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 AND SUPPLIES
Locate the parts shown below and lay them out on the table in front of you.

- CR-2050 CENTERING RINGS
- ENGINE BLOCK
- BT-50 9.5" BODY TUBE
- EB-20
- 1.25" LAUNCH LUG
- BT-20 3.5" ENGINE MOUNT TUBE
- USED MOTOR SPACER TUBE
- 4.1" NOSE CONE
- INDEX CARD
- BASE
- BOAT TAIL WRAP
- STREAMER 30"
- 3/32" BALSA DIE-CUT SHEET
- DECAL Black
- SHOCK CORD 18"

In addition to parts included in the kit, you will need the following:

- SCISSORS
- PENCIL
- RULER
- FINE SANDPAPER
- WHITE GLUE
- PAINT BRUSH
- MODELING KNIFE
- ENAMEL SPRAY PAINT (Gloss White & Fluorescent Red)
- PLASTIC MODEL CEMENT
- MASKING TAPE
- SANDING SEALER
- SANDING BLOCK (piece of wood with sandpaper wrapped around it)
ROCKET ASSEMBLY

1. A. Mark the engine mount tube 1 inch from one end. Slide a centering ring onto the tube and glue it in place 1 inch from the end. Glue the remaining ring onto the opposite end of the tube (flush with the end).
   B. The engine block is glued inside the mount tube to serve as a "stop" for a rocket engine. The yellow spacer tube is used as a tool to correctly position the block. Mark the spacer tube 1/4 inch from one end. Using a small stick, apply a band of glue around the inside of the engine mount tube about 2 inches from the REAR end. Insert the engine block into the rear of the tube. Insert the spacer tube and push forward until the 1/4 inch mark is even with the rear of the engine tube. Withdraw the spacer tube immediately so it will not be accidentally glued into place.

2. A. Very carefully cut the "boat tail" wrap from the printed card. Curl the wrap around the body tube. Keep curling the wrap into a smaller diameter until it partially overlaps itself. Apply a bead of glue to the tab and press the ends together. Make sure the outside edge of the wrap is positioned exactly over the dotted line of the tab portion. Hold the wrap ends together until the glue dries.
   B. Test fit the wrap onto the engine mount. Lightly sand the outside edge of the engine mount tube (if necessary) so the wrap will slide on. Apply a bead of glue to the rear edge of the engine mount tube and around the inside edge of the large end of the wrap. Slide the wrap onto the mount. The rear edge of the wrap should be even with the end of the tube.

3. A. Apply a bead of glue around the inside of the body tube about 1 1/2 inches from one end. Apply another bead of glue around the centering ring just above the wrap joint. Slide the mount into the body and push forward until the wrap butts against the end of the body. Wipe away any excess glue.

4. A. Cut the body marking guide from the front of these instructions. Wrap the guide around the rear of the body and tape ends together. Mark the body at each of the arrow points, then remove guide.
   B. Using a door frame as a guide, draw lines connecting the marks. Fin lines should extend about 3 inches along body and the launch lug line about 6 inches.

5. A. Using a sanding block, sand both sides of the balsa sheet. Free the die-cut fins with a hobby knife.
   B. Stack fins together and sand edges with sanding block. Be careful not to change angle of the edges that glue to body.

6. A. Apply glue to the root edge of a fin and attach to body as shown. Make sure the fin is aligned straight with the body and that it extends straight out from the body.
6. Lay the rocket on a flat surface with the fin pointing straight up. Place a book or similar weight on the front of the body so it will not roll. Leave in this position until glue dries.
C. Attach the remaining fins in the same manner, allowing glue to dry on the second fin before attaching the third. Make sure the fins extend straight from body as shown.

7. Glue the launch lug to the body, centered on the launch lug line and with the rear of the lug even with the tops of the fins.

8. A. Apply a bead of glue along a fin-body joint. Pull your finger along the joint to smooth the glue and to remove any excess. Repeat this to both sides of each fin-body joint and to the launch lug-body joint. Place rocket in horizontal position as in step 6 and allow glue to dry.

9. A. Cut shock cord mount from front of instruction. B. Crease on dotted lines by folding. Spread glue on section 1 and lay end of shock cord into glue. Fold over and apply glue to back of first section and exposed part of section 2. Lay shock cord as shown and fold mount over again. C. Clamp unit together with fingers until glue sets.

10. A. Apply glue to inside front of body tube to cover an area no less than 1 inch to 2 inches from end. The glued area should be same size as shock cord mount. B. Press mount firmly into glue as shown. C. Hold until glue sets.

11. A. Unroll the streamer, fold in two and mark the middle. Tie the free end of the shock cord around the middle of the streamer, leaving about 2 inches of shock cord extending beyond streamer. B. Apply plastic model cement around the inside end of nose cone and insert nose cone base. Wipe away any excess cement. C. Tie the free end of the shock cord to the nose cone base. Tie a double knot. Roll streamer, push streamer and shock cord into body and socket nose cone into place.

12. A. Brush sanding sealer on to the fins. Let sealer dry and lightly sand. Repeat sealing and sanding process until fins are smooth. B. For a painting holder, insert a rolled up paper into the bottom of the rocket. Spray the entire rocket glossy white. Spray several light coats rather than one heavy one. Let paint dry completely (several hours). C. Using masking tape and paper, mask off the portions of the rocket that remain white. Spray paint the exposed areas fluorescent red. As soon as paint is dry to the touch, carefully remove masking material. D. Use the photos on kit panel or front of instructions as a guide for decal placement. To apply decals, cut one decal at a time from sheet. Dip decal in water until it slides on backing sheet (usually 20 to 30 seconds). Move decal into position and slide decal from backing material onto model. Move decal into exact position and gently blot away water with a soft cloth.
ROCKET PREFLIGHT

CRUMPLE AND INSERT 3 SQUARES OF RECOVERY WADDING

ROLL TIGHTLY

FOLD STREAMER 3 TIMES

INSERT STREAMER, SHOCK CORD AND NOSE CONE INTO ROCKET BODY

NOTE: If streamer fits too tightly into body, remove and re-roll. A too-tight fit could cause an ejection malfunction during flight.

PREPARE ENGINE

SEPARATE THE IGNITERS

ENGINE

INSERT IGNITER

FOLD OVER AND BEND LEADS INTO U SHAPES

IGNITER TIP MUST TOUCH PROPELLANT DEEP INSIDE NOZZLE OPENING

APPLY AND FIRMLY PRESS MASKING TAPE IN PLACE OVER NOZZLE

WRAP TAPE AROUND REAR OF ENGINE FOR FRICTION FIT

PUSH ENGINE INTO ROCKET UNTIL IT IS AGAINST ENGINE BLOCK

ENGINE MUST FIT TIGHTLY TO OBTAIN PROPER STREAMER DEPLOYMENT

LAUNCH SUPPLIES

To launch your rocket you will need the following items:
—An Estes model rocket launching system
—Estes Parachute Recovery Wadding (No. 2274)
—Recommended Estes Engines: A8-3, B4-4, B6-4, B8-5, C6-5
Use an A8-3 engine for your first flight to become familiar with your rocket's flight pattern.
Use only Estes products to launch this rocket.

FLYING YOUR ROCKET

Choose a large field away from power lines, tall trees, and low flying aircraft. Try to find a field at least 250 feet square. The larger the launch area, the better your chance of recovering your rocket. Football fields and playgrounds are great.
Launch area must be free of dry weeds and brown grass.
Launch only during calm weather with little or no wind and good visibility.

MISFIRES

Failure of the model rocket engine to ignite is nearly always caused by incorrect igniter installation. An Estes igniter will function properly even if the coated tip is chipped. However, if the coated tip is not in direct contact with the engine propellant, it will only heat and not ignite the engine.

When an ignition failure occurs, remove the safety key from the launch control system and wait one minute before approaching the rocket.
Remove the expended igniter from the engine and install a new one.
Be certain the coated tip is in direct contact with the engine propellant, then tape the igniter leads firmly to base of engine as illustrated above.
Repeat the countdown and launch procedure.

COUNTDOWN AND LAUNCH

LAUNCH ROD

LAUNCH LUG

MICRO-CLIPS MUST NOT TOUCH BLAST DEFLECTOR OR EACH OTHER

BLAST DEFLECTOR

FOR YOUR SAFETY AND ENJOYMENT

Always follow the NAR-HIA MODEL ROCKETRY SAFETY CODE while participating in any model rocketry activities.

*National Association of Rocketry-The Hobby Industry of America page 4
SKILL LEVEL 2
Recommended for the Experienced Modeler.

CALYPSO™

**SKILL LEVEL 2**  Swept fins, boat tail, and ogive nose cone make this model an aerodynamic super flier. A 30 inch streamer assures safe landings from flights over 1000 feet with a “C” engine.

Length  16.5” Dia.  0.976” Wt.  0.99 oz.

**ENGINES:**  A8-3 (1st Flt.), B4-4, B6-4, B8-5, C6-5

No. 2006
Calypso

FLYING MODEL ROCKET

SKILL LEVEL 2

- Classic swept fin design
- 30 inch streamer recovery
- Unique "boat tail"
- Balsa wood fins
- Plastic nose cone

Length: 16.5 in. (41.9 cm)
Diameter: .976 in. (24.8 mm)
Weight: .99 oz. (28 g)

Recommended Engines: A8-3 (first flight), B4-4, B6-4, B6-5, or C6-5

Reaches 1000 foot heights

This is a model kit requiring assembly. Glue and finishing supplies, launch system and engines for flight are not included.

Estes
Estes Industries