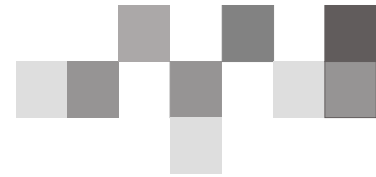


TOPCARE



8 Channel PPM/FM Radio Control System Introduction Manual

- Thank you for purchasing our 'TOPCARE' R/C system.
- Before using, read this manual carefully.

Guangzhou Chiyuan Electronic Co., Ltd

Add: 2/F., No. 1 Bldg., Boyi Industrial Garden, 4th Gongye Rd.

Zhicun, Dashi Street, Panyu Dis., Guangzhou, China

P.C.: 511430

Tel: +86-20-34796226;34797226

Fax: +86-20-34796116

Website: www.chiyuan.net

E-mail: gzchiyuan@126.com



CCPM

RADIO CONTROL SYSTEM N-8C R/C

CE FC



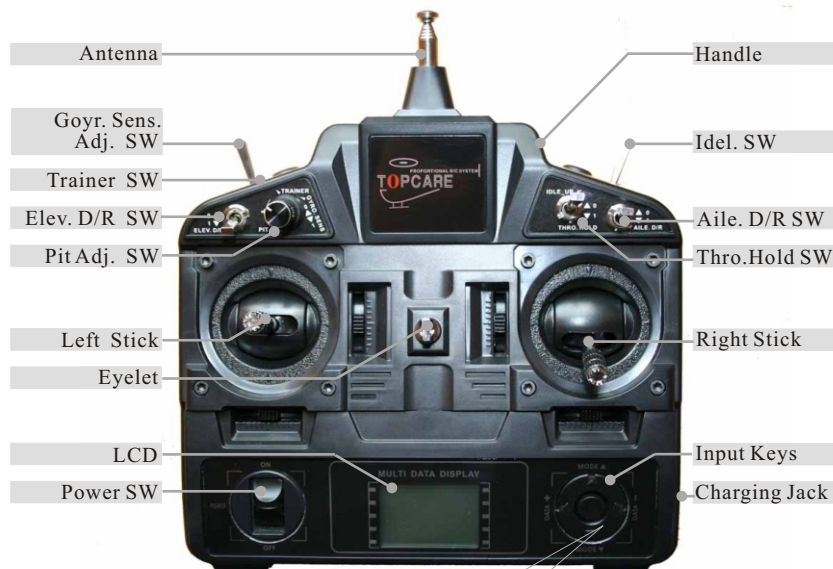
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Caution

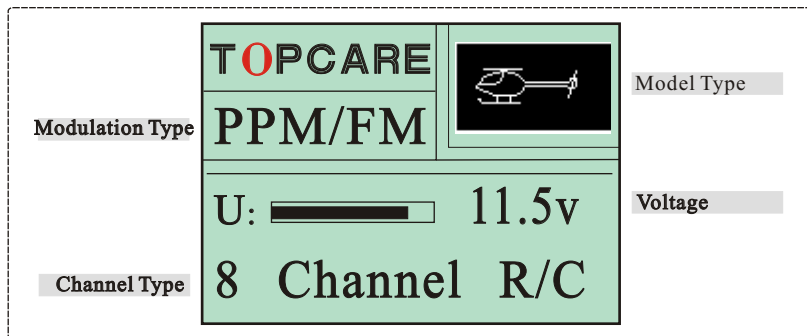
- ✎ To work your R/C with your models correctly and safely, read this manual carefully and keep it in a safe way as a reference introduction in the future.
- ✎ Warning:
 1. This product is only equipped for radio controlled models;
 2. The usage of this product should be approved by local relevant law or regulations;
 3. We will be not responsible for the damages caused by unauthorized modification, adjustment or replacement of parts of this product;
 4. The manual may be altered without prior notice. Please contact us if you have any corrections or clarifications that should be made in the manual.
- ✎ Please pay more attention on the parts in this manual, which marked with “warning”.
- ✎ Because of disturbance, do not work your radio control system simultaneously with others at the same frequency.
- ✎ Before starting the transmitter, make sure the transmitter batteries are well loaded .The voltage of transmitter batteries never be lower than 8.6V. And please check and confirm that the servos are all well and properly connected.
- ✎ Please take off batteries from transmitter after flying and during the transportation.
- ✎ Please check and have a test on control surfaces to confirm the transmitter handling of each part prior to each takeoff. The frequencies of the module and the receiver should be the same.
- ✎ The instructor and the student transmitters must accord with each other when using trainer function.
- ✎ Keep the radio system away from moist, high temperature and strong shake. Do not clean the product with solvent.
- ✎ Do not fly your models near airfield, schools, hospitals, residences, power transmission network, communication facilities and other places that are forbidden for starting the transmitter. Please stop flying your models with the radio on rainy or windy days, or at night.
- ✎ Do not fly the models when you are tired, sick , intoxicated, or not in good spirit.
- ✎ The antenna do not touch anything else when power switch is turned on. Do not leave this product and its accessories within the reach of small children.
- ✎ Please use this product according to your local relevant law or regulation, we are not responsible for any incidents or damages.
- ✎ Important Comments: All USB ports in this transmitter are just used for our special cord with its USB structure and without USB agreement. DO NOT USE your USB cables with transmitter.

1.1 N-8C Transmitter Chart



- ✎ Press “OK/Return” to entry the main menu. (“OK/Return” here in after referred to as “● ”)
- ✎ Press “Up ” and “Down ” for selecting functions in the list; press “ ● ” to enter the selected function; press “ ● ” to return to the previous menu. (“Up ” here in after referred to as “▲ ”; “Down ” here in after referred to as “▼ ”)
- ✎ Press “Increase ” and “Decrease ” to change input data. (“Increase ” here in after referred to as “◀ ”; “Decrease ” here in after referred to as “▶ ”)

2.1 Menu

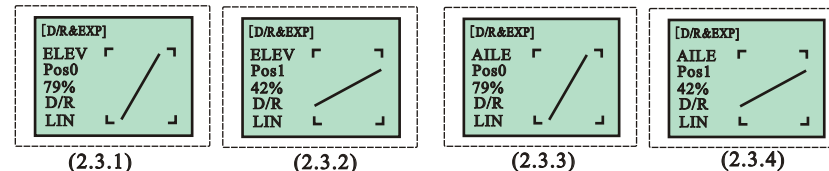


- It is a default setting of helicopter in Model Type initially.
- When the voltage displayed is 8.6V below, the number will be flashed and simultaneously with warning.

2.2 Function List

"[FUNC.LIST]"	
" D/R & EXP"	Dual Rate
" Rev. SW"	Reversing Switch
" Sub Trim"	Sub Trim
" Trvl ADJ."	Travel Adjustment
" Swash Mix"	Swash Mixing
" Swash TYP"	Swash Type
" Stick Mode"	Stick Mode
" Thro Curv"	Throttle Curve
" Pit Curv"	PIT. Curve
" Planes"	Planes
" Clear"	Clear
" Gyro Sens"	Gyro Sensitivity
" Idel Thro"	Idle Throttle
" Idel Pith"	Idle Pitch
" PLANE TYPE"	PLANE TYPE
" Exit"	Exit

2.3 D/R & EXP



- Function**
Dual rates are available for elevator and rudder channels of RC helicopters.
- Operation**
 - Press "●" to enter the menu – Roll "▲" or "▼" select the function (D/R & Exp) in the list Press "●" to set the function and return to the previous menu.
 - Roll "▲" or "▼" to select ELEV and AILE to set the data.
 - ELEV setting ---- 'ELEV' is displayed
Once the Elevator D/R switch is on/up, the data displayed is 'Pos 0'. Use "◀" or "▶" to increase or decrease the data.(2.3.1)
Once the Elevator D/R switch is off/down, the data displayed is 'Pos 1'. Use "◀" or "▶" to increase or decrease the data.(2.3.2)
 - AILE setting ---- 'AILE' is displayed
Once the Aileron D/R switch is on/up, the data displayed is 'Pos 0'. Use "◀" or "▶" to increase or decrease the data. (2.3.3)
Once the Aileron D/R switch is off/down, the data displayed is 'Pos 1'. Use "◀" or "▶" to increase or decrease the data. (2.3.4)
 - Press "●" to save and return to the previous menu.

2.4 Rev. SW



- Function**
The Reverse switch is to change the servo for channel direction.
- Operation**
 - Select 'REV. SW' and enter the interface.
 - Use "◀" or "▶" to select the channel arrow position. Press "▲" to reverse the channel; press "▼" to the normal status.
 - Press "●" to save and return to the previous menu.

2.5 Sub Trim

[Sub.Trim]			
THRO	ELEV		
→-13%	-19%		
AILE	RUDD		
-20%	+10%		

(2.5.1)

[Sub.Trim]			
GEAR	FLAP		
→-18%	+ 8%		
PITH	AUX3		
- 3%	+10%		

(2.5.2)

Function

The Sub trim is a trim position setting on 8 channels.

Operation

- 1.Select 'Sub Trim' and enter the interface.
- 2.Use "▲" or "▼" to select the channel arrow position. Press "◀" or "▶" to change the data.(2.5.1)
- 3.Use "▲" or "▼"to display circularly the other channels below. Press "◀" or "▶" to change the data. (2.5.2)
- 4.Press "●" to save and return to the previous menu.

2.6 Trvl ADJ.

[TRVLADJ]			
THRO	ELEV		
→-13%	-19%		
AILE	RUDD		
-20%	+10%		

(2.6.1)

[TRVLADJ]			
GEAR	FLAP		
→-18%	+ 8%		
PITH	AUX3		
- 3%	+10%		

(2.6.2)

Function


The function is an electronic means to adjust the servo travel value.


Operation


- 1.Select 'TRVL ADJ.' and enter the interface.
- 2.Use "▲" or "▼" to select the channel arrow position. Press "◀" or "▶" to change the data.(2.6.1)
- 3.Use "▲" or "▼"to display circularly the other channels below. Press "◀" or "▶" to change the data. (2.6.2)
- 4.Press "●" to save and return to the previous menu.

2.7 Swash TYP

[SWASH TYP]	
CP MOD	

[SWASH TYP]	
	180° 2Servos CCPM

[SWASH TYP]	
	120° 3Servos CCPM

[SWASH TYP]	
	90° 4Servos CCPM

Function

This function is to select a Swash type.

Operation

- 1.Select 'SWASH TYP' and enter the interface.
- 2.Use "▲" or "▼" to select the mode: CP mode/2Servos/3Servos/4Servos.
- 3.Press "●" to save and return to the previous menu.

2.8 Swash Mix

[SWASH MIX]	
On1 → one	
Ser os ↑	

[SWASH MIX]	
2Servos	
180° →	AI +50%
	PI +50%
	EL +50%

[SWASH MIX]	
3Servos	
120° →	AI +50%
	PI +50%
	EL +50%

[SWASH Mix]	
4Servos	
90° →	AI +50%
	PI +50%
	EL +50%

Function

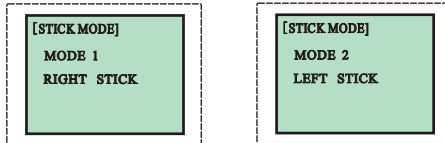
This function is to set the swash mixing data.

Operation

- 1.Select 'SWASH MIX' and enter the interface.
- 2.Use "▲" or "▼" to select the channel arrow position. Press "◀" or "▶" to set the mixing data between the Travel value and the Throttle.
- 3.Press "●" to save and return to the previous menu.

Notes: Please set the 'Swash TYP' before entering the Swash Mix.(cp mode;2Servos; 3Servos;4Servos;)

2.9 Stick Mode



Function

This function allows you to exchange mode 1 and mode 2.

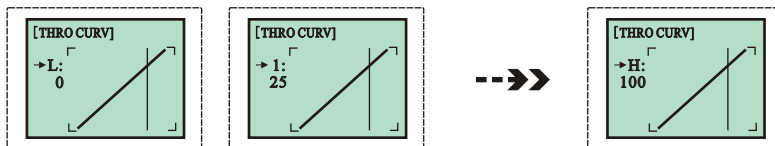


Operation

1. Select 'STICK MODE' and enter the interface.
2. Use "▲" or "▼" to select the mode.
3. Press "●" to save and return to the previous menu.

Notes: To change the mode, it is necessary to remove the model of the transmitter.

2.10 Thro Curv



Function

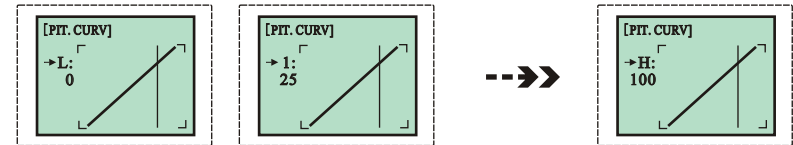
This radio offers 2 separate throttle curves with 5 adjustable points per curve: L/1/2/3/H.



Operation

1. Select 'THRO CURV' and enter the interface.
2. Use "▲" or "▼" to select any point at arrow that is in need to reset the data. Press "◀" or "▶" to set the data separately as the curve is being changed accordingly.
3. Press "●" to save and return to the previous menu.

2.11 Pit Curv



Function

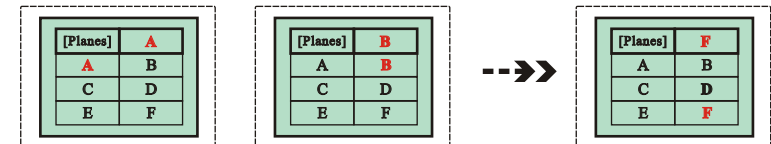
This radio offers 2 separate pitch curves with 5 adjustable points per curve: L/1/2/3/H.



Operation

1. Select 'PIT. CURV' and enter the interface.
2. Use "▲" or "▼" to select any point at arrow that is in need to reset the data. Press "◀" or "▶" to set the data separately as the curve is being changed accordingly.
3. Press "●" to save and return to the previous menu.

2.12 Planes



Function

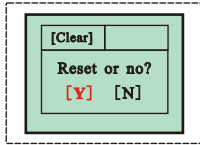
This radio has a memory for 6 models with their data individually.



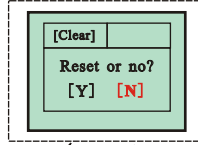
Operation

1. Select 'PLANES' and enter the interface.
2. Use "▲" or "▼" to select the model memorized with a code.
3. Press "●" to save and return to the previous menu.

2.13 Clear



(2.13.1)



(2.13.2)



Function

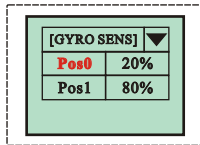
This function helps with returning the factory preset.



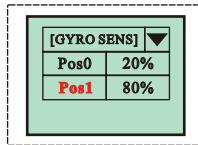
Operation

1. Select 'CLEAR' and enter the interface.
[Y] and [N] are displayed.
[Y] is to return the factory preset; (2.13.1)
[N] is not to return the factory preset. (2.13.2)
2. Use "▲" or "▼" to select the answer.
3. Press "●" to save and return to the previous menu.

2.14 Gyro Sens



(2.14.1)



(2.14.2)



Function

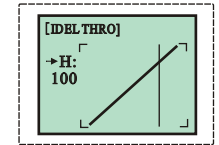
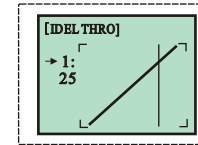
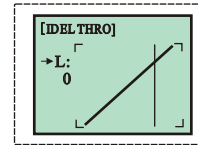
This function offers a gyro adjustment with 2 points.



Operation

1. Select 'GYRO SENS' and enter the interface.
2. Once 'the Gyro Sensitivity Adjustment SW' is off/down, the data displayed is 'Pos 0'.
Use "◀" or "▶" to adjust the data.
Once 'the Gyro Sensitivity Adjustment SW' is on/up, the data displayed is 'Pos 1'. Use "◀" or "▶" to adjust the data.
3. Press "●" to save and return to the previous menu.

2.15 Idel Thro



Function

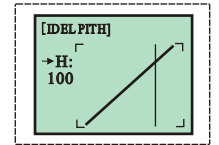
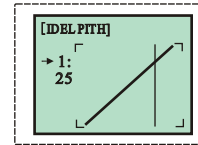
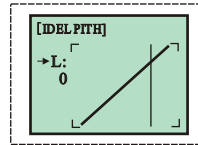
This function is a possibility to adjust the throttle curve with 5 points in 3D mode.



Operation

1. Select 'IDEL THRO' and enter the interface.
2. Use "▲" or "▼" to select any point at arrow that is in need to reset the data. Press "◀" or "▶" to set the data separately as the curve is being changed accordingly.
3. Press "●" to save and return to the previous menu.

2.16 Idel Pith



Function

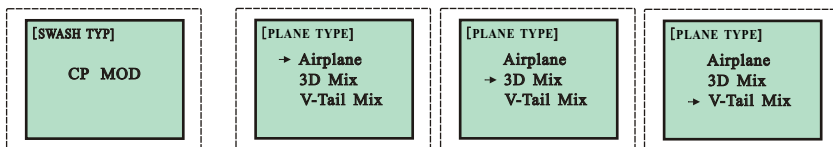
This function is a possibility to adjust the pitch curve with 5 points in 3D mode.



Operation

1. Select 'IDEL PITH' and enter the interface.
2. Use "▲" or "▼" to select any point at arrow that is in need to reset the data. Press "◀" or "▶" to set the data separately as the curve is being changed accordingly.
3. Press "●" to save and return to the previous menu.

2.17 PLANE TYPE



Function

This function is loaded with airplane and helicopter programming.

Operation

1. Select "SWASH TYP" and enter the interface of "CP MOD".
2. Entry "PLANE TYPE".
3. Use "▲" or "▼" to select the model type.
4. Press "●" to save and return to the previous menu.

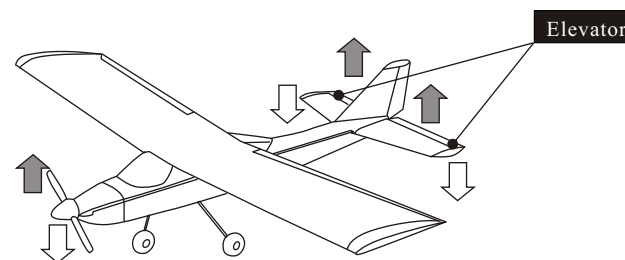
Swash Adjustment

1. Turn on the transmitter. Press Select keys to enter the Swash Type and select swash type you want.
2. Open the horns of swash plate servos.
3. Move the throttle stick(engine turned on) to observe the circumvolving direction of the servos horn. By reverse, you can adjust the direction.
4. Press Select keys to enter the Sub Trim and return all values to zero.
5. Lock the servos' horns.
6. Observe the circumvolving direction of the swash plate by moving aileron and elevator. Change it by adjusting the value of aileron and elevator in Swash Mix list.
7. Gyro Adjustment-----Press Select keys to enter the Gyro Sensor and adjust the value you want by O/I switch.
8. Finished all of the above, you can fly your helicopter freely.

3. Transmitter Operation and Movement (for Airplane)

This chapter will introduce transmitter's stick operation and movement of each servo of aeroplane, including stick operation and movements of Elevator, Rudder, Throttle, Aileron. (Mode 1)

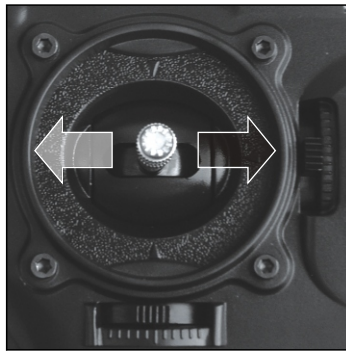
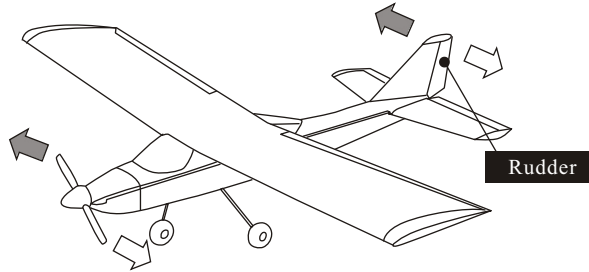
3.1 Upright Operation of Left Stick and Movement of Elevator



		Mode I			
		Elevator		Plane	
M	O				
L Stick Downwards	U	↑	U	↑	
L Stick Upwards	D	↓	D	↓	

Left Stick Vertical Operation

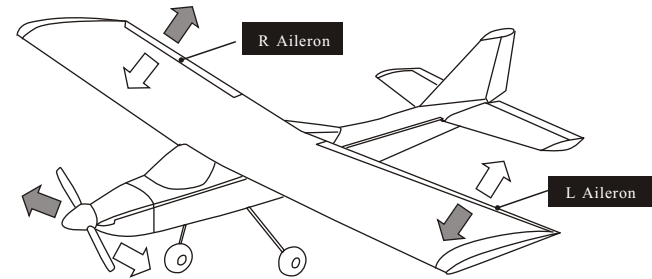
3.2 Level Operation of Left Stick and Movement of Rudder



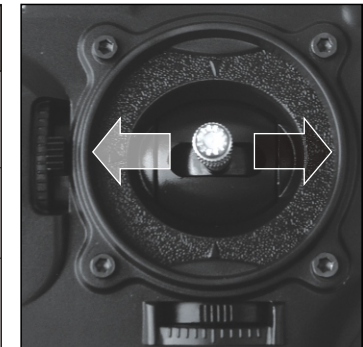
Left Stick Horizontal Operation

Mode I			
M \ O	Rudder	Plane	
L Stick Rightwards	R →	R	→
L Stick Leftwards	L ←	L	←

3.4 Level Operation of Right Stick and Movement of Aileron



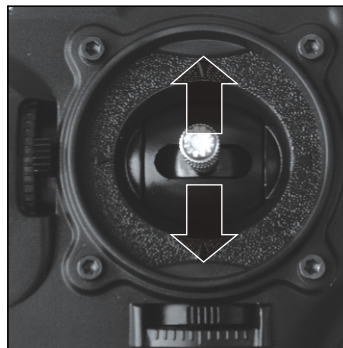
(Mode I)					
M \ O	Left Aileron	Right Aileron		Plane	
R Stick Rightwards	D ↓	U	↑	R	→
R Stick Leftwards	U ↑	D	↓	L	←



Right Stick Horizontal Operation

3.3 Upright Operation of Right Stick and Movement of Throttle

Mode I		
M \ O	Motor	Plane
R Stick Downwards	Decelerating	Decelerating
R Stick Upwards	Accelerating	Accelerating

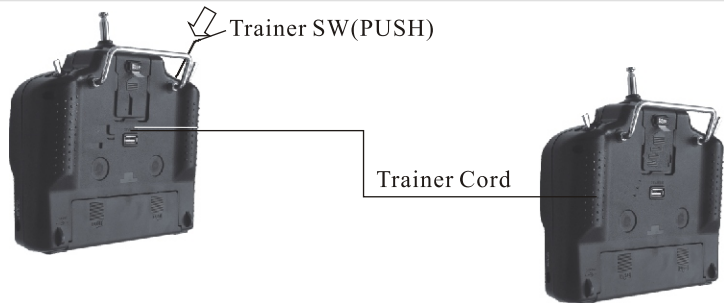


Right Stick Vertical Operation

4.1 Back of Transmitter



4.2 Trainer Function



Instructor Transmitter

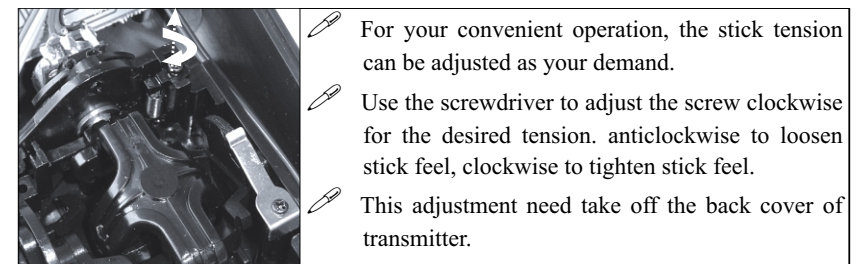
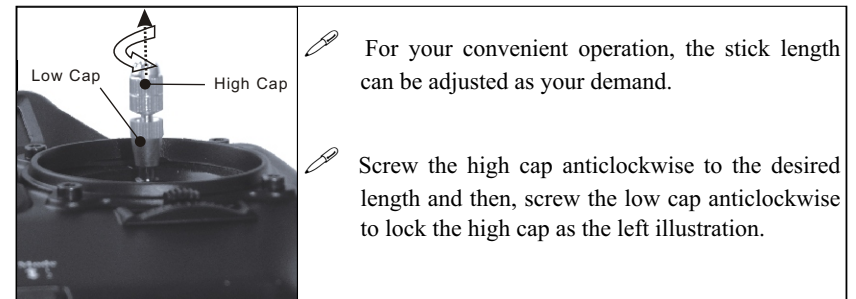
Student Transmitter

- ✎ Connect the student and the instructor transmitters with the trainer cord. Confirm the connection is OK.
- ✎ The instructor transmitter is used as a normal setting; Turn down the student transmitter and take off its Replaceable Module and batteries. (Do not extend the antenna of student transmitter)
- ✎ When the trainer switch of the instructor is pushed, like the following illustration, the model can be controlled by student. When the trainer switch of instructor returns, the model is under instructor's control.
- ✎ The training function is only active with T-1 trainer cord.

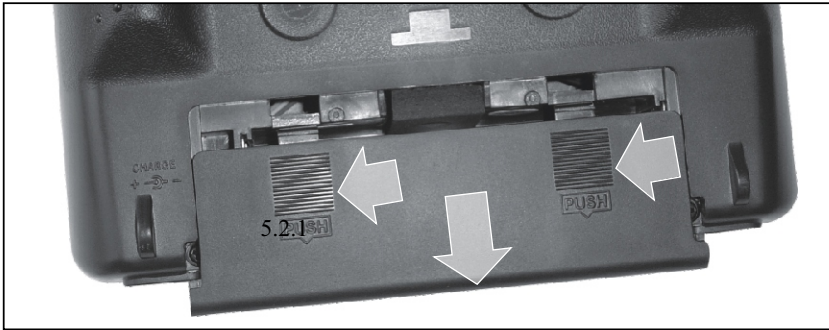
5. Installation and Adjustment

This chapter will introduce the installation and adjustment of some important parts of transmitter, including Control Stick Length and Tension Adjustment, Loading Batteries, Loading Module and Connection between Receiver and Servos.

5.1 Control Stick Length&Tension Adjustment

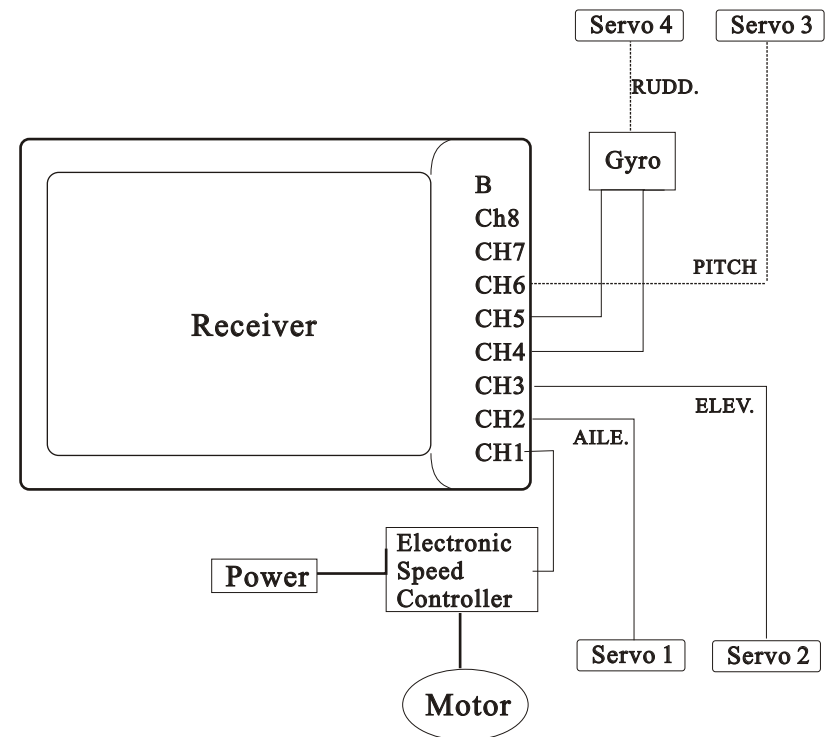
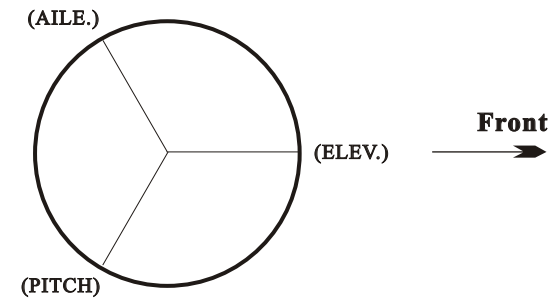


5.2 Loading Batteries

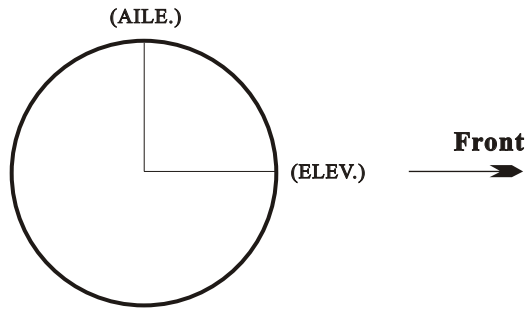


- ✎ Open the battery cover in the direction of the arrow while pressing the non-slip cover grips.
- ✎ Load the batteries in accordance with the battery holder polarity marking and close the battery cover.(5.2.1)

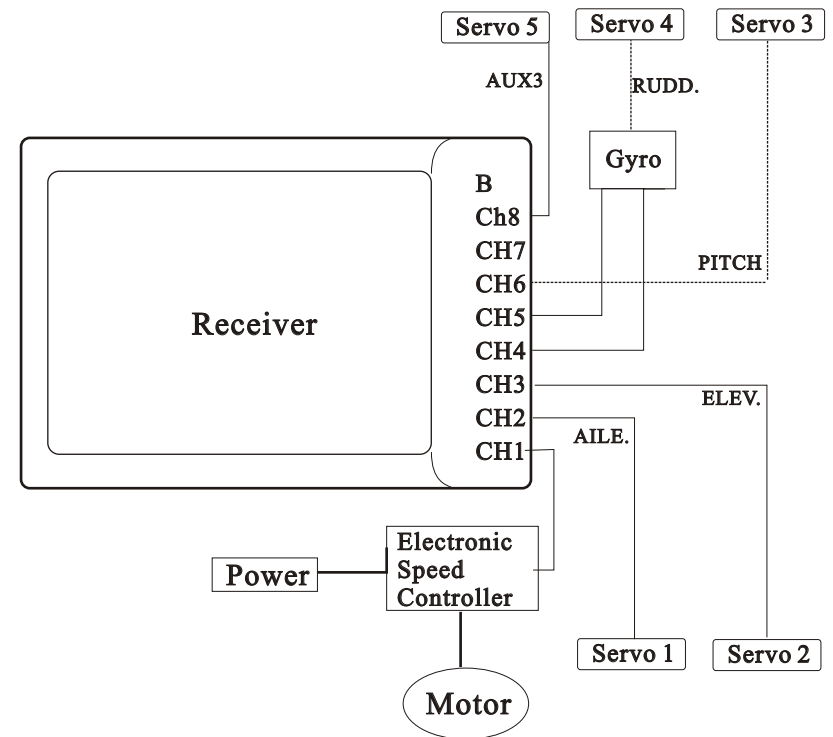
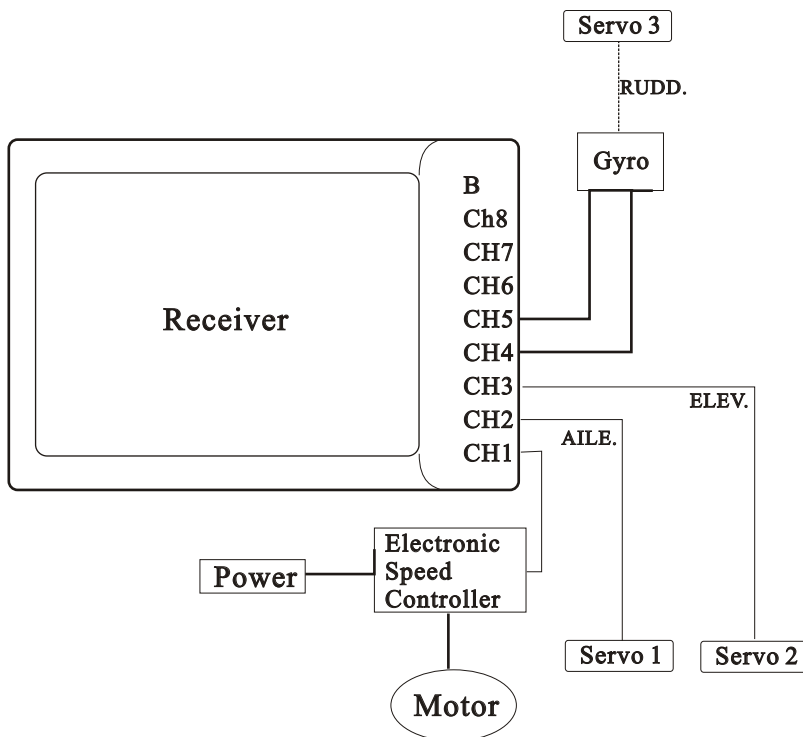
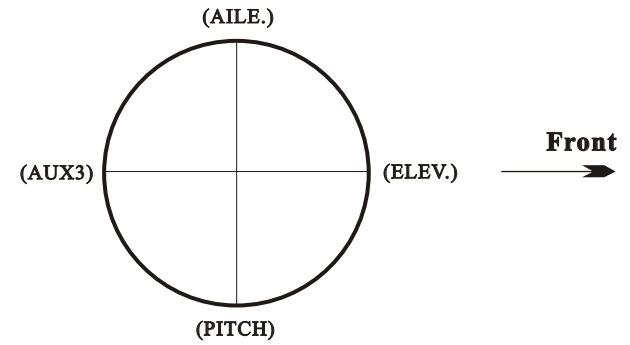
6.1 Three-servo Connection Diagram



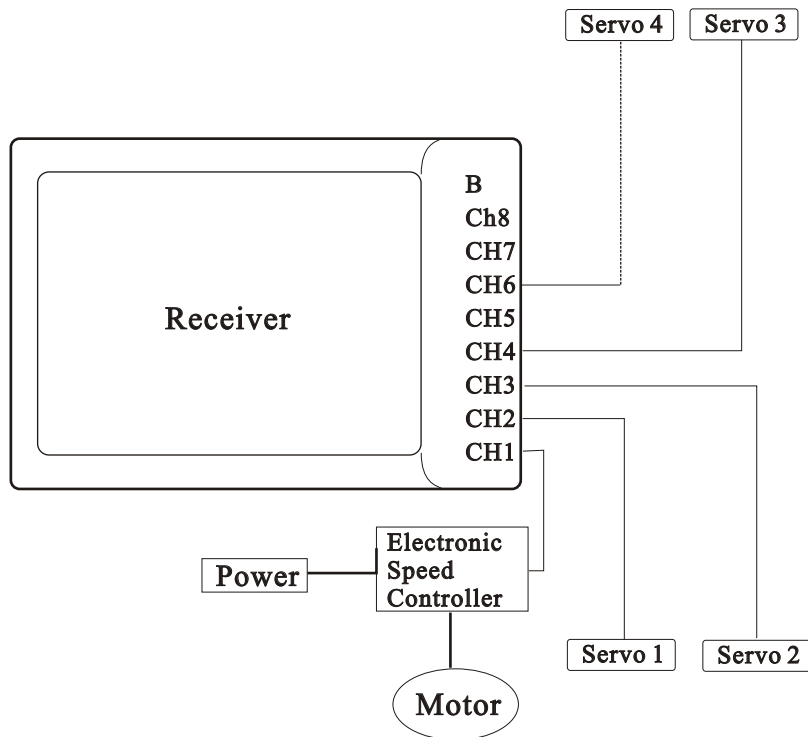
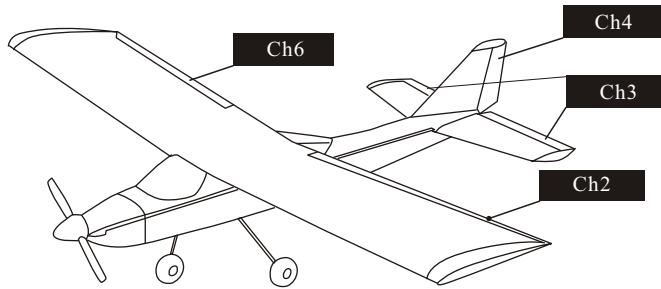
6.2 Two-servo Connection Diagram



6.3 Four-servo Connection Diagram



6.4 ACRO Connection Diagram



6.5 V-tail Mixing Connection

