

Air Conditioning (A/C) System Flushing

Special Tool(s) / General Equipment

Air Conditioning Flush and Purge Service Unit
Air Conditioning Adaptor Kit

Materials

Name	Specification
Motorcraft® A/C System Flushing Solvent YN-23	-

Flushing

NOTICE: Use the Refrigerant Identification Equipment before recovering any of the vehicle's 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 in accordance with all federal, state and local regulations. For all equipment, follow the equipment manufacturer procedures and instructions.

NOTICE: Before flushing the A/C system, remove the receiver drier or receiver drier element, front Thermostatic Expansion Valve (TXV), rear TXV (if equipped) and hoses with mufflers. 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 be reused unless they are clogged with foreign material. The 3.78L (1 gal) of Motorcraft® A/C System Flushing Solvent (YN-23) and FL1-A filter used in A/C Flush and Purge Service Unit are intended for use on one vehicle only. They may be used to flush both the A/C condenser core and the A/C evaporator core on an individual vehicle, but under no circumstances should they be used on more than one vehicle.

NOTICE: Only the A/C Flush and Purge Service Unit and Motorcraft® A/C System Flushing Solvent (YN-23) are approved for use on Ford vehicles. No other flushing device or solvent is approved for flushing heat exchangers (A/C condenser, A/C evaporator). Use of any other flusher or solvent may cause damage to the A/C system and the service unit.

NOTE: Prior to using the A/C Flush and Purge Service Unit for the first time, review the operating instructions.

NOTE: Never push shop air directly through an a/c system. Shop air is full of contaminants and must be run through the service unit to clean and dry the air.

NOTE: Ford Motor Company has approved a procedure to provide technicians with a non-CFC method of flushing contaminated A/C system heat exchangers. The procedure allows the specific components to be cleaned and flushed. The types of contamination flushed include particle matter that results from A/C compressor or desiccant failure and gummy residue that can form when refrigerant oil is overheated during A/C compressor seizure. The flushing process is a 2-step procedure that involves using an A/C Flush and Purge Service Unit to:

- circulate the flushing solvent through the heat exchanger in the reverse direction of normal refrigerant flow (back-flushing). Particulate matter picked up during flushing is filtered from the returning solvent before the solvent is returned to the reservoir for continued circulation.
 - remove the flushing solvent from the heat exchanger. In this step of the procedure the pressurized air 621-862 kPa (90-125 psi), that is connected to the service unit is used to push and evaporate any remaining flush solvent from the heat exchanger.
1. Recover the refrigerant. Refer to Air Conditioning (A/C) System Recovery, Evacuation and Charging procedure in Group 412.
 2. Disconnect the refrigerant lines from the heat exchanger(s) (A/C condenser, A/C evaporator) to be flushed. Refer to the appropriate section in Group 412 for the procedure.
 3. **NOTE:** Do not flush through the condenser integrated receiver drier element (if equipped), 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.

Use the correct adapters with the Rotunda-approved A/C Flush and Purge Service Unit to flush the heat exchanger.

- 357-405 80004 00 Mahle - ACF-3100 - A/C Component Flush & Purge System
 - 258-40001 A/C Flush Machine with Dual Tank and SoundSilenceâ„¢ Technology
 - 219-00082 - ACF-3000 - 33PC Adapter Kit - Revised 1st released 44pc kit
 - 219-00083 A/C Flushing Adapter Kit 2 of 3 (Previously "Supplement A", 2nd released kit)
 - 219-00084 A/C Flushing Adapter Kit 3 of 3
- Use the General Equipment: Air Conditioning Flush and Purge Service Unit
Use the General Equipment: Air Conditioning Adaptor Kit

4. **NOTE:** Use 3.78 L (1 gal) of Motorcraft® A/C System Flushing Solvent (YN-23) 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 service unit is also intended for use on one vehicle only.

Flush the heat exchanger for a minimum of 15 minutes.

Material: Motorcraft® A/C System Flushing Solvent / YN-23

5. Apply the pressurized air 621-862 kPa (90-125 psi) to the service unit, purge 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. Install a new TXV (if equipped) in any vehicle being serviced for an internal A/C compressor or desiccant failure. Refer to the appropriate section in Group 412 for the procedure.
 7. Install new refrigerant hoses with mufflers in any vehicle being serviced for an internal A/C compressor or desiccant failure. Refer to the appropriate section in Group 412 for the procedure.
 8. Install a new receiver drier (if equipped) or receiver drier element (if equipped) in any vehicle being serviced for an internal A/C compressor or desiccant failure. Refer to the appropriate section in Group 412 for the procedure.
 9. Reconnect the heat exchanger(s) (A/C condenser, A/C evaporator) that were being serviced. Refer to the appropriate section in Group 412 for the procedure.
 10. If a new A/C compressor is not being installed, lubricate the refrigerant system with the correct amount of clean PAG oil. Refer to the appropriate Refrigerant Oil Adding procedure in Group 412.
 11. If a new A/C compressor is not being installed, evacuate, leak test and charge the A/C system. Refer to the appropriate section in Group 412 for the procedure.
 12. If a new A/C compressor is being installed, install the A/C compressor. Refer to the appropriate section in Group 412 for the procedure.
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