

Chapter 7 Trouble Shooting Table

- Proceed as follows for a quick detection of common faults.
- DC loads must be disconnected from the batteries and the AC loads must be disconnected from the INVERTER before the INVERTER and/or battery charger (AC CHARGER) is tested.
- Consult us if the fault cannot be resolved.

Problem or Error message	Cause	Solution
The “SSL series” fails to operate when power on.	The battery voltage is too high or too low.	Ensure that the battery voltage is within the correct value range.
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> ‘Udc-UV’ Battery under volt </div> ‘ ’: blink	The battery voltage is low.	Charge the battery or check the battery connections.
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> Udc-UV Battery under volt </div>	The “SSL series” cuts out because the battery voltage is too low.	Charge the battery or check the battery connections.
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> ‘OL’ Inverter OverLoad </div> ‘ ’: blink	The load on the inverter of “SSL series” is higher than the normal load.	Reduce the load.
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> OL Inverter OverLoad </div>	The INVERTER of “SSL series” cuts out due to excessive load.	Reduce the load.
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> ‘OH’ Heatsink Max Temp. </div> ‘ ’: blink	The ambient temperature is too high, or the load is excessive.	Place the “SSL series” in a cool and well-ventilated room, or reduce the load.

<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>OH Heatsink Max Temp.</p> </div>	<p>The ambient temperature is too high, or the load is excessive.</p>	<p>Place the “SSL series” in a cool and well-ventilated room, or reduce the load.</p>
<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>‘Udc-ripple’ Volt Ripple Exceeds</p> </div> <p>‘ ’: blink</p>	<p>Voltage ripple on the DC input exceeds 1.25Vrms</p>	<p>Check the battery cables and terminals. Check the battery capacity; increase it if necessary.</p>
<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Udc-ripple Volt Ripple Exceeds</p> </div>	<p>The INVERTER of “SSL series” cuts out as a result of excessive voltage ripple on the DC input</p>	<p>Install batteries with a higher capacity. Use shorter and/or thicker battery cables and reset the SSL series (Power OFF and ON again).</p>
<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>‘Udc-OV’ Battery over voltage.</p> </div> <p>‘ ’: blink</p>	<p>Battery charger is not in normal charging status to cause battery voltage too high.</p>	<p>Replace the “SSL series”.</p>
<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Udc-OV Battery over voltage.</p> </div>	<p>Incorrect battery voltage connection (12V system but connected to 24V battery)</p>	<p>Recheck if the SSL series and the battery voltage is matched.</p>
<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>‘Idc-OC’ Over current.</p> </div> <p>‘ ’: blink</p>	<p>The actual charge current is 1.5 times larger than the set current value (D1-08) when AC CHARGER is operating.</p>	<p>Stop the Charge mode of the “SSL series”.</p>
<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Idc-OC Over current.</p> </div>		<p>Repair or replace the “SSL series”.</p>

<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>‘Bat-NG’ Battery Fault</p> </div> <p style="text-align: center;">‘ ’: blink</p>		
<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Bat-NG Battery Fault</p> </div>	<p>The charging time of <u>AC CHARGER</u> has been over 10 hours and remains in Bulk Charge mode. (D1-09=1) shows the battery is at fault.</p>	<p>Replace the battery banks.</p>
<p>The charger is not functioning</p>	<p>The AC IN voltage or frequency is out of range.</p>	<p>Ensure that the AC IN voltage is within the range 220V system: 180VAC~260VAC 110V system: 90VAC~130VAC And that the frequency matches the setting.</p>
	<p>“SSL series” internal circuit breaker has tripped.</p>	<p>Reset the internal circuit breaker.</p>
<p>The battery is not being charged fully.</p>	<p>Incorrect charging current.</p>	<p>Set the charging current at between $(0.1\sim0.2) \times$ battery capacity.</p>
	<p>A defective battery connection.</p>	<p>Check the battery terminals.</p>
	<p>The absorption voltage has been set an incorrect value.</p>	<p>Adjust the absorption voltage to the correct value.</p>
	<p>The float voltage has been set to an incorrect value.</p>	<p>Adjust the float voltage to the correct value.</p>
	<p>The internal DC fuse is defective</p>	<p>“SSL series” is damaged.</p>
<p>The battery is overcharged.</p>	<p>The absorption voltage has been set to an incorrect value.</p>	<p>Adjust the absorption voltage to the correct value.</p>
	<p>The float voltage has been set to an incorrect value.</p>	<p>Adjust the float voltage to the correct value.</p>

The battery is overcharged.	The battery is too small.	Reduce the charging current or use a battery with a higher capacity.
	A defective battery.	Replace the battery.
	The battery is too hot.	Connect a Battery Temperature Sensor (BTS-3)
Battery charge current drop to 0 A when the absorption voltage is reached.	Battery overtemperature (> 50 °C)	<ol style="list-style-type: none"> 1. Allow battery to cool down. 2. Place battery in a cool environment. 3. Check for shorted cells.
	Battery Temperature Sensor (BTS-3) is faulty	<ol style="list-style-type: none"> 1. Unplug Battery Temperature Sensor (BTS-3) from “SSL series” and power off the “SSL series” then wait 5 seconds and power on again. 2. If the “SSL series” AC CHARGE normally, the BTS-3 is faulty and needs to be replaced.