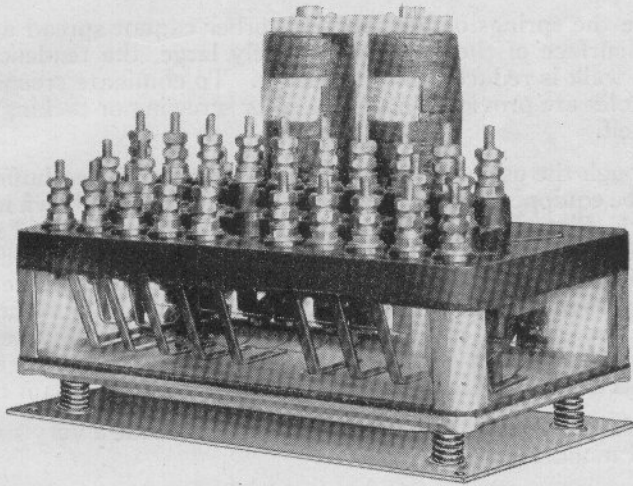


UNION SWITCH & SIGNAL CO.

SHOCK ABSORBERS FOR UNION RELAYS

(Preliminary information to Plate E-5030)

In this catalog will be found improved and substantially constructed designs of shock absorbers which have been developed to minimize adverse affects which may result in those exceptional cases where vibration of a relay housing structure is excessive.



Shock Absorber as applied to Union Style "DN-11" (10-point) Relay

FOR D. C. RELAYS

The bases of Style DN-11 and many other recently designed D.C. Union Relays are equipped with studs which fit into the tops of coil springs, the bottoms of which are securely fastened with crimped eyelets to a No. 18 gauge sheet steel plate. This construction tends to maintain the vertical alignment of the springs since it distributes any distorting force over four springs. Model 13 Relays are equipped with studs if shock absorber springs are included in the order.

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Each shock absorber assembly is designed to support a particular relay, and is marked to indicate the relay on which it is to be used. A different platform is required for each relay size and it is important that the proper assembly be specified from Plate E-5030. In many cases, the rear portion of a relay is heavier than the front portion and in order to compensate for this and to maintain the relay in a level position at all times, stronger coil springs are fastened to the rear of the shock absorber plate. The plate is stencilled to indicate the "front."

Since the springs of the shock absorber cannot spread and the bearing surface of the plate is relatively large, the tendency of a relay to walk is reduced to a minimum. To eliminate creeping entirely, holes are provided in the plate for screwing or tacking to the relay shelf.

Through the use of wall brackets, this type of spring buffer may readily be equipped for the wall mounting of relays as shown in Refs. Aa and F, Plate E-5030. The wall brackets are drilled and slotted near the upright ends to fit over the heads of screws. The holes in the horizontal portions are tapped so that the base of the shock absorber, as illustrated in View "X" Plate E-5030, may be fastened securely thereto. The screws for fastening the shock absorber plate to the brackets are inserted through the eyelets which secure the coil springs. The screws are locked in position by means of jam nuts.

Brackets are made of $\frac{3}{16}$ " strap steel and provide a very substantial wall mounting structure.

FOR A. C. RELAYS

Shock absorbers are also available for our alternating current relays. The construction is practically the same as that used for D.C. Relays except that the springs, in addition to being secured to a lower plate, are also fastened to a top plate. The relays are fastened to the top plate of this type of buffer by screws which are threaded into the holes provided in the base of the relay for the strings which secure the mechanism during shipment. These shock absorbers are illustrated in Refs. H, J, K and N, Plate E-5030. ANL-30 relays require a slightly different type of spring support as illustrated in Ref. M, Plate E-5030.

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ORDERING INSTRUCTIONS

Below find tabulation showing the various "Union" Relays with the proper Shock Absorber Base Reference.

| D.C. RELAYS | | |
|--|---|---------|
| Type of Relay | Shock Absorber Base Ref. Plate E-5030 | Remarks |
| Model 9-C-2 Round Base Relay | Refs. A and Aa | |
| Model 12 Polar Relay (2N & 2R) | Refs. A, Aa, En and Fh | |
| Model 12 Polar Relay (4N & 4R) | Refs. A, Aa, Ep and Fj | |
| Hall Polarized Relay | Refs. A and Aa | |
| Model 12 Interlocking Relay | Refs. C, Es, Fs and Fu | |
| Model 13 Round Base Relay | Refs. A, Aa, Eh and Fm | |
| Model 13 Sq. Base Relay (4 Pt.) | Refs. A, Aa, Ek and Fp | |
| Model 13 Sq. Base Relay (6 Pt.) | Refs. A, Aa, Ej and Fk | |
| Model 13 Sq. Base Relay (8 Pt.) | Refs. B, Er, Fr and Ft | |
| Model 13 Sq. Base Relay (10 Pt.) | Refs. B and Ft | |
| Style "NF" Flasher Relay | Refs. A and Aa | |
| Hall Style "K" Neutral Relay | Refs. A and Aa | |
| Hall Style "H" Relay (4 & 6 Pt.) | Refs. A and Aa | |
| Style "DNL-3" Relay | Ref. D | |
| Style "DN-10" Relay (4 Pt.) | Refs. E _q and F _q | |
| Style "DN-11" Relay (4 Pt.) | Refs. E and F | |
| Style "DN-11" Relay (4 Pt. & Rect.) | Ref. G | |
| Style "DN-11" Relay (6 Pt.) | Refs. Ea and Fa | |
| Style "DN-11" Relay (8 Pt.) | Refs. Eb and Fb | |
| Style "DN-11" Relay (10 Pt.) | Refs. Ec and Fc | |
| Style "DN-12" Relay (4 Pt.) | Refs. E and F | |
| Style "DN-12" Relay (6 Pt.) | Refs. Ea and Fa | |
| Style "DN-12" Relay (8 Pt.) | Refs. Eb and Fb | |
| Style "DN-12" Relay (10 Pt.) | Refs. Ec and Fc | |
| Style "DX-13" Interlocking Relay | Refs. Ed and Fd | |
| Style "DP-14" Polar Relay (2N & 2R) | Refs. Ee and Fe | |
| Style "DP-14" Polar Relay (4N & 4R) | Refs. Ef and Ff | |
| Style "DP-14" Polar Relay (6N & 6R) | Refs. Eg and Fg | |
| Style "DP-17" Relay | Refs. Eg and Fg | |
| Style "DT-10" Time Element Relay | Refs. Ef and Ff | |
| A.C. RELAYS | | |
| Type of Relay | Shock Absorber Base Ref. Plate E-5030 | Remarks |
| Style "SV-20" and "SV-21" Relays | Ref. H | |
| Style "SV-30," "SV-31" and "SV-32," and Model 15 Relays | Ref. J | |
| Style "SLV-13" Relay | Ref. K | |
| Style "TV-30" and "TV-40" Relays | Ref. N | |
| Style "ANL-30" Relay | Ref. M | |