

Access Control Series

MULTIPLE DOOR SYSTEM
MDS

Operations Manual

Model SA-1606-NET (Ver. 1X)

NETWORK

Door Unit

Revision 6.1a

May 1995



SMART ACCESS, INC.

124 Robin Road, Suite 1600

Altamonte Springs, Florida 32701

Voice (407) 331-4724

FAX (407) 331-0656

Toll Free 1-800-393-4724

***COPYRIGHT ©1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995
SMART ACCESS, INC., ALTAMONTE SPRINGS, FL***

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	5
Local Bypass	5
Access Card	5
G.I.N.	5
Access Card W/PIN.....	5
MESSAGE BUFFERING.....	5
MDS CARDS	5
Programming Cards.....	6
Access Cards.....	6
One Time Use Cards	6
Gate Agent Access Cards.....	6
Issue Level Change Cards.....	6
Guard Tour Card.....	7
Diagnostics Card	7
Cleaner Cards.....	7
DEVICE COMPONENTS	8
KEY WORDS.....	8
PROGRAMMING	10
SETTING DATE AND TIME	11
ENTERING PROGRAM MODE	13
SETUP USER INFO — COMMAND 1	14
G.I.N. — COMMAND 2	17
CARD ACCESS — COMMAND 3.....	18
P. I. N. — COMMAND 4	19
DOOR: OPEN/CLOSE — COMMAND 5.....	20
STRIKE TIME — COMMAND 6	21
OPEN TIME — COMMAND 7	22
KEYPAD TIME-OUT — COMMAND 8.....	23
ERROR LOG — COMMAND 9	24
ACCESS LOG — COMMAND 10	25
SET MODE(S) — COMMAND 11	26
MODES ON/OFF — COMMAND 12.....	29
STAND ALONE ON/OFF — COMMAND 13.....	30
SA-1606N-NET STATUS — COMMAND 14.....	31
SET DATE — COMMAND 15	32
SET TIME — COMMAND 16.....	34
DURESS ALARM — COMMAND 17	35
BOND ALARM — COMMAND 18.....	36

DOOR ALARM — COMMAND 19.....	37
TAMPER RELAY — COMMAND 20.....	38
DOOR NUMBER — COMMAND 21.....	39
SET HOLIDAY — COMMAND 22.....	40
REMOTE PROGRAMMING — COMMAND 23.....	41
BACK LIGHT — COMMAND 24.....	42
CARD DURESS — COMMAND 25.....	43
COMM RATE — COMMAND 26.....	44
NO. OF CARDS READ — COMMAND 27.....	45
CARD INFORMATION — COMMAND 28.....	46
ENGLISH — COMMAND 29.....	47
AGENT TIME — COMMAND 30.....	48
BOND DELAY — COMMAND 31.....	49
ANTIPASSBACK — COMMAND 32.....	50
SET TIMES ZONES — COMMAND 33.....	51
DOOR DIRECTION — COMMAND 34.....	53
FIRE ALARM — COMMAND 35.....	54
ALARM RESET — COMMAND 36.....	55
SA2100 COMMUNICATION — COMMAND 37.....	56
SA2100 ALARM — COMMAND 38.....	57
PLC ALARM — COMMAND 39.....	58
INVALID ALARM — COMMAND 40.....	59
EXIT PROGRAM MODE — COMMAND 41.....	60
APPENDIX A — ABBREVIATED COMMAND DESCRIPTIONS.....	61
APPENDIX B — CONNECTION CHART.....	63

GENERAL

SAFETY INSTRUCTIONS

This device is limited in its application. Interface 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 of 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 questions you may have.

Call Customer Service at:

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

or

FAX your request to (407) 331-0656

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 automatically occur 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. This card will 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 the **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 provides eight (8) additional inputs and five (5) additional outputs for use in controlling and monitoring external devices.

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

- Automatic monitoring of 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 devices
- 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-NET Door Unit** 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 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-NET 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 momentarily depressing the switch. 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 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.

G.I.N.

The **MDS Model SA1606-NET Door Unit** can be programmed to grant access when a G.I.N. is entered into a Door Unit keypad. The G.I.N. is subject to Anti-Passback and programmed Time Zone constraints. A G.I.N. may contain it's own unique strike time and is also subject to the Expiration Date feature of the Door Unit. Complete printer logging is a standard feature of the G.I.N..

Access Card and P.I.N.

This is the highest security mode offered by **MDS Model SA1606-NET 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 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 device's card slot, set your **MDS Model SA1606-NET 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-NET 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-NET 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

Every user card has the facility code, the user cards number and other pertinent information encoded on to the card. In addition, an Issue Level is also encoded. 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-NET 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-NET 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-NET 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 inserted into the Door Unit.

The LIQUID CRYSTAL DISPLAY (LCD) is the *WINDOW* into the 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**.

G.I.N. A special General Identification Number or G.I.N. is user-programmed into a Door Unit either from the Door Unit or from the Central Processor (or computer). Entry of the number into the keypad is used to gain access at a Door Unit. The G.I.N. is subject to Time Zone constraints and the expiration date feature of the system.

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

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

The following general rules apply to all programming functions:

- 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-NET Door Unit** will automatically exit *PROGRAM* if no keypad activity occurs within three (3) minutes.
- The **MDS MODEL SA-1606-NET Door Unit** will automatically exit a selected command if no keypad activity occurs within one (1) minute.
- The **MDS Model SA-1606-NET 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.)

Note: Stand Alone Door Units that do not receive an updated date and time will not allow access by cards or G.I.N. when they are subject to Time Zones.

Two indicators advise the user of the need to set date and time; the bottom line of the display will be alternating the date and INSERT CARD, similar to the following:

```
LOCAL 11:31:00
TUE   OCT-09-93
```

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

```
LOCAL 11:31:00
<<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
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-NET DOOR UNIT** into *PROGRAM MODE*, to make programming of features and functions possible. You will need a PROGRAM CARD. **It is important to use the proper PROGRAM CARD.**

```
READY 10:37:34  
MON 04-20-89
```

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

```
READY 10:37:45  
<< PULL YOUR CARD >>
```

2. Pull the card out of the reader.

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

```
SETUP USER INFO  
COMMAND -> 01
```

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

SETUP USER INFO

COMMAND 1

This command provides the ability to *SETUP* users for this particular Door Unit only. The command will validate/invalidate users, assign time zones, set anti-passback, set a special strike time (otherwise the Door Units strike time will be used), set an expiration date and program the G.I.N. or P.I.N. to one user at a time. (Also used to re-validate *One Time Use* cards.) Valid users can be from 1 to 64,000.

Example: Setup User 1 to a valid G.I.N. operable during Time Zones 1 and 2 with Anti-passback OFF, a 20 second strike time, an expiration date of 12-31-94 and a G.I.N. of 12345.

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

SETUP USER INFO
COMMAND -> 01

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

SETUP USER INFO
USER NO. 00001

3. Enter **1** (for valid user) and press *.

SETUP USER VAL
1/0 > VAL/INVAL 1

4. Enter **3** (ZONE value, see ZONE TABLE next page) and press *.

SETUP USER
ZONE 0-255 -> 00048

ZONE TABLE

<u>ZONE</u>	<u>VALUE</u>
DISABLE	0
ZONE 1	1
ZONE 2	2
ZONE 3	4
ZONE 4	8
ZONE 5	16
ZONE 6	32
ZONE 7	64
ZONE 8	128

Note: To arrive at the value for ZONE, add the numbers associated with the particular ZONE together as indicated below:

ZONE 1	1
<u>ZONE 2</u>	<u>2</u>
TOTAL	3

5. Enter **0** (set Anti-passback OFF) and press *.

ANTIPASSBACK OFF 0=NO 1=YES 0

7. Enter **20** (user strike time) and press *.

USER STRIKE 0-255 020

Note: Enter **000** if no special strike time is to be used. The Door Unit will use the system strike time.

8. Enter **31** (Expiration DAY) and press *.

USER EXP DAY DAY 1-31 31

9. Enter **12** (Expiration MONTH) and press *.

USER EXP MON MONTH 1-12 12

10. Enter **94** (Expiration YEAR) and press *.

USER EXP YR
YEAR 0-99 94

11. Enter **12345** (USER PIN or GIN) and press *.

USER P.I.N.
G.I.N. ? -> 12345

The systems accepts the new number and displays the following LCD window momentarily:

COMMAND SEQUENCE
COMPLETED

And then, returns to *COMMAND MODE*.

SETUP USER INFO
COMMAND -> 01

G.I.N.

COMMAND 2

This command programs the Door Unit to accept a valid G.I.N. code. This is a toggle command and is toggled ON and OFF.

Example: Turn G.I.N. ON.

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

G.I.N. OFF
COMMAND -> 02

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

G.I.N. ON
COMMAND -> 02

Example: Turn G.I.N. OFF.

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

G.I.N. ON
COMMAND -> 02

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

G.I.N. OFF
COMMAND -> 02

CARD ACCESS

COMMAND 3

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 -> 03

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

CARD ACCESS OFF
COMMAND -> 03

Example: Turn Card Access ON:

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

CARD ACCESS OFF
COMMAND -> 03

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

CARD ACCESS ON
COMMAND -> 03

P. I. N.

COMMAND 4

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 -> 04

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 -> 04

Example: Turn P.I.N. OFF:

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

P. I. N. ON
COMMAND -> 04

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 -> 04

DOOR: OPEN/CLOSE

COMMAND 5

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 the 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 -> 05

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 -> 05

Example: Set door CLOSED.

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

DOOR OPEN
COMMAND -> 05

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 -> 05

STRIKE TIME

COMMAND 6

This command sets the default 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.

NOTE: If a user has a strike time set under SETUP USER INFO Command 1, then that strike time will over-ride this default setting.

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 ->> 06

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 -> 06

OPEN TIME

COMMAND 7

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 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 -> 07
```

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 -> 07
```

KEYPAD TIME-OUT

COMMAND 8

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 -> 08
```

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 -> 08
```

ERROR LOG

COMMAND 9

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 -> 09

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 -> 09

Example: Turn Error Log OFF:

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

ERROR LOG ON
COMMAND -> 09

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 -> 09

ACCESS LOG

COMMAND 10

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 -> 10

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 -> 10

Example: Turn Access Log OFF:

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

ACCESS LOG ON
COMMAND -> 10

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 -> 10

SET MODE(S)	COMMAND 11
--------------------	-------------------

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 OPEN DOOR AND LOG CARDS
- Set access to CARD ACCESS ONLY
- Set access to CARD ACCESS AND PIN
- Set access to GIN ONLY
- Set access to CARD ACCESS OR GIN
- Set access to CARD ACCESS AND PIN OR GIN
- Set access to OPEN DOOR
- Turn ACCESS AND ERROR LOG OFF
- Turn ACCESS AND ERROR LOG ON
- Turn ACCESS LOG ON
- Turn ERROR LOG ON
- Turn BACKLIGHT ON
- Turn BACKLIGHT OFF
- Turn ANTIPASSBACK ON
- Turn ANTIPASSBACK OFF

A Door Unit can perform 16 changes. 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 -> 11

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 1 (mode-function, see chart below) and press*.

SET MODE(S)
PICK 0-15 -> 1

NO ACCESS	0
OPEN DOOR, LOG CARDS	1
CARD ACCESS ONLY	2
CARD ACCESS AND PIN	3
G.I.N. ONLY	4
CARD ACCESS OR G.I.N.	5
CARD ACCESS AND P.I.N. OR G.I.N.	6
OPEN DOOR	7
ACCESS & ERROR LOG OFF	8
ACCESS & ERROR LOG ON	9
ACCESS LOG ON	10
ERROR LOG ON	11
BACKLIGHT ON	12
BACKLIGHT OFF	13
ANTI-PASSBACK ON	14
ANTI-PASSBACK OFF	15

The device will display the following LCD window momentarily:

COMMAND SEQUENCE
COMPLETED

And then, return to *COMMAND MODE*.

SET MODE(S)
COMMAND -> 11

MODES ON/OFF

COMMAND 12

This command toggles ON and OFF Mode-Changes as previously programmed using *Command 11*, "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 -> 12

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 -> 12

Example: Turn Modes OFF:

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

MODES ON
COMMAND -> 12

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 -> 12

STAND ALONE ON/OFF

COMMAND 13

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 30,000 or higher).

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 -> 13

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 -> 13

Example: Turn Stand Alone OFF:

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

STAND ALONE ON
COMMAND -> 13

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 -> 13

SA-1606-NET STATUS

COMMAND 14

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-1606-NET 9.9Z  
COMMAND -> 14
```

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

```
CARD OR G.I.N.  
VIN=100 VBAT=100
```

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

```
SA-1606-NET 9.9Z  
COMMAND -> 14
```

SET DATE

COMMAND 15

This command sets the Door Unit date.

Note: 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 -> 15

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 -> 15
```

SET TIME

COMMAND 16

This command sets the time of the day in the Door Unit.

Note: 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 -> 16

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 -> 16

DURESS ALARM

COMMAND 17

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

Example: Turn Duress Alarm ON:

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

DURESS ALARM OFF
COMMAND -> 17

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 -> 17

Example: Turn Duress Alarm OFF:

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

DURESS ALARM ON
COMMAND -> 17

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 -> 17

BOND ALARM

COMMAND 18

This command toggles ON and OFF the assignment of the alarm relay to respond to the magnetic bond sensor. This relay can be connected to an external local alarm or other Annunciator.

Example: Turn Bond Alarm ON:

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

BOND ALARM OFF
COMMAND -> 18

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

BOND ALARM ON
COMMAND -> 18

Example: Turn Bond Alarm OFF:

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

BOND ALARM ON
COMMAND -> 18

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

BOND ALARM OFF
COMMAND -> 18

DOOR ALARM

COMMAND 19

This command toggles ON and OFF the assignment of the alarm relay to respond to the door alarm contacts. This relay can be connected to an external local alarm or other Annunciator that will be 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 -> 19

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 -> 19

Example: Turn Door Alarm OFF:

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

DOOR ALARM ON
COMMAND -> 19

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 -> 19

TAMPER RELAY

COMMAND 20

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 -> 20

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 -> 20

Example: Turn Tamper Relay Activation OFF:

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

TAMPER RELAY ON
COMMAND -> 20

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 -> 20

DOOR NUMBER

COMMAND 21

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. **Z-0- S-0-** is displayed when connected to the **MDS Model SA-1773 Central Processor** 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 -> 21

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 -> 21

SET HOLIDAY

COMMAND 22

This command sets the 32 holidays for 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 -> 22

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 -> 22

REMOTE PROGRAMMING

COMMAND 23

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 -> 23

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 24

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 -> 24

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

BACK LIGHT OFF
COMMAND -> 24

Example: Turn Back Light ON.

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

BACK LIGHT OFF
COMMAND -> 24

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

BACKLIGHT ON
COMMAND -> 24

CARD DURESS

COMMAND 25

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 -> 25

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 -> 25

Example: Turn Card Duress OFF:

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

CARD DURESS ON
COMMAND -> 25

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 -> 25

COMM RATE

COMMAND 26

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 -> 26

2. Press * to increment to 19200.

COMM RATE 19200
COMMAND -> 26

3. Press * to increment to 9600.

COMM RATE 9600
COMMAND -> 26

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 27

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 -> 27

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 Command Mode as follows:

NO. OF CARD READ
COMMAND -> 27

CARD INFORMATION

COMMAND 28

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 this command and then select the command by pressing the *.

CARD INFORMATION
COMMAND -> 28

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 -> 28

ENGLISH

COMMAND 29

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 -> 29

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

ESPANOL
COMMANDO -> 29

AGENT TIME

COMMAND 30

This command provides a 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 -> 30
```

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 -> 30
```

BOND DELAY

COMMAND 31

This command sets the Door Unit's capability to delay evaluating the condition of the magnetic bond sensor. The delay can be from 1 to 25 seconds. (If the value is zero (0), the door unit will not interrogate the sensor.)

Example: Set BOND DELAY to 20 seconds.

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

BOND DELAY OFF
COMMAND -> 31

2. Enter **20** (Bond Delay Time in seconds) and press *.

BOND DELAY
OFF=0 -25 SEC 020

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

BOND DELAY 020
COMMAND -> 31

Example: Turn BOND DELAY OFF.

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

BOND DELAY 020
COMMAND -> 31

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

BOND DELAY
OFF=0 -25 SEC 000

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

BOND DELAY OFF
COMMAND -> 31

ANTIPASSBACK

COMMAND 32

This command turns ON and OFF the ANTIPASSBACK capability of the **Model SA-1606-NET Door Unit**. This command is a toggle. ANTIPASSBACK must be assigned to users using SETUP USER INFO—COMMAND 1 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 -> 32

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

ANTIPASSBACK ON
COMMAND -> 32

Example: Turn ANTIPASSBACK feature OFF:

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

ANTIPASSBACK ON
COMMAND -> 32

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

ANTIPASSBACK OFF
COMMAND -> 32

SET TIMES ZONES

COMMAND 33

This command provides a means of programming the eight (8) Time Zones (or shift changes) available in the **Model SA-1606-NET 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 11:59 pm 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 -> 33

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

SET TIME ZONE(S)
ZONE 1 - 8 -> 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 hand 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 -> 33

DOOR DIRECTION

COMMAND 34

This command sets the **Model SA-1606-NET 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 -> 34

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

DOOR DIRECTN IN
COMMAND -> 34

Example: Set DOOR DIRECTION OUT.

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

DOOR DIRECTN IN
COMMAND -> 34

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

DOOR DIRECTN OUT
COMMAND -> 34

FIRE ALARM

COMMAND 35

This command sets the **Model SA-1606-NET 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 -> 35

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

FIRE ALARM CLOSE
COMMAND -> 35

Example: Set FIRE ALARM OPEN.

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

FIRE ALARM CLOSE
COMMAND -> 35

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

FIRE ALARM OPEN
COMMAND -> 35

ALARM RESET

COMMAND 36

This command changes the way the **Model SA-1606-NET 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 -> 36

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

ALARM RESET ON
COMMAND -> 36

Example: Set ALARM RESET OFF.

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

ALARM RESET OFF
COMMAND -> 36

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

ALARM RESET OFF
COMMAND -> 36

SA-2100 COMMUNICATION

COMMAND 37

This command turns ON and OFF the communication of the **Model SA-1606-NET Door Unit** with the **Model SA-2100 Power Monitor / IO Device.**)

Example: Set SA-2100 COMM ON.

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

SA-2100 COMM OFF
COMMAND -> 37

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

SA-2100 COMM ON
COMMAND -> 37

Example: Set SA-2100 COMM OFF.

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

SA-2100 COMM ON
COMMAND -> 37

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

SA-2100 COMM OFF
COMMAND -> 37

SA-2100 ALARM

COMMAND 38

This command turns ON and OFF the alarm function of the **Model SA-1606-NET Door Unit** with regard to the **Model SA-2100 Power Monitor / IO Device.**)

Example: Set SA-2100 ALARM ON.

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

SA-2100 ALRM OFF
COMMAND -> 38

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

SA-2100 ALRM ON
COMMAND -> 38

Example: Set SA-2100 ALARM OFF.

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

SA-2100 ALRM ON
COMMAND -> 38

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

SA-2100 ALRM OFF
COMMAND -> 38

PLC ALARM

COMMAND 39

This command turns ON and OFF the PLC alarm function of the **Model SA-1606-NET Door Unit**.

Example: Turn PLC ALARM ON.

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

PLC ALRM OFF
COMMAND -> 39

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

PLC ALRM ON
COMMAND -> 39

Example: TURN PLC ALARM OFF.

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

PLC ALRM ON
COMMAND -> 39

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

PLC ALRM OFF
COMMAND -> 39

INVALID ALARM

COMMAND 40

This command turns ON and OFF the INVALID alarm function of the **Model SA-1606-NET Door Unit**.

Example: TURN INVALID ALARM ON.

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

INVALID ALRM OFF
COMMAND -> 40

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

INVALID ALRM ON
COMMAND -> 40

Example: TURN INVALID ALARM OFF.

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

INVALID ALRM ON
COMMAND -> 40

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

INVALID ALRM OFF
COMMAND -> 40

EXIT PROGRAM MODE

COMMAND 41

This command exits *PROGRAM MODE*.

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

EXIT PROGRAMMING
COMMAND -> 41

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. SET USER INFO — Sets up a USER in the Door Unit.
2. G.I.N. — Turns G.I.N. operation ON and OFF.
3. CARD ACCESS — Turns Card Access feature ON and OFF.
4. P.I.N. — Turns PIN feature ON and OFF.
5. DOOR (OPEN/CLOSE) — Sets door OPEN or CLOSED.
6. STRIKE TIME — Sets strike open time.
7. OPEN TIME — Sets time allowed for door to be open.
8. KEYPAD TIME — Set time allowed to enter keypad operation.
9. ERROR LOG — Turns Error Log ON and OFF.
10. ACCESS LOG — Turns Access Log ON and OFF.
11. SET MODE(S) — Programs Mode Change feature.
12. MODES (ON/OFF) — Turns Modes feature ON and OFF.
13. STAND ALONE — Sets the Door Unit for stand-alone operation.
14. SA1606-NET STATUS — Shows (in the LCD window) the current access mode of the Door Unit. Also displays technical data necessary to service the device.
15. SET DATE — Sets the date in the Door Unit.
16. SET TIME — Sets time in the Door Unit.
17. DURESS ALARM — Sets the alarm relay in the Door Unit to respond to duress alarm.
18. ALARM SENSOR — Sets the alarm relay in the Door Unit to respond to a magnetic bond sensor output.
19. DOOR ALARM — Sets the alarm relay in the Door Unit to respond to door alarm.
20. TAMPER RELAY — Sets alarm relay in the Door Unit to respond to or not to respond to the tamper switch.
21. DOOR NUMBER — Sets door number in the Door Unit.
22. SET HOLIDAY — Sets holiday schedule in the Door Unit.
23. REMOTE PROGRAM — Sets the Central Processor into *Program Mode*.
24. BACK LIGHT — Turns the back-lite LCD ON and OFF.
25. CARD DURESS — Sets the Door Unit to respond to a duress signal when in card only mode.
26. 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**.
27. 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.

28. 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.
29. ENGLISH — This command provides a means of selecting different languages for LCD and printer messages.
30. AGENT TIME — This command sets the time allowed for a Gate Agent to board the aircraft. (Available with Airport Option only.)
31. BOND DELAY — This command sets the delay time before the door unit evaluates the condition of the magnetic bond sensor.
32. ANTIPASSBACK — This command sets the Door Unit into Antipassback mode.
33. SET TIME ZONES — This command programs Time Zones into a stand-alone Door Unit.
34. DOOR DIRECTION — This command sets the Door Unit as an IN door or as an OUT door.
35. 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.
36. ALARM RESET — This command programs alarm reset to reset with user cards.
37. SA-2100 COMM — Turns communication ON and OFF to the **Model SA-2100 Power Monitor and I/O Device**.
38. SA-2100 ALRM — Turns SA-2100 alarm function ON and OFF to the **Model SA-2100 Power Monitor and I/O Device**.
39. PLC ALARM — Turns PLC ALARM function ON and OFF.
40. INVALID ALARM — Sets to door unit to report an alarm in the event an invalid attempt to access is made.
41. EXIT PROGRAM MODE — Exits *Program Mode*.

APPENDIX B

CONNECTION CHART