

Tech Bulletin

Subject: TS line of Inverters have different switch operation than VLT line of Inverters

Products Involved: All wattages of TS line of inverters; 400, 700, 1000, 1500, 2000 and 3000.

Background: The VLT was offered to Adrian Steel from January 2010 until being phased out throughout 2020 for all models. The VLT Series of Inverters had a **two-way** switch on the front of the unit. This switch turned the unit ON or OFF. These inverters had a two position "remote" plug with a jumper across both positions either on the front (600w) or the back of the unit (all others). Removing the jumper defeated the operation of the switch on the unit. The "remote" input from a dash mounted switch would supply +12Vdc power to the "REM" position of the green jumper. This would control the ON/OFF operation of the unit with the front panel switch left in the ON position. Switch configuration can be seen in Figure 1.

This is the VLT operation ONLY.

Several instances the TS Series of Inverters have been left in the ON position and not in the REM position allowing the inverter to drain the OEM battery over an extended amount of time and cause a no start situation on the vehicle.

For example, a Nissan NV200 has a 49ah capacity battery. Electrically speaking you can only access half the capacity before a battery is discharged. The TS12-1500 inverter standby power draw is 1.122A (nothing plugged in but producing 120Vac). To calculate the draw on the battery use the 1.122A (the draw from a battery over one hour), multiply that by 24 (hours in a day) which equals 26.928Adc per day. Since the NV200 only has 24.5Ah available (half the 49ah capacity) the battery will be "dead" in one day of the TS inverter front panel switch being left in the ON position.

Solution: The TS Series of Inverters has a **three-way** switch on the front of the unit. This switch operates the unit in ON/OFF/REM (REMOTE) modes. The TS inverters do not have a jumper controlling the operation of the inverter as the VLT. The remote input from a dash mounted switch supplies +12Vdc power to Position 1 (Enable "+") of the Remote Control Terminals on the back of the TS inverter. **The front panel switch MUST be left in the REM mode for the unit to be controlled by a dash mounted switch. Leaving the front panel switch in the ON position will deplete a battery over time as the unit will always be on.** Switch configuration can be seen in Figure 2. **This is the TS operation ONLY.**

Contact: For further assistance please contact;
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Or
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Figure 1, VLT switch in the "ON" position

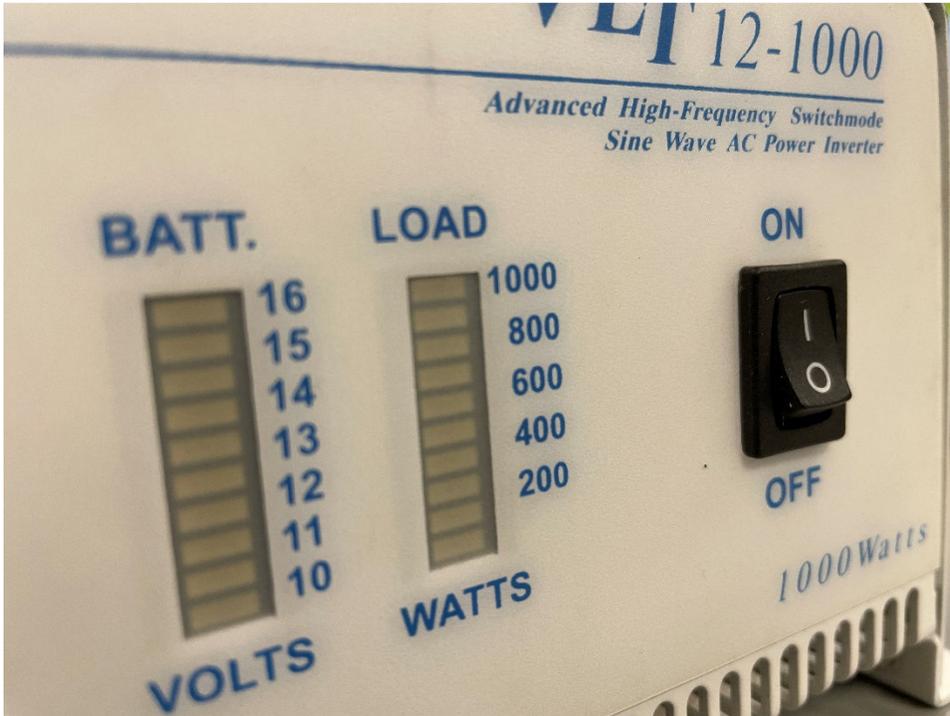


Figure 2, TS switch in the "REM" position

