



X4

2.4GHz

Instruction Manual

WFLY ®

ShenZhen WFLY Technology Development Co.,Ltd. www.wflysz.com

Before using, please make sure you must understand the following information.

When Opening the package, please confirm the following items are complete.

Match the different parts of the assembly the article is also different, please confirm it according to the following chart.

If mixed with the counterfeit product which result in damage, the company shall not be responsible for it

Please use this book or catalogue which have recorded the products.

●Transmitter (X4)	x1
●Receiver (WFR04H)	x1
Battery box for the transmitter	x1
●Instruction book	x1
●Foam box	x1
●Color box	x1

If there is insufficient or unclear point for the packaging content, please refer to the model shop for more information.



Important Notes

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Logo Meaning	9
Attention Point For The Using Of 2.4GHz System	9
Attention Point For The Using Of High Speed Mode	9
Attention Point For The Driving	10
Attention Point For The Battery	11
Attention Point For The Saved And Wasted Battery.	12
Other Matters Needing Attention	12



Terms Of Use

13

Attention Point For The Mode Setting Of Steering Response 13

The Using Method Of The Transmitter 14

The Name Of Each Part Of The Transmitter 14 The Power Switch And Rf Switch 15 Low Voltage Warning 15	
The Operation Mode Of Digital Trimming	
Grip Lever Operation 16	
The Adjustment Method Of Mechanical Range 16	
Adjustment Method Of Wheel / Trigger Tightness 16	
Adjustment Method Of The Trigger Position 16	
Method For Replacing The Left And Right Hand	
Using Method Of Transmitter Antenna And Receiver	20
Antenna Related Matters 20	
The Name Of Each Part Of The Receiver	
Receiver Code Method 21	
The Receiver Indicator Lamp Status Confirmation 21	
The Installation Method Of Receiver 22	
Assembling Method	23
Receiver And Servo Connections 23	
Safety Considerations When Assembled 24	
	00
Initial Set-up	
The Preparation Before The Transmitter Sets 26	
Switch, Button Description	28
The General Mode Of Operation	28
Description Of Indicator Lamps	28

Product Features	
Can Store 40 Sets Of Model Data	29
Special Brake Mixing For Large Car (BRAKE)	
Anti Lock Braking System (A.B.S)	
Accelerator (TH-ACC)	
Steering Speed (ST SPEED)	
Throttle Speed (TH SPEED)	
Timer (TIMER) Fine /The Selection Of Switch Function	
Tille / Tille Galestion Grownton Tanstion	
Function Chart	
Main Page	30
Directory Structure	
The Function Table	32
irection [STEER]	
The Size Of The Action [D/R]	
Exponential Curve [EXP]	
Direction Delay [SPEED]	34
hrottle [THR]	35
Exponential Curve [EXP]	
Throttle Delay [SPEED]	
Accelerator [TH ACC]	00
Primary Setting······	38
Positive And Negative Setting [REV]	
Digital Trimming [TRIM]	
Auxiliary Tuning [SUBTR]	38
Travel Set [EPA]	
Lose Control Of Protection [F/S]	39
Position [POS]	40
TIMER	
Circle The Number List [LAPLIST]	41



Function Description

42

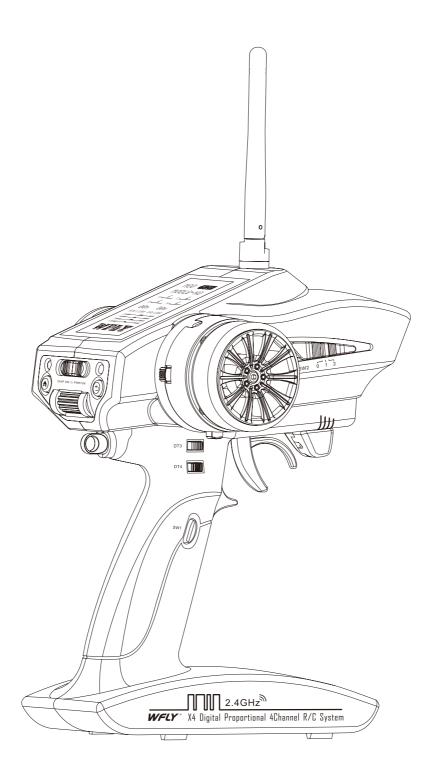
Advanced Function		42
Programming Of Mixed Control	42	
A.B.S	43	
Brake Mixing	44	
Four Wheel Steering	45	
Front And Behind The Miscible Flooding	46	
Throttle Mode	47	
Function Selection [DIAL SW]		49
Switch, Button	49	
Fine Tuning Options	50	
• ,		
Model Information		51
Model Selection	51	
Model Replication	51	
Model Name	51	
Factory Setting	51	
System Settings		52
Adjustment	52	
Backlight Lamp	52	
The Tone	52	
Power Supply Scheme	53	
Version Information	53	
High Speed Mode	53	
Code	53	
Language		53



Reference

Specifications

Transmitter Receiver



In order to ensure the safety of yourself and others, when using this product, please pay attention to the following matters.

Logo Meaning

The following logo appears in the book, indicate the safety consideration, please pay special attention to.



Ignorance of this logo and the operation error, may lead to the user or others to death and injury risk.



Ignorance of this logo and the operation error, may lead to the user or others to death and serious injury risk, or made A minor injury or possibility damage of the gods.

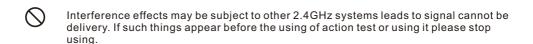


Ignorance of this identity and operational errors, the possibility of making users or others injured is not high, there are still may injured or cause damage to the gods.

Circular logo: O Prohibited items

Be sure to keep matters

The Attention Use Of 2.4GHz System



In view of the safety Please set out the lose control of protection function.

Note: The Use Of High Speed Mode

- When using the high speed mode, please use the digital servos.
- When using the normal mode, please use the analog actuator.

Items Needing Attention While Driving





Driving is forbidden during the Rainy day, strong wind and night the transmitter cannot operate ,control or lost its way after dropping it into the water .



No driving in the following places.

- •Near the crowded people.
- •Near the high voltage electricity or communication station.
- •Whenever the interference of waves, obstacles or transmitter, or the vehicle fault cause body out of control, it may cause other people death.



Do not drive when you are tired, ailing or drunken, unable to correctly judge the easy operation error, tend to danger.



Before driving you must test launch receiving system and dynamic model, condition of the control function.

Regardless of the remote control or any part of the model abnormal may cause out of control.

A simple test method:

Please hold the model car by the helper or fixed on the platform, try to operate all the site, confirm whether action and command is consistent. If you can't control or the abnormal movement.

Careful



Using it or after using do not immediately touch the engine, motor and electronic transmission device. The high temperature may cause burns.



When the power is on:

Throttle trigger transmitter maintained at the stop position.

- 1, turn on the transmitter power first
- 2, then turn on the receiver power

The opposite operation, may cause the body out of control, and risk.



When the power supply is switched off:

After stopping the engine or motor

- 1, turn off the receiver power
- 2, and then turn off the transmitter power

The opposite operation, may cause the body short burst, danger!



Please stop the engine operation before the adjustment of remote control (power off). If you don't stop the engine operation in advance the body burst danger may occur .





Please check the function of losing control protection is normal before driving Confirmation method:

- 1, Open the transmitter first and then open the receiver power;
- 2, set the lose control of protection function connect to the receiver (39 pages);
- 3, turn off the transmitter;
- 4, confirm the function under the lose control protection the throttle and channel can operate in a setting position.

Lose control of protection function is when the receiver can not receive the signal, Let the actuator set the position move in advance Make the hurt to the lowest safety auxiliary function But if the position set in advance is dangerous position, it will cause the posite effect.

Case: the throttle setting is safe in the midpoint position.

Attention Point For The Battery

Using NiCd/NiMH battery



Ni/Cd





Do not use wet hand . To Plug the charger to avoid the risk of electric shock.



Before driving, make sure the transmitter for battery charging. Driving power is insufficient, there will be danger burst.

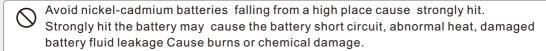
When the Nickel cadmium battery of the transmitter is charging, please be sure to use the dedicated charger.

Charging exceeds the specified value will be tend to abnormal heating, rupture, battery fluid leakage. Injury, fire damage, blindness may happen.





Avoid nickel cadmium battery link end may result in short circuited. If the short circuit will be on fire, abnormal heat, will cause burns or fire.

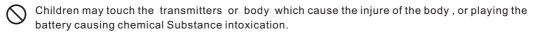


Be sure to the battery should disconnected, when the exercise is no longer operate Do not plug in the socket, when the charger is not charging

Avoid abnormal heating accident.

Preservation And Waste Batteries Considerations

Warning



Can not put the nickel-cadmium batteries into fire or heat, nor make its decomposition or transformation.

If the battery rupture, abnormal heat or leakage of battery fluid may cause burns or blindness.

<Nickel-cadmium, nickel-metal hydride battery electrolyte>
Containing highly alkaline battery, if they fall into the eyes it can cause blindness. If flow into the eyes by accident you should immediately wash with the clean water before seeing the doctor. In addition, the electrolyte will damage the skin, if the skin or clothing is Dip into the electrolyte, you should immediately wash with clean water. (Except lithium)

Careful



The remote control can not be stored in the following locations.

- extremely hot places (above) a very cold place (- less)
- direct sunlight and high humidity places places
 dusty places
- vibration place more steam spaces

If stored in the above areas, it will likely to cause deformation or failure.

Other Considerations

O not let the plastic parts directly contact to the fuel, oil, exhaust, etc. if the Plastic part exposed to fuel and other substances may be corrosion which will cause the damage.

Transmitter, receiver, servos, electronic transmission, nickel-cadmium batteries and other devices must match the standard product to use.

Attention For The Mode Setting Of Steering Response





If you want to use the X4 high speed steering response mode, you must meet the following conditions:

With the 6V 270Hz specifications: digital servos.

The 6A nickel cadmium battery the using power for the receiver.

The transmitter steering response mode setting: high speed mode (refer to page 53).

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When using the simulated steering, be sure to transform the response mode of X4 steering into the normal mode.

The use of X4 common steering response mode, must meet the following conditions:

With the 6V 50Hz specifications: Simulation of steering gear.

The use of nickel cadmium battery power receiver: 6V.

The transmitter steering response modes: normal mode (refer to page 53).

Simulation of steering gear can not normally operate in the high-speed mode,

And also can connect to the steering of the receiver and other part may happen failure .

In normal mode, digital servos also can normally operate ..

The Using Method Of Transmitter The Name Of Each Part Of The Transmitter Antenna Display Status indicator The power switch Return key Debugging indicator DT1 Menu key Steering wheel Roller and define key DT2 Rings Slide switch (SW.2) The trigger DT2 DT3、DT4 Button (SW.1) A brief description of the battery installation 1, as shown in the picture to open the battery compartment cover. 2, the battery removed. 3, replace the new battery. (pay attention to the polarity of the battery, can not be reversed) 4, the battery compartment cover should put back into the orginal place



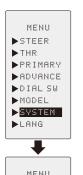
When you Close the battery cover, please don't let the lid nip the connected line of battery. If the cable is clamped which cause a short circuit, will be outbreak of fire, abnormal heat, cause burns or fire.



The Power Switch And RF Switch

DISP ON	U	PWR ON
Radio waves are not being transmitted LED(red	POWER OFF	Radio waves are being transmitted LED(blue)

Low Voltage Warning







When the battery and voltage of the transmitter is lower than the usable range the warning sound, and the two indicator lights.

Lithium ion batteries, nickel metal hydride, nickel cadmium, stem cells can use the different voltage range, so it must be in

System setting and use the power supply scheme to set the using power.



- ►ADVANCE ►DIAL SW
- ►MODEL ►SYSTEM
- ▶LANG

•









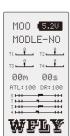


If the battery runs out of during the driving, which cause the body out of control, so when the alert sounded.

Please immediately stop running, receive the body of the car.



Digital Trimming Operation Mode



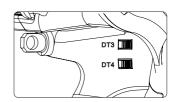
Initial state

DT1: to fine tune; Dt2: throttle trim;

Dt3: channel 3;

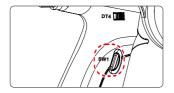
DT4: the size of the action settings.

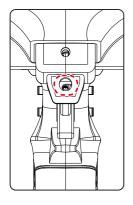




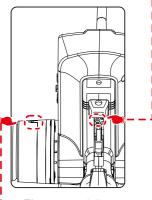
Both sides pressing the electronic tuning to fine tune the action.

LCD will show the amount of fine-tuning, the size of the current action and brake stroke volume.

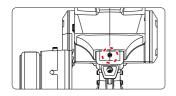




The trigger for adjusting tightness



The runner tightness regulating hole



Grip Lever Operation

Button initial setting is the timer operation button.

Operation mode is divided into:

- 1, the standard, press down is effective bounce is invalid;
- 2, switch, each time you press will switch the state of ON/OFF.

The Adjustment Method Of Mechanical Range

In accordance with the user's operation feeling, when you want to reduce/enlarge the trigger. Braking travel, please adjust this place.

Adjustment method:

6 angle screwdriver rotation diagrams of using the 2.5mm screws, adjust The trigger brake travel.

Clockwise rotating screw, travel becomes small, please adjust. when you observe .

Matters need to attention

After Adjusting the machinery range it must use the throttle calibration function. (see page fifty-second)

Adjustment Method Of Wheel/trigger Tightness.

Adjust the strength of steering wheel and the trigger spring, to change the steering wheel And trigger tightness.

Adjustment method:

Use 1.5mm 6 angle screwdriver rotate the screw, adjust the steering wheel

And the spring strength to pull the trigger.

Clockwise rotation, the traction force will be stronger.

Matters need to attention:

When the anti clockwise rotate beyond the limit the screw will be fall off.

Adjustment Method Of Trigger Position

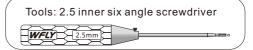
You can move the trigger position.

Adjustment method:

6 angle screwdriver 2.5mm rotating the screw, adjust the trigger position. Clockwise rotation adjustment is far away from the handle.

Method For Replacing The Left And Right Hand

In order to meet different operation habits of users, We use the switch design of multiple modes operation!



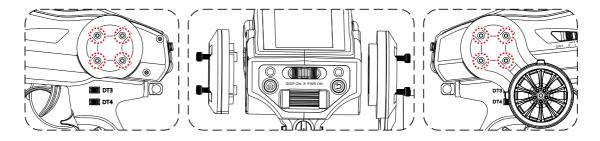
Methods



Steering Rocker Hand Replacement

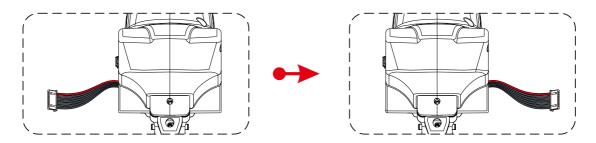


Unloading the fixed direction wheel arm and the other side of the circle on the cover of the eight inner six angle screw;



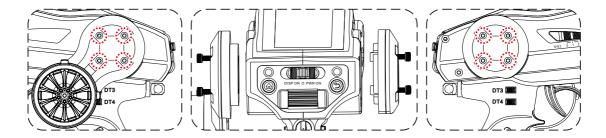


Remove the steering wheel arm and a round cover, unplug the cable plug; the cable through the voids inside the machine.





Trade the position between the steering wheel arm and round cap ,plug cable installed the inner six angle screw

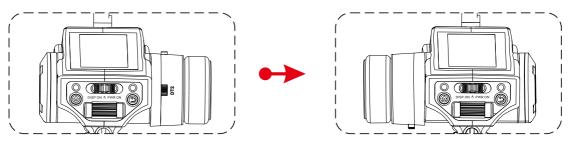




Left And Right Hand Replacement Of The Steering Wheel Assembly

This structure lack of a steering rocker arm,

The steering wheel is directly installed on the main body, simple and flexible! Another operating options available for different operating habits of users!

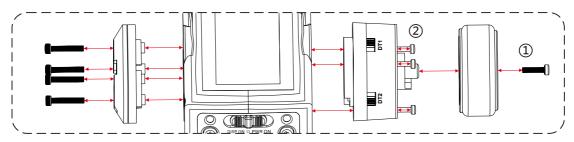




Pay attention to the direction wheel part of unloading screw, when the screw is disassembly

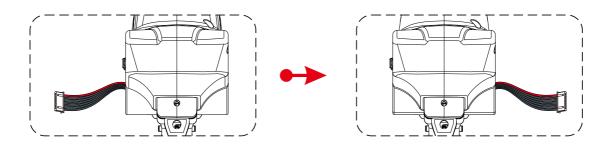
The positive one, first from the direction wheel frame unloading inner six angle screws, remove the steering wheel;

Two, remove three screws of the direction of the wheel seat.





Pull out the data cable plug, Remove the steering wheel arm and a round cover; make data lines through the internal machinery.





Adjust the steering wheel seat and a round cover position, plug the cable, mounted on the inner six angle screw;

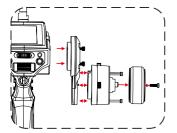
Screw unloading methods as the first step, fix the inner six angle screw .

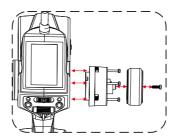
Methods

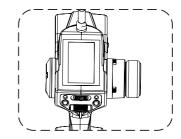


No Arm Rocker Operation Mode Change

- ①Remove the steering wheel rocker four inner six angle screw, open cable;
- ②The unloading of the wheel shaft inner six angle screws and three long six angle screw;
- ③Delete the rocker, connect the cable, take the steering wheel seat corresponding to the position of three screw hole install the screw.





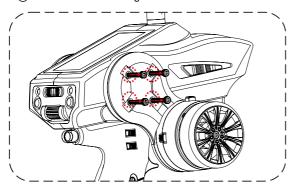


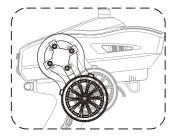
Methods

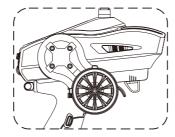


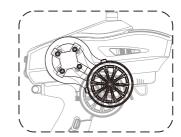
Adjust Steering Wheel Rocker Angle

- ①Remove the steering wheel rocker four inner six angle screw;
- ②According to your perfect position, adjust arm angle, the original rocker angle 45 degrees, each hole for 15 degrees;
- 3The four inner six angle screw fixation.









Using Method Of Transmitter Antenna And Receiver

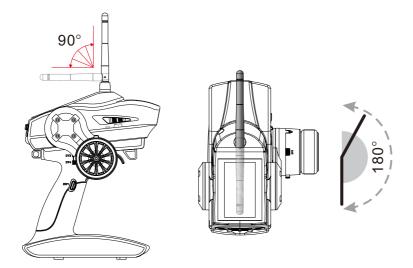
Antenna Related Matters

During the operation, please try to tune the antenna to the vertical position, otherwise it will shorten the distance of the remote control.

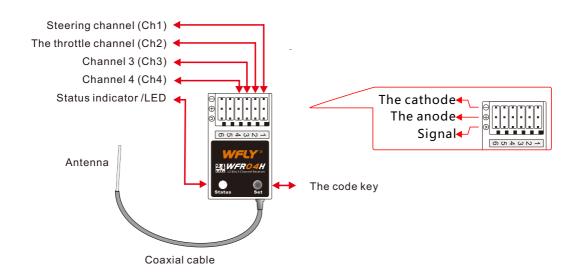


Ouring the Driving, do not hold the antenna.

When Adjusting the antenna range, do not exceed the range of the rotatable antenna.



The Name Of Each Part Of The Receiver



Receiver Code Method

Each transmitter has a separate distribution ID number.

In order to successfully operate, the receiver must be paired with transmitter.

Once the pairing is completed, an ID number can be received and store, after using it does not need repairing.

- 1, Put the transmitter and receiver on the mutual distance within 1 meter;
- 2, Open the transmitter power;
- 3, Open the receiver power;
- 4, Long press set button receiver about a second, the yellow indicator light flashes;
- 5, Operate the transmitter to perform the code action;
- 6, The receiver the blue indicator light lit, namely the operation code is complete;
- 7, Check each channel output is normal.





If your receiver has multiple WFLY2.4GHz devices nearby during the working state, the receiver may not be correctly connection to your X4. In this case, even if the receiver LED has been green lit display, it may also the receive and other transmitter of the same system established connections. If we ignore this situation it will be very dangerous! To avoid this problem, try to suggest that you check your receiver whether it is under control of your transmitter or not, and then test the steering gear response.

The Receiver Indicator Lamp Status Confirmation

Receiving signal, but ID is unmatched

Code condition

Receiving signal

Receiver low voltage

Red LED:ON

Red LED:ON

Red LED:Blink



When operating the code action, please stop the movement of engine.

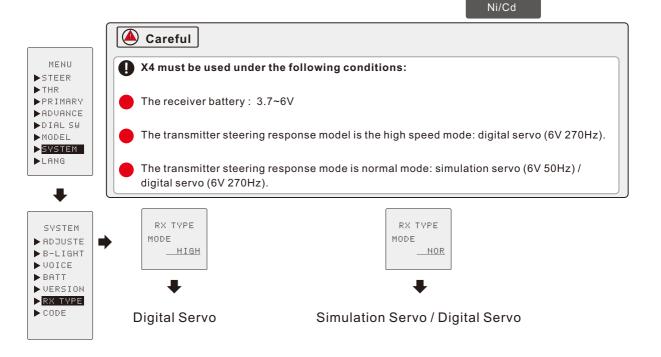
After the operation of code ,please make sure the movement of servo is correct or not.

The Installation Method Of Receiver

- Do not trim or bundling antenna.
- O Don't bend coaxial cable, which may cause damage.
- The antenna is installed in a higher position.
- The antenna is sheathed in the pipe to protect it.
- Please try to make the receiver stay away from battery, electronic speed controller, motor or metal wiring and other noise sources.
- Please use the foam to pack receiver and thick version of double-sided adhesive tape fixed to achieve the shock effect.

 If there is moisture, please send receiver into waterproof plastic bags, to achieve waterproof effect.

Note: due to the fact that the receiver would send out the hot air, please install in a well ventilated place when installing in order to avoid overheating.



Assembling Method

Receiver And Servo Connections

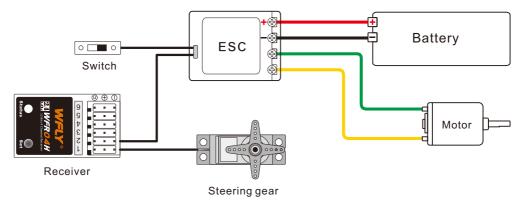
Connect between receiver and servos according to the following diagram

When Connection and installation please follow the "safety precautions of the assembled" ($9\sim13$ pages).

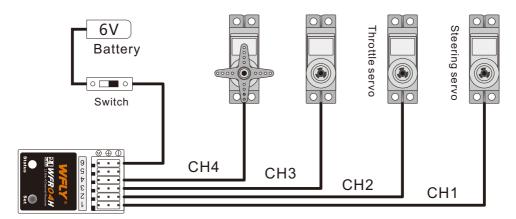
The following connection method only for reference , for the actual connection way please change according to different accessories.

Connecting the method of electrically adjustable ,battery motor depends on the type of electrically adjustment . Receiver installation still depends on your configuration.





2 Oil Machine Drive Connection Method



Receiver

Safety Considerations When Assembled



The Receiver Antenna

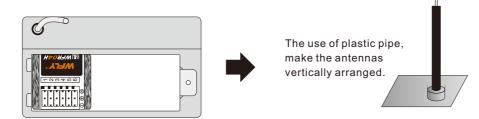
O Can not be cut off or messy tie the antenna.

The receiver antenna can not be connected with the servo connection line and electronic transmission line.

Do not close to the motor or power battery which is parts of large current flow at least the distance is 1CM.

Metal or metal plate antenna or the metal plate of the conductive material please do not use the metal antenna

The antenna seat should installed near the position of the receiver.



The Shakeproof Of The Receiver

Please use sponge parcels receiver, and then use the thick wide of double-sided adhesive tape fixed the receivers to achieve the shock effect.

Connecting Lines Connect

When installing, please make sure that the cable actuator, the battery plug into the deepest (good contact).

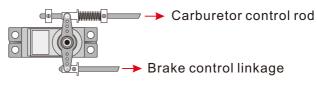
Servo Installation

Please use the rubber vibration damper (shock protection washer) make the teering gear. Installed in the fixing seat

The Motion Range Of The Servo

Make sure the steering gear is normally operate under the maximum range and adjust the push rod so that it will not bend.







Electronic Gearbox

When installing the cooling plate, please do not contact the aluminum or carbon alloy chassis and other easily conductive material

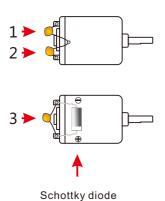
Brush Motor Disturbance Countermeasures

- Use the brush motor please make sure to install the container of the eliminating the noise interference.
- Under the situation without installing the filter capacitance or the wrong link of capacitance, the receiver may affected by the motor generates of Electromagnetic interference, produce the wrong operation. So please be sure to welding three filtering capacitors in the motor.

In addition, if use the electronic tuning of schottky diode, please make the anode (cathode) welded on the positive terminal (+ end),

And the other end is welded on the negative end (end). when Welding the positive and negative of the motor must be consistent with the actual input power line,

Or it will cause the electrically adjustable or the damage of diode



Other Interfering Countermeasures

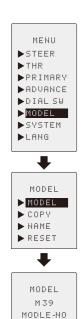
A

When installing the part of the car body .do not contact the metal parts for vehicle body vibration.

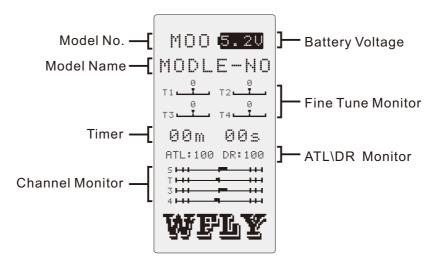
Initial Set-up

The Preparation Before The Transmitter Sets

Set The Function Of Transmitter, Please Confirm And Set The Following 1~4 Items.



Turn on the power, the main interface will display the model number of the currently selected, if you need to change, please use the model selection (see page 51).



1 The Rf Signal Output Validation

Turn the power switch to the "PWR ON", RF can be normally output signal, the blue indicate the light is bright

Turn the power switch to the "DISP ON" and RF does not output signal.

Turn the power switch to the "DISP ON" end, RF does not output signal, the red indicate the light is bright.

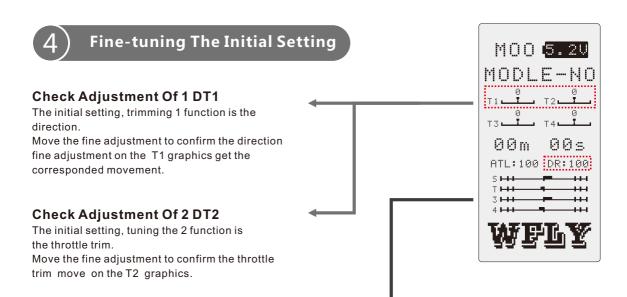
(2) Servo Type Confirmation

When using the high speed mode, please use the digital servos.

When using the normal mode, please use the analog / digital servo actuator.

3 Throttle Mode Confirm

The throttle trigger, set the throttle and steering action value to 5:5 or 7:3. Please read the < throttle mode > (thirty-fifth pages).



Check Adjustment Of 3 (DT3)

The initial setting, tuning the 3 function is channel 3 (Ch3).

Move the fine adjustment to confirm the channel 3 (Ch3) on the channel monitor (3) get the corresponded movement.

Check Adjustment Of 4(DT4)

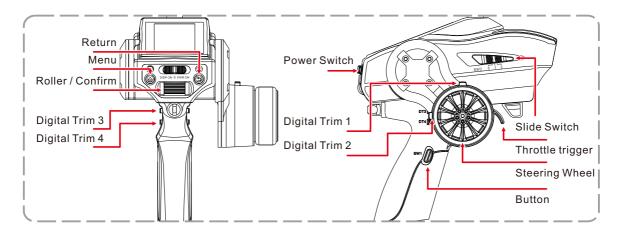
The initial setting, tuning function is DR(D/R).

Move the fine tuning to confirm DR numerical changes.

When Installing The Steering Gear In A Model, Proposed The Following Order To Execute The Function Setting.

- 1, implement the step from ① to ④ fine adjustment initial setup.
- 2, set the steering gear, the motor direction In [D/R].
- 3, adjust the actuator position.
- 4, according to their own preferences and habits to set throttle / brake stroke.
- 5, set the maximum stroke of each channel.

Switch, Button Description



Power switch: push (1) to the end point is the power off,

push the end point of $\mathbf{PWR}\ \mathbf{ON}$ is the normal boot ,

push the **DISP ON** is the emission function boot off.

Throttle trigger: pull the trigger is accelerated; push forward to the trigger is the brake or reverse.

The steering wheel: back to turn left; move to turn right.

Menu: import menu, press reset.

Return: return (and save).

Roller / Confirm: adjust up and down, enter the menu, sure to save.

Digital trim 1 (Dt1): can be customized function, step, default to the direction of fine adjustment.

Digital trim 2 (Dt2): can be customized function, step, the default for the throttle trim.

Digital trim 3 (Dt3): can be customized function, step, the default channel 3.

Digital trim 4 (Dt4): can be customized function, step, the default adjustment for the size of the action.

Slide switch (Sw2): can be customized functions, the default channel 4; three gears.

Button (SW1): the switch of functional state Can be customized functions, switching mode, the default for the timer switch button.

The General Mode Of Operation

- 1, press the [Menu] to enter the menu.
- 2, rolling[Roller], select the menu or edit items.
- 3, press [Confirm] enter edit state.
- 4, [Roller] rolling adjusting parameters.
- 5, after setting up press [Return] / [Menu] exit and save.

Description Of Indicator Lamps

Blue On

B RF ON

Red On

R RF OFF

Blue Blinking Fastly

B Advanced Function ON

Blue&Red Blinking Slowly

BR Low Voltage

Blue Blinking Slowly

B Coding

•Model memory for 40 models

Each model can be set independently for the name of the model. If you use the model copy function you can simply set the existence of subtle differences model.

·large car brake mixing

The front and the back of the brake Mixing can be individually adjusted for 1/5GP car.

•The anti lock brake system

In order not to let the engine in the uneven corner or when the moment of braking which will cause the brake function of slipping.

Accelerator

Engine accelerator or brake will produce delay before the arriving of action transmission. This function can make the delay time under control at a minimum range.

Steering Speed

Adjust the steering wheel speed with flexible method.

Throttle Speed

On a wet road when throttle sudden strongly operate, it can make the wheel slip not successfully complete the accelerated motion. Set this function can simply complete the accelerated motion without making the wheel slip.

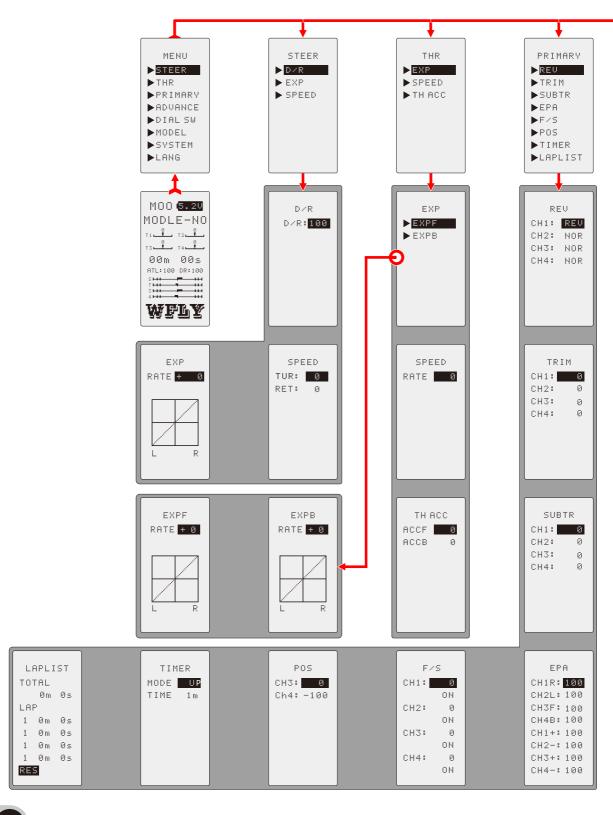
•Timer

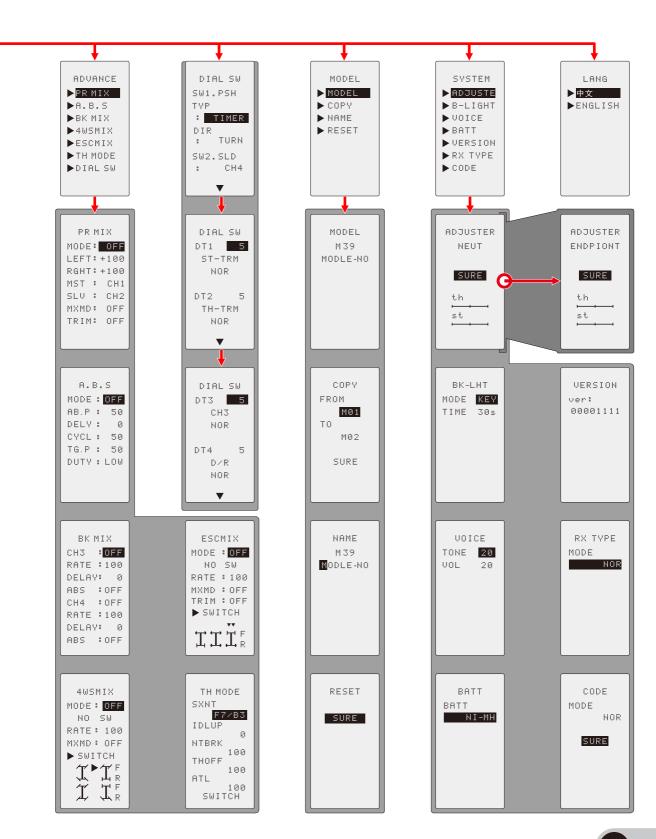
Optional / countdown or lap timing. Lap timer can record the total time of 100 groups of lap time.

•Fine / Switch Function Selection

This function can make the operation of each function assigned to each trimming or switch.

Main Page/ Directory Structure





Function Table

Function Table			
Function Abbreviation	Function Description	PAGE	
D/R	Rudder rudder angle adjustment function	33	
EXP(STEER)	Steering motion curve adjustment	33	
SPEED	Delay function of the Steering action	34	
EXP(THR)	The movement of the throttle curve adjustment	35	
SPEED	Delay function of the throttle action	36	
THACC	Throttle start-up characteristic adjustment function	37	
REV	Reverse function of the steering action	38	
TRIM	The endpoint position adjustment function	38	
SUBTR	Adjustment function of the center position of the steering gear	38	
EPA	The steering rudder angle adjustment function	39	
F/S	Out of control protection function	39	
POS(CH3/4)	3/ channel 4 default location	40	
TIMER	The function of timing models	40	
LAPLIST	Time records check ring timer	41	
PR MIX	Any mixing of each channel action	42	
A.B.S	Anti lock brake system	43	
BK MIX	Front and back 1/5 car independent brake control function	44	
4WSMIX	Four wheel independent mixing function	45	
ESCMIX	The double mixing control function	46	
TH MODE	The adjustment function of throttle characteristics	47	
DIAL SW	Distribution of each function to the trimming or switch	49	
MODEL	Model name, replication, reset functions	51	
SYSTEM	Battery type, light, sound, calibration,circle the number list, servo		
	mode, the code function setting and operation.	52	
LANG	In English, the menu selection	53	

Direction[STEER]

The Size Of The Action[D/R]



D/R:100

The positive and negative stroke of more simply way of the adjustment direction passage .

The maximum is set to 100, the full stroke,

The direction of travel depends on its travel set;

The minimum is set to 0, the channel have no action, no matter how much travel set.

Set: Main Menu → STEER → D/R

Exponential Curve[EXP(STEER)]



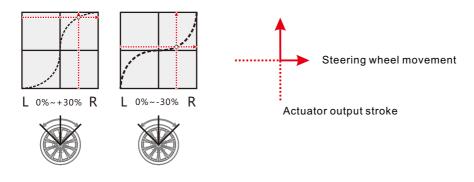
This function is used to adjust the sensitivity of steering gear in a turn, its adjustment does not affect the steering is maximum stroke setting.

Adjust the direction wheel near neutral point, the action of the both side is sensitive make the change of the action sensitive or dull.

0~-30 near the neutral point is low sensitivity, both side is high sensitivity.

0 neutral point and two side of the action is sensitivity should combine.

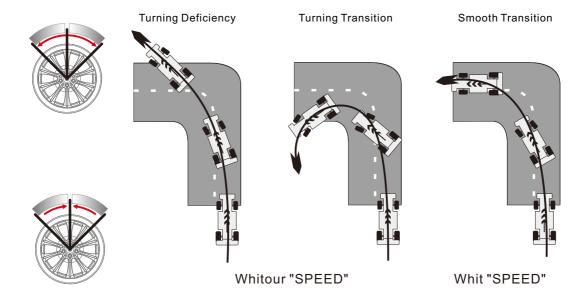
0~+30 near the action of the neutral point have high sensitivity, the end of the both side have low sensitivity.



Set: Main Menu → STEER → EXP

Direction Delay[SPEED]

When the fast steering movements, the body may suddenly lost control, or the danger of slip. The use of Direction delay function can avoid the occurrence of danger.



•Respectively adjust the steering wheel rotate outward and the recovery speed of action.



- 0 the fastest, do not delay.
- 100 the slowest speed, maximum delay.

As The Parameter Increases, Delay Increases!

 $\mathbf{Set} \colon \mathbf{Main} \ \mathbf{Menu} \to \mathbf{STEER} \to \mathbf{SPEED}$



Throttle[THR]

Exponential Curve[EXP(THR)]

This function can make the throttle accelerate and the brake more sensitive or flat (corresponding to the electrically adjustable or throttle actuator), its adjustment does not affect the maximum stroke of throttle setting.



Brake Curve[EXPB]

0~-30 accelerator flat.

uniform linear accelerator.

 $0 \sim +30$ accelerator sensitive.



When the road surface and surface grip good, make the curve set in the " $0\sim+30$ ". When the pavement slip, wheel lack of grip, the curve set in the "0~-30".

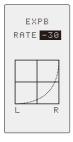


Progress Curve[EXPF]

0~-30 brake gently.

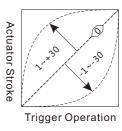
brake linear homogeneous.

 $0 \sim +30$ is sensitive in brake.







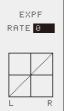


Accelerated

Accelerated Uniformly

Sensitively

Smoothly



Acceleration

Actuator Stroke **Trigger Operation**

RATE -30

EXPF

Brake Smoothly



Brake Even



Brake Sensitive

Set: Main Menu → THR → EXP



Throttle Delay[SPEED(THR)]



On the wet and slippery road the violence throttle operation will only cause the wheel slip so that the vehicle can not normally go forward.

Set the throttle delay can prevent the waste of energy and allows you to enjoy a more smooth operation.

The function have no effect on the throttle trigger back and brake (only for acceleration).

0 acceleration without delay.

100 acceleration maximum delay.

As the parameter increases, delay increases!



Not set the throttle delay, speed slow, the vehicle is slip.



The delay has been set up, smooth, the vehicle does not slip.

Set: Main Menu \rightarrow THR \rightarrow SPEED



Accelerator[TH ACC(THR)]



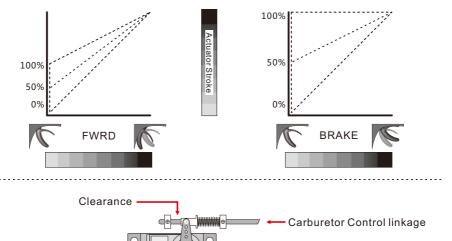
The gas pedal, brake moment adjusting movement by the side near the midpoint. Adjust the forward of gas pedal and near the midpoint of the brake moment movement.

- 0 near the midpoint will not produce the moment acceleration.
- 100 near the midpoint produce the strongest instantaneous acceleration motion.

As The Parameter Increases, the effect will increase!

Accelerator is Influenced by the travel set.

- •The acceleration effect near the neutral point is improved .
- •acceleration and braking (back) effect can be adjusted independently.
- •when setting the throttle mixing, 3/4 channel is also effective.



Aiming at the oil machine models, because the single servo need to control throttle engine carburetor and brake, We must leave part of the gap on the steering arm, so there is a significant time delay in the throttle and brake.

Brake Side

On the contrary the electric vehicle type can only be the delay at the transmitter set.



Primary Setting [PRIMARY]

PRIMARY REU TRIM SUBTR PEPA F/S POS TIMER LAPLIST

Positive And Negative Setting [REV]

Aiming at the throttle, direction, channel 3, channel 4, change the movement direction of servo, each channel independently set.

Note:

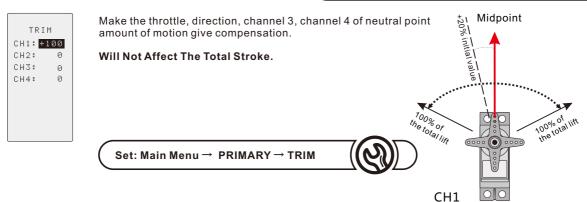
Please Set The Positive And Negative According To The Actual Direction Of The Model Car!



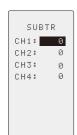


REV CH1: REU CH2: NOR CH3: NOR CH4: NOR

Digital Trimming[TRIM]



Auxiliary Tuning[SUBTR]

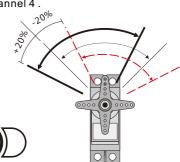


fix the neutral position of throttle, direction, channel 3 channel 4.

When the model car midpoint deflection, which will cause unable to walk straight.

Use This Function To Correct!

Set: Main Menu \rightarrow PRIMARY \rightarrow SUBTR



Travel Set[EPA]

EPA CH1R: 100 CH2L: 100 CH3F: 100 CH4B: 100 CH1+: 100 CH2-: 100 CH3+: 100 CH4-: 100

Implement the most flexible stroke adjustment, can respectively adjust the throttle, direction, channel 3, channel 4 A

Direction of travel, without affecting another directional stroke of the different channel.

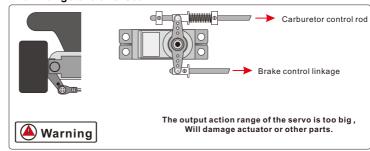
When the vehicle steering character is different it should be a corresponded change in the EPA values of steering gear.

The related matters of the maximum stroke

Actually stroke setting can determine the maximum travel of each channel, but the adjustment of the following functions,

May exceed the maximum range of travel set:





Setup

The brake is set to 100. (for the throttle channel)

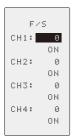
The size of the action set to 100. (according to the direction of the passage)

Set: Main Menu→ PRIMARY → EPA



Lose Control Of Protection[F/S]

Shut down the transmitter or receiver when losting contact with the transmitter receiver will make a predetermined action.



ON	KEEP
Output scheduled action	Keep out of control before action

Runaway protection setting range, -100% ~ +100%.

Runaway protection function is reduced hurt to the lowest safety auxiliary device. But if the preset position is the dangerous position, it will cause the opposite effect.

Suggestions: put the throttle in the 0 position.



Attention: when giving the receiver sends lose control of protection command, the transmitter and receiver must be successful on the code, and keep the normal communication.

When exiting out of control protection, the receiver receive the command, the indicator light flashes quickly!













Set: Main Menu→ PRIMARY → F/S

Position[POS]



This function is to make the channel 3, 4 preset in a fixed position.

During the adjustment of the following functions, channel 3, 4 of the action will be based on hybrid control execution, rather than fixed in a preset position:

* PR MIX * BK MIX * 4WSMIX * ESCMIX

Action channel 3, 4 can be set in fine tuning (DT1/2/3/4) or switch (SW.2), the specific operation please refer to the functional selection. (51 page)

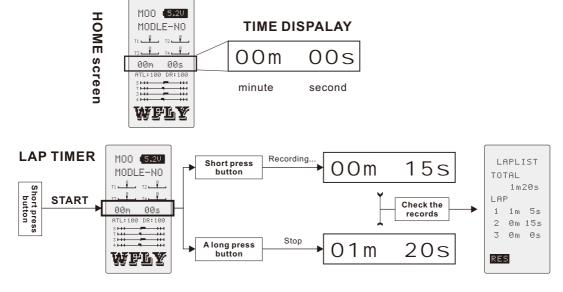
Set: Main Menu→ PRIMARY → POS

TIMER



Among the mode of the three timer , countdown , countdown timer , circle , you can choose one.

- every 1min transmitter made a "drop" to make a remind.
- •when the time reach the final 20s, transmitter "drops", "drop" sound. When the timer finish .the transmitter will make a long call ,it reminds the timer is finish.
- ●Before preparation .Make the functional selection SW1 set to the timer.



The timing finished can view the recorded time in the ring number list. (41 pages)

The Calculation Of The Time

Total time = 1 lap + 2lap+3lap +...

LAPLIST TOTAL 2m20s LAP 1 1m 5s 2 1m 15s 3 0m 0s

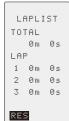
Case:

- *When the car run the first lap, short press the button to record time of 1 minutes and 5 seconds, the total time is 1 minutes 5 seconds;
- *When the car is running second laps, short press the button to record time of 1 minutes and 15 seconds, the total time is 2 minutes and 20 seconds.
- *At this time, press the button to stop the timer function, this operation will not affect the total time, after stopping it the total time is the last time short press the button recording time is 2 minutes 20 seconds.

Set: 1,Main Menu→ DIAL . SW . SW1 → TIMER 2, Menu→ PRIMARY . TIMER . MODE → UP/DOW/LAP



Circle The Number List[LAPLIST]



The total time is 1 minutes 5 seconds.

After Starting the lap timing, each ring time will be in accordance with you press the record button down.

List data will not be lost because of a power failure, press the reset to clear time.

Set: Main Menu→ PRIMARY → LAPLIST



Advanced Settings

Programming Of Mixed Control [PR MIX]

ADVANCE ▶PR MIX ▶A.B.S

▶BK MIX ▶4WSMIX

▶ESCMIX ►TH MODE

▶DIAL SW

PRMIX MODE: OFF LEFT: +100 RGHT: +100 MST : CH1 SLV : CH2 MXMD: OFF TRIM: OFF

Move throttle, direction, channel 3, channel 4 can be arbitrarily mixing.

The main channel: select the input channel of the mixed control.

Auxiliary channel: select output channel of the mixed control. The main channel of the action will be mixing to the auxiliary channel.

The ratio of the left: the ratio of the negative end. Mixing output range: -120% ~ +120% The right ratio: the mixing ratio of the positive side .Mixing output range: -120% ~ +120%

Trimming: can choose the input channel of the fine tune whether mixed control to output

Mixing: can choose some sets of the input channel whether it is mixed control to the output channel.

The following is the each channel as the main channel, selection of mixing, the main channel will mix to some functional auxiliary channel:

Direction(STEER): EPA, SPEED, D/R, EXP, 4WSMIX;

Throttle(THR): EPA, SPEED, SXNT, IDLUP, NTBRK, THACC, A.B.S, EXP, ESCMIX, ATL, THOFF;

Channel 3: EPA, 4WSMIX, BK MIX; Channel 4: EPA, BK MIX, ESCMIX.

Mixing application programming:

1,PR MIX.MODE set to ON, the function can take effect.

2,PR MIX.MODE set to ON, Then controlled by a switch or the commencement of its functions. The specific operation can be seen in the **DIAL SW**.

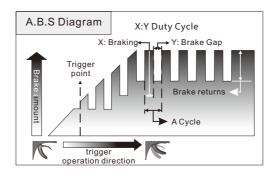
1, MAIN MANU → ADVANCE → PR MIX Set: 2, MAIN MANU → ADVANCE → DIAL SW or(MAIN MANU → DIAL SW)

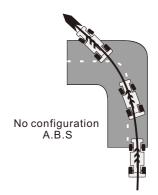


A.B.S

A.B.S
MODE: OFF
AB.P: 50
DELY: 0
CYCL: 50
TG.P: 50
DUTY: LOW

Make the model car to generate intermittent braking action, namely point type brake.





Trigger point:

A.B.S trigger position action.

- 0 as long as the brake it will generate A.B.S action.
- 50 The brake reached 50% produce A.B.S action.
- 98 brake reached 100% produce A.B.S action.

Returns:

the return of the brake. When Removing the brake action, the corresponding actuator position of the return ratio.

- 0 returns ratio is 0, which does not return, no A.B.S function, become a common brake.
- 50 return 50%.
- 100 to return to the position of neutral point.

Delav:

delay start up A.B.S. When meet the A.B.S onset conditions, delay in starting the function.

- 0 without delay.
- 50 delay of about 0.5s to start A.B.S.
- 100 delay of about 1s start A.B.S.

Circulation:

point velocity. Brake and release the brake will require for a time cycle.

The set value is small, put less time on it;

conversely, the set value is larger, spend more time on it.

Duty:

point efficiency. Brake time accounted for the entire point time proportion.

Low, brake time accounted for the entire point time of 25%.

Mid, braking time to put 50% of the time.

High, brake time accounted for the entire point time 75%.

The application of A.B.S:

- 1, The A.B.S. MODE is set to ON, the function can take effect.
- 2, When this function is set to switch control, set the A.B.S. MODE to ON,

And then it is controlled by the switch whether the function will take effect or not.

The specific operation can be seen in the function selection.







Brake Mixing[BK MIX]



When the Front and back wheel brake must separately control and adjust, you can use this function.

This function provides 3 kinds of control methods.

- 1, the throttle channel control rear brakes, channel 3/4 to control the front wheel brake.
- 2, the throttle channel control rear brakes, channel 3 and channel 4 to control the front wheel brake.
- 3, the throttle channel control speed acceleration alone does not control the, brake, channel 3 and channel 4 control the front and rear wheel brake

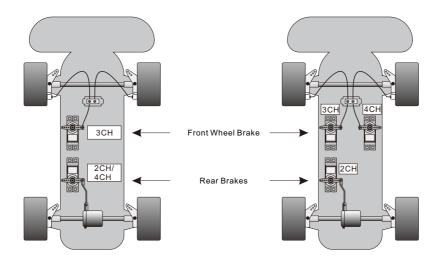
When the throttle channel brake, make the braking action mixed control to the CH3 CH4 according to the proportion.

The ratio is set to 0, the brake action 0% mixed control to CH3, CH4, CH3, CH4 no action. The ratio is set to 100, the brake action 100% mixed control to CH3, CH4.

A.B.S:

Set to open ,do not take A.B.S braking action of mixed control to CH3, CH4. Set to turn off , not mixing A.B.S braking action, only make the ordinary braking action mixing to CH3, Ch4.

Delay: adjust the channel 3 and channel 4 to execute the action speed of the brake . When setting to 0,the speed is the fastest, without delay. Set to 100, the speed of the slowest, maximum delay.





Four Wheel Steering[4WSMIX]



The action of the direction channel through the mixing control make the channel 3 control the back wheel movement.

Ratio: the action of the direction channel according to the set ratio mixed control to channel 3. Set to 0, the direction channel movement is not mixed control to channel 3. Set to 100, the direction of channel action 100% mixing to channel 3.

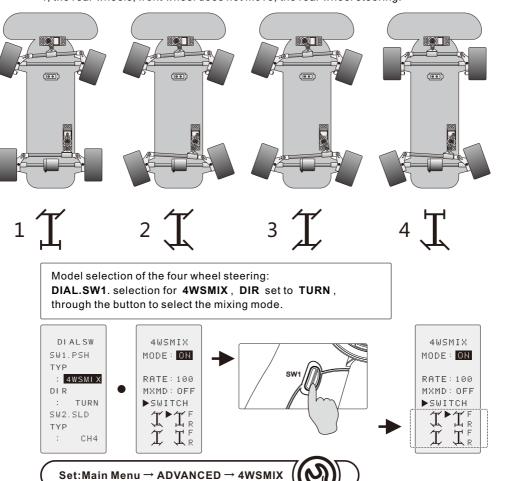
Mixing:

Mixing type open, , direction Channel of the direction delay and size of the motion and direction curve setting mixing to channel 3.

Mixing type closure, the original action of direction channel mixing to channel 3.

Four wheel steering have four kinds of mixed control mode:

- 1, the normal mode, the front wheel steering, rear wheel does not move.
- 2, reverse mode, front wheel steering, rear wheel and wheel rotating in opposite directions.
- 3, the same pattern, front wheel steering, rear wheel rotation change the direction with the same direction.
- 4, the rear wheels, front wheel does not move, the rear wheel steering.



Front And Back Of The Miscible Flooding[ESCMIX]

ESCMIX
MODE: OFF
NO SW
RATE: 100
MXMD: OFF
TRIM: OFF
> SWITCH
TTTT

Throttle channel action, through the mixing make the channel 4 control the front wheel.

Ratio:

The throttle channel action according to the set ratio mixing to channel 4.

Set to 0, the throttle channel action does not mixing to channel 4.

Set to 100, the throttle channel action will mix to channel 4 absolutely.

Mixing:

Mixing type open, the throttle channel of throttle delay, middle point ratio, throttle curve, idle speed, Midpoint brake, accelerator, A.B.S brakes, brake setting can be mixed to channel 4.

Mixing type closed ,throttle channel of the original motion mixed to channel 4.

Fine tuning:

Open the fine-tuning, throttle channel of the auxiliary fine-tuning,

digital fine-tuning will set mixing to channel 4

Fine adjustment type closed ,throttle channel from the original motion mixing to channel 4

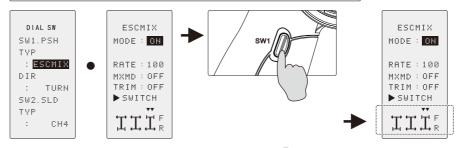
Front and back miscible flooding has three kinds of mixed mode:

- 1, the normal mode, the rear wheel drive.
- 2, mixing modes, front and rear wheel drive at the same time.
- 3, the precursor mode, front wheel drive.

Below is a schematic diagram of drive mode,
The actual connection and device setting
Please refer to the actual configuration scheme!

Front and back the miscible displacement mode selection: DIAL SW.SW1 set to ESCMIX. DIR set to TURN.

Through the button to select the mixing mode.



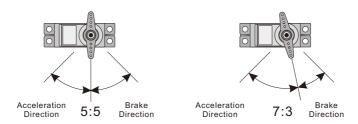
Set:Main Menu → ADVANCED → ESCMIX

Throttle Mode[TH MODE]



The Midpoint Rate[SXNT]

Select the acceleration and braking action ratio is 7:3 or 5:5.



Set: Main Menu ightarrow ADVANCE ightarrow TH MODE ightarrow SXNT



Idle Speed[IDLUP]

Improve the idle speed oil vehicle.so that it can improve the starting performance of the engine.

The midpoint of the throttle will make a compensation correction when accelerating or braking. When idle function starts, neutral point compensate will not affect the maximum stroke

Setting the compensation amount,

The prefix U, show the compensation for accelerated side.

The prefix D, show the compensation to the brake side.

The maximum compensation throttle travel 50%.

Application Of Idle Speed:

- 1, Direct setting, function can take effect.
- 2,The switch is set to the idle speed, through changing the switch to start or stop the function.

Set: Main Menu \rightarrow ADVANCE \rightarrow TH MODE \rightarrow IDLUP



The Midpoint Of The brake[NTBRK]

Execute braking at throttle of the neutral position.

Set to 0, no brake.

Set to 100, 100% brake.

Midpoint Brake Application:

- 1, Direct setting, function can take effect.
- 2, The switch is set to the midpoint of the brake [NTBRK], through changing the start of the switch or stop the function.

Set: Main Menu \rightarrow ADVANCE \rightarrow TH MODE \rightarrow NTBRK



Throttle Off [THOFF]

The throttle action set at a fixed location.

Set the throttle position,

0 for the neutral point.

The Numerical value is greater, the more that the braking action.

100 for the 100% Brake.

1,Main Menu → ADVANCE → TH MODE → THOFF

2,Main Menu → DIAL SW→SW1/SW2(set to THOFF)



The Quantity Of Brake[ATL]

More convenient, simple throttle brake travel.

Set to 0, the brake side have no action. Numerical value is greater, the greater stroke, Set to 100, stroke is 100%.

Combine the brake accelerator with throttle brake side stroke is the real brake travel.

Set: Main Menu \rightarrow ADVANCE \rightarrow TH MODE \rightarrow ATL



Function Selection [DIAL SW]

The operational function of setting switch ,fine adjustment and setting the mode of action.

Switch, Button

Set switch, button, switch function.



Button (SW1) switching mode:

Each switch, press switch ON/OFF state. Standard: when pressing down is ON ,release is OFF .

The button function could be assigned as shown below:

TIMER	ON/OFF
ESCMIX	ON/OFF
4WSMIX	ON/OFF
THOFF	ON/OFF
PR MIX	ON/OFF
IDLUP	ON/OFF
A.B.S	ON/OFF
NTBRK	ON/OFF

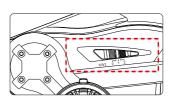


Switch(SW2):

Push to the side of 0 is OFF, Push to the side of 1, 2 is ON.

Switch function could be assigned as shown below:

CH4	Channel Action
CH3	Channel Action
THOFF	ON/OFF
PR MIX	ON/OFF
IDLUP	ON/OFF
A.B.S	ON/OFF
NTBRK	ON/OFF

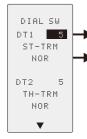


Set: Main Menu \rightarrow DIAL SW (SW1/SW2)



Fine Tuning Options

Set the digital tuning to operational function, step forward.



→ The step is set to 1~20.

Fine adjustment direction: standard and reverse.

Digital tuning function could be assigned as shown below:



ST-TRM	
TH-TRM	
SPEED	
ACCBK	
ACCFW	
CYCL	
ABS.DY	
ABS.PS	
SPD-RN	
SPD-TN	
EXPB	
EXPF	
EXP	
ATL	
D/R	

4WSMIX	
BK4-RT	
BK3-RT	
PMX-R	
PMX-L	
THOFF	
ESCMIX	
IDLUP	
SUBT4	
SUBT3	
SUBT2	
SUBT1	
CH4	
CH3	

Set: Main Menu → DIAL SW(fine adjustment function, step)

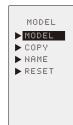


Model Information[MODEL]

The X4 transmitter can store 40 sets of model data

This menu selection, copy, reset model. And can set the name of the model.

Model Selection



40 sets of model can store and select.



Set: Main Menu → MODEL→ MODEL



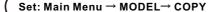
Model Replication



Can Selected the currently model data copy to another model data, do not to change the current model data Setting. This can be a simple setting only subtle difference for the model.



Case: (from) M01 model group (group M02 model to copy)!

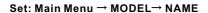




Model Name



To distinguish the difference of each model group, can use English letters, Numbers and punctuation naming your model!





Factory Setting

SURE

Reset the current model parameter, reset value to factory settings. (only for the current model data!)

Set: Main Menu \rightarrow MODEL \rightarrow RESET



System Settings

Adjustment

SYSTEM

ADJUSTE

B-LIGHT

VOICE
BATT

VERSION

RX TYPE

CODE

ADJUSTER

NEUT

SURE

th

s.t.

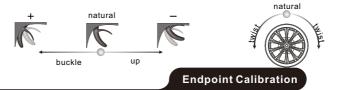
When the throttle and steering wheel will make the mechanical deviation, use calibrational function to correct.

Setting method:

1,According to "neutral" prompt, put the trigger, the runner on the midpoint, press the confirm key.

2,According to the prompt "endpoint", put the trigger, wheel into the midpoint struck several times respectively (lightly lean is ok, as the following graph), stop on the middle point at last press confirm key.

3, The prompt completion, exit to the standby interface. indicate failure, repeat steps $1\sim 2$.



Backlight Lamp

BK-LHT MODE <mark>KEY</mark> TIME 30s Set the backlight mode and time.

Mode:

ADJUSTER

ENDPIONT

SURE

st

OFF, no backlight lamp.

ON, duration of bright.

Button, when the button action occurs the light will flash for a period of time.

Time:

key mode, backlight brightness time. 5~60s.

Set: Main Menu → SYSTEM→ B-LIGHT



The Tone



Can set the tone and volume of the remote control device 20 grade volume settings.

The volume is too high so it will influence others, appropriately control volume.

Set: Main Menu \rightarrow SYSTEM \rightarrow VOICE



Power Supply Scheme[BATT]

Please select the correct power supply solutions!



The use of different batteries need to select different power supply scheme.

Of course, if not chosen properly, will not cause damage to the transmitter. But it will affect the life of the battery.

When you hear the continuous warning tone, indicates the battery voltage is too low, please replace the new battery.

Standard power supply voltage: 3.7~6.5V

Four battery scheme:

Common battery (3.7V alarm voltage); lithium battery (3.4V alarm voltage); Nickel cadmium battery (3.7V alarm voltage); NIMH (3.7V alarm voltage).

Set: Main Menu → SYSTEM→ BATT



Version Information[VERSION]

VERSION ver: 00001111 The gun control software version information.



The choice of high speed mode connecting analog servo Will cause the damage!

High Speed Mode[RX TYPE]



The choice of the type of steering gear.
If you use a digital servo choose high-speed mode;
The use of ordinary gear select normal mode.

Set: Main Menu → SYSTEM→ RX TYPE



Change the mode, please recode in force.

CODE



Establish communication between transmitter and receiver.



Note the code meaning: please confirm whether to choose the correct servo type.

TIPS

\ The code of the blue indicator light flashes slowly, interval 0.5s;

\The success of the code automatically exit.

\ If it is not success on the code for a long time, press the [exit] 1s forced exit key.

Set: Main Menu \rightarrow SYSTEM \rightarrow CODE



LANGUAGE



Support, English menu display.

Chinese: Chinese menu;

ENGLISH: menu in English.

Set: Main Menu → LANG



Transmitter

Product type: X4

Model application: car, boat

Frequency range: 2.400GHz-2.483GHz

Power: ≤ 100mW Code: DSSS

Language: Chinese, English Storage capacity: 40 groups

Resolution: 1024

The power supply voltage: 3.7~6.5V Controllable range: about 100m (related to the

use of the environment)

• The large graphic dot matrix liquid crystal display, simplification and optimization of the menu, more intuitive Display, more convenient manipulation.

•The wfly have the special FLASPEED communication technology, the data bus Transmission, control is more agile, quick as lightning.

•The design of low voltage, reduce battery consumption. adapt to a variety of battery.

Receiver

Product type: WFR04H Apply to: model car, boat

Frequency range: 2.4GHz-2.483GHz Modulation: PPM/PCMS 1024

Resolution: 1024

The power supply voltage: 3.7V-6.0V, ≤ 60mA

Size: 34.85x21x11.3

Weight: 5.8G

Straight line distance from the ground: about 100

metersOut of control protection function

•The adaptive WFLY2.4GHz series products.

FCC Notice

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

To comply with RF exposure requirements, a minimum separation distance of 5 cm must be maintained between the user's body, including the antenna.

