#3221

FLYING MODEL ROCKET KIT INSTRUCTIONS
KEEP FOR FUTURE REFERENCE

ASSEMBLY TIP: Read all instructions, make sure you have all parts and supplies and test fit all parts together before applying glue. If parts don’t fit properly, sand as necessary for precision assembly.

<table>
<thead>
<tr>
<th>Part</th>
<th>Qty</th>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>Engine Mount Tube <strong>BT-50</strong></td>
<td>031320</td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td>Engine Hook</td>
<td>035022</td>
</tr>
<tr>
<td>C</td>
<td>1</td>
<td>Engine Holder Ring</td>
<td>030160</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>Green Engine Block</td>
<td>030164-2</td>
</tr>
<tr>
<td>E</td>
<td>2</td>
<td>Laser Cut Centering Ring Set</td>
<td>030119</td>
</tr>
<tr>
<td>F</td>
<td>1</td>
<td>Lower Body Tube <strong>BT-60 18”</strong></td>
<td>030396</td>
</tr>
<tr>
<td>G</td>
<td>1</td>
<td>Launch Lug</td>
<td>038166</td>
</tr>
<tr>
<td>H</td>
<td>4</td>
<td>Laser Cut Balsa Fins 1/8” Thick</td>
<td>066359</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Laser Cut Balsa Sheet includes: 066358</td>
<td></td>
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<tr>
<td>I-R</td>
<td>4</td>
<td>Balsa Pieces 3/32” Thick</td>
<td></td>
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</table>

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<th>Part</th>
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<tbody>
<tr>
<td>S</td>
<td>1</td>
<td>Fin Spacer Tool</td>
<td>066359</td>
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<tr>
<td>T</td>
<td>1</td>
<td>Upper Body Tube <strong>BT-60 8”</strong></td>
<td>030487</td>
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<tr>
<td>U</td>
<td>1</td>
<td>Red Tube Coupler</td>
<td>031777</td>
</tr>
<tr>
<td>V</td>
<td>1</td>
<td>Nose Cone 6”</td>
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<tr>
<td>W</td>
<td>1</td>
<td>Tail Cone</td>
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</tr>
<tr>
<td>X</td>
<td>1</td>
<td>Shock Cord</td>
<td>038370</td>
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<tr>
<td>Y</td>
<td>1</td>
<td>Parachute 18”</td>
<td>035802</td>
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<tr>
<td>Z</td>
<td>1</td>
<td>Waterslide Decal (not shown)</td>
<td>066360</td>
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<tr>
<td></td>
<td></td>
<td>Orange E to D Engine Spacer</td>
<td>035005</td>
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**SUPPLIES** In addition to the parts included in the kit you will also need:

- SCISSORS
- PENCIL
- RULER
- FINE SANDPAPER (#320-400 Grit)
- THIN CA
- CARPENTER’S GLUE
- MODELING KNIFE
- SPRAY PAINT PRIMER WHITE
- SPRAY PAINT CLEAR COAT (OPTIONAL)
- SPRAY PAINT WHITE
- SPRAY PAINT RED
- SPRAY PAINT BLACK
- MASKING TAPE
FIN PREPARATION

1. Stack together.
2. Sand edges smooth.

ENGINE MOUNT ASSEMBLY

1. Attach B to A.
2. Attach E to D.
3. Attach C to D.
4. Let Dry.
5. Stack together.

TUBE MARKING

1. Cut tape to length.
2. Mark all lines.
3. Remove guide. Using door frame as a straight edge, extend all lines entire length of F.
INTAKE ATTACHMENT (repeat 4 times)

USE FIN ALIGNMENT GUIDE FOR REFERENCE

FINAL ASSEMBLY

1. USE W TO SET ENGINE MOUNT DISTANCE

2. 2" (5 cm)

3.

4.

5.

6. DO NOT GLUE

SHOCK CORD INSTALLATION

1. M

2. 1 1/2" (38 mm)

3. 1 1/2" (38 mm)

4. 1 1/2" (38 mm)

5.

Hold until glue sets. Let dry.
ROCKET FINISHING
NOTE: We have found Testors One Coat Lacquer, Testors Model Master spray paints and Testors Gloss Lacquer to be excellent for providing a long lasting and durable finish on your rocket. Always be sure to spray your models outside or in a well ventilated area.

STEPS FOR A QUALITY FINISH:
1. Insert shock cord into body tube and hold in place with paper.
2. Lightly sand rocket with fine sandpaper.
3. Apply glue fillets to all glued areas.
   a. Let dry overnight.
4. Use a stick inserted into the engine tube end of the rocket for painting.
5. Hold nose cone by eyelet for painting. Cover shoulder with masking tape.
6. Apply 2 light coats of white primer to rocket body and nose cone, lightly sanding with fine sandpaper between coats.
   a. Let primer dry between coats.
7. Spray paint entire rocket white.
   a. Let dry overnight.
8. Spray paint nose cone red.
   a. Let dry overnight.
9. Mask off bottom of rocket, leaving upper 8" (20.3 cm) exposed. Spray paint gray.
   a. Let dry overnight.
10. Spray paint W black.
    a. Let dry overnight.
11. Glue W in place with CA glue.
12. Apply waterslide decals where shown.
    a. Cut decals to be applied from decal sheet, trimming close to the decal edge.
    b. Place one decal at a time in bowl of warm water until decal begins to curl.
    c. Remove decal, position in place and slide decal off of backing material and onto the model as close to final position as possible.
    d. Gently blot excess water with a clean paper towel. Allow decals to set overnight.
    e. Apply protective clear coat, optional. This will provide added protection and shine to your QCC Explorer™ rocket!

NOSE CONE PREPARATION

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DO NOT CUT OFF EYELET.

7-8 PIECES

NOTE: Recovery wadding and parachute must slide easily into body tube. If too tight, remove and redo.
ENGINE PREPARATION

**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.

USE FOR D ENGINES

COUNTDOWN AND LAUNCH

**IMPORTANT:**
Your Estes product is marked with a four digit lot code or codes. The code is two digits, a space and two more digits representing the week and year of manufacture, respectively. Lot codes can be found on the product package, decal, launch controller, launch pad and/or blast deflector. (Please record the lot code found on the decal and keep for future reference.) Lot code:

ESTES LAUNCH SUPPLIES NEEDED:
(Sold Separately)
- Porta Pad® II Launch Pad
- Electron Beam™ Launch Controller
- Recovery Wadding (302274)
- Igniters (with engines)
- Igniter Plugs (with engines)
- Recommended Engines:
  C11-3 (First Flight), D12-5, E9-4*, E9-6*

*E Engines require Porta-Pad E Launch Pad and E Launch Controller.

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. 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 enclosed 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.
QCC EXPLORER
FLYING MODEL ROCKET KIT
Skill Level 4

- Special Pricing!
- C, D & E' Engines!

FLIES UP TO 1225 FEET (373 m)

35 INCHES (890 mm) TALL!

Instructions enclosed.

QUANTITY: 1