





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

LONG TOM™

FLYING MODEL ROCKET KIT INSTRUCTIONS

KEEP FOR FUTURE REFERENCE

#3016

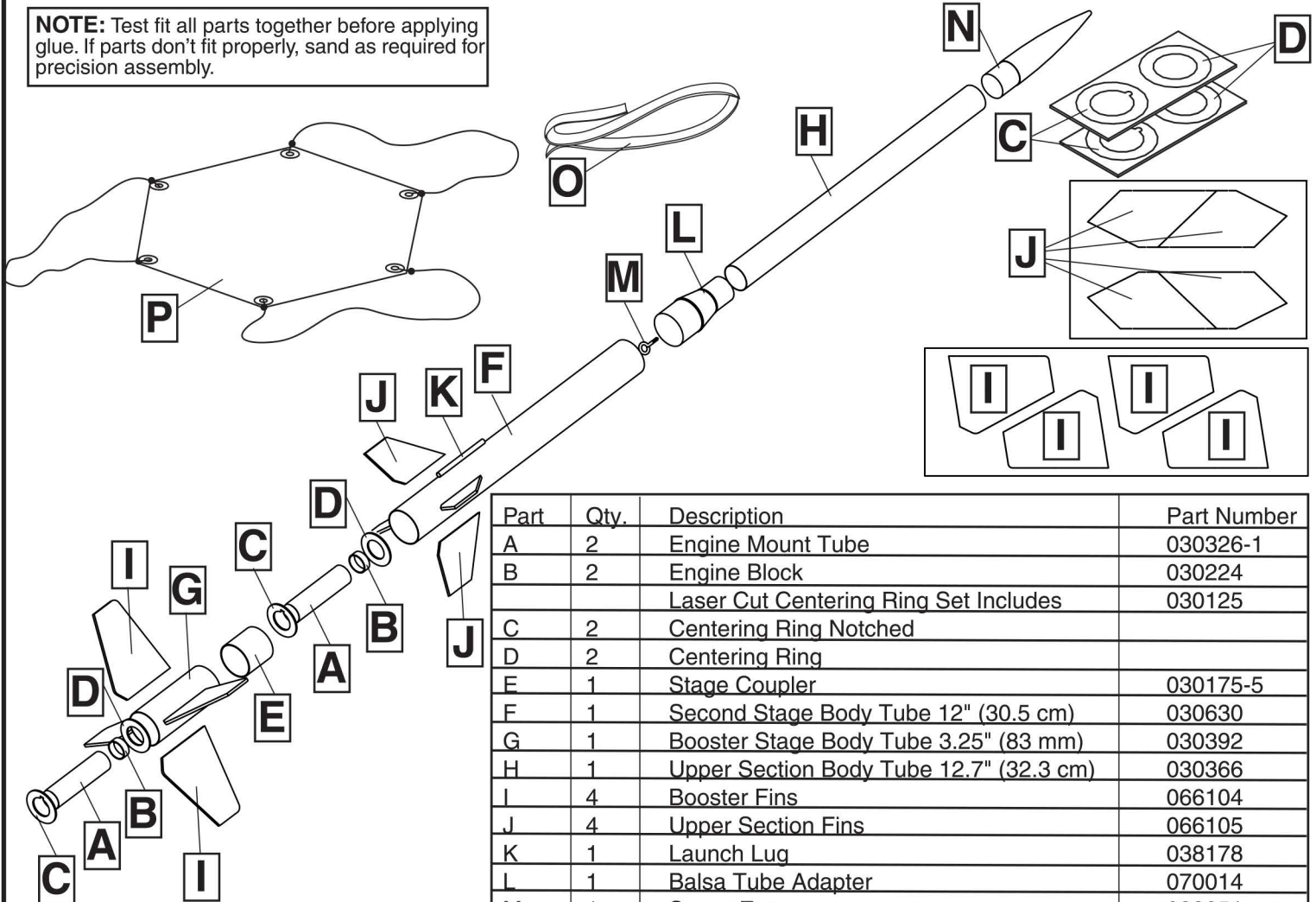


ASSEMBLY TIP:

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



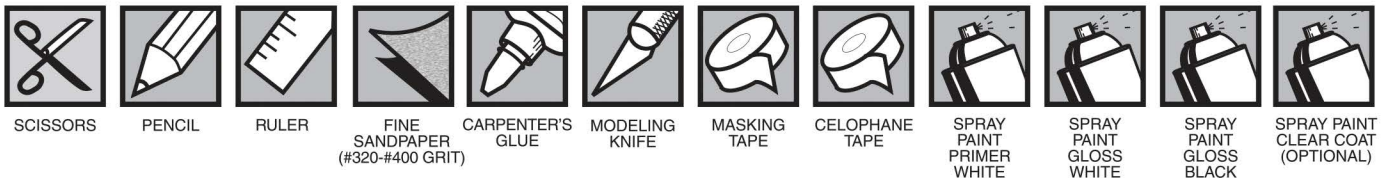
NOTE: Test fit all parts together before applying glue. If parts don't fit properly, sand as required for precision assembly.



Part	Qty.	Description	Part Number
A	2	Engine Mount Tube	030326-1
B	2	Engine Block	030224
		Laser Cut Centering Ring Set Includes	030125
C	2	Centering Ring Notched	
D	2	Centering Ring	
E	1	Stage Coupler	030175-5
F	1	Second Stage Body Tube 12" (30.5 cm)	030630
G	1	Booster Stage Body Tube 3.25" (83 mm)	030392
H	1	Upper Section Body Tube 12.7" (32.3 cm)	030366
I	4	Booster Fins	066104
J	4	Upper Section Fins	066105
K	1	Launch Lug	038178
L	1	Balsa Tube Adapter	070014
M	1	Screw Eye	038251
N	1	Balsa Nose Cone	073001
O	1	Shock Cord	038369
P	1	Parachute	035816
		Waterslide Decal (not shown)	066106

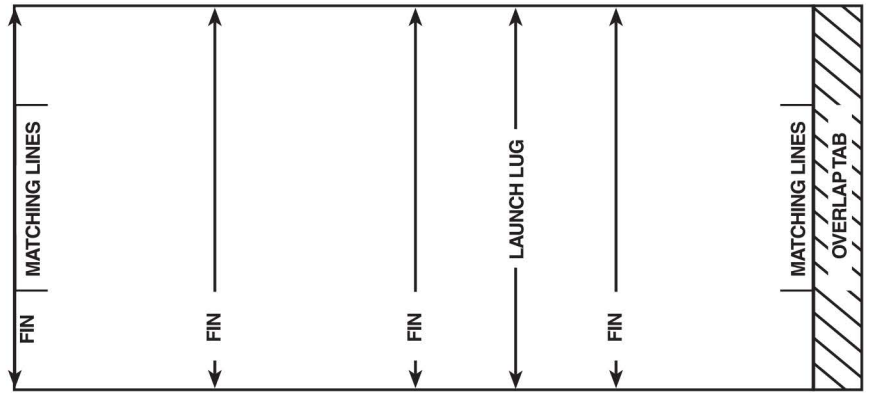
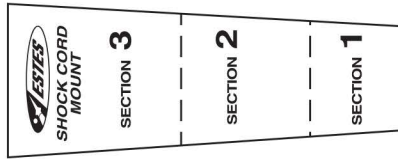
SUPPLIES

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.)



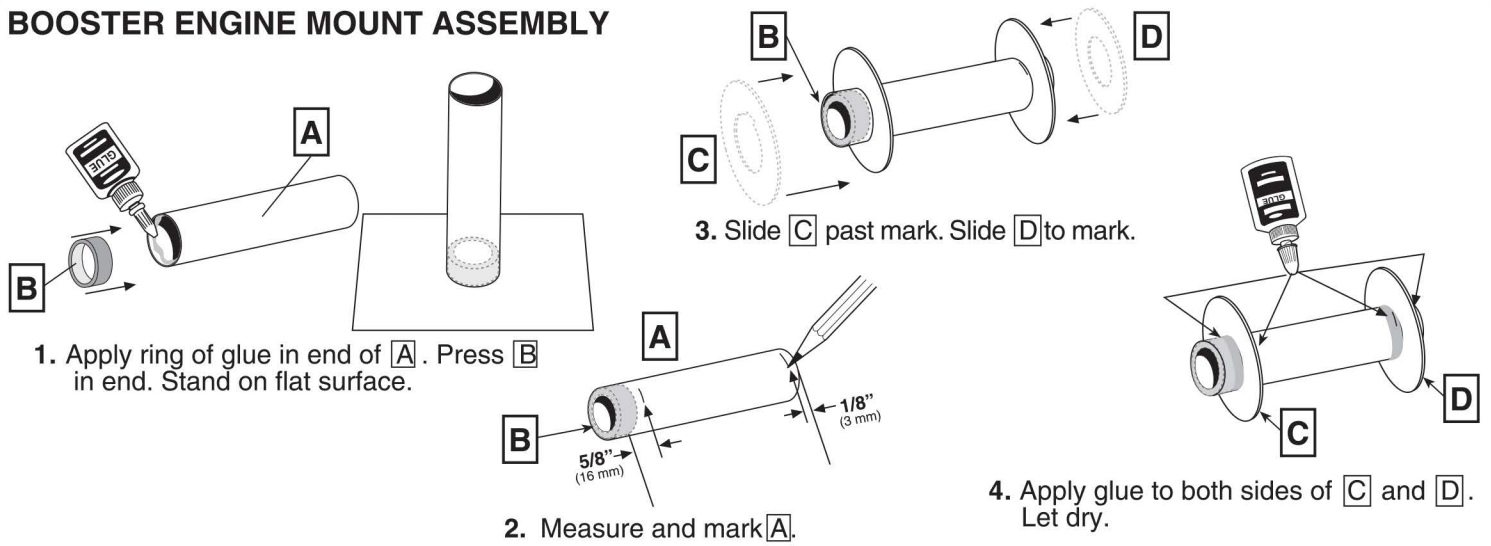
FIN PREPARATION

1. Sand both sides of balsa sheet with fine sandpaper (#320 or #400 grit).
2. Cut I and J from sheet.
3. Stack like fins together. Sand edges smooth.
4. Sand leading edges round. **DO NOT** round root edges.

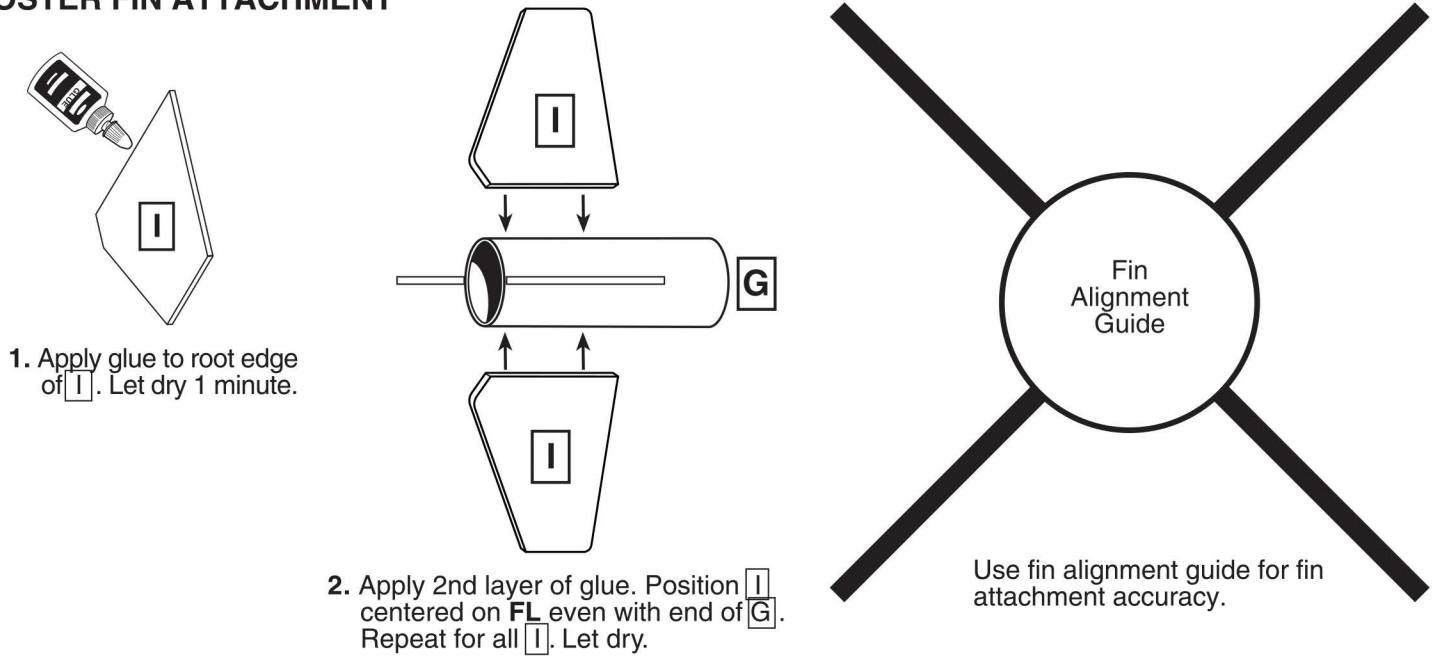
TUBE MARKING

1. Cut tube marking guide from instructions.
2. Tape guide around G. Mark fin locations FL with arrows. Remove guide.
3. Use door frame to connect and extend FL on G.
4. Tape guide around F. Mark FL and LL with arrows. Remove guide.
5. Use door frame to connect and extend FL and LL on F.
6. Measure and mark LL for K.

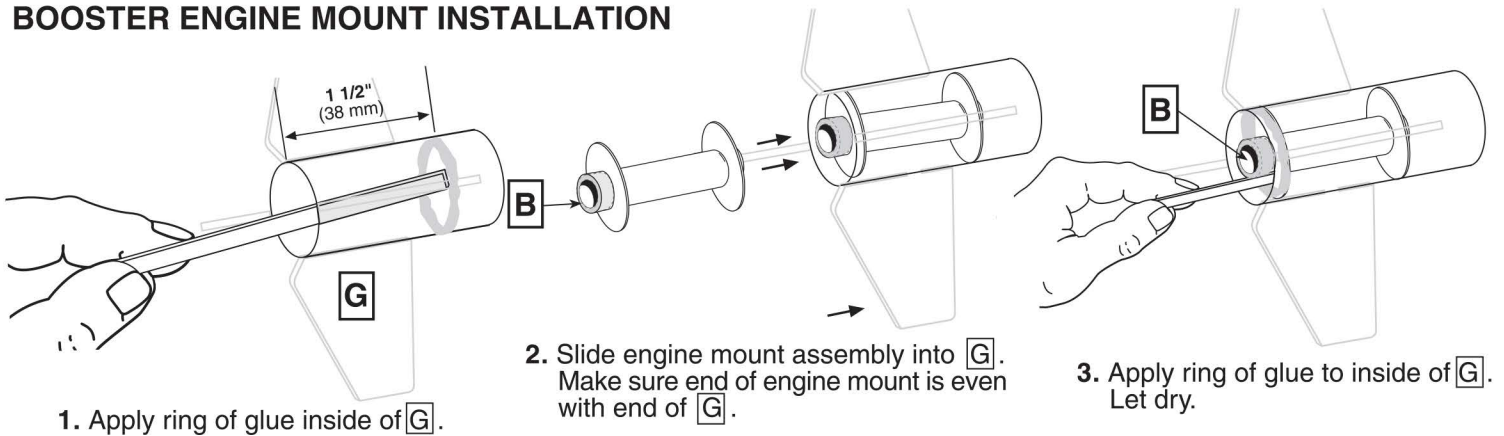
BOOSTER ENGINE MOUNT ASSEMBLY



BOOSTER FIN ATTACHMENT

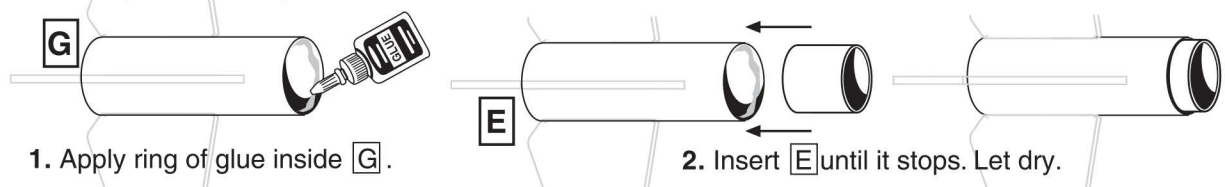


BOOSTER ENGINE MOUNT INSTALLATION

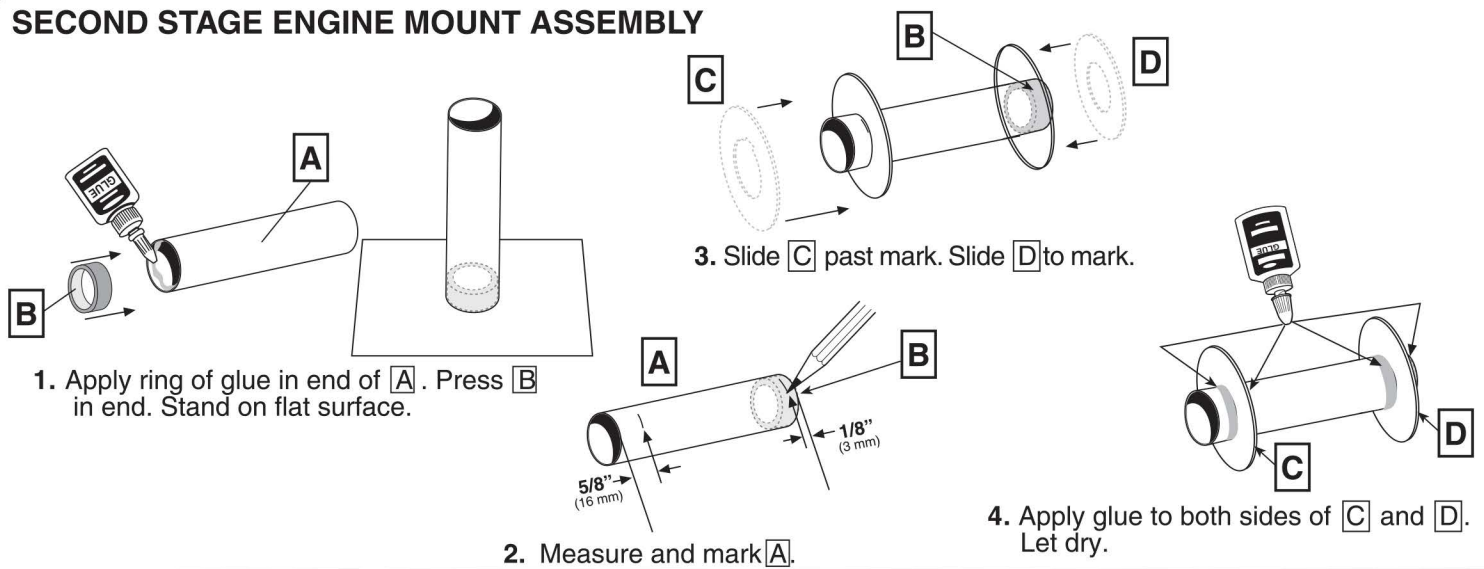


STAGE COUPLER INSTALLATION

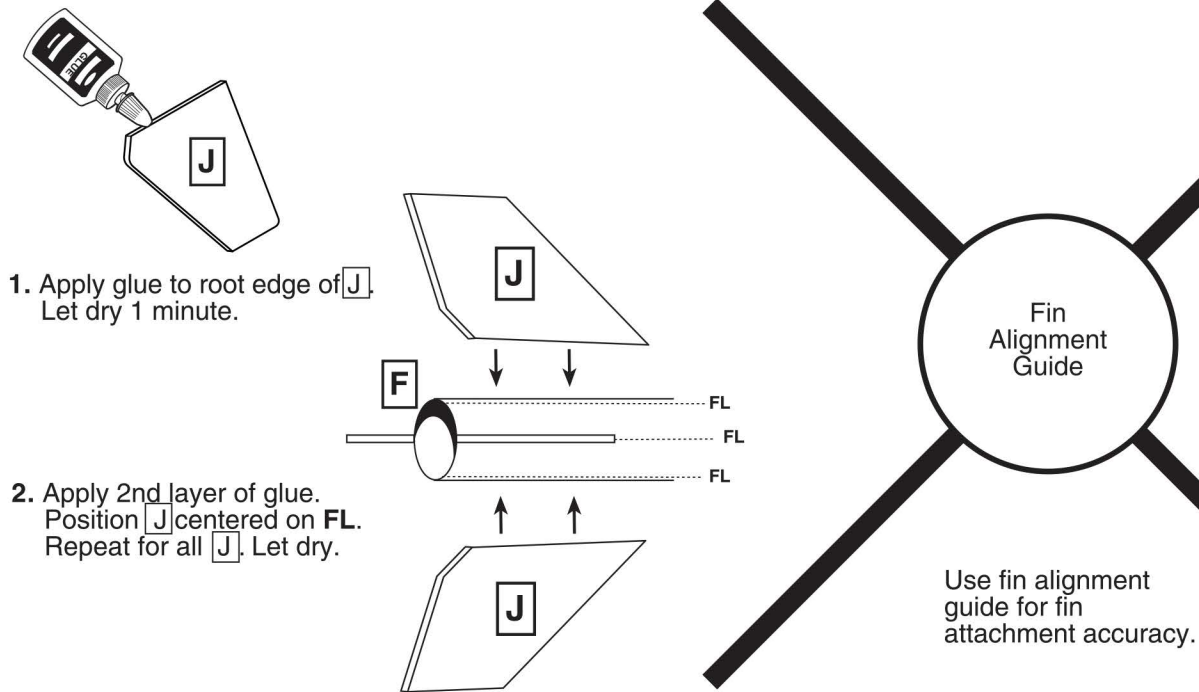
NOTE: Test fit **E** into **G**. If tight, remove outer red layer, recheck fit.



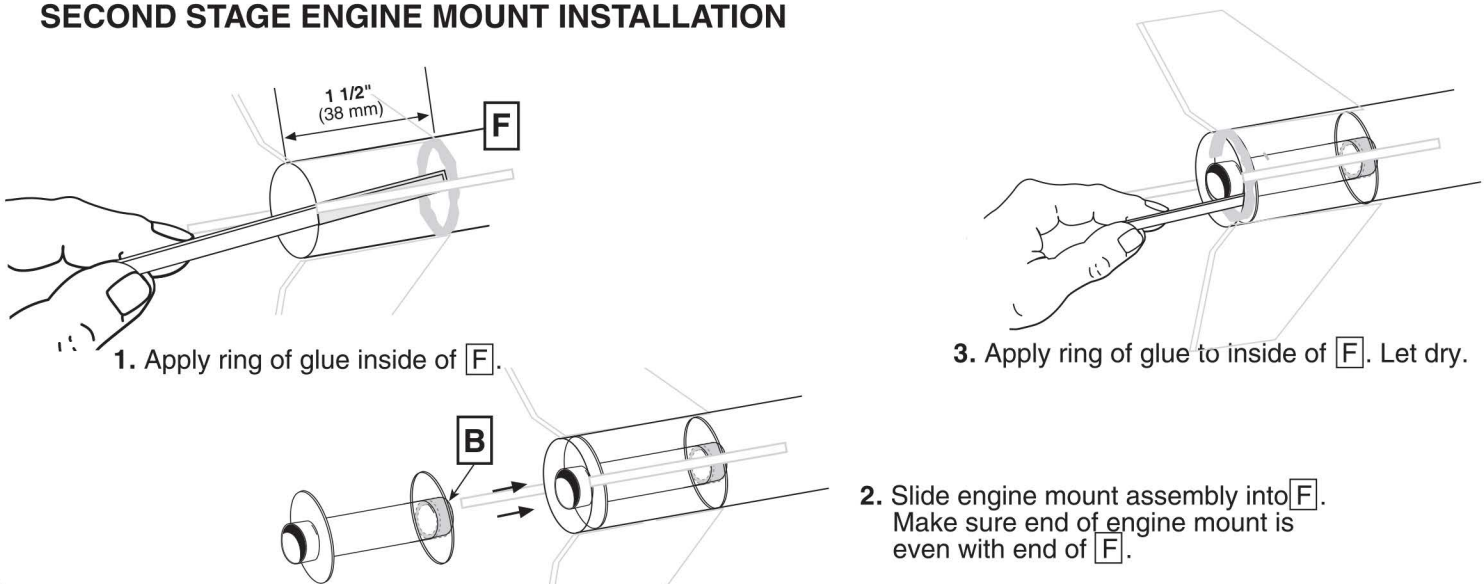
SECOND STAGE ENGINE MOUNT ASSEMBLY



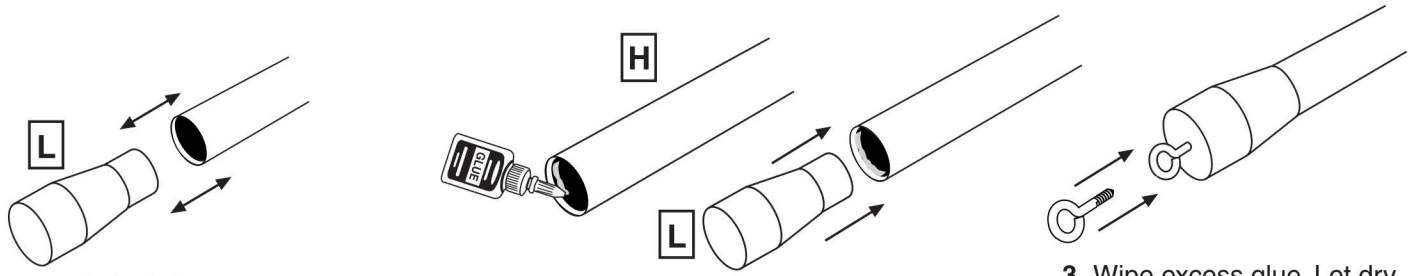
SECOND STAGE FIN ATTACHMENT



SECOND STAGE ENGINE MOUNT INSTALLATION



TUBE ADAPTER ATTACHMENT

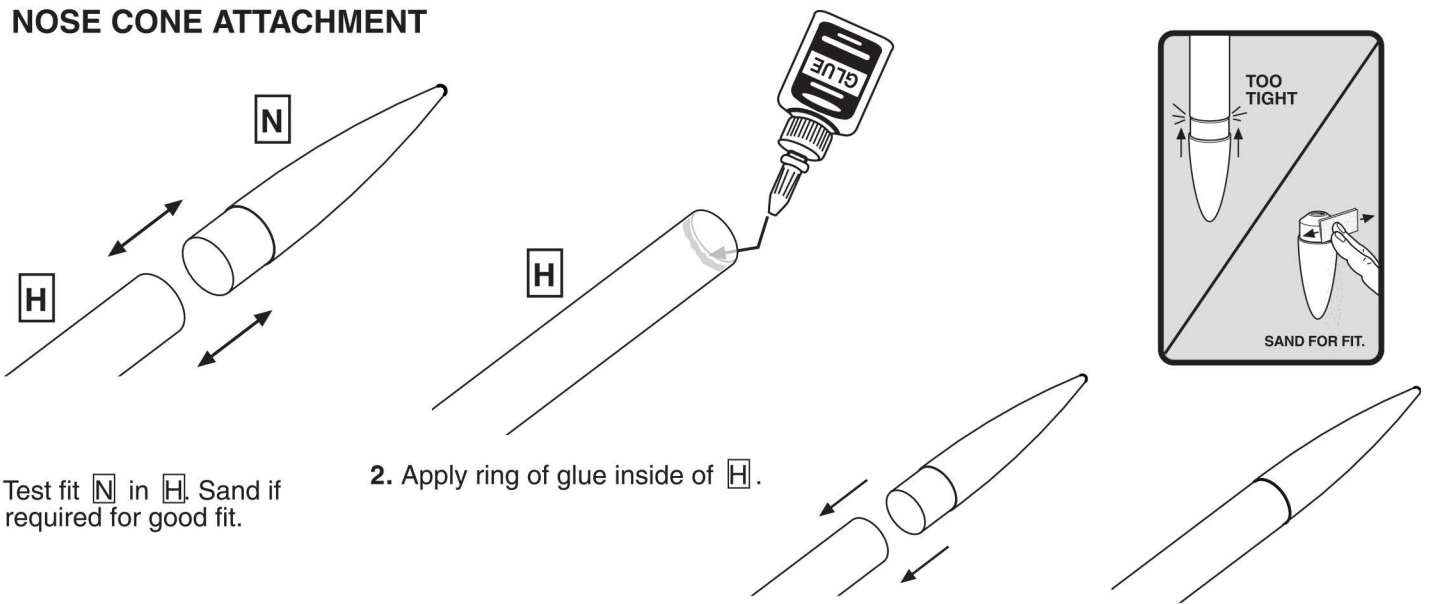


1. Test fit **L** in **H**. Sand if required for good fit.

2. Apply ring of glue inside **H**. Slide **L** into **H**.

3. Wipe excess glue. Let dry. Screw **M** centered into **L**.

NOSE CONE ATTACHMENT

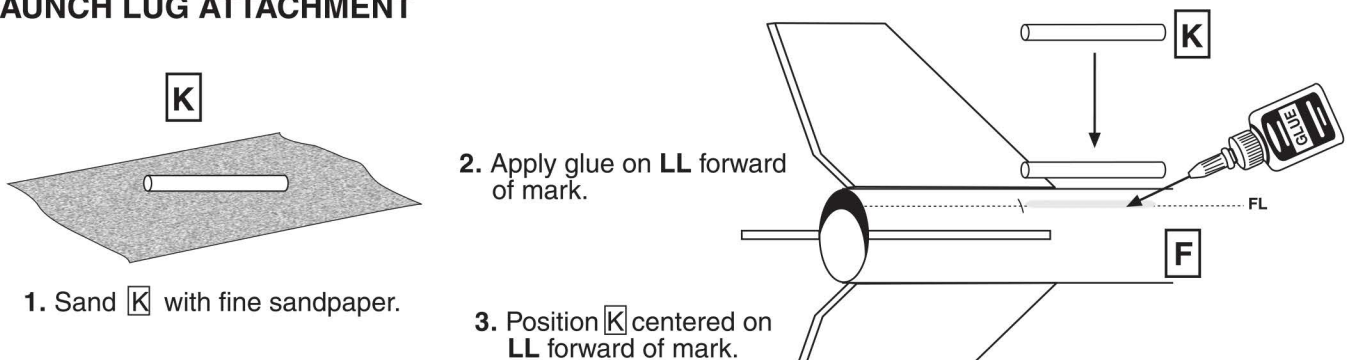


1. Test fit **N** in **H**. Sand if required for good fit.

2. Apply ring of glue inside of **H**.

3. Slide **N** into **H**. Wipe excess glue. Let dry.

LAUNCH LUG ATTACHMENT

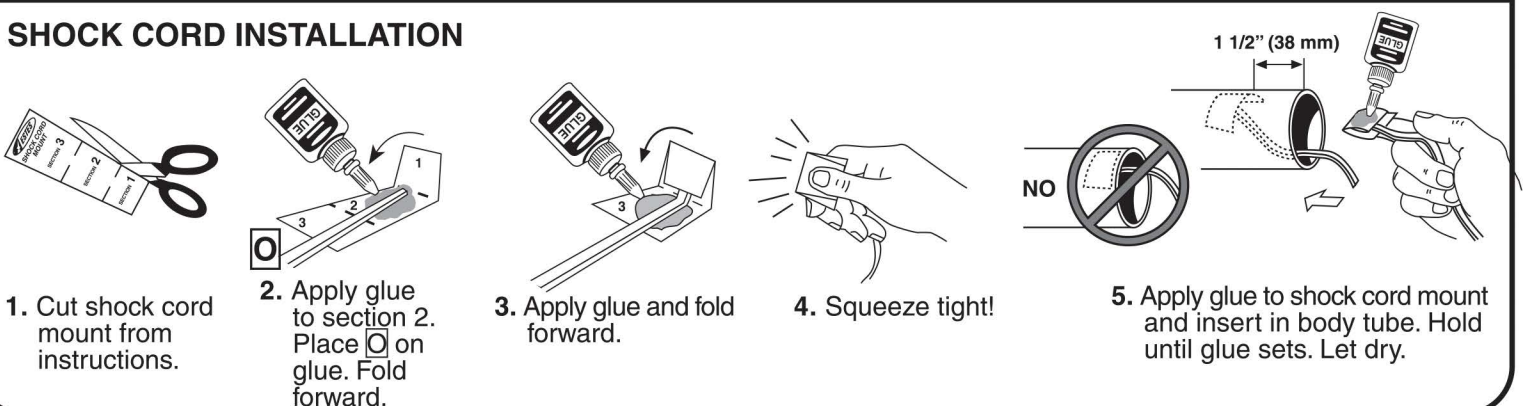


1. Sand **K** with fine sandpaper.

2. Apply glue on **LL** forward of mark.

3. Position **K** centered on **LL** forward of mark.

SHOCK CORD INSTALLATION



1. Cut shock cord mount from instructions.

2. Apply glue to section 2. Place **O** on glue. Fold forward.

3. Apply glue and fold forward.

4. Squeeze tight!

5. Apply glue to shock cord mount and insert in body tube. Hold until glue sets. Let dry.

ROCKET FINISHING

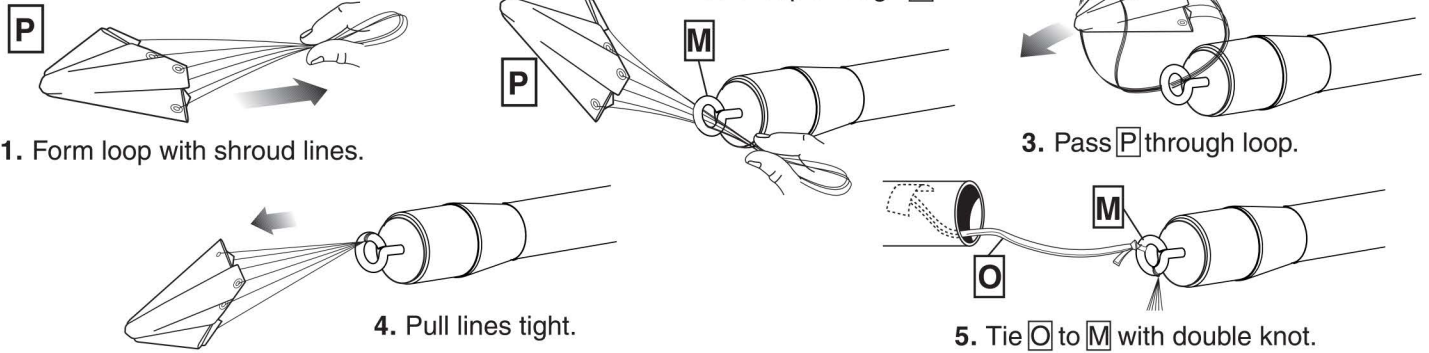
NOTE; We have found Testors spray primers (Testors #2948 White Primer), Testors One Coat Lacquer spray paints (color of your choice), Testors Model Master spray paints (color of your choice) and Testors Gloss Lacquer (#1961) to be excellent for providing a long lasting and durable finish on your rocket. Always be sure to spray your models outside or in a well ventilated area.

STEPS TO A QUALITY FINISH

1. Insert shock cord into body tube and hold in place with paper.
2. Lightly sand body tube, fins and nose cone with fine sandpaper (#320 or #400 grit).
3. Apply glue fillets to fins and launch lug.
 - a. Allow glue to dry overnight.
4. Use a stick inserted into the motor tube end of the booster and second stage for painting.
5. Hold the upper section by the screw eye with a clip or pliers for painting.
6. We recommend a good filler/primer to be applied to the balsa fins and nose cone before painting.
7. Apply 1-2 light coats of primer to rocket body and nose cone, lightly sanding with fine sandpaper (#320 or #400 grit) between coats.
 - a. Allow to dry between each coat.
8. Apply gloss white to booster and upper stages.
 - a. Let paint dry overnight (24 hours is best).
9. Apply masking tape and protective cover to booster stage exposing fins.
10. Spray fins gloss black.
 - a. Let paint dry overnight (24 hours is best). Remove masking tape.
 - b. Measure and mark upper stage as shown in image.
11. Apply masking tape and protective cover to upper stage protecting the white.
12. Spray lower fins and strip gloss black.
 - a. Let paint dry overnight (24 hours is best). Remove masking tape.
13. Apply waterslide decals where shown.
 - a. Cut the decal to be applied from the decal sheet, trimming close to the decal edge.
 - b. Hold the decal in warm water until decal begins to curl.
 - c. 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.
 - d. Gently blot out excess water with a clean paper towel.
 - e. Allow decals to set overnight before applying protective clear coat.
14. When decals are dry, spray entire rocket (body sections separately) with a light coat of Testors Gloss Lacquer (#1961). This will provide added protection and shine to your LONG TOM™ rocket!



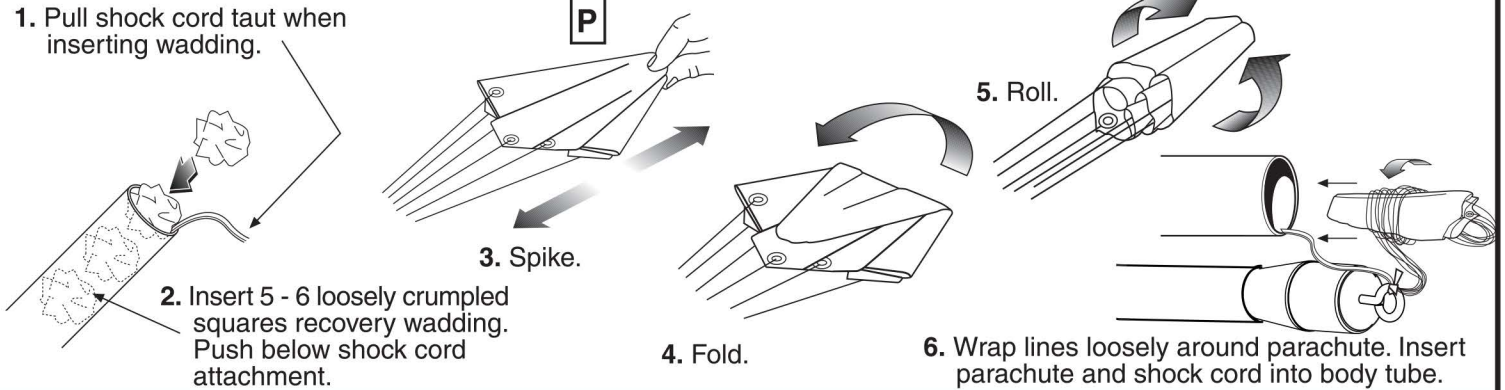
PARACHUTE PREPARATION



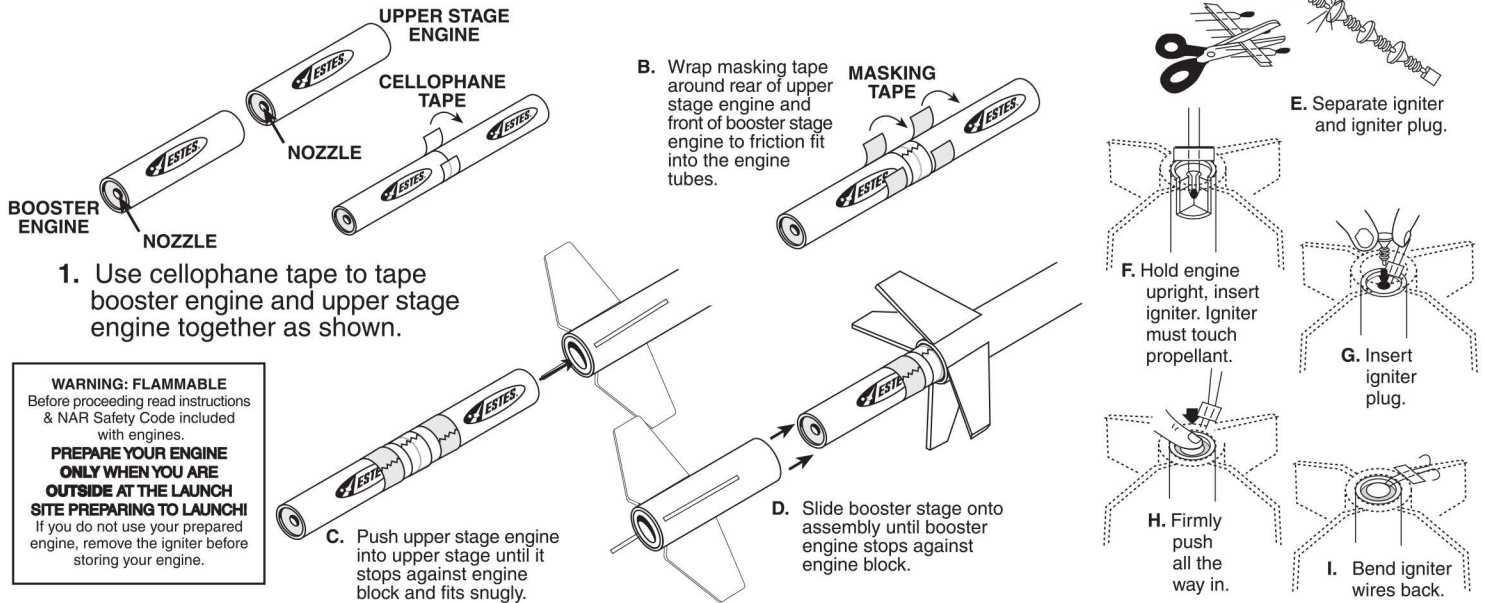
FLIGHT RECOVERY PREPARATION

NOTE: Only Estes Recovery Wadding (302274) recommended.

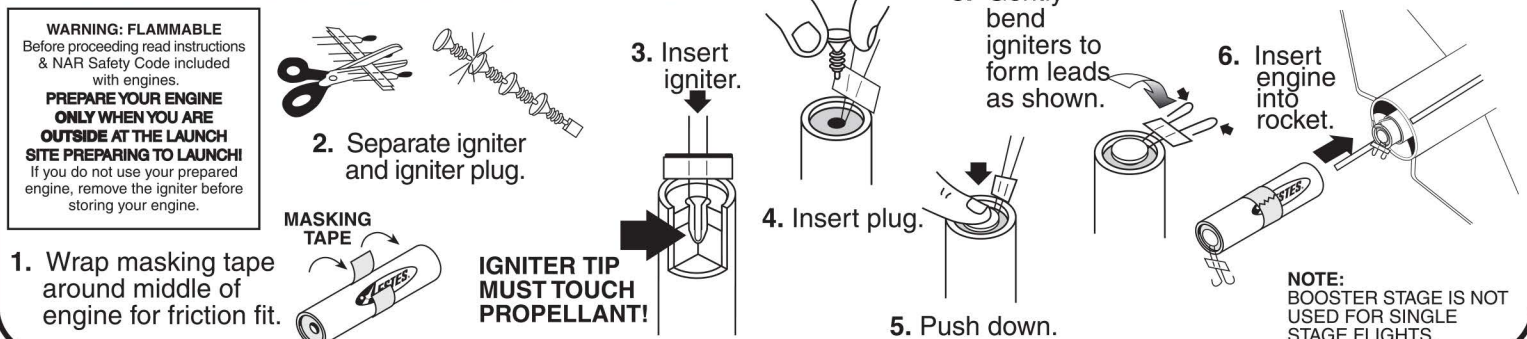
NOTE: Recovery wadding and parachute must slide easily into body tube. If too tight, redo.



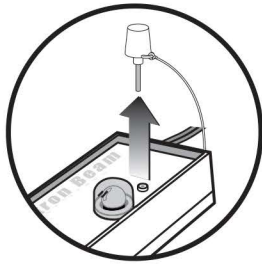
TWO-STAGE ENGINE PREPARATION



SINGLE STAGE ENGINE PREPARATION

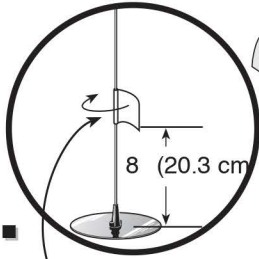


COUNTDOWN AND LAUNCH



KEY ALWAYS OUT UNTIL FINAL COUNTDOWN!

1...

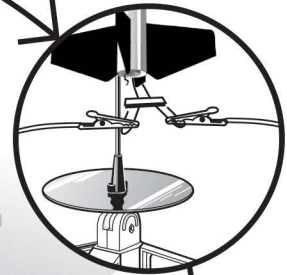


Masking Tape

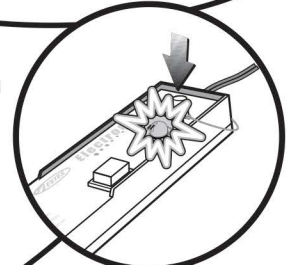
2...



3...



4...



INSERT KEY. PUSH DOWN HARD. BULB WILL LIGHT.

5...

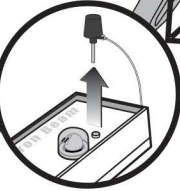
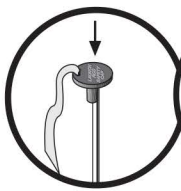


4... 3... 2... 1...

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: B6-0, B6-6 (first flight), C6-0, C6-7.

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.



LAUNCH BUTTON

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

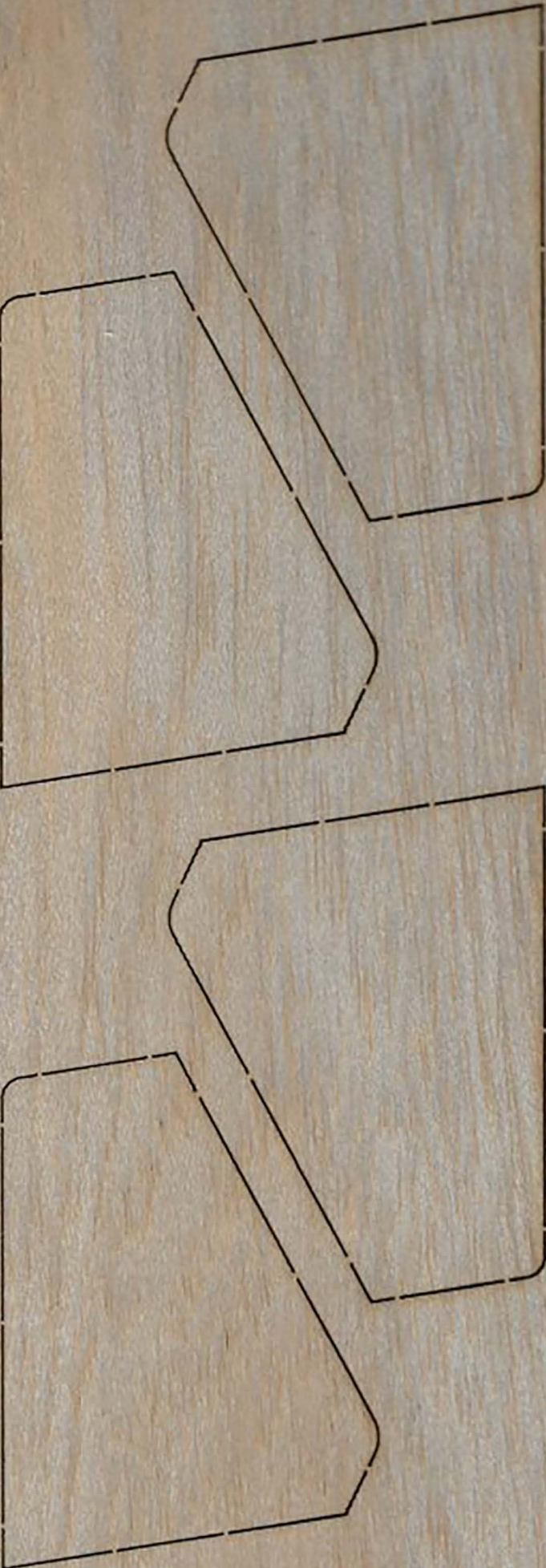
Choose a large field (500 ft. [152 m] square) free of dry weeds and brown grass. The larger the launch area, the better your chance of recovering your rocket. Football fields and playgrounds are great. Launch only with little or no wind and good visibility.

Always follow the enclosed National Association of Rocketry (NAR) SAFETY CODE.

MISFIRES

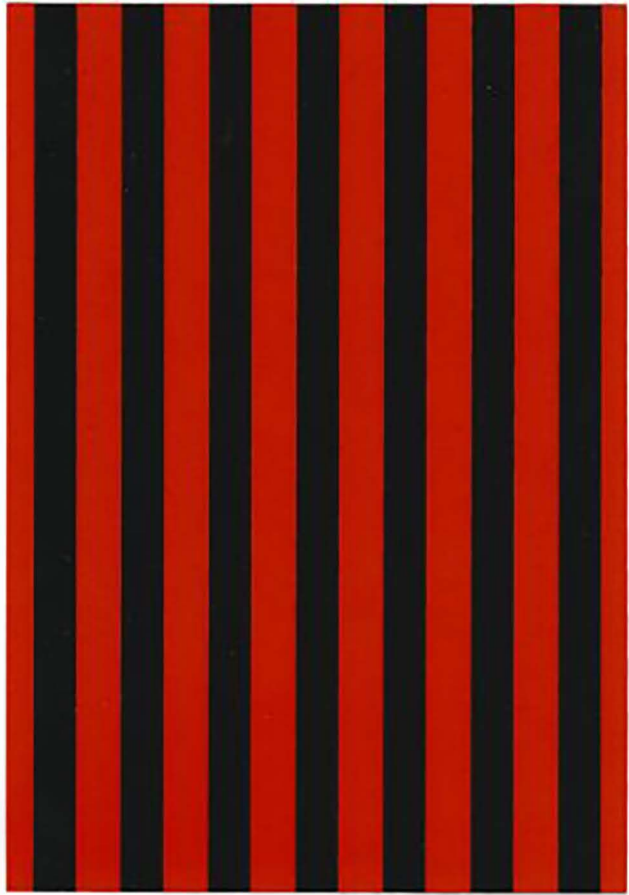
TAKE THE KEY OUT OF THE CONTROLLER. WAIT ONE MINUTE BEFORE GOING NEAR THE ROCKET! Disconnect the igniter clips and remove the engine. Take the plug and igniter out of the engine. If the igniter has burned, it worked but did not ignite the engine because it was not touching the propellant inside the engine. 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.

3/32"



3/32"





LONG TOM™



LONG TOM™

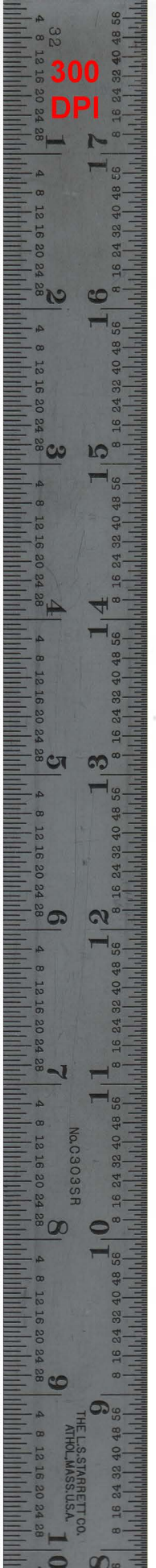


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01 03

No.0303SR

THE U.S. STARRETT CO.
ATHOL, MASS. U.S.A.



PARTS LIST KIT NO. 3016 - Long Tom								
Quantity	Description	Type	Number	Detail1	Detail2	Detail3	Detail4	Comment
2	PAPER BODY TUBE	BT-20J	30326-1	2.75" long	0.710" ID	0.736" OD	0.013" wall	Blue
2	ENGINE BLOCK	EB-20A	30224	.708" OD	.65" ID	.25" thick	0.058" wall	Black
2	PAPER ADAPTER	RA-2055	*30125	0.738" ID	1.27" OD	.05" thick	Set of 2	One ring notched.
1	STAGE COUPLER	JT-55C	30175-5	1.25" ID	1.28" OD	1" long	fits BT-55	Red
1	PAPER BODY TUBE	BT-55(12)	30630	12" long	1.283" ID	1.325" OD	0.021" wall	white
1	PAPER BODY TUBE	BT-55(3.25)	*30392	3.25" long	1.283" ID	1.325" OD	0.021" wall	Glassine
1	PAPER BODY TUBE	BT-50L	30366	12.7" long	0.950" ID	0.976" OD	0.013" wall	Glassine
1	BALSA FIN STOCK	BFS-30	66105	1.5" wide	9" long	3/32" thick	Lasercut	Scan
1	BALSA FIN STOCK	BFS-30	66104	3" wide	6" long	3/32" thick	Lasercut	Scan
1	LAUNCH LUG	LL-2B	38178	5/32" ID	1/8" rod	2-3/8" long		
1	BALSA ADAPTER	TA-5055	70014	2.5" long	1.0" taper	.75" front	.75" back	
1	Screw Eye (Large)	SE-1	38251	1" long				
1	BALSA NOSE CONE	BNC-50Y	73001	4.375" long	0.976" dia.	0.875" shoulder		
1	Shock Cord	SC-2(18)	38369	1/4" wide	18" long			Rubber
1	Parachute	PK-18	*35802	18" dia.	18" x 6 Shrouds		Blu/Wht	Preassembled
1	Decal	KD-3016	66106	4" wide	10" long	Blk/Red	Waterslide	Scan
*30125 - Laser Cut Centering Ring Set contains 4 AR-2055 Centering Rings. Two have engine holder notches even though no engine holders are used in this kit. Four AR-2055 rings without notches can be used.								
*30392 is also BT-55V which is 16.35" long. It appears this number has been repurposed.								
*35802 is the correct part number for an 18" parachute. The part number 35816 called out in the plans is incorrect.								

ESTES
 ESTES MODEL CORP.
 18750 E. Sprague Ave. Box 107
 Westminster, CO 80040
 Printed in Guangdong, China

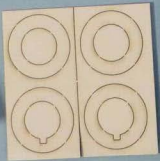
LONG TOM
 FLYING MODEL RC
 KEEP FOR

ASSEMBLY TIP:
 Read all instructions
 before beginning work
 and carefully work
 on flat, stable surface
 and use glue at joints
 and openings.

NOTE: This kit contains
 parts for the model airplane.
 Please do not open the package
 until assembly.

LONG TOM
LONG TOM
ESTES
ESTES

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Cut your covering piece into a circle the diameter of the star you will be making. Place the circle over the template. Sketch the lines until they intersect. This forms the outline of your star. Use your hobby knife to cut out your star.





Recommended for ages 10 and up with adult supervision. Read all instructions for safe use. Read all instructions for safe use. Read all instructions for safe use.

ESTES LONG TOM

FLYING MODEL ROCKET KIT

For the Rocket Skill Level 2
Classic Series

Based on an original Centaur design.

- Sleek 2-Stage Sport Rocket!
- Laser Cut Balsa Fins!
- 18" (46 cm) Parachute Recovery!

FLIES UP TO **1100** FEET (498 M)

OVER **33** INCHES (86 CM) TALL!

Quest Rockets

3016



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SEE BACK OF PACKAGE FOR DETAILS

LONG TOM™
ROCKET POCKET CARD



Recommended for ages 10 and up with adult supervision. Read all instructions for safe use. Read all instructions for safe use. Read all instructions for safe use.

ESTES FLYING MODEL ROCKET

ESTES MODELE DE FUSEE VOLANT

Please keep a safe distance. To avoid danger of suffocation, do not breathe the bag while kids or pets are in it.

Une fois le sac ouvert, ne pas respirer dans le sac. Pour éviter tout risque d'asphyxie, ne pas respirer dans le sac avant que les enfants ne soient sortis.

Always put on your seat belt. Product may contain latex.

Toujours porter votre ceinture de sécurité. Le produit peut contenir du latex.

This model is not to be used as a toy. It is not to be used in areas where there are people, buildings, or other structures. It is not to be used in areas where there are people, buildings, or other structures.

Cette modélisation n'est pas à utiliser comme jouet. Elle n'est pas à utiliser dans des zones où il y a des personnes, des bâtiments ou d'autres structures.

USE ONLY WITH ESTES PRODUCTS

Caution: Use of this Estes product with another brand name is not recommended. Using any defects or causing any damage may void the Estes warranty.

ATTENTION: NE PAS UTILISER AVEC D'AUTRES PRODUITS ESTES

Attention: L'utilisation de ce produit avec un autre nom de marque n'est pas recommandée. L'utilisation de ce produit avec un autre nom de marque n'est pas recommandée.

Safety Code and Full One Year Warranty Enclosed.

Code de sécurité et garantie complètes.



Estes-Coe Corp.
1295 H Street, PO Box 227
Plover, CO 81240-0227 USA

Made in Guangdong, China
Fabriqué en Guangdong, Chine





LONG TOM™

FLYING MODEL ROCKET KIT

1 Modèle Réduit

Skill Level 2



Based on an original Centuri design.

- **Sleek 2-Stage Sport Rocket!**
- **Laser Cut Balsa Fins!**
- **18" (46 cm) Parachute Recovery!**

FLIES
UP TO
1100
FEET
(488 M)

OVER
33 INCHES
(83.8 cm)
TALL!

www.estesrockets.com

3016



47776-03016



Recycle

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Colors of product may vary.

CUT ALONG DOTTED LINE - HELP FOR FUTURE REFERENCE

SEE BACK OF PACKAGE FOR DETAILS.

ESTES

Skill Level: 2
 Length: 33.25 in. (84.4 cm)
 Diameter: 1.32 in. (33.5 mm)
 Weight: 3.2 oz (91 g)
 Recovery: 18 in. (46 cm)
 Parachute
 Max Altitude: 1100 ft. (488 m)

Engine: 1/2A, 1/4A, First Flight, C6-5, C6-7

LONG TOM™
ROCKET POCKET CARD

