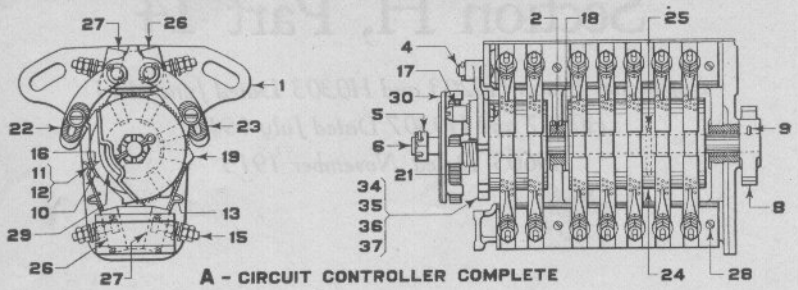
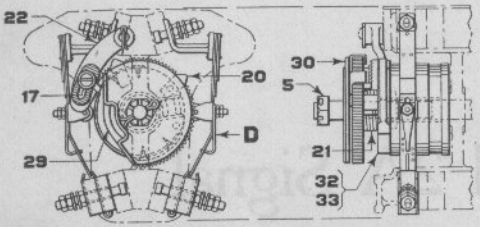
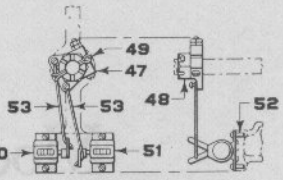
PLATE H1401



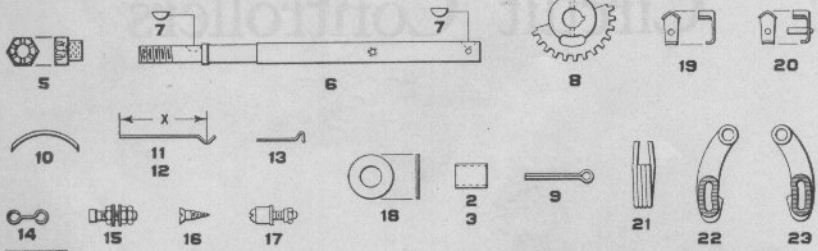
A - CIRCUIT CONTROLLER COMPLETE



B - SNAP POLE CHANGER COMP.
C - SNAP CIRCUIT CONTROLLER COMP.



E - COUNTER COMP.



Model 2A Circuit Controller for Top-of-Mast Signals

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Model 2A

Circuit Controller and Parts

For Top-of-Mast Signal Mechanism

Maximum contact equipment is shown merely as a matter of information.

For relay type contacts and other parts of circuit controller see Plate H1407.

SPECIFICATIONS FOR CIRCUIT CONTROLLER:

1. Specify whether signal is two or three position.
2. Specify whether signal operates in upper or lower quadrant, right or left hand indication.
3. Specify degrees of travel of arm.
4. Specify whether or not pole-changing contacts are required. If required, state position of signal arm at which polarity is to be changed.
5. Specify number of extra contacts.
6. Specify position of signal arm at which each extra contact is to make and break.

Extra contacts are all contacts other than those required for the local control of the signal mechanism in question.

Combinations of contacts are as follows:—

10 drag contacts and 0 snap contacts.
10 drag contacts and 4 snap contacts.
14 drag contacts and 0 snap contacts.

NOTE: When 14 drag contacts are required, circuit controller is equipped with extra commutator Fig. 31.

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

Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
A	Circuit Controller Complete. See specifications above	
B	Snap Pole Changer Complete. See specifications above	
C	Snap Circuit Controller Complete. Equipped with regular Contacts in place of Pole Changer Contacts Fig. D. See specifications above	
D	Pole Changer Contact Complete. For details see Plate H1407 Fig. B	

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Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
E	Counter Complete as shown, for three position Signals. (1-47, 1-48, 1-49, 1-50, 1-51, 4-52, 2-53)	
E1	as above, except without Castle Nut Fig. 48 and Cotter Pin Fig. 49. (1-47, 1-50, 1-51, 4-52, 2-53)	38408
E2	Counter Complete, for two position Signals. (1-47, 1-48, 1-49, 1-51, 2-52, 1-53)	
E3	as above, except without Castle Nut Fig. 48 and Cotter Pin Fig. 49. (1-47, 1-51, 2-52, 1-53)	38409
1	Frame, with Bushings, Stud and Cotter Pin. (1-Frame, 1-2, 1-3, 1-4)	
2	Bushing, for Snap Commutator end of Frame Fig. 1	34663
3	Bushing, for Sector end of Frame Fig. 1	29850
4	Stud, for fastening Latch Arms Fig. 22 and Fig. 23 to Frame Fig. 1	34657
5	Castle Nut, for Shaft Fig. 6	34659
6	Shaft	34647
6a	as above, except with two Woodruff Keys Fig. 7 and one $\frac{1}{8}''$ x $1\frac{1}{4}''$ Cotter Pin	
7	Woodruff Key, for fastening Sector Fig. 8 and Trip Plate Fig. 29 to Shaft Fig. 6	027
8	Sector, for operating Circuit Breaker	34646
9	Cotter Pin, $\frac{3}{16}''$ x $1\frac{3}{4}''$, for fastening Sector Fig. 8 to Shaft Fig. 6.	045
10	Contact. State the positions of Signal Arm at which Contact is to make and break	
11	Contact Spring, dimension X = $2\frac{5}{8}''$	29966
12	Contact Spring, dimension X = $2\frac{3}{4}''$	30829
13	Adjuster, for Contact Springs Fig. 11 and Fig. 12	29967
14	Connector, for Binding Posts	35377
15	Binding Post, with Nuts and Washers. (1-15a, 3-15b, 2-15c)	
15a	Screw, $\frac{1}{4}''$ x $1\frac{1}{4}''$, sq. hd., for Binding Post Fig. 15	21713
15b	Nut, $\frac{1}{4}''$ hex., for Binding Post Fig. 15	20098

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Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
15c	Washer, $\frac{1}{4}''$, for Binding Post Fig. 15	1225
16	Wood Screw, No. 6 x $\frac{1}{2}''$ flat head, for fastening Contacts to Commutator	30127
17	Knob, with Screw and Nuts, for Latch Arms Fig. 22 and Fig. 23. (1-17a, 1-17b, 1-17c, 1-17d)	
17a	Knob only, for Fig. 17	29969
17b	Screw, $\frac{1}{4}''$ x $1\frac{3}{8}''$ rd. hd., for Knob Fig. 17	18744
17c	Nut, $\frac{1}{4}''$ hex., for Screw Fig. 17b	7395
17d	Nut, $\frac{1}{4}''$ sq., for Screw Fig. 17b	37884
18	Washer, used between Commutator and Frame	35133
19	Trip Finger, for tripping Latch Arms Fig. 22 and Fig. 23	34655
20	Trip Finger, with Stud, for tripping Latch Arms Fig. 22 and Fig. 23, used on Snap Pole Changer for positive return of Snap Circuit Controller	39937
21	Spring, for snapping Commutator	40137
22	Latch Arm, left hand	34654
23	Latch Arm, right hand	34653
24	Drag Commutator, five way	29972
25	Set Screw, No. 10 x $1\frac{15}{16}''$ headless, for fastening Drag Commutator Fig. 24 to Shaft Fig. 1	42147
26	Contact Block, right hand upper and left hand lower	43274
27	Contact Block, left hand upper and right hand lower	43273
28	Screw, No. 10 x $\frac{5}{8}''$ rd. hd., for fastening Contact Blocks Fig. 26 and Fig. 27 to Frame Fig. 1	2829
29	Trip Plate, for Trip Fingers Fig. 19 and Fig. 20	34650
30	Lock Plate, for Trip Fingers Fig. 19 and Fig. 20	34651
31	Drag Commutator, with Retainer Plate, Bushing and Screws. Used when Circuit Controller is equipped with fourteen Drag Contacts. (1-38, 1-45, 4-46)	

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Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
32	Snap Commutator, for Snap Pole Changer, with Latch Plate, Bushing and Screws, for two or three position, upper quadrant right hand indication and lower quadrant left hand indication. (1-39, 1-45, 4-46)	
33	Snap Commutator, for Snap Pole Changer, with Latch Plate, Bushing and Screws, for two or three position, lower quadrant right hand indication and upper quadrant left hand indication. (1-40, 1-45, 4-46)	
34	Snap Commutator, for Snap Circuit Controller, with Latch Plate, Bushing and Screws, for three position, upper quadrant right hand indication and lower quadrant left hand indication. (1-41, 1-45, 4-46)	
35	Snap Commutator, for Snap Circuit Controller, with Latch Plate, Bushing and Screws, for three position, lower quadrant right hand indication and upper quadrant left hand indication. (1-42, 1-45, 4-46)	
36	Snap Commutator, for Snap Circuit Controller, with Latch Plate, Bushing and Screws, for two position, upper quadrant right hand indication and lower quadrant left hand indication. (1-43, 1-45, 4-46)	
37	Snap Commutator, for Snap Circuit Controller, with Latch Plate, Bushing and Screws, for two position, lower quadrant right hand indication and upper quadrant left hand indication. (1-44, 1-45, 4-46)	
38	Retainer Plate only, for Drag Commutator Fig. 31	40662
39	Latch Plate only, for Snap Commutator Fig. 32	38938
40	Latch Plate only, for Snap Commutator Fig. 33	38939
41	Latch Plate only, for Snap Commutator Fig. 34	34678
42	Latch Plate only, for Snap Commutator Fig. 35	34676
43	Latch Plate only, for Snap Commutator Fig. 36	34679
44	Latch Plate only, for Snap Commutator Fig. 37	34677

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Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
45	Snap Commutator, with Bushing, for Fig. 31 to Fig. 37 inclusive	
46	Wood Screw, No. 8 x 1½″ flat head, for fastening Latch Plates to Commutator	43669
47	Clamp Arm, with Screws and Nuts, for Counters. (1-47a, 1-47b, 2-47c, 2-47d)	
47a	Clamp Arm only, for Fig. 47	34660
47b	Screw No. 10 x 1¼″ rd. hd., for Clamp Arm Fig. 47	4591
47c	Nut, No. 10 hex., for Screw Fig. 47b	577
47d	Screw, No. 6 x ⅜″ rd. hd., for holding Operating Rod Fig. 53 to Clamp Arm Fig. 47	36392
48	Castle Nut, for Counters	34659
49	Cotter Pin, ⅛″ x 1¼″, for fastening Castle Nut Fig. 48 to Shaft.	041
50	Counter, left hand	20567
51	Counter, right hand	26674
52	Screw, No. 4 x ⅜″ rd. hd., for fastening Counters Fig. 50 and Fig. 51 to Frame Fig. 1	29107
53	Operating Rod, for Counters Fig. 50 and Fig. 51	34666