



FS-TH9X

INSTRUCTION MANUAL



Technical updates available at:


[Http://www.flyskychina.com](http://www.flyskychina.com)

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1. Introduction

Thank you for purchasing the  digital proportional remot control system. If this is your first computer radio, rest assured that it is designed to make initial setup and field-tuning of your more accurate than would be if using a non-computer radio. Although this is a beginner or sport system with the requirements of those flyers in mind, in order to make the best use of your **FLYSKY FS-TH9X** and to operate it safely, you must carefully read all of the instructions.

Suggestion: If, while reading the instructions, you are unclear of some of the procedures or functions and become stuck, continue to read on anyway. Often, the function or procedure will be explained again later in a different way providing another perspective from which to understand it. Another suggestion is to connect the battery, switch and servos to the receiver and actually operate the radio on your workbench as you make programming changes. Then, you'll be able to see the effects of your programming inputs.

2. Service

If any difficulties are encountered while setting up or operating your system, please consult the instruction manual first. For further assistance you may also refer to your hobby dealer, or contact the  Service Center at the web site.

[Http: \\www. flyskychina. com](http://www.flyskychina.com)

3. Meaning of special markings

Pay special attention to safety where indicated by the following marks:



DANGER—Procedures which may lead to dangerous conditions and cause death/serious injury if not carried out properly.



WARNING—Procedures which may lead to a dangerous condition or cause death or serious injury to the user if not carried out properly, or procedures where the probability of superficial injury or physical damage is high.



CAUTION—procedures where the possibility of serious injury to the user is small, but there is a danger of injury, or physical damage, if not carried out properly.



=Prohibited



=Mandatory

Warning: Always keep electrical components away from small children.

FLYING SAFETY

To ensure the safety of yourself and others, please observe the following precautions:



Have regular maintenance performed. Although our TH9X super protects the model memories with non-volatile EEPROM memory (which does not require periodic replacement) and not a battery, it still should have regular checkups for wear and tear. We recommend sending your system to the FLYSKY Service Center annually during your non-flying-season for a complete checkup and service.

Ni-Cd Battery



Charge the batteries! (See Charging the Ni-Cd batteries, p. 9, for details.) Always recharge the transmitter and receiver batteries for at least 8 hours before each flying session. A low battery will soon die, causing loss of control and a crash. When you begin your flying session, reset your TH9Xsuper's built-in timer, and during the session pay attention to the duration of usage.



Stop flying long before your batteries become low on charge. Do not rely on your radio's low battery warning systems, intended only as a precaution, to tell you when to recharge. Always check your transmitter and receiver batteries prior to each flight.



Always pay particular attention to the flying field's rules, as well as the presence and location of spectators, the wind direction, and any obstacles on the field. Be very careful flying in areas near power lines, tall buildings, or communication facilities as there may be radio interference in their vicinity.

If you must fly away from a club field, be sure there are no other modelers flying within a three-to-five-mile range, or you may lose control of your aircraft or cause someone else to lose control.

At the flying field



Before flying, be sure that the frequency you intend to fly with is not in use, and secure any frequency control device (pin, tag, etc.) for that frequency before turning on your transmitter. It is never possible to fly two or more models on the same frequency at the same time. Even though there are different types of modulation (AM, FM, PCM) only one model may be flown on a single frequency at any one time.



To prevent possible damage to your radio gear, turn the power switches on and off in the proper sequence:

1. Pull throttle stick to idle position, or otherwise disarm your motor/engine.
2. Turn on the transmitter power and allow your transmitter to reach its home screen
3. Confirm the proper model memory has been selected
4. Fully extend the transmitter antenna
5. Turn on your receiver power

6. Test all controls If a servo operates abnormally, don't attempt to fly until you determine the cause of the problem (For PCM systems only: Test to ensure that the FailSafe settings are correct by waiting at least 2 minutes after adjusting then, turning the transmitter off and confirming the proper surface/throttle movements, Turn the transmitter back on.)

7. Start your engine

8. Complete a full range check (see p.9)

9. After flying, bring your throttle stick to idle position, engage any kill switches or otherwise disarm your motor/engine

10. Turn off receiver power.

11. Turn off transmitter power

If you do not turn on your system in this order, you may damage your servos or control surfaces, flood your engine, or in the case of electric-powered or gasoline-powered models, the engine may unexpectedly turn on and cause a severe injury



While you are getting ready to fly, if you place your transmitter on the ground, be sure that the wind won't tip it over. If it is knocked over, the throttle stick may be accidentally moved, causing the engine to speed up. Also, damage to your transmitter may occur



Before taxiing, be sure to extend the transmitter antenna to its full length.

A collapsed antenna will reduce your flying range and cause a loss of control. It is a good idea to avoid pointing the transmitter antenna directly at the model, since the signal is weakest in that direction



Don't fly in the rain! Water or moisture may enter the transmitter through the antenna or stick openings and cause erratic operation or loss of control. If you must fly in wet weather during a contest, be sure to cover your transmitter with a plastic bag or waterproof barrier. Never fly if lightning is expected

Transmitter controls



MENU: The function of the main menu for button

EXIT: Withdraw from the button

UP: The menu is chosen upwards

DOWN: The menu is chosen downwards

+: Increase the value of the parameter

-: Reduce the value of the parameter

NOTE:

Press for short and long

1. Press long: Lasting button is more than 2 seconds

2. Press short: The lasting button does not exceed one second



Carrying Handle

CAUTION

! The module is unremovable which is fixed to the product.

RF module

Trainer function
/DSC function connector

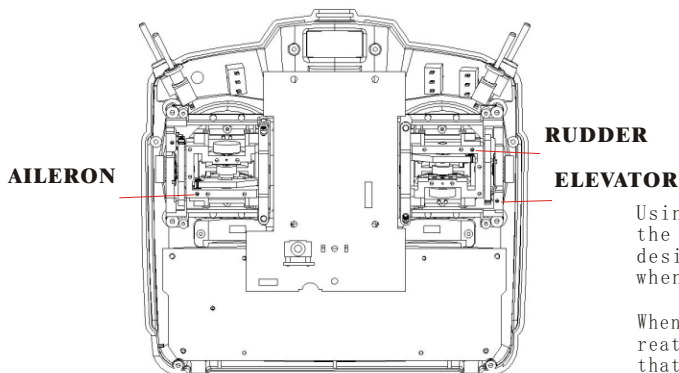
Battery cover

NOTE: If you need to remove or replace the transmitter battery, do not pull on its wires to remove it. Instead, gently pull on the connector's plastic housing where it plugs into the transmitter.

STICK TIP A SCREW B

Stick lever tension adjustment:

You may change the length of the control sticks to make your transmitter more comfortable to hold and operate. To lengthen or shorten your transmitter's sticks, first unlock the stick tip by holding locking screw B and turning stick tip A counterclockwise. Next, move the locking screw B up or down (to lengthen or shorten). When the length feels comfortable, lock the position by turning locking screw B counterclockwise.



Mode 1 transmitter with rear cover removed.

You may adjust the tension of your sticks to provide the feel that you prefer for flying. To adjust your springs, you'll have to remove the rear case of the transmitter. First, using a screwdriver, remove the six screws that hold the transmitter's rear cover in position, and put them in a safe place. Gently ease off the transmitter's rear cover. Now you'll see the view shown in the figure above.

Using a small phillips screwdriver, rotate the adjusting screw for each stick for the desired spring tension. The tension increases when the adjusting screw is turned clockwise.

When you are satisfied with the spring tensions, reattach the transmitter's rear cover. Check that the upper PCB is on its locating pins, reinstall the rear cover and tighten the six screws.

5. Radio installation

Follow these guidelines to properly mount the servos, receiver and battery

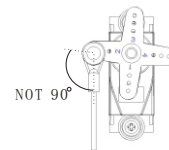
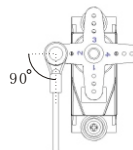
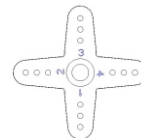
Make certain the alignment tab on the battery, switch and servo connectors is oriented correctly and "key" into the corresponding notch in the receiver or connectors before plugging them in. when unplugging connectors, never pull on the wires. Always pull on the plastic connector instead

If any servo wires are not long enough to reach the receiver, servo extension wires (available separately) may be used.

Always mount the servos with the supplied rubber grommets. Do not over tighten the screws. No part of the servo casing should contact the mounting rails, servo tray or any other part of the airplane structure. Otherwise, vibration will be transmitted to the servo causing premature wear and/or servo failure

Note the small numbers (1.2.3.4) molded into each arm on the Futaba 4-arm servo arms. The numbers indicate how many degrees each arm is "off" from 90 degrees to correct for minute manufacturing deviations from servo to servo

To center the servos, connect them to the receiver and turn on the transmitter and receiver. Center the trims on the transmitter, then find the arm that will be perpendicular to the pushrod when placed on the servo



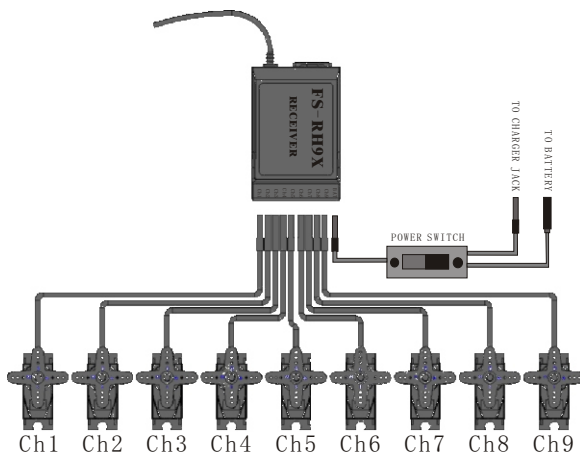
After the servos are installed operate each servo over its full travel and check that the pushrods and servo arms do not bind or contact each other. Also make sure the controls do not require excess force to operate. If there is an objectionable buzzing sound coming from a servo there is probably too much resistance in the control. Find and correct the problem. Even if there is no servo damage excess battery drain will result.

Use the mounting plate from the receiver on/off switch as a template for the cutout and screw holes. Mount the switch on the side of the fuselage opposite the engine exhaust, and where it won't be inadvertently turned on or off during handling or storage. Be certain the switch moves without restriction and "snaps" from ON to OFF, and that the cutout allows full motion of the switch in both directions.

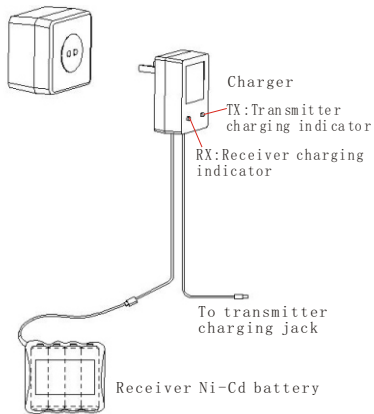
IMPORTANT: NEVER cut the receiver antenna or mount it in the model folded back on itself. Doing so will change its electrical length, possibly reducing the distance from the model can be controlled ("range").

The receiver antenna may be mounted inside or outside the model.

5.1 Receiver and servo connections



5.2 Charging the Ni-Cd batteries



The transmitter and receiver batteries included with you **FS-TH9X** system are rechargeable, Ni-Cd batteries. Ni-Cd batteries require special care and charging.

NOTE: The batteries are partially charged, but will require a full, overnight charge before the model may be flown.

1. Connect the transmitter charging cord coming from the A/C wall charger to the charge jack in the right side of the transmitter case. The receiver charging cord may be connected to the batteries two different ways: The charge cord may be connected directly to the battery pack, or to the vacant charge connector (lack) coming from the on/off switch in the model. Charging "through the switch" is preferred as there will be no need disconnect the battery.

2. Plug the A/C wall charger into a wall outlet. Note: If the wall outlet can be turned off by a switch in the room, be certain the switch remains on after leaving the room. Otherwise, the batteries will not be charged!

3. The LEDs (light-emitting diodes) should light red, indicating that current is flowing and the batteries are being charged. Discharged batteries will take about 15 hours to fully charge. If using an aftermarket fast charger, be certain to follow the manufacturer's instructions provided with the charger so you do not overcharge the batteries. NEVER charge the batteries at a rate higher than 1000mA. The batteries should also be discharged periodically to prevent a condition called "memory". If, for example, only two flights are made each time you go flying, the batteries will not have "reached" very far down into their full capacity. After doing this several times the batteries will "remember" and eventually "think" they can supply only enough power for two flights. After two flights the batteries may not provide enough power to operate the system, thus causing a crash. To erase any potential memory, cycle the batteries by discharging, then charging them with a commercial battery cycler, or leave the system on and exercise the servos by moving the transmitter sticks until the even during the winter or periods of long storage. If using a cycler with a readout, note the capacity after the batteries have been cycled. If there is a noticeable drop in capacity the batteries should be replaced.

NOTE: charging your batteries with the included **FLYSKY** A/C battery charger is always safe. However, fast-charging with an aftermarket charger is acceptable as long as you know how to properly operate the charger, NEVER charge at a rate higher than 1000mA. If not done correctly, fast-charging can damage the batteries.

5.3 Range Testing Your R/C System

Please note that different systems demonstrate different range checks and the same system will range check differently in different conditions. Also, the receiver antenna's installation affects the range test—exiting the top of the model is ideal. This is a brief explanation of range test. For more in-depth specifics on receiver antenna mounting, additional checks if unsatisfactory range is demonstrated, range checking with gasoline powered engines, etc, please see our F.A.Q. page at www.flyskychina.com.

- . Leave the transmitter's antenna retracted and be sure both batteries are fully charged.
- . Position the aircraft away from wires, other transmitters, etc.

Test one-engine/motor off, minimum of 100 ft. range:

- . Have a friend view the model but not hold it, engine off. (People conduct signals, too!)
- . Walk away from the model, working all controls constantly. Stop when the servos jitter significantly (a jitter here and there is normal), control movement stops (PCM), or you lose control altogether.
- . Measure the distance. If greater than 100 feet, great! Proceed to Test 2. Less than 100 feet of range check means you need more information to determine if your system is safe to fly. Please see our web site or call support for additional tests to perform before flying your system.
- . Repeat with friend holding the model. Note any differences.



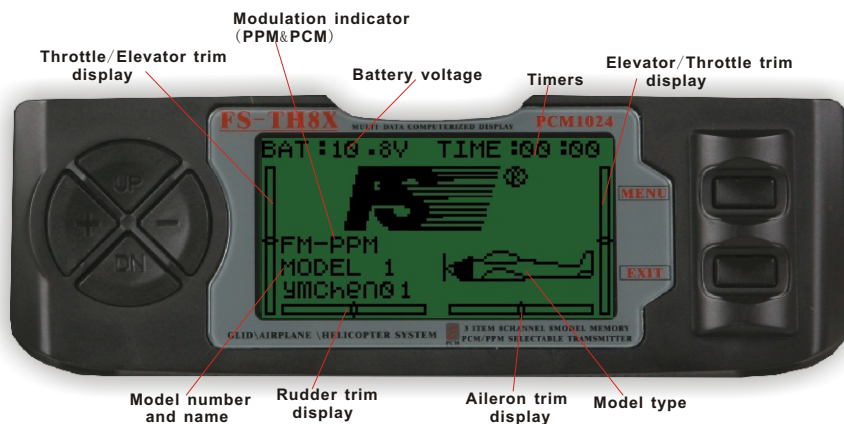
FS-TH9X

Test two-engine/motor on:

.Repeat the test with the model's engine running and with someone holding the model. If a decrease of more than 10% is noted, research and resolve the cause of interference prior to flying your model.

6. Multi LCD and Programming controls

6.1 DISPLAY



Battery voltage: Battery voltage display (If after the voltage of the battery is lower than 8.5V, Buzzer sends the suggestion sound through 5S once).

Modulation indicator: pulse position modulation & pulse code modulation select.

Model number and name: User's parameter serial number showing (8 groups can choose at most).

Rudder trim display: Rudder trim

Aileron trim display: Aileron trim

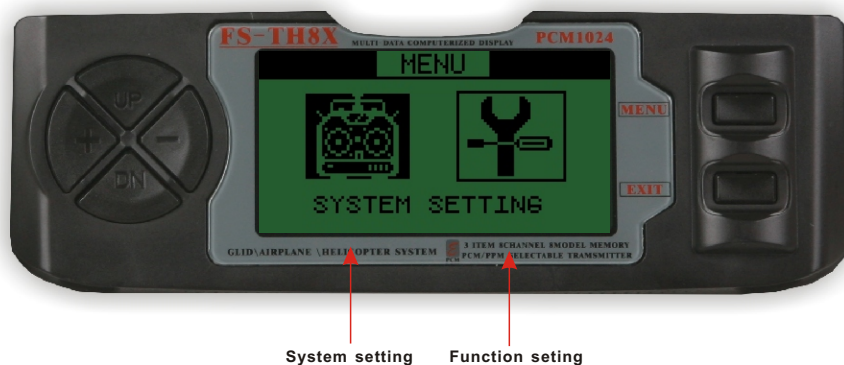
Elevator/Throttle trim display: Elevator/Throttle trim

Throttle/Elevator trim display: Throttle/Elevator trim

Timers: Competition count-down (99 minutes and 59 seconds for a long time most).

Model type: Airplane Helicopter Glider select.

6.2 Main menu



Under the state of the initial picture, press MENU key for long, access the main menu.

System setting: Establish the initializing of the system.

Function setting: The function parameter of the mode type is established.

Press the **UP** or **DOWN** key to select the MENU screen.

Press the **MENU** key into next menu.

Press the **EXIT** key to return last menu

NOTE:

The menu acts once and BUZZER sends a sound.

If the parameter transfers after the maximum in the menu, continuing pressing the button, BUZZER will not be pronounced.

7 SYSTEM SETTING

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.



Press UP/DOWN key for short and choose SYSTEM SETTING menu, press MENU key for short into next submenu.



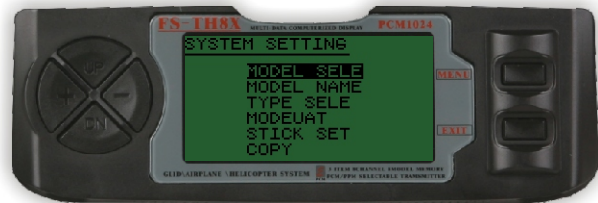
Press the UP or DOWN key to select the SYSTEM SETTING screen.



Press MENU key for short into next submenu.



Press EXIT Key return last menu.



SYSTEM SETTING:

MODEL SELE: This function selects which of the 8 model memories in the transmitter to set up or fly.

MODEL NAME: User name edit

TYPE SELE: Model type selects.

MODEUAT: PPM&PCM selects.

STICK SET: Stick model-4 selects

COPY: Model copy

Press the **UP** or **DOWN** key to select the SYSTEM SETTING screen.

Press the **MENU** key into next menu.

Press the **EXIT** key to return last menu.

7.1 MODEL SELE

SYSTEM SETTING

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.



Press UP/DOWN key select the SYSTEM SETTING menus, and press MENU key for short into next submenu.



Press UP/DOWN key choose MODEL SELE menu, press MENU key for short into next submenu.



Press the UP or DOWN key to select the MODULAT screen.



Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and return last menu.



MODEL SELECT:

This function selects which of the 8 model memories in the transmitter to set up or fly. For clarity the model's name and an image or its type are indicated after its number. (Each model memory may be of a different model type from the other memories.)

Press the **UP** or **DOWN** key to select the MODEL SEL screen.

Press the **MENU** key to save and return last menu.

Press the **EXIT** key to not keep and re-turn last menu.

7.2NAME EDIT

SYSTEM SETTING

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.

Press UP/DOWN key select the SYSTEM SETTING menus, and press MENU key for short into next submenu.

Press UP/DOWN key to select the NAMEEDIT menu, and press MENU key for short into next submenu.

Press the UP or DOWN key to move the cursor to the desired character's position.

Press the "+" or "-" key to select the desired character. Press the MENU key for long time enter.

Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and return to last menu.



NAME EDIT:

The Model Name function is used to input and assign the model's name to a specific memory, allowing easy identification of each model's program. Each model's name is displayed on the main screen when that model is selected. Up to eight characters that include numbers and letters are available.

Press the **UP** or **DOWN** key to move the cursor to the desired character's position.

Press the "+" or "-" key to select the desired character.

Press the **MENU** key for long time enter.

Press the **MENU** key save and return last menu.

Press the **EXIT** key to not keep and return last menu.

7.3TYPE SELE

SYSTEM SETTING

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.

Press UP/DOWN key select the SYSTEM SETTING menus, and press MENU key for short into next submenu.

Press UP/DOWN key to select the TYPE menu, and press MENU key for short into next submenu.

Press the UP or DOWN key to select the TYPE screen.

Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and return to last menu.



TYPE:

Sets the type of programming used for this model.

Press the **UP** or **DOWN** key to select the TYPE screen.

Press the **MENU** key to save and return last menu.

Press the **EXIT** key to not keep and return last menu.

NOTE:

Because ACRO and GLID have a kind of choice only, so, press the menu key to save and return last menu.

If choose helicopter mode, short to press MENU key enter down the first class menu, choose different connection methods of five kinds of the server, u.i.

7. 3. 0 HILI TYPE SELECT

SYSTEM SETTING

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.

Press UP/DOWN key select the SYSTEM SETTING menus, and press MENU key for short into next submenu.

Press UP/DOWN key to select the TYPE menu, and press MENU key for short into next submenu.

Press UP/DOWN key for short and select HELI menu, and press MENU key for short into next menu.

Press the UP or DOWN key to select the HELI screen.

Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and return to last menu.



HELI:

The FS-TH9X super radios support 5 basic swashplate setups, including "single servo" (SW1-most helicopters use this type) and 4 types of CCPM (cyclic and collective pitch mixing).

Press the **UP** or **DOWN** key to select the TYPE screen.

Press the **MENU** key to save and return last menu.

Press the **EXIT** key to not keep and re-return last menu.

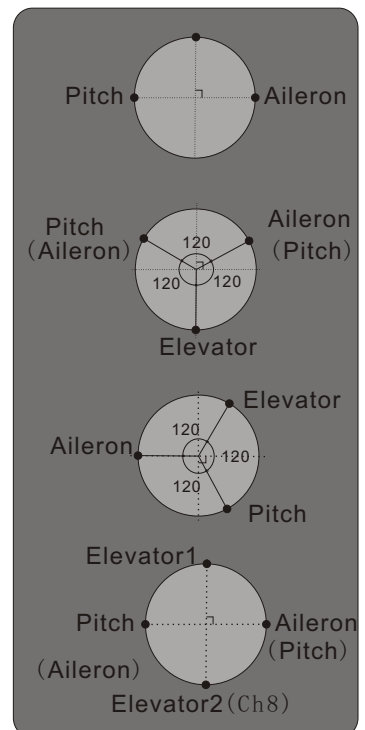
HELI1: Independent aileron, pitch and elevator servos linked to swashplate. Most kits are HELI1 type.

HELI2: Pushrods positioned as shown. Elevator operates with a mechanical linkage. With Aileron inputs, the aileron and pitch servos tilt the swashplate left and right; with pitch inputs, the aileron and pitch servos raise the swashplate up and down.

HELI3-1: Pushrods positioned as shown. With Aileron inputs, the aileron and pitch servos tilt the swashplate left and right; with Elevator inputs, the three servos tilt the swashplate fore and aft; with Pitch inputs, all three servos raise the swashplate up and down.

HELI3-2: Pushrods positioned as shown. With Aileron inputs, the three servos tilt the swashplate left and right; with Elevator inputs, the elevator and pitch servos tilt the swashplate fore and aft; with Pitch inputs, all four servos raise the swashplate up and down.

HELI4: Pushrods positioned as shown. With Aileron inputs, the aileron and pitch servos tilt the swashplate left and right; with Elevator inputs, the servos tilt the swashplate fore and aft; with Pitch inputs, all four servos raise the swashplate up and down.



7.4 Modulation selection

SYSTEM SETTING

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.



Press UP/DOWN key select the SYSTEM SETTING menus, and press MENU key for short into next submenu.



Press UP/DOWN key to select the MODEULAT menu, and press MENU key for short into next submenu.



Press the UP or DOWN key to select the MODULAT screen.



Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and treurn to last menu.



Modulation select:

sets the type of modeulation transmittec.

Press the **UP** or **DOWM** key to select the MODULAT screen.

Press the **MENU** key to save and return last menu.

Press the **EXIT** key to not keep and re-tturn last menu.

PPM:Pulse Position Modulation(also called FM)

PCM:Pulse Code Modeulation

7.5 Stick mode selections

SYSTEM SETTING

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.



Press UP/DOWN key select the SYSTEM SETTING menus, and press MENU key for short into next submenu.



Press UP/DOWN key to select the STICK menu, and press MENU key for short into next submenu.



Press the UP or DOWN key to select the STICK screen.



Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and treurn to last menu.



Stick mode selections

To change the Stick Mode.

MODEL1

Right Stick UP and DOWN move IS Throttle Control
Right and left move is Aileron Control
LeftStick UP and DOWN move IS Elevator Control
Right and left move is Rudder Control

MODEL2

Right Stick UP and DOWN move IS Elevator Control
Right and left move is Aileron Control
LeftStick UP and DOWN move IS Throttle Control
Right and left move is Rudder Control

MODEL3

Right Stick UP and DOWN move IS Throttle Control
Right and left move is Rudder Control
LeftStick UP and DOWN move IS Elevator Control
Right and left move is Aileron Control

MODEL4

Right Stick UP and DOWN move IS Throttle Control
Right and left move is Rudder Control
LeftStick UP and DOWN move IS Elevator Control
Right and left move is Aileron Control

Press the **UP** or **DOWM** key to select the STICK screen.

Press the **MENU** key to save and return last menu.

Press the **EXIT** key to not keep and re-tturn last menu.

7. 6COPY

SYSTEM SETTING

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.

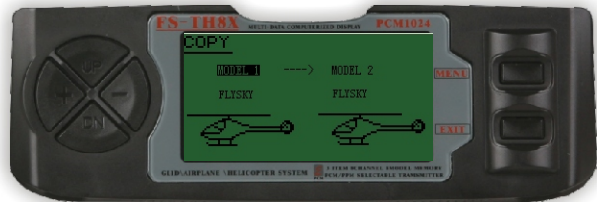
Press UP/DOWN key select the SYSTEM SETTING menus, and press MENU key for short into next submenu.

Press UP/DOWN key to select the COPY menu, and press MENU key for short into next submenu.

Press UP/DOWN key choose to duplicate the source or duplicate the destination

Press "-" or "+" key choose to duplicate the source or duplicate concrete users of left and right sides of the destination.

Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and return to last menu.



MODEL COPY:

Copies the current model data into another model memory. The name of the model memory you are copying into is displayed for clarity.

Press **UP** or **DOWN** key choose to duplicate the source or duplicate the destination

Press "-" or "+" key choose to duplicate the source or duplicate concrete users of left and right sides of the destination.

Press the **MENU** key to save and return last menu
Press the **EXIT** key to not keep and return last menu

NOTE:

Duplicate source includes to be as follows, MODEL1 ---- MODEL8, HEL1, ACRO

Duplicate the purpose to contain: MODEL1 ---- MODEL8, ALL

ALL, show duplicating by source with establishment copy to MODEL1 --- MODEL8,

7. 7LCD ADJUST

SYSTEM SETTING

STEPS:

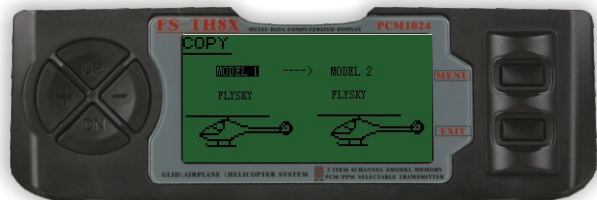
Under the state of the initial picture, press MENU key for long, access the main menu.

Press UP/DOWN key select the SYSTEM SETTING menus, and press MENU key for short into next submenu.

Press UP/DOWN key to select the ADJ CONTRAST menu, and press MENU key for short into next submenu.

Press "-" or "+" key select to change the lcd volume.

Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and return to last menu.



LCD ADJ CONTRAST:

The lcd adjust contrast function is used to adjust the lcd screen light.

Press the **UP** or **DOWN** key to select the D/R & EXP screen.

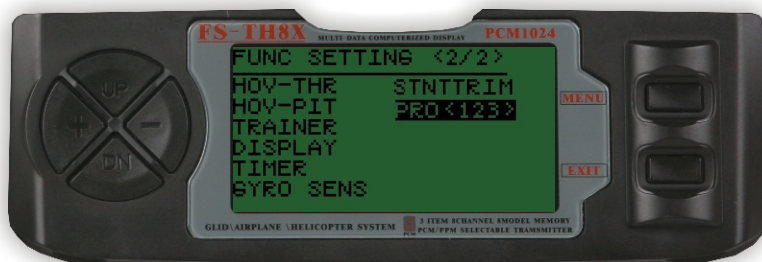
Press "+" or "-" key to change the lcd value.

Press the **MENU** key to save and return last menu
Press the **EXIT** key to not keep and return last menu

8 FUNCTION SETTING (HELICOPTER)



Page1



Page2

8. 1 REVERSE

HELICOPTER

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.



Press UP/DOWN key select the FUNC SETTING menus, and press MENU key for short into next submenu.



Press UP/DOWN key to select the REVERSE menu, and press MENU key for short into next submenu.



Press UP/DOWN key to choose the REVERSE screen.



Press "+" or "-" key to reverse the servo direction for that selected channel.



Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and treurn to last menu.



REVERSE:

The reverse switch function allows electronic means of reversing the servo's throw. Servo reversing is available for all 9 channels.

Press the **UP** or **DOWN** key to select the Reverse screen.

Press "+" or "-" key to reverse the servo direction for that selected channel.

Press the **MENU** key to save and return last menu

Press the **EXIT** key to not keep and return last menu

AIL:	Aileron
ELE:	Elevator
THR:	Throttle
RUD:	Rudder
GEA:	Retractable landing Gear
PIT:	Ptich(ch6)
AUX1:	Auxiliary1
AUX2:	Auxiliary2

8. 2THRO CURVE

HELICOPTER

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.



Press UP/DOWN key select the FUNC SETTING menus, and press MENU key for short into next submenu.



Press UP/DOWN key to select the THRO CURVE menu, and press MENU key for short into next submenu.



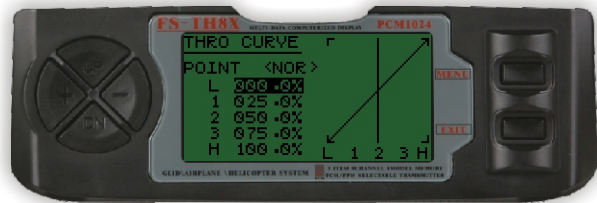
Press UP/DOWN key to choose the THRO CURVE screen.



Press "+" or "-" key to adjust the throttle value of the selected throttle position.



Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and return to last menu.



THRO CURVE:

The FS-TH9X offers three separate throttle curves with five adjustable points per curve. This function allows you to adjust the throttle curve to optimize engine rpm at a particular pitch setting. Once the throttle curves are established, each can be activated in flight using the 3-position flight mode switch. The flight mode switch offers three selectable curves: Normal, IDE1, IDE2.

Press the **UP** or **DOWN** key to select the THRO CURVE screen.

Press "+" or "-" key to adjust the throttle value of the selected throttle position.

Press the **MENU** key to save and return last menu

Press the **EXIT** key to not keep and return last menu

8. 3PITCH CURVE

HELICOPTER

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.



Press UP/DOWN key choose the systematic function to establish menus, press MENU key for short and enter the next page to establish.



Press UP/DOWN key choose PITCH CURVE menu, press MENU key for short and enter the page to establish.



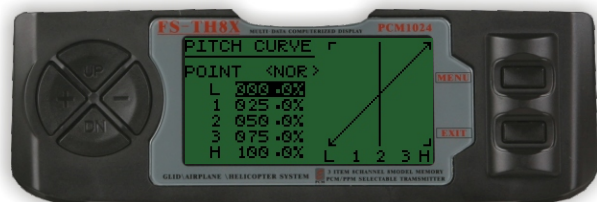
Press UP/DOWN key to choose the PITCH CURVE screen.



Press "+" or "-" key to adjust the throttle value of the selected throttle position.



Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and return to last menu.



PITCH CURVE:

The FS-TH9X offers four independent pitch curves, each with up to five adjustable points. This function allocates a separate pitch curve setting during Normal, IDL1, IDL2 and Throttle hold modes. Once the pitch curves are adjusted, each can be activated in flight using the three-position flight mode and throttle hold switches. Each of the five points of the pitch curve are independently adjustable from 0-100%. These five points correspond to low, 25%, 50%, 75% and high stick positions.

Press the **UP** or **DOWN** key to select the PITCH CURVE screen.

Press "+" or "-" key to adjust the throttle value of the selected throttle position.

Press the **MENU** key to save and return last menu

Press the **EXIT** key to not keep and return last menu

8. 4SUB TRIM:

HELICOPTER

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.

Press UP/DOWN key select the FUNC SETTING menus, and press MENU key for short into next submenu.

Press UP/DOWN key choose SUB TRIM menu, press MENU key for short and enter the page to establish.

Press UP/DOWN key to choose the SUB TRIM screen.

Press "+" or "-" key to adjust the sub-trim position for that selected channel.

Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and return to last menu.



SUB TRIM:

The SUB-TRIM function allows you to electronically adjust the centering of each servo. Sub trim is individually adjustable for all 8 channels, with a range of +or-120%.

Press the **UP** or **DOWN** key to select the SUB TRIM screen.

Press "+" or "-" key to adjust the sub-trim position for that selected channel.

Press the **MENU** key to save and return last menu.

Press the **EXIT** key to not keep and return last menu.

NOTE: Do not use excessive sub-trim values as it is possible to overdrive the servo's maximum travel.

8. 5END POINT

HELICOPTER

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.

Press UP/DOWN key select the FUNC SETTING menus, and press MENU key for short into next submenu.

Press UP/DOWN key choose E. POINT menu, press MENU key for short and enter the page to establish.

Press UP/DOWN key to choose the E. POINT screen.

Press "+" or "-" key to adjust the E. POINT position for that selected channel.

Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and return to last menu.



END POINT:

The most flexible version of travel adjustment available. It independently adjusts each end of each individual servo's travel, rather than one setting for the servo that affects both directions. Ranges from 0% to 120%.

Press the **UP** or **DOWN** key to select the E. POINT screen.

Press "+" or "-" key to adjust the END POINT position for that selected channel.

Press the **MENU** key to save and return last menu.

Press the **EXIT** key to not keep and return last menu.

NOTE: Do not use excessive E. POINT values as it is possible to overdrive the servo's maximum travel.

8. 6THRO HOLD

HELICOPTER

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.

Press UP/DOWN key select the FUNC SETTING menus, and press MENU key for short into next submenu.

Press UP/DOWN key choose THRO HOLD menu, press MENU key for short and enter the page to establish.

Press UP/DOWN key to choose the THRO HOLD screen.

Press "+" or "-" key to select the state (INT or ACT) and change the throttle hold value..

Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and return to last menu.



THRO HOLD:

The Throttle hold function is used to practice autorotation and is often used as a safety switch for electric helicopters, holding the throttle in the off position. When the throttle hold switch is activated, the throttle hold function holds the throttle servo/ESC in a specific position (normally low or off throttle) while all other servos function normally.

Press the **UP** or **DOWN** key to select the THRO HOLD screen.

Press "+" or "-" key to select the state (INT OR ACT) and change the throttle hold value..

Press the **MENU** key to save and return last menu.

Press the **EXIT** key to not keep and return last menu.

8. 7AUX-CH

HELICOPTER

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.

Press UP/DOWN key select the FUNC SETTING menus, and press MENU key for short into next submenu.

Press UP/DOWN key choose AUX-CH menu, press MENU key for short and enter the page to establish.

Press UP/DOWN key to choose the AUX-CH screen.

Press "+" or "-" key to select input channels..

Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and return to last menu.



AUX-CH:

Defines the relationship between the transmitter controls and the receiver output for channels 5-9. Also, the ch9 servo reverse is used to change the ch9 servo direction.

Press the **UP** or **DOWN** key to select the AUX-CH screen.

Press "+" or "-" key to select input channels.

Press the **MENU** key to save and return last menu.

Press the **EXIT** key to not keep and return last menu.

Note that the ch9 functions are only visible in the AUX-CH screen when PCM modulation is selected. The ch9 is not supported in PPM modulation.

8. 8SWASH MIX

HELICOPTER

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.

Press UP/DOWN key select the FUNC SETTING menus, and press MENU key for short into next submenu.

Press UP/DOWN key choose SWASH MIX menu, press MENU key for short and enter the page to establish.

Press UP/DOWN key to choose the SWASH MIX screen.

Press "+" or "-" key to change the selected swashplate mix value.

Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and return to last menu.



SWASH MIX:

Swashplate function rate settings (SWASH MIX) reduce/increase/reverse the rate (travel) of the aileron, elevator (except heli2) and collective pitch functions, adjusting or reversing the motion of all servos involved in that function, only when using that function. Since these types utilize multiple servos together to create the controls, simply adjusting a servos reverse or end point would not properly correct the travel of any one control. Since heli1 uses one servo for each function, there is no need for SWASH MIX in heli1.

Press the **UP** or **DOWN** key to select the SWASH MIX screen.

Press "+" or "-" key to change the selected swashplate mix value.

Press the **MENU** key to save and return last menu.

Press the **EXIT** key to not keep and return last menu

8. 9D/R&EXP

HELICOPTER

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.

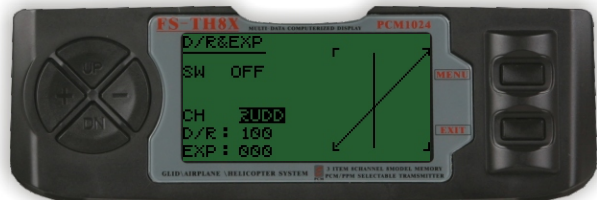
Press UP/DOWN key select the FUNC SETTING menus, and press MENU key for short into next submenu.

Press UP/DOWN key choose D/R&EXP menu, press MENU key for short and enter the page to establish.

Press UP/DOWN key to choose the D/R&EXP screen.

Press "+" or "-" key to change the select value.

Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and return to last menu.



D/R&EXP:

The Dual Rate and Exponential function allows two control rates to be programmed and selected with a switch. Dual rates and expos are available on the aileron, elevator and rudder channels. Changing the dual rate value not only affects the maximum control authority but also affects the overall sensitivity of control. A higher rate yields a higher overall sensitivity. The sensitivity around center can be tailored using the Exponential function to precisely adjust control feel.

Press the **UP** or **DOWN** key to select the D/R & EXP screen.

Press "+" or "-" key to change the select D/R & EXP value.

Press the **MENU** key to save and return last menu

Press the **EXIT** key to not keep and return last menu

8. 10TRIM

HELICOPTER

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.

Press UP/DOWN key select the FUNC SETTING menus, and press MENU key for short into next submenu.

Press UP/DOWN key choose TRIM menu, press MENU key for short and enter the page to establish.

Press UP/DOWN key to choose the TRIM screen.

Press "+" or "-" key to change the selected TRIM value.

Press MENU key for short to keep result and return last menu. Press EXIT key go not keep and return last menu.



TRIM:

The FS-TH9X super has digital trims which are different from conventional mechanical trim sliders. Each trim lever is actually a two-direction switch. Each time the trim lever is pressed, the trim is changed a selected amount. When you hold the trim lever, the trim speed increases. The current trim position is graphically displayed on the start up screen. The trim submenu includes two functions that are used to manage the trim options.

Press the **UP** or **DOWN** key to select the TRIM screen. Press "+" or "-" key to change the selected trim value.

Press the **MENU** key to save and return last menu. Press the **EXIT** key to not keep and return last menu.

8. 11REVO CURVE

HELICOPTER

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.

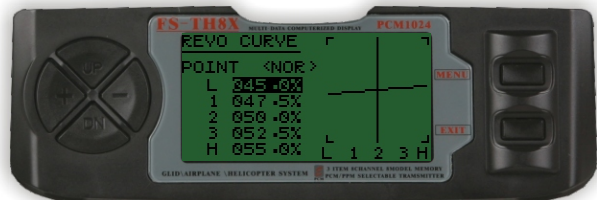
Press UP/DOWN key select the FUNC SETTING menus, and press MENU key for short into next submenu.

Press UP/DOWN key choose REVO CURVE menu, press MENU key for short and enter the page to establish.

Press UP/DOWN key to choose the REVO CURVE screen.

Press "+" or "-" key to change the select value.

Press MENU key for short to keep result and return last menu. Press EXIT key go not keep and return last menu.



REVO CURVE:

This 5-point curve mix adds opposite rudder input to counteract the changes in torque when the speed and collective pitch of the blades is changed.

Press the **UP** or **DOWN** key to select the REVO CURVE screen. Press "+" or "-" key to change the select REVO CURVE value. Press the **MENU** key to save and return last menu. Press the **EXIT** key to not keep and return last menu.

Note: The REVO CURVE only used with non-heading hold gyros helicopter.

8. 12 FAIL SAF

HELICOPTER

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.

Press UP/DOWN key select the FUNC SETTING menus, and press MENU key for short into next submenu.

Press UP/DOWN key choose FAIL SAF menu, press MENU key for short and enter the page to establish.

Press UP/DOWN key to choose the FAIL SAF screen.

Press "+" or "-" key to change the selected (NOR or F/S).

Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and return to last menu.



FAIL SAF:

Sets responses in case of loss of signal or low rx battery (PCM mode only).

Press the **UP** or **DOWN** key to select the FAIL SAF screen.

Press + / - key for short and regulate the parameter (when showing for F/S XXX% for parameter, Press **MENU** key for short and see that reads the output of the corresponding passway, regard value read as the establishing value)

Press the **MENU** key to save and return last menu. Press the **EXIT** key to not keep and return last menu.

8. 13 HOV THR

HELICOPTER

STEPS:

Under the state of the initial picture, press MENU key for long, access the main menu.

Press UP/DOWN key select the FUNC SETTING menus, and press MENU key for short into next submenu.

Press UP/DOWN key choose HOV THR menu, press MENU key for short and enter the page to establish.

Press UP/DOWN key to choose the HOV THR screen.

Press "+" or "-" key to change the select STATE (INH or ACT).

Press MENU key for short to keep result and return last menu. press EXIT key for short to not keep and return to last menu.



HOV THR:

Hovering throttle are fine-tuning adjustments for the throttle curves individually, affecting performance only around the center point and only in the normal condition. The allow in-flight or ideal setup.

Press the **UP** or **DOWN** key to select the HOV THR screen.

Press "+" or "-" key to change the select STATE (INH or ACT).

Press the **MENU** key to save and return last menu. Press the **EXIT** key to not keep and return last menu.