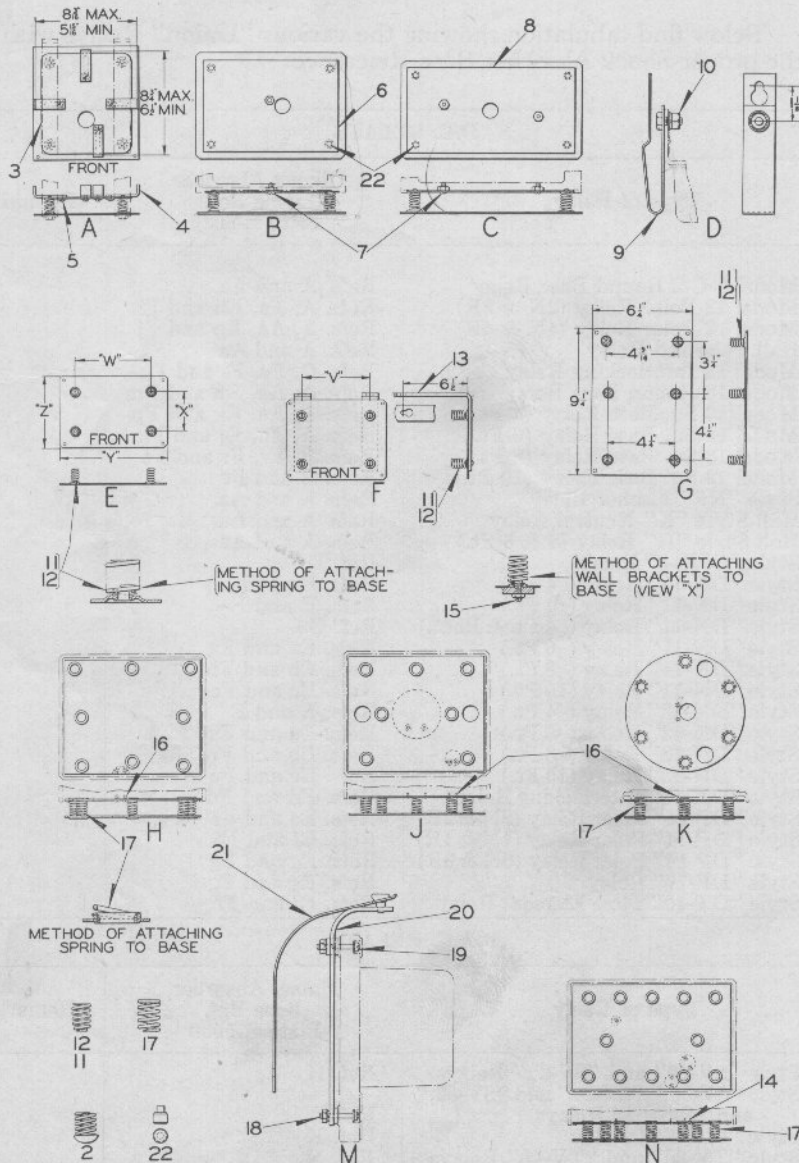


UNION SWITCH & SIGNAL CO.



SHOCK ABSORBER SPRING BASES FOR D. C. AND A. C. RELAYS

UNION SWITCH & SIGNAL CO.

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See Tabulation preceding this plate for assistance in selection of type.

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

Piece	Ref.	Description	Drawing Reference
156007	*A	Shelf Type Adjustable Shock Absorber Base complete as shown (Inc. 1-Ab, and 1-Em)	12404-24
174233	*Aa	Wall Type Adjustable Shock Absorber Base complete as shown in dot and dash lines (Inc. 1-Ab and 1-Fn) ..	12404-24
174068	Ab	Platform only, for Refs. A and Aa (Inc. 1-3 and 4-4) ...	12404-24
		*The shock absorber bases listed above can be applied to the following relays:— Model 13 D.C. Neutral Rd. Base Relay, Model 13 D. C. Neutral 4 Pt. Sq. Base Relay, Model 13 D.C. Neutral 6 Pt. Sq. Base Relay, Model 12 D.C. Polarized Relay (2F & 2B and 4F & 4B Polarized Contacts), Style "NF" D.C. Flasher Relay, Type 9-C-2 D.C. Rd. Base Relay, Hall Style "K" Neutral Relay, Hall Polarized Relay, Hall Style "H" 4 Pt. Relay and Hall Style "H" 6 Pt. Relay.	
136008	B	Shock Absorber Base complete as shown for applying to Model 13, 8 and 10 Pt. Sq. Base Relays as shown on Plates E-4816 and E-4817 (Without Studs in Base Plate) (Inc. 1-Er and 1-6)	12404-15
135767	C	Shock Absorber Base complete as shown for applying to Model 12 Interlocking Relay without Studs in Base Plate (Inc. 1-Es and 1-8)	12404-11
151539	D	Shock Absorber Spring with Bolt, Nut and Washers (Inc. 1-9 and 1-10) for applying to "DNL-3" Wall mounting Relay as shown on Plate E-5070 (two required for each Relay)	12404-21

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PLATE E-5030

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SHOCK ABSORBER SPRING BASES FOR D. C. AND A. C. RELAYS (Continued)

See Tabulation preceding this plate for assistance in selection of type.

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

Shelf Type Shock Absorber Base complete, for application to D.C. Relays									
Piece	Ref.	Type of Relay	Front Spring Ref.	Rear Spring Ref.	Dimensions				Drawing Reference
					"W"	"X"	"Y"	"Z"	
172589	E	DN-11 and DN-12, 4 Pt.	12	11	4¼"	4¼"	6¼"	6¼"	12404-27
172590	Ea	DN-11 and DN-12, 6 Pt.	12	11	5½"	4¼"	7½"	6¼"	12404-27
172591	Eb	DN-11 and DN-12, 8 Pt.	12	11	7½"	4¼"	9½"	6¼"	12404-27
172592	Ec	DN-11 and DN-12, 10 Pt.	12	11	9½"	4¼"	11½"	6¼"	12404-27
172593	Ed	DX-13 Interlocking	12	11	10¼"	4⅜"	12¼"	6⅜"	12404-27
172594	Ee	DP-14, 2N and 2R Polar	11	11	5⅜"	5¾"	7⅜"	7¾"	12404-27
172595	Ef	DT-10 and DP-14, 4N and 4R Polar	11	11	7"	7"	9"	9"	12404-27
173413	Eg	DP-14, 6N and 6R Polar and DP-17	11	11	9"	6"	11"	8"	12404-27
173439	Eh	Model 13 Rd. Base, 4 Pt.	11	11	3⅜"	3⅜"	5⅜"	5⅜"	12404-27
173441	Ej	Model 13 Sq. Base, 6 Pt.	11	11	5¼"	6⅛"	7¼"	8⅛"	12404-27
173443	Ek	Model 13 Sq. Base, 4 Pt.	11	11	4⅝"	6"	6⅝"	8"	12404-27
173445	Em	For Ref. A	11	11	4⅞"	5⅛"	6⅞"	7⅝"	12404-27

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SHOCK ABSORBER SPRING BASES FOR D. C. AND A. C. RELAYS
(Continued)

See Tabulation preceding this plate for assistance in selection of type.

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

Piece	Ref.	Type of Relay	Front Spring Ref.	Rear Spring Ref.	Dimensions				Drawing Reference
					"W"	"X"	"Y"	"Z"	
173835	En	Model 12, 2N and 2R, Polarized	11	11	4 $\frac{7}{8}$ "	5 $\frac{1}{2}$ "	6 $\frac{7}{8}$ "	7 $\frac{1}{2}$ "	12404-27
173837	Ep	Model 12, 4N and 4R Polarized	11	11	5 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	7 $\frac{1}{2}$ "	7 $\frac{1}{2}$ "	12404-27
174249	Eq	DN-10, 4 Pt.	12	11	4 $\frac{3}{8}$ "	3 $\frac{5}{8}$ "	6 $\frac{3}{8}$ "	5 $\frac{5}{8}$ "	12404-27
176161	Er	Model 13 Sq. Base, 8 Pt.	11	11	7 $\frac{3}{4}$ "	5 $\frac{1}{8}$ "	9 $\frac{3}{4}$ "	7 $\frac{1}{8}$ "	12404-27
176197	Es	Model 12 Int. Relay	11	11	9 $\frac{3}{4}$ "	4 $\frac{5}{8}$ "	11 $\frac{3}{4}$ "	6 $\frac{5}{8}$ "	12404-27
Wall Type Shock Absorber Spring Base complete, for application to D. C. Relays									
Piece	Ref.	Type of Relay			"V" Dim.	Base Ref.	Wall Bracket Ref.		
173292	F	DN-11 and DN-12, 4 Pt.			4 $\frac{1}{4}$ "	E	13		
173293	Fa	DN-11 and DN-12, 6 Pt.			5 $\frac{1}{2}$ "	Ea	13		
173294	Fb	DN-11 and DN-12, 8 Pt.			7 $\frac{1}{2}$ "	Eb	13		
173295	Fc	DN-11 and DN-12, 10 Pt.			9 $\frac{1}{2}$ "	Ec	13		
173296	Fd	DX-13 Interlocking			10 $\frac{1}{4}$ "	Ed	13a		
173297	Fe	DP-14, 2N and 2R Polar Contacts			5 $\frac{3}{8}$ "	Ee	13b		
173298	Ff	DT-10 Time Element and DP-14, 4N and 4R Polar Contacts			7"	Ef	13c		

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PLATE E-5030

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SHOCK ABSORBER SPRING BASES FOR D. C. AND A. C. RELAYS (Continued)

See Tabulation preceding this plate for assistance in selection of type.

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

Piece	Ref.	Type of Relay	"V" Dim.	Base Ref.	Wall Bracket Ref.	Drawing Reference
173530	Fg	DP-14, 6N and 6R Polar and DP-17	9"	Eg	13d	12404-28
173869	Fh	Model 12 Polarized, 2N and 2R Polar Contacts	4 $\frac{7}{8}$ "	En	13e	12404-28
173870	Fj	Model 12 Polarized, 4N and 4R Polar Contacts	5 $\frac{1}{2}$ "	Ep	13e	12404-28
173871	Fk	Model 13 Sq. Base, 6 Pt.	5 $\frac{1}{4}$ "	Ej	13f	12404-28
173987	Fm	Model 13 Rd. Base, 4 Pt.	3 $\frac{17}{32}$ "	Eh	13g	12404-28
173989	Fn	For Ref. Aa	4 $\frac{9}{16}$ "	Em	13h	12404-28
174040	Fp	Model 13 Sq. Base, 4 Pt.	4 $\frac{1}{8}$ "	Ek	13d	12404-28
174251	Fq	DN-10, 4 Pt.	4 $\frac{3}{8}$ "	Eq	13j	12404-28
176201	Fr	Model 13, 8 Pt. Sq. Base	7 $\frac{3}{4}$ "	Es	13k	12404-28
176162	Fs	Model 12, Interlocking	9 $\frac{3}{4}$ "	Et	13m	12404-28
176163	Ft	Model 13, 8 Pt. and 10 Pt. (Relays without Studs)	7 $\frac{3}{4}$ "	B	13k	12404-28
176198	Fu	Model 12, Interlocking (Relays without Studs)	9 $\frac{3}{4}$ "	C	13m	12404-28
Piece	Ref.	Description				Drawing Reference
177470	G	Shock Absorber Base complete as shown for applying to "DN-11" Lightout Relay (4 Pt.) with Rectifier				12404-29
138250	H	Shock Absorber Base complete as shown in full lines for applying to "SV-20" and "SV-21" A.C. Relays				12404-18

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SHOCK ABSORBER SPRING BASES FOR D. C. AND A. C. RELAYS
(Continued)

See Tabulation preceding this plate for assistance in selection of type.

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

Piece	Ref.	Description	Drawing Reference
137819	J	Shock Absorber Base complete as shown in full lines for applying to Model 15 Vane Type Relay and "SV-30," "SV-31" and "SV-32" A C. Relays.....	12404-16
137907	K	Shock Absorber Base complete as shown in full lines for applying to "SLV-13" A.C. Vane Type Relay...	12404-17
152381	M	Shock Absorber Spring with Bolt, Nut and Washers (Inc. 1-18, 1-19, 1-20 and 2-21 spaced 3" centers) for applying to "ANL-30" A.C. Relay	12404-22
163849	N	Shock Absorber Base complete as shown in full lines for applying to "TV-40" and "TV-30" A.C. Relays	12404-25
410218	2	Shock Absorber Spring (Used when Shock Absorber Base is not desired).	
	3	Plate with Four Studs for Ref. Ab (without Clips)....	9999-651
156005	4	Clip with Screw Ref. 5.....	10914-160
	5	Machine Screw No. 10-30x $\frac{1}{4}$ " Rd. Hd. S. (Cad. Pl.) with Washer Ref. 5a and No. 10 Plain S. Lock Washer ($\frac{1}{8}$ "x $\frac{3}{16}$ ") (Cad. Pl.) for Ref. 4.	
53	5a	Washer, for Ref. 5.....	7828-5
	6	Plate with Four Studs and Screw Ref. 7 for Ref. B....	9999-363
	7	Machine Screw No. 14-24x $\frac{1}{2}$ " Rd. Hd. S. (Cad. Pl.) with Nut Ref. 7a for Ref. 6.	
29103	7a	Nut, for Ref. 7.....	8109-194
	8	Plate with Four Studs and Two Screws Ref. 7 for Ref. C.....	9999-354
151538	9	Shock Absorber Spring only, for Ref. D.....	8735-656

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PLATE E-5030

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SHOCK ABSORBER SPRING BASES FOR D. C. AND A. C. RELAYS (Continued)

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

Piece	Ref.	Description	Drawing Reference
	10	Tap Bolt, $\frac{1}{4}$ "-20x $\frac{5}{8}$ " Hex. Hd. with Washers Ref. 10a, $\frac{1}{4}$ " Plain S. Lock Washer ($\frac{1}{8}$ "x $\frac{1}{16}$ ") and $\frac{1}{4}$ "-20 Hex. Nut (Cad. Pl.) for Ref. 9.	
29102	10a	Washer only, for Ref. 9.....	7828-139
172580	11	Spring only No. 13 Gauge Ph. Bz. (N. P.) with Eyelet Ref. 12a.....	8124-242
172581	12	Spring only No. 15 Gauge Ph. Bz. (N. P.) with Eyelet Ref. 12a.....	8124-242
169921	12a	Eyelet for fastening Refs. 11 and 12 to Plate.....	12579-4
173276	13	Wall Bracket for Refs. F, Fa, Fb and Fe.....	10914-342
173277	13a	Wall Bracket for Ref. Fd.....	10914-342
173278	13b	Wall Bracket for Ref. Fe.....	10914-342
173279	13c	Wall Bracket for Ref. Ff.....	10914-342
173531	13d	Wall Bracket for Refs. Fg and Fp.....	10914-342
173868	13e	Wall Bracket for Refs. Fh and Fj.....	10914-342
173841	13f	Wall Bracket for Ref. Fk.....	10914-342
173986	13g	Wall Bracket for Ref. Fm.....	10914-342
173988	13h	Wall Bracket for Ref. Fn.....	10914-342
174250	13j	Wall Bracket for Ref. Fq.....	10914-342
176352	13k	Wall Bracket for Refs. Fr and Ft.....	10914-342
176200	13m	Wall Bracket for Refs. Fs and Fu.....	10914-342
	14	Machine Screw, No. 6-40x $\frac{1}{4}$ " Rd. Hd. S. (Cad. Pl.).	

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Order by Plate, Piece, Reference and Abbreviated Description Given in
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Piece	Ref.	Description	Drawing Reference
	15	Machine Screw, No. 10-30x $\frac{5}{8}$ " Flat Hd. S. with No. 10-30 Hex. Nut.	
	16	Machine Screw, No. 4-48x $\frac{1}{4}$ " Rd. Hd. S. (Cad. Pl.).	
135775	17	Spring only, No. 12 Gauge Ph. Bz. (N. P.) with eyelet Ref. 17a.....	8124-218
135773	17a	Eyelet for fastening Ref. 17 to Plate.....	12579-3
	18	Machine Screw, No. 8-36x1" with Washer Ref. 18a, Washer Ref. 18b, Nut Ref. 18d and No. 10 Plain S. Lock Washer ($\frac{1}{16}$ "x $\frac{1}{16}$ " (Cad. Pl.).	
152389	18a	Washer.....	7826-249
122842	18b	Washer.....	8078-880
152382	18c	Washer.....	7826-249
94344	18d	Nut.....	8265-70
	19	Machine Screw, No. 8-36x1 $\frac{1}{8}$ " Fil. Hd. S. with Washer Ref. 18a, Washer Ref. 18c, Nut Ref. 18d, Washer Ref. 18b and No. 10 Pl. S. Lock Washer ($\frac{1}{16}$ "x $\frac{1}{16}$ " (Cad. Pl.).	
152379	20	Relay Support.....	8735-666
413456	21	Spring.....	411675
148052	22	Stud (For use with Refs. 3, 6 and 8).....	8114-631