

REDARC

The Specialists in
Power Conversion

TECHNICAL TIPS

Voltage Changes to our SBI12 SmartStart

In our Winter 2006 Newsletter, we reported that we had numerous inquiries about problems experienced when installing SBI12 SmartStart Solenoids in vehicles such as the Toyota 100 Series Landcruiser V8 4WD. The complaint was that the second battery isn't being charged as a result of the Smart Start not switching because the 100 Series Alternator is not reaching the required 13.6 volts. The alternator field circuit is controlled by the engine ECU and it seems that it is not allowing the voltage to rise above 13.5V. We have since received information from the field that this situation exists in a number of other vehicles including Toyota, Ford & Hyundai.

Therefore from the 1st February 2007 we have modified all 12V models being produced so they activate at 13.2 Volts bringing the auxiliary battery into the charging circuit. REDARC also reset the Smart Start turn off voltage to 12.5 volts. With these new settings the installation will work a treat. The Redarc Part Number for the SmartStart will remain the same, i.e. SBI12.

LED Lights continue to cause faults in vehicles

Problem #1:

LED trailer lights flicker when connected to 24-12V trailer lighting reducers.

Cause:

The LEDs don't draw enough current to allow the trailer lighting reducer to operate properly.

Solution:

Fit REDARC adaptor ACL4 (for 4 circuit LEDs) or ACL5 (for 5 circuit LEDs).

Problem #2:

Standard filament lights on the back of a vehicle have been replaced with LEDs, now the indicator flashes too quickly.

Cause:

The LEDs do not draw enough current to make the flasher can run at the correct rate. This is the same as what occurs in a normal vehicle when an indicator lamp fails.

Solution:

Fit REDARC LDLI21-12 (for a 12V vehicle) or LDLI21-24 (for a 24V vehicle).

LDLI21-12 means Led Dummy Load Indicator 21W, 12V (as it only applies load to the indicator circuit)

Problem #3:

Standard filament lights on the back of a vehicle have been replaced with LEDs, now there are "Lamp fail" (or similar) warnings on the dash.

Cause:

The LEDs don't draw as much current as the original lamps. This fools the lighting control unit (LCU) into detecting a lamp failure.

Solution:

Fit a REDARC LDLIBT product suitable for your vehicle. The equivalent load required to stop the LCU detecting a fault varies from vehicle to vehicle, depending on the number of filament lamps being detected. Determine the number and wattage of filament lamps in the original vehicle lighting before contacting REDARC for a suitable product.

LDLIBT means Led Dummy Load Indicator Brake Tail (it applies load to all circuits).

Problem #4:

LED trailer lights cause incorrect operation of ABS.

Cause:

The ABS monitors the trailer lighting output from the truck. If it detects that a trailer is connected (by the load of the filament lamps), the braking profile is adjusted for a trailer. LEDs do not draw enough current and this is seen as "no trailer" by the ABS and brakes operate as if there was no trailer.

Solution:

Fit a REDARC LDLB product to the trailer, LDLB12 (for a 12V trailer) LDLB24 (for a 24V trailer). LDLB means LED Dummy Load Brake.



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