems, such as antenna placement and wired connections.

MASTER INSTALLATION TECHNICIAN CERTIFICATION

The MECP Master Installation Technician exam was comprehensively updated in late 2007 to reflect additional topics relevant to today's Master Technician. The exam has also been restructured so that a full 20% of its 200 questions are experience-based troubleshooting questions. With over 55 new images to support 70 of the 200 questions, the MECP Master exam is very visual. This is made possible by the modernization of MECP testing to the supervised, computer-based format.

Section 1 – Electrical (40 Questions)

The MECP Master study guide and exam assume you will have read and mastered the content presented in the MECP Advanced guide. As such, there are additional electrical questions from those Advanced level topics as well as the more complex topics covered in the MECP Master guide. The MECP Master

exam has an “on screen” scientific calculator so you need not worry about math problems. If you are confident with Ohm’s Law, electrical components, reading vehicle wiring diagrams, and modern vehicle electrical systems – this section is a great validation of your knowledge!

Section 2 – Installation Knowledge and Technique (40 Questions)

This section is the real “hands on” knowledge of things technicians work with day to day. Everything from tools and best practices to hardware, determining enclosure volumes, and multi-speaker wiring configurations are covered. This section tests what you really know about items you are in contact with on a daily basis.

Section 3 – Mobile Audio/Video Systems (40 Questions)

The topics in this section are relevant to the core business of aftermarket mobile electronics, which is audio (now A/V) entertainment in the car. Everything from speakers and enclosure types to OEM integration and audio signals are covered. This is the section where people who are system designers and not just parts changers will do the best.

Section 4 – Vehicle Security, Convenience, and Communications (40 Questions)

It is difficult to develop questions that are not “product specific” because so much of the security and remote starter installation procedures focus on brand specific techniques. Still, the application of certain electrical behavior of various inputs and outputs in security and remote starters is well covered in this section. Also included is information about wireless communications relating to Bluetooth, traffic data, and other related applications.

Section 5 – Troubleshooting (40 Questions)

Every single technician who has years of experience will agree that their ability to troubleshoot effectively enhances their abilities even while planning to install something for the first time, let alone the unexpected events where something does not function correctly. This section is dedicated entirely to troubleshooting and utilizes many visual images as well as some questions with the same “Technician A, Technician B” type questions found on the ASE A6 electrical exams. If you are a great troubleshooter, you will really enjoy this section of the exam.

Requirements for Master Certification

Taking the MECP Master exam requires either an existing Advanced level certification or (if you are already a Master) it requires that your current Master certification does not expire before taking the exam to recertify. It also requires three years of hands-on industry experience. You can download and fill out an experience verification form at the MECP website at <http://www.mecp.com/downloads.asp> and choose “Verification of Experience” and follow the instructions on the form.

MOBILE PRODUCT SPECIALIST CERTIFICATION

The Mobile Product Specialist certification examination is MECP’s certification for mobile electronics sales people. The questions are designed to test daily working knowledge of mobile products and installations, rather than to test hands-on applications.