



**VANAIR[®] TOTAL ELECTRONIC CONTROL
V-TEC[™] UNDERDECK SPEED CONTROL
AND DIAGNOSTIC SYSTEM**
AVAILABLE ON SELECT UDSM, UDHD, and GENAIR SYSTEMS

BID SPECIFICATIONS

V-TEC
Revised: Aug. 2011

- Electronic System:** The Vanair[®] V-TEC[™] Speed Control utilizes an eight (8) bit microchip micro-processor, solid state electronics, and is designed with a chassis specific plug and play wiring harness.
- Wiring Harness:** All wiring harnesses will be pre-made and pre-tested for proper continuity prior to shipment. Wiring harnesses will use weather proof connectors and woven loom material.
- Components:** The V-TEC system consists of an I/O Module and an LCD display module that communicate with each other utilizing J1939 protocol. The I/O module receives sensor information and modulates engine speed based on air demand. The display module presents system information including system hours, service intervals, air pressure, fluid temperature and engine rpm. V-TEC does not utilize temperature and pressure readings using analog gauges with capillary tubing.
- System Operation:** The V-TEC controller is pre-programmed to specific applications based on engine, transmission, PTO gear ratio and Vanair underdeck model. This system is compatible with most underdeck compressors and Genair system. Some engines may require additional factory programming. The V-TEC system will automatically govern operation of the truck engine during PTO operation. The V-TEC system is capable of commanding the engine speed in response to air demand and generator state.
- Mounting Locations:** Depending on the make and model of truck, the I/O module is to be mounted in the trucks engine compartment away from exhaust manifolds and pipes. Vanair strongly recommends mounting the V-TEC display panel in the passenger compartment. Approval of other mounting locations is at the discretion of Vanair. The display module must be kept in a dry environment. The minimum operating temperature of the display module is 15°F. Please consult Vanair Manufacturing if other locations are desired.
- Diagnostic Capability:** The V-TEC Speed Control allows for troubleshooting of the PTO, torque converter, cooler fan(s) and programmed engine speed(s) using a laptop computer and Vanair provided software. The system also notifies of maintenance alerts and out of range conditions as well as monitoring system pressure, temperature, engine RPM and compressor hours. The V-TEC Controller also logs faults and system performance.

- Protective Circuits:** PTO will disengage in case of high compressor temperature, over pressurization, and excessive engine RPM. Additional V-TEC protective features include J1939 neutral safety system, and prevention of engagement of PTO at engine speeds above 1000 RPM. Other compressor safety features include: automatic blow down valve, receiver relief valve and minimum pressure valve.
- Warranty:** The V-TEC Speed Control is warranted for a period of one (1) year when installed in accordance with Vanair recommendations. This warranty does not cover damage caused by incorrect installation, accident, misuse, or negligence. If the V-TEC wiring system is combined with other electronic components, such as relays, solenoids or non-factory supplied circuit breakers, the warranty may be void.
- Options:** Dual Pressure is pneumatically activated allowing operator to instantly select multiple pressure settings.



10896 W 300 North ■ Michigan City, IN. 46360
800-526-8817 ■ FAX 219-879-5800
www.vanair.com