1/10TH SCALE ELECTRIC ROCK CRAWLER

ITEM NO.: 5628

4 WHEEL DRIVE
+ 4 WHEEL STEERING

The two engine setup and FM digital 3 channel remote gives the user many options.
4 Steering modes to tackle the roughest of all terrains are easily switchable by one button on the remote control.

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Rock crawling is an extreme form of off road driving using vehicles anywhere from stock to highly modified to overcome obstacles.
The rock crawler is about slow-speed, careful and precise driving. It often drives up, down and across obstacles that would appear impassable.

Note: The images may vary from the actual received model.

1.Getting ready to know our crawler...

Thank you for purchasing our product.

This product is an authentic controlled vehicle(RC vehicle) and it is not a toy. Read and understand this instruction manual thoroughly before the model. If you are not familiar with RC vehicles, we recommend that you ask RC experts for advice.

Never run RC models near crowded people or animals, or on public streets or highways. This could cause serious accidents, personal injuries, and/or property damage.

2.Technical Data

-Length: 450mm (Replacing shock locations will change the length.)

-Width: 268mm

-Height:148mm

-Wheelbase:320mm (Replacing shock locations will change the wheelbase.)

-Motor: two RC380 motors

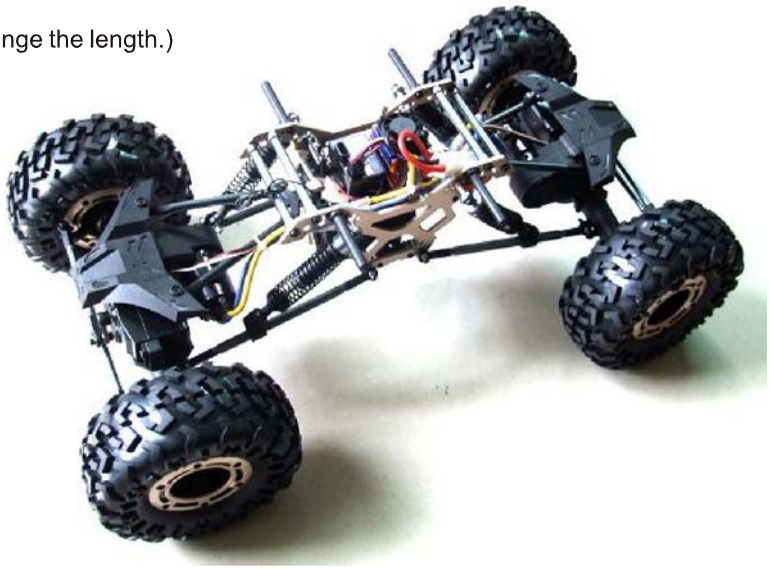
-Wheel Dia: 130mm

-Wheel Width: 55mm

-Servo: two servos, 6kgs, large steering angle

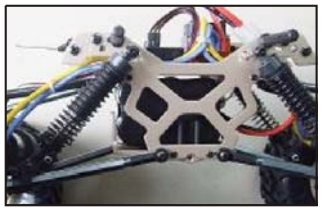
-Gear Ratio: 1:38.6

-Battery: 7.2v, 1500mAh



This data is subject to change without notice in advance as result of product improvement.

3.Main Features

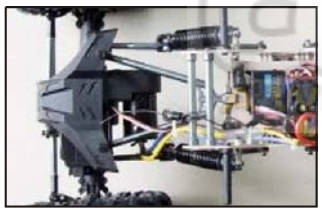


Aluminum side plate and aluminum battery tray allow for durability. Aluminum capped shocks are all oil-filled.

Aluminum radio tray offers ESC and receiver reliable installation. High precision ESC w/ cooling fan works good for your crawler.

Both front and rear unit can be twisted to an large angle. It allows for smooth crawling on uneven surface.

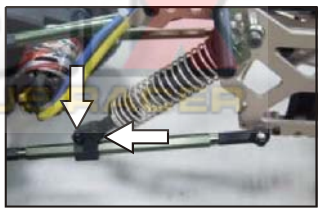
Crawling tyre of high grip is suitable to drive any tough terrain. Zinc alloy wheel frame is locked to the wheel rim.



Compact front/rear front top mount provides good protection for the receiver. Two RC 380 motors which are installed to both on front and on rear are of high quality.

Skillful front/rear steering linkage set and servo linkage set. Two 6kg servos are installed to both on front and on rear do a good job for steering.

Solid front/rear axle mount and skillful front/rear steering hubs offer smooth crawling and steering. All ball bearings are throughout the entire crawler.



To replace locations of shocks, unscrew the two screws that on the shock lower mount locked to the lower linkage bar as shown in the figure.

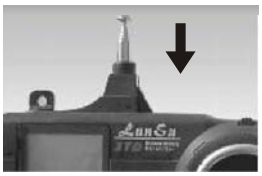
4.Using of the FM radio to your crawler

General information

-This FM LCD radio controller is the latest version.
-It is in use for the crawler only.
-It contains various steering modes which makes the crawler perfect for crawling on roads or rocks.
-Fully extend its antenna while using it.
-Always remove batteries from this product if not in use.
-Various frequencies of FM crystals are available at factory.
- This radio control is a high-precision product and allowed itself to be used with your good care.

Preparation before using

Slide out the battery holding tray to expose the empty battery compartment.
Insert eight AA size batteries into the marked spaces. Please note the correct direction of the batteries.



Insert the antenna into the hole and turn clockwise until it is tightly secured. Make sure you never over extend the antenna as this will cause it to break. Extend the antenna while using.

Full function FM radio controller

1	Antenna
2	LCD screen
3	Steering Control Wheel
4	Steering Trim / Reverse Switch
5	Throttle Trim
6	Power Switch (Slide it to turn on/off)
7	Steering Dual Rate Control Dial (D/R)
8	Trim Switch (for rear wheels)
9	Trigger
10	Steering Mode Switch
11	SEL function button

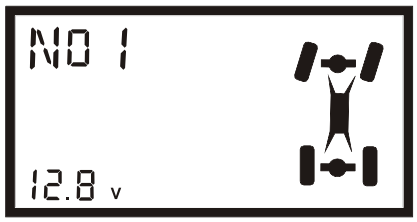
AWESOME FOR THE SERIOUS RACER

Full function steering modes

This FM radio controller contains various steering modes which are perfect for the rock crawler.

Press this switch to exchange steering modes.

LCD Screen on FM radio controller

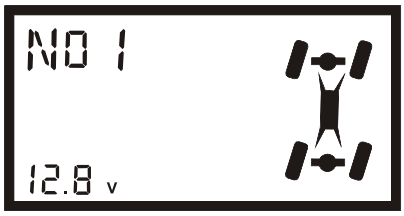


MODE 1

Your crawler will work like so:

This illustration is your crawler in the situation by performing the first mode on the radio control. Front steering is to turn to the left or right but rear steering remains aligned.

LCD Screen on FM radio controller

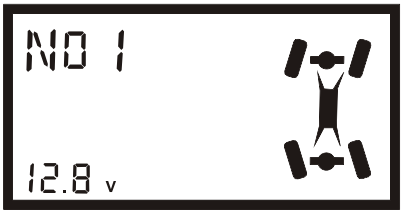


MODE 2

Your crawler will work like so:

This illustration is your crawler in the situation by performing the second mode on the radio control. Front steering is to turn to the left and rear steering is to do likewise.

LCD Screen on FM radio controller

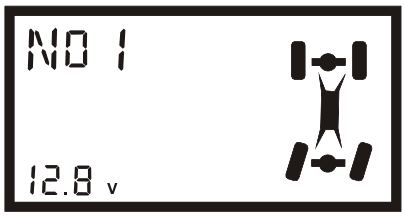


MODE 3

Your crawler will work like so:

This illustration is your crawler in the situation by performing the third mode on the radio control. Front steering is to turn to the left but rear steering is to turn right.

LCD Screen on FM radio controller



MODE 4

Your crawler will work like so:

This illustration is your crawler in the situation by performing the fourth mode on the radio control. Rear steering is to turn to the left or right but front steering remains aligned.

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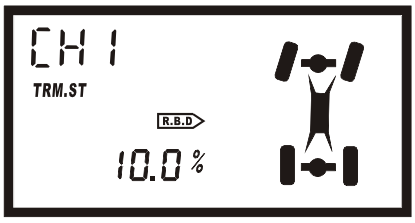
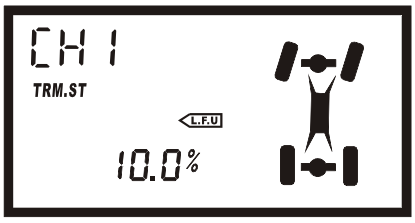
Steering Trim / Steering Reverse Function

LCD Screen on FM radio controller





TRM.ST (Steering Trim) range is around 0-10.0% for both left and right steering on front wheels. Tune this switch to select your desired steering trim volume.

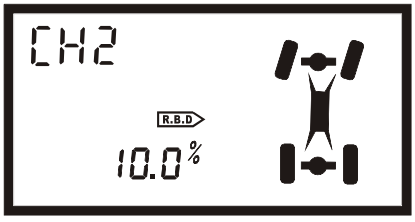
To switch to Steering Reverse program:

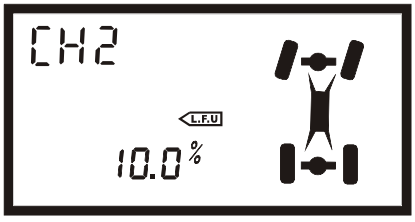
Press **SEL** (Select Button) on your radio once, this LCD display appears Channel 1(NOR.)

Tune the SWITCH (Steering Trim /Reverse Switch) to change NOR into REV as shown below:.

Throttle Trim / Throttle Reverse Switch

LCD Screen on FM radio controller



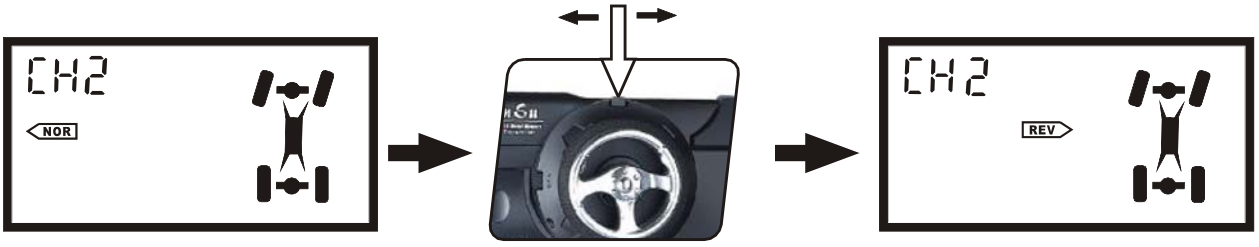


TRM. TH (Throttle Trim) range is around 0-10.0%. Tune this switch to select your desired throttle trim volume.

To switch to Throttle Reverse program:

Press **SEL** (Select Button) on your radio once, this LCD display appears Channel 1(NOR.)

Tune the SWITCH (Steering Trim /Reverse Switch) to change NOR into REV as shown below:.



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Steering Dual Rate Control Dial(D/R)

This dial adjusts the overall travel of the steering servo , push the dial forward for maximum steering. Pull the dial back to reduce steering travel. D/R adjustable range is around 5-10%.

Pull back

Push forward

LCD Screen on FM radio controller

Trim Switch (For rear wheels)

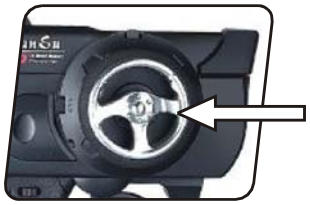
This dial is to centre the rear wheels. The range is around 0-10% on the left or right rear wheel.

Pull back

Push forward

LCD Screen on FM radio controller

Steering Control Wheel



It controls the steering of your rock crawler. Turn the wheel to the right and your crawler turns right. Turn the wheel to the left and your crawler turns left.

Throttle/Brake Trigger

It controls the speed and braking ability of your rock crawler. Pull the trigger to speed up, release the trigger to decelerate, and push the trigger to brake. Pushing the trigger a second time activates the reverse function.

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SEL function button

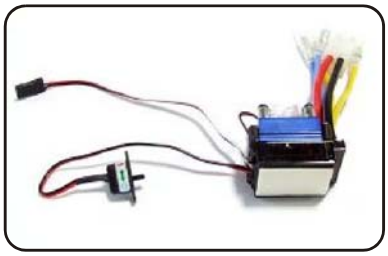
This FM radio controller contains a variety of select functions. Once you press SEL button, different functions will come up in turn with LCD indicators on.

5. Installing electronic components to your crawler

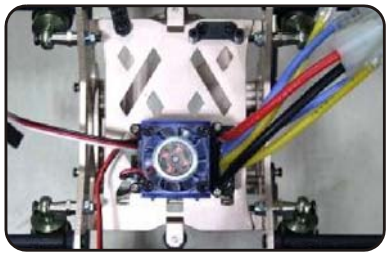
Your crawler is fully assembled at factory. The following is about installing receiver and ESC...

To install the ESC

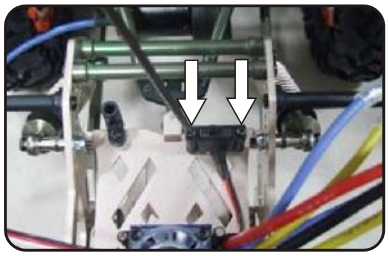
Attach adhesive tape to your ESC...



Install your ESC to the radio tray on your crawler...

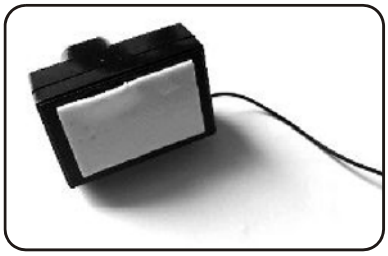


Secure the power switch by using two round head screws(2*8)...



To install the receiver

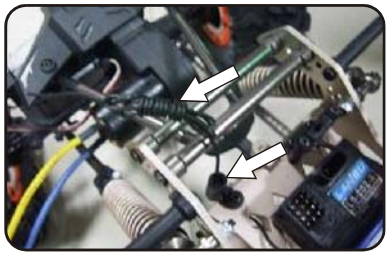
Attach adhesive tape to your receiver...



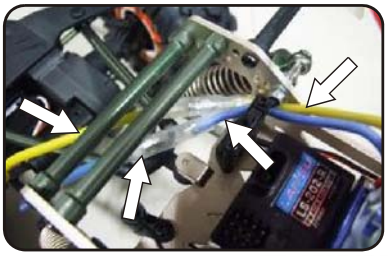
Install your receiver in place as shown below...

To place all wires

Insert receiver antenna into the antenna retainer...
Tie up the antenna wire.



Connect motor connectors (front /rear motor) to ESC. Yellow line to yellow line, blue line to blue line.



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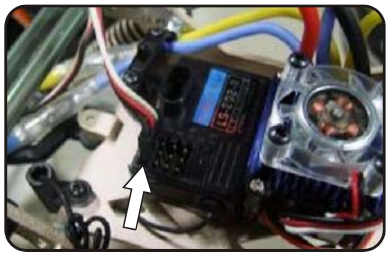
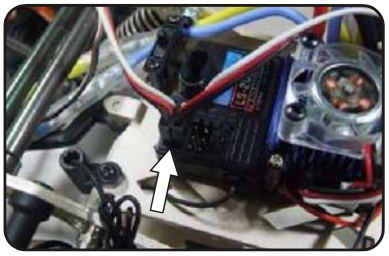
To connect radio system

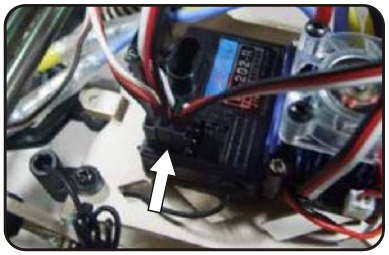
Insert the front servo connector to Channel 1 on the receiver.

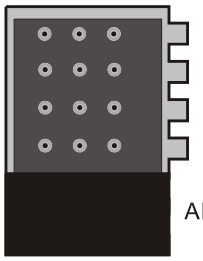


Insert the ESC connector to Channel 2 on the receiver.



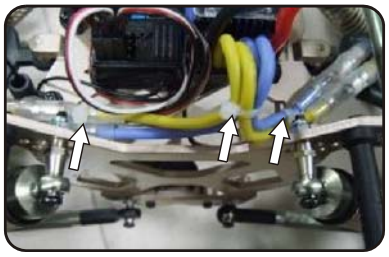
Insert the rear servo connector to Channel 3 on the receiver.

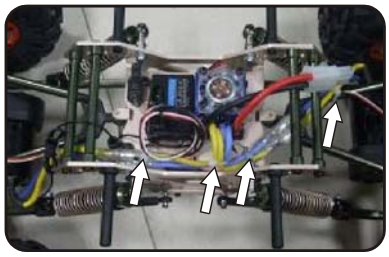




To tie up all wires/connectors

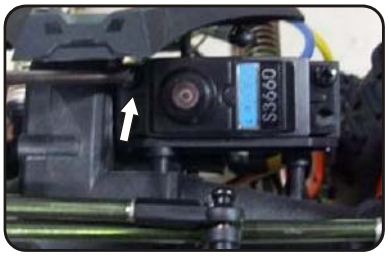
Tie up all wires and connectors by using zip ties.





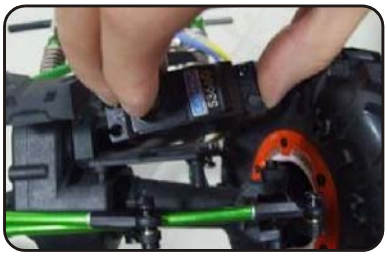
To remove servo easily

The following illustrations allow for easily removing of the servo from your crawler. (Tips)
You are no need to remove all screws which are used for the servo. Please see the following carefully...



Unscrew the round head self tapping 3*10 as shown in the figure.

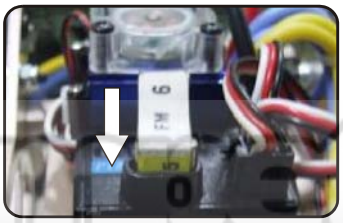
Unscrew the round head self tapping 3*8 as shown in the figure.



You can remove the servo smoothly from your crawler.

6.To start /stop crawling...

Fully extend radio antenna when using the radio.



Insert the crystal into your receiver.

Power switch on ESC.

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To start crawling:
1.Switch on the radio control and fully extend the antenna.
2. Switch on the power switch on ESC.

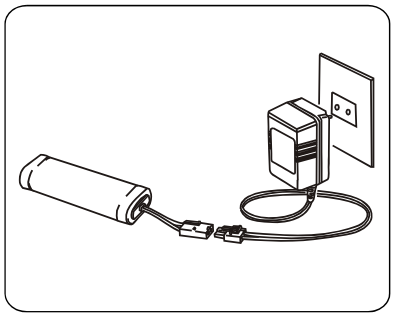
To stop crawling:
1.Switch off the power switch on ESC.
2.Switch off the radio control and retract the antenna.

7.Charging your battery for the rock crawler

⚠WARNING

Never tempt to use this charger to charge the batteries of your transmitter.

-Use only the specified charger (7.2V,500mA) to charge your battery pack.
-For better battery performance please discharge your battery before charging it.
-Never charge your battery over 5-6 hours.
-Never charge the battery pack unattended.
-Always use the battery after it is fully charged.



8.Troubleshooting List

Problem	Cause	Remedy
The rock crawler fails to move.	1)Radio controller or receiver is off. 2) Batteries are not placed correctly in the radio. 3) The battery is flat.	1)Turn on both radio and receiver. 2)Place batteries in the radio controller properly. 3) Charge your battery pack.
Servo does not operate normally	1)Transmitter and/or receiver batteries are low. 2) Servo gear stripped or otherwise damaged. 3) Receiver battery is flat.	1) Replace/recharge radio controller and/or receiver batteries 2) Replace with new gear set 3) Recharge receiver battery
Whilst driving the rock crawler, radio system operates erratically.	1)Receiver crystal is loose. 2) Someone operates on same radio frequency. 3) Damage to receiver after a crash	1)Remove and reinstall the receiver crystal 2)Change crystals or relocate and try again 3) Contact your local distributor for repair information
Operating range is short.	1) Radio antenna is retracted. 2) Receiver antenna is not extended. 3) Radio or receiver battery is low.	1) Extend radio antenna fully. 2) Extend receiver antenna fully. 3) Replace/recharge the batteries
Motor does not work.	1)Motor wires loose or damaged. 2) Receiver battery is weak.	1)Double-check motor wires. Repair/replace as necessary. 2) Recharge receiver batteries.
The crawler moves when turned on.	1) Throttle Trim out of adjustment	1) Adjust throttle trim again
Steering works, but throttle does not work	1) Motor wires are loose or damaged. 2) ESC is plugged into wrong receiver slot.	1) Double-check motor wires. Repair/replace as necessary. 2) Plug ESC into the correct receiver slot.

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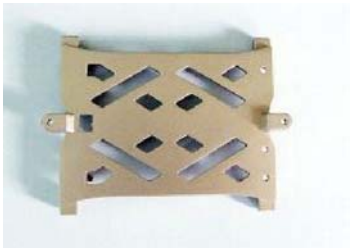
PART LIST-1

PART NO.: RCT-H001 Aluminum Side Plate(Left/right)	**PART NO.: RCT-H002**  Aluminum Radio Tray	**PART NO.: RCT-H003** Aluminum Battery Tray
PART NO.: RCT-H004 **2PCS** Drive Shaft (Front/rear) L=62.5mm	**PART NO.: RCT-H005** **2PCS** Wheel Shaft (Front/rear)	**PART NO.: RCT-H006** **2PCS** Motor Pinon Gear(10T) +Grub Screw 2.5*2.5
PART NO.: RCT-H007 **2PCS** Optional Motor Pinon Gear(8T) +Grub Screw 2.5*2.5	**PART NO.: RCT-H008** Wheel Frame (Zinc Alloy) + Cap Head Screw 2*8(12pcs)	**PART NO.: RCT-H009** **4PCS** Aluminum Wheel Hex. + Wheel Pin2*10+Grub Screw 3*3
PART NO.: RCT-H010 **2PCS** Aluminum Side Plate Post	**PART NO.: RCT-H011** Battery Clasp	**PART NO.: RCT-H012** **2PCS** Gear Pin-1(Dia.=5mm, L=41mm)

The images may vary from the actual received parts.

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PART LIST-2

PART NO.: RCT-H013 **4PCS** Gear Pin-2 (Dia.=4mm, L=21.6mm)	**PART NO.: RCT-H014** **8PCS** Front/Rear Upper Linkage Ball Bolt (Dia.=6.3mm)	**PART NO.: RCT-H015** **8PCS** Shock Set Bush
PART NO.: RCT-H016 **8PCS** Front/Rear Upper Linkage Ball Stud (Dia.=5.8mm)	**PART NO.: RCT-H017** **8PCS** Front/Rear Lower Linkage Ball Stud(Dia.=5.8mm)	**PART NO.: RCT-H018** **6PCS** Front/Rear Spur Gear Mount Pin 2*12
PART NO.: RCT-H019 **8PCS** Steering Hub Bush	**PART NO.: RCT-H020** Linkage Bar Bolt + Linkage Bar Gasket	**PART NO.: RCT-H021** **8PCS** Spring Pad (Inner Dia. 2.5mm) (To install Motor with screws)
PART NO.: RCT-H022 Washers (2.5*5.5*0.5) **8PCS** Washers(3.1*6*0.5) **8PCS**	**PART NO.: 3338-H016** **2PCS** Gear Shaft Outdrive Cup (Front/rear)	**PART NO.: H007** **6PCS** Ball Bearing 5*11*4

The images may vary from the actual received parts.

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PART LIST-3

PART NO.: H009

4PCS

Ball Bearing 10*15*4

PART NO.: H016

8PCS

Steering Linkage Ball Stud. (Dia.= 5.8mm)

PART NO.: H032

6PCS

Ball Bearing 4*7*2.5

PART NO.: H036

6PCS

Ball Bearing 8*16*5

PART NO.: H049

6PCS

Ball Bearing 4*9*4

PART NO.: RCT-T001

2PCS

Front/Rear Lower Linkage Set + Ball Stud.

PART NO.: RCT-T002

Front/Rear Upper Linkage Set + Ball Stud.

PART NO.: RCT-T003

2PCS

Front/Rear Steering Linkage Set +Ball Stud.

PART NO.: RCT-T004

2PCS

Front/Rear Servo Linkage Set +Ball Stud.

PART NO.: RCT-T005

2PCS

Front/Rear Shock Set

PART NO.: RCT-T006

Front/Rear Spur Gear Complete

PART NO.: RCT-P001

Front/Rear Top Mount

Competition X
OUR WEB SITE FOR THE SERIOUS RACER

The images may vary from the actual received parts.

PART LIST-4

PART NO.: RCT-P002

Servo Plate+Servo Mount+
Shock Lower Retainer 2P
(to be locked to lower linkage bars)

PART NO.: RCT-P003

Front/rear Gear Box Housing
+ Guard Cover

PART NO.: RCT-P004

Front/Rear Axle Assembly

PART NO.: RCT-P005

Spur Gear(47T)+Driven
Gears+Gear Gasket +Gear
Seal Set + Gear Casing

PART NO.: RCT-P006

Front/rear Steering Hub(left/right)
+Linkage Set Kit

PART NO.: RCT-P007

Servo Arm+Battery Mount+Power
ESC Switch Mount+
Antenna Mount

PART NO.: RCT-P008

2PCS

Body Post

PART NO.: RCT-P009

2PCS

Spoke Wheel Rim

PART NO.: RCT-P010

Available to front or rear **One Pair**

Tires(Left +Right) w/ Sponge Insert

Tip:

1. There are different treads on left and right tires.
2. RCT-P012 can be used for front or rear.
3. RCT-P013 can be used for front or rear.
4. RCT-P014 can be used for front or rear.

Left Tire Tread

Right Tire Tread

PART NO.: RCT-P011

Available to front or rear **One Pair**

Wheel Complete(left+Right)

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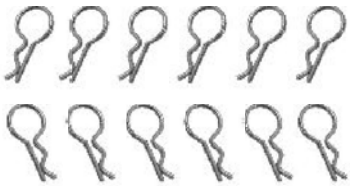
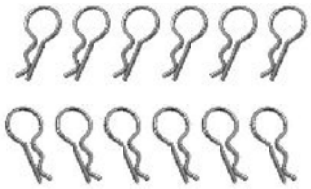
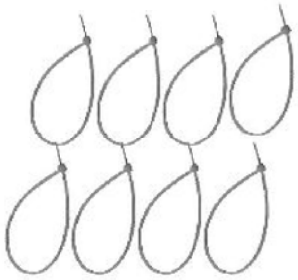
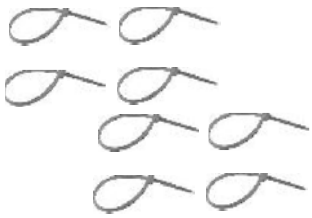
The images may vary from the actual received parts.

PART LIST-5

PART NO.: RCT-P012 Optional Use Optional Body Post +Mount	**PART NO.: H002** 6PCS Lock Nut M3	**PART NO.: H003** 6PCS Flange Lock Nut M4
PART NO.: H017 6PCS Lock Nut M2.5	**PART NO.: H020**  12PCS Body Clip A/B- Big	**PART NO.: H021**  12PCS Body Clip A/B- Small
PART NO.: H153 8PCS E-Clip(2MM)	**PART NO.: P010**  8PCS Zip Tie(Big)	**PART NO.: P011**  8PCS Zip Tie(Small)
PART NO.: P019 2PCS Receiver Antenna Pipe	**PART NO.: P100** 12PCS Body Post Pad	**PART NO.: E003** Receiver (FM 40Mhz)

The images may vary from the actual received parts.

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PART LIST-6

PART NO.:E003A

Receiver (FM 27Mhz)

PART NO.: E020

Optional use

7.2V
500mA-600mA

Charger
(America Standard)

PART NO.: E021

Optional use

7.2V
500mA-600mA

Charger
(Europe Standard)

PART NO.: E022

Optional use

7.2V
500mA-600mA

Charger
(Australia Standard)

PART NO.: E023

Optional use

7.2V
500mA-600mA

Charger
(UK Standard)

PART NO.:E039T

Front Motor (Yellow wiring is to negative, Blue wiring is to positive)

RC 380 Motor (Casing in black)

PART NO.:E039R

Rear Motor (Blue wiring is to negative, Yellow wiring is to positive)

RC 380 Motor (Casing in black)

PART NO.: E040

Rechargeable Battery Pack
7.2V,1500mAH

PART NO.:E120

Optional Use

Crystals (Radio/Receiver)-FM40MHz

PART NO.:E121

Optional Use

Crystals (Radio/Receiver)-FM27MHz

PART NO.:E207

(For the crawler Only)

Optional Use

LCD Radio Control (FM 40MHz)

PART NO.:E208

(For the crawler Only)

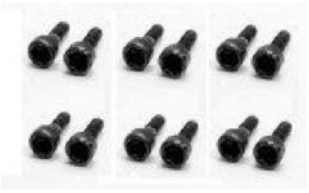
Optional Use

LCD Radio Control (FM 27MHz)

WEB SITE FOR THE SERIOUS RACER

The images may vary from the actual received parts.

PART LIST-7

PART NO.: E401 High -precision ESC	**PART NO.: E403** Torque:6kg Steering Angle up to 110 degrees or so Servo Unit	**PART NO.: S007** 12PCS Round Head Screw (2*8mm)
PART NO.: S016 12PCS Grub Screw (M3*3)	**PART NO.: S018** 12PCS Round Head Self Tapping Screw (2.6*8mm)	**PART NO.: S028** 12PCS Round Head Screw(2.5*14mm)
PART NO.: S029 12PCS Round Head Self Tapping Screw (2.6*10mm)	**PART NO.: S030** 12PCS Round Head Self Tapping Screw (3*10mm)	**PART NO.: S031**  12PCS Cap Head Screw(2*8mm)
PART NO.: S059 12PCS Round Head Screw (3*8mm)	**PART NO.: S060** 12PCS Round Head Screw (2.5*12mm)	**PART NO.: S063** 12PCS Round Head Screw (2.5*17mm)

The images may vary from the actual received parts.

A WEB SITE FOR THE SERIOUS RACER

PART LIST-8

PART NO.: S089

12PCS

Round Head Self Tapping Screw (2.6*6mm)

PART NO.: S096

12PCS

Round Head Screw (3*24mm)

PART NO.: S098

12PCS

Round Head Screw (3*21mm)

PART NO.: S099

12PCS

Round Head Screw (3*14mm)

PART NO.: S100

12PCS

Round Head Screw (2.5*8mm)

PART NO.: S101

12PCS

Round Head Screw (2.5*6mm)

PART NO.: S102

12PCS

Countersunk Self Tapping Screw (2*6mm)

PART NO.: S103

12PCS

Grub Screw (M2.5*2.5)

PART NO.: S104

12PCS

Round Head Screw (3*10mm)

PART NO.: T002

Φ2mm
Φ2.5mm
Φ3mm
Φ4mm

Small Cross Wrench

PART NO.: RCT-T007

Optional Use

Optional Front/rear Diff. Assembly

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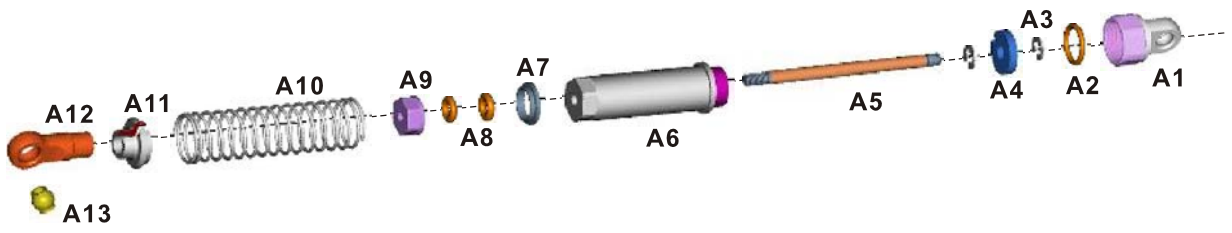
The images may vary from the actual received parts.

Assembly Diagram-1

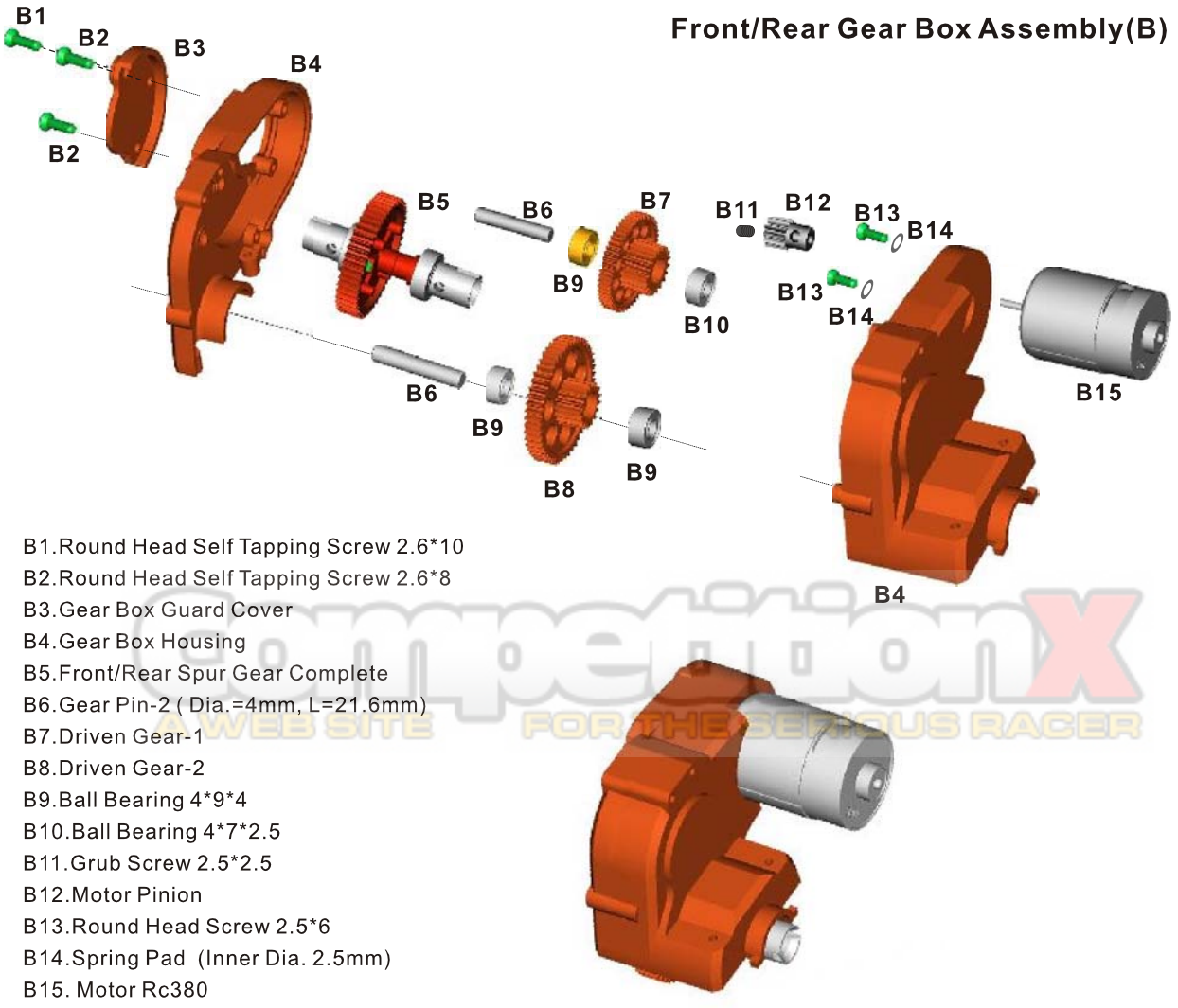
Shock Assembly (A)



A1.Shock Upper Cap
A2.Shock Seal (Large)
A3.E-Clip 2mm
A4.Shock Piston
A5.Shock Shaft
A6.Shock Body
A7.Shock Spring Retainer(upper)
A8.Shock Seal (Small)
A9.Shock Body Bush
A10.Shock Spring
A11.Shock Spring Retainer(lower)
A12.Shock Lower Cap
A13. Shock Ball

Tips:
Changing the shock oil (the oil inside the shocks) will change their damping characteristics. Typically, if you are running on smooth surfaces, use a heavier weight oil. If you are running on rough surfaces, use a lighter weight oil.
We recommend using only 100% silicone shock oil.

Front/Rear Gear Box Assembly(B)



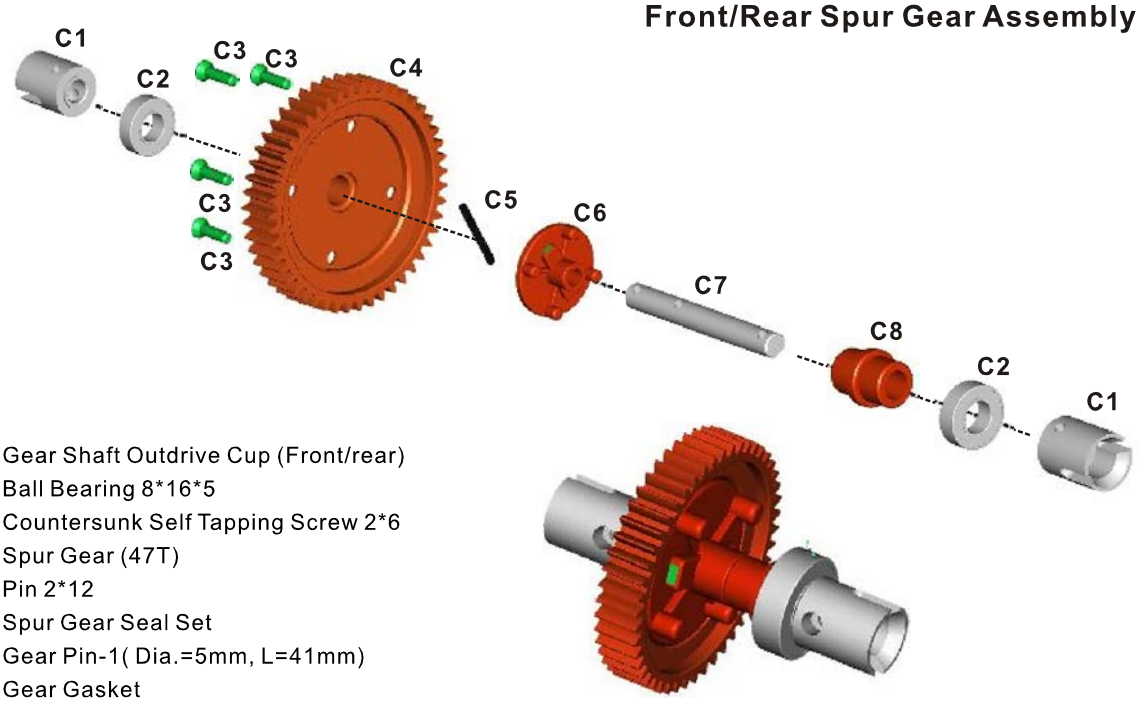
B1.Round Head Self Tapping Screw 2.6*10
B2.Round Head Self Tapping Screw 2.6*8
B3.Gear Box Guard Cover
B4.Gear Box Housing
B5.Front/Rear Spur Gear Complete
B6.Gear Pin-2 (Dia.=4mm, L=21.6mm)
B7.Driven Gear-1
B8.Driven Gear-2
B9.Ball Bearing 4*9*4
B10.Ball Bearing 4*7*2.5
B11.Grub Screw 2.5*2.5
B12.Motor Pinion
B13.Round Head Screw 2.5*6
B14.Spring Pad (Inner Dia. 2.5mm)
B15. Motor Rc380

CompetitionX
WEB SITE FOR THE SERIOUS RACER

The images may vary from the actual received parts.

Assembly Diagram-2

Front/Rear Spur Gear Assembly(C)



C1.Gear Shaft Outdrive Cup (Front/rear)
C2.Ball Bearing 8*16*5
C3.Countersunk Self Tapping Screw 2*6
C4.Spur Gear (47T)
C5.Pin 2*12
C6.Spur Gear Seal Set
C7.Gear Pin-1(Dia.=5mm, L=41mm)
C8.Gear Gasket

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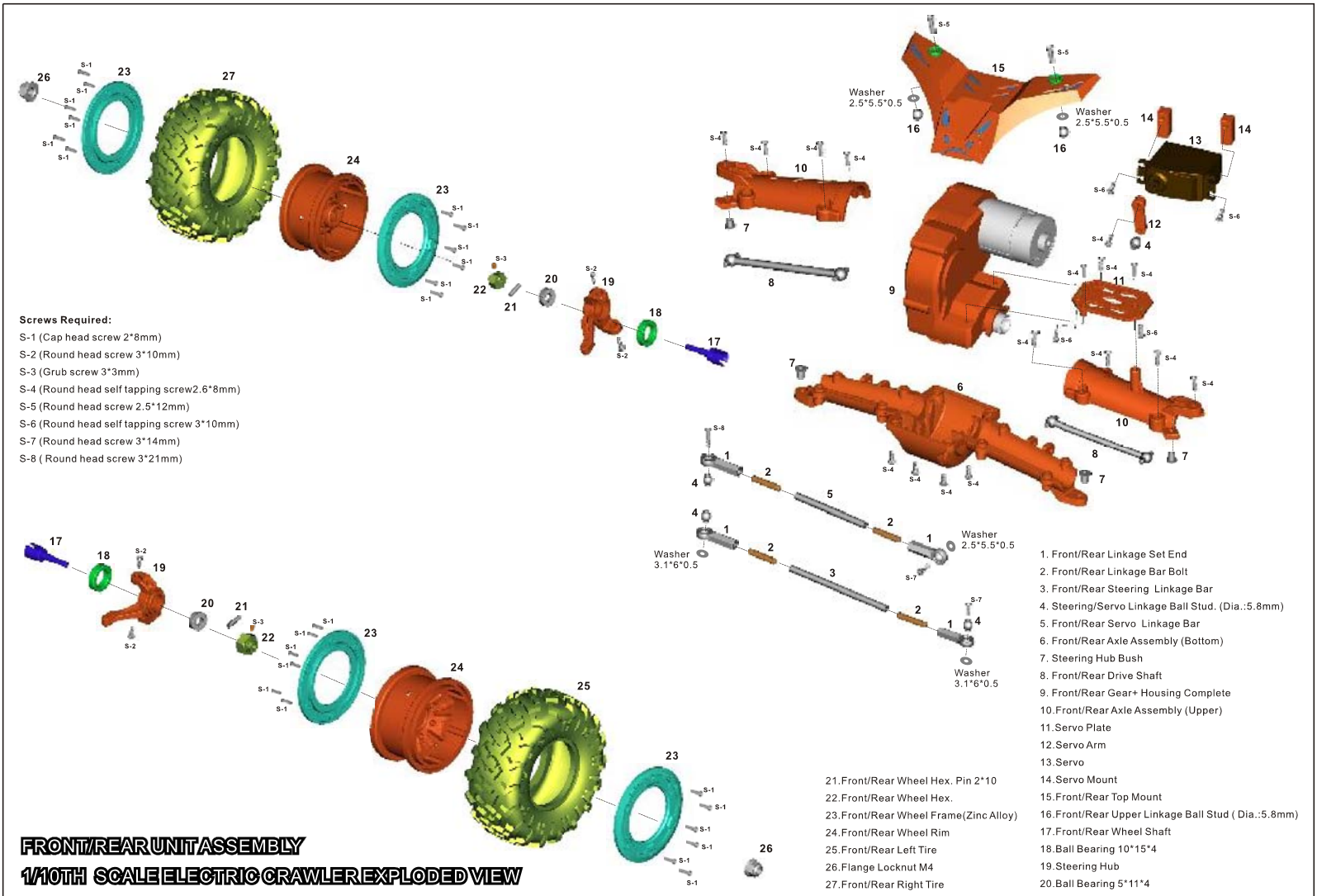
A WEB SITE FOR THE SERIOUS RACER

The images may vary from the actual received parts.



Screws Required:

S-1 (Cap head screw 2*8mm)
S-2 (Round head screw 3*10mm)
S-3 (Grub screw 3*3mm)
S-4 (Round head self tapping screw2.6*8mm)
S-5 (Round head screw 2.5*12mm)
S-6 (Round head self tapping screw 3*10mm)
S-7 (Round head screw 3*14mm)
S-8 (Round head screw 3*21mm)

1. Front/Rear Linkage Set End
2. Front/Rear Linkage Bar Bolt
3. Front/Rear Steering Linkage Bar
4. Steering/Servo Linkage Ball Stud. (Dia.:5.8mm)
5. Front/Rear Servo Linkage Bar
6. Front/Rear Axle Assembly (Bottom)
7. Steering Hub Bush
8. Front/Rear Drive Shaft
9. Front/Rear Gear+ Housing Complete
10. Front/Rear Axle Assembly (Upper)
11. Servo Plate
12. Servo Arm
13. Servo
14. Servo Mount
15. Front/Rear Top Mount
16. Front/Rear Upper Linkage Ball Stud (Dia.:5.8mm)
17. Front/Rear Wheel Shaft
18. Ball Bearing 10*15*4
19. Steering Hub
20. Ball Bearing 5*11*4
21. Front/Rear Wheel Hex. Pin 2*10
22. Front/Rear Wheel Hex.
23. Front/Rear Wheel Frame(Zinc Alloy)
24. Front/Rear Wheel Rim
25. Front/Rear Left Tire
26. Flange Locknut M4
27. Front/Rear Right Tire

FRONT/REAR UNIT ASSEMBLY
1/10TH SCALE ELECTRIC CRAWLER EXPLODED VIEW

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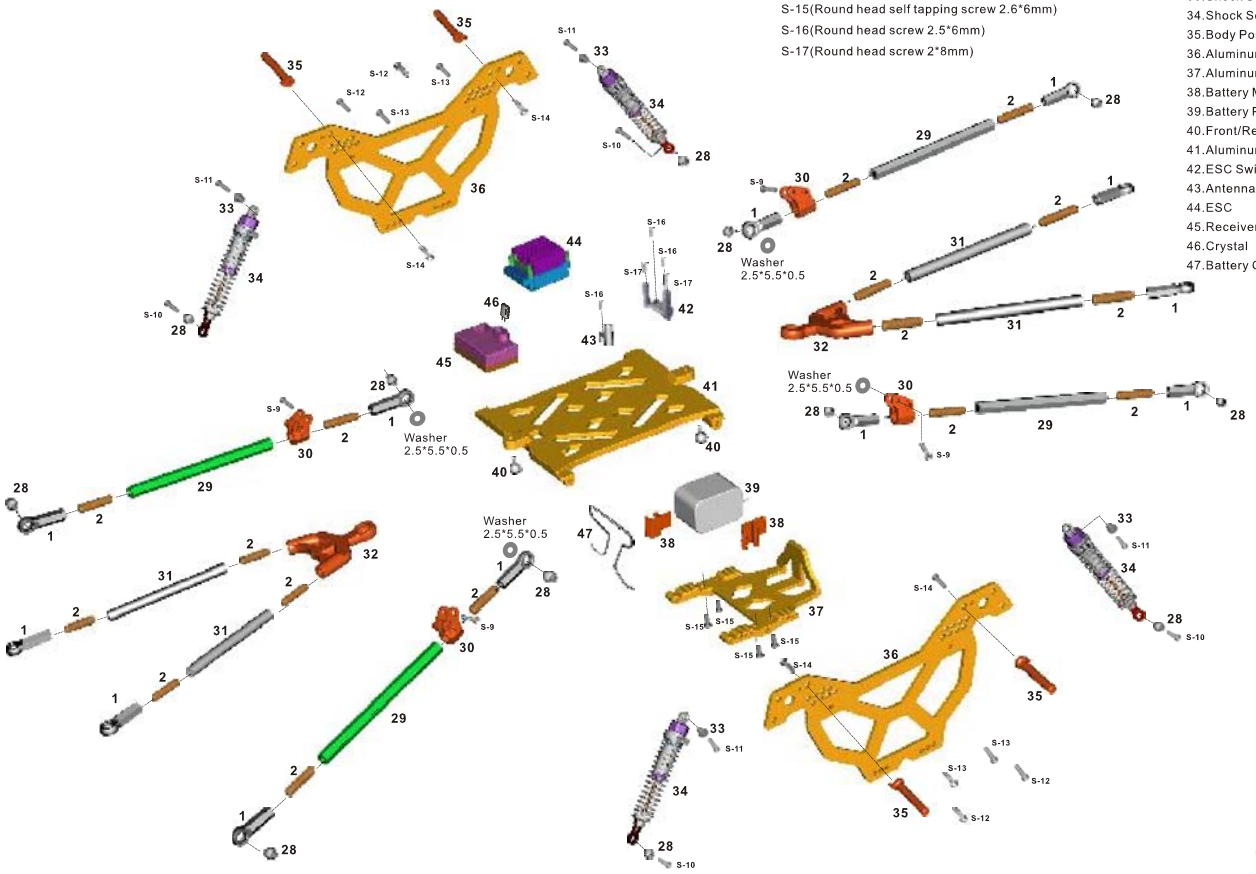
A WEB SITE FOR THE SERIOUS RACER

Screws Required:

S-9(Round head self tapping screw 2.6*10mm)
S-10(Round head screw 2.5*17mm)
S-11(Round head screw 3*24mm)
S-12(Round head screw 2.5*8mm)
S-13(Round head screw 2.5*12mm)
S-14(Round head self tapping screw 3*10mm)
S-15(Round head self tapping screw 2.6*6mm)
S-16(Round head screw 2.5*6mm)
S-17(Round head screw 2*8mm)

1. Front/Rear Linkage Set End
2. Front/Rear Linkage Bar Bolt
28.Front/Rear Lower Linkage Ball Stud(Dia.:5.8mm)
29.Front/Rear Lower Linkage Bar
30.Shock Lower Mount(to be locked to lower linkage bars)
31.Front/Rear Upper Linkage Bar
32.Front/rear Upper Linkage Key Mount
33.Shock Set Bush
34.Shock Set
35.Body Post
36.Aluminum Side Plate
37.Aluminum Battery Tray
38.Battery Mount
39.Battery Pack
40.Front/Rear Upper linkage Ball Bolt (Dia.=6.3mm)
41.Aluminum Radio Tray
42.ESC Switch Mount
43.Antenna Amount
44.ESC
45.Receiver
46.Crystal
47.Battery Clasp



CENTRE UNIT ASSEMBLY

1/10TH SCALE ELECTRIC CRAWLER EXPLODED VIEW

CompetitionX
A WEB SITE FOR THE SERIOUS RACER