

XXX-SCB

1/10-SCALE READY-TO-RUN ELECTRIC OFF-ROAD SHORT COURSE BUGGY

INSTRUCTION MANUAL



Not responsible for errors. All prices subject to change without notice.



NOTICE

All instructions, warranties and other collateral documents are subject to change at the sole discretion of Horizon Hobby, Inc. For up-to-date product literature, visit www.horizonhobby.com and click on the support tab for this product.

Meaning of Special Language

The following terms are used throughout the product literature to indicate various levels of potential harm when operating this product:

NOTICE: Procedures, which if not properly followed, create a possibility of physical property damage AND a little or no possibility of injury.

CAUTION: Procedures, which if not properly followed, create the probability of physical property damage AND a possibility of serious injury.

WARNING: Procedures, which if not properly followed, create the probability of property damage, collateral damage, and serious injury OR create a high probability of superficial injury.

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

This is a sophisticated hobby product and NOT a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision. Do not attempt disassembly, use with incompatible components or augment product in any way without the approval of Horizon Hobby, Inc. This manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or serious injury.

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INTRODUCTION

Thank you for purchasing the Losi® 1/10 XXX-SCB. We are confident you will be satisfied with the performance of this durable and resilient vehicle. Please read through the entire manual before setting up and using your vehicle.

REGISTER YOUR LOSI PRODUCT ONLINE

Register your XXX-SCB now and be the first to find out about the latest option parts, product updates and more. Log on to www.LOSI.com and follow the product registration link to stay connected.

GETTING READY

Thoroughly read all the enclosed material, precautions and follow instructions to avoid damaging your new RC vehicle. If you choose to not follow these steps or instructions, it will be considered negligence. If after review of this manual and prior to running your XXX-SCB, you determine this RC vehicle is not what you want—Do Not proceed and Do Not run the XXX-SCB. If the XXX-SCB has been run, your local hobby store will not be able to process a return or accept it for exchange.

SAFETY PRECAUTIONS AND GUIDELINES

Age Recommendation: Not for children under 14 years.

This is not a toy.

Always operate this RC model in a safe, reasonable and cautious fashion. When driving the XXX-SCB avoid someone being hit by the vehicle. You may cause serious injury to another person, or to personal property should you make contact while running the XXX-SCB.

General

- This RC Vehicle is not intended for use on public highways or roads.
- Avoid areas that have many pedestrians or crowds of people.
- Keep in mind that this vehicle is radio controlled and can experience moments of radio loss or interference, provide for a margin of error at all times.
- Be aware that the motor and batteries of this RC vehicle will get HOT during each use. Be careful not to burn yourself.

Electronic Speed Control (ESC)

- Read all safety precautions prior to each use.
- Never leave the vehicle/ESC unsupervised while it is switched on, in use or connected to a power source. If there is a short-circuit or product defect, it could result in fire.
- If there are exposed wires, do not use the ESC until you have installed shrink-wrap or replaced the wire.
- Disconnect the battery from the ESC after use.
- The ESC is not waterproof and should not be exposed to moisture.
- Do not attempt to use 3-cell LiPo; doing so will damage the ESC and could result in fire.
- Always turn on the transmitter first then the ESC to prevent an out-of-control vehicle.

- When setting your Electronic Speed Controller:
 - Disconnect motor or remove the pinion gear during ESC setup or calibration functions.
 - Keep loose clothing, hair, gloves and fingers away from moving parts at all times.
 - Rubber tires can cause severe injury if there is a failure while running the vehicle while on a stand or when being held. Ensure rubber tires are securely mounted to the rims and if not, re-glue them and check them often for security.

Batteries and Charging

The XXX-SCB uses rechargeable batteries such as NiMH. These batteries all have special requirements to preserve performance and last.

- Read all instructions provided by the manufacturer of the batteries.
- Never allow minors to charge battery packs.
- Always check to ensure the polarity of battery connection is correct.
- Never leave batteries unattended while charging.
- Never charge a battery while it is installed in the XXX-SCB.
- Do not charge any battery that appears to have any damage.
- If there are exposed wires, do not charge or use the battery until you install shrink-wrap or replace the complete wire.

When charging NiMH batteries, select a charger to meet your requirements. You need a charger that is a 100-240V wall charger or one which requires a 12V power supply. Follow the charger manufacturer's instructions and precautions during each use.

QUICK START

Note: Please read the entire manual to gain a full understanding of the XXX-SCB vehicle, fine-tuning the setup and performing maintenance.

1. Read the safety precautions found on this page.
2. Charge the battery pack you have chosen (NOT INCLUDED). Refer to the Manufacturer's Supplied instructions for battery charging information.
3. Install the AA batteries into the LSR-3000 Transmitter. Use alkaline or rechargeable batteries only.
4. Install a fully charged battery pack.
5. Turn on the transmitter and then the vehicle. Always turn the transmitter on before the vehicle and turn it off after the vehicle has been turned off.
6. Check steering. Verify that the servo is functioning properly.
7. Driving the XXX-SCB.
8. Performing maintenance of the XXX-SCB.



PEAK DETECTION CHARGER

Peak detection chargers monitor the battery during charging and automatically shut off upon full charge. You can either purchase a peak detection charger that plugs into a household AC wall socket or one that requires you to also purchase a 12V power supply.

If using a charger other than a peak detection charger, make sure your battery is fully discharged prior to charging. Many of these have a 15–20 minute timer that allows you to set a charge time. If the battery is not fully discharged, you can potentially over-charge your battery pack. **Do not charge any battery unattended**, and monitor for heat build up. If the battery pack is more than warm to the touch, immediately discontinue charging. Read all safety precautions supplied by the charger and battery manufacturer.

SUPPLIED AND REQUIRED EQUIPMENT

Supplied tools



- 2-Way wrench
- 4 Hex Wrench "L" shaped
- .050, 1/16, 5/64, and 3/32
- Transmitter/Receiver BIND Plug
- Flat Turnbuckle Wrench
- 4 AA Alkaline Batteries

Recommended Accessories

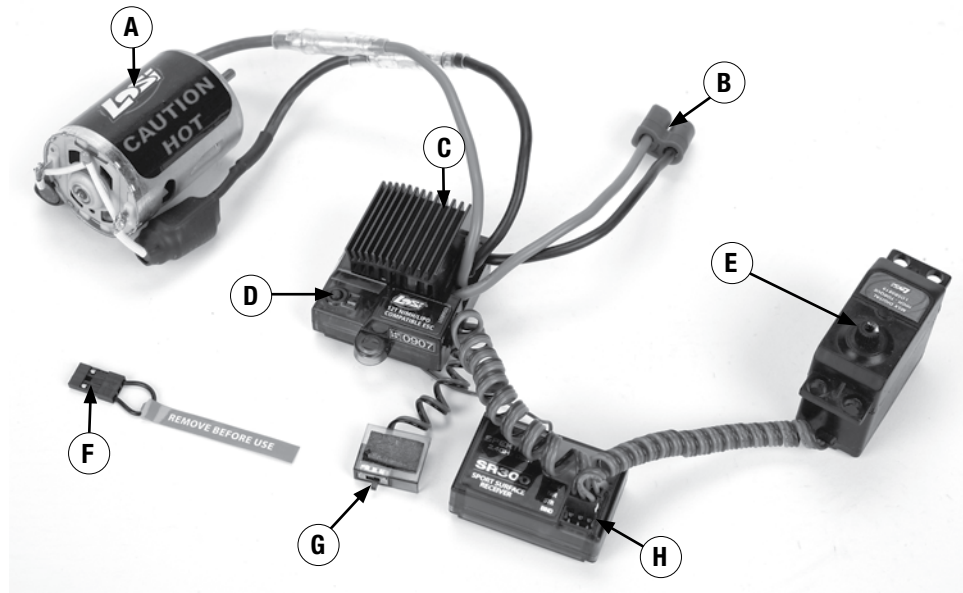
- Hobby grade knife
- Side cutting pliers
- Soldering iron
- CA glue (LOSA7880 or LOSA7881)
- Needle nose pliers
- Safety goggles
- Double-sided tape (LOSA4004)

Required Equipment

- A 6- to 7-cell NiMH battery pack. Or with proper knowledge, LiPo battery packs.
- NiMH battery charger with automatic peak detection recommended (LiPo charger if using LiPo battery).

XXX-SCB ELECTRONICS SYSTEM OVERVIEW

- A. LOSI MOTOR
- B. EC3™ BATTERY PLUG
- C. LOSI MSC12L
- D. SETUP BUTTON
- E. STEERING SERVO
- F. BIND PLUG
- G. ON/OFF SWITCH
- H. SPEKTRUM SPMSR300



MSC-12L FWD/REV ESC

⚠ WARNING: This product can become extremely hot when in use, which could lead to burns.

Features

- LiPo, NiMH/NiCd compatible
- 4 user selectable modes—Forward/reverse, Forward only race, Practice mode with slow acceleration, and Crawler.
- High-power FET control with proportional forward and reverse.
- High frequency design delivers smooth speed transition.
- Thermal Overload Protection prevents damage due to over current conditions.
- Pre-wired with EC3 battery plug and bullet-style motor connectors.
- Designed to operate with stock motors (12 turns or higher).
- Push-button programming with one touch setup.
- Water-resistant

Specifications

Operation	Proportional forward, proportional reverse with braking delay
Input Voltage	4-cell (4.8-volts) to 7-cell (8.4-volts) DC NiMH/NiCd or 2S LiPo (7.4 volts)
Peak Current	1000A Forward and 350A Backwards
Continuous Current	250A Forward and 125A Backwards
Full-On Resistance	0.0014 Ohms Forward 0.0028 Ohms Backwards
Frequency	1kHz
BEC output5V DC, 1 amp max. at 7.2V
Overload Protection	Thermal
Dimensions	1.575 in x 1.575 in x 1.063 in (40mm x 40mm x 27mm)
Weight	1.87 oz (53 g)

Connecting the Battery

The MSC-12L comes pre-wired with an EC3 connector. Use battery packs from 4-cell (4.8-volt) to 7-cell (8.4-volt) sub-C size battery packs or with 2S LiPo packs (7.4-volt).

1. Be sure the on/off switch is in the “off” position.
2. Connect a fully charged battery pack to the speed control’s battery connector.

Adjusting the Transmitter

1. Set the “throttle reversing” switch to the NORMAL position.
2. Set the “throttle trim” to the CENTER position.

Speed Control Programming

Note: While in the programming mode, no power is applied to the motor.

Battery Selection: When the ESC is powered on, the LED will be flashing for 2 seconds to indicate the Selected Battery Type. During this time the user can press the button to toggle between LiPo and NiMH/ NiCd modes. After the button has been pressed (battery type selected), the LED will flash for 2 more seconds.

- A. Turn on ESC and push button once within 2 seconds, push again to toggle between modes.
- B. Red light indicates LiPo mode (with 6-volt cutoff).
- C. Green light indicates NiMH/NiCd mode.

One-Touch Endpoint Setup

Note: Please be sure to set throttle trim settings to neutral before performing an endpoint setup.

- A. Hold button and turn on ESC until the Red/Green light comes on. Once on, release button.
- B. Pull trigger to full throttle position until the green light goes from flashing to solid. Once solid, your forward endpoint is now set.
- C. To set reverse endpoint, push the trigger into the full reverse position until the flashing red light turns solid. At this point your reverse/brake endpoint is now set.
- D. Return trigger to neutral setting. The green light will now be solid and you are ready to go!

Selecting Speed Controller Modes

To change modes on your MSC-12L hold the setup button for over 5 seconds while in neutral. Once you find desired mode, simply release the button and you are ready for action.

Forward/Reverse mode—Solid Green LED

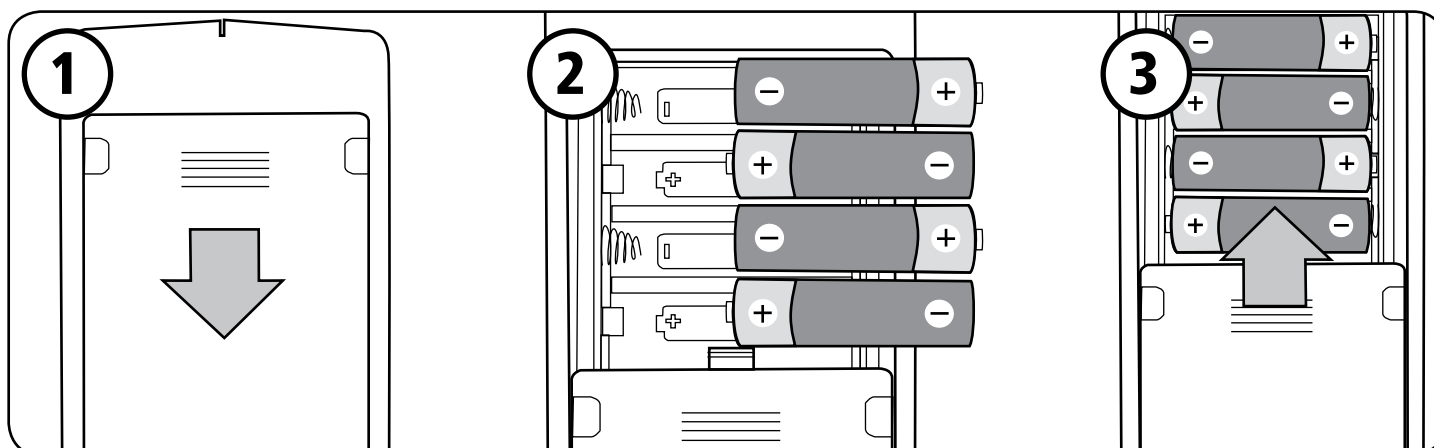
Forward Only mode—Fast Flashing Green LED

Practice mode—Slow Flashing Green LED

Crawler mode*—Solid Green and Red LED

***NOTICE:** Crawler mode is for use in rock crawling vehicles only. Do not use this mode with your 1/10 XXX-SCB. Doing so may damage the vehicle.

INSTALLING THE TRANSMITTER BATTERIES





INSTALLING THE BATTERY PACK(S)

To install the battery pack, remove the battery hold-down strap by removing the clip from the front mounting boss. Then, while lifting the strap, pull forward in one motion.



After you have inserted the fully charged battery pack, reinstall the battery hold-down strap.



The battery hold-down has a flat side while the other side has strengthening ribs; the rib side should be face down to the battery. Insert on an angle into the rear support, and then down on the front pin and secure it with the previously removed clip.

LOSI LSR-3000 RADIO SYSTEM

The XXX-SCB comes with the Losi LSR-3000 Radio System with Spektrum™ 2.4GHz DSM® Technology. The system will neither interfere with radio systems operating on legacy frequencies such as 27MHz or 75MHz, nor will you experience any overlapping interference from other 2.4GHz systems. The transmitter and receiver are bound together from the factory to uniquely operate together.

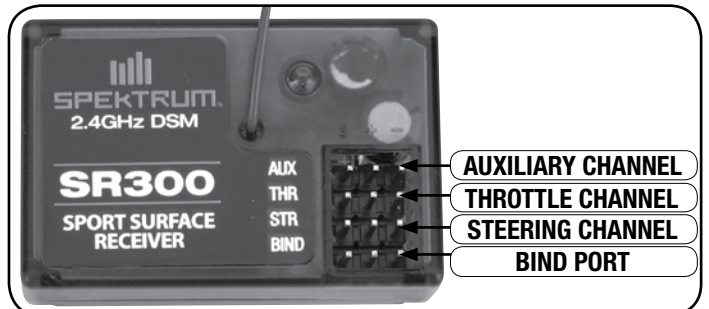
Operation and Adjustment



- Power Switch – Turns the transmitter On and Off.
- Dual Rate – (ST.D/R) Adjusts how much the wheels can turn left/right in equal proportion.
- Steering Trim – (ST.TRIM) Adjusts the “Hands Off” direction of the XXX-SCB.
- Throttle Trim – (TH.TRIM) Fine adjustment for the throttle and brake center.

Receiver

There is no adjustment required of the receiver. Please note the different slots for connection.



The bind slot is used to bind the transmitter to the receiver. The bind process teaches the transmitter the unique GUID ID of the receiver. Although the transmitter and receiver come bound, below are the steps to rebind your transmitter and receiver should the need arise.

Rebind Process

1. Ensure the transmitter and vehicle are both turned off.
2. Using the supplied Bind plug (which looks like a standard servo plug with a short wire loop installed), insert the Bind plug into the receiver slot labeled BIND.
- Note:** You do not need to remove any other plugs to rebind.
3. Connect a fully charged battery to the EC3 connector on the ESC.
4. With the Bind plug installed, turn on the vehicle. Notice the receiver LED is now blinking.
5. Turn on the transmitter. You will see a similar blinking LED under a translucent cover on the back of the transmitter.
6. Both the receiver and transmitter LEDs will stop blinking and be on solid, indicating they are bound.

7. Turn off the vehicle and then the transmitter.
8. Remove the bind plug from the receiver.
9. Turn on the transmitter and then the vehicle to ensure operation. If the transmitter does not control the vehicle, repeat steps 1–8 above. If after several attempts you are unsuccessful, please contact Horizon product support.

Receiver Antenna

Using your fingers gently straighten the antenna wire to be close to vertical from the chassis for the best radio reception.

Factory Settings of Radio/ESC

The Electronic Speed Control was calibrated together with the radio system at the factory. When you turn on and run the XXX-SCB for the first time, you may need to slightly adjust the Throttle Trim. If the vehicle creeps in reverse or in forward, make a fine adjustment to the Throttle Trim knob on the transmitter. Sometimes the bumps and bounces of transportation can slightly alter the settings.

PRECAUTIONS FOR DRIVING THE XXX-SCB

- The Electronics in this vehicle are not waterproof. Avoid running the vehicle in or through standing water, wet grass, mud or snow.
- This vehicle is quick:
 - Do not run the vehicle if it will be out of sight for any amount of time.
 - Do not drive your vehicle near a crowd of people.
 - Perform a check of the vehicle before going out to run it.
 - Ensure the tires are not coming off the rims.
 - Generally check the vehicle for items such as a loose wheel nut, or anything loose on the steering assembly. The vibrations of running off-road tend to loosen screws and nuts.
- The gearing of the XXX-SCB IS NOT meant for running the vehicle in tall grass.
- Be careful driving when the battery is nearly discharged or the car is running slowly. You could lose enough power for the receiver to shutdown and you may lose control.
- When driving the XXX-SCB be cautious and use common sense.
- If your vehicle gets caught or stuck, do not pull the throttle in either forward or reverse. This will overload the ESC and/or motor resulting in damage to one or possibly both.
- After running a battery pack, allow the electronics several minutes to cool, before running the next battery pack.

Run Time

The single largest factor in run time is the mAh capacity of your battery pack. The larger the mAh rating the more run time you will experience. For example: if you have a 4600mAh battery pack, you can expect close to twice the run time of a 2000mAh battery pack.

The condition of a battery pack is also an important factor in both run time and speed. The longer you run, the hotter the battery plugs can get. Check the standard plugs periodically. As batteries see more use they will degrade in performance and capacity.

How you drive your XXX-SCB also affects your run times. If you are performing runs, going from a standstill to full speed repeatedly, you are taxing your batteries and electronics. Hard acceleration draws a lot of current from any battery and will lead to shortened run time.

If the bearings are dirty, they will cause significant drag causing reduced run times and speed.

To improve run times consider the following:

- Keep your vehicle clean and maintained.
- Allow more airflow to the heat sink of the MSC 12L ESC.
- Change the gearing to a lower ratio; this will make the electronics run cooler. To change gear ratio, use a smaller pinion gear, or a larger spur gear than those originally supplied. (The XXX-SCB comes with a 16-tooth pinion and an 88-tooth spur gear.)
- Change to battery packs of higher mAh rating.
- Verify you are using the best charger for your batteries. (See your local hobby dealer.)

TUNING, ADJUSTING & MAINTAINING THE XXX-SCB

Periodically examine your XXX-SCB for the following:

- Keep your vehicle clean using a brush to remove dirt and dust.
- Look for cracks in the suspension arms and other molded parts.
- Check that the tires are still glued to the wheels.
- Check that all the wheel bearings are clean and lubricated.
- Using your tools, attempt to tighten all the screws and nuts.
- Verify that the Camber Links and Steering Linkage are not bent.
- Check that the Toe and Camber settings are as desired and equal.
- Remove the gear cover.
 - Check the Spur gear for wear.
 - Check the Pinion gear.
 - Check the Slipper Pads for wear.
- Take the shocks off the vehicle and check, especially if they appear to be leaking as it is time to rebuild them.
- Look over all the wiring and connections for bare wire or any place which could lead to a short-circuit.
- Verify the ESC is securely mounted to the chassis.
- Verify the receiver is still securely mounted to the chassis.
- Turn on the radio. If the Green LED is off or dim, replace the 4 AA batteries in the transmitter.

After you become familiar with driving your XXX-SCB, you may need to reset or make adjustments to the alignment. Make sure to work on a flat work space.

This will enable you to easily and more quickly make both Toe-in and Camber adjustments. These adjustments should be set with the vehicle sitting at its normal ride height.



TROUBLESHOOTING GUIDE

Many questions are the result of simple user errors or minor adjustments which are easily addressed. If after reading below you cannot resolve your problem, contact the appropriate Horizon product support center.

Steering servo operates but the motor does not run

- Reprogram the ESC by following the programming instructions.
- Confirm the servo is properly connected to the throttle channel on the receiver.
- Damaged motor: Test motor independently, repair or replace as needed.
- Vehicle battery voltage is low: Charge as needed.
- ESC overload protection is enabled: Check motor and connections.
- Transmission is damaged: Check transmission gears, spur gear and pinion gear for damage.

Steering and motor do not function

- Servo and ESC are not properly connected to the receiver: Check polarity of the connectors to the receiver.
- Transmitter batteries or vehicle battery pack discharged: Recharge or replace as needed.

Full speed not attainable

- ESC programmed incorrectly: Reprogram the ESC.
- Check battery connectors for damage.
- Vehicle battery is weak: Recharge vehicle battery.

Vehicle will not reverse

- Confirm the throttle trim is at neutral.
- Confirm the ESC is not in Forward Only mode.
- ESC is not calibrated correctly: Reprogram the ESC.

Spur gear is damaged repeatedly

- Improper gear mesh.
- Slipper clutch is not adjusted correctly.

Motor operates backward

- Motor is incorrectly connected to the ESC. Confirm the black wire on the motor is connected to the black wire on the ESC.

Motor starts running as soon as the battery is connected

- Always power on the transmitter before powering on the vehicle.
- ESC is damaged and needs to be replaced.

Motor slows but will not stop

- Throttle trim is adjusted incorrectly.
- ESC program does not match transmitter: Reprogram the ESC.

Reduced radio range

- Motor capacitors broken/missing: Repair or replace.
- Electrical noise from the motor: Move the receiver away from ESC, motor and wiring.
- Transmitter batteries are weak: Replace AA batteries.

Transmitter does not power on.

- Confirm the AA batteries are installed correctly.
- Replace AA batteries in the transmitter.



RC TERMINOLOGY

BEC (Battery Elimination Circuit)	The BEC eliminates the need for a receiver pack to power the radio system. On most electric vehicles this is located in the electronic speed control (ESC), but can also be a stand-alone device.
BIND Process	Programming a receiver to recognize the GUID code of only one specific transmitter or transmitter module.
Calibration	Also called ESC setup. It is the process used to match the transmitter throttle, brake and neutral to the ESC.
Current	Refers to the power flow from the battery to the ESC and Motor when used in the RC vehicle environment. Typically this is measured in Ampere or Amp.
Deadband	This refers to the amount of travel (movement) on the transmitter trigger before the vehicle is requesting the ESC to move the vehicle forward or backwards. It is an advanced adjustment used by experienced drivers.
DSM (Digital Spectrum Modulation)	The 2.4GHz technology of Spektrum radios.
ESC (Electronic Speed Control)	The ESC is what translates the signals passed from the transmitter trigger through the receiver into commands that reach the motor to signal forward or reverse, acceleration or braking. The Xcelorin system is an advanced electronic speed controller that is very efficient in passing precise requests to the brushless motor. The BEC is also controlled by the ESC along with the Low Voltage Protection circuit.
GUID	Globally Unique Identification Code. Each individual module or radio is factory programmed with its own unique serial code. In the binding process, the receiver is programmed to only recognize the GUID code of one specific radio or module.
LiPo	A Lithium Polymer battery's abbreviation indicating the chemistry used in these rechargeable batteries. These batteries require special attention by the user and are only recommended for the most experienced of users.
mAh	The Milliampere Hour abbreviation, which represents the capacity of a battery pack. The higher this rating the longer the run time of each charge.
Neutral Position	Referring to the Transmitter when at rest, meaning the throttle trigger and steering have no input. When you turn the transmitter on, set it to the side while turning the car on, the transmitter will be in a Neutral state.
NiMH	The abbreviation for nickel-metal hydride rechargeable batteries. These have replaced the use of NiCd batteries as the battery of choice in RC vehicles.
Profiles	The MSC 12RB has two (2) preset profiles. Forward Only and Forward and Reverse profile. The Forward only profile can be selected for racing purposes. The Forward/Reverse profile is great for running in your neighborhood.
Receiver	A device mounted into the vehicle that receives and decodes a signal sent by a transmitter. Servos, ESC and other devices are plugged into the receiver.
Resistance	As used here refers to the power loss from the battery to the ESC and Motor. Typically this is measured in Ampere or Amp. Too much resistance between the battery, ESC and motor can result in low performance and run time.
Servo	An electronic device connected to the receiver used to actuate steering control of the vehicle.
Spektrum	The technology brand of 2.4GHz radio system supplied with the XXX-SCB. The use of this technology eliminates the concern of conflicting frequencies found with older legacy radio systems. It further reduces to a minimum potential radio interference common with the legacy radio systems of the past.
Transmitter	Is the device held in your hand that relays steering and throttle/brake requests made to the receiver.
Trim	This is a setting used on the transmitter to make fine adjustments to the steering or throttle/brake trigger. For steering you would use the trim to make the adjustment for the vehicle to drive straight without adding steering input to the transmitter.
Thermal Shutdown	Refers to the ESC operating temperature. The MSC 12RB ESC monitors its internal temperature and will automatically prevent the ESC from delivering power to the motor, preventing damage due to overheating the ESC's electronics.



REPLACEMENT PARTS LIST

Part Number	Description	Part Number	Description
LOSA1113	Front Shock Tower (Speed-T, SNT, XXX-SCT)	LOSA6100	1/8" E-Clips
LOSA6086	Front Outer Hinge Pin (XXX-T, XXX-SCT)	LOSA6102	C-clips, .1875" - Large (12)
LOSA1610	Steering Hardware Set (XXX-T, ST, SNT, XXX-SCT)	LOSA6201	3mm x 8mm Cap-Head w/Washers (10)
LOSA1615	Short Ball Cups and Threaded Rod	LOSA6204	4-40 x 1/2" Cap-Head Screws (10)
LOSA1620	Steering/Servo Mount Assembly (XXX, XXX-T, XXX-SCT)	LOSA6206	4-40 x 3/8" Cap-Head screws (10)
LOSA2006	Swivel Suspension Balls .250" (8)	LOSA6210	4-40 x 3/8" Flat-Head Screws (10)
LOSA2007	Hinge Pin 1.42" (XXT, XXX, XXX-T, XXX-SCT)	LOSA6215	#4 Narrow Washers (10)
LOSA2103	Rear Shock Tower (XXX-T, XXX-SCT)	LOSA6216	4-40 x 7/8" Cap-Head Screws (10)
LOSA2164	1/8" X 1.250" Hinge Pins (XXX-T, XXX-SCT)	LOSA6220	4-40 x 1/2" FH Screws (6)
LOSA2166	Inner Rear Hinge Pins (XXX, XXX-T, XXX-SCT)	LOSA6221	4-40 x 5/8" Cap Screws
LOSA2919	Gear Diff Transmission Case (Gear Diff only)	LOSA6223	4-40 x 1" SH Screw
LOSA2930	Complete Diff Set	LOSA6225	Button Head Screw, 2056 x 5/16"
LOSA2931	Diff Gear Housing	LOSA6226	Flat Head Screw, 4-40 x 7/8"
LOSA2934	Steel Outdrives w/Pins (2) (DT, XXX-SCT)	LOSA6227	Hardended Setscrws, 4-40
LOSA2939	Transmission Upper Gear, Idler, Shaft	LOSA6229	4-40 x 3/8" Button-Head Screws (10)
LOSA2944	Motor Plate and Front Pin Brace (XXX-SCT)	LOSA6230	Shim Assortment - 3/16", 1/4", 1/2" (20)
LOSA2961	CV Driveshaft Rebuild Kit (Speed-T, SNT, XXX-SCT)	LOSA6233	4-40 x 5/8" Flat-Head Screws (10)
LOSA3034	Transmission Screw Set (XXX-T, XXX-SCT)	LOSA6234	Button Head Screw, 4040 x 1/14
LOSA3042	Gear Cover with Access Plug (XXX-SCT, XXX-T CR)	LOSA6236	Button Head Screws, 2056 x 1/2
LOSA3060	Slipper Shaft, Spacer & Hardware	LOSA6255	2-56 x 1/4" Button Head Screws (10)
LOSA3123	Slipper Pad	LOSA6256	4-40 x 1/2" Button Head Cap Screws (6)
LOSA3124	Slipper Spring, Cup, Spacer, Bushing, and Washer	LOSA6263	8-32 x 3/4" BH Screws (8)
LOSA3132	Slipper Backing Plate	LOSA6283	3 x 6mm Motor Screw Kit
LOSA3991	88T 48-Pitch Spur Gear	LOSA6300	4-40 Hex Nuts (10)
LOSA4004	Servo Tape (6)	LOSA6303	10-32 Locknuts (4ea Nylon & Steel) (8)
LOSA4015	Foam Battery Block	LOSA6305	4-40 Aluminum Locknuts, Low Profile (10)
LOSA4116	48 Pitch Pinion Gear, 16T	LOSA6306	4-40 Aluminum Mini Nuts (10)
LOSA4122	Front Kickplate, Bulkhead, and Steering Brace(XXX,T)	LOSA6350	#4 and 1/8" Hardened Washers
LOSA4125	Front Spindles/Carriers, and Rear Hubs (XXX-T)	LOSA6401	1/16" Pins for Wheels and Gears
LOSA4132	Front Bumper, Motor Guard (Speed T, Desert -T)	LOSA6903	3/16" x 3/8" Teflon Sealed Bearings (2)
LOSA4133	FR/R Body Mount Set (Speed-T, SNT)	LOSA6908	1/2" x 3/4" Ball Bearings w/Teflon Seal (2)
LOSA4136	Front and Rear Inner Pin Brace Set (XXX, XXX-T)	LOSA6909	1/8" x 3/8" Ball Bearings ('XX' Trans) (2)
LOSA4145	Front Rear Pivot Block, 4 Deg (XXX-SCT, XXX-SCB)	LOSA6954	5 X 10mm HD Clutch Bearings (2) 8B/8T, XXX-SCT
LOSA4146	Rear Pivot Plate (XXX, XXX-T)	LOSA7215	Eclipse Tire XXX-SCT Tires (Blue) w/Foam (2)
LOSA4224	Threaded Chassis Inserts - Short and Long	LOSA8200	Body Clips
LOSA5013	Shock Mount Bushings	LOSA9941	Bearing Spacer/Axle Washer Set
LOSA5015	Double O-Ring Shock Cartridge	LOSA99203	High Pressure Black Grease
LOSA5017	1.0" Shock Shaft	LOSB0805	LSR-3000 DSM Transmitter
LOSA5022	Shock Shaft 1.2"	LOSB0818	MSX Digital Servo, (HRL, DT, T, XXX-SCT)
LOSA5023	Spring Clamps & Cups (2)	LOSB2050	Front Suspension Arms (XXX-SCT, XXX-SCB)
LOSA5036	Front XXX-SCT Black Aluminum Shock Body	LOSB2051	Rear Suspension Arms (XXX-SCT, XXX-SCB)
LOSA5037	Rear XXX-SCT Black Aluminum Shock Body	LOSB2406	Front Bumper Set (XXX-SCT)
LOSA5046	Shock Pistons #56 (Red) (4)	LOSB2407	Rear Bumper Set (XXX-SCT, XXX-SCB)
LOSA5150	2.5" Spring 2.3 Rate Rear (Pink)	LOSB2422	Main Chassis (XXX-SCB)
LOSA5156	2.5" Spring 3.4 Rate Rear (Silver)	LOSB2423	Cage Set (XXX-SCB)
LOSA5225	Team Losi Certified Shock Fluid 35 wt	LOSB2424	Bumper/Brace Set (XXX-SCB)
LOSA6001	Ball Studs w/Rod Ends 4-40 x 3/16" (4)	LOSB2425	Battery Strap/Top Plate (XXX-SCT, XXX-SCB)
LOSA6020	H.D. 30-degree Plastic Rod Ends (Sport) (12)	LOSB3497	Wheel Hex Set (XXX-SCT, XXX-SCB)
LOSA6030	Assembly Wrench (version 2)	LOSB3573	Front Axles (XXX-SCT, XXX-SCB)
LOSA6044	H.D. Rod Ends & Balls: (Desert-T, Speed-T 8B, 8T)	LOSB3579	Constant Velocity Drive Shaft Set (XXX-SCT, XXX-SCB)
LOSA6074	Adjustable L/R Turnbuckle Set (6) (Speed-T, Desert-T)	LOSB7016	Front Wheels (pr) (XXX-SCT, XXX-SCB)
LOSA6088	Hinge Pins 1/8 x 1.246" Ti-Nitride (2)	LOSB7017	Rear Wheels (pr) (XXX-SCT, XXX-SCB)
		LOSB8088	Body Set, ReadyLift scheme (XXX-SCB)
		LOSB8089	Body Set, Rockstar scheme (XXX-SCB)
		LOSB8091	Driver Figure Set (XXX-SCB)



Part Number	Description
LOSB8092	Body Set, Stronghold scheme (XXX-SCB)
LOSB8093	Window Nets (2) (XXX-SCB)
LOSB8214	Sticker Sheet (XXX-SCB)
LOSB9522	MSC12L Forward/Reverse ESC, LiPo Cutoff
LOSB9999	1/10th LM-32K Motor
SPSMSR300	3-Channel DSM Sport Surface Receiver

OPTIONAL PARTS LIST

LOSA1126	Front Spindles & Carriers-VLA, XXX-T
LOSA2123	Rear Hub Carriers-VLA, XXXT
LOSA2908	Monster Diff Square Spring/Setscrew
LOSA2911	One-Piece Diff Nut/Carrier
LOSA3018	Heavy-Duty Thrust Bearing Set
LOSA3033	Transmission Case & Spacers Set, XXX-T
LOSA3034	Transmission Screw Set, XXX-T
LOSA3036	2.43:1 Diff Gear, XXX
LOSA3038	Differential Half Outdrives Set, XXXCR
LOSA3039	Differential Drive Rings & Shims, XXXCR
LOSA3041	XXXCR Motor Plate
LOSA3043	XXXCR Gear Cover Plugs (4)
LOSA3065	Silicone Differential Compound (Optional)
LOSA3078	Diff Screw, Hardware & Seal Set
LOSA3985	84-Tooth, 48-Pitch Kevlar Spur Gear
LOSA3993	90-Tooth, 48-Pitch Kevlar Spur Gear
LOSA3985	86-Tooth, 48-Pitch Kevlar Spur Gear
LOS4112	48 Pitch Pinion Gear, 12T
LOS4113	48 Pitch Pinion Gear, 13T
LOS4114	48 Pitch Pinion Gear, 14T
LOS4115	48 Pitch Pinion Gear, 15T
LOS4117	48 Pitch Pinion Gear, 17T
LOS4118	48 Pitch Pinion Gear, 18T
LOS4119	48 Pitch Pinion Gear, 19T
LOS4120	48 Pitch Pinion Gear, 20T
LOS4121	48 Pitch Pinion Gear, 21T
LOSA4148	Front Pivot Block, Aluminum, All XXX
LOSA4149	Rear Pivot Block, Aluminum, XXX-T CR
LOSA5014	O-rings for shock cartridges
LOSA5043	Shock Pistons #60, Natural (4)
LOSA5045	Shock Pistons #57, Black (4)
LOSA5047	Shock Pistons #55, Orange (4)
LOSA5048	Shock Pistons #54, Blue (4)
LOSA5055	Threaded Shock Body Set, .9"
LOSA5056	Threaded Shock Body Set, 1.2"

Part Number	Description
LOSA5062	1.2" Titanium Nitride Shock Shaft
LOSA5064	1.0" Titanium Nitride Shock Shaft
LOSA5150	2.5" Spring 2.3 Rate, Pink
LOSA5152	2.5" Spring 2.6 Rate, Red
LOSA5154	2.5" Spring 2.9 Rate, Orange
LOSA5156	2.5" Spring 3.4 Rate, Silver
LOSA5158	2.5" Spring 3.7 Rate, Green
LOSA5160	2.5" Spring 4.1 Rate, Blue
LOSA5222	Silicone Shock Oil, 20 wt
LOSA5213	Silicone Shock Oil, 22.5 wt
LOSA5223	Silicone Shock Oil, 25 wt
LOSA5214	Silicone Shock Oil, 27.5 wt
LOSA5224	Silicone Shock Oil, 30 wt
LOSA5215	Silicone Shock Oil, 32.5 wt
LOSA5216	Silicone Shock Oil, 37.5 wt
LOSA5226	Silicone Shock Oil, 40 wt
LOSA5240	Shock Oil 6 Pk. 20, 25, 30, 35, 40, 45 wt
LOSA5242	Shock Oil 6 Pk. 17.5, 22.5, 27.5, 32.5, 37.5 wt
LOSA6907	5 X 8mm Ball Bearing
LOSA6912	3/32" x 3/16" Bearings for Steering (XX, XXT, XXX, T)
LOSA6951	Carbide Diff Balls, 3/32
LOSA9713	Graphite Kickplate, Bulkhead, & Steering Brace
LOSA9831	Graphite/Composite Rear Pivot Plate (XXX, XXX-T)
LOSA9722	Graphite Front Shock Tower, XXX-T
LOSA9822	Rear Shock Tower, Graphite, XXX-T
LOSA9930	Aluminum Upper Gear/Shaft 2.19:1, XXX-T
LOSA9940	Aluminum Hardcoated Suspension Balls
LOSB2131	Aluminum Rear VLA Hubs, 0 degree
LOSB2132	Aluminum Rear VLA Hubs, 1 degree
LOSB2133	Aluminum Front Spindles
LOSB2134	Aluminum Front Carriers
LOSB2226	Rear Sway Bar (XXX-SCT, XXX-SCB)
LOSB2227	Aluminum Battery Strap (XXX-SCT, XXX-SCB)
LOSB3496	Aluminum 12mm Wheel Hexes (XXX-SCT, XXX-SCB)
LOSB8090	Body Set, Clear (XXX-SCB)
LOSB9861	7.4V 5000mAh 2-Cell LiPo, 20C
LOSB9868	7.4V 3600mAh 2-Cell LiPo, 20C
LOSB9877	7.4V 6000mAh 2-cell LiPo, 60C
LOSB9904	NiMH Start-up Combo, 6 cell and wall charger
LOSB9916	7.2V 3300mAh NiMH 6C Flat w/EC3
LOSB9917	8.4V 3300mAh NiMH 7C Flat w/EC3
LOSB9920	7.2V 5100mAh NiMH 6C Flat w/EC3
LOSB9921	8.4V 5100mAh NiMH 7C Flat w/EC3



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(b) Limitations- HORIZON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCT. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

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Notice: Do not ship batteries to Horizon. If you have any issue with a battery, please contact the appropriate Horizon Product Support office.

Warranty Inspection and Repairs: To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Provided warranty conditions have been met, your Product will be repaired or replaced free of charge. Repair or replacement decisions are at the sole discretion of Horizon.

Non-Warranty Repairs: Should your repair not be covered by warranty the repair will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost. By submitting the item for repair you are agreeing to payment of the repair without notification. Repair estimates are available upon request. You must include this request with your repair. Non-warranty repair estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Horizon accepts money orders and cashiers checks, as well as Visa, MasterCard, American Express, and Discover cards.

By submitting any item to Horizon for inspection or repair, you are agreeing to Horizon's Terms and Conditions found on our website under the Repairs tab.



CONTACT INFO

Country of Purchase	Horizon Hobby	Address	Phone Number/ Email
United States of America	Horizon Service Center (Electronics and engines)	4105 Fieldstone Rd Champaign, Illinois 61822 USA	877-504-0233 Online Repair Requests visit: www.horizonhobby.com/repairs
	Horizon Product Support (All other products)	4105 Fieldstone Rd Champaign, Illinois 61822 USA	877-504-0233 productsupport@horizonhobby.com
United Kingdom	Horizon Hobby Limited	Units 1-4 Ployters Rd Staple Tye Harlow, Essex CM18 7NS United Kingdom	+44 (0) 1279 641 097 sales@horizonhobby.co.uk
Germany	Horizon Technischer Service	Hamburger Str. 10 25335 Elmshorn Germany	+49 4121 46199 66 service@horizonhobby.de
France	Horizon Hobby SAS	14 Rue Gustave Eiffel Zone d'Activité du Réveil Matin 91230 Montgeron	+33 (0) 1 60 47 44 70 infofrance@horizonhobby.com

FCC STATEMENT

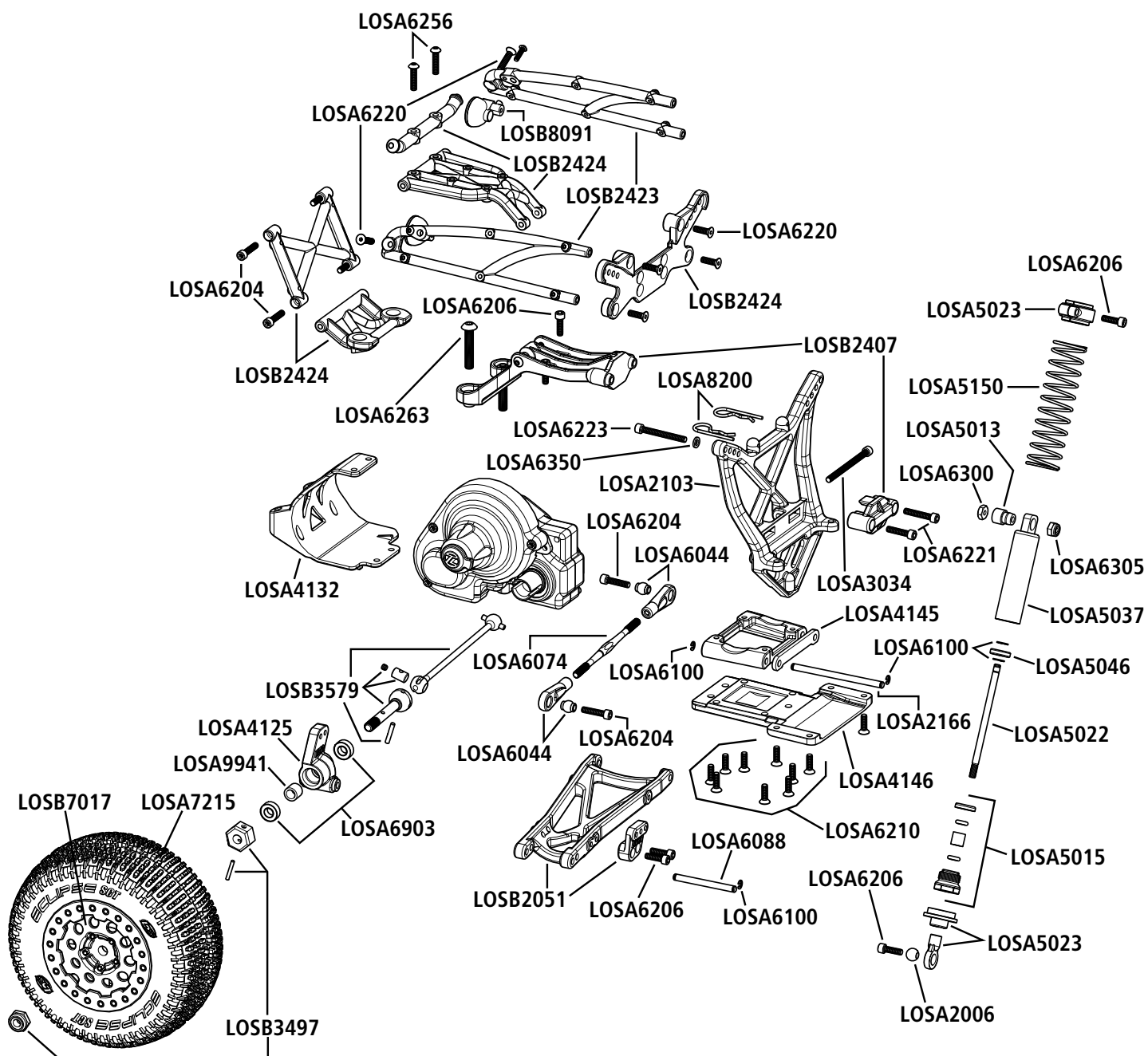
This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



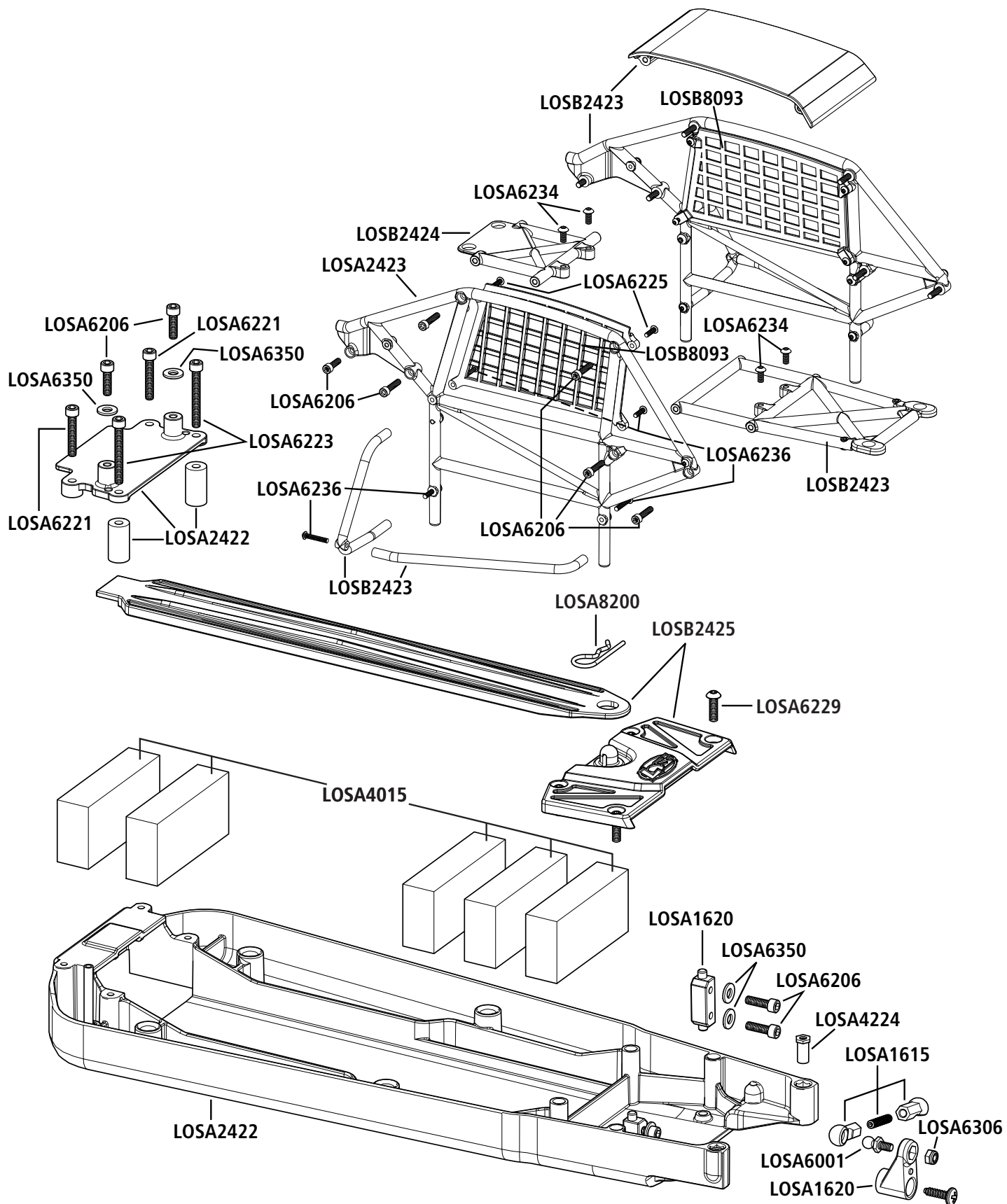
CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This product contains a radio transmitter with wireless technology which has been tested and found to be compliant with the applicable regulations governing a radio transmitter in the 2.400GHz to 2.4835GHz frequency range.

REAR EXPLODED VIEW



CHASSIS EXPLODED VIEW





SETUP SHEET

Driver: _____

Date: _____

Track:

- Indoor Smooth Slippery
- Outdoor Rough High-Bite
- Tight / Open Blue-Groove

XXX-SCB

FRONT SUSPENSION (Circle or Check the Appropriate Settings)

Toe In 0 °
 Out _____ °

Ride Height Arms Level _____

Camber - 0 °
 + _____ °

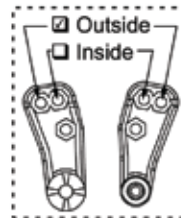
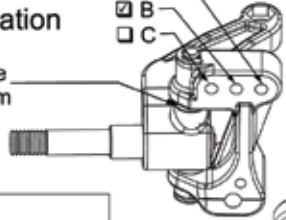
Caster Stock Other 30 °

Sway Bar No Yes size: _____

of washers under steering / tie-rod ball studs
Spindle ball stud: 1
Bellcrank ball stud: 0

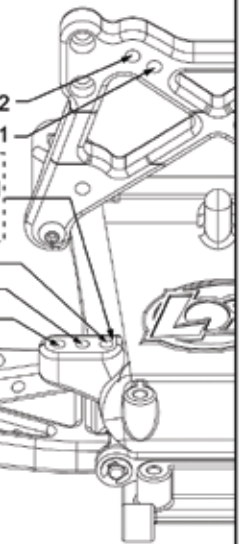
Spindle Location

- A
- B
- C
- Top
- Middle
- Bottom



of washers under ball stud: 1

- Inside
- Middle
- Outside
- 1
- 2
- 3



Front Shocks

Oil: 35 wt
Piston: 3 hole 56 Standard / Drilled
Spring: 3.4 lb Internal: Yes / No
Limiters: Inside- .200 Outside- _____

REAR SUSPENSION

Toe-In Inside Stock °
 Outside Stock °

Pivot Support 4° No Shim
 Shim Under Front
 Shim Under Rear > # of shims: 0

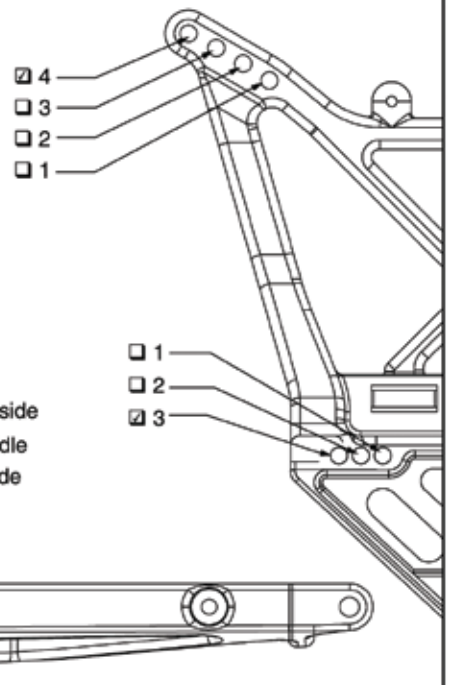
Ride Height Bone Level _____

Camber - 1 °
 + _____ °

Drive Shafts Dogbones Aluminum
 CVDs Steel

Rear Hub Spacing Forward Center Rear
Outdrives Steel Plastic

Sway Bar No Yes size _____



Rear Shocks

Oil: 35 wt
Piston: 3 hole 56 Standard / Drilled
Spring: 2.3 lb
Limiters: Inside- 0 Outside- 0

Tires

Front: Eclipse SCT Compound: Blue Foam: Standard
Rear: Eclipse SCT Compound: Blue Foam: Standard

Motor: Stock Pinion/Spur: 16 / 88

Battery Position: 3 foam forward

Weather Conditions/Notes: _____

SETUP SHEET

Driver: _____

Date: _____

Track: _____

- | | | |
|--|---------------------------------|--------------------------------------|
| <input type="checkbox"/> Indoor | <input type="checkbox"/> Smooth | <input type="checkbox"/> Slippery |
| <input type="checkbox"/> Outdoor | <input type="checkbox"/> Rough | <input type="checkbox"/> High-Bite |
| <input type="checkbox"/> Tight / <input type="checkbox"/> Open | | <input type="checkbox"/> Blue-Groove |

XXX-SCB

FRONT SUSPENSION (Circle or Check the Appropriate Settings)

Toe In _____ °
 Out _____ °

Ride Height _____

Camber - _____ °
 + _____ °

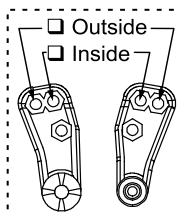
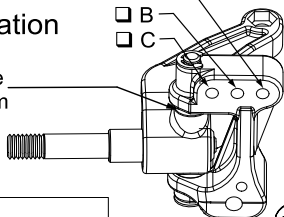
Caster Stock _____ °
 Other _____ °

Sway Bar No
 Yes size: _____

of washers under steering / tie-rod ball studs
 Spindle ball stud: _____
 Bellcrank ball stud: _____

Spindle Location

- A
 B
 C
- Top
 Middle
 Bottom

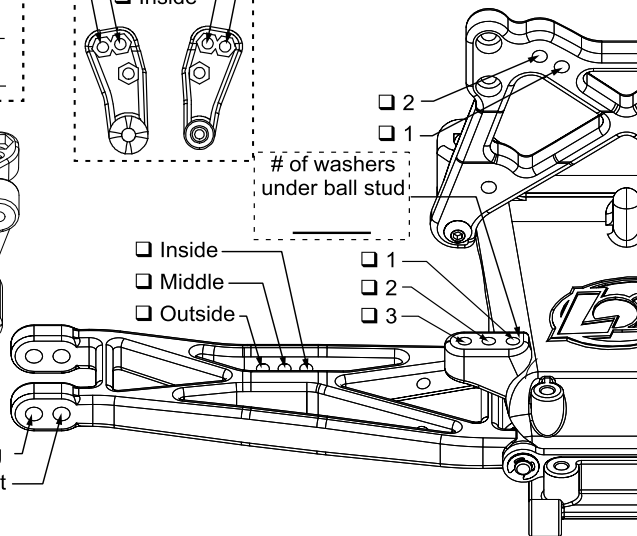


of washers under ball stud: _____

- Inside
 Middle
 Outside

- 2
 1
 1
 2
 3

- Long
 Short



Front Shocks

Oil: _____
 Piston: _____ Standard / Drilled
 Spring: _____ Internal: Yes / No
 Limiters: Inside- _____ Outside- _____

REAR SUSPENSION

Toe-In Inside _____ °
 Outside _____ °

Pivot Support No Shim
 Shim Under Front
 Shim Under Rear > # of shims: _____

Ride Height _____

Camber - _____ °
 + _____ °

Drive Shafts Dogbones Aluminum
 CVDs Steel

Rear Hub Spacing Forward
 Center Rear

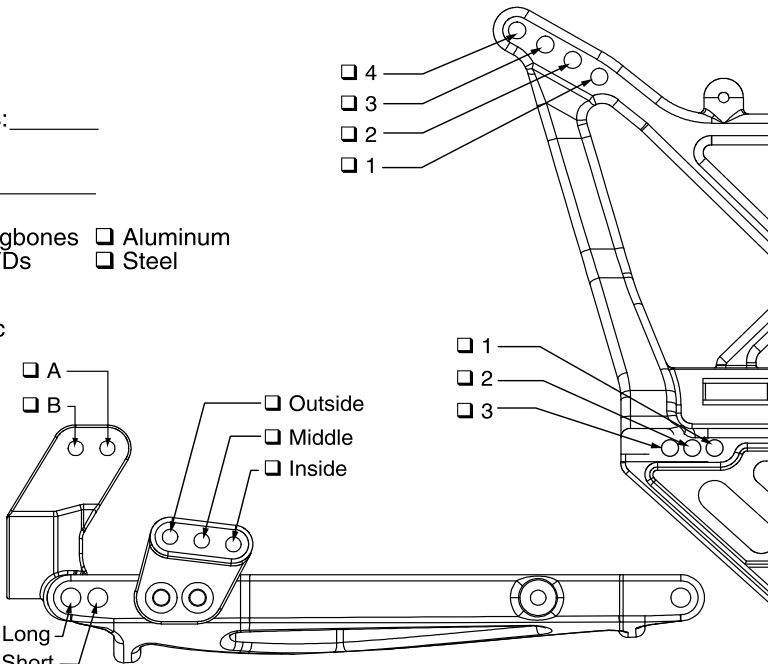
Outdrives Steel
 Plastic

Sway Bar No
 Yes size _____

- A
 B
- Outside
 Middle
 Inside

- 4
 3
 2
 1
 1
 2
 3

- Long
 Short



Rear Shocks

Oil: _____
 Piston: _____ Standard / Drilled
 Spring: _____
 Limiters: Inside- _____ Outside- _____

Tires

Front: _____ Compound _____ Foam _____
 Rear: _____ Compound _____ Foam _____

Motor: _____ Pinion/Spur: ____ / ____

Battery Position: _____

Weather Conditions/Notes:



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