



EstesRockets.com

# ROBERT GODDARD ROCKET KIT

0664

AGES  
10+



Skill Level

**INTERMEDIATE**

## MODEL ROCKET INSTRUCTIONS

### KEEP FOR FUTURE REFERENCE

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



### CAUTION:

May not apply to all kits. For safe handling of plastic cement, epoxy, spray adhesive, CA glue, CA accelerator, paint/finishing materials, see manufacturer's warnings and follow instructions for use. To avoid injury, use extreme caution when using hobby knife, scissors, drills, and any cutting tools.

### SUPPLIES



PENCIL



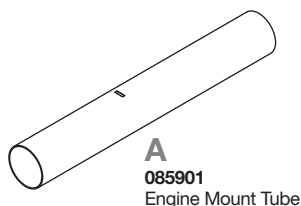
RULER



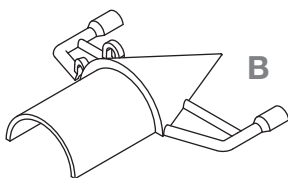
SCISSORS



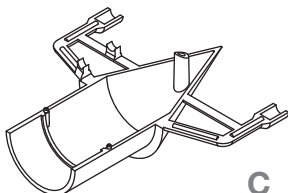
PLASTIC CEMENT



**A**  
085901  
Engine Mount Tube

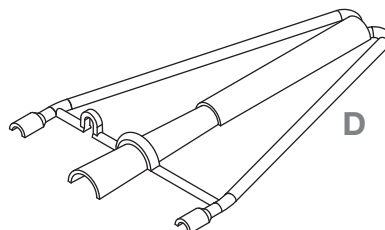


**B**

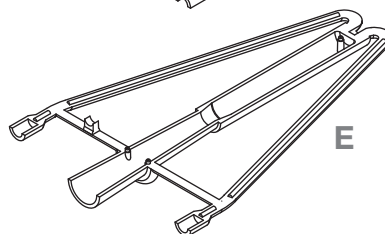


**C**

063329  
Lower Rocket Cone



**D**



**E**

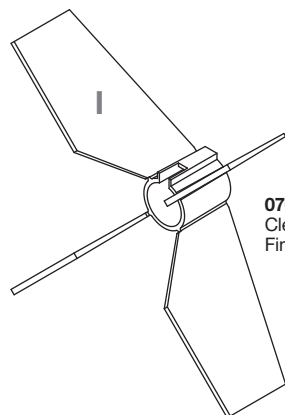
063329  
Fake Rocket Engine



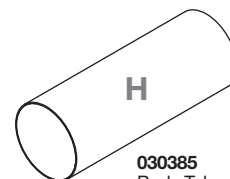
**F**  
063329  
Tube Adapter



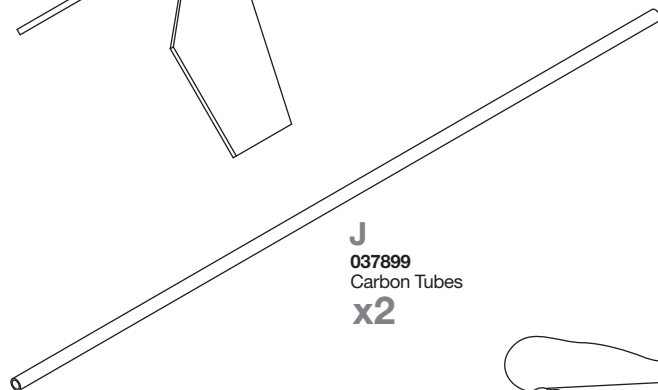
**G**  
035023  
Engine Hook



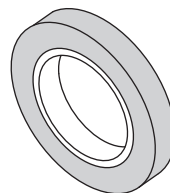
070159  
Clear Plastic  
Fin Unit



**H**  
030385  
Body Tube



**J**  
037899  
Carbon Tubes  
x2



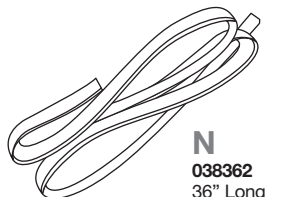
**K**  
036018  
Roll of Gray  
Colored Tape



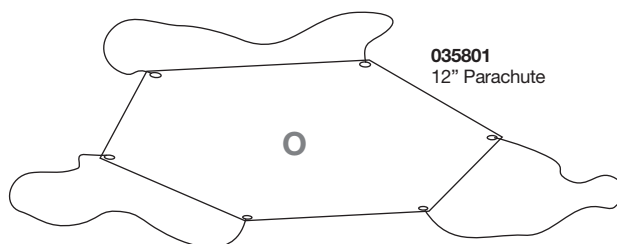
**L**  
073237  
Shock Cord  
Anchor



**M**  
063329  
Upper Rod  
(use for display only)



**N**  
038362  
36" Long  
Shock Cord



035801  
12" Parachute

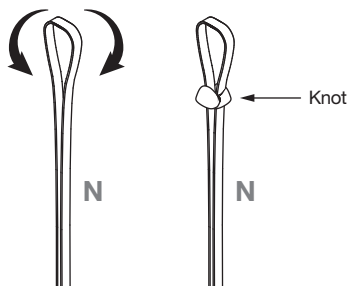
**O**

090001-1  
Self-Stick Decal

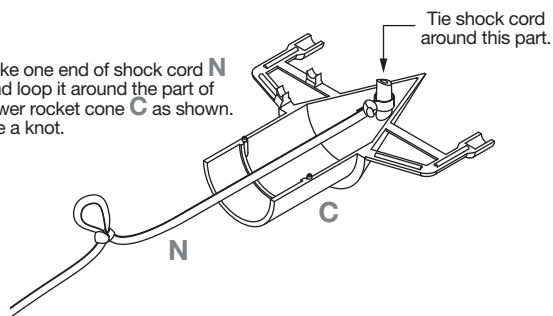


## ASSEMBLE MAIN PARTS

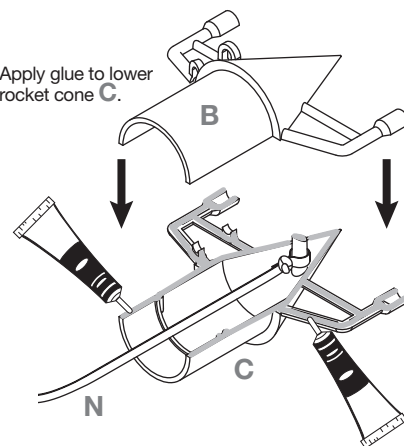
1. Fold shock cord **N** in half and tie a knot to create a small loop.



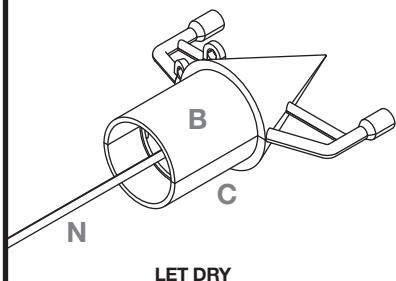
2. Take one end of shock cord **N** and loop it around the part of lower rocket cone **C** as shown. Tie a knot.



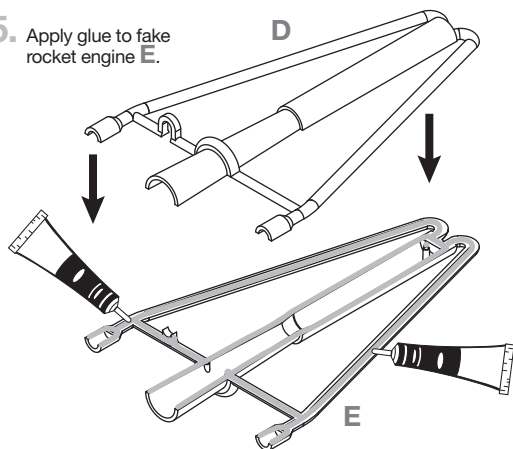
3. Apply glue to lower rocket cone **C**.



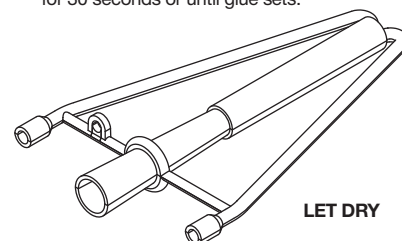
4. Press together **B** and **C** and hold for 30 seconds or until glue sets.



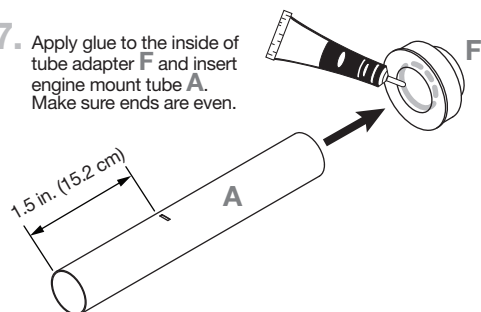
5. Apply glue to fake rocket engine **E**.



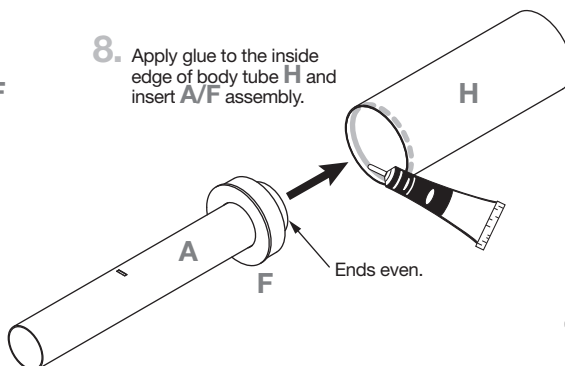
6. Press together **D** and **E** and hold for 30 seconds or until glue sets.



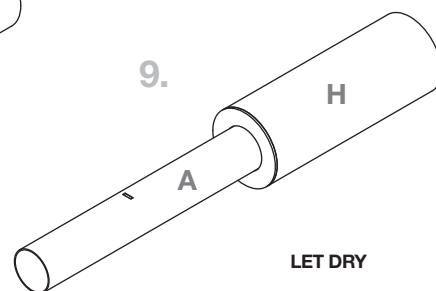
7. Apply glue to the inside of tube adapter **F** and insert engine mount tube **A**. Make sure ends are even.



8. Apply glue to the inside edge of body tube **H** and insert **A/F** assembly.

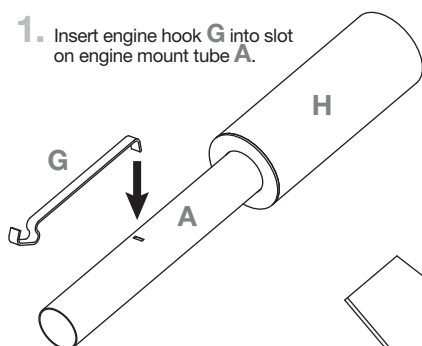


- 9.

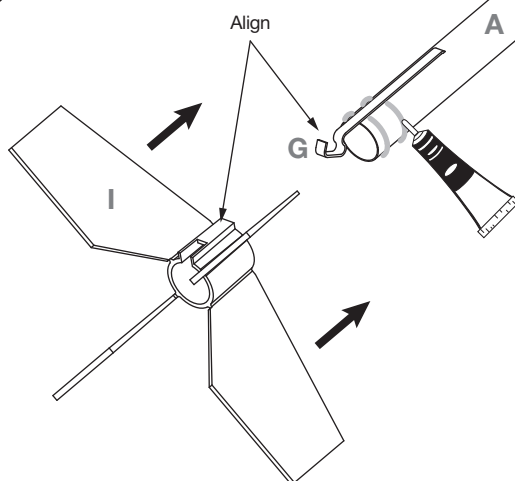


## ATTACH FIN UNIT

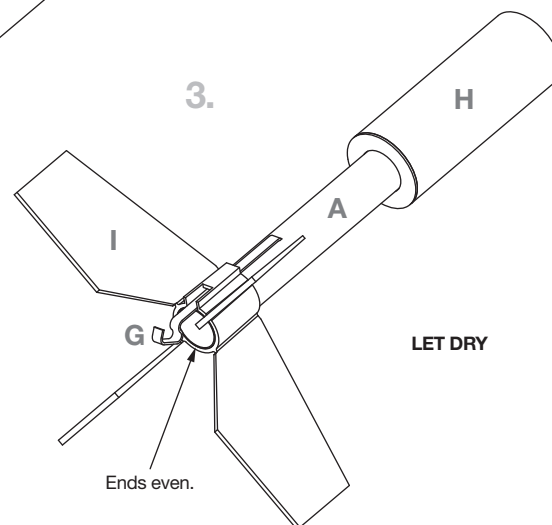
1. Insert engine hook **G** into slot on engine mount tube **A**.



2. Apply glue to outside of engine mount tube **A** as shown. Slide fin unit **I** over the end of **A**. Align feature in **I** with engine hook **G**.

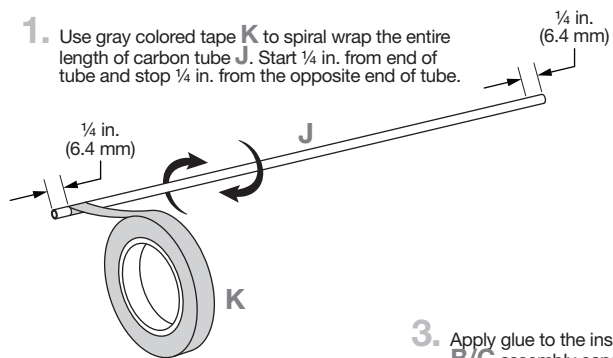


- 3.



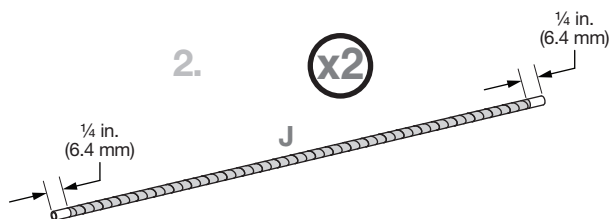
## PREPARE AND ATTACH CARBON TUBES

1. Use gray colored tape **K** to spiral wrap the entire length of carbon tube **J**. Start ¼ in. from end of tube and stop ¼ in. from the opposite end of tube.

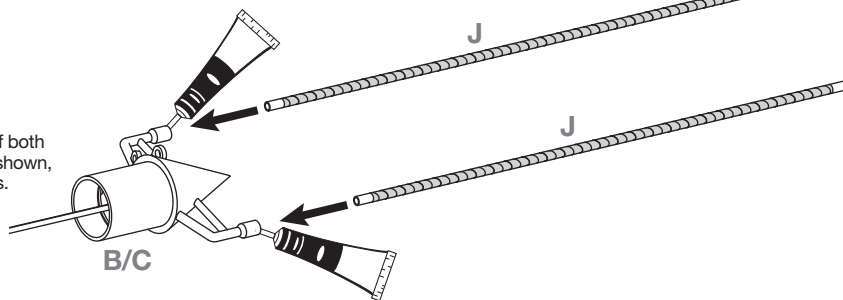


2.

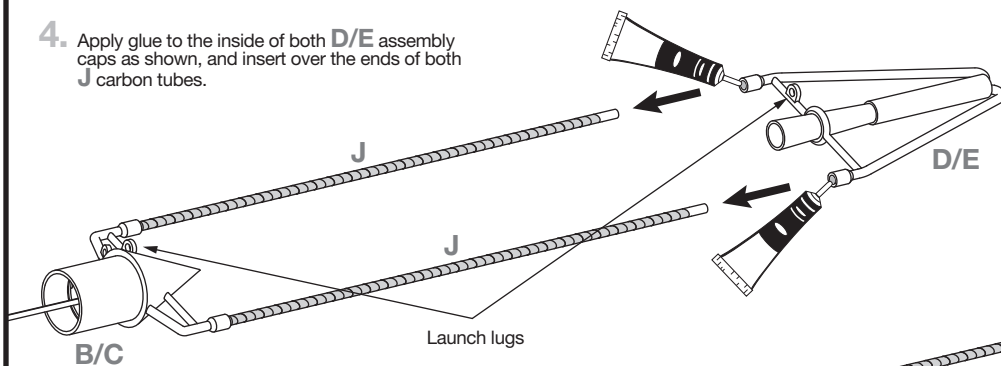
(x2)



3. Apply glue to the inside of both **B/C** assembly caps as shown, and insert **J** carbon tubes.



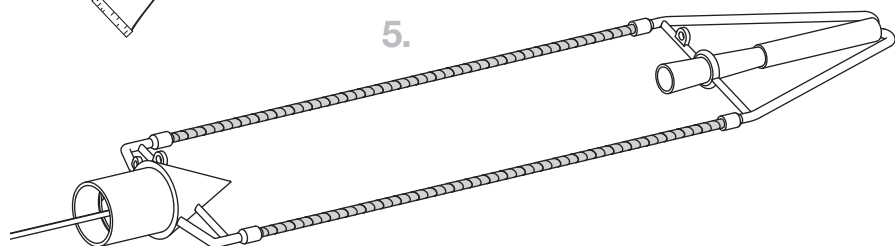
4. Apply glue to the inside of both **D/E** assembly caps as shown, and insert over the ends of both **J** carbon tubes.



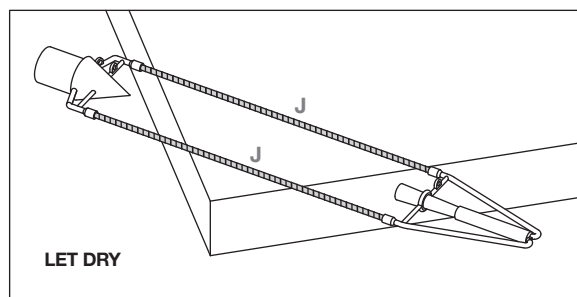
### NOTE:

Make sure launch lugs are aligned on the same side.

5.

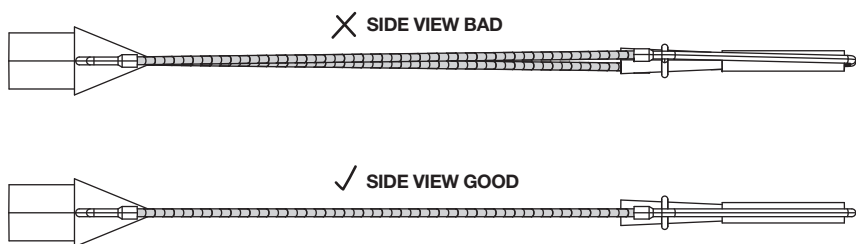


6. Before glue dries, place assembly on the corner of a desk or table. Press down on **J** carbon tubes to align them with the flat surface.

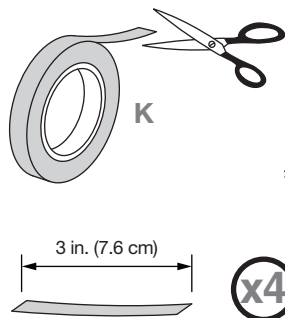


7.

Confirm the **J** carbon tubes are aligned with each other by looking from the side.

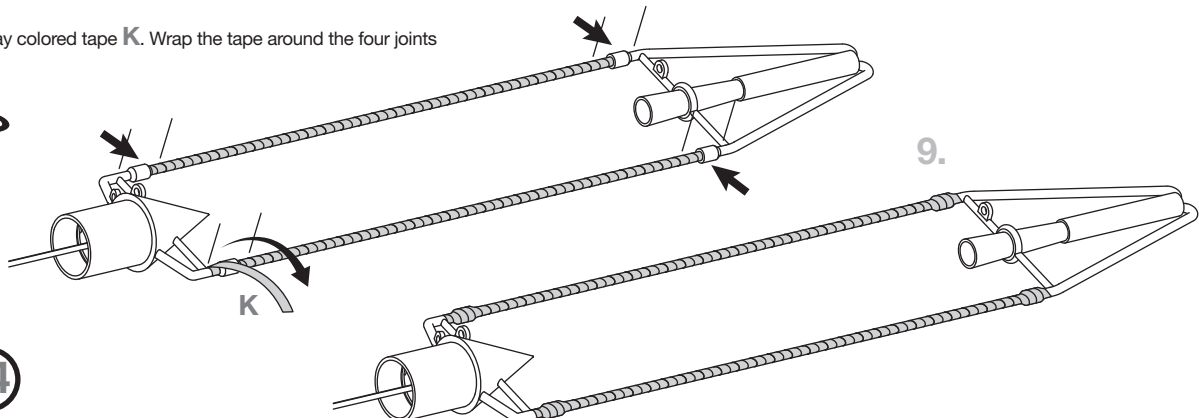


8. Cut four 3 in. long strips of gray colored tape **K**. Wrap the tape around the four joints between the indicated lines.



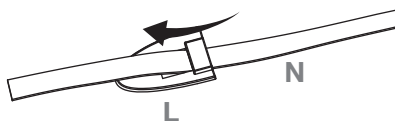
(x4)

9.



## ATTACH SHOCK CORD MOUNT

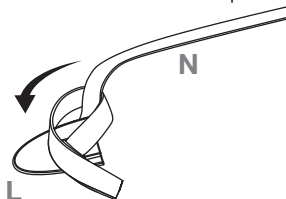
1. Thread the loose end of shock cord **N** through shock cord anchor **L**.



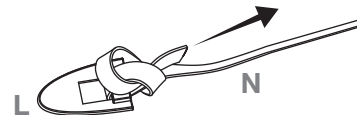
2. Fold shock cord **N** backward and wrap under main length of cord.



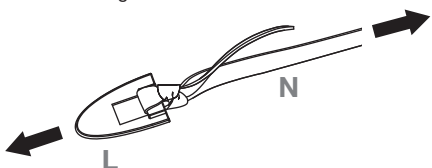
3. Continue around to form a loop.



4. Tuck the end through the loop and pull tight.



5. Pull from anchor end and main length until a tight knot is formed.

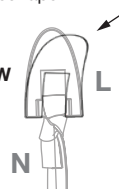


6. Trim off excess if needed.

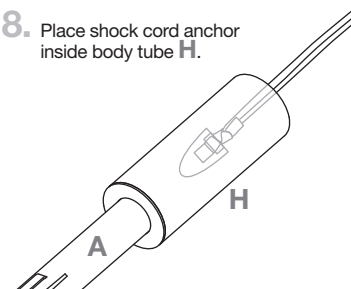


7. Remove backer from double sided tape.

BOTTOM VIEW



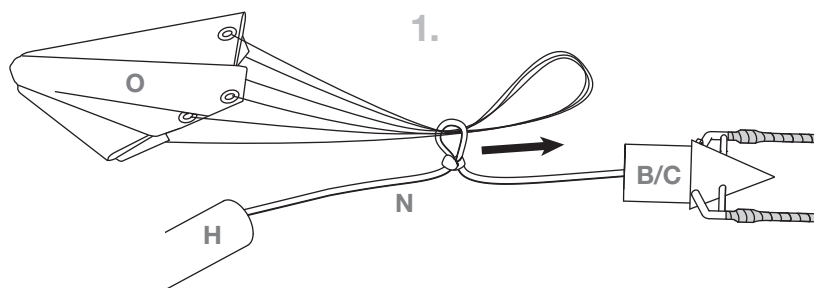
8. Place shock cord anchor **H** inside body tube **H**.



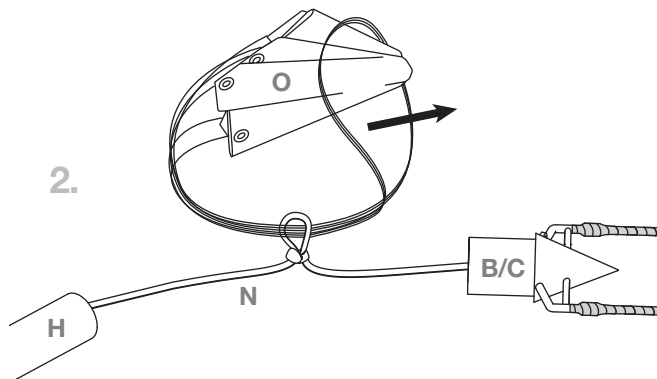
## RECOVERY SYSTEM ATTACHMENT

**NOTE:**

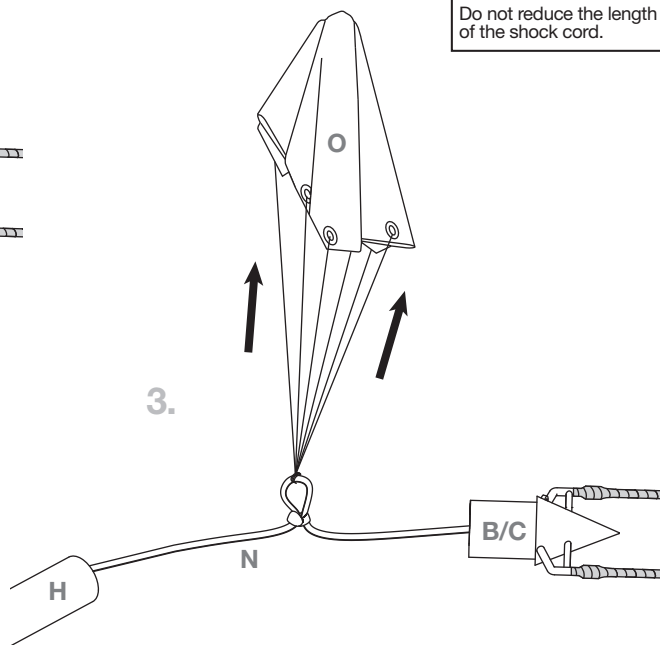
Do not reduce the length of the shock cord.



2.

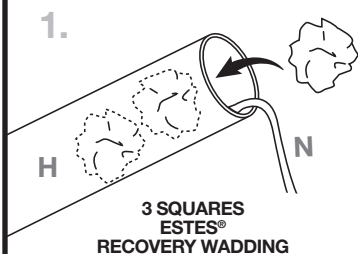


3.



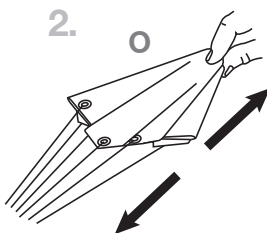
## PREPARE FLIGHT RECOVERY

1.

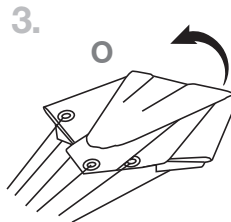


3 SQUARES  
ESTES®  
RECOVERY WADDING

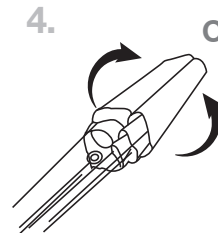
2.



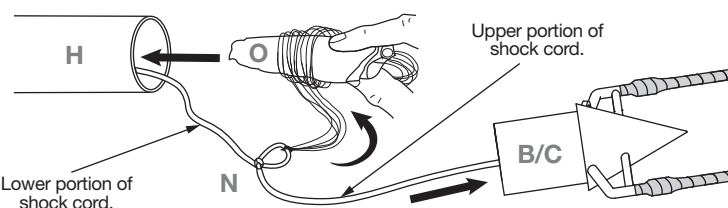
3.



4.



5. Place the lower portion of shock cord **N** and the parachute **O** into body tube **H**. Place the upper portion of shock cord **N** into lower rocket cone **B/C**.



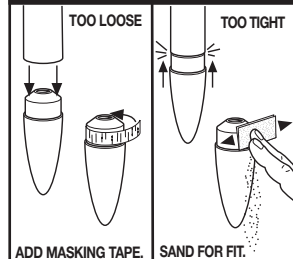
**NOTE:**

Do not reduce the length of the shock cord.

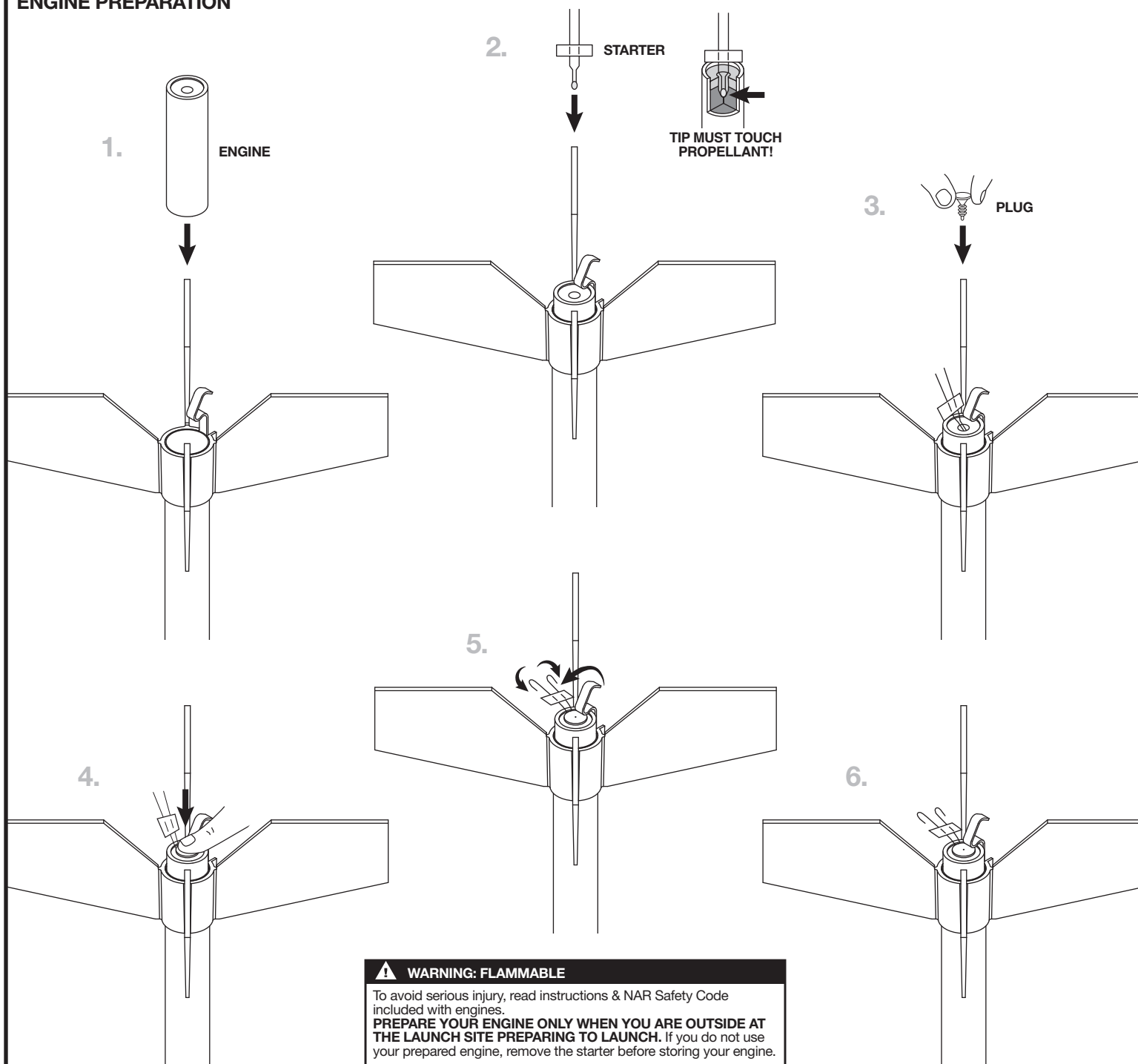
**NOTE:**

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

IF NOSE CONE FIT IS...

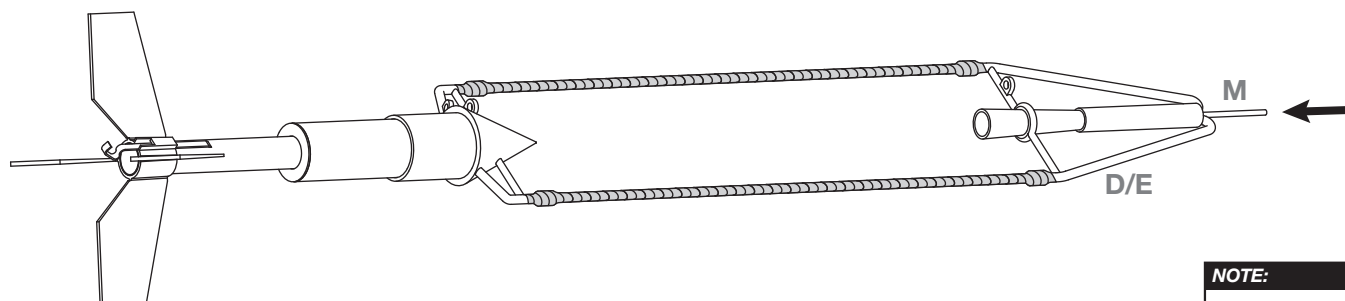


## ENGINE PREPARATION



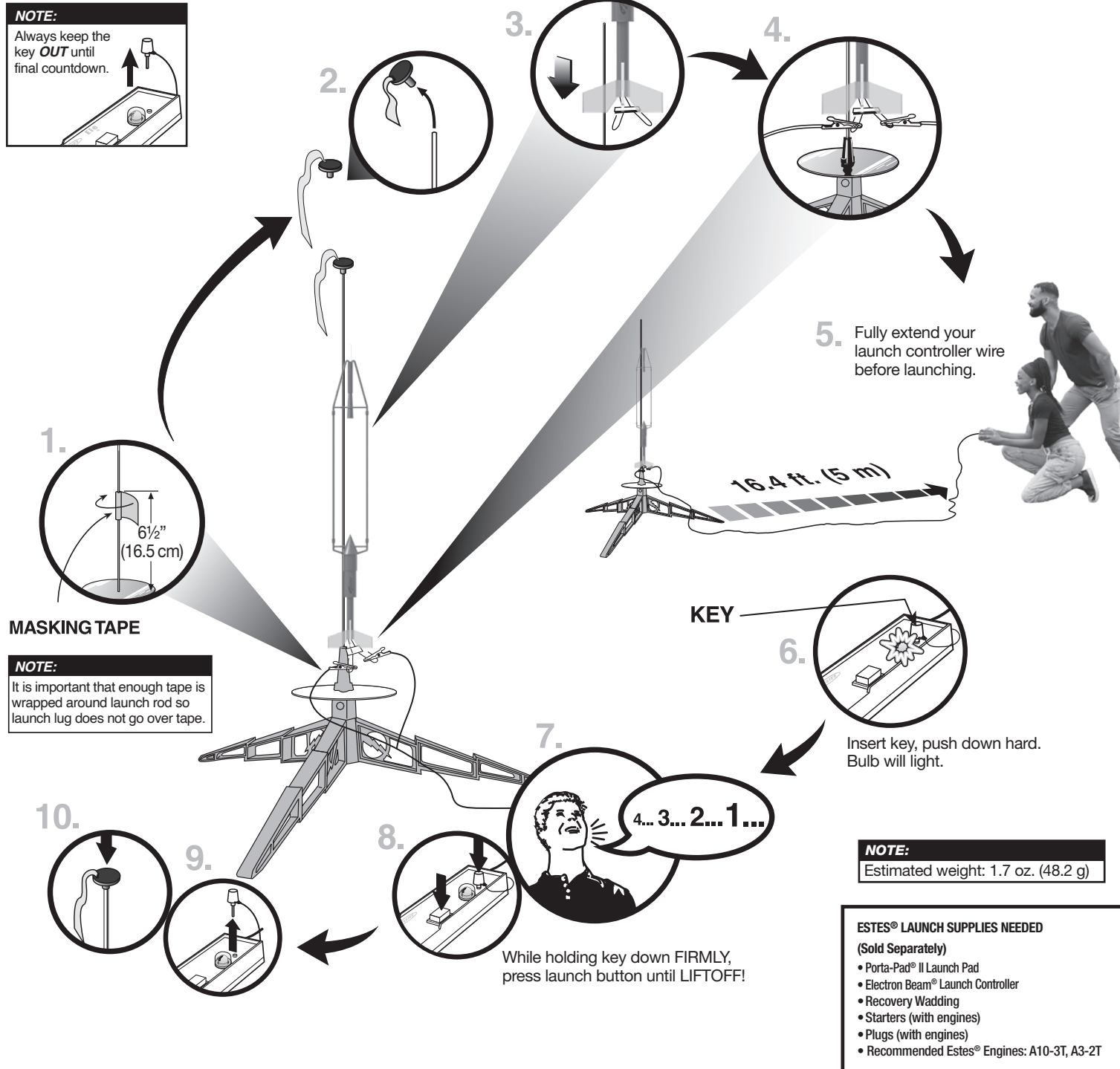
## FOR DISPLAY OF MODEL

1. Push upper rod **M** into top of fake rocket engine **D/E** when model is being displayed.



**NOTE:**  
Remove upper rod **M** before launching rocket.

# COUNTDOWN AND LAUNCH



## 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. Launch only with little or no wind and good visibility. Always follow the National Association of Rocketry (NAR) SAFETY CODE (enclosed).

**MISFIRES** TAKE THE KEY OUT OF THE CONTROLLER. WAIT ONE MINUTE BEFORE GOING NEAR THE ROCKET. Disconnect the micro-clips and remove the engine. Take the plug and starter out of the engine. A burned starter means the starter tip was not touching engine propellant. Install a new starter; be sure the tip is touching propellant inside the engine. Push the plug in place. Repeat steps under Countdown and Launch.

