

MOTOR UNIT (MU, LMU AND YMU)

PARTS

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MOTOR UNIT APPLICATION CHART

Units Covered	Operating Characteristics	General Usage													
		ASR Set	RT Set	High Speed Punch	High Speed Reader	Miniature Trans-Dist.	Miniature Reperf.	Miniature Rec. Selector	Compact Page Printer	Tape Printer (Ticker)	Multiple Mounted Units	Variable Speed	Stack Mounted	Wall Mounted	37 Type
Teletype Code															
LMU3	AC Synchronous, 1/20 HP, 115V/60 Hertz/3600RPM	X													
LMU4	Series, 1/20 HP, 115V/60 Hertz/3600 RPM, RF Sup.	X													
LMU6	Series, 1/20 HP, 115V/60 Hertz/3600 RPM	X													
ⓄLMU10	Series, 1/20 HP, 115V/60 Hertz/3600 RPM, RF Sup.											X			
LMU11	AC Synchronous, 1/12 HP, 115V/60 Hertz/3600 RPM		X												
LMU12	AC Synchronous, 1/12 HP, 115V/60 Hertz/3600 RPM	X		X							X				
LMU13	Series, 1/15 HP, 115V/60 Hertz/3600 RPM		X												
LMU14	Series, 1/15 HP, 115V/60 Hertz/3600 RPM, RF Sup.	X									X				
LMU15	AC Synchronous, 1/20 HP, 115V/60 Hertz/3600 RPM	X													
LMV19	AC Synchronous, 25 MHP, 115V/60 Hertz/3600 RPM					X									
LMU20	AC Synchronous, 25 MHP, 115V/60 Hertz/3600 RPM						X								
LMU21	AC Synchronous, 1/20 HP, 115V/60 Hertz/3600 RPM												X		
LMU23	DC Series, 1/15 HP, 48V/3600 RPM			X											
LMU24	AC Synchronous, 25 MHP, 115V/60 Hertz/3600 RPM						X								
LMU26	AC Synchronous, 25 MHP, 115V/60 Hertz/3600 RPM						X	X							
LMU27	AC Synchronous, 1/20 HP, 115V/60 Hertz/3600 RPM													X	
LMU28	Series, 1/20 HP, 115V/60 Hertz/3600 RPM												X		
LMU29	DC Series, 1/15 HP, 48V/3600 RPM	X													
LMU30	AC Synchronous, 1/20 HP, 115V/60 Hertz/3600 RPM		X												
LMU31	AC Synchronous, 25 MHP, 115V/60 Hertz/3600 RPM								X						
LMU32	Series, 1/15 HP, 115V/60 Hertz/3600 RPM, RF Sup.			X											
LMU33	AC Synchronous, 1/20 HP, 115V/50 Hertz/3000 RPM				X										
LMU35	AC Synchronous, 25 MPH, 115V/50 Hertz/3000 RPM					X									
LMU36	AC Synchronous, 1/20 HP, 115V/50 Hertz/3000 RPM			X											
LMU37	AC Synchronous, 1/20 HP, 115V/60 Hertz/3600 RPM									X					
LMU38	AC Synchronous, 1/20 HP, 115V/50 Hertz/3000 RPM	X													
LMU39	Series, 1/15 HP, 115V/60 Hertz/3600 RPM, RF Sup.		X									X			
LMU41	Series, 1/20 HP, 115V/60 Hertz/3600 RPM, RF Sup.	X													
LMU42	AC Synchronous, 1/20 HP, 115V/60 Hertz/3600 RPM										X				
MU43	AC Synchronous, 25 MHP, 115V/60 Hertz/3600 RPM						X								
LMU45	AC Synchronous, 25 MHP, 115V/60 Hertz/3600 RPM						X								
LMU46	AC Synchronous, 1/20 HP, 115V/60 Hertz/3600 RPM				X										
ⓄLMU47	Series, 1/20 HP, 115V/60 Hertz/3600 RPM, RF Sup.											X			
LMU49	AC Synchronous, 1/20 HP, 115V/60 Hertz/3600 RPM	X													
LMU50	AC Synchronous, 1/12 HP, 115V/50 Hertz/3000 RPM		X												
LMU51	AC Synchronous, 1/20 HP, 115V/50 Hertz/3000 RPM									X					
LMU52	AC Synchronous, 1/20 HP, 115V/50 Hertz/3000 RPM												X		
LMU55	AC Synchronous, 1/20 HP, 230V/50 Hertz/3000 RPM	X													
LMU56	AC Synchronous, 25 MPH, 115V/60 Hertz/3600 RPM							X							
YMU2	AC Synchronous, 1/20 HP, 115V/60 Hertz/3600 RPM														X

Ⓞ Requires 173518 Mod. Kit for special variable speed application.

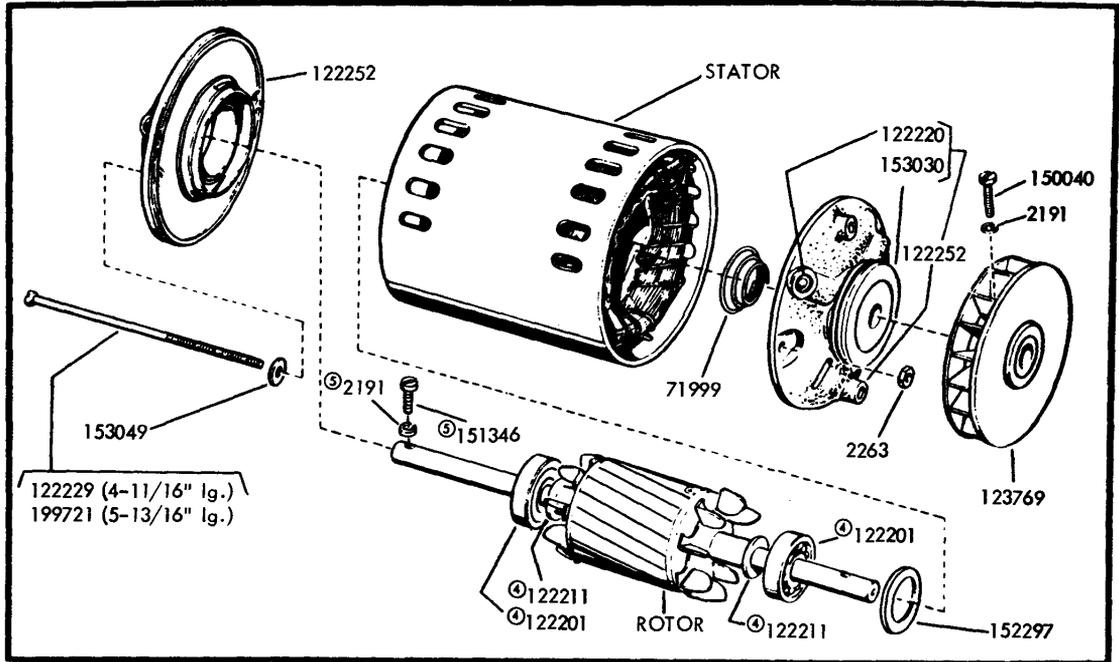
FIGURE 1. MOTOR UNIT APPLICATION CHART

SYNCHRONOUS MOTOR UNITS

Teletype Code	Motor Assembly	Motor Bracket	Mounting Plate	Thermostatic Switch	Fixed Capacitor	Spring or Clamp	Relay	Relay Insulator	Spring or Clamp	Cable Assembly	Jumper
LMU3	151795	305661	305660	122249	122245	305658	151923	305659	305658	151927	96264R (5" lg. Red)
LMU11	155595	305661	305660	160304	160299	305658	160303	305659	305658	151927	96264R (5" lg. Red)
LMU12	159739	305661	305660	160304	160299	305658	160303	305659	305658	151927	96264R (5" lg. Red)
LMU15	170764	305661	305660	122249	122245	305658	151923	305659	305658	151927	96264R (5" lg. Red)
LMU19	161984	142589		174471	162072	151922	173425	162196	151925	161099	96264R (5" lg. Red)
LMU20	161984	142589		174471	162072	151922	173425	162910	160302	162911	96264R (5" lg. Red)
LMU21	151795	164612		122249	122245	151922	151923	164603	151925	151927	96264R (5" lg. Red)
LMU24 and LMU56	310295	142589		fused	162072	151922	173425	162196	151925		176137 (9-1/4" lg. Black w/151626 Terminal) 96264R (5" lg. Red)
LMU26	161984	142589		174471	162072	151922	173425	162910	160302	162911	96264R (5" lg. Red)
LMU27		176948	176947	122249	122245	151922	151923	151924	151925		
LMU30	178500	305661	305660	122249	122245	305658	151923	305659	305658	151927	96264R (5" lg. Red)
LMU31	161984	142589		174471	162072	151922	173425	162196	151925	179016	96274R (10" lg Red)
LMU33	170764	305661	305660	①193781	122245	305658	151923	305659	305658	151927	96264R (5" lg. Red)
②LMU35	194924	171749		fused	①195172	171702	①195173	171704	171703	195178	
LMU36	178500	305661	305660	①193781	122245	305658	151923	305659	305658	151927	96264R (5" lg. Red)
LMU37	151795	194897		122249	122245	151922	151923	310341	151925	194899	96264R (5" lg. Red)
LMU38	151795	305661	305660	①193781	122245	305658	151923	305659	305658	151927	96264R (5" lg. Red)
LMU42	196830	196839		122249	122245	151922	151923	196794	151925	151927	96264R (5" lg. Red)
MU43	161984	171749		174471	162072	171702	173425	171704	171703	171810	96264R (5" lg. Red)
LMU45	161984	171749		174471	162072	171702	173425	171704	171703	193181	
LMU46	151795	305661	305660	122249	122245	305658	151923	305659	305658	193236	96264R (5" lg. Red)
LMU49	170764	172795	151920	122249	122245	151922	151923	151924	151925	151927	96264R (5" lg. Red)
③LMU50	199718	304538	151920	307281	304793	151922	304792		304537	151927	312573 (6" lg. Red w/82474 Terminal) 312574 (6" lg. Black w/82474 Terminal)
LMU51	151795	194897		①193781	122245	151922	151923	310341	151925	194899	96264R (5" lg. Red)
LMU52	151795	164612		①193781	122245	151922	151923	164603	151925	151927	96264R (5" lg. Red)
LMU55	306063	305661	305660	320269	320270	305658	320271	305659	305658	151927	96264R (5" lg. Red)
YMU2	151795	312979		122249	122245	151922	151923	312977	151925	306320	96262R (4" lg Red)

- ① For use with motor unit operating on 50 Hertz current
- ② See page 10 for parts peculiar to LMU35
- ③ See page 6 for parts peculiar to LMU50

FIGURE 2. SYNCHRONOUS MOTOR CROSS — REFERENCE CHART



SYNCHRONOUS MOTOR ASSEMBLY - STANDARD OR HEAVY DUTY

SYNCHRONOUS MOTORS - Standard or Heavy Duty				
DUTY	MOTOR ASSEMBLY	STATOR	ROTOR	MOTOR DATA
Standard	151795	122251	128874	AC Synchronous, 1/20 HP, 115V: 50/60 Hertz, 3000/3600 RPM
Heavy	155595	①160306	160305	AC Synchronous, 1/12 HP, 115V: 60 Hertz, 3600 RPM
Heavy	159739	160306	160305	AC Synchronous, 1/12 HP, 115V: 60 Hertz, 3600 RPM
Standard	①170764	122251	128874	AC Synchronous, 1/20 HP, 115V: 50/60 Hertz, 3000/3600 RPM
Standard	178500	①122251	128874	AC Synchronous, 1/20 HP, 115V: 60 Hertz, 3600 RPM
Standard	②196830	196831	128874	AC Synchronous, 1/20 HP, 115V: 60 Hertz, 3600 RPM
Heavy	199718	199720	199719	AC Synchronous, 1/12 HP, 115V: 50 Hertz, 3000 RPM
Standard	305063	320272	128874	AC Synchronous, 1/20 HP, 230V: 50/60 Hertz, 3000/3600 RPM

- ① Without fan
- ② CW rotation (all others CCW rotation)
- ③ Arranged for inverted mounting
- ④ Common to all rotors
- ⑤ Not part of motor assemblies

FIGURE 3. SYNCHRONOUS MOTOR ASSEMBLIES (STANDARD OR HEAVY DUTY)

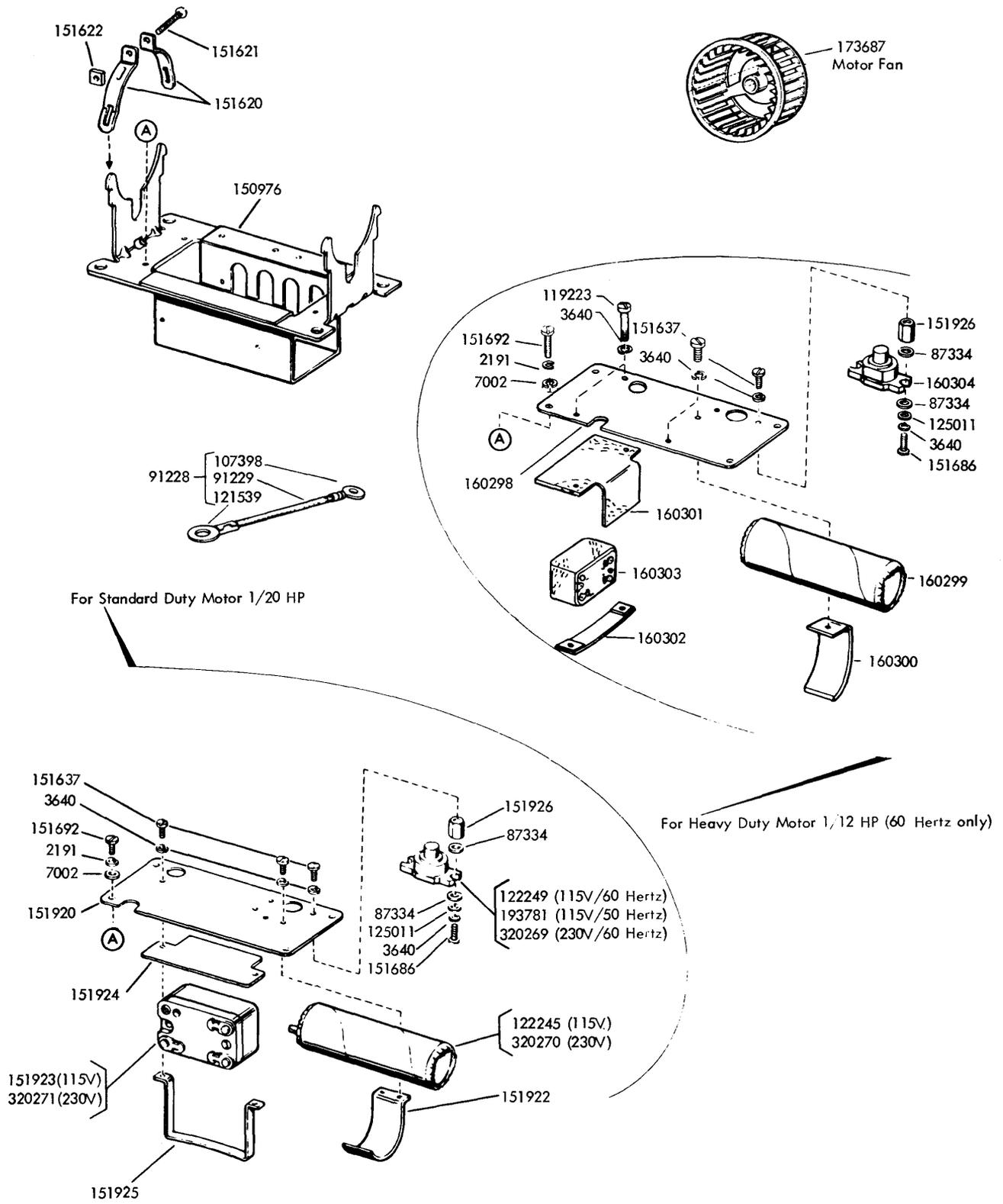


FIGURE 4. RELAY AND CAPACITOR MOUNTING (SYNCHRONOUS)

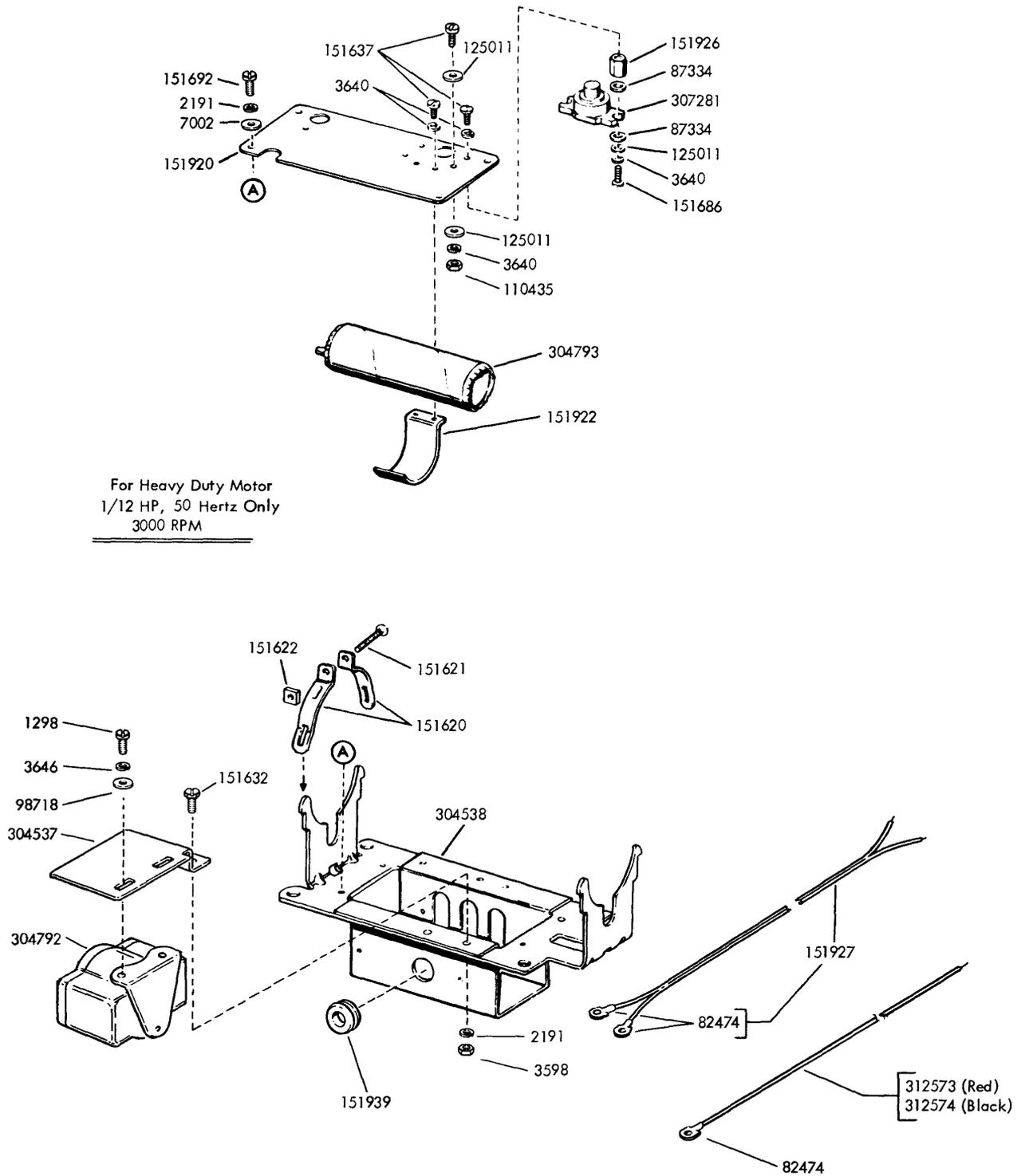


FIGURE 5. RELAY AND CAPACITOR MOUNTING (SYNCHRONOUS)

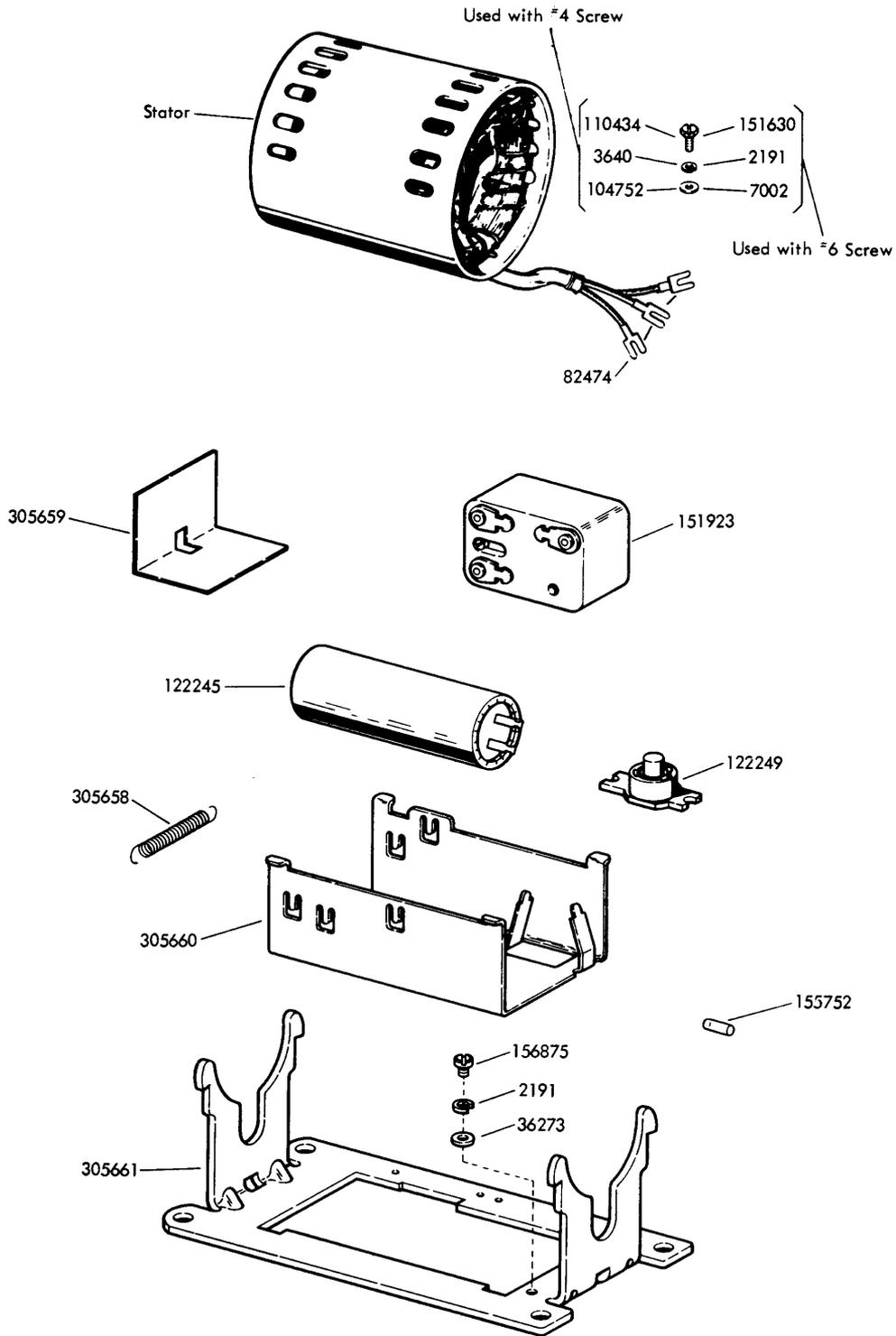


FIGURE 6. RELAY AND CAPACITOR MOUNTING

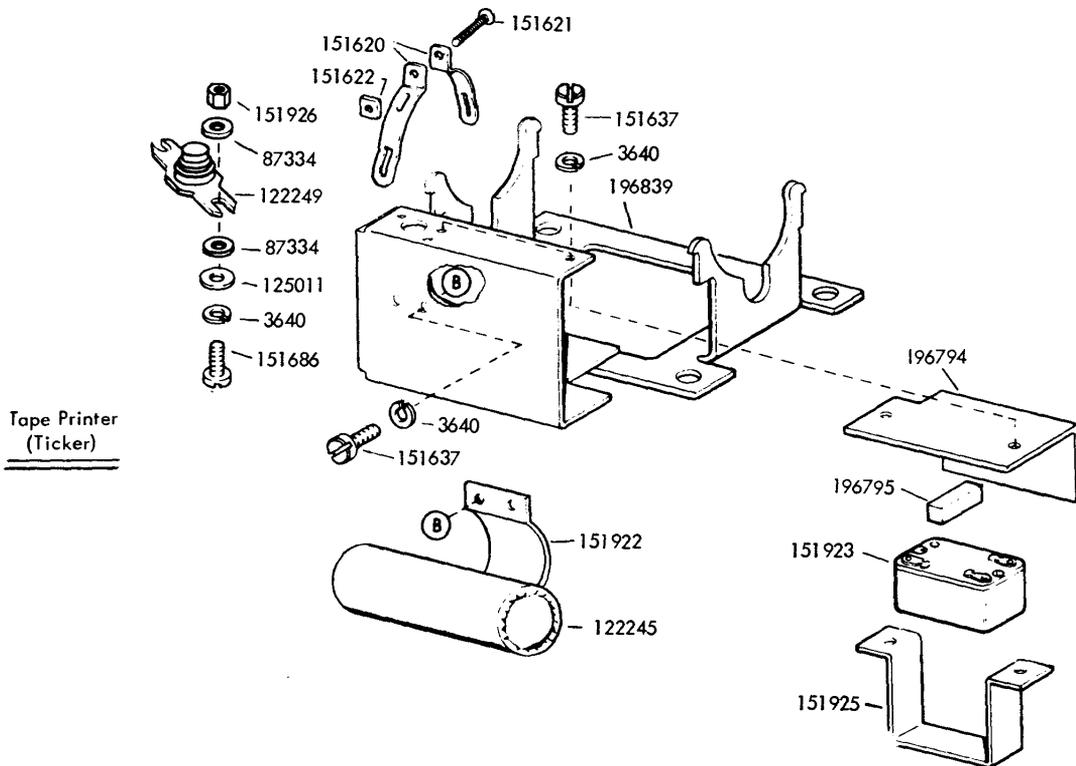
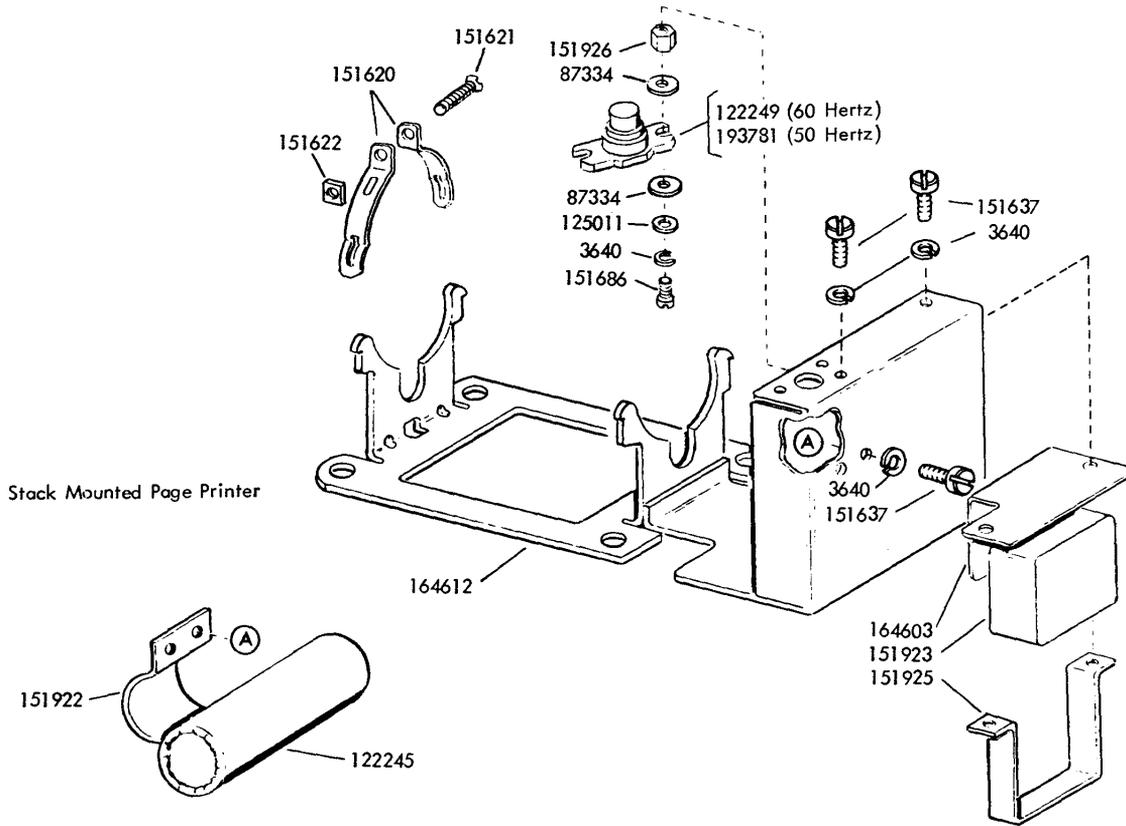
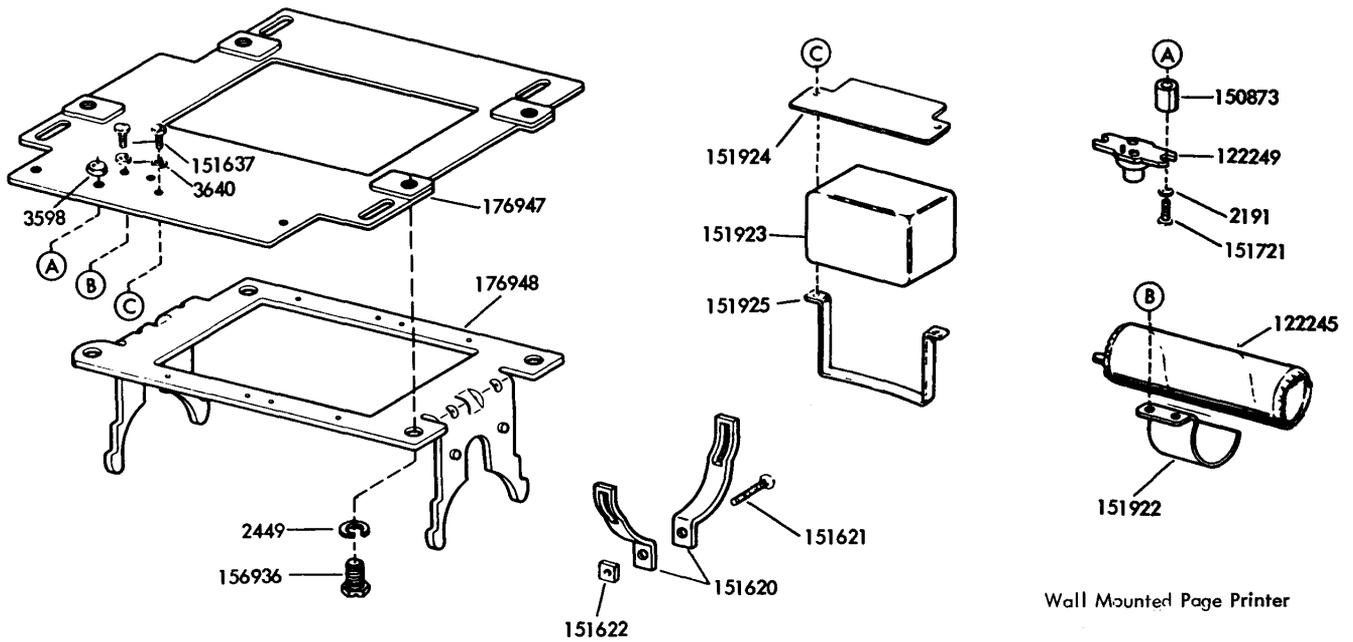
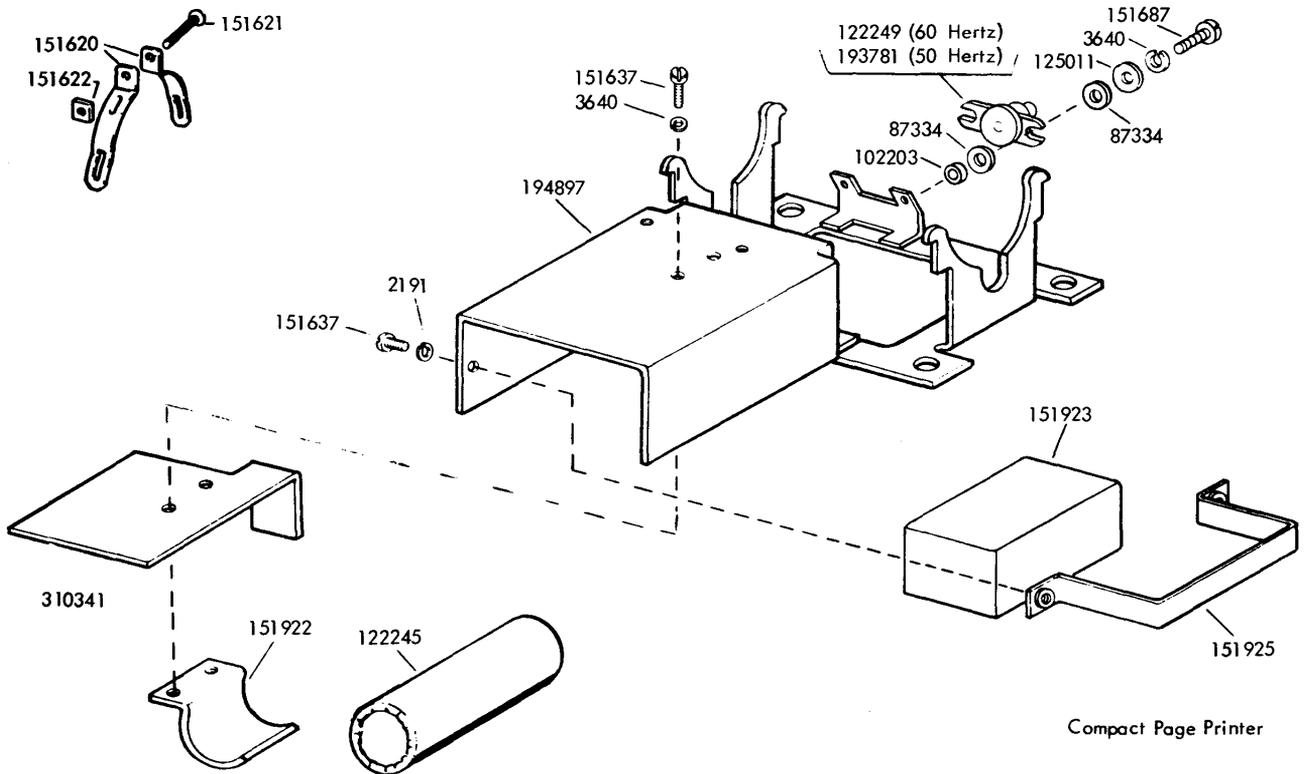


FIGURE 7. RELAY AND CAPACITOR MOUNTING (SYNCHRONOUS)

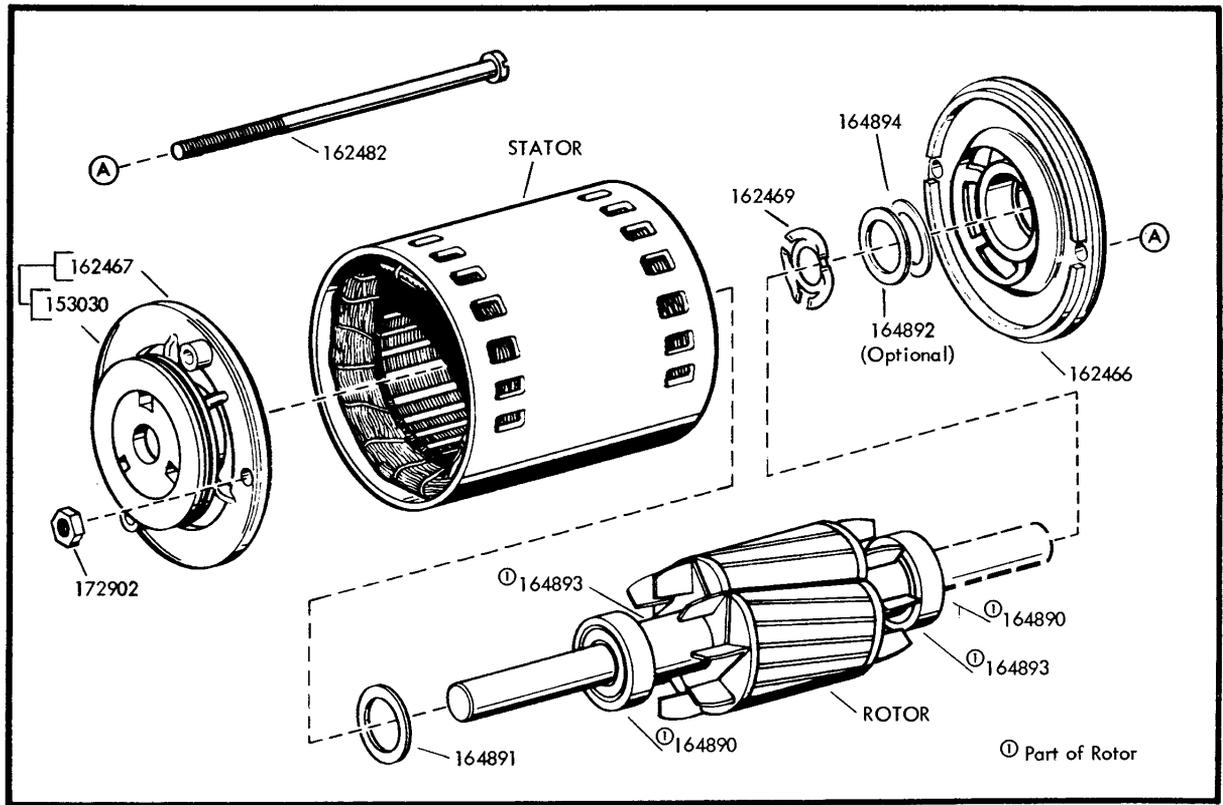


Wall Mounted Page Printer



Compact Page Printer

FIGURE 8. RELAY AND CAPACITOR MOUNTING (SYNCHRONOUS)



MINIATURE MOTOR ASSEMBLY

SYNCHRONOUS MOTORS - Miniature			
MOTOR ASSEMBLY	STATOR	ROTOR	MOTOR DATA
161984	162464	330564	AC Synchronous, 25 MHP, 115V: 60 Hertz, 3600 RPM
194924	195214	330564	AC Synchronous, 25 MHP, 115V: 50 Hertz, 3000 RPM
310295	162464	② 330565	AC Synchronous, 25 MHP, 115V: 60 Hertz, 3600 RPM

② Has double shaft extension

FIGURE 9. SYNCHRONOUS MOTOR ASSEMBLIES (MINIATURE)

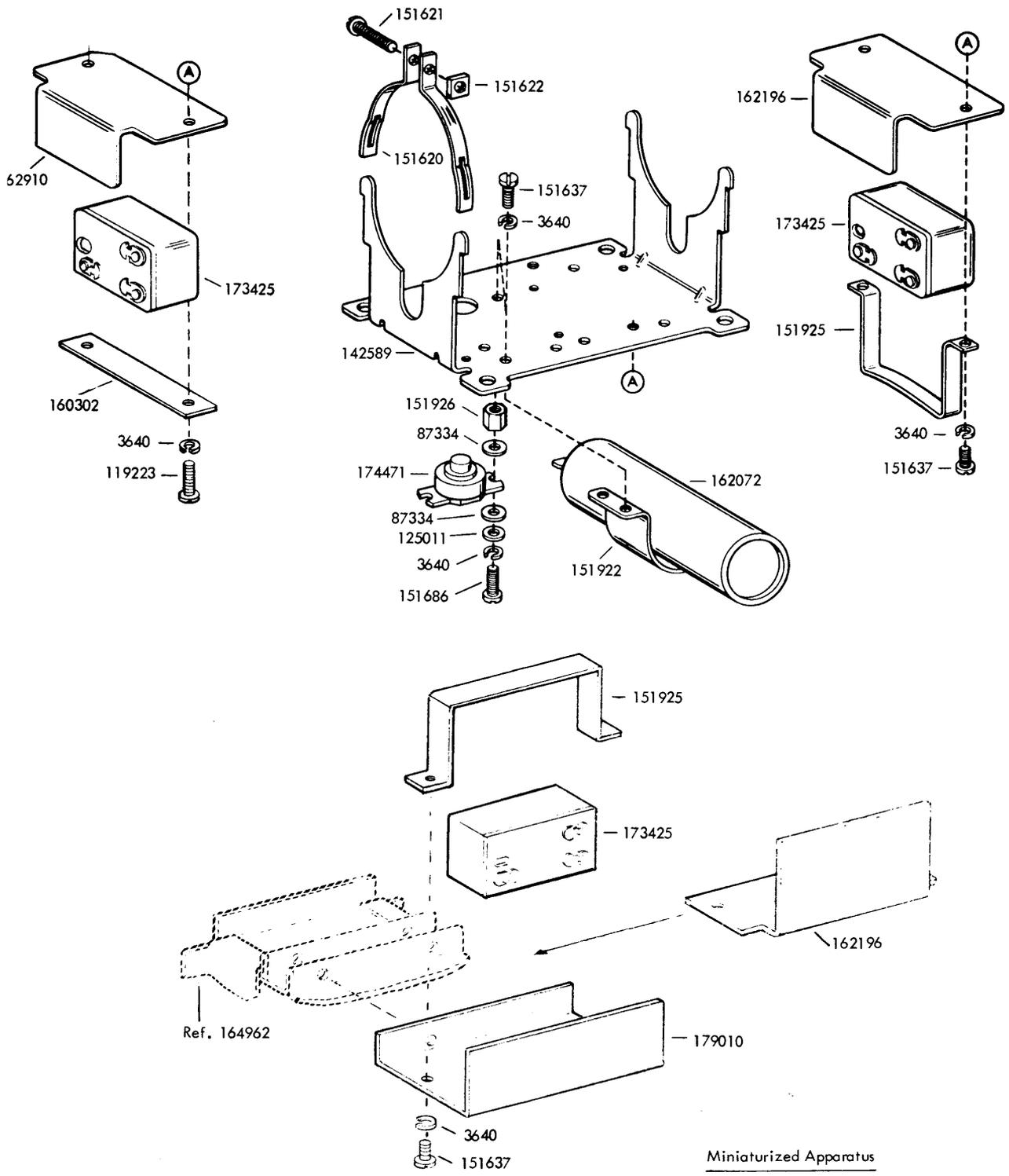


FIGURE 10. RELAY AND CAPACITOR MOUNTING (SYNCHRONOUS)

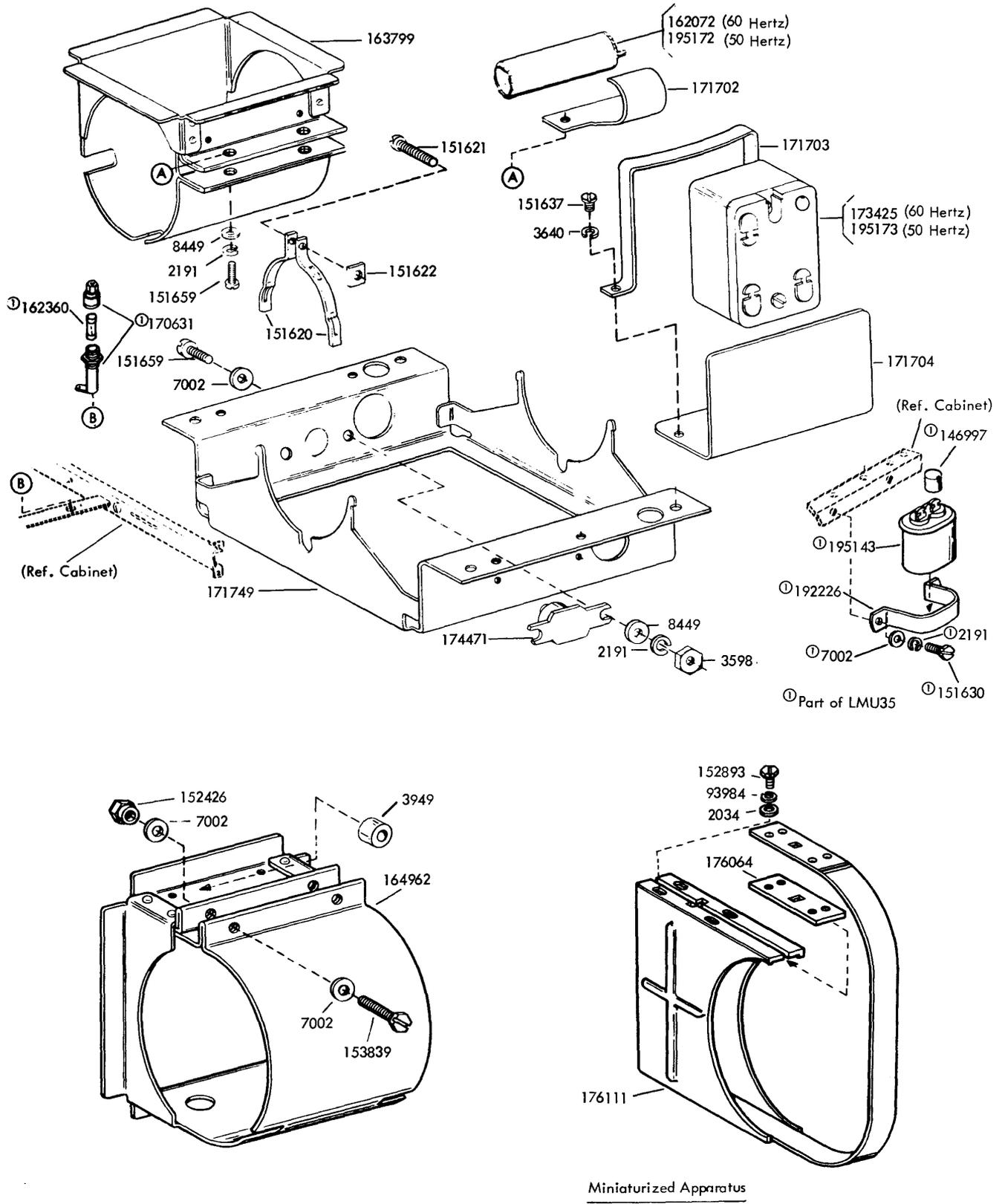
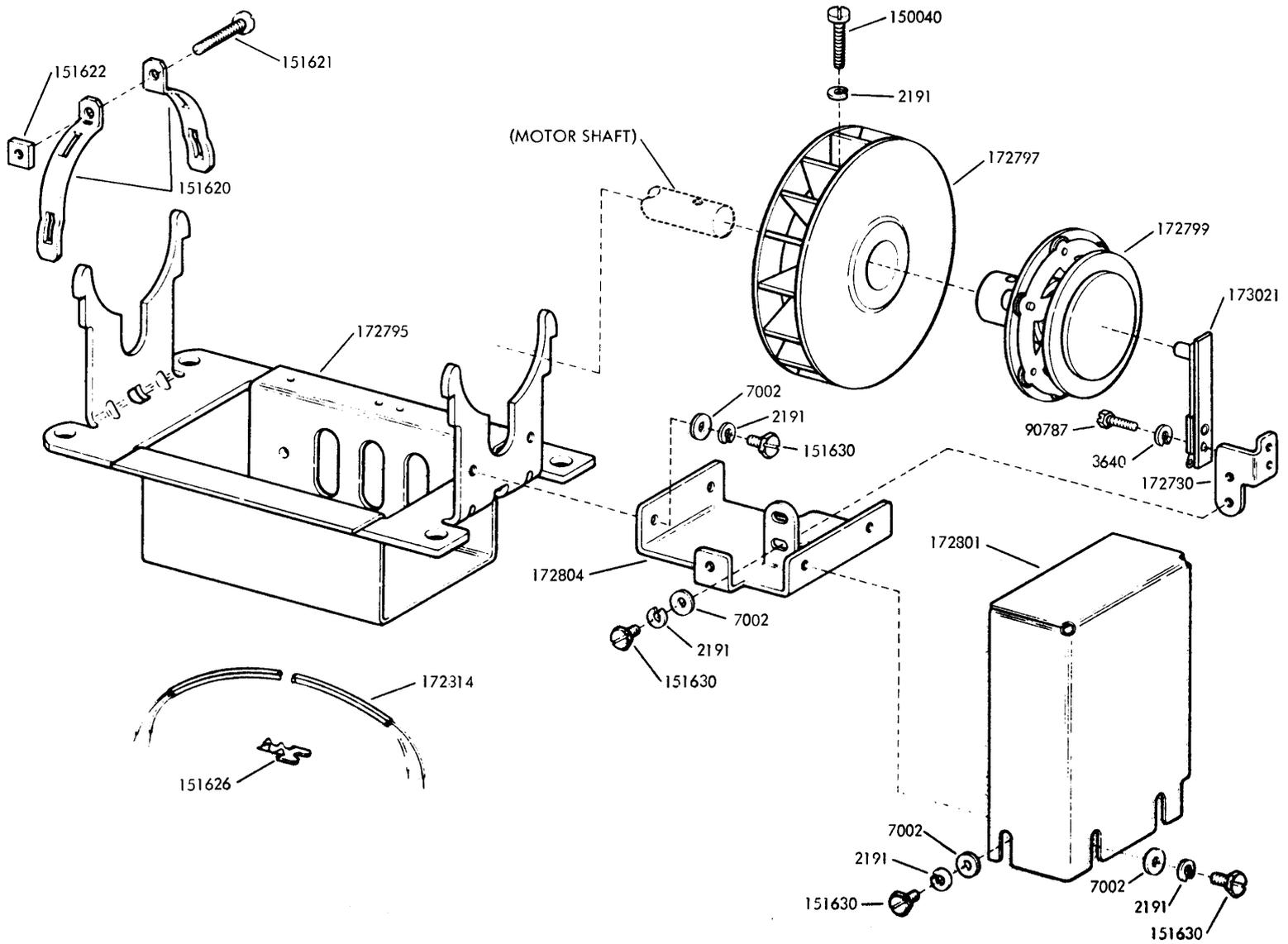


FIGURE 11. RELAY, CAPACITOR MOUNTING AND BRACKET (SYNCHRONOUS)

FIGURE 12. SYNCHRONOUS MOTOR MOUNTING WITH CENTRIFUGAL SWITCH ASSEMBLY



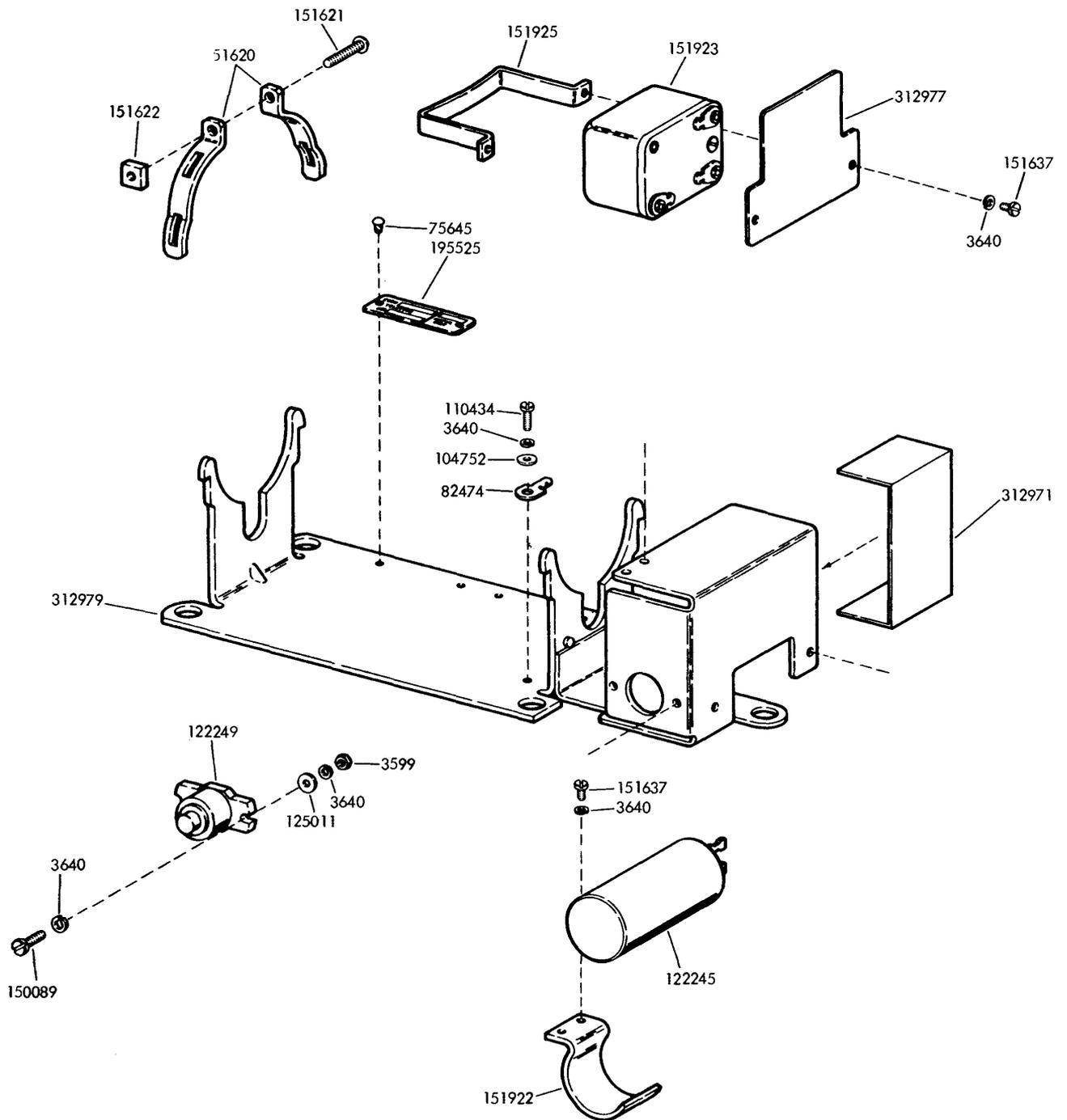
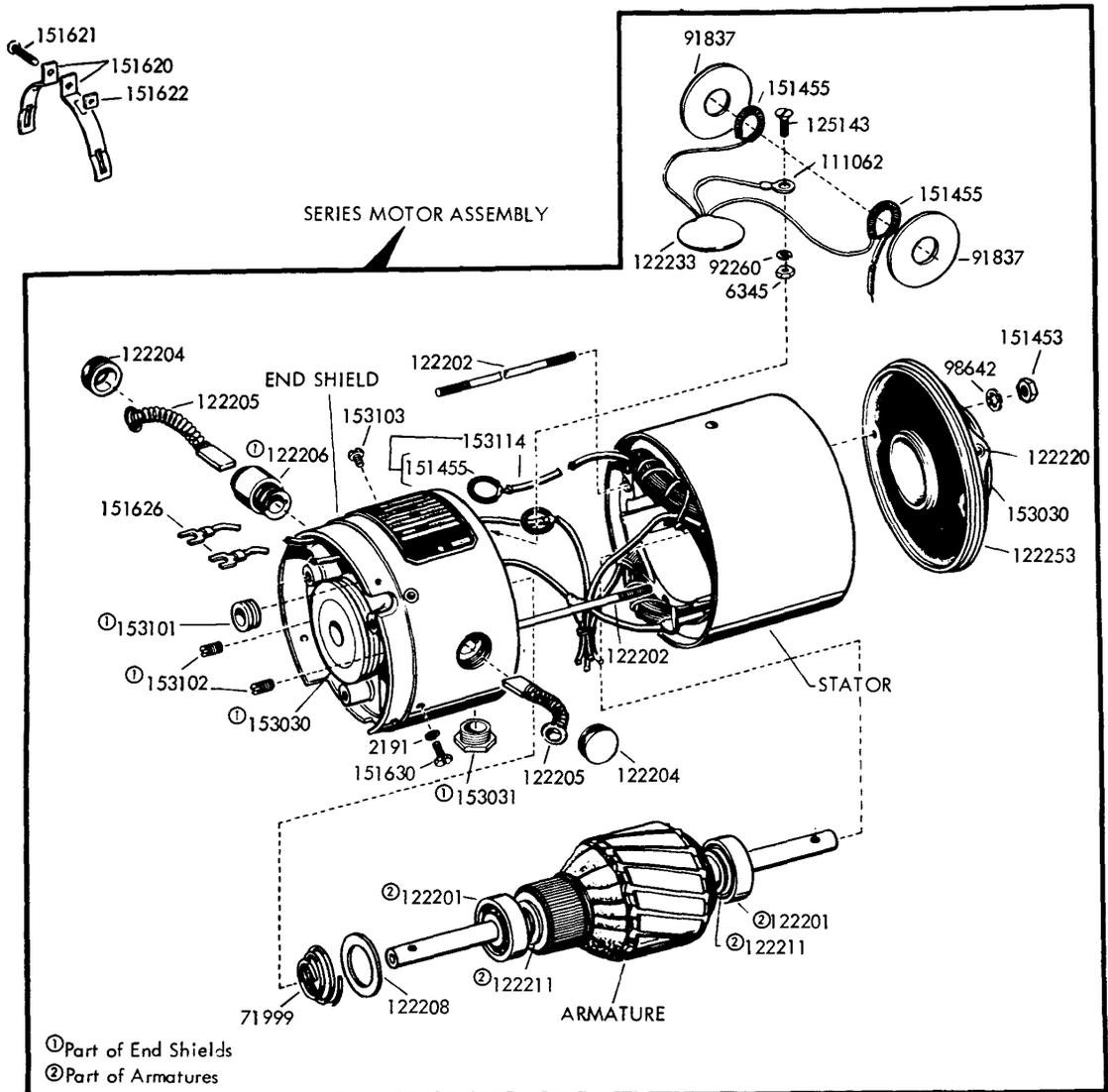


FIGURE 13. RELAY AND CAPACITOR MOUNTING (SYNCHRONOUS)

SERIES MOTOR UNITS

Teletype Code	Motor Assembly	Motor Bracket	Container	Lid	Nipple	Capacitor	Resistor	Electrical Noise Suppressor	Cable Assembly	Jumper
LMU4	150701	152046	152039	152040	152067	161579	161580	161578	152059	91228 (2-1/2" lg. w/107398 and 121539 Terminals) 162684 (2-3/4" lg. w/164479 Terminal) 162685 (4" lg. w/164479 Terminal)
LMU6	150701	150976				161579	161580			91228 (2-1/2" lg. w/107398 and 121539 Terminals) 162684 (2-3/4" lg. w/164479 Terminal) 163268 (6-1/2" lg. White w/164479 Terminal) 163269 (2" lg. w/164479 Terminal)
LMU10	150701	152046	152039	152040	152067	161579	161580	161578	152059	91228 (2-1/2" lg. w/107398 and 121539 Terminals) 162684 (2-3/4" lg. w/164479 Terminal) 162685 (4" lg. w/164479 Terminal)
LMU13	163272	150976				161579	161580			91228 (2-1/2" lg. w/107398 and 121539 Terminals) 162684 (2-3/4" lg. w/164479 Terminal) 163268 (6-1/2" lg. White w/164479 Terminal) 163269 (2" lg. w/164479 Terminal)
LMU14	161577	152046	152039	152040	152067	161579	161580	161578	152059	91228 (2-1/2" lg. w/107398 and 121539 Terminals) 162684 (2-3/4" lg. w/164479 Terminal) 162685 (4" lg. w/164479 Terminal)
LMU23	164758	173751				173003	173004			91228 (2-1/2" lg. w/107398 and 121539 Terminals)
LMU28	179100	152046	179105	179106	179282	161579	179103	161578	179283	91228 (2-1/2" lg. w/107398 and 121539 Terminals)
LMU29	179190	152046	179420	179424	152067	179421	173004	179422	152059	91228 (2-1/2" lg. w/107398 and 121539 Terminals)
LMU32	194060	152046	194057	179424	194063	161579	179103	161578	152059	91228 (2-1/2" lg. w/107398 and 121539 Terminals)
LMU39	161577	152046	179420	179424	152067	161579	179103	161578	152059	91228 (2-1/2" lg. w/107398 and 121539 Terminals)
LMU41	150701	152046	179420	179424	152067	161579	179103	161578	152059	91228 (2-1/2" lg. w/107398 and 121539 Terminals)
LMU47	150701	152046	179420	179424	152067	161579	179103		152059	91228 (2-1/2" lg. w/107398 and 121539 Terminals)

FIGURE 14. SERIES MOTOR CROSS-REFERENCE CHART



SERIES MOTORS STANDARD OR HEAVY DUTY					MOTOR DATA
	MOTOR ASSEMBLY	STATOR	ARMATURE	END SHIELD	
Standard	150701	122221	122210	122200	Series, 1/20 HP, 115V: 60 Hertz, 3600 RPM
Heavy	161577	161576	161575	122200	Series, 1/15 HP, 115V: 60 Hertz, 3600 RPM
Heavy	③163272	161576	161575	163273	Series, 1/15 HP, 115V: 60 Hertz, 3600 RPM
Heavy	③164758	164756	164757	163273	DC Series, 1/15 HP, 48V: 3600 RPM
Standard	179100	122221	122210	179101	Series, 1/20 HP, 115V: 60 Hertz, 3600 RPM
Heavy	179190	164756	164757	122200	DC Series, 1/15 HP, 48V: 3600 RPM
Heavy	③194060	161576	161575	194062	Series, 1/15 HP, 115V: 60 Hertz, 3600 RPM

③ Arranged for Inverted Mounting

FIGURE 15. SERIES MOTOR ASSEMBLIES

FIGURE 17. 150845 GOVERNOR ASSEMBLY

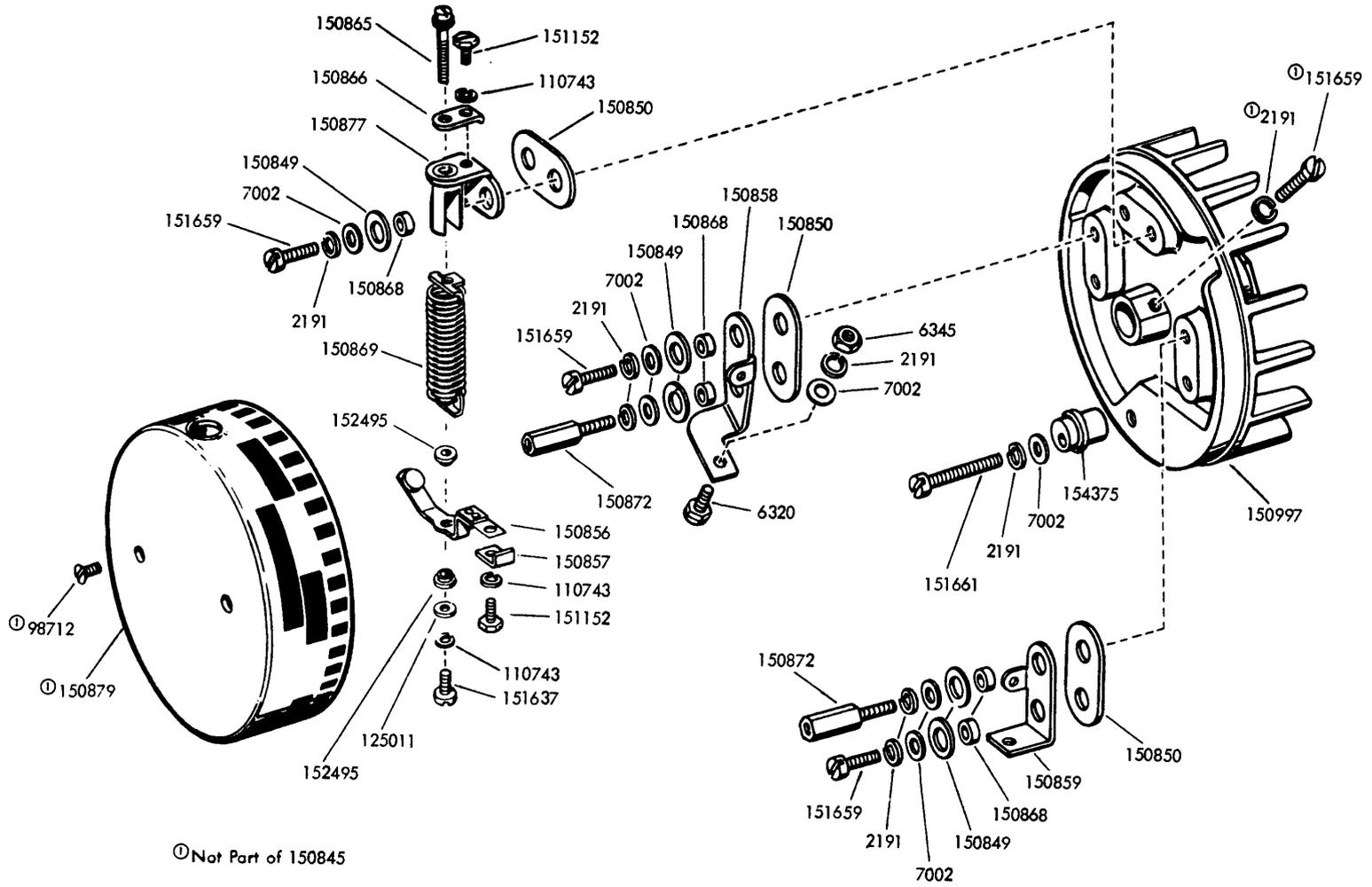
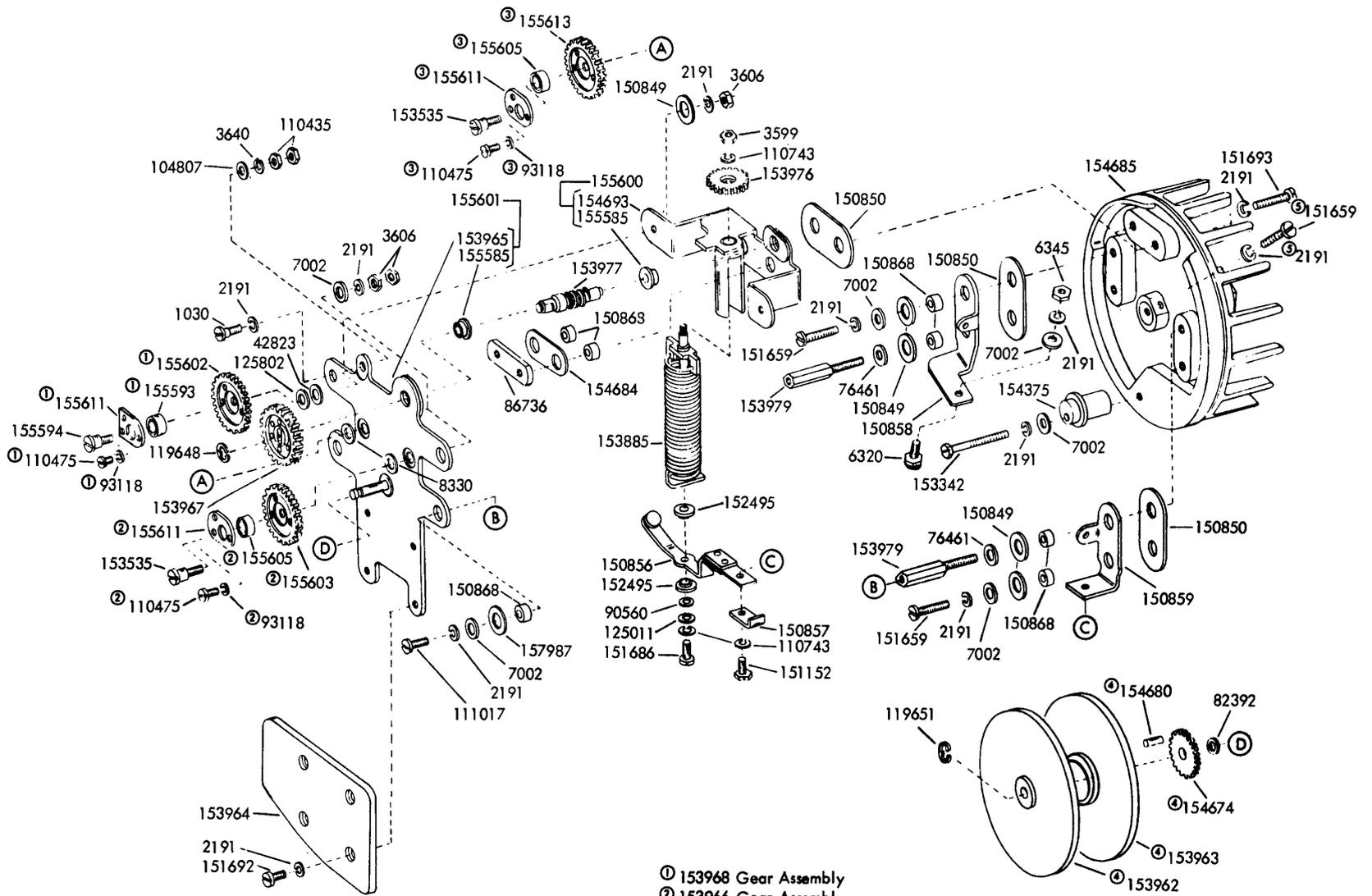


FIGURE 18. 154628 GOVERNOR ASSEMBLY



- Ⓐ 153968 Gear Assembly
- Ⓑ 153966 Gear Assembly
- Ⓒ 153536 Gear Assembly
- Ⓓ 154676 Disk Assembly
- Ⓔ Not Part of 154628 Governor Assembly

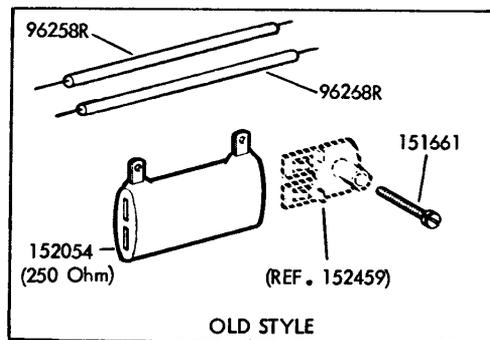
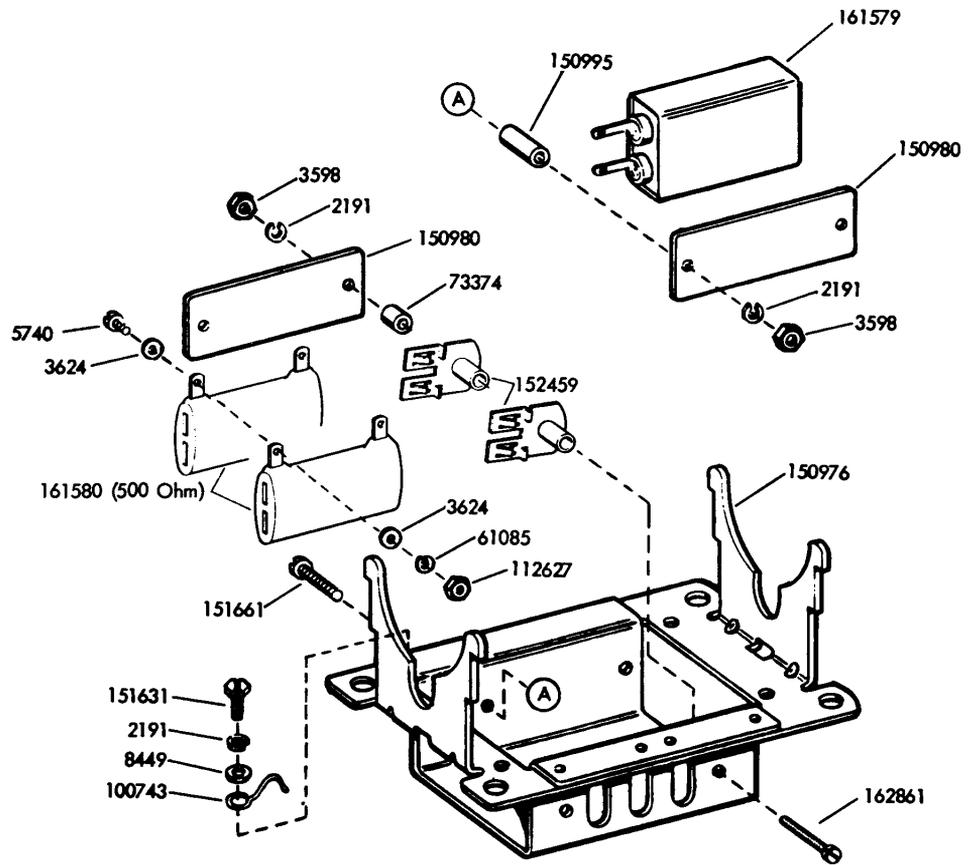
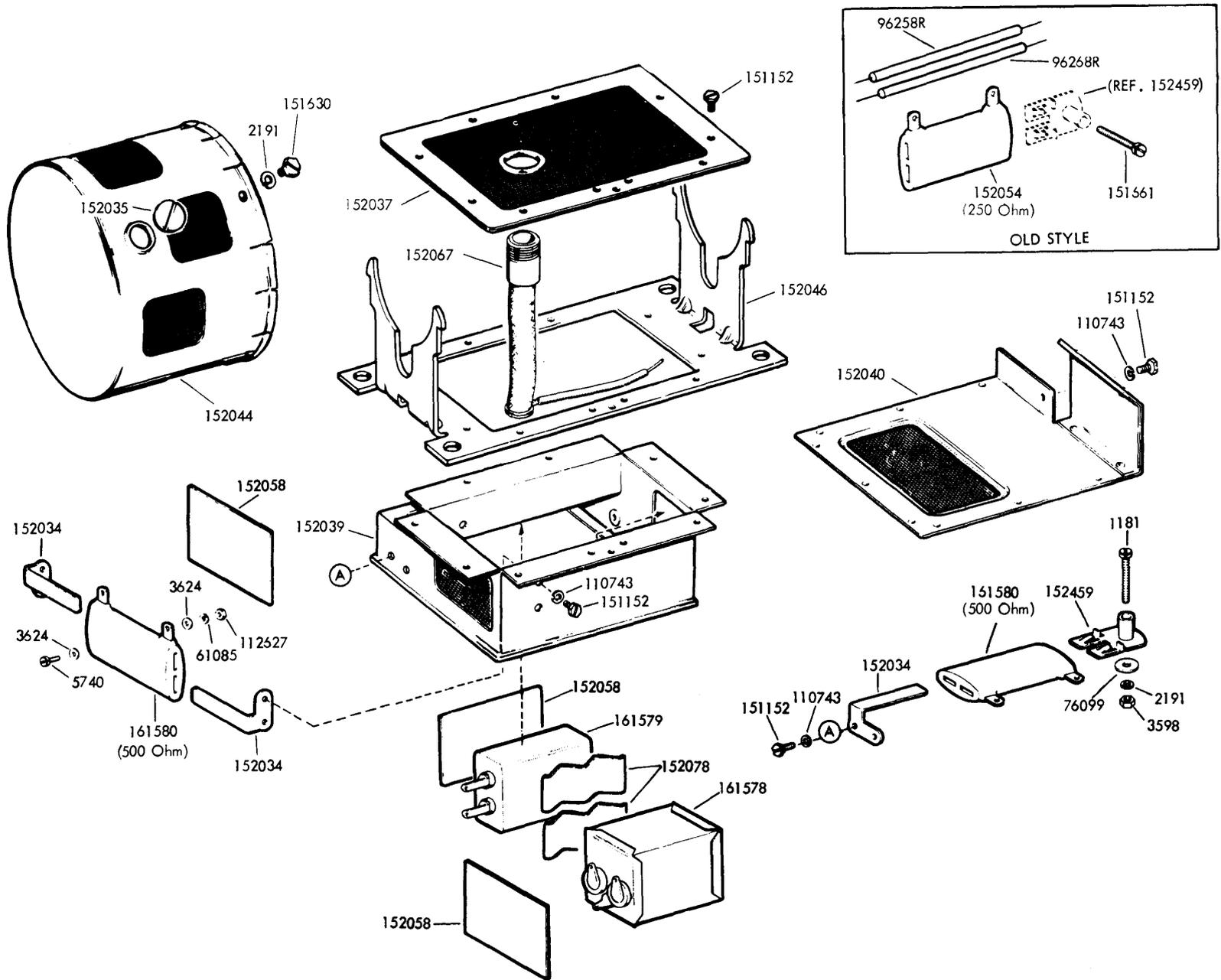


FIGURE 19. SERIES MOTOR MOUNTING PARTS

FIGURE 20. SERIES MOTOR MOUNTING PARTS WITH RF SUPPRESSION



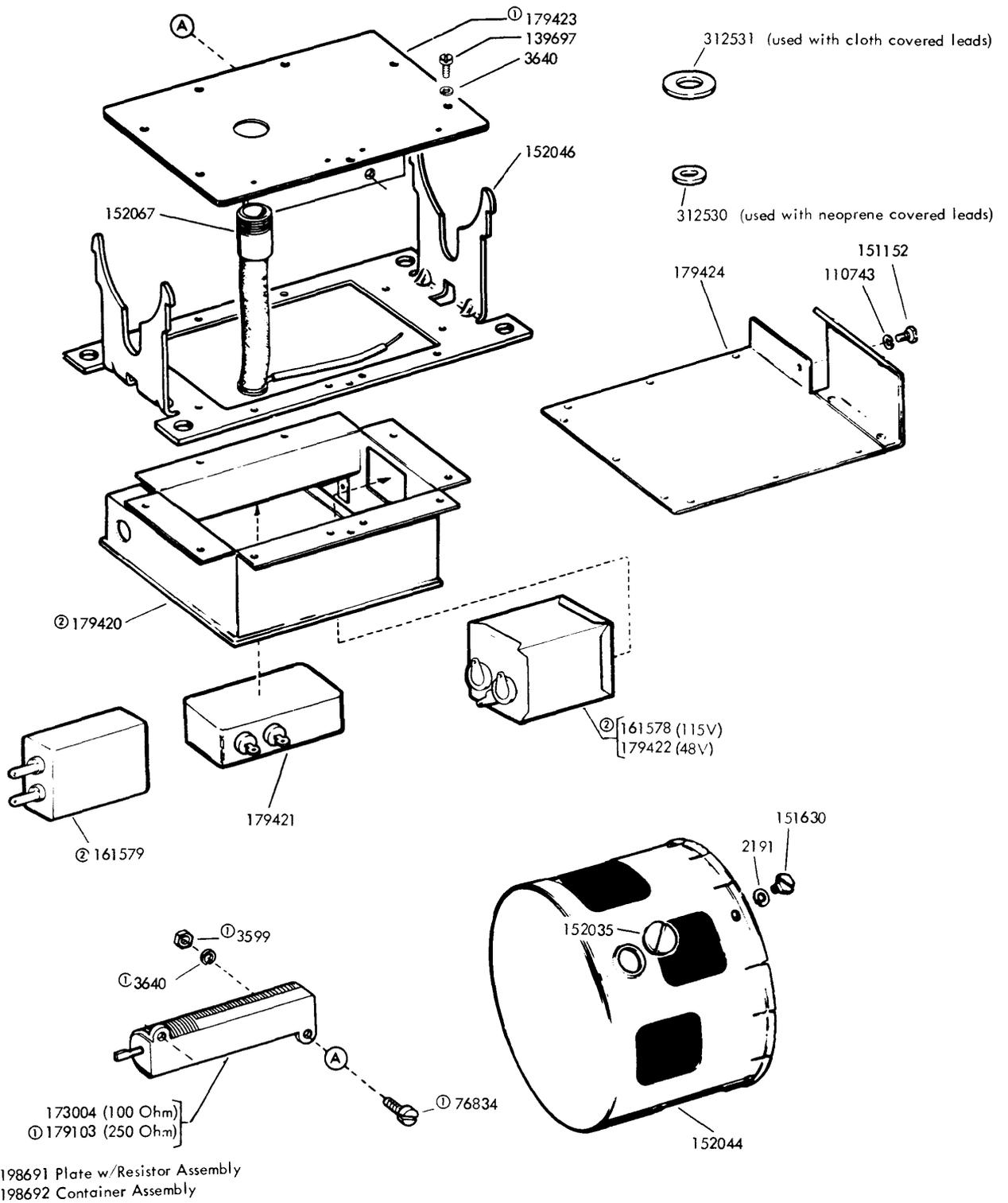


FIGURE 21. SERIES MOTOR MOUNTING PARTS WITH RF SUPPRESSION

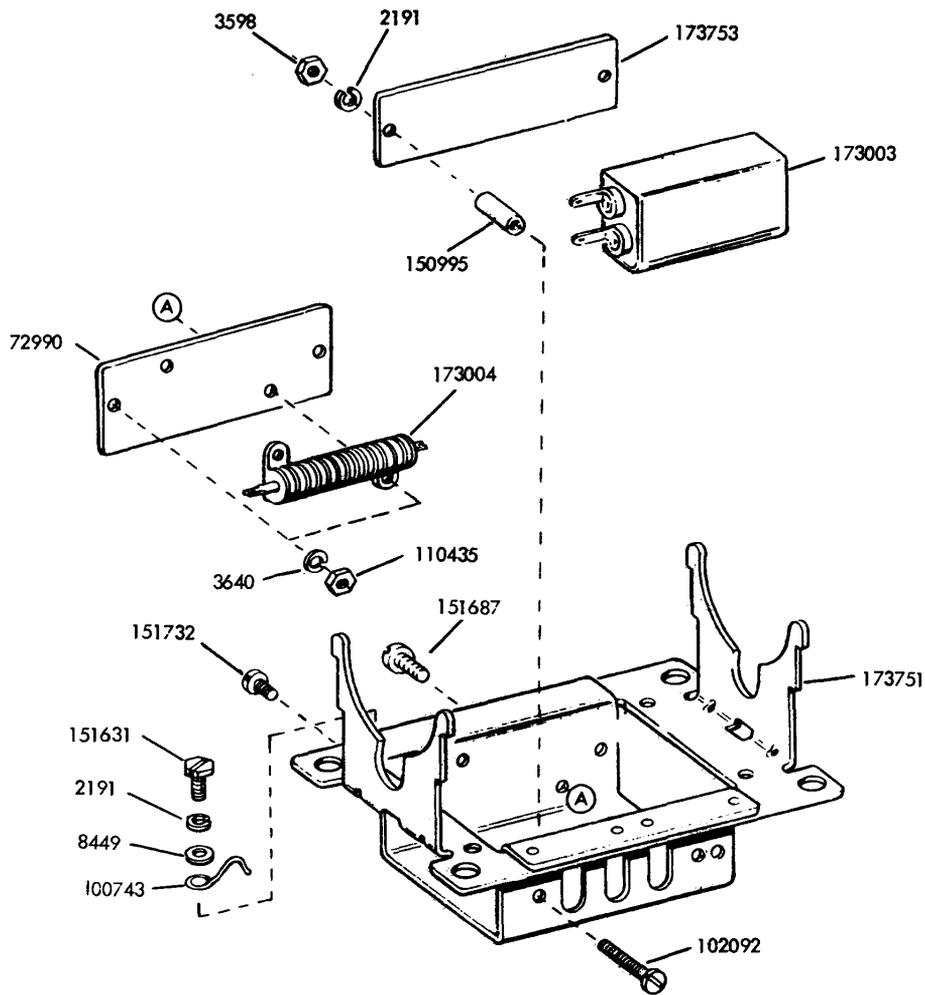
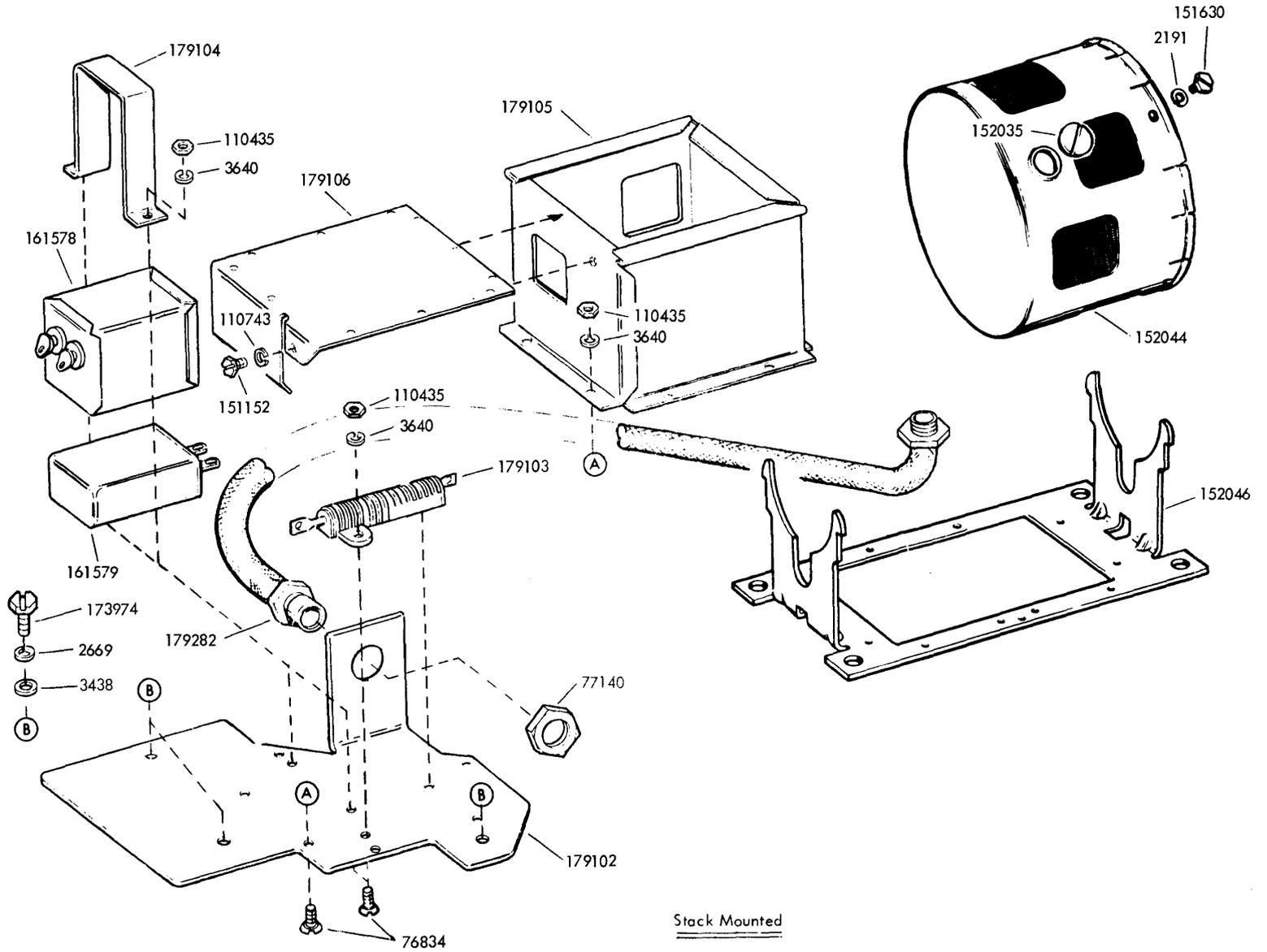


FIGURE 22. SERIES MOTOR MOUNTING PARTS

FIGURE 23. SERIES MOTOR MOUNTING PARTS WITH RF SUPPRESSION



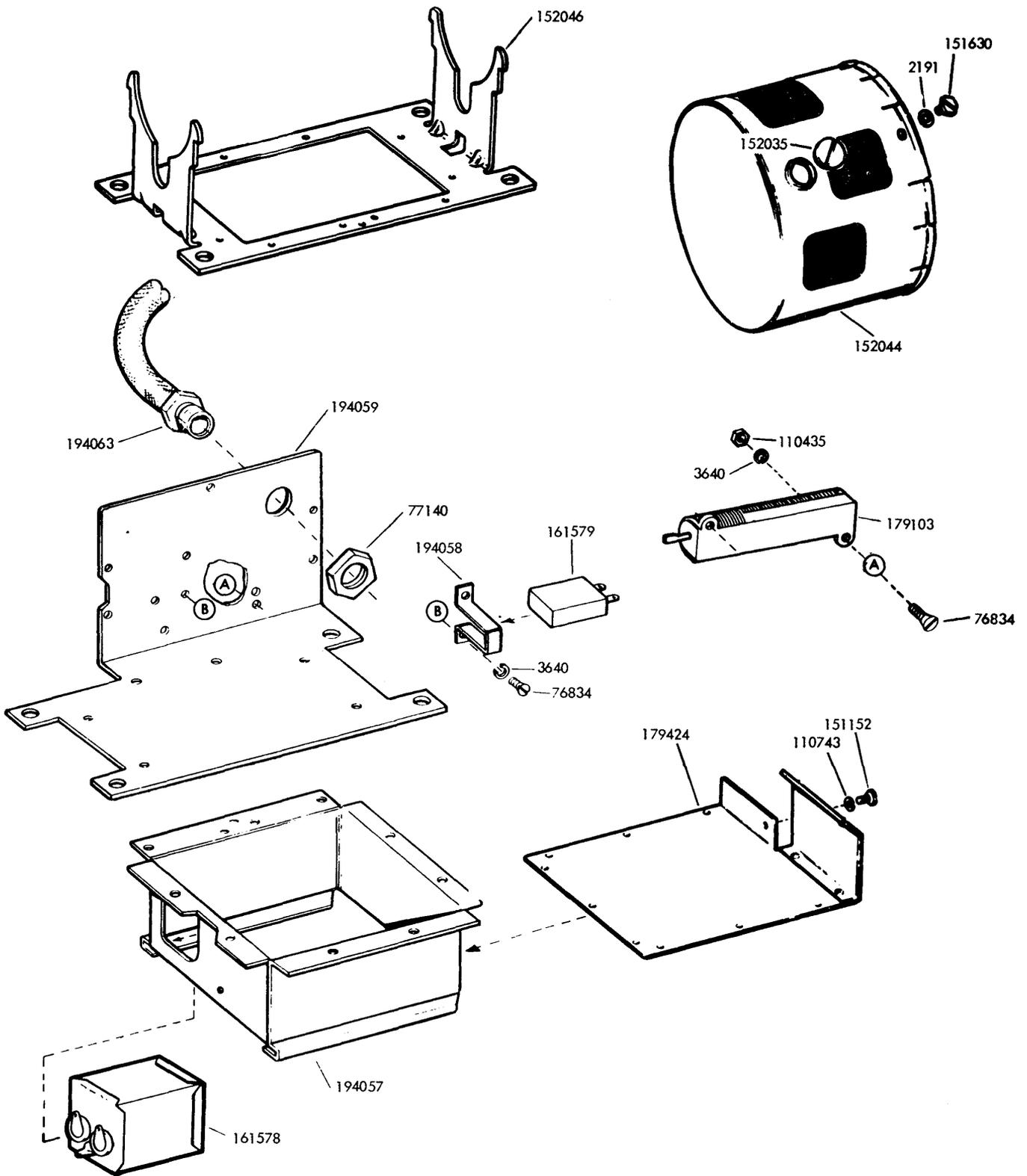


FIGURE 24. SERIES MOTOR MOUNTING PARTS WITH RF SUPPRESSION

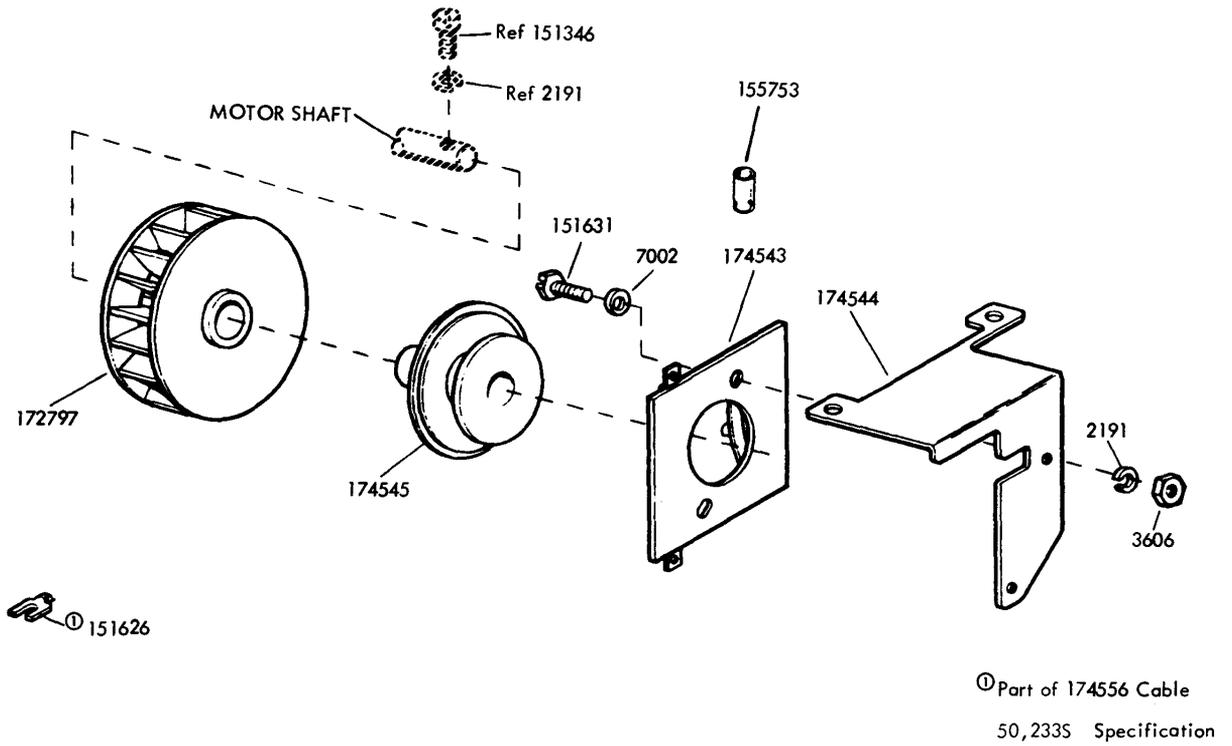


FIGURE 25. 174546 MODIFICATION KIT TO PROVIDE MOTOR RUNNING CONTACTS

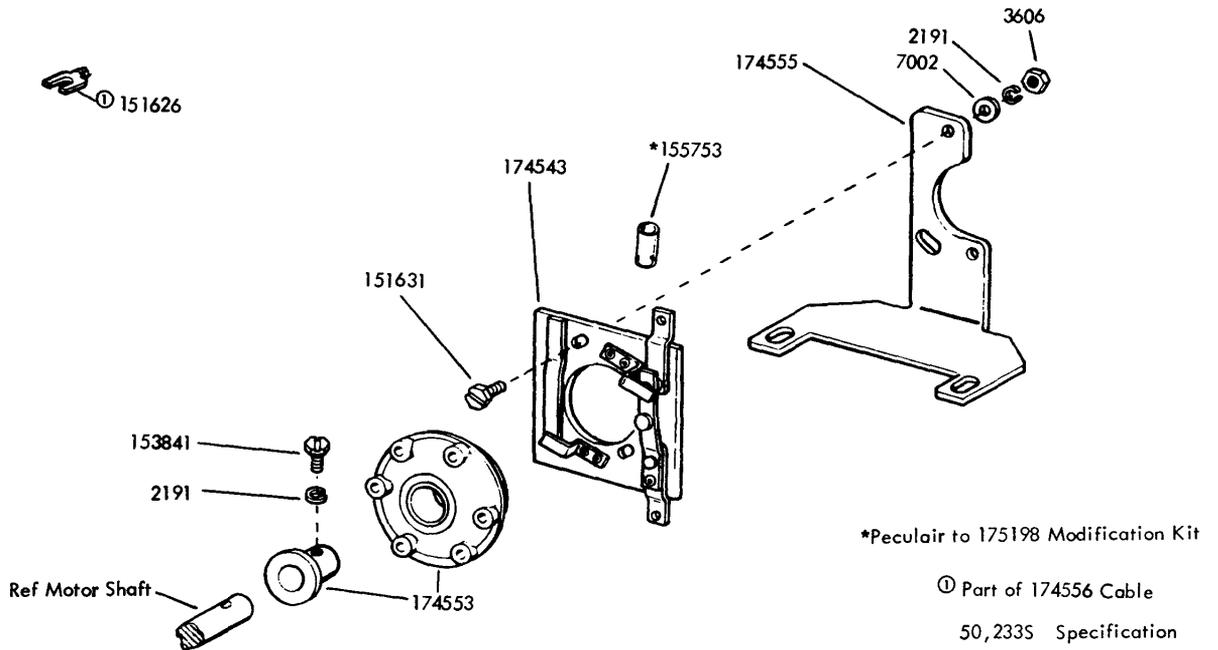


FIGURE 26. 174551 (LESS CABLE) 175198 (WITH CABLE) MODIFICATION KITS TO PROVIDE MOTOR RUNNING CONTACTS

MODIFICATION KITS
(Parts are illustrated on the pages indicated)

Modification Kit-Number	Part Number	Description	Quantity	Figure Number	Specification Number
198693	Modification Kit to Convert and LMU14 to and LMU39.				50,376S
	3640	Washer, Lock	7	19	
	75646	Screw, Drive	4		
	122233	Capacitor Assembly	1	13	
	139697	Screw, 4-40 x 9/32 Fil	7	19	
	151626	Terminal	1	13	
	152067	Nipple	1	19	
	161576	Stator, Motor	1	13	
	179424	Lid w/Insulator	1	19	
	198691	Plate w/Resistor Assembly	1	19	
	198692	Container Assembly	1	19	
	309431	Plate, Code (LMU39X)	1		
	312530	Washer, Textolite	1	19	
	312531	Washer, Fiber	1	19	
304739	Modification Kit to Convert an LMU46 to an LMU41.				50,376S
	2191	Washer, Lock	4	19	
	3640	Washer, Lock	8	19	
	75646	Screw, Drive	4		
	110743	Washer, Lock	1	19	
	122221	Stator, Motor	1	13	
	122233	Capacitor Assembly	1	13	
	139697	Screw, 4-40 x 9/32 Fil	7	19	
	151152	Screw, 4-40 x 3/16 Hex	1	19	
	151626	Terminal	1	13	
	151630	Screw, 6-40 x 1/4 Hex	4	19	
	152035	Plug	1	19	
	152044	Cover	1	19	
	152046	Bracket w/Cradle, Motor	1	19	
	152067	Nipple	1	19	
	179424	Lid w/Insulator	1	19	
	198691	Plate w/Resistor Assembly	1	19	
	198692	Container Assembly	1	19	
	309432	Plate, Code (LMU41X)	1		
	312530	Washer, Textolite	1	19	
	312531	Washer, Fiber	1	19	
306708	Modification Kit to Conver an LMU10 to an LMU47.				50,376S
	3640	Washer, Lock	7	19	
	75646	Screw, Drive	4		
	122221	Stator, Motor	1	13	
	122233	Capacitor Assembly	1	13	
	139697	Screw, 4-40 x 9/32 Fil	7	19	
	151626	Terminal	1	13	
	152067	Nipple	1	19	
	179424	Lid w/Insulator	1	19	
	198691	Plate w/Resistor Assembly	1	19	
	198692	Container Assembly	1	19	
	309433	Plate, Code (LMU47X)	1		
	312530	Washer, Textolite	1	19	
	312531	Washer, Fiber	1	19	
306709	Modification Kit to Convert an LMU4 to an LMU41.				50,376S
	3640	Washer, Lock	7	19	
	75646	Screw, Drive	4		
	122221	Stator, Motor	1	13	
	122233	Capacitor Assembly	1	13	
	139697	Screw, 4-40 x 9/32 Fil	7	19	
	151626	Terminal	1	13	
	152067	Nipple	1	19	
	179424	Lid w/Insulator	1	19	

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(Parts are illustrated on the pages indicated)

Modification Kit-Number	Part Number	Description	Quantity	Figure Number	Specification Number
	198691	Plate w Resistor Assembly	1	19	
	198692	Container Assembly	1	19	
	309432	Plate, Code (LMU41X)	1		
	312530	Washer, Textolite	1	19	
	312531	Washer, Fiber	1	19	

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1298	Screw, 8-32 x 1/4 Fil 6	110743	Washer, Lock 18, 19, 21, 22, 24, 25, 27	150997	Fan, Governor 18
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3598	Nut, 6-40 Hex 6, 9, 12, 20, 21, 23	121539	Terminal 5, 15	151621	Screw, 6-32 x 3/4 Rd 5, 6, 8, 9, 11, 12, 13, 14, 16
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8449	Spacer, .094" Thk 12, 20, 23	122229	Bolt, 8-32 x 4-11/16 Fil 4	151657	Screw, 6-40 x 1/4 Fil 17
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