

Subject
Air Solenoid Diagnosis - Hydraulic Driven Compressors (Predatair)

## System or Parts affected

- H600002 and H600004 60cfm Hydraulic Drive Compressor
- H400001 40cfm Hydraulic Drive Compressor

Contact VMAC Technical Support and supply a System ID number to obtain correct replacement part numbers. Call 1-888-241-2289 or email [tech@vmacair.com](mailto:tech@vmacair.com)

## Index

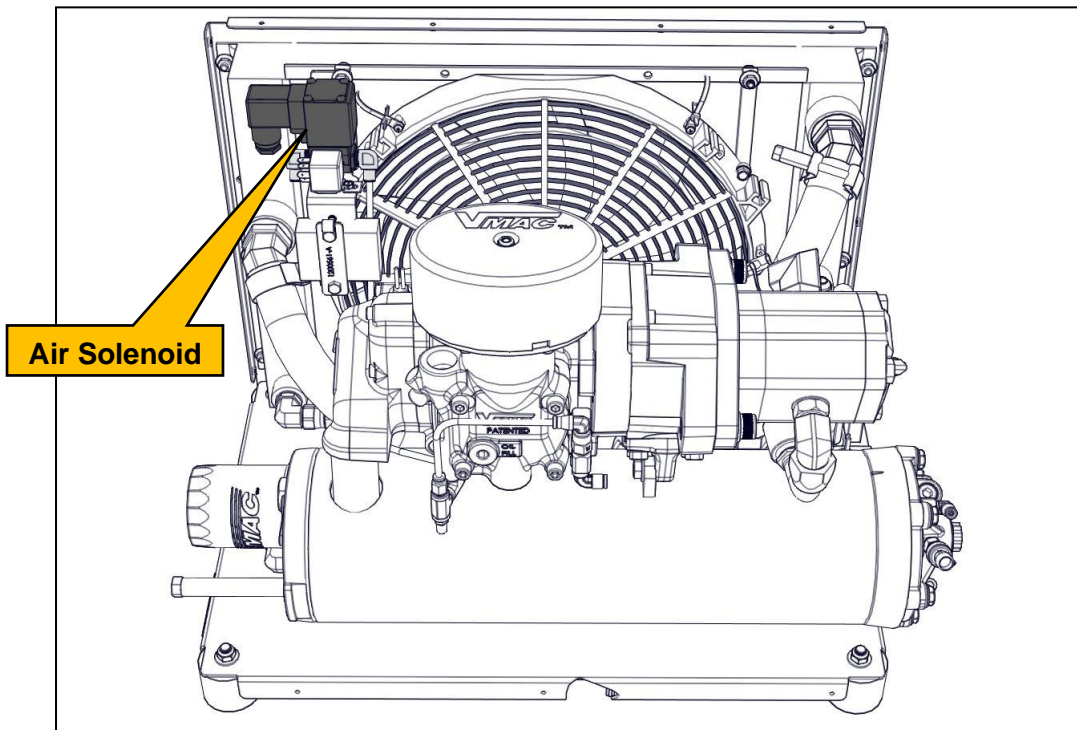
System or Parts affected .....	1
Overview .....	1
Air solenoid Location .....	1
Operation .....	2
Testing.....	2

## Overview

The Air Solenoid plays a critical role in the control of air pressure built by VMAC’s Hydraulic Drive (Predatair) compressor systems. The following article outlines the function and troubleshooting of this solenoid.

## Air solenoid Location

The air solenoid can be found by removing the top panel. It is located on a bracket near the top of the cooler. (Figure 1)



**Figure 1**

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## Subject

### Air Solenoid Diagnosis - Hydraulic Driven Compressors (Predair)

#### Operation

- The amount of air pressure that VMAC's Hydraulic Driven Air Compressor creates is controlled electro-mechanically by the air solenoid and the inlet valve.
- The air solenoid is normally open which allows air pressure to push the the inlet valve poppet to a closed position. If the inlet valve is closed the compressor will not build pressure.
- When the air solenoid coil is energized it closes, stopping air pressure to the inlet valve poppet allowing it to open. If the inlet valve is open the compressor will build pressure,

#### Testing

Confirm that the air solenoid is open with no voltage applied.

- With the air solenoid electrical connector disconnected, disconnect the two PTFE air lines from the air solenoid, tagging them to ensure they are re-installed in the correct locations after testing. Air should be able to pass freely through the solenoid. Blow through to confirm this.

Confirm that the air solenoid is closed when it is energized (voltage applied).

- Apply 12VDC and a ground to the coil to energize it. No air should pass through the solenoid.

Measure the resistance through the air solenoid coil.

- Correct resistance = 11.4Ω

If the air solenoid fails any or all of the above tests, replace the air solenoid.

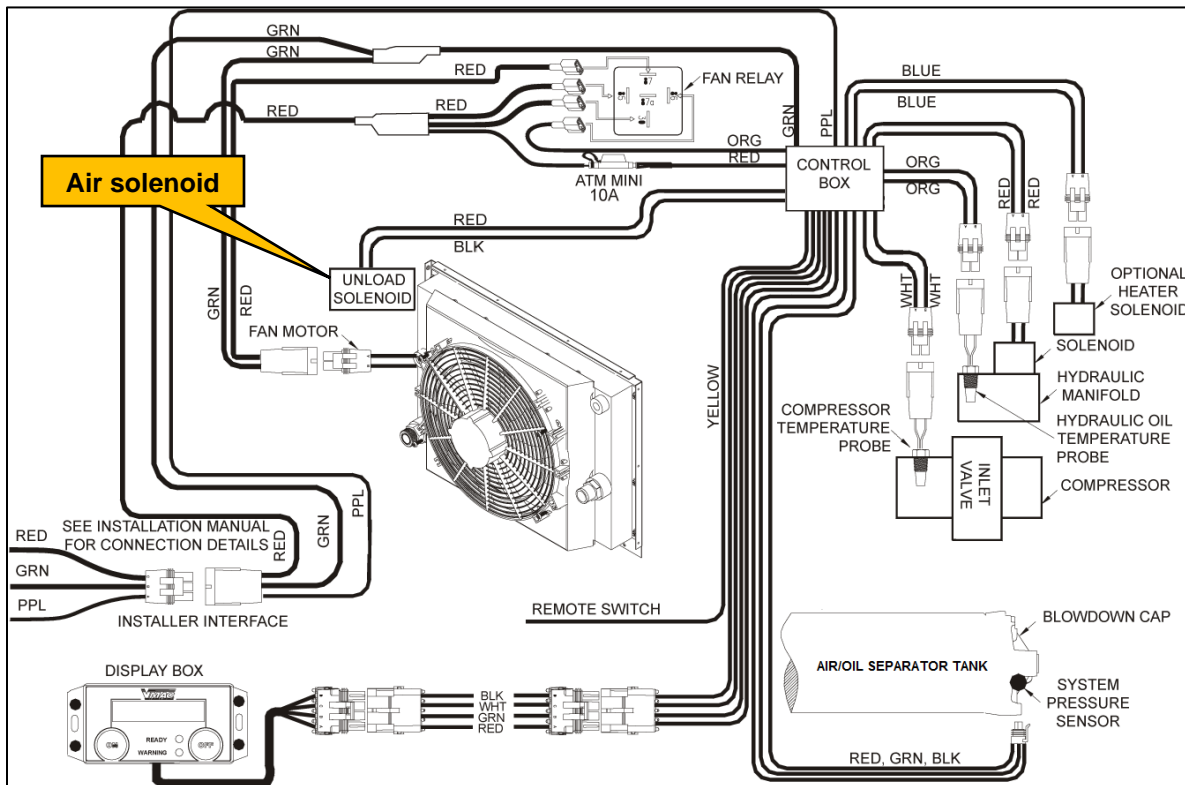


Figure 2

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