

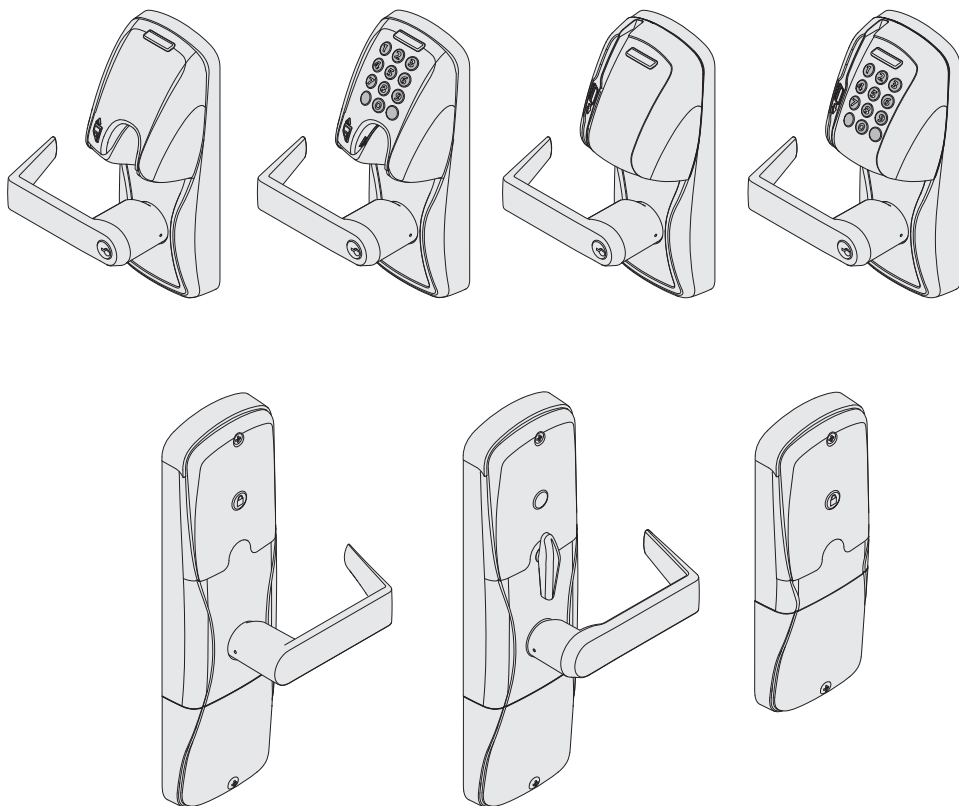


P516-130

AD-250

Offline lock user guide

Instructions for programming AD-Series offline locks



Para el idioma español, navegue hacia www.allegion.com/us.
Pour la portion française, veuillez consulter le site www.allegion.com/us.

Contents

Overview	3
Lock functions	4
Getting started	4
Schlage Utility Software (SUS)	4
Construction access mode	5
Locks with keypads – Construction access mode	5
Locks with card readers – Create a master construction credential	5
Locks with card readers – Add construction access mode user credentials	6
Cancel construction access mode	6
Test lock operation	6
Mechanical test	6
Electronic test	6
Reset to factory defaults	7
Level 1 factory default reset	7
Level 2 factory default reset	7
Batteries	8
To install or replace batteries	8
Battery failure modes	9
External power supply	9
LED reference	10
Schlage button	10
Inside Push Button (IPB)	10
Troubleshooting	11
FCC/IC statements	12

This product is compliant of UL294 and ULCS319 standard. This product's compliance would be invalidated through the use of any add-on, expansion, memory or other module that has not yet been evaluated for compatibility for use with this UL Listed product, in accordance with the requirements of the Standards UL294 and ULCS319. This product has been evaluated for CAN/ULC-S319 Class 1.

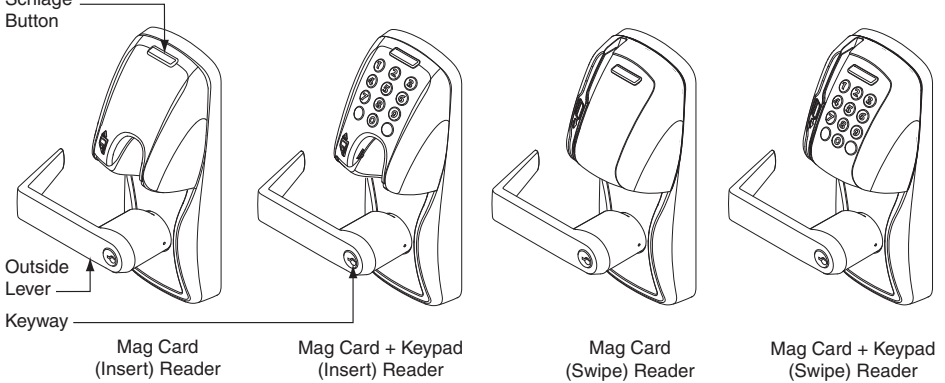
UL294 Access Control Levels tested to: Destructive Attack - Level 1; Line Security - Level 1; Endurance - Level 4; Standby Power - Level 1.

Overview

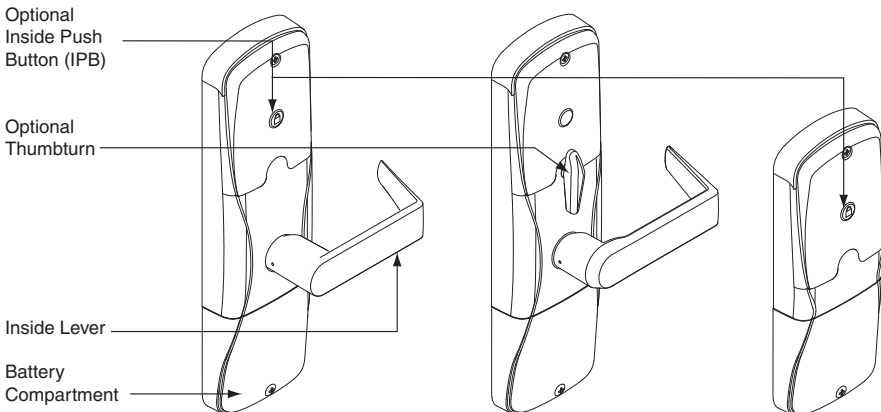
The Schlage AD-250 is a standalone electronic lock in the AD-Series product line.

- May be powered by batteries or connected to external power using a UL 294 or ULC S318/ULC S319 listed power supply capable of sourcing at least 250 mA @ 12 or 24 VDC. See *Batteries* on page 8, or *External power supply* on page 9 for more information.
- Outside lever is normally locked.
- Inside lever always allows egress.
- The lock maintains an audit trail of events.
- Configured using the Schlage Utility Software (SUS). See *Schlage Utility Software (SUS)* on page 4 for more information.

Outside



Inside



Lock functions

The AD-250 is available in one of four functions:

Privacy (40): Lockset is normally secure. Pressing the Inside Push Button or extending the deadbolt will disable normal electronic access from the outside. Opening the door, retracting the deadbolt or pressing the Inside Push Button a second time deactivates the privacy status.

Office (50): Lockset is normally secure. Inside Push Button may be used to select passage or secured status.

Apartment (60): Lockset is normally secure. Inside Push Button is used to select passage or secure status. While in the secure state, opening the door or pressing the Inside Push Button causes the lockset to toggle unsecured. The door must be closed and a valid credential presented to secure the lockset from the outside.

Classroom/Storeroom (70): Lockset is normally secure. Valid toggle credentials may be used to change to a passage or secure status.

Getting started

Follow these steps when setting up a new lock.

1. Install the lock. See the installation guide that came with the lock, or visit www.allegion.com/us for more information.
2. Make sure the batteries are installed properly. See *Batteries* on page 8 for more information.
3. Configure the master construction credential (where applicable). See *Construction access mode* on page 5 for more information. The lock will remain in construction access mode until you are ready to set up the rest of the system.
4. Test the lock for proper mechanical and electronic operation. See *Test lock operation* on page 6 for more information.
5. Consult the Schlage Utility Software (SUS) user guide for information about configuring the lock.
6. Familiarize yourself with the information contained in this user guide.

Save this user guide for future reference.

Schlage Utility Software (SUS)

The Schlage Utility Software is used for programming and setup only.

The Schlage Utility Software (SUS) is used to configure locks. This includes transferring data files between the access control software and locks. For further information about SUS, see the SUS user guide.

Construction access mode

Construction access mode is used to allow access before the lock has been programmed, and for testing purposes.

- Enabled by default.
- The lock will remain in construction access mode until the mode is cancelled as described below.
- No audits are captured while lock is in construction access mode.
- Use the same master construction credential for all the locks in the facility.
- If you present the first card to a new lock to create the master construction credential and the card is not accepted, the lock has either been programmed or already has a master construction credential.
- If the master construction credential cannot be located, or to put the lock back into construction access mode, reset the lock to factory settings (see page 7 for details).

Locks with keypads – Construction access mode

In the factory default state, locks with keypads have a default PIN of 13579 and “#”, which can be used for installation, testing and construction access. To test, enter default PIN. The Schlage button will blink and the lock will unlock.

The default PIN, 13579 and “#” is automatically deleted when a construction access user credential is added to the lock, or a new programming credential is created, or the lock is programmed with the SUS.

Locks with card readers – Create a master construction credential

The master construction credential is used to program construction access mode credentials.

To create a master construction credential:

1. Press and hold the Schlage button while presenting a credential.
2. The Schlage button will blink green on the left and right as confirmation.
3. Use this card to add construction access mode user credentials.

① **The master construction credential will not grant access. It is used only to add additional credentials.**

Locks with card readers – Add construction access mode user credentials

Construction access mode credential type	Steps to add construction access mode user credentials				
	1	2	3	4	5
Normal use construction credential Unlocks the lock for relock delay period	Present master construction credential to reader →	Green LEDs blink →	Present user credential within 20 seconds →	Green LEDs blink and credential is added →	Repeat steps 3 and 4 for additional credentials. Credentials added with the master construction credential will have 24/7 access.
Toggle construction credential Changes the state of the lock from locked to unlocked or vice versa	Present master construction credential to reader →	Green LEDs blink →	Press and hold Schlage button while presenting user credential within 20 seconds →	Green LEDs blink, 2 beeps will sound and credential is added →	

Cancel construction access mode

Do one of the following:

- Program the lock with the SUS. See the SUS user guide for more information.
- Reset the lock to factory settings. See *Reset to factory defaults* on page 7 for more information.

When construction mode is cancelled, the master construction credential and all other credentials added using the master construction credential will no longer function.

Test lock operation

If you encounter problems while performing any of the following tests, review the installation guide and correct any problems.

Mechanical test

1. Rotate the inside lever. Operation should be smooth, and the latch should retract.
2. Insert the key into the keyway and rotate the key or the key and lever to open the door. Operation should be smooth, and the latch should retract.

Electronic test

Test the AD-250 in factory default mode

1. For locks with a keypad, press any number key. The lock will beep.
 2. Press the Schlage button. The keypad should light blue for a few seconds.
 3. Present a credential to the reader. The lock will beep and the Schlage button will blink red one time. When the lock is in factory default mode, no credentials are accepted.
- ❶ **If the lock does not acknowledge the credential presentation, be sure that there is data on Track 2 of the credential. Default settings require data on Track 2.**
4. In the factory default state, locks with keypads, with or without additional credentials, have a default PIN of **13579** and **“#”**. To test, enter default PIN. The Schlage button will blink and the lock will unlock.

Test the AD-250 in construction access mode

1. When the master construction credential is presented, the lock will beep and the Schlage button will light green for 20 seconds awaiting the presentation of another credential to be granted construction user access.
 2. When a valid construction access user credential is presented, the lock will unlock for the re-latch delay period (default three seconds), and the Schlage button will blink green. When the lock re-locks after the re-latch delay period, the Schlage button will blink red.
 3. If an invalid construction access user credential is presented, the lock will beep and the Schlage button will blink red twice. See *Construction access mode* on page 5 for more information.
- ① **NOTE: Construction access mode is cancelled when the lock is reset to factory defaults. When construction access mode is cancelled, the master construction credential and all other credentials added using the master construction credential will no longer function.**

Reset to factory defaults

All information in the lock will be deleted and reset to factory defaults!

Level 1 factory default reset

- ① **Level 1 factory default reset will delete configurations and settings in the main controller in the lock.**
- ① **Main controller configurations that will reset to factory default include: programming and user codes.**
- ① **Level 1 factory default reset *will not* reset configurations and settings in the reader.**
1. Remove the top inside cover.
 2. Press and hold the Schlage button until two (2) beeps sound (10 seconds).
 3. Release the Schlage button.
 4. Press and release the inside push button (IPB) three (3) times within 10 seconds. One beep will sound and one red blink will occur with each press.
 5. The Schlage button and IPB will both light green for one second and a one-second beep will be heard. This indicates that the lock has been reset.
- ① **If the IPB is not pressed 3 times within 10 seconds, two beeps with two red blinks indicate timeout.**
6. Replace the top inside cover.

Level 2 factory default reset

- ① **Level 2 factory default reset will delete all configurations and settings in the lock and the reader.**
- ① **Reader configurations that will reset to factory default include: keypad format, magstripe reader track, beeper on/off, and contactless card.**
- ① **Days in Use counter and lock type configurations will not reset.**

To complete Level 2 factory default reset, repeat steps 2 through 5 above **within 10 seconds of the confirmation signals of Level 1 factory default reset**. If more than 10 seconds pass after the confirmation signals of Level 1 reset, then Level 1 reset will be repeated.

Batteries

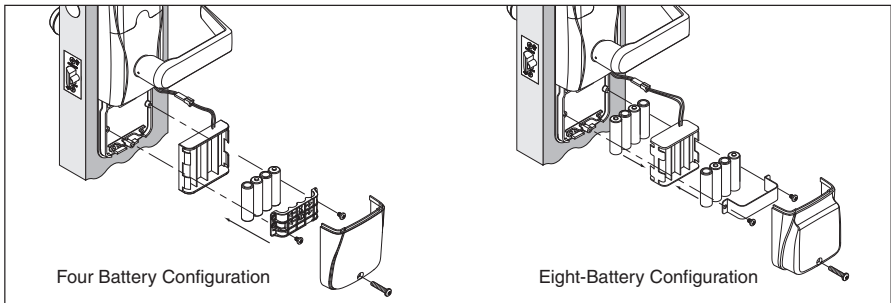
To install or replace batteries

- ① **Replacement of batteries does not affect any programmed data.**
- ① **Battery voltage can be checked with the SUS.**
 - 1. Remove the battery cover.
 - 2. Remove the battery bracket.

Do not allow the battery pack to hang from the wires.

- 3. Install the new batteries (install only new AA Alkaline batteries).
- 4. Reinstall the battery pack and battery bracket.
- 5. Reinstall the battery cover. **Be careful not to pinch the battery wires when installing the battery cover.**

CAUTION! Danger of explosion if battery is incorrectly replaced! Replace only with the same or equivalent type. Dispose of used batteries according to the manufacturer's instructions.



This product has been evaluated for ULC-S319 compliance with AA and coin cell batteries listed below. For installations requiring ULC-S319, these battery models should be used.

AA batteries: Duracell PC1500, MN1500; Energizer E91, EN91, AX91, XR91; RayoVac 815, 815-HE

Coin cell batteries: Energizer CR2025, CR2032; Maxell CR2025, CR2032, Panasonic CR2025, CR2032; RayoVac KECR2025, KECR2032.

Low battery indications

- ① During low battery condition, the reader’s beeper will be temporarily disabled. This condition will revert to normal function when batteries (AA or coin cell) are replaced. (While the beeper is in temporary disabled state, the SUS will indicate beeper is “on” as previously set by the user.)

Condition	Indicator	Solution
Batteries low	After credential is presented, 9 red blinks of Schlage button (Left = AA, Right = Coin Cell), then normal indicator.	Replace batteries immediately to avoid battery failure. Lock is intended to operate for 500 cycles in low battery condition.
Battery failure (configured by SUS)	No LED or beeps Valid credentials do not grant access	Replace batteries immediately. Mechanical override key must be used to unlock the lock.

Battery failure modes

- ① The battery failure mode is set using the SUS. See the SUS user guide for more information.

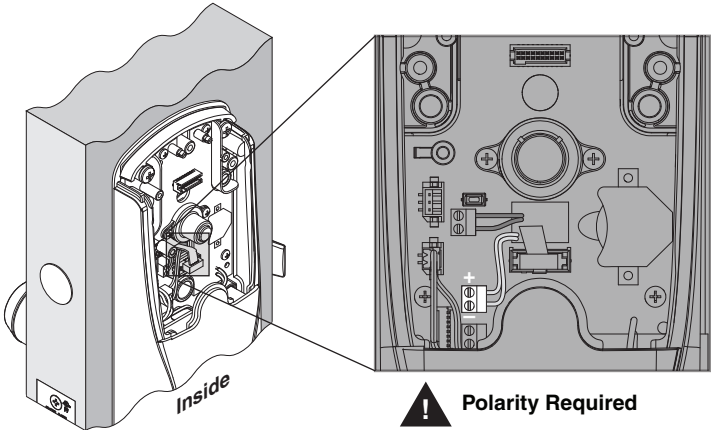
Mode	Description
Fail As-Is (default)	Lock remains in current state until batteries are replaced.
Fail Unlocked ¹	Lock unlocks and remains unlocked until batteries are replaced.
Fail Locked ¹	Lock locks and remains locked until batteries are replaced.

1 Fail Unlocked and Fail Locked modes are not available if lock is externally powered.

External power supply

The AD-250 may be connected to external power using a UL294 listed Power Supply for UL installations, and a power supply that complies with CAN/UL-S318 or CAN/ULC-S319 for cUL installations. The power supply must be capable of sourcing at least 250 mA @ 12 or 24 VDC (Schlage PS902, PS904, PS906).

- ① When powered with external power supply, the lock will always fail “As-Is” if power is lost.



LED reference

Most LED and beep indicators are configured using the SUS. See the SUS User Guide for more information.

Schlage button

Condition	Lights
Access denied	2 red blinks
Access denied, user outside time zone	4 red blinks
Factory default reset	Solid red while clearing memory, then one-second solid green when complete.
Low battery indicator, AA batteries	9 left red blinks
Low battery indicator, coin cell	9 right red blinks
Momentary unsecured access	1 green blink, then one red blink on relock
Toggle unsecured	2 green blinks
Toggle secure (relocking)	1 red blink
SUS authentication	Left green solid
USB active with no physical connection	Left green blinking
Waiting for PIN (Card + PIN)	5 left red with right green blinks then solid right green.

Inside Push Button (IPB)

Condition	Lights
Press IPB to lock (privacy mode disabled)	1 red blink
Press IPB to unlock (privacy mode disabled)	1 green blink
Door closed, IPB pressed to engage Privacy (privacy mode enabled)	4 red blinks
Door closed, IPB pressed to disengage Privacy (privacy mode enabled)	4 green blinks
Door locked (privacy mode enabled or disabled)	One red blink every 15 seconds for first 10 minutes, then one red blink every 30 seconds for the next 50 minutes, then one red blink every 60 seconds after one hour.

Troubleshooting

Problem	Possible cause	Solution
The lock beeper does not sound and the keypad does not light when the Schlage button is pressed.	The reader may not be properly seated into the front escutcheon. The reader connector may have bent pins. The through door ribbon cable may not be properly plugged in. The battery or wired power may be improperly connected. The batteries may be inserted with incorrect polarity.	Check that the reader is fully seated into the front escutcheon. Check that there are no bent pins in the reader connector. Check that the through door ribbon cable is plugged in correctly. The red wire should be on the left and not pinched in the door. Check that the battery or wired power is connected correctly. Check that the batteries are inserted in the correct polarity. <i>Refer to the installation instructions that came with the AD-250 lock, or this user guide for details on the above mentioned procedures.</i>
The reader is not working. The magnetic swipe card is not reading correctly (no beeps or blinks).	The through hole ribbon cable may be pinched. The “Mag Track in Use” default for all magnetic card credential readers is “Track2”. The magnetic swipe card data may be on Track1 or Track3.	Check that the through hole ribbon cable is not pinched. Use the SUS to change “Mag Track in Use”. Select AD-250 “Lock Properties”, “Reader” tab, and “MAG Card Track Selection”. <i>Refer to the installation instructions that came with the AD-250 lock, or the SUS user guide for details on the above mentioned procedures.</i>

Allegion Agency statements

Compliance Statement

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Warning

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC interference statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

Industry Canada statements

This equipment has been tested and found to comply to Industry Canada ICES-003.

CAN ICES-3(B)/NMB-3(B)

Customer Service

1-877-671-7011 www.allegion.com/us



© Allegion 2018
Printed in U.S.A.
P516-130 Rev. 04/18-k