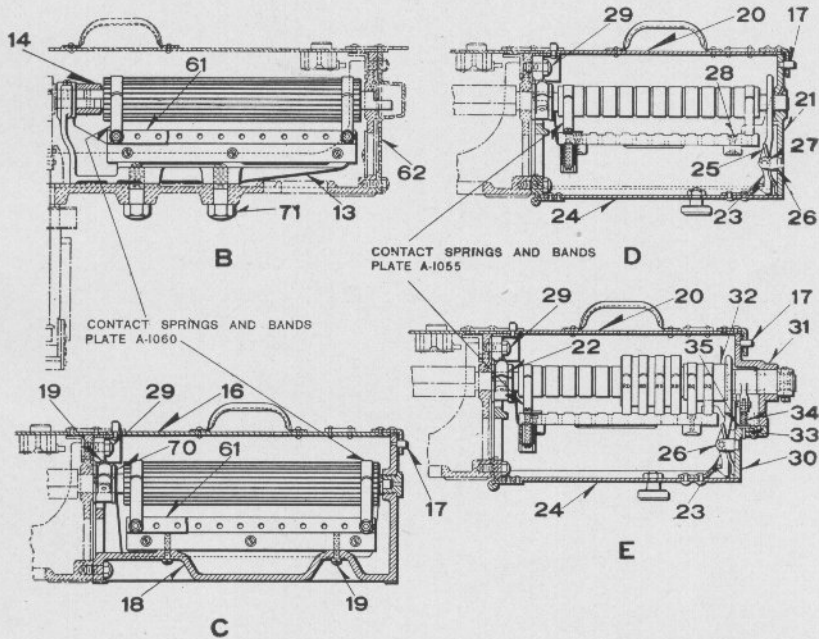
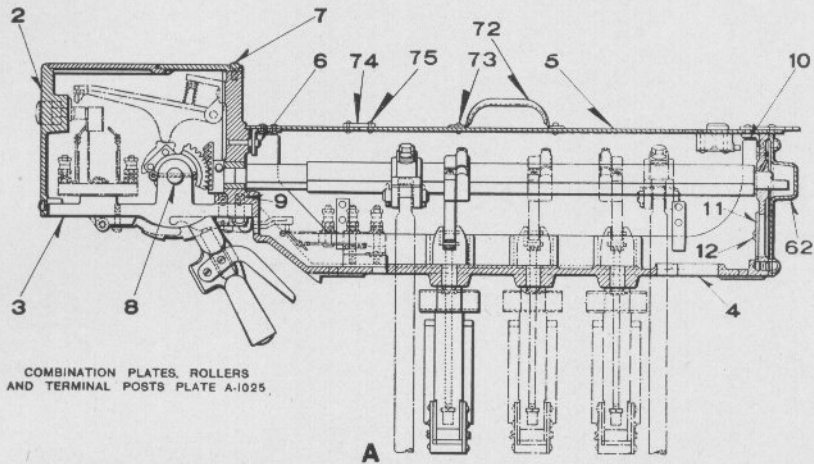


UNION SWITCH & SIGNAL CO.



ELECTRIC LEVER UNITS

(For other combinations, see next page)

PLATE A-1005

UNION SWITCH & SIGNAL CO.

STYLE "S-8" ELECTRO-MECHANICAL INTERLOCKING MACHINE DETAIL PARTS—ELECTRIC LEVER UNITS

Orders must Specify if Alternating or Direct Current is to be Used. Refer to Refs. A to Aaa, Plate A-1030 for Direct Current and Refs. B to Bq, Plate A-1030, for Alternating Current and Call for Magnet Desired

For Further Information for Ordering Refer to Description
in Front of This Catalog

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

Piece	Ref.	Description	Drawing Reference
		*NOTE—Style "S-8" Units Refs. A to Ax inc., includes Crank Connecting Rod and Driver (Driver to be specified by referring to Plate A-1045).	
	A	Style "S-8-A" Electric Unit, with Lever, Shaft, one Magnet, Segment, Quadrant and Cover, used in combination with Refs. Ac, Af, Ag, Am, An, Ap, Aq and Au.....	D-1524-17
	Aa	Style "S-8-Aa" Electric Unit, with Lever, Shaft, one Magnet, Segment, Quadrant, Cover and Push Button, used in combination with Refs. Ad, Ae, Ah, Ak, Ar and Av.....	D-1524-17
	Ab	Style "S-8-Ab" Electric Unit, with Lever, Shaft, one Magnet, Segment, Quadrant, Cover and Latch Circuit Controller, used as Detector Lever, also used in combination with Refs. Aj, As, At, Aw and Ax...	D-1524-17
	Ac	Style "S-8-B" Electric Unit similar to Ref. A, complete with 12-Way Horizontal Circuit Controller Ref. B, used as Traffic Lever, Lock Lever for Hand Operated Switch, Master Control Lever or Signal Lever (Without Push Button).....	D-1524-22
	Ad	Style "S-8-Ba" Electric Unit, similar to Ref. Aa, complete with 12-Way Horizontal Circuit Controller, Ref. B, used as Signal Lever (With Push Button)...	D-1524-22
	Ae	Style "S-8-Bb" Electric Unit, similar to Ref. Aa, complete, with 12-Way Horizontal Circuit Controller, used as Route Lever.....	D-1524-22

UNION SWITCH & SIGNAL CO.

**STYLE "S-8" ELECTRO-MECHANICAL INTERLOCKING MACHINE
DETAIL PARTS—ELECTRIC LEVER UNITS
(Continued)**

Orders must Specify if Alternating or Direct Current is to be Used. Refer to Refs. A to Aaa, Plate A-1030 for Direct Current and Refs. B to Bq, Plate A-1030, for Alternating Current and Call for Magnet Desired

For Further Information for Ordering Refer to Description
in Front of This Catalog

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

Piece	Ref.	Description	Drawing Reference
	Af	Style "S-8-Bc" Electric Unit, similar to Ref. A, except without Magnet and Segment, complete with 12-Way Horizontal Circuit Controller Ref. B, used as a Take Siding Lever, or for any purpose not requiring Indication Magnet.....	D-1524-22
	Ag	Style "S-8-C" Electric Unit Ref. A, complete with 12-Way Horizontal Circuit Controller Ref. C used as Traffic Lever, Lock Lever for Hand Operated Switch, Master Control Lever or Signal Lever (Without Push Button). (Special).....	D-1524-19
	Ah	Style "S-8-Ca" Electric Unit Ref. Aa, complete with 12-Way Horizontal Circuit Controller Ref. C, used as Signal Lever (With Push Button). (Special).....	D-1524-19
	Aj	Style "S-8-Cb" Electric Unit Ref. Ab, with one or two additional Magnets and Segments, complete with 12-Way Horizontal Circuit Controller, Ref. C, used as a Switch Lever (Without Quick Switch, a Relay to be used in lieu thereof). (Special).....	D-1524-19
	Ak	Style "S-8-Cc" Electric Unit Ref. Aa, with one additional Magnet and Segment, Latch Circuit Controller with two contacts, complete with 12-Way Horizontal Circuit Controller Ref. C, used as Signal Lever (With Push Button). (Special).....	D-1524-19
	Am	Style "S-8-Cd" Electric Unit Ref. A, with one additional Magnet and Segment, Latch Circuit Controller with two contacts complete with 12-Way Horizontal Circuit Controller Ref. C used as Switch Lever (Without Quick Switch, a Relay to be used in lieu thereof). (Special).....	D-1524-19

PLATE A-1005

UNION SWITCH & SIGNAL CO.

STYLE "S-8" ELECTRO-MECHANICAL INTERLOCKING MACHINE DETAIL PARTS—ELECTRIC LEVER UNITS (Continued)

Orders must Specify if Alternating or Direct Current is to be Used. Refer to Refs. A to Aaa, Plate A-1030 for Direct Current and Refs. B to Bq, Plate A-1030, for Alternating Current and Call for Magnet Desired

For Further Information for Ordering Refer to Description
in Front of This Catalog

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

Piece	Ref.	Description	Drawing Reference
	An	Style "S-8-Ce" Electric Unit, Ref. A, with one additional Magnet and Segment, Latch Circuit Controller with two contacts, complete with 12-Way Horizontal Circuit Controller Ref. C, used as a Signal Traffic Lever (Without Push Button). (Special)	D-1524-19
	Ap	Style "S-8-Cf" Electric Unit, Ref. A, with Latch Circuit Controller with two contacts, complete with 12-Way Horizontal Circuit Controller Ref. C, used as a Detector Lever. (Special)	D-1524-19
	Aq	Style "S-8-D" Electric Unit, Ref. A, complete with 12-Way Horizontal Circuit Controller Ref. D, used as Traffic Lever, Lock Lever for Hand Operated Switch, Master Control Lever or Signal Lever (Without Push Button)	D-1524-12
	Ar	Style "S-8-Da" Electric Unit, Ref. Aa, complete with 12-Way Horizontal Circuit Controller Ref. D, used as a Signal Lever (With Push Button)	D-1524-12
	As	Style "S-8-Db" Electric Unit, Ref. Ab, with one or two additional Magnets and Segments, complete with 12-Way Horizontal Circuit Controller Ref. D, used as a Switch Indicator Lever	D-1524-12
	At	Style "S-8-E" Electric Unit, Ref. Ab, with one or two additional Magnets and Segments, complete with 12-Way Horizontal Circuit Controller Ref. E (Including Quick Switch) used as Switch Lever	D-1524-14
	Au	Style "S-8-F" Electric Unit, Ref. A, complete with 24-Way Vertical Circuit Controller Ref. F, used as a Traffic Lever, Lock Lever for Hand Operated Switch, Master Control Lever or Signal Lever (Without Push Button)	D-1524-23

UNION SWITCH & SIGNAL CO.

STYLE "S-8" ELECTRO-MECHANICAL INTERLOCKING MACHINE
DETAIL PARTS—ELECTRIC LEVER UNITS

(Continued)

Orders must Specify if Alternating or Direct Current is to be Used. Refer to Refs. A to Aaa, Plate A-1030 for Direct Current and Refs. B to Bq, Plate A-1030, for Alternating Current and Call for Magnet Desired

For Further Information for Ordering Refer to Description in Front of This Catalog

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

Piece	Ref.	Description	Drawing Reference
	Av	Style "S-8-Fa" Electric Unit Ref. Aa, complete with 24-Way Vertical Circuit Controller Ref. F. Used as a Signal Lever (With Push Button).....	D-1524-23
	Aw	Style "S-8-Fb" Electric Unit Ref. Ab, with one or two additional Magnets and Segments, complete with 24-Way Vertical Circuit Controller Ref. F. Used as a Switch Indicating Lever.....	D-1524-23
	Ax	Style "S-8-G" Electric Unit Ref. Ab, with one or two additional Magnets and Segments, complete with 24-Way Vertical Circuit Controller Ref. G. (Including Quick Switch). Used as a Switch Lever....	D-1524-23
	B	12-Way Horizontal Circuit Controller, with 1 $\frac{3}{4}$ " Dia. Roller, complete as shown in full lines. For use with Units Refs. Ac, Ad, Ae and Af (No Case).....	D-1524-22
	C	12-Way Horizontal Circuit Controller, with 1 $\frac{3}{4}$ " Dia. Roller, complete as shown in full lines (With Case) For use with Units Refs. Ag to Ap, inclusive.....	D-1524-19
	D	12-Way Horizontal Circuit Controller, with 1 $\frac{1}{4}$ " Dia. Roller, complete, as shown in full lines (With case). For use with Units Refs. Aq, Ar and As.....	D-1524-12
	E	12-Way Horizontal Circuit Controller, with 1 $\frac{1}{4}$ " Dia. Roller and Quick Switch Roller, complete as shown in full lines (With case). For use with Unit Ref. At.	D-1524-14
	F	24-Way Vertical Circuit Controller, with 1 $\frac{1}{4}$ " Dia. Roller, complete as shown in full lines (With case). For use with Units Refs. Au, Av and Aw.....	D-1524-33

PLATE A-1005

UNION SWITCH & SIGNAL CO.

**STYLE "S-8" ELECTRO-MECHANICAL INTERLOCKING MACHINE
DETAIL PARTS—ELECTRIC LEVER UNITS
(Continued)**

Orders must Specify if Alternating or Direct Current is to be Used. Refer
to Refs. A to Aaa, Plate A-1030 for Direct Current and Refs. B to Bq,
Plate A-1030, for Alternating Current and Call for Magnet Desired

For Further Information for Ordering Refer to Description
in Front of This Catalog

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

Piece	Ref.	Description	Drawing Reference
	G	24-Way Vertical Circuit Controller with 1¼" Dia. Roller and Quick Switch Roller, complete as shown in full lines (With Case). For Unit Ref. Ax	D-1524-23
	H	Style "S8-H" 16-Way Vertical Circuit Controller Extension with 1¼" Dia. Roller, complete as shown in full lines (With Case) for applying to Units Refs. Au, Av, Aw and Ax.	D-1524-21
74953	2	Cover, complete, with Lid, Stud and Screw (arranged for use without Push Button)	C-8577-6
74960	2a	Cover, complete, with Lid, Stud and Screws (arranged for use with Push Button)	C-8577-6
53951	3	Lever and Quadrant Support	C-8577-7
120560	4	Unit Bearing, only	C-8577-180
121793	5	Individual Unit Cover, complete as shown with 5⁄8" dia. Barrel Corbin Lock (orders should specify number required)	C-8577-181
118699	5a	Individual Unit Cover, complete arranged for Padlock as shown in view "Z" (orders should specify number required)	C-8577-150
149238	5b	Individual Unit Cover, complete, arranged for Pin Locking	C-8577-240
113523	5c	Individual Unit Cover, complete, arranged for lock having 1½" Barrel as shown in view "Y" (No Lock). Orders should specify number required	C-8577-108
54017	6	Stud for Refs. 5, 5a and 5b	8114-400
	7	Machine Screw No. 14-24x½" Fil. Hd. S. for attaching Ref. 2 to Ref. 4.	

UNION SWITCH & SIGNAL CO.

STYLE "S-8" ELECTRO-MECHANICAL INTERLOCKING MACHINE
 DETAIL PARTS—ELECTRIC LEVER UNITS
 (Continued)

Orders must Specify if Alternating or Direct Current is to be Used. Refer to Refs. A to Aaa, Plate A-1030 for Direct Current and Refs. B to Bq, Plate A-1030, for Alternating Current and Call for Magnet Desired

For Further Information for Ordering Refer to Description
 in Front of This Catalog

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

Piece	Ref.	Description	Drawing Reference
54016	8	Pin, $\frac{5}{8}$ "x $2\frac{3}{4}$ " with one $\frac{3}{16}$ "x2" cotter for attaching lever to support.....	8057-186
	9	Cap Screw, $\frac{3}{8}$ "-16x1" Hex. Hd. S. for attaching support Ref. 3 to Unit Bearing Ref. 4.	
	9a	Machine Screw $\frac{3}{8}$ "-16x1" Fil. Hd. S. for attaching support Ref. 3 to Unit Bearing Ref. 4.	
71061	10	Latch Plate with two $\frac{3}{16}$ "x $\frac{5}{8}$ " Rd. H. I. Rivets for use with Drawer Lock having $1\frac{1}{8}$ " Dia. Barrel.....	8237-30
55935	10a	Latch Plate with two $\frac{3}{16}$ "x $\frac{5}{8}$ " Rd. Hd. I. Rivets for use with Drawer Lock having $\frac{5}{8}$ " Dia. Barrel.....	8237-28
122507	11	Cover for Wire Openings, used on Horizontal or Vertical Units when no extension unit is used.....	C-8577-193
	12	Machine Screw No. 8-36x $\frac{3}{8}$ " Fil. Hd. Br. for Ref. 11.	
123016	13	Intermediate Bearing, complete, with Cap and Screws for Ref. B.....	C-8577-195
123019	14	Coupling for Ref. B.....	12565-4
52856	15	Staple with two $\frac{3}{16}$ "x $\frac{5}{8}$ " Rd. Hd. I. Rivets for Cover Ref. 5a.....	8191-84
125668	16	Cover, complete for Ref. C (Orders should specify number required).....	C-8577-200
113378	17	Stud for Ref. C.....	8115-585
112197	18	Extension Bearing for Ref. C.....	C-8577-114

Zachary C. Gillihan 2008

PLATE A-1005

UNION SWITCH & SIGNAL CO.

STYLE "S-8" ELECTRO-MECHANICAL INTERLOCKING MACHINE DETAIL PARTS—ELECTRIC LEVER UNITS (Continued)

Orders must Specify if Alternating or Direct Current is to be Used. Refer to Refs. A to Aaa, Plate A-1030 for Direct Current and Refs. B to Bq, Plate A-1030, for Alternating Current and Call for Magnet Desired

For Further Information for Ordering Refer to Description
in Front of This Catalog

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

Piece	Ref.	Description	Drawing Reference
	19	Machine Screw No. 10-30x1" Fil. Hd. S. for Refs. 18 and 70.	
113338	20	Rear Unit Cover, complete for Ref. D (Orders should specify number desired).....	C-8577-123
113699	21	Extension Bearing for Ref. D.....	C-8577-128
53983	22	Coupling Complete for Ref. D.....	12565-8
53961	23	Latch for Rear Cover for Ref. D.....	C-8577-6
113703	24	Under Side Cover complete, with six $\frac{3}{16}$ "x $\frac{1}{2}$ " Csk. Hd. I. Rivets for Extension Bearing of Units Ref. D.....	C-8577-128
53987	25	Coil Spring for Ref. 23.....	8124-156
53989	26	Jaw.....	9542-16
35341	27	Pin with two $\frac{1}{16}$ "x $\frac{3}{8}$ " Cotters for Ref. 26.....	8097-205
	28	Machine Screw No. 12-28x $\frac{1}{2}$ " Fil. Hd. S. for attaching Combination Plate to Extension Bearing.	
	29	Cap Screw $\frac{7}{8}$ "x $\frac{3}{8}$ " Hex. Hd. for attaching Extension Unit to Master Unit.	
113701	30	Extension Bearing for Ref. E.....	C-8577-128
113700	31	Bearing for Ref. E.....	C-8577-128
75387	32	Circuit Shifter complete.....	8435-143
4679	33	Spring Guide, only for Ref. 32.....	C-5860-5
5453	34	Coil Spring for Ref. 32.....	7770-90

UNION SWITCH & SIGNAL CO.

STYLE "S-8" ELECTRO-MECHANICAL INTERLOCKING MACHINE
DETAIL PARTS—ELECTRIC LEVER UNITS

(Continued)

Orders must Specify if Alternating or Direct Current is to be Used. Refer to Refs. A to Aaa, Plate A-1030 for Direct Current and Refs. B to Bq, Plate A-1030, for Alternating Current and Call for Magnet Desired

For Further Information for Ordering Refer to Description
in Front of This Catalog

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

Piece	Ref.	Description	Drawing Reference
4680	35	Pivot for Ref. 33	C-5860-5
78282	36	Coupling, complete with Screws for Ref. 32	12565-6
111794	37	Cover, complete for Vertical Unit Ref. F and Ref. G when Extension Unit Ref. H is not used	C-8577-108
122515	37a	Cover, complete for Vertical Unit Ref. F and Ref. G, when Extension Unit Ref. H is used	C-8577-108
127308	38	Frame for Refs. F and G	C-8577-214
122594	39	Bearing, complete for Ref. F	C-8577-108
113293	40	Shaft Bearing, complete	C-8577-122
117993	41	Washer	7828-218
137668	42	Coupling, complete with Screw Ref. 42a and $\frac{1}{4}$ " plain lock washer ($\frac{1}{16}$ " x $\frac{1}{16}$ ")	12565-5
48940	42a	Screw for Ref. 42	8098-879
111780	43	Stud for Refs. F and G	8114-585
	44	Machine Screw No. 12-28x $\frac{3}{4}$ " Fil. Hd. for Refs. 39 and 45.	
5436	45	Circuit Shifter Bracket for Ref. G	C-8617-9
70206	46	Clamp Coupling, complete for Ref. G	12565-7
70204	47	Circuit Shifter complete with Spring Guide, Screws and Nut for Ref. G	C-8617-9
49795	48	Dowel Pin	8063-105

Zachary C. Gillihan 2008

PLATE A-1005

UNION SWITCH & SIGNAL CO.

STYLE "S-8" ELECTRO-MECHANICAL INTERLOCKING MACHINE DETAIL PARTS—ELECTRIC LEVER UNITS (Continued)

Orders must Specify if Alternating or Direct Current is to be Used. Refer to Refs. A to Aaa, Plate A-1030 for Direct Current and Refs. B to Bq, Plate A-1030, for Alternating Current and Call for Magnet Desired

For Further Information for Ordering Refer to Description
in Front of This Catalog

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

Piece	Ref.	Description	Drawing Reference
122456	49	Extension Bearing for Ref. H.....	C-8577-192
122514	50	Cover, complete for Ref. H (Orders should specify number required).....	C-8577-193
122512	51	Bearing complete for Ref. H.....	C-8577-183
58977	52	Key for Ref. H.....	9673-64
122687	53	Bushing for Ref. H.....	8350-469
70203	54	Coupling, complete for Ref. H.....	12565-3
	55	Cap Screw $\frac{3}{8}$ "-16x1 $\frac{3}{4}$ " Hex. Hd. for attaching Ref. H to Ref. F or Ref. G.	
122505	56	Stud for Ref. H.....	8114-585
51178	57	Flat Spring with two $\frac{3}{16}$ "x $\frac{3}{8}$ " Csk. Hd. I. Rivets.....	8735-383
128317	58	Cover Plate for Refs. F, Fa, Fb and G.....	C-8577-222
	59	Machine Screw No. 12-28x $\frac{3}{8}$ " Fil. Hd. S. for attach- ing Ref. 58 to Units.	
41052	60	Flexible Terminal Connecting Strip. Specify length when ordering.....	8762-69
113465	61	Flexible Terminal Connecting Strip. Specify length when ordering.....	8762-75
128370	62	Rear Cover (Used only when no horizontal or vertical extension is used).....	C-8577-224
128316	63	End Cover.....	C-8577-222

UNION SWITCH & SIGNAL CO.

STYLE "S-8" ELECTRO-MECHANICAL INTERLOCKING MACHINE
 DETAIL PARTS—ELECTRIC LEVER UNITS
 (Continued)

Orders must Specify if Alternating or Direct Current is to be Used. Refer to Refs. A to Aaa, Plate A-1030 for Direct Current and Refs. B to Bq, Plate A-1030, for Alternating Current and Call for Magnet Desired

For Further Information for Ordering Refer to Description
 in Front of This Catalog

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

Piece	Ref.	Description	Drawing Reference
128314	64	Cover Plate.....	C-8577-222
	64a	Straight Cover Plate (Used on Units when End Covers Ref. 63 are not used).....	C-8577
128315	65	Supporting Strap.....	C-8577-222
128318	66	Cover Plate Support for one spare space.....	C-8577-223
128649	66a	Cover Plate Support for two spare spaces.....	C-8577-223
128313	67	Stud.....	8114-621
63866	67a	Hex. Nut for use with Stud Ref. 67, when used on Cover Plate Supports Ref. 66a.....	8265-100
128312	68	Bushing for Ref. 67.....	8095-575
	69	Machine Screw No. 12-28x $\frac{1}{2}$ " Fil. Hd. S. for attaching End Covers and Cover Plates to Units.	
111782	70	Coupling for Ref. C.....	12565-2
3290	70a	Pivot Screw for Ref. 70.....	B-8378-1
	71	Cap Screw $\frac{5}{8}$ "-11x $\frac{13}{8}$ " Hex. Hd. for attaching Ref. B to Refs. Ac, Ad, Ae or Af.	
70548	72	Handle only.....	8311-67
	73	Rivet, $\frac{3}{16}$ "x $\frac{3}{8}$ " Csk. Hd. I. for fastening Handle to Cover.	
132969	74	Number Plate (Specify Number desired).....	8286-94
54920	75	Rivet for Ref. 74.....	10301-1