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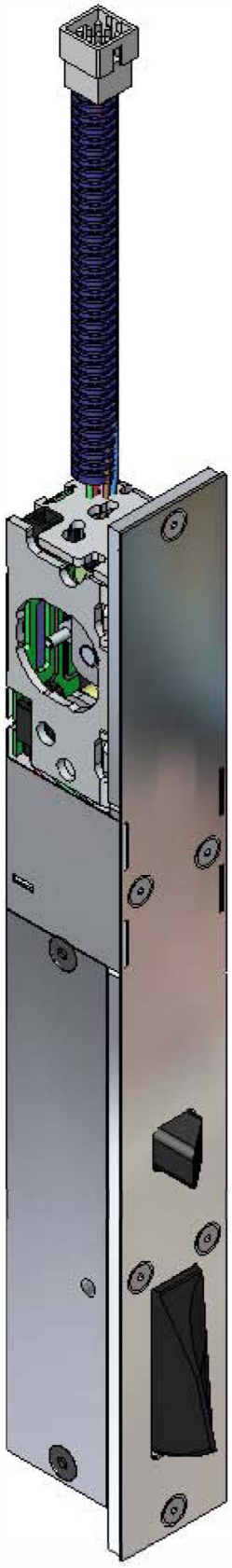
9424D SERIES LOCK

9424 8-08



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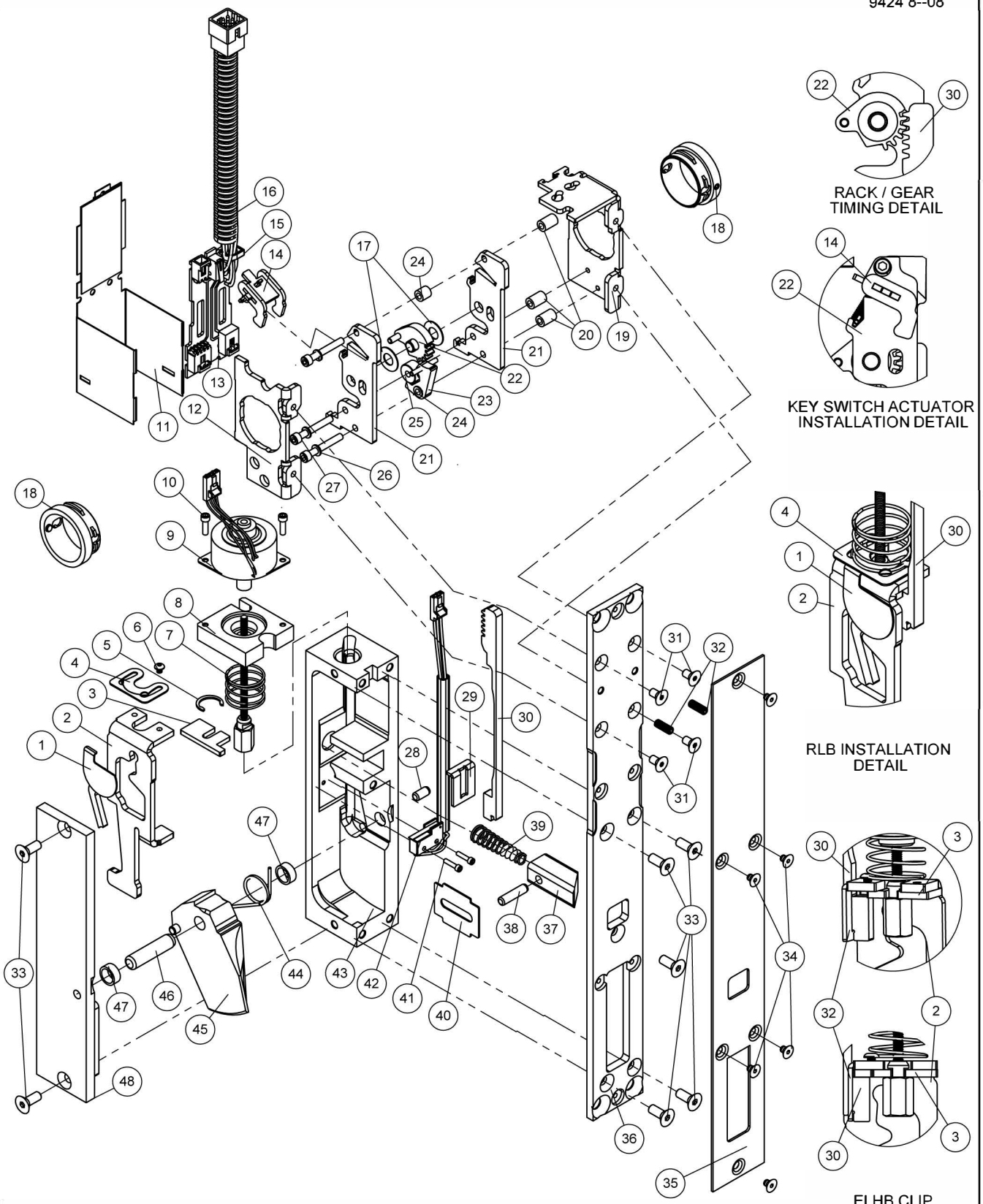

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9424D SERIES LOCK

ITEM NO.	QTY	PART NUMBER	REQ. FOR FEATURE:	DESCRIPTION 9424 7-24-06
1	1	146-9424-016	RLB	RLB PAWL WELDMENT
2	1	216-9424-029 216-9424-024	RLB STANDARD	ACTUATOR, RLB (OR) ACTUATOR
3	1	216-9424-021		MOTOR KEY
4	1	216-9424-028	RLB	RLB SPRING
5	1	315-0000-020		RETAINING RING, (CRESENT TYPE) IRR #2000-50
6	1	310-0440-029	RLB	SCREW, BHCS, 4-40 X 1/8, SS
7	1	315-0000-022		ACTUATOR RETURN SPRING
8	1	216-9424-022		MOTOR MOUNT 9424D
9	1	160-9424-002		MOTOR ASSEMBLY
10	2	310-0440-027		SCREW, SHCS, 4-40 X 3/8 BLACK
11	1	146-9400-112		TOP COVER ASSEMBLY
12	1	216-9400-247		MORTISE CYLINDER PLATE
13	1	146-9400-101 146-9400-102	STANDARD KEY SWITCH	CIRCUIT BOARD ASSY (OR) CIRCUIT BOARD ASSY W/KEY SWITCH (SHOWN)
14	1	146-9400-098	KEY SWITCH	KEY SWITCH ASSY D SERIES
15	1	340-0000-204		CABLE TIE, 4"
16	1	340-0000-205		5" SPLIT CONVOLUTED TUBING, .343, BLK
17	2	313-0000-072		WASHER, PLASTIC
18	2	146-9400-113		BAYONET LUG ASSY
19	1	216-9400-248		MORTISE CYLINDER PLATE R.H.
20	3	319-0000-044		SPACER, 1/4 X 3/8
21	2	216-9400-241		GEAR SUPPORT PLATE
22	1	146-9400-097		GEAR ASSY, D SERIES
23	1	146-9400-099	KLHB	ASSEMBLY, KLBH
24	2	319-0000-045		SPACER 1/4 X 1/4
25	1	216-9400-256		SPACER .250 X .438 DIA
26	3	313-0000-088		LOCKWASHER #6
27	3	310-0632-010		SCREW, SHCS 6-32 X 1
28	1	316-0000-050		DOWEL PIN, 3/16 X .375
29	1	216-9400-253	ELHB	ELHB CLIP
30	1	216-9400-251		RACK
31	4	310-0832-023		SCREW, FH SOC. 8-32 X 5/16
32	2	310-0832-015		SET SCREW, 8-32 X .438
33	7	310-0000-009		SCREW, 10-32 X .500 FLAT HEAD SOCKET
34	6	311-0632-018	QTY. 8 GR. 1	SCREW, TORX,6-32X3/16, UNDCUT HD SST
35	1	216-9400-149 216-9400-203	STANDARD GRADE 1	FACEPLATE (SHOWN) (OR) FACE PLATE GRADE 1
36	1	216-9400-252 146-9400-103	STANDARD GRADE 1	MOUNTING PLATE (SHOWN) (OR) MOUNTING PLATE GRADE 1
37	1	216-9400-008		DEADLATCH
38	1	316-0000-038		DOWEL PIN, 3/16 X .750
39	1	315-0000-023		DEADLATCH SPRING
40	1	216-9400-047		RETAINER
41	2	310-0000-014		SCREW, SHCS 2-56 X .375 BLACK
42	1	160-9400-023		LOCK STATUS SWITCH ASSY
43	1	216-9400-238		LOCK BODY
44	1	216-9400-022		TORSION SPRING
45	1	146-9400-104 146-9400-105	LH RH	LATCHBOLT ASSEMBLY, LH (OR) LATCHBOLT ASSEMBLY, RH (SHOWN)
46	1	316-0000-063		DOWEL PIN, 5/16 X 1.250
47	2	216-9400-026		SPACER LATCHBOLT
48	1	146-9400-065		SIDE PLATE WELDMENT
49	-	125-0000-094		9424 LIM, PROGRAMED (FIELD SIDE, NOT SHOWN)

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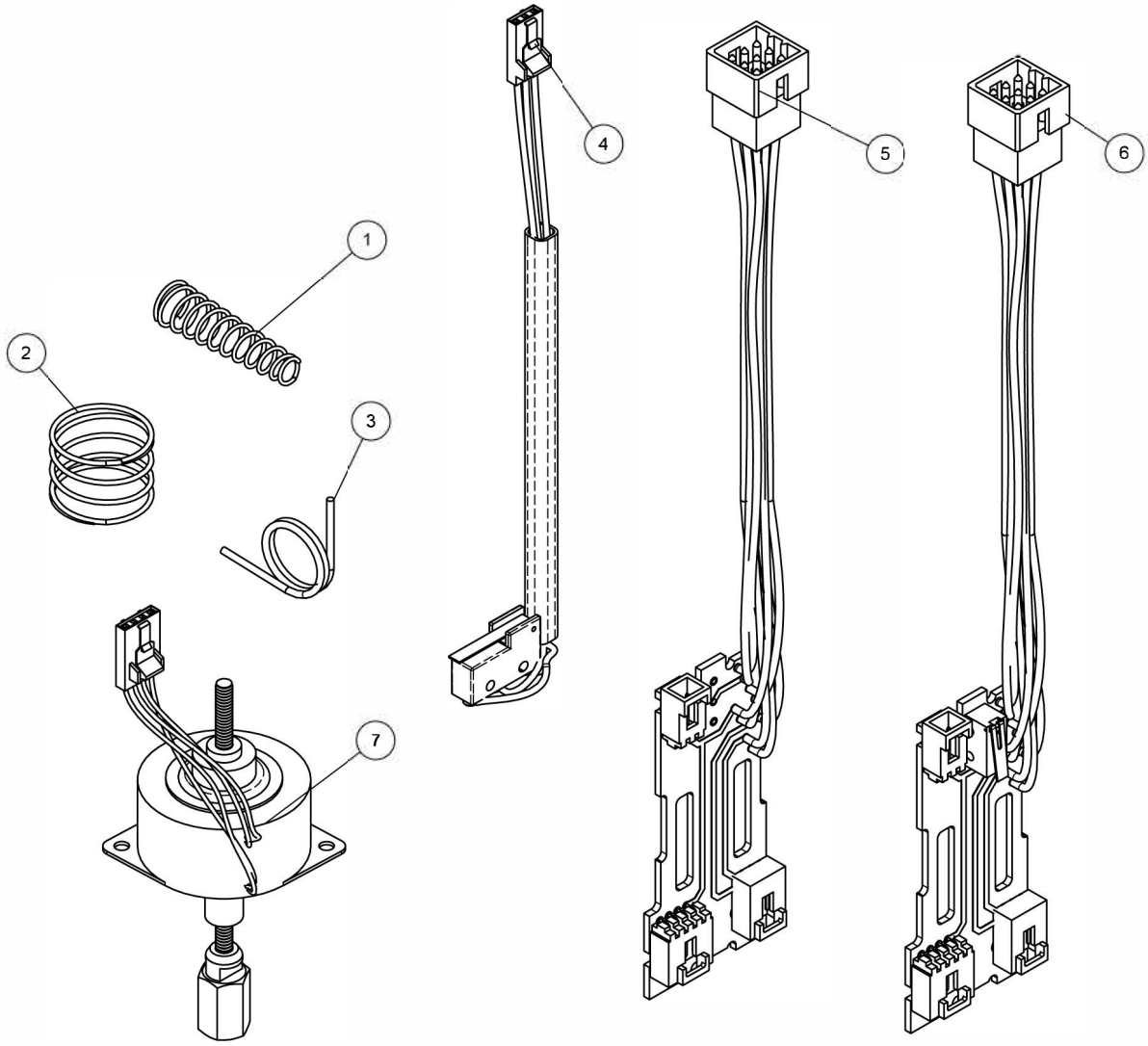
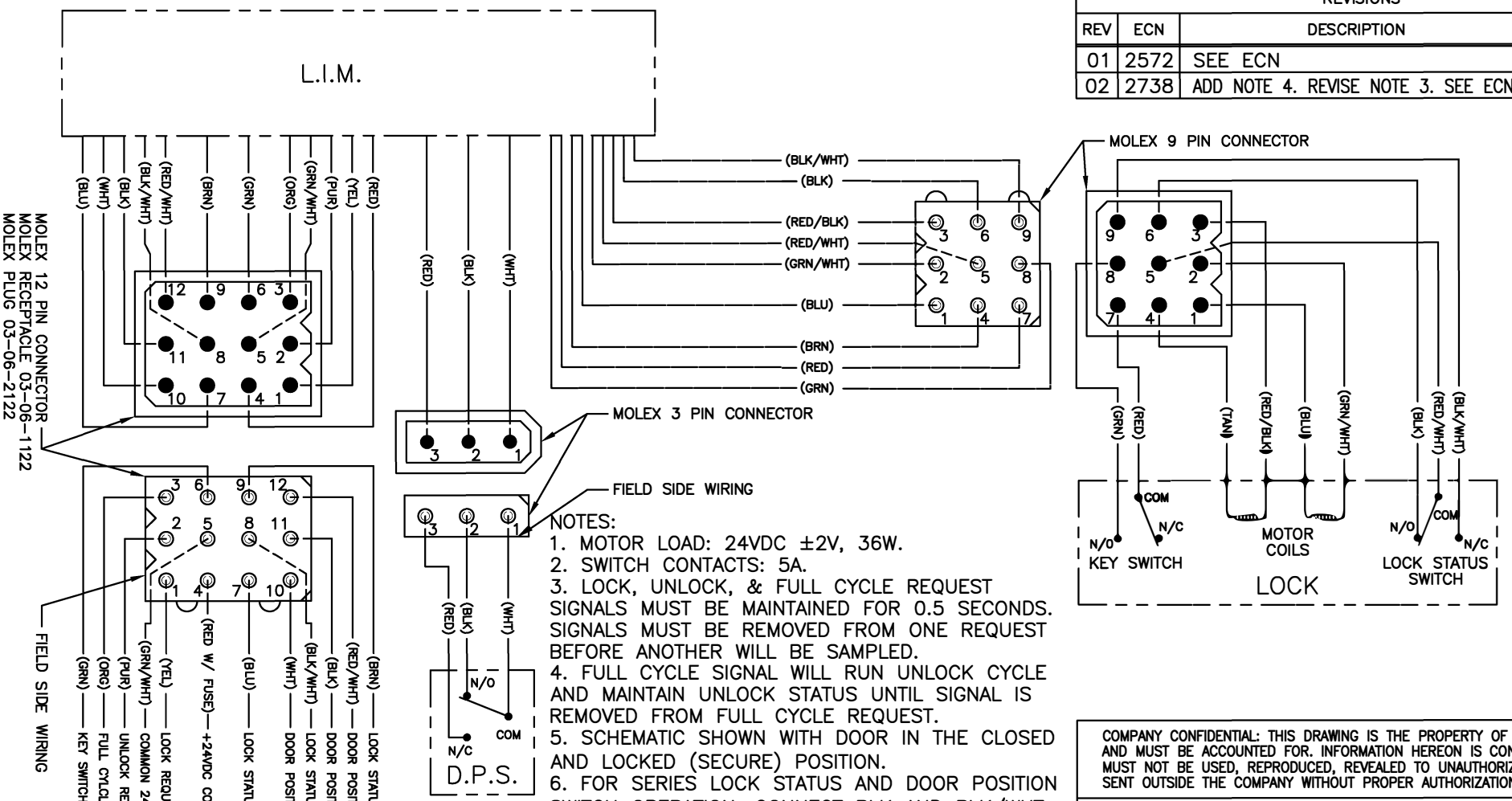
9424D RECOMMENDED SPARE PARTS

ITEM NO.	PART NUMBER	DESCRIPTION 9424 7-24-06
1	315-0000-023	DEADLATCH SPRING
2	315-0000-022	ACTUATOR RETURN SPRING
3	216-9400-022	TORSION SPRING
4	160-9400-023	LOCK STATUS SWITCH ASSY
5	146-9400-101	CIRCUIT BOARD ASSY
6	146-9400-102	(OR) CIRCUIT BOARD ASSY W/KEY SWITCH
7	160-9424-002	MOTOR ASSEMBLY
8	125-0000-094	9424 LIM, PROGRAMED (NOT SHOWN)





NOTES:

1. MOTOR LOAD: 24VDC ±2V, 36W.
2. SWITCH CONTACTS: 5A.
3. LOCK, UNLOCK, & FULL CYCLE REQUEST SIGNALS MUST BE MAINTAINED FOR 0.5 SECONDS. SIGNALS MUST BE REMOVED FROM ONE REQUEST BEFORE ANOTHER WILL BE SAMPLED.
4. FULL CYCLE SIGNAL WILL RUN UNLOCK CYCLE AND MAINTAIN UNLOCK STATUS UNTIL SIGNAL IS REMOVED FROM FULL CYCLE REQUEST.
5. SCHEMATIC SHOWN WITH DOOR IN THE CLOSED AND LOCKED (SECURE) POSITION.
6. FOR SERIES LOCK STATUS AND DOOR POSITION SWITCH OPERATION, CONNECT BLK AND BLK/WHT WIRES IN FIELD SIDE WIRING. CHECK CONTINUITY BETWEEN WHT AND BLUE
7. PLUGS AND RECEPTACLES INSIDE LOCK NOT SHOWN.
8. ALWAYS INSTALL IN ACCORDANCE WITH LOCAL REGULATIONS AND THE NATIONAL ELECTRIC CODE (NEC). POWER DEVICE FROM A CLASS 2 POWER SOURCE WHEN PNEUMATIC TUBING OCCUPIES THE SAME SPACE AS CONTROL WIRING.

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 WIRING DIAGRAM, 9424D, 9524D, & 9624 MOTOR LOCK	DRAWN BY SAB	
	APPROVED	
	DATE 8-27-99	
	SCALE NONE	
	SIZE B	DWG. NO. EL-0079 REV 02

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 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 45º 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 (± 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 ±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	*MECHANICAL INTERFERENCE *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 initation of a full cycle request and constantly present on pin 4.) *BROKEN OR LOOSE WIRING *IF CORRECT VOLTAGE IS PRESENT ON REQUIRED PINS AND LOCK DOES NOT FUNCTION, LOGIC INTERFACE MODULE OR MOTOR MAY BE FAULTY. *FAULTY KEY SWITCH
LATCHBOLT WILL NOT EXTEND	*MECHANICAL INTERFERENCE *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.) *BROKEN OR LOOSE WIRING *IF CORRECT VOLTAGE IS PRESENT ON REQUIRED PINS AND LOCK DOES NOT FUNCTION, LOGIC INTERFACE MODULE OR MOTOR MAY BE FAULTY. *FAULTY KEY SWITCH
LOCK RETRACTS BUT WITH LOW STALL FORCE	*BAD CONNECTION TO ONE MOTOR COIL. *LOW VOLTAGE. (Required voltage is 24 VDC ±2V)
MANUAL OVERRIDE NOT WORKING PROPERLY	*MECHANICAL INTERFERENCE *PROPER ENGAGEMENT OF KEY CYLINDER CAM IN LOCK
DOOR POSITION SIGNAL NOT GIVEN	*BROKEN OR LOOSE WIRING (SEE WIRING DIAGRAM)
LATCHBOLT POSITION SIGNAL NOT GIVEN	*BROKEN OR LOOSE WIRING (SEE WIRING DIAGRAM)