Pump will not operate after normal installation. *(breakaway switch works properly)*

- Is the fuse installed?  
  - NO → **Install fuse**
  - YES → Is the toggle switch turned “on”?  
    - NO → Turn switch “on” and retest.
    - YES → Is the knob on the GFC controller set all the way “down”?  
      - NO → Lower knob and retest.
      - YES → Check for 12v on the yellow and green tow wire with coach brakes applied. Is there 12v on the yellow and green wire?  
        - NO → Find the problem causing this voltage drop in the tow wiring.
        - YES → With coach brakes still applied, check for 12v on the red wire between the GFC controller and operating unit. Is there 12v on the red wire?  
          - NO → Call Demco tech line 800.543.3626
          - YES → With toggle switch “on”, check for continuity across the black and white wires on the GFC controller. Is there continuity?  
            - NO → Call Demco tech line 800.543.3626
            - YES → System is operational, Check crimp connections.

System is operational, Check that Tow wire ground is connected properly: to the RV Frame; to both ends of the jumper plug; to the Towed Frame; and to the SMI White Wire. A break at any of these points will keep the DUO from seeing the RV Supplied Brake signal.

- YES → System is operational, Check crimp connections.
- NO → Call Demco tech line 800.543.3626
After installation, vehicle throws a vacuum leak/lean code

Are all vacuum connections tight?

- **NO** Fix vacuum leak
- **YES** Using a vacuum gauge, attempt to pull a vacuum on the line between the operating unit and the vacuum tee. Does it hold vacuum?
  - **NO** Call Demco Help Line 800.543.3626
  - **YES** Remove hose from tee, plug the open end of the tee, clear code and start the towed vehicle. Does the code come back?
    - **NO** Problem is with the towed vehicle.
    - **YES** Recheck connections and check valve for leaks.

Main Problem

Verify that the unit check valve is inserted correctly (black side toward unit and green/clear side toward tee.) Is Orientation Correct?

- **NO** Replace check valve.
- **YES** Flip check valve.
Breakaway switch will not work

Is the system fuse installed?

Put fuse in holder. Did that fix the breakaway?

- NO
  - Clean connections inside switch with an emery cloth. Does the system activate?
    - NO
      - Call Demco Help Line 800.543.3626
    - YES
      - Problem Solved

- YES
  - Problem Solved

Are 12v present on the orange/black wire?

- NO
  - NO
    - Call Demco Help Line 800.543.3626
  - YES
    - Check crimp connections to the battery. Did you find and fix the connection problem?
      - NO
        - Make certain that the battery is charged and good. Is the battery good?
          - NO
            - Replace the battery.
          - YES
            - Call Demco tech line 800.543.3626
      - YES
        - YES
          - Problem Solved
        - NO
          - Replace Breakaway Switch

- YES
  - YES
    - YES
      - Problem Solved
    - NO
      - Replace Breakaway Switch
Occasionally we find the direct current pumps can have an amperage surge upon start-up that will climb just above 20a (usually 22-23amps). When this issue is found, replace the 20a fuse with a 25a fuse.

Did this solve the problem?

**YES**

- Problem solved.

**NO**

- Call Demco tech line 800.543.3626

**NOTE:** The compressors run draw drops to 8-10 amps on average. Also, low battery voltage can increase both startup and run amp draw.
NOTE: The brake/turn signal wires receive both the constant 12v from the RV brakes and a pulsing 12v when the RV turn signals are active. While in tow, when the RV brakes are applied and the RV’s left turn signal is on at the same time, the GFC (G-Force Controller) will see the constant voltage from the right brake light and activate normally. However, if the GFC sees the 12v pulsing signal and subsequently begins to pulse on and off with the turn signal, reset GFC according to the initial set-up instructions found in step 12 of the installation manual.

Remember, the DUO should never activate with the brake signal while sitting stationary on level ground.

Did this solve the problem?