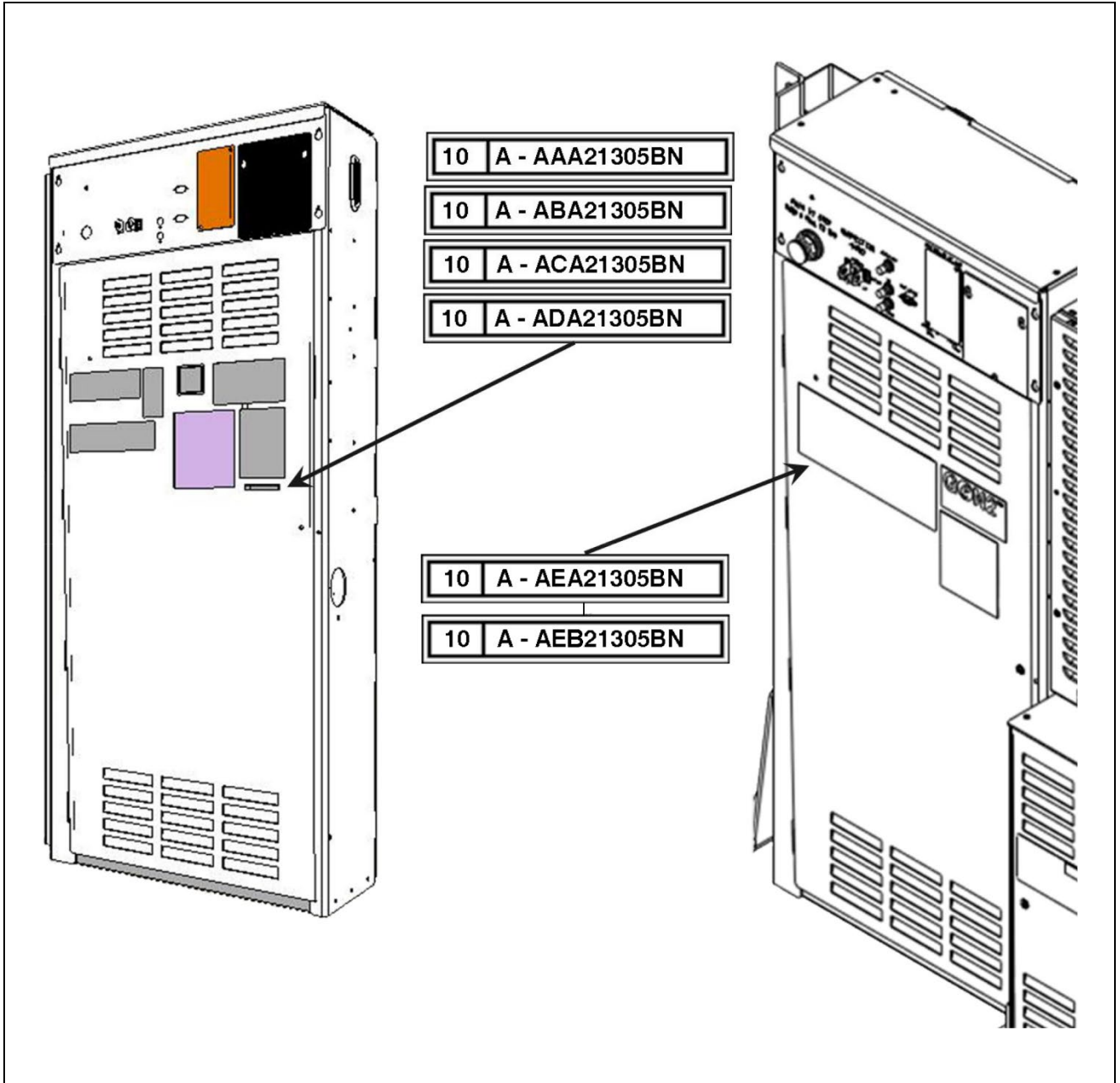


# Global Control System Controller Box

**Spare Parts Leaflet**

**10-ABA21305BN**

**September 25, 2024 / Page 1 of 14**



# 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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# History

**10-ABA21305BN**

## Leaflet Description

This leaflet lists spare parts for type ABA21305BN Global Control System (GCS).

### Leaflet Revisions

Date Revised	SME	Reason for Revision
See next page for revision history.		

### Related Drawings

Drawing No.	Title	Drawing No.	Title
A*21305BN	NSAA GCS Control Section Assembly	AAA21310AD	Gearless Variable Frequency Controller NSAA Global Control System
A*A21305BL	Brake Box	A*A21305BR	Transformer Box
A*A21305DD	120A CR Regenerative drive		

### Related Documents

Document ID	Title
SPL 10-AAA21310AD	Gearless Variable Frequency Controller NSAA Global Control System
SPL 10-ABA21305BL	NSAA Global Control System Brake Module
SPL 10-ADA21305BR	Global Control System: Transformer Box
SPL 10-AAA21305DD	120A CR regenerative drive assembly
TIP 1.1.22.1-1	Programming the Otis OMU for GECB

### 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 suggestions about this document, please contact the subject matter expert listed on this page.

# History

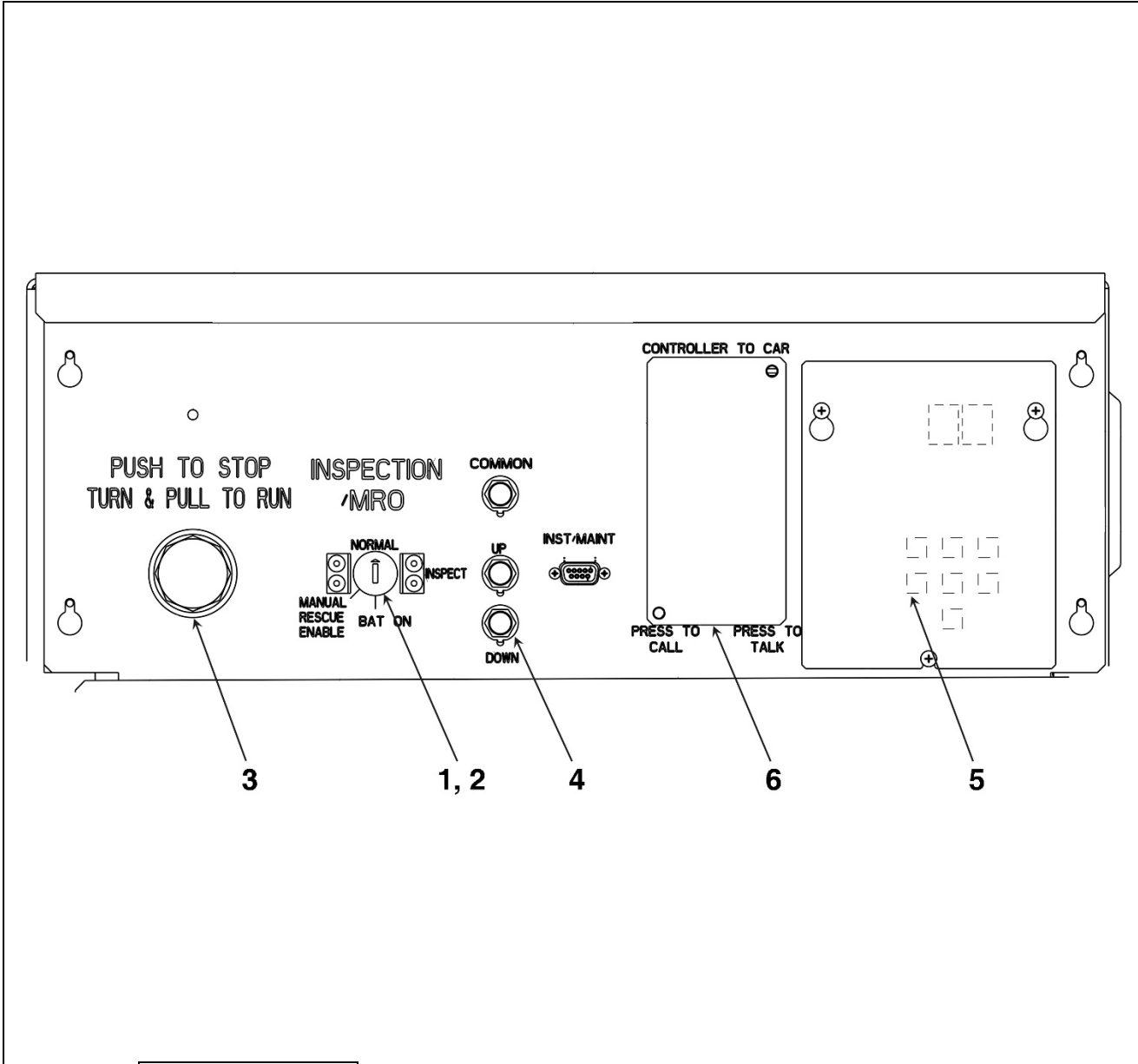
**10-ABA21305BN**

## Leaflet Revisions

<b>Date Revised</b>	<b>SME</b>	<b>Reason for Revision</b>
September 5, 2008	Paul Hoppie	New SPL
April 8, 2009	Matt Fournier	Added DAA26800H1 and DAA26800K1 on page 6; added TIP reference.
July 1, 2009	Matt Fournier	Added AEA26800AML4 on page 5.
January 27, 2010	Joe Della Porta	Updated illustrations to reflect changes; added AAA431AF27, AAA21305CH1, AAA612AK1, and AAA375BR4.
June 30, 2010	Priyank Mehta	Added AAA225MG1 and AP131256BAC on page 7.
September 15, 2010	Matt Fournier	Added p/n AAA616NL15 in ref. 10 on p. 6
June 29, 2011	Matt Fournier	Added p/n AAA303EP243 (p.9)
August 10, 2011	Joe Della Porta	p.1 added vintage to control section.
August 19, 2015	Cuauhtemoc Castro	Added the AEA21305BN vintage.
July 20, 2016	Cuauhtemoc Castro	Updated pp. 6 and 7
May 31, 2017	Taye Gebrewold	Added p/ns AAA396AQ1 and ISO7049ST2.9X13-CH-Z on p. 5
June 10, 2020	Jim Harte	Added AAA375BR12 and NOTE for AAA225MV1, 2 transformer applications on p. 7 Updated F2 fuse value and added NOTE on p. 7
September, 2022	Charles Demery	Add p/n AAA621AT40 on p. 6 Removed p/n: AAA621AT14 for AEB21305BN vintage tag and added p/n AAA621AT41 on p. 6
June 19, 2024	Charles Demery	Power supply AAA621AT41 no longer available; returned to p/n AAA621AT14 (p. 7).
September 25, 2024	Raghavendra Mudumbai	Changed description of p/n AAA375BT19 (p. 8).

# Inside Cabinet

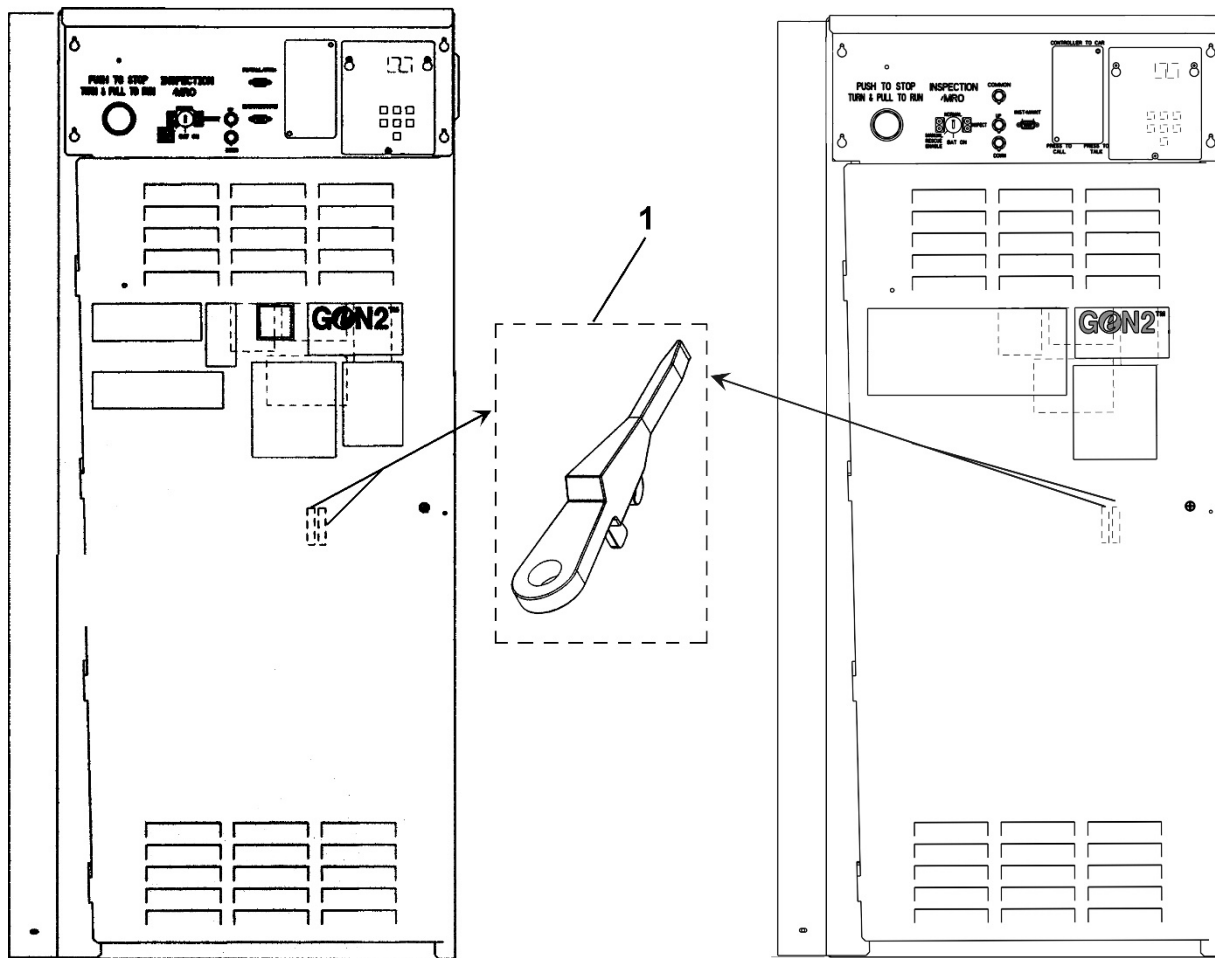
**10-ABA21305BN**



ALL VINTAGES			
REF. No.	PART No.	DESCRIPTION	SYMBOL
1	AAA431AF6 AAA431AF27	Lock, Key	CIS/MROR
2	ABA636A21	Rotary, Switch	CIS/MROR
3	JAA635ABT101	Switch, Stop	CES
4	AAA635L3	Switch, Pushbutton	CUIB, CDIB, CCIB
5	GAA26800LW1	SPB Display	---
6	AAA512A2	Telephone and Accessories, Intercom Module (SXUCC)	Intercom

# Terminal Block Operating Tool

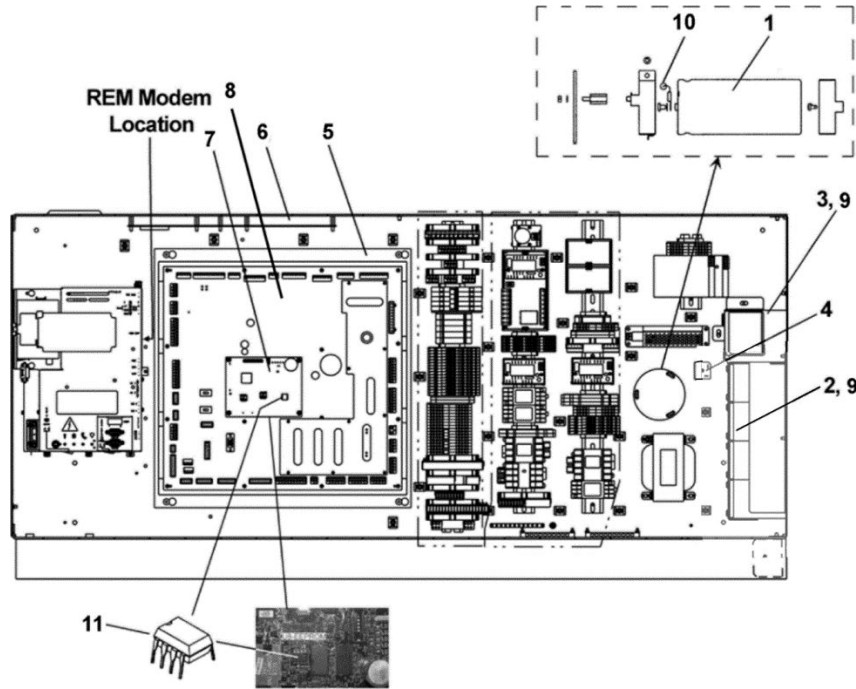
10-ABA21305BN



ALL VINTAGES		
REF. No.	PART No.	DESCRIPTION
1	AAA27BZ1	Tool, Terminal Block Operating, 5 mm
	AAA27BZ2	Tool, Terminal Block Operating, 2.5 mm and 3.5 mm

# REM 5, Capacitors & Resistors

**10-ABA21305BN**



REF. No.	AAA21305BN ABA21305BN ADA21305BN AEA21305BN	AEB21305BN	DESCRIPTION
	PART No.	PART No.	
*	174HT10		Cable, Ribbon (Maintenance)
1	226DR1		Capacitor (1400 uf, 450 VDC), with i-MOTION
2	AAA718E14	AAA718E14	Battery, MRO, SZONE is Title 24, see <b>NOTE 1</b>
	---	AAA718E3	Battery, MRO, SZONE is not Title 24, see <b>NOTE 1</b>
3	AAA718E3		Battery, Position Loss Recovery
4	230BS3		Bridge, Diode, with i-MOTION
5	AAA396QA1	AAA396QA1	Holder, Plastic, for Input/Output Board, SZONE is Title 24, see <b>NOTE 2</b>
	---	AAA316ALZ1 + AAA316ALZ400	Holder, Plastic, for Input/Output Board, SZONE is not Title 24, see <b>NOTE 2</b>
6	GBA26800LV1		Panel, Service, SPB Operational Board
7	ADA26800AML4 AEA26800AML11 ABA26800AVP1		PC Board, Micro Processor (see <b>CAUTION</b> ), V2
8	ADA26800ANY4 AGA26800ANY1		PC Board, ANSI Input Output Board (w/ CDBP & LDBP)
	ADA26800ANY2 AGA26800ANY2		PC Board, ANSI Input Output Board (w/o CDBP & LDBP)
9	AAA102ABE1		Plate, Data (Battery Replacement Label)
10	AAA232GJ76		Resistor (10 kOhms, 5 W), with i-MOTION
*	ISO7049ST.2.9X13-CH-Z		Screw, Philips Head (for Ref. 5)
11	AAA616NL26		U8, 256K Bit Serial EEPROM, Blank

\* Part not shown.

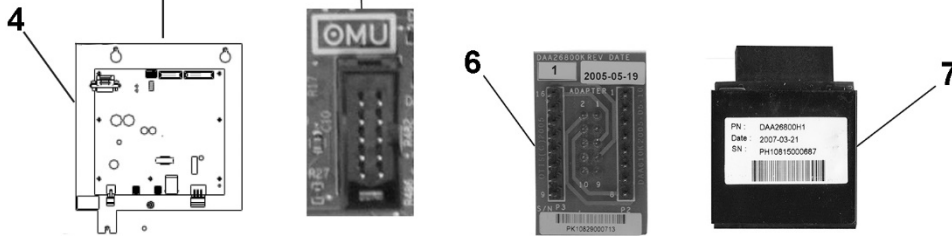
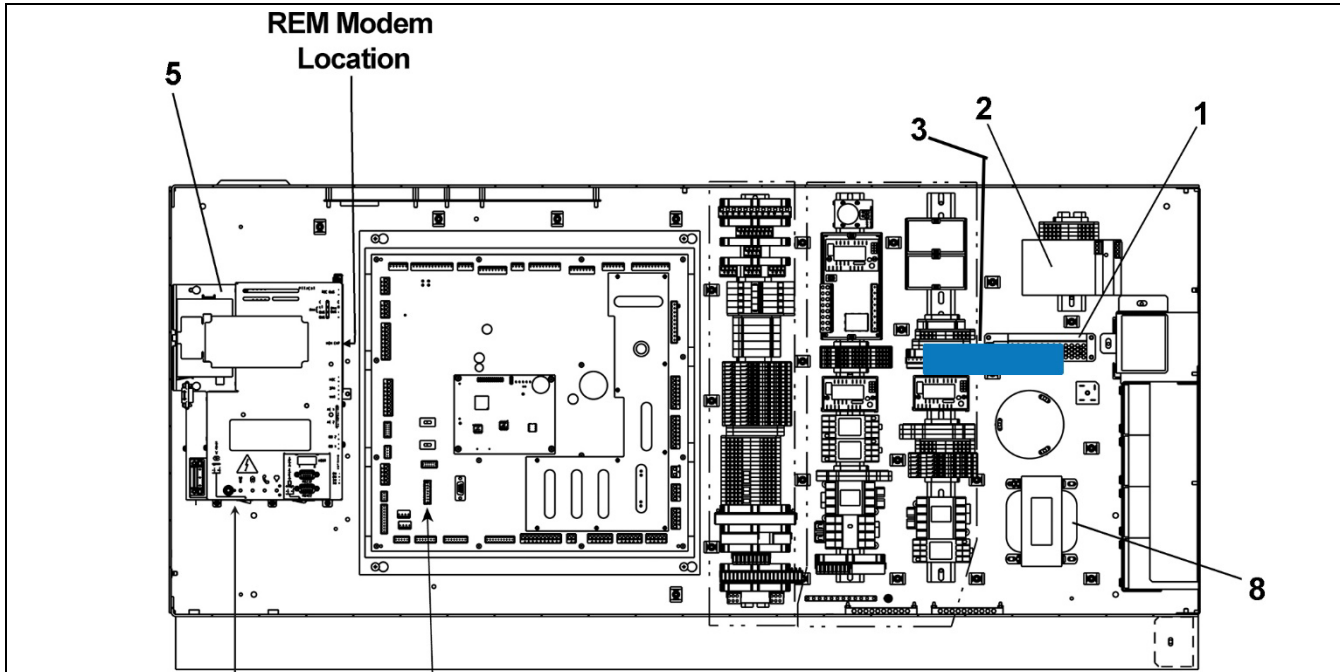
**CAUTION:** When replacing p/n AEA26800AML11 or ABA26800AVP1, remember to remove and save EEPROM (U8) from the existing PCB. See TIP 1.1.22.1-29 for AML-to-AVP microprocessor upgrade.

**NOTE 1:** If controller is in a Title 24 location, use p/n AAA718E14 batteries.

**NOTE 2:** If controller is in a Title 24 location, use p/n AAA396QA1 holder.

# REM 5, Capacitors & Resistors

10-ABA21305BN

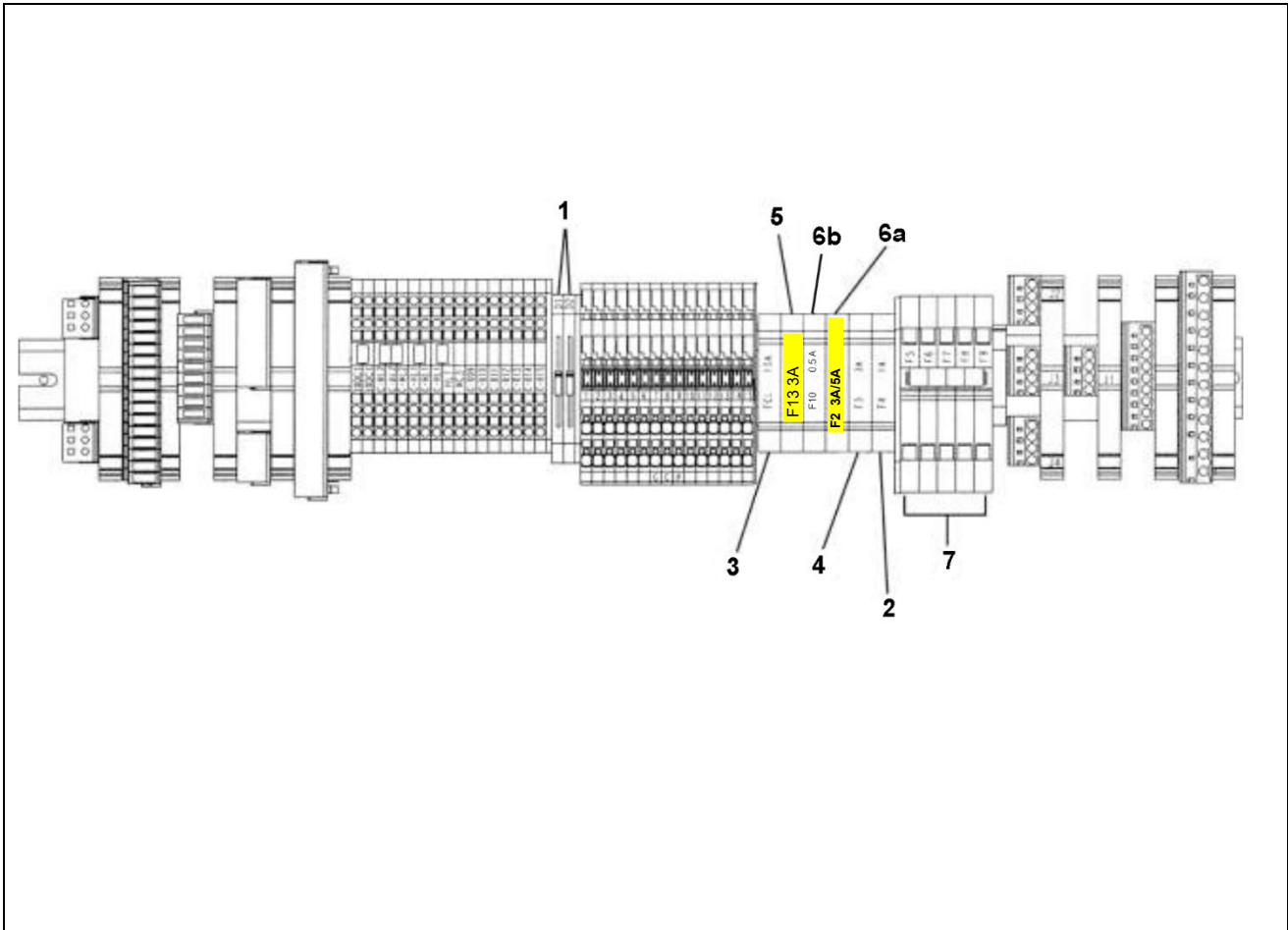


REF. No.	AAA21305BN ABA21305BN ADA21305BN AEA21305BN	AEB21305BN	DESCRIPTION
	PART No.	PART No.	
*	31256		OMU Software, Programmed, see NOTE 1
1	AAA21305CH1	---	Power Supply, 12 VDC
2	AAA621AT14	AAA621AT14 AAA621AT44 AAA621AT14	Power Supply, 24 VDC
3	AAA621AT40		Power Supply, 5 VDC (MyWerk 4G Gateway Sys)
4	ABA26800ARC1		Processor, Gateway II
5	AAA21700AA2		REM 5
*	AAA27076T1039		REM Modem w/ Line Share
6	DAA26800K4 DCA26800H2		Socket, Adapter, for OMU Programming Tool
7	DAA26800H1		Tool, OMU Software Download, Blank
8	AAA225MG1		Transformer (TRD), 120 V Primary, 220 V Secondary, with NGPOK
	AAA225MB1		Transformer (TRD), 120 V Primary, 93 V Secondary, with i-MOTION

\* Part not shown.

**NOTE 1:** Please contact OSC Customer Service for the latest version of software.

**NOTE 2:** This power supply and related components are no longer required starting on 6/28/2021.



ALL VINTAGES			
REF. No.	PART No.	DESCRIPTION	SYMBOL
1	AAA612AK1	Diode (MTI)	D2
	AAA612AK1	Diode (REFK)	D1
2	AAA375BR6	Fuse, 1 A	F4
3	AAA375CJ5	Fuse, 15 A	FCL
4	AAA375BR12	Fuse, 3 A, Aux. Heat	F3
5	AAA375BT19	Fuse 3 A, 250 V	F13
6a	AAA375BR16	Fuse, 6-1/4 A, see <b>NOTE</b>	F2
	AAA375BR15	Fuse, 5 A, see <b>NOTE</b>	
	AAA375BR12	Fuse, 3 A, see <b>NOTE</b>	
6b	AAA375BR4	Fuse, 0.5 A	F10
7	AAA375C9	Fuse, ATC Type	F5, F6, F7, F8, F9
*	AAA375BR12	Fuse, 3 A, Touch Screen	FTS

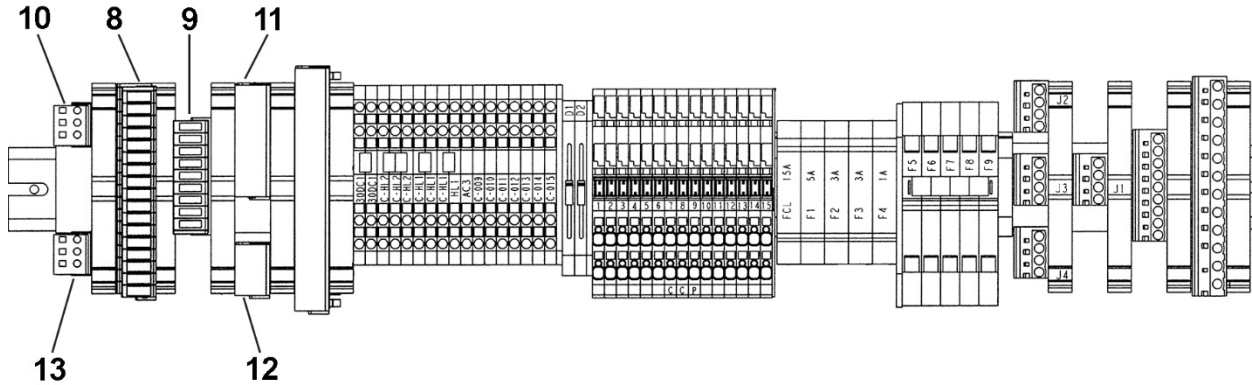
**NOTE:** Use AAA375BR16 when ABA225MA1 transformer used, see SPL 10-ABA21305BL.  
 Use AAA375BR12 when AAA225MV1 / MV2 transformers are used, see SPL 10-ABA21305BL.  
 Use AAA375BR15 when AAA225MV5 / MV6 transformers are used, see SPL 10-ABA21305BL.

*Continued on Next Page*



# Connectors

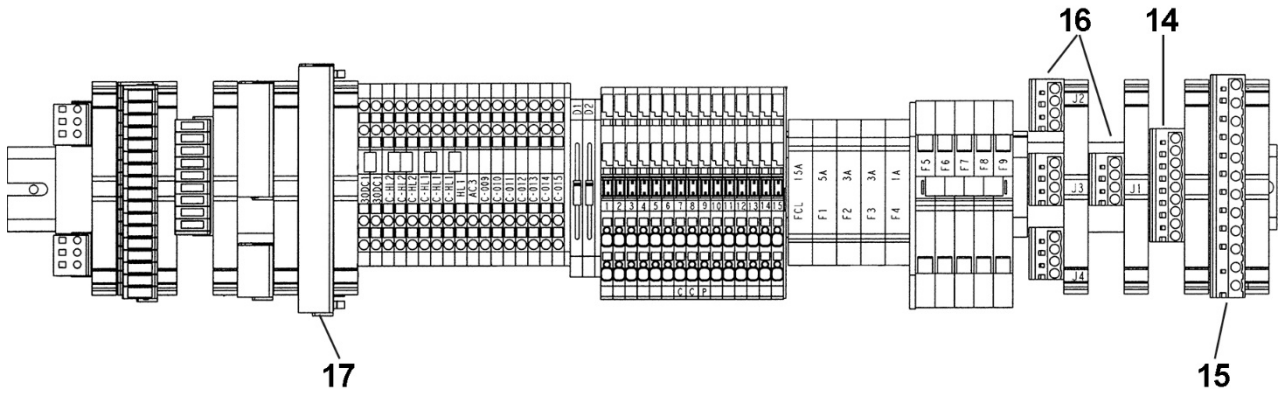
**10-ABA21305BN**



REF. No.	ALL VINTAGES				
	PART No.	DESCRIPTION	POLES	M/F	SYMBOL
8	AAA176HH340	Connector, w/ Mounting Feet	20	Female	BO1
	AAA447BK84	Connector	20	Male	
9	AAA176HH325	Connector	9	Female	BO2
	AAA176HH326	Connector	9	Male	
10	AAA176HH313	Connector, w/ Mounting Feet, Pin Spacing 5.08 mm	3	Male	CLS
	AAA447BK76	Connector, Pin Spacing 5.08 mm	3	Female	
11	AAA176HH317	Connector, w/ Mounting Feet	9	Female	CRD1
	AAA176HH95	Connector	9	Male	
12	AAA176HH58	Connector, w/ Mounting Feet	4	Female	CRD2
	AAA447AP256	Connector	4	Male	
13	AAA176HH313	Connector	3	Male	RPP
	AAA447BK77	Connector	3	Female	

# Connectors

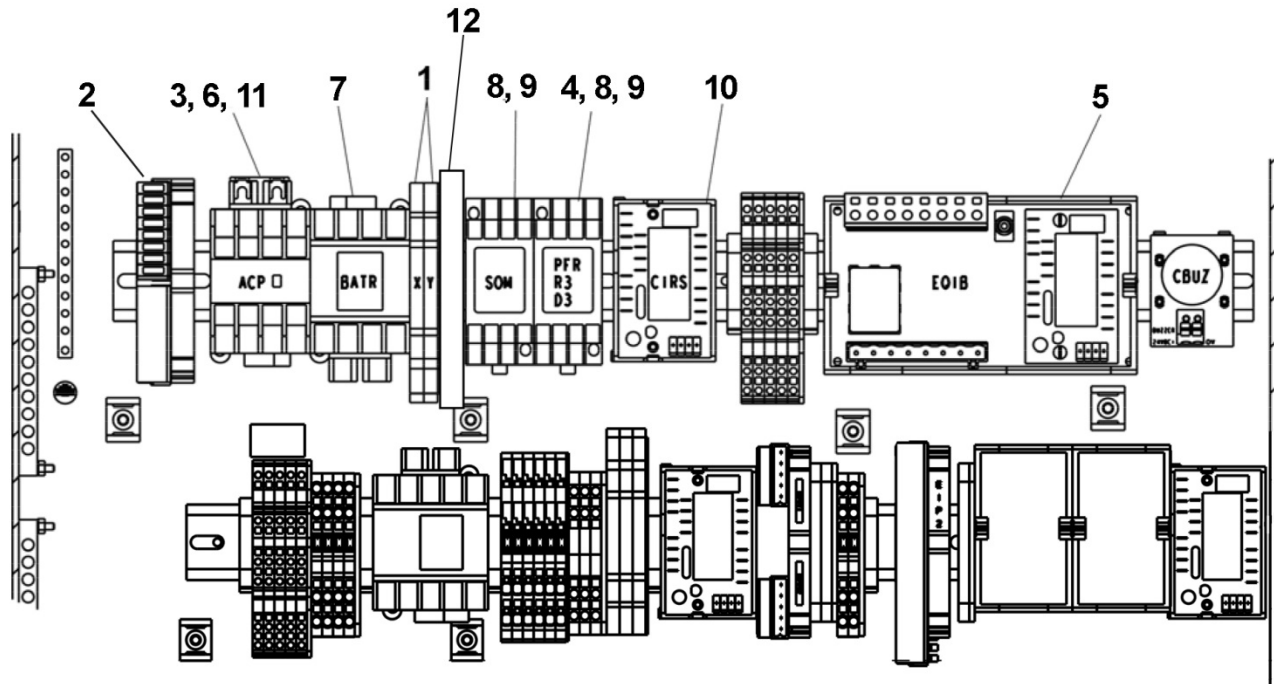
**10-ABA21305BN**



REF. No.	AAA21305BN- ADA21305BN	AEA21305BN	DESCRIPTION	POLES	M/F	SYMBOL
	PART No.	PART No.				
14	AAA176HH98	---	Connector, 5 mm, w/ Mounting Feet	9	Female	CB1
	---	AAA176HH312	Connector, 5 mm w/ Mounting Feet	10	Female	
	AAA176HH306	---	Connector, 5 mm	9	Male	
	---	AAA176HH307	Connector, 5 mm	10	Male	
15	AAA176HH301	---	Connector, 7.5 mm, w/ Mounting Feet	12	Female	CB2
	---	AAA176HH388	Connector, 7.5 mm, w/ Mounting Feet	13	Female	
	AAA176HH303	---	Connector, 7.5 mm	12	Male	
	---	AAA176HH389	Connector, 7.5 mm	13	Male	
16	AAA176HH58		Connector, w/ Mounting Foot	4	Female	J1, J2, J3, J4
	AAA447AP256		Connector, w/ Mounting Foot	4	Male	PX
17	AAA176HH61		Connector, w/ Mounting Foot	20	Female	TCP1
	AAA447BK74		Connector	20	Male	

# Terminal Blocks, Relay, Connectors

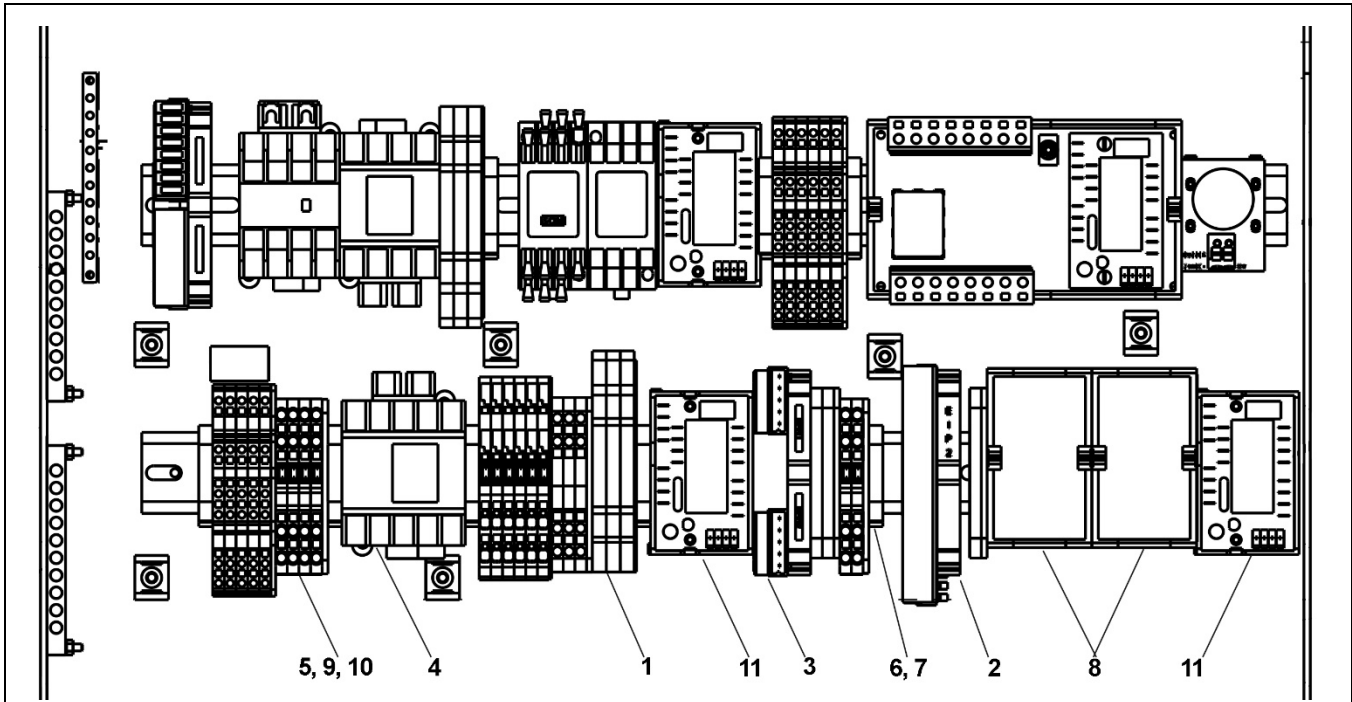
**10-ABA21305BN**



REF. No.	ALL VINTAGES		
	PART No.	DESCRIPTION	SYMBOL
1	AAA303EP199	Block, Terminal, w/ Relay	X, Y, E
2	AAA176HH342	Connector, Female, 8-Pole	SP1, PLUG
	AAA176HH341	Connector, Male, 8-Pole, w/ Mounting Feet	SP1, SOCKET
	GAA648E7	Connector, Female, 8-Pole, w/ Mounting Feet	SP2, SOCKET
	AAA447AP260	Connector, Male, 8-Pole	SP2, PLUG
3	AAA613DL72	Contact, Auxiliary (2 NO, 2 NC)	ACP
4	AAA612AF3	Diode (FLP)	D2 or D3
5	ABB21380E3	Module, Earthquake	EQIB
6	AAA613DL31	Relay, 120 VAC Coil (2 NO, 2 NC)	ACP
7	AAA613DL119	Relay, 48 VDC Coil (3 NO, 1 NC)	BATR
8	AAA613CZ8	Relay, Socket Mount, 24 VDC	LR, PFR, or SOM
9	618AE2	Socket, Relay	LR, PFR, or SOM
10	AAB26810A1	Station, Remote	C1RS
11	AAA613DL61	Suppressor	ACP
12	AAA303EP243	Terminal Block w/ Relay	PINR

# Terminal Blocks, Relay, Connectors

**10-ABA21305BN**



<b>ALL VINTAGES</b>			
<b>REF. No.</b>	<b>PART No.</b>	<b>DESCRIPTION</b>	<b>SYMBOL</b>
1	AAA303EP199	Block, Terminal, w/ Relay/MTI	S, T, or V
2	AAA176HH63	Connector, Male 20-Pole	EIP2
	AAA176HH61	Connector, Female w/Mounting Foot, 20-Pole	
3	AAA176HH354	Connector, Male w/Mounting Feet 5-Pole; Pin Spacing 5.08 mm	RPVT1, RPVT2
	AAA176HH353	Connector, Female w/ Mounting Feet 5-Pole; Pin Spacing 5.08 mm	
4	AAA638AF21	Contactora, 24 VDC Coil (3 Main & 1NO, 1NC Aux.)	MROR
5	AAA612AF3	Diode (FLP)	D2 or D3
6	AAA612AK1	Diode	D4, D5 See <b>NOTE</b>
7	AAA375BR4	Fuse, 0.5 A	F10 See <b>NOTE</b>
8	AAA21380D1	Module, Filter (RSL)	ZB1, ZB2
9	AAA613CZ8	Relay, Socket Mount, 24 VDC	LR, PFR, or SOM
10	618AE2	Socket, Relay	LR, PFR, or SOM
11	AAB26810A1	Station, Remote (MTI)	C3RS, C4RS

**NOTE:** This power supply and related components are no longer required starting on 6/28/2021 for vintage AEA21305BN.

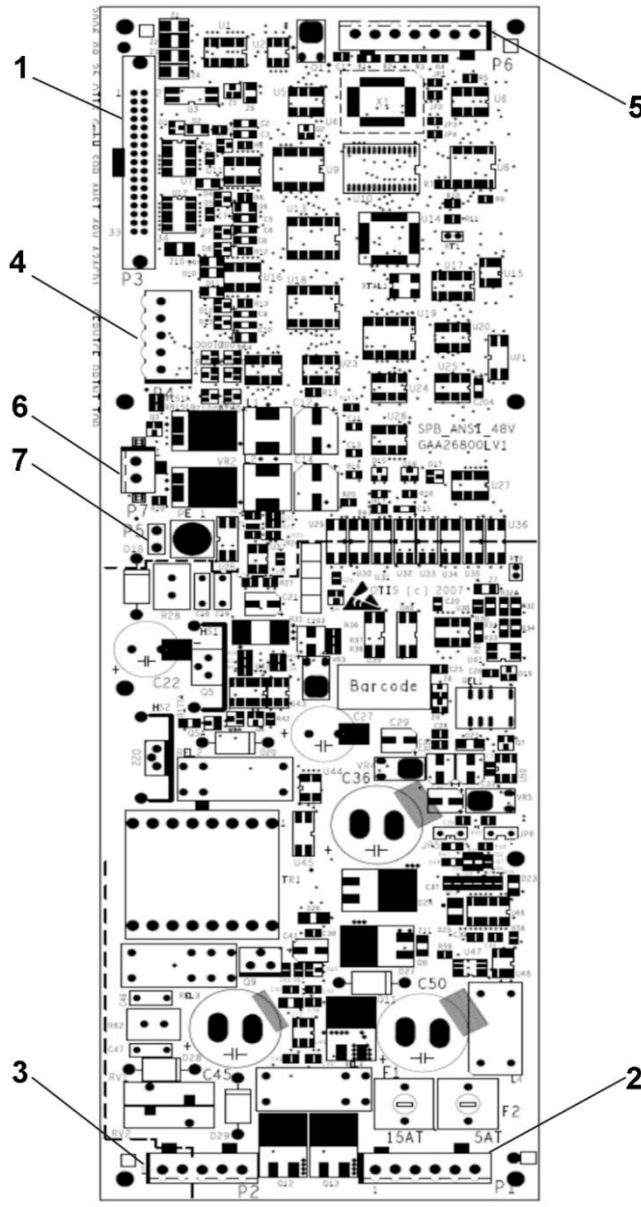
# I/O Board Connectors

**10-ABA21305BN**

<b>ALL VINTAGES</b>					
<b>PART No.</b>	<b>DESCRIPTION</b>	<b>PINS</b>	<b>M/F</b>	<b>SYMBOL</b>	<b>DRAWING</b>
AAA447AE13	MTA .156, w/o Lock, Crimp-Snap	12		IOBD P1	
AAA447AE8	MTA .156, w/o Lock, Crimp-Snap	7		IOBD P2	
AAA447AE9	MTA .156, w/o Lock, Crimp-Snap	8		IOBD P3	
AAA447AE11	MTA .156, w/o Lock, Crimp-Snap	10		IOBD P4	
AAA447AE4	MTA .156, w/o Lock, Crimp-Snap	4		IOBD P5	
AAA447AE10	MTA .156, w/o Lock, Crimp-Snap	9		IOBD P6	A__21602N
AAA447AE6	MTA .156, w/o Lock, Crimp-Snap	5		IOBD P7	A__21602N
AAA447AE14	MTA .156, w/o Lock, Crimp-Snap	13		IOBD P8	
AAA447AE7	MTA .156, w/o Lock, Crimp-Snap	6		IOBD P9	
AAA447BK1	5 mm	4	Male	IOBD P10A	A__21600EF
AAA447BK1	5 mm	4	Male	IOBD P10B	A__21600EF
AAA447BK3	5 mm	9	Male	IOBD P11	A__21601AAD
AAA447BK4	5 mm	9	Male	IOBD P12	A__21601AAD
AAA447BK5	3.5 mm	4	Female	IOBD P14	
AAA447BK6	5 mm	5	Male	IOBD P15	A__21600EF
AAA447BK7	3.5 mm	3	Female	IOBD P16	A__21602N
AAA447BK72	3.5 mm	10	Female	IOBD P17	A__21602N
AAA447BK8	3.5 mm	5	Female	IOBD P18	
AAA447BK9	3.5 mm	7	Female	IOBD P19	
AAA447BK10	3.5 mm	8	Female	IOBD P20	
AAA447BK11	3.5 mm	10	Female	IOBD P21	
AAA447BK12	5 mm	10	Male	IOBD P22	
AAA447BK73	5 mm	2	Male	IOBD P23	
AAA447BK13	5 mm	6	Male	IOBD P24	
AAA447BK14	5 mm	6	Male	IOBD P25	
AAA447BK15	5 mm	5	Male	IOBD P26	
AAA447BK16	5 mm	5	Male	IOBD P27	
AAA447BK17	5 mm	4	Male	IOBD P28	
AAA447BK18	7.5 mm	2	Male	IOBD P29	
AAA447BK19	5 mm	8	Male	IOBD P30	
AAA447BK20	5 mm	8	Male	IOBD P31	
AAA447BK21	5 mm	10	Female	IOBD P32	
AAA176HH322	5 mm	3	Male	IOBD P43	
AAA447AE4	MTA .156, w/o Lock, Crimp-Snap	4		P181	
AAA447AE4	MTA .156, w/o Lock, Crimp-Snap	4		P182	

# SPB Connectors

**10-ABA21305BN**



REF. No.	ALL VINTAGES				
	PART No.	DESCRIPTION	PINS	M/F	SYMBOL
1	GAA174APX1	Cable, Ribbon			SPB P3
2	AAA447AP70	Connector, 5 mm	6	Female	SPB P1
3	AAA447AP69	Connector, 5 mm	5	Female	SPB P2
4	AAA447BK78	Connector, 5 mm (Ref. Dwg. A__21600CY)	5	Male	SPB P4
5	AAA447AP71	Connector, 5 mm (Ref. Dwg. A__21602N)	7	Female	SPB P6
6	AAA447AP66	Connector, 5 mm	2	Female	SPB P7
7	----	Connector, PE, AMP 6,3 mm x 0,8 mm			SPB P5