



A-WITH 25 VOLT MECHANISM FIG. C
B-WITH 110 VOLT MECHANISM FIG. D

Model 2A, Semi-Automatic Dwarf Signal

March 1916

GENERAL RAILWAY SIGNAL COMPANY

**Model 2A, Direct-Current
Semi-Automatic Dwarf Signals
25 volts, 110 volts**

Unless otherwise specified signals will be furnished as illustrated on opposite page. Lamp and foundation are not included. If signal other than that shown is desired, give reference numbers to spectacle and blade; also state number and color of roundels. See Part 18 of this Section for spectacles, blades and roundels.

Circuit controller is equipped with the contacts necessary for the local control of the signals only. Maximum contact equipment is shown merely as a matter of information.

If pole changing contacts or extra drag contacts are required, same must be specified. State the positions of the signal blade at which each extra contact is to make and break, considering the stop position as 0 degree.

With the exception of the cover fastenings, the signal mechanism is the same as that shown on Plate H0903.

For Semaphore Oil and Oiling diagrams see Part 21 of this Section.

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	Model 2A Semi-Automatic Upper Quadrant Dwarf Signal, with 25 volt Mechanism and R. S. A. three light, 90° Spectacle, complete as shown.....	41800
A1	as above, except with R. S. A. two light, 45° Spectacle.....	
A2	same as Fig. A, except without Foundation Bolts and Roundels.....	
A3	same as Fig. A1, except without Foundation Bolts and Roundels.....	
B	same as Fig. A, except 110 volt.....	
B1	as above, except with R. S. A. two light, 45° Spectacle.....	
B2	same as Fig. B, except without Foundation Bolts and Roundels.....	
B3	same as Fig. B1, except without Foundation Bolts and Roundels.....	

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Fig. No.	Name	Drawing Reference
Order by plate, figure number and name		
C	Model 2A Semi-Automatic 25 volt Signal Mechanism Complete, includes Case, Cover, Gears, Motor and Circuit Controller. Does not include Post Complete, Spectacle or Lamp Bracket. Specify Spectacle to be used and whether Signal is to operate in two or three positions.....	
D	same as Fig. C, except 110 volt.....	
E	Post Complete. For details see Plate H0707 Fig. A.....	
F	Motor Complete (25 volts). For details see Plate H1304 Fig. A.....	35830
G	Motor Complete (110 volts). For details see Plate H1304 Fig. B.....	34605
H	Circuit Controller Complete. For details and specifications see Plate H1401.....	34610
J	Ratchet Gear Complete. For details see Plate H1001 Fig. A.....	30080
K	Intermediate Gear Complete. For details see Plate H1001 Fig. C.....	29965
1	Case Complete, includes Cover, Side Door, Shield for Side Door, Hinge Pins, Stud for Intermediate Gear, Plate for Retaining Ball Bearing, Stop for Sector, Stud for Spring, Hasp, Strap, Lugs and all necessary Bolts, Pins and Rivets for fastening the same. For upper quadrant Signals.....	42334
1a	as above, except for lower quadrant Signals.....	42335
2	Cover Complete, includes Gasket, Staple, Lugs and Rivets for fastening Lugs.....	32001
3	Side Door, with Gasket.....	
3a	as above, except with Cap Screw, Collar and Pin. (1-3, 1-5, 1-6, 1-7).....	
5	Cap Screw, $\frac{5}{16}$ " x $1\frac{1}{4}$ " hex. hd., for fastening Side Door Fig. 3.....	0712
5a	as above, except with Collar and Pin. (1-5, 1-6, 1-7).....	
6	Collar, for Cap Screw Fig. 5.....	30156
7	Pin, for Collar Fig. 6.....	20592
8	Shield, for Side Door Fig. 3.....	34639

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Fig. No.	Name	Drawing Reference
Order by plate, figure number and name		
9	Screw, $\frac{1}{4}$ " x $\frac{1}{2}$ " rd. hd., for fastening Shield Fig. 8 to Case.....	2449
10	Lug, for Strap Fig. 12.....	32006
11	Cap Screw, $\frac{3}{8}$ " x $\frac{3}{4}$ " hex. hd., for fastening Lug Fig. 10 to Case.....	0395
12	Strap, for Hasp Tongue Fig. 13.....	32008
13	Hasp Tongue.....	32007
14	Pin, $\frac{3}{8}$ " x $1\frac{1}{16}$ ", for fastening Hasp Tongue Fig. 13 to Strap Fig. 12.....	7005
15	Pin, $\frac{3}{8}$ " x $2\frac{3}{8}$ ", for fastening Strap Fig. 12 to Lug Fig. 10.....	7567
16	Lug, for holding Cover to Case.....	32005
17	Lug, lower, for Cover Fig. 2.....	32003
18	Lug, upper, for Cover Fig. 2.....	32004
19	Rivet, $\frac{5}{16}$ " x $\frac{7}{8}$ " rd. hd., for fastening Lugs Figs. 16, 17 and 18.....	0876
20	Staple, for Hasp Tongue Fig. 13.....	16914
21	Spectacle Complete, includes Bezel Rings and Bolts, three light, 90° throw, $7\frac{1}{2}$ " centers, takes $5\frac{3}{8}$ " Roundels. (Roundels are not included). R. S. A. Std. For details see Plate H1812 Fig. K.....	40423
22	Spectacle Complete, includes Bezel Rings and Bolts, two light, 45° throw, $7\frac{1}{2}$ " centers, takes $5\frac{3}{8}$ " Roundels (Roundels are not included.) R. S. A. Std. For details see Plate H1812 Fig. A.....	40020
23	Rubber Blade, with Blade Plate and two $\frac{1}{4}$ " x 1" sq. hd. Bolts with sq. Nuts.....	9199
23a	Rubber Blade only.....	9197
24	Lamp Bracket Complete, includes Support, Bolts, Nuts and Washers. R. S. A. Type. For details see Plate H1713 Fig. A.....	42035
25	Main Shaft, with one $\frac{3}{16}$ " x $1\frac{3}{4}$ " Cotter Pin, and two Woodruff Keys. For details see Plate H1005 Fig. 7a.....	
26	Roller Bearing Complete, for Intermediate Gear Fig. K. For detail see Plate H1001 Fig. 12.....	29998
27	Ball Bearing Complete, for Main Shaft Fig. 25. For details see Plate H1005 Fig. 10.....	47795

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Fig. No.	Name	Drawing Reference
Order by plate, figure number and name		
28	Stud for supporting Ratchet Gear Fig. J. For detail see Plate H1005 Fig. 6.	34628
29	Sector, for operating Circuit Controller. For detail see Plate H1005 Fig. 4.	34646
30	Bearing Bracket Complete, includes Bushing and Oiler, for Main Shaft Fig. 25. For details see Plate H1005 Fig. 3. .	34637
30a	Stud, with hex. Nut and Washer, for fastening Bearing Bracket Fig. 30 and Circuit Controller Fig. H to Case. For details see Plate H1005 Fig. 5.	
31	Main Sector Complete, includes Hanger Block, Screw, Washer and Cotter Pin. For detail see Plate H1005 Fig. 1.	
32	Hook Arm, for Spring Fig. 33. For detail see Plate H1005 Fig. 14.	34623
33	Spring, short. For detail see Plate H1005 Fig. 17.	34632
34	Spring, long. For detail see Plate H1005 Fig. 18.	34633
35	Lever, for Springs Fig. 33 and Fig. 34. For detail see Plate H1005 Fig. 19.	34630
36	U Bolt, with four $\frac{1}{2}$ " hex. Nuts for Lever Fig. 35. For details see Plate H1005 Fig. 20.	
37	Machine Driver. For detail see Plate H1005 Fig. 25.	34627
38	Intermediate Driver, for upper quadrant right hand and lower quadrant left hand Signals. For detail see Plate H1005 Fig. 23.	34634
39	Intermediate Driver, for lower quadrant right hand and upper quadrant left hand Signals. For details see Plate H1005 Fig. 24.	35923
40	Partition, sheet iron. For detail see Plate H1001 Fig. 18.	30041
41	Foundation Bolt, $\frac{3}{4}$ " x 14", with Washer and hex. Nut.	
41a	Foundation Bolt, $\frac{3}{4}$ " x 14", with hex. Nut only.	
41b	Washer, for Fig. 41.	073