



A
 Type SA Color-Light Signal Unit
 With Stepped Lenses

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Note: See foreword and ordering information at the beginning of this part.

Unless otherwise specified, signal units will be furnished to give three indications, namely: red, yellow and green. If two indication signal unit is required, same must be specified giving color of indications.

Other color combinations may be supplied if required.

Signals are designed to operate on the following voltages: 4, 7.5-8, 10 and 12 volts d-c. However, they may be equipped with an a-c. mechanism to operate on voltages and frequencies as listed on Plate H2663.

Signal units will be furnished for mounting to 5" pipe ($5\frac{9}{16}$ " outside diameter) unless otherwise specified.

Lamps, conduits and conduit couplings are not included and must be ordered separately.

Signal units are assembled with the hot-spot lens having its secondary beam deflecting downward and to the left, facing the lens, at an angle of 30 degrees from the vertical. This lens may be rotated to change this angle as conditions require, and can be adjusted on signals with or without deflecting or spreadlite roundels.

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	Type SA Color-Light Signal Unit Complete, for mounting to 5" dia. pipe, three indication, equipped with an $8\frac{3}{8}$ " dia., 5" focus, hot-spot lens.....	53051-6
Order must specify the following:		
1—Voltage upon which signal is to operate if d-c. or frequency and both line and local voltages if a-c.....		
2—See Plate H2629 for various methods of bringing wires into signal and specify fittings required.....		
3—If plug coupler is required same must be specified.....		
B	Type SA Color-Light Signal Unit Complete, for mounting to 5" dia. pipe, three indication, equipped with an $8\frac{3}{8}$ " dia., 5" focus hot-spot lens and an $8\frac{3}{8}$ " dia., 20 degree deflecting roundel. This lens combination is arranged to spread the main beam through an angle of 20 degrees to one side of the beam axis.....	

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Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
	Order must specify the following:	
	1—Voltage upon which signal is to operate if d-c. or frequency and both line and local voltages if a-c.....	
	2—See Plate H2629 for various methods of bringing wires into signal and specify fittings required.....	
	3—If plug coupler is required same must be specified.....	
	4—Whether 20 degree deflection is required to right or to left, facing signal.....	53051-6
B1	as above, except equipped with a 30 degree outer spreadlite roundel, which gives a spread of 15 degrees on each side of the beam axis or a total spread of 30 degrees. (This combination materially reduces the range of the signal and is used on severe curves only).....	53051-6
E	Type SA Color-Light Signal Unit Complete, for mounting on top of 5" dia. pipe, three indication, equipped with an 8 ³ / ₈ " dia., 5" focus, hot-spot lens.....	
	Order must specify the following:	
	1—Voltage upon which signal is to operate if d-c. or frequency and both line and local voltages if a-c.....	
	2—If plug coupler is required same must be specified.....	53051-6
F	Type SA Color-Light Signal Unit Complete, for mounting on top of 5" pipe, three indication, equipped with an 8 ³ / ₈ " dia., 5" focus, hot-spot lens, and an 8 ³ / ₈ " dia., 20 degree deflecting roundel. This lens combination is arranged to spread the main beam through an angle of 20 degrees to one side of the beam axis.....	
	Order must specify the following:	
	1—Voltage upon which signal is to operate if d-c. or frequency and both line and local voltages if a-c.....	

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Fig. No.	Name	Drawing Reference
	Order by plate, figure number and name	
	2—If plug coupler is required same must be specified.	
	3—Whether 20 degree deflection is required to right or to left, facing signal.	53051-6
F1	as above, except equipped with a 30 degree outer spreadlite roundel, which gives a spread of 15 degrees on each side of the beam axis or a total spread of 30 degrees. (This combination materially reduces the range of the signal and is used on severe curves only).	53051-6
G	Type SA Color-Light Signal Unit Complete, for mounting on wall of tunnel or subway, equipped with a $6\frac{3}{8}$ " dia., $3\frac{3}{4}$ " focus, lens.	
	Order must specify the following:	
	1—Voltage upon which signal is to operate if d-c. or frequency and both line and local voltages if a-c.	
	2—If plug coupler is required same must be specified.	
	3—See Plate H2629 for various methods of bringing wires into signal and specify fittings required.	53051-6
H	D-c. Mechanism Complete, for details and order references see Plates H2649 to H2655.	
H1	as above, except a-c. mechanism, for details and order references see Plate H2663.	
J	Socket Complete, for mounting signal unit to top of 5" dia. pipe ($5\frac{5}{16}$ " outside dia.)	54732 Gr. 2
K	Slide Complete, for mechanism, includes studs for attaching to case	56421 Gr. 6
1	Case, housing for mechanism having slide arrangement Fig. K, includes studs for cams of mechanism.	53071-16 441-122
1a	as above, except for mechanism without slide arrangement Fig. K, includes stud for hasp and studs for cams of mechanism.	53071 441-121 441-122
2	Hair-Line Sight Complete.	51120-2 Gr. 1

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Fig. No.	Name	Drawing Reference
Order by plate, figure number and name		
3	Nut $\frac{3}{8}$ "-16 x $\frac{3}{8}$ " th., hex., for fastening sight and slide Fig. K to case.....	1156-2
4	Washer, $\frac{1}{16}$ " th., for nut Fig. 3.....	19867-2
5	Spacer, as shown, for background.....	53112
6	Background, as shown, for use with $8\frac{3}{8}$ " dia. lens.....	49162-25
6a	as above, except for use with $10\frac{1}{2}$ " diameter lens.....	49162-24
7	Screw, $\frac{3}{8}$ "-16 x $1\frac{1}{4}$ " hex. hd., with lock washer, for fastening background to case.....	{ 2472-12 0569
8	Inner Ring, for $8\frac{3}{8}$ " diameter lens.....	43983-34
9	Screw, $\frac{5}{16}$ "-18 x $\frac{3}{4}$ " rd. hd., with lock washer, for fastening inner ring to case and outer ring to inner ring.....	{ 33287-6 0623-1
10	Outer Ring, for $8\frac{3}{8}$ " diameter lens.....	43983-35
11	Hood, as shown, for use with $8\frac{3}{8}$ " diameter lens.....	49127-19
11a	as above, except for use with $10\frac{1}{2}$ " diameter lens.....	49127-20
12	Screw, No. 10-32 x $\frac{1}{4}$ " rd. hd., for fastening hood to case.....	2438-9
13	Lens, hot-spot, $8\frac{3}{8}$ " dia., 5" focus.....	36733-7
14	Gasket, for $8\frac{3}{8}$ " diameter lens.....	13014-57
14a	as above, except for $6\frac{3}{8}$ " dia. lens Fig. 52.....	13014-56
15	Lock Latch, as shown, threaded $\frac{1}{2}$ "-13 for hasp nut, for case having slide arrangement Fig. K.....	53106-2
15a	as above, except $\frac{1}{2}$ "-13 thread, for case without slide arrangement, Fig. K.....	53106-1
15b	same as Fig. 15a, except with $\frac{1}{2}$ "-24 thread.....	53106
16	Hasp, as shown includes nut, with $\frac{1}{2}$ "-13 thread, for case having slide arrangement Fig. K.....	{ 9524 9525-6 7568
16a	as above, except has nut with $\frac{1}{2}$ "-24 thread, for case without slide arrangement Fig. K.....	{ 9524 9525 7568

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Fig. No.	Name	Drawing Reference
Order by plate, figure number and name		
17	Door Complete, for case with slide arrangement Fig. K, includes gasket, latch, hasp and all riveted parts.	53057 Gr. 3
17a	as above, except for case without slide arrangement Fig. K, includes gasket, latch, hasp and all riveted parts.	53057 Gr. 1
18	Pin, $\frac{3}{8}$ " x $1\frac{13}{16}$ ", with cotter, hinge for door.	730-33 0663
19	Pin, $\frac{7}{16}$ " x $1\frac{1}{16}$ ", with cotter, as shown, for fastening case to bracket.	730-21 0663
21	Taper Pin, No. 2 x $1\frac{1}{2}$ ", for fastening stud, Fig. 33 to bracket Fig. 25.	46463
22	Taper Pin, No. 2 x $1\frac{1}{4}$ ", for fastening stud, Fig. 23 to mechanism case.	28349
23	Stud, as shown, used for obtaining vertical adjustment of signal unit.	980-10
24	Nut, $\frac{3}{4}$ "-10 hex., for studs, Figs. 23 and 33.	0272-1
25	Bracket, for supporting signal unit.	53092-1
26	Bracket, as shown, for attaching to 4", 5", or 6" dia. pipe. Includes screw, Fig. 31 and nut Fig. 32.	53249-2 Gr. 1
26a	as above, except 23" lg., for use when signal unit is mounted in front of pipe.	53249-3 Gr. 1
27	U Bolt, for mounting bracket to 5" pipe. Includes nuts and washers.	16209-4 Gr. 1
28	U Bolt, for mounting bracket to 4" pipe. Includes nuts and washers.	16209-5 Gr. 1
29	U Bolt, for mounting bracket to 6" pipe. Includes nuts and washers.	16209-6 Gr. 1
30	Nut, $\frac{5}{8}$ "-11 hex., for U bolt.	645
31	Screw, $\frac{1}{2}$ "-13 x $1\frac{1}{2}$ " cup point, for locking stud, Fig. 33, after horizontal adjustment of signal has been made.	40426

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Fig. No.	Name	Drawing Reference
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32	Nut, 1/2"-13 hex., lock for screw, Fig. 31	1048
33	Stud, as shown, for obtaining horizontal adjustment of signal.	980-42
34	Adapter, as shown, for use in applying deflecting roundel to 8 3/8" dia. lens. For Figs. B and B1.	43983-46
35	Screw, 5/16"-18 x 1 3/4" rd. hd., with lock washer, for fastening outer ring and adapter to inner ring. For use with Figs. B and B1.	33287-13 0623-1
36	Deflecting Roundel, 8 3/8" dia., for use with Fig. B. Deflects part of main beam through an angle of 20 degrees to one side of the beam axis. For use on curved track.	9238-38
37	Spredlite Roundel, 8 3/8" dia., for use with Fig. B1. Spreads the main beam 15 degrees to each side of the beam axis or a total spread of 30 degrees. For use only on "S" curves or severe curves in one direction.	53142-1
38	Inner Ring, as shown, for use with 10 1/2" dia. lens.	43983-32
39	Outer Ring, as shown, for use with 10 1/2" dia. lens.	43983-33
40	Lens, 10 1/2" dia., 6" focus, half-toric. Gives a 20 degree downward spread for close-up indication.	53118
40a	as above, except 10 1/2" dia., 6" focus, spredlite half-toric, spreads the main beam 6 degrees to each side of the beam axis or a total spread of 12 degrees. Also gives a 20 degree downward spread for close-up indication.	53118-1
41	Gasket, for 10 1/2" dia. lens.	13014-58
44	Nut, 3/4"-10 hex., for studs Figs. 23 and 33.	646-3
45	Nut, 1 1/2" T & B, for nipple Fig. 47.	0827
46	Shield, for bottom of signal case.	54733
47	Nipple, 1 1/2", for bottom of signal case.	47915-2
48	Socket, only, for 5" pipe.	11660-5

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49	Bolt, $\frac{1}{2}$ "-13 x $3\frac{1}{2}$ " sq. hd., with hex. nuts, for fastening clamp to socket.	<div style="display: flex; align-items: center;"> { <div style="margin-left: 5px;"> <p>53137</p> <p>7244-1</p> <p>26747</p> </div> </div>
50	Clamp, only, for 5" pipe, with stud for locking in pipe.	317-28 Gr. 2
51	Lens, $6\frac{3}{8}$ " dia., $3\frac{3}{4}$ " focus, for signal Fig. G.	53119
52	Outer Ring, for $6\frac{3}{8}$ " diameter lens.	43983-30
53	Bracket, for attaching signal unit to wall.	53249-4 Gr. 1
54	Bolt, $\frac{5}{8}$ "-11 x 5" sq. hd., for attaching bracket Fig. 53 to wall. ...	0366