

**Door Operator  
HPLIM  
Center-Opening**

**Spare Parts Leaflet**

**23-AAA24470F**

**September 7, 2022 / Page 1 of 17**

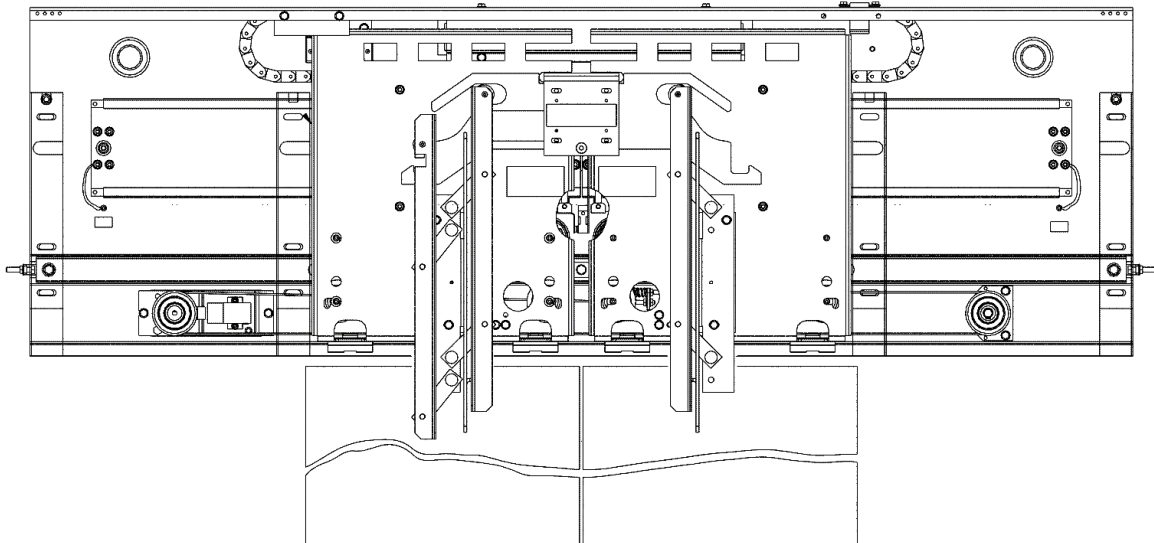
# OBSOLESCENCE NOTICE

The product covered in this SPL has been designated as obsolete and is no longer supported. See TIP 32.2-1, *Obsolete Components*, for potential upgrade. Replacement lower level parts listed within and unique to this design are not being restocked when depleted. Some of these parts, depending on availability and other factors, may be quoted through Customer Service, but most will have extended lead times and increased cost due to low volume production.

CONTROLLER _____
SERIAL NO. _____
SALES NO. _____
MODEL NO. _____
VOLTS _____
AMPS _____
PHASES _____
HERTZ _____
H.P. _____
WIRES _____
COMP. VINTAGE NO. <b>ADA24470F</b>
COMPONENT CODE <b>23</b>
WIRING DIAGRAM _____
DATE _____

**Vintages:**

**ADA24470F  
AEA24470F  
AEB24470F**



**OTIS**

This document does not contain any technical data subject to EAR or ITAR

**SERVICE ENGINEERING  
Otis Elevator Company  
Bloomfield, Connecticut USA**

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**Leaflet Description**

The High Performance Linear Induction Motor (HPLIM) operator utilizes linear-induction motor technology and Closed-Loop control to deliver smooth, consistent door operation.

The ADA version of the A\*\*24470F was the first production version HPLIM produced and is the earliest version HPLIM operator covered in this SPL. The first HPLIM units were shipped in the spring of 1998.

Linear (mechanical) motion of the doors is achieved by opposing magnetic forces produced electrically in the motor windings (primary) and copper (secondary). This operator mounts directly to the door hangers eliminating the need for door linkage transmission assemblies.

This leaflet describes the mechanical parts of the operator system.

**NOTE:** Some early version HPLIM operators carried a component tag, possibly referencing the ADA24350AM, as the vintage/tracking identity. If you have such an operator, use the vintage columns in this SPL identified with the ADA24470F vintage, when identifying/selecting spare parts.

**Leaflet Revisions**

<b>Date Revised</b>	<b>Subject Matter Expert</b>	<b>Reason for Revision</b>
June 1, 1998	Blair Cohen	New SPL
August 22, 2002	Duane Stupienski	Update to present production parts
October 14, 2002	Duane Stupienski	Part number corrections p. 8
May 5, 2003	Jeffrey A. Smith	Corrected part number errors on p. 6
May 2, 2018	Sohaib Shaikh	Updated descriptions in Ref. 1 and 2 on p. 9
February 12, 2020	Sohaib Shaikh	Corrected part number in Ref. 2 on p. 9
September 7, 2022	Juan Murillo	Added OBSOLESCENCE notice.

**Related Drawings**

<b>Drawing No.</b>	<b>Title</b>	<b>Drawing No.</b>	<b>Title</b>
ADA24470F	Assembly, Cab Mount, HPLIM Center-Opening	AEB24350AM	Assembly Door Operator Center Opening HPLIM

Continued on next page

## Related Documents

Document ID	Title
F.E. 22.12-1	CD-ROM, HPLIM Overview, Installation, Adjusting and Troubleshooting
TIP 22.12-2	Gate Switch Retrofit Kit
TIP 22.12-3	Sync Link Retrofit Kit
10-AAA24350AY	HPLIM Controller
23-AAA24450D	HPLIM Operator, Single-Slide
25-AAA23101J/K	Hoistway Entrance
26-AAA23402L	Weight Closer
27-AAA23400C	Techna-Lock
20-AAA24591T	LAMBDA III Door Protection & Car Door Astragals
SU18-100	Specified Order Form

## Subject Matter Expert

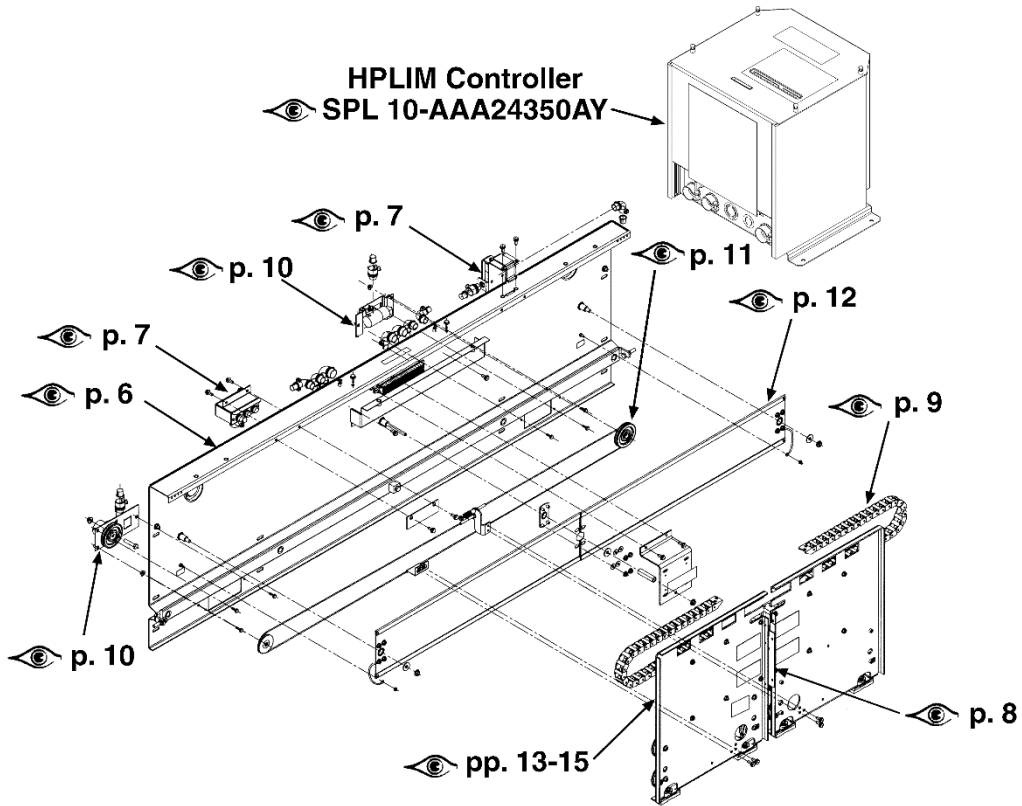
Name	Department
Sohaib Shaikh	OSC Service Engineering

## About Spare Parts Leaflets...

This document lists the lowest replaceable units (LRUs) for the standard version of the product. The LRUs are chosen by a team of Otis associates representing engineering and manufacturing.

While goal of this document is to make parts identification as easy as possible, the document cannot be all-inclusive. Elevator and escalator contracts classified as “special” or “custom” are not addressed here. For such contracts, please refer to specified information, the contract folder, TIPS, Field Education Articles, Construction Letters, etc. for further information.

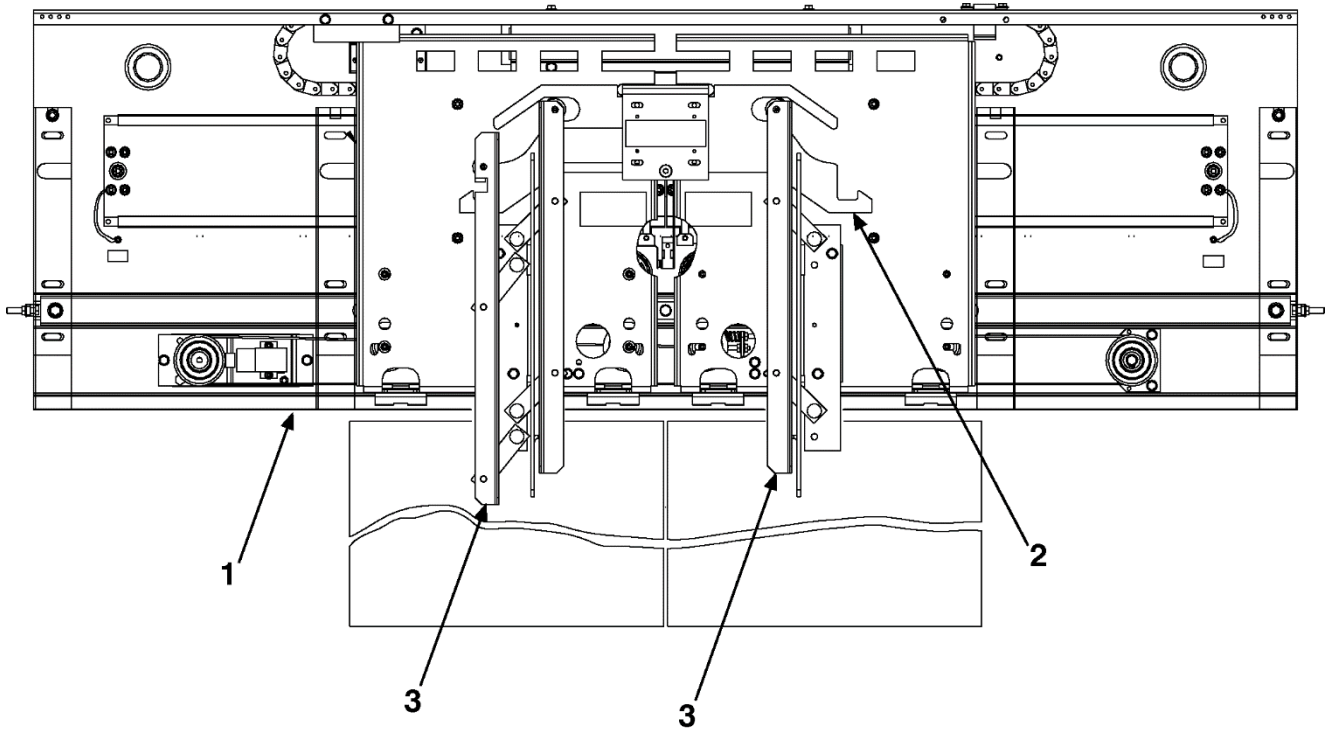
If you have any suggestions about this document, please contact the subject matter expert listed on this page.



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6	HPLIM Header and Track Assembly
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10	HPLIM Sync-Link Encoder + Sync-Link Brake Parts
11	HPLIM Aircord + Parts
12	HPLIM Secondary Assembly
13	HPLIM Motor Carriage Assembly
14	A**6331CD Motor Carriage Parts, and Motor
15	Hanger Bracket Assembly
16	HPLIM Door Coupling
17	Tools and Labels

# HPLIM Operator Assemblies

**23-AAA24470F**

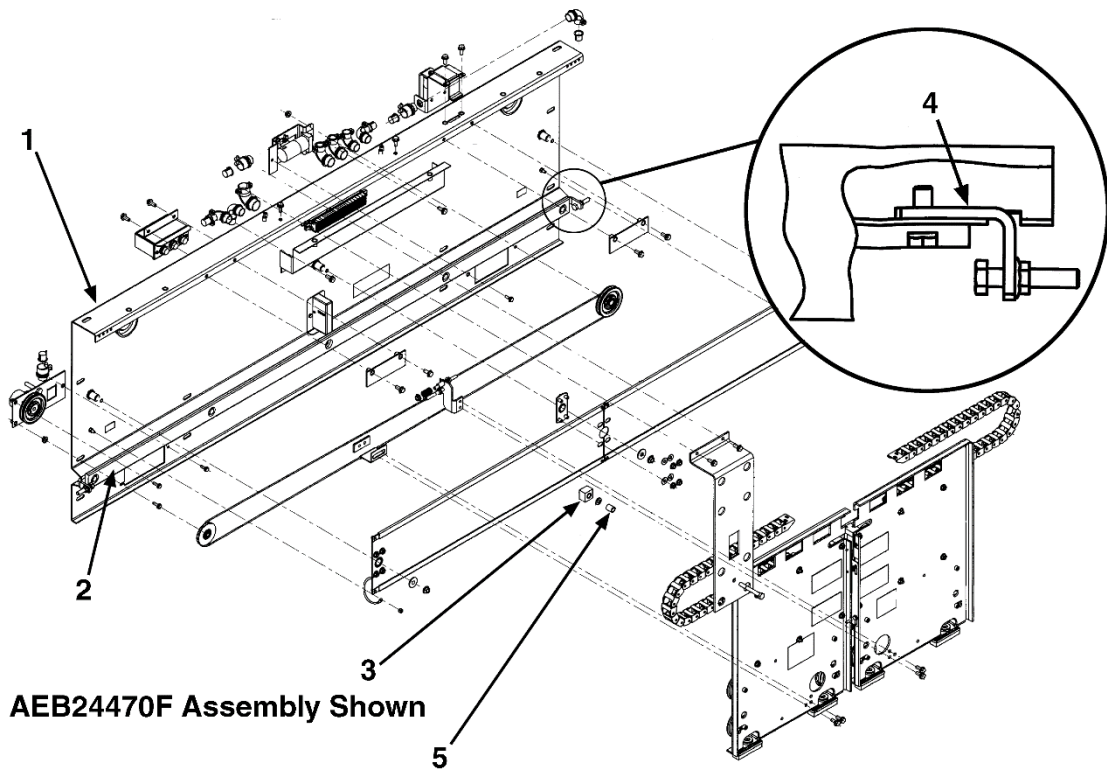



**ADA24470F**  
**AEA24470F**  
**AEB24470F**

REF. No.	PART No.	DESCRIPTION
1		Operator Assembly Center-Opening Doors:
	ADA24350AM1	36 in.
	ADA24350AM2	42 in.
	ADA24350AM3	48 in.
	ADA24350AM4	900 mm
	ADA24350AM5	1000 mm
	ADA24350AM6	1100 mm
	ADA24350AM7	1200 mm
	ADA24350AM8	36 in.
	ADA24350AM9	42 in.
	ADA24350AM10	48 in.
	ADA24350AM11	900 mm
	ADA24350AM12	1000 mm
	ADA24350AM13	1100 mm
ADA24350AM14	1200 mm	
2	AAA41AQ2	Keeper Ramp
3	---	Door Coupler, see P. 16

W/O CSA  
 Lock (Ref 1, p.7)  
 Applications

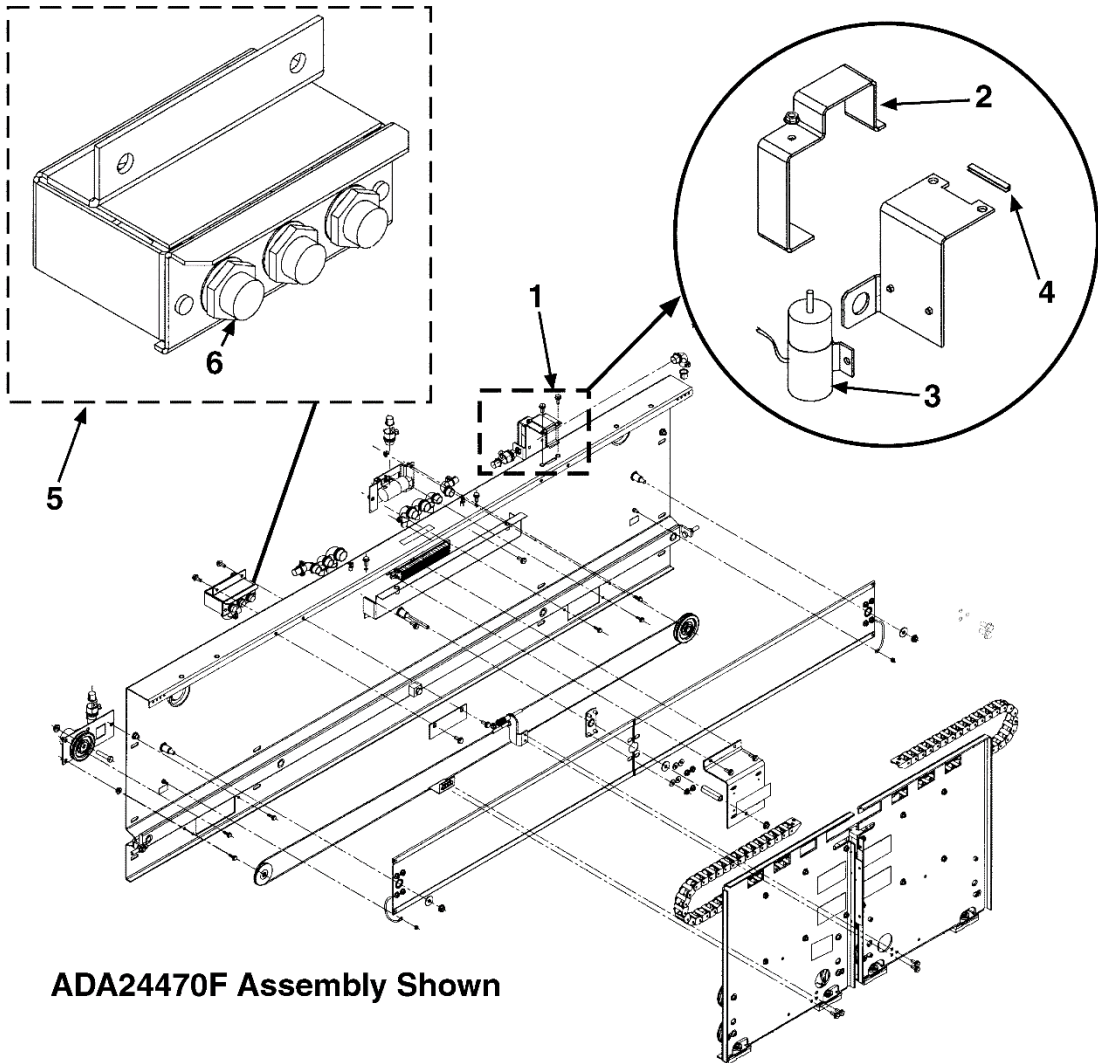
W/CSA  
 Lock (Ref 1, p.7)  
 Applications



	<b>ADA24470F</b>	<b>AEA24470F AEB24470F</b>	
<b>REF. No.</b>	<b>PART No.</b>		<b>DESCRIPTION</b>
1	ABA409GP1 →	ACA409GP1	Header Assembly, 36 in. Opening
	ABA409GP2 →	ACA409GP2	Header Assembly, 42 in. Opening
	ABA409GP3 →	ACA409GP3	Header Assembly, 48 in. Opening
	ABA409GP4 →	ACA409GP4	Header Assembly, 900 mm Opening
	ABA409GP5 →	ACA409GP5	Header Assembly, 1000 mm Opening
	ABA409GP6 →	ACA409GP6	Header Assembly, 1100 mm Opening
	ABA409GP7 →	ACA409GP7	Header Assembly, 1200 mm Opening
	ABA409GP999 →	ACA409GP999	Header Assembly, Variable (Contract-Specific Only)
2	AAA483WF1		Track, 36 in. Opening
	AAA483WF2		Track, 42 in. Opening
	AAA483WF3		Track, 48 in. Opening
	AAA483WF15		Track, 900 mm Opening
	AAA483WF16		Track, 1000 mm Opening
	AAA483WF17		Track, 1100 mm Opening
	AAA483WF18		Track, 1200 mm Opening
3	AAA320EW2		Bumper, Stop
4	AAA316FZT1		Bracket, Stop
5	AAA462JE6		Spacer, Stop Bumper, 16 mm 


# HPLIM CSA Lock + Secondary Position System Junction Box

**23-AAA24470F**

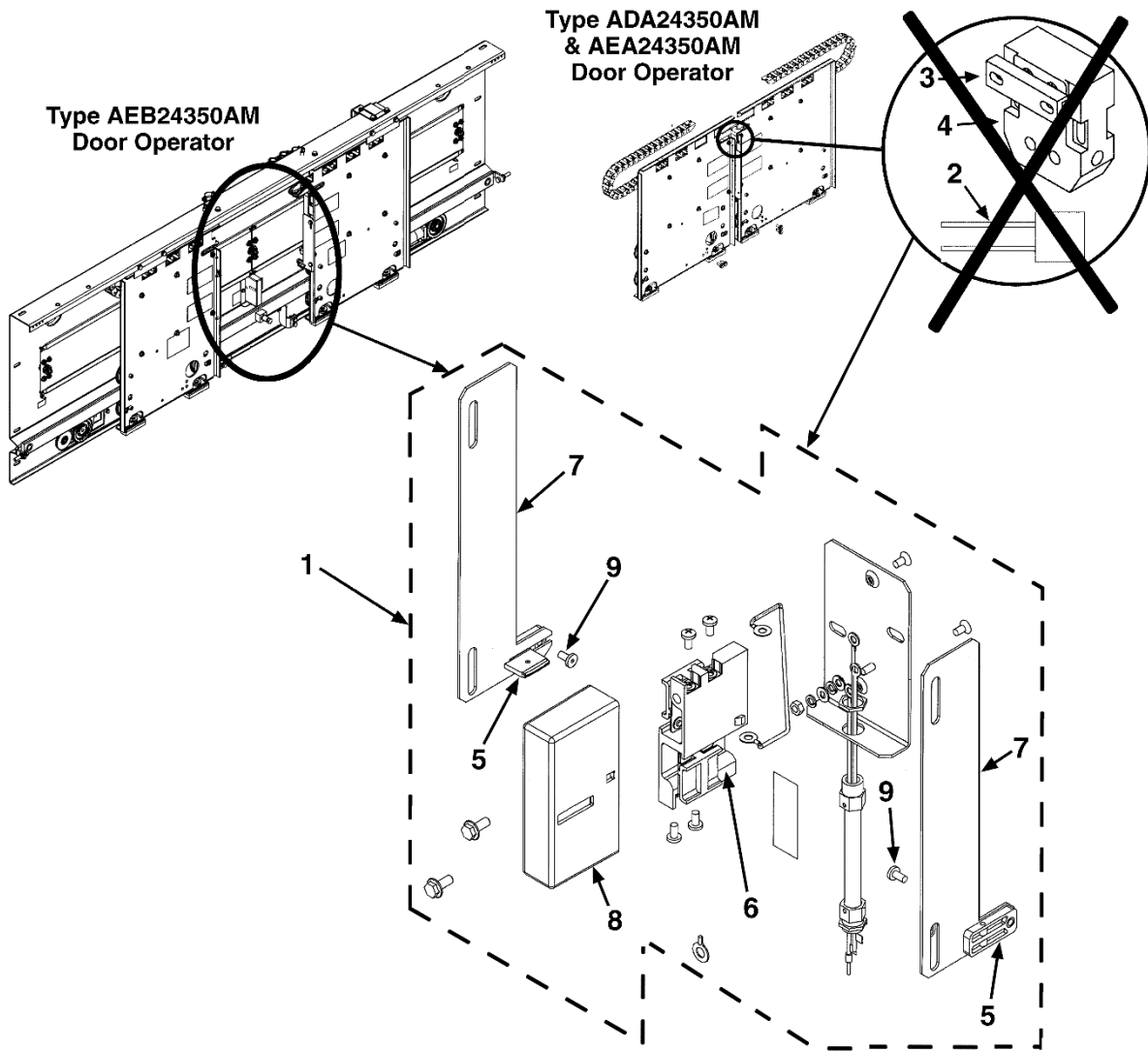


**ADA24470F Assembly Shown**

**ADA24470F  
AEA24470F  
AEB24770F**

<b>REF. No.</b>	<b>PART No.</b>	<b>DESCRIPTION</b>
1	AAA24450E1	Assembly, CSA Door Lock
2	AAA316FYB1	Bracket
3	AAA656A4	Solenoid
4	334AX30	Grommet (  to suit)
5	AAA24450G1	Box, Junction (Secondary Position System)
6	AAA608D8	Sensor

# Center-Opening Gate Switch

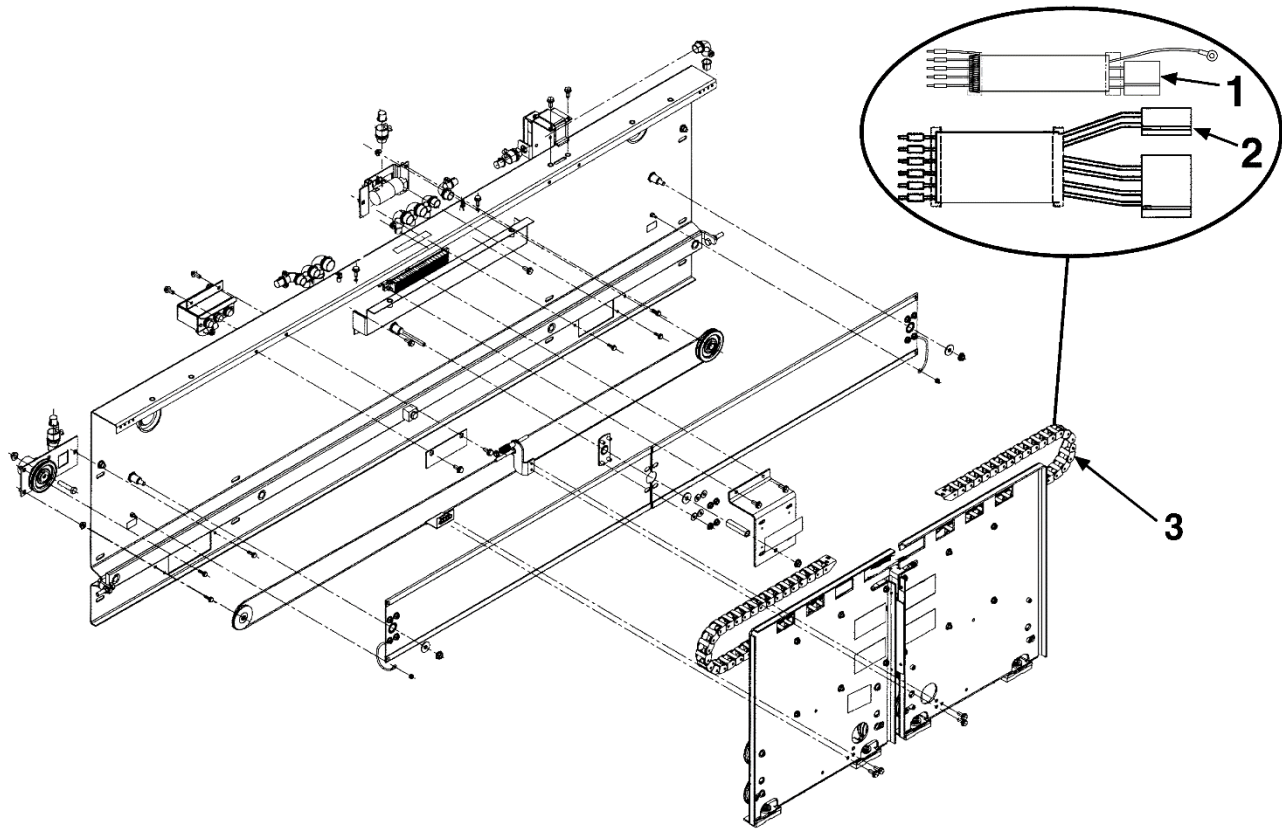


		ADA24470F AEA24470F	AEB24770F
REF. No.	DESCRIPTION	PART No.	
1	Assembly, Gate Switch	---	JAA309AET1
2	Assembly, Cable, Gate Switch	AAA174XR4 →	
3	Gate Switch, Bridge	AAA661B104 →	
4	Gate Switch, Contact Element	AAA661B100 →	
5	Assembly, Contact Bridge	---	JAA156ABF1
6	Assembly, Switch Base	---	JAA156ABG1
7	Bracket	---	JAA316GKP1
8	Cover	---	JAA285AVX1
9	Screw	---	JAA124ABD2



# HPLIM Conduit Cables

**23-AAA24470F**

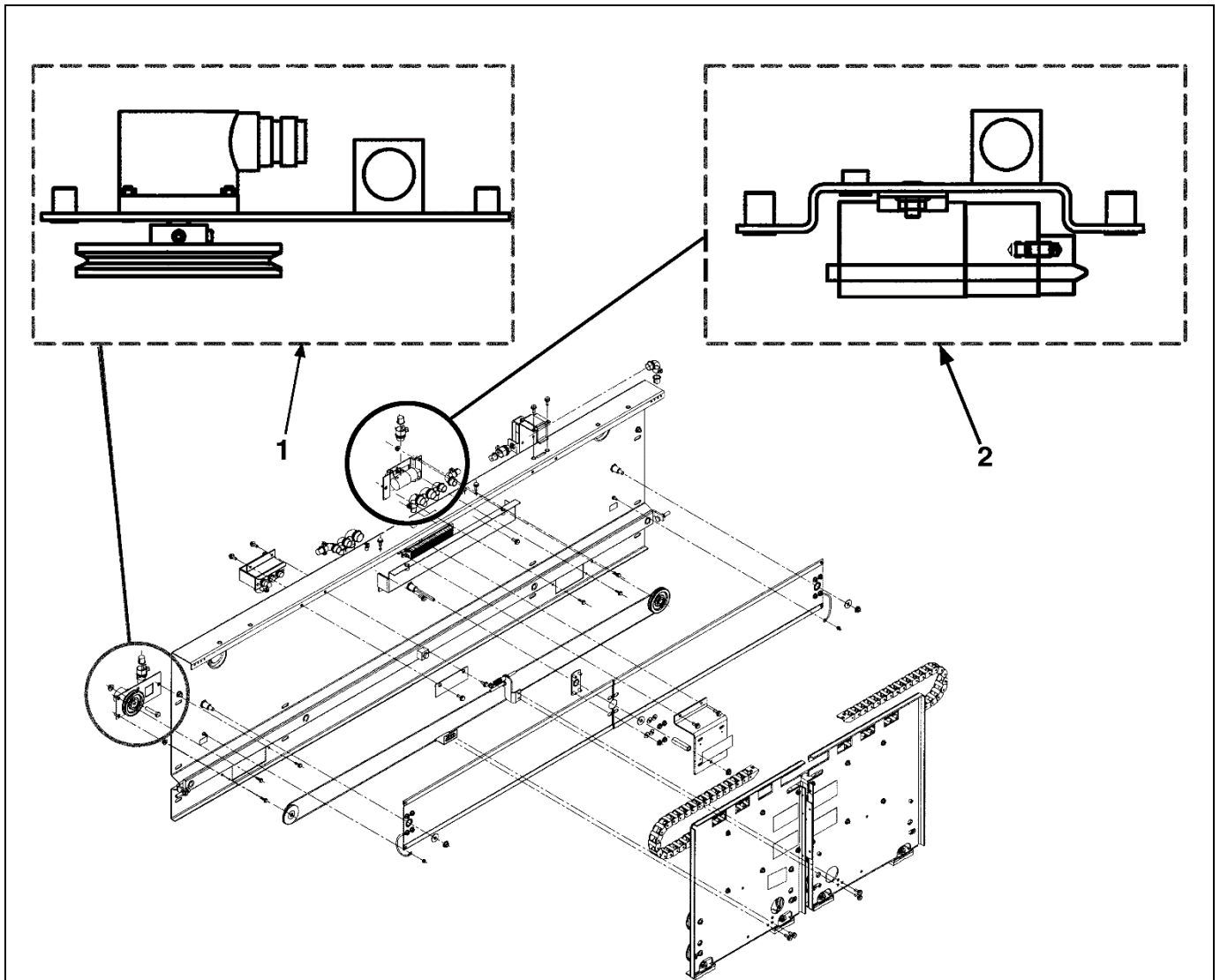


**ADA24470F**  
**AEA24470F**  
**AEB24770F**

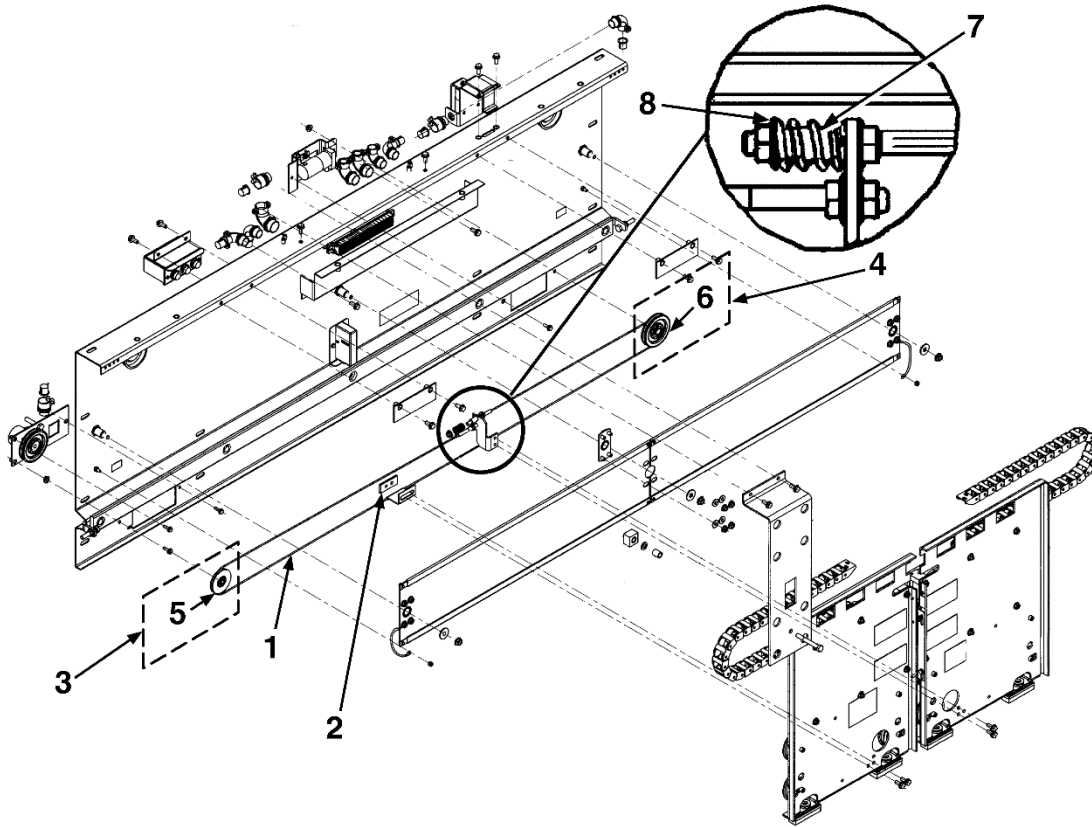
REF. No.	PART No.	DESCRIPTION
1	AAA174XP1	Cable Assembly, Power, 36 in. or 900 mm Opening
	AAA174XP2	Cable Assembly, Power, 42 in. Opening
	AAA174XP3	Cable Assembly, Power, 48 in. or 1200 mm Opening
	AAA174XP7	Cable Assembly, Power, 1000 mm Opening
	AAA174XP8	Cable Assembly, Power, 1100 mm Opening
2	AAA174XQ1	Cable Assembly, Thermostat, 36 in. or 900 mm Opening
	AAA174XQ2	Cable Assembly, Thermostat, 42 in. Opening
	AAA174XQ3	Cable Assembly, Thermostat, 48 in. or 1200 mm Opening
	AAA174XQ7	Cable Assembly, Thermostat, 1000 mm Opening
	AAA174XQ8	Cable Assembly, Thermostat, 1100 mm Opening
3	AAA342BS1	Conduit Assembly, 42 in. Opening
	AAA342BS5	Conduit Assembly, 36 in. or 900 mm Opening
	AAA342BS6	Conduit Assembly, 48 in. or 1200 mm Opening
	AAA342BS10	Conduit Assembly, 1000 mm Opening
	AAA342BS11	Conduit Assembly, 1100 mm Opening

**23-AAA24470F**

# HPLIM Sync-Link Encoder + Sync-Link Brake Parts

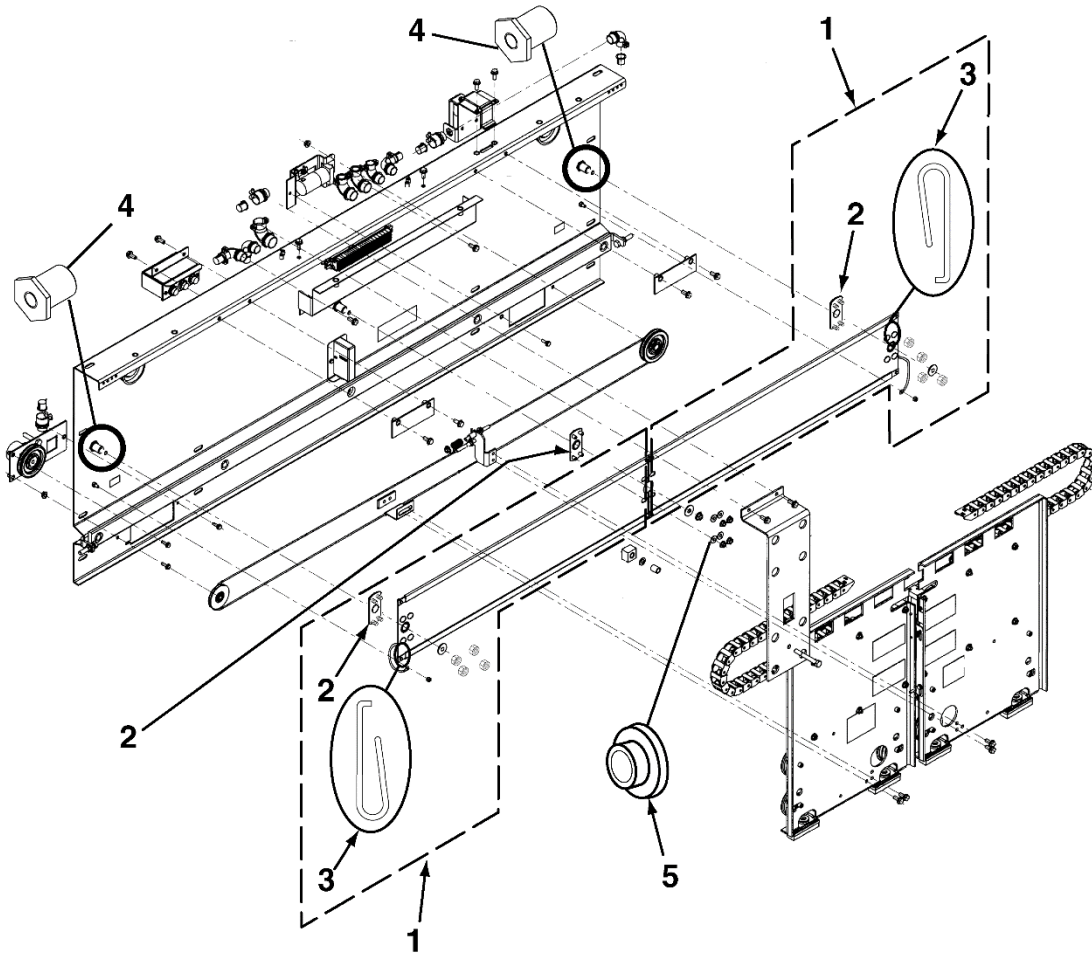


REF. No.	PART No.	DESCRIPTION
1	AAA24450P1	Assembly, Sync-Link Encoder
2	AAA24450N1 → ABA24450N1	Assembly, Sync-Link Brake




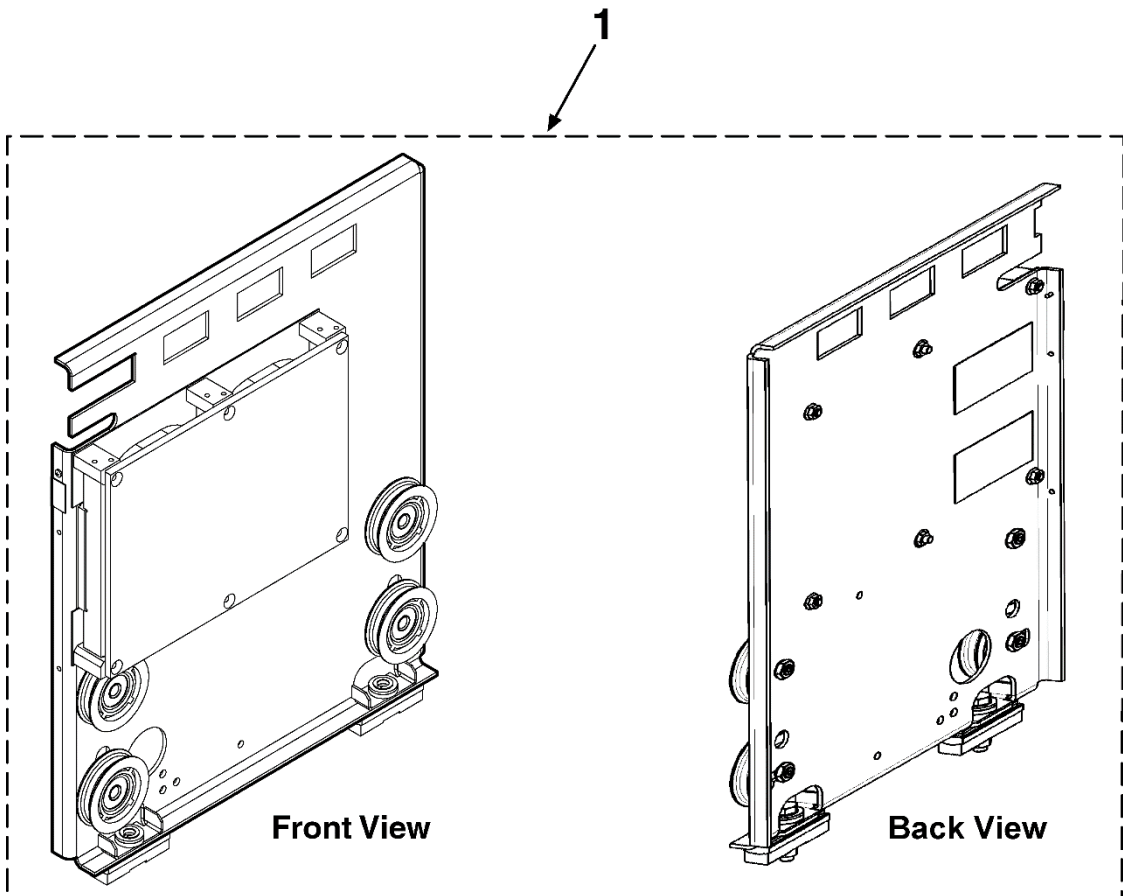
	ADA24470F	AEA24470F AEB24470F		
REF. No.	PART No.		DESCRIPTION	
1	ABA712M5		Assembly, Aircord, 36 in. Opening	
	ABA712M1		Assembly, Aircord, 42 in. Opening	
	ABA712M3		Assembly, Aircord, 48 in. Opening	
	ABA712M13		Assembly, Aircord, 900 mm Opening	
	ABA712M15		Assembly, Aircord, 1000 mm Opening	
	ABA712M17		Assembly, Aircord, 1100 mm Opening	
	ABA712M19		Assembly, Aircord, 1200 mm Opening	
2	---	JAA299AMW1	Plate, Anchor	
3	AAA265CL1		Kit, Pulley (contains Ref. 5 + pin + ring)	
4	AAA265CL2		Kit, Pulley (contains Ref. 6 + pin + ring)	
5	AAA198AM1		Pulley (with urethane tire)	
6	AAA265CD2		Pulley, Idler (steel)	
7	AAA462KZ1		Spacer	
8	AAA90DZ1		Spring	

See Mandatory Retrofit Document: TIP 22.12-3, HPLIM Sync-Link Retrofit

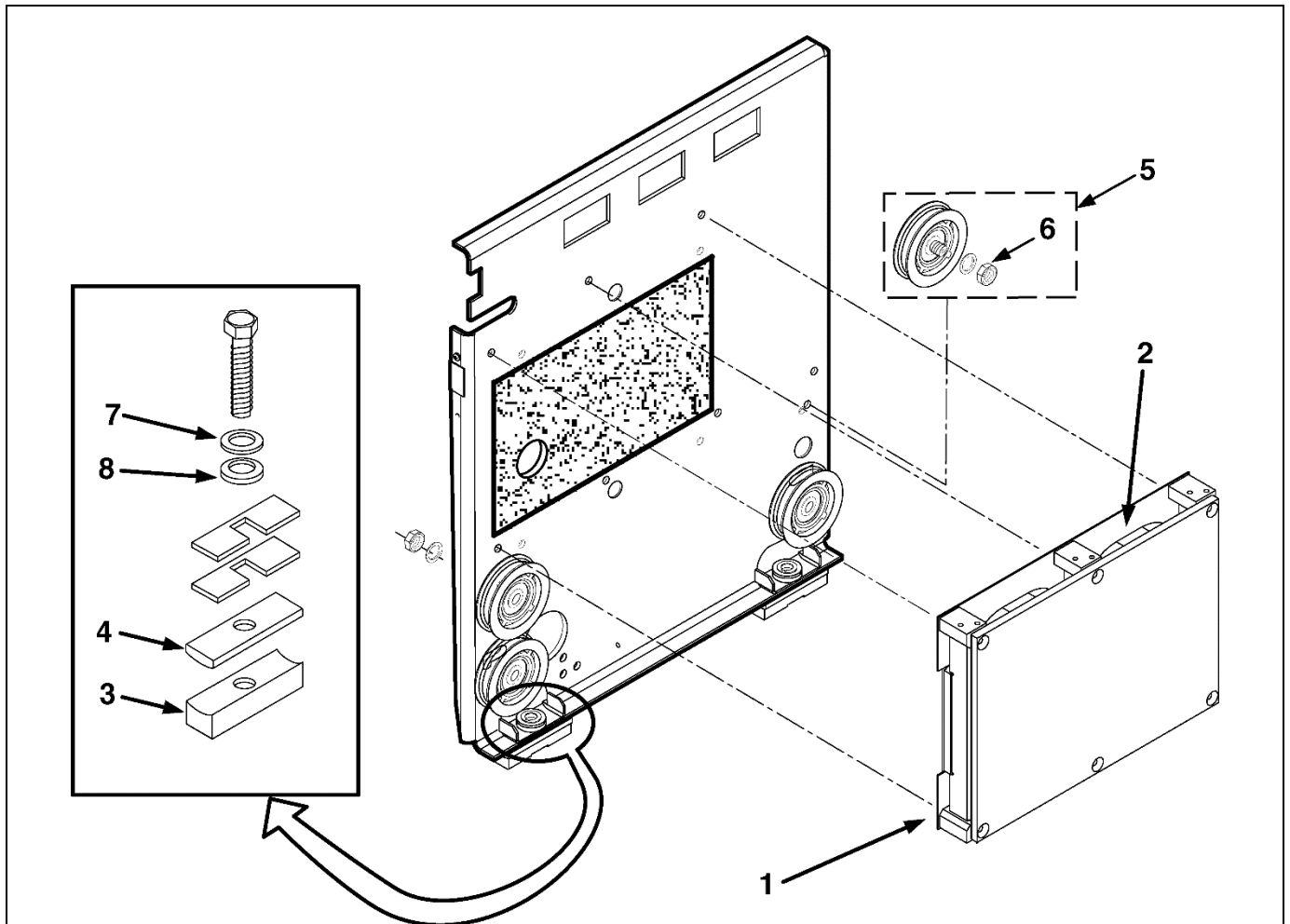


**ADA24470F  
AEA24470F  
AEB24770F**

REF. No.	PART No.	DESCRIPTION
1	AAA24350AK11	Assembly, Secondary, 42 in. Opening
	AAA24350AK12	Assembly, Secondary, 48 in. Opening
	AAA24350AK13	Assembly, Secondary, 36 in. Opening
	AAA24350AK17	Assembly, Secondary, 900 mm Opening
	AAA24350AK18	Assembly, Secondary, 1000 mm Opening
	AAA24350AK19	Assembly, Secondary, 1100 mm Opening
	AAA24350AK20	Assembly, Secondary, 1200 Opening
2	AAA217B2	Coupling, Flanged
3	AAA50ATR1-1600	Guide, Snap-On, L=1600 mm,  (polymer)
4	AAA462KW1	Nut (spacer)
5	AAA131EG1	Washer (spacer for thermal expansion), 4 per Door Operator



	<b>ADA24470F AEA24470F</b>	<b>AEB24470F</b>	
<b>REF. No.</b>	<b>PART No.</b>		<b>DESCRIPTION</b>
1	ACA6331CD7 →	ACB6331CD7	Motor Carriage Assembly, 36 in. Opening,
	ACA6331CD8 →	ACB6331CD8	Motor Carriage Assembly, 36 in. Opening,
	ACA6331CD9 →	ACB6331CD9	Motor Carriage Assembly, 42 in. Opening,
	ACA6331CD10 →	ACB6331CD10	Motor Carriage Assembly, 42 in. Opening,
	ACA6331CD11 →	ACB6331CD11	Motor Carriage Assembly, 48 in. Opening,
	ACA6331CD12 →	ACB6331CD12	Motor Carriage Assembly, 48 in. Opening,
	ACA6331CD13 →	ACB6331CD13	Motor Carriage Assembly, 900 mm Opening,
	ACA6331CD14 →	ACB6331CD14	Motor Carriage Assembly, 900 mm Opening,
	ACA6331CD15 →	ACB6331CD15	Motor Carriage Assembly, 1000 mm Opening,
	ACA6331CD16 →	ACB6331CD16	Motor Carriage Assembly, 1000 mm Opening,
	ACA6331CD17 →	ACB6331CD17	Motor Carriage Assembly, 1100 mm Opening,
	ACA6331CD18 →	ACB6331CD18	Motor Carriage Assembly, 1100 mm Opening,
	ACA6331CD19 →	ACB6331CD19	Motor Carriage Assembly, 1200 mm Opening,
ACA6331CD20 →	ACB6331CD20	Motor Carriage Assembly, 1200 mm Opening,	

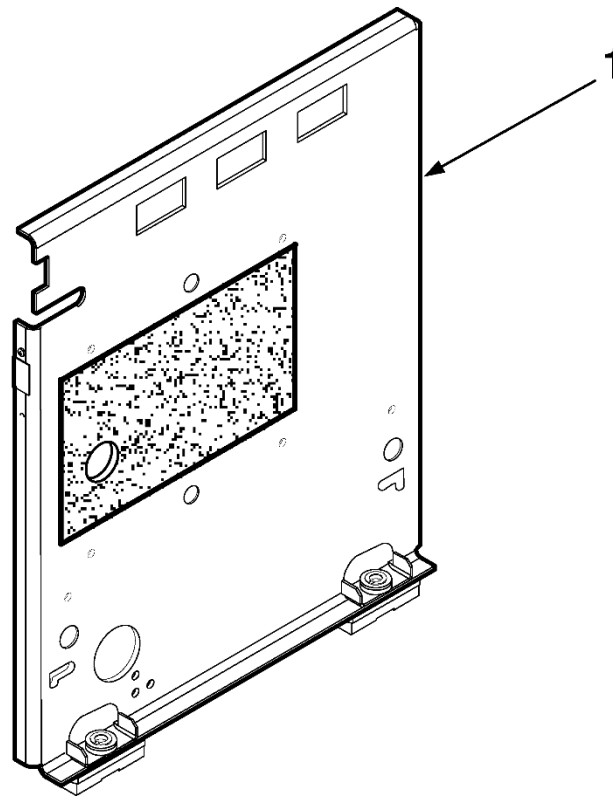
**23-AAA24470F****A\*\*6331CD Motor Carriage  
Parts, and Motor**

	<b>ADA24470F AEA24470F</b>	<b>AEB24470F</b>	
<b>REF. No.</b>	<b>PART No.</b>		<b>DESCRIPTION</b>
1	ABA24350AL2		Assembly, Motor (includes Ref. 2)
2	AAA24350AJ2		Assembly, Primary (motor)
3	AAA299AMY1	AAA299AMY3	Bar, Swivel Spacer
4	AAA299AMY2		Bar, Swivel
5	---	AAA456YA4	Kit, Roller w/M12 Nut and Internal Lockwasher
	AAA456XD1	---	Roller (individual)
6	72AF5	ISO8675M12X1.25-04-Z	Nut, Lock
7	131CM1		Washer, Spherical
8	131CM2		Washer, Spherical

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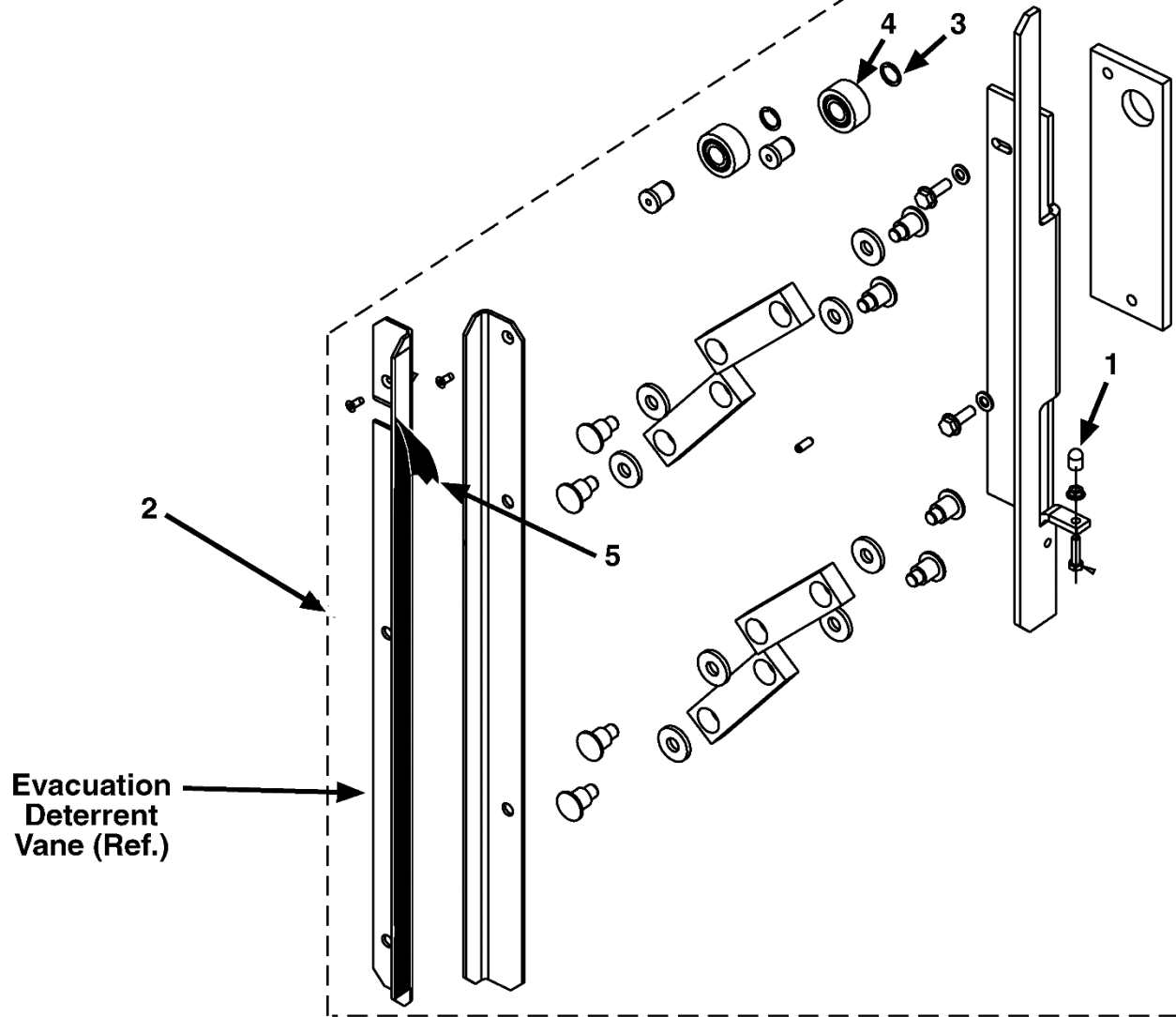
# Hanger Bracket Assembly

**23-AAA24470F**



	<b>ADA24470F AEA24470F</b>	<b>AEB24470F</b>	
<b>REF. No.</b>	<b>PART No.</b>		<b>DESCRIPTION</b>
1	AAA389AY7 →	ABA389AY7	Hanger Bracket, 36 in. Opening,
	AAA389AY8 →	ABA389AY8	Hanger Bracket, 36 in. Opening,
	AAA389AY9 →	ABA389AY9	Hanger Bracket, 42 in. Opening,
	AAA389AY10 →	ABA389AY10	Hanger Bracket, 42 in. Opening,
	AAA389AY11 →	ABA389AY11	Hanger Bracket, 48 in. Opening,
	AAA389AY12 →	ABA389AY12	Hanger Bracket, 48 in. Opening,
	AAA389AY13 →	ABA389AY13	Hanger Bracket, 900 mm Opening,
	AAA389AY14 →	ABA389AY14	Hanger Bracket, 900 mm Opening,
	AAA389AY15 →	ABA389AY15	Hanger Bracket, 1000 mm Opening,
	AAA389AY16 →	ABA389AY16	Hanger Bracket, 1000 mm Opening,
	AAA389AY17 →	ABA389AY17	Hanger Bracket, 1100 mm Opening,
	AAA389AY18 →	ABA389AY18	Hanger Bracket, 1100 mm Opening,
	AAA389AY19 →	ABA389AY19	Hanger Bracket, 1200 mm Opening,
AAA389AY20 →	ABA389AY20	Hanger Bracket, 1200 mm Opening,	

**HPLIM Door Coupling**

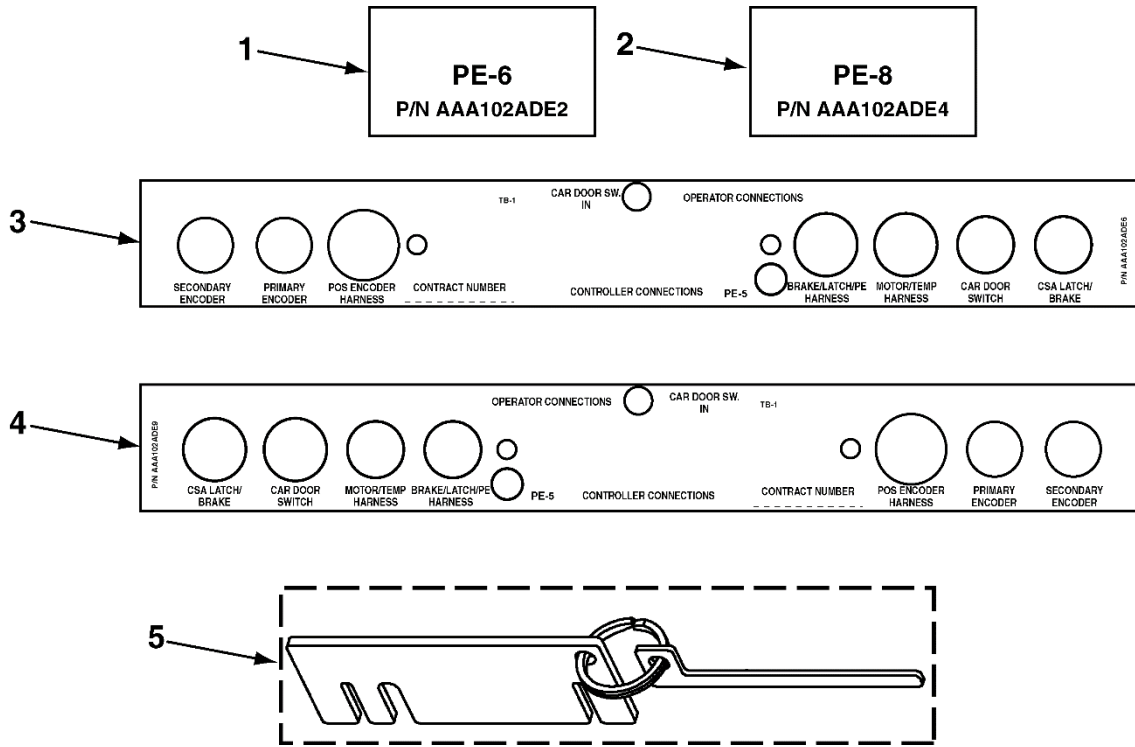


Evacuation  
Deterrent  
Vane (Ref.)

**ADA24470F**  
**AEA24470F**  
**AEB24770F**

REF. No.	PART No.	DESCRIPTION
1	AAA320EY1	Bumper
2	AAA24390C1	Door Coupling w/Evacuation Deterrent Vane,
	AAA24390C3	Door Coupling w/o Evacuation Deterrent Vane,
	AAA24390C4	Door Coupling w/o Evacuation Deterrent Vane,
3	172PM19	Ring
4	AAA456XR1	Roller
5	AAA297AZ1	Tape (ultra high molecular weight), Black, 0.75 in. W x 24.63 in. L





**ADA24470F  
AEA24470F  
AEB24770F**

REF. No.	PART No.	DESCRIPTION
1	AAA102ADE2	Label, PE-6
2	AAA102ADE4	Label, PE-8
3	AAA102ADE6	Label
4	AAA102ADE9	Label
5	AAA27BQ3	Tool, Multi-Function Construction (for coupler, gap setting and interlocks)