



IBS Dual Battery Test Procedure (Product: IBS-DBS)

Things not to forget during Installation:

- Battery Minus from Starter and Aux Battery has to be connected, either directly (for high performance application) or through chassis body of the vehicle. Closed electrical circuitry required for operation.
- Red bridge wire on relay has to be on Starter battery side.
- Use protection hose for all wires, finally it has to look like it was always installed from car manufacturer.
- Always leave a loop of the wiring kit behind the dash though you can pull out the plug behind the monitor for easy access (maintenance).

Test after installation:

Engine is stopped:

Press **display**, Starter and Aux battery should show green LEDs on both LED bars (Main and Aux)
=>if no LED is showing batteries are flat (very unusual), red wire is not properly connected
=>if only Main battery is showing Aux battery is flat or blue sense wire is not properly connected to Aux battery

Press **display** and then press **link**: both LED bars should equalize and red LED **manually linked** and green LED **linked** should go on (hear clack noise when Relay got engaged).

Press **auto** and both LED bars go back to old value (hear clack noise when relay got disengaged), red LED **manually linked** goes off and green LED **linked** most of the times also goes off immediately. Sometimes if batteries are new batteries stay linked for some minutes (green LED **linked** is still on). If you switch on headlights you force to disconnect batteries in short time.

Engine is running:

After short time the charge LEDs go on (normally about 13.5 to 14V, what is depending on ambient temperature (hot weather means less 13.5V, cold weather more 14.5V), the green LED **linked** is on.

Stop engine:

After some time delay batteries are separated again, green LED **linked** goes off. If batteries stay linked for long time this means batteries are very healthy and/or new, sometimes the green charge LED **13.0V** stays on

=>if the green LED **linked** is still on this means very good charge on both batteries

=>if the green LED **linked** is off and the **13.0V** LED is still on means Aux battery is very good

These symptoms disappear with aging batteries.

System has passed all tests and is fully operational.

Some hints during operation:

- If system behaves strange you can either disconnect the battery monitor by unplugging for a few seconds and then reconnect again or you do a system reset (push **link** and **auto** for at least 5 seconds).
- Reset is indicated by showing software release on main and aux batteries, V6.3 means 6 main and 3 aux LEDs. (PS: system is equipped with further functionality and in very rare occasions it happens these functions are activated by accident).
- Keep in mind if link is pressed for 5 seconds, the system goes into single starter battery mode (manual and auto link are then disengaged). This function has been implemented if the Aux battery has failed you can return safely on starter battery/alternator system without risking to destroy the alternator. This function is disengaged by pressing **auto** for 5 seconds.
- All other function refers to added manual.