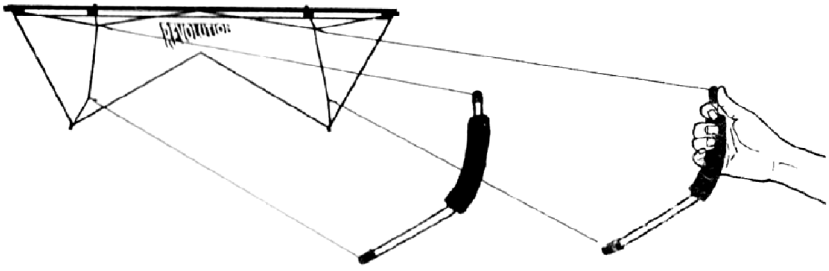
# OWNER'S MANUAL

REVOLUTION®

## *REVOLUTION™ KITE*

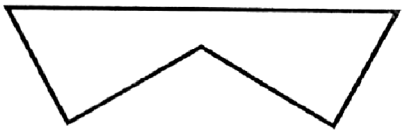
### ASSEMBLY AND FLYING INSTRUCTIONS



## *Congratulations!*

Your decision to purchase the Revolution will reward you with many exhilarating hours of high performance controlled flight. The performance is made possible by the latest advances in aerospace technology. If proper care and maintenance is taken your Revolution is designed and constructed for a long life. Only the finest quality components and workmanship go into each Revolution Kite.

Please carefully review the owner's manual before attempting to assemble and fly your new Revolution. A basic understanding of the owner's manual is critical for successful operation of the Revolution.




© 1988-2021 REVOLUTION KITES™

Re-typeset edition by QuadKites.org: see the note at the end of the document.

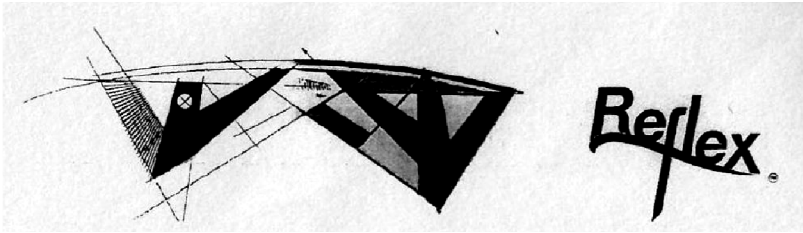
By combining the technology of advanced composites and the stability of super agile fighter aircraft, the Revolution Kite embodies the most advanced kite flying system available. Through the use of 100% graphite structure, semi-monocoque design, and aerodynamically controlled wing surfaces, the Revolution Kite is designed to be neutrally stable in both static and dynamic flight modes. This is the same stability theory used to develop the super agile fighter aircraft of today. When taken to the limit, presently unaccessible to manned aircraft, this stability condition produces the hyper-controllability characteristic of the Revolution Kite. In fact, in theory, the controllability is infinite. Luckily mother nature throws in a little aerodynamic drag and momentum effects which reduce infinity to a more manageable controlled flight.

The Revolution Kite encompasses the highest quality materials and workmanship available and is designed for years of high performance fun. The shafts are 100% aerospace quality graphite which are designed and engineered specifically for the Revolution Kite. The super-light, super-stiff characteristics of this graphite structure allow for both low and high wind performance.

As explained in the Owner's Manual, the unparalleled performance of the Revolution Kite is attained by simply rotating the wrists in a fore and aft direction. Four basic combinations of the left and right wrist rotations produce the four basic maneuvers of the Revolution Kite: forward flight, left and right turning, and reverse flight. Once the basic controls are mastered the agility and pin-point accuracy achieved are unmistakably characteristic of the Revolution Kite. Total speed control, instantaneous stopping, reverse flight, and propeller-like spins are only a few of the maneuvers possible.

When you have tried everything you can with your two-line stunt kite; or if you just want to do things that were never before possible, take the next step and fly a Revolution Kite. You will be amazed!

Remember, if you want to be a part of the revolution, ask for it by name. Revolution Kites.




**GREAT REVOLUTION MODELS:**

**Rev EXP with Reflex –** A great introduction to the Revolution EXPerience.

All the outrageous Rev performance, without all the bells and whistles; at a great price.

**Rev NYM 1.5 with Reflex –** Our popular Classic pattern, with a top quality polyester sail, gives you quicker response and a big wind range.

**Reflex 1.5 RX –** Completely new model!! Designed from the ground up with our patented Reflex technology. Beginner to intermediate flyer: this RX will take your skill level higher in minutes.

**Reflex RX Spider –** Large wind range of 8–22 mph. The Reflex technology gives you the nice lower wind range. The Spider web gives you smooth control with less pull in big winds. Have fun in the high wind without getting tired and pulled.

**Reflex XX –** Super stable, 98" LE. Fun power and ultra control. New to Rev, have light variable winds, love the Rev flying characteristics you've seen in videos, and flying is your hobby: this is the Rev for you!! This Reflex wants to hover!!

**SPEED SERIES MODELS:**

**Super Sonic and Sonic Vented –** Speed, control, agility. If you like speed and fun, get the Super Sonic.

**Blast –** Accelerates like a race car and can pull like a truck. Power Blast 2~4 and the Power Blast 4~8 – Did we say "POWER"?

**SPECIALTY REVOLUTIONS:**

**Masterpiece Series –** Works of art. Always new, always amazing. Extremely limited original pieces done by the best of today's kite artists.

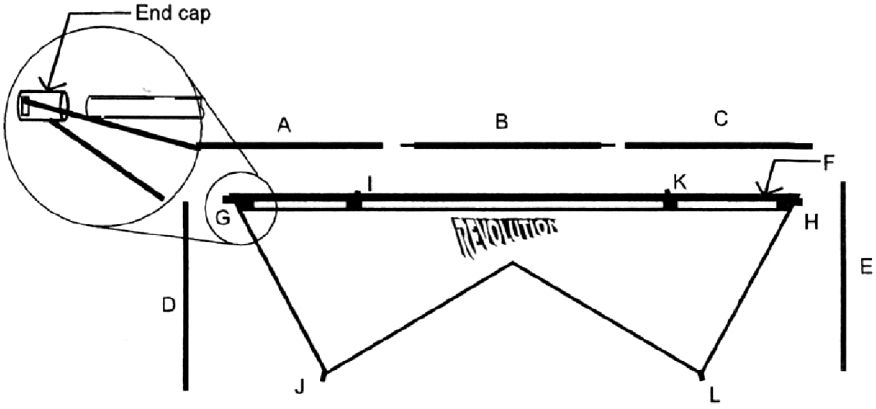
**Rev Dye-Sub Series –** Amazing art and detail work dye-sublimated on Icarex polyester material. Watch for special art, and specialty themes.

# REVOLUTION™ ASSEMBLY INSTRUCTIONS

**NOTE:** Kite shafts (A, C, D and E) are identical / interchangeable.

When assembling the kite, be sure end caps are securely mounted and shafts (A and C) are properly inserted onto splicing joints and shaft (B). Also be sure that bridle attachments at end caps are secure and untangled, since this can cause various control problems during flight.

**NOTE:** Failure to properly insert shafts A and C at splice joints on shaft B will cause irreparable damage to shaft assembly A, requiring replacement.




1. Lay sail on flat surface with printed logo side facing downward.
2. Locate shaft B and slide shafts A and C onto ends of shaft B.
3. Slide shaft assembly (A, B, C) into leading edge sleeve F.
4. Attach end caps (G, H) securely over ends of shafts (A and C).
5. Insert shaft D into strut caps (I, J).
6. Insert shaft E into strut caps (K, L).
7. Check bridle lines for twists or entanglement.

****NOTE: Strut shafts are mounted on back of kite.****

## HANDLES / CONTROL LINES

Your kite is controlled using two handles: one right, one left, they are identical. From each handle, two control lines go to and attach to their respective bridle points on the kite. (See fig. 1.)

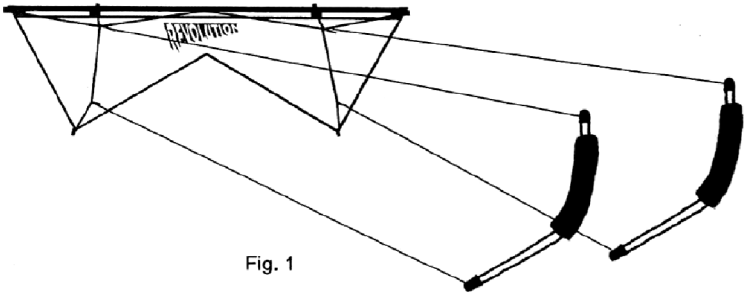


Fig. 1

## CONTROL LINE SLEEVING / CODING

The four control lines shown in Fig. #1 consist of a left and right pair. Each of these pairs consists of an upper and lower control line which should be color coded for identification as shown in Fig. #2.

To construct or adjust a set of control lines see the section on the “Care and Maintenance of Control Lines.” (Page 8)

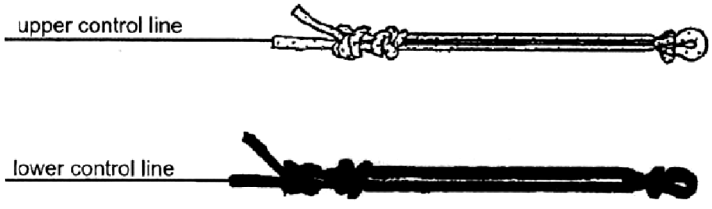



Fig. 2

## SETUP FOR HANDLES / CONTROL LINES

Unwind a small portion of each of the four control lines from the spool and separate into pairs; a left pair and a right pair. Connect the left control line pair to the left handle and right pair to the right handle as shown in fig. #1.

Attach the control line set to the kite and handles, black on bottom, using a Lark's Head Knot (See Fig. #3) at all 8 connecting points.

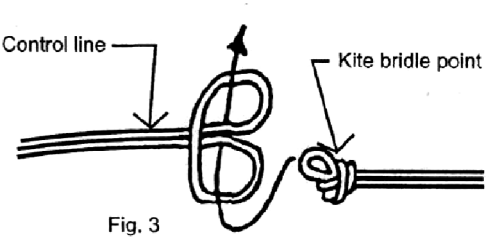


Fig. 3

After connecting all four control lines, stake the handles to allow lines to be rolled out. At completion of control line wind-out, disconnect all four lines from the winder and separate the left and right control lines. Lay the assembled kite, logo surface down, over lines with leading top edge laying upwind towards control handles.

To connect control lines to kite bridle, lift lower left wing tip from behind to expose the logo side of the left wing from beneath. This step creates a wind-break for the assembler during this step of assembly. (See Fig. #4) Connect upper left control line (white sleeved) to upper bridle. Connect lower left control line (black sleeved) to lower bridle loop. Replace wingtip to ground and repeat steps to the right wing.

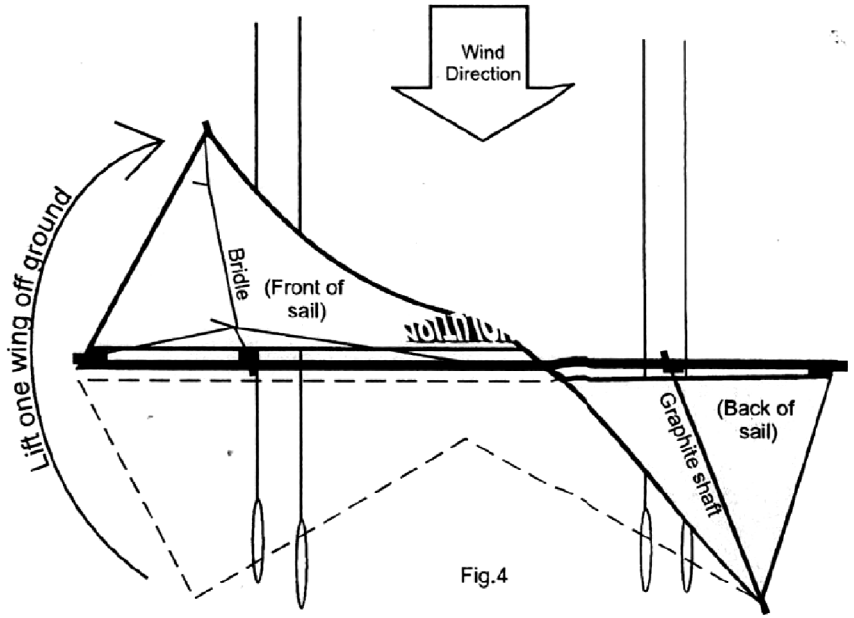


Fig.4

## TURNS

To cause the left wing to drop and produce a left turn lightly tap the lower portion of the left handle with the remaining fingers of the left hand. After each tapping motion the handle should return to its initial position pivoting between thumb and forefinger.

To cause a right turn, tap the lower portion of the right control handle with the remaining fingers and allow the handle to return to its original position after each tapping motion. Tap as necessary to produce desired turn.

Practice the left and right turning maneuvers until you can comfortably control the kite maintaining and regaining altitude as necessary.

Tighter (propeller like) turning of the kite can be produced by applying a sustained “tap” control to either left or right control handle. To stop the turning motion release the “tap” command and flight will continue in the direction of the kite at the moment the control command is removed.

## SPEED CONTROL

The second most important control is the speed control of the kite. For full forward speed tilt handles (upper portion back) as outlined above. To reduce the speed of the kite gradually tilt the upper portion of the handles forward (away from your body). As the tilting of the handles is continued the kite will slow, then stop its forward motion, then actually reverse flight directions and move in the reverse direction.

**CAUTION:** REVERSE FLIGHT IS A VERY SENSITIVE MANEUVER AND “OVER CONTROL” IN THE REVERSE DIRECTION CAN CAUSE A WING TO FLIP. FOR THIS REASON KEVLAR FLYING LINES ARE NOT SUGGESTED FOR THE INEXPERIENCED PILOTS, SINCE THE TOUGH ABRASIVE CHARACTERISTICS OF THIS MATERIAL CAN CAUSE DAMAGE TO THE KITE.

## CONTROL HINTS

1. Although you may experience some slight success using the conventional pulling action used for two line stunt kites, this method generally causes stall conditions, which reduce controllability. To control correctly keep both wrists close together and elbows in towards your body.
2. It is important to maintain a high altitude position while learning.
3. Many new pilots allow the control handles to gradually pivot forward (top of control handle moves away from body) making the kite’s speed reduce and not allowing kite to climb and fly effectively. In low wind conditions, keep upper portion of handles back (toward body) to maintain forward flight motion.
4. Once you have mastered some basics and you want tighter turns and faster response, you may start experimenting with mirror image control given to left and right handles. (Example: pivot right handle top back, towards body, while pivoting left handle top away from body. This move will create a fast left turn.)
5. If a wing flips due to too much reverse control signal, extend the handle, which controls the flipped wing, towards the kite (out away from your body) and the wind pressure on the sail will usually return the wing to its correct position. **NOTE: Do not attempt to untangle kites by flying since flying lines (especially kevlar) wrapped around sail may do damage!

## CARE AND MAINTENANCE OF CONTROL LINES

Slight variations (as little as 1/4”) in control line length may be responsible for partial loss of precision control. Large discrepancies (more than 3”) from the suggested control line lengths may cause total loss of control.

Recommended flying lines: Four lines from 80’ to 120’.
Line rating and type: 90 lb. and 150 lb. Laser Pro Gold.

NOTE: NEW LINES SHOULD BE PRESTRETCHED BEFORE ATTEMPTING TO MEASURE THEM AND TIE THEM TO THE CORRECT LENGTH. ALL FOUR CONTROL LINES OF THE REVOLUTION ARE EXACTLY THE SAME LENGTH.

To correct improper control line settings:

1. Decide length of corrections needed.
2. Mark present setting (See Fig. #8).
3. Mark correcting length. **NOTE: If 2” adjustment is needed move up the line 4” and mark (See Fig. #8).
4. Untie sleeve knots.
5. Adjust line and sleeve to new proper setting (See Fig. #9).
6. Re-tie sleeved line two times using a simple overhand knot (See Fig. #10, 11).
7. Reconnect lines, handles, etc.
8. Recheck adjustments made to insure correct lengths.

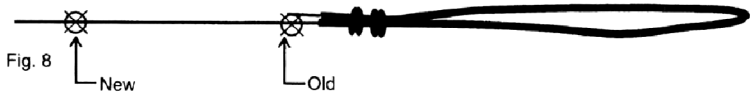


Fig. 8

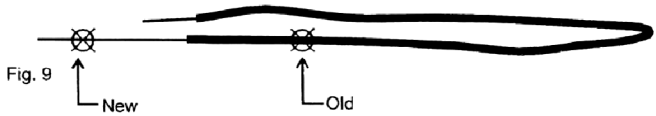


Fig. 9

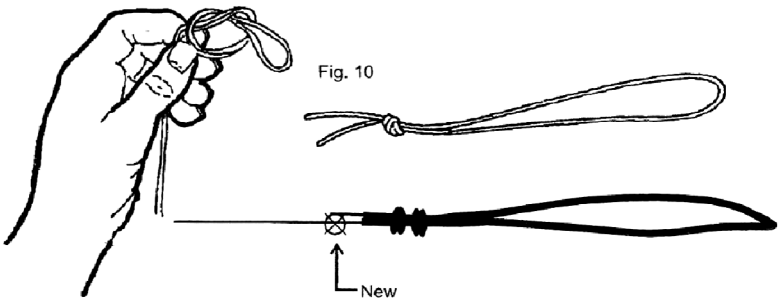


Fig. 10

## TROUBLESHOOTING

1. ***Kite does not climb or accelerate well –*** Check control line lengths. Make sure all 4 lines are exactly the same length. Pilot giving excessive reverse command.
2. ***Kite stalls and falls out of the sky –*** Make sure you are not pulling control handles like other conventional 2-line control stunt kites. Keep wrists together.
3. ***Kite climbs quickly, then falls out and flutters to ground –*** Check control line lengths. Bottom lines are probably too long. They should be the same length as the top lines.
4. ***Kite will not stop or reverse flight –*** Same as #3.
5. ***Kite wing flips easily –*** Over controlling in reverse command. Try less extreme controls. Same as #1.
6. ***Continuous uncontrolled turns –*** Check bridle or control string entanglements around kite tips. Remember to return control handles to normal forward flight position.
7. ***Kite flies too radically in high winds –*** Grip handles lower and fly kite very slowly by applying a braking action. Practice slow motion flying at high altitudes.

## CARE AND MAINTENANCE OF KITE

1. When breaking down kite for storage completely disassemble shafts (A, B, C). Each time setting up kite assemble shafts (A, B, C) outside of sleeve (F).
2. If kite becomes damp or wet during course of flying be sure to allow kite to dry thoroughly before storing.
3. Never attempt to clean sail with solvents, detergents, or soaps.
4. Damaged sails with holes or tears can be repaired with an adhesive sail repair tape. Contact your local dealer for details.
5. Replacement shafts and end caps are available through your local dealer.

## WARNING

1. High performance stunt kites and their control lines can cause injury to people and damage to property. AVOID ELECTRIC POWER LINES.
2. Pilots must exercise good judgement while flying the kite and must never fly near people, cars, roadways, overhead wires, airports, or in hazardous storm conditions. **NOTE: DUE TO THE TOTAL CONTROL ACHIEVED WITH THE REVOLUTION KITES THE PILOT MAY EXPERIENCE A SENSE OF OVER-CONFIDENCE. DO NOT ALLOW THIS TO IMPAIR JUDGEMENT, EXERCISE CAUTION AT ALL TIMES.
3. When you improve to the point that you think you can ignore items 1 and 2, stop flying your kite!

REVOLUTION KITES DISCLAIMS ANY LIABILITY OR RESPONSIBILITY WHATSOEVER FOR INJURY OR DAMAGE DUE TO IMPROPER OR CARELESS USE OF THIS PRODUCT.

## ABOUT THIS EDITION

Re-typeset by QuadKites.org on 17 October 2026 from the Revolution Kites “Owner’s Manual — Revolution Kite, Assembly and Flying Instructions” (© 1988-2021).

Each page matches the same page of the printed manual. The illustrations are those of the original. The text is the original text; obvious typing errors have been corrected.

A French translation is available from QuadKites.org.