ASSEMBLY TIP
Read all instructions before beginning work on your model. Make sure you have all parts and supplies. TEST-FIT ALL PARTS TOGETHER BEFORE APPLYING ANY GLUE. If any parts don’t fit properly, sand as required for precision assembly.

PARTS:
Locate the parts shown below and lay them out on the table in front of you. DO NOT USE THIS DRAWING TO ASSEMBLE YOUR ROCKET.

SUPPLIES REQUIRED:
HOBBY KNIFE  PLASTIC CEMENT  CARPENTER'S GLUE  SPRAY CLEAR COAT (OPTIONAL)  PENCIL  RULER  SCISSORS  FINE SAND PAPER (#400-600 GRIT)  MASKING TAPE

ALL GLUED AREAS ARE SHADED IN GRAY
1. ENGINE MOUNT ASSEMBLY

A. Blue Engine Mount Tube

F. Apply glue inside front of Engine Mount Tube.

B. Cut a 1/8" (3 mm) wide slit with Hobby Knife at the 2 1/2" (63.5 mm) mark.


C. Position Engine Hook.

H. Finished Assembly

D. Apply glue just in front of 1" (25 mm) mark.

E. Slide Black Retainer Ring onto Engine Mount Tube to the 1" (25 mm) mark.

2. FIN UNIT ASSEMBLY

A. Locate slot in the Fin Unit. Align Engine Hook of Engine Mount Assembly with slot in Fin Unit and slide in place until it stops.

C. Hold Engine Mount Assembly in place with thumb. In one continuous movement slide Green Adapter Ring onto Engine Mount until it touches Fin Unit. Let glue dry.

B. Apply glue around Engine Mount Assembly as shown.

D. Apply glue inside Lower Body Tube as shown. Push Body Tube over Green Adaptor Ring in one continuous motion, until Body Tube touches Fin Unit.

3. BODY TUBE ASSEMBLY

A. 1/2" (13 mm)

B. Apply glue band around inside of Upper Body Tube and insert Red Tube Coupler up to 1/2" (13 mm) mark. Let glue set.

C. Apply glue band inside forward end of Lower Body Tube Assembly.

D. Slide over Red Tube Coupler. Let Dry.

4. ATTACHING LAUNCH LUG

A. Use a ruler to reference a straight line up from the Engine Hook. Make a small mark on body tube 5-1/2" (14 cm) up from end of Fin Unit.


B. Lightly scratch a 1" x 1/8" (25 mm x 3 mm) area of the Body Tube with a hobby knife.

D. Apply glue fillet on each side of Launch Lug. Smooth with finger and let dry.
5. ATTACHING SHOCK CORD

A. Cut out Shock Cord from front page.
B. Shock Cord
C. Smear Glue.
D. Squeeze Tighty.
E. Glue Mount inside Body Tube. Hold until glue sets. Let glue dry completely.

6. ATTACHING PARACHUTE & SHOCK CORD

A. Remove FLASH from eyelet of Nose Cone.
B. Form loop with Shroud Lines.
C. Push loop through eyelet of Nose Cone.
D. Pass Parachute through loop.
E. Pull Parachute tight. Tie Shock Cord to eyelet of Nose Cone with a double knot.

CAUTION: DO NOT CUT OFF EYELET OF NOSE CONE.

7. DECAL APPLICATION

Carefully remove Decal from sheet and apply where shown. Rub down to remove bubbles.

OPTIONAL: Clear coat entire rocket after applying decal.

ROCKET PREFLIGHT

A. Insert 3-4 loosely crumpled squares of Recovery Wadding.
B. Spike.
C. Fold.
D. Roll.
E. Wrap lines loosely, insert Parachute, Shock Cord and Nose Cone.
ENGINE PREP

WARNING: FLAMMABLE
Before proceeding read instructions & NAR Safety Code included with engine.
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 igniter before starting your engine.

COUNTDOWN AND LAUNCH

KEY ALWAYS OUT
UNTIL FINAL
COUNTDOWN!

MASKING
TAPE

4" (10.1 cm)

LAUNCH
BUTTON

INSERT KEY.
PUSH DOWN
AND HOLD.

HOLD KEY DOWN AND PRESS LAUNCH BUTTON UNTIL LIFT-OFF!

LAUNCH SUPPLIES
(Sold Separately)
- Estes® Porta Pad® II Launch Pad and Electron Beam® Controller
- Recovery Wadding
- Igniters (with Engines)
- Igniter Plugs (with Engines)
- Estes® Recommended Engines: A8-3, B4-2, B4-4, B6-4, C6-5

PRECAUTIONS

NAR Safety Code

NO DRY GRASS
OR WEEDS

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 igniter clips and remove the engine. Take the plug and igniter out of the engine. If the igniter has burned, it worked but did not ignite the engine because it was not touching the propellant inside the engine. Put a new igniter all the way inside the engine without bending it. Push the plug in place. Repeat the steps under Countdown and Launch.