



A/C ROOF KIT

Texture Black (P/N: 1ACCCONRFK) (fits 48V Club Car Onward)

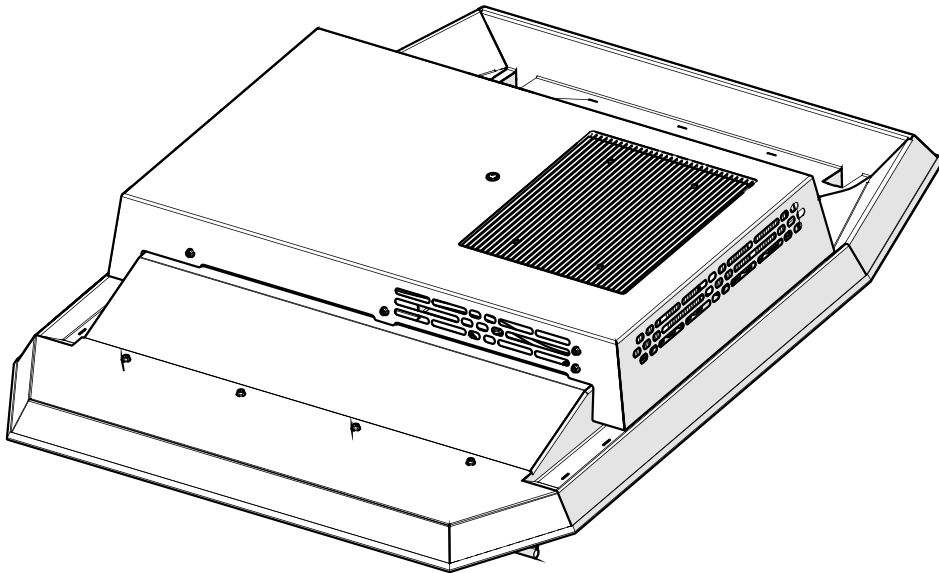
Recommended to be installed with Curtis Cab:

Beige (p/n 1CCP1)

Black (p/n 1CCP2)

White (p/n 1CCP3)

Must be installed with Curtis Air Conditioner 1ACUNIT-G2



Approximate Installation Time *

Experienced Dealer Technician – 1.5 Hours

Average Dealer Technician – 2 Hours

Do-It-Yourself – 3 Hours

(*Not including cab & other accessories)

Approximate Product Specifications

Ground to Top of Air Conditioner: 75 inches

Weight: 54 lbs. (not including 1ACUNIT-G2)

The contents of this envelope are the property of the owner. Leave with the owner when installation is complete.

Rev. B, 04/02/2021

p/n: IM-1ACCCONRFK

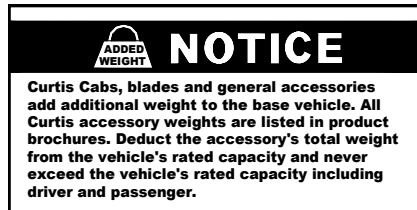
TABLE OF CONTENTS

WARNINGS, TIPS, & REQUIRED TOOLS.....	2
VEHICLE PREPARATION.....	3
INSTALLATION.....	3-10
CARE AND MAINTENANCE.....	10
SERVICE PARTS	11-12

WARNINGS, TIPS, & REQUIRED TOOLS

For accurate installation, proper operation, and years of satisfaction, please read and understand the installation and owner's manual fully prior to installing the A/C Roof Kit.

From all of us at Curtis, we thank you for choosing our product.



California Health and Safety Proposition 65 Warning: This product may contain chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

GENERAL INFORMATION BEFORE YOU START

HELPFUL HINTS:

- To assist with installation, leave all fasteners loose for later adjustment unless otherwise specified.
- Read and understand all instructions before beginning.
- Apply a silicone sealant to seal any minor gaps that may occur due to vehicle variations.
- Caution: Never turn the air conditioner upside down.
- Use caution to avoid cross threading factory installed nuts

TOOLS REQUIRED:

- Set of metric & standard sockets
- Set of metric & standard open-end wrenches
- Set of metric & standard Allen wrenches
- Ratchet and extension
- #2 & #3 Phillips head screwdriver
- Silicone sealant
- Cordless drill
- Razor knife
- #2 Phillips head driver bit
- #2 Square-driver bit
- Scissors
- Anti-seize

A/C ROOF KIT INSTALLATION

STEP 1: (VEHICLE PREPARATION)

- 1.1 Remove plastic roof. The roof will not be reused. New roof and hardware are provided in this kit.

Tools

13mm wrench
13mm socket
5mm Allen wrench

CAUTION: If installing this A/C roof onto a vehicle with a Curtis cab already installed, remove and retain the three Snap Studs and #10-32 nuts from the rear of the roof.

STEP 2: (A/C ROOF INSTALLATION)

- 2.1 Using an awl or screwdriver, poke holes through the headliner and through the roof at the holes in front and behind the opening in the roof. Poke through from underneath to avoid pulling the headliner away from the metal roof.

Tools

Awl or screwdriver

- 2.2 Apply a bead of silicone along the perimeter of the rectangular opening in the roof (the top, outside surface). The bead shall be just outside the fastener holes as illustrated with the dashed lines of Figure 2.2.

Tools

Silicone

CAUTION: Never turn the air conditioner upside down or on its side. Doing so will drain the compressor of its oil and will void the warranty.

- 2.3 With assistance, place the air conditioner unit onto the roof, center it inside of the roof's rectangular opening. Wipe away any excess silicone from inside and outside of the roof assembly. See Figure 2.3.

Note: Orient the unit as shown when installing so the vents are over the steering wheel.

Loosely install fasteners to the roof and air conditioner along the perimeter of the air conditioner with the plastic washers under the heads of the bolts.

Hardware Used

	Qty
1/4-20 x 3/4" flanged bolt	18
1/4-20 flanged lock nut	18
1/4" plastic washer	18

Tools

3/8" wrench or socket
7/16" wrench or socket

- 2.4 Fully tighten all fasteners to 5 ft-lbs. and attach nut caps.

Hardware Used

	Qty
1/4" nut caps	18

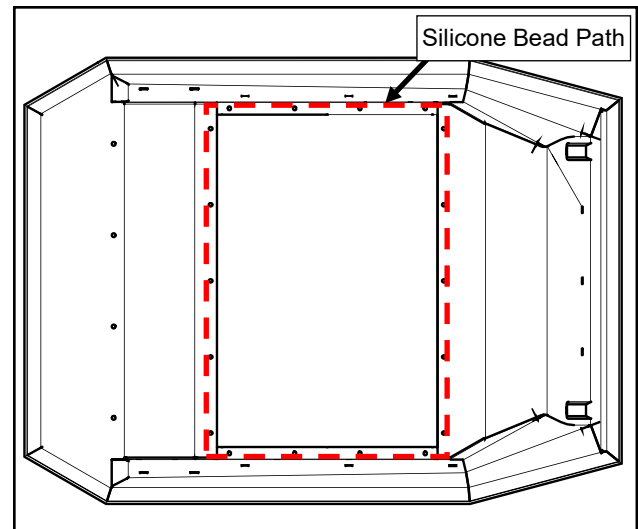


Fig. 2.2 (Apply Silicone)

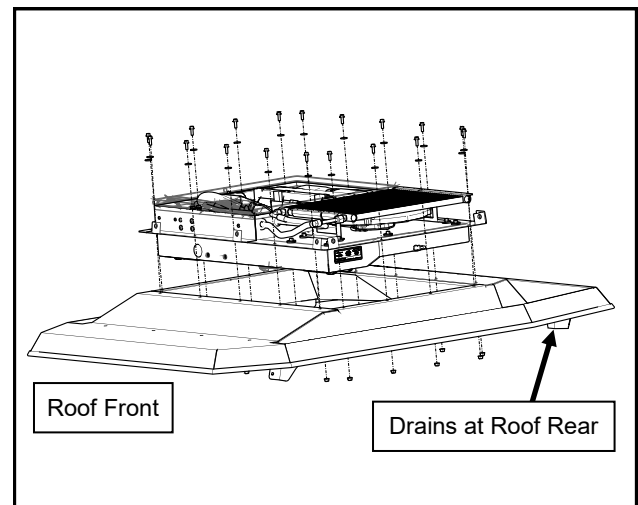


Fig. 2.3 (Insert A/C Unit)

A/C ROOF KIT INSTALLATION

STEP 3: (PREPARE A/C)

- 3.1 Place the roof with A/C unit installed on a bench with padding underneath to protect the switches and vents from being damaged.
- 3.2 Locate the single stud junction block (9SV-85-02-0046) (located in hardware box). Install the junction block to the air conditioner housing over one of the studs already in place in the air conditioner. Secure in place using nut provided in the hardware box. Figure 3.2. Note: it will only be secured with one mounting ear.

Hardware Used
#8-32 Keps-lock nut

Qty
1

Tools
11/32" wrench

- 3.3 There are 2 red wires installed on the top of the solenoid from the factory that can be traced to the compressor and over to the relays. Remove them from the solenoid lug and attach to the 5/16" stud on newly installed junction block. Leave the nut loose for now. Figure 3.3.

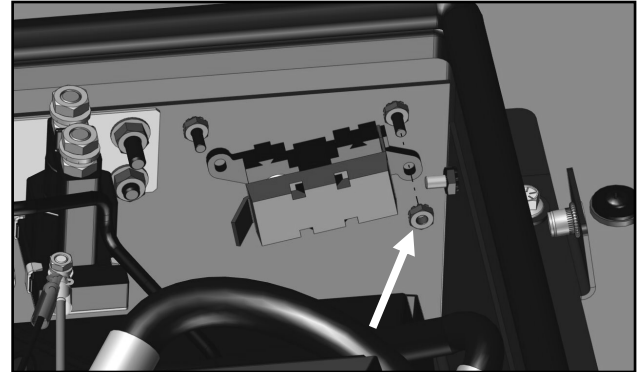


Fig. 3.2 (Install Fuse Stud)

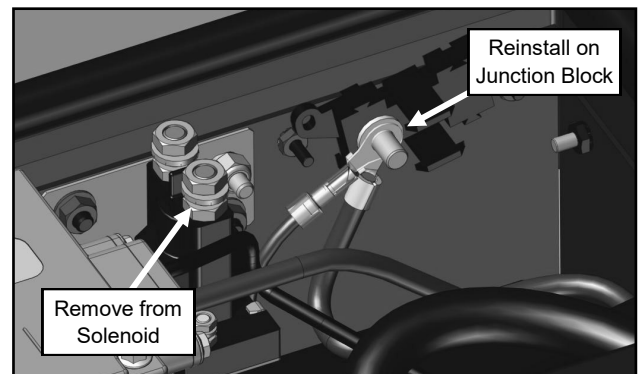


Fig. 3.3 (Power Wire Installation)

- 3.4 Remove one of the two large dome plugs from the rear of the air conditioner. Figure 3.4

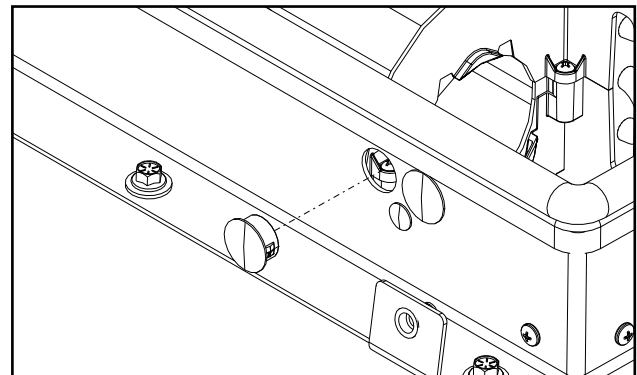


Fig. 3.4 (Dome Plug Removal)

- 3.5 Locate the converter bracket assembly and attach it to the air conditioner assembly as shown. Figure 3.5

Hardware Used
1/4-20 x 3/4" flanged bolt

Qty
2

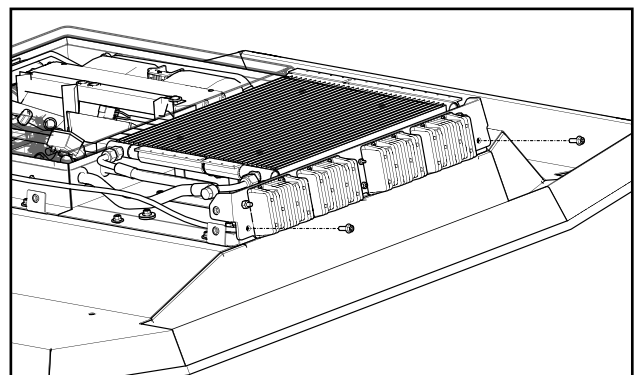


Fig. 3.5 (Install Converter Bracket)

A/C ROOF KIT INSTALLATION

- 3.6 Remove and discard the bolt that secures the ground wires to the base of the solenoid. Figure 3.6.
- 3.7 Route the black 6 GA wire w/ 1/4" ring terminal from the converter assembly along the side of the A/C case and install the supplied 1/4-20 x 1" bolt through the ring terminal and through the A/C case. Be sure to re-attach the ground wires on the inside of the case. Leave the nut loose for now. Figure 3.6.

Hardware Used

Hardware Used	Qty
1/4-20 x 1" zinc finish bolt	1
1/4-20 zinc finish hex nut	1

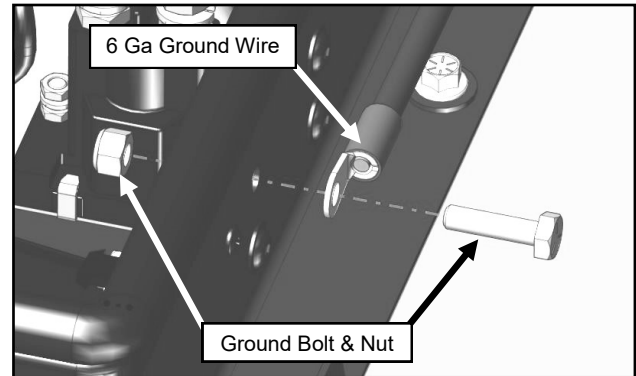


Fig. 3.6 (Ground Install)

- 3.8 Per figure 3.8, run the blue and white loomed wires from the converter assembly along opposite side of the air conditioner, install a grommet into hole where dome plug was removed in step 3.4, and pass the wires through the grommet.

Hardware Used

Hardware Used	Qty
Rubber grommet, .5" ID x .938" OD	1

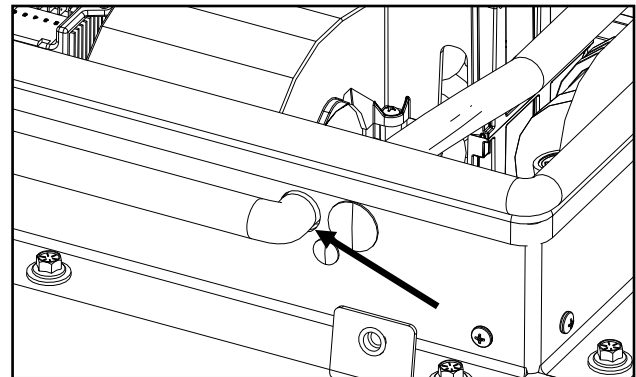


Fig. 3.8 (Harness Routing)

- 3.9 Connect the blue 10 GA wire to the terminal on top of solenoid closest to the front air conditioner wall. Figure 3.9.
- 3.10 Connect the white 6 GA wire to the junction block installed in step 3.2 and tighten. Ref. Figure 3.9.

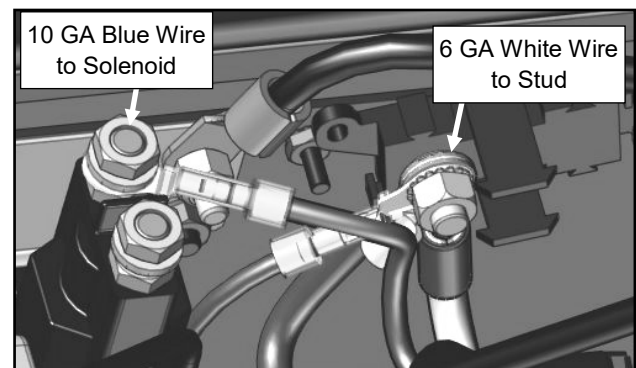


Fig. 3.9 (Harness Connection)

- 3.11 Connect the small jumper with the white connector to the mating connector on the harness inside the A/C unit. Figure 3.11.

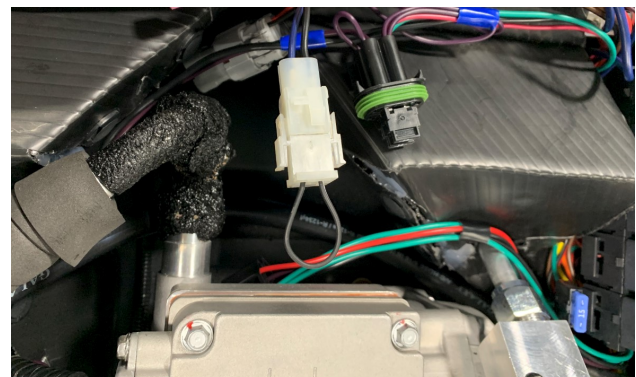


Fig. 3.11 (Connect Jumper)

A/C ROOF KIT INSTALLATION

- 3.12 Locate the purple wire provided. Connect the ring terminal to the lug that the white wire was attached to in step 3.10.
- 3.13 Connect the other end of the purple wire to the mating terminal on the A/C unit harness. The wire is located right next to a pink wire and they are coming from the diode connected to the solenoid trigger. Figure 3.13.

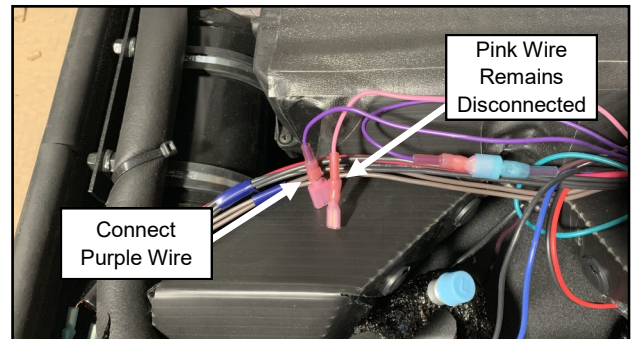


Fig. 3.13 (Connect Purple wire in A/C)

STEP 4: (ROOF INSTALLATION)

Note: Installation of this accessory with a vinyl sided cab may be possible. Due to the wide variety of vinyl sided cabs, Curtis cannot provide specific instructions to install this roof kit with a vinyl sided cab, nor can Curtis guarantee compatibility.

- 4.1 If the cab had not been previously installed, proceed to install the cab at this time, excluding the steps to attach the cab to the roof.
- 4.2 Remove the existing side bulb rubber from the top of the front cab plastic panels and install the supplied 1" straight bulb rubber in its place. Start the rubber up against the front of the side frame upper bracket and press onto the plastic panel heading forward. See Figure 4.2.

Hardware Used
9PR19, 1" straight bulb rubber

Qty
2 x 10"

- 4.3 Install the supplied 1" side bulb rubber onto the rear plastic panels of the cab, with the bulb facing up/out. Start the rubber about 2" from the rear, inside corner of the panel and press onto the plastic panel heading forward. See Figure 4.3.

Hardware Used
9PR16, 1" side bulb rubber

Qty
2 x 17"

- 4.4 With assistance, lower the roof assembly onto the top of the installed cab. Align the front windshield tubes to the inside of the roof mounting flange, the cab frames to the outside of the flange, and the roof drains centered over the vehicle down spouts.
- 4.5 Install the long bolts from the roof hardware kit through the vehicle frame tubes from the inside then through the roof mounting flange, and a nut on the outside. Leave bolts loose. Figure 4.5.

Hardware Used
1/4-20 x 1-1/2" flanged bolt
1/4-20 flanged nut

Qty
4
4

Tools

3/8" and 7/16" wrenches or sockets

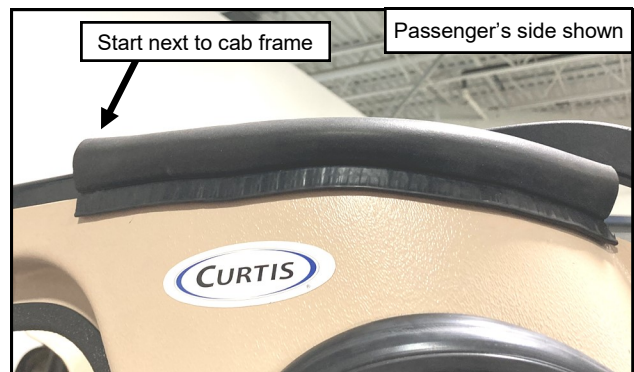


Fig. 4.2 (Front Cab Rubber)

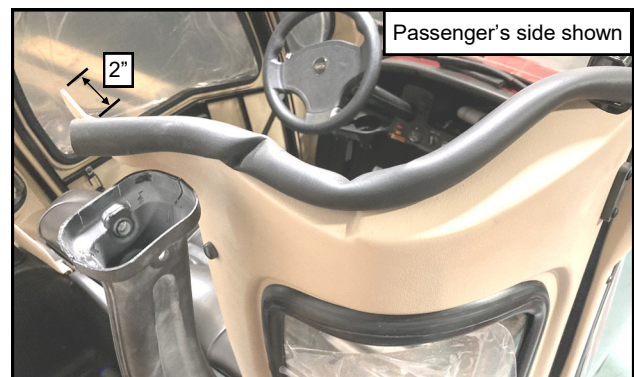


Fig. 4.3 (Rear Cab Rubber)

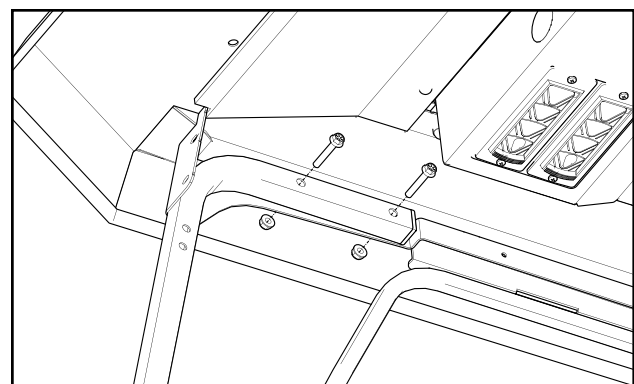


Fig. 4.5 (Vehicle frame tubes)

A/C ROOF KIT INSTALLATION

STEP 4: (ROOF INSTALLATION)

- 4.6 Hold or clamp the cab side frames against the roof mounting flange and install two self-drilling screws through the roof mounting flange into each cab frame. See Figure 4.6.

Hardware Used

#10 x 5/8" square-drive self-drilling screw	Qty
	4

Tools

Cordless drill
#2 square-driver bit

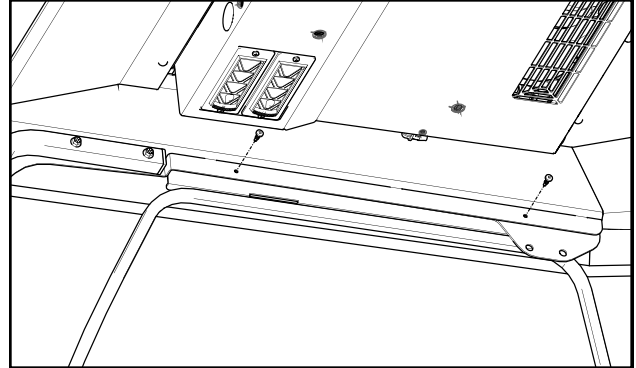


Fig. 4.6 (Cab Frames)

- 4.7 Connect the upper rear corners of the cab to the roof rear flange as shown, using the snap studs, nuts, and caps from the cab kit or removed in step 1.1. Install the third snap stud into the central hole in the roof rear flange.

Hardware Used

10-32 x 1/2" snap studs	Qty
	3
10-32 flanged lock nut	3
#10 nut caps	3

Tools

3/8" and 7/16" wrenches or sockets

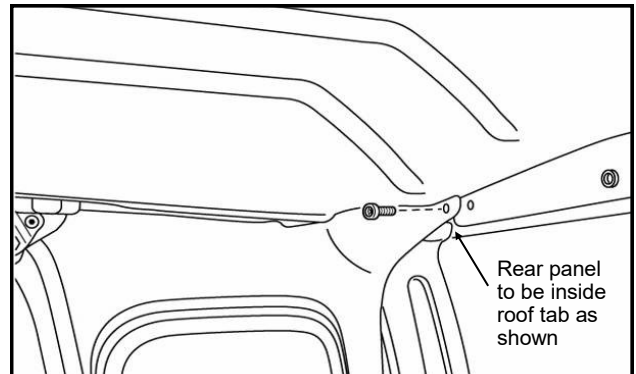


Fig. 4.7 (Rear Snap Studs)

- 4.8 Install the windshield filler panel as shown in Fig. 4.8.

Hardware Used

1/4-20 x 5/8" flanged hex head bolt	Qty
	8
1/4-20 flanged lock nut	8

Tools

3/8" and 7/16" wrenches or sockets

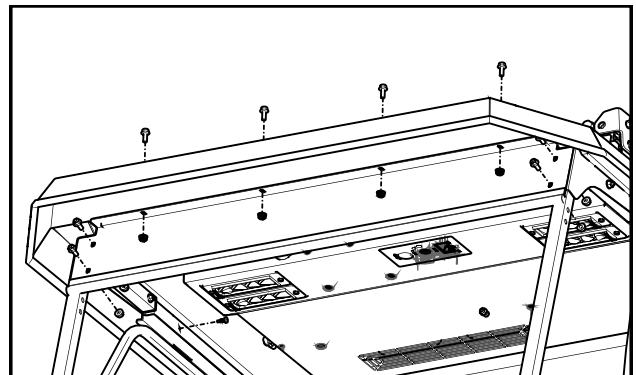


Fig. 4.8 (Windshield Filler Panel)

- 4.9 Install a rubber grommet into the large hole in the roof, on the driver's side to the rear of the A/C unit. See Figure 4.9.

Attach a drain tube to the side of the air conditioner on the driver's side of the vehicle. Rotate the nipples towards the rear of the vehicle.

Tip: Apply a little water to the nipple to lubricate and ease the installation of the drain tube.

Install one end of a plastic elbow fitting into the open end of the drain tube, then push the other end of the fitting into the grommet in the roof.

Important: Be sure that the drain hose is free from kinks and that the path is always **lower** than where it exits the air conditioner in order to prevent backups and internal leaks.

Repeat this step for the opposite side of the vehicle.

Hardware Used

Rubber Grommet, 3/8" ID x 5/8" OD	Qty
	2
PVC Tube, 3/8" Inside Dia., 8-1/4"	2
Plastic elbow fitting	2

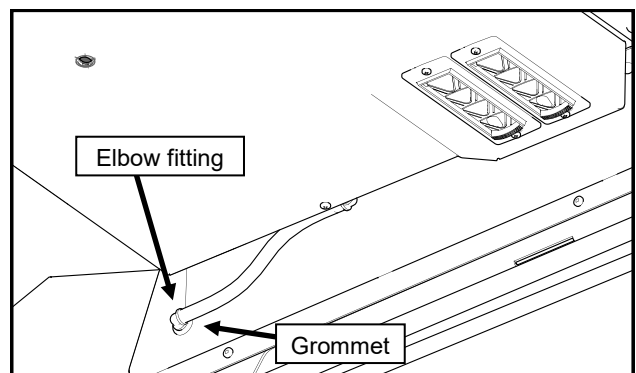


Fig. 4.9 (Attach Drain Tubes)

A/C ROOF KIT INSTALLATION

- 4.10 Find the two small rubber caps from the hardware box. Using scissors or a razor blade, carefully cut a cross slit in the dome end of both caps. Make sure the rubber is cut all the way through but do not remove any pieces of the cap. See Figure 4.10

NOTE: The slit caps will prevent debris and insects from entering the drain, while still allowing the collected water to drain out.

Replacement caps can be ordered from McMaster Carr: P/N 9753K17

Hardware Used

3/8" x 3/4" rubber cap

Qty

2

Tools

Scissors or razor blade

- 4.11 Install a slitted-rubber cap on the end of both drain elbow fittings, inside the trough on the outside of the roof, as shown in Figure 4.11 (passenger's side shown).

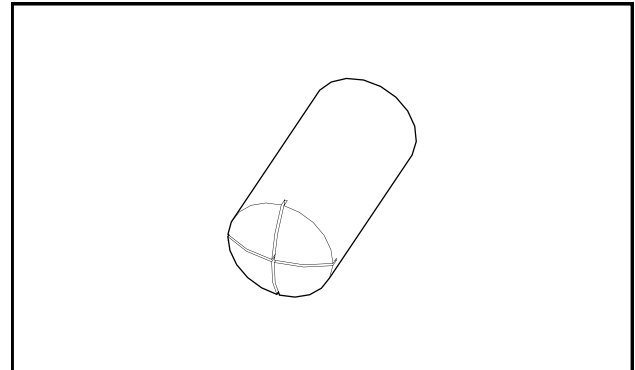


Fig. 4.10 (Slitted rubber cap)

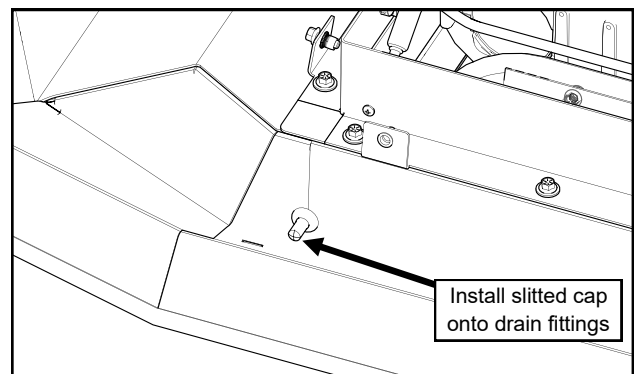


Fig. 4.11 (Drain caps)

STEP 5: (WIRING INSTALLATION)

- 5.1 Remove the seat from the vehicle.
- 5.2 Disconnect the negative battery terminal.
- 5.3 Remove the plastic plug from the right-rear of the A/C unit and install the large grommet from the hardware bag into the hole in the A/C unit. See Figure 5.3.
- 5.4 Locate the power supply harness (9SV-WH-00108).
Route the wires into the unit through the grommet.
- 5.5 Per figure 5.5, connect the blue wire to the same post as the existing blue wire from the converter that was installed in step 3.9. Note: One post on the top of the solenoid will not be used.
- 5.6 Remove the nut on the ground stud that was installed in step 3.7, add the black wire to the stud, and tighten at this time. (Note: the purple wire in the supply harness WH-00108 will not be used for this installation)

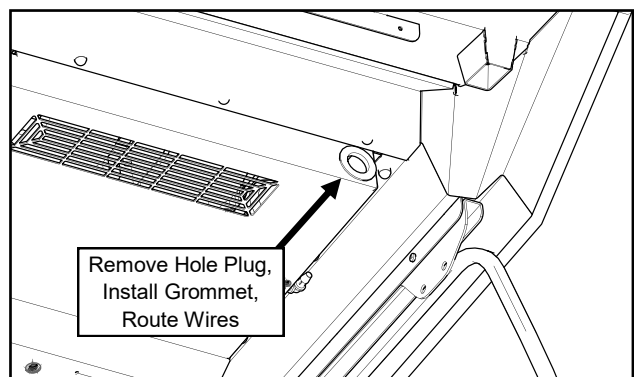


Fig. 5.3 (Route Power Cable into cab)

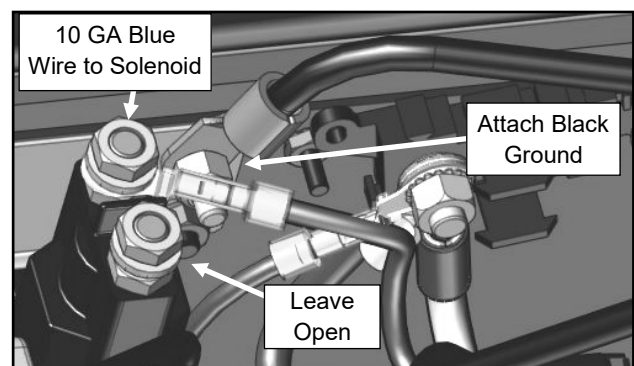


Fig. 5.5 (Harness Connection)

A/C ROOF KIT INSTALLATION

STEP 5: (WIRING INSTALLATION)

- 5.7 Route the wire along the rear of the cab frame behind the door and secure to the frame with p-clamps where shown in figure 5.7

Note: #10-32 bolts and nuts are included in the kit and can be used at the installer's discretion to attach P-clips to the plastic panel rather than the frame, if desired.

Hardware Used

#10-32 x 5/8" sheet metal screws

Qty

3

1/2" p-clamp

3

Tools

Cordless drill

#2 square-driver bit

- 5.8 Route the wire under the seat at approximately the center of the flange at the right side of the seat and secure with cable ties. Figure 5.8.



Fig. 5.7 (Route Power Cable into cab)



Fig. 5.8 (Route Power Cable into cab)

A/C ROOF KIT INSTALLATION

STEP 5: (WIRING INSTALLATION)

- 5.9 Per Figure 5.9, route the blue wire to the 48V+ post at the end of the battery series and connect. Route the black wire to the ground post and connect.

CAUTION: Battery configurations may vary. The picture shown may not represent your vehicle. Consult your vehicle's owner's manual to determine precise connections.

- 5.10 Reconnect the battery ground at this time.
- 5.11 Turn the key on and test the operation of the A/C unit. Turn the rotary blower switch on first, then actuate the rocker switch to engage the compressor.
- 5.12 Inspect for loose fasteners or wires.

- 5.13 Per Figure 5.13, install cover to air conditioner. Use anti-seize on all screws and bolts when fastening the cover. Install the M6 screw first, then install the 1/4-20 bolts. Tighten 1/4-20 bolts to 5 ft-lbs and tighten M6 screw until the rubber washer begins to bulge.

Hardware Used

	<u>Qty</u>
1/4-20 x 3/4" flange bolt	8
M6X1 X 16mm truss head screw	1
M6 Rubber Washer	1

Tools

3/8" wrench or socket
#3 Phillips head screwdriver
Apply anti-seize to bolt threads

- 5.14 Re-install any accessories that were removed during this procedure.

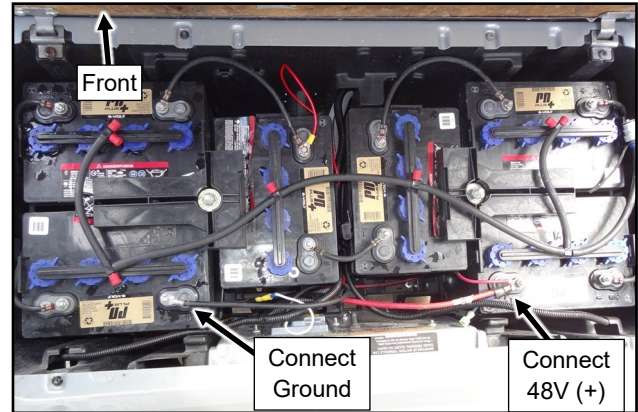


Fig. 5.9 (Vehicle Side 48V Connection)

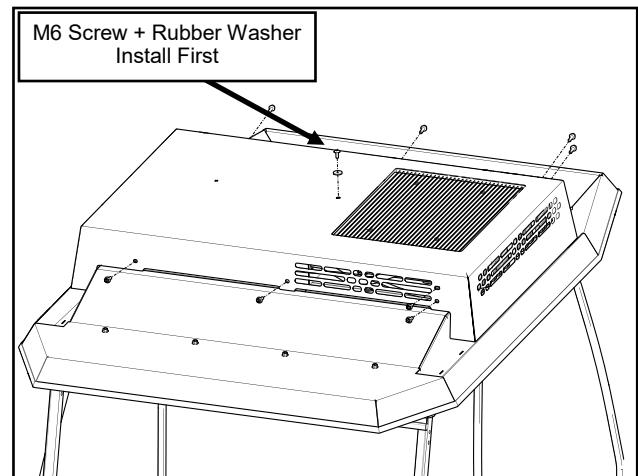


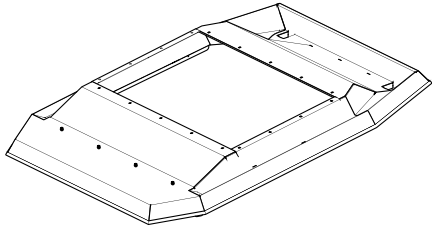
Fig. 5.13 (A/C Cover Fasteners)

CARE AND MAINTENANCE

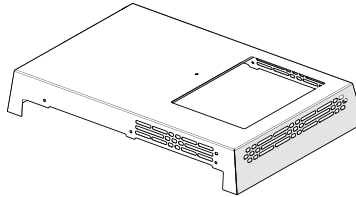
- Check and tighten hardware after 40 hours of operation. Periodically inspect and tighten hardware for the remainder of the unit's life.
- Wash the painted surfaces of the unit with commercial automotive cleaning products.

SERVICE PARTS

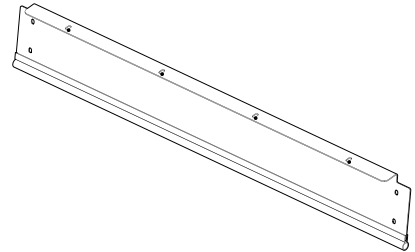
ROOF ASSEMBLY
P/N: 8SV-101-00058



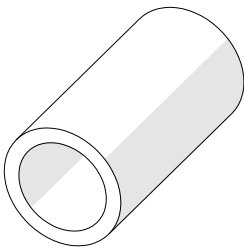
COVER ASSEMBLY, A/C, 48V, ONWARD,
TEXTURE BLACK
P/N: 8SV-303-00010-TB



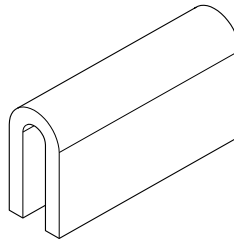
WINDSHIELD FILLER PANEL ASSY
P/N: 8SV-103-00026



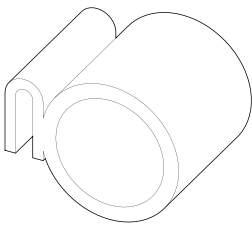
DRAIN HOSE
P/N: 9SV-AC-00019-20 (20' length)



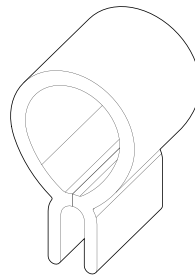
TRIM LOK, STD, 1/16" - 1/8" GRIP
P/N: 9SV-PRO1-20 (20' length)



1" SIDE BULB, 1/16" GRIP
9SV-PR16-10 (10' length)

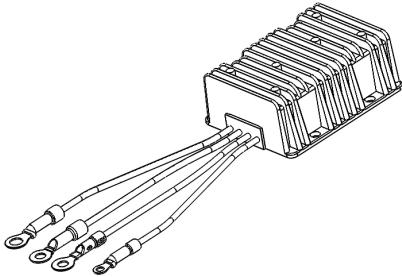


1" STD BULB, 1/16" GRIP
9SV-PR19-10 (10' length)

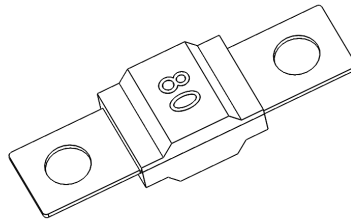


SERVICE PARTS

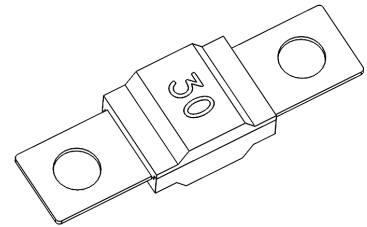
48V TO 12V CONVERTER WITH
TERMINALS
P/N: 8SV-114-00026



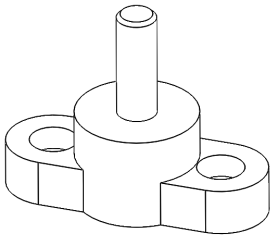
FUSE, 80A, MIDI
P/N: 9SV-85-00-0044



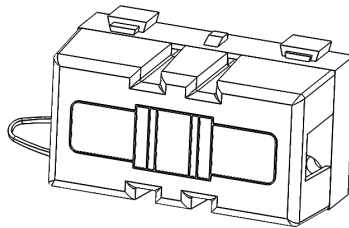
FUSE, 30A, MIDI
P/N: 9SV-85-00-0043



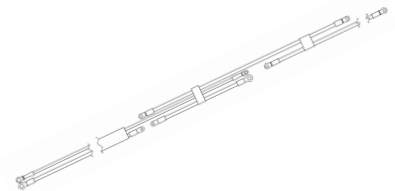
POWER STUD MOUNT, SINGLE
P/N: 9SV-85-15-0047



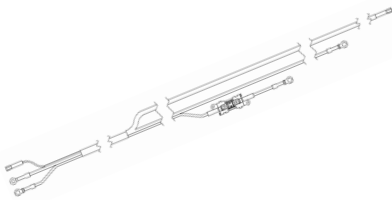
FUSE HOLDER, MIDI, BLACK COVER
P/N: 9SV-85-02-0045



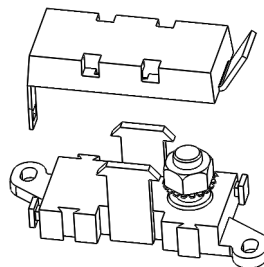
WIRE HARNESS, A/C ROOF UNIT,
48V TO 12V
P/N: 9SV-WH-00107



WIRE HARNESS, A/C POWER SUPPLY,
48V TO 12V
P/N: 9SV-WH-00108



FUSE HOLDER, MIDI, RED COVER,
SINGLE STUD
P/N: 9SV-85-02-0046



JUMPER HARNESS
P/N: 9SV-WH-00094

