

M A D E I N T H E U . S . A .

Quick Reference for Wiring & Programming the Ramset Keypad



LCD-KP

Liquid Crystal Display Keypad

ELECTRICAL SPECIFICATIONS

Power Supply: 12-24V AC/DC

Relay 1 max carry current: 2 amp

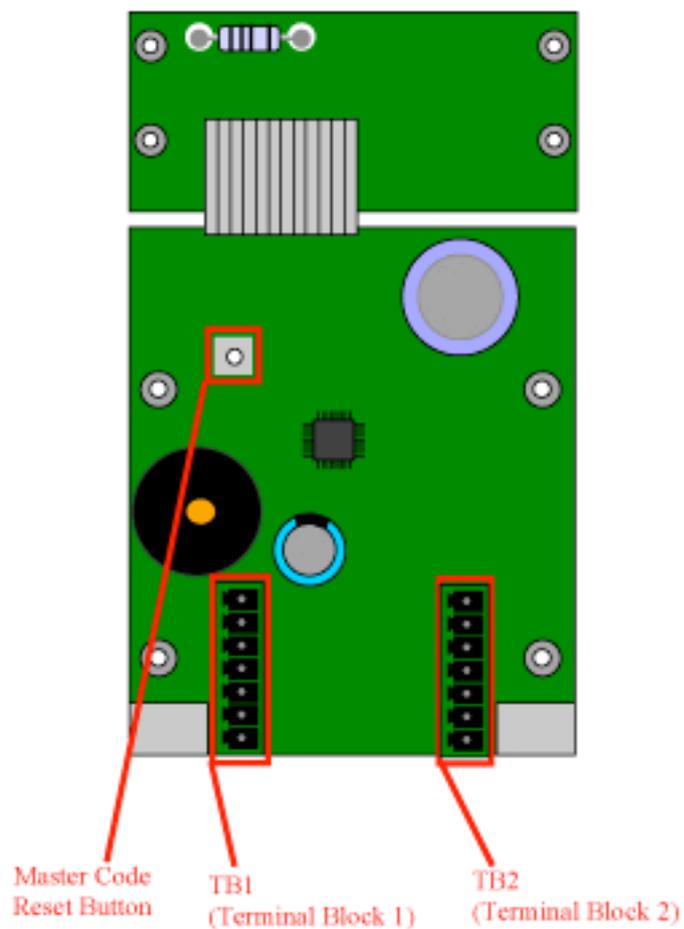
Relay 2 max carry current: 2 amp

Idle Current: 60mA

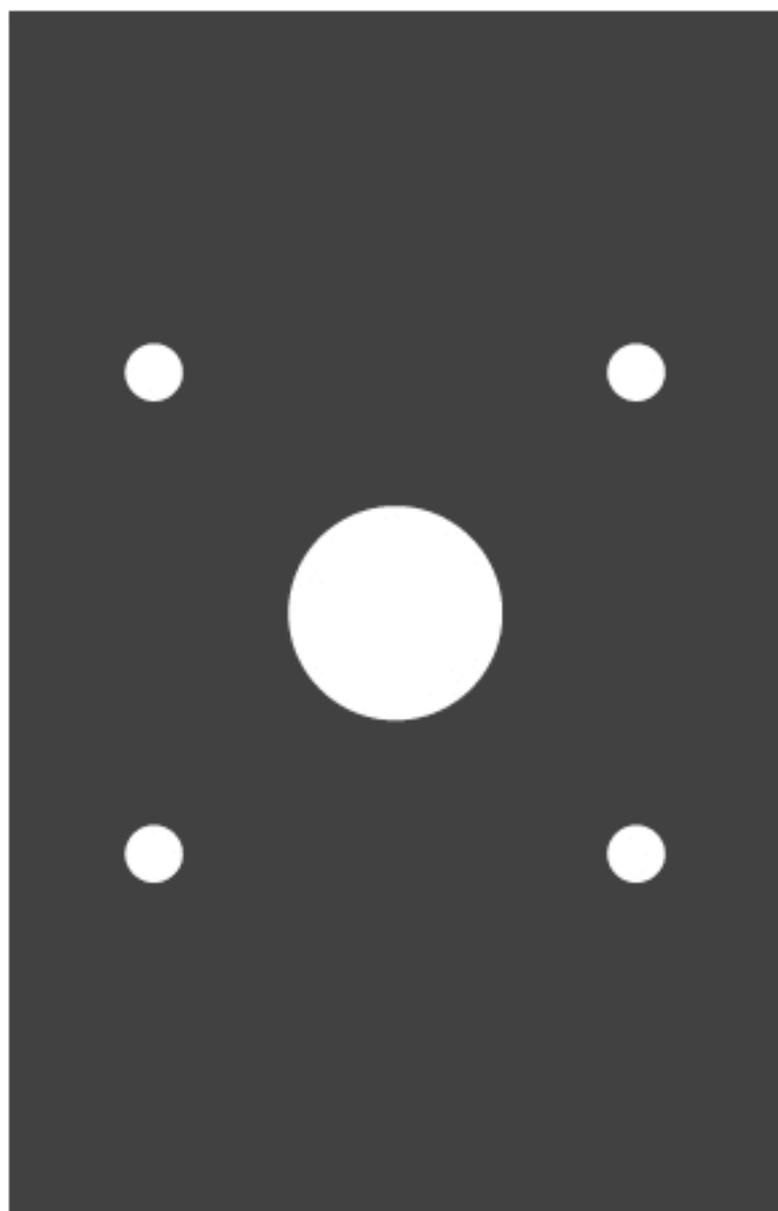
With 1 relay activated: 73mA

With both relays activated: 86mA

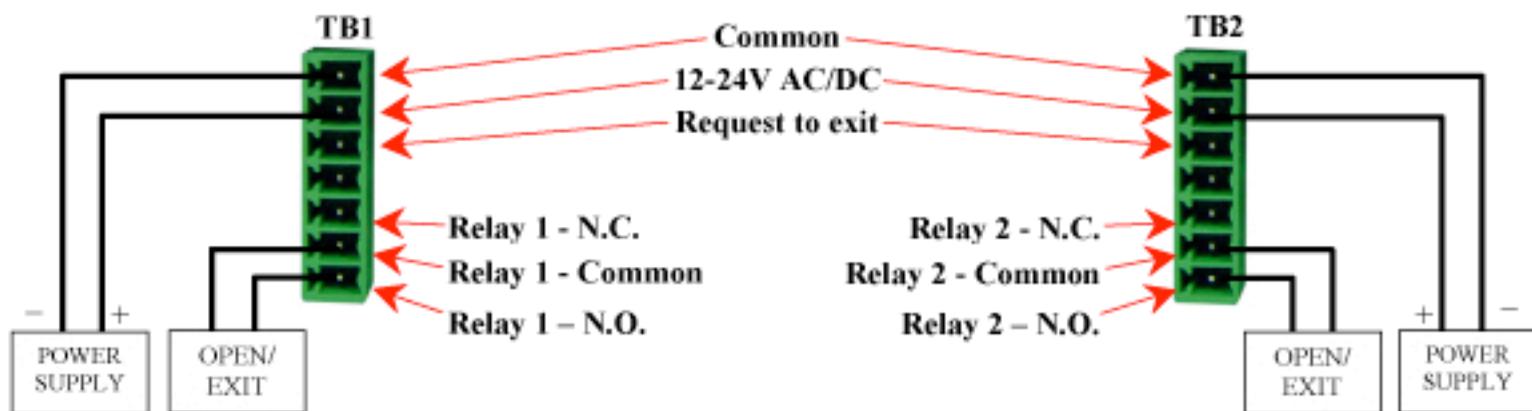
PCB LAYOUT – COMPONENT LOCATIONS



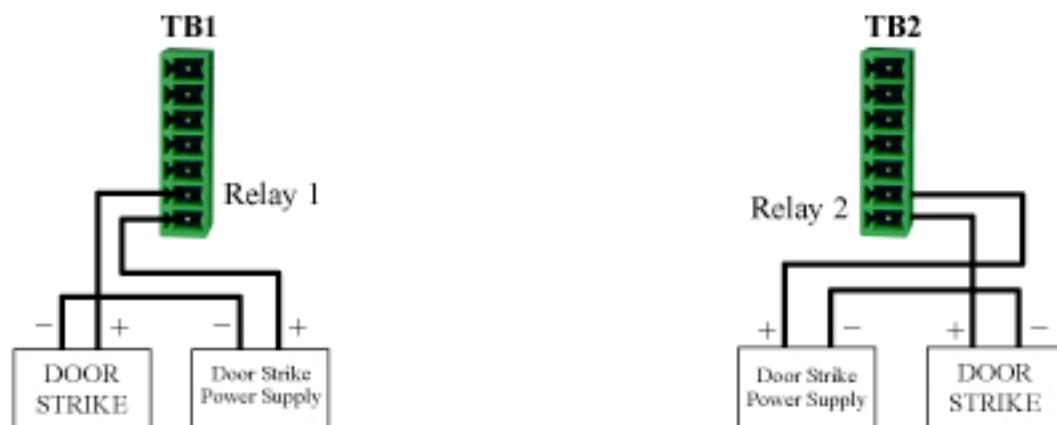
MOUNTING TEMPLATE



WIRING DIAGRAM (Gate Operator)



WIRING DIAGRAM (Door Strike)



WIRING DIAGRAM (Magnetic Lock)



WIRING DIAGRAM (Request to Exit)



QUICK REFERENCE

DEFAULT MASTER CODE: 1 2 3 1 2 3

(Ramset highly recommends that the master code should be changed for security)

OPTION 00

EXIT SETUP MENU

- Exit out of programming mode.

OPTION 01

SET DATE & TIME

- Set the date and time.
- Change the date and time (daylight savings)

Month: MM/DD/YY

Day: 1=Monday, 2=Tuesday,
3=Wednesday, 4=Thursday,
5=Friday, 6=Saturday, 7=Sunday
Time: HH:MM; 1=AM, 2=PM

OPTION 02

ADD ENTRY CODE

- Allows you to enter new codes with a corresponding name
 - Codes can be 3-8 digits long
 - Names can be 12 characters long

NUMERIC/ALPHA CODES

1 - 1 , . : - +	7 - P Q R S p q r s 7
2 - A B C a b c 2	8 - T U V t u v 8
3 - D E F d e f 3	9 - W X Y Z w x y z 9
4 - G H I g h i 4	0 - Space
5 - J K L j k l 5	* - Backspace
6 - M N O m n o 6	# - Enter

OPTION 03

ERASE ENTRY CODE

- Allows you to erase several codes quickly

OPTION 04

SET DISABLE CODE

- Default : None
- The disable code is used to restrict all entry codes until the disable code is entered again.
 - Holidays, vacations, lockdowns...etc.

OPTION 05

SET MASTER CODE

- Default : 123123
- Allows you to change the Master Code

OPTION 06

TIME ZONE SETUP

- Factory default : 24 hours a day/7 days a week
(To change the default, use option 07 in the program menu)
- Allows you to limit the days and times when a code is valid.

OPTION 07
TIME ZONE DEFS

- Factory Default : 24 hours a day/7 days a week
- Sets the default for the time zones to allow you to enter several codes with the same time zones quickly

OPTION 08
ENTRY CODE SETUP

- Factory Default : Rly1=2 sec, Rly2=0 sec, usage life=0 (forever), Name= _____
(To change the default, use option 09 in the program menu)
- Set the relay times (from 0 - 14 seconds or 99 seconds for latch)
- Set the usage life of a code. The usage life is how many times the code can be used before it becomes invalid.
- Change the name on a code. The name is set when the code is first entered. At this time the name can be added or changed.

OPTION 09
ENTRY CODE DEFS

- Factory Default : Rly1=2 sec, Rly2=0 sec, usage life=0 (forever)
- Sets the default for the entry code's relay times and usage life to allow you to enter several codes with the same relay times and usage life quickly

OPTION 10
REQ TO EXIT SETUP

- Factory Default : Rly1=0 sec, Rly2=0 sec
- Sets the amount of time that a relay will be activated when a signal is given to the keypad as a request to exit.

OPTION 11
SET 7-DAY TIMER A

- Latches Rly1, Rly2 or Rly1 & Rly2 from a desired start time to a desired end time on specific days

OPTION 12
SET 7-DAY TIMER B

- Latches Rly1, Rly2 or Rly1 & Rly2 from a desired start time to a desired end time on specific days

OPTION 13
DISPLAY SETTINGS

- Max Length: 16 Characters
- Adjust LCD contrast (Default : 50)
- Change Banner Message (Factory default : Ramsetinc.com)

NUMERIC/ALPHA CODES

1 - 1 , . : - +	7 - P Q R S p q r s 7
2 - A B C a b c 2	8 - T U V t u v 8
3 - D E F d e f 3	9 - W X Y Z w x y z 9
4 - G H I g h i 4	0 - Space
5 - J K L j k l 5	* - Backspace
6 - M N O m n o 6	# - Enter

OPTION 14
SYSTEM SETTINGS

Default : Max Retries=3, Lockout Time=3

- Change the amount of tries a user gets to enter a valid code before the keypad goes into lockout mode for a designated amount of time.
- Change the amount of time that the keypad stays in lockout mode after the number of max retries has been exceeded.

OPTION 15
REVIEW ALL CODES

- Capacity : 1,024 Codes
- Allows you to see every valid code & it's corresponding name

SCROLLING MENU

# - Up 1	* - Down 1
9 - Up 10	7 - Down 10
6 - Up 100	4 - Down 100
3 - Up 1000	1 - Down 1000
8 - Name	0 - Exit

OPTION 16
REVIEW EVENT LOG

- Capacity : 5,112 Events
- Allows you to see the last 5,112 events that have occurred on the keypad and the date & time that they occurred.
- The date & time are expressed as follows:
MoDtHrMnSc
Mo = month, Dt = day of the month, Hr = hour,
Mn = minutes, Sc = seconds

SCROLLING MENU

# - Up 1	* - Down 1
9 - Up 10	7 - Down 10
6 - Up 100	4 - Down 100
3 - Up 1000	1 - Down 1000
8 - Month, Day & Time	0 - Exit

OPTION 17
ERASE ALL EVENTS

- Erases all the events that have occurred on the keypad.
- 5112 Event capability

OPTION 18
FACTORY RESET

CAUTION – The factory reset is to clear all the memory of the keypad and to reset all the options back to the original factory default. After the factory reset is performed, there will be no entry codes, no events, no disable code and the defaults will all be reset.

BASIC PROGRAMMING

Entering the Program Mode: (default master code is "1-2-3-1-2-3")

(A Master Code can range anywhere from 3 to 8 digits long)

Master Code - + + + + + +

After entering program mode:

EXITING THE PROGRAM MODE:

Enter: +

SET TIME & DATE:

Enter: + + [DATE (MM:DD:YY)] + [Day of the Week] +
[TIME (HH:MM)] + [AM/PM] +

Date: MM/DD/YY = Month, Day & Year

Day of the Week =

<input type="text"/> Monday	<input type="text"/> Tuesday	<input type="text"/> Wednesday
<input type="text"/> Thursday	<input type="text"/> Friday	<input type="text"/> Saturday
<input type="text"/> Sunday		

Time: HH/MM = Hour & Minutes

AM/PM = AM PM

Example: Entering the date & time for Wednesday, February, 18 2007 @ 3:50 pm

Options		Date (MM:DD:YY)					
<input type="text"/>							
<input type="text"/>							
<input type="text"/>							
Day of the Week		Time (HH:MM)				PM	

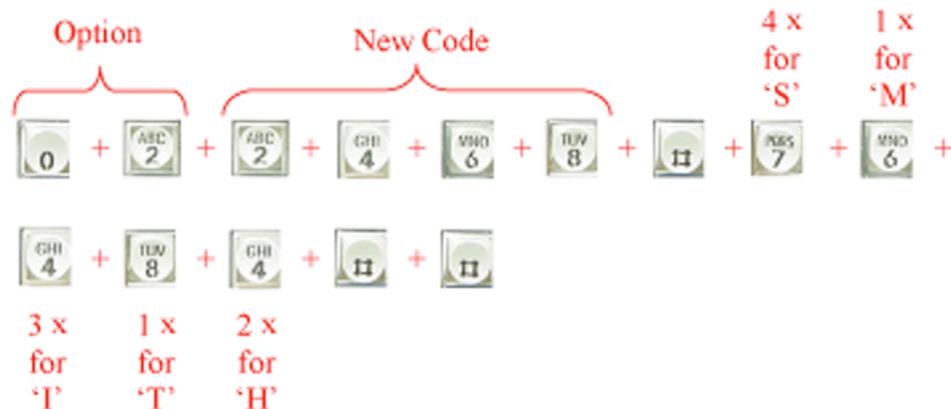
ADDING A NEW ENTRY CODE:

Enter: + + [*New Code*] + + [*Name*] + + + [*Next code*] ... etc.

When last code to be added is entered, press again.

[*New Code*] = Desired entry code, length can be from 3 digits to 8 digits long.
[*Name*] = Name, Job Title, Unit # or any word/s that identifies the code.
[*Next Code*] = Any additional codes that you wish to be entered.

Example: Entering the entry code: '2468' for the Smith



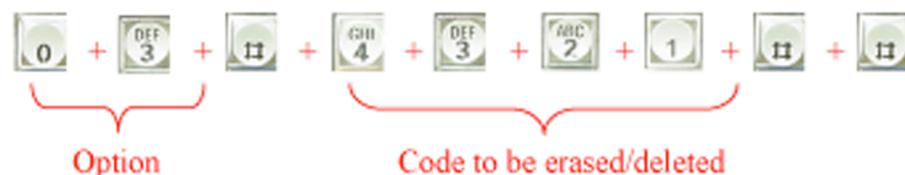
ERASING AN ENTRY CODE:

Enter + + [*Code*] + + [*Next Code*] ... etc.

When last code to be deleted is entered, press +

[*Code*] = Code to be erased/deleted.
[*Next Code*] = Any additional codes to be erased.

Example: Erasing/deleting the entry code: '4321'



TIME ZONE:

Default: All days; All Times

Enter + + ^{3-8 DIGITS} [Code] + ^{UNTIL FINISHED} + [Days] + + [Start Time HH:MM] + [AM/PM] + + [End Time HH:MM] + [AM/PM] +

[Code] = Entry Code to be Time Zoned.

[Days] = Days that the code will be active

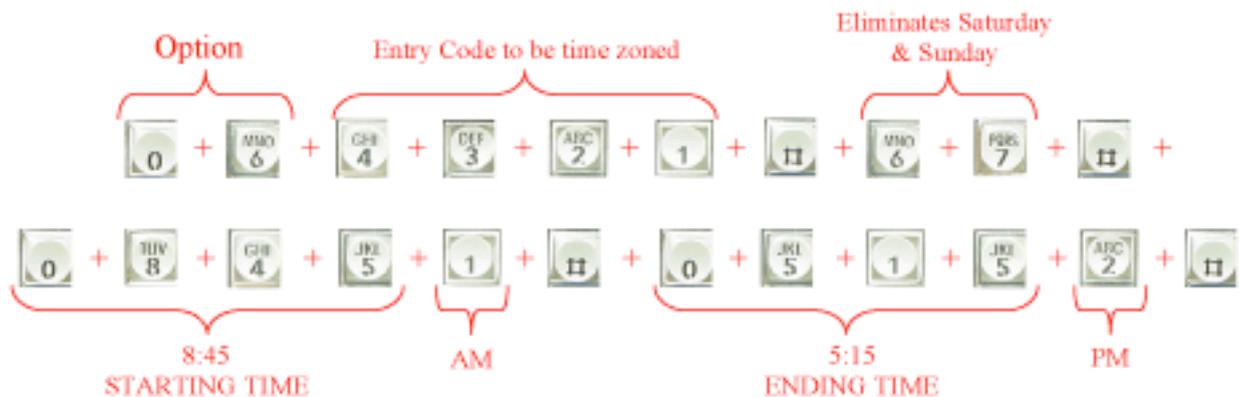
(Eliminate the days by pressing the corresponding numbers.)

Monday Tuesday Wednesday Thursday

Friday Saturday Sunday

[AM/PM] = AM PM

Example: Changing entry code "4 3 2 1" to only work on weekdays between 8:45am and 5:15pm



TIME ZONE DEFAULT:

Enter + + ^{UNTIL FINISHED} [Days] + + [Start Time HH:MM] + [AM/PM] + + [End Time HH:MM] + [AM/PM] +

[Days] = Days that the code will be active

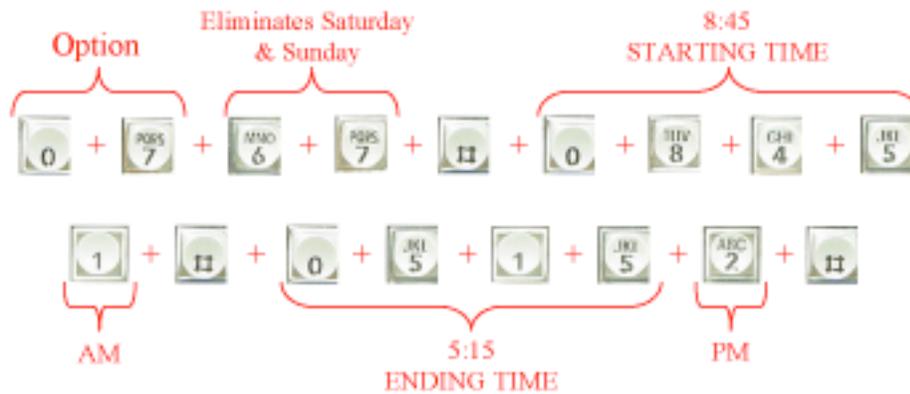
(Eliminate the days by pressing the corresponding numbers.)

Monday Tuesday Wednesday Thursday

Friday Saturday Sunday

[AM/PM] = AM PM

Example: Changing the time zone default to Monday thru Friday, 8:45am to 5:15pm.



ENTRY CODE SETUP:

Default: Relay 1 = 2 seconds; Relay 2 = 0 seconds; Usage Life = 0 (forever)

Enter 0 + THV 8 + [Code] + 11 + [Rly 1 Time] + 11 + [Rly 2 Time] + 11 + [Usage Life] + 11 + [Name] + 11

[Code] = Entry Code to be Time Zoned.

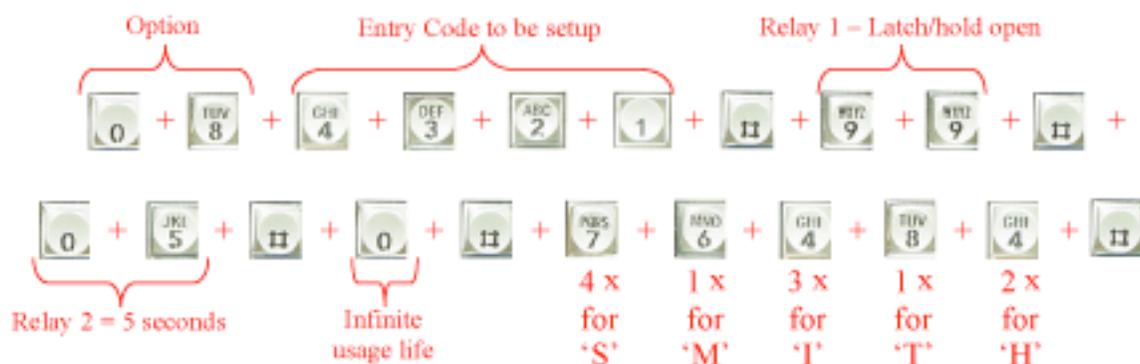
[Rly 1 Time] = Amount of time Relay 1 will be triggered.

[Rly 2 Time] = Amount of time Relay 2 will be triggered.

[Usage Life] = Utility code. Amount of times a code can be used before it is automatically deleted.

[Name] = Name, Job Title, Unit # or any word/s that identifies the code.

Example: Setting up Entry Code "4321" to latch/hold open relay 1, trigger relay 2 for 5seconds, have an infinite usage life & change the name to Smith



ENTRY CODE DEFAULT:

Enter  +  + [Rly 1 Time] +  + [Rly 2 Time] +  + [Usage Life] +  +

[Rly 1 Time] = Amount of time Relay 1 will be triggered.

[Rly 2 Time] = Amount of time Relay 2 will be triggered.

[Usage Life] = Utility code. Amount of times a code can be used before it

Example: Changing the entry code default to trigger relay 1 for 3 seconds, latch/hold open relay 2 & have an infinite usage life.



REQUEST 2 EXIT SETUP:

Default: Relay 1 = 0 seconds; Relay 2 = 0 seconds

Enter  +  + [Rly 1 Time] +  + [Rly 2 Time] + 

[Rly 1 Time] = Amount of time Relay 1 will be triggered.

[Rly 2 Time] = Amount of time Relay 2 will be triggered.

Example: Setting the request to exit to 9 seconds on relay 1



7-DAY TIMER A OR B:

Adding or changing the 7-day timer

A – Time Zone A B – Time Zone B

Enter + or + + [Relay Selection] + ^{UNTIL FINISHED} [Days] + +
 [Start Time HH:MM] + [AM/PM] + + [End Time HH:MM] + [AM/PM] +

[Relay Selection] = Which relays will become active

[Days] = Days that the code will be active

(Eliminate the days by pressing the corresponding numbers.)

Monday Tuesday Wednesday Thursday
 Friday Saturday Sunday

[AM/PM] = AM PM

Example: Setting the 7-Day Timer A to latch/hold open relay 1 on Monday through Friday, from 8:00am to 5:00 pm.

Option Edit Relay 1 Eliminates Saturday & Sunday

+ or + + + + + +
 + + + + + + + + + + +

8:00 STARTING TIME AM 5:00 ENDING TIME PM

Deleting or removing the 7-day timer

A – Time Zone A B – Time Zone B

Enter + or + +

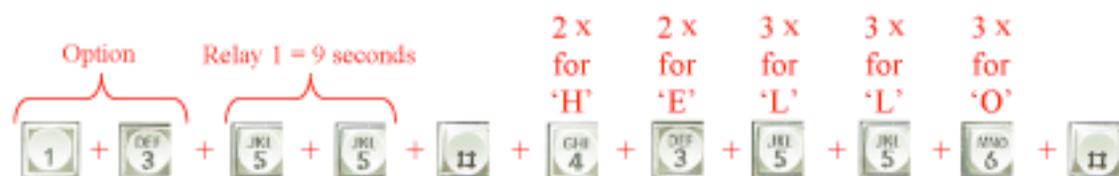
DISPLAY SETTINGS:

Enter  +  + [LCD Contrast] + [Banner Message]

[LCD Contrast] = Default - 50

[Banner Message] = Message Displayed on keypad display

Example: Setting the contrast to 55 and entering a banner message of "Hello"



SYSTEM SETTINGS:

Enter  +  + [Maximum Retries] +  + [Lockout Time] + 

[Maximum Retries] = The maximum times an invalid code can be entered before the keypad goes into lockout.

[Lockout Time] = The amount of time the keypad locks up for after the maximum retries have been exceeded.

Example: Changing the maximum retries to 5 and setting the lockout time to 2 minutes



REVIEW ALL CODES:

Enter  +  + [Use the following keys to navigate & perform functions]

| | | | |
|---|---------|---|-----------|
|  | Up 1 |  | Down 1 |
|  | Up 10 |  | Down 10 |
|  | Up 100 |  | Down 100 |
|  | Up 1000 |  | Down 1000 |
|  | Name |  | Exit |

REVIEW EVENT LOG:

Enter  +  + [Use the following keys to navigate & perform functions]

| | |
|---|---|
|  Up 1 |  Down 1 |
|  Up 10 |  Down 10 |
|  Up 100 |  Down 100 |
|  Up 1000 |  Down 1000 |
|  Month, Day & Time |  Exit |

ERASE EVENT LOG:

Enter  +  + 

FACTORY RESET:

Erases all codes & events, resets all defaults and settings to factory defaults.

Enter  +  +  + 

GLOSSARY

BANNER – Up to 16 characters. A message or name that can be displayed on the keypad on the main screen.

DISABLE CODE – Restricts all access. Used for holidays, vacations, lockdowns...etc. When this code is entered, all entry codes become temporarily disabled. All entry codes become active again when either the disable code is re-entered or the master code is entered.

DISPLAY SETTINGS – Display contrast & banner message

ENTRY CODE – Length can be from 3 digits up to 8 characters. An entry code allows access to a restricted area.

EVENT LOG – Lets you scroll through the last 5,112 events that occurred on the keypad. This includes power losses, master codes, entry codes & invalid codes due to time or day restrictions.

FACTORY RESET – Resets the keypad back to the factory default. All codes, events & timers will be erased.

Master code, Time zone defaults, entry code defaults, display settings & system settings will reset.

LATCH/HOLD OPEN CODE - In option 08, set the relay to 99 seconds. This code will latch or hold open the gate until this code or any other latch code for the same relay is entered again.

LCD CONTRAST – Brightness of the display screen (LCD).

LOCKOUT MODE/TIME – Default: 3 minutes. If the amount of invalid codes entered exceeds the maximum retries then the keypad will go into lockout mode. In lockout mode, NO entry codes will be accepted for a designated amount of time. Only the master code can override the lockout mode.

MASTER CODE – Default: 1 2 3 1 2 3. This code puts you into program mode. (see master code reset button)

MASTER CODE RESET BUTTON – Located on the keypad's circuit board. To reset the master code, press and hold this button for approximately 5 seconds. After approx. 5 seconds the keypad will beep quickly 3 times. Now release the button and the master code will be reset.

MAX RETRIES – Default: 3 tries. The maximum amount of invalid entry codes that may be entered before the keypad goes into lockout mode.

NAME – Maximum length is 12 characters. With every code, a name can be assigned to help identify who the code belongs to. This can be a person's name, unit number, job title...etc.

NUMERIC/ALPHA CODES

| | | | |
|-------------------|-------------------|-----------------------|---------------|
| 1 - 1 , . : - + | 4 - G H I g h i 4 | 7 - P Q R S p q r s 7 | 0 - Space |
| 2 - A B C a b c 2 | 5 - J K L j k l 5 | 8 - T U V t u v 8 | * - Backspace |
| 3 - D E F d e f 3 | 6 - M N O m n o 6 | 9 - W X Y Z w x y z 9 | # - Enter |

PROGRAMMING MODE – 18 different options.

| | | |
|-----------------------|--------------------------|-----------------------|
| 00 – Exit Setup Menu | 07 – Time Zone Defaults | 14 – System Settings |
| 01 – Set Date & Time | 08 – Entry Code Setup | 15 – Review All Codes |
| 02 – Add Entry Code | 09 – Entry Code Defaults | 16 – Review Event Log |
| 03 – Erase Entry Code | 10 – Req. 2 Exit | 17 – Erase All Events |
| 04 – Set Disable Code | 11 – 7-Day Timer A | 18 – Factory Reset |
| 05 – Set Master Code | 12 – 7-Day Timer B | |
| 06 – Time Zone Setup | 13 – Display Settings | |

REQUEST TO EXIT – Allows the user to connect a pushbutton that will latch a relay for a specified amount of time. This is primarily used on a pedestrian door when a locking device needs to be electrically released when a person leaves the property.

SCROLLING MENU

| | | | |
|---|---------------------------|---|-----------|
| # | Up 1 | * | Down 1 |
| 9 | Up 10 | 7 | Down 10 |
| 6 | Up 100 | 4 | Down 100 |
| 3 | Up 1000 | 1 | Down 1000 |
| 8 | Name or Month, Day & Time | 0 | Exit |

SYSTEM SETTINGS - Maximum retries & Lockout time

7-DAY TIMER A – Latches the relay/s during a specified time period on specific days.

7-DAY TIMER B – Allows you a second time for the 7-day timer.

TIME – When setting the clock, this is the present time (HH:MM). When setting Time Zone, Time Zone Default or 7-Day Timer, this is the desired start time and end time. (HH:MM).

TIME ZONE – The time when a code is valid. The parameters are determined by entering a start time, end time, and days of the week.

TIME ZONE DEFS – The factory default is 7 days a week/24 hours a day. Time zone defaults are changed when entering several codes at a time; this will setup what the default time zone will be for these codes.

USAGE LIFE – Default: 0 (forever). The usage life determines how many times a code can be used before it automatically deletes itself and becomes invalid.