Instruction Manual

1/8th scale radio controlled racing car

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Tools and Equipment

Thank you for selecting this HPI racing car! This kit is designed to be easy to build and uses top quality parts for durability and performance. The instruction manual you are reading was designed to be easy to follow yet thorough in its explanations. HPI Racing want you to enjoy both building and driving your new race car. If you come across any problems or need some help getting through a step, give us a call and we will do our very best to help you. You can also contact us on the internet at hpiracing.com.

Tools needed:

Box Wrench 5.5mm, 7mm
Phillips Screwdriver (S)
Phillips Screwdriver (L)
Needle Nose Pliers
C Clip Pliers

Large Pliers
Hobby Knife
Screwdriver
Cross Wrench
Super Glue (Thick type)

Included inside:

1.5mm Allen Wrench
2mm Allen Wrench
2.5mm Allen Wrench
5mm Allen Wrench
Z156 Gray Diff Lube
Z171 Shock Oil

Equipment needed:

Engine
Glow Fuel
Glow Igniter
Transmitter
On/Off Switch
SN-600 Battery Pack

Proceed requires a 21size on road engine. Starter box.

Servos
Receiver
**Observe These Cautions!**

To prevent any serious personal injury and/or damage to property, please be responsible when operating all remote controlled models. Extra attention is called for when operating any glow fuel powered model, such as the PROCEED. These models can exceed speeds of 65 mph (100km/h) and use highly poisonous and flammable fuels.

**CHOOSE THE RIGHT PLACE TO OPERATE YOUR R/C MODEL**

**Never** operate R/C models anywhere listed below:

1. On any public streets or highways - this could cause serious traffic accidents, personal injuries and/or property damage.
2. Near people or animals - never run your model anywhere using people or animals as markers or obstacles.
3. In hallways, alleys or any other restricted or confined areas that can cause personal injuries and/or property damage.
4. Anywhere where loud noises can disturb others, such as around hospitals or residential areas.
5. During the early morning or late night hours when visibility is limited and loud noise can disturb neighbors.
6. Indoors or around furniture - there could be a chance of the R/C model damaging the surface or any objects in the area.

**NEVER RUN ANY TYPE OF R/C MODEL IN THE VICINITY OF HEATING DEVICES OR OPEN FLAMES**

Glow fuel powered R/C models use highly flammable fuels. Do not smoke while operating or attempting to start a glow fuel powered R/C model, and do not run near open flames or heating devices doing so can cause explosions and/or serious accidents.

**OPERATE GLOW FUEL POWERED MODELS IN AN OPEN, WELL VENTILATED OUTDOOR AREA**

Glow fuel powered model engines emit poisonous vapors and gasses - these vapors irritate the eyes and can be highly dangerous to your health.

**NEVER USE GASOLINE**

Engines used in R/C models were specifically designed for use only with approved glow fuels. Non-approved fuels such as gasoline can cause explosions and serious personal injuries and/or property damage.

**GLOW FUEL ENGINE R/C MODEL OPERATING PROCEDURES**

Follow this set of rules to prevent "runaways":

1. Always have the R/C model atop a box or similar platform so that the tires do not touch the ground.
2. When starting, always turn on the transmitter first, then the receiver.
3. Before fueling or starting model, double check servos, trims, throttle linkage, brake, fuel tank, fuel lines and receiver battery pack voltage. Re-adjust or replace worn or defective parts.
4. Fill fuel tank slowly and carefully to avoid overflowing or spilling of fuel. Wipe any excess fuel off immediately. Tightly close fuel tank cap and ensure that it’s properly sealed.
5. We recommend you run the tank dry to turn off the engine. If you must stop before the tank is empty, properly discard the excess fuel in a safe container.
6. When stopping, always turn off the receiver battery pack first, followed by the transmitter.

**CERTAIN PARTS WILL BE VERY HOT**

With any engine powered vehicle, certain engine components get very hot during operation. Never touch the cylinder cooling head, muffler, or exhaust pipe - doing so could cause burns or other personal injuries.

**BE AWARE OF ROTATING PARTS**

When the engine is running, there are certain parts that rotate at high speeds. Do not touch the drive gears, belts, drive shafts, wheels, etc. during operation doing so could cause serious personal injuries.

**RADIO PRECAUTIONS**

Before every run, ensure that you are the only one operating on your particular frequency. Also check that the transmitter and receiver battery pack are sufficiently charged. Failure to do both could cause a loss of vehicle control and could result in serious personal injuries and/or property damage.

**FUEL TANK PRECAUTIONS**

Before every run, ensure that the fuel tank cap is tightly sealed. Fuel leaks can cause fires or explosions. Also, never transport or store an R/C model with fuel in the fuel tank. Doing so could result in personal injuries and/or property damage.

**GENERAL FUEL PRECAUTIONS**

Glow fuels contain Methanol and Nitro Methane - both highly flammable and poisonous chemicals. Avoid contact with eyes and skin. Never use glow fuel indoors - only in well ventilated areas. Glow fuel emits harmful vapors and can be hazardous to your health. Read all warning labels and instructions prior to use. Keep all fuel chemicals away from children.

Never use glow fuels in any other engine except those designed for use with glow fuels. Also, never substitute any other type of fuel in place of glow fuels - especially gasoline. Doing so could result in explosions and personal injuries and/or property damage.

**STORING GLOW FUEL**

Do not store glow fuel indoors or where children can easily access it. Instead, store glow fuel in a safe, well ventilated place, away from heating devices, open flames, direct sunlight or batteries. If glow fuel spills, wipe spill immediately to prevent any fire hazard. Do not store glow fuel in any other container than that which it came in. Keep glow fuels and any other dangerous chemicals away from children.

**IN CASE OF EMERGENCY**

Glow fuels are extremely dangerous when used improperly. Here are some first aid tips when using glow fuel:

1. If glow fuel is swallowed, induce vomiting and contact a physician immediately.
2. In case of eye contact, flush eyes thoroughly with warm (not hot) water and contact a physician immediately.
3. In case of skin contact, wash areas with warm (not hot) water and soap.
<table>
<thead>
<tr>
<th>Number</th>
<th>Part Description</th>
<th>Code</th>
<th>Part Description</th>
</tr>
</thead>
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<td>Cap screw M3x12</td>
<td>505351</td>
<td>Flat head screw M5x10</td>
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<tr>
<td>2546</td>
<td>Cap screw M5x15</td>
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<td>Z663</td>
<td>Lock nut M5</td>
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<td>Set screw M3x5</td>
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<td>Set screw M3x4</td>
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<td>Z721</td>
<td>Set screw M4x4</td>
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<td>Z723</td>
<td>Set screw M4x6</td>
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<td>Z726</td>
<td>Set screw M4x12</td>
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<td>Stud M5x15</td>
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<td>Z237</td>
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<td>Z224</td>
<td>Washer M3x25X0.5</td>
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<td>2625</td>
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<td>50546c</td>
<td>Washer M4x25X0.5</td>
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</tbody>
</table>
1. Assembling rear axle
リアアクスルの組立て

- Needle pin x 1
- C Clip Silver x 2

2. Gluing Brake pad
ブレーキパッドの接着

- 50471a x 2
- 50471b

Use coarse sand paper to make rough surface on both 50471a Brake pad and 50471b Brake pad plate. Glue them together with rubber cement. Make two.
50471Aブレーキパッド、50471Bブレーキパッドプレートの両方の表面を粗目のサンドペーパーで荒らします。
そして、ゴム系接着剤で張り合わせます。二つ作ります。
Assembling 2 Speed Transmission

2 スピードの組立て

Apply little amount of A157 Lube

グリスを少量付けます。
8. Assembling Rear bulk head
リアバルクヘッドの組立て

- Z247 E clip エクリップ 1
- Z721 Set screw M4X4 イモネナ 1
- B034 Ball bearing 6005 ボールベアリング 1
- B034 Ball bearing 1222 ボールベアリング 2

9. Assembling Rear suspension arms
リアサスペンションアームの組立て

- ZB18 Bailer head screw M5X2 バイレーオーソーケア 4
- 50463 Tie rod end ball ダイロットエンドボール 2
- 50539a Ball 7.8 Rear upper arm ボール7.8リアアップパーアーム 2
- 50538a Ball 7.8 Rear upper arm ボール7.8リアアップパーアーム 2
- 50539d Spacer rear upper arm スペーザーリアアップパーアーム 2
- 50511 Shock pivot ball ショックピボットボール 2
10 Attaching Suspension arms
リアサスペションの組立て

- Z721 Set screw M4X4 イモネラ 2個
- Z726 Set screw M4X02 イモネラ 2個
- 50545a Pivot pin rear upper ビポットピンリアアッパー 2個
- 50545b Pivot pin rear lower ビポットピンリアローラ 2個
- Z500 Flat head screw M3.5X64 4個 サラウピンソングナップ

11 Assembling Rear upright
リアアップライトの組立て

- 5054 Ball bearing 10X22 ボールベアリング 4個
- Z266 Needle pin 5X22 ニードルピン 2個
- Z700 Set screw M3X6 イモネラ 2個
- Z700 Set screw M3X6 イモネラ 2個

Make two.
ふたつ作ります。
12 Attaching Rear upright
リアアップライトの取付け

- Z200 TP Flat head screw M3.5x6.04 x 4
- 5053b Pivot bushing 1 x 2
- 5053c Pivot bushing 2 x 2
- Z568 Flat head screw M3x20 x 2

Apply little amount of Z56 GRAY Lube
グリスを少しつけて。

13 Assembling Rear body mount
リアボディマウントの組立て

- Z200 TP Binder head screw M3x22 x 2
- Z519 Binder screw M3x15 x 1
- Z242 E-clip E-2 x 6
- Z544 Cap screw M3x12 x 2
- 5053b Rear body mount pivot pin 3024 x 2
- 5053c Rear body mount pivot pin 3036 x 2
14  Assembling Rear stabilizer
リアスタビライザの組立て

- Z700  Set screw M3x5 x 2
- A153  Stud M3x15 x 2

15  Attaching rear end
リア周りの取付け

- Z500  TP Flat head screw M3x5x.4 x 2
- Z567  TP Binder head screw M3x10 x 2
- Z578  TP Flat head screw M3x42 x 2
- Z644  TP Flat head screw M4x105 x 6
Assembling Front suspension arms
フロントスプリングの組立て

- Z243: Clip E-3
  x 4
- Z545: Cap screw M3x15
  ギャップネジ
  x 2
- Z721: Bolt screw M4x4
  イモネジ
  x 2
- 50544a: Pivot pin front upper
  ピボットピンフロントアップ
  x 2
- 50544b: Pivot pin front lower
  ピボットピンフロントローラー
  x 2
- 50511: Shock pivot ball
  ショックビボットボール
  x 2
- Z504: Ball bearing 12x22
  ボールベアリング
  x 2
- Z500: TF Flat head screw M3x6
  サラサッピングネジ
  x 6

Assembling Front bulk head
フロントバルクヘッドの組立て
20 Assembling Center pullies
センターフーリーの組立て

21 Assembling Middle block
ミドルブロックの組立て
22 Assembling Steeringblocks
ステアリングブロックの組立て

23 Attaching Steering blocks
ステアリングブロックの取付け

Apply little amount of Z156 GRAY Lube

Grasを少しつけます。

Attach Left and Right steering block

左右のステアリングブロックを取付けます。
26 Attaching Front bumper
フロントバンパーソの取付け

27 Assembling Front body mount
フロントボディマウントの組立て

28 Attaching Front body mount
フロントボディマウントの取付け
Shock assembly (Make 4 shocks)
ショックアブソーバーの組立て（4本作ります）

Front shocks
フロントショックアブソーバー
Use No.4 Piston
No.4ピストンを使います。

Rear shocks
リアショックアブソーバー
Use No.5 Piston
No.5ピストンを使います。
Move the shaft up and down to remove bubbles, then put on the bladder and cap.

Screw the ball cup all the way onto the shock shaft.

Z171 Shock oil 35W
35W

50449

6814

50135-12

67mm
Attaching Shocks
ショックアブソーバーの取付け

Z701  Set screw M3x4

Z268  Needle pin Z422

51054  Front spring
short
フロントスプリング
(短)

50135-3

51064  Rear spring
long
リアスプリング
(長)

Front shocks
フロントショック

Rear shocks
リアショック

23
Mounting Receiver Battery Pack and Tensioner

Mount Battery Pack with straping tape

Mount Receiver with servo tape and straping tape

- Z518: Binder head screw M3x13 x 1
- Z567: TF Binder head screw M3x10 x 6
- B024: Ball bearing E1005 x 2
- Z564x: Washer M3x10x0.5 x 1
- Z564x: Washer M3x10x0.5 x 1
Mounting Radio plate

**Attaching side belt**

---

**Diagram 35:** Mounting Radio plate

**Diagram 36:** Attaching side belt
Assembling Clutch system

Apply little amount of Z156 Red cap lube on Z266 Needle pin 2x15
Z156赤キャップグリスを
Z266ニードルピン2X15
に少量塗ります。

Glue Z265 Needle pin 2x5
on 50437 Clutch shoe plate
with Super glue.
Z265ニードルピン2X5を50437
クラッチシューフレートに瞬間接着剤で
固定します。

IMPORTANT!! 重要!!
See set up sheet to adjust clutch system
クラッチの調整は、別図のセットアップシートをご覧ください。

27
38. Attaching engine mount
エンジンマウントの取り付け

Note: Left and Right
左右があります。

39. Mounting engine
エンジンの取付け

50535b  Flat head screw M5x10
サクネジ M5x10  x 4
Assembling linkage

- Binder head screw M3x10
  - バインドネジ M3x10
  - x 2

- Set screw M3x3
  - イモネジ M3x3
  - x 3

- Binder head screw M2.8x8
  - バインドネジ M2.8x8
  - x 1

- Binder head screw M3x6
  - バインドネジ M3x6
  - x 2

- Cut piece of fuel line (Approx. 15mm)
  - 燃料チューブをカットして使用します。
  - (約15mm)
41 Attaching Muffler pipe

Muffler pipe, Header are not included in this kit.

42 Attaching Fuel line, airfilter

Fuel line 70mm
Pressure line 160mm

Airfilter is not included in this kit.
43 Mounting Tires
Use thick superglue
粘度の高い瞬間接着剤で接着します。

Use coarse sand paper to make rough on gluing surface.
ホイールの接着面を粗いサンドペーパーできすつけます。

44 Mounting Body
ボディの搭載

Cut shaded area to mount body.
グレーの部分をカットします。
<table>
<thead>
<tr>
<th>Date</th>
<th>Race</th>
<th>Engine</th>
<th>Fuel</th>
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</thead>
<tbody>
<tr>
<td>Weather</td>
<td>Mechanic</td>
<td>Head clearance</td>
<td>Track</td>
</tr>
<tr>
<td>Driver</td>
<td>Best lap</td>
<td>Plug</td>
<td>Traction</td>
</tr>
<tr>
<td>Track</td>
<td>Position</td>
<td>Muffler</td>
<td>Radio</td>
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</table>

**Chassis data**

<table>
<thead>
<tr>
<th>Front track-w</th>
<th>253 mm</th>
<th>mm</th>
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<tbody>
<tr>
<td>Road clearance</td>
<td>mm</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Camber in</td>
<td>-1.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front toe-in</td>
<td>0 ~ -1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front tire</td>
<td>HPI 35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diameter</td>
<td>69</td>
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<tr>
<td>Rear track-w</td>
<td>263 mm</td>
<td>mm</td>
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<tr>
<td>Road clearance</td>
<td>mm</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Camber in</td>
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</tr>
<tr>
<td>Rear toe-in</td>
<td>1.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rear tire</td>
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</tr>
<tr>
<td>Diameter</td>
<td>76</td>
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<tr>
<td>Front bottom-stop</td>
<td></td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Front up-stop</td>
<td>0 mm</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Rear bottom-stop</td>
<td>mm</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>Rear up-stop</td>
<td>6 mm</td>
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<tr>
<td>Front caster position</td>
<td>3 mm</td>
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<tr>
<td>Rear upper arm shim</td>
<td>2 mm</td>
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<tr>
<td>Front stabilizer</td>
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</tr>
<tr>
<td>Spring adjuster position</td>
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<td>mm</td>
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<tr>
<td>Piston</td>
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<td>18 / 49</td>
<td>/</td>
<td>/</td>
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<tr>
<td>2 speed 2nd gear</td>
<td>21 / 46</td>
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<td>4WD side pulley</td>
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<tr>
<td>Body</td>
<td>M5 LOLA</td>
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<tr>
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<td>20 mm</td>
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<tr>
<td>Spoiler position</td>
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**PROCEED CLUTCH DATA**

**Spring adjust position**

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<th>Option Setup</th>
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**Clutch bell clearance**

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<th>Option Setup</th>
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<tbody>
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<td>0.3 mm</td>
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</tbody>
</table>

**Clutch shoe type**

- 50475 Black (stock)
- 50476 Yellow

Remove one of the BO21 ball bearing (inside one) when checking clearance.

**Assembly Instructions**

1. Use taper cone which come with engine.
2. Check distance from top of the pilot nut to the end of shafts.
3. Put BO445 flyweight to BO024 flyweight retainer with BO66 Needle pins (5).
5. Use thick grass or super glue to keep them in place.
6. Put BO460 Clutch spring and BO436 Clutch spring adjust nut.
7. Use Thread lock and check the distance.
8. Assemble clutch bell and Thrust bearing without inside ball bearing.
10. Check the gap between BO37 Thrust bearing and BO438 Thrust bearing flange pipe.

**Final Step**

Clutch is ready.