

VINTAGE STICK^{X4}

AEROBATIC EP MICRO RTF AIRPLANE

INSTRUCTION MANUAL



Aerobatic & Nostalgic Flying Fun

Equipped with:
PASS[™]
Pilot Assist Stability Software



Specifications:

Wingspan:	17-1/4" (440mm)
Length:	14-3/4" (375mm)
Wing Area:	75 sq. in. (4.84 dm/sq)
Flying Weight:	1.9 oz. (54g)
Battery:	3.7V 1S 400mAh 35C LiPo
Motors:	Two 7mm Coreless w/Gearbox
Wing Area:	75 sq.in. (4.84 dm/sq)
Transmitter:	5-Channel capable 2.4GHz
On-Board-Electronics:	Combination Rx/ESC with integrated servos and 2.5g aileron servo



NOT A TOY

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With the new Rage RC Vintage Stick X4, X stands for X-treme. Adding ailerons for 4-channel control and now with two 7mm coreless motors that provide outstanding thrust makes the X4 an aerobatic sports flyer that's capable of flying nearly any stunt that comes to mind. Even better, the ultralight wing loading that carries forward from the original stick design gives this new airplane a wide flight performance envelope that's capable of maneuvers from lazy figure 8's to loops, spins, barrel rolls, and inverted flight! Plus, the lightweight (54g with battery) construction and high capacity 400mAh flight battery combine to not only deliver plenty of power for aerobatics, but long flight times of up to 10 minutes. This classic-looking aircraft even includes the Rage RC PASS system so that the capabilities of the airplane grow as your flying skills increase.

The RTF (Ready-to-Fly) version of the Vintage Stick X4 features a factory-applied vintage WWI-style trim scheme in hi-vis red with everything required to fly in the box; including a 2.4GHz 5-channel capable transmitter, a 400mAh 35C LiPo flight battery and USB charger for the battery. The only additional items required for the RTF are four AA batteries for the transmitter. The X4 is also available in two RFT (Ready-for-Transmitter) versions that are ready to connect to either Futaba or S-type transmitters. Whatever version fits your needs, your new X4 will have you flying any maneuver you wish at your local park or gymnasium within minutes of opening the box!

General Precautions

- Never operate your model if the transmitter battery voltage 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.

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.

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.

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.

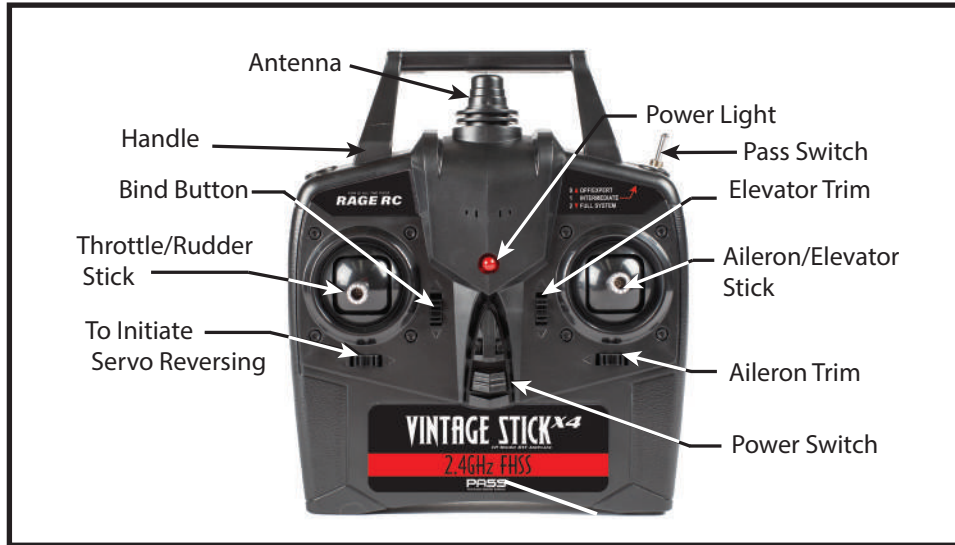
This product contains a radio transmitter with wireless technology which has been tested and found to be compliant with the applicable regulations governing a radio transmitter in the 2.400GHz to 2.4835GHz frequency range.

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

Vintage Stick X4 RTF Contents



Transmitter Details (RTF Only)



PLEASE NOTE: Install 4 AA batteries (not supplied) into the battery compartment located on the back of the transmitter, under the battery hatch cover. Make sure that the batteries are installed with correct polarity per the diagram inside the battery compartment.

Charging LiPo Battery



Plug the battery into the USB charge cord. Make sure that the polarity is correct by matching the red dot on the battery to the yellow dot on the connector.



Plug the charger into a suitable 5V USB port. When the charge is complete, the red LED on the charger will light.

Battery Install



Insert the battery into the battery holder with the plug end facing the front of the aircraft. Plug the control board connector to the battery connector. Be careful to maintain the correct polarity. The yellow dot on the battery should be on the same side as the yellow dot on the plug.

Center of Gravity

With the supplied battery installed in the battery holder, the CG of the Vintage Stick X4 will automatically be in the correct location. If a different battery is used or repairs have been made to the airframe, the CG should be rechecked and weight adjusted to achieve the proper CG. The Vintage Stick X4 is very tolerant to changes in the CG location.

Servo Reversing

The Vintage Stick X4 transmitter features servo reversing on the rudder, elevator and aileron channels. The servo direction was set correctly at the factory. However, in the case that any of the controls operate in the wrong direction, please follow these steps to reverse each servo direction, as needed. Complete all steps with the transmitter and aircraft both powered on.



Aileron Channel Servo Reversing (Right Stick)

Press and hold the left trim button under the left stick, then press the right trim button under the right stick simultaneously. Release both buttons and the servo direction for side-to-side movement on the right stick will be reversed.

Elevator Channel Servo Reversing (Right Stick)

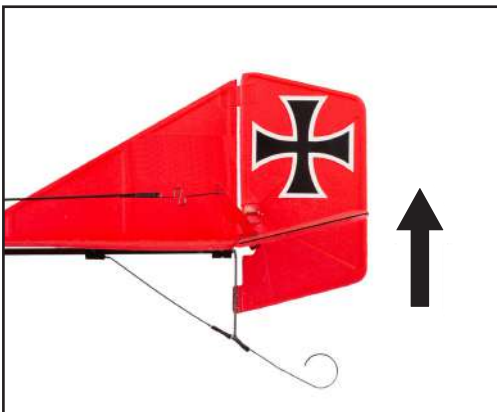
Press and hold the left trim button under the left stick, then press the down elevator (top direction) trim button to the side of the right stick simultaneously. Release both buttons and the servo direction for the up/down movement on the right stick will be reversed.

Rudder Channel Servo Reversing (Left Stick)

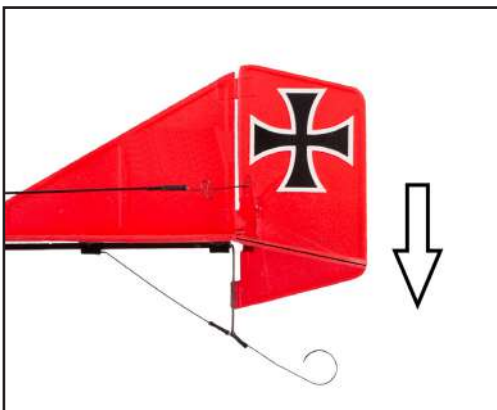
Press and hold the left trim button under the left stick, then press the right trim button under the left stick simultaneously. Release both buttons and the servo direction for side-to-side movement on the left stick will be reversed.

Control Movement

With both the transmitter and the aircraft powered on, check the movement of the control surfaces.



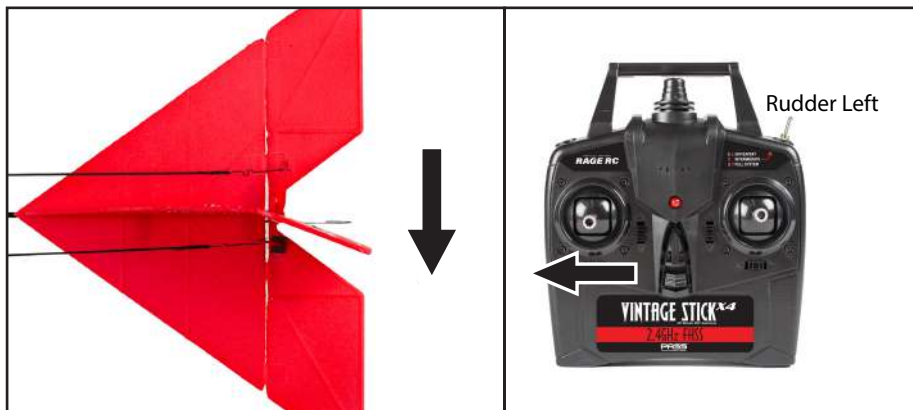
When the right stick is moved toward the bottom of the transmitter the elevator should move up. When in flight this will raise the nose.



When the right stick is moved toward the top of the transmitter the elevator should move down. When in flight this will lower the nose.

Control Movement (cont.)

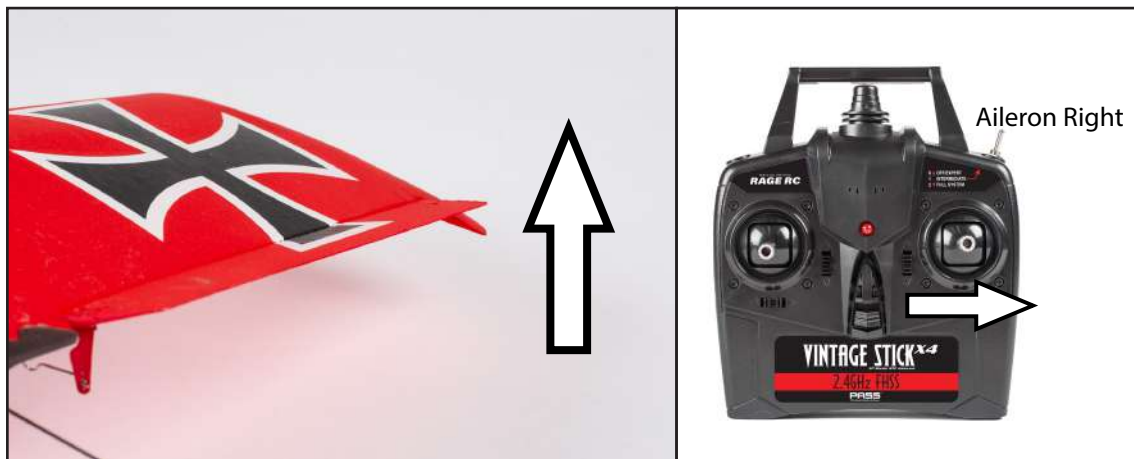
PLEASE NOTE: The throttle/rudder stick must be raised a few clicks from bottom position in order to activate the rudder operation. The throttle stick at the fully off position is reserved for arming and disarming of the motors as shown on page 8.



When the left stick is moved to the left of the transmitter the rudder should move left. When in flight this will yaw the tail to the right (the nose of the aircraft will move to the left).



When the left stick is moved to the right of the transmitter the rudder should move right. When in flight this will yaw the tail to the left (the nose of the aircraft will move to the right).



When the aileron stick is moved to the right of the transmitter the right aileron should move up and the left one move down. This will roll the wing to the right.



When the aileron stick is moved to the left of the transmitter the left aileron should move up and the right one move down. This will roll the wing to the left.

Binding (RTF version only)



The RTF Vintage Stick comes bound to the transmitter. Should you need to re-bind, follow these steps.

- Turn on both transmitter and aircraft
- Press both throttle trim buttons simultaneously
- The blue light on the control board will light up
- The transmitter will continue beeping until the binding process is complete
- When beeping stops, the binding process is complete

Binding Alternate Transmitters

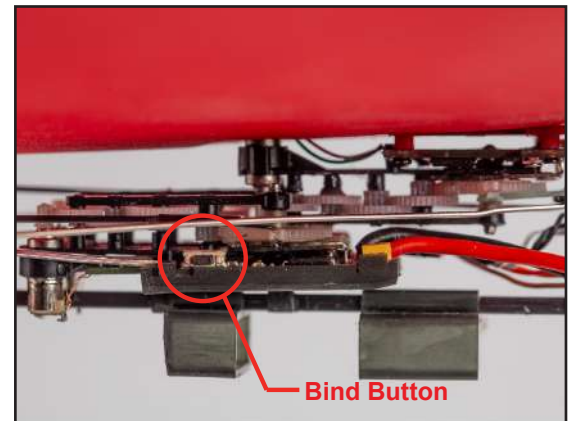
Binding is the process of connecting the receiver in the aircraft to the transmitter used to control the aircraft. This process is only required once.

Futaba Transmitter Version

- Connect the flight battery
- Press the bind button on the main control board
- The blue LED will switch from slow flashing to solid
- Select SFHSS protocol on the Futaba Tx

S-type Transmitter Version

- Connect the flight battery
- Press the bind button on the main control board
- The Blue LED will switch from off to quick flashing
- Follow the usual binding process with your transmitter



Important Note: With Futaba and S-type transmitters, to arm the motors, the rudder channel DR (dual rates) switch MUST be set at 100%

Important Note: When setting up the PASS system (explained on page 9) using a RFT (Ready for Transmitter) version, make sure to set PASS as Channel 6 on a Futaba transmitter and as Channel 5 on a S-type transmitter.

Arming/Disarming the Motor

When the transmitter and airplane are powered on, the aircraft binds automatically. All functions are then active, except the throttle. To arm the motors move the throttle stick on the transmitter to the bottom and right. To disarm the motors move the throttle stick on the transmitter to the bottom left.

Arm



Disarm



Pilot Assist Stability Software (PASS)

PASS (Pilot Assist Stability Software) is incorporated into your Vintage Stick X4. It allows the pilot to tailor the response of the airplane to his abilities. As your piloting skills grow the capabilities of the Vintage Stick X4 grow with you.

Important Note: For the PASS system to perform properly the aircraft must be allowed to initialize when powered up. Transmitter on first, then plug in the flight battery to aircraft that is in a fuselage level, wings level position. After a delay of several seconds you can set the plane on the ground ready for take off. Before flight the PASS system should be checked by switching between No Assist and Partial Assist to see if the controls move to any extreme positions.



Full Assist (Switch toward pilot)

In this mode, the amount of roll, rate of climb, and rate of dive are limited. Self leveling is also engaged. The reduced roll, climb and dive angles are to aid the newer pilot in not overcontrolling the aircraft. If at any time the airplane feels out of control, simply let go of the sticks and the model will return to normal flight.



Partial Assist (Switch center position)

This mode allows for greater pilot input and increases the maximum possible roll, climb, and dive angles. The aircraft still cannot be rolled to inverted flight, but loops are possible.



No Assist (Switch away from pilot)

In this mode all electronic stability control is turned off. The full range of aerobatic flight, including rolls, loops and inverted flight are possible. If while first attempting these advanced maneuvers you become disoriented simply switch to Full Assist to automatically level the aircraft and regain control.

Calibrating the PASS System

The PASS system used in the Vintage Stick X4 is pre-calibrated from the factory. Recalibration is only necessary if the aircraft does not respond correctly (pitches up or down) when the PASS switch is activated. With the aircraft sitting on a level surface and "wings level" attitude, follow the steps below to recalibrate the PASS system:

Gyro Calibration

Turn on the transmitter, connect the airplane battery and keep the plane level and steady. When the red light on the control board turns off, gyro calibration is complete.

Accelerometer Calibration

Turn on the transmitter and elevate the nose of the airplane slightly (not more than 15 degrees). Connect the airplane battery and make sure the airplane is held steady. Then, disarm the motor following the instructions on page 8 and the red light on the control board will turn off. Next, move the left stick to the top and left and the red LED will begin to flash. Keep the right stick at the bottom and center for 3 seconds and a blue light on the control board will flash once. Calibration is then complete. The red light on the board will stop flashing when the throttle stick is returned to the bottom center.

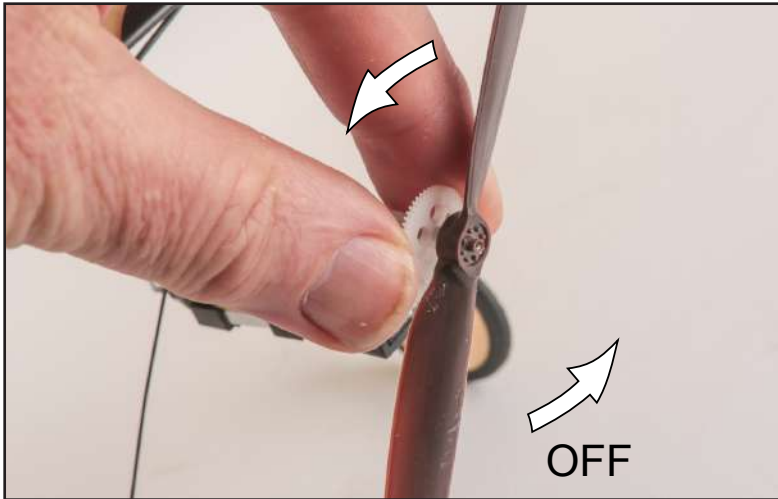
First Flight

The Vintage Stick X4 is a versatile airplane that can be flown either indoors in a gymnasium-sized space or with its powerful dual motors and full aerobatic capability can be flown outdoors in light winds. The lightweight and generous wing area also allows the aircraft to fly slowly at reduced throttle settings. The PASS (Pilot Assist Stability Software) System is available for pilots to use as their flying skills increase. See page 9 of this manual for how to take advantage of this system.

To take-off indoors, place the airplane on the floor, slowly advance the throttle and the Vintage Stick X4 will take off within a couple of yards. Full throttle is not needed or suggested for most indoor flights. This airplane is very agile, and the best results are achieved with small and smooth stick movements. To land, simply point the airplane in the direction you want to land and reduce the throttle until the airplane gently glides to the ground.

The Vintage Stick X4 is also fully capable of outdoor flight and performs best in light wind conditions. For taking off when flying outdoors, if there isn't a suitable place for ROG (Rise off Ground) take-off it is suggested to take-off by gently tossing the airplane into a light breeze with wings level. The right conditions for outdoor flight are typically either earlier in the day or near sunset. The dual motors on this airplane provide enough thrust for spirited flying, unlimited vertical performance, and all typical aerobatic maneuvers. As with indoor flights, landing is as easy as reducing the throttle and letting the model descend to land. Adding a little throttle just before touching down will help in making a smooth landing.

Propeller Replacement



Grasp the large gear just behind the propeller. Holding it with your fingers works well for this. Rotate the propeller in the direction of normal rotation to remove. Reverse the process to install the new propeller.

Parts List

See your local hobby shop or place of purchase first. If unavailable, parts can be ordered direct at www.ragerc.com or call 1-866-724-3811 M-F 8:00-4:00PM Mountain Time

Item Number	Description
RGRA1119	Vintage Stick X4 RTF
RGRA1119S	Vintage Stick X4 RFT - S type
RGRA1119F	Vintage Stick X4 RFT - Futaba
RGRA1222R	Tail Set
RGRA1224R	Landing Gear
RGRA1226	2-Blade Propeller
RGRA1227	Prop Shaft with Gear
RGRA1237	Fuselage
RGRA1238	Main Wing with Support
RGRA1239	Aileron Servo
RGRA1240	Gearbox w/ 2 Motors
RGRA1241	Push Rod Set
RGRA1242	5-Channel 2.4Ghz Transmitter w/ PASS
RGRA1243	1S 400mAh 35C LiPo Battery w/ JST Plug
RGRA1244	5-Ch RTF Version RX Module w/ PASS
RGRA1245	5-Ch Futaba RFT RX Module w/ PASS
RGRA1246	5-Ch S-Type RFT RX Module w/ PASS
RGRA1428	500mA 1S USB Charger with JST Plug

Limited Warranty

Warranty Period: Rage R/C warrants that the Vintage Stick X4 ("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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