# V-Lectric<sup>™</sup> VFR



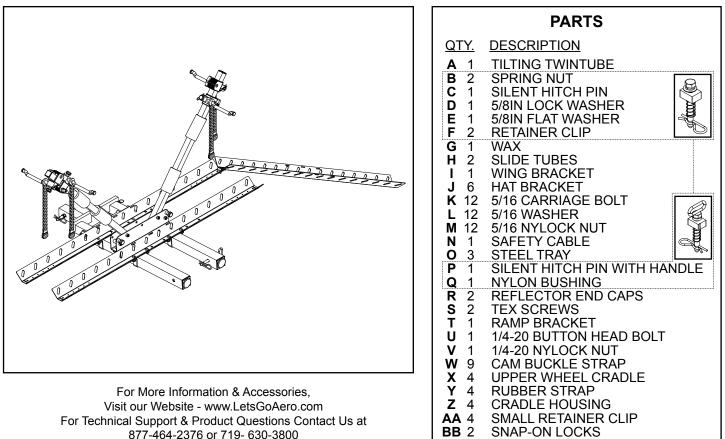
Folding 2-Bike eMotorbike Carrier

#B02394

# **PRODUCT MANUAL**

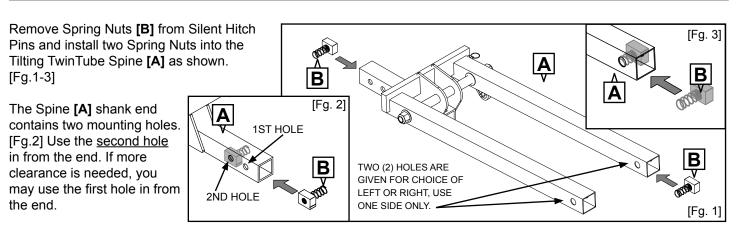
#### Installation & Safe Use Operation

Maximum Weight Rating: 150 lbs per bike; Max Tire Size: 4.5inches. Always adhere to vehicle & hitch weight ratings.



Email: Support@LetsGoAero.com

### STEP 1



**CC** 1

LOCKING CABLE

#### STEP 2 REQUIRED TOOL: 7/8" WRENCH

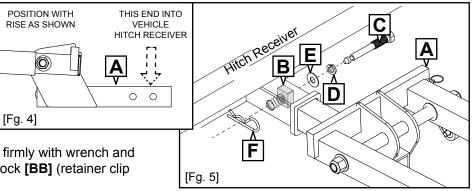
Slide the TwinTube **[A]** shank into the receiver with the 3 inch rise positioned <u>above</u> the hitch as shown. Align the mounting hole with Spring Nut **[B]** in the receiver hitch. [Fg.4]

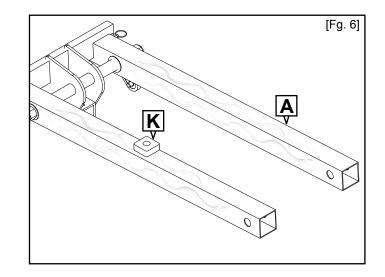
Insert the Silent Hitch Pin **[C]** with a 5/8in Lock Washer **[D]** & 5/8in Flat Washer **[E]** into the receiver hole and

thread through the Spring Nut **[B]**. Tighten firmly with wrench and secure with Retainer Clip **[F]** or Snap-on Lock **[BB]** (retainer clip shown). [Fg. 5]

#### **STEP 3**

Rub all four sides of the TwinTube **[A]** Spine with Wax **[G]**. [Fg. 6]

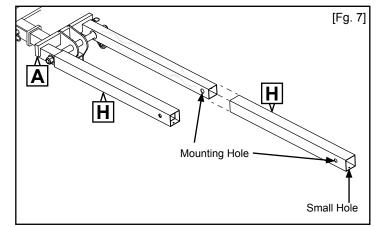




#### STEP 4

Insert the Slide Tubes **[H]** all the way onto the fixed tubes of the TwinTube **[A]** Spine. [Fg. 7]

Be sure that the mounting holes on the TwinTube **[A]** and Slide Tubes **[H]** align and that the small holes at the end of the tubes are facing down.



#### STEP 5 REQUIRED TOOL: 1/2" WRENCH

Set the Wing Bracket **[I]** on top of the Slide Tubes **[H]**. [Fg. 8]

Place two (2) Hat Brackets **[J]** underneath the Slide Tubes **[H]** so the Hat Brackets wrap around the Slide Tubes and align with the square holes located along the Wing Bracket **[I]** as shown.

Using two (2) 5/16in Carriage Bolts **[K]**, two (2) 5/16in Washers **[L]**, and two (2) 5/16in Nylock Nuts **[M]** per Hat Bracket **[J]**, connect the Hat Brackets to the Wing **[I]**. [Fg. 9]

**IMPORTANT:** The Safety Cable **[N]** must be placed on the interior of the Slide Tube **[H]**.

**TIP!:** The Wings are on the Wing Bracket **[I]** are friction fit and can moved up and down for better access to bolt locations.

Hand tighten only at this time, further adjustment will be required before final assembly.

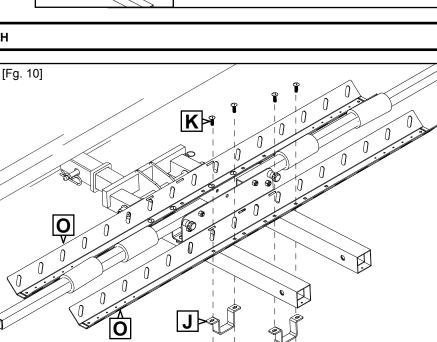
#### STEP 6 REQUIRED TOOL: 1/2" WRENCH

Place one (1) Steel Tray **[O]** on either side of the Wing Bracket **[I]**. [Fg. 10]

Two sets of square holes are provided so the Steel Trays can be placed either centered on the Slide Tubes or offset if needed for greater bike fit (user choice). [Fg. 11-12]. The offset position is best when carrying two bikes of same size.

In the same manner as STEP 5, use two (2) 5/16in Carriage Bolts **[K]**, two (2) 5/16in Washers **[L]**, and two (2) 5/16in Nylock Nuts **[M]** per Hat Bracket **[J]** to connect each of the two Steel Trays **[O]** to the Slide Tubes **[H]**.

Hand tighten only at this time, further adjustment will be required before final assembly.

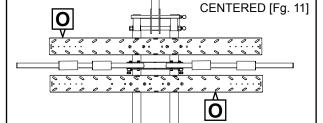


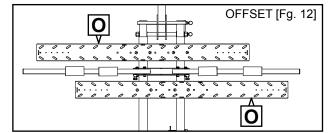
[Fg. 8]

[Fg. 9]

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### STEP 7

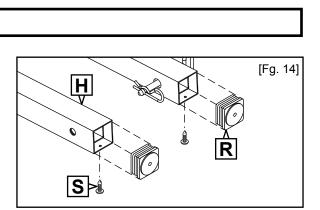
Insert the Silent Hitch Pin with Handle **[P]** and Nylon Bushing **[Q]** through the end with Spring Nut **[B]** installed in STEP 1, engage threads, tighten firmly and secure with Retainer Clip **[F]** or Snap-on Lock **[BB]**. [Fg.13]

**IMPORTANT!:** The Silent Hitch Pin with Handle **[P]** controls the slide-out function of the platform. Once installation is complete, the Silent Hitch Pin with Handle may be removed in order to slide the carrier rearward for rear hatch access when vehicle is stationary.

#### STEP 8

Install the Reflector End Caps **[R]** over both ends of each Slide Tube **[H]** and secure with one (1) Tex Screw **[S]** each. [Fg.14]

**TIP:** Reflector End Caps **[R]** are a tight fit. Tap corners (away from reflectors to avoid damage) if needed.



[Fg. 13]

#### STEP 9

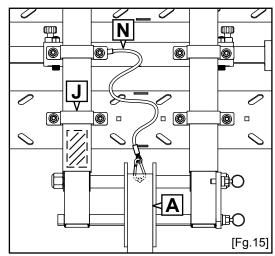
From underneath the carrier, connect the quick-link end of the Safety Cable **[N]** to the hole in the top of shank of the TwinTube **[A]**. [Fg.15]

### A WARNING:

Never operate the carrier's slide-out function without confirming the Safety Cable **[R]** is fully secured. Failure to follow proper procedures may result in bodily injury and property damage.

With the Hat Brackets **[J]** from STEP 5 & 6 still loosely secured, adjust the Wing Bracket **[I]** and Steel Trays **[O]** back and forth along the Slide Tubes **[H]** to adjust for required bike application(s) and vehicle clearances. **Tighten the bolts on the Hat Brackets [J] firmly once determined.** 

**IMPORTANT:** The Wing Bracket **[I]** and Steel Trays **[O]** must be positioned forward of the Handle Silent Hitch Pin location (close to vehicle). Be sure to allow room for the Pin handle to turn and operate as required.



## WARNING:

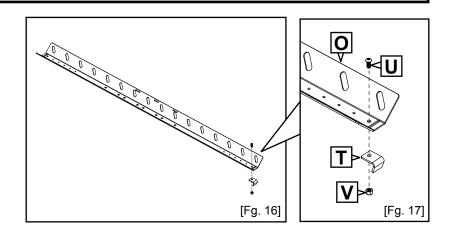


DO NOT ALLOW HAT BRACKETS [J] TO OVERLAP THE WARNING LABEL LOCATED ON

**THE SLIDE TUBE.** Failure to do so may permit over-extension of the Safety Cable allowing the Slide Tubes to come off and cause damage or personal injury.

## STEP 10

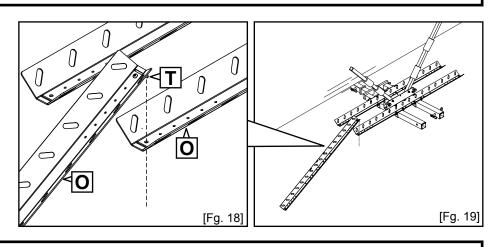
To make the Ramp, secure the Ramp Bracket **[T]** to the bottom of the remaining Steel Tray **[O]** using (1) 1/4-20 Button head Bolt **[U]** and (1) Nylock Nut **[V]** as shown. [Fg. 16-17]



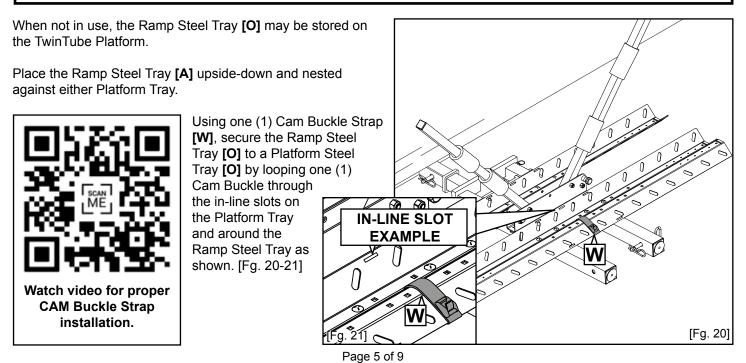
#### **RAMP USE & STORAGE**

### RAMP USE

For bicycle loading & unloading, install the Ramp by hooking the Ramp Bracket **[T]** end onto the slotted end of the chosen Steel Tray **[O]** in use. [Fg. 18-19]



#### RAMP STORAGE



# The VFR offers TWO different bike security options. Choose any attachment combination that works best for each bike to be mounted.

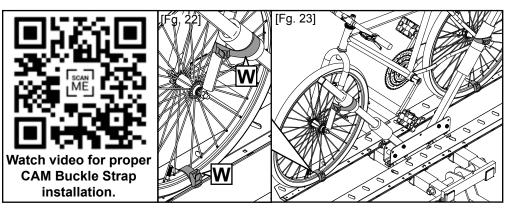
#### **CAM BUCKLE STRAP ATTACHMENT**

## **BICYCLE MOUNTING - CAM BUCKLE SECURITY**

Roll the bicycle up the Ramp Tray and onto the platform.

Secure the front and rear forks of the bicycle to the VFR Wings wrapping the Cam Buckle Straps [W] around the foam bumpers of the Wings as shown.

Secure the bottom of each tire using the Cam Buckle Straps **[W]** as shown. [Fg. 22-23]



Secure using four straps per bike, or four points of connection using both straps and wheel cradles.

**NOTE:** The lower Straps **[W]** can be run either through the slots on the Tray or wrapped all the way around the Tray depending on the bicycle tire width.

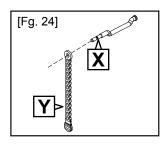
TIP: The Wing angle is adjustable and can be changed to match bikes of varying sizes.

#### **CRADLE INSTALLATION & MOUNTING**

## **CRADLE INSTALL: STEP 1**

Slide the round end of one (1) Rubber Strap [Y] onto each Upper Wheel Cradle [X]. [Fg. 24]

**NOTE:** Be sure to slide the Rubber Straps **[Y]** all the way onto the cradles so that it tightly rests *over* the plastic coating of the Wheel Cradle **[X]**.

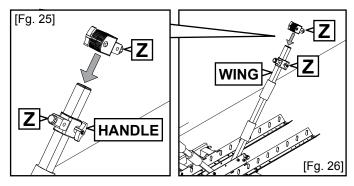


## CRADLE INSTALL: STEP 2

Loosen handles on each Cradle Housing **[Z]**. Slide one (1) Cradle Housings **[Z]** per bike onto each 'Wing' above the foam bumpers (setup for two bikes shown). **[Fg. 25]** 

**NOTE:** The Handle Tightener located on each Cradle Housing **[Z] MUST** rest along the wing pointed either forward or backward of the vehicle (not to the side). [Fg. 26]

**NOTE:** For easier adjust-ability with two bike setups, position the Cradle Housing so the Handles alternate direction as shown



Re-tighten each Cradle Housing handle to secure in place on the Wing. [Fg. 25] Repeat this step for the second Wing.

## **CRADLE INSTALL: STEP 3**

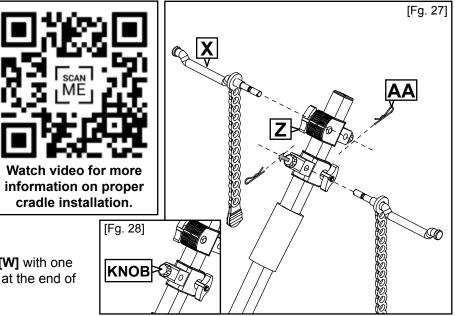
Apply Wax **[G]** to the metal ends of the Upper Wheel Cradles **[W]**.

Pull outward the Knobs (don't twist) located on the Cradle Housing [Z] installed and insert one (1) Upper Wheel Cradle [W] with Rubber Strap [Y] assembly. [Fg. 27-28]

For two bikes, face the Upper Wheel Cradles in <u>opposite</u> directions as shown.

**NOTE:** Be sure the groove in the Cradle **[W]** is fully seated in the Housing **[Z]** by giving each one a light 'tug'.

Secure the end of each Upper Wheel Cradle **[W]** with one (1) Small Retainer Clip **[AA]** through the hole at the end of each Cradle.



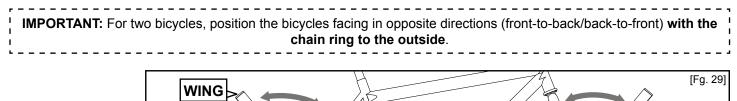
## **OPERATION: BICYCLE MOUNTING WITH CRADLES**

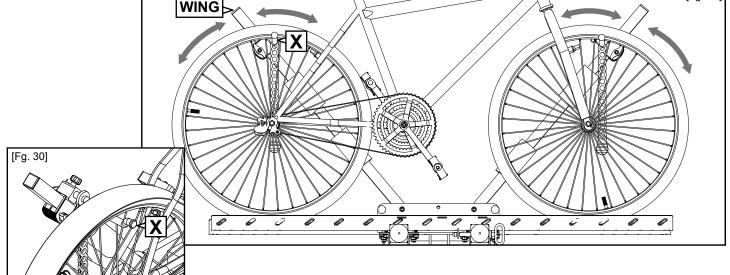
Roll the bike up the Ramp Tray and onto the platform.

Adjust the angle of the Wings to point towards the apex of the bicycle tire (this does not need to be exact).

**NOTE:** When using the Upper Wheel Cradles it is easier to first lean the bicycle slightly away from the 'Wings' as the bicycle moves up the Ramp. Once the bike is fully centered on the platform, lean the bike back onto the Upper Wheel Cradles **[W]** with the chain rings to the outside. [Fg. 29 & 30]

Adjust the Foam Bumpers located on the Wings to protect the frame of the bicycle.



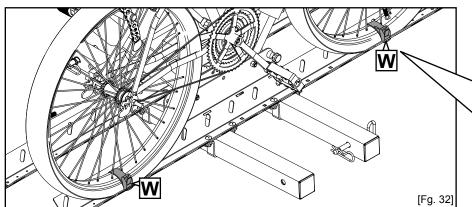


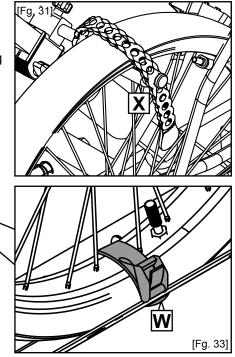
Secure Rubber Straps [Y] onto Upper Wheel Cradles [X] using the tightest hole available. [Fg. 31]

Secure the bottom of each tire using the supplied Cam Buckle Straps **[G]** as shown. [Fg. 32-33]

**IMPORTANT!:** Each bike must be secured with four points of connection using Wheel Cradles **[X]** and Cam Buckle Straps **[W]**.

**NOTE:** The lower Straps **[G]** can be run either through the slots on the Tray or wrapped all the way around the tray depending on the bicycle tire width.





### **OPERATION - FOLDING WINGS & CARRIER**

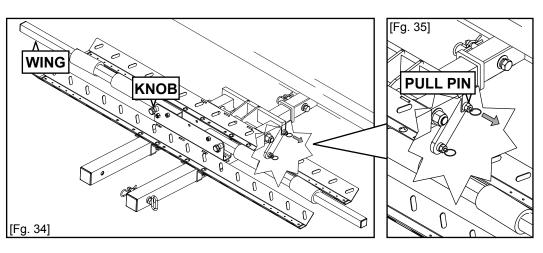
With bikes removed, fold the VFR Wings down and lock in to place by pulling the 'Knob' on the Wing Bracket **[I]** outward. Give the Wings a 'tug' to confirm they are locked into place.

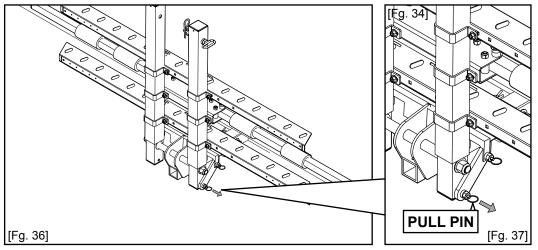
Pull the upper 'Pull Pin' out and tilt the rack up towards the vehicle. [Fg. 34-35]

With the VFR tilted, pull the lower 'Pull Pin' out and lock the VFR into place. [Fg. 36-37]

**IMPORTANT!:** Always give the rack a 'tug' to confirm it is fully locked into place.

Reverse the above process to fold the VFR down.

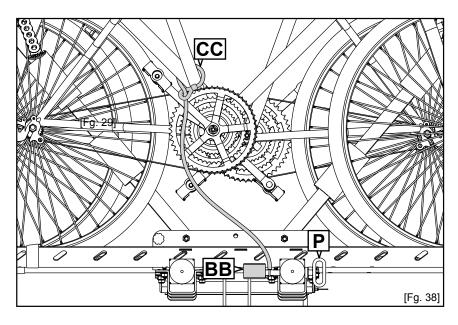




## LOCKING BICYCLES

Wrap the Locking Cable **[CC]** around the bicycle(s) frame and slide the small loop through the large loop on the Cable to create a closed loop around the bicycle.

Secure the the <u>small loop</u> of Cable **[CC]** onto the Silent Hitch Pin with Handle **[P]** and apply the Snap-on Lock **[BB]**. [Fg. 38]



## **CARRIER MAINTENANCE**

• Periodically apply WD40 or another similar lubricating product to the round inside of the Cradle Housing and actuate the Knobs 3-4 times allow the lubricating product to reach down into the interior of the Knob assembly [Fg. 28] (approximately once a year depending on use).

• Periodically reapply Wax **[G]** to the Tilting Twintube **[A]** [Fg. 6] and the metal portions of the Upper Wheel Cradles **[W]** (approximately once a year depending on use).

• Wash and wipe down the carrier when dirty (especially when traveling over salted roads).

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## A WARNING:

Be sure the Silent Hitch Pin is full tightened on the hitch and that the Silent Hitch Pin with Handle is snug before transit. Always check and confirm all bolts and connections are tight and fully secure before each transit. Always confirm the 'Pull Pins' used for the tilt operation are fully seated and the rack is locked in place in either down or up position. Failure to follow proper installation and equipment checks before transit may result in damage to carrier, damage to property, bodily injury or death.

## A WARNING:

Always secure each bicycle with all four connections points (two Upper Wheel Cradles and/or Cam Buckle Straps). Do not operate the vehicle unless all connection points are tight and secured. Failure to follow bicycle mounting procedure may result in damage to carrier, damage to property, bodily injury or death.

## WARRANTY:

Let's Go Aero Car Rack Systems Three-Year Limited Warranty For information and to register on-line at www.LetsGoAero.com/warranty