

# TINY Q

## Instruction Manual



# Air boat

User manual and video please visit: [WWW.LDARC.COM](http://WWW.LDARC.COM)

# TINY Q

FC : F3(Betaflight SPRACINGF3)

VTX : 25mW/16CH

Camera : 199C(800TVL 150° )

Prop : 31mm-4Blade & 40mm-4Blade

Motor :

820 Brushed (16000KV)

716 Brushed (17600KV)

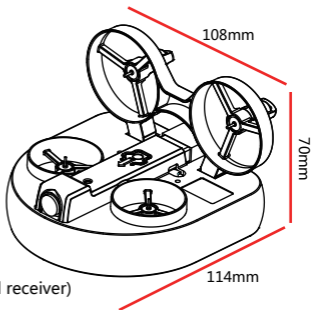
Battery : 3.8V 550mAh 50C

Charger : 1-Way 4.2V/4.35V Charger

Weight : 44.6g(not include battery and receiver)

Receiver : NO RX,FM800,DSM2,RX2A PRO,

AC900(S-FHSS+D16)



## Package List



TINY Q\*1



KIT+Motor\*1



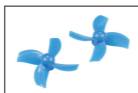
Battery\*1



1-Way 4.2V/4.35V  
Charger\*1



Tiny Meter 15\*1



31mm Prop  
(Color random)\*2Pairs



40mm Prop  
(Color random)\*2Pairs



Prop Tool\*1



Plastic Carrying Case\*1



Wire\*2



Paper Sticker\*1

## Motor (Pay attention to the direction of motor and prop)



Red & Blue wire  
Clockwise motor(CW)




Black & White wire  
Counterclockwise motor(CCW)



## 1-Way 4.2V/4.35V Charger



 Molex 1.25

 PH 2.0































4.2V/4.35V Switchable(Default 4.35V)

### Note:

Use 4.35V high voltage to charge the 4.2V battery will damage the battery

## Frequency Table

  5658Mhz	  5806Mhz	  5705Mhz	  5790Mhz
  5695Mhz	  5843Mhz	  5740Mhz	  5820Mhz
  5732Mhz	  5880Mhz	  5760Mhz	  5860Mhz
  5769Mhz	  5917Mhz	  5780Mhz	  5945Mhz

## FC & VTX

Configuration :

FC : F3(Betaflight SPRACINGF3)

VTX : 25mW/16CH

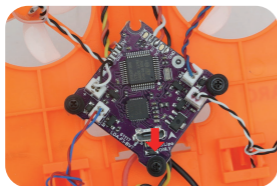
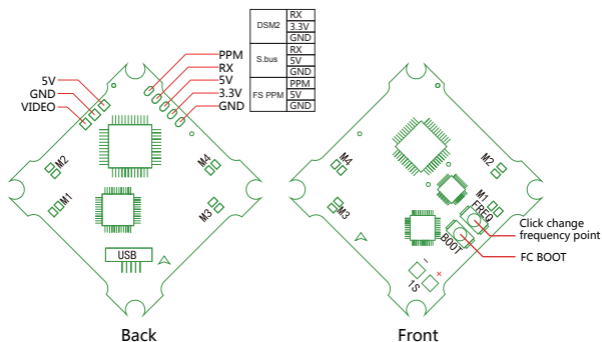
ESC : Four-way Brushed ESC, Motor Socket Use 1.25mm-2p

Voltage : 1S Lipo

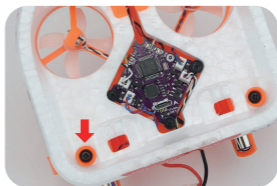
Weight : 3.2g

Mounting Hole Size : 26\*26mm

Whole Size : 29.3\*29.3mm



1.Install FC(Screw ST1.2\*4)



2.Install EPO(Screw ST2\*6)

Please replace the power plug when power plug changed black.

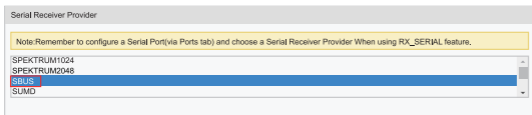
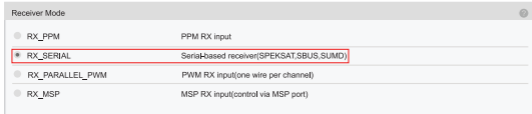
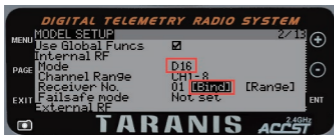


# Receiver Bind

## AC900(S-FHSS+D16) bind,transmitter(FRSKY X9D/Futaba T18SZ)

Bind:Check receiver mode before bind,the first blink after power on indicate the setting, ■ is S-FHSS, ■ is D16

FUTABA S-FHSS BIND:Turn on the TX then power on AC900 while pressing the key, green LED fast blink meaning already in bind mode, user can release the key. Bind procedure is completed and the receiver is working normally when green LED is solid  
FRSKY D16(NO Telemetry) BIND:Power on AC900 while pressing the key, green LED fast blink meaning already in bind mode, user can release the key, then set your TX into D16 bind mode. red LED solid meaning bind finished, exit TX from bind mode, receiver's green LED solid meaning working normally



## RX2A PRO Bind(S.BUS),transmitter(FLYSKY FS-i6)

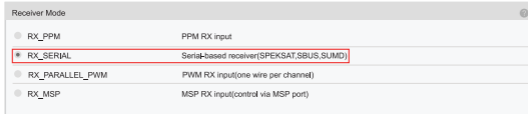
**BIND:**Power on the receiver while pressing the key,green LED fast blink meaning already in bind mode,user can release the key, then set your TX into bind mode.Green LED turn off and red LED solid mean bind finished,exit TX from bind mode,receiver's green LED solid mean working normally.

**FAILSAFE:**Support 2 failsafe mode,press the key and hold 3s while receiver working normally can switch failsafe mode.Please make sure failsafe is working correctly before use the receiver!

Failsafe mode 1: ■ After 1s when lost transmitter signal,S.BUS keep output,throttle will 988us,all other channels will 1500us.  
Failsaft mode 2: ■ After 1s when lost transmitter signal,S.BUS not output,user should setting related parameters to ensure flight controller handle failsafe.

**STATUS LED :** LED of RX2A-PRO blink twice then solid when power on,the meaning as follow

First blink(air system)	Second blink(failsafe mode)	Then solid(signal status)
<span style="color:red">■</span> AFHDS2A air system	<span style="color:red">■</span> Failsafe mode 1	<span style="color:red">■</span> No signal
	<span style="color:green">■</span> Failsafe mode 2	<span style="color:green">■</span> Signal received



## FM800 bind (default S.BUS, nonsupport PPM), example (FUTABA T8FG)

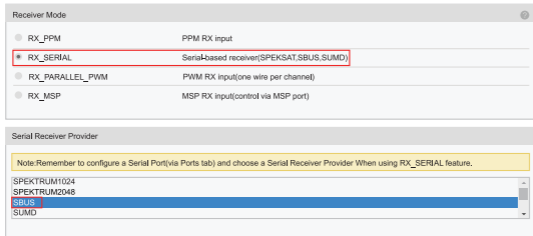
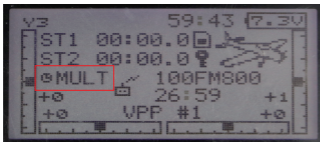
1. Open remote control, hold receiver bind button to power
2. Green light constant lighting means bind success

### Note:

S.BUS and CPPM mode switch

Close remote control, press bind button 6S when red light flash, loosen until enter S,BUS and CPPM mode switch

1. Green light quick flashing, press bind button and disconnect power, power-on again, enter S,BUS mode
2. Green light slow flash, press bind button and disconnect power, power-on again, enter PPM mode



## DSM bind, example (T-SIX)

1. Remote control in off state, bind button to power
2. Loosen until indicator light fast blink, enter to bind mode
3. Open remote control bind mode, indicator light constant lighting means bind success

### Note 1:

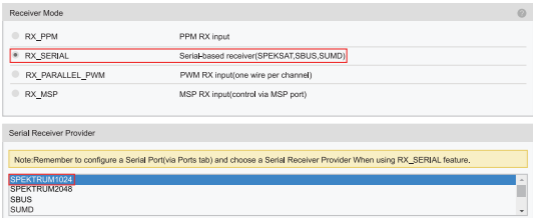
DSM2 uses SPEKTRUM1024 or SPEKTRUM2048 protocol, according to the remote control model to choose corresponding serial port protocol (example T-SIX, set protocol as SPEKTRUM1024)

### Note 2:

DSMX remote control bind to DSM2 and DSMX receiver, but DSM2 remote control only bind to DSM2 receiver.

DSM2: Old SPEKTRUM and JR remote control protocol, widely-used with good compatibility.


DSMX: Newest SPEKTRUM remote control protocol, DSMX backwards compatible DSM2.



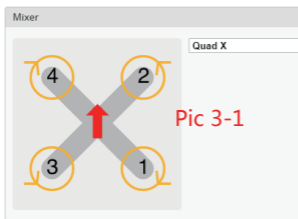
## Product and Factory Code

Name	Factory Code
TINY Q PNP	PNP.TINY Q (NO RX/FM800/DSM2//RX2A PRO/AC900(S-FHSS+D16))
TINY Q KIT	KIT.TINY Q
716 Motor(CW+CCW)	MOTOR.716(CW+CCW)
820 Motor(CW+CCW)	MOTOR.820(CW+CCW)
199C Camera	CAM.199C
FC+VTX+Brushed ESC AIO PIC	TINY PDB.FC+VTX+BRUSHED ESC AIO PCB
31mm-4Blade Prop(0.8mm)	PROP.31MM.4(0.8MM)
40mm-4Blade Prop(1mm)	PROP.40MM.4(1MM)
1-Way 4.2V/4.35V Charger	CHARGER.1-WAY 4.2V/4.35V
Plastic Carrying Case	RT.PLASTIC CARRYING CASE
Battery 3.8V 550mAh 50C	BAT.3.8V 550MAH 50C
Tiny Meter	CHARGER.TINY METER
Prop Tool	PART.PROP TOOL

## Firmware Version and Setting

1. Software 
2. Firmware version (Pic 1)
3. Default 4K (Pic 2)
4. Setting Mixer is X, the motor mode is brushed (Pic 3-1, 3-2)
5. Receiver setting, open UART2 switch (Pic 4)
6. Default setting ARM function use AUX1 channel (Pic 5)
7. PID setting (Pic 6)

SPRACINGF3	4 kHz	Gyro update frequency
3.2.2-SPRACINGF3-12-11-2017 05:20(stable)	4 kHz	PID loop frequency
<input checked="" type="checkbox"/> No reboot sequence	<b>Pic 2</b>	
<input type="checkbox"/> Flash on connect		
<input checked="" type="checkbox"/> Full chip erase <b>Pic 1</b>		
<input checked="" type="checkbox"/> Manual baud rate 256000		
<input type="checkbox"/> Show unstable releases		



### ESC/Motor Features

BRUSHED ESC/Motor protocol

Motor PWM speed Separated from PID speed

MOTOR\_STOP Don't spin the motors when armed

Disarm motors regardless of throttle value (When ARM is configured in Modes tab via AUX channel)

1070 Minimum Throttle (Lowest ESC value when armed)

2000 Maximum Throttle (Highest ESC value when armed)

1000 Minimum Command (ESC value when disarmed)

Pic 3-2

Identifier	Configuration/MSP	Serial RX
UART1	<input checked="" type="checkbox"/> 115200	<input type="checkbox"/>
UART2	<input type="checkbox"/> 115200	<input checked="" type="checkbox"/>
UART3	<input type="checkbox"/> 115200	<input type="checkbox"/>

Pic 4

ARM AUX 1 Min: 1700 Max: 2100

ANGLE AUX 1 Min: 900 Max: 2100

Pic 5

	Proportional	Integral	Derivative
Basic/Acro			
ROLL	40		30
PITCH	58		35
YAW	70		

Pic 6



## After Sale Service

1. Provide free repair service when find the product defect after purchase.
2. Provide pay-needed repair service when product damage because improper operation.
3. China customers please contact with the after-sales service, overseas client please contact the dealer.

PNP/RTF Test report ID :

### Flight test

- Transmitter functions properly
- Flying in good condition
- Camera OK
- VTX OK

QC: \_\_\_\_\_

### Package check

- PNP
- RTF
- Frame
- Transmitter
- ID is the same
- All parts of the installation
- Insulating sleeves have been installed manual
- Complete accessories, total \_\_\_\_ packages

QC: \_\_\_\_\_