



Troubleshooting Table for Outback Hardware

Operation - Function - Issue - Activity

Selected lights in shelter not working
 Selected Receptacles (electric outlets) in shelter not working
 Circuit breakers in critical load panel tripped in room
 Remote log-in to OB OpticRE DAS monitoring system not working
 No or incorrect data displayed on OB OpticRE DAS
 BOS - smoke/smell coming from PV system enclosure or shed
 BOS - charge controller not displaying correct voltage/current
 BOS - inverters LED display not lit or showing alarm lights
 BOS - Mates3C not displaying values
 BOS - charge controller not showing values
 BOS - Mates3c not displaying correct voltage/current
 BOS - unfamiliar characters displayed on any screen
 BOS - cooling fans not working
 BOS - circuit breaker tripped on OB cover panel
 Utility power meter on BOS not spinning or displaying data
 Damage showing on PV module and wires at array or BOS

Reason or Action to Take	Operation - Function - Issue - Activity															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Turn on switch for PV system selected lights in shelter	.															
Replace light bulb(s) burned-out in shelter ceiling fixtures	.															
Replace broken receptacle in shelter		.	.													
Reset tripped circuit breaker in emergency CLP load panel	
Check on/off status of utility disconnect. Turn on, if off.	
Check PV BOS if not supplying power to CLP	
Replace non-working PV system inverters	
Replace non-working PV system charge controller				
Recharge or replace low or dead PV system batteries
Check and fix, if IT wiring in shelter to ethernet cable is broken							
Check sun radiation value (must be over 50 -200 W/M2)				
Repair PV string wiring and connector					
Replace broken or damaged PV module						
Rewire and replace shorted or broken PV strings					
Verify school ethernet is in working condition									
Verify ethernet network switch is on and not re-assigned									
Inspect PV array and verify all strings are functioning						
Clean PV module array, if covered with mildew or dirt						
Check building load panel or circuit breaker (CB) in building
Call utility power company for outage				
Replace PV module with comparable module						.			.							.
Check voltage/current in combiner box					
Check voltage/current in charge controller					
Move BOS bypass switch to bypass position and contact FSEC
Turn off utility disconnect on enclosure/shed					
Check circuit breaker in AC or DC - OB BOS panel						
Contact FSEC
Contact a solar installer					
Contact an electrician	
Contact school district facilities		

- ABBREVIATIONS**
- AC = Alternating Current
 - BOS = Balance of System Components
 - C = Current or Amps
 - CB = Circuit Breaker
 - CC = Charge Controller
 - CLP = Critical Load Panel (Solar Emergency Loads)
 - DAS = Data Acquisition System
 - DC = Direct Current
 - FSEC = Florida Solar Energy Center
 - IT = Information Technology
 - LED = Light Emitting Diode
 - M = Meter
 - OB = Outback Power Hardware
 - PNL = Panel (Electric Box)
 - PV = Photovoltaic (Solar Electric)
 - SW = Switch
 - V = Voltage or volts
 - W = Watts

• See Troubleshooting presentation for more info