



CERTIFIED AUTOMATED GATE SYSTEMS TECHNICIAN LEVEL 1

INSTITUTE OF DOOR DEALER
EDUCATION AND ACCREDITATION

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For the highest level of reliable Automated Gate Systems expertise, use certified technicians

With today's technology, gate systems are becoming more and more complex. As gate operators and their associated accessories become more sophisticated and standards and regulations become more stringent, it is necessary to be knowledgeable and understand how to diagnose and repair a multitude of devices, from gate operators to cloud-based access control systems. In today's security-conscious society, consumers demand high quality products installed and maintained properly by professionals.

Automated gate systems provide a means of controlling vehicle access to residential properties, gated communities, and commercial/industrial sites with a wide range of access control requirements. When properly specified and installed, gate systems need to provide the access control level anticipated by the customer; but they must do so in a safe and reliable manner. Gate systems compose of many electro-mechanical devices and are subject to failure for various reasons over time.

The purpose of the first of three gate service technician programs is to help gate systems diagnose and repair gate systems by understanding licensing requirements, troubleshooting electrical circuits, system troubleshooting, along with vehicle detection systems. The gate systems technician's knowledge is an essential element of a safe and properly maintained automated gate system. The Institute of Door Dealers Education and Accreditation (IDEA) has worked with the Door & Access Systems Manufacturers Association (DASMA) and the International Door Association (IDA) to establish a program to validate the credentials of individuals who have the experience and skills in the servicing of automated gate systems.



Eligible gate system technicians are those who:

- Have completed a Self-Study Guide as written and endorsed by IDA and DASMA, and published by IDEA, intended to teach various aspects of automated gate systems technicians.
- Can successfully pass a written examination based upon the information contained within the Self-Study Guide. Applicants for the examination are advised that the Gate Systems Technician Level 1 Certification examination is based on a high degree of difficulty and is designed to validate one's fundamental knowledge.
- Has a current Automated Gate Operator Installer Certification, as credentialed by IDEA.

Upon completing these three steps as described above, the applicant is awarded the designation of Certified Gate Systems Technician Level 1.

Maintaining Certification...

Gate Systems Technician Level 1 Certification applies for a three-year period beginning with the effective date assigned by IDEA after completing all of the program requirements. In order to maintain certification, each applicant will be required to submit a renewal form with a renewal fee. In addition, certified installers must earn 12 Continuing Education credits (1 hour of education equals 1 CE credit) during the three-year renewal cycle. IDEA will provide certified installers with additional information regarding the availability of eligible CE courses.

Preparing for Examination Through a Unique and Thorough Course of Study

IDEA has created a comprehensive curriculum for the Automated Gate Systems Technician Level 1 Certification program. This course of study is designed to both measure and enhance expertise.

Introduction

- Why is all this worth your time and energy?
- Industry Organizations
- IDEA Programs and Services

UL 325

- Who is Underwriters Laboratories?
- Codes Referencing UL 325 and ASTM F2200
- Manufacturer Compliance with UL 325 Standards
- Adherence to UL 325
- Current General Entrapment Protection Provisions
- Entrapment Detection Devices
- UL 325 Standard after January 2016
- What Happens When an Entrapment Device is Activated?
- Installation of Warning Signs

Introduction to ASTM F2200 and M.U.T.C.D.

- ASTM F-2200 History
- Scope of ASTM F-2200
- Specific Applications of ASTM F-2200
- M.U.T.C.D. - Manual on Uniform Traffic Control Devices for Streets and Highways

A Professional Approach to Safety

- Safety and the Installer
- Protective Clothing and Equipment
- Tools and Equipment

Types of Gate Operators

- Overhead Track Slide Gates
- Rolling Gates
- Cantilever Slide Gates
- Swing Gates
- Vertical Lift/Pivot Gates
- Primary/Secondary Gates
- Sallyport Systems/Entry Control Point
- Facilities

Licensing Requirements

- Value in Licensing
- Differences of being Licensed, Registered, and/or Certified
- How to determine if licensing is required
- Licensing Reciprocity by Local or State Agency's
- Company vs Individual Licensing

Troubleshooting Electrical Circuits

- Types of electrical testers
- How to use a voltmeter
- How to use a multimeter
- Multimeter Troubleshooting
- Measuring voltage
- Measuring Resistance of a Contact Edge
- Measuring current
- Continuity
- How to use a clamp-on (induction) ammeter
- How to use a megohmmeter
- Capacitor Testing
- Testing Relays
- Testing Transformers
- Fuse Testing

System Troubleshooting Methodology

- Developing Skills
- Read The Full Manual
- Site Conditions
- Ears, Eyes, Hands
- Site Conditions
- Gate and Hardware
- Gate Operator
- Access Control Equipment

Vehicle Detection Systems

- Basic Probe Detection Theory
- Basic Wireless Magnetometer Detection Theory
- Basic Virtual Loop Theory
- Basic Vehicle Inductive Loop Detection Theory
- Basic Loop Theory
- Troubleshooting Vehicle Detection Systems
- Troubleshooting Power Problems
- Virtual Loop Troubleshooting
- Testing with a Megohmmeter

Basic Control Training

- Understanding Network Cabling
- Understanding Communication Protocols
- Understanding Wiegand
- Rolling Code vs. Fixed Code RF Remote Control
- 40-Bit Rolling Codes
- KeeLoq
- Emergency Access Vehicular Gate Systems
- Understanding DTMF Tones
- Troubleshooting "Phones won't open the gate"
- Internet Phone Service (VoIP) Wired
- Proper Grounding Techniques

How the Program Works:

Certification is earned by completing all of the steps and meeting the eligibility criteria established by the IDEA Board of Directors.

- ◆ The first step is to have an Automated Gate Installer Certification.
- ◆ Next complete an application for Gate Systems Technician Level 1 Certification and return it to IDEA. There will be a fee for the Self-Study Guide, which also includes the costs for the testing. A completed application is required for each individual seeking certification.
- ◆ Upon receiving the application, IDEA will provide the Self-Study Guide to the applicant. The applicant may take as much time as necessary to learn all of the information contained within the Self-Study Guide before taking the examination. Although other employees within a company are also encouraged to study the manual, the testing and certification is limited to the applicant.

The Self-Study Guide

The next step in the certification process is to successfully complete a comprehensive written examination based on the Self-Study Guide. The study guide covers a full range of licensing requirements, troubleshooting electrical circuits, system troubleshooting, vehicle detection systems, basic control training, and other issues.

The examinations are proctored and can be scheduled in a variety of locations throughout North America, as well as by appointment. Examinations are graded on a Pass-Fail basis with a minimum passing score of 80%. It is the intent of the IDA to offer the examination at their annual Trade Show or even at Chapter Meetings throughout the country. The written tests are multiple choice and True-False, and are based solely on the Self-Study Guide materials.

Upon successful completion of the written examination the applicant will receive a certificate suitable for framing, shirt patches, and an identification card.

Benefits

The program has a number of benefits affecting the technical, marketing, liability and legislative aspects of automated gate systems. Today's consumers are demanding professional qualifications for services effecting the accessibility and value of their property. The public perception of the gate operator industry will advance knowing this training and certification is available.





The Institute of Door Education and Accreditation (IDEA) is an independent, non-profit, tax-exempt 501(c)(3) educational foundation, dedicated to serving the public interest by enhancing professionalism and safety within the door systems industry. IDEA is supported and partially funded by the International Door Association and the Door and Access Systems Manufacturers Association.



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