WFLY

-RC radio manufacturer since 2004

ET10 Quick Instruction manual

Thank you for choosing WFLY ET10
We are confident that you will find lots of joy and fun with this radio system.
Before you start to operate it, we recommend that you read through this manual to get the most out of its massive functions!

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Facebook→ https://www.facebook.com/wfly.rc.radio
Facebook public page→ https://www.facebook.com/wflyrcradios

Beginners should pay particular attention to the following safety precautions! Please read carefully!

It is forbidden to fly when in poor condition such as fatigue and drunkenness.
It is forbidden to fly in bad weather such as rain and gale.
It is forbidden to fly near high voltage lines, communication base stations and places where people gather or activate.
It is forbidden to fly in airports and other places where fly is forbidden.

Before flying, test the equipment, check whether the transceiver system and the aircraft are normal;
When flying, make the interface of transmitter in the initial interface for preventing the change of parameters by mistake;
After flying, turn off the receiver primarily and then turn off the transmitter for protecting people from the fail-safe function.

The sequence of power on and off of transmitter and receiver!
Power on:
First Turn on the transmitter (ensuring the minimum throttle position)
Second Turn on the receiver.
Power off:
Firstly turn off the receiver
Secondly turn off the transmitter

Use guaranteed and special charger to charge the battery,
Preserve the battery with special case for safety,
The electronic product should be dry, use alcohol and special cleaner to clean.
Do not force the vulnerable antenna, or it may destroy.
The screen is vulnerable, do not press hard or scratch with sharp things.
Please take care of the product! It can not be placed under sun or in high temperature, wet or dusty place.

Attentions on Charging:
ET10 uses 2S lithium batteries or two 18650 lithium batteries for power supply!
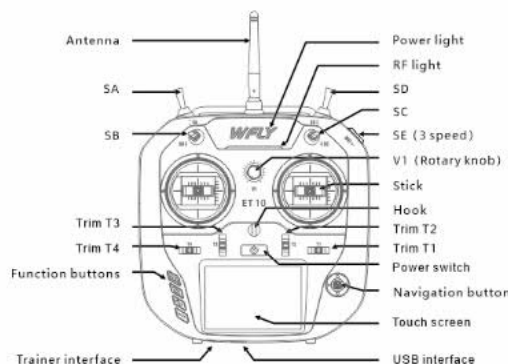Charge with other kinds of batteries may damage remote control.
Please charge with standard USB Type-c interface 5V/1.5A power adapter.

After-sales service
Please visit WFLY official website at www.wflysz.com for detailed information.
Or email us via service@wflysz.com

1、Names of radio parts

Antenna — Power light
SA — RF light
SB — SD
　— SC
　— SE (3 speed)
　— V1 (Rotary knob)
　— Stick
Trim T3 — Hook
Trim T4 — Trim T2
Function buttons — Trim T1
　— Power switch
　— Navigation button
　— Touch screen
Trainer interface — USB interface

Switch
Power switch : Press for about 2 seconds to turn on or turn off.
T1 ~ T4 : Digital trim (user-defined)
SA : long lever, 2 positions, alternate (user-defined)
SB : Short lever, 3 positions, alternate (user-defined)
SC : Short lever, 3 positions, alternate (user-defined)
SD : long lever, 2 positions, momentary (user-defined)
SE : 3 speed switch (user-defined)
V1 : Rotary knob (user-defined)

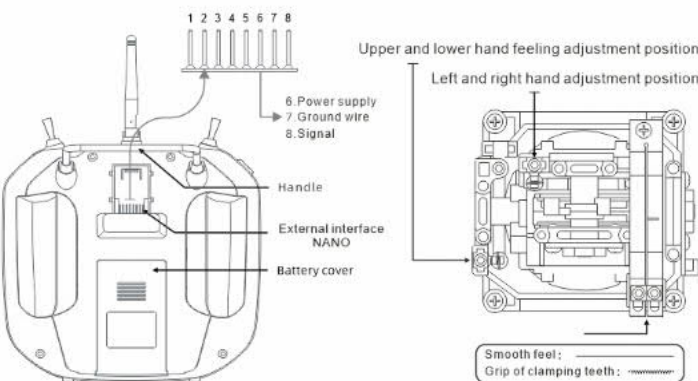**HOME**: Functional key. Press to return to standby interface; press for 2 seconds, open monitor interface.

EXIT: Return key. Press to return to the previous interface; press for 2 seconds, lock/unlock the touch screen.
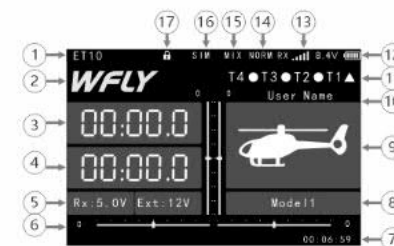
+: Increase, toggle state
-: Decrease, toggle state

Navigation button :
The middle key : Press to confirm, press and hold to reset parameters (value).

1 2 3 4 5 6 7 8
6. Power supply
7. Ground wire
8. Signal

Upper and lower hand feeling adjustment position
Left and right hand adjustment position

Handle
External interface NANO
Battery cover

Smooth feel ;
Grip of clamping teeth :

2、Home screen

1. Transmitter model
2. **WFLY** : Click to enter main menu
3. Normal timer : Press and hold to reset, click to start/stop
4. Mode timer : Press and hold to reset, set in [Timer] menu
5. Voltage : Receiver voltage, external battery voltage
6. Trimming monitor : Display real-time trimming state
7. Time : Accumulation of time after booting. data reset after shutdown.
8. Model name : Click into the model selection interface
9. Model : Click into the current model type interface
10. User name : Click into custom naming
11. Trimming state : Display T1 ~ T4 state (when T1-T4 use as switch), for details,
　　　　　　　　　refer to the instruction in [Aux channel] and [Trim step] of general function.

▲ Means up
● Means neutral
▼ Means down

12. Power : Transmitter battery level
13. Signal strength : Receiver return signal strength
14. Fly mode : (Throttle hold, ordinary, idle 1, idle 2)
15. Mixed control : Display as mixed control function is on
16. Working mode : Current mode (trainer, simulator, student)
17. Screen locking state : Press EXIT key for 2 seconds to toggle,
　　Advanced lock state : Press EXIT key ten times, and then press it for 2 seconds to unlock.

3、Product parameters

Transmitter
Model : ET10
Channel : 10 Channels
Working voltage : 7.4V~8.4V (2S battery)
Working current : ≤260mA
Applications : Helicopter, airplane, Multi-rotors, cars, ship
Resolution : Full channel 4096 resolution
Band : 2.4GHz (Bidirectional)
Frequency hopping : New FHSS frequency
　　　　　　　　hopping (64 points, 3.6ms)
Storage : 20 Models
Programming : 5 Groups mixed control
Language : Chinese, English
Upgrade : USB online upgrade
Display : 3.5 inch resistance touch screen,
　　　480 * 320, TFT color screen.

Receiver
Model : RF209S
Frequency : 2.4 Ghz
Working voltage : 3.7 V-8.4 V
Working current : 75 mA
Resolution : Full channel 4096 resolution
PWM : 9 channel
PPM : Support
W.BUS : Compatible with S.BUS
W.BUS2 : Non standard (S.BUS) elemetry
　　　　sensor input.
Bidirectional transmission : Support
Fail save : Support
Online upgrade : Support
External voltage detection : DC 0-96V
Size : 27×14×51mm
Weight : 14.6g

4、Warning and notice on interface

LED Status

WFLY

Power LED: On, power on or charging; off, power off.

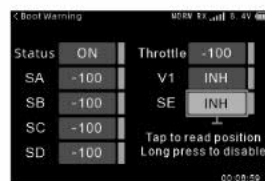| RF light	RF OFF	RF LIGHTS	RF FLASH
	Power off, student or stimulator mode	Connected, trainer or normal mode	Linking state

Interface and buzzer warning

1. Low voltage warning

① The battery voltage is low when the radio turned on, the buzzer alarms and the screen turns to warning interface, press "yes" means power on as usual; press "no" means power off.

② The battery voltage is low while radio was working, the buzzer alarms, the voltage value flashes on upper right corner (voltage is low) or on lower left corner (receiver or external voltage is low) of the screen.

2.The position of throttle stick

③ When transmitter turned on, the buzzer would alarm if the stick is at the lowest position.

④ Press 'yes' on the warning interface or pull the throttle at the lowest position to power on as usual.

3.Conflict of program. mixes function

The warning interface will show the corresponding switch which is not on the default position.

< Boot Warning			NORM RX .ılıl 8.4V
Status	ON	Throttle	-100
SA	-100	V1	INH
SB	-100	SE	INH
SC	-100		Tap to read position
SD	-100		Long press to disable

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4.Conflict of mix-control function

Some of the function can not be mixed, the warning interface pop-up and return automatically.

5.Power off

After the telemetry function is enabled, the receiver will be detected and the warning interface Will pop up when the transmitter is turned off.
And it needs to be confirmed before it can be turned off.

6.The warning tone of link

The buzzer sounds when the link is complete.
If the link times out, the buzzer sounds and the link exits.

7.Trim

When the trim value reaches the midpoint or endpoint, the buzzer will make a long sound.

6、Receiver LED status

Color	Status	Function
Green	Steady on	Link successfully, PPM
Blue	Steady on	Link successfully, W.BUS
	Flash	Upgrading mode
Red	Steady on	No signal
	Flash quicky	Voltage < 3.7V
Orange	Flash quicky	Link

6、Link

When Linking, do not connect the power equipment or dismantle the propeller.
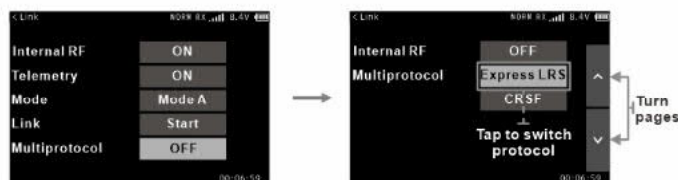
Caution!

●Internal RF:Link

1. Receiver: Power on, long press the SET button for 3 seconds, the orange light will flash slowly;
2. Transmitter: Main menu →Linkage setting → Link → click "Start". RF light of transmitter flashes and enters the matching code state;
3. Successful linked: RF light of transmitter is steady on, green light of receiver is steady on (default W.BUS mode) or blue light is steady on (PPM mode);
4. Mode: Default is "Mode A", receiver output channel sequence;
5. Verification: Connect the servo, operate the remote control, the corresponding servo synchronous action output is successful linked;

● Note:

① The remote control cannot operate the link in trainer and student mode (system setting → trainer and student, setting);
② Enable the telemetry function : after finishing the link, there is a return signal and display the external voltage. Link needs to be reoperated when disable/enable elemetry function.
③ External RF module : enable (trainer and student) can not be set, OFF, can be set (trainer/simulator and student).

●Multiprotocol:

1. CRSF: TBS module, supports firmware version V4.10
2. Express LRS: ELRS module, supports firmware version V2.5.0

< Link		NORM RX .ılıl 8.4V
Internal RF	ON	
Telemetry	ON	
Mode	Mode A	
Link	Start	
Multiprotocol	OFF	

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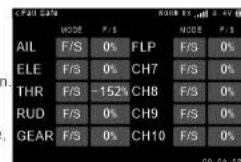| < Link		NORM RX .ılıl 8.4V
Internal RF	OFF	
Multiprotocol	Express LRS	
	CRSF	
	Tap to switch protocol	

Turn pages

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7、Fail-safe

● The importance of fail-safe:

Reduce the rate of injury when the aircraft lost control.
Advice: set fail-safe data first before each debugging or trial flying.

● Steps:

1. Linkage setting → Fail safe, to enter the interface
2. Set mode:
   HOLD :The servo maintains its last commanded position.
   F/S : Fail-safe mode, servo moves to a predetermined position.
   OFF : Cut current channel (only for part of special modes or parts FC detect port).
3. Set fail-safe value : F/S value can only be set under F/S mode, click numeric frame for current channel value.

< Fail Safe					NORM RX .ılıl 8.4V
	MODE	F/S		MODE	F/S
AIL	F/S	0%	FLP	F/S	0%
ELE	F/S	0%	CH7	F/S	0%
THR	F/S	-152%	CH8	F/S	0%
RUD	F/S	0%	CH9	F/S	0%
GEAR	F/S	0%	CH10	F/S	0%

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● **Attention:** For safety, you can refer to following suggestion or consult after-sales service.
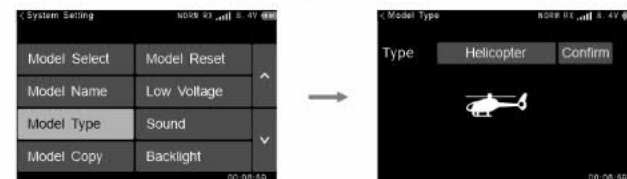
● The parameter suggested

1. For helicopter, throttle set to lowest value, other channels set as smooth flight mode.
2. Lowest or Idle down, other channels set as smooth mode or hovering, because airplane/ glider can slip down without power!
3. For multicopter, please refer to FC manual.
   (only for suggestion, specific settings are based on actual situation)

8、Model type

This function will reset the "Currently in use" model data to the "Default data" of the selected new model, so if you want to retain the original model data, please use the "Model copy" or "Model select" function.
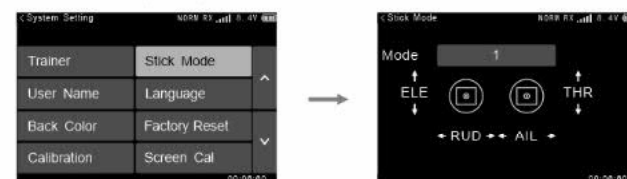
● Method : Main menu→ System setting → Model type
● Save : Select model and click 'OK' to confirm, click 'Yes' of hint to save

< System Setting		NORM RX .ılıl 8.4V
Model Select	Model Reset	
Model Name	Low Voltage	
Model Type	Sound	
Model Copy	Backlight	

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< Model Type		NORM RX .ılıl 8.4V
Type	Helicopter	Confirm

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9、Stick setting

You can select the stick mode as you like.
● Method : Main menu→ System setting → Stick mode
● Save : Select mode (1,2,3,4) and save.

< System Setting		NORM RX .ılıl 8.4V
Trainer	Stick Mode	
User Name	Language	
Back Color	Factory Reset	
Calibration	Screen Cal	

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< Stick Mode		NORM RX .ılıl 8.4V
Mode	1	

ELE ... THR
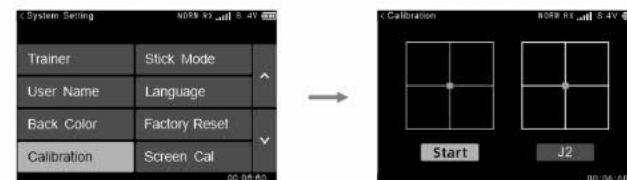RUD ... AIL

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11、Calibration

The sticks have been calibrated well before out of the factory. If the central position of the stick has changed, please use this function to calibrate the sticks.

● Method : Main menu→ System setting → Calibration
● Calibration: Fully manual custom travel calibration, according to the dynamic guidance prompts for trip positioning settings.

● Stick position : J1 (around the right stick), J2 (above and below the right stick), J3 (above and below the left stick), J4 (around the left stick).
● Step : J2 throttle lever, click 'Start", throttle lever stays at the maximum position, click "Next", throttle lever stays at the minimum position, click "Next", throttle lever stays at the midpoint, click "Next", click "Save".
● Hall gimble stick : During the stroke calibration, if the stick light spot position is out of sync with the stick, you can make the calibration according to the related calibration steps.

< System Setting		NORM RX .ılıl 8.4V
Trainer	Stick Mode	
User Name	Language	
Back Color	Factory Reset	
Calibration	Screen Cal	

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< Calibration		NORM RX .ılıl 8.4V
Start		J2

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FCC Radiation Exposure Statement:

This device meets the government's requirements for exposure to radio waves. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health. The SAR limit of USA (FCC) is 1.6 W/kg averaged. Device types: Model remote control (FCC ID: TZV-ET10) has also been tested against this SAR limit. SAR information can be viewed on‐line at http://www.fcc.gov/oet/ea/fccid/. Please use the device FCC ID number for search. This device was tested simulation typical 0mm to body. To maintain compliance with FCC RF exposure requirements, the use of accessories should maintain a separation distance between the user's bodies mentioned above, the use of accessories should not contain metallic components in its assembly, the use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided.

FCC Warning

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: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: 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.