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.
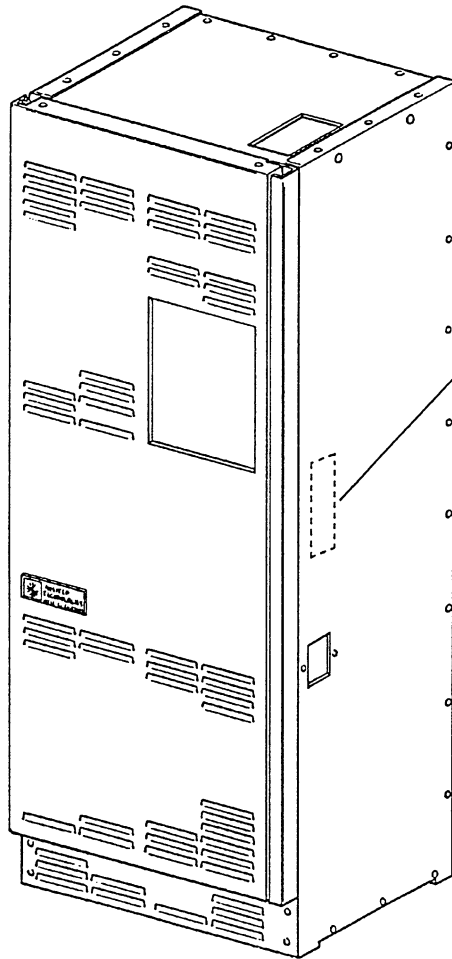
CONTROLLER
SERIAL NO.
SALES NO.
MODEL NO.
VOLTS
AMPS
PHASES
HERTZ
H.P.
WIRES
COMP. VINTAGE NO.   10 - AAA21290C
COMPONENT CODE 10
WIRING DIAGRAM
DATE

SERVICE ENGINEERING
Otis Elevator Company
Bloomfield, Connecticut USA

OTIS

Leaflet Revisions

This leaflet lists spare parts and software chips for the Elevonic®411 controller. This leaflet covers the following vintages:

- AAA21380AAA
- ABA21380AAA
- ACA21380AAA
- ADA21380AAA

Date Revised	Subject Matter Expert	Reason for Revision
October 1990	- - -	New SPL
April 1993	Ali Bozorgzadeh	Update parts and artwork
August 1, 2000	John Doane	9693F switchover module replaced by GAA26800AL switchover module. Updated PCB assemblies to latest part numbers (eg. AAA__ to ABA__). Added (Fuji) AAA613DL relays.
June 24, 2003	Frank Dyer	Removed voltage regulator p/n AAA00616AAG001 and added replacement regulator and upgrade kit (p.15).
January 6, 2010	Jeffrey Holmes	p 12 updated pictures and added ribbon cable assembly p/n AAA174KV1.
October 30, 2013	Ali Bozorgzadeh	Illustrations changed for ABB21380F1, AAA613CZ2
February 17, 2016	Ali Bozorgzadeh	Updated parts information and illustration on p. 13; Added p/n AAA21305DJ1 and NOTE 2 on p. 18
September 21, 2022	Juan Murillo	Updated to include OBSOLESCENCE note on cover

Related Drawings

| Drawing No.	Title	Drawing No.	Title
---	---	---	---

Related Documents

| Document ID	Title
10-8102G	Direct Drive Ripple Filter
TIP 1.1.7.1-11	MCSS 5-VDC Voltage Regulator Upgrade

Subject Matter Expert

Name	Department
Ali Bozorgzadeh	OSC, Service Engineering

This Spare Parts Leaflet (SPL) is prepared to assist you in determining the Lowest Replaceable Units (LRU) supported by the Otis Service Center for the standard version of the product titled on the preceding page. The parts are chosen by Otis associates from: Engineering, Field Engineering, Service Engineering, and Manufacturing. We attempt to make part identification as easy as possible. The SPL, however, cannot be all inclusive. Elevator and escalator contracts classified as either "special" or "custom" are not addressed. Alternative sources of information such as: the Contract Folder, Technical Information Publications, Field Education Articles, Construction Letters, etc. may give the information you are after. You live in the real world of maintaining your elevator and escalator contracts. On a daily basis, situations arise regarding parts identification and at times, for some reason, the part you need is not in the SPL. If you think a standard part not listed should be—let us know. We will respond.
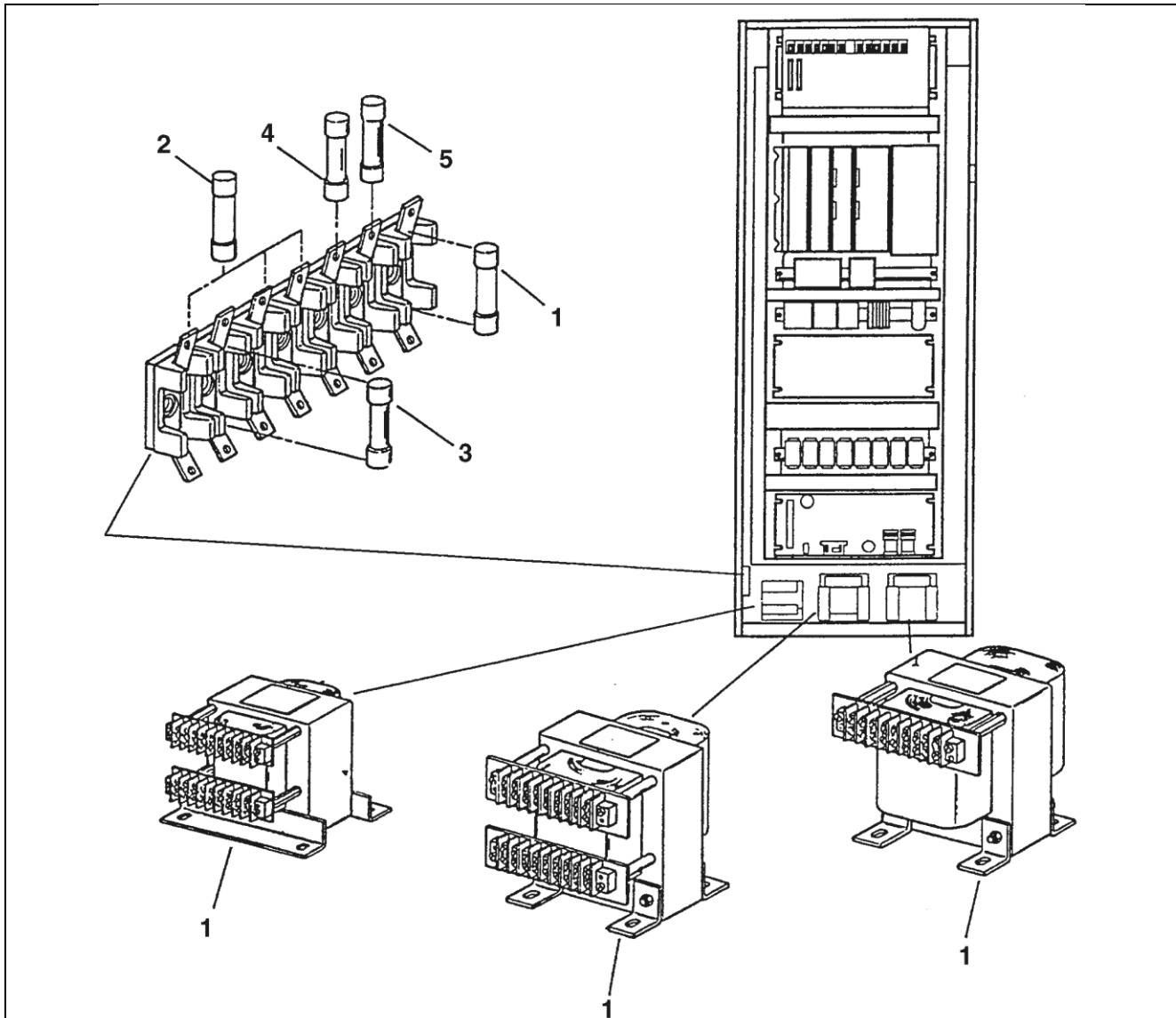
REF. No.	ALL VINTAGES PART No.	DESCRIPTION	SYMBOL
1	AAA375BR2	Fuse, 0.12 A	F7
2	AAA375BR15	Fuse, 5 A	F1, F3, F4
3	AAA375BR18	Fuse, 10 A	F2
4	AAA375BR20	Fuse, 15 A	F5
5	AAA375BR21	Fuse, 20 A	F6
6	AAA235ET1	Transformer (w/luxury ride)	TRF3
6	AAA00235AAK001	Transformer, 120 V AC Primary (w/o luxury ride)	TRF3
7	~~ABA00235AAH001~~ AEA00235AAH001	Transformer, 120 V AC Primary	TRF1
8	ABA00235AAJ001	Transformer, 120 V AC Primary	TRF2
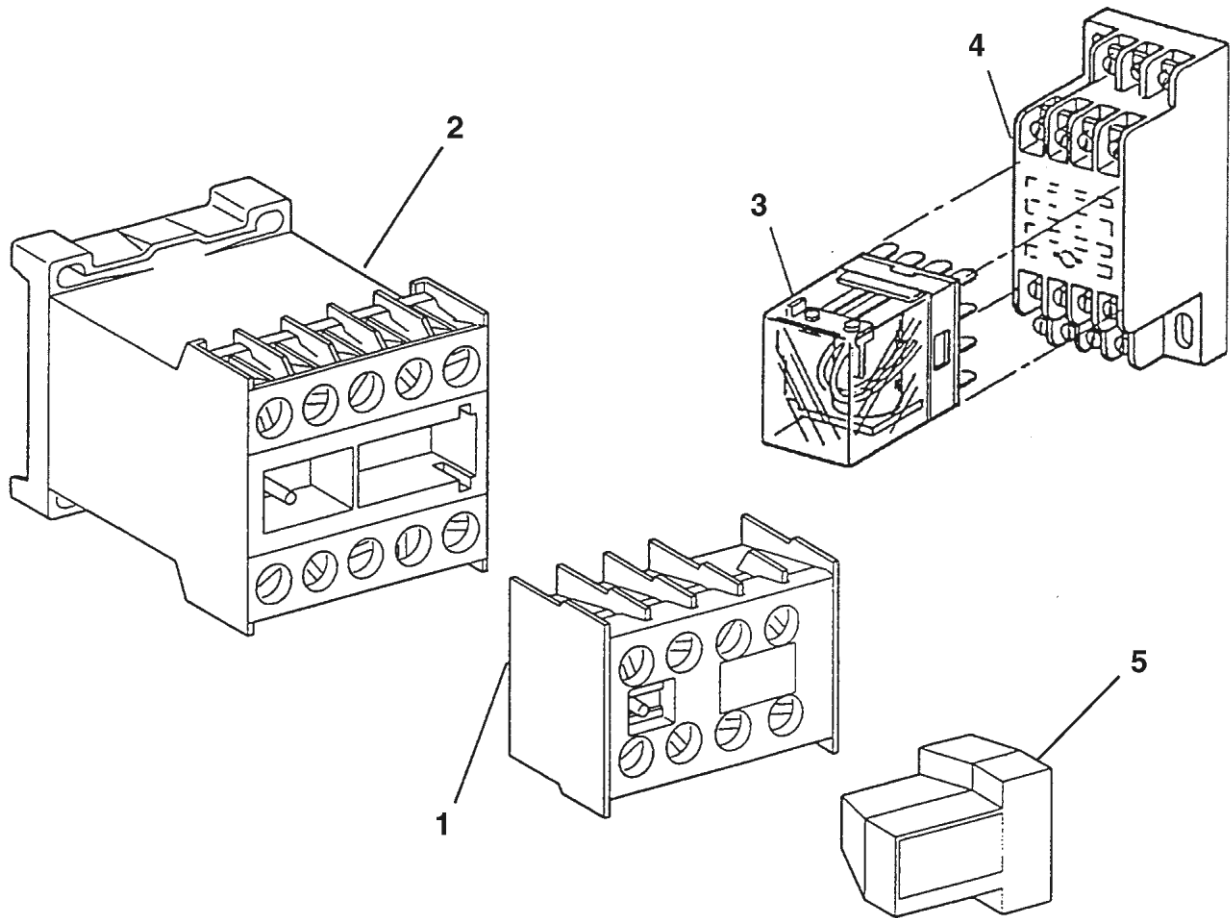
	AAA21380AAA ABA21380AAA ACA21380AAA	ADA21380AAA		
REF. No.	**PART No.**		**DESCRIPTION**	**SYMBOL**
1	~~AAA613CK7~~→	AAA613CX207	Contact, Accessory, 1 Open, 1 Closed	INA, U, D, AUD, EES, CIO
	~~AAA613CK3~~→	AAA613CX203	Contact, Accessory, 2 Closed	DZ, FGDS1, FGDS2
	~~AAA613CK6~~→	AAA613CX206	Contact, Accessory, 2 Open, 2 Closed	SC
2	~~AAA613CN2~~→	AAA613CX104	Relay, 4-Pole, Normally Open, 120 V AC	INA, U, D, CIO, SC, AUD, DZ, EES, FGDS1, FGDS2
3	630F3		Relay, 24 V DC	GT, PSO
4	618AE2		Relay Socket	- - -
5	~~AAA605W3~~→	AAA613CX303	Suppressor, Surge	- - -
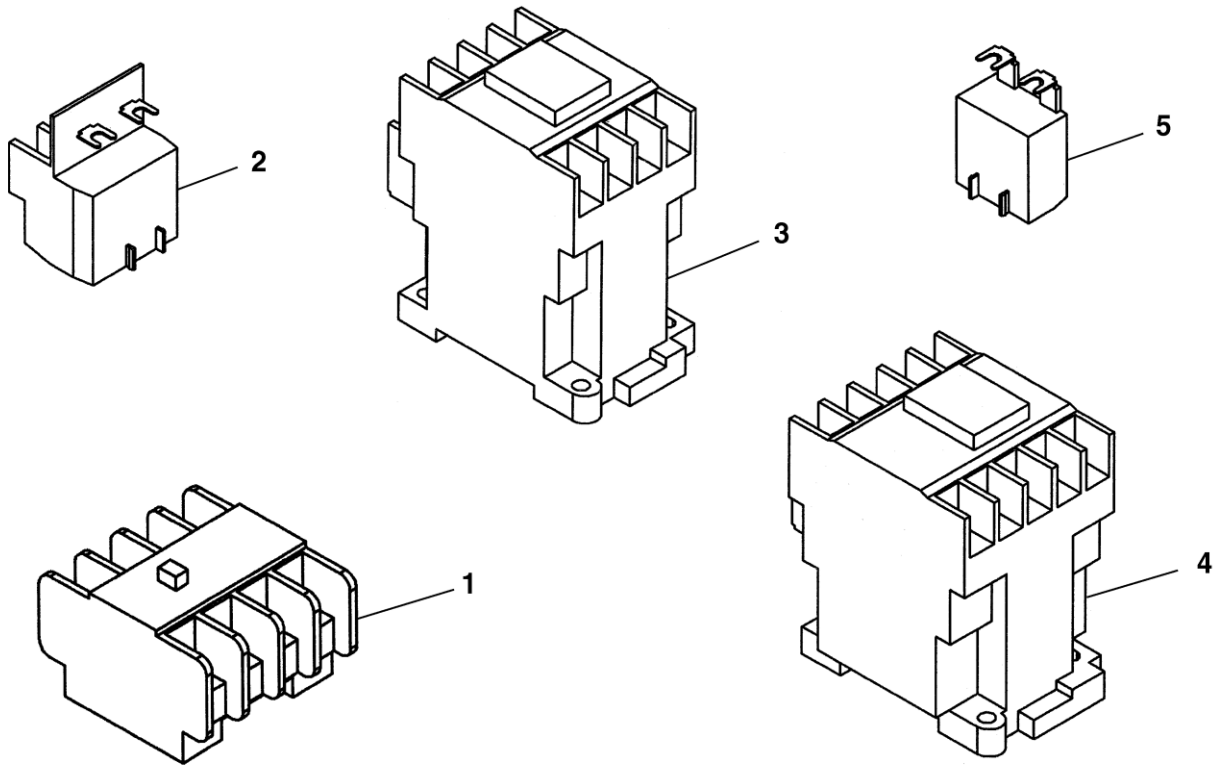
REF. No.	PART No.	DESCRIPTION	SYMBOL
		AEA21380AAA	
		AFA21380AAA	
1	AAA613DL70	Auxiliary Contact (4NO)	SC
	AAA613DL71	Auxiliary Contact (3NO, 1NC)	AUD, D, INA, U, DZ, INB, ADZ
	AAA613DL72	Auxiliary Contact (2NO, 2NC)	SC, D, U, LVC, LV1, LV2, RLV1, RLV2
2	AAA613DL80	Driver, Coil	DOL, ADOL, LV1, LV2, LVC, RLV1, RLV2
3	AAA613DL29	Relay (4NO)	CIO, SC, LBR, LV1, LV2, LVC, SC, RLV1, RLV2
	AAA613DL30	Relay (3NO, 1NC)	DZ, ADZ, D, DLR, ECR, EES, FGDS1, FGDS2, U, GDS
	AAA613DL31	Relay (2NO, 2NC)	AUD, D, DLF, DOL, DSR1, DSR2, EES, FGDS1, FGDS2, GSR1, GSR2, INA, U, ADOL, ADSR1, ADSR2, AGDS1, AGDS2, AGSR1, AGSR2, TAS1, TAS2, BAS1, BAS2, INA, INB, D, EES, U, SC, LVC, LV1, LV2, RLV1, RLV2
4	AAA613DL42	Relay (5NC)	CIO
5	AAA613DL61	Suppressor	ALL 613DL

General Purpose & Electrical Hardware Socket Relay
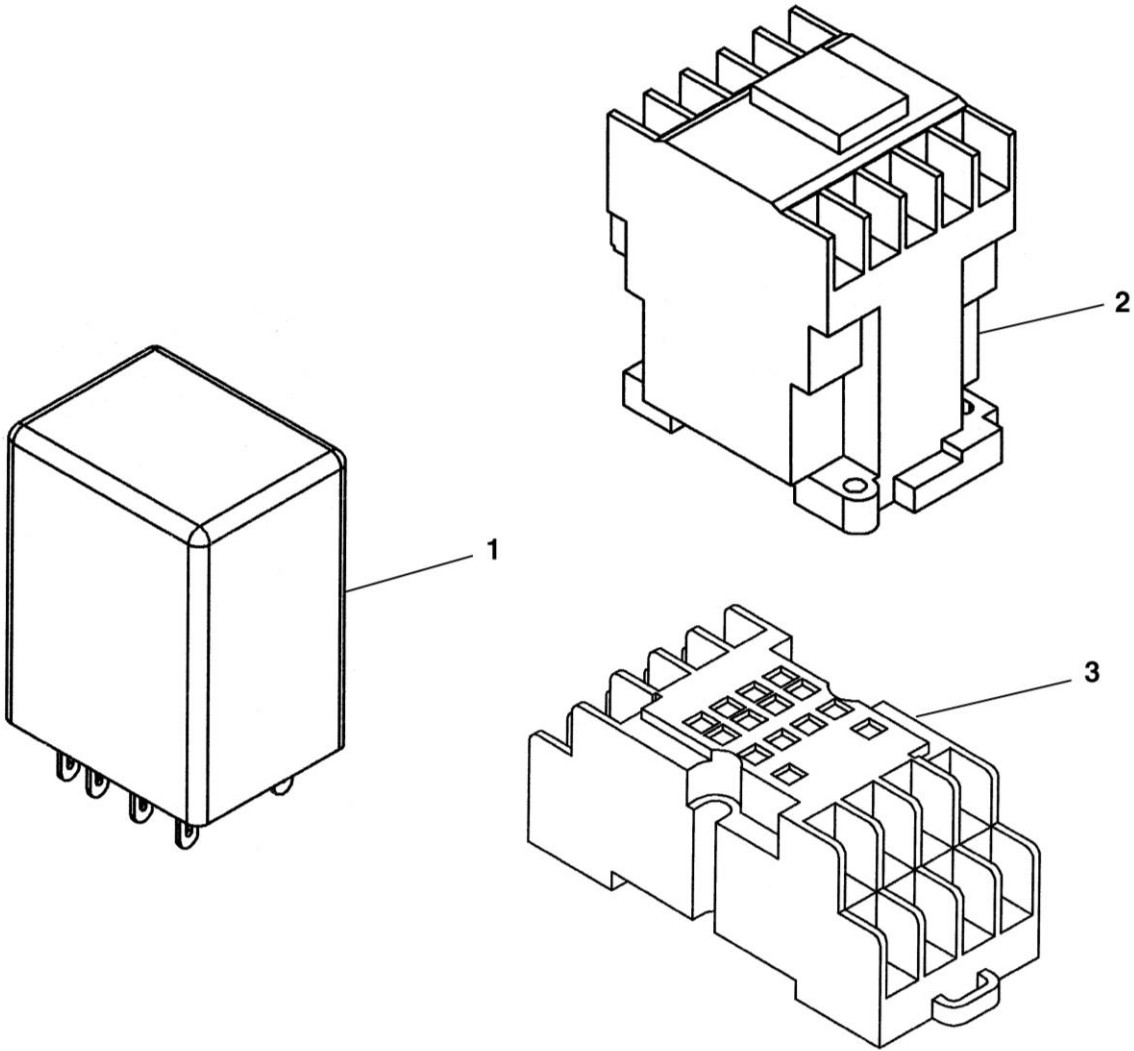
ALL VINTAGES			
REF. No.	PART No.	DESCRIPTION	SYMBOL
1	AAA613CZ10	Relay (4 Form C)	ODZ
2	AAA638AF15	Relay, Contactor	LIM, RLIM
3	AAA618AF6	Relay, Socket	ODZ
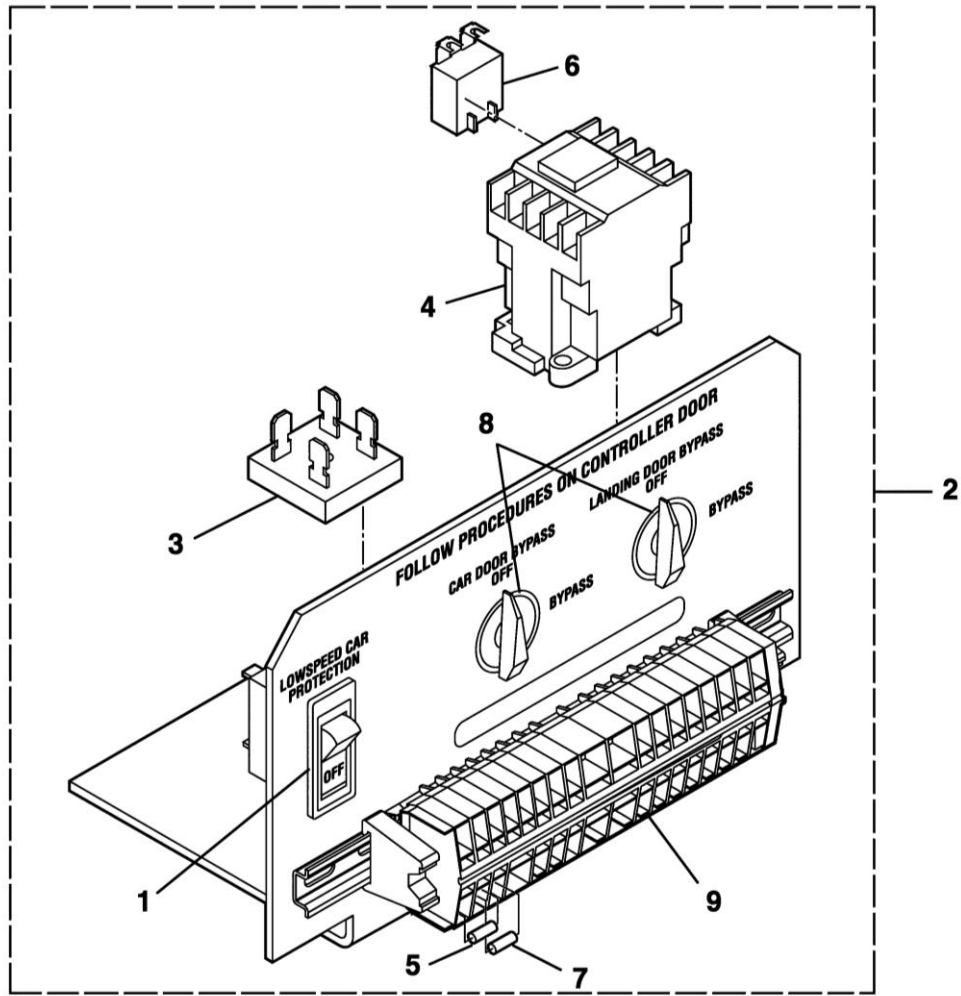
	ALL VINTAGES		
REF. No.	PART No.	DESCRIPTION	SYMBOL
1	AAA637B8	Circuit Breaker, 1 Pole, 5.0 A, (lamp, neon green, 120/250 V AC)	CB1
2	~~AAA7145CF1~~ ABA7145CF1	Protection Module, Low Speed (B44 Code)	B44
3	230BS2	Rectifier, 200 V_R, 25 A	RF1
4	~~AAA613CX104~~ AAA613DL29	Relay, 4-Pole, 120 V AC	B44
5	AAA232FP85	Resistor, 33 K Ohms, 2 W	R1
6	AAA613CX302	Suppressor, Surge (for AAA613CX104 Relay)	B44
6	AAA613DL61	Suppressor, Surge (for AAA613DL29 Relay)	B44
7	AAA605AD22	Suppressor, Transzorb®	TZ1
8	AAA21180B1	Switch, Rotary	CDBP, LDBP
9	303G28	Terminal Block, 8 Terminals	B44TB
9	AAB303EB4	Terminal Block, 33 Terminals	B44TB
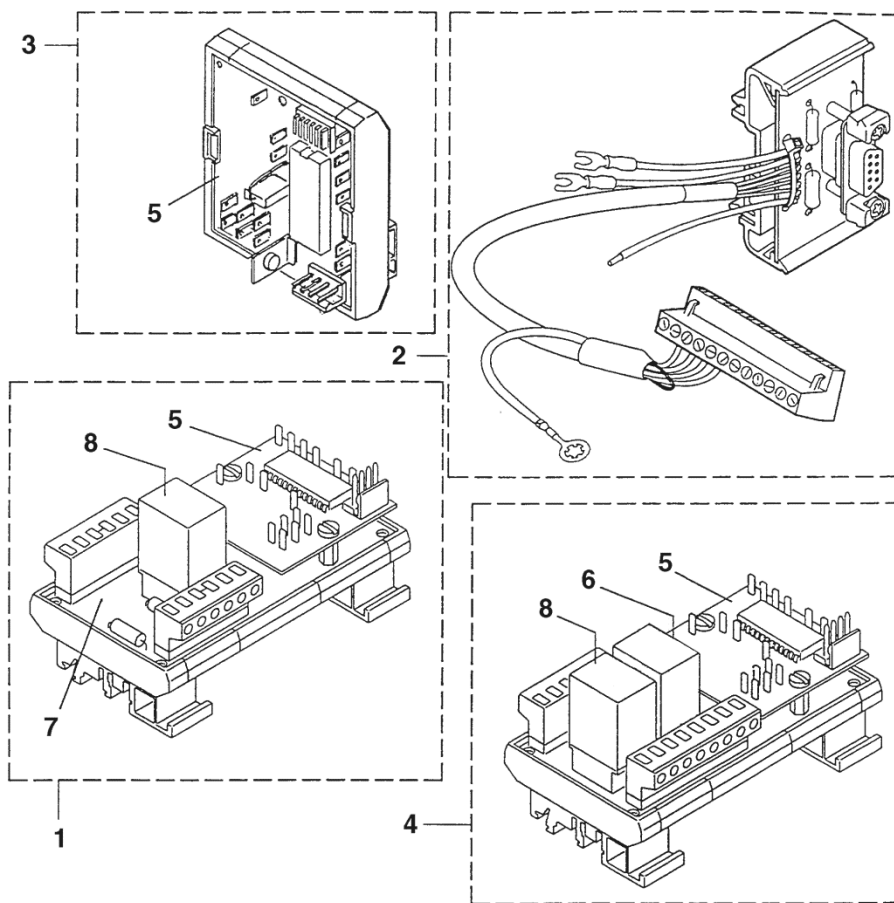
AAA21380AAA ABA21380AAA ACA21380AAA	ADA21380AAA		
REF. No.	**PART No.**	**DESCRIPTION**	**SYMBOL**
1	- - -	~~AAA21380E1~~ ~~ABA21380E1~~ ABB21380E1	Assembly, Seismic Module, w/Holder	EQIB
2	- - -	AAA26800ACE001	Module, Diagnostic Interface	DIB
3	~~7145AY1~~ ABA26810A		Module, Remote Station	CIB, FIB, WCOB
4	- - -	~~AAA21380F1~~ ABB21380F1	Module, Standby Power, w/Holder	SPIB
5	~~A9693C4~~ GEA23550D10		PC Board, Remote Station RS4	CIB, FIB, WCOB
			PC Board, Remote Station RS5	
6	---	~~AAA26800KT1~~ ABA26800KT1	PC Board, Seismic Module	EQIB
7	- - -	~~AAA26800KS1~~ ABA26800KS1	PC Board, Standby Power Module	SPIB
8	- - -	AAA613CZ2	Relay, 4-Pole, 24 VDC	K1
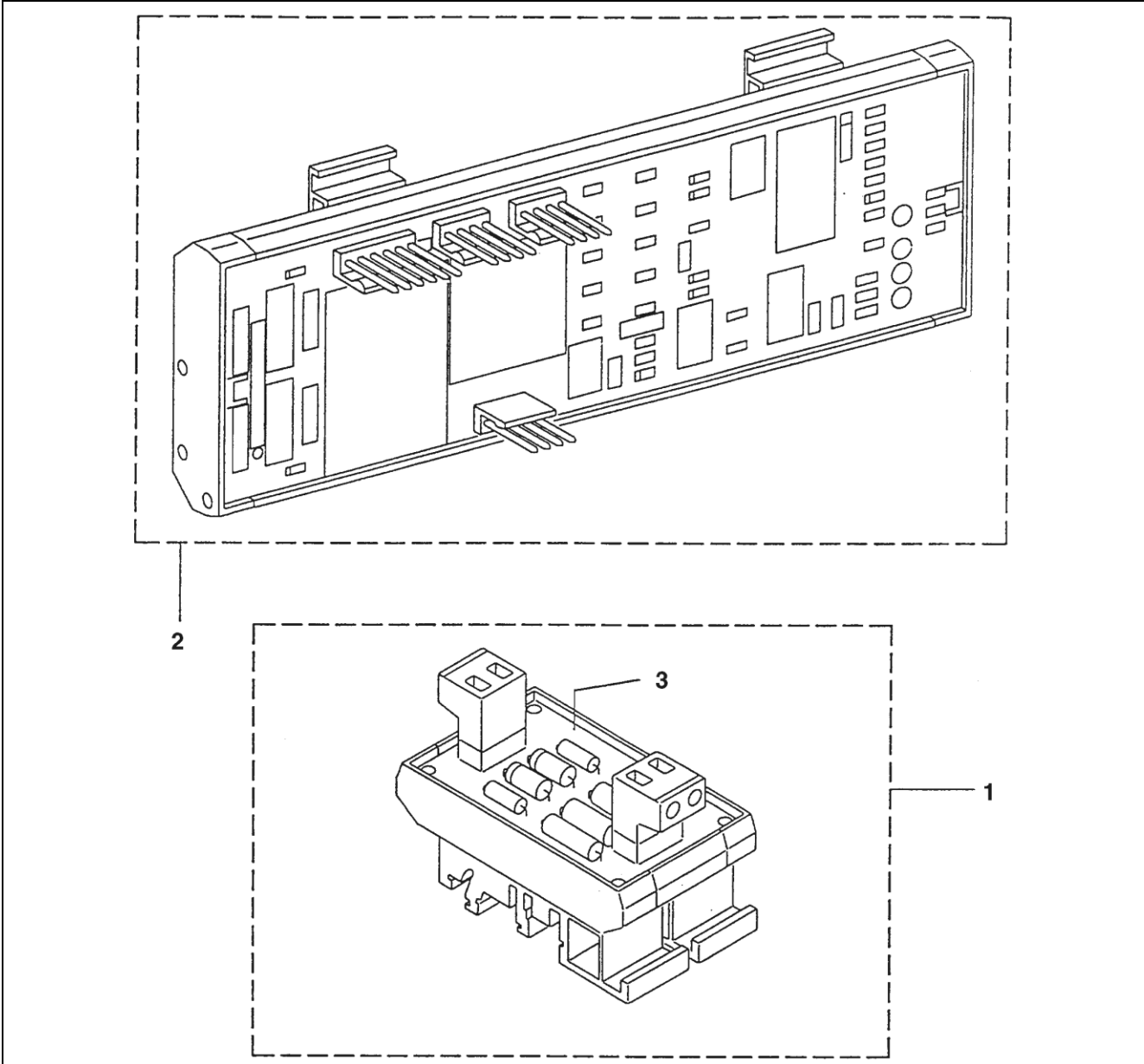
	AAA21380AAA ABA21380AAA ACA21380AAA	ADA21380AAA		
REF. No.	PART No.		DESCRIPTION	SYMBOL
1	- - -	AAA21380D1	Assembly, Filter, PC Board & Base	ZB1-ZB3
2	~~9693F1~~ ~~GAA26800AL1~~ GBA26800AL1		Module, Switchover	SOM
3	- - -	AAA26800KP1	PC Board, Filter	ZB1-ZB3
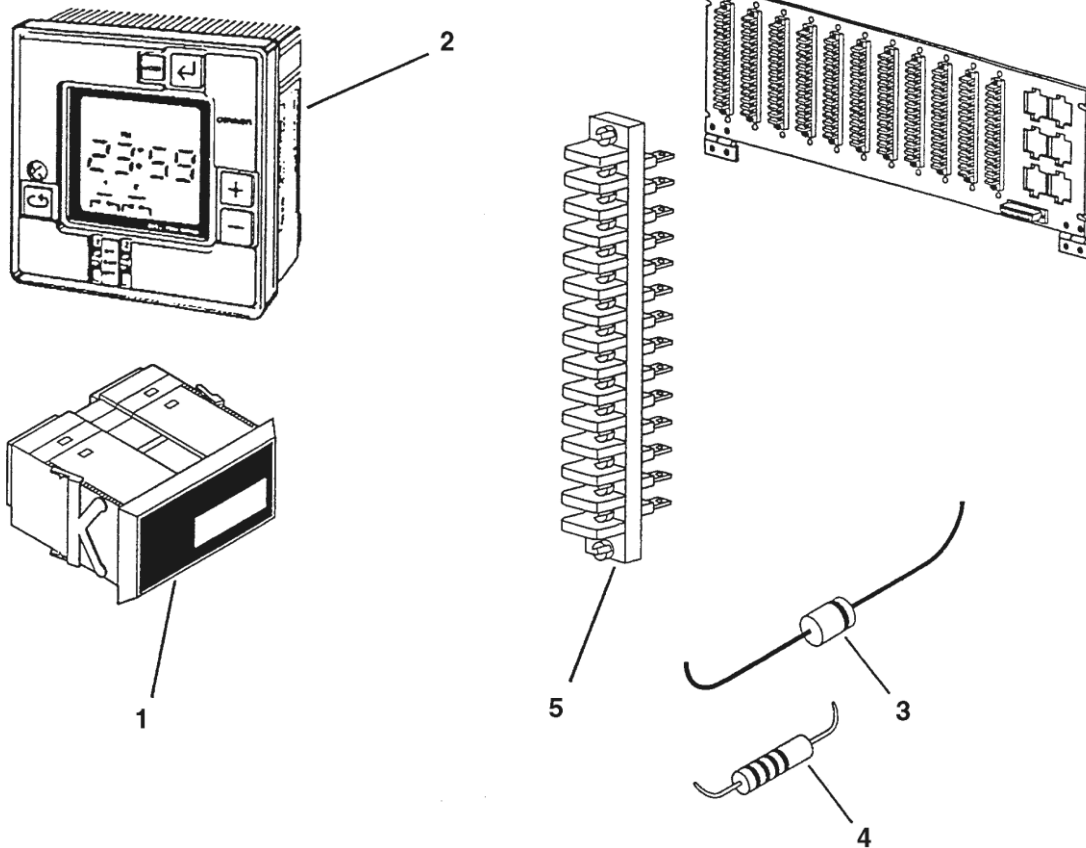
	AAA21380AAA ABA21380AAA ACA21380AAA	ADA21380AAA		
REF. No.	PART No.		DESCRIPTION	SYMBOL
1	- - -	AAA21305A1	Assembly, Counter, w/Bracket	RC
	- - -	CAA623C1	Counter	RC
2	623T3		Clock, w/Mounting Bracket & Screw	- - -
3	~~AAA612T4~~ AAA303EP36		Diode, 400 V_R 1 A	D1-D11
4	232G19	- - -	Resistor, 2.2 K Ohms	R1-R7
	LX232F508	- - -	Resistor, 180 Ohms	R8
	- - -	AAA232FM55	Resistor, 180 Ohms, 0.5 W	R1, R2
5	- - -	303DB1	Terminal Block, 14 Terminals	- - -
*	AAA00303AAA004		Terminal Block, Clamp	- - -
	AAA00303AAA001		Terminal Block, Component Plug	- - -
	AAA00303AAA002		Terminal Block, Cover	- - -
	AAA00303AAA003		Terminal Block, End Cover	- - -

* Parts not shown.
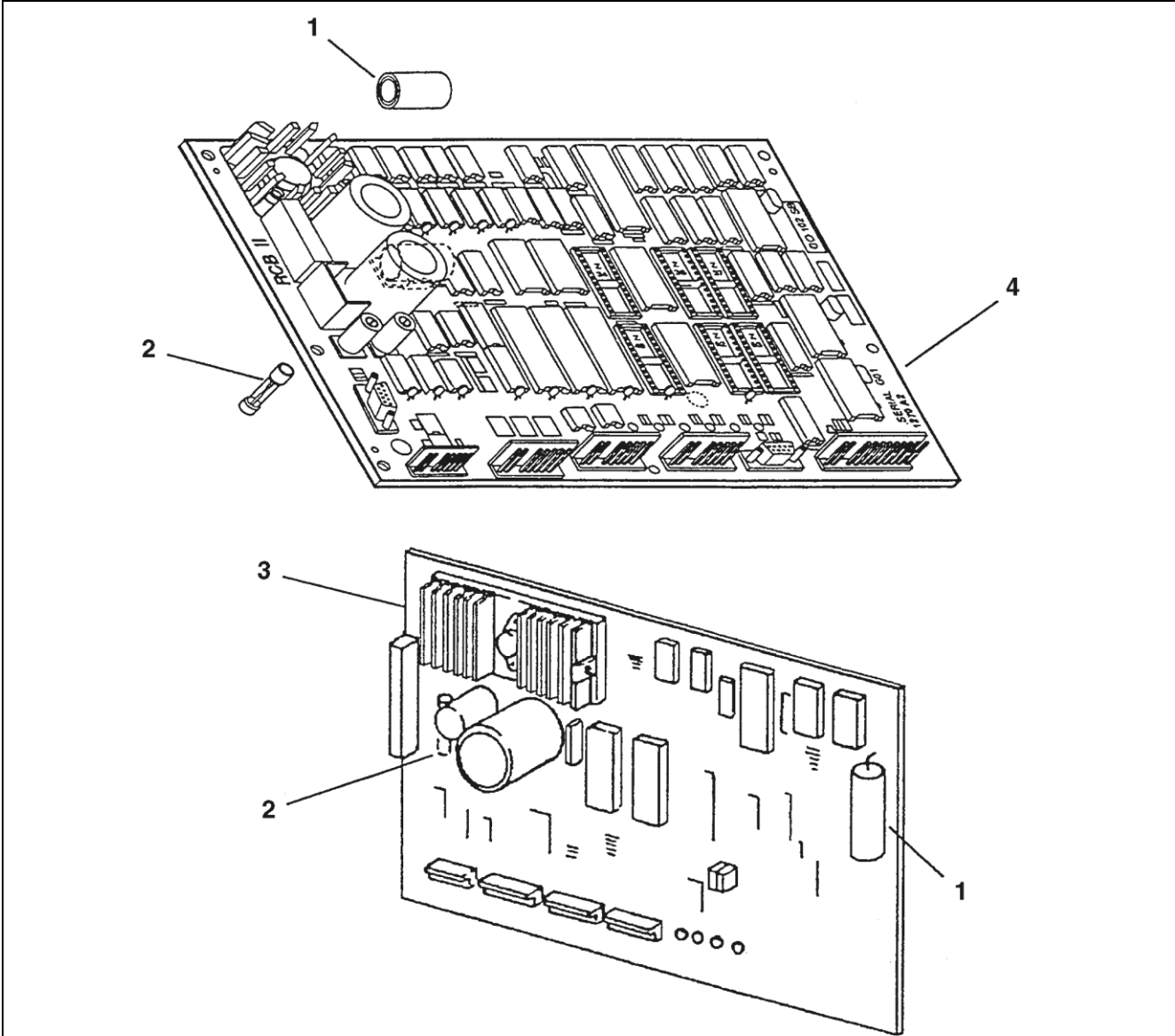
	AAA21380AAA ABA21380AAA ACA21380AAA	ADA21380AAA		
REF. No.	PART No.		DESCRIPTION	SYMBOL
1	GO718A1		Battery, Lithium, 3.0 V	- - -
2	GO375AF25	- - -	Fuse, 4 AT	F1
	GO375AF18	- - -	Fuse, 1 AT	F2
	- - -	GO375AF22	Fuse, 2 AT	F1, F2
3	A9693D1	- - -	Ring Car Board, RCB1A	OCSS
4	- - -	~~GCA21270A3~~ GFA21270A3	Ring Car Board, RCBII, w/o EPROM	OCSS
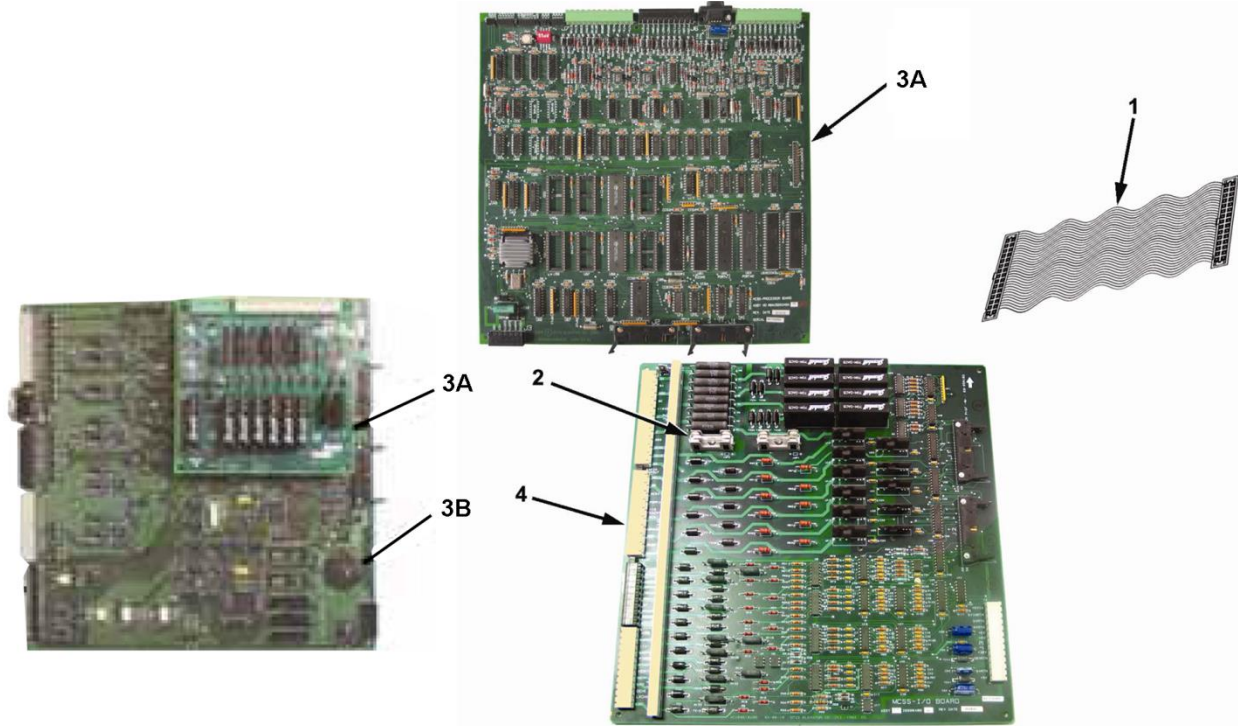
See p. 18 for EEPROMS and software.

REF. No.	ALL VINTAGES PART No.	DESCRIPTION		SYMBOL
1	AAA174KV1	Cable Assembly, Ribbon, 30 Pin, 305 mm L		---
2	AAA375BT18	Fuse, AGC, 3 A, 250 V		F1, F2
3A	~~AAA26800ABA001~~ ABA26800ABA001	PC Board, Motion Control Subsystem		MCSS
3B	~~AAA26800ANX1~~ ~~ABA26800ANX1~~ ACA26800ANX1	PC Board, Motion Control Subsystem Processor, Flash Memory Base, 👁 **NOTE**		
---	AAA26800ARS1	PC Board, MCSS Extender I/O		---
4	~~AAA26800ABB001~~ ~~ABA26800ABB001~~ ACA26800ABB001	⟨ETO⟩ , Mod (w/Fuses, shown)	PC Board, Motion Control I/O	MCSS I/O
	ACA26800ABB002	⟨NAA⟩ ⟨NIPO⟩ (w/o Fuses, not shown)		

NOTE: See TIP 31.4-46 for upgrade of ABA26800ABA002 to flash base p/n ACA26800ANX1. This upgrade is possible for NAA baseline only.

A**21380AAB Power Supply Subassembly
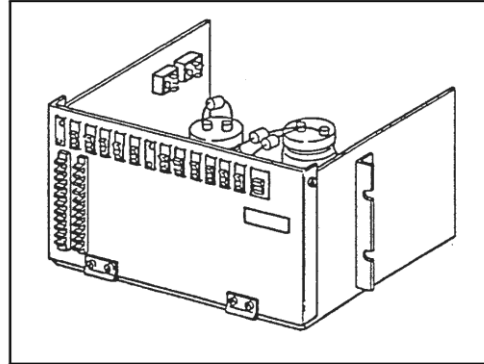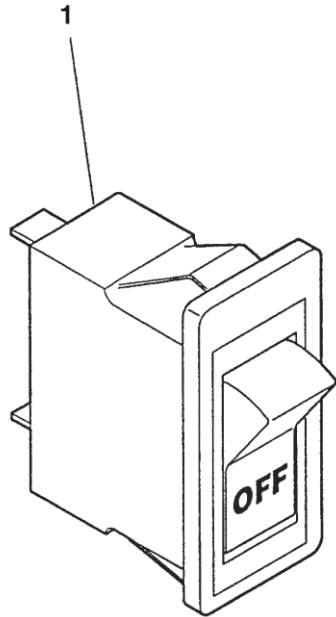
Power Supply Assembly
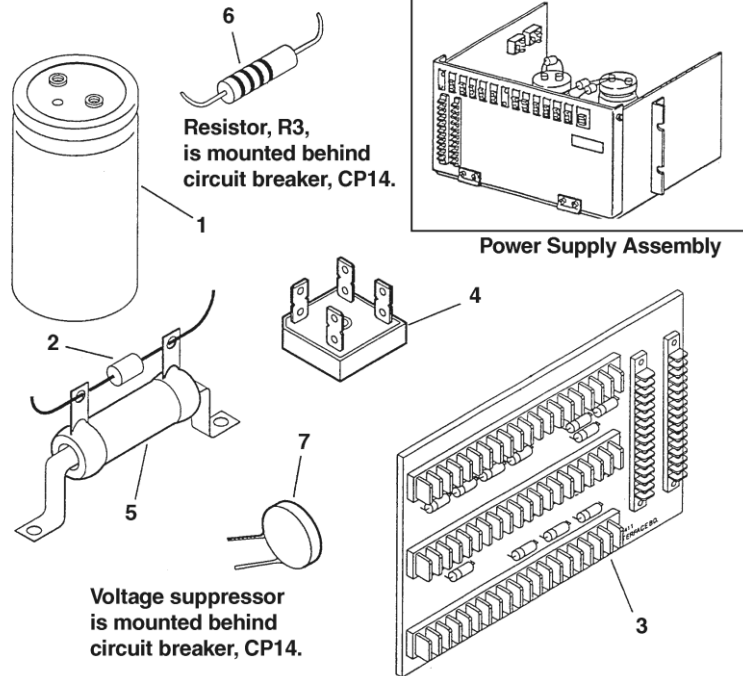
|	ALL VINTAGES		
REF. No.	PART No.	DESCRIPTION	SYMBOL
1	AAA637B1	Circuit Breaker, 1.0 A, (green LED, 12-6 VAC) High Pulse Short Delay	CP2
	AAA637B2	Circuit Breaker, 2.5 A, (green LED 24-3 VDC) (24-32 VDC) DC Short Delay	CP4
	AAA637B3	Circuit Breaker, 2.5 A, (green LED 8-16 VDC) (8-16 VDC) DC Short Delay	CP5
	AAA637B4	Circuit Breaker, 2.5 A, (neon lamp 120/250 VAC) High Pulse Short Delay	CP10, CP11, CP12
	AAA637B7	Circuit Breaker, 5.0 A, (green LED 12-6 VAC) High Pulse Short Delay	CP3
	AAA637B5	Circuit Breaker, 5.0 A, (green LED 12-16 VDC) DC Short Delay	CP6
	~~AAA637B8~~ AAA637B18	Circuit Breaker, 5.0 A, (neon lamp 120/250 VAC) High Pulse Short Delay	CP13
	AAA637B14	Circuit Breaker, 5.0 A, w/o Lamp, High Pulse Short Delay	CP14
	AAA637B10	Circuit Breaker, 10.0 A, (green LED 24-32 VDC) High Pulse Short Delay	CP8
	AAA637B12	Circuit Breaker, 15.0 A, LED, DC Short Delay	CP9

A**21380AAB Power Supply Subassembly

Resistor, R3, is mounted behind circuit breaker, CP14.

Power Supply Assembly

Voltage suppressor is mounted behind circuit breaker, CP14.

REF. No.	ALL VINTAGES PART No.	DESCRIPTION	SYMBOL
1	226DR11	Capacitor, 22 K μF, 2 in. D	C1, C2, C4, C5
	226DR4	Capacitor, 22 K μF, 3 in. D	
	~~226DR5~~ 226DR13	Capacitor, 820 μF	C6
	226DR12	Capacitor, 120 K μF, 2.5 in. D	C3
	226DR10	Capacitor, 110 K μF, 3 in. D	
2	AAA612AE1	Diode, Power, 3 A I_F AVG, 20 V $_{RRM}$	D1
3	ACA26800AAA001	PC Board, Power Supply Interface	- - -
4	230BS2	Rectifier, 200 V_R, 25 A	RF6
	230BS1	Rectifier, 100 V_R, 25 A	RF1, RF2, RF4, RF5
5	AAA232FR2	Resistor, 25 Ω, 25 W	R11
6	~~232AT10~~ AAA232GJ56	Resistor, 1.5 K, 5 W	R1, R2, R4, R5
	~~232G15~~ AAA232GK354	Resistor, 47 K, 1 W	R6
	232G20	Resistor, 100 K, 1 W	R3
7	AAA605AA44	Voltage Suppressor	TZ8

A**21380AAC Card Cage Subassembly
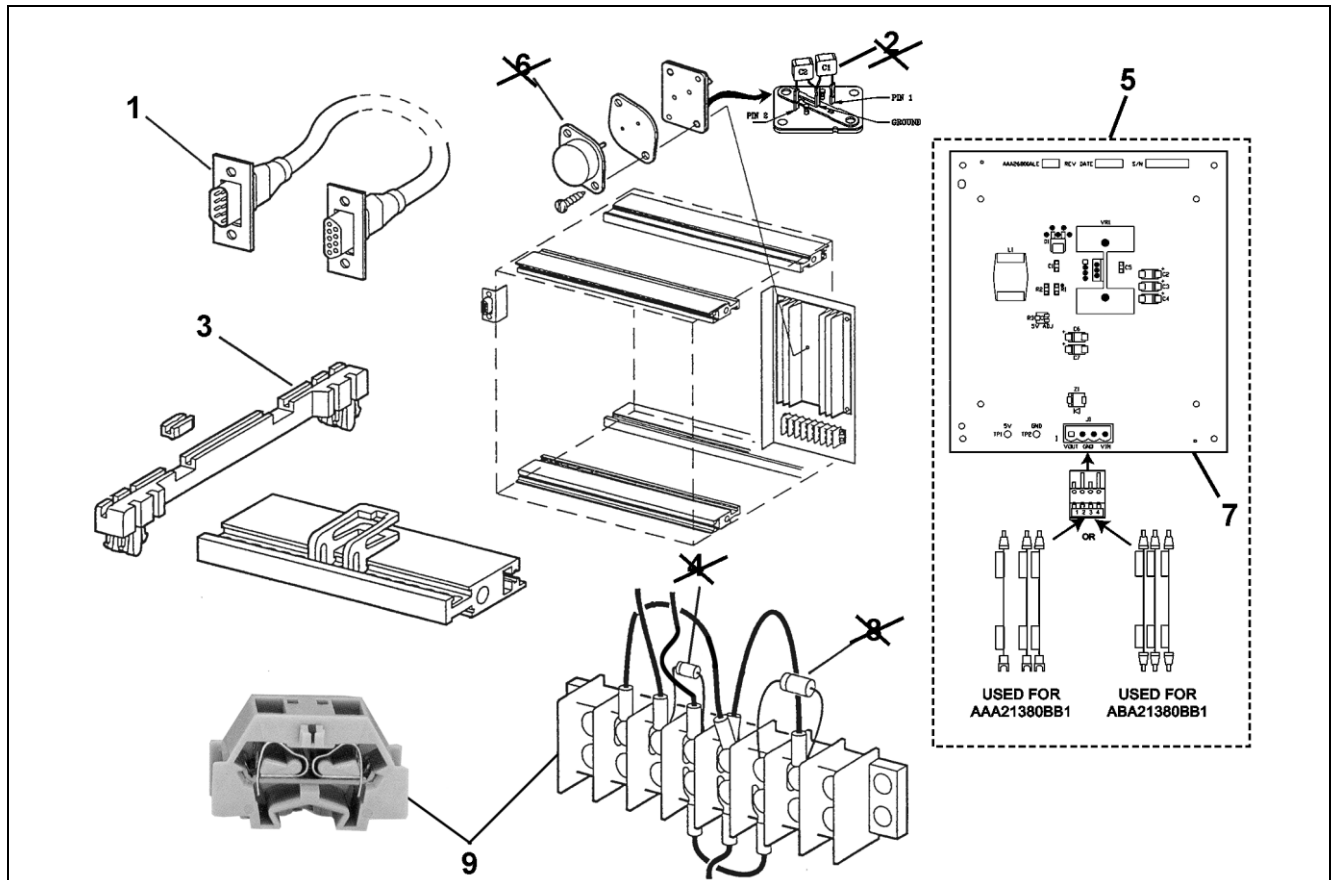
	AAA21380AAA ABA21380AAA ACA21380AAA		
REF. No.	PART No.	DESCRIPTION	REMARKS
1	AAA174PM1	Assembly, Cable, Service Tool	- - -
2	~~P226BH25~~ ~~AAA226FE16~~	Capacitor, 0.22 μF, 50 V	Order Ref. 5
3	AAA00180AAA001	Card Guide, Locate in PCB Cage	- - -
4	~~AAA612AF2~~	Diode, 400 VRRM , 1 A IF (D1)	Order Ref. 5
5	AAA27076BS1	Kit, Power Supply Upgrade includes Ref. 7	---
6	~~AA00616AAG001~~	Regulator, Voltage, 5 V	Order Ref. 5
7	AAA26800ALE1	Supply, Power	---
8	~~605R6~~	Suppressor, 6.4 V (TZ)	Order Ref. 5
9	303G20	Barrier Block, 8 Terminals	RT
	AAA303EP61	Terminal Block (RT)	RT

A**21380AAD Inspection Panel Subassembly
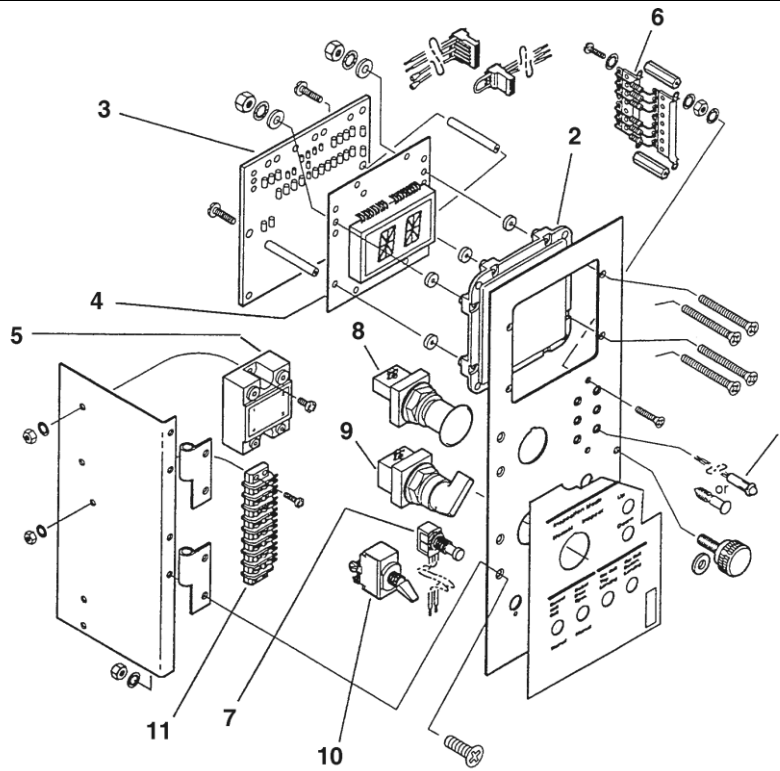
REF. No.	PART No.	DESCRIPTION	SYMBOL
	ALL VINTAGES		
1	AAA00625AAB001	LED, Red	IDZ1, ODZ, IDZ2, AIDZ1, AODZ, AIDZ2
2	443CC1	Lens, Position Indicator	- - -
3	~~9693C4~~	PC Board, Remote Station-4	- - -
	GEA23550D10	PC Board, Remote Station-5	- - -
4	~~AAA26800HJ1~~ ABA26800HJ1	Position Indicator	- - -
5	AAA00613AAA001	Relay, Input 120 VAC, 40 A SPST	LFC
6	~~232G4~~ AAA2326K258*	Resistor, 1.5 K Ohms, 1 Watt	R1-R6
7	P177BX1	Switch, Momentary Pushbutton	CIU, CID, CCBL, CCTL
8	177DE1	Switch, Emergency Stop Switch	MRES
9	177DE3	Switch, Inspection, 2 NO, 2 NC	CIS
10	177CK1	Switch, Toggle, SPST	CHCS, DDO
11	303G20	Terminal Board, 8 Terminals	TB1

* Resistor p/n 232G4 is still available through OSC but will be superseded by resistor p/n AAA2326K258 in the future.

A**21380AAE Power Bus Subassembly
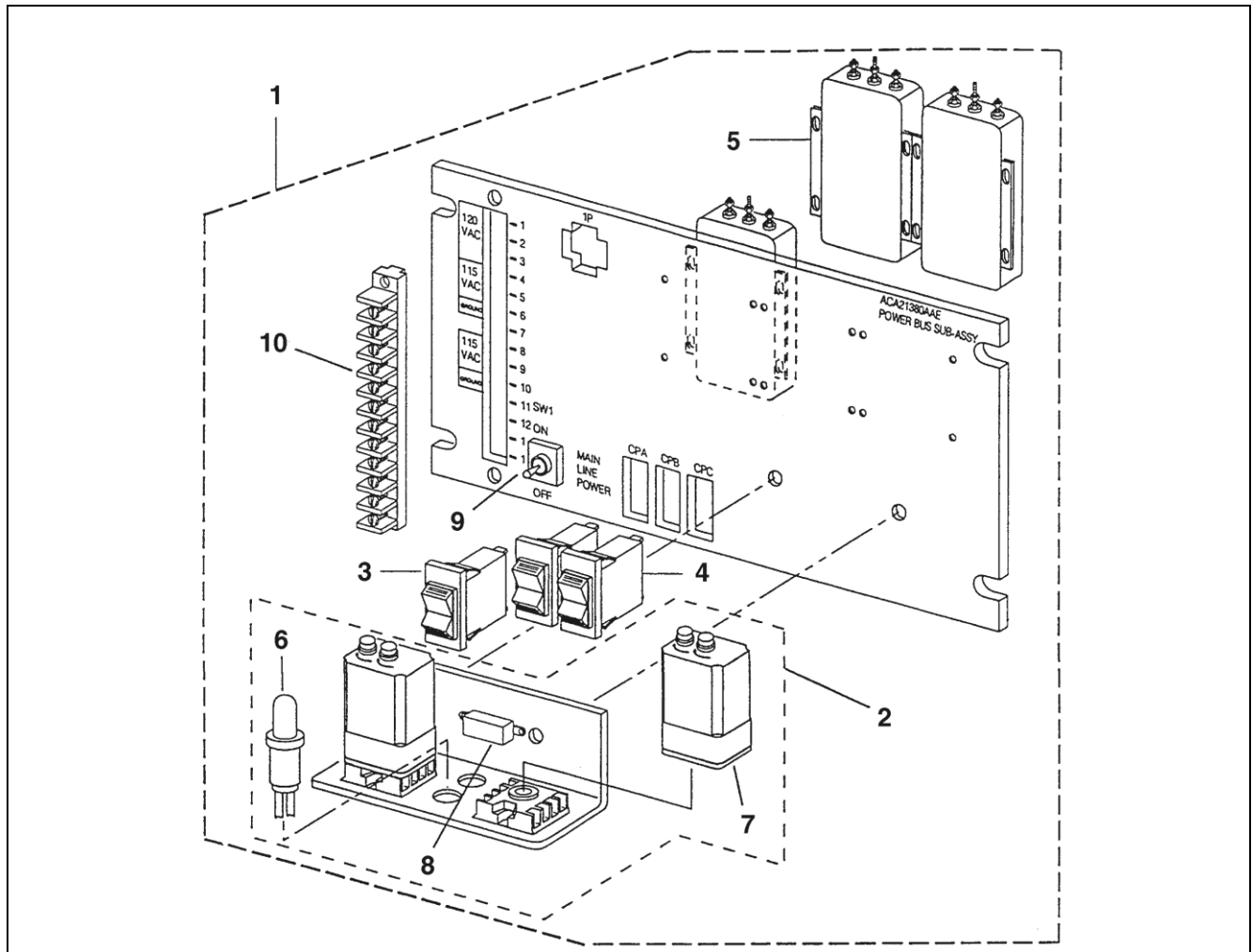
	ALL VINTAGES		
REF. No.	PART No.	DESCRIPTION	SYMBOL
1	AEA21380AAE001	Assembly, Power Bus	- - -
2	ABA7145BS1	Assembly, Voltage Monitor	- - -
3	AAA00375AAB018	Circuit Breaker, 15 A, (w/o luxury ride)	CPA
3	AAA637B17	Circuit Breaker, 10 A, (w/ luxury ride)	CPA
4	AAA00375AAB017	Circuit Breaker, 10 A, High Pulse, Short Delay	CPB, CPC
5	234F3	Filter, AC Line, 30 A	F1, F2, F3
6	AAA424Y2	Lamp	- - -
7	AAA630T1	Relay, Voltage Sensor	J1, J2
8	AAA232GH1	Resistor, 250 Ohms, 10 Watt	- - -
9	177CN3	Switch, Toggle	- - -
10	303DB1	Terminal Block, 14 Terminals	- - -
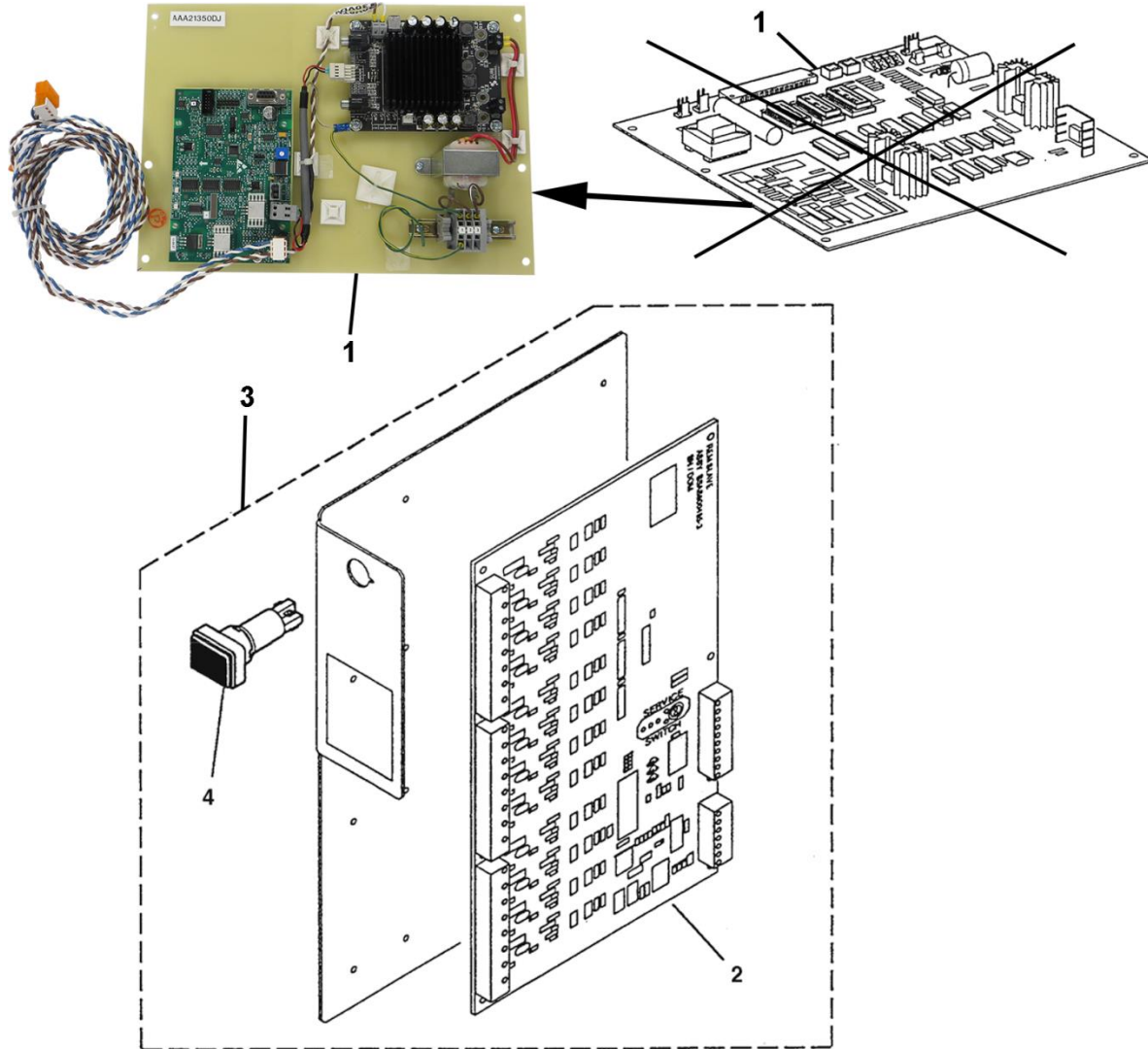
	ACA21380AAA	ADA21380AAA		
REF. No.	PART No.		DESCRIPTION	SYMBOL
1	~~ABA26800ABL001~~ AAA21305DJ1		~~PC Board, Chime~~ Kit, Chime Replacement, 👁 **NOTE 2**	GB
2	---	BSA800485-2	PC Board, REM Slave, see Note	---
3	---	AAA7417J2	Subassembly, Remote Elevator Monitor	REM
4	---	AAA635A9	Switch, for REM	

NOTE 1: 👁 SPL 10-BSAS800590 for a full replacement part description of remote elevator monitoring (REM) and Otis reporting system (ORS).

NOTE 2: 👁 TIP 4.5-8 to replace the obsolete ABA26800ABL chime board with the AAA21305DJ chime replacement kit.
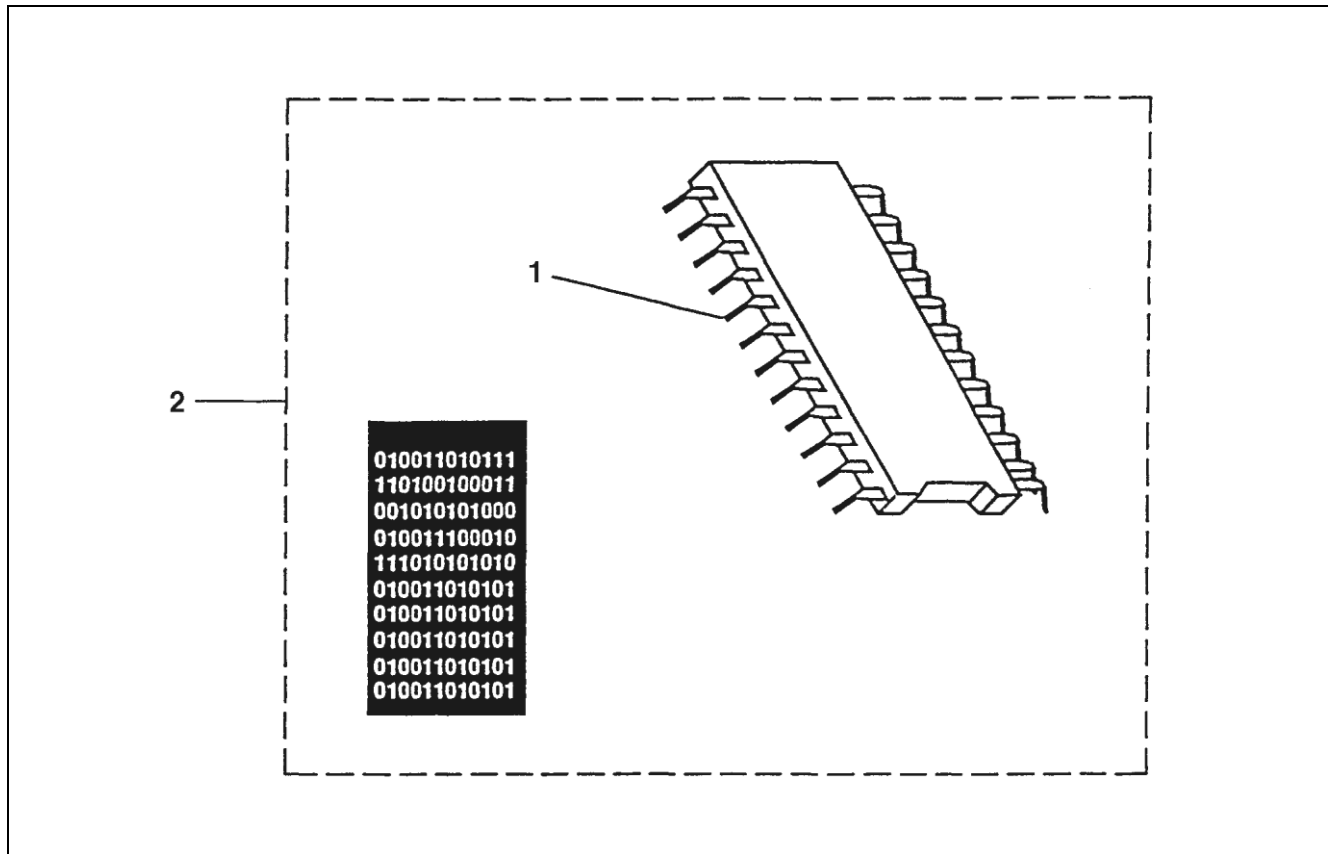
			REF. NO. 1	REF. NO. 2
PC BOARD NAME	PC BOARD P/N	LOCATION	BLANK CHIP P/N	SOFTWARE P/N
MCSS Microprocessor	ABA26800ABA001	U45, U46, U56, U57	AAA616MB2	AAA30045XXX**
MCSS Microprocessor	ABA26800ABA001	U48, U59	AAA616KM1	AAA30045XXX**
Ring Car Board II	ABA26800LL1	Z36*, Z37, Z52, Z53*	AAA616LX2	AAA30005XXX**
Ring Car Board II	ABA26800LL1	Z34, Z39	AAA616KM2	AAA30005XXX**
Ring Car Board 1A	ABA26800KC1	Z10, Z11	AAA616MB2	AAA30074XXX**

NOTE: *Special contract chip, if required. Contact the Otis Service Center for programming.

**The finished part numbers for software are not given. Dependencies may be required to operate a newer version of software. Call the Otis Service Center for the correct software version.

PART No.	DESCRIPTION
AAA616KM1	EEPROM, 64 K x 8, 250 Ns Access Time, Electrically Erasable
AAA616KM2	EEPROM, 8 K x 8, 250 Ns Access Time, Electrically Erasable
AAA616LX2	EPROM, 128K x 8, 150 Ns Access Time, Ultra-Violet Erasable
AAA616MB2	EPROM, 64 K x 8, 150 Ns Access Time, Ultra-Violet Erasable