COLUMBIA NORTHWEST, INC INSTALLATION INSTRUCTIONS

April 2013

AIR CONDITIONER MOUNTING KIT: SOMERSET CAMPING TRAILERS

NOTE:

This kit is designed for installation on:

2013 to Present Somerset Camping Trailers

IMPORTANT NOTICE

These instructions are intended for the use by qualified service technicians specially trained and experienced in installation of this type equipment and related system components. Installation and service personnel are required by some states to be licensed. Persons not qualified should not attempt to install this equipment nor interpret these instructions. Improper installation may cause damage to the equipment and may cause a hazard.

These instructions are for the installation of the air conditioner mounting kit. Refer to the instructions included with each air conditioner model for additional mounting details.

This package contains:

8	-	4733D060	White Rivet (small head)
3	-	4733-413	TEK Screw
1	-	4741B965	Expanda Rivet
1	-	1202B269	Flat Washer
3	-	4739-415	Nylon Wire Clamp
1	-	4734-377	1" Hole Bushing
4	-	4749A212	Channel Extension
1	-	4767B431	Reinforcement Panel Assembly w/Cut-Out
1	-	4751A971	Strap Assembly
1	-	4748A659	Power Cord
4	-	4901-008	Mounting Angle
4	-	4744D330	White Rivet (large head)

A. INSTRUCTIONS (AIR CONDITIONER KIT)

NOTE: Each Somerset Camping Trailer is built with two (2) steel roof braces specifically designed for supporting the installation of an air-conditioner. A third roof brace is included on all models except for the E1 and Santa Fe.

- 1. Remove the valances from each side of the roof to allow access to the roof braces.
- 2. Locate the two (2) roof braces designated for the air conditioner. These two braces are located in the rear of the trailer and are located on either side of four accordion rivets inserted into the

ceiling paneling. These plastic rivets locate the 14" x14" cut-out. Loosen the 3/8" machine screws that attach the A/C brace to the roof cove mounting brackets. There will be a total of eight screws (x2 each end) to loosen. Do not remove the screws completely. Simply loosen the screws enough to allow the brace brackets to slide in the cove.

- 3. Slide each brace away from the 14" x14" cut-out area 4".
- 4. Remove the four accordion rivets from within the ceiling paneling of the top assembly. Carefully mark the A/C cut-out opening on the top interior. For ease of cutting, it is recommended that a ½" ¾" circular hole be used to drill through each corner of the cut-out. This will allow sufficient room for the saber saw blade to miter each corner.

WARNING: Always check location of the pre-determined accordion rivets prior to cutting to ensure the correct 14" x 14" opening size, as well as the proper clearance from the A/C top braces for installation of the A/C unit.

5. Cut out the opening for the air conditioner with the use of a saber saw or other suitable cutting tool.

IMPORTANT: Due to the various types of commercial A/C available, check each individual manufacturer's recommendations for the exact A/C cut-out size to measure. Place the four Channel Extensions (4749A212) into the A/C hole cut-out, one in each side between the interior ceiling paneling and the exterior metal skin of the top assembly. Align the edges of the channel extensions with the hole cut-out. These pieces of extrusion will prevent the foam in the sandwich core from crushing at the edge of the cut-out when the A/C unit is tightened-down to the roof.

IMPORTANT: Insert the Channel Extensions (4749A212) between the ceiling panel and the outer aluminum skin. Do NOT remove the foam from the top core.

6. Locate the 20A receptacle in each trailer that is used for the A/C plug-in. Insert the non-plug end of the A/C power cord into the end of the brace that is closest to the 20A receptacle. Push the power cord through the brace until the non-plug end of the cord reaches the first 1" diameter hole near the center of the brace. Allow 18" to 24" of the power cord to remain at the A/C cut-out location for later attachment to the A/C unit. Install the plastic 1" Hole Bushing (4734-377) into the brace hole to protect the power cord from the sharp edges of the hole.

WARNING: Do NOT plug in the power cord into the 20A receptacle during this step. Make sure there is enough excess power cord to route / clamp along the interior ceiling cove to then drop-down and reach the 20A receptacle.

IMPORTANT: The 20 amp receptacle is located within the interior wall paneling at the front, rear, or sides of the trailer and can be identified by the short horizontal notch in one leg of the outlet.

7. Lower the top assembly to enable easy access to the exterior of the roof. You are now ready to begin the A/C installation.

B. INSTRUCTIONS (ROOF AIR CONDITIONER UNIT)

1. Place the A/C unit directly on the prepared roof opening cut-out with the pointed end of the unit facing the front of the trailer and the condensing coil facing the rear.

NOTE: The centering flange on the underside of the air conditioning unit must be centered over the roof opening cut-out.

IMPORTANT: Different brands of roof air conditioners and ceiling assemblies are not interchangeable. Check individual manufacturer's recommendations.

C. INSTALLING THE AIR CONDITIONER INTERIOR CEILING ASSEMBLY

- 1. Locate the small four (4) 4901-008 Mounting Angles (painted white) in the kit. These angles need to be attached using two Rivets 4733D060 to the end of each steel c-channel. The c-channels are attached to the sides of the reinforcement panel. Align the two holes in the Mounting Angles with the two holes in the end of the c-channel. Rivet the angles in place.
- 2. Place the Reinforcement Panel Assembly with cut-out (4767B431) against the ceiling with the fiberglass side against the ceiling. Align the 14" x 14" cut-out in the reinforcement panel with the roof cut-out.

IMPORTANT: The 14" x 14" cut-out in the reinforcement panel assembly is NOT centered in the panel. The cut-out is off-center by 5" and 11" dimensions. For all models, the end of the reinforcement panel that has the cut-out located 5" from the end ("the short side") must be facing towards the CENTER of the roof and FRONT of the trailer.

3. With the reinforcement panel cut-out aligned with the roof cut-out, insert the A/C retaining ring into the panel cut-out and mount the ring with the hardware supplied with A/C kit. Tighten-down the A/C per the installation instructions supplied by the A/C manufacturer.

NOTE: The reinforcement panel assembly is designed to allow for routing the power cord from the brace through the "core" of the reinforcement panel assembly. There are holes in the four corners of the panel cut-out that extend to either end of the panel. These holes can be used to route the power cord through the core and into the cut-out area for wiring to the A/C unit. This will completely conceal the power cord in the ceiling area.

Specific instructions for this part of the air conditioner installation can be found in your installation booklet. Follow these as indicated for proper installation.

CAUTION: When tightening the air conditioner anchor bolts, do not exceed 50% of gasket compression or irreversible cell damage to the gasket material will occur. Periodically check tightness of all anchor bolts.

D. WIRING PROCEDURE

DANGER--SCHOCK HAZARD

MAKE SURE THAT THE POWER SUPPLY TO THE UNIT IS DISCONNECTED BEFORE PERFORMING ANY WORK ON THE UNIT TO AVOID THE POSSIBILITY OF SHOCK, INJURY, OR DAMAGE TO THE EQUIPMENT. FOLLOW THE MANUFACTURER'S WIRING INSTRUCTIONS TO CONNECT THE POWER CORD TO THE AIR CONDITIONER UNIT.

D. RE-INSTALLING THE ROOF BRACES

- 1. Slide the A/C brace that contains the power cord up against the reinforcement panel until the panel mounting angle brackets touch the side of the A/C brace. Pull any excess amount of power cord back through the A/C brace. Using a 3/16" bit, drill a hole into the brace and attach the panel angles to the brace with the White Rivets (4744D330). Next, tighten down the two machine screws in both ends of this A/C brace to secure the brace to the roof.
- 2. Repeat this step with the opposite A/C brace towards the front of the roof.
- 3. Route the power cord along the top of the roadside or curbside aluminum cove extrusion track to the corner of the roof (same corner as the 20 amp receptacle), and then fasten the cord along the extrusion with the three Nylon Wire Clamps (4739-415) and three TEK Screws (4733-413) provided.
- 4. Drill a 13/64" hole in the corner of the top assembly (through ceiling panel only) coinciding with the routing of the power cord. Fasten the power cord retaining Velcro Strap Assembly (4751A971) with the Expanda Rivet (4741B965) and Flat Washer (1202B269).

NOTE: Store power cord looped at corner of top assembly prior to closing.