Thank you for purchasing the Tekno RC EB48.4 1/8th Scale 4WD Competition Electric Buggy Kit. We are always working on new projects, so please check our website at [www.teknorc.com](http://www.teknorc.com) or our Facebook page at [www.facebook.com/teknorc](http://www.facebook.com/teknorc) regularly for the latest news, parts, and kits.

Take your time! When you work your way through these building instructions, keep an eye out for the following important indicators below:

- **RED TEXT** - *This indicates important areas of the build process that should be observed.*

- **Thread Lock icons**
  
  Thread lock is always used when a screw is inserted into any metal part. (Included with kit)

- **Grease icons**
  
  Grease is usually used on areas with movement and for sealing. (Included with kit)

- **YOUTUBE** - *We also have many useful build videos on Youtube, so be sure to check these out!*
  
  [https://www.youtube.com/c/teknorc](https://www.youtube.com/c/teknorc)

**Additional equipment and parts needed:**

- Paint for body
- 1/8th scale ESC and motor system
- High torque steering servo (at least 300 oz/in)
- 4s (4 cell, 14.8v) LiPo battery (at least 5000mAh)
- 1/8th scale tires, wheels & CA glue (or premounts)
- MOD1 Pinion 15 tooth - 25 tooth (TKR4175 - TKR4185)

**Tools needed:**

- Hex drivers 1.5mm (TKR1104), 2.0mm (TKR1105), 2.5mm (TKR1106)
- Nut drivers 5.0mm (TKR1107, 5.5mm (TKR1108), 7.0mm (TKR1109)
- Hobby knife
- Needle-nose pliers
- Shock tool (TKR1115) OR adjustable (Crescent) wrench (for shock assembly)
- 17mm Wheel Wrench (TKR1116)
- 4mm turnbuckle wrench (TKR1103) - 5.5/7.0 two sided wrench (TKR1119)
- 4mm arm reamer (or #19 drill bit)

**Disclaimer:** Tekno RC is not responsible or liable for any property or personal damage, loss, or injury incurred as a result of using this product. This kit is meant for use by persons 14 years of age or older and in the strict confines of a legally permitted RC track or facility.

**Warnings:** Always double-check that your radio gear is working properly before operating vehicle. Never operate the vehicle indoors (unless the RC track is an indoor facility). Use caution while operating vehicle so as not to collide with people who may be turn marshalling or who might otherwise not be aware that a fast moving RC vehicle is in the vicinity.

**Warranty:** We warrant that the parts included in this kit are free from defects. If you find a defective part in your kit, please contact us at info@teknorc.com and we will help you to resolve the issue. We do not warrant parts that may be broken during operation of the vehicle or otherwise. Refer to the end of this instruction manual for a listing of spare/replacement and option parts. All spare parts and other info are available on our website ([www.teknorc.com](http://www.teknorc.com)) and through our network of domestic and international dealers and distributors.
Apply grease to the groove where the o-ring is placed as well as the o-ring itself.

Apply grease to the groove in the outdrive.

Fill with 10,000 wt oil to 1mm below full. DO NOT OVERFILL.

TKR1325
M3x14mm Flat Head Screw x4

TKR5144
Differential O-rings x2

TKR5145B
Differential Shims (6x17mm) x2

TKRBB08165
Ball Bearing (8x16x5mm) x2

Step A-1

Step A-2

Step A-3

Step A-4
**Bag B**

**Front and Rear Differential (Overview)**

- Fill FRONT with 10,000 wt oil
- Fill REAR with 7,000 wt oil
to 1mm below full
- DO NOT OVERFILL

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**Step B-1**

Repeat for rear diff

Apply grease to the groove where the o-ring is placed as well as the o-ring itself

**Step B-2**

Repeat for rear diff

**Step B-3**

Repeat for rear diff

**Step B-4**

Apply grease to the groove in the outdrive

Repeat for rear diff

Apply grease to the groove in the outdrive

**TKR1325**
M3x14mm Flat Head Screw

**TKR5144**
Differential O-rings

**TKR5145B**
Differential Shims (6x17mm)

**TKR8808165**
Ball Bearing (8x16x5mm)

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Fill FRONT with 10,000 wt oil

Fill REAR with 7,000 wt oil
to 1mm below full

DO NOT OVERFILL
**Bag C**

**Front Gearbox (Overview)**

Note Step C-2: To properly shim the diff, start by test fitting the diff with no shims and check for side to side play. If no (or very little) play is present, then continue on to the next step. If you feel excessive side to side play, then start by adding one shim on the gear side of the diff assembly. This will move the mesh tighter and remove any play. If the mesh is too tight at this point, move the shim to the other side. In some rare cases, two shims may be necessary.

**Inner Bulkheads**

Note: The front and rear of the car use different inner bulkheads. The front is angled whereas the rear is only slightly angled.

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**Step C-1**

- **TKR1226**
- **TKR1603**
- **TKR5012**
- **TKR5075**
- **TKR8805114**

**Step C-2**

- **TKR1222** x2
- **TKR8805114**
- **TKR1603**

**Step C-3**

- **TKR1525 x6**
- **TKR1226**
- **TKR8152**
- **TKR1603**

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- **TKR1222** 13x16x0.1mm Diff shim x1
- **TKR1226** 5x7x0.2mm shim x1
- **TKR1525** M3x14mm Cap Head Screw x6
- **TKR1603** M5x4mm Set Screw x1
- **TKR8805114** Ball Bearing (5x11x4) x2

*These may not be needed

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Note: flat spot

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*These may not be needed
**Bag D**

Rear Gearbox

(Overview)

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**Step D-1**

- **Thread Lock**
- **Step**

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**Step D-2**

- **Grease**

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**Step D-3**

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**Note Step D-2:** To properly shim the diff, start by test fitting the diff with no shims and check for side to side play. If no (or very little) play is present, then continue on to the next step. If you feel excessive side to side play, then start by adding one shim on the gear side of the diff assembly. This will move the mesh tighter and remove any play. If the mesh is too tight at this point, move the shim to the other side. In some rare cases, two shims may be necessary.

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**Bag E**
Low Profile Wing Mount

**Step E-1**
- TKR1524
- TKR1524
- TKR1524
- TKR5181

**Step E-2**
- TKR1529
- TKR1529
- TKR1221
- TKR1221

### Settings

**Position Settings**
1 - Rearward Low
2 - Forward Low
3 - Rearward High
4 - Forward High

Note: Stock position setting is #2, Forward Low

**Downforce Settings**

- (downforce angles)

Note: Stock downforce setting is 4°
**Bag F**  
**Rear End**

**Step F-1**

Install the sway bar ball onto the sway bar wire until the end of the wire is flush with the ball collar as pictured above.

**Note:** Do not overtighten.

**Step F-2**

Note: Loosen the M3x4 set screw (TKR1601) if the sway bar does not turn freely.

**Step F-3**

Use a #19 drill bit or 4mm reamer to ream arms until hinge pin falls through freely.

**Pivot Ball Orientation**

- Front
- Rear

**Thread Lock**

**Stock Position**

**Note:** With these stock settings, Anti-Squat = 2° / Rear Toe = 2.5°  
For reference, with center dot inserts in both braces, Toe = 3° / Anti-Squat = 2°
Changes to the wheelbase have a dramatic effect on handling, since it shifts the distribution of weight over the rear wheels. This adjusts traction. By shortening the wheelbase at the rear, you are placing more weight over the rear wheels.

Changes to the wheelbase also change the amount of sweep the rear driveshaft will have. More driveshaft sweep creates an effect similar to anti-squat, where the rear end gets pushed upwards on throttle. This helps reduce chassis slap when landing jumps on throttle.
Bag G
Rear Camber Links

**Step G-3**

**Actual Size**

Note: Notch always goes on left side of vehicle

**Step G-4**

Stock position is 4/C
**Step H-1**

Use a #19 drill bit or 4mm reamer to ream arms until hinge pin falls through freely.

**Step H-2**

Loosen the M3x4 set screw (TKR1601) if the anti-roll bar does not turn freely.

**Step H-3**

Use a #19 drill bit or 4mm reamer to ream arms until hinge pin falls through freely.

**Note:** With these stock settings, Kick Up = 12° / Arm Sweep = 0°. For reference, with center dot inserts in both braces, Kick Up = 10° / Arm Sweep = 0°.
**Bag 1**

*Front Spindle / CVA Assembly*

**Step I-1**

- TKR8087
- TKR8042
- TKRBB05104
- TKR8041
- TKR1603
- TKR8034
- TKRBB08165
- TKR1601
- TKR1601
- TKRBB13194
- TKR1221
- TKR1401

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**Step I-2**

- TKR1201
- M3 Locknut Black
- x4
- TKR1221
- M3x8mm Washer
- x2
- TKR1401
- M3x6mm Button Head Screw
- x2
- TKR1601
- M3x4mm Set Screw
- x8
- TKR1603
- M5x4mm Set Screw
- x2
- TKR5071
- M3x16.8mm Pin
- x2
- TKRBB05104
- Ball Bearing (5x10x4)
- x4
- TKRBB08165
- Ball Bearing (8x16x5)
- x2
- TKRBB13194
- Ball Bearing (13x19x4)
- x2

Note: The TKR1601 set screws are meant to keep the TKR8042 screws from coming loose. After installing TKR8042 and ensuring the steering action is free, install TKR1601 in the locations indicated. Very slowly tighten the screws until you feel some resistance from contacting the TKR8042 screws. DO NOT OVERTIGHTEN. Also be sure to loosen TKR1601 before unscrewing TKR8042 or you will damage the screws and the parts.

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**Step I-3**

- TKR5071
- M3x16.8mm Pin
- x2
- TKRBB05104
- Ball Bearing (5x10x4)
- x4
- TKRBB13194
- Ball Bearing (13x19x4)
- x2
- TKR8034
- TKR1601
- TKR1221
- TKR1201

Note: The steering stops provide adjustable travel limiters to control overall steering throw. We recommend 1 washer on each side. With too much steering travel, the rear end will lose traction around corners, the vehicle will be very hard to drive and it will be more prone to breaking parts.

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**DO NOT SKIP THIS STEP!**

Note: The TKR1601 set screws are meant to keep the TKR8034 hinge pin from rotating. After installing TKR8034, install the TKR1601 in the locations indicated. Very slowly tighten the screws until you feel some resistance from contacting the TKR8034 hinge pin. DO NOT OVERTIGHTEN. Also be sure to loosen TKR1601 before removing TKR8034 or you will damage the hinge pin.
**Bag 1**

**Front Camber Links**

- **TKR5053A**
  - This side mounts on hub
  - Note: No flange

- **TKR1201**
  - M3 Lock Nut Black
  - x4

- **TKR5550**
  - M3x20mm Cap Head Screw
  - x4

- **TKR8052A**
  - Pivot Ball M3x6.8mm
  - No Flange
  - x2

- **TKR5187**
  - This side mounts on shock tower
  - Note: Raised flange

- **TKR5553**
  - This side mounts on hub
  - Note: No flange

**Step 1-4**

- **Note:** Notch always goes on left side of vehicle

**Step 1-5**

- **TKR1201**
  - Left
  - Mounts on hub
  - Note: No flange

- **TKR1529**
  - Right
  - Mounts on shock tower
  - Note: Raised flange

- **TKR1529**
  - Mounts on shock tower
  - Note: Raised flange

- **TKR1529**
  - Mounts on shock tower
  - Note: Raised flange

- **TKR1529**
  - Mounts on shock tower
  - Note: Raised flange

**Actual Size**

**14.00**

- **TKR8052A**
  - Pivot Ball M3x6.8mm
  - x2

Stock position is 5/A
**Bag J**

*Steering Assembly (Overview)*

**Step J-1**

- TKR1201 M3 Lock Nut Black
- TKR1221 M3x8mm Washer

**Step J-2**

- TKR1403 M3x10mm Button Head Screw
- TKR1529 M3x20mm Cap Head Screw
- TKR8052A Pivot Ball M3x6.8mm

**Step J-3**

- TKR5103
- TKR8052A
- TKR8052A

**Step J-4**

- TKR1201
- TKR8052A

**Note: Apply a small drop of oil for easy o-ring installation.**

**Actual Size**

- Left/Right x 2pcs

- TKR8052A Pivot Ball M3x6.8mm

**Step J-5**

- TKR8052A
- TKR1221

**Note: Stock bumpsteer setting is 4 washers over the steering ball link.**

**Note: Notch always goes on left side of vehicle.**

**Stock Position**

- (is MIDDLE hole)
- (front of vehicle)

**Note:** Apply a small drop for easy o-ring installation.

**Note:** Tighten nut all the way down, then back it off 3 full turns.

**Stock Position**

- (is MIDDLE hole)
Note: On step K-2, K-3 and K-4:
Do not tighten the chassis screws all the way down until the assembly steps are complete. Position the entire front assembly on the chassis and tighten each screw evenly.

Note: On step K-4:
Line up the bottom of the steering posts (TKR5102A) with the corresponding recess cut in the chassis.

Note: Initial bumpsteer setting is four washers below the steering ball link.

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**Bag K**

**Front End Assembly**

**Step K-1**

**Step K-2**

**Step K-3**

**Step K-4**

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**TKR1201**

M3 Lock Nut Black

**TKR1221**

M3x8mm Washer

**TKR1250**

M3 Steering Link Screw

**TKR1323**

M3x10mm Flat Head Screw

**TKR1343**

M4x10mm Flat Head Screw

**TKR1344**

M4x12mm Flat Head Screw

**TKR1443**

M4x10mm Button Head Screw

**TKR1522**

M3x8mm Cap Head Screw

**TKR5166**

**TKR5062**
Bag L
Center/Rear Assembly

Step L-1
TKR8104
TKR5263

Step L-2
TKR5260
TKR5263
TKR1524
TKR5262 (option)

Step L-3
TKR5191
TKR1443
TKR5062
TKR1344
TKR1522

Step L-4
TKR1343 x5
TKR1344 x5
TKR1343 x5
TKR1443
TKR5062
TKR5076

TKR1343
M4x10mm Flat Head Screw
x5

TKR1344
M4x12mm Flat Head Screw
x7

TKR1443
M4x10mm Button Head Screw
x2

TKR1522
M3x8mm Cap Head Screw
x2

TKR1524
M3x12mm Cap Head Screw
x4
**Bag M**

**Front Shock Assembly**

**STEP M-1**

- TKR1200
- TKR6015
- TKR1466B
- TKR6009
- TKR6016

*Note: Shaft guide orientation*

**STEP M-2**

- TKR1200
- TKR6165
- TKR6160
- TKR6162
- TKR6163 (Option)
- TKR6017
- TKR6017T (Option)

*Note: Use green slime or oil on shock shaft threads AND O-rings to prevent tearing and leaking.*

**STEP M-3**

- TKR1200
- TKR6144
- TKR6140B
- TKR5049A
- TKR6013

*Note: Shock boots must be installed BEFORE attaching rod end.*

**STEP M-4**

- TKR6007
- TKR8027
- TKR1202
- TKR8763
- TKR8762
- TKR8764
- TKR8765
- TKR8766
- TKR8767 (Option)

*Note: Slot in spring perch should face outside of vehicle.*

**STEP M-5**

- TKR1202
- TKR6007
- TKR1240
- TKR8027

*Stock shock position is inside hole on the arm and 2nd from inside hole on the tower*

*Stock front ride height is 27mm*

*Shock length (droop) is 120mm*

Refer to filling instructions on page 19 during this step.

Use #550wt oil FRONT

**Note:**

- Use green slime or oil on shock shaft threads AND O-rings to prevent tearing and leaking.

**Note:**

- Shock boots must be installed BEFORE attaching rod end.

**Note:**

- Slot in spring perch should face outside of vehicle.

**Note:**

- Stock shock position is inside hole on the arm and 2nd from inside hole on the tower.

- Stock front ride height is 27mm

- Shock length (droop) is 120mm
Note: Slot in spring perch should face outside of vehicle.

Note: Use #450wt oil REAR

Stock shock position is outside hole on the arm and 2nd from outside hole on the tower
Stock rear ride height is 29mm
Shock length (droop) is 135mm

Note: Black screw is RH threaded and goes on passenger side. Silver screw is LH and goes on driver side.

Note: Shock boots must be installed BEFORE attaching rod end.

Note: Use green slime or oil on shock shaft threads AND O-rings to prevent tearing and leaking.

Note: Shaft guide orientation
**Shock Filling Instructions**

*For both front and rear shocks*

We've found it's easiest to complete steps 1 & 2 on each shock before moving on to step 3. By the time you've finished step 2 on the last shock, the first one will be ready for step 3.

**Step 1.** Insert all four larger o-rings into the emulsion caps and set aside. Install the small o-rings onto the small emulsion screws by placing the o-rings on a pit mat or towel and pressing the screws into the o-rings.

**Step 2.** Fill shock with oil all the way to the top and pump the shock shaft up and down 3-5 times.

**Step 3.** Screw on the cap all the way tight (shock tool TKR1115 is helpful in tightening completely).

**Step 4.** With the shock at about a 45° angle, push and hold the shock shaft to the top and insert the prepared emulsion screw/seal. Oil will leak out during this process. Tighten the screw until snug (do not overtighten).

**Step 5.** Pump the shock shaft up and down about 30 times vigorously. This emulsifies the oil.

**Step 6.** With the shock shaft fully extended, remove the emulsion screw from the cap to do the final bleed.

**Step 7.** With the shock at about a 45° angle, push and hold the shock shaft to the top and insert the prepared emulsion screw/seal again. Oil will leak out during this process. Tighten the screw until snug (do not overtighten).
**Final Assembly**

**Step 0-1**
- Steering servo (not included)
  - Note: we recommend using a servo with at least 300 oz/in torque.
  - TKR5060
  - TKR5065
  - TKR5125

**Step 0-2**
- Electronic Speed Control (not included)
- Double sided tape
- CA glue
  - TKR5065

**Step 0-3**
- TKR5065
- TKR1525
- Receiver (not included)
  - Note: CA glue 3 black o-rings (TKR5125) to the bottom legs of the ESC tray.

**Step 0-4**
- Transponder (not included)
  - Note: Feed the servo wire underneath the esc tray in between the mounting screws on the mud guard, then feed both ESC and servo wires into the RX box as shown. Install wire retainers (TKR5065) to secure them properly.
**Battery Strap Installation:**
1. Fit straps loosely
2. Position on chassis
3. Proceed to step P-2

**Step P-1**
- LOGO SIDE
- Hook side

**Step P-3**
- TKR1343
- TKR5010
- TKR1524

**Step P-4**
- TKR1228
- M3x8mm Flat Head Screw
- X5
- TKR1341
- M4x6mm Flat Head Screw
- X6
- TKR1343
- M4x10mm Flat Head Screw
- X5
- TKR1346
- M4x15mm Flat Head Screw
- TKR1524
- M3x12mm Cap Head Screw
- X2

**Step P-5**
- TKR1228
- Thread Lock
- TKR1346
- TKR1524

**Final Assembly**
- Note: Install MOD1 pinion 15T-25T (TKR4175-4185) at this step. Adjust gear mesh and tighten screws (TKR1346) well.
  *Use thread lock.
Bag P
Final Assembly

Step P-6
- TKR5058A Pivot Ball M3x5.8mm No Flange x2
- TKR1201 M3 Lock Nut Black x2
- TKR1221 M3x8mm Washer x2
- TKR1325 M3x14mm Flat Head Screw x1
- TKR1407 M3x16mm Button Head Screw x1
- TKR5056 Pivot Ball M3x5.8mm No Flange
- TKR5230 M3x18 Threaded Rod

Note: Offset servo arm so it is parallel with the connecting arm at neutral or zero servo position.

Step P-7
- TKR1407 M3x16mm Button Head Screw
- TKR1221 M3x8mm Washer
- TKR1325 M3x14mm Flat Head Screw
- TKR5220
- TKR5251B
- TKR5252B
- TKR5253B (Option)

Step P-8
- TKR5058A Pivot Ball M3x5.8mm No Flange x2
- TKR5230 M3x18 Threaded Rod x1

PARALLEL 1MM
**Bag Q**
Wing/Wheels/Body

**Step Q-1**

**Wing Hole Options**
(Use Dimples as Hole Cutting Guides)

- **Most Downforce**
- **Least Downforce**

(Use as many holes as you see fit to fine tune the amount of downforce the wing creates.)

**Step Q-2**

Wheels/Tires (not included)

**Step Q-3**

*Note: It may be necessary to cut holes in the body for ventilation.*

- X2 TKR1201 M3 Lock Nut Black
- X2 TKR1220 M4 Countersunk Washer
- X2 TKR1325 M3x14mm Flat Head Screw
- X2 TKR1235 Body Clip
- X4 TKRS116 Wheel Nut