

DUVAC® II

MULTI-VOLTAGE MANAGEMENT SYSTEM - 52000 SERIES

INSTALLATION INSTRUCTIONS:

1. Mount DUVAC® II close to the battery bank.
2. Connect the ground terminal directly to the 12 volt "A" battery ground. **CAUTION:** Do not connect to chassis ground - improper operation may result. *Note exception in Figure 2.
3. Connect the 24 volt terminal to the 24 volt "B" battery positive post.
4. Connect the 12 volt positive terminal to the "A" battery positive post. Connect 12 volt accessory loads, subject to damage by reverse polarity, to the protected 12 volt output (radio, telephone, stereos, etc.). The protected output accessory loads should never exceed maximum DUVAC amperage rating, even momentarily.
5. Connect the ignition terminal to a 24 volt (or 12 volt) ignition source. This circuit activates the DUVAC® II only - it does not act as an ON/OFF switch for the 12 volt accessories.
6. Confirm all connections.

TESTING:

1. Start engine.
2. Assure that voltage is present at the "IGN" terminal (12 or 24V).
3. Apply approximately 10 amps of 12V load.
4. Measure the 12V output voltage and the 24V input voltage. The voltage at the 12V output should be no less than 0.4 volts below one half of the 24V input (the protected output will be approximately .5V below the 12V output).
5. If adjustment is required, follow adjustment procedure.

ADJUSTMENT:

The voltage adjustment will allow adjustment of the 12V in respect to the 24V. This adjustment is preset at the factory. If adjustment is necessary it should be made when normal charge voltage is present at the 24V battery (28V). Increase of engine RPM may be required. Adjust the 12V output under 2 Amp 12V load to 0.1 volt below one-half of the 24 volt input voltage, as measured on the DUVAC II terminals. An isolator may be used in the 12V supply. If this is done, the 12V measurement must be made at the isolator output.

CAUTION:

12V loads drawing current from the 12 volt battery in excess of the rating of the DUVAC II are permissible for short periods of time only (minutes). Prolonged use of these loads will result in improper battery charge and eventual battery deterioration.

ONE-YEAR LIMITED WARRANTY

Sure Power Industries, Inc. warrants each new product against factory defects in material and workmanship for one year after date of purchase. The owner will be responsible for removing from the vehicle and returning any defective unit(s), transportation costs prepaid, to Sure Power Industries, Inc., factory or a factory authorized servicing distributor. Sure Power Industries, Inc., will, without charge, repair or replace at its option, unit(s) which its inspection determines to be defective. All transportation charges must be borne by the purchaser. A copy of the purchaser's receipt must be returned with the defective unit(s) in order to qualify for warranty coverage. Exclusions from this warranty are the finish and any condition(s) determined by Sure Power Industries, Inc. to have been caused by abnormal use or service. This warranty shall not apply to any Sure Power product which has been improperly installed.

There are no warranties, expressed or implied (including any implied warranties of merchantability or fitness which extend beyond this warranty period. The loss of use of the product, loss of time, inconvenience, commercial loss or consequential damages are not covered. Sure Power Industries, Inc. reserves the right to change the design of any product without assuming any obligation to modify any product previously manufactured.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state. Some states do not allow limitation on how long an implied warranty lasts. Some states do not allow the exclusion or limitation of incidental or consequential damages. Therefore, the above limitation(s) may not apply to you.



WIRING DIAGRAMS — DUVAC II

SINGLE 24 VOLT BATTERY BANK
CENTER TAPPED 12 VOLT LOADS

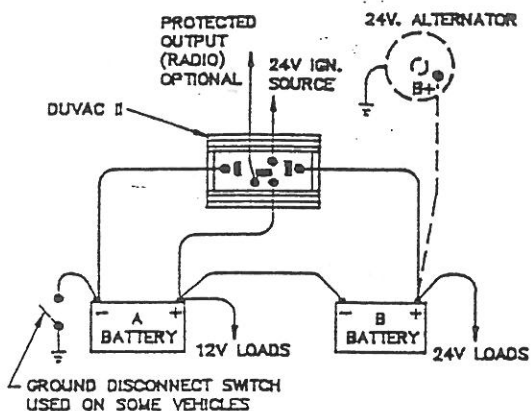


FIGURE 1

FOR USE AS A STANDARD 24/12
VOLT CONVERTER (NOT USING
CENTER TAPPED BATTERIES)

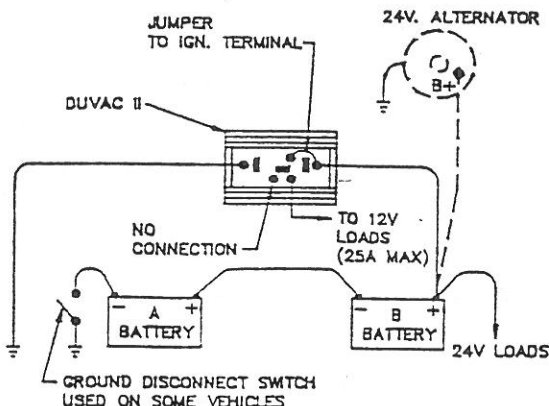


FIGURE 2

ISOLATED 12 VOLT BATTERY BANK

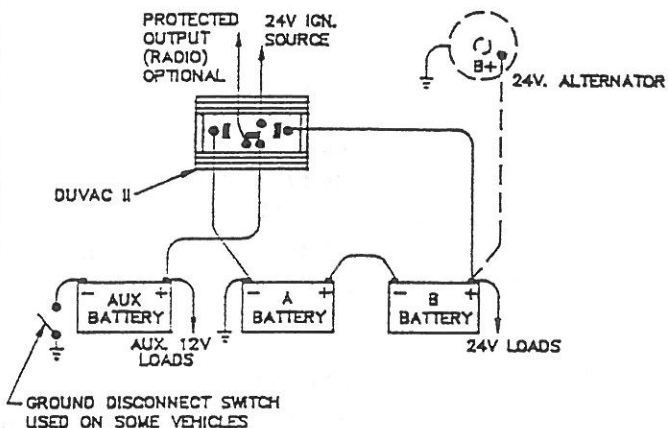


FIGURE 3

CENTER TAPPED 24 VOLT BATTERY
BANK WITH ISOLATED 12 VOLT
BATTERY BANK

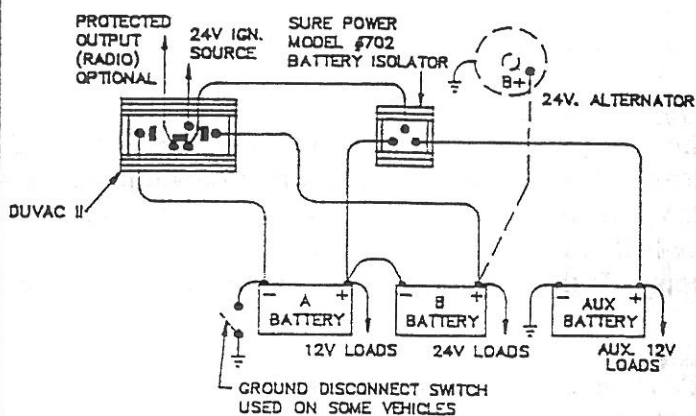
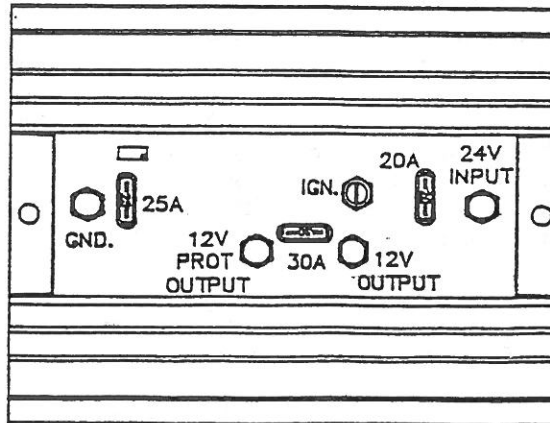


FIGURE 4

CAUTION: DUVAC II SHOULD ALWAYS BE GROUNDING DIRECTLY TO NEGATIVE TERMINAL OF "A" BATTERY, AHEAD OF ANY GROUND DISCONNECT SWITCHES, NOT TO CHASSIS GROUND. *NOTE EXCEPTION IN FIGURE 2.

TERMINAL CONFIGURATION MODEL 52103C



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