

**NUMBER: 83-6**

CIRCULATE TO:  
SERVICE MANAGER   
PARTS MANAGER   
MECHANICS   
"Place in a Service  
Bulletin Binder"

## DUAL BATTERY CHARGING SYSTEMS USING A BATTERY ISOLATOR

Battery Isolators allow the addition of an auxiliary (second) battery to the MerCruiser electrical system. The auxiliary battery is primarily used as a power source for various accessories installed on the boat. The Battery Isolator will allow the alternator to charge both the cranking and auxiliary batteries at the same time while preventing accessories, connected to the auxiliary battery, from drawing power from the cranking battery.

MerCruiser engines that meet the following requirements can use a Battery Isolator.

### **MCM/MIE 470/MCM 485/488**

1. Engines equipped with 86255A2 or 99502A9 Water Cooled Voltage Regulator.
2. MCM/MIE 470 (Serial No. 4625580 thru 5120655) with 77305A2 Water Cooled Voltage Regulator, must have a new 99502A8 Regulator installed.

### **ALL OTHER MODELS**

1. All engines equipped with a 3-wire belt driven alternator.
2. We recommend 1-wire Delco alternators be replaced with a 3-wire belt driven alternator (78403A2) before installing a Battery Isolator.

### **⚠ CAUTION**

**Follow Battery Isolator manufacturer's instructions for wire gauge. Battery Isolator installation must conform to BIA Low Voltage Wiring Standard No. 125-79.**

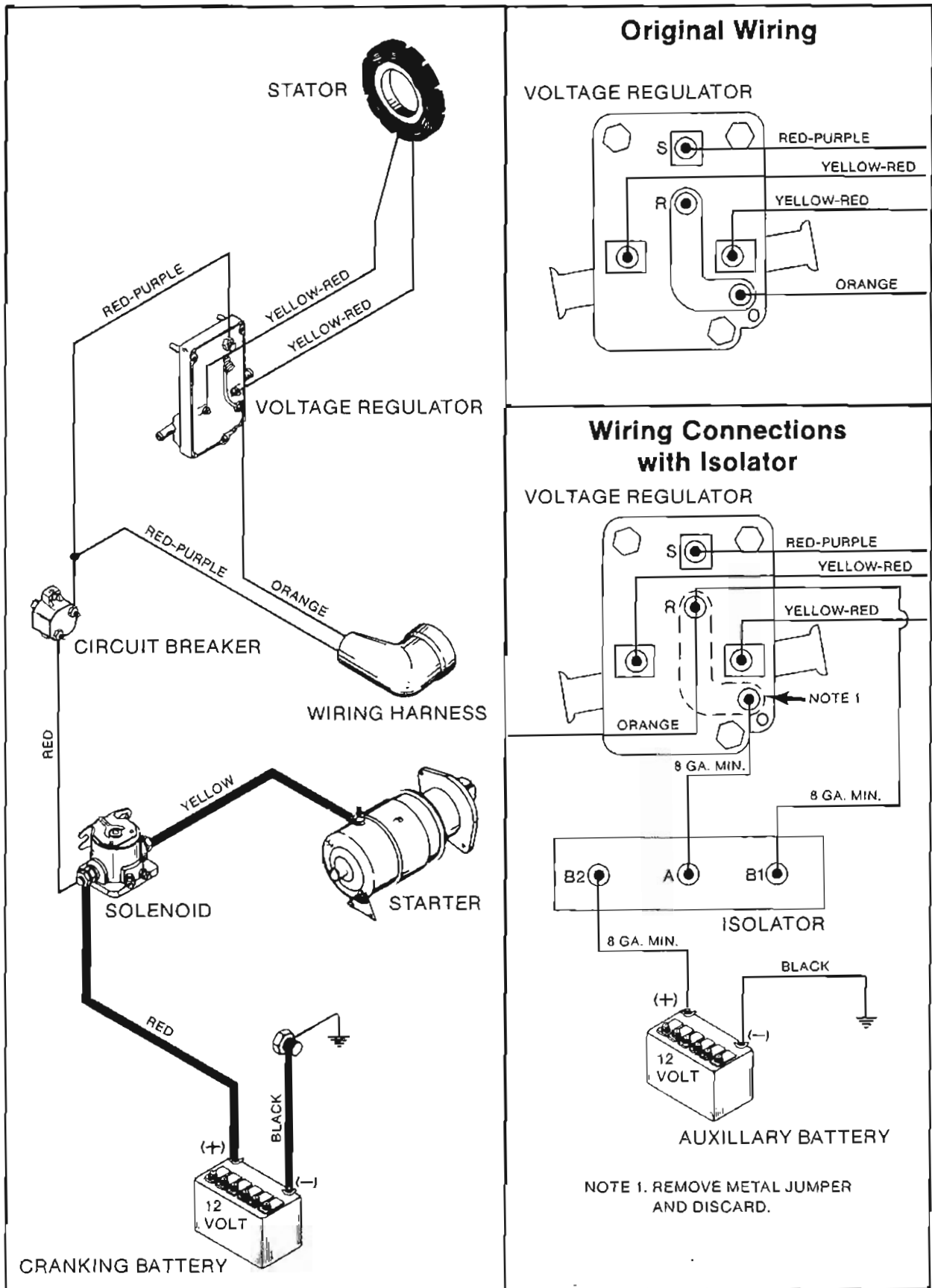


Figure 1. 470/485 with Ammeter Gauge (Prestolite Starter Motor)

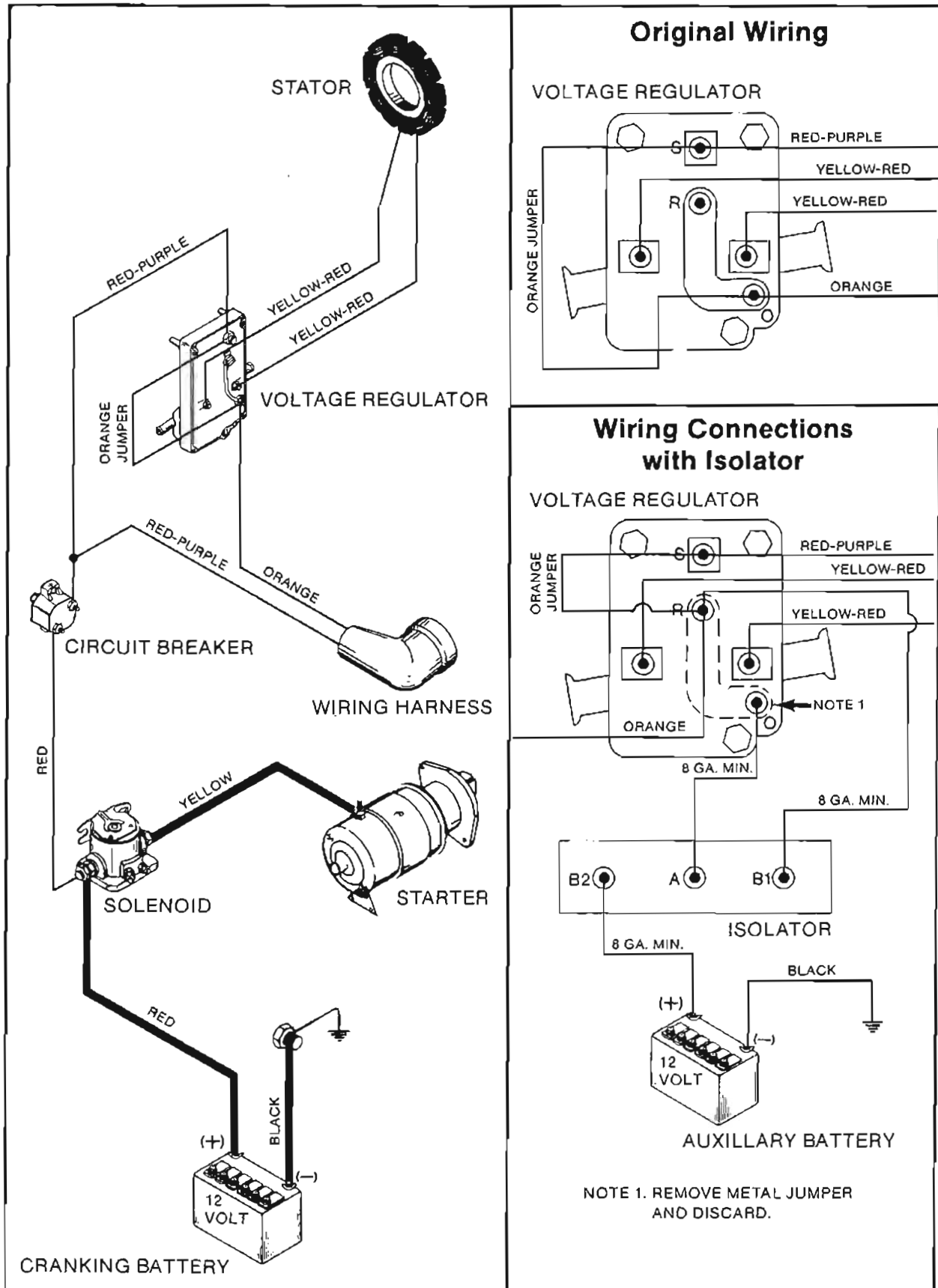


Figure 2. 470/485 with Voltmeter Gauge and Ammeter By-Pass Jumper Wire (Prestolite Starter Motor)

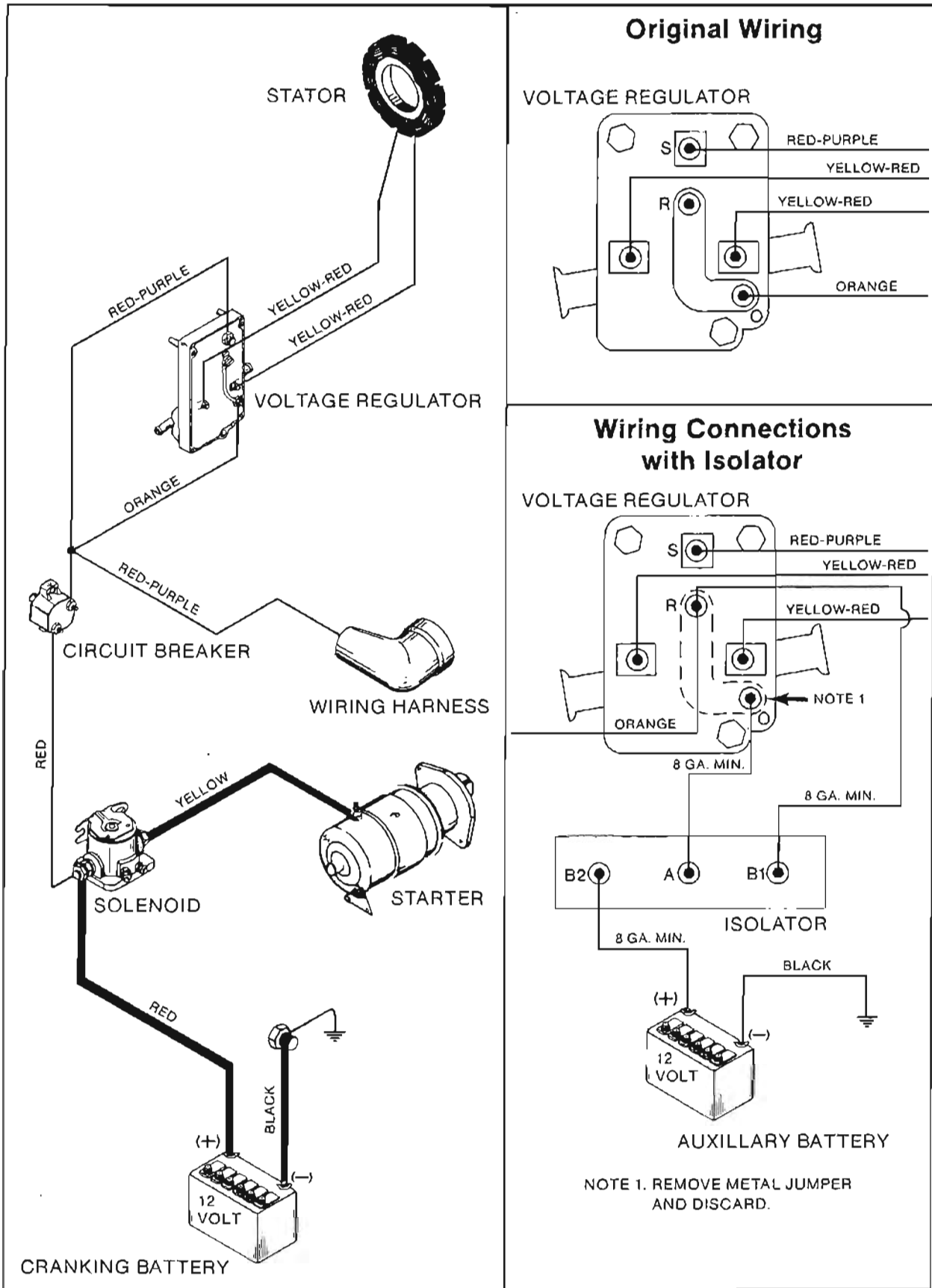


Figure 3. 470/485 with Engine Wiring Harness Wired for Voltmeter (Prestolite Starter Motor)

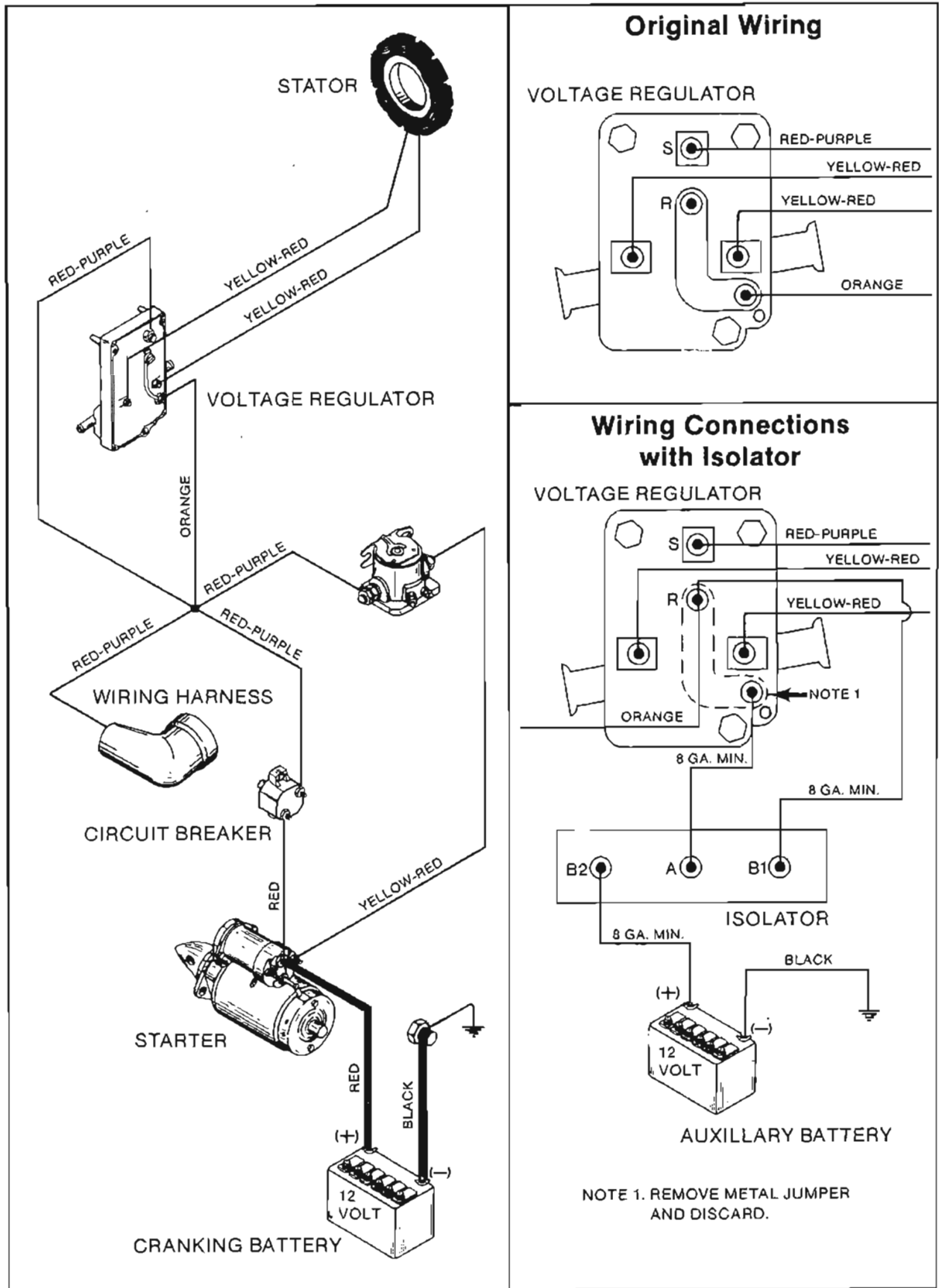


Figure 4. 470/488 with Engine Wiring Harness Wired for Voltmeter (Delco Remy Starter Motor)

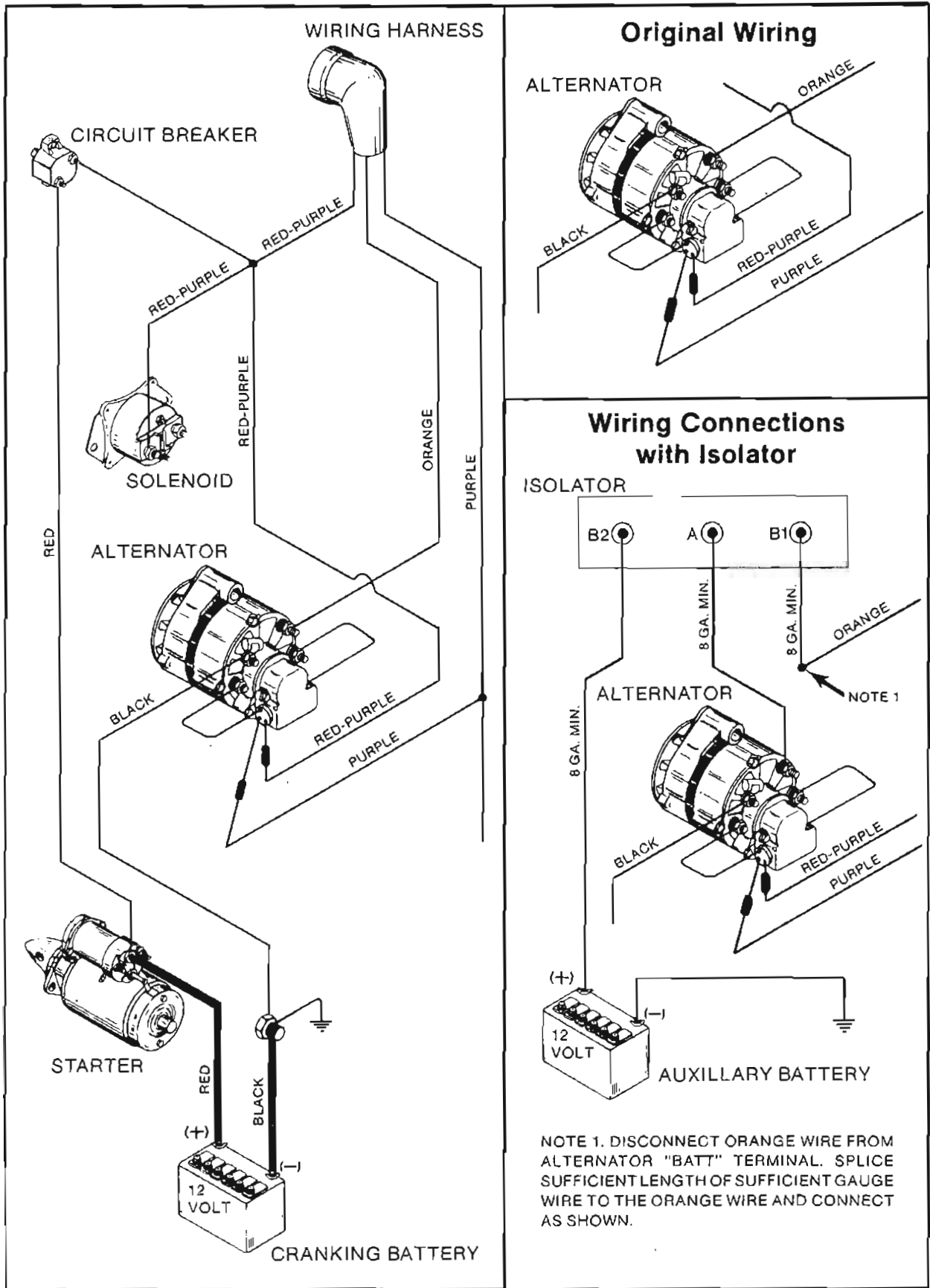


Figure 5. 3-Wire Belt Driven Alternator with Ammeter Circuit (Typical Wiring Shown)

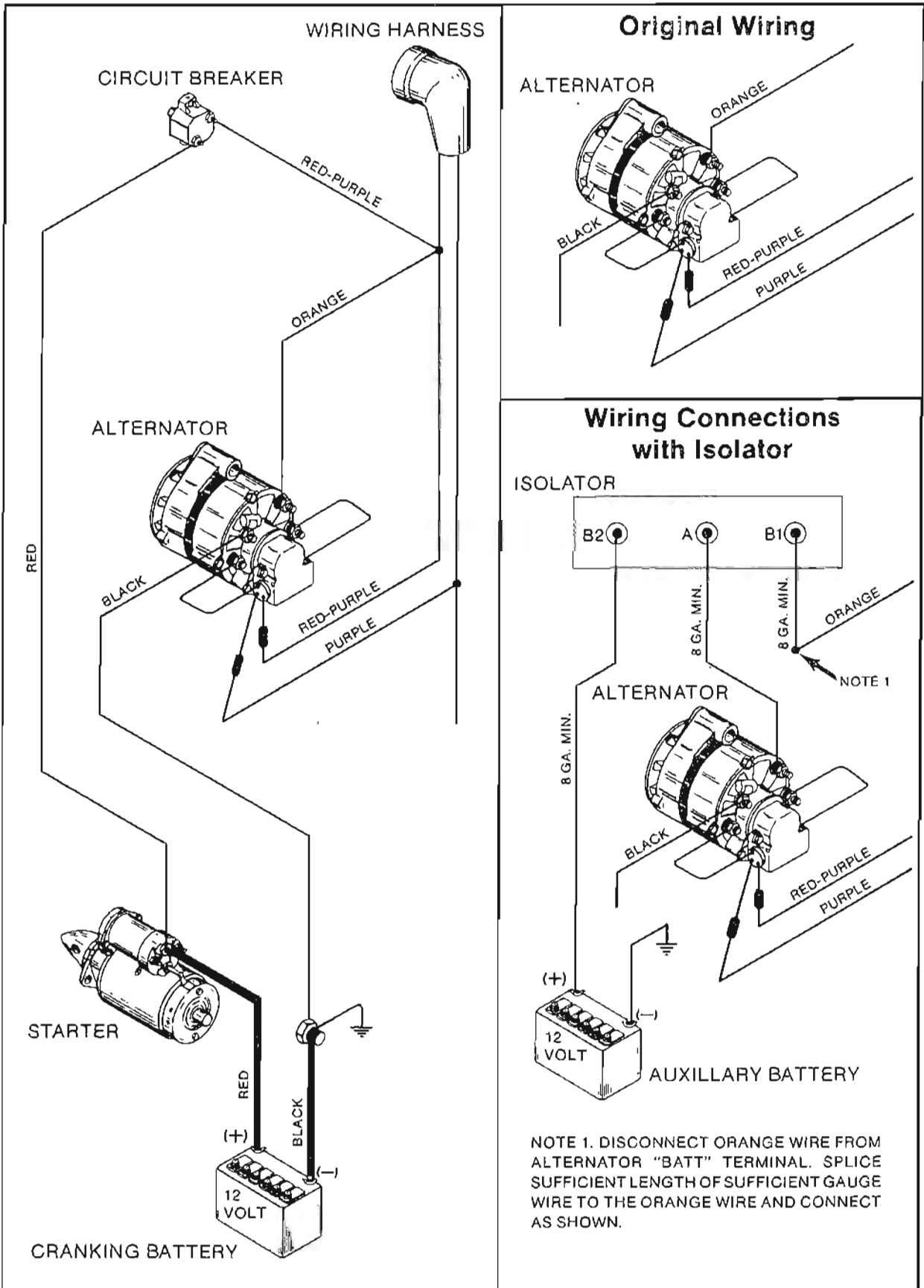


Figure 6. 3-Wire Belt Driven Alternator with Voltmeter Circuit (Typical Wiring Shown)