

# ADyI

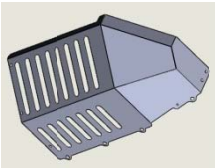
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## ADyI HEAT/EXHAUST RISER PIPE SYSTEM: INSTALLATION INSTRUCTIONS

### STEP 1 : PREPARATION BEFORE INSTALLATION

- A. If a generator is already installed in the vehicle the muffler/catalytic converter must be removed so that the heat plenum box can pass through to its final installed position.



- I. Remove the generator Exhaust Shield by removing seven (7) sets of bolts/nuts hardware.



- II. Remove the two (14mm) bolts at the catalytic converter to exhaust pipe connection.



- III. Disconnect the exhaust sensor electrical connection.

- IV. Remove the two (14mm) bolts holding the muffler suspension arm in place.

- V. Remove and set aside this assembly.

- B. Some tail light wiring and bulbs must be moved or removed to allow the heat capture plenum box to pass through to its final mounted position.



- I. Remove the drivers side lower tail light lens according to the vehicle manufacturers instructions. In a current model Winnebago, release the lens unit by backing out the Allen retaining bolt on the left side.

- II. Back the turn signal light nuts almost off of the retaining bolts allowing the unit to be positioned out of the way.

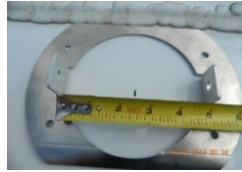


- III. In some vehicle cases, some of the tail light / turning light wiring will have to be lengthened to allow plenum box clearance and repositioning. Each vehicle is different but it is our experience that the wiring harness has adequate wire length to be repositioned after a few wire hold ties have been cut. Always resecure the wiring with wire ties after final wire positioning.

## STEP 2 : LOCATE THE 5" DIAMETER TUBE ON THE ROOF.



- A. On the vehicle roof measure 24" from the drivers side exterior side panel and mark.



- B. Center the roof trim over this mark and against the rear wall seam seal. Mark the center of this location.



- C. Use a 5" diameter hole saw to drill through the fiberglass roof panel at this location.



- D. Insert the 5" diameter tube splice into the inside of the tube sections and with the provided 3/16" pop rivets reform the 8' long length.



- E. Using the Roof Trim Ring as a guide, drill the 5/16" side mounting holes through the 5" diameter tube. Mount the Roof Trim Ring to the top of the 5" tube with the 1/4-20 UNC hardware provided.



- F. On the roof, feed the 5" diameter tube through the 5" hole until the roof trim ring rests on the vehicle.

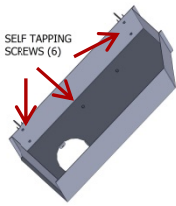
## STEP 3 : LOCATE AND MOUNT THE HEAT CAPTURE PLENUM BOX

*\* The 33' Winnebago Chassis / Shell needs an additional wooden spacer, the supplied plywood and 2 x 4 pieces. This is not needed for the 38' vehicle.*

**Please note: This procedure will require assistance.**



- A. With the 5" tube hanging loosely from the roof, lift the plenum box up and into position. Have one person reach through the rear turn signal lens hole and help guide the 5" tube through the 5" hole in the plenum box. Push the plenum box up until the top contacts with brace that protrudes out from the vehicle floor.



- B. While positioning the plenum box so that the 5" diameter tube is in a true vertical position, have the assistant look through the rear turn signal lens hole to confirm true vertical placement. Drive the two self tapping screws through the holes in the top of the plenum box into the aluminum brace. Make an alignment mark on the wall where the corner of the plenum box is located.

C. **For the 33' vehicle ONLY**



1. Measure from the edge of the hold off runners on the side of the plenum box to the wall (this is the total distance required for the additional wooden spacer, usually between 3" – 3¾" total). Subtract the ½" plywood from your measurement and rip the 2 x 4 pieces to that width (2½" – 3¼"). Mount the ripped 2 x 4 pieces on to the marked locations on the plywood with the provided wood screws.



2. Remove the two plenum box mounting screws installed in step B above. Drop the plenum box out of the vehicle and mount the wood spacer to the wall with the screws provided. Use the plenum box location corner mark on the wall as your guide for the mounting location of the wood spacer's corner.
3. Remount the plenum box with the two screws removed earlier by driving them into the same holes. Additionally, attach the four (4) side self tapping screws into the 2 x 4 material of the wood spacer.



- D. From the roof, mark the final trim ring location with a pencil and also mark the two threaded rubber Stand-Off mounting holes location on the fiberglass roof. Then lift up the 5" tube by the attached Roof Trim Ring and rest it on the top of the heat collection Plenum box.



- E. Drill ¼" holes at the location marks for the rubber stand-off mounting studs to pass through the fiberglass roof. With the supplied tube of white Lap Sealant, spread a liberal amount around the 5" tube base, covering the area under the Roof Trim Ring as indicated by the pencil outline.



- F. Mount the rubber stand-offs onto their threaded holes in the roof trim ring, placing the supplied lock washer between the two parts. Lower the 5" tube back through the 5" hole in the mounted plenum box and the rubber stand-off studs into their drilled holes. Then mount the Roof Trim Ring to the fiberglass roof with the four self-tapping screws provided.



- G. Apply more white lap seal over the edges and surface of the roof trim ring, making sure that all edges are sealed.



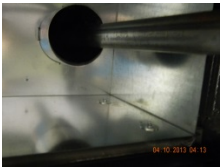
- H. Reach through the rear turn signal opening and tighten the band clamp that is attached to the top of the plenum box around the 5" tube at the top of the plenum box with a 5/16" nut driver. Re-tighten the running light nuts, zip tie all wiring into its final traveling position, and replace the turn signal and cover as needed.

## STEP 4 : LOCATE AND MOUNT THE EXHAUST PIPE



*\* If you do not have an assistant to hold the 1 3/4" O.D. x 10' long exhaust pipe (new, obtained locally) in a centered position while the exhaust is being welded, build a simple wood jig as shown and utilize clamps to hold the pipe as needed.*

- A. Re-attach the muffler suspension arm removed in step 1-A-IV. Re-connect the exhaust sensor electrical connection (step 1-A-III). Replace the bolts connecting the catalytic converter to the exhaust pipe (step 1-A-II). Remove any exhaust pipe bends, spark arrestor, etc. from the downstream side of the muffler.



- B. Using the 90 degree male-female exhaust pipe provided, place the male end into the muffler and the female end up toward the 1 3/4" O.D. x 10' long (new, obtained locally) exhaust pipe. The position of the muffler can be adjusted by bending it out away from the generator end. The crimped exhaust pipe bends relatively easily so the 90 degree connecting pipe can be inserted into the muffler.

- C. Re-check to make certain that the 10' long exhaust pipe piece is centered in the 5" aluminum tube and weld the 90 degree elbow into position.

## STEP 5 : MOUNT EXHAUST RAIN CAP

- A. Measure 4" up the exhaust pipe from the roof trim ring and cut off the exhaust pipe with a Sawz-all.



- B. With the hardware provided mount the Exhaust Rain Cap onto the top threaded studs, placing a lock washer between the two parts and a flat washer on top before the first nut. Snug, but do not over-tighten the first nut, then add a second nut and tighten securely against the first nut, holding both nuts with wrenches.



- C. While holding the exhaust U Bolt stand-off behind the customer supplied 1 3/4" O.D. Exhaust Pipe, feed the threaded U Bolt through the back of the Exhaust Rain Cap and secure with the flat wrenches and nuts provided.

- D. Re-attach the generator Exhaust Shield removed in step 1-A-I.

CONGRATULATIONS! YOU ARE DONE! YOUR SECOND INSTALL WILL TAKE 1/2 AS LONG, YOUR THIRD EVEN QUICKER UNTIL THEY PRACTICALLY INSTALL THEMSELVES!