**STARDUST™ READY-BUILT™ FLYING MODEL ROCKET INSTRUCTIONS**

1. **PARACHUTE ATTACHMENT**
   - A. Form loop with parachute shroud lines.
   - B. Lay shock cord over loop about 3/4" (20 mm) from nose cone.
   - C. Pass parachute through loop.
   - D. Pull tight.

2. **FLIGHT PREPARATION**
   **PARACHUTE PREPARATION**
   - A. Insert four squares of loosely crumpled recovery wadding into rocket body tube.
   - B. Spike parachute.
   - C. Fold.
   - D. Roll.
   - E. Wrap shroud lines loosely around 'chute, insert parachute into rocket.
   - F. Pour one teaspoon of stardust into the rocket body.
   - G. Slide shock cord and nose cone into place.

**ENGINE PREPARATION**

**WARNING - FLAMMABLE**
Before proceeding, read instructions and NAR safety code included with engines.
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 storing your engine.

**LAUNCH SUPPLIES**
To launch your rocket, you will need the following:
- Launch Pad (Estes Porta-Pad® II)
- Launch Controller (Estes Electron Beam®)
- Recommended Estes Engines: A8-3, B4-4, B6-4, B6-6, C6-5 or C6-7. For your first flight, use an A8-3 engine.
- Recovery Wadding (EST 302274)
- Igniters and Igniter Plugs (included with Estes engines)

Use only Estes products to launch this rocket.

**PROJECTED ALTITUDES**

<table>
<thead>
<tr>
<th>ENGINE</th>
<th>FEET</th>
<th>METERS</th>
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</thead>
<tbody>
<tr>
<td>A8-3</td>
<td>195</td>
<td>59</td>
</tr>
<tr>
<td>B4-4</td>
<td>475</td>
<td>145</td>
</tr>
<tr>
<td>B6-4/B6-6</td>
<td>510</td>
<td>155</td>
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<tr>
<td>C6-5/C6-7</td>
<td>1050</td>
<td>320</td>
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**TIPS FOR FLYING YOUR ROCKET**
- Stand upwind when launching for the best view of the glittering “cloud” of stardust ejected into the sky when the rocket's parachute opens.
- Choose a large field away from power lines, buildings, trees, and low flying aircraft. Try to find a field at least 250 feet (75 meters) square. The larger the launch area, the better your chance of recovering your rocket.
- Launch area must be free of dry weeds and brown grass.
- Launch only during calm weather with little or no wind and good visibility.
- Don’t leave parachute packed more than a minute or so before launch during cold weather (colder than 40° Fahrenheit [4°Celsius]). Parachute may be dusted with talcum or baby powder to avoid sticking.
- Always follow the National Association of Rocketry (NAR) MODEL ROCKETRY SAFETY CODE while participating in any model rocketry activities. The safety code is enclosed with this kit.
COUNTDOWN AND LAUNCH

10... Safety key must not be in launch controller. The safety cap with safety key attached should already be on the launch rod.

9... Remove safety cap from launch rod, slide launch lugs over rod. Make sure rocket slides freely and micro-clips are clean for good electrical contact.

8... Attach micro-clips to the igniter wires. Arrange the micro-clips so they do not touch each other or the metal blast deflector. Attach micro-clips as close to protective tape on igniter as possible.

7... Move everyone back from your rocket as far as launch wire will permit (at least 15 feet - 5 meters).

6... Insert safety key to arm the launch controller.

5... Start audible countdown.

4...3...2...1......

LAUNCH!
Push and hold button until engine ignites.
For safety, immediately remove safety key from launch controller and replace safety cap on launch rod.

MISFIRES
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. Broken or chipped coating will not affect the performance of the igniter. Reinstall the igniter plug as illustrated previously. Repeat the countdown and launch procedure.