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Shaft Grounding Kit Instructions

**MODEL
 AV485**

Shaft Option "G"

DESCRIPTION

The shaft grounding factory installed option is designed for use with Avtron encoders for the reduction of bearing problems caused by shaft currents.

CAUTION

Improper shaft grounding can cause or increase motor bearing damage; Avtron does not recommend the use of shaft grounding kits on motors with only 1 insulated/isolated bearing.

Under certain operating conditions, a motor shaft can be subjected to shaft currents that seek the lowest resistance path through the encoder bearings. This can result in shortened bearing life.

The shaft grounding option provides a low resistance path to divert shaft currents away from the bearings.

The shaft grounding option consists of a gasket sealed brush holder, a brush, a wire lug, and stainless steel mounting hardware. These components are attached to the encoder anti-drive end plate with the brush contacting the encoder shaft. The wire lug provided is for simplified customer ground connection.

1. For brush service, an additional clearance is required from the anti-drive end plate of the encoder (see Figure 1 - Outline Drawing shown on next page.)

2. A ground wire (6 to 14 AWG) must be connected to the lug attached to the side of the brush holder. The ground wire should be connected to a good earth ground, typically the motor frame.

For encoder installation information refer to the instruction sheet provided with the encoder.

MAINTENANCE

WARNING

All maintenance procedures listed below must be performed by qualified personnel, and with the motor turned OFF to prevent possible injury or death of maintenance personnel.

Inspection

A new brush is 5/8" long. The brush should be replaced after it has worn 3/8" maximum (see Figure 2 - Shaft Grounding Option Disassembly). The brush should be inspected after 1 year to determine the wear rate for each installation. Replace brush if it is worn to a length of 1/4".

Cleaning

The brush holder cavity should be cleaned every time the brush is removed for inspection. Refer to Figure 2 - Shaft Grounding Option Disassembly, and clean as follows:

1. Remove the cap screw and brush.
2. Remove pipe plug from the bottom of the brush holder.

WARNING

Use safety goggles when using compressed air to prevent possible eye injuries.

3. Use dry compressed air applied through the brush opening to blow out any worn brush material residue through the bottom of the brush holder. An optional method is to suction the brush residue using a vacuum cleaner.

Avtron Encoder Part Number Code Identification of Shaft Grounding Option:

Model: AV485

Model	Other Options		Other Options
AV485	XX	G	XXXXXXXXX

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- S -Single Shaft Option
 - D -Dual Shaft Option
 - O -Overspeed Switch Option
 - G -Shaft Grounding Option

INSTALLATION

Installation of encoders equipped with the shaft grounding option is identical to non-grounded units except for two differences:

Shaft Grounding Option Replacement Parts List:		
Part No.	Qty.	Description
410523	1	Brush
410522	1	Cap Screw, Brush Holder
433289	1	Pipe Plug
C23866	1	Brush Holder (AV485)
367013	1	Terminal Lug

FIGURE 1 – Shaft Grounding Option – Outline Drawing

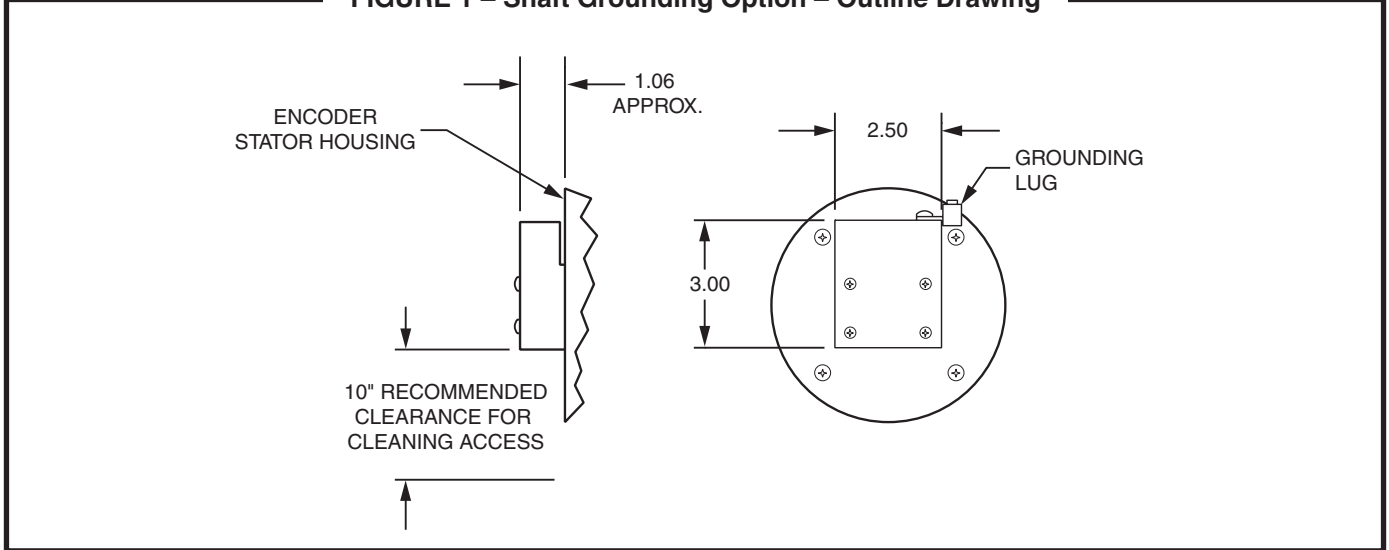


FIGURE 2 – Shaft Grounding Option– Disassembly

