# Operating and Installation Instructions for SureGuard™

You have just purchased a very simple, yet accurate battery management "Assistant" designed to help you know, at the push of the button, the condition of your battery and charging / alternator system. SureGuard protects your sensitive engine computer system and 12 volt accessories such as your security system, radar detector, cellular phone, personal computer, etc., from momentary surges during "jump starting" or charging.

### **SureGuard INSTALLATION:**

Turn engine and ALL accessories off

- Disconnect the Black ( ) ground lead wire from your battery
- Carefully think of the best location on or near your battery to locate your *SureGuard* so it can be easily seen and read. Clean surface you plan to attach SureGuard to using an alcohol pad.
- Attach the ring terminal on RED wire of SureGuard to the (+) clamp of battery
- Attach ring terminal of Black wire of the SureGuard to the ( ) clamp of battery
- Then attach SureGuard using both Velcro strips supplied.
- Re-connect the BLACK ( ) ground lead wire to the ( – ) battery post.

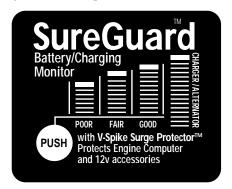
### **SureGuard** OPERATION:

Note: For the most accurate readings always allow your battery to "Rest" for a minimum period of 12 hours, ie. without charging or discharging or running your engine. Further test battery only with engine and all accessories and lights turned off. Test alternator / charging system only when engine is running and without lighting/accessories turned on.

#### TO TEST BATTERY

(Engine and ALL accessories must be off for accurate reading ):

• Press the area on the face of your SureGuard marked "PUSH" (Engine or power using lighting or accessories should not be "on" at the same time.) The following will give you the actual voltage ranges the various colored LEDs (red, yellow, green) correspond with:



NO LIGHT= LESS THAN 11.2 VOLTS RED = POOR = 11.2-11.8 Volts

= Battery may be "DEAD", severely shorted, or deeply discharged. If in doubt replace.

YELLOW = FAIR = 11.8-12.3 Volts

(Both Red & Yellow LED's will light)

= Battery may be shorted or discharged and unable to start your vehicle. Check charging system

GREEN = GOOD = 12.3-12.8 Volts (All 3 LED's will light)

= Battery is "healthy"

# TO TEST ALTERNATOR / CHARGING SYSTEM

(Engine MUST be Running):

- Press the area on the face of the SureGuard marked "PUSH"
- GREEN LED marked Alternator should be lit (13.2-14.2 volts). If it does not show Green, Alternator / charging system is faulty and must be checked / repaired.

Note: All 4 LED's will light if OK.

### "JUMP STARTING"

using your booster battery cables: (NEGATIVE GROUND)

#### **CAUTION**

Extreme care must be taken to avoid potential hazards connected with starting / charging devices using batteries

- TURN OFF ALL LIGHTS AND POWER USING ACCESSORIES
- DO NOT ALLOW VEHICLES TO TOUCH OR CONTACT ONE ANOTHER
- Keep your hands and body clear of ALL moving parts in engine compartment
- Securely Attach +RED Clamp to + Post / Terminal of Battery of "Good Vehicle"
- Securely Attach Black Clamp to Post / Terminal of Battery of "Good Vehicle"

- Securely Attach + RED Clamp to + Post / Terminal of Battery in "Dead Vehicle"
- Securely Attach Black Clamp to non-painted metal NON-MOVING part of "Dead Vehicle" at least 3 feet from Battery. DO NOT ATTACH BLACK CLAMP TO ANY PART OF THE "DEAD" Battery, UNDER ANY CIRCUMSTANCES.
- Run engine of "Donor" vehicle at higher than idle speed, while testing your battery using your SureGuard to see/ check condition of battery. SureGuard must indicate "Fair" (Yellow) or "Good" (Green) before you attempt to start "Dead Vehicle".
- AFTER ENGINE HAS STARTED CARE-FULLY DISCONNECT / REMOVE CLAMPS FROM BATTERIES IN THE <u>EXACT</u> <u>REVERSE ORDER THEY WERE</u> <u>ATTACHED</u>



Made in China exclusively for:

## VDC Electronics, Inc.

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**MODEL 12100** 



### **5 YEAR LIMITED WARRANTY**

SureGuard is warranted for 5 years. If it fails to function return to VDC Electronics, Inc., 83 Cedar Lane, PO Box 5537, Englewood, NJ 07631-5537 with dated proof of purchase for an immediate replacement at no charge