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CM5100 COMPUTER MANAGED CYLINDRICAL LOCK INSTALLATION MANUAL

The 5100 series lock is a stand-alone, microprocessor controlled, electromechanical locking system. The 5100 employs a heavy-duty mechanical design with fewer moving parts than a standard cylindrical lockset, for ease of installation and high reliability. It is powered by four, standard AA batteries, providing up to 80,000 activations.

Operationally, the outside lever is normally locked and the inside lever is always free to allow egress. Electronic access control is achieved by entering an "Access Credential" (magnetic stripe card, code, iButton Key, or Prox fob or card). Electronic access control capabilities are listed below by model. All models are designed to accommodate an emergency mechanical key override. Standard features of the CM models include up to 1000 user memory, real time features including time zones and holidays, and audit trail of up to 1000 events. Optional ATK (audit trail - key override) will note any use of the mechanical key on the audit trail report. Manual and computer programming is supported by all models. The PRO models are manually programmed to accept up to 100 codes.

Functions:

5190: Office Function - has "Lock" and "Unlock" buttons on inside escutcheon - function not available on PRO

5196: Storeroom/Classroom Function - can be unlocked by "toggle" credential and relocked again by same. See programming guide for more information.

5198: Classroom Function with inside iButton reader - can be toggled unlocked by iButton plus pin (code). Can be relocked immediately from inside iButton reader in an emergency.

Models:

- **KPI:** iButton reader and keypad
- IBO: iButton reader only
- MGK: Magnetic stripe card reader, iButton reader and keypad
- MGI: Magnetic stripe card reader and iButton reader
- **PXK:** HID Prox card reader, iButton reader, and keypad
- PXI: HID Prox card reader and iButton reader
- PPK: interflex ProxIF Prox card reader, iButton reader, and keypad
- PPI: interflex ProxIF Prox card reader and iButton reader
- PCK: Casi Rusco Prox card reader, iButton reader, and keypad
- PCI: Casi Rusco Prox card reader and iButton reader
- PRO: Keypad only no computer programming, 100 code memory

Options:

- ATK: Audit trail of mechanical key use (not available on PRO)
- HSS: High security screws on inside escutcheon
- SLB: 2-3/4" backset, 1/2" latch bolt
- **OLB:** 2-3/8" backset, 1/2" latch bolt
- ELB: 2-3/4" backset, 3/4" latch bolt
- T3: Track 3 card reader (data on track 3 must be ABA track 2 format) MGI/MGK onlyKD: Keyed Different, includes Schlage
- Everest cylinder
- LC: Less Cylinder



5100 CYLINDRICAL

LOCKSET - STANDARD





CM5100-KPI

CM5100-IBO





CM5100-MGK

CM5100-MGI





CM5100-PXK CM5100-PPK CM5100-PCK

CM5100-PXI CM5100-PPI CM5100-PCI



SAFE SCHOOL LOCK WITH IBUTTON READER ON INSIDE





BEFORE YOU BEGIN:

Standard units are shipped from the factory to fit 1-3/4" doors. Verify that the door thickness. If the door is not 1-3/4" thick, verify that the door thickness option was ordered or consult factory.

1. PREP DOOR AND FRAME:

A. Determine door hand and correct backset.

B. Mark the horizontal and vertical centerlines for the lockset, latch and strike.

C. Place template on inside of door (opposite the side that the keypad/reader will be on). Line up the correct reference lines on the template with the edge of the door. The centerline on the door should line up with the vertical centerline of the template.

D. Drill holes as described by template.





2. INSTALL CYLINDER (IF NOT ALREADY DONE), GASKET AND STANDOFFS:

A. Install cam onto cylinder (if not already done.) Cam must be a straight, 11/16" design. See below for recommended cams.

- B. Insert mortise cylinder into outside escutcheon from front (keypad/reader) side with keyway down.
- C. Slide lock washer onto cylinder (tab on top facing out, as shown below.)
- D. Using nut tool (provided) tighten nut onto cylinder.
- E. Line up nearest notch on nut with tab on lock washer and bend tab using nut tool so nut is secure.
- F. Install exterior gasket (if used).
- G. Install standoffs.

TEST KEY OPERATION NOW: Turning key clockwise until it stops (about 1/2 turn) should allow the lever to turn retractor.



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3. CHANGE HAND (IF NECESSARY):

NOTE: The locks are shipped handed as ordered from factory. If it is necessary to change the hand of the lock, follow the steps below:

A. Remove retractor by loosening two 9/64" socket cap screws which attach it to the outside escutcheon.

B. Remove outside spindle.

C. Loosen 5/32" socket cap screw which secures handle to escutcheon.

D. Remove, rotate and re-install handle (NOTE: some handle designs have an adapter.)

E. Re-install outside spindle, making sure that the round end faces the handle, and the spindle is positioned with its edges vertical and horizontal as shown in detail below. Note that the cam (inside the escutcheon assembly) must be positioned such that the dot on it faces the 6 O'Clock position (see detail below).

F. Rotate retractor and re-install it.

G. Change the hand of the handle on the inside escutcheon (not show) the same way. Note that the inside escutcheon has no retractor.





4. INSTALL STRIKE BOX AND STRIKE:



5. INSTALL LATCH AND OUTSIDE ESCUTCHEON:

A. Install latch into edge of door. Be sure to install it with the beveled edge facing door jamb.

B. If the door is less than 1-3/4 thick, slide spacer over standoffs and retractor on outside escutcheon.

C. Carefully install the outside escutcheon onto the door, passing the wiring harness through the 1" hole. Be sure that the prongs on the latch engage with the retractor as shown in detail below.

D. Install latch guard from inside of door. (Do not install latch guard first or retractor will not clear the latch.)





6. INSTALL BASE PLATE ASSEMBLY:

Install base plate assembly onto inside of door. (If the door is less than 1-3/4" thick, install spacer between the base plate and the door.) Use socket cap screws with washers on upper standoffs and phillips head screws on lower (retractor assembly) standoffs.



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7. INSTALL INSIDE SPINDLE, BATTERIES, AND INSIDE ESCUTCHEON:

NOTE: The lock is shipped with four AA alkaline batteries. Always use new, high quality alkaline batteries.

A. Plug wiring harness into PC board.

- B. Tuck wiring harness under retaining clip as shown in detail.
- C. Install four AA batteries as shown, note polarity indication on battery holders.
- D. Insert inside spindle with flat side showing.
- E. Install inside escutcheon with four screws, making sure that the inside spindle engages the lever cam.
- F. Test operation of inside lever to make sure that latch retracts fully.



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OPERATIONAL TEST:

1. Push down and up on inside lever: latch should retract.

2. Push down and up on outside lever. Lever should be disengaged from retractor and door should not unlock.

3. Insert mechanical key into cylinder and turn counterclockwise until it stops. Push down and up on the outside lever. The door should unlock. (On units with ATK option you should see the green LED flash on the keypad/reader when the key is turned.)

4. If the unit has a keypad, enter the factory default access code:

1 - 3 - 5 - 7 - 9

as soon as "9" is pressed you should hear a quiet "whir" and the green LED should flash green for about 10 seconds. During this time, push the handle down the lock should unlock. After the green LED stops flashing you should hear another quiet "whir" and the lock should relock. Test the handle again to verify that it is locked.

Note: Refer to the Programming Guide for information on entering iButton keys or cards to test them. Note that some literature may refer to iButtons as "TEKs" or "TouchEntry Keys".

TROUBLE SHOOTING:

PROBLEM: Inside lever doesn't retract latch:	POSSIBLE CAUSE: Inside spindle not installed
No response from key- pad/reader:	Wiring harness not plugged in/Batteries not installed properly. Electronics prob- lem (consult tech. support)
Mechanical key not working:	Wrong cam installed or cam installed in wrong position. Outside spindle not installed properly. Cylinder upside down.

PROGRAMMING:

Please refer to the programming guide, shipped with the product, for instructions on manual programming and creating master programming credentials. If computer programming is required, please refer to the documentation and help files included with the software for more information.

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 any interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

