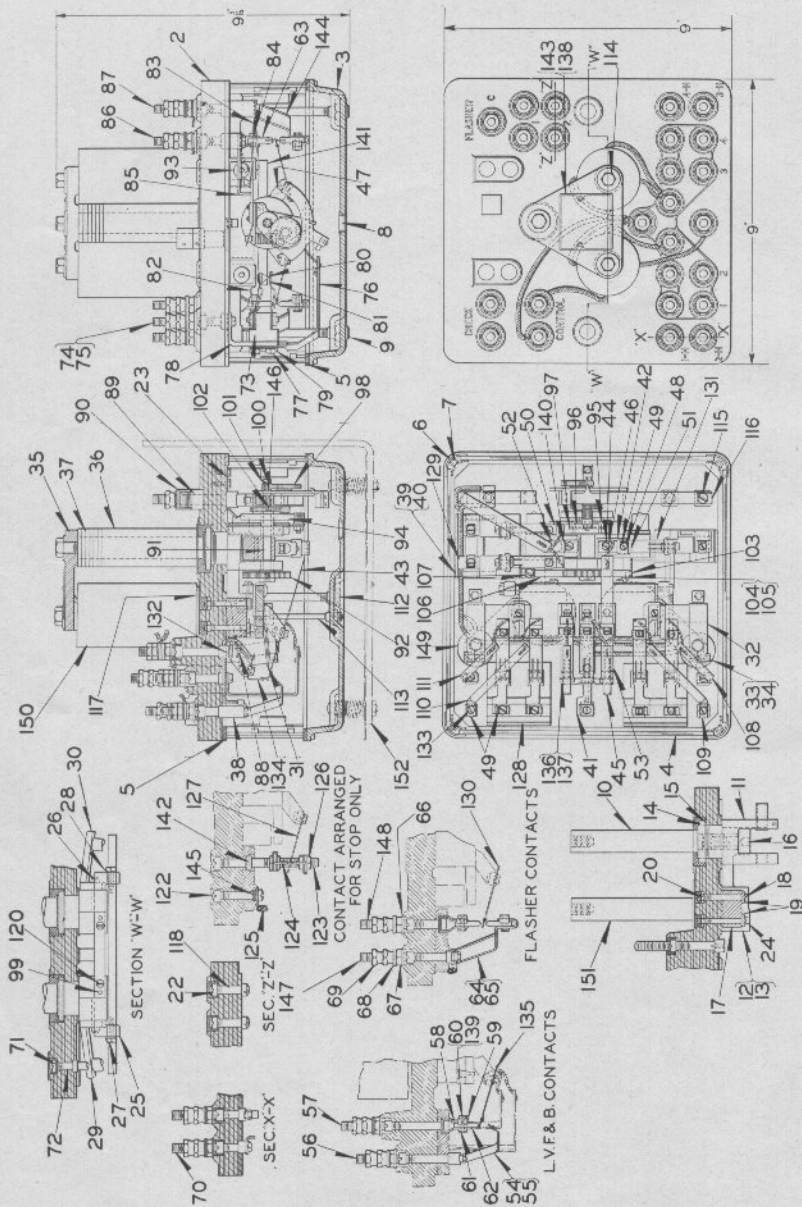


UNION SWITCH & SIGNAL CO.

Zachary C. Gillihan 2008



STYLE "DT-10" TIME ELEMENT RELAY (DETAIL PARTS)

UNION SWITCH & SIGNAL CO.

STYLE "DT-10" D. C. TIME ELEMENT RELAY
DETAIL PARTS

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

Piece	Ref.	Description	Drawing Reference
159324	2	Top Plate only, (Without Cores).....	C-9278-1
159484	3	Base Plate with Glass Shields, Gasket, Shield Support, Corner Posts, Studs and Ventilator (Inc. 1-3a, 4-4, 1-5, 4-6, 4-7, 1-8 and 4-9).....	C-9278-2
159381	3a	Base Plate only, for Ref. 3.....	C-9278-2
159463	4	Glass Shield (Side and End).....	8163-294
159483	5	Gasket.....	8078-1470
159461	6	Shield Support.....	10932-29
159380	7	Corner Post.....	8114-632
34340	8	Ventilator.....	C-7459-6
145116	9	Stud.....	8114-631
157232	10	Core.....	8101-337
160332	11	Yoke.....	8101-342
160331	11a	Magnet Core with Core Ref. 10 and Bushings.....	8101-342
160838	12	R. H. Pole Piece.....	8250-85
167576	12a	R. H. Pole Piece with Core Ref. 151.....	8250-85
160837	13	L. H. Pole Piece.....	8250-85
167577	13a	L. H. Pole Piece with Core Ref. 151.....	8250-85
131210	14	Nut.....	8109-426
74816	15	Washer.....	8274-99
157229	16	Core Pin.....	8097-973

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PLATE E-5206

UNION SWITCH & SIGNAL CO.

STYLE "DT-10" D. C. TIME ELEMENT RELAY DETAIL PARTS (Continued)

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

Piece	Ref.	Description	Drawing Reference
160334	17	Armature Bracket.....	8303-109
157230	18	Screw.....	8098-1300
149339	19	Lock Washer for Ref. 18.....	8486-368
28166	20	Nut for Ref. 18.....	8109-192
	21	Terminal Post with Nuts for fastening Wall Bracket to Top Plate (Inc. 1-21a, 1-22, 1-66 and 2-67) (Not shown).....	12451-
117515	21a	Terminal Post only, for Ref. 21.....	8094-1192
72948	22	Nut.....	8109-383
166299	23	Clutch Armature Stop.....	11893-482
157228	24	Core Pin.....	8114-717
161186	25	Armature with Bracket, Pivot, Screws and Lock Washers (Inc. 1-26 and 2-27).....	C-9278-3
159675	25a	Armature only, for Ref. 25.....	8157-369
157243	26	Bracket.....	8303-107
159814	27	Pivot Screw.....	8378-354
159815	28	Lock Washer, for Ref. 27.....	8486-395
160359	29	R. H. Magnet Bracket complete with core.....	8075-221
160361	30	L. H. Magnet Bracket complete with core.....	8075-221
135649	31	Washer.....	8078-1042
160357	32	Pole Piece.....	8250-84
161271	33	Screw for Ref. 32.....	8098-1300

UNION SWITCH & SIGNAL CO.

STYLE "DT-10" D. C. TIME ELEMENT RELAY DETAIL PARTS (Continued)

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

Piece	Ref.	Description	Drawing Reference
149339	34	Lock Washer for Ref. 33	8486-368
161192	35	Back Strap with Name Plate	8162-233
161191	35a	Back Strap only	8162-233
161193	36	Copper Tube	8161-118
164948	36a	Brass Tube	8161-118
161195	37	Washer	7828-176
	38	Terminal Post with Nuts, Washers and Screw for Back Post (Inc. 1-38a, 1-22, 1-41, 1-66, 3-67 and 2-68)	12451-
160746	38a	Terminal Post only, for Ref. 38	8094-2242
157218	39	Insulating Block (when Flasher Contacts are used) ...	8750-2348
161270	40	Insulating Block (when no Flasher Contacts are used) .	8750-2348
159809	41	Back Post	8094-2239
141189	42	Contact Spring Support	9968-702
161088	43	Connector	8064-684
142673	44	Screw	8098-1300
161086	45	Connector	8064-683
155340	46	Lock Washer	8486-368
151836	47	Nut	8109-445
150166	48	Screw	8098-550

UNION SWITCH & SIGNAL CO.

STYLE "DT-10" D. C. TIME ELEMENT RELAY
DETAIL PARTS
(Continued)

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

Piece	Ref.	Description	Drawing Reference
134516	49	Lock Washer.....	8486-368
150140	50	Lock Washer.....	8486-367
131258	51	Lock Washer.....	8486-367
150113	52	Contact Spring Support.....	9968-849
170726	53	Contact Spring with Flexible Connector.....	8385-1996
131261	54	L. H. Back Post (Silver Contact Tip).....	8094-2123
157394	54a	L. H. Back Post (Sil. Imp. Graph. Contact Tip)....	8094-2234
131262	55	R. H. Back Post (Silver Contact Tip).....	8094-2123
157395	55a	R. H. Back Post (Sil. Imp. Graph. Contact Tip)....	8094-2234
	56	Terminal Post with Nuts, Washers, Lock Washer and Screw (Inc. 1-56a, 1-66, 1-67, 2-68, 2-69, 1-22, 1-49 and 1-88).....	12451-
160845	56a	Terminal Post only, for Ref. 56.....	8094-2125
	57	Terminal Post with Nuts and Washers (Inc. 1-57a, 1-66, 1-67, 2-68, 2-69 and 1-22).....	12451-
157862	57a	Terminal Post only, for Ref. 57.....	8094-2207
131245	58	Terminal Post.....	8094-2122
134400	59	Lock Washer.....	8486-371
151836	60	Nut, used with Ref. 139.....	8109-445
57996	61	Screw.....	8098-845
158043	62	Contact Tip (Silver Imp. Graphite).....	8341-476

UNION SWITCH & SIGNAL CO.

STYLE "DT-10" D. C. TIME ELEMENT RELAY
 DETAIL PARTS
 (Continued)

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

Piece	Ref.	Description	Drawing Reference
159125	63	Contact Tip.....	8094-2240
167528	64	L. H. Back Post (With Contact Tip) (Sil. Imp. Graph.)	8094-2271
165540	65	R. H. Back Post (With Contact Tip) (Sil. Imp. Graph.)	8094-2271
69705	66	Washer.....	7828-287
29103	67	Nut.....	8109-194
29102	68	Washer.....	7828-139
29101	69	Nut.....	8109-193
	70	Terminal Post with Nuts and Washers (Inc. 1-70a, 1-66, 1-67, 2-68, 2-69 and 1-22).....	12451-
158035	70a	Terminal Post only, for Ref. 70.....	8094-2125
73772	71	Washer.....	7826-180
	72	Screw with Nut and Washer (Inc. 1-72a, 1-22 and 1-71).....	12471-
161072	72a	Screw only, for Ref. 72.....	8098-876
62135	73	Contact Block.....	9968-397
167081	73a	Contact Block with Contact Springs.....	8385-2260
	74	Terminal Post with Nuts, Washers and Screw (Inc. 1-74a, 1-66, 1-67, 2-68, 2-69, 1-22, 1-49 and 1-88) (used when Flasher Contacts are required).....	12451-
160944	74a	Terminal Post only, for Ref. 74.....	8094-2247
	75	Terminal Post with Nuts and Washers (Inc. 1-75a and 1-22) used when no Flasher Contacts are required..	12451-

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PLATE E-5206

UNION SWITCH & SIGNAL CO.

STYLE "DT-10" D. C. TIME ELEMENT RELAY DETAIL PARTS (Continued)

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

Piece	Ref.	Description	Drawing Reference
161197	75a	Terminal Post only, for Ref. 75.....	8094-2247
161821	76	Terminal Connector (used when Flasher Contacts are required).....	8064-687
1515	77	Nut.....	8109-23
160337	78	Bracket.....	12538-47
74798	79	Lock Washer for Ref. 77.....	8486-55
160363	80	Contact Spring.....	8385-2218
160368	81	Contact Spring.....	8385-2217
160739	82	Contact Spring Stop.....	8735-688
161199	83	Contact Spring.....	8385-2225
160740	84	Contact Spring Stop.....	8735-688
160741	85	Contact Spring Stop.....	8735-689
	86	Terminal Post with Nuts and Washers (Inc. 1-86a, 1-67, 3-68, 2-69, 1-66 and 1-22).....	12451-
160353	86a	Terminal Post only, for Ref. 86.....	8094-2246
167124	86b	Terminal Post with Contact Springs and Stops (Inc. 1-86a, 1-80, 1-85, 1-82, 1-115 and 1-140).....	8094-2279
	87	Terminal Post with Nuts and Washers (Inc. 1-87a, 1- 66, 1-67, 3-68, 2-69 and 1-22).....	12451-
160742	87a	Terminal Post only, for Ref. 87.....	8094-2246
167125	87b	Terminal Post with Contact Springs and Stops (Inc. 1-87a, 1-83, 1-84, 1-115 and 1-140).....	8094-2280

UNION SWITCH & SIGNAL CO.

STYLE "DT-10" D. C. TIME ELEMENT RELAY
 DETAIL PARTS
 (Continued)

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

Piece	Ref.	Description	Drawing Reference
131239	88	Screw.....	8098-845
159676	89	Bushing.....	8350-778
159677	90	Nut.....	8109-453
160749	91	Armature Shaft.....	12501-46
160738	92	Ratchet Wheel.....	9121-136
160365	93	Oscillating Armature (Used with Flasher Contacts)...	8157-370
160943	93a	Oscillating Armature with Pins (Used without Flasher Contacts).....	8157-370
160836	94	Brake Wheel.....	8424-258
160744	95	Brake Armature.....	8157-371
161194	96	Washer.....	8112-66
161189	97	Pin.....	8097-852
	98	Planetary Gear Train complete (for details refer to Plate E-5210).....	C-9278-4
57497	99	Dowel Pin for Ref. 25.....	8097-872
160844	100	Pinion Gear (For 0.5 to 6 Minute Operation).....	8424-259
162000	100a	Pinion Gear (For 10 to 120 Second Operation).....	8424-260
156495	101	Pin for Pinion.....	8097-409
83	102	Washer.....	7828-3
160369	103	Pawl.....	9121-135
18120	104	Washer for Ref. 105.....	7828-100

UNION SWITCH & SIGNAL CO.

STYLE "DT-10" D. C. TIME ELEMENT RELAY DETAIL PARTS (Continued)

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

Piece	Ref.	Description	Drawing Reference
156497	105	Pin.....	8097-409
166261	106	Spring.....	8735-690
62977	107	Screw.....	8098-845
158139	108	L. H. Connector.....	8064-674
158143	109	L. H. Connector.....	8064-675
158145	110	R. H. Connector.....	8064-675
158141	111	R. H. Connector.....	8064-674
138218	112	Nut.....	8265-252
161187	113	Screw with Nut Ref. 113b (used for shipping).....	8098-1298
137935	113a	Screw (used in place of Ref. 113 when installed)....	8098-1289
537	113b	Nut for Ref. 113.....	8109-1
	114	Cap Screw, $\frac{5}{16}$ "-18x $\frac{3}{4}$ " Hex. Hd. S. (Cad. Pl.).	
48554	115	Screw.....	8098-464
140852	116	Nut Lock.....	8486-403
168824	117	Washer ($\frac{1}{8}$ " Thick).....	8078-1499
168826	117a	Washer ($\frac{1}{16}$ " Thick).....	8078-1499
	118	Machine Screw No. 14-24x1" (Cad. Pl.) with Nut Ref. 22.	
163194	119	Wall Bracket (Not shown).....	11893-475
	120	Machine Screw No. 8-36x $\frac{1}{2}$ " Fil. Hd. Br. (N. P.) for Ref. 25.	
410218	121	Shock Absorber Spring (Not shown).	

UNION SWITCH & SIGNAL CO.

STYLE "DT-10" D. C. TIME ELEMENT RELAY

DETAIL PARTS

(Continued)

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

Piece	Ref.	Description	Drawing Reference
	122	Screw with Nut and Washer (Inc. 1-122a, 1-22, 1-125 and 3-145).....	12471-
161184	122a	Screw only, for Ref. 122.....	8098-589
	123	Back Post with Nuts, Washer and Lock Washer used when no Flasher Contacts are required (Inc. 1-123a, 1-22, 2-124, 2-125, 4-126 and 1-142).....	12471-
161073	123a	Back Post only, for Ref. 123.....	8098-925
161089	124	Stop.....	11893-496
32814	125	Lock Washer.....	8486-133
30420	126	Nut.....	8109-214
161185	127	Contact Spring (Used when no Flasher Contacts are required).....	8735-691
157218	128	Insulation (For Relay with Flasher Contacts).....	8750-2348
161270	128a	Insulation (used in Space No. 1) (For Relay without Flasher Contacts).....	8750-2348
56212	129	Lead Clip.....	8486-155
170726	130	Contact Spring with Flexible Connector for Flasher (With Silver Contact Tip).....	8385-1996
176829	131	Contact Spring with Flexible Connector for Control Contact only.....	8385-2253
135300	132	Lock Washer.....	8486-374
131239	133	Screw.....	8098-845
162002	134	Contact Post.....	8094-2259

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PLATE E-5206

UNION SWITCH & SIGNAL CO.

STYLE "DT-10" D. C. TIME ELEMENT RELAY

DETAIL PARTS

(Continued)

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

Piece	Ref.	Description	Drawing Reference
170726	135	Contact Spring with Flexible Connector.....	8385-1996
176828	136	Contact Spring with Flexible Connector.....	8385-1996
156580	137	Reinforcing Spring for Ref. 136.....	8385-2191
161190	138	Name Plate.....	8225-344
173737	139	Nut Lock.....	8486-403
149339	140	Lock Washer.....	8486-368
160943	141	Polar Armature with Pins and Rivets.....	8157-370
52010	142	Lock Washer.....	8486-267
	143	Screw, No. 4x $\frac{1}{16}$ " (Cad. Pl.).	
165539	144	Back Post.....	8094-2271
18757	145	Washer.....	7828-104
87225	146	Washer.....	7828-287
170910	147	Terminal Post with Nuts, Washers and Screw (Inc. 1-147a, 1-22, 1-49, 1-66, 1-67, 2-68, 2-69 and 1-88) ..	12451-239
157858	147a	Terminal Post only, for Ref. 147.....	8094-2235
170911	148	Terminal Post with Nuts and Washers (Inc. 1-148a, 1-22, 1-66, 1-67, 2-68 and 2-69).....	12451-241
112417	148a	Terminal Post only, for Ref. 148.....	8094-1192
161275	149	Neutralizing Coils, 11-Ohms per pair (For 6-Volt Relay).....	8133-395

UNION SWITCH & SIGNAL CO.

STYLE "DT-10" D. C. TIME ELEMENT RELAY

DETAIL PARTS

(Continued)

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

Piece	Ref.	Description	Drawing Reference
168894	149a	Neutralizing Coils, 18-Ohms per pair (For 8-Volt Relay).....	8133-395
168895	149b	Neutralizing Coils, 28-Ohms per pair (For 10-Volt Relay).....	8133-395
168896	149c	Neutralizing Coils, 48-Ohms per pair (For 12-Volt Relay).....	8133-395
161822	150	Magnet Coil, 100-Ohms (32.5 Ohms low resistance and 67.5 Ohms high resistance).....	8133-394
160946	150a	Magnet Coil, 175-Ohms (50 Ohms low resistance and 125-Ohms high resistance).....	8133-394
160948	150b	Magnet Coil, 275-Ohms (80 Ohms low resistance and 195 Ohms high resistance).....	8133-394
160949	150c	Magnet Coil, 400-Ohms (125 Ohms low resistance and 275 Ohms high resistance).....	8133-394
170818	151	Core for Refs. 12a and 13a.....	8101-347
173298	152	Shock Absorber Springs, for Wall mounting.....	12404-28
172595	152a	Shock Absorber Springs, for Shelf mounting.....	12404-27