

# National Training School

## Advanced Burglar Alarm Technician

### Syllabus

May, 2000

#### A. Course Description

The Advanced Burglar Alarm Technician's Course is a sixteen (16) hour classroom course that teaches the practical application of Advanced Burglar Alarm Training. This course replaces the Level II A course in the NTS Catalogue.

#### B. Overall Outline, Objectives, & Hours

The Advanced Burglar Alarm Technician Course has a total of fourteen (14) contact hours with two (2) hours for testing. The instructor must allow for a ten (10) minute break approximately every hour. Classes can be scheduled for longer contact hours but not for less than fourteen (14) contact hours. Subject areas will be covered as follows:

Outline	Learning Objectives
1. Introduction	<ul style="list-style-type: none"> <li>• Identify the structure of the Advanced Burglar Alarm Technician course.</li> </ul>
2. Practical Application of Electronics	<ul style="list-style-type: none"> <li>• Describe the Application of Electronics throughout the burglar alarm system.</li> </ul>
3. Using A Meter	<ul style="list-style-type: none"> <li>• List the type of measurements that can be made with a VOM meter.</li> <li>• List reasons to use each type of VOM meter (analog - digital) and list common meter accessories.</li> <li>• List examples of what an alarm technician might meter.</li> <li>• Identify safety concerns when using a meter.</li> <li>• Describe and demonstrate how to use a digital meter including:               <ul style="list-style-type: none"> <li>• Selector knob settings</li> <li>• Connecting test leads to the meter</li> <li>• Connecting test leads to the circuit or device</li> </ul> </li> </ul>

4. Speakers Used With Siren Drivers	<ul style="list-style-type: none"> <li>• Identify advantages of speaker type notification advantages over bells and stand alone sirens.</li> <li>• Properly wire speakers to a siren driver.</li> <li>• Troubleshoot speaker circuits.</li> <li>• Relate speaker wiring methods and impedance to speaker loudness.</li> </ul>
5. System Power	<ul style="list-style-type: none"> <li>• Read and interpret the manufacturer's specifications (voltage, permissible load... etc.)</li> <li>• Determine the minimum size power supply needed.</li> <li>• Calculate the size battery needed for a system to operate for specified number of hours (4, 24,60, ) without primary power.</li> <li>• Determine the NFPA and UL required number of hours of standby power necessary for a given installation.</li> <li>• Select the proper transformer for power supply as well as install and wire the transformer.</li> <li>• Determine the proper battery and list reasons for its failure for a given system.</li> <li>• To safely handle, install, and replace batteries as well as wire batteries to a power supply.</li> </ul>
Practical Exercises	<ul style="list-style-type: none"> <li>• Student performs practical exercise to solve power requirement problems.</li> <li>• Student participates in classroom discussion with the solution to the problems.</li> </ul>
6. Sensor Application	<ul style="list-style-type: none"> <li>• Choose the number of each detection devices that are appropriate to the customer's need.</li> <li>• Select mounting locations for sensors that provide the best possible coverage.</li> <li>• Select mounting locations for sensors that minimize the chances of producing false alarms.</li> <li>• Choose an appropriate sensor for a given application.</li> </ul>
7. Small Residential Application	<ul style="list-style-type: none"> <li>• Decide what openings and/or areas you will protect.</li> <li>• Choose a type of detection device for each opening or area.</li> </ul>
8. Small Commercial Application	<ul style="list-style-type: none"> <li>• Decide what openings and/or areas you will protect.</li> <li>• Choose a type of detection device for each opening or area.</li> </ul>
9. Practical Application of Controls	<ul style="list-style-type: none"> <li>• Identify the four basic functions of a control panel.</li> <li>• List the completion tests that must be performed to ensure proper operation.</li> </ul>
10. Local Notification and Communications	<ul style="list-style-type: none"> <li>• Identify the various types of outputs that are available in modern controls</li> <li>• Troubleshoot the proper workings of line seizure via the RJ31X jack.</li> <li>• Troubleshoot a system that has failed to communicate, then develop a prognosis to lead to the resolution of the problem.</li> </ul>
11. SIA Control Panel Standard	<ul style="list-style-type: none"> <li>• Describe the purpose and operation of each programmable option in the SIA Control Panel Standard.</li> <li>• Describe the purpose and operation of each feature that affects the customer's decision on how to respond to an alarm report.</li> </ul>

### **C. Guidelines**

The course is presented in accordance with the most recently adopted NTS Administrative & Operational Guidelines. Students with special needs are accommodated as required by law and specified in the National Training School Policy Concerning Students with Special Learning/Examination Needs.

### **D. Method of Presentation**

1. Lecture

The instructors present the material following the instructor guide and the slide presentation combined with question and answers throughout the course to verify and reinforce comprehension and relate the material to the students particular needs.

2. Audio Visual Aids

- Slide presentation (Laptop with computer driven monitors).
- Text book.

### **D. Method of Evaluation**

1. Written examination.