POLICE SERVICE BULLETIN

PM-102 February 19, 1988

HIGH OUTPUT CHARGING SYSTEM

General

Late 1988 Police motorcycles are equipped with high output (32 ampere) charging systems. This bulletin provides: (1) information on how to identify the new system, (2) part numbers for new or changed charging system components and (3) specific changes in maintenance procedures.

Identifying High Output Charging System

1. See Figure 1. With regulator male plug disconnected, the new stator female plug extends above the left crankcase surface as shown. This plug is below the crankcase surface on the old system. The center-to-center distance of the plug terminals and their diameter has been increased- this prevents connecting an old regulator to a new stator or a new regulator to an old stator.

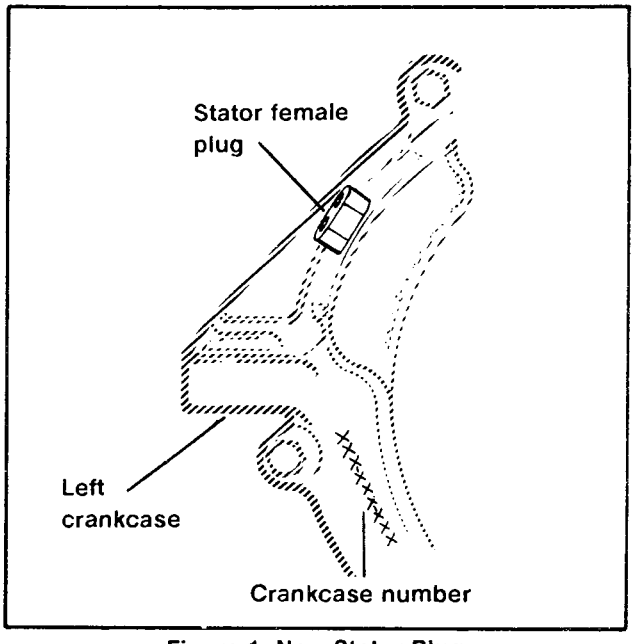


Figure 1. New Stator Plug

2. The beginning Vehicle Identification Numbers (VIN) for Police motorcycles equipped with the high output charging system are:

   1HD1DAL13JY503736 FLHTP

   1HD1EFL15JY120410 FXRP

NOTE

Since the sequential or serial numbers (last six digits of VIN) are assigned consecutively, all FLHTP's model designations "DAL" or "DFL" with serial numbers 503736 and greater are equipped with high output charging systems. Also, all FXRP's model designations, "EDL, EFL and EKL" with serial numbers 120410 and greater are equipped with high output charging systems.

Part Numbers

See Figure 2 and Table 1 . Table 1 gives old, new and unchanged Part No. of the system components.

Maintenance

All maintenance information in the 1984 to 1988 FLT/FXR Service Manual applies to the high output system except for the following:

1. When performing the "Charging System Output Test", the current output must be 29 to 32 amperes.

2. The new stator winding resistance is 0.10- 0.12 ohms.

3. AC output must be 16-20 VAC per 1000 rpm.

MACHINING CHANGE TO LEFT CRANKCASE HALF

The new stator is 0.080 in. wider. To provide clearance between rotor and stator, the crankcase stator mounting surface has been machined 0.060 in. deeper. See Figure 3 for information on determining whether crankcase has been machined for new stator. The beginning crankcase numbers, machined for new stator, are as follows:

1588 348 063 2088 348 006

ROUTING:	SERVICE MANAGER	SALES MANAGER	PARTS MANAGER	LEAD TECHNICIAN	TECHNICIAN NO. 1	TECHNICIAN NO. 2	TECHNICIAN NO. 3	TECHNICIAN NO. 4	RETURN THIS TO:
INITIAL HERE									

©1988 Harley-Davidson, Inc.

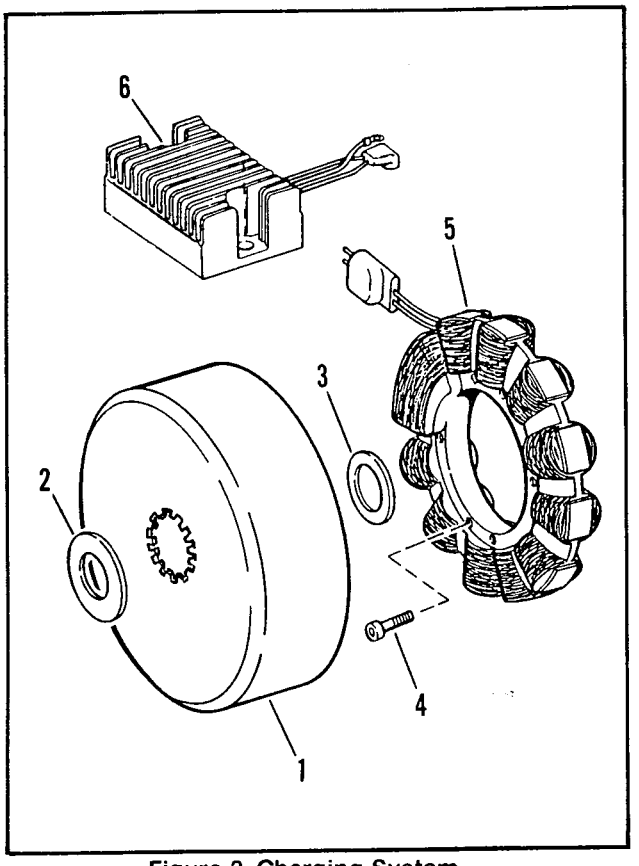
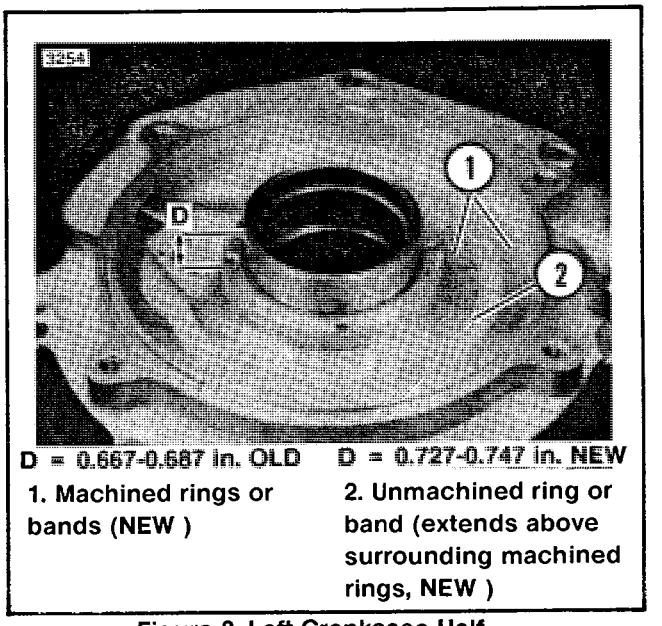


Figure 2. Charging System



D = 0.667-0.687 in. OLD

1. Machined rings or bands (NEW)

D = 0.727-0.747 in. NEW

2. Unmachined ring or band (extends above surrounding machined rings, NEW)

Figure 3. Left Crankcase Half

NOTE

See Figure 2. If crankcase has been machined for new wider stator the spacers (2) and (3) must be installed as shown: i. e., thick spacer outside rotor and thin spacer inside rotor.

It is permissible to mount an old stator in a crankcase machined for the new stator.

Table 1. Part Numbers

Fig. 2.Index numbers	Part Numbers	
	Old	New
1. Rotor	29957-81B	Unchanged
2. Spacer (thick)	Included with rotor.	Unchanged
3. Spacer (thin)	Included with rotor.	Unchanged
4.Torx screw (4)	2712	**2720**
5. Stator	29965-81A	**29970-88**
6. Regulator	74516-86	**74519-88**
7. Crankcase Set (not shown)	24546-83B 24493-85A (painted)	**24546-83C 24493-85B (painted)**

High Output Alternator Kit

A high output alternator kit for 1980 and later "rubber-mount" motorcycles will be made available at a later date. Since the crankcases on earlier engines are not machined for the added stator width, the rotor will be shimmed outward 0.060 in. by placing the thick spacer (2), Figure 2, inside the rotor and the thin spacer (3) outside the rotor.

CAUTION

The high output alternator kit will not fit pre-late 1988 "rigid-mount" engines due to the small clearance between the rotor and inner primary housing, "Shimming" rotor by switching spacer positions would cause rotor to contact inner primary housing on "rigid-mount" engines. The high output alternator kit will fit late 1988 "rigid-mount" engines with left crankcase machined for new stator. Refer to "MACHINING CHANGE TO LEFT CRANKCASE HALF" for beginning crankcase numbers.