



ScrambleLock

Programming Guide

This document is provided as a source of information. The illustrations and text do not necessarily reflect the latest changes, corrections, and/or additions to the ScrambleLock Security System.

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Getting Help

If you encounter a problem that is not discussed in this guide and you need technical support, do the following:

1. Contact your local dealer or the provider of this product.
2. If your dealer is not available, contact Hirsch Technical Support directly. This can be done in a number of ways:

Mail: Hirsch Electronics Corporation
1900-B East Carnegie Avenue
Santa Ana, CA 92705-5520

Attn: Technical Services

Phone: 877-HIRSCHX (877-447-7249) toll-free

Fax: (949) 250-7362

Email: support@HirschElectronics.com

WWW: www.HirschElectronics.com

Whenever you call your local dealer or Hirsch, be sure to have your registration material, serial number and software version number available.

For future reference, record these numbers here.

Serial Number: _____

Version Number: _____

Dealer: _____

Dealer Phone #: _____

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System Setup Commands

This section enables you to set up the basic system values. For assistance in doing this, refer to the System Log Worksheet on page 13.

Enter Programming Mode

Use the following command to enter Programming Mode.

```
START 123 #
```

You must be in Programming Mode in order to add/delete codes, etc. As shown above, the initial (default) code is **123**. Use “Change System Code”, CMD 01, on this page to replace this default password with a more secure password.

Clear Memory and Reset System

Use this command to clear current memory and reset the system. We recommend you only use this command on initial system setup or when a system requires a hard restart.

```
START 123 #  
START 00 * 0 #
```

Change System Code

Use this command to change the default system code, **123**, to a more secure password:

```
START 01 * New Code #
```

where *New Code* must be 3 — 8 digits long.

For example:

```
START 01 * 385034 #
```

indicates that you have changed the system code to 385034. Henceforth, this will be the password you must enter in order to enter Programming Mode.

Change System Mode

Use the following command to specify the system mode.

```
START 02 * Door Mode #
```

where:

```
Door Mode    1 = One Door. Factory default setting. Relay 1 and/or Relay 2 from  
              Keypad 1 and Keypad 2.  
              2 = Two Doors. Relay 1 from Keypad 1 and Relay 2 from Keypad 2.
```

For more on the implications of this, refer to Command 04, “Add 24-Hour User” on page 3.

For example:

```
START 02 * 2 #
```

indicates that this system is configured for two doors.

Hint *The 2 Door Mode is most commonly used, especially when there are two doors with their own keypads and people have access to one or both doors. Therefore, I recommend changing the mode from the default 1 Door Mode to 2 Door Mode before adding any user codes. This will minimize any confusion or problems later on.*

Change Relay Timer Mode

Use this command to set the amount of time the door relay will energize for unlocking the door.

```
START 03 * Relay Timer * N #
```

where:

Relay Timer 1 or 2. Relay Timer 1 or Relay Timer 2.

N Number of seconds from 0 to 8100 the timer is on. Default setting is 5 (five seconds).

Setting timer to 0 (zero) causes relay to latch on/off for consecutive codes.

For example:

```
START 03 * 2 * 36 #
```

indicates that Relay Timer 2 is set for 36 seconds.

Test System & Resume Operation

Use this command to clear all current relay actuation conditions.

```
START 10 #
```

Quit Programming Mode

Use this command to exit Programming Mode:

```
START 99 #
```

Add or Delete User Commands

The ScrambleLock can store up to 8 unique codes for accessing doors. Each code is referenced to a user number. For example, the first code entered will be User 1, the second code will be User 2, etc. up to user 8 for the eighth code.

Add 24-Hour User

Use this command to enroll a 24-hour user:

```
START 04 * User Number * Code * Relay #
```

where:

User Number The user number from 1 – 8. The ScrambleLock has a limit of eight users.

Code Number the specified user enters to gain access to the specified door (as specified by the relay). This code is 3 – 8 digits long.

Note: You cannot use the default code, 123, as a user access code.

Relay Number of the relay actuated to unlock the specified door. Possible values are:

- 1 = Door 1 unlocks when the code is used at either Keypad 1 or 2.
- 2 = Door 2 unlocks when the code is used at either Keypad 1 or 2.
- 3 = Doors 1 and 2 unlock when the code is used at either keypad.

For example:

```
START 04 * 3 * 9452 * 3 #
```

specifies that the user assigned the number 3 can enter the code 9425 in order to unlock either Door 1 and 2.

Hint *Since many companies and organizations using ScrambleLock have more than eight employees, they generally assign the same user number and code to more than one employee.*

Depending on which Door Mode is selected in Command 02, your selection of the relay parameter in Command 04 has a different effect as shown below:

Door Mode	When Relay parameter equals:
1 Door	<ul style="list-style-type: none"> • 1 – unlocks Door 1 when the code is used at either Keypad 1 or 2. • 2 – unlocks Door 2 when the code is used at either Keypad 1 or 2. • 3 – unlocks Doors 1 and 2 when the code is used at either keypad.

Door Mode	When Relay parameter equals:
2 Doors	<ul style="list-style-type: none">• 1 – unlocks Door 1 from Keypad 1, but will not unlock Door 2 from Keypad 2.• 2 – unlocks Door 2 from Keypad 2, but will not unlock Door 1 from Keypad 1.• 3 – unlocks either door from its associated keypad.

Note *If the ScrambleLock is controlling two doors and both doors have their own keypad, and people want to be able to access either door with their code, the controller must first be setup for Door Mode 2. Then, when using the Add 24-Hour User command, Command 04, enter 3 to signify that the code will work for both doors.*

A worksheet for users is available on page 13.

Delete User Code

Use this command to delete the designated user code from the database.

```
START 05 * User Number #
```

where:

User Number The user number from 1 – 8. The ScrambleLock has a limit of eight users.

For example:

```
START 05 * 34 #
```

delete user numbers 3 and 4 from the database. They will now be available for reassignment using Command 04.

Time Setup Commands

These commands apply to both the SL1+ and SL24+ models. To help you in setting up user and time zone values, refer to the worksheets starting on page 13.

Add Time Zone-Restricted User

Use this command to impose a time restriction on user access.

Note *Before using this command, first Set Time & Day of the Week, Command 06, then Define Time Zones, Command 07.*

```
START 04 * User Number * Code * Relay [* Time Zone] #
```

where:

User Number The user number from 1 – 8. The ScrambleLock has a limit of eight users.

Code Number the specified user enters to gain access to the specified door (as specified by the relay). This code is 3 – 8 digits long.

Relay Number of the relay actuated to unlock the specified door. Possible values:

- 1 = Door 1
- 2 = Door 2
- 3 = Doors 1 and 2

For more on this, refer to “Add 24-Hour User” on page 3.

Time Zone Optional. Period of the day during which this user is allowed to access the specified door using the designated code. If no time zone is specified in the command line, it indicates that no time zone restriction is required.

To define time zones, refer to “Define Time Zones” on page 6.

For example:

```
START 04 * 2 * 4968 * 2 * 3 #
```

assigns User 2 the code 2948 that works for access to Door 2 during Time Zone 3.

Set Time & Day of the Week

Specify the time and day.

```
START 06 * Time * Day #
```

where:

Time 24-hour military time. For example, 1430 is the same as 2:30 pm.

Day Day of the week where 1 = Monday and 7 = Sunday.

For example:

```
START 06 * 1600 * 3 #
```

designates the time as 4:00 PM on Wednesday.

Define Time Zones

Use this command to define one or more time zones.

```
START 07 * Time Zone * Start Time * End Time * Day(s) #
```

where:

Time Zone	Indicate the time zone number. Time zones 1 – 8 are available.
Start Time	Specify the beginning time in 24-hour format.
End Time	Specify the end time in 24-hour format.
Day(s)	One or more days of the week where 1 = Monday and 7 = Sunday. List up to 7 digits here.

For example:

```
START 07 * 1 * 0900 * 1700 * 12345 #
```

defines Time Zone 1 as 9 AM to 5 PM Monday through Friday.

```
START 07 * 2 * 0800 * 1200 * 6 #
```

defines Time Zone 2 as 8 AM to Noon on Saturday.

To help you in defining time zones, refer to the time zone worksheet on page 14.

Clear Time Zone

Use this command to remove time restrictions imposed on a user's code.

```
START 07 * Time Zone(s) #
```

where:

Time Zone(s)	Indicate the numbers of the time zones to be deleted. Time zones 1 – 8 are available.
--------------	---

Actuate Relay During Active Time Zone(s)

Door will auto-unlock when time zone becomes active, then relock at end of time period.

```
START 08 * Relay * Time Zone #
```

where:

Relay 1 = Door 1, 2 = Door 2, and 3 = both doors
 Time Indicate the numbers of the time zones during which this relay can be
 Zone (s) actuated. Time zones 1 – 8 are available. Include any or all.

For example:

```
START 08 * 1 * 1234 #
```

causes Door 1 to unlock during Time Zones 1, 2, 3 or 4, and will remain unlocked until these time zones end.

Cancel Relay Actuation During Time Zone(s)

Use this command to cancel actuation of a relay and relock the time zone-actuated door before the time zone ends. This command is often used for early holiday shutdown, sudden storms, or emergencies.

```
START 08 * Relay #
```

where:

Relay 1 = Relay 1, 2 = Relay 2, and 3 = both doors

This command may take up to a minute to relock. The auto-unlock command associated with this relay is deleted. Once relock occurs, it will not auto-unlock the next time the specified time zone occurs. In order to have the door resume its normal auto-unlock schedule, you must reprogram the relay using the “Actuate Relay During Active Time Zone(s)” on page 6.

For example:

```
START 08 * 2
```

relocks Door 2 permanently.

Skip-A-Day(s) for Relay Actuation During Time Zone(s)

Use this command to overrule an existing relay actuation during a time zone, such as opening a door during a previously scheduled holiday.

```
START 09 * Relay * Days this week * Days next week #
```

where:

Relay 1 = Door 1, 2 = Door 2, and 3 = both doors
 Days this week One or more days of this week where 1 = Monday and 7 = Sunday. List up
 week to 7 digits here. Each digit represents a specific day.

Days next week One or more days of next week where 1 = Monday and 7 = Sunday. List up to 7 digits here.

For example:

```
START 09 * 1 * 1234567 * 1234 #
```

specifies that Door 1 remains locked during all of this week and the first four days of next week.

Cancel Skip-A-Day

Use this command to cancel a day that has previously been set aside as a skip-a-day using Command 09. This command is useful for emergency unlocks during a holiday period. For example, if you need to get into a building during Christmas vacation or on Thanksgiving.

```
START 09 * Relay #
```

where:

Relay 1 = Door 1, 2 = Door 2, and 3 = both doors

For example:

```
START 09 * 3
```

immediately cancels this day as a skip-a-day for both doors.

Extended Mode Programming

These commands are an extension of basic programming and can be used for the Scramble-Lock SL1+ and SL24+ Models.

Note Before you can use any of these command, you must first be in Programming Mode.

Enter Extended Mode

Use this command to indicate you are entering Extended Mode. You will continue in this mode until you issue Command 99.

```
START 11 * * #
```

There are no variables for this command.

Change Keypad Setup

Use this command to change the behavior of a keypad regarding:

- Disable the keypad for programming. The keypad can only function as an access point.
- Change the behavior of the red LED so that it is always on.

Addresses 9 and 10 apply if there are entry and exit keypads at the same door.

```
START 12 * Mode * Entry Keypad Address * Exit Keypad Address #
```

where:

Mode	1 = Disable programming capability at specified keypad address. 2 = Red LED of keypad is always on. This makes it more difficult to ascertain whether the code was granted.
Entry Keypad Address	Entry keypad assignments: 0 = no keypad, 1 = Keypad 1, or 2 = Keypad 2
Exit Keypad Address	Exit keypad assignments: 0 = neither keypad, 1 = exit keypad (Address 9) for entry Keypad 1, or 2 = exit keypad (Address 10) for entry Keypad 2

For example:

```
START 12 * 1 * 1 * 9
```

indicates that both the entry and exit keypad for Door 1 are disabled for programming.

Caution Enable at least one keypad for programming. If you disable all keypads for programming, you are effectively shut out of the system, unable to change any settings or add any new users. If this happens, you are forced to cold-start the controller and reset everything to default settings, thereby erasing all codes and custom setups.

Select Alarms To Trip Specified Relay

Indicate that you want to trigger an alarm if one or all of the following conditions are detected at the designated door:

- Code Tamper—someone has entered an invalid code three times at a ScrambleLock.
- Keypad Tamper—someone has attempted to pry open or remove the keypad’s outer bezel.
- AC Power Failure—the controller’s AC power has failed.

```
START 13 * Alarm * Relay #
```

where:

Alarm 0 = None, 1 = Code Tamper, 2 = Keypad Tamper, 3 = AC Power Fail

Relay 1 = Door 1, 2 = Door 2, and 3 = both doors

For example,

```
START 13 * 12 * 1 #
```

indicates that an alarm will be triggered at Door 1 if either code tamper or keypad (physical) tamper is detected.

Add 24-Hour or Restricted Single-Use Code

Use this command to enroll a user for only a single access of the system. This is particularly useful for assigning visitors a day pass to one or more areas.

```
START 14 * User Number * Code * Relay [* Time Zone(s)] #
```

where:

User Number The user number from 1 – 8. The ScrambleLock has a limit of eight users.

Code Number the specified user enters to gain access to the specified door (as specified by the relay). This code is 3 – 8 digits long.

Note *This code cannot be the default 123.*

Relay Number of the relay actuated to unlock the specified door. Possible values are:

- 1 = Door 1
- 2 = Door 2
- 3 = Doors 1 and 2

For more on this, refer to “Add 24-Hour User” on page 3.

Time Zone(s) Optional. Indicate the time zones during which this code is usable. Any or all of Time Zones 1 – 8 are available. This variable only works with the SL1+ and SL24+.

For example:

```
START 14 * 3 * 4958 * 1 #
```

assigns User 3 the code 4958 for entry through Door 1 on a single-use basis.

```
START 14 * 3 * 4958 * 2 * 45 #
```

assigns User 3 the code 4958 through Door 2 on a single-use basis, but only during Time Zone 4 and 5.

Change Code Tamper Detection Setups

Use this command to change the code tamper detection default setups.

```
START 15 * Setup * Time #
```

where:

Setup 1 = Time Penalty for each invalid code
 2 = Alarm Threshold to trip alarm

Time Time penalty or alarm threshold before alarm is triggered in seconds
 (0-99).

Default value for time penalty is **20** seconds. Default for alarm threshold is **50** seconds.

For example:

```
START 15 * 1 * 8 #
```

institutes an 8-second penalty for each invalid code.

```
START 15 * 2 * 20 #
```

specifies a 20-second threshold before an alarm is issued.

Disable/Enable System Code Reset Button

Use this command to disable or enable the system code reset button.

Note *If the system code reset button is disabled, it does not affect the ability of the ScrambleLock to cold start.*

```
START 16 * 0 * Switch Mode #
```

where:

Switch Mode 1 = Disable reset button
 2 = Enable reset button

For example:

```
START 16 * 0 * 2 #
```

enables the reset button.

Warning: Pressing the reset button for 30 seconds erases all data stored through programming including users and codes. Values are returned to their default settings.

Invert Operation of Relay

If the door lock is magnetic, use this command to specify the resting state of the door relay. The designated relay can be set as fail safe (de-energized when resting) or fail secure (energized when resting).

```
START 17 * Resting State * Relay #
```

where:

Resting State 1 = Relay is energized, 2 = Relay is de-energized.

Relay Number of the relay affected. Possible values are:

- 1 = Relay 1
- 2 = Relay 2

For example:

```
START 17 * 2 * 2
```

Relay 2 is de-energized in its resting state.

Disable/Enable AC Fail Status LED

Use this command to disable or enable the AC Fail Status LED. In certain circumstances, you may want to disguise the significance of this LED so that an intruder will not know when failure has occurred. This only applies to the ScrambleLock you are currently using.

```
START 18 * LED Status #
```

where:

LED Status 1 = Disable display of AC Fail LED, 2 = Enable display of AC Fail LED. Default is 2.

For example:

```
START 18 * 1 #
```

disables the display of the AC Fail LED.

Worksheets

The following worksheets help you plan and configure your ScrambleLock installation.



System Log

Master Sheet: Copy this worksheet, do not write on the master sheet.

System Code: (Factory/Reset: 123)

Location/Description
System Controller: _____
Door 1/Relay 1: _____
Door 2/Relay 2: _____
System Mode:
1 Door Mode _____
2 Door Mode _____

Time Zone Control	
Time Zone(s)	Days



User Log

Master Sheet: Copy this worksheet, do not write on the master sheet.

(SL1+ and SL24+ only)

Assignment Date	Name or Group	User	User Code	Doors/Relays	Time Zones	Days



Time Zone Worksheet

Master Sheet: Copy this worksheet, do not write on the master sheet.

	Time Zone		Start Time					Stop Time					Days of the Week									
			H	H	M	M		H	H	M	M		M	T	W	Th	F	S	Su			
														1	2	3	4	5	6	7		
START 07 *	1	*					*					*										#
START 07 *	1	*					*					*										#
START 07 *	1	*					*					*										#
START 07 *	1	*					*					*										#
START 07 *	1	*					*					*										#
START 07 *	1	*					*					*										#
START 07 *	1	*					*					*										#
START 07 *	1	*					*					*										#

