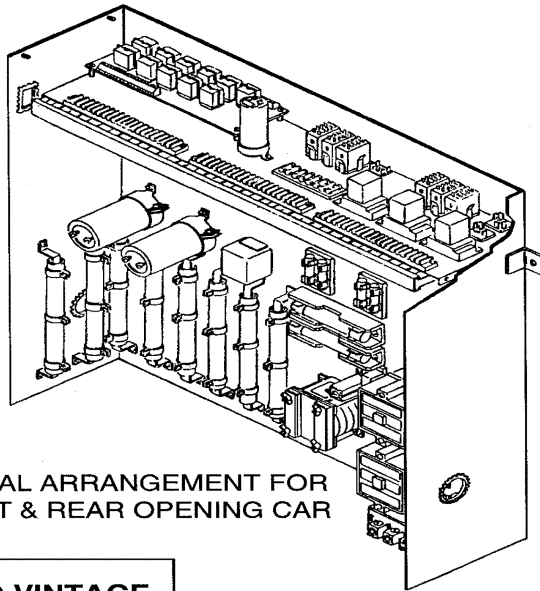


Hydraulic Elevators: Micro Computer Controllers

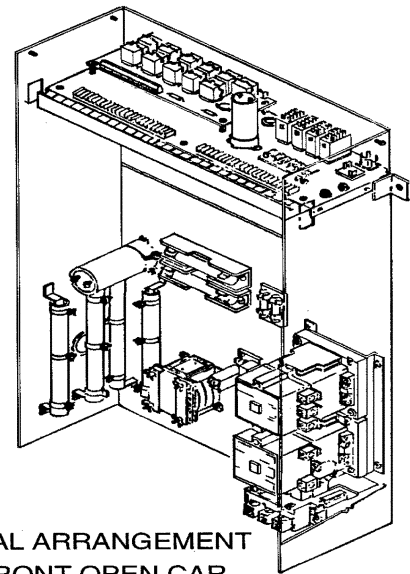
Spare Parts Leaflet

10-7900AG

September 14, 2016 / Page 1 of 16



TYPICAL ARRANGEMENT FOR
FRONT & REAR OPENING CAR



TYPICAL ARRANGEMENT
FOR FRONT OPEN CAR

W/O VINTAGE

10	7900AG		
Y	VINTAGE	Y 01	

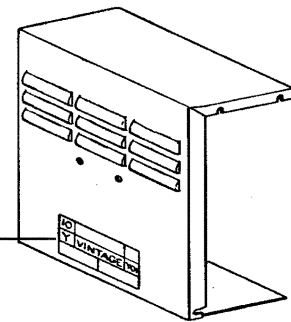
10	7900AL		
Y	VINTAGE	Y 01	

10	7900AN		
Y	VINTAGE	Y 01	

10	7900AP		
Y	VINTAGE	Y 01	

10	7900AR		
Y	VINTAGE	Y 01	

10	7900AS		
Y	VINTAGE	Y 01	



OTIS

SERVICE ENGINEERING
Otis Elevator Company
Bloomfield, Connecticut USA

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Leaflet Description

This leaflet details spare parts for micro computer controllers used on hydraulic elevators. Refer to Wiring Diagram Table on page 3 for specific controller model.

Leaflet Revisions

Date Revised	Subject Matter Expert	Reason for Revision
May 1995	Jeffrey S. Costley	New SPL
April 1997	Burt Greenfield	Correct Wiring Table.
June 1997	Burt Greenfield	Correct Wiring Table.
February 20, 2005	John Dwyer	Corrected voltage for p/n P226DP1 on page 10; corrected typos.
August 30, 2006	John Dwyer	Updated the contactor parts list on p. 4
November 9, 2007	Frank Dyer	Corrected remark p.10, reference 6
October 7, 2008	John Dwyer	P12 Ref. 2 was 12 microfarad
November 4, 2009	Matt Fournier	Updated 613BYarrangement and related illustration on page 10.
January 12, 2011	Matt Fournier	p. 9 change volt amps for 235DE, DN to 341 VA.
March 16, 2011	Matt Fournier	Included additional part options in ref. 3 on p. 13
December 21, 2011	Matt Fournier	Updated ref. 3 on p. 13
September 14, 2016	Oliver Cai	Updated ref. 1 on p. 14

Related Drawings

Drawing No.	Title	Drawing No.	Title
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Related Documents

Document ID	Title
SPL 10-7151A	AC & DC Contactors: Reversing/Wye-Delta Contactors Starters
TIP 1.2.0-38	P613AP6, 7 and 9 Aromat Relay Replacements

Subject Matter Expert

Name	Department
Matt Fournier	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.

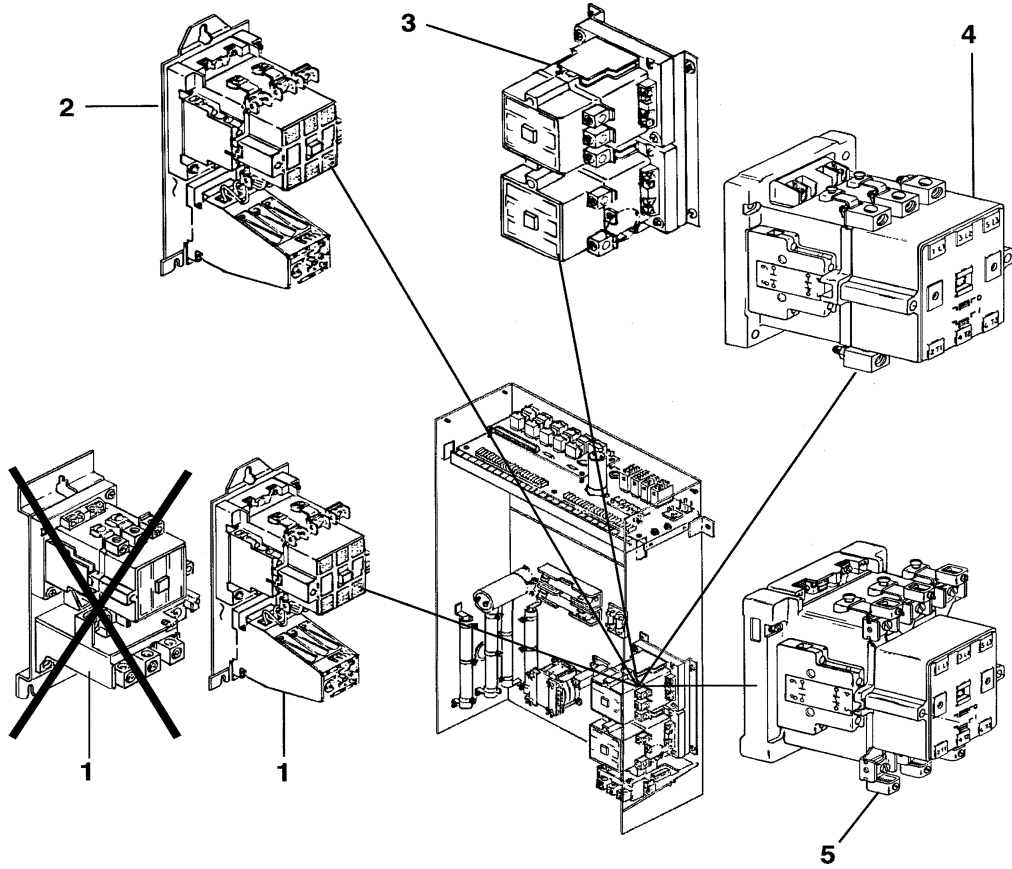
Wiring Diagram Table

10-7900AG


Model	Base Assembly Drawing	Wiring Diagram Base Number
LRV3		IS/F7900AG
LRV4		IS/F7910AG
LRV4L	7900AG	IS/F7923A
LRVH (Front Open)		IS/F7920A
LRS3 (Front Open)		IS/F7920A
LRVH (Front & Rear Open)	7900AL	IS/F7920A
LRS3 (Front & Rear Open)		IS/F7920A
LRV4L	7900AN	IS/F7923A
LRS3 (Front Open)	7900AP	IS/F7920A
LRV4	7900AR	1-2S/F7900AR
LRV4L		1-1S/F7900AR
LRVH (Front & Rear)	7900AS	1-1S/F7900AS

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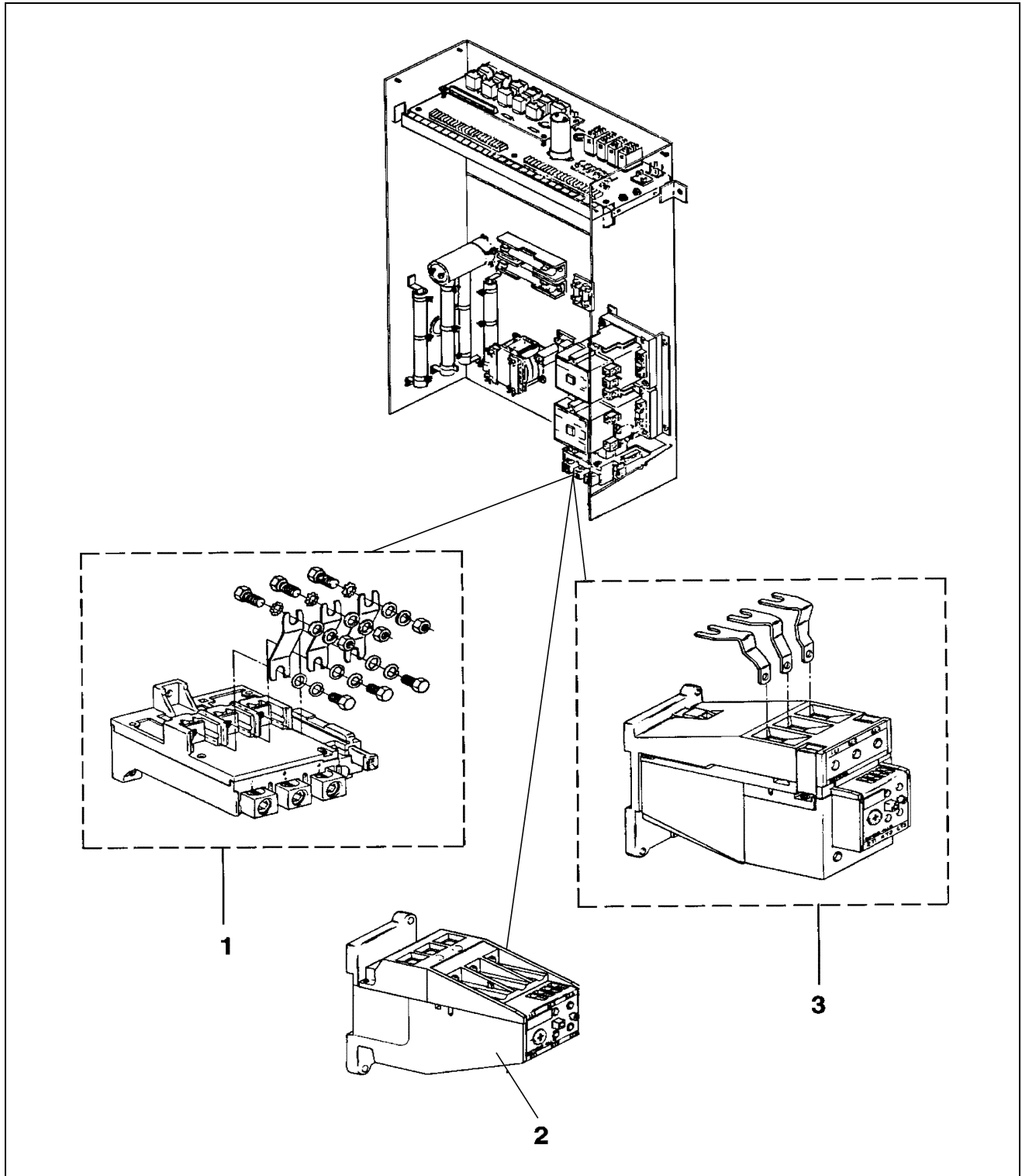
Contactor



W/O VINTAGE &
VINTAGE Y 01

REF. NO.	PART or ML	DESCRIPTION	SYMBOL	NEMA	MOTOR CONNECTION	VOLTS	
1	7151Y1 AAA638Y1 AAA638Y101	 SPL 10-7151A for Details	PMC	3	Across Line	200–240	
2	7151W1 7151W101* 7151W1 7151W102*			2	Across Line	440–600	
3	AAA638D2 AAA638D107			LC-MC	3	Y/Δ	200–240
	AAA638W2 AAA638W107				2		440–600
4	AAA638A2 AAA638A110			PMC	3	Across Line	200–240
5	AAA638R2 AAA638R107		2		440–600		

* Starter p/n 7151W101 has an overload relay with 14–20 Amp range, and p/n 7151W102 has 18–25 Amp range.



Overload Relay

Siemens Type "OLR"

W/O VINTAGE & VINTAGE Y 01		Overload Relay Siemens Type "OLR" See illustration on page 5.						
REF NO.	PART OR M.L.	DESCRIPTION						
			SYMBOL	MOTOR H.P.	VOLTS	SETTING	CURRENT 7 (SEC.) MAX	
1	613BP1	Over load Relay Type "OLR"	PTO	20	460	19	110	
					575	14	85	
				25	460	23	145	
					575	18	115	
				20	200	40	250	
					230	35	215	
	25			200	56	335		
				230	47	290		
	2			613BP2	20	460	19	110
						575	14	85
					25	460	23	145
						575	18	115
				SA/OLR2500	15	200	35	207
					20	200	40	250
20		230	35		215			
36/40		460	35		220			
3	613BP3	15	230	30	180			
		25	460	23	145			
		30	460	27	175			
		30	575	22	140			
	613BP4	36/40	575	28	175			
		15	460	15	90			
		15	575	12.5	72			
		20	460	19	110			
613BP5	20	575	14	85				
	25	575	18	115				
	36/40	200	80	500				
	36/40	230	70	440				
613BP6	25	200	56	335				
	25	230	47	290				
	30	200	57	405				
	30	230	54	350				
613BP7								

NOTE: Overload parts numbers and current settings shown are for Siemens relays designated "OLR."
A new Siemens relay designated "3UA" is being introduced whose current setting is and must remain different from that shown. When a replacement relay is ordered and received, note its designation. **If "OLR", set current per table above.** If "3UA", refer to pages 7 and 8 or overload relay current setting tag mounted on controller.

Overload Relay Chart (Delaval Motor)

10-7900AG

**Overload Relay Chart
for Delaval Motor with Siemens Type "3UA" Overload Relay
See illustration on page 5.**

REF. No.	CONDITION		VINTAGE Y 01	RESULT		
	H.P.	VOLTS	PART OR M.L.	SETTING	TEST AMPS (5 SEC. MAX)	SYMBOL
2	15	200	AAA637A22	34	180	PTO
		230	AAA637A20	30	156	
		460	AAA637A17	11	78	
		575		10	62	
	20	200	AAA637A22	40	214	
		230		35	190	
		460	AAA637A17	14	94	
		575		10	75	
3	25	200	AAA660C1	42	290	
2		230	AAA637A22	45	253	
		460	AAA637A20	24	127	
		575		20	100	
3	30	200	AAA660C1	50	366	
2		230		45	320	
		460	AAA637A20	27	160	
		575		22	127	
3	36/40	200	613BP13	63	440	
2		230	AAA660C1	55	380	
		460	AAA637A22	37	190	
		575	AAA637A20	30	154	

Overload Relay Chart

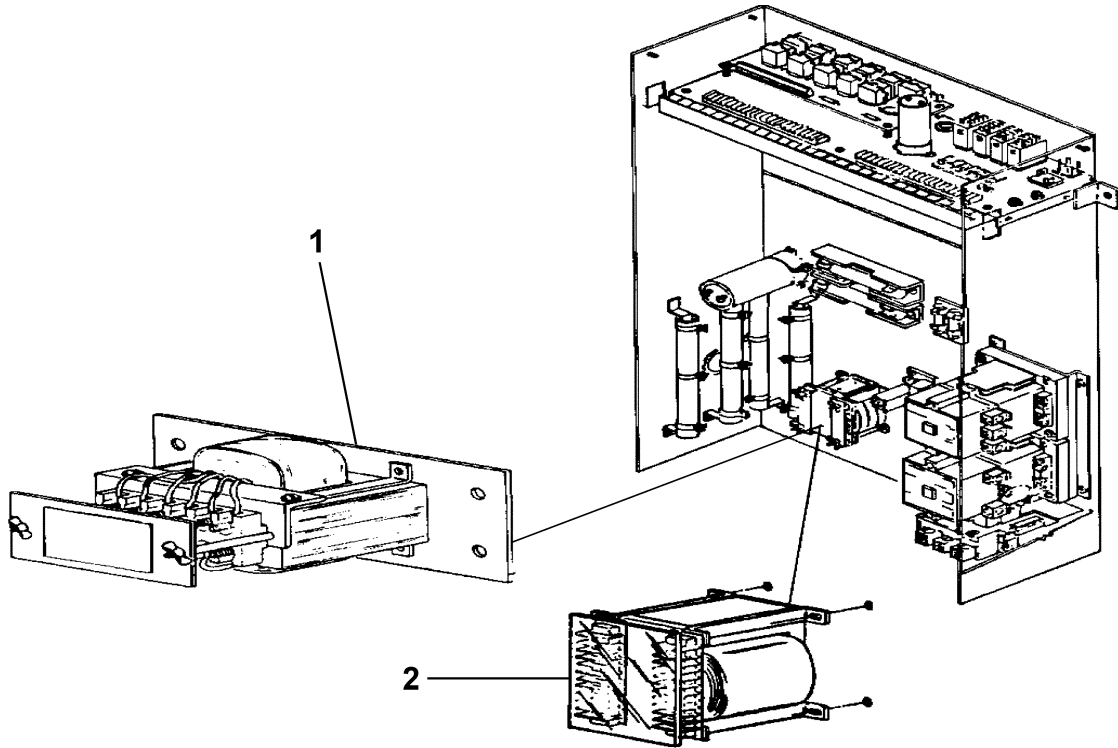
(Leroy-Somers or Imperial Motor)

Overload Relay Chart
for Leroy-Somers or Imperial Motor with Siemens Type "3UA" Overload Relay
See illustration on page 5.

REF. No.	CONDITION		VINTAGE Y 01	RESULT		
	H.P.	VOLTS	PART OR M.L.	SETTING	TEST AMPS (5 SEC. MAX)	SYMBOL
2	15	200	AAA637A22	40	230	PTO
		230		36	200	
		460	AAA637A17	13	100	
		575		11	80	
3	20	200	AAA660C1	42	275	
2		230	AAA637A22		237	
		460	AAA637A20	22	120	
		575	AAA637A17	13	95	
3	25	200	AAA660C1	50	355	
2		230		44	310	
		460	AAA637A20	26	155	
		575		22	124	
3	30	200	AAA660C1	50	350	
2		230		45	305	
		460	AAA637A20	27	152	
		575		22	124	
3	35	200	613BP13	75	545	
2		230		65	475	
		460	AAA637A22	40	240	
		575		35	190	

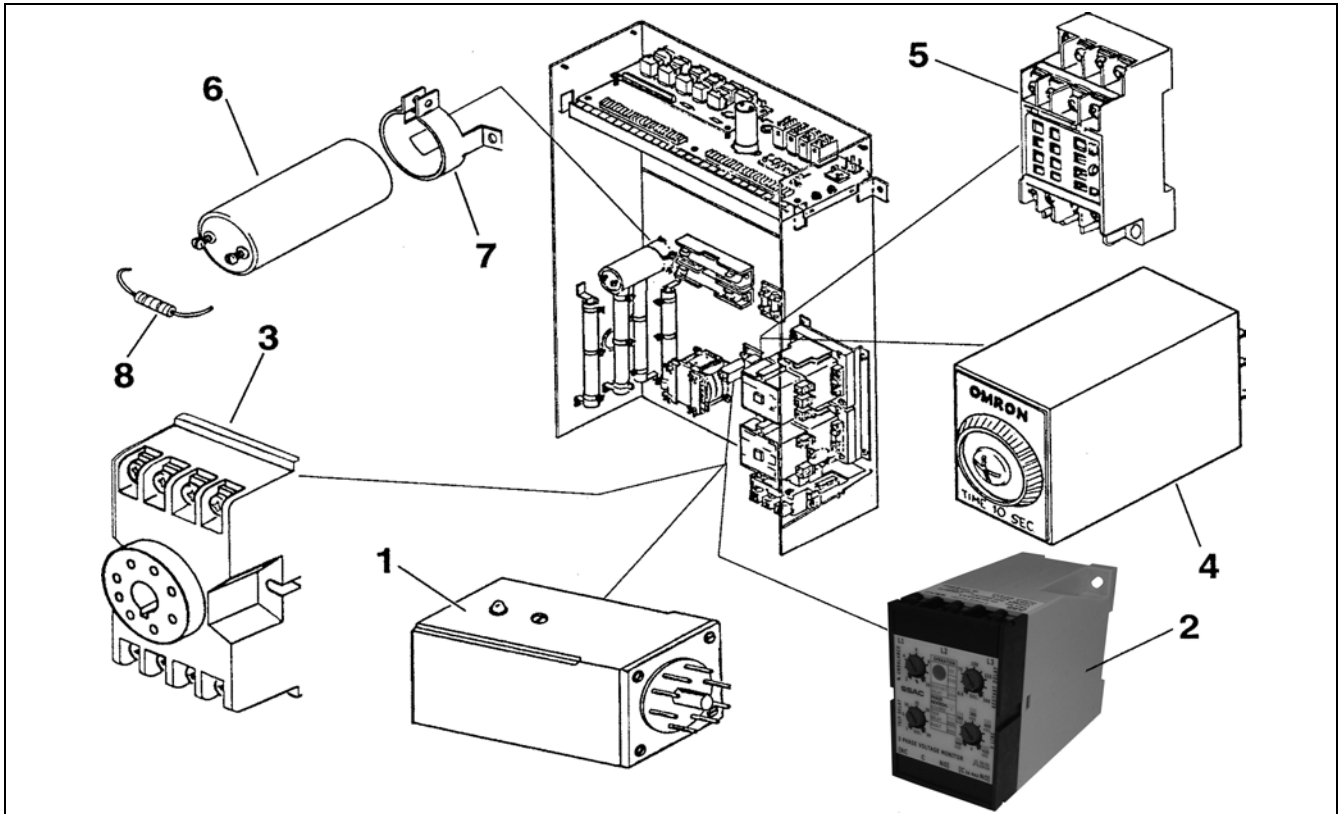
Transformer

10-7900AG



W/O VINTAGE &
VINTAGE Y 01

REF. No.	PART OR M.L.	DESCRIPTION					
1	235AN9	T r a n s f o r m e r	SYMBOL	SECONDARY VOLTS	PRIMARY	VOLT AMPS	DOOR OPERATOR
	235AN10				200-240		
	235AN11				440-480		
2	235CC8		105/21.2	200-240	250	7777 (Resistance)	
	235CP5		120/115	440-480	500		
	235CP6		105/21.2	550-600	500		
	235DE1		120/115/	200-240	341	7777 (PWM) 7782AA (QL)	
	235DE2		105/21.2	440-480			
	235DE3		75/80	550-600			
	235DF1		120/105/	200-240	750	GAL	
	235DF2		105/21.2	440-480			
	235DN1		120/105/	200-240	341		
	235DN2	115/21.2	440-480				
235DN2	75/80	550-600					

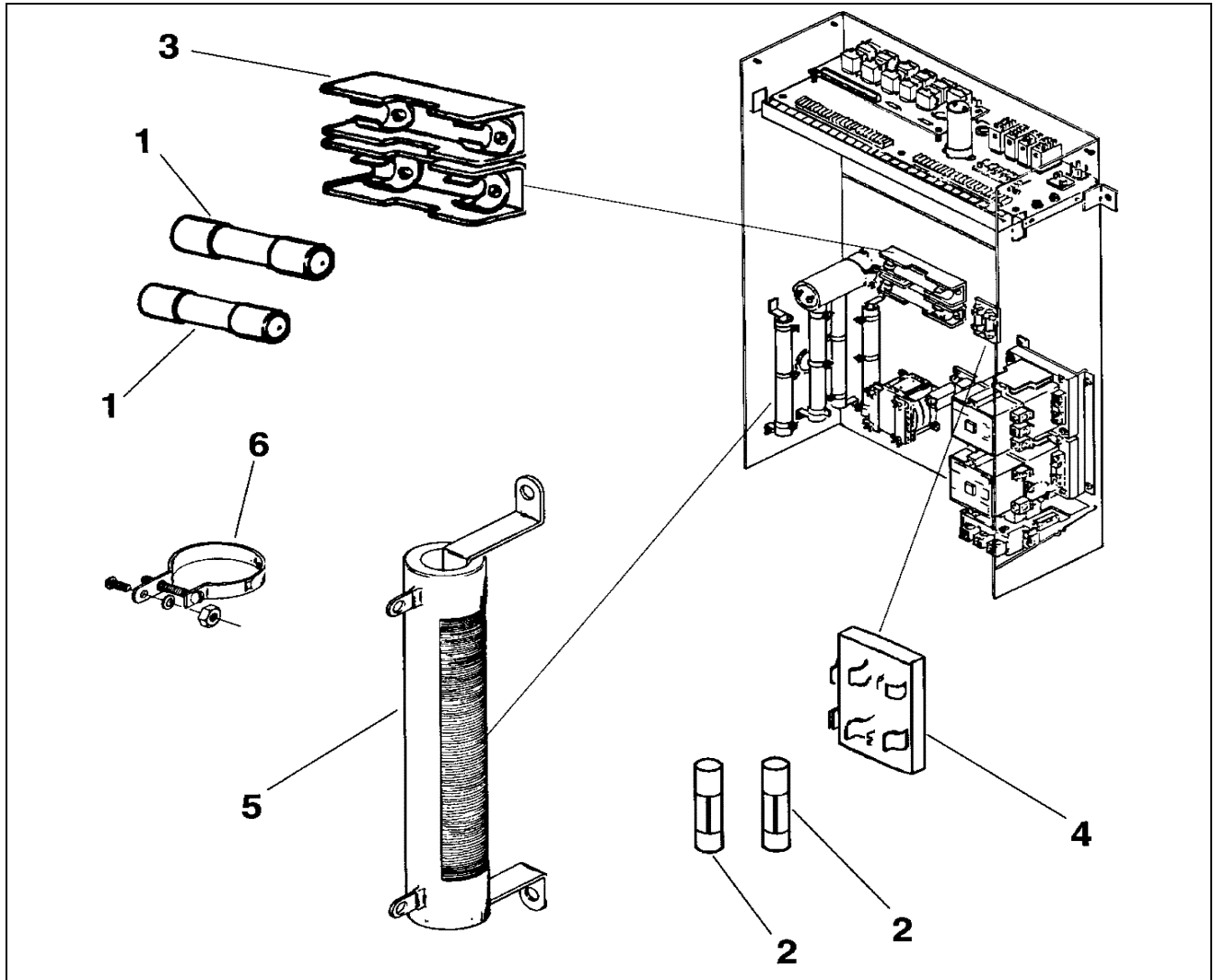


W/O VINTAGE &
VINTAGE Y 01

REF. No.	PART OR M.L.	DESCRIPTION	SYMBOL	REMARKS
1	P613BV1	Reverse Phase Relay	RPR	200-240 V
	P613BV2			440-480 V
2	613BY5 613BY24			500-600 V
3	P618AC1	Socket	PRP	200-480 V
4	P613AY8	Relay Timer	T	---
5	618AE2	Socket	T	
6	P226DA3	Capacitor	CRF	10,000uF, 100 VDC
	P226DA5			2,000uF, 200 VDC
	P226DA6			63uF, 450 VDC
	P226DP1			60uF, 330 VAC
7	P336JP1	Capacitor Clamp		2.5"
	P336JP2			3.0"
	P336JP3			1.375"
	P336JP4			2.0"
8	232T12	Resistor, for 7900AG, AL, AN, AP	R, RR	10 kOhm, 2W 8
	AAA232FP94	Resistor, for 7900AR, AS		75 kOhm, 2W

Fuse, Resistor

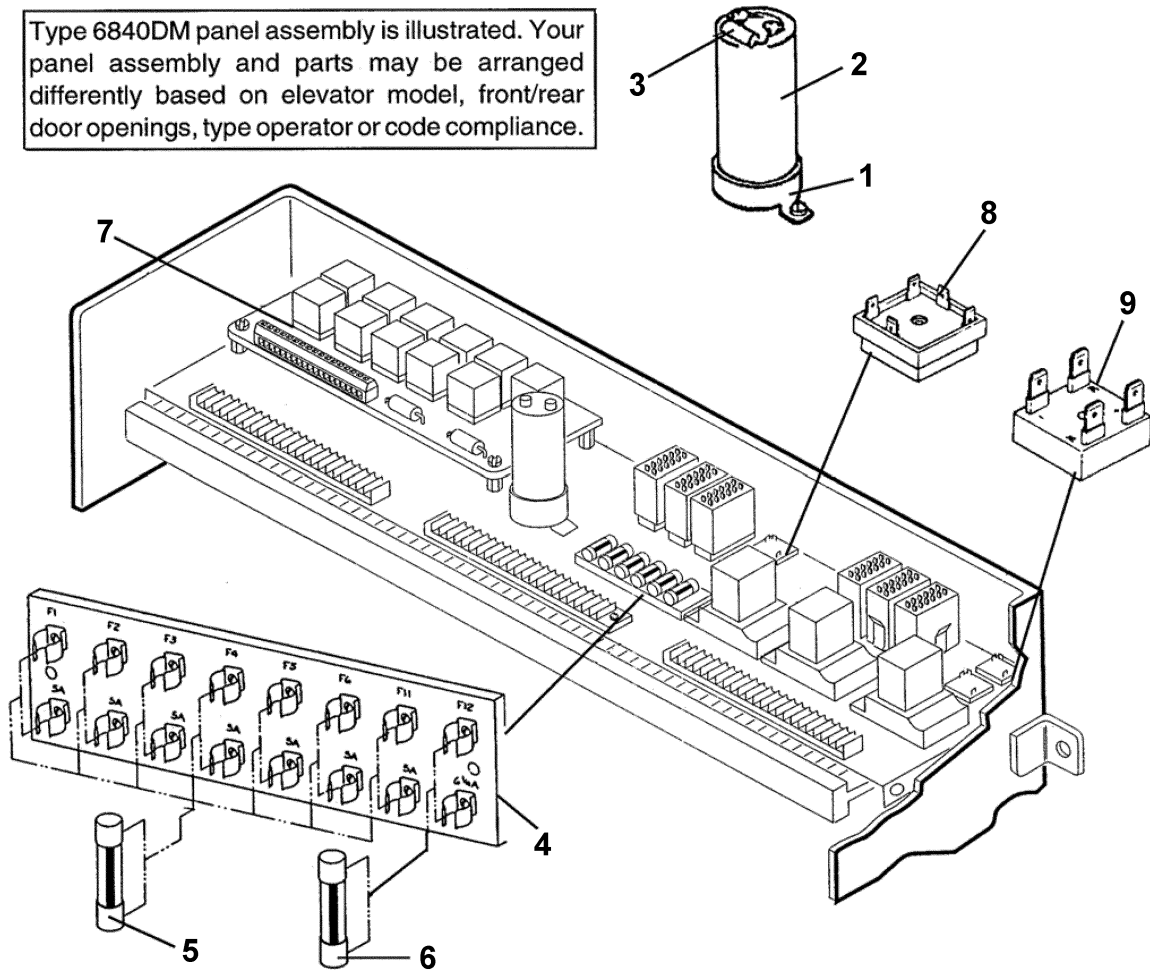
10-7900AG




W/O VINTAGE &
VINTAGE Y 01

REF. No.	PART OR M.L.	DESCRIPTION	SYMBOL
1	375W3	Fuse, 3 Amps, 600 Volts	F7, F8
	375W6	Fuse, 6 Amps, 600 Volts	F7, F8
2	P375AS1	Fuse, 3 Amps	F9, F10, F13, F14
3	P180BX1	Fuse Holder	---
4	P180BP1	Fuse Holder	---
5	AAA617K10	Resistor, 250 Ohms, 220 Watts	R2-R4, RR2-RR4
	AAA617K12	Resistor, 1kOhms, 200 Watts	R1, RR1
	AAA617K8	Resistor, 50 Ohms, 225 Watts	R2-R4, RR2-RR4
6	AAA617K102	Resistor Band	---

Type 6840DM panel assembly is illustrated. Your panel assembly and parts may be arranged differently based on elevator model, front/rear door openings, type operator or code compliance.



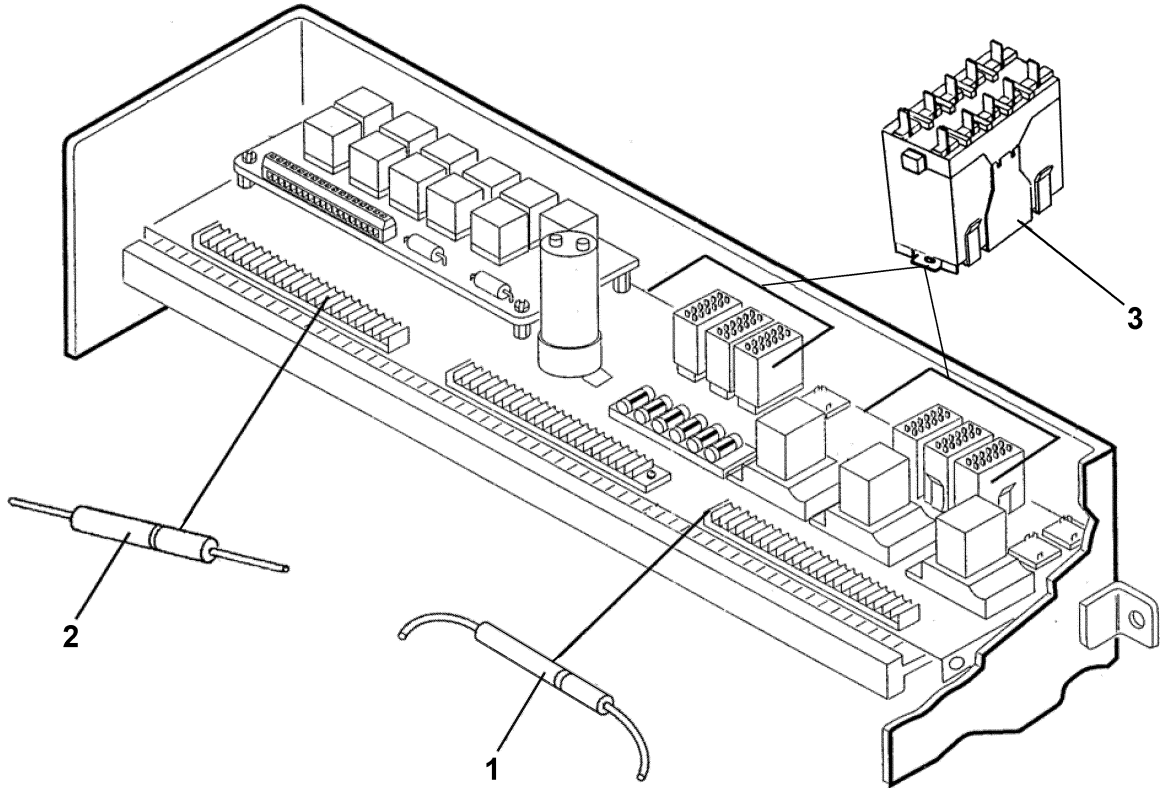
W/O VINTAGE &
VINTAGE Y 01

REF No.	PART OR M.L.	DESCRIPTION	SYMBOL
1	P33JP3	Capacitor Clamp	---
2	P226DA4	Capacitor, 12k μ F, 35 VDC	C1
3	AAA612AF2	Diode, 400PIV	---
4	P303BA8	Fuse Holder	---
5	AAA375BR15	Fuse, 5 Amps	F1-F6, F11
6	AAA375BR16	Fuse, 6.25 Amps	F12
7	C812AX1	PC Board, Relay ( p.16 for details)	RB1
8	P230BK6	Rectifier, Bridge, 400 Volts, 4 Amps	DRF1
9	P230BP2	Rectifier, Bridge, 400 Volts, 40 Amps	DRF1, RDRF

Relays

10-7900AG

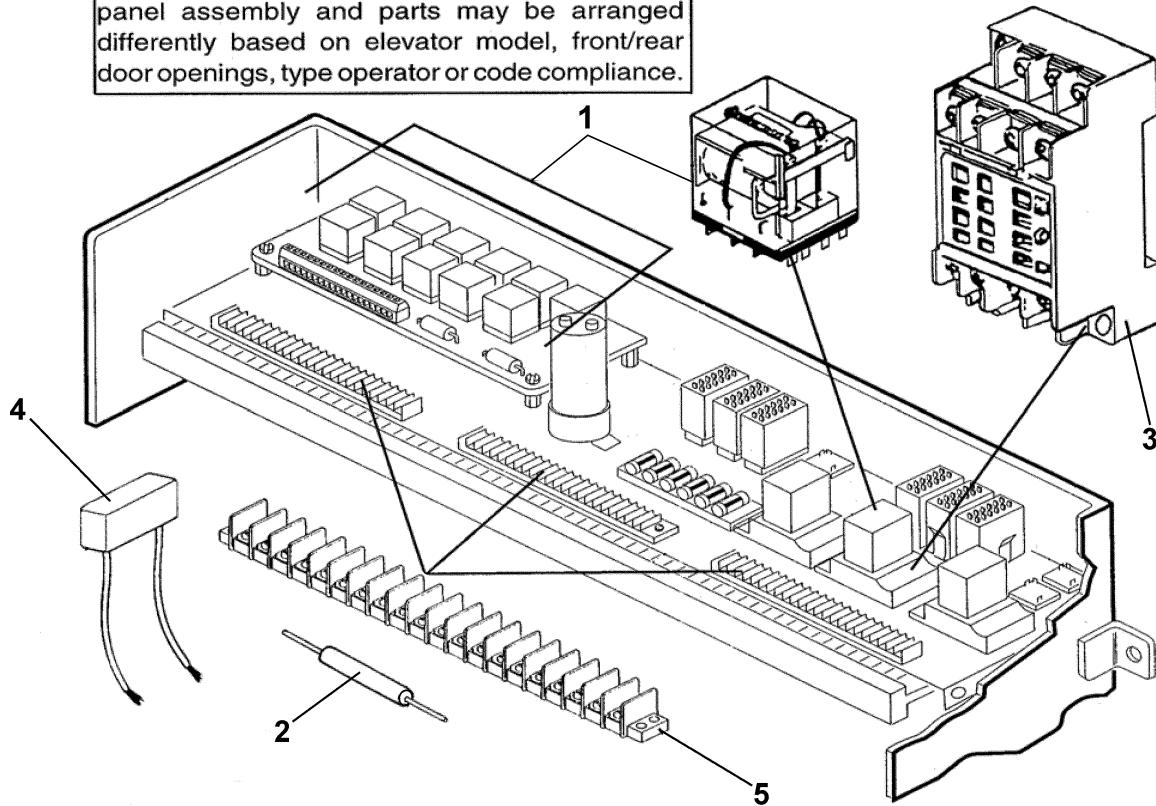
Type 6840DM panel assembly is illustrated. Your panel assembly and parts may be arranged differently based on elevator model, front/rear door openings, type operator or code compliance.



REF No.	PART OR M.L.	DESCRIPTION	SYMBOL
	W/O VINTAGE & VINTAGE Y 01		
1	AAA612AF2	Diode, 400PIV, Terminal 105 to RDO, 113 to RDC, 118 to RNGE	---
2	AAA00612AAAOO2	Diode, 100PIV, 3 Amps, Terminals 19/20, LRV, LRVH; 18 & 20, LRS3	
3	P613AP9 AAA24831M9 AAA613DL16	Relay, 115 VAC, 3-NO, 1-NC Contacts, See NOTE	DOR, DCR RDOR, RDCR
	P613AP6 AAA24831M6 AAA613DL17	Relay, 120 VAC, 2-NO, 2-NC Contacts, See NOTE	HESY, RHESY
	P613AP7 AAA24831M7 AAA613DL15	Relay, 120 VAC, 4-NO Contacts, See NOTE	CSA

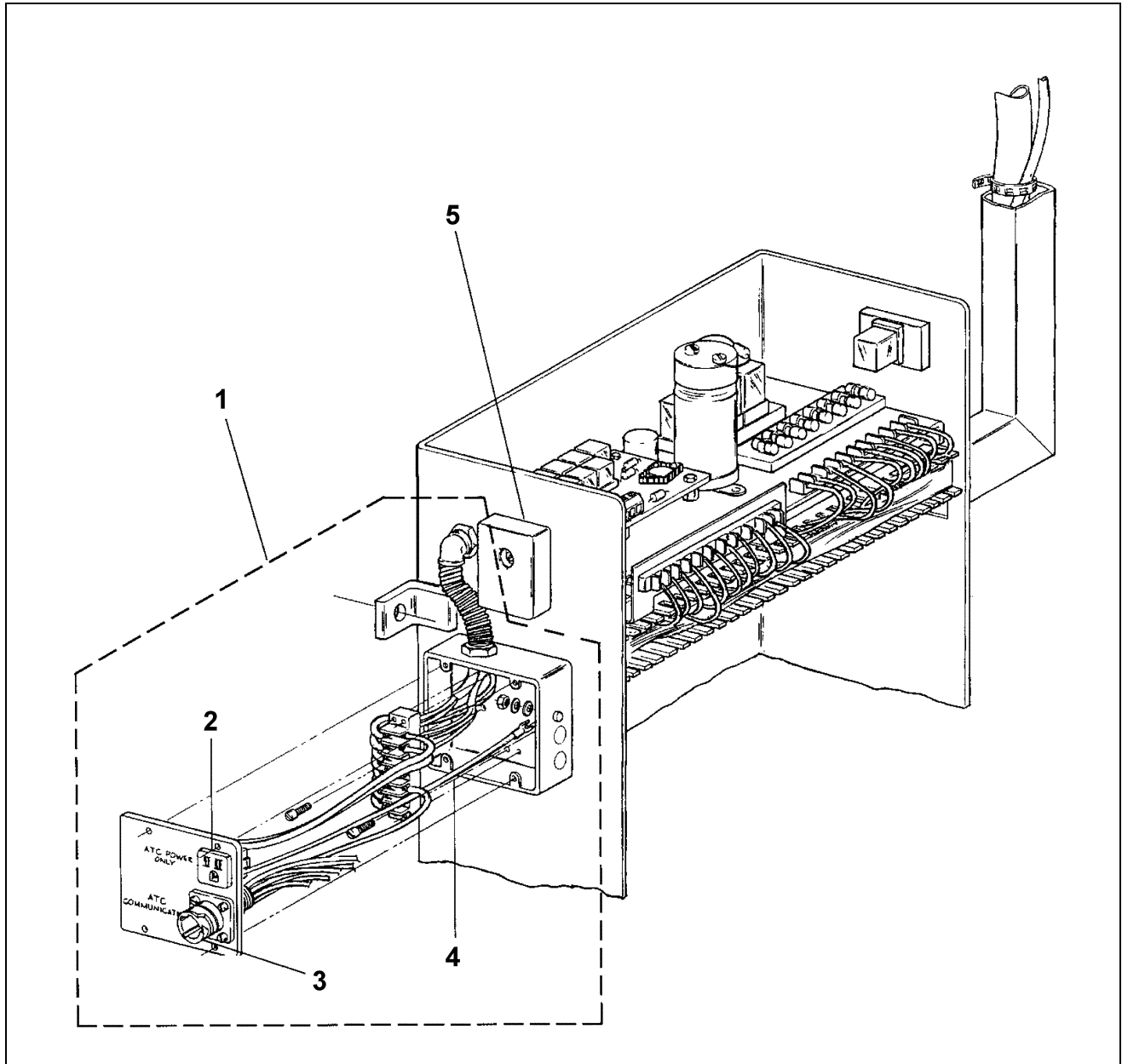
NOTE: For first time replacement, order AAA24831M_; for subsequent replacements, order AAA613DL_. Refer to TIP 1.2.0-38, P613AP6, 7 and 9 Aromat Relay Replacements, for replacement options.

Type 6840DM panel assembly is illustrated. Your panel assembly and parts may be arranged differently based on elevator model, front/rear door openings, type operator or code compliance.



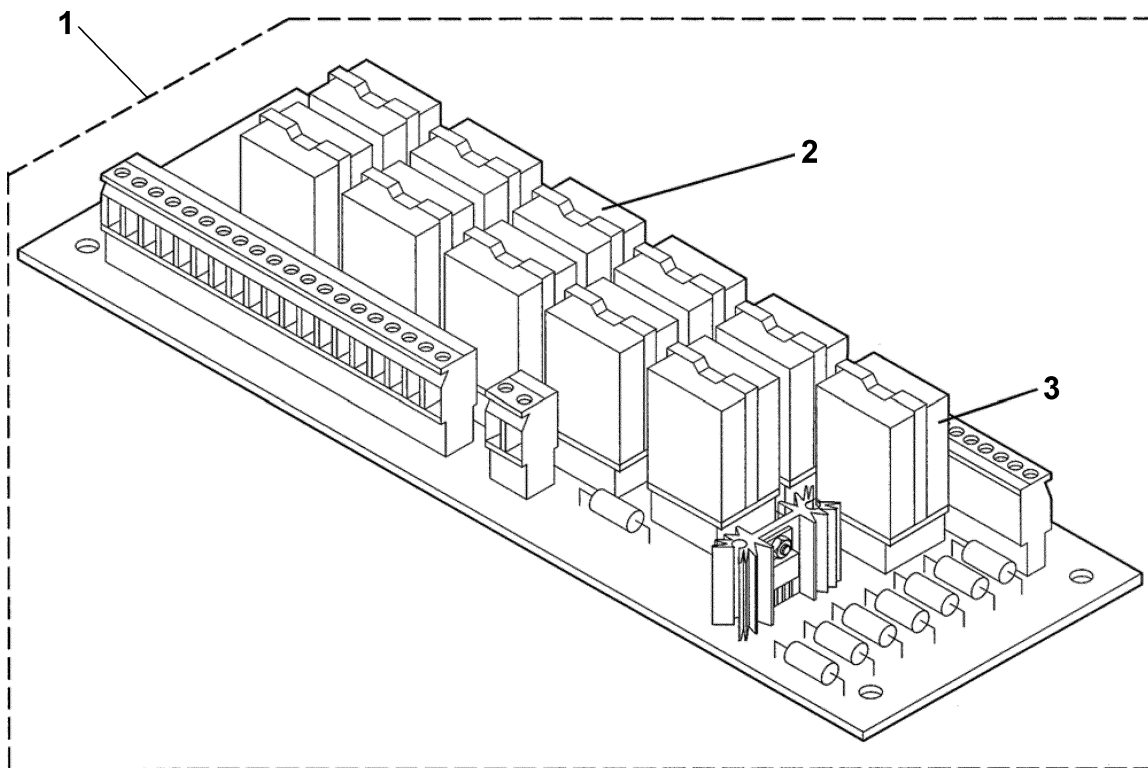
W/O VINTAGE &
VINTAGE Y 01

REF. No.	PART OR M.L.	DESCRIPTION	SYMBOL
1	630F3 AAA613CZ8	Relay, 24 VDC, 4-NC Contacts	RDO, RDC, RNDGE, DO, DC, AUD, NUDGE, DMV, DLV, ULV, UMV, DZ, PM
	630F4 AAA613CZ9	Relay, 115 VAC, 4-NC Contacts	DR, LR, LPR
2	232T2	Resistor, 1kOhms, 2 W, Terminals 13/15, 15/16	---
	AAA232FP33	Resistor, 220 Ohms, 2 W, Terminals 114/116 for 7900AG Controller	
3	618AE2	Socket Relay	---
4	605H4 AAA00605AAA014	Suppressor, 0.5mF, 100 Ohms, Terminals 26/29, 27/34, 69/85, 75/88	
5	P303CG1	Terminal Block	1, 2 & 5CB



W/O VINTAGE &
VINTAGE Y 01

REF. NO.	PART OR M.L.	DESCRIPTION
1	A8128T1	REM Junction Box Assembly
2	6599R2	Power Outlet
3	176DH4	ATC Receptacle
4	175BT1	Conductor
5	303CP1	Terminal Block, Phone



W/O VINTAGE
&VINTAGE Y 01

REF. No.	PART OR M.L.	DESCRIPTION	SYMBOL
1	A8121AX1 B8121AX1 C8121AX1	PC Board, Relay	RB1
2	630F3	Relay, 24 VDC, 4-NC Contacts	DO, DC, AUD, NUDGE, DMV, DLV, ULV, UMV, DZ, PM
3	630F4	Relay, 115 VAC, 4-NC Contacts	DR