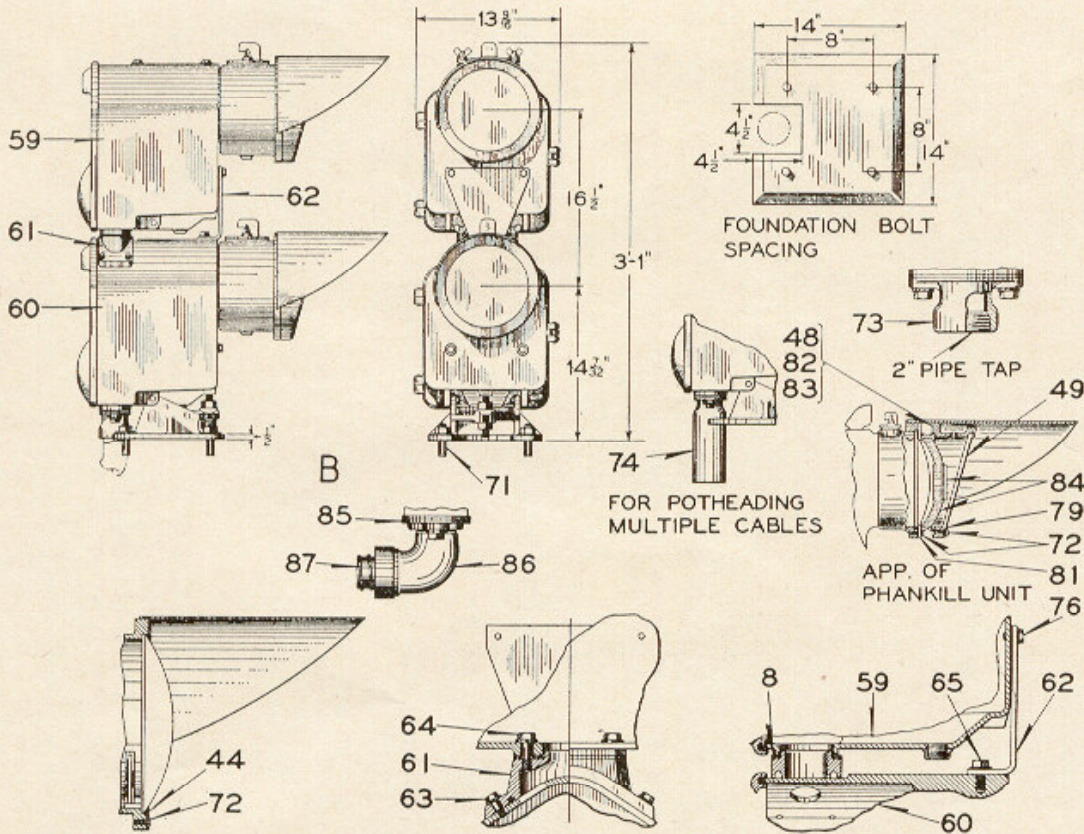
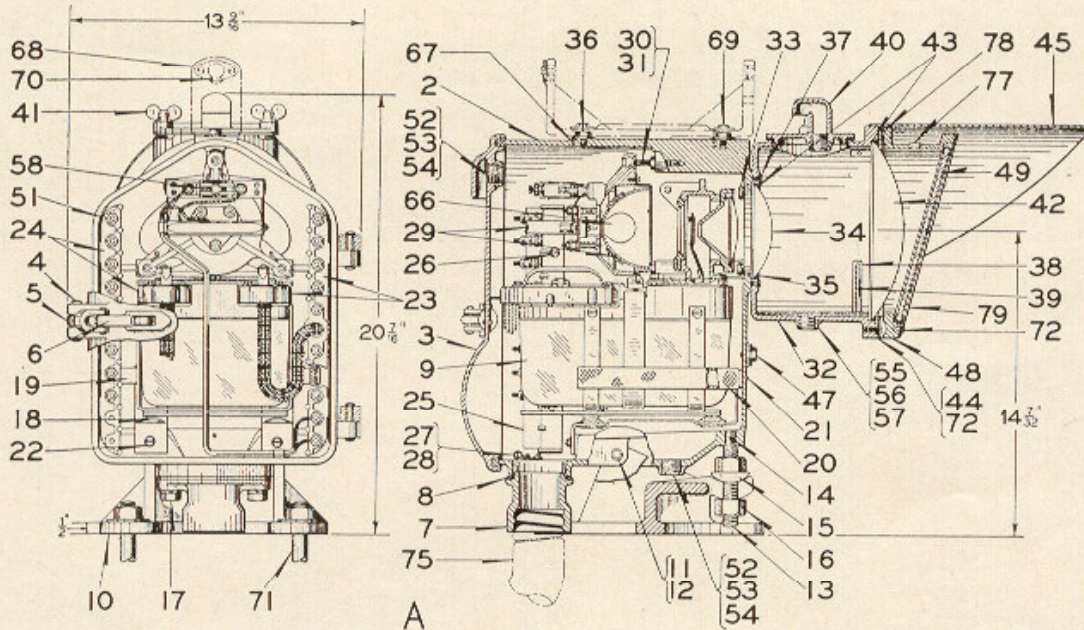


**ZCG UTILITY SCRAP
UNION MO 63084**

PLATE **B-2878**

UNION SWITCH & SIGNAL CO.



SIGNAL WITHOUT DEFLECTING COVER GLASS

ARRANGEMENT OF TWO UNIT DWARF SIGNAL

Style "H-5" Searchlight Dwarf Signal

One and Two Unit, Style "H-5" Three-Position Color Light Searchlight Dwarf Signals

Unless otherwise specified, signals will be furnished as follows:

250-Ohm Operating Unit, Reference A, Plate B-2889-3; 10° Deflecting Cover Glass Reference 49; Cable Outlet Reference 7.

The following material is optional and, if desired, orders should so state; Sight Bracket Reference 68; 20° Deflecting Cover Glass Reference 49a; Cable Outlets References 73, 74 and 85; Signal without Deflecting Cover Glass; Phankill Unit Reference 84.

Inoperative Dwarf Signals are shown on Plate B-2884.

**ZCG UTILITY SCRAP
UNION MO 63084**

Order by Plate, Piece, Reference and Abbreviated
Description Given in Heavy Face Type Only

| Piece | Ref. | Description | Drawing Reference |
|--------|----------|--|-------------------|
| | A | One Unit, 3-Indication Style "H-5" Searchlight Dwarf Signal Complete as Shown in Full Lines (With 250-Ohm operating unit) Orders should specify lamp (Refs. 66 to 66q inc.) | C-16674-1 |
| | B | Two Unit, 3-Indication Style "H-5" Searchlight Dwarf Signal Complete as Shown (With 250-Ohm operating units) Orders should specify lamps (Refs. 66 to 66q inc.) | C-16674-5 |
| 104285 | 2 | Case..... | C-16671-10 |
| 104303 | 3 | Door with Clip and Gasket..... | C-16671-11 |
| | 3a | Gasket, $\frac{3}{8}$ "x $\frac{3}{8}$ "x3'-11 $\frac{1}{2}$ " long, jute packing, for Ref. 3. | |
| 103712 | 3b | Clip for Ref. 3..... | 11893-847 |
| 54937 | 3c | Rivet for attaching Clip to Door..... | 10301-50 |
| 207907 | 4 | Pin..... | B-10207-1 |
| 64973 | 5 | Eye Bolt (Cad. Pl.)..... | 8034-64 |
| 140207 | 6 | Hasp Complete..... | 8299-66 |
| 104275 | 7 | Cable Outlet for 2" S.S. Flex. S. Conduit..... | B-10342-103 |
| 210991 | 8 | Gasket..... | 8078-997 |
| | 9 | Style "H-5" Searchlight Signal Operating Unit Complete (When ordering assemblies or details refer to Plate B-2889-3)..... | C-16673-1 |
| 104415 | 10 | Base..... | C-16671-12 |
| 144627 | 11 | Pin with $\frac{1}{8}$ "x $\frac{3}{4}$ " S. Cotter (Tin Pl.)..... | B-10212-1 |
| 48750 | 12 | Washer..... | 7826-117 |
| 413239 | 13 | Stud..... | 410528 |

One and Two Unit, Style "H-5" Three-Position Color Light Searchlight Dwarf Signals

(Continued) **ZCG UTILITY SCRAP
UNION MO 63084**

Order by Plate, Piece, Reference and Abbreviated
Description Given in Heavy Face Type Only

| Piece | Ref. | Description | Drawing Reference |
|--------|------|---|-------------------|
| 11992 | 14 | Pin..... | 8097-92 |
| 146404 | 15 | Washer..... | 8065-201 |
| | 16 | Hex. Nut, Std. $\frac{3}{4}$ " (Cad. Pl.). | |
| | 17 | Bolt, $\frac{1}{2}$ "-13x $\frac{3}{8}$ " Hex. Hd. S. (Cad. Pl.) with $\frac{1}{2}$ " Pl. S. Lock Washer ($\frac{7}{32}$ "x $\frac{5}{32}$ " (Cad. Pl.). | |
| 221496 | 18 | Track Complete..... | C-16671-17 |
| 104244 | 19 | Wire Chase Bracket..... | 10914-942 |
| 105392 | 20 | Sleeve..... | 8095-732 |
| | 21 | Machine Screw, No. 14-24x $\frac{5}{8}$ " Flat Hd. Br. (N.P.).. | |
| | 22 | Machine Screw, No. 14-24x $\frac{1}{2}$ " Fil. Hd. Bz. (N.P.) with $\frac{1}{4}$ " Pl. S. Lock Washer ($\frac{3}{32}$ "x $\frac{1}{16}$ " (Tin Pl.). | |
| 104430 | 23 | R.H. Terminal Board Complete (When ordering as- semblies or details refer to Plate B-2897)..... | C-16671-7 |
| 103726 | 24 | L.H. Terminal Board Complete (When ordering as- semblies or details refer to Plate B-2897)..... | C-16671-7 |
| 104408 | 25 | Terminal Marker..... | 8988-163 |
| | 26 | Machine Screw, No. 14-24x1" Fil. Hd. Bz. (N.P.) | |
| 104166 | 27 | Wire Clip..... | 11893-855 |
| | 28 | Machine Screw, No. 8-36x $\frac{5}{16}$ " Fil. Hd. Br. (N.P.) | |
| 214525 | 29 | Reflector Complete (Without Resistor) (When order- ing assemblies or details refer to Plate B-2897).... | C-16671-5 |
| 103717 | 30 | Stud with Nut Ref. 30a..... | 8114-916 |
| 1530 | 30a | Hex. Nut for Ref. 30..... | 8109-38 |
| 180544 | 31 | Dowel Pin..... | 8097-409 |
| 103739 | 32 | Lens Adapter..... | C-16671-6 |
| | 33 | Tap Bolt, $\frac{5}{16}$ "-18x $\frac{5}{8}$ " Hex. Hd. S. (Cad. Pl.) with $\frac{5}{16}$ " Pl. S. Lock Washer ($\frac{5}{32}$ "x $\frac{3}{32}$ " (Cad. Pl.) | |

One and Two Unit, Style "H-5" Three-Position Color Light Searchlight Dwarf Signals

ZCG UTILITY SCRAP
UNION MO 63084

(Continued)

Order by Plate, Piece, Reference and Abbreviated
Description Given in Heavy Face Type Only

| Piece | Ref. | Description | Drawing Reference |
|--------|------|---|-------------------|
| 169298 | 34 | 4½" Diam. Clear Inner Lens | B-8276-62 |
| 169544 | 35 | Lens Ring | 7436-141 |
| | 36 | Tap Bolt, ⅝"-18x½" Hex. Hd. S. (Cad. Pl.) with ⅝" S. Plate Washer (Cad. Pl.) | |
| | 37 | Machine Screw, No. 10-30x¼" Rd. Hd. Br. (N.P.) | |
| 187830 | 38 | Prism Bracket | 8735-796. |
| 143512 | 39 | Close-Up Deflecting Prism | B-8276-33 |
| | 40 | Cover with Gasket | C-16671-6 |
| 210400 | 40a | Gasket for Ref. 40 | 8078-1503 |
| 73098 | 41 | Thumb Screw Complete | 8331-49 |
| 169299 | 42 | 8⅜" Diam. Clear Outer Lens | B-8276-63 |
| 131706 | 43 | Gasket | 8078-1367 |
| 71187 | 44 | Lens Ring | 7436-106 |
| 65898 | 45 | Lens Hood | C-8842-15 |
| | 46 | Machine Screw, No. 14-24x⅜" Rd. Hd. Br. (N.P.) Used to plug holes when Deflecting Cover Glass is not used (Not shown) | |
| | 47 | Cap Screw, ⅜"-16x⅜" Hex. Hd. S. (Cad. Pl.) with Std. ⅜" S. Plate Washer (Cad. Pl.) | |
| 207803 | 48 | Adapter Ring | C-9105-24 |
| 222600 | 49 | 8⅜" Diam. 10° Deflecting Cover Glass with Gasket. | B-8276-77 |
| 199883 | 49a | 8⅜" Diam. 20° Deflecting Cover Glass with Gasket. | B-8276-77 |
| | 50 | Machine Screw, No. 14-24x1⅜" Fil. Hd. Bz. (N.Pl.) for attaching Ref. 48 to Ref. 32 (Not shown) | |
| 211607 | 51 | Cork Strip | 8078-1578 |
| 213626 | 52 | ¾" Nipple | B-10375-4 |

One and Two Unit, Style "H-5" Three-Position Color Light Searchlight Dwarf Signals

ZCG UTILITY SCRAP
UNION MO 63084 (Continued)

Order by Plate, Piece, Reference and Abbreviated
Description Given in Heavy Face Type Only

| Piece | Ref. | Description | Drawing Reference |
|--------|------|---|-------------------|
| 213628 | 53 | 3/4" Ventilator..... | 7318-72 |
| | 54 | 3/4" Conduit Bushing | |
| 213623 | 55 | 1/2" Nipple..... | B-10375-4 |
| 213627 | 56 | 1/2" Ventilator..... | 7318-72 |
| | 57 | 1/2" Conduit Bushing | |
| 150318 | 58 | Resistor (1-Ohm)..... | 9065-186 |
| 144909 | 58a | Resistor (2-Ohms)..... | 9065-186 |
| 144910 | 58b | Resistor (5-Ohms)..... | 9065-186 |
| 107394 | 59 | Upper Case for Two Unit Signal..... | C-16671-10 |
| 107395 | 60 | Lower Case for Two Unit Signal..... | C-16671-10 |
| 107396 | 61 | Adapter..... | C-16671-15 |
| 107397 | 62 | Bracket..... | 10914-1045 |
| | 63 | Tap Bolt, 3/8"-16x1" Hex. Hd. S. (Cad. Pl.) with 3/8" Pl. S. Lock Washer (1/8"x3/2") (Cad. Pl.) | |
| | 64 | Bolt, 1/2"-13x1 1/2" Hex. Hd. S. (Cad. Pl.) with 1/2" Pl. S. Lock Washer (7/32"x3/2") (Cad. Pl.) | |
| | 65 | Tap Bolt, 1/2"-13x1" Hex. Hd. S. (Cad. Pl.) with 1/2" Pl. S. Lock Washer (7/32"x3/2") (Cad. Pl.) | |

Lamp, S-11 Bulb, 1 1/4" Light Center Length, Single Contact Bayonet Can-
delabra Base, 1/64" Precision (Order by Piece Number, Reference and Rating).

| Piece | Ref. | Rating | | Filament | Drawing Reference |
|--------|------|--------|-------|----------|-------------------|
| | | Volts | Watts | | |
| 168741 | 66 | 8 | 5 | Single | B-12409-18 |
| 142967 | 66a | 8 | 10 | Single | B-12409-18 |
| 177731 | 66b | 8 | 18 | Single | B-12409-24 |

One and Two Unit, Style "H-5" Three-Position Color Light Searchlight Dwarf Signals

**ZCG UTILITY SCRAP
UNION MO 63084**

(Continued)

Order by Plate, Piece, Reference and Abbreviated
Description Given in Heavy Face Type Only

| Piece | Ref. | Rating | | Filament | Drawing Reference |
|--------|------|---|----------|---------------------------|-------------------|
| | | Volts | Watts | | |
| 148970 | 66c | 10 | 5 | Single | B-12409-18 |
| 146930 | 66d | 10 | 10 | Single | B-12409-18 |
| 151138 | 66e | 10 | 18 | Single | B-12409-18 |
| 175067 | 66f | 10 | 25 | Single | B-12409-18 |
| 145877 | 66g | 11 | 11 | Single | B-12409-18 |
| 135722 | 66h | 13.5 | 17 | Single | B-12409-18 |
| 192057 | 66j | 8 | 5+3.5 | Major and Minor Double | B-12409-24 |
| 159440 | 66k | 8 | 13+3.5 | Major and Minor Double | B-12409-24 |
| 199177 | 66m | 8 | 18+3.5 | Major and Minor Double | B-12409-24 |
| 221513 | 66n | 10 | 5+3.5 | Major and Minor Double | B-12409-24 |
| 182814 | 66p | 10 | 13+3.5 | Major and Minor Double | B-12409-24 |
| 191859 | 66q | 11.3 | 14.4+3.5 | Major and Minor Double | B-12409-24 |
| Piece | Ref. | Description | | | Drawing Reference |
| 38851 | 67 | Pin (When Sight Bracket is used)..... | | | 8097-423 |
| 210395 | 68 | Sight Bracket with Tube, Screws, Sight and Clamp Plates..... | | | C-9105-11 |
| | 69 | Tap Bolt, $\frac{5}{16}$ "-18x $\frac{7}{8}$ " Hex. Hd. S. (Cad. Pl.) with $\frac{5}{16}$ " S. Plate Washer (Cad. Pl.) (When Sight Bracket is used) | | | |

One and Two Unit, Style "H-5" Three-Position Color Light Searchlight Dwarf Signals

(Continued)

**ZCG UTILITY SCRAP
UNION MO 63084**

Order by Plate, Piece, Reference and Abbreviated
Description Given in Heavy Face Type Only

| Piece | Ref. | Description | Drawing Reference |
|--------|------|---|-------------------|
| | 70 | Pin, No. 16x $\frac{3}{8}$ " Br. (For Sight Bracket) | |
| 10478 | 71 | Foundation Bolt, $\frac{3}{4}$ "x18", with $\frac{3}{4}$ " Hex. Nut and $\frac{3}{4}$ " S. Plate Washer..... | 7913-44 |
| | 72 | Machine Screw, No. 10-30x $\frac{3}{8}$ " Rd. Hd. Br. (N.P.) | |
| 104585 | 73 | Cable Outlet (with 2" Pipe Tap)..... | B-10342-103 |
| 107626 | 74 | Cable Outlet (arranged for potheading multiple cables)..... | B-10342-116 |
| | 75 | Conduit, 2" S.S. Flexible Steel (Orders should specify length desired)..... | |
| | 76 | Tap Bolt, $\frac{3}{8}$ "-16x $\frac{3}{4}$ " Hex. Hd. S. (Cad. Pl.) with $\frac{3}{8}$ " Pl. S. Lock Washer ($\frac{1}{8}$ "x $\frac{3}{32}$ ") (Cad. Pl.) | |
| 84244 | 77 | Ventilator..... | 7318-64 |
| 90893 | 78 | Gasket..... | 8078-1318 |
| 184578 | 79 | Lens Ring..... | 7436-106 |
| | 80 | Screw, No. 14-24x1 $\frac{7}{8}$ " Fil. Hd. Bz. for attaching Ref. 48 to Ref. 32 (Not shown) | |
| 143502 | 81 | Lens Ring..... | 7436-133 |
| | 82 | Machine Screw, No. 14-24x2 $\frac{1}{4}$ " Fil. Hd. Bz. for attaching Ref. 48 to Ref. 32 when Phankill Unit is used. | |
| | 83 | Machine Screw, No. 14-24x2 $\frac{7}{8}$ " Fil. Hd. Bz. for attaching Ref. 48 to Ref. 32 when Phankill Unit is used. | |
| 143504 | 84 | Phankill Unit Complete..... | C-8901-86 |
| 218330 | 85 | Cable Outlet with Gasket Ref. 85a (With 1 $\frac{1}{2}$ " Pipe Tap)..... | B-10342-124 |
| 210991 | 85a | Gasket..... | 8078-997 |
| | 86 | 1 $\frac{1}{2}$ " M. I. Galv. 90° Street Ell | |
| | 87 | 1 $\frac{1}{2}$ " M. I. Straight Box Connector (Cad. Pl.) for S.S. Flex. S. Conduit | |