



INSTRUCTIONS

CONCENTRIC LEAD BUSHING

For Type "URS" Step Regulator

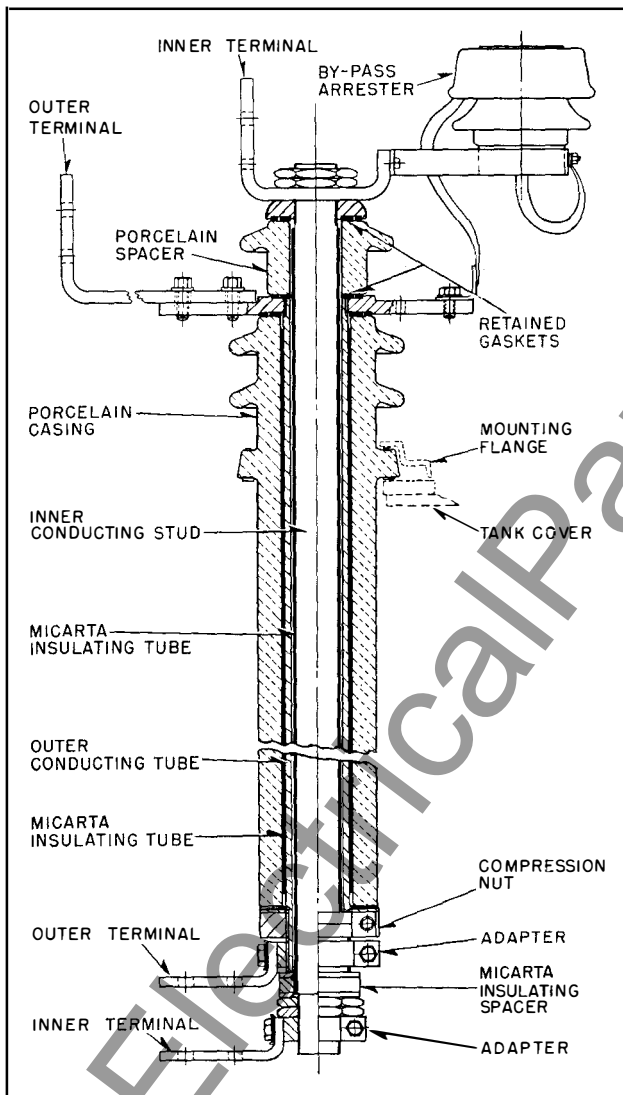


FIG. 1. Concentric Lead Bushing for Type URS Step Regulator

It will be noted from Fig. 1, which shows a cross-sectional view of the bushing, that the bushing contains two conductors; an inner stud and an outer conducting tube, separated by a Micarta insulating tube. At the bottom of the bushing a cylindrical Micarta spacer is used as insulation

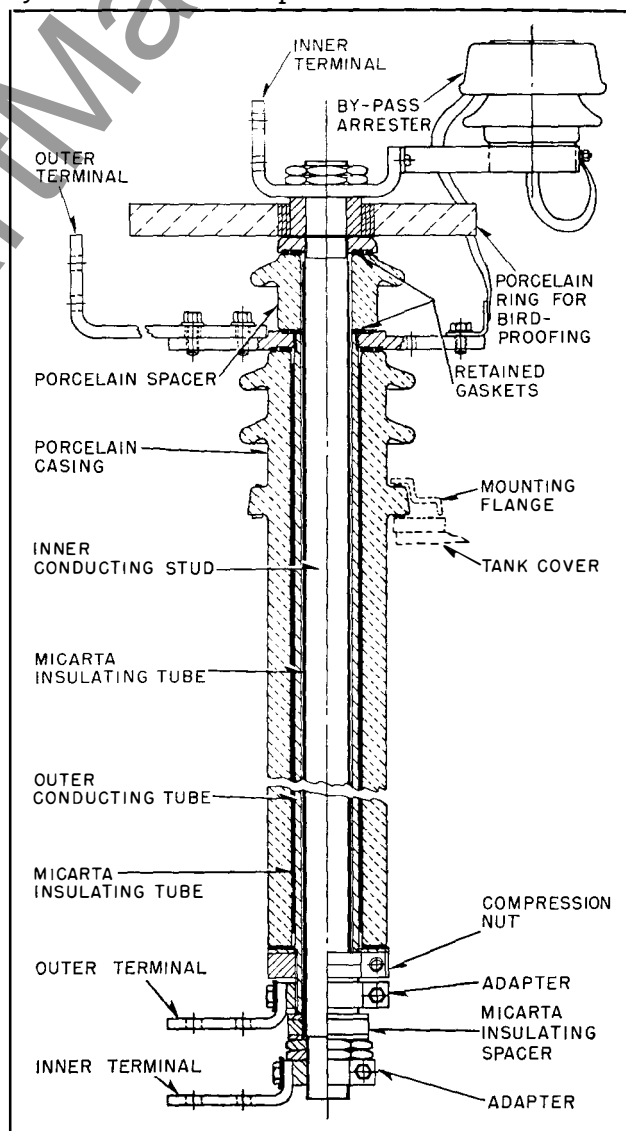


FIG. 2. Concentric Lead Bushing with Bird-proofing for Type URS Step Regulator

THIS CONCENTRIC LEAD BUSHING was designed specifically for use in Westinghouse Type URS Step Voltage Regulators. Its construction is unique in that both source and load leads of one phase are contained in a single porcelain casing.

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between the two terminals. Insulating separation is obtained between terminals at the top of the bushing by means of a porcelain spacer.

The bird-proof concentric lead bushing is shown by Fig. 2. A porcelain ring is inserted between the terminals at the top of the bushing to render the construction bird-proof. The standard concentric lead bushing with a skirted porcelain spacer separating the upper source and load terminals may very easily be converted to the bird-proof concentric lead bushing by the addition of the porcelain ring. (The older concentric lead bushing with a plain cylindrical porcelain spacer separating the upper source and load terminals is not adaptable to bird-proofing.)

The porcelain casing from a conventional Westinghouse bulk type bushing is used so that the bushings may be mounted using standard mounting flanges and hardware. Gasketing practice is the same as for conventional Westinghouse

bulk type bushings used extensively on distribution and power transformers.

Source and load terminals at the top of the bushing have been designed so that they can be used in the position shown in Fig. 1 and Fig. 2 or rotated 180 degrees. This permits direction of source and load-line take-off to be reversed by simply changing arrangement of bushing terminals without disturbing either the bushing or the internal connections of the regulator.

The electrical characteristics of the bushing conductors to ground are the same as for standard bushings. The insulation between conductors has been designed to withstand the maximum abnormal 60 cycle voltages which may appear during switching and line faults. The impulse voltage appearing across the bushing terminals is held to a value well within the strength of the insulation between conductors by a by-pass arrester which connects across the line terminals of the bushing.



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