

# The Panda 1:10 Scale Offroad R/C car kit



INSTRUCTION MANUAL



Your **Panda** is a 1:10 scale, high performance offroad racer designed for radio controlled operation.

The **Panda** is a complete kit, including chassis, body, wheels and tires, suspension, speed controller, motor and all necessary hardware for assembly.

In order to operate your assembled **Panda** you will need a 7.2v/1200mAh and charger to power the car and a complete,

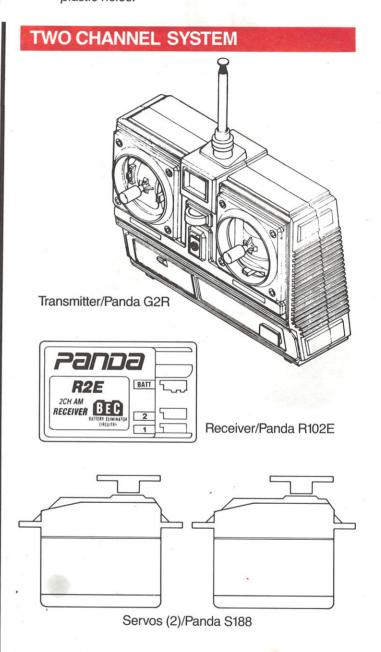
2 channel radio control system.

Please read through this manual thoroughly before you begin. The assembly process is very simple, and requires only a few common tools.

**NOTE:** Care must be taken should you decide to use a power screwdriver to avoid stripping out the plastic holes.

# **TOOLS** Phillips tip screwdriver Needlenose pliers Diagonal cutters Hobby knife Cycanoacrylate adhesive POWER NiCd Panda 7.2v/1200mAh

CHARGER/Panda DC 30 Minute Charger



# **OPTIONAL**

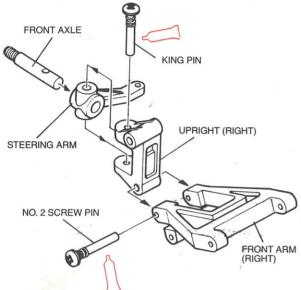
You may substitute an electronic speed control for the mechanical control unit supplied with the kit. Use of an electronic speed control will also eliminate the need for the throttle servo.



MOSFET electronic speed control/Panda PSC-1



Remove the following parts from Bag A: Left and right front arm, left and right uprights and two steering arms.



Remove these parts from Bag B: (2) King pins and (2) No. 2 screw pins (1"). Remove (2) front axles from bag E.

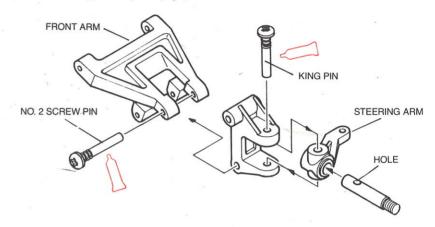
A) Push an axle into a steering arm, aligning the hole in the axle with the king pin hole in the steering arm.

B) Place the steering arm into the right upright and insert the king pin through the upright,

steering arm and axle. Screw the king pin in place. Make sure not to overtighten, which will prevent free movement of the steering arm. C) Align the bottom holes of the assembled up-

right in position with the right front arm and insert a No. 2 screw.

D) Repeat steps A through C for the left side.



# STEP 3

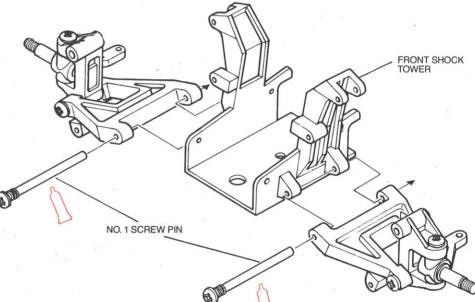
Locate front shock tower, and (2) No. 1 screw pins (1¾") from Bag B.
A) Locate the right arm assembly in position on

the front shock tower.

B) Apply grease to No. 1 screw pin and insert as shown

C) Repeat for left side.

indicates the application of Panda Racing grease to reduce friction and wear.



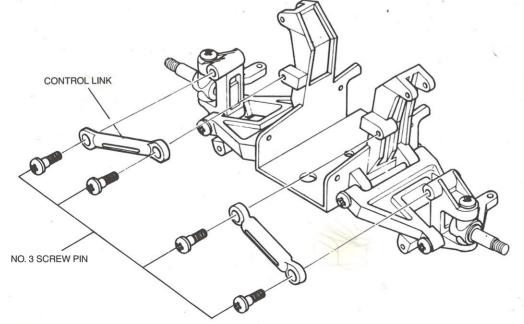
# STEP 4

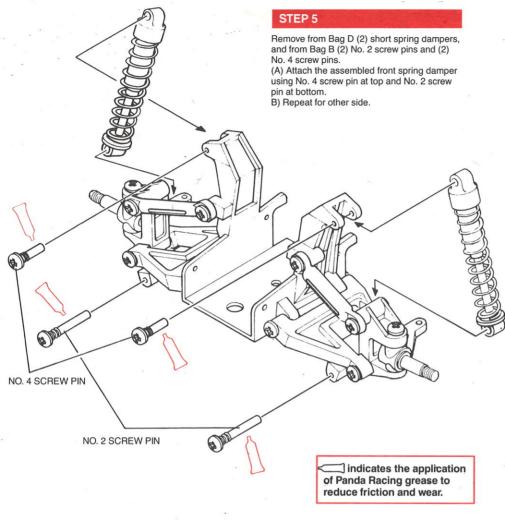
Remove (2) control links from Bag A and (4)

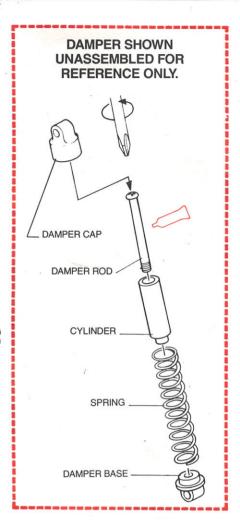
No. 3 screw pins (1/2") from Bag B.

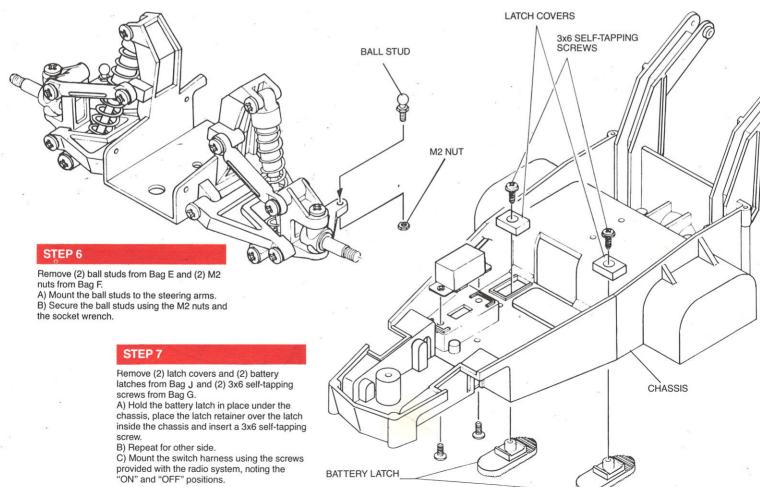
A) Place the control link between the upright and the front shock tower.

B) Use No. 3 screw pins to hold control link in place. Make sure not to overtighten, which will not allow the link to move freely.

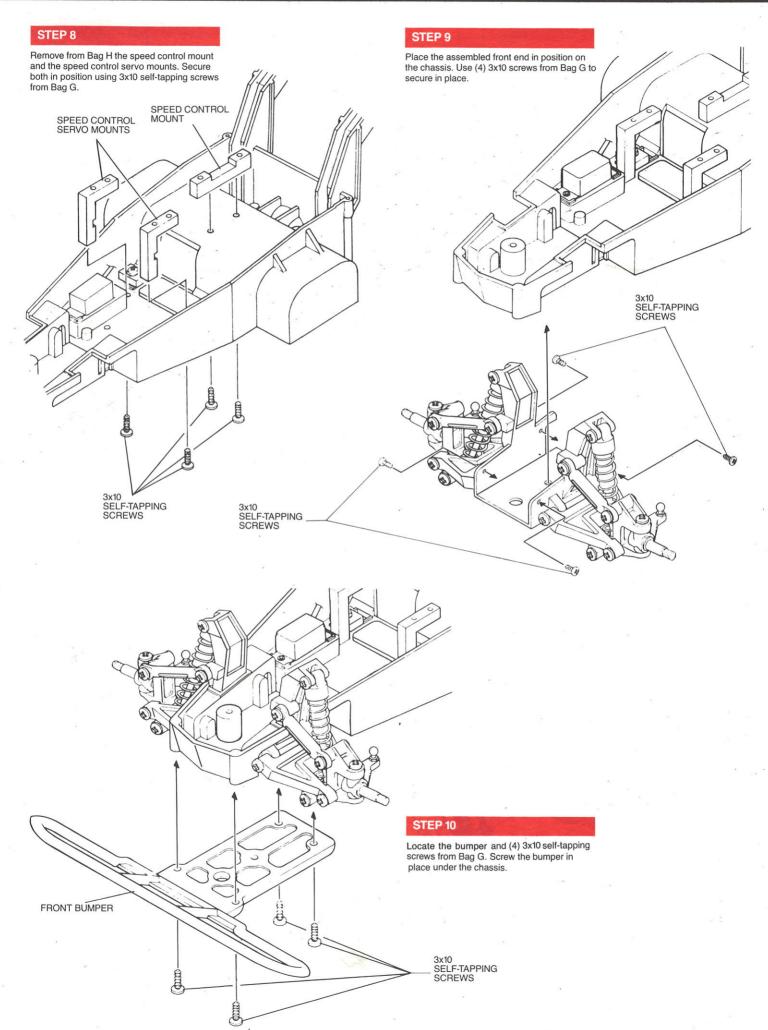




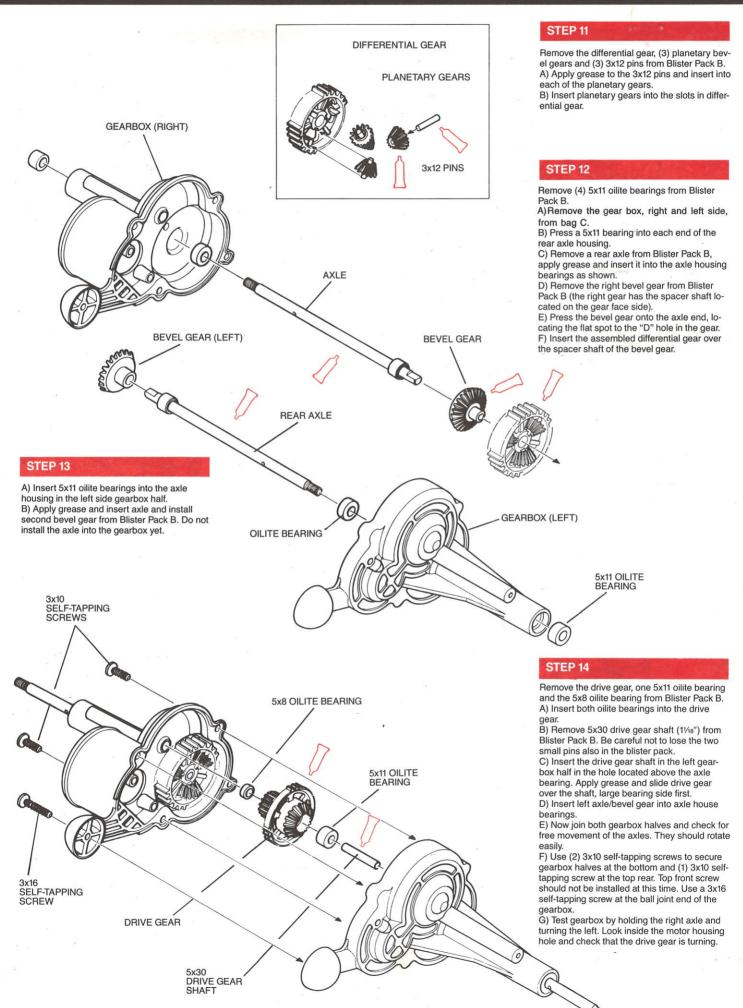




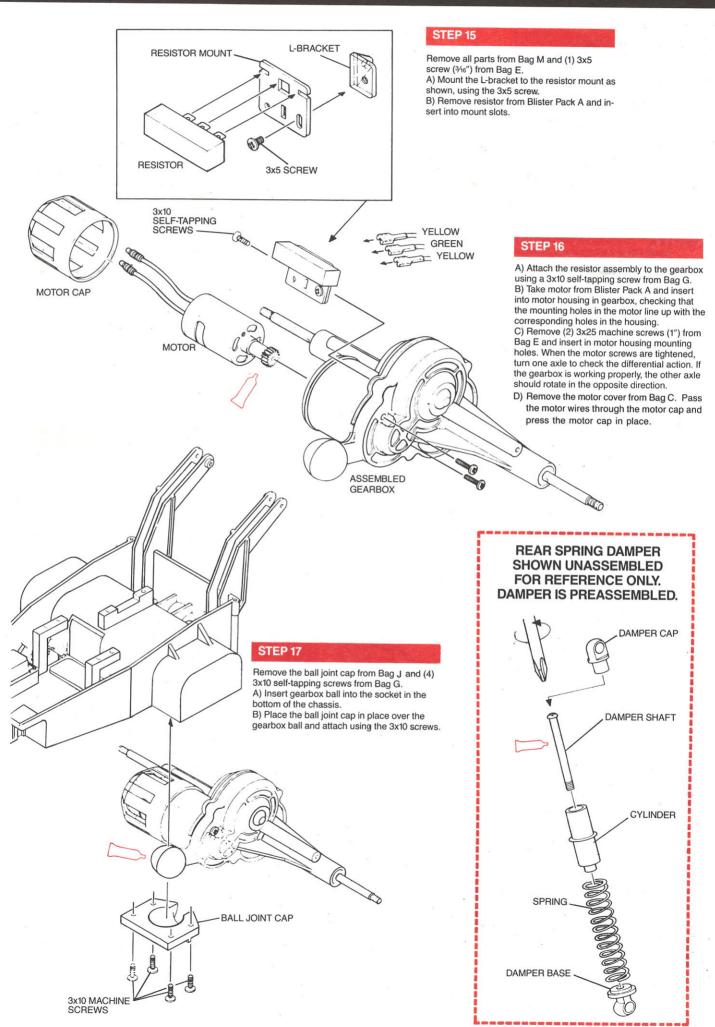


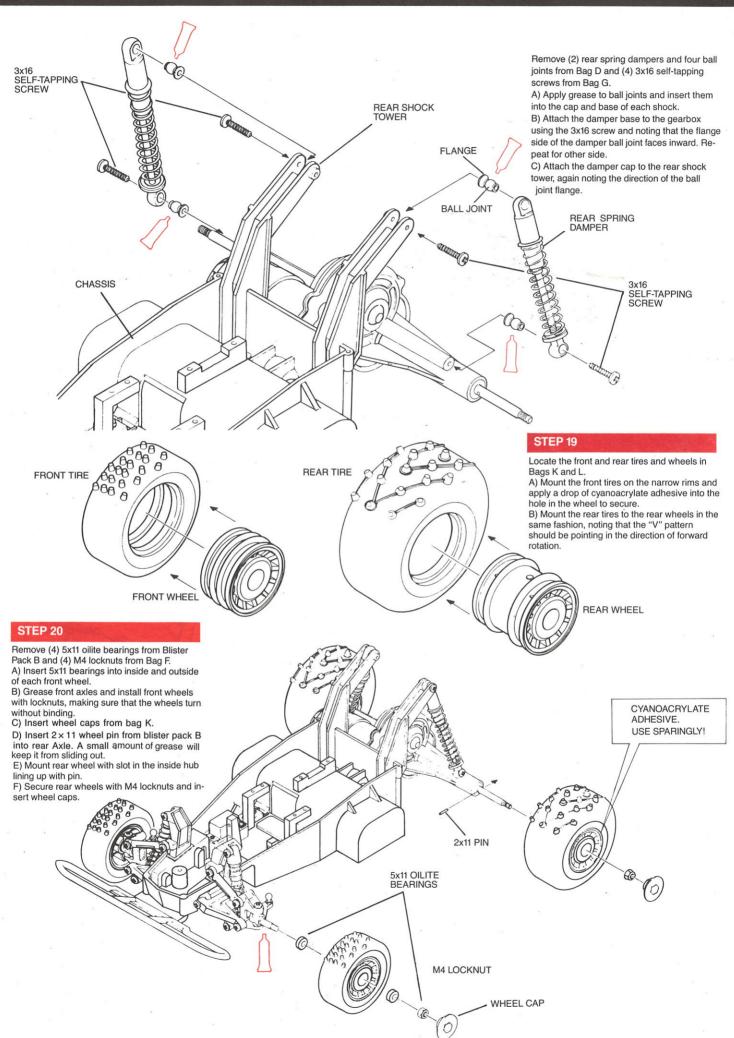


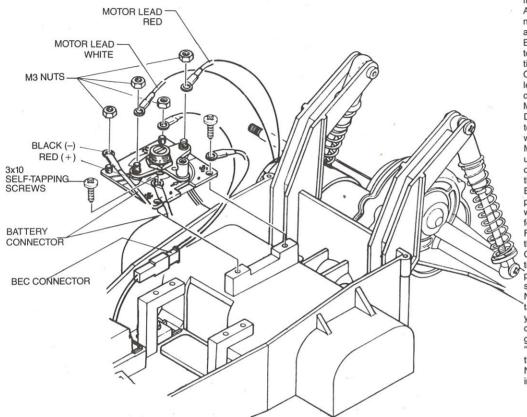












Remove the assembled speed controller from Blister Pack B and (2) 3x10 self-tapping screws from Bag G.

A) Mount the speed control as shown, with the notch positioned over the speed control mount and the yellow/green/yellow pigtail at the rear. B) Attach the red/positive(+) battery connectory lead under the front mount screw, then tighten in place.

C) The black/negative(-) battery connector lead attaches to the bolt in the front right corner of the controller and is secured by an M3 nut.

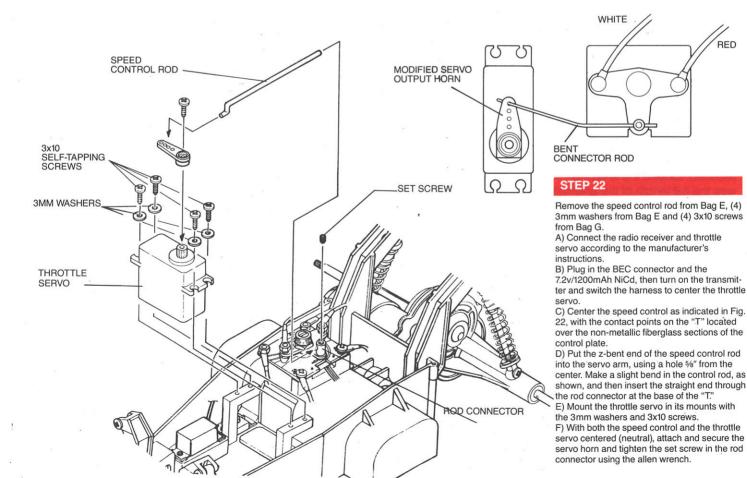
D) Now attach the white motor connector lead to the left side of the "T" shaped controller wiper arm. Make sure to securely tighten the M3 nut by holding the connector eyelet while using the 4-way socket wrench. The red motor connector is attached to the right side of the "T."

E) Next, insert the resistor into the resistor plate and plug the yellow/green/yellow resistor wires into the resistor. Use the outer terminals for the yellow and the green in the center.

F) Now attach the red and white motor leads to the motor lead connectors.

G) To test the speed control for proper function, make sure the wiper arm is in the neutral position and the car's rear wheels are not installed. Hook up a charged, 7.2v/1200mAh NiCd pack to the battery connector plug. By ro-tating the wiper arm several degrees clockwise you should engage low speed forward. A few degrees further engages medium and at 40 degrees the controller will be at high. Rotating the 'T" counterclockwise should likewise engage the three reverse speeds. Disconnect power NiCd and proceed with throttle servo installation.

RED





Remove the servo saver from Bag I. Select the appropriate adapter for your servo, the "C" spring and output horn and assemble as shown with the 2.6x14 self-tapping screw.

#### STEP 24

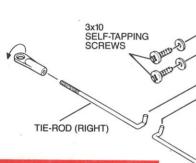
Remove the steering servo brackets from Bag H.

A) Notice that the left bracket is slightly shorter. B) Mount the steering servo to the brackets using (4) 3mm washers from Bag F and (4) 3x10 screws.

C) Remove the tie-rods from Bag B. Feed them through the chassis and attach the z-bent ends into the servo saver output horn.

D) Remove the rod ends from Bag H and thread onto the tie-rods.

E) Mount the steering servo using (2) 3x10 screws from the bottom of the chassis.



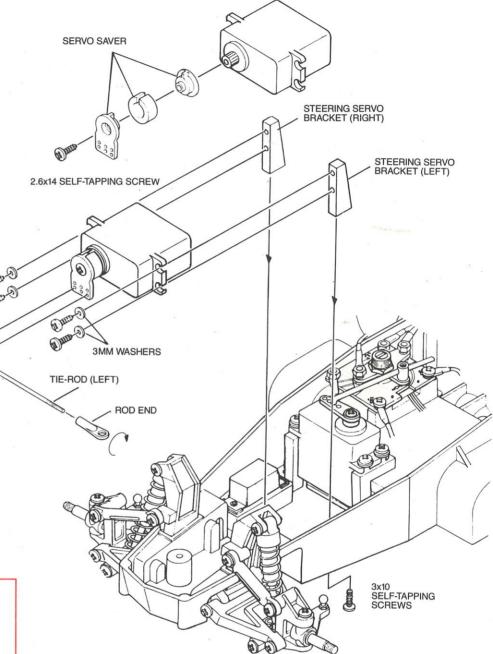
# STEP 25

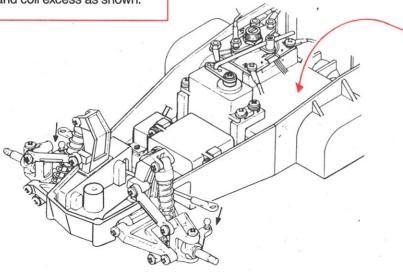
With the steering servo in the neutral, use the rod ends to adjust the front wheels for 2 to 3 degrees of toe-in.

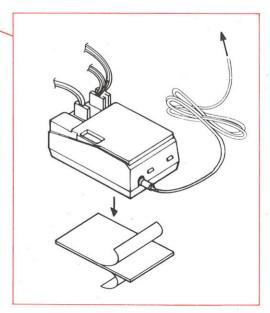
# **STEP 26**

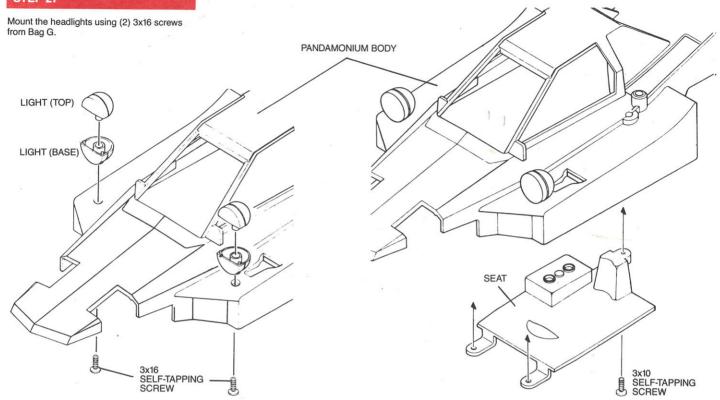
Mount the receiver next to the speed control using servo tape.

**IMPORTANT:** Receiver antenna wire must not be cut or tightly coiled. Range will be severely reduced. Extend the antenna wire the full length of the antenna tube and coil excess as shown.









# STEP 28

Mount the seat using a 3x10 screw from Bag G.

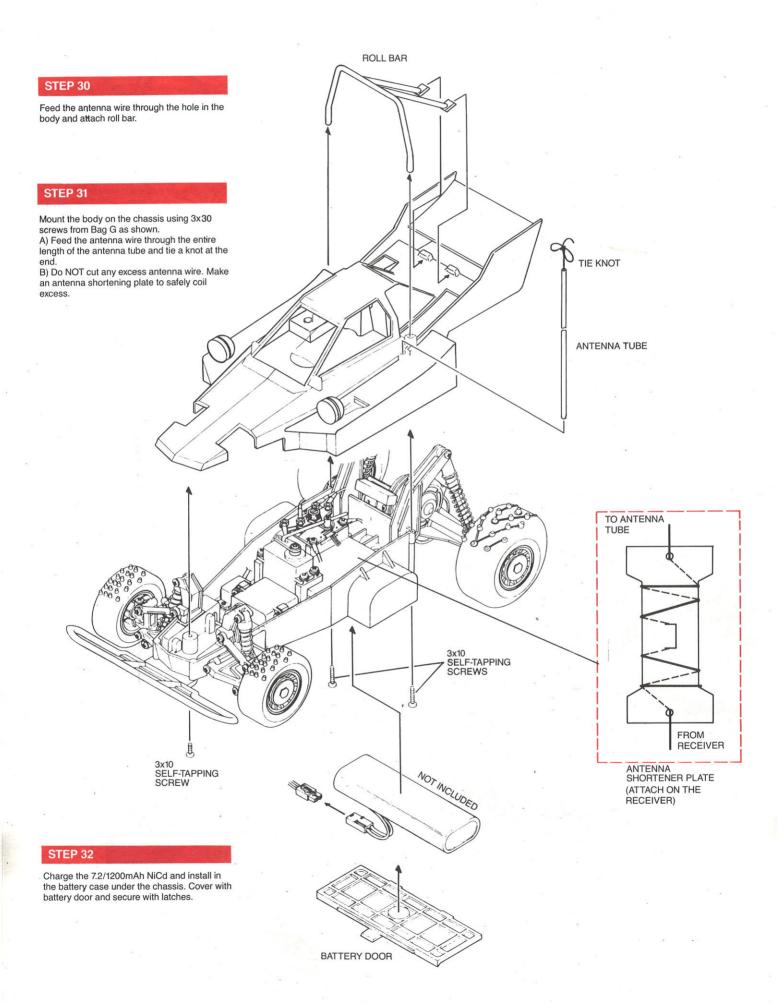


# **STEP 29**

Apply the pressure-sensitive stickers as shown.









# **BREAK-IN**

Like a real car, your **Panda** will perform best if you follow a simple break-in period. Using this break-in procedure

1) Install a fully charged 7.2v/1200mAh NiCd pack, Fig. 1

2) Always switch on the transmitter first, to make sure that you have control of the car. Next switch on the car using the switch harness.

3) Place the car on an elevated stand, positioning it so that the front and rear wheels can operate without com-

ing in contact with anything. FIG. 2

4) Test your transmitter controls. Operate the steering control stick (or wheel) and check that the front wheels are properly aligned and turn equal amounts left and right. Use the threaded rod ends to adjust for 2 to 3 degrees of toe-in, fine centering can be done using the transmitter's steering trim. FIG. 3

5) Check throttle action, making sure that neutral is engaged when the throttle control stick (or trigger) is centered and that full forward and reverse are engaged at

the maximum points of stick travel. FIG. 4

6) Operate the throttle at low speed for four or five minutes. This will allow the motor to operate free of load to properly seat the brushes and loosen up the gearbox. The motor should not become too hot, which would be an indication of excessive friction.

7) Check again that the antenna is installed correctly, and that all servo and motor wiring is clear of moving parts. The body shell can now be attached and screwed into place.

# **PRECAUTIONS**

Your **Panda** 1:10 Offroad car is now ready for driving. Due to the high speed and high amperage NiCd pack, please observe these important precautions.

1) Avoid running the car in wet or snow-covered areas. Water can damage and destroy the radio system. FIG. 5

2) Avoid running the car in tall grass or weeds that can become entangled in the axles. Fig. 6

3) Do not apply throttle when your car is in a stalled condition, such as blocked by a heavy object. Continued application of power will result in a burned out motor or speed control. FIG. 7

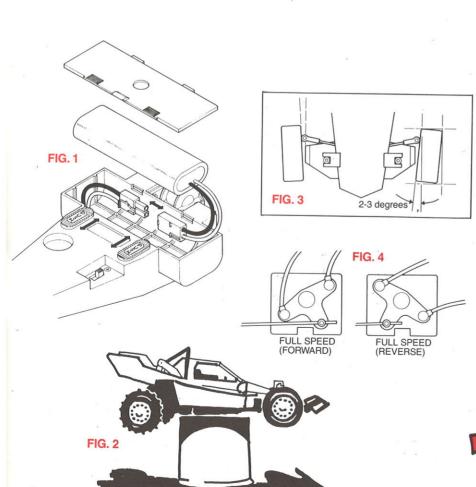
4) Avoid rapid shifting from forward to reverse, which will shorten motor life.

5) Do not operate car in crowded areas or near vehicle traffic.

6) Observe all FCC regulations regarding the operation of radio control models. In particular, note that only the 27 and 75MHz bands are to be used for surface models.

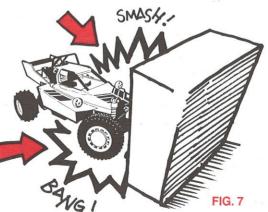
7) When operating in the presence of other RC models always confirm that no one else is using the same frequency as you are BEFORE you switch on your transmitter.

8) The 7.2v/1200mAh NiCd pack should allow you to drive for between five and seven minutes a charge. When the car's speed or throttle response starts to slow, you should stop running and recharge the batteries.











# **DRIVING TIPS**

Your Panda was designed to operate on a wide variety of surfaces, ranging from asphalt paving, to dirt and sand. 1) To practice your driving skills, select a flat, smooth area with nothing to run into.

2) If possible, stand on an elevated platform. The extra one to two feet of height will make it easier to drive and view the driving area, particularly when the car is further away.

3) Use cones or weighted syrofoam cups as pylons to set up a figure 8 or slalom course. Develop your timing and cornering skills by trying to turn in as close to the pylons as possible, without hitting them.

4) Remember to thouroughly clean off your car after running. An inexpensive, 11/2" paint brush works well to remove dust and dirt. For caked up or dried mud try an old toothbrush.

5) Gearbox lube should be changed periodically, and wheel and gearbox bearings should be cleaned and lightly oiled after the first five or six charges.

# **MODIFYING YOUR PANDA**

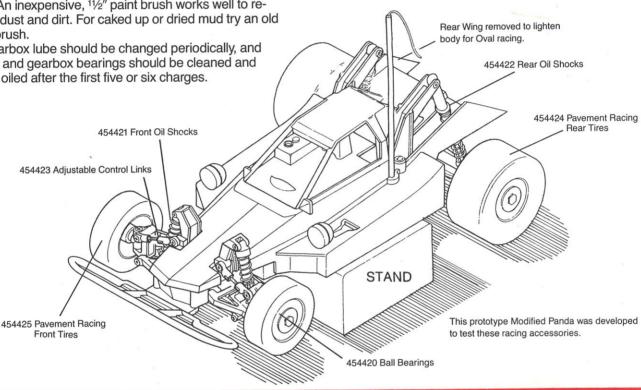
Your Panda was designed to be easily modified for more performance, and the rugged design makes it a natural for competition.

The Panda Racing Team has developed a complete Hop-Up Accessory Group package to give your Panda improved speed, response and handling.

The kit consists of several carefully selected items, all commonly used by racers to get that winning margin.

Included are a complete ball bearing set, front and rear oil-damped shock absorbers and special Panda Paw Pavement Racing tires.

All parts are direct replacement for the standard equipment and require no modifications for installation.



# PANDA HOP-UP ACCESSORIES GROUP/454427

## 454420 Precision Ball Bearings (9)

This complete set includes 8-5 x 11 and 1-5 x 8 precision ball bearings for the front wheels, rear axle and gearbox. These ball bearings replace the standard oilite bearings and provide reduced friction and better load handling characteristics



454421 Front Oil Shocks(2)

# 454422 Rear Oil Shocks (2)

Dual oil-filled, coil-over rear shocks eliminate the bounce of undamped springs. Improves traction over rougher surfaces. Use high viscosity oils for oval and pavement racing, lower for offroad



# 454423 Adjustable Control Links (2)

Threaded control arm linkage lets you quickly and easily adjust front wheel camber. Independently set camber to suit track, surface or personal preference.



A matched pair of oil-filled, coil-over front shocks landing and leaping stability for offroad racing. Oil-shocks allow you to change oil viscosity to adjust for hard or soft surfaces

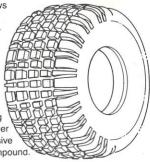


## 454425 PandaPaw Pavement Racing Front Tires (2)

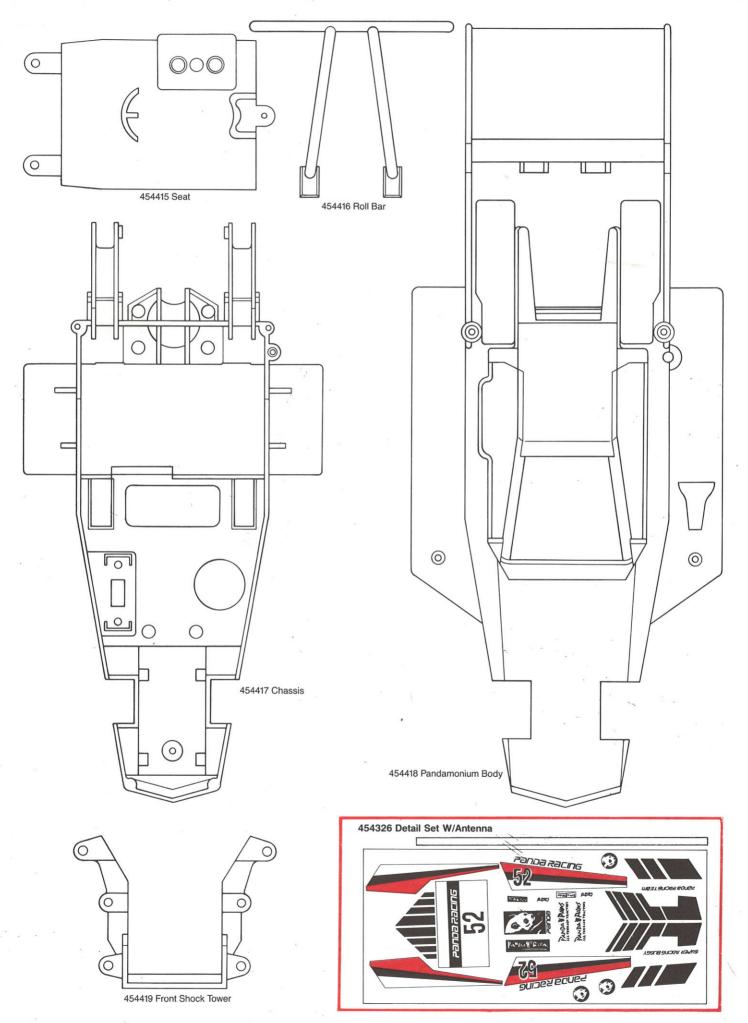
Drive around the competition with PandaPaws high speed, ribbed front tires. Excellent balance for oval and road racing, with very predictable cornering characteristics.



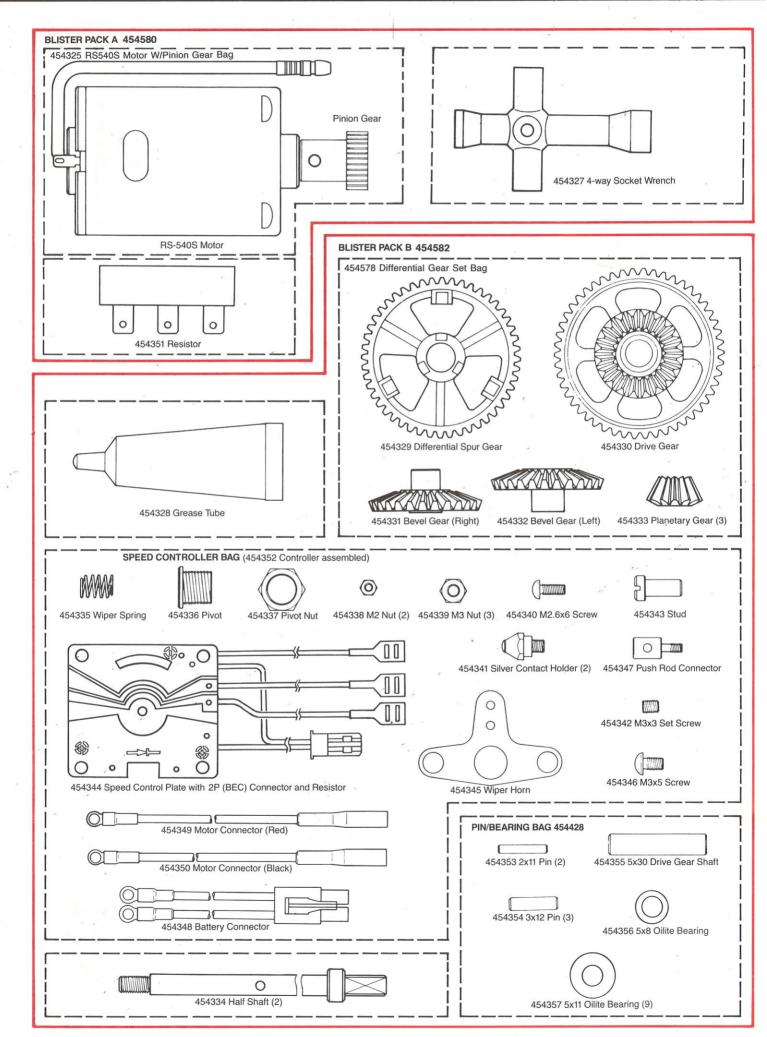
For hard-packed, high speed racing, nothing beats PandaPaws pavement pounders. Super grip for ovals and road racing with exclusive long wearing compound





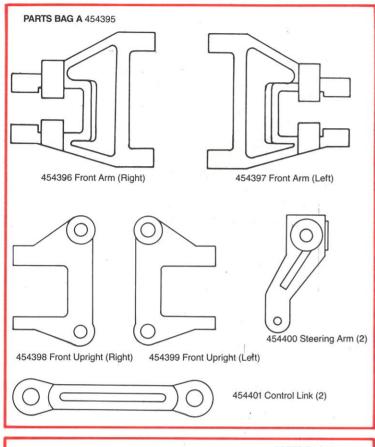


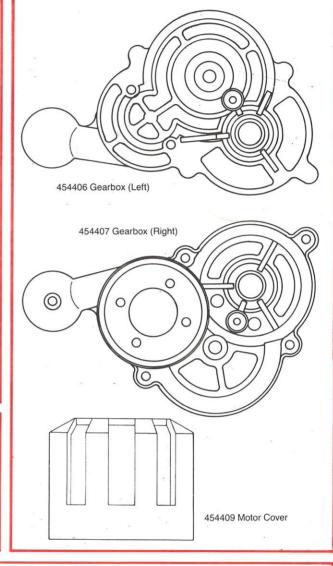


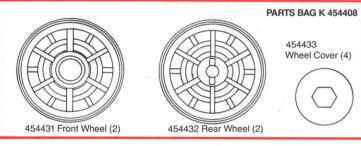


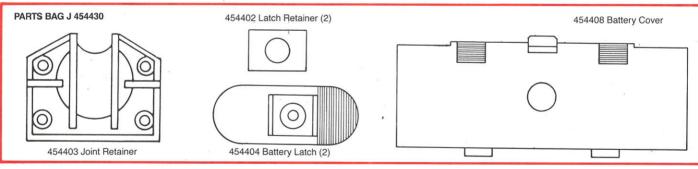
PARTS BAG C 454405

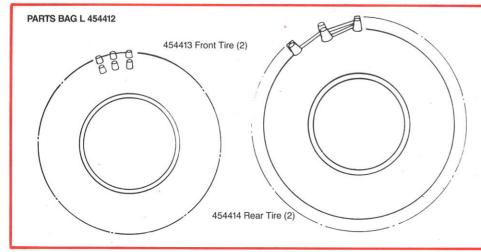


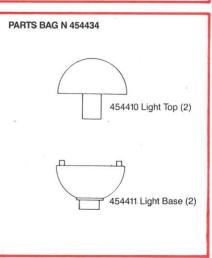




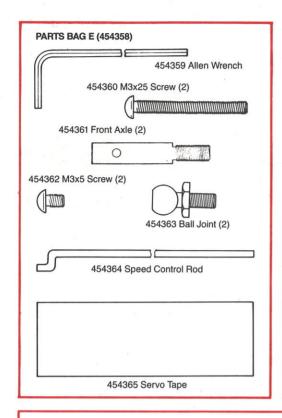




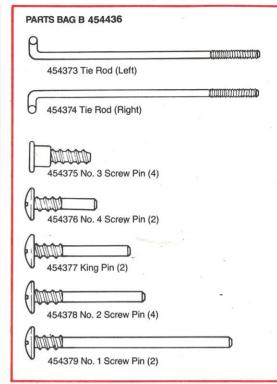




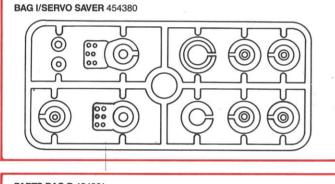


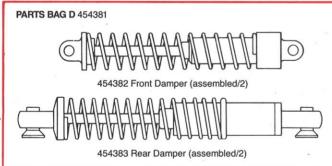


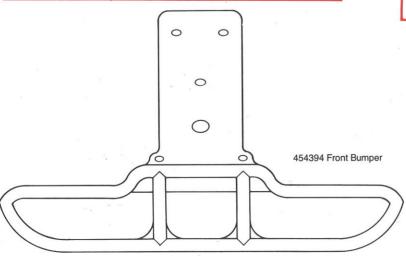


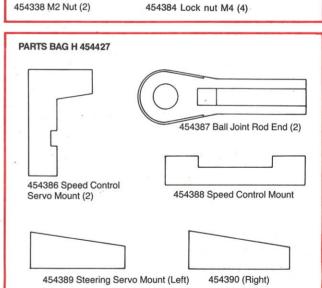


454385 Washer M3(13)









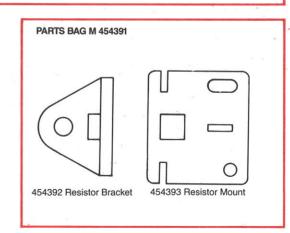
**PARTS BAG F** 454369

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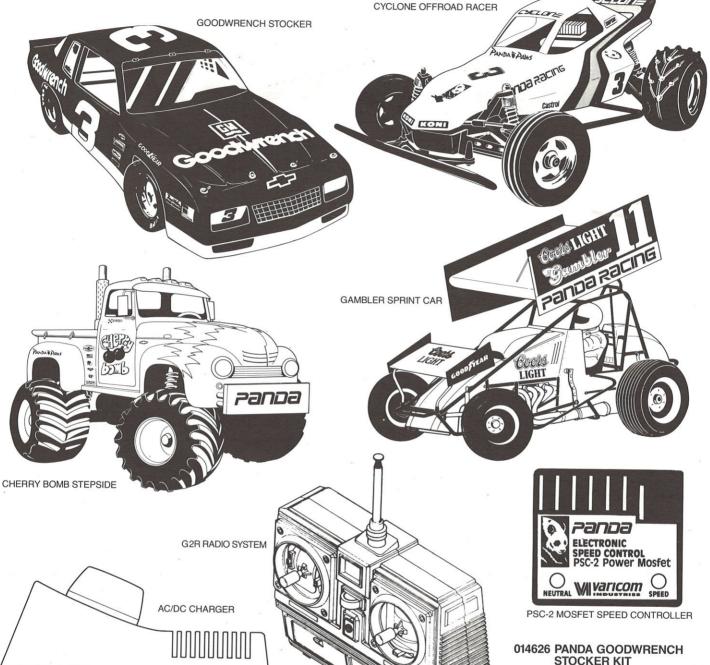
454338 M2 Nut (2)

454339 M3 Nut

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#### 014732 PANDA CHERRY BOMB STEPSIDE KIT

In the world of mud and monster trucks, the 1:10 scale Panda Cherry Bomb is a standout. Easy to build and quick, by virtue of its 2WD design, the Cherry Bomb tackles bogs and sledpulls with jumbo PandaPaw Puller tires and a heavy duty gearbox.

#### 025200 PSC-2 MOSFET SPEED CONTROLLER

Panda's PSC-2 MOSFET speed controller uses MOSFET design for high efficiency and reliability. The PSC-2 is proportional froward and comes wired and ready for installation. LED pulse checker unit is included.

## 014469 CYCLONE OFFROAD RACER KIT

Take a shortcut to the track with Panda's Cyclone, the 1:10 offroad racer that's really ready for racing. Oil-filled shocks, control link front suspension, alloy nerf bars, polycarbonate body and Panda-Paw All Terrain tires make the Cyclone a favorite of hard chargers.

# 020001 PANDA G2R RADIO SYSTEM

A high performance, dual-stick 2 channel radio system with BEC, R102J/2 channel receiver and two-S188/SMD servos. Servo reverse switches (2).

# STOCKER KIT

Our 1:10 scale version of National Champion Dale Ernhardt's Stock Car captures the look and speed of NASCAR competition. This Monte Carlo will strike fear in the mirrors of pavement and oval racers on RC raceways everywhere.

#### 014573 PANDA GAMBLER SPRINT **CAR KIT**

Join the good guys on the "Outlaw" trail with Panda's 1:10 scaled Gambler, Panda, a sponsor of Steve Kinser's National Champion sprint car, lets you build the only authorized and authentic RC version of his car.

### 081250 AC/DC CHARGER

Allows you to charge indoors or out. Built-in timer, trickle chargers and charge

Input: 12vDC/110vAC Charges: 7.2v/1200mAh NiCd

