

Start•All Jump•Pack® Troubleshooting and Warranty Request Guide

IN0229 2/3/2021 Rev.1 TRS

Follow the Troubleshooting Steps on the next page to diagnose any problems and then check all boxes that apply. Use Other for any issue not mentioned.

- Does not turn on, display turns on when charging, battery is above 9.6V
- Does not turn on, display turns on when charging, battery is below 9.6V
- Charger does not work
- Does not charge even when activation button is pressed
- Error Code on the display: List error code _____
- Display shows red and green flashing 8's, will not activate or show error code
- Jump•Pack and display turns on, will not charge, "IN" is not flashing
- Jump•Pack and display turns on, will not charge, "IN" is flashing
- Clamps are always live
- Clamps or cables are damaged
- Jump•Pack shuts off or stops during cranking. Display % after crank attempt:
- Other:

Please fill out the information below. Attach proof of purchase. Serial number is printed onto the housing where the red clamp is connected. Remove the red clamp to view.

<u>Type of Jump Pack</u>	JP 12-10,000	JP 12-5,000	JP 12-2,500
Dealer Jump•Pack Was Purchased From			
Contact Name			
Contact Phone Number			
Contact Email			
Return Address			
Serial Number			
Date of Purchase			
Technical Support Representative			

No Start•All Jump•Pack® units will be received unless a Return Material Authorization (RMA) is issued first.

Send this form and proof of purchase to warranty@vanair.com in order to receive an RMA to return your pack for repair.

If the Jump•Pack is a **JP 12-4000 model**, there is no warranty and cannot be repaired. No RMA is to be issued.

If the Jump•Pack is a **Lithium Hub model** there is no warranty and cannot be repaired. No RMA is to be issued.

If the Jump•Pack is a **Gray Case (big rig) Stark unit** there is no warranty cannot be repaired. No RMA is to be issued.

Goodall® Engine Starting Systems by Vanair® have a 1-year warranty from date of purchase.

Troubleshooting Steps (battery charging instructions are steps 4-5)

[Click here for the Start-All Jump Pack Troubleshooting Video](#)

If Issues occur prior to cranking attempt

1. The Start•All Jump•Pack® does not turn on.
 - a. Press the output button momentarily, then turn on the power switch
 - i. Does the Jump•Pack turn on?
 - ii. If still off, proceed to step b.
 - b. Plug in the charger
 - i. Does the display turn on with a charge %?
 1. If the display turns on when plugged in, but then turns off when the Jump•Pack is unplugged, check to see if the charge level is increasing by waiting 10 minutes. If it is not increasing, measure the voltage. Put the positive probe of a voltmeter on the red clamp and the negative probe on the metal housing of the cigarette lighter port.
 - a. If it is not charging and is above 9.6V the battery is likely bad. Return the unit for further testing to verify.
 - b. If the voltage is below 9.6V the battery is possibly still good, the unit will still need to be returned to manually recharge it.
 2. If the display does not turn on
 - a. Check the charger for output. With the charger plugged in to an AC outlet but not plugged in to the Jump•Pack, measure with a voltmeter the inside with the positive probe and the outside of the connector with the negative probe. It should measure approximately 18 volts, if it does not, replace the charger.
 - b. If the Jump•Pack display does not turn on and the charger is good, the jump pack is defective and will need to be returned
2. The Start•All Jump•Pack® and the display turns on, but it does not charge.
 - a. Does the “IN” on the display flash when plugged in?
 - i. No “IN” is not flashing.
 1. Check the charger for output. With the charger plugged in to an AC outlet but not plugged in to the Jump•Pack, measure with a voltmeter on the inside with the positive probe and the outside of the connector with the negative probe. It should measure over 18 volts, if it does not, replace the charger. If it does measure over 18 volts, the control board needs to be replaced; return unit for repair.
 2. If the Jump•Pack is 100% fully charged, the “IN” will stop flashing.
 3. If IN has stopped flashing but the display does not show 100%, go to “recalibrating the display when the display will not reach 100%” procedure
 - ii. The “IN” is flashing, but the battery charge level percentage will not increase, or will not reach 100%
 1. Go to “recalibrating the display when the display will not reach 100%”
 2. If the problem persists, Battery or control board is bad, return the unit.
3. Strong arcing occurs when connecting the clamps to a battery
 - a. Perform a check by attaching a clamp-on ammeter to one of the cables from the Jump•Pack. Connect the clamps to a known good 12V battery, ENSURE PROPER POLARITY.
 - i. With the Jump•Pack turned off, there should be no current, if there is, the MOSFET board is bad and the unit needs to be returned.
4. Normal Charging Procedure for the Start•All Jump•Pack®



- a. With the Jump•Pack turned off, plug in either the AC charger or the 12V auxiliary port charger into the corresponding port.
 - i. Check display. If the display shows 0%, check the voltage per section 1. If it is above 9.6 V, proceed to step b.
 - ii. If the voltage is below 9.6 V, the battery is damaged and the unit should be returned for service.
 - b. Look for the “IN” to illuminate on the display,
 - i. If working properly it will begin to flash
 - c. Wait several minutes to observe the charge level percentage increase
 - d. Continue to let the Jump•Pack charge 6-8 hours or until it automatically stops. The “IN” will stop flashing and the charge level display will show 100%.
5. Recalibrating the display when the display will not reach 100%
- a. Charge the jump per “Normal Charging Procedure for the Start•All Jump•Pack®.”
 - b. If it does not reach 100% when finished charging, then turn on the Jump Pack while it is still plugged in to the charger, and wait 15 seconds.
 - c. The display should recalibrate up to 100%.
 - d. If the display still does not show 100%, leave the Start•All on and turn the flashlight on or plug in an accessory to slowly drain the battery. Drain the battery to 50% and recharge fully until IN stops flashing ----Turn unit ON.
 - e. If the display still does not read 100%, measure the voltage of the clamps with a voltmeter. If the voltage is above 16.4V, the battery is good.

NOTE: Many conditions affect the health of the battery, this includes age, the temperature it is stored at, how heavily it has been used, and other factors. These will degrade the battery over time and may affect the maximum charge % that will display.

6. The clamps or cables are damaged
 - a. The clamps can be replaced with Vanair Part Number 14-450 Replacement Clamp Set
 - b. For cable damage, the unit can be returned for repair

If issue occurs during Cranking Attempt

7. The LED display shows an Error Code E0-E9
 - a. There is an error present. It could be any of the following
 - i. E0: Low Jump Pack Battery Voltage Detected
 1. If the error appears when the Jump Pack is turned off and charging, then 1 or more cells in the Jump Pack battery is below a safe 2.4V minimum charge. This unit will not charge because of the potential unsafe condition. It will need to be returned for servicing.
 2. If the error ONLY appears when unit is powered on, then the charge level is below a safe % to jump start a vehicle or using the accessories without causing damage to the Jump Pack. It is possible to recharge the Jump Pack before using it when it is in this condition.
 - ii. E1: Reverse polarity detected
 1. Check the clamps and ensure that the red clamp is connected to the positive post on the battery and that the black clamp is connected to the negative post on the battery.
 - iii. E2: Timed Out
 1. The Jump•Pack once connected to a battery and activated will stay engaged for 45 seconds. Switch off and back on the Jump•Pack to reset the timer.



- iv. E3: High Internal Temperature Detected
 - 1. The Jump•Pack has detected a high internal battery temperature and will need to cool down before the Jump•Pack can be used again. This will also prevent recharging while the Jump Pack is still too warm. Allow the Jump•Pack to cool down for 15-20 minutes before making another crank attempt.
- v. E4: Low Temperature Detected
 - 1. This Code will display when the Jump•Pack senses that it is below 40°F. This will not prevent the use of the Jump•Pack, but only indicates that due to the low battery temperature, performance will be reduced, or in extreme cases, the Jump•Pack may shut off during the crank attempt. If the Jump•Pack shuts off, turn rocker switch off and then back on, then press the activation button.
- vi. E5: High Current Detected
 - 1. The Jump•Pack has exceeded the safe upper threshold for current. If this error occurs repeatedly on subsequent crank attempts, the vehicle starter may be bad, or some other problem may be causing abnormally high current draw. Vehicle batteries may need to be charged or replaced.
- vii. E6: Low Current
 - 1. This will display when the Jump•Pack has activated and then detects the current has dropped below 2 amps. Check the clamps to see if they are still attached to the battery and have a clean connection free of paint dirt, or corrosion. If the error is still present or the jump pack is still showing red and green flashing 8's and turning on the headlights or blower does not resolve this, the activation button can be pressed and held for 3 seconds. This will force the Jump•Pack to activate.
- viii. E7: Short Circuit Detected
 - 1. Check the clamps and verify that there is not a short circuit and that they are connected to the battery correctly.
- iv. E8: Unit Does not Activate
 - 1. This is displayed when the Jump•Pack detects an internal defect or damage. If this occurs, the Jump•Pack will need to be returned for servicing.
- x. E9: There is an internal error with the Jump Pack. Contact the Vanair Service Department.

8. Jump•Pack shuts off during crank attempt or stops while cranking
 - a. The E4 Error code displays
 - i. Yes? Warm up the jump pack and try again.
 - ii. No, see below
 - b. Charge the Jump•Pack to full in accordance with section “Normal Charging Procedure for the Start•All Jump•Pack® ” and attempt an engine start.
 - i. The Jump•Pack persists in shutting off.
 1. Switch the power switch off and on again. Press the "output" button briefly.
 2. Read and record the percentage shown on the charge level display
 - a. If display is below 65%, the battery may be damaged and may need replacement.
9. The Jump•Pack shows flashing red and green 8's, but will not activate or show error codes
 - a. Check the clamp connection to make sure it is connected to the battery and is free of paint, grease, dirt, or corrosion.
 - b. Make sure the vehicle ignition switch is turned to the "accessory (ACC)" position and that the headlights or blower is turned on.
 - c. If the above steps do not resolve the issue, use the "manual activation mode" as instructed below.

MANUAL ACTIVATION FOR LOW VOLTAGE BATTERIES

The Start•All Jump•Pack® is designed to jump-start 12VDC lead-acid batteries at very low voltage. If your battery is too low or unable to take a charge, the unit will display alternating red and green 8s. This is an indication that the Start•All Jump•Pack® cannot detect a battery. If you need to jump-start a battery in this condition, turn on the headlights, blower, another accessory. If the Start•All Jump•Pack® still does not activate, there is a Manual Override feature, which allows you to force “On” the jumpstart function.

CAUTION! USE THIS MODE WITH EXTREME CARE. THIS MODE IS FOR 12VDC LEAD-ACID BATTERIES ONLY. BOTH THE SPARK PROOF AND REVERSE POLARITY PROTECTION FEATURES ARE DISABLED. PAY VERY CLOSE ATTENTION TO THE POLARITY OF THE BATTERY BEFORE USING THIS MODE. DO NOT ALLOW THE POSITIVE AND NEGATIVE BATTERY CLAMPS TO TOUCH OR CONNECT AS THE PRODUCT WILL GENERATE SPARKS. THIS MODE USES A VERY HIGH CURRENT (UP TO 2500 AMPS) THAT CAN CAUSE SPARKS AND HIGH HEAT IF NOT USED PROPERLY. IF YOU ARE UNSURE ABOUT USING THIS MODE, DO NOT ATTEMPT AND SEEK PROFESSIONAL HELP.

Before using the Manual Override feature, make sure the battery clamps are connected to the correct polarity battery terminals. To use the Manual Override feature, press and hold the “OUTPUT 12V” button for three (3) seconds. A solid Green 8 will indicate you have successfully entered Manual Override mode and are ready to jump-start your vehicle.

- d. If the Jump•Pack does not activate and display a green solid 8, return for servicing.

[Click here for the Start-All Jump Pack Troubleshooting Video](#)