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**SERVICE BULLETIN**


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Original Issue Date: **5/94**  
 Model: **20-100RZ**  
 Market: **Standby**  
 Subject: **Permanent Magnet Type Starter Motor**

The plunger pole type starter motor has been replaced by a permanent magnet type starter motor on all 20-100RZ Ford-powered models. The plunger pole type starter motor has been discontinued as a service part. The addition of wiring harness 276340 is necessary to adapt the permanent magnet type starter to a unit previously having the plunger pole starter. Wire harness 276340 is available as a service part.

A starter solenoid externally attached to the starter motor identifies the new permanent magnet type starter. Figure 1 shows a comparison of the two types of starter motors. If the defective starter motor has the starter with mounted solenoid, the wiring harness is not required.

Starter motor service kit 224362 is available from service parts to replace the discontinued plunger pole starter motor with the permanent magnet type starter motor on 50-100RZ models.

### Parts List

KIT 224362		
Qty.	Description	Part Number
1	Motor assembly, starter	276097
1	Harness, wiring	276340
1	Instruction, installation	TT-862

Figure 2 illustrates the wiring of the new permanent magnet type starter motor using the required wiring harness when replacing a plunger pole type starter.



#### Accidental starting.

##### Can cause severe injury or death.

Disconnect battery cables before working on generator set (negative lead first and reconnect it last).

#### Accidental starting can cause severe injury or death.

Turn generator master switch to OFF position, disconnect power to battery charger, and remove battery cables (remove negative lead first and reconnect it last) to disable generator set before working on any equipment connected to generator. The generator set can be started by automatic transfer switch or remote start/stop switch unless these precautions are followed.

#### Hazardous voltage can cause severe injury or death.

Short circuits can cause bodily injury and/or equipment damage. Do not contact electrical connections with tools or jewelry while adjustments are made. Remove wristwatch, rings, and jewelry that can cause short circuits.

Routing	Service Manager	Sales Manager	Parts Manager	Technician No. 1	Technician No. 2	Technician No. 3	Return This to
Initial Here							

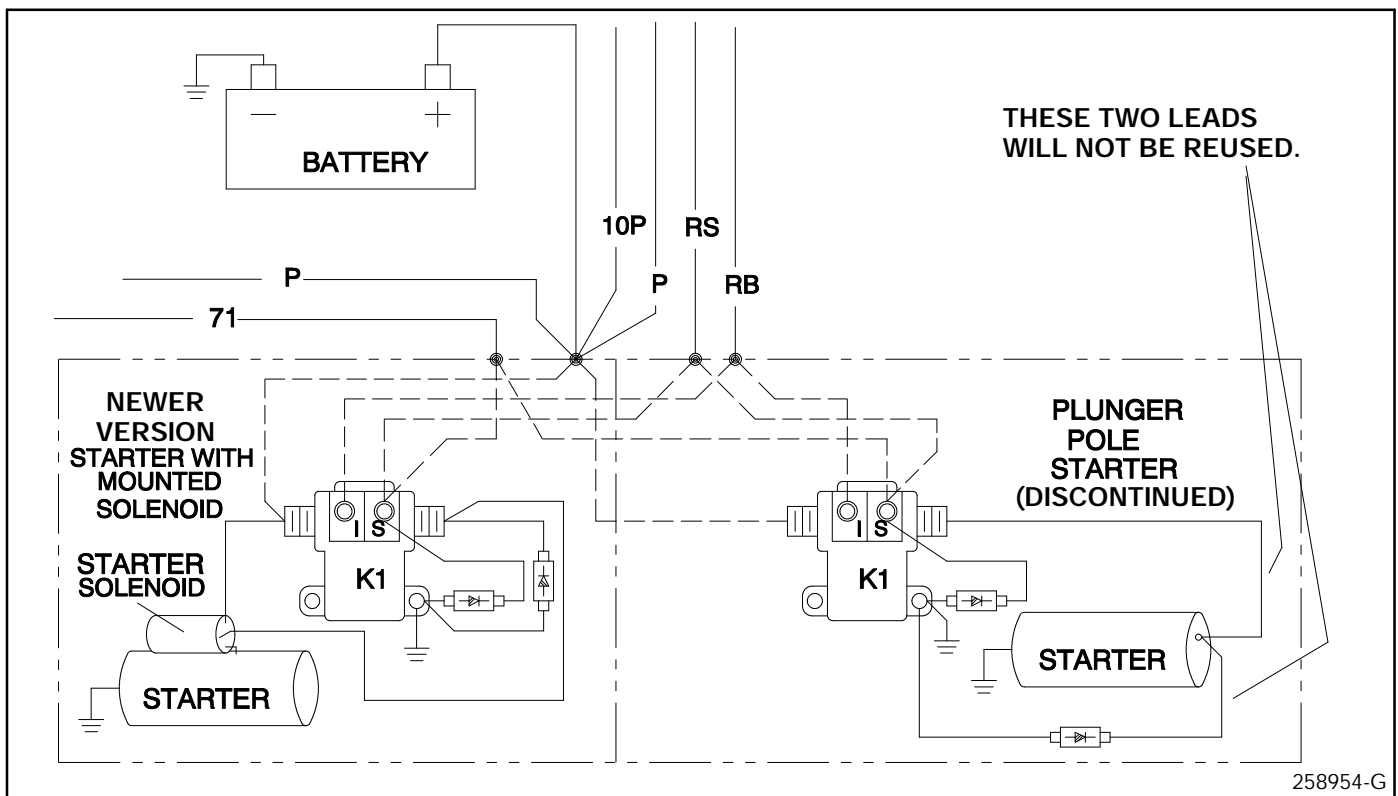
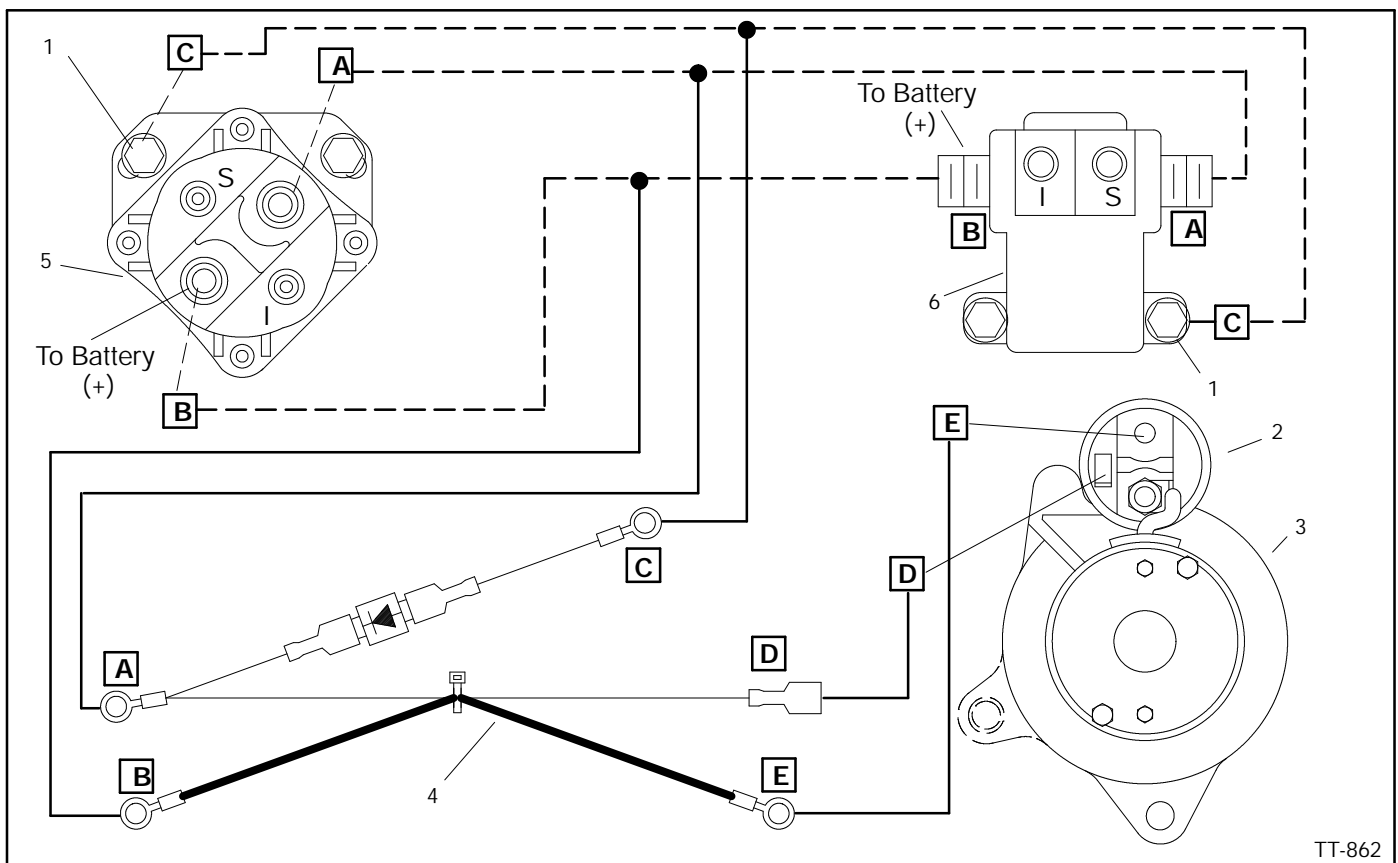


Figure 1. Starter Motor Configurations



- 1. Ground Screw
- 2. Starter Solenoid
- 3. Starter Motor
- 4. Wiring Harness
- 5. K1 Relay (newer version)
- 6. K1 Relay (early version)

Figure 2. Connecting Wiring Harness