



INNOVATIVE ENERGY SYSTEMS, INC.

DS-500 & DS-1000 Operation Instructions

Thanks for purchasing a DeSulfator battery conditioner. You can expect years of trouble-free battery saving performance. Should you ever have any questions regarding the operation of the unit or need some technical advice, please e-mail us at techsupport@innovativeenergy.com.

Please visit us at www.innovativeenergy.com.

Abstract: Lead acid batteries that idle sulfate. In fact, 80% of all battery failures are due to sulfation. Sulfation limits the charging and discharging ability of lead acid batteries. Use of the DeSulfator dissolves all sulfation within the battery. Not all battery failures are from sulfation. The DeSulfator is not effective on electrically shorted batteries and has a limited effect on batteries that are worn from heavy cycling.

Operation: The DeSulfator DS-500 & DS-1000 will provide a variable frequency, variable voltage boost output which will reduce all types of sulfation deposits which form as a result of deep discharge and periods of non-use.

Considerations: All DS DeSulfators are voltage specific. Before connecting to the battery, verify that the unit you have is suitable for your battery bank. The small sticker on the rear indicates the unit's voltage.

Multiple "DS" units with an operating voltage lower than that of the entire battery bank can be used successfully. To ensure proper operation and battery conditioning, verify that the point in the battery bank where the DS DeSulfator is being connected matches the voltage of the unit which is listed on the rear of the unit. For proper conditioning of higher voltage battery systems that are being conditioned by multiple "lower voltage" units, make sure each lower voltage string is equipped with a unit. EXAMPLE: If the battery bank is 72 volts, you can install a 36 volt DS unit on both halves of the system.

In a high capacity battery bank where multiple units of the proper voltage are being used, it is best to install the units equally throughout the bank. EXAMPLE: If you are installing two DS-1000's on 1,800 amp hours of capacity, install each unit at either end of the bank. If you are installing three DS-1000-48's on a 3,000 amp hour bank, place one on either end and one in the middle.

If during installation and connection the leads are reversed, the fuse will blow. Replace it only with an AGC ½, 250 volt fuse.

Wiring:

1. Connect the DS control box to the battery set using the lead wires. The connection must be of high quality and low resistance. The lead wires are marked red for positive and black for negative.
2. Once connected, the LED will indicate operation.