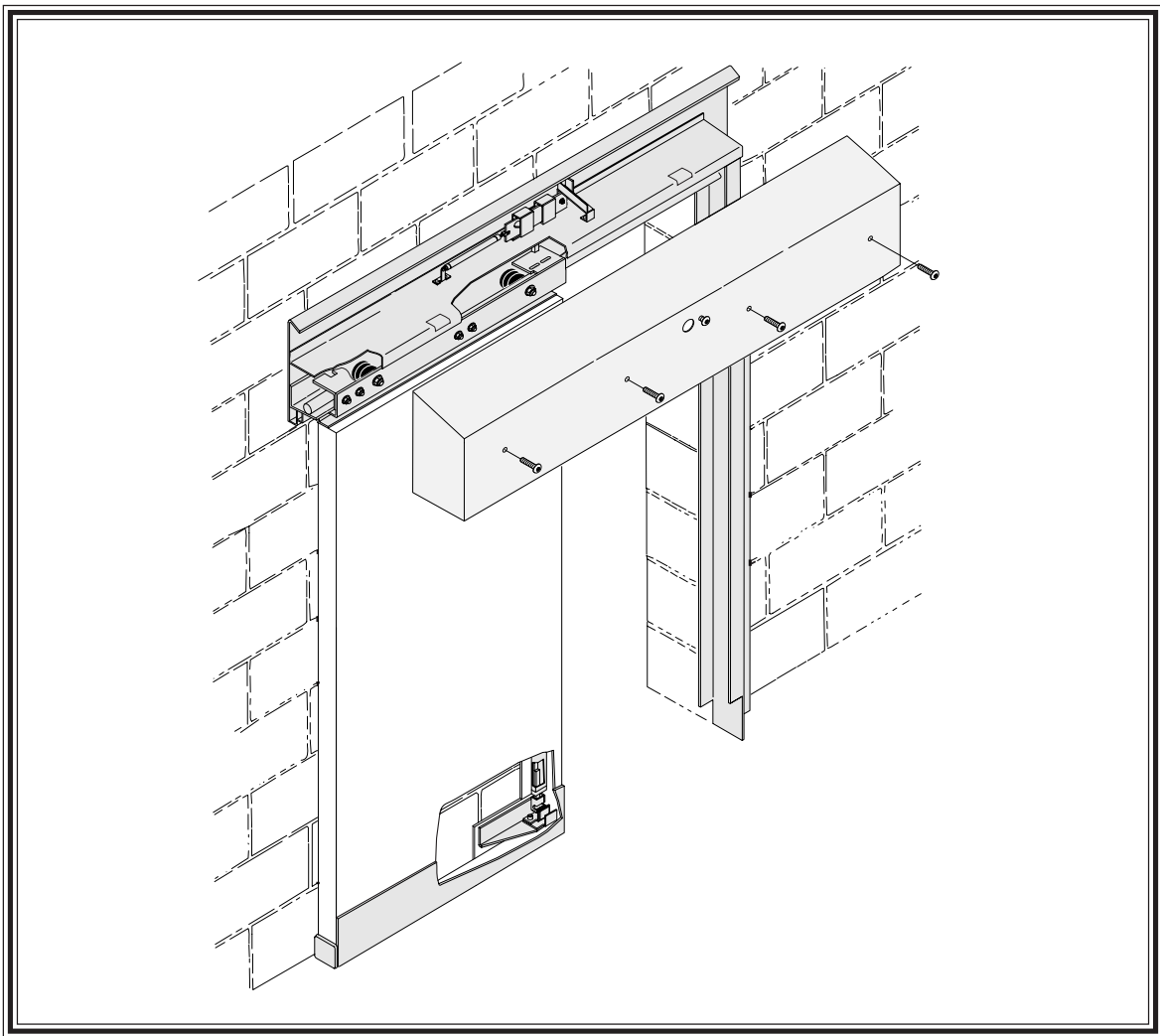
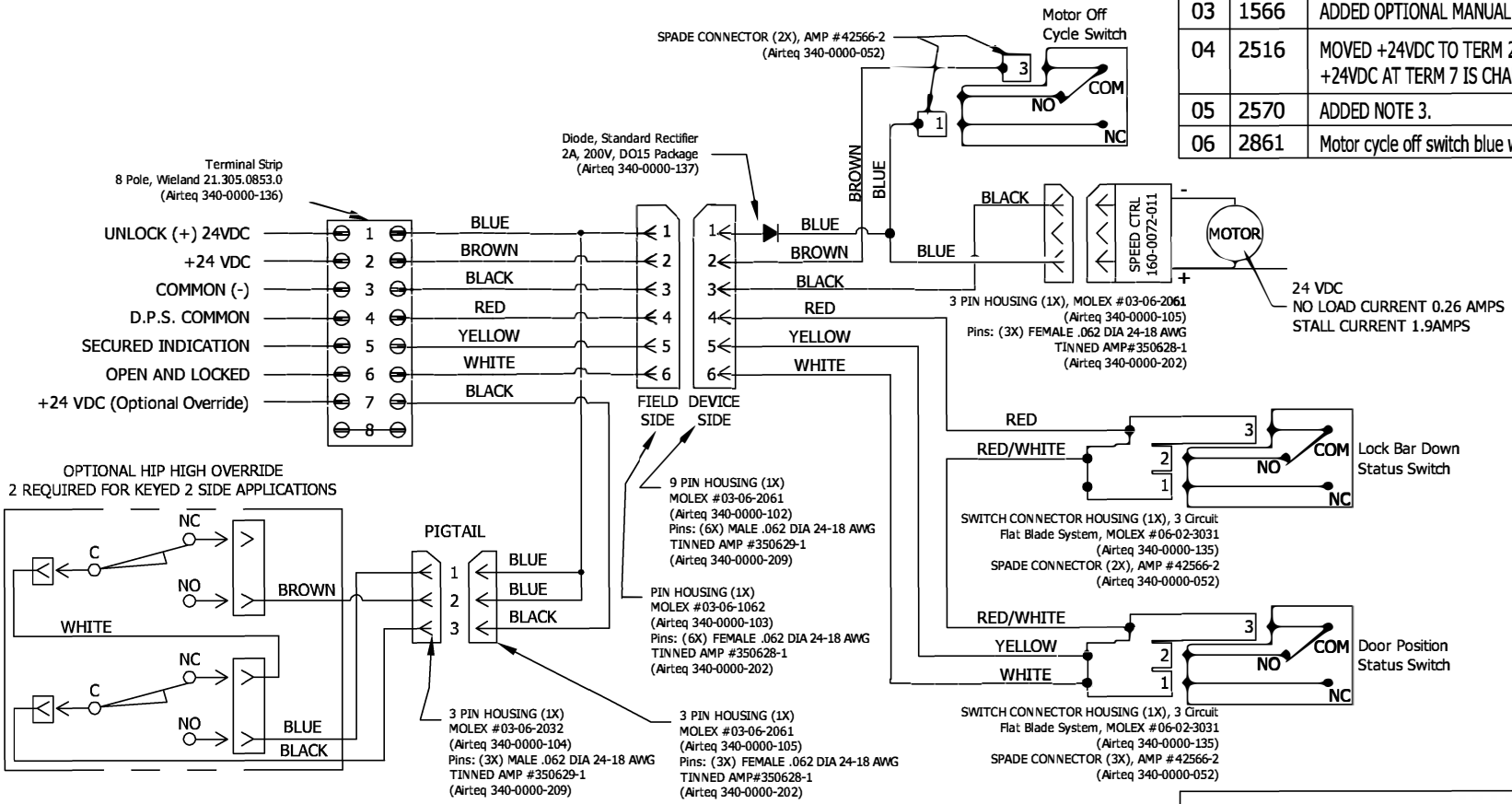




## 7210 SERIES SLIDING DOOR OPERATOR



REVISIONS				
REV	ECN	DESCRIPTION	DRN	CHK
01	1470	REMOVE UNSECURE SIGNAL, MOVE LOCK OPEN SIGNAL TO TERMINAL 6 IN TERMINAL BLOCK	DCB 9-15-94	
02	1565	ADD MOLEX CON. AND MOTOR SPEED CONTROL	DKM 10-12-94	
03	1566	ADDED OPTIONAL MANUAL OVERRIDE	DCB 3-9-95	
04	2516	MOVED +24VDC TO TERM 2 ON TERM STRIP +24VDC AT TERM 7 IS CHANGED TO "OPTIONAL"	DEE 4/23/02	
05	2570	ADDED NOTE 3.	DEE 2/6/03	
06	2861	Motor cycle off switch blue wire now attaches to NC terminal	RLP 12/18/06	



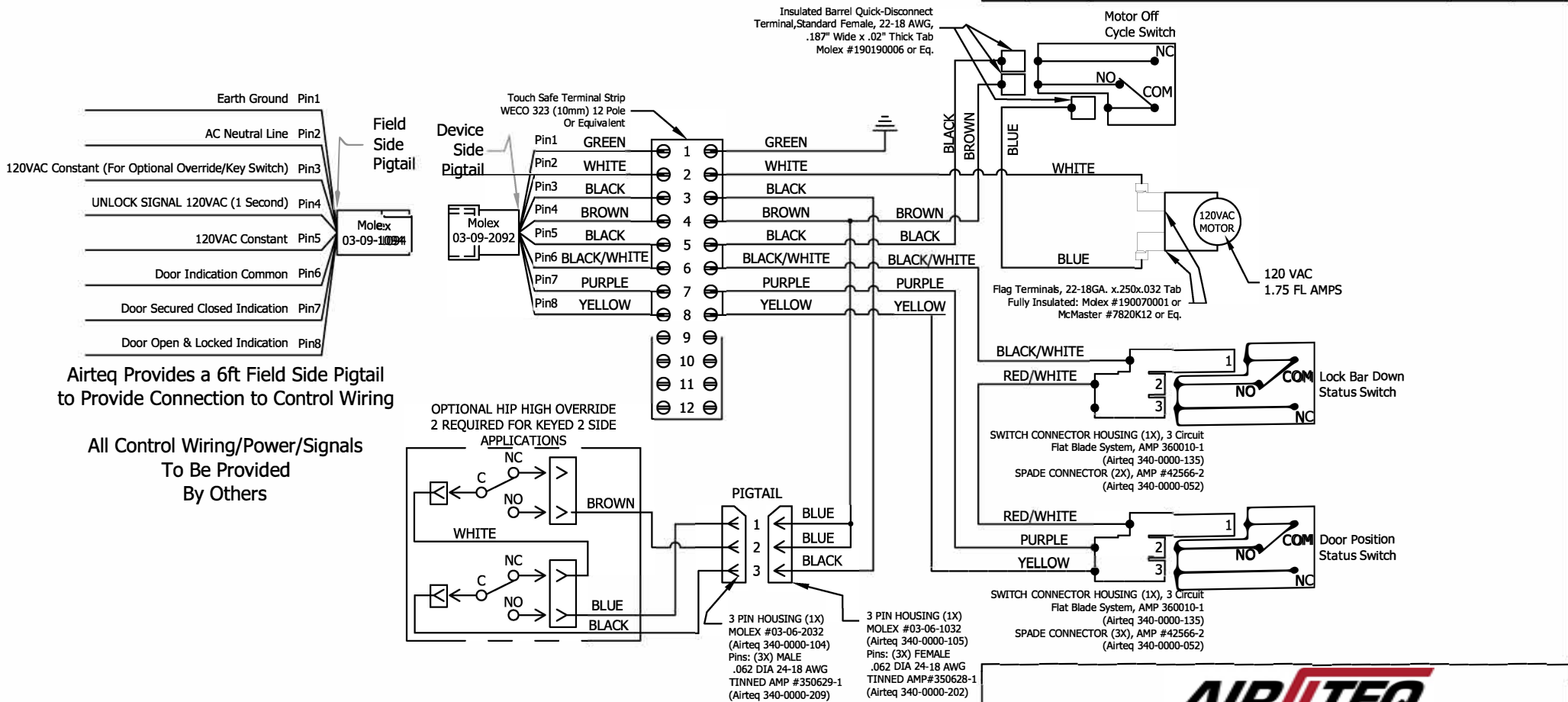
**NOTES:**  
 1. SCHEMATIC SHOWN WITH DOOR IN THE CLOSED AND LOCKED POSITION.  
 2. POWER REQUIREMENTS: 24VDC ± 4V.  
 3. ALWAYS INSTALL IN ACCORDANCE WITH LOCAL REGULATIONS AND THE NATIONAL ELECTRIC CODE (NEC). POWER DEVICE FROM A CLASS 2 POWER SOURCE WHEN PNEUMATIC TUBING OCCUPIES THE SAME SPACE AS CONTROL WIRING.



TITLE		WIRING DIAGRAM, 7210 & 7215 SERIES SLIDER		DRAWN BY RLP	
				APPROVED	
				DATE 12-18-06	
				SCALE NONE	
© 1989 AIRTEQ SYSTEMS.		SIZE B	DWG. NO. EL-0032-B	REV 06	



REVISIONS				
REV	ECN	DESCRIPTION	DRN	CHK
A		Initial Release	RLP 1/29/15	



Airtec Provides a 6ft Field Side Pigtail to Provide Connection to Control Wiring

All Control Wiring/Power/Signals To Be Provided By Others

- NOTES:
1. SCHEMATIC SHOWN WITH DOOR IN THE CLOSED AND LOCKED POSITION.
  2. POWER REQUIREMENTS: 120VAC ± 10V.
  3. ALWAYS INSTALL IN ACCORDANCE WITH LOCAL REGULATIONS AND THE NATIONAL ELECTRIC CODE (NEC).

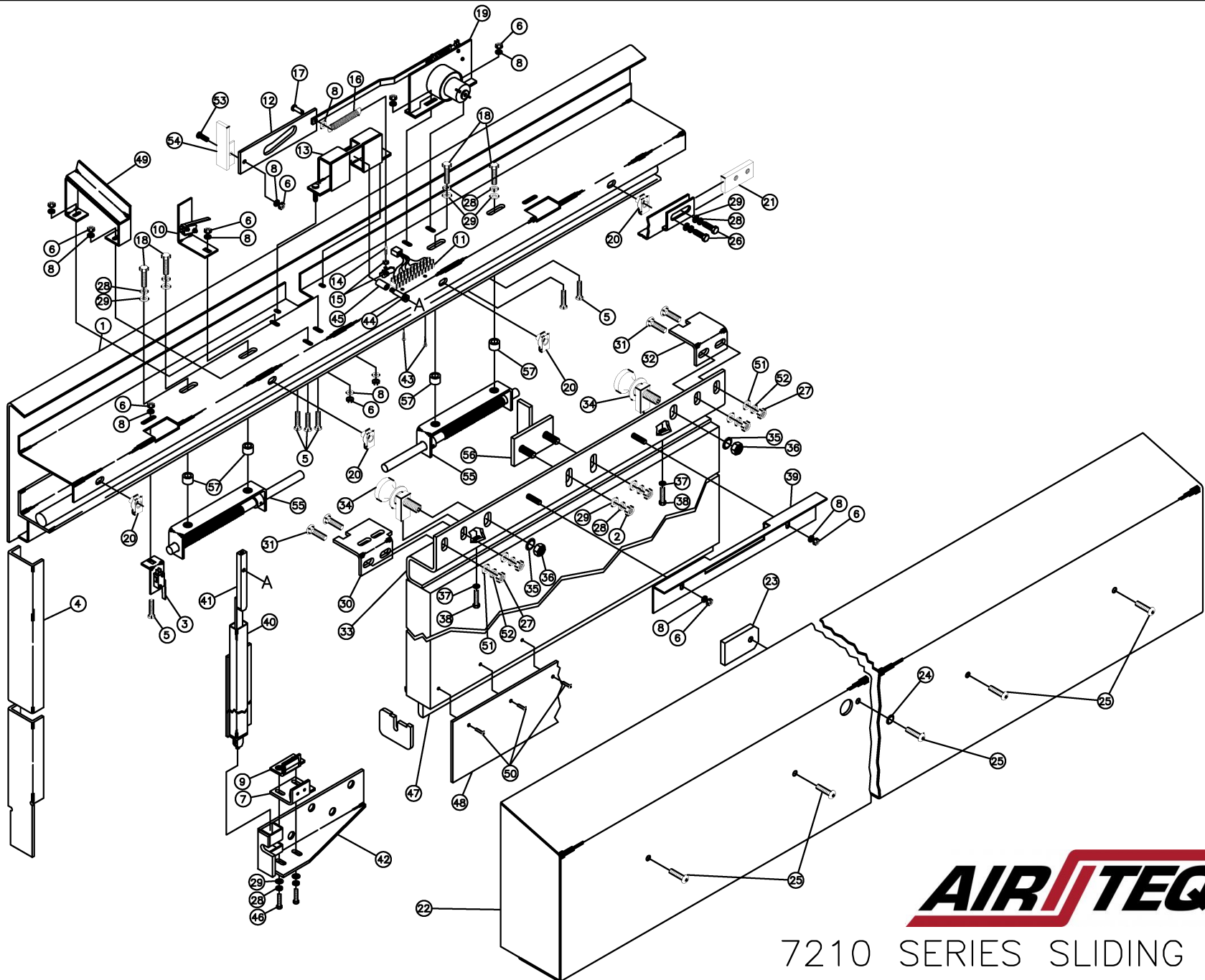


TITLE	WIRING DIAGRAM, 120VAC, 7210 & 7215 SERIES SLIDER		DRAWN BY RLP
			APPROVED
			DATE 1-29-15
			SCALE NONE
© 1989 AIRTEQ SYSTEMS.	SIZE B	DWG. NO. EL-0032-AC	REV A

## 7210 SERIES SLIDING DOORPARTS LIST

ITEM	QTY	PART NUMBER	DESCRIPTION	ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	**	BACKPLATE WELDMENT, L/C (SHOWN)	40	1	**	LOCKTUBE WELDMENT
1	1	**	(OR) BACKPLATE WELDMENT, R/C	41	1	**	LOCKBAR WELDMENT
2	2	2NT61	HEX NUT, 3/8-16	42	1	820170	DOOR GUIDE BRACKET, L/C (SHOWN)
3	1	82008901	ASSY, LIMIT SWITCH, LH (SHOWN)	42	1	820181	(OR) DOOR GUIDE BRACKET, R/C
3	1	82008902	(OR) ASSY, LIMIT SWITCH, RH	43	2	10001000	SCREW, HEX HD, 6-20 X 1/2, TYPE AB
	4	1	** CHANNEL JAMB, L/C (SHOWN)	44	1	10002503	SHOULDER SCREW, 3/8 DIA X 1-1/2 LG, 5/16-18
4	1	**	(OR) CHANNEL JAMB, R/C	45	1	820107	LOCKBAR SLIDE BEARING
5	6	10001301	SCREW, CARRIAGE, 1/4-20 X 3/4	46	2	10001006	SCREW, HEX, CAP, 3/8-16 X 1
6	11	10002407	HEX NUT, SEMS, 1/4-20	47	1	**	DOOR GUIDE, L/C (SHOWN)
7	1	821017	ASSY, OUTSIDE GUIDE	47	1	**	(OR) DOOR GUIDE, R/C
8	12	10000706	FLAT WASHER, 1/4, TYPE B, REG.	48	1	**	DOOR SKIRT
9	1	821016	ASSY, INSIDE GUIDE	49	1	820085	OVERRIDE GUIDE L/C, (SHOWN)
10	1	82008705	ASSY, LOCK SWITCH, L/C (SHOWN)	49	1	820225	(OR) OVERRIDE GUIDE R/C
10	1	82008706	(OR) ASSY, LOCK SWITCH, R/C	50	AS REQ'D	10003402	SCREW, TP, BH, 10-32 X 1/2
11	1	100072	TERMINAL STRIP	51	4	10000710	FLAT WASHER, 1/2, TYPE B, REG.
12	1	820061	LOCKBAR SLIDE	52	4	10001410	LOCK WASHER, 1/2
13	1	820021	LOCKBAR SLIDE BRACKET	53	1	10000101	PEM STUD, 1/4-20 X 3/4
14	1	10003203	SPRING ANCHOR	54	1	820223	OVERRIDE CATCH, L/C (SHOWN)
15	2	10002403	HEX NUT, SEMS, 8-32	54	1	820080	(OR) OVERRIDE CATCH, R/C
16	1	10003204	EXTENSION SPRING	55	2	820501	ASSY, KICK RELEASE
17	1	1000802	CLEVIS PIN, 1/4 DIA X 5/8 LG	56	1	820366	PUSH BRACKET
18	4	10001002	SCREW, HEX, CAP, 3/8-16 X 1-1/4	57	4	216-0072-031	SPACER
19	1	146-0072-003	ASSY, LOCK MOTOR, L/C (SHOWN)	58	1	160-0072-011	ASSY, SPEED CONTROL MODULE (NOT SHOWN)
19	1	146-0072-004	(OR) ASSY, LOCK MOTOR, R/C	59	1	**	7210 SERIES WIRING HARNESS (NOT SHOWN)
20	4	10006209	SELF RETAINING NUT, SHORT, 3/8-16				
21	1	820072	DOOR STOP PLATE				
22	1	**	HOUSING COVER, L/C (SHOWN)				
22	1	**	(OR) HOUSING COVER, R/C				
23	1	820073	SHUTTER				
24	1	10002802	WASHER, CONICAL, SERRATED, 3/8				
25	5	10003401	SCREW, TP, BH, 3/8-16 X 1				
26	2	10001001	SCREW, HEX, CAP, 3/8-16 X 5/8, GRD 5				
27	4	10000210	HEX NUT, 1/2-13				
28	8	10001408	LOCK WASHER, 3/8				
29	8	10000708	FLAT WASHER, 3/8, TYPE B, REG.				
30	1	820195	LOCK BRACKET, FRONT, L/C (SHOWN)				
30	1	820193	(OR) LOCK BRACKET, FRONT, R/C				
31	4	10001302	SCREW, CARRIAGE, 1/2-13 X 1-1/4				
32	1	**	LOCK BRACKET, REAR, L/C (SHOWN)				
32	1	**	(OR) LOCK BRACKET, REAR, R/C				
33	1	**	DOOR HANGER				
34	2	82009801	ASSY, ROLLER				
35	2*	10002803	WASHER, CONICAL, SERRATED, 5/8				
36	2*	10000211	HEX NUT, 5/8-11				
37	2*	10000707	FLAT WASHER, 5/16, TYPE B, REG				
38	2*	10001004	SCREW, HEX, CAP, 5/16-18 X 1-1/2, GRD 5				
39	1	**	SWITCH ACTUATOR BRACKET				

\* PART OF ASSY, ROLLER ITEM #34  
 \*\* PART NUMBER ASSIGNED ON A JOB BY JOB BASIS.



**AIR/TEQ**

7210 SERIES SLIDING DOOR

# MAINTENANCE

The Airteq 7210 & 7215 Series Electric Door operators require a minimum amount of maintenance. It is recommended that the following items be checked once every six months.

## 1) Lubrication (Fig. A)

The lock mechanism and rack should be well lubricated with Super Lube Multi-Purpose Synthetic Lubricant. Check to see that the grease has not dried, caked, or become contaminated with dust or other debris. If the grease is not in good condition, wipe as much as possible from the lock mechanism and rack and apply new grease. This also applies to the lock motor linkage, bell crank, manual override mechanism and kick release bracket.

NOTE: Bell crank and manual override mechanism are not present on the 7210 model.

## 2) Bottom Guide Wear Pads (Fig. D)

The bottom of the door is held in place with two nylon wear pads. These may wear with use. Check to see that there is not excessive door movement in and out from the wall. One sixteenth of an inch movement at the bottom of the door is acceptable. If there is more play than this, the guides need to be adjusted or replaced.

To adjust the bottom guide, slightly loosen the two bolts on the bottom side of the bottom guide mounting bracket. Loosen the bolts just enough to squeeze the guides tighter to the door guide angle. Be sure to leave enough clearance to allow for smooth operation.

## 3) Glide Lug (Fig. D)

Adjustment or Replacement of GLIDE LUG may be required if the sound of metal scraping against metal is heard while door is being moved. To see if the GLIDE LUG is worn, with the door in the open position, loosen the bolts below the BOTTOM DOOR ANGLE GUIDES and swing the door away from the wall. If less than 1/8" of the GLIDE LUG is showing below the LOCKBAR LUG, loosen the 10-32x 3/16 SET SCREW in the lockbar lug, and adjust GLIDE LUG to 1/8" below LOCKBAR LUG. If GLIDE LUG cannot be adjusted lower and still be held secure by the 10-32 SET SCREW replace GLIDE LUG.

NOTE: Use removable Loctite on threads of shoulder screw

## 4) Roller Track

Do not lubricate the roller track.

To maintain smooth and quiet operation, the roller track must be kept free of any accumulation of dirt, dust, or other debris. If the track does not feel smooth, wipe it off with a lint free cloth or scouring pad. Do not use steel wool, sandpaper, or anything that may leave grit or fibers on the track.

## 5) Rollers

The roller assemblies are factory lubricated and sealed. They do not require lubrication. If the track is clean and the rollers still do not roll smoothly, wipe the rollers with a clean lint-free cloth.

# MECHANICAL ADJUSTMENTS

## 1) Lock Position (Fig. C)

The lockbar engages the door at the top and bottom in both the open and closed positions. The top locking points are adjustable.

While holding the door tight against the receiver column, manually raise and lower the lockbar. This can be done by moving the horizontal lock slide by hand.

If the lockbar contacts the rear lock bracket, the bracket should be adjusted. Loosen the two nuts securing the bracket to the door hanger. Move the bracket as needed to obtain clearance on both sides of the lockbar. Before tightening the nuts, make sure the lock bracket is level and that the lockbar extends 1/8" below the lock bracket. Tighten the nuts securely.

To check and/or adjust the front lock bracket, repeat the above procedure with the door in the fully open position.

## 2) Door Height (Fig. D & Fig. E)

Improper door height may result in the door hanger rubbing on the cover, or the bottom door guide angle rubbing on the top or bottom of the locktube notch.

There are two height adjustment bolts, one for each side of the door. One complete turn will move the door up or down 1/16". Turn the bolt clockwise to raise the door and counterclockwise to lower the door. When making height adjustments, first determine how much change is needed, loosen the axle nut, turn the adjustment bolt the appropriate amount, then tighten the axle nut securely and check for proper clearances.



### **3) Lateral Door Position (Fig. D & Fig. E)**

The sliding door should clear the locktube and the sides of the receiving pocket by approximately 1/16". If the door rubs on any of these surfaces, or if the door hanger rubs on the cover, adjustment is required.

#### **a) Top Of Door (Fig. E)**

The top of the door can be adjusted at both the front and rear edge of the door.

Loosen the appropriate axle nut. While holding the nut with a wrench, turn the axle with a 1/4" Allen wrench. Each complete turn of the axle will move the door approximately 1/8". Turn the axle clockwise to move the door away from the wall and counterclockwise to bring the door closer to the wall. Tighten the axle nuts securely after adjustment.

#### **b) Bottom Of Door (Fig.D)**

The bottom of the door is adjusted by moving the bottom door guides. Loosen the two bolts on the bottom side of the bottom door guide mounting bracket. While holding the guides against the door guide angle, move the door and guides to the desired position. Tighten the bolts, check that there is enough clearance between the guides to prevent binding of the guide angle.

NOTE: The glide lug should rest on the door guide angle during door travel. If more than 1/8" of the glide lug overhangs the door guide angle, adjust door position so that the glide lug overhangs by no more than 1/8". (1/16" overhang is nominal condition)

### **4) Rear Door Stop (Fig. F)**

The rear door stop locates the door for the proper locked open position. If the lockbar does not drop completely and freely in this position, the rear door stop may need adjustment.

To adjust, loosen the two bolts securing the door stop. Find the point at which the lockbar drops completely and freely. Slide the stop up against the door hanger. Check for proper operation, then torque the bolts to 75 ft/lbs.

## **5) Kick Release Assembly (Fig B)**

The kick release assemblies must be adjusted so that when unlocked, the door moves approximately 1" to 3" (heavier doors will move less than lighter doors). The kick release assembly has been factory adjusted to achieve approximately the desired amount of movement, however some adjustment is usually required.

To adjust the amount of door movement at unlock, loosen the shaft collar set screw and slide the collar in the desired direction as shown in Fig. B. Tighten the set screw securely and check for proper door movement. Readjust as required.

NOTE: The kick release shaft must fully and squarely contact the push bracket on the door hanger. Adjust the push bracket as required and securely fasten push bracket to door hanger.

NOTE: Increased door movement at unlock will increase the force required to turn the key for hip high manual release. For models with hip high manual override, door movement may need to be decreased for ease of manual override operation.

# ELECTRICAL ADJUSTMENTS

## 1) Secure/Unsecure Indication

Position indication is controlled by two switches. Both the door position switch and the lock position switch must be made in order to get a secure indication.

### a) Lock position switch (LS1)

The lock position switch is located in front of and near the bottom of the lock mechanism. When the lock bar is at its lowest point this switch should be depressed. To adjust this switch, place the door in the closed/locked position. The lockbar lifting pin should now be at the bottom end of the Z shaped slot in the horizontal lock slide. Loosen the screws securing the lock position switch. Lower the switch away from the lifting pin. Then slowly raise the switch until the contacts close (switch will click at this point). (See Fig. G)

### b) Door position switch (LS2)

The door position switch is located on the actuator near the receiving column. It should be fully depressed when the door is in the closed/locked position. Pulling the door against the lockbar (away from the receiving column) should not release the door position switch. To adjust this switch, loosen the nut securing the switch mounting bracket to the actuator. Position the door in the closed/locked position. Hold the door against the lockbar towards the open position. Position the switch so that it is fully depressed and tighten the nut. (See Fig. G)

## 2) Lock Motor Bracket Switch (LS3)

LS3 stops the lock motor when the lockbar is down (locked)

The lock motor arm must activate switch LS3. If it does not, carefully bend the switch lever as required to ensure that the switch is made.

Once the switch is working properly, the speed control module must be adjusted. Increase or decrease the motor speed as required so that when the lock motor arm has stopped on the switch, the lockbar has dropped into the locked position and the lockbar slide bearing remains in the deadlock notch portion of the lockbar slide. (See Fig. H)

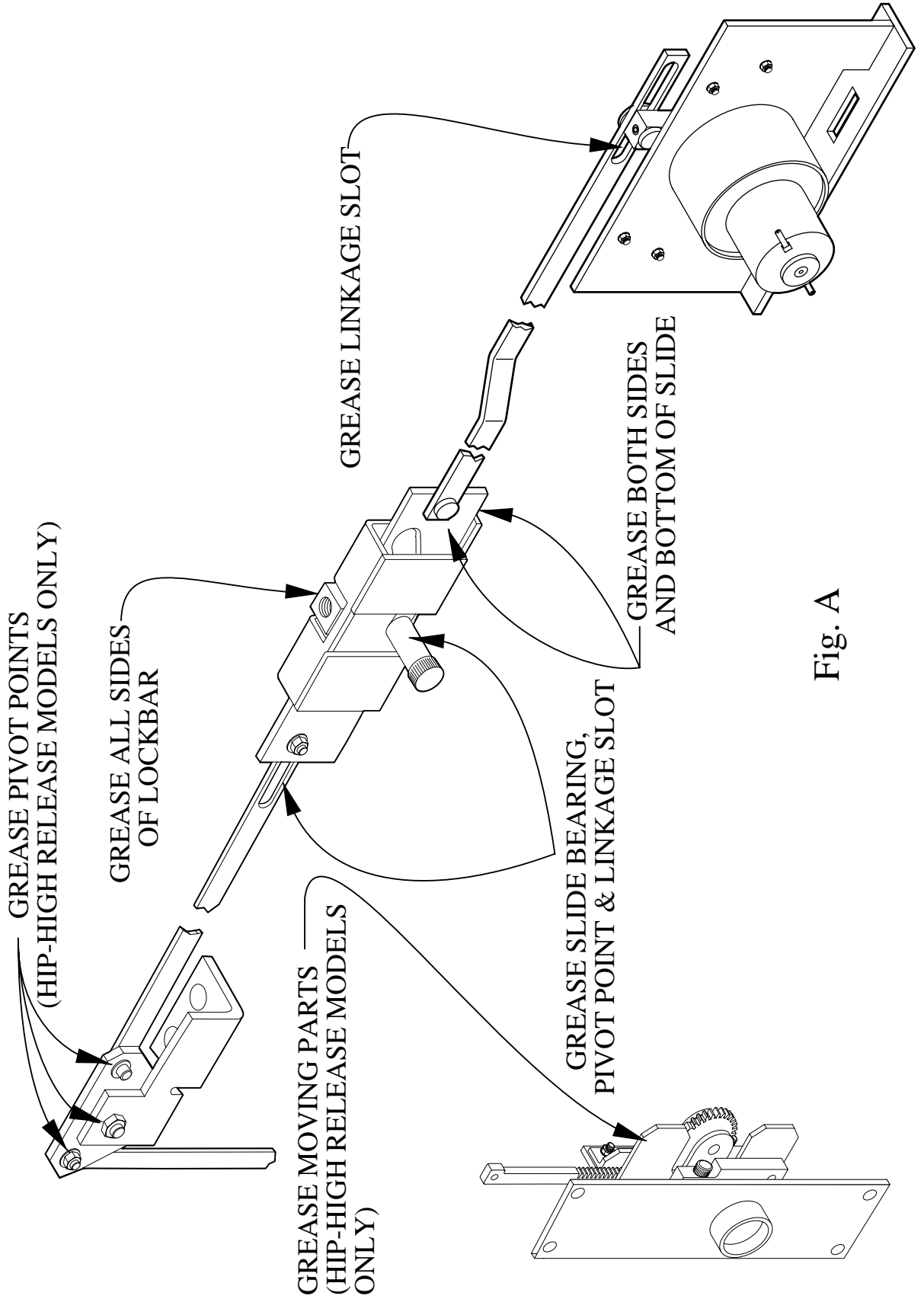


Fig. A

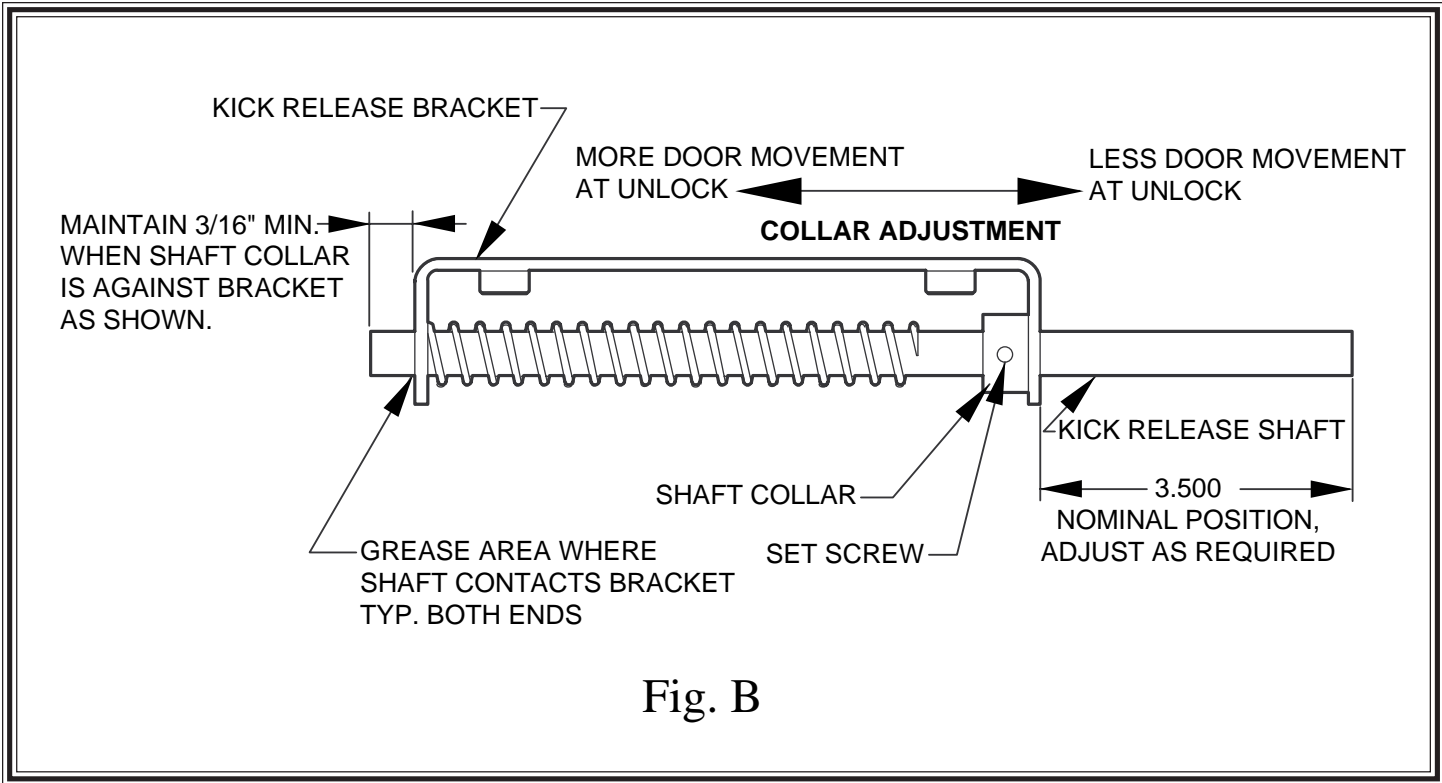


Fig. B

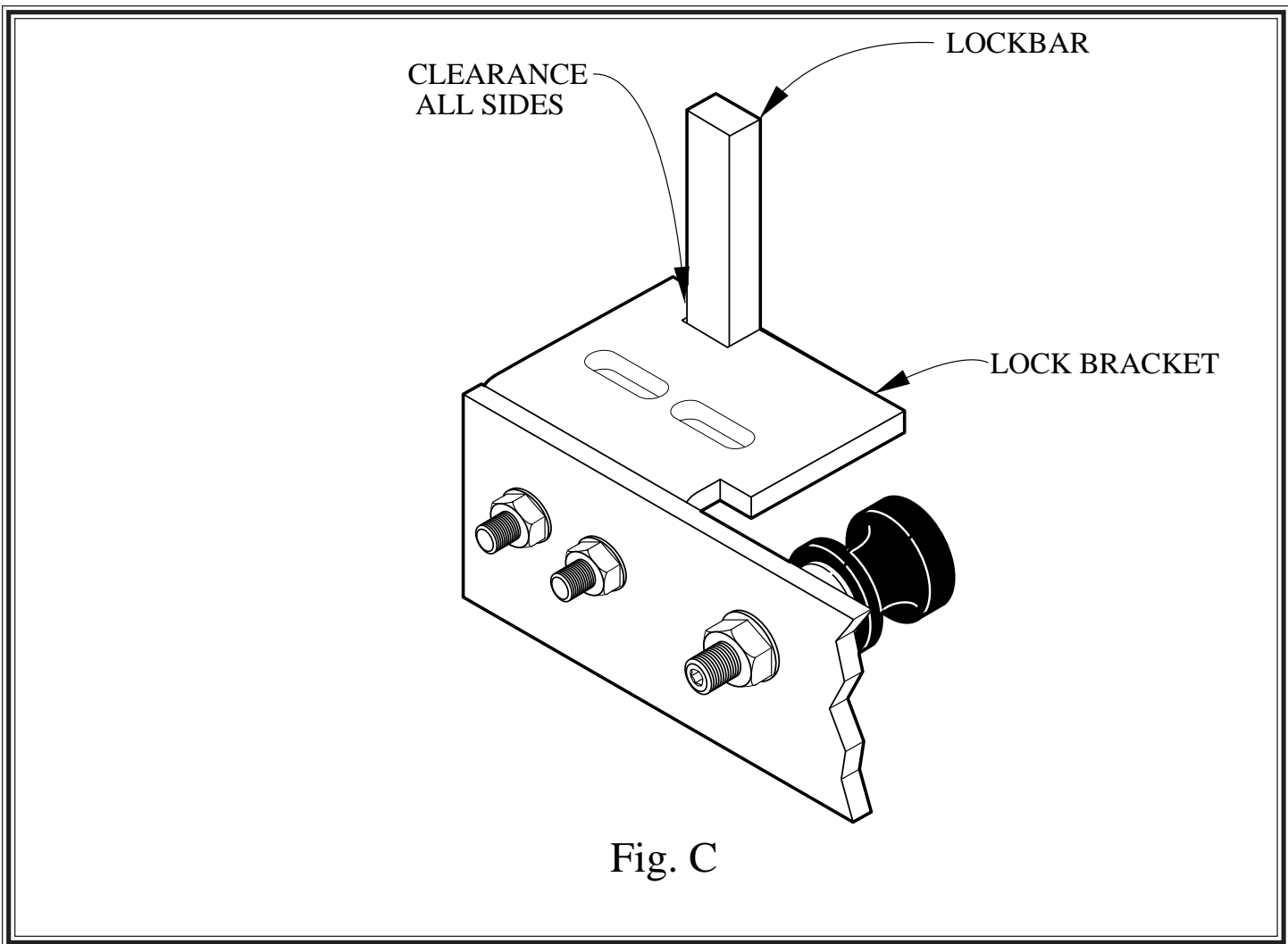
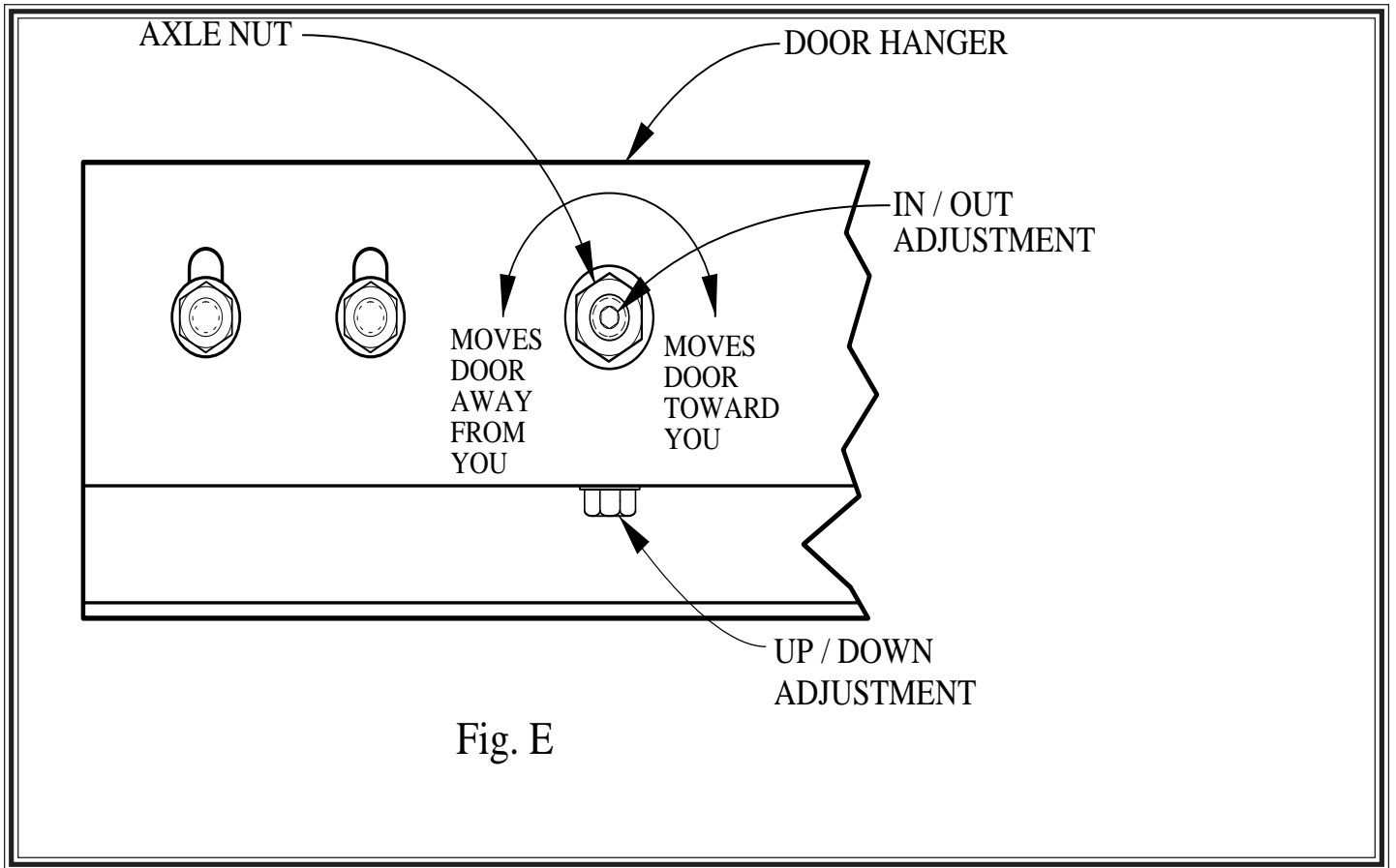
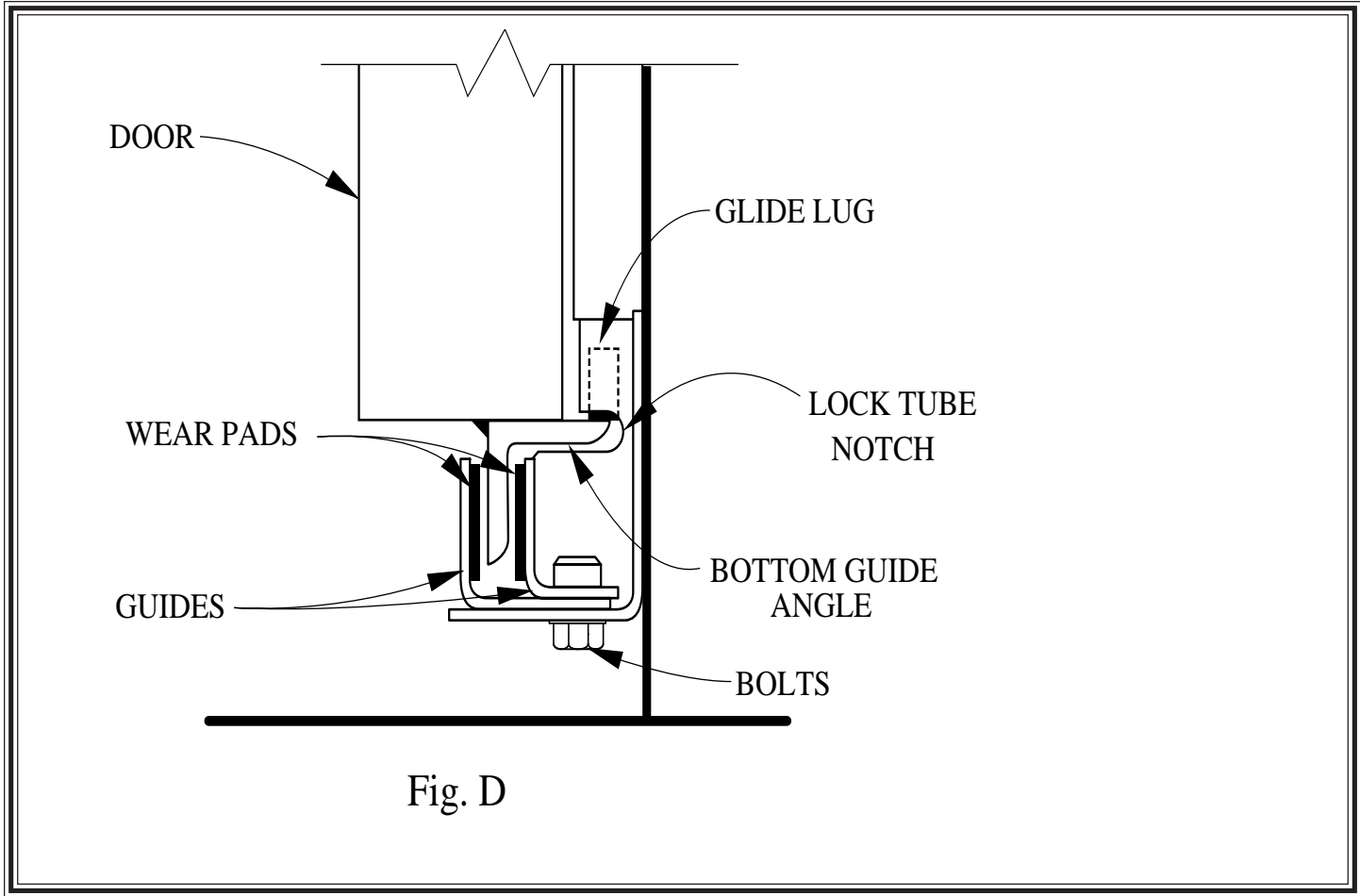


Fig. C



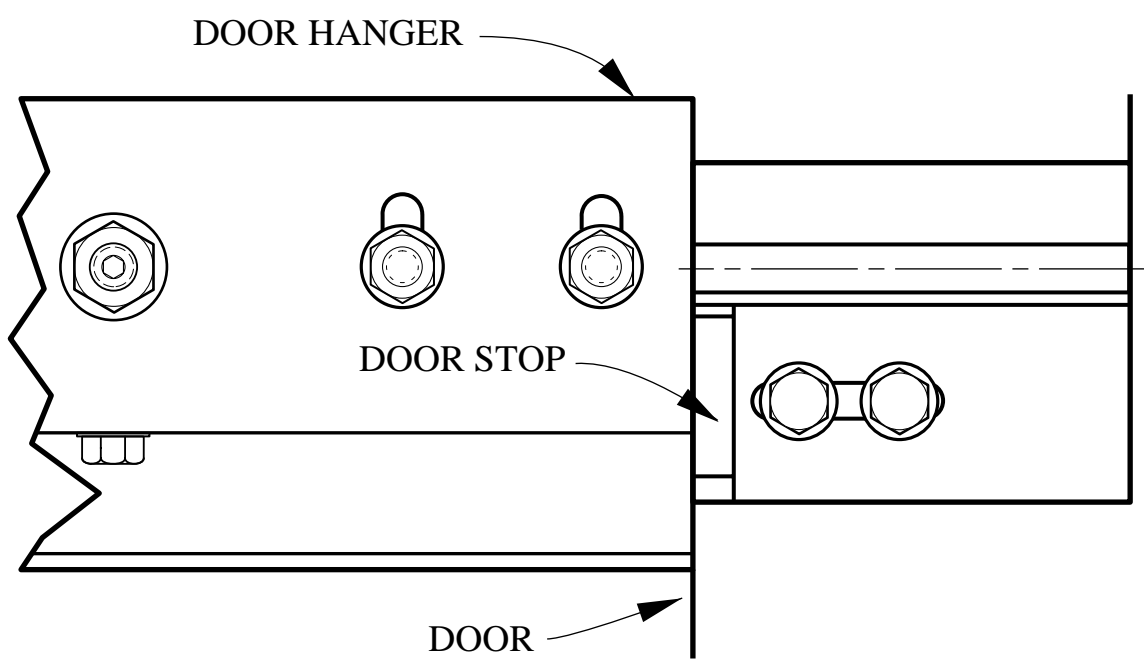


Fig. F

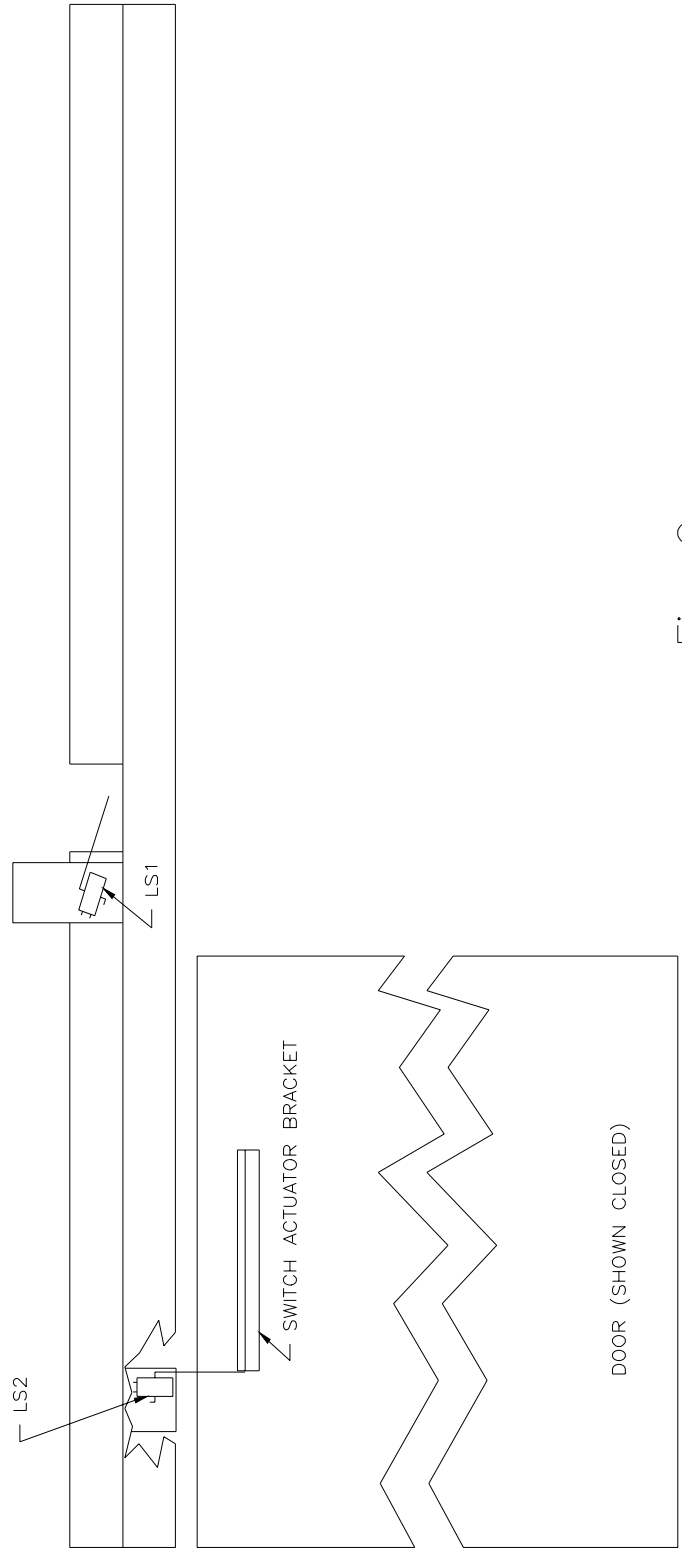


Fig. G



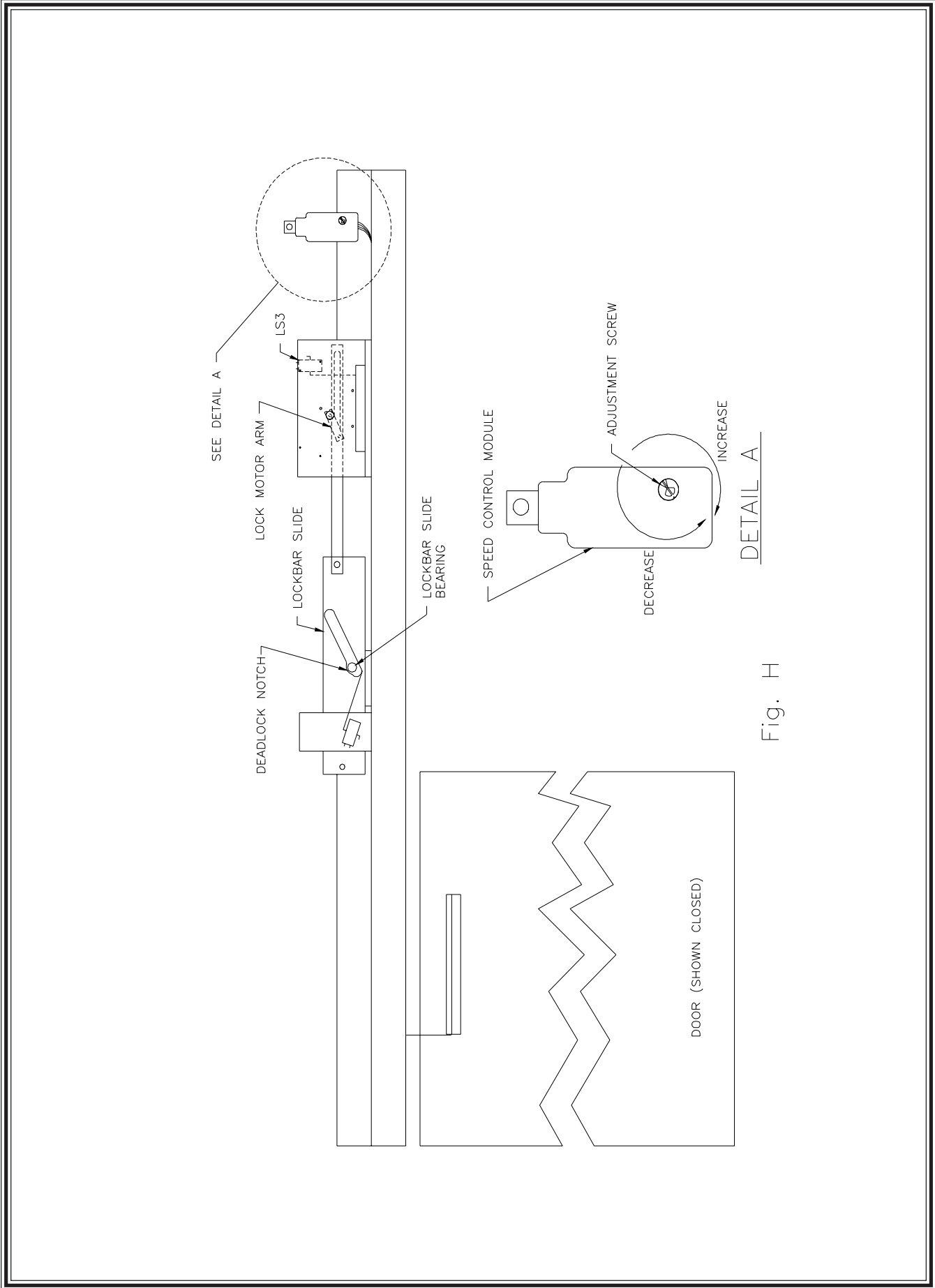


Fig. H

# MECHANICAL ADJUSTMENTS

## 1) Lock Position (Fig. C)

The lockbar engages the door at the top and bottom in both the open and closed positions. The top locking points are adjustable.

While holding the door tight against the receiver column, manually raise and lower the lockbar. This can be done by moving the horizontal lock slide by hand.

If the lockbar contacts the rear lock bracket, the bracket should be adjusted. Loosen the two nuts securing the bracket to the door hanger. Move the bracket as needed to obtain clearance on both sides of the lockbar. Before tightening the nuts, make sure the lock bracket is level and that the lockbar extends 1/8" below the lock bracket. Tighten the nuts securely.

To check and/or adjust the front lock bracket, repeat the above procedure with the door in the fully open position.

## 2) Door Height (Fig. D & Fig. E)

Improper door height may result in the door hanger rubbing on the cover, or the bottom door guide angle rubbing on the top or bottom of the locktube notch.

There are two height adjustment bolts, one for each side of the door. One complete turn will move the door up or down 1/16". Turn the bolt clockwise to raise the door and counterclockwise to lower the door. When making height adjustments, first determine how much change is needed, loosen the axle nut, turn the adjustment bolt the appropriate amount, then tighten the axle nut securely and check for proper clearances.

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The sliding door should clear the locktube and the sides of the receiving pocket by approximately 1/16". If the door rubs on any of these surfaces, or if the door hanger rubs on the cover, adjustment is required.

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The top of the door can be adjusted at both the front and rear edge of the door.

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#### **b) Bottom Of Door (Fig.D)**

The bottom of the door is adjusted by moving the bottom door guides. Loosen the two bolts on the bottom side of the bottom door guide mounting bracket. While holding the guides against the door guide angle, move the door and guides to the desired position. Tighten the bolts, check that there is enough clearance between the guides to prevent binding of the guide angle.

NOTE: The glide lug should rest on the door guide angle during door travel. If more than 1/8" of the glide lug overhangs the door guide angle, adjust door position so that the glide lug overhangs by no more than 1/8". (1/16" overhang is nominal condition)

### **4) Rear Door Stop (Fig. F)**

The rear door stop locates the door for the proper locked open position. If the lockbar does not drop completely and freely in this position, the rear door stop may need adjustment.

To adjust, loosen the two bolts securing the door stop. Find the point at which the lockbar drops completely and freely. Slide the stop up against the door hanger. Check for proper operation, then torque the bolts to 75 ft/lbs.

## **5) Kick Release Assembly (Fig B)**

The kick release assemblies must be adjusted so that when unlocked, the door moves approximately 1" to 3" (heavier doors will move less than lighter doors). The kick release assembly has been factory adjusted to achieve approximately the desired amount of movement, however some adjustment is usually required.

To adjust the amount of door movement at unlock, loosen the shaft collar set screw and slide the collar in the desired direction as shown in Fig. B. Tighten the set screw securely and check for proper door movement. Readjust as required.

NOTE: The kick release shaft must fully and squarely contact the push bracket on the door hanger. Adjust the push bracket as required and securely fasten push bracket to door hanger.

NOTE: Increased door movement at unlock will increase the force required to turn the key for hip high manual release. For models with hip high manual override, door movement may need to be decreased for ease of manual override operation.

# ELECTRICAL ADJUSTMENTS

## 1) Secure/Unsecure Indication

Position indication is controlled by two switches. Both the door position switch and the lock position switch must be made in order to get a secure indication.

### a) Lock position switch (LS1)

The lock position switch is located in front of and near the bottom of the lock mechanism. When the lock bar is at its lowest point this switch should be depressed. To adjust this switch, place the door in the closed/locked position. The lockbar lifting pin should now be at the bottom end of the Z shaped slot in the horizontal lock slide. Loosen the screws securing the lock position switch. Lower the switch away from the lifting pin. Then slowly raise the switch until the contacts close (switch will click at this point). (See Fig. G)

### b) Door position switch (LS2)

The door position switch is located on the actuator near the receiving column. It should be fully depressed when the door is in the closed/locked position. Pulling the door against the lockbar (away from the receiving column) should not release the door position switch. To adjust this switch, loosen the nut securing the switch mounting bracket to the actuator. Position the door in the closed/locked position. Hold the door against the lockbar towards the open position. Position the switch so that it is fully depressed and tighten the nut. (See Fig. G)

## 2) Lock Motor Bracket Switch (LS3)

LS3 stops the lock motor when the lockbar is down (locked)

The lock motor arm must activate switch LS3. If it does not, carefully bend the switch lever as required to ensure that the switch is made.

Once the switch is working properly, the speed control module must be adjusted. Increase or decrease the motor speed as required so that when the lock motor arm has stopped on the switch, the lockbar has dropped into the locked position and the lockbar slide bearing remains in the deadlock notch portion of the lockbar slide. (See Fig. H)

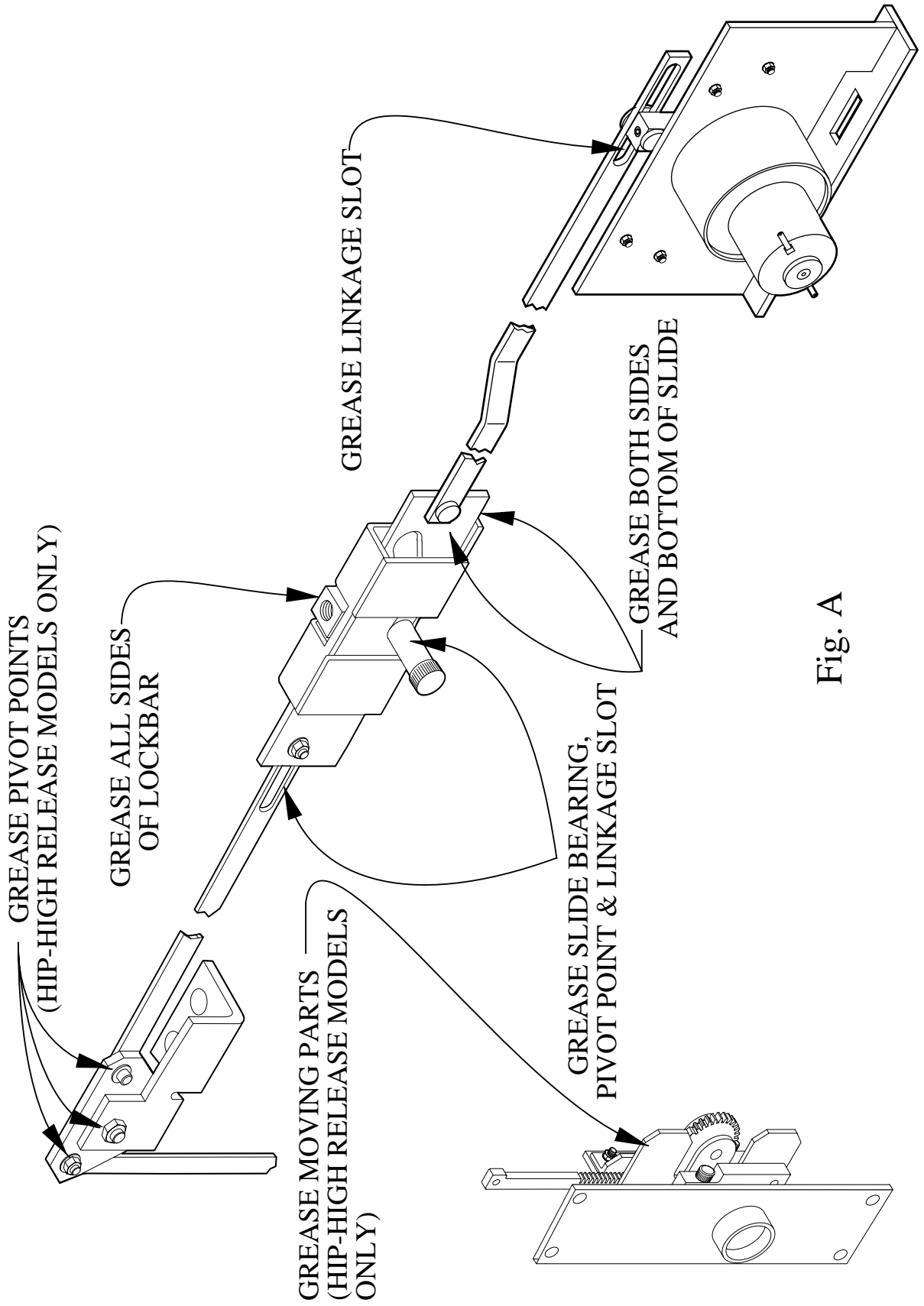


Fig. A

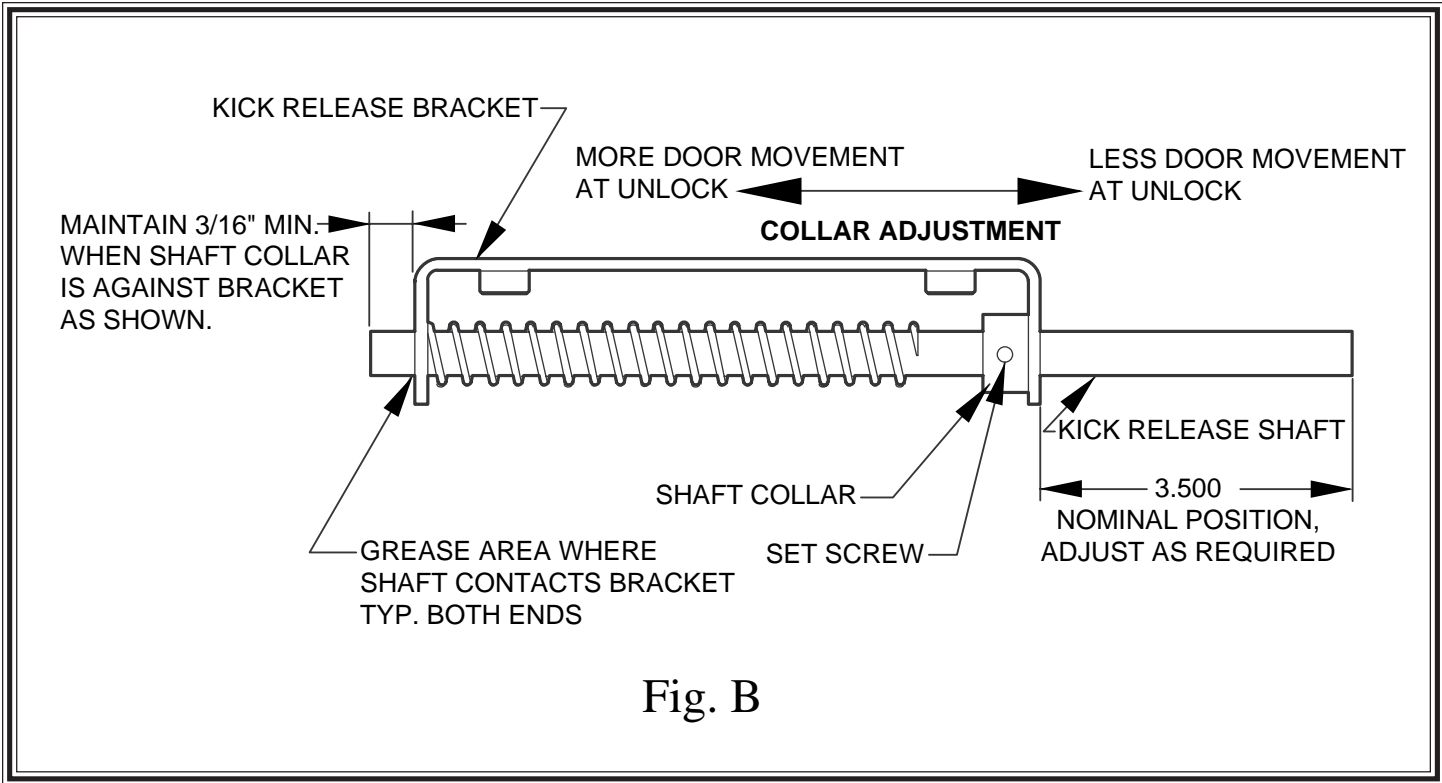


Fig. B

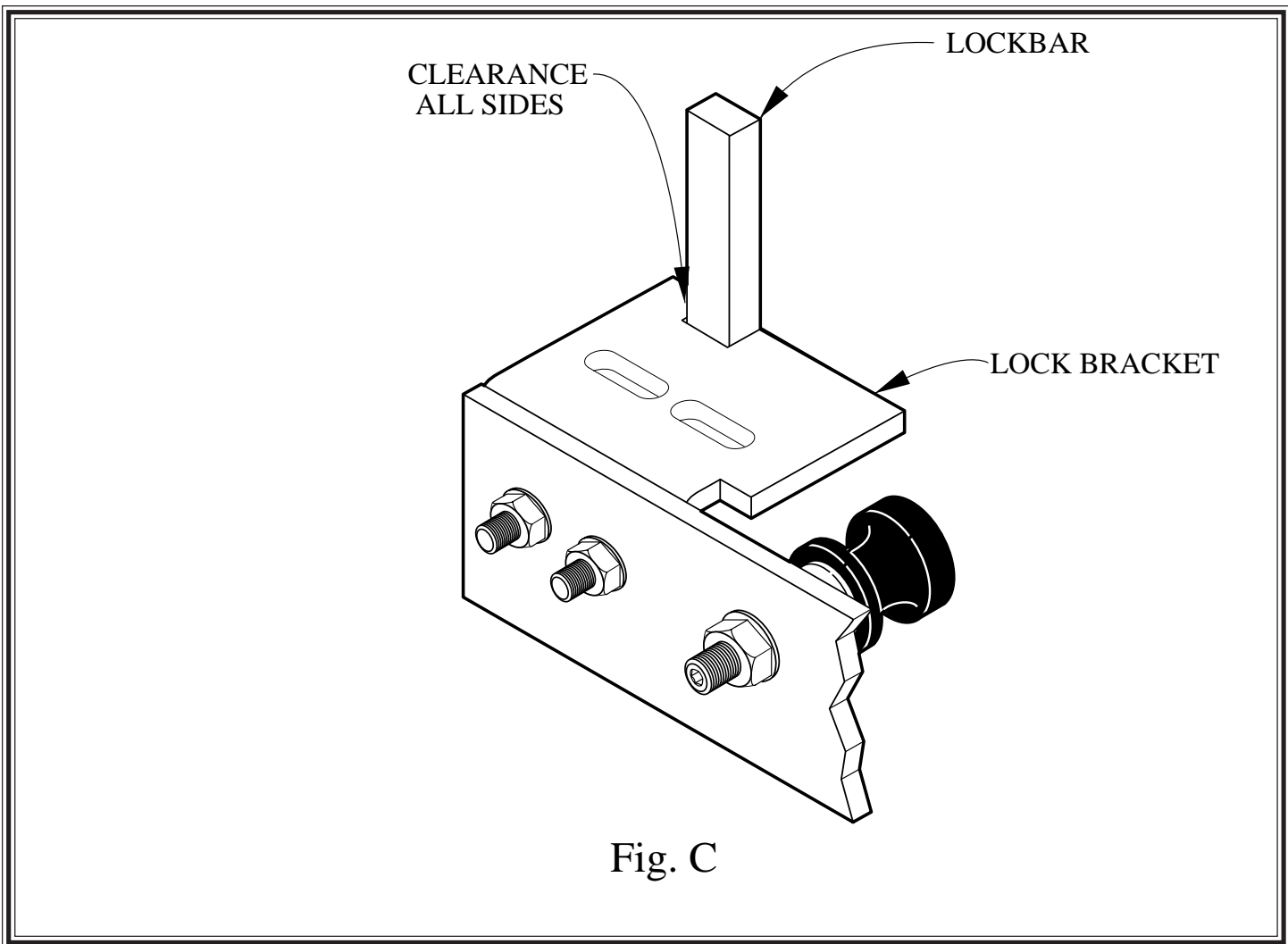
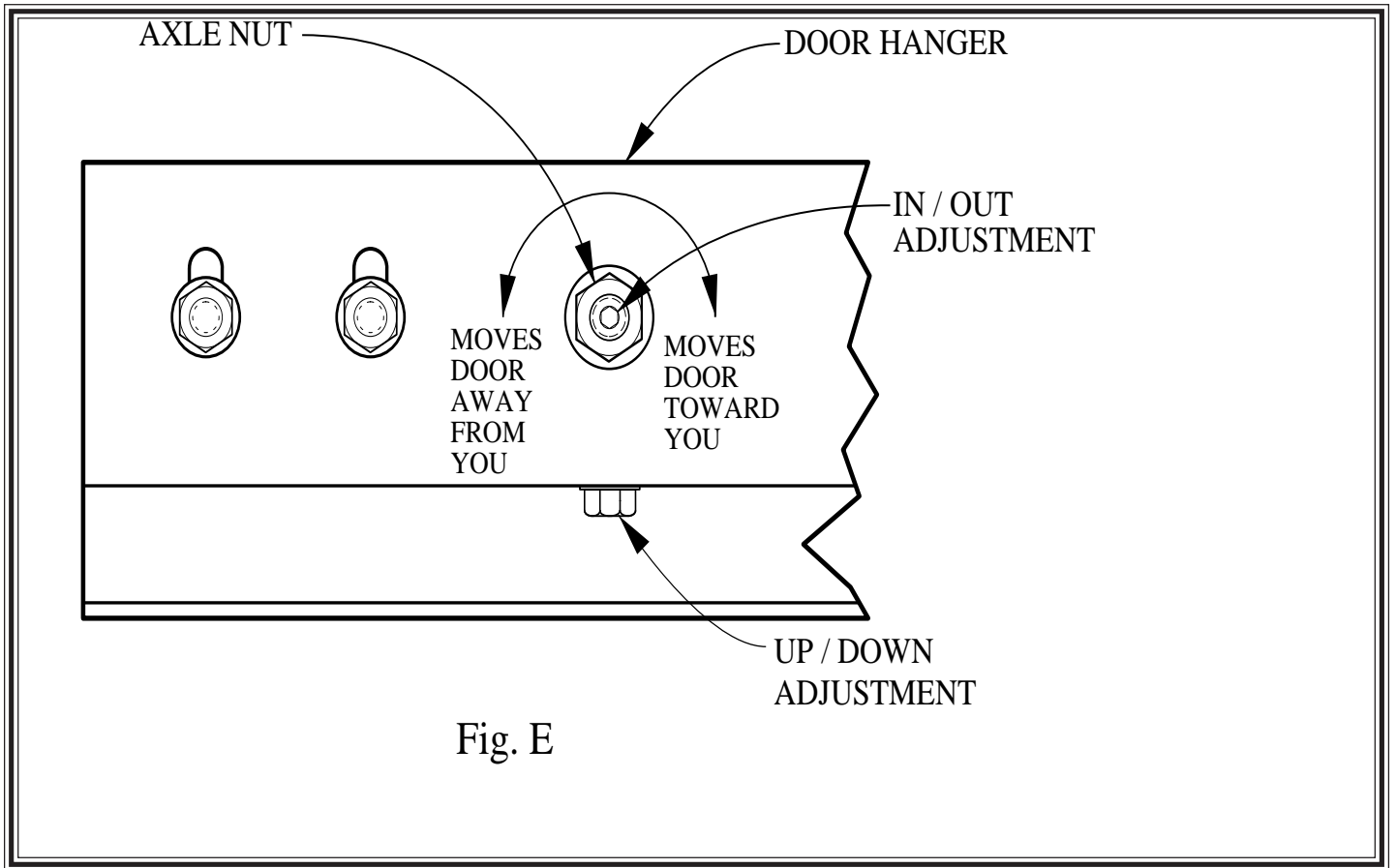
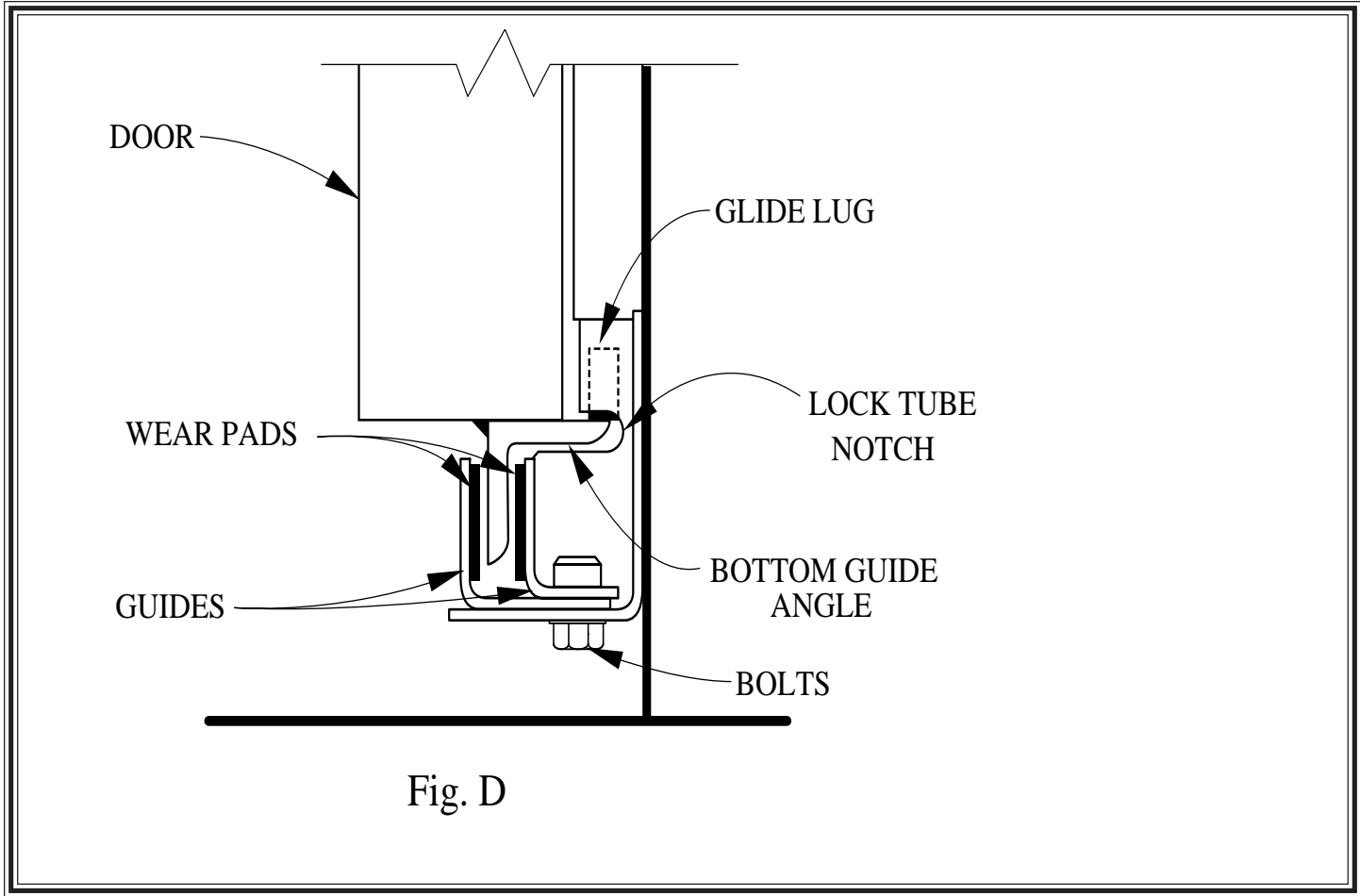


Fig. C





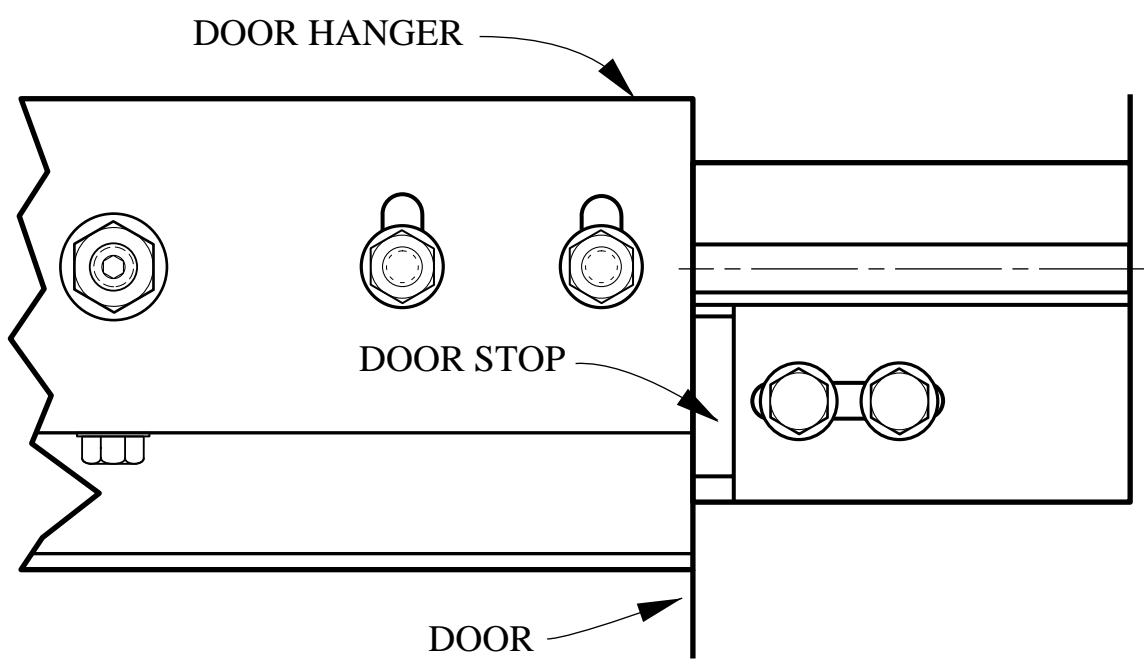


Fig. F

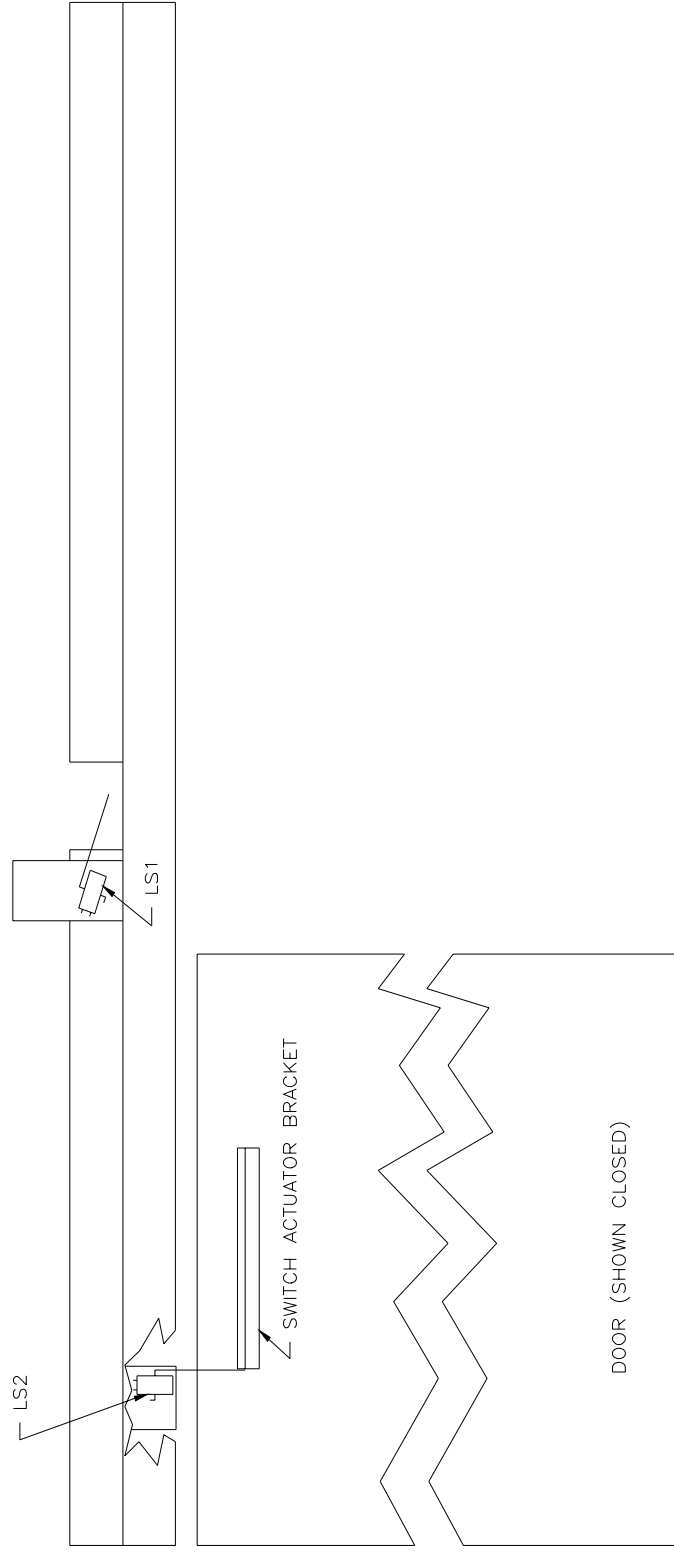


Fig. G

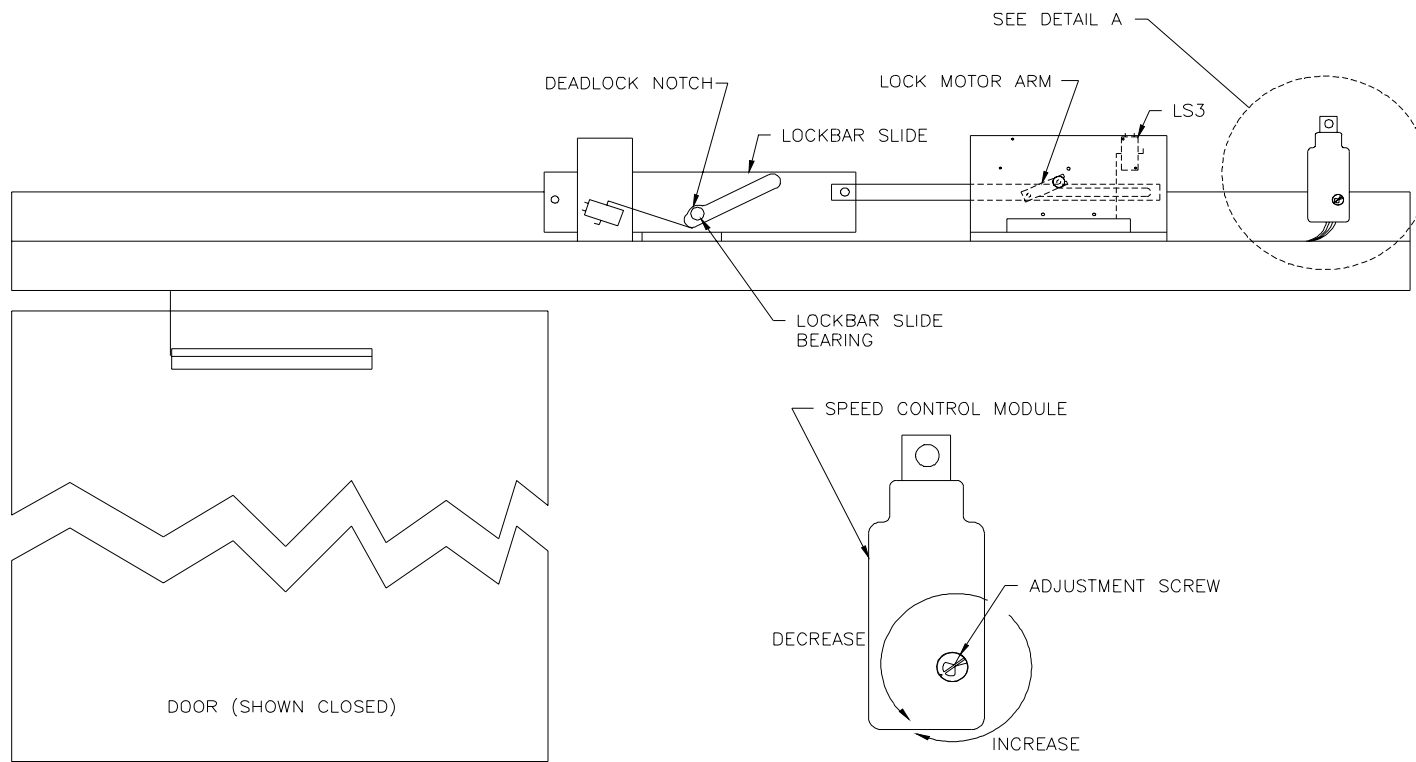


Fig. H

DETAIL A