



March 1916

**GENERAL RAILWAY SIGNAL COMPANY**

**Model 2A, Direct-Current  
Non-Automatic Dwarf Signals**

**8 volts, 10 volts, 20 volts and 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 H0901.

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
<b>Order by plate, figure number and name</b>		
A	Model 2A Non-Automatic Upper Quadrant Dwarf Signal, with 8 volt Mechanism and R. S. A. three light, 90° Spectacle, complete as shown. If lever controlled state whether Dynamic or Battery Indication.....	29819
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 10 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.....	
C	same as Fig. A, except 20 volt.....	
C1	as above, except with R. S. A. two light, 45° Spectacle.....	

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Fig. No.	Name	Drawing Reference
	<b>Order by plate, figure number and name</b>	
C2	same as Fig. C, except without Foundation Bolts and Roundels.....	
C3	same as Fig. C1, except without Foundation Bolts and Roundels.....	
D	Model 2A Non-Automatic Upper Quadrant Dwarf Signal, with 110 volt Mechanism and R. S. A. three light, 90° Spectacle, complete as shown.....	
D1	as above, except with R. S. A. two light, 45° Spectacle.....	
D2	same as Fig. D, except without Foundation Bolts and Roundels.....	
D3	same as Fig. D1, except without Foundation Bolts and Roundels.....	
E	Model 2A Non-Automatic 8 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. If lever controlled specify whether Dynamic or Battery Indication.....	29817
F	same as Fig. E, except 10 volt.....	
G	same as Fig. E, except 20 volt.....	
H	Model 2A Non-Automatic 110 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.....	
J	Post Complete. Specify whether for 8, 10, 20 or 110 volt Signal. For details see Plate H0707 Fig. A.....	
K	Motor Complete (8 volts). For details see Plate H1301 Fig. A.	39500
L	Motor Complete (10 volts). For details see Plate H1301 Fig. B.	29890
M	Motor Complete (20 volts). For details see Plate H1301 Fig. C.	30870
N	Motor Complete (110) volts. For details see Plate H1304 Fig. B.....	34605

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Fig. No.	Name	Drawing Reference
<b>Order by plate, figure number and name</b>		
P	Circuit Controller Complete. For details and specifications see Plate H1401.....	34610
R	Ratchet Gear Complete. For details see Plate H1001 Fig. A. .	30080
S	Intermediate Gear Complete. For details see Plate H1001 Fig. C.....	29965
1	Case Complete, includes Cover, Side Door, Shield for Side Door, Hinge Pins, Studs for Intermediate Gear, Bushing, Hasp, Strap, Lugs and all necessary Bolts, Pins and Rivets for fastening the same.....	32016
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.....	30520
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

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Fig. No.	Name	Drawing Reference
<b>Order by plate, figure number and name</b>		
21	Spectacle Complete, includes Bezel Rings and Bolts, three light, 90° throw, 7½" centers, takes 5⅜" 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, 7½" centers, takes 5⅜" 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 ¼" 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....	42035
25	Main Shaft, with one ⅜" x 2" Cotter Pin, and two Woodruff Keys. For details see Plate H1003 Fig. 7a.....	
26	Roller Bearing Complete, for Intermediate Gear Fig. S. For detail see Plate H1001 Fig. 12.....	29998
27	Stud, for supporting Ratchet Gear Fig. R. For detail see Plate H1003 Fig. 10.....	29837
28	Sector, for operating Circuit Controller. For detail see Plate H1003 Fig. 6.....	29842
29	Bearing Bracket Complete, includes Bushing and Oiler, for Main Shaft Fig. 25. For details see Plate H1003 Fig. 2.....	29833
29a	Dowel Screw, for fastening Bearing Bracket Fig. 29 to Case...	29849
30	Main Sector. For detail see Plate H1003 Fig. 1.....	29830
31	Machine Driver. For detail see Plate H1003 Fig. 4.....	29912
32	Intermediate Driver. For detail see Plate H1003 Fig. 5.....	29911
33	Partition, sheet iron. For detail see Plate H1001 Fig. 18.....	30041
34	Foundation Bolt, ¾" x 14", with Washer and hex. Nut.....	
34a	Foundation Bolt, ¾" x 14", with hex. Nut only.....	
34b	Washer, for Fig. 34.....	073