



T-28 Trojan


OPERATING MANUAL



Specifications

<i>Wingspan</i>	1400 mm (55.1 in)
<i>Length</i>	1185 mm (46.7in)
<i>Weight</i>	2450g (86.4 oz)
<i>Wing Area</i>	33.4 dm ² (517.7 in ²)
<i>Wing Load</i>	73.3 g/dm ² (0.17 oz/in ²)
<i>Radio Controls</i>	6 Channel

WARNING

 **WARNING:** Read the ENTIRE instruction manual to become familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product, personal property and cause serious injury.

This is a sophisticated hobby product and NOT a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision.

This manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or serious injury.

Safety Precautions and Warnings

As the user of this product, you are solely responsible for operating in a manner that does not endanger yourself and others or result in damage to the product or the property of others. This model is controlled by a radio signal subject to interference from many sources outside your control. This interference can cause momentary loss of control so it is advisable to always keep a safe distance in all directions around your model, as this margin will help avoid collisions or injury.

Age Recommendation: Not for children under 14 years. This is not a toy.

- Never operate your model with low transmitter batteries.
- Always operate your model in an open area away from cars, traffic or people.
- Avoid operating your model in the street where injury or damage can occur.
- Never operate the model in the street or in populated areas for any reason.
- Carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.) you use.
- Keep all chemicals, small parts and anything electrical out of the reach of children.
- Moisture causes damage to electronics. Avoid water exposure to all equipment not specifically designed and protected for this purpose.
- Never lick or place any portion of your model in your mouth as it could cause serious injury or even death.



Table of Contents

Safety.....	3
Introduction and History.....	3
Contents of Kit.....	4
Additional Required Items.....	5
Assembly Instructions.....	5
Generic Binding Instructions.....	14
ESC Information.....	14
Control Surfaces.....	15
Generic Propeller Balancing Instructions.....	18
Final Assembly, Detailing, and Propeller Set.....	19
Center of Gravity.....	20
Pre-flight Checklist.....	21
Flight Safety.....	21
Daily Flight Checks.....	21
Maiden Flight Tips.....	22
Routine Maintenance.....	22
Troubleshooting Guide.....	23
Customer Support and Spare Parts Contact Information.....	23
Spare Parts List.....	23
AMA Safety Code.....	28

Safety

Lithium Polymer (Li-Po) Battery Warning

CAUTION: Always follow the manufacturer's instructions for safe use and disposal of batteries. Fire, property damage, or serious injury can result from the mishandling of Li-Po Batteries.

- By handling, charging or using a Li-Po Battery you assume all risks associated with lithium batteries.
- If at any time the batteries begin to swell, or balloon, discontinue use immediately! Charging or discharging a swelling or ballooning battery can result in fire.
- Always store the batteries at room temperature in a dry area to extend the life of the battery. Always transport or temporarily store the battery in a temperature range of 40-120F. Do not store the battery or model in a car or in direct sunlight. If stored in a hot car, the battery can be damaged or even catch fire.
- Never use a Ni-Mh Charger to charge Li-Po Batteries. Failure to charge the battery with a Li-Po compatible charger may cause fire resulting in personal injury and property damage.
- Never discharge Li-Po Cells below 3V.
- Never leave charging batteries unattended.
- Never charge damaged batteries.

Charging the Flight Battery Warning

- Use a battery charger that is designed to safely charge the Li-Po Battery. Read the charger instructions carefully before use. When charging the battery, make certain the battery is on a heat resistant surface. It is also highly recommended to place the Li-Po Battery inside a fire resistant charging bag readily available at hobby shops or online.

Introduction and History

The T-28 was manufactured from 1950 to 1957 as a replacement for the T-6 Texan. 1,948 were built and used as the primary trainer for the United States Air Force, the United States Navy, and the United States Marine Corp. The plane was used as a primary trainer by the Navy well into the early 1980's. The USAF phased it out as a primary trainer in the early 1960's but continued to use it to train special ops flight crews and foreign military personnel until the 1980's. The T-28 was eventually replaced by the T-34C turboprop trainer.

Student aviators benefited from the plane's legendary stability derived from the signature dihedral angle of the wings. It was unusually stable for an 8,000+ lb. plane with 1425 H.P., yet fully capable of high G maneuvers.

Their relatively vice-free nature, rugged construction (for trainee pilot duty) and relatively low operating costs have led to many of these historic planes fulfilling civilian pilot warbird flying duties.

Contents of Kit

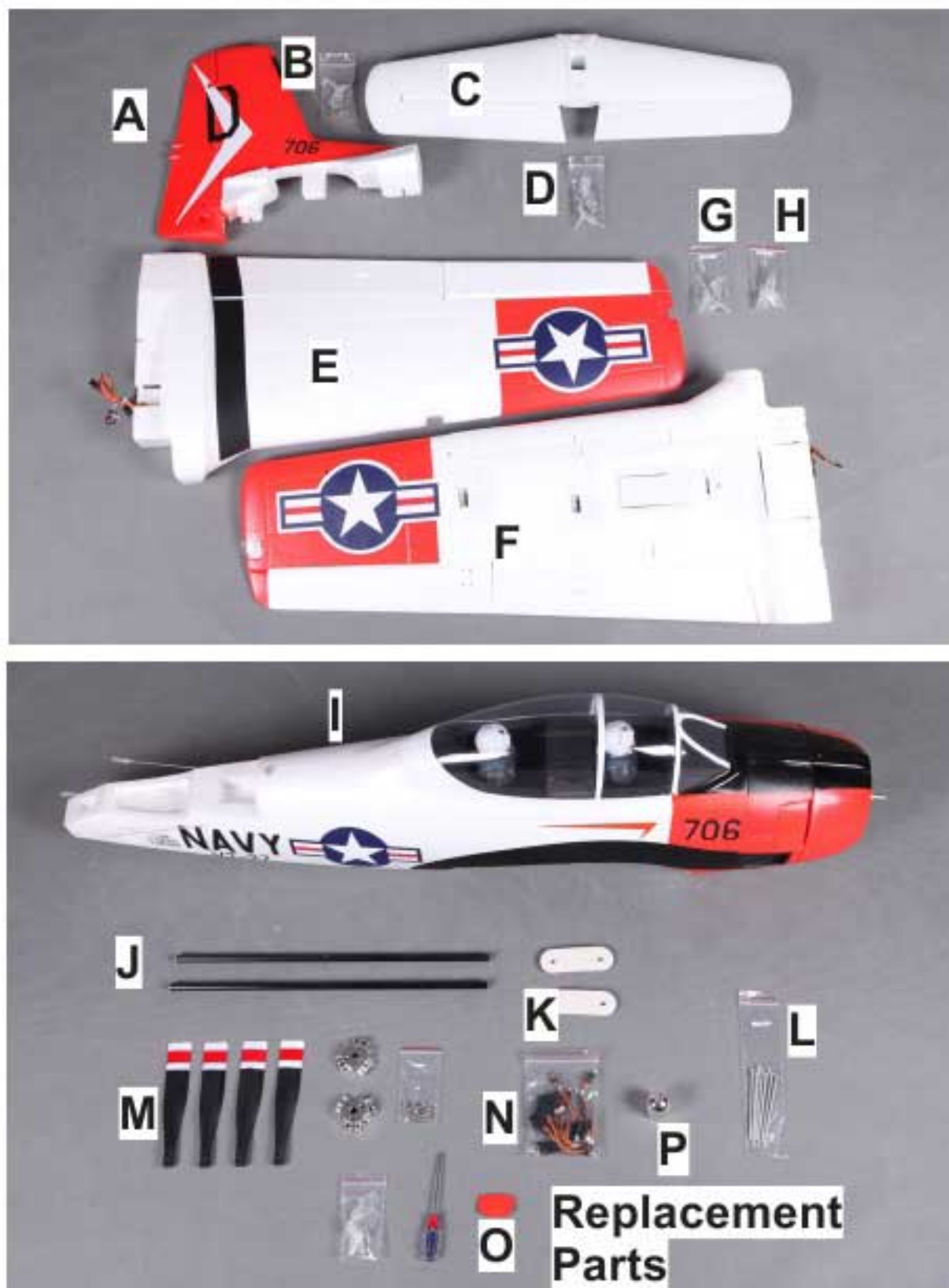
Before assembly, please inspect the contents of the kit. The two photos below detail the contents of the kit and label the major pieces "A" thru "P" for your convenience. If any parts are missing or defective, please identify the name or part number (refer to the spare parts list near the end of the manual), then contact the FMS Team.

FMS Team Product Support

3/F, Building B, 3rd Industry Zone, Matigang, Dalingshan Town,
Dongguan City, P.R.C.

Phone: 0086-769-86976655

Email: info@fmsmodel.com



Additional Required Items

Tools and Adhesives

Glue Brush
Tape
Marking Pen
Tape Measure

Transmitter/Receiver (required for PNP and kit version)

This model requires a 6 channel receiver and transmitter.

Battery/Charger (required for PNP and kit version)

A 14.8V 2600 mAh 25C Li-Po Battery is recommended. If using another battery, it must be at least a 14.8V 2600mAh 25C battery, approximately the same capacity, dimensions, and weight to fit in the fuselage without changing the center of gravity significantly. A standard Li-Po Battery Balancing Charger is required to safely charge the battery. Caution: A 5S (18.5V) Li-Po Battery exceeds the maximum capacity of the ESC and motor and will result in ESC failure during flight. This would cause a complete loss of control creating a potentially dangerous condition. Do not use a 5S (18.5V) or larger battery in this product.

Motor/ESC/Servos/Propeller (required for kit version only)

The kit version requires a Brushless 4250-KV580 motor, a 70A ESC with 5A SBEC, (4) 9g metal servos, (1) 17g servo, (2) 9g digital servos, and a three blade propeller. See spare parts list for part numbers.

Assembly Instructions

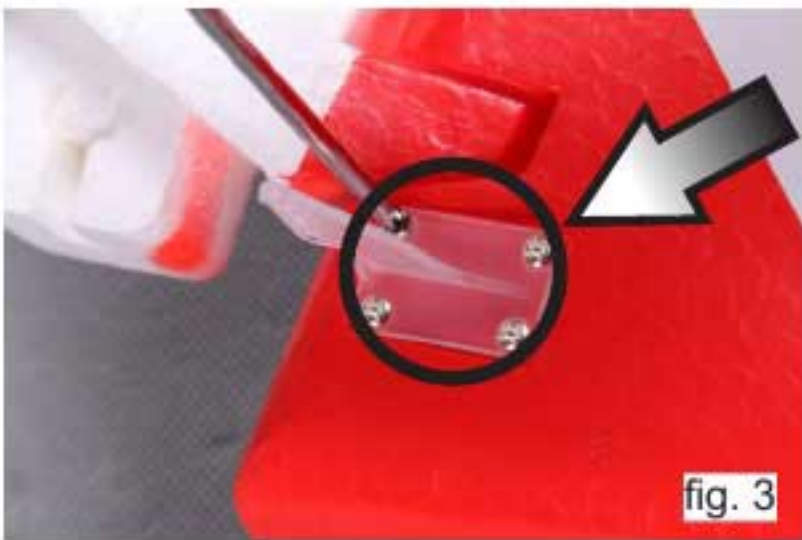
The assembly instructions in this manual have been divided into logical steps. Check boxes have been placed in front of each step to help you keep track of your progress. Please read each step carefully, perform the task per the instructions, and mark when completed. If you are unavoidably interrupted before completing a step, it is advisable to make a detailed notation of any unfinished items to ensure the step is fully completed when you return to the task. Refer to the "Contents of Kit" photos if you need help identifying a part.

Install the control horns

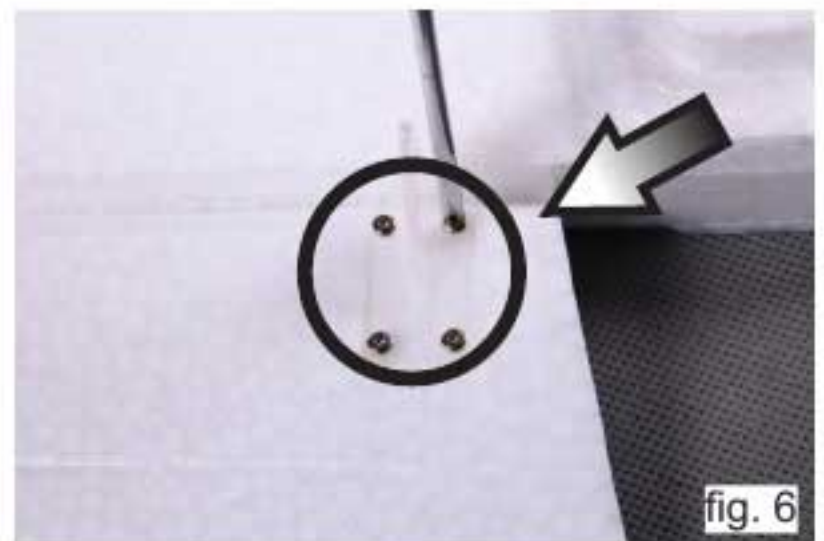
- 1) Locate the vertical stabilizer "A" and a parts bag "B". Parts bag "B" is stapled to bag "A" and contains the rudder control horn, backing plate, and screws (fig. 1).
- 2) Install the rudder control horn on the left side surface of the rudder, with the horn pointing towards the hinge line of the vertical stabilizer (fig. 2). Push the control horn backing plate onto the right side of the rudder surface, embedding the raised surface into the foam. Using the provided screws, secure the control horn from the horn side (fig. 3). Note: The longer screws are always used on the leading edge side of the surface which is thicker.



3) Verify the screws fully engage the backing plate (fig. 4). Note: Do not over-tighten the screws, but ensure the control horn and back plate are snug against the rudder surface.



4) Locate the horizontal stabilizer "C" and a parts bag "D". Bag "D" which contain the elevator control horns, backing plates, and screws is stapled to bag "C". Install the elevator control horns on the bottom side (fig. 5) of the elevator with the horns pointing towards the hinge line of the horizontal stabilizer as shown (fig. 6). Follow the same process that was used in steps 2 and 3.



- 5) Locate the wing panels "E" and "F" and a parts bag "G" labeled "Aileron" that contains the aileron control horn parts and linkage rods. Install the control horns for the ailerons in the same manner as the elevator control horns with the horns on the underside and towards the hinge line of the wing control surfaces (fig. 7).
- 6) Locate a parts bag "H" labeled "Flap" that contains the flaps control horn parts and linkage rods. Install the control horns for the flaps in the same manner as the elevator control horns with the horns on the underside and towards the hinge line of the wing control surfaces (fig. 8).

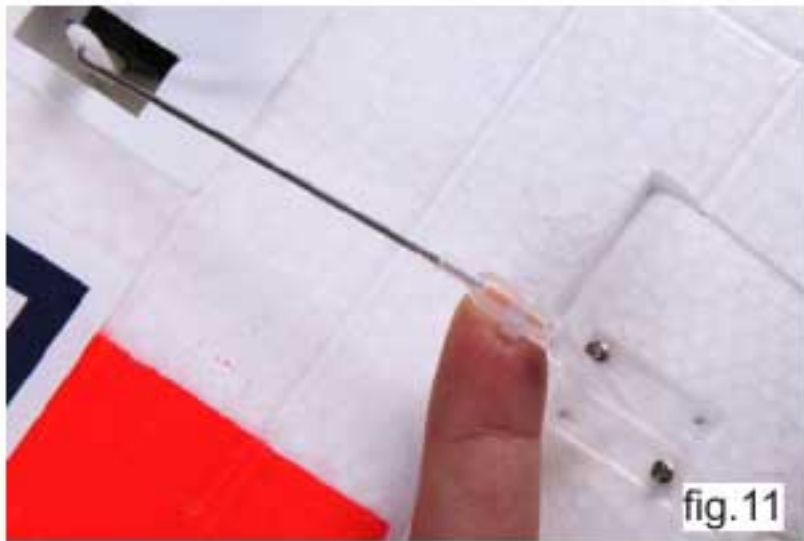


Install the control rod linkages

- 7) Using the linkage rods from the aileron parts bag for the ailerons and the linkage rods from the flap parts bag for the flaps, put the Z-bend end of the linkage into the third hole from the center screw on each servo control horn (fig. 9). Insert the Z-bend thru the hole in the proper direction to keep the linkage in straight alignment with the surface control horn. Ensure the fit is not tight enough to cause binding during movement. Adjust fit as needed. Note: Slide a piece of the supplied fuel tubing over the linkage rod prior to putting the linkage into the servo hole. This will make step 9 easier to perform.
- 8) Snap the clevis into the desired hole in the surface control horn for the ailerons and flaps. For a single rate transmitter use the first hole to achieve a lower rate setting (fig. 10). Use the fourth hole nearest the control surface to achieve a higher rate setting.



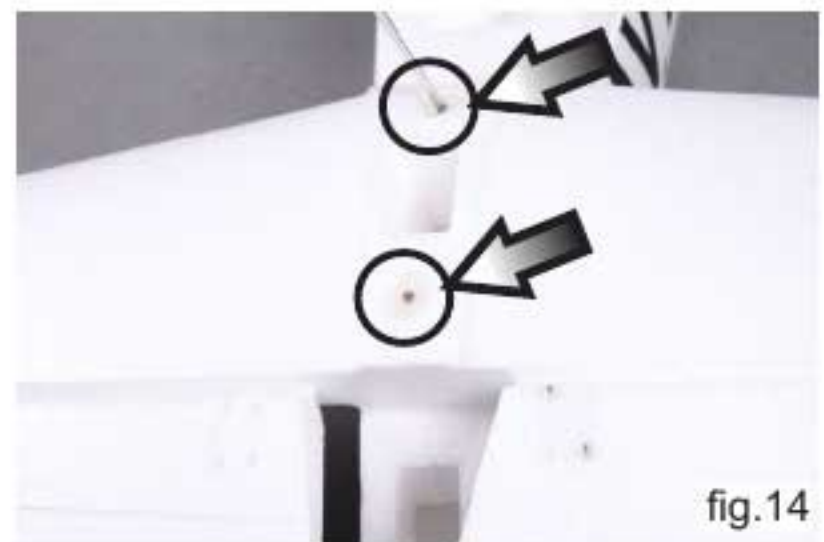
9) The provided piece of fuel tubing keeps the clevis securely closed during flight operations.. Slide the tubing onto the clevis. Secure all linkages in the same manner (fig. 11). Do not allow the fuel tubing to interfere with control movements by pushing the tubing too far onto the clevis (fig. 12).



Install the horizontal and vertical stabilizers

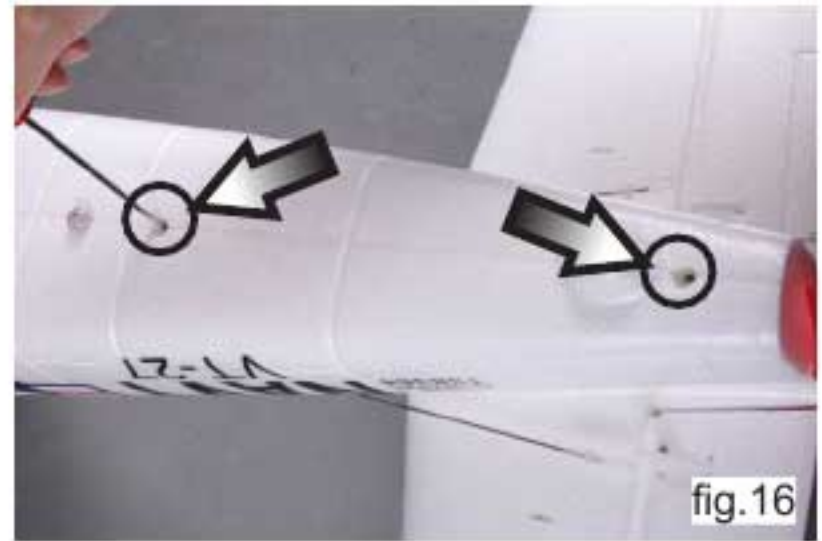
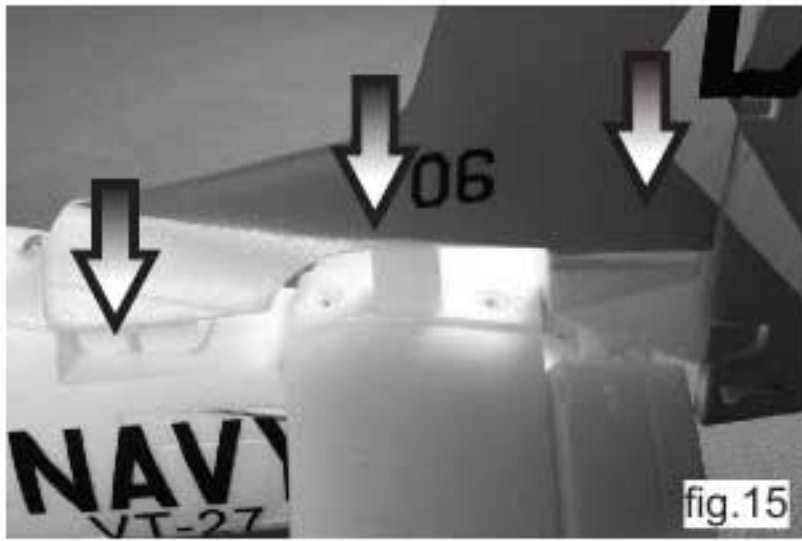
10) Insert the nose on the bottom side of the horizontal stabilizer "C" into the slot in the tail end of the fuselage "I". The washers are on the top side of the horizontal stabilizer and should be facing up (fig. 13). Make sure it is fully seated.

11) Secure the horizontal stabilizer using the two provided self tapping screws (PA 2.6x50mm) (fig. 14). Note: Do not over tighten screws, but make sure they are snug.



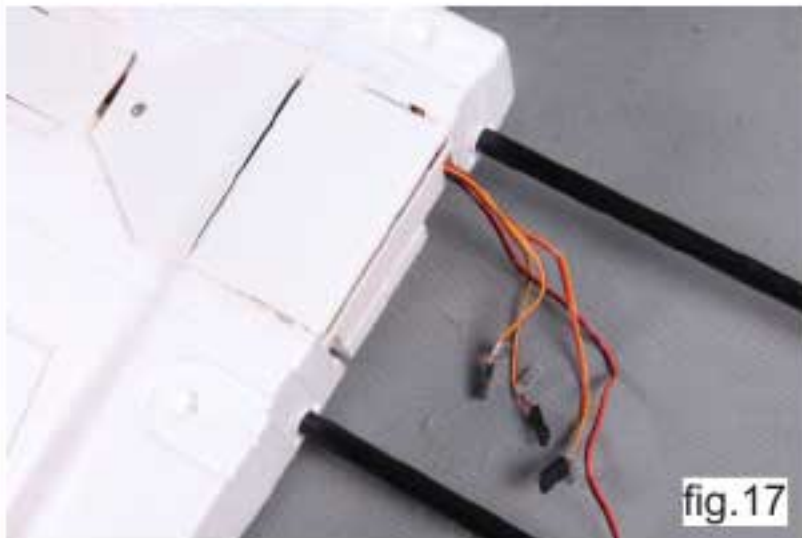
12) Insert the features on the vertical stabilizer into the corresponding slots in the fuselage and the horizontal stabilizer as shown (fig. 15). Make sure it is fully seated.

13) While holding the vertical stabilizer in place, turn the plane over and locate two holes in the bottom of fuselage (fig. 16). Secure the vertical stabilizer using the two provided self tapping screws (PA 2.6x30mm & PA 2.6x50mm).

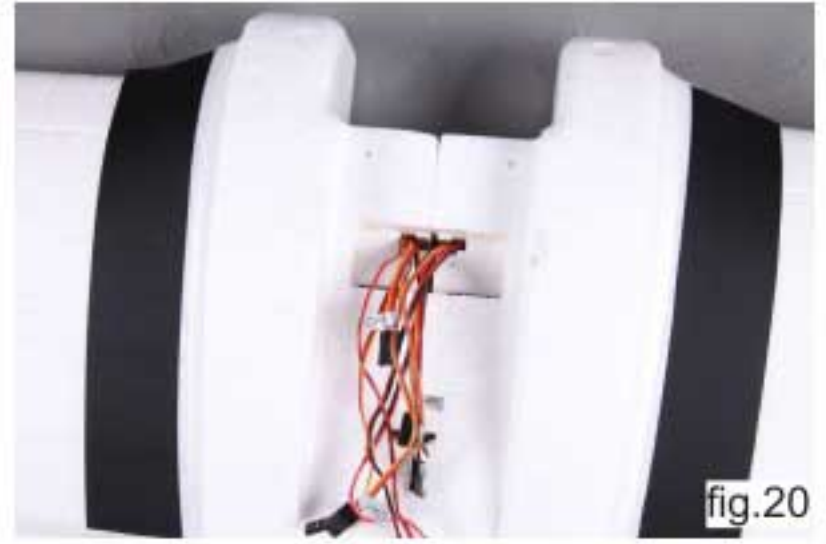


Build the Wing

- 14) Insert the connecting tubes "J" into the wing sockets of one of the wing panels until they are approximately half way in. Stop when you reach the white mark on each tube (fig. 17). Do not force them farther than they will slide. This will push the tube into the foam of the wing and prevent it from fully inserting into the opposite wing panel. Note: If the tube is not marked, use a tape measure to determine the center of the tube and a marking pen or a piece of tape to temporarily mark it so you don't insert it too far.
- 15) Make sure the wires are all running thru the pre-notched slots in each wing panel (fig. 18).



- 16) Apply glue to the end of each wing panel where they will come together. Distribute the glue for proper coverage. Though not required, a glue brush is recommended for even application (fig. 19).
- 17) Insert the connecting tubes into the other wing half. Slide the wing halves together. Make sure the wing halves come together completely. If not, you must find and remove the obstruction (fig. 20).

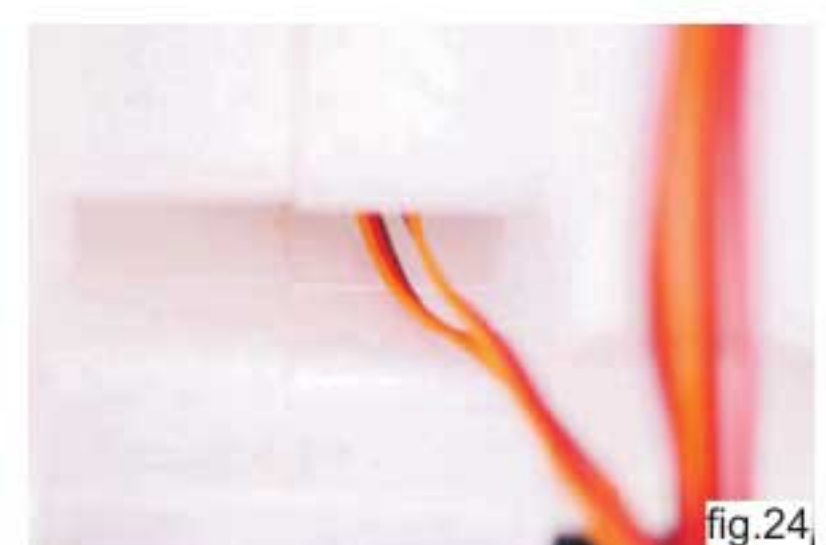


16) Use a small amount of epoxy to secure each of the two wing bolt plates "K" as shown (fig. 21 & 22).



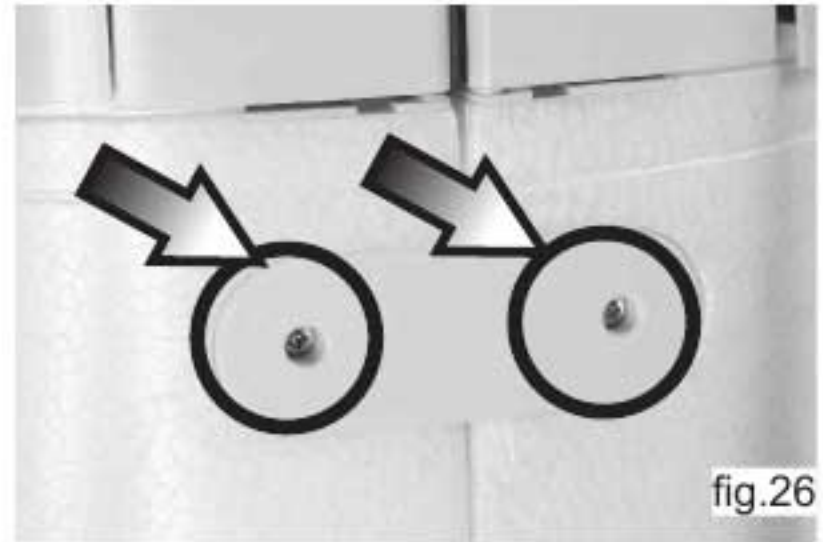
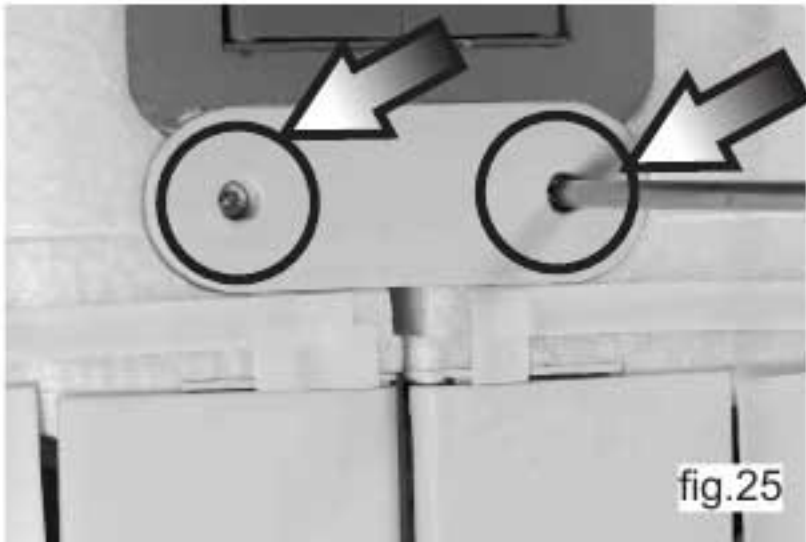
Mount the Wing

17) Position the wing above the slot in the bottom of the fuselage. Guide the wires from the ailerons, flaps, retracts, and LED's thru the hole in the bottom of the fuselage as the wing is lowered into the slot (fig. 23 &24). Note: Pull the wires from the cockpit side of the fuselage as the wing is lowered to keep from pinching wires between the wing and fuselage. Make sure the wing is fully seated.



18) Locate parts bag "L". Secure the front wing bolt plate using the provided machine screws (PM 4.0x85mm) (fig. 25).

19) Secure the rear wing bolt plate using the provided machine screws (PM 4.0x85mm) (fig. 26).



Install the Propeller Blades to the backplate

20) Locate parts group "M" which contains the propeller and the spinner kit (fig. 27).

21) Insert the propeller blades into the backplate with the decals facing up (fig. 28).
Note: The backplate center hub has a hex notch.



22) Place the front plate in position as shown (fig. 29).

23) Snap the hub halves together (fig. 30).



24) Insert a nylon lock nut into one of the hex holes in the backplate (fig. 31). Hold the nut in the hole and turn the assembly over.

25) Secure the hub using one of the provided machine screws (fig. 32).



26) Repeat the same process with the other two nylon lock nuts and machine screws. Verify the assembly of the propeller (fig. 33).



Receiver Connection

27) Locate bag "N". Connect wiring per the receiver connection schematic (fig. 34).

Receiver connection diagram

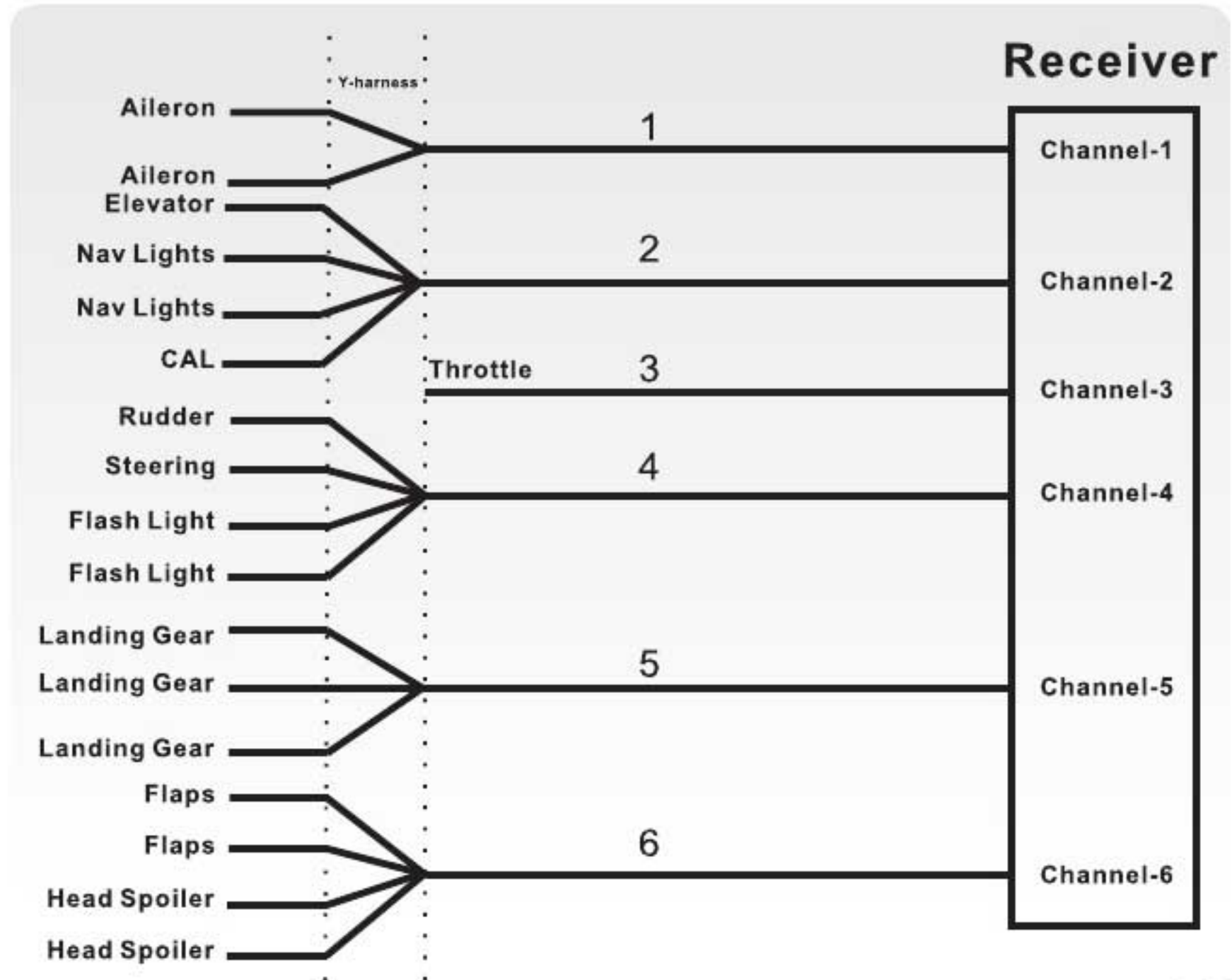


fig.34

Install the Battery

28) Insert the battery as shown. Use the velcro strap to secure it in place (fig. 35).
Note: The battery position can be adjusted slightly as needed to achieve the proper center of gravity which will be detailed later in this manual.

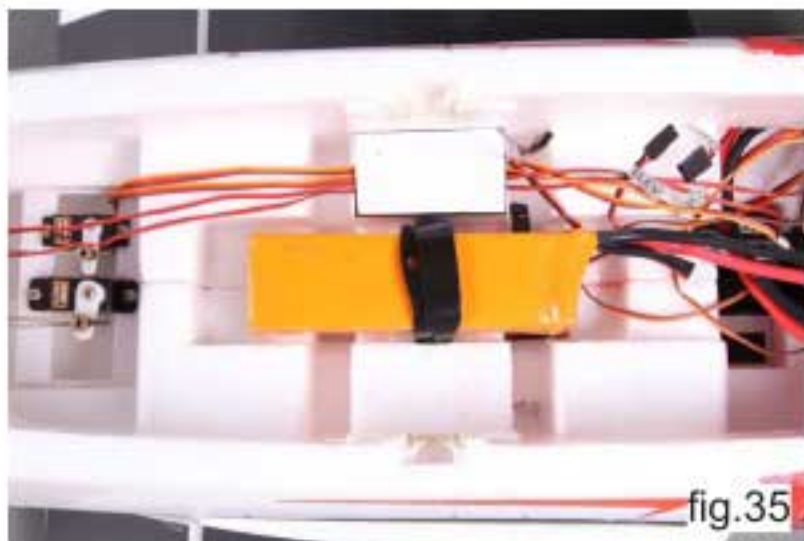


fig.35

Generic Binding Instructions

Binding is the process of programming your receiver to respond to your specific transmitter. Always follow your radio equipment manufacturer's specific binding instructions. Below is a typical generic procedure for reference:

1. Power off the transmitter.
2. Set the throttle control on the transmitter to its lowest position (all other controls should be at their neutral position).
3. Install binding plug in receiver bind port.
4. Connect the battery to the ESC.
5. The receiver LED will flash rapidly.
6. Turn on the transmitter while holding the bind button or switch in the bind position.
7. When the receiver binds, the LED on the receiver will turn on and remain steady.
8. Remove the binding plug from the receiver.

Note: Re-binding the radio after all the control throw settings are adjusted will help keep the servos from moving full stroke while the transmitter and receiver connect.

ESC Information

Please refer to the separate ESC Manual for detailed information about your programmable ESC.

Motor Rotation

The motor and ESC comes pre-connected. The direction of motor rotation should be counterclockwise when viewed from the front of the plane facing the spinner. If the motor is rotating in the wrong direction, simply reverse two of the three motor wires to change the direction of rotation.

Control Surfaces

Center Adjustment (trim)

1. Follow all safety precautions as outlined in this manual and your transmitter manufacturer's manual, including setting the throttle to the off position.
2. Turn on the transmitter and plug in the ESC battery.
3. Center all the trim controls on the transmitter.
4. Look at all the control surfaces to determine which ones need adjustment.
5. Unplug the ESC battery and turn off the transmitter before attempting any adjustments.
6. Adjust clevises as necessary to center control surfaces to their neutral position.
7. Repeat steps 1 thru 4 to verify adjustments.
8. If more adjustment is required, repeat steps 5 and 6 until process is completed.

Please see the following for reference; flaps (fig. 36), ailerons (fig. 37), rudder (fig. 38), elevator (fig. 39), front landing gear (fig. 40). Note: the front landing gear neutral position is adjusted by loosening or tightening the threaded clevis located inside the front landing gear bay (fig. 41).





Direction Check

Turn on your transmitter and receiver. Viewing the model from the rear (fig. 42), move the controls on the transmitter per the instructions that follow and verify the control surfaces are responding in the appropriate direction. You may have to reverse the direction of one or more channels on your transmitter to correct any issues.

1. Move the left joystick to the right. The rudder should move to the right. Move the joystick to the left. The rudder should move to the left. Reverse channel on transmitter if necessary.
2. Move the right joystick down towards the bottom of the transmitter. The elevator should move up. Move the joystick towards the top of the transmitter. The elevator should move down.
3. Move the right joystick to the right. The right aileron should go up. The left aileron should go down. Move the joystick to the left. The right aileron should go down. The left aileron should go up.
4. Activate the flaps. The flaps should move down.



Travel Settings (throw)

Adjust the throw by moving the clevis position on the control surface horns. A commercially available gauge is helpful in this task though not required. If you have a single rate transmitter, adjust throws to low rate settings. If you have a dual rate transmitter, adjust the throws to achieve high rate settings.

Aileron Control Throw Setting (low rate)

10 mm up/down (fig. 43-45). Note: the pictures are for reference only and do not reflect the actual throw setting values. Set other surfaces to their respective rates in the same manner.

Elevator Control Throw Setting (low rate)

8 mm up/down

Rudder Control Throw Setting (low rate)

19 mm left/right

Flaps Control Throw Setting (low rate)

25 mm full down

Note: Measure the throw (deflection) at the widest point (chord) of each control surface. For example, on the flaps, measure the throw on the fuselage side of the flap, not the aileron side. The deflection measurement will be largest on the fuselage (widest) side.



fig.43



fig.44

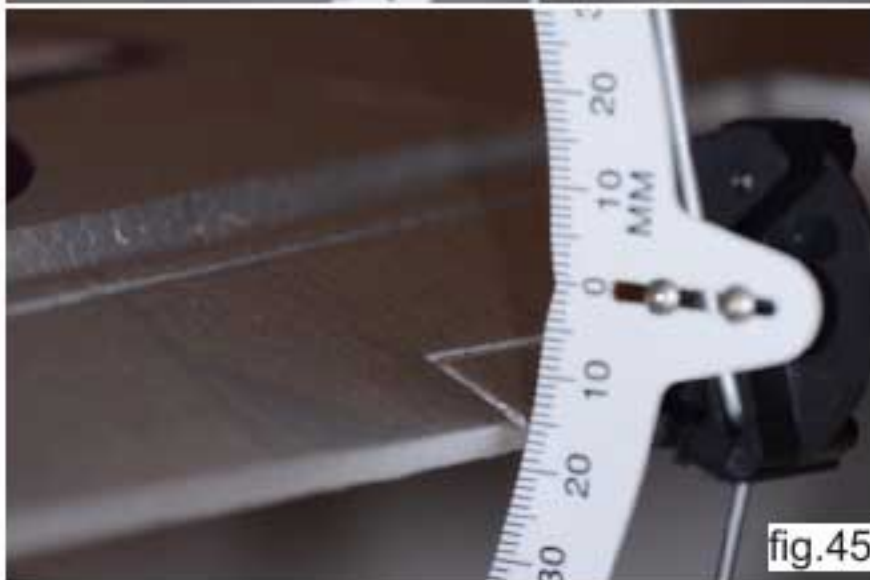


fig.45

Dual Rates and Exponential Recommendations

On many transmitters, dual rates can be setup for aileron, elevator, and rudder channels. If your transmitter is capable, designate a switch on the transmitter to change between a low and high rate of servo travel for each channel. Low rates are for normal flying. High rates are for extreme aerobatics.

To use dual rates, the control surface throw settings should be set to equal the high rate settings. When the transmitter switch is in the high rate position, the control surface will travel 100%. When the transmitter switch is in the low rate position, the servo will travel less than 100% (a percentage that you determine) to make the control surface throw equal to the low rate deflection.

Aileron high rate 13 mm up/down
Elevator high rate 11 mm up/down
Rudder high rate 25 mm left/right

Generic Propeller Balancing Instructions

A well-balanced propeller is important to reduce vibration and increase RPM performance. Balance increases in importance with larger propellers.

You will need a propeller-balancing device to balance the propeller properly. A prop balancer is simply a shaft that securely positions the propeller in a device that has extremely low rotational friction. This allows the propeller to rotate freely until the heaviest end of the propeller points down. You will need an appropriate size based on the size of the propellers you will be balancing.

Begin by placing the propeller blades parallel to the horizon. Observe which end of the propeller moves downward which indicates the heavy side of the prop. To balance the prop, material is removed from the heavy side, or weight is added to the light side. Light sanding with fine sandpaper can be used to carefully remove small amounts of material at a time, checking the balance often until the prop remains horizontal and level. Alternatively, weight can be added to the light side. A small piece of clear tape can be used or cyanoacrylate can be brushed onto the surface.

Once the propeller blades are balanced enough to remain horizontal, move the blades into a vertical position. If the blades move, this is caused by the hub being out of balance. Determine which side of the hub moves downward. This is the heavy side. Add a drop of cyanoacrylate to the light side or lightly sand the heavy side of the hub. Repeat this process until the blades do not move from the vertical position. At this point you should be able to move the propeller into any orientation and it should stay in place with little or no movement. The propeller is now balanced.

Three and four blade props

A four-blade propeller is balanced as a pair of two-blade props. Balance one set until they remain level, then turn the prop 90 degrees and balance the second set of blades.

A three-blade prop is more challenging to balance and requires patient effort. Start by finding the heaviest blade that settles to the bottom. Lighten that prop blade until it no longer is the heaviest. Then determine the next blade that settles to the low point. Lighten it until it no longer moves to the bottom of the arc. Continue to reposition the prop blades to see if one repeatedly settles to the bottom. Eventually all three blades should remain neutral in position so that the prop remains still regardless of where you position any blade. At this point the prop is balanced.

Please refer to the reference photos below (fig. 46 & 47).



Final Assembly, Detailing, and Propeller Set

- 1) Locate the spoiler "O". Apply glue as shown in (fig. 48).
- 2) Insert into corresponding slot in fuselage (fig. 49).



- 3) After properly balancing the propeller (as described in previous section), key the propeller assembly to the motor shaft by fitting the assembly over the hex nut on the shaft (fig. 50).

4) Install the spinner on the motor shaft to secure the propeller assembly (fig. 51).



fig.50



fig.51

Center of Gravity

Before balancing your model, make sure the it is completely assembled, the battery is installed, and the retractable landing gear is in the lowered position. The recommended center of gravity (CG) for your model is 80-85 mm from the wing's leading edge (measured at point of contact with fuselage, fig.52). Lightly mark the ideal center of gravity position on the top surface of the wing on each side of the fuselage. Support the plane inverted at the marks made on the top of the wing with your fingers or a commercially available balancing stand. It should be level or just slightly nose down. Adjust the position of battery as necessary to achieve the proper balance.

Center Of Gravity(C.G.)



fig.52

Pre-flight Checklist

Prior to first flight:

1. Ensure your transmitter and ESC batteries are fully charged per manufacturer's instructions.
2. Ensure propeller is properly secured.
3. Ensure receiver and ESC battery are secure.
4. Check all control surface actuating hardware (linkages, screws, nuts, bolts, etc.)
5. Perform a range test on the radio equipment.
6. Check control surfaces for proper direction and throw.
7. Check center adjustment of each control surface.
8. With someone holding the aircraft, start the motor and make sure it runs smoothly. Ensure it will transition from off to high throttle and back to off.

Flight Safety

1. Do not fly in strong winds or bad weather.
2. Never fly in crowded areas near people, cars, buildings, power lines, airports, etc. The plane can travel at high speed so choose a wide open space and give yourself plenty of room to operate. Remember you are responsible for the safety of others.
3. Not recommended for children under 14 years of age. Children under 12 must have adult supervision.
4. Never use or leave the battery charger in a wet environment.
5. Keep the model away from heat which can easily destroy the foam structure of the plane, the electronics, or the battery.
6. Do not attempt to catch the model while flying.
7. Stay clear of the propeller at all times, even when it is not moving because the transmitter could easily be bumped and cause the propeller to move without warning.
8. Never leave the model unattended with a battery installed. Injury could be caused by children or unaware adults turning on the transmitter.
9. When preparing for flight, turn the transmitter on and ensure the throttle is off before connecting the battery.

Daily Flight Checks

Prior to first flight:

1. Check condition of major components. Ensure wing, tail, motor, and landing gear are secure.
2. Check condition of propeller.
3. Check all control surface actuating hardware (linkages, screws, nuts, bolts, etc.)
4. Check the voltage on the transmitter and ESC batteries.
5. Perform a range test on the radio equipment.
6. Check control surfaces for proper direction and throw.
7. Check center adjustment of each control surface.

Post flight:

1. Disconnect ESC battery
2. Turn off transmitter
3. Remove ESC battery from model.

4. Recharge ESC battery.
5. Store ESC battery away from model in fire proof container.
6. Repair or replace any damaged parts on the model airplane.

Maiden Flight Tips

If this is your first RC Model Airplane, you may want to seek the help of an experienced pilot to assist you on the first flight. You can usually find people that are happy to assist at a local RC Club. You can also inquire at your local hobby shop. Often hobby shop employees will know where to go locally for flight assistance.

Whether you are a new or experienced pilot, the maiden flight for any new RC model can often be challenging. Even if you have followed all the instructions exactly and adjusted all the control surfaces to their neutral positions, the model will likely need to be "trimmed out". Once you have the plane in the air, immediately climb to a safe altitude. Many RC Pilots will tell you that a safe altitude is "three mistakes high". Reduce throttle to half. Put the plane on a straight and level trajectory. While trimming, hold your transmitter up high near eye level; this will make it easier to see your plane and your trim settings at the same time. The goal of trimming the plane is to adjust it so it will maintain straight and level flight with no control inputs. For example, if the plane climbs, add down elevator trim. If it dives, add up trim. You may also need to adjust rudder trim (and aileron trim if applicable). Make as many passes as necessary, putting the plane on a straight and level trajectory and making required trim corrections until the plane flies straight and level.

Monitor and limit your flight time using a timer (in your transmitter if available, or a wrist watch). To avoid a dead-stick landing on your first flight, conservatively set the timer to four minutes. When you hear the alarm, land your plane as soon as possible.

Routine Maintenance

Store Li-Po batteries at room temperature in a dry environment in a fire proof container. Periodically check the cell voltage. Do not let the voltage drop below the manufacturer's recommended minimum storage voltage (typically around 3.3V per cell).

Repairs to foam should be made with foam safe adhesives such as hot glue, foam safe CA, and 5 min epoxy.

Troubleshooting Guide

Troubleshooting Guide		
Problem	Possible Causes	Solution
Receiver will not bind to transmitter	Transmitter is too close to the receiver Transmitter or receiver is too close to a large metal object ESC battery or Transmitter battery is not charged Bind plug installed incorrectly in receiver	Move transmitter a few feet away from receiver and then unplug and reconnect the ESC battery Move transmitter a few feet away from receiver and then unplug and reconnect the ESC battery Charge ESC battery or Transmitter battery Follow manufacturer's instructions for binding and re-bind receiver
Control Surface(s) will not move	Transmitter/receiver not bound correctly Incorrect model selected on transmitter Loose connection Control linkage, clevis, horn not connected, binding or damaged Servo damaged ESC battery or Transmitter battery is not charged	Re-bind receiver to transmitter per manufacturer's instructions Select correct model on transmitter Check battery, ESC, and receiver connections Check all control linkage connections Replace servo Recharge/replace batteries
Control Directions reversed	Transmitter servo direction settings are reversed	Perform Control Surfaces Direction Test and reverse transmitter settings as necessary
Model responds to all controls except throttle	Throttle channel is reversed Throttle is not at idle or trim is too high on transmitter	Reverse throttle channel setting on transmitter Move throttle stick and trim to lowest setting
Motor pulses then loses power	Low ESC battery charge or damaged battery Battery "C" rating too small	Re-charge/replace ESC battery Use proper battery
Excessive noise or vibration at high throttle	Damaged propeller or motor Propeller is not balanced	Replace damaged part Replace defective propeller
Model underpowered or has a reduced flight time	Propeller installed backwards Propeller rotation direction incorrect ESC battery charge is too low or battery damaged	Install propeller with numbers facing towards you Perform Control Surfaces Direction Test and reverse transmitter settings as necessary Recharge/replace battery
Model will not climb	Elevator trim not adjusted correctly	Adjust elevator trim
Model keeps turning in same direction	Rudder trim not adjusted correctly Aileron trim not adjusted correctly	Adjust rudder trim Adjust aileron trim
Model is difficult to control	Wing or tail damaged Center of Gravity incorrect Inadequate or excessive control throw settings	Repair/replace as necessary Check center of gravity and correct as necessary. Make sure battery is secure (not moving in flight) Verify control throws are at recommended settings

Customer Support and Spare Parts Contact Information

FMS Team Product Support
 3/F, Building B, 3rd Industry Zone, Matigang, Dalingshan Town,
 Dongguan City, P.R.C.
 Phone: 0086-769-86976655
 Email: info@fmsmodel.com

Spare Parts List

Replacement parts for the FMS T-28 are available using the order numbers in the spare parts lists that follows. The fastest, most economical service can be provided by your hobby dealer or mail-order company.

Spare Parts List

Spare Parts List for Red Scheme

Item#	Description
MI101-Red	Fuselage
MI102-Red	Main Wing Set
MI103-Red	Elevator
MI104-Red	Rudder
MI-105	Spinner
MI106-Red	Spoiler
MI107-Red	Propeller (3 PCS blade)
MI108-Red	Canopy (one foam canopy)
MI108-1-Red	Canopy (one plastic canopy)
MI-109	Linkage Rod
FMS-Motor-4250 Kv580	
FMS-SER 9SLP	
FMS-SER 17	
FMS-SER 9GP	
FMS-Sequencer-3 sec	
FMS-ESC-70A 5A SBEC (200mm length cable)	
FMS-Battery-14.8V 2600mah 25C	
MI-301	Screws Set
MI302-Red	Stickers (a set of stickers)
MI-303	Motor Amout
MI304-Red	Cowl
MI-305	Motor Board
MI-306	Motor Shaft
MI-307	E-retract System (For Front Landing Gear)
MI308-Red	E-retract System (For Main Landing Gear)
MI-309	Electronic Retract
MI310-Red	Front Landing Gear Cover Set
MI311-Red	Main Landing Gear Cover Set
MI312-Red	Landing Gear (front landing gear+rear landing gear) (without the retract and landing gear mounts)
MI-313	Pipe
MI-314	LED
MI-315	Lamp Cover

Spare Parts List for Gray Scheme

Item#	Description
MI101-Gray	Fuselage
MI102-Gray	Main Wing Set
MI103-Gray	Elevator
MI104-Gray	Rudder
MI106-Gray	Spoiler
MI107-Gray	Propeller (3 PCS blade)
MI108-Gray	Canopy (one foam canopy)
MI108-1-Gray	Canopy (one plastic canopy)
MI302-Gray	Stickers (a set of stickers)
MI304-Gray	Cowl
MI308-Gray	E-retract System (For Main Landing Gear)
MI310-Gray	Front Landing Gear Cover Set
MI311-Gray	Main Landing Gear Cover Set
MI312-Gray	Landing Gear (front landing gear+rear landing gear) (without the retract and landing gear mounts)

Spare Parts List for Silver Scheme

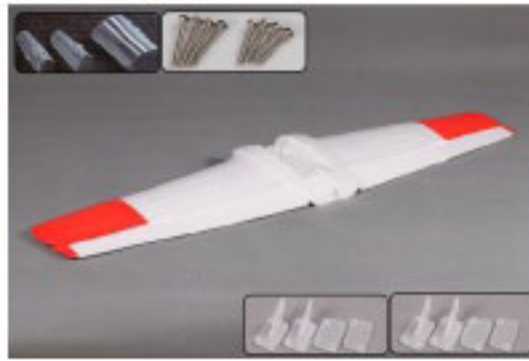
Item#	Description
MI101-Silver	Fuselage
MI102-Silver	Main Wing Set
MI103-Silver	Elevator
MI104-Silver	Rudder
MI106-Silver	Spoiler
MI107-Silver	Propeller (3 PCS blade)
MI108-Silver	Canopy (one foam canopy)
MI108-1-Silver	Canopy (one plastic canopy)
MI302-Silver	Stickers (a set of stickers)
MI304-Silver	Cowl
MI308-Silver	E-retract System (For Main Landing Gear)
MI310-Silver	Front Landing Gear Cover Set
MI311-Silver	Main Landing Gear Cover Set
MI312-Silver	Landing Gear (front landing gear+rear landing gear) (without the retract and landing gear mounts)

- Note:** 1. All spare parts without decals.
2. The Item# without color marking could be applied universally for both color scheme.

Spare Parts List for Red Scheme



MI101-Red



MI102-Red



MI103-Red



MI104-Red



MI-105



MI106-Red



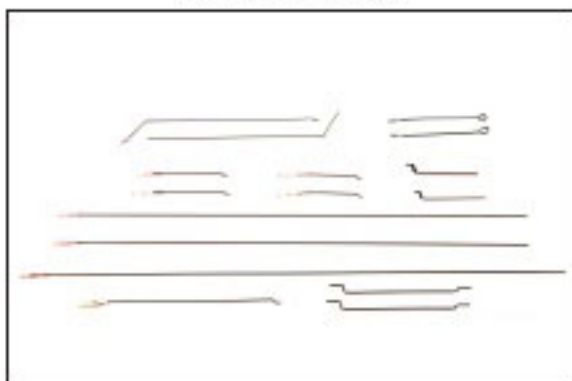
MI107-Red



MI108-Red



MI108-1-Red



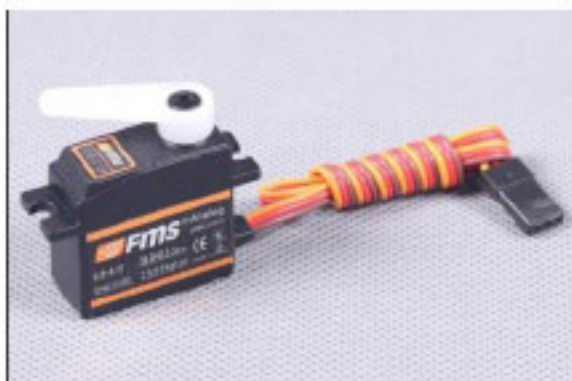
MI-109



FMS-Motor-4250 Kv580



FMS-SER 9SLP



FMS-SER 17



FMS-SER 9GP



FMS-Sequencer-3 sec

Spare Parts List for Red Scheme



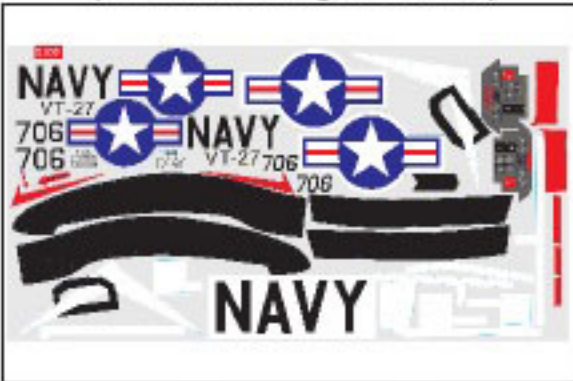
FMS-ESC-70A 5A SBEC
(200mm length cable)



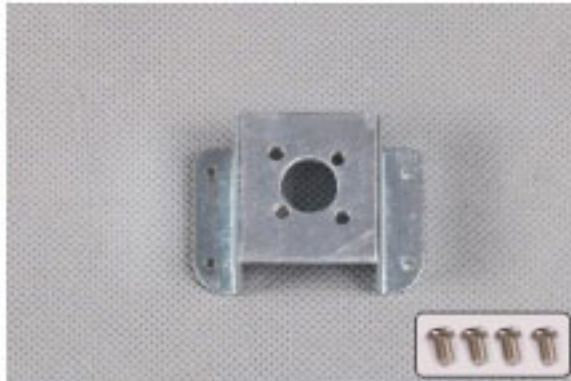
FMS-Battery-14.8V 2600mah 25C



MI-301



MI302-Red



MI-303



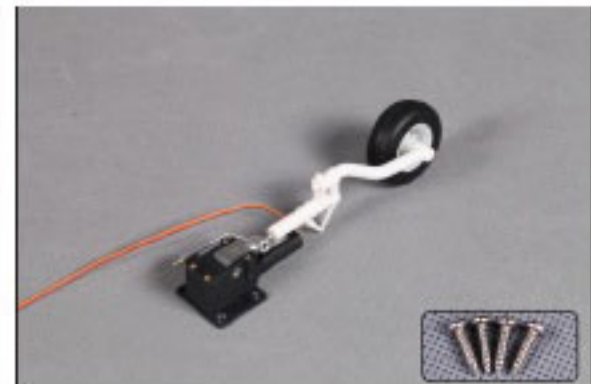
MI304-Red



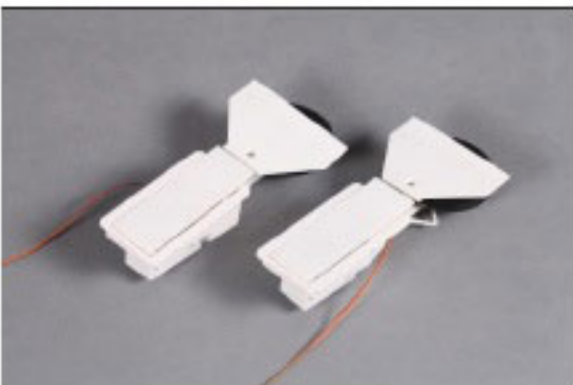
MI-305



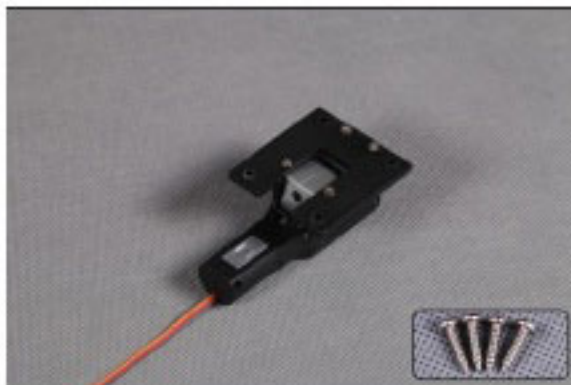
MI-306



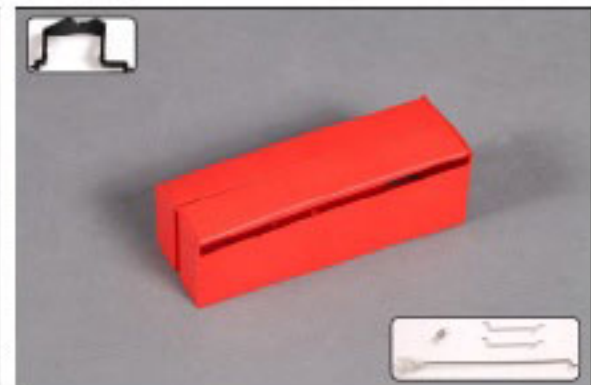
MI-307



MI308-Red



MI-309



MI310-Red



MI311-Red



MI312-Red



MI-314



MI-313



MI-315

AMA

If you are not already a member of the AMA, please join, The AMA is the governing body of model aviation and membership provided liability insurance coverage, protects modelers' rights and interests and is required to fly at most R/C sites.

Academy of Model Aeronautics

5151 East Memorial Drive

Muncie, IN 47302-9252

Ph.(800)435-9262

Fax(765)741-0057

Or via the Internet at: <http://www.modelaircraft.org>



Academy of Model Aeronautics National Model Aircraft Safety Code Effective January 1, 2011

A. GENERAL: A model aircraft is a non-human-carrying aircraft capable of sustained flight in the atmosphere. It may not exceed limitations of this code and is intended exclusively for sport, recreation and/or competition.

All model flights must be conducted in accordance with this safety code and any additional rules specific to the flying site.

1. Model aircraft will not be flown:
 - (a) In a careless or reckless manner.
 - (b) At a location where model aircraft activities are prohibited.
2. Model aircraft pilots will:
 - (a) Yield the right of way to all man carrying aircraft.
 - (b) See and avoid all aircraft and a spotter must be used when appropriate.
(AMA Document #540-D-See and Avoid Guidance.)
 - (c) Not fly higher than approximately 400 feet above ground level within three (3) miles of an airport, without notifying the airport operator.
 - (d) Not interfere with operations and traffic patterns at any airport, heliport or seaplane base except where there is a mixed use agreement.
 - (e) Ensure the aircraft is identified with the name and address or AMA number of the owner on the inside or affixed to the outside of the model aircraft.
(This does not apply to model aircraft flown indoors).
 - (f) Not operate aircraft with metal-blade propellers or with gaseous boosts except for helicopters operated under the provisions of AMA Document #555.
 - (g) Not operate model aircraft while under the influence of alcohol or while using any drug which could adversely affect the pilot's ability to safely control the model.
 - (h) Not operate model aircraft carrying pyrotechnic devices which explode or burn, or any device which propels a projectile or drops any object that creates a hazard to persons or property.

Exceptions:

- ◆ Free Flight fuses or devices that burn producing smoke and are securely attached to the model aircraft during flight.
 - ◆ Officially designated AMA Air Show Teams (AST) are authorized to use devices and practices as defined within the Team AMA Program Document (AMA Document #718).
3. Model aircraft will not be flown in AMA sanctioned events, air shows or model demonstrations unless:
 - (a) The aircraft, control system and pilot skills have successfully demonstrated all maneuvers intended or anticipated prior to the specific event.
 - (b) An inexperienced pilot is assisted by an experienced pilot.
 4. When and where required by rule, helmets must be properly worn and fastened. They must be OSHA, DOT, ANSI, SNELL or NOCSAE approved or comply with comparable standards.

B. RADIO CONTROL (RC)

1. All pilots shall avoid flying directly over unprotected people, vessels, vehicles or structures and shall avoid endangerment of life and property of others.
2. A successful radio equipment ground-range check in accordance with manufacturer's recommendations will be completed before the first flight of a new or repaired model aircraft.
3. RC model aircraft must use the radio-control frequencies currently allowed by the Federal Communications Commission (FCC). Only individuals properly licensed by the FCC are authorized to operate equipment on Amateur Band frequencies.
4. RC model aircraft will not operate within three (3) miles of any pre-existing flying site without a frequency-management agreement (AMA Documents #922-Testing for RF Interference; #923- Frequency Management Agreement)
5. With the exception of events flown under official AMA Competition Regulations, excluding takeoff and landing, no powered model may be flown outdoors closer than 25 feet to any individual, except for the pilot and the pilot's helper(s) located at the flight line.
6. Under no circumstances may a pilot or other person touch a model aircraft in flight while it is still under power, except to divert it from striking an individual. This does not apply to model aircraft flown indoors.
7. RC night flying requires a lighting system providing the pilot with a clear view of the model's attitude and orientation at all times.
8. The pilot of a RC model aircraft shall:
 - (a) Maintain control during the entire flight, maintaining visual contact without enhancement other than by corrective lenses prescribed for the pilot.
 - (b) Fly using the assistance of a camera or First-Person View (FPV) only in accordance with the procedures outlined in AMA Document #550.

C. FREE FLIGHT

1. Must be at least 100 feet downwind of spectators and automobile parking when the model aircraft is launched.
2. Launch area must be clear of all individuals except mechanics, officials, and other fliers.
3. An effective device will be used to extinguish any fuse on the model aircraft after the fuse has completed its function.



Email: info@fmsmodel.com
Http://www.fmsmodel.com



MADE IN CHINA