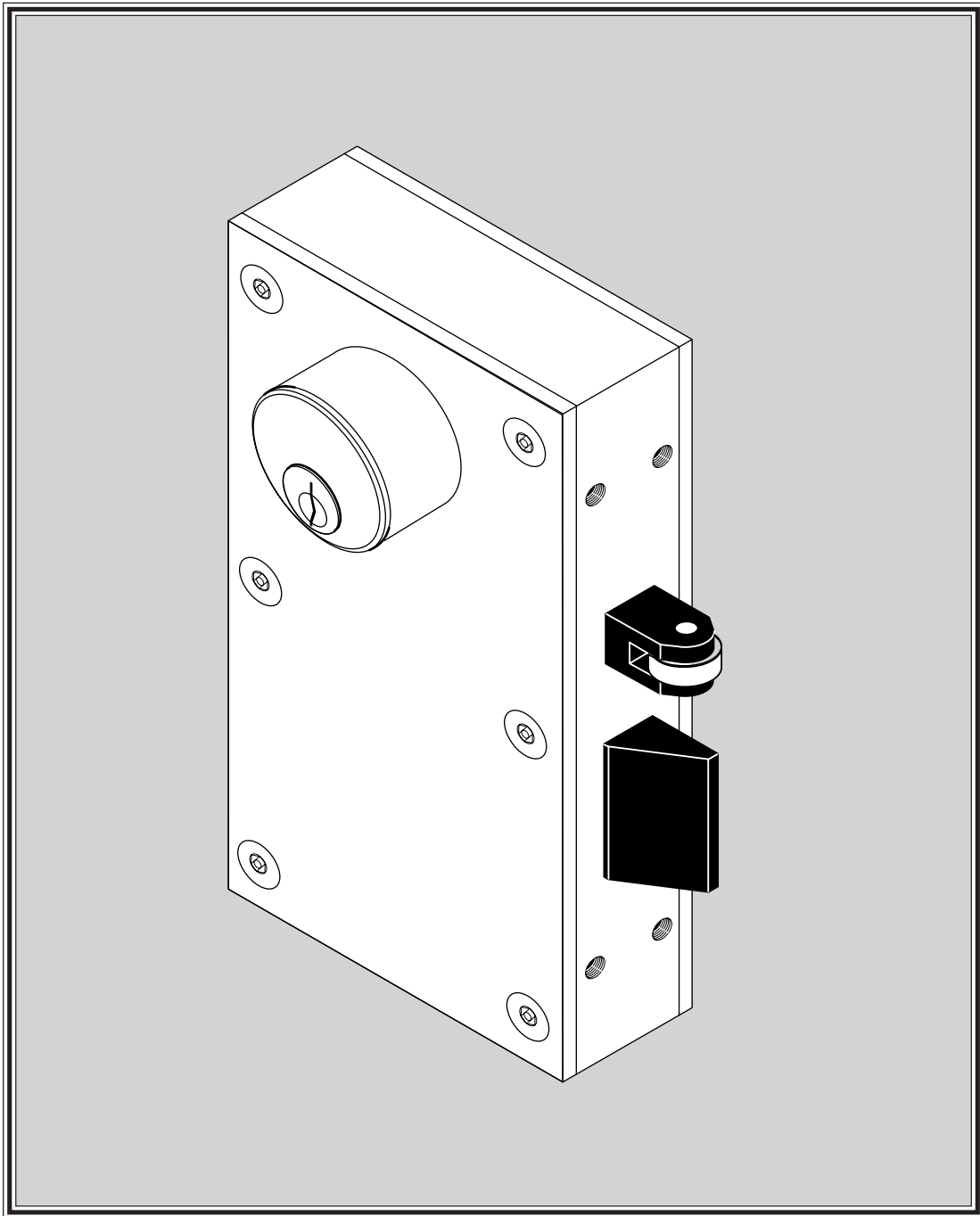
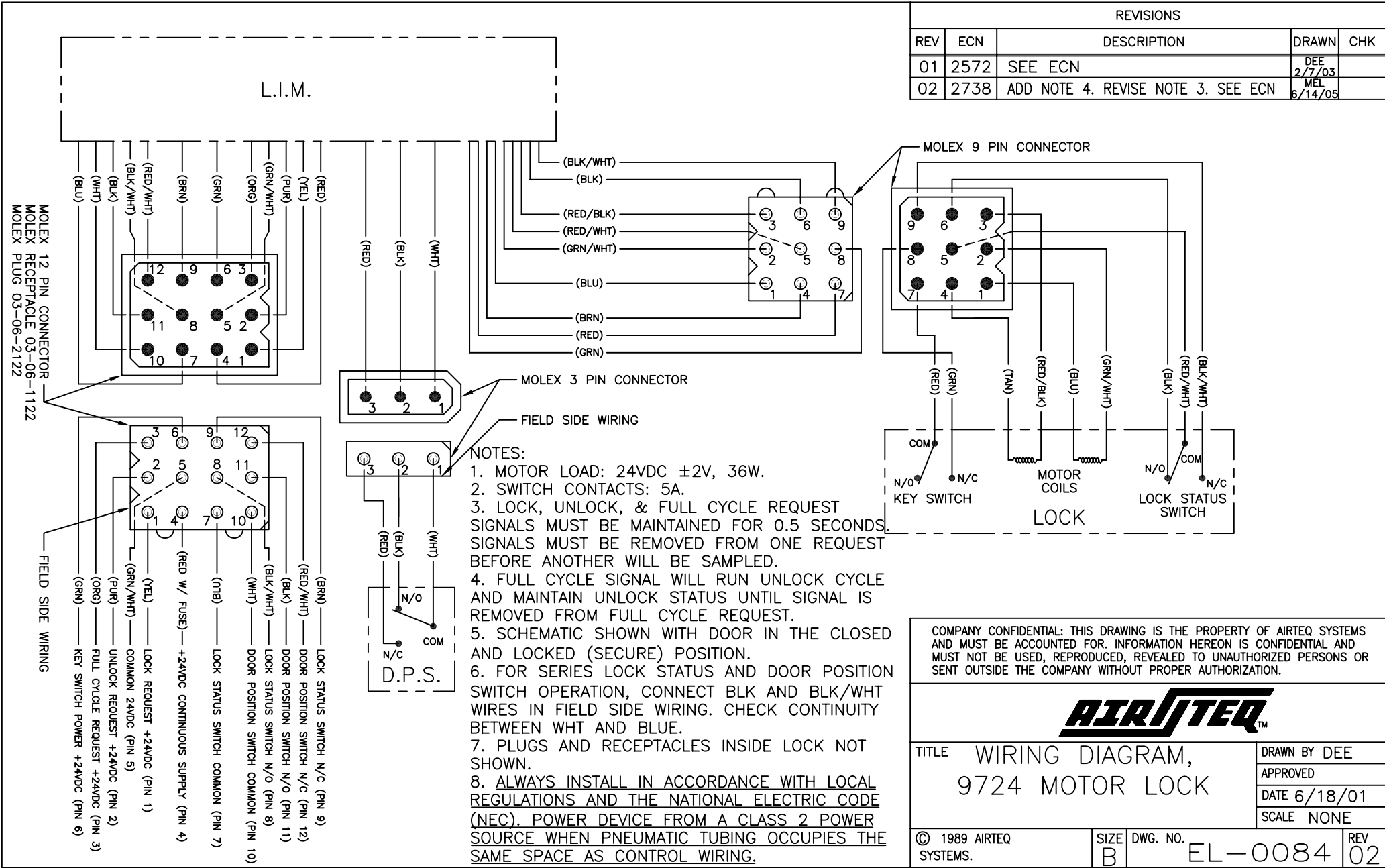




## 9724 SERIES LOCK



REVISIONS				
REV	ECN	DESCRIPTION	DRAWN	CHK
01	2572	SEE ECN	DEE 2/7/03	
02	2738	ADD NOTE 4. REVISE NOTE 3. SEE ECN	MEL 6/14/05	



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TITLE <b>WIRING DIAGRAM, 9724 MOTOR LOCK</b>		DRAWN BY DEE
		APPROVED
		DATE 6/18/01
		SCALE NONE
© 1989 AIRTEQ SYSTEMS.	SIZE B	DWG. NO. EL-0084
		REV 02

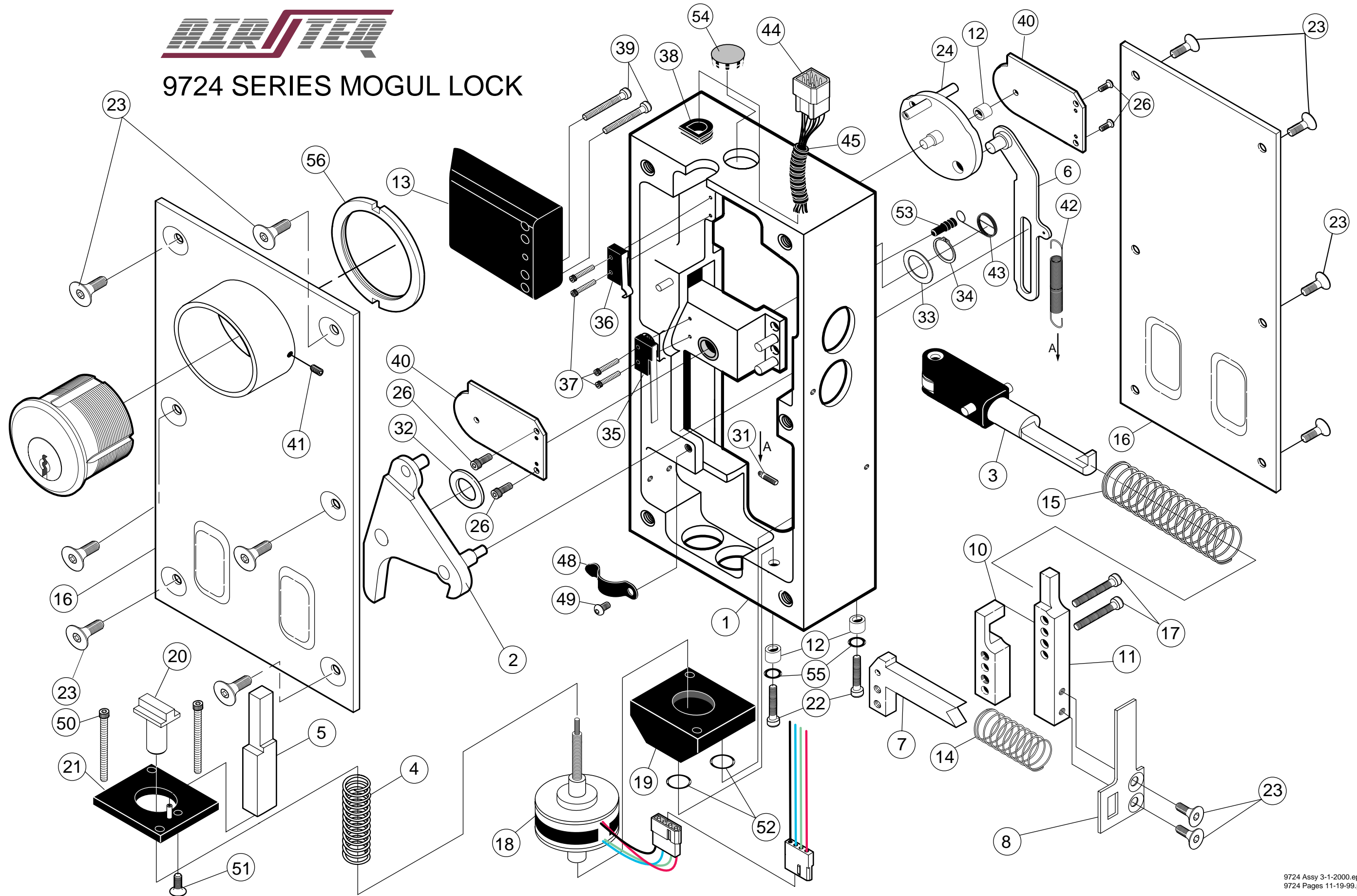


## 9724 SERIES MOGUL LOCK PARTS LIST

<u>ITEM</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	1	146-9700-052	ASSY, LOCK BODY
2	1	146-9700-107	ASSY, ACTUATOR CAM
3	1	146-9700-040	ASSY, ROLLER BOLT
4	1	315-0000-058	SPRING, MOTOR ASSIST
5	1	216-9724-006	REAR GUIDE
6	1	146-9700-115	ACTUATOR LINK WELDMENT (SHOWN)
6	1	146-9700-116	(OR) ACTUATOR LINK WELDMENT, ELHB
7	1	146-9700-045	ASSY, GUIDE BAR
8	1	216-9700-211	EXTENDED BOLT GUIDE
10	1	216-9700-142	DEADBOLT SUPPORT BAR, FRONT
11	1	216-9700-141	DEADBOLT SUPPORT BAR, REAR
12	3	319-0000-066	SPACER (For KLHB) (Shown)
12	2	319-0000-066	*(or) SPACER (For Non-KLHB)
12	1	216-9700-306	*(also) SPACER
13	1	216-9700-122	LATCHBOLT
14	1	315-0000-015	SPRING, LATCHBOLT
15	1	315-0000-016	SPRING, DEADLATCH
16	1	216-9724-023	COVER PLATE, BLANK (SHOWN)
16	1	146-9724-021	ASSY, COVER, AIRTEQ MOGUL (SHOWN)
16	1	146-9724-023	(OR) ASSY, COVER, STANDARD MOGUL
16	1	146-9724-025	(OR) ASSY, COVER, MAXI MOGUL
16	1	146-9724-027	(OR) ASSY, COVER, BRINKS MOGUL
16	1	146-9724-029	(OR) ASSY, COVER, MEDECO/ASSA MOGUL
16	1	146-9724-031	(OR) ASSY, COVER, EXTENSION RING
17	2	310-1032-007	SCREW, SHCS, 10-32 X 1
18	1	160-9724-000	MOTOR ASSEMBLY, 9724
19	1	216-9724-004	MOTOR MOUNT, LOWER
20	1	146-9724-001	MOTOR SHAFT BLOCK
21	1	146-9724-000	ASSY, MOTOR MOUNT, UPPER
22	2	310-1032-026	SCREW, SHCS, LOW HEAD, 10-32 X 5/8
23	14	310-0000-009	SCREW, FH SOC., 10-32 X 1/2
24	1	146-9700-034	ASSY, MANUAL OVERRIDE DISC
26	4	310-0832-004	SCREW, SHCS, 8-32 X 3/8
31	2	217-0000-035	SPRING ANCHOR, 7/8"
32	1	313-0000-077	WASHER, NYLON
33	1	313-0000-070	WASHER, STEEL
34	1	315-0000-013	RETAINING RING
35	1	160-9700-007	ASSY, LOCK STATUS SWITCH
36	1	160-9400-012	ASSY, KEY SWITCH (KEY SWITCH MODELS ONLY)
37	4	310-0000-014	SCREW, SHCS, 2-56 X 3/8 (QTY 2 W/O KEY SWITCH)
38	1	319-0000-077	GROMMET
39	2	310-0832-018	SCREW, SHCS, 8-32 X 1
40	2	216-9700-058	PIVOT PLATE
41	1	310-0832-012	SET SCREW, 8-32 X 3/16
42	1	315-0000-018	SPRING, LINK RETURN
43	1	216-9700-271	TORSION SPRING, ACTUATOR CAM
44	1	160-9724-003	WIRE HARNESS W/ KEY SWITCH (SHOWN)
44	1	160-9724-002	(OR) WIRE HARNESS
45	1	340-0000-205	SPLIT LOOM, 6"
48	1	319-0000-058	TENSION CLIP
49	1	310-0832-016	SCREW, BH SOC., 8-32 X 1/4
50	2	310-1032-023	SCREW, SHCS, 10-32 X 1 3/4
51	1	310-0632-009	SCREW, FH SOC., 6-32 X 3/8
52	2	313-0000-081	O-RING, 2-011
53	1	216-9700-276	ANCHOR PIN, TORSION SPRING
54	1	319-0000-083	HOLE PLUG, .500 DIA.
55	2	313-0000-113	WASHER, FLAT, #10, TYPE A
56	1	216-1000-028	LOCK NUT (QTY 2 FOR KEYED BOTH SIDES)



# 9724 SERIES MOGUL LOCK



**9724 SERIES LOCK**  
**RECOMMENDED SPARE PARTS LIST**

<b><u>PART NUMBER</u></b>	<b><u>DESCRIPTION</u></b>
160-9724-000	MOTOR ASSY, 9724
315-0000-058	SPRING, MOTOR ASSIST
315-0000-015	SPRING, LATCHBOLT
315-0000-016	SPRING, DEADLATCH
216-9700-271	TORSION SPRING, ACTUATOR CAM
160-9400-012*	ASSY, KEY SWITCH
160-9700-007	ASSY, LOCK STATUS SWITCH
340-0000-209	TERMINAL, MALE
125-0000-097 (97-230-0) or	L.I.M. MODULE W/RLB
125-0000-097 (97-230-1)	L.I.M. MODULE WO/RLB

\* **NOT USED ON ALL MODELS**



# LOCK MAINTENANCE INFORMATION

## **ELECTRO-MECHANICAL LOCKING DEVICES**

### **A. Lubrication and cleaning**

1. Each lock is well lubricated at the time of assembly. However, all lubricants deteriorate eventually and need replacing on a regularly scheduled basis in order to prevent equipment failure. Airteq Systems recommends cleaning and lubricating each type of lock according to the following instructions approximately every (2) years. (Yearly for locks in high use areas).

#### **9424 SERIES LOCK:**

Remove the side cover plate and lubricate the angled ramp surface on the sideplate that the deadlatch bolt dowel pin rides against. Lubricate the stop side of the deadlatch bolt (back side). When replacing the side cover, hold the bolt slightly retracted by rotating and holding the manual release mechanism gear with one finger. This insures that the deadlatch limit switch operating lever will not be trapped between the cover and the actuator plate. The lower lock mechanism should be checked and cleaned once a year (or more often if special conditions exist) for accumulated dirt and other debris that would interfere with proper operation. Lubrication of upper lock mechanism is not necessary nor recommended.

#### **9624 SERIES LOCK:**

Remove the slide cover. Remove the housing cover. Remove the slide assembly. Clean and re-lubricate the slide with a thin coating of recommended lubricant on the following surfaces:

- a.) The 45° angled surface that contacts the deadbolt.
- b.) The flat "shelf" that lifts the back of the latchbolt.
- c.) The two small areas where the slide contacts the back wall of the slide cavity.
- d.) The edges of the two "rails" which contact the side of the right side cover.
- e.) The front and rear faces of the slide which contact the slide cavity walls.

When replacing the slide assembly, hold the latchbolt retracted into the lock housing while inserting the slide assembly near the top of the cavity so that it drops in above the lock status switch lever arm and not on top of it. Replace the housing cover and slide cover and fasten securely. Lubrication of the upper lock mechanism is not necessary nor recommended.

### 9724 SERIES LOCK:

Remove one side cover plate and lubricate the deadbolt shaft and cam surface. Lubricate the latchbolt shaft and the stop sides of both bolts.

### 9724P SERIES LOCK: (PARACENTRIC KEYING)

Remove one side cover plate and lubricate the deadbolt shaft and cam surface. Lubricate the latchbolt shaft and the stop sides of both bolts.

### KEYS AND LEVER TUMBLERS:

- 1) Key wear can cause improper operation of the lock and may damage the lock's lever tumblers. Keys in constant use should be periodically compared to a similar new key. When grooves due to wear are noted in the steps on the key bit, the old key should be replaced.
- 2) When rekeying is performed, new tumbler stacks should be purchased as a set including a new key. This enables Airteq to maintain complete keying records.

### **WARNING:**

- 1) Never use WD40 or similar silicone based lubricants.
- 2) Never use graphite powder as a lubricant.
- 3) Never lubricate the lever tumblers.

### ALL LOCKS:

Lubricate the beveled surfaces of all lock bolts with stick lubricant as required.

### 2. RECOMMENDED LUBRICANTS:

Multipurpose teflon based grease: Lubricate internal moving parts with SYNCO SUPER LUBE WITH TEFLON or equivalent.

Stick lubricant: Lubricate the beveled surfaces of all latch bolts and strikes with stick lubricant as required. Use PANEF WHITE STICK LUBRICANT WITH SILICONE or equivalent.

### B. Electrical:

1. The electrical system of this lock is operated on regulated 24VDC ( $\pm 2$  V) current. Any other voltage or current condition is not acceptable.



## **TROUBLESHOOTING**

### **9424, 9524, 9624 AND 9724 LOCKS**

If the lock is not working properly, the following chart may be used as a guide to locate and correct the problem.

Because the lock receives its signal from the electronic control system, a thorough check of the control system should be conducted. Using a volt/ohm meter known to be accurate, verify the correct power signal input at the appropriate connector pin. If the proper electronic signal is not evident, begin checking “upstream” from the connector. If the electronic signal input is correct, the problem is within the locking device, use the following chart to locate and correct the problem.

The recommended voltage at the lock is 24 VDC  $\pm$ 2V. If the correct voltage is not evident, begin checking “upstream” from the lock. If the voltage is correct, the problem is within the locking device or it's logic interface module, use the following chart to locate and correct the problem.

PROBLEM	CHECK
LATCHBOLT WILL NOT RETRACT	<ul style="list-style-type: none"> <li>*MECHANICAL INTERFERENCE</li> <li>*POWER INPUT TO L.I.M. (12pin connector) (24 VDC should be momentarily present on pin 2 at the initiation of an unlock request, momentarily present on pin 3 at the initiation of a full cycle request and constantly present on pin 4.)</li> <li>*BROKEN OR LOOSE WIRING</li> <li>*IF CORRECT VOLTAGE IS PRESENT ON REQUIRED PINS AND LOCK DOES NOT FUNCTION, LOGIC INTERFACE MODULE OR MOTOR MAY BE FAULTY.</li> <li>*FAULTY KEY SWITCH</li> </ul>
LATCHBOLT WILL NOT EXTEND	<ul style="list-style-type: none"> <li>*MECHANICAL INTERFERENCE</li> <li>*POWER INPUT TO L.I.M. (12pin connector) (24 VDC should be momentarily present on pin 1 at the initiation of an lock request, momentarily present on pin 3 at the initiation of a full cycle request and constantly present on pin 4.)</li> <li>*BROKEN OR LOOSE WIRING</li> <li>*IF CORRECT VOLTAGE IS PRESENT ON REQUIRED PINS AND LOCK DOES NOT FUNCTION, LOGIC INTERFACE MODULE OR MOTOR MAY BE FAULTY.</li> <li>*FAULTY KEY SWITCH</li> </ul>
LOCK RETRACTS BUT WITH LOW STALL FORCE	<ul style="list-style-type: none"> <li>*BAD CONNECTION TO ONE MOTOR COIL.</li> <li>*LOW VOLTAGE. (Required voltage is 24 VDC <math>\pm</math>2V)</li> </ul>
MANUAL OVERRIDE NOT WORKING PROPERLY	<ul style="list-style-type: none"> <li>*MECHANICAL INTERFERENCE</li> <li>*PROPER ENGAGEMENT OF KEY CYLINDER CAM IN LOCK</li> </ul>
DOOR POSITION SIGNAL NOT GIVEN	<ul style="list-style-type: none"> <li>*BROKEN OR LOOSE WIRING (SEE WIRING DIAGRAM)</li> </ul>
LATCHBOLT POSITION SIGNAL NOT GIVEN	<ul style="list-style-type: none"> <li>*BROKEN OR LOOSE WIRING (SEE WIRING DIAGRAM)</li> </ul>