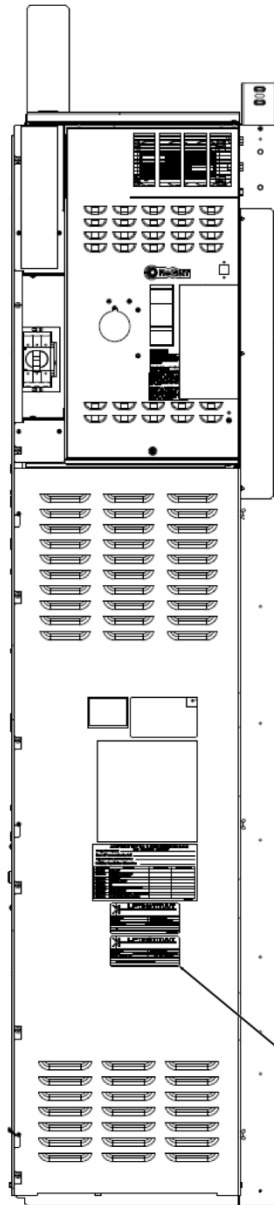


**Variable Frequency  
Controller for NSAA  
Gen3<sup>®</sup> Core**

**Spare Parts Leaflet  
10-AAA21305GW**

June 19, 2024 / Page 1 of 14



10 A - AAA21305GW



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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# History

**10-AAA21305GW**

## Leaflet Description

This leaflet lists the lowest replaceable units for type AAA21305GW controllers. These controllers are Gen3 variable frequency controllers, used in NSAA for Gen3 units running at 200 or 350 fpm. These systems have also been referred to as Next Gen, Gen3 Core Basic, Gen3 Core.

## Leaflet Revisions

Date Revised	Subject Matter Expert	Reason for Revision
April 13, 2023	Paul Kerr and Buie Philip	New SPL
September 6, 2023	Gary Beaulieu	Updated information
June 19, 2024	Bennie Murah	Add connectors (page 15).

## Related Drawings

Drawing No.	Title	Drawing No.	Title
AAA21305GW	Gen3 Core MRL Controller Assembly	AAA21305GX	Inspection and Test Assembly
HAA21310AZ	40A-R2 Ultra Drive	AAA21305GW_BOM	Gen3core MRL Controller Assembly BOM (includes harnesses)

## Related Documents

Document ID	Title

## Subject Matter Expert

Name	Department
Ali Bozorgzadeh	OSC Service Engineering

## About Spare Parts Leaflets...

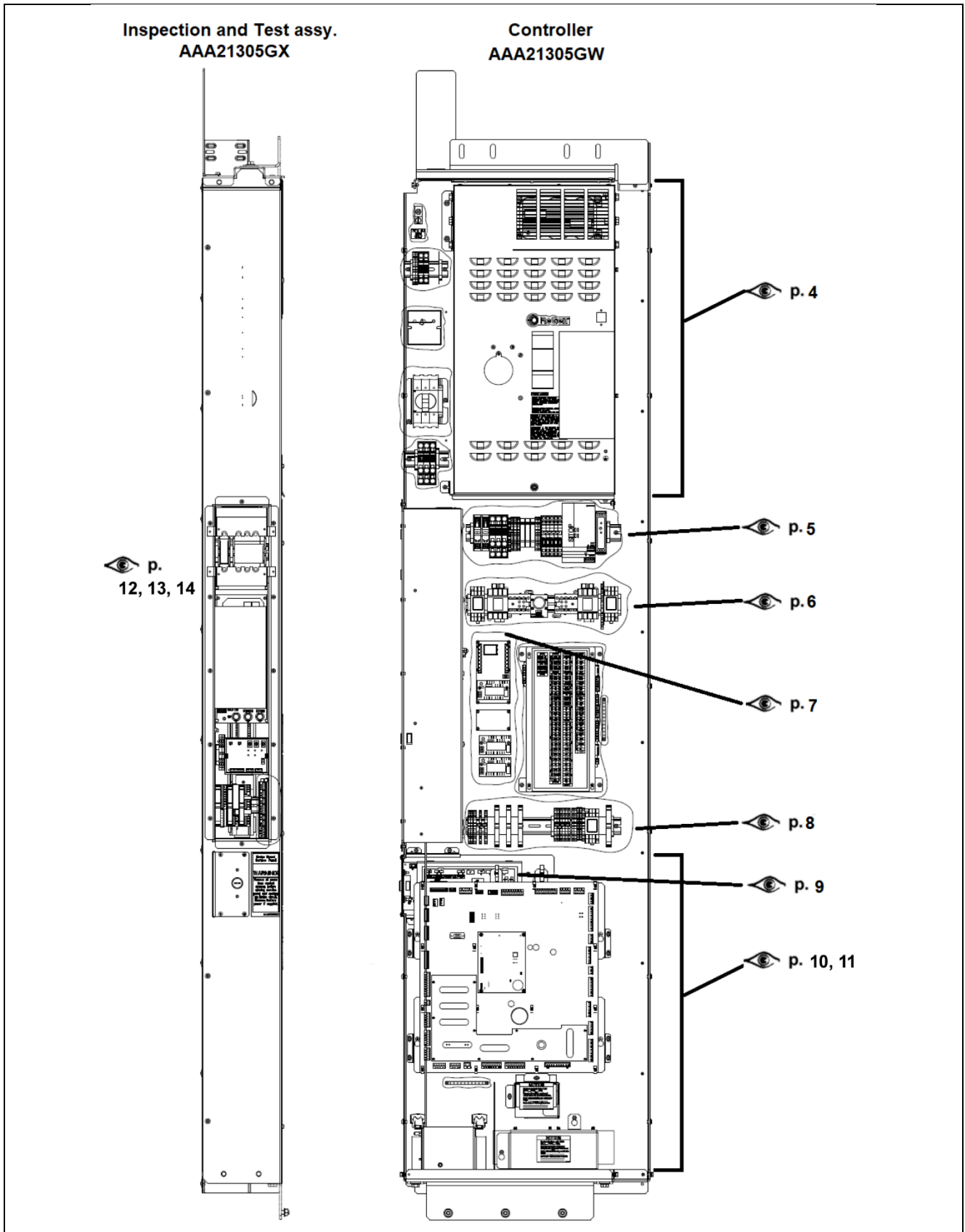
This document lists the lowest replaceable units (LRUs) for the standard version of the product. The LRUs are chosen by a team of Otis associates representing engineering and manufacturing.

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.

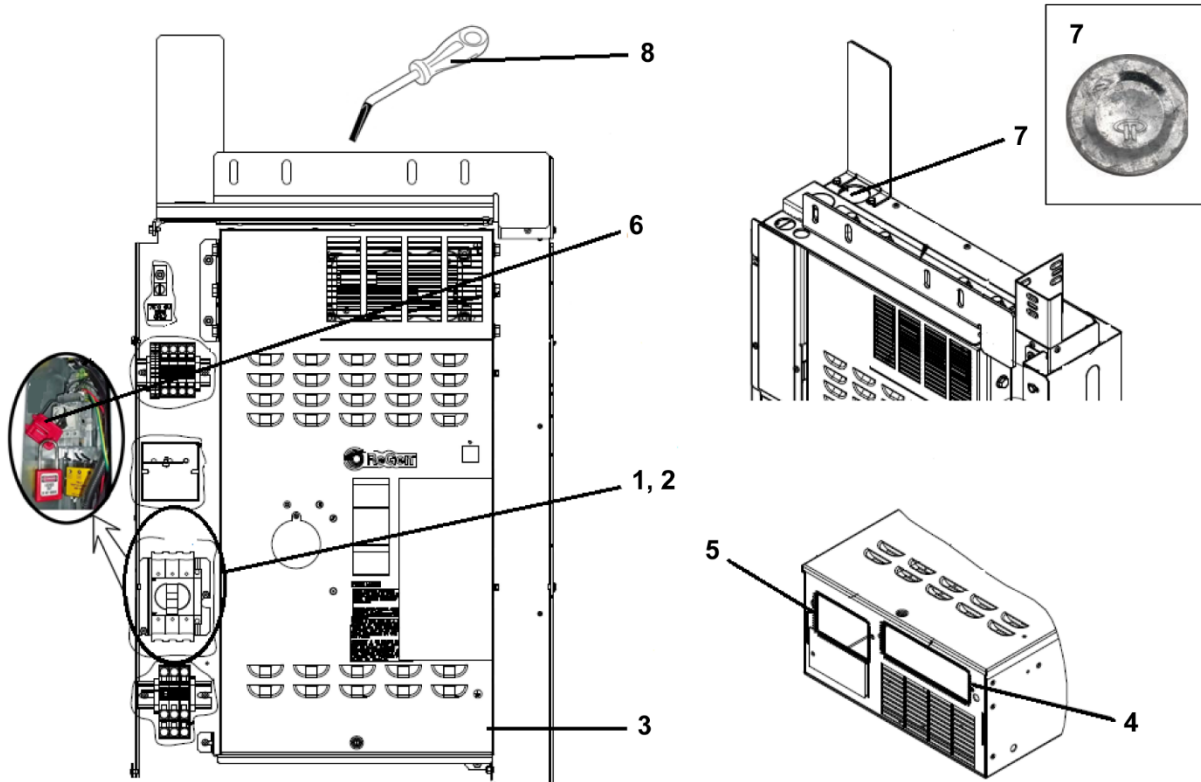
# Gen3 Core MRL Assembly

**10-AAA21305GW**



# Upper Controller Section

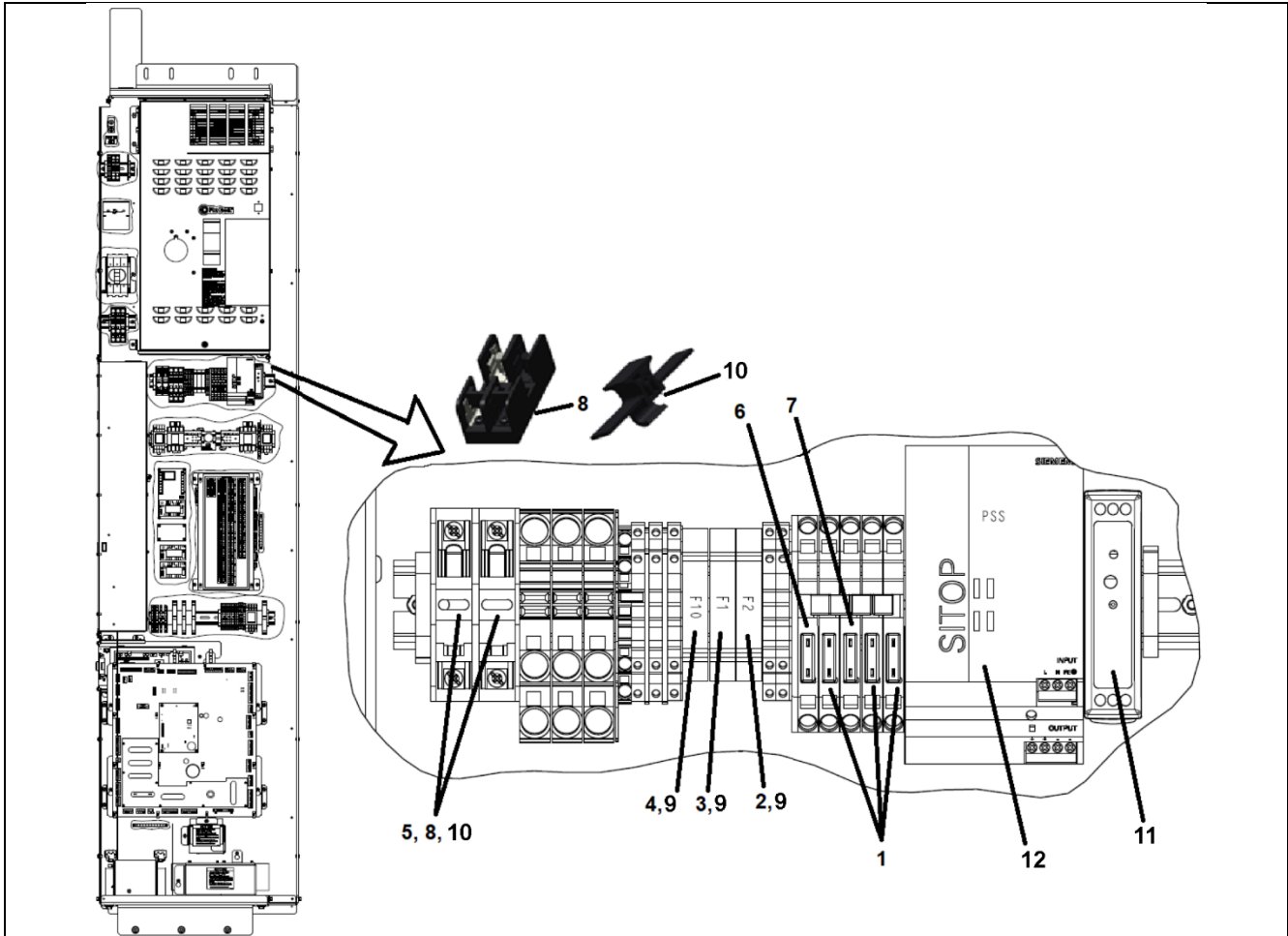
**10-AAA21305GW**



AAA21305GW			
REF. No.	PART No.	DESCRIPTION	SYMBOL
1	AAA661G9	Contacts, Auxiliary (PSW AUX)	---
2	AAA661G11	Disconnect, Non-Fusible, 63 A (PSW)	---
3	HAA21310AZ4	Drive, Ultra, Regenerative (OVFR05F-404) NSAA, 480 V / 208 V-240 V, 3P/1P, Gen3 Core	---
4	AAA706X9	Grommet, Edge (longer as shown)	---
5	AAA706X10	Grommet, Edge (shorter as shown)	---
6	AAA661G14	Hasp, Lockout. For disconnect (Ref. 2)	---
7	444BL13	Plug, Hole	---
8	MT-105041	Tool, Terminal Block Operating; Used with all Wago terminal blocks.	---

# Power Supplies, Fuses

**10-AAA21305GW**



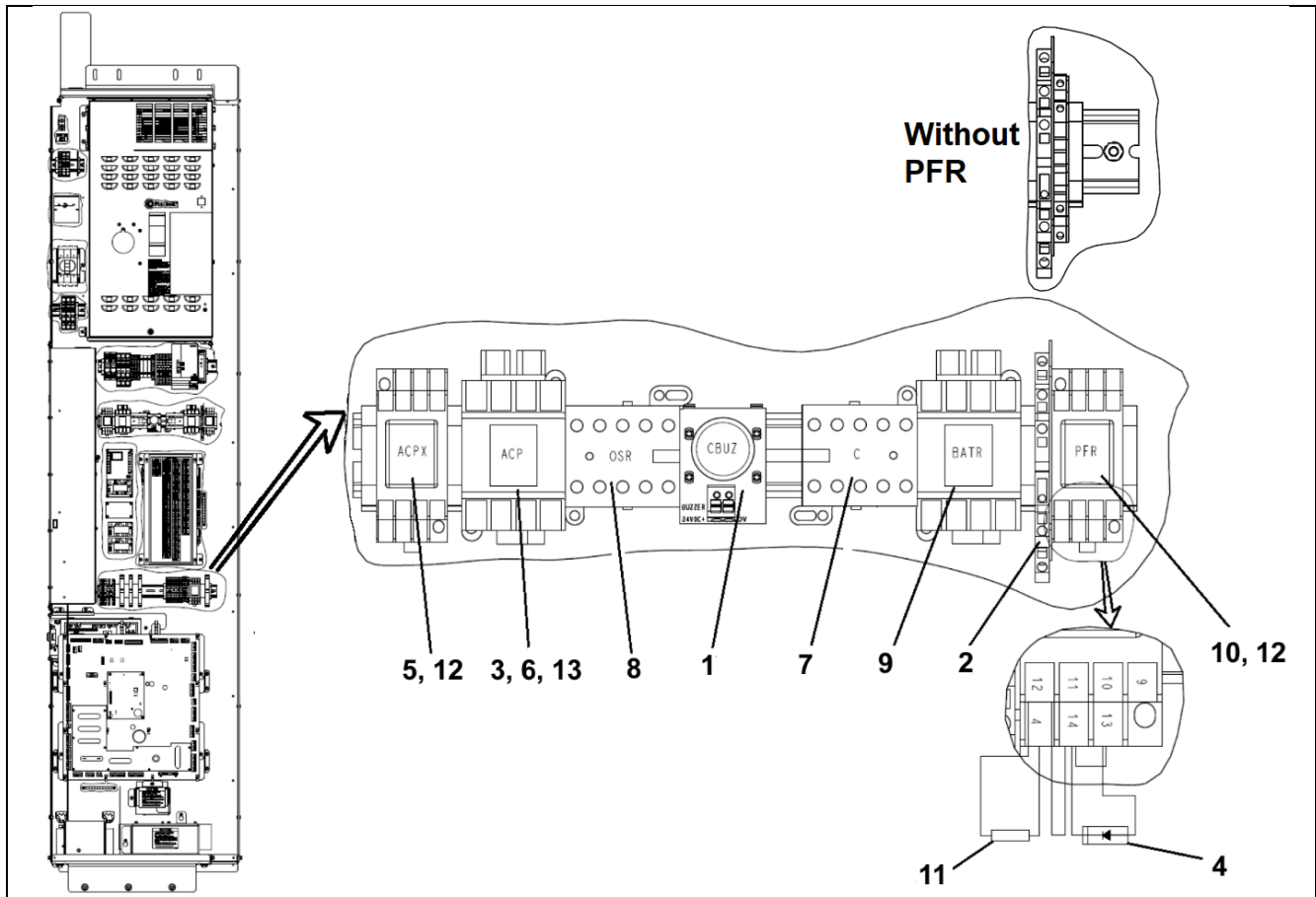
**AAA21305GW**

REF. No.	PART No.	DESCRIPTION	SYMBOL
*	AAA21600HH1	Cable, Field Test, SP/SC	---
1	AAA375C9	Fuse, Type ATC, 5A	F9, F8, F6
2	AAA375BR9	Fuse, 2A, 250 V	F2
3	AAA375BT18	Fuse, Fast Acting, 3A, 250 V	F1
4	AAA375BR4	Fuse, 0.5 A	F10
5	AAA375BK31	Fuse, Timed, 5A, 480 VAC	FM
	AAA375BK39	Fuse, Timed, 10A, 208 VAC	FM
6	AAA375C8	Fuse, Type ATC, 4A	F5
7	AAA375C7	Fuse, Type ATC, 3A	F7
8	AAA653D9	Holder, Fuse	FM
9	AAA653E2	Holder, Fuse, DIN Rail Mount	F1, F2, F10
10	AAA653D8	Puller, Safety	FM
11	AAA621AT40	Supply, Power, 5 VDC	PSR
12	AAA621AT14	Supply, Power, 27 VDC	PSS

\* Part not shown.

# Relays, Buzzer

**10-AAA21305GW**

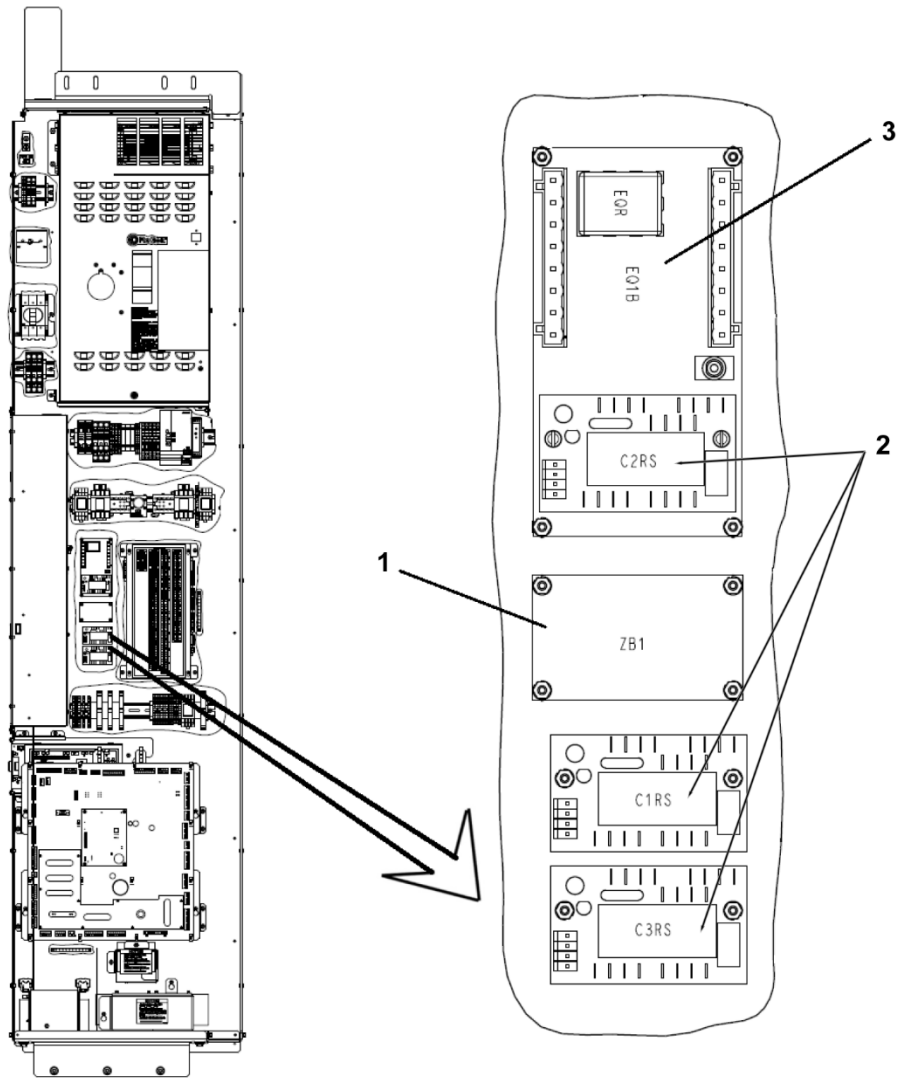


AAA21305GW			
REF. No.	PART No.	DESCRIPTION	SYMBOL
1	AAA731C11	Alarm, Electrical	CBUZ
2	AAA303EP199	Block, Terminal, with Relay	X
3	AAA613DL72	Contact, Auxiliary (2NO, 2NC)	ACP
4	AAA612AF3	Diode, 400 V	D3/PFR
*	AAA378D1	Ferrule, for R3 & D3 Leads	---
5	AAA613CZ9	Relay, 110 VAC	ACPX
6	AAA613DL31	Relay, Coil, 120 VAC (2NO, 2NC)	ACP
7	AAA638AN2	Relay, Coil, 120 VAC (2NO, 2NC)	C
8	AAA638AN1	Relay, Contactor	OSR
9	AAA613DL119	Relay, Coil, 48 VDC (3NO, 1NC)	BATR
10	AAA613CZ8	Relay, Socket Mount, 24 VDC	PFR
11	AAA232FV73	Resistor, 1K OHM ¼ W 5%	R3/PFR
12	AAA618AF25 or 618AE2	Socket, Relay	---
13	AAA613DL61	Suppressor	ACP

\* Part not shown

# EQIB, ZB, EQR and RS Modules

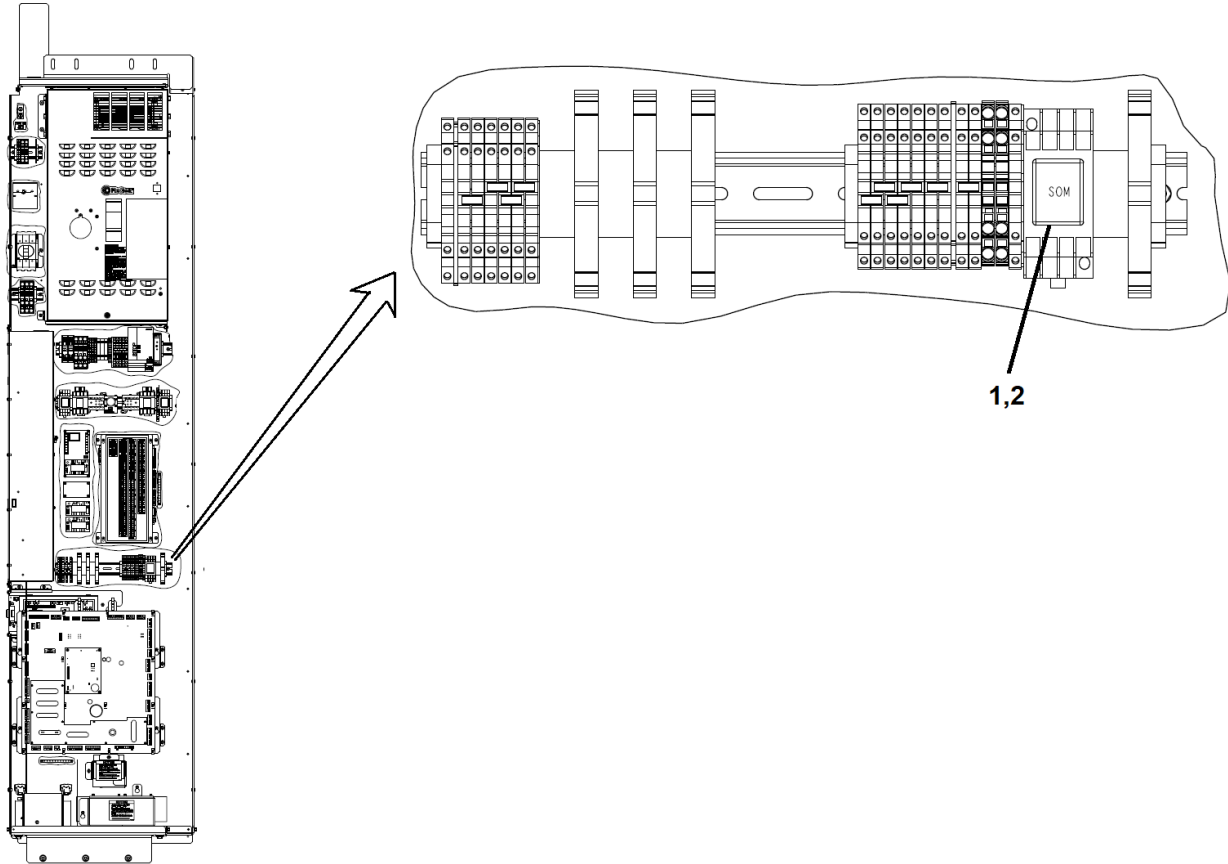
**10-AAA21305GW**



AAA21305GW			
REF. No.	PART No.	DESCRIPTION	SYMBOL
1	AAA26800KP1	Assembly, Filter Module	ZB1 (REFK, EQP Options)
2	GFA23550D1	Assembly, Remote Station PC Board	C2RS, C1RS, C3RS (FLD Option)
3	ABB21380E4	Module, Earthquake	EQIB

# Relays

**10-AAA21305GW**

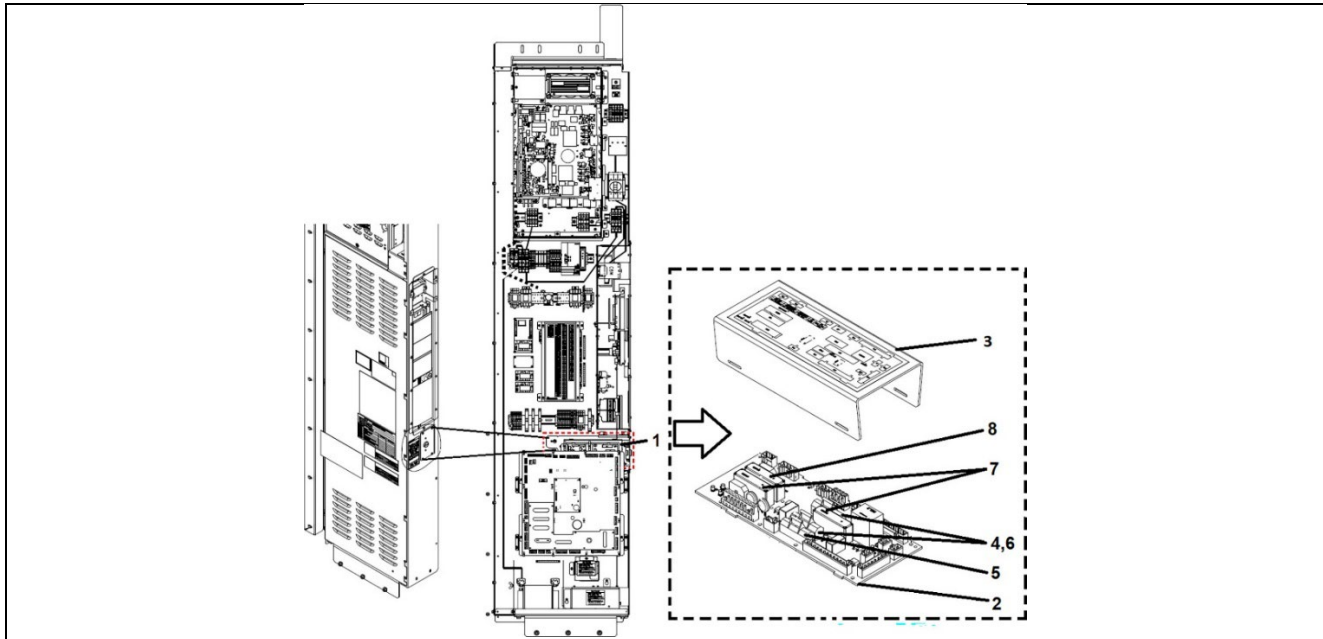


<b>AAA21305GW</b>			
<b>REF. No.</b>	<b>PART No.</b>	<b>DESCRIPTION</b>	<b>SYMBOL</b>
1	AAA613CZ8	Relay, Socket Mount, 24 VDC	SOM
2	AAA618AF25 or 618AE2	Socket, Relay	SOM



# Brake Board Assembly, Relays, Fuses

**10-AAA21305GW**



**WBA26800H1**

REF. No.	PART No.	DESCRIPTION	SYMBOL
1**	AAA21305GY1	Assembly, Brake Board	---
2	WBA26800H1	Board, PCBA, Brake, Gen3 Core	---
*	AAA447AP66	Connector, Mating, Female, 2-Pole, 5 mm, for J1, P8, P10	---
*	AAA447AP67	Connector, Mating, Female, 3-Pole, 5 mm, for P1	---
*	AAA447AP68	Connector, Mating, Female, 4-Pole, 5 mm, for P3	---
*	AAA447AP72	Connector, Mating, Female, 8-Pole, 5 mm, for P2	---
*	AAA447AP77	Connector, Mating, Female, 13-Pole, 5 mm, for P7	---
*	AAA176HH306	Connector, Mating, Male, 9-Pole, 5 mm, for BR1	---
*	AAA447AP94	Connector, Mating, Female, 8-Pole, 5 mm, for P4	---
*	AAA176HH51	Connector, Mating, Male, 4-Pole, 5 mm, for J2	---
*	AAA176HH69	Connector, Mating, Female, 2-Pole, 7.5 mm, for P5, P6, P9	---
3	AAA285AFG2	Cover, Formed DIN Rail, GEN3 Controller	---
4	AAA375CJ3	Fuse, 5A, Ceramic, Ferrule, 0.25 X 1.25 in.	FB1, FB2
5	AAA375BT19	Fuse, 5A, Glass, Ferrule, 0.25 X 1.25 in.	F3
6	AAA653L101	Fuse Cover, XF3, XFB1, XFB2	---
*	AAA431AQ18	Lock	---
7**	AAA613DG69	Relay, Safety, 110 VDC Coil, 6A, 4 N.O., 2 N.C., REL3, REL4	BP, UD
8**	AAA613DG73	Relay, Safety, 110 VDC Coil, 6A, 5 N.O., 1 N.C., REL1	UCM
*	AAA255LP3	Shim	---

\* Part not shown.

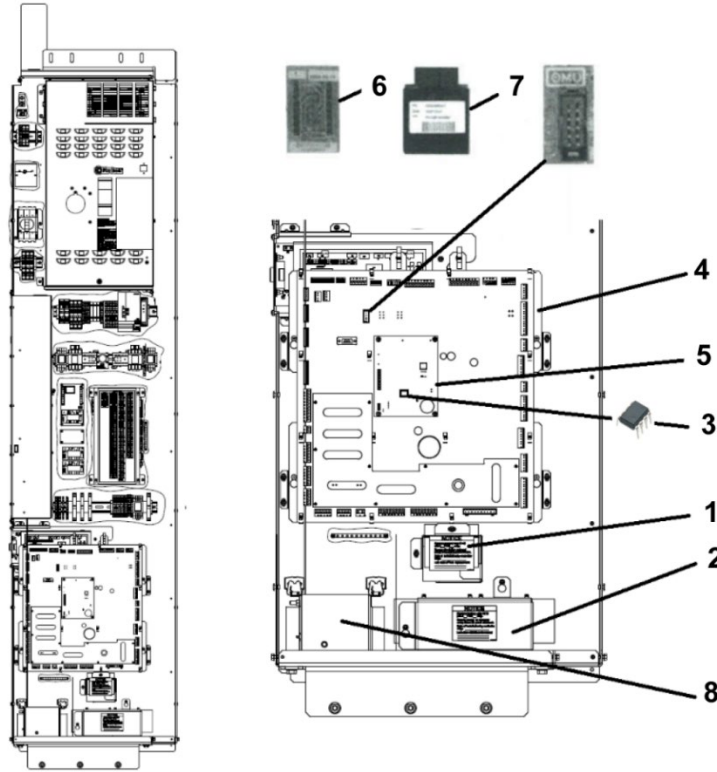
\*\* See NOTES 1 and 2.

NOTE 1: AAA613DG71 can be ordered instead of AAA613DG69; AAA613DG76 can be ordered instead of AAA613DG73

NOTE 2: Mating connectors for AAA21305GY1 are marked \*

# Lower Controller Section

**10-AAA21305GW**



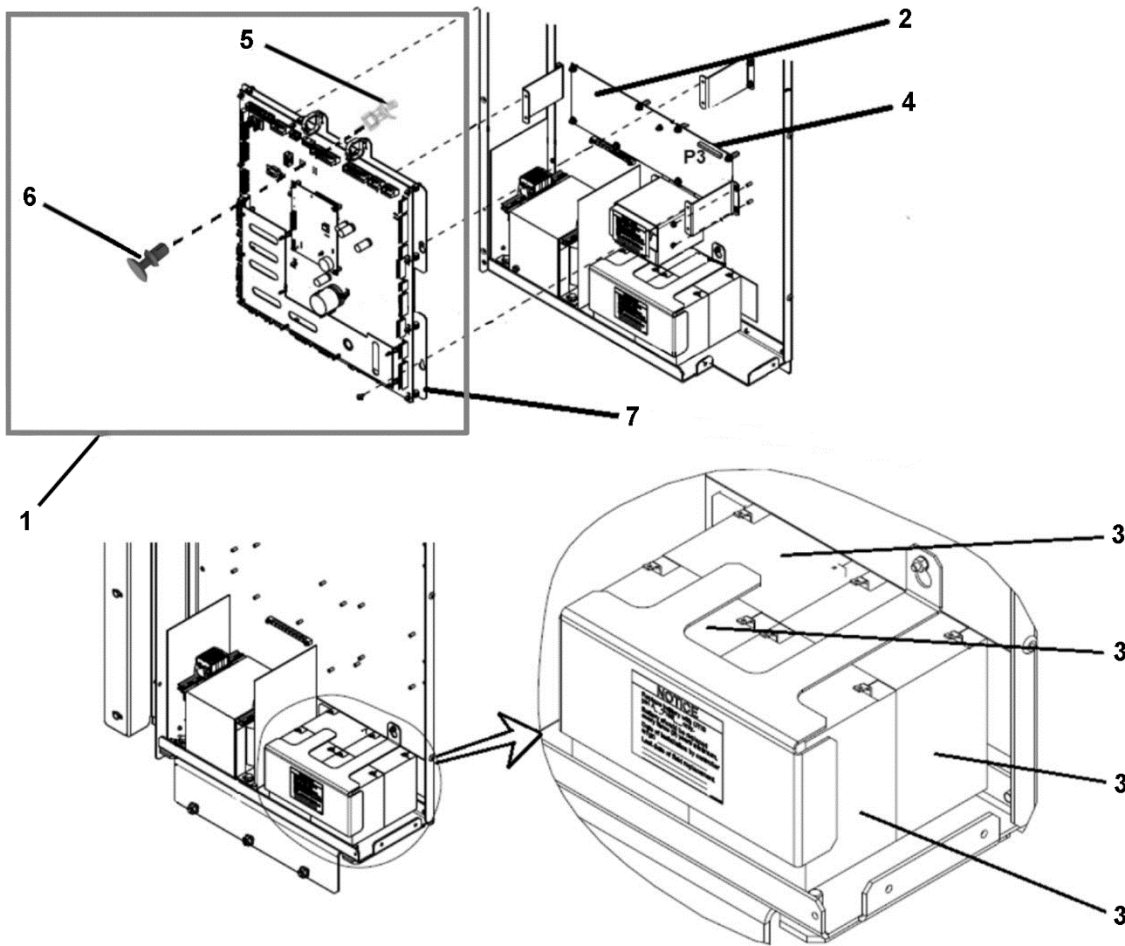
AAA21305GW			
REF. No.	PART No.	DESCRIPTION	SYMBOL
*	AAA276AR4	Barrier, Arc, BAT1	---
*	AAA276AR3	Barrier, Arc, BAT2	---
*	AAA276AR8	Barrier, Arc, TRM	---
1	AAA718E3	Battery, Position Loss Recovery, 12 V, 4 AH	BAT1
2	AAA718E3	Battery, MRO, 12 V, 4 AH BAT2A – BAT2D	BAT2
*	174HT10	Cable, Ribbon (Maintenance)	---
*	AAA21602AV1	Device, Blocking	---
3	AAA616NL26	EEPROM, Blank, U8 and U9, 1M-Bit, Serial	---
*	AAA21600CY3	Encoder, Rescue, to SPB P4 Harness Cable	---
*	AAA21602AG1	Encoder, from Drive to IOBD Harness Cable	---
*	AAA102AQZ36	Label, BAT1	---
4	AHA26800ANY3	PC Board, I/O	I/O Board
5	ABA26800AVP11	PC Board, Microprocessor (v2) (see <b>CAUTION</b> )	I/O Board
*	AAA102ABE5	Plate, Data (Battery Replacement Label)	---
6	DAA26800K1	Socket, Adapter, for OMU Programming Tool	---
7	---37028RCN---	Software, Contact OSC Customer Service for the latest version of software burned into DCA26800H21 (blue OMU)	---
8	AAA225NZ3	Transformer, 480 VAC Input w/ AAA375BK31 (FM)	TRM
	AAA225NZ4	Transformer, 208 VAC Input w/ AAA375BK39 (FM)	

\* Part not shown.

**CAUTION:** Remove the EEPROM U8 and U9 from AVP.

# Lower Controller Section

**10-AAA21305DH**



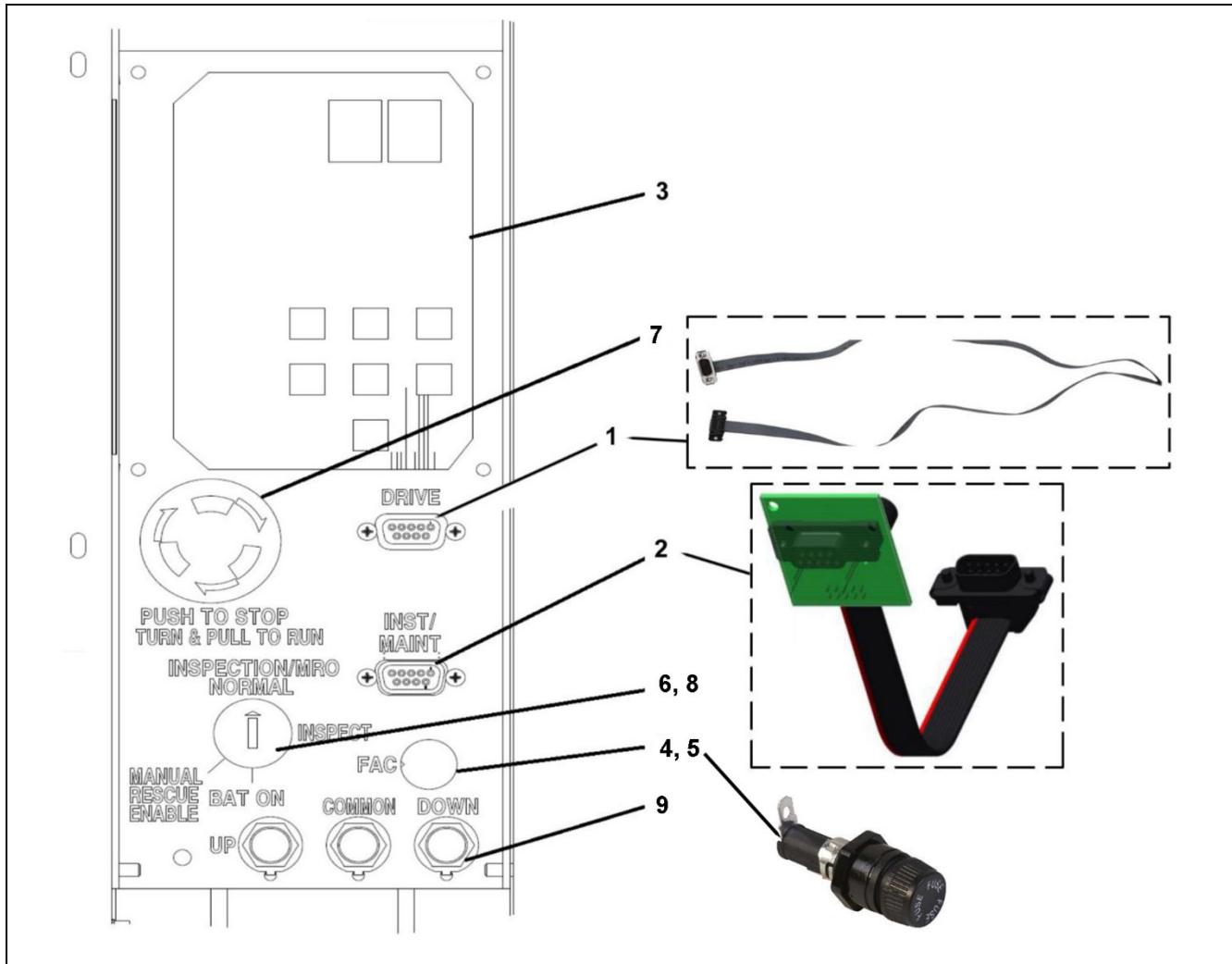
AAA21305GW			
REF. No.	PART No.	DESCRIPTION	SYMBOL
1	AAA21305HB1	Assembly, Plate, IOBD	---
2	GBA26800LV1	Assembly, Service Panel	SPB
3	AAA718E3	BAT2 A, BAT2 B, BAT2 C, BAT2 D	---
*	ABA21602CT1	Cable, Connecting BAT2 A(-) to BAT2 B(+)	---
*	ABA21602CT2	Cable, Connecting BAT2 B(-) to BAT2 C(+)	---
*	ABA21602CT3	Cable, Connecting BAT2 C(-) to BAT2 D(+)	---
4**	AAA174TP13	Cable, Ribbon, 34 Contacts; for GBA26800LV1 Board	P3
5	AAA354DT14	Distance Piece (qty. = 16); for Mounting I/O Board	---
*	ABA27BH14	Kit, Jumper, Temporary	---
6	AAA141AN4	Rivet, Snap (qty. = 16); for Mounting I/O Board	---
7	AAA180JT3	Plate, Mounting, I/O PCB	---

\*\* For location only; part itself not shown in illustration.

\* Part not shown.

# Inspection and Test Assembly (Type AAA21305GX1)

**10-AAA21305GW**



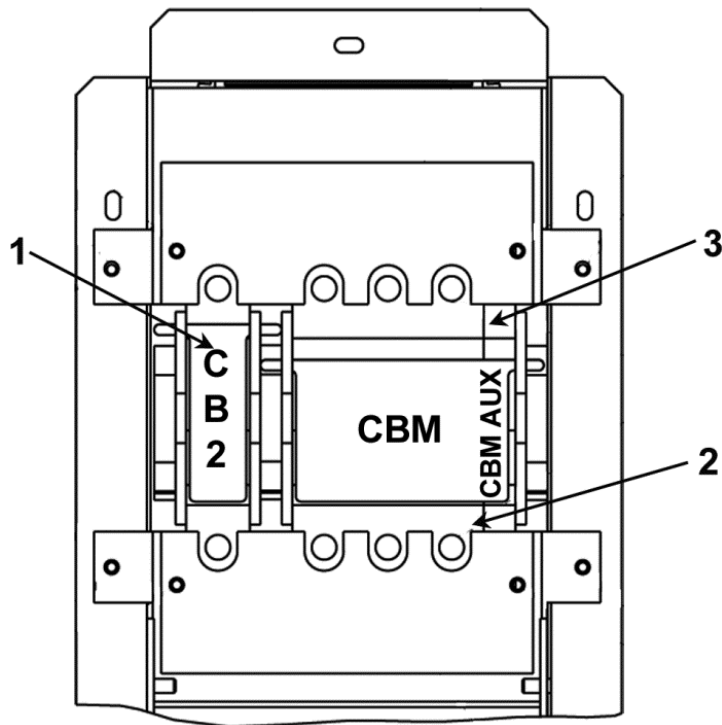
AAA21305GX1			
REF. No.	PART No.	DESCRIPTION	SYMBOL
1*	174HT10	Assembly, Ribbon Cable	DRIVE
2	AAA26800ASG2	Assembly, Ribbon Cable	INST/MAINT
3	GAA26800LW1	Display, Service Panel Board	---
4	AAA375CJ3	Fuse, 5 A	FAC
5	AAA653C2	Holder, Fuse, with Cap	FAC
6	AAA431AF27	Lock, with Key	CIS/MROR
7	JAA635ABT101	Switch, Stop	CES
8	ABA636A21	Switch, Rotary	CIS/MROR
9	AAA635L3	Switch, Pushbutton	CUIB, CDIB, CCIB
**	GAA512K1	Used instead of 2G MyWerks	---

\* For location only; parts themselves not shown in illustration.

\*\* Plugs into service tool port located outside of the controller.

# Inspection and Test Assembly (Type AAA21305GX1)

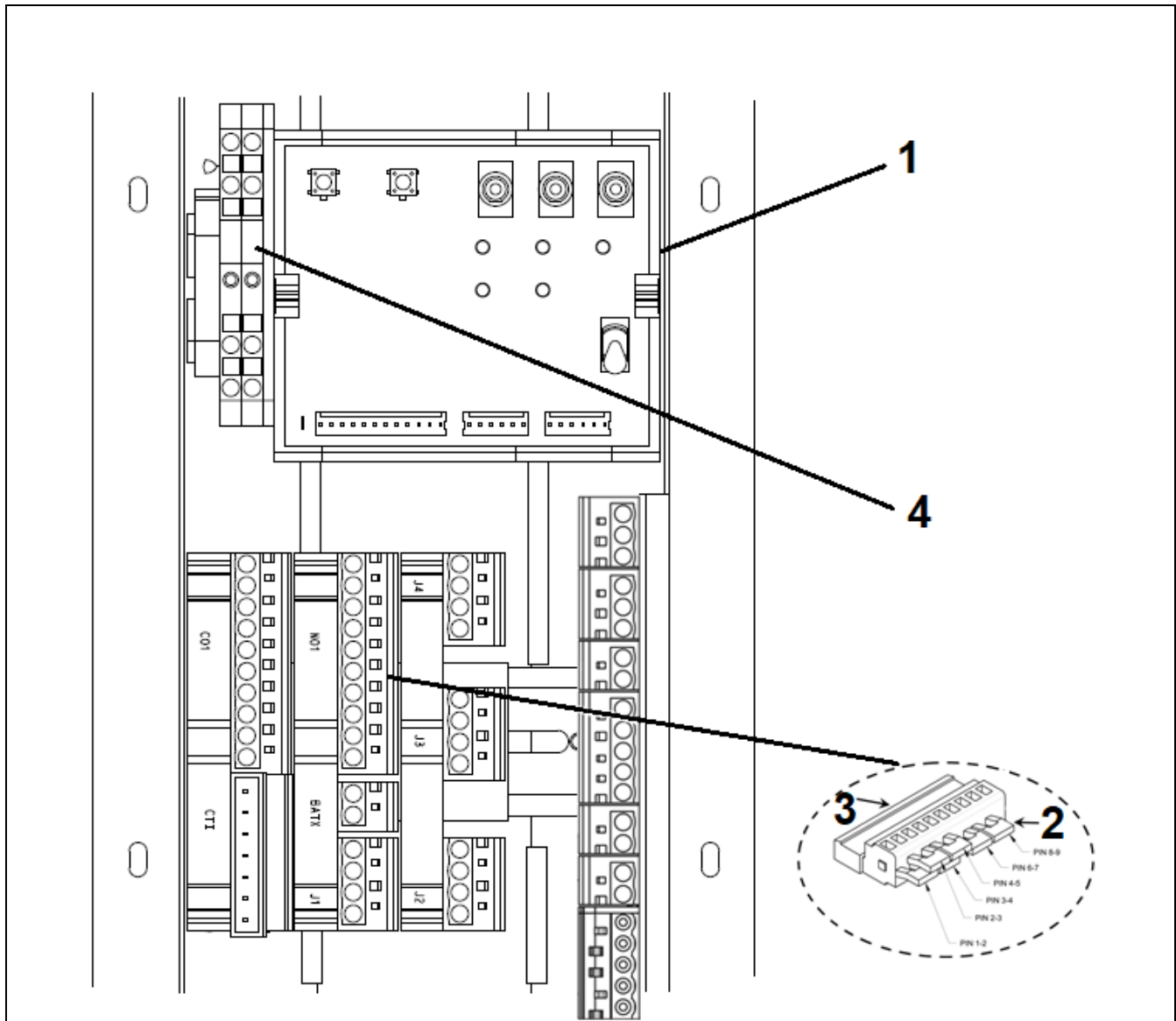
**10-AAA21305GW**



AAA21305GX1			
REF. No.	PART No.	DESCRIPTION	SYMBOL
1	AAA637E24	Breaker, Circuit, 15 A.	CB2
2	AAA637E46	Breaker, Circuit, 3-Phase, 40 A, 480 VAC	CBM
	AAA637E47	Breaker, Circuit, 3-Phase, 60 A, 208 VAC	
3	AAA637E38	Contacts, Auxiliary	CBM w/ARU

# Inspection and Test Assembly (Type AAA21305GX1)

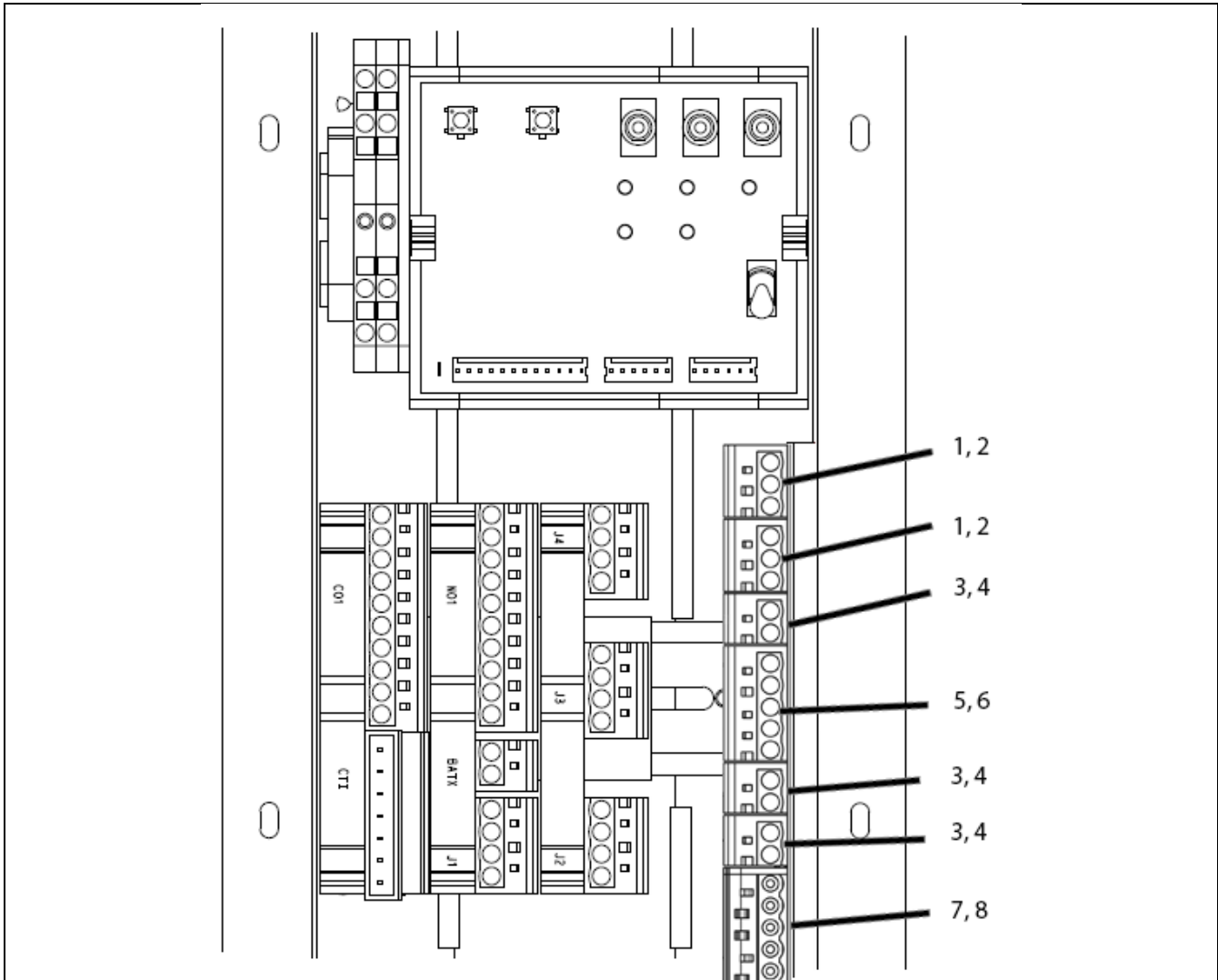
**10-AAA21305GW**



<b>AAA21305GX1</b>			
<b>REF. No.</b>	<b>PART No.</b>	<b>DESCRIPTION</b>	<b>SYMBOL</b>
1	ACA26800AQR1	Assembly, Reset/Bypass Board	---
	ACA26800AQR2		Local code = Detroit
2	AAA176HH103	Jumper, MSP Connector	---
3	AAA176HH62	Plug, MSP	CO1, NO1
4	AAA303EP205	Terminal Block, with LED	B, BE

# Inspection and Test Assembly (Type AAA21305GX1)

**10-AAA21305GW**



<b>AAA21305GX1</b>			
<b>REF. No.</b>	<b>PART No.</b>	<b>DESCRIPTION</b>	<b>SYMBOL</b>
1	AAA176HH57	Connector, 3-Position w/snap in foot	EIP6, EIP7
2	AAA447AP255	Connector, 3-Position	EIP6A, EIP7A
3	AAA176HH56	Connector, 2-Position w/snap in foot	EIP2, EIP3, EIP5
4	AAA447AP254	Connector, 2-Position	EIP2A, EIP3A, EIP5A
5	AAA447AP539	Connector, 5-Position w/snap in foot	EIP4
6	AAA176HH52	Connector, 5-Position	EIP4A
7	AAA447AP545	Connector, 5-Position w/snap in foot	EIP1
8	AAA447AP257	Connector, 5-Position	EIP1A

**NOTE:** “EIP\_” connector with snap-in foot, “EIP\_A” connector plugs into “EIP\_” connector.