

Parts Manual

Transfer Switch

150/225/250 Amps

OTECSEB (Spec A)

MODEL IDENTIFICATION

This catalog covers models produced under the Cummins®/Onan® and Cummins Power Generation brand names.

To avoid errors or delay in filling your parts order, always give the MODEL, SPEC NO. and SERIAL NO. from the Cummins Power Generation nameplate.

For handy reference, insert your nameplate information in the spaces below.

MODEL AND SPEC NO.

SERIAL NO.

DIGITAL CONTROL SOFTWARE VERSION
AND DATE (IF APPLICABLE)

SAFETY PRECAUTIONS

The following symbols are used in Cummins Power Generation manuals to alert users to the potentially dangerous conditions relating to maintenance of equipment and replacement of parts. Please read and observe.



This symbol warns of immediate hazards which will result in severe personal injury or death.



This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.



This symbol refers to a hazard or unsafe practice which can result in severe personal injury or product or property damage.

PRODUCT SAFETY PRECAUTIONS



Service and repair of Cummins Power Generation equipment must be performed by trained, experienced personnel only. Improper service or repair may result in property damage, severe personal injury or death. Do not use this catalog as a guide to servicing your equipment. Read and follow the IMPORTANT SAFETY INSTRUCTIONS in the Service Manual appropriate for the equipment you are working on.



Contact with USED ENGINE OILS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking or changing engine oils take all necessary precautions not to ingest, breathe the fumes or contact the used oil.



Contact with ASBESTOS has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When handling engine gaskets take all necessary precautions not to ingest, breathe or contact the dust from the gaskets! Use adequate ventilation and wear protective gloves, masks and clothing!



Contact with BENZINE and LEAD, found in gasoline, fuel additives and solvents has been identified by a United States federal agency and some USA state agencies as causing CANCER or REPRODUCTIVE TOXICITY. When checking, draining or adding gasoline and fuel additives or using solvents take all necessary precautions not to ingest, breathe the fumes or contact the liquids. Use adequate ventilation and wear protective gloves, masks and protective clothing!

Introduction

This catalog applies to the Cummins Power Generation OTECSE 150/225/250 Amp Transfer Switch. Each illustrated part is identified by a reference number corresponding to the same reference number in the parts list for that group. Parts illustrations are typical. Using the model and spec number from the switch box nameplate, select the parts that apply to your Transfer Switch. Unless otherwise noted in the parts description, parts are interchangeable between models.

Feature Options

Code	Description	Code	Description
A028	3-Pole Switch	L103	Auxiliary Relay – Normal Position – 24 VDC
A029	4-Pole Switch	L201	Auxiliary Relay – 12 VDC Coil
A035	Utility to Generator Set Applications	L202	Auxiliary Relay – Emergency Position – 12 VDC
A041	One Phase – 2 or 3 wire	L203	Auxiliary Relay – Normal Position – 12 VDC
A042	Three Phase – 3 or 4 wire	M003	Terminal Block – 30 Points
A044	Frequency – 60 Hz	M032	Elevator Signal – Relay
A045	Frequency – 50 Hz	M033	Genset Starting Battery – 12 VDC
B001	Cabinet – Type 1	M034	Genset Starting Battery – 24 VDC
B002	Cabinet – Type 3R	R020	Voltage – 120
B010	Cabinet – Type 12	R021	Voltage – 208
C027	Cover Guard	R022	Voltage – 220
J030	Exercise Clock – External	R023	Voltage – 240
K001	Battery Charger – 2 Amp, 12/24V	R024	Voltage – 380
KB59	Battery Charger – 15 Amp, 12V	R025	Voltage – 416
KB60	Battery Charger – 12 Amp, 24V	R026	Voltage – 480
L101	Auxiliary Relay – 24 VDC Coil	R035	Voltage – 440
L102	Auxiliary Relay – Emergency Position – 24 VDC	S043	UL Listed

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Index

A

Actuator, Linear – Transfer Switch, **7 , 9**

B

Bar, Bus – Transfer Switch, **11**

Block and Crossbar Assembly – Emergency – Transfer Switch, **7 , 9**

Block and Crossbar Assembly – Transfer Switch, **7 , 9**

Block, Terminal, **21**

Box, Control – NEMA 1, **13**

Box, Control – Type 12, **15**

Box, Control – Type 3R, **15**

Bracket, Circuit Breaker – Transfer Switch, **11**

Bracket, End – Auxiliary Relay, **19**

Breaker, Circuit, **23**

Breaker, Circuit – Transfer Switch, **7 , 9**

C

Cable, Shielded – Transfer Switch, **11**

Capacitor – Transfer Switch, **7 , 9**

Charger, Battery – 15/12 Amp, 12/24 Volt, **17**

Charger, Battery – 2 Amp, 12/24 Volt, **16**

Contact, Auxiliary – Transfer Switch, **7 , 9**

Control – NEMA 1, **13**

Control – Type 3R and 12, **15**

Cover, Controller, **20**

H

Handle, Actuator– Transfer Switch, **7**

Handle, Barrier – Transfer Switch, **7 , 9**

Harness, Main, **13 , 15**

Harness, Transfer Switch, **7 , 9**

L

Labels, **24 , 25**

Lug, Solderless – Transfer Switch, **7 , 9**

P

Plate, Mounting – Transfer Switch, **11**

Plate, Relay, **18**

R

Rail, Terminal – Auxiliary Relay, **19**

Relay, Auxiliary, **19**

Relay, Control – Auxiliary Relay, **19**

Relay, Elevator Signal, **22**

T

Transfer Switch Assembly, **11**

Transfer Switch Assembly – 3–Pole Front Connect, **7**

Transfer Switch Assembly – 4–Pole Front Connect, **9**

Transformer, Power – NEMA 1, **13**

Transformer, Power – Type 3R and 12, **15**

Abbreviations

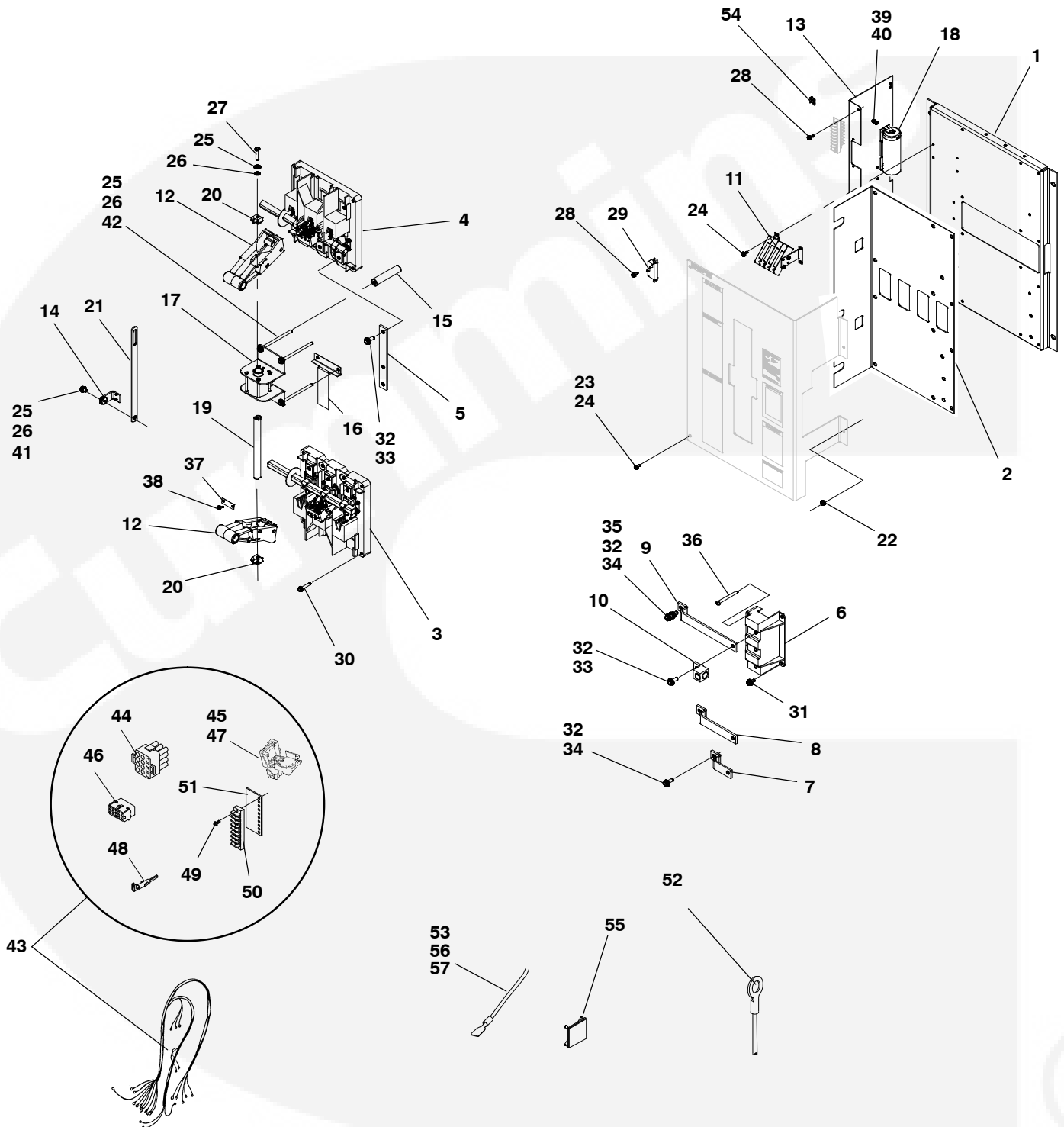
Some of the following abbreviations may be used throughout this Parts Catalog:

AC	Alternating Current	MCM	Metric Circular Mils
Amp	Ampere	mm	Millimeter
A/R	As Required	MOH	Mobile Off Highway
AVR	Automatic Voltage Regulator	NFS	Not For Sale
AWG	American Wire Gauge	NPT	National Pipe Thread
CSA	Canadian Standard Association	OD	Outside Diameter
DC	Direct Current	oz.	Ounce
Deg.	Degree	PCB	Printed Circuit Board
EFC	Electronic Fuel Control	Ph	Phase
EIT	External/Internal Tooth	PMG	Permanent Magnet Generator
EPROM	Erasable Programmable Read Only Memory	PT/CT	Potential Transformer/ Current Transformer
ET	External Tooth	RFI	Radio Frequency Interference
GFI	Ground Fault Interrupter	RT	Right
ID	Inside Diameter	Spec	Specification
IEC	International Electrotechnical Commission	Thk	Thick
IT	Internal Tooth	UL	Underwriters Laboratories Inc.
kW	Kilowatt	UNC	Unified Coarse Thread
LPG	Liquid Petroleum Gas	UNF	Unified Fine Thread
LT	Left	VAC	Volts Alternating Current
M(meter number)	Meter	VDC	Volts Direct Current
		W/(ET, IT, EIT)	With

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Transfer Switch 3-Pole Front Connect

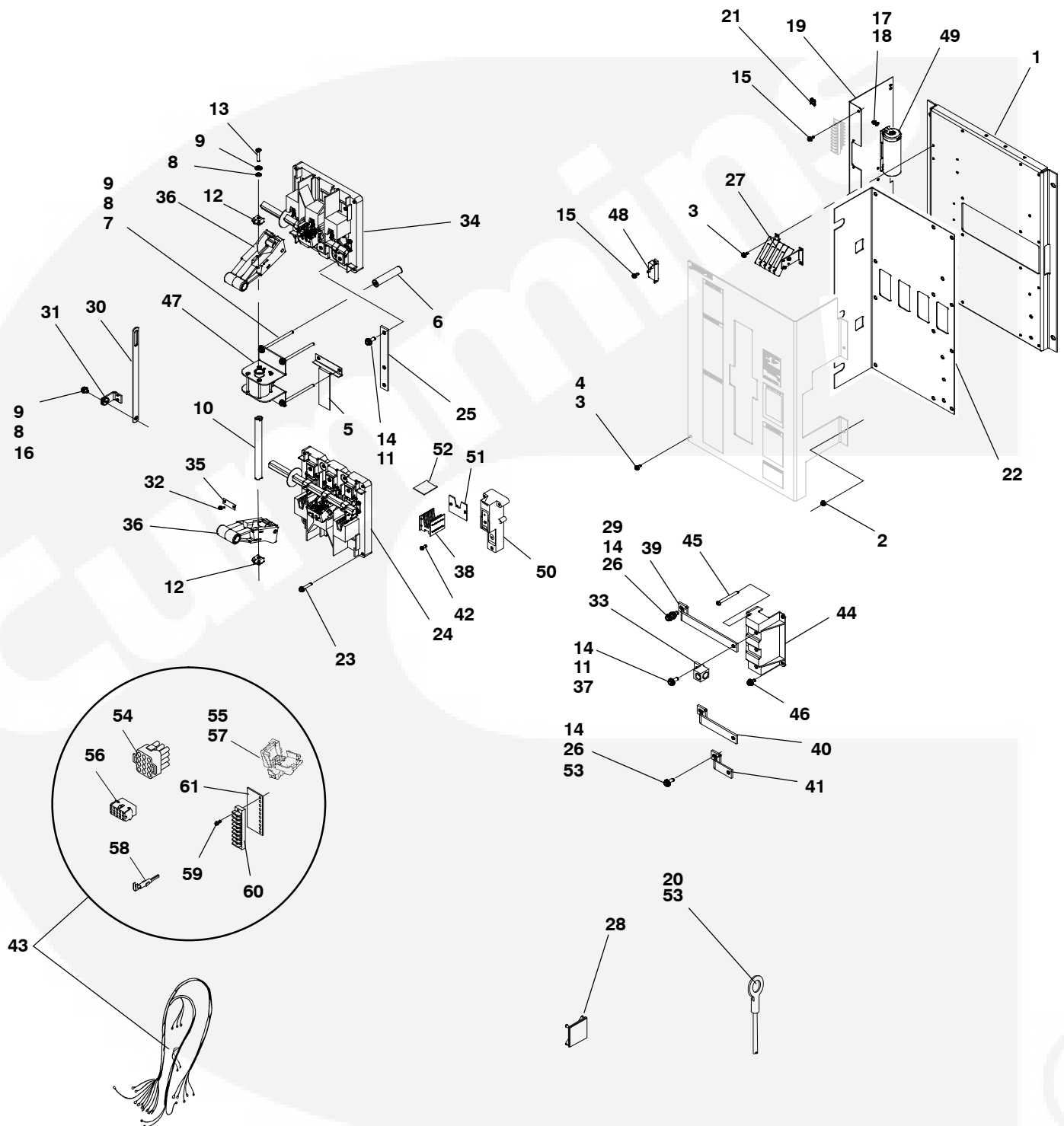


Transfer Switch 3-Pole Front Connect

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	306-3574	1	Base, Mounting	29			Breaker, Circuit
2	306-3575	1	Barrier, Mounting Base		320-0609	1	115 VAC
3	306-5231-02	1	Block and Crossbar Assembly - Emergency		320-0608	1	208/220/240 VAC
4	306-5231-01	1	Block and Crossbar Assembly		320-0606	2	380/416 VAC
5	337-2365	3	Strap, Jumper		320-0606	2	440/480 VAC
6	306-3573	1	Block, Lug - Mounting	30	815-0667	6	Screw, Hex Head (1/4-20 x 1.25)
7	337-2410-03	1	Strap, Load	31	815-0261	2	Screw, Hex Head - Thread Forming (1/4-20 x .50)
8	337-2410-02	1	Strap, Load	32	851-0028	10	Washer, Spring (5/16)
9	337-2410-01	1	Strap, Load	33	800-0027	6	Screw, Cap - Hex Head (5/16-18 x .88)
10	332-3039	3	Lug, Solderless	34	800-0030	4	Screw, Cap - Hex Head (5/16-18 x 1.25)
11	306-4749	2	Contact, Auxiliary	35	862-0015	2	Nut, Hex - Heavy (5/16-18)
12	306-1842-S0	2	Handle, Actuator	36	815-0656	2	Screw, Machine - Round Head (1/4-20 x 2.75)
13	306-3418	1	Bracket, Terminal	37	306-1396	2	Plate, Handle - Mounting
14	306-0508	2	Arm, Interlock	38	815-0446	8	Screw, Cross Recessed - Thread Cutting (#8-32 x .50)
15	306-3483	4	Spacer, Actuator	39	815-0029	A/R	Screw, Machine - Flat Head - Cross Recessed (#10-32 x .50)
16	306-2340	2	Handle, Barrier	40	870-0131	A/R	Nut, Hex - W/ET (#10-32)
17			Actuator, Linear	41	800-0003	2	Screw, Cap - Hex Head (1/4-20 x .50)
	306-3471-01	1	115 VAC	42	800-0021	4	Screw, Cap - Hex Head (1/4-20 x 4.50)
	306-3471-03	1	208/220/240 VAC	43	338-4897	1	Harness, Switch (Includes the Parts Marked ^)
	306-3471-05	1	380/416 VAC	44	323-1314	1	^ Plug, Connector (12 Place)
	306-3471-06	1	440/480 VAC	45	323-1316	2	^ Relief, Strain (12 Place)
18			Capacitor	46	323-1156	1	^ Plug, Connector (15 Place)
	312-0209	1	115 VAC	47	323-1158	2	^ Relief, Strain (15 Place)
	312-0204-S0	1	208/220/240 VAC	48	323-1199	23	^ Pin, Contact
	312-0203-S0	2	380/416 VAC	49	815-0937	4	^ Screw, Pan Head - Cross Recessed (#6-32 x 1/2)
	312-0203-S0	2	440/480 VAC	50	332-2832	2	^ Block, Terminal (8 Place)
19	306-3473	1	Shaft, Actuator	51	332-2903	2	^ Marker, Strip
20	306-3400-02	2	Rod, End	52	226-3380	1	Lead (380/416/440/480 VAC)
21	306-3482	1	Bar, Interlock	53	226-4796-03	1	Lead (Neutral)
22	870-0320	2	Nut, Hex - Whiz Loc (#10-32)	54	332-2605	1	Jumper, Terminal
23	526-0008	2	Washer, Flat (#10)	55	332-2420	A/R	Mount, Cable Tie
24	815-0652	13	Screw, Slotted - Hex Head (#10-32 x .50)	56	226-4796-05	1	Lead (NN)
25	526-0018	8	Washer, Flat (1/4)	57	226-4796-06	1	Lead (EN)
26	850-0040	8	Washer, Lock - Split (1/4)				
27	800-0008	2	Screw, Cap - Hex Head (1/4-20 x 1.25)				
28	815-0651	6	Screw, Pan Head - Cross Recessed - W/ET (#6-32 x .75)				

^ Parts Included in 338-4897 Wiring Harness.

Transfer Switch 4-Pole Front Connect

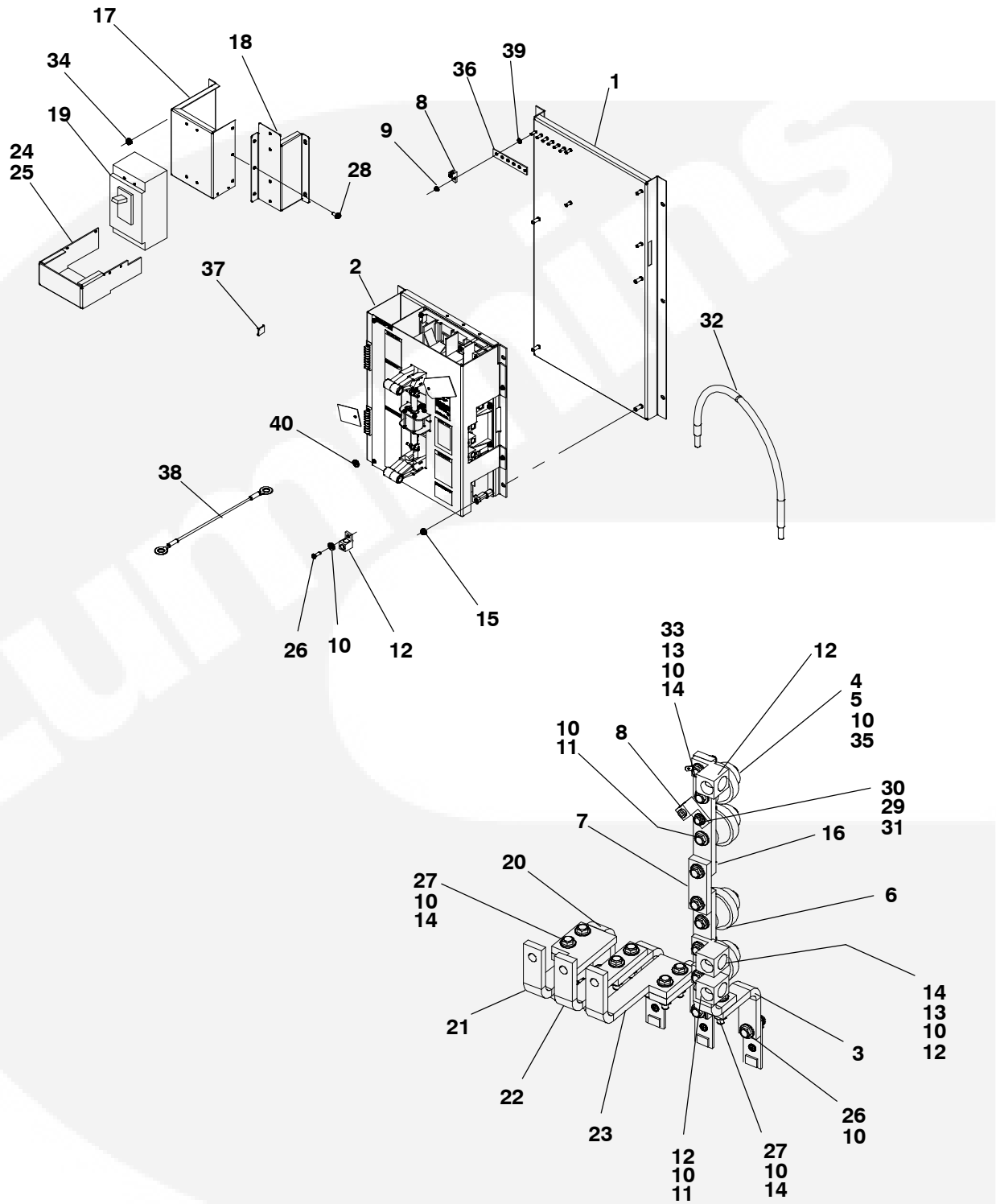


Transfer Switch 4-Pole Front Connect

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	306-3574	1	Base, Mounting	36	306-1842	2	Handle, Actuator
2	870-0320	2	Nut, Hex – Whiz Loc (#10-32)	37	800-0028	1	Screw, Cap – Hex Head (5/16-18 x 1.00)
3	815-0652	14	Screw, Slotted – Hex Head (#10-32 x .50)	38	306-4854	2	Chute, Arc
4	526-0008	3	Washer, Flat (#10)	39	337-2410-01	1	Strap, Load
5	306-2340	2	Handle, Barrier	40	337-2410-02	1	Strap, Load
6	306-3483	4	Spacer, Actuator	41	337-2410-03	1	Strap, Load
7	800-0021	4	Screw, Cap – Hex Head (1/4-20 x 4.50)	42	815-0527	4	Screw, Pan Head – Thread Cutting (#10 x .50)
8	850-0040	8	Washer, Lock – Split (1/4)	43	338-4897	1	Harness, Switch (Includes the Parts Marked ^)
9	526-0018	8	Washer, Flat (1/4)	44	306-3573	1	Block, Lug – Mounting
10	306-3473	1	Shaft, Actuator	45	815-0656	6	Screw, Machine – Round Head (1/4-20 x 2.75)
11	800-0027	8	Screw, Cap – Hex Head (5/16-18 x .88)	46	815-0290	4	Screw, Hex Washer Head – Thread Forming (1/4-20 x .62)
12	306-3400-02	2	Rod, End	47			Actuator, Linear
13	800-0008	2	Screw, Cap – Hex Head (1/4-20 x 1.25)		306-3471-01	1	115 VAC
14	851-0028	15	Washer, Spring (5/16)		306-3471-03	1	208/220/240 VAC
15	815-0651	6	Screw, Pan Head – Cross Recessed – W/ET (#6-32 x .75)		306-3471-05	1	380/416 VAC
16	800-0003	2	Screw, Cap – Hex Head (1/4-20 x .50)		306-3471-06	1	440/480 VAC
17	815-0029	A/R	Screw, Machine – Flat Head – Cross Recessed (#10-32 x .50)	48			Breaker, Circuit
18	870-0131	A/R	Nut, Hex – W/ET (#10-32)		320-0609	1	115 VAC
19	306-3418	1	Bracket, Terminal		320-0608	1	208/220/240 VAC
20	226-3380	1	Lead (380/416/440/480 VAC)		320-0606	2	380/416 VAC
21	332-2605	1	Jumper, Terminal		320-0606	2	440/480 VAC
22	306-3575	1	Barrier, Mounting Base	49			Capacitor
23	815-0667	4	Screw, Hex Head (1/4-20 x 1.25)		312-0209	1	115 VAC
24	306-5232-02	1	Block and Crossbar Assembly – Emergency		312-0204	1	208/220/240 VAC
25	337-2365	4	Strap, Jumper		312-0203	2	380/416 VAC
26	800-0030	3	Screw, Cap – Hex Head (5/16-18 x 1.25)		312-0203	2	440/480 VAC
27	306-4749	2	Contact, Auxiliary	50	306-5233	2	Block Assembly
28	332-2420	A/R	Mount, Cable Tie	51	306-3576	2	Cover, Arc Chute
29	862-0015	2	Nut, Hex – Heavy (5/16-18)	52	306-2352	2	Insulator, Arc Chute
30	306-3482	1	Bar, Interlock	53	821-0016	1	Screw, Lock Washer Head (5/16-18 x .75)
31	306-0508	2	Arm, Interlock	54	323-1314	1	^ Plug, Connector (12 Place)
32	815-0446	8	Screw, Cross Recessed – Thread Cutting (#8-32 x .50)	55	323-1316	2	^ Relief, Strain (12 Place)
33	332-3039	4	Lug, Solderless	56	323-1156	1	^ Plug, Connector (15 Place)
34	306-5232-01	1	Block and Crossbar Assembly	57	323-1158	2	^ Relief, Strain (15 Place)
35	306-1396	2	Plate, Handle – Mounting	58	323-1199	23	^ Pin, Contact
				59	815-0937	4	^ Screw, Pan Head – Cross Recessed (#6-32 x 1/2)
				60	332-2832	2	^ Block, Terminal (8 Place)
				61	332-2903	2	^ Marker, Strip

^ Parts Included in 338-4897 Wiring Harness.

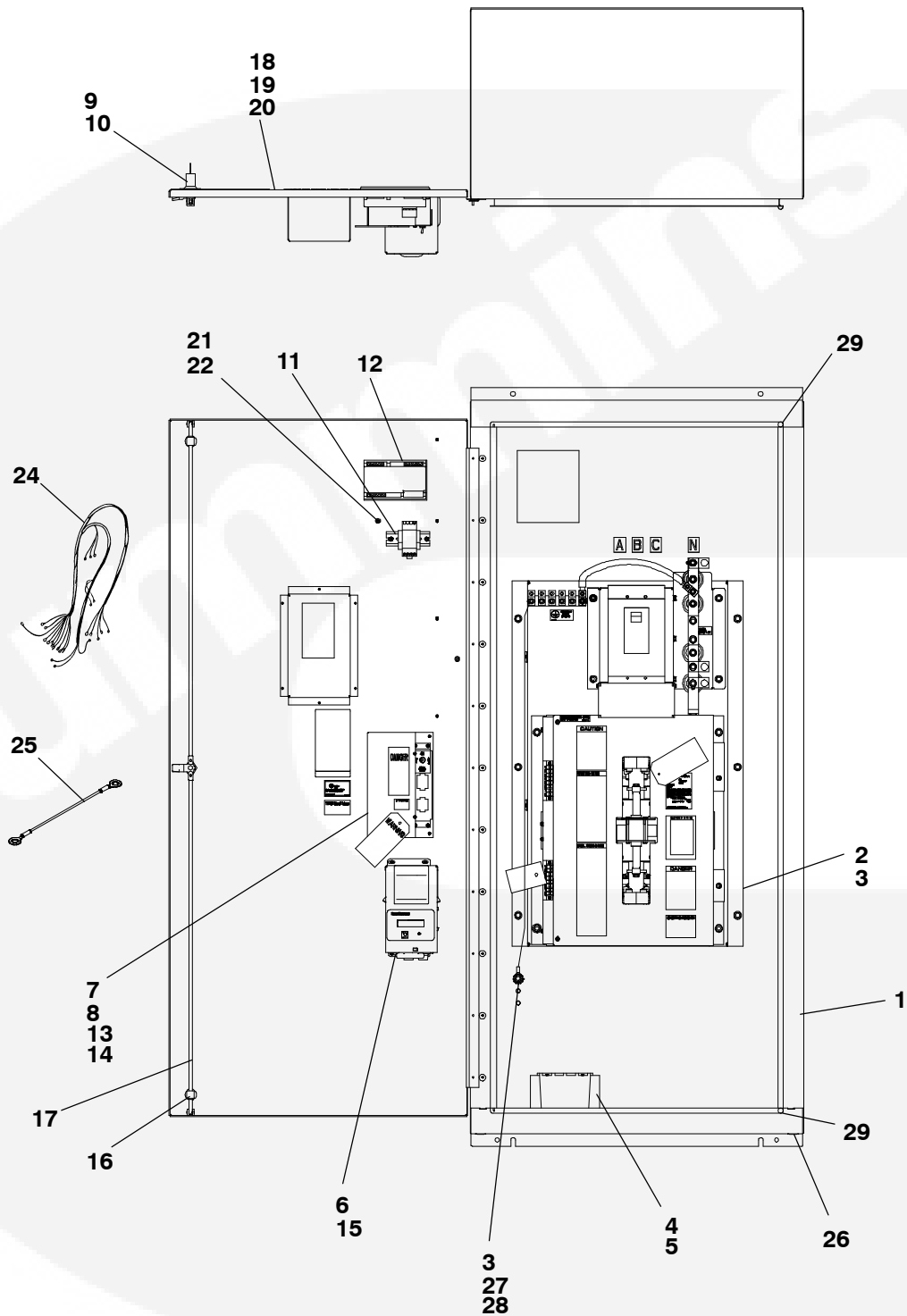
Transfer Switch



Transfer Switch

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	319-6590-02	1	Plate, Mounting	20	337-3834	3	Bar, Bus
2			Switch, Transfer	21	337-3906	1	Bar, Bus
		1	3-Pole (See Page 7 for Components)	22	337-3907	1	Bar, Bus
		1	4-Pole (See Page 9 for Components)	23	337-3910	1	Bar, Bus
3	337-3909	1	Bar, Bus	24	306-5241	1	Barrier, Phase
4	853-0016	8	Washer, Lock - W/ET (5/16)	25	815-0652	4	Screw, Hex Head - Slotted
5	332-2744-03	4	Standoff, Insulator	26			Screw, Cap - Hex Head (5/16-18 x .88)
6	337-3908	1	Bar, Bus		800-0027	6	3-Pole
7	337-3904	1	Bar, Bus		800-0027	8	4-Pole
8	332-3647	7	Lug, Solderless	27			Screw, Cap - Hex Head (5/16-18 x 1.5)
9	870-0212	6	Nut, Hex - Whiz Lok (1/4-20)		800-0031	6	3-Pole
10			Washer, Spring (5/16)		800-0031	7	4-Pole
	851-0028	34	3-Pole	28	821-0009	3	Screw, Locking - Hex Head (1/4-20 x 3/8)
	851-0028	38	4-Pole				
11	800-0026	4	Screw, Cap - Hex Head (5/16-18 x .75)	29	851-0027	2	Washer, Spring (1/4)
12			Lug, Solderless	30	800-0008	1	Screw, Cap - Hex Head (1/4-20 x 1.25)
	332-3039	6	3-Pole	31	862-0001	1	Nut, Hex - Heavy (1/4-20)
	332-3039	7	4-Pole	32	334-2353	1	Cable, Shielded
13	800-0030	4	Screw, Cap - Hex Head (5/16-18 x 1.25)	33	332-2463	8	Ring, Terminal
14			Nut, Hex - Heavy (5/16-18)	34	870-2222	4	Nut, Hex (5/16-18)
	862-0015	10	3-Pole	35	800-0045	4	Screw, Cap - Hex Head (5/16-18 x 3/8)
	862-0015	11	4-Pole	36	337-4085	1	Bar, Bus - Ground
15	870-0281	4	Nut, Hex - Whiz Lok (3/8-16)	37	332-2420	2	Mount, Cable Tie
16	337-3905	1	Bar, Bus	38	226-4990-01	1	Lead
17	319-6591-02	1	Bracket, Circuit Breaker	39	856-0006	6	Washer, Lock - W/EIT (1/4)
18	319-6356-02	1	Bracket, Circuit Breaker	40	526-0030	2	Washer, Flat (3/8)
19			Breaker, Circuit (See Page 23 for Components)				

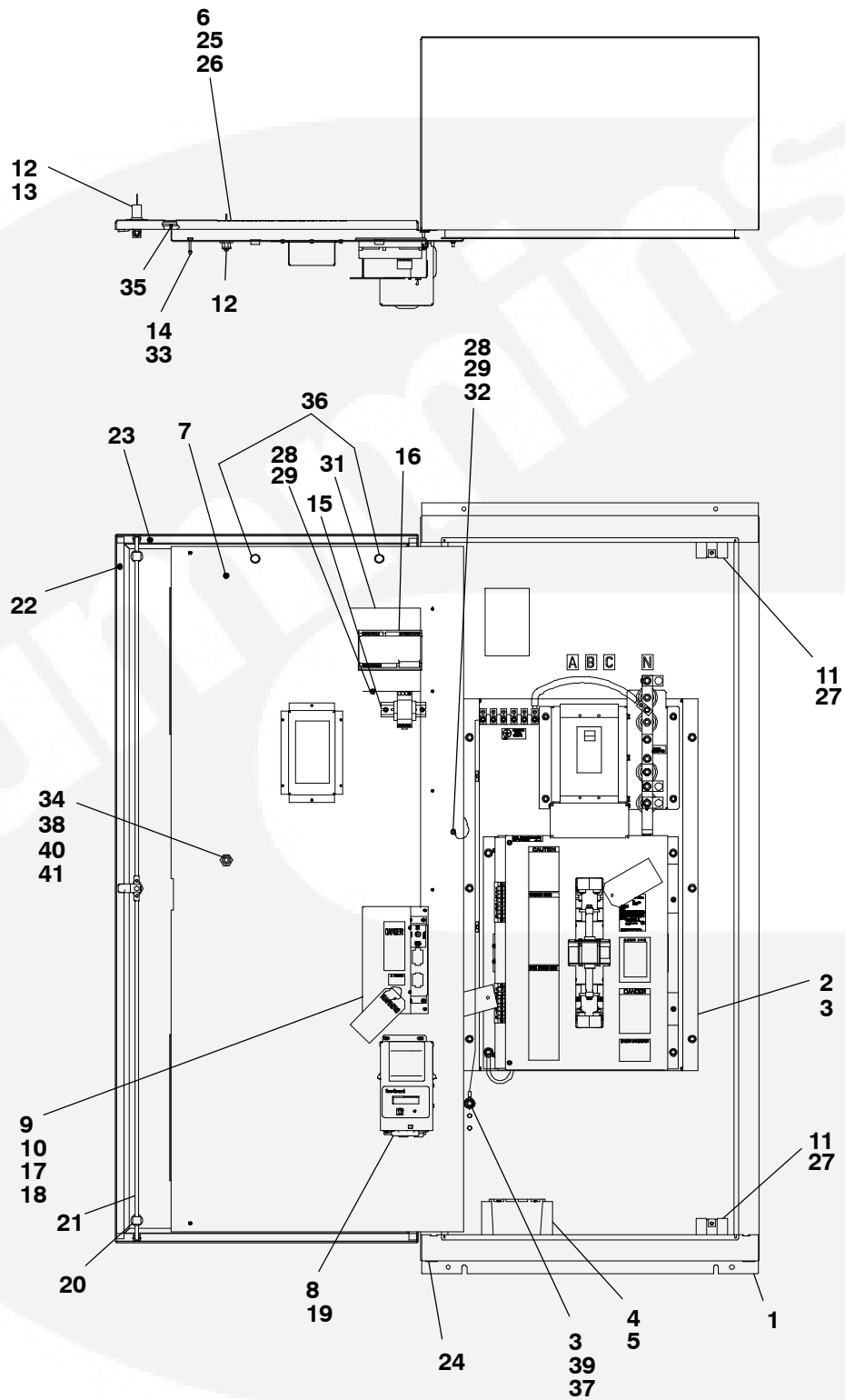
Control NEMA 1



Control NEMA 1

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	319-3897-03	1	Box, Control	14	815-0792-02	2	Screw, Cross Recessed – Pan
2			Switch, Transfer (See Page 11 for Components)	15	860-2006	4	Head (M4 x 0.7 x 8)
3	870-0281	7	Nut, Hex – Whiz Lok (3/8-16)	16	306-3467	2	Nut, Hex (M5 x 0.8)
4	315-0661	1	Transformer, Power	17	306-3526-04	2	Rod, Guide
5	870-0212	4	Nut, Hex – Whiz Lok (1/4-20)	18	319-6516-02	1	Rod, Roller
6			Charger, Battery (See Pages 16 and 17)	19	508-0233	11	Door, Transfer Switch
7			Relay – Assembly (See Page 18 for Components)	20	870-0131	11	Washer, Rubber
8	319-3942-02	1	Shield, Relay Plate	21	853-2005	2	Nut – W/ET (#10-32)
9	406-0613	1	Handle, Keyed	22	166-0771	2	Washer – W/ET (M5)
10	306-3525	1	Latch, Cam (3 Point)	23	323-1156	1	Nut, Hex – Flange (M5)
11	541-1106	1	Kit, Exercise Clock	24	338-4435	1	Plug, Circuit (Not Shown)
12	300-5965	1	Display, Control	25	226-4916-01	1	Harness, Main
13	815-0960-03	4	Screw, Cross Recessed – Pan Head W/ET (M4 x 0.7 x 10)	26	517-0137	4	Lead
				27	526-0030	2	Plug, Hole
				28	856-0010	1	Washer, Flat (3/8)
				29	508-0231	2	Washer, Lock – W/EIT (3/8)
							Bumper

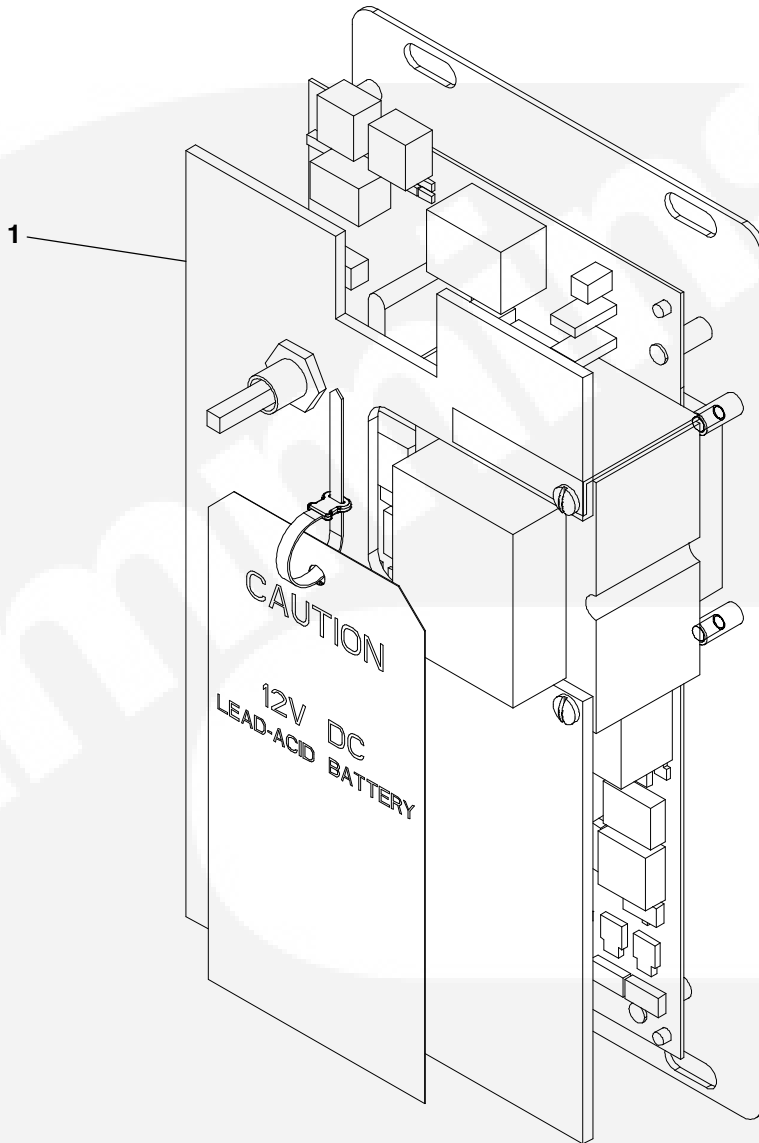
Control Type 3R and 12



Control Type 3R and 12

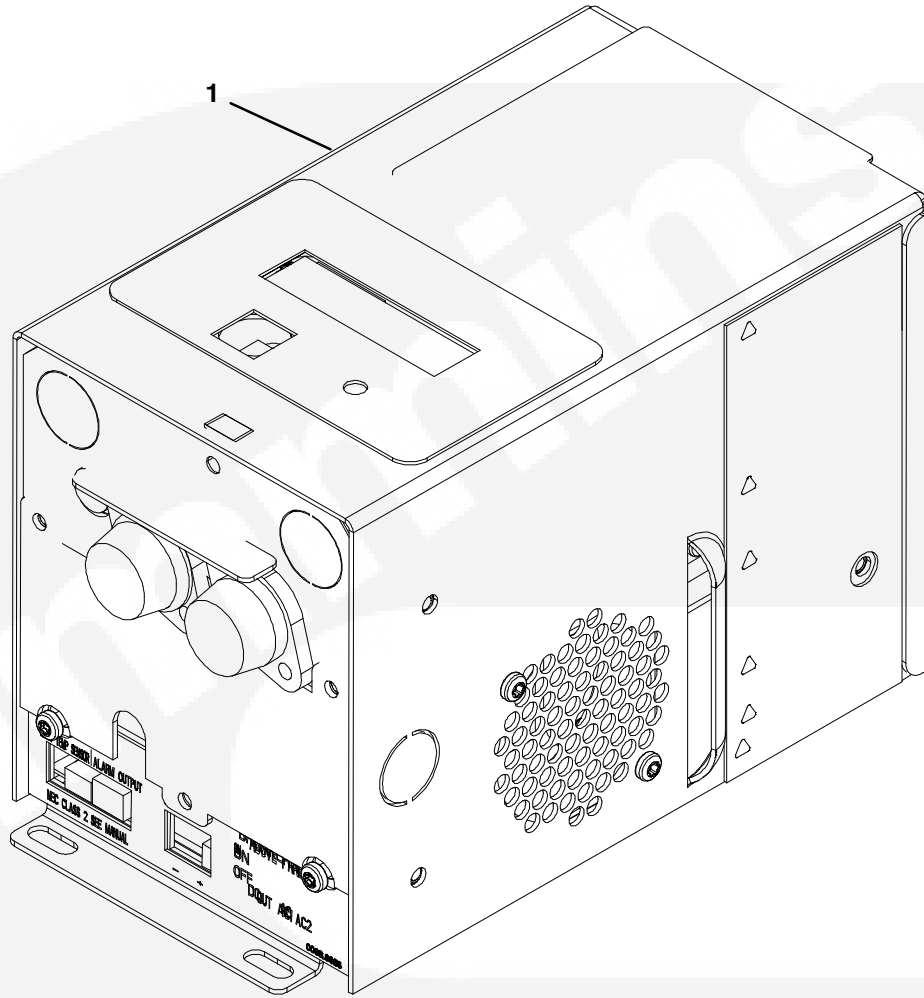
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Box, Control	16	300-5965	1	Display, Control
	319-3897-03	1	Type 3R	17	815-0960-03	4	Screw, Cross Recessed – Pan Head W/ET (M4 x 0.7 x 10)
	319-3897-04	1	Type 12				
2			Switch, Transfer (See Page 11 for Components)	18	815-0792-02	2	Screw, Cross Recessed – Pan Head (M4 x 0.7 x 8)
3	870-0281	7	Nut, Hex – Whiz Lok (3/8-16)	19	860-2006	4	Nut, Hex (M5 x 0.8)
4	315-0661	1	Transformer, Power	20	306-3467	2	Rod, Guide
5	870-0212	4	Nut, Hex – Whiz Lok (1/4-20)	21	306-3526-04	2	Rod, Roller
6			Door, Transfer Switch	22	895-0293-20	2	Gasket, Door
	319-6522-02	1	Used With 319-6665-02 Transfer Switch Door (Item 7)	23	895-0293-09	2	Gasket, Door
				24	517-0266	4	Plug, Hole
	319-6524-02	1	Used With 319-6666-02 Transfer Switch Door (Item 7)	25	508-0233	11	Washer, Rubber
				26	870-0131	11	Nut – W/ET (#10-32)
7			Door, Transfer Switch	27	870-2222	4	Nut, Hex – Flange (5/16-18)
	319-6665-02	1	With Riveted Control Access Panel (Mates to Breaker)	28	853-2005	2	Washer – W/ET (M5)
				29	166-0771	2	Nut, Hex – Flange (M5)
	319-6666-02	1	Without Riveted Control Access Panel	30	323-1156	1	Plug, Circuit (Not Shown)
				31	338-4435	1	Harness, Main
8			Charger, Battery (See Pages 16 and 17)	32	226-4916-01	1	Lead
9			Relay – Assembly (See Page 18 for Components)	33	406-1147	2	Washer, Retainer
				34	406-0714	1	Knob, Ball
10	319-3942-02	1	Shield, Relay Plate	35	508-1045	2	Edge, Protection
11	319-7295-02	2	Bracket, Saddle	36	517-0137	2	Plug, Hole
12	406-0613	1	Handle, Keyed	37	526-0030	2	Washer, Flat (3/8)
13	306-3525	1	Latch, Cam (3 Point)	38	526-0018	1	Washer, Flat (1/4)
14	406-1146	2	Fastener, Panel	39	856-0010	1	Washer, Lock – W/EIT (3/8)
15	541-1106	1	Kit, Exercise Clock	40	800-0004	1	Screw, Cap – Hex Head (1/4-20 x 5/8)
				41	850-0040	1	Washer, Lock (1/4)

Battery Charger **2 Amp, 12/24 Volt**



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Charger, Battery				
	300-6026-01	1	120V				
	300-6026-02	1	208V				
	300-6026-03	1	240V				
	300-6026-05	1	380V				
	300-6026-06	1	416V				
	300-6026-07	1	480V				

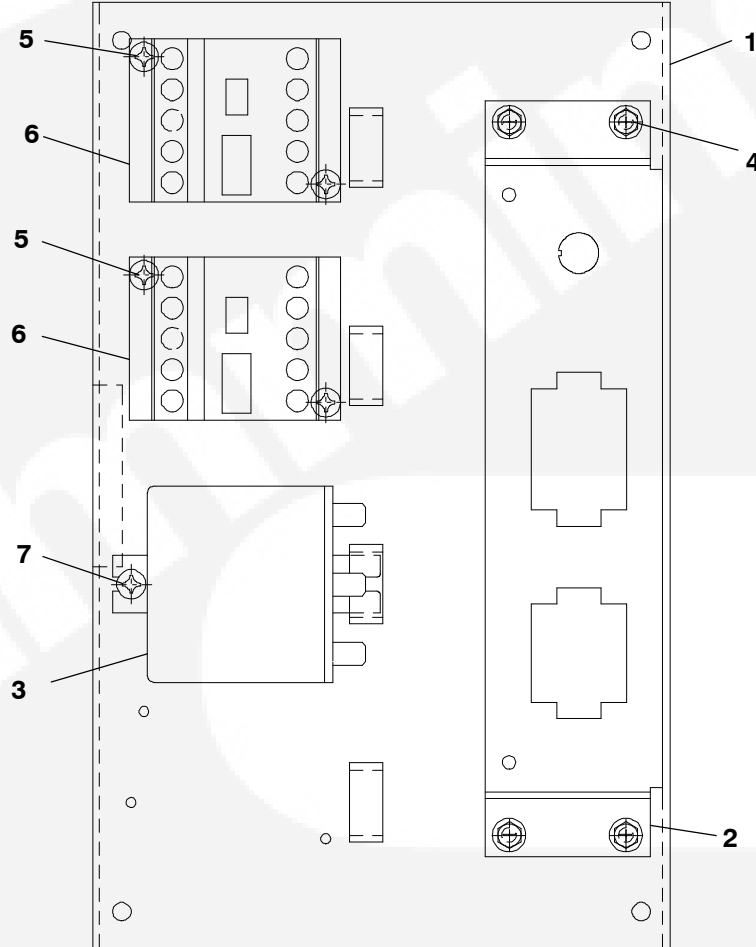
Battery Charger **15/12 Amp, 12/24 Volt**



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Charger, Battery				
	300-5878-13	1	120, 208, 240V				
	300-5878-15	1	380V				
	300-5878-16	1	416V				
	300-5878-17	1	480V				

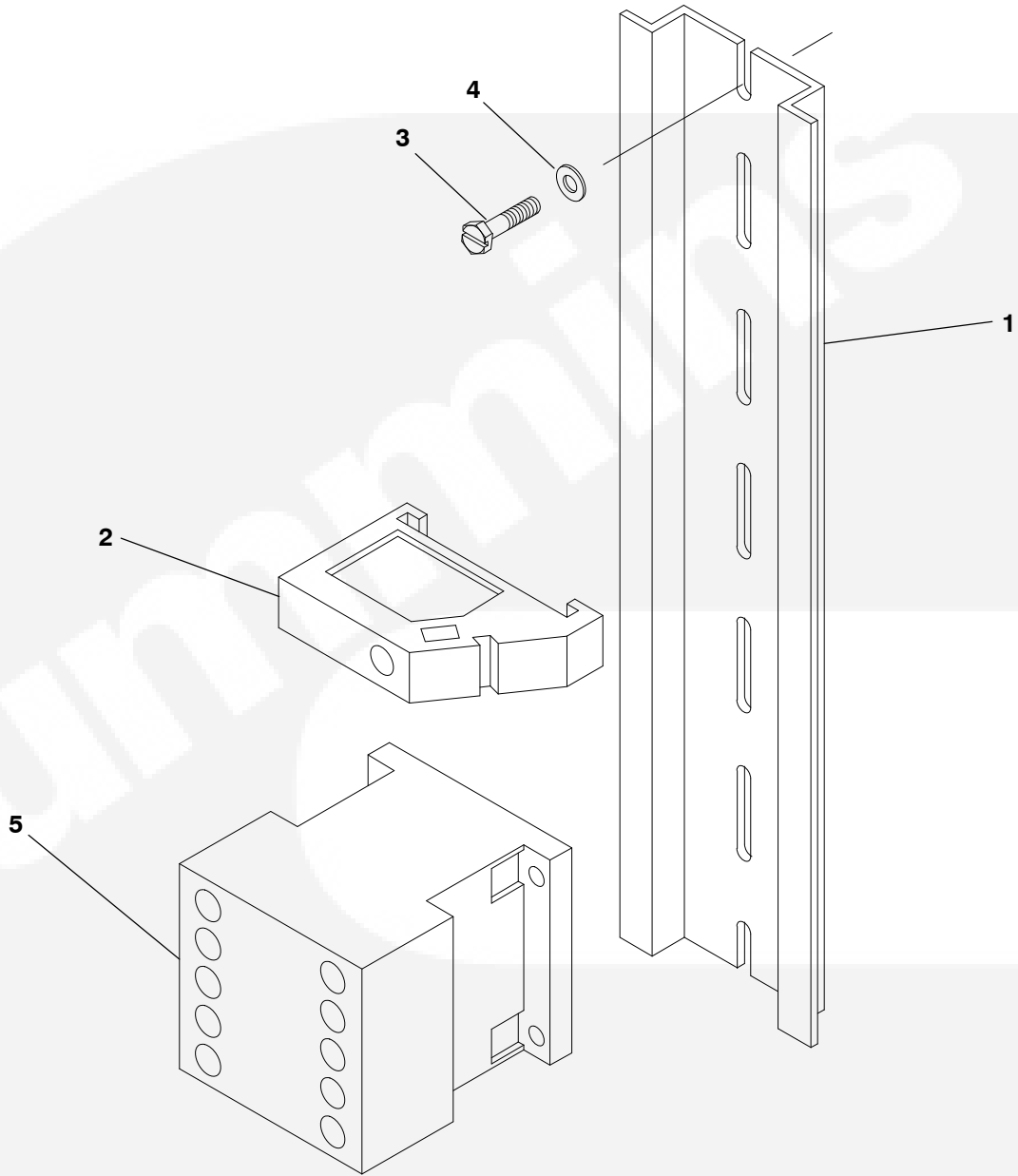


Relay Plate



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	319-3940-02	1	Plate, Relay	5	815-0958-04	4	Screw, Cap – Hex Head (M4 x 10)
2	319-3941-02	1	Bracket, Connector	6	307-2931	2	Relay, Control 12V
3	307-2929	1	Relay, Power 12V		307-3055	2	Relay, Control 24V
	307-3054	1	Relay, Power 24V	7	815-0792-02	1	Screw, Cross Recessed – Pan Head – (M3 x 12)
4	815-0955-03	4	Screw, Cap – Hex Head (M4 x 10)				

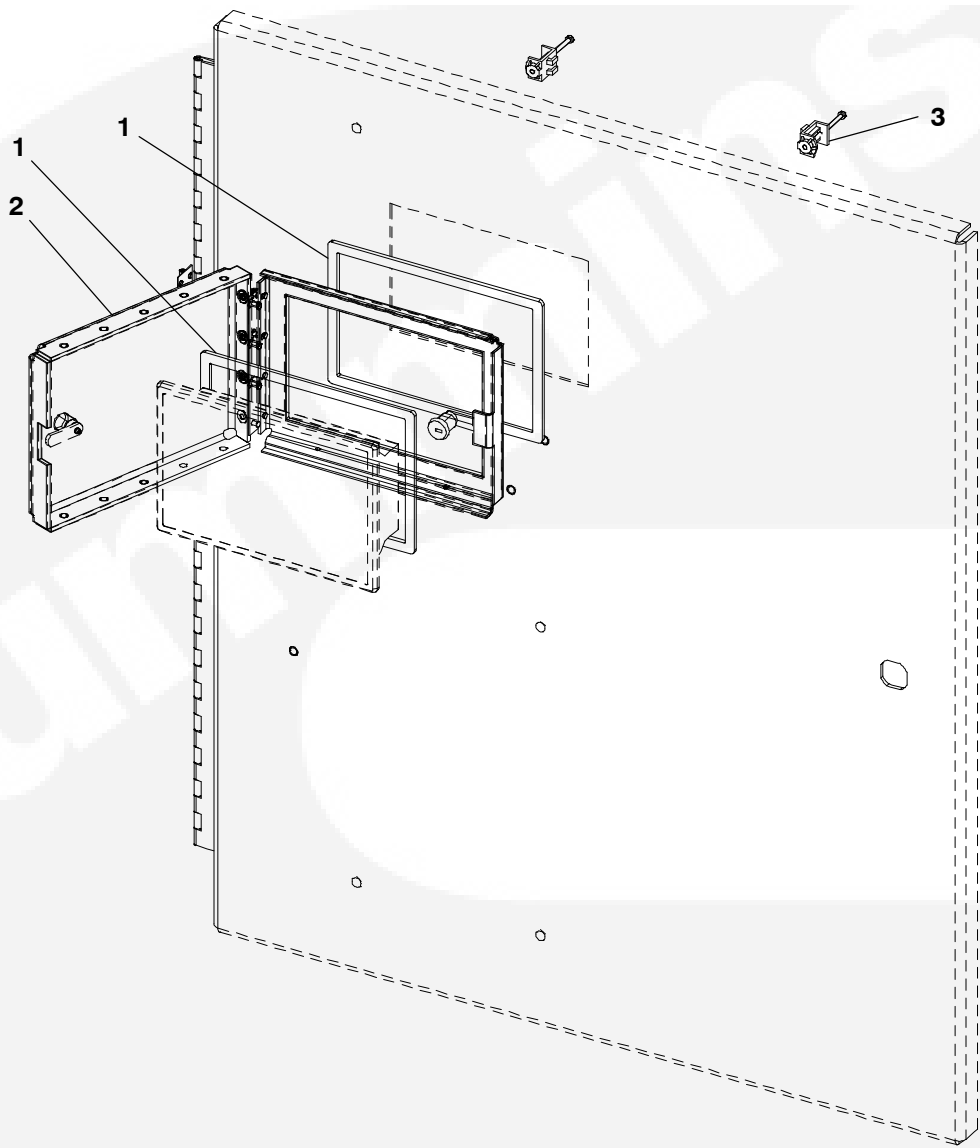
Auxiliary Relay



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	332-2879-04	1	Rail, Terminal	4	526-0003	2	Washer, Flat
2	332-2878	2	Bracket, End	5			Relay, Control
3	815-0955-03	2	Screw, Phillips/Hex Head – GND (M4 x 10)		307-2873	1	12 VDC
					307-2874	1	24 VDC

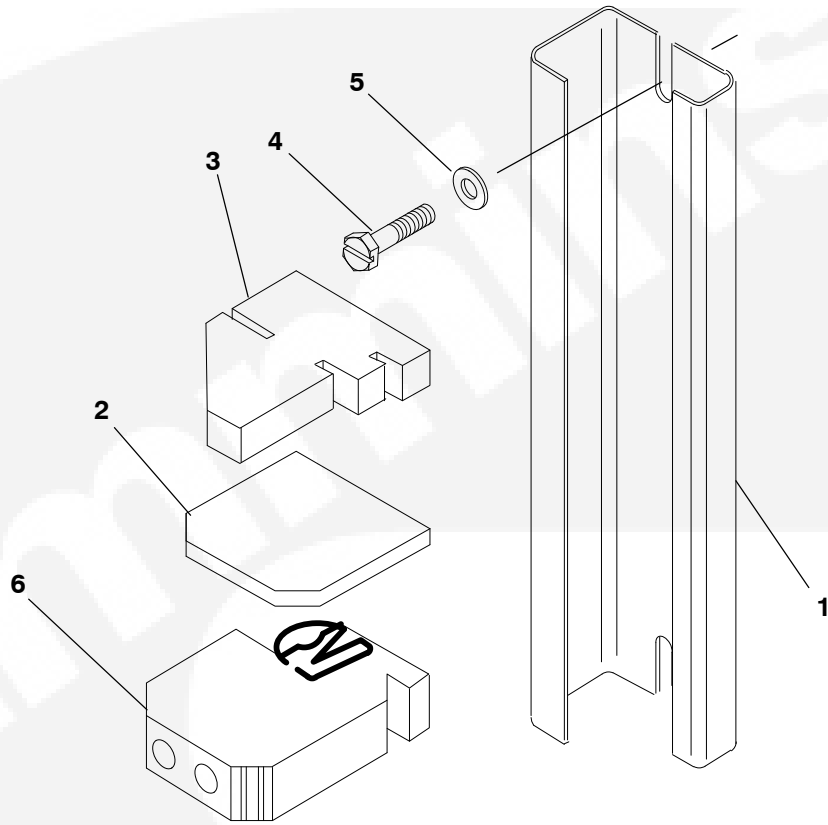


Controller Cover



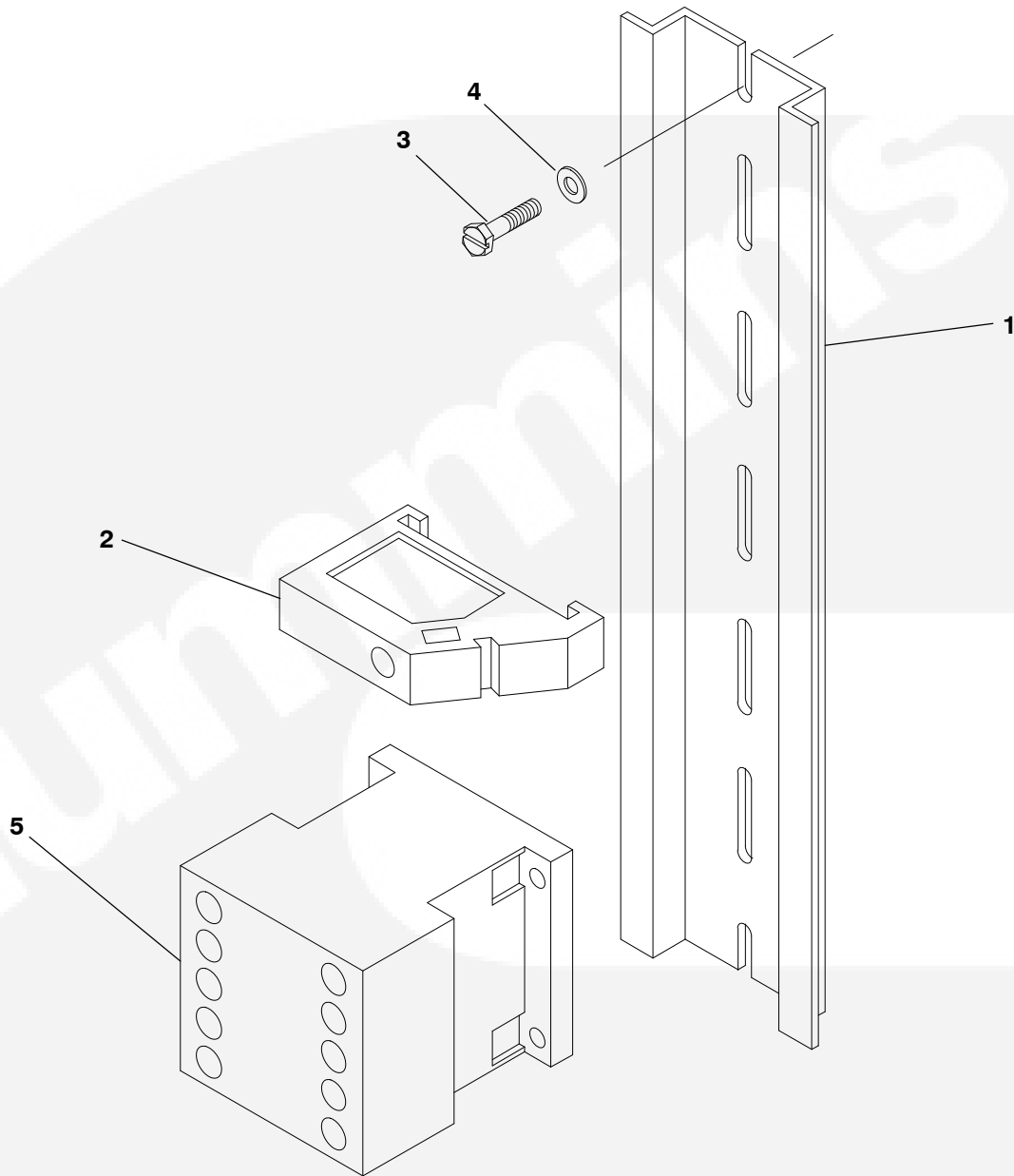
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	234-1066	2	Gasket, Cover	3	518-0774	2	Clip, Retaining
2	130-7197	1	Cover, Guard				

Terminal Block



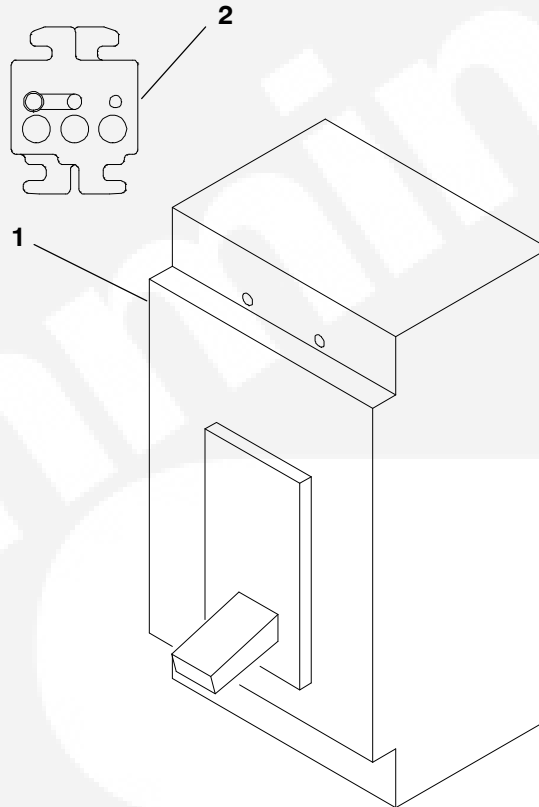
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	332-2837-09	1	Rail, Terminal Block	5	526-0003	2	Washer, Flat
2	332-2841	1	Plate, End – Terminal	6	332-2836-02	3	Block, Terminal (Sectional)
3	332-2839	2	Bracket, End – Terminal				
4	815-0955-03	2	Screw, Phillips/Hex Head – GND (M4 x 10)				

Elevator Signal Relay



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	332-2879-04	1	Rail, Terminal	4	526-0003	2	Washer, Flat
2	332-2878	2	Bracket, End	5			Relay, Control
3	815-0955-03	2	Screw, Phillips/Hex Head – GND (M4 x 10)		307-2873	1	12 VDC
					307-2874	1	24 VDC

Circuit Breaker



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	320-2432-01	1	Breaker, Circuit 150 Amp - 3 Pole	2	406-1234	1	Plate, Lock
	320-2432-02	1	250 Amp - 3 Pole				



Labels

1

CUSTOMER WIRING

0098-8258.A

2

TYPE 1 Enclosure

To provide protection against a limited amount of falling dirt.

0098-6118.C

3

TYPE 3R Rainproof Enclosure

To provide a degree of protection against falling rain; undamaged by the formation of ice on the enclosure.

U.L. Listed Type 3 conduit hubs are to be used.

0098-6119.C

4

TYPE 12 DUSTTIGHT ENCLOSURE

Indoor use, to provide a degree of protection against circulating dust, falling dirt and dripping noncorrosive liquids.

U.L. Listed Type 12 conduit hubs are to be used.

0098-6776.B

5

FIELD WIRING REQUIREMENTS

TB3, KNA, KEA, KGS, J14, J15

Use copper wire only.

Torque to 7 Lbs-in (0.8 Nm)

6

CAUTION

FACTORY PROGRAMMED FOR 12VDC BATTERY

0098-8350.A

7

CAUTION

FACTORY PROGRAMMED FOR 24VDC BATTERY

0098-8351.A

8

WITHSTAND RATINGS

THIS TRANSFER SWITCH IS RATED FOR USE ON A CIRCUIT CAPABLE OF DELIVERING NOT MORE THAN INDICATED RMS SYMMETRICAL AMPERES FROM BELOW AT 480 VOLTS MAXIMUM.

SWITCH AMPERES	WCR @ 480V
40, 70, 125	35,000
150, 225, 250	65,000
300, 400, 600	65,000
800, 1000	65,000

0098-8830.A

9

PROTECTIVE EARTH (GROUND)

10

NEUTRAL DISCONNECT LINK

0098-8268.A

11

MAIN BONDING JUMPER

98-7700.A

13

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16

DANGER

Hazardous Voltage.

Will cause severe injury or death.

Disconnect All electrical supply source before servicing.

WARNING

Improper operation can cause severe personal injury or death. Read operator's manual before use. Operator's manual can be obtained from your dealer.

0098-7613.B

12

☐	Exercise Enable
☐	TDPT
☐	Synch Check
☐	TDNE
☐	TDEN
☐	Start-B
☐	Start-A
☐	S2 Available
☐	S1 Available
☐	Status

0098-7672.B

14

15

SERVICE DISCONNECT

NORMAL DISCONNECT

98-7700.A

17

SUITABLE FOR USE AS SERVICE EQUIPMENT - NORMAL SOURCE ONLY

An additional disconnect must be readily available for the alternate source, unless the alternate source is an accessible generator and can be readily shut down.

0098-8851.A

18

CUSTOMER CONNECTIONS TERMINAL TORQUE REQUIREMENTS

TORQUE: POUND-INCHES (lbf-in) FOR SLOTTED SCREWS SMALLER THAN #6-16 FOR USE WITH #6-8 OR #8-10 SCREWS. TORQUE: POUND-INCHES (lbf-in) FOR SLOTTED SCREWS SMALLER THAN #6-16 FOR USE WITH #6-8 OR #8-10 SCREWS. TORQUE: POUND-INCHES (lbf-in) FOR SLOTTED SCREWS SMALLER THAN #6-16 FOR USE WITH #6-8 OR #8-10 SCREWS.

SCREW SIZE	SCREW LENGTH	TERMINAL	TERMINAL	TERMINAL	TERMINAL
1/4	3/32	(4)	7	(0.79)	12
3/16	(4)	7	(0.79)	12	(1.4)
1/2	(4)	7	(0.79)	12	(1.4)
3/4	(4)	7	(0.79)	12	(1.4)
1	(4)	7	(0.79)	12	(1.4)
1 1/4	(4)	7	(0.79)	12	(1.4)
1 1/2	(4)	7	(0.79)	12	(1.4)
1 3/4	(4)	7	(0.79)	12	(1.4)
2	(4)	7	(0.79)	12	(1.4)

LUG TIGHTENING REQUIREMENTS

NORMAL, EMERGENCY, LOAD, NEUTRAL AND GROUND LUGS ACCEPT EITHER CU OR AL CONNECTORS. ALL OTHER TERMINALS ACCEPT ONLY CU. FOR PROPER OPERATION, TORQUE FIELD CONNECTIONS TO THE FOLLOWING VALUES:

SCREW SIZE	MINIMUM TIGHTENING TORQUE
3/32	(4)
1/8	(4)
3/16	(8)
1/4	(16)
5/16	(16)
3/8	(16)
7/16	(16)
1	(16)
1 1/4	(16)
1 1/2	(16)
1 3/4	(16)
2	(16)

0098-8267.C

19

REPLACE ALL COVERS BEFORE APPLYING POWER TO THE SWITCH

DANGER

More than one live circuit To ensure against shock or accident hazard, disconnect all sources of supply before servicing. See diagram.

ADVERTISSEMENT-COUPER TOUTES LES SOURCES D'ALIMENTATION AVANT DE FAIRE L'ENTRETIEN ET LES REPARATIONS

0098-7735.A

20

WARNING

BEFORE SERVICING PANEL

PLACE SI TO OFF REMOVE PI

0098-8228.A

21

A B C N

Labels

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	098-8258	1	Label, Customer Wiring	13	098-8280	1	Label, Information
2	098-6118	1	Label, Cabinet	14	098-7902-02	1	Label, Logo
3	098-6119	1	Label, Cabinet	15	098-7786	1	Label, Service Disconnect
4	098-6776	1	Label, Cabinet	16	098-7613	1	Label, Danger/Warning
5	098-7621	1	Label, Torque	17	098-8851	1	Label, Information
6	098-8350	1	Label, Instruction	18	098-6367	1	Label, Torque
7	098-8351	1	Label, Instruction	19	098-7735	2	Label, Cover
8	098-8930	1	Label, Information	20	098-8228	1	Label, Warning
9	098-6635	1	Label, Ground	21			Label, Bus Marking
10	098-8268	1	Label, Information (Neutral Disconnect)		098-5854-01	1	"A"
					098-5854-02	1	"B"
11	098-7700	1	Label, Bonding Jumper		098-5854-03	1	"C"
12	098-7672	1	Label, Function		098-5854-04	1	"N"



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Numerical Index

<u>Part No.</u>	<u>Page</u>	<u>Part No.</u>	<u>Page</u>	<u>Part No.</u>	<u>Page</u>	<u>Part No.</u>	<u>Page</u>
098-5854-01, 25		300-6026-07, 16		319-3897-03, 13 , 15		337-3834, 11	
098-5854-02, 25		306-0508, 7 , 9		319-3897-04, 15		337-3904, 11	
098-5854-03, 25		306-1396, 7 , 9		319-3940-02, 18		337-3905, 11	
098-5854-04, 25		306-1842, 9		319-3941-02, 18		337-3906, 11	
098-6118, 25		306-1842-S0, 7		319-3942-02, 13 , 15		337-3907, 11	
098-6119, 25		306-1989, 7 , 9		319-6356-02, 11		337-3908, 11	
098-6367, 25		306-2352, 9		319-6516-02, 13		337-3909, 11	
098-6635, 25		306-3400-02, 7 , 9		319-6522-02, 15		337-3910, 11	
098-6776, 25		306-3403, 7 , 9		319-6524-02, 15		337-4085, 11	
098-7613, 25		306-3418, 7 , 9		319-6590-02, 11		338-4435, 13 , 15	
098-7621, 25		306-3467, 13 , 15		319-6591-02, 11		338-4896, 7 , 9	
098-7672, 25		306-3471-01, 7 , 9		319-6665-02, 15		406-0613, 13 , 15	
098-7700, 25		306-3471-03, 7 , 9		319-6666-02, 15		406-0714, 15	
098-7735, 25		306-3471-05, 7 , 9		319-7295-02, 15		406-1146, 15	
098-7786, 25		306-3471-06, 7 , 9		320-0606, 7 , 9		406-1147, 15	
098-7902-02, 25		306-3473, 7 , 9		320-0608, 7 , 9		406-1234, 23	
098-8228, 25		306-3482, 7 , 9		320-0609, 7 , 9		508-0231, 13	
098-8258, 25		306-3483, 7 , 9		320-2432-01, 23		508-0233, 13 , 15	
098-8268, 25		306-3525, 13 , 15		320-2432-02, 23		508-1045, 15	
098-8280, 25		306-3526-04, 13 , 15		323-1156, 7 , 9 , 13 , 15		517-0137, 13 , 15	
098-8350, 25		306-3573, 7 , 9		323-1158, 7 , 9		517-0266, 15	
098-8351, 25		306-3574, 7 , 9		323-1199, 7 , 9		518-0774, 20	
098-8851, 25		306-3576, 9		323-1314, 7 , 9		526-0003, 19 , 21 , 22	
098-8930, 25		306-4749, 7 , 9		323-1316, 7 , 9		526-0008, 7 , 9	
130-7197, 20		306-4854, 9		332-2420, 7 , 9 , 11		526-0018, 7 , 9 , 15	
166-0771, 13 , 15		306-5231-01, 7		332-2463, 11		526-0030, 11 , 13 , 15	
226-3380, 7 , 9		306-5231-02, 7		332-2605, 7 , 9		541-1106, 13 , 15	
226-4796-03, 7		306-5232-01, 9		332-2744-03, 11		800-0003, 7 , 9	
226-4796-05, 7		306-5232-02, 9		332-2832, 7 , 9		800-0004, 11 , 15	
226-4796-06, 7		306-5233, 9		332-2836-02, 21		800-0008, 7 , 9 , 11	
226-4916-01, 13 , 15		306-5241, 11		332-2837-09, 21		800-0021, 7 , 9	
226-4990-01, 11		307-2873, 19 , 22		332-2839, 21		800-0027, 7 , 9 , 11	
234-1066, 20		307-2874, 19 , 22		332-2841, 21		800-0028, 9	
300-5878-13, 17		307-2929, 18		332-2878, 19 , 22		800-0030, 7 , 9 , 11	
300-5878-15, 17		307-2931, 18		332-2879-04, 19 , 22		800-0031, 11	
300-5878-16, 17		307-3054, 18		332-2903, 7 , 9		800-0045, 11	
300-5878-17, 17		307-3055, 18		332-3039, 7 , 9 , 11		815-0029, 7 , 9	
300-5965, 13 , 15		312-0203, 9		332-3647, 11		815-0261, 7	
300-6026-01, 16		312-0203-S0, 7		334-2353, 11		815-0290, 9	
300-6026-02, 16		312-0204, 9		337-2365, 7 , 9		815-0446, 7 , 9	
300-6026-03, 16		312-0204-S0, 7		337-2410-01, 7 , 9		815-0527, 9	
300-6026-05, 16		312-0209, 7 , 9		337-2410-02, 7 , 9		815-0651, 7 , 9	
300-6026-06, 16		315-0661, 13 , 15		337-2410-03, 7 , 9		815-0652, 7 , 9 , 11	

Numerical Index

<u>Part No.</u>	<u>Page</u>	<u>Part No.</u>	<u>Page</u>	<u>Part No.</u>	<u>Page</u>	<u>Part No.</u>	<u>Page</u>
815-0656, 7 , 9		815-0960-03, 13 , 15		853-2005, 13 , 15		870-0212, 11 , 13 , 15	
815-0667, 7 , 9		821-0009, 11		856-0006, 11		870-0281, 11 , 13 , 15	
815-0792-02, 13 , 15 , 18		821-0016, 9		856-0010, 13 , 15		870-0320, 7 , 9	
815-0937, 7 , 9		850-0040, 7 , 9 , 15		860-2006, 13 , 15		870-2222, 11 , 15	
815-0955-03, 18 , 19 , 21 , 22		851-0027, 11		862-0001, 11		895-0293-09, 15	
815-0958-04, 18		851-0028, 7 , 9 , 11		862-0015, 7 , 9 , 11		895-0293-20, 15	
		853-0016, 11		870-0131, 7 , 9 , 13 , 15			

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