

## Endeavor Tray Hitch Mount Car E-Bike Rack Assembly Instructions

### ⚠️ WARNING!

Improperly installed rack or bikes can fall onto the roadway potentially causing a serious accident resulting in bodily injury. Do not use rack on any vehicle where the rack cannot be properly and safely installed.

Max weight: 80lbs/bike, 160lbs/2 bikes.  
Max bicycle wheelbase 60.  
Max tire width 5.  
Do not exceed.

### CAUTION!

- Only install this rack on vehicles with a 2" receiver hitch (no hitch receiver adapters).
- Always remove the battery(s) from the bikes before transporting.
- Remove bags, basket contents, clip-on pumps, and similar attachments before transporting.
- Never use on trailers, RVs, 5 th Wheelers, towed vehicle, hitch adapters, or front of vehicle.
- Bikes must be secured to the rack using the supplied tie-downs and additional straps if necessary (supplied or not).
- Check regularly during use that all bicycles remain secured and all bolts and pins are tight.
- Bicycle tires should not be placed directly in front of the exhaust pipe(s). Tires can melt.
- Do not use, not safe for Tandem bikes, recumbent bikes, mopeds, motorcycles, gas powered bicycles, or other non-standard bikes.
- Do not block taillights or other vehicle lights with bikes.

⚠️ **WARNING!** If these instructions are not clear enough, you encounter problems, or you have any questions with the installation process, please contact our customer service 213-744-1555, team@retrospec.com, M-F: 8:30-4:00 PST.

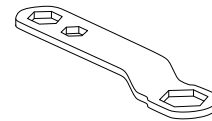
**Keep this manual in a safe location for future reference**

\* Please read instructions entirely before beginning assembly \*

### Step 1: Unpacking Contents

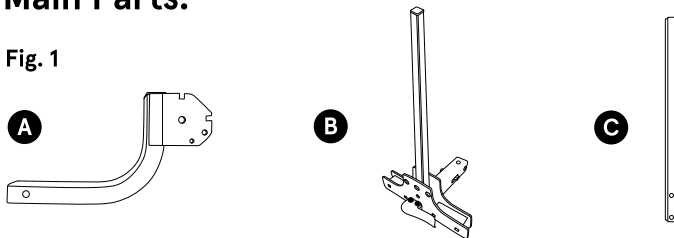
1 – Unpack the contents of your bike carrier, lay the parts out on a flat surface, identify them. (Fig. 1).

**Tools Included –**  
2 x Wrenches: 24mm & 17mm

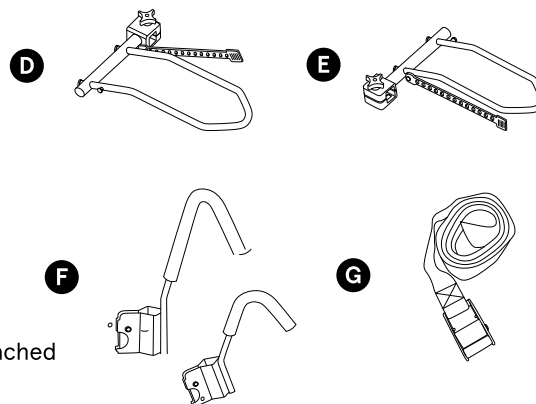


### Main Parts:

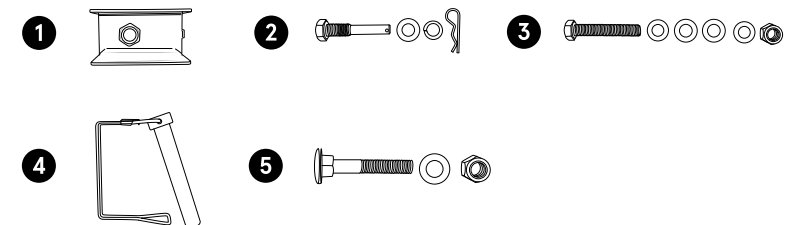
Fig. 1



- A: 1 x Hitch Insert ("L" shaped)
- B: 1 x Main Support Hub (with Lever) & Vertical Mast
- C: 2 x Wheel Tray Beams (horizontal)
- D: 2 x Wheel Trays (face to vehicle) with Rubber Wheel Straps attached
- E: 2 x Wheel Trays (face away from vehicle) with Rubber Wheel Straps attached
- F: 2 x Ratcheting Lock Down Hooks – 1x Long, 1x Short
- G: 1 x Safety Strap



### Hardware:



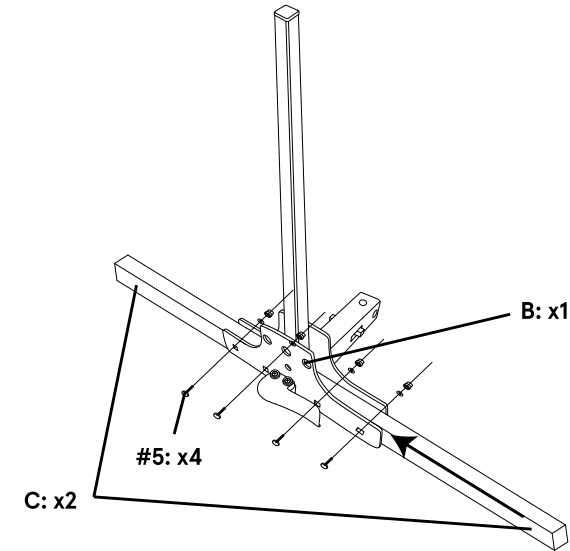
- #1: 1 x Anti-Rattle Adapter
- #2: 1 x 3 1/4" Hitch Bolt half-thread Anti-Rattle Bolt 24mm, 1x flat washer, 1x lock washer & 1x Hairpin Cotter Pin
- #3: 1 x 3 1/2" Pivot Bolt 24mm, 2x flat washers, 1x nylock nut 24mm
- #4: 1 x Snap Pin
- #5: 4 x 2 1/4" Carriage Bolts, flat washers, nylock nuts 17mm

## Step 2: Wheel Tray Beams

1. Insert the C/Wheel Tray Beams (horizontal) into the left and right sides of B/Main Support Hub
2. Align the two holes on each side and install the four #5/Carriage Bolts (2 ¼" x 17mm head) from the front–washers on the nut side. Tighten securely using supplied wrench.

### NOTE -

- A. You will feel some resistance as you thread the Nylock nut onto the bolt – it is normal and just the plastic insert in the nut engaging the bolt threads.
- B. Pull the lever handle a bit for more space to insert the Carriage bolts on the right side.



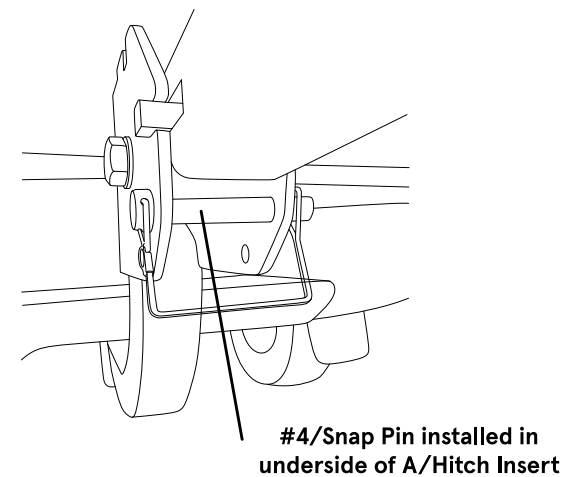
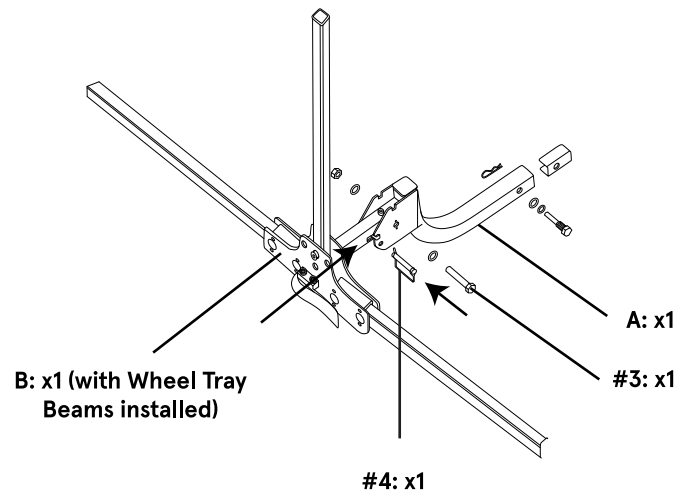
## Step 3: Main Support Hub & Hitch Insert

1. Slide B/Main Support Hub (with Lever) & Vertical Mast (with Wheel Tray Beams installed) into A/Hitch Insert – the “L” shaped piece.
2. Slide ‘B’ into the two notches in ‘A’, align the holes with ‘B’, and insert #3/Pivot Bolt (3 ½ x 24mm head). Flat washer on the bolt side, flat washer on the nut side. Tighten securely using supplied wrenches.

### NOTE -

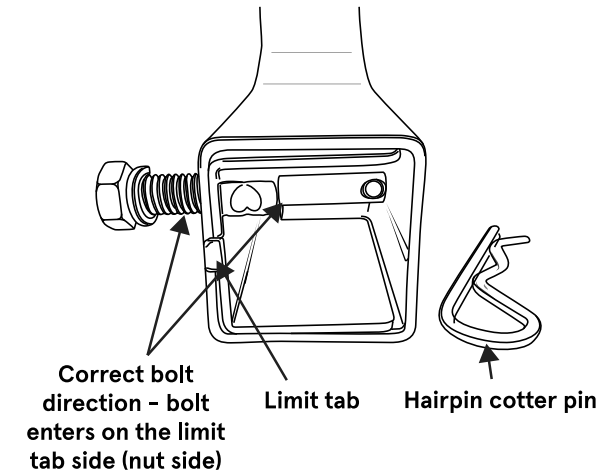
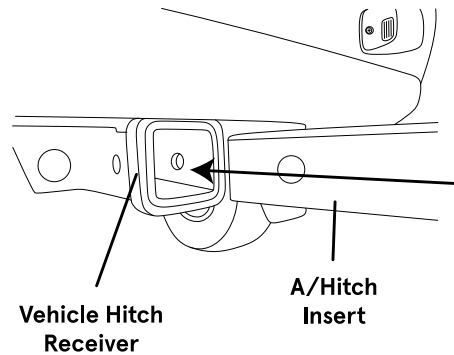
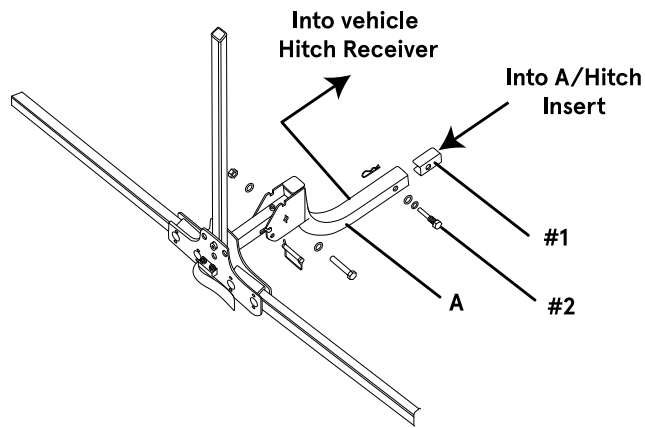
You will feel some resistance as you thread the Nylock nut onto the bolt – it is normal and just the plastic insert in the nut engaging the bolt threads.

3. Install #4 Snap Pin through the holes under ‘B/Main Support Hub’ in A/Hitch Insert.



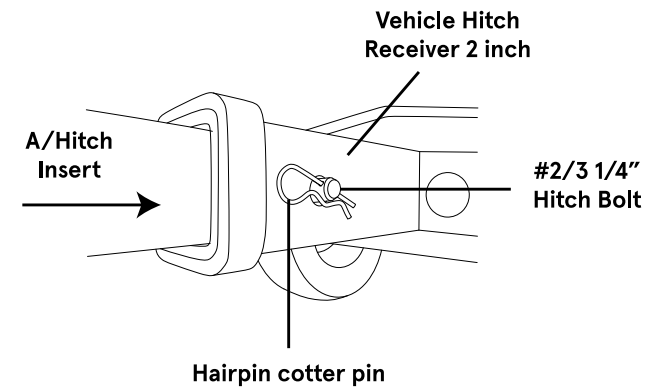
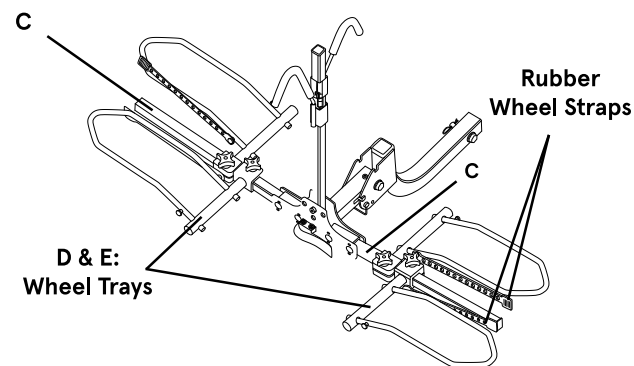
## Step 4: Hitch Insert into Vehicle

1. Insert #1/Anti Rattle Adapter into the A/Hitch Insert ("L" shaped) until it stops at the Limit Tab. Make note of the Limit Tab/threaded side (this is where you'll thread the #2/Hitch Bolt into your vehicle's Receiver in upcoming step).
2. Locate the #2/Hitch Bolt – slide the lock washer on first, then the flat washer.
3. Insert A/Hitch Insert (with #1 installed) into the 2" Hitch Receiver of the vehicle.
4. Line up the holes of the Hitch Insert and Anti-Rattle Adapter with the hole in the Receiver then insert & thread the #2/Hitch Bolt (3 1/4" x 24mm head). Insert/thread the Hitch Pin Bolt from the Limit Tab/threaded side.
5. Tighten securely using included wrench, then insert the Hairpin Cotter Pin in the end hole opposite the bolt head side.



## Step 5: Wheel Trays

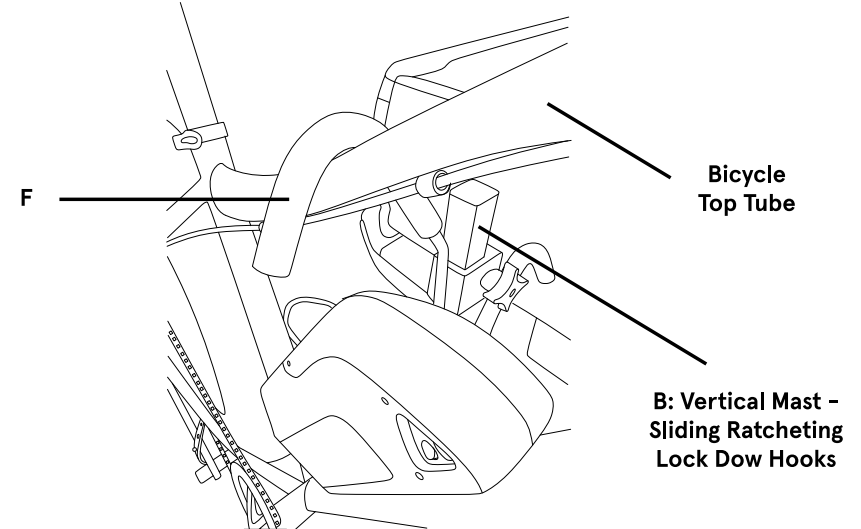
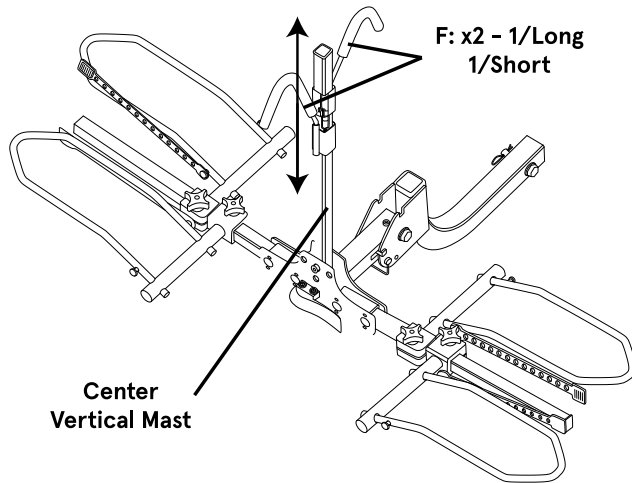
Slide 4 Wheel Trays 2 x 'D' and 2x 'E' (with rubber Wheel Straps attached) onto the horizontal C/Wheel Tray Beams as shown in Fig.XX. Alternate one pair to the left and one pair to the right of each other to allow adjustment for individual bike wheelbases.



## Step 6: Center Vertical Mast & Lock Down Hooks

1. Locate the two F/Ratcheting Lock Down Hooks – 1x Long, 1x Short. Slide them down the Vertical Mast – the hooks ratchet down and secure the frame(s) of the bicycle(s) to the rack.
2. Slide the F/Ratcheting Lock Down Hook(s) firmly onto the bicycle's frame. Pull on the hook to make sure it is securely engaged.

- NOTE -**
- A. Notice that one arm is longer than the other – this allows you to fit different sizes/styles of frames.
  - B. To raise the arms up and away from the frame or remove them from the Vertical Mast, press the button(s) located on the side of the arm bracket to release the hook.



## Step 7: Bikes on the Rack

1. Adjust the Wheel Tray positions to match the wheelbase of your bikes.
2. Tighten the knobs on each Wheel Tray to prevent them from moving out of place or vibrating off while driving.
3. When loading 2 bikes –
  - A. Avoid interference and ease the loading of bikes, load them onto the rack with the handlebars facing in opposite directions from each other.
  - B. Load the inside bike, (closest to the vehicle) first.
4. Lower the Ratcheting Lock Down Hooks onto the frame of each bike, pressing firmly so the bike(s) is secure in the Wheel Trays and on the rack.
5. Secure each bike wheel to the Wheel Tray using the Rubber Wheel Straps attached to the Wheel Trays. Make sure they are secure at their anchor points.

## Step 8: Safety Strap

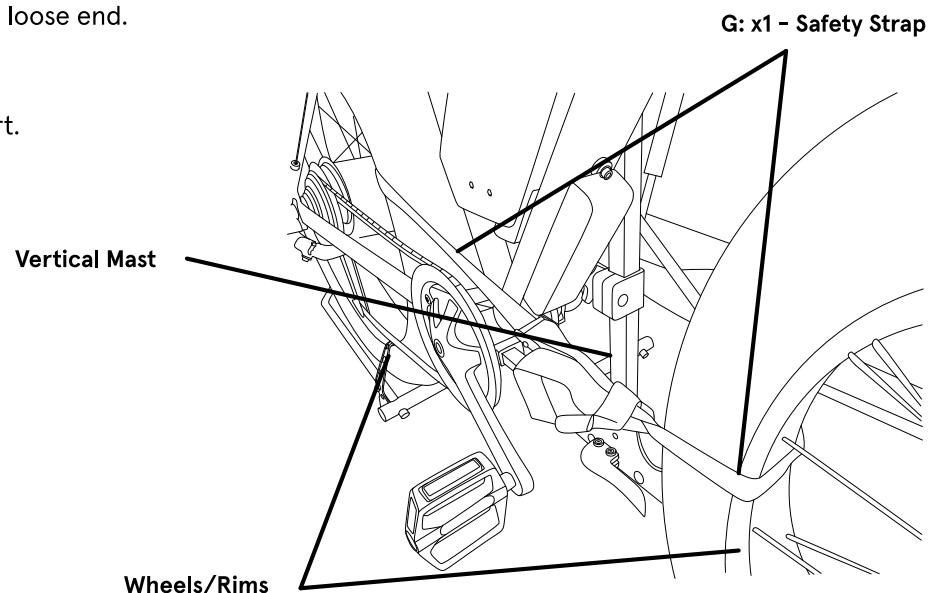
When your bike(s) are properly positioned and firmly secured with the Ratcheting Lock Down Hooks and Wheel Straps, you must install the orange-colored G/Safety Strap to secure the bikes to the Vertical Mast.

1. Thread the Safety Strap through the outside of the bike's frame and around the center Vertical Mast, then through the inside of the bike's frame – making a sorta 'figure-8' pattern.
2. Feed the end of the Safety Strap into the buckle and pull tight firmly. If necessary, tie-off the loose end.

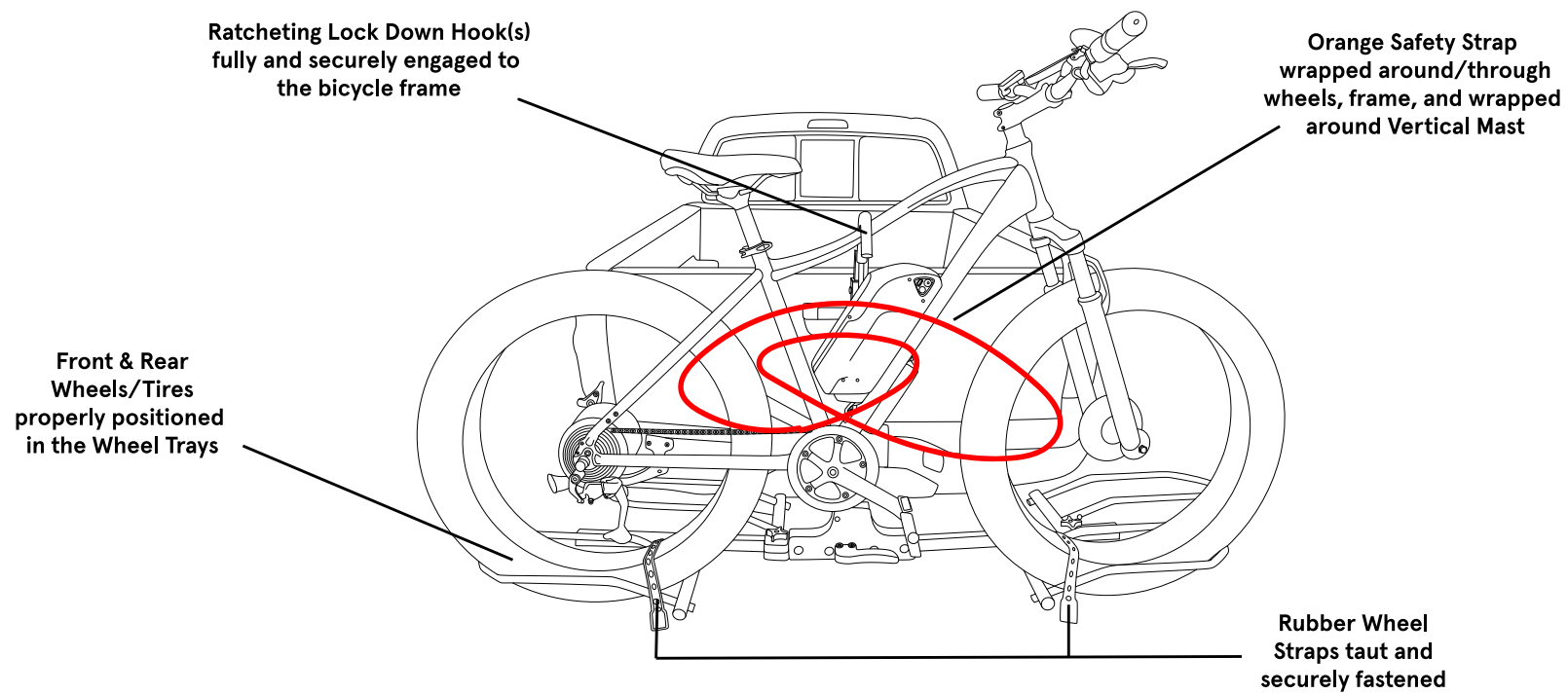
### **⚠ WARNING!**

The orange G/Safety Strap must be used to always secure the bikes to the rack during transport.

**See Lock Down Points Summary below!**



## Lock Down Points Summary



### CAUTION!

- Drive carefully. Drive slowly over bumps. Do not drive off-road.
- Do not use the rack if any parts are missing. Contact Retrospec for replacement parts.
- Bikes should never extend beyond the sides of the vehicle.
- Stow carry arms or remove the rack when not in use.
- Never mount the rack on the front of the vehicle. Mounting the rack on the front of the vehicle can obstruct the headlights, directional lamps, and your forward visibility creating an unsafe driving condition.
- Be aware that the rear of the vehicle is much longer when the rack is installed and needs additional clearance when moving in reverse or entering/exiting driveways.
- This rack is only intended to be installed on a vehicle with a receiver hitch that is attached to the vehicle's frame.

## Step 9: Use

### Loading Heavy Bikes:

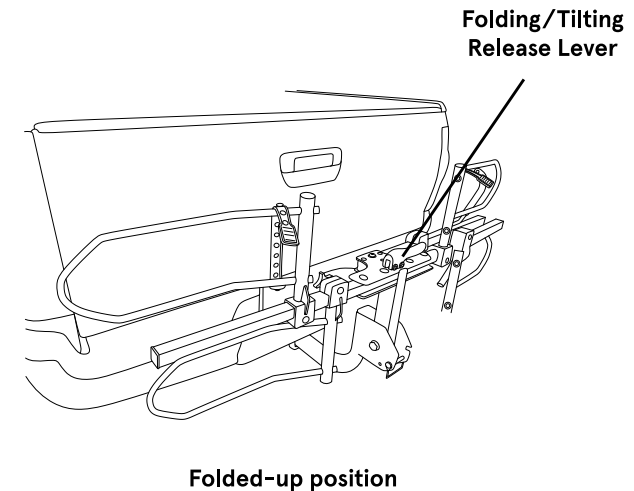
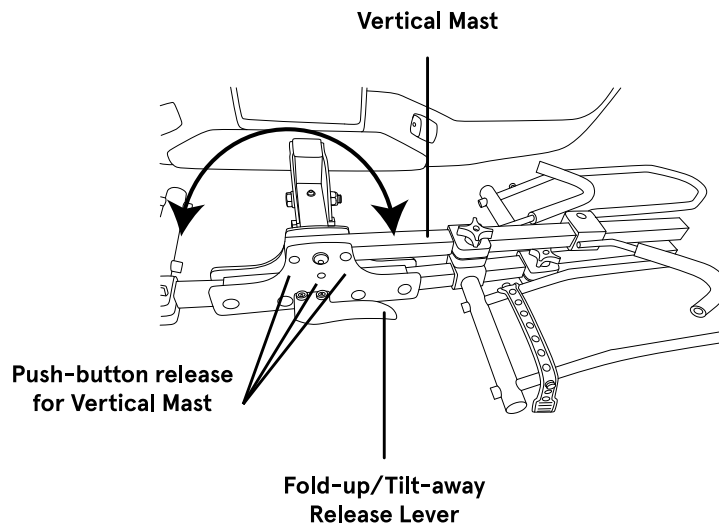
1. Load the inside bike (closest to the vehicle) first. When loading the inside bike, first lower the Vertical Mast flat (parallel to the Wheel Trays).
  - A. Then lift the front wheel into one tray, then swing and lift the rear wheel into the rear tray.
  - B. Return the Vertical Mast to its vertical position – raise and lock into place.
  - C. Follow Step 7 to continue securing the bike to the Vertical Mast and Wheel Trays.

### Fold-Up Feature:

1. Reduce your vehicle's footprint. The Fold-Up feature makes it easier to park and fit in tight spaces,
  - A. Fold-down the B/Vertical Mast 90 degrees either left or right by pushing the center Push Button on the B/Support Hub. Make sure it locks into place – you will hear the click of the button locking into place on the left or right side.
  - B. Pull the Release Lever, lift up and push towards the vehicle – you should hear it lock into place. Move the rack back-and-forth to make sure it is full.

### CAUTION!

- Make sure the Vertical Mast is locked down 90 degrees into place.
- When [re]mounting bikes to the rack, make sure the Vertical Mast is securely vertically locked into place.
- Make sure the Ratcheting Lock Down Hooks are secure or removed before driving the vehicle
- Make sure the Wheel Trays – D & E- are tight/secure.



# Retrospec Tray Hitch Mount Car E-Bike Rack Carrier Limited Warranty

Retrospec grants the original purchaser of a new Retrospec accessory hitch carrier a non-transferable limited lifetime warranty subject to the limitations, terms and conditions stipulated below.

## Terms & Conditions:

- The product is warranted against defects in the materials and workmanship for the useful life cycle of the product. All products have a useful life cycle. Once the product has reached the end of its lifecycle it will no longer be eligible for warranty replacement or adjustments.
- This warranty applies to the original retail purchaser and is non-transferable. When contacting us for a warranty issue an original proof of purchase is required clearly identifying the product.
- The product must be returned to Retrospec for inspection along with copies of the original proof of purchase. The owner of the product is responsible for shipping costs.
- Should Retrospec determine that the product or any of its components are covered by this warranty, Retrospec's determination of the product's eligibility for warranty repair or replacement is final and binding.
- If, at the time of replacement, Retrospec does not have available the same product, the consumer may be offered a substitute product of equal or better value.

## Items Not Covered By The Limited Warranty:

- Damage due to improper assembly
- Damage due to mounting the rack on the back of a trailer, Recreational vehicles, or to bumper hitch adapters.
- Normal wear and tear
- Damage due to lack of maintenance
- Damage due to installation of non-original parts, components, or accessories
- Damage due to loading of the bicycle carrier with non-standard bicycles, items that are not standard bicycles, or any product that exceeds the stated weight capacity of the bicycle carrier.
- Damage or failure due to improper use, accidents, neglect, or failure to follow the instructions provided with the product.
- The paint and finish of the bicycle carrier.
- Damage to bicycles or automobile
- Damage or injury due to the rack or bicycles falling from the car.

This warranty is expressly in lieu of all other warranties. Any implied warranties of merchantability or fitness for a particular purpose created hereby are limited to the same duration as the express warranty herein. This warranty is void in its entirety if the product is modified in any manner. All provisions in this limited warranty are separate and severable. If any provision is held invalid and unenforceable, such determination shall not affect the validity or enforceability of the other provisions hereof. Except to the extent specifically prohibited by law, Retrospec shall in no way be responsible for direct, incidental or consequential damages, including, without limitation, damages for personal injury, property damage, or economic losses whether based on contract, warranty, negligence, product liability, or any other theory.