

CRYPTO CODE

Model CC-4500

One-to-Four Door Access Control System

**Manual Revision-1.2
(3/98)**

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Introduction

INTRODUCTION

The CC-4500 is a versatile access control system that supports one to four doors with all the features of a larger computer based system. Some of the features are listed below.

- Reader Technologies
 - Keypad
 - Wiegand
 - Magnetic
 - Proximity
 - Bar Code
 - Crypto Chip (Dallas i-Button)
- 400, 2000 or 3000 code capacity
- 200, 1000 or 500 event history
- 7 Time zones
- 16 Holiday schedules
- Entry/exit buttons
- Three alarm modes
- Scheduled door open times
- Battery charger
- Built-in 12 and 24 VDC power (24 VDC requires optional plug-in transformer)

There are many creative ways to use all the features of the CC-4500. If you have any questions, or need advice on your particular application, call MONITEQ at 1-703-569-0195 or 1-800-989-9891.

SPECIFICATIONS

Power required 120VAC, 60HZ, 50W
(plug-in AC adapter included)
Output.....12VDC, 1.0A max
(24VDC, 1.0A optional)
Battery back-up.....12VDC
(24VDC optional)
(battery not included)

Dimensions:

CC-4500MB.....12 x 9 x 4.5 in.
(or 5 x 8 x 1.5 in with bezel mount)

CC-4500RB12 x 9 x 4.5 in.

Code capacity:

CC-4500MB/400.....400

CC-4500MB/2000.....2000

CC-4500MB/3000.....3000

History memory:

CC-4500MB/400.....200

CC-4500MB/2000.....1000

CC-4500MB/3000.....500

Number of doors4 max

Relay ratingSPDT, 10 Amp

Readers supported..... Magnetic, Wiegand,

Bar Code, Proximity, and C

Keypads supportedany Crypto Code

6-wire Keypad

Time zones Seven

Holidays schedules Sixteen

Inter-unit (RS-485) cable length... 2000' max

Card reader cable length.....250' max

Crypto Chip reader length.....100' max

Keypad cable length250' max

Installation Section

MATERIAL REQUIRED TO BEGIN

- 1) One CC-4500MB Master Board *per system*
- 2) One CC-4500RB Remote Board *per door* (plus battery if operational back-up is required).

Note: The CC-4500MR combines a Master Board and Remote Board in a single enclosure

- 3) One electrical release (strike, magnet, etc.) per door.
- 4) One reader and/or keypad per door.

Note: Readers and keypads can be paralleled if more than one is required at a door

- 5) 6-conductor/22-awg cable for each card reader and/or keypad
- 6) 2-conductor/18-awg cable for electrical release.
- 7) 4-conductor/22-awg. twisted-pair cable for inter-unit communications
- 8) Any additional hardware to meet the requirements of the individual installation (i.e. exit buttons, door contacts, alarms, etc.).

OVERALL SYSTEM DESIGN

The CC-4500 can be configured with the Master Board and the Remote Board in the same location (same enclosure if desired) or with the Master Board located up to 2000 feet from the furthest Remote Board. See *figure 1* for typical interconnection scheme.

The first door will require a Master Board

and a Remote Board to operate. Each additional door, up to a total of four, will only require the addition of a Remote Board. The Master board must be located within 250 feet of one of the Remote boards. Additional Remote boards can be located a maximum of 2000 feet from the Master board.

The Remote board is supplied mounted in a metal enclosure for wall mounting. Also included is a battery charger (battery not included) for system back-up and an AC power wall transformer. Each Remote board supplies 12VDC output (24VDC optional) for powering electric strikes, magnets or accessories.

Figures 2, 3, and 4 detail the CC-4500 Remote board.

RECOMMENDED INSTALLATION PROCEDURE

A step-by-step procedure for installing the CC-4500 is recommended, particularly for installers without experience with this system. Individuals that have installed CC-4500 systems before will also benefit by following this procedure, although they may safely skip one or more steps.

The recommended procedure is designed to detect incorrect equipment, wiring, or programming at an early stage so that corrections can be made with minimal expense and delay.

The basic approach is to connect and test the system in steps, beginning with the CC-4500 Master Board and just one Remote Board, and then adding one component at a time, and re-testing after each component is added. While this

Installation Section

may at first appear to be an overly cautious and tedious process, it actually takes little more time than connecting all items at once. It provides the installer with a better understanding of how the system goes together, and reveals any problems at a stage when they are easily identified and resolved.

Pre-Installation Testing - It is recommended that the system, including any accessories supplied by third parties be unpacked, wired and tested on a clear table or bench before installation begins at the job site. At a minimum connect, program and test all of the equipment associated with at least one door. Avoid the temptation to simply send all equipment to the job site and have the installer sort it out after it is all wired and connected. Bench testing provides an opportunity to become familiar with the entire system in an environment where the equipment is readily accessible and any oversights or mistakes are easily detected and corrected.

The following is a recommended sequence for bench testing:

- a. Start by connecting only the wall transformer, Master Board and one Remote Board and verify that they power-up properly. (Indicated by a dim flashing **NORMAL** light on the Master Board and a flashing green LED on the Remote Board.) Program the correct time and date on the Master Board.
 - b. Verify that the **DOOR 1** button on the Master Board operates Relays A and B on the Remote Board. (Menu 6, **MASTER KEY FUNCTION**, must be **ENABLED**)
 - c. Connect the strike or magnet to the Remote Board and verify that it can be operated by the **DOOR 1** button.
 - d. Connect the keypad or card reader to the Remote Board and verify that it can be used to activate the strike or magnet. (Use Menu 2, **ADD CODE** to add one card or PIN number for **Dr#1 relay A, TZ:1**. Use Menu 6, **WIEGAND/MAGNETIC** and **PIN/CARD/PIN+CARD** to setup for keypad and/or card reader as appropriate.)
 - e. Connect the exit switch (if used) and verify that it can be used to operate the strike or magnet. (Menu 6, **EXIT BTTN TIMEZ** set to **TZ:1** and **EXIT BTTN RELAY** set to **Dr#1 A**.)
 - f. Connect any door monitoring or tamper switches and verify their operation.
- When operation with one Remote Board and its accessories has been verified you will have a working model to use for comparison should any problems develop when testing the equipment for other doors.
- g. Connect a four-conductor cable from T3 on the Door #1 Remote Board to T3 on the Door #2 Remote Board. Program the Master Board for 2-door operation (Menu 6, **SETUP SYSTEM, NUMBER OF DOORS**) and verify that the Door #2 Remote Board is operational by observing that its green LED flashes and that the **'DOOR 2'** button on the Master Board operates Relay A and B on that Remote Board.
 - h. Repeat steps c. through g.
 - i. Repeat the process for any additional Remote Boards and their accessories.

Installation Section

On-Site Wiring, Mounting and Testing -

If the site wiring is done in advance by an electrician or other contractor, they will need drawings, in which case planning is essential. If there is any doubt about the wiring plan contact MONITEQ customer support and ask them to review the wiring specifications or drawings. If the wiring is to be done by the installer it is preferable to wire and test the first door before completing the balance of the wiring. In either case, begin by connecting only the wiring necessary for operating one door. Start with the door that is nearest the CC-4500 Main Board. Connect the CC-4500 Remote Board and Master Board, wall transformer, magnetic lock or strike, keypads or card readers, and any exit devices or door monitoring switches. Use the same step-by-step approach as outline above for bench testing. Any problem in the wiring at this stage can be identified and resolved before it is repeated at other doors. Further, with just one door connected the source of any problems will be much easier to isolate and correct.

Clearly, variations on this approach will be appropriate depending on the experience of the installer and the nature of each installation. However, the basic technique of sequentially connecting Remote Boards and accessories at each door is applicable to every installation.

Installation Section

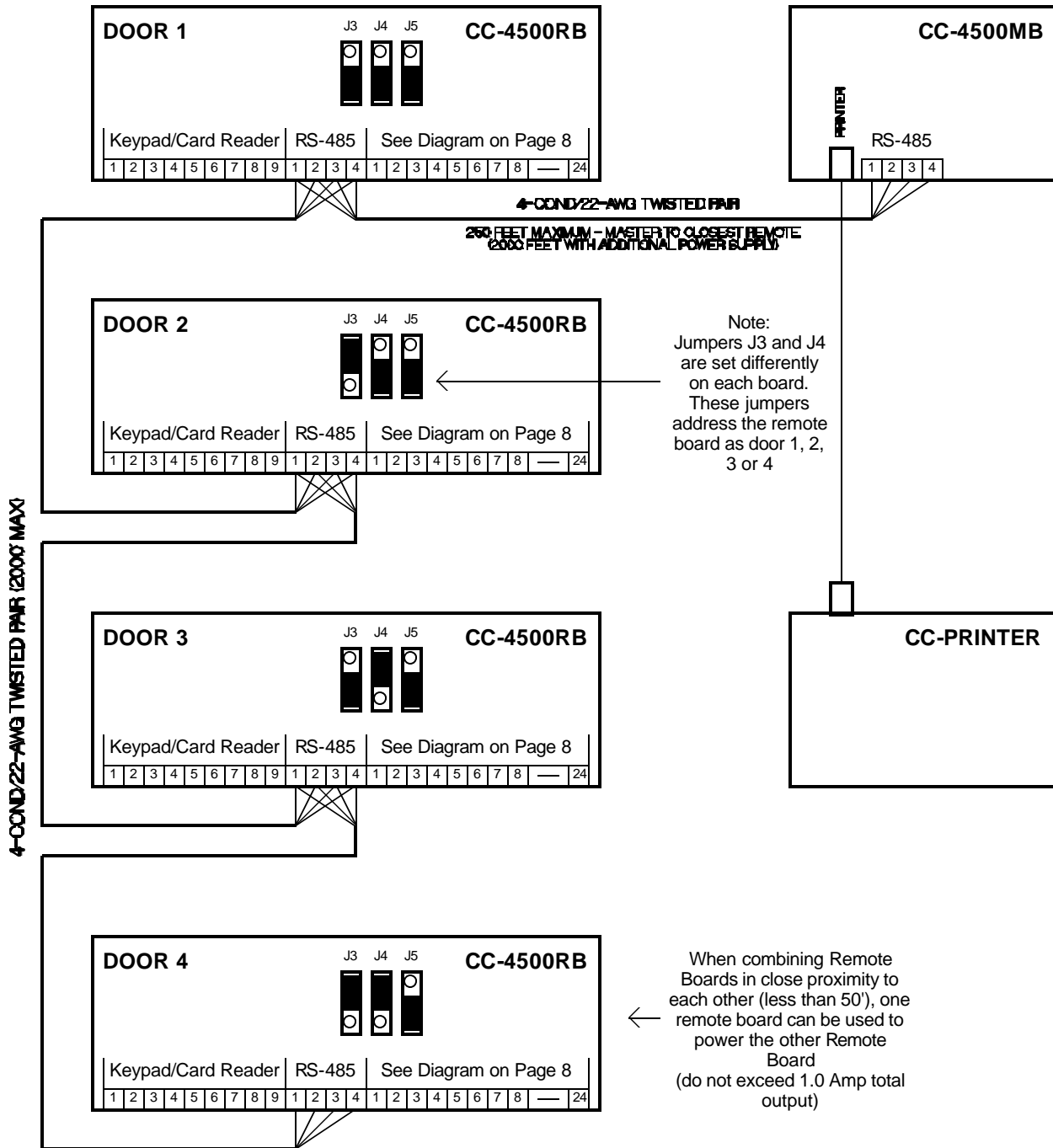


Figure 1 - Board to Board Connections (terminal T3)

Installation Section

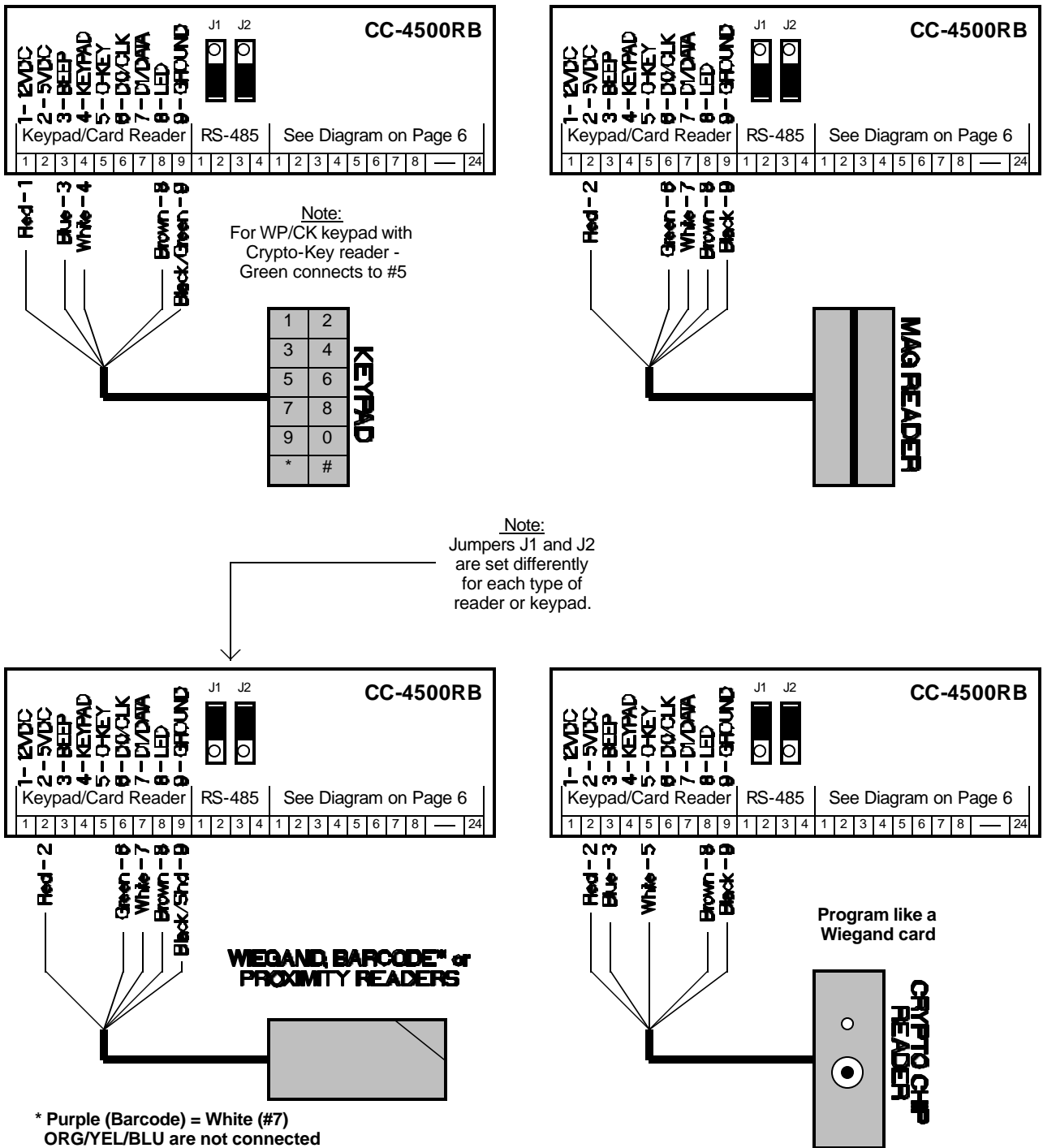


Figure 2 - Keypad & Card Reader Connections (terminal T1/2)

Installation Section

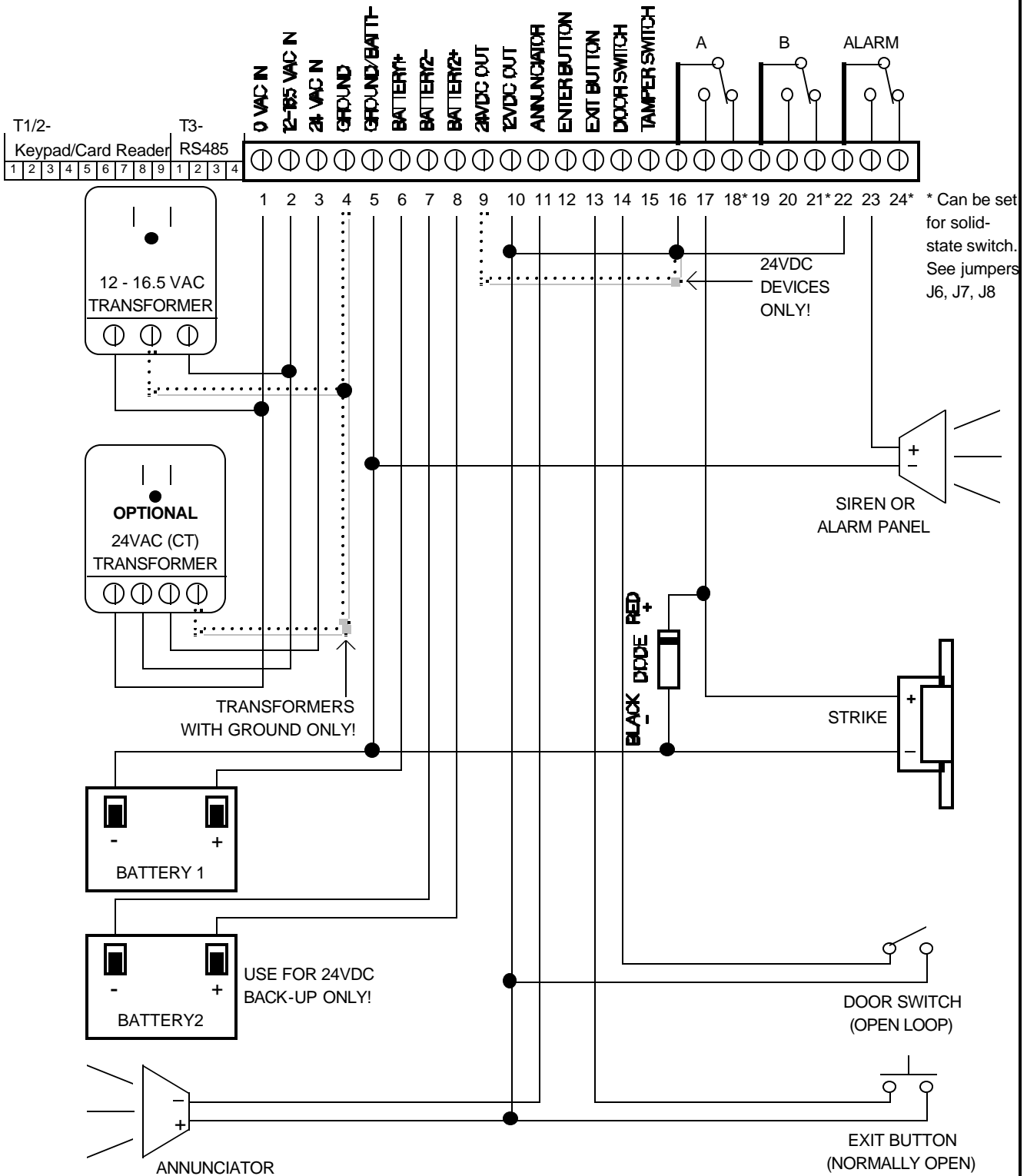


Figure 3a - Remote Board Terminations (Strike & Accessories)

Installation Section

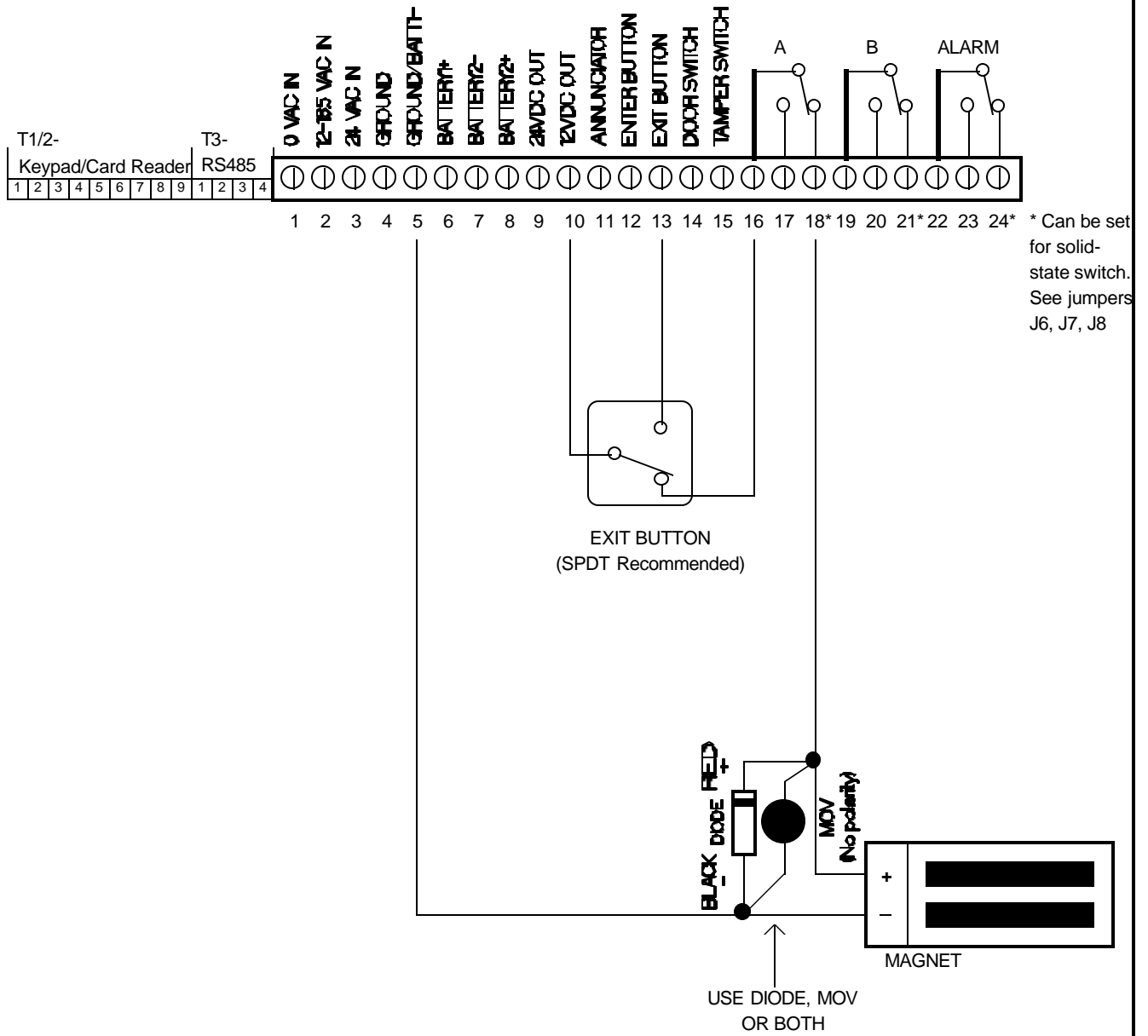
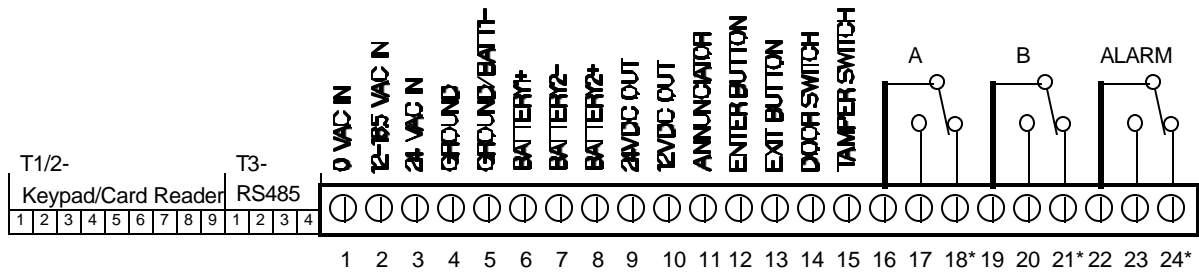


Figure 3b - Remote Board Terminations (Magnetic Release)

Installation Section



* Can be set for solid-state switch. See jumpers J6, J7, J8

Figure 3c - Remote Board Terminations (Scratch Pad)

Installation Section

Terminal connections

See *Figure 3* on previous pages for diagram of the CC-4500RB Remote Board terminations.

- 1 **0 VAC:** Connect to one side of 12-16.5VAC or 24VAC(CT) transformer.
- 2 **12-16.5VAC:** Connect to other side of 12-16.5VAC or Center Tap (CT) of 24VAC transformer.
- 3 **24VAC:** Connect to other side of 24VAC transformer (if used).
- 4 **GROUND:** Connect to ground terminal of 12VAC or 24VAC transformer (if available). This connection is helpful - it provides an earth ground to the system.
- 5 **BATT1(-):** Connect to negative of battery 1. This is also system ground.
- 6 **BATT1(+):** Connect to positive of battery 1.
- 7 **BATT2(-):** Connect to negative of battery 2 (if used). Use only for 24 volt back-up.
- 8 **BATT2(+):** Connect to positive of battery 2 (if used). Use only for 24 volt back-up.
- 9 **24VDC:** 24 volts DC to power 24 volt strike or magnet (if 24VAC transformer is used).
- 10 **12VDC:** 12 volts DC to power 12 volt strike, exit switch, door switch, or accessories.
- 11 **ANNUNCIATOR:** Connect to negative side of annunciator buzzer (if used).
- 12 **ENTER:** Connect to one side of enter button (if used).
- 13 **EXIT:** Connect to one side of exit button or remote release (if used).
- 14 **DOOR:** Connect to one side of door switch (if used).
- 15 **TAMPER:** Connect to one side of tamper switch (if used).
- 16 **A-COMMON:** Relay A common contact - dry.
- 17 **A-N/O:** Relay A normally open contact - dry.
- 18 **A-N/C:** Relay A normally closed contact or solid state switch to ground. Set jumper J9 accordingly (see fig. 4).
- 19 **B-COMMON:** Relay B common contact - dry.
- 20 **B-N/O:** Relay B normally open contact - dry
- 21 **B-N/C:** Relay B normally closed contact or solid state switch to ground. Set jumper J10 accordingly (see fig. 4).
- 22 **ALARM-COMMON:** Alarm relay common contact - dry.
- 23 **ALARM-N/O:** Alarm relay normally open contact - dry.
- 24 **ALARM-N/C:** Alarm relay normally closed contact or solid state switch to ground - set jumper J11 accordingly (see figure 4).

Installation Section

CC-4500 REMOTE BOARD

Figure 4 below details the CC-4500RB Remote Board.

Jumpers J1 & J2

Jumpers J1 and J2 set the board for Magnetic card readers (M) or Wiegand card readers (W). Either position for keypads or Crypto Chips.

Jumpers J3 & J4

Jumpers J3 and J4 set the address for the board as door 1, 2, 3, or 4.

Jumper J5

Jumper J5 should be left in the C45 position.

Jumpers J6, J7, & J8

Jumpers J6, J7, and J8 set terminals 18, 21, and 24 as Normally Closed contacts (NC) or solid-state (transistor) switch to ground (T) respectively.

Fuses

Replace only with the same value 20mm fuse as shown in "figure 4".

Reset

The reset button should be pressed if the Green LED (L4) is not flashing.

Initialize

The initialize button is not used on the CC-4500.

Green LED (L4)

The green LED (L4) is the communication/power indicator. If the board is powered and connected to a Master board, this LED should be flashing.

Red LED's (A, B, & ALARM)

The red LED's illuminate when the corresponding relay is energized.

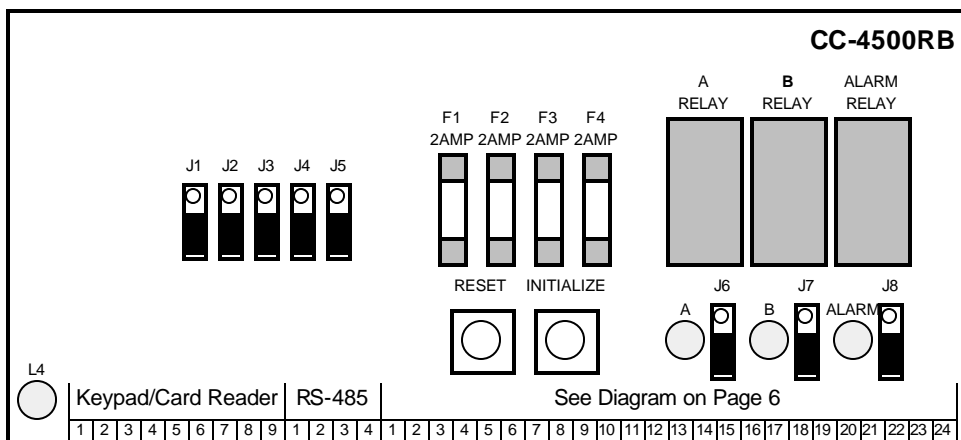


Figure 4 - Remote Board Jumpers, Fuses, Reset, and Relays

Installation Section

CC-4500 MASTER BOARD

Figure 5 below details the CC-4500MB Master Board.

The Master board is supplied mounted in a metal system box for wall mounting. The Master Board unit is powered from one of the Remote Boards (or can be also powered locally with a 12VDC, 1.5Amp power supply if the distance from the nearest Remote Board is greater than 250 feet). The programming is done at the Master board via the LCD display and the 24 key keypad.

Master board connections

- 1) RS-485: Connect 4-conductor cable to the closest Remote board.
- 2) Printer: Connect 6-wire modular cable to printer model no. CC-PRINTER or CC-PARALLEL Interface.

Fuses

Replace only with the same fuse as shown in "figure 5".

Reset

The reset button should be pressed if the LCD display is not functioning properly or if the CC-4500 appears to be acting erratic (this will NOT erase memory).

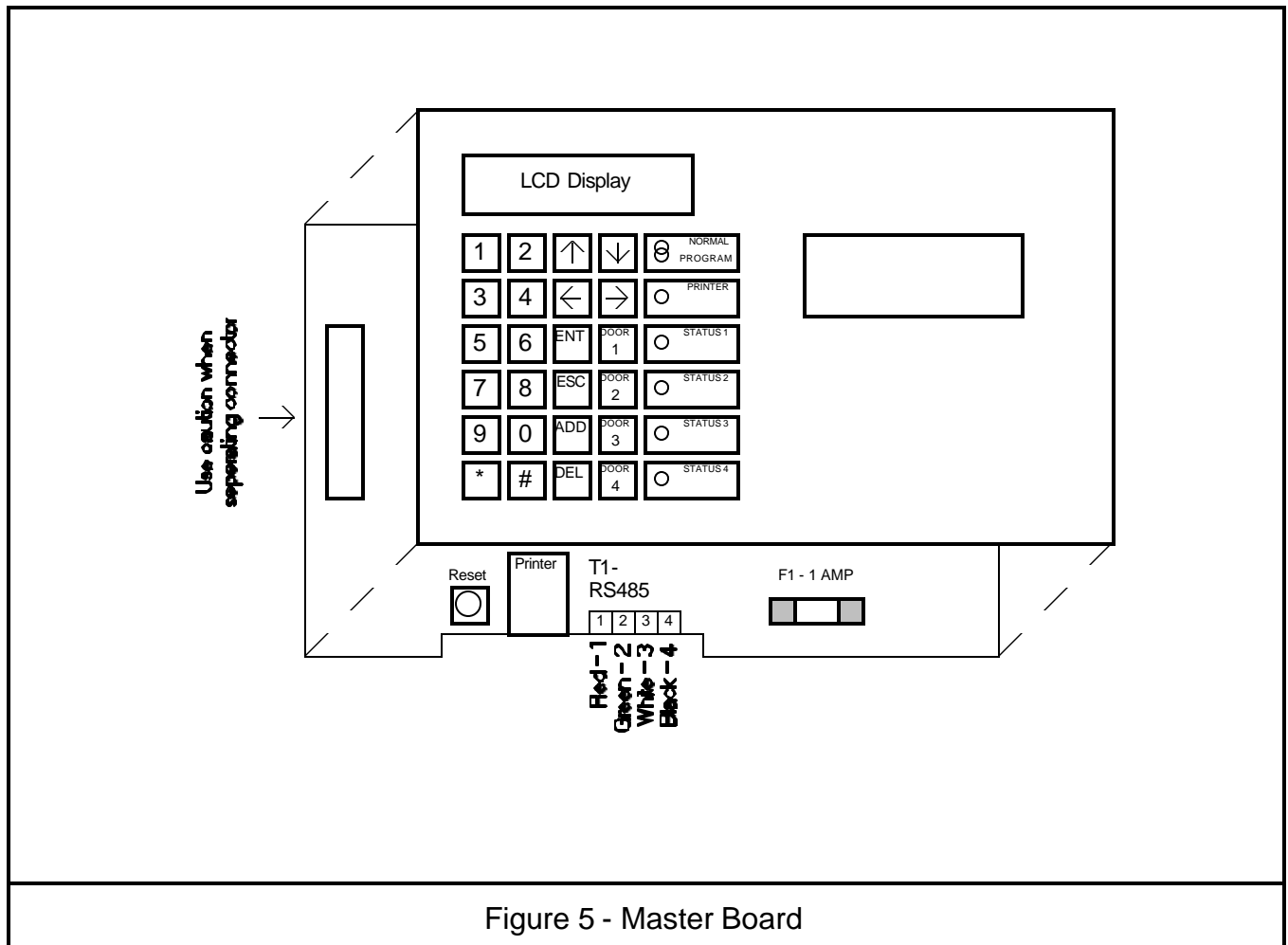


Figure 5 - Master Board

Programming Section

Programming

All programming is done from the Master board keypad and its associated LCD display. *Figure 6* below details the CC-4500MB Master Board keypad.

Keypad

All programming entries are made from the keypad. Keys "DOOR 1" through "DOOR

4" will momentarily activate relays A and B on Remote boards 1 through 4 respectively. The other keys are used for programming.

LCD Display

All prompts and descriptions are displayed on the LCD.

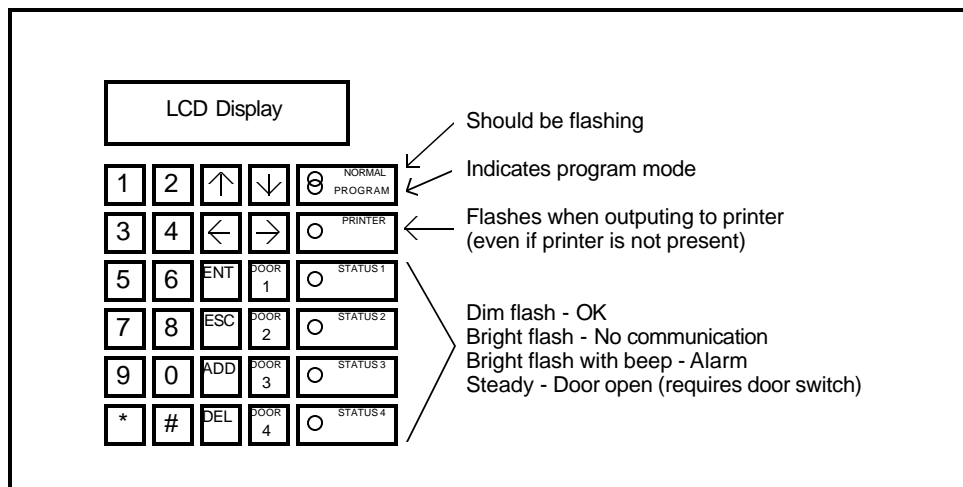


Figure 6 - Master Board Keypad

Programming Section

PROGRAMMING

To begin programming, press * or any arrow key.

If a password has been programmed into the system, you will be prompted to enter your password now.

The first display will be - **1 SET TIME & DATE.**

Use the **UP** and **DOWN** arrow keys to view the different **MAIN** menus (listed on page 12).

Use the **LEFT** and **RIGHT** arrow keys to view the **SUB** menus within each **MAIN** menu.

Press **ENT** to select a **SUB** menu and then input the particular information required by the menu item. Some **SUB** menus have multiple choices. Use the left and right arrows to scroll through the choices.

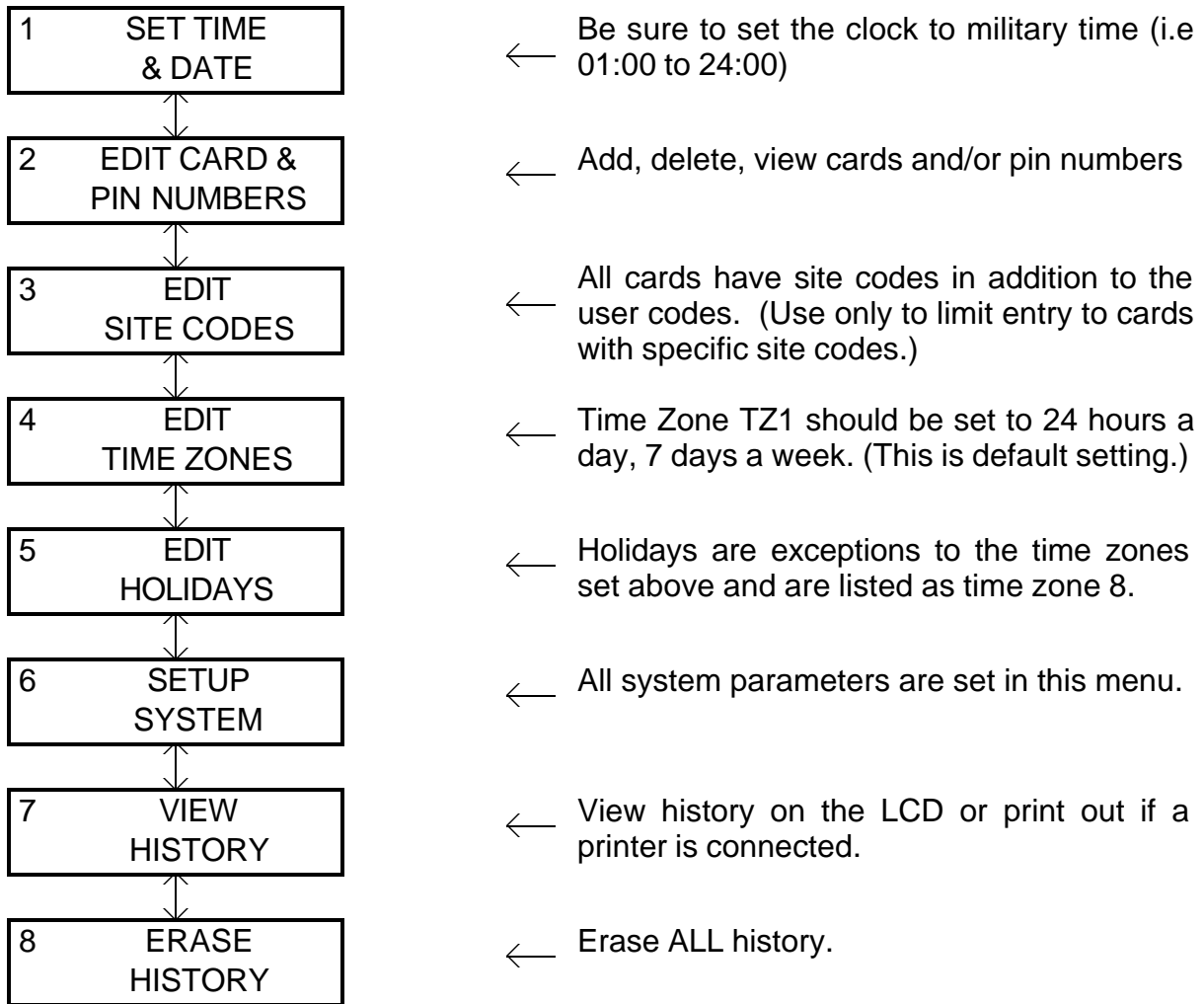
Press **ENT** to accept your input or **ESC** to void the entry and exit the selected **SUB** menu.

! SUGGESTION - You do not need to do a lot of programming to get started. Use the default (factory) settings. If you have a keypad system, just add a code (menu #2) and test the system. If you have a card reader system, first change default setting from PIN to CARD (menu #6) and add a card (menu #2).

During programming, you can always return to the **NORMAL MODE** by pressing **ESC** several times.

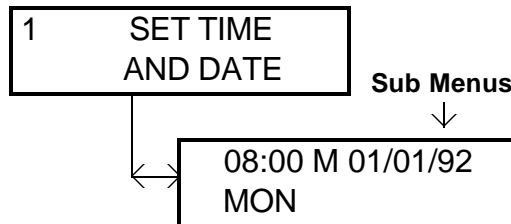
Programming Section

MAIN MENUS



Programming Section

Main Menu 1 - SET TIME & DATE



← 24-hour time. Enter a number 1-7 for day of week.

NOTE ON YEAR 2000 COMPLIANCE

Background

Year 2000 compliance in computers revolves around whether or not these systems will provide an accurate calendar beyond the year 1999. Providing an accurate calendar means that the computer will always sequence to the correct day-of-the-month and month. The calendar rules are:

1. Thirty days have September, April, June and November
2. All the rest have 31
3. Except February which has twenty eight
except in years devisable by 4, when February has 29 days,
except in years devisable by 100 when February has 28 days
except in years devisable by 400 when February has 29 days

All this has to due with the fact the earth does not revolve around the sun in exactly 365 days and as a result these leap year adjustments need to be made to keep our calendars on track with the sun and the seasons.

The major problems in computer systems are to a large extent the result of using just two digits to represent the year. This creates errors in determining which years are leap years at the beginning of a century. Many of the systems that use two digits to represent the year assume that the year "00" is not a leap year as was the case in 1900. This was correct back in 1700, 1800 as well as 1900, but would cause an error in February 2000 by assuming that the month has 28 days when it actually has 29 days.

The Clock/NVM Chip

The CC-4500 uses a single chip (U3 on the Master Board) for both time keeping and as Non-Volatile Memory (NVM) for all operator programmed settings, storing user PINs and/or card numbers, and logging a history of activity. Both the internal clock and the NVM are backed-up by a lithium battery that is built into the chip. This internal battery will maintain all memory in the chip and run the clock for at least ten years without external power being applied. The actual life of the battery could be significantly longer when the chip is powered externally, as it is in normal operation of the CC-4500.

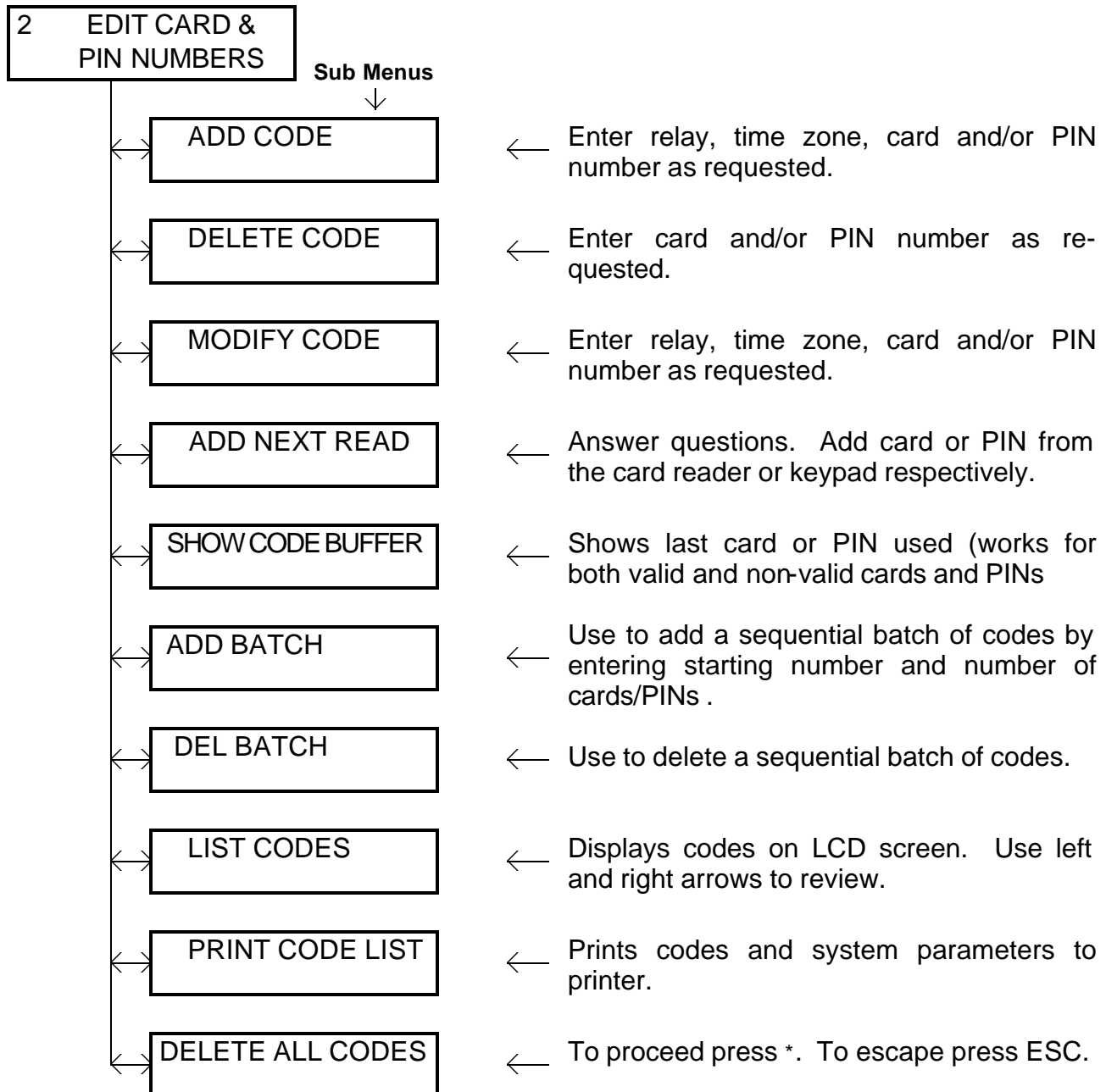
This chip uses two digits to represent the year, but it has been designed to recognize year "00" as a leap year which is correct for the year 2000. As a result, the CC-4500 will maintain an accurate calendar through to the year 2099. (After the chip's internal battery expires the chip could either be replaced or the time would need to be manually reset after any power interruption not backed-up by external batteries.)

Summary

The CC-4500 will maintain proper time, date of the month, day of the week, month and 2-digit year with proper leap year compensation up to 2099. In the year 2100 (and all following turn-of-the-century years not divisible by 400) the date would need to be manually changed at the end of February to correct that month from 29 to 28 days.

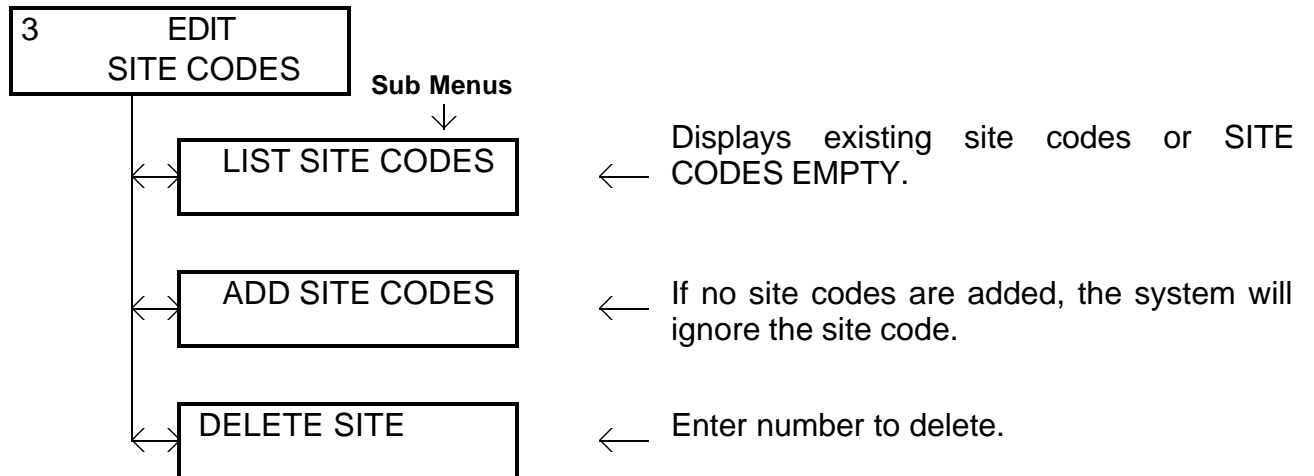
Programming Section

Main Menu 2 - EDIT CARD & PIN NUMBERS



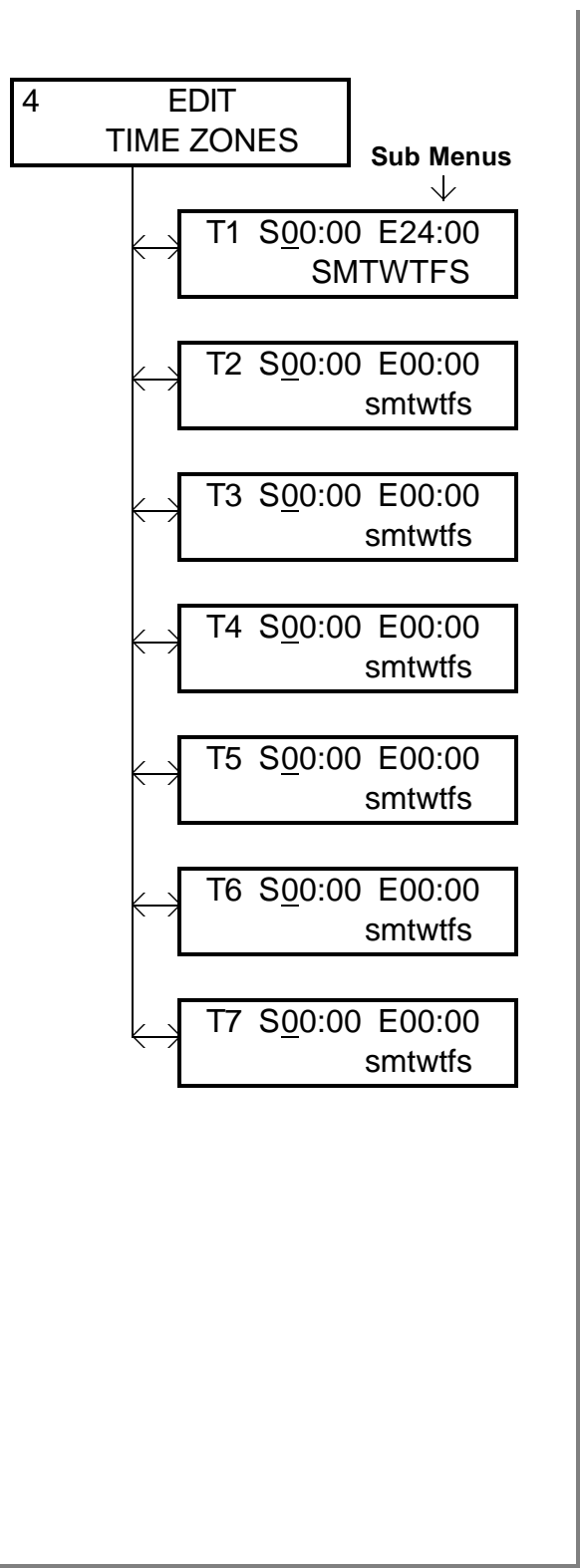
Programming Section

Main Menu 3 - EDIT SITE CODES



Caution - Entering a site code will restrict entry to only those cards that contain *both* that particular site code *and* a card number that has been entered in Menu 2. If no site code is entered in Menu 3 then the site code on cards is ignored.

Main Menu 4 - EDIT TIME ZONES



Notes:

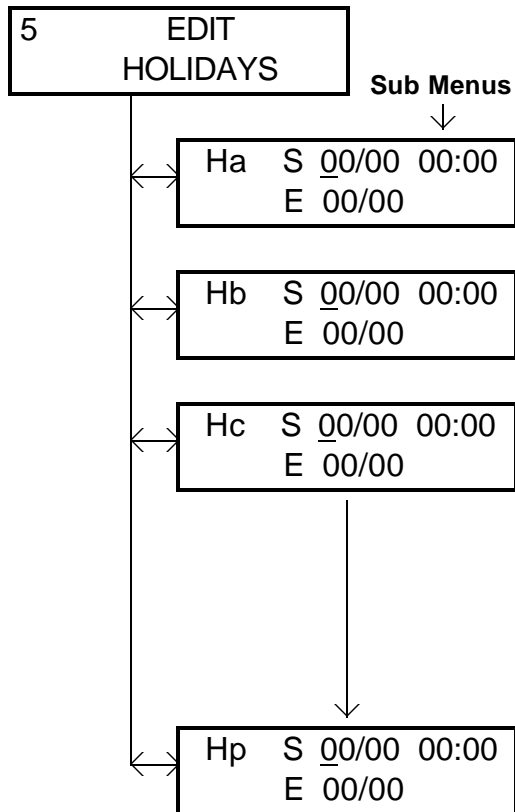
1. Use 24-hour time. Enter Start and End times. To add a day use the arrow keys to move the cursor to the letter representing that day and press ADD. The letter will change from lower case to upper case. Similarly, use the DEL key to delete days.

2. Time Zones are weekly schedules that are established with this Menu for use with other system functions. For example, create T2 as "S05:00 E19:00 SMTWTFS" for use with cards or PINs that are authorized access only during these normal working hours. This same Time Zone T2 could also be applied in Menu 6 OPEN TIME to automatically open one or more doors during these hours.

3. Time Zone T1 is preset for 24 hours a day, seven days a week.

Programming Section

Main Menu 5 - EDIT HOLIDAYS



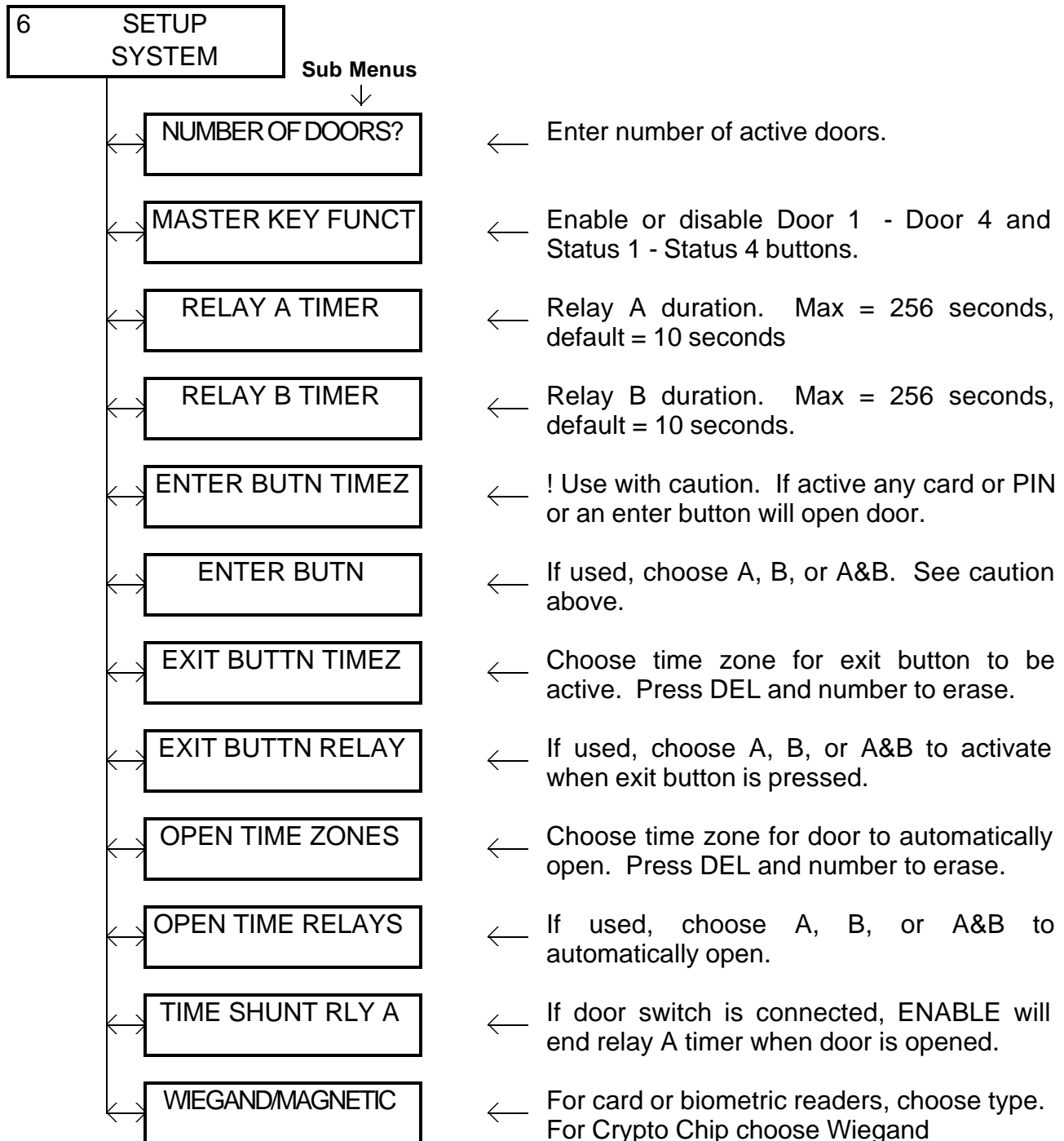
← Enter **S**tart date and time. Enter **E**nding date and time. Can include several days.

← Repeat for as many vacation schedules as needed.

Note: Holidays override time zones. If you add cards with Time Zone 1 (24 hrs/day, 7 days/week), they will not work on a scheduled holiday. If you want the cards to work during Time Zone 1 **and** on holidays, you must add Time Zone 1 and Time Zone 8 (appears as "H") to the card.

Programming Section

Main Menu 6 - SETUP SYSTEM



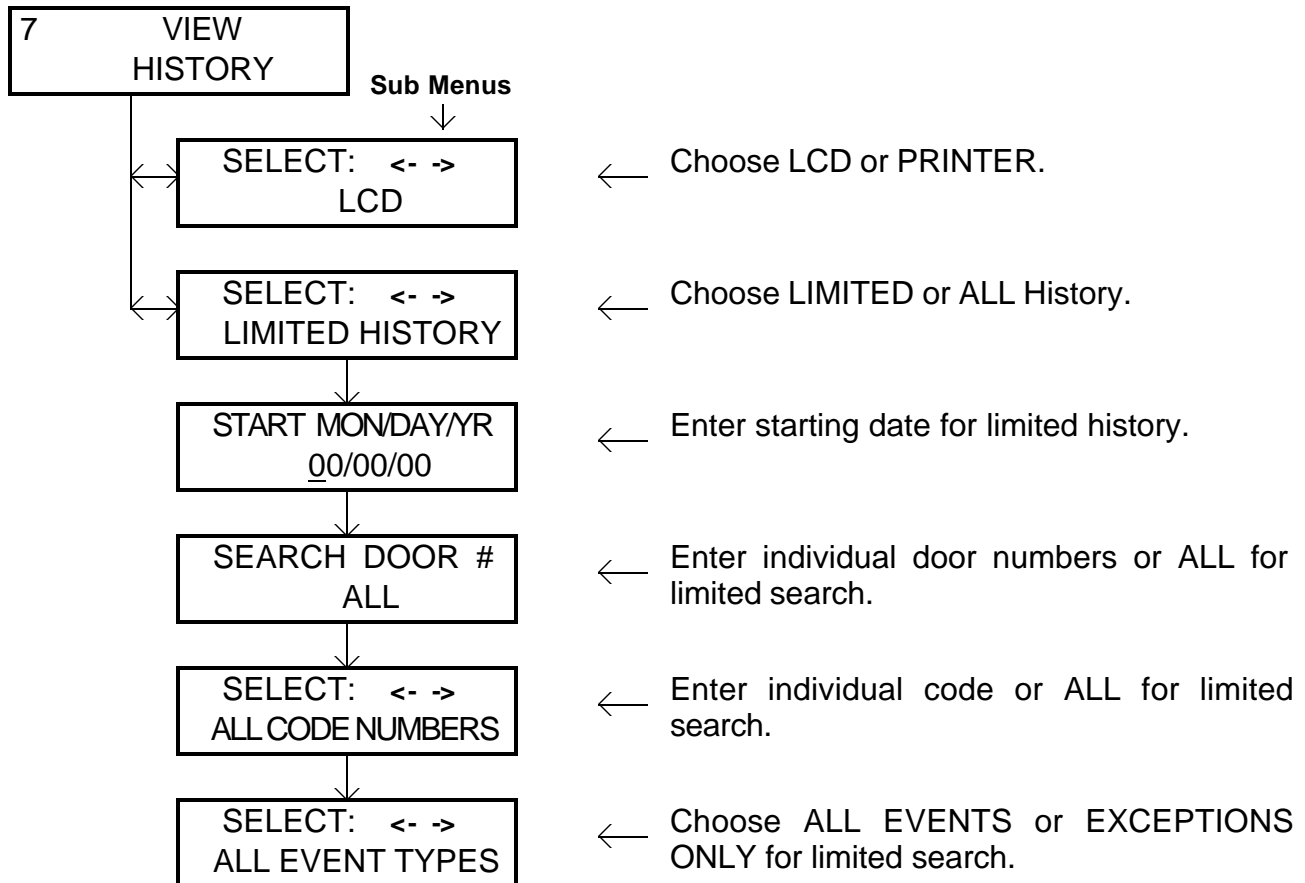
Programming Section

Main Menu 6 - SETUP SYSTEM (CONTINUED)

←	PIN/CARD/PIN+CRD	←	Choose input device(s) for system. (PIN = keypad)
←	PENALTY TIME	←	Time system is disabled when Penalty Count is exceeded. 256 seconds max.
←	PENALTY COUNT	←	Number of invalid entry attempts required to activate Penalty Time. 256 max. 0 = Off.
←	DOOR ALARM RESET	←	Choose DOOR closed or VALID CODE to deactivate a door alarm.
←	ALARM DELAY	←	Time before door propped alarm will activate. 256 seconds max. 0=Off.
←	ALARM TIME	←	Time of alarm activation. 65,000 seconds max.
←	TWO MAN RULE ?	←	Time zone which will require 2 valid codes to open door. DEL and number to erase.
←	ANTI PASS BACK	←	Time before a card can be used again. 99 minutes max. 0 = Off.
←	DURESS ENABLE ?	←	ENABLE will activate alarm for backwards Wiegand card or PIN+1.
←	FORCED DOOR ALRM	←	ENABLE for instant alarm if door is opened without valid code.
←	LOG INDEX/CARD#	←	Log history events by actual Code # or by memory location (Index #).
←	WIDE PRINTOUT	←	ENABLE for 8.5" wide printer, DISABLE for narrow paper printers.
←	PASSWORD	←	Add a password to limit access to program menus. 0 = no password required.
←	ERASE ENTIRE	←	! will erase entire memory (including codes) and will default all parameters.

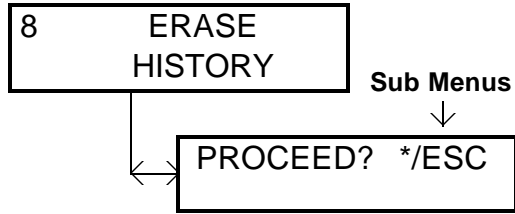
Programming Section

Main Menu 7 - VIEW HISTORY



Programming Section

Main Menu 8 - ERASE HISTORY



← * to erase all history. ESC to escape without change.

SITE CODES, TIME ZONES, HOLIDAYS

	1	2	3	4	5	6	7	8
SITE CODE								

	START TIME	END TIME	S	M	T	W	T	F	S
TIME ZONE 1									
TIME ZONE 2									
TIME ZONE 3									
TIME ZONE 4									
TIME ZONE 5									
TIME ZONE 6									
TIME ZONE 7									

	START DATE (M/D)	START TIME	END DATE (M/D)	END TIME
HOLIDAY - A				
HOLIDAY - B				
HOLIDAY - C				
HOLIDAY - D				
HOLIDAY - E				
HOLIDAY - F				
HOLIDAY - G				
HOLIDAY - H				
HOLIDAY - I				
HOLIDAY - J				
HOLIDAY - K				
HOLIDAY - L				
HOLIDAY - M				
HOLIDAY - N				
HOLIDAY - O				
HOLIDAY - P				

SYSTEM SETUP PARAMETERS

PARAMETER	SYSTEM	DOOR 1	DOOR 2	DOOR 3	DOOR 4
Number of Doors (1-4) [1]					
Master Key Func ([Enable]/Disable)					
Relay A Timer (255 Secs Max) [10]					
Relay B Timer (255 Secs Max) [10]					
Enter Button Time Zone(s) [blank]					
Enter Button Relay (A/B/A&B) [blank]					
Exit Button Time Zone(s) [blank]					
Exit Button Relay (A/B/A&B) [blank]					
Open Time Zone(s) [blank]					
Open Time Relay (A/B/A&B) [blank]					
Shunt Relay A (Enable/[Disable])					
Wiegand/Magnetic [Magnetic]					
Pin/Card/Pin+Card [PIN - 4]					
Penalty Time (255 Secs Max) [0]					
Penalty Count (255 Max) [0]					
Door Alarm Reset ([Door]/Code)					
Alarm Delay (255 Secs Max) [0]					
Alarm Time (65,000 Secs Max) [15]					
Two Man Rule [blank]					
Anti Pass Back (99 Mins Max) [00]					
Duress (Enable/[Disable])					
Force Door Alarm ([Enable]/Disable)					
History Log ([Card#]/Index#)					
Wide Printout (Enable/[Disable])					
Password (Keep Secure)					

[default setting]

Printer History Output

PRINTER OUTPUT

See *Figure 7* below for example of printer history output.

Action Codes

- AC** - Access granted
- AL** - Alarm activated
- DE** - Denied access
- DU** - Duress activated
- FO** - Forced entry
- MA** - Master board released
- PE** - Penalty Activated
- PA** - Anti Pass Back
- TA** - Tamper Activated
- TI** - Timed Open/Close or Holiday

Reason Codes

- A** - All OK
- B** -
- C** - Card not found
- D** - Door number not allowed
- E** - Enter button pressed
- F** - Alarm for forced entry
- G** -
- H** - Holiday time
- I** -
- J** - Door propped
- K** - Time zone not allowed
- L** - Exit button pressed
- M** -
- N** - Site code not found
- O** - Open time
- P** - Penalty count reached

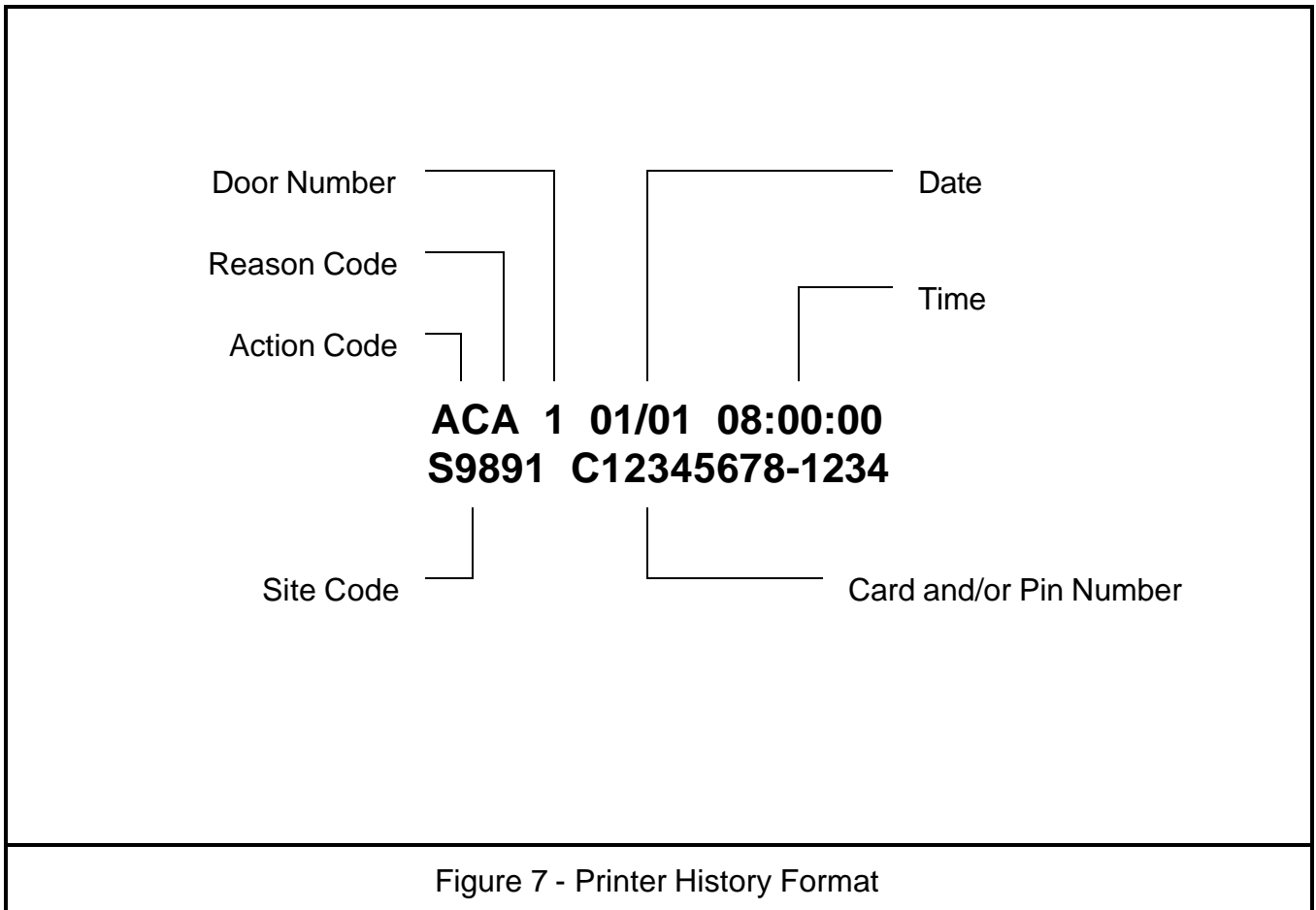


Figure 7 - Printer History Format

LCD History Output

PRINTER OUTPUT

See *Figure 8* below for sample LCD display of history.

Action Codes

- AC** - Access granted
- AL** - Alarm activated
- DE** - Denied access
- DU** - Duress activated
- FO** - Forced entry
- MA** - Master board released
- PA** - Anti Pass Back
- PE** - Penalty Activated
- TA** - Tamper Activated
- TI** - Timed Open/Close or Holiday

Reason Codes

- A** - All OK
- B** -
- C** - Card not found
- D** - Door number not allowed
- E** - Enter button pressed
- F** - Alarm for forced entry
- G** -
- H** - Holiday time
- I** -
- J** - Door propped
- K** - Time zone not allowed
- L** - Exit button pressed
- M** -
- N** - Site code not found
- O** - Open time
- P** - Penalty count reached

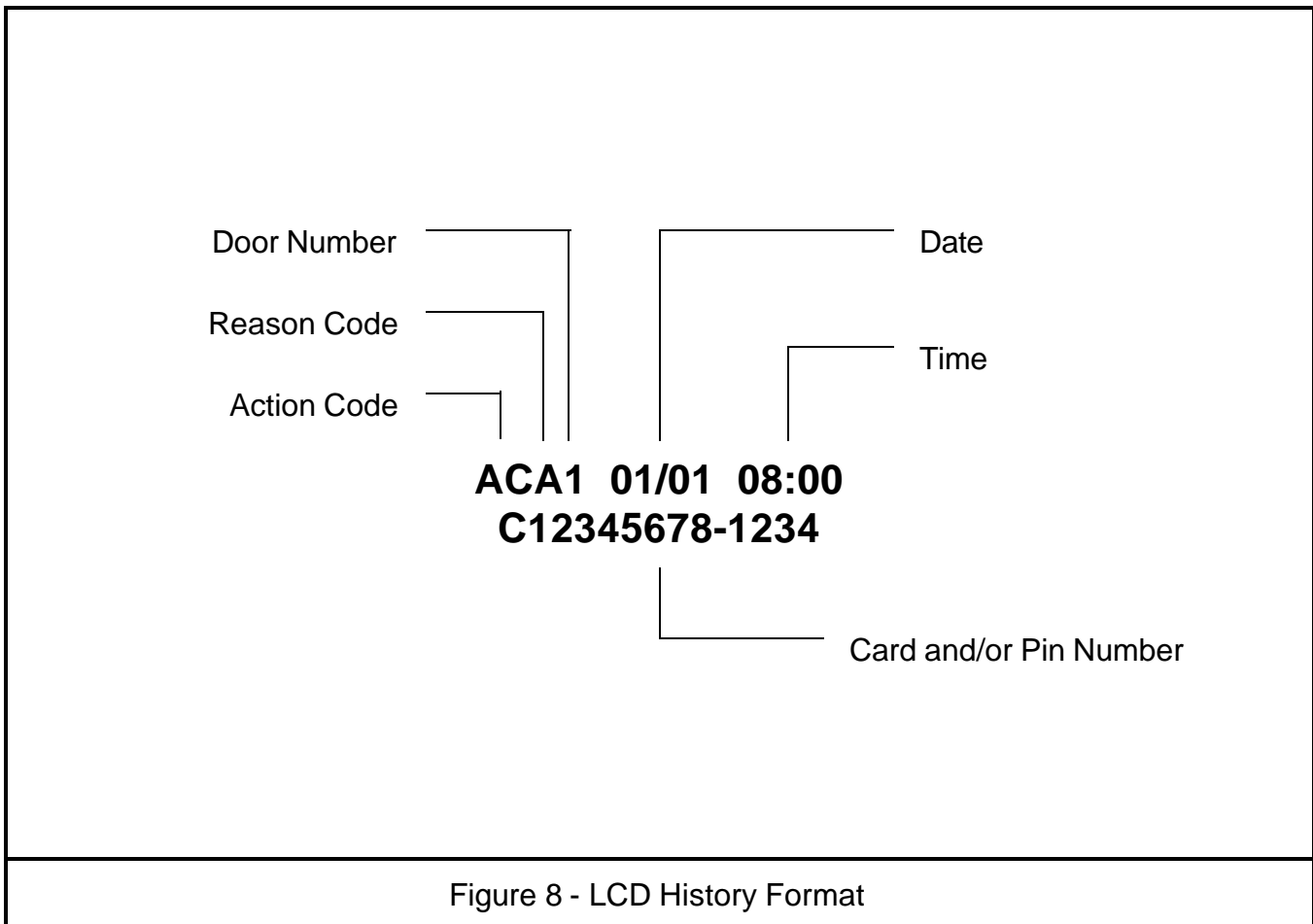


Figure 8 - LCD History Format

Troubleshooting Section

PROBLEM

Master Board is dead.

Green light flashing on Master Board, but not on Remote Board.

Card reader is not working. Green lights **are** flashing on Master and Remote.

Keypad is not working. Green lights **are** flashing on Master and Remote.

Strike or magnet is not activating. Keypad or Card reader **does** activate relay A.

SOLUTIONS

Check for 12 VAC on terminals 1 & 2.
Check for 12-18 VDC on terminals 5 & 10.
Check fuses. Check communication wiring between Remote and Master.

Check address of board - jumpers J6 & J7.
Check # of doors in Setup menu (#6).
Check communication wiring between Remote and Master.

Check jumpers J3 & J4 for proper position.
Check Wiegand/Magnetic in Setup menu.
Check Card/Pin/Card+Pin in Setup menu.
Make sure card is added properly and time zone is active. Use Menu 7, View History to display Action and Reason Codes.

Check Card/Pin/Card+Pin in Setup menu.
Make sure Pin is added in Edit Code menu.
Make sure time zone is active. Use Menu 7, View History to display Action and Reason Codes.

Check for proper connection to terminal strip. Make sure diode is installed. Make sure a jumper wire is installed between terminals 10 & 16 (9 & 16 for 24 VDC).
Check wiring to device.

MONITEQ Customer Service is available by calling 1-800-989-9891 or 1-703-569-0195.

Our WEB site is <http://www.moniteq.com>

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