



# Ford Transit MID LWB & RWB SLIDE IN IT

Assembly/Installation Instructions

**American Aluminum**

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INSTRUCTIONS BEFORE  
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FAILURE TO FOLLOW  
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USE APPROPRIATE  
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## Before You Begin

The inmate transport will be shipped completely assembled. Some disassembly will be required to install the unit into the van. Please confirm all accessories including rear & side steps, console box with light & fan switches, van door trim panels and any a/c components are inside your transport unit. Please inspect for any shipping damage. If missing components or serious freight damage has been discovered please call 1-800-277-0869.

### Materials & Supplies Needed:

LWB -1/4" Plywood 48"Wx154"L Overall- RWB 48"x136" \*Only if the van does not have a rubber matt.

LWB (1- 48x96 1 -48x32 plywood)

RWB (1- 48x96 1- 48x14 Plywood)

### Tools Needed:

3/4 Deep Well Socket

Drill

3/4 Wrench

13/64 Bit

Cordless Impact Driver

1/2 Bit

3/8 Nut Driver for Self-Tapping Screws

Rivet gun

### Important Note:

**\*When removing Carriage bolts have someone hold the carriage head side tight against the metal to prevent stripping carriage bolts while they are being removed or reinstalled. In most cases this is a 2 person job\***

**Step 1:** Gather all necessary tools and materials and then remove all accessory components from the Van. Such as: AC covers (if installed) and other obstructions that will prevent the transport unit from sliding in properly.

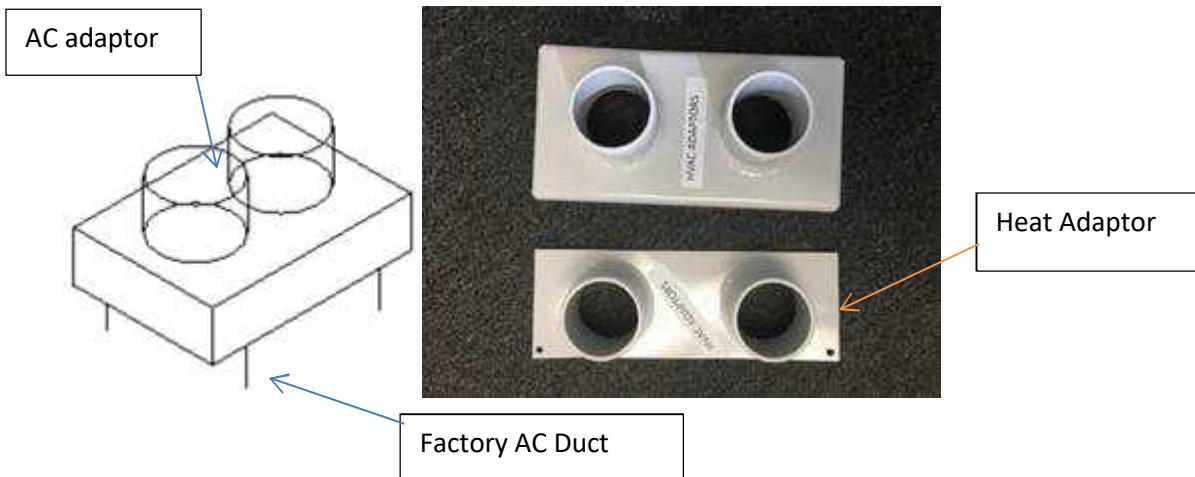
\*Locate wiring harness in the floor of the van and mark before sliding the IT unit in place\*

**Step 2:** Prepare van floor. Using both sheet sizes of ¼" PVC/Luan or plywood mentioned in the Materials & Supplies, layout the IT floor support by riveting the PVC/Luan or Plywood to the van floor. The PVC/Luan or Plywood will be centered left to right and start approximately at the edge of the spare tire access cover (plastic cap located on the threshold of the rear door jamb)

**\*Remove the Rear Door Strikers (top of rear doorway) to allow the Unit to slide in the van. The Door Strikers may catch on the duct work if they are not removed. \***



**Step 3:** Install the Heat and AC adaptors to the Factory Ac unit by riveting AC adaptor to the AC vent. The heat adaptor installs to the heater duct under the passenger seat.



The 3<sup>rd</sup> hose attaches to another A/C Duct Adapter that connects to factory air duct on the front of the A/C unit that is on a 45-degree angle.

**Step 4:** Run the wiring for the blowers from the back of the van to the front. Allow an extra 10' of wire behind the driver's seat. (Only if blowers are being used)

**Step 5:** Remove the small AC bench that is in the rear of the unit on the driver side. It is partially attached to the main driver side bench with temporary rivets. (Removing the AC bench allows easy access to the Factory Rear AC unit).

The AC Bench can be reinstalled after the IT unit is in the van (after Step 6) and the AC ductwork has been attached. When reinstalling the AC bench simply align the holes for the seatbelt brackets with the holes in the main body and place the seatbelt bracket (seatbelt bracket should have seatbelts already installed to the bracket) in line with both sets of hole in the AC bench and main body. Rivet all three layers together at once. Attach the bottom of the AC bench using self-tapping screws, rivets, or carriage bolts (Installers choice).

**Step 6:** Carefully lift unit and slide it into the van. Attach AC duct work to the AC adaptor that is riveted to the factory AC.

Install the Heat and AC adaptors to the Factory Ac unit by riveting AC adaptor to the AC vent. The Heat adaptor install to the heater duct under the passenger seat. Both use the supplied Self-Tapping Screws and the foil tape to seal the edges of the adapters. The Duct work attaches to the PVC fittings using the supplied black zip ties and the foil tape.

The factory Air duct will have to be trimmed for proper fitment of the supplied AC adaptor. Trim the rear corners to match the 45-degree bevels on the rear of the AC adaptor



**\*Use the minimum length of AC duct hose needed to ensure proper airflow. Using more duct hose than necessary prevents proper air flow.\***

Unit comes with Heat and AC manifolds already attached and ready



Unicor Units are all PVC therefore this note does not apply

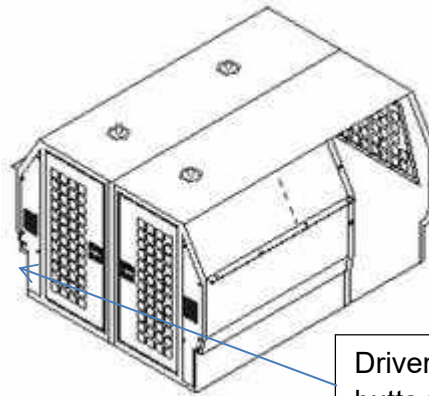
**STEP 7:** Install the rear and side tread plate threshold. The thresholds will be used to help position the main unit in the proper location. \*Do not rivet to the van at this time.

Align rear & side tread plate thresholds. Once in place drill and rivet them to the floor using the supplied 1" rivets.



\*Units with a Drawer bench will need to pull the bench out to be able to screw the bottom of the door frame on. After reinserting the drawer bench you can then rivet it down to the floor\*

**Note: Unit is designed so that the rear wings of the rear doors can be pushed back until the side flange of the left (driver side) wing butts up to the rear factory AC mount.**



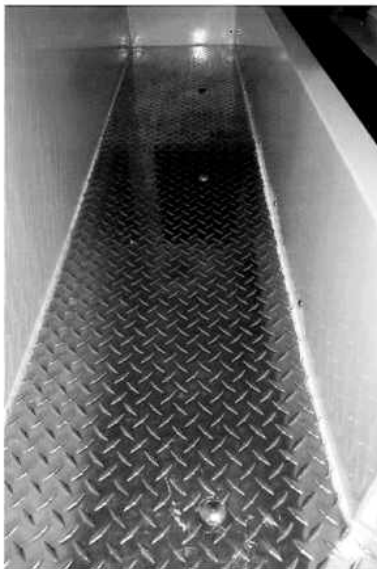
Driver side wing butts up to the Factory AC mount

**Step 8: \*SECURING THE UNIT\***

**\*TRANSIT LWB & RWB UNITS USE 4 CARRIAGE BOLTS FOR SECURING THE IT UNIT TO THE VAN FLOOR\***

Mount unit to the floor using the 4ea supplied Grade 8 4"x1/2" Carriage bolts with lock nuts, washers and backing plates as shown in the following pictures. **\*DO NOT DRILL OR SCREW INTO PREVIOUSLY MARKED WIRING HARNESS IN VAN FLOOR! ALSO INSPECT ALL LOCATIONS BEING DRILLED FOR ANY OBSTRUCTIONS TO PREVENT DAMAGE TO THE VEHICLE\*** The mounting locations are not specific. The pictures show approximate mounting locations that must be inspected before being drilled.

**\*\*SEE NOTE BY PICTURES FOR MORE DETAILS\*\***



**Carriage Bolt Patterns**

3 Comp LWB gets 4 Total w/ 1 per side(rear comp Near rear doors) and 2 in smaller 3<sup>rd</sup> Comp.

3 Comp RWB gets 4 Total Same as LWB

2 Comp LWB Front to back gets 4 total w/ 2 per Comp(side)

2 Comp RWB F to B gets 4 total w/ 2 per Comp(side)

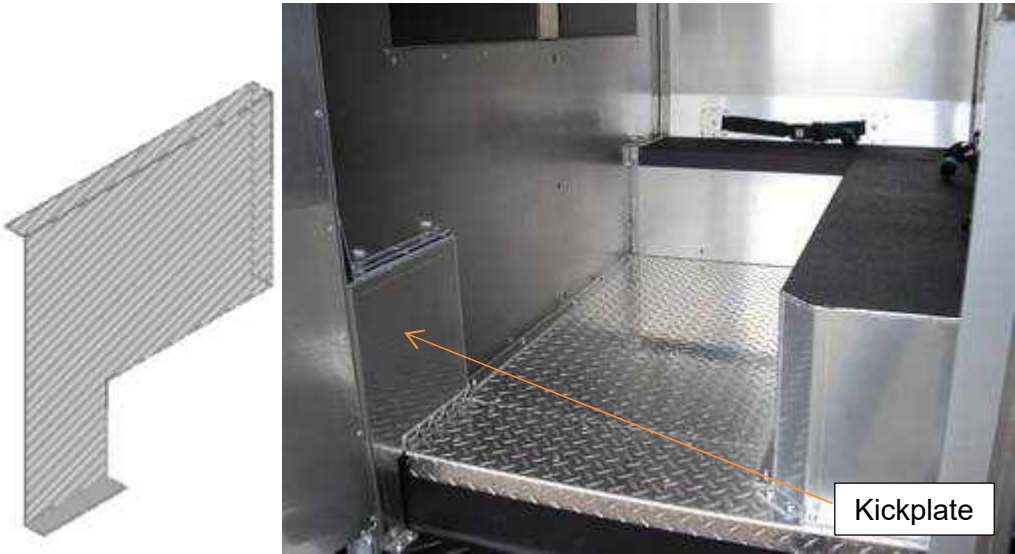
1 Comp LWB gets 4 total w/ 2 down each side

1 Comp RWB gets 4- total w/ 2 down each side



Carriage Bolts go downward through van and It unit floor. The Backing plate washer and nut go underneath the vehicle as shown.

**Step 9:** Install the kickplate towards the rear of the side door under the Passenger side bench using supplied rivets. Fasten to the bench and the van floor.

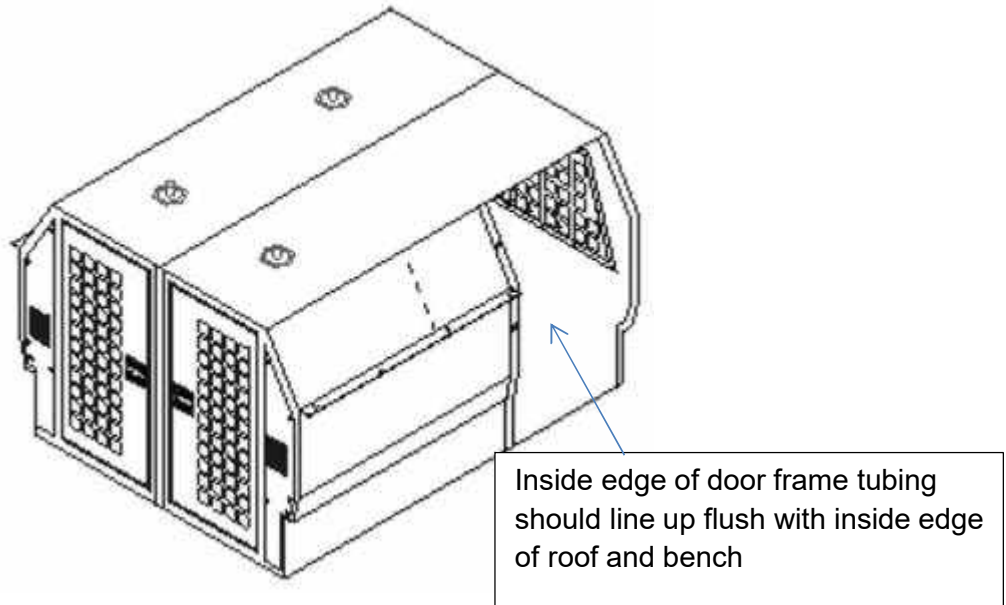


**Step 10:**

**\*FOR 2 COMPARTMENT FRONT TO BACK UNITS SKIP STEPS 10-11\***

**\* FOR 4 COMPARTMENT UNITS REPEAT STEP 10 ON DRIVER SIDE\***

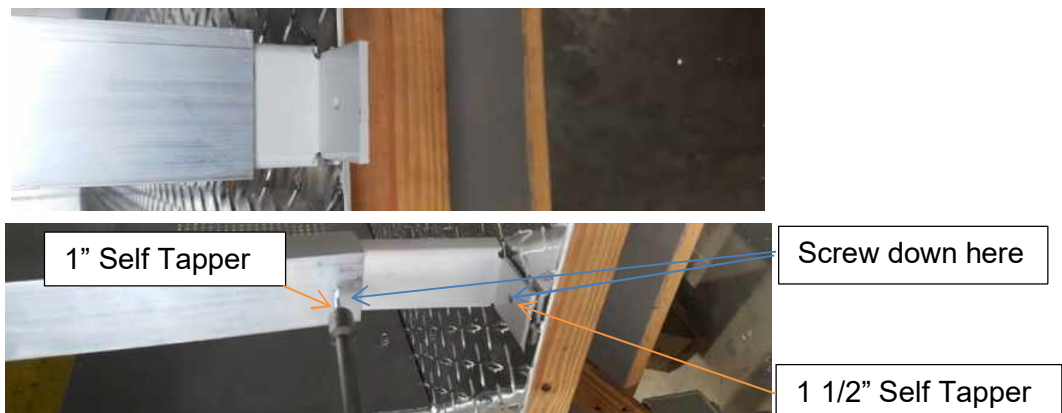
Install the side door frame and door as one unit (Door comes assembled to door frame).



**\*NOTE\* Side door frame has an adjustable leg for the different styles of side door steps that the Transit uses.**



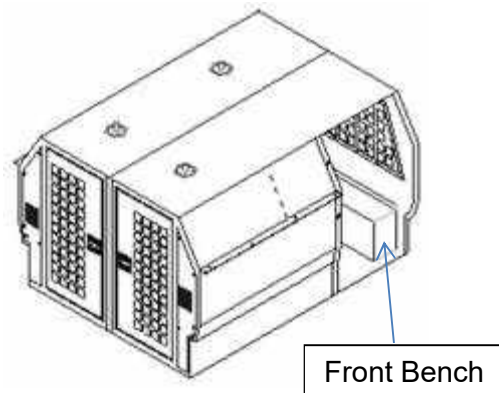
Slide the Adjustable Door Frame Leg into the end of the Door frame on each side of the door way. Adjust the leg in or out according to the depth of the side step.





Once the leg is adjusted to the right level use a supplied Self- Tapping screw to screw the leg and frame together and screw the tab down to the van step.

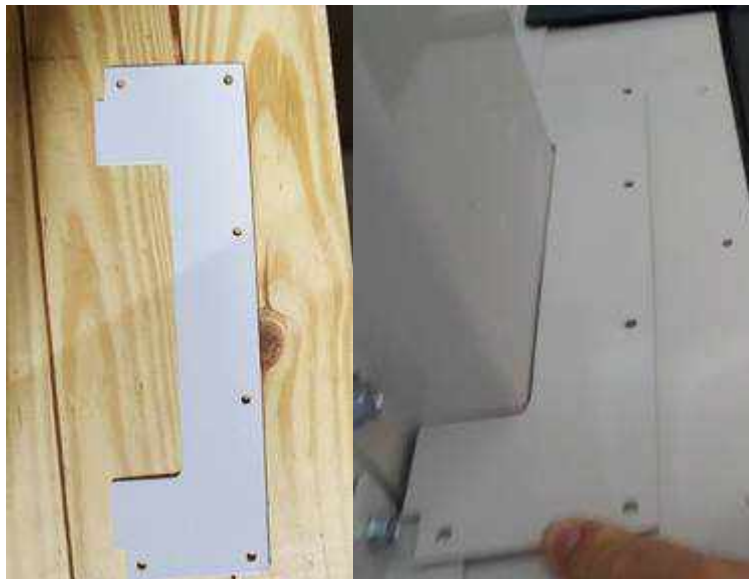
**Step 11:** Install front (3<sup>rd</sup> Compartment) Bench. Front bench lies against the driver's side bench. Using self-tapping screws fasten the bench to the front bulkhead (directly behind driver & passenger front seats) and the floor pan.



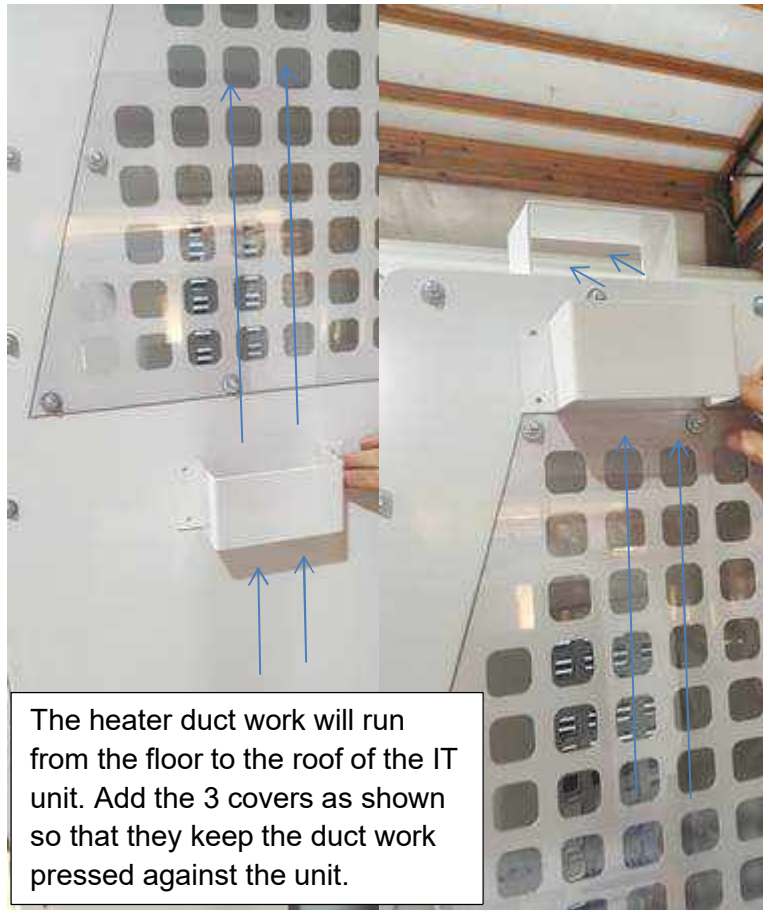
**Step 12:** Using the 1 ½" self-tapping screws, attach rear and side door frames to the floor or side step of side door threshold.

**Step 13:** Installing the light bar cover. The light bar cover is used to fill the gap around the partition and the light bar. It is to be riveted to the partition in the location shown in the following pictures.

**\*Only IT units with a left to right partition need the light bar cover\***



**Step 14:** There are 3 heat duct covers. The following pictures show the approximate location for all 3 covers. The covers are used to hold the heater flex duct to the unit to prevent damage to the flex hose.



**Step 15:** Install the customer supplied pad lock to each pullout escape hatch. The escape hatch is designed for a pad lock with a 1.75" to 2" shackle length with lock in locked position.

**Please ensure the lock is the correct size and can be opened from either side of escape hatch. Also make sure lock can be removed from either side.**



**Step 16:** Install rear and side steps. Both the rear and side step mounts bolt directly to the factory step frames underneath the vehicle. Bolt the steps to frames using the supplied step hardware. On the rear step remove the 2 factory 13mm bolts on the outside of the frame. (Detail 1) Line up the holes (not the slots) in the bracket and then reinstall factory bolts. (Detail 2) There is a support brace that bolts on from the step tube to the mounting bracket. See pictures below.

Detail 1



Detail 2



The side step will mount using 18ea 1 1/2" self-tapping screws. It fits tight against the underbody of the vehicle (Details 3 and 4).

Detail 3



Detail 4



**Step 17: Installation of the console box**

The U shape bracket that comes with the console mounts to the metal brackets on the inside of driver and passenger seat near the front of the seats. The bracket will be flush with the front of the seat brackets. The bracket will install with the flanges facing towards the rear of the van. Screw the bracket down to the metal seat brackets using the supplied 1" self-tapping screws. Next mount the console box to the bracket using the 1" self-tapping screws or  $\frac{3}{4}$  x 1/4 bolts & nuts.

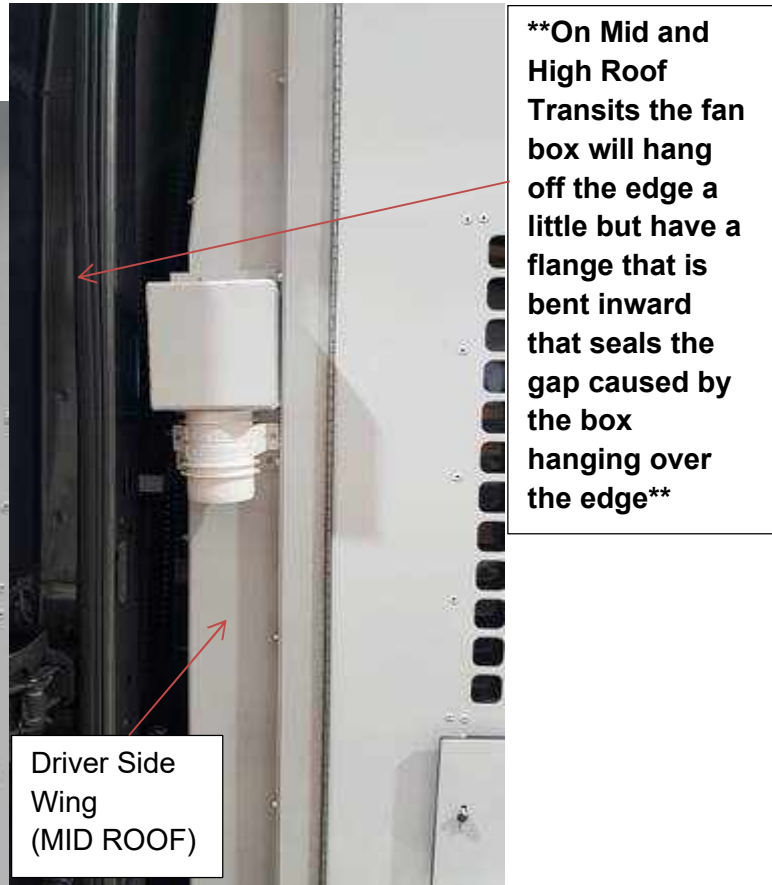
\*MAKE SURE TO SET THE CONSOLE BOX & BRACKET ARE AT THE CORRECT ANGLE AND MARK WHERE THE BRACKET NEEDS TO BE MOUNTED BEFORE SCREWING IT DOWN\*



## Exhaust Fans

When installing exhaust fans to Rear Wings of IT unit: (Rear Wings are the parts with the vent grid pre-punched in them and are located on each side of the rear doors). They are to be installed with the supplied ½" Rivets.

- Place the Fan box over the grid so that it equally covers the grid in wing. Mark and drill the 4 rivet holes using a 13/64" drill bit, unless they are pre-drilled/punched. Rivet the fan box on to the wing.



- Remember these are to pull air out of prisoner transport cage- not to push air in
- When wiring, black is ground and yellow is the wire that needs switched power supplied
- Make sure the air flow arrow is pointed down (to pull air out) and then mount the fan to the box provided

**\*Wording on the exhaust fan housing may be inverted when installed properly, as long as the air flow is pointed away from the box, it has been installed correctly\***



## Installing the Rear Support Braces



The Brackets are in pairs therefore one fits the driver side and one for the passenger side. Place the driver side bracket in place as shown. Transits come with a pre threaded bolt hole on both sides of the van. Use the supplied 3/8-16x3/4 Hex bolt and bolt the bracket to the van but do not tighten yet. Now line the other end of the bracket up with a bolt that is already installed into the rear wing of the IT unit (On some models it may be necessary to drill a .281" hole in the wing where the rear bracket lines up to the wing). Remove the nut and washer from the wing, slide the rear bracket in place and reinstall the washer and nut and tighten both bolts at this time.

Repeat for the Passenger side.