



Detention Equipment Company

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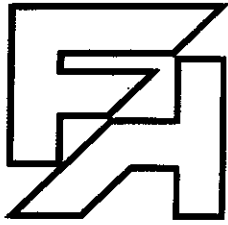
PRODUCT BULLETIN: 10-009
SUBJECT: 900 Series Folger Adam Locks
DATE: July 28, 2010

The 900 Series Folger Adam locks are discontinued and replacement parts will no longer be available effective 1/15/2011. The 900 series locks were introduced by Folger Adam in 1983 (Product Bulletin No. 106) and replaced by the Folger Adam NS400 series in 1991 (Product Bulletin 146). Product bulletins are attached for information.

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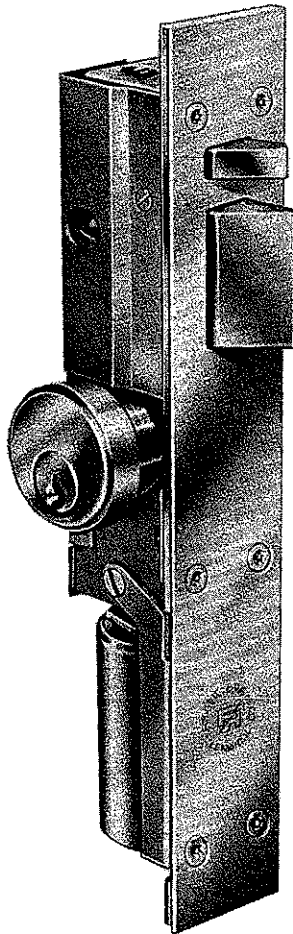


PRODUCT BULLETIN

BULLETIN NO. 106

DATE August 1, 1983

SUBJECT 900 SERIES ELECTRO-MECHANICAL LOCK



A competitively priced, compact lock for narrow stile jambs.

High security for commercial needs

Minimum security for detention facilities

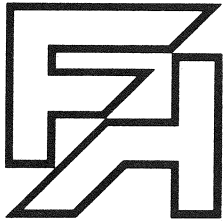
MODEL 900 - for remote electric unlocking by pushbutton or selector switch. Latchbolt is retracted by the solenoid, which electrically holds the door unlocked until it is opened.

MODEL 900 FS - for remote electric locking by toggle switch or selector switch. Latchbolt is extended by energizing the solenoid. Once unlocked, the latchbolt will remain retracted until the door is closed.

FEATURES OF THE 900 SERIES

- **Compact size:** 1 1/2" x 1 5/8" x 9 1/2".
Designed for narrow-stile jambs, 1 3/4-inch aluminum tube construction, and hollow metal frames with a 2-inch return.
- **Deadlocks automatically** when door is closed, to prevent carding or picking.
- **Stainless steel latchbolt**, hardened (50 to 60, Rockwell C scale) to resist cutting. Bolt throw, 3/4".
- **Handing:** latchbolt and deadlock actuator are field reversible. The deadlock actuator is adjustable from outside of lock, to compensate for variations between door and jamb.
- **Solenoid:** the force to retract the latchbolt (or extend, in the 900 FS) is provided by a 24-volt DC, dual-coil, constant-duty, tubular solenoid. A thermal protector with an automatic reset is wired into the circuit to protect the solenoid from overheating.
- **Mechanical operation** is by commercially available builders' hardware cylinders. Two kinds can be supplied by the factory on an optional basis: 1) a 5-tumbler, standard security cylinder and 2) a high security—level 1, commercial grade—cylinder with hardened cylinder ring.
- **Local electric key operation:** (900 model only) above cylinders can be factory modified (optional) for electrical unlocking. This unlocking feature, however, can be overridden by the console—individually, by door, or by groups of doors.
- **Remote indication:** although remote indication is a standard feature of the 900 Lock—in its unlocked or deadlocked condition, and additional door-position switch is recommended.
- **Plug connector:** by use of an optional plug connector, wiring for the 900 can be done in the field without the presence of the actual lock. When the lock arrives, it can simply be plugged into the field connector and installed.
- **Finish:** US32D is standard, but other finishes are available, on an optional basis.

For further information about the new 900-Series Lock, contact Folger Adam's factory Sales Manager serving your area.



PRODUCT BULLETIN

BULLETIN NO. 146

DATE: January 15, 1991

SUBJECT: NEW NS400 SERIES ELECTRIC LOCKS

Folger Adam Company introduces its new line of narrow style electric locks. New high-torque motor models, and a mechanical deadlock feature, complement the new line of locks. NS400 Locks will phase into production, planned for April, 1991, and replace the 900 Series Locks. The enclosed description of operation, model numbering chart, and specification will identify available models, operation and function.

STANDARD AND OPTIONAL FEATURES

- **Basic Lock Description:**
(NS400E)—A non-fail-safe deadlatch, operated by solenoid.
(NS400EFS)—A fail-safe deadlatch, operated by solenoid.
(NS400M)—Motor operated deadlatch, non-fail-safe.
(NS400MC)—Two-position motor operated deadlatch, non-fail-safe.
(NS400MCD)—Two-position motor operated deadbolt, non-fail-safe.
- **High-Torque Motor Models** - Our high-torque motor models fit into standard 2" wide hollow metal jambs. They also have the same cut-out dimensions as all other NS400 models. The retraction force of the lockbolt measures well over 300 pounds, as tested directly on the door.
- **New Mechanical Latchback Feature** - Some models have mechanical latchback. When unlocked by key or electric operation, the latchbolt remains retracted until the door opens. Other models have no latchback or electrical holdback. Electric holdback requires a relay in the control console.
- **Size** - All locks fit the same jamb cut-out as the 900 Lock. All models, including motorized locks, fit into a 2" hollow-metal jamb.
- **Latchbolt or Deadbolt** - 3/4" throw latchbolt or deadbolt. Both are investment cast from stainless steel and have hardened-steel inserts.
- **A two-piece, 12-pin plug connector** is standard and simplifies wiring at time of installation. It also allows pre-wiring of the lock opening. Existing 9-pin field receptacles for 900 Series Locks will plug into the 12-pin connector. This permits replacement of existing 900 Series Locks with NS400E locks, providing all features and operations remain the same.
- **A stainless steel strike plate with Torx Tamper-Resistant screws** is standard. The strike has a curved lip which reduces the force required to close and lock a door.
- **Mechanical unlocking** is available with either a standard 5-pin tumbler builders hardware cylinder, or a high security 6-pin tumbler cylinder. Cylinder extensions provide for keying on the stop side of the jamb.

- **Indication/Auxiliary Switches** - The indication switch monitors the position of the dead lock lever. It shows the deadlocked or unlocked condition. The auxiliary switch provides electrical holdback on solenoid models. On two-position motor operated locks, the auxiliary switch repositions the motor and latchbolt when the door opens.
- **Local Electric Key Operation (LEK)** - A special purpose control function for electrically operating the lock with the key cylinder. The main control console controls and cancels this feature. It uses two types of keys; one for operating the lock electrically, and one which always operates the lock mechanically. At any time the control console may override the electric operation. Each door requires a three-position control switch to activate or cancel the electric operation.
- **Inmate Push Button** - A push button installed on the inside of the cell and designed for inmate use. Like the LEK feature above, the control console may cancel the inmate push button privilege. The continuous duty feature is strongly recommended when inmate control is specified.
- **Continuous Duty** - A power modulator is standard with fail-safe solenoid operated locks. Solenoid operated locks with mechanical latchback, operate with momentary-contact controls. They do not require a continuous duty feature. Solenoid operated locks without latchback features must use a momentary-contact control. For constant operation of solenoid locks without latchback, add the continuous duty power modulator. Motor operated locks use a two-position motor to provide this feature, and do not require a power modulator.
- **Power Modulator (PM)** - allows either 24VAC or 24VDC to operate solenoid locks. It also reduces power consumption to 30 watts. The power modulator is standard on all fail-safe solenoid locks.
- **Voltage Options** - 24VAC or 24VDC for both motor and solenoid locks. We provide a rectifier on 24VAC motor locks. Solenoid operated locks may use a rectifier or the power modulator to provide 24VAC.
- **Durability** - The lock case and all working parts use stainless steel for strength, corrosion resistance and wear. The locks are wear tested for over one million operations. The investment cast stainless steel case has a .75" deep guiding surface for the lockbolts.
- **UL Testing** - Models are at UL for testing on burglary resistance (UL1034), and fire rating (UL10B). We will update you with full information when we hear from UL.

We designed the NS400M to meet the increasing market demand for a high torque motor operated lock. All internal parts are strengthened for high torque motor use. Solenoid operated models also feature these stronger parts. Additionally, the new lock design provides longer life, with fewer parts and springs than other designs.

We will issue a bulletin discontinuing 900 Series Locks when current production allows, although repair parts will still be available. NS400 Series Lock parts will not retrofit into existing 900 Series Locks. The new NS400 Series Locks will, however, fit into the existing 900 lock cut-out.

Donald F. Wolz
Product Manager

NS400 SERIES LOCKS

DESCRIPTION OF ELECTRIC OPERATION

FOLGER ADAM COMPANY

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MODEL NUMBER	ELECTRIC OPERATION	INDICATION SWITCH	BOLT LATCH-BACK			OPERATIONAL SWITCH		LEK OPTION	CONTINUOUS DUTY MODULATOR	24VAC RECTIFIER
			WITH	WITHOUT	ELECTRIC	HOLDBACK	RELOCK			
Solenoid Operated Latchbolt Non-Fail-Safe										
NS400E-00	Unlocks when solenoid is energized by a momentary contact switch. Once unlocked, latchbolt is mechanically held retracted until door is opened, then it extends automatically.		•					•	OPTIONAL	Y
NS400E-01	Unlocks when solenoid is energized by a momentary contact switch. Once unlocked, latchbolt is mechanically held retracted until door is opened, then it extends automatically.	•	•					•	OPTIONAL	Y
NS400E-03	Same as NS400E-00 Using a momentary contact switch, latchbolt is electrically held retracted.			•				•	OPTIONAL	Y
NS400E-04	Unlocks when solenoid is energized by a momentary contact switch. Once unlocked, latchbolt is electrically held retracted until door is opened, then it extends automatically.	•			•			•		N
Solenoid Operated Latchbolt Fail-Safe										
NS400EFS-03	Unlocks when solenoid is de-energized by switch or power failure. Opening door maintains the latch retracted. Upon closing the door, latchbolt extends and deadlocks.			•				•	•	N
NS400EFS-04	Unlocks when solenoid is de-energized by switch or power failure. Opening door maintains the latch retracted. Upon closing the door, latchbolt extends and deadlocks.	•		•				•	•	N
Motor Operated Latchbolt Non-Fail-Safe										
NS400M-00	Unlocks when the motor is energized by a momentary contact switch. Once unlocked, the latchbolt is mechanically held retracted until the door is opened, then it extends automatically.		•					•	N	Y
NS400M-01	Unlocks when the motor is energized by a momentary contact switch. Once unlocked, the latchbolt is mechanically held retracted until the door is opened, then it extends automatically.	•	•					•	N	Y
Two-Position Motor Operated Latchbolt Non-Fail-Safe										
NS400MC-00	Locks or unlocks when the motor is energized by either a two- or three-position, maintained contact switch, or a three-position, momentary contact switch. Once unlocked, the latchbolt is mechanically held retracted until the door is opened, then it extends automatically.			•				N	N	Y
NS400MC-01	Same as NS400MC-00 with indication switch.	•	•					N	N	Y
NS400MC-03	Locks or unlocks when the motor is energized by either a two- or three-position, maintained contact switch, or a three-position, momentary contact switch. Once unlocked, the latchbolt remains retracted until it is selected to lock-opening and closing the door has no effect on the lock.			•				N	N	Y
NS400MC-04	Locks or unlocks when the motor is energized by either a two- or three-position, maintained contact switch, or a three-position, momentary contact switch. Once unlocked, the latchbolt remains retracted until it is selected to lock-opening and closing the door has no effect on the lock.	•		•				N	N	Y
NS400MC-09	Unlocks when motor is energized by momentary contact switch. A relock switch energizes the motor to lock, once the door is opened. Deadlocked on closing.	•		•				•	N	Y
Two-Position Motor Operated Deadbolt Non-Fail-Safe										
NS400MCD-03	Locks or unlocks when the motor is energized by either a two- or three-position, maintained contact switch, or a three-position, momentary contact switch. Once unlocked, the deadbolt remains retracted until it is selected to lock-opening and closing the door has no effect on the lock.			•				•	N	Y
NS400MCD-04	Locks or unlocks when the motor is energized by either a two- or three-position, maintained contact switch, or a three-position, momentary contact switch. Once unlocked, the deadbolt remains retracted until it is selected to lock-opening and closing the door has no effect on the lock.	•		•				•	N	Y

NS400 MODEL NUMBERING CHART

Electric Lock Section

HOW TO SPECIFY NS400 SERIES LOCKS

1 NS400 2 E 3 FS 4 01 5 PM 6 B2 7 RHRB 8 24VAC 9 Lek 10 PB-1 11 US32D 12 Cyl. Ext. 5-3/4"

Keying Location

NS400
No Cylinder

NS402
Keyed 1 Side

NS406
Keyed 2 Sides

Deadlatch Models

E
Solenoid

M
Motor

MC
Two-position Motor

Deadbolt Model

MCD
Two-position Motor

Mode of Operation (Deadlatch Only)

NFS
Non-Fail-safe

FS
Fail-safe

Switch Function

00 *
No Switch, Mechanical Latchback

01 *
Deadlock Indication Switch with Latchback

03 *
No Switch, No Latchback

04 *
Deadlock Indication Switch, No Latchback

06
No Switch, No Latchback, Auxiliary Switch for Electric Holdback

07
Deadlock Indication Switch, No Latchback, Auxiliary Switch for Electric Holdback

09
Deadlock Indication Switch, No Latchback, Auxiliary Switch for Electric Relock

Optional *

Power Modulator

Use with Switch Function 03, 04 for Continuous Duty

Cylinder Options

B
Prep for Builders Hardware Cylinder

B1
Standard Security, Builders Hardware Cylinder

B2
High Security, Builders Hardware Cylinder

Latchbolt Handing

RHRB/LHRB

RHSB/LHSB

Deadbolt Handing

LH
RH

Voltage

Solenoid
24VAC
24VDC

Motor
24VAC
24VDC

Optional

Local Electric Key

Optional

Inmate Push button

Faceplate Finish

Standard
US32D

Optional
US4

Optional

Cylinder Extension Provide Frame Dimension

* Non-Fail-Safe Solenoid Operated Deadlatches (E) are intermittent duty. Add the Power Modulator (PM) for continuous duty operation.



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