

FINAL PAYLOAD ASSEMBLY

1. Measure and mark **J**.
2. Apply ring of plastic cement in **E** and insert **J** to mark.
3. Insert painted **K** into **E**. Use cellophane tape to hold **K** to **E**.

RECOVERY SYSTEM ATTACHMENT

1. Form loop with shroud lines.
2. Insert loop through **I**.
3. Pass parachute through loop.
4. Pull lines tight.
5. Tie **M** to **I** with double knot.

PREPARE FLIGHT RECOVERY

NOTE: Only Estes Recovery Wadding (302274) recommended.

1. Pull shock cord taut when inserting wadding.
2. Insert 3 - 4 loosely crumpled squares recovery wadding. Push below shock cord attachment.
3. Spike.
4. Fold.
5. Roll.
6. Wrap lines loosely around parachute. Insert parachute and shock cord into body tube.

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

PREPARE ENGINE

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.

1. Separate igniter and igniter plug.
2. Insert igniter.
3. Insert plug.
4. Push down.
5. Gently bend igniters to form leads as shown.
6. Insert engine into rocket.

COUNTDOWN AND LAUNCH

KEY ALWAYS OUT UNTIL FINAL COUNTDOWN!

- 1... Masking Tape
- 2...
- 3...
- 4... 15 FT. (4.6 M)
- 5... WHILE HOLDING KEY DOWN FIRMLY, PRESS LAUNCH BUTTON UNTIL LIFTOFF!

LAUNCH SUPPLIES (Sold Separately)

- Porta Pad® II Launch Pad
- Electron Beam® Launch Controller
- Recovery Wadding
- Igniters (with Engines)
- Igniter Plugs (with Engines)
- Recommended Estes® Engine: A8-3, B6-4, C6-5

INSERT KEY. PUSH DOWN HARD. BULB WILL LIGHT.

PRECAUTIONS

NAR Safety Code

This Paper Can Be Recycled

NO DRY GRASS OR WEEDS

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.



Estes-Cox Corp.
1295 H Street, PO Box 227
Penrose, CO 81240-0227
Printed in Guangdong, China

PAYLOADER II™

FLYING MODEL ROCKET KIT INSTRUCTIONS

KEEP FOR FUTURE REFERENCE

#3022

ASSEMBLY TIP:
Read all instructions before beginning work on your model. Make sure you have all parts and supplies.



www.estesrockets.com

NOTE: Test fit all parts together before applying glue. If parts don't fit properly, sand as required for precision assembly.

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: _____

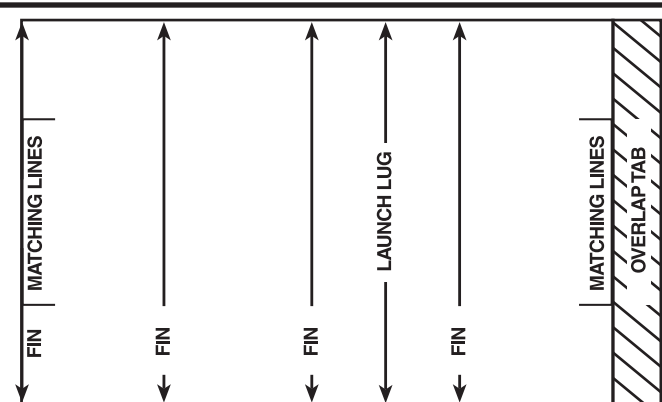
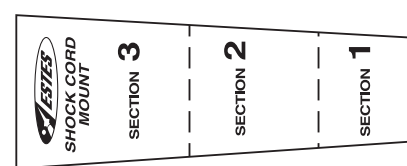
Part	Qty.	Description	Part Number
A	1	Engine Mount Tube	030326-1
B	1	Engine Hook	035021
C	1	Adapter Ring	030165-2
D	1	Engine Block	030224
E	1	Clear Payload Section	030608
F	1	Main Body Tube	030456
G	4	Laser Cut Main Fin	066118
H	4	Laser Cut Dorsal Fin	066118
I	1	Screw Eye	038251
J	1	Balsa Nose Block	070158
K	1	Balsa Nose Cone	070262
L	1	Launch Lug	038178
M	1	Shock Cord	038367
N	1	Parachute	035815
		Waterslide Decal (not shown)	066120

SUPPLIES

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

TUBE MARKING GUIDE

(Make a copy if you want to keep instructions.)



FIN PREPARATION

- Sand both sides of balsa sheet with fine sandpaper (#320 or #400 grit).
- Cut **G** and **H** from sheet.
- Stack like fins together. Sand edges smooth.
- Apply glue to short side of **H** and position next to **G**. Let dry.
- Repeat for remaining **G** and **H**. Let dry.
- When dry, sand both sides of completed fins smooth.
- Round leading edges. **DO NOT round root edges.**

ENGINE MOUNT ASSEMBLY

- Measure and mark **A**.
- Cut small slit at mark.
- Insert **B** in slit.
- Slide **C** to mark. Apply ring of glue to both sides of **C**.
- Apply ring of glue in end of **A**, insert **D** until it stops. Let dry.

TUBE MARKING

- Cut tube marking guide from instructions.
- Tape guide around **F**. Mark **FL** and **LL** at arrows. Remove guide.
- Connect **FL** and **LL** on **F**. Use door frame as a straight edge.
- Measure and mark on **LL**.

FIN ATTACHMENT

- Apply glue to root edge of fin assembly. Let dry 1 minute. Apply 2nd layer of glue. Position fin assembly centered over **FL** even with end of **F**. Let dry.
- Repeat for other fin assemblies.

Use fin alignment guide for fin attachment accuracy.

LAUNCH LUG ATTACHMENT

- Sand **L** with fine sandpaper.
- Apply glue to **LL** forward of mark.
- Position **L** centered on **LL**. Let dry.

ENGINE MOUNT INSTALLATION

- Apply ring of glue inside of **F**.
- Align **B** with **LL** and slide engine mount assembly into **F** even with end. Let dry.

PAYLOAD ASSEMBLY

- Check fit of **J** in **E**. Sand **J** as required.
- Screw **I** centered into **J**.

NOSE CONE ASSEMBLY

- Check fit of **K** in **E**. Sand as required. Remove **K** for painting.

HELPFUL HINT: IF NOSE CONE FIT IS...

TOO LOOSE	TOO TIGHT
ADD MASKING TAPE.	SAND FOR FIT.

SHOCK CORD INSTALLATION

- Cut shock cord mount from instructions.
- Apply glue to section 2. Place **M** on glue. Fold forward.
- Apply glue and fold forward.
- Squeeze tight!
- Apply glue to shock cord mount and insert in body tube. Hold until glue sets. Let dry.

ROCKET FINISHING

NOTE: We have found Testors One Coat Lacquer, Testors Model Master spray paints (color of your choice) and Testors Gloss Lacquer (#1961) 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 TO A QUALITY FINISH

- Insert shock cord into body tube and hold in place with paper.
- Lightly sand body tube, fins and nose cone with fine sandpaper (#320 or #400 grit).
- Apply glue fillets to fins and launch lug joints.
 - Allow glue to dry overnight.
- Paint the rocket body, nose block and nose cone separately. Assemble after painting is complete.
- Use a stick inserted into the engine mount end of the rocket body for painting.
- Hold the nose block by the screw eye with a clip or pliers for painting.
- Insert a hobby knife in the end of the nose cone for painting.
- We recommend a good filler/primer to be applied to the balsa fins and nose cone before painting.
- Apply 1-2 light coats of white primer to rocket body, nose block and nose cone, lightly sanding with fine sandpaper (#320 or #400 grit) between coats.
 - Allow to dry between each coat.
- Spray paint nose cone gloss bright red.
- Spray nose block gloss white.
 - Let paint dry overnight (24 hours is best).
- Spray rocket body gloss white.
 - Let paint dry overnight (24 hours is best).
- Apply masking tape between fins.
- Apply masking tape to end of body tube (1/4" (6 mm)).
- Apply protective cover over rocket body exposing fins and ring at end of body tube.
- Spray fins and end of body tube bright red.
 - Let paint dry overnight (24 hours is best). Remove masking tape and cover.
- Apply waterslide decals where shown.
 - Cut the decal to be applied from the decal sheet, trimming close to the decal edge.
 - Hold the decal in warm water until decal begins to curl.
 - Remove the entire decal, position in place and slide the decal backing material from under the decal and onto the model as close to final position as possible.
 - Gently blot out excess water with a clean paper towel.
 - Allow decals to set overnight before applying protective clear coat.
- When decals are dry, spray entire rocket (body, nose block and nose cone separately) with a light coat of Testors Gloss Lacquer (#1961). This will provide added protection and shine to your PAYLOADER II™ rocket!

