



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

March 1916

GENERAL RAILWAY SIGNAL COMPANY

**Model 2A
Circuit Controller and Parts
For Base-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 signal 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 whether dynamic or battery indication.
6. Specify number of extra contacts.
7. 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 signal mechanism in question.

Combinations of contacts are as follows:

- 10 drag contacts.
- 8 drag contacts and 2 snap contacts.
- 6 drag contacts and 4 snap contacts.
- 4 drag contacts and 6 snap contacts.

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. (1-46, 1-47, 1-48, 4-49, 2-50).....	35843
E1	Counter Complete, for two position Signals. (1-46, 1-48, 2-49, 1-50).....	35842
1	Frame, left hand, with Bushing Fig. 3.....	
2	Frame, right hand, with Bushing Fig. 3.....	
3	Bushing, for Frames Fig. 1 and Fig. 2 and Latches Fig. 32 and Fig. 34.....	36395
4	Contact Block.....	42306
5	Screw, No. 10 x $\frac{5}{8}$ " rd. hd., for fastening Contact Block Fig. 4 to Frames Fig. 1 or Fig. 2.....	2829
6	Shaft.....	36459
6a	as above, except with one Woodruff Key Fig. 7 and one $\frac{1}{8}$ " x $\frac{3}{4}$ " Cotter Pin.....	
7	Woodruff Key, for fastening Trippers Fig. 33 and Fig. 35 to Shaft Fig. 6.....	027
8	Pin, for connecting Shaft Fig. 6 to Main Shaft.....	42146
9	Drag Commutator, two way.....	36399
10	Drag Commutator, three way.....	30888
11	Drag Commutator, four way.....	30823
12	Drag Commutator, five way.....	29972
13	Set Screw, No. 10 x $1\frac{1}{16}$ ", headless, for fastening Drag Commutators to Shaft.....	42147
14	Snap Commutator, one way, with Plate, Bushings and Screws. (1-17, 1-20, 4-21).....	36394
15	Snap Commutator, two way, with Plate, Bushings and Screws. (1-18, 1-20, 4-21).....	36393
16	Snap Commutator, three way, with Plate, Bushings and Screws. (1-19, 1-20, 4-21).....	36398
17	Snap Commutator, one way, with Bushing, for Fig. 14.....	
18	Snap Commutator, two way, with Bushings, for Fig. 15.....	

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Fig. No.	Name	Drawing Reference
Order by plate, figure number and name		
19	Snap Commutator, three way, with Bushings, for Fig. 16.....	
20	Plate, with Studs, for Snap Commutators Figs. 14, 15 and 16..	
21	Screw, No. 8 x 1" flat head, for fastening Plate Fig. 20 to Snap Commutators Fig. 18 and Fig. 19.....	0599
21a	Screw, No. 8 x $\frac{3}{4}$ ", flat head, for fastening Plate Fig. 20 to Snap Commutator Fig. 17.....	26513
22	Connector, for Binding Posts.....	35377
23	Contact, state the positions of Signal Arm at which Contact is to make and break.....	
24	Contact Spring, dimension X = $2\frac{5}{8}$ ".....	29966
25	Contact Spring, dimension X = $2\frac{3}{4}$ ".....	30829
26	Adjuster, for Contact Springs Fig. 24 and Fig. 25.....	29967
27	Binding Post, with Nuts and Washers. (1-27a, 3-27b, 2-27c)..	
27a	Screw, $\frac{1}{4}$ " x $1\frac{1}{4}$ " sq. hd., for Binding Post Fig. 27.....	21713
27b	Nut, $\frac{1}{4}$ " hex., for Binding Post Fig. 27.....	20098
27c	Washer, $\frac{1}{4}$ ", for Binding Post Fig. 27.....	1225
28	Knob, with Screw and Nuts, for Latch Arms Fig. 37 to Fig. 45 inclusive. (1-28a, 1-28b, 1-28c, 1-28d).....	
28a	Knob only, for Fig. 28.....	29969
28b	Screw, $\frac{1}{4}$ " x $1\frac{1}{4}$ " rd. hd., for Knob Fig. 28.....	9530
28c	Nut, $\frac{1}{4}$ " hex., for Screw Fig. 28c.....	7395
28d	Nut, $\frac{1}{4}$ ", square, for Screw Fig. 28c.....	37884
29	Stud, for holding Latch Arms Fig. 37 to Fig. 45 inclusive to Frames Fig. 1 or Fig. 2.....	29968
30	Wood Screw, No. 6 x $\frac{1}{2}$ ", flat head, for fastening Contact Fig. 23 to Commutators.....	30127
31	Cap Screw, $\frac{1}{2}$ " x $1\frac{1}{4}$ " hex. hd., for fastening Frames Fig. 1 and Fig. 2 to Mechanism Frame.....	5255
32	Latch, used with Tripper Fig. 33.....	29853
33	Tripper, keyway not cut, used with Latch Fig. 32.....	
34	Latch, used with Tripper Fig. 35.....	30512

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Fig. No.	Name	Drawing Reference
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35	Tripper, keyway not cut, used with Latch Fig. 34.....	
36	Spring, for Latch Arms Fig. 32 and Fig. 34.....	38187
37	Latch Arm, 2 position, snaps at 60°.....	29854
38	Latch Arm, 2 position, snaps at 45°.....	32732
39	Latch Arm, 2 position, snaps at 45° going to danger, for 10 volt three position Signal.....	30029
40	Latch Arm, 2 position, snaps at 90°.....	30510
41	Latch Arm, 3 position, snaps at 45° and 90°.....	29851
42	Latch Arm, 2 position, latches at 60° and snaps at 75° to 90°.....	37990
43	Latch Arm, 2 position, snaps at 75°.....	29996
44	Latch Arm, 3 position, snaps at 37½° and 75°.....	30839
45	Latch Arm, 2 position, latches at 45° and snaps at 55° to 60°.....	38455
46	Clamp Arm, with Screw and Nuts, for Counters. (1-46a, 1-46b, 2-46c, 2-46d).....	
46a	Clamp Arm only, for Fig. 46.....	30874
46b	Screw, No. 10 x 1¼" rd. hd., for Clamp Arm Fig. 46.....	4591
46c	Nut, No. 10 hex., for Screw Fig. 46b.....	577
46d	Screw, No. 6 x ¾" rd. hd., for holding Operating Rod Fig. 50 to Clamp Arm Fig. 46.....	36392
47	Counter, left hand.....	20567
48	Counter, right hand.....	26674
49	Screw, No. 4 x ¾" rd. hd., for fastening Counters Fig. 47 and Fig. 48 to Frames Fig. 1 and Fig. 2.....	29107
50	Operating Rod, for Counters Fig. 47 and Fig. 48.....	30806