The Serpent 733 is a complete new platform for the 200mm category of racing. It’s the next phase of evolution of Serpent’s hugely-successful 200mm chassis lineage, combining ultimate performance into a single package.

The Serpent 733 is designed to be a world champion, while still being easy to use, assemble, and set up. You are now part of the worldwide network of Serpent drivers, which gives you superior technical support and access to many benefits that only Serpent drivers can enjoy.

The Serpent 733 offers state of the art specifications and leads the way in 200mm chassis design, using all the knowledge we have from 1/8 scale racing into this design too. Continuously pushing the performance envelope, Serpent’s engineers have added many new and innovative features that can help take your Serpent 733 into the winner’s circle: new geometry, roll-centers and weight balance, combined with new open and very accessible design. A complete new platform.

INSTRUCTIONS
Serpent’s long tradition of excellence extends to their instruction manuals, and this instruction manual is no exception. The easy-to-follow layout is richly illustrated with 3D-rendered full-color images to make your building experience quick and easy. Following the instructions will result in a well-built, high-performance racecar that will soon be able to unleash its full potential at the racetrack.

This instruction manual has been divided into sections that will logically lead you through the assembly process of your Serpent 733. Follow the assembly steps in the order presented to ensure that no problems occur during assembly. Each step indicates all the fasteners and small parts used. Bag numbers identify the kit bag(s) that contains the appropriate parts.

EXPLODED VIEWS AND PARTS LIST
The exploded views and parts lists for the Serpent 733 are included in the back of this manual. The exploded views show all the parts of a particular assembly step along with the Serpent part number. The parts lists indicate the part number and name of each part for easy reference when ordering.

SAFETY
Included with your Serpent 733 kit is a document entitled ‘Read This First’ that covers safety precautions for the assembly and use of this product. We strongly recommend that you thoroughly read and understand that document, and follow all the precautions.

CONTENTS

<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRONT ASSEMBLY</td>
<td>4</td>
</tr>
<tr>
<td>DIFFERENTIAL ASSEMBLY</td>
<td>6</td>
</tr>
<tr>
<td>REAR ASSEMBLY</td>
<td>12</td>
</tr>
<tr>
<td>RADIO PLATE ASSEMBLY</td>
<td>19</td>
</tr>
<tr>
<td>GEARBOX ASSEMBLY</td>
<td>29</td>
</tr>
<tr>
<td>CENTAX ASSEMBLY</td>
<td>31</td>
</tr>
<tr>
<td>FINAL ASSEMBLY</td>
<td>35</td>
</tr>
<tr>
<td>REFERENCE GUIDE</td>
<td>37</td>
</tr>
</tbody>
</table>
USING THE MANUAL

Each step contains a variety of numbers, lines, and symbols. The numbers represent the order in which the parts should be assembled. The lines and symbols are described below.

1. Step number; the order in which you should assemble the indicated parts

2. Length after assembly

3. Assembly path of one item into another

4. Group of items (within lines) should be assembled first

5. Direction the item should be moved

6. Glue one item to another

7. Press/Insert one item into another

8. Connect one item to another

9. Gap between two items

GR, TL, CA, OW

Apply graphite grease (GR), threadlock (TL), CA glue (CA) or One-way Lube (OW). (Items not included.)

SERPENT.COM

The printed instruction manual included with your Serpent 733 kit is very complete, though due to continuous product development, more up-to-date information may be provided at our Serpent.com website.

All information about the Serpent 733 is accessible from the Serpent 733 product page which can be found on Serpent.com and can be accessed by simply typing serpent.com/804000 into your web browsers address bar.

From the Serpent 733 product page you will find the very latest information about your Serpent 733: reports by team drivers and other experts, tips and tricks, setups, image gallery and downloadable files including the latest version of the instruction manual will be made available as downloadable PDF-files.
Tighten all screws step by step to close the differential.
check type and position

Note Orientation of eccentric

width thread 2.5x10

M3x10
Assemble L & R linkages

1. Bag 8

M3x3

2. Bag 8

3. Bag 8

Assemble L & R linkages
Assemble L & R linkages

Note the orientation of the servo mounting screw blocks, reverse the default orientation to mount smaller servo

Use of spacers depends on brand of servos

NOT INCLUDED

Page 20
NOT INCLUDED

Cut off one ear
1. Unscrew the bottom half of the pre-assembled shock absorbers.

2. **FILLING**
   Fill the shock body with the supplied shock absorber oil.

**BLEEDING**
Let the oil settle and allow the air to escape. Slowly move the piston up and down to release any trapped air bubbles. Repeat as necessary until no bubbles appear.

With the shock body filled with oil, slowly screw the bottom half of the pre-assembled shock back onto the shock body.

**IMPORTANT!** Do not cross thread!

Oil will overflow through the built-in bleed channel in the threads.

13mm
GEARBOX ASSEMBLY

Turn in both screws all the way, then turn back-up 4 turns.

1st Gear
IMPORTANT! Use the cone that comes with your engine
Large inner dia.

Small inner dia.

**IMPORTANT!** Install thrust bearing plates as shown.

5.2mm 5.0mm

M3x16

M3x16
ADJUSTING THE CLUTCH GAP

1. Install only the clutchbell and the thrustbearing assembly on the engine crankshaft. Push the clutchbell onto the clutch shoe, and then measure the distance A as indicated.

2. Pull the clutchbell away from the clutch shoe, and then measure the distance B as indicated.

3. The clutch gap is A – B; the correct gap is 0.7mm. If the clutch gap is greater than 0.7mm, you can easily calculate the thickness of shims required to set the correct gap:

   Thickness of shims required (in mm) = A – B – 0.7

   For example, using the values A=1.3mm, B=0.3mm
   Shim thickness = 1.3 – 0.3 – 0.7 = 0.3mm

4. Place shims between the outer thrustbearing plate and the rim of the thrustbearing carrier as shown.
ART. DESCRIPTION

804000 Serpent 733 1/10 4WD KIT

MANUAL & DECALS

804000 SERPENT 733 1/10 MANUAL & DECALS

804000 SERPENT 733 1/10 MANUAL, DECALS

804183 Manual / ref guide 733

804182 Decal sheet 733 (2)

1886 Decal serpent black/white 1/10 (2)

1888 Decal serpent chrome 1/10 (2)

RADIO INSTALLATION / BATTERY

1070 Grommet rubber soft (4)

1639 Collar alu 2.1+setscrew (4)

804136 Battery holder

804137 Radioplate 733

804151 Receiver box

804154 Servo levers steering (3)

804155 Servo levers throttle (3)

804156 Brake lever / battery spacers

804158 Servo mount spacers

804159 Servo mount 3mm

804162 Radioplate support (2)

804161 Throttle spring (2)

SERVO SAVER AND STEERING

1650 Balls 6mm / imbus (4)

802260 Track-rod 47mm L+R (2)

802261 Track-rod 47mm L+R Titan (2) Optional

804120 Servo saver axle

804124 Servo saver Spring

804130 Servo saver nut

804131 Servo saver shaft

804154 Servo levers steering (3)

804157 Servo saver set nylon

902138 Rod 23mm set (2)

903231 Balljoint set 14+6+2

FUEL TANK AND PARTS

1434 Pressure nipple angled

1437 Seal shaped for fuelcap (2)

1438 Fuelcap AFL white shaped seal

1493 Nipple brass m3 (4)

1602 Body clips small (10)

804149 Tank inserts frame

804172 Tank 733 75cc

804178 Tank-support alu+rubber cover (3)

804179 Covers rubber tankmount (2)

SHOCK ABSORBERS

804187 Oil set 733 diff-shock (3)

903166 Rod shockabsorber short (2)

903168 Frame shockabsorber nylon

903226 Rod shockabsorber short Ti-Ni (2) Optional

903232 Shockwash alu light (4) Optional

903175 Foam insert (4)

903177 Shocknut alu (2)

903178 Housing shock alu short (2)

903186 C+g-clip/washer RCC shock 12 (2)

903332 Shock RCCX revision set

903333 X-ring RCCX shock (10)

903334 Shock-set RCCX short (2)

903336 Insert RCCX 2009 shock (2)

903347 Balljoint short shock (4)

SHOCK SPRINGS

160300 Spring white L23 (2.3/13) (2)

160301 Spring yellow L23 (2.8/16) (2)

160302 Spring orange L23 (3.4/19.5) (2)

160303 Spring red L23 (4.1/23.5) (2)

160304 Spring pink L23 (4.0/28) (2)

160305 Spring blauw L23 (5.8/33) (2)

160306 Spring paars L23 (6.8/39) (2)

160307 Spring groen L23 (8/45.5) (2)

160308 Spring grijs L23 (9/51.5) (2)

160309 Spring black L23 (10/57) (2)

160310 Spring-set L23 (5x2)

CHASSIS / RADIO PLATE

804135 Chassis 733 3mm

804137 Radioplate 733 carbon

804162 Radioplate support (2)

BODYMOUNTS FR and RR

1667 Body clip medium (10)

802211 Bodymount adjustable front (3)

802212 Body-mount alu (2 long+1short) Optional

802361 Bodymount adjustable rear (2) Optional

802362 Body-mount alu short rear (2) Optional

804164 Bodyplate front

804165 Bumperplate

FRONT SECTION

1650 Balls 5.8mm / setscrews hex (4)

411048 Adjust Nut for Front Suspension

411063 Pivot Ball Upper Suspension Arm

801218 Wheeladaptor FR alu (2)

801219 Ball 8.5mm alu short (4)

802260 Track-rod 47mm L+R (2)

802261 Track-rod 47mm L+R Titan (2) Optional

802335 Arb ball 3mm (2)

803240 Cvd shaft-set complete pro (2)

803241 Cvd driveshaft pro (2)

802352 Cvd insert (2)

802354 Pin 3x9.8mm (4)

803134 Spacer arb RR 720 (2)

803198 Adj nut nylon (10)

803212 Steeringblock 1 degr. L+R

803211 Steeringblock 0 degr. L+R Optional

804100 Belt Front 40S3M195 Orange Optional

804104 Belt Front 40S3M195 Low Friction

804110 Wishbone front lw L+R

804111 Wishbone front up L+R

804115 Exhaust mount spring

804117 Pivot pin fr lw (2)

804118 Pivot pin fr up (2)

804119 Bumper 733 foam (2)

804120 Servo saver axle

804121 Shaft middle

804134 Bracket middle axle

804138 Shocktower front

804141 Antirroll bar fr 1.8mm

804142 Antirroll bar fr 2.2mm Optional

804143 Antirroll bar fr 2.5mm Optional

804144 Antirroll bar fr 2.8mm Optional

804177 Antirrollbar set front (4) Optional

804145 Exhaust spring mount

804147 Diff pully front

SERPENT 733 PARTS LIST
804153 Eccenters front
804154 Servo levers steering (3)
804160 Bearing bracket upper fr
804161 Suspension bracket fr L+R
804164 Bodyplate front
804165 Bumperplate
804166 Bearingblock fr L
804167 Bearingblock fr R
804170 Suspension bracket fr
808214 Spacer-set caster
902138 Rod 23mm set (2)
903231 Balljoint set 14+6+2

MIDDLE SECTION
804101 Belt Side 40S3M378 Orange
804104 Belt Front 40S3M195 Low Friction Optional
804113 Pulley middle (2)
804123 Belt tensioner
804149 Tank inserts frame
804150 Rollbar 733
804162 Radioplate support (2)
804163 Chassis stiffner
804170 Suspension bracket fr
804172 Tank 733 75cc
901255 Belt tensioner set
903316 Bearingblock-2sp-r 966
903317 Bearingblock-2sp-l 966

REAR SECTION
1647 Balls 6mm (4)
1650 Balls 6mm / imbus (4)
801218 Wheeladaptor FR ipu alu (2)
802332 Driveshaft (2)
802335 Arb ball 3mm (2)
803134 Spacer arb RR 720 (2)
803135 Arb RR 2.5mm
803168 Arb RR 2.3mm  Optional
804102 Belt Rear 40S3M186 Orange
804106 Belt Rear 40S3M186 Low Friction Optional
804108 Upright 733
804112 Pulley 2sp shaft (2)
804113 Pulley middle (2)
804114 2-speed shaft
804121 Shaft middle
804147 Diff pulley rear
804171 Geardiff uni 733
804173 Geardiff revisionset
804174 Geardiff housing
804176 Geardiff x-ring (4)
804187 Oil set 733 diff-shock (3)
804188 Gear diff outdrive (2)
901255 Belt tensioner set

BRAKE SYSTEM
9612 Special ventilated brake-disk
804156 Brake lever / battery spacers
804169 Brakepully adaptor
804180 Brake / throttle wires (2)
903304 Brake plate (2)
903316 Bearingblock-2sp-r 966
903317 Bearingblock-2sp-l 966
903318 Brake cam 966
903319 Brake bushing (2)
903324 Brake spring (2)
903330 Brakeplate / pad set

2-SPEED GEARBOX
1320 Ballbearings 6x10 flanged (2)
1342 Ballbearing 6x13 hs (2)
9638 Spacer 2-speed alu
802400 2-speed LC (light compact) set
802403 Spring 2-speed soft (2)
802404 2-speed clutch shoes set LC
803222 Gear 2-speed wc (2e) 54T
803223 Gear 2-speed wc (2e) 55T
803224 Gear 2-speed wc (2e) 56T
803225 Gear 2-speed wc (1e) 59T
803226 Gear 2-speed wc (1e) 60T
803227 Gear 2-speed wc (1e) 61T
902411 Driveflange with onway
902412 Adaptor 2-speed LC
902413 Flange 2-speed LC
902420 Rol-pin 5x5mm 2-speed LC (2)

CLUTCH SYSTEM
1311 Ballbearings 5x8x4 (2)
1315 Ballbearings 5x10x4 (2)
1377 Axial bearing 5x10
1388 Thrust-bearing 5x10 ceramic Optional
6503 Conus flywheel 7mm long (3)
6582 Centax clutchnut
6583 Centax adj nut
6586 Centax coilspring
802505 Centax-3 spring cup
802507 Centax-3 flyweights (3)
802509 Centax-3 clutch-shoe yellow
803205 Centax-3 clutch-shoe red Optional
803201 Centax supportwasher alu
803208 Centax-3 flywheel 31mm
803330 Centax-3wc clutch-set
803231 Centax-3wc clutchhousing
803233 Centax-3wc gear alu 16T
803234 Centax-3wc gear alu 17T
803235 Centax-3wc gear alu 18T
803236 Centax-3wc gear alu 21T

TRANSMISSION
801215 Wheelaxle
801218 Wheeladaptor FR alu (2)
802332 Driveshaft (2)
803240 Cvd shaft-set complete pro (2)
803241 Cvd driveshaft pro (2)
802352 Cvd insert (2)
802354 Pin 3x9.8mm (4)
804100 Belt Front 40S3M195 Orange
804101 Belt Side 40S3M378 Orange
804102 Belt Rear 40S3M186 Orange
804104 Belt Front 40S3M195 Low Friction Optional
804105 Belt Front 40S3M378 Low Friction Optional
804106 Belt Rear 40S3M186 Low Friction Optional
804112 Pully 2sp shaft (2)
804113 Pully middle (2)
804114 2-speed shaft
804121 Shaft middle
804147 Diff pully front
804184 Front one-way axle set Optional
804185 Front solid axle Optional
804148 Diff pully rear
804171 Geardiff uni 733
804173 Geardiff revisionset
804174 Geardiff housing
804176 Geardiff x-ring (4)
804187 Oil set 733 diff-shock (3)
804188 Gear diff outdrive (2)
901255 Belt tensioner set
<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>803237</td>
<td>Centax-3wc gear alu 22T</td>
</tr>
<tr>
<td>803238</td>
<td>Centax-3wc gear alu 23T</td>
</tr>
<tr>
<td>909516</td>
<td>Centax II spacer axialbearing</td>
</tr>
<tr>
<td>909519</td>
<td>Shim centax 5x08x0.1(2)x0.3(1)</td>
</tr>
</tbody>
</table>

**ENGINE MOUNTS**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>804125</td>
<td>Engine mount top (uni)</td>
</tr>
<tr>
<td>804125</td>
<td>Engine mount top</td>
</tr>
<tr>
<td>804126</td>
<td>Engine mount lw rr</td>
</tr>
<tr>
<td>804127</td>
<td>Engine mount lw fr</td>
</tr>
<tr>
<td>804189</td>
<td>Engine mount top (sirio)</td>
</tr>
</tbody>
</table>

**BALL-BEARINGS**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1311</td>
<td>Ballbearings 5x8x4 (2)</td>
</tr>
<tr>
<td>1312</td>
<td>Ballbearing 5x8 mm flange</td>
</tr>
<tr>
<td>1315</td>
<td>Ballbearings 5x10x4 (2)</td>
</tr>
<tr>
<td>1320</td>
<td>Ballbearings 6x10 met flange</td>
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<tr>
<td>1342</td>
<td>Ballbearing 6x13 hs (2)</td>
</tr>
<tr>
<td>1344</td>
<td>Ballbearing 10x15 hs (2)</td>
</tr>
<tr>
<td>1346</td>
<td>Ballbearing 12x18 hs (2)</td>
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<tr>
<td>1377</td>
<td>Axial bearing 5x10</td>
</tr>
<tr>
<td>401134</td>
<td>Ballbearing 4x7 (2)</td>
</tr>
</tbody>
</table>

**FASTENING MATERIALS**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1646</td>
<td>Steel balls 6mm M3 (4)</td>
</tr>
<tr>
<td>1647</td>
<td>Steel balls 6mm (4)</td>
</tr>
<tr>
<td>1650</td>
<td>Balls 6mm/setscrew hex (4)</td>
</tr>
<tr>
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<td>E-clip 5.0 (10)</td>
</tr>
<tr>
<td>110304</td>
<td>E-clip 7.0 (10)</td>
</tr>
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<td>110402</td>
<td>Nut nylock M3 (10)</td>
</tr>
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<td>110129</td>
<td>Screw allen cylinderhead m3x10 (10)</td>
</tr>
<tr>
<td>110107</td>
<td>Screw allen cylinderhead m3x16 (10)</td>
</tr>
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</tr>
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</tr>
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<td>110104</td>
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</tr>
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</tr>
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</tr>
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<td>Setscrew allen m3x12 (10)</td>
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<td>Setscrew allen m3x3 (10)</td>
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<td>110401</td>
<td>Washer 3.2x7 (10)</td>
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<td>110404</td>
<td>Washer 6x8x0.3 (10)</td>
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<td>801217</td>
<td>Wheelnut m4 flanged</td>
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<td>804186</td>
<td>Screw set 733 (196)</td>
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</table>

**MERCHANDISING**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1872</td>
<td>Rucksack Serpent (35x45cm) black</td>
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<tr>
<td>1873</td>
<td>Rucksack Serpent (48x61cm) black</td>
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<tr>
<td>1883</td>
<td>Banner Serpent S-logo 2x1m nylon</td>
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<tr>
<td>190100</td>
<td>T-shirt Serpent black (S)</td>
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<tr>
<td>190101</td>
<td>T-shirt Serpent black (M)</td>
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<tr>
<td>190102</td>
<td>T-shirt Serpent black (L)</td>
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<td>190103</td>
<td>T-shirt Serpent black (XL)</td>
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<td>190104</td>
<td>T-shirt Serpent black (XXL)</td>
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<td>190110</td>
<td>Sweater hooded Serpent black (S)</td>
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<td>190111</td>
<td>Sweater hooded Serpent black (M)</td>
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<tr>
<td>190112</td>
<td>Sweater hooded Serpent black (L)</td>
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<tr>
<td>190113</td>
<td>Sweater hooded Serpent black (XL)</td>
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<td>Sweater hooded Serpent black (XXL)</td>
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<tr>
<td>1980</td>
<td>Large bag Serpent</td>
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<tr>
<td>1998</td>
<td>Serpent Cap black/orange</td>
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