

35 ELECTRICAL SERVICE UNIT (LESU)
FOR KSR AND RO SETS
PARTS

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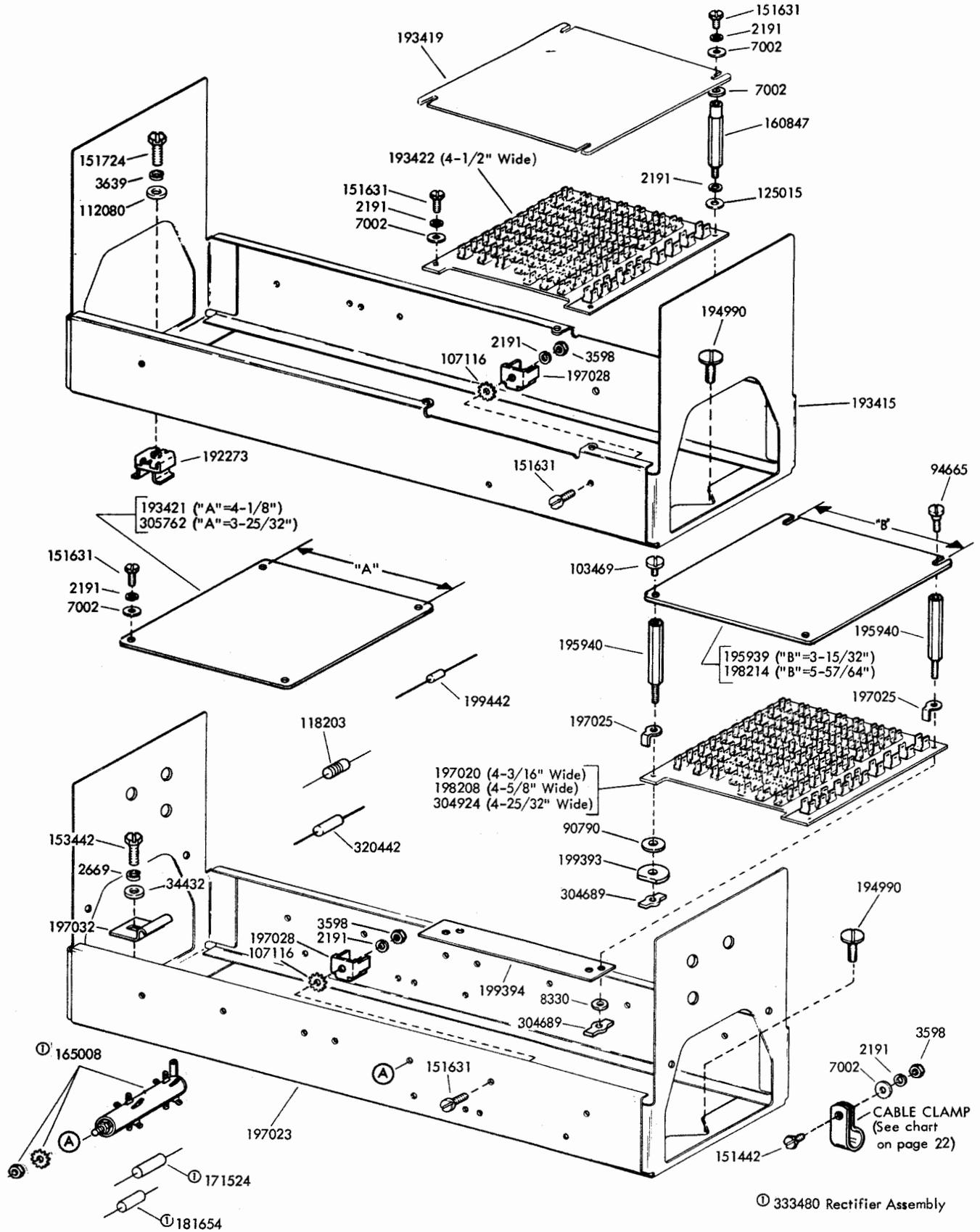


FIGURE 1. CONTAINER AND ASSOCIATED PARTS

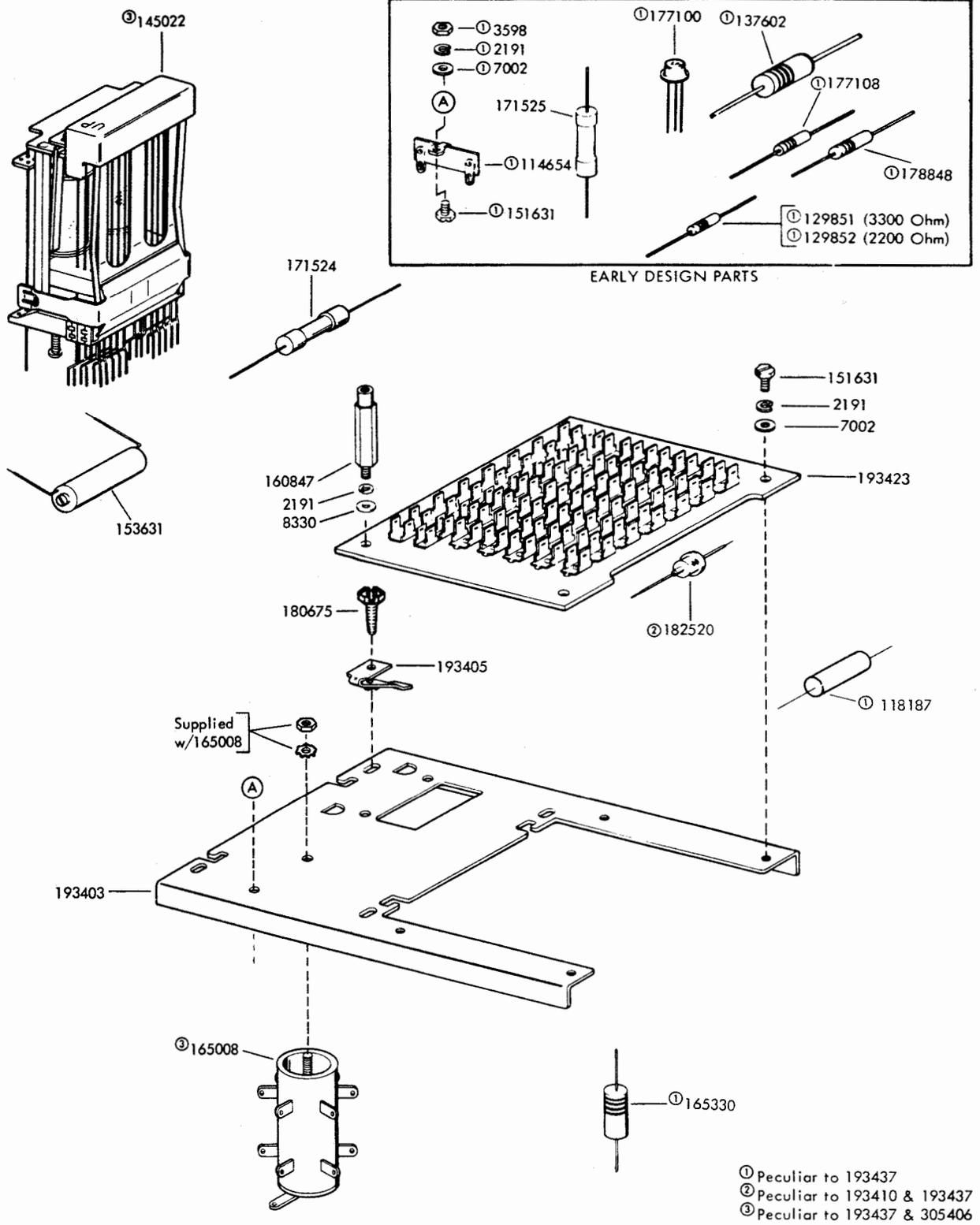
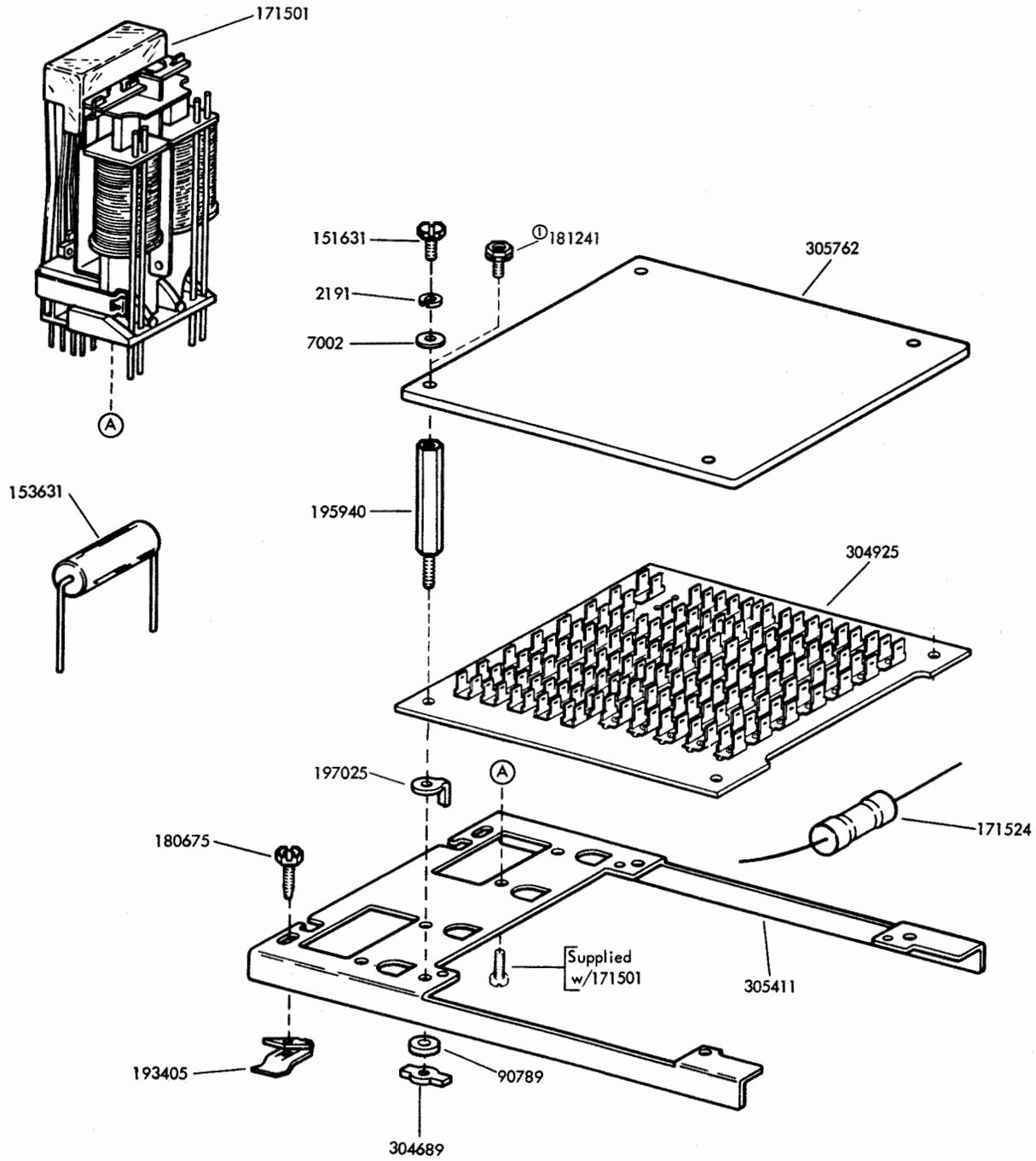


FIGURE 2. 193410, 193437, AND 305406 MOUNTING PLATE ASSEMBLIES



ⓐ Not part of 305417

FIGURE 3. 305417 MAIN TERMINAL BOARD ASSEMBLY

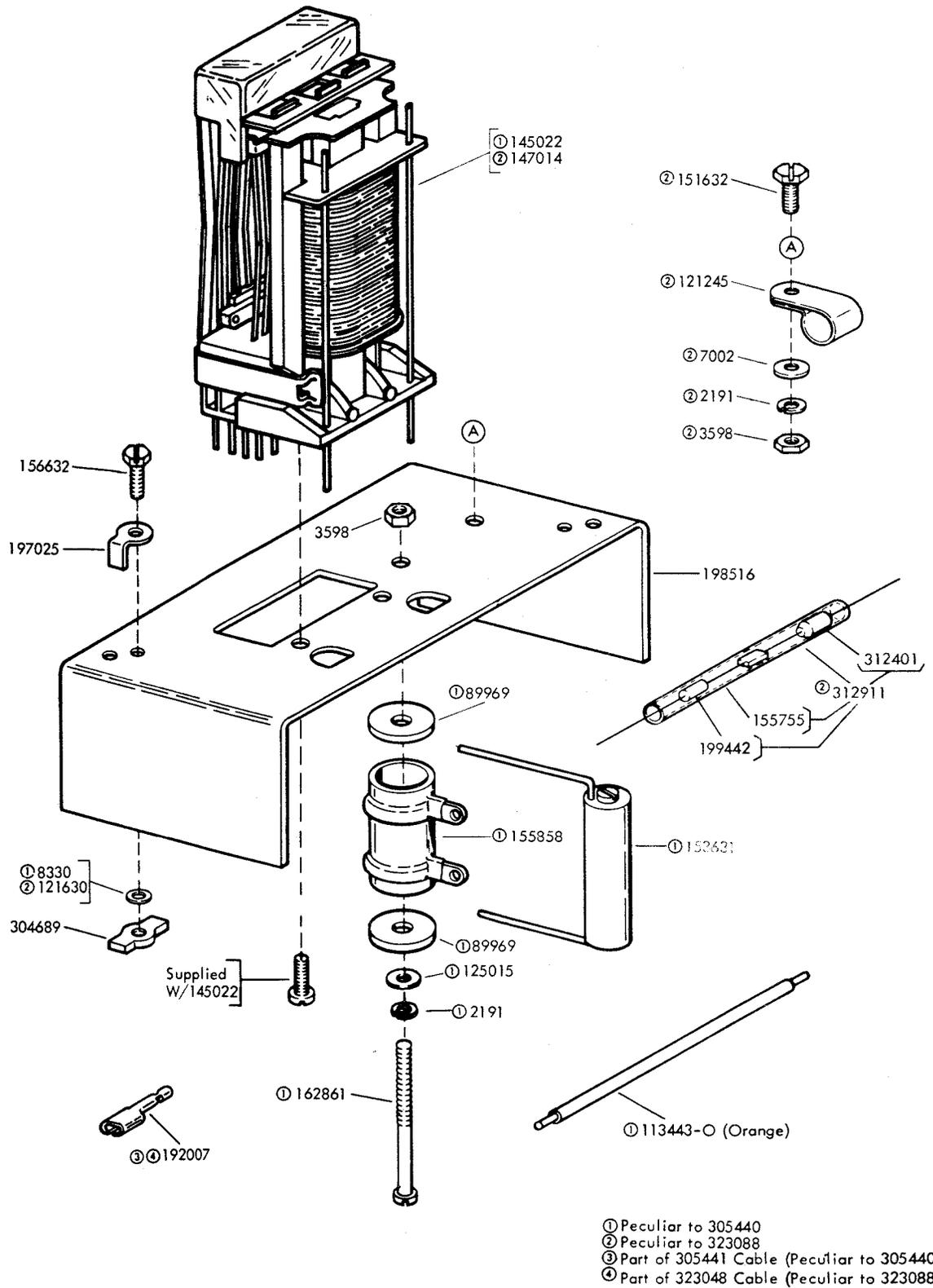


FIGURE 4. 305440 AND 323088 RELAY PLATE ASSEMBLY

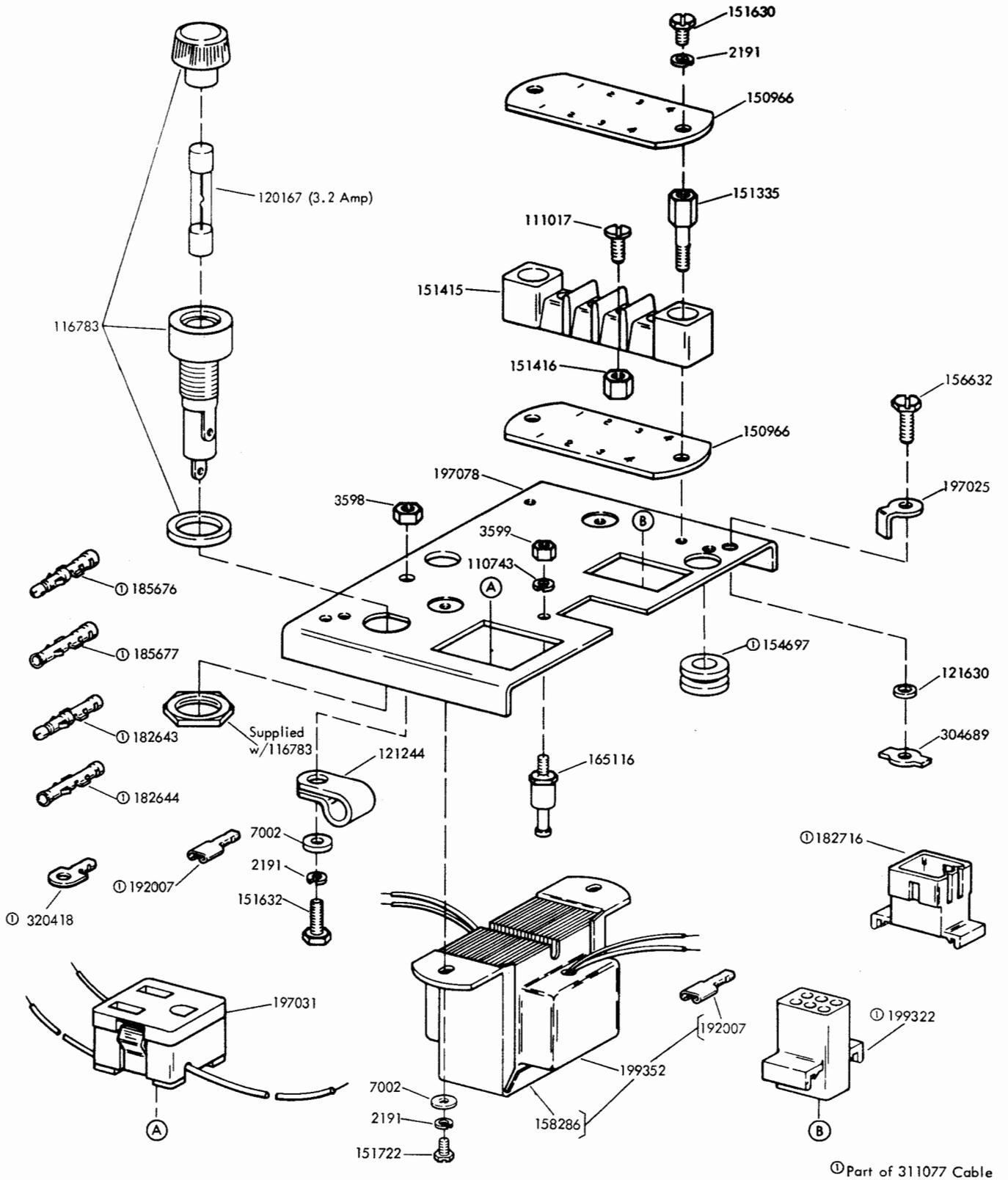
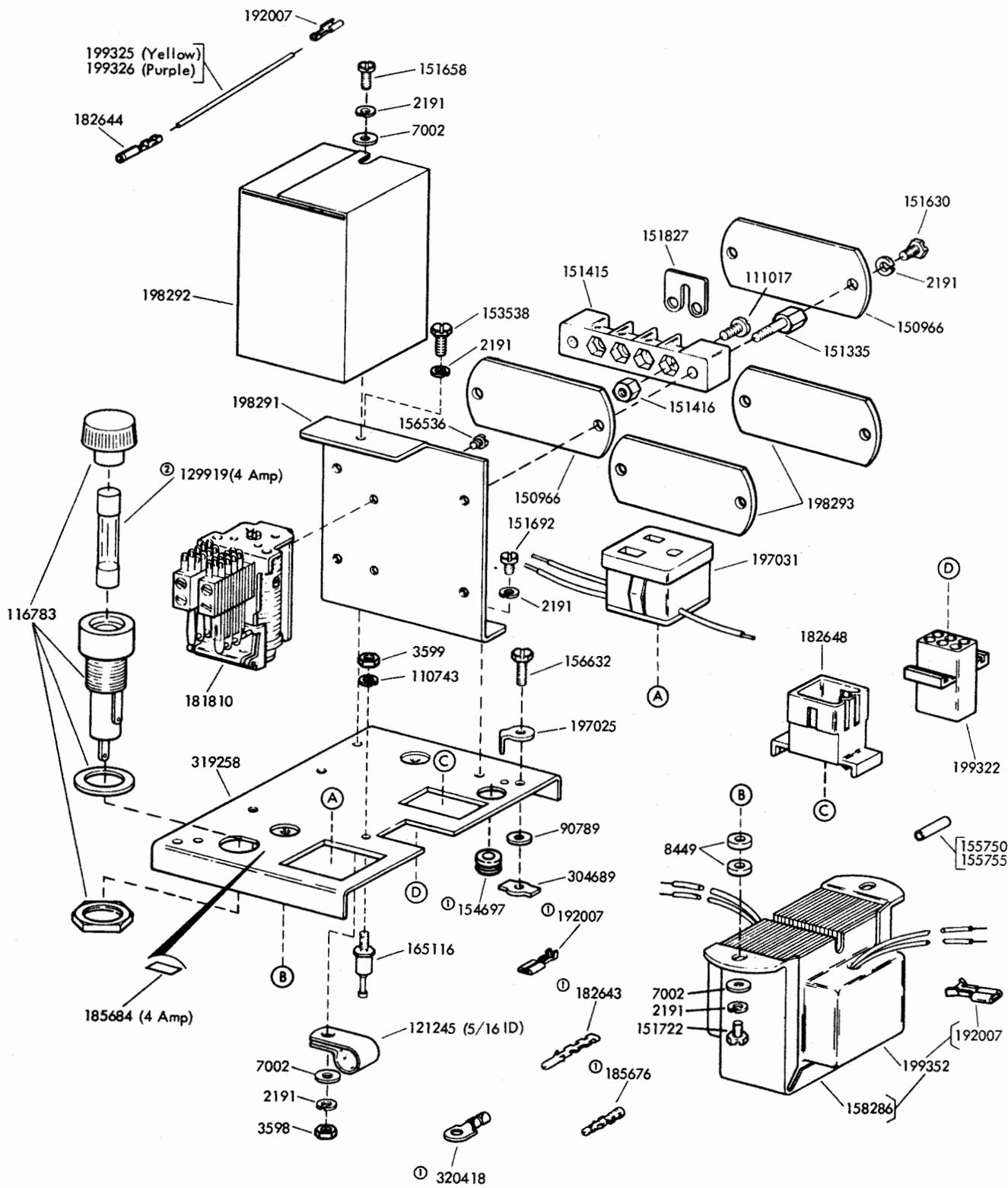


FIGURE 6. 311076 POWER DISTRIBUTION ASSEMBLY



① Part of 319268 Cable
② Not Part of 319257

FIGURE 7. 319257 POWER DISTRIBUTION ASSEMBLY

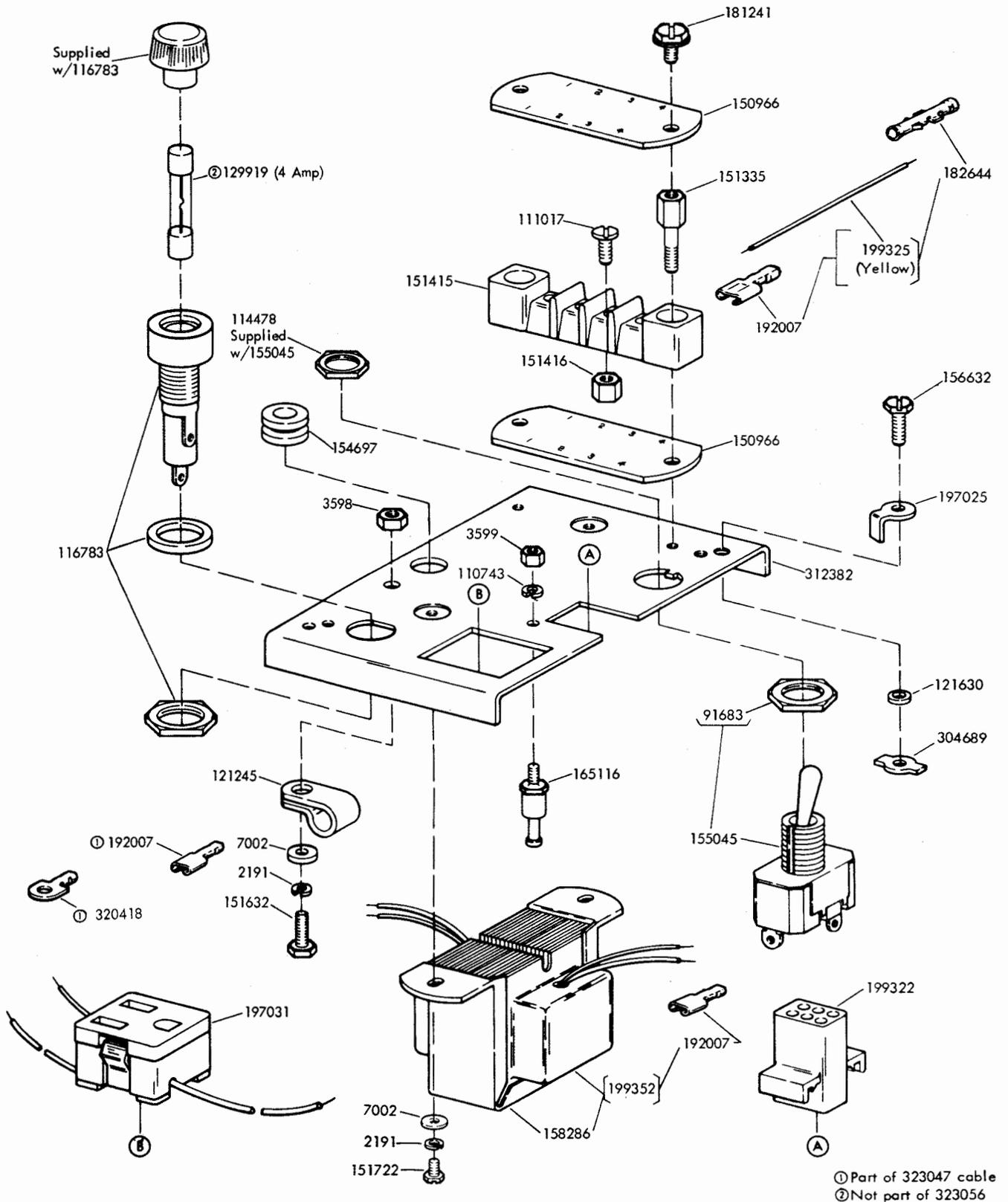


FIGURE 8. 323056 POWER DISTRIBUTION ASSEMBLY

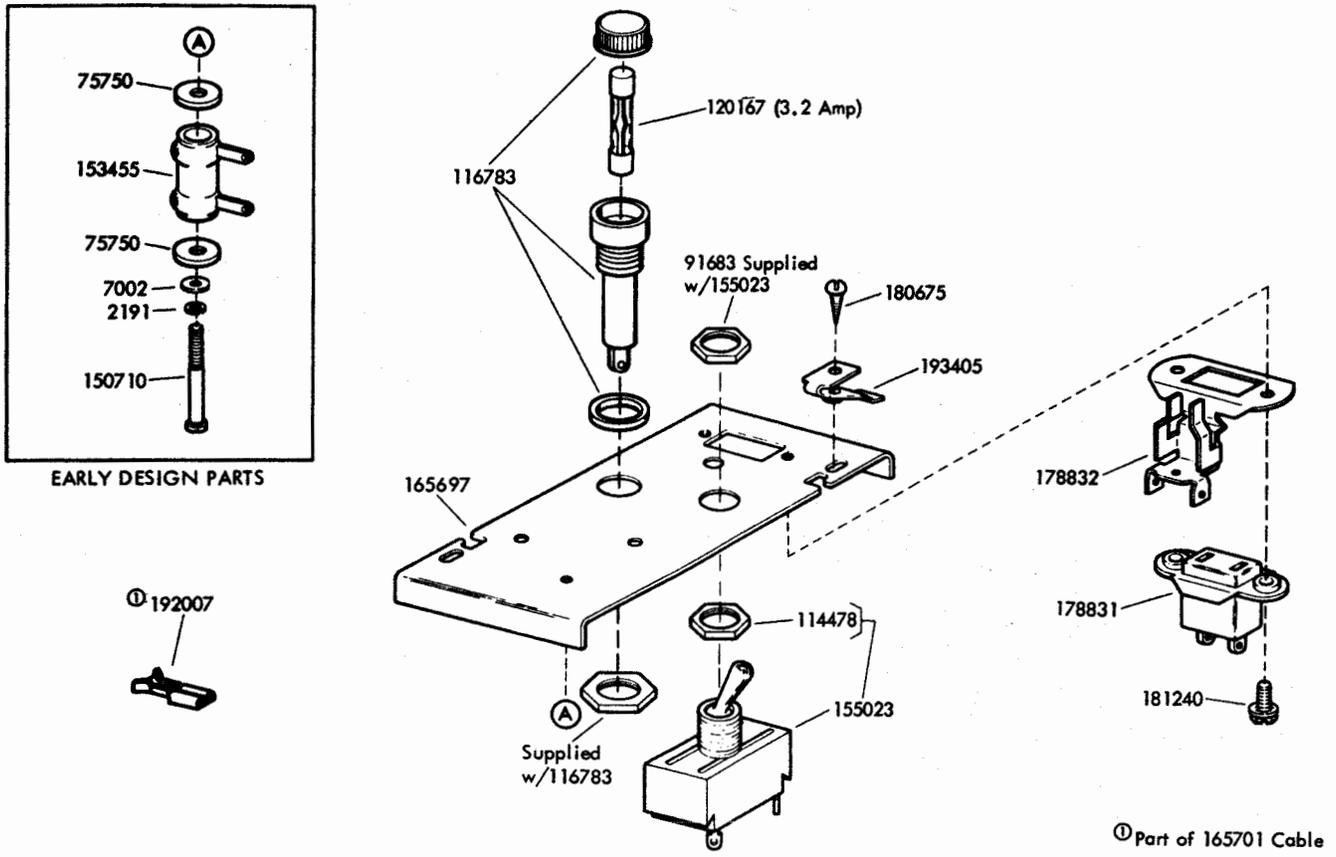


FIGURE 9. 165699 POWER DISTRIBUTION ASSEMBLY

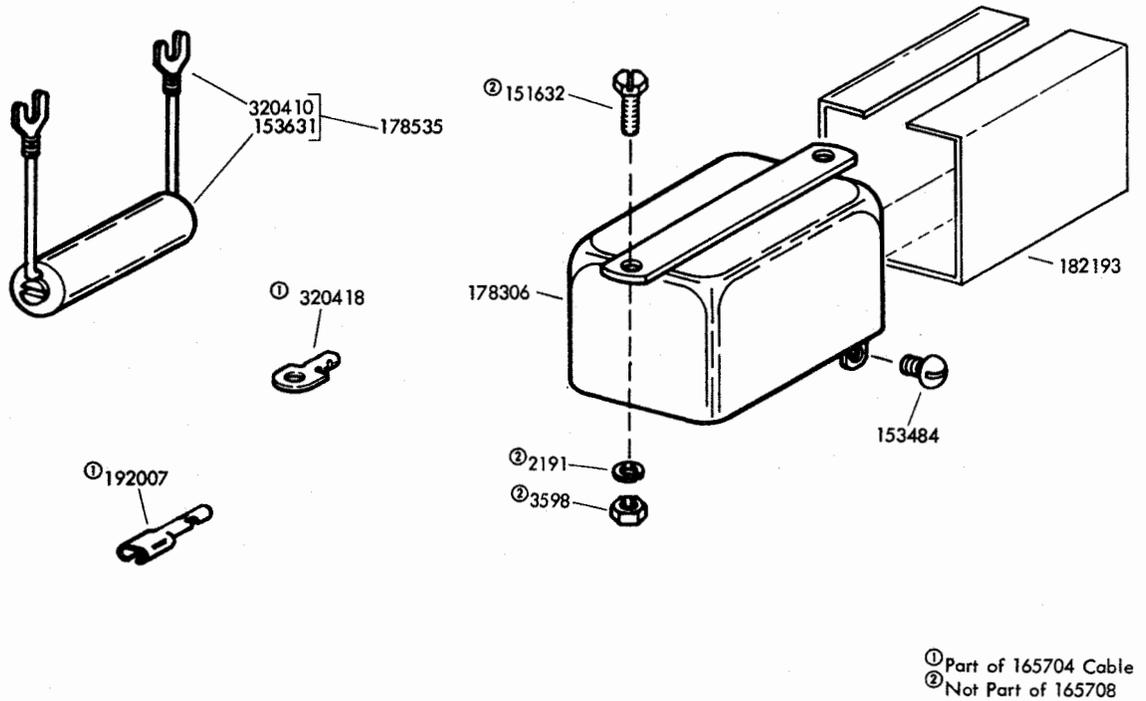


FIGURE 10. 165708 MOTOR CONTROL RELAY ASSEMBLY

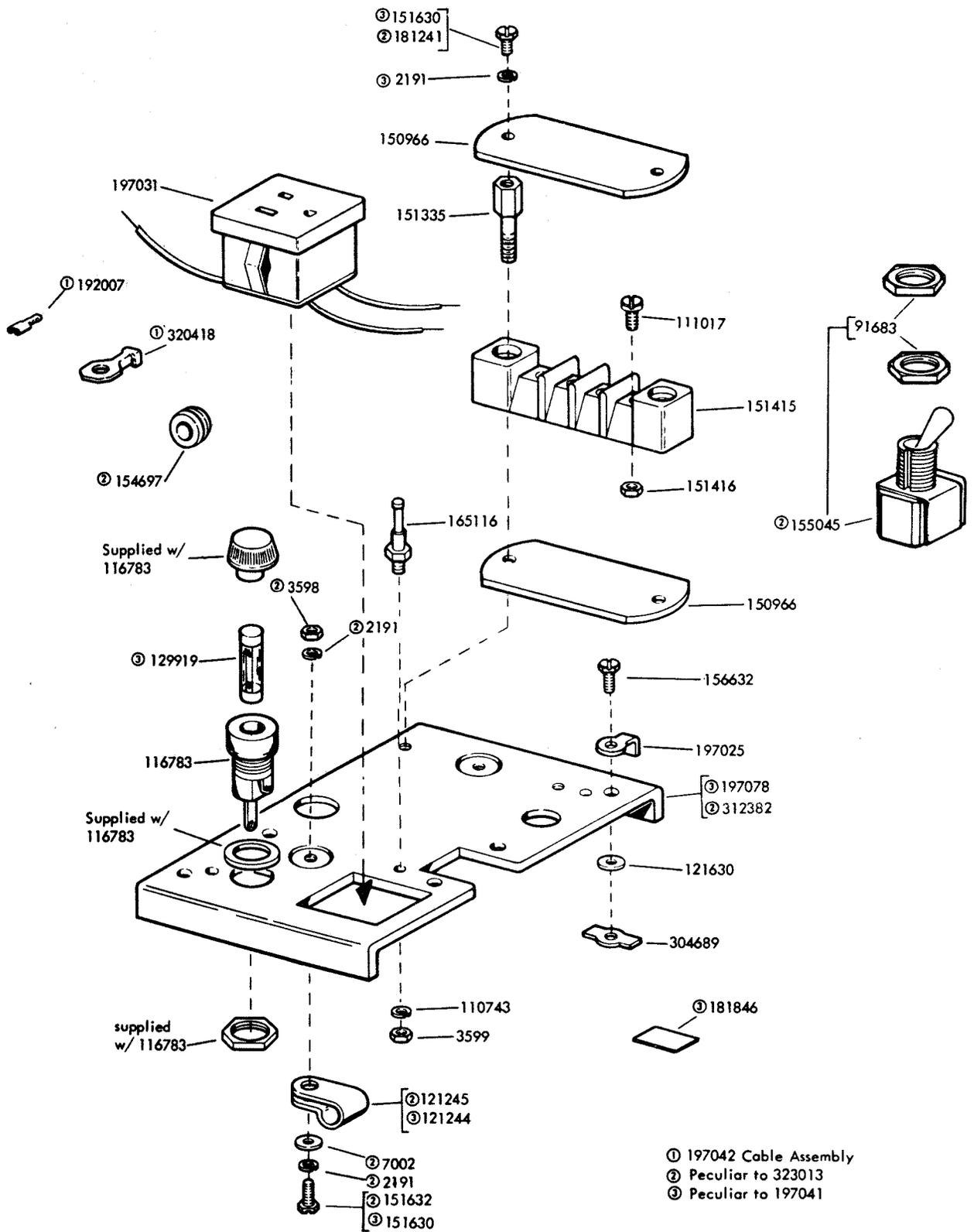


FIGURE 13. 197041 and 323013 (ROTR) POWER DISTRIBUTION ASSEMBLIES

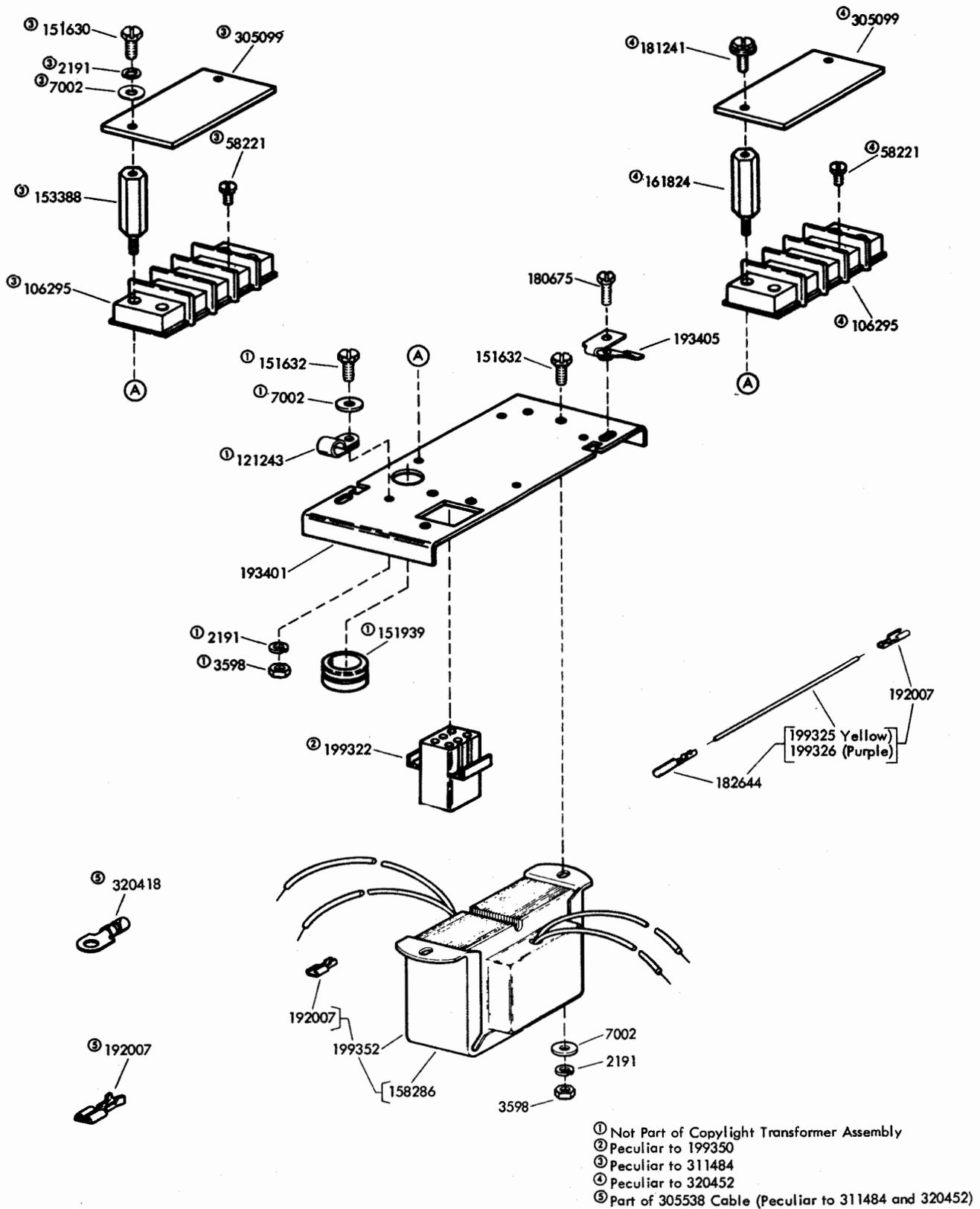


FIGURE 14. 199350, 311484 and 320452 COPYLIGHT TRANSFORMER ASSEMBLIES

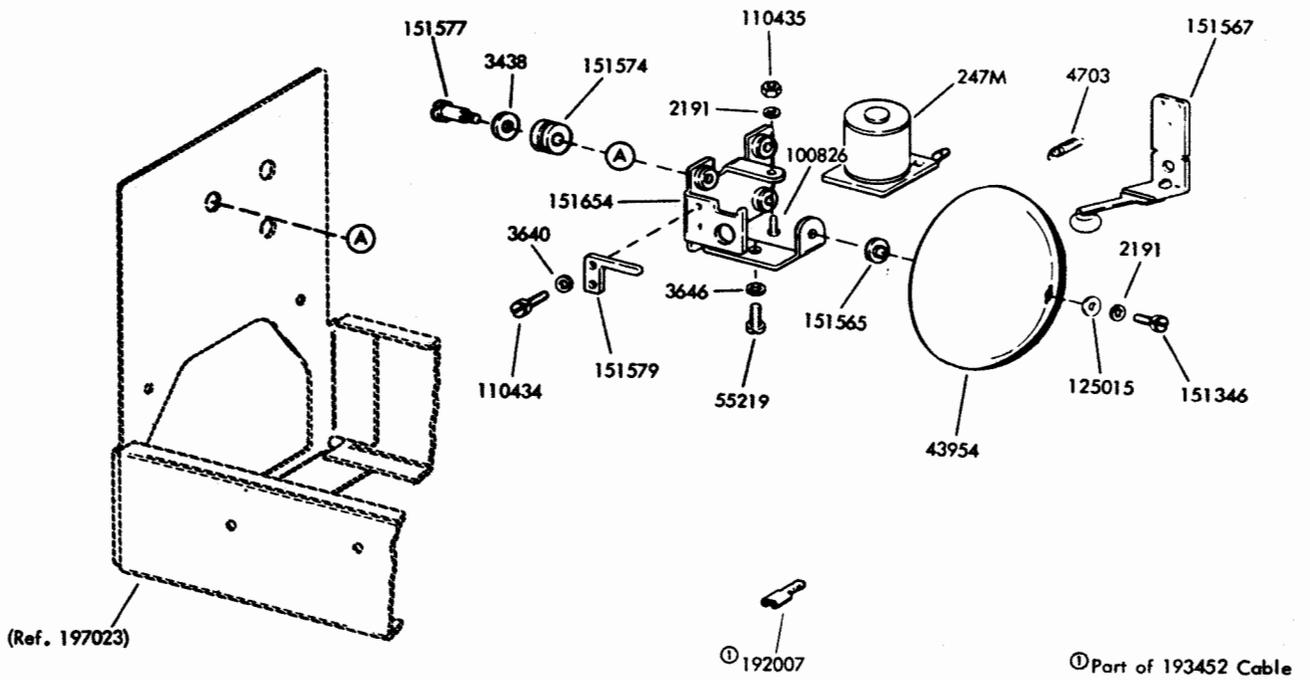


FIGURE 15. 193451 SIGNAL BELL ASSEMBLY

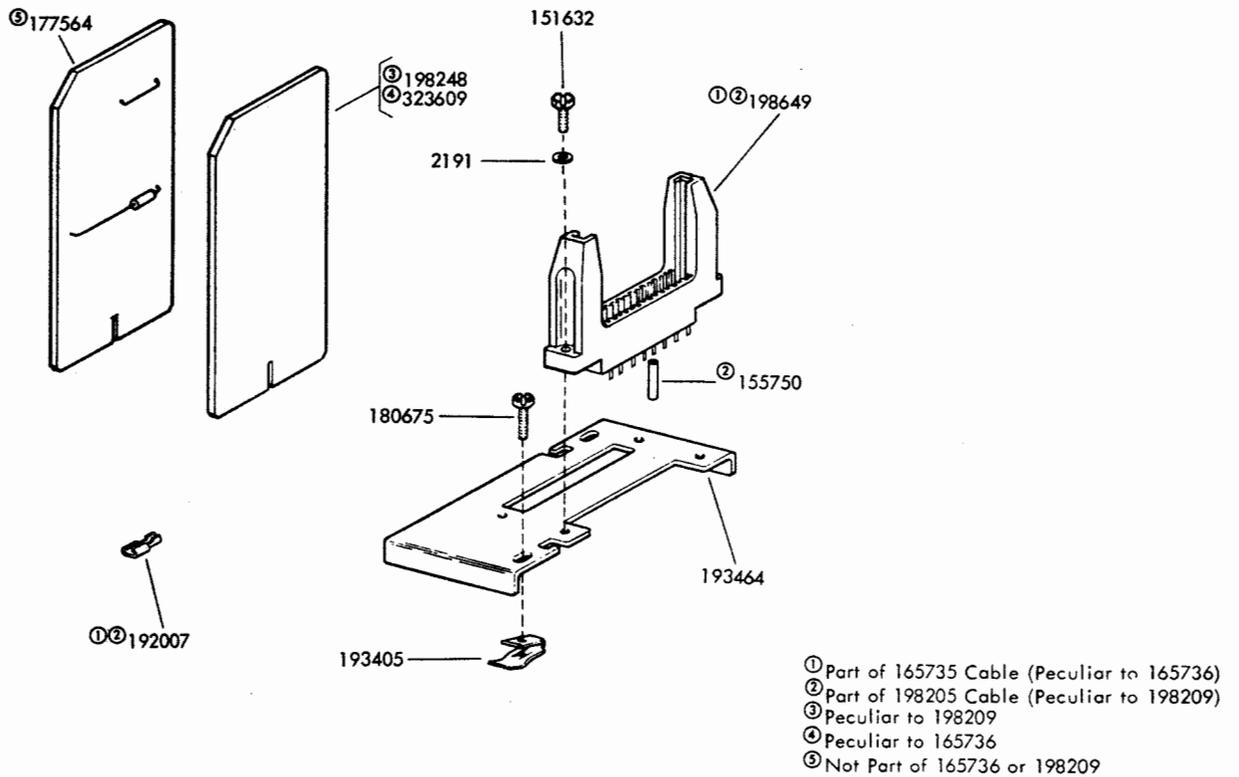


FIGURE 16. 165736 AND 198209 SIGNAL REGENERATOR ASSEMBLY

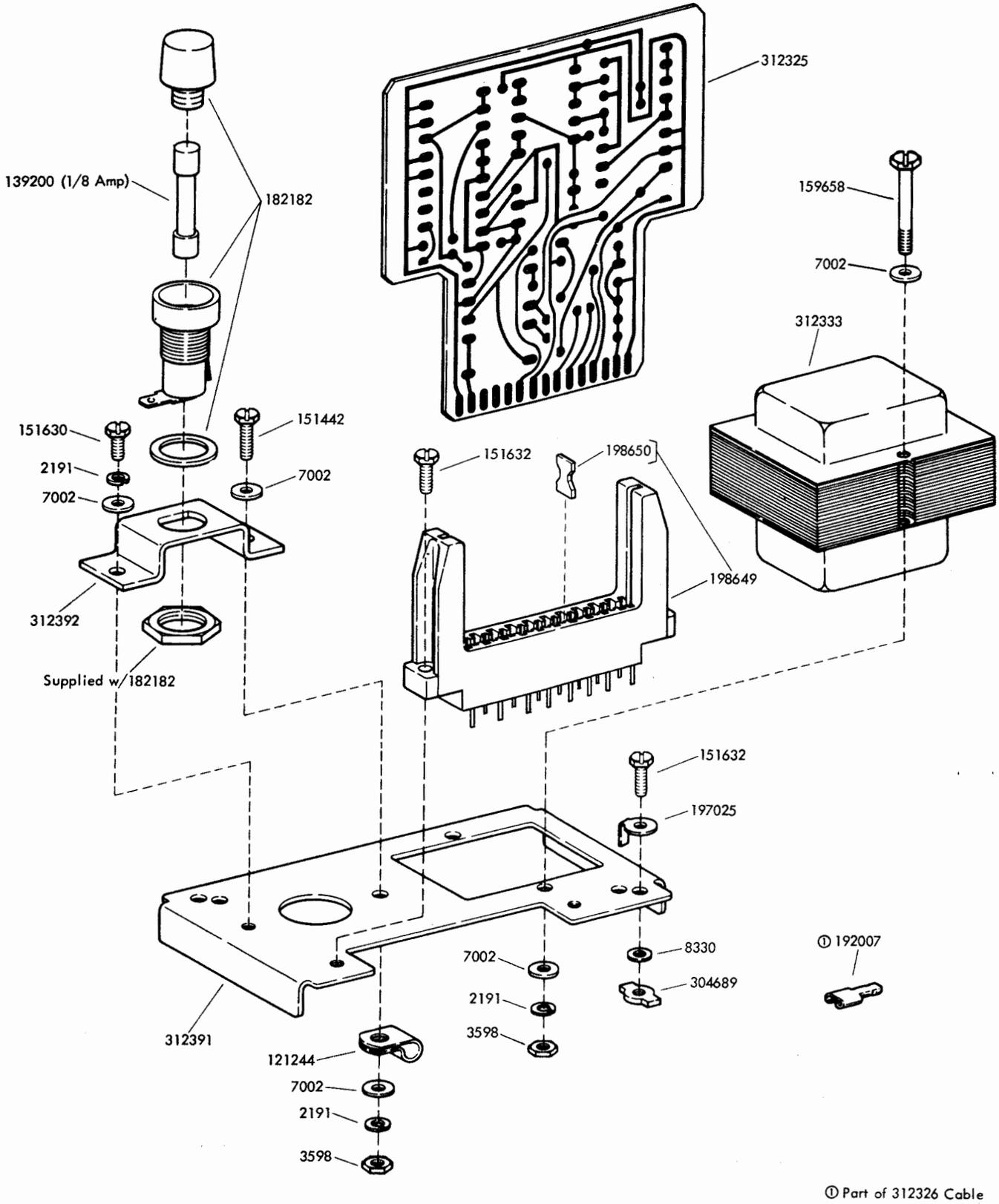


FIGURE 17. 305446 SIGNAL REGENERATOR ASSEMBLY

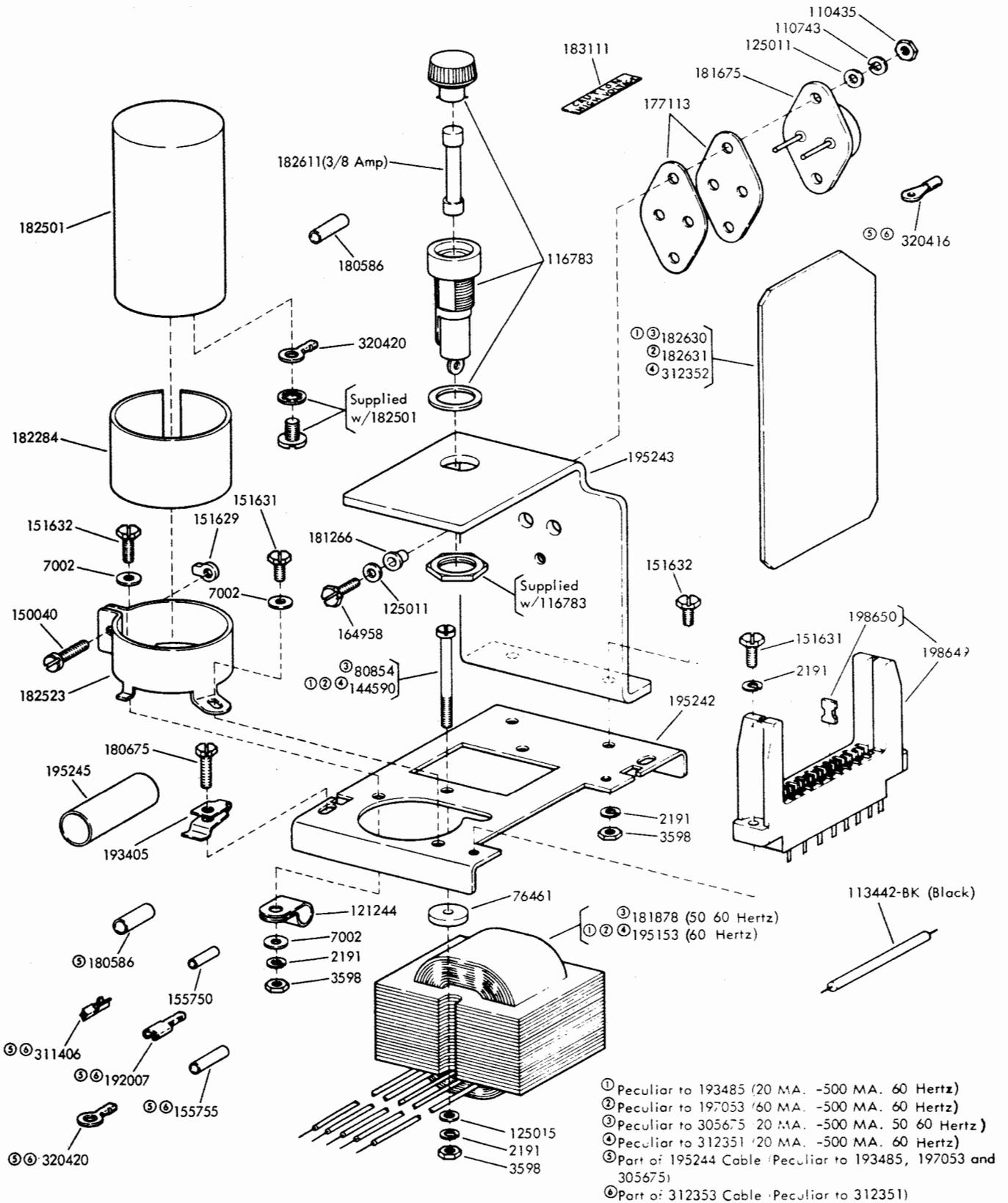
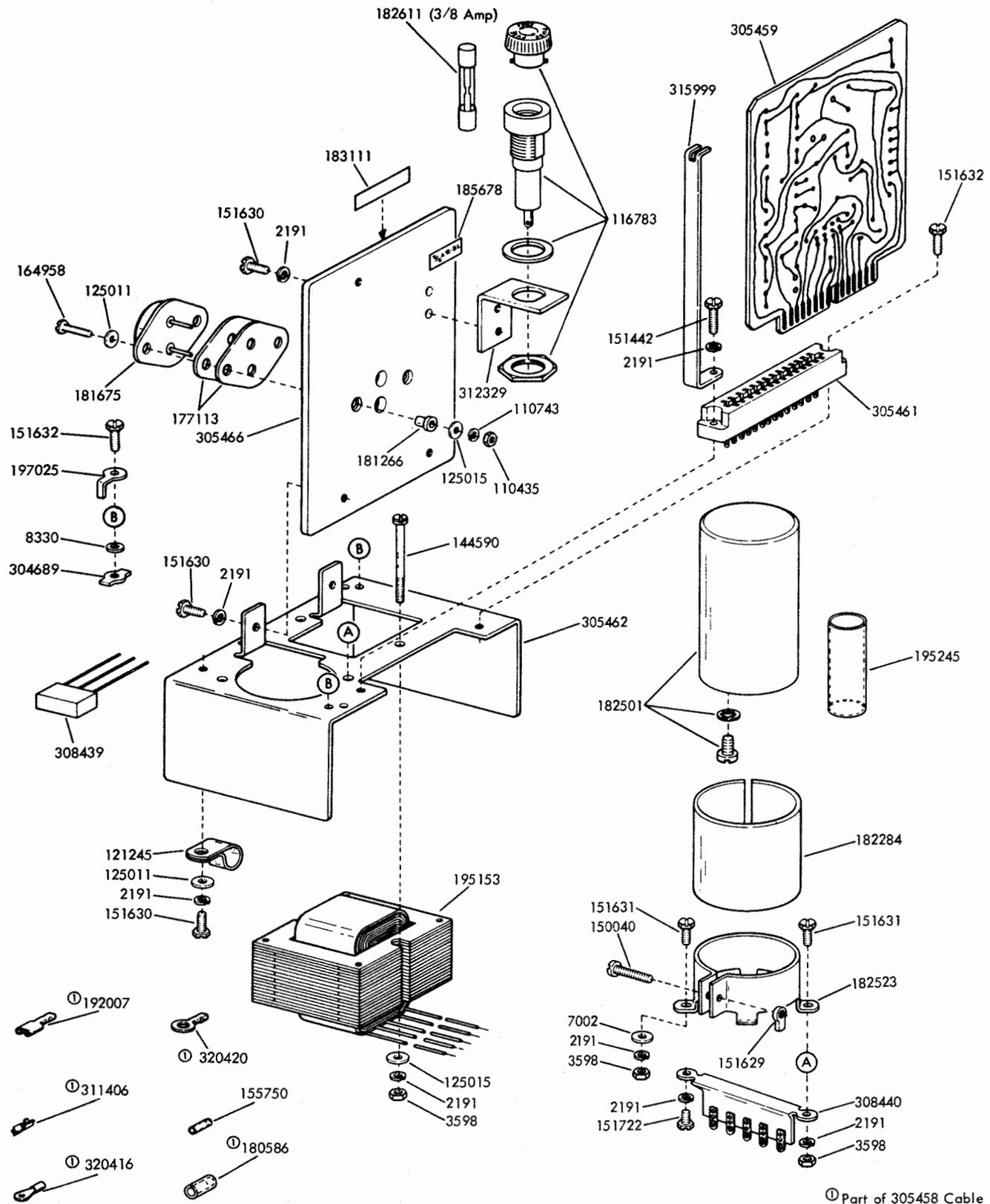
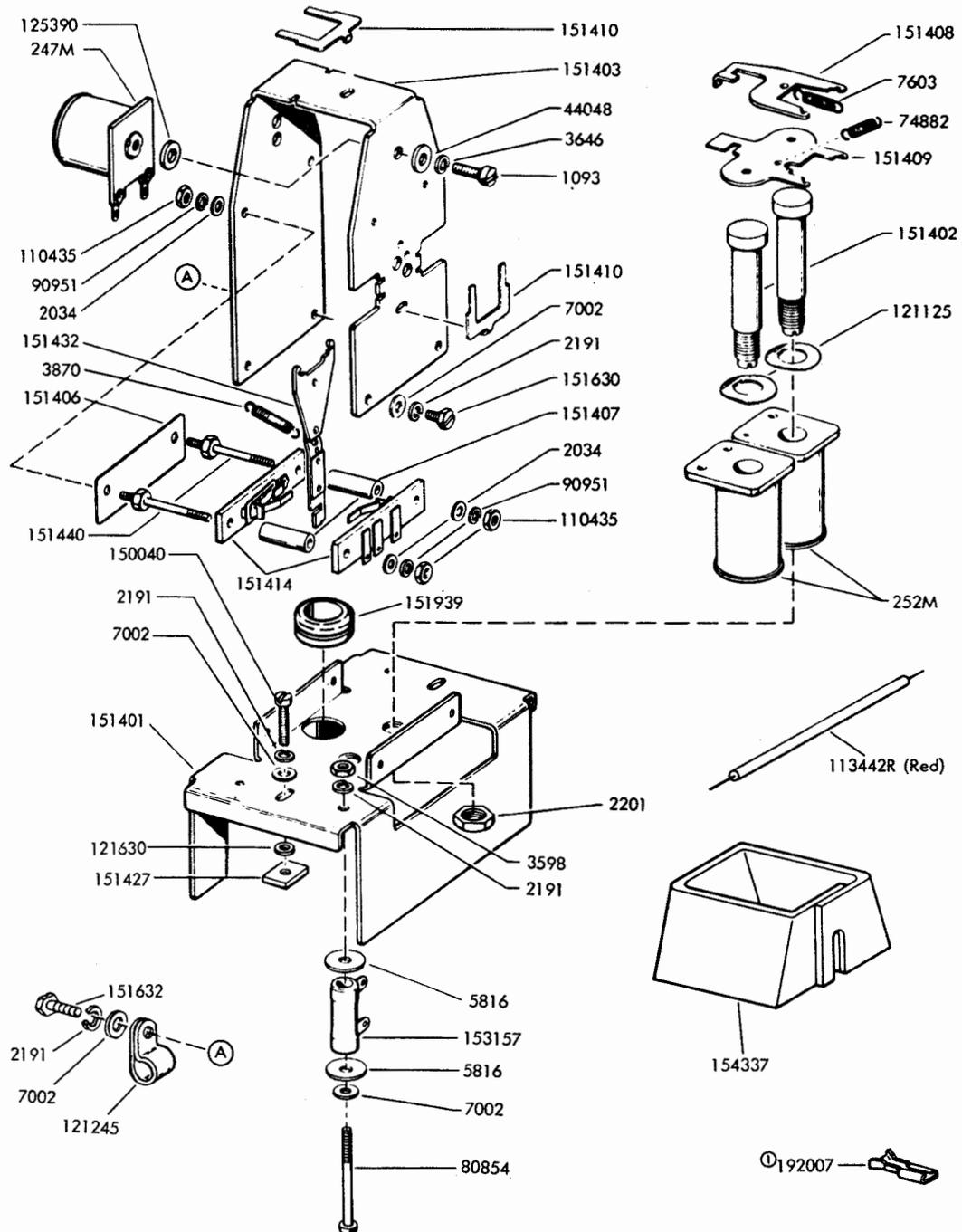


FIGURE 18. 193485, 197053, 305675 AND 312351 CONSTANT CURRENT SELECTOR MAGNET DRIVER ASSEMBLIES



① Part of 305458 Cable

FIGURE 19. 305447 SELECTOR MAGNET DRIVER WITH BREAK DETECTOR



① Part of 197057 Cable

FIGURE 20. 197035 ELECTRICAL MOTOR CONTROL ASSEMBLY

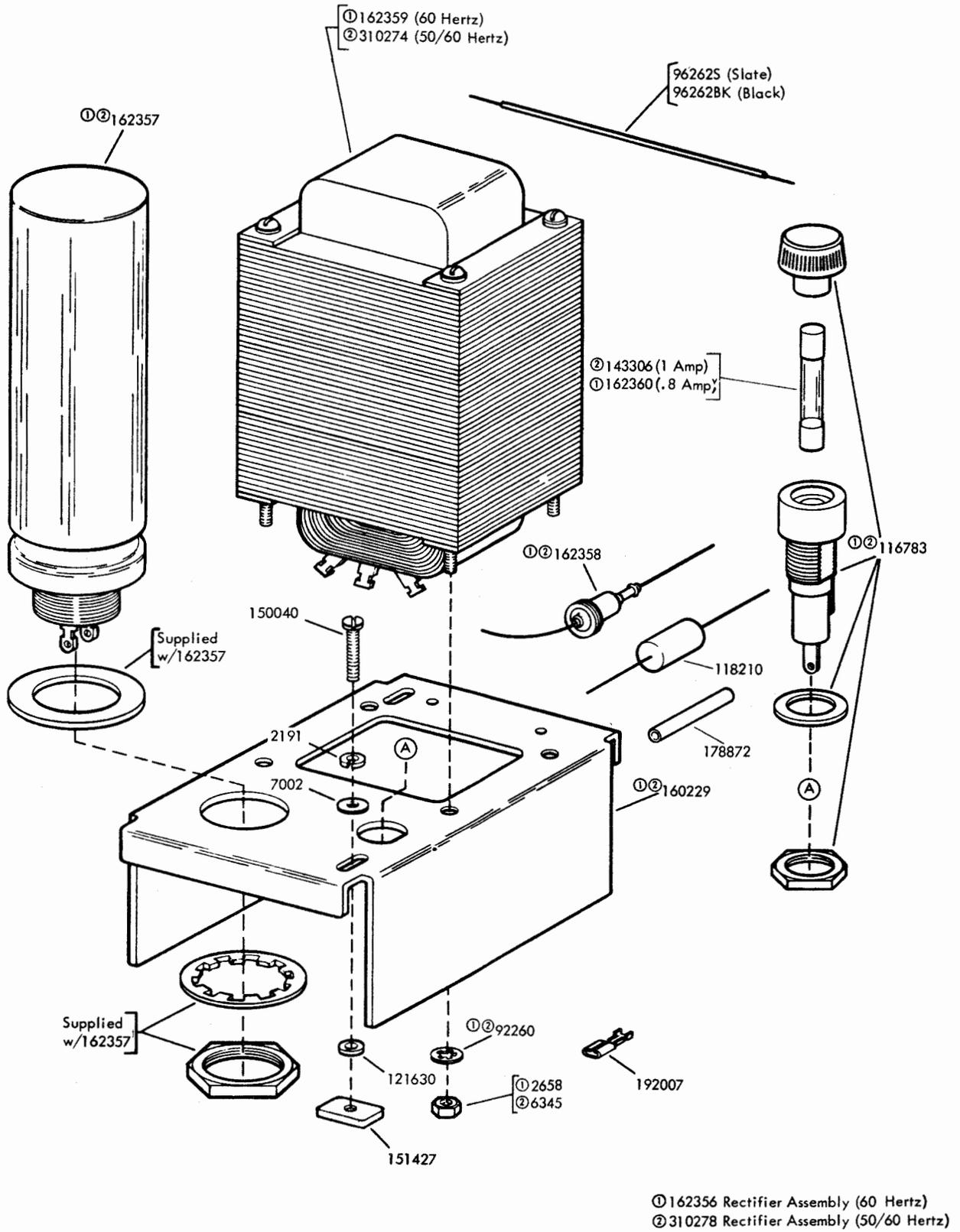


FIGURE 21. 305061 (60 HERTZ), 310707 (50/60 HERTZ), RECTIFIER AND CABLE ASSEMBLIES

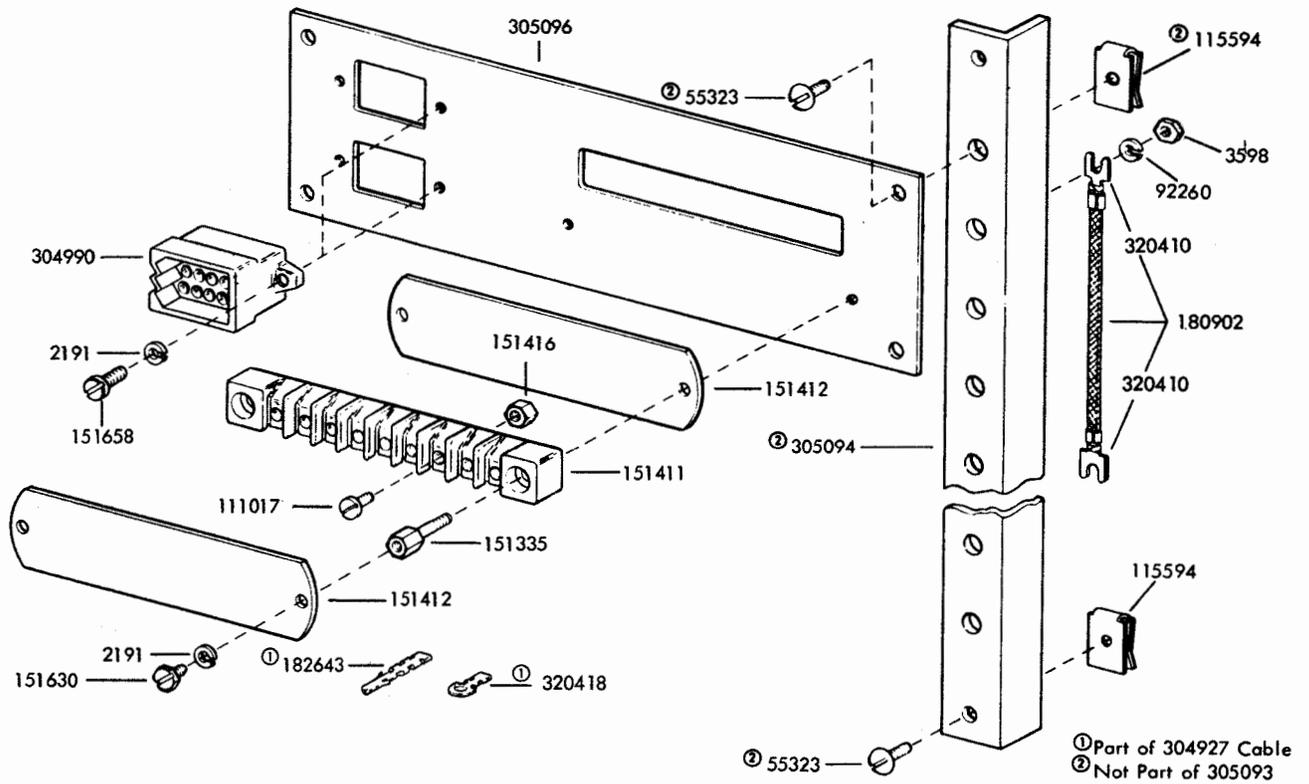


FIGURE 22. 305093 TERMINAL PLATE ASSEMBLY

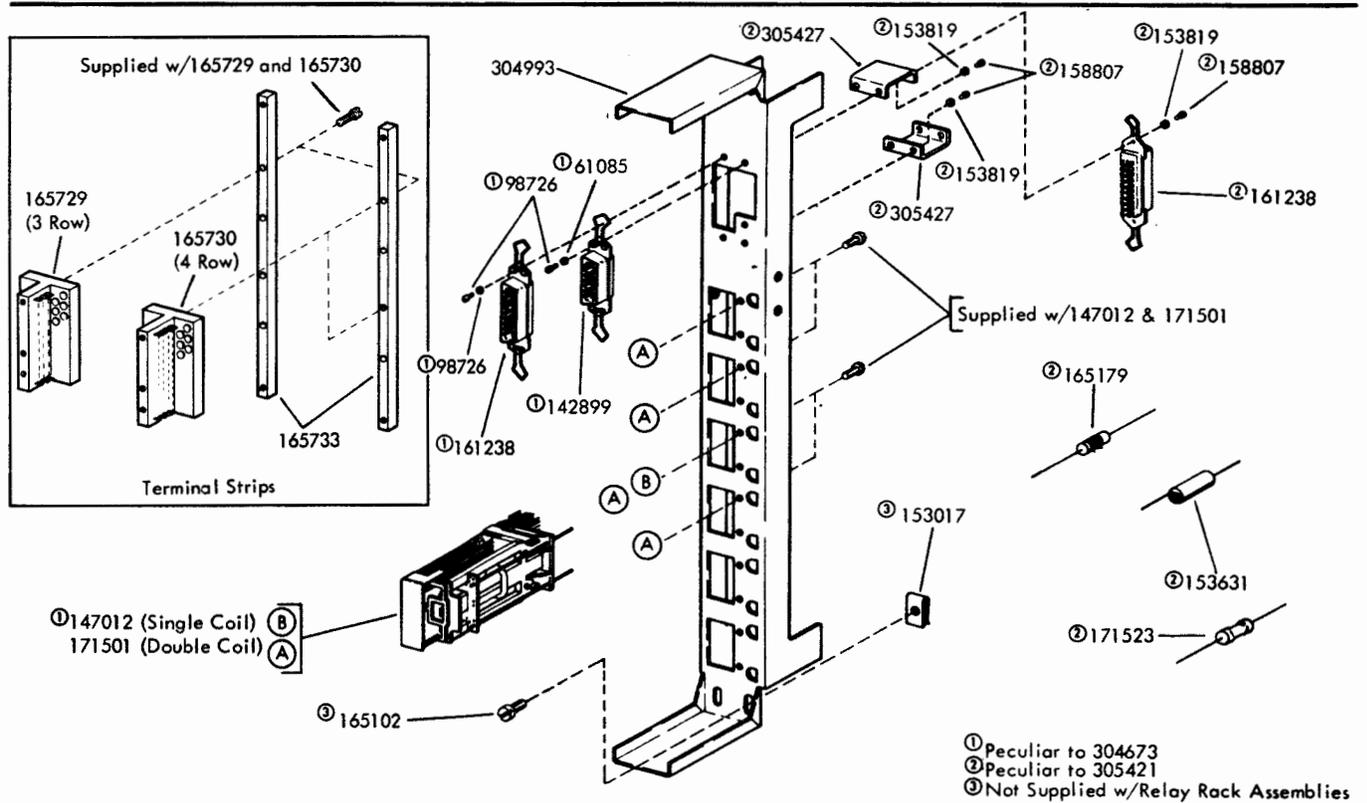


FIGURE 23. 304673 AND 305421 RELAY RACK ASSEMBLIES AND TERMINAL STRIPS

CABLE CLAMP		
Part Number	Width	I. D.
121242	3/8"	1/8"
121243	3/8"	3/16"
121244	3/8"	1/4"
121245	3/8"	5/16"
121246	3/8"	3/8"
121247	3/8"	7/16"
121248	3/8"	1/2"
121249	1/2"	5/8"
121250	1/2"	3/4"
121251	1/2"	1"
138999	1/2"	1-1/8"
162864	1/2"	7/8"

INSULATING SLEEVE		
Part Number	Length	I.D.
155751	1/2"	3/32"
155750	1"	1/8"
155751	1/2"	5/64"
155753	1/2"	1/8"
155754	1/2"	1/16"
155755	5/8"	11/64"
178871	1-1/8"	1/2"
181892	1"	9/64"

JUMPER		
Part Number	Length	Terminals
165710	8-1/2"	192007(1)
165726	10"	192007(1) 320420 (1)
193465	2-3/4"	173716(2)
193479	12"	320410 (2)
194989	9"	181392(1) 320418 (1)
197027	9"	181392(1)
197054	2-1/2"	192007(2)
198259	3"	192007(3)
198831	8"	192007(2)
199396	9"	192007(1) 181392(1)
307219	6"	192007(2)

Number in parentheses indicates quantity

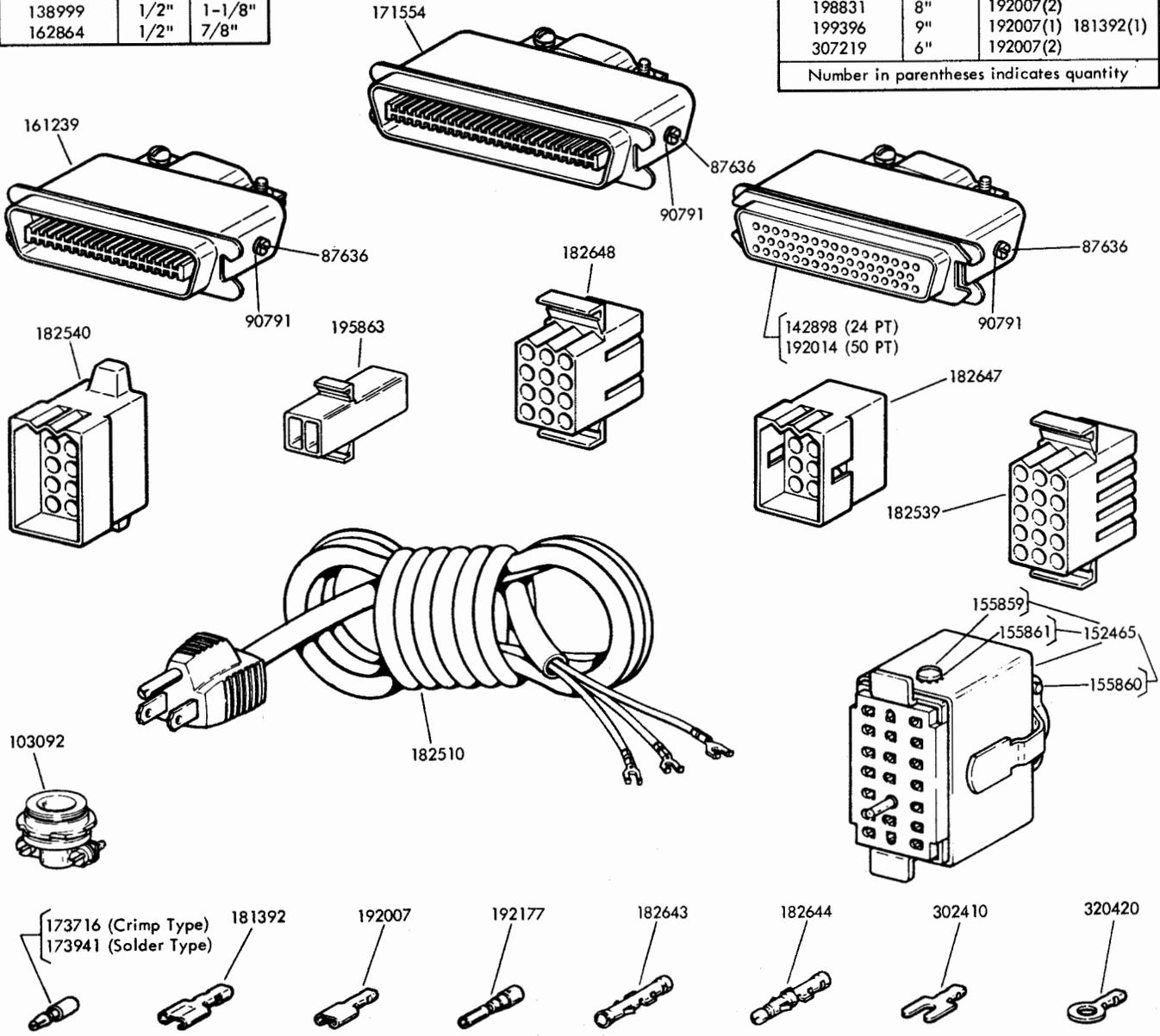


FIGURE 24. CABLE COMPONENTS

NUMERICAL INDEX

Part Number	Description and Page Number	Part Number	Description and Page Number	Part Number	Description and Page Number
247M	Coil, Magnet 15,19	106295	Block, Terminal 14	139200	Fuse, 1/8 Amp 16
252M	Coil, Magnet 19	107116	Lockwasher 2	142269	Fuse, SL-BL 3Amp 4
1093	Screw, 8-32 x 7/16 Fil 19	110434	Screw, 4-40 x 3/16 Fil 15	142898	Connector, 24 Pt Plug 22
2034	Washer, Flat 19	110435	Nut, 4-40 Hex 15,17,18,19	142899	Connector, 24 Pt Receptacle 21
2191	Lockwasher 2 to 21	110743	Lockwasher 6 to 9,12,13, 17,18	143306	Fuse, SL-BL 1 Amp 20
2201	Nut, 5/16-32 Hex 19	111017	Screw, 6-40 x 5/16 Fil 6 to 9,12,13,21	144590	Screw, 6-40 x 1-3/8 Fil 17,18
2658	Nut, 6-32 Hex 20	112080	Washer, Flat 2	145022	Relay 3,5
2669	Lockwasher 2	113442BK	Jumper, 2-1/2" Black 17	147012	Relay, 500 Ohm 21
3438	Washer, Flat 15	113442R	Jumper, 2-1/2" Red 19	147014	Relay 5
3598	Nut, 6-40 Hex 2,3,5 to 14, 16 to 19,21	113443O	Jumper, 3-1/2" Orange 5	150040	Screw, 6-40 x 5/8 Fil 11,17 to 20
3599	Nut, 4-40 Hex 6 to 7,9,13	114478	Nut, 15/32-32 Hex 9,10	150710	Screw, 6-40 x 1-1/4 Fil 6,10
3639	Lockwasher 2	114654	Strip, Terminal 3	150966	Insulator, Terminal Block 6 to 9,12,13
3640	Lockwasher 15	115594	Nut, Speed 21	151335	Stud 6 to 9,12,13,21
3646	Lockwasher 15,19	116783	Holder, Fuse 6 to 17,18, 20	151346	Screw, 6-40 x 3/8 Fil 15
3870	Spring 19	117176	Fuse, SL-BL .5 Amp 11	151401	Base 19
4703	Spring 15	118187	Resistor, 27,000 Ohm 3	151402	Core 19
5816	Washer, Insulating 19	118203	Resistor, 4700 Ohm 2	151403	Frame 19
6345	Nut, 6-32 Hex 20	118210	Resistor, 22,000 Ohm 20	151406	Plate, Insulating 19
7002	Washer, Flat 2 to 14,16 to 20	120167	Fuse, SL-BL 3.2 Amp 6,7, 10	151407	Collar, Spacing 19
7603	Spring 19	121125	Washer, Spring 19	151408	Lever 19
8330	Washer, Flat 2,3,5,16,18	121242	Clamp, 1/8 ID Cable 22	151409	Armature 19
8449	Spacer, .094" Thk 8,12	121243	Clamp, 3/16 ID Cable 14, 22	151410	Clip, Retaining 19
34432	Washer, Flat 2	121244	Clamp, 1/4 ID Cable 6,7, 13,16,17,22	151411	Block, Terminal 21
43954	Bell 15	121245	Clamp, 5/16 ID Cable 5,8, 9,12,13,18,19,22	151412	Insulator, Terminal Block 21
44048	Washer, Flat 19	121246	Clamp, 3/8 ID Cable 11,22	151414	Switch, Sensitive 19
55219	Screw, 8-32 x 3/8 Fil 15	121247	Clamp, 7/16 ID Cable 6,22	151415	Block, Terminal 6 to 9, 12,13
55323	Screw, 8-32 x 1/2 Rd 21	121248	Clamp, 1/2 ID Cable 22	151416	Nut, 6-40 Hex 6 to 9,12, 13,21,
58221	Screw, 6-32 x 1/4 Fil 14	121249	Clamp, 5/8 ID Cable 22	151427	Plate, Clamp 19,20
61085	Lockwasher 21	121250	Clamp, 3/3 ID Cable 22	151432	Armature 19
74882	Spring 19	121251	Clamp, 1 ID Cable 22	151440	Stud 19
75750	Washer, Insulating 6,10	121426	Jumper, 7-3/4" Black 3,12	151442	Screw, 6-40 x 1/2 Hex 2, 11,16,18
76461	Washer, Flat 17	121630	Washer, Flat 5,6,7,9,12, 13,19,20	151565	Bushing, Shoulder 15
80854	Screw, 6-40 x 1-7/16 Fil 17,19	125011	Washer, Flat 17,18	151567	Armature w/Clapper 15
87636	Screw, 2-56 x 3/16 Rd 22	125015	Washer, Flat 2,5,15,17,18	151574	Grommet, Rubber 15
89969	Washer, Insulating 5	125390	Washer, Flat 19	151577	Screw, 6-40 Shoulder 15
90789	Washer, Flat 4,8	129851	Resistor, 3300 Ohm 3	151579	Plate, Retaining 15
90790	Washer, Flat 2	129852	Resistor, 2200 Ohm 3	151629	Nut, 6-40 Lug 11,17,18
90791	Lockwasher 22	129919	Fuse, SL-BL 4 Amp 6,8,9, 13	151630	Screw, 6-40 x 1/4 Hex 6, 7,8,12 to 14,16,18,19,21
90951	Lockwasher 19	129920	Fuse, SL-BL 5 Amp 6	151631	Screw, 6-40 x 5/16 Hex 2,3,4,11,17,18
91683	Nut, 15/32 Hex 9,10,13	137602	Resistor, 470 Ohm 3		
92260	Lockwasher 20,21	138999	Clamp, 1-1/8 ID Cable 22		
94665	Screw, 6-40 Shoulder 2				
96262BK	Jumper, 4" Black 20				
96262S	Jumper, 4" Slate 20				
98726	Screw, 3-48 x 1/4 Fil 21				
100826	Screw, 4-40 x 3/16 Rd 15				
103092	Connector, Cord 12,22				
103469	Screw, 4-40 Spl 2				

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Part Number	Description and Page Number	Part Number	Description and Page Number	Part Number	Description and Page Number
151632	Screw, 6-40 x 3/8 Hex 5,7,9 to 19	158807	Screw, 3-48 x 11/64 Fil 21	177113	Insulator 17,18
151654	Plate, Identification 15	159658	Screw, 6-40 x 1-3/32 Hex 16	177564	Card, EC564 Circuit 15
151657	Screw, 6-40 x 1/4 Fil 11	160229	Plate, Mounting 20	178306	Relay, Power 10
151658	Screw, 6-40 x 5/16 Fil 6,8,21	160847	Stud 2,3	178535	Suppressor, Spark 10
151692	Screw, 6-40 x 3/16 Fil 6,8	161136	Fuse, SL-BL 6-1/4 Amp 12	178831	Connector, 2 Pt Receptacle 10
151722	Screw, 6-40 x 3/16 Hex 6 to 9,12,18	161238	Connector, 36 Pt Receptacle 21	178832	Plate, Adapter 10
151724	Screw, 10-32 x 5/8 Hex 2	161239	Connector, 36 Pt Plug 22	178848	Diode 3
151827	Strap, Terminal 6,8,12	161824	Stud 14	178871	Sleeve, 1/2 ID x 1-1/2" Lg Insulating 22
151939	Grommet, Rubber 14,19	162356	Rectifier Assembly 20	178872	Sleeve, 1/16 ID x 1-1/4" Lg Insulating 20
152465	Connector, 20 Pt Receptacle 22	162357	Capacitor, 500 Mfd 20	180586	Sleeve, 5/32 ID x 21/32" Lg Insulating 17,18
153017	Nut, Speed 21	162358	Diode 20	180675	Screw, No. 6 Self-Tapping 3,4,10,11,14,15,17
153157	Resistor, 400 Ohm 19	162359	Transformer, Power 20	180902	Jumper, 3-1/2" Braided 21
153388	Stud 14	162360	Fuse, SL-BL .8 Amp 20	181240	Screw w/Lockwasher, 6-40 x 3/16 Hex 10
153442	Screw, 10-32 x 1/2 Hex 2	162861	Screw, 6-40 x 1-7/16 Fil 5	181241	Screw w/Lockwasher, 6-40 x 1/4 Hex 4,9,13,14
153455	Resistor, 600 Ohm 6,10	162864	Clamp, 7/8 ID Cable 22	181266	Bushing, Insulating 17,18
153484	Screw, 6-32 Spl 10	164958	Screw, 4-40 x 1/2 Hex 17,18	181392	Terminal, Tab Type 22
153538	Screw, 6-40 x 7/16 Hex 6,8	165008	Turret, Terminal 2,3	181654	Diode 2
153631	Network, Spark Suppression 3,4,5,10,21	165102	Screw, 12-24 x 3/8 Rd 21	181675	Transistor, Power 17,18
153819	Lockwasher 21	165116	Terminal 6 to 9,12,13	181810	Relay 6,8
154337	Cover 19	165179	Resistor, 1000 Ohm 21	181846	Nameplate 13
154697	Grommet, Rubber 6 to 9, 12,13	165330	Resistor, 1000 Ohm 3	181878	Transformer 17
155023	Switch, DP-DT Toggle 10	165697	Plate, Mounting 10	181879	Transformer, Power 11
155045	Switch, SP-DT Toggle 9,13	165699	Distribution Assembly, Power 1,10	181892	Sleeve, 9/64 ID x 1" Lg Insulating 22
155750	Sleeve, 3/32 ID x 1/2" Lg Insulating 8,12,15,17, 18,22	165701	Cable w/Terminals 10	182182	Holder, Fuse 16
155751	Sleeve, 1/8 ID x 1" Lg Insulating 22	165704	Cable w/Terminals 10	182193	Insulator 10
155753	Sleeve, 1/8 ID x 1/2" Lg Insulating 22	165708	Relay Assembly 1,10	182284	Insulator, .015" Thk 11,17,18
155754	Sleeve, 1/16 ID x 1/2" Lg Insulating 22	165710	Jumper, 8-1/2" Green 12,22	182501	Capacitor, 1500 Mfd 17,18
155755	Sleeve, 11/64 ID x 5/8" Lg Insulating 5,8,12,17, 22	165710	Jumper, 10" Black 22	182510	Cord, Power 22
155858	Resistor, 700 Ohm 5	165726	Block, 3 Row Terminal 21	182520	Rectifier 3
155859	Screw, 4-40 Spl 22	165729	Block, 4 Row Terminal 21	182523	Clamp, 1-3/8" ID Mounting 11,17,18
155860	Screw, 4-40 x 3/8 Rd 22	165730	Bar, Mounting 21	182539	Connector, 15 Pt Receptacle Type 22
155861	Lockwasher 22	165733	Cable Assembly 15	182540	Connector, 15 Pt Plug Type 6,22
156536	Screw, 4-40 x 1/8 Fil 6,8	165735	Regenerator Assembly, Signal 1,15	182611	Fuse, 3/8 Amp SL-BL 17,18
156632	Screw, 6-40 x 13/32 Hex 5 to 9,12,13	165736	Relay 4,21	182630	Card, Circuit 17
158286	Transformer 6 to 9,12,14	171501	Resistor, 500 Ohm 21	182631	Card, Circuit 17
		171523	Resistor, 700 Ohm 2 to 4	182643	Terminal, Plug Type 6,7, 8,21,22
		171525	Resistor, 1000 Ohm 3		
		171554	Connector, 50 Pt Plug 22		
		173716	Terminal, Receptacle Type 22		
		173941	Terminal Receptacle Type 22		
		177100	Rectifier 3		
		177108	Diode 3		

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Part Number	Description and Page Number	Part Number	Description and Page Number	Part Number	Description and Page Number
182644	Terminal, Receptacle Type 6 to 9,12,14,22	195244	Cable w/Terminals 17	199360	Distribution Assembly, Power 1,6
182647	Connector, 12 Pt Plug Type 22	195245	Sleeve, 1/2 ID x 1-1/2" Lg Insulating 12,17,18	199393	Washer, Insulating 2
182648	Connector, 12 Pt Receptacle Type 8,22	195863	Connector, 2 Pt Receptacle 22	199394	Insulator 2
182716	Connector, 9 Pt Plug Type 6,7	195939	Cover 2	199396	Jumper, 9" Black 22
183111	Label 17,18	195940	Stud 2,4	199442	Diode 2,5
185676	Terminal, Plug Type 7,8	197020	Board, Terminal 2	304673	Rack Assembly, Relay 1,21
185677	Terminal, Receptacle Type 7	197023	Container, Electrical Service 2,15	304689	Plate, Clamp 2,4 to 9,12,13,16,18
185678	Plate, Identification 18	197025	Stop 2,4 to 9,12,13,16,18	304922	Distribution Assembly, Power 1,6
185682	Plate, Identification 12	197027	Jumper, 9" Black 22	304924	Board, Terminal 2
185683	Plate, Identification 6	197028	Terminal 2	304925	Board, Terminal 4
185684	Plate, Identification 6,8	197029	Cable w/Terminals 6	304927	Cable w/Terminals 21
185685	Plate, Identification 6	197031	Connector, 3 Pt Receptacle 6 to 9,12,13	304933	Cable Assembly 6
185686	Plate, Identification 12	197032	Plate 2	304990	Connector, 15 Pt Plug 21
192007	Terminal, Tab Type 5 to 10,12 to 20,22	197035	Control Assembly, Motor 1,19	304993	Plate, Mounting 21
192014	Connector, 50 Pt Receptacle Type 22	197041	Distribution Assembly, Power 1,13	305061	Rectifier Assembly 1,20
192108	Jumper, 4-1/2" Slate 12	197042	Cable Assembly 13	305093	Plate Assembly, Terminal 1,21
192177	Terminal, Receptacle Type 22	197053	Driver Assembly, Selector Magnet 1,17	305094	Bracket, Mounting 18,21
192273	Nut, Speed 2	197054	Jumper, 3" Black 22	305096	Plate, Terminal 21
193401	Plate, Mounting 14	197057	Cable w/Terminals 19	305099	Cover, Insulating 14
193403	Plate, Mounting 3	197078	Plate, Mounting 6,7,13	305406	Plate Assembly 1,3
193405	Nut, Speed 3,4,10,11,14,15,17	198205	Cable w/Terminals 15	305411	Mounting Plate, Relay 4
193410	Plate Assembly 1,3	198208	Board, Terminal 2	305417	Board Assembly, Terminal 1,4
193415	Container, Electrical Service 2	198209	Regenerator Assembly Signal 1,15	305421	Rack Assembly, Relay 1,21
193419	Cover 2	198214	Cover 2	305427	Bracket, Connector Mounting 21
193421	Cover 2	198248	Card, Circuit 15	305440	Plate Assembly, Relay 1,5
193422	Board, Terminal 2	198259	Jumper, 3" Black 22	305441	Cable w/Terminals 5
193423	Board, Terminal 3	198291	Bracket, Relay 6,8	305446	Regenerator Assembly, Signal 1,16
193437	Plate, Assembly 1,3	198292	Cover, Relay 6,8	305447	Magnet Driver, Selector 1,18
193451	Bell Assembly, Signal 1,15	198293	Insulator, Terminal 6,8	305458	Cable w/Terminals 18
193452	Cable w/Terminals 15	198516	Plate, Mounting 5	305459	Card, Circuit 18
193464	Plate, Mounting 15	198649	Connector, 15 Pt Circuit Card 11,15,16,17	305461	Connector, 14 Pt Circuit Card 18
193465	Jumper, 3/4" Black 22	198650	Key, Polarizing 16,17	305462	Plate, Mounting 18
193479	Jumper, 12" Black 22	198831	Jumper, 8" Black 22	105466	Plate 18
193485	Driver Assembly, Selector Magnet 1,17	199322	Connector, 6 Pt Receptacle Type 6 to 9,12,14	305538	Cable w/Terminals 14
194989	Jumper, 9" Black 22	199325	Jumper, 16" Yellow 6,8,9,12,14	305675	Driver Assembly, Selector Magnet 1,17
194990	Screw, 10-32 Shoulder 2	199326	Jumper, 16" Purple 6,8,12,14	305762	Cover 2,4
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