

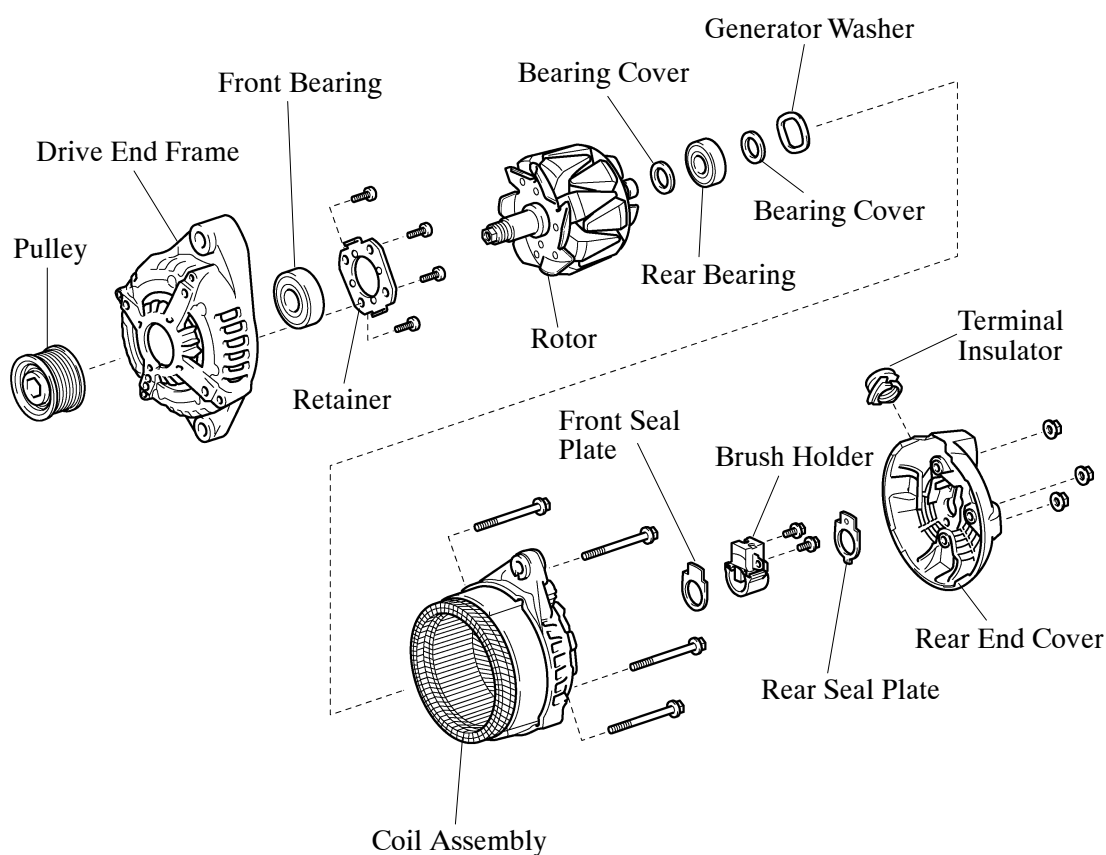
## ■ CHARGING SYSTEM

### Alternator

#### General

A compact and lightweight Segment Conductor type alternator that generates high amperage output in a highly efficient manner has been adopted on the cold area specification model.

#### ► Component of Segment Conductor Type Alternator ◀



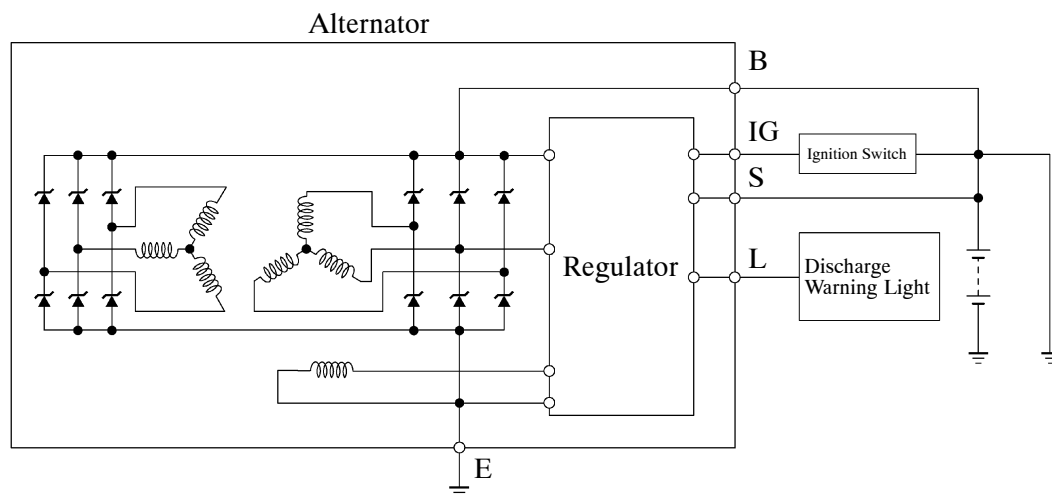
233EG70

#### Service Tip

Although the charging circuit of a conventional alternator is checked through the F terminal, this check cannot be performed on the Segment Conductor type alternator through the use of the F terminal because the F terminal has been eliminated.

For details, refer to see the 1KD-FTV Engine Repair Manual (Pub. No. RM992E).

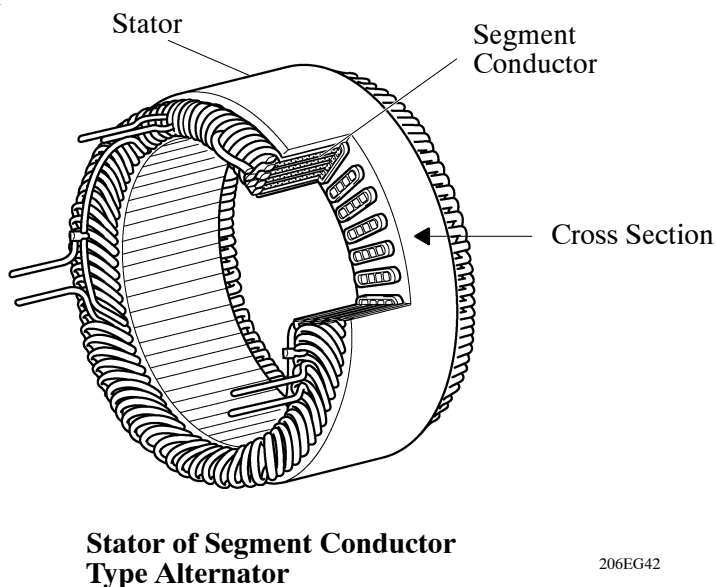
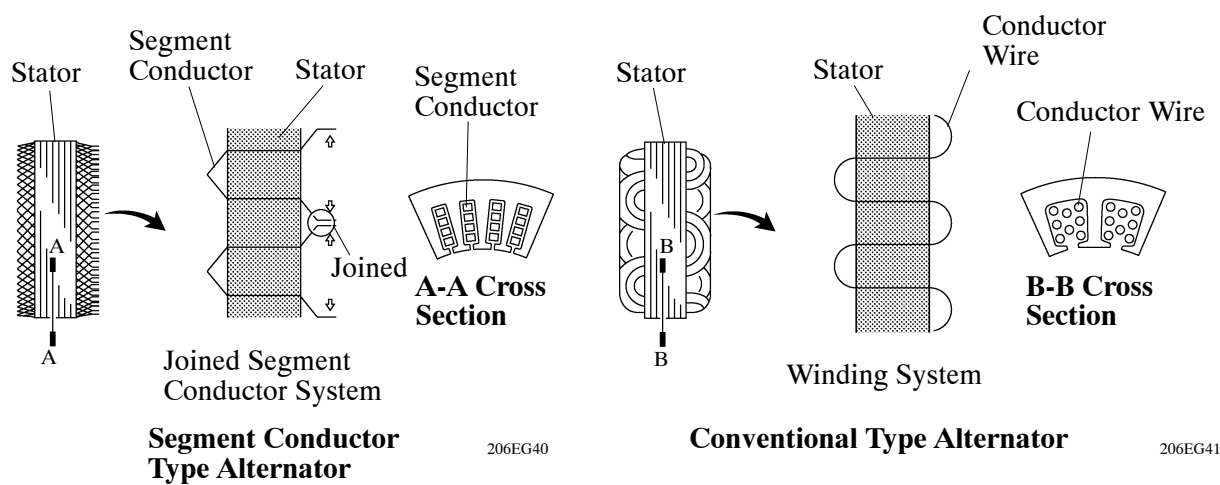
## ► Wiring Diagram ◀



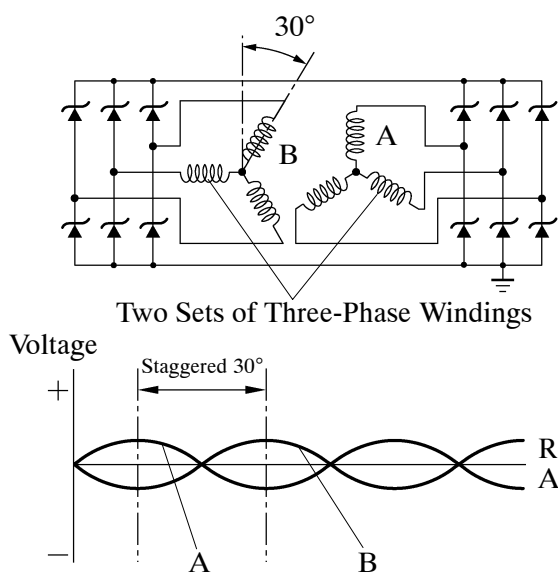
238EG75

## Construction and Operation

- This alternator uses a joined segment conductor system, in which multiple segment conductors are welded together to form the stator. Compared to the conventional winding system, the electrical resistance is reduced due to the shape of the segment conductors, and their arrangement helps to make the alternator more compact.

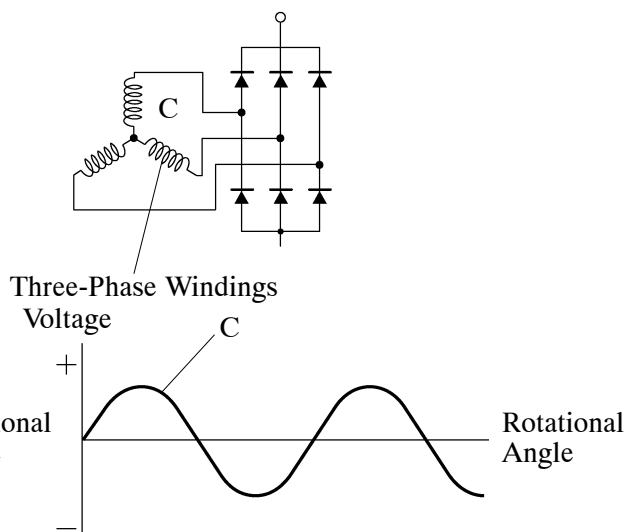


- A dual winding system has been adopted. This system consists of two sets of three-phase windings whose phases are staggered  $30^\circ$ . Because the magnetic fluctuations of the respective windings cancel each other out, magnetic noise, radio frequency interference is reduced.



**Segment Conductor  
Type Alternator**

198EG14



**Conventional Type Alternator**

198EG15