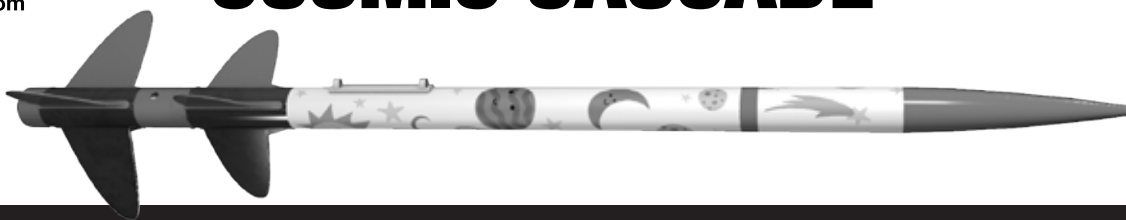


COSMIC CASCADE™

AGES
10+



Skill Level

BEGINNER

MODEL ROCKET INSTRUCTIONS

KEEP FOR FUTURE REFERENCE

IMPORTANT: Make sure you have all the parts and supplies. Test fit all the parts for assembly. READ ALL INSTRUCTIONS CAREFULLY.

BUILDING SUPPLIES NEEDED

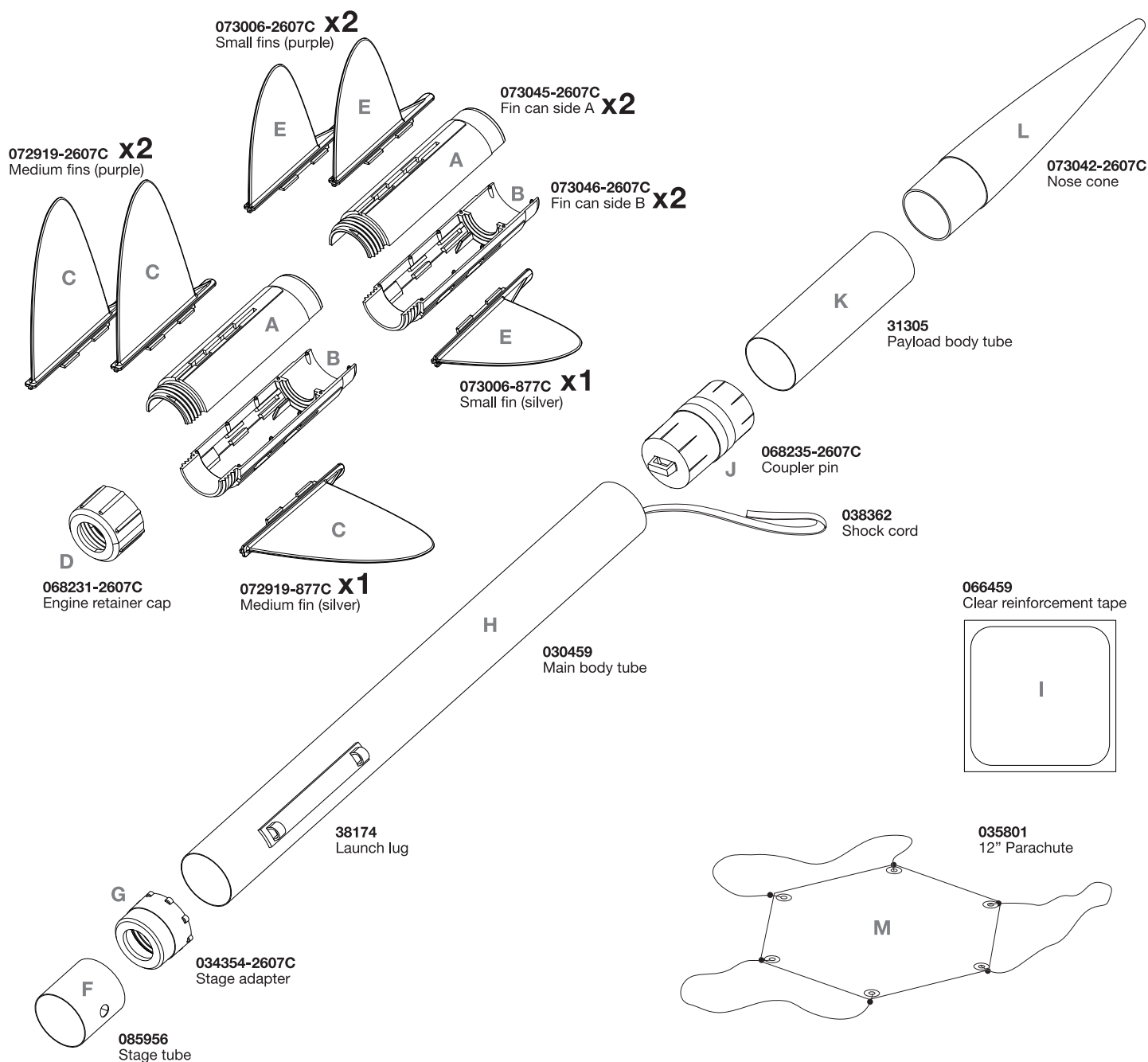


PLASTIC CEMENT



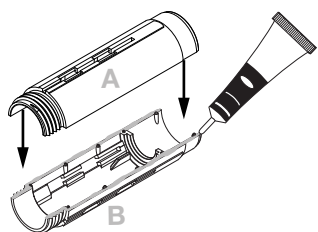
CLEAR TAPE

PARTS

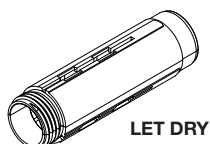


ASSEMBLE BOOSTER STAGE FINS

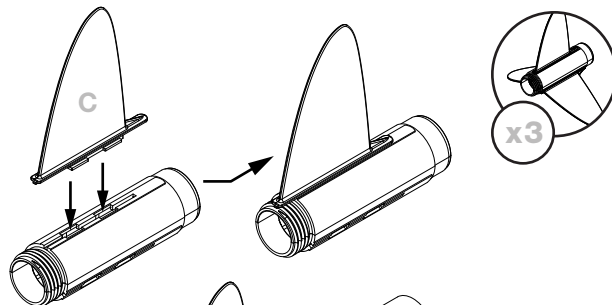
1. Apply plastic cement to edges of **B**.



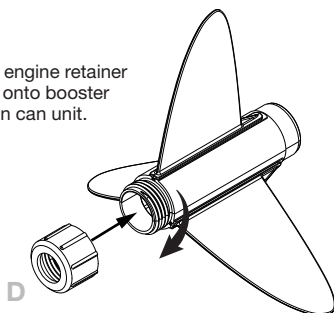
2. Press **A** and **B** together and hold for 20 seconds.



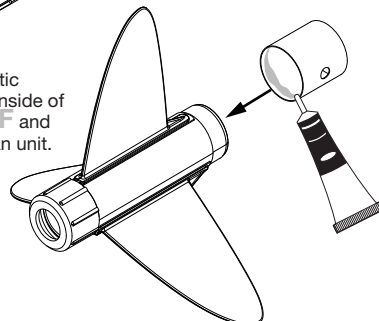
3. Insert fin **C** into slot and slide forward to lock into place. Repeat for remaining fins.



4. Screw engine retainer cap **D** onto booster stage fin can unit.



5. Apply plastic cement to inside of stage tube **F** and insert fin can unit.



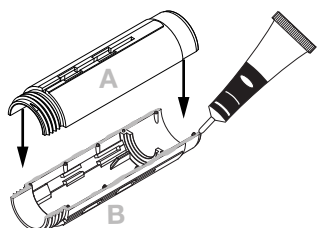
LET DRY

CAUTION:

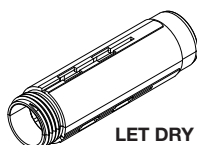
For safe handling of plastic cement, see manufacturer's warnings and follow instructions for use.

ASSEMBLE UPPER STAGE FINS

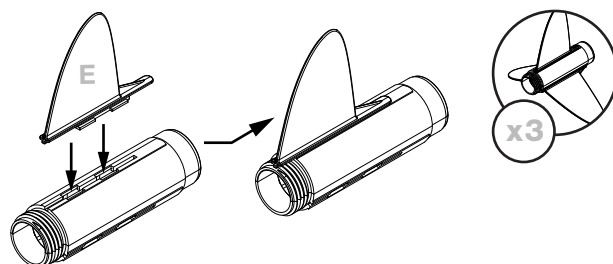
1. Apply plastic cement to edges of **B**.



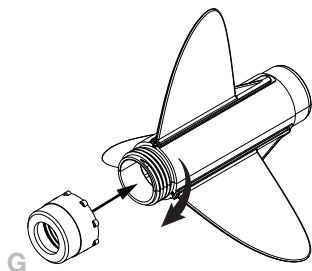
2. Press **A** and **B** together and hold for 20 seconds.



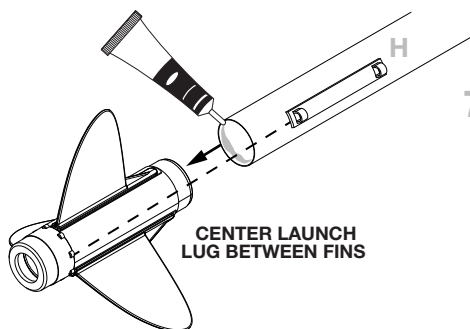
3. Insert fin **E** into slot and slide forward to lock into place. Repeat for remaining fins.



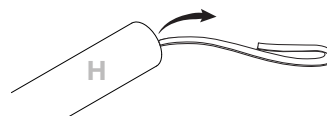
4. Screw stage adapter **G** onto upper stage fin can unit.



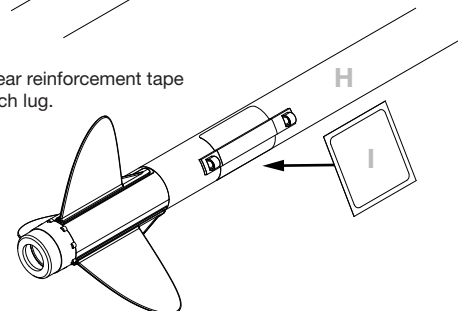
5. Apply plastic cement to inside of body tube **H** and insert fin can unit.



6. While glue is drying, pull shock cord out the front of body tube.

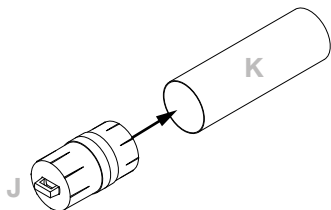


7. Apply clear reinforcement tape over launch lug.

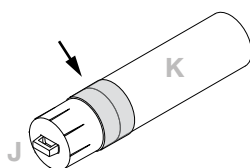


ASSEMBLE PAYLOAD BAY

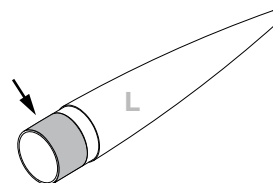
1. Insert coupler pin **J** into payload tube **K**.



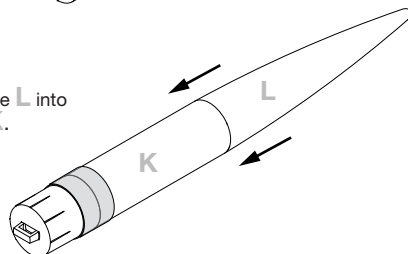
2. Apply clear tape around joint of **J** and **K**.



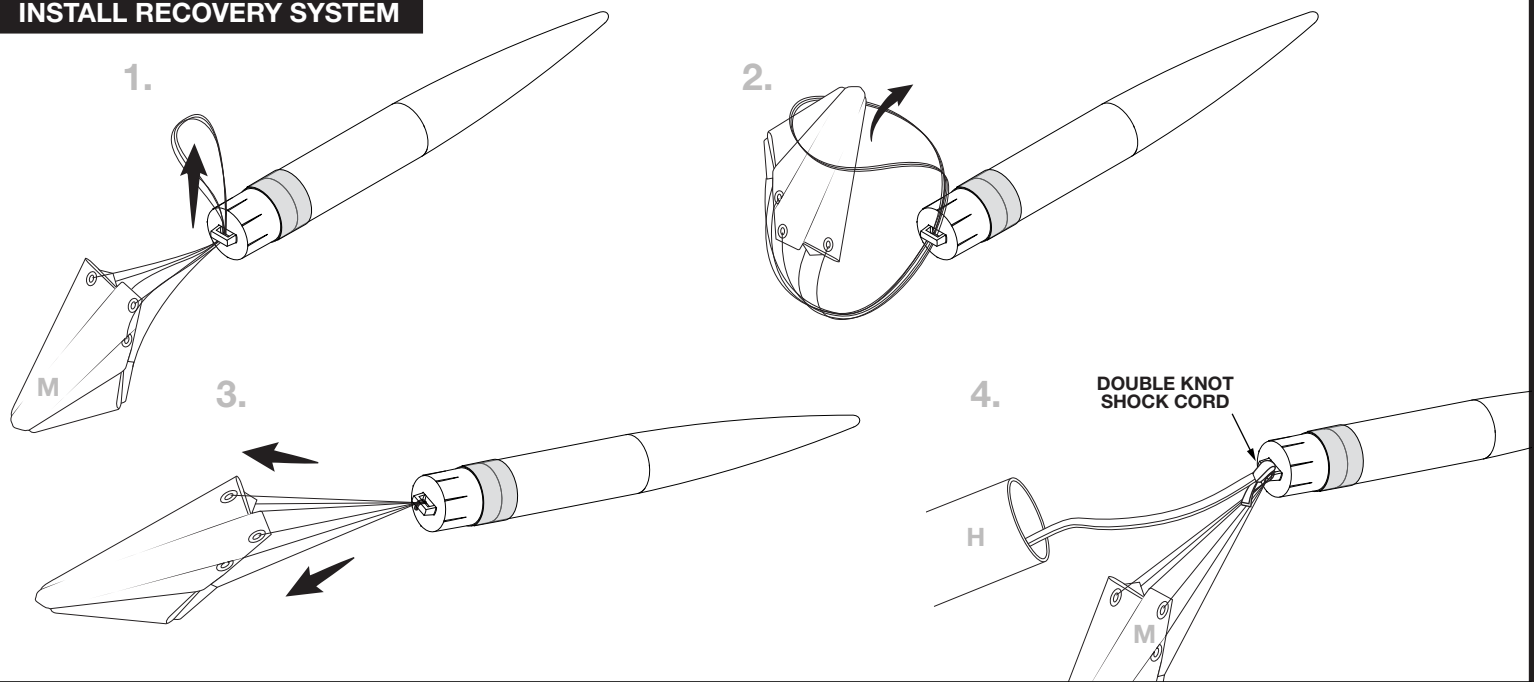
3. Add tape to base of nose cone to ensure a tight friction fit.



4. Insert nose cone **L** into payload tube **K**.

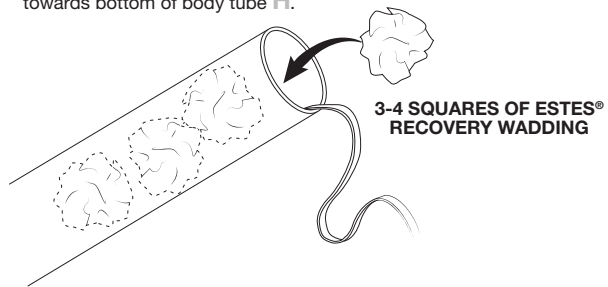


INSTALL RECOVERY SYSTEM

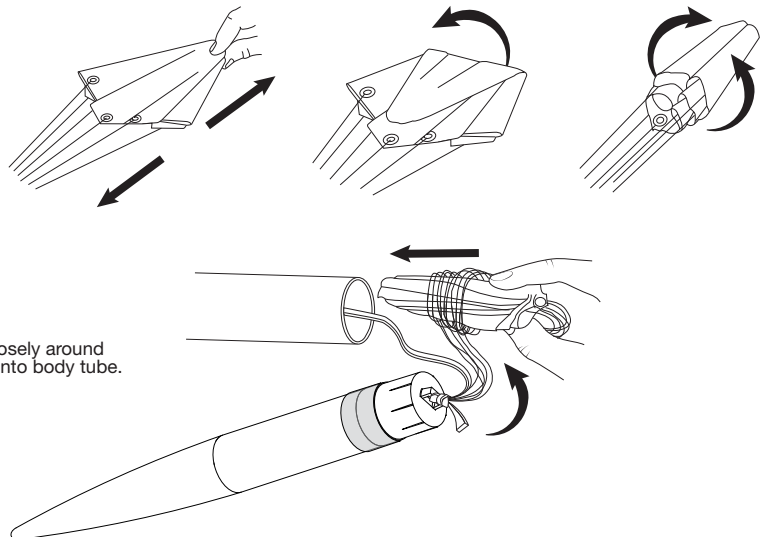


PREPARE FLIGHT RECOVERY

1. Push recovery wadding down towards bottom of body tube 'H'.



2. Fold parachute as shown.



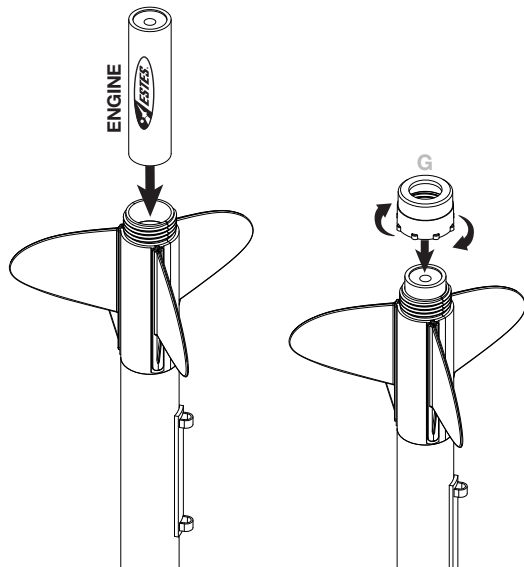
3. Wrap shroud lines loosely around parachute and insert into body tube.

NOTE:

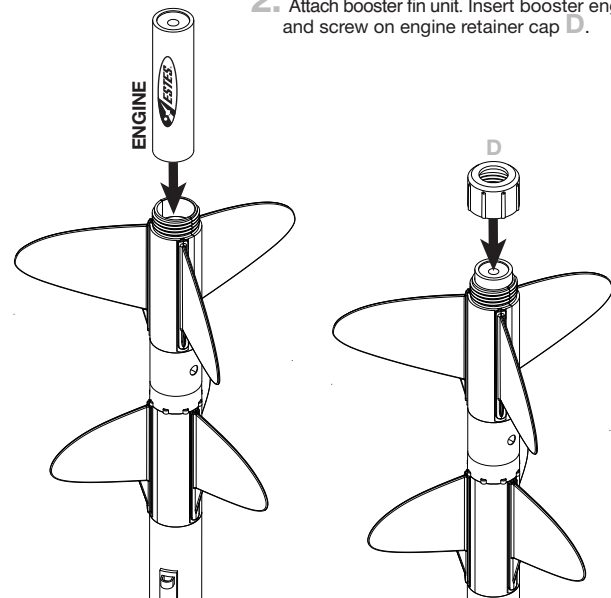
Recovery wadding and parachute must slide easily into body tube; redo if too tight.

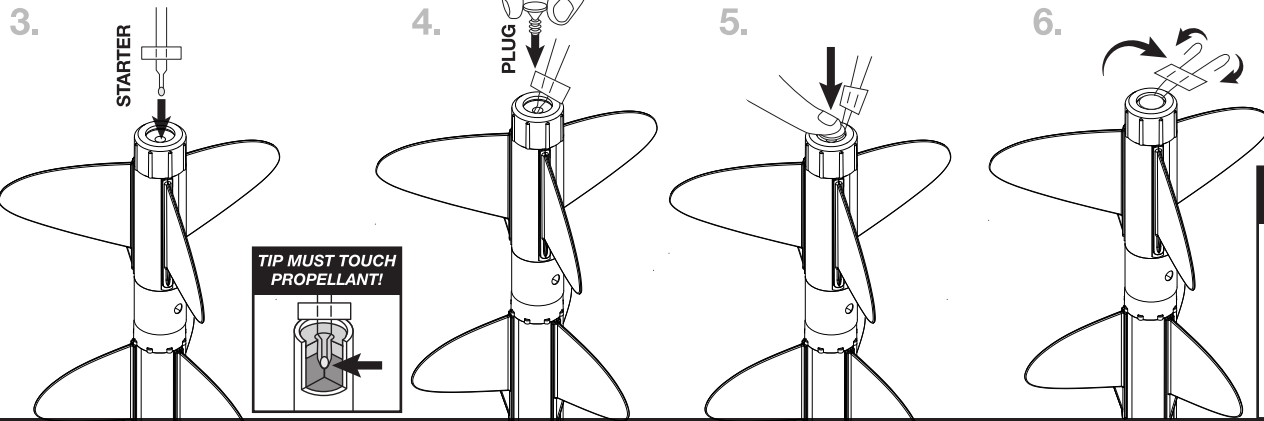
PREPARE ENGINES

1. Insert upper stage engine and screw on stage adapter 'G'.



2. Attach booster fin unit. Insert booster engine and screw on engine retainer cap 'D'.





COUNTDOWN AND LAUNCH

NOTE:

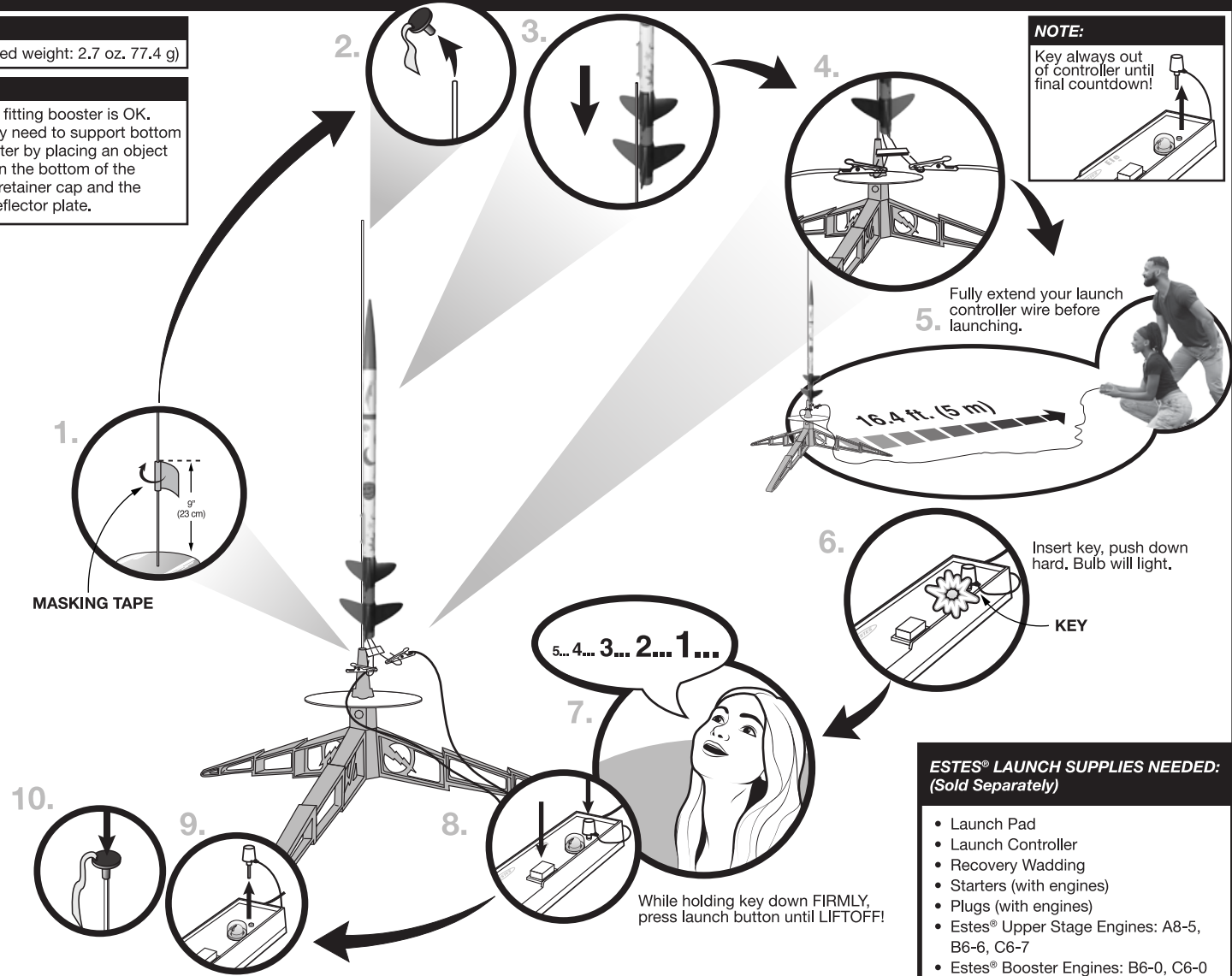
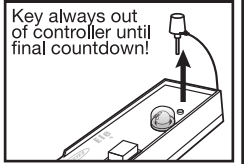
Estimated weight: 2.7 oz. 77.4 g)

NOTE:

A loose fitting booster is OK. You may need to support bottom of booster by placing an object between the bottom of the engine retainer cap and the blast deflector plate.

NOTE:

Key always out of controller until final countdown!



ESTES® LAUNCH SUPPLIES NEEDED: (Sold Separately)

- Launch Pad
- Launch Controller
- Recovery Wadding
- Starters (with engines)
- Plugs (with engines)
- Estes® Upper Stage Engines: A8-5, B6-6, C6-7
- Estes® Booster Engines: B6-0, C6-0

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.