

1.6 User Manual

14⁺

4 WHEEL DRIVE TRUGGY 2.4G RTR



4WD

X-DRIVE

X-DRIVE

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Intended usage

Thank you for purchasing a model of the **1:18** series of X-DRIVE. This manual contains important instructions for operating your new model. **Therefore, please read all instructions in this manual thoroughly before using the model, so that you can operate your model safely.**

Intended Usage

The X-DRIVE is extensively constructed and electrically driven Off-Road car ready to drive including motor and speed controller. The control is wireless with the included 2.4 GHz remote control. The model may only be operated on a suitable and sufficiently large area without obstacles.

The product is not a toy and not suitable for children under 14 years of age, by children under 14 years the maintenance and operation of the model must be supervised by an adult.

Read and observe all warnings and safety instructions in this manual and on the packaging before operating!

This manual is part of this product. It contains important information for handling this product. **Keep the manual for future reference and also it must be strictly kept and passed on the subsequent sale of the model to the buyer. Failure to follow the operating instructions and the safety instructions may invalidate the warranty.**

Scope of delivery

RTR X-DRIVE vehicle
2.4GHz Transmitter
Battery and USB charger (optional: adapter charger)
Manual with spare parts list

Required accessories

3pcs size AA Alkaline batteries or rechargeable batteries for the transmitter
Tools

Explanation of Symbols



WARNING: These instructions **must** be **strictly** observed by the operator! Failure to follow these instructions may interfere with the safe function. These notes are also for your own safety and that of other people!

ATTENTION: this information must be observed by the operator! Failure to follow these instructions can cause damage of many sorts, and the loss of warranty etc.

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Information or advice, by which a smooth operation is ensured.



Instructions for care and maintenance to ensure a long duration of life of the product.

WARNINGS AND SAFETY NOTES

The following safety instructions must be strictly observed. For property damage, personal injury or consequential damage caused by improper use or non-observance of the safety instructions the LANDBOW Industry Co., limited accepts no liability. In these cases, the warranty becomes void.

Move your model **always** with the maximum caution and responsibility, otherwise it may cause damage to other property or even physical injury. We therefore recommend to secure the operation with a third party liability insurance. If you already have a liability insurance policy, check before start-up the model, whether radio-controlled models are covered by a corresponding amount.

-  The product contains small parts that can cause injury if swallowed, and must therefore be kept away from children under 3 years.
- The product is not a toy and not suitable for children under 14 years.
- The operation of radio-controlled models requires practice. In the beginning operate your new model therefore with extra caution and familiarize yourself with the response to your commands.
-  **WARNING:** The safe operation requires concentration and quick reaction. Do not operate your model if you are tired or under the influence of drugs or alcohol – **risk of accident and injury!**
-  **WARNING:** The control of this model is done via radio signals, which can be influenced by the environment. This may cause a suddenly loss of control of your model. Operate your model therefore only with sufficient light within line of sight and in an open area, away from cars, traffic and people – **risk of accident and injury!**
- Do not operate your model during a thunder storm or near radio towers or power lines.
- Radio remote controlled models may not be operated at any public space by implication (streets, roads, squares or lakes). Before operation please ask where the operation is allowed. This also applies to private property, here the consent of the owner is required.
-  **WARNING:** Keep your fingers or loose clothing or hair away from the rotating parts or wheels - **risk of injury!**
- Always switch on the transmitter first, then the model.  **NOTE:** during the operation of the transmitter must remain switched on!
- Never operate your model with low transmitter batteries, because this reduces the range of your model dramatically.
- If the drive battery is empty, the model first slow down until it no longer reacts properly to your commands. Stop the operation and change the drive battery or charge it again.
- Pay attention to the instructions and warnings for this and any other equipment used by you (chargers, rechargeable battery packs, etc.).
-  **WARNING:** Keep packaging material, small parts, chemicals and electrical components away from children – **risk of accident and injury!**
-  **ATTENTION:** Do not drive against obstacles that the model cannot overcome, and stay on full throttle. This can destroy the motor, speed controller or the transmission!

Warnings and safety notes

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- The model and the transmitter may be neither get humid nor wet, especially the electronic components (receiver, speed controller, servo) and, if used, lithium batteries, are not waterproof! The model may not be used in the rain (or heavy fog), do not drive in wet grass or through puddles or snow.

-  **WARNING: Fire or explosion due to moisture in lithium batteries!**
- Plastic parts (eg. suspension and body) is less flexible and can break more easily at cold temperatures (below 10 ° C).
- The modification of the model is not permitted for safety and CE approval regulations, which applies in particular to the transmitter, receiver and speed controller. Maintenance or repairs using original replacement parts are excluded.
- The gears in the servo are made very precisely and with low tolerances, but also very small. Therefore never turn the front wheels by hand, which can seriously damage the servo.
- After use, first turn off the model and then the transmitter.
- **WARNING:** remove the drive battery from the model and transmitter after use. Store the model never with built-in battery. **Fire hazard!**
- Store batteries separately on a non-combustible surface.
- The drive components (motor and speed controller) or the car battery may become hot during operation.

-  **WARNING: Risk of burns!** Let these components cool down completely after the operation (and also before each battery change)!

Operation of the model is performed solely at the risk of the operator. Only a careful and deliberate operation protects against physical injury and damage to property.

Handling precautions for batteries or rechargeable batteries

- Keep batteries away from children! Never let batteries unattended, as they can be swallowed by children or pets!
- Use only the recommended or equivalent type of batteries / rechargeable batteries.
-  **WARNING:** do not expose batteries / rechargeable batteries to heat or throw into fire - **fire or explosion hazard!**
-  **WARNING:** insert batteries / rechargeable batteries with the correct polarity, no short-circuiting - **fire or explosion hazard!**
- If possible, always replace all batteries at the same time, never use new and used batteries and batteries with different charge levels simultaneously.
- Do not use defective or damaged batteries or rechargeable batteries – fire hazard! Risk of chemical burns on contact with skin, use protective gloves!
-  **WARNING:** Do not attempt to recharge non-rechargeable batteries in a charger - **fire or explosion hazard!**
- Remove the rechargeable batteries from the device before charging.
- Charging may take place only with a suitable charger for the type of battery on a fireproof surface and under constant adult supervision – fire hazard!
- Immediately remove used batteries from the devices.
-  **NOTE:** NiMH batteries must be checked at least every 3 months and, if necessary, recharged, otherwise because of the typic self-discharge they may get deep discharged and damaged! Therefore, better use so-called RTU batteries with a very low self-discharge.
-  **NOTE:** note the specified storage voltage for lithium batteries. Is a completely full or empty lithium battery time stored for a longer time, it can be damaged.

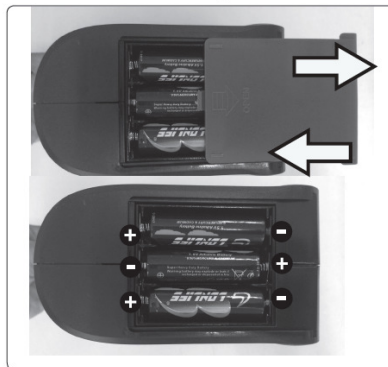
The LANDBOW Industry Co., Limited cannot monitor the proper use of the battery or batteries you use, therefore, the warranty is excluded due to incorrect charging or discharging.

The remote control system • Transmitter • Binding

The remote control system

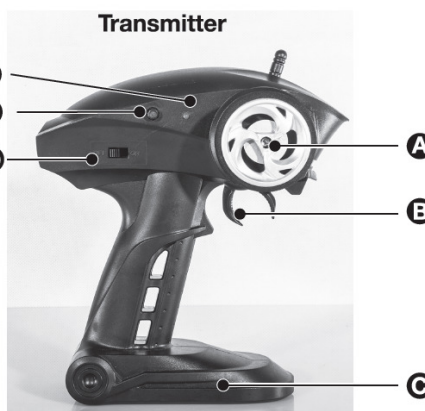
Here you get an overview of the remote control system of your X-DRIVE and its various features and settings. Before the first runs, you should have read and understood all these functions and settings.

- Make sure that the transmitter is turned off - ON / OFF switch in position OFF.
- Now open the battery compartment cover on the bottom of the transmitter and insert 3 x AA batteries (or rechargeable batteries) into the battery compartment of the transmitter. Pay attention to the correct polarity!
- Close the battery compartment cover and turn on transmitter – push ON / OFF switch in position ON.
- LED's must lit. **NOTE:** If the red LED is flashing, the model may not be started – **crash hazard!** Change transmitter batteries immediately (or charge batteries).
- Pay attention to the LED's also during operation. If the red LED flashes, stop driving as soon as possible. Replace transmitter batteries (or recharge the batteries).



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- A: Steering wheel: direction right or left
 B: Throttle trigger: controls the speed and direction of the model
 C: Battery compartment
 D: On / Off Switch: Turns the power of the transmitter ON / OFF
 E: Control trim: adjusts the straight ahead driving
 F: Power LED light



BINDING:

The 2.4 GHz receiver of X-DRIVE must be once „connected“ with a suitable transmitter, the so-called „binding“ procedure. This ensures that the receiver establishes a connection only with this transmitter and the model can be operated without interference. This process can be repeated any time.

The transmitter and receiver of the X-DRIVE are already bound so that you can start running immediately. Should a rebinding be necessary (eg. after a transmitter change), proceed as follows:

- Make sure that no other 2.4 GHz network (eg. WLAN or other transmitter) sends nearby.
- The distance between transmitter - X-DRIVE should be maximum one meter.
- Switch the vehicle ON. Within 5 seconds switch the transmitter ON too.
 The red LED starts flashing to indicate the binding process. After about 5-8 seconds, red LED light up continuously, the transmitter is now bound to the X-DRIVE. (NOTE: Don't push the throttle trigger or steer the wheel until the binding is done)
- If the model cannot be controlled, repeat the process.

Charging the Battery:

Before the first use of your new model the drive battery needs to be charged with the included charger.

WARNING: Charge may occur only with the supplied charger on a fireproof surface and under constant adult supervision - **fire or explosion hazard!**

Charging the battery • Getting started

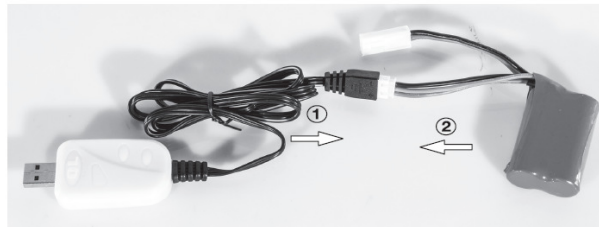
For charging remove the battery from the vehicle.

! WARNING: Make sure to read all safety instructions regarding the use of rechargeable batteries. Also, if necessary, further safety instructions in the manual for your used charger.

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- Insert the plug of the USB charger into the jack of the Mobile adapter or PC USB HUB, the green LED'S lighten up.
- Now connect the white balancer connector of drive battery to the jack on USB Cable

! WARNING: the connector is polarized, note the bumps. The connector must engage with slight pressure, you not use any force - **fire hazard!**



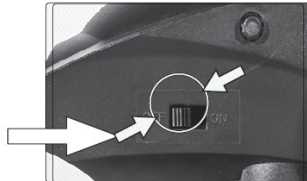
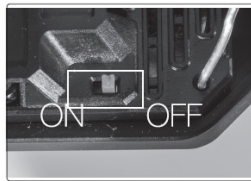
- If the battery is connected with the USB-Charger, the red LED indicates that the battery is charged. The charging time is approx. 3.5 hours.
- The green LED indicates the end of the charging process, disconnect the battery from the USB charger.
- Unplug the USB charger.

Getting started

Insert the battery into the vehicle and connect the plug to the ESC. Before you start, check all functions of the remote control. Does the vehicle follow exactly and directly your commands? Or does it react delayed or choppy? If yes, do not start anyway, but check transmitter and drive batteries and recharge or replace if necessary.

The run time of your X-DRIVE depends on the surface. The maximum run time is reached on a straight and levelled surface. In hilly terrain or grass, the run time is much shorter, also the motor, speed controller and battery gets much warmer. If the battery is weak, the vehicle first gets slower until it finally stops completely. To increase the life time of the drive battery, you should cease operation when the vehicle begins to slow down.

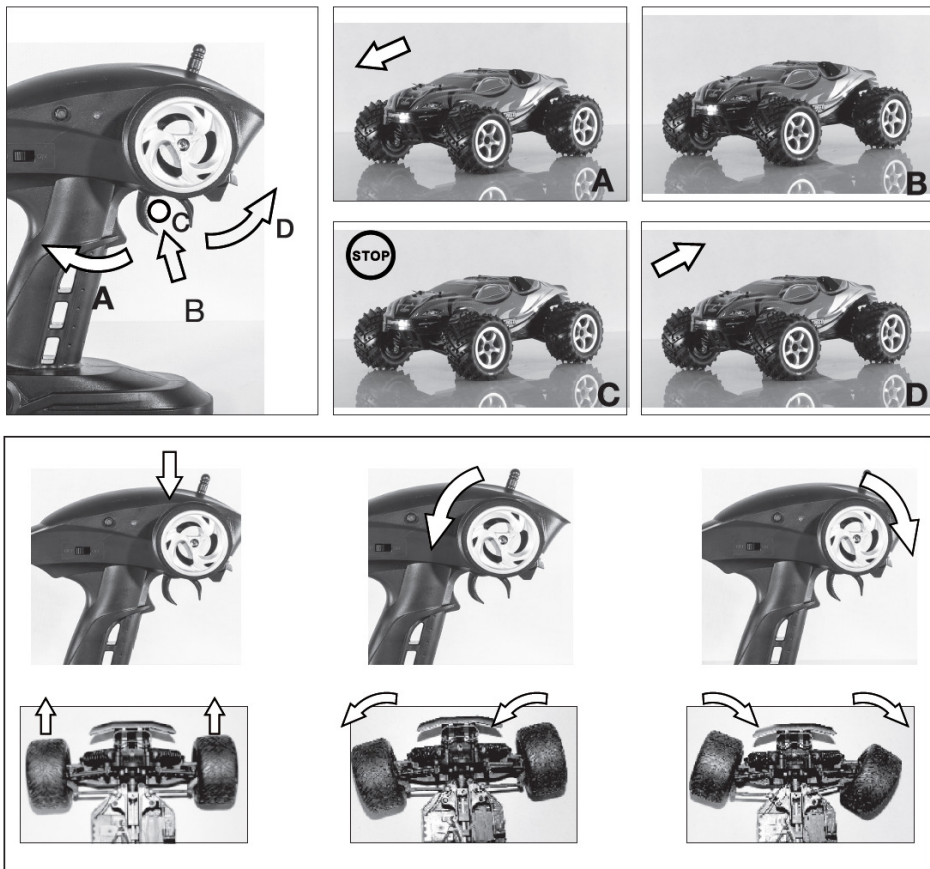
1. Switch the vehicle ON.



2. Switch on the transmitter, ON/OFF-switch. **i Note:** wait to red power light stops flashing and light up, before you move the throttle trigger and steering. This is needed to connect the transmitter with the receiver properly.

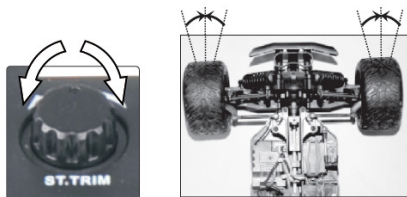
Getting started

3. Drive:



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4. Steering trim: Drive slowly forward on level ground. Now check the straight ahead driving and adjust with the ST.TRIM knob if necessary.

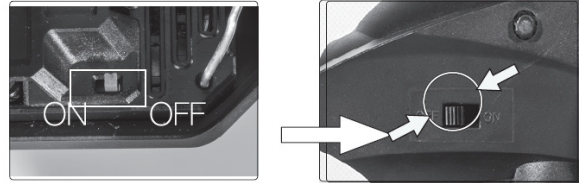


After the ride • Maintenance • Troubleshooting

After the ride:

1. Switch OFF the vehicle first, then the transmitter .

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2.  **WARNING:** disconnect the drive battery and remove it from the model – **fire hazard!**

WARNING: the motor of the X-DRIVE may get very hot during operation. Allow to cool down minimum 20 minutes before the next start to avoid damage. **Fire hazard!**

Maintenance

To have fun with your model over a long period, occasional service work is required to get your model in good condition and to minimize wear.

- Remove dirt or dust depending with compressed air or a soft brush after each use. For stubborn dirt, a harder brush or a toothbrush can be used.
- To clean the body/fuselage no chemical cleaners such as thinners may used, as this damage the plastic of the body/fuselage. Normally a piece of soft cloth is ok, stubborn dirt can be removed with washing-up liquid.
- Check the tightness of all screws and tighten if necessary.
- Also check all connections, cables and power battery / rechargeable battery for damage.
-  **WARNING:** Damaged batteries or rechargeable batteries must not be used again and must be disposed of immediately – **fire hazard!** Please note the disposal notes at the end of this manual.
- Check the model for worn, broken or jammed parts and gears and repair if necessary.
-  **WARNING:** remove the batteries / rechargeable batteries of the transmitter and model when not in use – **fire hazard!**

Troubleshooting

Problem	Possible Cause	Solution
Motor does not run	Motor cable unplugged or broken Drive battery empty Motor broken	Insert the motor cable or solder Change or charge the battery Replace the motor
Weak motor / no power	Battery is almost empty Drive train does not run smoothly Vehicle is very loud Motor gets very hot	Change or charge the battery Check pinion clearance, adjust if necessary Allow motor to cool; check drive train for binding parts and precise gear mesh
Vehicle is hard to control	Transmitter LEDs flashing - transmitter batteries almost empty Steering trim ST,TRIM on the transmitter set incorrectly Interference	Change or charge the battery Check transmitter, set trim correctly Turn off the vehicle and transmitter, make a quick break and then re-try
Vehicle has no function	LEDs on the transmitter does not light up Transmitter - receiver not bound Interference Car aerial torn off Transmitter LEDs flashing - transmitter batteries almost empty Drive battery empty	Check that vehicle and transmitter are turned on Rebind transmitter - receiver (see chapter BINDING) Repair antenna (vehicle) Change or charge the battery Change or charge the battery
Vehicle runs very loud	Gear mesh between the pinion and main gear set incorrectly Worn gears Bearings runs tight or worn out	Check gear mesh adjust if necessary Check and replace if necessary Check and lubricate or replace if necessary

Repairs • Specifications • Environmental Protection

Repairs, Spare parts

Normal wear and defective parts that result from an accident, are excluded from the warranty. These include in particular:

for car models: bald tires, worn parts and drive gears, or bent / broken suspension, chassis or bodywork

ship models: damaged or broken propellers, torn superstructure

airplanes: damage due to improper transport or crash

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If you find a part that is defective in material or workmanship right after opening the package, return - before you used it - to your dealer.

For the X-DRIVE all parts are available as spares. If a part is defective or worn, you can identify it with the help of the exploded view, and the installation guide on pages 11 to 12 shows the correct installation.

Specifications

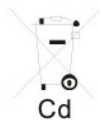
Length	250 mm
Width	185 mm
Height	105 mm
Wheel Base	165 mm
Weight	approx. 550 g
Motor	Brushed RC380
ESC	2 S LiPo/Lilo (7.4 V DC)
Transmitter	2.4 GHz 2-channel
Transmitter range	approx. 50 m



Environmental Protection Notes

The symbol of the crossed out dust bin on the product or packaging indicates that this product must be disposed of separately from normal household waste. In order to avoid harmful effects on the environment and human health in the disposal of electrical and electronic equipment and the re-use or recycling are possible. You have the opportunity to submit electrical and electronic equipment free of charge at an appropriate collecting point in your area. Please check with your city or town across the available depot.

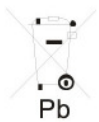
Possibly contained batteries must be removed from the product and disposed of at the appropriate collecting point.



Cd



Hg



Pb



Li-Po

- Cd = cadmium
- Pb = plumbium
- Hg = mercury
- Li = lithium

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

Spare Parts

LB85-001



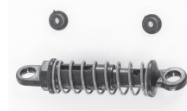
Center Drive Shaft

LB85-002



Wheel Shafts, Drive Shaft

LB85-003



plastic Shocks

LB85-004



Wheel Hex & screw

LB85-005



Shock Tower

LB85-006



Steering Linkage Set

LB85-007



Steering Knuckles, Rear Hub Carrier

LB85-008



Steering Knuckles, front Hub Carrier

LB85-009



Diff. complete

LB85-010



Lower Suspension Arms

LB85-011



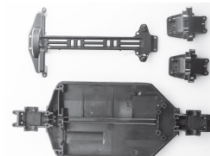
Rear Bumper + Buggy front

LB85-012



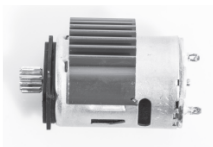
battery cover set

LB85-013



Chassis, upper deck, motor mount guard

LB85-014



Motor RC380 (26000 RPM)

LB85-015



Steering Servo, 5-wire

Spare Parts

LB85-016



Brass Bushings 6X10X3mm

LB85-017



Brass Bushings 8x12x3.5mm

LB85-018



Ball Bearing 6x10x3mm

LB85-019



Ball Bearing 8x12x3.5mm

LB85-020



Wheels complete Truggy

LB85-021



Screw Set 8.4x3mm

LB85-022



Screws Set
8x2.3, 14x2, 6x2.5mm

LB85-023



Small Body Clips

LB85-024



Screws Set
18x2.3, 6x2.3, 14x2.3,
10x2.3, 8x2.3, 7x2, 6x2mm

LB85-025



Ball Joint Set 4.5mm

LB85-026



Transmitter 2.4G

LB85-027



Battery Pack Li-Ion (7.4V/850mAh)

LB85-028



3in1-Unit (7.4V/25A)

LB85-029



X-DRIVE TRUGGY body

LB85-030

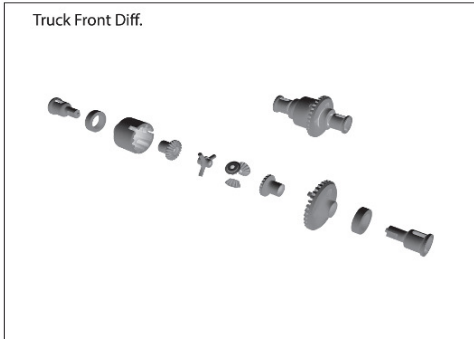


USB Charger

Assembly

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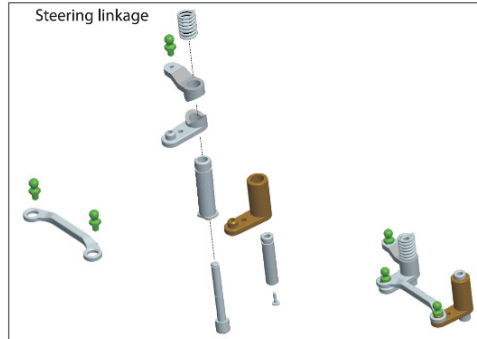
Truck Front Diff.



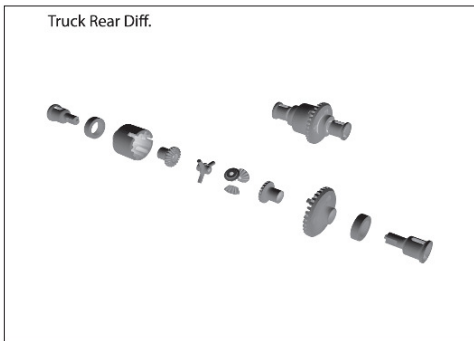
Assembly

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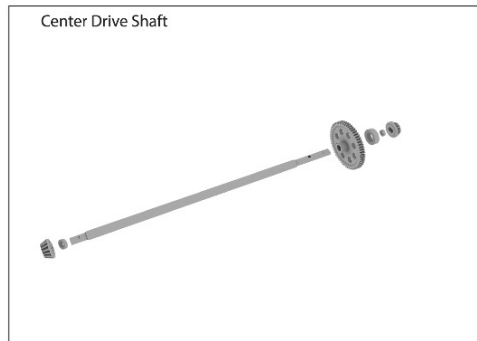
Steering linkage



Truck Rear Diff.



Center Drive Shaft



11

12

