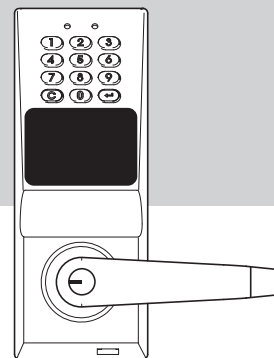




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Operating Instructions

**PowerLever®**

**Series**  
**Model 15xx**



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## Introduction

### Lock Description

The PowerLever® Door Lock is an advanced design electronic lock that operates using internally-generated power, “PowerStar™ technology”, and includes a microprocessor and a cylindrical lock mechanism.

The lock consists of the following major assemblies:

- **Outside cover assembly** - includes a keypad for entry of control data, a pair of LEDs (red and green) for visual feedback, a beeper for audio feedback, and the outside lever with a return of ½" to the door (unassembled).
- **Inside cover hardware** - includes system electronics and the inside lever with a return of ½" to the door (unassembled).
- **Cylindrical lock hardware** - includes a Grade 1 lock mechanism with free-wheeling system and stainless steel retractor, a 6-pin standard key cylinder with tailpiece and two keys (unless prepared for interchangeable core), a ⅝" throw latchbolt with adjustable bevel, and either a 2¼" T-strike with box or a 4⅞" ASA strike, and a screw pack.

### Lock Users

The table below denotes the number of users for the Model 15xx lock. The number of users will vary depending on whether you define a 1 or 2-digit User ID.

Model	Users	UID Range	Users	UID Range
15xx	10	0 - 9	23	00 – 99

The Model 15xx does not maintain an audit trail.

### PowerLever Operation

The PowerLever Lock is designed to operate using internally-generated power. The self-contained PowerStar™ generator is triggered by depressing the outside lever. Each 67-degree open and 67-degree restore rotation of the lever constitutes a charging cycle. A door open operation will require only one charging cycle if the period of door lever inactivity does not exceed a weekend (approximately 65 hours) when operating at normal room temperature. Periods of non-use beyond a weekend will require two charging cycles for a door open operation. One simultaneous flash of the green and red LEDs accompanied by a low volume beep indicates that the lock is powered. Each additional depression of the lever will result in this same response.

Extended operations will require a charging cycle approximately every 15 seconds. A monitor will provide audio and visual cues to the user when lock power drops below a sufficient level for operation. The lock will continually beep and flash the red LED, prompting the user to depress the outside lever to provide additional power within 5 seconds.

### Lock Entry Methods

The latch will not be engaged to unlock the door unless one of the following actions occurs:

1. A valid combination is entered by an authorized user.

**Caution:** When opening the lock with a combination, do not depress the outside lever until the lock responds with three beeps/flashes of the green LED to indicate available entry.

2. The Passage Function is programmed to maintain the lock in the unlocked position. No combination is required to open the lock when the it is in this state of operation.
3. A mechanical key is used to retract the latch.

**Note:** The door can always be opened from the inside by depressing the inside lever.

### Additional Materials

A Quick Reference Guide that documents all lock operations for the PowerLever Series - Model 15xx is included with the lock. A two-sided Quick Reference User Card is also included and provides an “at-a-glance” quick summary of instructions for performing the two basic Access User lock operations.

### User Information

Before attempting to operate the lock, it is very important that you familiarize yourself with the types of users and the terminology associated with user identifiers, PINs, and combinations.

#### Lock Personnel Classifications

Four different user classifications of personnel can access the lock:

- **Master User** - The Master User is the top-level manager who performs the initial lock setup activities and can program all lock functions. The Master User combination will open the lock. There is a maximum of one Master User per lock.

- **Manager User** - The Manager User is the second-tier manager who can program all lock functions except for 1) adding/deleting the Master User and Manager User, 2) activating the lock and 3) shelving the lock. The Manager User combination will open the lock. There is a maximum of one Manager User per lock.
- **Access User** - A user added by the Master User or Manager User who has the ability to open the lock. Users can be added individually at the lock.
- **Service User** - A single user authorized for a one-time entry. This combination is automatically deleted after use.

**Note:** All users, regardless of personnel classification, will occupy one of the available User ID positions when added to the lock. A User ID is unique to a particular user; i.e., no two users can have the same User ID.

The Master User and Manager User are referred to as managerial users or managerial personnel throughout this guide.

The following chart shows the activities that can be performed by each personnel classification.

Activity	Master User	Manager User	Access User	Service User
Determine Model Type	✓	✓		
Change User ID & PIN Lengths	✓	✓*		
Activate Lock	✓			
Activate/Deactivate Manager User	✓			
Set Re-Lock, Wrong Try Penalty	✓	✓		
Add/Delete Access User(s)	✓	✓		
Change PIN	✓	✓	✓	
Open Lock	✓	✓	✓	✓
Issue Service User Combination	✓	✓		
Remove Service User Combination	✓	✓		✓
Change Combination (User ID + PIN)	✓			
Enable/Disable User ID or Group	✓	✓		
Switch Passage Function	✓	✓		
Shelve Lock	✓			

\* Only to increase User ID or PIN length while lock is Activated.

## Combinations

The PowerLever Series Lock is accessed via a combination entered at the keypad. A Variable Length Combination is a feature of the Model 15xx lock. The combination can consist of as little as a one-digit User ID or the length can be up to six digits in length and consist of a User ID followed by a Personal Identifier Number (PIN). Regardless of the combination length, a combination will always be unique to a given user. **The default combination length is six digits (two-digit User ID + four-digit PIN).** The length of the combination must be changed during the set-up of the lock if the combination length needs to be something other than the default. Once the lock has been operational, the length of the combination can be changed but only under certain conditions. If you wish to **decrease** the length of the User ID and/or the PIN, the lock must be in a **Shelved** state. If you wish to **increase** the length of either part of the combination, the lock may be in an **Activated or a Shelved** state. See the section on Operational Modes for more detail on Activated and Shelved locks.

## User IDs

For the Model 15xx lock, the User ID can be a one or two-digit value. **The default User ID length is two digits.** A User ID is assigned to each user in the system. For a one-digit User ID, the valid IDs are 0-9. For a two-digit ID, the valid IDs are 00 through 99, regardless of the maximum number of Access Users. All operations performed by users require the entry of the User ID as the first or, in some cases, the only part of the combination. The Master User has the ability to assign User IDs for all four user types when adding them to the lock. The Manager User can only assign User IDs for Access Users and a Service User.

The Master User is the only user whose User ID can be changed from one value to another without deleting and re-adding the user.

**Note:** All users including the Master User, Manager User, Access Users and Service User occupy one of the available User IDs when added to the lock. For example, if the Master User activates the lock and changes the default combination from "000000" to "011234" the Master User then occupies the User ID "01". No other user can then be assigned the User ID of "01".

## User PINs

For the Model 15xx lock, use of the User PIN is optional. It can be defined to a length of 0 (in which case no PIN has to be entered with the User ID) or it can be defined to a length of 1-4 digits. **The default PIN length is four digits.** If defined to a length other than 0, the User PIN can be any value in the range from all 0's through all 9's. It is initially assigned the **default value of all 0's** (which will not open the lock until it has been changed), and can be changed at any time by the user for added security. If defined, it serves as the second part of the combination, always following the User ID.

## User ID Groups

Users may be organized into groups according to their assigned User IDs with each group capable of having lock entry enabled or disabled by managerial personnel. In addition, user entry may be enabled or disabled by a particular User ID. The disabled status of a group takes precedence over the disabled/enabled status of any single User ID within the group. However, if a group is enabled, the status of the user takes precedence.

Group 00 is a special group that includes all User IDs. If your system only has a one-digit User ID defined, you will only have three valid User ID groups: 1) Group 00 = All Users; 2) Group 01 = User IDs 0-4; 3) Group 02 = User IDs 5-9. For a two-digit User ID the 00-99 range of User IDs is divided into 20 groups, each having five consecutive User IDs as illustrated in the following table.

Group Number	User ID Range	Group Number	User ID Range
00	00-99		
01	00-04	11	50-54
02	05-09	12	55-59
03	10-14	13	60-64
04	15-19	14	65-69
05	20-24	15	70-74
06	25-29	16	75-79
07	30-34	17	80-84
08	35-39	18	85-89
09	40-44	19	90-94
10	45-49	20	95-99

## Communicating with the Lock

In order to properly operate the lock, you must know what the lock is expecting you to do and you must also understand what it means when the lock responds to your actions.

### Operating Conventions

The following conventions apply to the operation of the lock:

- Once the lock is powered, you have a maximum of 20 seconds to enter a valid combination for an operation.
- To clear any uncompleted keypad entry, press the **Clear** key. This will clear any input that was entered since the last accepted input (as indicated by 2 flashes of the green LED along with 2 beeps).
- To initiate a lock operation other than opening the lock, you must:
  - 1) Power the lock and enter a valid combination
  - 2) Before re-lock, press the **Enter** key followed by the number associated with the lock operation. For example when adding an Access User, you would press **Enter** and then **2**.
- When performing multiple passes within an operation for multiple access users, the Enter key is used as a terminator for the operation.

### Lock Responses

The tables below summarize how the red and green LEDs are flashed individually, simultaneously, or in combination to indicate various conditions. Each LED flash is accompanied by a beep for audio reinforcement.

Flashes	Green LED	Red LED
Continuous		Low Power
1	Keystroke Entry	
2	Input Accepted	General Error
3	Lock Ready to Open	Bad Attempt to Open
4	User ID Added/Deleted Manually	

Flashes	Green / Red Sequence	Simultaneous Green-Red
Continuous		
1	CLR Key Depression	Lock Powered
2	Device Error **	Procedure End; Re-lock or Penalty Time Expired

\*\* Contact Technical Support for assistance at 1-800-950-4744.

- One simultaneous flash of the green and red LEDs accompanied by a beep indicates that the lock is powered.
- When power drops below a sufficient level for operation, the lock will continually beep and flash the red LED. At this point, the operator has 5 seconds in which to regenerate power to a sufficient level before the lock will systematically shutdown. To regenerate power, depress the outside lever through a 67-degree open and 67-degree restore rotation.
- After each accepted step of an operation, two flashes of the green LED display and two beeps sound, prompting you to enter additional information for the next step of the operation. **The User must wait for these prompts before proceeding.**
- After you have completed all the steps of an operation, two simultaneous flashes of the green and red LED display and two beeps sound if the operation is successful. Two red flashes display and two beeps sound if the operation is unsuccessful and you will need to re-key the operation which caused the error.

## Programmable Features

The PowerLever Door Lock has the following programmable features.

### Lockout

Managerial personnel can control the entry of Access Users and Service Users by enabling and disabling available entry. Lock entry rights can be programmed for specific users, groups of users, or all Access Users.

**Note:** The Master User and the Manager User are not affected by the lockout.

### Re-Lock Time

The re-lock time (i.e. the time that the lock remains open before re-locking) can be programmed by managerial personnel from 2 to 20 seconds, with a **factory set default of 4 seconds**. The lock automatically re-locks after the re-lock time has expired. The re-lock is indicated by an audible “click”.

### Passage Function

Programming the Passage Function will change the state of the Model 15xx lock from locked to unlocked. When programmed to the unlocked, or Passage function, no combination or key override is required for entry. Only managerial personnel are authorized to program Passage Function. The **factory default** of a new lock is **Passage Function = Off (Locked)**.

## Wrong Try Limit and Penalty Time

The wrong try limit is the maximum number of consecutive failed entry attempts that can occur before the lock temporarily shuts down (to prevent combination tampering). The **wrong try limit** is programmable from 3-9 with a **default of 3**.

The **penalty time** is the time period for which the lock shuts down when the wrong try limit is reached. For the Model 15xx, the **shutdown time** is programmable from 0 to 20 seconds with a factory set **default of 20 seconds**. The maximum shutdown period for the Model 15xx is approximately 20 seconds. Only managerial personnel are authorized to program these parameters.

During the shutdown period, the lock will not respond to any user actions. If you attempt to power the lock during the shutdown, the lock will display two simultaneous flashes of the red LED to indicate an error condition. When the shutdown period has elapsed, the lock will respond to user actions. Each additional wrong try will result in the lock shutting down for the programmed penalty time. This cycle will continue until a correct combination is entered.

## Operational Modes

The PowerLever Door Lock will always be in one of two operational modes: **Shelved** or **Activated**.

### Shelved Mode

When a lock is shipped from the factory, it will be in the **Shelved Mode**. The shelved mode enables the lock to be opened before the user has placed it in service, activated it, and authorized users to open it. Shelved mode is also useful when a lock is to be temporarily removed from service and stored.

**Note:** The lock should be placed in shelved mode to assure that it can be opened and placed back in service when desired without having to retrieve old combinations.

While in the shelved mode, the lock will be set up for entry only by the Master User via a combination of **all 0's**. Within the Shelved Mode, the Master User can:

- Define User ID and PIN lengths.
- Specify re-lock, wrong try limit, and wrong try penalty times.
- Set the lock in Passage or Entrance Function to Locked or Unlocked.
- Change the Master User combination to activate the lock.

If a lock has been Activated and then is Shelved, all users are removed except for the Master User. The Master User's combination is returned by the Shelving to the default of **all 0's**. Values that are retained in the lock once it is Shelved are as follows:

- User ID & PIN lengths
- Re-lock, Wrong Try Limit, and Wrong Try Penalty Times

### Activated Mode

Once the Master User combination has been changed from **all 0's**, the lock is placed in the **Activated Mode**. In activated mode, the Master User can add the Manager User, Access Users, and Service User to the lock. Each type of personnel activated in the lock has the full range of capability described within this guide while the lock is in Activated Mode.

**Note:** Whenever the Master User changes his combination back to **all 0's**, the lock returns to Shelved Mode.

## Getting Started

This section identifies lock setup activities and startup operations.

We recommend that you follow the steps outlined below to ensure proper setup of your lock. Before you start lock setup, check basic lock operation by opening the shelved lock with the default combination as described on page 11.

### Lock Setup Activities

The following provides a brief list of the activities that are to be performed by the Master User and, optionally, Manager User to configure the lock for lock operations. The instructions for performing these activities are located on the indicated pages.

#### Master User

1. Change User ID and PIN Lengths\* (Optional) (page 12-13)
  - \* This operation can also be performed by the Manager User to increase the User ID and/or PIN lengths once the lock has been activated.
2. Activate the Lock (page 13-14)
3. Activate the Manager User (Optional) (page 14)

#### Master User / Manager User

1. Set Re-Lock, Wrong Try Limit, and Penalty Times (Optional) (page 15)



## Lock Startup Operations

**Note:** Before any startup operations can be performed, the activities listed in the previous “Lock Setup Activities” section must be completed.

The following provides a brief list of the operations that should be performed to enable full operation capabilities of the lock. The instructions for performing these activities are located on the indicated pages.

### Master User / Manager User

1. Add Access User(s) (page 16)

### All Users

1. Change PIN\* (page 17)
  - \* If PIN length is not 0.
2. Open Lock (page 18)

## Additional Lock Operations

The following provides a brief list of the lock operations that may be performed after initial setup and startup activities have been completed. The instructions for performing these activities are located on the indicated pages.

### Master User

1. Change Combination (page 28)
2. Deactivate Manager User (page 27)
3. Shelve the Lock (page 29)

### Master User / Manager User

1. Determine Model Type (page 19)
2. Issue Service User Combination (page 20)
3. Remove Service User Combination (page 21)
4. Disable a Specific User ID (page 22)
5. Enable a Specific User ID (page 23)
6. Disable a Group of User IDs (page 24)
7. Enable a Group of User IDs (page 25)
8. Switch Passage Function (On/Off) (page 26)
9. Delete Access User(s) (page 26-27)

## Lock Operations

This operation is usually the first operation performed on the lock after installation, as a means of checking basic lock operation.

### Open Shelved Lock Using Default Combination

The lock can be opened while in a Shelved state using the default Master User combination of all 0's.

**Note:** The lock is shipped pre-set from the factory with the default Master User combination of **000000** (User ID=00; PIN = 0000).

Step	Detailed Instructions
<b>1. Power lock.</b>  <b>2. Enter Master User default combination of all 0's.</b>	Power the lock by depressing the outside lever.  Enter the Master User default combination of <b>all 0's</b> . The lock will beep and flash the green LED on <b>each</b> keystroke entered. (If the <b>Clear</b> key is during data entry, the lock responds with one alternate beep/flash of the green and red LED, and all digits of the combination must be re-entered.)  The lock responds with three beeps/flushes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flushes of the red LED.
<p><b>Caution:</b> When opening the lock, do not depress the outside lever until the lock responds with three beeps/flushes of the green LED to indicate available entry.</p>	
<b>3. Open lock.</b>	Before re-lock time expires, depress the outside lever to open the lock. At the end of the re-lock interval, the lock will respond with two simultaneous beep/flushes of the red and green LEDs.

**Note:** If a lock has been Activated and then Shelved, the lock returns to a state where it can be opened with the default Master User combination of **all 0's**. The length of the default combination will be the currently defined length of the User ID + the currently defined length of the PIN.



## Change User ID and PIN Lengths

The length of the User ID + the length of the PIN = the length of the combination. A User ID is mandatory and can vary between one and two digits in length. A PIN is optional. If no PIN is desired, a PIN length of 0 is set. If a PIN will be required to open the lock, it can be defined to a length of 1-4 digits.

**Note:** The factory default User ID length is two digits and the factory default PIN length is four digits.

If you wish to **decrease** the length of the User ID and/or the PIN, the lock must be in a **Shelved** state and only the Master User can perform the operation. If you wish to **increase** the length of either or both parts of the combination, the lock may be in an **Activated** or a **Shelved** state. If the lock is in an **Activated** state, either the Master User or the Manager User can perform the operation.

If you would like to set the length of the User ID and/or the PIN to something other than the currently defined values, complete the following steps:

Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter Master User or Manager User combination</b>	Enter the Master User or Manager User combination. The lock will beep/flash the green LED on each keystroke entered. If the Clear key is pressed during data entry, the lock responds with one beep/flash of the green LED followed by the red LED, and all digits of the combination must be re-entered. The lock responds with three beeps/flushes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flushes of the red LED.
3. <b>Press  then 12.</b>	Before re-lock time expires, press  (Enter key) followed by the <b>1</b> key and then the <b>2</b> key. The lock responds with two beeps/flushes of the green LED.
4. <b>Enter User ID length (1-2).</b>	Enter User ID length (1-2). The lock responds with two beeps/flushes of the green LED.
5. <b>Enter PIN length (0-4).</b>	Enter PIN length (0-4). The lock responds with two beeps/flushes of the green and red LEDs.

**Note:** Once the User ID and/or PIN length have been changed, all active combinations assume the newly defined combination length. If the lock is in a Shelved state, this will only affect the Master User combination.

### Example:

User ID length changed to 2; PIN length changed to 2.  
The Master User would then enter four 0s to activate the lock.



If the lock is Activated and the length of the User ID or PIN has been increased, previously defined User IDs and PINs will automatically be zero filled to the left to match the new length.

### Example:

User ID length = 1; User ID = 8.  
User ID length changed to 2; User ID automatically changed to 08.  
Pin length = 2; PIN = 02.  
PIN length changed to 3; PIN automatically changed to 002.

## Activate the Lock

**Note:** To activate the lock, the Master User must change the default Master User combination of all 0's. The default combination must be changed before any lock operations can be performed.



Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter Master User default combination of all 0's</b>	Enter the Master User default combination of <b>all 0's</b> . The lock will beep/flash the green LED on each keystroke entered. (If the <b>Clear</b> key is pressed during data entry, the lock responds with one alternate beep/flash of the green and red LED, and all digits of the combination must be re-entered.) The lock responds with three beeps/flushes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flushes of the red LED.
3. <b>Press  then 5.</b>	Before re-lock time expires, press  (Enter key) followed by the <b>5</b> key. The lock responds with two beeps/flushes of the green LED.
4. <b>Enter new Master User combination.</b>	Enter the new Master User combination. The lock responds with two beeps/flushes of the green LED.

**Note:** When PIN length = 0, Combination = User ID only; otherwise, Combination = User ID + PIN.



Step	Detailed Instructions
5. <b>Enter Master User combination again.</b>	<p>Enter the new Master User combination again for verification. If the combination was verified successfully, the lock responds with two simultaneous beeps/flashes of the green and red LEDs. The lock responds with two beeps/flashes of the red LED to indicate an error.</p> <p>The lock is now activated and the new Master User combination is in effect.</p>



### Activate the Manager User

Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter Master User combination.</b>	Enter the Master User combination. The lock will beep/flash the green LED on each keystroke entered. If the <b>Clear</b> key is pressed during data entry, the lock responds with one beep/flash of the green LED followed by the red LED, and all digits of the combination must be re-entered. The lock responds with three beeps/flashes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flashes of the red LED.
3. <b>Press  then 90.</b>	Before re-lock time expires, press  (Enter key) followed by the <b>9</b> key and then the <b>0</b> key. The lock responds with two beeps/flashes of the green LED.
4. <b>Enter Manager User combination.</b>	Enter the combination for the Manager User. The lock responds with two beeps/flashes of the green LED.

**Note:** When PIN length = 0, Combination = User ID only; otherwise, Combination = User ID + PIN.



5. <b>Enter Manager User combination again.</b>	<p>Enter the Manager User combination again for verification. The lock responds with two simultaneous beeps/flashes of the green and red LEDs if the combination was verified successfully. The lock responds with two beeps/flashes of the red LED to indicate an error.</p> <p>The Manager User is now activated with the entered combination. If PIN length is not 0, the PIN should be changed immediately for security purposes.</p>
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### Set the Re-Lock and Wrong Try Limit and Penalty Times



Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter Master User or Manager User combination</b>	Enter the Master User or Manager User combination. The lock will beep/flash the green LED on each keystroke entered. If the Clear key is pressed during data entry, the lock responds with one beep/flash of the green LED followed by the red LED, and all digits of the combination must be re-entered. The lock responds with three beeps/flashes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flashes of the red LED.
3. <b>Press  then 10.</b>	Before re-lock time expires, press  (Enter key) followed by the <b>1</b> key and then the <b>0</b> key. The lock responds with two beeps/flashes of the green LED.
4. <b>Enter two-digit re-lock time.</b>	Enter a new two-digit re-lock time in the range of 02-20 seconds. The lock responds with two beeps/flashes of the green LED.
5. <b>Enter one-digit wrong try penalty.</b>	Enter a new one-digit wrong try penalty limit in the range of 3-9 tries. The lock responds with two beeps/flashes of the green LED.
6. <b>Enter two-digit wrong try penalty time.</b>	Enter a new two-digit wrong try penalty time in the range of 00-20 seconds. The lock responds with two simultaneous beeps/flashes of the green and red LEDs.
	The re-lock time and wrong try limit and penalty time are now in effect.

## Add Access User(s)

**Note:** If at any time during the procedure the lock power drops below a sufficient level for operation, the lock will continually beep and flash the red LED, prompting the user to depress the outside lever to provide additional power within 5 seconds.



Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter Master User or Manager User combination</b>	Enter the Master User or Manager User combination. The lock will beep/flash the green LED on each keystroke entered. If the Clear key is pressed during data entry, the lock responds with one beep/ flash of the green LED followed by the red LED, and all digits of the combination must be re-entered. The lock responds with three beeps/flushes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flushes of the red LED.
3. <b>Press  then 2.</b>	Before re-lock time expires, press  (Enter key) followed by the 2 key. The lock responds with two beeps/flushes of the green LED.
4. <b>Enter Access User ID.</b>	Enter a User ID for an Access User. The lock responds with two beeps/flushes of the green LED.
5. <b>Enter Access ID User again.</b>	Enter the Access User ID again for verification. The lock responds with four beeps/flushes of the green LED. The lock responds with two beeps/flushes of the red LED if the User ID was unconfirmed or no space was found in the Access User table.  The Access User is now added to the lock with the specified User ID and a default PIN of all 0's if PIN length is not 0.
6. <b>Repeat Steps 4 and 5 to add more users or go to Step 7.</b>	If additional Access Users are to be added, repeat Steps 4 and 5 until all Access Users have been added. If no additional Access Users are to be added, go to Step 7.

**Caution:** If you are adding multiple Access Users, you may need to depress the outside lever at this time to provide additional power.

7. <b>Press .</b>	Press  (Enter key) to exit. The lock responds with two simultaneous beeps/flushes of the green and red LEDs and exits this procedure.
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## Change PIN

**Note:** This operation is only applicable if PIN length is not 0. Master User, Manager User, and Access User PINs can be changed, but a Service User PIN cannot be changed. An Access User's PIN may only be changed if the user is enabled and is not currently restricted from access to the lock for any reason. The default PIN for an Access User is all 0's and must be changed before the lock will open.

Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter Master User, Manager User or Access User combination</b>	Enter the user's current combination. The lock will beep/flash the green LED on each keystroke entered. If the <b>Clear</b> key is pressed during data entry, the lock responds with one beep/flash of the green LED followed by the red LED, and all digits of the combination must be re-entered. The lock responds with three beeps/flushes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flushes of the red LED.
3. <b>Press  then 5.</b>	Before re-lock time expires, press  (Enter key) followed by the 5 key. The lock responds with two beeps/flushes of the green LED.
4. <b>Enter new combination (User ID + <u>new</u> PIN)</b>	Enter the new combination (User ID + <u>new</u> PIN). The lock responds with two beeps/flushes of the green LED if the combination was verified successfully. The lock responds with two beeps/flushes of the red LED to indicate an error.
5. <b>Enter new combination (User ID + <u>new</u> PIN) again.</b>	Enter the new combination (User ID + <u>new</u> PIN) again for verification. The lock responds with two simultaneous beeps/flushes of the green and red LEDs if the combination was verified successfully. The lock responds with two beeps/flushes of the red LED to indicate an error.  The new PIN is now active for the user.

## Open the Lock



Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter combination.</b>	Enter the combination to open the lock. The lock will beep/flash the green LED on each keystroke entered. If the Clear key is pressed during data entry, the lock responds with one beep/flash of the green LED followed by the red LED, and all digits of the combination must be re-entered.
<p><b>Caution:</b> When opening the lock, do not depress the outside lever until the lock responds with three beeps/flushes of the green LED to indicate available entry.</p> <p>The lock responds with three beeps/flushes of the green LED to indicate available entry. If the combination is that of an Access User or Service User and the User ID has been locked out by managerial personnel, the lock responds with two beeps/flushes of the red LED. If the combination is not valid, the lock responds with three beeps/flushes of the red LED.</p> <p><b>Note:</b> After the limit of consecutive failed entry attempts has been reached, the lock will temporarily shut down to prevent combination tampering for the time programmed by managerial personnel. During the shutdown period, the lock will not respond to any user actions. When the shutdown period has elapsed the lock can be used normally. Any additional failed entry attempt results in the lock being disabled again for the programmed shutdown time. This cycle will continue until a correct combination is entered.</p>	
3. <b>Open lock.</b>	Before re-lock time expires, depress the outside lever to open the lock. At the end of the re-lock interval, the lock will respond with two simultaneous beep/flushes of the red and green LEDs.

## Determine Model Type

This feature provides identification of the model type.



**Note:** This operation may be performed either with the lock shelved (using the default Master User combination of all 0s), or with the lock activated (using a Master User or a Manager User combination).

To determine the model type, complete the following steps:

Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter Master User or Manager User combination</b>	Enter the Master User or Manager User combination. The lock will beep/flash the green LED on each keystroke entered. If the Clear key is pressed during data entry, the lock responds with one beep/flash of the green LED followed by the red LED, and all digits of the combination must be re-entered. The lock responds with three beeps/flushes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flushes of the red LED.
3. <b>Press  then 11.</b>	Before re-lock time expires, press  (Enter key) followed by the 1 key and then the 1 key again. The lock responds with beeps/flushes of the green and red LEDs corresponding to the model type as follows: 1 beep/green and red flash = Model 15xx

### Issue Service User Combination

This operation issues a one-time combination for a Service User that can be used to open the lock.

Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter Master User or Manager User combination</b>	Enter the Master User or Manager User combination. The lock will beep/flash the green LED on each keystroke entered. If the <b>Clear</b> key is pressed during data entry, the lock responds with one beep/flash of the green LED followed by the red LED, and all digits of the combination must be re-entered. The lock responds with three beeps/flushes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flushes of the red LED.
3. <b>Press  then 92.</b>	Before re-lock time expires, press  (Enter key) followed by the <b>9</b> key and then the <b>2</b> key. The lock responds with two beeps/flushes of the green LED.
4. <b>Enter new Service User combination.</b>	Enter the Service User Combination (User ID + PIN). The lock responds with two beeps/flushes of the green LED.

**Note:** The Service User is added with a combination (User ID + PIN). When PIN length = 0, Combination = User ID only; otherwise, Combination = User ID + PIN. **Do not set Service User PIN to all 0's.** All users, regardless of personnel classification, will occupy one of the available User ID positions when added to the lock. A User ID is unique to a particular user; i.e., no two users can have the same User ID.

5. <b>Enter new Service User combination again.</b>	Enter the Service User Combination again for verification. The lock responds with two simultaneous beeps/flushes of the green and red LEDs if the combination was verified successfully. The lock responds with two beeps/flushes of the red LED to indicate an error.  The Service User combination is now available.
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### Remove Service User Combination





This operation removes a one-time combination that was issued for a Service User so that it is not available to open the lock.

Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter Service User combination.</b>	Enter the Service User combination. The lock will beep/flash the green LED on each keystroke entered. If the <b>Clear</b> key is pressed during data entry, the lock responds with one beep/flash of the green LED followed by the red LED, and all digits of the combination must be re-entered. The lock responds with three beeps/flushes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flushes of the red LED.  The Service User combination is now deactivated.

## Disable a Specific User ID





This operation allows the Master User or Manager User to restrict access to the lock for a specific Access or Service User.

**Note:** The Master User and Manager User cannot be disabled.

Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter Master User or Manager User combination</b>	Enter the Master User or Manager User combination. The lock will beep/flash the green LED on each keystroke entered. If the <b>Clear</b> key is pressed during data entry, the lock responds with one beep/flash of the green LED followed by the red LED, and all digits of the combination must be re-entered. The lock responds with three beeps/flushes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flushes of the red LED.
3. <b>Press  then 70.</b>	Before re-lock time expires, press  (Enter key) followed by the <b>7</b> key and then the <b>0</b> key. The lock responds with two beeps/flushes of the green LED.
4. <b>Enter User ID.</b>	Enter the User ID to be disabled. The lock responds with two beeps/flushes of the green LED. The selected User ID is disabled.
5. <b>Repeat Step 4 to disable additional User IDs or go to Step 6.</b>	Repeat Step 4 to disable additional User IDs or go to Step 6.
6. <b>Press  to exit.</b>	Press  (Enter key) to exit this procedure. The lock responds with two simultaneous beeps/flushes of the green and red LEDs and exits the procedure.

## Enable a Specific User ID





This operation allows the Master User or Manager User to enable access to the lock for a specific Access or Service User.

Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter Master User or Manager User combination</b>	Enter the Master User or Manager User combination. The lock will beep/flash the green LED on each keystroke entered. If the <b>Clear</b> key is pressed during data entry, the lock responds with one beep/flash of the green LED followed by the red LED, and all digits of the combination must be re-entered. The lock responds with three beeps/flushes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flushes of the red LED.
3. <b>Press  then 71.</b>	Before re-lock time expires, press  (Enter key) followed by the <b>7</b> key and then the <b>1</b> key. The lock responds with two beeps/flushes of the green LED.
4. <b>Enter User ID.</b>	Enter the User ID to be enabled. The lock responds with two beeps/flushes of the green LED. The selected User ID is enabled.
5. <b>Repeat Step 4 to enable additional User IDs or go to Step 6.</b>	Repeat Step 4 to enable additional User IDs or go to Step 6.
6. <b>Press  to exit.</b>	Press  (Enter key) to exit this procedure. The lock responds with two simultaneous beeps/flushes of the green and red LEDs and exits the procedure.

## Disable a Group of User IDs





This operation allows the Master User or Manager User to restrict access to an entire user ID group. See User ID Groups (page 5) for more information.

**Note:** The Master User and Manager User are not affected by this operation even though their User ID may be included in the group being disabled.

Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter Master User or Manager User combination</b>	Enter the Master User or Manager User combination. The lock will beep/flash the green LED on each keystroke entered. If the <b>Clear</b> key is pressed during data entry, the lock responds with one beep/flash of the green LED followed by the red LED, and all digits of the combination must be re-entered. The lock responds with three beeps/flushes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flushes of the red LED.
3. <b>Press  then 60.</b>	Before re-lock time expires, press  (Enter key) followed by the <b>6</b> key and then the <b>0</b> key. The lock responds with two beeps/flushes of the green LED.
4. <b>Enter User ID group number of 00-20.</b>	Enter a User ID group number of 00-20 ( <b>00 will disable all User IDs</b> ). The lock responds with two beeps/flushes of the green LED.  The selected User ID group is disabled. If the User ID number 00 was chosen to disable all User IDs, the lock responds with two simultaneous beeps/flushes of the green and red LEDs.
5. <b>Repeat Step 4 to disable another group or go to Step 6.</b>	If the User ID number 00 option was not chosen to disable all User IDs, repeat Step 4 to disable another group (01-20) or go to Step 6.
6. <b>Press  to exit.</b>	Press  (Enter key) to exit this procedure. The lock responds with two simultaneous beeps/flushes of the green and red LEDs and exits this procedure.

## Enable a Group of User IDs



This operation allows the Master User or Manager User to enable access to an entire user ID group. See User ID Groups (page 5) for more information.

Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter Master User or Manager User combination</b>	Enter the Master User or Manager User combination. The lock will beep/flash the green LED on each keystroke entered. If the <b>Clear</b> key is pressed during data entry, the lock responds with one beep/flash of the green LED followed by the red LED, and all digits of the combination must be re-entered. The lock responds with three beeps/flushes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flushes of the red LED.
3. <b>Press  then 61.</b>	Before re-lock time expires, press  (Enter key) followed by the <b>6</b> key and then the <b>1</b> key. The lock responds with two beeps/flushes of the green LED.
4. <b>Enter User ID group number of 00-20.</b>	Enter a User ID group number of 00-20. ( <b>00 will enable all User IDs.</b> ) The lock responds with two beeps/flushes of the green LED.  The selected User ID group is enabled. If the User ID number 00 was chosen to enable all User IDs, the lock responds with two simultaneous beeps/flushes of the green and red LEDs.
5. <b>Repeat Step 4 to enable another group or go to Step 6.</b>	If the User ID number 00 option was not chosen to enable all User IDs, repeat Step 4 to enable another group (01-20) or go to Step 6.
6. <b>Press  to exit.</b>	Press  (Enter key) to exit this procedure. The lock responds with two simultaneous beeps/flushes of the green and red LEDs and exits this procedure.





### Switch Passage Function (On/ Off)

This operation allows Passage Function to be toggled On and Off.

Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter Master User or Manager User combination</b>	Enter the Master User or Manager User combination. The lock will beep/flash the green LED on each keystroke entered. If the <b>Clear</b> key is pressed during data entry, the lock responds with one beep/flash of the green LED followed by the red LED, and all digits of the combination must be re-entered. The lock responds with three beeps/flushes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flushes of the red LED.
3. <b>Press  then 13.</b>	Before re-lock time expires, press  (Enter key) followed by the <b>1</b> key and then the <b>3</b> key. The lock responds with two beeps/flushes of the green LED.



### Delete Access User(s)

**Note:** If at any time during the procedure the lock power drops below a sufficient level for operation, the lock will continually beep and flash the red LED, prompting the user to depress the outside lever to provide additional power.



Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter Master User or Manager User combination</b>	Enter the Master User or Manager User combination. The lock will beep/flash the green LED on each keystroke entered. If the <b>Clear</b> key is pressed during data entry, the lock responds with one beep/flash of the green LED followed by the red LED, and all digits of the combination must be re-entered. The lock responds with three beeps/flushes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flushes of the red LED.
3. <b>Press  then 3.</b>	Before re-lock time expires, press  (Enter key) followed by the <b>3</b> key. The lock responds with two beeps/flushes of the green LED.

Step	Detailed Instructions
4. <b>Enter Access User ID.</b>	Enter an Access User's ID to be deleted (or press the <b>Enter</b> key to exit.) The lock responds with two beeps/flushes of the green LED.
5. <b>Enter Access User ID again.</b>	Confirm the Access User's ID by re-entering it. The lock responds with two beeps/flushes of the red LED if the combination was unconfirmed or the User ID was not found in the Access User table. Otherwise, the lock responds with four beeps/flushes of the green LED.  The Access User is now deleted from the lock.
6. <b>Repeat Steps 4 and 5 to delete more users or go Step 7.</b>	If additional Access Users are to be deleted, repeat Steps 4 and 5 until all Access Users have been deleted. If additional Access Users are not to be deleted, go to Step 7.

**Caution:** If you are deleting multiple Access Users, you may need to depress the outside lever to provide additional power.



7. <b>Press .</b>	Press  (Enter key) to exit this procedure. The lock responds with two simultaneous beeps/flushes of the green and red LEDs and exits this procedure.
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### Deactivate Manager User



Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter Master User combination.</b>	Enter the Master User combination. The lock will beep/flash the green LED on each keystroke entered. If the <b>Clear</b> key is pressed during data entry, the lock responds with one beep/flash of the green LED followed by the red LED, and all digits of the combination must be re-entered. The lock responds with three beeps/flushes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flushes of the red LED.
3. <b>Press  then 91.</b>	Before re-lock time expires, press  (Enter key) followed by the <b>9</b> key and then the <b>1</b> key. The lock responds with two simultaneous beeps/flushes of the green and red LEDs.  The Manager User is now deactivated.

## Change Master User Combination

**Note:** The new User ID that is selected must be an available ID (one that has not already been selected for another user).

Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter Master User combination</b>	Enter the current Master User combination. The lock will beep/flash the green LED on each keystroke entered. If the <b>Clear</b> key is pressed during data entry, the lock responds with one beep/flash of the green LED followed by the red LED, and all digits of the combination must be re-entered. The lock responds with three beeps/flushes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flushes of the red LED.
3. <b>Press  then 5.</b>	Before re-lock time expires, press  (Enter key) followed by the <b>5</b> key. The lock responds with two beeps/flushes of the green LED.
4. <b>Enter new Master User combination.</b>	Enter a new Master User combination. The lock responds with two simultaneous beeps/flushes of the green LED. The lock responds with two beeps/flushes of the red LED to indicate an error.
<p><b>Note:</b> When PIN length = 0, Combination = User ID only; otherwise , Combination = User ID + PIN.</p>	
5. <b>Enter new Master User combination again.</b>	Enter the new Master User combination again for verification. The lock responds with two simultaneous beeps/flushes of the green and red LEDs if the combination was verified successfully. The lock responds with two beeps/flushes of the red LED to indicate an error. The new combination is now active for the Master User.

## Shelve the Lock

Step	Detailed Instructions
1. <b>Power lock.</b>	Power the lock by depressing the outside lever.
2. <b>Enter Master User combination.</b>	Enter the Master User combination. The lock will beep/flash the green LED on each keystroke entered. If the Clear key is pressed during data entry, the lock responds with one beep/flash of the green LED followed by the red LED, and all digits of the combination must be re-entered. The lock responds with three beeps/flushes of the green LED to indicate available entry. If the combination is not valid, the lock responds with three beeps/flushes of the red LED.
3. <b>Press  then 5.</b>	Before re-lock time expires, press  (Enter key) followed by the <b>5</b> key. The lock responds with two beeps/flushes of the green LED.
4. <b>Enter default combination of all 0's.</b>	Enter the default combination of all 0's. The lock responds with two beeps/flushes of the green LED.
<p><b>Note:</b> The length of the default combination will be the currently defined length of the User ID + the currently defined length of the PIN.</p>	
5. <b>Enter default combination of all 0's again.</b>	Enter the default combination of all 0's again for verification. The lock responds with two simultaneous beeps/flushes of the green and red LEDs.  The lock is now shelved with all users removed except for the Master User. The combination for the Master User has now returned to the default of all 0's.

