



1/8 EP DESERT BUGGY

Thank you for choosing the Team Magic 6SETH 1/8 EP Desert Buggy.
 The 6SETH 1/8 EP Desert Buggy is designed for easy to drive and uses top quality parts for performance and durability. Before you start, we suggest you read though the instruction manual first. We hope you have fun and enjoy our product.

General Operation Tips:

- ▶ Read the instruction manual before operate.
- ▶ Clear a work area and try to work on a light color towel to avoid missing dropped parts.
- ▶ Don't over-tighten fasteners. Many assembly problems are caused by over-tightening screws or nuts. Please driving it slowly and feel the resistance force' s feedback.
- ▶ When parts doesn't fit, please double check the position or the condition of parts.
- ▶ Check the instructions when there are any problems. If you cannot figure out what's wrong, please contact dealer, distributor or Team Magic. Don't use force beyond what the instructions call for. Using the right tools makes assembly much easier. The instructions below finely indicate you what tools to get to make things easier.

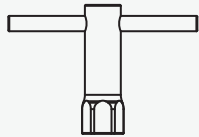
★★★ A Good Dealer Is Extremely Important ★★★

A good hobby dealer can help you with most problems you might encounter. This is the main reason why we suggest you buy the products from a good dealer rather than from the cheapest dealer. Bring your problematic parts to the dealer and, most likely, you'll walk away soon thereafter with the problem solved. If you think that you really don't have the mechanical skills to solve the problem, you may pay your dealer to finish the job for you.

Thank you for purchasing the 6SETH 1/8 EP Desert Buggy. Before start, you will need to check the following procedures.

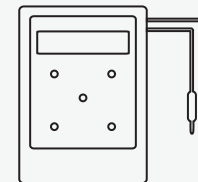
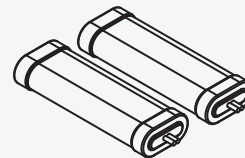
1. Included Tools

- ★ Cross Wrench (17mm)



2. Required Items

- ★ AA Alkaline Batteries
- ★ 14.8v / 22.2v Rechargeable Battery
- ★ Battery Pack charger

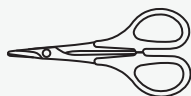


3. Helpful Equipments

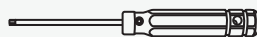
- ★ Hobby Knife



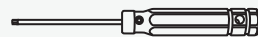
- ★ Body Scissors #116006



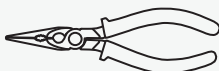
- ★ TM Black RC Hex Wrench Metric Size 1.5mm #117057-1



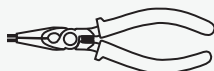
- ★ TM Black RC Hex Wrench Metric Size 2.0mm #117057-2



- ★ Needle-nose Pliers



- ★ Circlip Plier #117032



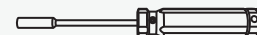
- ★ TM Black RC Hex Wrench Metric Size 2.5mm #117057-3



- ★ TM Black RC Hex Wrench Metric Size 3.0mm #117057-4



- ★ TM Black HC Nut Driver 5.5mm (for 3mm nut) #117010



▶ 560017R

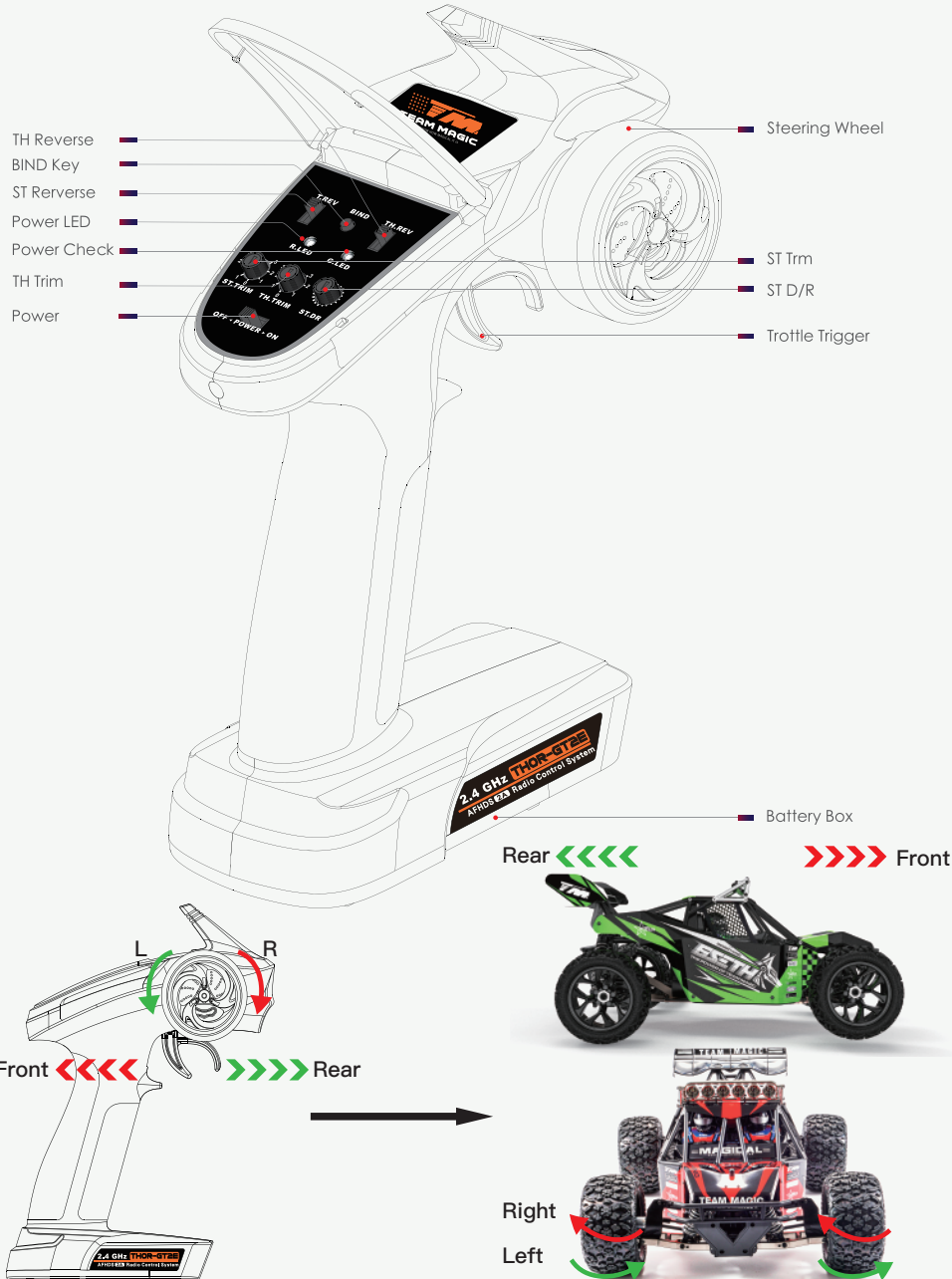


▶ 560017G





Transmitter Overview



Basic Operations

▶ Install the Battery

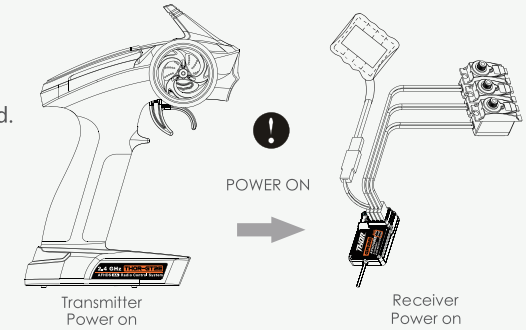
1. Remove the battery compartment cover.
2. Insert 4 fully-charged AA batteries into the compartment.



▶ Power On

Please follow the following steps:

1. Connect everything.
 - Make sure that the batteries are fully charged.
 - Make sure the receiver is off.
2. Move the transmitters power switch to its on position.
3. Connect the power supply to the receiver. The receivers LED should be solid to indicate that it is connected.

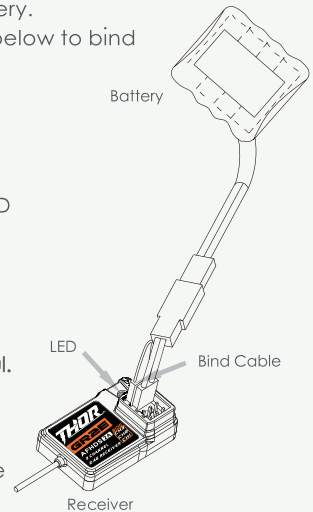


▶ Binding

The transmitter and receiver have been pre-bound before delivery.

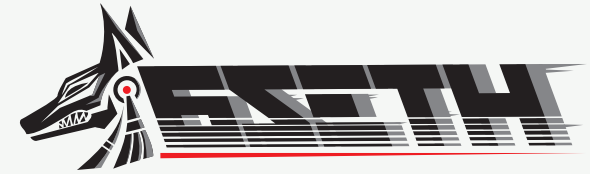
If you are using another transmitter or receiver, follow the steps below to bind the transmitter and receiver:

1. Ensure you are using the AFHDS 2A protocol.
2. Insert the transmitters batteries.
3. Connect the bind cable to the receivers B/CH3 port.
4. Connect power to the receiver's VCC port. The receiver's LED should begin to flash indicating that it has entered bind mode.
5. On the transmitter:
 - Hold the bind button and toggle the transmitters power switch to its on position.
 - If the receiver's LED stops flashing then binding has been successful.
6. Let go of the transmitter's bind button and remove the bind and power cable from the receiver.
7. Reconnect power to the receivers VCC port and test to make sure everything is working as expected, if not, repeat the steps above.



▶ Power Off

1. Disconnect the receiver power.
2. Hold the transmitter's power buttons to turn off the transmitter. Make sure to disconnect the receiver's power before turning off the transmitter. If you turn off the transmitter forcefully (by removing the battery), it may lead to unintended operation and cause an accident.



WP-8BL100-RTR / WP-8BL150-RTR User Manual



Thanks for purchasing our Electronic Speed Controller (ESC). The power system for RC model can be very dangerous, so please read this manual carefully. In that we have no control over the correct use, installation, application, or maintenance of our products, no liability shall be assumed nor accepted for any damages, losses or costs resulting from the use of the product. Any claims arising from the operating, failure of malfunctioning etc. will be denied. We assume no liability for personal injury, consequential damages resulting from our product or our workmanship.

Warnings

- Ensure all wires and connections are well insulated before connecting the ESC to related devices.
- Ensure all devices are well connected to prevent poor connection that may cause your vehicle out of control or other unpredictable issues.
- Read through the manuals of all power devices and chassis and ensure the power configuration is rational before using this unit.
- Please use a soldering iron with the power of at least 60W to solder all input/output wires and connectors.
- Do not hold the vehicle in the air and rev it up to full throttle, as rubber tires can expand to extremely size until explode and cause serious injury.
- Stop using the ESC when its casing temperature exceeds 90 °C / 194 °F to avoid the ESC or the motor gets damaged even destroyed. (We recommend setting the "ESC Thermal Protection" to 105 °C / 221 °F, this refers to the internal temperature of the ESC.)
- We recommend removing the cooling fan from ESC before exposing vehicle to liquids, and fully dry it right after use.
- Always disconnect batteries after use, as the ESC will continue to consume the current power, even if the ESC is turned off. (A long-time connecting will cause batteries discharge completely and break the ESC.)

Features

- Completely water-proof and dust-proof. The ESC works properly even under water. (Please remove the cooling fan when running car in water, and after running, please make the ESC clean and then dry it to avoid the oxidation of copper connectors)
- External Programming Port (EPP), easy to connect with program card, and also works as power port for cooling fan.
- Excellent start-up, acceleration and linearity features, suitable for truggy (especially short course trucks) and buggy.
- The built-in switching mode BEC has powerful output to supply all electronic equipments.
- There is a mounting stand for installing the ESC on chassis easily and firmly.
- Proportional ABS brake function with 5 steps of maximum brake force adjustment, 8 steps of drag-brake force adjustment. Also compatible with the mechanical disc-brake system.
- Multiple protection features:
Low voltage cut-off protection / Over-heat protection / Throttle signal loss protection / Motor blocked protection
- Easily programmed with the SET button of the ESC, and also compatible with pocket-sized Program Card.

Specifications

MODEL	WP-8BL100-RTR	WP-8BL150-RTR
Cont. / Peak Current	100A / 650A	150A/950A
Motor Supported	Sensored / Sensorless Brushless Motor (only in sensorless mode)	
Cars Applicable	1/8 Touring Car , SCT, Buggy , 1/10 Truggy, Buggy	
Motor Limit NOTE 1	3S LiPo: 4068 size motor, KV≤3000 4S LiPo: 4068 size motor, KV≤2400	4S LiPo: 4274 size motor, KV≤3000 6S LiPo: 4274 size motor, KV≤2400
Resistance	0.0005 ohm	0.00035 ohm
Battery	8-12 Cells NiMH, 3-4S LiPo	8-18 Cells NiMH, 3-6S LiPo
BEC Output	6V/5A, Switch mode	
Programming Port	FAN / PRG Port	
Dimension	59.5(L) × 48(W) × 42(H)	
Weight (with wires)	173g	178g

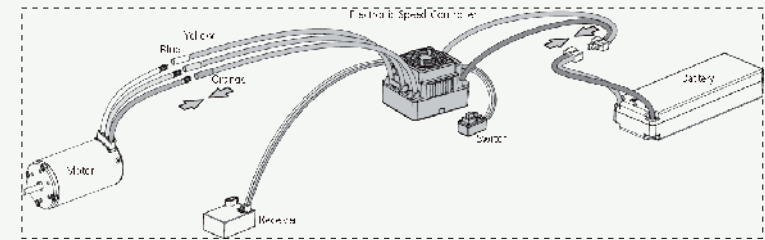
[NOTE 1](#) : The cooling fans of ESC is supplied by the built-in BEC, so it is always working under 6V .

Connection

[BEGIN TO USE THE NEW ESC]

Connect The ESC, Motor, Receiver, Battery And Servo

The #A, #B, #C wires of the ESC can be connected with the motor wires freely (without any sequence). If the motor runs in the opposite direction, please swap any two wire connections.



WARNING!

For safety, please always keep the wheels away from the track when switching on the ESC.

Throttle Range Setting (Throttle Range Calibration)

In order to make the ESC match the throttle range, you must calibrate it when you begin to use a new ESC, or a new transmitter, or change the settings of neutral position of the throttle stick, ATV or EPA parameters, etc.

A Switch off the ESC, turn on the transmitter, set the direction of throttle channel to "REV", set the "EPA/ATV" value of throttle channel to "100%", and disable the ABS function of your transmitter.

B Hold the "SET" key and then switch on the ESC, and release the "SET" key as soon as possible when the red LED begins to flash. [Note 2](#)

Note 2

If you don't release the "SET" key as soon as the red LED begins to flash, the ESC will enter the program mode, in such a case, please switch off the ESC and re-calibrate the throttle range again from step A to step D.

C Set the 3 points according to the steps shown in the pictures on the right side.

1. The neutral point

Move the throttle stick at the neutral point, and then click the SET key, the green LED flashes 1 time.

2. The end point of forward direction

Move the throttle stick at the end point of forward direction, and then click the SET key, the green LED flashes 2 times.

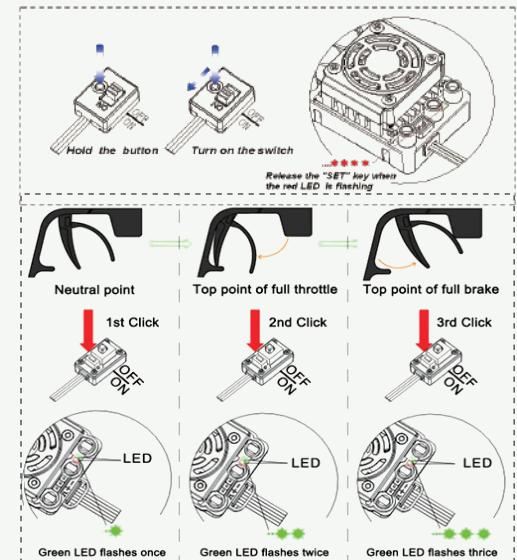
3. The end point of backward direction

Move the throttle stick at the end point of backward direction, and then click the SET key, the green LED flashes 3 times.

D Throttle range is calibrated; motor can be started after 3 seconds.

Check LED Status In Normal Running

- When the throttle stick is in the neutral range, neither the Red LED nor the Green LED lights up.
- When the car moves forward, the Red LED solidly lights; the Green LED also lights up when the throttle stick is at the top position.
- When the car brakes, the Red LED solidly lights; the Green LED also lights up when the throttle stick is at the bottom position and the maximum brake force is set to 100%.
- When the car reverses, the Red LED solidly lights.





WP-8BL100-RTR / WP-8BL150-RTR User Manual

Programmable Items

Programmable Items	Programmable Value								
	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Running Mode	Forward with Brake	F&R with Brake	Forward & Reverse						
2. Drag Brake Force	0%	5%	10%	20%	40%	60%	80%	100%	
3. Low Voltage Cut-Off Threshold	Non Protection	2.6V/Cell	2.8V/Cell	3.0V/Cell	3.2V/Cell	3.4V/Cell			
4. Start Mode(Punch)	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9
5. Max Brake Force	25%	50%	75%	100%	Disable				

Programmable Values

Running Mode

- "Forward with Brake" mode : The car can go forward and brake, but cannot go backward, this is suitable for competition.
- "Forward/Reverse with Brake" mode : Provides backward function, which is suitable for daily training.

Note:

- "Forward/Reverse with Brake" mode uses "Double-click" method to make the car go backward. When you move the throttle stick from forward zone to backward zone for the first time (The 1st "click"), the ESC begins to brake the motor, the motor speeds down but it is still running, not completely stopped, so the backward action is NOT happened immediately. When the throttle stick is moved to the backward zone again (The 2nd "click"), if the motor speed is slowed down to zero (i.e. stopped), the backward action will happen. **The "Double-Click" method can prevent mistakenly reversing action** when the brake function is frequently used in steering. By the way, in the process of braking or reversing, if the throttle stick is moved to forward zone, the motor will run forward at once.
- "Forward/Reverse" mode uses "Single-click" to make the car go backward. When you move the throttle stick from forward zone to backward zone, the car will go backward immediately. In the process of braking or reversing, if the throttle stick is moved to forward zone, the motor will run forward at once.

Drag Brake Force

- Set the amount of drag brake applied at neutral throttle to simulate the slight braking effect of a neutral brushed motor while coasting.

Low Voltage Cut-Off

- The function prevents the lithium battery pack from over discharging. The ESC detects the battery's voltage at any time, if the voltage is lower than the threshold for 2 seconds, the output power will be cut off, and the red LED flashes in such a way: "☆-, ☆-, ☆-".

Start Mode

- Select from "Level1" to "Level9" as you like. Level 1 has a very soft start effect, while level 9 has a very aggressive start effect. From Level1 to Level9, the start force is increasing. Please note that if you choose "Level7" to "Level9" mode, you must use good quality battery with powerful discharge ability, otherwise these modes cannot get the burst start effect as you want. If the motor cannot run smoothly (that means the motor is trembling), it may caused by the weak discharge ability of the battery, please choose a better one or a faster gear ratio.

Maximum Brake Force

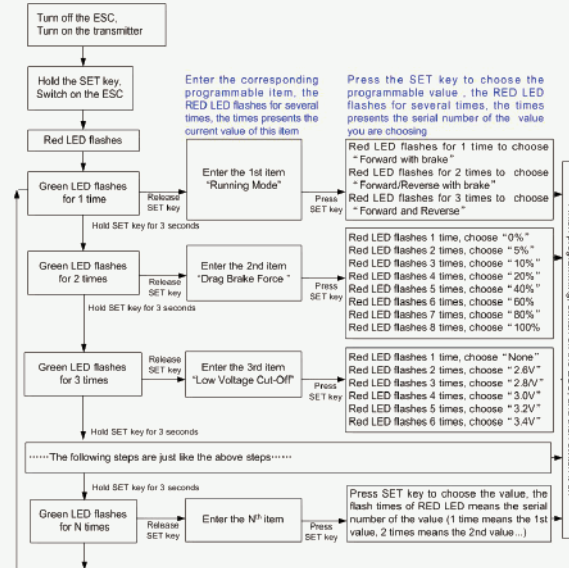
- The ESC provides proportional brake function. The brake force is related to the position of the throttle stick. Maximum brake force refers to the force when the throttle stick is located at the end point of the backward zone. A very large brake force can shorten the brake time, but it may damage the gears. The "Disable" option inhibits the inherent brake function of the speed controller. When this option is selected, the brake function is realized by a traditional mechanical disc-brake system driven by a servo.

Factory Reset

- At any time when the throttle is located in neutral zone (except in the throttle calibration or parameters program process), hold the "SET" key for over 3 seconds, the red LED and green LED will flash at the same time, which means each programmable item has been reset to its default value. It needs to be restarted to complete the whole process.

Program The ESC

Program the ESC with the SET button on the ESC



Trouble Shooting

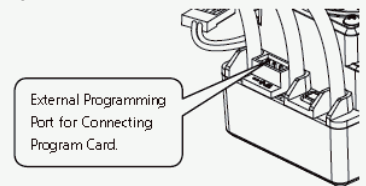
TROUBLE	POSSIBLE REASON	SOLUTION
After power on, motor doesn't work, and the cooling fan doesn't work.	The connections between battery pack and ESC are not correct.	Check the power connections. Replace the connectors.
After power on, motor can't work, but emits "beep-beep-, beep-beep-" alert tone. (Every "beep-beep-" has a time interval of 1 second)	Input voltage is abnormal, too high or too low.	Check the voltage of the battery pack
After the ESC was powered on and finished LiPo cells detection (the GREEN LED flashed N times), and then the RED LED flashed rapidly.	1. The ESC didn't detect any throttle signal. 2. The neutral throttle value stored on your ESC is different from the value stored on the transmitter.	1. Check if the throttle wire is reversely plugged in or in the wrong channel and if the transmitter is turned on. 2. Re-calibrate the throttle range after you release the throttle trigger to the neutral position.
The motor runs in the opposite direction when it is accelerated.	1. The (ESC-to-motor) wiring order was incorrect. 2. Your chassis is different from popular chassis.	Swap any two wire connections between the ESC and the motor.
The motor suddenly stops running while in working state.	1. The throttle signal is lost. 2. The ESC has entered the Low Voltage Protection Mode or Over-heat	1. Check the transmitter and the receiver, or the signal wire from the throttle channel of your receiver. 2. Red LED flashing means Low Voltage. Green LED flashing means Over-heat
The LED program card kept display 3 short lines (---) after you connected it to your ESC.	The programming card/box was connected to the ESC via the throttle control cable (Rx cable).	It is wrong to use the Rx cable to connect programming card/box. The programming port of this ESC is also the fan port, so please connect the ESC and programming card/box by plugging the programming cable into the fan port.
The vehicle could run forward (and brake), but could not reverse.	1. The throttle neutral position on your transmitter was actually in the braking zone. 2. Set the "Running Mode" improperly. 3. The ESC was damaged.	1. Re-calibrate the throttle neutral position. No LED on the ESC will come on when the throttle trigger is at the neutral position. 2. Set the "running mode" to "Forward/Reverse with Brake". 3. Contact the distributor for repair or other customer services.
The car ran forward/backward slowly when the throttle trigger was at the neutral position.	1. The neutral position on the transmitter was not stable, so signals were not stable either. 2. The ESC calibration was not proper.	1. Replace your transmitter 2. Re-calibrate the throttle range or fine tune the neutral position on the transmitter.

Program the ESC with the LED program box

- The Program Card is optional equipment which needs to be purchased separately. It has 3 digital LEDs to display the programmable items' number and the options' number. (Please refer to the user manual of the program card for detail info)



The Rx wire of the ESC (for connecting receiver) CANNOT be used to connect with the LED Program Card. Please only use the special port between the terminals ABC to connect with the Program Card.

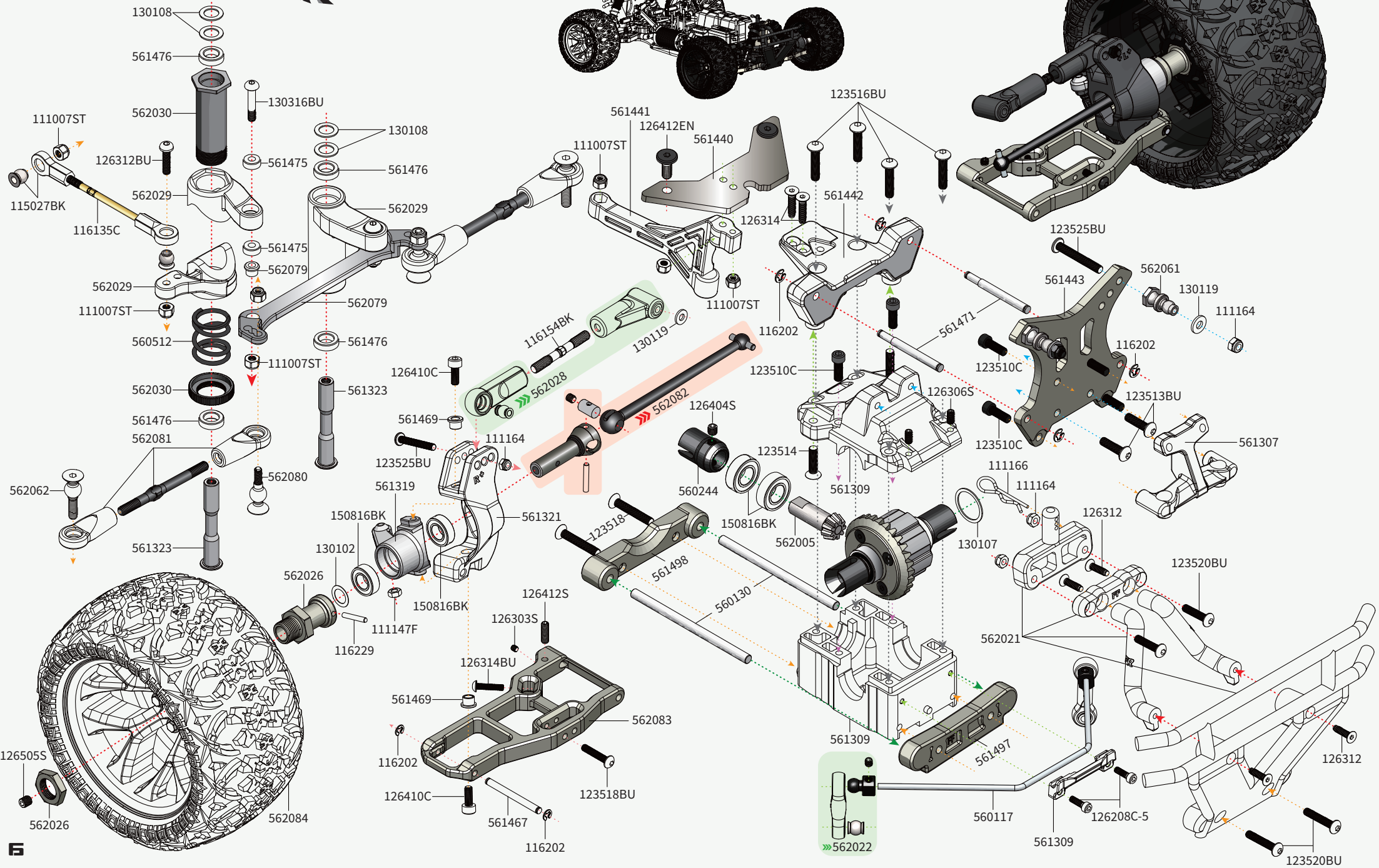
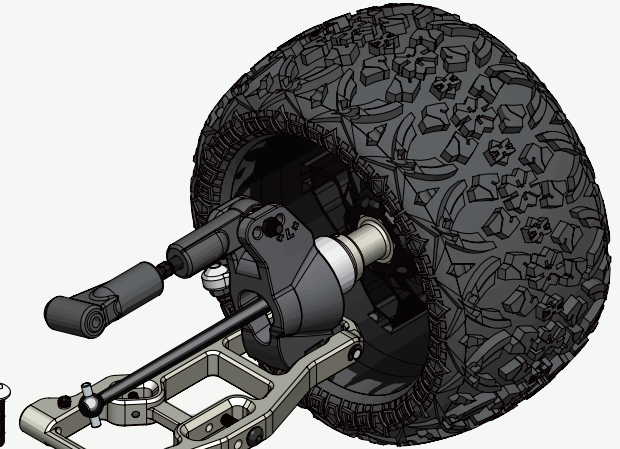
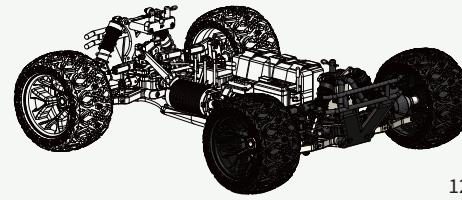


Note:

- In the program process, the motor will emit "Beep" tone when the LED is flashing.
- We use a long time flash and long "Beep—" tone to represent number "5" for identify the items of the big number.
- A long time flash (Motor sounds "B—") = the No. 5
- A long time flash + a short time flash (Motor sounds "B—B") = the No. 6
- A long time flash + 2 short times flash (Motor sounds "B—BB") = the No. 7
- A long time flash + 3 short times flash (Motor sounds "B—BBB") = the No. 8
- A long time flash + 4 short times flash (Motor sounds "B—BBBB") = the No. 9



FRONT PARTS





PARTS LIST



NO.	DESCRIPTION
• 111007ST	3mm Steel Locknut (10)
• 111147F	3.5mm Steel Flat Nut (6)
• 111164	3.5mm Lock Nut (10)
• 111166	R8 Angled Body Clip (10)
• 111167	2.6mm Lock Nut (10)
• 111169H	4mm Shock Shaft Bump Stop -Hard (4)
• 114073	Singal Extension Cord 12cm (2)
• 115016BK	Antenna Rod (2) BLACK
• 115027BK	Ball End & 5.8mm Single Flanged Steel Ball (6) Black
• 116135C	3x50mm CR Adjustable Rod (2)
• 116154BK	5x40mm Hardened Adjustable Rod -BK (2)
• 116201	2x10.8mm Pin (10)
• 116202	E-clip 2.5 (10)
• 116229	2.5x16.8mm PIN(10)
• 116241	3M Double Side Tape 4x2.2cm
• 116249	EVA Tape 4x14cm
• 123510C	3.5x10mm Steel Cap Screw (6)
• 123513BU	3.5x13mm Steel Button Head Screw (6)
• 123514	3.5x14mm Steel FH Screw (6)
• 123516BU	3.5x16mm Steel BH Screw (6)
• 123518	3.5x18mm Steel FH Screw (6)
• 123518BU	3.5x18mm Steel BH Screw (6)
• 123520BU	3.5x20mm Steel BH Screw (6)
• 123525BU	3.5x25mm Steel BH Screw (6)
• 123550BU	3.5x50mm Steel BH Screw (6)
• 126208C-5	2.5x8mm Steel Cap Screw (6)
• 126303S	3x3mm Set Screw (6)
• 126306C	3x6mm Cap Screw (6)
• 126306S	3x6mm Set Screw (6)
• 126308	3x8mm Steel F.H. Screw (6)
• 126308BU	3x8mm Steel Button Head Screw (6)
• 126308C	3x8mm Steel Cap Screw (6)
• 126310	3x10mm Steel F.H. Screw (6)
• 126312	3x12mm Steel F.H. Screw (6)
• 126312BU	3x12mm Button Head Screw (6)
• 126312SE	3x12mm Steel Flat Round Servo Mount Screw (6)
• 126314	3x14mm Steel FH Screw (6)
• 126314BU	3x14mm Button Head Screw (6)
• 126316BU	M3X16mm BH Screw(10)
• 126320C	3x20mm Cap Screw (6)
• 126404S	4x4mm Set Screw (6)
• 126410C	4x10mm Steel Cap Screw(6)
• 126412	4x12mm Steel F.H. Screw (6)
• 126412EN	4mm Steel Flat Round Engine Mount Screw (6)
• 126412S	4x12mm Set Screw (6)
• 126416	4x16mm Steel FH Screw (6)
• 126505S	M5x5mm Set Screw(6)
• 130102	8.1x12x0.2mm Shim (10)
• 130103	4.2x10x0.2mm Shim (6)
• 130107	13.2x15.9x0.5mm Shim (6)
• 130108	6.05x9.5x0.5 mm Shim(10)

NO.	DESCRIPTION
• 130119	3.6x8x1mm Washer (10)
• 130138	3.5x7x1 Washer (10)
• 130139	5.2x15x0.5 Washer (10)
• 150816BK	8x16x5mm Bearing-Black
• 152005	O-Ring 4.7X1.4mm(10)
• 152015	15.5x1.5 O-RING (4)
• 191019	THOR WP-8150 ESC for Brushless Motor (22.2V)(3-6S)
• 191020	THOR T4 4074 Brushless Motor 2250KV (22.2V)
• 191027	THOR GT2E 2.4G Transmitter w/Receiver
• 191028	THOR GT2E Receiver
• 560117	Front Anti-Roll Bar 2.4mm
• 560130	ST Steel 4x68.8mm Hinge Pin (2)
• 560149	Rear Anti-Roll Bar 2.8mm
• 560178	Servo Arm (Futaba) (2)
• 560243	Rear Body Mount
• 560244	ST Steel Small Bevel Gear Outdrive (2)
• 560512	Servo Saver Spring (K=2.0) Black
• 561202	Shock Bladder (4)
• 561302S	Hardened Diff. Case (B8 , SETH)
• 561303	Diff Case Gasket (4)
• 561307	Front Shock Tower Stiffener
• 561309	Front & Rear Diff Gear Box (1 set)
• 561319	CNC Machined Front Steering Block 7075 Alum.(pair)
• 561321	Caster Block (1 pair)
• 561323	Servo Saver Post (2)
• 561336	Rear Hub Carrier & Mud Sweeper (1 pair)
• 561403	Receiver Box
• 561404	Battery Box
• 561405	ESC Mount
• 561440	Triangle Plate (Front)
• 561441	Front Stiffener
• 561442	Front Upper Arm Mount
• 561443	Front Shock Tower
• 561444	Rear Shock Tower
• 561462	Rear Lower Outer Hinge Pin(2)
• 561467	Front Lower Outer Hinge Pin(2)
• 561469	Steering Block Carrier Bushing (4)
• 561471	Front Upper Inner Hinge Pin(2)
• 561475	3x7x3mm Steel Bushing(4)
• 561476	6x10x3mm Steel Bushing(4)
• 561497	Alum. Hinge Pin Mount FF
• 561498	Alum. Hinge Pin Mount FR
• 561499	Alum. Hinge Pin Mount RF
• 562001S	6S Complete Differential Kit (F/R)
• 562002	F/R Differential Outdrive (2)
• 562003	Differential Bevel Gear Set (for 1 diff)
• 562004	Differential Bevel Shaft (2)
• 562005	Machined Bevel Gear -29T/9T
• 562006S	6S Center Differential Set
• 562007A	Alum. Shock Absorber Set -Front (2)
• 562007A-1	Alum. Shock Absorber Upper Cap (2)

NO.	DESCRIPTION
• 562007A-2	Shock Piston - POM (4)
• 562007A-3	Alum. Shock Body - Front (2)
• 562008A	Alum. Shock Absorber Set -Rear (2)
• 562008A-1	Alum. Shock Body - Rear (2)
• 562011	Shock Shaft - Front (2)
• 562012	Shock Shaft - Rear (2)
• 562013	Shock O-Ring & Washer (2)
• 562014-16	Shock Spring - Front (2) K=1.6
• 562015-14	Shock Spring - Rear (2) K=1.4
• 562016	Shock lower Joint (2)
• 562021	Front Bumper Set
• 562022	Anti-Roll Bar Linkage Joints (2)
• 562023	CVA Joints (2)
• 562026	Wheel Adapter Set (2)
• 562028	Front Upper Arm Set (2)
• 562029	Servo Saver Nylon Parts
• 562030	Servo Saver Spring Holder
• 562032BK	Rear Wing
• 562033	LED Lights
• 562034	Center Driveshaft - Front
• 562035	Center Driveshaft - Rear
• 562036	Center Differential Mount
• 562037	Chassis
• 562039	Servo Mount
• 562040	Rear Lower Arm(2)
• 562041	Rear Upper Arm Set (2)
• 562042	Rear Stiffener
• 562044	Rear Bumper Set
• 562045	Motor Mount
• 562060	CNC Machined 46T Main Gear
• 562061	Steel Shock Pivot Ball Mount ψ 5.8 (2)
• 562062	Pivot Ball Screw (M3.5x6.8mm) (4)
• 562071-3	Roof Light Bar
• 562072	Window Net (2)
• 562078	Side Guard
• 562079	6SETH Steering Linkage Set
• 562080	Pivot Ball Screw (M3.0x6.8mm) (4)
• 562081	6SETH Steering Linkage Rod (2)
• 562082	Front Axle CVD Drive Shaft (2)
• 5620836	SETH Alum. Front Lower Arm (1)
• 5620846	SETH High Performance All-Terrain Tires (2)
• 562085G	6SETH Body - Green
• 562085R	6SETH Body - Red
• 562085G-1	6SETH Cabin and Panels - Green
• 562085R-1	6SETH Cabin and Panels - Red
• 5620866	SETH Quick Released Battery Fastener (4)
• K6310-900	K Factory Shock Oil 70ml/2.5oz #900
• K6330-1000	K Factory Diff Oil 40ml #1000
• K6330-10000	K Factory Diff Oil 40ml #10000
• K6330-500000	K Factory Diff Oil 30ml #500000
• K6602-10	M1.0 Pinion Gear for 5mm Shaft 10T
• SA-SW0231	SW-0231 Waterproof Servo (15KG)