

AIRTEQ SYSTEMS www.airteqsystems.com 800-466-3007

9500D SERIES LOCK

9500D 4-28-06



Remote controlled 2" jamb internal latchbolt lock.

Mortise key release

For swing door or sliding doors



AIRTEQ SYSTEMS

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9500D SERIES LOCK

9500D 6-20-14 (5)න (34 PLACE STATUS SWITCH ACTUATOR IN PISTON RING NOTCH IN BOLT GROVE PLACE RACK IN SLOT IN BOLT KEY SWITCH ASSEMBLY RACK/GEAR **RACK AND LSS** TIMING DETAIL INSTALLATION DETAIL **DETAIL**



Securing Your World

AIRTEQ SYSTEMS

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9500D SERIES LOCK

ITEM NO.	QTY	PART NUMBER	REQ. FOR FEATURE:	DESCRIPTION 9500D 5/1/06	
1	1	146-9400-102 146-9400-101	KEY SWITCH STANDARD	CIRCUIT BOARD ASSY W/KEY SWITCH (SHOWN) (OR) CIRCUIT BOARD ASSY	
2	1	340-0000-205	OI7 (IND) (IND	5" SPLIT CONVOLUTED TUBING, .343, BLK	
3	2	146-9400-113		BAYONET LUG ASSY	
4	1	330-0000-414		COUPLING HALF (LOCK SIDE)	
5	2	330-0000-133		FITTING, 10-32 X .078 90 BARB PNEUTRONICS #190-8035	
6	1	331-0000-053		SOLENOID D SERIES	
7	2	310-0632-006		SCREW, SHCS 6-32 X .250 BLACK	
8	1	216-9400-248		MORTISE CYLINDER PLATE R.H.	
9	1	216-9400-241		GEAR SUPPORT PLATE	
10	1	216-9400-284		Air Line Spacer	
11	2	313-0000-072		WASHER, PLASTIC	
12	1	216-9400-285		GEAR SUPPORT PLATE	
13	1	330-1206-000		TUBING, 1/8 OD X 1/6 ID POLYURETHANE	
14	2	310-0256-000		SCREW, SHCS 2-56 X .500 BLACK	
15	1	160-9500-005		ASSY, LOCK STATUS SWITCH, D SERIES	
16	1	216-9500-122		SPACER, LOCK STATUS SWITCH	
17	1	216-9500-130		RACK, 95D	
18	1	216-9524-006 146-9500-135	STANDARD GRADE 1	MOUNTING PLATE "D" SERIES (SHOWN) (OR) MOUNTING PLATE, GRADE 1	
		216-9500-091	SLIDING DOOR	(OR) MOUNTING PLATE, SLIDING DOOR	
19	2	310-0832-015		SET SCREW, 8-32 X .438	
20	4	310-0832-026		SCREW, 8-32 X .375 FH BLACK	
		216-9500-023	STANDARD	FACEPLATE (SHOWN)	
21	1	216-9500-101	GRADE 1	(OR) FACEPLATE, GRADE 1	
		216-9500-067	SLIDING DOOR	(OR) FACEPLATE, SLIDING DOOR	
22	6	311-0632-018		SCREW FH, TORX, 6-32X3/16, TP, Undercut Head, Stainless Steel	
23	4	310-2520-019		SCREW, FH SOCKET 1/4-20 X .500	
24	3	310-0632-010		SCREW, SHCS 6-32 X 1	
25	1	216-9500-142		STATUS SWITCH ACTUATOR	
26	1	216-9400-247		MORTISE CYLINDER PLATE, L.H.	
27	3	313-0000-088		LOCKWASHER #6	
28	1	330-0000-086		FITTING, 10-32 X 1/16 BARB	
29	1	216-9500-119		TOP COVER	
30	1	146-9500-086	STANDARD	LOCK BODY ASSEMBLY (SHOWN)	
		146-9500-087	SLIDING DOOR	(OR) LOCK BODY, SLIDING DOOR	
31	1	313-0000-050		O-RING, 2-016 VITON, 70D	
32	1	313-0000-116		SEAL, U-CUP, PARKER #8504-0100-4180 BONAN	
33	11	146-9500-132	CTANDADD	TOP COVER ASSEMBLY	
34	1	216-9500-120 146-9500-134	STANDARD ELHB	LATCHBOLT (SHOWN) (OR) ASSY, LATCHBOLT ELHB	
35	1	313-0000-052	LLIID	PISTON RING, 1.25 X .070 DYNAMIC SEALS TFE-S-4	
36	1	216-9524-011		COMPRESSION SPRING	
37	1	330-1206-000		TUBING, 1/8 OD X 1/16 ID, POLYURETHANE, 8"	
38	i	146-9400-098	KEY SWITCH	KEY SWITCH ASSY D SERIES	
39	3	319-0000-044	KEI SWIICH	SPACER, 1/4 X 3/8	
40	1	146-9400-097			
				GEAR ASSY, D SERIES	
41	1	216-9400-256		SPACER .144ID X .438ODx.25	
42	1	146-9400-099	KLHB & ELHB	ASSEMBLY, KLBH	
43	1	319-0000-045		SPACER 1/4 X 1/4	
44	3	310-1032-003		SCREW, SHCS 10-32 X .375 BLACK	
45	1	330-0000-415		COUPLING HALF (FIELD SIDE)	

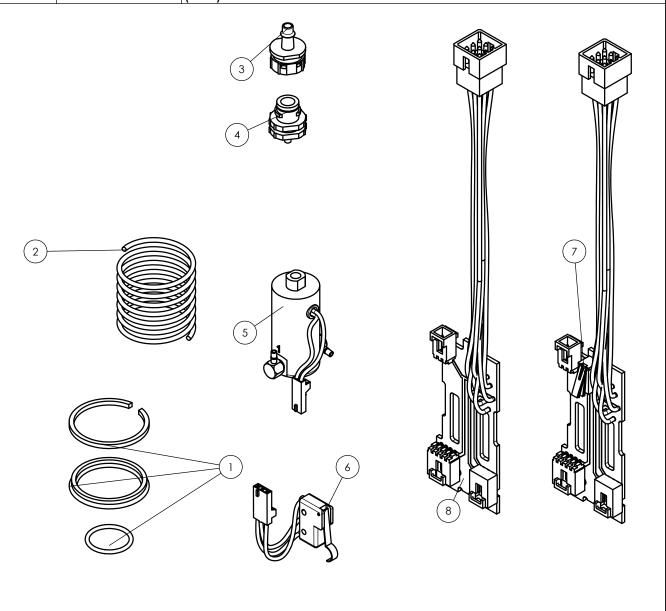


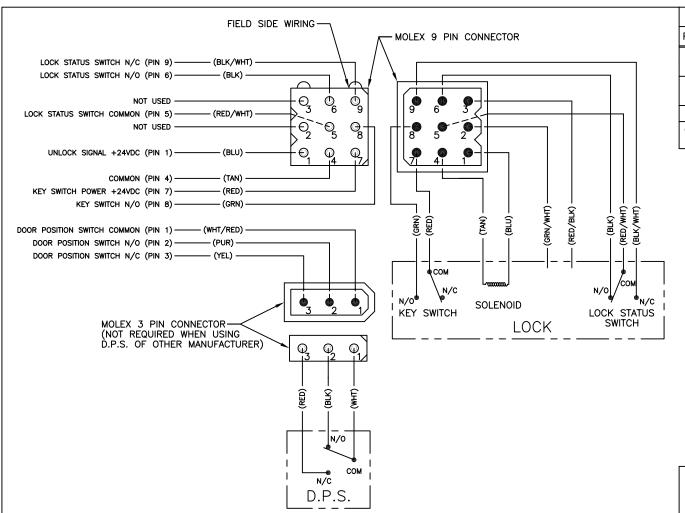
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9500D RECOMMENDED SPARE PARTS

ITEM NO.	PART NUMBER	DESCRIPTION 9500D 6-20-14
1	400-9500-001	SEAL KIT 9500 LOCK (INCLUDES SEALS AND O RING SHOWN AND LUBE)
2	216-9524-011	COMPRESSION SPRING
3	330-0000-415	COUPLING HALF (FIELD SIDE)
4	330-0000-414	COUPLING HALF (LOCK SIDE)
5	146-9400-110	solenoid assembly d series
6	160-9500-005	ASSY, LOCK STATUS SWITCH, D SERIES
7	146-9400-102	CIRCUIT BOARD ASSY W/KEY SWITCH
8	146-9400-101	(OR) CIRCUIT BOARD ASSY





	REVISIONS						
REV	ECN	DESCRIPTION	DRAWN	CHK			
01	2460	ADDED NOTE READING, "NOT REQUIRED WHEN USING D.P.S. OF OTHER MANUFACTURER)	DEE 8/1/00				
02	2468	MOVED YELLOW WIRE ON DPS FROM PIN 1 TO PIN 3; MOVED WHITE/RED WIRE ON DPS FROM PIN 3 TO PIN 1	DEE 2/14/01				
03		SEE ECN	DEE 2/7/03				
04	2738	ADD "CHECK CONTINUITY BETWEEN WHT/RED AND RED/WHT" TO NOTE 6	MĚL 6/28/05				

NOTES:

- 1. SOLENOID LOAD: 24VDC ±2V, 1.5W MAX
- 2. SWITCH CONTACTS: 5A.
- 3. SCHEMATIC SHOWN WITH DOOR IN THE CLOSED AND LOCKED (SECURE) POSITION.
- 4. PLUGS AND RECEPTACLES INSIDE LOCK NOT SHOWN.
- 5. FOR SERIES LOCK STATUS AND DOOR POSITION SWITCH OPERATION, CONNECT BLACK AND PURPLE WIRES IN FIELD SIDE WIRING. CHECK CONTINUITY BETWEEN WHT/RED AND RED/WHT.
- 6. 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.

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WIRING DIAGRAM
9400D, 9500D, & 9600

AIR LOCK

DRAWN BY SAB
APPROVED

DATE 8-27-99
SCALE NONE

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EL-0078 (





AIRTEQ SYSTEMS

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9500 LOCK LUBRICATION/SEAL REPLACEMENT

9500D 5-2-06

LOCK LUBRICATION

The 9500D Series Lock is lubricated at the factory and will require periodic lubrication depending on environmental conditions and frequency of operation. In general, cleaning and lubrication will be required at least once a year if lock is used fifty times or more per day. If the locks is used less than fifty times per day, clean and lubricate at least once every two years.

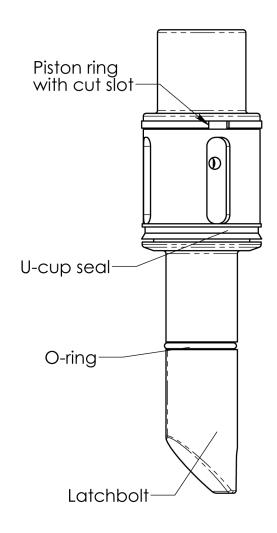
Lubrication is also required when replacing the lock seals. Lock seals should last approximately 5 years under normal operating conditions. If seals need replacing a seal replacement kit is available (AIRTEQ PART NUMBER 400-9500-001).

LOCK SEAL REPLACEMENT

- 1. Remove latchbolt from lock body and remove old piston ring, O-ring and u-cup seal.
- 2. Carefully clean latchbolt and lock body bores with solvent. DO NOT scratch piston or lock body bores.
- 3. After parts are clean, lightly lubricate new O-ring and seal with lubricant provided and install on latchbolt. Cut a 1/4" slot in new piston ring and install on latchbolt with slot facing mounting plate.
- 4. Lightly lubricate the lock body bores with lubricant provided. Carefully insert latchbolt assembly into lock body. DO NOT tear the O-ring as it enters the bores or passes by the notch in lock body. DO NOT scratch lock body bores.
- 5. Reassemble lock and check for proper operation.

NOTE:

Lubricant provided is SYNCO SUPER LUBE WITH TEFLON. Use only approved lubricant.



PNEUMATIC LOCKING DEVICES

A. Lubrication and cleaning

 Each Airlock 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).

9400 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, be sure the lever of the lock status switch is not trapped under the retainer plate or actuator. 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.

9600 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.

PNEUMATIC LOCKING DEVICES

9700 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.

9700P 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:

- 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:

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:

 The electrical system of this lock is operated on regulated 24VDC current. Any other voltage or current condition is not acceptable and will result in failure of the solenoid.

TROUBLESHOOTING 9400, 9500 AND 9700 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 air pressure at the lock is 80 P.S.I.. If the correct air pressure is not evident, begin checking "upstream" from the lock. If the air pressure is correct, the problem is within the locking device, use the following chart to locate and correct the problem.

PROBLEM	CHECK	
LATCHBOLT WILL NOT RETRACT	*AIR SUPPLY TO LOCK *MECHANICAL INTERFERENCE *POWER INPUT TO UNLOCK SOLENOID (POWER SHOULD BE PRESENT DURING LOCK OPEN CYCLE) *BROKEN OR LOOSE WIRING *FAULTY OR CONTAMINATED SOLENOID VALVE	
LATCHBOLT WILL NOT EXTEND	*MECHANICAL INTERFERENCE *BROKEN OR LOOSE WIRING (SHORT TO GROUND) *POWER INPUT TO UNLOCK SOLENOID (POWER SHOULD NOT BE PRESENT DURING LOCK SECURE CYCLE) *FAULTY KEYSWITCH	
LOCK RETRACTS/EXTENDS SLOWLY	*AIR PRESSURE TO LOCK *MECHANICAL INTERFERENCE *FAULTY OR CONTAMINATED SOLE- NOID VALVE	
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)	