

**MOTOR-DRIVEN GENERATORS  
RINGING AND COIN CONTROL  
COMMERCIAL TYPE  
REPLACEMENT PARTS AND PROCEDURES**

**1. GENERAL**

**1.01** This section covers the information necessary for ordering parts to be used in the maintenance of the KS-5396, KS-5396-01, KS-5396-02, and KS-5397 commercial-type ringing and coin control motor-driven generators. It also covers the approved procedures for replacing these parts.

**1.02** This section is reissued to include information covering Falk Type F couplings and to delete information covering brush-holder yokes, bearings, and rotor assembly. Since this reissue covers a general revision, the arrows ordinarily used to indicate changes have been omitted.

**1.03** Part 2 of this section covers the various parts which it is practicable to replace in the field in the maintenance of this equipment. No attempt should be made to replace parts not designated. Part 2 also contains explanatory figures showing the different parts. This information is called Replacement Parts.

**1.04** Part 3 of this section covers the approved procedures for the replacement of the parts covered in Part 2. This information is called Replacement Procedures.

**2. REPLACEMENT PARTS**

**2.01** The figures included in this part show the various replacement parts in their proper relation to other parts of the apparatus with their corresponding names.

**2.02** When ordering parts for replacement purposes, give the name of the parts as shown in the figures of this section, the end of the generator (ac or dc end) for which the part is required, and the complete nameplate data of the generator for which the part is ordered, including the manufacturer's name, type, and frame designation, serial number, and the KS specification and list number. Do not refer to this section number.

**2.03** Brush replacement shall be ordered in accordance with Section 171-110-802.

**2.04** Information enclosed by parentheses ( ) is not ordering information. This information may be references to notes, parts referred to in other portions of the section and not considered replaceable, or part names in general use in the field if these names differ from those assigned by the manufacturer.

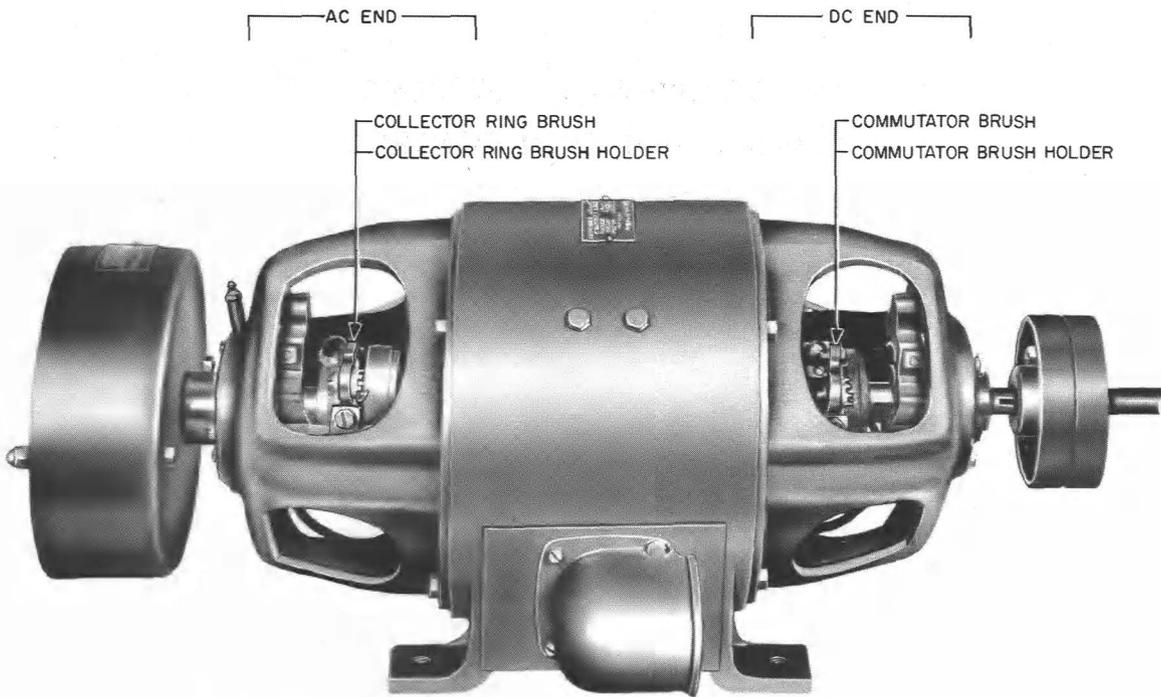


Fig. 1 - KS-5396 Ringing Generator

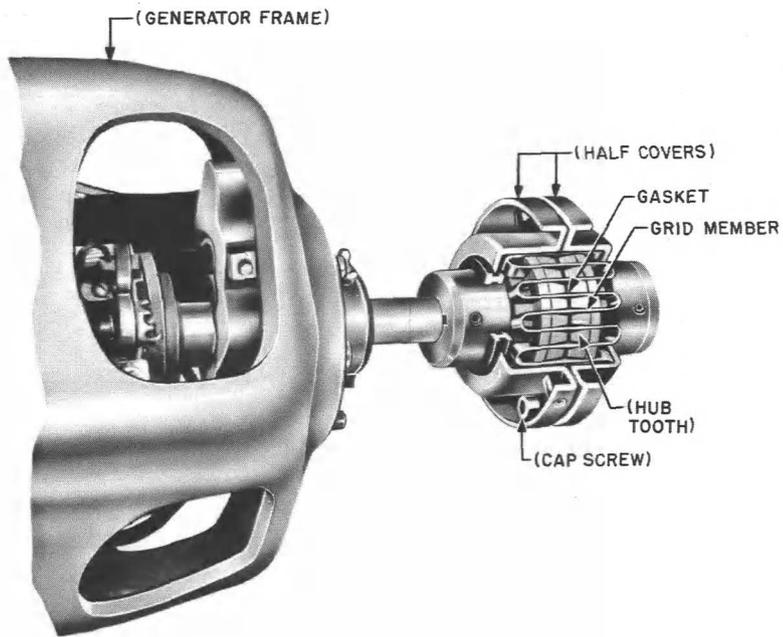


Fig. 2 - Detailed View of Falk Type F Coupling Assembly

### 3. REPLACEMENT PROCEDURES

#### 3.01 *List of Tools and Materials*

CODE OR SPEC NO.	DESCRIPTION
<b>TOOLS</b>	
KS-6320	Orange Stick
R-2512	8-Inch Adjustable Wrench
—	4-Inch E Screwdriver
—	5-Inch E Screwdriver
—	Allen Set Screw Wrench (furnished with Falk Type F Coupling)
<b>MATERIALS</b>	
KS-7860	Petroleum Spirits
KS-14666	Cleaning Cloth

**3.02** Before making any replacements, remove the motor-generator set from service.

**3.03** After making any replacement of parts, the part or parts replaced shall meet the adjust requirements involved, as specified in Section 155-625-701. Other parts, whose adjustments may have been disturbed by the replacing operations, shall be checked to the readjust requirements and an over-all operation check shall be made of the motor-generator before restoring it to service.

**3.04** No replacement procedures are specified for screws or other parts where the replacement consists of a simple operation.

**3.05** When using petroleum spirits for cleaning purposes in the power room, provide as much ventilation as practicable. After using the petroleum spirits, the commutators of all dc machines in the power room should be burnished in accordance with approved procedures for the machines involved, since the fumes from the petroleum spirits may soften commutator film and thus adversely affect commutation.

**3.06** Whenever it is necessary to disconnect leads, care should be taken to mark or record the position of the leads to facilitate their correct replacement.

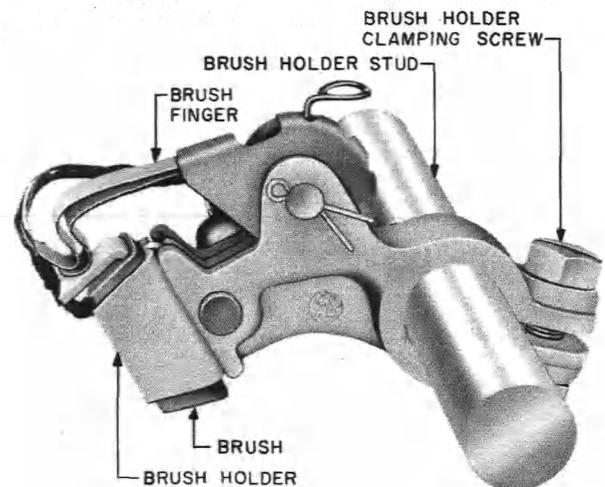
**3.07** If it is necessary to remove a brush from its holder, for reasons other than replacement of the brush, mark or record the position of the brush with respect to its associated brush holder to insure remounting the brush in its original position.

**3.08** The replacement of brush-holder yokes, bearings, or rotor assembly is a major job which should be done by the manufacturer of the motor-generator, or the manufacturer's authorized representative.

**3.09** If it is necessary to replace parts of the field rheostat, resistor units, or voltage regulator, refer to the appropriate BSP section covering replacement of parts on the apparatus.

#### 3.10 *Brushes*

(1) To replace a brush, loosen the screw which fastens the pigtail to the brush holder. Raise the brush finger and remove the brush. Clean the brush holder with a cloth moistened with petroleum spirits (see 3.05) and insert the new brush with its pigtail. Properly position the pigtail and tighten the screw which fastens the pigtail to the brush holder. Seat the new brush as outlined in Section 171-110-701.



**Fig. 3 - Brush-Holder Assembly**

**3.11 Brush Holders**

- (1) To replace a brush-holder assembly, remove the brush associated with the assembly to be replaced as covered in 3.10.
- (2) Loosen the brush-holder setscrew which holds the brush-holder assembly on the brush-holder stud and work the assembly off the stud. Slip the new complete brush-holder assembly on the brush-holder stud and reassemble in the reverse order, making sure that the brush-holder setscrew and the pigtail screw are tight.

**3.12 Falk Type F Coupling**

- (1) To replace either gasket or gridmember, remove the cap screws using the Allen socket screw wrench. Slip the half covers back clear of the hubs. Remove excess grease from the gridmember. Remove the gridmember by using a screwdriver which will fit into the loop

ends of the gridmember. Begin at the open end of the gridmember section. Use the hub teeth adjacent to each loop as a fulcrum and pry the gridmember out radially in even gradual stages. Proceed alternately from side to side lifting the gridmember about halfway out until the end is reached. By following the same procedure once again, the gridmember will clear the teeth. If the gasket is defective, remove it by slipping it through the gap between the hub faces. Substitute the new part. Mount the new gridmember by spreading it slightly so that it will pass over the coupling teeth at its outside diameter. Start the gridmember at either end and tap the rungs only part way into the grooves. After all of the rungs are partially in their grooves, tap the gridmember into place. Grease the coupling in accordance with Section 155-410-701. Fasten the half covers together, securely tightening the cap screws.