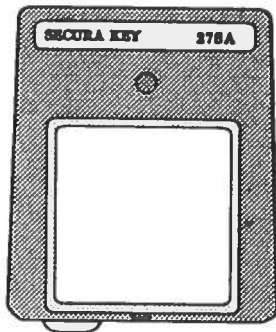


ENTRACOMP® 27SA

User/Installation Manual



Secura Key
A Division of Securix Data Inc.

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INTRODUCTION

The **ENTRACOMP[®] 27SA** is a stand alone card access control system that will control access to a passageway for up to 8,000 individuals.

Programming of cards and most other programming functions are easily accomplished from outside the unit, using a few inexpensive programming cards. The **ENTRACOMP[®] 27SA** may also be programmed with a terminal or PC. Transaction information is stored by the unit and may be downloaded to a terminal, PC, or printer. Up to 2000 transactions may be stored at one time.

The **ENTRACOMP[®] 27SA** has two inputs. Each input may be programmed by the user to function as Door Monitor, Tamper Monitor, Remote Open, Remote Inactive, Bell, or Arming Circuit.

A second "slave" reader may be added to the **ENTRACOMP[®] 27SA** in order to control access through the passageway in both directions.

The **ENTRACOMP[®] 27SA** utilizes state of the art electronics in providing a product that is highly sophisticated, yet inexpensive. Patented slotless **TOUCH CARD[®]** reader technology protects the unit from weather and vandalism. Simply place the card on the stainless steel **TOUCH CARD[®]** reader plate, and the card is read instantly and errorlessly -- In any weather. A green light indicates that access has been granted. Since the **ENTRACOMP[®] 27SA** has non-volatile memory, reprogramming after a power loss is unnecessary.

SETTING THE SYSTEM (FACILITY) CODE

When received, the correct system code may already be set. Should it become necessary to set a system code, remove the unit from the wall to gain access to the reset button (see figure 1). Momentarily depress the reset button. The LED indicator will flash red and green alternately. While the LED indicator is flashing, place either a Programming Card or an Access Card with the proper system code onto the **TOUCH CARD*** reader plate and remove it. The **ENTRACOMP* 27SA** will "remember" the system code and retain it until reprogrammed. If the reset button is pushed, but no card is placed on the **TOUCH CARD*** reader plate before the LED indicator times out, the system code will be unchanged.

There may occur situations which require the unit to recognize more than one system (facility) code. The **ENTRACOMP* 27SA** can be set to recognize up to three different system codes. To program multiple system codes, follow the procedure above for programming a single system code, but place a card with the second system code (and third system code if necessary) on the **TOUCH CARD*** reader plate before the red/green LED indicator times out. **When more than one facility code has been programmed, the unit will not distinguish between Access Cards having different facility codes and the same ID number.**

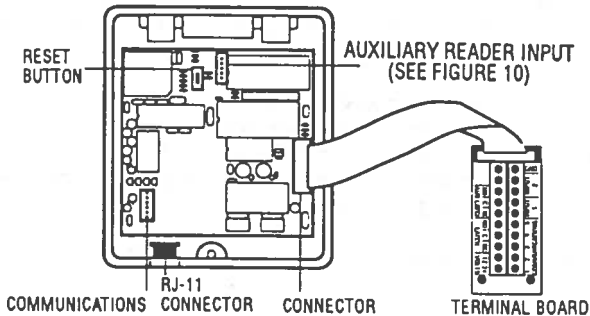


FIGURE 1

PROGRAMMING THE ENTRACOMP® 27SA

PROGRAMMING WITH A PC OR TERMINAL

Programming the **ENTRACOMP® 27SA** with a personal computer or terminal is quite easy because all programming functions are accomplished using simple to understand menus. Just choose what you want to do from the menu, and you will then either be given a sub-menu to further describe the required function, or you will be asked to enter information necessary to carry out the programming function you desire.

If you use a personal computer, and it does not have a built-in terminal or communications program, use one of the many available commercial programs, such as Kermit, Procomm, Smartcom, PClink, or the Windows terminal program. **SA-LINK™**, a terminal program developed by **Secura Key**, has been specifically designed to make programming easy.

Your computer or terminal (or serial printer) should be set as follows:

Baud	9600
Start bit	1
Data bits	8
Stop bit	1
Parity	None
Emulation	ANSI (or ANSI compatible)

BAUD RATE. The Baud Rate of the **ENTRACOMP® 27SA** may be changed via the menu system using a PC or terminal. Once changed, the new Baud Rate

will become effective the next time you log onto the system or connect a printer. The Baud Rate may also be set using a Programming Deck. See page 20 for setting the Baud Rate.

LOGGING ON AND OFF. To prevent unauthorized programming of the **ENTRACOMP[®] 27SA** when using a personal computer or terminal, it is necessary to enter a password at the beginning of every programming session. When communications is first established with the **ENTRACOMP[®] 27SA**, the screen will say:

WELCOME TO ENTRACOMP[®] 27SA
ENTER PASSWORD:

The default password is "1234". When you begin your first programming session, enter "1234" and press the "ENTER" key when the password is requested. The main menu will then be displayed.

During this first programming session, use the "Password" menu selection of the System Settings Menu to set a password of your choice. You may change your password at any time using the "Password" selection of the menu. It is not necessary to set or use a password when programming your unit with the Program Deck.

If you should forget your password, you must turn off the power to the unit. Then, while holding in the reset button (see figure 1), turn the power back on. This will reset the password to "1234." Be sure there is no magnetism near the reader (i.e., a card) when the password is being reset. Wait for the red/green flashing LED to time out before putting cards on the **TOUCH CARD[®]** reader

plate (see figure 1). This procedure should be done with the unit at average operating temperatures and not in extreme heat or cold.

When the reader is connected to a PC or data terminal, the reader will automatically logoff after four minutes with no keyboard activity. You will then be required to enter the password again to access the system. Automatic logoff occurs while in any menu or sub-menu except when displaying current transactions. It is advisable to exit the system when you are finished by using the "Logoff" selection of the main menu.

PROGRAMMING WITH PROGRAM CARDS

There are two kinds of cards used with the **ENTRACOMP[®] 27SA**: Access Cards and Program Cards.

Access Cards are used by individuals to gain access to the passageway. Each Access Card is magnetically encoded with two types of information: the system code (or facility code) and the ID number. Your Access Cards will all have the same system code, but each will have its own ID number. Your unique system code is what prevents cards from other systems from activating your unit. The ID number is what distinguishes one user card from another.

Program Cards are used to tell the **ENTRACOMP[®] 27SA** what it is to do. However, some things (such as configuring the inputs or setting the password) may only be programmed using a personal computer or terminal. As with Access Cards, Program Cards are magnetically encoded with a common system code and instruction information. The system code of your Program Cards is normally the same as the system code of your Access Cards. Your unique

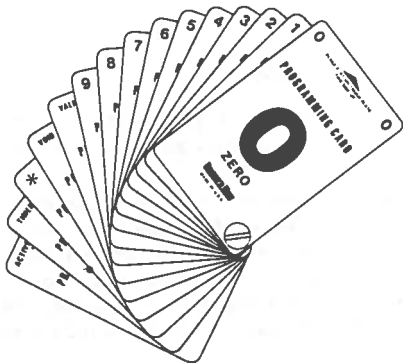
system code is what prevents Program Cards from other systems from programming your system. There are 15 different Program Cards. There are ten number cards (0 through 9) and five function cards. These 15 Program Cards are attached to each other in a convenient Program Deck configuration (PD-26). The Program Cards are as follows:

0	ZERO
1	ONE
2	TWO
3	THREE
4	FOUR
5	FIVE
6	SIX
7	SEVEN
8	EIGHT
9	NINE
.	THRU
VALID	VALIDATE
VOID	VOID OR CANCEL
SET TIMER	SET LATCH, ANTIPASSBACK TIMER, TIME/DATE
ACTIVE/INACTIVE	ACTIVATE OR INACTIVATE SYSTEM

Most functions of the ENTRACOMP[®] 27SA may be programmed by placing the Program Cards on the TOUCH CARD[®] reader plate in a proper sequence. It is helpful to think of placing a Program Card on the TOUCH CARD[®] reader plate as depressing a key on a keyboard or key pad. You may begin programming at any time by placing the first Program Card of the sequence on the TOUCH CARD[®] reader plate. At this point the LED indicator will show an

amber color. When you remove the Program Card from the **TOUCH CARD[®]** reader plate, the LED indicator will flash the amber color awaiting the next Program Card. Placement of the next Program Card on the **TOUCH CARD[®]** reader plate causes the amber LED to stop flashing and become solid. In like manner, the remainder of the Program Cards for the programming sequence are placed on the **TOUCH CARD[®]** reader plate. At the end of the programming sequence, the LED indicator will flash green to indicate that the programming instruction has been accepted.

While programming, it is necessary to place the next card of the sequence on the **TOUCH CARD[®]** reader plate while the LED indicator is flashing amber (you have approximately 10 seconds between each card). If the amber LED times out, it will be necessary to restart the programming sequence. Should an error be made in the programming sequence, the LED indicator will flash red instead of green.



ACCESS CARD PROGRAMMING/STATUS

VALIDATING AND VOIDING ACCESS CARDS

USING THE MENU SYSTEM. To validate or void cards using the menu system, select item 2 (Program Cards) from the main menu. Then select 1, 2, 3, or 4 from the Card menu, depending on the desired function (validate a single card, validate a block of cards, void a single card, void a block of cards). Then enter the appropriate card number or numbers, depending on whether a single card or a block of cards is to be programmed.

USING A PROGRAMMING DECK. Programming a single card is slightly different than programming a block of cards when using the Programming Deck.

Validating a Single Card. To validate a single card, place the sequence of program cards representing the card number on the **TOUCH CARD®** reader plate and then place the "VALID" card on the **TOUCH CARD®** reader plate.

Example: Validate card number 100.

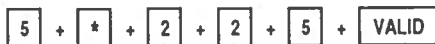
Place the "1" card on the **TOUCH CARD®** reader plate, remove it and place the "0" card on the **TOUCH CARD®** reader plate, remove it and place again the "0" card on the **TOUCH CARD®** reader plate, remove it and place the "VALID" card on the **TOUCH CARD®** reader plate, and remove it.



Validating a Block of Cards. To validate a block (continuous sequence) of cards, place the sequence of cards representing the first card number of the block on the **TOUCH CARD*** reader plate, then the "*" (THRU) card, then the sequence of cards representing the last card number of the block, and then place the "VALID" card on the **TOUCH CARD*** reader plate.

Example: Validate cards 5 thru 225.

Place the "5" card on the **TOUCH CARD*** reader plate, remove it and place the "*" (THRU) card on the **TOUCH CARD*** reader plate, remove it and place the "2" card on the **TOUCH CARD*** reader plate, remove it and again place the "2" card on the **TOUCH CARD*** reader plate, remove it and place the "5" card on the **TOUCH CARD*** reader plate, remove it and place the "VALID" card on the **TOUCH CARD*** reader plate, and remove it.



Voiding Cards. Cards may also be voided (cancelled) either singly or in blocks. Follow the instructions for validating above, replacing the "VALID" card with the "VOID" card.

Reports on the status of Access Cards may be obtained by choosing 2 (Program Cards) from the Main Menu and then selecting 5 (Display Status of a Single Card) or 6 (Display Status of a Block of Cards) from the Program Cards Menu. Card status is always displayed in numerical order of the block specified.

DOOR CONTROL

The **ENTRACOMP® 27SA** provides complete control of the passageway via the menu system. Some door control functions may also be performed using the Programming Deck.

REMOTE OPEN VIA THE MENU

To open the door using the menu system, choose 3 (Remote Open, etc.) from the Main Menu and then 1 (Open Door Now) from the Door Menu. You will be asked if you are sure. If you answer yes, the door will be opened. The same timing will be used as if a card were used to open the door. An appropriate message will be recorded and will be sent to the on line device (if present). See page 23 for Remote Open Using Inputs.

DOOR UNLOCK MODE

The relay may be set to stay latched (door unlocked) during periods when access control is unwanted. While in the "DOOR UNLOCK" mode, the relay stays activated, and the LED indicator will flash green approximately once every second. The unit may not be programmed with the programming deck, nor will it recognize Access Cards while in the "DOOR UNLOCK" mode.

DOOR UNLOCK VIA THE MENU. To activate the Door Unlock mode, choose 3 (Remote Open, etc.) from the Main Menu. Then choose 2 (Reader Inactive-Unlock Door) from the Door Menu. An appropriate message will be recorded and will be sent to the on line device (if present). To deactivate the Door Unlock Mode, choose 4 (Make Reader Active) from the Door Menu or place the

"ACTIVE/INACTIVE" card of the Programming Deck on the **TOUCH CARD®** reader plate and remove it.

DOOR UNLOCK USING THE PROGRAMMING DECK. To set the unit to the **DOOR UNLOCK Mode**, place the "*" (THRU) card on the **TOUCH CARD®** reader plate, remove it and place the "ACTIVE/INACTIVE" card on the **TOUCH CARD®** reader plate and remove it.



To return the **ENTRACOMP® 27SA** to normal operation, place the "ACTIVE/INACTIVE" card on the **TOUCH CARD®** reader plate and remove it or choose 5 (Return To Normal Mode) from the Door Menu.

INACTIVE MODE

The **ENTRACOMP® 27SA** may be made inactive for entry with a card by placing the "ACTIVE/INACTIVE" card of the Programming Deck on the **TOUCH CARD®** reader plate and then removing it. You may also choose 3 (Remote Open, etc.) from the Main Menu and then 3 (Reader Inactive-Keep Door Locked) from the Door Menu. An appropriate message will be recorded and will be sent to the on line device (if present).

While the reader is in the Inactive Mode, the LED indicator will flash red approximately once every second. The unit may not be programmed with the

Programming Deck while it is in the Inactive Mode. To reactivate the reader, again place the "ACTIVE/INACTIVE" card on the **TOUCH CARD®** reader plate and remove it or choose 4 (Make Reader Active) from the Door Menu. See page 23 for Inactive Using Inputs.

SYSTEM SETTINGS

DATE AND TIME

The ENTRACOMP[®] 27SA stores up to 2000 transactions. In order to know when a transaction has occurred, it is necessary to set the internal clock to the correct date and time. Time is kept in a 24 hour (military) manner. If you do not intend to use transaction information, it is not necessary to set the date and time.

SETTING DATE AND TIME USING THE MENU. To set the date and time choose 4 (System Settings) from the Main Menu. Then select 1 (Date) from the System Settings Menu to set the date followed by 2 (Time) from the System Settings Menu to set the time.

SETTING THE DATE AND TIME USING CARDS. To set the date, place the cards on the TOUCH CARD[®] reader plate that represent the month (1 - 12), then place the "-" on the TOUCH CARD[®] reader plate, then place the cards on the TOUCH CARD[®] reader plate that represent the day of the month (1 - 31), then place the "-" on the TOUCH CARD[®] reader plate, then place the cards on the TOUCH CARD[®] reader plate that represent the last two digits of the year (e.g., 92), then place the "SET TIMER" card on the TOUCH CARD[®] reader plate and remove it.

Example: Set date to 9/28/92.

Place the "9" card on the TOUCH CARD[®] reader plate and remove it. Then place the "-" card on the TOUCH CARD[®] reader plate and remove

it, and place the "2" card on the TOUCH CARD® reader plate and remove it, and place the "8" card on the TOUCH CARD® reader plate and remove it, and place the "*" card on the TOUCH CARD® reader plate and remove it. Then place the "9" card on the TOUCH CARD® reader plate and remove it and place the "2" card on the TOUCH CARD® reader plate and remove it. Then place the "SET TIMER" card on the TOUCH CARD® reader plate and remove it.

9 +
 * +
 2 +
 8 +
 * +
 9 +
 2 +
 SET TIMER

To set the time, place the cards on the TOUCH CARD® reader plate that represent the hour (0 - 24), then place the "*" on the TOUCH CARD® reader plate and remove it, then place the cards on the TOUCH CARD® reader plate that represent the minutes (0 - 60), and then place the "SET TIMER" card on the TOUCH CARD® reader plate and remove it.

Example: Set time to 13:27 hours (1:27 pm).

Place the "1" card on the TOUCH CARD® reader plate and remove it, then place the "3" card on the TOUCH CARD® reader plate and remove it. Then place the "*" card on the TOUCH CARD® reader plate and remove it, then place the "2" card on the TOUCH CARD® reader plate and remove it, then place the "7" card on the TOUCH CARD® reader plate and remove it. Then place the "SET TIMER" card on the TOUCH CARD® reader plate and remove it.

1 + **3** + ***** + **2** + **7** + **SET TIMER**

LATCH TIMER

The output from the relay may be set to any number of seconds from 1 to 30. Setting the latch timer to "0" produces a 0.25 second output, timed from when a valid card is placed on the **TOUCH CARD®** reader plate.

SETTING THE LATCH TIMER VIA THE MENU. To set the Latch Timer using the Menu System, choose 4 (System Settings) from the Main Menu. Then from the System Settings Menu, select 3 (Latch Timer).

SETTING THE LATCH TIMER USING CARDS. To set the Latch Timer using the Program Deck, place on the **TOUCH CARD®** reader plate the sequence of Program Cards representing the number of seconds the latch is to be on, then place the "SET TIMER" card on the **TOUCH CARD®** reader plate and remove it.

Example: Set latch timer for 15 seconds.

Place the "1" card on the **TOUCH CARD®** reader plate, remove it and place the "5" card on the **TOUCH CARD®** reader plate, remove it and place the "SET TIMER" card on the **TOUCH CARD®** reader plate, and remove it.

1 + **5** + **SET TIMER**

ANTIPASSBACK TIMER

Your **ENTRACOMP[®] 27SA** is equipped with a Timed Antipassback feature. A card used for entry is made temporarily void for a settable amount of waiting time. The purpose of this feature is to deter a user from "passing back" his card to another for unauthorized entry. The antipassback waiting time may be set to any number of minutes from 1 to 30. However, the actual waiting time will fluctuate between the time set and the time set plus one minute. Thus, if the antipassback time is set to 5 minutes, users will have to wait a minimum of 5 minutes and a maximum of 6 minutes before reentry will be allowed. **Setting the antipassback waiting time to 0 will disable the Antipassback feature and reentry will be allowed immediately.**

SETTING ANTIPASSBACK WAITING TIME USING A MENU. To set the Antipassback Waiting Time using the Menu System, choose 4 (System Settings) from the Main Menu. Then from the System Settings Menu, select 4 (Antipassback Timer).

SETTING ANTIPASSBACK WAITING TIME USING CARDS. To set the Antipassback Waiting Time using the Program Deck, place on the **TOUCH CARD[®]** reader plate the sequence of cards representing the number of minutes of the minimum waiting period (1 to 30), then place the "-" card on the **TOUCH CARD[®]** reader plate and remove it, then place the "SET TIMER" card on the **TOUCH CARD[®]** reader plate and remove it.

Example: Set antipassback waiting time to 3 minutes.

Place the "3" card on the TOUCH CARD® reader plate, remove it, and place the "*" on the TOUCH CARD® reader plate, remove it, and place the "SET TIMER" card on the TOUCH CARD® reader plate, and remove it.



PASSWORD PROTECTION

To prevent unauthorized programming of the ENTRACOMP® 27SA when using a personal computer or terminal, it is necessary to enter a password at the beginning of every programming session. The default password is "1234". When you begin your first programming session, enter "1234" and press the "ENTER" key when the password is requested.

The ENTRACOMP® 27SA will automatically logoff after four minutes with no keyboard activity. You will then be required to enter the password again to access the system. Automatic logoff occurs while in any menu or sub-menu except when displaying current transactions. It is advisable to exit the system when you are finished by using the "Logoff" selection of the main menu.

CHANGING THE PASSWORD. During this first programming session it is advisable to change the Password. To change the Password, choose 4 (System Settings) from the Main Menu followed by 5 (Password) from the System Settings Menu. The Password may be up to 16 characters long and may consist of numbers, letters, and symbols. You may change your password at any time.

It is not necessary to set or use a password when programming your unit with the Program Cards.

RESETTING THE PASSWORD. If you should forget your password, you must turn off the power to the unit. Then, while holding the reset button in (see figure 1), turn the power back on. This will reset the password to "1234." Since this process also recalibrates the **TOUCH CARD®** reader, Be sure there is no magnetism near the reader (i.e., a card) when the password is being reset. Wait for the red/green flashing LED to time out before putting cards on the **TOUCH CARD®** reader plate (see figure 1). This procedure should be done with the unit at average operating temperatures and not in extreme heat or cold.

BAUD RATE

The Baud Rate is the speed at which the **ENTRACOMP® 27SA** communicates with the outside world (PC, terminal, or printer). The default Baud Rate (speed of communication) is 9600. If you wish to change the baud rate to a slower speed, and you do not have a PC or terminal, the Programming Deck may be used. The allowable Baud Rates are 300, 1200, 2400, 4800, and 9600.

SETTING THE BAUD RATE VIA THE MENU. The Baud Rate of the **ENTRACOMP® 27SA** may be changed via the menu system using a PC or terminal. Once changed, the new Baud Rate will become effective the next time you log onto the system or connect a printer. To change the Baud Rate, choose 4 (System Settings) from the Main Menu. Then from the System Settings Menu, choose 6 (Baud Rate) and select the desired Baud Rate from the Baud Rate Menu.

SETTING THE BAUD RATE USING CARDS. To set the baud rate using Program Cards, place the "*" card on the **TOUCH CARD®** reader plate and remove it, then place on the **TOUCH CARD®** reader plate the sequence of cards representing the baud rate, then place the "SET TIMER" card on the **TOUCH CARD®** reader plate and remove it.

Example: Set baud rate to 2400.

Place the "*" card on the **TOUCH CARD®** reader plate and remove it. Then place the "2" card on the **TOUCH CARD®** reader plate and remove it, then place the "4" card on the **TOUCH CARD®** reader plate and remove it, then place the "0" card on the **TOUCH CARD®** reader plate and remove it, and again place the "0" card on the **TOUCH CARD®** reader plate and remove it. Then place the "SET TIMER" card on the **TOUCH CARD®** reader plate and remove it.



READER ID

Each **ENTRACOMP® 27SA** has the capability of being given an ID or Name. This ID is shown on all status reports at the beginning of the report. If the **ENTRACOMP® 27SA** is connected to a printer, each transaction includes the reader ID. This feature is very useful when multiple **ENTRACOMP® 27SA** units are connected to the same printer through a Smart Switch.

To set the reader ID, choose 4 (System Settings) from the Main Menu and then 7 (Reader ID) from the System Settings Menu. The reader ID may be up to 16 characters long and may include numbers, letters, and symbols. If a reader ID is not desired, use "NONE" for the ID request.

DEFINING INPUTS

The ENTRACOMP® 27SA has two inputs. Using the menu system, these inputs may each be programmed to function in one of six ways (described below). For the default configuration, both inputs are disabled. If the input feature is not needed, it is not necessary to change the input configurations.

TAMPER. When the input is activated, a "Tamper" message is recorded, and the unit becomes inactive until the input is deactivated. If the unit is connected to a printer, the message is also sent immediately.

ARMING CIRCUIT. This configuration is normally used in parking lot situations. The input would normally be connected to an output of a vehicle detector. The unit will not allow access without the detector sensing the presence of a vehicle. If an entry attempt is made while the input is not activated, entry will be denied and an "Arming Input" error message will be recorded. If the unit is connected to a printer, the message is also sent immediately.

DOOR MONITOR. If the door is open, other than during a valid entry, a "Door Open" message is recorded. If the unit is connected to a printer, the message is also sent immediately. If a valid entry is completed before the latch timer times out, the latch timer will be turned off.

BELL. When activated, the unit sends a bell signal to the on line device.

REMOTE INACTIVE. The unit may be made inactive remotely using a switch. While inactive no cards will be granted access. An appropriate message will be recorded and will be sent to the on line device (if present).

REMOTE OPEN. The passageway may be opened remotely using a push button or switch. Remote open functions even when the unit is in an inactive mode. An appropriate message will be recorded and will be sent to the on line device (if present).

To change the definition of an input, choose 4 (System Settings) from the Main Menu. Then, from the System Settings Menu, choose 8 or 9 depending whether input 1 or 2 is to be redefined. Then select the desired input function from the Input Definition Menu.

TRANSACTIONS

The **ENTRACOMP® 27SA** stores up to 2000 date and time stamped transactions. When the transaction buffer is full, the oldest entries are deleted as new transactions occur; therefore, the newest transactions are always available.

DISPLAY STORED TRANSACTIONS

To display the transactions that are stored in the transaction buffer, choose 5 (Transactions) from the Main Menu and then 1 (Display Stored Transactions) from the Transaction Menu. Transactions will be displayed in reverse chronological order (newest transactions first).

DISPLAY TRANSACTIONS AS THEY OCCUR

Transactions may be displayed to the screen of the PC or terminal as they occur. When in this mode, the automatic log off feature is disabled. Error messages will also include a bell or buzzer sound (depending on the terminal or PC used).

To put the **ENTRACOMP® 27SA** into the Display Transactions As They Occur mode, choose 5 (Transactions) from the Main Menu followed by 2 (Display Transactions As They Occur) from the Transaction Menu.

DISPLAY TRANSACTION BUFFER STATUS

The Transaction (History) Buffer is where transactions are stored. The user may examine the status of the Transaction Buffer by choosing 5 (Transactions) from the Main Menu followed by 3 (History Buffer Status).

The screen will display how many transactions are currently in the transaction buffer, what percentage of the buffer is used, and, if more transactions occurred than there was room to store, how many transactions were lost.

ERASE TRANSACTION BUFFER

To clear (Erase) the Transaction Buffer, choose 5 (Transactions) from the Main Menu and then 4 (Erase History Buffer) from the Transaction Menu.

UTILITIES

SELF TEST

The Self Test feature is normally used by your serviceman to check out the **ENTRACOMP® 27SA**. When run, the Self Test checks various functions of the unit.

To run the Self Test, choose 6 (Utility) from the Main Menu and then select 1 (Self Test) from the Utility Menu.

UPLOAD/DOWNLOAD

The settings and card status of a unit may be downloaded (backup) to a file on your PC. This file may then be uploaded (restore) to any compatible unit to program it exactly as the original unit. The Transaction Buffer, Date, and Time are not uploaded.

In order to upload the **ENTRACOMP® 27SA** settings, your PC or terminal must have 30K bytes of disk space available. The terminal or terminal emulation program must be able to use the XMODEM with checksum protocol.

BACKUP. To copy the settings of an **ENTRACOMP® 27SA** to a file, choose 6 (Utility) from the Main Menu. then choose 3 (Receive Settings From **ENTRACOMP® 27SA**). At this point you will be prompted to create a binary receive file in which to store the settings. You must also at this time choose the appropriate receive file and settings within your terminal program to begin

the transfer of data using the XMODEM with checksum protocol. (If you use **Secura Key's SA-LINK™** program, these settings are handled automatically.) When the transfer is completed, the message "File Transfer OK" will be displayed.

RESTORE. Restore is the opposite of Backup. This function sends the settings that were transferred from (Backup) an **ENTRACOMP® 27SA** and sends them to an **ENTRACOMP® 27SA**. To restore settings, choose 6 (Utility) from the Main Menu and 2 (Send Settings To 27SA) from the Utility Menu. The screen will prompt the user "Transferring Config File From PC To Reader Now."

At this point, the user should begin the binary file transfer of the file using the XMODEM with checksum protocol as per the directions of the terminal program in use. (If you use **Secura Key's SA-LINK™** program, these settings are handled automatically.) When complete, the screen will say, "File Transfer OK". If an error occurs, an "Error Transferring File" message will be given.

USING A PRINTER WITH THE ENTRACOMP® 27SA

A printer may be connected to the ENTRACOMP® 27SA in order to record transactions as they occur. The wiring for a printer is different than the wiring for a computer or terminal. Be sure to follow the wiring instructions carefully.

To print the transactions stored in the Transaction Buffer of the ENTRACOMP® 27SA, touch the "*" programming card to the TOUCH CARD® reader plate twice in succession. The entire log of entries contained in the buffer will begin to print. Transactions are printed in last-in, first-out order. Should you wish to terminate the print-out before complete, again touch the "*" programming card to the TOUCH CARD® reader plate twice in succession. The unit will then go back to printing transactions as they occur. To clear the history buffer, touch the "*" and the "VOID" cards in succession while the unit is connected to the printer.

COMMAND MODE

Command Mode is a method of communicating with an ENTRACOMP[®] 27SA without using the menu system. Four commands are currently available with the 27SA, including acquiring transaction status/history and backup/restore of system settings. Command Mode has been designed for use by programmers and systems integrators to facilitate ENTRACOMP[®] 27SA to computer communications. Contact your dealer for a complete description of Command Mode.

INSTALLATION

CAUTION SHOULD BE TAKEN NOT TO TOUCH CIRCUIT BOARD OR ELECTRONIC COMPONENTS PRIOR TO INSTALLATION TO AVOID ELECTRO-STATIC DISCHARGE (ESD) DAMAGE.

GENERAL WIRING INSTRUCTIONS

For ease of installation and servicing, the **ENTRACOMP[®] 27SA** is provided with a terminal board which is connected to the main unit via a ribbon cable and connector.

The screw terminals on the circuit board will accept wire gauges #16 through #24, solid or stranded. Strip approximately 5/16" (8mm) of insulation, insert into the appropriate hole, and tighten with a small screwdriver. Tinning is strongly recommended for stranded wires (see figure 2 for proper terminations).

In addition to the wiring below, **AN EARTH GROUND IS REQUIRED.** It must be connected to the green screw on the mounting plate (see figures 11 - 21).

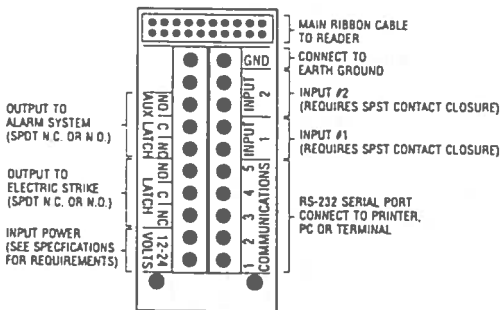


FIGURE 2

PASSAGEWAY CONTROL

The double-pole, double-throw relay is activated whenever a valid entry is generated. The latch output from the relay is on the terminal board (see figure 2) and is used to operate the door operating device. The aux latch output may also be used to operate a device or to bypass an alarm sensor.

Figure 3 illustrates a typical installation.

TYPICAL WIRING DIAGRAM

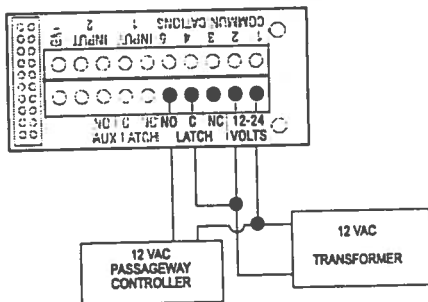


FIGURE 3

COMMUNICATIONS WIRING

The ENTRACOMP⁺ 27SA is designed to communicate with a printer, a terminal, or a personal computer using a RS-232 interface. **The wiring for a printer cable is different from the wiring for a PC or terminal** (see figures 2 through 9 for communications wiring instructions). The printer wiring causes the current transactions to be sent out of the RS-232 port automatically. The terminal/PC wiring causes the ENTRACOMP⁺ 27SA to wait for a password entry and then provide the menu dialogue.

Wire runs of up to a mile are possible using line drivers. Line drivers convert RS-232 to RS-422. One converter is required at each end. Converters are available at many computer stores and through mail-order catalogs. Conservatively speaking, any wire runs over 50 to 100 feet may require line drivers. In many situations, wire runs of 500 feet work fine without line drivers. We suggest that you try wiring the system first without line drivers, since they are only rarely needed. Six conductor 18 gauge shielded cable should be used.

The ENTRACOMP⁺ 27SA has been designed to communicate with a PC or terminal via modem in an auto answer mode with any Hayes compatible modem in 1200, 2400, 4800, or 9600 baud. For further information, contact the factory.

RJ-11 JACK CONNECTION. An RJ-11 (telephone type) jack is provided on the bottom of the unit housing to allow communications access without the necessity of opening the unit. If you are not using the RJ-11 jack, you may disable this communication port by unplugging the jack input connector on the main circuit board (see figure 1).

TERMINAL BOARD CONNECTION Communications may be connected to the unit via the terminal board (see figure 2 for wiring). This means of communications connection is usually used when it is desired to keep the unit connected continuously.

SERIAL PRINTER CONNECTION Figures 4 and 7 show how to connect a printer to the system. Most serial printers have dip switch settings to select data protocols. Make sure the printer is configured for pin #20 to be "Ready Busy". See page 4 for proper settings.

TERMINAL/PC CONNECTION Figures 4, 5, and 6 show wiring the **ENTRACOMP* 27SA** to a terminal or PC. Figure 6 shows wiring for a DB-9S female connector, which is the one usually required for 286, 386, or 486 PCs. Figure 5 shows wiring for a DB-25S female connector which is used on many data terminals and PCs.

REMOTE READER CONNECTION The **ENTRACOMP* 27SA** provides power for the remote reader (figures 1 and 10). The **SK-029W TOUCH CARD* Reader** is used as the second (remote) reader to control access through a single passageway or a single parking lot lane in the opposite direction. The two readers are distinguished in the transaction log and printout. If antipassback is to be used, the waiting time will apply to both readers (the **ENTRACOMP* 27SA** and the **SK-029W**) no matter which reader is used. The remote reader does not have its own door open relay. Using a valid card in either reader will activate the door relay on the **ENTRACOMP* 27SA**.

PIN NUMBER CONNECTIONS					
ENTRACOMP® 27SA		PC OR TERMINAL		PRINTER	MODEM
SIGNAL DESCRIPTION	TERMINAL BLOCK #	DB-25S (FEMALE) PIN #	DB-9S (FEMALE) PIN #	DB-25P (MALE) PIN #	DB-25P (MALE) PIN #
SIGNAL GROUND	1	1 & 7	5	1 & 7	7
RECEIVE DATA (RXD)	2	2	3	4	3
CLEAR TO SEND (CTS)	3	4	7	20	8
REQUEST TO SEND (RTS)	4	5	8	6 & 8	4
TRANSMIT DATA (TXD)	5	3	2	3	2
EARTH GROUND	10	N/C	N/C	N/C	1

FIGURE 4

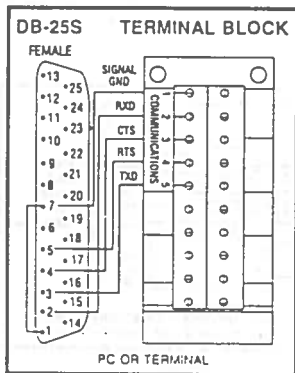


FIGURE 5

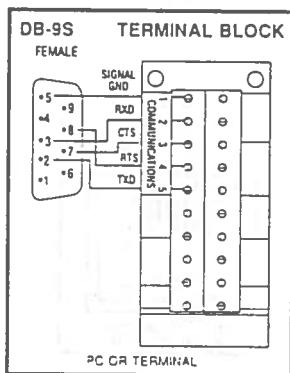
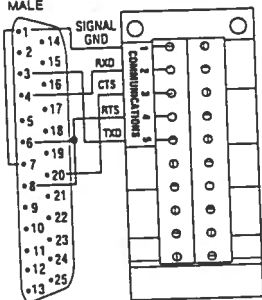


FIGURE 6

DB-25P
MALE

TERMINAL BLOCK

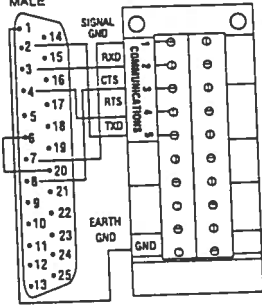


SERIAL PRINTER

FIGURE 7

DB-25P
MALE

TERMINAL BLOCK



MODEM

FIGURE 8

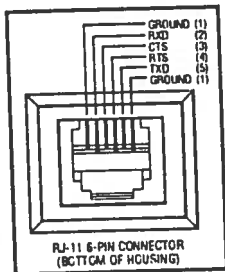


FIGURE 9

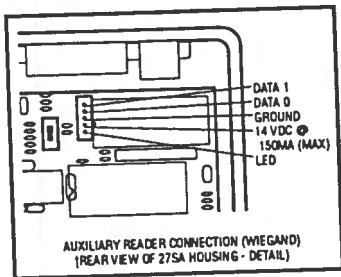


FIGURE 10

INSTALLATION INSTRUCTIONS

SURFACE HOUSING TO SINGLE GANG ELECTRICAL BOX (See Figure 11)

1. For exterior walls, apply 1/4 inch bead of silicone sealant around rear perimeter surface of mounting plate. Be sure there is sufficient sealant to make a good seal between plate and wall.
2. Use two 6-32 x 1 pan head screws provided to secure mounting plate to box.
3. Connect power and control lines to wire leads provided as per the wiring instructions.
4. Plug connector into reader board.
5. Place **ENTRACOMP® 27SA** housing against mounting plate, top edge first, centering housing on retaining tabs. Secure housing to plate at bottom using one 6-32 x 3/8 security screw provided or equivalent.
6. Lock cam lock.

SURFACE HOUSING WITHOUT ELECTRICAL BOX (See Figure 12)

1. For exterior wall, apply sealant to rear perimeter of mounting plate.
2. Mount plate to wall using appropriate fasteners. Use at least four of

six holes provided.

3. Connect power and control lines to wire leads provided as per the wiring instructions.
4. Plug connector into reader board.
5. Place **ENTRACOMP* 27SA** housing against mounting plate, top edge first, centering housing on retaining tabs. Secure housing to plate at bottom using one 6-32 x 3/8 security screw provided or equivalent.
6. Lock cam lock.

SURFACE HOUSING WITH POST MOUNT ADAPTER (See Figure 13)

1. Mount post mount adapter (optional) to post (not supplied). Screw 1 1/2 inch pipe coupling on rear of post mount adapter plate to post until almost tight, stopping when reader cover is at top (12 O Clock). A small tack weld is strongly suggested to keep the housing from rotating on post.
2. Apply 1/8 inch bead of silicone sealant around rear perimeter surface of mounting plate.
3. Press plate against adapter and secure with four 10-32 x 5/16 pan head screws (provided).
4. Connect power and control lines to wire leads provided as per the

wiring instructions.

5. Plug connector into reader board.
6. Place **ENTRACOMP® 27SA** housing against mounting plate, top edge first, centering housing on retaining tabs. Secure housing to plate at bottom using one 6-32 x 3/8 security screw provided or equivalent.
7. Lock cam lock.

SURFACE HOUSING WITH FLANGE MOUNT ADAPTER (See Figure 14)

1. Position flange mount adapter (optional) against post flange (not supplied). Locate and mark four (untapped) holes. Then drill and tap four 10-32 holes in post flange.
2. Apply silicone bead around perimeter of post flange. Place flange mount adapter against post flange and secure with four 10-32 x 1/2 flat head countersunk screws provided.
3. Follow instructions 2 - 7 for post mount adapter.

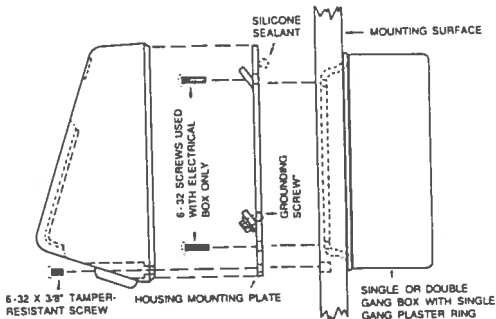


FIGURE 11

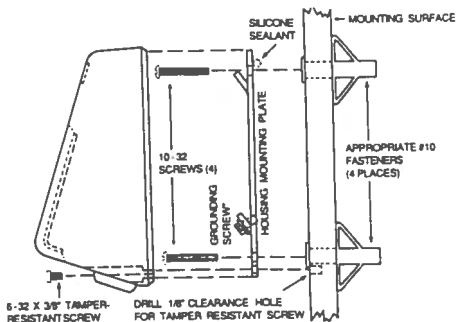


FIGURE 12

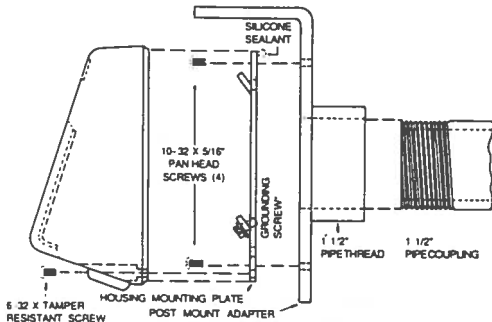


FIGURE 13

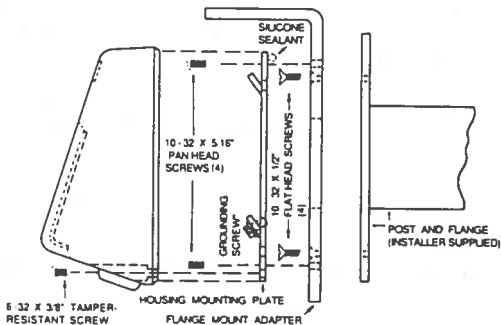


FIGURE 14

FLUSH MOUNT TO EXISTING 5S BOX (See Figure 15)

1. Use wall cutout template provided. Align template over 5S box. (When running wires to the 5S box, don't use center top hole as it will interfere with housing lock.) Transfer appropriate cutout corner locations of clearance hole for the housing lock to the wall with pointed instrument.
2. Draw lines from point to point, outlining cutout.
3. Cut out opening, being careful not to make opening larger than indicated on the template.
4. Mount mounting plate to 5S box using the four 8-32 flat head screws provided. For an outdoor installation, silicone sealant is recommended between the mounting plate and the wall.
5. Be sure all appropriate wiring has been connected to the terminal board, and then plug the terminal board cable into the socket on the circuit board (see wiring instructions).
6. Place reader and faceplate assembly against the mounting plate. Faceplate will hook onto mounting plate by pushing plate in and then sliding it down.
7. Secure faceplate to mounting plate using the two 4-40 screws provided.
8. Place faceplate door into door opening and rotate key 90° clockwise.

FLUSH MOUNT WITH 5S BOX (See Figure 16)

1. Use the wall cutout template provided. Locate template on the wall. Transfer appropriate cutout corner locations to the wall with a pointed instrument.
2. Draw lines from point to point, outlining cutout.
3. Cut out opening, being careful not to make opening larger than indicated on the template.
4. Place mounting plate against wall in its proper location. Using it as a template, mark four holes in corners. Remove faceplate, and using appropriate drill, drill four holes for appropriate fasteners (8-32 fasteners are recommended).
5. Fasten mounting plate to 5S box using the four 8-32 flat head screws provided. (When running wires to the 5S box, don't use the center top hole as it will interfere with the housing lock.)
6. Secure mounting plate and 5S box to wall. Screws must be flat head countersunk #6 or #8. Make sure any cables have been pulled into the box prior to securing assembly to wall. For an outdoor installation, silicone sealant is recommended between the mounting plate and the wall.
7. Be sure all appropriate wiring has been connected to the terminal board and then plug the terminal board cable into the socket on the circuit

board (see wiring instructions).

8. Place reader and faceplate assembly against the mounting plate. Faceplate will hook onto mounting plate by pushing plate in and then sliding it down.

9. Secure faceplate to mounting plate using the two 4-40 screws.

10. Place faceplate door into door opening and rotate key 90° clockwise.

FLUSH MOUNT WITHOUT 5S BOX (See Figure 17)

1. Use the wall cutout template provided. Locate template on the wall. Transfer appropriate cutout corner locations to the wall with a pointed instrument.

2. Draw lines from point to point, outlining cutout.

3. Cut out opening, being careful not to make opening larger than indicated on the template.

4. Place mounting plate against wall in its proper location. Using it as a template, mark four holes in corners. Remove faceplate and using appropriate drill, drill four holes for appropriate fasteners (8-32 fasteners are recommended).

5. Secure mounting plate to wall. Screws must be flat head

countersunk #6 or #8. For an outdoor installation, silicone sealant is recommended between the mounting plate and the wall.

6. Be sure all appropriate wiring has been connected to the terminal board and then plug the terminal board cable into the socket on the circuit board (see wiring instructions).
7. Place reader and faceplate assembly against the mounting plate. Faceplate will hook onto mounting plate by pushing plate in and then sliding it down.
8. Secure faceplate to mounting plate using the two 4-40 screws.
9. Place faceplate door into door opening and rotate key 90° clockwise.

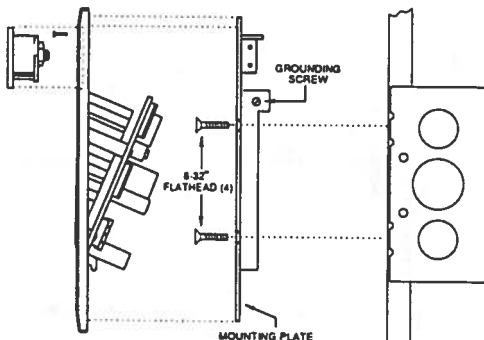


FIGURE 15

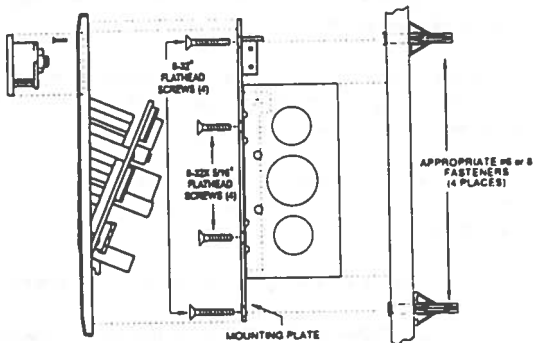


FIGURE 16

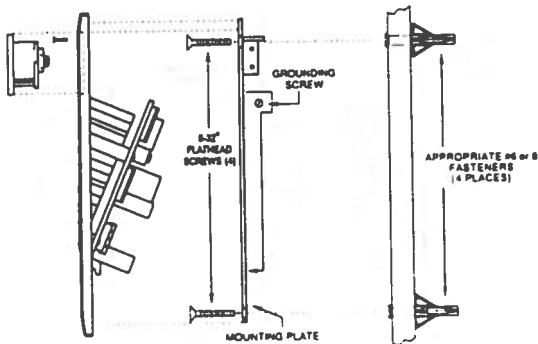


FIGURE 17

METAL SURFACE HOUSING TO SINGLE GANG ELECTRICAL BOX (Figure 18)

1. For exterior walls, apply 1/4 inch bead of silicone sealant around rear perimeter surface of mounting bracket gasket. Be sure there is sufficient sealant to make a good seal between gasket and wall.
2. Use two 6-32 x 1 pan head screws provided to secure mounting bracket and gasket to box.
3. Connect power and control lines to wire leads provided as per the wiring instructions.
4. Plug connector into reader board.
5. Place **ENTRACOMP™ 27SA** housing over mounting bracket. Push housing in against wall. Secure housing to mounting bracket in door opening using two 6-32 x 3/8 screws provided. Secure housing to bracket at bottom using one 6-32 x 1/4 security screw provided or equivalent.
6. Place housing door into door opening and rotate key 90 degrees clockwise.

METAL SURFACE HOUSING WITHOUT ELECTRICAL BOX (See Figure 19)

1. For exterior wall, apply sealant to rear perimeter of mounting bracket gasket.

2. Mount plate to wall using appropriate fasteners. Use at least four of six holes provided
3. Connect power and control lines to wire leads provided as per the wiring instructions
4. Plug connector into reader board
5. Place ENTRACOMP® 27SA housing over mounting bracket. Push housing in against wall. Secure housing to mounting bracket in door opening using two 6-32 x 3/8 screws provided. Secure housing to bracket at bottom using one 6-32 x 1/4 security screw provided or equivalent
6. Place housing door into door opening and rotate key 90 degrees clockwise

METAL SURFACE HOUSING WITH POST MOUNT ADAPTER (See Figure 20)

1. Mount post mount adapter (optional) to post (not supplied). Screw 1 1/2 inch pipe coupling on rear of post mount adapter plate to post until almost tight, stopping when reader cover is at top (12 O Clock). A small tack weld is strongly suggested to keep the housing from rotating on post
2. Apply 1/8 inch bead of silicone sealant around rear perimeter surface of mounting bracket gasket.
3. Press bracket with gasket against adapter and secure with the four

10-32 x 5/16 pan head screws provided.

4 Connect power and control lines to wire leads provided as per the wiring instructions.

5 Plug connector into reader board.

6 Place ENTRACOMP⁺ 27SA housing over mounting bracket. Push housing in against wall. Secure housing to mounting bracket in door opening using two 6-32 x 3/8 screws provided. Secure housing to bracket at bottom using one 6-32 x 1/4 security screw provided or equivalent.

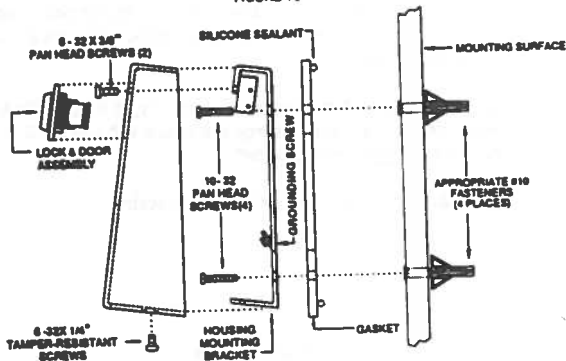
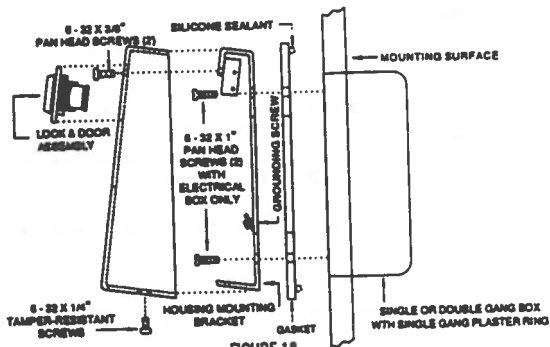
7 Place housing door into door opening and rotate key 90 degrees clockwise.

METAL SURFACE HOUSING WITH FLANGE MOUNT ADAPTER (See Figure 21)

1 Position flange mount adapter (optional) against post flange (not supplied). Locate and mark four (untapped) holes. Then drill and tap four 10-32 holes in post flange.

2 Apply silicone bead around perimeter of post flange. Place flange mount adapter against post flange and secure with four 10-32 x 1/2 flat head countersunk screws provided.

3 Follow instructions 2 - 7 for post mount adapter.



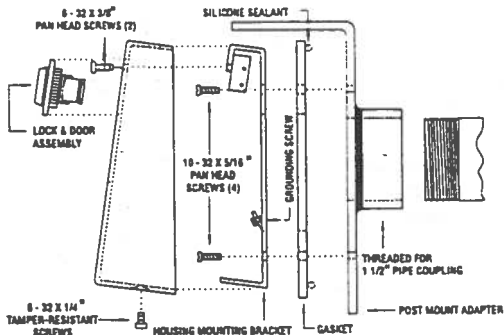


FIGURE 20

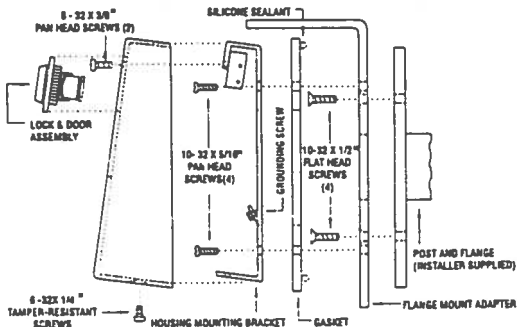


FIGURE 21

FACTORY SETTINGS

When shipped from the factory, the ENTRACOMP® 27SA has the following settings:

Facility Code

None

Cards

All Cards Void

Settings

Latch timer = 1 Second

APB Timer = 0 Minutes (off)

Baud Rate = 9600

Reader ID = (none)

Password = 1234

Date = Undetermined

Time = Undetermined

Inputs

Disabled

SPECIFICATIONS

PHYSICAL

	Surface Housing	Flush Housing	Metal Housing
Depth	2.25 in (5.72 cm)	1.50 in (3.8 cm)	1.75 in (4.45 cm)
Width	4.80 in (10.16 cm)	5.50 in (13.97 cm)	4.00 in (10.20 cm)
Height	4.60 in (11.70 cm)	7.63 in (19.38 cm)	5.62 in (14.30 cm)
Weight	20 oz (0.57 kg)	18 oz (0.51 kg)	45 oz (1.28 kg)
Material	Lexan® (Polycarbonate) meets UL standard 94 flame retardant rating		Al/Steel

POWER REQUIREMENTS

Without Remote Reader	8 to 24 VAC or 10 to 30 VDC, 350 mA at 12 VAC
With Remote Reader (SK-829W)	12 VAC or 16 VDC $\pm$ 15%, 500 mA at 12 VAC

OUTPUTS

Latch	SPDT contact 115 VAC or 28 VDC, 2A maximum
Alarm Shunt	SPDT contact 115 VAC or 28 VDC, 2A maximum
Temper (optional)	SPDT contact 115 VAC, 2A maximum

INPUTS

Auxiliary 1	Requires SPST contact closure
Auxiliary 2	Requires SPST contact closure

COMMUNICATION

RS-232	Serial RS-232. Up to 9600 baud, full duplex, 1 start bit, 8 data bits, 1 stop bit, no parity
Remote Reader	21 bit Wiegand type input. 12 VDC @ 150 mA supplied to remote reader
Modem	Requires Hayes compatible - 1200 or 2400 baud

ENVIRONMENT

Ambient Temperature	-40°F to 154°F (-40°C to 70°C)
Humidity	0% to 95% relative humidity (non-condensing)

OPERATIONAL

Memory	Non-volatile
Card Capacity	8000
Transaction Storage	Up to 2000
Facility Code	Up to 3 different codes simultaneously
Latch Alarm Shunt Timer	Programmable from 1 to 30 seconds
Timed Antispassback	Programmable from 1 to 30 minutes
Auxiliary Inputs (2)	Programmable for door monitor, temper monitor, remote open, remote inactive bell, or arming cancel

Warranty:

These products are warranted against defects in materials and workmanship for one (1) year from the date of shipment. Secura Key shall, at its option, either repair or replace products which prove to be defective and are returned to Secura Key with freight prepaid, within the warranty period. The foregoing warranty shall not apply to defects resulting from abuse, misuse, accident, alteration, neglect or unauthorized repair or installation. Secura Key shall have the right of final determination as to the existence and cause of the defect. THE WARRANTY SET FORTH ABOVE IS EXCLUSIVE AND NO OTHER WARRANTY, WHETHER WRITTEN OR ORAL IS EXPRESSED OR IMPLIED. SECURA KEY SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. The remedies provided herein are Buyer's sole and exclusive remedies. In no event shall Secura Key be liable for direct, indirect, special, incidental or consequential damages (including loss of profits) whether based on contract, tort or any other legal theory.

Warning

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

ENTRACOMP® 27SA MENU TREE

