

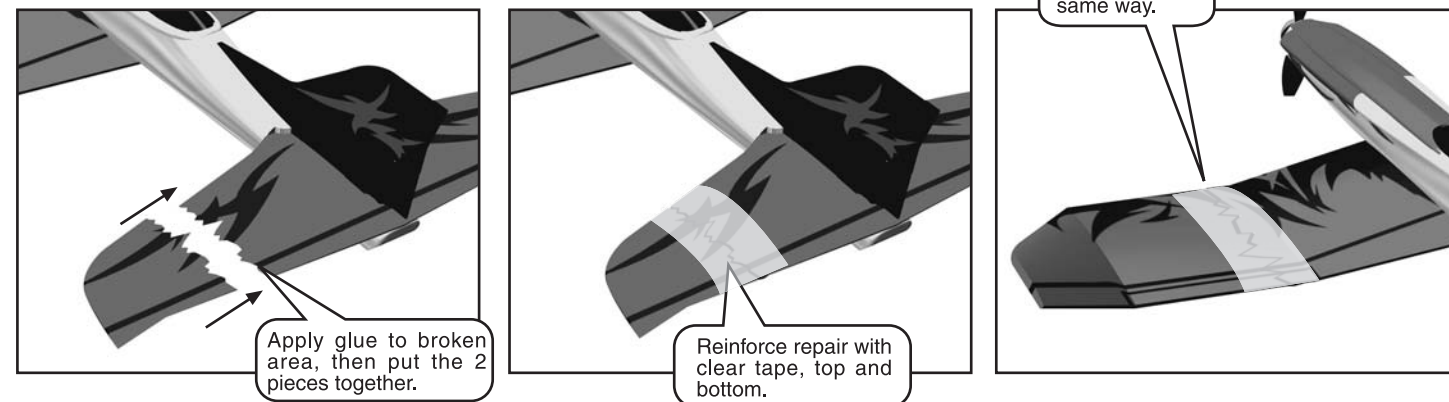
TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Motors will not turn on or operate	- Plane not charged - Plane was not set to 'OFF' during charging - Tx / Charger was not set to 'OFF' during charging	- Charge plane for a complete charge cycle - Set fuselage to the 'OFF' position prior to charging - The Tx / Charger must be in the charge position (this would be the Tx 'OFF' position) - Replace the Tx/Charger batteries after 4 30-minute charges - Switch Tx 'OFF' then 'ON' - Turn plane switch 'ON'
Plane is flying too high	- Tx Battery power is drained - Tx has been left 'ON' longer than 2 minutes - Plane not turned 'ON'	Move the Motor Control Stick to middle position to reduce motor speed or release the Motor Control Stick
Plane is flying too low	- Plane not fully charged - The six 'AA' batteries in the Tx / Charger need to be replaced - Need to increase power	- Charge plane for a complete charge cycle - Install new batteries - Press the Motor Control Stick upward all the way
Plane will not turn	- Tx / Charger is not turned 'ON' - Tx / Charger antenna is not extended all the way. - Flying in strong wind - You have exceeded the 2 minute Flight Optimizer period	- Set the Tx / Charger to the 'ON' position - Fully extend the antenna prior to flying - Do not fly in adverse wind conditions or wind in excess of 5 mph (8 kph) - Turn Tx 'OFF' then 'ON' again

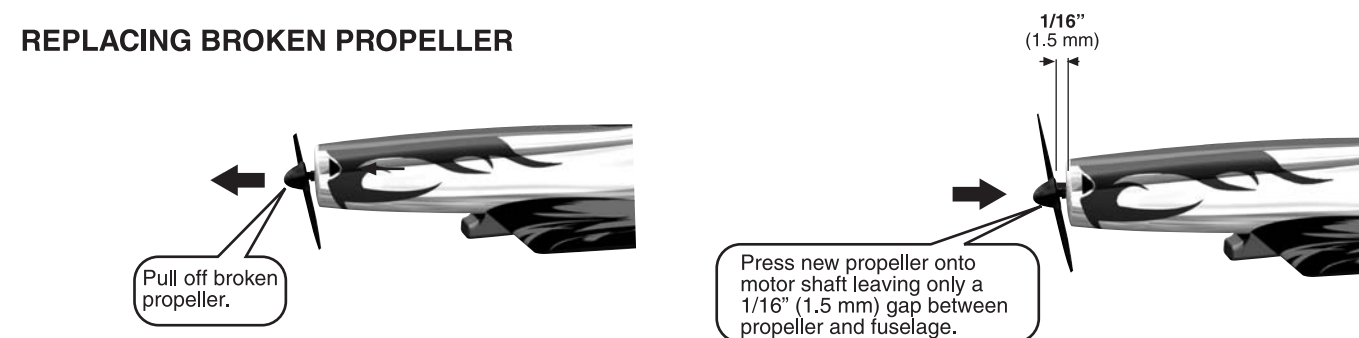
EASY REPAIRS YOU CAN DO YOURSELF

Plane parts are made of foam for impact strength and durability. Even so, some parts may break during a crash. Foam parts may easily be repaired using household tape and glue. Clear packing tape works well for most repairs, however, larger breaks may require glue and tape for best results. To make your own repairs, use 5 minute epoxy or household white glue (sold separately) and follow the steps below. While we don't recommend you crash your plane, sometimes it happens. Simple home repairs will get you back in the air and flying in no time.

REPAIRS TO WINGS AND TAIL



REPLACING BROKEN PROPELLER



PLEASE DO NOT RETURN YOUR PLANE TO THE STORE - they are not trained to help you like Estes flight techs are! So... before you pack your plane away, visit our troubleshooting guide at www.estesrockets.com or give us a call at 1-800-525-7561.

© 2006 Estes-Cox Corp. All rights reserved. PN 062004 (10-06)



www.estesrockets.com
ESTES-COX CORP.
1295 H Street
Penrose, CO 81240
Printed in China

WARNING:
Choking/Cutting Hazard - small parts, sharp propeller. Not for children under 8 yrs.



Radio Control Model Airplane INSTRUCTIONS

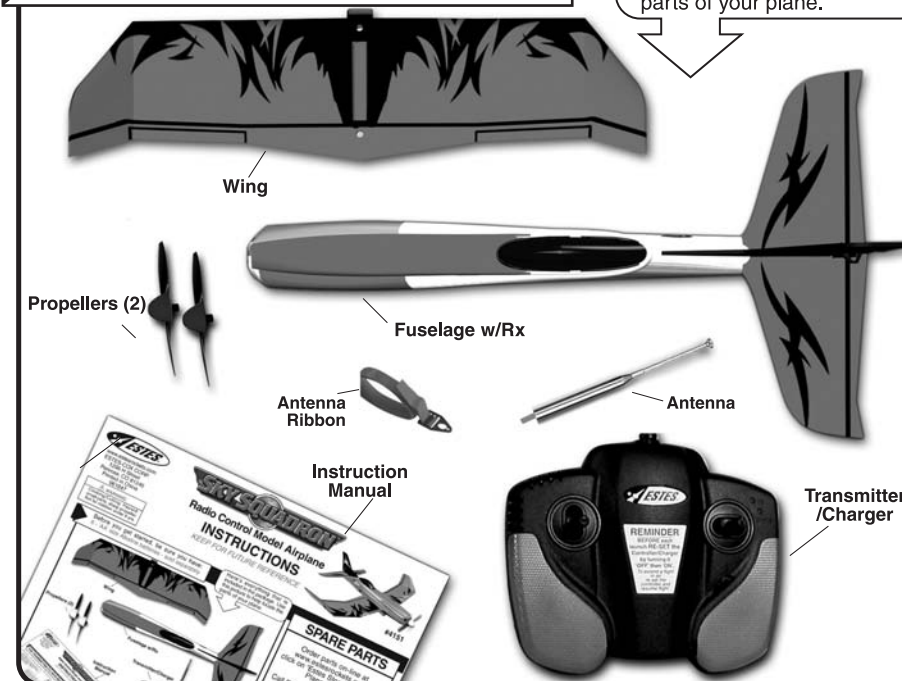
KEEP FOR FUTURE REFERENCE



#4151

Before you get started, be sure you have:
6 - 'AA' size Alkaline batteries - sold separately

Here's everything that is included in the package. Use this picture to help locate the parts of your plane.



SPARE PARTS

Order parts on-line at www.estesrockets.com, click on 'Estes Store' then 'R/C Plane Parts'.

OR
Call Estes Customer Service at 1-800-525-7561

Monday - Friday, 8:00 am - 4:00 pm Mountain Time.

Item #	Description
061936	Propeller (1)
062003	Transmitter/Charger w/Antenna
061315	Antenna Ribbon
061390	Wing
061916	Fuselage Assembly w/Rx

THE TRANSMITTER (Tx) WITH BUILT-IN CHARGER

(Requires 6 - 'AA' Alkaline Batteries - Sold Separately)

Remove screw and back cover then insert 6 new 'AA' alkaline batteries in the correct polarity into Tx. Replace back cover and screw. Because the Tx is used for both charging and flying the plane, it is recommended that you replace the 6 "AA" Tx batteries every fourth complete charge.

Motor Control Stick Push and hold 'UP' to run motor at full power. Push half way up to run motor at 'cruise' speed. Release to stop motor.

Screw Antenna Into Tx - Do Not Over Tighten. Attach Antenna Ribbon to Antenna.

Tx Power LED (Red)

Charger LED (Green)

Turn Control Stick 'TAP' (push and release) Left or Right to steer the plane during flight.

NOTE: Read **Important Flying Tips** before using.

IMPORTANT TIPS:

This radio has been equipped with an auto shut-off circuit. Tx will automatically turn off Motor Control after 2 minutes of continuous flying. To reset the Motor Control, switch Tx 'OFF' then back 'ON'. See 'Flight Optimizer' page for more details.

CAUTION: Do not mix old, new, or other battery types. Use only ALKALINE batteries in the Sky Squadron™ transmitter/charger.

IMPORTANT USER INFORMATION

R/C USER INFORMATION

This radio system complies with Part 95 of the F.C.C. rules. Operation is subject to the following two conditions:

- 1) This radio system may not cause harmful interference.
 - 2) This radio system must accept any interference received, including interference that may cause undesired operation.
- Changes or modifications of any kind to the transmitter not expressly approved by Estes-Cox Corp. will void the user's authority to operate the transmitter.

Transmitter frequency can only be changed and the associated electronic circuitry tuned by Estes-Cox Corp. Changing frequency by the consumer will void the warranty and is a violation of F.C.C. regulations.

Do not cut or shorten the length of the transmitter or receiver antenna. Doing so greatly reduces the operational range of the radio system.

Refer to label on back of transmitter for operating frequency. Do not fly or operate more than one R/C plane or vehicle on the same frequency at a time. Operational interference may occur.

! WARNING:

TO AVOID INJURY AND PROPERTY DAMAGE:

PROPELLER SAFETY:

- Keep your face, fingers, clothing and other objects away from the propeller at all times.
- Keep spectators behind and away from plane at all times.
- Before each flight, make certain propeller is securely attached to your plane
- After each flight, inspect the propeller for nicks and breaks.
- Discard and replace nicked, chipped, cracked or broken propeller.
- Use only the propellers supplied with the plane.
- Do not alter, modify or customize the propeller.

BATTERY AND CHARGING SAFETY:

- This plane contains 1 non-removable, non-replaceable 3.7 Volt lithium-polymer (Li-Po) battery. **Li-Po batteries are easily damaged and may cause fire or explode.***
- Use only the Transmitter/Charger supplied to charge battery in plane.
 - Do not reverse polarity while plugging into charger.
 - Check plane continuously during charging.
 - Do not leave plane unattended during charging.
 - Never leave or store plane connected to Transmitter/Charger.
 - If plane's internal battery becomes hot, smells, makes a sound or leaks fluid, disconnect from charger. Do not use.
 - If fluid gets on skin, rinse well with water.
 - Do not incinerate plane or its battery.
 - To dispose of plane and its battery, tape leads to prevent short-circuiting and take to your nearest recycling center or discard in outside fire-proof container.
 - Keep away from small children.
 - Charge, discharge (use) and store at temperatures above freezing and below 113° F (45° C).
 - Do not store near flame or sources of heat such as inside a hot car.
 - Should the plane's battery, battery leads or wiring become damaged, deformed or punctured, do not use the plane.
 - Protect the plane's battery from getting wet.
 - Charge in a fire-proof location away from combustibles.
 - Do not short-circuit.

90 DAY LIMITED WARRANTY

Do not return your plane to the store. Estes will repair or replace factory defects for 90 days from the date of purchase. This warranty specifically does not cover crash damage or abuse.

For fast courteous service, if you find a defect or a part is missing, please contact Estes Customer Service at www.estesrockets.com or call 1-800-525-7561.

Obtain a Return Merchandise Authorization (RMA) number from Estes Customer Service before returning a defective part or product. Any part or product returned to Estes without a RMA number clearly marked on the shipping label will not be accepted. Send only the defective part(s). There may be additional charges if you send more than is necessary.

Ship returns to: Estes-Cox Corp., 1295 H St, Penrose, CO 81240.

This warranty applies only if the product is operated in compliance with instructions and warnings provided with each model. Estes-Cox assumes no liability except for the exclusive remedy of repair or replacement of parts as specified above. Estes shall not be liable for consequential or incidental damages. Some states do not allow the exclusion of incidental or consequential damages so the above exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

FLIGHT OPTIMIZER

For the beginning R/C pilot, we recommend starting with short flights. Learning to fly in this manner is normal and each successive flight will help you learn how to better pilot the plane. A Flight Optimizer has been programmed into the flight transmitter to give you more flights per charge.

The Flight Optimizer is designed to allow two full minutes (120 seconds) of throttle (motor) operation at a time. At first, maintaining flight for a full two minutes may be difficult. Keep practicing! Once you have achieved a full two minute flight the motor will turn off and the plane will begin to descend on its own. You now have two options:

The flight transmitter is not defective!

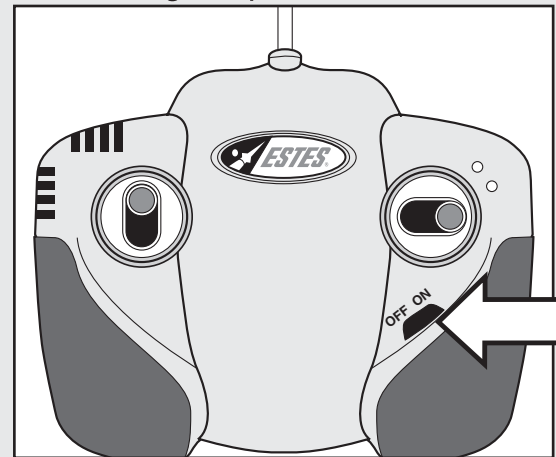
- 1) Allow the plane to land itself naturally. **NOTE:** You can still steer the plane even when the throttle has become inactive
 - 2) Re-set the Flight Optimizer for another two minutes of operation by switching the transmitter 'OFF' and then 'ON' again.
- (See "To Re-set the Flight Optimizer", below)

NOTE:
Remember to re-charge your plane after its 3rd full 2 minute flight.

WE STRONGLY RECOMMEND THAT THE PILOT ALWAYS SWITCH THE TRANSMITTER 'OFF' THEN 'ON' PRIOR TO LAUNCHING THE PLANE AGAIN.

TO RE-SET THE FLIGHT OPTIMIZER

To re-set the Flight Optimizer, switch the transmitter 'OFF' and then 'ON' again. This will reset the Flight Optimizer for another 2 minutes of flight.



If the Flight Optimizer is not re-set between flights, only the balance of two minutes will remain for the next flight. To ensure a full two minutes is available for each flight, it is recommended that the pilot re-set the Flight Optimizer before each take-off.

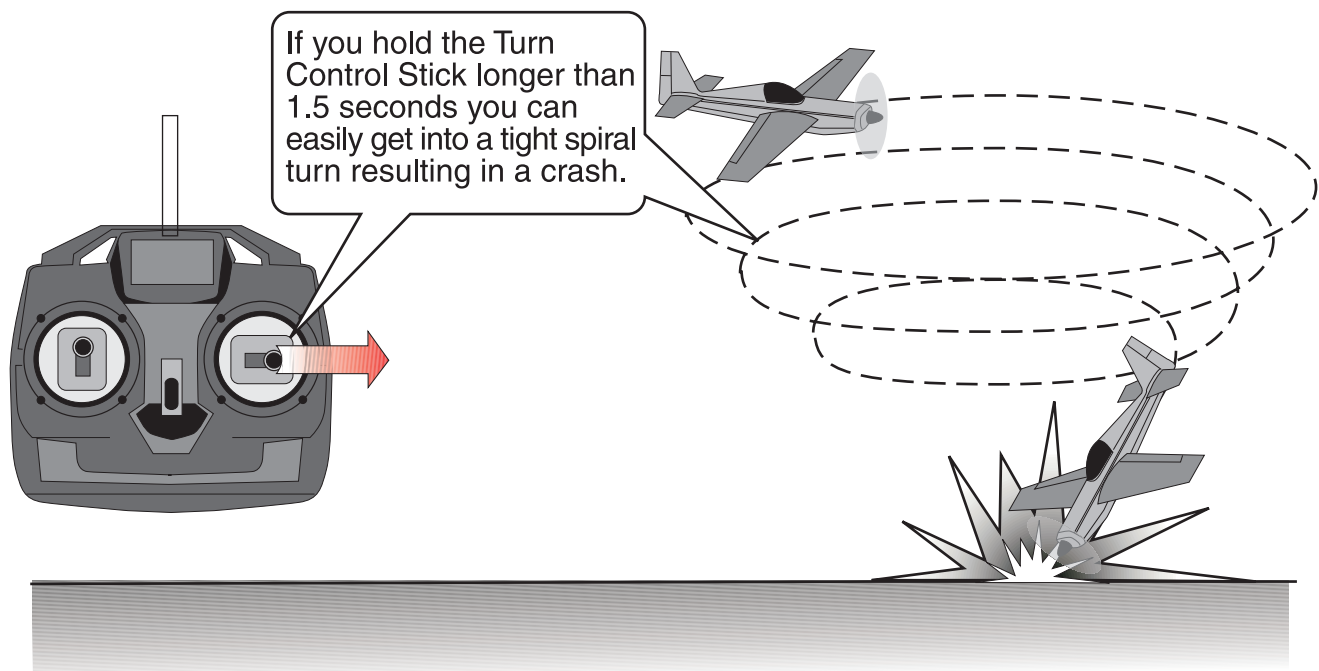
As you become more proficient at flying, challenge yourself to see how many times you can extend your flight without landing!

ESTES FLY-RITE™ STEERING TECHNOLOGY ADVANTAGES

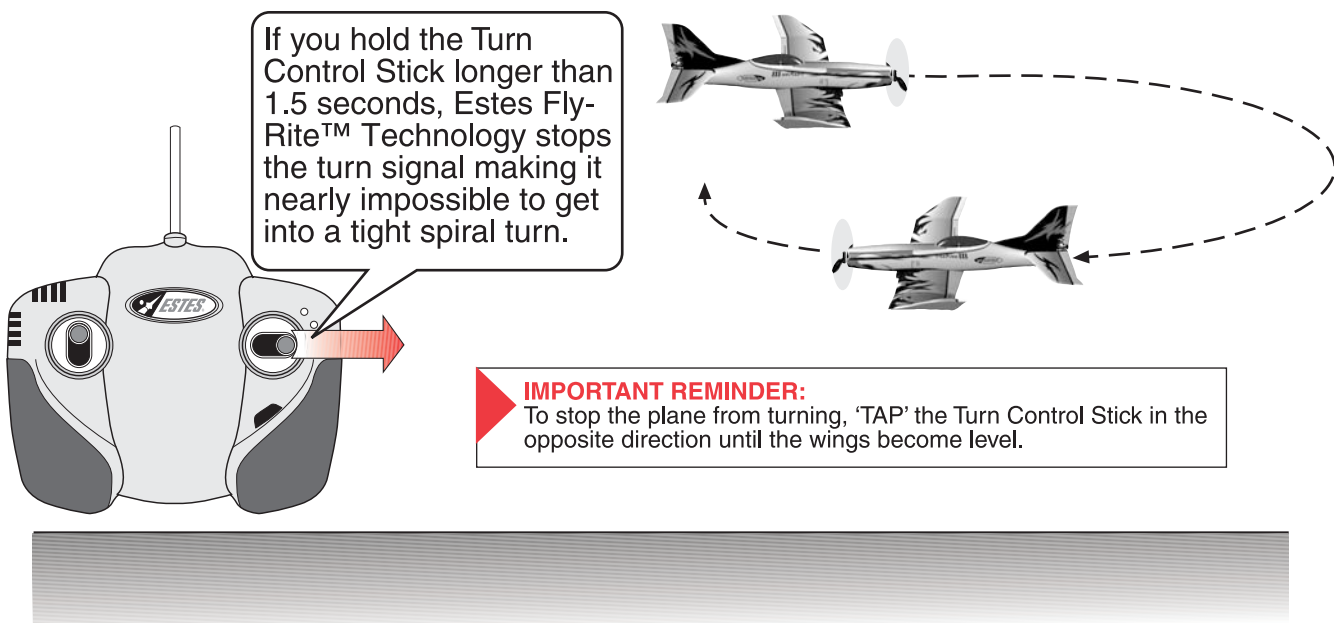
Read Before Flying

Estes wants to ensure that your flying experience is filled with successful flights. The cause of most crashes is pilot tendency to over-steer the airplane. To help the pilot avoid over-steering, the transmitter for this plane has been equipped with Fly-Rite™ Technology. Fly-Rite™ Technology stops the turn control signal to the plane should you hold the Turn Control Stick over for longer than 1.5 seconds making steering errors less likely. Here is how it works.

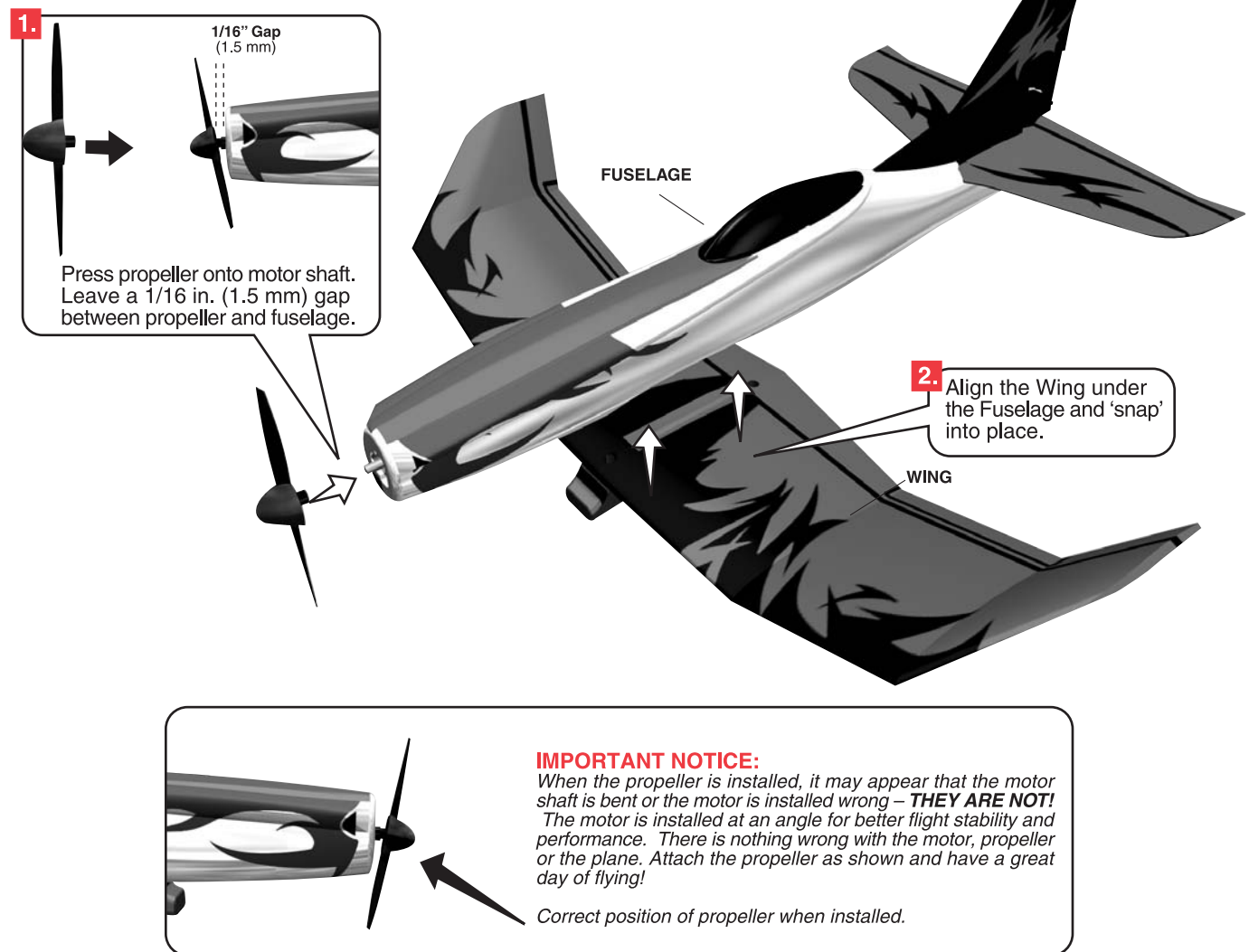
USING STANDARD TOY GRADE TRANSMITTER WITHOUT FLY-RITE™ TECHNOLOGY



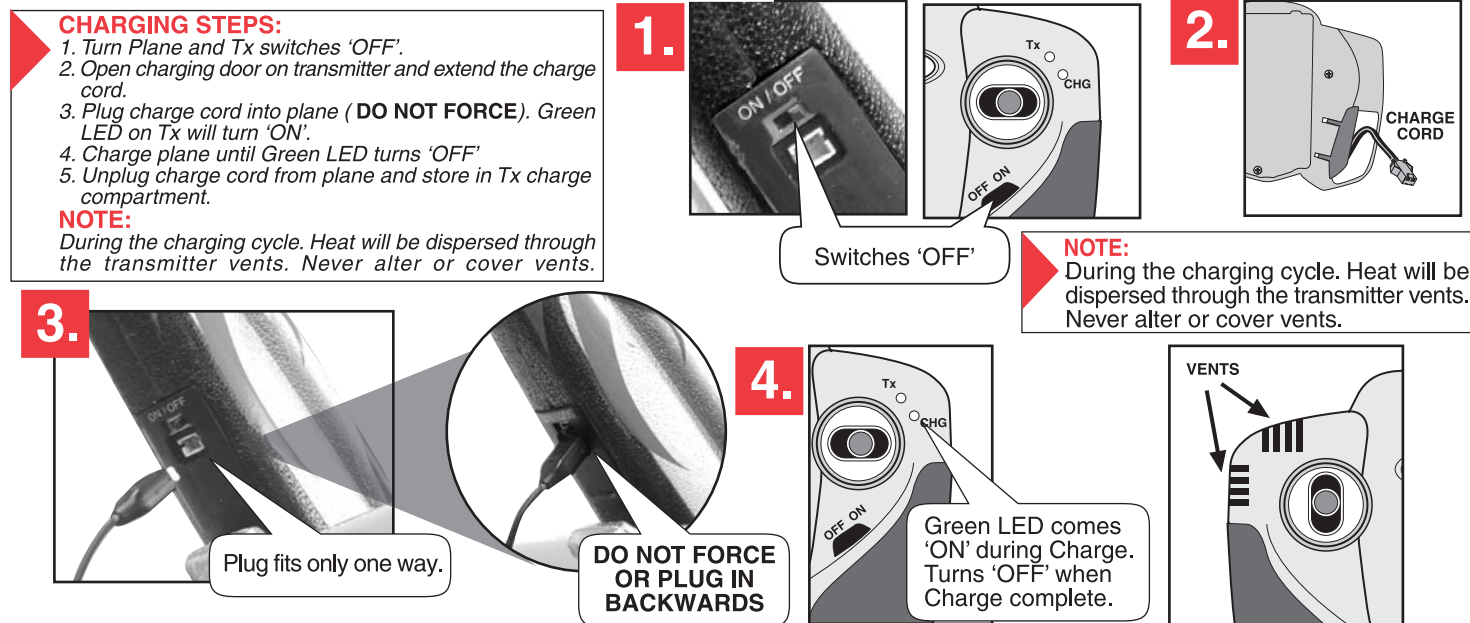
USING ESTES TRANSMITTER WITH FLY-RITE™ TECHNOLOGY



ASSEMBLING THE PLANE



CHARGING THE PLANE



FLYING YOUR PLANE

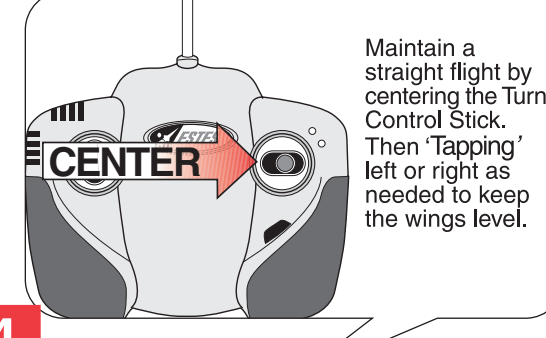
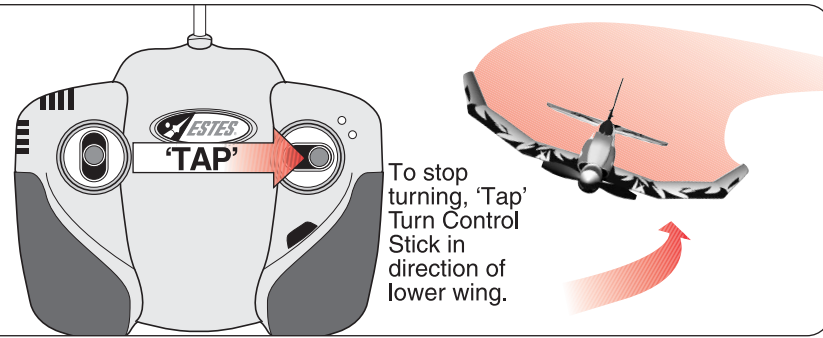
STEERING THE PLANE COMING TOWARD YOU (Tricky Part of Flying)

You have a couple of options:

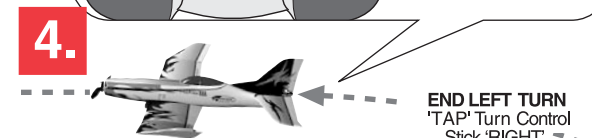
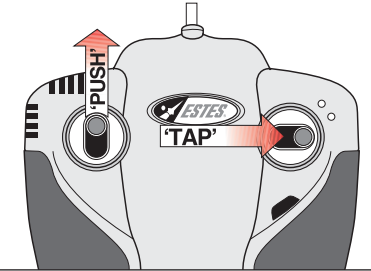
1. Turn yourself so the radio antenna is pointing in the direction the plane is flying. (Imagine yourself in the cockpit of the plane).

OR

2. When the plane is flying toward you with the wing banked, 'Tap' the Turn Control Stick in the direction of the low wing until the plane's wing is level.



To end the turn 'TAP' the Turn Control Stick to the RIGHT just enough to level the wings and fly straight.



ALWAYS FLY OVER SOFT GRASSY FIELDS! DO NOT FLY IN PARKING LOTS OR STREETS.

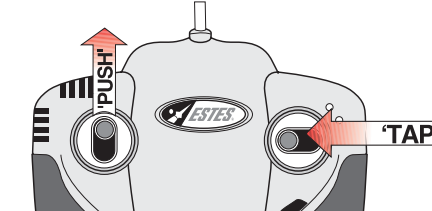
SAFETY PRECAUTIONS:

- Fly in open areas. Never fly near power lines, trees, houses or buildings.
- Do not fly in winds over 5 mph (8 kph).
- Keep hands, face and clothing away from spinning propellers.
- Have all spectators stand behind and away from plane.

Flying Time:

2 minutes for beginners.
See "Flight Optimizer" page for details.
Up to 6 minutes for experienced R/C pilots.

'TAP' the Turn Control Stick LEFT several times to turn. (Slow repeated taps for tight turns, fast repeated taps for wide turns. (It's easier to start with left turns when first learning).

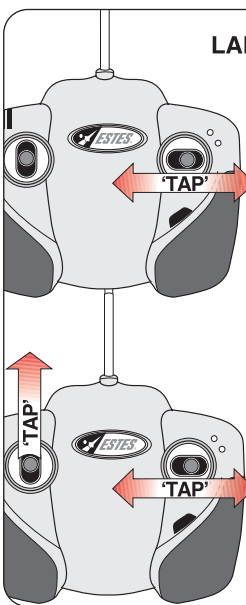


IMPORTANT NOTE:

The Turn Control Stick has a Fly-Rite™ steering control feature that prevents over controlling the plane in a turn. If held Right or Left longer than 1.5 seconds the turning signal to the plane is stopped. To resume turning, release the Turn Control Stick, then resume 'Tapping' the stick left or right to complete the turn.

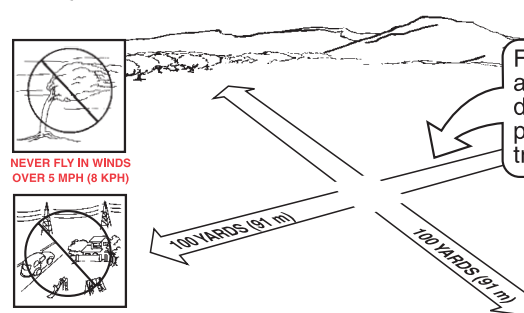
LANDING THE PLANE

To land, release the Motor Control Stick to begin descent. 'Tap' the Turn Control Stick as needed (Left or Right) to steer the plane into the wind, and keep the wings level for landing. Continue to 'Tap' the Turn Control Stick Left or Right to keep the wings level for final approach into the wind. 'Tap' the Motor Control Stick as necessary to keep the plane on a gentle glide path until touch down.



CHOOSE A GOOD FLYING SITE:

Find an area as large as a football field. You don't want to fly near people, streets, houses, trees or power lines.



LEFT TURN PATH 'TAP' Control Stick 'LEFT'.

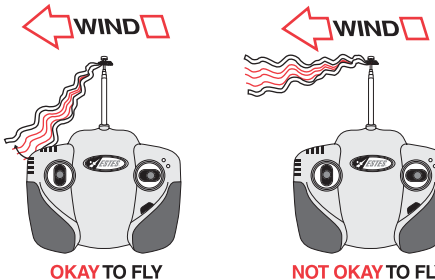


WIND 5 MPH (8 KPH) OR LESS

START

Let the plane fly on its own (do not control) for 3- 5 seconds to gain flying speed and altitude before making first turn.

HOW TO USE THE ANTENNA RIBBON AS A 'WIND INDICATOR'

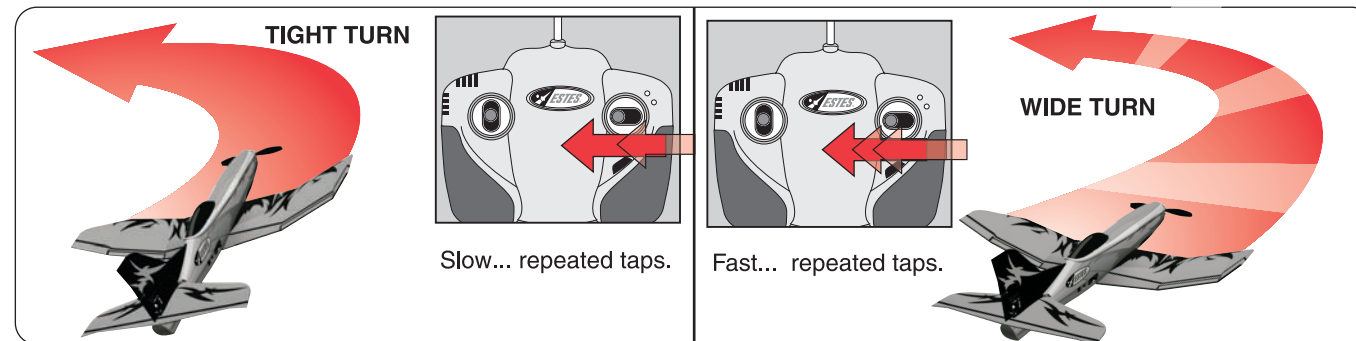


NOTE:

When operating the Transmitter, always have the antenna extended. DO NOT bend or break. When not in use, fully collapse the antenna.

STEERING YOUR PLANE

1. This R/C Airplane DOES NOT need the Turn Control Stick to be continuously held right or left to turn! Steer this airplane by TAPPING (pressing & releasing) the Turn Control Stick. This transmitter is equipped with Fly-Rite™ Technology to prevent over-control of the plane. (See next page for more information on Fly-Rite™ Technology.)



2. Only 'Tap' the Turn Control Stick enough to bank the wing for a turn, then **stop** tapping. Once the wing is banked, the plane will continue to turn without added input from the Turn Control Stick.

3. 'Tap' the Turn Control Stick in the **opposite** direction of the turn to level the wing out for straight flight. This R/C airplane only flies straight when the wings are level.

If you get into too tight a turn and the plane begins to dive to the ground, release BOTH control sticks then either:
A) Let the plane correct itself and resume flying by applying power or B) Let the plane land itself and start over.