Compressor

Always Practice Safety First!

- Air Bags (Caution)
- No Smoking
- Wear Eye Protection
- Work in Well Ventilated Area
- Wear Skin Protection (gloves)
- Recover Refrigerant Before Making Repairs

Follow all Federal, State and Local Regulations
Follow OEM service recommendations and guidelines.

Proper A/C performance is dependent on all systems performing properly. Make certain that the engine cooling system is at peak operation, and that the cooling fan is operating properly. Worn belts, idlers and tensioners can cause poor cooling system performance due to belt slippage. Low voltage at the A/C clutch assembly can cause premature compressor failure.

Contaminated refrigerant continues to be one of the most significant problems facing the A/C service industry today. Use a refrigerant identifier to verify that the system is not contaminated with a blend refrigerant nor has a high concentration of air.

Tip!!

When mounting the replacement compressor to the vehicle, the compressor must fit or rest with even contact at each mounting point. Warped brackets must be completely straightened or replaced. Leave mounting bolts loose until all bolts are in place. Tighten bolts equally according to torque specs for the specific compressor. **Do Not Over-Tighten.** (Over-Tightening causes leaks)

Replace the Receiver/Drier or Accumulator

Receiver/driers and accumulators contain a desiccant material. This material is designed to absorb the moisture that has seeped into the A/C system. Moisture in an A/C system can form corrosive contaminates that will cause rapid system failure. It is very important to remove all moisture from the A/C system before charging. The amount of moisture absorbing desiccant has changed over time due to smaller system capacities. If in doubt as to how long the existing drier or accumulator has been on the vehicle, it is good practice to install a new one.

Replace or Inspect the Control Devices

The orifice tube is a control and filter device for accumulator systems, and should always be replaced to ensure proper refrigerant and oil flow through the system. The thermal expansion valve is the control device for systems using a receiver/drier. It should be examined and replaced, if found to be contaminated.

A Clean A/C System is Imperative

When a compressor fails, tiny internal particles mix with oil and spread throughout the entire system. This contaminated oil, as well as moisture and other corrosives must be removed to avoid premature failure of the replacement compressor. The system may be flushed using only the approved system refrigerant with a closed loop process. Non-approved flush agents or solvents will void the warranty on system components. The use of in-line filters and compressor suction screens are recommended to ensure the capture of contaminants from a previous failure.

Proper System Evacuation

The A/C system must be free of moisture and air to operate properly. Removing the air and moisture with an A/C system vacuum pump for forty-five minutes to an hour, is necessary to deliver reliable A/C performance.

NOTE: Newer condenser designs are difficult, it not impossible to thoroughly flush, and in many cases may need to be replaced.

ALL INFORMATION WITHIN ABOVE BORDER TO BE PRINTED EXACTLY AS SHOWN ON 8.5 x 11 WHITE 16 POUND NON-BOND RECYCLABLE PAPER. PRINT ON BOTH SIDES, EXCLUDING TEMPLATES.
TO BE UNITIZED IN ACCORDANCE WITH GMSPO SPECIFICATIONS.

DATE	REVISION	AUTH	DR
19NO07	Initial Release - Mike Burton		

TITLE: INSTALLATION INSTRUCTIONS
Compressor

PART NO. 19194842 SHEET 1 OF 6

Lubrication

The only moving component in the A/C system is the compressor, and adequate lubrication is critical. If oil or refrigerant charges are incorrect, internal damage to the compressor will occur! If uncertain about the proper lubrication type or amount, refer to an OE service manual, the under hood decal or other published manufacturer's specifications.

REMEMBER: Compressors are shipped with an assembly lube, which should be drained prior to installation on the vehicle. The oil from the old compressor should also be drained and measured, and the proper amount and type of new oil per recommended oil balance procedures should be added to the new compressor.

To assure compressor lubrication, install half the required oil in the suction side. This may require turning the compressor shaft as the oil is installed. The remaining amount of required oil should be installed in the accumulator or low side of the system.

NOTE: Some new compressors may appear to be seized and cannot be turned by hand because of internal protective coatings. The use of a spanner wrench or a compressor turning tool for hex-less clutch designs may be required to break the compressor free. **DO NOT CONDEMN THESE COMPRESSORS AS DEFECTIVE.**

To insure that the front seal is lubricated and does not leak, after the oil is installed, the compressor must be placed or held with the front seal down for 1 to 3 minutes, to allow oil to coat the seal. If the seal is not lubricated before the refrigerant is installed, it may leak.

Use Only the Recommended Refrigerant Type and Amount

Currently, only R12 or R134a refrigerants are approved by the OEM's to maintain proper system performance. The correct amount of charge is critical for system efficiency and durability, because the refrigerant carries the lubrication through the system. Specifications can be found in the OE service manual or other manufacturer's published information.

NOTE: Dual A/C systems require additional refrigerant and oil, check vehicle specifications.

Compressor Rotation

Always rotate the compressor shaft at least 10 revolutions after the hoses are connected and prior to starting the engine. This will pump the excess liquid lubricant out of the compressor cylinders and into the system.

Clutch

Clutch coil voltage should be within one volt of system operating voltage. Anything less weakens the magnetic force of the clutch allowing slippage, increased heat and failure. Clutch air gap (between the hub and pulley) is important and should be checked before installation to assure no changes have occurred during shipping and handling.

Tip!!

After installation, with the engine idling, switch the compressor off and on 10 to 12 times. This will burnish the hub and pulley face removing any machining glaze or rust inhibitors and enhance complete surface contact.

Verify the Repair

Use an electronic leak detector or fluorescent dye to check for leaks. A leak will cause system failure. When repairs are finished, insure that the job is done right the first time, by performing temperature drop testing per the OE service information.

Suggested A/C Tools & Equipment

- Gauge set
- Refrigerant identifier
- Charging station
- Vacuum pump
- Spanner wrench or compressor turning tool
- Leak detector.

This compressor is warranted to be free from defects in materials and workmanship at the time of its manufacture. See your supplier for details of the terms and conditions of this warranty.

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TITLE **INSTALLATION INSTRUCTIONS Compressor**

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PREVENT COMPRESSOR DAMAGE 1. Place black sizing rectangle over manifold suction hose port 2. Use **COMPRESSOR GUARD SUCTION SCREEN** size indicated on first rectangle larger than ID of hose port. *(Not suitable for measuring Mitsubishi suction hoses. For best results use sizing tool supplied with Compressor Guard Suction Screen Kit)*

ACDelco

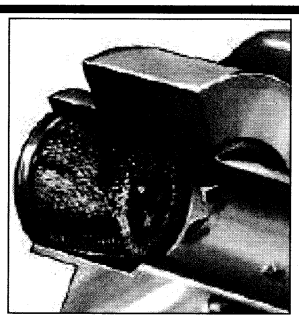
Must Adjust Oil

INSTRUCTION SHEET - SYSTEM OIL BALANCE REQUIREMENT

NOTICE: Vehicle A/C systems require a given amount of lubricant dependent upon OEM manufacturer and model. Reference total system charge from vehicle tag or service reference material. It is important that if system is flushed or components replaced, the overall lubrication charge amount is maintained.

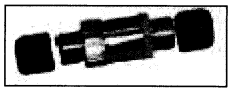
1. These components require oil addition prior to assembly. **Evaporator core** - add 1.5 oz., **Condenser Core** - Add 1 oz., Hose/Muffler assembly - 1 oz. **Accumulator** - drain & measure oil from removed accumulator: then add same amount plus 2 oz. of new refrigerant oil to new accumulator **Receiver/Dryer** - drain & measure oil from removed receiver/dryer then add same amount plus 1 oz. of new refrigerant oil to new receiver/dryer
2. **Flushed system** - refill system to its total capacity. If component(s) flushed, add oil amount equal to replacement amount detailed in item #1 above.

Note: Failed compressors deposit debris throughout the system. No flush completely removes all debris. ACDelco highly recommends the installation of a COMPRESSOR GUARD SUCTION SCREEN to protect compressor and an in-line filter to protect TXV's. Installation of A/C leak dye is also recommended as well as a final leak check.



Compressor Guard
Suction Screens
ACDelco P/N 15-21184

Leak Dye
ACDelco P/N 15-120
GM P/N 12346287



In-Line Filter
ACDelco P/N 15-10413
GM P/N 89016656

REV 012506

Must Adjust Oil

INSTRUCTION SHEET - COMPRESSOR OIL BALANCE REQUIREMENT

NOTICE: This compressor is shipped with some refrigerant oil. It may NOT be sufficient for system needs. Prior to compressor installation, adhere closely to the following Compressor oil requirements:

1. Prior to installing the replacement compressor, drain the refrigerant oil from the removed compressor into a calibrated measuring container. Record the amount and discard old oil.

2. In a clean measuring container, drain the oil from new compressor. Turn shaft several times & if equipped, remove oil drain plug to assist in draining. (Rotation torque should not exceed 70ft#)

3. If oil amount removed from old compressor is less than 2.5 oz. add 2.5 oz. of universal oil (May reuse oil removed in measuring from new compressor) back into new compressor. If amount removed from old compressor is greater than 2.5 oz. add the same amount of new universal oil to the new compressor as drained from the old compressor.

Note: If additional system a/c components are being replaced, follow the system oil balance schedule with universal oil detailed **on the reverse side.**

Recommended Lubricants

R-134a - PAG OIL
(For all models except R-4 &A6

ACDelco P/N	**10-5040**
GM P/N	**12378526**

For all R-4 & A6 Compressors Use

ACDelco P/N	**15-118**
GM P/N	**12356151**

ACDelco

REV 012506