StratoChute® Water Rocket Parachute Instructions

Please read through the recovery system instructions carefully to avoid damaging any of the components. Launch rocket with extreme care and only under adult supervision.

Launch video: Parachute Deployment

Nose cone is NOT included with this Recovery System:
Create the nose cone by starting a cut with a razor blade or box cutter about 4" down from the cap and just above the label of a plastic (PET**) soda bottle. Finish cutting around the bottle with scissors in a straight line.

Parachute Kit Includes:
24" red Rip-Stop nylon parachute (1)
Cable tie (1)
Nose cone streamer (1)

*StratoFins®: the red screw-on plastic fins pictured below are sold separately. They are compatible with 95% of all available launchers either homemade or commercially available in the marketplace including those employing a rubber stopper, an expanding tube, O-ring, nozzle, or cable ties.

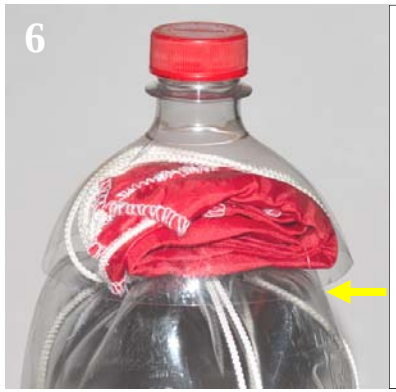
Attach Homemade Fins:
Cut fins from balsa wood or corrugated plastic and attach to a 2 liter soda bottle using a strong adhesive like Loctite PL Premium Polyurethane. Employing a glue guide that holds the fins in position is helpful to prevent the fins from moving until glue dries completely, which usually takes overnight.

Attach StratoFins®:
Assemble StratoFins®* by sliding each fin down a separate slot on the attachment ring. With these fins in place screw the attachment ring onto a soda bottle until snug. This water rocket can be launched with or without a parachute attached since this configuration does not nose dive, but instead tumbles gently back to the ground.

* StratoFins® requires no tools or glue for assembly.

Attach Parachute:
Mark the midpoint* of each chute string. Loop one string around each fin with the mark touching the base of that fin next to the bottle and pull them snug up the side to the nose of the rocket. Secure with a slightly loose cable tie (see arrow), enabling string adjustment or parachute removal without cutting the cable tie. Adjust pairs of strings across a single notch of the bottle or split them between for best fit.
* Midpoints ensure equidistance of strings at nose to the parachute for even canopy deployment.

Pack Parachute:
Follow the first 5 steps on the launch instruction sheet before proceeding with this step. Pull the parachute tight into a cone shape. Beginning from the point, make 3 folds starting with a 2 inch segment. Continue by loosely wrapping the strings around the folded parachute and lay it on top of the 2 liter bottle.



Place Nose Cone:
Place the nose cone over the parachute. Do NOT secure it in any manner. Notice the gap (see arrow) between it and the bottle. During lift off the air pressure holds the cone in place. When the rocket reaches apogee and begins to turn, the cone falls off deploying the chute for a safe recovery.

* Optional streamer can be attached inside the cone with the cap screwed over one end. Make sure the steamer inside the cone does not entangle the chute.

Disclaimer: Relationshipware and its members are **NOT RESPONSIBLE** for any injury or loss of property to any person suffered while operating a water rocket launcher with StratoFins.

** Polyethylene terephthalate (aka PET) is a thermoplastic polymer resin of the polyester family that is used in soda pop bottles. Serious bodily injury could result from using any other type of bottle.