Access Control Specialist Level One: Course Two – Credentials
Course Time: 1 hour

Course Description
This module is called Credentials, but without their matching Readers they don't do much. All popular card and reader technologies will be explained including several forms of Magnetic Stripe, Wiegand, 125 kHz Proximity, Contactless Smartcards and more. Upon completing this module, you will have a clear understanding of the available choices and the defining characteristics that determine what is best for each field application. ISO (International Standards Organization) standards and other governing factors are included.

The credentials are what the users are given and their selection is important the final experience of each person. Choosing the correct credential goes beyond technology to a very functional set of considerations. This module will explain the key aspects of this component of access control systems in a way that will make designing and implementing systems easier for any technician to handle.

Course Outline

- Introduction
- Credentials
    - Objectives
    - What is a Credential?
        - Credential-to-Reader Communication
    - Magnetic Stripes
        - Encoding
        - The Stripe
        - The Stripe Standards
        - ISO Standards
        - Debitek Stripes
        - Coercivity
    - Barcodes
    - Wiegand
    - Proximity Technology
    - Radio Frequency Signals
    - 125 kHz Proximity Cards
        - Power
        - ISO Standards
    - Contact Cards
    - Contactless Card Types
    - Smartcards
    - 13.56 MHz Smartcards
        - Power
        - Mutual Authentication
    - Combination Cards
    - Credential Sizes and Styles
    - Clamshell Cards
    - Thin Cards
    - Fobs
    - Tags
    - Keys
- Conclusion