

Access Control Series

MULTIPLE DOOR SYSTEM
MDS

Operations Manual

DOOR UNIT

Model SA-1606

Rev. 6.1 (5/95)



SMART ACCESS, INC.

124 Robin Road, Suite 1600
Altamonte Springs, Florida 32701

FAX (407) 331-0656

Voice (407) 331-4724

TABLE OF CONTENTS

GENERAL.....	1
SAFETY INSTRUCTIONS	1
SMART ACCESS, INC. WARRANTY	1
SERVICE	1
PRODUCT DESCRIPTION.....	2
FEATURES.....	2
ELECTRICAL SPECIFICATIONS	4
Power Requirements	4
Relay Ratings	4
Annunciator Output	4
Switch Inputs	4
Communication	4
ACCESS MODES	4
Local Bypass	5
Common Access Code	5
Access Card	5
Access Card W/Common Access Code	5
Access Card or Common Access Code	5
Access Card W/PIN	6
PIN only	6
MESSAGE BUFFERING.....	6
MDS CARDS	6
Programming Cards.....	6
Access Cards.....	6
One Time Use Cards	7
Gate Agent Access Cards.....	7
Issue Level Change Cards.....	7
Guard Tour Card.....	7
Diagnostics Card	7
Cleaner Cards.....	8
PIN LIST	8
DEVICE COMPONENTS	9
KEY WORDS.....	9
PROGRAMMING	11
SETTING DATE AND TIME	12
ENTERING PROGRAM MODE	14
VALIDATE USERS — COMMAND 1	15
INVALIDATE USERS — COMMAND 2	16
ACCESS CODE — COMMAND 3.....	17
CARD ACCESS — COMMAND 4.....	18
P. I. N. — COMMAND 5	19
DOOR: OPEN/CLOSE — COMMAND 6.....	20
STRIKE TIME — COMMAND 7	21
OPEN TIME — COMMAND 8.....	22
KEYPAD TIME-OUT — COMMAND 9.....	23
ERROR LOG — COMMAND 10	24
ACCESS LOG — COMMAND 11	25
SET MODE(S) — COMMAND 12	26
MODES ON/OFF — COMMAND 13.....	29
STAND ALONE ON/OFF — COMMAND 14.....	30

SA-1606A STATUS — COMMAND 15	31
SET DATE — COMMAND 16	32
SET TIME — COMMAND 17	34
VERIFY USER — COMMAND 18.....	35
DURESS ALARM — COMMAND 19	36
LOCAL ALARM — COMMAND 20.....	37
DOOR ALARM — COMMAND 21.....	38
TAMPER RELAY — COMMAND 22	39
DOOR NUMBER — COMMAND 23	40
SET HOLIDAY — COMMAND 24.....	41
PRINT CARD DATA — COMMAND 25	42
PRINT DOOR DATA — COMMAND 26.....	43
REMOTE PROGRAMMING — COMMAND 27	44
BACK LIGHT — COMMAND 28	45
CARD DURESS — COMMAND 29.....	46
COMM RATE — COMMAND 30.....	47
NO. OF CARDS READ — COMMAND 31	48
CARD INFORMATION — COMMAND 32.....	49
ACCESS OR — COMMAND 33.....	50
ENGLISH — COMMAND 34.....	51
AGENT TIME — COMMAND 35.....	52
SET-UP P.I.N.S. — COMMAND 36	53
EGRESS DELAY — COMMAND 37	54
ATM CARDS — COMMAND 38.....	55
ANTIPASSBACK — COMMAND 39	56
SET TIMES ZONES — COMMAND 40.....	57
ASSIGN TIME ZONES — COMMAND 41	59
DOOR DIRECTION — COMMAND 42	61
FIRE ALARM — COMMAND 43	62
ALARM RESET — COMMAND 44	63
EXIT PROGRAM MODE — COMMAND 45.....	64
APPENDIX A — ABBREVIATED COMMAND DESCRIPTIONS.....	65
APPENDIX B — CONNECTION CHART.....	67

GENERAL

SAFETY INSTRUCTIONS

This device is limited in its application, interfacing safely only with equally rated equipment. Failure to adhere to the operating limits detailed in this manual and in the installation instructions voids the product warranty and Smart Access's responsibilities.

SMART ACCESS, INC. WARRANTY

The Smart Access security product or signaling device you have purchased is warranted to be free of defects in material and workmanship when properly installed, used and maintained according to instructions. Smart Access will, for a period of one year from the date of purchase, replace any part which proves, upon our examination, to be defective under normal use. (This does not apply to batteries or to damage done by battery leakage). The date of purchase is defined as seven (7) days from the date of recording shipment such product or device from our factory. SMART ACCESS, INC. SHALL NOT BE LIABLE FOR ANY DIRECT, INCIDENTAL OR CONSEQUENTIAL LOSS OR DAMAGE ARISING OUT OF THE FAILURE OF THE PRODUCT OR DEVICE TO OPERATE.

SERVICE

Smart Access maintains a Customer Service department that will be happy to help trouble shoot your system or answer any product-related question you may have.

Call Customer Service at:

**SMART ACCESS
CUSTOMER SERVICE
(407) 331-4724**

PRODUCT DESCRIPTION

FEATURES

The **MDS Model SA-1606-NET Door Unit** is a stand alone, single door, easily programmed, electronic access control device. The unit has microprocessor circuitry which recognizes individually coded cards and keypad inputs. The device interfaces utilizing a two wire multi-drop communication line to the **MDS Model SA-1773 Central Processor** and becomes part of a multiple door access control system. When interfaced with the Central Processor, card dependent time zones and anti-passback become standard features of the system.

Each **MDS Model SA-1606-NET Door Unit** is programmed with a unique facility code which eliminates the possibility of compromise by users of other **MDS** systems.

The **MDS Model SA-1606-NET Door Unit** supports up to 60,000 unique Access Cards, each having a programmable Personal Identification Number (PIN) that is up to five (5) digits in length.

MDS Model SA-1606-NET Door Unit also supports 2,000 programmable General Identification Numbers or G.I.N.'s. (G.I.N.'s are much like P.I.N.'s except P.I.N.'s require a card for access and G.I.N.'s do not. They will function by themselves.)

The **MDS Model SA-1606-NET Door Unit** has six (6) access modes which can be selected and changed by the system manager using a special programming card.

The six modes include:

- System Bypass
- Card only
- G.I.N. only
- Card or G.I.N.
- Card and P.I.N. (or G.I.N.)
- Card and P.I.N.

The **MDS Model SA-1606-NET Door Unit** has a programmable **MODE CHANGE** feature (Command 12). This feature has sixteen different programmable changes that happen at a preprogrammed time. Mode changes can be turned OFF (Command 13), temporarily disabling this feature for vacations or plant shutdowns.

The **MDS Model SA-1606-NET Door Unit** has the capability to automatically invalidate users at a programmed expiration date.

Every **MDS Model SA-1606-NET Door Unit** has the capability of allowing a special "One Time Use" Access Card to operate the unit only once. The card can easily be revalidated by the system manager, for use again. These special "One Time Use" Access Cards must be ordered separately from **Smart Access**.

Your **MDS Model SA-1606-NET Door Unit** also has an "Issue Level" feature that allows the system manager to "re-key" the entire system electronically. This can be done 255 times without removing the Door Unit from its mounting. These special "Issue Level" Cards must be ordered separately from **Smart Access**.

Each **MDS Model SA-1606-NET Door Unit** is provided with a special telephone type connector (RJ11) for connection to a **MDS Model SA-2100 Power Supply Monitor and I-O Device**. This device continuously monitors the function and power condition at the connected Door Unit. It also provide eight additional inputs and five additional outputs.

Additional features of the **MDS Model SA1606-NET Door Unit** Include:

- Automatic monitoring of four switch inputs (located on the Door Unit)
 - Tamper Switch
 - Local Bypass Switch
 - Door Position Switch
 - External Alarm Switch
- Strike relay (dry contacts) for controlling externally powered electrical device
- Alarm relay (dry contacts) for actuating an external alarm device
- Annunciator output for powering a piezo horn
- Duress function which can be activated by users at the **MDS Model SA1606 Door Unit-NET** in need of emergency assistance.
- Optional Programmable Gate Agent function
- User Programmable Personal Identification Number capability
- User Programmable General Identification Number capability
- User Programmable Strike Time (Handicapped)
- User Programmable Egress Delay function
- User Programmable Stand Alone Time Zones (or use System Time Zones)

ELECTRICAL SPECIFICATIONS

Power Requirements

- 12vac/40va.—Requires external transformer (not included), Model SA-1942 Battery Backed Power Supply or equivalent). Heated Door Units require a minimum 65va. Transformer.

NOTE: Locking devices require their own power source.

Relay Ratings

- Strike Relay, SPDT with 6 amp contacts at 28vdc, printed circuit board screw-type removable connectors
- Alarm Relay, SPDT with 6 amp contacts at 28vdc, printed circuit board screw-type removable connectors

Annunciator Output

- Annunciator Output, 12vdc @ 200ma. max.

Switch Inputs

- Door Position Switch—Normally Closed
- Local Bypass Switch—Normally Open
- Auxiliary Alarm Switch—Normally Closed
- Internal Tamper Switch—Normally Closed

Communication

- To **MDS Model SA-1773 Central Processor**—RS-485, two (2) wire *Multi-Drop*, 22 Gauge 100% Shielded, 4000 foot maximum (total allowed wire length). Extendible beyond 4000 feet by adding a Model SA-1920 Repeater.
- To **MDS Model SA-2100 Power Supply Monitor and I-O Device**—RS-485, two (2) wire direct connection using RJ11 type connectors.

ACCESS MODES

MDS Model SA1606 Door Unit can be programmed manually or by automatic Mode Change, to permit access at a variety of security levels.

These modes include:

Local Bypass

This is the lowest level of security. When the external Local Bypass Switch has been installed, access is granted locally by depressing the switch momentarily. All timing functions, such as strike open time and door open time are used the same as if access was granted by use of a valid Access Card. This function can also be used with a push button type egress switch, infrared detector or some other device.

Access Card

This mode offers security and convenience similar to the common access code. Instead of entering a number, authorized individuals insert their personal access card into the card reader. With a printer activated, each access will be logged and identified by card number, date, time and door number.

Personal Identification Number

The **MDS Model SA1606 Door Unit** can be programmed to grant access when a Personal Identification Number or P.I.N. is entered into a Door Unit keypad. The P.I.N. is subject to Anti-Passback and programmed Time Zone constraints.

Access Card and P.I.N.

This is the highest security mode offered by **MDS Model SA1606 Door Unit**. Authorized individuals must insert their Access Card and then enter their PIN to gain access. With a printer activated, each access will be logged and identified by card number.

MESSAGE BUFFERING

Battery-backed message buffers have been provided both at the Door Unit and at the Central Processor. The buffers store information intended for the system printer (when the printer is turned-off, out-of-paper or off-line). The buffer at the Door Unit stores 1000 messages.

MDS CARDS

Several different function invisibly-coded magnetic stripe cards are available for your Door Unit which activate various options.

Programming Cards

The Programming Card is a specially coded magnetic stripe card that will, when inserted into the devices card slot, set your **MDS Model SA1606 Door Unit** into *PROGRAM MODE*. This card contains the unique facility code assigned to your property. Only cards which have been programmed with the same facility code will be recognized by your system.

Access Cards

Each Access Card has the same facility code as the programming card. In addition, each Access Card has an individual card number and a programmable P.I.N. which are used in various access modes.

Access Cards can be used with any number of **MDS Model SA1606 Door Unit** as long as all share the same facility code. Also, Access Card numbers can be validated at the Door Unit to permit access by selected card holders only. Your unit can supports 60,000 unique Access Cards.

Inserting an Access Card into the **MDS Model SA1606 Door Unit** will allow instant access when the unit is in the Access Card only mode, and will prepare the unit for keypad entry when in one of the combination modes.

One Time Use Cards

These cards are the same as Access Cards except they invalidate themselves after being used once. "One Time Use" cards can be re-validated by the system manager as often as desired.

Gate Agent Access Cards

A special Gate Agent Access Card is available that provides a unique variable door open time. This is used during airplane passenger boarding to minimize the amount of time a jetway door is left open. After inserting the Gate Agent Access Card, the user has the opportunity to enter an estimated time into the keypad to board the plane. Three minutes before the user set time has elapsed, the Door Unit emits a pre-alarm (from its internal beeper and from the an external annunciator—if used). At two minutes and again at one minute before time has elapsed, the number of pre-alarm beeps per minute increases, providing the user with a sense of urgency to either reset the time or close the door. At the end of the pre-alarm period, the Door Unit goes into full alarm and indicates an alarm condition at the central processor (if in a multiple door configuration).

Issue Level Change Cards

In addition to facility codes, PINs, etc., encoded on every user card, is an Issue Level. Should the need arise to change the combination of an existing **MDS** installation, the issue level of the unit(s) can be easily changed. Simply insert this special card into the card slot of the **MDS Model SA1606 Door Unit** once. This will permanently invalidate all existing cards for the unit. Thus, when ordering an Issue Level Change Card, a new set of Access Cards must be ordered. Once an issue level has been changed, it cannot be reversed.

Guard Tour Card

A special **MDS** card is available from the factory that, when inserted into a **MDS Model SA1606 Door Unit** will report on the LCD window that the system is OK or if a non-cleared alarm(s) exists at that opening. In addition, a message is sent to the Central Processor reporting use of this Guard Tour Card, which door, date, time and card number used.

Diagnostics Card

The Diagnostics Card is used to test the Door Unit at installation or at any time during operation. A malfunction of the Door Unit will be indicated to the technician on the LCD window. Operation of the Diagnostics Card is not reported to the Central Processor.

Cleaner Cards

Approximately every 5000 card operations, a cleaner card should be used to clean the reader head. This card is good for about 24 cleanings. Usage of the Cleaner Card will produce a "Card Reader Tamper" message at the printer.

DEVICE COMPONENTS

The **MDS Model SA-1606 Door Unit** is comprised of several components necessary for day to day operation and for programming of the device.

The parts are as follows:

- The KEYPAD
- The CARD READER
- The LIQUID CRYSTAL DISPLAY (LCD)

The KEYPAD is located on the face of the unit and is used for entry of Common Access Codes, P. I. N. (Personal Identification Numbers), and all programming commands.

The CARD READER also located on the face of the unit, is where all user cards, programming cards and special purpose cards are introduced into your Door Unit.

The LIQUID CRYSTAL DISPLAY (LCD) is the *WINDOW* into the **MDS Model SA-1606 Door Unit**. Communication and program menus are displayed here.

KEY WORDS

FACILITY CODE

A Facility Code is a unique code assigned by the factory for your access control system. The code is invisible to the eye and encoded in each card, and Door Unit. Smart Access can assign 16 million codes before repeating, making it virtually impossible for cards from another system to operate yours.

ISSUE LEVEL

An Issue Level is another invisible feature of your system. Under each of the 16 million facility codes, there are 255 Issue Level Change possibilities. Simply by inserting a special "Issue Level Change" card, the Door Unit is incremented to the next Issue Level and all prior cards are locked out.

P.I.N.

The PIN or Personal Identification Number is a special number encoded invisibly into a user card. A door unit can be programmed to require the manual entry of this number into the keypad prior to granting access. The number is assigned by **Smart Access**.

BYPASS

Bypass is the ability to either locally or remotely unlock an opening. Locally it is done by operating a switch. Remotely it is done by a command at the Central Processor.

MODE CHANGE

Mode Change is the capability of a Door Unit to automatically change Access Modes at a preprogrammed time and day.

PROGRAM MODE

Program Mode is the condition of the Door Unit (or Central Processor) when programming is possible.

COMMAND MODE

While in Program Mode, we refer to Command Mode as the device being ready to accept a command. This is indicated by the word Command shown in the lower left hand corner of the LCD window.

TIME OUT	Refers to allowed time to complete a command elapsing or running out.
STAND ALONE	Stand Alone is when a Door Unit is being operated by itself (not in a system with other Door Units and a Central Processor). Note: On special occasion, a Door Unit may be part of a system and be set to Stand-Alone.
DURESS	Duress function is a silent means of calling for help when personnel may be at gun point.
SCROLL	Scrolling is a means of reviewing all available commands by depressing one key to go up the list and another key to go down the list.
DATABASE	The database is the internal memory area with the Door Unit that stores information about individual cards and transactions.
TOGGLE	Toggle is to go between ON and OFF by simply depressing one key.

PROGRAMMING

These general rules apply to all programming functions:

LCD Windows indicated throughout this document are mirror images of what you will see on your **MDS Model SA-1606 Door Unit**.

- You can browse or **SCROLL** up and down the menu (on the LCD window) by pressing the pound **#** to go UP and the zero **0** to go DOWN.
- The star key ***** enters keypad entries.
- After selecting a command and making an incorrect entry, press the **#** to clear the most recent entry.
- To cancel a command after selecting, press ***** and **#** together. An incomplete command will not change the database.
- To quickly move or **JUMP** to a command without scrolling, simply enter the command number and press the *****.
- The **MDS MODEL SA-1606 Door Unit** will automatically exit *PROGRAM* if no keypad activity occurs in three (3) minutes.
- The **MDS MODEL SA-1606 Door Unit** will automatically exit a selected command if no keypad activity occurs in one (1) minute.
- The **MDS Model SA-1606 Door Unit** uses a 24 hour (military) clock for all real-time functions including time-of-day and reporting.

SETTING DATE AND TIME

When a Door Unit is used in a STAND ALONE application without a Central Processor, it is necessary to set the current Date and Time when the device is initially powered up or after a power failure. (Door Units connected to a Central Processor will automatically receive the Date and Time.)

A flashing display is the primary indicator advising the user of the need to set date and time. Additionally, the display will read something similar to the following:

SET DATE & TIME
SAI TUE 02-02-93

1. A PROGRAM CARD will be necessary. Insert the PROGRAM CARD.

SET DATE & TIME
<<PULL YOUR CARD>>

2. Pull the card out of the reader.

SET TIME
HOUR 0 - 23 011

3. Enter the current hour and press the #.

SET TIME
MIN 0-59 033

4. Enter the current minute and press the *.

SET TIME
SEC 0-59 044

5. Enter the current seconds and press the *.

SET TIME
WK-DAY 1-7 003

6. Enter the day of the week from the chart below and press *.

Sunday	1
Monday	2
Tuesday	3
Wednesday	4
Thursday	5
Friday	6
Saturday	7

SET TIME
MONTH 1-12 001

7. Enter the current month and press the *.

SET TIME
DAY 1-31 009

8. Enter the current day and press the *.

SET TIME
YEAR 0-99 099

9. Enter the current year and press the *.

LOCAL 11:33:46
SAI TUE 01-09-99

The Door Unit will automatically exit from Time and Date set function.

Note. If during programming time and date, the user decides to cancel this function, the Door Unit will go into PROGRAM MODE. Set date and time as usual and then manually exit PROGRAM MODE.

ENTERING PROGRAM MODE

You must first set the **MDS Model SA-1606 DOOR UNIT** into *PROGRAM MODE*, to make possible programming of features and functions of the device. You will need a **PROGRAM CARD**. **It is important to use the proper PROGRAM CARD.**

LOCAL 10:37:34
MON 04-20-89

1. To enter *PROGRAM MODE*, insert the PROGRAM CARD.

LOCAL 10:37:45
<< PULL YOUR CARD >>

2. Pull the card out of the reader.

Upon successful entry, the following LCD window will be displayed:

VALIDATE USERS
COMMAND -> 01

In this text , we will refer to **COMMAND --> 01** displayed in the bottom line of the LCD window, as *COMMAND MODE*.

VALIDATE USERS

COMMAND 1

This command provides the ability to validate users in this particular Door Unit only. The command will validate one user or a group of users. (Also used to re-validate *ONE TIME USE* cards.) Valid users can be from 1 to 65,535.

Example: Validate user 1 through 500.

1. *SCROLL* or *JUMP* to this command. Then, select the command by pressing the *.

VALIDATE USERS
COMMAND -> 01

2. Enter (first user number) **1** and press *.

VALIDate users
first USER 00001

3. Enter **500** (last user number) and press *.

VALIDATE USERs
LAST USER 00500

The device will display the following LCD window momentarily:

COMMAND SEQUENCE COMPLETED

And then, return to *COMMAND MODE*.

VALIDATE USERS
COMMAND -> 01

INVALIDATE USERS

COMMAND 2

This command provides the ability to invalidate users in this particular Door Unit only. The command will invalidate one user or a group of users. Invalidate users can be from 1 to 65,535.

Example: Invalidate users 251 through 500.

1. *SCROLL* or *JUMP* to this command. Then, select the command by pressing the *.

```
INVALIDATE USERS  
COMMAND -> 02
```

2. Enter (first user number) **251** and press *.

```
INVALIDate users  
first USER 00251
```

3. Enter **500** (last user number) and press *.

```
INVALIDATE USERs  
LAST USER 00500
```

The device will display the following LCD window momentarily:

```
COMMAND SEQUENCE COMPLETED
```

And then. return to *COMMAND MODE*.

```
INVALIDATE USERS  
COMMAND -> 02
```

ACCESS CODE

COMMAND 3

This command programs the Door Unit to REQUIRE a Common Access Code when attempting entry and programs the actual code. The Access Code, stored in memory, can be toggled ON and OFF. Access Codes can be any number from 1 to 59,999.

Example: Turn Access Code ON.

1. SCROLL or JUMP to this command. Then press * at this LCD window.

ACCESS CODE OFF
COMMAND -> 03

2. Enter a new Access Code and press * (to retain the previous Access Code, simply press *).

ACCESS CODE OFF
0=OFF CODE 012345

After execution, the door unit will return to *COMMAND MODE* as indicated in the LCD window below.

ACCESS CODE ON
COMMAND -> 03

Example: Turn Access Code OFF.

1. SCROLL or JUMP to this command. Then press * at this LCD window.

ACCESS CODE ON
COMMAND -> 03

After execution, the door unit will return to *COMMAND MODE* as indicated in the LCD window below.

ACCESS CODE OFF
COMMAND -> 03

CARD ACCESS

COMMAND 4

This command turns the Card Access (Card Reader) ON and OFF at this Door Unit only. This command is a toggle.

Example: Turn Card Access OFF.

1. *SCROLL* or *JUMP* to this command. Then press *.

CARD ACCESS ON
COMMAND -> 04

After execution of the command, the unit will return to *COMMAND MODE* as indicated in the following LCD window.

CARD ACCESS OFF
COMMAND -> 04

Example: Turn Card Access ON:

2. *SCROLL* or *JUMP* to this command. Then press *.

CARD ACCESS OFF
COMMAND -> 04

After execution of the command, the unit will return to *COMMAND MODE* as indicated in the following LCD window.

CARD ACCESS ON
COMMAND -> 04

P. I. N.

COMMAND 5

This command turns ON and OFF the P. I. N. (Personal Identification Number) feature at this Door Unit only. This command is a toggle. Setting the P.I.N. ON automatically turns ON the card reader (if it was OFF) and turns OFF the Access Code feature (if it was ON).

Example: Turn P.I.N. ON.

1. *SCROLL* or *JUMP* to this command. Then press *.

P. I. N. OFF
COMMAND -> 05

After execution of the command, the unit will return to *COMMAND MODE* and leave the unit with P.I.N. ON as indicated in the following LCD window.

P. I. N. ON
COMMAND -> 05

Example: Turn P.I.N. OFF:

2. *SCROLL* or *JUMP* to this command. Then press *.

P. I. N. ON
COMMAND -> 05

After execution of the command, the unit will return to *COMMAND MODE* and leave the unit with P.I.N. OFF as indicated in the following LCD window.

P. I. N. OFF
COMMAND -> 05

DOOR: OPEN/CLOSE

COMMAND 6

This command can lock or unlock the door (energize or de-energize the strike relay) for a non-timed period. The command is a toggle. To reverse setting, simply toggle this command again. Or an automatic Mode Change can change the door status and the position of the strike relay.

Example: Set door OPEN.

1. *SCROLL* or *JUMP* to this command. Then press the *.

DOOR CLOSE
COMMAND -> 06

After execution of the command, the unit will return to *COMMAND MODE* and leave the unit with the door set OPEN as indicated in the following LCD window.

DOOR OPEN
COMMAND -> 06

Example: Set door CLOSED.

1. *SCROLL* or *JUMP* to this command. Then press *.

DOOR OPEN
COMMAND -> 06

After execution of the command, the unit will return to *COMMAND MODE* and leave the unit with the door set CLOSED as indicated in the following LCD window.

DOOR CLOSE
COMMAND -> 06

STRIKE TIME

COMMAND 7

This command sets the strike time (or the amount of time the strike relay will be energized) at this Door Unit only. The time can be from 0 to 255 seconds.

Example: Set strike time to 6 seconds.

1. *SCROLL* or *JUMP* to this command. Then select the command by pressing the *.

```
STRIKE TIME 002
COMMAND ->> 07
```

Note: The current value for strike time is displayed in the lower right hand corner of the LCD window. (If you would like to keep this value, simply press the *.)

```
STRIKE TIME
0-255 SEC  002
```

2. Enter **6** (new strike time) and press the *.

```
STRIKE TIME 002
0-255 SEC  006
```

Note: The previous value jumps to the upper right corner.

After execution of the command, the unit will return to *COMMAND MODE* and leave the unit with strike time set to the new value as indicated in the following LCD window.

```
STRIKE TIME 006
COMMAND -> 07
```

OPEN TIME

COMMAND 8

This command sets the amount of time the door is allowed to be open before energizing the alarm relay (if so programmed) and sending a message to the Central Processor for printing on the system printer (if Error Log is set ON). The device will not allow Open Time to be less than the Strike Time. The time can be 5 to 255 seconds.

Example: Set Open Time to 15 seconds.

1. *SCROLL* or *JUMP* to this command. Then select the command by pressing the *.

```
OPEN TIME  020  
COMMAND -> 08
```

Note: The current value is displayed in the lower right hand corner of the LCD window. (If you would like to keep this value, simply press *.)

```
OPEN TIME  
5-255 SEC  020
```

2. Enter **15** (Open Time) and press *.

Note: The previous value jumps to the upper right corner.

```
OPEN TIME  020  
5-255 SEC  015
```

After execution of the command, the unit will return to *COMMAND MODE* and display the new open time in the upper right hand corner of the LCD window as indicated below.

```
OPEN TIME  015  
COMMAND -> 08
```

KEYPAD TIME-OUT

COMMAND 9

This command sets the time allowed to enter a keypad entry. The time can be from 5 to 255 seconds.

Example: Set Keypad Time-out to 15 seconds.

1. *SCROLL* or *JUMP* to this command. Then select the command by pressing the *.

```
KEYPAD TIME 020  
COMMAND -> 09
```

Note: The current time-out is displayed in the lower right hand corner of the LCD window. (If you would like to keep this value, simply press *.

```
KEYPAD TIME  
5-255 SEC 00020
```

2. Enter **15** (keypad time) and press *.

```
KEYPAD TIME 020  
5-255 SEC 00015
```

Note: The previous value jumps to the upper right corner.

After execution of the command, the unit will return to *COMMAND MODE* and display the new keypad time in the upper right hand corner of the LCD window as indicated below.

```
KEYPAD TIME 015  
COMMAND -> 09
```

ERROR LOG

COMMAND 10

This command turns ON and OFF the Error Log capability of the unit. When the log is ON, messages relating to invalid access attempts and alarms are sent to the Central Processor for printing by the system printer.

Example: To turn Error Log ON:

1. *SCROLL* or *JUMP* to this command. Then press *.

ERROR LOG OFF
COMMAND -> 10

After execution of the command, the unit will return to *COMMAND MODE* and display error log ON in the upper right hand corner of the LCD window as indicated below.

ERROR LOG ON
COMMAND -> 10

Example: Turn Error Log OFF:

1. *SCROLL* or *JUMP* to this command. Then press*.

ERROR LOG ON
COMMAND -> 10

After execution of the command, the unit will return to *COMMAND MODE* and display error log OFF in the upper right hand corner of the LCD window as indicated below.

ERROR LOG OFF
COMMAND -> 10

ACCESS LOG

COMMAND 11

This command turns ON and OFF the Access Log capability of the door unit. With the log on, valid access messages are sent to the Central Processor for printing by the system printer.

Example: Turn Access Log ON:

1. *SCROLL* or *JUMP* to this command. Then press *.

ACCESS LOG OFF
COMMAND -> 11

After execution of the command, the unit will return to *COMMAND MODE* and display access log ON in the upper right hand corner of the LCD window as indicated below.

ACCESS LOG ON
COMMAND -> 11

Example: Turn Access Log OFF:

1. *SCROLL* or *JUMP* to this command. Then press*.

ACCESS LOG ON
COMMAND -> 11

After execution of the command, the unit will return to *COMMAND MODE* and display access log OFF in the upper right hand corner of the LCD window as indicated below.

ACCESS LOG OFF
COMMAND -> 11

SET MODE(S)

COMMAND 12

This command sets Mode Changes in the Door Unit. A preprogrammed Mode Change automatically changes a condition at that Door Unit. There are sixteen (16) mode functions or conditions. The functions are:

- Set access to NO ACCESS
- Set access to CARD ACCESS ONLY
- Set access to DOOR OPEN
- Set access to CARD ACCESS AND PIN
- Set access to ACCESS CODE ONLY
- Set access to CARD AND ACCESS CODE
- Set access to DOOR OPEN—LOG CARDS
- Turn ACCESS AND ERROR LOG OFF/ON
- Turn BACKLIGHT OFF/ON
- CARD OR ACCESS CODE
- Turn ALARM RELAY OFF/ON
- PIN CODE only
- PIN CODE OR CARD
- ATM FUNCTION ON/OFF
- ANTIPASSBACK ON/OFF

A Door Unit can perform 16 of the 22 changes listed above. Each change will accomplish only one (1) function.

VERY IMPORTANT: A complete cycle requires the use of at least two (2) Mode Changes; example: one mode change to unlock and the second to re-lock. The following example completes only one (1) Mode Change or half a cycle. A second change is required to reverse or change the action of the first.

Example: Set Mode 1 to *UNLOCK* the Door, Monday through Friday at 8:00 AM.

1. *SCROLL* or *JUMP* to this command. Then select the command by pressing the *.

SET MODE(S) COMMAND -> 12

2. Enter **1** (mode number) and press *.

SET MODE(S) MODE 1-16 01

3. Enter **62** (days) and press *.

SET MODE(S) DAYS 0-255 062

Note: To arrive at the value for DAYS, add together the numbers associated with the particular days from the table on the next page.

DAYS CHART

MODE INACTIVE	0
SUNDAY	1
MONDAY	2
TUESDAY	4
WEDNESDAY	8
THURSDAY	16
FRIDAY	32
SATURDAY	64
HOLIDAYS	128

Example: The total for the example will be the total value of DAYS as indicated below:

MONDAY	2
TUESDAY	4
WEDNESDAY	8
THURSDAY	16
FRIDAY	32
TOTAL	62

4. Enter **8** (hour mode will take effect) and press *.

Note: 24 Hour (Military) Clock.

SET MODE(S) HOUR 0-23 08

5. Enter **0** (minute mode will take effect) and press *.

SET MODE(S) MIN 0-59 00

6. Enter **2** (mode-function, see chart below) and press*.

SET MODE(S) PICK 0-21 -> 02

NO ACCESS	0
CARD ACCESS ONLY	1

DOOR OPEN	2
CARD ACCESS AND PIN	3
ACCESS CODE ONLY	4
CARD AND ACCESS CODE	5
DOOR OPEN - LOG CARDS	6
ACCESS & ERROR LOG OFF	7
ACCESS & ERROR LOG ON	8
ACCESS LOG ON	9
ERROR LOG ON	10
BACKLIGHT ON	11
BACKLIGHT OFF	12
CARD OR ACCESS CODE	13
ALARM RELAY ON	14
ALARM RELAY OFF	15
PIN CODE ONLY	16
PIN CODE OR CARD	17
ATM FUNCTION ON	18
ATM FUNCTION OFF	19
ANTI-PASSBACK ON	20
ANTI-PASSBACK OFF	21

The device will display the following LCD window momentarily:

COMMAND SEQUENCE
COMPLETED

And then, return to *COMMAND MODE*.

SET MODE(S)
COMMAND -> 12

MODES ON/OFF

COMMAND 13

This command toggles ON and OFF Mode-Changes as previously programmed using Command 12, "SET MODES". When Modes are OFF, preprogrammed Mode-Changes are not executed. When ON, Mode-Changes will take place.

Example: Turn Modes ON:

1. *SCROLL* or *JUMP* to this command. Then press *.

MODES OFF
COMMAND -> 13

After execution of the command, the unit will return to *COMMAND MODE* and display modes ON in the upper right hand corner of the LCD window as indicated below.

MODES ON
COMMAND -> 13

Example: Turn Modes OFF:

2. *SCROLL* or *JUMP* to this command. Then press *.

MODES ON
COMMAND -> 13

After execution of the command, the unit will return to *COMMAND MODE* and display modes OFF in the upper right hand corner of the LCD window as indicated below.

MODES OFF
COMMAND -> 13

STAND ALONE ON/OFF

COMMAND 14

This command toggles Stand-Alone ON or OFF. This will allow the Door Unit to operate in a Stand Alone fashion (ON) when the Central Processor is off line.

When Stand Alone is ON and the Central Processor is off-line, time zones and anti-passback will not be verified. Hence, if a card is valid and Card Access ON, access through the opening WILL BE GRANTED.

When Stand Alone is OFF and the Central Processor is off-line, all card related accesses WILL BE DENIED (except cards numbered in excess of 30,000).

When the Central Processor is on-line, the setting of Stand Alone has no effect.

Example: Turn Stand Alone ON:

1. *SCROLL* or *JUMP* to this command. Then press *.

STAND ALONE OFF
COMMAND -> 14

After execution of the command, the unit will return to *COMMAND MODE* and display stand alone ON in the upper right hand corner of the LCD window as indicated below.

STAND ALONE ON
COMMAND -> 14

Example: Turn Stand Alone OFF:

1. *SCROLL* or *JUMP* to this command. Then press *.

STAND ALONE ON
COMMAND -> 14

After execution of the command, the unit will return to *COMMAND MODE* and display stand alone OFF in the upper right hand corner of the LCD window as indicated below.

STAND ALONE OFF
COMMAND -> 14

SA-1606A STATUS

COMMAND 15

This command displays the current access mode of the Door Unit.

1. *SCROLL* or *JUMP* to this command. Then select the command by pressing the *.

SA-1606A STATUS
COMMAND -> 15

The current mode, the program ROM checksum and version are displayed in the following LCD window momentarily:

CARD ONLY
SA-1606A V 5.0E

After execution of the command, the unit will return to *COMMAND MODE* and display the following LCD window.

SA-1606A STATUS
COMMAND -> 15

SET DATE

COMMAND 16

This command sets the Door Unit date. If the Door Unit is connected to a Central Processor, the date is automatically updated by the Central Processor.

Example: Set date to Monday, April 20, 1987.

1. *SCROLL* or *JUMP* to this command. Then select the command by pressing the *.

SET DATE
COMMAND -> 16

Note: Current settings are displayed on the lower right hand corner of the LCD window. (If you desire to keep this value, just press *.)

2. Enter **2** (WK-DAY, see table below) and press *.

SET DATE
WK-DAY 1-7 02

SUNDAY	1
MONDAY	2
TUESDAY	3
WEDNESDAY	4
THURSDAY	5
FRIDAY	6
SATURDAY	7

3. Enter **4** (month) and press *.

SET DATE
MONTH 1-12 04

4. Enter **20** (day) and press *.

```
SET DATE
DAY 1-31  020
```

5. Enter **87** (year) and press *.

```
SET DATE
YEAR 0-99 087
```

The device will display the following LCD window momentarily:

```
COMMAND SEQUENCE COMPLETED
```

And then, return to *COMMAND MODE*.

```
SET DATE
COMMAND -> 16
```

SET TIME

COMMAND 17

This command sets the time of the day in the Door Unit. If the Door Unit is connected to the Central Processor, time is automatically sent to each door upon power-up.

Example: Set time to 7:45:15 AM.

1. *SCROLL* or *JUMP* to this command. Then select the command by pressing the *.

SET TIME
COMMAND -> 17

Note: Current settings are displayed on the lower right hand corner of the LCD window. (If you desire to re-use that value, just press *.)

2. Enter **7** (hour) and press *.

Note: 24 Hour (Military) Clock.

SET TIME
HOUR 0-23 07

3. Enter **45** (minute) and press *.

SET TIME
MIN 0-59 45

4. Enter **15** (second) and press *.

SET TIME
SEC 0-59 15

The device will display the above LCD window momentarily:

COMMAND SEQUENCE COMPLETED

And then, return to *COMMAND MODE*.

SET TIME
COMMAND -> 17

VERIFY USER

COMMAND 18

This command determines if a particular user is valid or invalid in this Door Unit only. User number can be from 1 to 65,535.

Example: Verify validity of user 278.

1. *SCROLL* or *JUMP* to this command. Then select the command by pressing the *.

```
VERIFY USER  
COMMAND -> 18
```

2. Enter **278** (user number) and press *.

```
VERIFY USER  
USER NO. -> 00278
```

System displays whether the card is Valid or Invalid.

```
VERIFY USER 000  
USER 00278 VALID
```

Note: You may *SCROLL* the database and verify all cards by depressing the **0** key to move backward and the **#** key to move forward. The system will automatically time-out of this function after 60 seconds. However, to exit before the time-out, simply press any key (other than **0** or **#**).

Also, the three digit number on the right side of the top line indicates the Time Zone assignment for that user. (For more information about Time Zones, see *COMMAND 40* and *COMMAND 41*.)

After execution of the command, the unit will return to *COMMAND MODE*:

```
VERIFY USER  
COMMAND -> 18
```

DURESS ALARM

COMMAND 19

This command toggles ON and OFF the assignment of the alarm relay to respond to duress. The relay could be connected to an external alarm or digital dialer to call for help (silently).

Example: Turn Duress Alarm ON:

1. *SCROLL* or *JUMP* to this command. Then press *.

DURESS ALARM OFF
COMMAND -> 19

After execution of the command, the unit will return to *COMMAND MODE* and display Duress Alarm ON in the upper right hand corner of the LCD window as indicated below.

DURESS ALARM ON
COMMAND -> 19

Example: Turn Duress Alarm OFF:

1. *SCROLL* or *JUMP* to this command. Then press *.

DURESS ALARM ON
COMMAND -> 19

After execution of the command, the unit will return to *COMMAND MODE* and display Duress Alarm OFF in the upper right hand corner of the LCD window as indicated below.

DURESS ALARM OFF
COMMAND -> 19

LOCAL ALARM

COMMAND 20

This command toggles ON and OFF the assignment of the alarm relay to respond to the local alarm contact. This relay could be connected to an external local alarm or other annunciator.

Example: Turn Local Alarm ON:

1. *SCROLL* or *JUMP* to this command. Then press *.

LOCAL ALARM OFF
COMMAND -> 20

After execution of the command, the unit will return to *COMMAND MODE* and display Local Alarm ON in the upper right hand corner of the LCD window as indicated below.

LOCAL ALARM ON
COMMAND -> 20

Example: Turn Local Alarm OFF:

1. *SCROLL* or *JUMP* to this command. Then press *.

LOCAL ALARM ON
COMMAND -> 20

After execution of the command, the unit will return to *COMMAND MODE* and display Local Alarm OFF in the upper right hand corner of the LCD window as indicated below.

LOCAL ALARM OFF
COMMAND -> 20

DOOR ALARM

COMMAND 21

This command toggles ON and OFF the assignment of the alarm relay to respond to the door alarm contacts. This relay could be connected to an external local alarm or other annunciator, activated when door forced open or door open too long condition occurs.

Example: Turn Door Alarm ON:

1. *SCROLL* or *JUMP* to this command. Then press *.

DOOR ALARM OFF
COMMAND -> 21

After execution of the command, the unit will return to *COMMAND MODE* and display Door Alarm ON in the upper right hand corner of the LCD window as indicated below.

DOOR ALARM ON
COMMAND -> 21

Example: Turn Door Alarm OFF:

1. *SCROLL* or *JUMP* to this command. Then press *.

DOOR ALARM ON
COMMAND -> 21

After execution of the command, the unit will return to *COMMAND MODE* and display Door Alarm OFF in the upper right hand corner of the LCD window as indicated below.

DOOR ALARM OFF
COMMAND -> 21

TAMPER RELAY

COMMAND 22

This command is used to set the alarm relay in the Door Unit to activate or ignore the tamper switch. This command is a toggle. If the error log is set ON, the activation of the tamper switch will be reported to the Central Processor regardless of the setting of this command.

Example: Turn TAMPER RELAY ACTIVATION ON:

1. *SCROLL* or *JUMP* to this command. Then press *.

TAMPER RELAY OFF
COMMAND -> 22

After execution of the command, the unit will return to *COMMAND MODE* and display TAMPER RELAY ON in the upper right hand corner of the LCD window as indicated below.

TAMPER RELAY ON
COMMAND -> 22

Example: Turn TAMPER RELAY ACTIVATION OFF:

1. *SCROLL* or *JUMP* to this command. Then press *.

TAMPER RELAY ON
COMMAND -> 22

After execution of the command, the unit will return to *COMMAND MODE* and display TAMPER RELAY OFF in the upper right hand corner of the LCD window as indicated below.

TAMPER RELAY OFF
COMMAND -> 22

DOOR NUMBER

COMMAND 23

This command is used to set the door number at a Door Unit. A **unique door number is necessary** for the system to function properly.

NOTE: A door number range of 0 to 125 has been provided in your Door Unit. Also, **Z-0-** (**S-0-** when connected to the **MDS Model SA-1773 Central Processor**) is displayed along with the door number. (Note: The **S-0-** identifier is for the **MDS Model SA-1773 Central Processor**.) The identifier and the extended door number range have been provided to insure compatibility with other **Smart Access** multiple door systems.

CAUTION: Each Door Unit connected to a single Central Processor must have a unique door number.

DUPLICATE DOOR NUMBERS ARE NOT ALLOWED.

Example: Set Door Number to 12.

1. *SCROLL* or *JUMP* to this command. Select the command by pressing the *.

DOOR NO. S-0-001
COMMAND -> 23

2. Enter **12** (door number) and press *.

DOOR NO. S-0-001
DOOR 0-125 012

After execution of the command, the unit will return to *COMMAND MODE* and display the Door Number in the upper right hand corner of the LCD window as indicated below.

DOOR NO. S-0-012
COMMAND -> 23

SET HOLIDAY

COMMAND 24

This command sets up 32 holidays in the Door Unit.

When connected to the MDS Model SA-1773 Central Processor, the setting of holidays must be programmed at the Central Processor. The Central Processor automatically sends to each Door Unit, the holiday schedule common to the system.

NOTE: At the beginning of each year, the holiday schedule for that year must be programmed.

Example: Enter Holiday 1 as January 1.

1. *SCROLL* or *JUMP* to this command. Select the command by pressing the *.

SET HOLIDAY
COMMAND -> 24

2. Enter 1 (holiday number) and press *.

SET HOLIDAY
HOL 1-32 01

Note: After selecting the holiday you wish to modify, the old month and day are displayed in the lower right hand corner of the window. (To reselect the old value just press *.)

3. Enter 1 (month) and press *.

SET HOLIDAY
MONTH 1-12 01

4. Enter 1 (day) and press *.

SET HOLIDAY
DAY 1-31 01

The device will display the above LCD window momentarily.

COMMAND SEQUENCE COMPLETED

And then, return to *COMMAND MODE*.

SET HOLIDAY
COMMAND -> 24

PRINT CARD DATA

COMMAND 25

This command prints Card Data from the Door Unit only when the Serial option has been installed. (This option prints directly to a serial printer without requiring a Central Processor. Contact the factory for additional information.)

NOTE: This command is inoperative when the Door Unit is connected to a Central Processor.

Example: Print data about Cards 5 through 60.

1. *SCROLL* or *JUMP* to this command. Then select the command by pressing the *.

PRINT CARD DATA
COMMAND -> 25

2. Enter **5** (first card) number and press *.

PRINT CARD DATA
FIRST CARD 00005

3. Enter **60** (last card) number and press *.

PRINT CARD DATA
LAST CARD 00060

Printing will now start.

COMMAND SEQUENCE COMPLETED

The above LCD window displays momentarily and then the unit returns back to *COMMAND MODE*.

PRINT CARD DATA
COMMAND -> 25

PRINT DOOR DATA

COMMAND 26

This command prints Door Data from this Door Unit only when the Serial option has been installed. (This option prints directly to a serial printer without requiring a Central Processor. Contact the factory for additional information.)

NOTE: This command is inoperative when the Door Unit is connected to a Central Processor.

Example: Print Door Data Report.

1. *SCROLL* or *JUMP* to this command. Then select the command by pressing *.

PRINT DOOR DATA
COMMAND -> 26

Printing will now start.

COMMAND SEQUENCE
COMPLETED

The above LCD window displays momentarily and then the unit returns back to *COMMAND MODE*.

PRINT DOOR DATA
COMMAND -> 26

REMOTE PROGRAMMING

COMMAND 27

This command puts the Central Processor into *PROGRAM MODE*. The Door Unit exits *PROGRAM MODE* so the System Manager can program at the Central Processor. (This command has been provided to allow programming at the Central Processor when the password has been lost.)

1. *SCROLL* or *JUMP* to this command. Then select the command by pressing the *.

REMOTE PROGRAM
COMMAND -> 27

The Door Unit will automatically exit *PROGRAM MODE* and the following LCD window will be display:

READY 12:32:45
SAI THU 04-03-89

BACK LIGHT

COMMAND 28

This command turns ON and OFF the back-lite LCD. The command is a toggle. When the Back Light is ON, the LCD window will be continuously illuminated. With Back Light OFF, the LCD window is only illuminated when a valid access activity has been initiated or when in *PROGRAM MODE*.

Example: Turn Back Light OFF.

1. *SCROLL* or *JUMP* to this command. Then select the command by pressing the *.

BACK LIGHT ON
COMMAND -> 28

After execution of the command, the LCD window will display at *COMMAND MODE*:

BACK LIGHT OFF
COMMAND -> 28

Example: Turn Back Light ON.

1. *SCROLL* or *JUMP* to this command. Then select the command by pressing the *.

BACK LIGHT OFF
COMMAND -> 28

After execution of the command, the following LCD window will display at *COMMAND MODE*:

BACKLIGHT ON
COMMAND -> 28

CARD DURESS

COMMAND 29

This command is used to toggle ON and OFF the Card Duress function of the Door Unit, that is the duress capability when in card only mode. (With Card Duress OFF, the duress function is still available when a keypad operation is in effect.) When Card Duress is ON and upon introduction of a valid card, the **Door Unit** allows Keypad Time Out for the duress signal to be activated (holding * and then pressing the #). The user may press any number and a * for normal access.

Example: Turn Card Duress ON:

1. *SCROLL* or *JUMP* to this command. Then press *.

CARD DURESS OFF
COMMAND -> 29

After execution of the command, the unit will return to *COMMAND MODE* and display Card Duress ON in the upper right hand corner of the LCD window as indicated below.

CARD DURESS ON
COMMAND -> 29

Example: Turn Card Duress OFF:

1. *SCROLL* or *JUMP* to this command. Then press *.

CARD DURESS ON
COMMAND -> 29

After execution of the command, the unit will return to *COMMAND MODE* and display Card Duress OFF in the upper right hand corner of the LCD window as indicated below.

CARD DURESS OFF
COMMAND -> 29

COMM RATE

COMMAND 30

This command sets the serial communication RATE of the Door Unit. For communication with the **MDS Model SA-1773 Central Processor**, the Door Unit must be set to **MULTI**. Other settings are for communication to a remote computer either directly wired or via a MODEM.

Note: For communication to **MDS Model SA-1773 Central Processor**, COMM RATE must be set to **MULTI**.

This command toggles between the selections.

1. *SCROLL* or *JUMP* to this command. Then select the command by pressing the * .

COMM RATE MULTI
COMMAND -> 30

2. Press * to increment to 19200.

COMM RATE 19200
COMMAND -> 30

3. Press * to increment to 9600.

COMM RATE 9600
COMMAND -> 30

When the desired selection is shown in the upper right hand corner, the COMM RATE is set. Simply *SCROLL* or *JUMP* to your next command or enter **100** and press * to exit.

NO. OF CARDS READ

COMMAND 31

This command is used to display (and reset) the *CARDS READ* counter built-in to the Door Unit. The counter keeps accurate track of each card reader use.

The card reader should be cleaned after every 5000 reads. This is done by inserting a special cleaner card into the reader slot.

To activate this command:

1. *SCROLL* or *JUMP* to Command 31. Then select the command by pressing the *.

NO. OF CARDS READ
COMMAND -> 31

2. Read the counter. To leave without modifying, simply press *.

To CLEAR the counter:

1. Select 1 and press *.

CARD READ =00097
0=NO 1=CLR 01

The command is executed clearing the counter and the following message is displayed momentarily:

COMMAND SEQUENCE COMPLETED

Control is returned to the operator at menu level as follows:

NO. OF CARD READ
COMMAND -> 31

CARD INFORMATION

COMMAND 32

This command is provided as a means of identifying magnetic cards used in your system. Only cards from your particular facility code will be identified.

To activate this command:

1. *SCROLL* or *JUMP* to Command 32. Then select the command by pressing the *.

CARD INFORMATION
COMMAND -> 32

2. Insert the card you wish to check.

CARD INFORMATION
INSERT CARD

3. The top line of the LCD window will display the card information.

PROGRAM CARD
INSERT CARD

4. To cancel the command, simply press the *.

CARD INFORMATION
COMMAND -> 32

ACCESS OR

COMMAND 33

This command turns ON or OFF the ACCESS CODE **OR** CARD ACCESS (at the same time) feature of the Door Unit. When this is set ON, access will be granted by inserting a valid user card **OR** by entering the current COMMON ACCESS CODE. (Setting the COMMON ACCESS CODE is done with Command 3 and turning CARD ACCESS to ON is done with Command 4.) The ACCESS OR command is a toggle.

Example: Turn ACCESS OR ON:

1. *SCROLL* or *JUMP* to this command. Then press *.

ACCESS OR OFF
COMMAND -> 33

After execution of the command, the unit will return to *COMMAND MODE* and display ACCESS OR ON in the upper right hand corner of the LCD window as indicated below.

ACCESS OR ON
COMMAND -> 33

Example: Turn ACCESS OR OFF:

1. *SCROLL* or *JUMP* to this command. Then press *.

ACCESS OR ON
COMMAND -> 33

After execution of the command, the unit will return to *COMMAND MODE* and display ACCESS OR OFF in the upper right hand corner of the LCD window as indicated below.

ACCESS OR OFF
COMMAND -> 33

ENGLISH

COMMAND 34

This command provides multiple language support. The unit displays greetings and user commands in one of the following languages:

- English
- French
- Spanish
- German

Example: Change LCD display to show Spanish instead of English.

1. *SCROLL* or *JUMP* to this command.

ENGLISH
COMMAND -> 34

2. Press the * to change the display to read as follows:

ESPANOL
COMANDO -> 34

AGENT TIME

COMMAND 35

This command provides the method of entering the Gate Agent Time or the number of minutes a gate agent is allowed to board an aircraft (door is allowed open) before triggering a pre-alarm.

NOTE: This function is available only in Door Units ordered with the Airport option.

Example: Set allowable gate boarding time to 15 minutes.

1. *SCROLL* or *JUMP* to this command and press *.

```
AGENT TIME 030  
COMMAND -> 35
```

2. Enter **15** and press *.

```
AGENT TIME  
0 - 255 015
```

After execution of the command, the unit will return to *COMMAND MODE* and display the following:

```
AGENT TIME 015  
COMMAND -> 35
```

SET-UP P.I.N.S.

COMMAND 36

Standard Model SA-1606A Door Units are provided with 512 Personal Identification Number (PIN) capability with up to 9 digits per number. (The first 512 user numbers can be used for either cards or PINs.) Additional PIN capability is available by special order only.

Example: Set User Number 25 to PIN 1 2 3 4 5 6 7 8 9.

1. *SCROLL* or *JUMP* to this command and press the *.

SETUP P.I.N.S
COMMAND -> 36

2. Enter **25** (user number) and press *.

SETUP P.I.N.S
USER NO. 025

3. Enter **1 2 3 4 5 6 7 8 9** (desired PIN) and press *.

SETUP P.I.N.S
P.I.N. 0123456789

The command is executed and the following is displayed.

SETUP P.I.N.S
COMMAND -> 36

NOTE: To use the PIN, the unit must be in PIN mode and the specific user must be valid. See COMMAND 5 for more information.

EGRESS DELAY

COMMAND 37

This command sets the door units capability to delay activation (or deactivation) of the electric locking device. (Note: For this to function, Local Alarm must be turned OFF.)

Example: Set EGRESS DELAY to 30 seconds.

1. *SCROLL* or *JUMP* to this command. Then press * at this LCD window.

EGRESS DELAY OFF
COMMAND -> 37

2. Enter **30** (Egress Delay Time in seconds) and press *.

EGRESS DELAY
oFF=0 -30 SEC 030

After execution, the door unit will return to *COMMAND MODE* as indicated in the LCD window below.

EGRESS DELAY 030
COMMAND -> 37

Example: Turn EGRESS DELAY OFF.

1. *SCROLL* or *JUMP* to this command. Then press * at this LCD window.

EGRESS DELAY 030
COMMAND -> 37

2. Enter **0** and press *.

EGRESS DELAY
OFF=0 -30 SEC 000

After execution, the unit will return to *COMMAND MODE* as indicated in the following LCD window.

EGRESS DELAY OFF
COMMAND -> 37

ATM CARDS

COMMAND 38

This command turns ON and OFF the ATM CARD feature of the Model SA-1606A Door Unit. Turning ATM CARD ON allows valid access when any non-system card with encoded information on Track 2 is inserted into the card reader. (System (Smart Access user cards) operate as programmed.) This command is a toggle.

Example: Turn ATM CARD feature ON.

1. *SCROLL* or *JUMP* to this command. Then press *.

ATM CARD OFF
COMMAND -> 38

After execution of the command, the unit will return to *COMMAND MODE* and display the following LCD window:

ATM CARD ON
COMMAND -> 38

Example: Turn ATM CARD feature OFF:

1. *SCROLL* or *JUMP* to this command. Then press *.

ATM CARD ON
COMMAND -> 38

After execution of the command, the unit will return to *COMMAND MODE* and display the following LCD window:

ATM CARD OFF
COMMAND -> 38

ANTIPASSBACK

COMMAND 39

This command turns ON and OFF the ANTIPASSBACK capability of the Model SA-1606A Door Unit. This command is a toggle. ANTIPASSBACK must be assigned to users using Command 41 or programmed from either a Model SA-1773 Central Processor or connected computer.

Example: Turn ANTIPASSBACK ON.

1. *SCROLL* or *JUMP* to this command. Then press *.

ANTIPASSBACK OFF
COMMAND -> 39

After execution of the command, the unit will return to *COMMAND MODE* and display the following LCD window:

ANTIPASSBACK ON
COMMAND -> 39

Example: Turn ANTIPASSBACK feature OFF:

1. *SCROLL* or *JUMP* to this command. Then press *.

ANTIPASSBACK ON
COMMAND -> 39

After execution of the command, the unit will return to *COMMAND MODE* and display the following LCD window:

ANTIPASSBACK OFF
COMMAND -> 39

SET TIMES ZONES

COMMAND 40

This command provides a means of programming the six (6) Time Zones (or shift changes) available in the Model SA-1606A Door Unit. This command is primarily for *STAND-ALONE* installations (without a Central Processor).

NOTE: Time Zones programmed from a Model SA-1773 Central Processor (or from computer based systems) will overwrite Time Zones set with this command.

RULES

Time Zones cannot go over a day boundary. To obtain a zone from 10:00 pm to 2:00 am, it is necessary to use two (2) separate zones; one from 10:00 to 11:59pm and one from 12:00 to 2:00 am of the next day. Both time zones are then assigned (Command 41) to personnel requiring access during that time.

Time Zones must be assigned to individual Card Users. Use Command 41 ASSIGN TIME ZONES to assign the Time Zones. Refer to that command for more information.

Example: Set Time Zone 1 to start at 8:00 am and end at 5:30 pm, Monday through Friday.

1. *SCROLL* or *JUMP* to this command and select the command by pressing *.

```
SET TIME ZONE(S)  
COMMAND -> 40
```

2. Select 1 (time zone to update) and press *.

```
SET TIME ZONE(S)  
ZONE 1 - 6 -> 01
```

NOTE: After selecting a Time Zone, if the zone was previously programmed the old values will be displayed in the lower right hand corner of the LCD window. To accept these values, simply press *. To select a new value, enter the value and press *. The old value will move to the upper right and corner of the display.

Days Chart

ZONE INACTIVE	0
SUNDAY	1
MONDAY	2
TUESDAY	4
WEDNESDAY	8
THURSDAY	16
FRIDAY	32
SATURDAY	64
HOLIDAYS	128

3. Enter **62** (value of DAYS, arrived from the DAYS CHART) and press *.

```
ACTIVE DAYS  
DAYS 0 - 255 -> 62
```

NOTE: To arrive at the value for DAYS, add together the numbers associated with the particular days from the DAYS TABLE above. That total will be the value of DAYS as indicated below:

MONDAY	2
TUESDAY	4
WEDNESDAY	8
THURSDAY	16
FRIDAY	32
TOTAL DAYS VALUE	62

4. Enter **8** (start hour) and press *.

NOTE: 24 Hour (Military) Clock

START TIME
HOUR 0 - 23 -> 08

5. Enter **0** (start minutes) and press *.

START TIME
MIN 0 - 59 -> 00

6. Enter **17** (end hour) and press *.

END TIME
HOUR 0 - 23 -> 17

7. Enter **30** (end minutes) and press *.

END TIME
MIN 0 - 59 -> 30

The display will show the following:

COMMAND SEQUENCE
COMPLETED

And then return to *COMMAND MODE*.

SET TIME ZONE(s)
COMMAND -> 40

ASSIGN TIME ZONES

COMMAND 41

This command assigns users to Time Zones and is set up using command 40. A table is used to determine the Time Zone value to be assigned. These number(s) are added together to achieve the zone value (see step 4).

Example: Assign Time Zone 5 & 6, and set Anti-Passback ON for user 1 to 200.

1. SCROLL or JUMP
5. Enter **1** (set antipassback to YES) and press *****.

ANTIPASSBACK ?
0=NO 1=YES -> 1

The device will display the following LCD window momentarily:

COMMAND SEQUENCE
COMPLETE

And then, return to COMMAND MODE.

ASSIGN TIME ZONE
COMMAND -> 41

DOOR DIRECTION

COMMAND 42

This command sets the Model SA-1606A Door Unit as an IN door or as an OUT door as far as how it relates to Antipassback. This command is a toggle.

Example: Set DOOR DIRECTION IN.

1. *SCROLL* or *JUMP* to this command. Then press *.

DOOR DIRECTN OUT
COMMAND -> 42

After execution of the command, the unit will return to *COMMAND MODE* and display the following LCD window:

DOOR DIRECTN IN
COMMAND -> 42

Example: Set DOOR DIRECTION OUT.

1. *SCROLL* or *JUMP* to this command. Then press *.

DOOR DIRECTN IN
COMMAND -> 42

After execution of the command, the unit will return to *COMMAND MODE* and display the following LCD window:

DOOR DIRECTN OUT
COMMAND -> 42

FIRE ALARM

COMMAND 43

This command sets the Model SA-1606A Door Unit to either OPEN the door or CLOSE the door upon receipt of a Fire Alarm signal via the RS-485 two (2) wire communication line. This command is a toggle.

Example: Set FIRE ALARM CLOSE.

1. *SCROLL* or *JUMP* to this command. Then press *.

FIRE ALARM OPEN
COMMAND -> 43

After execution of the command, the unit will return to *COMMAND MODE* and display the following LCD window:

FIRE ALARM CLOSE
COMMAND -> 43

Example: Set FIRE ALARM OPEN.

1. *SCROLL* or *JUMP* to this command. Then press *.

FIRE ALARM CLOSE
COMMAND -> 43

After execution of the command, the unit will return to *COMMAND MODE* and display the following LCD window:

FIRE ALARM OPEN
COMMAND -> 43

ALARM RESET

COMMAND 44

This command changes the way the Model SA-1606A Door Unit handles an ALARM RESET. With ALARM RESET set OFF, only a valid PROGRAM CARD or a valid GUARD TOUR CARD will reset alarms at the door. With ALARM RESET set ON, in addition to the above cards any valid USER CARD will also reset the alarm. This command is a toggle. (This command is ALARM RESET FLAG at Model SA-1773 Central Processor.)

Example: Set ALARM RESET ON.

1. *SCROLL* or *JUMP* to this command. Then press *.

ALARM RESET OFF
COMMAND -> 44

After execution of the command, the unit will return to *COMMAND MODE* and display the following LCD window:

ALARM RESET ON
COMMAND -> 44

Example: Set ALARM RESET OFF.

1. *SCROLL* or *JUMP* to this command. Then press *.

ALARM RESET OFF
COMMAND -> 44

After execution of the command, the unit will return to *COMMAND MODE* and display the following LCD window:

ALARM RESET OFF
COMMAND -> 44

EXIT PROGRAM MODE

COMMAND 45

This command exits *PROGRAM MODE*.

1. *SCROLL* or *JUMP* to this command. Then select the command by pressing the *.

EXIT PROGRAMMING
COMMAND -> 45

The Door Unit will exit *PROGRAM MODE* and the following LCD window will be seen.

READY 16:27:54
SAI TUES 04-21-89

APPENDIX A

COMMAND DESCRIPTIONS

1. VALIDATE CARD(S) — Validates cards.
2. INVALIDATE CARD(S) — Invalidates cards.
3. ACCESS CODE — Sets an Access Code.
4. CARD ACCESS — Turns Card Access feature ON and OFF.
5. P I N — Turns PIN feature ON and OFF.
6. DOOR (OPEN/CLOSE) — Sets door OPEN or CLOSED.
7. STRIKE TIME — Sets strike open time.
8. OPEN TIME — Sets time allowed for door to be open.
9. KEYPAD TIME — Set time allowed to enter keypad operation.
10. ERROR LOG — Turns Error Log ON and OFF.
11. ACCESS LOG — Turns Access Log ON and OFF.
12. SET MODE(S) — Programs Mode Change feature.
13. MODES (ON/OFF) — Turns Modes feature ON and OFF.
14. STAND ALONE — Sets the Door Unit for stand-alone operation.
15. SA1606 STATUS — Shows in the LCD window the current access mode of the Door Unit. Also displays the check sum and version of the program ROM.
16. SET DATE — Sets the date in the Door Unit.
17. SET TIME — Sets time in the Door Unit.
18. VERIFY CARD — Shows in the LCD window if a selected user card is valid or invalid in that particular Door Unit.
19. DURESS ALARM — Sets the alarm relay in the Door Unit to respond to duress alarm.
20. LOCAL ALARM — Sets the alarm relay in the Door Unit to respond to local alarm.
21. DOOR ALARM — Sets the alarm relay in the Door Unit to respond to door alarm.
22. TAMPER RELAY — Sets alarm relay in the Door Unit to respond to or not to respond to the tamper switch.
23. DOOR NUMBER — Sets door number in the Door Unit.
24. SET HOLIDAY — Sets holiday schedule in the Door Unit.
25. PRINT CARD DATA — When used with the serial option, prints a list of valid or invalid cards.
26. PRINT DOOR DATA — When used with the serial option, prints setting of the Door Unit.
27. REMOTE PROGRAM — Sets the Central Processor into *Program Mode*.
28. BACK LIGHT — Turns the back-lite LCD ON and OFF.
29. CARD DURESS — Sets the Door Unit to respond to a duress signal when in card only mode.

30. COMM RATE — Set the Door Unit serial communication rate.
NOTE: Must be set on **MULTI** for communication with the **MDS Model SA-1773 Central Processor**.
31. NO. OF CARDS READ — This is a special counter used to maintain the card reader. (After every 5000 operations, a cleaner card should be inserted into the card slot to clean debris from the magnetic read head.
32. CARD INFORMATION — This command is used to identify an MDS magnetically encoded card, such as a PROGRAM CARD, USER CARD, ONE TIME USE CARD, etc.
33. ACCESS OR — This command turns ON or OFF the ability for the Door Unit to allow access by EITHER entering a valid common access code OR by using a valid access card, at the same time.
34. ENGLISH — This command provides a means of selecting different languages for LCD and printer messages.
35. AGENT TIME — This command sets the time allowed for a Gate Agent to board the aircraft. (Available with Airport Option only.)
36. SET-UP PINS — This commands provides a means of programming PINs.
37. EGRESS DELAY — This command sets the egress time.
38. ATM CARD — This command sets the Door Unit to activate a valid access when any magnetically encoded card with information on Track 2 is inserted into the card reader. The card reader must be active.
39. ANTIPASSBACK — This command sets the Door Unit into Antipassback mode.
40. SET TIME ZONES — This command programs Time Zones into a stand-alone Door Unit.
41. ASSIGN TIME ZONES — This command assigns the Time Zones programmed with Command 40 Set Time Zones.
42. DOOR DIRECTION — This command sets the Door Unit as an IN door or as an OUT door.
43. FIRE ALARM — This command sets the door unit to OPEN the door or CLOSE the door upon receipt of a fire alarm signal via the RS485 two (2) wire communication line.
44. ALARM RESET — This command sets alarm reset to reset with user cards.
45. EXIT PROGRAM MODE — Exits *Program Mode*.

APPENDIX B

CONNECTION CHART