

Select

by HELION

FOUR¹⁰ SC

Owner's Manual & Technical Information



HLNS1001

Legal

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Before using your product, review all documentation and inspect the product carefully. If for some reason you decide it is not what you wanted, then do not continue with unpacking, setup or operation of your product. Your local hobby dealer cannot accept a product for return or exchange after partaking in actions that produce wear and tear.

Read, understand and follow all instructions and accompanying material carefully before operating or assembling your product to prevent serious damage. Failure to complete these tasks properly or intentional aversion to the content will be considered abuse and/or neglect.


Product specifications are subject to change without notice. Due to ongoing development, the actual product may vary from images shown.


This product contains chemicals known to the State of California to cause cancer, birth defects and other reproductive harm.

This product is not a toy! (14+) Recommended for ages 14 and up. Adult supervision required for ages under 18 years old. Contains small parts, keep out of reach of children 3 years of age and younger.

Important Information

Throughout this manual you will see different notes, cautions and warnings to help alert you to important information about the section you are reading. Please see below for the descriptions and what to look for to identify each type.

 **WARNING: THIS INFORMATION IS IMPERATIVE FOR YOU TO UNDERSTAND AND FOLLOW AS LACK OF COMPLIANCE WITH THE CONTENTS OF THE WARNING COULD CAUSE PERSONAL INJURY OR PROPERTY DAMAGE.**

 **CAUTION: THIS INFORMATION IS IMPORTANT FOR YOU TO UNDERSTAND AND FOLLOW AS LACK OF COMPLIANCE WITH THE CONTENTS OF THE CAUTION COULD CAUSE DAMAGE TO YOUR PRODUCT THAT IS NOT COVERED UNDER WARRANTY.**

Note/Tip: This information is important for you to keep in mind, most commonly used to recall previously given information or to direct you to or provide you with additional information on a subject.

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Notice


Your product is calibrated and tested at the factory prior to final packaging, some issues may arise during shipping and handling that can be easily resolved at home. For other adjustments it should be known that hobby grade radio controlled products such as this differ from toy grade, in that they are intended to be user-serviceable products where the user can program, disassemble and maintain their own product. We try our best to ensure the information you need to introduce you to this form of product ownership is available to you through this manual. Please see the troubleshooting guide at the back of this manual for assistance in resolving issues, either as they are experienced out of the box or as found after regular use.

Note: Assuming your product functions properly as intended out of the box, the best thing you can do is pay close attention to how it feels, sounds and functions. This will help you identify problems later since you will have a reference of how the product is supposed to perform.

If you require further information or assistance resolving a possible issue, please consult the warranty card included with your product.

Precautions

Although great for first time users, Helion RC products are indeed advanced radio controlled vehicles with sensitive electronics and moving parts capable of causing injury if used improperly. Always use caution and common sense as failure to operate your product in a safe and responsible manner can result in damage to the product or other properties. Therefore this product is not intended for use or maintenance by children without direct adult supervision. Helion RC and your hobby dealer shall not be liable for any loss or damages, whether direct, indirect, special, incidental, or consequential, arising from the use, misuse, or abuse of this product or any product required to operate or maintain it.

 **WARNING: ALWAYS KEEP LOOSE CLOTHING, HAIR, TOOLS OR OTHER MOVABLE OBJECTS AWAY FROM MOVING PARTS OF YOUR VEHICLE DURING SETUP AND CONFIGURATION. SPINNING TIRES CAN EXPAND AND MAKE CONTACT WITH SMALL TOOLS, OR HARDWARE AND SEND THEM FLYING AT HIGH SPEEDS RISKING INJURY TO YOU OR OTHERS AROUND YOU.**

- Your model can cause serious damage or injury so please use caution and courtesy when operating your model.
- As a safety precaution, perform all transmitter and receiver adjustments with all parts of the vehicle off the ground. This ensures the complete control over the vehicle at all times during adjustments.
- Do not operate your model near traffic, bystanders, parking areas, or any other area that could result in injury to people or damage to property.
- If at any time during the operation of your model you observe any erratic or abnormal behavior of your model, immediately stop operation and bring the mode to a safe stop in a safe location to diagnose the problem.
- Always power on your transmitter before turning your vehicle on.

- If you have little or no experience operating R/C models, we strongly recommend you seek the assistance of your local hobby dealer.
- Do not expose the transmitter to water or excessive moisture.
- Do not operate radio controlled products in a lightning or thunder storm.
- Ensure your batteries (both Tx and vehicle) are charged before each use.
- Check all servos and electrical connections prior to each use.
- Use caution when handling your vehicle after use as electronics may get HOT and could cause a burn if handled carelessly.
- Always allow the motor in your vehicle to cool completely before using it again.

R/C models are an extremely fun hobby, but safety should never be ignored or taken lightly. Always take caution when operating your model as damage to property and injury can result from careless operation. Please consult your local hobby dealer with any questions or troubleshooting issues. And of course don't forget to have fun, you deserve it after reading through all of these safety tips!

Package Contents

- 1x Four 10SC Short Course Vehicle
- 1x Ikonnik ET4 Xenon 2.4GHz 4-Channel Transmitter with Grips
- 1x 1.5mm Hex Wrench
- 1x 2.0mm Hex Wrench
- 1x 2.5mm Hex Wrench
- 1x Documentation package with decals

Items Needed to Complete and Enjoy

- 4 x size AA 1.5V Alkaline batteries for the transmitter
- 1 x 2-3S LiPo Battery and suitable charger
- 1 x Bib to catch the drool of on-lookers

Introduction

Select by Helion was born from the quest for the ultimate marriage of performance, value and innovation. It's not an easy task compromising so we have done our best not to. We've included what we believe to be the best radio system in its class; the most durable and robust brushless power plant that includes proprietary technology; high performance engineering grade composite plastics with aircraft grade aluminum and high carbon steel components. We've taken a chassis platform that could have been ok and made it great. The components by themselves can be seen as capable, over engineered, refined and optimized, but their specs weren't chosen because of how they perform when their independent, we've put them all together where each component complements each other with perfect synergy into the product that best fits our customers' needs and expectations. It's not just about being good, it's about being Select.

Features

- Radiant Reaktor 60T LiPo-Ready brushless all weather sensorless ESC with TSP
- 4 Pole sensorless Radiant Reaktor4T 3500kV brushless motor with TSP
- Ikonnik ET4 2.4 GHz 4-Channel radio system with 10 model memory and beginner mode
- All weather 6kg High Torque servo
- Mid CG chassis design optimizes stability and ground clearance for all-terrain versatility
- Four wheel independent suspension
- Robust shaft based 4 wheel drive
- All metal gear transmission with quiet running composite spur gear
- Included center differential
- Planetary metal gear differential front and rear
- Rubber sealed ball bearings throughout
- Adjustable, oil filled, threaded aluminum body, coil-over shock absorbers
- Dual bell crank ball bearing steering with adjustable servo saver
- Durable, rugged engineering grade composite chassis components
- 24mm Offset Hex drive wheels, compatible with TRX and KYO
- High grip long wear racing lug tires with 12mm wheels
- Heavy duty telescoping drive shafts
- Aluminum bulkheads, steering spindles, suspension pivots and wheel hexes
- Chassis guard/net
- 2-3S LiPo Ready (Not Included)

Getting Started

Below are some steps to help get you going right away and most applicable to those who have used RC products before. If you are new to the hobby or it has been a while since you've worked with the latest technology, please read through the manual to acquaint yourself with the latest procedures, Warnings, Cautions and Tips.

Charging

Although this information should be included with your batteries and charger, we have included it here again to ensure you have seen it and are aware of the most common things to be aware of with regards to charging our batteries.

- Never leave the battery unattended while charging and never operate the charger without adult supervision.
- Never charge a warm battery, always allow the battery to cool to room temperature before charging.
- Never drop the charger or battery and do not attempt to charge a damaged battery.
- Inspect the battery and charger before use. Never use a battery or charger if the wire or connector has been damaged or if the battery has experienced a short.
- Incorrect use of the battery, connections, or charging equipment can cause personal injury or property damage.
- Never allow batteries or charger to come in contact with moisture at any time.
- Stop charging immediately if the battery or charger becomes hot or changes form during use.



WARNING: WHEN USING LIPO BATTERIES, ONLY USE CHARGERS DESIGNED FOR USE WITH LIPO BATTERIES FOR THE RC INDUSTRY THAT ENABLE BALANCE CHARGING AND USE THE SUPPLIED CONNECTOR. USE OF OTHER (NON-RC SPECIFIC) CHARGERS OR CONNECTORS CAN CAUSE CATASTROPHIC FAILURES AND CAUSE PERMANENTLY DAMAGE YOUR BATTERY AND/OR CONNECTED EQUIPMENT. THIS PRODUCT IS NOT A TOY AND SHOULD NOT BE CHARGED, OPERATED, OR MAINTAINED WITHOUT SUPERVISION OF AN ADULT.

Fully balance charge your chosen 2S or 3S LiPo battery in accordance with charging and safety guidelines supplied with the battery. LiPo batteries are sensitive to the charge current and as such, it should be chosen with care.

- The battery pack must have a compatible HCT plug, never use plug adapters that include a non-high-current connector.
- You can use a suitable NiMH battery pack, however you must change the LVC (low voltage cut-off) on the ESC (see Appendix at the back of this manual for ESC settings)

Preparing to Drive

1. Remove the body from vehicle.
2. Loosen the hook-and-loop battery straps.
3. Install the fully charged battery into the vehicle, be sure to secure the battery straps to keep the battery in.

Note/Tip: If you are you using a tall high capacity battery, optional long straps are available to suit your configuration.

4. Ensure the motor is plugged into the ESC.
5. Ensure the vehicle power switch is in the OFF position and connect the battery to the ESC.
6. Read and understand the manual supplied with the Ikonnik ET4 radio system.

⚠ CAUTION: NOTE TRANSMITTER CAUTIONS AND SETTING INSTRUCTIONS BEFORE USE.

7. Install the [4] AA type alkaline batteries into the transmitter.
8. Confirm settings for steering/throttle trim and motor direction (update connection if necessary)
9. Confirm ESC settings for the battery you will use (check LVC program mode and ensure it is properly set to 5 if using a LiPo or 1 if you are using a NiMH battery pack.)
10. Re-install body with 4 supplied clips; turn your equipment ON (transmitter first!) and enjoy!

The IKONNIK ET4 Radio System

Your Select Four 10SC comes equipped with one of the most advanced 2.4GHz radios in its class. It is feature packed and incorporates technology normally reserved for only the upper echelon of radio systems and some completely unique to IKONNIK.

Familiarize yourself with the usage and features presented in the IKONNIK ET4 Owner's Manual and quick start guide to enhance your experience:

Most importantly we recommend you become familiar with the following features of the system.

- Pairing the transmitter and receiver.
- Setting Steering and Throttle trims.
- Using the 10 Model memory
- Utilizing the Beginner Modes to share and enhance the fun.
- Configuring the ergonomics to fit you



Radiant Reaktor60-4T Brushless System Overview

The Radiant Reaktor series brushless motor and ESC is a great power plant to satisfy your need for speed and performance, not just an entry level brushless system, your Reaktor system has some of the most advanced technology in ESC and motor development in the industry today. Here are some great features we included that help keep your system running in top shape ensuring maximum enjoyment potential.

⚠ CAUTION: ALWAYS ALLOW YOUR MOTOR TO COOL BETWEEN RUNS. EXCESSIVE ACCELERATION AND AGGRESSIVE DRIVING WILL CAUSE YOUR SYSTEM TO GET HOT. EXERCISE GREAT CARE WHEN HANDLING YOUR VEHICLE AFTER RUNNING TO AVOID GETTING BURNED.

Some Great Features of your ESC

- Total System Protection (TSP) is an exclusive technology which protects your entire system against typical failures experienced and sometimes caused by new users.

⚠ CAUTION: ALTHOUGH TSP HAS BEEN ENGINEERED TO PROVIDE THE MAXIMUM PROTECTION AVAILABLE TODAY, IT IN NO WAY MAKES FAILING PRODUCT IMPOSSIBLE. TSP PROVIDES ADDED PROTECTION AGAINST THE MOST COMMON TYPES OF FAILURES EXPERIENCED AND SOMETIMES INDUCED BY NEW USERS.

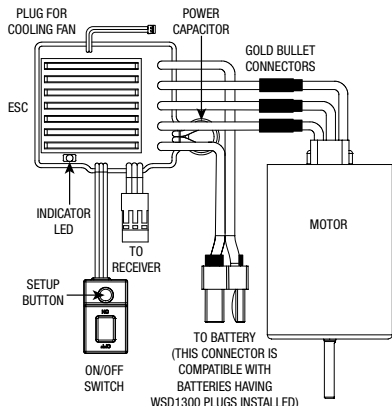
- Ready for all weather conditions allowing you to experience the fun of rain, puddles and snow.

⚠ CAUTION: REMOVE THE COOLING FAN WHEN RUNNING IN WATER TO PREVENT FAN OVERLOAD AND FAILURE. AFTER RUNNING, CLEAN AND THEN DRY THE ESC AND FAN TO AVOID OXIDATION OF THE COPPER CONNECTORS.

- Specially designed for RC car and truck, with excellent start-up, acceleration and linearity features.
- Compatible with sensorless brushless motors.
- 2 running modes suitable for different applications ("Forward with brake" mode, "Forward/Backward with brake" mode).
- Proportional ABS brake function with 4 steps of maximum brake force adjustment, 8 steps of drag-brake force adjustment.
- 4 start modes ("Punch") from "Soft" to "Very aggressive" to be suitable for different chassis, tires and tracks.
- Multiple protection features: Low voltage cut-off protection for LiPo or NiMH battery / Over-heat protection / Throttle signal loss protection / Motor blocked protection.
- Easily programmed with the "SET" button on the ESC or with the LED Program Card.

Your ESC has been pre-installed at the factory but before using your vehicle each time it is good to double check the wiring for damage or loose connections to ensure everything is in working order before use. Refer to the diagram below to check the connections of your electronics system. Some brushless motors such as the Reaktor included with your vehicle use only

black wires, this is okay. On sensorless brushless systems the motor will change operating direction when any two of the motor wires are swapped.



Total System Protection (TSP)

The Reaktor “T” series ESC’s and Motors incorporate the TSP technology. The TSP system protects against the following failure modes.

- **Over-current:** Operating your product in very tall grass or in environments that create a lot of drag in the drivetrain can cause the motor to draw more current than the ESC is rated to maintain. This incredibly advanced circuitry is calibrated to sense the current state and predicted state of the electronics and will shut down the power to the motor to prevent an over-load condition. The most common causes of an over-current condition are improper gearing or running in very high drag environments such as tall grass, wet heavy mud or in situations where damage has occurred to the drivetrain but gone un-noticed.
- **Over-temperature:** Exclusive to the Radiant Reaktor “T” Series is the integrated temperature monitoring of both the ESC and the motor. Never before has a sensorless brushless combo had the technology incorporated which allows the ESC to monitor the temperature of the motor and enables the cutting of power to prevent an over-heat melt down of the motor and the ESC.



CAUTION: RMONITORING THE MOTOR TEMPERATURE AND PROPER FUNCTION OF THE TSP SYSTEM REQUIRES PROPER CONNECTION OF THE SENSOR PORT LOCATED IN THE BACK OF THE MOTOR AND THE SENSOR INPUT ON THE ESC.

The Reaktor ESC is Engineered to Communicate With You

LED Status:

- In normal use, if the throttle trigger is in the neutral range, neither the red LED nor the green LED light up.
- The red LED lights when the car is run forward or backward and it will flash quickly when the car is braking.

- The green LED lights when the throttle trigger is moved to the full throttle position.

Alert Tones:

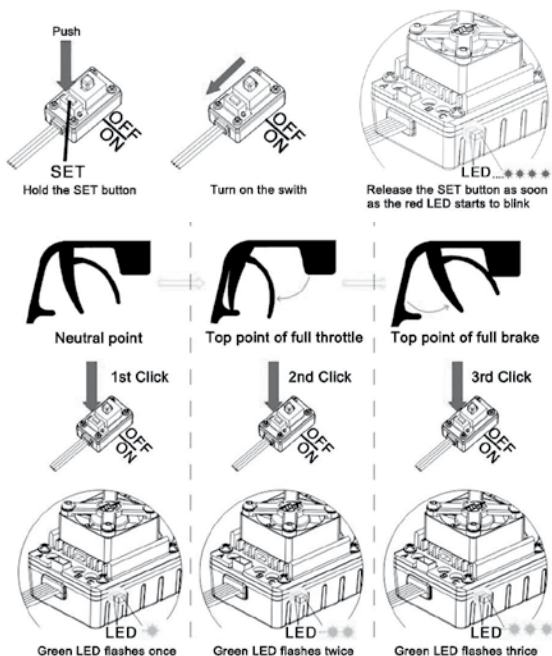
- Input voltage abnormal alert tone: The ESC begins to check the input voltage when power on, if it is out of the normal range, such an alert tone will be emitted: “beep-beep-, beep-beep-, beep-beep-” (There is 1 second time interval between every “beep-beep-” tone).
- Throttle signal abnormal alert tone: When the ESC can’t detect the normal throttle signal, such an alert tone will be emitted: “beep-, beep-, beep-” (There is 2 seconds time interval between every “beep-” tone).

Protection Functions:

- Low voltage cut-off protection: If the voltage of a LiPo battery pack is lower than the selected threshold for 2 seconds, the ESC will cut off the output power. Please note that the ESC cannot be restarted if the voltage of each LiPo cell is lower than the set threshold.
- Over-heat protection: When the temperature of the ESC is over 105 degrees Celsius for 5 seconds, the ESC will cut off the output power.
- Throttle signal loss protection: The ESC will cut off the output power if the throttle signal is lost for 0.2 second.

Throttle Range Calibration

1. Hold your transmitter approximately 1ft away while calibrating the ESC.
2. Turn Transmitter ON first (transmitter should ALWAYS be ON if the ESC is ON).
3. Ensure your Throttle channel (Ch. 2) on your transmitter is set to “Reverse”.
4. Adjust both Throttle and Reverse/Brake EPA settings to 100%.
5. With the ESC OFF, press and hold the Set button near the switch and turn the ESC ON to enter setup mode. Release the button as soon as the LED begins to flash.
6. Without touching the trigger, press the button to set the neutral position, the GREEN LED will flash 1 time.
7. Pull/hold full throttle, press the button again, release the trigger, the GREEN LED will flash 2 times.
8. Push/hold full brake/reverse, press the button again, the GREEN LED will flash 3 times. Release trigger.
9. Switch the ESC OFF and back ON to complete setup.
10. Check the ESC operation to ensure forward throttle is actually forward, if not, switch any two of the motor wires and re-check. Then repeat steps 3-8 if you experience odd behavior.



Programming your ESC

The Radiant Reaktor is a programmable ESC. Although the default settings should work well for most users, these settings exist so that you can fine tune the performance of your ESC to your experience and components. Its various programmable parameters can be adjusted either by interfacing with the ESC directly (button presses and counting LED flashes), or via the optional Reaktor Program Box (RDNA0031) which includes a digital readout of the settings for easier interpretation and faster setup. There are 6 programmable parameters for your consideration, below are descriptions of each item and following is the table and programming instructions for choosing your settings should you choose to change from the defaults (highlighted in **BOLD** text).

⚠ **CAUTION: THE MOST IMPORTANT OF THESE SETTINGS IS THE LOW VOLTAGE CUT-OFF THRESHOLD (ITEM 3). PLEASE READ THE DESCRIPTION AND USAGE SCENARIOS BELOW TO BETTER UNDERSTAND HOW TO USE THIS FEATURE.**

Item 1: Running Mode:

1. **Forward/Brake:** This setting is considered as "Race" mode where the reverse function is disabled.
2. **Forward/Reverse-Brake:** This setting is useful for normal operation since it allows for using reverse throttle to back out of a stuck situation.

⚠ CAUTION: SWITCHING FROM REVERSE TO FORWARD THROTTLE POSITION QUICKLY WILL CAUSE EXCESS LOAD ON THE ELECTRONICS AND DRIVETRAIN OF YOUR VEHICLE. IT IS RECOMMENDED TO COME TO A STOP BEFORE CHANGING REVERSE/FORWARD DIRECTION.

Item 2: Drag Brake Force (Automatic Brake):

1. 0%: This setting allows the vehicle to continue to roll after letting off throttle without applying automatic-brake
2. 5%: Adding some drag brake will make the vehicle a little easier to control, especially when driving on a closed circuit type course, helping you to slow down and make turns easier.
3. **10%: Add more until you find the right balance of assistance with slowing down while still being able to maintain good corner speed without upsetting the vehicle.**
4. 15%
5. 20%
6. 25%
7. 30%
8. 40%

Item 3: Low Voltage Cut-Off (LVC) Threshold:

The Reaktor ESC has 6 built in LVC options. It is essential that you use the proper LVC setting for the type of battery that you are using to achieve the optimal performance and safest operation from your ESC/Motor/Battery. This setting should be chosen based on the number and type of cells you are using. For LiPo batteries we recommend setting the LVC to #5.

⚠ WARNING: USING A SETTING LOWER THAN 5 THIS MAY CAUSE OVER DISCHARGE OF SOME BATTERIES AND CAUSE DAMAGE TO YOUR BATTERY, WHICH COULD LEAD TO A FIRE.

1. No Protection: ONLY to be used with NiMH or NiCd type batteries. The ESC will run as long as possible, draining all possible energy from the batteries and eventually your vehicle will cease to function properly.

⚠ CAUTION: IF YOU ARE RUNNING YOUR VEHICLE AND NOTICE A SUDDEN DECREASE IN POWER, YOUR ESC HAS DETECTED BATTERY VOLTAGE THAT IS LOWER THAN WHAT SHOULD BE SAFELY RUN WITHOUT CAUSING DAMAGE TO YOUR BATTERY OR ELECTRONIC EQUIPMENT. IF YOU ARE USING NIMH BATTERIES WHILE THIS HAPPENS AND YOU HAVE ONLY BEEN RUNNING FOR A VERY SHORT TIME, IT IS VERY LIKELY THAT YOU ARE MISTAKENLY USING ONE OF THE BELOW LVC MODES.

NOTE/TIP: When you notice the operation of your vehicle change, it is time to STOP running and re-charge your battery.

2. 2.6V/Cell: This setting will cause the ESC to enter LVC protection mode when the battery voltage is calculated at the selected voltage or less for more than 2 seconds. Since the setting is "per cell" this means that if you are running a 2 cell battery, the voltage protection will activate relative to

2 x 2.6V = 5.2V. This setting is primarily for use with LiFe type batteries as the lower end of LVC settings. DO NOT USE THIS SETTING WITH LIPO BATTERIES.

3. 2.8V/Cell: This setting would be the starting point for using LiFe type batteries and is not recommended for LiPo batteries.
4. 3.0V/Cell: This setting is only recommended for use with extremely high quality and highly durable LiPo batteries suitable for competition racing. Using a setting this low with a LiPo battery may cause excessive “wear and tear” on your batteries, shortening their lifespan.
5. **3.2V/Cell: This setting is recommended as the default for running average grade LiPo batteries. If your batteries are relatively old it is recommended to use setting 6 instead.**
6. 3.4V/Cell: This setting can be used with any LiPo battery and will provide the “safest” discharge level for your batteries however some lower quality batteries do not sustain their voltage under heavy load and will cause premature LVC activation. Starting here is a good choice if you are unsure or just want to be extra cautious.

Item 4: Start Mode/Punch (Higher value is more aggressive):

The Reaktor ESC has 4 “punch” profiles that allow you to tune the initial power output of the ESC to suit your driving, vehicle, and the surface. You will typically want a lower punch setting when the surface has less traction. To get the optimal performance out of LiPo batteries, on high traction surfaces, setting 4 is recommended.

1. Level 1 (70%): This setting will provide the smoothest throttle feel and least wheel spin.
2. Level 2 (80%)
3. **Level 3 (90%): This is the highest setting that should be used with high performance NiMH batteries such as those included with your vehicle.**
4. Level 4 (100%): This setting is recommended for use with LiPo batteries only and allows you to get the maximum acceleration from your power system. Choosing a setting higher than #3 for use with NiMH batteries will cause inconsistent operation of your ESC, including possible momentary power loss.

Item 5: Maximum Brake Force:

The Reaktor ESC has 4 maximum brake force settings allowing you to tune your brakes for different driving surfaces. This setting works in conjunction with the brake EPA setting on your transmitter which can still be used to fine tune the braking force, however this setting affects the initial brake force also. Since your vehicle is using a high performance brushless motor which has great braking efficiency already, we have reduced the setting to #3. On some surfaces you may still find this setting to be too high and find that under heavy braking with 4wd vehicles the rear tires may come off the ground. This is a very unstable situation and should be avoided at all costs. If this

happens, reduce the maximum braking force to a lower setting. If however you are unable to stop and the lack of deceleration is not due to wheel slipping, you can increase the braking force.

⚠ **CAUTION: BE SURE TO CHECK YOUR MAXIMUM BRAKE SETTINGS BY DRIVING FROM FULL THROTTLE TO FULL HARD BRAKE IN AN OPEN AREA. IF THE REAR TIRES COME OFF THE GROUND CAUSING A FRONT FLIP, THE VEHICLE WILL TUMBLE OUT OF CONTROL AND COULD CAUSE PERSONAL OR PROPERTY DAMAGE.**

1. 25%: This is the lowest setting and should only be used when driving with slow motors and on loose (low traction) surfaces.
2. 50%: It is not recommended to go below this setting on asphalt surfaces as the stopping power may not be enough to safely slow your vehicle.
3. **75%: This is the default setting we feel will provide you the best starting point for many different levels of traction on various surfaces. Remember it is extremely important to only drive a vehicle as fast as you can safely stop it. If the vehicle hits something or someone it can cause serious injury.**
4. 100%: This setting is only recommended if you are running a slotted type motor, running this with a slotless style motor combined with a 4wd vehicle will likely cause front flips thus a loss of control of your vehicle.

Reset to Factory Defaults:

- At any time when the throttle is located in neutral zone (except in the throttle calibration or programming mode), hold the "SET" key for over 3 seconds, the red LED and green LED will flash at the same time, which means each programmable item has been reset to its default value.

Audible/Visual Programming Alerts:

In dirty conditions or with various installations scenarios, visibility of the LED's may be obstructed. To assist with setting the ESC parameters you will also be able to hear audible beeps from the motor that will indicate the value of flashes the LED is transmitting.

To help interpret the beeps and flashes we use a long time flash and long "Beep—" tone to represent number "5", so it is easy to identify the higher quantity of flashes/beeps. This applies to both the programming parameter selection and also the value of each programmable item.

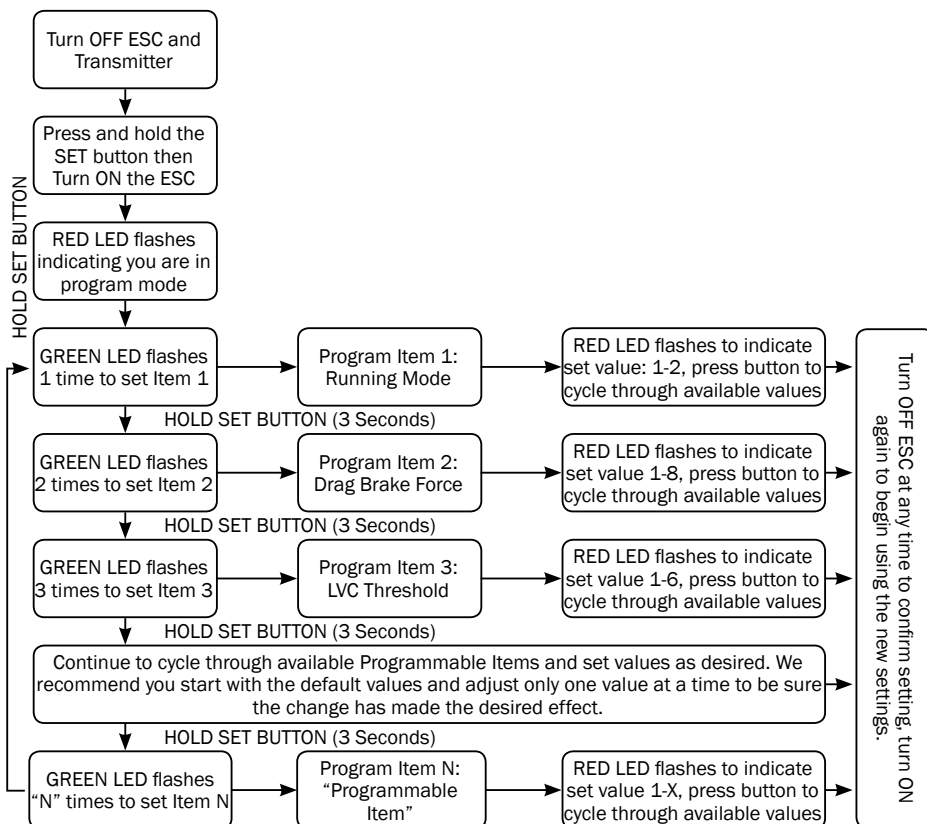
For example, if the LED flashes as the following:

- "A long time flash" (Motor sounds "B—") = the No. 5 item
- "A long time flash + a short time flash" (Motor sounds "B—B") = the No. 6 item
- "A long time flash + 2 short times flash" (Motor sounds "B—BB") = the No. 7 item
- "A long time flash + 3 short times flash" (Motor sounds "B—BBB") = the No. 8 item
- "A long time flash + 4 short times flash" (Motor sounds "B—BBBB") = the No. 9 item.

Programming Table and Default Settings:

Use the table below to better understand the programming process. This should help you navigate through the programming menu. A longer blink of the LED and Beep tone is used to represent number 5. So, a long Beep plus a short Beep is 6, a long Beep and two short Beeps is 7 etc.

Programmable Items (Blinks of GREEN LED)		Programmable Value (Blinks of RED LED), Black background indicates default settings							
		1	2	3	4	5	6	7	8
1.	Running Mode	Forward with Brake	Forward/Reverse with Brake						
2.	Drag Brake Force	0%	5%	10%	15%	20%	25%	30%	40%
3.	Low Voltage Cut-Off Threshold	No Protection	2.6V/Cell	2.8V/Cell	3.0V/Cell	3.2V/Cell	3.4V/Cell		
4.	Start Mode/Punch: Higher value is more aggressive	Level 1 (70%)	Level 2 (80%)	Level 3 (90%)	Level 4 (100%)				
5.	Maximum Brake Force	25%	50%	75%	100%				



Adjusting and Tuning Your Vehicle

The Select Four 10SC has been engineered with some available tuning options listed here for reference. The default configuration has been chosen to provide what we feel is the most enjoyable experience for most operating conditions. However we do encourage experimentation and testing as that's where the real fun begins!

Ride Height Adjustment

It is ideal to have the drive shafts above level but still allow the shocks to extend when you lift the vehicle while the vehicle is sitting on a flat surface with the body installed. Use the threaded adjustment collars to achieve the desired ride height.

- Lowering the collar will raise the ride height of the vehicle and if done excessively may decrease stability.
- Raising the collar will lower the ride height and may cause the chassis to drag on the ground.

Upper Shock Position

There are multiple shock installation locations for the top mounting location of the shock towers. The default positions have been chosen as a good starting point. Moving the shock mounting location inward will result in a slightly less responsive feel on the front or rear of the vehicle but it will be a little more stable. Moving the shock mounting location outward will make the truck more responsive but less stable in some conditions.

Lower Shock Position

There are multiple shock installation locations for the lower mounting location of the shocks in the suspension arm. The default location is ideal for the included shock length. However you can play a little.

- Moving the shocks to the inside location will result in a slightly more responsive feel on the front or rear of the vehicle but become a little less stable. This change will also increase the vehicle's articulation and you will notice more body roll. Always check and adjust, if necessary, the ride height of your vehicle after moving the shock mounting locations.

Battery Mounting

Your vehicle comes equipped with foam blocks used to position the battery. Centered is the default location.

- Moving the battery forward will generally give the vehicle more steering while exiting a turn, but less while entering a turn.
- Moving the battery backwards will generally give the vehicle a little more traction but less steering while on power.
- Ensure the foam blocks are in place to keep the battery pack from

changing position in the battery tray.

- It may be necessary to reset the ride height after changing to a heavier/lighter battery or making a setup change.

General Care

- Always use clean, dry cloth or soft bristle brush to clean your equipment.
- Never use chemical cleansers to avoid damage to the sensitive electronics and plastics.

Maintenance

We want you to enjoy your product to its fullest potential. For this to happen it is important to keep your product clean and properly maintained. Lack of cleaning and maintenance can cause component failure. For best and continued performance from your product it is recommended to briefly inspect your product for damage every few uses. Typically, a good time to do this is when changing the battery in your vehicle or while it is charging. If a problem is discovered, stop use immediately and perform repairs or seek assistance. Continued use of failed components can cause more unnecessary damage to your product.

ESC and Servo

The ESC and servo included in your vehicle are rated for all weather use. It is recommended that you avoid submersion of the vehicle however running in puddles, rain and snow should not be damaging. If you will be running in a lot of water it is recommended to un-plug the fan from the ESC to prevent the fan from being over-loaded from the water. Be sure to re-connect the fan immediately after use and drying the terminals. Always remove excess water/snow from your vehicle after running to help prevent corrosion. Using an air compressor is effective but please use eye protection.

Transmitter

Although the receiver included with your radio system is rated for all weather use, the transmitter is not. The transmitter should not be used in the rain or other wet environment to avoid damage to the sensitive electronics.

- Clean dirt and debris off of your transmitter regularly to avoid the consequences of these getting into the sensitive electronics where they can cause short circuits and/or restrict motion of the internal steering and throttle mechanisms.
- Ensure the antenna is kept in proper working order. The transmitter is not safe to use with a broken or missing antenna.

Receiver

Although the receiver included with your radio system is rated for all weather use, it is recommended that you avoid submersion of the receiver, however running in puddles, rain, and snow is okay.

⚠ CAUTION: ALTHOUGH THE ELECTRONICS ARE PROTECTED FROM THE WEATHER, THE CONNECTIONS ARE NOT. ELECTRICAL CONNECTIONS WILL CORRODE WHEN EXPOSED TO MOISTURE WHEN IN USE AND IF LEFT IN A WET CONDITION. IT IS CRITICAL THAT YOU UNPLUG AND DRY ALL EXPOSED ELECTRICAL CONNECTIONS AFTER EACH USE IN WET CONDITIONS TO AVOID DAMAGE TO YOUR EQUIPMENT.

- To achieve full operating range with your radio system, it is critical that the receiver antenna be installed properly and undamaged.
- Inspect any exposed antenna for cuts or abrasions.
- Ensure there are no kinks in the antenna or antenna tube.
- Never fold the end of the antenna over the tube, this will reduce the range and damage the antenna.
- Ensure the antenna is not being pinched by the set screw that holds the antenna tube in place.

Gears

Periodically remove the gear cover to clearly inspect the gears and ensure there is no debris in the gear compartment.

Proper gear mesh setting is crucial for proper operation and life of gears in your product. It is important to have the pinion gear (attached to motor) as close to the spur gear (attached to drive shaft) as possible yet while providing a minimal amount of backlash. Backlash is the rotation one gear has to make before contacting the other. Having the gear mesh set too tight will cause excess load on the electrical components and may cause premature failure. Having gear mesh set too loose will cause excess wear and possible skipping of teeth during operation thus causing excess wear and premature failure.

Checking the gear mesh and setting proper backlash.

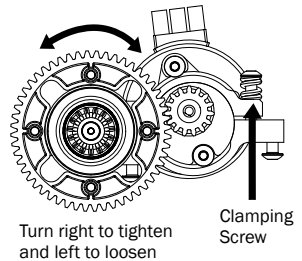
1. Remove the spur gear cover.
2. Check how much movement is allowed (backlash) of the spur gear before the pinion gear moves (this is mostly feel, not visual). Check this movement in multiple places by rotating the spur gear approximately 1/6 rotation and rechecking.
3. If the spur gear is allowed to move more than a very small amount, or if it there is no backlash, the gear mesh must be adjusted. If there is a lot of movement, it is recommended to attempt to tighten the mesh. Attempted adjustment should only improve the situation; if the mesh was correct to begin with, you will know what that feels like, and if it wasn't correct, it will be when you are done after following these procedures.

Setting the Gear Mesh

1. Loosen the clamping screw securing the motor plate's rotation in the motor mount, only enough to allow the motor to rotate in the mount. Check and ensure there is no debris in the gears affecting the mesh.
2. Rotate the top of the motor away from the center of the chassis, insert a strip of notebook paper between the pinion and spur gear, then rotate the motor plate back until there is no backlash. You will have to push/twist relatively hard to ensure the paper is pressed all the way into the teeth.
3. Hold the motor snugly in position while retightening the screw. Only tighten the screw until the motor won't move. There should be a slight gap between the coils of the spring.
4. Rotate the spur gear (turn the tires) to feed the paper out of the mesh, re-check the gear mesh and adjust again if necessary.
5. Re-install the spur gear cover when the mesh is properly set.



WARNING: NEVER OPERATE YOUR VEHICLE WITH THE SPUR GEAR COVER REMOVED. SEVERE INJURY, DAMAGE TO ELECTRICAL COMPONENTS, AND EXCESSIVE WEAR AND TEAR ON DRIVETRAIN MAY RESULT.



Shocks

Periodically inspect the shocks for smooth motion, leaking oil and dirt residue build up around the shaft or caps. Do not allow dirt to build up around the shock shaft and bottom of the shock. Doing so will reduce the life of the shock and cause a shock to leak oil. Be sure to clean the shocks regularly with a clean and dry soft bristle brush and/or rag.



CAUTION: NEVER USE SPRAY CLEANERS TO CLEAN YOUR SHOCKS, DOING SO CAN CAUSE DAMAGE TO THE SEALS, CAUSING THEM TO LEAK MORE AND REDUCE THE LIFE AND PERFORMANCE OF YOUR SHOCKS.

Signs to look out for determining if your shock needs to be maintained or rebuilt.

- Oil around the shaft means the oil leaked from inside and needs to be replaced.
- Persistent oil around the shock shaft or lower portion of the shock typically points to damaged O-rings which will need replacing. See your local hobby dealer for replacement parts.

Refilling your shocks:

1. Remove shock from vehicle, remove spring and top cap. Remove the bleed screw from the cap.
2. With shock shaft extended, add oil to top of body (use only 100% silicone oil) and reinstall the shock cap. Be sure the o-ring stays "seated" and does not squeeze out.

3. Slowly compress the shock shaft 100% of travel using a towel or paper napkin to clean up overflowed oil, then reinstall the bleed screw. Do not over-tighten.
4. Check for free motion of shock. If the shock feels like it gets stiffer at the end of compression, there is too much oil or air. Compress the shaft and remove the bleed screw slowly to allow excess air/oil to come out, then reinstall the screw.
5. It is normal for the shock to rebound (with the spring removed) after full compression and release.

Replacing the O-rings:

- Disassemble shock and remove shock end and shaft from the body.
- Carefully remove lower cap by unscrewing from the shock body.
- Remove the O-ring and spacer and replace with genuine replacement parts.
- Re-assemble the shock following the refilling instructions above.

Tires and Wheels

Inspect the tires to ensure they have adequate tread and they are properly glued to the wheels. The tires on your vehicle come pre-glued from the factory; however after running your vehicle it is possible for the glue to come loose in some areas.

- To reattach the tire to the wheel, use hobby grade Cyanoacrylate (CA) glue and apply small amounts (one drop at a time) between the tire and wheel. Allow the glue to fully dry before operating your vehicle.
- When reinstalling tires, use caution when tightening the nuts that secure the wheels to the vehicle. Ensure the wheels rotate freely but don't wobble excessively. Over tightening the wheels may cause excess strain on the electrical and mechanical components of your vehicle. Operating your vehicle under these conditions will void your warranty.
- Taking the above into consideration, leaving wheels too loose can cause them to strip. It is recommended to check that the wheel nuts are tight every time you run your vehicle.
- Consequently running your vehicle will cause the tires to eventually wear out. Be sure to obtain and use genuine replacement parts from your local hobby dealer when necessary.

General Wear and Tear

Using your vehicle will cause general wear and tear which is not covered under warranty yet may necessitate replacement of components. Continued operation of your product with worn components may cause continued damage to other components.

Be sure to regularly inspect your vehicle and accessories for excess wear and damaged components.

Storage and Disposal

Storage

- Always store all equipment in a cool dry place when not in use.
- Always disconnect the batteries before storage.
- Never store the transmitter or receiver in direct sunlight for extended periods of time.
- Never store the transmitter with batteries installed for extended periods of time. Doing so may allow the batteries to leak and cause permanent damage to the transmitter.
- Always disconnect electrical connections after use in wet environments. Allowing the contacts to dry will reduce corrosion.

Disposal

Your product is considered electronic waste and should never be discarded in standard garbage containers. Please visit your local hobby dealer (and some home improvement centers) and use the FREE battery disposal center for proper disposal/recycling. Consult your local city hall for information on recycling other electronic waste.

Troubleshooting Problems

Before contacting customer support, recall that this is a hobby grade product intended to be user serviceable. Please take the time to fully inspect your product for any obvious causes to the issues you are experiencing. Below are some of the most common issues experienced. Scan the QR code to the right with your smart phone for quick access to the product support content on our website.



- Many control issues can be resolved by simply re-pairing the transmitter and receiver, always start here.
- Dead transmitter or vehicle batteries will cause the product to malfunction and not work properly. As with TV remote controls in your home, if the batteries are dead, they don't work. Start power related troubleshooting with fresh batteries in the transmitter and recharged batteries in the vehicle.
- Power connections between the Battery, ESC and receiver are critical to the performance of the product. Running in various debris may cause foreign objects to snag on wires, causing connections to come loose. It is a good idea to unplug and reconnect motor and battery connections when beginning power related troubleshooting. Also inspect for any damage caused to the antenna.
- Drivetrain issues can mask themselves as power related. Fully inspect the wheels, driveshafts, and motor for foreign objects that may have

become tangled or wrapped around the spinning parts of the drivetrain. Small objects like fishing line for example, can wrap around a drive shaft, overheat and melt due to the friction and cause the entire drivetrain to lock up. Although a big problem, it can be difficult to see when inspecting. Always remove the wheels from your vehicle when troubleshooting drivetrain related issues.

- The drivetrain in your vehicle has a covered shaft to protect from debris. We encourage you to remove it and inspect under the cover to ensure that items have not been entangled around the shaft causing drag and possible failure. Inspect around the steering components to ensure no debris are preventing normal steering operation.
- Steering can become sluggish once components get dirty or “take a set” after running. Inspect the rod ends of the turnbuckles to ensure they are properly aligned and not binding. You should be able to grab a turnbuckle with your fingers and rotate it easily.
- Healthy gears are crucial to a properly functioning vehicle. If you hear your vehicle making very loud noises, you should immediately stop and check the gears for foreign debris. Even a small pebble can get lodged into the teeth of the pinion gear, which would practically destroy the spur gear in a very short period of time.

Appendix A: Troubleshooting Guide for the Reaktor Power System

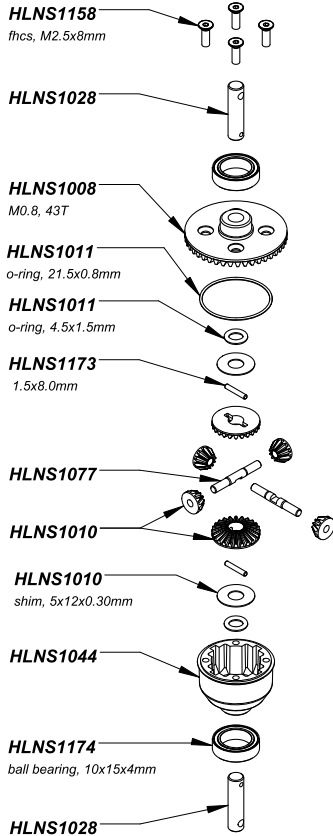
Problem / Symptom	Possible Cause	Possible Solution
ESC will not set to transmitter	Receiver and transmitter not bound	Try re-pairing
	Throttle Channel not set to Reverse	Unless using Futaba radio, set Th channel to Reverse
	Batteries dead in car or transmitter	Replace batteries
	Transmitter is too close to vehicle	Hold transmitter farther away from vehicle
After turning ON, the motor won't work and no sound comes from motor	The connections between the battery and the ESC are not correct	Check the power connections. Replace the connectors if they are worn or damaged
Car slowed down or stopped drastically during run	Battery voltage too low, LVC active	Charge or change batteries
	ESC over-temp protection active	Turn off ESC and allow ESC and motor to cool before running again
	ESC Over current protection active	Change operating conditions to ones that are not as hard on the electronics, i.e. move from grass to asphalt.
		Reduce pinion gear size on the motor to reduce load on the ESC
Car doesn't accelerate	Ensure the proper punch mode is used	Change punch mode based on battery you are using
Reverse not working	Reverse mode has been disabled in ESC	Follow setup instructions to turn back on
	ESC was improperly set to transmitter	Re-set to transmitter, ensure Th channel is set to Reverse for non Futaba transmitters
	EPA on transmitter has been turned down for reverse	Adjust EPA's to 100% and recalibrate ESC to transmitter
Motor only goes in reverse or goes in reverse when I pull trigger to go forward	Throttle Channel not set to Reverse	Unless using Futaba radio, set Th channel to Reverse and reset ESC to transmitter
	Motor connected to ESC improperly	Switch any two motor wires
	EPA on transmitter has been turned down for reverse	Adjust EPA's to 100% and reset ESC to transmitter

Appendix B: Troubleshooting Guide

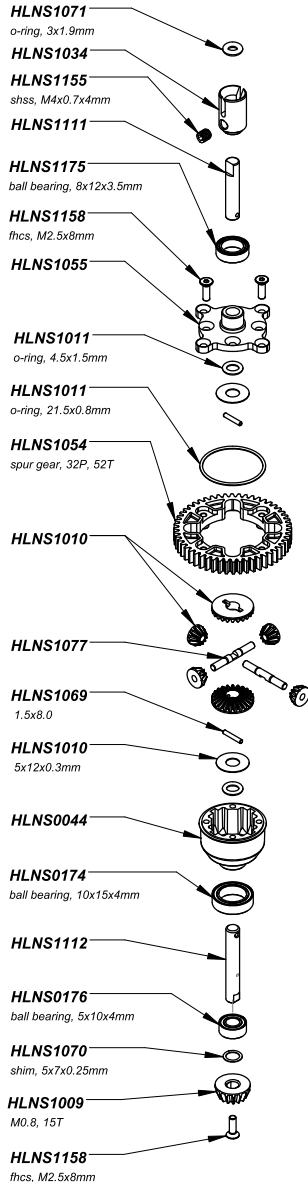
Problem / Symptom	Possible Cause	Possible Solution
Vehicle will not turn on	Battery voltage too low	Charge battery
	Battery not connected	Re/connect battery
	Damaged battery	Replace battery
Transmitter will not turn on	Battery voltage too low	Charge or change batteries
	Battery/ies installed improperly	Correct installation
Short radio range (Vehicle stops responding to transmitter at short distances)	Damaged or improperly installed receiver and antenna	Check receiver antenna for damage. Ensure antenna is properly installed in tube and mount, extending perpendicular from the ground. Ensure all connections are secure
	Receiver is malfunctioning	Replace receiver
	Battery voltage too low	Replace or recharge batteries in transmitter and vehicle
Steering not responding as expected	Trim not set properly	Adjust steering trim
	Screws too tight on steering parts	Adjust screws to allow for free motion
	Fasteners have become loose	Check and tighten all fasteners to as-new condition, be careful to not over tighten
Vehicle not responding as expected to transmitter	Trims not set properly	Adjust throttle and/or steering trim
	Radio system lost pair	Re-pair radio system
	Bad electrical connections	Check motor and battery plugs to ensure they are fully connected
Wheels twitch while vehicle is idle (controls at neutral)	Transmitter too close to receiver (<1m)	Increase distance between the units
	Receiver wire damaged	Inspect antenna for damage and replace if necessary
	Receiver antenna not installed in vertical position	Install in mount with care to not damage antenna wire
Steering will not trim straight, always has right or left bias	Binding in steering system	Inspect and correct any binding components or loosen screws if over tight
	Front wheels too tight	Check and adjust wheel nuts to ensure the wheels are not too tight
Vehicle top speed and acceleration is slow	Battery voltage too low	Charge battery
	Drivetrain has too much friction	Check for debris/excessive wear on gears, inspect bearings
	Gear mesh too tight	Loosen gear mesh
	Pinion gear is loose	Check and tighten set screw on motor pinion
	Broken Differential	Check differential and ensure the outdrives are secured and gears intact. You should not be able to pull them out
	Drive pin missing	Check for missing wheel pins (behind wheel hexes), or dogbone pins
	ESC not set to transmitter	Follow ESC instructions to set to transmitter
Wheels not spinning freely	Wheels too tight	Check and adjust wheel nuts
	Differentials stripped	Check differentials and replace/repair if necessary
Battery charge stops lasting as long as it used to	The battery has become old	Replace battery
	Battery not charged completely due to insufficient charge time	Charge for longer period of time or try a peak detection charger. We recommend the Radiant Primal (RDNA0001)
	Gear mesh too tight	Check and reset gear mesh setting
	Charger, battery, wires, or plug has malfunctioned	Check all connections and wires for damage or excessive wear and replace if necessary
Shocks and/or arms covered in oil	Shock O-ring seals are worn	Replace O-rings and refill shock with oil
	Top shock cap too loose or over tightened	Check tightness (finger tight), refill shock oil
	Bottom shock cap dislodged	Check installation, refill shock oil
Spur gears stripping	Gear mesh too loose	Tighten gear mesh for proper backlash
	Fasteners loose or missing	Check for loose fasteners and bad bearings.
	Pinion gear too worn out	Replace pinion gear

Appendix C: Differential Exploded Views

HLNS1065 FRONT/REAR DIFFERENTIAL

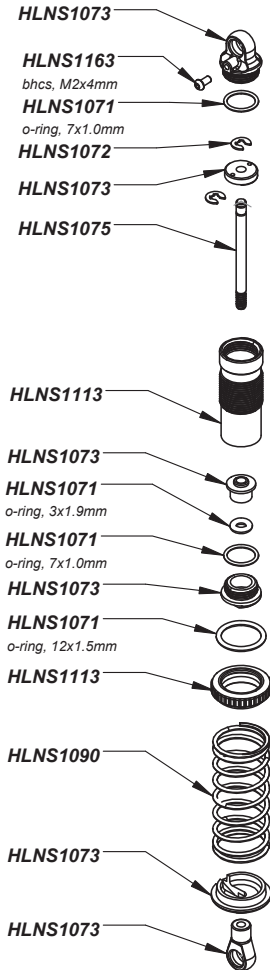


HLNS1064 CENTER DIFFERENTIAL

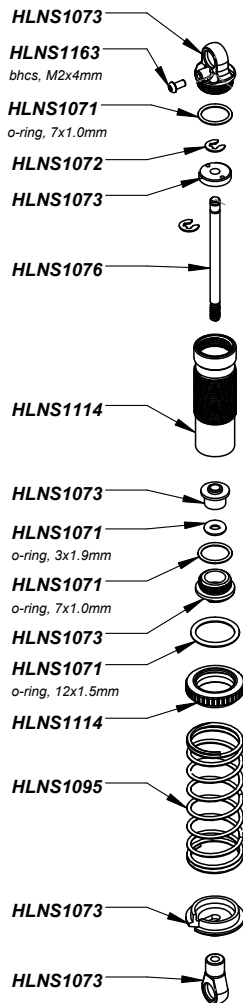


Appendix D: Shock Exploded Views

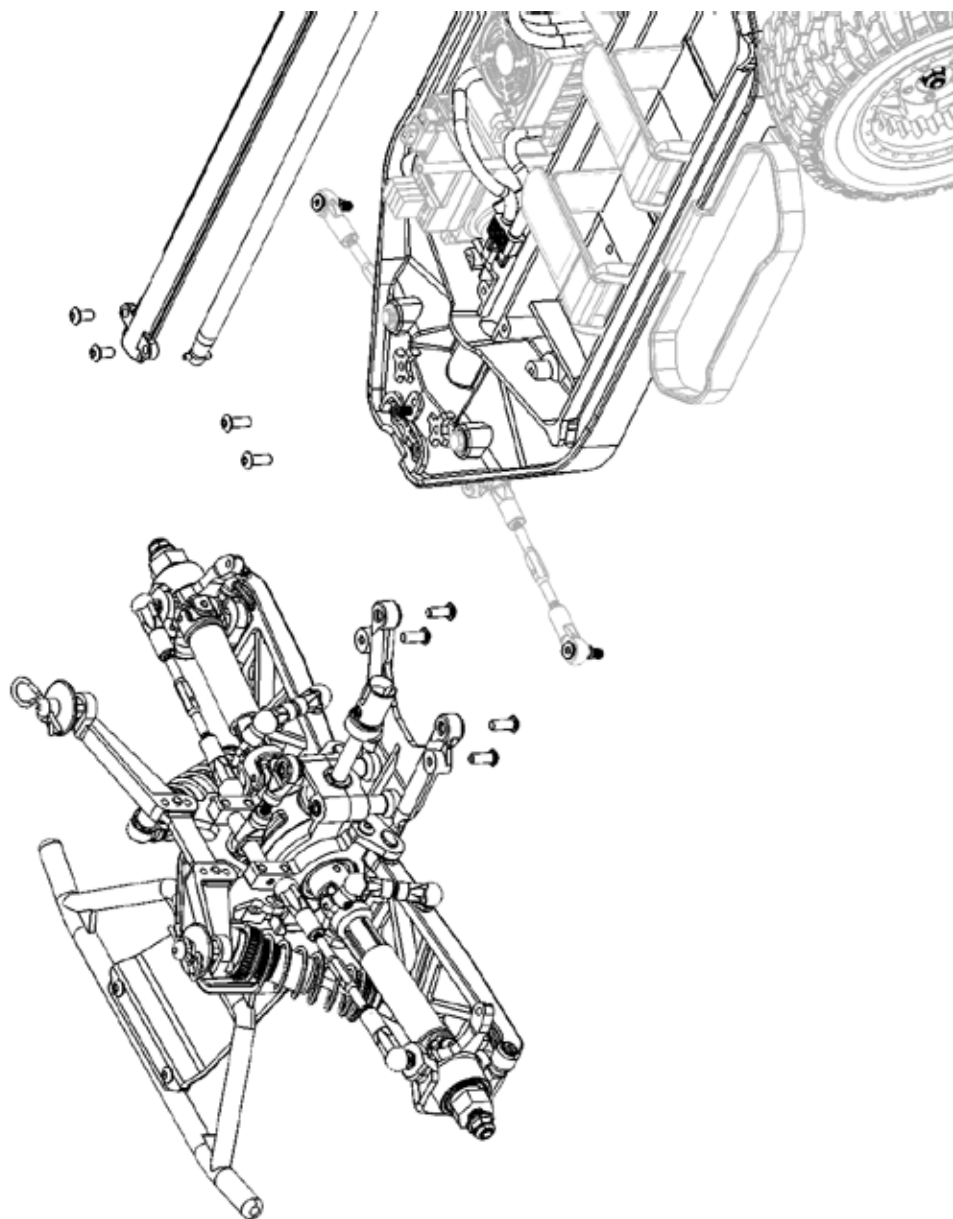
HLNS1062 FRONT SHOCK



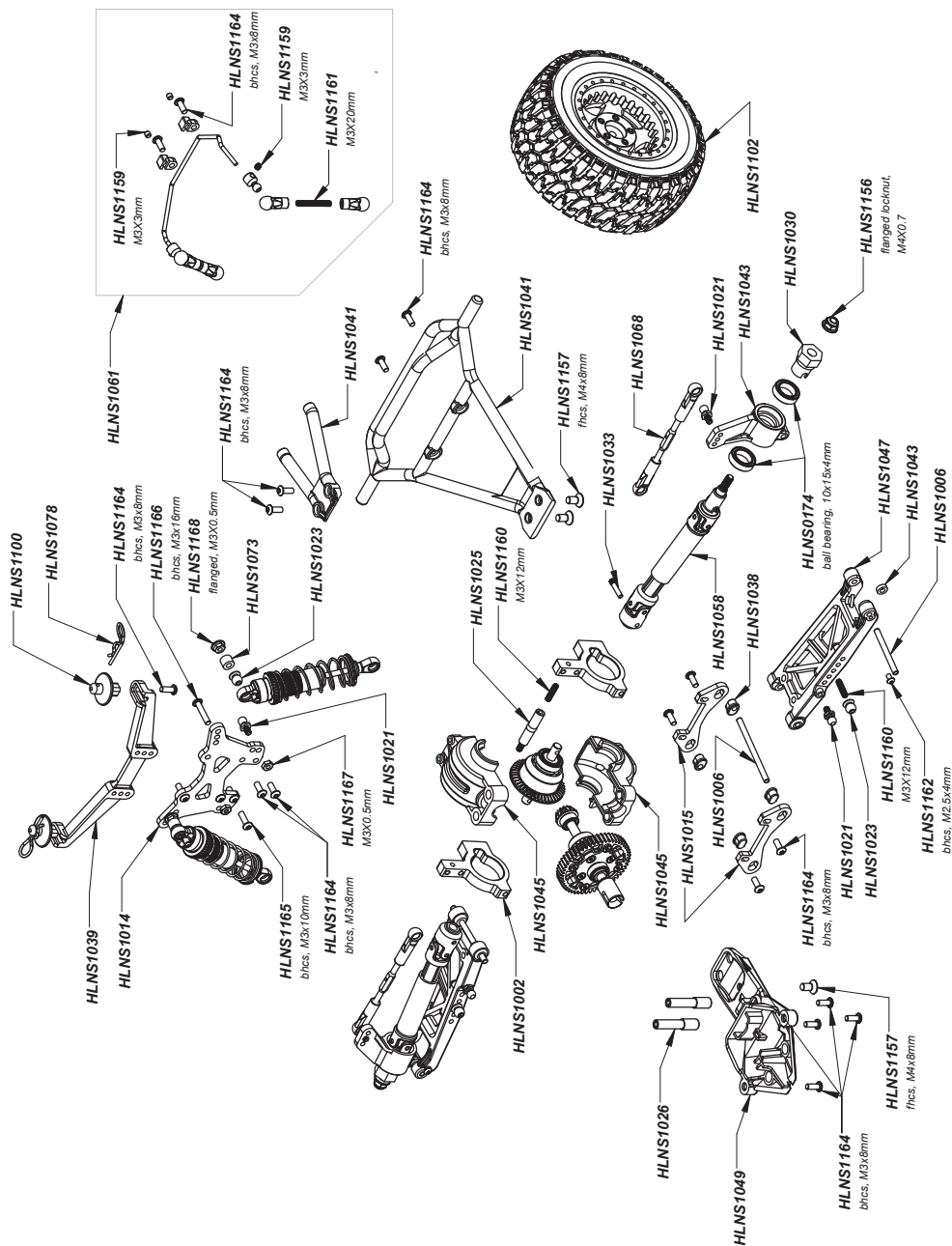
HLNS1063 REAR SHOCK



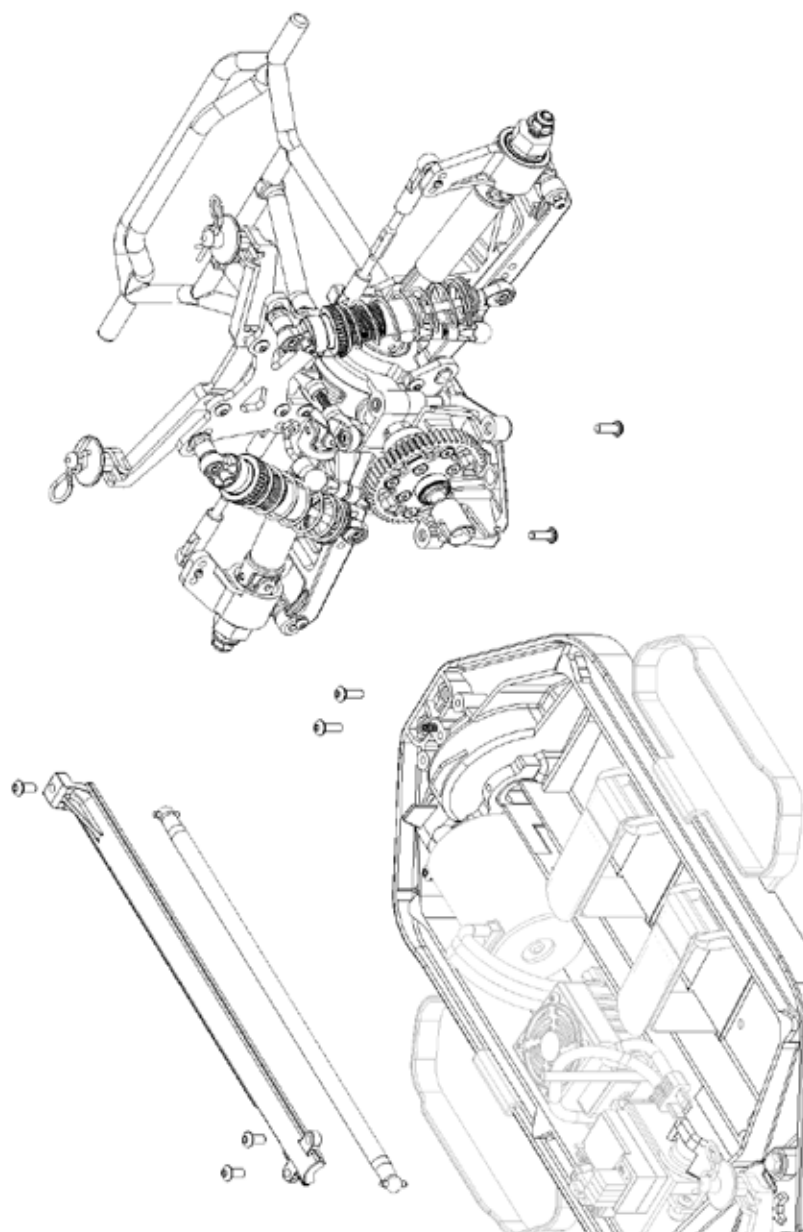
Appendix E: Front Suspension Removal



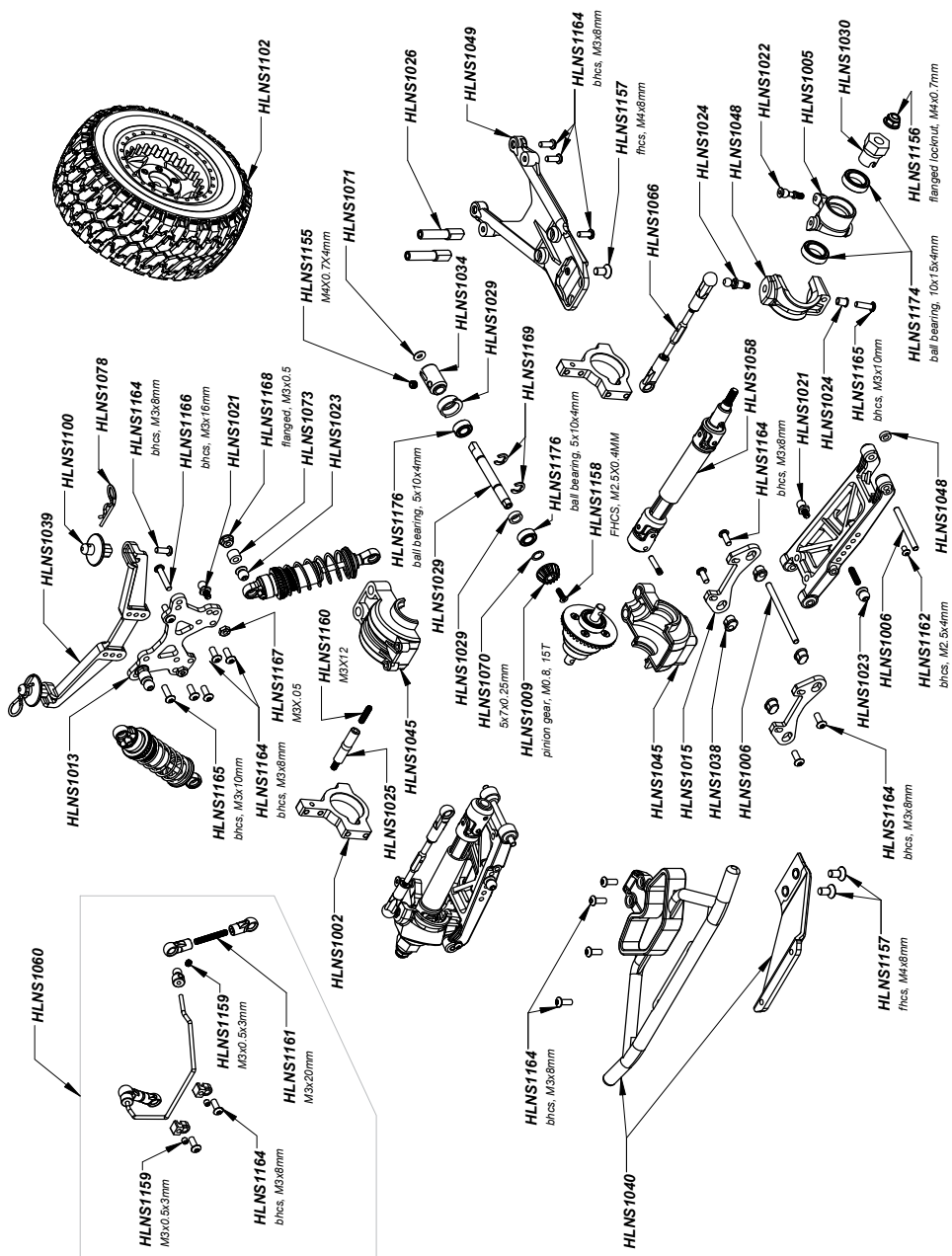
Appendix F: Front Suspension Exploded View



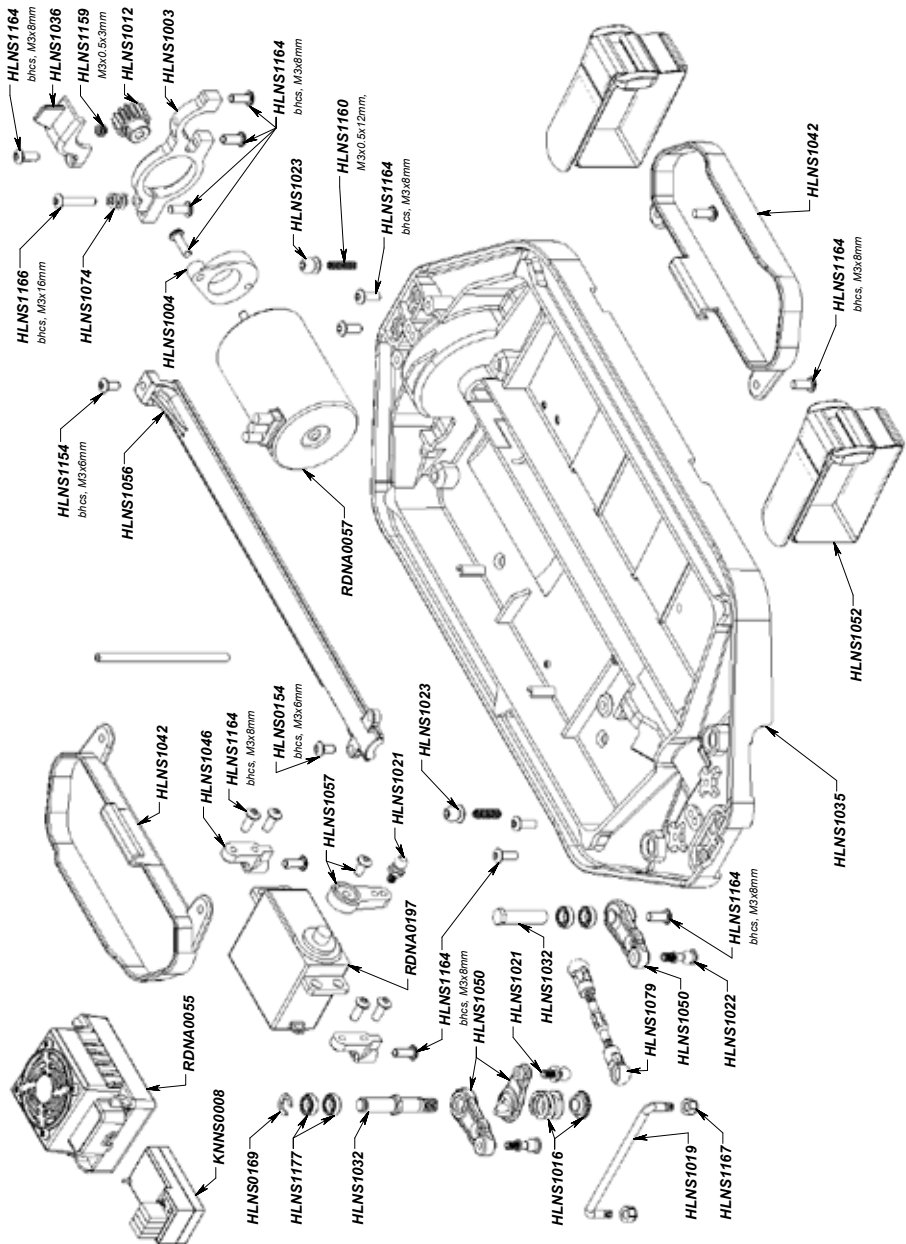
Appendix G: Rear Suspension Removal View



Appendix H: Rear Suspension Exploded View



Appendix I: Main Chassis Exploded View



Appendix J: Spare Parts List

HLNS1001	Four 10SC, 4wd Brushless Short Course Truck
HLNS1002	Bulkhead, Aluminum (2) (410SC)
HLNS1003	Motor Mount (410SC)
HLNS1004	Motor Mount Cam (410SC)
HLNS1005	Steering Spindle, L-R (410SC)
HLNS1006	Hinge Pin Set (410SC)
HLNS1008	Ring Gear, 43T (410SC)
HLNS1009	Pinion Gear, Bevel, 15T (410SC)
HLNS1010	Gear Set and Pins, Internal Differential (410SC)
HLNS1011	Seal Kit, Differential (410SC)
HLNS1012	Pinion Gear, 32P, 15T x 0.125" (410SC)
HLNS1013	Shock Tower, Front (410SC)
HLNS1014	Shock Tower, Rear (410SC)
HLNS1015	Arm Holders (2) (410SC)
HLNS1016	Spring and Seat, Servo Saver (410SC)
HLNS1019	Link, Steering (410SC)
HLNS1020	Ball Stud, Pinned 4.8mm, Steering (410SC)
HLNS1021	Ball Stud, 4.8mm (410SC)
HLNS1023	Pivot Ball, 2.5mm Broached, M3, 5.8mm (410SC)
HLNS1024	King Pin Set (410SC)
HLNS1025	Ball Post, Bulkhead (410SC)
HLNS1026	Chassis Post, Lower (410SC)
HLNS1027	Shaft, Center (410SC)
HLNS1028	Shaft, Output, Diff (410SC)
HLNS1029	Driveshaft Set, Center, Front (410SC)
HLNS1030	Wheel Hex, 12mm (410SC)
HLNS1031	Turnbuckles, M3x58mm (2) (410SC)
HLNS1032	Steering Post Set (410SC)
HLNS1033	Screw Pin, Diff Outdrive (410SC)
HLNS1034	Outdrive, Center (410SC)
HLNS1035	Chassis (410SC)
HLNS1036	Gear Cover, Pinion (410SC)
HLNS1037	Ball Cup Set (410SC)
HLNS1038	Arm Bushing (410SC)
HLNS1039	Body Mount Set, F-R (410SC)

HLNS1040	Bumper Set, Front (410SC)
HLNS1041	Bumper Set, Rear (410SC)
HLNS1042	Bumper Set, Side (410SC)
HLNS1043	Hub Carrier Set, Rear (410SC)
HLNS1044	Differential Case, F-R-C (410SC)
HLNS1045	Differential Housing (410SC)
HLNS1046	Servo Mounts (410SC)
HLNS1047	Suspension Arm Set, F-R (410SC)
HLNS1048	Spindle Carrier, L-R (410SC)
HLNS1049	Lower Kick Plates, F-R (410SC)
HLNS1050	Steering Bellcranks (410SC)
HLNS1051	Dust Cover, Black (410SC)
HLNS1052	Battery Straps, 2S (410SC)
HLNS1053	Turnbuckles, M3x53mm (410SC)
HLNS1054	Spur Gear, Center Differential, 32P, 52T (410SC)
HLNS1055	Spur Gear Adapter, Center Differential (410SC)
HLNS1056	Center Shaft Cover (410SC)
HLNS1057	Servo Horn, 25T (410SC)
HLNS1058	Telescoping Universal Driveshaft Set (410SC)
HLNS1059	Tie Rod Set, Bulkhead, F-R (410SC)
HLNS1060	Swaybar Set, Front (410SC)
HLNS1061	Swaybar Set, Rear (410SC)
HLNS1062	Shock Set, Front (410SC)
HLNS1063	Shock Set, Rear (410SC)
HLNS1064	Differential, Center, Complete (410SC)
HLNS1065	Differential, Front-Rear, Complete (410SC)
HLNS1066	Tierod Set, Front Camber, 58mm (410SC)
HLNS1067	Tierod Set, Steering, 58mm (410SC)
HLNS1068	Tierod Set, Rear Camber, 53mm (410SC)
HLNS1069	Decal Sheet (410SC)
HLNS1070	Shims, 5x7x0.25mm (10)
HLNS1071	O-rings, Shock (410SC)
HLNS1072	E-clips, 2.5mm (410SC)
HLNS1073	Shock Plastic Rebuild Kit (410SC)
HLNS1074	Motor Mount Cam Spring Kit (410SC)
HLNS1075	Shock Shafts, Front, 39mm (2) (410SC)

HLNS1076	Shock Shafts, Rear, 45mm (2) (410SC)
HLNS1077	Cross Pins, Differential (410SC)
HLNS1078	Body Clips (410SC)
HLNS1079	Tierod Assembly, Servo Link (410SC)
HLNS1090	Spring, Shock, Front, White (410SC)
HLNS1095	Spring, Shock, Rear, White (410SC)
HLNS1098	Wheels, Black, 12mm Hex (410SC)
HLNS1100	Body Posts (410SC)
HLNS1101	Tires and Foam Inserts (410SC)
HLNS1102	Tires and Wheels, Assembled, Black (410SC)
HLNS1104	Battery Straps, XL 3S (410SC)
HLNS1105	Center Front Shaft Assembly (410SC)
HLNS1106	Body, Lava, Pre-mounted (410SC)
HLNS1108	Body, Cobalt, Pre-mounted (410SC)
HLNS1111	Center Differential Forward Output Shaft (410SC)
HLNS1112	Center Differential Rear Output Shaft (410SC)
HLNS1113	Shock Bodies, Front and Adjustment Nuts (410SC)
HLNS1114	Shock Bodies, Rear and Adjustment Nuts (410SC)
HLNS1154	Button Head Cap Screws (BHCS) M3x6mm (10)
HLNS1156	Flanged Locknuts, Serrated, M4x0.7mm (10)
HLNS1157	Flat Head Cap Screws (FHCS) M4x8mm (10)
HLNS1158	Flat Head Cap Screws (FHCS) M2.5x8mm (10)
HLNS1159	Socket Head Set Screws (SHSS) M3x3mm (10)
HLNS1160	Socket Head Set Screws (SHSS) M3x12mm (10)
HLNS1161	Socket Head Set Screws (SHSS) M3x20mm (10)
HLNS1162	Button Head Cap Screws (BHCS) M2.5x4mm (10)
HLNS1163	Button Head Cap Screws (BHCS) M2x4mm (10)
HLNS1164	Button Head Cap Screws (BHCS) M3x8mm (10)
HLNS1165	Button Head Cap Screws (BHCS) M3x10mm (10)
HLNS1166	Button Head Cap Screws (BHCS) M3x16mm (10)
HLNS1167	Nylon Locknuts M3 (10)
HLNS1168	Flanged Serrated Locknuts M3 (10)
HLNS1169	E-clips, 4.5mm (410SC)
HLNS1170	Shims, 5x10x0.3mm (10)
HLNS1171	Solid Pin, 3x10mm (10)
HLNS1172	Solid Pin, 2x10mm (10)

HLNS1173	Solid Pin, 1.5x8mm (10)
HLNS1174	Ball Bearings, Rubber Sealed 10x15x4mm (4)
HLNS1175	Ball Bearings, Rubber Sealed 8x12x3.5mm (4)
HLNS1176	Ball Bearings, Rubber Sealed 5x10x4mm (4)
HLNS1177	Ball Bearings, Rubber Sealed 5x8x2.5mm (4)
HLNS1178	Quick-Start Guide, Four 10SC
HLNS1179	Owner's Manual, Four 10SC
KNNS0001	ET4 4Ch 2.4GHz Xenon (Xe) AW Radio System
KNNS0008	4Ch 2.4GHz Xenon (Xe) Receiver, AW
KNNS0012	Battery Holder, 4xAA
KNNS0013	ET4 Grips, S-M-L, Black
KNNS0014	ET4 Model Decal Set
KNNS0015	Wall Charger
KNNS0016	ET4 Quick Start Guide
KNNS0017	ET4 Owner's Manual
KNNS0018	Battery Pack, 5-Cell NiMH AA, RX
KNNS0019	ET4 Grips, S-M-L, Blue
KNNS0020	ET4 Grips, S-M-L, White
RDNA0055	Reaktor Brushless ESC NS-60A WP-TSP
RDNA0057	Reaktor BL Motor NS 3500kV 4-Pole, TSP
RDNA0060	Reaktor BL Combo, NS-60A, 3500kV, TSP
RDNA0174	Fan Kit, Reaktor 50, 60T

Optional Parts

HLNS1080	Metal Universal Driveshaft Set, 77mm (410SC)
HLNS1081	Outdrive Cup Set, F-R (410SC)
HLNS1082	Aluminum Suspension Arm Set, L-R (410SC)
HLNS1083	Shock Set, Big Bore, Front (410SC)
HLNS1084	Shock Set, Big Bore, Rear (410SC)
HLNS1085	Aluminum Bulkhead Set, 2-Piece (410SC)
HLNS1088	Spring, Shock, Front, Ultra Soft (410SC)
HLNS1089	Spring, Shock, Front, Soft (410SC)
HLNS1091	Spring, Shock, Front, Hard (410SC)
HLNS1092	Spring, Shock, Front, Ultra Hard (410SC)
HLNS1093	Spring, Shock, Rear, Ultra Soft (410SC)
HLNS1094	Spring, Shock, Rear, Soft (410SC)

HLNS1096	Spring, Shock, Rear, Hard (410SC)
HLNS1097	Spring, Shock, Rear, Ultra Hard (410SC)
HLNS1099	Wheels, Black Chrome, 12mm Hex (410SC)
HLNS1103	Tires and Wheels, Assembled, Black Chrome (410SC)
HLNS1107	Body, Emerald, Pre-mounted (410SC)
HLNS1109	Body, Clear (410SC)

Accessories

RDNA0044	Ascend LCD Multi-Chem 6A Charger (US)
RDNA0045	Ascend LCD Multi-Chem 6A Charger (UK)
RDNA0046	Ascend LCD Multi-Chem 6A Charger (EU)
RDNA0098	Superpax Battery, SC 8.4V 7-Cell 3000mAh NiMH, 6-1 Hump, HCT
RDNA0100	Superpax Battery, SC 8.4V 7-Cell 4200mAh NiMH, 6-1 Stick, HCT
RDNA0101	Superpax Battery, SC 8.4V 7-Cell 4200mAh NiMH, 6-1 Hump, HCT
RDNA0103	Superpax Battery, SC 8.4V 7-Cell 5000mAh NiMH, 6-1 Stick, HCT
RDNA0104	Superpax Battery, SC 8.4V 7-Cell 5000mAh NiMH, 6-1 Hump, HCT
RDNA0105	Superpax Battery, SC 9.6V 8-Cell 5000mAh NiMH, 6-2 Hump, HCT
RDNA0110	Silicone Shock Fluid, 10wt, 100cSt
RDNA0111	Silicone Shock Fluid, 15wt, 150cSt
RDNA0112	Silicone Shock Fluid, 17.5wt, 175cSt
RDNA0113	Silicone Shock Fluid, 20wt, 200cSt
RDNA0114	Silicone Shock Fluid, 22.5wt, 238cSt
RDNA0115	Silicone Shock Fluid, 25wt, 275cSt
RDNA0116	Silicone Shock Fluid, 27.5wt, 313cSt
RDNA0117	Silicone Shock Fluid, 30wt, 350cSt
RDNA0118	Silicone Shock Fluid, 32.5wt, 388cSt
RDNA0119	Silicone Shock Fluid, 35wt, 425cSt
RDNA0120	Silicone Shock Fluid, 37.5wt, 463cSt
RDNA0121	Silicone Shock Fluid, 40wt, 500cSt
RDNA0122	Silicone Shock Fluid, 42.5wt, 538cSt
RDNA0123	Silicone Shock Fluid, 45wt, 575cSt
RDNA0124	Silicone Shock Fluid, 47.5wt, 613cSt
RDNA0125	Silicone Shock Fluid, 50wt, 650cSt
RDNA0126	Silicone Shock Fluid, 60wt, 800cSt
RDNA0127	Silicone Shock Fluid, 70wt, 900cSt
RDNA0128	Silicone Shock Fluid, 80wt, 1000cSt

RDNA0131	Superpax Battery, SC 9.6V 8-C 3000mAh NiMH, 6-2 Hump, HCT
RDNA0132	Superpax Battery, SC 9.6V 8-C 4200mAh NiMH, 6-2 Hump, HCT
RDNA0309	Pinion Gear, 32P, Steel 9T
RDNA0310	Pinion Gear, 32P, Steel 10T
RDNA0311	Pinion Gear, 32P, Steel 11T
RDNA0312	Pinion Gear, 32P, Steel 12T
RDNA0313	Pinion Gear, 32P, Steel 13T
RDNA0314	Pinion Gear, 32P, Steel 14T
RDNA0315	Pinion Gear, 32P, Steel 15T
RDNA0316	Pinion Gear, 32P, Steel 16T
RDNA0317	Pinion Gear, 32P, Steel 17T
RDNA0318	Pinion Gear, 32P, Steel 18T
RDNA0319	Pinion Gear, 32P, Steel 19T
RDNA0320	Pinion Gear, 32P, Steel 20T
RDNA0321	Pinion Gear, 32P, Steel 21T
RDNA0322	Pinion Gear, 32P, Steel 22T
RDNA0323	Pinion Gear, 32P, Steel 23T
RDNA0340	Charge Adapter Squid, 11-Way
RDNA0370	Ascert 80W LCD Charger, US
RDNA0371	Ascert 80W LCD Charger, UK
RDNA0372	Ascert 80W LCD Charger, EU
RDNA0373	Ascert 80W LCD Charger, AU

HobbyTown Warranty Information

30 DAY LIMITED WARRANTY

General Disclaimer: This item is to be free of manufacture defects at time of purchase. This warranty does not cover breakage due to abuse, improper break-in, improper setup, or improper operation.

We at Helion RC have made every effort in component design, material selection and assembly to make our products as durable as possible. Helion products are covered under warranty only against manufacturer's defect in materials, workmanship or assembly when it is new (before being used).

If you believe a defect in materials, workmanship or assembly was not apparent when the product was new and only became evident after the product was used, then please contact your local HobbyTown® to apply for warranty service. You must provide your original sales receipt verifying the proof-of purchase and date thereof.

Provided warranty conditions have been met, the components that are found to be defective, incorrectly made, or incorrectly assembled within the warranty coverage time period may be repaired or replaced under the sole discretion of HobbyTown®. In the event that your product needs a repair or a replacement part that is not covered by this warranty, your local HobbyTown® dealer can assist you with obtaining the genuine replacement parts and/or accessories to service your Helion RC product.

If you purchased your Helion RC product from a HobbyTown® internet site not affiliated with a local store, please consult that site for its service policies.

JPerkins Distribution Warranty Information

Guarantee

This product is covered by the current statutory guarantee regulations. If you wish to make a warranty claim, please contact the model shop where you originally purchased the product from. You should also present your proof of purchase.

- The guarantee does not cover faults or damage caused by:
- Incorrect handling or operation
- The use of incompatible accessories
- Modification or unauthorised repairs
- Accidental or deliberate damage
- Normal wear and tear
- Using the product outside of its stated specification

Firelands Group LLC accepts no liability for loss, damage or costs which are incurred due to the incorrect or incompetent use of the product.

Model Engines Warranty Information

HELION RC 60 DAY WARRANTY

Model Engines (Aust.) Pty. Ltd. warrants this product to be free from defects in materials or workmanship for 60 days from the date of purchase and will repair, replace or refund the purchase should the product prove to be defective.

This warranty does not apply to any unit or system or component which has been dropped, damaged in a crash, improperly installed, assembled, handled or abused.

Model Engines (Aust.) Pty. Ltd. reserves the right to void the warranty if the product has been altered or modified, has had a foreign part added, has been misused or not used for the purpose for which it was designed, has been used near or in salt water, has been water damaged, or if the damage has been caused by the customer's use of the product.

Under no circumstances does Model Engines (Aust.) Pty. Ltd. warrant nor will the consumer be entitled to consequential or incidental damages. Model Engines (Aust.) Pty. Ltd. assumes no responsibility for any other damage, inconvenience or other claims whatsoever.

LODGING A CLAIM

To lodge a claim, present the goods to your place of purchase (retailer where you bought the product) with your original purchase receipt and a written explanation of the defect.

The place of purchase (retailer where you bought the product) will then contact Model Engines (Aust.) Pty. Ltd. for a Return Authority number and will return the item for warranty assessment to Model Engines (Aust.) Pty. Ltd.. Items delivered to Model Engines (Aust.) Pty. Ltd. for warranty assessment without a Return Authority number will be returned to sender.

The warranty process may take up to 14 business days from the date of receipt. Model Engines (Aust.) Pty. Ltd. must assess each item and if warranty applies must repair or replace the item at its discretion and return it to the place of purchase (retailer where you bought the product).

Goods presented for warranty may be replaced by refurbished goods of the same type rather than being repaired. Refurbished parts may be used to repair the goods.

If the product is proved to be defective the cost and expenses relating to the delivery of the goods to Model Engines (Aust.) Pty. Ltd., will be borne by Model Engines (Aust.) Pty. Ltd..

The benefits of this warranty are in addition to other rights and remedies of the customer under any law to which this warranty relates.

Our goods come with guarantees that cannot be excluded under the Australian consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if

the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Model Engines (Aust.) Pty. Ltd., Unit 1, 158-168 Browns Road, Noble Park, Victoria, 3174, Australia.

www.modelengines.com.au Ph (03) 8793 5555 warranties@modelengines.com.au

This warranty information relates to goods supplied on a wholesale basis by Model Engines (Aust.) Pty. Ltd. to Australian Retailers. The warranty complies with Australian regulatory requirements and supersedes all warranty information from the original manufacturer.

Declaration of Conformity

CE CE Conformity Declaration

This device has been tested in accordance with the relevant harmonised European directives. This product's design fulfils the protective aims of the European Community relating to the safe operation of this equipment.

For a copy of the Declaration of Conformity, please visit:
www.ikonnik-rc.com/support



Disposal

Electrical equipment marked with the crossed out wheeled bin symbol must not be disposed of in household waste, but must be taken to a specialist disposal or recycling system. In EU member countries, electrical equipment must not be discarded via the normal domestic refuse channels (WEEE - Waste Electrical and Electronic Equipment Directive 2002/96/EG). You should take unwanted electrical equipment to your nearest local authority waste collection point or recycling centre.

Distributed in the UK by:

J Perkins Distribution Ltd,
Lenham,
Kent,
UK

ME17 2DL
www.jperkins.com

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[www. Helion-RC.com](http://www.Helion-RC.com)

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