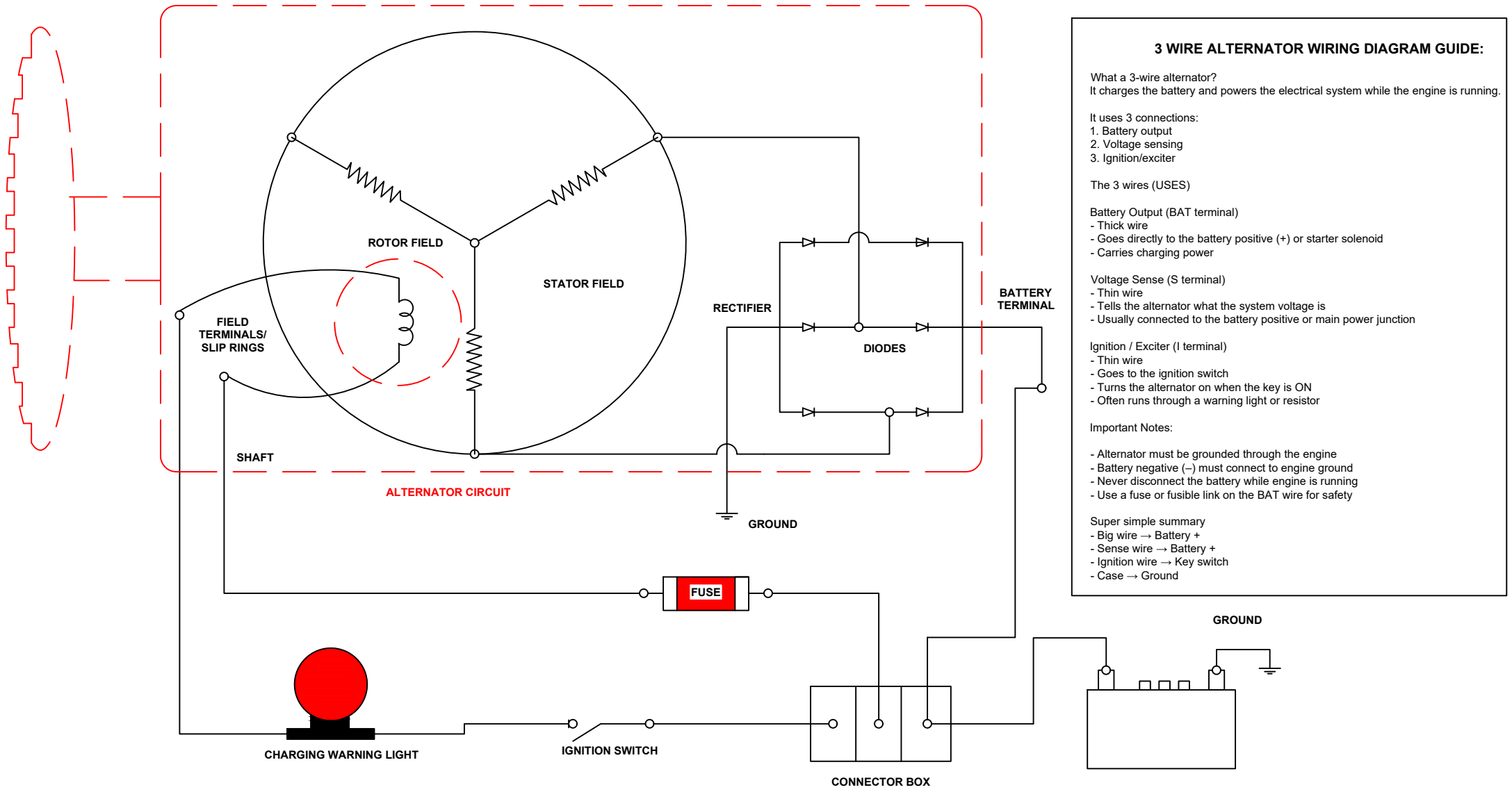
3 WIRE ALTERNATOR WIRING DIAGRAM



3 WIRE ALTERNATOR WIRING DIAGRAM GUIDE:

What a 3-wire alternator?
It charges the battery and powers the electrical system while the engine is running.

It uses 3 connections:
1. Battery output
2. Voltage sensing
3. Ignition/exciter

The 3 wires (USES)

Battery Output (BAT terminal)
- Thick wire
- Goes directly to the battery positive (+) or starter solenoid
- Carries charging power

Voltage Sense (S terminal)
- Thin wire
- Tells the alternator what the system voltage is
- Usually connected to the battery positive or main power junction

Ignition / Exciter (I terminal)
- Thin wire
- Goes to the ignition switch
- Turns the alternator on when the key is ON
- Often runs through a warning light or resistor

Important Notes:

- Alternator must be grounded through the engine
- Battery negative (–) must connect to engine ground
- Never disconnect the battery while engine is running
- Use a fuse or fusible link on the BAT wire for safety

Super simple summary
- Big wire → Battery +
- Sense wire → Battery +
- Ignition wire → Key switch
- Case → Ground