



Spirit of St. Louis

Instruction Manual



Wingspan	22.75 in. (578mm)
Wing Chord	7.50 in. (190.5mm)
Wing Area	75.5 sq. in.
Length	13.75 in (349mm)
Flying Weight	1.5 oz. (41 grams)
Battery	1S 3.7V 150mAh LiPo
3-in-1 Board	2.4Ghz Rx, ESC, 2 Servos
Prop	4.7x2.75 (120x70mm)

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Introduction

The Spirit of St. Louis, flown by Charles Lindbergh, made the first solo non-stop transatlantic flight from Long Island, New York, to Paris, France departing on May 20th and arriving on May 21st, 1927. Officially known as the “Ryan NYP” (for New York to Paris), the Spirit of St. Louis was a custom-built, single engine, single-seat monoplane designed by Donald A. Hall of Ryan Airlines. It was named Spirit of St. Louis in honor of Lindbergh’s supporters from his hometown of St. Louis, Missouri. To save design time, the NYP was loosely based on the company’s 1926 Ryan M-2 mail plane with the main difference being the 4,000 mile range of the NYP. As a non-standard design, the government assigned it the registration number N-X-211 (X for “experimental”). More than any other airplane, the Spirit of St. Louis captured the imagination of the country and led to the Golden Age of flight in the US.

Due to extremely light wing-loading, the Rage™ Spirit of St. Louis provides smooth, yet capable flight performance (either indoors or outdoors in light winds) that’s ideal for experienced pilots. Enjoy the nostalgia of the original with scale features that include a highly-detailed scale 9-cylinder Wright Whirlwind dummy engine, a full-airfoil wing design with rib details and fuel tank vents, detailed scale landing gear and struts, and even the official name - “Ryan NYP”, and registration number N-X-211 in realistic scale graphics on the tail.

The Spirit of St. Louis comes fully assembled as a RTF (Ready-To-Fly), so everything needed to fly comes included in the box. In addition to the scale airframe with the installed 3-in-1 control board, you get a 2.4GHz transmitter that conveniently charges the included 1S 150mAh LiPo battery. Even the AA batteries needed to power up the transmitter are included, so you can be making your maiden flight on this amazingly detailed, historic airplane within minutes of opening the box!

Safety Precautions

Failure to use this product in the intended manner as described in the following instruction can result in damage and/or personal injury. A Radio Controlled (RC) airplane/helicopter/quadcopter is not a toy! If misused it can cause serious bodily harm and damage to property.

Keep items that could become entangled away from the propeller, including loose clothing, tools, etc. Be especially sure to keep your hands, face and other parts of your body away from the propeller.

As the user of this product you are solely and wholly responsible for operating it 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 that is subject to possible interference from a variety of sources outside your control. This interference can cause momentary loss of control so it is advisable to always keep a safe distance from objects and people in all directions around your model as this will help to avoid collisions and/or injury.

General Precautions

- Never operate your model if the voltage of the batteries in the transmitter is too low.
- Always operate your model in an open area away from obstacles, people, vehicles, buildings, etc.
- Carefully follow the directions and warnings for this and any optional support equipment. (chargers, rechargeable batteries, etc.).
- Keep all chemicals, small parts and all electronic components out of the reach of children.
- Moisture causes damage to electronic components. Avoid water exposure to all electronic components, parts, etc. not specifically designed and protected for use in water.

FCC Information

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This product contains a radio transmitter with wireless technology which has been tested and found to be compliant with the applicable regulations governing a radio transmitter in the 2.400GHz to 2.4835GHz frequency range.

The associated regulatory agencies of the following countries recognize the noted certifications for this product as authorized for sale and use: USA, UK, AU

Spirit of St. Louis RTF Contents

The Spirit of St. Louis comes completely built and ready for flight. All that is required is to install the included AA batteries in the 2.4Ghz transmitter and charge the LiPo flight battery from the included charge connector on the transmitter.



LiPo Battery Warning

IMPORTANT NOTE: Lithium Polymer batteries are significantly more volatile than the alkaline, NiCd or NiMH batteries also used in RC applications. All instructions and warnings must be followed exactly to prevent property damage and/or personal injury as mishandling of LiPo batteries can result in fire. By handling, charging or using the included LiPo battery you assume all risks associated with LiPo batteries. If you do not agree with these conditions please return the complete product in new, unused condition to the place of purchase immediately.

Center of Gravity

When the supplied 150mAh battery is installed in the battery tray the correct CG (Center of Gravity) for the airplane is automatically achieved. It is not necessary to balance the airplane before your first flights.

In the event that the weight of the airplane is altered due to repair or modification, the correct CG is achieved when the plane balances level when supported at a point approximately 30mm back from the leading edge of the wing.

Charging Flight Battery



Open door on lower left of transmitter



Move charge plug out and close door



Plug flight battery into charge plug. Make sure to maintain correct polarity by aligning the red dots when plugging in the battery.



The yellow charge light on the transmitter lights during charging. When the light goes out, charging is complete.

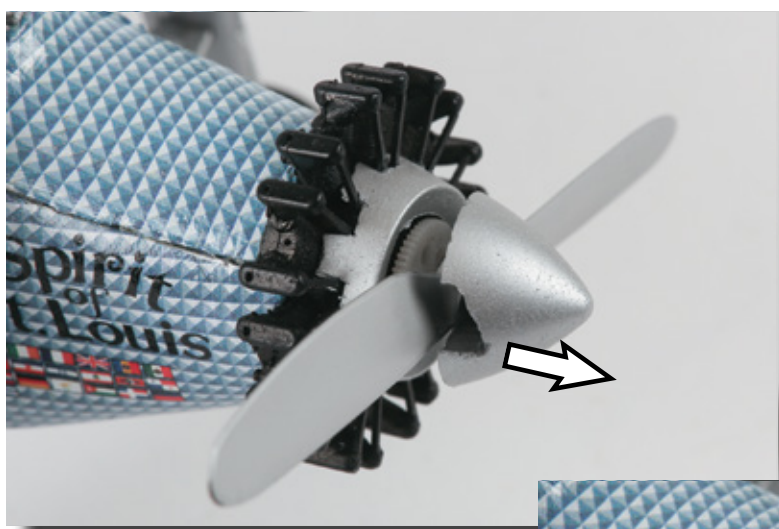
NOTE: *The transmitter does not need to be on to charge flight battery.*

Installing Flight Battery



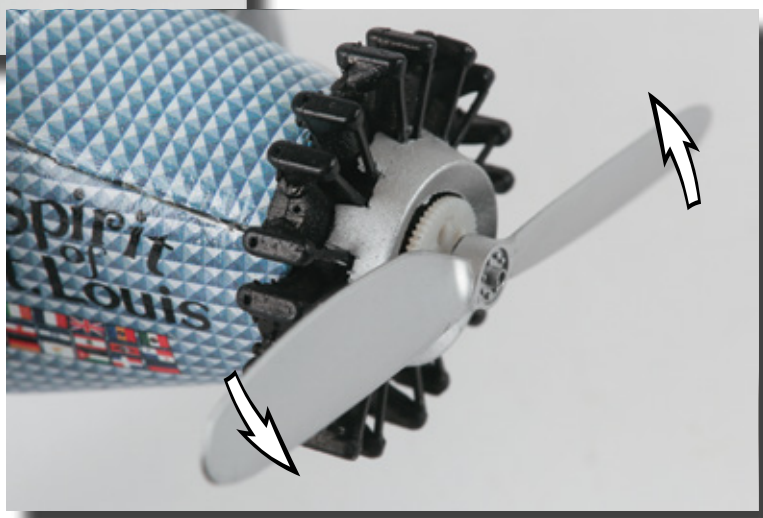
Invert the model being careful not to damage the fuel vent details on the top of the wings. Plug the battery into the supplied pigtail. Place the charged flight battery in the battery tray with the label facing you and the plug end facing the rear of the airplane. The battery is held in place by magnets. Set the model on its wheels and turn on the transmitter. The model will pair with the transmitter automatically. Successful pairing is indicated by the rudder and elevator moving briefly.

Prop Replacement

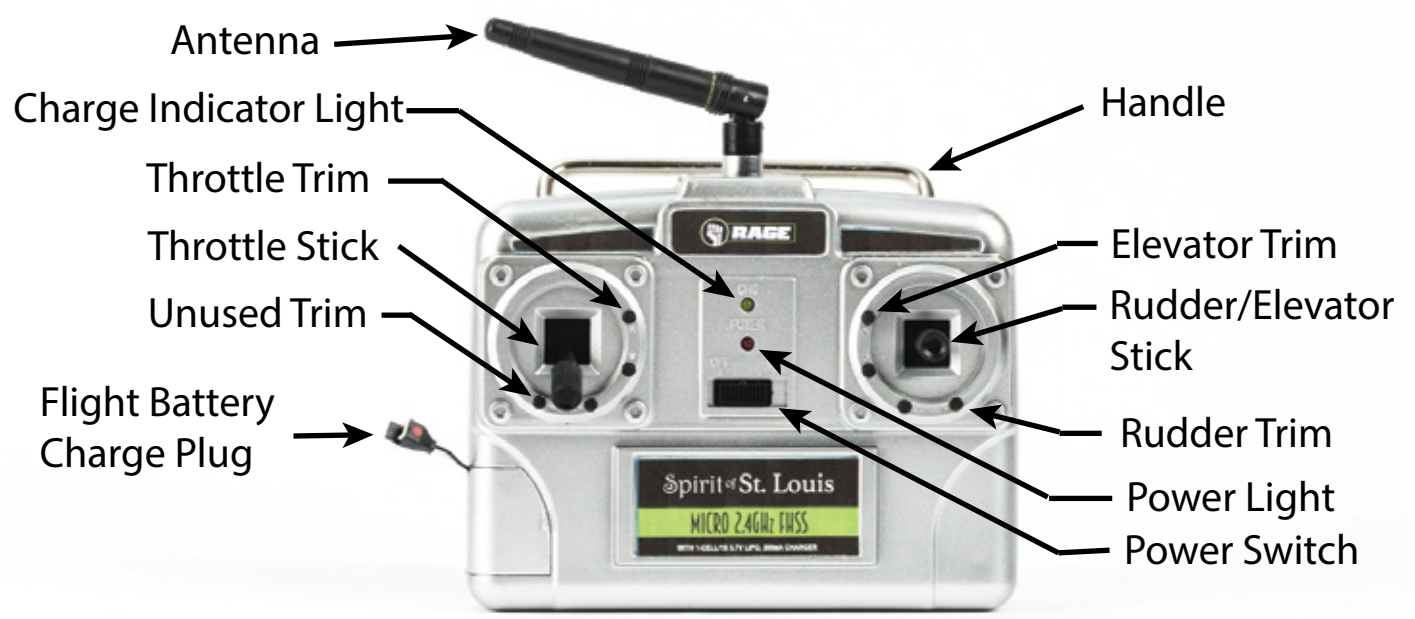


If your prop becomes damaged and needs to be replaced, gently pry the spinner free from the prop. A thin piece of plastic like a credit card works well.

Spin the prop off of the shaft in a counter clockwise direction when viewed from the front. (See Photo)
Spin the new prop on the prop shaft in a clockwise direction and reinstall the spinner. A very small amount of foam glue can be added to the back of the spinner to help retain it.



Transmitter Layout



Control Functions

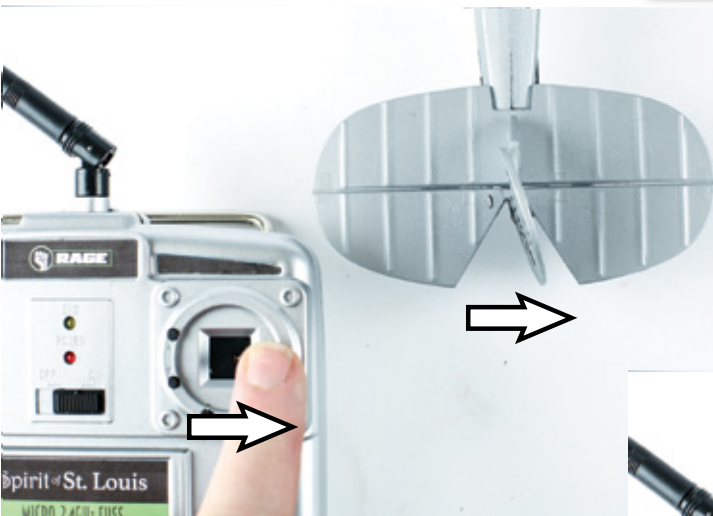
Up Elevator

When the right stick is moved toward the bottom of the transmitter the elevator on the airplane moves up. This raises the nose of the airplane.



Down Elevator

When the right stick is moved toward the top of the transmitter the elevator on the airplane moves down. This lowers the nose of the airplane.



Right Rudder

When the right stick is moved to the right on the transmitter the rudder on the airplane moves to the right. This turns the airplane to the right.

Left Rudder

When the right stick is moved to the left on the transmitter the rudder on the airplane moves to the left. This turns the airplane to the left.



NOTE: For smooth scale like flights, use small stick movements to achieve small control-surface movements. Full stick movement can lead to over control and a crash.

Flying

The Spirit of St. Louis is a very light airframe and intended primarily for indoor flying. It can also be flown outdoors when the conditions are suitable. This would be when there is very little wind, usually early in the morning or just before sunset. Flight times are 5 minutes+ depending on throttle use. The airplane will take off and land on its wheels or can be hand launched. The airplane does not need full throttle to fly, its most scale like flight is at a little less than 1/2 throttle. For best results a light touch on the controls is required. The airplane is very responsive, only small amounts of rudder are required to turn. Avoid over controlling the airplane as this can easily lead to loss of control.

Spare Parts Listing

Item Number	Description
RGRA1100	Spirit of St. Louis Micro RTF
RGRA1120	4.7x2.75 (120 x 70mm) Micro Scale Propeller and Spinner
RGRA1121	Propeller Shaft w/Gear
RGRA1122	Gearbox w/Shaft
RGRA1123	Gearbox w/Motor
RGRA1124	150mAh 1S 3.7V 15C LiPo Battery, Ultra-Micro Connector
RGRA1125	Wing Set w/Decals
RGRA1126	Tail Set w/Decals
RGRA1127	Fuselage w/Decals
RGRA1128	Main Landing Gear Set
RGRA1129	Pushrod Set
RGRA1130	Wing Strut Set
RGRA1131	Decal Set
RGRA1132	Micro 4-Channel Airplane TX w/200mA Charger, Mode 1
RGRA1133	Micro 4-Channel Airplane TX w/200mA Charger, Mode 2
RGRA1134	3-in-1 Control Unit;Rx/2 Servo/ESC

Warranty

Warranty Period: Rage R/C warrants that the Spirit of St. Louis ("Product") will be free from original factory defects in materials and workmanship upon purchase ("Warranty Period").

What is Not Covered - This warranty is not transferable and does not cover (a) cosmetic damage, (b) damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or due to improper use, installation, operation or maintenance, (c) modification to any part of the Product, (d) attempted service by anyone other than a Rage R/C authorized service center, or (e) Product not purchased from an authorized Rage R/C dealer.

OTHER THAN THE EXPRESS WARRANTY ABOVE, RAGE R/C MAKES NO OTHER WARRANTY OR REPRESENTATION, AND THEREFORE DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND SUITABILITY FOR A PARTICULAR PURPOSE. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL MEET THE REQUIREMENTS OF THEIR INTENDED USE.

Purchaser's Remedy - Rage R/C's sole obligation and purchaser's sole and exclusive remedy shall be that Rage R/C will, at its option, either (a) service, or (b) replace, any Product determined by Rage R/C to be defective. Rage R/C reserves the right to inspect any and all Product(s) involved in a warranty claim. Service or replacement decisions are at the sole discretion of Rage R/C. Proof of purchase is required for all warranty claims.

SERVICE OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY.

Limitation of Liability - RAGE R/C SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY, REGARDLESS OF WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY, EVEN IF RAGE R/C HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Further, in no event shall the liability of Rage R/C exceed the individual price of the Product on which liability is asserted. As Rage R/C has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability. If you as the purchaser or user are not prepared to accept the liability associated with the use of the Product, purchaser is advised to return the Product immediately in new and unused condition to the place of purchase.

Law - These terms are governed by Utah law (without regard to conflict of law principals). This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Rage R/C reserves the right to change or modify this warranty at any time without notice.

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Salt Lake City, Utah 84104

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