

**Door Operator  
HPLIM  
Single-Slide**

**Spare Parts Leaflet  
23-AAA24450D**

September 7, 2022 / Page 1 of 16

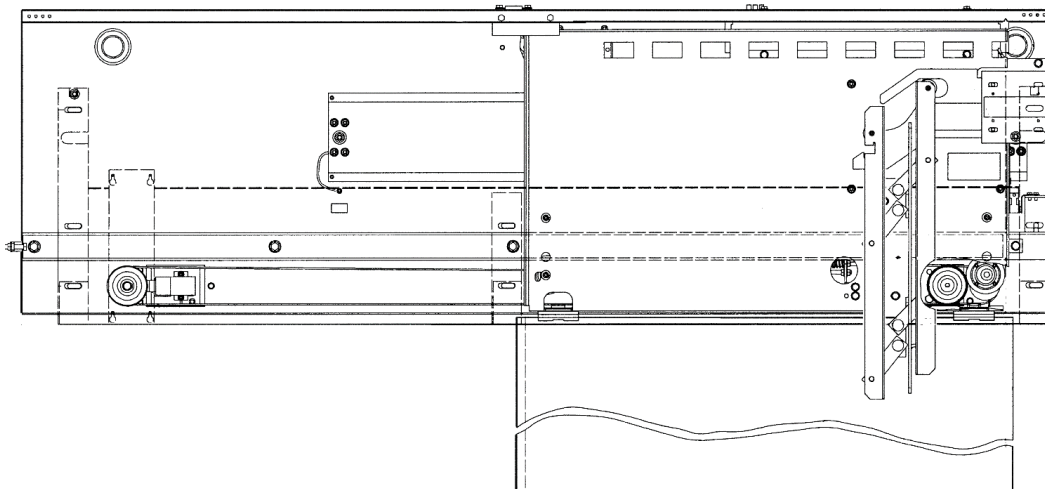
# OBSOLESCENCE NOTICE

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>ADA24450D</b> |
| COMPONENT CODE   | <b>23</b>        |
| WIRING DIAGRAM   | _____            |
| DATE             | _____            |

**Vintages:**

**ADA24450D  
AEA24450D  
AEB24450D**



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\*\*24450D 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.

This leaflet describes the mechanical parts of the operator system.

**NOTE:** Some early version HPLIM operators carried a component tag, possibly referencing the ADA24350AN, as the vintage/tracking identity. If you have such an operator, use the vintage columns in this SPL identified with the ADA24450D 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           |
| May 2, 2018         | Sohaib Shaikh                | Updated descriptions in Ref. 1 and 2 on p. 8 |
| September 7, 2022   |                              |  |

**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 |
| ---                | ---                                       | ---                | ---   |

**Related Documents**

| <b>Document ID</b> | <b>Title</b>  |
|--------------------|---|
| 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, S/S   |
| 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  |

**Continued on next page**

## Subject Matter Expert

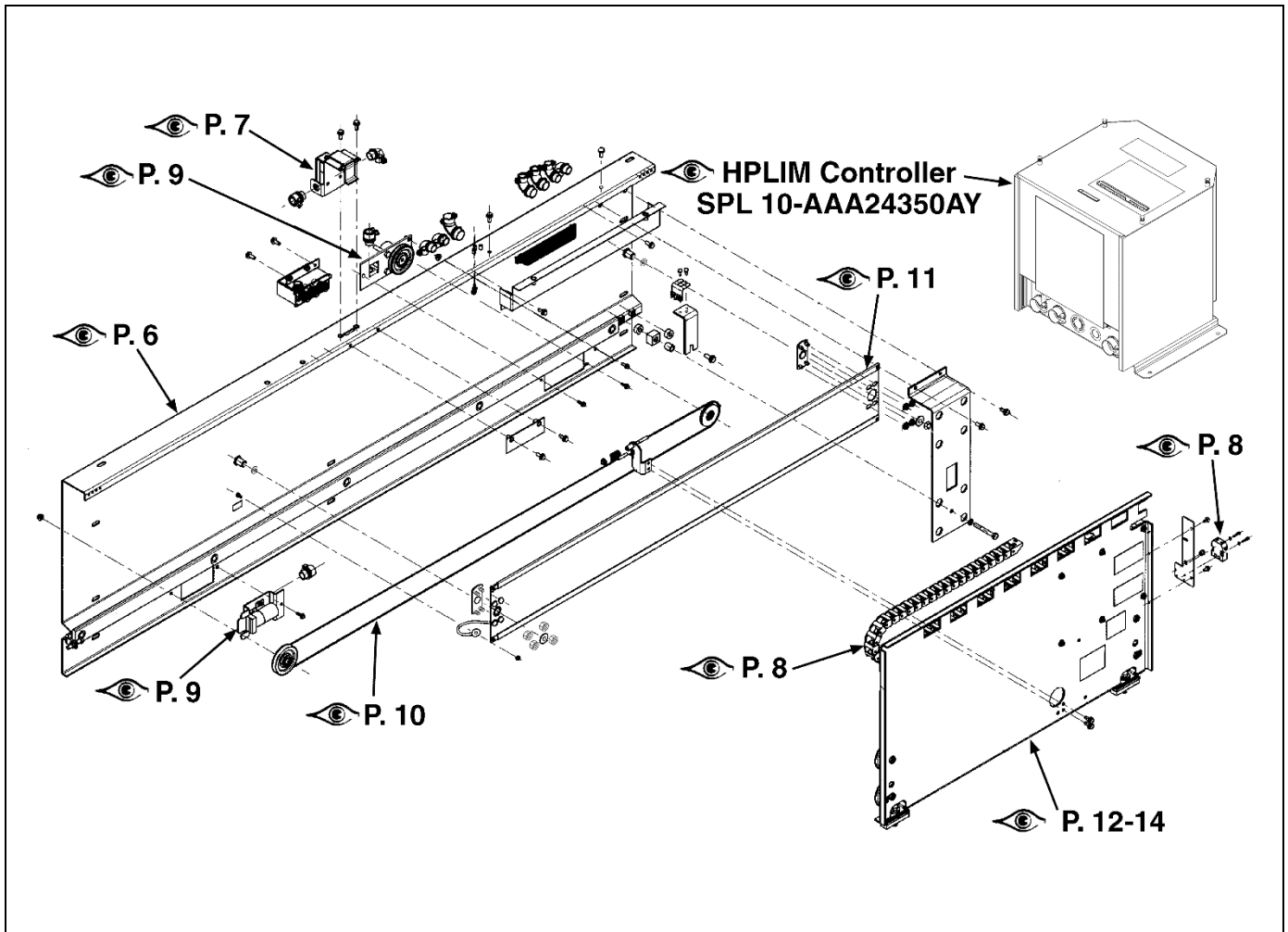
| Name         | Department                              |
|--------------|---|
| Juan Murillo | OSC Service Engineering, Bloomfield, CT |

## About Spare Parts Leaflets...

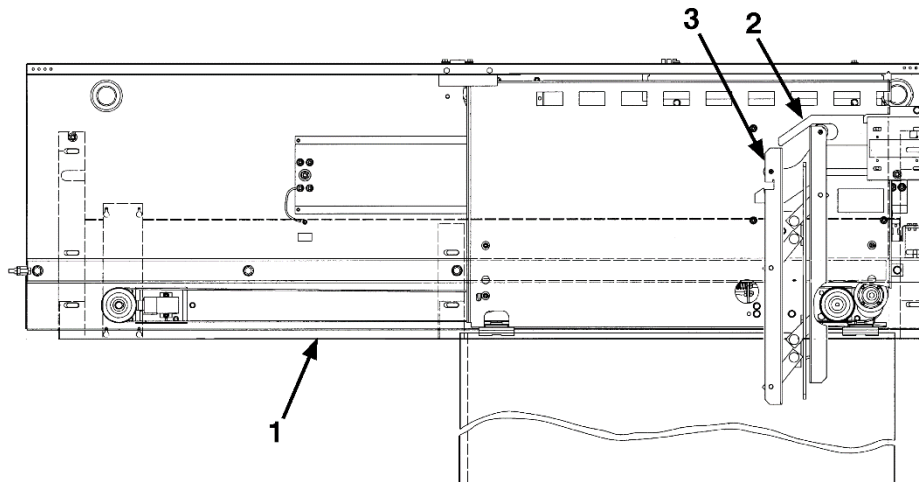
This document lists the lowest replaceable units (LRUs) for the standard version of the product. The LRUs are chosen by a team of Otis associates representing engineering and manufacturing.

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.

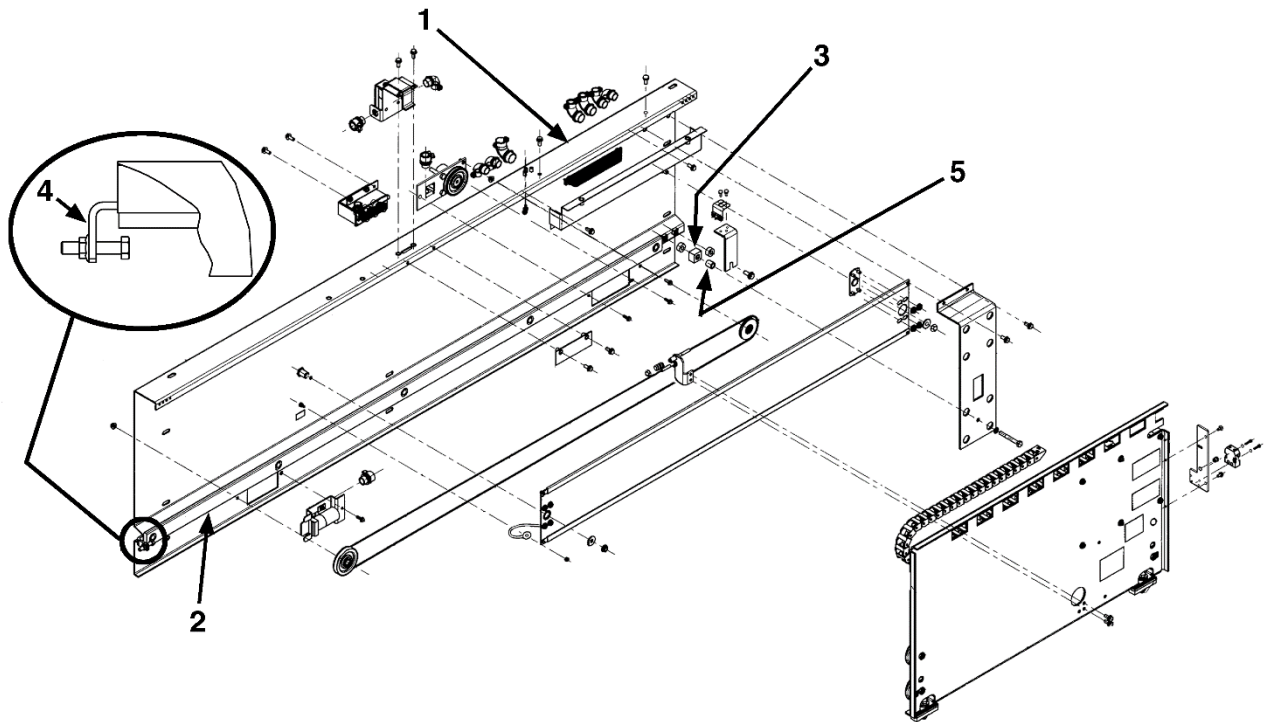


| <b>PAGE #</b> | <b>DESCRIPTION</b>                              |
|---------------|---|
| 5             | HPLIM Operator Assemblies                       |
| 6             | HPLIM Header and Track Assemblies               |
| 7             | HPLIM CSA Lock +Secondary Position Junction Box |
| 8             | HPLIM Conduit Cables + Gate Switch              |
| 9             | HPLIM Sync-Link Encoder + Sync-Link Brake Parts |
| 10            | HPLIM Aircord + Parts                           |
| 11            | HPLIM Secondary Assembly                        |
| 12            | HPLIM Motor Carriage Assembly                   |
| 13            | A**6331CD Motor Carriage Parts and Motor        |
| 14            | Hanger Bracket Assembly                         |
| 15            | HPLIM Door Coupling                             |
| 16            | Tools and Labels                                |



**ADA24450D**  
**AEA24450D**  
**AEB24450D**

| REF. No.     | PART No.     | DESCRIPTION                                  |
|--------------|--------------|--|
| 1            |              | Operator Assembly Single-Slide Doors:        |
|              | AEB24350AN1  | 813 mm                                       |
|              | AEB24350AN2  | 813 mm                                       |
|              | AEB24350AN3  | 914 mm                                       |
|              | AEB24350AN4  | 914 mm                                       |
|              | AEB24350AN5  | 1067 mm                                      |
|              | AEB24350AN6  | 1067 mm                                      |
|              | AEB24350AN7  | 900 mm                                       |
|              | AEB24350AN8  | 900 mm                                       |
|              | AEB24350AN9  | 1000 mm                                      |
|              | AEB24350AN10 | 1000 mm                                      |
|              | AEB24350AN11 | 900 mm                                       |
|              | AEB24350AN12 | 1000 mm                                      |
|              | AEB24350AN13 | 1100 mm                                      |
|              | AEB24350AN14 | 1200 mm                                      |
|              | AEB24350AN15 | 1067 mm                                      |
|              | AEB24350AN16 | 1067 mm                                      |
|              | AEB24350AN17 | 900 mm                                       |
|              | AEB24350AN18 | 900 mm                                       |
|              | AEB24350AN19 | 1000 mm                                      |
| AEB24350AN20 | 1000 mm      |  |
|              |              | W/O CSA<br>Lock (Ref 1, p.7)<br>Applications |
|              |              | W/CSA<br>Lock (Ref 1, p.7)<br>Applications   |
| 2            | AAA41AQ2     | Keeper Ramp                                  |
| 3            | ---          | Door Coupler, see P. 15                      |

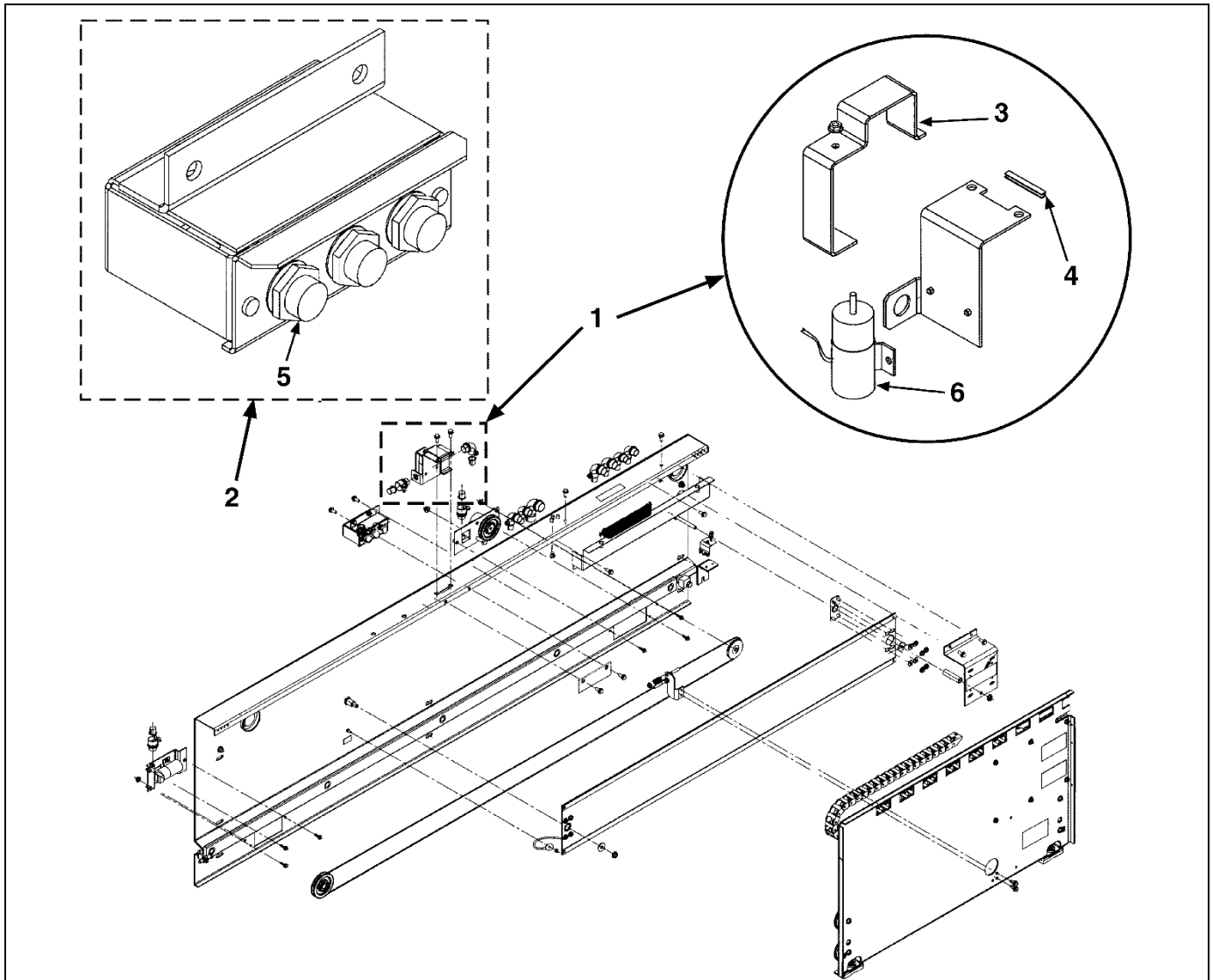


|                  |                                      |
|------------------|--------------------------------------|
| <b>ADA24450D</b> | <b>AEA24450D</b><br><b>AEB24450D</b> |
|------------------|--------------------------------------|

| REF. No. | PART No.   |            | DESCRIPTION                       |
|----------|------------|------------|-----------------------------------|
| 1        | ABA409GR1  | ACA409GR1  | Header Assembly, 32 in. Opening,  |
|          | ABA409GR2  | ACA409GR2  | Header Assembly, 32 in. Opening,  |
|          | ABA409GR3  | ACA409GR3  | Header Assembly, 36 in. Opening,  |
|          | ABA409GR4  | ACA409GR4  | Header Assembly, 36 in. Opening,  |
|          | ABA409GR5  | ACA409GR5  | Header Assembly, 42 in. Opening,  |
|          | ABA409GR6  | ACA409GR6  | Header Assembly, 42 in. Opening,  |
|          | ---        | ACA409GR7  | Header Assembly, 900 mm Opening,  |
|          | ---        | ACA409GR8  | Header Assembly, 900 mm Opening,  |
|          | ---        | ACA409GR9  | Header Assembly, 1000 mm Opening, |
|          | ---        | ACA409GR10 | Header Assembly, 1000 mm Opening, |
| 2        | AAA483WF1  |            | Track, 36 in. Opening             |
|          | AAA483WF2  |            | Track, 42 in. Opening             |
|          | AAA483WF4  |            | Track, 32 in. Opening             |
|          | AAA483WF15 |            | Track, 900 mm Opening             |
|          | AAA483WF16 |            | Track, 1000 mm Opening            |
| 3        | AAA320EW2  | AAA320EW3  | Bumper                            |
| 4        | AAA316FZT1 |            | Bracket, Stop                     |
| 5        | ---        | AAA462KZ4  | Spacer, Stop Bumper, 3/4 in.      |

# HPLIM CSA Lock + Secondary Position System Junction Box

**23-AAA24450D**

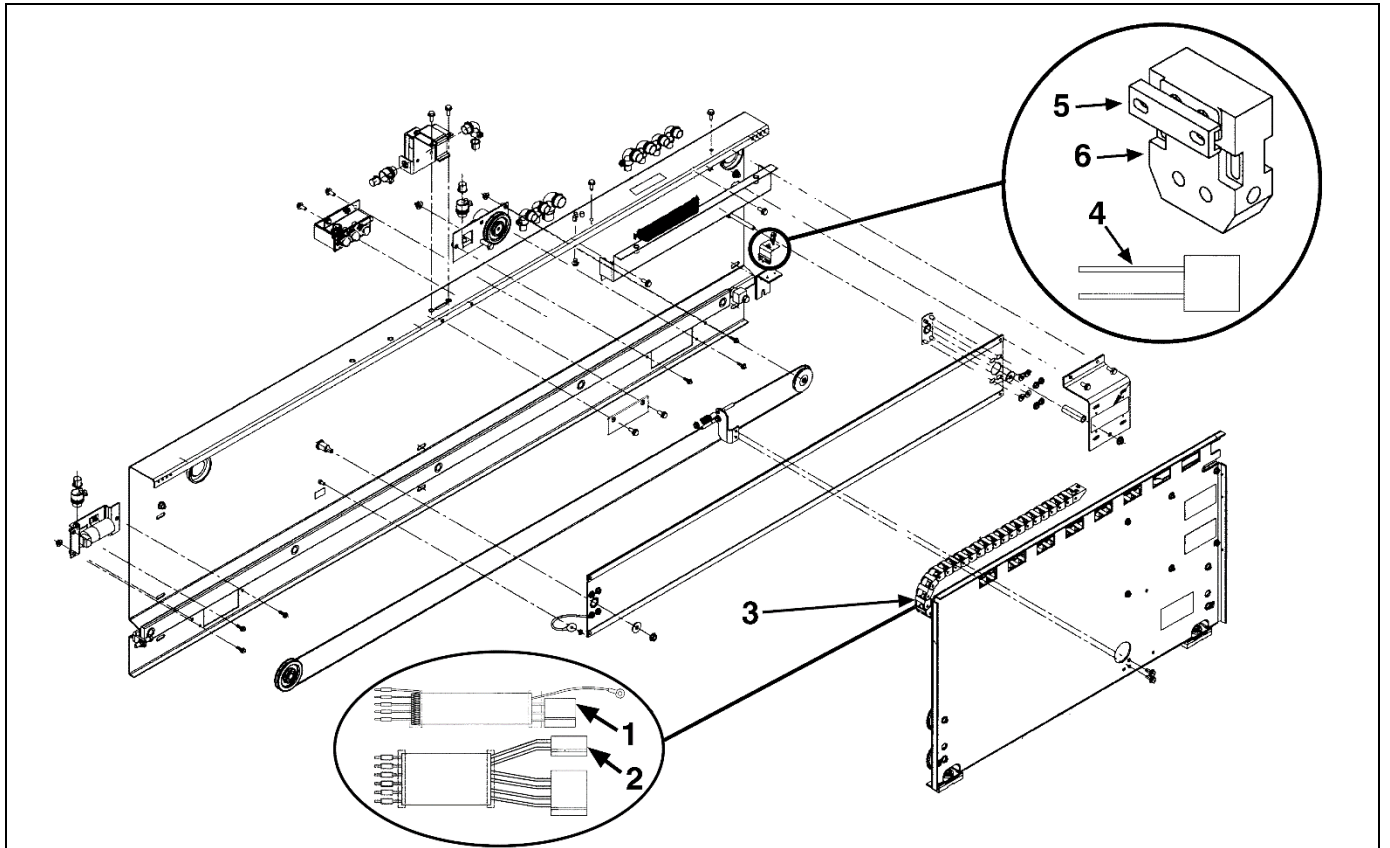


**ADA24450D  
AEA24450D  
AEB24450D**

| REF. No. | PART No.   | DESCRIPTION  |
|----------|------------|--|
| 1        | AAA24450E1 | Assembly, CSA Door Lock                              |
| 2        | AAA24450G1 | Box, Junction (Secondary Position System),  Openings |
|          | AAA24450G2 | Box, Junction (Secondary Position System),  Openings |
| 3        | AAA316FYB1 | Bracket  |
| 4        | 334AX30    | Grommet (  to suit)                                  |
| 5        | AAA608D8   | Sensor   |
| 6        | AAA656A4   | Solenoid   |

**23-AAA24450D**

## HPLIM Conduit Cables + Gate Switch

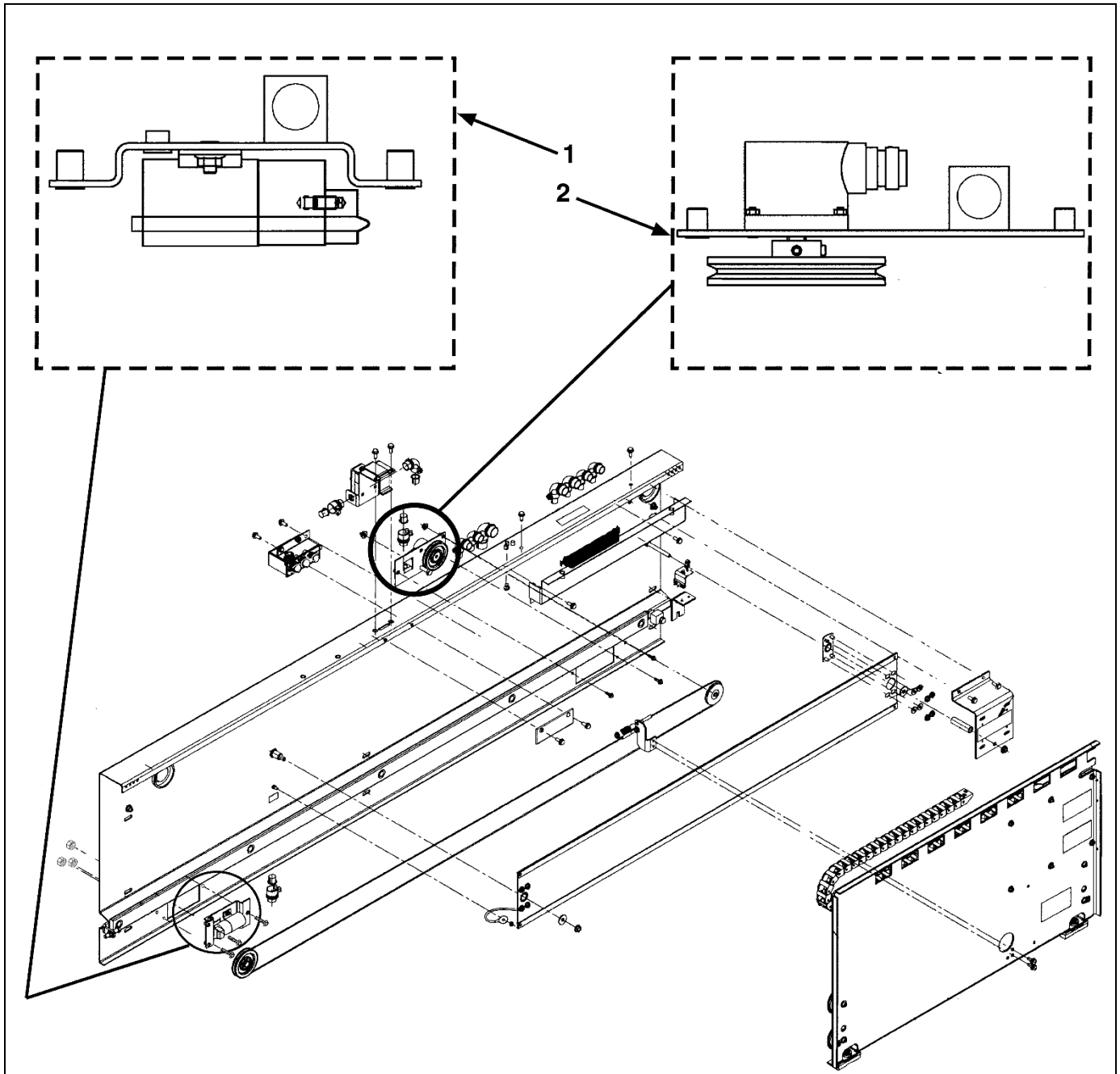


|                 | <b>ADA24450D</b> | <b>AEA24450D<br/>AEB24450D</b> |   |
|-----------------|------------------|--------------------------------|---|
| <b>REF. No.</b> | <b>PART No.</b>  |                                | <b>DESCRIPTION</b>                          |
| 1               | AAA174XP4        |                                | Cable Assembly, Power, 32 in. Opening       |
|                 | AAA174XP5        |                                | Cable Assembly, Power, 36 in. Opening       |
|                 | AAA174XP6        |                                | Cable Assembly, Power, 42 in. Opening       |
|                 | ---              | AAA174XP9                      | Cable Assembly, Power, 1000 mm Opening      |
| 2               | AAA174XQ4        |                                | Cable Assembly, Thermostat, 32 in. Opening  |
|                 | AAA174XQ5        |                                | Cable Assembly, Thermostat, 36 in. Opening  |
|                 | AAA174XQ6        |                                | Cable Assembly, Thermostat, 42 in. Opening  |
|                 | ---              | AAA174XQ9                      | Cable Assembly, Thermostat, 1000 mm Opening |
| 3               | AAA342BS7        |                                | Conduit Assembly, 32 in. Opening            |
|                 | AAA342BS8        |                                | Conduit Assembly, 36 in. Opening            |
|                 | AAA342BS9        |                                | Conduit Assembly, 42 in. Opening            |
|                 | ---              | AAA342BS12                     | Conduit Assembly, 900 mm Opening            |
|                 | ---              | AAA342BS13                     | Conduit Assembly, 1000 mm Opening           |
| 4               | AAA174XR1        |                                | Cable Assembly, Gate Switch                 |
| 5               | AAA661B104       |                                | Gate Switch, Bridge                         |
| 6               | AAA661B100       |                                | Gate Switch, Contact Element                |



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

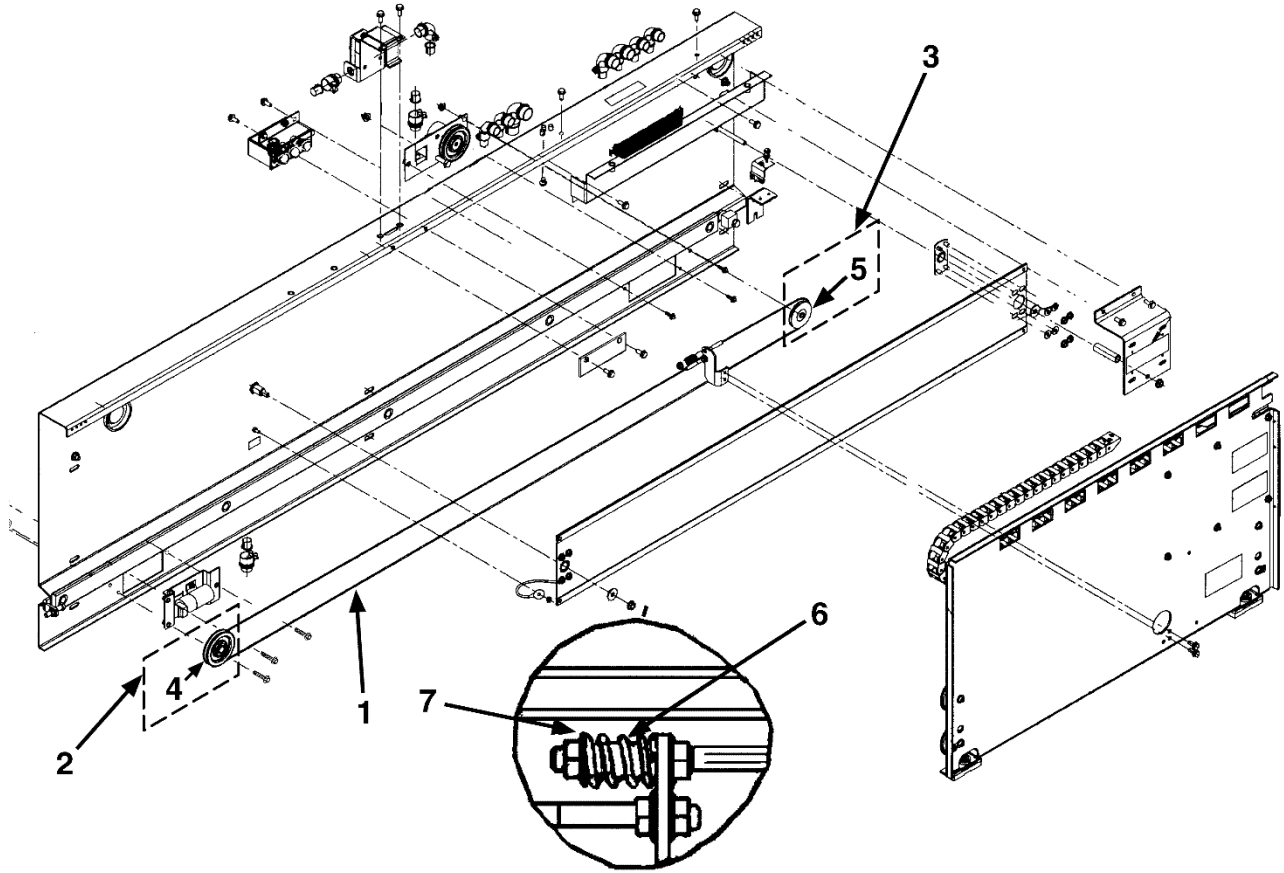
**23-AAA24450D**



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

**23-AAA24450D**

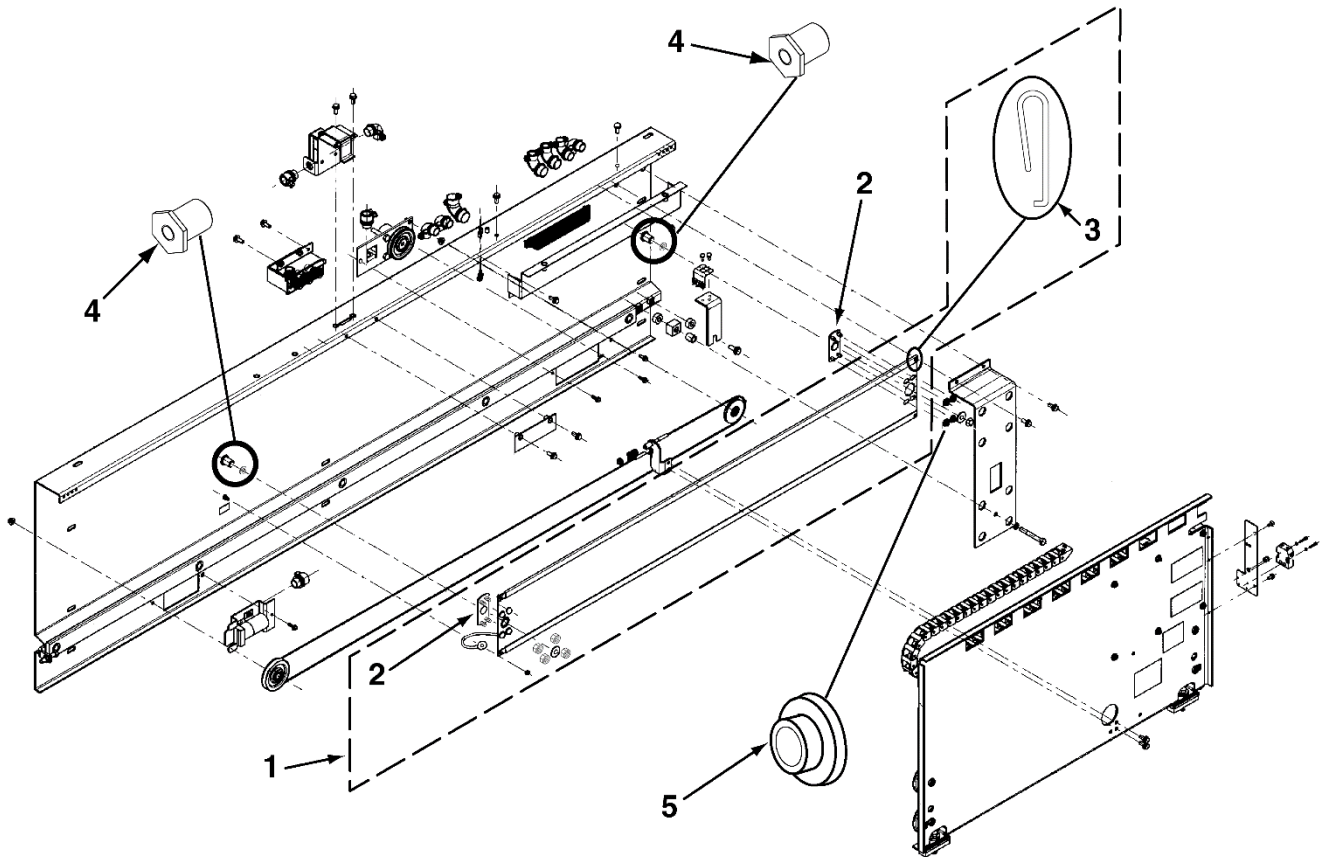
## HPLIM Aircord + Parts




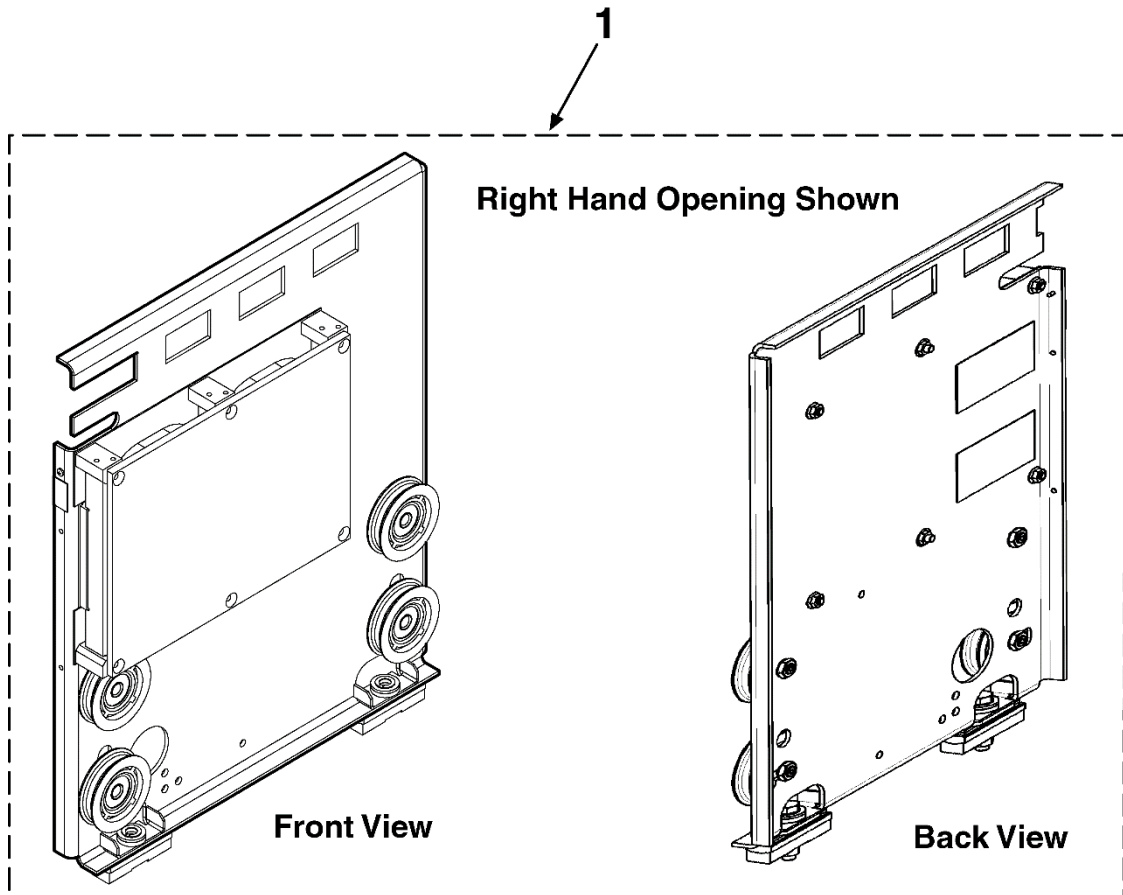
| REF. No. | PART No.  |  | DESCRIPTION                                 |
|----------|-----------|--|---|
|          | ADA24450D | AEA24450D<br>AEB24450D                     |   |
| 1        | ABA712M7  | ABA712M25                                  | Assembly, Aircord, 32 in. (813 mm) Opening  |
|          | ABA712M9  | ABA712M27                                  | Assembly, Aircord, 36 in. (914 mm) Opening  |
|          | ABA712M11 | ABA712M29                                  | Assembly, Aircord, 42 in. (1067 mm) Opening |
|          | ---       | ABA712M31                                  | Assembly, Aircord, 900 mm Opening           |
|          | ---       | ABA712M33                                  | Assembly, Aircord, 1000 mm Opening          |
| 2        | AAA265CL1 | Kit, Pulley (contains Ref. 4 + pin + ring) |   |
| 3        | AAA265CL2 | Kit, Pulley (contains Ref. 5 + pin + ring) |   |
| 4        | AAA198AM1 | Pulley                                     |   |
| 5        | AAA265CD2 | Pulley, Idler                              |   |
| 6        | AAA462KZ1 | Spacer                                     |   |
| 7        | AAA90DZ1  | Spring                                     |   |

# HPLIM Secondary Assembly

**23-AAA24450D**



|                 | <b>ADA24450D</b> | <b>AEA24450D<br/>AEB24450D</b> |   |
|-----------------|------------------|--------------------------------|---|
| <b>REF. No.</b> | <b>PART No.</b>  |                                | <b>DESCRIPTION</b>  |
| 1               | AAA24350AK14     |                                | Assembly, Secondary, 32 in. Opening   |
|                 | AAA24350AK15     |                                | Assembly, Secondary, 36 in. Opening   |
|                 | AAA24350AK16     |                                | Assembly, Secondary, 42 in. Opening   |
|                 | ---              | AAA24350AK21                   | Assembly, Secondary, 900 mm Opening   |
|                 | ---              | AAA24350AK22                   | Assembly, Secondary, 1000 mm Opening  |
| 2               | AAA217B2         |                                | Coupling, Flanged (2 places)  |
| 3               | AAA50ATR1-1600   |                                | Guide, Snap-On, L=1600 mm,  (Nylatron) |
| 4               | AAA462KW1        |                                | Nut (spacer)  |
| 5               | AAA131EG1        |                                | Washer (spacer for thermal expansion), 4 per door operator  |

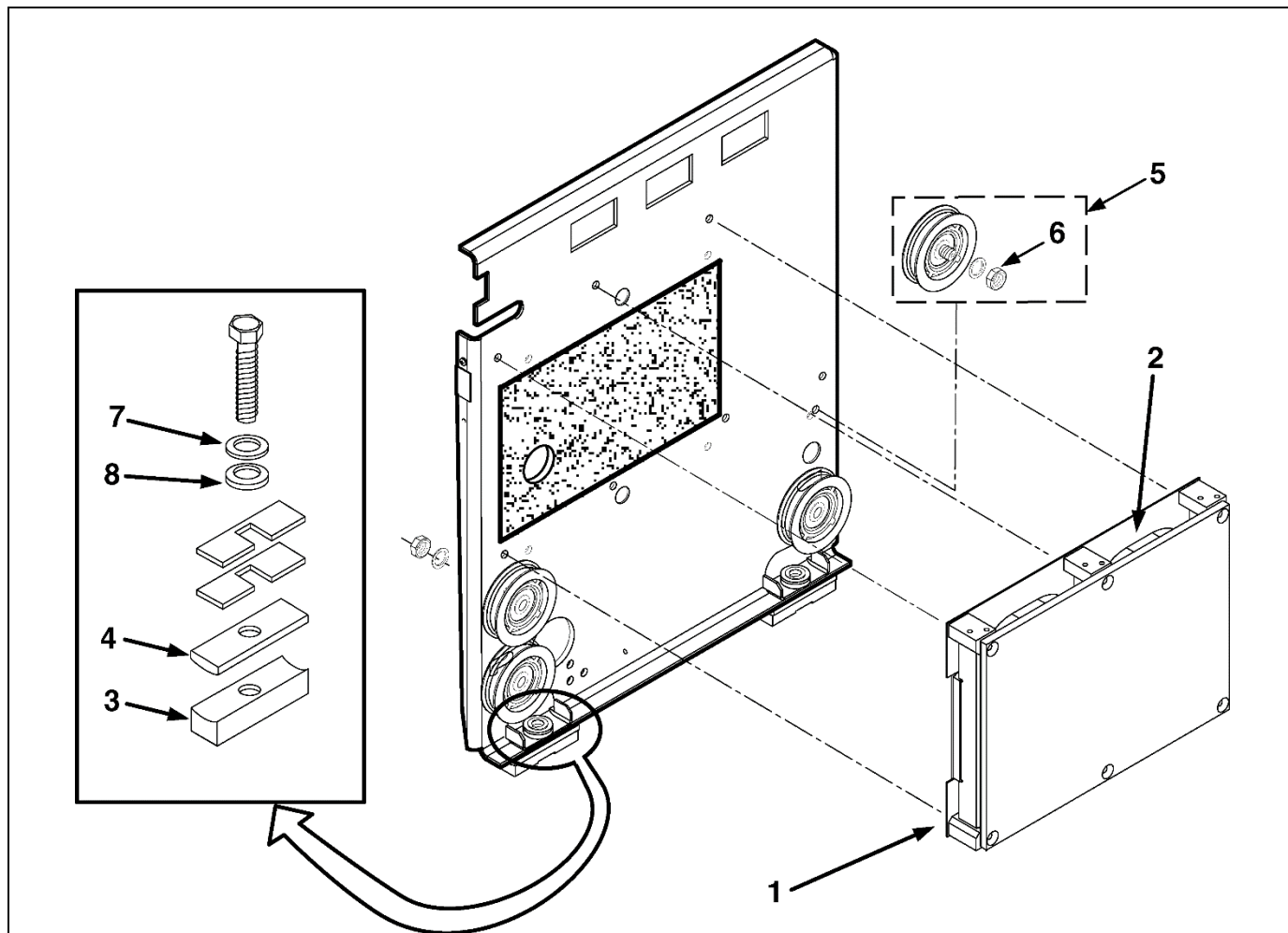


|                 | <b>ADA24450D</b> | <b>AEA24450D</b> | <b>AEB24450D</b> |                          |                 |
|-----------------|------------------|------------------|------------------|--------------------------|-----------------|
| <b>REF. No.</b> | <b>PART No.</b>  |                  |                  | <b>DESCRIPTION</b>       |                 |
|                 |                  |                  |                  | Assembly, Motor Carriage |                 |
| 1               | ACA6331CD1       |                  | ACB6331CD1       | 32 in. Opening           |                 |
|                 | ACA6331CD2       |                  | ACB6331CD2       | 32 in. Opening           |                 |
|                 | ACA6331CD3       |                  | ACB6331CD3       | 36 in. Opening           |                 |
|                 | ACA6331CD4       |                  | ACB6331CD4       | 36 in. Opening           |                 |
|                 | ACA6331CD5       |                  | ACB6331CD5       | 42 in. Opening           |                 |
|                 | ACA6331CD6       |                  | ACB6331CD6       | 42 in. Opening           |                 |
|                 | ---              | ACA6331CD24      |                  | ACB6331CD21              | 900 mm Opening  |
|                 | ---              | ACA6331CD22      |                  | ACB6331CD22              | 900 mm Opening  |
|                 | ---              | ACA6331CD23      |                  | ACB6331CD23              | 1000 mm Opening |
|                 | ---              | ACA6331CD24      |                  | ACB6331CD24              | 1000 mm Opening |

# A\*\*6331CD Motor Carriage

**23-AAA24450D**

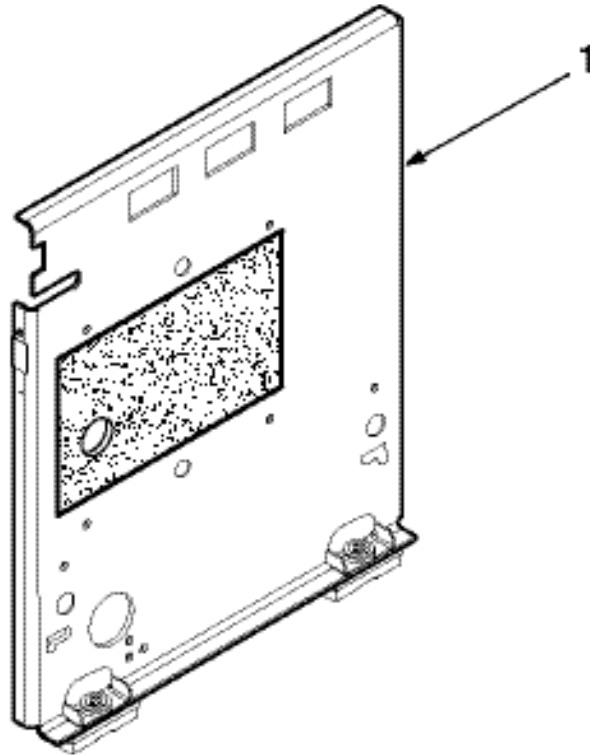
## Parts and Motor



|                 | <b>ADA24450D<br/>AEA24450D</b> | <b>AEB24450D</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 (NOTE: Nut differs in later vintage rollers.) |
| 7               | 131CM1                         |                      | Washer, Spherical                                       |
| 8               | 131CM2                         |                      | Washer, Spherical                                       |

Continued on next page

# Hanger Bracket Assembly

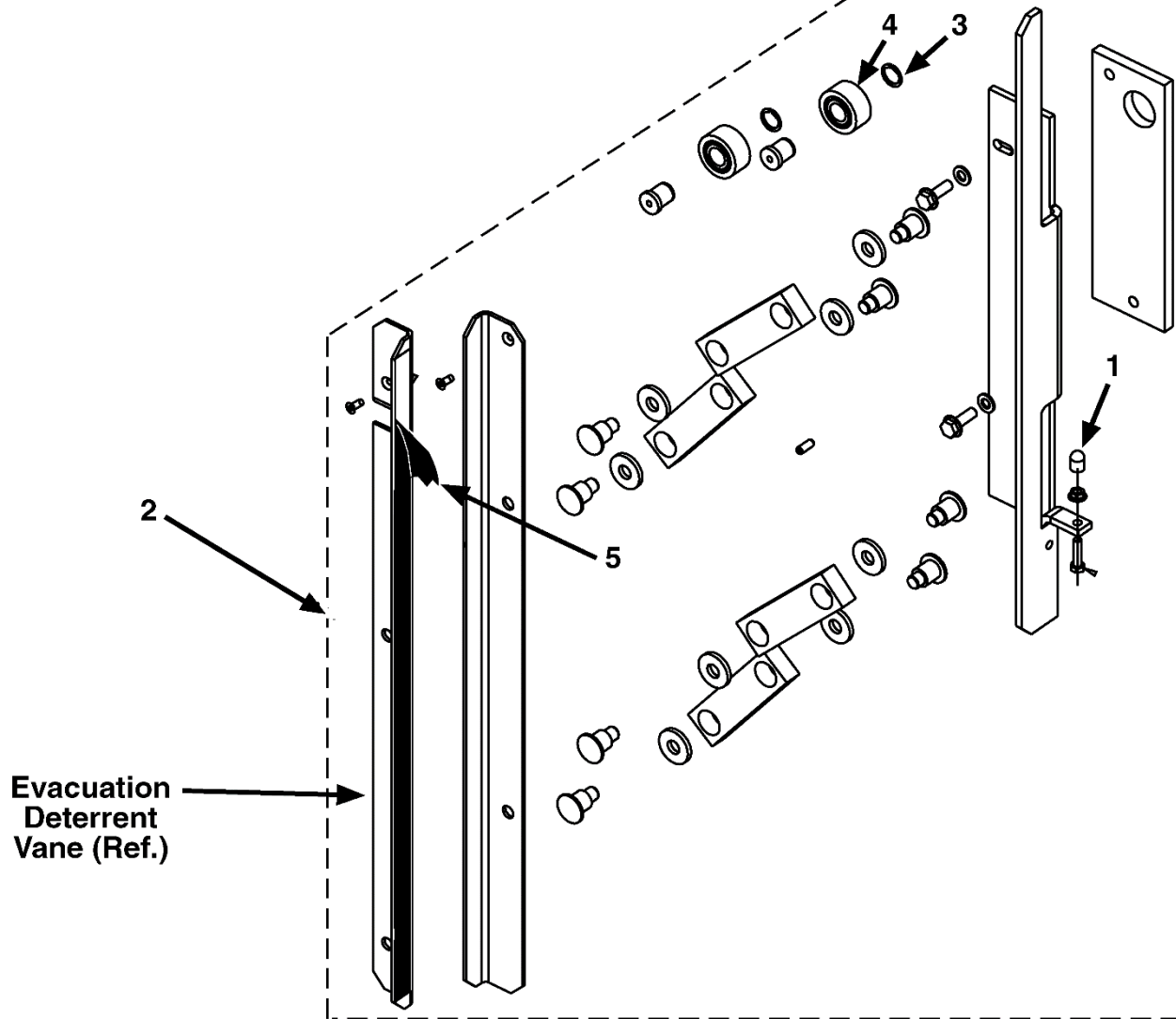


|                                |                  |
|--------------------------------|------------------|
| <b>ADA24450D<br/>AEA24450D</b> | <b>AEB24450D</b> |
|--------------------------------|------------------|

| REF. No. | PART No.    | DESCRIPTION                                 |
|----------|-------------|---|
| 1        | AAA389AY1 → | ABA389AY1 Hanger Bracket, 32 in. Opening,   |
|          | AAA389AY2 → | ABA389AY2 Hanger Bracket, 32 in. Opening,   |
|          | AAA389AY3 → | ABA389AY3 Hanger Bracket, 36 in. Opening,   |
|          | AAA389AY4 → | ABA389AY4 Hanger Bracket, 36 in. Opening,   |
|          | AAA389AY5 → | ABA389AY5 Hanger Bracket, 42 in. Opening,   |
|          | AAA389AY6 → | ABA389AY6 Hanger Bracket, 42 in. Opening,   |
|          | ---         | ABA389AY21 Hanger Bracket, 900 mm Opening,  |
|          | ---         | ABA389AY22 Hanger Bracket, 900 mm Opening,  |
|          | ---         | ABA389AY23 Hanger Bracket, 1000 mm Opening, |
|          | ---         | ABA389AY24 Hanger Bracket, 1000 mm Opening, |





# HPLIM Door Coupling

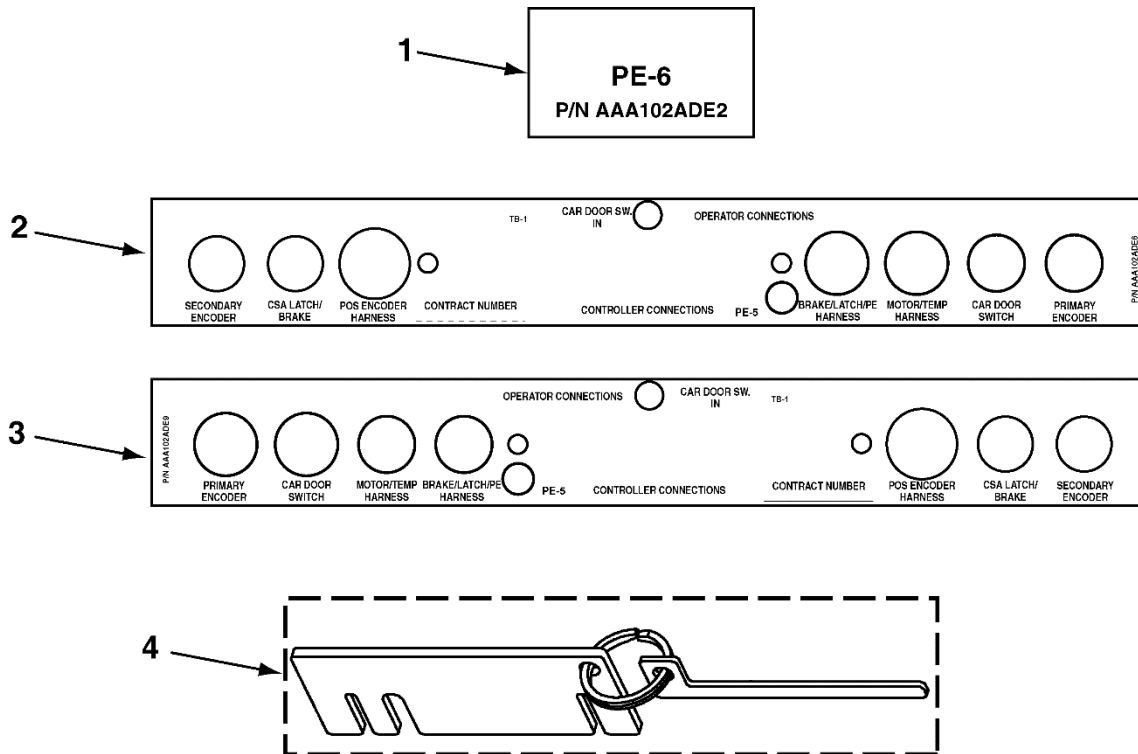
**23-AAA24450D**



Evacuation Deterrent Vane (Ref.)

**ADA24450D  
AEA24450D  
AEB24770F**

| REF. No. | PART No.   | DESCRIPTION  |
|----------|------------|--|
| 1        | AAA320EY1  | Bumper   |
| 2        | AAA24390C1 | Door Coupling w/Evacuation Deterrent Vane,    |
|          | AAA24390C2 | 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   |



**ADA24450D  
AEA24450D  
AEB24770F**

| REF. No. | PART No.    | DESCRIPTION  |
|----------|-------------|--|
| 1        | AAA102ADE2  | Label, PE-6  |
| 2        | AAA102ADE10 | Label  |
| 3        | AAA102ADE11 | Label  |
| 4        | AAA27BQ3    | Tool, Multi-Function Construction (for use on coupler, interlocks, and secondary position sensors gap setting) |