



# FTX Ruffneck 1/10th Scale 4WD Electric Powered Ready-To-Run Trail Vehicle

**Congratulations on your purchase of the FTX 'Ruffneck Trail' electric off road vehicle.**

This 1/10th 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.

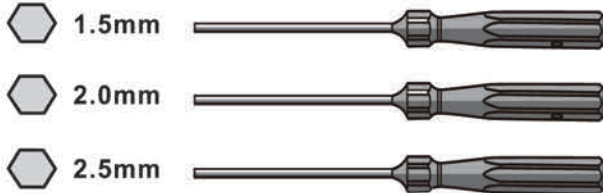
**Carefully follow these directions and warnings, plus those of any additional equipment associated with the use of this model, chargers, ESC and motors, radio etc.**

- 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.
- Although splash-proof the car and electronics are not designed to be subjected to extended moisture exposure or submersion. To do so will result in 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.





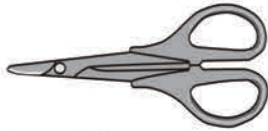
## 1. Please read the manual carefully and prepare the following things before use.



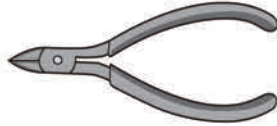
Hex. Screwdrivers



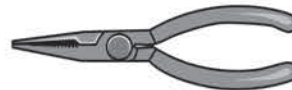
Socket Head Drivers



Lexan Scissors



Needle Nose Pliers



Curve Nose Pliers



Body Reamer



Hobby Knife



Batteries: 4x 1.5 V "AA"

## 2. The items inside the box.

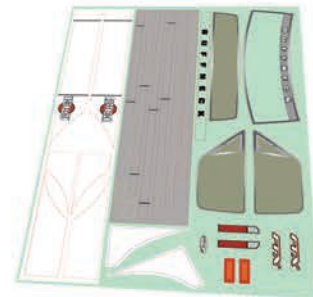
One car



Transmitter



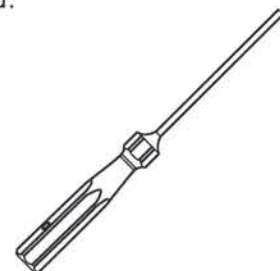
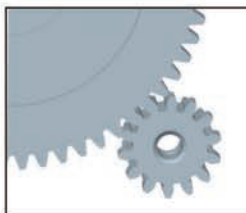
Manual



Decal Sheet

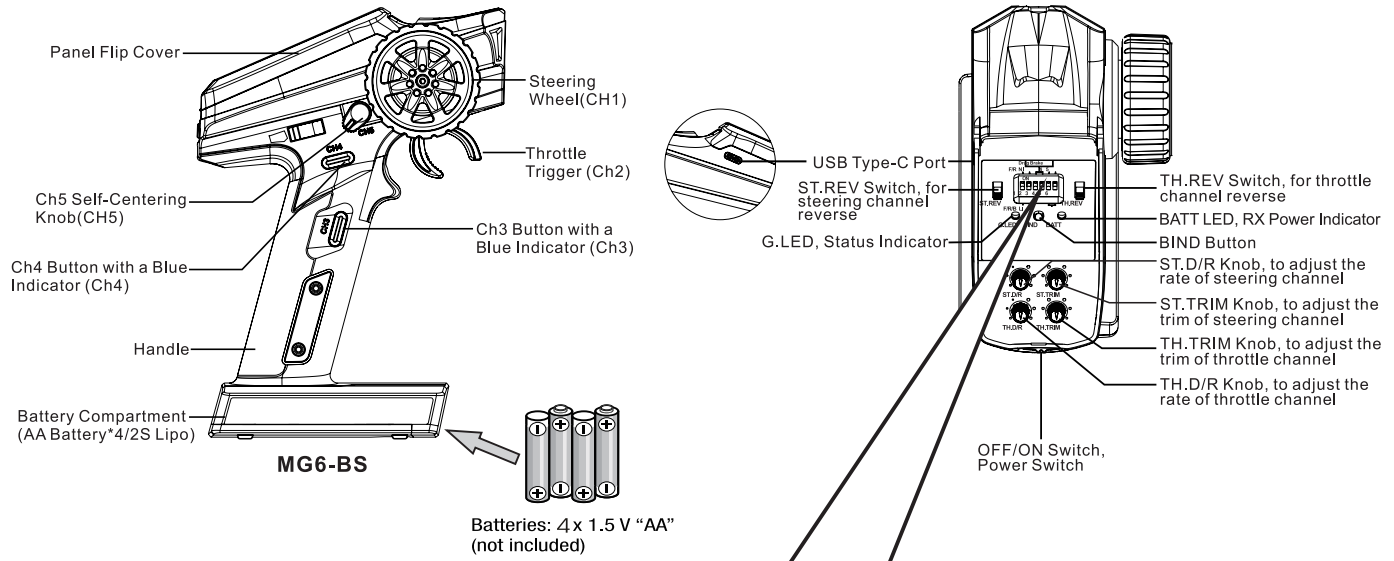
## 3. Please check the whole product condition when open the package.

- 3-1. After each day of running, you should check your shocks for adequate fluid. If the fluid is low, or it is getting dirty, you should change the fluid in the shocks. To achieve better performance, you may also want to change the shock fluid and or the pistons.
- 3-2. Gear mesh is the clearance between the pinion and spur in an electric car or clutch bell and spur in a nitro car. It has impact on the vehicles performance. If the gear mesh is not set properly you may also damage the clutch bell and spur or the pinion gear and spur gear as soon as the vehicle starts running.
- 3-3. Please check if the screw is tight enough before use. Screw it tight (or apply the screw glue if necessary)
- 3-4. Regularly check and verify the tires are intact. No breach should be observed. Please apply the CA glue if needed.



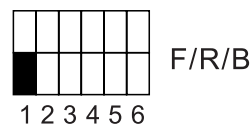
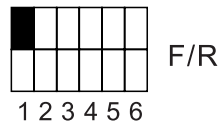


## 5-1. 2.4GHZ Radio System

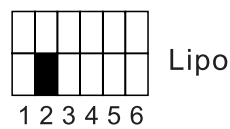
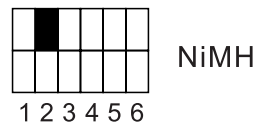


### 6-bit DIP Switch

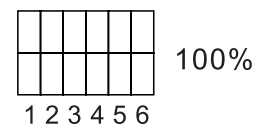
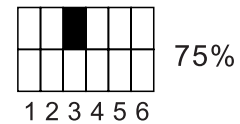
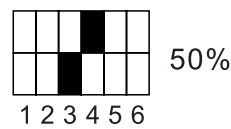
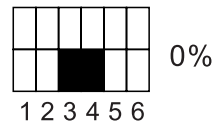
#### Running Mode



#### Battery Type



#### Brag Brake



The ESC parameters can be set by the 6-bit DIP Switch of the transmitter, that is, the DIP switch is located at different positions and the corresponding parameter values are different. There are three parameters can be set for the ESC, which are "Running Mode", "Battery Type" and "Drag Brake".

#### Running Mode

- Forward/Reverse/Brake(F/B/R): This mode adopts "double click" reverse mode, that is, when the throttle trigger is pushed from neutral range to the reverse area for the first time, the motor is only braking and will not reverse; when the throttle trigger is moved back to the neutral range and pushed to the reverse area for the second time, it will reverse. This mode is applicable to general models.

- Forward/Reverse(F/R): This mode adopts "one click" reverse mode, that is, when the throttle trigger is pushed from neutral range to the reverse area, the motor immediately generates reverse action, which is generally applied to rock crawler.

- The switch marked 1 of the 6-bit DIP switch is used to set the ESC running mode. The switch on the upper position indicates that the running mode is Forward/Reverse; and the switch on the lower position indicates that the running mode is Forward/Reverse/Brake.

#### Setup:

Toggle the switch 1 to the upper position, the buzzer will have one beep. Toggle the switch to the lower position, the buzzer will have two beeps.

#### Running Mode

- There are LiPo and NiMH cells. It can be set according to the actual use.
- The switch 2 of the 6-bit DIP switch is used to set the battery type. The switch on the upper side indicates that the battery type is LiPo; and the switch on the lower side indicates that the battery type is NiMH cells.

#### Setup:

Toggle the switch 2 to the upper position, the buzzer will have one beep. Toggle the switch to the lower position, the buzzer will have two beeps.

#### Drag Brake

- Drag brake means that when the throttle trigger moves away from the forward or reverse area to the neutral position, it will produce certain braking force to the motor, and the larger the value is, the greater the drag brake force is. This is used to decelerate into a turn or decline. Select proper braking force according to your conditions.

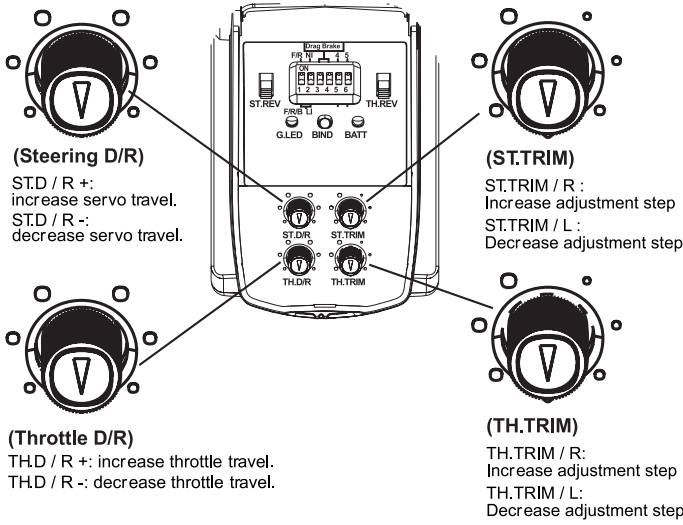
- The switches 3 and 4 of the 6-bit DIP switch are used to set the ESC drag brake force. The drag brake force can be set to 0%, 50%, 75% or 100%.

#### Setup:

- Toggle the switch 3 to the lower position and switch 4 to the upper position, then the drag brake force is set to 0%.
- Toggle the switch 3 to the upper position and switch 4 to the lower position, then the drag brake force is set to 50%.
- Toggle both the switch 3 and 4 to the upper position, then the drag brake force is set to 75%.
- Toggle both the switch 3 and 4 to the lower position, then the drag brake force is set to 100%.

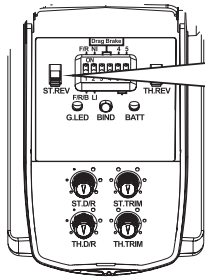


## 5-2. Transmitter Steering and Throttle Instruction



### Note:

- Please trim the Throttle Trim (TH. Trim) until the vehicle stops in case the vehicle goes forwards or backwards itself just after it is turned on.
- If the front wheels are not aligned, please trim "steering trim" (ST.TRIM) until they are aligned.
- The ST.TRIM is the trims for Ch1 (steering). You can trim the Steering Trim until it fulfills your desired steering angles.
- ST.D / R is for servo travel adjustment, which can be multiplexed as CH2 (throttle).



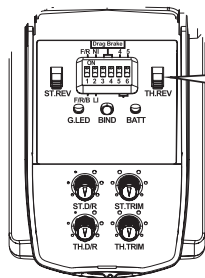
### ST.REV

Steering Trim (ST. Rev) is used to reverse the direction of servo movement.

The ST.REV switches are the reverse buttons for Ch1. If the switch is up it indicates reverse, and the down indicates normal.

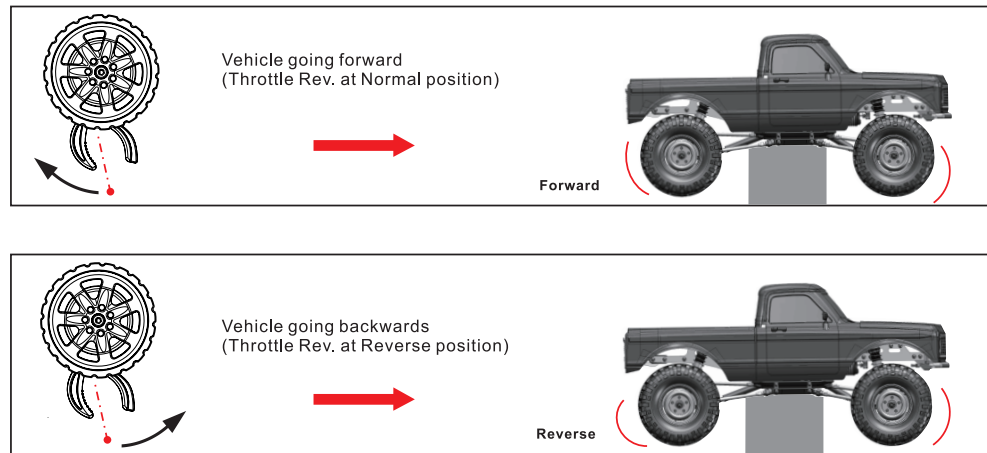


- Vehicle turning left when the control wheel is turned to the left (Steering Rev. At Normal position)
- Vehicle turning right when the control wheel is turned to the right (Steering Rev. at Reverse position)



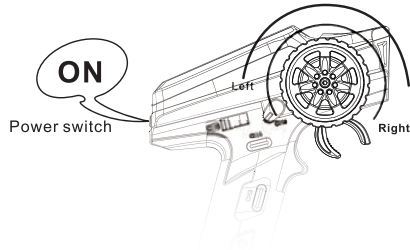
### TH.REV

- The Throttle Rev. is used to reverse the direction of motor rotation.
- The TH.REV switches are the reverse buttons for CH2. If the switch is up it indicates reverse, and the down indicates normal.

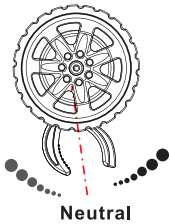




### 5-3. Transmitter Steering Trim and Throttle Trim

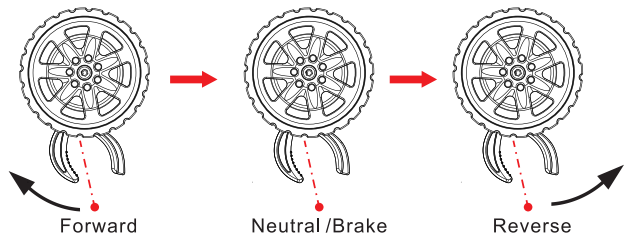


**Wheel Angle**  
the maximum rotation of the Steering wheel is 35 degrees From center to left or right



Neutral

**Throttle trigger,** has a total throw of 12 degrees, 12.5 degrees forward, and 12.5 degrees backward  
The heavier you pull or push the trigger, the faster acceleration will be.  
Note: Release the throttle trigger button, activate the brake mode automatically. (Only for Crawler)



Forward

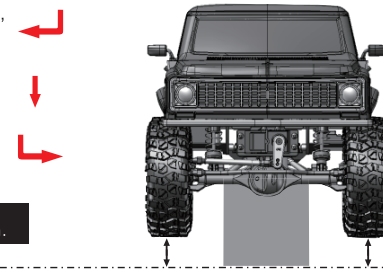
Neutral /Brake

Reverse

1. Move the control wheel to the left, vehicle turns left.
2. Do not move the control wheel, the front wheels are aligned and the vehicle goes straight in line.
3. Move the control wheel to the right, vehicle turns right.

**Note**

Place the hehicle on the stand with four wheels off ground as shown.

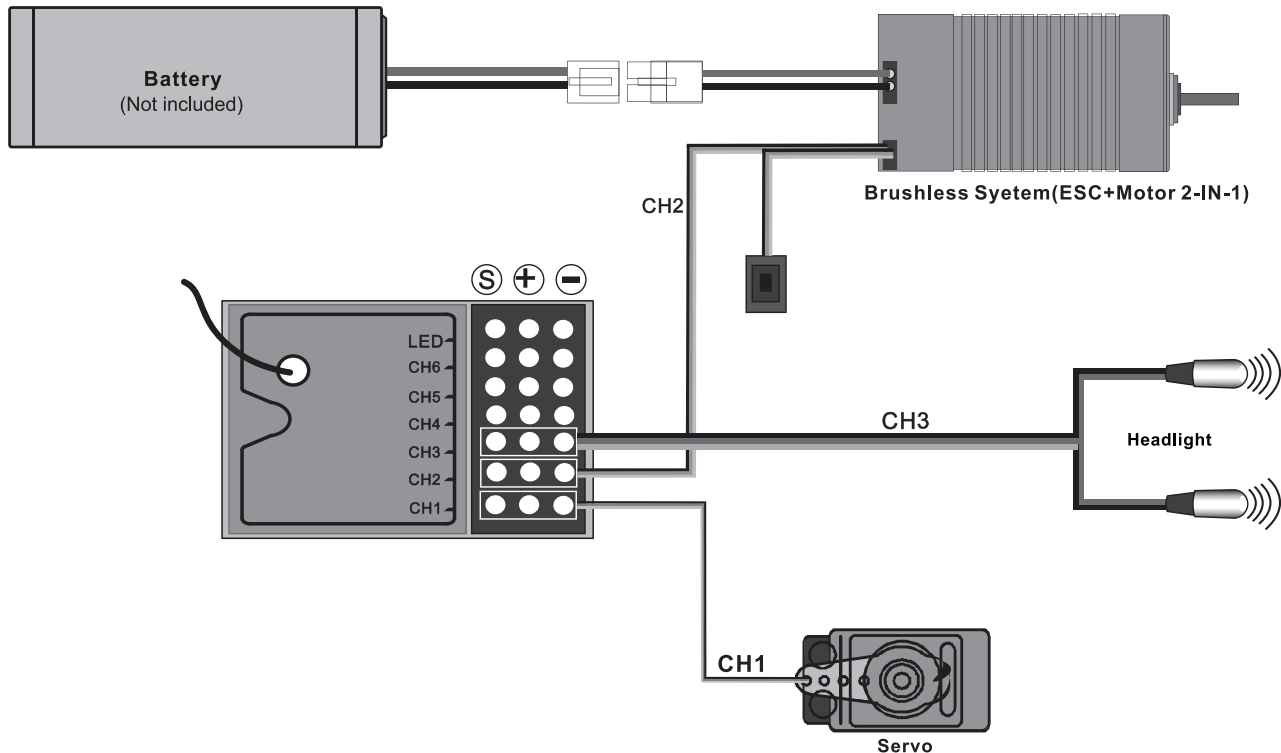


Forward



Reverse

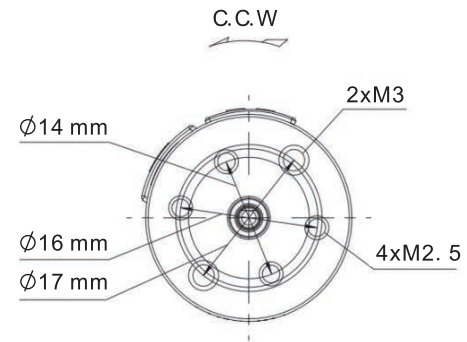
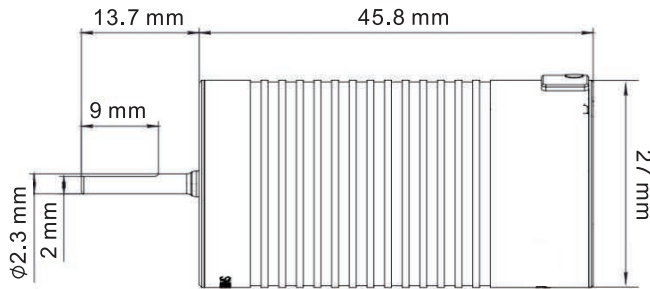
### 6.Connections





## 7. Fusion Mini RTR USER MANUAL

### 7-1. Specifications



Continuous current	30A
Input	2-3S Lipo, 6-9 Cells NiMH
BEC output	7.4V/2A
Size/Weight	24mm(diameter)x45.8mm(length) / 74.5g( including wires&connectors)
Motor KV	2200KV
Diameter / Length of motor	24mm / 45.8mm
Shaft diameter / exposed shaft length	2.3mm / 13.7mm
Motor Poles	4

### 7-2. Parameter setting method

Use LED program box to set ESC parameters (Optional)

The ESC is in off state, connect the throttle cable to the interface marked with "-" + " in the upper right corner of the program box according to polarity correspondence. Then power on the ESC, after a few seconds, all parameters of the ESC can be displayed. The "ITEM" and "VALUE" button on the programming card can quickly select the programming items and parameter values, press "OK" button to save the new parameters in ESC.

### 7-3. Factory reset

Use LED program box to restore factory settings. The method is as follows:

After connect program box and the ESC, press "RESET" button and then press "OK" button to save, the factory settings can be restored.

### 7-4. Automatic Motor Pairing(Optional)

If the motor has been subjected to severe impact or has abnormal heating and abnormal power output during operation, automatic motor pairing may be needed. The operation method is as follows:

**Step 1:** Unplug the throttle cable from the receiver and remove the motor pinion gear.

**Step 2:** Connect the battery, long press and hold the SET button, and after a few seconds, the motor will beep, wait for a few more seconds, and when the motor stops beeping, release the SET button, there will be one long beep followed by two short beeps, indicating that the automatic motor pairing is completed. Reconnect the throttle line to operate normally.

**Note:** Please remove the motor gear before operation, otherwise it may lead to incorrect matching and unknown risk.

### 7-5. Troubleshooting

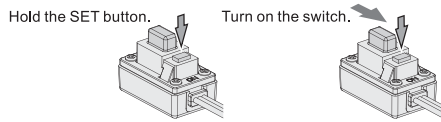
Malfunction	Cause	Solution
The motor does not work.	<ol style="list-style-type: none"> <li>1. Throttle signal is not detected by the ESC;</li> <li>2. The neutral position of ESC and radio is unmatched;</li> <li>3. The battery voltage is not input to the ESC;</li> <li>4. The switch of ESC is damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check whether the throttle line is inserted reversely, whether the channel is inserted wrongly and whether the radio is on.</li> <li>2. The throttle return to neutral position. Recalibrate throttle range.</li> <li>3. Check whether the connection between the battery and the esc is good, whether the plug is soldered poorly, whether there is a problem with the battery.</li> <li>4. Replace the switch.</li> </ol>
The car is going in the reversed direction when the forward.	The default rotation direction setting of motor and car frame is unmatched.	Set the parameter item "Motor Rotation" to the opposite direction via LED program box.
The motor suddenly stopped or significantly reduced the output in running.	<ol style="list-style-type: none"> <li>1. The receiver is interfered;</li> <li>2. The ESC enters low voltage protection;</li> <li>3. The ESC enters overheat protection.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check why the receiver is interfered. Check battery level of transmitter;</li> <li>2. Replacing the battery;</li> <li>3. Please use it after the temperature drops and reduce the load.</li> </ol>
When the throttle is in neutral position, the car slowly moves forward or backward.	<ol style="list-style-type: none"> <li>1. The middle position of radio drifts and the signal is unstable;</li> <li>2. Throttle range is not calibrated well.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace a radio with stable signal;</li> <li>2. Recalibrate throttle range or use throttle TRIM to calibrate the neutral position.</li> </ol>
The throttle range setting could not be completed.	<ol style="list-style-type: none"> <li>1. The throttle cable of esc is not inserted the correct channel of receiver, or inserted reversely;</li> <li>2. Problem with the receiver or transmitter.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check whether the throttle cable is correctly connected to the receiver;</li> <li>2. If the servo works normally, you can connect the throttle cable of esc to the steering channel to have a test, or change the transmitter/receiver system for test directly</li> </ol>



## 8. ESC Setup

### 8-1. Specifications

The calibration must be done on the first use of the ESC, or if a new radio or receiver is installed otherwise the ESC cannot work properly. We recommend to set the fail-safe function of throttle channel ("F/S") to close output mode or set the protection value to the neutral position, making the motor stop running when the receiver cannot receive signal of the radio. The method of setting the throttle range is as following:



1. Turn on the radio, adjust the "D/R", "EPA", "ATL" of the throttle channel to 100% (if the radio has no display screen, adjust the corresponding knob to the maximum position), and adjust the "TRIM" of the throttle channel to 0 (if the remote control has no display screen, adjust the corresponding knob to the middle position). **This step can be skipped if the radio's settings are default!**
2. In power off state, Hold the SET button and turn on the ESC, the motor will beep, and then release the SET button.

3. At this time, three points need to be set: the neutral position, the end position of forward and the end position of reverse.
  - The throttle trigger stays at the neutral position, press the SET button, the motor emits "beep" once, indicating that the neutral position has been stored.
  - Pull the throttle trigger to the end position of forward, press SET button, the motor emits "beep" twice, indicating that the end position of forward has been stored.
  - Push the throttle trigger to the end position of reverse, press SET button, the motor emits "beep" three times, indicating that the end position of reverse has been stored.
4. After calibrating, the motor can be operated normally.

### 8-2. Instruction for programmable items

The column of white words on black background in the following table are the default values of programmable items.

NO:	Setting item	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7	Option 8	Option 9
1	Cutoff Voltage	Disabled	Low	Medium	High					
2	Motor Rotation	CCW	CW							
3	Drag Brake Force	Disabled	Level 1	Level 2	Level 3	Level 4	Level 5			
4	Drag Brake Rate	Level 1	Level 2	Level 3	Level 4	Level 5				
5	Punch	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9

#### 1. Cutoff Voltage:

This function is mainly to prevent the irrecoverable damage caused by over discharge of Lipo Cells. If the voltage protection is turned on, the ESC will monitor the battery voltage all the time during operation. Once the voltage is lower than the set threshold value, the power output will gradually reduce to 50% of the normal power within 2 seconds, and the power will be completely closed after about 30 seconds. When entering the low-voltage protection, the red LED will blink in the way of " —, —, —, —" in single cycle. When set to no protection, the ESC will not cut off power due to low voltage. When using Lipo Cells, it is not recommended to set to (no protection), otherwise the battery may be damaged due to over discharge. For NiMH batteries, it is recommended to set this parameter to no protection. The low, medium and high options correspond 3.0V/Cell, 3.25V/Cell, 3.5V/Cell.

#### 2. Motor Rotation:

The front of the motor shaft faces the user's face (i.e. the tail of the motor is far away from the user's face), when the radio is increasing the throttle in the forward direction, if it is set to CCW, the motor shaft rotates counterclockwise; if it is set to CW, the motor shaft rotates clockwise. Due to the structure difference of car frame, the direction may not be correct. If the rotation direction is wrong, change to the reverse direction.

#### 3. Drag Brake Force:

Drag brake means a brake force on the motor when the throttle is released to the neutral position. "Disabled" means the drag brake force is 0; the corresponding drag brake force increases from level 1 to level 5. Select the appropriate drag brake force according to the actual situation.

#### 4. Drag Brake Rate:

It is the rate when drag brake force increases from zero to the set value when the throttle trigger is released to the neutral position. The higher the level is, the greater the drag brake rate is, that is, the faster the drag brake. Reasonably set this value can make the vehicle stop more stably.

#### 5. Punch:

The Punch setting is used to control how aggressive the motor starts. The higher the value the more aggressive the starts will be. Lowering the punch setting can help with low traction situations, or stuttering when the throttle is aggressively applied.

### 8-3. Parameter setting method

#### Use LED program box to set ESC parameters

The ESC is in off state, connect the throttle cable to the interface marked with "-" "+" in the upper right corner of the program box according to polarity correspondence. Then power on the ESC, after a few seconds, all parameters of the ESC can be displayed. The "ITEM" and "VALUE" button on the programming card can quickly select the programming items and parameter values, press "OK" button to save the new parameters in ESC.

### 8-4. Factory reset

#### Use LED program box to restore factory settings. The method is as follows:

After connect program box and the ESC, press "RESET" button and then press "OK" button to save, the factory settings can be restored.

### 8-5. Automatic Motor Pairing(Optional)

If the motor has been subjected to severe impact or has abnormal heating and abnormal power output during operation, automatic motor pairing may be needed. The operation method is as follows:

**Step 1:** Unplug the throttle cable from the receiver and remove the motor pinion gear.

**Step 2:** Connect the battery, long press and hold the SET button, and after a few seconds, the motor will beep, wait for a few more seconds, and when the motor stops beeping, release the SET button, there will be one long beep followed by two short beeps, indicating that the automatic motor pairing is completed. Reconnect the throttle line to operate normally.

**Note:** Please remove the motor gear before operation, otherwise it may lead to incorrect matching and unknown risk.

## 9. All the ways done, your car is ready to run. Hope you enjoy the fun in driving it.

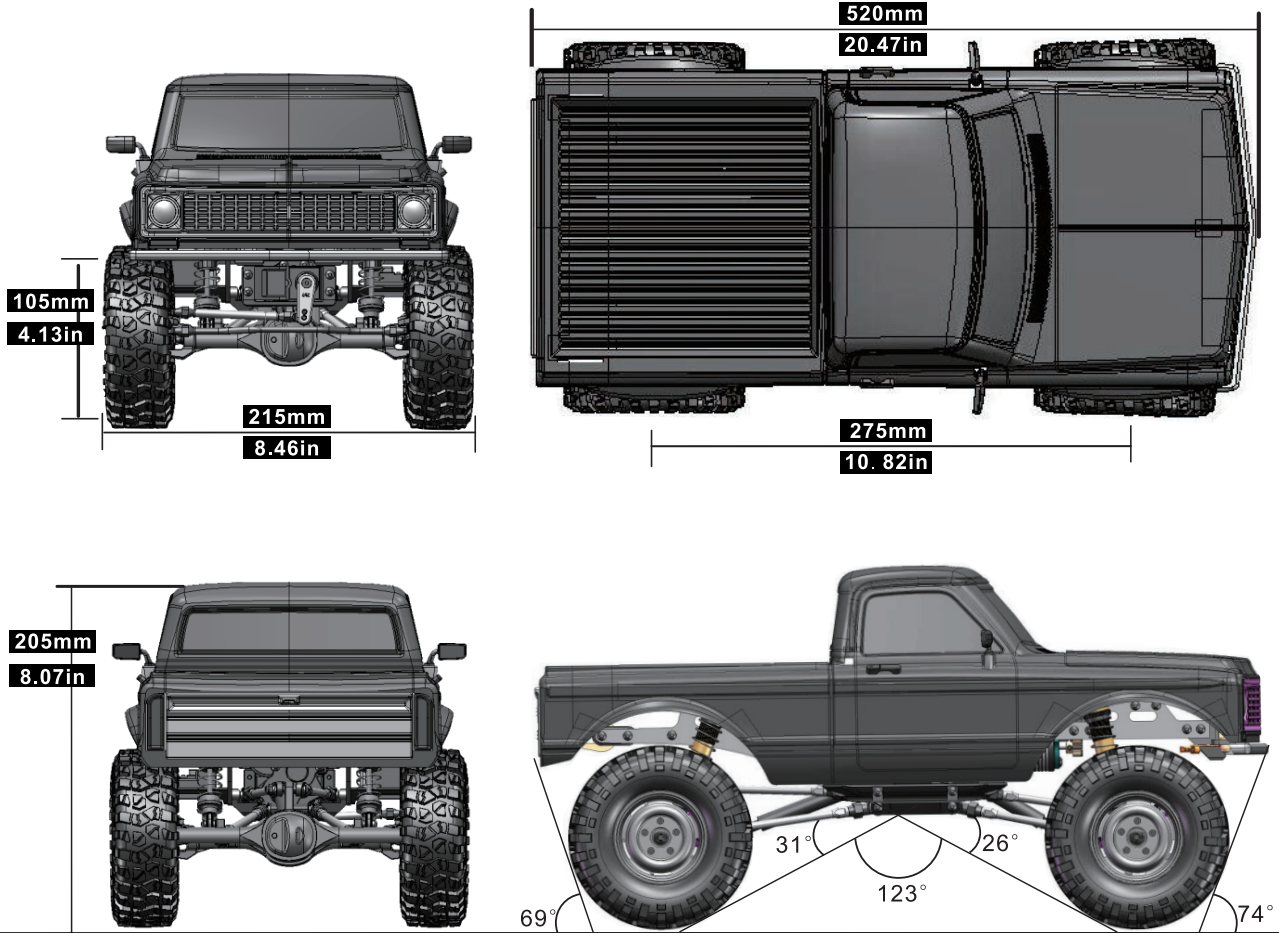
**Tip: Always turn off the receiver and then the transmitter when not in use. Clean the car before storage.**

#### Vehicle Maintenance:

- 1). Please remove the battery pack plug or take it out, when the car is out of use.
- 2). Before each use, please redo the above steps and check all the parts condition if over wear.
- 3). Ensure the unused battery pack over-discharge ( recommended to be above 40%), and keep in a dry and cool place, out of reach of children.
- 4). After each use, please carefully check all the parts condition, and repair or replace the worn part. Use a fine brush to sweep the sand, marl and other dirt inside the model, then wipe it cleanly by a soft cloth.



## 10. FTX Ruffneck Specifications



Item No	FTX5472BL/OR	Wheel Base	275mm	Motor	2200KV
Item Name	Ruffneck	Wheel	1.9in/105*38mm	Breakover	26°
Scale	1/10	Clearance	40mm(steel) 68mm(chassis)	Approach	74°
Description	Crawler/Off-Road	Weight	1.69kg	Departure	69°
Drive Mode	4WD	Radio	2.4G/6CH	Gift Box Size	580*275*305mm
Length	420mm	ESC/Motor	FOC All-in-one	Body Type	PC Soft
Width	210mm	Battery	exclude battery in factory. battery suggestion: 2-3S Lipo,6-9 Cells NiMH	Body Color	Orange/Blue
Height	200mm	Steering Servo	Digital Metal Gear - 15kg	Piece per Carton	1P

**Tip: Always turn off the receiver and then the transmitter when not in use. Clean the car before storage.**

### Vehicle Maintenance:

- 1).Please remove the battery pack plug or take it out, when the car is out of use.
- 2).Before each use, please redo the above steps and check all the parts condition if over wear.
- 3).Ensure the unused battery pack over-discharge ( recommended to be above 40%), and keep in a dry and cool place, out of reach of children.
- 4).After each use, please carefully check all the parts condition, and repair or replace the worn part. Use a fine brush to sweep the sand, marl and other dirt inside the model, then wipe it cleanly by a soft cloth.



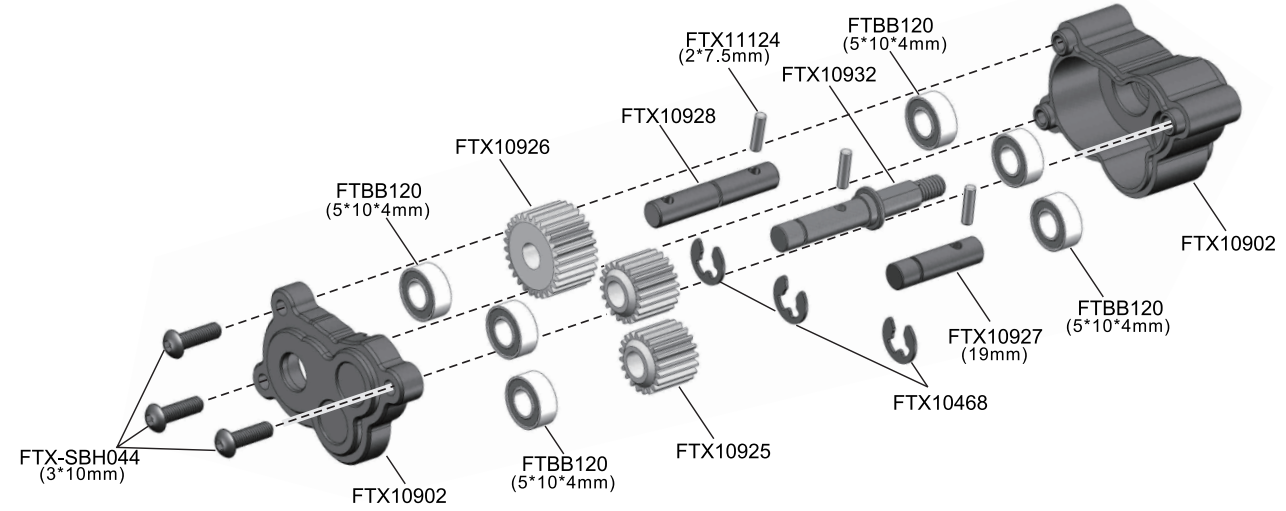
## 11. Troubleshooting

Problem	Possible Cause	Solution
Car does not respond during operation	Electronic plugs loose or fall off	Switch off and reconnect
	Vehicle battery not charged, activating the ESC low voltage cut-off to protect the battery	Replace/recharge the vehicle battery
	Motor or ESC dirty or damaged	replace new Motor (recommend to purchase facoty Motor)
	ESC failed	replace new ESC (recommend to purchase facoty ESC)
	ESC power off by overheated Motor	Stop operation and cool the ESC or Motor
	Motor overheated, demagnetized or damaged	replace new Motor (recommend to purchase facoty Motor)
	Transmitter batteries low or beyond the remote control distance	Replace the transmitter batteries, adjust the remote control distance
	Transmitter damaged	Relace or contact seller
No Backward, forward normally	ESC "operation mode" setting error	Refer to manual "ESC" , set "operation mode" into "forward and backward reverse with brake"
	ESC damaged	Relace or contact seller
	Throttle damaged or transmitter throttle not centered	Refer to manual "Transmitter", and reset
Car operate automatically, with no control	Throttle trim out of center on transmitter	Refer to manual "Transmitter", and reset
	Neutral throttle is in incorrect position	Adjust ESC in neutral point
Normal operation, speed shift failure	Error Operation	Ensure to operate in stop status, more refer to the Manual
	Gear Cable damage or loose	Replace the accessory or Readjust
	Servo wire inserts in wrong Receiver slot	Refer to the manual, Readjust
Sluggish Action	Battery damaged / not charged	Check, change or recharge
	Throttle trim out of center on transmitter	Adjust (refer to manual "transmitter")
	Motor dirty/ damaged	Clean/ replace
	Drivetrain dirty / damaged	Check and clean
Light Function Failure after Battery properly installed	Light Plug is not connected or in wrong postion	Check the plug connection
	Transmitter Set Error or Light Control Panel Damage	Reset the Transmitter. Otherwise, please check the light control panel is damaged or not.
	Light Cable in wrong installation and connection	Readjust the installation and Connection
Lack of streering and throttle	ESC power off by overheat	Stop operation, cool the ESC
	Transmitter too near interfere electronical objects	Check and rebind transmitter and receiver, refer to manual
Vehicle moves left / right without steering input	Steering accessories damaged	Check and replace
	Wheel loose	Check and replace
	Drivetrain dirty / damaged	Check and replace
Controls Reversed	ST. REV or TH. REV	Change switch position, refer to manual
	Check the wires between ESC and Motor correct or not	Switch the motor black and red wire
Clicking noise in operation	Check the bodyshell damaged or fall off	Retrim or replace
	Loose or tight between motor gear and main gear	Reset gear mesh
	Gear damaged or rocked	Remove gear cover and inspect. If necessary, replace gear
Only steering, no forward and backward	ESC failed or abnormal	Reset the neutral point or replace
	Transmitter failed or abnormal	Relace or contact seller

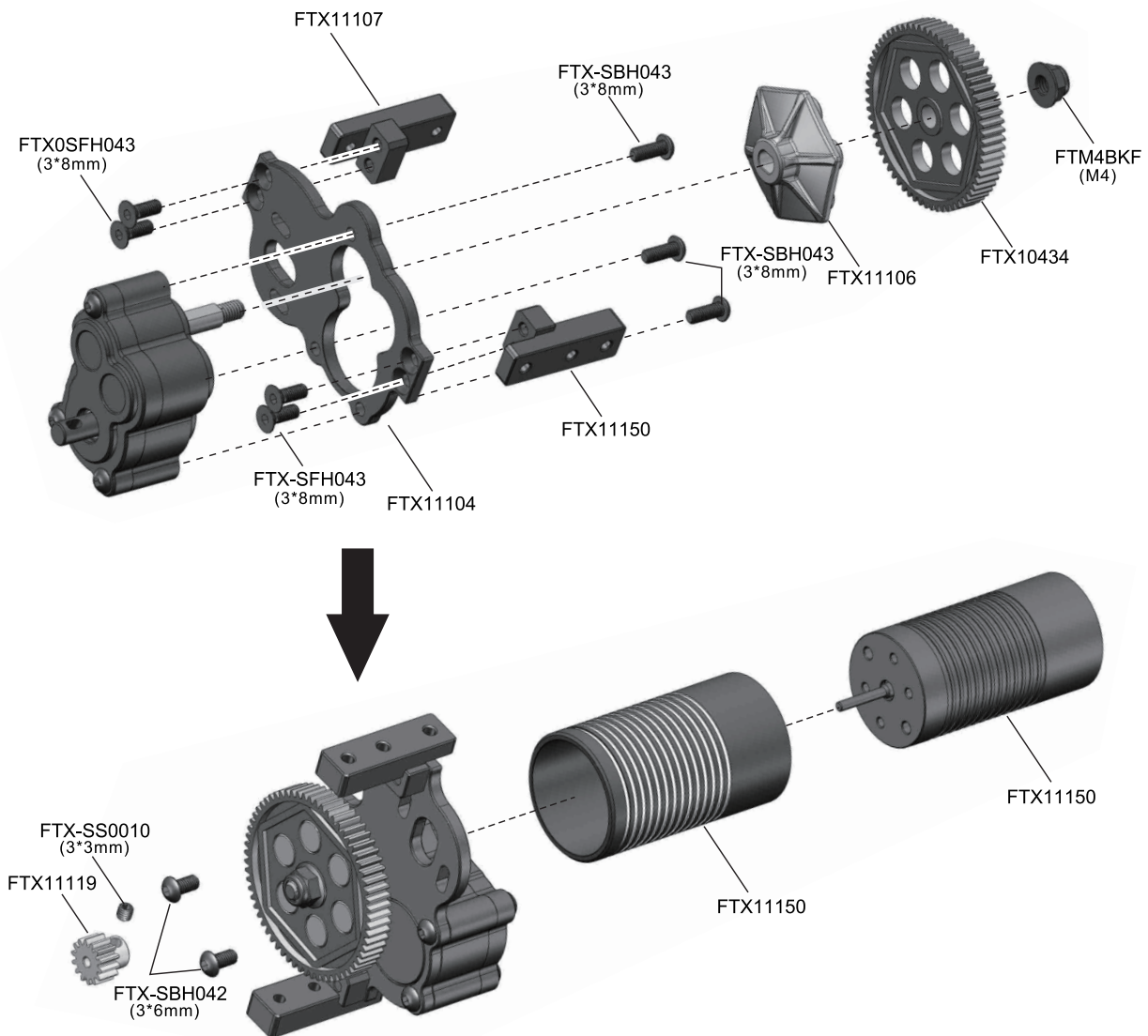


# EXPLODED PARTS DIAGRAMS

## Transmission Assembly-1

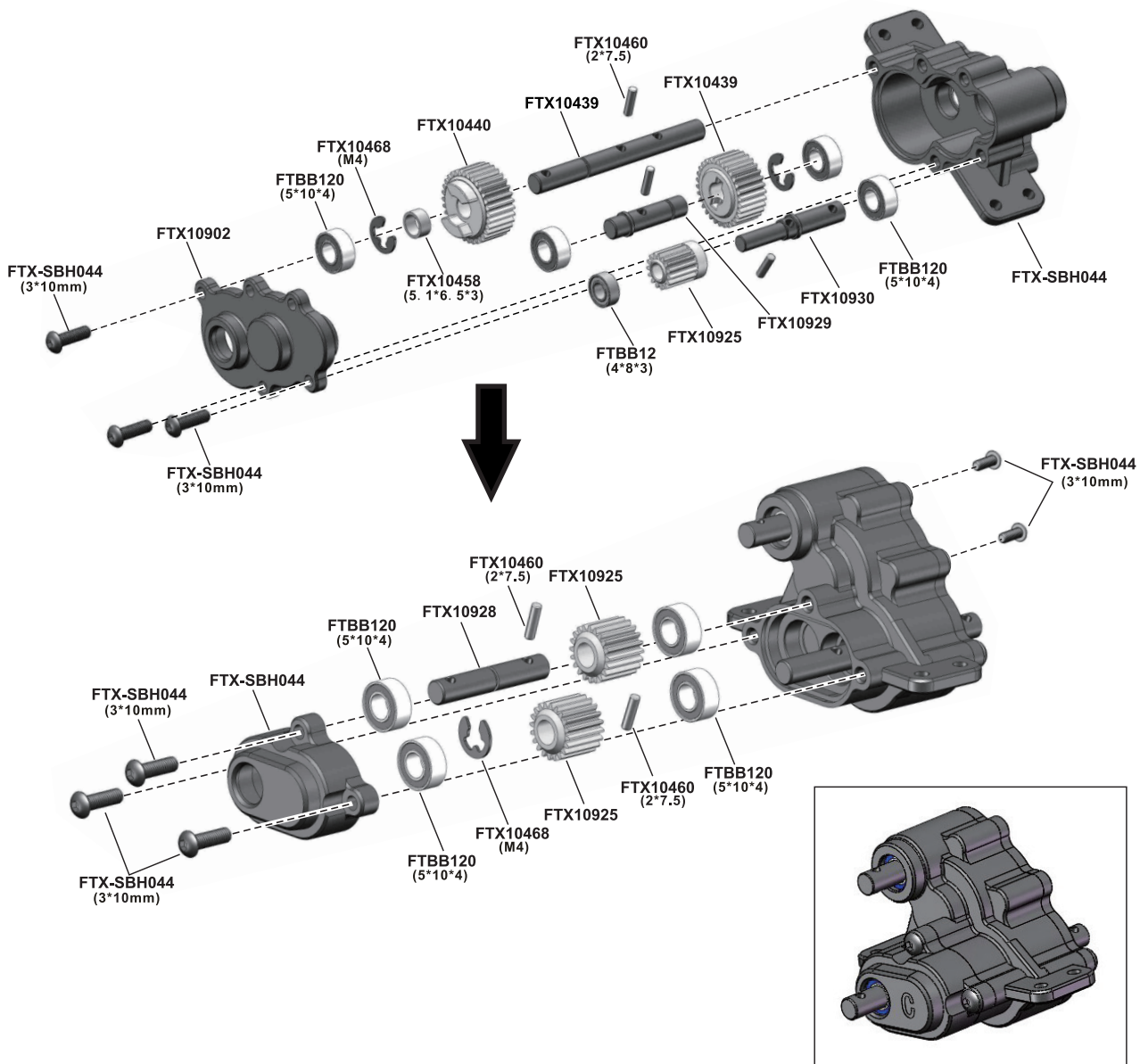


## Motor/Transmission Assembly

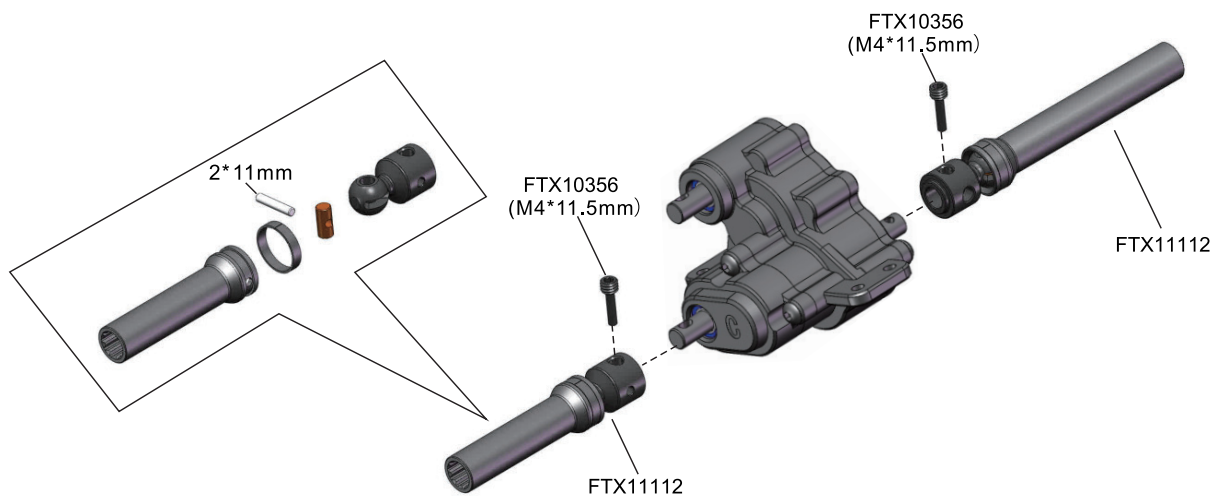




### Transmission Assembly-2

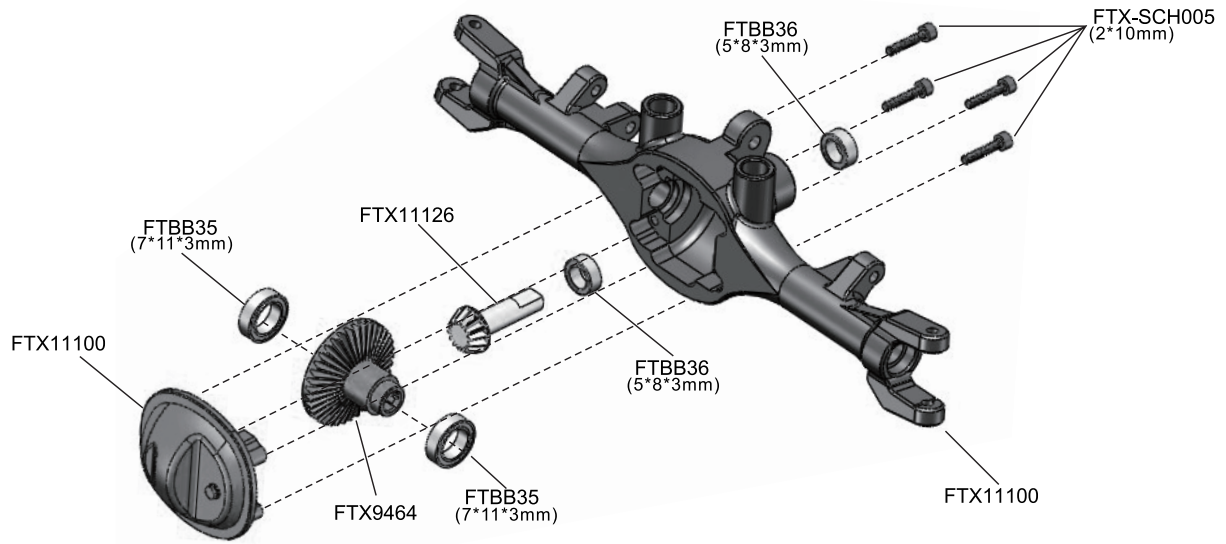


### CVD Driveshaft Assembly

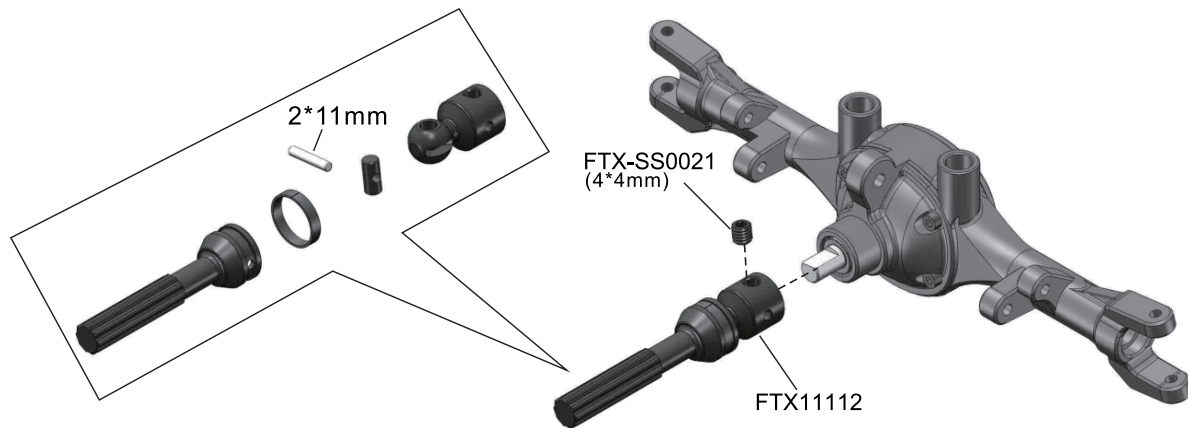




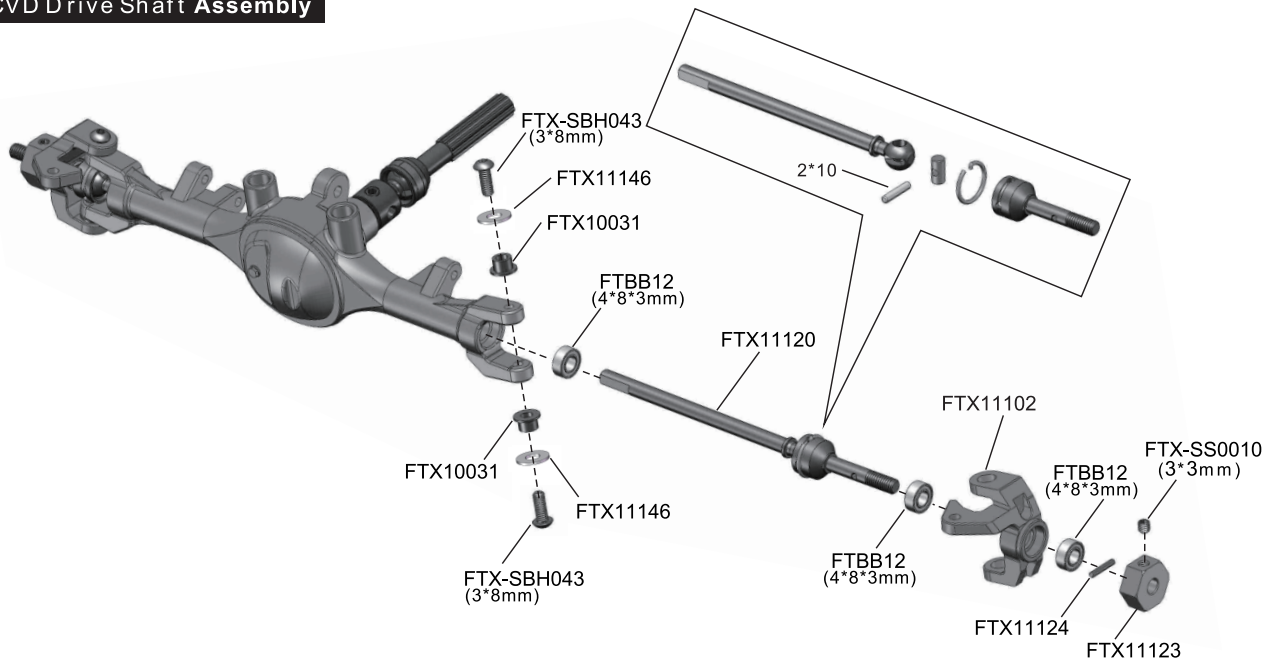
### Front Axle Assembly



### CVD Driveshaft Assembly

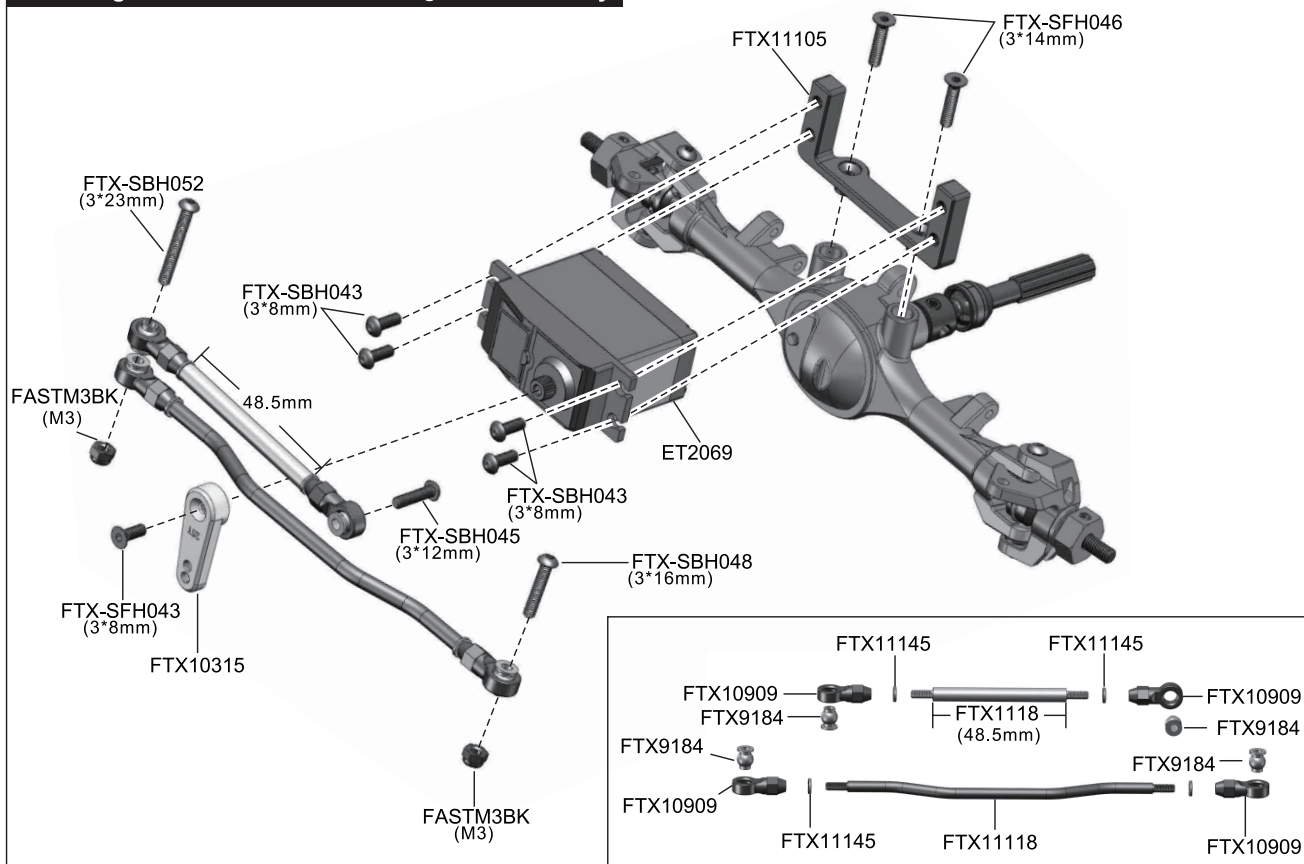


### CVD Drive Shaft Assembly

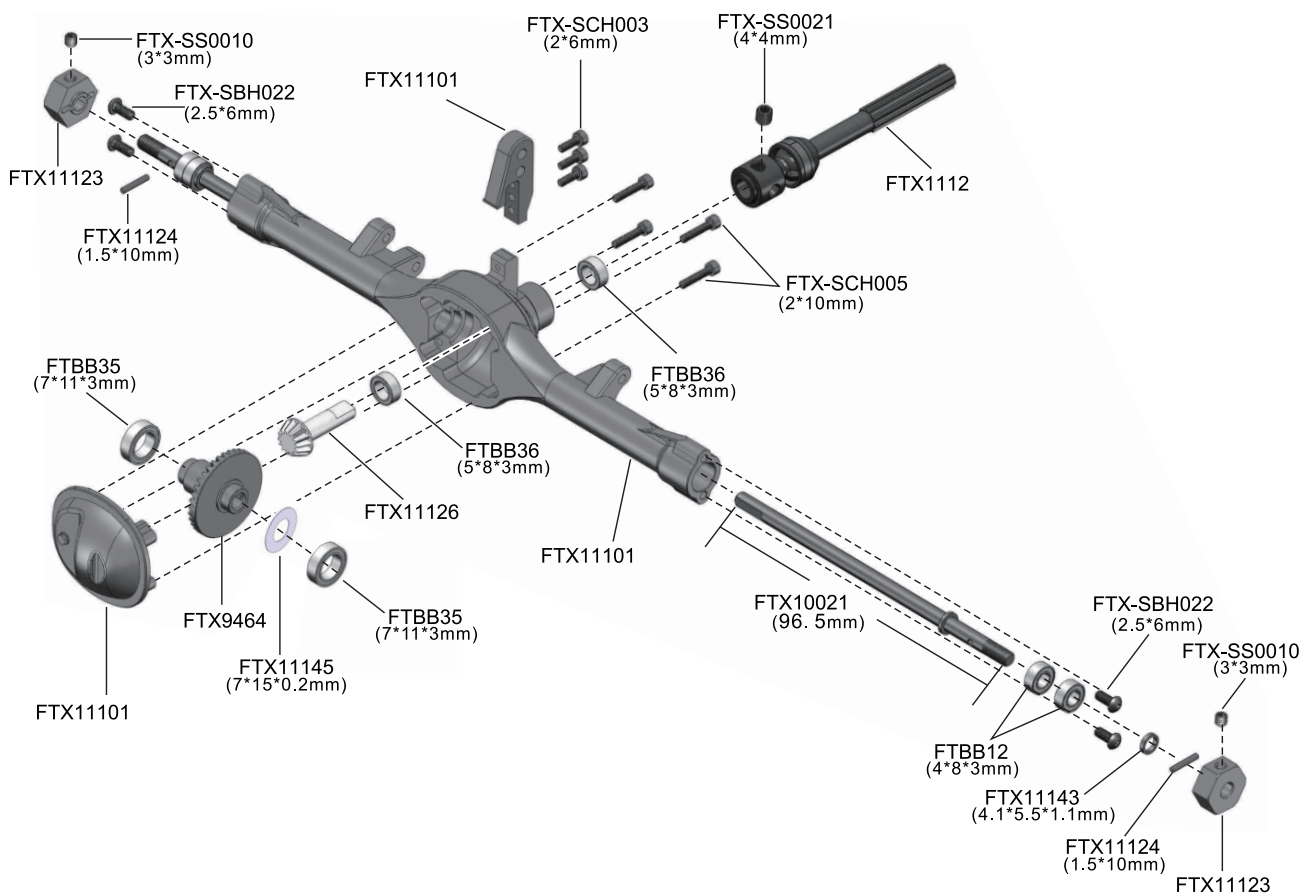




### Steering Servo/Servo link/Steering Link Assembly

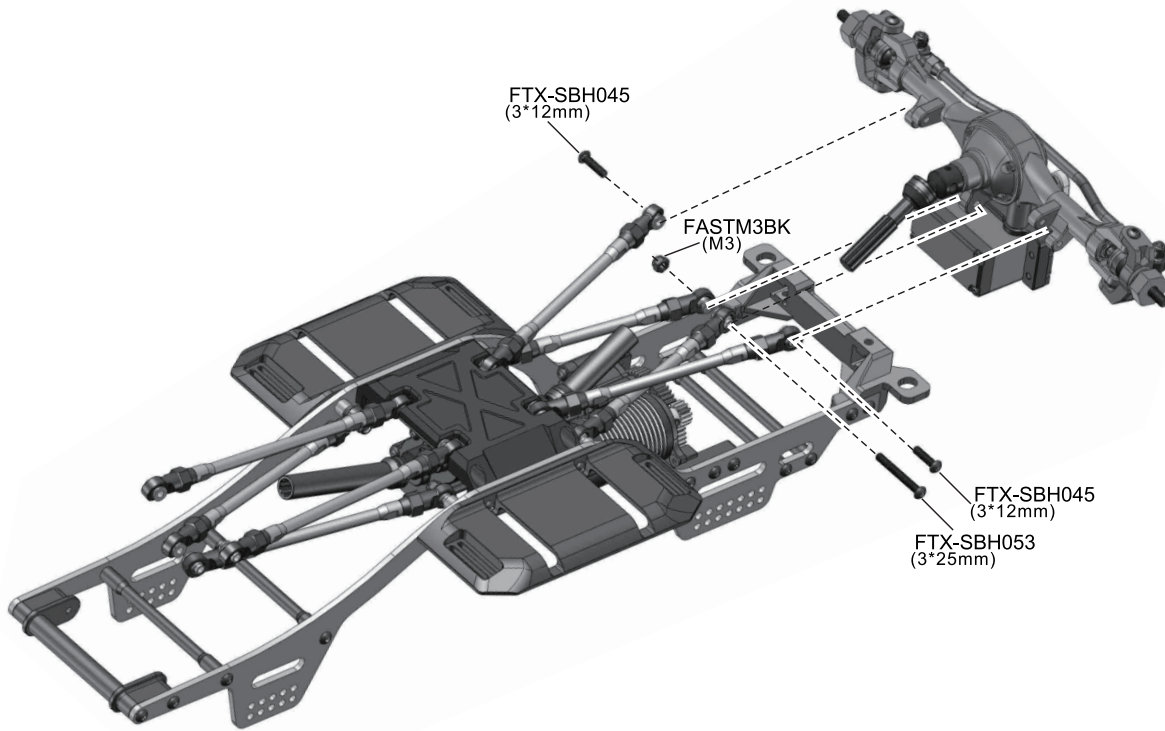


### Rear Axle Box/Rear Shaft Assembly

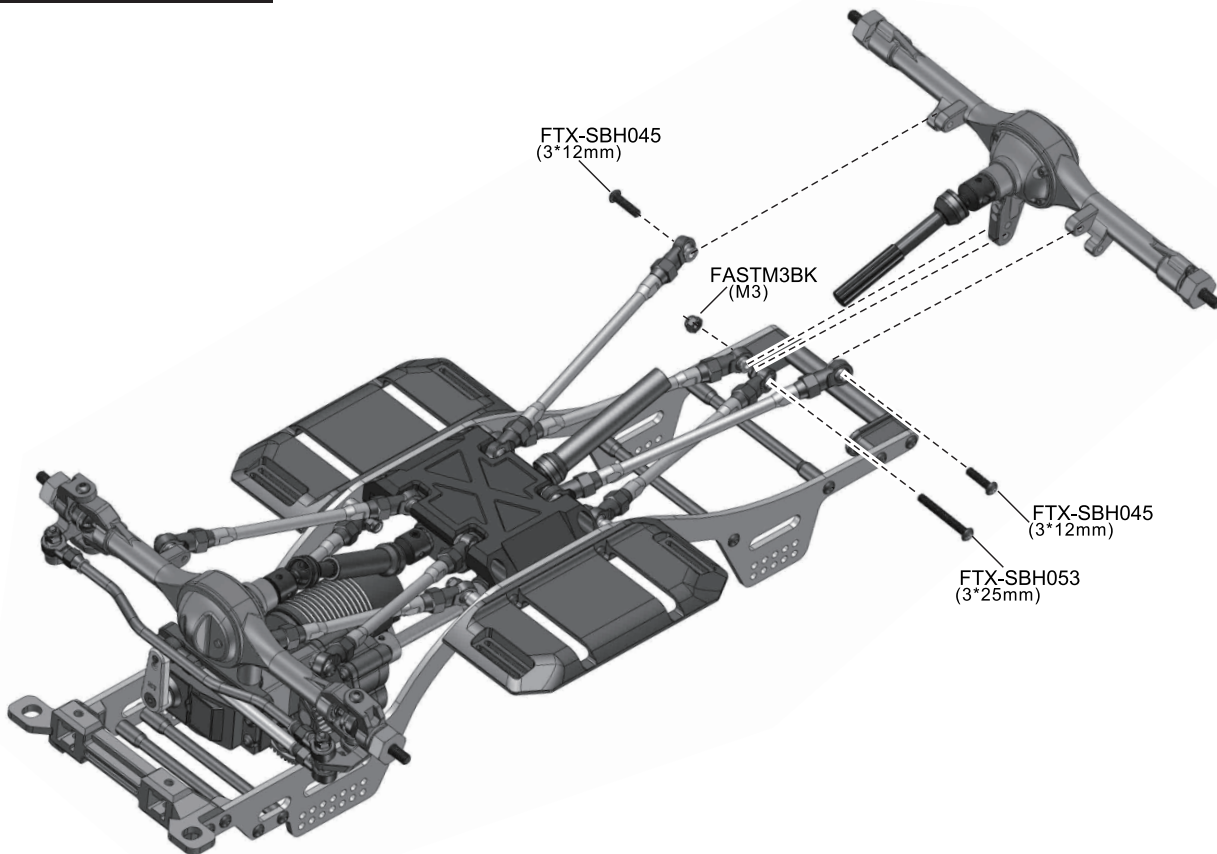




### Front Axle Box Assembly

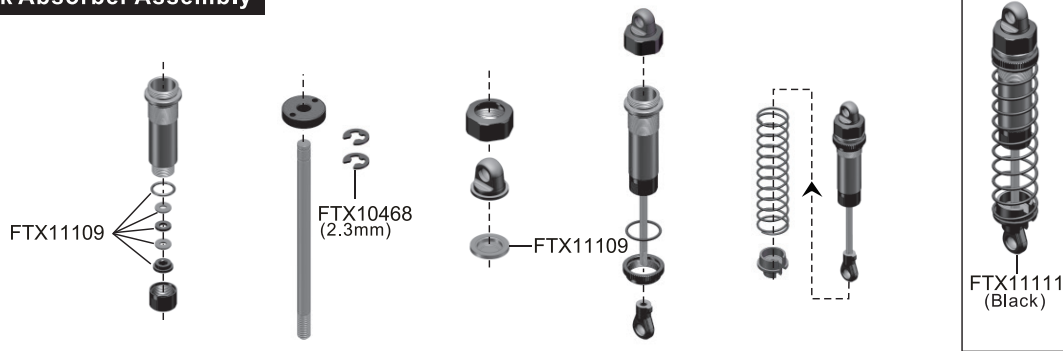


### Rear Axle Box Assembly

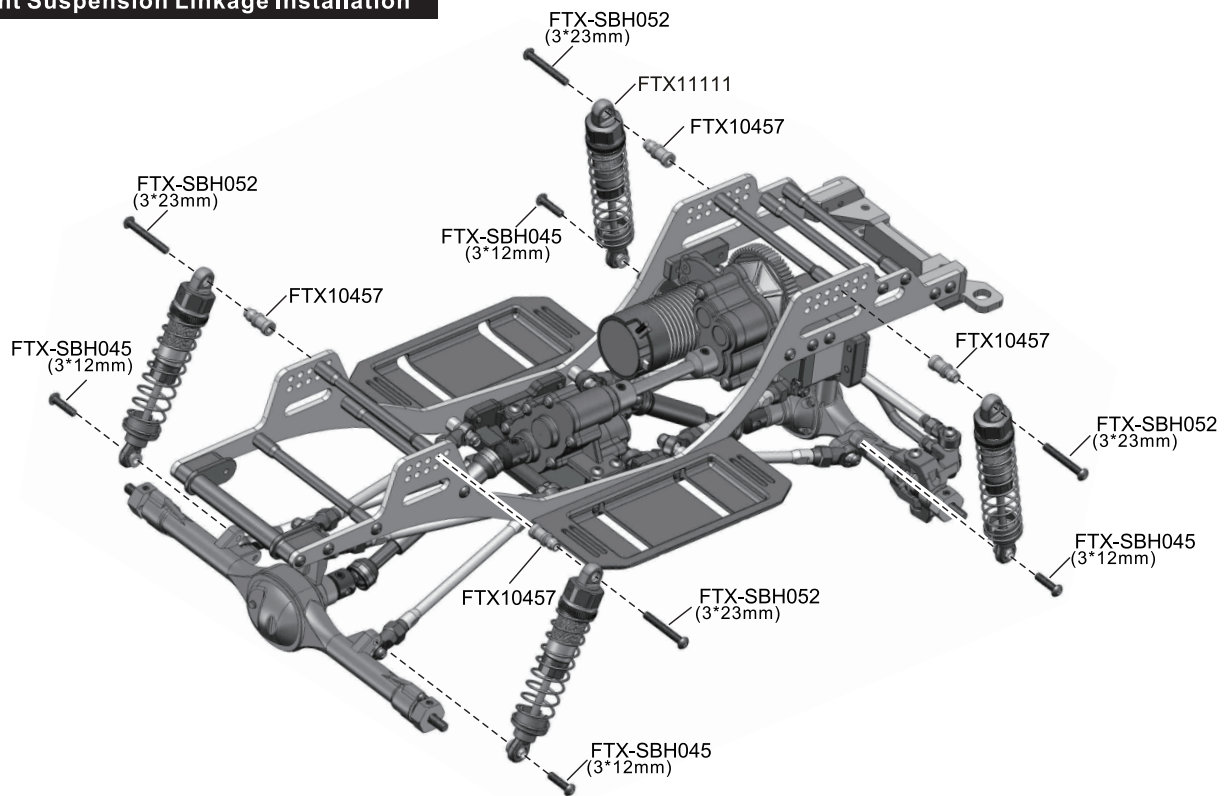




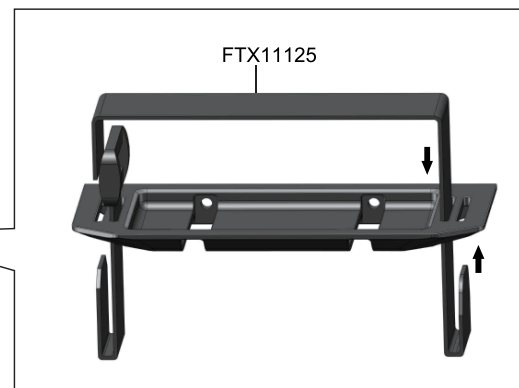
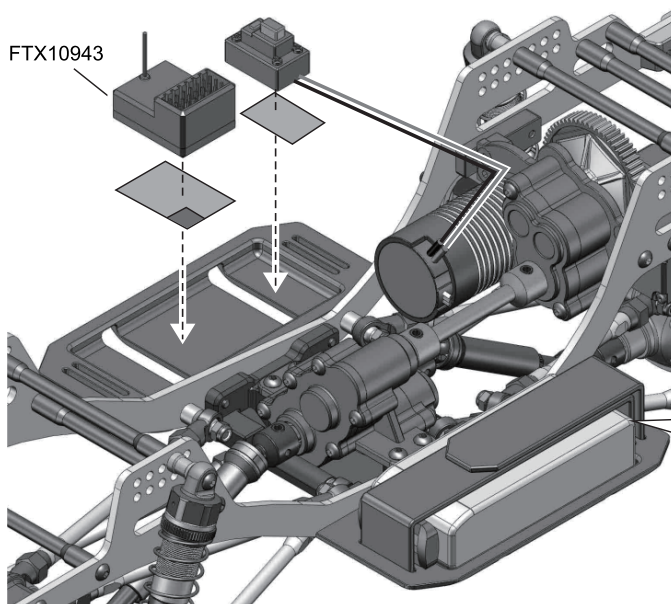
### Shock Absorber Assembly



### Front Suspension Linkage Installation

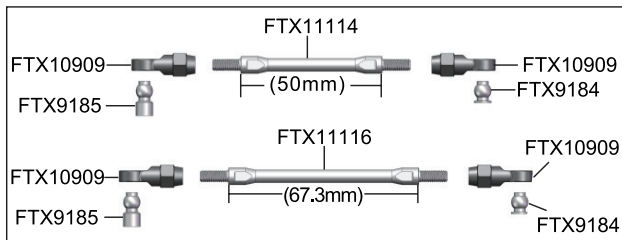
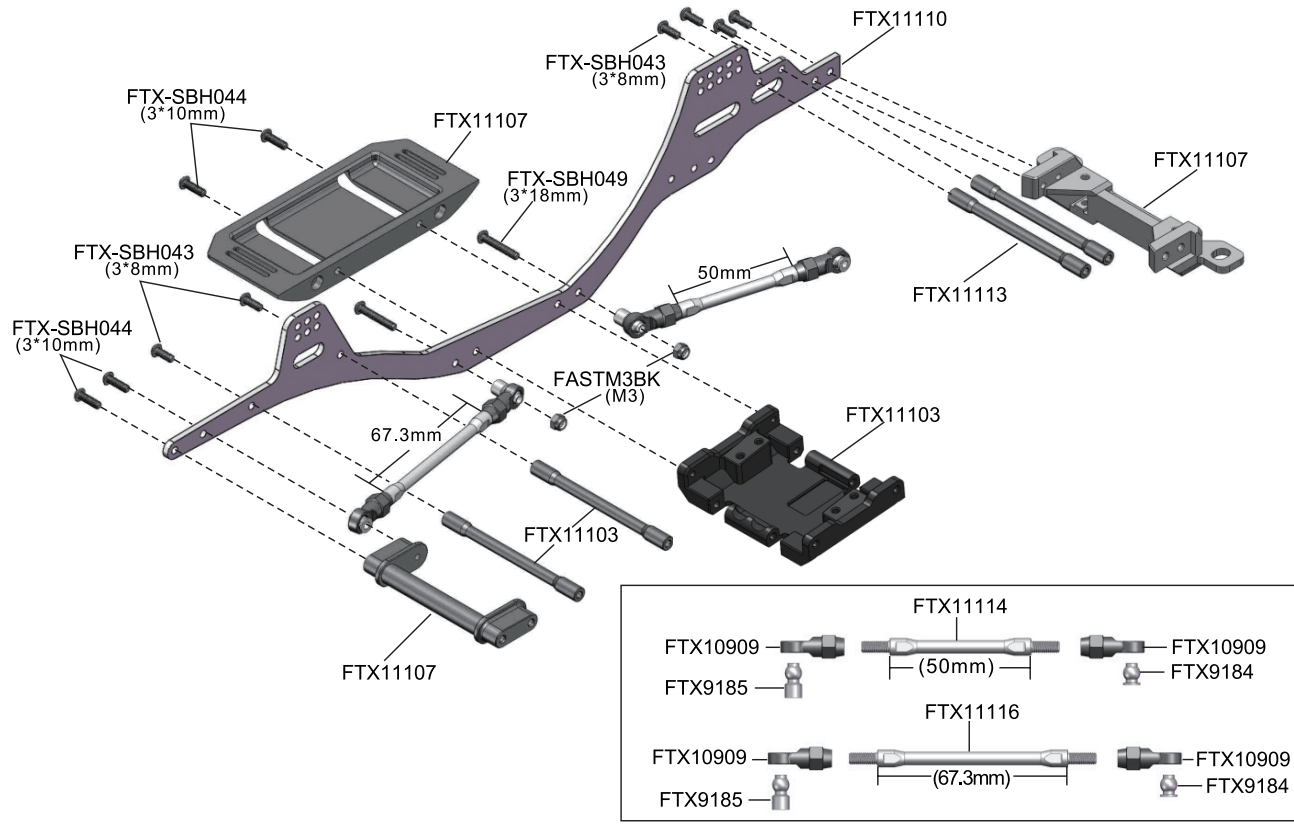


### Receiver / Magnetic Adapter Cable Assembly

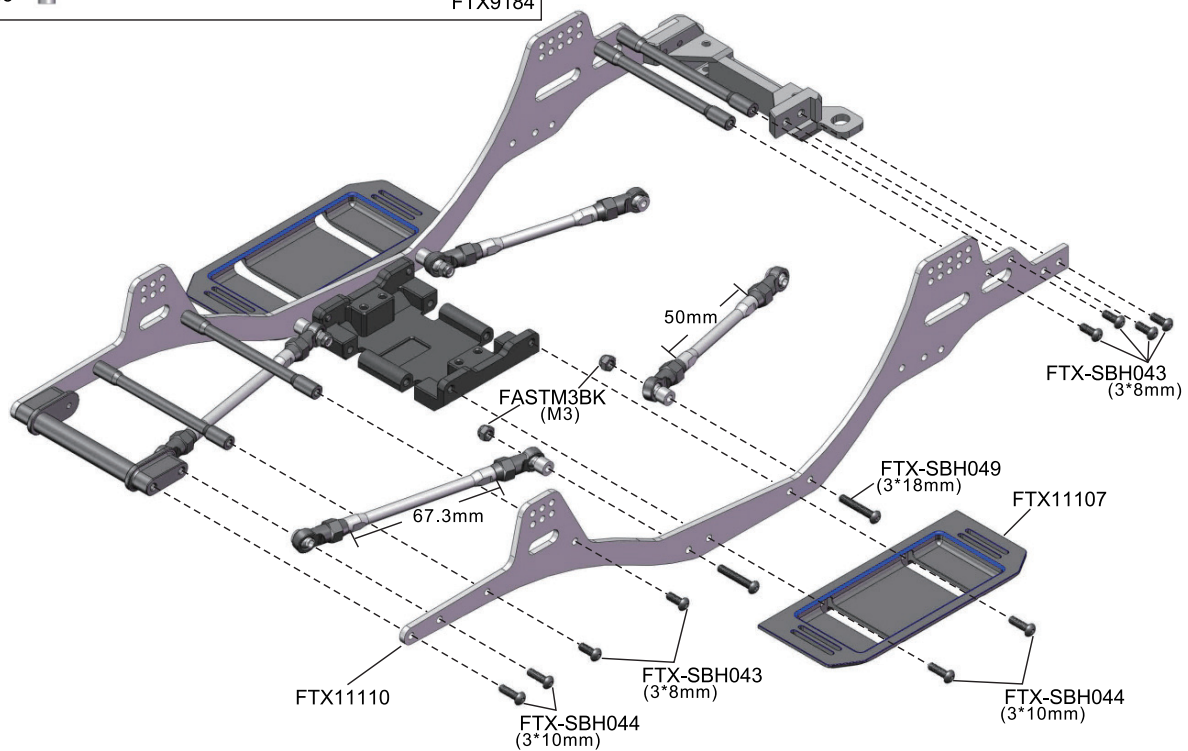




### Front and Rear Upper Link / Chassis Rails Assembly-L

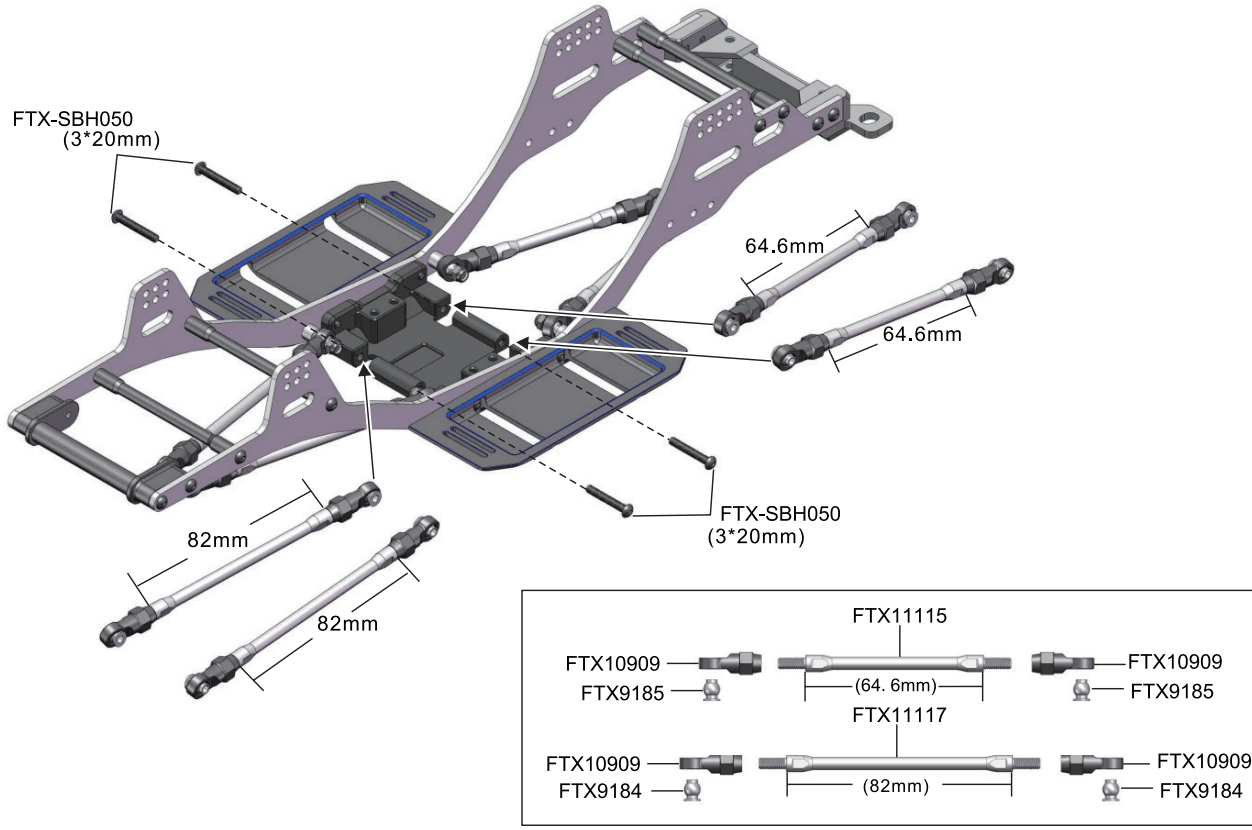


### Front and Rear Upper Link / Chassis Rails Assembly-R

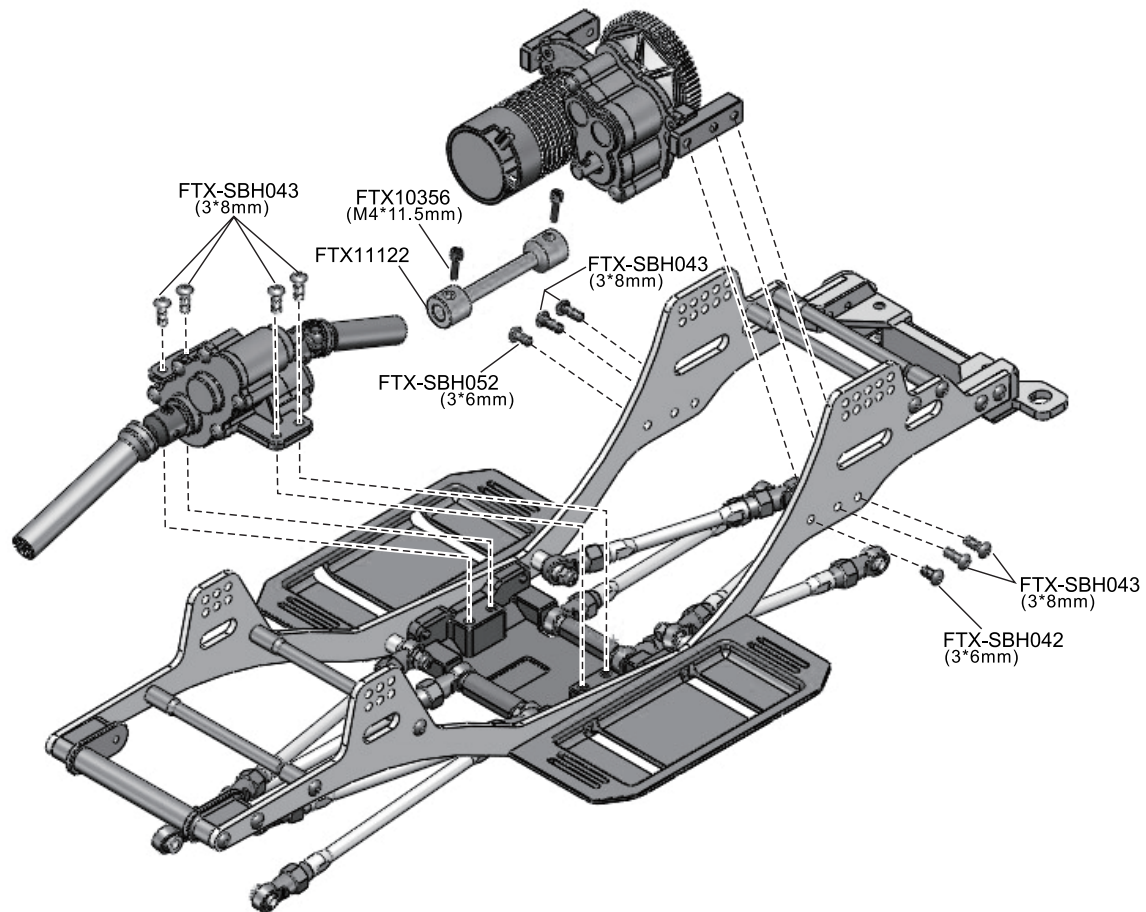




### Front and Rear Lower Link Assembly

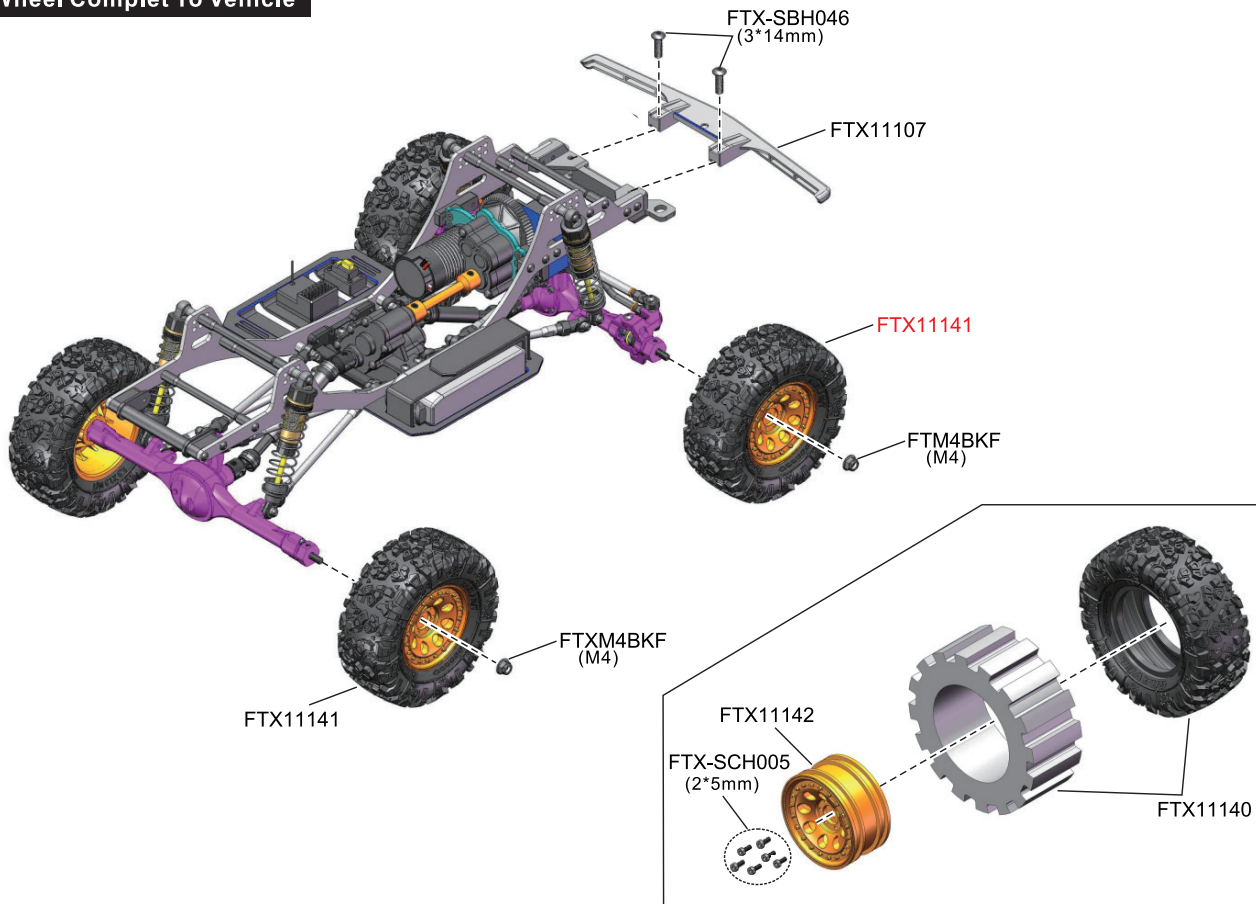


### Mounting Center Gear Box

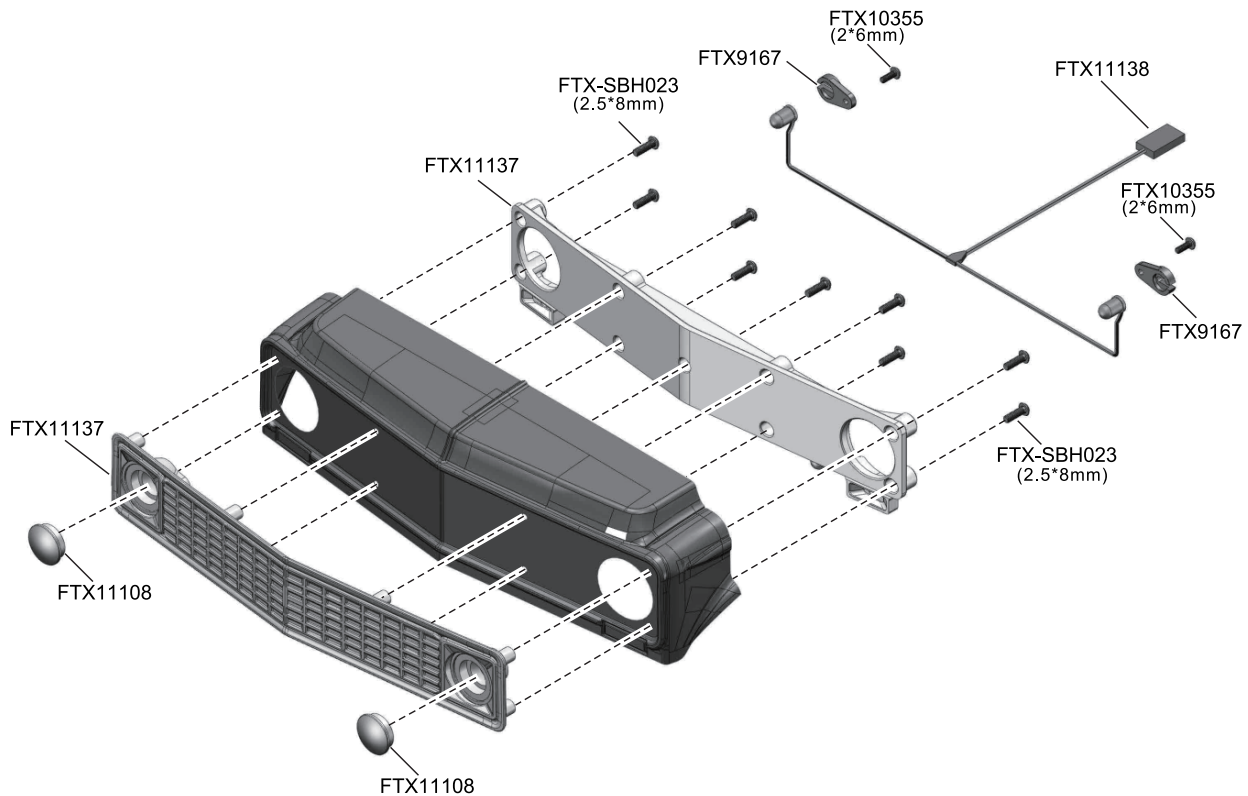




### Wheel Complet To Vehicle



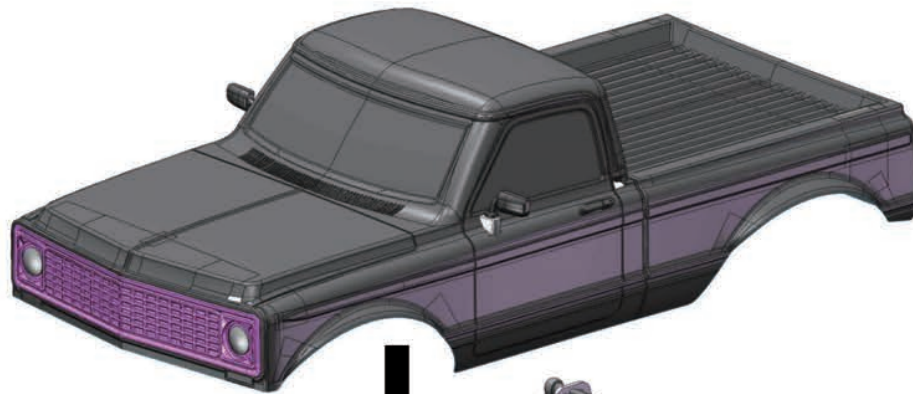
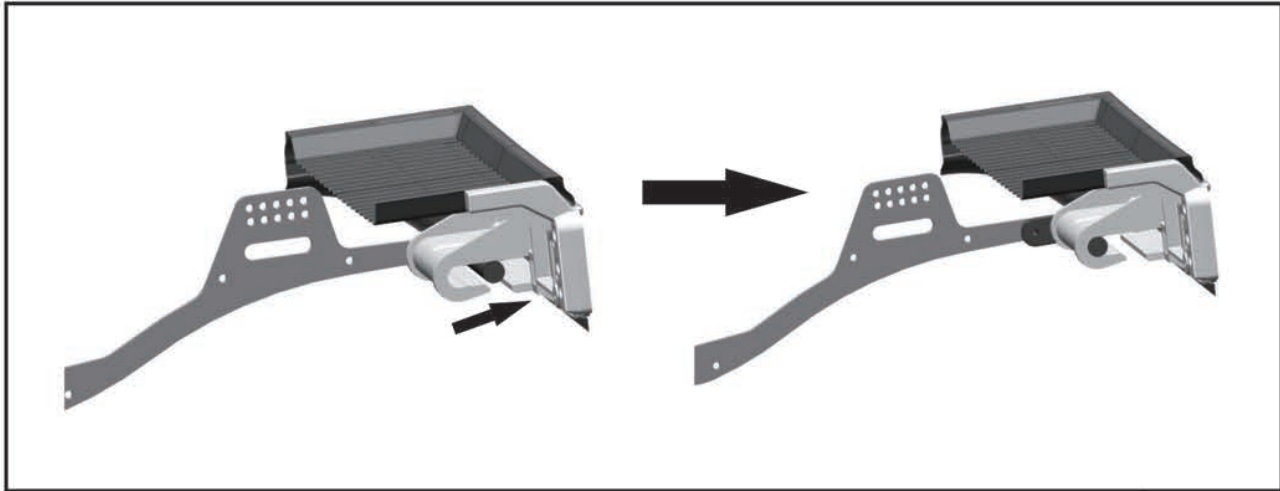
### Headlight/Taillight Installation







Pre-Assembled PC Body Assembly



FTX10913





# PARTS LISTING



VZ0420002S

FTX11100

FTX11101



Battery(7.4V2000mAh)  
(not incl.)



Front Axle Box(Black)



Rear Axle Box(Black)

FTX11102

FTX11103

FTX11104

FTX11105

FTX11106



Steering Mount(L/R)(Black)



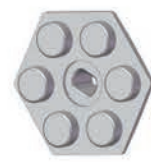
Chassis Mount



Motor Mount



Servo Mount

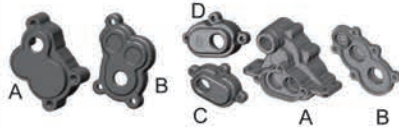


64T Gear Mount

FTX10902

FTX11107

FTX10909



Transmission



Side Plate + Rear Body Holder + Motor Mount  
+ Front Bumper + Front Bumper Mount



Link Ends

FTX11108

FTX11109

FTX11142

FTX11141



Front Headlight Lenses



Shock Repair Kit(completed car)



(Electroplated Silver)

Wheel Rim



Wheel Complete L/R

FTX11140

PC Body & Decals

Pre-Assembled PC Body



Tire W/Foam

FTX11135C (clear) FTX11135BL (blue)  
FTX11135OR (orange)

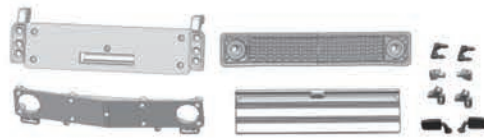


FTX11136BL  
FTX11136OR



FTX11140

FTX11110



Bodyshell Function Accessories



Chassis Rails

FTX11111

FTX11112

FTX11113

FTX11114

FTX11115



Shock Absorbers(Red)



CVD Driveshaft



Joint Link






































Front Upper Link 50mm






































Front Lower Link 64.6mm











<b>FTX11116</b>  Rear Upper Link 67.3mm	<b>FTX11117</b>  Rear Lower Link 82mm	<b>FTX11118</b>  Servo link (48.5mm) + Steering Link	<b>FTX10434</b>  Crown Gear (64T)	<b>FTX11119-14</b>  0.6 Pinion Gear
<b>FTX11126</b>  Drive Gear 14T (5*8*3)	<b>FTX9464</b>  Crown Gear 38T	<b>FTX10438</b>  Gear(15T)	<b>FTX10925</b>  Gear(20T)	<b>FTX10926</b>  Gear(28T)
<b>FTX10439</b>  Gear(30T)	<b>FTX10440</b>  Gear(32T)	<b>FTX11120</b>  CVD Drive Shaft	<b>FTX10021</b>  Rear Shaft (96.5mm)	<b>FTX10927</b>  Gear Shaft(19mm)
<b>FTX10928</b>  Gear Shaft(20T)	<b>FTX10929</b>  Gear Shaft(21.9mm)	<b>FTX10930</b>  Gear Shaft(30.1mm)	<b>FTX11121</b>  Gear Shaft(50.6mm)	<b>FTX10932</b>  Gear Shaft(M4)
<b>FTX11122</b>  Transfer Joint Shaft	<b>FTBB12</b>  Ball Bearing 4*8*3	<b>FTBB36</b>  Ball Bearing 5*8*3	<b>FTBB120</b>  Ball Bearing 5*10*4	<b>FTBB35</b>  Ball Bearing 7*11*3
<b>FTX9184</b>  Ball Stand 5.9mm(Short)	<b>FTX9185</b>  Ball Stand 5.9mm(Long)	<b>FTX10457</b>  Shock Balls	<b>FASTM3BK</b>  Nylon Nut M3	<b>FTM4BKF</b>  Flange M4 Lock Nut
<b>FTX10355</b>  Button Head Self-tapping 2*6mm	<b>FTX-SBH022</b>  Button Head 2.5*6mm	<b>FTX-SBH023</b>  Button Head 2.5*8mm	<b>FTX-SBH042</b>  Button Head 3*6mm	<b>FTX-SBH043</b>  Button Head 3*8mm



<b>FTX-SBH044</b>  Button Head 3*10mm	<b>FTX-SBH045</b>  Button Head 3*12mm	<b>FTX-SBH046</b>  Button Head 3*14mm	<b>FTX-SBH048</b>  Button Head 3*16mm	<b>FTX-SBH049</b>  Button Head 3*18mm
<b>FTX-SBH050</b>  Button Head 3*20mm	<b>FTX-SBH052</b>  Button Head 3*23mm	<b>FTX-SBH053</b>  Button Head 3*25mm	<b>FTX-SBH043</b>  Flat Head 3*8mm	<b>FTX-SBH046</b>  Flat Head 3*14mm
<b>FTX-SCH002</b>  Cap Head 2*5mm	<b>FTX-SCH003</b>  Cap Head 2*6mm	<b>FTX-SCH005</b>  Cap Head 2*10mm	<b>FTX10356</b>  Step Screws 4*11.5mm	<b>FTX-SS0010</b>  Grub Screw Bolt 3*3mm
<b>FTX-SS0021</b>  Grub Screw Bolt 4*4mm	<b>FTX10458</b>  Gasket(5.1*6.5*3)	<b>FTX11143</b>  Metal Washer(4.1*5.5*1.1mm)	<b>FTX11144</b>  aluminium washer (3*5.5*1mm)	<b>FTX11145</b>  Gasket(7*15*0.2mm)
<b>FTX11123</b>  Wheel Hex. + Grub Screw Bolt3*3mm	<b>FTX10031</b>  King Pin Bushing	<b>FTX10461</b>  clip kits(2.8*8*0.25mm)	<b>FTX11124</b>  Pin(2*7.5*2*9.8*1.5*10mm)	<b>FTX11468</b>  E-Clips (2. 3mm/4mm)
<b>ET2069</b>  Steering Servo 15KG	<b>FTX10315</b>  Servo Horn(25T)	<b>FTX11150</b>  Brushless Syetem (ESC+ Motor 2-IN-1)	<b>FTX11125</b>  (250mm) Battery Straps	<b>FTX10913</b>  Body Clip Mount
<b>FTX9167</b>  2*6mm Light Clip	<b>FTX10942</b>  Radio	<b>FTX10943</b>  Receiver	<b>FTX11138</b>  Light Set	<b>FTX11145</b>  Gasket(3*6.5*0.5mm)



# UPGRADEABLE OPTION PARTS LISTING

FTX9920BK	FTX9921BK	FTX11160	FTX11161	FTX11162
 <p>Wheel (AL.)</p>	 <p>Wheel (AL.)</p>	 <p>Side Plate(AL.)</p>	 <p>Front Bumper Mount(AL.)</p>	<p>(Brass)</p>  <p>Steering Mount(L/R)</p>
FTX11119-11	FTX11119-12	FTX11119-13		
 <p>0.6 Pinion Gear (11T)</p>	 <p>0.6 Pinion Gear (12T)</p>	 <p>0.6 Pinion Gear (13T)</p>		