



C - D  
Type SA Color-Light Dwarf Signals  
With Compound Lenses  
Two Unit

## Type SA Color-Light Dwarf Signals

### With Compound Lenses Two Unit

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

Other color combinations than those shown below may be supplied if required.

Lamps are not included with signals complete and must be ordered separately.

Unless otherwise specified anchor bolts as shown will be furnished with signals complete.

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 a-c. mechanism to operate on voltages and frequencies as listed on Plate H2663.

Signals are assembled with roundel Fig. 2, having deflecting prisms, set to deflect directly upward for close-up indication. This roundel may be rotated to change this angle as conditions require.

For dwarf signals with stepped lenses see Plate H2618.

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	Type SA Color-Light Dwarf Signal Complete, consisting of two signal units for mounting as shown, both units having an 8 $\frac{3}{8}$ " dia. compound lens and a 20 degree outer deflecting roundel. (This lens combination deflects a part of the main beam upward through an angle of 20 degrees).....	53050-3
<b>Order must specify the following:</b> 1—Voltage upon which signal is to operate if d-c., or frequency and both line and local voltages if a-c..... 2—Color indications desired in each signal unit..... 3—See Plate H2629 for various methods of bringing wires into signal and specify fittings required..... 4—If plug coupler is required same must be specified.....		
B	Type SA Color-Light Dwarf Signal Complete, consisting of two signal units for mounting as shown, both units having a 25 degree, 6 $\frac{3}{8}$ " dia. inner roundel and an 8 $\frac{3}{8}$ " dia. compound lens. (This lens combination deflects a part of the main beam upward through an angle of 25 degrees).....	

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Fig. No.	Name	Drawing Reference
	<b>Order by plate, figure number and name</b>	
	<b>Order must specify the following:</b>	
	1—Voltage upon which signal is to operate if d-c., or frequency and both line and local voltages if a-c.....	
	2—Color indications desired in each signal unit.....	
	3—See Plate H2629 for various methods of bringing wires into signal and specify fittings required.....	
	4—If plug coupler is required same must be specified.....	53050-3
C	Type SA Color-Light Dwarf Signal Complete, consisting of two signal units arranged for socket mounting on 5" pipe as shown, both units having an 8 $\frac{3}{8}$ " dia. compound lens and a 20 degree outer deflecting roundel. (This lens combination deflects a part of the main beam upward through an angle of 20 degrees)	
	<b>Order must specify the following:</b>	
	1—Voltage upon which signal is to operate if d-c., or frequency and both line and local voltages if a-c.....	
	2—Color indications desired in each signal unit.....	
	3—If plug coupler is required same must be specified.....	
D	Type SA Color-Light Dwarf Signal Complete, consisting of two signal units arranged for socket mounting on 5" pipe as shown, both units having a 25 degree, 6 $\frac{3}{8}$ " dia., inner roundel and an 8 $\frac{3}{8}$ " dia. compound lens. (This lens combination deflects a part of the main beam upward through an angle of 25 degrees)	
	<b>Order must specify the following:</b>	
	1—Voltage upon which signal is to operate if d-c., or frequency and both line and local voltages if a-c.....	
	2—Color indications desired in each signal unit.....	
	3—If plug coupler is required same must be specified.....	
E	D-c. Mechanism Complete. For details and order references see Plates H2649 to H2655.....	

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Fig. No.	Name	Drawing Reference
<b>Order by plate, figure number and name</b>		
E1	as above, except a-c. mechanism, for details and order references see Plate H2663. . . . .	
F	Slide Complete, for mechanism, includes studs for attaching to case	56421 Gr. 6
G	Socket Complete, for mounting signal to 5" pipe, includes socket, clamp Fig. 48, and screws Fig. 49. . . . .	54732 Gr. 2
1	Screw, No. 10-32 x 1/4" rd. hd., for fastening hood to outer ring. .	2438-9
2	Roundel, with deflecting prisms. . . . .	54264
3	Cover, for hand hole. . . . .	49584-6
4	Screw, 3/8"-16 x 1 1/4" hex. hd., with lock washer, for fastening cover to adapter. . . . .	{ 2472-12 0569
5	Holder, for glass Fig. 2. . . . .	54248-1
6	Screw, No. 8-32 x 1/4" rd. hd., for fastening holder Fig. 5 to adapter	{ 2553-7 43058-1
7	Case, housing for mechanism having slide arrangement Fig. F, includes studs for cams of mechanism. . . . .	{ 53071-16 441-122
7a	as above, except for mechanism without slide arrangement Fig. F, includes stud for hasp and studs for cams of mechanism. . . . .	{ 53071 441-121 441-122
8	Pin, 7/16" x 1 1/16", with cotter, for fastening case to base. . . . .	{ 730-21 0663
9	Screw, 1/2"-13 x 1 3/4" hex. hd., for adjustment of upper signal unit	5221-1
10	Nut, 1/2"-13 x 1/4" th. hex., for screw Fig. 9. . . . .	12754
11	Clamp, for fastening coupling to base. . . . .	318-57
12	Pipe, for wires to upper signal unit. . . . .	49151-18
12a	as above, except cut off on dotted line. . . . .	49151-30
13	Screw, No. 14-24 x 1/2" fil. hd., for fastening clamp to case, includes washer and strap. . . . .	{ 49863 0510 38280-139
14	Hood, as shown, for signal . . . . .	49127-29
15	Outer Ring, as shown, for 8 3/8" dia. lens . . . . .	43983-35

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Fig. No.	Name	Drawing Reference
<b>Order by plate, figure number and name</b>		
16	Screw, $\frac{3}{16}$ "-18 x $1\frac{1}{2}$ " rd. hd., with lock washer, for fastening rings Figs. 15 and 17 to adapter.....	{ 33287-8 0623-1
17	Ring, as shown, for signal.....	43983-46
18	Adapter, as shown, for signal.....	54243-3
19	Screw, $\frac{5}{16}$ "-18 x $\frac{3}{4}$ " fl. hd., with lock washer, for fastening adapter to case.....	{ 16398-4 0623-1
20	Nut, $\frac{3}{8}$ "-16 x $\frac{3}{8}$ " th. hex., with washer, for slide Fig. F.....	{ 1156-2 19867-2
21	Deflecting Roundel, $8\frac{3}{8}$ " dia., deflects part of main beam upward through an angle of 20 degrees.....	9238-38
22	Lens, $8\frac{3}{8}$ " dia., $11\frac{1}{2}$ " focus.....	54249-2
23	Gasket, for lens and roundel.....	13014-57
24	Gasket, for cover Fig. 3.....	43460
25	Screw, $\frac{3}{8}$ "-16 x $\frac{5}{8}$ " hex. hd., with lead washer, for case.....	{ 0395-4 19867-2
26	Taper Pin, No. 2 x $1\frac{1}{4}$ ", for fastening stud Fig. 27 to case.....	28349
27	Stud, for obtaining vertical adjustment of upper signal unit.....	980-17
28	Nut, $\frac{3}{4}$ "-10 hex., for adjusting studs Figs. 27 and 31.....	646-3
29	Base, as shown, for mounting upper unit to lower unit.....	53070-1
30	Nut, $\frac{3}{4}$ "-10 hex., for adjusting studs Figs. 27 and 31.....	0272-1
31	Stud, for obtaining vertical adjustment of lower signal unit.....	980-10
32	Anchor Bolt, $\frac{3}{4}$ "-10 x 18", with sq. nut.....	36182
33	Washer, for anchor bolt.....	35703
34	Base, as shown, for mounting lower signal unit.....	53070-5
35	Hasp, as shown, includes nut, with $\frac{1}{2}$ "-13 thread, for case having slide arrangement Fig. F.....	{ 9524 9525-6 7568
35a	as above, except has nut with $\frac{1}{2}$ "-24 thread, for case without slide arrangement Fig. F.....	{ 9524 9525 7568

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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>		
36	Lock Latch, as shown, threaded $\frac{1}{2}$ "-13 for hasp nut, for case having slide arrangement Fig. F. ....	53106-2
36a	as above, except $\frac{1}{2}$ "-13 thread, for case without slide arrangement Fig. F. ....	53106-1
36b	same as Fig. 36a, except with $\frac{1}{2}$ "-24 thread. ....	53106
37	Door Complete, for case with slide arrangement Fig. F, includes gasket, latch, hasp and all riveted parts. ....	53057 Gr. 3
37a	as above, except for case without slide arrangement Fig. F, includes gasket, latch, hasp and all riveted parts. ....	53057 Gr. 1
38	Pin, $\frac{3}{8}$ " x $1\frac{13}{16}$ ", with cotter, hinge for door. ....	{ 730-33 0663
39	Nipple, $1\frac{1}{2}$ " for upper signal unit. ....	39998
40	Screw, $\frac{3}{16}$ "-18 x $\frac{3}{4}$ " rd. hd., with lock washer, for fastening outer ring to adapter. ....	{ 33287-6 0623-1
41	Deflecting Roundel, $6\frac{3}{8}$ " dia., deflects part of main beam upward through angle of 25 degrees. ....	9238-60
41a	as above, except 25 degree spredlite with close-up deflection. ....	9238-65
42	Adapter, as shown, for use with $8\frac{3}{8}$ " dia. outer lens and $6\frac{3}{8}$ " dia. inner roundel. ....	54243-4
43	Gasket, for roundel Fig. 41. ....	13014-47
44	Screw, No. 8-32 x $\frac{3}{8}$ " rd. hd., with clip and washers, for fastening roundel Fig. 41 to adapter. ....	{ 2553-11 18547-15 43058-1
45	Lock Nut, for nipple Fig. 47. ....	0827
46	Shield, for nipple Fig. 47. ....	54733
47	Nipple, for case. ....	47915-2
48	Clamp, only, for socket. ....	317-28 Gr. 2
49	Screw, $\frac{1}{2}$ "-13 x $3\frac{1}{2}$ " sq. hd., with hex. nuts for clamp. ....	{ 53137 26747 7244-1