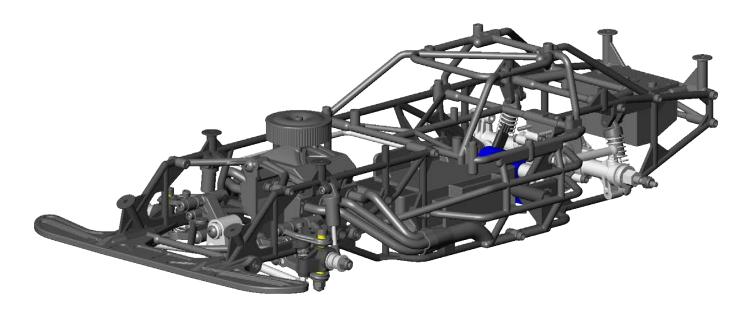


# RACER KIT MANUAL











1**RC1089** 

WWW.1RC-RACING.COM



Before operating this model, please read this entire /Instruction Manual and all printed materials related to this model. Read and follow all warnings and precautions. Failure to follow all warnings and precautions while operating this model could result in personal and/or property damage.

#### SAFETY PRECAUTIONS

- WARNING—CHOKING HAZARD—SMALL PARTS—NOT FOR CHILDREN UNDER 5
  YEARS OLD.
- THIS RADIO CONTROLLED RACING CAR IS NOT A TOY!
- THIS HIGH-PERFORMANCE R/C MODEL IS RECOMMENDED FOR AGES 14 AND OLDER.
- THIS IS ONLY FOR YOUR REFERENCE BEFORE YOU OPERATE THE MODEL CAR.
- ASSEMBLE THIS KIT ONLY IN PLACES OUT OF CHILDREN'S REACH!
- TAKE ENOUGH SAFETY PRECAUTIONS PRIOR TO OPERATING THIS MODEL. YOU ARE RESPONSIBLE FOR THIS MODELS ASSEMBLY AND SAFE OPERATION!

#### **Safety Precautions and Warnings**

Please read all warnings and precautions in this Instruction Manual along with any other documentation provided for this model. Failure to operate your model in a responsible and safe manor may result in personal property damage and/or personal injury. As the user of this model, you are solely responsible for operating the model in a safe manor. 1 RC Racing, LLC shall not be liable for any loss or damages, direct, indirect, special, incidental, or consequential that occurs during the use, misuse, or abuse of this vehicle or any product required to operate it.

- WARNING—CHOKING HAZARD—SMALL PARTS—NOT FOR CHILDREN UNDER 5 YEARS OLD.
- This radio controlled racing car is not a toy!
- This high-performance R/C model is recommended for ages 14 and older.
- This is only for your reference before you operate the model car.
- Do not change the equipment of the brushless ESC, motor and battery casually, we will not take any charge of the damages or injuries caused by your changes!
- Assemble the kit only in places out of reach of children's reach!
- Take enough safety precautions prior to operating this model. You are responsible for this models assembly and safe operation.
- This model contains many small parts that could cause a choking hazard, keep all part away from children.
- This model is intended for smooth track use only, this model is not intended for off-road use. Track surface should be smooth with minimal bumps.
- Never operate your model with low transmitter and/or model batteries.
- This model is controlled by a radio signal that could be subject to interference from many sources outside your control. This interference may result in the loss of control so ensure you as the operator of this model always keep some distance in all directions around your model as a safety margin to avoid personal and/or property damage to you and others in the area.
- Never operate your model in a public street or congested area and always keep away from cars, traffic and crowds of people.
- Never operate your model at night or anytime line of sight may be obstructed or impaired in any way.
- This model is small so ensure you run your model in a non-crowded area so nobody trips on model.
- This model is small and could be a trip hazard, ensure you only run the car in a safe area.
- This model is not waterproof, ensure vehicle is not run in wet conditions.
- Always turn on your transmitter first, then model.
- Do not put fingers on or near any moving part, this may result in serious injury or damage model.
- After running model, NEVER touch items like motor, battery, or electronic speed control as these items
  may be hot and result in serious injury as they may generate high temperatures during operation.
- When you are done using model, turn off model first, then transmitter.
- Never store model with battery installed or plugged in, always ensure battery is unplugged and removed before storage. Store battery in safe place.
- Never leave battery on charger for more than 1 hour and always unplug charger from wall when not in use. Never charge a battery that is hot or damaged.
- Some details and images in this manual might not exactly reflect the items you find in you model box.

### KIT DETAILS

#### IMPORTANT ASSEMBLY NOTE

The hardware on this kit are extremely small and the threads are also small, DO NOT OVER TIGHTEN ANY HARDWARE WHEN INSTALLING, 1RC RACING WILL NOT REPLACE ANY ITEMS THAT YOU, AS THE USER, STRIP OUT FROM OVERTIGHTENING.

This assembly manual will guide you through the process to assemble this Racer Kit. With the Racer Kit you can build your car in one of four configurations that includes the Asphalt Late Model, Asphalt Truck, Dirt Street Stock, and Dirt Late Model. This kit comes with everything you need to build a complete chassis. All electronics, mounted tires, and body must be supplied by the user. Pay close attention to each bag to ensure you are building your desired configuation. Take some time to read over the manual before you start the assembly steps to get familar with the assembly process, this will be very helpful as you start the assembly. We recommend you follow the steps we have detailed in this manual and do not jump from step to step. .

Each section is by a Bag # and you will find these bags labeled in your kit. We recommend you only open the bag noted for each step so you do not get any of the parts confused. The screws and hardware for these cars are small and sometimes can get lost during the opening of the bags. If you find you are missing some hardware like screws for a particular step, we have included a spare hardware bag called "Spare Parts" in the kit where you can find anything that might be missing.

Below you will find a hardware chart that details the hardware for this kit. Also noted below are the tools we recommend to build this kit. We included a Long Handled 1.5mm Hex Driver (1RC8810) and our standard 3mm/4mm Nut Driver to ensure you have a positive build experience. Use the included Pit Tray (1RC8822) to organize your parts as you build each bag.

#### **Items Required to Complete this Kit**

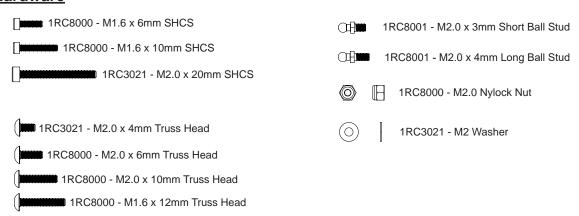
- Electronic Speed Controller 1RC7014
- Battery 1RC7007
- Servo 1RC7020 or 1RC7017 (if using 1RC7017 you will need 1RC3025 Servo Arm)
- Transmitter and Receiver 1RC7012
- Motor 1RC7003 8700Kv or 1RC7011 -10000Kv
- Mounted Tires and Body

#### Recommended Tools

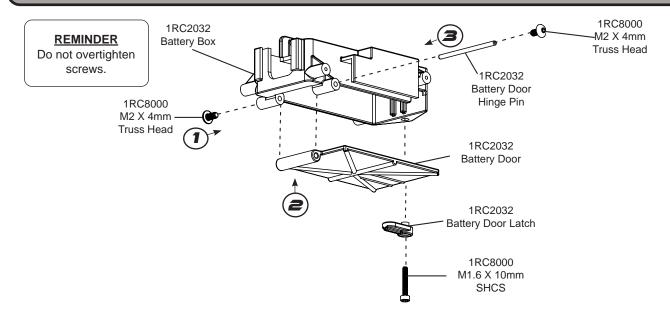
#### 1RC Racing tools are available at your 1RC Racing Authorized Dealer or online at www.1RC-RACING.com

- 1RC8801 1.5mm Hex Driver, Mini Handle, Black
- 1RC8802 3.0mm Hex Socket Driver, Mini Handle, Black
- 1RC8803 4.0mm Hex Socket Driver, Mini Handle, Black
- 1RC8830 Diagonal Flush Cut Pliers
- Hobby Knife
- Small Needle Nose Pliers
- Dial or Digital Calipers

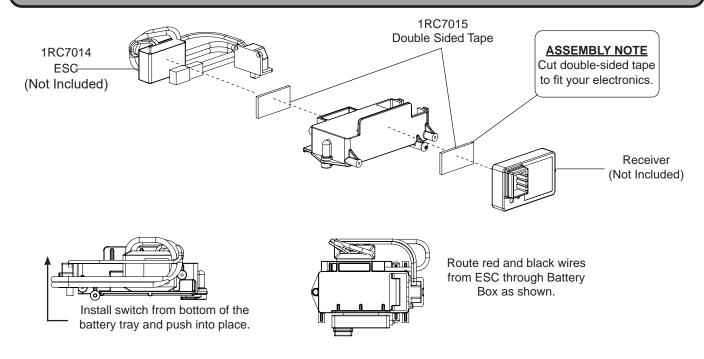
#### **Hardware**



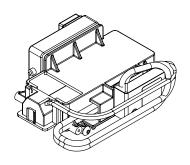
#### BAG 1 - STEP 1 - BATTERY TRAY ASSEMBLY



#### BAG 1 - STEP 2 - ESC AND RECEIVER INSTALLATION



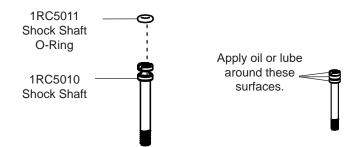
#### BAG 1 - FINAL ASSEMBLY



#### BAG 2 - STEP 1 - SHOCK SHAFT ASSEMBLY

#### **ASSEMBLY NOTES**

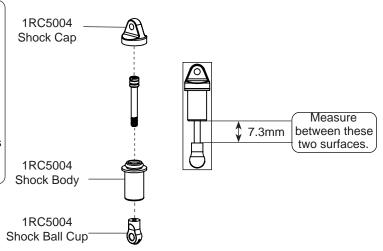
- Ensure O-Ring is fully seated on the Shock Shaft O-Ring groove.
- Due to the small O-Rings we have included four extra O-Rings
- We recommend adding O-Ring lube or oil of your choice to the shock shaft O-Ring before installing into the shock body



#### BAG 2 - STEP 2 - SHOCK ASSEMBLY

#### **ASSEMBLY NOTES**

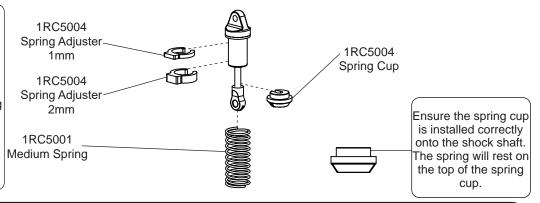
- Ensure when installing the Shock Shaft into the Shock Body, the O-Ring does not get pinched or pulls off the shock shaft. Remove any burrs on top of the shock body that may cause O-Ring intereference.
- DO NOT overtighten the Shock Ball Cup as it may damage the ball cup.
- Using dial calipers, measure the bottom of the shock body to the top of the shock ball cup and ensure the distance is equal on all four shocks. 1RC recommends 7.3mm.
- Build 4X



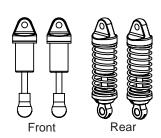
#### BAG 2 - STEP 3 - SHOCK SPRING ASSEMBLY

#### **ASSEMBLY NOTES**

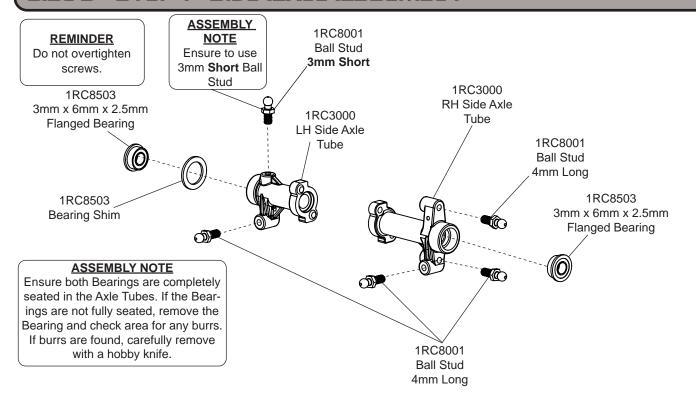
- The two Spring Adjusters are shown for reference only. Install the spring clips as needed for running conditions.
- Build 2X shocks with spring and spring cup (Rear Shocks).
- Build 2X shocks without spring and spring cup (Front Shocks).



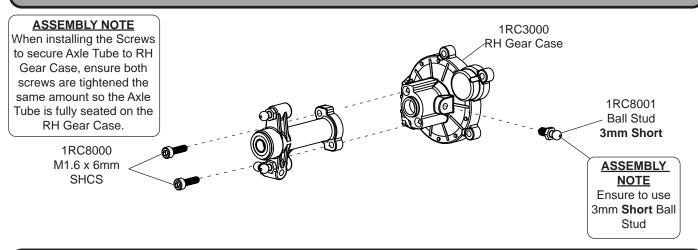
#### BAG 2 - FINAL ASSEMBLY



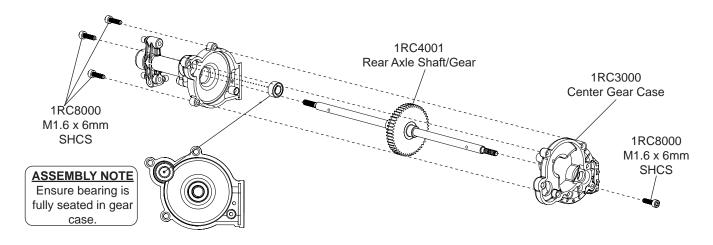
#### BAG 3 - STEP 1 - SIDE AXLE ASSEMBLY



#### BAG 3 - STEP 2 - RIGHT AXLE ASSEMBLY



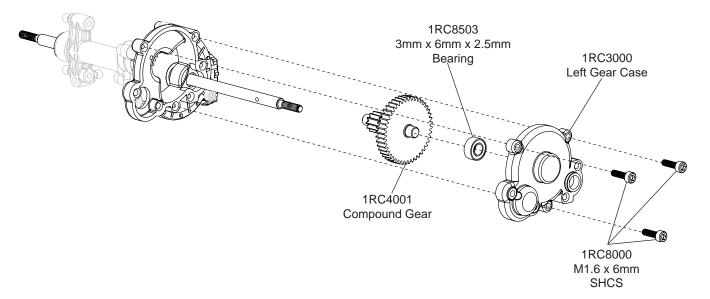
#### BAG 3 - STEP 3 - TRANSMISSION ASSEMBLY



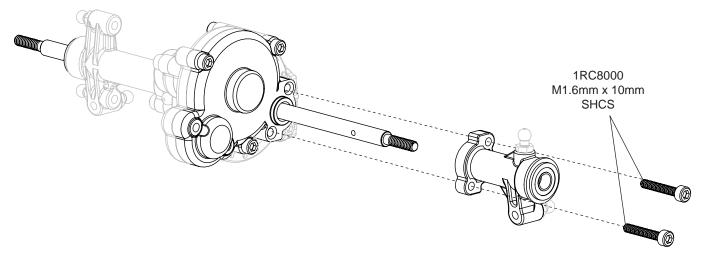
#### BAG 3 - STEP 4 - TRANSMISSION ASSEMBLY

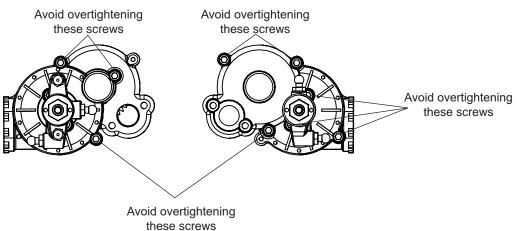
#### **ASSEMBLY NOTE**

Ensure bearing is fully seated in gear case.



#### BAG 3 - STEP 5 - TRANSMISSION ASSEMBLY

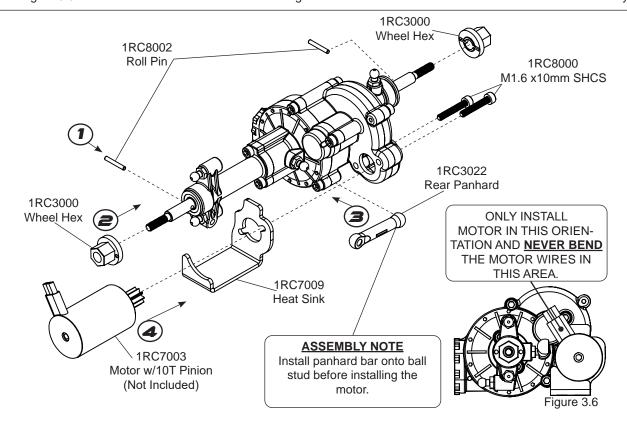




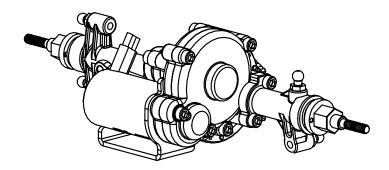
#### BAG 3 - STEP 6 - MOTOR INSTALLATION

#### **ASSEMBLY NOTES**

- Ensure the 1RC Racing Motor installed has a 10T pinion. Use only 1RC7003 or 1RC7011 or the gears will strip.
- When installing the Motor, **do not overtighten** the Motor Screws. A snug fitment is fine.
- When handling the motor, ensure the motor wires never bend, as bending the wires can cause the motor to short out.
- Note figure 3.6 below for motor orientation when installing. It is recommended to install the motor in this orientation only.

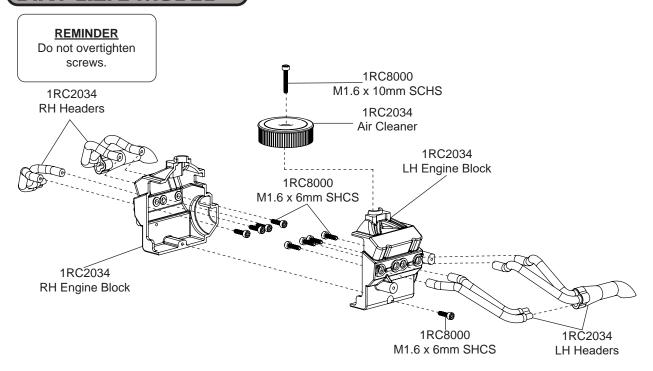


#### BAG 3 - FINAL ASSEMBLY

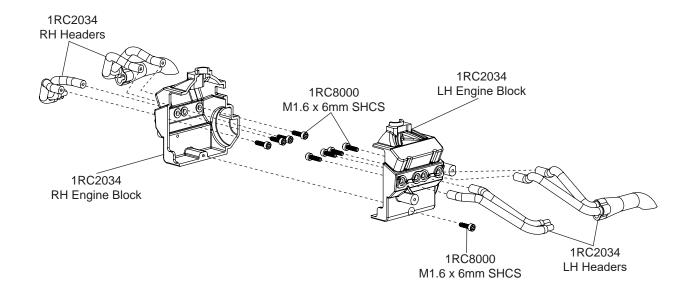


#### BAG 4 - BAG 1 - STEP 1 - ENGINE ASSEMBLY

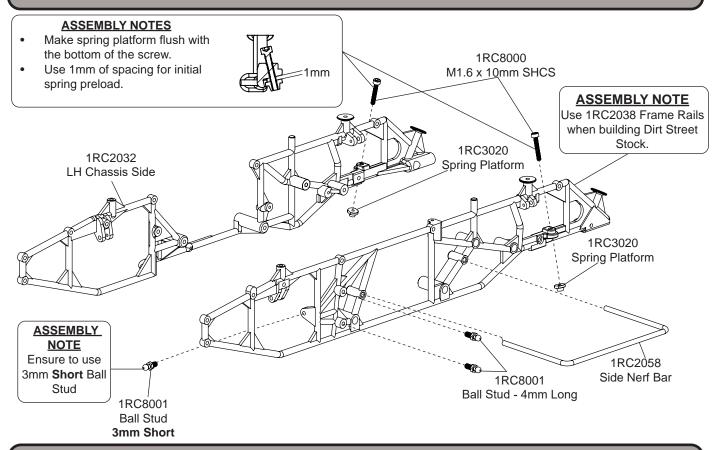
#### DIRT LATE MODEL



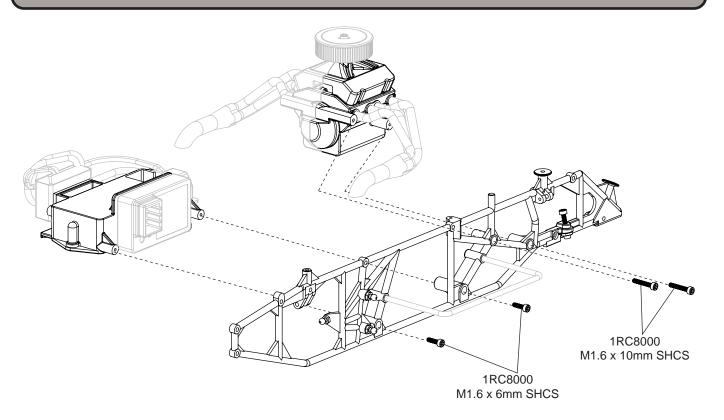
#### ASPHALT LATE MODEL, TRUCK , DIRT STREET STOCK



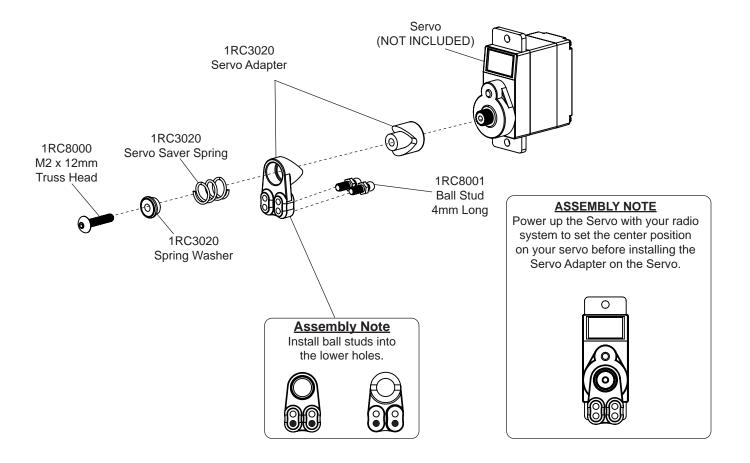
#### BAG 4 - STEP 3 - CHASSIS ASSEMBLY



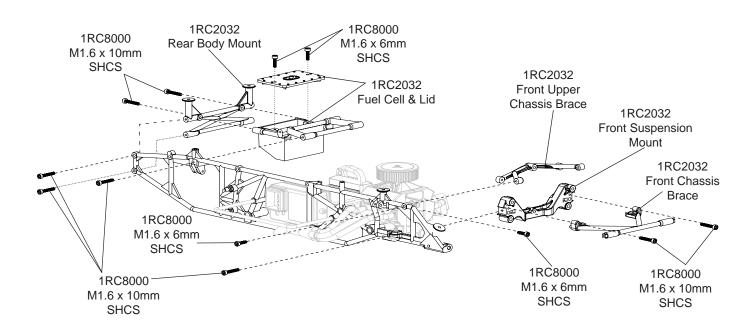
#### BAG 4 - STEP 4 - CHASSIS ASSEMBLY



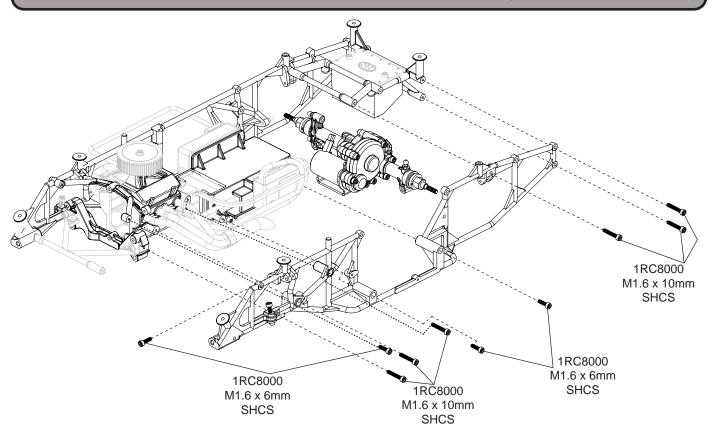
#### BAG 4 - STEP 5 - SERVO ASSEMBLY



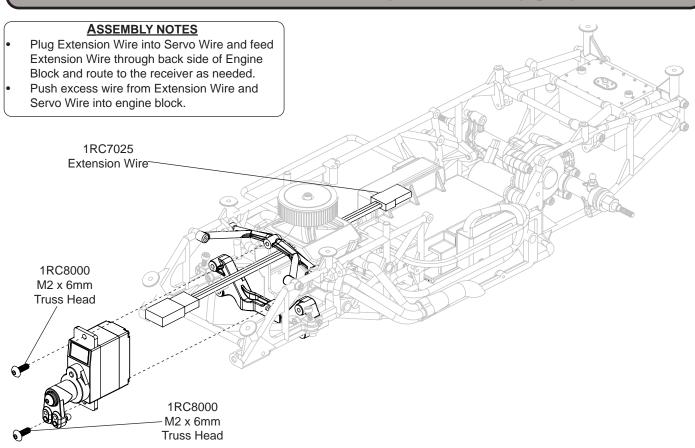
#### BAG 4 - STEP 6 - RIGHT SIDE CHASSIS ASSEMBLY



#### BAG 4 - STEP 7 - LEFT SIDE CHASSIS ASSEMBLY



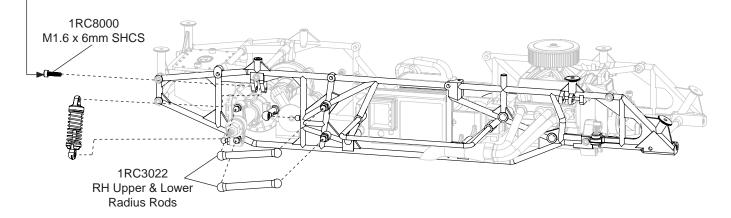
#### BAG 4 - STEP 7 - CHASSIS ASSEMBLY - SERVO INSTALL



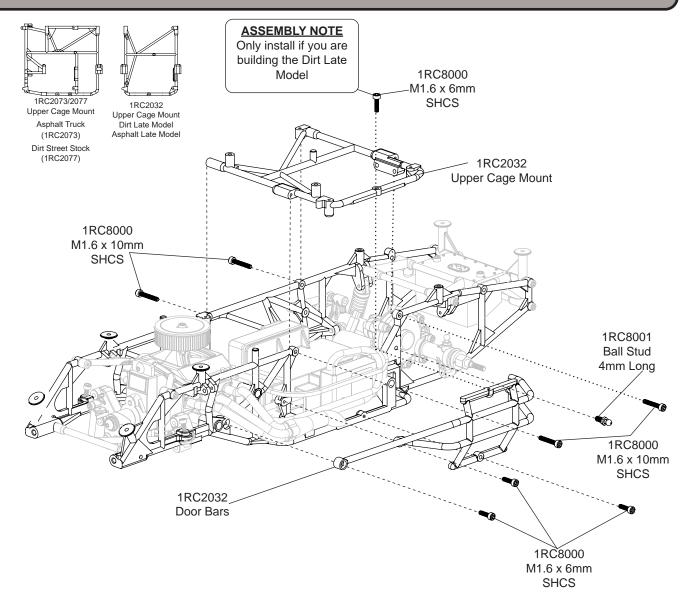
#### BAG 4 - STEP 8 - REAR SHOCK & RADIUS ROD INSTALL

#### **ASSEMBLY NOTE**

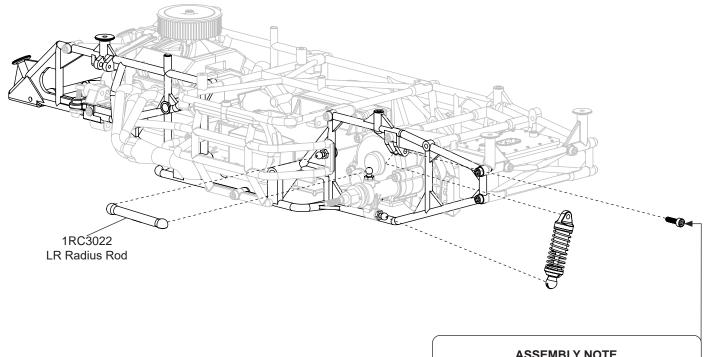
Do not overtighten shock screws. Ensure shock moves freely before connecting it to the ball stud.



#### BAG 4 - STEP 9 - CAGE ASSEMBLY



#### BAG 4 - STEP 10 - REAR SHOCK & RADIUS ROD INSTALL



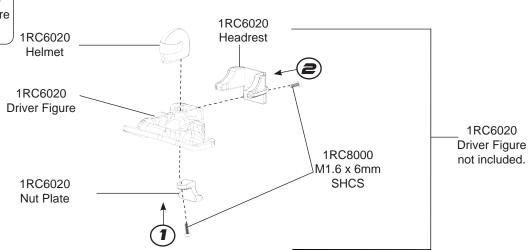
#### **ASSEMBLY NOTE**

Do not overtighten shock screws. Ensure shock moves freely before connecting it to the ball stud.

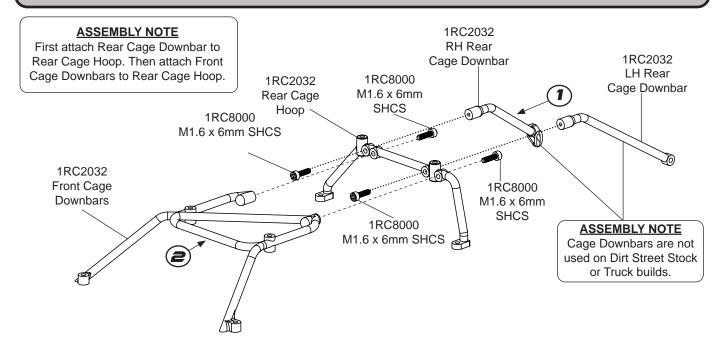
#### BAG 4 - STEP 11 - DRIVER ASSEMBLY

#### **ASSEMBLY NOTE**

First connect Nut Plate to the Helmet. Then connect the Headrest to the Driver Figure and into Nut Plate.



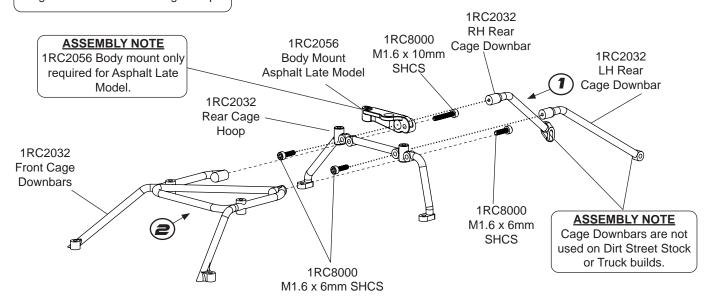
#### BAG 4 - STEP 12 - CAGE ASSEMBLY



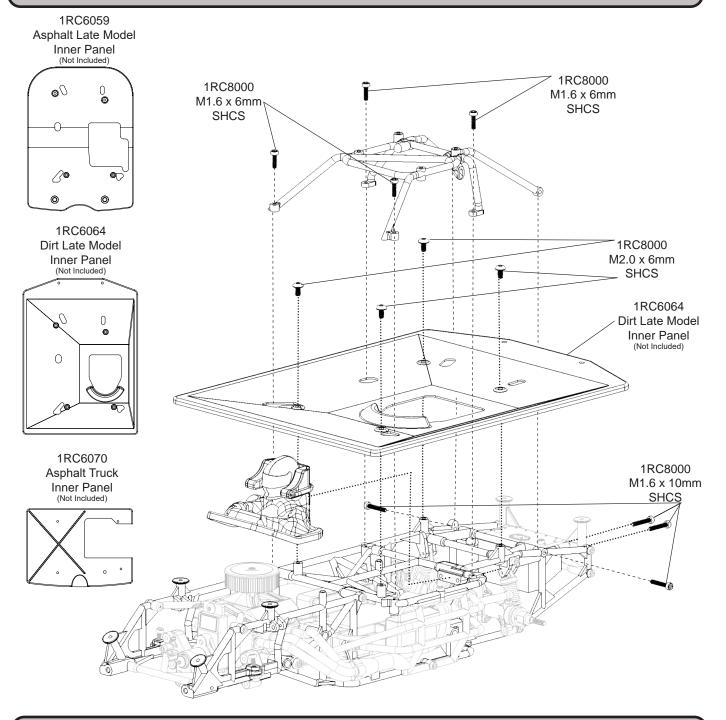
#### BAG 4 - STEP 12 - CAGE ASSEMBLY - ASHPALT LATE MODEL

#### **ASSEMBLY NOTE**

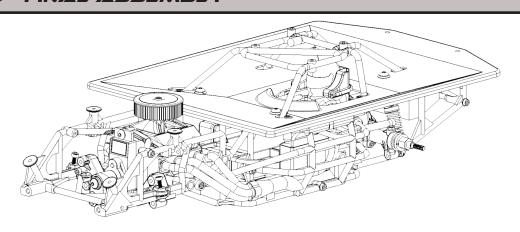
First attach Rear Cage Downbar to Rear Cage Hoop. Then attach Front Cage Downbars to Rear Cage Hoop.



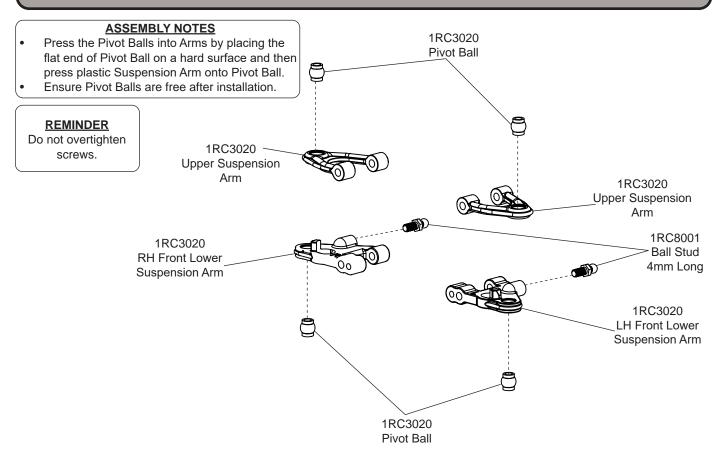
#### BAG 4 - STEP 13 - CAGE BAR & DRIVER PANEL ASSEMBLY



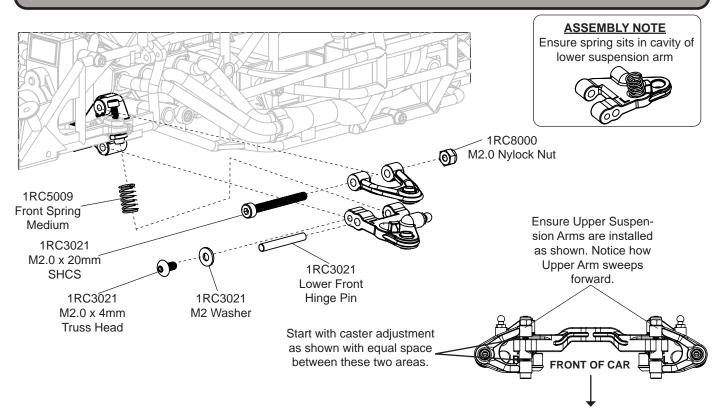
## BAG 4 - FINAL ASSEMBLY



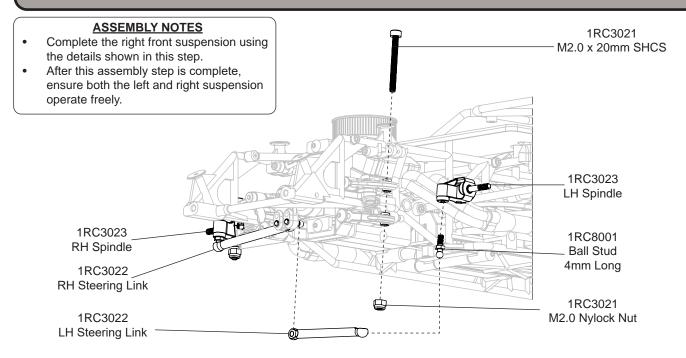
#### BAG 5 - STEP 1 - FRONT SUSPENSION ARM ASSEMBLY



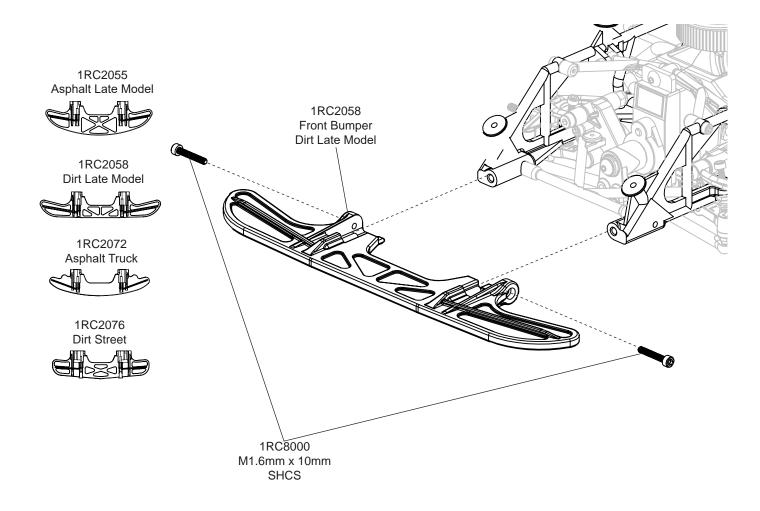
#### BAG 5 - STEP 2 - FRONT SUSPENSION ARM ASSEMBLY



#### BAG 5 - STEP 3 - STEERING ROD & SPINDLE ASSEMBLY



#### BAG 5 - STEP 4 - FRONT BUMPER ASSEMBLY



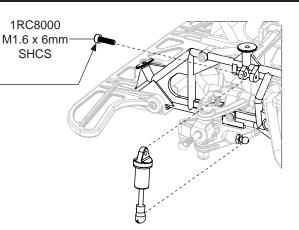
#### BAG 5 - STEP 5 - FRONT SHOCK INSTALLATION

#### **ASSEMBLY NOTE**

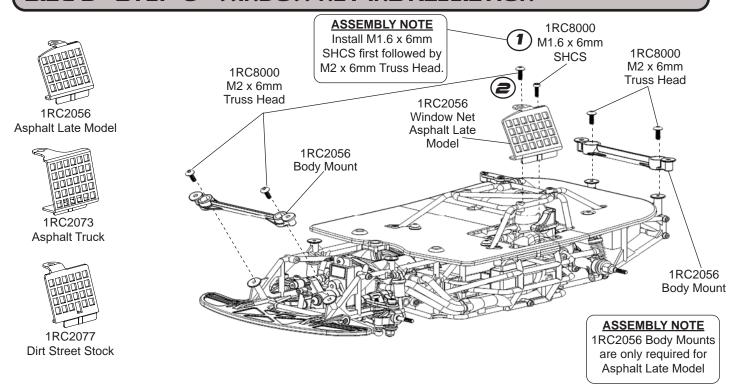
Do not overtighten shock screws. Ensure shock moves freely before connecting it to the ball stud.

#### **ASSEMBLY NOTE**

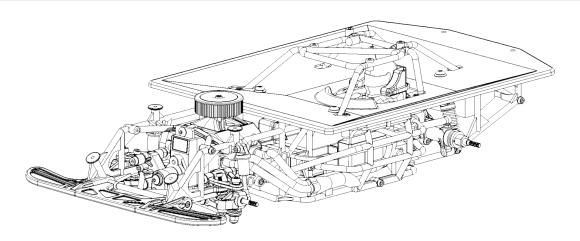
Install right shock the same as shown in this assembly step.



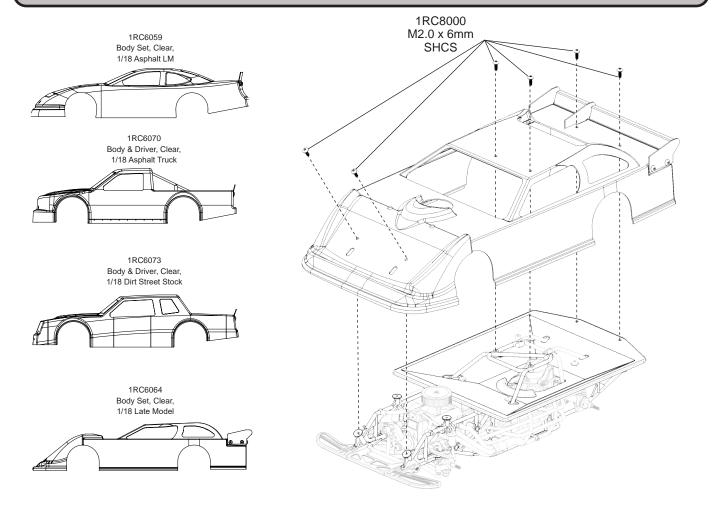
#### BAG 5 - STEP 6 - WINDOW NET INSTALLATION



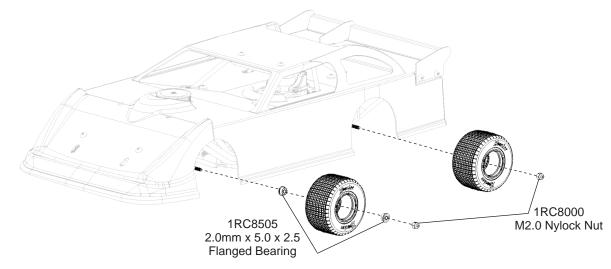
#### BAG 5 - FINAL ASSEMBLY



#### BAG 5 - BODY INSTALLATION



#### BAG 5 - WHEEL & TIRE INSTALLATION



#### Asphalt Late Model & Truck

1RC5560 FR/RR Tires & Black Wheels Asphalt LM (4) 1RC5561 FR/RR Tires & Chrome Wheels Asphalt LM (4) 1RC5562 FR/RR Soft Tires & Black Wheels Asphalt LM (4) 1RC5563 FR/RR Soft Tires & Chrome Wheels Asphalt LM (4)

#### Dirt Street Stock

1RC5544 FR/RR Tires & Black Wheels, Modified (4) 1RC5545 FR/RR Tires & Chrome Wheels, Modified (4) 1RC5546 FR/RR Soft Tires & Black Wheels, Modified (4) 1RC5547 FR/RR Soft Tires & Chrome Wheels, Modified (4)

#### Dirt Late Model

1RC5539 FR/RR Tires & Black Wheels, LM (4) 1RC5540 FR/RR Tires & Chrome Wheels, LM (4) 1RC5541 FR/RR Soft Tires & Black Wheels, LM (4) 1RC5542 FR/RR SoftTires & Black Wheels, LM (4)







REPLA	CEMENT PARTS		
1RC2032	Frame, 1/18 LM	1RC4001	Rear Axle & Compound Gear, 1/18 Spr, EDM
1RC2034	Engine Parts, 1/18 LM	1RC5000	Shock Set, 1/18 Mid, Spr, EDM (4)
1RC2037	Frame, 1/18 Modified	1RC5004	Shock Plastic Pars, 1/18 Mid, Spr, EDM
1RC2038	Frame Sides Only, 1/18 Modified	1RC5009	Spring Set, Front, 1/18 LM
1RC2058	Ft. Bumper & Side Nerf Bar, 1/18 LM 2.0	1RC5011	O-Rings, Clear, Shocks, 1/18 LM (10)
1RC2072	Ft. Bumper, 1/18 Asphalt Truck	1RC7009	Heatsink,Motor, 1/18 Mid, Spr, EDM
1RC2073	Cage Parts, 1/18 Asphalt Truck	1RC7015	Double Stick Tape, ESC & Rx, 1/18th
1RC2076	Front Bumper, 1/18 Dirt Street Stock	1RC7025	Servo/ESC Extension Wire, 100mm, 1/18 Scale
1RC2077	Cage Parts, 1/18 Dirt Street Stock	1RC8000	Hardware Set, 1/18 Mid, Spr, EDM, LM
1RC3000	Rear End , 1/18 Mid, Spr, EDM	1RC8001	Ball Stud & Pivot Ball Set, 1/8 Mid, Spr, EDM
1RC3020	Front Suspension Plastics Set, 1/18 LM	1RC8002	Roll Pin Set, 1/18 Mid, Spr, EDM (8)
1RC3021	Front Suspension Hardware Set, 1/18 LM	1RC8503	Bearing Set, 1/18 Mid, Spr, EDM (8)
1RC3022	Radius Rods, 1/18 LM	1RC8505	Flanged Bearing Set
1RC3023	Front Spindles, 1/18 LM		
OPTIC	ON PARTS		
1RC2033	Frame Sides Only, 1/18 LM	1RC4003	Offset Wheel Hexes, 1/18 Mid, Spr, EDM
1RC3013	Rear End, Black, 1/18 Mid, Spr, EDM	1RC4016	HD Rear Axle & Compound Gear, 1/18 LM
1RC3024	Adjustable Front Tie Rod, 1/18 LM	1RC5001	Spring Kit, 1/18 Mid, Spr, EDM
1RC3025	Servo Arm, Solid, 21T, 1/18 LM	1RC8005	Self Threading Screws, M1.6 x 10mm (20)
BODIE	<b>5</b>		
1RC6020	Driver Figure, Clear, 1/18	1RC6070	Body & Driver, Clear, 1/18 Asphalt Truck
1RC6059	Body Set Clear, 1/18 Asphalt Late Model	1RC6073	Body & Driver, Clear, 1/18 Dirt Street Stock
1RC6064	Body Set, Clear, 1/18 LM 2.0		
ELECT	TRONICS		
1RC7003	8700Kv Brushless Motor & 10T Pinion	1RC7014	ESC Only, 1/18 Scale
1RC7007	NiMH Battery, 5Cell NiMh, 6.0V, 230mAH	1RC7017	Steering Servo, Digital Metal Gear, 18th Scale
1RC7011	10000Kv Brushless Motor & 10T Pinion	1RC7020	Steering Servo, 1/18 LM
1RC7012	Transmitter & Receiver, GT2E		
TIRES			
1RC5539	FR/RR Tires & Black Wheels, 1/18 LM (4)	1RC5546	FR/RR Soft Tires & Black Wheels, 1/18 Modified (4)
1RC5540	FR/RR Tires & Chrome Wheels, 1/18 LM (4)	1RC5547	FR/RR Soft Tires & Chrome Wheels, 1/18 Modified (4)
1RC5541	FR/RR Soft Tires & Black Wheels, 1/18 LM (4)	1RC5560	FR/RR Tires & Black Wheels, 1/18 ALM (4)
1RC5542	FR/RR Soft Tires & Chrome Wheels, 1/18 LM (4)	1RC5561	FR/RR Tires & Chrome Wheels, 1/18 ALM (4)
1RC5544	FR/RR Tires & Black Wheels, 1/18 Modified (4)	1RC5562	FR/RR Soft Tires & Black Wheels, 1/18 ALM (4)
1RC5545	FR/RR Tires & Chrome Wheels, 1/18 Modified (4)	1RC5563	FR/RR Soft Tires & Chrome Wheels, 1/18 ALM (4)
TOOL	5		
1RC8801	1.5mm Hex Driver, Mini Handle, Black	1RC8821	Shock Assembly Tool
1RC8802	3.0mm Hex Socket Driver, Mini Handle, Black	1RC8822	Pit Tray, Gray
1RC8803	4.0mm Hex Socket Driver, Mini Handle, Black	1RC8830	Diagonal Flush Cut Pliers
1RC8810	1.5mm Hex Driver, Long, Mini Handle, Black		

#### **Limited Warranty and Service Contact Information**

#### **Limited Warranty**

1 RC Racing, LLC warrants the model and its components to be free of defects in material and workmanship at the date of purchase to the original purchaser, warranty is not transferable.

#### **Limitation of Liability**

1 RC RACING, LLC SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY, REGARDLESS OF WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY, EVEN IF 1 RC RACING, LLC HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

#### **Service Contact Information**

All service/warranty requests should be sent to support@1RC-Racing.com and should contain the following information.

- 1. Name and shipping address and contact info
- 2. Picture of part(s) in question
- 3. Description of running condition when part broke

All warranties will be reviewed and an email will be sent back within 2-5 days with details of the warranty.

#### TUNING TIPS

**Oversteer** - A handling condition where a vehicles rear tires lose traction and the car turns more than the driver intends, causing the car to slide or spin out through the turn.

Car Loose (Oversteer) on Corner Entry

- 1. Reduce Dual Rate on the Transmitter.
- Add spring shims to right front shock.
- 3. Use stiffer spring on right front shock.
- 4. Reduce caster in right front.
- 5. Use harder compound right front tire.
- 6. Add super glue to outer edge and sidewall of right front tire. Ensure super glue is completely dry before running.

#### Car Loose (Oversteer) on Corner Exit

- 1. Reduce Dual Rate on the Transmitter.
- 2. Add spring shims to left rear shock.
- 3. Use stiffer spring on left rear shock.
- 4. Reduce left front caster.
- 5. Use softer compound left rear tire.

**Understeer** - A handling condition where a vehicles front tires lose grip and the car turns less than the driver intends, causing the car to push wide through the turn.

Car Tight (Understeer) on Corner Entry

- 1. Increase Dual Rate on the Transmitter.
- 2. Add spring shims to left front shock.
- 3. Use stiffer spring on left front shock.
- Increase right front caster.
- 5. Use softer compound right front tire.
- 6. Use wider rear wheel hex (1RC4003) on right rear.
- 7. Use narrower rear wheel hex on left rear.

#### Car Tight (Understeer) on Corner Exit

- 1. Increase Dual Rate on the Transmitter.
- 2. Add spring shim to right rear shock.
- 3. Use stiffer spring on right rear shock.
- 4. Increase left front caster.
- 5. Use softer compound right rear tire.
- 6. Use wider rear wheel hex (1RC4003) on right rear.
- 7. Use shorter rear wheel hex on left rear.

Car Hopping (Rear Tires Bouncing/Chattering) through the Corner

- 1. Remove all four shocks and ensure suspension moves up and down freely.
- Ensure all radius rods are free.
- 3. Makes sure shock O-rings are lubed and the shocks move freely.
- 4. Add super glue to outer edge and sidewall of right front tire. Ensure super glue is completely dry before running.



#### GENERAL SETUP SHEET

- ☐ 1/18 ASPHALT LATE MODEL
- ☐ 1/18 ASPHALT TRUCK
- ☐ 1/18 DIRT LATE MODEL
- ☐ 1/18 DIRT STREET STOCK

Driver :		Date	i:
Track Name:		_ City/State: _	
Surface:		lndoor	☐ Outdoor (check one)
Race:	Start:	Fini	sh:

#### LEFT FRONT

Tire Compound: □Std □Soft Shock O-Ring: ☐Yes ☐No Shock Type: □Plastic □Aluminum Oil/Grease: Spring: □Soft □Med □Hard Spring Preload:\_\_\_\_\_ Caster: Corner Weight: \_\_\_\_\_ Chassis Height: \_\_\_\_\_

#### FRONT

Toe: Caster: Total Car Weight:

#### RIGHT FRONT

Tire Compound: ☐ Std ☐ Soft Shock O-Ring: ☐ Yes ☐ No Shock Type: ☐ Plastic ☐ Aluminum Oil/Grease: Spring: ☐Soft ☐Med ☐Hard Spring Preload:\_\_\_\_\_ Caster:\_\_\_\_ Corner Weight: \_\_\_\_\_ Chassis Height:

#### **ELECTRONICS**

ESC: Tx: \_\_\_\_\_ Battery: ☐ 4-Cell ☐ 5-Cell ☐ Other

Motor: □8700kv □10,000kv

#### MISC.

Servo	Arm l	Hol	e:
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Upper	ı
Lower	Į

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06	

Dual Rate Amount:

Motor Heatsink: ☐ Yes ☐ No

Other: \_\_\_\_\_

#### LEFT REAR

Tire Compound: □Std □Soft Shock O-Ring: ☐ Yes ☐ No Shock Type: □Plastic □Aluminum Oil/Grease: Spring: □Soft □Med □Hard Spring Preload:\_\_\_\_\_ Caster:\_\_\_\_\_ Corner Weight: \_\_\_\_\_ Chassis Height: \_\_\_\_\_

### REAR

Other: \_\_\_\_\_

#### RIGHT REAR

Tire Compound: ☐ Std ☐ Soft Shock O-Ring: ☐ Yes ☐ No Shock Type: ☐ Plastic ☐ Aluminum Oil/Grease: Spring: □Soft □Med □Hard Spring Preload:\_\_\_\_\_ Caster: Corner Weight: \_\_\_\_\_ Chassis Height: \_\_\_\_\_

NC	TE	<b>:</b> 5:
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