

# VIPER

**1/8TH SCALE 4WD READY-TO-RUN ELECTRIC SAND RAIL BUGGY  
BRUSHED OR BRUSHLESS POWERED**



**COMPONENT AND UPGRADE PARTS LISTING**



[www.ftx-rc.com](http://www.ftx-rc.com)





## Viper 1/8th RTR Electric Sand Rail Buggy

Congratulations on your purchase of the FTX 'Viper' electric sand rail buggy.

This 1/8th scale model has been factory assembled and all electrics installed and set up to make it the easiest possible introduction to the sport of driving RC cars.



**WARNING:** Read the ENTIRE instruction manual to become familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product, personal property and cause serious injury.

This is NOT a toy and must be operated with caution and common sense. Failure to operate this product in a safe and responsible manner could result in damage, injury or damage to other property.

This product is not intended for use by children without direct adult supervision.

It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, set-up or use, in order to operate correctly and avoid damage or serious injury.

### Safety Precautions and Warnings

- You are responsible for operating this model such that it does not endanger yourself and others, or result in damage to the product or the property of others.
- This model is controlled by a radio which is possibly subject to interference which can cause momentary loss of control so it is advisable to always keep a safe distance to avoid collisions or injury.
- Age Recommendation: 14 years or over. This is not a toy. This product is not intended for use by children without direct adult supervision.

### Carefully follow these directions and warnings, plus those of any additional equipment associated with the use of this model, chargers, ESC and motors, radio etc.

- Never operate your model with low transmitter batteries.
- Always operate your model in an open area away from cars, traffic or people.
- Never operate the model in the street or in populated areas.
- Always keep the vehicle in direct line of sight, you cannot control what you cannot see!
- Keep all chemicals, small parts and anything electrical out of the reach of children.
- Avoid water exposure, moisture causes damage to electronics and may result in the loss of control or permanent damage.
- Avoid injury from high speed rotating parts, gears and axles etc.
- Novices should seek advice from more experienced people to operate the model correctly and meet its performance potential.
- Exercise caution when using tools and sharp instruments.
- Do not put fingers or any objects inside rotating and moving parts.
- Take care when carrying out repairs or maintenance as some parts may be sharp.
- Do NOT touch equipment such as the motor, electronic speed control and battery, immediately after using your model because they can generate high temperatures.
- Always turn on your transmitter before you turn on the receiver in the car. Always turn off the receiver before turning your transmitter off.
- Keep the wheels of the model off the ground, and keep your hands away from the wheels when checking the operation of the radio equipment.
- Prolong motor life by preventing overheat conditions. Undue motor wear can result from frequent turns, rapid change of direction forwards/backwards, continuous stop/starts, pushing/pulling objects, driving in deep sand and tall grass, or driving continuously up hill.

### Contents:

Viper 1/8th RTR Electric Sand Rail Buggy

Transmitter: 2.4ghz steerwheel

Charger: Input Mains 240v AC, Output 1.0A DC

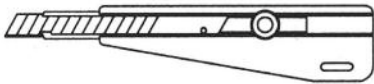
Battery: 11.1V 2200mAh LiPO (unless Ready Set version)

Aerial Tube

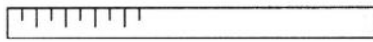


## Required equipment for operation

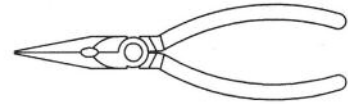
### 1. Tools required for building and maintenance:



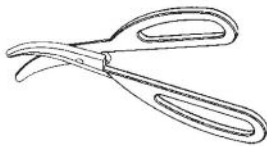
● Hobby knife



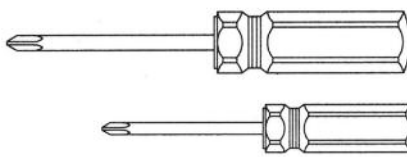
● Precision ruler



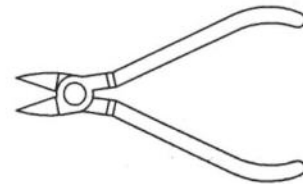
● Needle nose pliers



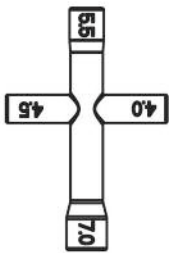
● Lexan scissors



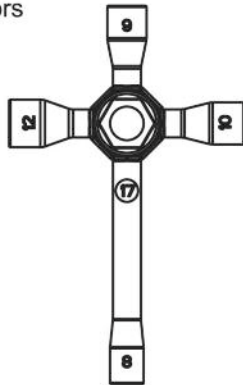
● Flat and Philips screwdriver



● Wire cutters



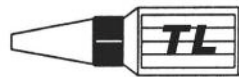
● Cross wrench



● Cross wrench



● CA glue & rubber cement



● Thread locking compound



1. 5mm



2. 0mm



2. 5mm

● Hex wrench

## WARNING!

Do not use a power screw driver to install screws into nylon or plastic materials. The fast locking may heat up the screws being installed that may break the molded parts or strip the threads during installation.

### 2. Additional items needed for operation:



3 pcs AA Alkaline batteries for transmitter

## IMPORTANT!

**Check that all screws and nuts are tight before each use.**



## FAMILIARIZING YOURSELF WITH YOUR 2.4GHz RADIO SYSTEM

Your car is equipped with the new 2.4GHz radio system. Please read and understand all instructions below before operating.



<b>A: Steering Wheel</b>	<b>1: Steering Trim</b>	<b>4: Power Switch</b>	<b>7: Throttle Reverse</b>
<b>B: Trigger</b>	<b>2: Steering Reverse</b>	<b>5: Steering Dual Rate</b>	<b>8: Green Indicator</b>
<b>C: Battery Case</b>	<b>3: Red Indicator</b>	<b>6: Throttle Trim</b>	<b>9: Bind(Pair) button</b>

**Steering Wheel:** Proportionally operates the models right and left steering control.

**Battery Case:** Requires 3pcs of AA size batteries.

**Power Switch:** Used to turn the radio controller ON/OFF

**Steering Dual Rate Dial:** Allows you to change the amount of steering servo travel compared to the amount of physical movement of the steering wheel.

**Throttle /Steering Trims:** Used to adjust the center trim of the throttle/steering channel.

**Steering Reverse:** Allows you to electronically switch the direction of steering servo travel.

For example, if you move the steering wheel to the right and the steering servo moves to the left, flip the Steering Reverse Switch to make the steering servo move to the left.

**Throttle Reverse :** Allows you to electronically switch the direction that the motor operates in relation to the throttle trigger. For example, if you pull the throttle trigger to accelerate forward, but the model goes in reverse,

flip the Throttle Reverse Switch to make the model accelerate forward.

**Trigger:** Controls the speed and braking ability of your car. Pull it to accelerate, release it to decelerate, and push it to brake. Pushing it a second time activates the reverse feature.

**Indicators:** Shows battery power level. Green indicator flashing means battery power is low.

If both red and green indicators are flashing then the radio controller battery is too low to control the model and you must replace with fresh batteries immediately.

**Bind(Pair) button:** It is used to bind your 2.4GHz radio system.

### BATTERY INSTALLATION



- 1) Slide the battery cover as shown and install 3pcs of AA size batteries, positioning the polarity as indicated.
- 2) Replace the battery cover after batteries are installed.

**NOTES:**

- Use batteries of same type.
- Remove batteries from the case if not in use.
- Always check the battery power.
- Dispose of exhausted batteries properly.



## TO BIND THE RECEIVER TO THE RADIO CONTROLLER

Before running, make sure that the radio controller is bound with the receiver. This has been done at the factory, but if the model is not responding to the controller, it is possible that the controller and receiver are not bound, and you must perform the binding procedure following the instructions below.

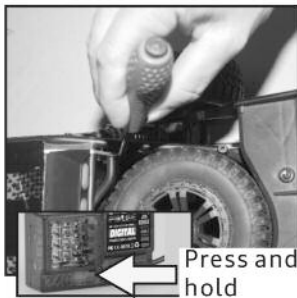


BIND BUTTON ON RECEIVER

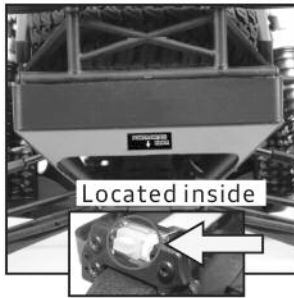


- 1 • Channel 1 to steering servo
- 2 • Channel 2 to ESC (or throttle servo)

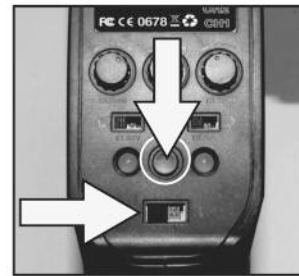
Press the BIND button a second time to activate FAIL SAFE feature by the time the binding process is completed.



Press and hold

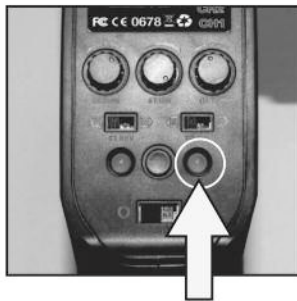


Located inside

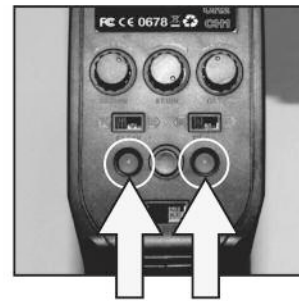


1) Press and hold the Bind Button on the receiver by using a screwdriver as shown, while turning on the power switch on the car. (The power switch is located on the rear indicated by label.)

2) Hold the Bind(Pair) key and switch on the power on the radio controller. You must hold the Bind(Pair) within 5 seconds of turning on the receiver on the car.



3) The green indicator should flash, meaning that the binding process is being performed.



4) Once both red and green indicator are lit and not flashing, then your receiver is bound to your radio controller. The binding process is complete.

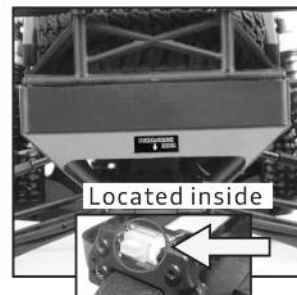
## RUNNING YOUR CAR

### 1 TURN ON THE RADIO CONTROLLER

### 2 TURN ON THE RECEIVER ON YOUR CAR



Power Switch



Located inside



#### NOTES:

- Before using your car, make sure the radio controller has sufficient battery power. If the battery power is too low it can lead to the loss of control of your car.
- Always turn on the remote controller FIRST, and then the receiver.

### 3 CHECK STEERING PERFORMANCE

- Ensure good steering performance.



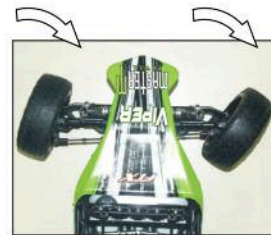
1) To keep the car running in a straight line, do not move the control wheel. (Keep it centered)



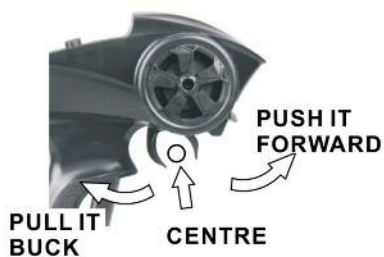
2) Turn the control wheel left to allow your vehicle to turn left.



3) Turn the control wheel right to allow your vehicle to turn right.

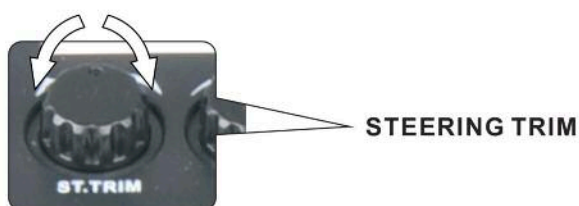


### 4 CHECK TRIGGER RESPONSE



- Pull the trigger back to accelerate, release it to decelerate and push it forward to brake.
- To stop accelerating your car, release the trigger to Neutral.
- Pushing the trigger forward a second time activates the reverse feature.

### 5 TO TUNE THE STEERING TRIM



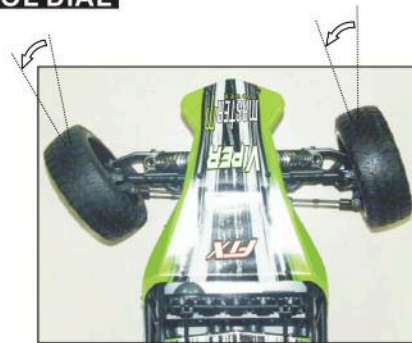
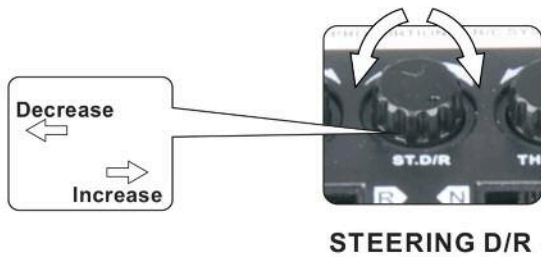
STEERING TRIM



Gently pull the trigger to allow your car to accelerate slowly. Meantime, tune the steering trim to align the front wheels.



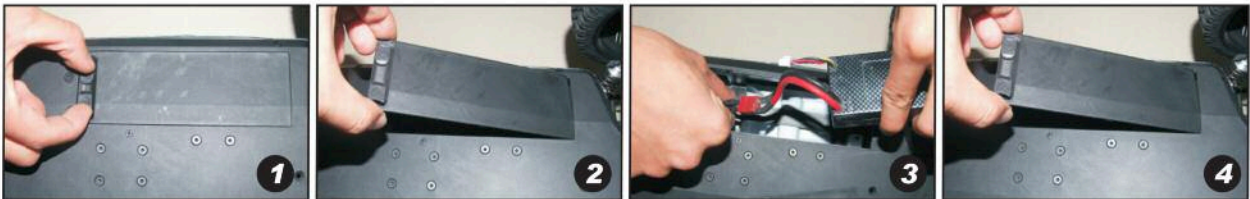
## 6 TO TUNE THE STEERING DUAL RATE CONTROL DIAL



This dial adjusts the overall travel of the steering servo. Push the dial forward for maximum steering. Pull the dial back to reduce the steering level.

- Set the Steering Dual Rate Control Dial to Minimum first. To set the desired steering level increase it again whilst decelerating your vehicle.

## BATTERY INSTALLATION



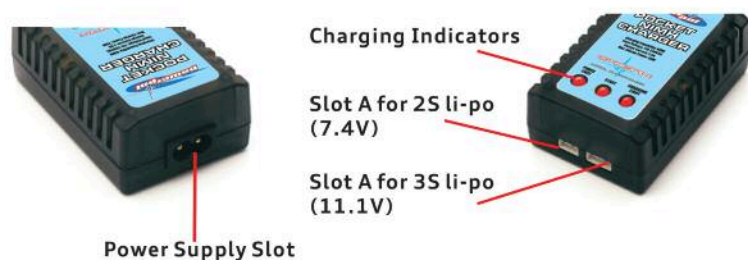
Follow the illustrations above to install the Li-po battery pack in your car. The battery cover is located on the bottom of the chassis.

- 1) Pinch the battery cover blocks as shown to open the battery cover. (See Figure 1)
- 2) Lift the battery cover. (See Figure 2)
- 3) Connect the battery to the ESC as shown. Note: The vehicle uses deans plugs--make sure to connect black to black and red to red..(See figure 3)
- 4) Install the battery foam and replace the battery cover. ( See Figure 4)

## CHARGING THE BATTERY PACK

Your RTR vehicle is equipped without battery and charger unless indicated on the box. Here is our practical pocket Li-po battery charger which you might use with your vehicle.

Input Voltage: 110-240 V AC  
Output Current: 1.0 A  
Indicator: 3× LED  
Max. Charging Current: 1.0 A  
Size: 100 mm \* 60mm \* 35 mm  
Weight: Approx. 180g





1) Connect the pocket balance charger to power supply by using the power supply cord provided in the package.  
The indicator lights will turn green meaning that the charger is ready.



2) Connect the battery to the corresponding slot. (If it is 3S(11.1V) battery, please connect it to 3S slot...)

When the battery is initially connected, the indicator lights will turn Red meaning that charging has begin.  
Once the battery is fully charged, the indicator lights will turn green again.



Note: The batteries use Deans T plugs -make sure to connect black to black and red to red.

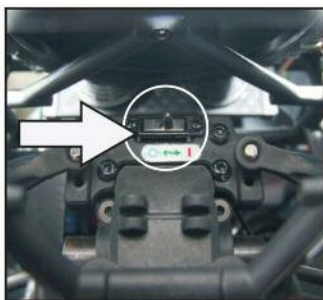
### WARNING

Ensure that you connect your charger as outlined in this manual.  
Only connect 2s or 3s LiPo batteries.  
Always follow all safety procedures when handling LiPo batteries  
Never leave unattended during charging.  
Charge away from flammable objects and materials  
We recommend charging battery in a closed tin or Lipo sack  
Do not handle charger with wet hands and keep dry at all times.  
Must be used with adult supervision.

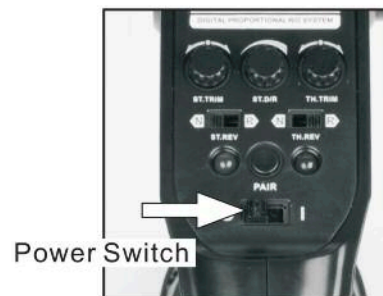


## STOPPING YOUR CAR

### 1) TURN OFF THE RECEIVER ON YOUR CAR



### 2) TURN OFF THE RADIO CONTROLLER



### CAUTION

- Always switch off the receiver ,and then the radio controller.

### 3) REMOVE BATTERIES

- Do not forgot to remove batteries from your car and radio controller when not in use.

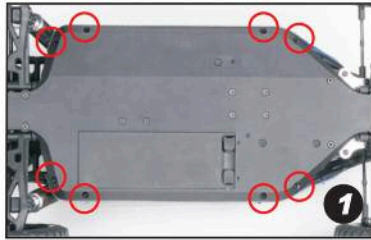




## TO ACCESS THE MOTOR AND ESC

This vehicle is fully assembled at factory. The following illustrations facilitates replacement. (Note: For these plum/star head screws, you can use either Standard Hex Screw drivers (1.5mm, 2mm, 2.5mm) or Plum/Star Head screwdrivers.).

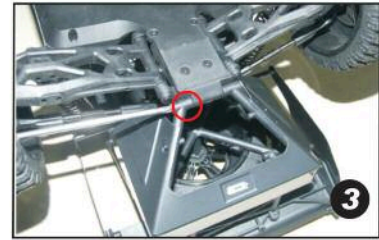
First remove the roll cage:



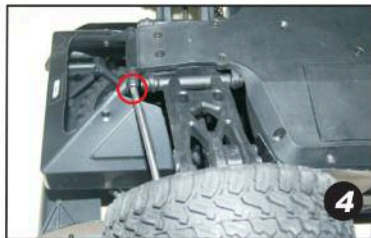
1) Remove the eight screws (FTX6590) from the chassis as shown in the figure one by one.



2) Remove the four screws (FTX8593) from the hood as shown in the figure one by one.



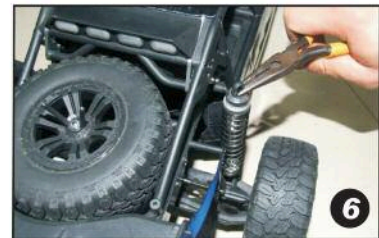
3) Remove the screw (FTX6590) from the rear unit on the one side as shown in the figure.



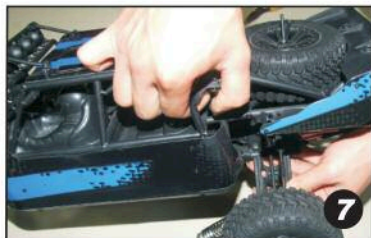
4) Remove the screw (FTX8602) from the rear unit on the other side as shown in the figure.



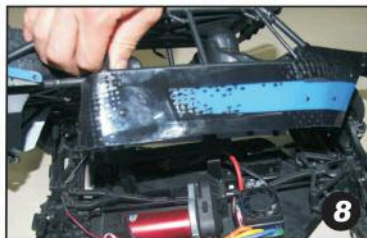
5) Remove the rear shock from one side using needle nose pliers.



6) Remove the rear shock from the other side using needlenose pliers.



7) Hold the rear suspension, remove the roll cage from one side.



8) Push gently on the other side to remove the roll cage as shown in the figure.

The roll cage is removed from vehicle. You are now ready to check motor and ESC if possible. To replace the roll cage follow the steps again in reverse.

Tip: Before re-installing the roll cage, check all parts carefully and make sure they have not come loose and are properly secured.

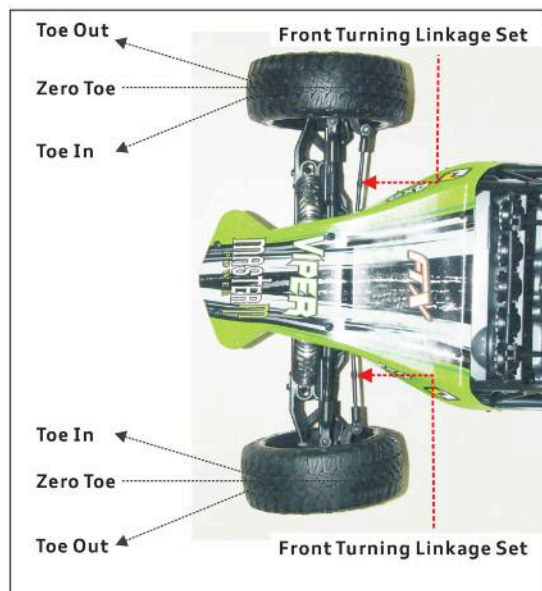


## CHASSIS TUNING GUIDE

Your model can be customized to enhance speed and performance. Simple adjustment and easily maintained setting will assure optimum operation and performance. When making adjustments, do so only in small increments and always check for other parts of the vehicle that are affected. Many after market options are available to make your R/C vehicle faster and stronger. Please read the section carefully and it always make sure you write down your base settings in case you need to refer to them at a later date.

### Front Steering Toe Angles

The front steering toe angle has a dramatic on how your car performs and how your tires wear. You can have toe-in, zero toe or toe-out. This can be adjusted by turning the front turning linkage set with an adjustable wrench.



Toe-in will be less reactive and cause the vehicle to under steer (the front wheels push straight on while turning).

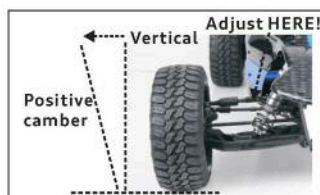
This can be advantageous for operators struggling to get to grips with the driving of the vehicle.

Toe-out will be more aggressive on the steering response especially on small steering inputs. This will make the car want to over steer (rear wheels slide on small steering inputs). This is useful as a race tuning aid to gain extra steering.

Zero toe will make the front wheels run straight and make the car very neutral. Tire wear will also be reduced and the vehicle will feel easier to drive.

### Camber Adjustment

Camber can be adjusted on all 4 wheels of the car. You can have negative camber or positive camber which will affect the contact patch of the tire both statically and while cornering. Camber is mainly used to control the wear of the tire. Normally a car would be set to have a small amount of negative camber. Camber is adjusted by the upper link turnbuckle linking the wheel to the chassis front and rear.



This is an example of positive camber.

This is when the bottom of the wheel is closer to the centre of the car compared to the top of the wheel. Positive camber will give less contact area in the corner and less grip. Excessive amounts will cause less grip and uneven wear.

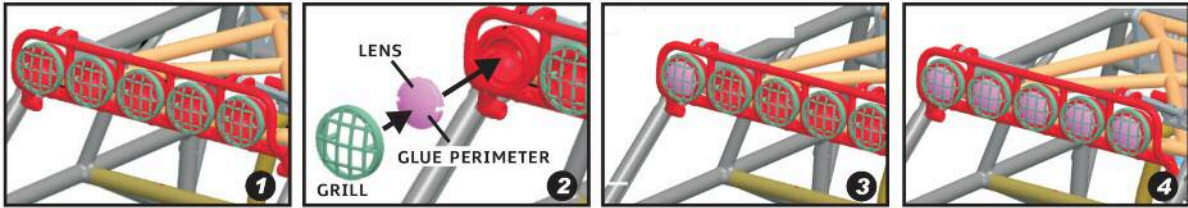


This is an example of negative camber.

This is when the top of the wheel is closer to the centre of the car compared to the bottom of the wheel. Negative camber will give more contact area in the corner and more grip. Excessive amounts will cause less grip and uneven wear.



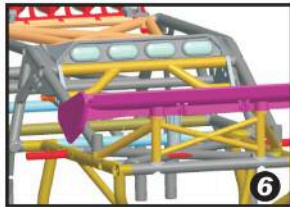
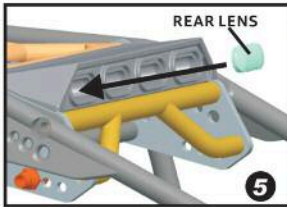
## INSTALLING OFF-ROAD LIGHT LENSES(FRONT/REAR)



### GLUE THE OUTER PERIMETER OF THE LENS AND INSTALL

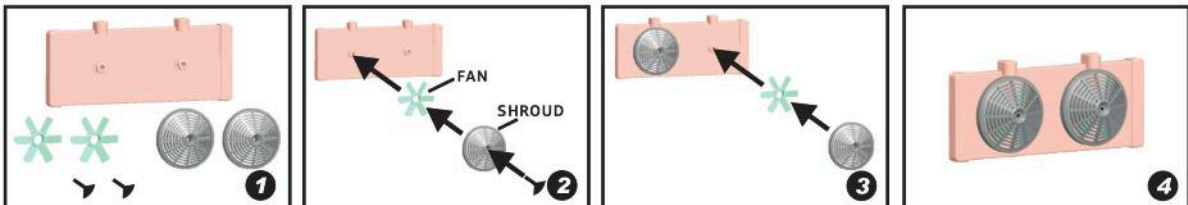
The off-road light lenses are optional parts.

1. Remove the five off-road light grills. (fig.2)
2. Apply a small bead of glue (CA) around the outer perimeter of the first lens. (fig.2)
3. Carefully line up the notches in the lenses with the tabs inside the light housing and install.
4. Repeat steps 2-3 for remaining four front lenses.
5. Reinstall off-road light grills. (fig.4)



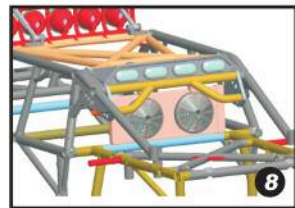
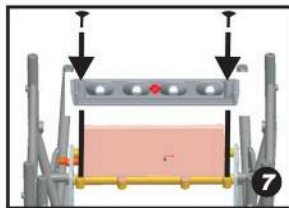
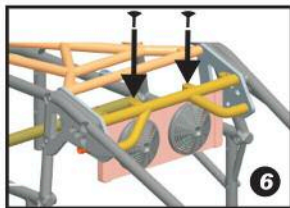
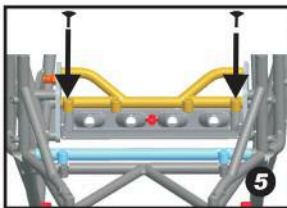
6. Apply a small bead of glue (CA) around the outer perimeter of the first rear lens. (fig. 5)
7. Align the lens with the rear light housing and push into place.
8. Repeat steps 6-7 for the remaining three rear lenses.

## RADIATOR ASSEMBLY AND INSTALLATION



The radiator is an optional part.

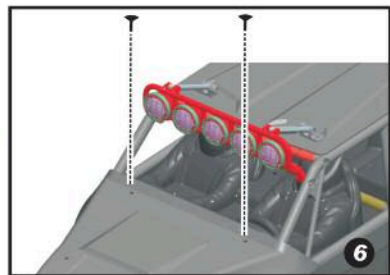
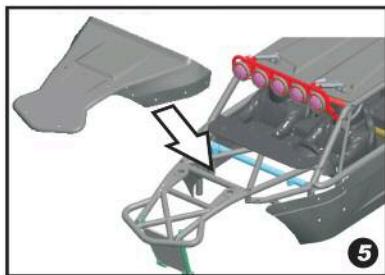
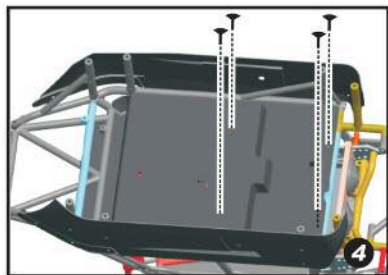
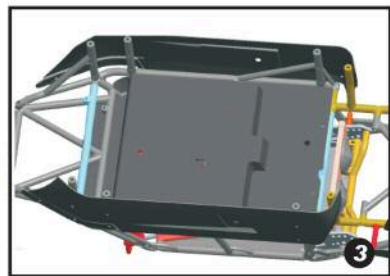
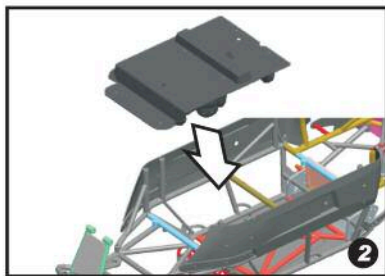
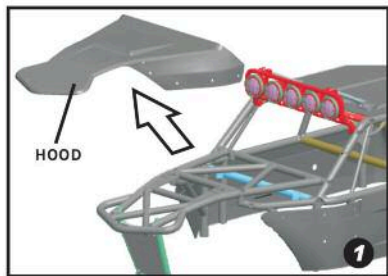
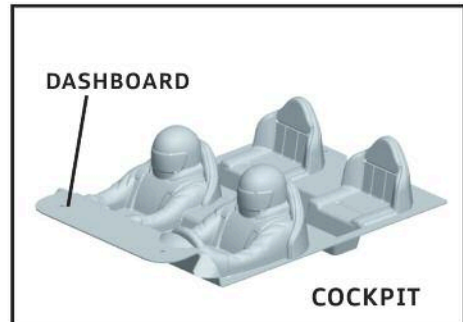
1. Gather all five parts of the radiator assembly. (fig.1)
2. Align the fan and shroud onto the radiator shaft. (fig.2)
3. Using a torque driver, insert the (FTX8596) torque screw into the end of the shroud and tighten.
4. Repeat steps 2-3 to complete the radiator assembly. (fig.3)



5. Using a torque driver, remove the rear light assembly by removing the two screws securing it from the underside of the roll cage. (fig.5)
6. Fasten the radiator assembly from the top using two (FTX8603) screws. (fig.6)
7. Reinstall the rear light assembly. (fig.7)



## COCKPIT INSTALLATION



The cockpit is an optional part.

1. Uninstall the roll cage from the chassis.
2. Remove all 14 screws securing the hood and remove from roll cage. (fig. 1)
3. Insert the cockpit into the underside of the roll cage (fig. 2), be sure the front of the dashboard is on top of the roll cage. (fig. 3&5)
4. Secure the cockpit from the underside using the included (FTX8609) screws. (fig. 4)
5. Reinstall the front hood and secure in place. Be sure the two rear holes of the hood line up with two holes in the dashboard. (fig. 5-6)



## MAINTAINING YOUR CAR

After running your car, perform the following procedures regularly to maintain your car's performance.

- Inspect your car for any obvious damage.
- Check the gears for wear, debris or broken/slipping teeth.
- Check the wheels and tighten the wheel screws properly.
- Check for loose screws in the chassis.
- Check the wiring for frayed or damaged wires or connectors.
- Always disconnect and remove the battery when not in use.
- Check all batteries.
- Keep the chassis clean and free of sand, dust, moisture and any other debris.  
Remove and clean the motor if necessary. (Never attempt to re-assemble the motor, you will damage it and void the warranty).
- Clean the car body with a soft lint-free cloth.
- Remove all batteries from the car when not in use.

## TROUBLESHOOTING

A. The vehicle does not work at all.

1. Check to see if radio controller and car are on.
2. Check to see if radio controller and receiver are properly bound.
3. Adjust throttle trim on the radio controller
4. Replace batteries.

B. The vehicle runs slow.

1. Replace or charge the battery pack and/or the radio batteries.
2. Make sure the vehicle is geared properly and the pinion and spur gear are over tightened.
3. Clean all bushings or ball bearings.
4. Check for stripped or dirty gears.

C. The throttle works, but not the steering.

1. Check if the servo feels jammed, try centering carefully it by hand.
2. Check all the steering linkage for any damage.

D. It steers, but no throttle control.

















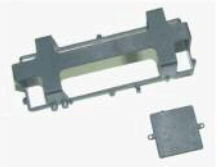



1. Adjust the throttle trim.
2. Replace or charge the battery pack and/or the radio batteries.

E. The vehicle runs noisily.

1. Check gear mesh between spur gear and pinion.
2. Check for stripped and/or dirty gears.
3. Clean and oil bushings or ball bearings.



## PARTS LIST

<p><b>FTX8650</b></p>  <p>Chassis</p>	<p><b>FTX8655</b></p>  <p>Roll Cage Side Units</p>	<p><b>FTX8659</b></p>  <p>Roll Cage Front Unit Roll Cage Top Unit</p>	<p><b>FTX8651</b></p>  <p>Roll Cage Rear Unit+ Spare Tire Post+Retainer</p>
<p><b>FTX8656</b></p>  <p>Front Bumper Brace &amp; Roll Cage Side Rails Assembly</p>	<p><b>FTX8660</b></p>  <p>Roll Cage Rear Rails Assembly</p>	<p><b>FTX8652</b></p>  <p>Shock Towers (Fr.&amp;Rr.)</p>	<p><b>FTX8657</b></p>  <p>Gear Box Assembly</p>
<p><b>FTX8641</b></p>  <p>Suspension Arms (Lower Front)</p>	<p><b>FTX8653</b></p>  <p>Suspension Arms (Lower Rear)+Shock Retainers</p>	<p><b>FTX8532</b></p>  <p>Steering Knuckles Rear Hub Carriers</p> <p style="text-align: right;">Left/Right</p>	<p><b>FTX8537</b></p>  <p>Front Hub Carriers</p> <p style="text-align: right;">Left/Right</p>
<p><b>FTX8654</b></p>  <p>Upper chassis top plate and brace</p>	<p><b>FTX8658</b></p>  <p>Spur Gear ( 56T)</p>	<p><b>FTX8661</b></p>  <p>Centre Diff. Mount Set+ Suspension Mount Set+Servo Retainers+Centre Diff. Retainer</p>	<p><b>FTX8662</b></p>  <p>Servo Saver Assembly A + Bumper Lowe Mount Set+ Servo Arm</p>
<p><b>FTX8667</b></p>  <p>Battery Guard+ESC Bottom Mount</p>	<p><b>FTX8672</b></p>  <p>Front/rear light assembly</p>	<p><b>FTX8663</b></p>  <p>Radiator Assembly+ Screws</p>	<p><b>FTX8668</b></p>  <p>Off Road Buggy Wing</p>

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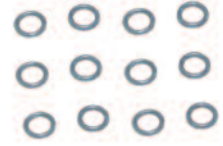








## PARTS LIST

<p><b>FTX8673</b></p>  <p>Wheels -Spoke Style</p>	<p><b>FTX8664</b></p>  <p>Tires/Sponge Insert 2P</p>	<p><b>FTX8669</b></p>  <p>Wheels Complete 2P</p>	<p><b>FTX8674</b></p>  <p>Centre Diff. Complete</p>
<p><b>FTX8665</b></p>  <p>Battery Cover (assembled)</p>	<p><b>FTX8670</b></p>  <p>69.6mm (front) 161.6mm(rear) 2P</p> <p>Center Drive Shafts (Front and rear)</p>	<p><b>FTX8675</b></p>  <p>Rear Drive Shafts (91.2mm) 2P</p>	<p><b>FTX8666</b></p>  <p>Rear Wheel Axles 2P</p>
<p><b>FTX8671</b></p>  <p>Motor Mount set</p>	<p><b>FTX8676</b></p>  <p>Front CVD Drive Shafts 2P</p>	<p><b>FTX8677</b></p>  <p>Front Upper Linkage Set 2P</p>	<p><b>FTX8682</b></p>  <p>Rear Upper Linkage Set 2P</p>
<p><b>FTX8686</b></p>  <p>Steering Linkage Set 2P</p>	<p><b>FTX8678</b></p>  <p>Servo Linkage Set</p>	<p><b>FTX8513</b></p>  <p>Full Aluminum Oil Filled Shocks (Front) 2P</p>	<p><b>FTX8504</b></p>  <p>Full Aluminum Oil Filled Shocks (Rear) 2P</p>
<p><b>FTX8679</b></p>  <p>Front Skid Plate (Aluminum)</p>	<p><b>FTX8683</b></p>  <p>Rear Shock Upper Retainer 2P</p>	<p><b>FTX8687</b></p>  <p>Diff. Shafts +E-Clip (2mm) (Front/Rear) 2P</p>	<p><b>FTX8529</b></p>  <p>Hinge Pins-Lower Outer+E-Clip (2mm) <math>\phi</math> 3*30.9mm 4P</p>

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## PARTS LIST







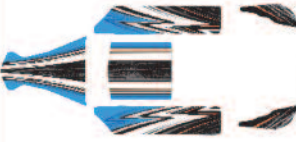













<p><b>FTX8684</b></p>  <p style="text-align: right;">4P</p> <p>Hinge Pins-Lower Inner φ 3*60.3mm</p>	<p><b>FTX8688</b></p>  <p>Servo Saver Assembly B +Ackerman Plate</p>	<p><b>FTX8681</b></p>  <p style="text-align: right;">2P</p> <p>Steering Posts</p>	<p><b>FTX8685</b></p>  <p style="text-align: right;">2P</p> <p>Front/rear / Centre Diff. Outdrives</p>
<p><b>FTX8689</b></p>  <p style="text-align: right;">2P</p> <p>Centre Outdrives+ Set Screws 3*3-2*7)</p>	<p><b>FTX8690</b></p>  <p style="text-align: right;">8P</p> <p>Step Ball Stud. φ 4.8*16.6</p>	<p><b>FTX8518</b></p>  <p style="text-align: right;">8P</p> <p>Steering Knuckle Bushings</p>	<p><b>FTX8695</b></p>  <p style="text-align: right;">8P</p> <p>Front CVD Shaft Clips</p>
<p><b>FTX8539</b></p>  <p style="text-align: right;">8P</p> <p>Ball Stud. φ 4.8*6.8</p>	<p><b>FTX8692</b></p>  <p style="text-align: right;">8P</p> <p>Ball Stud. φ 4.8*8.5</p>	<p><b>FTX8564</b></p>  <p style="text-align: right;">8P</p> <p>Shock Inner Oil Bladders</p>	<p><b>FTX8560</b></p>  <p style="text-align: right;">12P</p> <p>Shock O-ring</p>
<p><b>FTX8693</b></p>  <p style="text-align: right;">12P</p> <p>Washers (φ 3.1*6*0.5mm)</p>	<p><b>FTX8696</b></p>  <p style="text-align: right;">8P</p> <p>Diff. Paper Washers</p>	<p><b>FTX8680</b></p>  <p style="text-align: right;">8P</p> <p>Steering Plate Bushings</p>	<p><b>FTX8694</b></p>  <p style="text-align: right;">8P</p> <p>Flange Ball Bearings (3*6*2.5mm)</p>
<p><b>FTX8697</b></p>  <p style="text-align: right;">8P</p> <p>Diff. Pinion Pins+ Washers+O-ring+ Diff. Case</p>	<p><b>FTX8691</b></p>  <p>Front/rear Diff. Complete</p>	<p><b>ET0017</b></p>  <p>Servo (6Kgs)</p>	<p><b>FTX8639</b></p>  <p>Brushed Motor</p>

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## PARTS LIST

<p><b>FTX8635</b></p>  <p>Splash Resistant Brushed ESC (w/deans T plug)</p>	<p><b>FTX8704</b></p>  <p>Mounting Hole: 5mm (brushless only) Motor Pinion (13T) +Set Screw 4*4</p>	<p><b>FTX8705</b></p>  <p>Mounting Hole: 5mm (brushed only) Motor Pinion (15T) +Set Screw 4*4</p>	<p><b>FTX8640</b></p>  <p>Brushless Motor (KV 2574)</p>
<p><b>FTX8638</b></p>  <p>Splash Resistant Brushless ESC (w/deans T plug)</p>	<p><b>FTX8703</b></p>  <p>Light lenses(front/rear) +gear lever</p>	<p><b>FTX8701B</b></p>  <p>Body Assembly (Blue)</p>	<p><b>FTX8701G</b></p>  <p>Body Assembly (green)</p>
<p><b>ET0223E</b></p>  <p>Li-po Battery 11.1V,30c, 3000mAH (w/deans T plug)</p>	<p><b>ET0223E</b></p>  <p>Li-po Battery Charger+ European Standard Plug</p>	<p><b>ET0223</b></p>  <p>Li-po Battery Charger+ UK Standard plug</p>	<p><b>FTX8568</b></p>  <p>Zip Tie (Big) <span style="float: right;">8P</span></p>
<p><b>FTX8567</b></p>  <p>Zip Tie (Small) <span style="float: right;">8P</span></p>	<p><b>FTX8570</b></p>  <p>Wheel Hex. <span style="float: right;">4P</span></p>	<p><b>FAST103</b></p>  <p>Receiver Antenna Pipe <span style="float: right;">2P</span></p>	<p><b>FTX8569</b></p>  <p>Motor Pad <span style="float: right;">4P</span></p>
<p><b>FTBB11</b></p>  <p>Ball Bearing 5*11*4 <span style="float: right;">6P</span></p>	<p><b>FTBB10</b></p>  <p>Ball Bearing 10*15*4 <span style="float: right;">4P</span></p>	<p><b>FASTM3</b></p>  <p>Lock Nut M3 <span style="float: right;">6P</span></p>	<p><b>FTM4F</b></p>  <p>Flange Lock Nut M4 <span style="float: right;">6P</span></p>

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## PARTS LIST

<p><b>FTX8659</b></p>  <p style="text-align: right;">8P</p> <p>Ball Stud. <math>\phi</math>4.8*11.2</p>	<p><b>FTX8660</b></p>  <p style="text-align: right;">8P</p> <p>Wheel Hex. Pin (2*10mm)</p>	<p><b>FTX8565</b></p>  <p style="text-align: right;">8P</p> <p>E Clip (2mm)</p>	<p><b>FTX8572</b></p>  <p>Motor Heat Sink</p>
<p><b>FTX8699</b></p>  <p>Diff. Main Gear+ Pinion</p>	<p><b>FTX8698</b></p>  <p>Bevel Gears(Large+Small) (Front/rear/Centre)</p>	<p><b>ET1091</b></p>  <p>Receiver 2.4Ghz</p>	<p><b>FTX8702</b></p>  <p>Cockpit</p>
<p><b>FTX8593</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Self Tapping Screw 3*8mm</p>	<p><b>FTX8584</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Self Tapping Screw 3*10mm</p>	<p><b>FTX8589</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Screw 3*10mm</p>	<p><b>FTX8597</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Self Tapping Screw 3*12mm</p>
<p><b>FTX8594</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Screw 3*12mm</p>	<p><b>FTX8585</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Self Tapping Screw 3*12mm (small head)</p>	<p><b>FTX8590</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Self Tapping Screw 3*14mm</p>	<p><b>FTX8601</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Self Tapping Screw 3*16mm</p>
<p><b>FTX8604</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Self Tapping Screw 3*18mm</p>	<p><b>FTX8598</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Screw 3*14mm</p>	<p><b>FTX8602</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Self Tapping Screw 3*21mm</p>	<p><b>FTX8595</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Self Tapping Screw 3*24mm</p>

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## PARTS LIST

<p><b>FTX8599</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Self Tapping Screw 3*37mm</p>	<p><b>FTX8603</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Self Tapping Screw 2.6*12mm</p>	<p><b>FTX8605</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Self Tapping Screw 2.3*14mm</p>	<p><b>FTX8600</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Self Tapping Screw 2.3*8mm</p>
<p><b>FTX8586</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Screw 2.5*17mm</p>	<p><b>FTX8591</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Screw 2.5*14mm</p>	<p><b>FTX8606</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Self Tapping Screw 2.3*14mm</p>	<p><b>FTX8610</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Self Tapping Screw 2.3*8mm</p>
<p><b>FTX8596</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Countersunk Self Tapping Screw 3*10mm</p>	<p><b>FTX8607</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Countersunk Self Tapping Screw 3*12mm</p>	<p><b>FTX8611</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Countersunk Screw 3*12mm</p>	<p><b>FTX8614</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Countersunk Self Tapping Screw 2.3*12mm</p>
<p><b>FTX8608</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Countersunk Self Tapping Screw 3*14mm</p>	<p><b>FTX8612</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Countersunk Self Tapping Screw 2.3*7mm</p>	<p><b>FTX8615</b></p>  <p style="text-align: right;">12P</p> <p>Washer Head Screw 3*45mm</p>	<p><b>FAST115</b></p>  <p style="text-align: right;">12P</p> <p>Cap Head Hex. Screw 3*10mm</p>
<p><b>FTX8613</b></p>  <p style="text-align: right;">12P</p> <p>Cap Head Self Tapping Hex. Screw 1.5*4mm</p>	<p><b>FTX8616</b></p>  <p style="text-align: right;">12P</p> <p>Cap Head Hex. Screw 2*8mm</p>	<p><b>FTX8609</b></p>  <p style="text-align: right;">12P</p> <p>Washer Head Self Tapping Screw 2*6mm</p>	<p><b>FAST123A</b></p>  <p style="text-align: right;">12P</p> <p>Set Screw 4*4mm</p>

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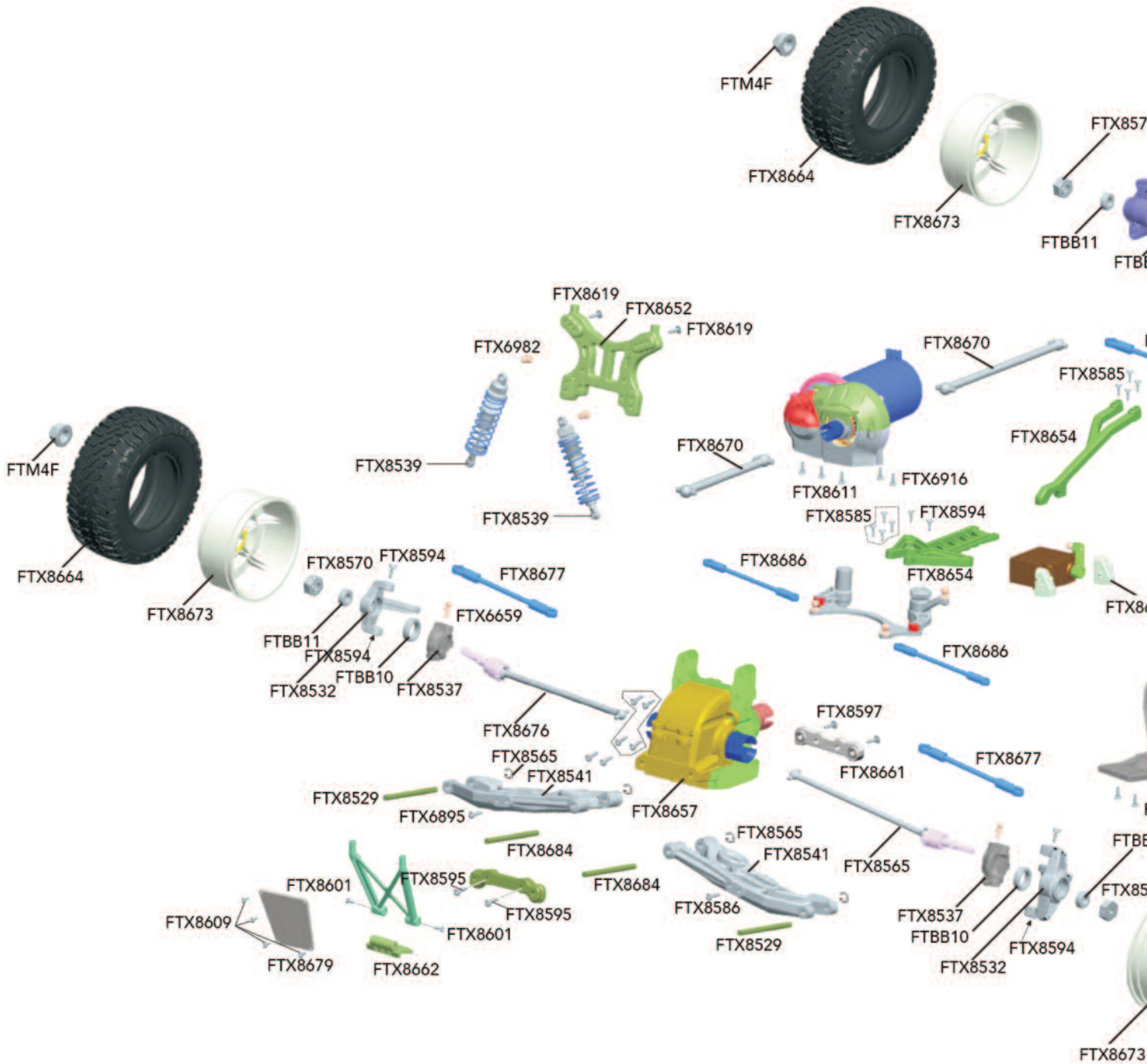


## PARTS LIST

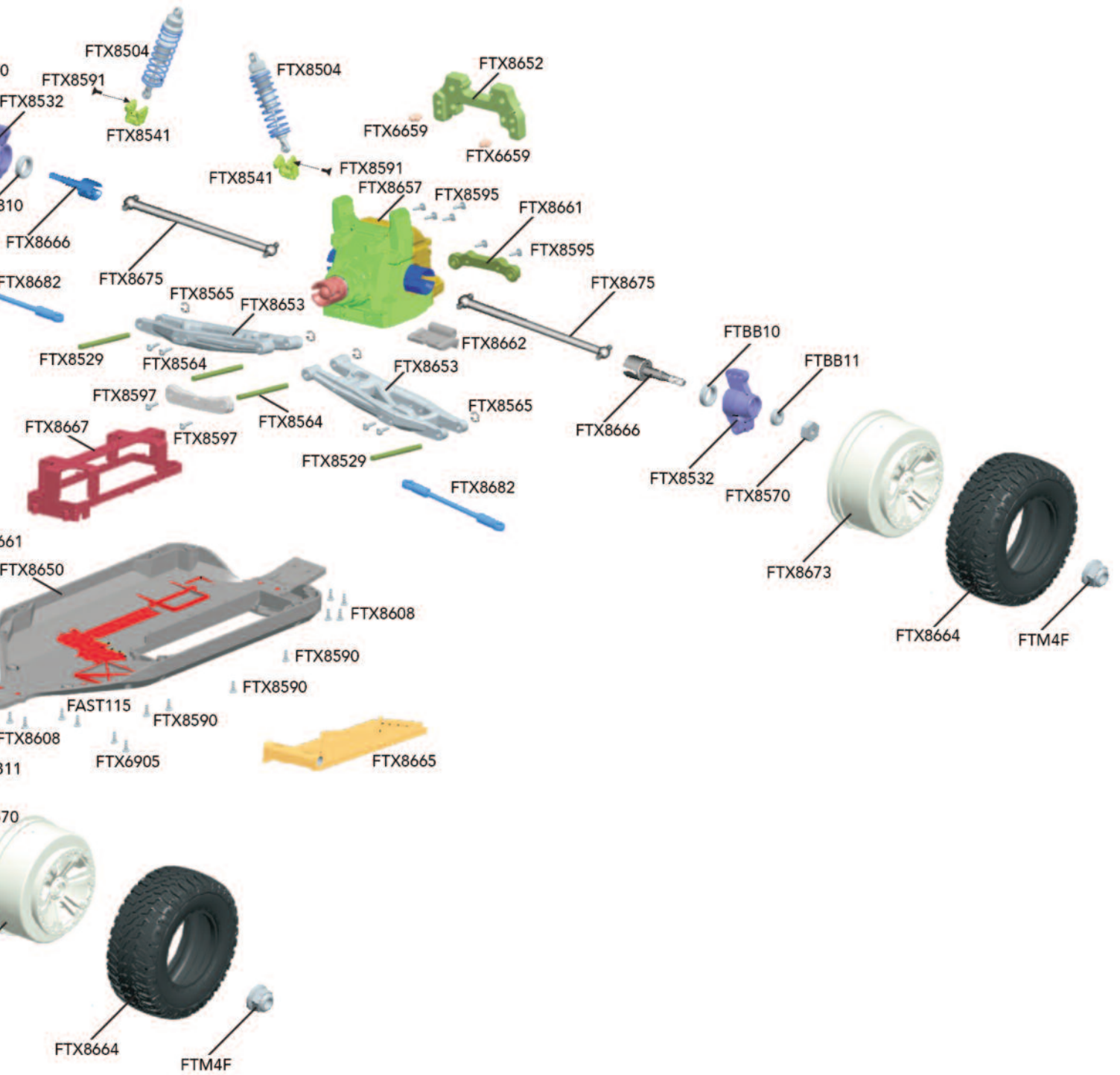
<p><b>FTX8578</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Screw 2.5*22mm</p>	<p><b>FTX8619</b></p>  <p style="text-align: right;">12P</p> <p>Plum Blossom Washer Head Screw 2.5*18mm</p>		
<p><b>FTX8617</b></p>  <p style="text-align: right;">12P</p> <p>Step Set Screw 3*3-2*7</p>	<p><b>FAST123</b></p>  <p style="text-align: right;">12P</p> <p>Set Screw 3*3mm</p>	<p><b>FTX8783</b></p>  <p style="text-align: right;">12P</p> <p>Washer Head Self Tapping Screw 2.6*8mm</p>	<p><b>FTX8582</b></p>  <p style="text-align: right;">12P</p> <p>Countersunk Self Tapping Screw 2*9mm</p>
<p><b>FTX8618</b></p>  <p style="text-align: right;">12P</p> <p>Washer Head Self Tapping Screw 2.6*6mm</p>	<p><b>FTX8700</b></p>  <p>Aluminum Suspension Mount Assembly</p>		

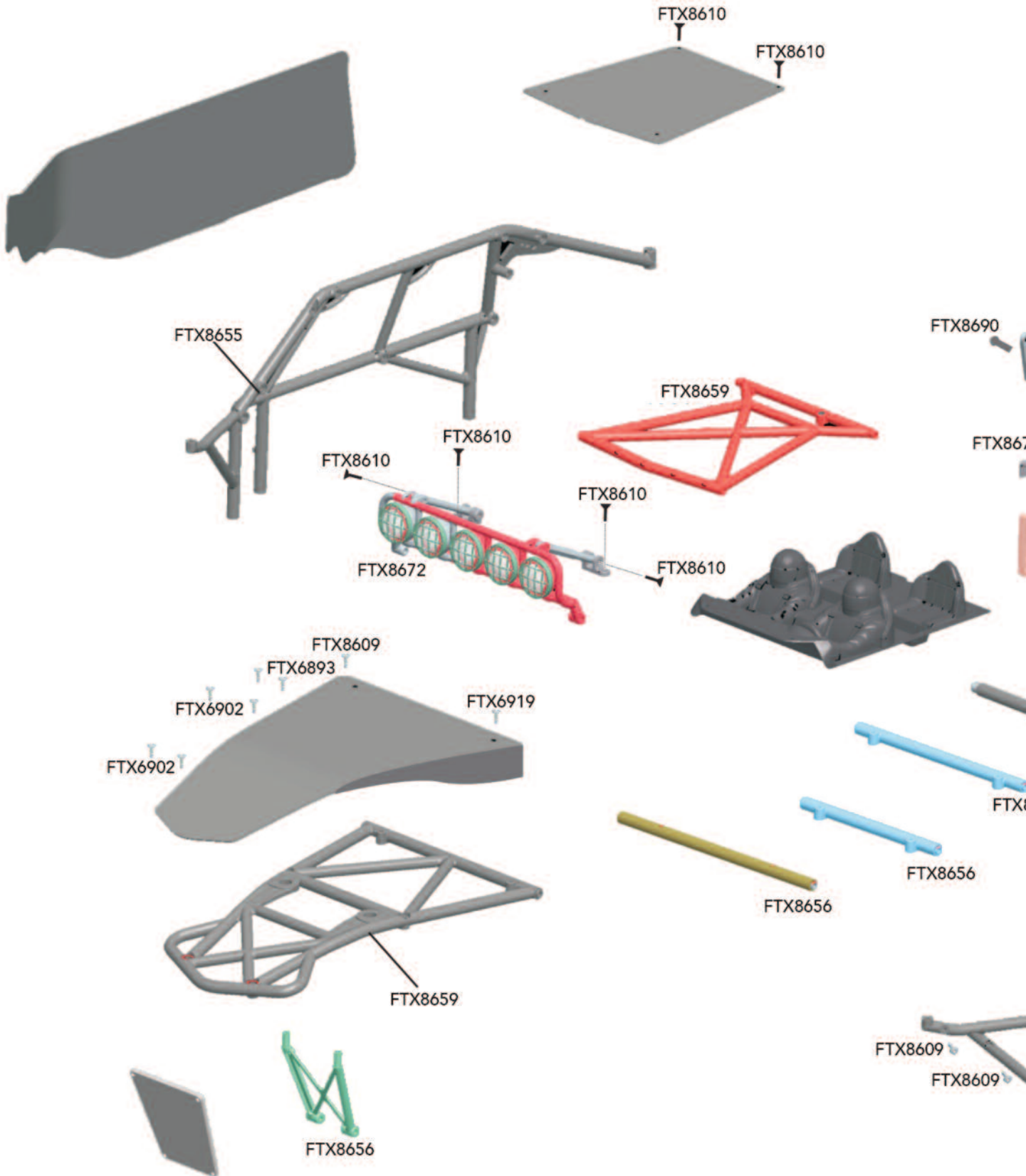
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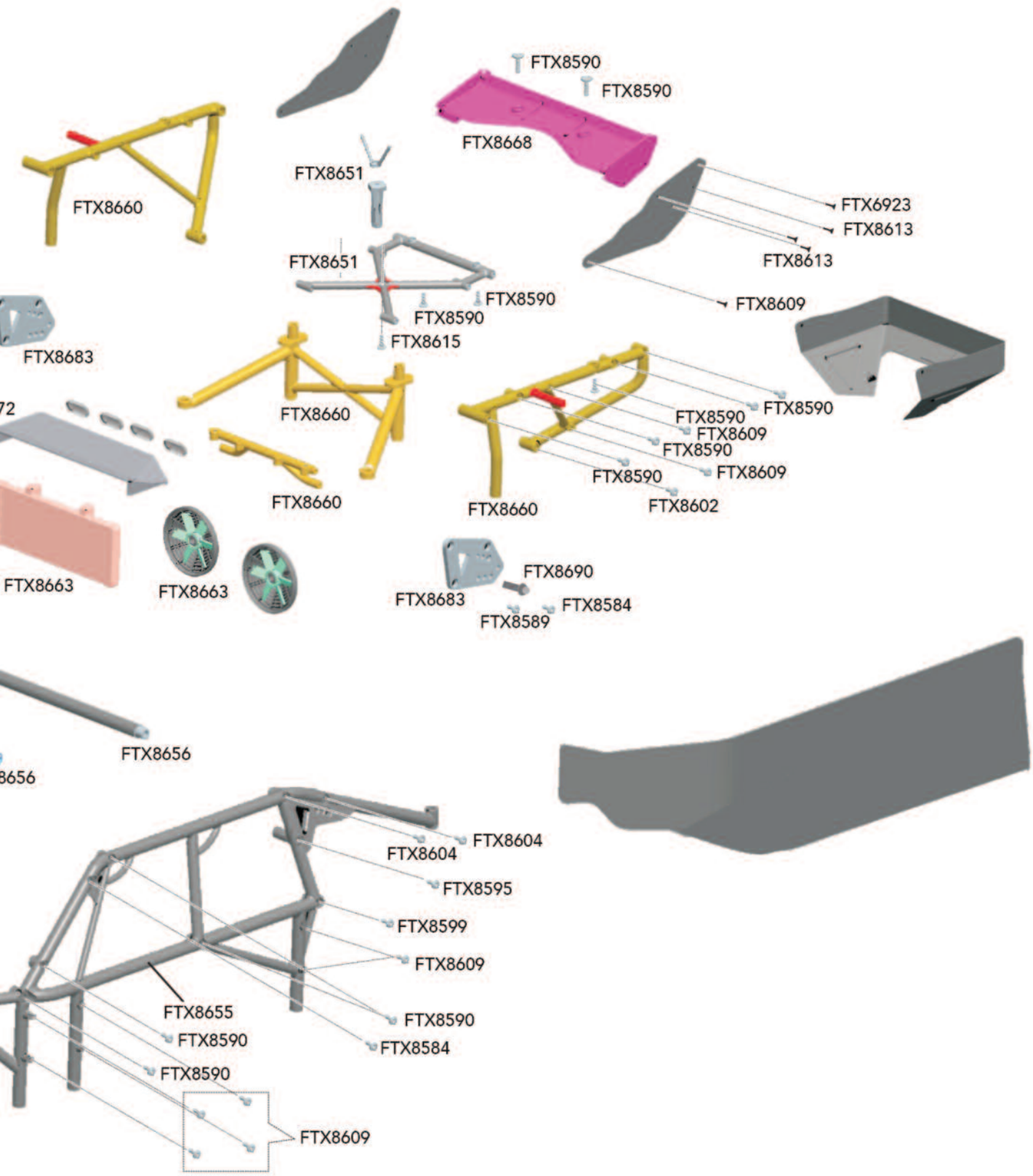


# EXPLODED VIEW











**Notes:**

A large rectangular area with a white background and a thin black border. It contains 25 horizontal dotted lines, evenly spaced, intended for writing notes.



**Notes:**

A large rectangular area with a white background and a thin black border. It contains 20 horizontal dotted lines, evenly spaced, intended for writing notes.

# VIPER



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