Chapter 1 – Introduction

Section 1 – What Is The Entry-Master® System?

The *Entry-Master®* is a complete card access control system. It combines multiple scanning technologies, including proximity, infra-red, Wiegand, magnetic stripe, biometrics, barcode with state-of–art personal computer (PC) technology and field-proven access control software. This combination provides an easy-access control system.

Infra-red scanning is one of the most durable, reliable, and secure technologies available. Instant access is granted by passing a valid card through the read head of a card reader.

Proximity is the most convenient technology available. It is both reliable and secure. The cardholder simply places a valid card within a few inches of the card reader and the card reader scans the card without touching it.

On the technological edge, the *Entry-Master®* System can be programmed to interpret biometric data such as finger and thumb prints and hand prints. Biometric data is a measurable, physical characteristic or personal behavioral trait used to recognize individuals. The *Entry-Master®* System can control access based on a person's handprint.

Section 2 – Features of the Entry-Master® System

Entry-Master Systems, Inc. produces the *Entry-Master®* System in-house and uses modular hardware and software. This means that you can expand the system without eliminating major system components. You can add new software options by applying software upgrades to the existing system can add modem support for remote system monitoring and control.

Cardholder Data Management
You can instantly display cardholder data by specifying the cardholder's name or the cardholder's card number. You can rapidly display cardholder data on-screen by searching a data field that you specify.

User-Defined Activity Messages
You can modify the descriptions for each activity message displayed or logged by the system; however, the description must resemble the original description in context. For example, the description for access code number 11 is "Card Number not defined in System" and you could change it to read Unknown Card. These two descriptions have different text, but they mean the same thing: the card is not a valid card defined in the system.

User-Defined Parameter Descriptions
All user-defined parameters such as card readers, time zones, and access levels have specific pre-defined descriptions. For example, it is easier to understand that card number 00123456 last went through the 1st Ave. Garage Exit than card number 00123456 last went through READER 0274.

User-Defined Message Levels
You can assign different message levels to the activity messages. You may want one message level to always be logged in the system activity log, while you may not want another message to even be displayed. For example, you may want all invalid card transactions to be sent to the system printer while you may not want every valid card transaction sent to the system printer.

Global Anti-Passback
Global anti-passback provides additional security to the system. Card readers are designated as *IN* or *OUT*. This means that you can only enter the facility through a card reader designated as *IN*, and you can only exit the facility through a card reader designated as *OUT*.

In addition, each card is assigned a changeable *IN* or *OUT* status code. This means that when you enter the facility, your card is assigned a status code of *IN*. If you try to re-enter the facility when your card has a status code of *IN*, you will be denied access, the gate (or door) will not open, and the following message is logged in the activity log and displays on the monitoring console screen:

PASS-BACK ATTEMPT: Card already IN Facility.

Each *IN* movement must be followed by an *OUT* movement and vice versa. The anti-passback feature prevents a cardholder from entering a facility or garage and then passing the card back to allow another individual access to the facility or garage. Hence, the name *passback*.

Special Anti-Passback for Individual Cards

You can specify a Passback Mode for individual cards as either *passive* or *active*. An active status denies the cardholder access if the In/Out status of the card is incorrect. A passive status allows access regardless of the In/Out status of the card. (This is an optional feature.)

Access Group & Time Zone Control

You can define up to 63 time zones on the *Entry-Master®* System. You can define any combination of day-of-the-week and time-of-day. The time-of-day can be defined to the minute (for example, you can define a time zone that is from 8:01 am to 5:05 pm). Time Zones are assigned to individual cards, as well as groups of cards, through *access groups*. An infinite number of time zone combinations are possible through the flexible Access Group programming.

You can define up to 9999 access groups on the *Entry-Master®* System. You can define three access groups for each card providing an unlimited range of entry/exit possibilities.

You assign access groups to each card on the Cardholder Record screen. You can scroll through the defined access groups to select the access group(s) for each card; then make the proper notation.

System Card Access to the Software

You can have an optional card reader installed at your computer, which requires a special *system card*. A *system card* is a regular card (or group of cards) that allows access to the *Entry-Master®* computer system as well as to the access control card readers. This feature ensures that there is no unauthorized access to the *Entry-Master®* software system. Thus, providing a high security environment.

To access the *Entry-Master®* software with this option installed you would:

> ➢ Log into the system using your log in ID;

> ➢ Enter your password;

> ➢ Swipe the card through the card reader at the computer;

> ➢ Enter a four-digit personal identification number (PIN).

Card Access Nesting

This feature prevents cardholders from remaining in an unauthorized area longer than is necessary and simply to pass through the area. For example, a parking garage may have four levels for parking and the first level is closest to the facility entrance. Each cardholder is assigned a specific level in which they must park. However, someone who is assigned to park in Level 3 must pass through Levels 1 and 2 to get to Level 3. Most people would be tempted to park in Level 1 if there was a spot available.

The nesting feature allows the cardholder that is assigned to Level 3 to pass through Levels 1 and 2 to get to Level 3. However, the cardholder is only allowed to remain in Levels 1 and 2 long enough to pass through these levels. If the cardholder attempts to remain in Level 1 or 2 for a longer period than is allowed by the system to pass through the level, an alarm sounds and the guard is alerted to the violation.

The *Entry-Master®* System is designed to accommodate a variety of nesting requirements. There are nine (9) nesting levels which can be defined, but literally hundreds of nested areas can be created through the use of access level restrictions. The system is designed to allow nested tiers to be interchangeable or to restrict tier-to-tier movement. Call your dealer for more details on the nesting configuration possibilities.

Cardholders can be programmed to be allowed access into multiple nested areas depending upon user-programmed time zone restrictions. For example, during business hours a cardholder may be required to park in Level 2, but after hours and on weekends that cardholder may be permitted to park in Level 1.

Optional billing can also be set up for nested violators, based upon a programmable rate structure. Using this option, a garage operator can allow nesting violators to leave the garage freely, thus preventing a traffic backup. However, at the end of the week, end of the month, or whenever is desirable, an invoice can be generated for each violating cardholder, complete with a detailed transaction listing of when and where the violation occurred.

It is also possible to STOP nesting violators at the garage exit and require them to pay the required fees immediately. This fee can also be calculated automatically by *Entry-Master®* based on a programmable rate structure.

The *Entry-Master®* System is highly flexible and can be tailored to meet your individual needs. Contact your authorized *Entry-Master®* dealer for more details about tailoring nesting or any other feature of the *Entry-Master®* System to meet your needs.

Section 3 – The Entry-Master® System Data Management Tools

The *Entry-Master*® System V has a graphical-user interface that is mouse-driven. In this version, you navigate, create records, and modify information in this version by clicking on links and buttons. You use the <Tab> key to move from entry field to entry field and making selections from drop-down lists speeds data entry. Every window on the *Entry-Master*® System uses the same basic editing functions and buttons.

The following figure shows you various features in this web-based version of the *Entry-Master*® System.

Figure 1-1.1 Sample Cardholder Screen

➢ Web-based tools give the *Entry-Master*® System the comfortable look and feel of a graphical-user interface.

➢ Clickable links quickly navigate you through the *Entry-Master*® System.

➢ Drop-down lists add to the ease of data entry and increase data reliability.

➢ Buttons enhance the simplicity of data entry management.

Buttons

As shown in the previous figure, buttons conveniently display on all screens in the *Entry-Master®* System. Initially, the following buttons appear on every window:

Submit	To retrieve requested data
Cancel	To cancel any change made to the data fields
Delete	To remove any record form the data file
Back	To clear the form to display a new record
Print	This function is not currently supported by the JavaScript language
Help	To display online help
Copy	To copy the current record

During data entry, additional buttons display:

Save	To write any new or modified data to disk. This replaces the Submit button from the previous window.
Prev	To move to the previous record in the database
Next	To move to the next record in the database

In some data entry windows, specialized buttons appear to speed up your data entry process:

History	Cardholder Screen – displays cardholder history
Clear	The Scheduler – clears all tasks from the Scheduled Task Database window.
Copy TZ	Distributed Time/Access Group Database – copies multiple time zones when creating Access Groups
Copy Times	Time Zone Definition Screen – duplicates Start and End Times.

Online Help

The *Entry-Master®* System V has easy-to-follow help screens that describe the full functionality and provide details descriptions for data entry. Navigational links and buttons let you move within the help screens following connected topics as you learn about the system.

There are two types of help windows: Overview and Details. An Overview Help window is available when you first access the *Entry-Master®* System V window. A Details Help window is available after all data entry fields display. Sample Help screens are shown next:
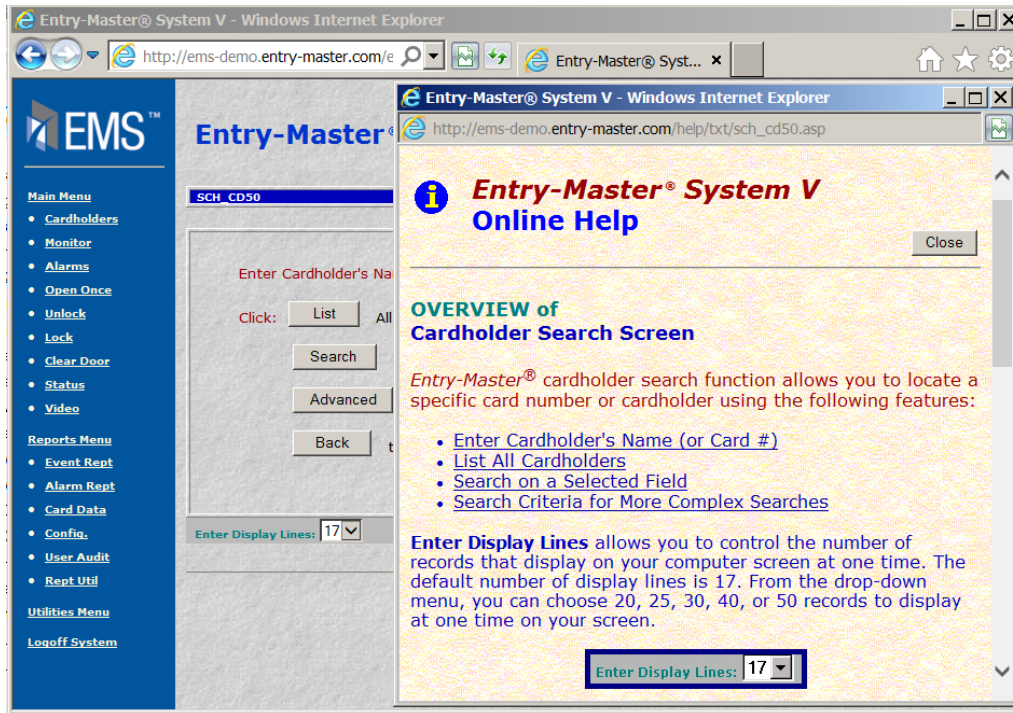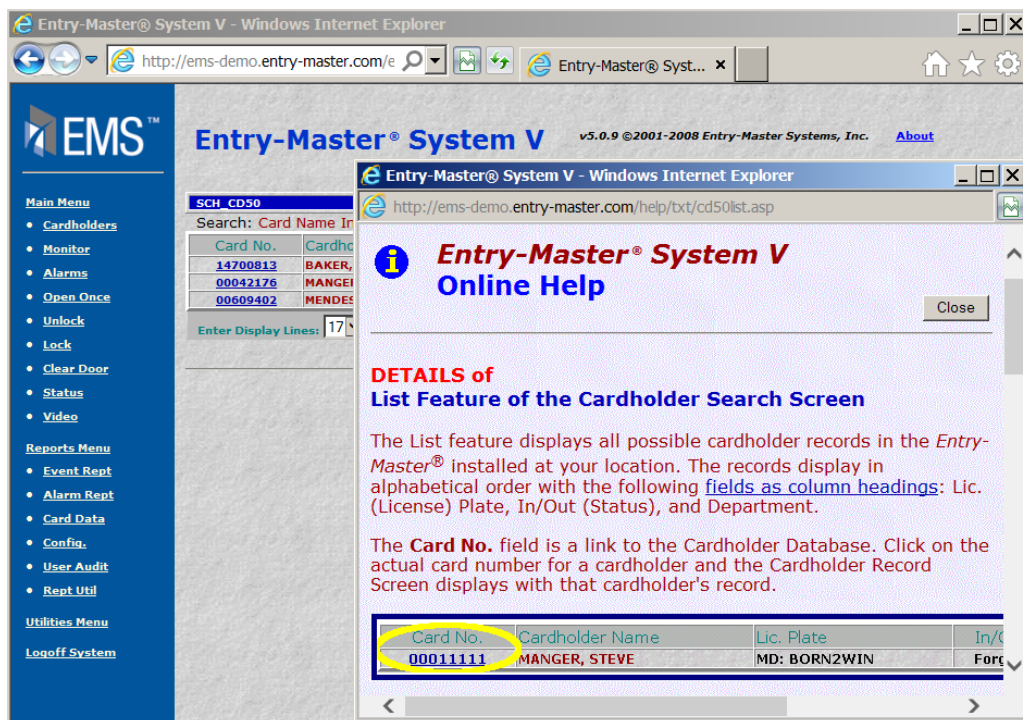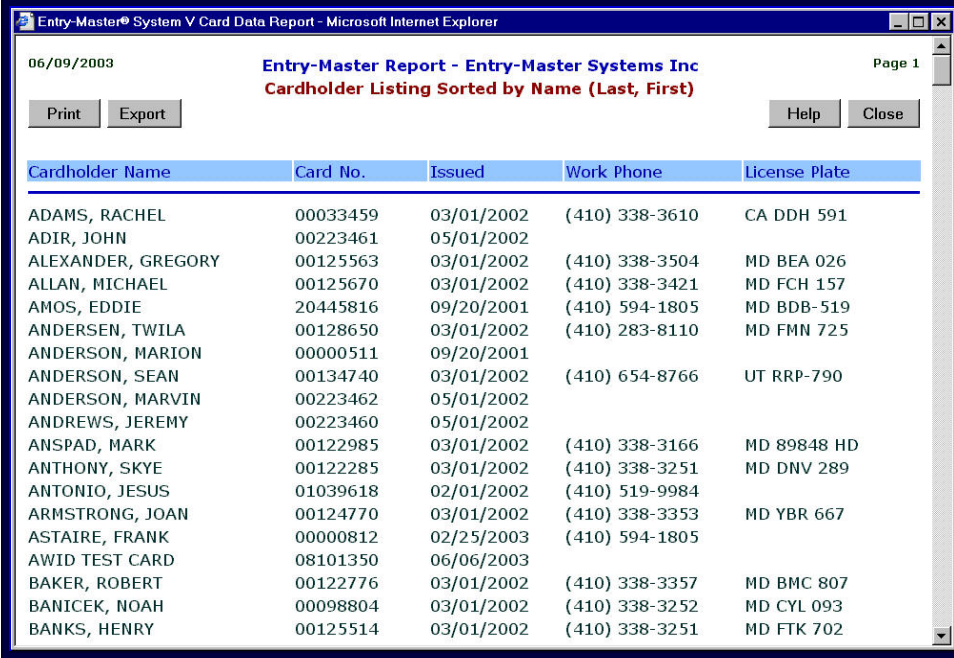
Figure 1-1.2 Help Overview Window

Figure 1-1.3 Help Details Window

Reports

In the *Entry-Master®* System V, a button click provides you with the same rigorous EMS™ data reports included in earlier versions. Scrollable and more readable, you can view these colorful reports from your monitor, send them to a word processor, or print them to a printer.

Figure 1-1.4 Sample Report

Section 4 – Data Entry Overview

There are two ways to create a record: 1) Enter all new data, or 2) Copy an existing record. The following steps apply to all records except the Cardholder Record which is covered in the next subsection.

Enter all new data:

1. Enter a unique record ID in the appropriate Record ID field.

2. Make sure that "---- Select an Existing… ----" displays in the record description drop-down field.
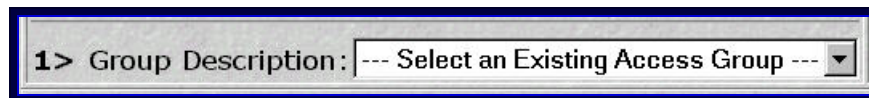
Figure 1-1.5 Sample "Select an Existing…" Drop-Down field

3. Click on the Submit button or press the <Enter> key on the key board. The remaining entry fields display, which enables you to complete the record setup.

Copy an Existing Record:

If an existing record has data that is very similar to what you need for the new record, you may choose to duplicate this record, which saves you from entering data into all the fields. It is important to remember that you cannot copy to an existing record. If this is attempted, the system will display a dialog box instructing you first to delete the existing record.

4. Enter a new record ID in the appropriate Record ID field.

5. Select the appropriate record description from the description drop-down field.

6. Click on the Submit button or press the <Enter> key.

7. If you enter a new record ID, a **"You are attempting to copy … to a new…"** dialog box displays.

Figure 1-1.6 New Copy Message

8.   Click on the OK button to copy or the Cancel button to quit the copying process

9.   If you click OK, the remaining entry fields needed to set up this record display containing the existing data for the record you selected.

10.   If you enter an existing record ID, a message **"You are attempting to copy…to an already existing…"** appears. You must delete the record before you can continue.

Figure 1-1.7 Existing Copy Message

Modifying a Record:

11.   To modify a record, select an existing record description from the description drop-down field.

12.   Click on the Submit button or press the <Enter> key.

13.   The remaining data entry fields appear containing the data for the record description you selected.

14.   Make any necessary changes to this record, then click on the Save button to make your changes, or the Cancel button to remove any changes you have made.

Deleting a Record:

15.   To delete a record, select an existing record description from the description drop-down field.

16.   Click on the Delete button and a message **"Are you sure you wish to delete…"** displays. (If you try to delete a record that does not exist, a different dialog box displays to tell you to try again with a valid record ID.)
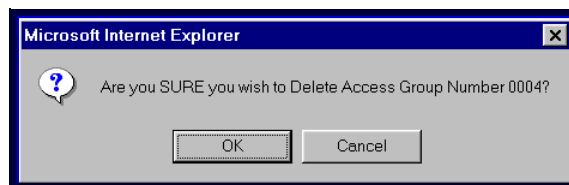
Figure 1-1.8 Delete Record Message

17.   Click on the OK button to delete the record, or the Cancel button to abort the process. (When you click on OK, the record is deleted from the data file and cannot be retrieved.)

Creating a New Cardholder Record:

There are also two ways to create a cardholder record: 1) Enter all new data, or 2) Copy an existing record. To add a new record to the Cardholder Database:

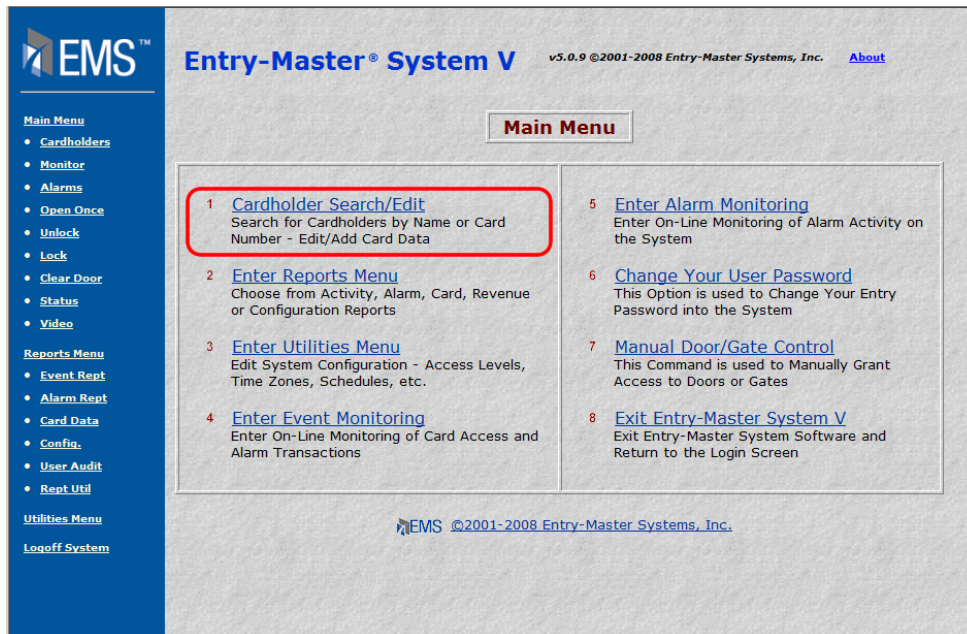1.   Click on **Cardholder Search/Edit** link on the *Entry-Master*® System Main Menu window.

Figure 1-1.9 The *Entry-Master*® System Main Menu

2.   The *Entry-Master*® System Search Screen displays next.
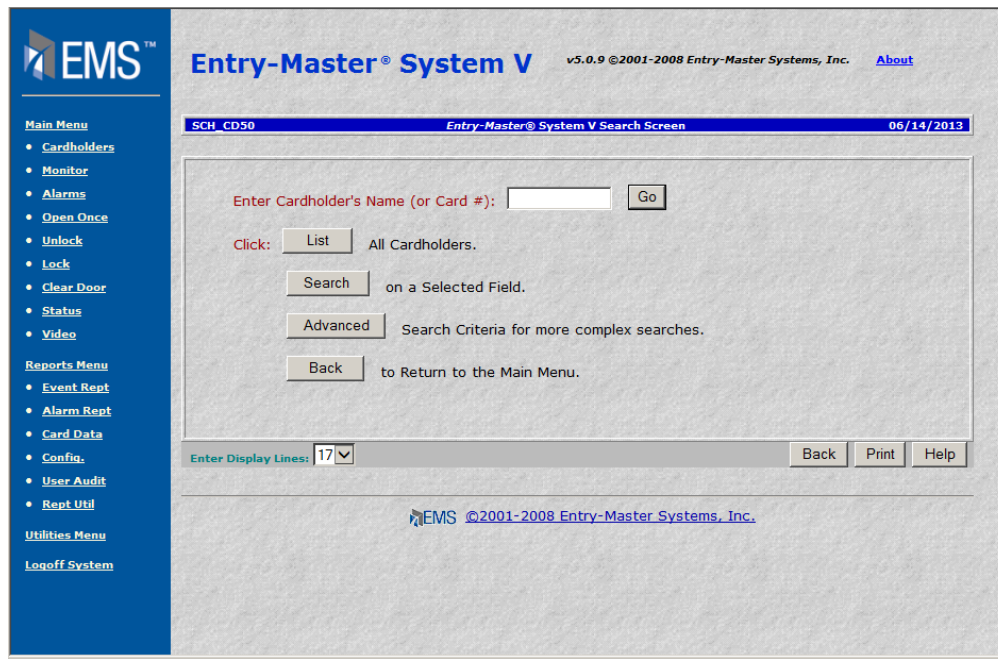
Figure 1-1.10 Cardholder Search Screen

3.　　In the **Enter Cardholder's Name (or Card #)** field, type in the 8-digit number printed on the new card.

4.　　Click on the Go button and a blank cardholder record screen displays.
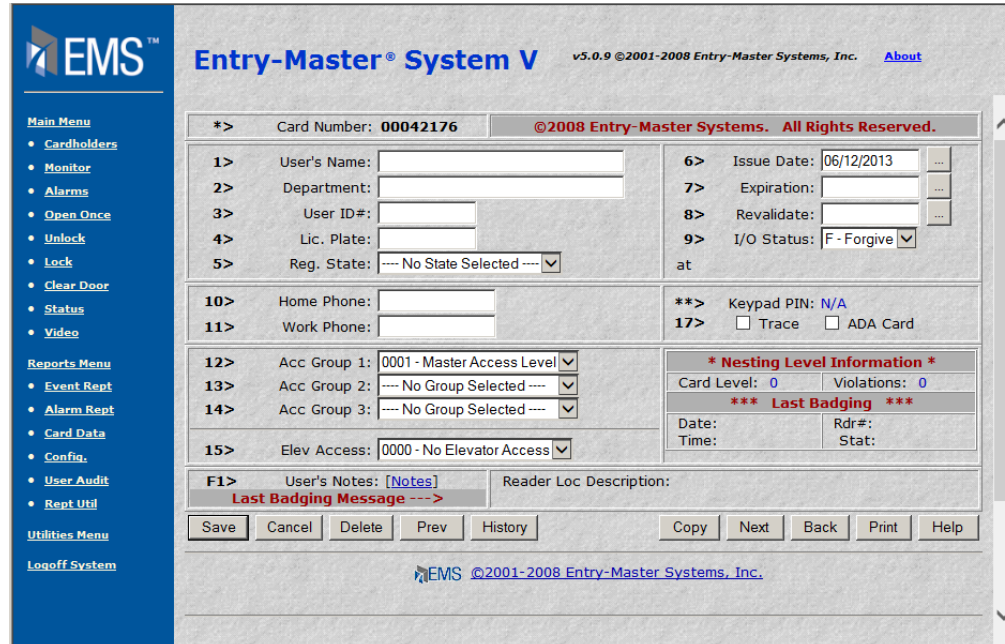
Figure 1-1.11 Blank Cardholder Entry Screen

5.　　Enter the appropriate data then click on the Save button.

Copy an Existing Cardholder Record:

1.   Display the Cardholder record that you wish to copy.

Figure 1-1.12 Original Cardholder Record

2.   Click the Copy Button and the following window displays.

Figure 1-1.13 Enter a New Card Number

3.   In the **Enter New Card Number** field, enter the 8-digit number printed on the new card.

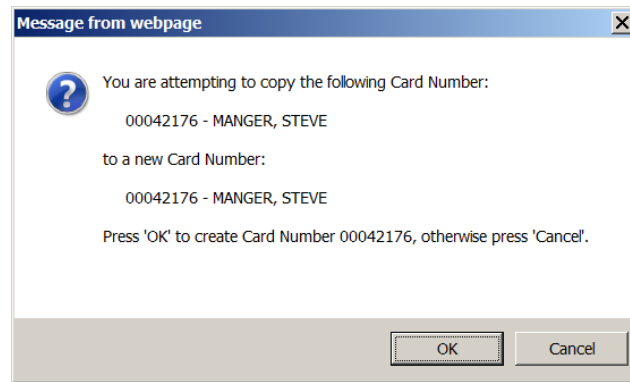4.   Click on the Copy button and the following message displays:

Figure 1-1.14 Copy Message

5.   Click on OK to continue or Cancel to stop this process. When you click on OK, the *Entry-Master*® System confirms that the new card number you typed does not currently exist in the Cardholder database.

   a.   If this card number already exists in the database, the following message appears:

Figure 1-1.15 Existing Card Number Message

   b.   Click on the Back button to return to the original cardholder's record.

6.   If the number does not exist, a copy of the original cardholder's record appears for you to alter accordingly.
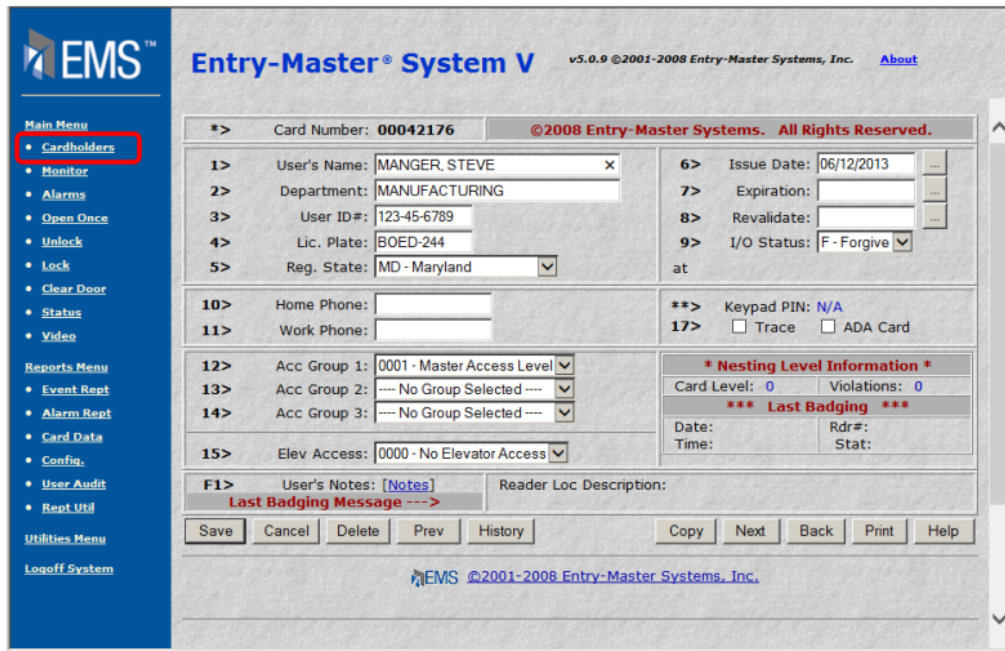
Figure 1-1.16 Copied Cardholder Record with New Entries

7. Once the "Save," button is clicked, the updated card record will redisplay.
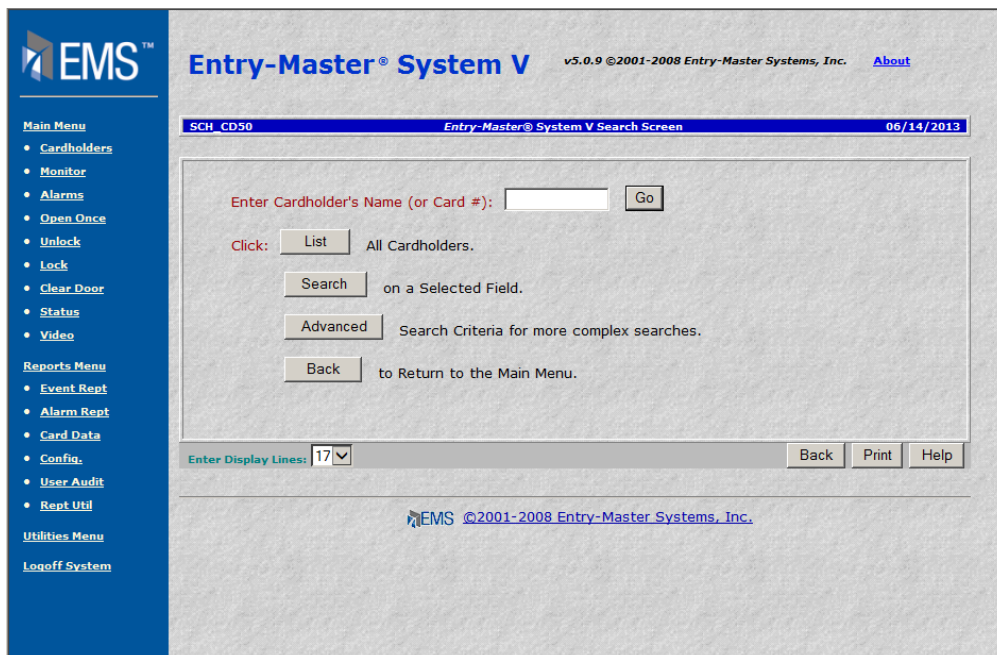
8. Click the Cardholder's link (circled in Figure 1-1.16).

Figure 1-1.17 The Enter-Master System Cardholder Search Screen