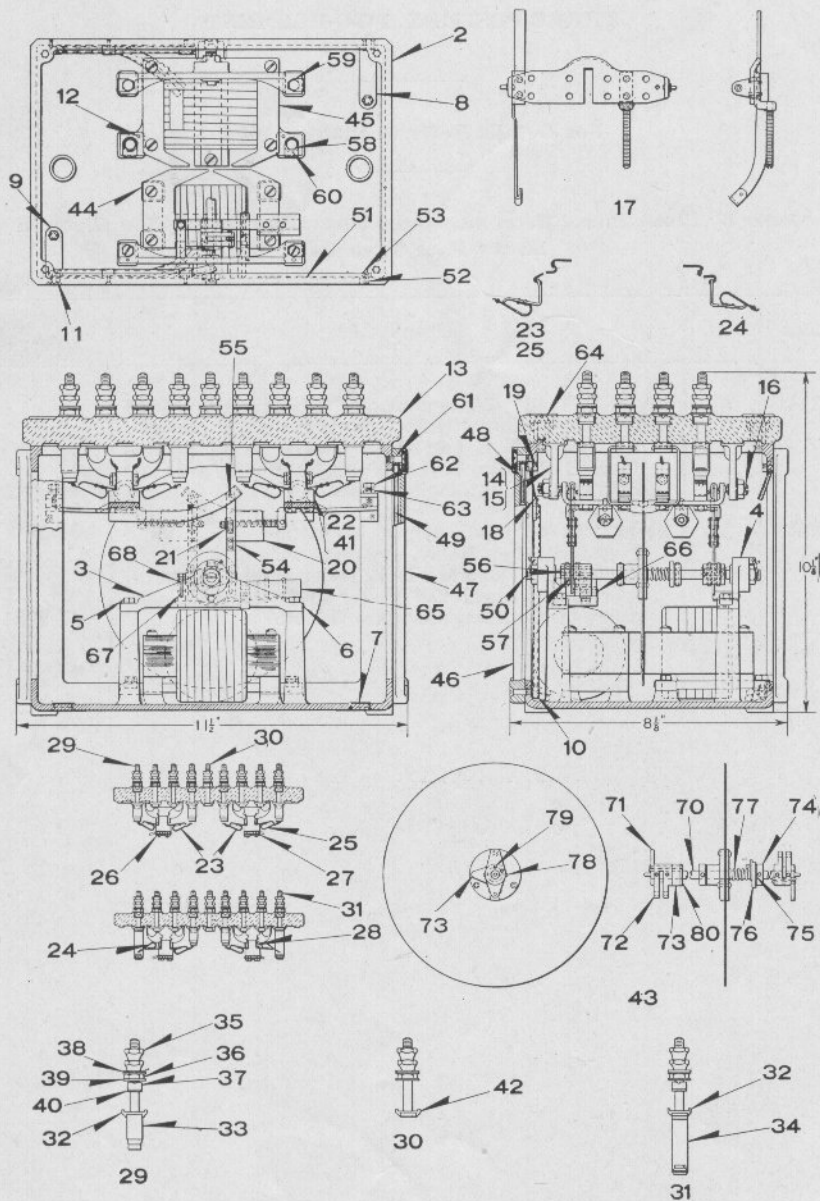


UNION SWITCH & SIGNAL CO.

Zachary C. Gillihan 2008



STYLE "TV-40" TWO-ELEMENT, THREE-POSITION
VANE TYPE RELAY

UNION SWITCH & SIGNAL CO.
Zachary C. Gillihan 2008
 STYLE "TV-40" TWO-ELEMENT, THREE-POSITION
 VANE TYPE RELAY
 DETAIL PARTS

For Complete Relay Refer to Plate E-1080

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

Piece	Ref.	Description	Drawing Reference
160792	2	Case, complete with Ventilators, Pivot Brackets, Stop Brackets, Clips, Rivets and Pins (Includes 1-2a, 1-3, 1-4, 4-5, 4-6, 2-7, 1-8, 1-9, 6-10, 10-11 and 4-12).....	C-9286-1
152326	2a	Case only, for Ref. 2.....	C-9286-1
160790	3	Pivot Bracket with Vane Stop.....	C-9286-2
160791	4	Pivot Bracket with Vane Stop.....	C-9286-2
115567	5	Machine Screw.....	8098-850
115568	6	Lock Washer for Ref. 5.....	8486-197
34340	7	Ventilator for Ref. 2.....	C-7459-6
117622	8	Stop Bracket for Ref. 2.....	11893-159
117623	9	Stop Bracket for Ref. 2.....	11893-159
116272	10	Wire Clip for Ref. 2.....	8735-580
54921	11	Rivet for attaching Stop Brackets and Wire Clips to Case.....	10301-1
37524	12	Pin, for attaching Pivot Brackets to Case.....	8097-279
161045	13	Top Plate and Contact Spring Combination, complete with 6 Normal, 6 Reverse, 2 N. B. and 2 R. B. Independent Contacts for 2-Element, 3-Position Style "TV-40" Vane Type Relay.....	C-9291-2
161044	13a	Top Plate with Contact Bar Brackets, Screws and Washers for Ref. 13.....	C-9291-1
152705	13b	Top Plate only for Ref. 13a.....	C-8296-7
69724	14	Contact Bar Bracket for Ref. 13a.....	C-8814-9

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 STYLE "TV-40" TWO-ELEMENT, THREE-POSITION
 VANE TYPE RELAY

DETAIL PARTS
 (Continued)

For Complete Relay Refer to Plate E-1080

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

Piece	Ref.	Description	Drawing Reference
	15	Machine Screw No. 14-24x $\frac{7}{8}$ " Fil. Hd. S. (Cad. Pl.) with Washer Ref. 15a for attaching Ref. 14 to Top Plate.	
69701	15a	Washer only, for Ref. 15.....	7826-241
96403	16	Trunnion with Lock Nut Ref. 16a.....	12471-5
29577	16a	Hex. Nut for Ref. 16 and 50.....	8109-205
160930	17	Contact Spring Support, complete.....	C-9286-2
73587	18	Flexible Connector.....	10934-107
	19	Machine Screw No. 6-40x $\frac{1}{4}$ " Rd. Hd. Br. (N. P.) with Washer Ref. 19a.	
20686	19a	Washer for Ref. 19.....	7828-108
136674	20	Counterweight.....	9672-189
26942	21	Hex. Nut.....	8109-184
62135	22	Contact Spring Block for Independent Contacts.....	9968-397
110663	23	Contact Spring (L. H. Front).....	8385-1882
110664	24	Contact Spring.....	8385-1882
112738	25	Contact Spring (L. H. Back).....	8385-1882
1515	26	Hex. Nut.....	8109-23
74798	27	Lock Washer.....	8486-155
19409	28	Lock Washer.....	8486-68
	29	Terminal Post Complete (Includes 1-30a, 1-32, 1-33, 2-35, 1-36, 1-37, 2-38, 1-39 and 1-40).....	12451

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 STYLE "TV-40" TWO-ELEMENT, THREE-POSITION
 VANE TYPE RELAY
 DETAIL PARTS
 (Continued)

For Complete Relay Refer to Plate E-1080

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

Piece	Ref.	Description	Drawing Reference
	30	Terminal Post Complete (Includes 1-30a, 1-32, 2-35, 1-36, 2-38 and 1-39).....	12451
112417	30a	Terminal Post only for Refs. 29 and 30.....	8094-1192
	31	Terminal Post Complete (Includes 1-31a, 1-32, 1-34, 2-35, 1-36, 1-37, 2-38, 1-39 and 1-40).....	12451
70627	31a	Terminal Post only for Ref. 31.....	8094-797
29063	32	Lock Washer.....	8486-111
112419	33	Terminal Post with Graphite Contact.....	8094-1193
72667	34	Terminal Post with Graphite Contact.....	8094-1190
29101	35	Hex. Nut.....	8109-193
29103	36	Hex. Nut.....	8109-194
72948	37	Nut.....	8109-383
29102	38	Washer.....	7828-139
69705	39	Washer.....	7828-287
70539	40	Washer.....	8274-73
49144	41	Washer.....	7828-213
121616	42	Lock Washer.....	8486-362
162339	43	Vane, complete with Shaft, Cranks, Stops, Spring and Collars.....	10985-46
161140	*44	Control Field, 75/100 Volts, 60/100 Cycles, Spec. 2110 and 2122.....	C-9286-3
161140	*44a	Control Field, 110 Volts, 60 Cycles, Spec. 2110 and 2122.....	C-9286-3

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STYLE "TV-40" TWO-ELEMENT, THREE-POSITION
VANE TYPE RELAY

DETAIL PARTS

(Continued)

For Complete Relay Refer to Plate E-1080

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

Piece	Ref.	Description	Drawing Reference
161138	*44b	Coil only for Refs. 44, 44a and 45.....	10991-216
161141	*45	Local Field, 75 /110 Volts, 60 /100 Cycles, Spec. 2110	C-9286-3
162965	*45a	Local Field, 110 Volts, 60 Cycles, Spec. 2122.....	C-9286-3
162964	*45b	Coil only for Ref. 45a.....	10991-216
		*NOTE: If other Voltages and Frequency are desired orders should so state.	
91075	46	Door.....	C-8101-7
91076	47	Door.....	C-8101-7
142197	48	Glass Shield with Gasket.....	8163-282
90947	48a	Gasket only, for Ref. 48.....	8078-1268
142198	49	Glass Shield with Gasket.....	8163-282
70823	49a	Gasket only, for Ref. 49.....	8078-1268
161129	50	Trunnion Screw with Lock Nut Ref. 16a.....	12471-5
161043	51	Name Plate Marked—Local 75 /110 V. Spec. 2110...	8225-343
162967	51a	Name Plate Marked—Local 110 V. Spec. 2122.....	8225-358
	52	Machine Screw No. 6-40x1/2" Flat Hd. S. (Cad. Pl.).	
122932	53	Strap.....	11893-200
160902	54	Link.....	8232-190
62223	55	Pin for Links.....	8097-837
162311	56	Pin.....	8097-1038
117786	57	Washer.....	7828-184

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 STYLE "TV-40" TWO-ELEMENT, THREE-POSITION
 VANE TYPE RELAY
 DETAIL PARTS
 (Continued)

For Complete Relay Refer to Plate E-1080

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

Piece	Ref.	Description	Drawing Reference
140943	58	Screw.....	8098-1407
115568	59	Lock Washer for Ref. 58.....	8486-197
83	60	Washer for Ref. 58.....	7828-3
	61	Machine Screw No. 10-30x $\frac{5}{8}$ " Flat Hd. S. (Cad. Pl.).	
29354	62	Screw with Lock Nut Ref. 63.....	8098-500
32498	63	Hex. Nut for Ref. 62.....	8109-223
	64	Machine Screw No. 14-24x $\frac{7}{8}$ " Fil. Hd. S. (Cad. Pl.) with $\frac{3}{16}$ " Std. Plate Washer ($\frac{1}{4}$ "x $\frac{9}{16}$ ").	
161283	65	Buffer.....	9672-199
136629	66	Pin.....	8097-1038
162458	67	Screw with Lock Nut Ref. 68.....	8098-923
40916	68	Hex. Nut for Ref. 67.....	8109-272
122308	69	Terminal for Coil Leads (Not shown).....	8244-113
152800	70	Shaft for Vane.....	8160-185
152798	71	Stop for Vane.....	11893-485
152801	72	Crank for Vane.....	8233-128
152797	73	Cam for Vane.....	8750-2369
162343	74	Collar for Vane.....	8350-529
152799	75	Washer for Vane.....	8078-1392

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 STYLE "TV-40" TWO-ELEMENT, THREE-POSITION
 VANE TYPE RELAY

DETAIL PARTS
 (Continued)

For Complete Relay Refer to Plate E-1080

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

Piece	Ref.	Description	Drawing Reference
162359	76	Collar for Vane	8350-576
116600	77	Coil Spring for Vane	7770-355
54929	78	Rivet for Vane	10301-21
54930	79	Rivet for Vane	10301-21
29104	80	Washer for Vane	7828-138