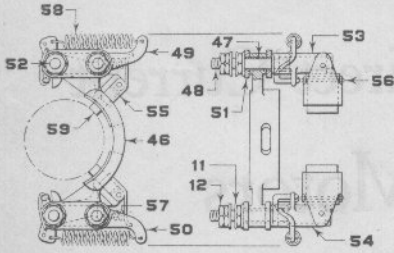
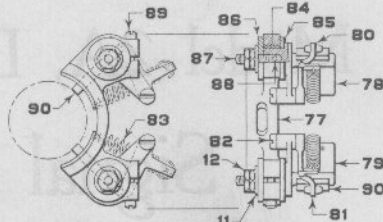


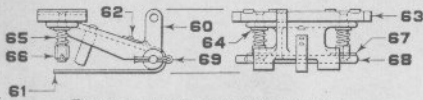
A-MODEL 2A LOW VOLTAGE MOTOR COMPLETE - 8 VOLTS  
 B-MODEL 2A LOW VOLTAGE MOTOR COMPLETE - 10 VOLTS  
 C-MODEL 2A LOW VOLTAGE MOTOR COMPLETE - 20 VOLTS



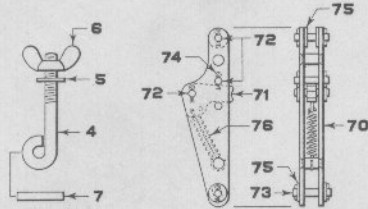
E-BRUSH HOLDER BRACKET COMP.



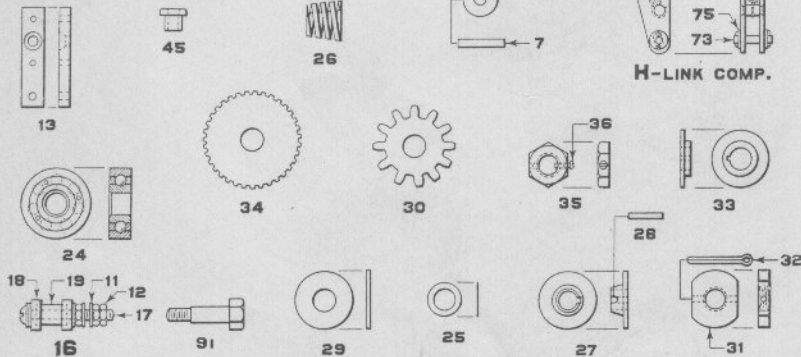
X-SEE NOTE



G-ARMATURE SUPPORT COMP.



H-LINK COMP.



Model 2A Motors—8 volts, 10 volts or 20 volts

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NOTE: Brush holder bracket X is shown for repair parts only. When ordering brush holder bracket complete specify Fig. E which is interchangeable.

Drawing references are shown for convenience in checking shipping lists and invoices.

Fig. No.	Name	Drawing Reference
<b>Order by plate, figure number and name</b>		
A	Motor Complete, (8 volts), for Top of Mast Signal Mechanism. Specify whether Signal is to operate in upper or lower quadrant, right or left hand indication. . . . .	39500
A1	as above, except for Base of Mast Signal Mechanism. . . . .	
B	Motor Complete, (10 volts), for Top of Mast Signal Mechanism. Specify whether Signal is to operate in upper or lower quadrant, right or left hand indication. . . . .	29890
B1	as above, except for Base of Mast Signal Mechanism. . . . .	36000
C	Motor Complete, (20 volts), for Top of Mast Signal Mechanism.	30870
C1	as above, except for Base of Mast Signal Mechanism. . . . .	
D	Armature Complete, for 8 volt Motor Fig. A. . . . .	39501
D1	Armature Complete, for 10 volt Motor Fig. B. . . . .	29893
D2	Armature Complete, for 20 volt Motor Fig. C. . . . .	30871
E	Brush Holder Bracket Complete as shown. (1-46, 4-47, 2-48a, 1-49, 1-50, 4-51, 2-52, 1-53a, 1-54a, 2-58, 2-59) . . . . .	37930
F	Magnet Complete, for Retaining Mechanism on 8 volt Motor. Includes Coils, Core, Cap, Nuts, Washers, etc. Specify whether for Top of Mast or Base of Mast Signal Mechanism. (2-37, 1-38, 2-39, 2-40, 2-41, 1-42, 2-43, 3-45) . . . . .	39058
F1	as above, except with four Screws Fig. 44. . . . .	
F2	same as Fig. F, except for 10 volt Motor. (2-37, 1-38, 2-39, 2-40a, 2-41a, 1-42, 2-43, 3-45) . . . . .	
F3	as above, except with four Screws Fig. 44. . . . .	
F4	same as Fig. F, except for 20 volt Motor. (2-37, 1-38, 2-39, 2-40b, 2-41b, 1-42, 2-43, 3-45) . . . . .	
F5	as above, except with four Screws Fig. 44. . . . .	
G	Armature Support Complete as shown. (1-60a, 1-63a, 1-68a) . .	42357

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Fig. No.	Name	Drawing Reference
<b>Order by plate, figure number and name</b>		
H	Link Complete as shown, for Retaining Mechanism. Specify whether Signal is to operate in upper or lower quadrant, right or left hand indication. (1-70, 1-71, 3-72, 1-73, 8-74, 4-75, 1-76).....	32666
1	Motor Frame only.....	29825
2	Bearing Bracket, with Stud for Brush Holder Bracket, Hanger Block for Link, Eye Bolt, Wing Nut, Pins, Nuts and Washer. (1-Bearing Bracket, 1-5a, 1-9a, 1-13, 1-14, 2-15)	
2a	as above, except with Cover, Cotter Pin, Binding Post, Bushings and Cap Screws. (1-2, 1-3, 1-4, 1-16, 2-20, 2-45).	
3	Cover, with Gasket.....	
4	Cotter Pin, $\frac{3}{16}$ " x $6\frac{1}{4}$ ", for Cover Fig. 3.....	35622
5	Eye Bolt only.....	29963
5a	as above, except with Wing Nut, Washer and Pin. (1-5, 1-6, 1-7, 1-8).....	
6	Washer, for Eye Bolt Fig. 5.....	069
7	Wing Nut, for Eye Bolt Fig. 5.....	29995
8	Pin, $\frac{3}{16}$ " x $1\frac{1}{8}$ ", for fastening Eye Bolt Fig. 5 to Bearing Bracket Fig. 2.....	7568
9	Stud, $\frac{1}{4}$ " x 1", for fastening Brush Holder Fig. E to Bearing Bracket Fig. 2.....	7359
9a	as above, except with Pin, Nuts and Washer. (1-9, 1-10, 1-11, 2-12).....	
10	Pin, $\frac{1}{16}$ " x $\frac{3}{4}$ ", for fastening Stud Fig. 9 to Bearing Bracket Fig. 2.....	13112
11	Washer, for $\frac{1}{4}$ " Screw.....	1225
12	Nut, hex., for $\frac{1}{4}$ " Screw.....	7395
13	Hanger Block, for Link Fig. H.....	32686
14	Screw, $\frac{1}{4}$ " x $\frac{1}{2}$ " flat hd., for fastening Hanger Block Fig. 13 to Bearing Bracket Fig. 2.....	5263

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Fig No.	Name	Drawing Reference
<b>Order by plate, figure number and name</b>		
15	Pin, $\frac{1}{8}$ " x $\frac{1}{2}$ ", for fastening Hanger Block Fig. 13 to Bearing Bracket Fig. 2	1240
16	Binding Post Complete, includes Nuts, Washers and Bushings. (5-11, 3-12, 1-17, 2-18, 1-19)	
17	Screw, $\frac{1}{4}$ " x $1\frac{3}{4}$ " rd. hd., for Fig. 16	1411
18	Washer, insulating, for Fig. 16	4001
19	Bushing, insulating, for Fig. 16	7811
20	Cap Screw, $\frac{5}{16}$ " x $1\frac{1}{4}$ " hex. hd., for fastening Bearing Bracket Fig. 2 to Motor Frame Fig. 1	20557
21	Field Coil, for 8 volt Motor. Specify whether for Top of Mast or Base of Mast Signal Mechanism	39502
21a	as above, except for 10 volt Motor	29999
21b	same as Fig. 21, except for 20 volt Motor	30873
22	Pole Piece	29864
23	Screw, $\frac{3}{8}$ " x 1" fill. hd., for fastening Pole Piece Fig. 22 to Motor Frame Fig. 1	19866
24	Ball Bearing Complete	47790
25	Shim Washer, used between Ball Bearing Fig. 24, Spring Fig. 26 and Friction Cone Fig. 33	34254
26	Spring, for Friction Cone Fig. 27	30506
27	Friction Cone for Motor Pinion Fig. 27 and Disc Fig. 34	30077
28	Pin, $\frac{1}{8}$ " x $\frac{9}{16}$ ", for Friction Cones Fig. 27 and Fig. 33	16448
29	Friction Washer, for Friction Cone Fig. 27 and Disc Fig. 34	30078
30	Motor Pinion	30075
31	Collar, for Pinion end of Shaft	30650
32	Cotter Pin, $\frac{1}{8}$ " x $1\frac{1}{4}$ ", for Collar Fig. 31	041
33	Friction Cone, for Commutator end of Shaft	30668
34	Friction Disc, for Retaining Mechanism	32685
35	Nut, $\frac{1}{2}$ " hex., with Screw Fig. 36, for Commutator end of Shaft.	
36	Screw, No. 6 x $\frac{3}{8}$ " rd. hd., for Nut Fig. 35	2552
37	Core, for Pick Up and Holding Coils, for Magnet Complete Fig. F	33206

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Fig. No.	Name	Drawing Reference
<b>Order by plate, figure number and name</b>		
38	Link, for spacing Cores on Magnet Complete Fig. F.....	38496
39	Insulating Washer, for Core Fig. 37.....	8076
40	Pick Up Coils, for Magnet Complete Fig. F, on 8 volt Motor..	33253
40a	as above, except for 10 volt Motor.....	
40b	same as Fig. 40, except for 20 volt Motor.....	
41	Holding Coils, for Magnet Complete Fig. F, on 8 volt Motor. Specify whether for Top of Mast or Base of Mast Signal Mechanism.....	33252
41a	as above, except for 10 volt Motor.....	
41b	same as Fig. 41, except for 20 volt Motor.....	
42	Cap, for Magnet Complete Fig. F.....	33204
43	Nut, $\frac{3}{8}$ " hex., for Core Fig. 37.....	1156
44	Screw, No. 8 x $\frac{1}{2}$ " rd. hd., for fastening Cap Fig. 42 to Bearing Bracket Fig. 2.....	3827
45	Bushing, for Lead Wires.....	27369
46	Brush Holder Bracket, for Fig. E.....	37937
47	Insulating Bushing, for Fig. E.....	37976
48	Screw, $\frac{1}{4}$ " x $1\frac{1}{2}$ " sq. hd., for fastening Arms Fig. 49 or Fig. 50 to Brush Holder Bracket Fig. 46.....	16363
48a	as above, except with Nuts and Washers. (3-11, 3-12, 1-48).	
49	Spring Arm, upper, for Fig. E.....	37932
50	Spring Arm, lower, for Fig. E.....	37931
51	Insulating Link, for Fig. E.....	35521
52	Screw, special, for holding Levers Fig. 53 and Fig. 54 to Brush Holder Bracket Fig. 46.....	37939
53	Lever, upper, for Fig. E.....	37934
53a	as above, except with Cap, Pin and Spring. (1-53, 1-55, 1-56, 1-57).....	
54	Lever, lower, for Fig. E.....	37933
54a	as above, except with Cap, Pin and Spring. (1-54, 1-55, 1-56, 1-57).....	
55	Cap, with Stud, for Brush Fig. 59.....	

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Fig. No.	Name	Drawing Reference
<b>Order by plate, figure number and name</b>		
56	Pin, $\frac{3}{32}$ " x 1", for fastening Cap Fig. 55 to Levers Fig. 53 and Fig. 54.....	18094
57	Spring, for Cap Fig. 55.....	37974
58	Spring, for Levers Fig. 53 and Fig. 54.....	37936
59	Brush, for Fig. E.....	37938
60	Armature Support, with Stud, for Fig. G.....	
60a	as above, except with Spring and Screws. (1-60, 1-61, 2-62).	33249
61	Spring, for Armature Support Fig. 60.....	33200
62	Screw, No. 6 x $\frac{1}{4}$ " rd. hd., for fastening Spring Fig. 61 to Armature Support Fig. 60.....	2613
63	Armature, with Studs, for Fig. G.....	33208
63a	as above, except with Washers, Springs, Nuts and Cotter Pins. (1-63, 2-64, 2-65, 2-66, 2-67).....	
64	Washer, for Spring Fig. 65.....	5046
65	Spring, for Armature Fig. 63.....	33209
66	Castle Nut, for Spring Fig. 65.....	33247
67	Cotter Pin, $\frac{1}{16}$ " x $\frac{3}{8}$ ", for Castle Nut Fig. 66.....	0652
68	Shaft, for Armature Support Fig. 60.....	32758
68a	as above, except with one Cotter Pin Fig. 69.....	
69	Cotter Pin, $\frac{1}{16}$ " x $\frac{7}{8}$ ", for Shaft Fig. 68.....	30039
70	Link, two sides assembled with Spacers, for Fig. H.....	32659
71	Dog, with Bushing, for Fig. H.....	32728
72	Pin, $\frac{3}{16}$ " x $\frac{7}{8}$ ", for Fig. H.....	32689
72a	as above, except with two Cotter Pins Fig. 74.....	
73	Pin, $\frac{3}{16}$ " x $\frac{1}{16}$ ", for fastening Link Fig. H to Support Fig. G....	38495
73a	as above, except with two Cotter Pins Fig. 74.....	
74	Cotter Pin, $\frac{1}{16}$ " x $\frac{3}{8}$ ", for Pins Fig. 72 and Fig. 73.....	0652
75	Washer, for Pins Fig. 72 and Fig. 73.....	5046
76	Spring, for Dog Fig. 71.....	33203
77	Brush Holder Bracket.....	30023
78	Brush Holder, upper.....	1595

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Fig. No.	Name	Drawing Reference
<b>Order by plate, figure number and name</b>		
78a	as above, except with Spring Arm, Pivot Screw, Spring, Stud, Nuts and Washers. (1-78, 1-80, 1-82, 1-83, 1-87a, 1-88) ..	
79	Brush Holder, lower .....	1596
79a	as above, except with Spring Arm, Pivot Screw, Spring, Stud, Nuts and Washer. (1-79, 1-81, 1-82, 1-83, 1-87a, 1-88) ..	
80	Spring Arm, upper .....	1597
81	Spring Arm, lower .....	1598
82	Pivot Screw, for Spring Arms Fig. 80 and Fig. 81 .....	1647
83	Spring, for Spring Arms Fig. 80 and Fig. 81 .....	37936
84	Insulating Bushing, for Brush Holder Bracket Fig. 77 .....	1159
85	Insulating Washer, square hole, for Brush Holder Bracket Fig. 77 .....	1158
86	Insulating Washer, round hole, for Brush Holder Bracket Fig. 77.	4001
87	Stud, $\frac{1}{4}$ " x $\frac{3}{4}$ ", for Brush Holders Fig. 78 and Fig. 79 .....	17749
87a	as above, except with Nuts and Washers. (1-11, 2-12, 1-87).	
88	Pin, $\frac{1}{16}$ " x $\frac{3}{8}$ ", for fastening Stud Fig. 87 to Brush Holders Fig. 78 and Fig. 79 .....	21193
89	Screw, No. 10 x $\frac{7}{8}$ " fill. hd., for Brush Holder Bracket Fig. 77 ..	6981
90	Brush, for Brush Holders Fig. 78 and Fig. 79 .....	35744
91	Dowel Screw, for fastening Motor to Case .....	30049