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**BETA**  
SERIES  
SKILL LEVEL 1

# BIG DAWG™

FLYING MODEL ROCKET KIT INSTRUCTIONS

## MATERIALS REQUIRED:

SCISSORS, PENCIL, RULER, HOBBY KNIFE, WHITE OR YELLOW GLUE, 3/4" (19 mm) MASKING TAPE, SANDPAPER, AUTOMOTIVE PRIMER, RED AND BLACK GLOSS SPRAY PAINTS.

**ALL GLUED AREAS ARE SHADED IN GRAY**

BE SURE TO READ ALL INSTRUCTIONS, TEST FIT ALL PARTS, AND SAND IF NECESSARY BEFORE GLUING.

### PARTS LAYOUT

- DECAL (1) 37334
- DIE CUT Balsa FIN SHEETS (2) 32991
- CENTERING RINGS #2055 (1) 30125
- BLUE ENGINE MOUNT TUBE #BT-20J (1) 30326-1
- ENGINE BLOCK RING #520 (1) 30162-2
- ASSEMBLED PARACHUTE-12 (1) 35801
- NOSE CONE #55AC (1) 71070
- WHITE BODY TUBE SLOTTED #BT-55 (1) 31167
- LAUNCH LUG LL2A (1) 38175
- ENGINE HOOK #EH-2A (1) 35021
- SHOCK CORD - 1/8 x 18 (1) 38374

### 1.

**A.** Mark the blue engine mount tube at 1/2" (13 mm), 1" (2.5 cm), 2-1/2" (6.4 cm) and 2-5/8" (6.7 cm).

**B.** Use a hobby knife to make a 1/8" (3 mm) wide slit at the 2-1/2" (6.4 cm) mark **only**.

### 2.

**A.** Insert hook as shown.

**D.** Slide the launch lug onto the tube.

**E.** Slide the tube onto the launch lug.

### 3.

**A.** Use a hobby knife to carefully cut fins out of balsa sheets. (Always cut away from other fins to avoid damage.) Be sure cuts go all the way through the balsa, then remove fins.

**C.** Lay sandpaper, rough side up, on table. Stack fins together and lightly sand the edges smooth and flat. **DO NOT SAND AWAY TABS ON ROOT EDGES.**

### 5.

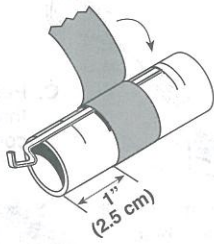
**A.** Cut out shock cord mount below along solid lines. Crease on dotted lines.

**C.** Apply glue to shock cord mount. Clamp firmly up.

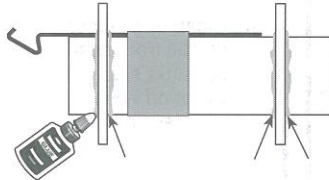
**D.** Glue the shock cord (3.8 cm) down inside slots of the body into place.



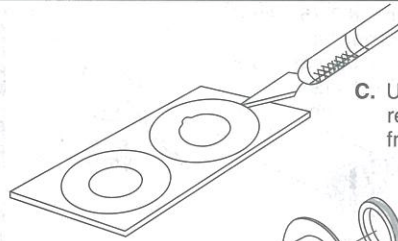
the engine into the slit down.



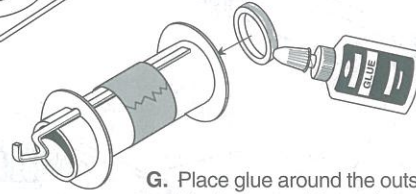
**B.** Wrap **TWO** layers of masking tape around the engine mount tube at the 1" (2.5 cm) mark as shown.



**F.** Once rings are in place, apply glue around both sides of rings, smooth with finger and let glue set.

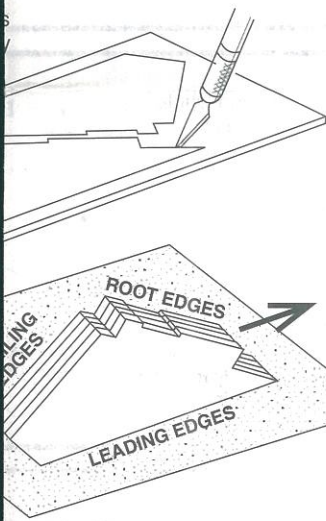


**C.** Use a hobby knife to carefully remove the centering rings from their card.



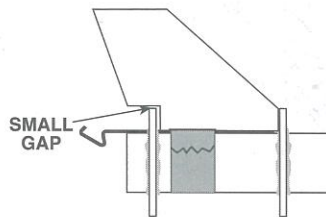
**G.** Place glue around the outside of the engine block ring and insert into front of engine mount tube until it hits the engine hook. Let assembly dry thoroughly.

the notched centering ring to the 1/2" (13 mm) mark on the rear of the engine mount tube with the notch over the engine hook. Slide the remaining centering ring to the front of the engine mount tube to the 2-5/8" (6.7 cm) mark.



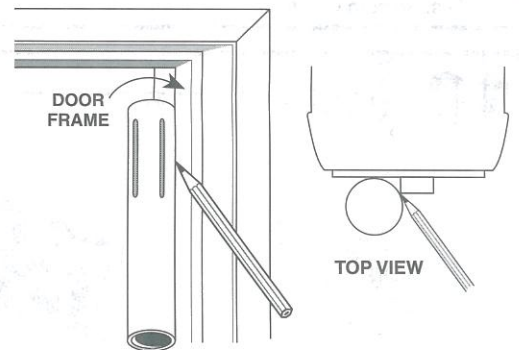
SCRAP BALSA

**B.** Keep a stick of scrap balsa to use as a glue applicator.



**D.** Test fit all the fins to make sure they fit between the centering rings and that the tabs contact the tube. Sand as necessary for a proper fit.

## 4.



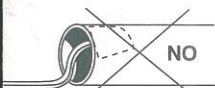
**A.** Lightly draw a straight line down the length of the body tube between any two fin slots. This is your launch lug line.

**NOTE:** A door frame can be used to do this, but we recommend the Estes® Rocket Builder's Marking Guide (EST 302227)

**B.** Spread glue on section 2 and lay shock cord into glue at a slight angle as shown. Fold section 1 forward.

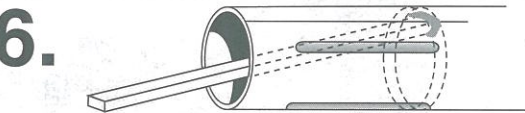


Section 3. Fold forward again. All glue sets.

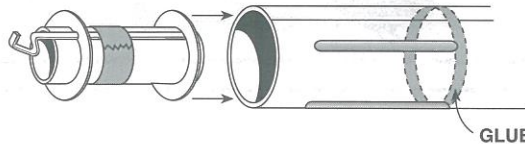


Slide the front end (without the tube, and press firmly

## 6.

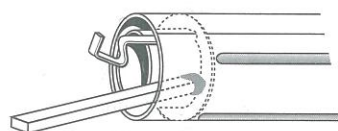


**A.** Using your wood stick, apply glue **inside** the body tube at the top of the slots as shown.



EVEN WITH END OF BODY TUBE

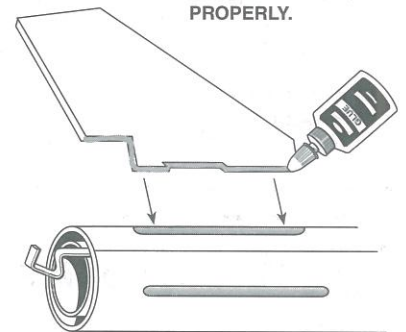
**B.** Slide the engine mount into the body tube until their ends are even. **BE SURE TO ALIGN THE ENGINE HOOK WITH THE LAUNCH LUG LINE.**



**C.** Reinforce the joint between the body tube and rear centering ring by applying a layer of glue (fillet) around it.

## 7.

**NOTE: YOU MAY NEED TO SAND FIN TABS TO FIT PROPERLY.**



**A.** Test fit fins into slots. Apply glue to the tabs on the fins and along the root edges as shown. Insert the fins into slots, checking alignment to make sure fins are straight.

