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.

- NOSE CONE (1) PNC-50 (72403)
- NOSE CONE INSERT (1) PIN-50 (72805)
- BODY TUBE (1) BT-50 (30349)
- PLASTIC FIN STYLE A (3) (61218)
- PLASTIC PARTS SET (1) (61218)
- FIN MOUNT (2)
- ENGINE CAP (1)
- LOWER RING (1)
- UPPER RING (1)
- ASSEMBLED PARACHUTE 12" (30 CM) (35801)
- RUBBER SHOCK CORD (1) 1/8" X 18" (38368)
- DECAL SHEET (1) (61167)

SUPPLIES In addition to the parts included in the kit you will also need:

- SCISSORS
- PENCIL
- RULER
- FINE SANDPAPER
- PLASTIC CEMENT
- MODELING KNIFE
- MASKING TAPE
1. ASSEMBLE FIN MOUNT
NOTE: Assemble all parts together without gluing first. Then, assemble with plastic cement.

A. Use a modeling knife to scrape flash (excess plastic) from edges of fin mounts (if required).

B. Lay out the three fin mounts as shown. Apply plastic cement in the grooved channels of all three (both upper and lower channels).

C. Apply plastic cement to the raised sections on one edge of each fin mount (the same side on all 3 sections).

D. Place the upper ring (notched) in the upper channel and the lower ring in the lower channel of one fin mount.

E. Align the three fin mount sections with the rings in place and press together. Hold until cement sets completely (or use a rubber band). Let dry.

2. ATTACH BODY TUBE

A. Apply a ring of plastic cement just inside one end of body tube.

B. Insert the assembled fin mount into the body tube.

C. Wipe away any excess cement and let dry.

3. ATTACH FINS

A. Test fit each fin into the fin slots before gluing. Apply plastic cement along the root edge of each fin and raiiser. Be sure fins are straight. Let dry.

B. Make sure glue from step A is dry first so that the cap will not become glued in place. Attach engine cap and turn clockwise to lock in place.

NOTE: Screws flash from shoulder of engine cap first (if required).

4. INSTALL SHOCK CORD MOUNT

A. Cut out shock cord mount from page 1.

B. Fold.

C. Apply glue. Fold forward.

D. Apply glue. Fold forward.

E. Squeeze tightly and hold for one minute.

F. Glue mount 1" (25 mm) inside upper body tube. Hold until glue sets. Let dry.
5. ASSEMBLE NOSE CONE

A. Apply a ring of plastic cement inside nose cone as shown.
B. Insert the nose cone insert into the nose cone and let dry.
NOTE: Use only plastic cement for this step.

6. APPLY DECALS

A. Peel decals from backing sheet one at a time and apply to fins and body tube where shown.
NOTE: Apply engine sticker from decal sheet to body tube as an easy reference.

7. ATTACH PARACHUTE & SHOCK CORD

A. Form a loop with shroud lines.
B. Push loop through eyelet in nose cone.
C. Pass 'chute through loop.
D. Pull tight.
S. SHOCK CORD
E. Tie free end of shock cord to nose cone. Use a double knot.
DOUBLE KNOT

8. PREPARE PARACHUTE FOR FLIGHT

A. Insert 3-4 squares of loosely crumpled recovery wadding into rocket.
B. Spike parachute.
C. Fold.
D. Roll.
E. Wrap lines loosely. Insert 'chute, shock cord and nose cone into body tube.

IMPORTANT: Wadding must be in place and slide freely for rocket to work properly.
NOTE: Only Estes Wadding (302274) Recommended.

9. PREPARE ENGINE

A. Remove engine cap. Insert engine.
B. Replace engine cap.
C. Separate igniter & igniter plug.
D. Drop in igniter.
E. Insert igniter plug. Firmly push all the way in!
F. Gently bend igniter wires to form leads as shown.

WARNING: FLAMMABLE
To avoid serious injury, read instructions & NAR Safety Code included with engines. PREPARE 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 storing engine.
PRECAUTIONS

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. 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.