

**Harmonic Drive
i-MOTION® II Door
Operator Engine Unit**

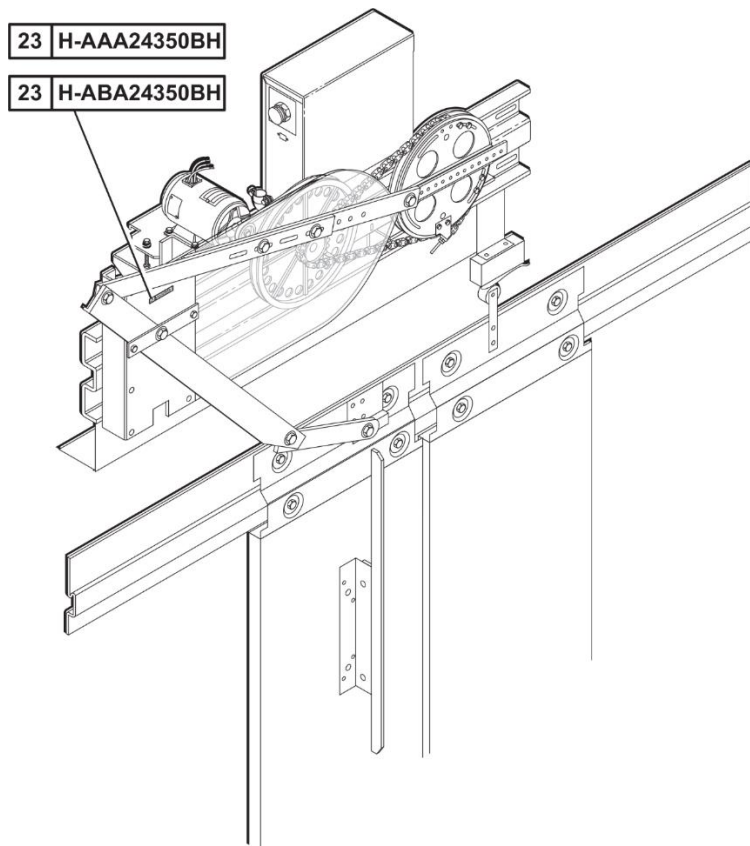
Spare Parts Leaflet

23-AAA24350BH

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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 will be reviewed for obsolescence.



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

This leaflet provides spare parts information for type AAA24350BH Harmonic Drive i-MOTION II door operator for 36 in. through 60 in. center-opening doors (standard & high cab), 32 in. through 42 in. single-slide doors, and 36 in. through 55 in. two-speed doors. It covers Lowest Replaceable Units (LRUs) for the engine unit/controller only. Part numbers and LRUs for the complete operator and the linkage parts are found in SPL 23-AAA24470M.

Leaflet Revisions

Date Revised	Subject Matter Expert	Reason for Revision
March 1, 2001	Duane Stupienski	New SPL
March 23, 2011	Sohaib Shaikh, Brian Regan	Vintage and Part number updates pp 1, 7–10.
February 29, 2012	Brian Regan	Added sensor gap tool p/n AAA314AG1 on p. 11
May 22, 2019	Sohaib Shaikh and Brian Regan	Added AAA27076JK1, AAA6333EZ3 and related parts
September 28, 2022	Juan Murillo	Updated to include OBSOLESCENCE note on cover

Related Drawings

Drawing No.	Title	Drawing No.	Title
ABA24350BH	Door Operator iMotion II C/O, S/S 2/S	AFA24460C	Two Speed Car Door Imotion Phase II Based
AEA24470M	Center Opening Car Door iMotion Phase II Based	ABA25580X	Assembly iMotion II Control Box
ABB24470N	Center Opening Car Door High Cab - iMotion Phase II Based	AFA24450R	Single Slide Car Door iMotion Phase II Based

Related Documents

Document ID	Title
23-AAA24470M	i-MOTION II Door Operator Linkage Arrangements

Subject Matter Expert

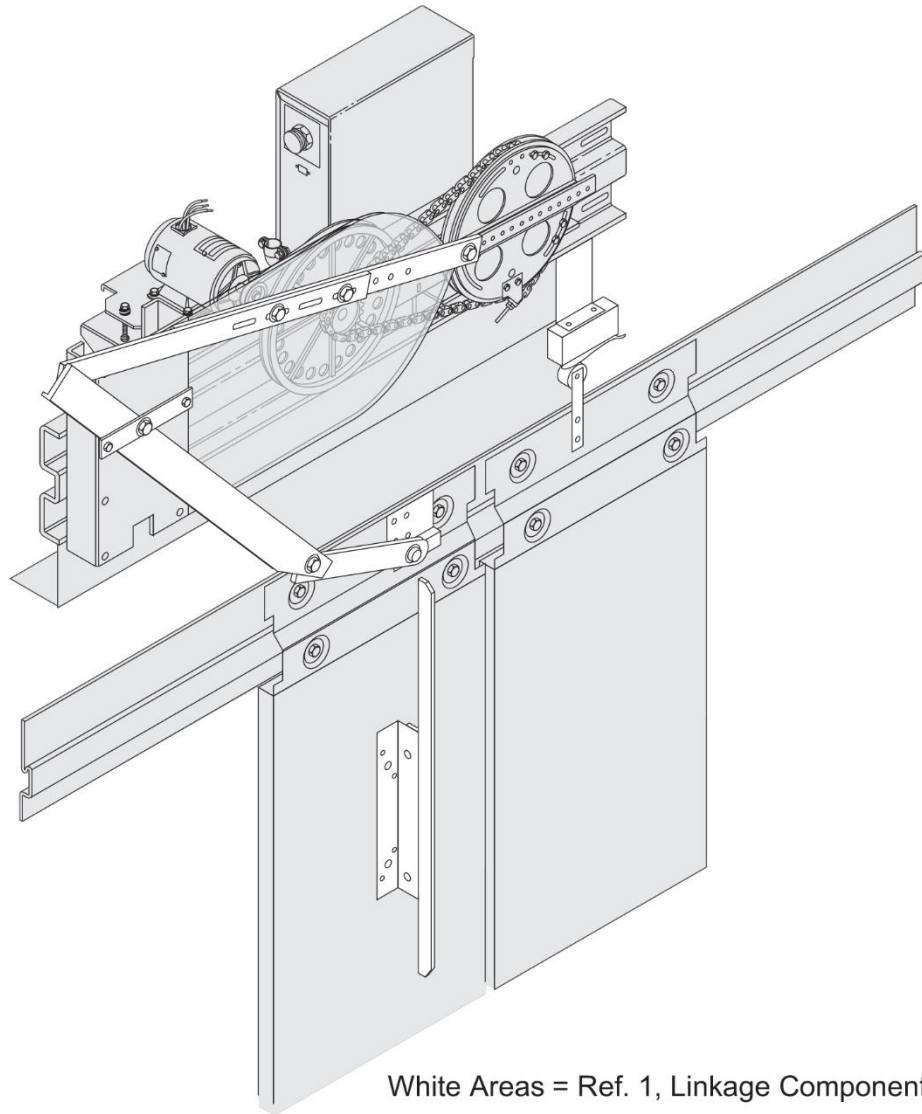
Name	Department
Brian Regan	OSC Service Engineering

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.

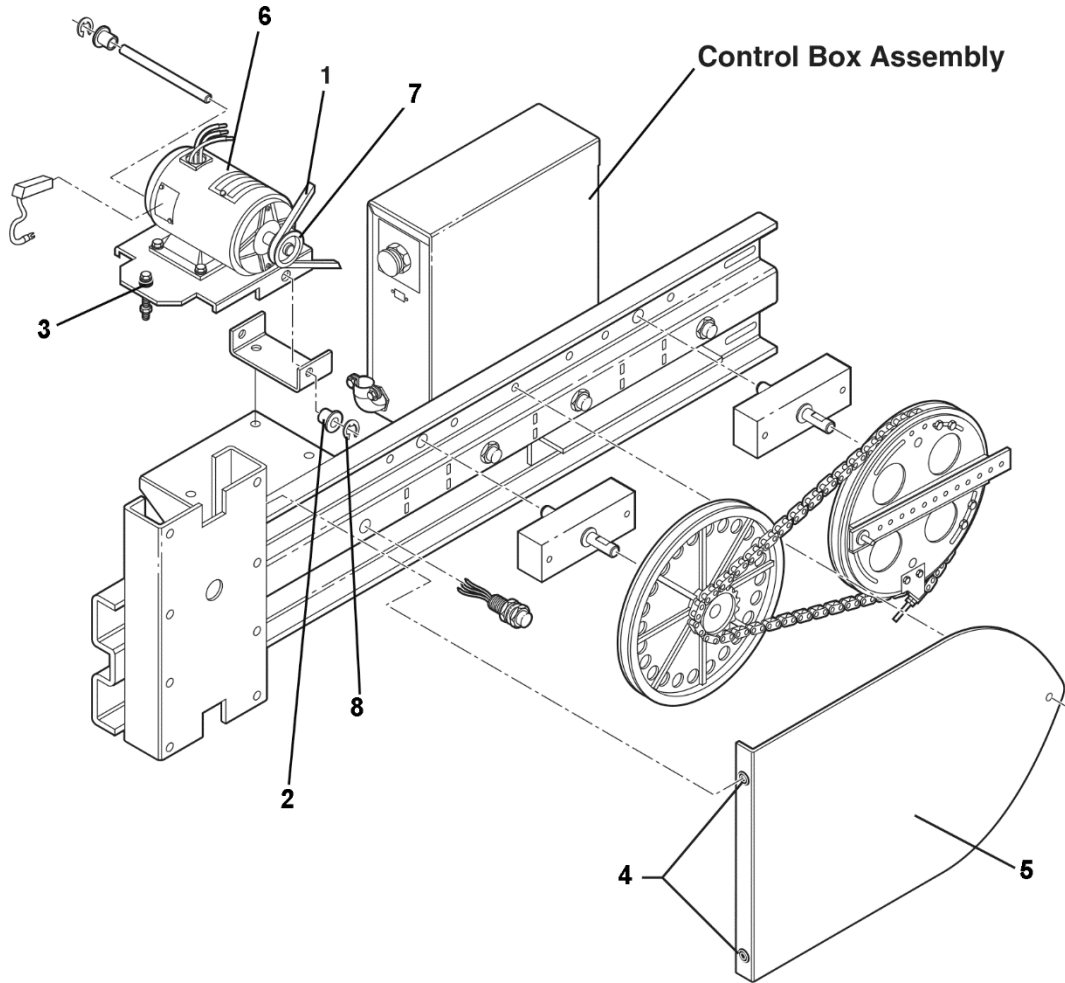
While goal of this document is to make parts identification as easy as possible, the document cannot be all-inclusive. Elevator and escalator contracts classified as "special" or "custom" are not addressed here. For such contracts, please refer to specified information, the contract folder, TIPs, Field 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.




White Areas = Ref. 1, Linkage Components

REF. NO.	PART or ML	DESCRIPTION	
1	---	Components, Door Operator Linkage, for Type AAA24470M for 36 in. through 60 in. Center-Opening Doors (standard cab), NEB & Mod	 SPL 23-AAA24470M
		Components, Door Operator Linkage, for Type AAA24470N, for 36 in. through 60 in. Center-Opening Doors (high cab), OSC Mod Only	
		Components, Door Operator Linkage, for Type AAA24450R, 32 in. through 42 in. Single-Slide Doors, NEB & Mod	
		Components, Door Operator Linkage, for Type AAA24460C, 36 in. through 55 in. Two-Speed Doors, NEB & Mod	



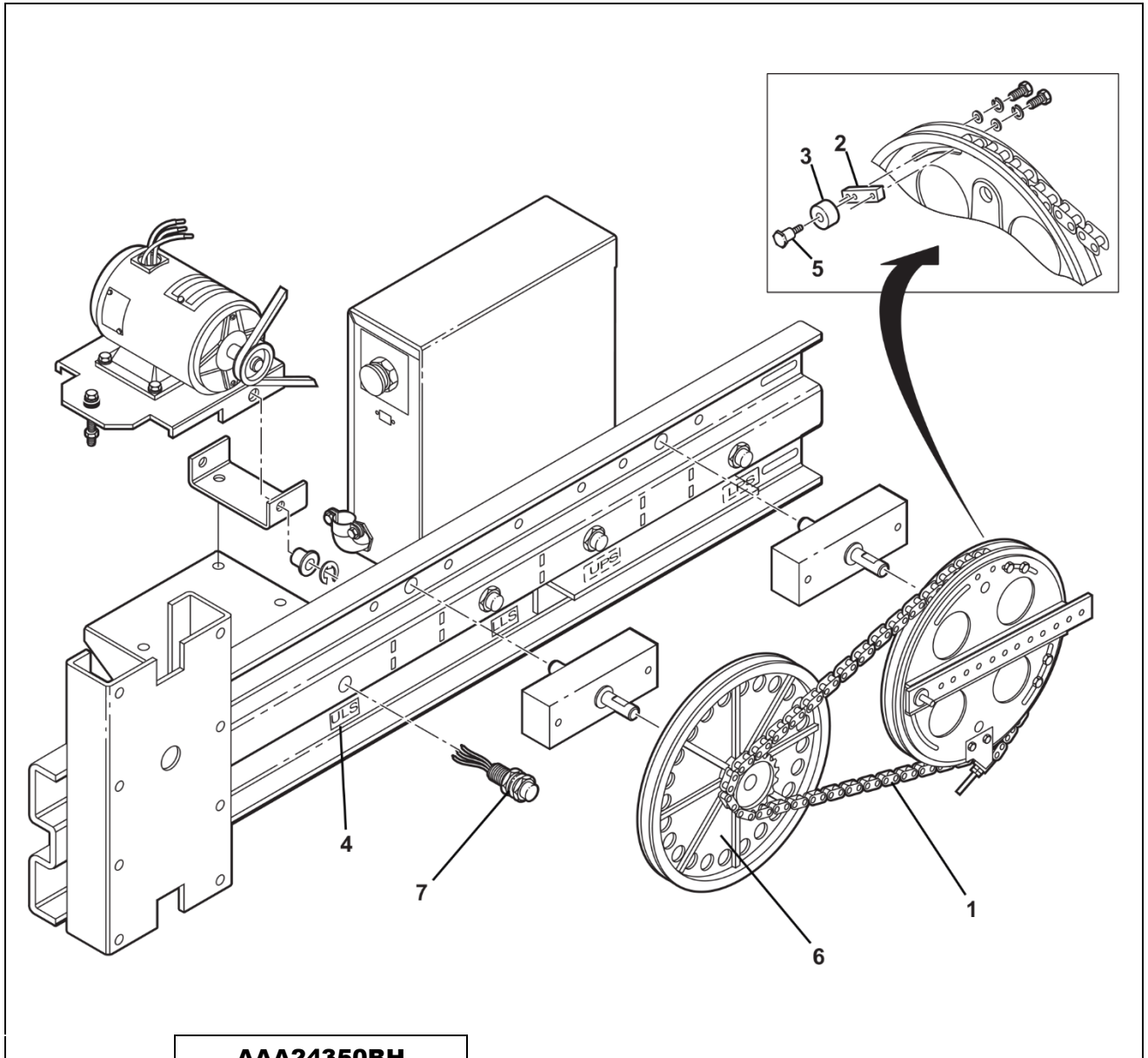
**AAA24350BH
ABA24350BH**


REF. NO.	PART or ML	DESCRIPTION
1	AAA717L1	Belt, Flat, V-Ribbed
2	AAA321HZ1	Bushing, Bronze (two per assembly)
3	321FD1	Bushing, Rubber
4	334H32	Grommet, Rubber, $\varnothing = 0.625$ in.
5	AAA384AFV1	Guard
6	---	Motor,  p. 7
7	AAA265CW1	Motor, Sheave
8	172DR4	Ring, Retaining, Steel, $\varnothing = 0.66$ in. (two per assembly)

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Operator Engine Components

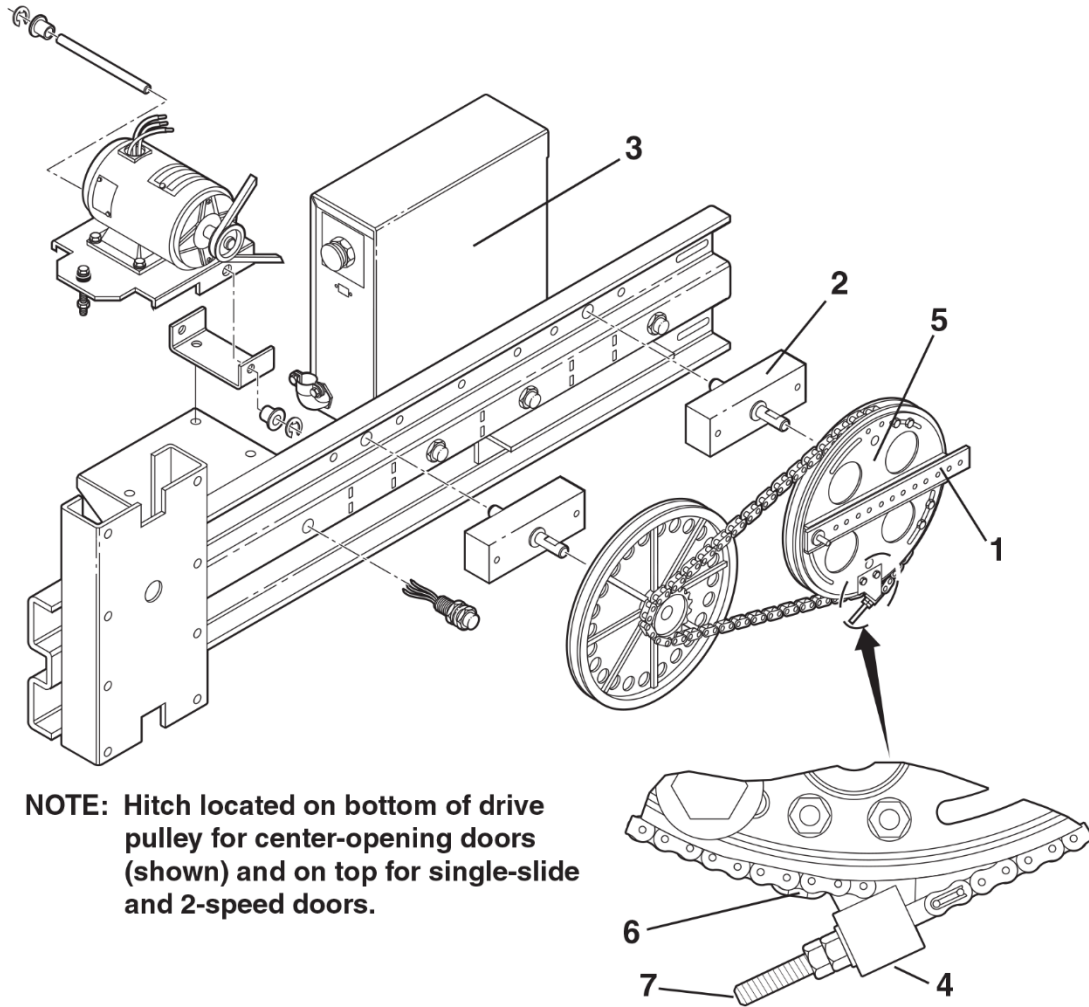
23-AAA24350BH








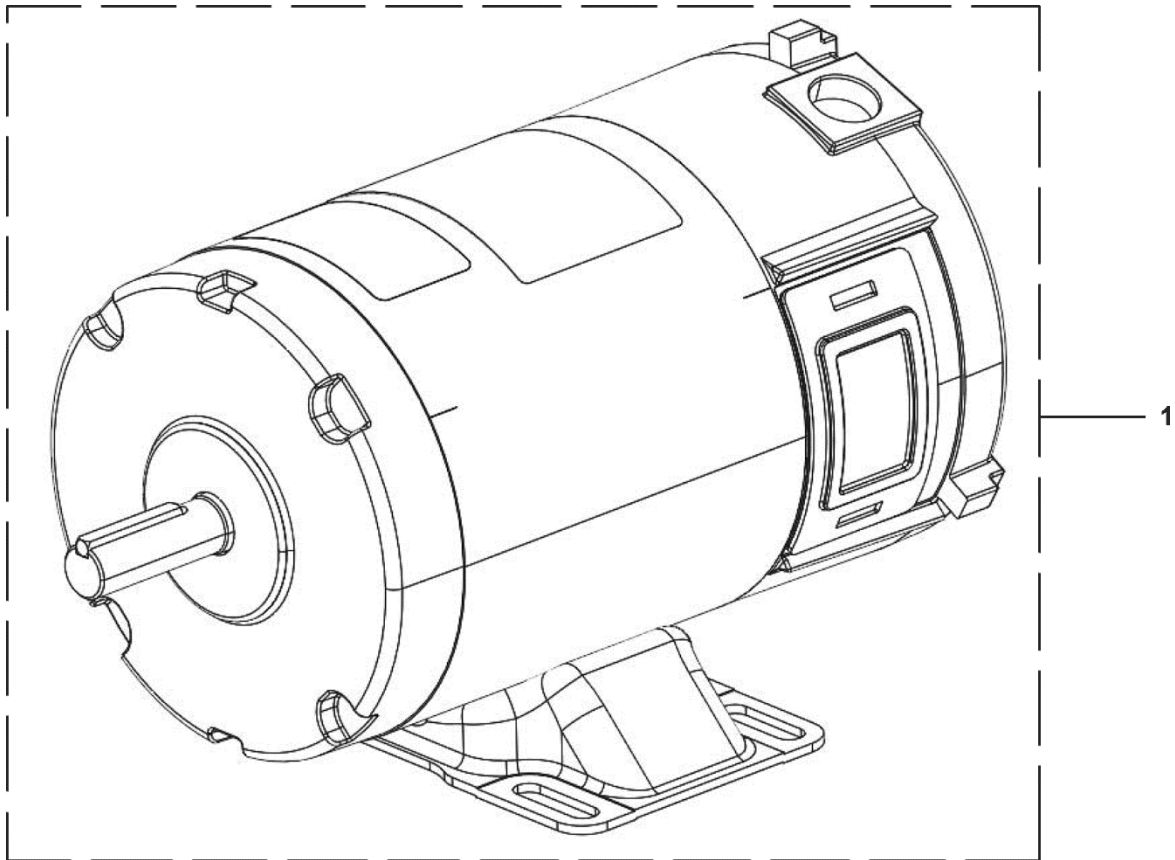
AAA24350BH ABA24350BH		
REF. NO.	PART or ML	DESCRIPTION
1	AAA332BM2	Assembly, Chain
2	AAA310RN1	Block, Bumper
3	AAA320FF1	Bumper, Rubber
4	AAA102AFQ1	Label, Set of Four W/Markings: ULS, LLS, UPS, LPS
5	AAA81LP1	Pin
6	AAA198BD1	Pulley, Intermediate
7	AAA608D8	Sensor, Three-Wire Inductive (DC),  Note


NOTE: When ordering sensor, also order three (3) Otis p/n AAA378D1 ferrules ( p.11).

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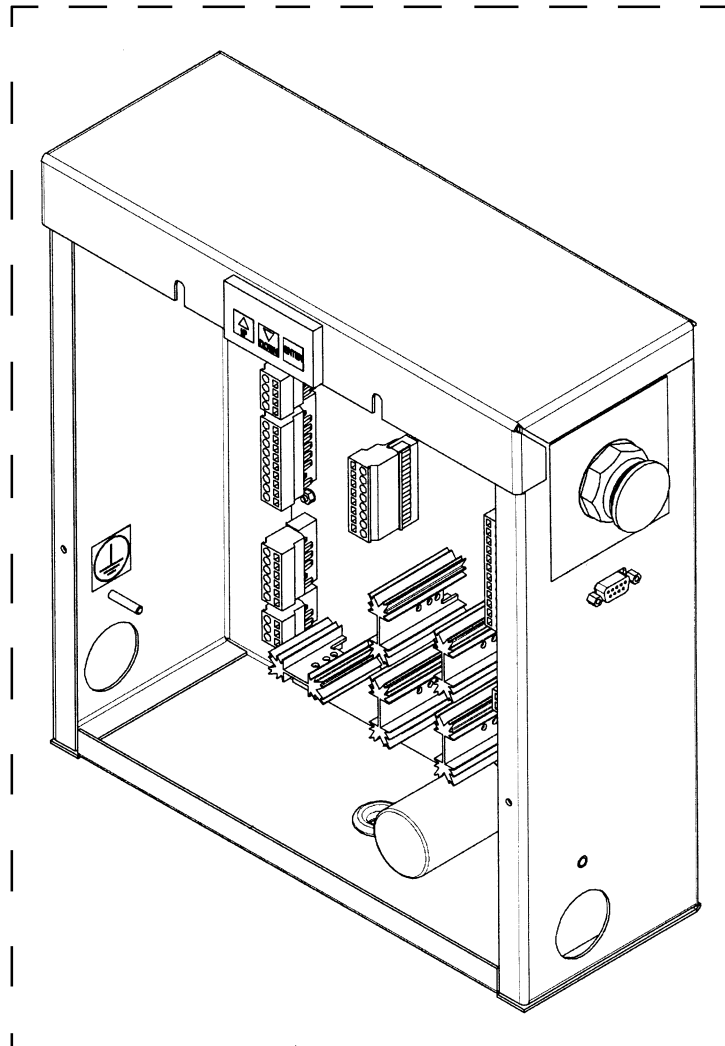


	AAA24350BH	ABA24350BH	
REF. NO.	PART or ML		DESCRIPTION
1	AAA395L1	AAB395L3	Arm, Lever, for Drive Pulley
2	AAA24350BG1		Assembly, Bearing Block
3	---		Assembly, Control Box, Type ABA25580X,  pp. 8–11
4	AAA392BS1 AAA392BW1		Hitch,  Center-Opening &  Two-Speed and Single-Slide Door Systems
	AAA392BS2 AAA392BW1		Hitch,  Center-Opening &  Two-Speed and Single-Slide Door Systems
5	AAA198BA1		Pulley, Drive, W/O Lever Arm or Hitches
6	65FG1		U-Bolt
7	YYJO98BE1		Rod, Chain Hitch





REF. NO.	PART or ML	DESCRIPTION
1	AAA6333EZ4 AAA6333EZ2 AAA6333EZ3 AAA27076JK1	Motor, 115 VDC, 1/6 HP, 1140 RPM,  Note
---	AAA240AM1	Brush, Carbon, for AAA6333EZ1 Only
---	AAA6333EZ500	Brush, Carbon, for AAA6333EZ3 Only
---	AAA6333EZ501	Spring, Motor Brush, for AAA6333EZ3 Only
---	AAA6333EZ502	Clip, Holder, Motor Brush, for AAA6333EZ3 Only

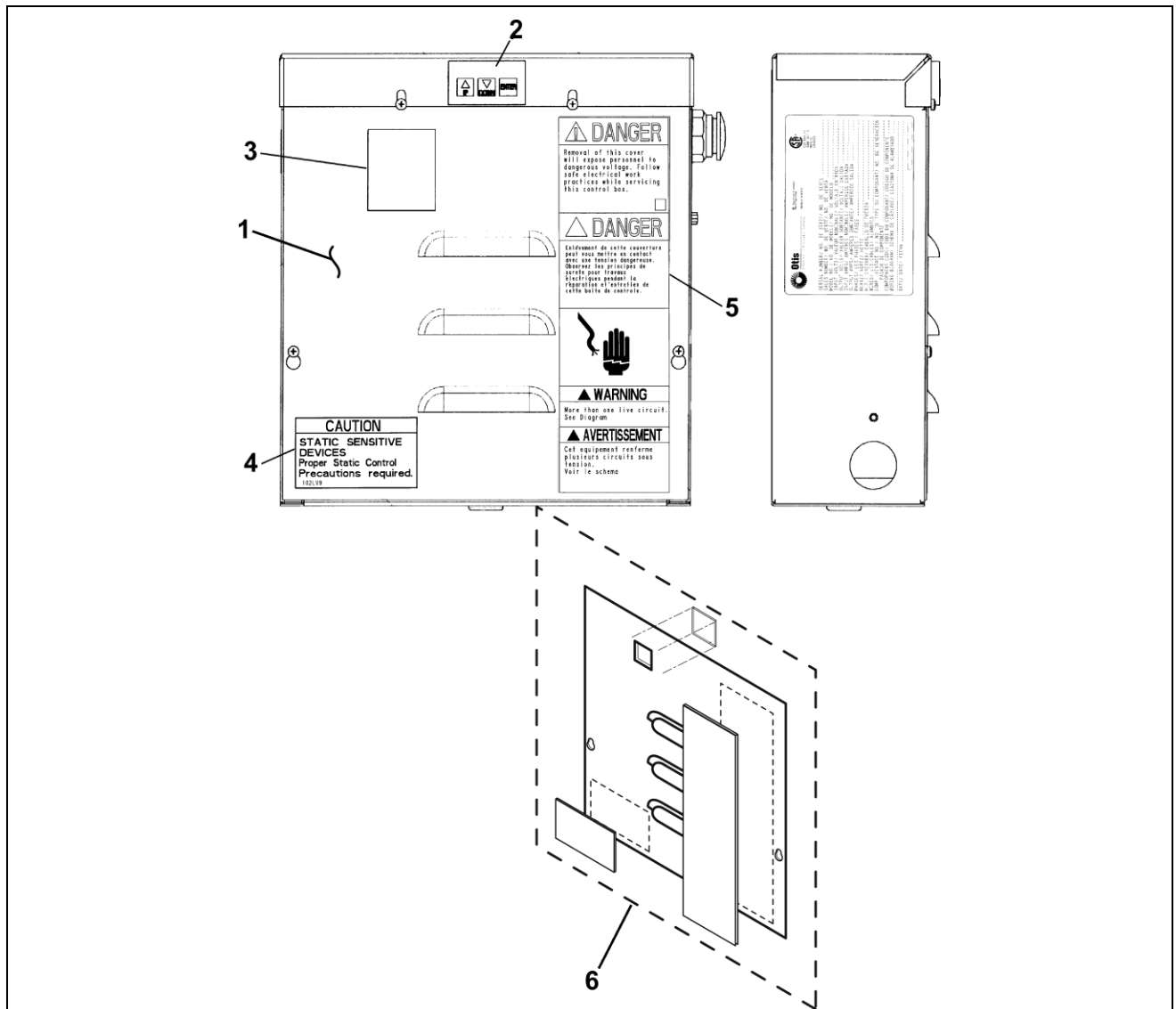
NOTE: When replacing AAA6333EZ1 or AAA6333EZ2 for the first time on an i-Motion II door operator, order AAA27076JK1. The AAA27076JK1 is a motor replacement kit that includes (1) AAA6333EZ3 motor, (1) AAA26800ARE2 PCBA w/software AP131349AAB or higher, (2) AAA378D4 ferrules, (1) AAA190CA3 ground lug, and (1) TIP 22.14-3. For more information, see TIP 22.14-13.



1 **AAA25580X2 Shown
(without cover)**

	AAA24350BH ABA24350BH	
REF. NO.	PART or ML	DESCRIPTION
1	AAA25580X1 ABA25580X1	Assembly, i-Motion II Control Box,  Discrete Communication
	AAA25580X2 ABA25580X2	Assembly, i-Motion II Control Box,  Multi-Drop Communication w/ Loadweighing

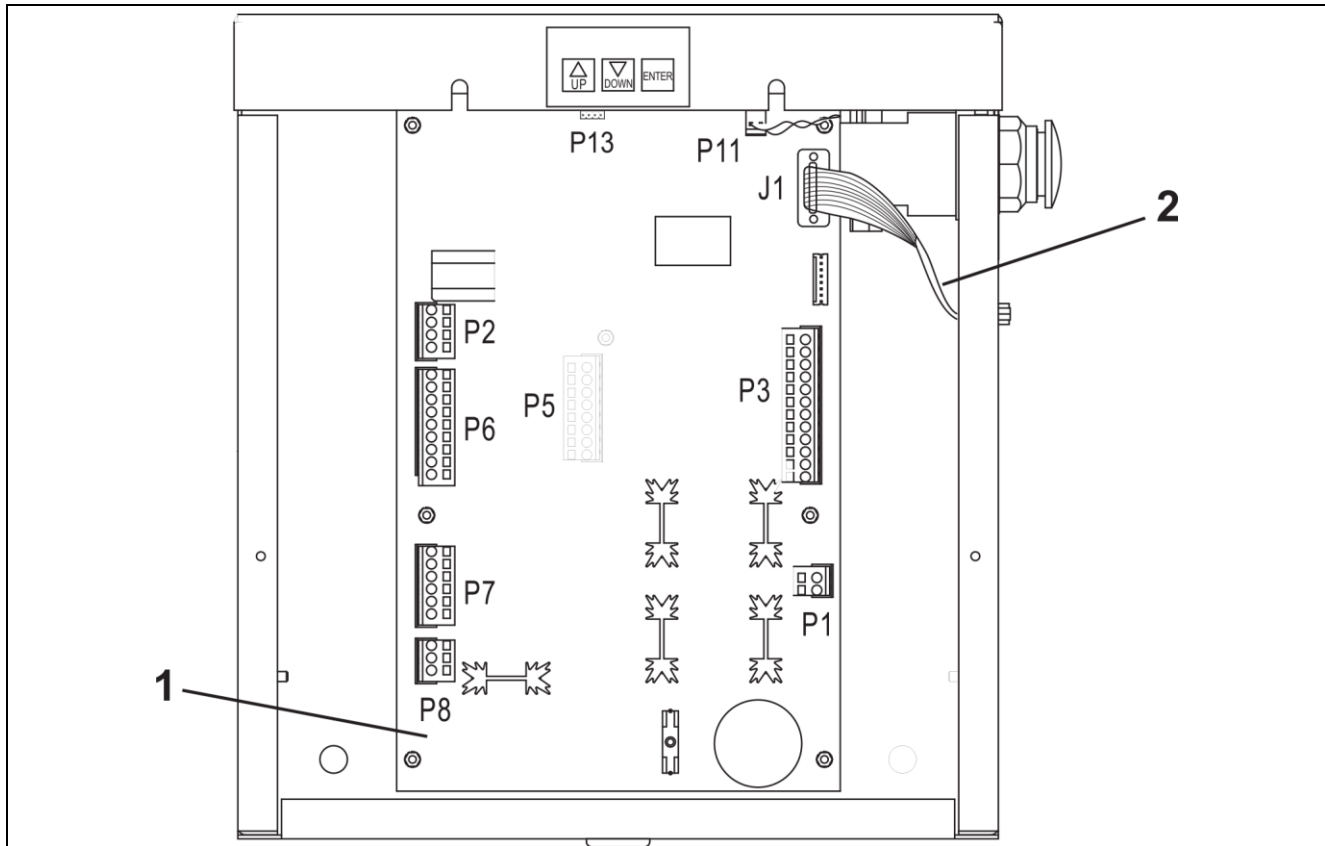
Components



REF. NO.	PART or ML	DESCRIPTION			
1	AAA346AYD3	Cover, Box, Louvered <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>ORDER</td></tr><tr><td> </td></tr><tr><td> </td></tr></table> ABA25580X400	ORDER		
ORDER					
2	AAA635R1	Keypad			
3	AAA443DZ1	Lens, Window <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>ORDER</td></tr><tr><td> </td></tr><tr><td> </td></tr></table> ABA25580X400	ORDER		
ORDER					
4	102LV9	Plate, Caution Label			
5	AAA102AGN1	Plate, Data (CAUTION)			
6	ABA25580X400	Cover, Box, Louvered, Service Kit			

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Type ABA25580X Control Box Components

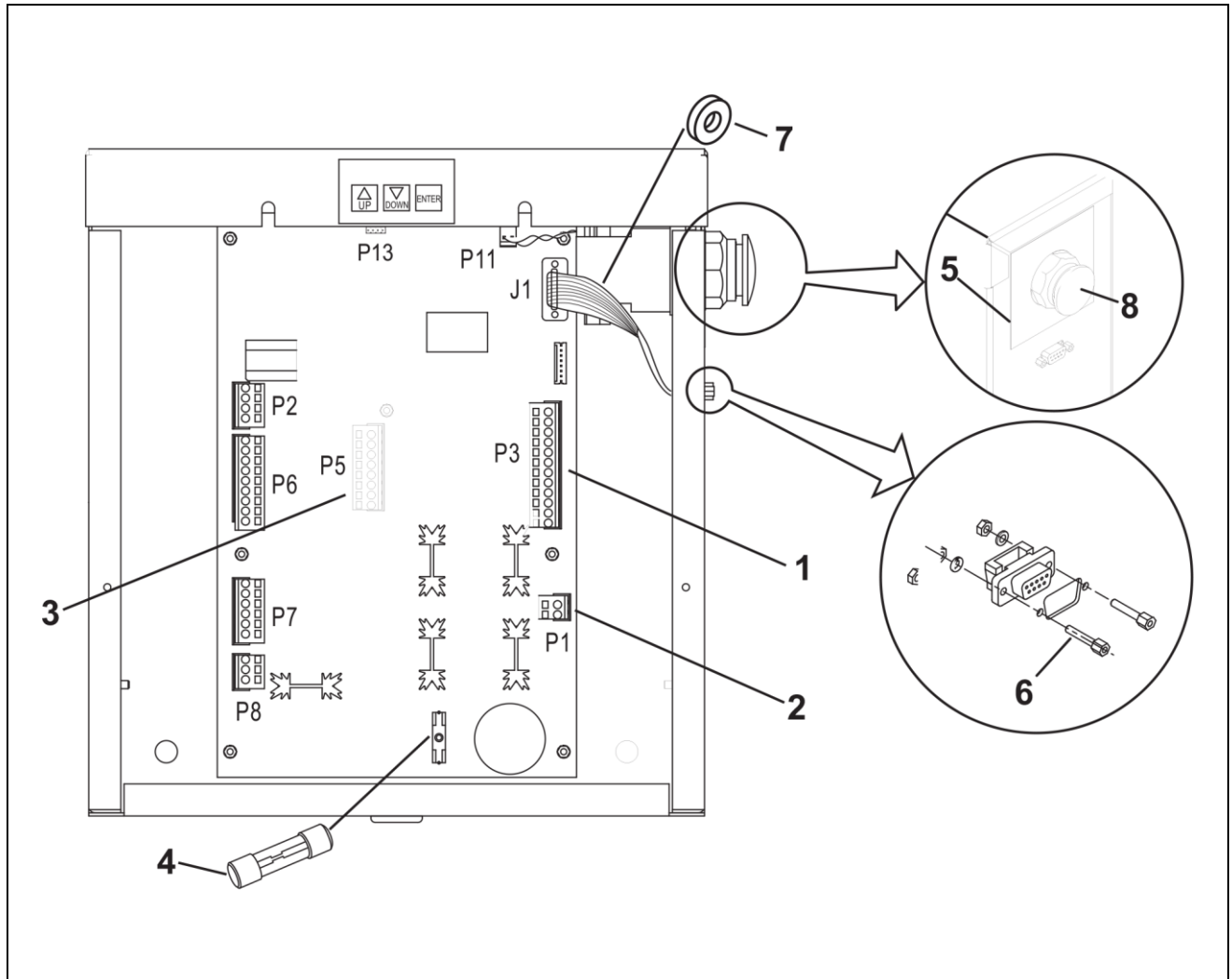


REF. NO.	PART or ML	DESCRIPTION
AAA24350BH ABA24350BH		
1	ABA26800AED1	Legacy Printed Circuit Board, Discrete, Non ANSI 2007 Code Compliant, W → AAA25580X1
	AAA26800ARE1	Board, Printed Circuit, Discrete, ANSI 2007 Code Compliant, used with AAA25580X1 see NOTE
	ABA26800AED2	Legacy Printed Circuit Board, Multi-Drop w/ Loadweighing, Non ANSI 2007 Code Compliant W → ABA25580X2
	AAA26800ARE2	Board, Printed Circuit, Multi-Drop w/ Loadweighing, ANSI 2007 Code Compliant, used with ABA25580X2 see NOTE
2	174HT3	Cable, Electrical, 9-Conductor PVC Flat, 381 mm L (end-to-end)
	174HT6	Cable, Electrical, 9-Conductor PVC Flat, 216 mm L (end-to-end) with Plug and Receptacle

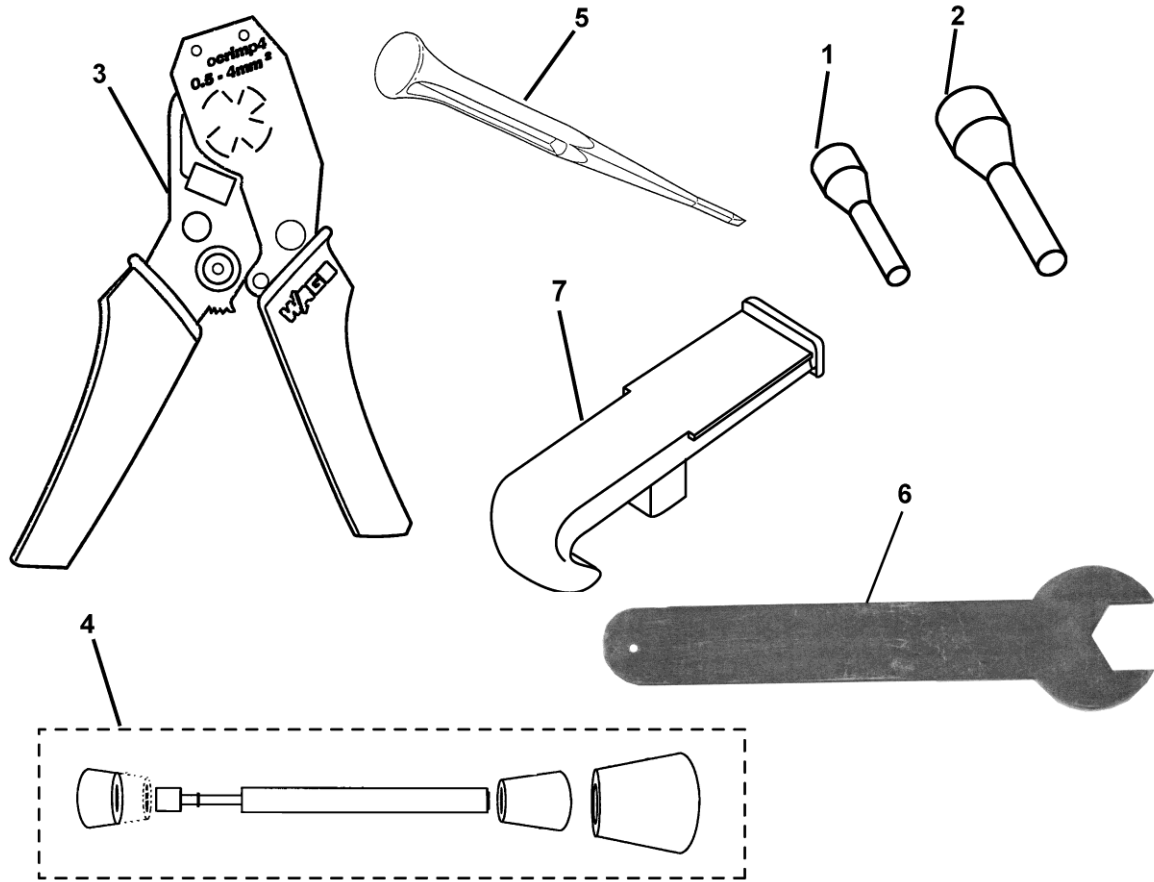
NOTE: A_A26800ARE_ **MUST** be ordered if ANSI 2007 code compliance is required. This will also require an additional position sensor (p. 5). Refer to TIP 22.14-1, *Adjusting I-MOTION II and I-MOTION II-R for Modernization*, for ANSI 2007 Code compliance requirements and setup instructions.
A_A26800ARE_ **MUST** be ordered when upgrading to the AAA6333EZ3 motor (part of the AAA27076JK1 kit), see p 7.

(Continued on next page)

Components



REF. NO.	PART or ML	DESCRIPTION
1	AAA447AP25	Connector, 12-Pole
2	AAA447AP16	Connector, 2-Pole
3	AAA447AP22	Connector, 8-Pole
4	AAA375BY10	Fuse, 3 A
5	AAA102AFE3	Label ("Push to Stop and Prevent Auto Operation of Doors")
6	354AG137	Standoff
7	AAA234AF12	Suppression Coil, 57 Ω @25 Mhz NOTE: Part encloses conductors of P6 and P7 connector cables at the i-MOTION P.C. Board
8	AAA635L10 AAA635L12	Switch, Push Button



AAA24350BH ABA24350BH		
REF. NO.	PART or ML	DESCRIPTION
1	AAA378D1	Ferrule, 20 AWG, 0.55 in. L, Color: Orange
2	AAA378D4	Ferrule, 16 AWG, 0.63 in. L, Color: Red
3	MT-105039 AAA27EF9	Tool, Crimping, Ferrule
4	MT-122027	Tool, Gage, Belt Tension
5	MT-105045 MT-105045-1	Tool, Insertion, Front Entry Terminal Block
6	AAA314AG1	Tool, Sensor Gap
7	AAA447AP100 AAA27EF10	Tool, Wire Insertion