1966-67
CHEVY NOVA
561966-PCZ

2005 REVISION
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**BEFORE BEGINNING INSTALLATION OPEN ALL PACKAGES AND CHECK CONTENTS OF SHIPMENT. PLEASE REPORT ANY SHORTAGES DIRECTLY TO VINTAGE AIR WITHIN 15 DAYS. AFTER 15 DAYS, VINTAGE AIR WILL NOT BE RESPONSIBLE FOR MISSING OR DAMAGED ITEMS.**
IMPORTANT NOTICE-PLEASE READ

FOR MAXIMUM SYSTEM PERFORMANCE
VINTAGE AIR RECOMMENDS THE FOLLOWING:

RADIATOR - 70069-VCR
SHROUD - 32069-VCF

SAFETY SWITCHES:

YOUR NEW VINTAGE AIR SYSTEM INCLUDES A BINARY COMPRESSOR SAFETY SWITCH.
A BINARY SWITCH (PART # 11078-VUS) DISENGAGES THE COMPRESSOR CLUTCH IN CASE OF
EXTREME LOW PRESSURE CONDITION (REFRIGERANT LOSS) OR EXCESSIVELY HIGH HEAD
PRESSURE (406 lb.), TO PREVENT COMPRESSOR DAMAGE OR HOSE RUPTURE. A TRINARY SWITCH
(PART# 11076-VUS) COMBINES HI/LO PRESSURE PROTECTION WITH AN ELECTRIC FAN
OPERATION SIGNAL AT 254 lbs. COMPRESSOR SAFETY SWITCHES ARE EXTREMELY IMPORTANT
SINCE AN A/C SYSTEM RELIES ON REFRIGERANT TO CARRY LUBRICATION THROUGH THE SYSTEM.

SERVICE INFO:

EVACUATE THE SYSTEM FOR 35-45 MINUTES WITH SYSTEM COMPONENTS (DRIER,
COMPRESSOR, EVAPORATOR AND 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
SPECIFICATIONS.

THE PROPER AMOUNT OF REFRIGERANT IS CRITICAL TO PROPER SYSTEM OPERATION. VINTAGE
AIR RECOMMENDS OUR SYSTEMS BE CHARGED BY WEIGHT WITH A QUALITY CHARGING STATION
OR SCALE.

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
1966 - 67 CHEVY NOVA
INSTALLATION INSTRUCTIONS

BEFORE STARTING INSTALLATION, CHECK THE FUNCTION OF THE VEHICLES (HORN, LIGHTS, ETC.) FOR PROPER OPERATION. STUDY THE INSTRUCTIONS, ILLUSTRATIONS AND DIAGRAMS. DISCONNECT THE BATTERY.

PASSenger COMPARTMENT

REMOVE:

1. GLOVE BOX
2. GLOVE BOX DOOR
3. DEFROST DUCT (DISCARD)
4. HEATER ASSEMBLY (DISCARD)
5. FRESH AIR DUCT (DISCARD)

AS SHOWN IN FIGURE 1 BELOW.

FIGURE 1
PASSenger compartment

Cable Installation

Remove and discard OEM cables from the temperature and defrost levers and install new cables provided. See Figure 2 below.

Remove air fan blower cable and discard.

Attach cables to evaporator as shown in Figure 2 below.
PASSENGER COMPARTMENT

EVAPORATOR INSTALLATION

☐ INSTALL NEW FRESH AIR CAP; APPLY A 1/4" BEAD OF SILICONE SEALANT AROUND THE FRESH AIR CAP AS SHOWN IN FIGURE 3c BELOW. SECURE USING THE (4) OEM SCREWS AS SHOWN IN FIGURE 3 BELOW.

☐ ATTACH THE 2" x 24" DUCT HOSE TO THE DRIVER SIDE DEFOST DUCT AND INSTALL THE DRIVER SIDE DEFOST DUCT, ALIGN THE LEFT MOUNTING HOLE OF THE DEFOST DUCT WITH THE OEM DEFOST DUCT MOUNTING HOLE IN THE FIREWALL. SECURE THE DEFOST DUCT TO THE FIREWALL USING THE OEM DEFOST DUCT MOUNTING SCREW. SEE FIGURE 3 BELOW. WITH THE DEFOST DUCT IN PLACE SECURE THE RIGHT SIDE USING A #10 x 1/2" SHEET METAL SCREW. SEE FIGURE 3a BELOW.

☐ ATTACH THE 2" x 20" DUCT HOSE TO THE PASSENGER SIDE DEFOST DUCT AND INSTALL THE PASSENGER SIDE DEFOST DUCT, ALIGN THE RIGHT MOUNTING HOLE OF THE DEFOST DUCT WITH THE OEM DEFOST DUCT MOUNTING HOLE IN THE FIREWALL. SECURE THE DEFOST DUCT TO THE FIREWALL USING THE OEM DEFOST DUCT MOUNTING SCREW. SEE FIGURE 3 BELOW. WITH THE DEFOST DUCT IN PLACE SECURE THE LEFT SIDE USING A #10 x 1/2" SHEET METAL SCREW. SEE FIGURE 3b BELOW.

☐ INSTALL THE DUCT HOSE RETAINER BRACKET ON WIPER MOTOR STUD AS SHOWN IN FIGURE 5b, PAGE 9. SECURE BRACKET USING A 10-24 NUT w/ STARWASHER AND ROUTE THE DRIVER SIDE DEFOST DUCT OVER RETAINER BRACKET AS SHOWN IN FIGURE 5b, PAGE 9.
EVAPORATOR INSTALLATION CONT.

- PLACE THE EVAPORATOR UNDER THE DASH AND ALIGN THE LEFT EVAPORATOR MOUNTING BRACKET WITH THE OEM HOLE IN FIREWALL AS SHOWN IN FIGURE 4B BELOW.

- FROM THE ENGINE COMPARTMENT SIDE, SECURE THE BACK SIDE OF THE EVAPORATOR BY ALIGNING THE HOLE IN THE FIREWALL WITH THE REAR EVAPORATOR MOUNTING BRACKET. SECURE USING A 1/4-20 x 1" HEX BOLT AND FLAT WASHER. SEE FIGURE 4 AND 4C.

- NOTE: THE REAR MOUNTING BRACKET IS LOOSE TO ALLOW PROPER ALIGNMENT AND MUST BE TIGHTENED ONCE THE BRACKET IS TIGHTENED IN PLACE FROM THE ENGINE COMPARTMENT SIDE.

- ATTACH THE BLOWER HOUSING BRACKET TO THE DASH USING THE OEM HOLE IN DASH. SEE FIGURE 4A BELOW. PLACE THE 1/4" SPACER BETWEEN THE DASH AND BRACKET, SECURE TO DASH USING A 1/4-20 x 1" HEX BOLT AND FLAT WASHER. SEE FIGURE 4A BELOW.
VENT INSTALLATION

- Place the driver side louver under the dash, align the louver 1" from the front edge of the dash and mark mounting holes. Use a 7/64" drill bit and drill mounting holes in bottom of the dash. See Figure 5a below.
- Place the center louver/passenger side louver assembly under the dash, align the louver assembly 1" from the front edge of the dash and mark mounting holes. Use a 7/64" drill bit and drill mounting holes in bottom of the dash. See Figure 5a below.
- Attach the 2 1/2" x 36" duct hose to the driver side louver, using (2) #8 x 1/2" ph pan head screws install the driver side louver under dash and route duct hose as shown in Figure 5 below.
- Attach the 2 1/2" x 15" duct hose to the left center louver and attach the 2 1/2" x 13" duct hose to the right center louver. Attach the 2 1/2" x 14" duct hose to the passenger side louver. See Figure 5 below.
- With duct hoses attached use (2) #8 x 1/2" ph pan head screws and install the center/passenger side louver assembly to the bottom of the dash. See Figure 5 below.
- Once the louver assembly is in place, route the duct hoses as shown and attach them to the correct location on evaporator as shown in Figure 5 below.
ENGINE COMPARTMENT

HOOD LATCH MODIFICATION
- REMOVE HOOD LATCH ASSEMBLY FROM THE GRILLE/CORE SUPPORT.
- PLACE THE HOOD LATCH ASSEMBLY IN A BENCH VISE AS SHOWN. SEE FIGURE 5C BELOW.
- PLACING YOUR HANDS ON THE TOP OF HOOD LATCH ASSEMBLY, PULL FORWARD AS SHOWN (APPROX. 30°).
- RE-INSTALL HOOD LATCH ASSEMBLY.

FIGURE 5C

HOOD LATCH ASSEMBLY

BENCH VISE

BEFORE

SIDE VIEW

AFTER

COMPRESSOR INSTALLATION
- INSTALL COMPRESSOR WITH MOUNTING BRACKET. REFER TO INSTRUCTIONS SUPPLIED IN BRACKET KIT.

CONDENSER INSTALLATION
- DRAIN RADIATOR
- REMOVE FAN, BELTS, UPPER AND LOWER RADIATOR HOSES.
- REMOVE RADIATOR
- REFER TO SEPARATE CONDENSER INSTRUCTIONS SUPPLIED WITH CONDENSER KIT TO ASSEMBLE CONDENSER BRACKETS.
- ALIGN THE CONDENSER MOUNTING BRACKETS WITH THE OEM SLOTS IN CORE SUPPORT. SEE FIGURE 7 BELOW.

FIGURE 6

CONDENSER ASSEMBLY

CORE SUPPORT

OEM SLOTS

FIGURE 7

FOR CONDENSER INSTALLATION WITH HEAVY DUTY RADIATOR SEE PAGE 11.

FOR CONDENSER INSTALLATION WITH OEM RADIATOR AND 2 5/8" RADIATOR/CORE SUPPORT SPACER SEE PAGE 12.
CORE SUPPORT MODIFICATION (NON-AIR CARS ONLY)

☐ NON AIR CORE SUPPORTS SHOULD HAVE 3 DIMPLES POSITIONED AS SHOWN BELOW IN FIGURE 8A. LOCATE THE CENTER HOLE AND DRILL A 1 1/4" HOLE IN CORE SUPPORT, AS SHOWN BELOW.

☐ IF YOUR CORE SUPPORT DOES NOT HAVE THE DIMPLES TO LOCATE THIS HOLE, USE THE TEMPLATE PROVIDED ON PAGE 20.

☐ ALIGN THE TEMPLATE AS SHOWN IN FIGURE 8 BELOW AND DRILL A 1 1/4" HOLE IN CORE SUPPORT.

HEAVY DUTY RADIATOR INSTALLATION

☐ USE A 7/16" DRILL BIT TO ENLARGE THE TWO DRIVER SIDE OEM RADIATOR MOUNTING HOLES. SEE FIGURE 10, PAGE 12.

☐ WITH CONDENSER BRACKETS ALIGNED, SECURE THE DRIVER SIDE OF CONDENSER TO THE CORE SUPPORT USING (2) 5/16 x 1" HEX BOLT WITH (4) FLAT WASHERS, (2) LOCK WASHER AND (2) 5/16 HEX NUTS. (NOTE: MAKE SURE TO ALIGN PASSENGER SIDE BRACKETS WITH SLOTS IN THE CORE SUPPORT WHILE SECURING THE DRIVER SIDE BRACKETS.) SEE FIGURE 9.

☐ TEMPORARILY ATTACH THE PASSENGER SIDE OF THE CONDENSER TO THE CORE SUPPORT USING (2) 5/16 x 1" HEX BOLTS WITH FLAT WASHERS AND (2) 5/16 HEX NUTS. SEE FIGURE 10, PAGE 12.
OEM RADIATOR INSTALLATION

☐ WITH CONDENSER IN PLACE AND ALIGNED WITH SLOTS IN THE CORE SUPPORT, INSTALL THE 2 5/8" RADIATOR SPACER. ALIGN THE RADIATOR SPACER WITH THE CONDENSER MOUNTING BRACKETS.

☐ USING (4) 5/16 x 1" HEX BOLTS WITH (4) FLAT WASHERS, SECURE THE CONDENSER TO THE CORE SUPPORT AND SPACER AS SHOWN IN FIGURE 11, BELOW.
HARDLINE INSTALLATION

☐ WITH FACTORY AIR: FROM THE ENGINE COMPARTMENT SIDE OF THE CORE SUPPORT UNDER THE BATTERY BOX ROUTE THE #6 AND #8 HARDLINES THROUGH THE OEM GROMMET IN THE CORE SUPPORT AS SHOWN IN FIGURE 12, BELOW.

☐ NON AIR: FROM THE ENGINE COMPARTMENT SIDE OF THE CORE SUPPORT UNDER THE BATTERY BOX ROUTE THE #6 AND #8 HARDLINES THROUGH THE 1 1/4" HOLE IN CORE SUPPORT.

☐ WITH THE HARDLINES ROUTED THROUGH THE CORE SUPPORT, LUBRICATE A #6 AND #8 O-RING AND ATTACH THE HARDLINES TO THE CONDENSER. SEE FIGURE 12 & 12A BELOW.

091967-PFD #8 COND/COMP HARDLINE
091966-PFL #6 COND/DRIER HARDLINE

☐ NON AIR: WITH HARDLINES IN PLACE, INSTALL THE VINTAGE AIR #6/#8 RUBBER GROMMET. SEE FIGURE 13 BELOW.
HEAVY DUTY RADIATOR INSTALLATION CONT.

- WITH THE CONDENSER AND HARDLINES IN PLACE REMOVE THE TEMPORALLY INSTALLED PASSENGER SIDE (2) 5/16 x 1" HEX BOLTS WITH FLAT WASHERS AND HEX NUTS.

- INSTALL THE RADIATOR, USE (4) 5/16 x 1" HEX BOLTS WITH FLAT WASHERS TO SECURE THE RADIATOR TO THE CORE SUPPORT AS SHOWN IN FIGURE 14 BELOW.

- INSTALL FAN BELTS, UPPER AND LOWER RADIATOR HOSES.

- FILL RADIATOR WITH 50/50 MIXTURE OF ANTI-FREEZE AND DISTILLED WATER.

OEM RADIATOR INSTALLATION CONT.

- WITH CONDENSER AND SPACER IN PLACE, INSTALL RADIATOR.

- USE OEM BOLTS TO SECURE THE RADIATOR TO THE SPACER AS SHOWN BELOW.

- INSTALL FAN BELTS, UPPER AND LOWER RADIATOR HOSES.

- FILL RADIATOR WITH 50/50 MIXTURE OF ANTI-FREEZE AND DISTILLED WATER.
DRIER INSTALLATION

- Install drier on fender well with brackets using (2) #10 x 1/2 sheet metal screws as shown below. Note: Factory A/C cars will use existing OEM holes in fenderwell to locate the drier. Non-A/C car use template supplied on page 18 to locate drier, mark and drill 7/64" mounting holes in the fenderwell. See Figure 16a, below.
- Lubricate (2) #6 O-rings (as shown in Figure 12a on page 13) and install the #6 drier to condenser hardline as shown in Figure 16 and 16b below.
- Tighten fittings as shown in Figure 12a on page 13.

- Remove the OEM mounting screw from the heater hose retainer clamp as shown in Figure 16b.
- Using a 10-32 x 3/4 PH screw 10-32 nut w/ star washer, install the adel clamp around hardline and secure thru heater hose retainer clamp mounting hole as shown in Figure 16b.
- Install female binary switch on the #6 drier to condenser hardline see Figure 16b.
A/C & HEATER HOSE INSTALLATION

- Install firewall cover over evaporator lines, mark and drill mounting holes using a 1/8" drill bit. **Note: Make sure not to drill into evaporator case on the backside of the firewall.**
- Apply a 1/4" bead of silicone sealant around the back side of the firewall cover and slide the grommets over the evaporator lines. Secure the firewall cover using (3) #8 x 1/2" ph pan head screws. See Figure 17 below.
- Install heater valve in heater hoses from the intake manifold as close to the firewall as possible as shown in Figure 17A below.
- Install heater hoses as shown. See Figure 17A, below.
- Lubricate (2) #10 o-rings and install the #10 A/C hose. Attach the #10 str. fm o-ring fitting to the #10 evaporator line coming through the firewall and tighten fittings as shown in Figure 12A, page 13. Attach the #10 90° fm. o-ring fitting to the compressor as shown in Figure 17 below.
- Lubricate (2) #8 o-rings and install the #8 discharge hose to the compressor. Attach the #8 45° fitting to the compressor as shown in Figure 17, below. Attach the #8 str. male insert fitting to the #8 condenser hardline coming from the core support. See Figure 17 below.
- Lubricate (2) #6 o-rings and install the #6 liquid line from the drier to the #6 liquid line coming thru the firewall. See Figures 17 & 17A below.
- Attach the vacuum line to the vacuum source on the intake manifold as shown in Figure 17A, below.
- Install (2) rubber plugs in oem heater holes in firewall. See Figure 17.
- Your system is ready to evacuate and charge. This should be done only by a certified air conditioning technician.
GLOVE BOX INSTALLATION

☐ INSTALL GLOVE BOX AS SHOWN IN FIGURE 18 BELOW, SECURE USING (7) #8 x ½” PH PAN HEAD SCREWS.

FIGURE 18

(7) #8 x ½” PH PAN HEAD SCREW

NOTE: THE GLOVE BOX GOES UNDER THE MOUNTING FLANGE OF THE DASH

DRIER LOCATING TEMPLATE

PLACE ALONG BOTTOM EDGE

STAMP IN FENDERWELL

ALIGN ALONG EDGE OF
DRAIN HOSE INSTALLATION

- Attach drain hose to evaporator drain plug.
- Locate the (2) factory stamped indentions in the floorboard, shown below.
  NOTE: IT MAY BE NECESSARY TO PULL CARPET DOWN TO EXPOSE INDENTIONS. USE TEMPLATE PROVIDED BELOW TO LOCATE DRAIN HOLE. ALIGN TEMPLATE AS SHOWN. MARK THE CENTER OF THE DRAIN HOLE USING A CENTER PUNCH, AND DRILL A 5/8" HOLE IN THE FLOORBOARD.
- If necessary place carpet back into place, cut hole in carpet and route drain hose through carpet and firewall as shown.

Diagram showing the installation steps.
CORE SUPPORT MODIFICATION TEMPLATE

CUT ON DOTTED LINES OF TEMPLATE AND PLACE AS SHOWN IN FIGURE 8, PAGE 11.

MARK THE CENTER OF THE HOLE, AND DRILL 1 1/4" HOLE

EDGE OF CORE SUPPORT

OEM HOLE

ALIGN WITH BOTTOM EDGE OF CORE SUPPORT

OEM HOLE
### 1966 - 67 CHEVY NOVA EVAPORATOR KIT PACKING LIST

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**EVAPORATOR KIT**
561966-PCZ

CHECKED BY:  
Packed By:  
Date:  

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**1**

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**2**

ACCESSORY KIT  
781967-PCN