INSTALLATION INSTRUCTIONS FOR
1967-72 CHEVROLET TRUCK
WITHOUT FACTORY AIR
(75067-LCZ-A)
1967-72 CHEVROLET Pick-up
WITHOUT FACTORY AIR CONDITIONING

IMPORTANT NOTICE-PLEASE READ
CHEVY PICK-UPS BUILT FROM 1967 TO 1972 WITH A 250 SIX CYL. AND STANDARD TRANSMISSION HAVE A LIGHT DUTY RADIATOR (26-1/4" x 17" x 1-1/4"). THIS RADIATOR WILL NOT ACCEPT A FAN SHROUD AND WILL NOT PROPERLY COOL WITH THE ADDITION OF AN AIR CONDITIONER. WE RECOMMEND UPGRADING TO THE HEAVY DUTY RADIATOR (28-3/8" x 17" x 2" TO 2-5/8") WITH A FAN SHROUD, AND A 18" FAN BLADE WITH A FAN CLUTCH. ALL OF THESE COMPONENTS ARE AVAILABLE FROM VINTAGE AIR.

FOR MAXIMUM SYSTEM PERFORMANCE
VINTAGE AIR RECOMMENDS THE FOLLOWING:
70067-LCR - HEAVY DUTY RADIATOR
71067-LCR - SUPER DUTY RADIATOR
32067-LCF - SHROUD
32518-VUF - 18" FAN
32000-VUF - CLUTCH FAN

SERVICE INFO:
EVACUATE THE SYSTEM FOR 30-45 MINUTES WITH SYSTEM COMPONENTS (DRIER, COMPRESSOR, EVAPORATOR, CONDENSER) AT A TEMPERATURE OF AT LEAST 85°F. ON A COOL DAY THE COMPONENTS CAN BE HEATED WITH A HEAT GUN OR BY RUNNING THE ENGINE WITH THE HEATER ON BEFORE EVACUATING.

LEAK CHECK AND CHARGE TO SPECS.

REFRIGERANT CAPACITIES
134a SYSTEM
CHARGE WITH 1.8 LBS. OF REFRIGERANT

R-12 SYSTEM
CHARGE WITH 2.0 LBS. OF REFRIGERANT

LUBRICANT CAPACITIES
NEW COMPRESSOR - NO ADDITIONAL OIL NEEDED
USED COMPRESSOR - CONSULT VINTAGE AIR
INSTALLATION INSTRUCTIONS FOR
1967-72 CHEVROLET PICK-UP
WITHOUT FACTORY AIR

NOTE
BEFORE STARTING THE AIR CONDITIONER INSTALLATION, CHECK FOR
PROPER OPERATION OF ALL COMPONENTS (RADIO, LIGHTS, WIPERS, ETC.).
STUDY THE INSTRUCTIONS, ILLUSTRATIONS AND DIAGRAMS.

ENGINE COMPARTMENT
REMOVE THE FOLLOWING (FIGURES 1 & 2)

1. BATTERY AND RADIATOR (RETAIN).
2. HEATER ASSEMBLY ON ENGINE SIDE (DISCARD)
   RETAIN OEM MOUNTING SCREWS.
3. REMOVE LOWER HOOD LATCH ASSEMBLY. (RETAIN)
4. REMOVE VERTICAL BRACE BENEATH HOOD LATCH. (RETAIN)
5. REMOVE GRILLE. (RETAIN)

PASSenger COMPARTMENT
REMOVE THE FOLLOWING

1. GLOVE BOX SHELL (DISCARD), SAVE MOUNTING SCREWS.
2. GLOVE BOX DOOR (RETAIN).
3. HEATER DUCT ASSEMBLY UNDERDASH (DISCARD).
4. DEFROSTER DUCT HOSES (DISCARD).
5. DASH DEFROSTER GRILLES (RETAIN).
6. RADIO (RETAIN).
ASSEMBLY

COMPRESSOR
- REFER TO SEPARATE INSTRUCTIONS TO INSTALL COMPRESSOR BRACKET.
- INSTALL COMPRESSOR AND BRACKET USING HARDWARE INCLUDED WITH BRACKET. ORIENT COMPRESSOR ON MOUNT SO THAT THE OUTLET FITTINGS POINT TOWARD THE PASSENGER SIDE FENDER. TABS "A,E" & "B,F" ARE UP.

PULLEYS
- CHECK ALIGNMENT OF PULLEYS AND FOLLOW THE INSTRUCTIONS PROVIDED WITH THE BRACKET FOR PROPER PULLEY/BELT COMBINATION.

TUBING CLAMP AT BATTERY BOX
- LOCATE OEM HOLE IN THE BATTERY BOX AS SHOWN. ATTACH HARDLINE SUPPORT BRACKET BY LAYING THE SUPPLIED FLAT HEAD BOLT IN THE HOLE AND SUPPORT BATTERY BOX ON A 1/2" SOCKET. TAP HEAD OF BOLT UNTIL IT'S FLUSH TO PREVENT DAMAGE TO BOTTOM OF BATTERY. SEE FIGURE 4.

CONDENSER ASSEMBLY
- LOCATE THE FOUR CONDENSER MOUNTING DIMPLES IN RADIATOR SUPPORT AND DRILL FOUR 9/32" HOLES. SEE FIGURE 5.
- ATTACH THE CONDENSER/DRIER ASSEMBLY TO THE FRONT SIDE OF THE RADIATOR SUPPORT USING FOUR 1/4" 20 x 1/2 INCH BOLTS, FLATWATCHERS, AND LOCKNUTS. VERIFY THAT THE CONDENSER IS NOT TOUCHING THE RADIATOR. SEE FIGURE 5.
- INSTALL THE SUPPLIED BULKHEAD GROMMETS IN THE EXISTING OEM HOLE. (SEE FIGURE 5)
- INSTALL THE #8 (LARGER) CONDENSER HARDLINE. LUBRICATE THE FITTINGS AND O'RING WITH SUPPLIED REFRIGERANT OIL AND ATTACH THE LINE TO THE UPPER CONDENSER FITTING BY FEEDING THE LONG END THROUGH THE EXISTING HOLE IN THE RADIATOR BULKHEAD SUPPORT AND UNDER THE BATTERY BOX. SEE FIGURE 5 (THIS PAGE) & FIGURE 14 & 14B (PG.11).
- INSTALL THE #6 (SMALL) HARDLINE AND ATTACH IT TO THE DRIER FOLLOWING THE SAME PROCEDURE AS ABOVE. SEE FIGURE 5.
- ATTACH HARDLINES TO PREVIOUSLY INSTALLED TUBING CLAMP UNDER BATTERY BOX MAKING SURE THE HARDLINES DO NOT RUB EACH OTHER OR THE TRUCK (SEE FIGURES 4 & 5).
DUCT & DUCT HOSE INSTALLATION

DEFROSTER

- ATTACH THE DEFROSTER HOSE ADAPTERS TO THE OEM DEFROSTER GRILLES BY SLIDING THE GRILLES INTO "S-CLIPS" ON EACH ADAPTER (SEE FIGURE 6).

- ATTACH DEFROSTER HOSE TO HOSE ADAPTERS PRESSING FIRMLY OVER BARBS (passenger side 2" x 12", driver side 2" x 20").

- SLIP HOSES DOWN THROUGH THE DEFROSTER OPENINGS IN THE DASH AND ROUTE AS SHOWN IN FIGURE 7 & 12.

SUPPLIED SIDE BALL VENT INSTALLATION

- USING THE TWO TEMPLATES ON PAGE 9, DRILL TWO 2-1/2" HOLES IN DASH FOR PASSENGER AND DRIVER SIDE A/C VENTS AS SHOWN IN FIGURE 7.

- INSERT THE BALL VENTS THROUGH THE HOLES FROM THE OUTSIDE OF THE DASH AND SCREW ON THE HOSE ADAPTERS FROM BEHIND THE DASH TO SECURE.

- INSTALL A 2-1/2" x 48" DUCT HOSE ON THE DRIVER'S SIDE AND A 2-1/2" x 32" DUCT HOSE ON THE PASSenger'S SIDE.

- SLIP THE A/C DUCT HOSES ON THE VENT ADAPTERS AND ROUTE AS SHOWN IN FIGURE 7.

CENTER VENT INSTALLATION

- USING TEMPLATE ON PAGE 10, LOCATE THE CENTER VENT OPENING LOCATION USING THE INSTRUCTIONS ON THE TEMPLATE. DRILL A HOLE AT EACH CORNER OF THE TEMPLATE AND CAREFULLY CUT OUT THE OPENING.

- ATTACH THE CENTER VENT ADAPTER (BEHIND THE DASH BOARD) TO THE CENTER VENT WITH THE SUPPLIED SELF TAPPING SCREWS. SLIP A 2-1/2" x 16" DUCT HOSE ON THE ADAPTER (SEE FIGURE 7A ON PG. 3 & FIGURE 12 ON PG. 7).
EVAPORATOR ASSEMBLY

MOUNTING BRACKET ADJUSTMENTS
- Locate the evaporator rear bracket strap in the kit and adjust for your truck's year according to Figure 9A.
- On some 1967 trucks the blower housing bracket will have to be moved 4 inches toward the passenger side. Locate the blower housing bracket in the kit and mount in the provided holes. Discard the original bracket (see * in Figure 9B).

CONTROL CABLES & WIRING
- Attach the cables from the dash control to the evaporator unit as shown in Figure 8.
- The top cable goes to the defroster door located on the driver's side of the unit. The bottom cable goes to the A/C-heater door. The center cable is discarded but the OEM switch is used to control the fan.
- Connect the wiring harness to blower switch as shown in Figure 9D (refer to wiring diagram on page 8).

EVAPORATOR INSTALLATION
- Attach rear bracket for evaporator to firewall using 10-32 x 1" bolt, and locknut as shown in Figure 9A.
- Lift unit into place under passenger side dash and attach to rear bracket with 1/4" x 1/2" bolt and nut.
- Attach blower housing bracket using 1/4" x 1" bolt, flat washer, lockwasher and nut through OEM hole in the bottom lip of the dash - see Figure 9B.
- Attach driver side evaporator bracket to the OEM hole in firewall using OEM heater screw as shown in Figure 9C.
FIREWALL COVER

- Run bead of silicone around perimeter of firewall cover, install firewall cover on firewall. See Figure 10.

- Cover is attached using six OEM heater assembly bolts and two 1/4" x 20 x 1" bolts. (See Figure 10).

- Attach fresh-air cap to the firewall with 1/4" x 1" bolt and 1/4" bead of silicone. (See Figure 10A).

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PASSenger SIDE FIREWALL

OEM SCREW

1/4" 20 X 1"

FIREWALL COVER

OEM SCREW

1/4" 20 X 1"

OEM SCREW

5/8" DRAIN HOLE

OEM SCREW

OEM SCREW

OEM SCREW

FIGURE 10

HOSE CAP

1. #10 A/C HOSE.
2. #6 A/C HOSE & COMPRESSOR LEAD.
3. 5/8" HEATER HOSE TO WATER PUMP.
4. 5/8" HEATER HOSE WITH HEATER CONTROL VALVE TO INTAKE MANIFOLD.
5. VACUUM LINES.

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FIGURE 10A

HEATER HOSE INSTALLATION (HEATER HOSES NOT SUPPLIED)

- Insert two 5/8" heater hoses through the hose cap and connect as shown in Figure 10 & 14A. (PG 11)

- Install heater control valve as shown in Figure 14A. (PAGE 11)

- Route vacuum hoses (see page 8).
A/C HOSE INSTALLATION

- LOCATE THE O'RING PACKAGE. THERE IS A SPECIFIC SIZE AND THICKNESS O'RING FOR EACH CONNECTION. SEE FIGURE 14B (PG.11). THE SMALL WHITE TUBE IS A SPECIFIC OIL FOR O'RING AND THREADS. O'RINGSHOULD NOT BE REUSED ONCE A FITTING IS TIGHTENED.
- FOR HOSE ROUTING - (SEE FIGURE 14 & 14B - PAGE 11).
- LOCATE THE #8 (MIDDLE SIZE) RUBBER DISCHARGE HOSE THAT RUNS FROM THE COMPRESSOR DISCHARGE PORT TO THE #8 HARDLINE AT THE BATTERY BOX CLAMP. THIS HOSE HAS A 90 DEGREE FITTING (WITH SERVICE PORT-134a ONLY) AT THE COMPRESSOR END AND A STRAIGHT FITTING AT THE CONDENSER END. LUBRICATE THE FITTINGS AND O'RING WITH SUPPLIED REFRIGERANT OIL AND ATTACH (SEE FIGURES 14 & 14B - PG.11).
- THE TWO SERVICE PORTS AT THE COMPRESSOR FITTINGS MUST BE INSTALLED AS TO NOT INTERFERE WITH HOSE ATTACHMENT SO THAT THE UNIT MAY BE CHARGED. ON R-12 SYSTEMS THE SERVICE PORTS ARE FIXED TO THE REAR OF THE COMPRESSOR. ON 134a SYSTEMS THE SERVICE PORTS ARE FIXED ON THE COMPRESSOR FITTINGS.
- LOCATE THE #6 (SMALLEST) RUBBER LINE WITH 2 STRAIGHT ENDS. LUBRICATE THE FITTINGS AND O'RING WITH SUPPLIED REFRIGERANT OIL AND RUN FROM THE EVAPORATOR (FIREWALL) TO THE #6 FITTING AT THE BATTERY BOX CLAMP. SEE FIGURE 11 (THIS PAGE) & 14 & 14B (PG.11).
- THE METAL PARTS OF THE SUCTION (LARGE) HOSE AND LIQUID (SMALL) HOSE AT THE EVAPORATOR MUST BE COVERED WITH PRESS TAPE TO PREVENT CONDENSATION LEAKS INSIDE THE TRUCK. (SEE FIGURE 11B)
- DO NOT TIE A HEATER HOSE TO THE #6 LIQUID LINE.
Attach duct hoses as shown in Figure 12.

- Install new glove box provided as Figure 13 shows, using (4) OEM screws at door hinge and (4)#8 X 1/2" Phillips pan head screw (one at each side & two on top of shell).

- Install drain hose at evaporator unit and insert loose end through firewall cover. See Figures 10 & 11 (Pages 5 & 6).

- Reinstall all previously removed items (battery, radiator, lower hood latch assembly, vertical brace, grille and radio).

- Fill radiator with 50/50 antifreeze.

- Check complete assembly for proper operation. See page 12.

- Vintage Air recommends that all A/C systems be serviced by a certified automotive air conditioning technician only. See inside cover for service info.
AIR CONDITIONING ADJUSTMENTS:

- The air conditioner thermostat controls coil temperature, it is shipped adjusted fully cold (clockwise), in the majority of cases the A/C will operate correctly as shipped.

- Turning the knob on the thermostat to the right (clockwise) makes the system operate colder. If the thermostat is set too cold the evaporator will "ice up" - the evaporator coil is restricted with ice and cold air flow will be reduced.

- Turning the knob to the left (counter clockwise) makes the system operate warmer. The compressor clutch will cycle off frequently and the A/C system will not get as cool as it could.

ADJUSTING A/C THERMOSTAT

1.) Symptom: The A/C works well at first then quits cooling. The air flow from the vents is low and the compressor cycles infrequently.
1.) Solution: The thermostat is set too cold and the evaporator is "icing up" and restricting air flow. Allow the ice to melt and set the thermostat warmer (counter clockwise) 10% of a turn each adjustment until the symptoms diminish.

2.) Symptom: A/C never gets cold and the compressor clutch cycles frequently.
2.) Solution: The thermostat is set too warm. Set the thermostat colder (clockwise) 10% of a turn each adjustment until the compressor clutch cycles infrequently. Avoid setting the thermostat too cold.

3.) Symptom: The A/C never gets cold, sometimes even blows hot, and the A/C compressor clutch infrequently cycles off.
3.) Solution: The heater may be on all times. Carefully feel around the heater hoses at the firewall. They should be cold when the A/C is on. If the hoses are not hot then:
   A) - The heater control valve may be installed backwards. Check the flow direction arrow on the valve against the illustration in your installation instructions.
   B) - If cable operated: The valve may be misadjusted.
   C) - If vacuum operated: It may be getting vacuum at all times (check electric solenoid).
TEMPLATE FOR DRIVER SIDE

END OF DASH DRIVER SIDE

DRILL 2-1/2" DIAM. HOLE

BOTTOM EDGE OF DASH FACE

TEMPLATE FOR PASSENGER SIDE

END OF DASH PASSENGER SIDE

DRILL 2-1/2" DIAM. HOLE

BOTTOM EDGE OF DASH FACE
Hose Kit Installation (Figure 14) 1967-72 Chevrolet Pick-Up Without Factory Air Conditioning

Lubricate O-Rings with Supplied Refrigerant Oil

* O-Ring
* #8 O-Ring
* #6 O-Ring

For a proper seal of fittings, install supplied O-Rings as shown and lubricate with supplied oil.

Compressor

Clutch Lead

Plastic Firewall Cover

Firewall

Hose Cap

Drain Hose

#8 Discharge Hose

#10 Suction Hose

#10 Suction to Suction Port

#10 Degree Suction Port

#90 Degree Discharge Port

Figure 14A

Water Flow from Intake

Heater Control Valve

To Water Pump

Vacuum Line

Hardline Clamp & Bracket

Figure 14B

Condenser

Condenser Out In

Drier In

#8 Hardline

#6 Hardline

#8 Straight

#6 Straight
OPERATION OF CONTROLS

FAN SPEED:
- OFF
- LOW
- MED
- HI

A/C:
- OFF

HEAT:
- OFF

DEFROST:
- DEF

NOTE:
When in defrost mode position turn thermostat knob full counter clockwise and then clockwise 1/8 turn or until thermostat clicks on, this will give optimum defrost performance.
### 63521-LCE
#### 1967-72 CHEVY PICKUP WITHOUT A/C

**DRAIN KIT PARTS LIST**

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<td>1/8 3 WAY VACUUM TEE</td>
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**Diagrams:**
1. Lock washer
2. Flat washer
3. Coarse nut
4. Pan head screw
5. Drain hose
6. Heater control valve
7. Press tape
8. Rear evaporator bracket
9. Blower motor housing bracket
10. Push on ring
11. 10/32" x 1" bolt
12. 10/32" machine nut
13. 1/8 3 way vacuum tee

**Date:** 12/16/96