

AIR CONDITIONER INSTALLATION1955-1957 Thunderbird

LH = Driver Side

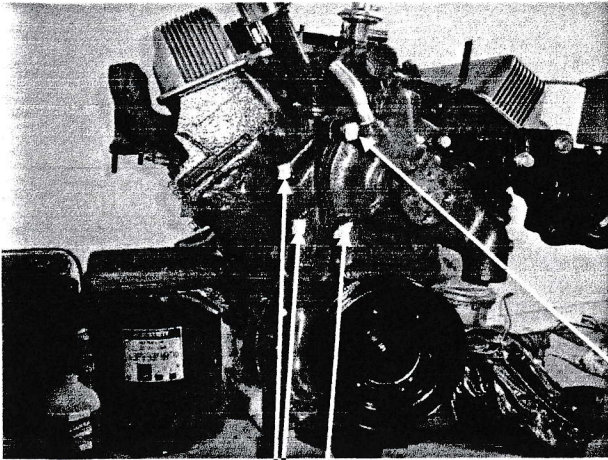
Compressor Installation

RH = Passenger Side

SD507

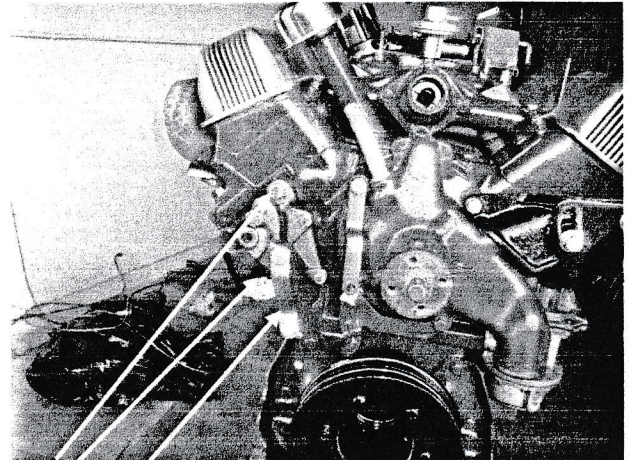
1. Remove fan shroud.
2. Drain radiator.
3. Remove upper radiator hose.
4. Remove lower hose from radiator.
5. Remove radiator.
6. Loosen and remove power steering belt, if equipped.
7. Remove fan and fan belt and fan pulley.
8. Remove generator and generator bracket. Do not remove upper generator bracket to water pump brace.
9. Remove heater return hose from water pump to the 45-degree fitting.
10. Adjust water pump heater fitting to point to the oil fill pipe. See picture #6.
11. Install A/C compressor bracket to engine timing cover. See picture #1, remove bolts marked 'A'. Use new bolts supplied. Do not tighten bolts completely.
12. Install lower A/C bracket on top of existing old generator bracket brace to lower right water pump bolt position using new bolt supplied. See pictures # 1, 2 and 3, bolt marked 'B'.
13. Install upper front compressor brace to water pump brace at upper right water pump position using new bolt supplied. See pictures #5 and 6.
14. Tighten all braces and bracket attaching bolts evenly.
15. Install generator. Do not tighten completely. **If changing to alternator in place of the generator, refer to last page of these instructions. (GM INTERNAL REGULATED ALTERNATOR INSTALLATION ON T-BIRD)**
16. Install compressor with service fittings parallel to the oil filler pipe. Compressor is furnished with the proper mounting holes reamed to 7/16" (C&G). See picture # 7.
17. Loosen front upper compressor brace at water pump and install compressor to brace bolt, supplied. Tighten both brace bolts evenly.
18. Install rear upper compressor brace to rear of compressor flange. See picture # 6.
19. Thru rear upper compressor brace, drill timing cover using 3/8" drill to mark center of hole. Drill a 1" deep hole using a 5/16" drill. Tap with 3/8"-16NC and install bolt and lock washer, supplied, Tighten upper rear compressor brace evenly. See picture # 6.
20. Install fan/generator (alternator)-A/C belt loosely. Gates # 9470 or # 9476, or similar belt.
21. Slide fan pulley into position. '57 pulley suggested due to 55-56 pulley design.
22. Install and tighten fan and fan spacer.
23. Tighten belt and secure generator.
24. Reinstall power steering belt if so equipped.
25. Reinstall heater return hose.

NOTE: Compressor is supplied with correct amount of oil. No additional oil charge is required. Compressor label denotes correct refrigerant to use in system.



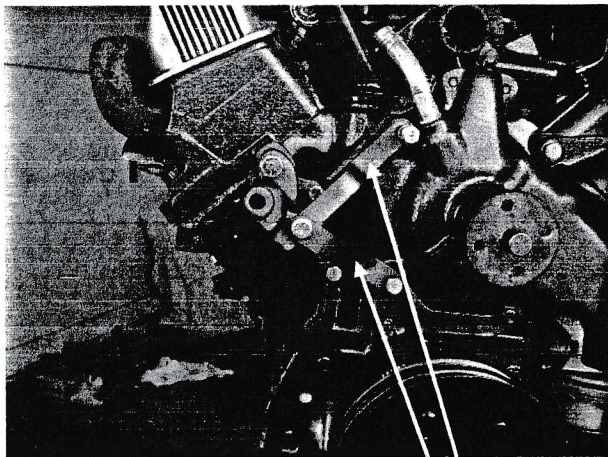
PICTURE #1

'C'- Upper right water pump bolt.
 'B'- Lower right water pump bolt
 'A'- Timing chain cover bolts.



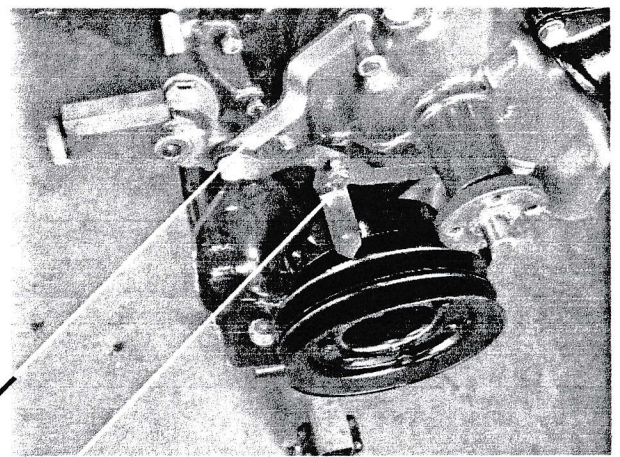
PICTURE #2

Lower A/C bracket brace.



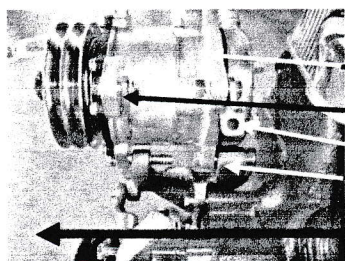
PICTURE #3

Generator bracket



PICTURE #4

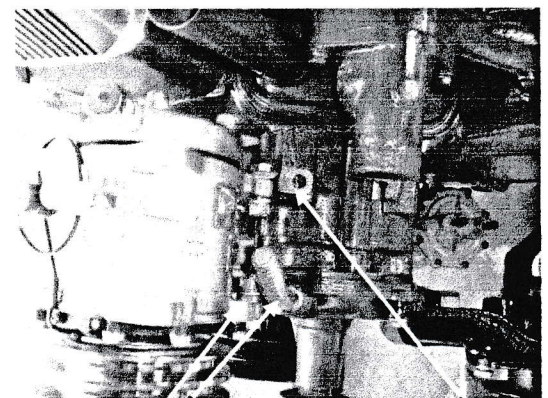
Lower A/C bracket brace
 to timing pointer bolt.



PICTURE #5

A/C compressor
 Front upper compressor brace.
 Rear upper compressor brace.
 A/C compressor bracket.

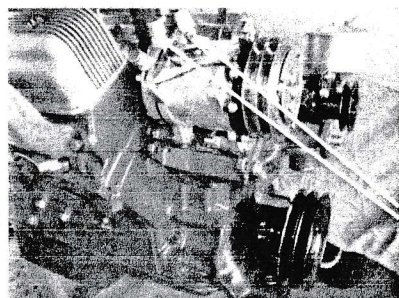
Front of Engine



Heater return hose will
 reconnect to this 45-degree
 fitting, turned.

Front upper compressor brace.
 Rear upper compressor brace to
 timing cover.

PICTURE #6



PICTURE #7

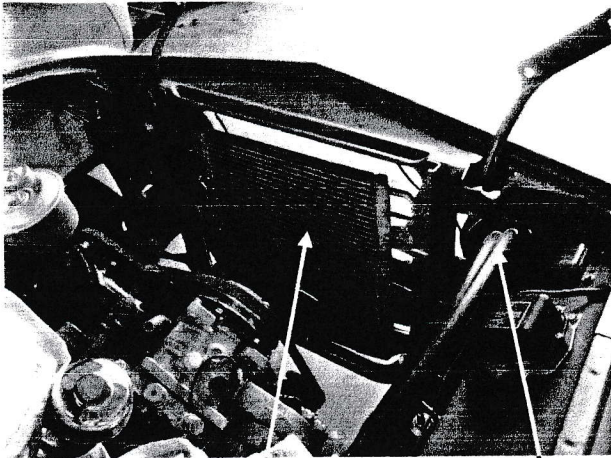
Compressor service fittings
 parallel to oil filler pipe

Condenser Installation

LH = Driver Side

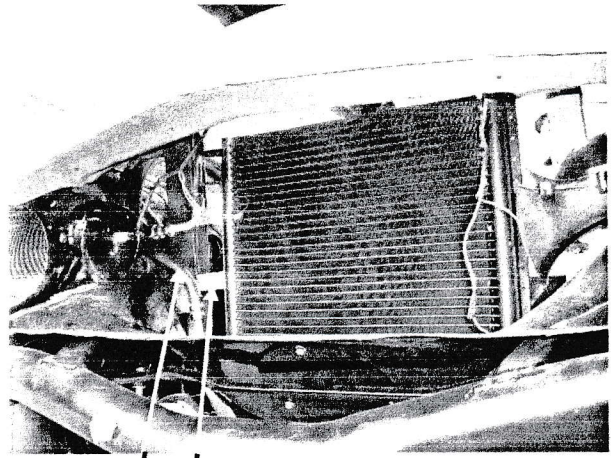
RH = Passenger Side

1. Loosen two lower radiator mount saddle bolts thru grill on each side. Do not remove bolts.
2. Install upper and lower condenser hoses. Lubricate fittings with refrigeration oil. Use oil from compressor if none other is available. (#8 90-degree upper discharge/#6 straight fitting, liquid hose).
3. Position condenser with return liquid (small) line at lower right hand position. Tie wrap hoses at condenser for stress relief. See Picture # A.
4. Feed hoses thru right hand horn access triangle hole while positioning condenser. Early '55 will require holes to be cut for hose route if no access hole is present.
5. Install condenser mounting straps into position between radiator mount saddle and front of body panel. Slide RH straps over center to allow LH straps to go into position between body panel and radiator frame if straps are pre-attached. Adjust condenser to center straps behind radiator frame. See picture # B.
6. Adjust condenser position to upper left position and low enough for right hand hood hinge clearance of condenser hoses. Tighten 4 radiator mount saddle bolts thru grill. Some bolts may require use of open end wrench from behind due to hose position.
7. Install upper condenser hose to compressor discharge fitting. Route hose along lower right hand inner fender lip. Hose has 45-degree fitting.
8. Route lower condenser hose along lower right hand fender lip below heater blower.
9. Remove metal heater duct from firewall and square duct as an assembly.
10. Cut two 1 ¼" holes in the firewall side by side using a hole saw from the inside of the car. Holes are to be below the heater core, one just outboard (left) of the body to frame vertical brace and one thru the body to frame brace, on the right side of the vertical brace, through double thickness of sheet metal. Install anti-chafe grommets in firewall holes. Pilot holes may be drilled with ¼" drill bit from the engine compartment to help locate holes. See picture # C.
11. Install drier clamp using the lower screw of the RH air cable bracket and a single new hole in the inner fender panel. Position drier with sight glass up and inlet port to front of the car. Insert drier clamp under cable bracket. See picture # D.
12. Attach condenser lower hose to drier inlet. (90-degree fitting)
13. Route drier outlet hose through left hand firewall hole to evaporator. See picture # E.
14. Reinstall radiator.
15. Reinstall lower radiator hose.
16. Reinstall fan shroud.
17. Reinstall upper radiator hose.
18. Refill cooling system. Do not use more than 1 gallon of anti-freeze for summer operation.



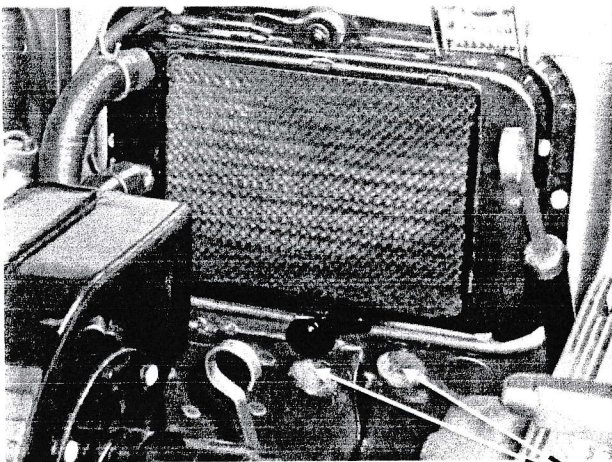
Condenser centered.
Feed hoses thru RH horn access triangle hole.

PICTURE # A



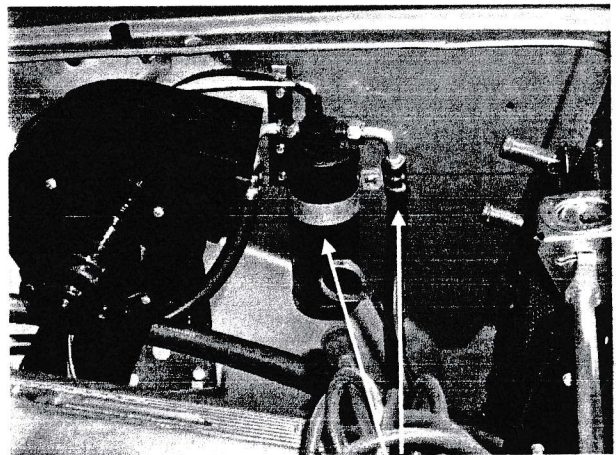
Condenser mounting strap 1 of 4.
Return (small) liquid line at lower right.

PICTURE # B



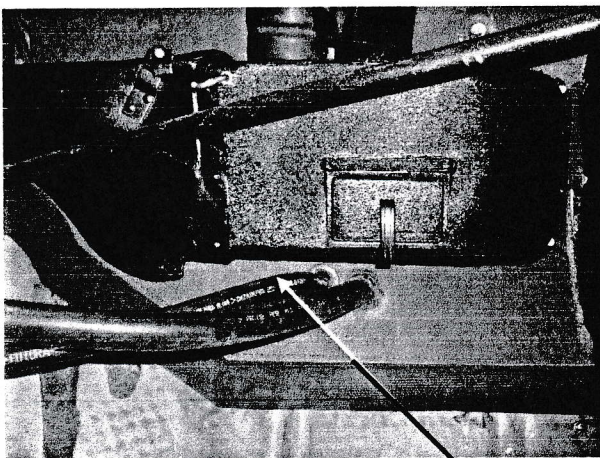
Cut 2- 1 1/4" holes in firewall and install anti-chafe grommets.

PICTURE # C



Install drier and drier hoses.

PICTURE # D



Route drier hose thru LH firewall hole.
NOTE: Picture from inside passenger compartment.

PICTURE # E

Evaporator Installation

LH = Driver Side

RH = Passenger Side

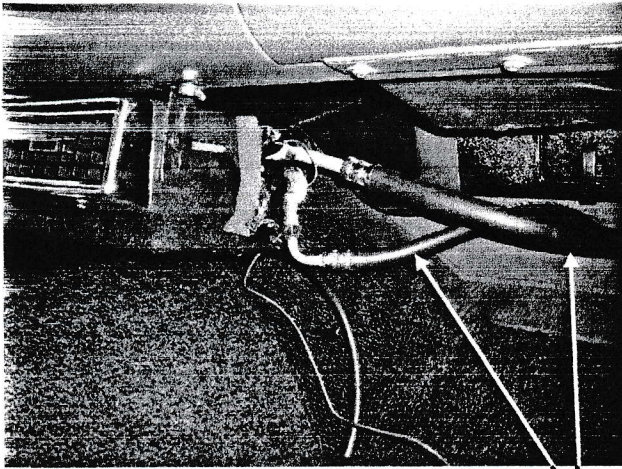
1. Install evaporator inlet and outlet Freon hoses. Lubricate fittings with refrigeration oil. Use oil from compressor if none other is available. See picture I.
2. Position evaporator centered under ash tray. See picture II.
3. Loosen left hand hood cable bracket attaching bolt and remove right hand hood cable bracket bolt. Slide left hand evaporator bracket under hood cable bracket.
4. Shim evaporator in position and install right hand hood cable bracket bolt thru evaporator bracket. NOTE: Both brackets are turned 180-degrees for packing and shipping.
5. Mark and drill right hand evaporator bracket bolt hole thru lower dash lip using 1/4" drill.
6. Install right hand evaporator bracket bolt and tighten both evaporator bracket bolts.
7. Route evaporator to compressor Freon hose thru right hand 1 1/4" firewall hole and attach to compressor suction fitting using refrigeration oil lubricant to prevent galling. Use hand cleaner or light oil to lube grommet to make hose slide easily.
8. Secure Freon hose at evaporator to right hand under dash firewall brace using nylon filament tape.
9. Punch or drill 2 evaporator drain holes in floor pan with care not to cut any wire harness. Do not attempt to drill thru carpet. Install drain hoses. See pictures III and IV.
10. Route evaporator to compressor clutch wire along Freon hose and attach to drier switch and then to the compressor lead. Wrap exposed metal at evaporator suction line and expansion valve to prevent condensation, using pipe wrap furnished. See pictures V and VI.
11. Attach liquid hose from evaporator to outlet of drier using refrigeration oil for lubricant.
12. Route evaporator power lead (red with white-wire) under dash to accessory terminal of ignition switch.
13. Hook up air conditioner gauge set and evacuate system with vacuum pump to less than 25" of mercury.
14. Close system and observe vacuum reading after 20 minutes. Repair leaks as required. Caulk all firewall holes to prevent hot air entry. RH and LH inside air vents should also be sealed above the kick panels.
15. Charge system with approximately 3/4 pounds of R-134A. Do not use sight glass, use R-134A gauge set.

R12 System uses about 1 1/2 # R-12.

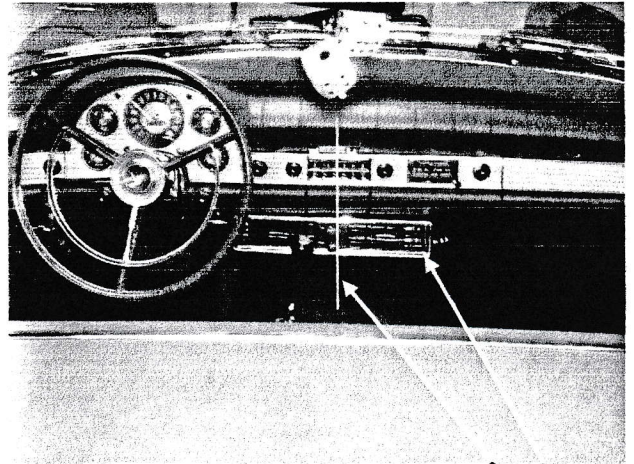
CAUTION: System charging must be done by qualified person to avoid compressor damage or personal injury from high pressure liquefied gas.

NOTE: Use hose clamp to secure both hoses to inner apron shield using existing screw.

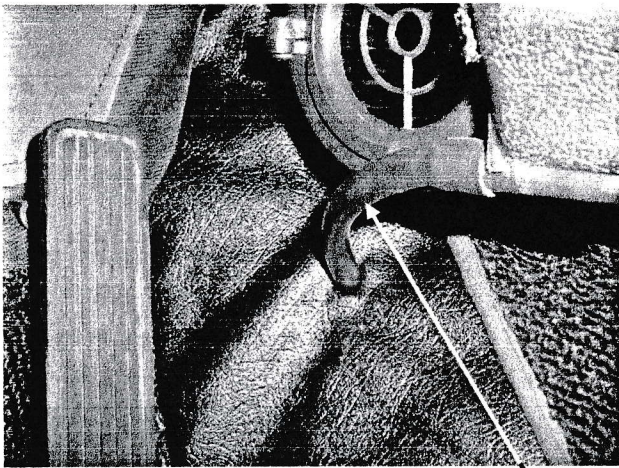
Compressor label denotes correct refrigerant to use in system. Correct oil is pre-charged in compressor.



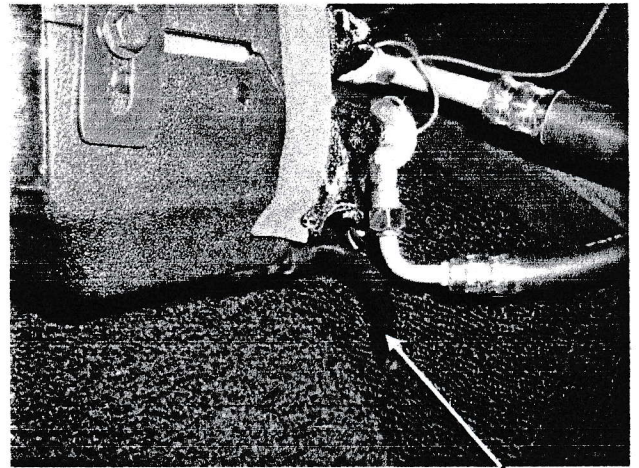
PICTURE # I Inlet and Outlet hoses



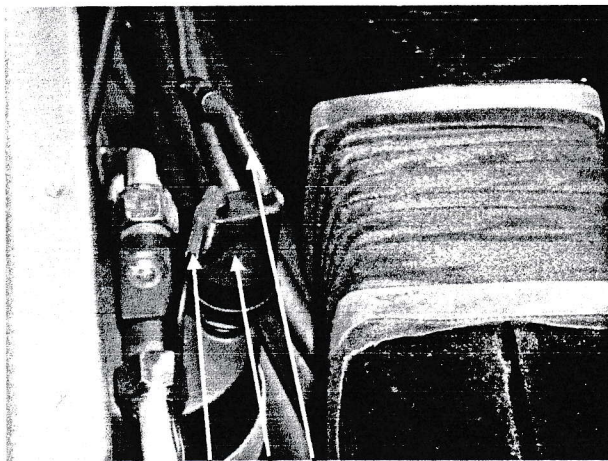
PICTURE # II Centerline of ash tray
Evaporator



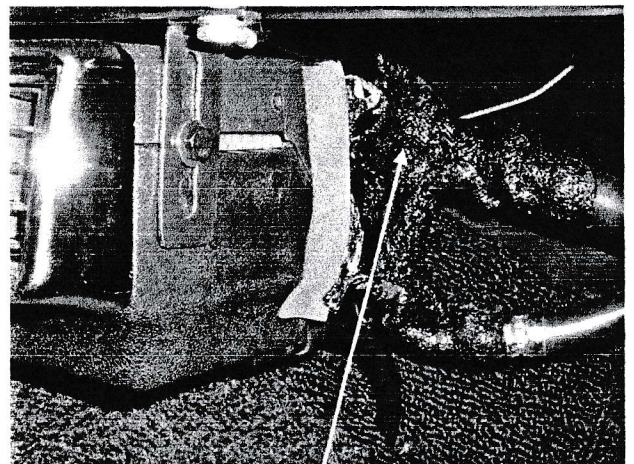
PICTURE # III Left hand drain hose



PICTURE # IV Right hand drain hose



PICTURE # V Wire to evaporator
Drier switch
Wire to compressor clutch



PICTURE # VI Wrap exposed metal at evaporator suction line and expansion valve, using pipe wrap supplied.