**WARNING!**

**AGE WARNING!**
- This radio controlled (RC) vehicle is not a toy. You must be 14 years of age or older to operate this vehicle. Adult supervision is required.

**RISK OF RUNAWAY VEHICLE OR INJURY!**
- Never turn on the vehicle or plug in the battery pack without first having the controller turned on.

**RISK OF FIRE!**
- **RISK OF EXPLOSION!**
  - There is a risk of fire and explosion when dealing with batteries. Rechargeable batteries may become hot and catch fire if left unattended or charged too quickly.
  - Use extra caution when charging LIPO batteries. Use only LIPO specific chargers. Use a LIPO safe charging pouch when charging LIPOs. Charge away from flammable materials.
  - Never charge at rates higher than 1 C. (2000mAh packs: 2amps charge rate). Overcharging can lead to fire and explosion. Always store battery packs in a cool dry place.
  - Never leave the battery plugged into the ESC when the vehicle is not in use.
  - Never connect two batteries to one another.

**RISK OF BURNS!**
- The batteries, electronic speed controller (ESC), electric motor, and other areas of the vehicle can get hot. Burns can occur if touched after vehicle operation.
- Allow adequate time to cool before handling.

**RISK OF ELECTRICAL SHOCK!**
- Use caution when charging batteries. Do not touch positive and negative leads together.
- Do not let battery contact metal. Use only chargers specified for the battery type being charged.
- Keep batteries and chargers away from water.

**RISK OF INJURY!**
- Hobby grade RC vehicles can cause serious injury or death if not operated correctly.
- Never use vehicle in crowds. Never chase people or animals. Only drive in safe open areas.
- Keep body parts away from moving parts.

**RISK OF DAMAGE!**
- Never operate RC vehicles on public roads. Damage of vehicle and property can occur. Only operate on open private property.
- Never charge the battery pack while it is still plugged into the RC vehicle. Always unplug the battery pack from the electronic speed controller (ESC) and remove the battery from the RC vehicle before charging. Failure to do so will result in damage to the vehicle's electronics and void the electronics warranty.

**RISK OF RUNAWAY VEHICLE OR INJURY AND DAMAGE!**
- Do not use old and new batteries. Do not mix alkaline, lithium, standard (carbon zinc), or rechargeable (nickel cadmium) batteries. Do not charge or charge batteries in a hazardous location. Only use new AA batteries in your radio transmitter. Replace transmitter batteries often to ensure full control of the vehicle.
- Perform a radio range check **BEFORE** running your RC vehicle to avoid a runaway vehicle.

**FCC COMPLIANCE STATEMENT!**
- The radio included with your vehicle 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 operations.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

  - Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.

**WARNING:** Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

**WARNING:** While operating the Radio, a separation distance of at least 20 centimeters must be maintained between the radiating antenna and the body of the user or nearby persons in order to meet the FCC RF exposure guidelines.
Thank you for choosing the Team Redcat TR-SC10E short course truck. The TR-SC10E is designed to be fun to drive and uses top quality parts for performance and durability. Before you start using your new RC kit, we suggest you read through the instruction manual first. Be sure to check all tips before you start. We hope you enjoy your new Team Redcat RC.

**Features:**
- Factory Assembled
- Front, Center, and Rear Differentials
- Adjustable Oil Filled Shocks
- Hardened Steel Driveshafts
- Stylish Body
- Front and Rear Bumpers
- High Quality Ball Bearings
- Fully Tunable Suspension
- High Grip Short Course Tires

**Specifications:**
- 1/10 4WD EP Short Course Truck
- Ground Clearance: 40mm front/50mm rear
- Length: 530mm
- Width: 273mm
- Wheelbase: 324mm
- Height: 190mm
- Powerful 4300KV 4-pole Brushless Motor
- Heavy Duty Waterproof 80A 2S-3S ESC
- Heavy Duty Waterproof Servo
- 2.4GHz Radio System

Thank you for purchasing the TR-SC10E. To drive the vehicle, you will need to acquire the following items.

1. **Included tools**
   - Cross Wrench

2. **Required items**
   - AA Alkaline Batteries
   - 25 (7.4V) or 3S (11.1V) Rechargeable Lipo Battery Pack
   - LIPO Fast Charger

3. **Helpful equipment**
   - Hobby Knife
     - (Warning!) This knife cuts nylon parts and fingers with equal ease. Be careful.
   - Body Scissors
     - (for body cutting)
   - Needle nose Pliers
   - Hex Wrench Metric Size 1.5mm HX-0001
   - Hex Wrench Metric Size 2.0mm HX-0002
   - Hex Wrench Metric Size 2.5mm HX-0003
   - Hex Wrench Metric Size 3.0mm HX-0004
   - Nut Driver 5.0mm (for 3mm nut)
   - Nut Driver 7.0mm (for 4mm nut)
**Transmitter:**

**Steering Reverse Switch:** Top left switch. Used to change steering orientation. If the car turns right when you steer left, flip this switch.

**Throttle Reverse Switch:** Top right switch. Used to change throttle trigger orientation. If the car goes in reverse while you pull the throttle trigger, flip this switch.

**Power LED:** Left LED light. Lights up when the transmitter is turned on.

**Status LED:** Right LED light. Lights up green when transmitter batteries are full. Flashes when transmitter batteries are low and need replacing.

**Bind Button:** Used to bind the transmitter to the receiver. See binding instructions.

**Steering Trim:** Left knob. Used to set the steering neutral point. If the vehicle veers in one direction while the steering wheel is centered, turn this knob in the opposite direction until the car drives straight.

**Throttle Trim:** Middle knob. Used to set the throttle neutral point. If the vehicle moves forward or reverse while the throttle trigger is centered, turn this knob until the vehicle remains still. For maximum setting, turn slowly until the vehicle creeps forward, then turn the knob the opposite direction until the car stops.

**Steering Dual Rate:** Right knob. Used to limit the amount of steering. 0% = little/no steering & 100% = maximum steering. Set the knob to the amount of steering you feel comfortable with. If the vehicle has a tendency to spin out, lower the steering rate.

**On/Off Switch:** Bottom switch. Turns transmitter On and Off.

**Receiver:**

**BIND/VCC:** Used when binding to transmitter, or as an Aux. channel when needed.

**Ch3:** Used for 3rd channel when needed.

**Ch2:** Used for electronic speed controller (ESC).

**Ch1:** Used for steering servo.

**Failsafe Button:** Used to set the receiver’s signal loss failsafe feature.

**To set the fail safe:**

1. Turn on the Transmitter.
2. Turn on the receiver. The LED will light up.
3. On the transmitter, leave the trigger in the neutral position.
4. Press the failsafe button on the receiver. The LED will blink, then stop after 3 seconds. This means the failsafe has been set.

To test the failsafe, first turn on the transmitter and then the receiver. Hold the vehicle in the air and slightly pull the throttle trigger and hold. Be careful because the wheels will spin as if the vehicle is trying to drive forward. Now, turn off the transmitter. If the wheels stop spinning, the failsafe has been set correctly. If the wheels keep spinning, repeat steps 1-4.

**Binding Process:**

Follow these steps to connect (bind) the transmitter to the receiver:

1. Insert the BIND PLUG into the receiver BIND port.
2. Make sure your ESC is plugged into CH2. Power the vehicle on and the receiver light should begin to blink red.
3. Press the BIND button in the center of the transmitter’s Control Panel and turn on radio.
4. Release the bind button when you see the green light on the radio flashing. At this point, your receiver’s LED should now be solid red. Turn off the power to your vehicle, as well as the radio.
5. Remove the BIND PLUG from the receiver. Make sure the servos and ESC are attached as described above.
6. First turn your radio on, then your vehicle as normal. Your radio and receiver should be bound together and communicating with each other.
**ESC Features**

- ESC is compatible with sensorless brushless motors and sensored brushless motors (only in sensorless mode).
- Fully waterproof design for all weather conditions. After running in water, clean and then dry the ESC to avoid the oxidation of copper connectors.
- Super internal switch mode BESC with switchable voltage of 5V/7.4V and a cont /peak current of 3A/6A for use with high torque servos and high voltage servos.
- Highly reliable electronic switch avoids troubles which may happen to traditional mechanical switches.
- Proportional brake with 9 levels of maximum brake force and drag brake force.
- 5 levels of acceleration/punch from soft to aggressive for different terrain, tires and tracks.
- Multiple protections: motor lock-up protection, low-voltage cutoff protection, thermal protection, overload protection, fail safe (throttle signal loss protection), and capacitor damage protection.
- Single button ESC programming and factory reset, or advanced programming via optional LED program card (sold separately) or multifunction LCD program box (sold separately).

**ESC Specifications**

<table>
<thead>
<tr>
<th>ESC Specifications</th>
<th>HEX10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous/Burst Current</td>
<td>60A / 120A</td>
</tr>
<tr>
<td>Motor Supported</td>
<td>Sensorless / Sensorless Brushless Motor (only in sensorless mode)</td>
</tr>
<tr>
<td>Programming Port</td>
<td>Fan / Programming Port</td>
</tr>
<tr>
<td>Motor Limit</td>
<td>2S LIPO / 3S 12VDC/9 Cell NMH: KV=4500 / 3S IPDC12/9 Cell NMH: KV=3000 (5555 size motor)</td>
</tr>
<tr>
<td>Fan (included)</td>
<td>Powered by a stable BESC voltage of 6V / 7.4V</td>
</tr>
<tr>
<td>Battery</td>
<td>2-3S LIPO / 6-9 Cell NiMH</td>
</tr>
<tr>
<td>BEC Output</td>
<td>6V / 7.4V Switchable, 3A Continuous Current (Switch Mode)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>49mm(L) x 30mm(W) x 24mm(H)</td>
</tr>
<tr>
<td>Weight</td>
<td>109g</td>
</tr>
</tbody>
</table>

**NOTE:** The cooling fans are powered by the stable BESC voltage of 6V/7.4V and is always working.

**ESC Connections**

- **Motor Wiring**
  - There is no polarity on the A/B/C ESC MOTOR wires. If the motor runs in reverse, just swap two of the wires.
- **Receiver Wiring**
  - Plug the receiver cable (small black plug with three small wires coming out of it) into the throttle (2CH) on the receiver.
  - Do not connect an additional receiver battery into the receiver, this may damage the ESC.
- **Battery Wiring**
  - Plug the approved (see above) battery pack into the ESC battery plug. Be sure the polarity is correct! The red (+) of ESC to the red (+) of the battery, and the black (-) of the ESC to the black (-) wire of the battery. If polarity is reversed, the ESC will be damaged. This will not be covered under warranty.

**ESC Calibration**

To ensure transmitter throttle input corresponds with the ESC output, you should calibrate the ESC. Do this whenever you change transmitters, and before you set the TRIM, D/R, EPA and other throttle channel parameters on your transmitter. Follow these steps below:

1. Turn on the transmitter. Set the throttle EPA to 100% and center the throttle trim (Q).
2. With the transmitter still on and the ESC off, connect the battery pack to the ESC battery leads.
3. Press and hold the SET button while you press the ON/OFF button briefly.

![Image of ESC calibration process]

**Release the SET button once the LED flashes.**

**Note:** The ESC will enter the programming mode if the SET button is not released in 3 seconds and then you need to restart from step 1.

4. Set the trigger to a neutral position and press the SET button.
5. Pull the trigger to the full throttle position and press the SET button.
6. Push the throttle trigger to full brake position and press the SET button.

![Image of ESC calibration process]

**The Green LED flashes once and motor emits “Beep” tone.**

**The Green LED flashes twice and motor emits “Beep-Beep” tone.**

**The Green LED flashes three times and motor emits “Beep-Beep-Beep” tone.**
### ESC Programming

(Stared boxes indicate factory default settings)

<table>
<thead>
<tr>
<th>Programmable Items</th>
<th>#1</th>
<th>#2</th>
<th>#3</th>
<th>#4</th>
<th>#5</th>
<th>#6</th>
<th>#7</th>
<th>#8</th>
<th>#9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Running Mode</td>
<td>Fwd</td>
<td>Fwd/Rv</td>
<td>Fwd/Rv</td>
<td>Fwd/Rv</td>
<td>Fwd/Rv</td>
<td>Fwd/Rv</td>
<td>Fwd/Rv</td>
<td>Fwd/Rv</td>
<td>Fwd/Rv</td>
</tr>
<tr>
<td>LIPO Cells</td>
<td>Calculation</td>
<td>2S</td>
<td>3S</td>
<td>Auto</td>
<td>Auto</td>
<td>Auto</td>
<td>Auto</td>
<td>Auto</td>
<td>Auto</td>
</tr>
<tr>
<td>Low Voltage Cutoff</td>
<td>Auto</td>
<td>Auto</td>
<td>Auto</td>
<td>Auto</td>
<td>Auto</td>
<td>Auto</td>
<td>Auto</td>
<td>Auto</td>
<td>Auto</td>
</tr>
<tr>
<td>ESC Thermal Protection</td>
<td>120°C</td>
<td>125°C</td>
<td>135°C</td>
<td>140°C</td>
<td>145°C</td>
<td>150°C</td>
<td>155°C</td>
<td>160°C</td>
<td>165°C</td>
</tr>
<tr>
<td>Motor Thermal Protection</td>
<td>Enabled</td>
<td>Enabled</td>
<td>Enabled</td>
<td>Enabled</td>
<td>Enabled</td>
<td>Enabled</td>
<td>Enabled</td>
<td>Enabled</td>
<td>Enabled</td>
</tr>
<tr>
<td>Motor Rotation</td>
<td>CCW</td>
<td>CCW</td>
<td>CCW</td>
<td>CCW</td>
<td>CCW</td>
<td>CCW</td>
<td>CCW</td>
<td>CCW</td>
<td>CCW</td>
</tr>
<tr>
<td>Motor Voltage</td>
<td>6.0V</td>
<td>7.4V</td>
<td>8.8V</td>
<td>10.2V</td>
<td>11.6V</td>
<td>13.0V</td>
<td>14.4V</td>
<td>15.8V</td>
<td>17.2V</td>
</tr>
<tr>
<td>Brake Force</td>
<td>12.5%</td>
<td>25%</td>
<td>35%</td>
<td>50%</td>
<td>62.5%</td>
<td>75%</td>
<td>87.5%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Reverse Force</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Start Mode</td>
<td>Level 1</td>
<td>Level 2</td>
<td>Level 3</td>
<td>Level 4</td>
<td>Level 5</td>
<td>Level 6</td>
<td>Level 7</td>
<td>Level 8</td>
<td>Level 9</td>
</tr>
</tbody>
</table>

#### Advanced Setting

- **11. Drag Brake**: 0% 2% 4% 6% 8% 10% 12% 14% 16%

#### ESC Programming (cont.)

- **4. ESC Thermal (Shutdown) Overheat Protection**: The ESC will automatically cut off the output and the GREEN LED will flash a short, single flash that repeats (•••) when the temperature gets up to the value you preset and activates the ESC thermal protection. The output won't resume until the temperature goes down. Setting #1 is recommended.
- **5. Motor Thermal Protection**: This setting can be permanently set to "Disabled" by manufacturer.
- **6. Motor Rotation**: Changes the rotation of the motor in the engine. Requires a clockwise or counter-clockwise.
- **7. BEC Voltage**: Changes the voltage supplied to the servos. Use 3.8V for regular servos and 7.4V for high voltage servos.
- **8. Brake Force**: Sets the braking power when the brake trigger is pushed all the way forward (full brake). A high setting will slow the braking time but may damage your pinsen and spurs.
- **9. Reverse Force**: The amount of power the vehicle will have with full reverse engaged. Start with a low setting.
- **10. Start Mode (Punch)**: The amount of initial power while initially pulling the throttle trigger. You can choose a punch level from 1 (very soft) to 5 (very aggressive). This feature is very useful for preventing the spin during takeoff. This function may be limited to battery capabilities. If the vehicle stutters during takeoff, you will need to lower the punch setting or use a battery with higher discharge capabilities.
- **11. Drag Brake**: Drag brake is the amount of brake automatically applied while the throttle is in the neutral position. This is to simulate the natural drag of a brushed motor while coasting.

#### Programming Flow Chart

- **With the ESC off**
  - Press the ON/OFF button while holding the SET button to power on the ESC.
  - Red LED flashes once, meaning "Auto Calculation".
  - Hold the SET button for 3 seconds - After entering the corresponding item, the Red LED starts to blink, the time it blinks represents the current option number.
  - Click the SET button to choose the option, the times the red LED blinks indicates the option number you are going to select.

- **With the ESC on**
  - Release the Set key.
  - Hold the SET button for 3 seconds.
  - Release the SET key.
  - Hold the SET button for 3 seconds.
  - Release the SET key.
  - Hold the SET key for 3 seconds.
  - Release the SET key.
  - Hold the SET key for 3 seconds.
  - Release the SET key.
  - Hold the SET key for 3 seconds.
  - Release the SET key.

- **Stop**: The programming process is now complete. To save your changes, turn the ESC off.
**ESC Troubleshooting**

<table>
<thead>
<tr>
<th>Trouble</th>
<th>Possible Reason</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>After power on, motor and cooling fan don’t work.</td>
<td>No power supplied to the ESC. The ESC switch is damaged.</td>
<td>Check if all ESC &amp; battery connectors have been well soldered or firmly connected. Replace the broken switch.</td>
</tr>
<tr>
<td>After power on, motor doesn’t work, but emits “beep-beep-beep” alert tone. (Every “beep” has a time interval of 1 second)</td>
<td>Input voltage is abnormal, too high or too low. The ESC didn’t detect any throttle signal. The neutral throttle value stored on your ESC is different from the value stored on the transmitter.</td>
<td>Check the voltage of the battery pack. Be sure throttle wire is properly plugged into the receiver and in the correct channel. Ensure the transmitter is turned on. Re-calibrate the throttle range after you release the throttle trigger to the neutral position.</td>
</tr>
<tr>
<td>After the ESC was powered on and finished LIPO cell detection (the GREEN LED flashed 4 times), and then the RED LED flashed rapidly.</td>
<td>The ESC-to-motor wiring order was incorrect. Transmitter throttle channel is reversed.</td>
<td>Swap any two wire connections between the ESC and the motor.</td>
</tr>
<tr>
<td>The motor runs in the opposite direction when it is accelerated</td>
<td>The throttle signal is lost. The ESC has entered into Low Voltage Protection Mode or Over-heat Protection Mode.</td>
<td>Check the transmitter and the receiver. Check the signal wire from the throttle channel of your receiver. Red LED flashing means Low Voltage. Green LED flashing means Over Heat.</td>
</tr>
<tr>
<td>The motor suddenly stops running while in working state</td>
<td>A soldering joint between the motor and the ESC may be bad. The ESC was damaged (some MOSFETS were burnt).</td>
<td>Check all soldering joints, re-solder if necessary. Contact the distributor for repair or other customer service.</td>
</tr>
<tr>
<td>The motor shudders but won’t run properly.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The vehicle could run forward (and brake), but could not reverse.</td>
<td>The throttle neutral position on your transmitter was actually in the braking zone. The “Running Mode” is improperly set. The ESC was damaged.</td>
<td>Re-calibrate the throttle neutral position. No LED on the ESC will come on when the throttle trigger is at the neutral position. Set the “running mode” to “Forward/Reverse with Brake”. Contact the distributor for repair or other customer services.</td>
</tr>
<tr>
<td>The car ran forward/backward slowly when the throttle trigger was at the neutral position.</td>
<td>The neutral position on the transmitter was not stable, so signals were not stable either. The ESC is not calibrated properly.</td>
<td>Replace your transmitter. Re-calibrate the throttle range or the tune the neutral position on the transmitter.</td>
</tr>
<tr>
<td>When pressing the SET button to set the throttle neutral position, the GREEN LED didn’t flash and no beep was emitted, or you were unable to set the full throttle endpoint and the full brake endpoint after the neutral position was accepted.</td>
<td>The ESC throttle cable wasn’t plugged in the correct channel on the receiver. The ESC throttle cable is plugged in backwards.</td>
<td>Plug the throttle cable into the throttle (TH) or (CH12) channel on your receiver. Plug the throttle cable properly by referring to relevant mark shown on your receiver.</td>
</tr>
</tbody>
</table>

**ESC Factory Reset**

- Restore the default values with the SET button.
- 1) Press and hold the SET button on the ESC for over 3 seconds anytime the throttle trigger is in the neutral position (except during ESC calibration and programming).
- RED & GREEN LEDs flash simultaneously indicating you have successfully restored all the default values within the ESC.
- Once the ESC is powered off, then back on again, your settings will be back to the default mode.

**WARNING!**

- Ensure all wires and connections are well insulated before connecting the ESC to related devices, short circuit will damage your ESC.
- Ensure all devices are well connected to prevent poor connection that may cause your vehicle to lose control or other unpredictable issues such as damage to the device.
- Read through the manuals of all power devices and chassis and ensure the power configuration is rational before using this unit.
- Do not hold the vehicle in the air and rev it up full throttle, as rubber tires can "expand" to extreme size, or even crack to cause serious injury.
- Stop using the ESC when its casing temperature exceeds 90°C/194°F. Over heating your ESC will fatally damage it and possibly the motor.
- We recommend setting the "ESC Thermal Protection" to 105°C/221°F (this refers to the internal temperature of the ESC).
- We recommend removing the cooling fan from ESC before exposing vehicle to liquids, and fully dry it right after use. Always disconnect the batteries after use, as the ESC will continue to consume current if it's connected to batteries (even if the ESC is turned off).
- Long-term battery contact will cause batteries to completely discharge and result in damage to batteries or ESC. This WILL NOT be covered under warranty.
HEXFLY electronics are built specifically for Redcat vehicles and offer high quality at an affordable price. We recommend HEXFLY batteries and chargers for all Team Redcat vehicles.

Below are the recommended battery and charger for the TRSC10E.

The HEXFLY 7.4V 2S 5800mAh 30C LiPO battery pack is a perfect fit for the TRSC10E short course truck. It will provide plenty of power and long run times. Be sure to read all of the instructions included with RC batteries and follow them closely. Never attempt to charge a LiPO battery with a NON-LiPO charger.

The HEXFLY HX-403 LiPO smart charger is perfect for charging HEXFLY 2S-3S LiPO batteries and would be a great addition to the TRSC10E short course truck. It will provide quick charge times with the ease of a smart charger. Be sure to read all of the instructions that come with all RC batteries and chargers, and be sure to follow them closely. Never attempt to charge a LiPO battery with a NON-LiPO charger.

The TRSC10E uses a hook & loop battery strap design that make changing batteries easy. Three battery straps are already installed into the battery tray, as shown to the right. Insert an approved battery (see specs page) into the battery tray and secure all three battery straps. Be sure to leave plenty of slack in the wires, where they come out of the battery case. Pulling these wires tight may cause failure which may lead to fire.
Front / Rear Diff. Assembly

- A-77D 2x12.8mm Pin .....x4
- 4x4mm Set Screw .....x2
- J-03A P6 O-Ring .....x4
- E-45 10x15mm Ball Bearing .....x4
- A-77D
- 4x4 mm
- TM-08
- E-45
- J-03A
- TM-03
- J-03A
- X3-03
- FHC-2.6x10mm
- Tighten
- A-77G 4x10mm Washer .....x16
- FHC-2.6x10mm Flat Head Screw .....x8
- A-77B 4mm Cross Pin .....x4

- E-43 5x11mm Ball Bearing .....x2
- 4x4mm Set Screw .....x1
- BHM-3x10mm Hex Screw .....x2
- BHM-3x35mm Hex Screw .....x2
- L-02B 12x15x0.25mm Shim .....x2

* NOTICE: When assembling the front/rear gear boxes, part TM-13 is oriented differently on the front gearbox than the rear. Refer to the diagram below for correct orientation.

*Adjust the backlash with the shims.

Tighten the diff screws in this order:

1
2
3
4
5
6
7
8

*Apply grease to the differential gear.
Center Diff. Assembly

- A-77D 2x12.8mm Pin ....x2
- 4x4mm Set Screw ....x1
- J-03A PE O-Ring ....x2
- E-45 10x15mm Ball Bearing ....x2

- A-77G 4x10mm Washer ....x8
- 2.6x10mm Flat Head Screw ....x4
- A-87B 4mm Cross Pin ....x2

Tighten the diff screws in this order:

1. SC-09
2. J-03A
3. X3-03

*Apply grease to the differential gear during assembly.
Steering Assembly

- E-22 King Pin Bushing ....x2
- BHM-3x8mm Hex Screw ....x2
- BHM-3x8mm Hex Screw ....x3
- 3x8mm Washer ....x2
- TM-34 5x8x2.5mm Plastic Bushing ....x4
- Servo saver spring preload: *Approx. 0.5mm

Ensure Free Movement

1:1 *Approx. 37.5mm

Do Not Over Tighten
Motor Installation

- **Set Screw**: 4x4mm x 1
- **Washer**: 3x7x0.5mm x 2
- **Cap Screw**: CHM-3x10mm x 2

**Assembly Instructions**

1. Use notebook paper to set gear backlash between spur gear and motor gear, apply pressure while tightening the motor and then pull out the paper.
2. If the gear backlash is not correct, the spur gear will be damaged.
3. Insert the drive shaft into the diff cup before installing the center diff unit onto the chassis.
**Electronics Installation**

- Secure ESC wire to the underside of the tray using the built-in tabs.

- Using tape or hot glue, secure the ESC wire flat onto the chassis.

- Run wires into the receiver box.
1. Pull down the piston shaft and pour oil into the shock cylinder.
2. Remove air bubbles by slowly moving the piston up and down. Tapping on the side of the shock cylinder will also help.
3. Pull down the piston and set the rubber bladder over the opening and just start screwing on the shock cap. Using a paper towel will help to keep your hands clean from oil.
4. Very slowly and gently push up on the shock shaft, then tighten the shock cap all the way.

*Fill shocks with 600CST oil.

CORRECT SHAFT LENGTH

Carefully screw the plastic captured ball end onto the shock shaft. Over-tightening may cause the plastic to strip or crack.

NOTE: The space between the shock body and the captured ball end should equal 14mm on the front shocks.

Both of the front shock shaft lengths must be equal for the very best performance.
1. Pull down the piston shaft and pour oil into the shock cylinder.
2. Remove air bubbles by slowly moving the piston up and down. Tapping on the side of the shock cylinder will also help.
3. Pull down the piston and set the rubber bladder over the opening and just start screwing on the shock cap. Using a paper towel will help to keep your hands clean from oil.
4. Very slowly and gently push up on the shock shaft, then tighten the shock cap all the way.

*Fill shocks with 550CST oil.

CORRECT SHAFT LENGTH

Carefully screw the plastic captured ball end onto the shock shaft. Over tightening may cause the plastic to slip or crack.

NOTE: The space between the shock body and the captured ball end should equal 30mm on the rear shocks.

Both of the rear shock shaft lengths must be equal for the very best performance.
<table>
<thead>
<tr>
<th>Item No.</th>
<th>PARTS</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-41A</td>
<td>6mm Rod End Ball (2pcs)</td>
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<tr>
<td>A-46</td>
<td>Antenna Tube (1pc)</td>
<td></td>
</tr>
<tr>
<td>A-69</td>
<td>Turnbuckle (3x45/2pcs)</td>
<td></td>
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<tr>
<td>A-770</td>
<td>Pin (2x1.2) (2pcs)</td>
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<tr>
<td>A-77S</td>
<td>Washer (4x10x2) (4pcs)</td>
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<tr>
<td>A-878</td>
<td>Differential Cross Pin (2pcs)</td>
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<tr>
<td>E-67</td>
<td>Shock O Ring (5pcs)</td>
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<tr>
<td>E-68</td>
<td>Shock Reservoir (4pcs)</td>
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<tr>
<td>E-09</td>
<td>Aluminum Threaded Shock Cap Collar (4pcs)</td>
<td></td>
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<tr>
<td>E-10</td>
<td>Plastic Shock Parts Set (2pcs ea)</td>
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<tr>
<td>E-22</td>
<td>King Pin Bushings (4pcs)</td>
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<tr>
<td>E-36</td>
<td>4mm Ball Stud (10pcs)</td>
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<tr>
<td>E-39</td>
<td>Drive Pin (2x10x15)(3pcs)</td>
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<tr>
<td>E-41A</td>
<td>Body Clips (10pcs)</td>
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<tr>
<td>E-42</td>
<td>Double Sided Tape (2pcs)</td>
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<tr>
<td>E-43</td>
<td>5x11x4 Ball Bearing (8pcs)</td>
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<tr>
<td>E-45</td>
<td>10x15x4 Ball Bearing (4pcs)</td>
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<tr>
<td>E-65</td>
<td>4mm Plastic Ball Joint Set</td>
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<tr>
<td>J-03A</td>
<td>Differential Di-O-Ring (2pcs)</td>
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<tr>
<td>L-03C</td>
<td>Differential Gaskets (3pcs)</td>
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<tr>
<td>L-09</td>
<td>Differential Shim (12x18x2)(2xpcs)</td>
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<tr>
<td>SC-03</td>
<td>Center Drive Shaft Set (106mm,109mm)</td>
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<tr>
<td>SC-04</td>
<td>Front Bumper &amp; Skid Plate</td>
<td></td>
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<tr>
<td>SC-05</td>
<td>Rear Bumper</td>
<td></td>
</tr>
<tr>
<td>SC-06</td>
<td>Rear Bumper Holder</td>
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</tr>
<tr>
<td>SC-08</td>
<td>Body Mounts &amp; Chassis Brace Set</td>
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<tr>
<td>SC-09</td>
<td>46T Spur Gear (Plastic)</td>
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<tr>
<td>SC-19</td>
<td>3mm Aluminum Chassis (0061)</td>
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<tr>
<td>SC-65</td>
<td>SC Wheel 2.275° (4pcs)</td>
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<tr>
<td>SC-66</td>
<td>SC Tire 2.275° (4pcs)</td>
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<tr>
<td>SC-07</td>
<td>SC 2.275° Inner Sponge (4pcs)</td>
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<tr>
<td>SC-068</td>
<td>110T SC Body, Painted</td>
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<tr>
<td>TM-02</td>
<td>29T Differential Ring Gear (1pc)</td>
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<tr>
<td>TM-04</td>
<td>121 Differential Pinion Gear (1pc)</td>
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<tr>
<td>TM-06</td>
<td>Center Drive Shaft Counter (1pc)</td>
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<tr>
<td>TM-08</td>
<td>Differential Outdrive (2pcs)</td>
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<tr>
<td>TM-09</td>
<td>Aluminum Servo-Saver Nut Set</td>
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<tr>
<td>TM-10BK</td>
<td>Servo Saver Adjustment Ring</td>
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<tr>
<td>TM-11H</td>
<td>Servo Saver Spring</td>
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<tr>
<td>TM-12</td>
<td>Servo Saver Post</td>
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<tr>
<td>TM-13</td>
<td>Aluminum Front Lower Arm Holder (A58)(1pc)</td>
<td></td>
</tr>
<tr>
<td>TM-15</td>
<td>Aluminum Rear Lower Arm Holder (1pc)</td>
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<table>
<thead>
<tr>
<th>Item No.</th>
<th>PARTS</th>
<th>Item Description</th>
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<tbody>
<tr>
<td>TM-16</td>
<td>Aluminum Rear Lower Arm Holder C (1pc)</td>
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<tr>
<td>TM-18</td>
<td>Steering Knuckle Threaded Insert (4pcs)</td>
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<tr>
<td>TM-20</td>
<td>Rear Stub Axle (2pcs)</td>
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<td>TM-21</td>
<td>Rear Drive Shaft (92.5mm)</td>
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<td>TM-22</td>
<td>Rear Lower Outer Hinge Pin (3x25,10mm)(2pcs)</td>
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<tr>
<td>TM-24</td>
<td>3x22mm Arm Shaft</td>
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<td>TM-25</td>
<td>FR Lower inner Hinge Pin (3x35,1mm)</td>
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<tr>
<td>TM-26</td>
<td>Turnbuckle (3.5,24mm)(2pcs)</td>
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<tr>
<td>TM-27</td>
<td>Steering Link (3x50mm)(2pcs)</td>
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<tr>
<td>TM-28</td>
<td>Rear Upper Link (3x50mm)(2pcs)</td>
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<tr>
<td>TM-29</td>
<td>Plastic Servo Saver Arms, Drag Link, Chassis Brace Set</td>
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<tr>
<td>TM-30</td>
<td>Differential Case (F,C,R)(1pc)</td>
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<tr>
<td>TM-36</td>
<td>Plastic Rear Lower Suspension Arms (2pcs)</td>
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<td>TM-37</td>
<td>Front Upper Arms, Arms Holder</td>
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<td>TM-38</td>
<td>Plastic Arm Ball End (3.5mm)(2pcs)</td>
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<td>TM-39</td>
<td>Front C Hub (LR)</td>
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<td>TM-40</td>
<td>Gear Case (1tar), 12mm Wheel Hex (2pcs)</td>
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<td>TM-41</td>
<td>Steering Knuckle Arm (1pr)</td>
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<td>TM-43</td>
<td>Rear Hub Carrier (1pr)</td>
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<td>TM-44</td>
<td>Center Differential Mount Set</td>
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<td>TM-45A</td>
<td>Front Drive Shaft (3x26.5)(2pcs)</td>
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<td>TM-45B</td>
<td>Plastic Front Shock Body (2pcs)</td>
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<tr>
<td>TM-46A</td>
<td>Rear Drive Shaft (3x49)(2pcs)</td>
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<td>TM-46B</td>
<td>Plastic Rear Shock Body (2pcs)</td>
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<td>TM-54</td>
<td>Plastic F/R Shock Tower Set (1pc)</td>
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<td>TM-59</td>
<td>Rear Chassis Brace Mount (1pc)</td>
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<td>TM-64</td>
<td>King Pin Screw (4pcs)</td>
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<td>TMS-96</td>
<td>Universal Drive Shaft (2pcs)</td>
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<td>TMS-17BK</td>
<td>Shock Spring (Black)</td>
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<td>TMS-33</td>
<td>Aluminum Motor Mount</td>
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<td>XT-20</td>
<td>Side Guards (1pr)</td>
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<td>X3-03</td>
<td>Differential Planetary Gear Set</td>
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<tr>
<td>#155B</td>
<td>Body Clips (4pcs)</td>
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<td>#260-BK</td>
<td>Aluminum Upper Shock Mount (4pcs)</td>
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<td>#325-BK</td>
<td>Plastic Servo Horn Set</td>
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<td>#364-BK</td>
<td>Antenna Tube Fixing Nut (1pc)</td>
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<tr>
<td>#365</td>
<td>Battery Case &amp; Servo Mount Set</td>
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<tr>
<td>#377-15</td>
<td>Metal Steel Pinion Gear (M15)(5mm bore)</td>
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<tr>
<td>#403RC</td>
<td>Vello Battery Strap (2pcs)</td>
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<thead>
<tr>
<th>Item No.</th>
<th>ACCESSORY PARTS</th>
<th>Item Description</th>
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<tbody>
<tr>
<td>HX-403</td>
<td>LIF/LO/HS 2S-4S Smart Charger</td>
<td></td>
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<tr>
<td>HX-50035C-D</td>
<td>2S 5000mAh 36C LIPO Battery w/ Deans conn.</td>
<td></td>
</tr>
<tr>
<td>#397-13</td>
<td>13T Steel Pinion Gear (M15)(5mm bore)</td>
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<tr>
<td>#397-16</td>
<td>16T Steel Pinion Gear (M15)(5mm bore)</td>
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<tr>
<td>#397-17</td>
<td>17T Steel Pinion Gear (M15)(5mm bore)</td>
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<tr>
<td>#397-18</td>
<td>18T Steel Pinion Gear (M15)(5mm bore)</td>
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<table>
<thead>
<tr>
<th>Item No.</th>
<th>ELECTRONICS</th>
<th>Item Description</th>
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</thead>
<tbody>
<tr>
<td>HX-15SC</td>
<td>Steering Servo</td>
<td></td>
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<tr>
<td>ERFUN-M1X10</td>
<td>80A Brushless Waterproof ESC</td>
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<tr>
<td>HN-154500</td>
<td>3500Kv 4000kv Brushless Motor</td>
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<tr>
<td>RCR-2CE</td>
<td>2.4GHz Transmitter</td>
<td></td>
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<tr>
<td>20400</td>
<td>2.4GHz RCR-2CE Transmitter Receiver</td>
<td></td>
</tr>
</tbody>
</table>
Parts Trees / Parts Used

SC05 - Rear Bumper

SC06 - Rear Bumper Brace

#395 - Battery Case

SC04 - Front Bumper

E65 - Threaded Ball Cup Ends (4mm)
Parts Trees / Parts Used

- SC08 - Body Posts & Center Brace
- TM43 - Rear Hub Carrier
- TM34 - Servo Saver
- SC09 - Spur Gear (46T)
- TM48 - Threaded Captured Ball Ends
- TM44 - Center Diff. Mount
- TM41 - Front Steering Knuckles
**FRONT SUSPENSION**

- **Shock Spring:** Hard - Gray
- **Shock Piston:**
  - F/R: □ / □
  - F/R: □ / □
- **Shock Oil wt:** 600cst
- **Shock Length:** 72.7 mm (Center to Center)
- **Toe-In:** N/A
- **Toe-Out:** 1 deg.
- **Front Ride Height:** 2mm spring preload clip

**REBOUND STOP**

- **Camber:** Neg: 1 deg
- **Pos:** N/A

**Sway Bar:** None

- **Front Sway Bar Preload:** No sway bar

**DIFFERENTIAL**

- **Oil Type:** Silicon / Grease
  - Front: STD-5K □ ______ K
  - Center: STD-7K □ ______ K
  - Rear: STD-1K □ ______ K

**TIRES**

- **Front:** STD □
- **Others:** Brand: __________
- **Type:** __________
- **Rear:** STD □
- **Insert:** Foam □

**ELECTRIC MOTOR**

- **Type:** Brush □ Brushless □
- **Turn:** __________
- **RPM:** __________
- **KV:** 4300
- **Brand:** HobbyWing

**GEAR**

- **Super Gear:** 46 T
- **Motor Gear:** 15 T
- **Gear Brand:** STD □
- **Other:** __________
**TRSC10E Set-up Sheet**

### FRONT SHOCK ANGLE SETTING

- **Firm**: Front suspension, less steering. Soft front suspension, more steering.
- **Soft**: Front suspension, more steering. Soft front suspension, less steering.
- **123**: Firm front suspension, less steering. Soft front suspension, more steering.

### REAR SHOCK ANGLE SETTING

- **Firm**: Rear suspension, over steering. Soft rear suspension, under steering.
- **Soft**: Rear suspension, under steering. Soft rear suspension, over steering.
- **123**: Firm rear suspension, over steering. Soft rear suspension, under steering.

### FRONT TOE-IN AND TOE-OUT SETTING

- **Neutral Position**: TOE-IN TOE-OUT
- **Adjust length of the front steering tie rods to change the toe angle.**
- Making the rods longer will create toe-in (front tires point inward). Initial steering response will be slow, but the truck may over steer during follow through.
- Making the rods shorter will create toe-out (front tires point outward). Initial steering response will be quick, but the truck may under steer during follow through.

### FRONT CAMBER ANGLE SETTING

- **Positive**: Less steering and front grip. Not recommended.
- **Negative**: More front grip on the rear. Recommended to be between 0° to -2°.

### REAR CAMBER ANGLE SETTING

- **Positive**: Less rear grip. May make the truck too unstable. Recommended for rear camber is 0° to -2°.
- **Negative**: Less rear grip. May make the truck too unstable. Recommended for rear camber is 0° to -2°.

### CASTER ANGLE

- **Adjust the front caster angle by changing the arm block “A” or “B” on the front lower arm.**
- **Adjust the front caster**: you will also need to adjust the front upper arm position.
- **The front caster also depends on the kick-up setting.**
- **Example: 16 degree caster on C hub + 9 degree kick-up = “A” lower arm block + 22 degree frontal caster.**
- **16 degree caster on C hub + 7 degree kick-up = “B” lower arm block + 25 degree frontal caster.**
- **Recommended front caster is 0° to -2°.**

### REAR WHEELBASE

- **Type “A”**: 32F
- **Type “B”**: 32R
- **Adjust the wheelbase by moving the plastic spacer in front of or behind the rear hub carrier.**
- **Placing the spacer in front of the rear hub carrier will increase wheelbase.**
- **Placing the spacer behind the rear hub carrier will increase wheelbase.**
- **IMPORTANT! Make equal adjustments to both the left and right sides.**

### Shorter wheelbase

- Increases steering response.
- Increases off-power steering into corners.
- Increases off-power steering at corner exit.
- Better handling over bumps and cures.
- Better on more open tracks with high-speed corners.

### Longer wheelbase

- Increases steering response.
- Increases off-power steering into corners.
- Increases off-power steering at corner exit.
- Better handling over bumps and cures.
- Better on more open tracks with high-speed corners.

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**C-hub caster is not adjustable**

**Less Caster**: Increases off-power steering into a corner. Decreases on-power steering. Decreases straight-line stability.

**More Caster**: Decreases off-power steering into a corner. Increases on-power steering. Increases straight-line stability.