



EstesRockets.com

AGES
10+



SUPER ORBITAL TRANSPORT™ 7314

Skill Level

EXPERT

MODEL ROCKET INSTRUCTIONS

KEEP FOR FUTURE REFERENCE

IMPORTANT: Please record date found on decal and keep for future reference. _____



CAUTION:

May not apply to all kits. For safe handling of plastic cement, epoxy, spray adhesive, CA glue, CA accelerator, paint/finishing materials, see manufacturer's warnings and follow instructions for use. To avoid injury, use extreme caution when using hobby knife, scissors, drills, and any cutting tools.

SUPPLIES



SCISSORS



PENCIL



RULER



YELLOW GLUE



PLASTIC CEMENT



HOBBY KNIFE



MASKING TAPE/
PAINTERS TAPE



PRIMER (WHITE)



BLACK, WHITE



CLEAR COAT
(OPTIONAL)



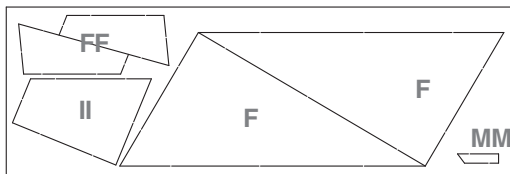
WAX PAPER



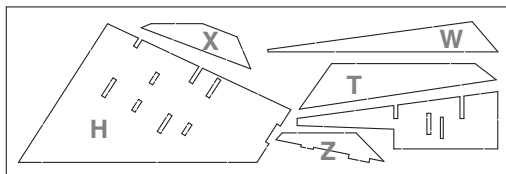
FINE SANDPAPER



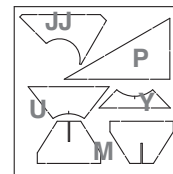
SANDING BLOCK



090051A-7314
Laser cut balsa



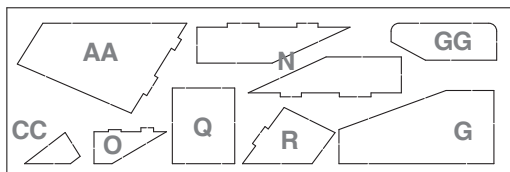
090051B-7314
Laser cut balsa x2



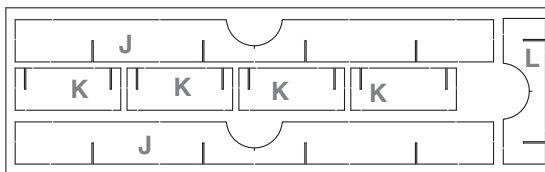
090052B-7314
Laser cut card stock



090058-7314
Printed index stock



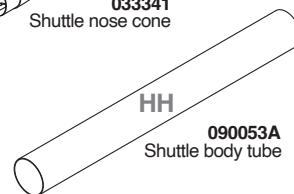
090051C-7314
Laser cut balsa x2



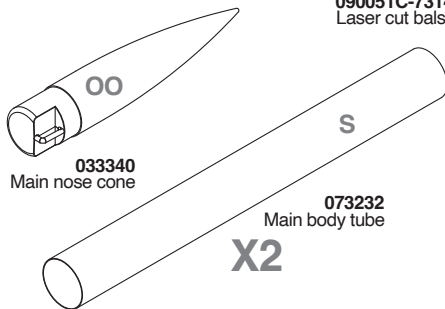
090052A-7314
Laser cut card stock



033341
Shuttle nose cone



090053A
Shuttle body tube



033340
Main nose cone

073232
Main body tube



090053B
Engine mount tube



030164-2
Engine block green



030166-2
Green ring



030480
Black retainer ring



035021
Engine hook



030175-5
Tube coupler red



038166
Launch lug 3/16 in.



031802
Rear tube



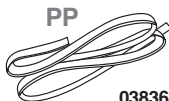
032054
Wood dowel



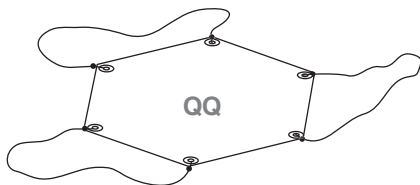
085704
Clay



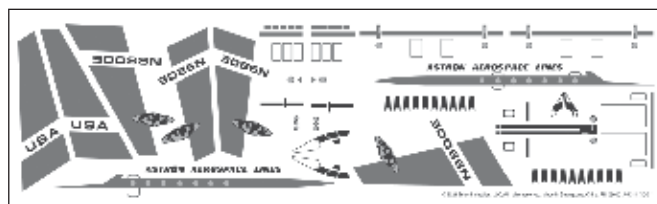
038175
Launch lug 1/8 in. x 1 1/4 in.



038363
Shock cord



035802
Parachute



090001A-7314
Water slide decal



090001B-7314
Water slide decal

SHOCK CORD MOUNT

Make a copy if you want to keep instructions.



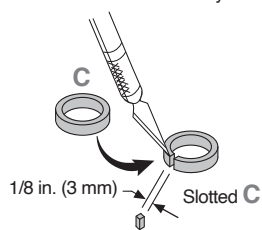
3

2

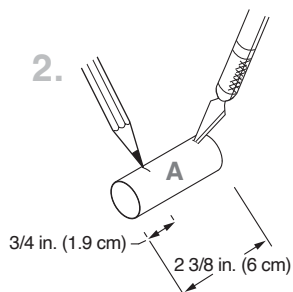
1

ASSEMBLE ENGINE MOUNT

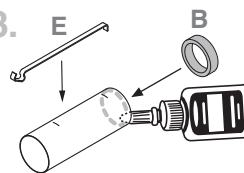
1. Cut slot in **C** with hobby knife.



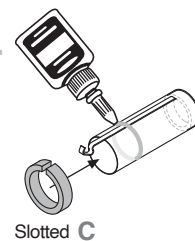
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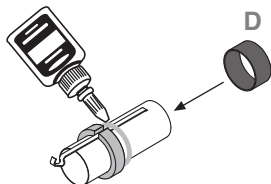
- 3.



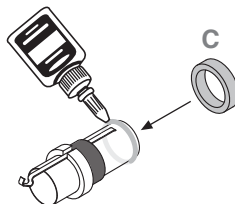
- 4.



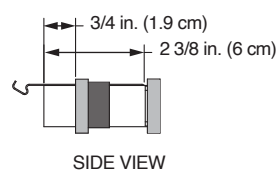
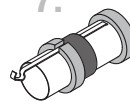
- 5.



- 6.

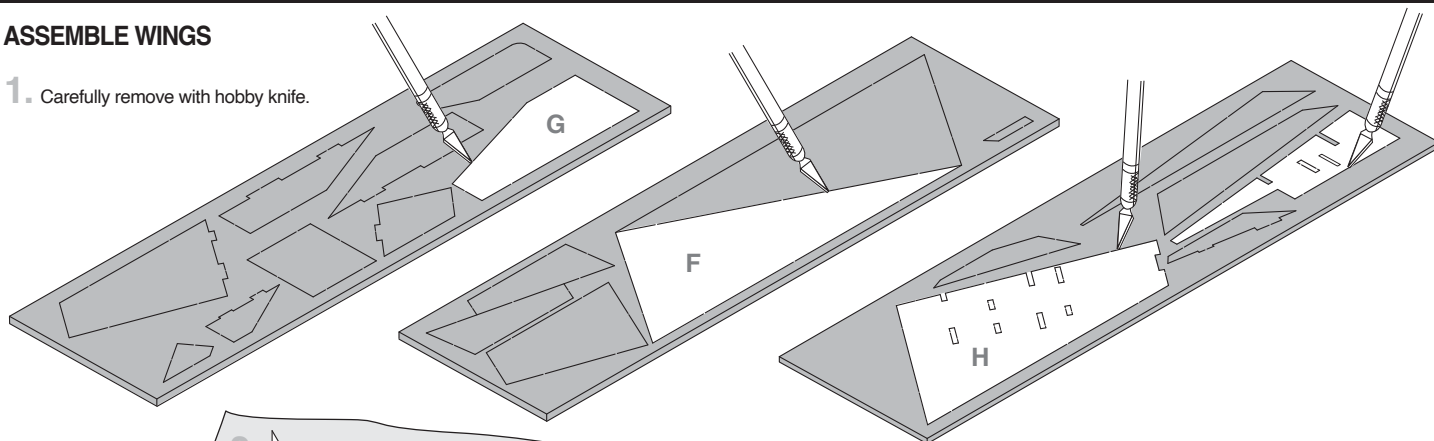


- 7.



ASSEMBLE WINGS

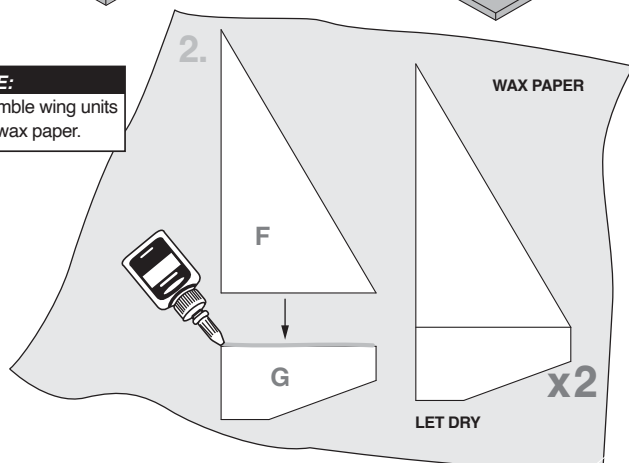
1. Carefully remove with hobby knife.



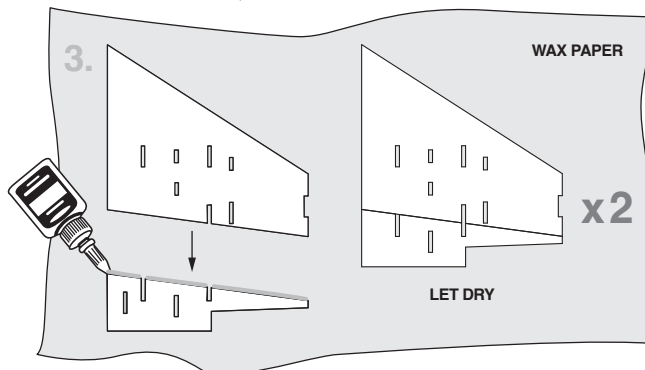
NOTE:

Assemble wing units over wax paper.

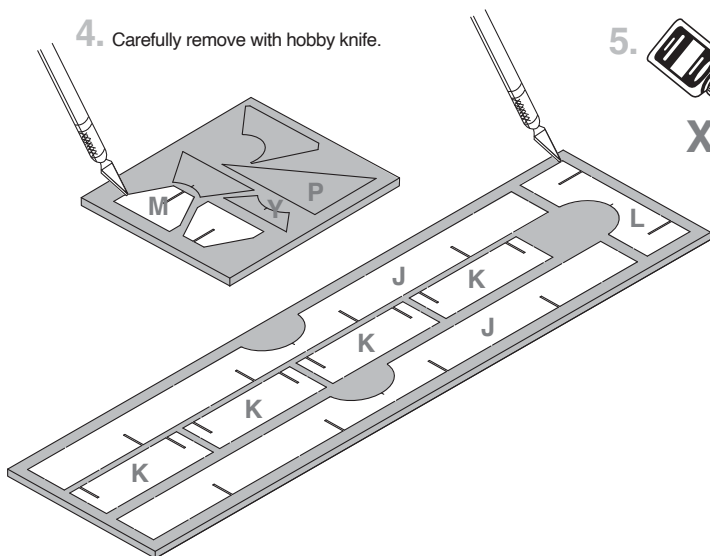
- 2.



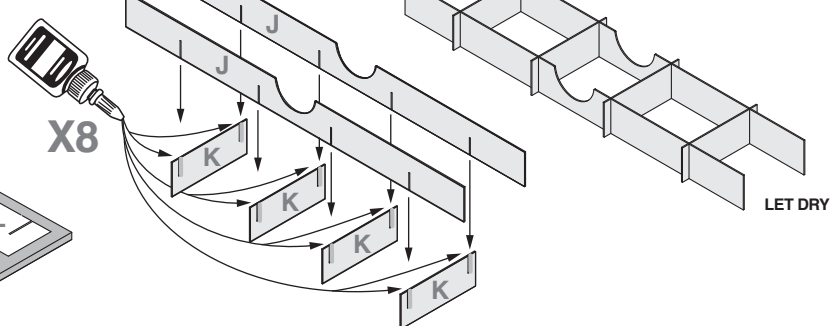
- 3.



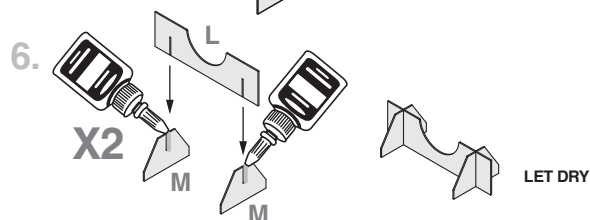
4. Carefully remove with hobby knife.



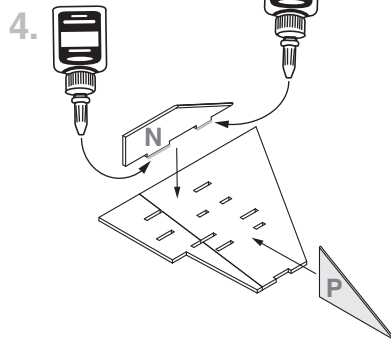
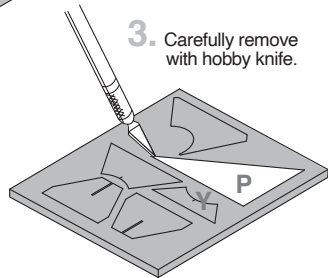
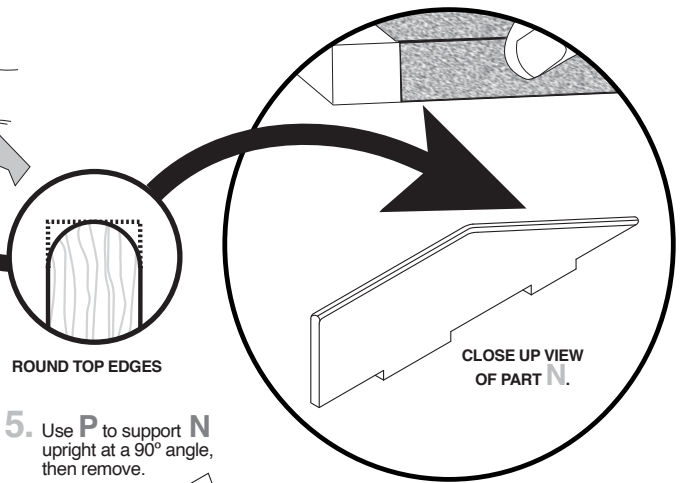
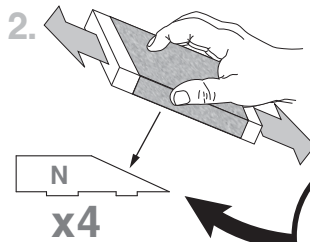
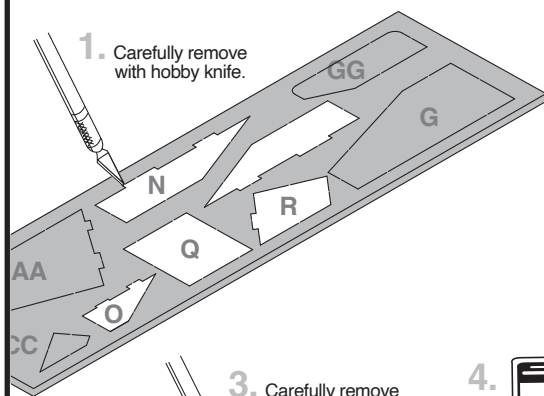
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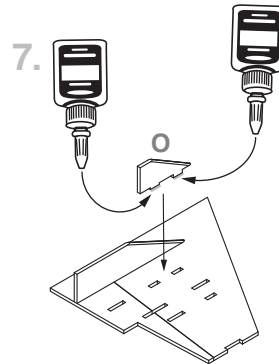
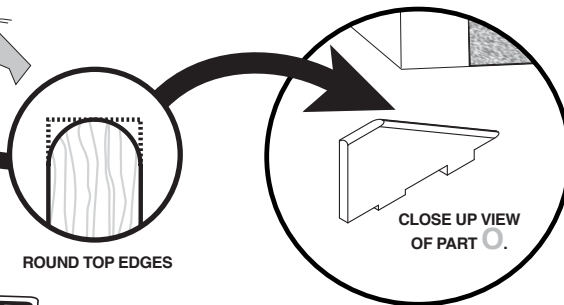
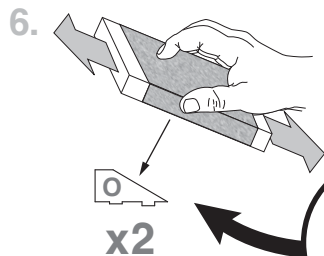
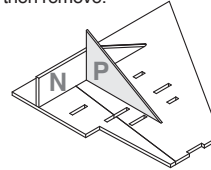
- 6.



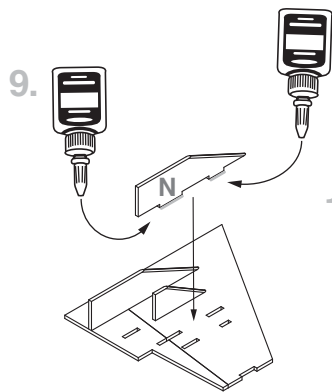
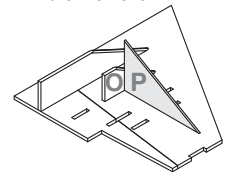
ASSEMBLE ENGINE NACELLES AND LOWER WING FIN



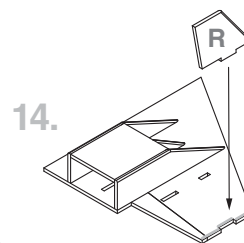
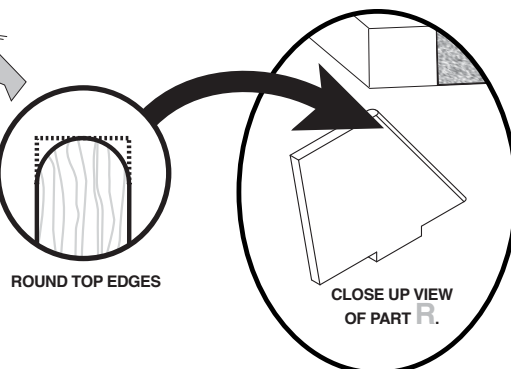
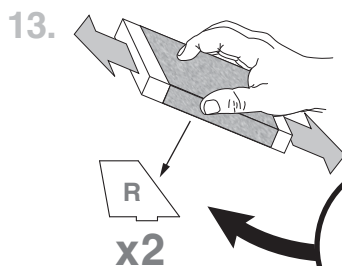
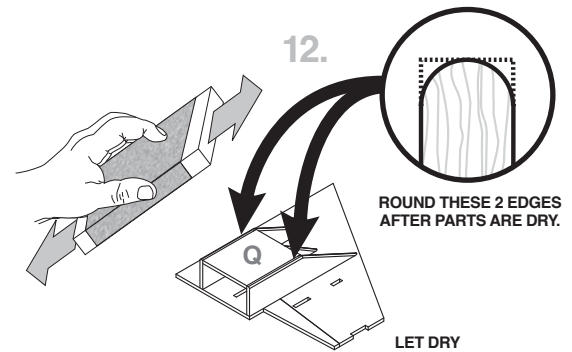
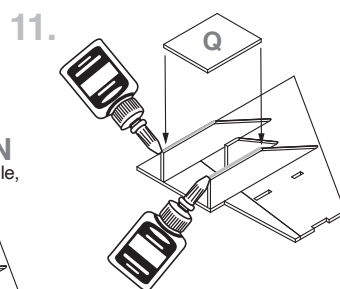
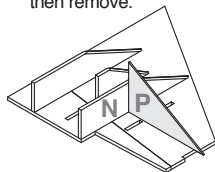
5. Use P to support N upright at a 90° angle, then remove.



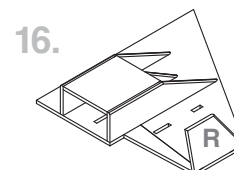
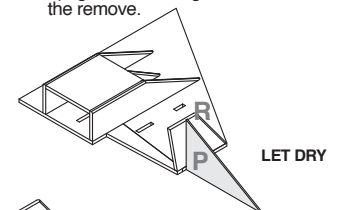
8. Use P to support O upright at a 90° angle, then remove.



10. Use P to support N upright at a 90° angle, then remove.



15. Use P to support R upright at a 90° angle, then remove.



REPEAT ALL STEPS FOR OPPOSITE WING

MARK TUBE

7314 SUPER ORBITAL TRANSPORT BOTTOM TUBE MARKING GUIDE

Make a copy if you want to keep instructions.

SF

SF

SS

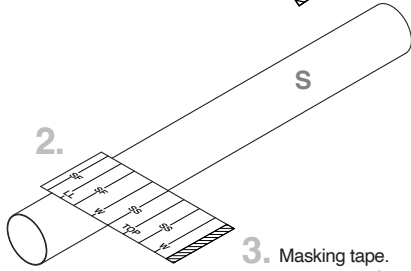
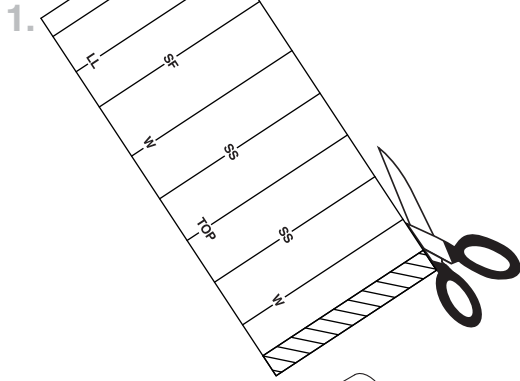
SS

W

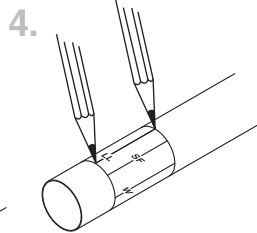
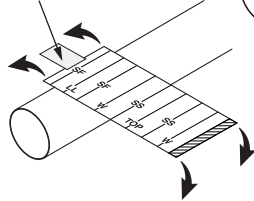
LL

W

TOP

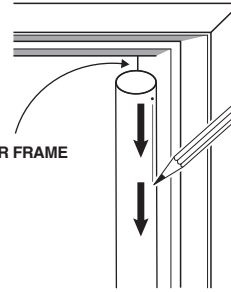


3. Masking tape.



5. Remove guide. Use door frame to extend all lines.

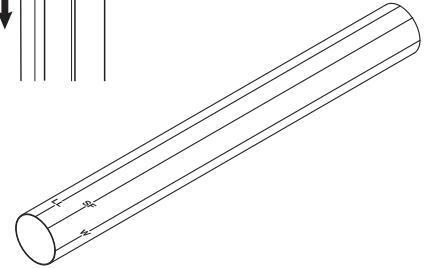
DOOR FRAME



NOTE:

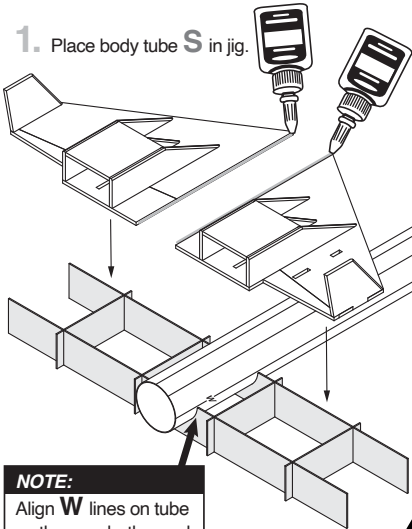
You can also use the 2228 Estes Ultimate™ Tube Marking Guide to quickly and accurately extend lines on body tubes when building your rocket (www.EstesRockets.com).

6.



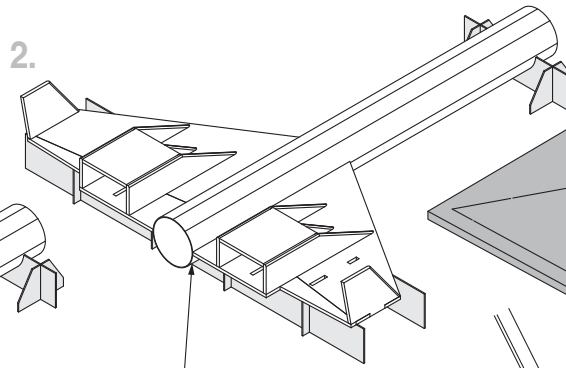
ATTACH MAIN COMPONENTS

1. Place body tube **S** in jig.

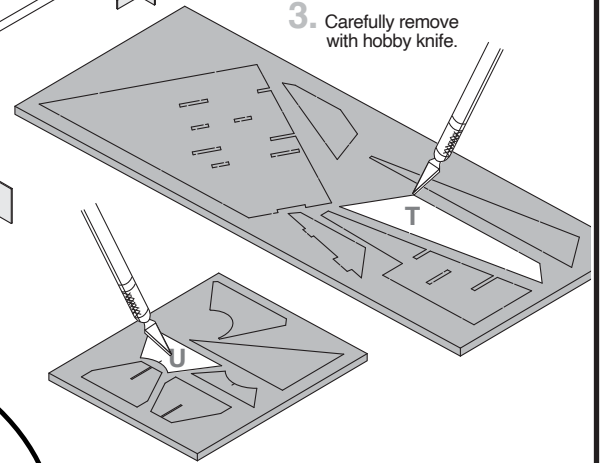


2.

ENDS EVEN

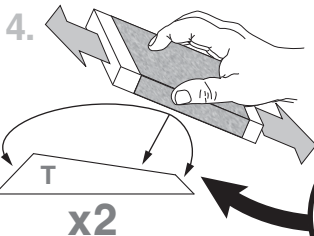


3. Carefully remove with hobby knife.



NOTE:

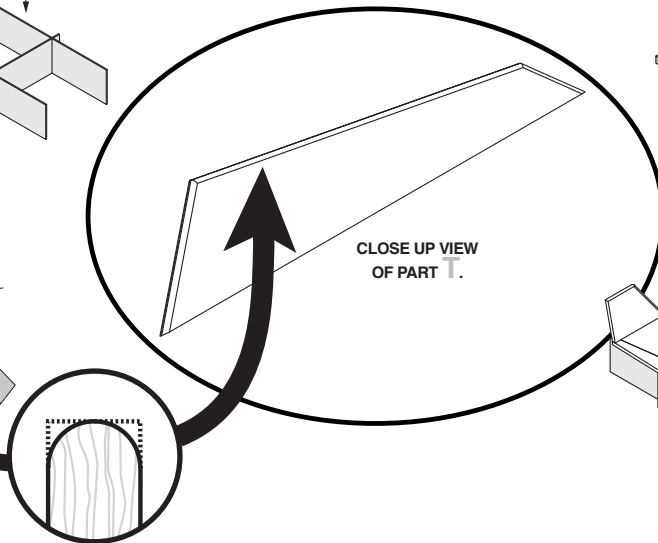
Align **W** lines on tube so they are both equal distance above wing support jig.



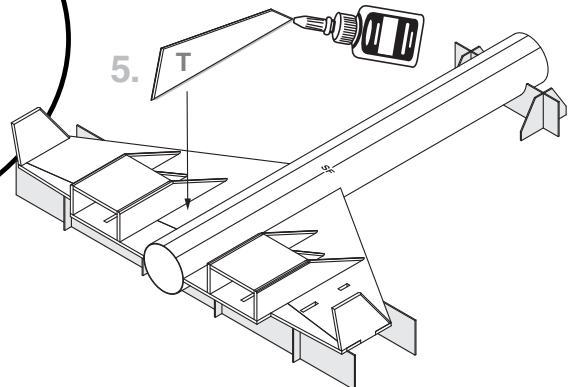
x2

CLOSE UP VIEW OF PART **T**.

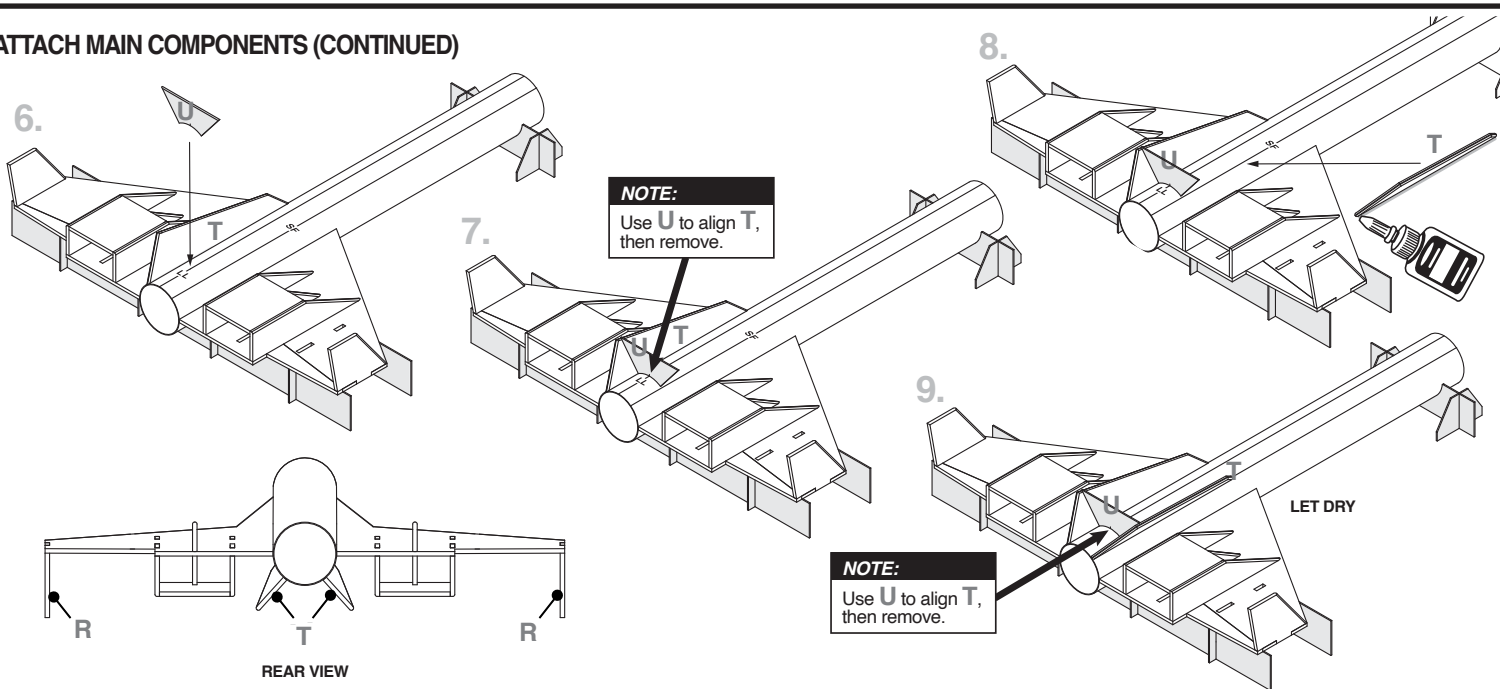
ROUND TOP EDGES



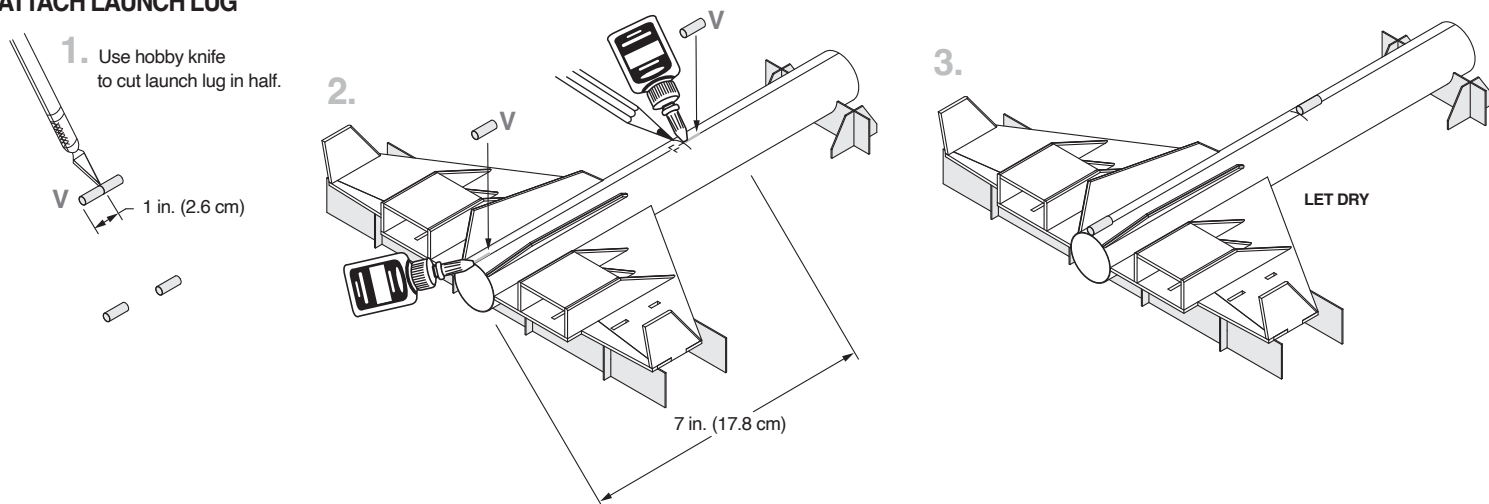
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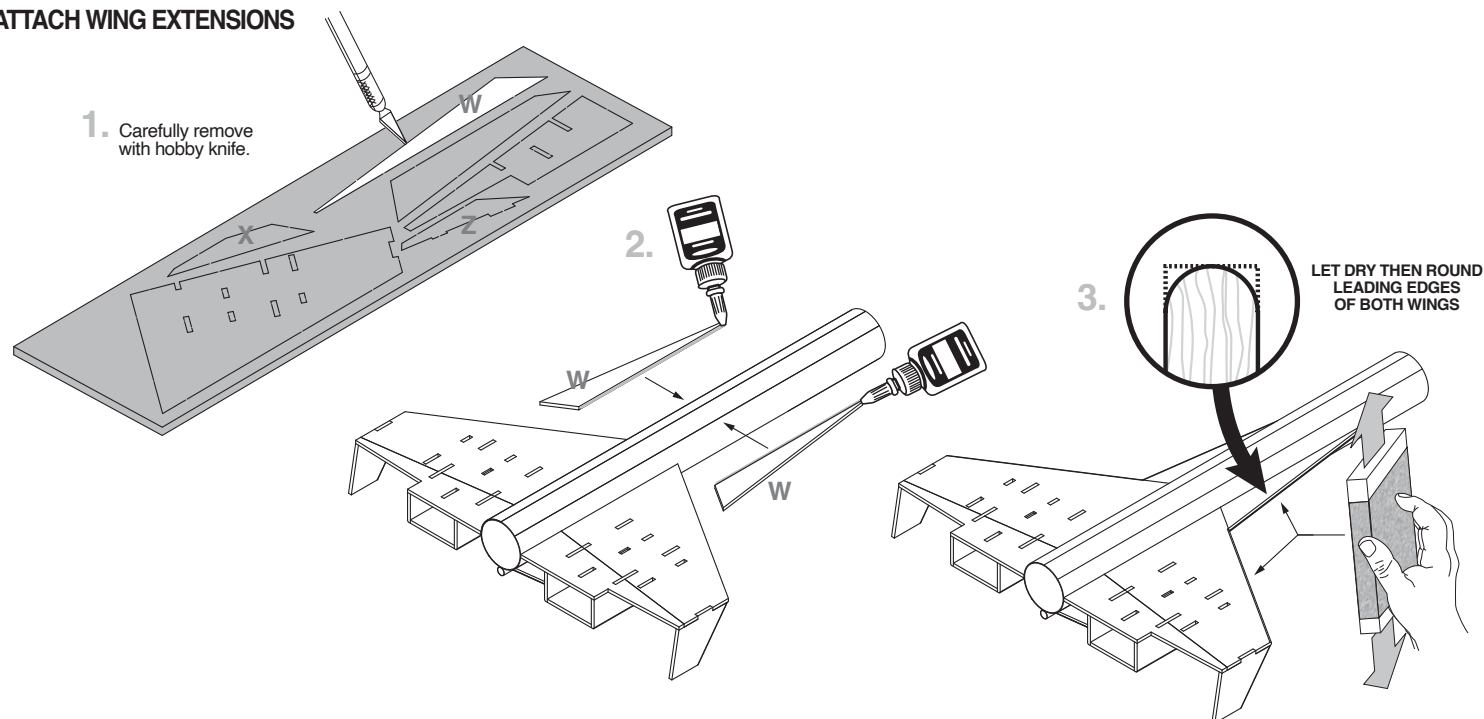
ATTACH MAIN COMPONENTS (CONTINUED)



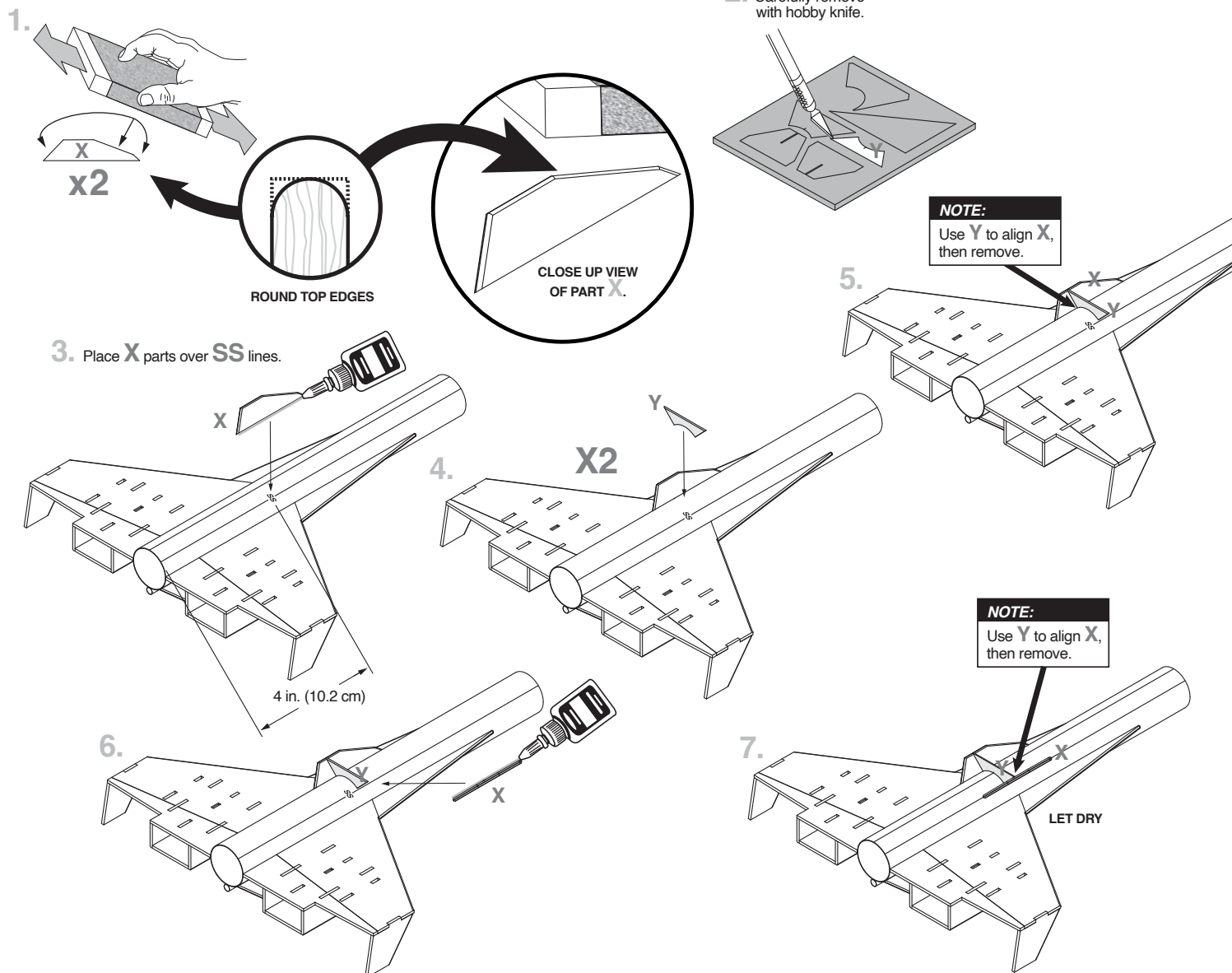
ATTACH LAUNCH LUG



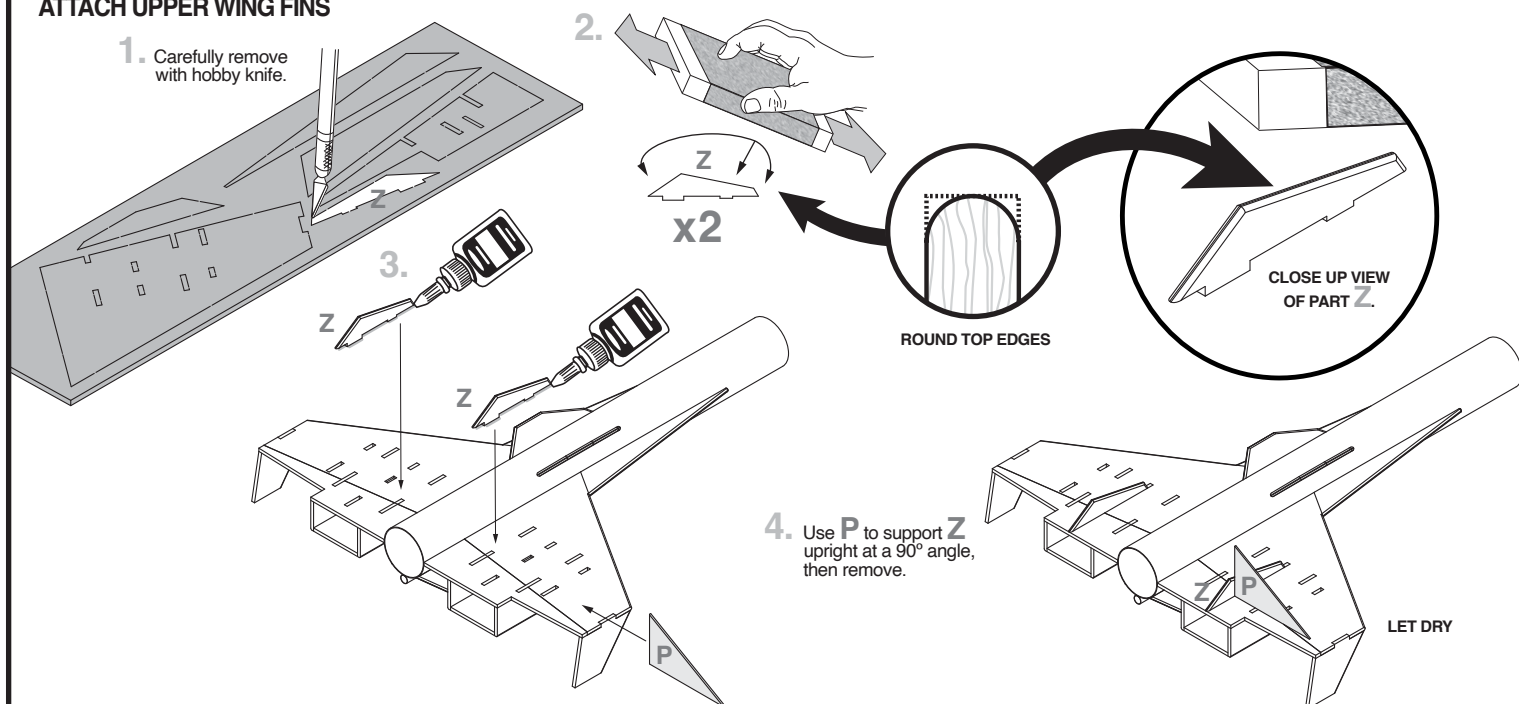
ATTACH WING EXTENSIONS



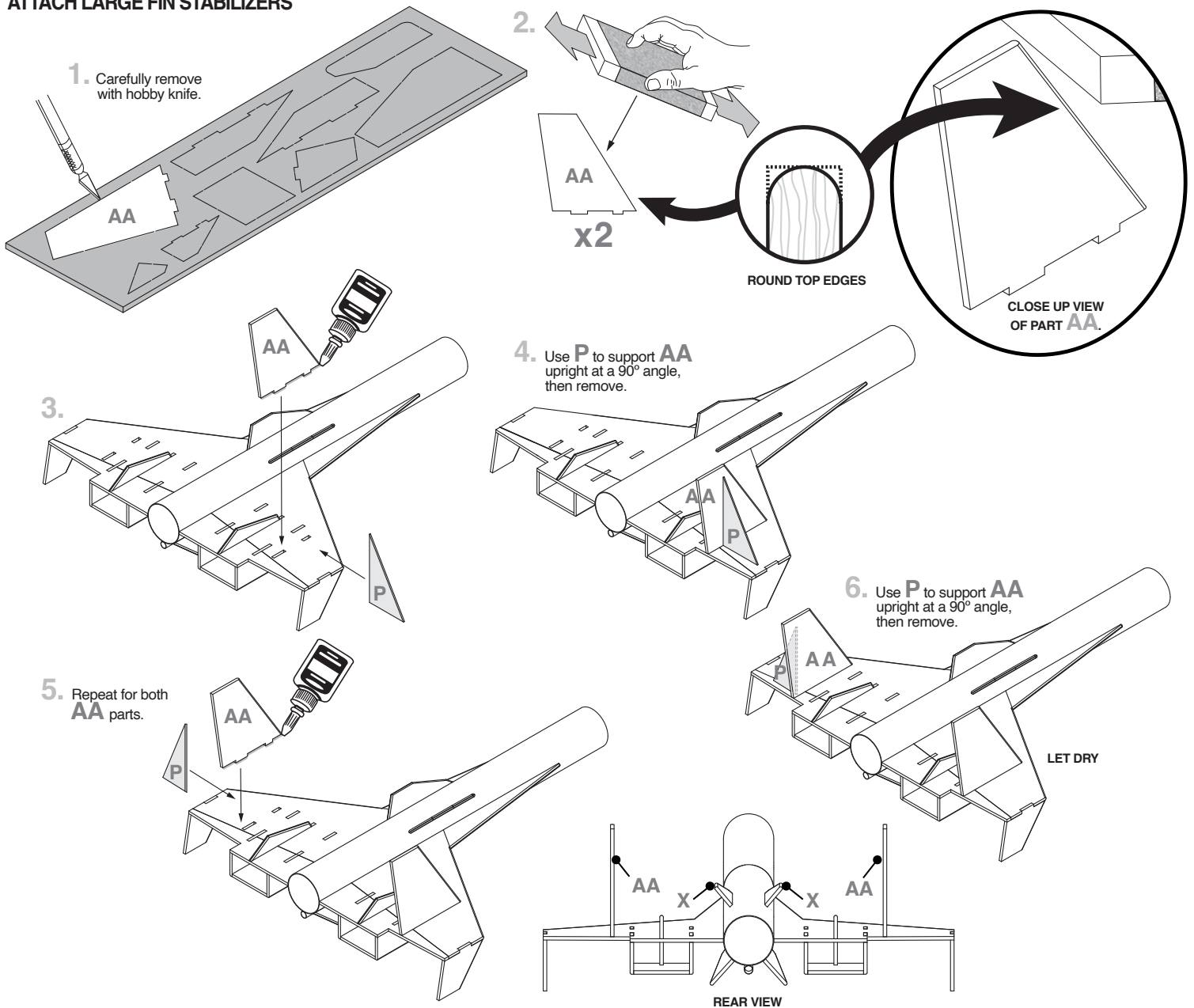
ORBITAL SUPPORT FINS



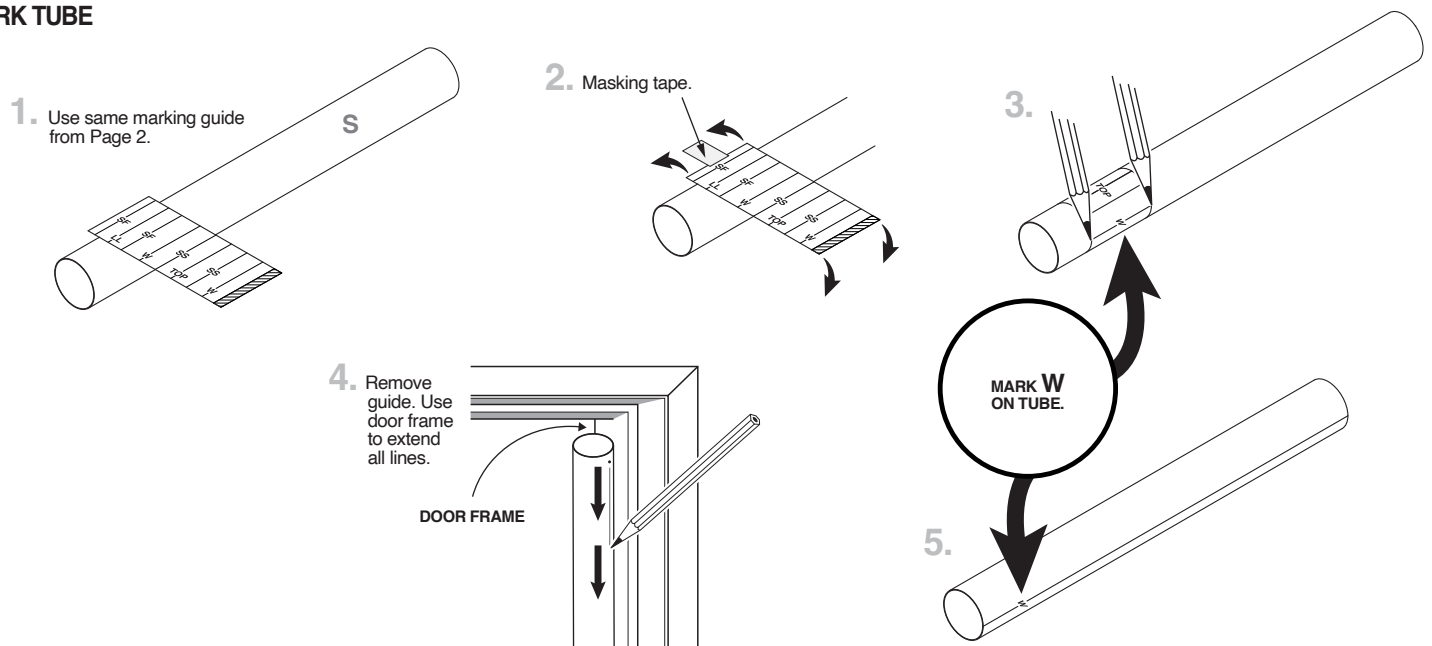
ATTACH UPPER WING FINS



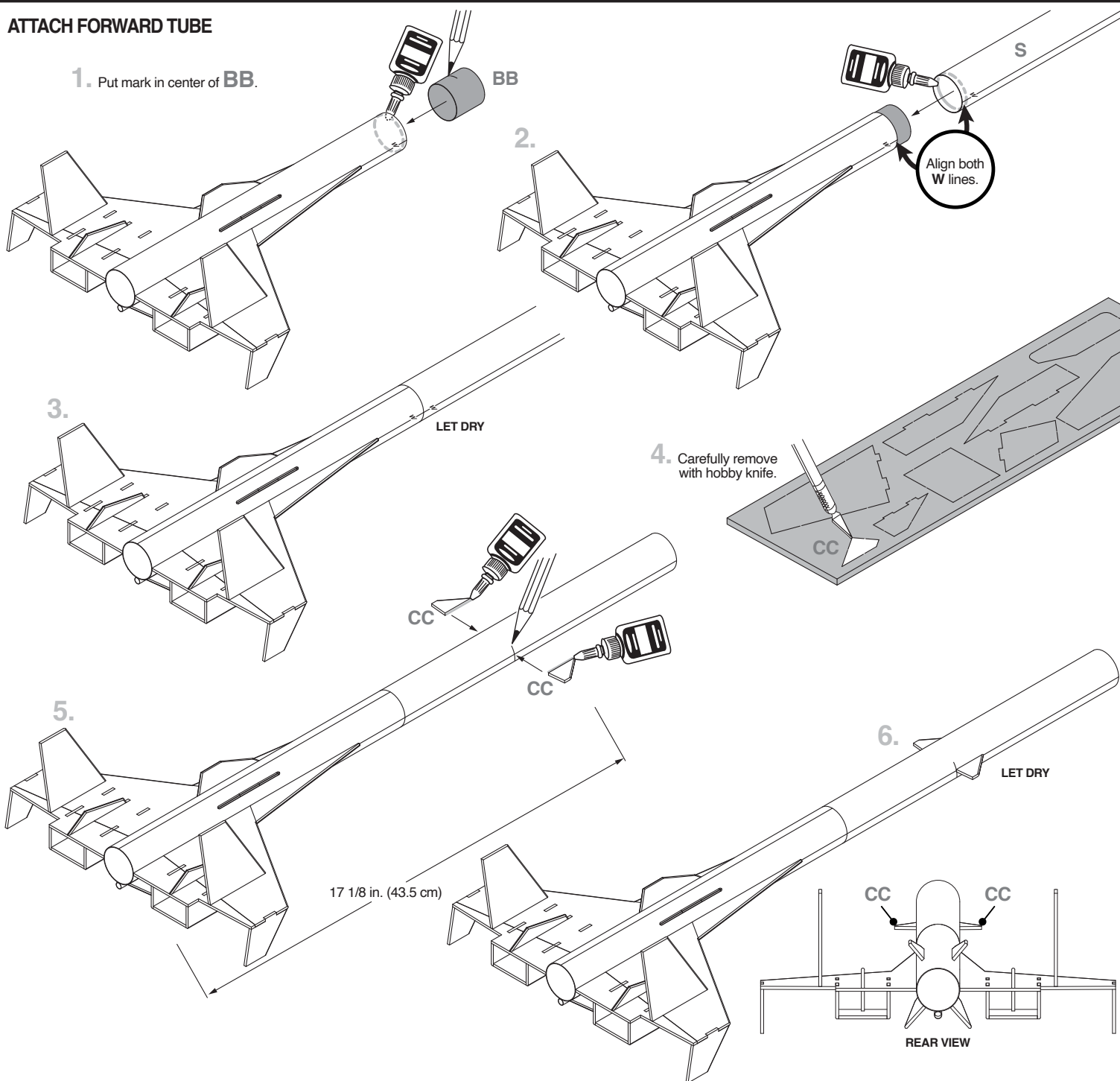
ATTACH LARGE FIN STABILIZERS



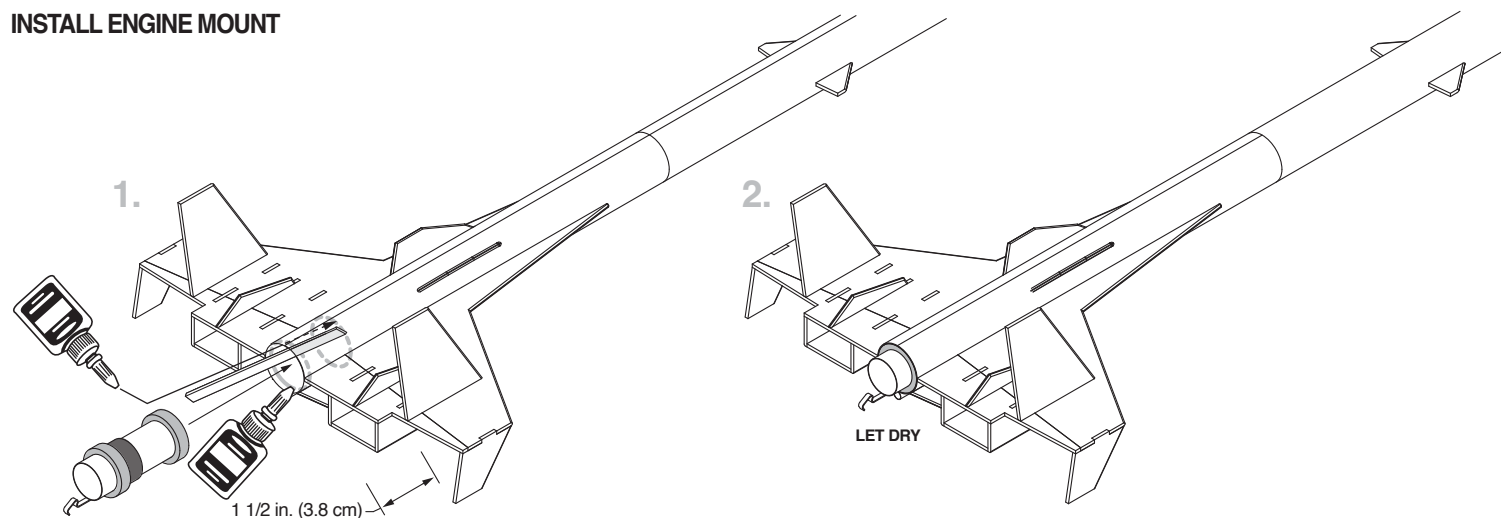
MARK TUBE



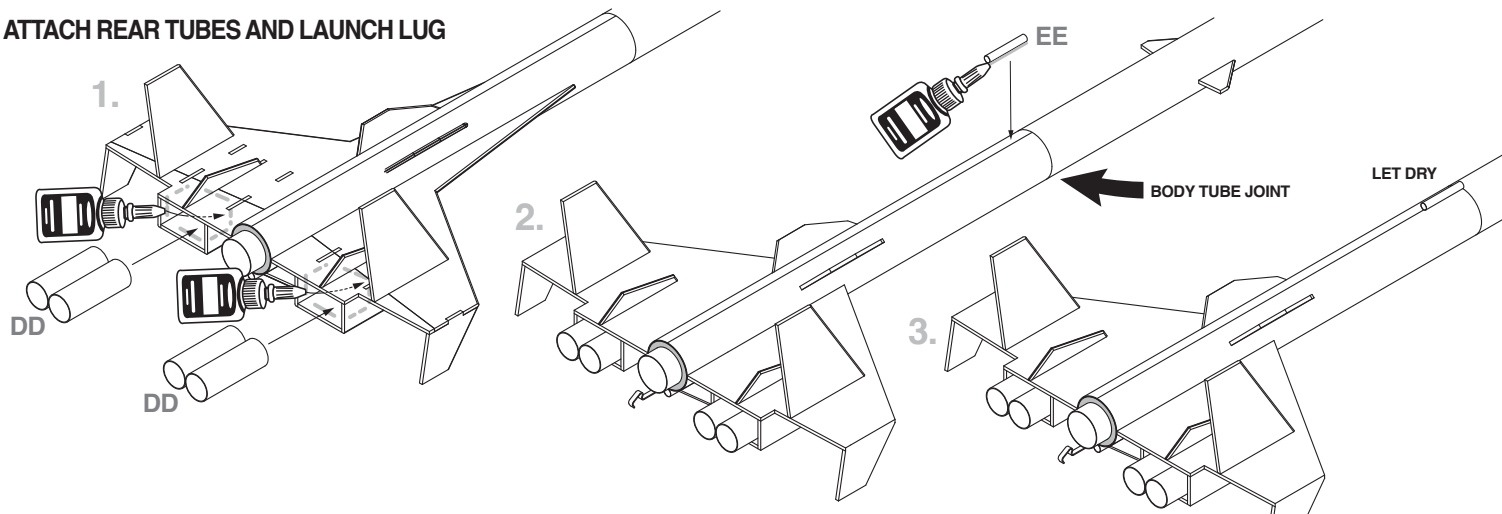
ATTACH FORWARD TUBE



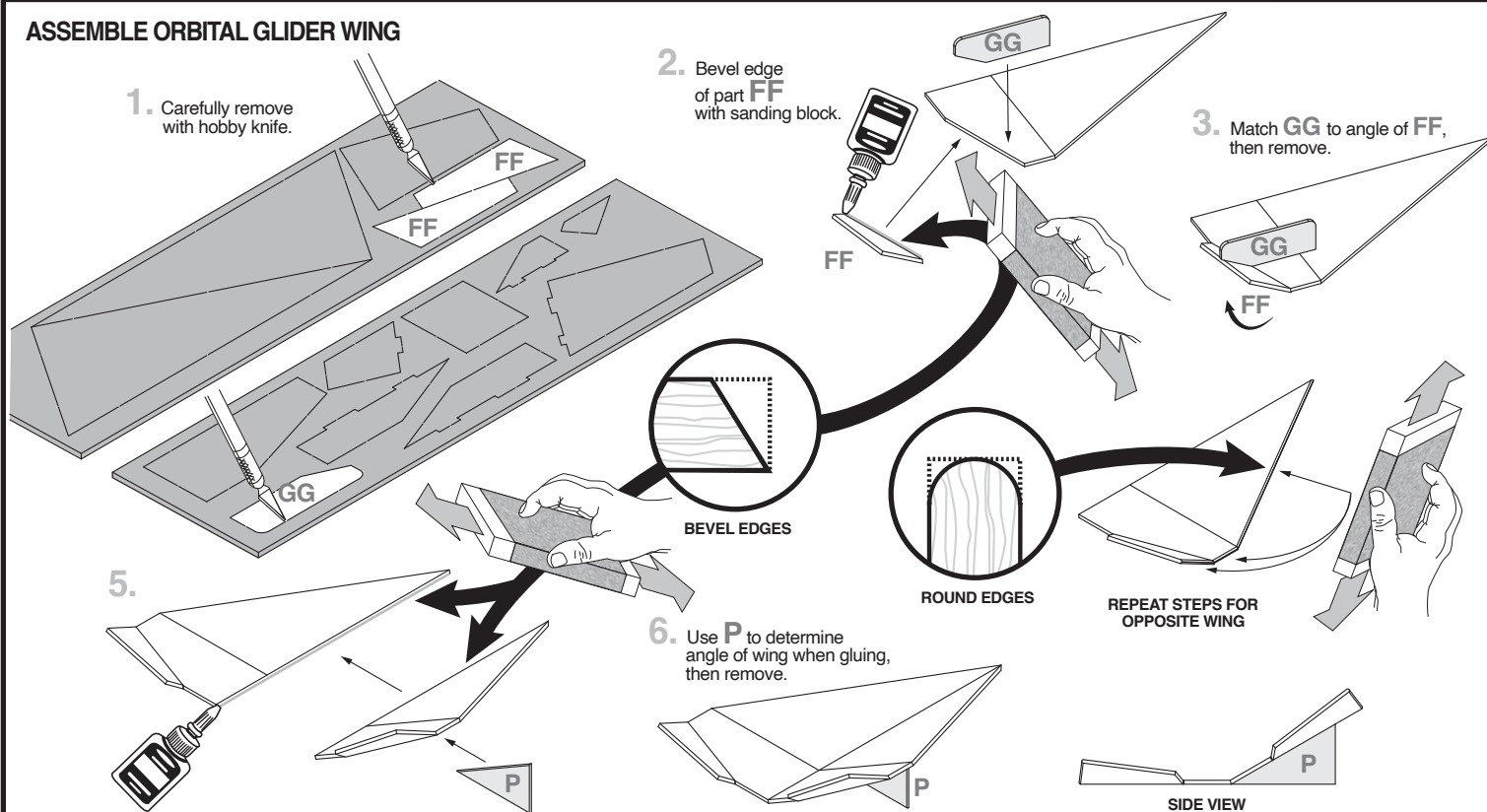
INSTALL ENGINE MOUNT



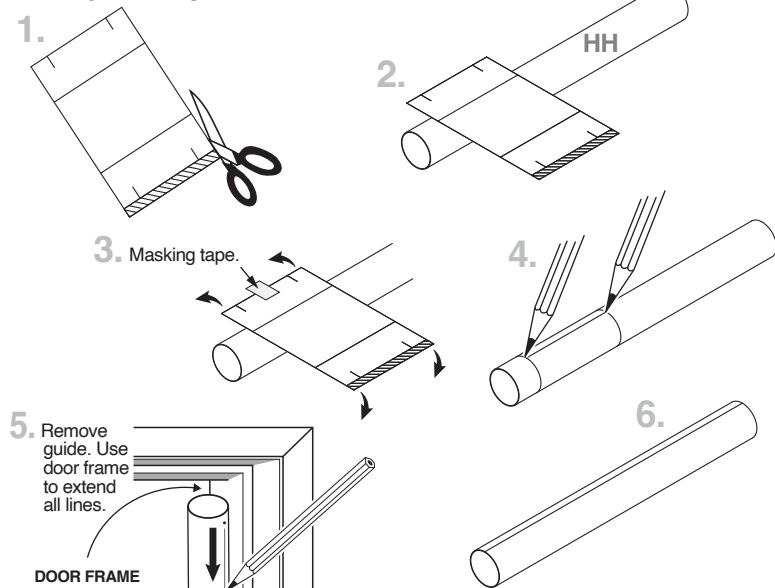
ATTACH REAR TUBES AND LAUNCH LUG



ASSEMBLE ORBITAL GLIDER WING

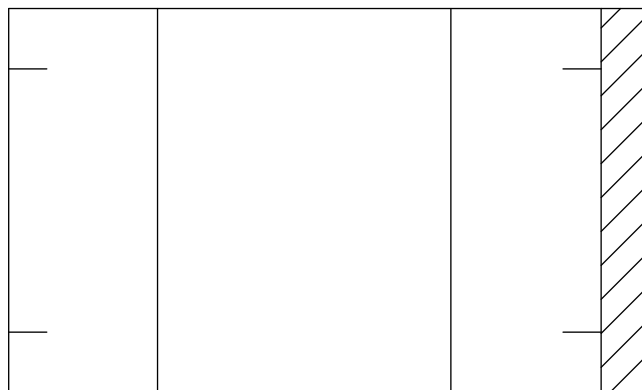


MARK GLIDER TUBE

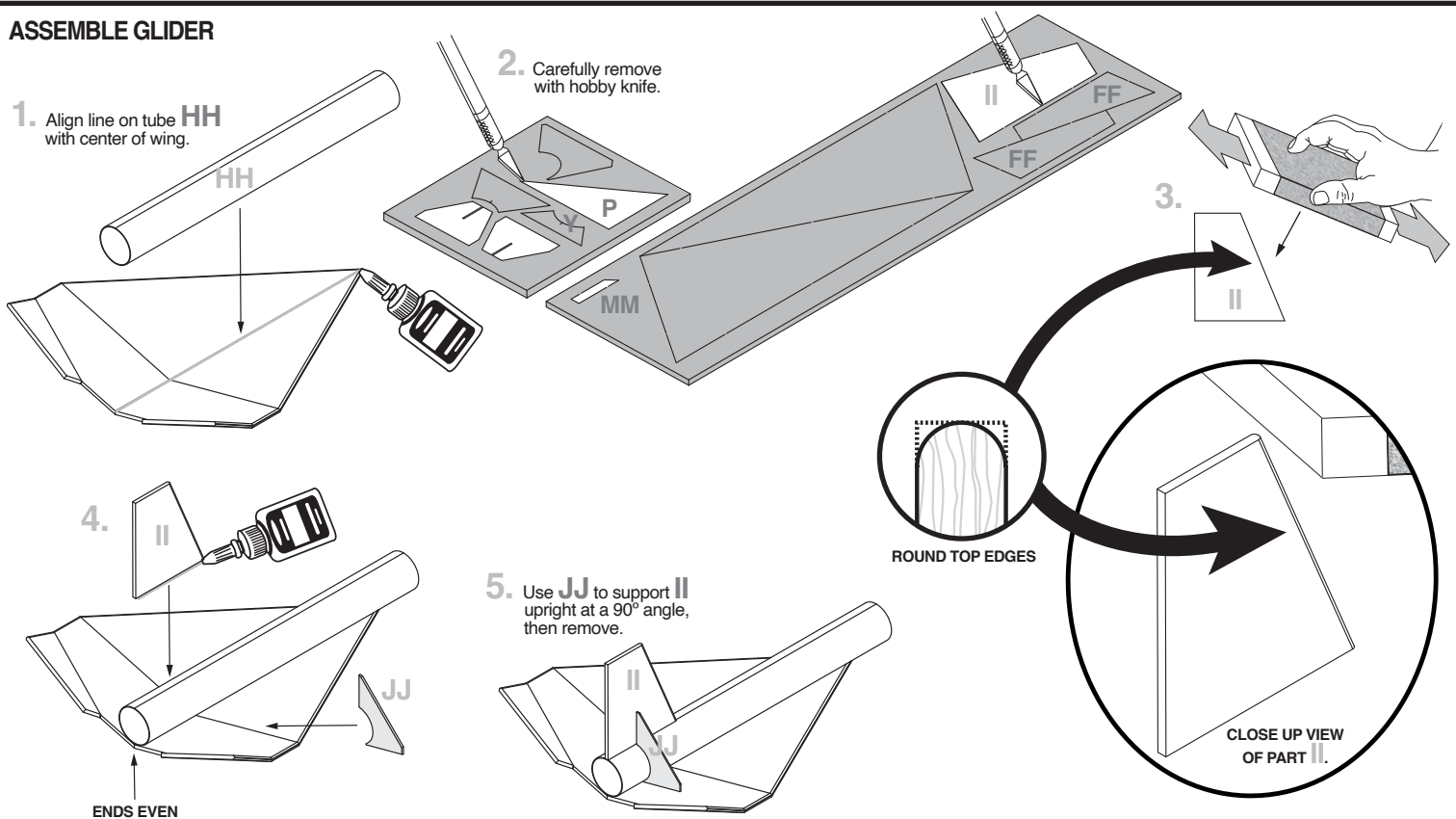


7314 SUPER ORBITAL TRANSPORT GLIDER TUBE MARKING GUIDE

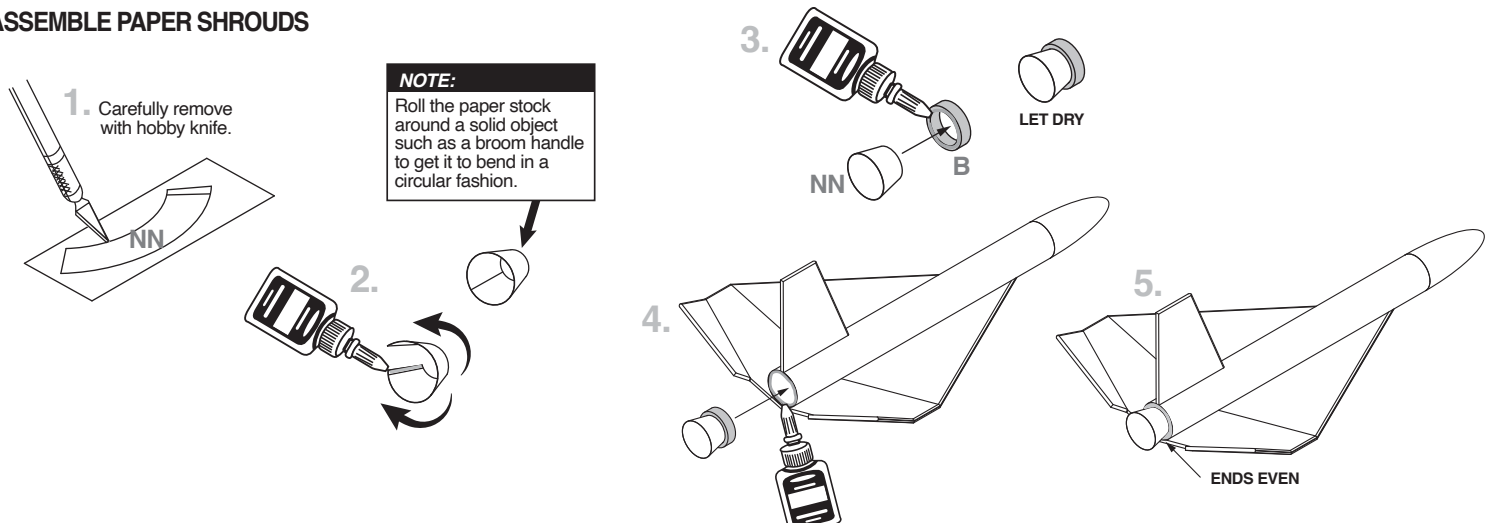
Make a copy if you want to keep instructions.



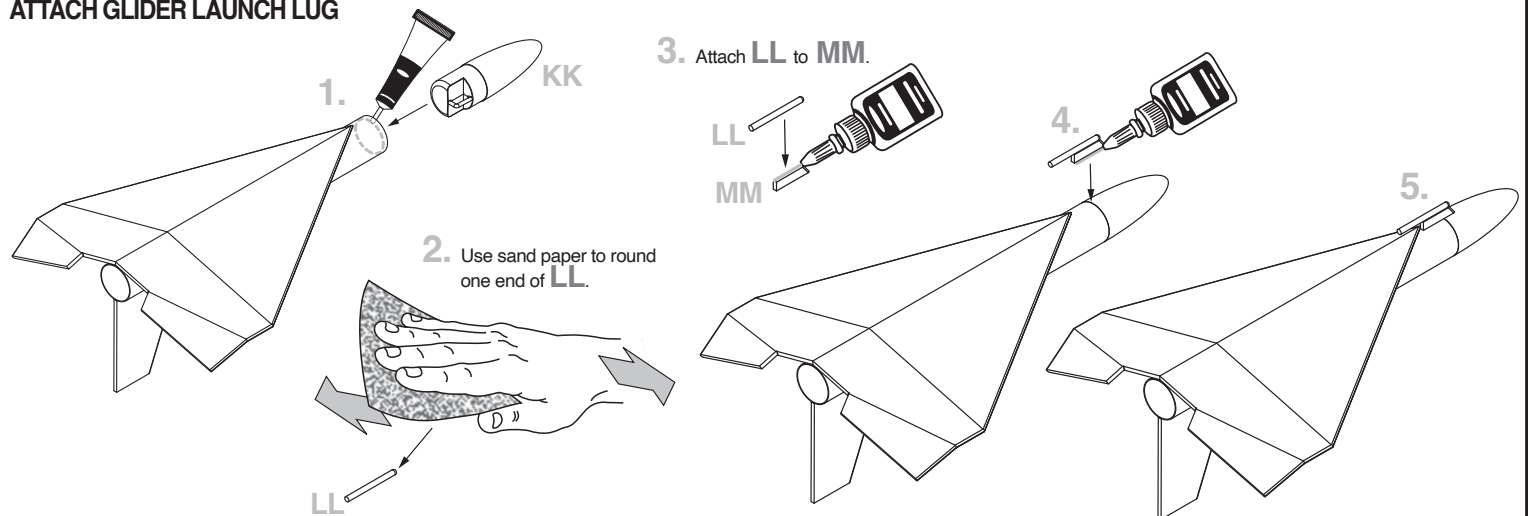
ASSEMBLE GLIDER



ASSEMBLE PAPER SHROUDS



ATTACH GLIDER LAUNCH LUG

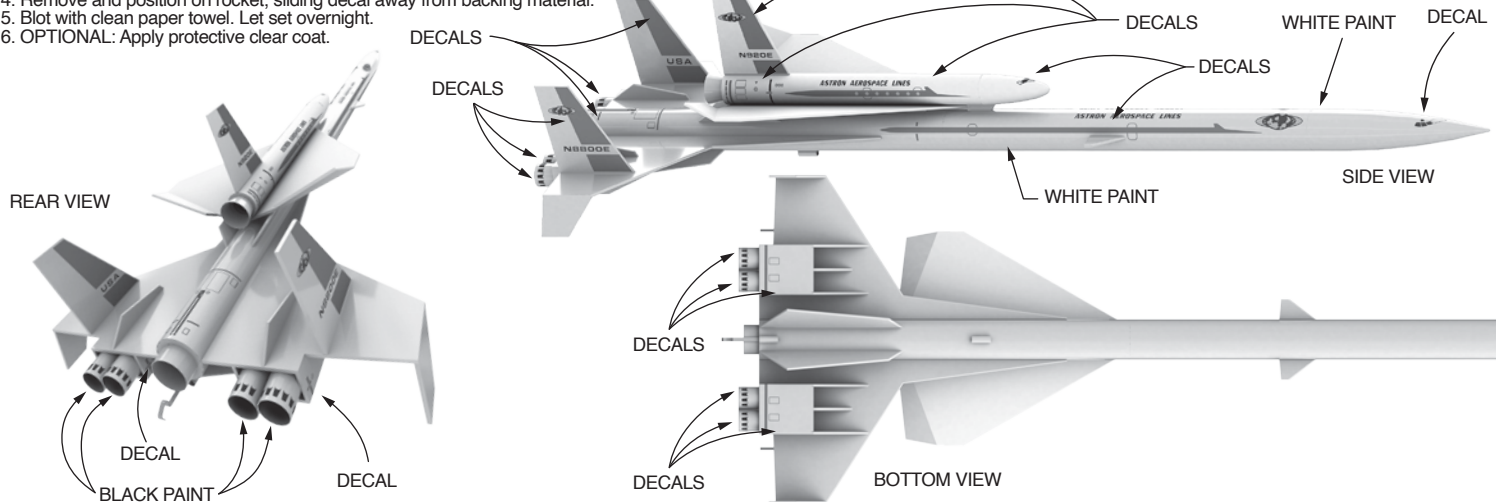


ROCKET FINISHING

1. Spray rocket with white primer, let dry, and sand. Repeat until rocket is smooth, then paint entire rocket white. Apply decals only after paint is dry.
2. Cut decals from sheet, trimming close to edge.
3. One at a time, place in warm water until decal curls and begins to relax.
4. Remove and position on rocket, sliding decal away from backing material.
5. Blot with clean paper towel. Let set overnight.
6. OPTIONAL: Apply protective clear coat.

NOTE:

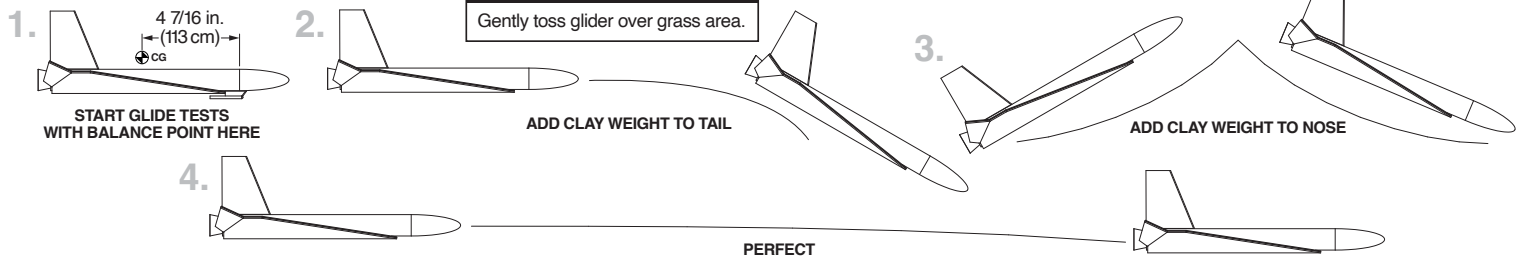
Please refer to packaging for suggested paint scheme and/or decal placement.



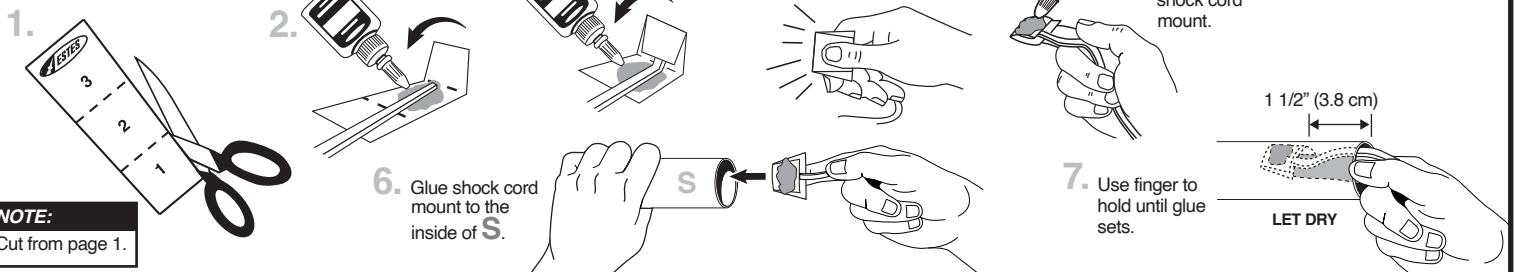
BALANCE GLIDER

NOTE:

Gently toss glider over grass area.



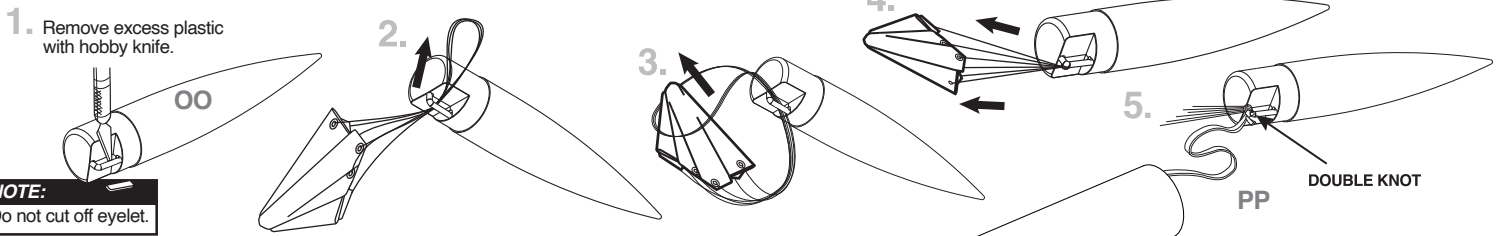
INSTALL SHOCK CORD



NOTE:

Cut from page 1.

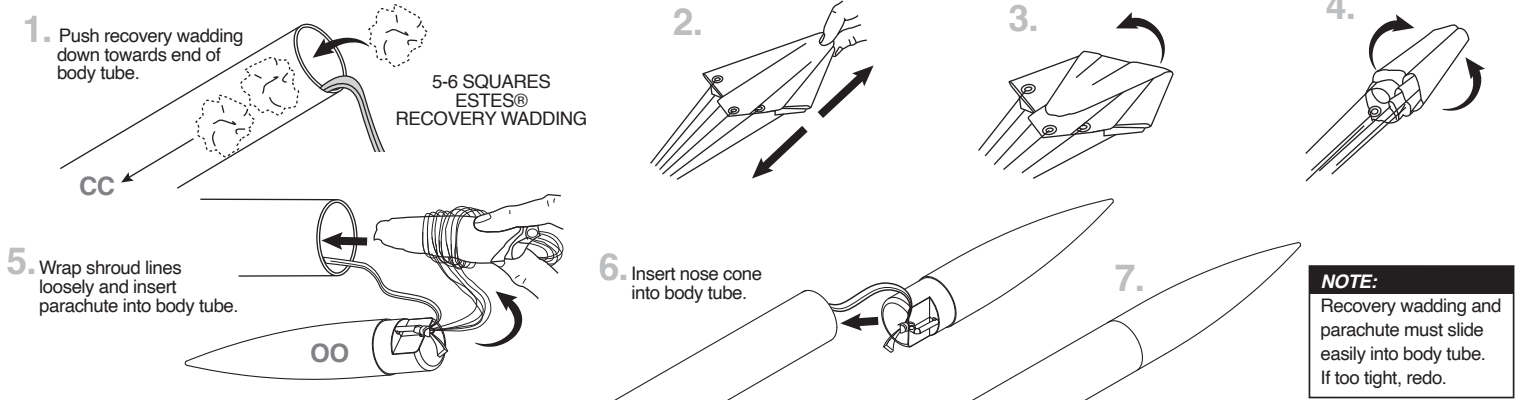
ATTACH PARACHUTE AND SHOCK CORD



NOTE:

Do not cut off eyelet.

PREPARE PARACHUTE

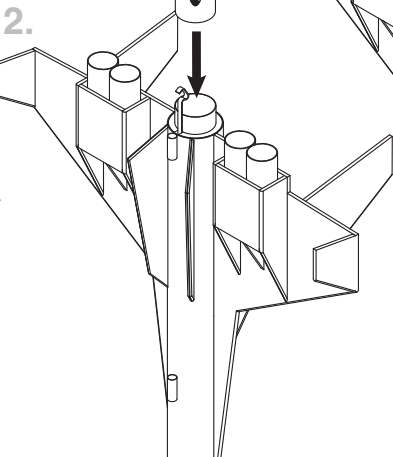
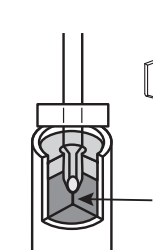
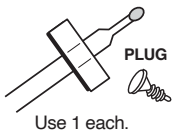


NOTE:

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

PREPARE ENGINE

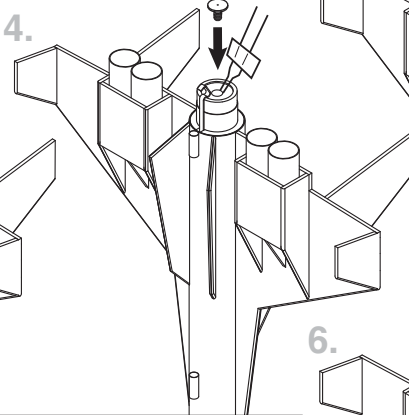
1. STARTER



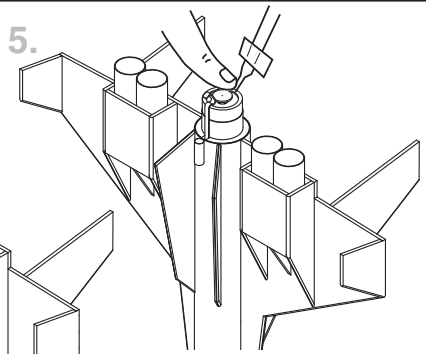
3. Insert starter all the way into engine nozzle.



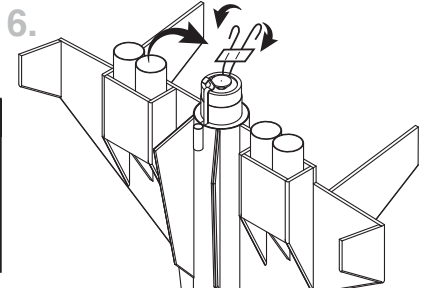
4.



5.



6.



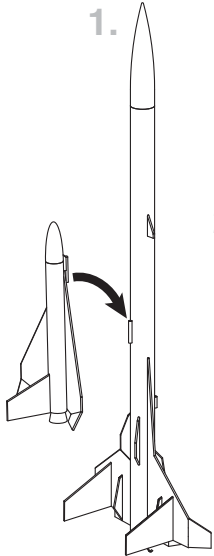
! WARNING: FLAMMABLE

To avoid serious injury, read instructions & 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 starter before storing your engine.

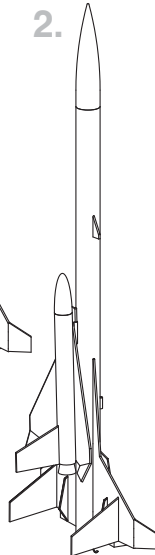
LAUNCH PROCEDURE

ATTACH GLIDER

1.



2.



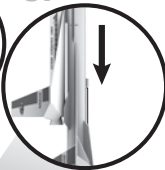
NOTE:

Key always out until final countdown!

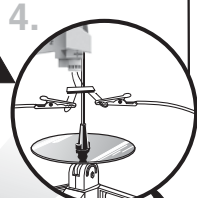
2.



3.



4.



ESTES® LAUNCH SUPPLIES NEEDED (Sold Separately)

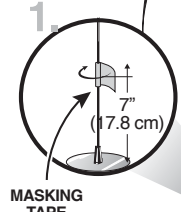
- Porta-Pad® II Launch Pad
- Electron Beam Launch Controller
- Maxi™ Launch Rod
- Recovery Wadding
- Starters (with engines)
- Plugs (with engines)
- Estes® Engines: C11-3, D12-5

NOTE:

Fully extend your launch controller wire before launching.

NOTE:

Estimated weight : 5 oz. (141.7 g)

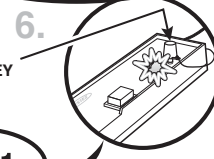


MASKING TAPE

7.



KEY



Insert key, push down hard. Bulb will light.



10.



9.



8.



While holding key down FIRMLY, press launch button until LIFTOFF!

PRECAUTIONS



NAR SAFETY CODE



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(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 SAFETY CODE (enclosed).

MISFIRES TAKE THE KEY OUT OF THE CONTROLLER. WAIT ONE MINUTE BEFORE GOING NEAR THE ROCKET. Disconnect the micro-clips and remove the engine. Take the plug and starter out of the engine. A burned starter means the starter tip was not touching engine propellant. Install a new starter; be sure the tip is touching propellant inside the engine. Push the plug in place. Repeat steps under Countdown and Launch.