Air Conditioning (A/C) System Flushing

Special Tool(s)

ST2985-A	A/C Flush Adapter Kit 219-00074 or equivalent
6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	A/C Flush and Purge Fitting Kit 219-00024 (part of 219-00023) or equivalent
ST2466-A	A/C Flush and Purge Machine 219-00022 (part of 219-00023) or equivalent

Material

Item	Specification	
Motorcraft® A/C System Flushing Solvent YN-23	1	
Motorcraft® PAG Refrigerant Compressor Oil YN-12-D	WSH-M1C231- B	

NOTICE: An Air Conditioning (A/C) refrigerant analyzer must be used before the recovery of any vehicle's A/C refrigerant. Failure to do so puts the shop's bulk refrigerant at risk of contamination. If the vehicle's A/C refrigerant is contaminated, refer the customer to the service facility that carried out the last A/C service. If the customer wishes to pay the additional cost, use the A/C recovery equipment that is designated for recovering contaminated A/C refrigerant. All contaminated A/C refrigerant must be disposed of as hazardous waste. For all equipment, follow the equipment manufacturer procedures and instructions.

NOTICE: Suction accumulator or receiver/drier, Thermostatic Expansion Valve (TXV) and/or evaporator core orifice, and hoses with mufflers, should be removed when flushing the Air Conditioning (A/C) system. Internal plumbing of these devices makes it impossible to correctly remove any residual-flushing agent. These components are typically discarded after A/C system contamination. Hoses without mufflers can normally be reused unless they are clogged with foreign material.

NOTICE: Only the listed A/C Flush and Purge Machine, A/C Flush and Purge Fitting Kit, A/C Flush Adapter Kit and A/C System Flushing Solvent are approved for use on Ford vehicles. No other flushing device or solvent is approved for flushing heat exchangers (Air Conditioning [A/C] condenser, A/C evaporator). Use of any other flusher or solvent may cause damage to the A/C system and the flushing unit.

 Recover the refrigerant. For additional information, refer to <u>Air Conditioning (A/C) System Recovery</u>, Evacuation and Charging in this section.

- 2. Disconnect the refrigerant lines from the heat exchanger(s) to be flushed.
- 3. Using the correct adapters from the A/C Flush Adapter Kit or A/C Flush and Purge Fitting Kit, connect the A/C Flush and Purge Machine to the heat exchanger to be flushed. Do not flush through the evaporator core orifice (if equipped), Thermostatic Expansion Valve (TXV) (if equipped) or hoses with mufflers. Internal plumbing and material make-up of these components make it impossible to correctly remove foreign material or residual flushing solvent.
- 4. **NOTE:** Use 3.785L (1 gal) of A/C System Flushing Solvent to flush the heat exchanger for a minimum of 15 minutes. The flush solvent may be used for one or both heat exchangers in the A/C system. However, the flush solvent is intended for one vehicle only. The filter used on the flushing unit is also intended for use on one vehicle only.

Flush the heat exchanger for a minimum of 15 minutes.

- 5. Apply 621-862 kPa (90-125 psi) pressurized air to the component for a minimum of 30 minutes. The 30-minute purge time is required to force and evaporate all residual solvent from the A/C system component. Failure to successfully remove all residual solvent within the component can result in system damage when reconnected and operated. Dispose of the used flush solvent and filter in accordance with local, state and federal regulations.
- 6. **NOTE:** A/C system filtering as described in this section is optional if system flushing is carried out. However, the filter kit use is recommended after flushing if the A/C system contamination is extensive.

Install a new A/C evaporator core orifice (if equipped) and/or TXV (if equipped) in any vehicle being serviced for an internal A/C compressor or desiccant failure.

- 7. Install new refrigerant hoses with mufflers if clogged with foreign material.
- 8. Install a new suction accumulator (if equipped), receiver/drier (if equipped) or receiver/drier cartridge (if equipped) in any vehicle being serviced for an internal A/C compressor or desiccant failure.
- 9. Reconnect the heat exchanger being serviced.
- 10. If a new A/C compressor is not to be installed, lubricate the refrigerant system with the correct amount of clean PAG oil. For additional information, refer to <u>Refrigerant Oil Adding</u> in this section.
- 11. If a new A/C compressor is not to be installed, evacuate, leak test and charge the A/C system. For additional information, refer to <u>Air Conditioning (A/C) System Recovery, Evacuation and Charging in this section.</u>
- 12. If a new A/C compressor is to be installed, refer to the A/C Compressor removal and installation procedure.