

INSTRUCTION MANUAL

TRACTION

HOBBY

F150 PRO



**OFF-ROAD
PERFORMANCE**

1/8th SCALE ELECTRIC



**Official
Licensed
Product**

INTRODUCTION

Thank you for purchasing the all-new TRACTION HOBBY F150 Pro Scale and Trail Crawler. The design of the F150 Pro instantly obsoletes the status quo with greatly expanded features and versatility. The F150 Pro features the powerful 775 motor and a 4s LiPo-capable electronic speed control. The game-changing portal axles provide greater ground clearance while the rigid steel frame eliminates chassis flex and allows you to navigate tough terrain. The new Mark Ma tires feature tuned foam inserts to deliver superior bite on rocky surfaces with convincing scale realism. In other words, we built it the TRACTION HOBBY way rugged powerful, and ready to handle the rigors of remote locations and all-day driving fun!

This manual contains the instructions you will need to operate and maintain your model so that you can enjoy it for years to come. We want you to feel confident that you own one of the bestperforming models in the market and that it is backed by a team of professionals who aim to provide the highest level of factory support possible. TRACTION HOBBY models are about experiencing total performance and satisfaction not just with your model, but also with the company that stands behind it.

We know you are excited about getting your new model on the trail, but it is very important that you take some time to read through the Owners Manual. This manual contains all the necessary setup and operating procedures that allow you to unlock the performance and potential that TRACTION HOBBY engineers designed into your model. **Even if you are an experienced R/C enthusiast, it is important to read and follow the procedures in this manual.**

Thank you again for going with TRACTION HOBBY. We work hard every day to assure you the highest level of customer satisfaction possible. We truly want you to enjoy your new model!

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BEFORE YOU PROCEED

Carefully read and follow all instructions in this and any accompanying materials to prevent serious damage to your model. Failure to follow these instructions will be considered abuse and/or neglect. Before running your model, look over this entire manual and examine the model carefully. If for some reason you decide it is not what you wanted, then do not continue any further. Your hobby dealer absolutely cannot accept a model for return or exchange after it has been run.

SUPPORT

If you have any questions about your model or its operation, call the TRACTION HOBBY Technical Support Line at:86-0573-84639307/0573-84639306

You may also e-mail customer support with your question at sales.frederick@kingmotor.cn.

TRACTION HOBBY offers a full-service, on-site repair facility to handle any of your TRACTION HOBBY service needs. Maintenance and replacement parts may be purchased directly from TRACTION HOBBY by phone. You can save time, along with shipping and handling costs, by purchasing replacement parts from your local dealer.

Do not hesitate to contact us with any of your product support needs. We want you to be thoroughly satisfied with your new model!

SAFETY PRECAUTIONS

All of us at TRACTION HOBBY want you to safely enjoy your new model. Operate your model sensibly and with care, and it will be exciting, safe, and fun for you and those around you. Failure to operate your model in a safe and responsible manner may result in property damage and serious injury. The precautions outlined in this manual should be strictly followed to help ensure safe operation. You alone must see that the instructions are followed and the precautions are adhered to.

IMPORTANT POINTS TO REMEMBER

1. Your model is not intended for use on public roads or congested areas where its operation can conflict with or disrupt pedestrian or vehicular traffic.
2. Never, under any circumstances, operate the model in crowds of people. Your model could cause injury if allowed to collide with anyone.
3. Because your model is controlled by radio, it is subject to radio interference from many sources that are beyond your control. Since radio interference can cause momentary losses of radio control, always allow a safety margin in all directions around the model in order to prevent collisions.
4. The motor, battery, and speed control can become hot during use. Be careful to avoid getting burned.
5. Don't operate your model at night, or anytime your line of sight to the model may be obstructed or impaired in any way.

SPEED CONTROL

Your model's electronic speed control (ESC) is an extremely powerful electronic device capable of delivering high current.

Please closely follow these precautions to prevent damage to the speed control or other components.

1. Disconnect the Battery: Always disconnect the battery from the speed control when not in use.
2. Insulate the Wires: Always insulate exposed wiring with heat shrink tubing to prevent short circuits.
3. 2-4 LiPo cells (2S): The ESC can accept a maximum input voltage of 14.8 volts (4S LiPo). Always adhere to the minimum and maximum limitations of the ESC as stated in the specifications table.
4. Transmitter on First: Switch on your transmitter first before switching on the speed control to prevent runaways and erratic performance.
5. Don't Get Burned: The ESC and motor can become extremely hot during use, so be careful not to touch them until they cool. Supply adequate airflow for cooling.
6. No Reverse Voltage: The ESC is not protected against reverse polarity voltage.

**WARNING! CAUTION! DANGER!**

Your model is able to use LiPo batteries. Charging and discharging batteries has the potential for fire, explosion, serious injury, and property damage if not performed per the instructions. Before use, read and follow all manufacturer's instructions, warnings, and precautions. In addition, Lithium Polymer (LiPo) batteries pose a SEVERE risk of fire if not properly handled per the instructions and require special care and handling procedures for long life and safe operation. LiPo batteries are intended only for advanced users that are educated on the risks associated with LiPo battery use. TRACTION HOBBY does not recommend that anyone under the age of 14 use or handle LiPo battery packs without the supervision of a knowledgeable and responsible adult. Dispose of used batteries accord

Important Warnings for users of Lithium Polymer (LiPo) batteries:

1. LiPo batteries have a minimum safe discharge voltage threshold that should not be exceeded. The electronic speed control is equipped with built-in Low-Voltage Detection that alerts the driver when LiPo batteries have reached their minimum voltage (discharge) threshold. It is the driver's responsibility to stop immediately to prevent the battery pack from being discharged below its safe minimum threshold.
 2. Low-Voltage Detection is just one part of a comprehensive plan for safe LiPo battery use. It is critical to follow all instructions for safe and proper charging, use, and storage of LiPo batteries. Make sure you understand how to use your LiPo batteries. If you have questions about LiPo battery usage, please consult with your local hobby dealer or contact the battery manufacturer. As a reminder, all batteries should be recycled at the end of their useful life.
 3. ONLY use a Lithium Polymer (LiPo) balance charger with a balance adapter port to charge LiPo batteries. Never use NiMH or NiCad type chargers or charge modes to charge LiPo batteries. DO NOT charge with a NiMH-only charger. The use of a NiMH or NiCad charger or charge mode will damage the batteries and may cause fire and personal injury.
 4. NEVER charge LiPo battery packs in series or parallel. Charging packs in series or parallel may result in improper charger cell recognition and an improper charging rate that may lead to overcharging, cell imbalance, cell damage, and fire.
 5. ALWAYS inspect your LiPo batteries carefully before charging. Look for any loose leads or connectors, damaged wire insulation, damaged cell packaging, impact damage, fluid leaks, swelling (a sign of internal damage), cell deformity, missing labels, or any other damage or irregularity. If any of these conditions are observed, do not charge or use the battery pack. Follow the disposal instructions included with your battery to properly and safely dispose of the battery.
 6. DO NOT store or charge LiPo batteries with or around other batteries or battery packs of any type, including other LiPos.
 7. Store and transport your battery pack(s) in a cool dry place. DO NOT store in direct sunlight. DO NOT allow the storage temperature to exceed 140°F or 60°C, such as in the trunk of a car, or the cells may be damaged and create a fire risk.
 8. DO NOT disassemble LiPo batteries or cells.
 9. DO NOT attempt to build your own LiPo battery pack from loo
- Charging and handling precautions for all battery types:

1. BEFORE you charge, ALWAYS confirm that the charger settings exactly match the type (chemistry), specification, and configuration of the battery to be charged.
2. DO NOT attempt to charge non-rechargeable batteries (explosion hazard), batteries that have an internal charge circuit or a protection circuit, batteries that have been altered from original manufacturer configuration, or batteries that have missing or unreadable labels, preventing you from properly identifying the battery type and specifications.
3. DO NOT exceed the maximum manufacturer recommended charge rate.

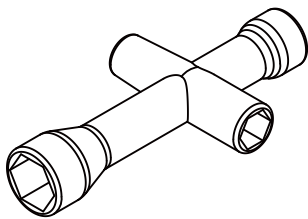
4. DO NOT let any exposed battery contacts or wires touch each other. This will cause the battery to short circuit and create the risk of fire.
5. While charging or discharging, ALWAYS place the battery (all types of batteries) in a fire retardant/fire proof container and on a non-flammable surface such as concrete.
6. DO NOT charge batteries inside of an automobile. DO NOT charge batteries while driving in an automobile.
7. NEVER charge batteries on wood, cloth, carpet, or on any other flammable material.
8. ALWAYS charge batteries in a well-ventilated area.
9. REMOVE flammable items and combustible materials from the charging area.
10. DO NOT leave the charger and battery unattended while charging, discharging, or anytime the charger is ON with a battery connected. If there are any signs of a malfunction or in the event of an emergency, unplug the charger from the power source and disconnect the battery from the charger.
11. DO NOT operate the charger in a cluttered space, or place objects on top of the charger or battery.
12. If any battery or battery cell is damaged in any way, DO NOT charge, discharge, or use the battery.
13. Keep a Class D fire extinguisher nearby in case of fire.
14. DO NOT disassemble, crush, short circuit, or expose the batteries to flame or other source of ignition. Toxic materials could be released. If eye or skin contact occurs, flush with water.
15. If a battery gets hot to the touch during the charging process (temperature greater than 110°F / 43°C), immediately disconnect the battery from the charger and discontinue charging.
16. Allow the battery pack to cool off between runs (before charging).
17. ALWAYS unplug the charger and disconnect the battery when not in use.
18. ALWAYS unplug the battery from the electronic speed control when the model is not in use and when it is being stored or transported.
19. DO NOT disassemble the charger.
20. REMOVE the battery from your model or device before charging.
21. DO NOT expose the charger to water or moisture.
22. ALWAYS store battery packs safely out of the reach of children or pets. Children should always have adult supervision when charging and handling batteries.

TOOLS, SUPPLIES, AND REQUIRED EQUIPMENT

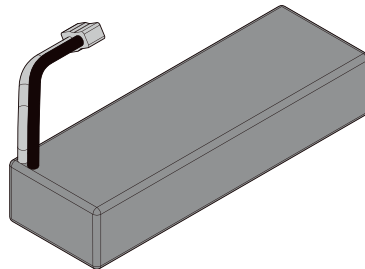
Your model comes with a set of specialty metric tools. You' ll need to purchase other items, available from your hobby dealer, to operate and maintain your model.

Supplied Tools and Equipment

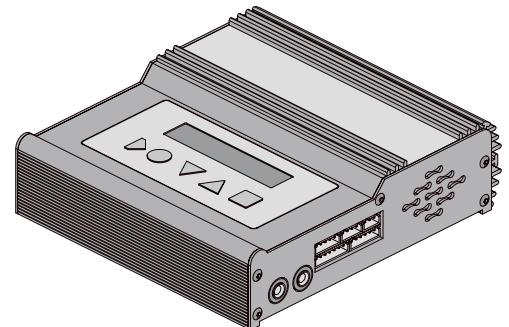
Required Equipment (not included)



4-way wrench

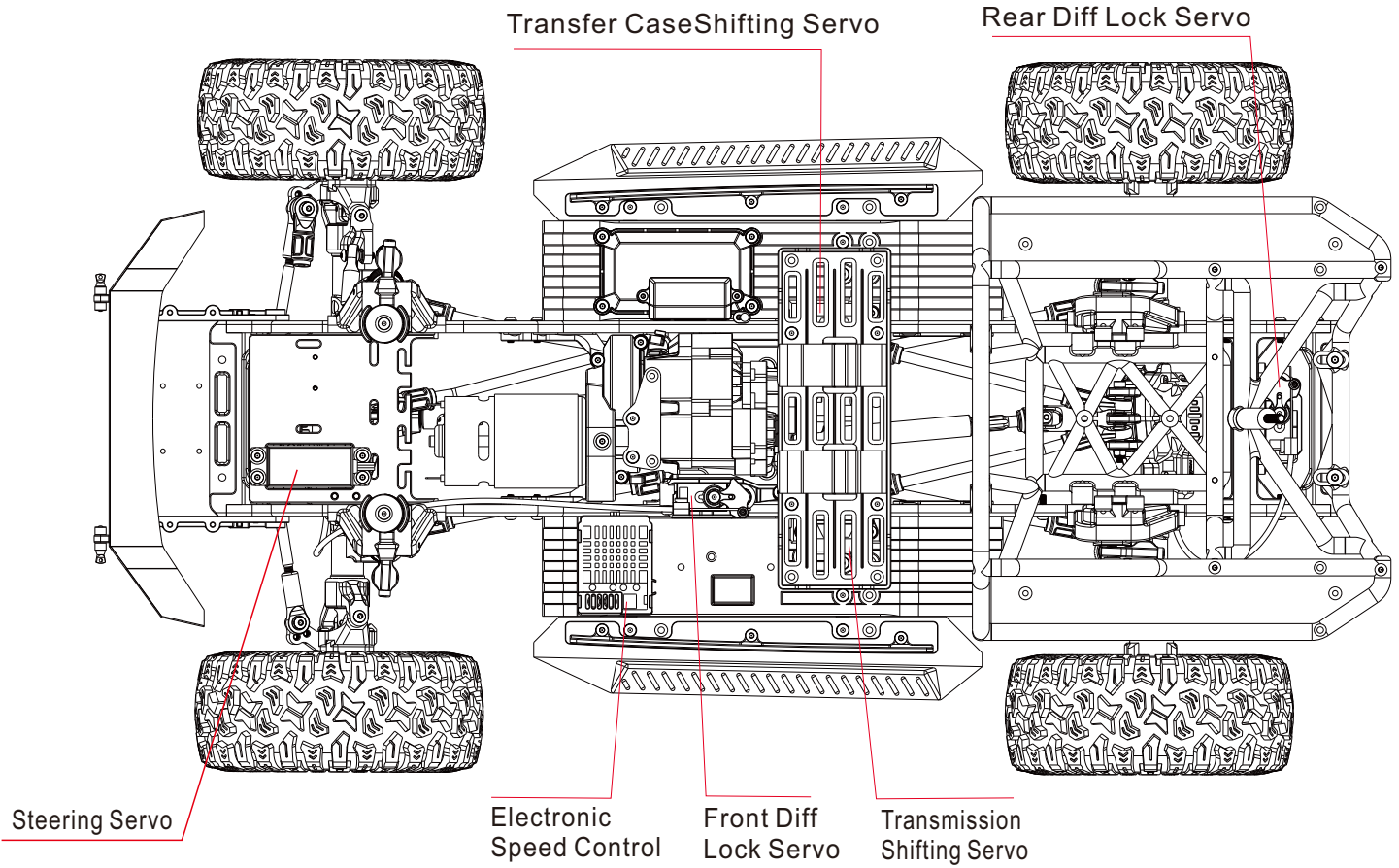


2S-4S Lipo battery



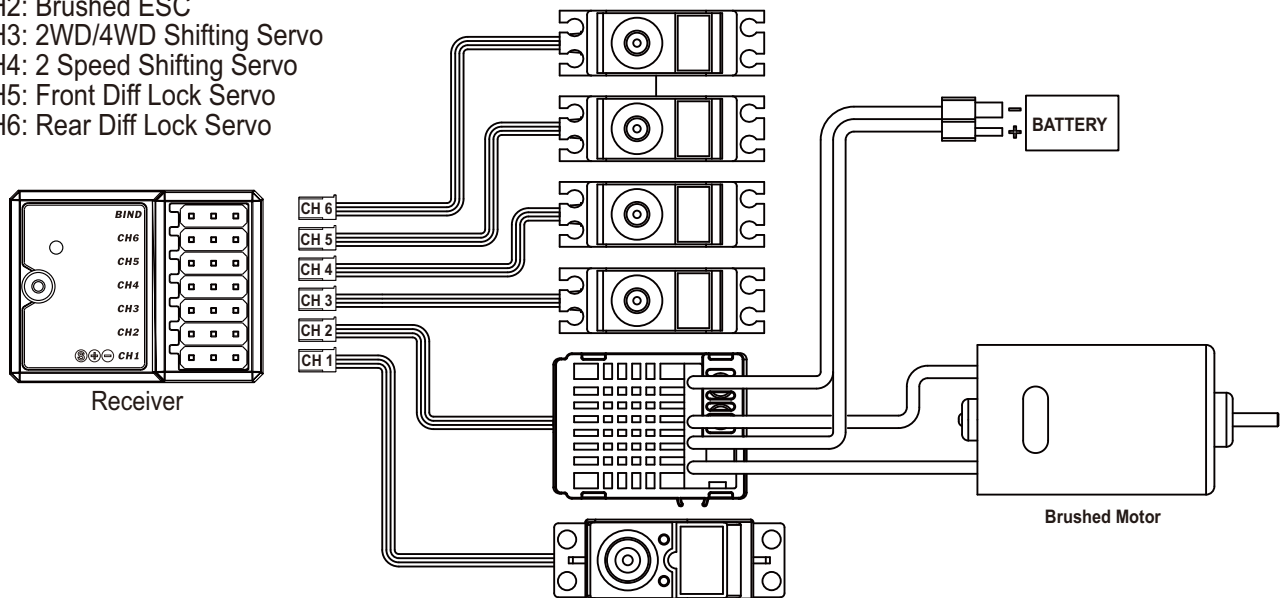
Charger

Chassis top view

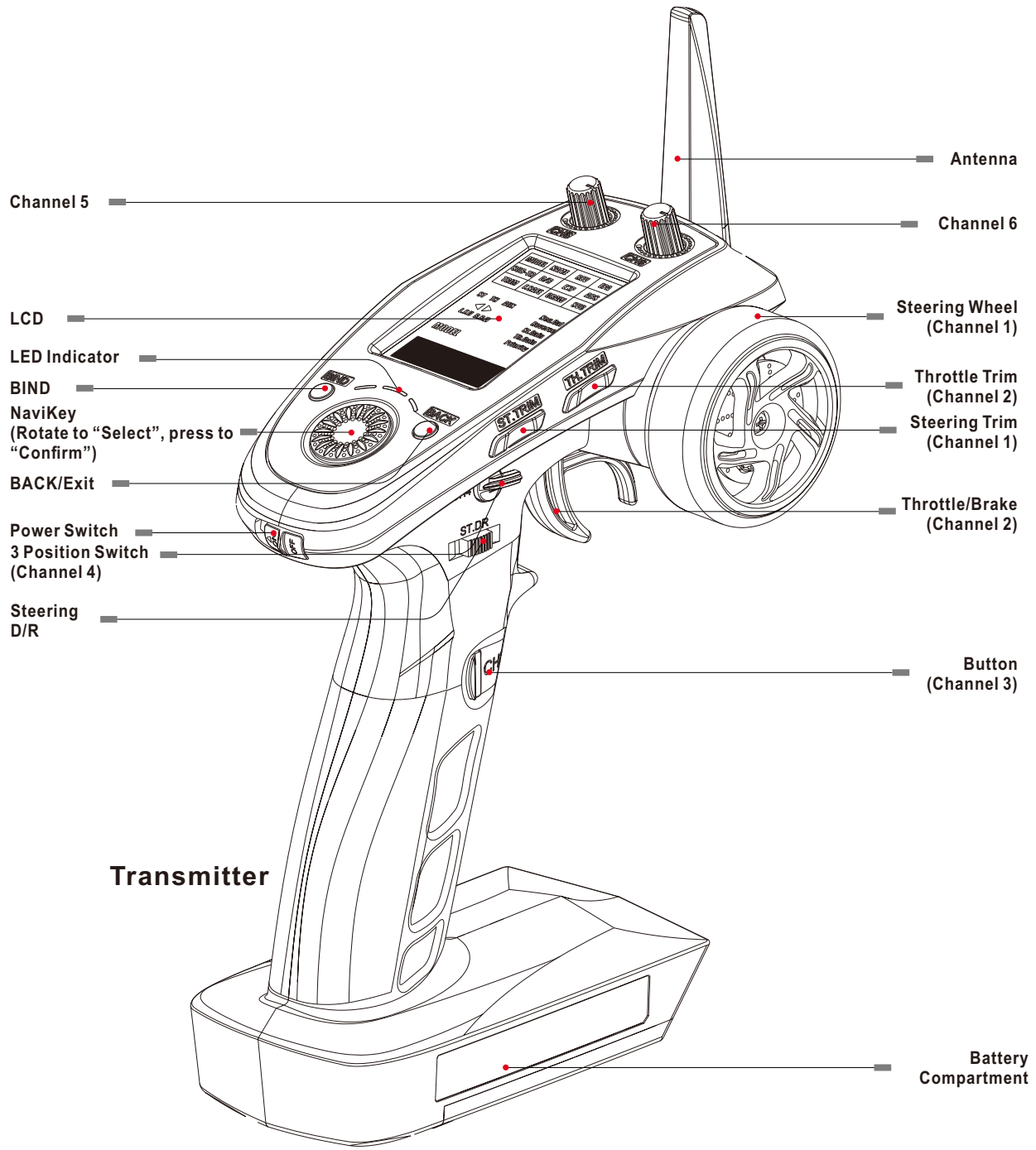


Receiver Connection

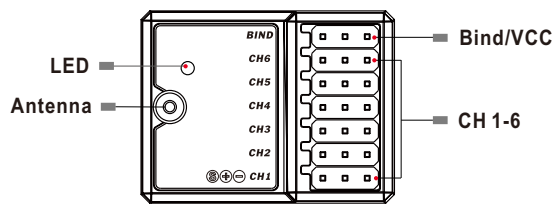
- CH1: Steering Servo
- CH2: Brushed ESC
- CH3: 2WD/4WD Shifting Servo
- CH4: 2 Speed Shifting Servo
- CH5: Front Diff Lock Servo
- CH6: Rear Diff Lock Servo



Radio Maintenance



Transmitter



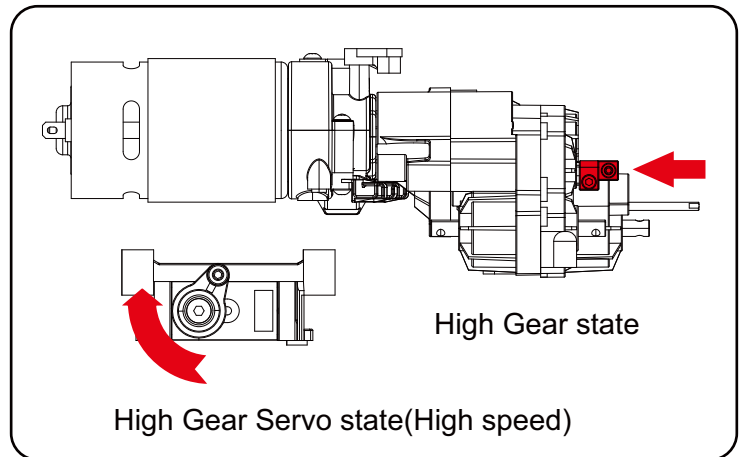
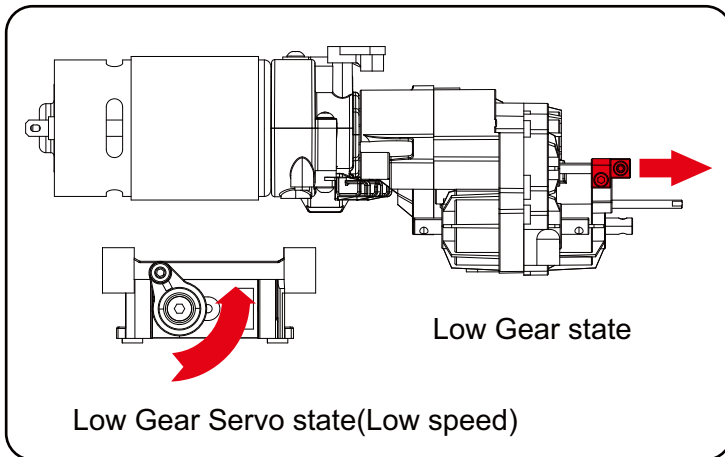
Receiver

DRIVING YOUR MODEL

Before you go on, here are some important precautions to keep in mind.

1. Allow the model to cool for a few minutes between runs. This is particularly important when using high-capacity battery packs that allow extended periods of running. Monitoring temperatures will extend the lives of the batteries and motor.
2. Do not continue to operate the model with low batteries or you could lose control of it. Indications of low battery power include slow operation and sluggish servos (slow to return to center). Stop immediately at the first sign of weak batteries.
3. Do not drive the model at night, on public streets, or in large crowds of people.
4. Drive the F150 Pro primarily in low gear for maximum torque. High gear can be used for high-speed running on open trails or when clearing steep slopes or gaps in rocks. Driving in high gear for extended periods of time can result in the motor and/or ESC overheating and premature motor wear.
5. Because the model is controlled by radio, it is subject to radio interference from many sources beyond your control. Since radio interference can cause momentary losses of control, allow a safety margin of space in all directions around the model in order to prevent collisions.
6. Use good, common sense whenever you are driving your model. Intentionally driving in an abusive and rough manner will only result in poor performance and broken parts. Take care of your model so that you can enjoy it for a long time to come.
7. High-performance vehicles produce small vibrations that may loosen hardware over time. Frequently check wheel nuts and other screws on your vehicle to ensure that all hardware remains properly tightened.

Operating the High-Low Transmission:

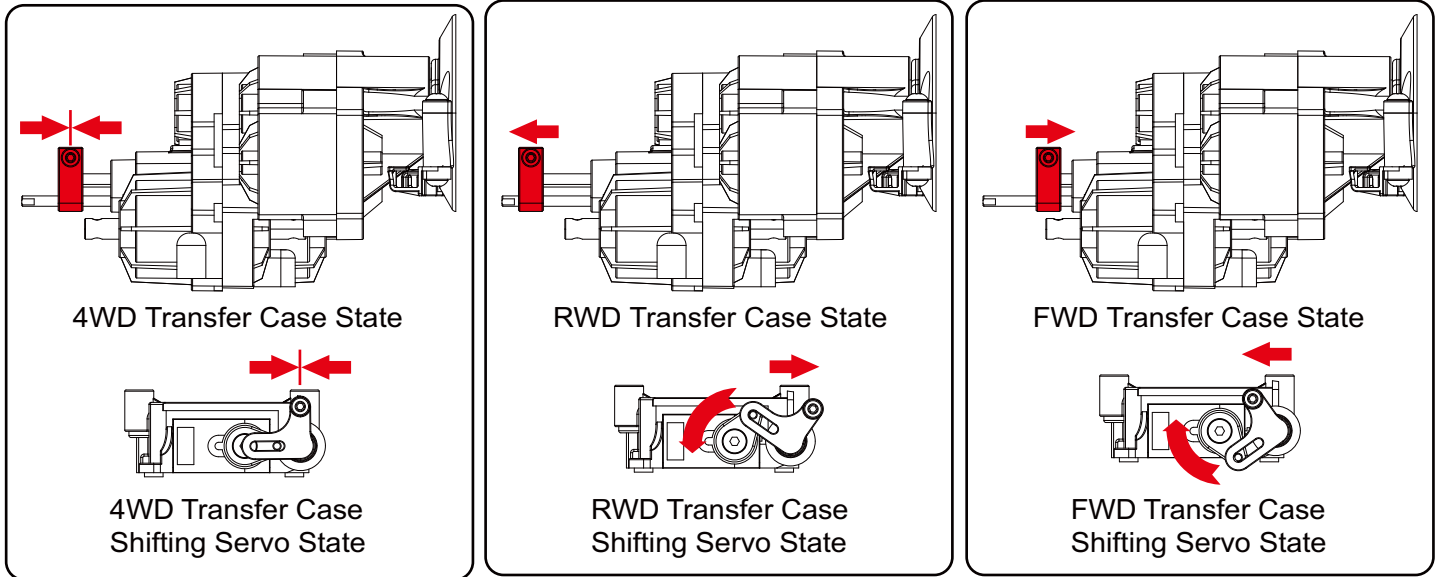


1. In the original state, use the third channel button of the remote control to switch the gearbox position. There are obvious speed changes between the high-speed gear and the low-speed gear. The model gearbox has a strong torque at low gears, which can extend the service life of the motor. The corresponding gearbox lever and servo status are shown in the figure.
2. If you replace a new servo or transmitter, please adjust the servo parameters according to the state shown in the figure. The main purpose is to adjust the EPA parameters of the corresponding channel of the remote control to ensure the smooth operation of the servo in the working state. The servo will be damaged due to long-term force.

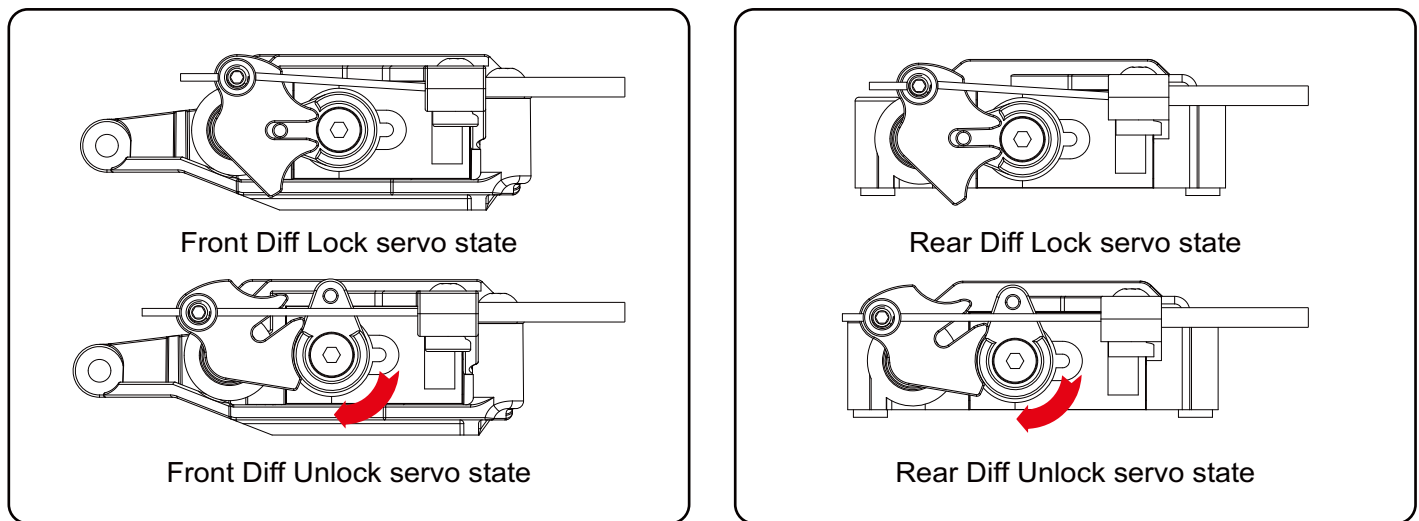
Operating the Transfer Case:

1. The F150 PRO can switch three driving modes, namely 4WD, FWD and RWD, which are controlled by the fourth channel of the transmitter, and the driving mode can be selected according to different road conditions and vehicle states.

2. If you replace a new servo or transmitter, the channel switch of the remote control must be in three-way please adjust the servo parameters according to the state shown in the figure, mainly by adjusting the EPA parameters of the corresponding channel of the remote control to ensure that the servo is smooth in the working state. The servo will be damaged due to long-term force.



Operating the Diff Lock:



1. The front and rear differential locks of F150 PRO are controlled by five channels and six channels respectively.
2. In most driving environments, the differential can be locked or unlocked at any time. If the speed difference between the left and right tires is too large, first release the throttle to reduce the wheel speed difference and then lock the differential. The F150 PRO performs best when the front and rear differentials are unlocked in most cases. This gives the F150 PRO the best steering performance and the smallest turning radius, while also reducing the pressure on the driving components. If the opened differential causes you to lose grip on loose terrain or prevents you from passing obstacles, you can use the differential lock switch to lock the corresponding differential.
3. When locking the front differential lock or locking the front and rear differential locks, the high-speed control and steering accuracy will be limited. The function of locking the differential can be used in any situation, but when driving at high speeds, unlock the differential can greatly increase the vehicle maneuverability.

About Run Time:

A large factor affecting run time is the type and condition of your batteries. The milliamp hour (mAh) rating of the batteries determines how large their "fuel tank" is. A 3000 mAh battery pack will theoretically run twice as long as a 1500 mAh sport pack. Because of the wide variation in the types of batteries that are available and the methods with which they can be charged, it's impossible to give exact run times for the model. Another major factor that affects run time is how the model is driven. Run times may decrease when the model is driven repetitively from a stop to top speed and with repetitive har

Tips for Increasing Run Time:

1. Use batteries with the highest mAh rating you can purchase.
2. Use a high-quality peak-detecting charger.
3. Read and follow all maintenance and care instructions provided by the manufacturer of your batteries and charger.
4. Keep the ESC cool. Get plenty of airflow across the ESC heat sink.
5. Lower your gear ratio. Installing a smaller pinion gear will lower your gear ratio and cause less power draw from the motor and batteries, and reduce overall operating temperatures.
6. Maintain your model. Do not allow dirt or damaged parts to cause binding in the drivetrain. Keep the motor clean.

Precautions:

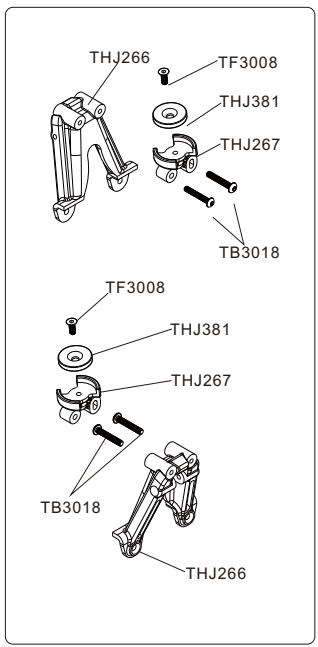
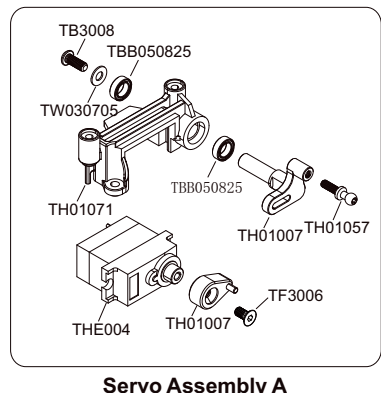
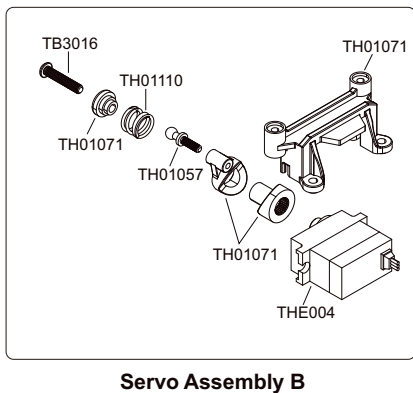
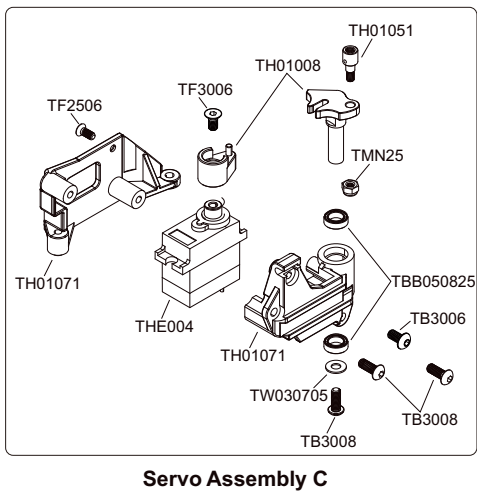
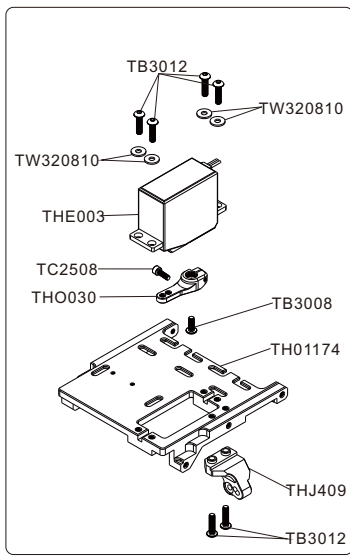
1. Without proper care, some parts of your model can be seriously damaged due to contact with water. Know that additional maintenance procedures will be required after running in wet conditions in order to maintain the performance of your model. Do not run your model in wet conditions if you are not willing to accept the additional care and maintenance responsibilities.
2. Not all batteries can be used in wet environments. Consult your battery manufacturer to see if their batteries can be used in wet conditions. Do not use LiPo batteries in wet conditions.
3. The transmitter is not water resistant. Do not subject it to wet conditions, such as rain.
4. Do not operate your model during a rain storm or other inclement weather where lightning may be present.
5. Do not allow your model to come in contact with saltwater, brackish water, or other contaminated water. Saltwater is highly conductive and highly corrosive. Use caution if you plan to run your model on or near a beach.
6. Even casual water contact can reduce the life of your motor. Special care must be taken to modify your driving style in wet conditions to extend the life of the motor.

Motor Precautions:

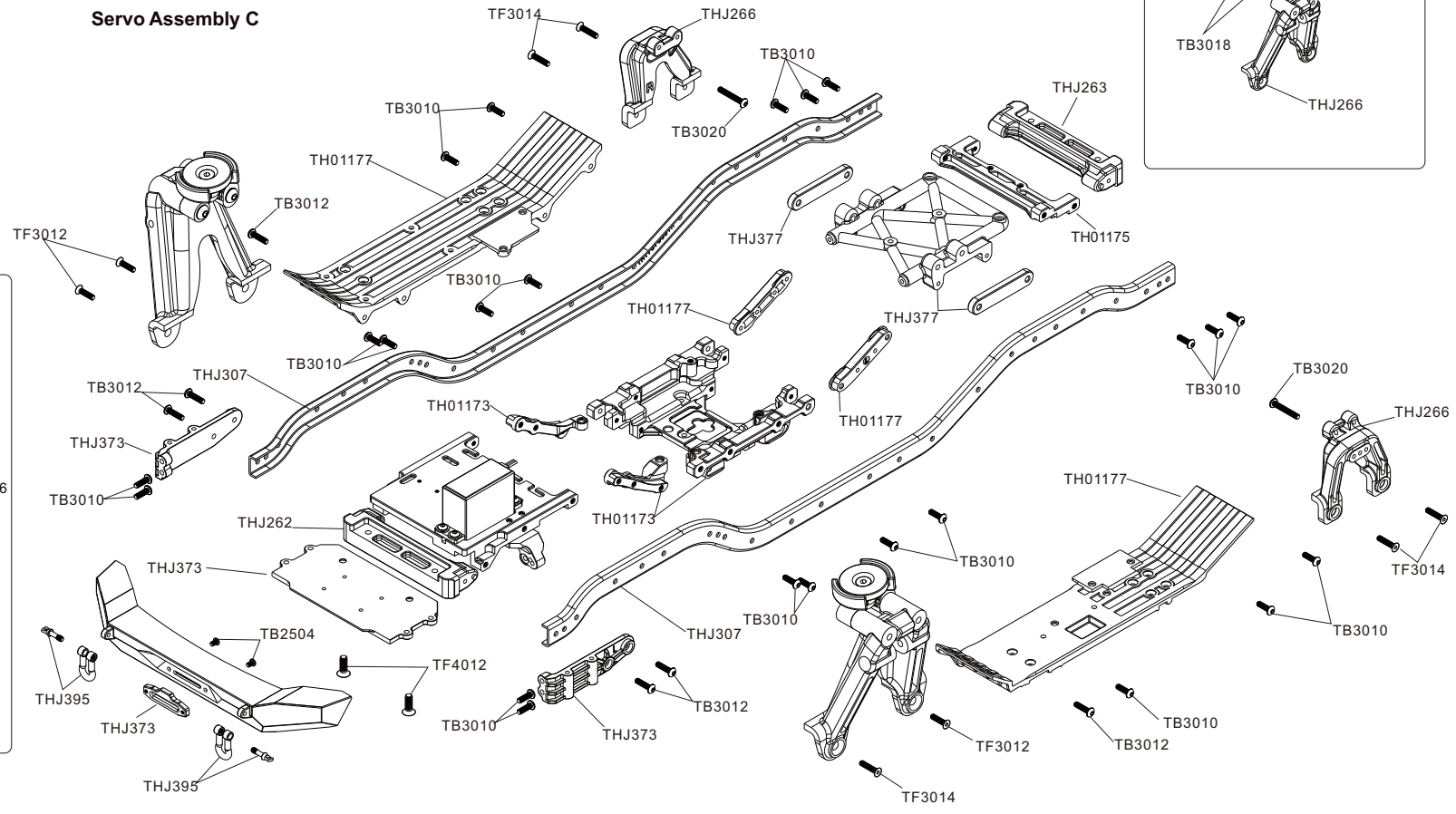
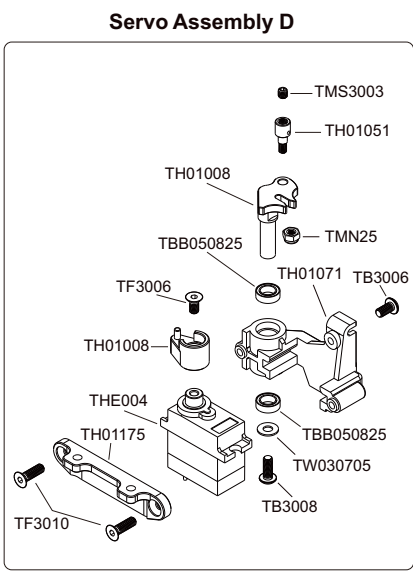
1. F150 Pro 775 motor life can be greatly reduced in mud and water. If the motor gets excessively wet or submerged, use very light throttle (run the motor slowly) until the excess water can run out. Applying full throttle to a motor full of water can cause rapid motor failure. Your driving habits will determine motor life with a wet motor. Do not submerge the motor under water.
2. Do not gear the motor by temperature when running in wet conditions. The motor will be cooled by water contact and will not give an accurate indication of appropriate gearing.

Additional Maintenance:

Increase your frequency of disassembly, inspection, and lubrication of the following items. This is necessary after extended wet use or if the vehicle will not be used for an extended period of time (such as a week or longer). This additional maintenance is needed to prevent any trapped moisture from corroding internal steel components.



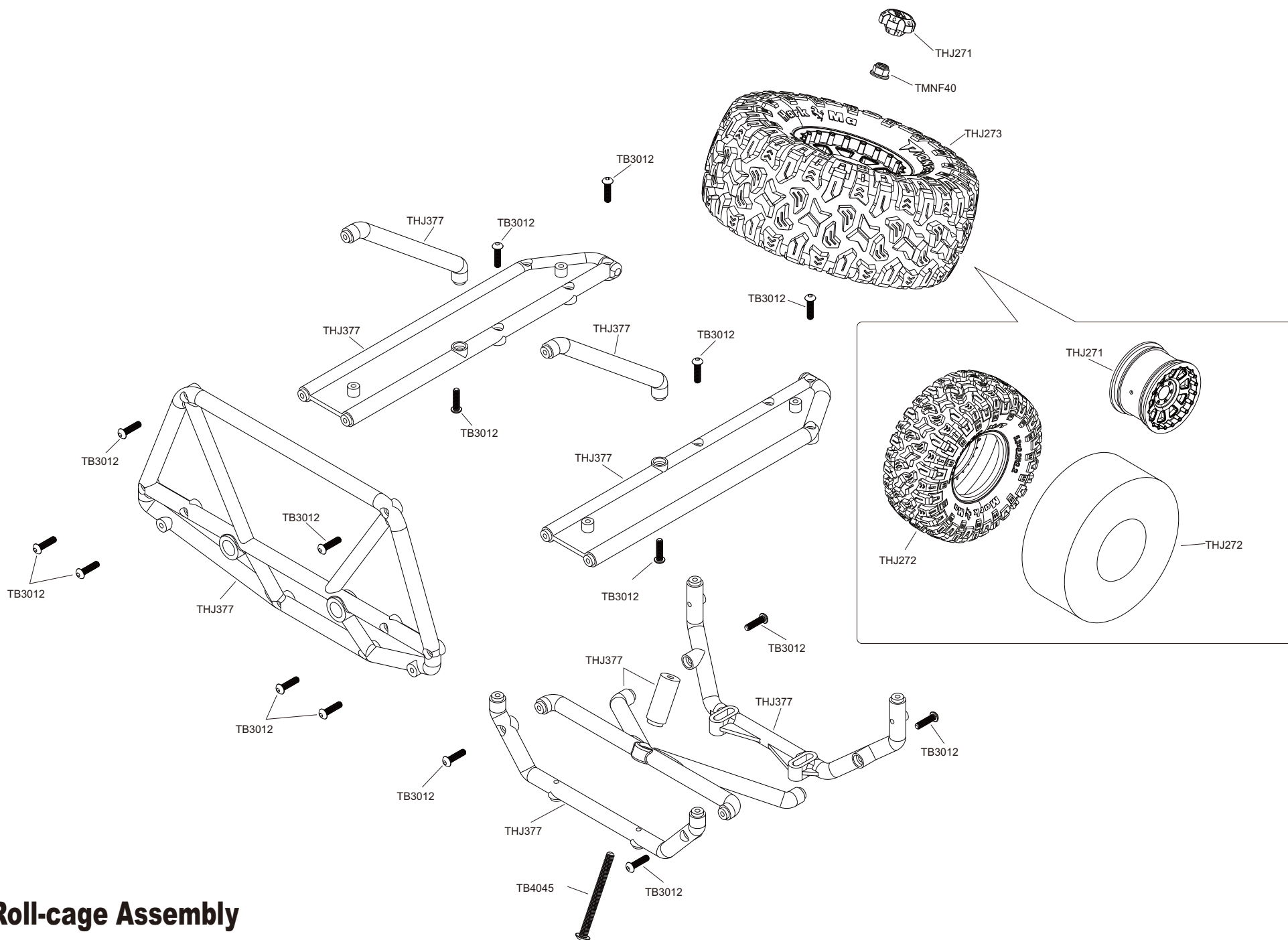
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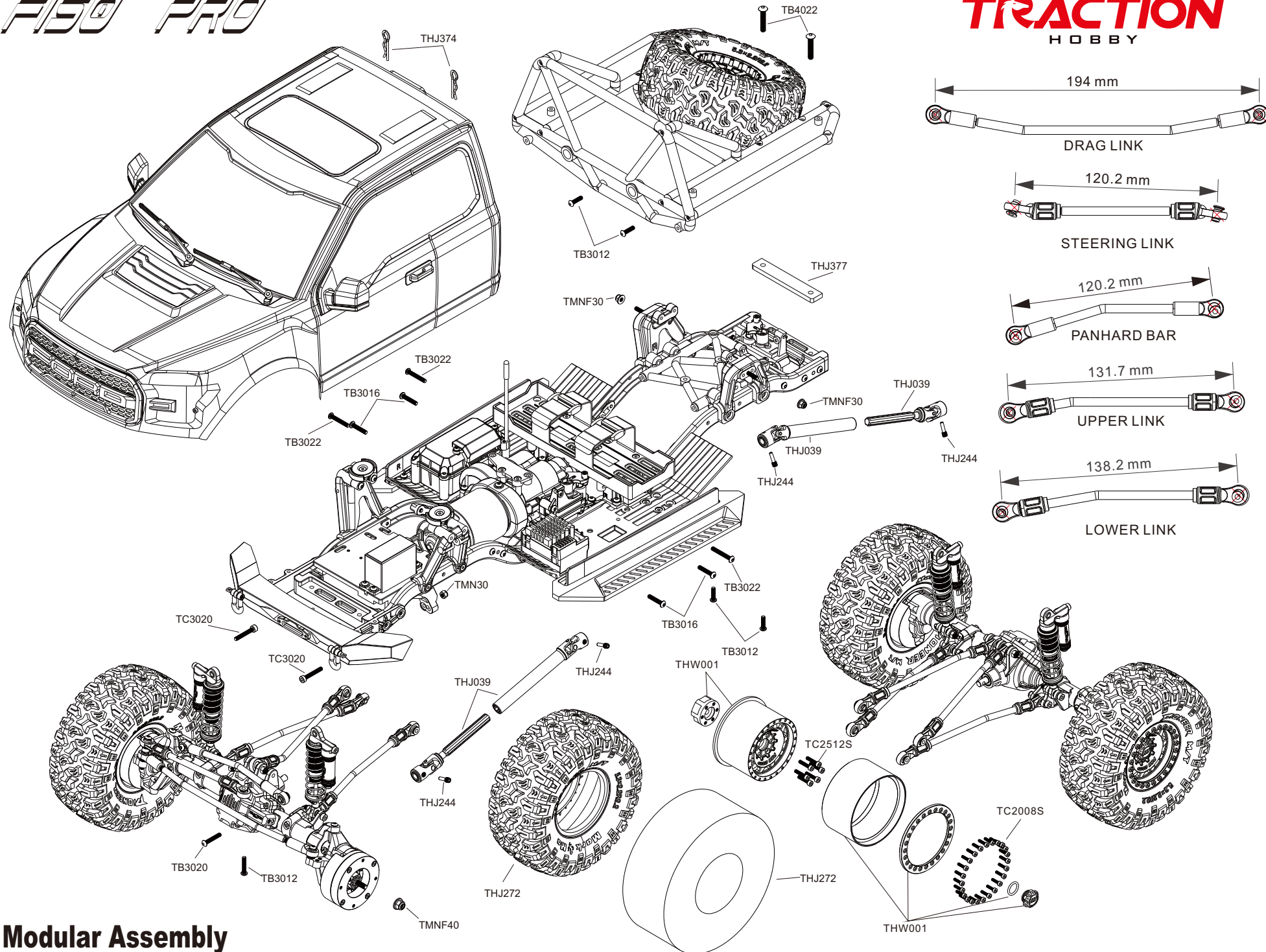
Chassis Assembly



Body Assembly



Roll-cage Assembly



TH01173	Skid plates	THJ302	Gearbox turnbuckle set
TH01174	Steering servo mount	THJ374	Simulation body parts
TH01175	Rear brace set	THJ375	Light cup
TH01176	Linkage mount	THJ376	Lamp mount
TH01177	Floor pans	THJ377	Roll cage
TH01002	Steel disc	THJ378	Clear body
TH01005	Transmission motor mount	THJ073	Shock absorber completed set
TH01006	Ball mount set	THJ297	Down threaded stainless steel link(
TH01007	2WD/4WD servo arm	THJ298	Up threaded stainless steel link
TH01008	Differential lock servo arm	THJ299	Front threaded stainless steel link
TH01017	Transmission frist shaft	THJ300	Steering threaded Stainless steel link
TH01018	Transmission shaft set	THJ305	Front cable set
TH01019	Transmission 2-speed shaft	THJ306	Rear cable set
TH01020	Transfer case shaft	THJ301	Servo threaded Stainless steel link
TH01021	2-Speed link	THJ367	Gearshift pin
TH01022	Transfer case link	THJ425	spring D17×60mm
TH01028	2-Speed synchronizer	THJ407	Front up threaded stainless steel link
TH01029	Transfer case synchronizer	THJ246	Differential Pads
TH01030	2-Speed shift fork	THJ314	Pin 2.0×11mm
TH01031	Transfer case fork	THJ316	Pin 2.5×8mm
TH01032	Drive gear 17T	TBB050825	Bearing 5×8×2.5
TH01033	Drive gear 29T	TBB050903	Bearing 5×9×3
TH01034	Gear 29T	TBB051004	Bearing 5×10×4
TH01035	Gear 17-29T	TBB051104	Bearing 5×11×4
TH01036	Gear 23T	TBB061204	Bearing 6×12×4
TH01037	Pinion gear 14T	TBB071103	Bearing 7×11×3
TH01115	Transmission strengthen mount	TBB101504	Bearing 10×15×4
THO030	Steering arm	TBB121804	Bearing 12×18×4
THO036	Axle cover	TBB152104	Bearing 15×21×4
TH01159	Hex hub	TME25	E-clip 2.5mm
TH01057	Ball 4mm	TME70	E-clip 7mm
TH01065	Transmission housing mount	TB2504	M2.5×4 Button head screw
TH01066	Transmission housing	TB2506	M2.5×6 Button head screw
TH01067	Spur gear 50T	TB2510	M2.5×10 Button head screw
TH01071	Servo mount set	TB3006	M3×6 Button head screw
TH01074	Box&Battery tray	TB3008	M3×8 Button head screw
TH01106	Spring D4.3×16mm	TB3010	M3×10 Button head screw
TH01110	Servo saver spring	TB3012	M3×12 Button head screw
THJ078	Brushed ESC 80A	TB3014	M3×14 Button head screw
THE002	775 Brushed motor	TB3016	M3×16 Button head screw
THE004-HV	TH1623 HV servo	TB3018	M3×18 Button head screw
THE008	LED light system set	TB3020	M3×20 Button head screw
THE001	TH-GT5 transmitter	TB3022	M3×22 Button head screw
TH01111	Slipper pad	TB3028	M3×28 Button head screw
TH01112	Double side tape&EVA kit	TB4022	M4×22 Button head screw
THJ273	Wheel Set	TB4045	M4×45 Button head screw
THW001	2.2" PRO COMP wheel	TC2004	M2×4 Cap head screw
THJ307	Chassis rail set	TC2006	M2×6 Cap head screw
THJ274	Solid axle set front	TC2008S	M2×8 Cap head screw(silver)
THJ275	Solid axle set rear	TC2508	M2.5×8 Cap head screw
THJ280	Diff gear set	TC2510	M2.5×10 Cap head screw
THJ295	Ball 5.5mm	TC2512	M2.5×12 Cap head screw
THJ057	Ball end 5.8mm	TC2512S	M2.5×12 Cap head screw(silver)
THJ038	King pin bushing	TC3008	M3×8 Cap head screw
THJ039	Drive shaft	TC3010	M3×10 Cap head screw
THJ276	Bearing seat	TC3012	M3×12 Cap head screw
THJ423	Shock absorber body	TC3016	M3×16 Cap head screw
THJ050	Shock cap nut	TC3020	M3×20 Cap head screw
THJ051	Adjusting nut	TC3022	M3×22 Cap head screw
THJ424	Shock shaft	TC3035	M3×35 Cap head screw
THJ070	O-ring set	TF2012	M2×12 Flat head screw
THJ054	Shock spacer	TF2506	M2.5×6 Flat head screw
THJ055	Shock piston	TF3006	M3×6 Flat head screw
THO037	Shock Reservoir	TF3008	M3×8 Flat head screw
THJ056	Spacer	TF3010	M3×10 Flat head screw
THJ280	Diff gear set	TF3012	M3×12 Flat head screw
THJ277	Differential lock set	TF3014	M3×14 Flat head screw
THJ308	Magnet set	TF4008	M4×8 Flat head screw
THJ279	36T Bevel gear	TF4012	M4×12 Flat head screw
THJ321	Self-lock device of diff lock	MTS2012	M2×12 Set screw
THO006	Aluminum differential housing	TMS3003	M3×3 Set screw
THJ409	Toe Link mount	MTS3005	M3×5 Set screw
THJ410	Knuckle carrier	MTS4006	M4×6 Set screw
THJ411	Steering knuckles	TMN25	M2.5 Nylon nut
THJ412	Rear portal axle	TMN30	M3 Nylon nut
THJ413	Weight block 108g	TMNF30	M3 Flanged nylon nut
THJ414	Weight block 82g	TMNF40	M4 Flanged nylon nut
THJ415	Universal axle set	TMN50	M5 Nylon nut
THJ416	Straight axle Shaft	TW030705	Washer 3×7×0.5mm
THJ417	Portal axle output shaft	TW320810	Washer 3.2×8×1mm
THJ418	Gear set 17T-23T	TW050805	Washer 5×8×0.5mm
THO027	Blade side frame	TW060905	Washer 6×9×0.5mm
THJ373	Front bumper	TW151702	Washer 15×17×0.2mm
THJ395	Metal hook	TWS051005	Spring washer 5×10×0.5mm
THJ060	Linkage ball end 7mm	THJ080	Velcro strap 20×200mm
THJ266	Shock hoops set	THJ319	Antenna pipe set
THJ267	Body mount set		
THJ259	Linkage ball set		
THJ259	Linkage ball set		



TRACTION
HOBBY

www.tractionhobby.com