Westinghouse RTS Series Lock
Installation and Operational Manual

Overview

The RTS Series delivers uncompromising commercial-grade quality. This lock is a true workhorse, tested to over 2 million duty cycles. The RTS has a 3-hour UL fire-rated latch and a free-wheeling clutch. The outdoor portion is weather resistant. When used with the MS1 Management System (sold separately) you can configure all of your locks and manage all user information from a central system administrator's position.

The RTS provides you with the versatility to manage access control using both fingerprint recognition and PIN codes. The MS1 access control and audit trail features track exactly who has been in your facility and when.

Please read all documentation carefully before installation & use. This manual details all installation procedures.

Manufacturer and/or Distributors of the RTS will not be responsible for any damages caused by incorrect installation or mishandling of the lock. Any such damages will void manufacturer's warranty. Further information on the warranty terms and conditions can be found in Appendix A to this manual.

Important: The RTS outside (front) unit has been designed for weather exposure. Exposure of the inside (back) unit to the elements will void manufacturer warranty. See Appendix A to this manual for further information under "Warranty Terms and Conditions"

Features

- ✓ Up to 3,000 finger print and/or PIN enrollments for RTS, RTS-Z, RTS-P, RTS-PZ with 3 administrators, 4 managers
- ✓ Up to 100 finger print and/or PIN enrollments for RTS-PV with 1 administrator
- ✓ Backlit PIN keypad for easy use at night
- ✓ Rugged Zamak 5 cast enclosure with Satin Chrome finish
- ✓ 5 second access time before door re-locks
- ✓ Heavy Duty components rated to over 2 million cycles
- ✓ UL-Listed, ANSI Grade 2 tubular latch with 3-hour UL fire-rating
- ✓ Backset 2 3/4″
- ✓ Commercial grade 6-pin rim cylinder (removable) with SC4 keyway (3 keys included)
- ✓ Free-wheeling clutch design
- ✓ IP56 tested ensures resistance to humidity, dust, and rain
- ✓ Rated for -40°F to 150°F
- ✓ ADA compliant handle is non-handed for right or left hand installation
- ✓ Temporarily Unlock Mode Support (“TUMS”) opens and closes lock on pre-defined schedule
- ✓ Battery life provides minimum 1,800 openings[1]
- ✓ Low battery alert
- ✓ Non-volatile memory not lost when batteries removed or replaced
- ✓ RS485 compatible for serial communication
- ✓ Normally open contacts to activate relays (rated at 1A @ 20vdc and 0.5A @ 125vac)
- ✓ 2 programing modes
  - At the lock using the LCD and keypad
  - Via the MS1 Management System
- ✓ Easy to Delete Individual users
- ✓ Access Control features:
  - Open Mode
  - Timed Lock Access
  - Timed User Access
  - Import Records
  - Export Records
- ✓ 2 Year Limited Warranty

Specifications

Fingerprint sensor - CMOS Optical, 4rd Generation high resolution, backlit, coated
Verification Type
1 to N (PIN or fingerprint only)
1 to 1 (User ID + FP or PIN)
Scanning Time < 1 second
Recognition Time < 1 second/user
False Accept Rate (FAR) < .001%
False Reject Rate (FRR) < .01%
Dimensions: 1.5" D x 3" W x 9.5" L
Weight: 9 Lbs.

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[1] May vary based on actual conditions

Door Thickness: 1 1/2" to 2" compatible with most standard wood, metal or fiber glass doors: not for use on doors that use exotic woods or glass doors

MS1 Management System

This Manual describes how to program the RTS Series manually at each lock. To take full advantage of the RTS features you must use the MS1 Management System for programming. This software enables you to program one or more locks from a PC. The MS1 is sold separately and has a separate installation manual. Contact your distributor for more pricing and availability. You can also go to www.westinghousesecurity.com for more information about the MS1.

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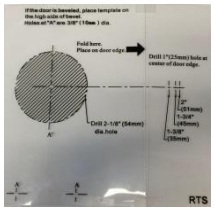
Section 1: Tools/Parts

Required tools/Items:

- ✓ One electric or battery operated drill
- ✓ One 3/8” diameter drill bit
- ✓ A pair of scissors or utility knife
- ✓ One Phillips head screwdriver
- ✓ Hacksaw or handheld bolt cutters
- ✓ Tape measure
- ✓ One long, thin shafted Phillips head screwdriver
- ✓ “Fish Tape” for routing LAN cable through door
- ✓ 4 AA Alkaline batteries

Please familiarize yourself with all the parts in the RTS package. If any parts are missing or damaged, contact your distributor immediately.
Note: bag E is only included with Z-Wave products.

 **Outdoor unit**	 **Indoor Unit**	 **2x handles**	 **A**
 **B**	 **C**	 **D**	 **E**
 **Template**	 **3 Keys**	 **Rubber Gaskets**	

Note: Bags B, C, and D will have different content depending on your type of latch configuration.

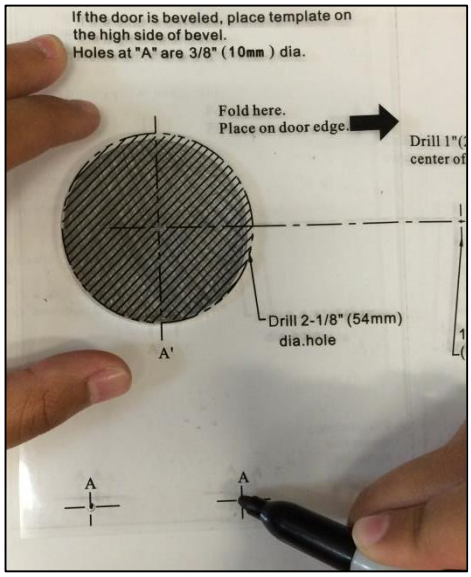
Section 2: Pre-installation

Note: If you currently have a Mortise lock, please refer to the conversion kit instructions that came inside the RTS box. If your door is brand new, please proceed with the following instructions.

2.1 Mark and bore holes on the door

1) Remove existing handle set.

2) Line up the installation template to the existing hole on the door. Ensure that the template is square by observing the vertical dotted line which should line up with the edge of the door. Mark the holes on the door with a permanent marker through the holes on the template.



3) The door should look similar to the picture below after the holes are drilled.

2.2 Setting/Installing the latch and strike plate

1) Remove Bag “A” from the Box. The latch that is included is for doors that have 2 3/4” backsets.

2) Insert the latch into the hole in the edge of the door and screw it into place, making sure that the center of the latch’s spindle hole is in the center of the drilled 2 1/8” hole.

3) Screw the included strike plate into the doorjamb.

2.3 Removing handles and re-installing for Right/Left handed configuration

1) Remove Bag “B” from the Box. The RTS is a non-handed lock, meaning that it can be installed on either a right handed or left handed door. Use the following steps to install the handles:

2) Insert outside unit’s handle onto the front of the lock based on your right/left handed configuration.

3) Turn the outside unit over, insert the handle screw into the spindle hole.

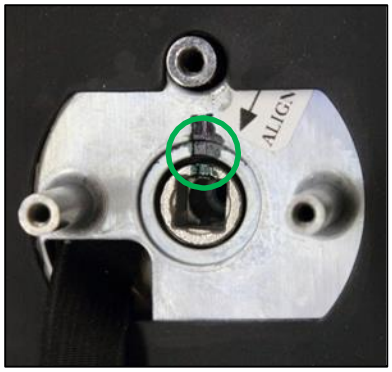
4) Tighten the handle screw using a Phillips screwdriver.

5) Repeat the above steps for the inside section of the lock.

Section 3: Installation

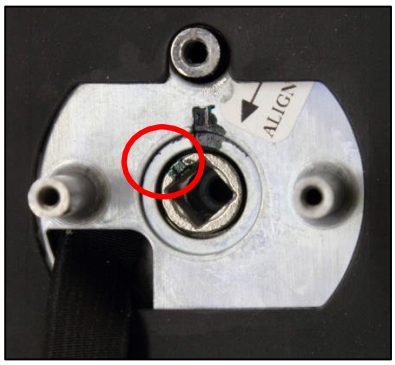
3.1 Installing the Outside Unit

1) Attach the rubber gasket to the back of the outdoor unit. Repeat this step for inside unit.

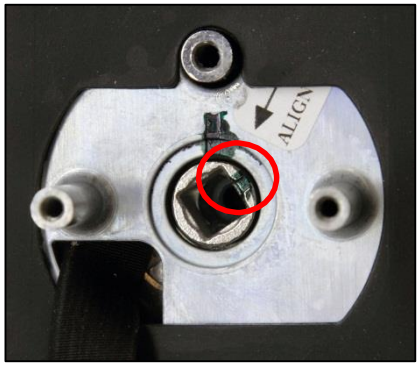


Good Alignment

2) Turn the outside unit over. Be sure that the spindle hole is perfectly square and not angled. Note: The black line on the hole must match the black line on the plate at the 12 o'clock position.



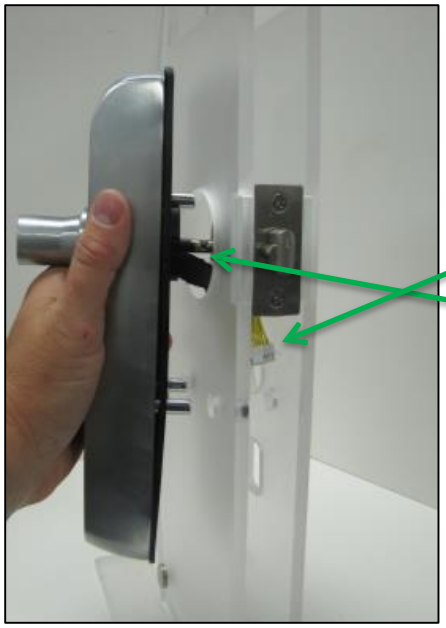
Misalignment



Misalignment

Note: The pictures in the following steps were made using a clear display stand to show the lock connections more clearly.

3) Close-up view of latch.



4) Feed the wire set from the outside section of the lock underneath the latch.

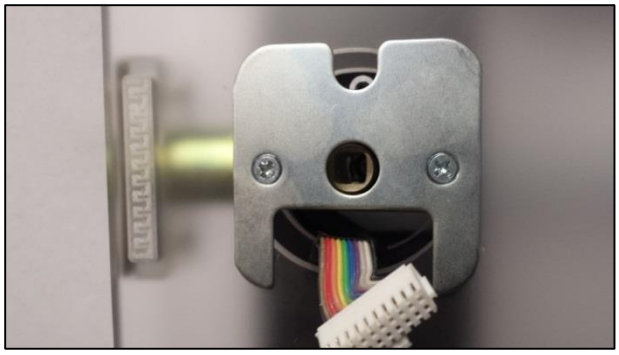
5) Align the two middle fixing posts with the two corresponding holes in the latch.

Rear view of the inside section of the lock and latch.

3.2 Installing the Fixing Plate

Overview:

The purpose of the fixing plate is to securely fasten the outside unit onto the door and make installation of the inside section of the lock easier (requiring only one person). Remove Bag “C” from the box.



1) Place the fixing plate over the 2 1/8” hole on the inside of the door.

2) Align the center hole of the fixing plate with the spindle hole of the latch.

3) Screw the fixing plate onto the door with the provided 1 1/2” screws.
DO NOT over tighten the screws. Make sure that the square cut-out on the fixing plate is facing down and the indented screw holes are facing outward.

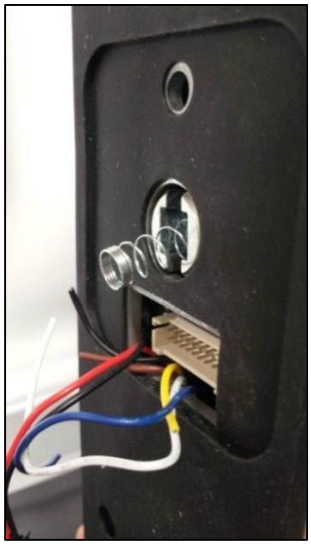
3.3 Removing Battery Cover

1) Remove the battery cover of the inside unit by unscrewing the screw shown. This will make installing the inside unit an easier process.

3.4 Installing the Inside Unit

Remove Bag “D” from the box.

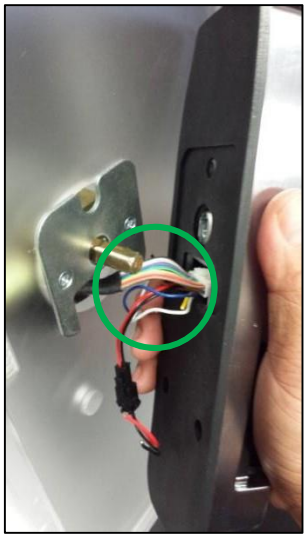
1) Insert the Spindle though the fixing plate and into the inside section of the lock’s spindle hole.



2) Place the rubber gasket onto the inside section of the lock.

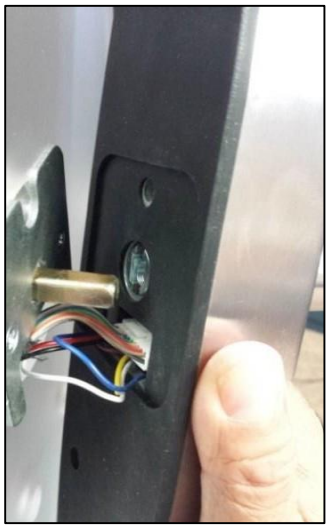
3) Insert the spindle spring into the lock handle hole. This is a very important step.

Note: There are 6 wires for direct power, normally open, and RS485 devices. See Section 10 for specifics. These can be removed if they are not used or placed inside the door for future use.



4) Feed the cable from the inside lock through the opening in the bottom side of the fixing plate.

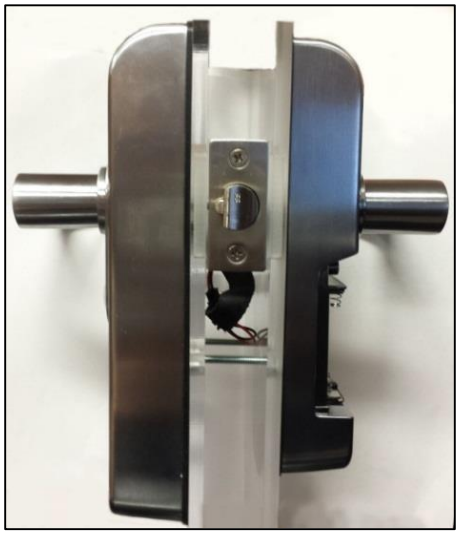
5) Plug the cable into the lock. **Note:** Be sure that the connector is fully seated. Connect or hardwire the other wires where applicable. (See Section 10)



6) Push the excess cable and wires into the hole under the fixing plate.

7) Affix lock to the door with the three screws that match the thickness of the door See note in beginning of Section 4.
The longer screw is for the top fixing post.
The two shorter screws are for the bottom fixing posts.

8) Place inside unit onto door.
Note: Be sure the spring does not fall out when unit is placed onto the spindle.



9) Outside unit should be completely flush on the face of the door.

3.5 Installing the Antenna (for the RTS-Z and RTS-PZ)

1) Take the antenna out of bag E and remove red plastic cover. Then screw the antenna on the bottom of the inside unit.

Section 4: Power Options

Overview:

The RTS is powered via four AA Alkaline batteries (not included).

4.1 Installing the Batteries

1) Remove battery cover

2) Insert the 4 AA batteries.

4) Reinstall the battery cover.

5) Press **M** on the inner keypad of your RTS to initialize the lock and display the current battery voltage.

Note: When power is applied to the lock, it will beep twice to indicate that it is ready to be programmed.

Section 5: Hard Reset

Overview:

The Hard Reset option allows administrator(s) to restore the lock's settings to a factory default state. All settings will be defaulted except for Time/Date.

1) Scroll to 5 "Hard Reset". Press **M**.

2) “Reset to factory defaults?” will display on the LCD.
Press **M** to reset.
Press **E** to exit without resetting.

“Initializing” is shown while the lock is being reset.

“Initializing Done!” is shown when the reset is complete.

Note (RTS-Z and RTS_PZ only): When a Hard Reset is complete, the Z-Wave node ID is initialized to zero and the device can’t be controlled by Z-Wave. In order to control the device again, the controller needs to include the device on the Z-Wave network. Please use this procedure only when the network primary controller is missing or otherwise inoperable.

Section 6: Finger Print and PIN Management

Overview for RTS-P, RTS-PZ, RTS, RTS-Z:

User IDs 1-3 (and their associated fingerprints) are “Administrators.” They have complete access to program the RTS and to unlock the door at any time.

User IDs 4-7 (and their associated fingerprints) are “Managers.” They have limited access to program the RTS. Managers can delete User IDs, edit the Timed TUM menu, and unlock the door at any time

User IDs 8-2999 (and their associated fingerprints) are “General Users.” They have access to unlock the door at times set up by one of the Administrators. **General Users and have no programming rights on the RTS.**

Overview for RTS-PV

User ID 1 (and its associated fingerprints) is “Administrator.” They have complete access to program the RTS and to unlock the door at any time.

User IDs 2-99 (and their associated fingerprints) are “General Users.” They have access to unlock the door at times set up by one of the Administrators. **General Users and have no programming rights on the RTS.**

For all RTS:

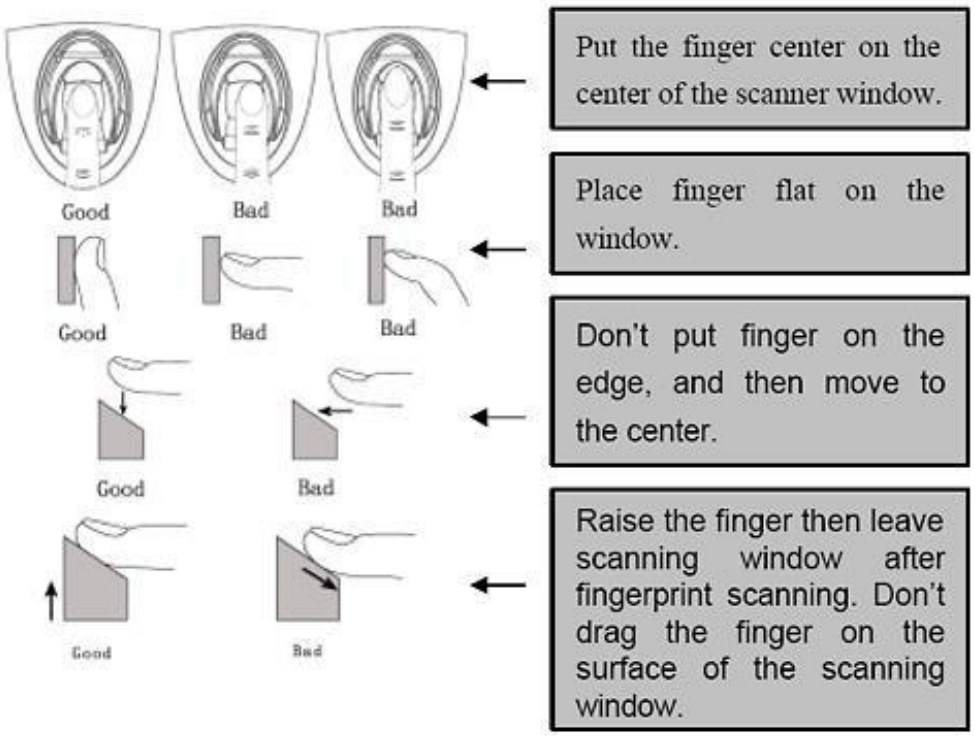
After an administrator fingerprint has been enrolled, it must be verified by the lock before the menu options can be accessed.

The term “fingerprint” is used as a general term to describe fingers or thumbs used for enrollment/verification. Also, the term “finger” can refer to a finger or thumb.

Before enrolling and verifying fingerprints, please read the following helpful hints for Fingerprint Enrollment and Verification:

Tips on Enrolling Fingerprints

- The center of the vortex (swirl) of the fingerprint pattern is the key data point. It should be placed in the center of the sensor’s glass window in a consistent way. The fingerprint should be well defined with the peaks and valleys of the vortex ridge pattern clearly visible.
- Light pressure when placing the finger or thumb on the scanner gives the best image. The finger should be held flat and must not move during scanning.
- Adjust Fingerprint Sensitivity settings per Section 5.3
- Moist fingers and thumbs give better images than dry ones. On cold, dry days it may be helpful to moisten the finger by breathing on it or applying a small amount of lotion.
- Dry, dirty fingerprints or prints with cracks or scars are not recommended.
- Wait until the fingerprint scanner activates to place the finger on the scanning window. This is true for both fingerprint enrollment and verification.
- Shade the sensor when trying to enroll or verify fingerprints in direct sunlight. This will prevent sunlight from reflecting off the sensor mirror.



6.1 Enrolling Fingerprints (RTS and RTS-Z only)

In this example we will add fingerprints for User 1 (Admin 1).

1) Press **M.** The lock will momentarily display a welcome message with the current Firmware version number.

The lock will then display:

- Date/time
- Lock ID
- Battery voltage

"NO MASTER!" will momentarily be displayed followed by Lock menu options 1 through 4.

2) Scroll down to Option 2 "User edit".
Press **M**.

3) When "ID:" is displayed, enter a numerical value and then press "#".
Note: Selection must be made within 5 seconds.

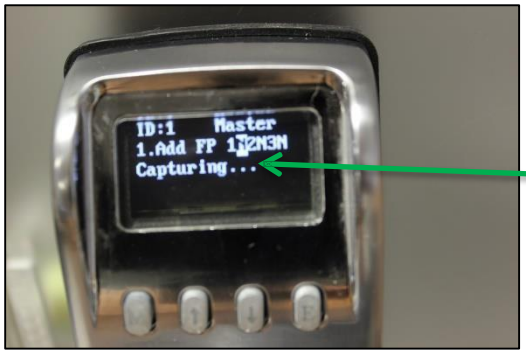
After pressing "**#**" key, the following screen will be displayed: Note that ID:1 is now being displayed.

4) When “Add FP” is highlighted, press **M**.

5) “Add FP” is displayed along with “1N2N3N”. “1N” is highlighted. Place finger on the sensor. Press **M**.

Note: Since no fingerprints have been enrolled for this User ID; **1N, 2N, 3N** will be displayed. A total of 3 fingerprints may be enrolled for each User ID.

6) The sensor will flash 3 times. Keep finger on the sensor while it flashes.

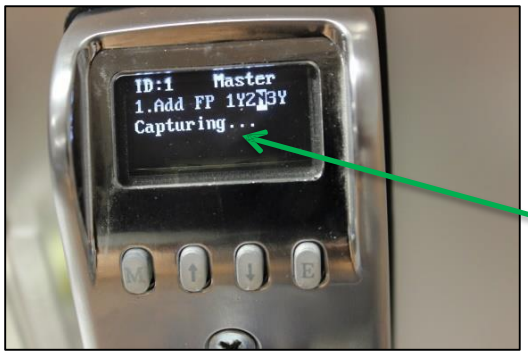


“Capturing…” will be shown while the FP is being scanned.

7) If finger 1 was successfully enrolled, a single short beep will be heard, the LCD will display "Success," and "1N" will change to "1Y."

If the scan attempt was unsuccessful, "Failed" will display on the LCD and 1N will not change to 1Y. Repeat the steps above to try again.

Note: The same finger can be used for fingers 2 and 3. This is recommended for Users with poor quality fingerprints. Usually different fingers will be used for fingers 1, 2 and 3.



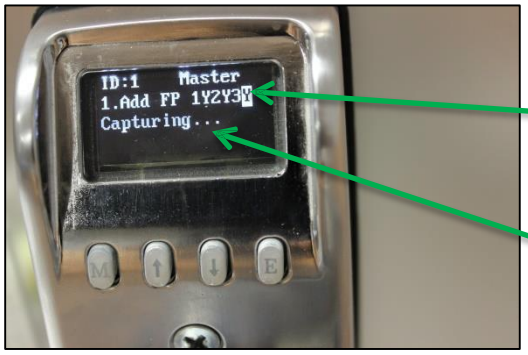
8) Rest finger on sensor. Press the Up Arrow to highlight "2N." Press **M**.

"Capturing…" will be shown while the FP is being scanned.

2N changed to 2Y indicates a successful scan.

If unsuccessful, "Failed" will display on the LCD and 2N will not change to 2Y. Repeat the steps above to try again.

9) Rest finger on sensor. Press the Up Arrow to highlight “3N.” Press **M**.



When 3 fingerprint matches for a user have been successfully enrolled, “1Y2Y3Y” will be displayed.

“Capturing…” will be shown while the FP is being scanned.

If unsuccessful, “Failed” will display on the LCD and 3N will not change to 3Y. Repeat the steps above to try again.

6.2. Add or modify a User PIN (All RTS)

Overview:

When this option is chosen, a PIN Code can be created, changed, or deleted for a specific User ID.

In the example below we will create User ID 1 and add a 4 digit PIN.

1) Scroll to the “User Edit” menu. Press **M**.

2) Using front keypad: press 1 #.

Enter the PIN followed by “**#**”.

When “PIN:” is displayed, use the front keypad to enter a unique code (from 1 to 10 digits) and then press #.

LCD screen will display “SAVED!”.

Tip: If you enter a digit in error, use “*” to delete the last entered digit.

6.3 Deleting Fingerprints and PINs

Overview:

When this option is chosen, the fingerprints and/or PINs associated with the specific User ID will be deleted.

In this example, we will delete all FPs and PIN for user ID 50.

1) Scroll to the “User Edit” menu. Press **M**.

2) Using front keypad press 5 0 #.

This menu will be displayed. It allows deletion of “PIN Only”, “FP Only”, or both “FP&PIN”.

3) Select option 3. Press **M**.

"Deleted!" indicates all FPs and PIN for user 50 were deleted.

Option 1 (FP Only) and Option 2 (PIN Only) operate in the same manner as Option 3.

Section 7: Lock Programming Instructions

Note: To take full advantage of the RTS features you must use the MS1Management System for programming. Any information entered directly into the RTS will be lost when it is synced with the MS1 software.

SECURITY WARNING: With no fingerprints enrolled the RTS will unlock when the '#' button is pressed on the keypad.
Definitions of Indication Beeps:

1) Single, Short Beep
- A button has been pressed
- An operational sequence has begun
- A fingerprint user has been added successfully

2) Two, Short Beeps:
- Door has been successfully unlocked

3) Three Short Beeps
- Unsuccessful Fingerprint/PIN verification attempt
- New PIN code entry is already allocated to another User

4) Six, Short Beeps
- Low battery alert (change batteries)
- Lock has been reset

5) Illuminating the RTS Exterior Unit Keypad

- Press and Hold any of the numbers on the keypad (0 thru 9) for two to three seconds
- Keypad will illuminate for 5 seconds

7.1 Menu Buttons

1) The **M** button stands for Menu and is used to enter menu options and to save changes made to the RTS.

M button

2) The up and down arrows are used to scroll thru menu options.

UP & DOWN buttons

3) The **E** button stands for Exit and is used to exit individual menu options. (Exception: When setting the date ranges for Access Control, **E** is used to initiate the "Save" prompt).

E button

Note: The following instructions assume there are no fingerprints enrolled in the RTS. All setup functions can be done before enrolling an Administrator fingerprint or PIN code. If an Administrator fingerprint is entered before starting the lock setup, fingerprint verification will be required each time the lock is accessed for a program change. It will save time to complete the lock setup before enrolling any Administrator or User FPs and PWDs.

7.2 Date/Time

Date and Time setting of the RTS is critical when using the MS1 Management Software to ensure accurate time/date stamps for Audit Trail and accurate time/date for Access Control.

1) Press **M**, the lock will display in succession:

Current Firmware Version

Default date, time, and day of the week.
Lock ID
Battery voltage level

No Master! Screen indicates that no fingerprints or User PINs have been programmed into the lock for administrators (positions 1, 2, and 3).

The Lock Setup menu will then automatically display the Lock Menus: **Note:** Lock menus 1 through 4 are displayed. Press the Down arrow button to view menus 5-6.

After the Lock Menus are dis-played, if no buttons are pressed for 17 seconds an audible alert (2 beeps) will be heard and then a “Timeout!!” message will be dis-played. The lock will then shut down. The setup process can be started again by pressing any of the 4 buttons on the lock front.

2) Option 1 “Lock setup” is highlighted. Press **M.**

3) Option 1 “Date/Time” is highlighted.
Press **M.**

4) The format for the date setup is MM/DD/YYYY.

5) Choose the correct month by using the Up/Down arrows.
Press **M** to save selection.

6) Choose the correct day of the month by using the Up/Down arrows.
Press **M** to save selection.

7) Choose the correct year by using the Up/Down arrows.
Press **M** to save selection.

The time format for the clock is HH:MM:SS (MILITARY or 24 HOUR TIME).

8) Choose the correct hour by using the Up/Down arrows.
Press **M** to save selection.

9) Choose the correct minute by using the Up/Down arrows.
Press **M** to save selection.

10) Choose the correct second by using the Up/Down arrows.
Press **M** to save selection.

11) Choose the correct day of the week by using the Up/Down arrows.
Press **M** to save selection.

12) With the cursor on “SAVE?”, press **M** to save selection.

13) “SAVED!” indicates TIME / DATE settings have been saved.
This will display momentarily and then the setup menu will be shown.

7.3 Sensitivity (RTS & RTS-Z)

Overview:

The lock’s fingerprint levels can be adjusted to meet the desired level of sensitivity. Sensitivity settings range from 1 to 9. Setting 1 is the strictest setting. The quality of fingerprint and placement of the finger or thumb must be almost perfect. Setting 9 is the least stringent setting and is the factory default. This allows a higher margin of error in placement of the finger or thumb on the sensor.

Note: If you are having problems with fingerprints being rejected, set the sensitivity level to 9.

1) In the Lock setup menu, scroll to Option 2 “Sensitivity”.
Press **M.**

2) Use the Up/Down arrows to scroll thru the sensitivity levels until the desired level is reached. Press **M**.

3) “SAVED!” indicates the Sensitivity level settings were saved. This will display momentarily and then the setup menu will be shown.

7.4 Match Mode

Overview:

“Match Mode” controls how users are able to unlock the lock; using fingerprints, PINs, or a combination of both. There are 3 options available which are outlined below.

1) In the Lock setup menu, scroll down to “Match Mode” and then press **M**.

2) **1:N** - When this is chosen, all users enrolled at this lock only need to match their enrolled Fingerprint OR PIN Code to unlock the door. This is the factory default setting.

3) **1:1** – When this is chosen, all users enrolled at this lock must enter their User ID and verify their enrolled Fingerprint or PIN Code to unlock the door.

Ex. User ID 005 would use the keypad to unlock the lock using this sequence:
(5 + # +FP) *or (***5 + * + PIN + *)**

4) **1&N** - All enrolled users can use either the **1:1** or **1:N** method to unlock the door.

5) Use the Up/Down arrows to scroll thru the matching modes until the desired mode is reached and then press **M** to save the setting.

6) “SAVED!” indicates that the Match Mode settings were saved. This will display momentarily and then the setup menu will be shown.

7.5 Lock ID

Overview:

Lock ID is used to distinguish between locks for sites with multiple locks installed. By default, all locks are set as 0001.

Note: The Lock ID of the RTS is critical when using the MS1 Management Software (*for programming and audit trail*). The Lock ID in the MS1 **MUST** correspond with the Lock ID in the MS1 software. If the Lock IDs do not correspond, the lock records may be corrupted.

1) In the Lock Setup menu, scroll down to Option 4 “Lock ID”
Press **M**.

2) Use the Up/Down arrows to scroll to the desired lock ID.
Press **M** to save setting.

3) “SAVED!” indicates Lock ID setting was saved. This will display momentarily and then the setup menu will be shown.

7.6 Clear FP&PIN

Overview:

This menu allows an administrator to delete all fingerprints and PINs from the lock. If Users/Administrator(s) have a PIN code associated with their FP, the PIN codes must be cleared to reset all data.

Note: Deleting FPs and PINs for specific users will be explained later in this document.

1) In the Lock setup menu, scroll down to Option 5 “Clear FP & PIN” Press **M**.

2) To delete all fingerprints, select Option 1”Clear FP”.
Press **M**.

3) “Cleared!” indicates that all FPs have been deleted. Note that it will take 3 to 4 seconds for this to display.

4) Wait momentarily for the “Clear FP/Clear PIN” screen to be shown.

5) To delete all PIN Codes, select Option 2 “Clear PIN”.
Press **M**.

6) “Cleared!” will display, indicating that all PIN Codes have been deleted. Note that it will take 3 to 4 seconds for this to display.

Note: It is strongly recommended that ALL Fingerprints and PIN Codes be deleted by an Administrator prior to re-programming the RTS. This ensures that any users that were added prior to installation or programming are removed.

7.7 Access Time

Overview:

Each lock has 3 different modes of operation which can be active at a given time. The 3 modes are outlined and explained below.

There are three TIME MODES that may be chosen for the lock:

1) **Invalid** -Invalid simply means turned off. By selecting “Invalid” it turns off the feature previously selected.

2) **Anytime** - When this is chosen, the lock allows all enrolled Users to unlock the door. The exception to this is if specific Timed Access is set up for individual Users (see Section 2: User Edit).

3) **Acc-Time** (Access Time) - This mode allows for timed access to the lock to be created for a specific date range, days of the week and time frame within the days of the week.

Note: The Acc-Time Setting chosen/created for the lock will override any specific Timed Access assigned for a specific User set in the "User Edit" menu (see Section 2: User Edit) . For example, if Acc-Time is chosen for the lock and set to Mon, Wed and Fri 9am to 5pm, Users will only have access to unlock the door during the set days and times, no matter what individual timed access was set for them in the User Edit menu.

Note: Administrators and Managers (User ID 1-7) can always unlock the RTS[2].

7.7.1 valid

1) In the Lock setup menu, scroll to Option 6 "Access Time".
Press **M**.

[2] For RTS-PV, Administrator (User ID 1) can always unlock the RTS.

2) Press the UP arrow once. At the "Invalid" option, press **M**.

3) "SAVED!" will be shown momentarily indicating that the lock is now in "Invalid" mode.

Note: Selecting "Invalid" will turn off the Acc-time previous settings and allow anytime access to unlock the lock.

7.7.2 Anytime

1) Scroll to Option 2 "Anytime". Press **M**.

2) "SAVED!" will be shown momentarily indicating that the lock is now in "Anytime" mode.

7.7.3 Acc-Time:

Note: Administrators and Managers (User ID 1-7) can always unlock the RTS[3]. If this option is chosen, "Date, Time, and Week Days" must all be completed for this function.

1) Scroll to option 3 "Acc-Time". Press **M**.

2) Highlight "Date". Press **M**.

3) The "From" and "To" Date Range options will be displayed. The format for the Date Range settings is MM/DD/YYYY. Press **M**.

4) Use the up and down arrows to choose the appropriate MM, DD and YYYY in each section. When desired value is chosen for each section, press **M** to move on to the next date value.

Example: The desired "From" date is January 01, 2014.

[3] For RTS-PV, Administrator (User ID 1) can always unlock the RTS.

In the “From” section, use the up/down arrows to select Jan.
Press **M**.
Use the up and down arrows to enter “01” (for 1st day of the month).
Press **M**.
Use the up and down arrows to enter “2014” (for the Year).
Press **M**.

5) After setting the “To” Year field, press **E**. “SAVE?” will display on the LCD.

Use the same steps as above for the “To” date.

6) Press **M** to Save

Or

Press **E** to exit without saving.

7) Scroll to “Time” and press **M**. The current setting for “From” and “To” are shown. Press **M** again.

8) With the cursor on the “From” hour, use the Up/Down arrows until desired hour is shown. Press **M** to save selection.
Repeat for the “From” minute setting.

9) With the cursor on the “To” hour, use the Up/Down arrows until desired hour is shown. Press **M** to save selection.
Repeat for the “To” minute setting.

10) After the desired Time Frame has been selected, press **M**. Message “SAVED?” will display on the LCD.

11) Press **M** to Save

Or

Press **E** to exit without saving.

7.8 Weekday

Overview:

If “Y” (Yes) is chosen for a specific day of the week, then all enrolled Users will have access to unlock the RTS, on that day of the week, during the selected Date Range and Time Frame. Once the Date Range or Time Frame has expired, all enrolled Users will not be able to unlock the RTS. If “N” (No) is chosen for a specific day of the week, then no enrolled Users will have access to unlock the RTS. In both cases, only Administrators and Managers (User ID 1-7) will have access to unlock the RTS.[4]

1) Scroll down to 3 “Week Days” Press **M**.

2) Days of the week will be shown. Use the Up/Down arrows to scroll to the desired day.

3) For each day of the week, Press **M** to select Y/N. Then, press **M** again to change the setting from Y to N.

4) Press **E** to exit the selected day. Then, use the Up/Down arrows to move to the next day.

[4] For RTS-PV, Administrator (User ID 1) can always unlock the RTS.

5) When finished, Press **E.**

"SAVE?" will be displayed. Press **M** to save or **E** to exit without saving.

6) "SAVED!" indicates that the Access Time settings were saved.

7.9 Timed TUM

Temporary Unlock Mode (TUM): Timed (or Automatic) TUM allows an Administrator to set the RTS to unlock automatically at preset days and times upon the confirmation of a registered user (see FUA below) and then automatically revert to locked (or normal) mode at time expires.

The Administrator may also preset holiday dates so that TUM will not be armed or active on those days.

Example: If TUM has been set to operate Monday to Friday from 09:00 to 17:00 (9AM to 5PM) and a preset holiday falls on a Tuesday, the TUM feature will not activate on Tuesday even if a registered User accesses the lock.

First User Authentication (FUA): The Administrator will arm the open time and the LCD will show "Armed!" once set. However, TUM will only activate and unlock the door upon the verification of a registered User's FP or PIN. Door will remain unlocked until preset time expires.

The TUM feature is especially useful for doors that require frequent access (e.g. a shop front during business hours).

7.9.1 Setup Menu

1) In the Lock setup menu, scroll down to Option 7 “Timed TUM”. Press **M**.

2) Press **M** again to select “Setup”.

7.9.2 cel TUM

The Cancel TUM function will void all previous preset data.

Note: Holiday data will **NOT** be reset.

Press **M** to reset ALL data fields. All TUM data fields are reset to dashes in both the “ALL” and “Daily” sub menus as shown below.

"Thank you!" is shown momentarily indicating that all TUM settings have been deleted.

Tip: There are 2 ways to cancel TUM. The above method will void ALL data fields in the TUM menu and is recommended for a complete reset. Individual day resets may be carried out in their respective sub menu and are detailed in the relevant sections below.

7.9.3 up Days

Most businesses will operate the Timed TUM mode during business days (e.g. Monday to Friday, 08:00 to 17:00 and Saturday from 09:00 to 12:00). To create TUM settings for this type operation, it is recommended to set TUM times in the "ALL" (days) menu and then edit individual days in which TUM should not be armed.

Please read the Important Tips below before setting the time fields.

- On initial setup, the system will display "dashes" (-- : --) in all fields
- Pressing **M** will highlight the first ″- -" field. Using the Up/Down arrow keys will insert your desired time.
- Pressing **M** will highlight the next ″- -". Use the Up/Down arrow keys to enter a time. Repeat this procedure for the remaining fields. If a time is not inserted and **M** is pressed again, ALL data fields will revert to ″- -". You will be prompted to save this entry and start again. This is an intentional design and is the second way to cancel/void TUM for a particular day.
- Once all time fields have been entered, pressing **M** when the "ARM?" icon has been highlighted will change the text to "ARMED!" and the system will automatically return to the previous menu. Do not go back to the previous menu unless you intend to change a data field. If you go back into the previous menu, the "ARM?" prompt will appear again. Press **E** to exit and all previous data will be retained.
- If you press **M**, the first data field will revert to″- -" To exit this menu with no changes to the data, press **E.** All data will be retained.

- If **M** is pressed again, ALL data fields will revert to"- -". You will be prompted to "SAVE" this entry and required to start again. This is an intentional design.

Note: If a registered user uses their FP or PIN while in Timed TUM, the RTS will re-enter a locked state. Simply re-enter FP or PIN to regain Timed TUM status.

7.9.3.1 Example – Setup Days

Example 1. Lock will be programmed for TUM mode on ALL days from 08:00 to 17:00 except Sunday. We will program ALL days at once and then program Sunday as a separate day.

1) In the Lock Setup menu scroll down to Option 7 "Timed TUM". Press **M**.

2) Scroll to Option 1 "Setup". Press **M**.

3) Scroll to Option 2 "Setup Days". Press **M**.

4) Press **M** to select 1 "ALL".

5) Press **M** to highlight the first data field.

6) Use Up/Down arrow keys to insert desired time, press **M** after each field. Complete all fields in the “Fr :” and “To” sections.

7) Press **M** when “ARM?” is high-lighted. This will activate TUM.

Timed TUM is now armed and ready for the first registered User to activate on or after 08:00 on any day of the week.

The Lock should now be displaying the “Setup Days” screen as shown below.

9) Display will show “ARM?”.
Press **M.**

8) Use the Up/Down arrow keys to navigate to “Sunday”.
Press **M.**

10) The first data field will change to “- -”.

11) Press **M** again to clear all fields.

12) After all fields are blank and “ARM?” is shown, Press **M** to save the changes.

The lock is now armed for TUM operation.

Tip: As soon as an individual day has been “ARMED!”, the data fields in the “Sunday” menu will revert to “- -” (if set) to indicate that the data is no longer valid.

7.9.4 View TUM Settings

1) To confirm the selections, press **E** to return to the “Timed TUM” main menu, select 2 “View” by pressing **M**.

2) Select 1 “View Days” by pressing **M**.
You can now scroll through each day using the Up/Down arrow keys.

Note: The alternative method is to edit each individual day. However, that can be time consuming and the above method is recommended.

7.9.5 up Holidays

Overview:

This menu has been designed for use in conjunction with the Timed TUM mode. Setting dates in this menu that coincides with public holidays, alleviates the need to cancel TUM manually prior to each holiday event. When a date has been set in this menu, Timed TUM will not be armed and therefore will not activate, even with recognition of a registered User.

- Twelve Holiday events may be entered into the system.
- The menu may be setup for the holiday to occur every year (e.g. Dec 25) or a "one off holiday" for a particular year. Holidays set in this mode will repeat until 2099.
- The "Cancel TUM" command in the main menu **will not** cancel holiday dates, they must be deleted individually.

Please read the Important Tips below prior to setting the time fields.

- On initial setup, the system will display dashes (-- : --) in all fields

- Pressing **M** will highlight the first "- -" field. Using the Up/Down arrow keys will insert your desired time

- Pressing **M** to the next field will highlight the next "- -". Use the Up/Down arrow keys to enter a time. Repeat this for all the remaining fields. If a time is not inserted and **M** is pressed again, ALL data fields will revert to "- -". You will then be prompted to "SAVE" this entry and required to start again. This is an intentional design and is the second way to cancel/void TUM for a particular day.

- Once all time fields have been entered, pressing **M** when the "ARM?" icon has been highlighted will change the text to "ARMED!" and the system will automatically return to the previous menu. Do not go back into the previous menu unless you intend to change a data field. If you go back into the previous menu, the "ARM?" prompt will appear again. Press **E** to exit and all previous data will be retained.

- If you press **M**, the first data field will revert to "- -". To exit this menu with no changes to the data, press **E.** All data will be retained.

- If **M** is pressed again, ALL data fields will revert to "- -". You will be prompted to "SAVE" this entry and required to start again. This is an intentional design.

Note: If a registered user uses their FP or PIN while in Timed TUM, the RTS will re-enter a locked state. Simply re-enter FP or PIN to regain Timed TUM status.

7.9.5.1 Holiday Example 1 – Repeating Holiday

In this example we will program Dec 25 to Dec. 31 be a holiday every year.

1) From the Lock Setup menu, select Option 7 “Timed TUM” by pressing **M.**

2) Select 1 “Setup” by pressing **M**

3) Scroll to Option 3 “Setup Holidays”. Press **M**.

4) Holiday #01 will be shown. Press **M** to highlight the “Year” field.

5) Use the Down Arrow key to highlight ″Every Year”.
Press **M.**

6) Use the Down Arrow key to highlight ″Dec”.
Press **M.**

7) Continue to enter the Month / Day as previously described until prompted to “SAVE?” Note that Dec. 25 is entered both as the beginning and end date.

8) Press **M** again and the system will momentarily display “SAVED!” It will then revert to “SAVE?”

9) Press **E** to exit.

Note: After “SAVED!” is displayed, do not re-enter the menu unless you need to make corrections. Doing so may delete data.

7.9.5.2 Holiday Example 2 – Non-repeating Holiday

In this example we program Dec. 25 to Dec. 31 as a non-repeating holiday.

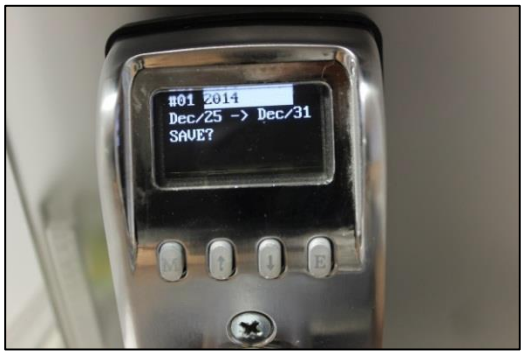
1) After Holiday #1 setup, "**#**1" is highlighted. Use Down Arrow key to highlight #2.
Press **M**.

2) Use the Up/Down Arrow keys to scroll until 2014 is highlighted.
Press **M**.

3) Enter the month and day fields. When the "SAVE?" prompt is displayed, press **M** to store the data. "Saved" will be momentarily displayed before the display reverts to "SAVE?".

7.9.5.3 Holiday Example 3 – Deleting a Holiday

Example: In this example we will delete Dec. 25 to Dec. 31.

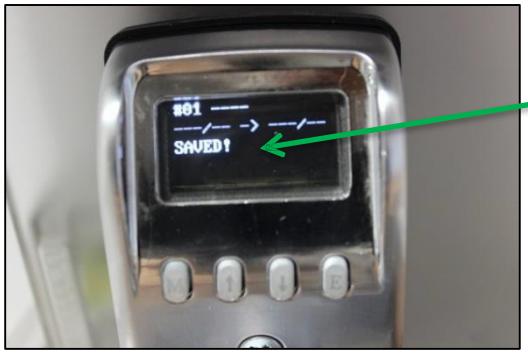


1) From the Setup Holiday Menu Use Down Arrow key to navigate to position #2.

2) Press **M**: "Year" field will change to "- - - -".

3) Press **M** again. All fields will change to "- - - -".

4) When "SAVE?" prompt is highlighted, Press **M**.



5) "SAVED!" will be shown momentarily.

6) Press **E.**

Note: All Holidays must be deleted individually if using this method.

7.9.5.4 View Holidays

1) From Timed TUM menu, press **M**.

2) Scroll to 2“View”. Press **M**.

3) Scroll to 2 “View Holidays”. Press **M**.

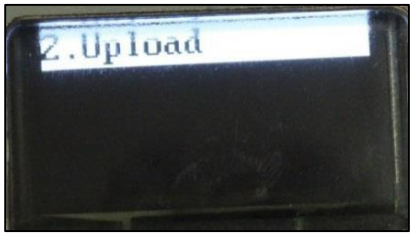
4) Use the Down Arrow key to view all programmed holidays.

5) Press **E** to exit.

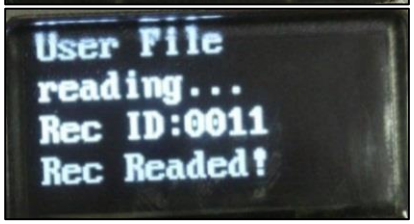
7.9.6 Upload User Records via the Flash Drive from the MS1 software

1) Insert USB thumb drive in the inside unit located at the bottom of the lock.

2) From the main menu, scroll to "Flash Drive". Press **M**.



3) Scroll to "Upload". **Press M**.



Note: "U-disk ok!" will display after the USB drive is checked. Data will then upload to the unit. After upload is finished, "Successful!" will display.

7.10 Lock Down Mode

The Lock Down feature is a quick and easy way to lock the door while using TUM. This feature is activated by depressing both arrow keys simultaneously and holding them down for 5 seconds.

1) With the RTS in unlocked TUM condition, press and hold the arrow keys for 5 Seconds.

2) “Device Secured” will display. The door is now locked and will require an authorized user to enter credentials to unlock.
Note: Once unlocked, normal TUM function will resume. The door will remain unlocked until the programmed time to lock.

3) If TUM is not scheduled and the arrow keys are held, the RTS will display “TUMs Currently Inactive” and nothing will happen.

4) If TUM is scheduled but it is not within the unlock time frame and the arrow keys are held, the RTS will display “TUMs Currently Inactive” and nothing will happen.

5) If TUM is scheduled but the door is currently locked and the arrow keys are held, the RTS will display “Device Secured.” and the door will remain locked.

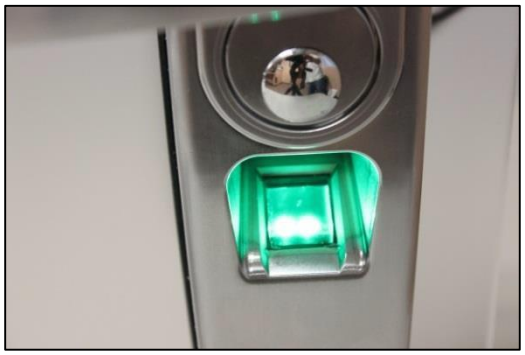
Section 8: Unlocking the RTS

Overview:

This section will outline how to unlock the door using the FP scanner and/or PIN codes. **SECURITY WARNING:** With no fingerprints enrolled the RTS will unlock when the '#' button or '*' button is pressed on the keypad.

8.1 1:N Mode (Enrolled user with an enrolled fingerprint)

1) Press the "#" key.



2) A single short beep will be heard and the fingerprint sensor will flash once.

3) After the fingerprint sensor illuminates, place a finger on the sensor window.

4) If fingerprint verification is successful two short beeps will be heard, and the RTS will unlock. It will remain unlocked for approximately four seconds.

8.2 1:N Mode (User with a registered PIN Code)

1) Enter the PIN Code on the keypad of the outside unit and press '*' button twice.

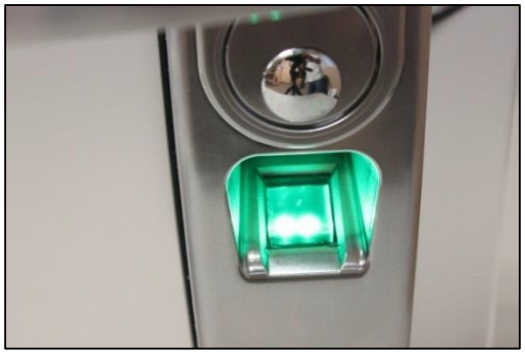
2) If PIN Code verification was successful, two short beeps will be heard, the RTS will unlock and remain unlocked for approximately four seconds.
If verification of the registered PIN Code was not successful, three short beeps will be heard and the RTS will power off.

If a second attempt with a PIN code fails, verify that the PIN Code has been registered and confirm that the matching mode is set to 1:N.

If one single beep is heard after the PIN code was successfully entered, this indicates that the user ID is outside of Timed Access settings.

8.3 1:1 Mode with an enrolled fingerprint

1) Enter the User ID on the key-pad of the outside unit. Then press the # button. The sensor will illuminate. Example: User 50 would press "50#".



2) After the fingerprint sensor illuminates, rest the enrolled finger on the sensor window to verify.

3) If fingerprint verification is successful, a single short beep will be heard and the RTS will unlock. It will remain unlocked for approximately four seconds.

If verification of the enrolled fingerprint is not successful, no beeps will be heard. If this happens, re-position the finger on the sensor. The sensor will try two more times to verify the enrolled fingerprint. If all three attempts fail, three short beeps will be heard. Remove the enrolled finger and begin again. If the second attempt fails, make sure that the finger being used has been enrolled.

If three short beeps are heard after * or # button was pressed, this indicates that the matching mode is set to 1:1.
If one single beep is heard after a successful verification, this indicates that the user ID is outside of Timed Access settings.

8.4 1:1 Mode with a registered PIN Code

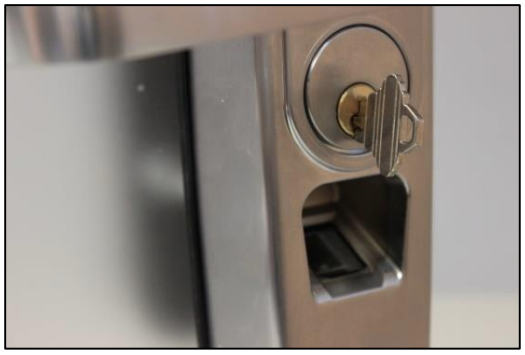
1) Enter the specific User ID on the keypad of the outside unit, Press *. Enter the Registered PIN Code and then press *.
Example: User 50 with a PIN of 1234 would press 50 * 1234 *.

2) If PIN Code verification was successful, three short beeps will be heard, and the RTS will unlock and remain unlocked for approximately four seconds.

If verification of the registered PIN Code was not successful, three short beeps will be heard and the RTS will power off.

If a second attempt to unlock the door with a PIN code fails, verify that the PIN Code has been registered. Also verify that the matching mode is set to 1:1.
If one single beep is heard after the PIN code was successfully entered, this indicates that the user ID is outside of Timed Access settings.

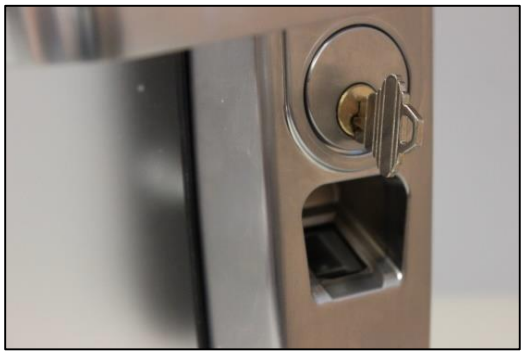
8.5 With the override keys



1) Insert key into the keyway.

2) Turn the key in a clockwise direction to horizontal level (90 degrees).

3) Pull up on the handle.



4) Turn the key back in the opposite direction and pull key out of the keyway.

Section 9: Z-Wave functionality (RTS-Z & RTS-PZ)

9.1 Alarm/Notification functionality

When Door is locked or unlocked by the controller or user, the device notifies to the controller by using Notification.

9.2 Compatibility

This product can be included and operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers and/or other applications. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.

9.3 Association Group

Grouping identifier is 1 and maximum number of devices that can be added to the group is 5.

When the battery of the device is lower than a specific threshold the door will still lock or unlock or the device can be reset. It will notify the controller that the operation was completed and of the low battery condition.

The lifeline group contains Battery, DoorLock, Notification and Device Reset Locally messages.

9.4 Controller Compatibility

The device is Z-Wave security enabled and a Z-Wave Security enabled controller is required to fully utilize the device**.**

9.5 Basic Command Class

The Basic command class is implemented in compliance with the generic and specific device class of the product.

Section 10: External Applications

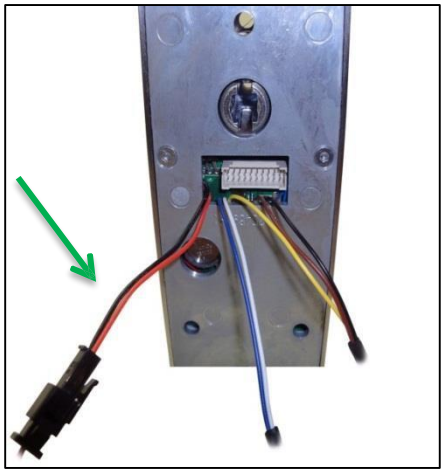
There are 3 separate **external** items that can be wired up to the Locks

1. Auxiliary 6 Volt Power Supply: red and black wires
2. Normally Open Items: blue and white wires
3. RS485 Switches: yellow, brown and black wires

10.1 Auxiliary Power Connection

- Red and black wires with inline connector
- This is the optional DC power connection

- If this option is not used disconnect the “pigtail”
- If used you may provide 6 to 12vdc (red + black -)



The red and black wires have a connector that can be detached and wired to a 12V power supply. Disconnect the wires and hard wire to the 12V source. Once hard wired reconnect to the lock.

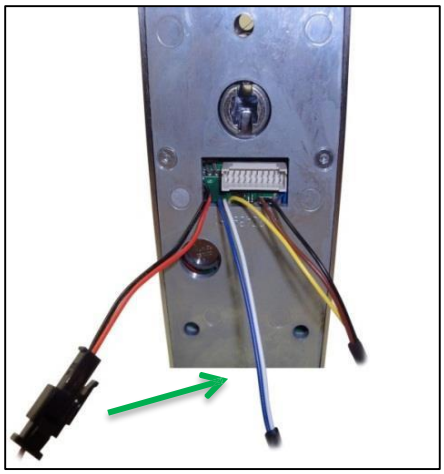
10.2 Normally Open (N.O.) Relay Contacts

- Blue and white wires (N.O. = normally open meaning at rest this connect is open)
- These relay contacts allow you at use the connection as a momentary switch
- Accessing the lock will close these contacts for the duration of the open cycle
- In the timed Tums mode this connection will be maintained in the closed state

<u>The uses of this feature:</u>

Can be used to operate a light or a relay to a light so that the user would not be entering a darken space (the light/relay would only remain on during the open cycle of the lock)

Can be used to activate a separate locking device (i.e. electric deadbolt or electric strike)



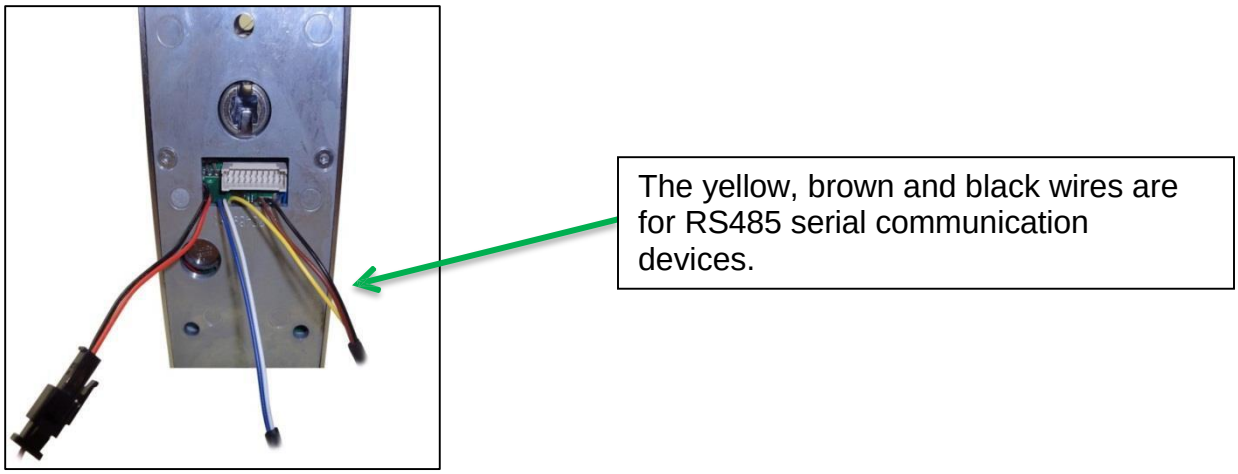
Normally open wires are the blue and white wires. These can be connected to a relay device.

10.3 RS485 Serial Interface

- Black, yellow and brown wires

Also defined by the EIA/TIA standard, this interface is now called TIA-485. It defines not only a single device-to-device interface but also a communications bus that can be used to form simple networks of multiple devices. This feature allows users to connect to security systems and other devices.

Each application is unique and users wishing to use this feature should contact Westinghouse Security with their needs.



Section 11: Support Information

Contact your RTS distributor or contact us at or 800-916-3985 for additional support.

All RMA, Warranty, and Repair requests must be submitted from the Support page at www.westinghousesecurity.com. Trouble Tickets for technical support may also be submitted by visiting the Support page.

Limited Warranty

Westinghouse Security warrants the product against defects in material and workmanship for a period of two years from the date of original purchase. This warranty is in lieu of all other express warranties. During the warranty period, Westinghouse Security agrees to repair or, at its option, replace the defective product, or any part of it without charge for parts or labor. This is your exclusive remedy. This warranty does not cover damage resulting from accident, misuse, abuse, improper installation or operation, lack of reasonable care, the affixing of any attachment not provided by with the product and loss of parts. The warranty is voided in the event any unauthorized person alters or repairs the unit.

DISCLAIMS ANY IMPLIED WARRANTY, INCLUDING THE WARRANTY OF MERCHANTABILITY AND THE WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AS OF THE DATE TWO YEARS FROM THE ORIGINAL PURCHASE OF THE PRODUCT. ASSUMES NO RESPONSIBILITY FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU.

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Appendix **A** – User Enrollment Table

User ID	Hand (L/R)	Finger	PIN	Name