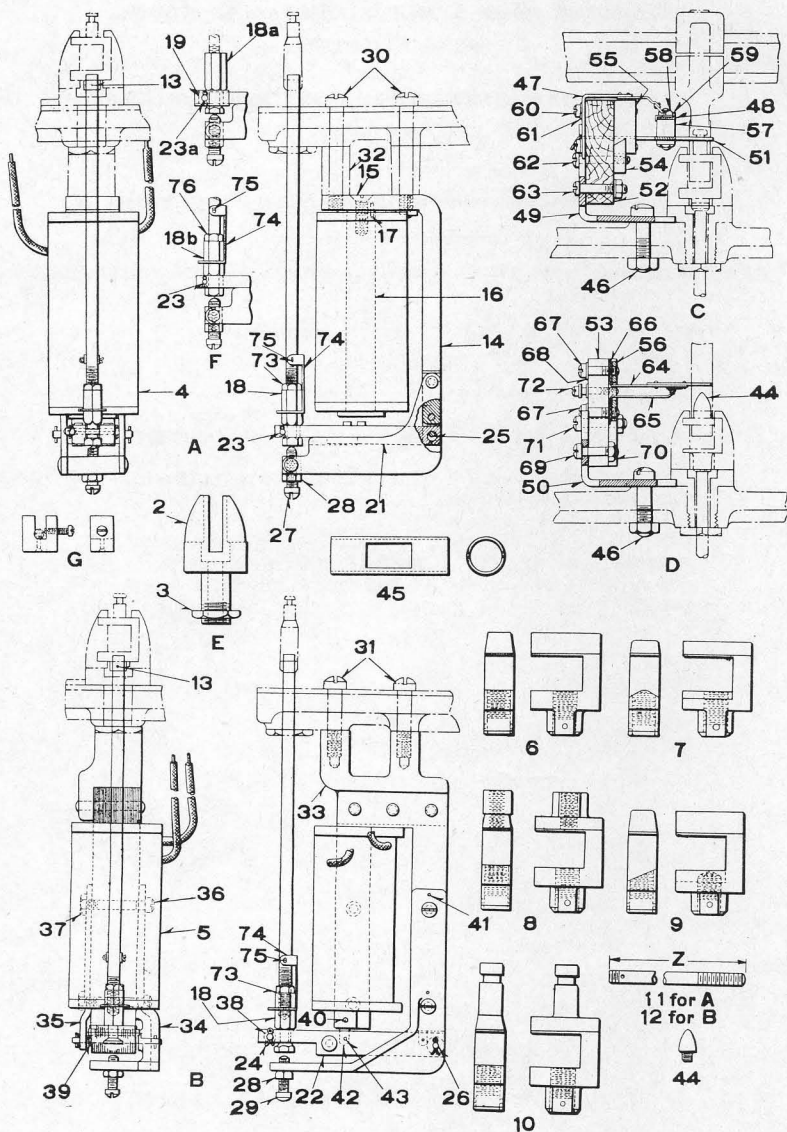


UNION SWITCH & SIGNAL CO.



A. C. AND D. C. INDICATION MAGNETS, LATCHES AND LEVER LOCK
CIRCUIT CONTROLLERS

UNION SWITCH & SIGNAL CO.

MODEL 14 POWER INTERLOCKING MACHINE
DETAIL PARTS

A. C. AND D. C. INDICATION MAGNETS, LATCHES AND LEVER LOCK
CIRCUIT CONTROLLERS

Order by Plate, Piece, Reference and Description

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Piece	Ref.	Description	Drawing Reference
	A	D. C. Indication Magnet, complete L. V. 130-ohms (Includes Latch and Latch Stem) specify Latch required	C-8193-1
	Aa	D. C. Indication Magnet, complete L. V. 37.5-ohms (Includes Latch and Latch Stem) specify Latch required	C-8193-1
	Ab	D. C. Indication Magnet, complete, L. V. 90-ohms (Includes Latch and Latch Stem) specify Latch required	C-8193-1
	Ac	D. C. Indication Magnet, complete H. V. 1000-ohms (Includes Latch and Latch Stem) specify Latch required	C-8193-1
	Ad	D. C. Indication Magnet, complete, H. V. 2000-ohms (Includes Latch and Latch Stem) specify Latch required	C-8193-1
	B	A. C. Indication Magnet, complete, 110 volts, 60 cycles or 50 volts, 25 cycles, (Includes Latch and Latch Stem) specify Latch required	C-8903-1
	Ba	A. C. Indication Magnet, complete, 110 volts, 25 cycles, (Includes Latch and Latch Stem) specify Latch required	C-8903-1
	Bb	A. C. Indication Magnet, complete, 110 volts, 50 cycles, (Includes Latch and Latch Stem) specify Latch required	C-8903-1
70211	C	Independent Lever Lock Circuit Controller, (Circuit open when Magnet is de-energized), for use in connection with separate Detector Magnet	C-8191-1
69555	D	Independent Lever Lock Circuit Controller, (Circuit closed when Magnet is de-energized)	C-8191-2
87333	E	Segment Guide, complete	C-8617-8

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A. C. AND D. C. INDICATION MAGNETS, LATCHES AND LEVER LOCK
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Order by Plate, Piece, Reference and Description

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Piece	Ref.	Description	Drawing Reference
	F	Necessary Material required to add special Locking Clip to existing Magnets having armature stem with $\frac{1}{4}$ "-40 thread (Includes 1-18b, 1-23, 2-24b, 1-74, 1-75 and 1-76).....	C-8193-1
133471	G	Special Drill Jig, complete for locating hole in Armature Stem for Locking Clip.....	12537-2
54393	2	Segment Guide only.....	C-8617-8
34065	3	Nut only, for E.....	8109-228
69223	4	Magnet, L. V. 130 ohms, complete for A.....	8133-129
118174	4a	Magnet, L. V. 37.5-ohms, complete for Aa.....	8133-129
97988	4b	Magnet, L. V. 90-ohms, complete for Ab.....	8133-129
83377	4c	Magnet, H. V. 1000-ohms, complete for Ac.....	8133-129
79390	4d	Magnet, H. V. 2000-ohms, complete for Ad.....	8133-129
84393	5	Magnet, A. C. 110 volts, 60 cycles or 50 volts, 25 cycles, complete for "B".....	B-8133-37
92944	5a	Magnet, A. C. 110 volts, 25 cycles, complete for Ba..	B-8133-37
112938	5b	Magnet, A. C. 110 volts, 50 cycles, complete for Bb..	C-8133-37
54414	6	Latch only, for Signal Indication Magnet.....	8711-24
133595	6a	Latch with Stem and Pin, complete for A (Includes 1-6, 1-11 and 1-13).....	8711-42
68192	6b	Latch with Stem and Pin, complete for A (Includes 1-6, 1-11a and 1-13).....	8711-35
135590	6c	Latch with Stem and Pin, complete for B (Includes 1-6, 1-12 and 1-13).....	8711-42
81341	6d	Latch with Stem and Pin, complete for B (Includes 1-6, 1-12a and 1-13).....	8711-35

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DETAIL PARTS

A. C. AND D. C. INDICATION MAGNETS, LATCHES AND LEVER LOCK
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Order by Plate, Piece, Reference and Description

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Piece	Ref.	Description	Drawing Reference
57109	7	Latch only, for Latch Depressor Segment for Separate Detector Lock Magnet.....	8711-28
133601	7a	Latch with Stem and Pin, complete for A (Includes 1-7, 1-11 and 1-13).....	8711-42
126821	7b	Latch with Stem and Pin, complete for A (Includes 1-7, 1-11a and 1-13).....	8711-37
135196	7c	Latch with Stem and Pin, complete for B (Includes 1-7, 1-12 and 1-13).....	8711-42
84178	7d	Latch with Stem and Pin, complete for B (Includes 1-7, 1-12a and 1-13).....	8711-35
55623	8	Latch with Tip for use in operating Circuit Controller Ref. D.....	8711-26
135591	8a	Latch with Tip Stem and Pin, complete for A (Includes 1-8, 1-11 and 1-13).....	8711-42
71709	8b	Latch with Tip, Stem and Pin, complete for A (Includes 1-8, 1-11a and 1-13).....	8711-35
135592	8c	Latch with Tip, Stem and Pin, complete for B (Includes 1-8, 1-12 and 1-13).....	8711-42
	8d	Latch with Tip, Stem and Pin, complete for B (Includes 1-8, 1-12a and 1-13).....	8711-37
54413	9	Latch only for Switch Indication Magnet.....	8711-23
135598	9a	Latch with Stem and Pin, complete for A (Includes 1-9, 1-11 and 1-13).....	8711-42
68194	9b	Latch with Stem and Pin, complete for A (Includes 1-9, 1-11a and 1-13).....	8711-35
135195	9c	Latch with Stem and Pin, complete for B (Includes 1-9, 1-12 and 1-13).....	8711-42

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MODEL 14 POWER INTERLOCKING MACHINE
DETAIL PARTS

A. C. AND D. C. INDICATION MAGNETS, LATCHES AND LEVER LOCK
CIRCUIT CONTROLLERS
(Continued)

Order by Plate, Piece, Reference and Description

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Piece	Ref.	Description	Drawing Reference
81340	9d	Latch with Stem and Pin, complete for B (Includes 1-9, 1-12a and 1-13)	8711-35
54446	10	Latch only with Top Projection for Separate Detector Magnet	8711-25
133600	10a	Latch with Stem and Pin, complete for A (Includes 1-10 1-11 and 1-13)	8711-42
68191	10b	Latch with Stem and Pin complete for A (Includes 1-10, 1-11a and 1-13)	8711-35
135593	10c	Latch with Stem and Pin, complete for B (Includes 1-10 1-12 and 1-13)	8711-42
	10d	Latch with Stem and Pin, complete for B (Includes 1-10 1-12a and 1-13)	8711-37
133574	11	Armature Stem, only for A, "Z" Dimension $7\frac{5}{16}$ " (Used with Latch Nut Ref. 18)	9595-40
61868	11a	Armature Stem only, for A "Z" Dimension $7\frac{5}{16}$ " (Used with Latch Nut Ref. 18a.)	9595-67
133577	12	Armature Stem only, for B "Z" Dimension $7\frac{15}{16}$ " (Used with Latch Nut Ref. 18)	9595-40
78460	12a	Armature Stem only, for B, "Z" Dimension $7\frac{15}{16}$ " (Used with Latch Nut Ref. 18a)	9595-67
45693	13	Pin only, for attaching Latch to Armature Stem.	8097-480
69253	14	Backstrap with Armature Bars, Insulating Block, Screw Nut, Sleeve and Rivets, complete	8162-186
	15	Machine Screw No. 14-24 x $\frac{3}{4}$ " Flat Hd. S. Sher. for attaching 14 to 16.	
49806	16	Core for A	8101-203
25948	17	Pin for A	8097-167
133525	18	Latch Nut for A and B (with 14-24 Tap, used with Stems Refs. 11 and 12).	

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MODEL 14 POWER INTERLOCKING MACHINE
DETAIL PARTSA. C. AND D. C. INDICATION MAGNETS, LATCHES AND LEVER LOCK
CIRCUIT CONTROLLERS
(Continued)

Order by Plate, Piece, Reference and Description

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Piece	Ref.	Description	Drawing Reference
116100	18a	Latch Nut for A and B (with $\frac{1}{4}$ "-40 Tap, used with Stems Refs. 11a and 12a).....	8150-48
61870	18b	Latch Nut for A and B (with $\frac{1}{4}$ "-40 Tap, used with Stems Refs. 11a and 12a).....	8150-44
116104	19	Locking Plate for A, used with Magnets furnished Previous to 10-2-25.....	11893-137
116105	20	Locking Plate for B (not shown) used with Magnets furnished Previous to 10-2-25.....	11893-137
69310	21	Armature for A.....	8157-258
73640	22	Armature, complete for B.....	8157-274
69264	23	Pin only for A, .1285" Dia. x $1\frac{7}{32}$ " as shown.....	8097-793
116180	23a	Pin only, for A, .1285" Dia. x $1\frac{5}{16}$ " for Magnets furnished previous to 10-27-25.....	8097-793
61423	24	Pin only for B, .125" Dia. x $1\frac{9}{32}$ " as shown.....	8097-793
116181	24a	Pin only, for B, .125" Dia. x $1\frac{3}{8}$ " for Magnets furnished previous to 10-27-25.....	8097-793
	24b	Cotter $\frac{1}{16}$ " x $\frac{3}{8}$ " Br. for 23-23a-24-24a-25 and 26.	
69265	25	Pin for A.....	8097-798
78839	26	Pin for B.....	8097-793
	27	Machine Screw No. 10-30 x 1" Fil. Hd. S. case hardened for 14.	
112140	28	Nut for 27 and 29.....	8109-70
	29	Machine Screw No. 10-30 x $\frac{3}{4}$ " Fil. Hd. S. case hardened for B.	
	30	Cap Screw, $\frac{5}{16}$ "-18 x $2\frac{1}{4}$ " Fil. Hd. S. for attaching Magnets A to Back Plate.	

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MODEL 14 POWER INTERLOCKING MACHINE
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Piece	Ref.	Description	Drawing Reference
	31	Machine Screw, $\frac{5}{16}$ "-18 x $1\frac{3}{8}$ " Fil. Hd. S. for attaching Magnet B to Back Plate.	
49320	32	Magnet Filler Block for A.....	C-8156-19
78841	33	Core, complete for B.....	8101-259
78840	34	Armature Bar for B.....	8130-289
73642	35	Armature Bar for B.....	8130-288
	36	Machine Screw, No. 10-30 x $1\frac{1}{2}$ " Fil. Hd. S. for fastening Magnet Core to Armature Bars.	
26942	37	Nut for 36.....	8109-184
73643	38	Bushing for B.....	8350-608
14528	39	Ferrule for B.....	10389-20
39369	40	Pin for B.....	8097-362
38328	41	Pin for B.....	8097-473
32844	42	Pin for B.....	8097-243
43353	43	Pin for B.....	8097-336
30689	44	Insulating Stud for Latch 10.....	8095-371
36514	45	Insulating Bushing for Wire Conduit at top of Magnet A.....	8905-426
	46	Machine Screw, $\frac{5}{16}$ " x $1\frac{1}{4}$ " Fil. Hd. S. Sher. with Hex. Nut, Sher. for C or D.	
94538	47	Contact Spring, complete for C.....	8385-1856
94542	48	Contact Support, complete for C.....	C-8192-1
49761	49	Bracket Strap, for C.....	C-8192-1

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Piece	Ref.	Description	Drawing Reference
53795	50	Bracket Strap for D.....	C-8192-1
49762	51	Lever for C.....	C-8192-1
49766	52	Terminal Board only, for C.....	9968-285
53775	53	Terminal Board only, for D.....	9968-326
94955	54	Pivot Block for C.....	C-8192-1
49764	55	Terminal Plate for C.....	C-8192-1
53797	56	Terminal Plate for D.....	C-8192-1
35324	57	Insulating Bushing, complete.....	8095-412
1515	58	Nut for 57.....	8109-23
19409	59	Nut Lock for 57.....	8486-68
	60	Machine Screw, No. 6-32 x 1 $\frac{1}{4}$ " Fil. Hd. Br. for C.	
20686	61	Washer only, for 60 and 72.....	7828-108
	62	Machine Screw, No. 10-30 x 1 $\frac{1}{8}$ " Fil. Hd. Brass.	
	63	Machine Screw, No. 10-30 x 1 $\frac{1}{8}$ " Fil. Hd. Brass with Hex. Nut and Washer, for B.	
70810	64	Contact Spring, complete for D.....	8385-1420
70811	65	Contact Spring, complete for D.....	8385-1421
53776	66	Washer only for 67.....	7828-247
	67	Machine Screw No. 10-30 x $\frac{11}{16}$ " Fil. Hd. Br. for D.	
15577	68	Washer only for 67.....	7828-67
	69	Machine Screw No. 10-30 x $\frac{3}{4}$ " Fil. Hd. Br. with Hex. Nut 70 for D.	

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Piece	Ref.	Description	Drawing Reference
44230	70	Hex. Nut only for 69 and 71.....	8109-281
	71	Machine Screw No. 10-30 x $\frac{15}{16}$ " Fil. Hd. Br. with Hex. Nut 70 for D.	
	71a	Machine Screw only No. 10-30 x $\frac{15}{16}$ " Fil. Hd. Br. for D.	
	72	Machine Screw No. 6-32 x $\frac{7}{8}$ " Fil. Hd. Br. for D.	
133524	73	Jam Nut for Latch Stems Refs. 11 and 12.....	8109-70
133523	74	Locking Clip for A, B and F.....	11893-273
	75	Cotter $\frac{1}{16}$ " x $\frac{1}{2}$ " S. (Cad. Pl.) for 74.	
60385	76	Jam Nut for Latch Stems Refs. 11a and 12a for F.....	8109-280