



estesrockets.com

# LONG RANGER™

0814



## MODEL ROCKET INSTRUCTIONS

KEEP FOR FUTURE REFERENCE

IMPORTANT: Please record date found on decal and keep for future reference. \_\_\_\_\_

READ ALL INSTRUCTIONS. Make sure you have all parts and supplies. Test fit all parts before applying glue. Sand as necessary for precision assembly. Product color and shape may vary.

### SUPPLIES



SCISSORS



FINE SANDPAPER



YELLOW GLUE



MASKING TAPE



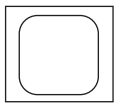
PLASTIC CEMENT



HOBBY KNIFE



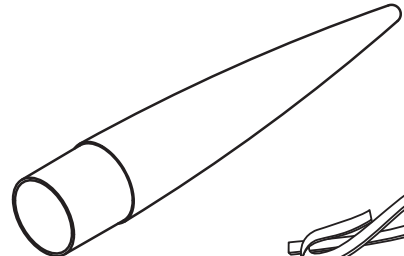
038186  
Launch lug



066459  
Clear reinforcement decal



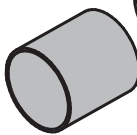
072654  
Nose cone insert



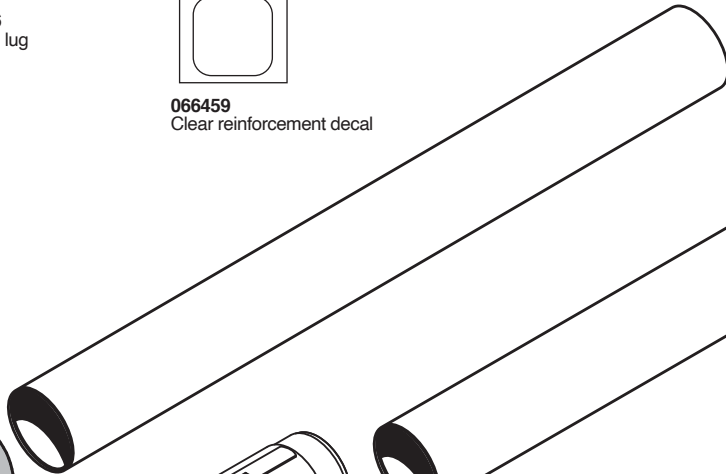
073055  
Nose cone



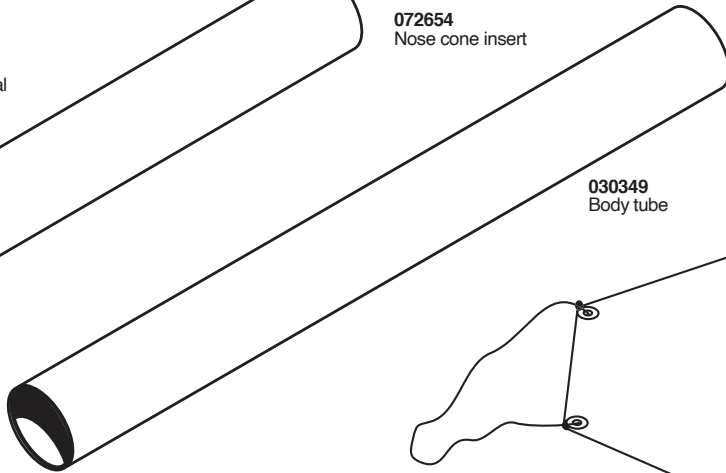
038362  
Shock cord



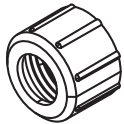
030174-5  
Red tube coupler



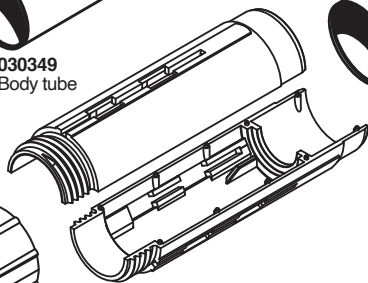
030349  
Body tube



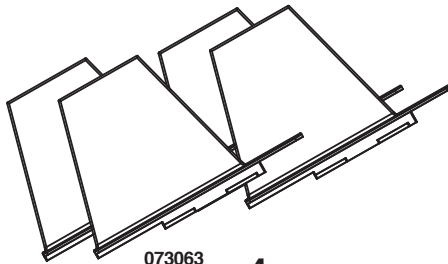
030349  
Body tube



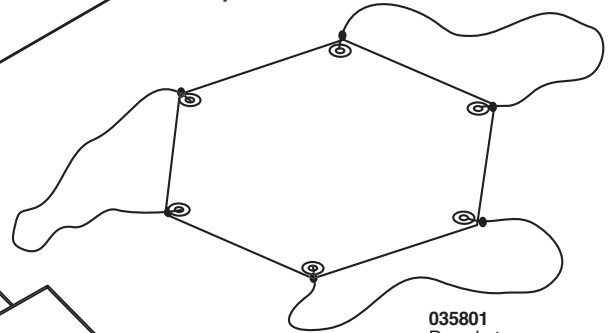
073066  
Engine cap



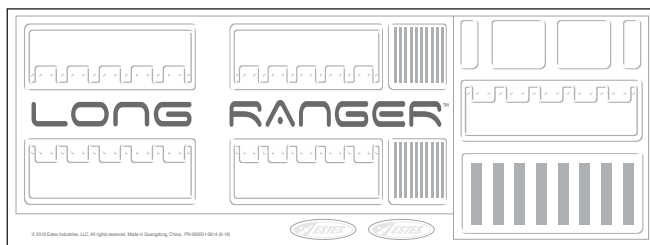
073057 / 073058  
Fin can



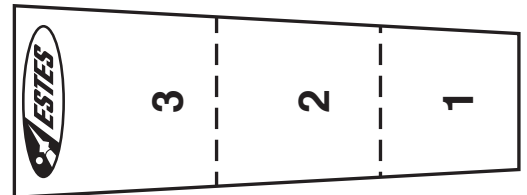
073063  
Plastic fin x4



035801  
Parachute

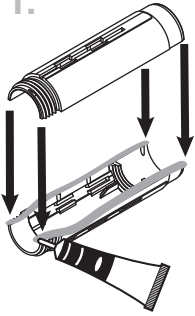

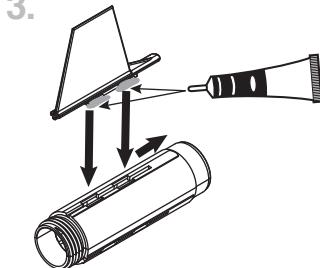
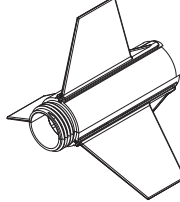


090001-0814  
Self-stick decal



Shock cord mount (Make a copy if you want to keep instructions.)

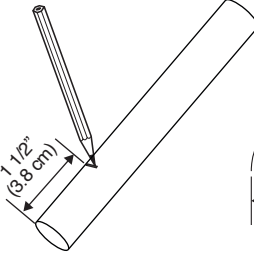
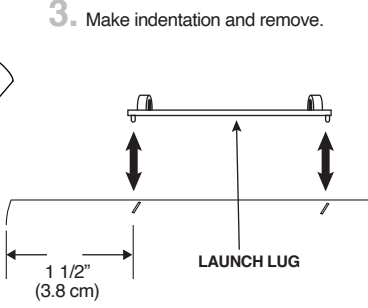
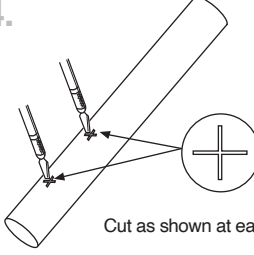


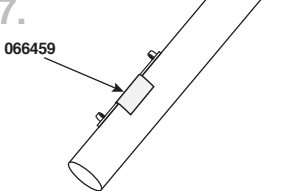
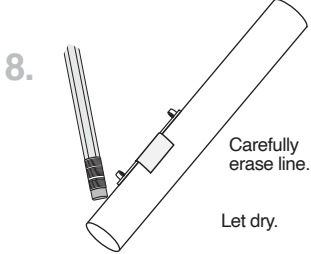
## ASSEMBLE FIN CAN

- 
-  Let dry.
- 
-  Repeat for remaining fins. Let dry.

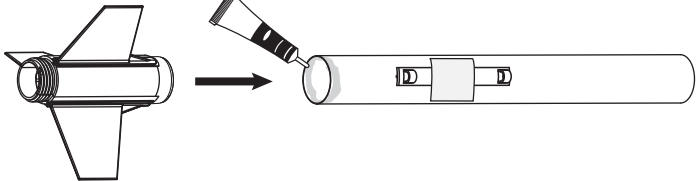
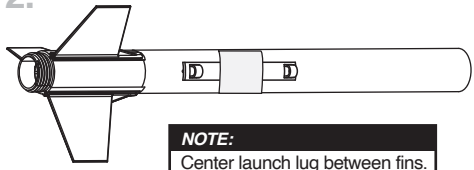
## ATTACH LAUNCH LUG

### DOOR FRAME

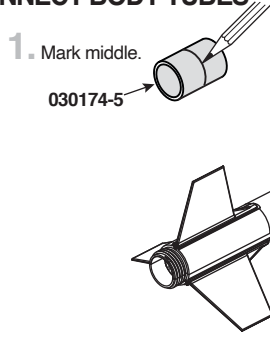
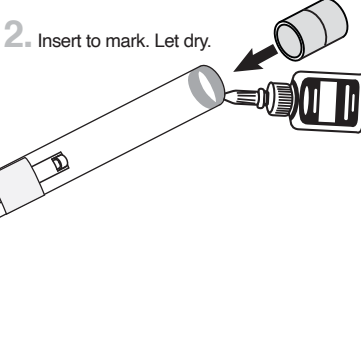
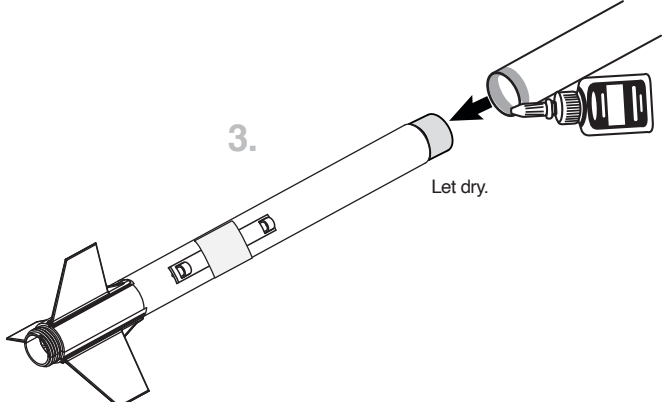
Use door frame to extend a single line the full length of the body tube. Mark lightly.

-  1 1/2" (3.8 cm)
-  1 1/2" (3.8 cm) LAUNCH LUG
-  Cut as shown at each indentation.
- 
- 
-  066459
-  Carefully erase line. Let dry.

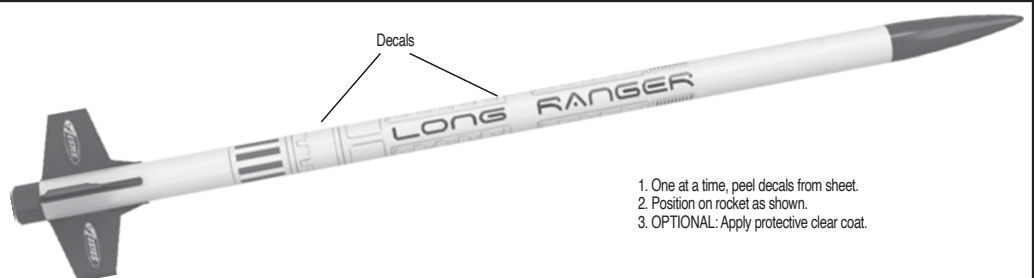
## ATTACH BODY TUBE

- 
  -  Let dry.
- NOTE:**  
Center launch lug between fins.

## CONNECT BODY TUBES

-  1. Mark middle. 030174-5
-  2. Insert to mark. Let dry.
-  3. Let dry.

## ROCKET FINISHING

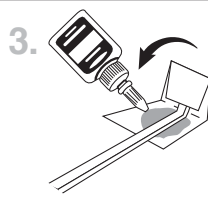
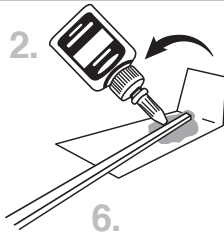
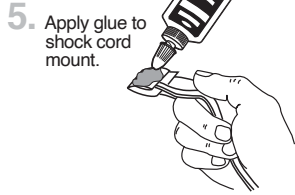


- One at a time, peel decals from sheet.
- Position on rocket as shown.
- OPTIONAL: Apply protective clear coat.

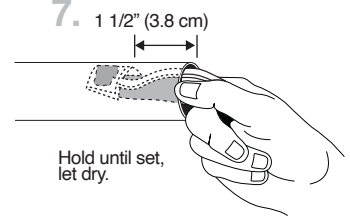
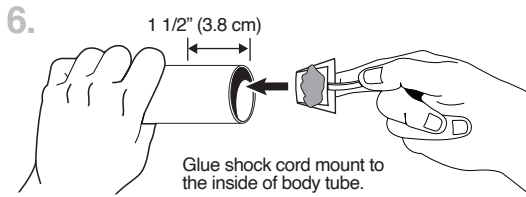
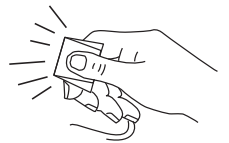
### ATTACH SHOCK CORD



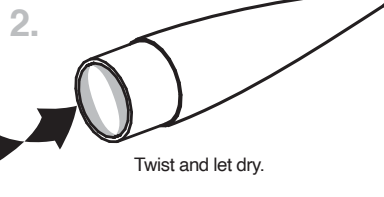
**NOTE:**  
Cut from page 1.



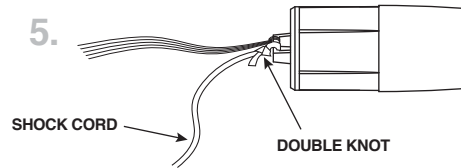
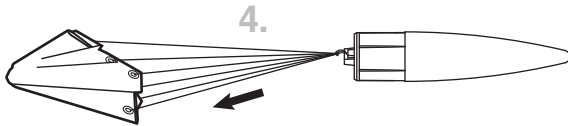
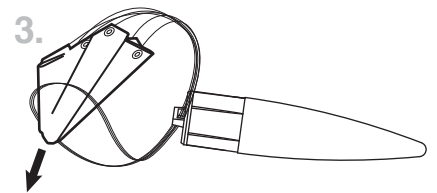
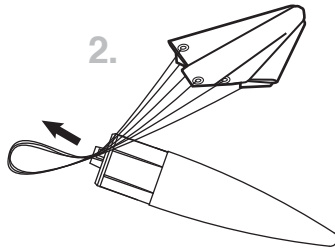
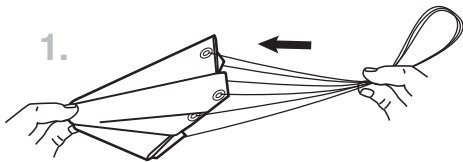
4. Hold until set.



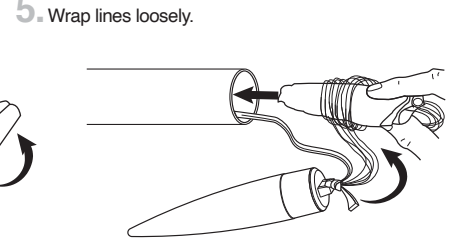
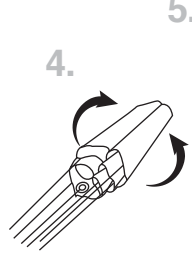
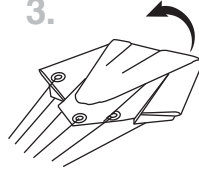
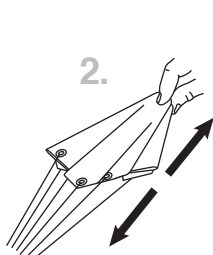
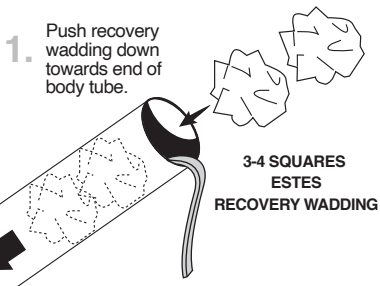
### ASSEMBLE NOSE CONE



### PREPARE RECOVERY SYSTEM

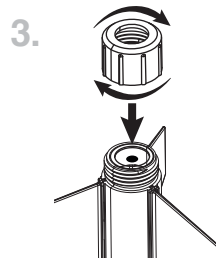
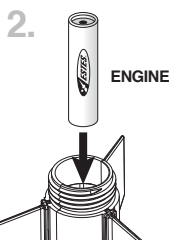
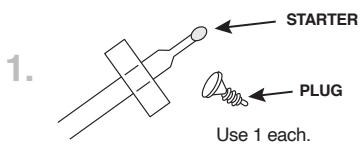


### PREPARE FLIGHT RECOVERY

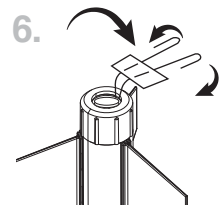
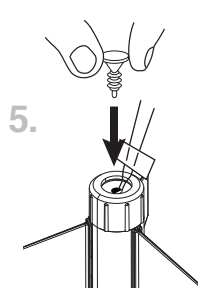
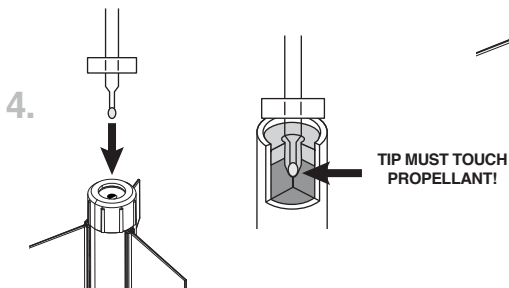


**NOTE:**  
Recovery wadding and parachute must slide easily into body tube. If too tight, redo.

### PREPARE ENGINE



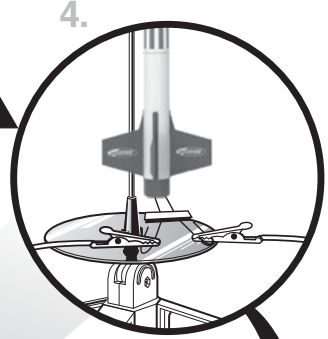
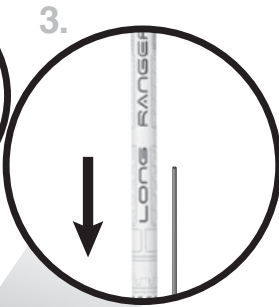
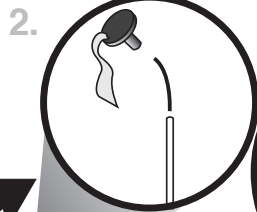
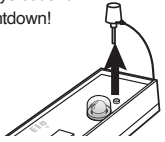
**⚠ WARNING: FLAMMABLE**  
To avoid serious injury, read instructions & NAR Safety Code included with engines. **PREPARE YOUR ENGINE ONLY WHEN YOU ARE OUTSIDE AT THE LAUNCH SITE PREPARING TO LAUNCH.** If you do not use your prepared engine, remove the starter before storing your engine.



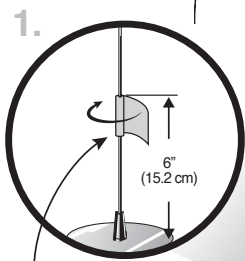
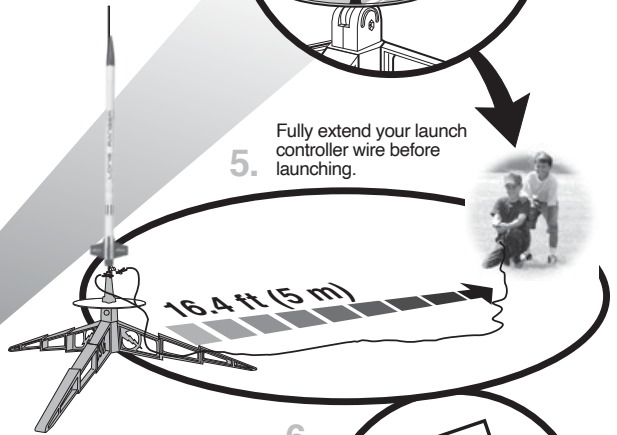
# FLIGHT SEQUENCE

**NOTE:**

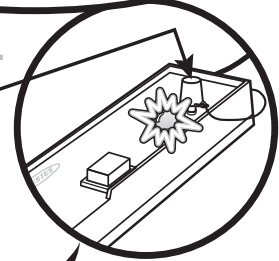
Key always out until final countdown!



5. Fully extend your launch controller wire before launching.



MASKING TAPE

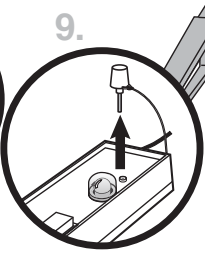
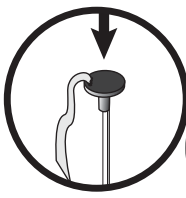
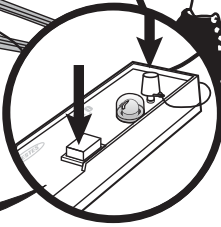


KEY

Insert key, push down hard. Bulb will light.



While holding key down FIRMLY, press launch button until LIFTOFF!



- LAUNCH SUPPLIES NEEDED**  
(Sold Separately)
- Launch Pad
  - Launch Controller
  - Recovery Wadding
  - Starters (with engines)
  - Plugs (with engines)
  - Estes® Engines: A8-3 (first launch), B4-4, B6-4, C6-5, C6-7

## PRECAUTIONS



NAR SAFETY CODE



NO DRY GRASS OR WEEDS

**PRE-LAUNCH CHECK** For safety, never launch a damaged rocket. Check the rocket's body, nose cone and fins. Also, check the engine mount, recovery system and launch lug(s). Repair any damage before launching the rocket.

**FLYING YOUR ROCKET** Choose a large field (500 ft [152 m] square) free of dry weeds and brown grass. The larger the launch area, the better your chance of recovering your rocket. Football fields and playgrounds are great. Launch only with little or no wind and good visibility. Always follow the National Association of Rocketry (NAR) SAFETY CODE.

**MISFIRES TAKE THE KEY OUT OF THE CONTROLLER. WAIT ONE MINUTE BEFORE GOING NEAR THE ROCKET!** Disconnect the starter clips and remove the engine. Take the plug and starter out of the engine. If the starter has burned, it worked but did not ignite the engine because it was not touching the propellant inside the engine. Put a new starter all the way inside the engine without bending it. Push the plug in place. Repeat the steps under Countdown and Launch.



PAP