

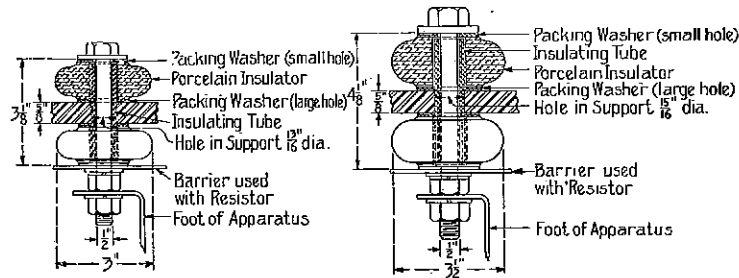


Porcelain Bolt Insulators

For Railway Service

Porcelain bolt insulators are used principally for insulating and supporting resistors, line breakers, reversers, circuit breakers, fuse boxes, etc., on cars and locomotives. Standard insulators for 600- and 1500-volt service consist of two highly glazed, non-porous porcelain spools, together with a tough insulating tube and four packing washers. These insulators are used with a through supporting bolt which is insulated from the car support by the insulating tube. The packing washers are placed between the porcelain spools and all the metal parts to cushion and absorb vibration and shocks.

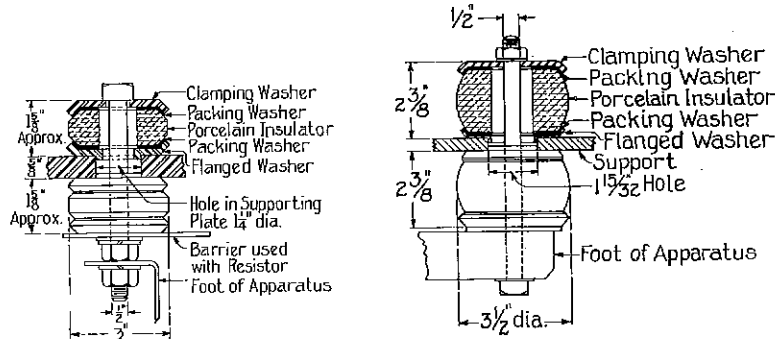
There are still in service old style porcelain bolt insulators, which differ from the standard in that the through supporting bolt is insulated from the car support by an air space and this bolt holds the porcelain spools in position by means of heavy steel clamping washers. These old style insulators can be furnished when necessary. The construction of these two types of porcelain bolt insulators is more clearly shown in the following illustrations.



Cat. No. 1803472G1—600 Volts

Cat. No. 1949194G2—1500 Volts

STANDARD INSULATORS



Cat. No. 141968—600 Volts

Cat. No. 136144—1500 Volts

OLD STYLE INSULATORS

The standard insulators have some very decided advantages over the old style:

1. They are more economical.
2. They are interchangeable with similar insulators supplied by other equipment manufacturers.
3. The absence of the large air space eliminates the possibility of water and dirt filling this area and thus causing short circuits.
4. The car supporting bar may be a half-inch narrower and possess the same strength owing to the smaller diameter hole required for the standard insulator.

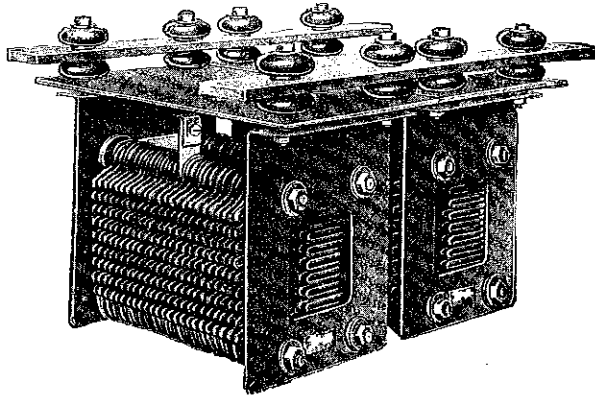
Replacement of old style insulators by standard insulators can be easily made at a slight additional expense over the cost of new standard insulators. This is explained in detail on page 2.

GENERAL ELECTRIC COMPANY
 SCHENECTADY, N. Y.
 Sales Offices in All Large Cities



Porcelain Bolt Insulators

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Resistors Supported by Cat. No. 1803472G1 Insulators

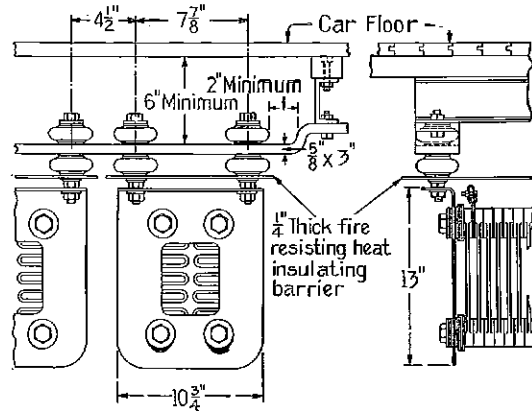
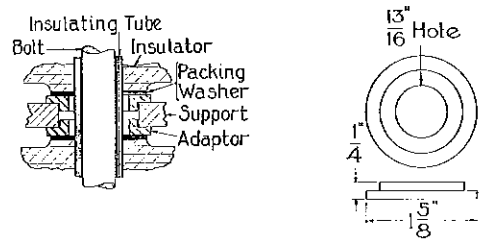
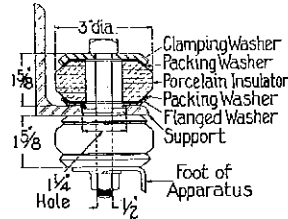
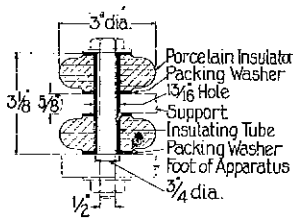


Diagram Showing Application of Porcelain Bolt Insulators



The diagrams above show a standard insulator mounted on a support with a small hole, an old style insulator mounted on a support with a large hole and a standard insulator mounted on a support with a large hole using adaptors to reduce the hole in the support to the proper size.

It will be noted from the above diagrams that to make this replacement it is only necessary to make the hole in the support, which is larger for the old type of insulator than for the standard, smaller, so that no excess space will exist between the insulating tube and the support. This is easily done by inserting two steel bushings or adaptors in the hole of the support, which makes this hole of the correct size to accommodate the standard insulator.

Below are listed standard and old style porcelain bolt insulators, as well as adaptors for changing over to the standard insulators.

Voltage	Diam. of Bolt in In.	STANDARD INSULATORS						Adaptors used with Std. Ins. to Replace Old Ins. (2 required per Insulator) Cat. No.	OLD STYLE INSULATORS	
		Diam. of Hole in Car Support	Complete Unit Cat. No.	Porcelain Spool Cat. No.	Packing Washers Cat. No. Inner Cat. No. Outer		Insulating Tube Cat. No.		Diam. of Hole in Car Support	Cat. No. of Insulator
600	1/2	1 1/16	1803472G1	450869	1435582	1435581	1803472P4	2405218	1 1/4	141958
1500	1/2	1 3/16	1949194G2	450880	1435796	1435581	1436075	2405266	1 1/2	136144

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