

21. PREPARE ENGINE

A 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! f you do not use your prepared

engine, remove the igniter before storing engine.

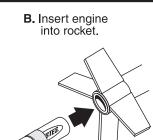
KEY ALWAYS OUT UNTIL FINAL COUNTDOWN!

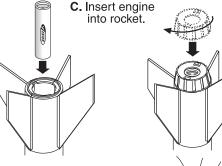
MASKING TAPE

22. COUNTDOWN AND LAUNCH



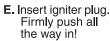














D. Insert



G. Gently bend igniters to form leads as shown.



ESTES LAUNCH SUPPLIES

(Sold Separately)

- Recovery Wadding (included with some engines)
- Igniters and Igniter Plugs (included with Estes engines)
- See Exploded View Assembly Chart for recommended

PRECAUTIONS



WHILE HOLDING KEY DOWN FIRMLY, PRESS LAUNCH BUTTON UNTIL **LIFTOFF!**

Safety Code

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

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 (NAR) SAFETY CODE. MISFIRES TAKÉ THE KEY OUT OF THE CONTROLLER. WAIT ONE MINUTE BEFORE GOING NEAF 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

















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CUSTOMIZER[™] 64 LAUNCH SET **INSTRUCTION MANUAL**

ESTES-COX CORP. 1295 H Street, PO Box 227 Penrose, CO 81240-0227 PLEASE REVIEW ALL OF THE ASSEMBLY **INFORMATION BEFORE STARTING ANY OF THE** 64 POSSIBLE ROCKET COMBINATIONS.

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

www.estesrockets.com

PRINTED IN CHINA

TEST FIT ALL PARTS TOGETHER BEFORE APPLYING ANY GLUE! If any parts don't fit properly, sand as required for precision assembly.



Thank you for purchasing the Estes Customizer™ 64 Launch Set. This one-of-a-kind set lets you combine the various parts to create a single large rocket tor two smaller rockets. To utilize everything this exciting rocket set has to offer, it is absolutely necessary that you read and review the Full Size Parts Template, Exploded View Assembly Chart and the Customizer™ 64 Launch Set Instruction Manual and to become totally familiar with all of the possible rocket combinations before you begin assembly.

After you have reviewed each and every rocket and made your customized rocket choice, refer to the Exploded View Assembly Chart for the required assembly steps found in the Customizer™ 64 Launch Set Instruction Manual. The manual has detailed drawings, measurements and instructions for each assembly required to complete your customized rocket. After completing vour Customizer 64 rocket, vou can create a more personalized custom rocket using the supplied self stick decals.

How to use the Full Size Parts Template, Exploded View Assembly Chart and Customizer™ 64 Launch Set Instruction Manual...

- 1. First, match each of the parts with the **Full Size Parts Template**.
- 2. Check out each of the 64 rocket combinations in the Exploded View Assembly Chart and review each of the rockets and specifications (length, weight, engine used, and maximum altitude prediction) in the column at the right to determine the best customized rocket for you.
- 3. Refer to the Customizer™ 64 Launch Set Instruction Manual for each detailed assembly step referred to in the Exploded View Assembly Chart.
- 4. DRY ASSEMBLE (no glue) each of the 64 rockets. Do this to see how the parts fit together, to gain some experience with the various assembly techniques before actually assembling and gluing your rocket. This process will also help you decide which rocket(s) you want to create with your Customizer™ 64 rocket parts.
- 5. Carefully following the instructions, charts and templates will ensure that your customized model rocket reflects the *creative rocket scientist* in you.

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





FINE SANDPAPER

CARPENTER'S

Assembly Quiz;

Once you have familiarized yourself with the assembly sequences and decided on the rocket(s) of your choice, take this short guiz. If you answered 8 of 10 questions with Yes, you're ready to build your very own Customizer™ 64 rocket(s).

- 1. Have you read the entire Customizer™ 64 instruction manual and studied each of the sub assemblies? Yes No
- 2. Have you used the Full Size Parts template to identify each of the parts supplied?
- 3. Do you understand the numbering sequence at the beginning of each step in the instruction manual and how those numbers relate to the various rocket combinations?
- 4. Using the Exploded View Assembly Chart, have you reviewed the product specifications of each rocket and understand the performance capabilities of each? Yes No
- 5. Have you *DRY ASSEMBLED* (no gluing) each of the rocket combinations that interest you to see how the various parts and sub assemblies fit together? Yes No
- 6. Do you understand that certain rocket parts combinations can provide you with 2 rockets? Yes ___ No_
- 7. Do you understand that certain rocket parts combinations will provide you with just one complete rocket with some parts left over? Yes No
- 8. Have you read the flight preparation steps 20,21 and 22 in the manual and understand how to load your parachute, model rocket engine and igniter? Yes No
- 9. Have you read the launch assembly instructions and understand how to assemble your Porta Pad® II Launch Pad? Yes___ No___ 10. Have you read the launch assembly instructions and understand how to install the four
- AA alkaline batteries in the Electron-Beam® Launch Controller? Yes No

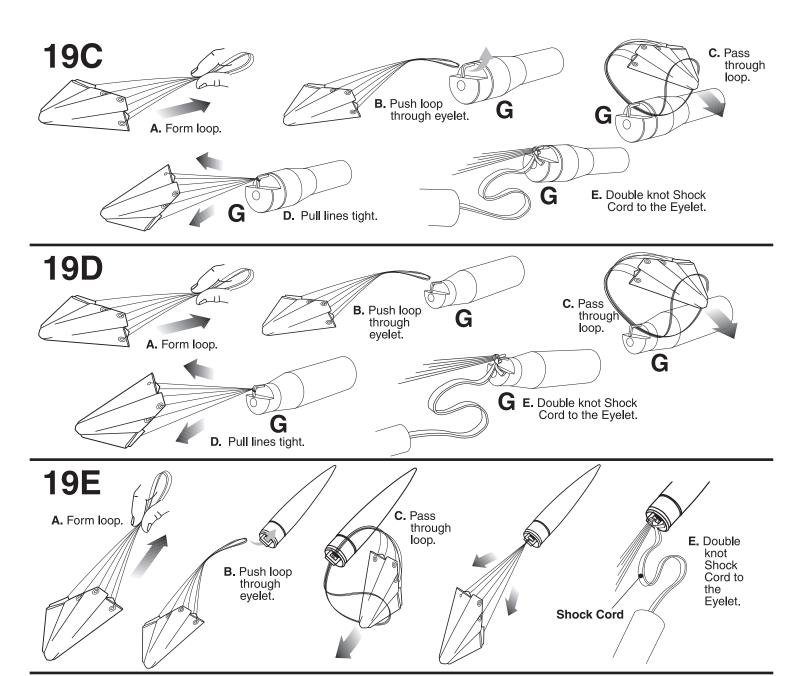
303200 Customizer™ 64 Accessory Pack

If you find that you have a few parts left over after completing your first Customizer™ 64 creation, we are offering the 303200 Customizer™ 64 Accessory Pack for \$11.99 (plus shipping and handling). This pack includes an additional 22 parts that can be used to create even more exciting rockets from this basic set. This accessory kit will only be offered on our website and can be ordered by going to (www.estesrockets.com). Click on the part number 1500 Customizer™ 64 web page, then click on the 303200 Customizer™ 64 Accessory Pack link.

EXTREMELY IMPORTANT: THE EXPLODED VIEW IS FOR REFERENCE ONLY! DO NOT USE THIS DRAWING ALONE TO ASSEMBLE THIS MODEL.

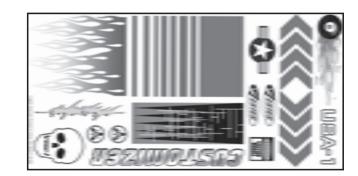
The exploded view is only intended to assist you in locating the parts included in this kit. Refer back to this exploded view as you build your model step by step. This method will help you to put the parts into perspective as you progress through the construction.

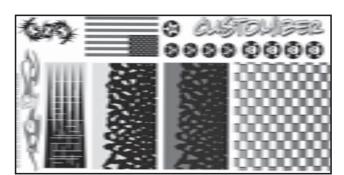
Part	Qty.	Description Part	Number	Part	Qty.	Description	Part Number
Α	1	BT 56 Nose Cone - Black	072016	S	1	BT 50 9" Body Tube - Black	031313
В	1	BT 50 Nose Cone - Black	072403	Т	1	BT 50 9" Body Tube Black	031313
С	1	BT 50 Nose Cone - Silver	072640	U	1	BT 50 Green Adaptor Ring	030164-2
D	1	BT 50 Nose Cone Insert	072605	V	1	Engine Hook Holder Ring	030170-3
Ε	1	BT 50 Nose Cone Insert	072605	W	1	BT 20 Motor Block Ring	030162-2
F	1	BT 50 Nose Cone Insert	072605	Χ	1	BT 50 Clear Payload	030608
G	1	BT 56 to BT 50 Adapter Black	030102	Υ	1	BT 50 Body Tube Coupler Red	030174-5
Н	1	BT 56 Motor Case Right - Black	060007	Z	1	White Insert Sleeve	030065
I	1	BT 56 Motor Case Left - Black	060008	AA	1	Engine Hook	035021
J	1	BT 50 Launch Lug Ring Silver	072635	BB	1	BT 20 Motor Tube	030331
K	1	BT 50 Launch Lug Ring Silver	072635	CC	4	Fin Set C - Black	072631
L	1	BT 56 Launch Lug - Black	072632	DD	4	Fin Set B - Black	072624
M	1	BT 56 Body Tube Coupler Black	060093	EE	4	Fin Set A - Black	072625
N	1	BT 56 Motor Lock Ring - Black	065359	FF	1	BT 50 Fin Set - Silver	072622
0	1	BT 56 Motor Lock Ring - Black	065359	GG	1	24" Rubber Shock Cord	038364
Р	1	Plastic Launch Lug Black	038186	HH	1	24" Rubber Shock Cord	038364
Q	1	BT 56 6î Body Tube - Red	031315	П	1	12" Parachute	035801
R	1	BT 56 8.5î Body Tube - Red	031314	JJ	1	12" Parachute	035801



CUSTOMIZE YOUR ROCKET!

Create your own custom look! Now that you have completed final assembly of your Customizer™ rocket, arrange any of the radical decals included in your set into your personal design. Mix and match the easy to apply decals and express yourself! Create your very own totally unique rockets.

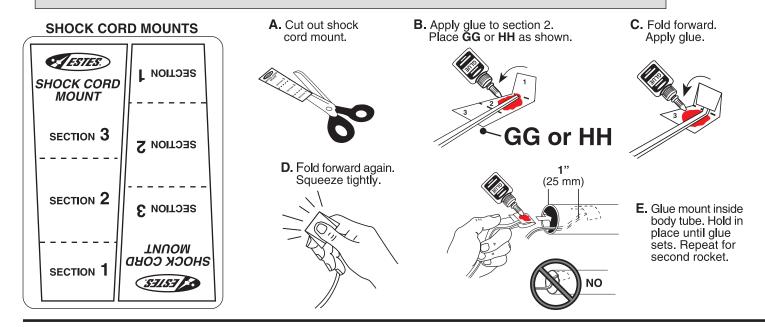




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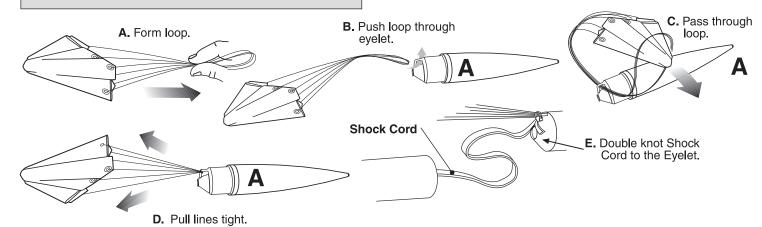
SHOCK CORD INSTALLATION

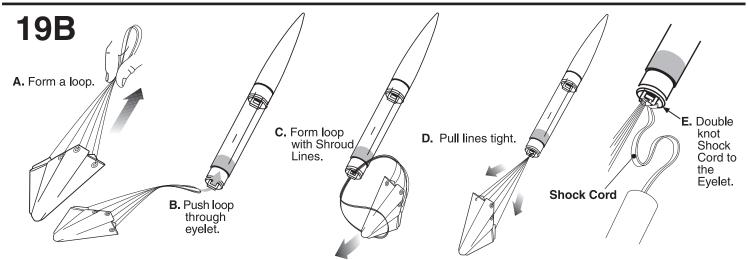
Parts: SHOCK CORD MOUNT FROM INSTRUCTIONS AND GG OR HH



PARACHUTE AND SHOCK CORD ATTACHMENT NOTE: This assembly sequence is used for all rockets.

Part: PREASSEMBLED PARACHUTE

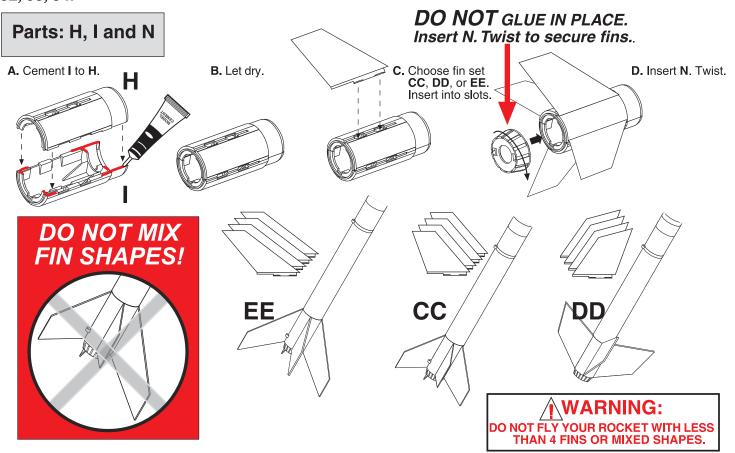




Customizer™ 64 Instruction Manual

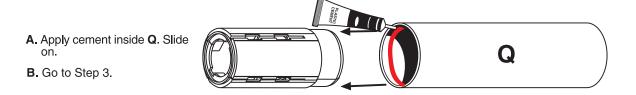
NOTE: ALL GLUED AREAS ARE SHOWN IN RED

BLACK ENGINE MOUNT ASSEMBLY
NOTE: Used for rocket #: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, *52, 53, 54.*



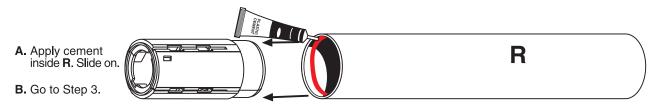
2A SINGLE SHORT RED BODY TUBE ATTACHMENT NOTE: Used for rocket #: 1, 2, 3, 4, 5, 6, 19, 20, 21, 22, 23, 24, 37, 38, 39, 40, 41, and 42.

Parts: Q or R and Black Engine Mount Assembly



SINGLE LONG RED BODY TUBE ATTACHMENT NOTE: Used for rocket #: 7, 8, 9, 10, 11, 12, 25, 26, 27, 28, 29, 30, 43, 44, 45, 46, 47, and 48.

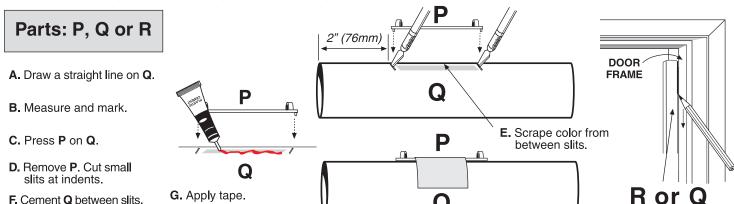
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3A SHORT BODY TUBE LAUNCH LUG ATTACHMENTNOTE: Used for rocket #: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 19, 20, 21, 22, 23, 24, 25, 26, 27,

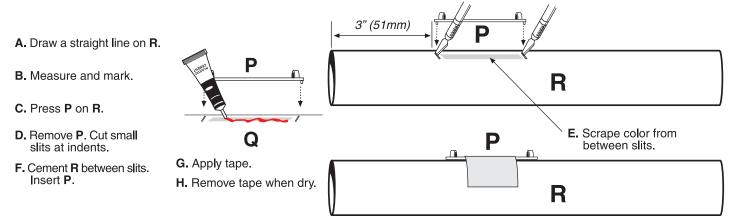
28, 29, 30, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47 and 48.



Q

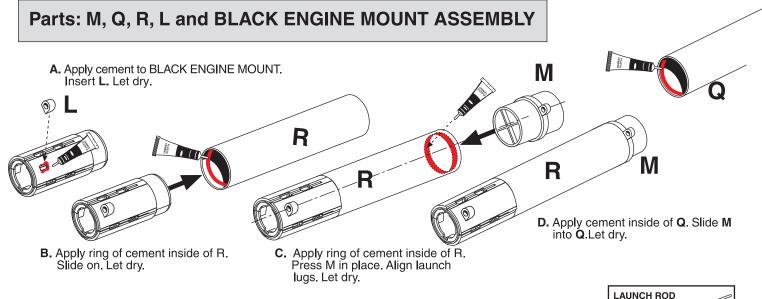
LONG BODY TUBE LAUNCH LUG ATTACHMENT

H. Remove tape when dry.

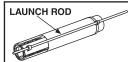


SHORT AND LONG BODY TUBE ATTACHMENT NOTE: Used for rocket #: 13, 14, 15, 16, 17, 18, 31, 32, 33, 34, 35, 36, 49, 50, 51, 52, 53,

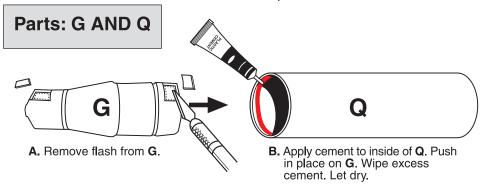
and 54.



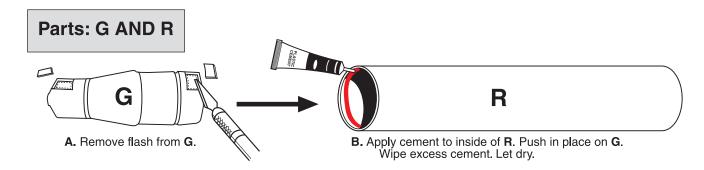
NOTE: Check launch lug alignment with section of launch rod before cement dries.



15A SINGLE SHORT RED BODY TUBE ADAPTOR NOTE: Used for rocket #: 59, 62.

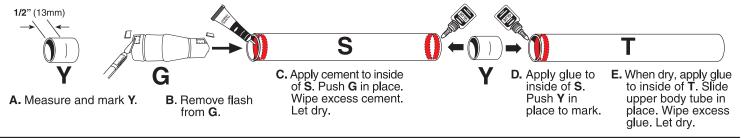


SINGLE LONG RED BODY TUBE ADAPTOR NOTE: Used for rocket #: 60, 63.

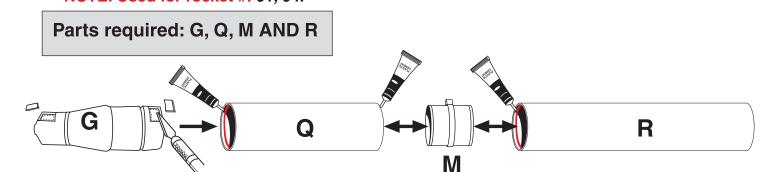


6 DOUBLE BLACK BODY TUBE ADAPTOR NOTE: Used for rocket #: 5, 6, 11, 12, 17, 18, 23, 24, 29, 30, 35, 36, 41, 42, 47, 48, 53, and 54.

Parts required: G, S, Y AND T



7 SHORT AND LONG RED BODY TUBE ADAPTOR NOTE: Used for rocket #: 61, 64.



- A. Remove flash B. Apply cement to inside of Q. Insert G. Wipe excess glue. from G.
- C. Apply cement to inside of Q. Push M in place. Wipe excess glue. Let dry.
- **D.** Apply glue to inside of **R**. Slide onto **M**. Wipe excess glue. Let dry.

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F. Cement Q between slits.

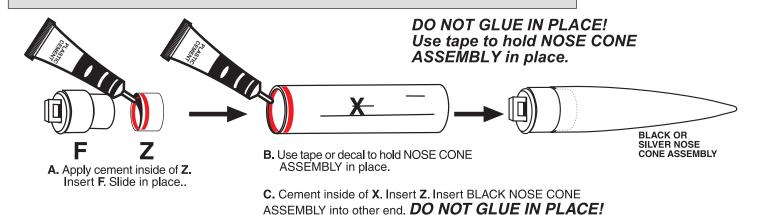
Insert P.

12A PAYLOAD ASSEMBLY — BLACK NOSE CONE NOTE: Used for rocket #: 4, 6, 10, 12, 16, 18, 22, 24, 28, 30, 34, 36, 40, 42, 46, 48, 52, and 54.

PAYLOAD ASSEMBLY - SILVER NOSE CONE

NOTE: Used for rocket #: 56 and 58.

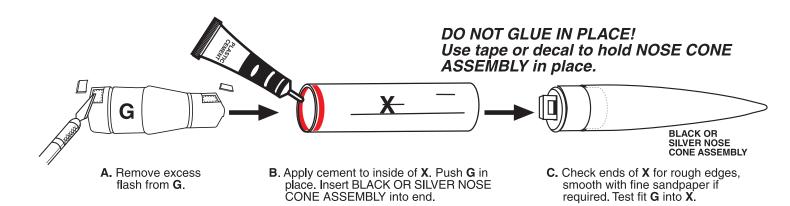
Parts: F, X, Z and BLACK OR SILVER NOSE CONE ASSEMBLY



13 PAYLOAD ATTACHMENT

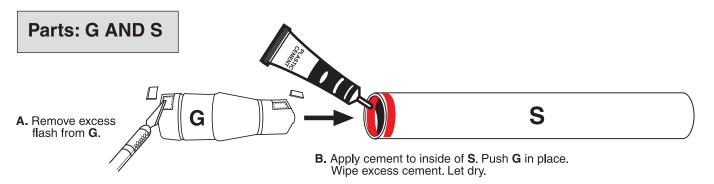
NOTE: Used for rocket #: 2, 8, 14, 20, 26, 32, 38, 44 and 50.

Parts: G, X AND BLACK OR SILVER NOSE CONE



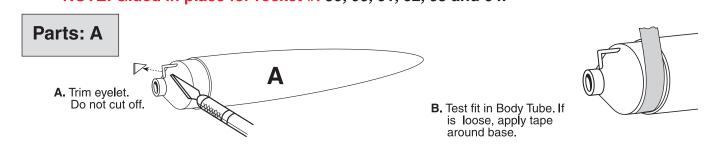
14 SINGLE BLACK BODY TUBE ADAPTOR NOTE: Used for rocket #: 3, 4, 9, 10, 15, 16, 21, 22, 27, 28, 33, 34, 39, 40, 45, 46, 51,

and 52.



LARGE NOSE CONE

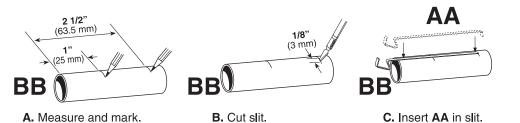
NOTE: Used for recovery in rocket #: 1, 7, 13, 19, 25, 31, 37, 43, and 49. NOTE: Glued in place for rocket #: 59, 60, 61, 62, 63 and 64.



ENGINE MOUNT ASSEMBLY

NOTE: Used for rocket #: 55, 56, 57, 58, 59, 60, 61, 62, 63, and 64.

Parts: BB, AA, V and W



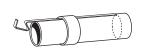




F. Insert W until it stops. E. Apply glue.



D. Apply glue ring above mark. Slide V to mark.

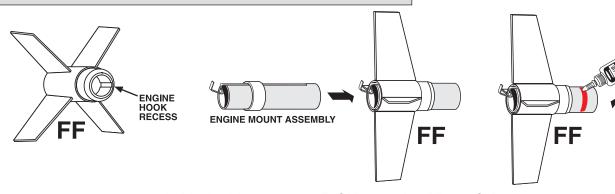


G. Let dry.

SILVER FIN ASSEMBLY

NOTE: Used for rocket #: 55, 56, 57, 58, 59, 60, 61, 62, 63, and 64.

Parts: FF, U and ENGINE MOUNT ASSEMBLY



A. Align hook in recess

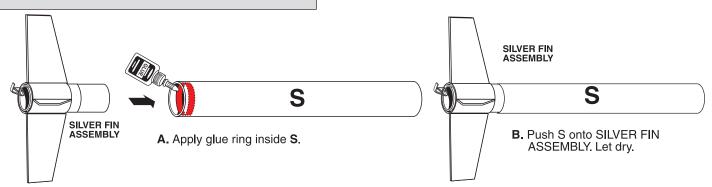
B. Slide mount into FF even with bottom.

C. Apply glue ring around Engine Mount. Push **U** on **MOUNT** until it stops. Wipe excess glue. Let dry.

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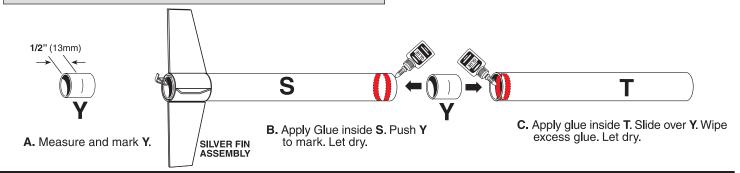
SINGLE BLACK BODY TUBE ATTACHMENT NOTE: Used for rocket #: 55, 56, 59, 60, and 61.





DOUBLE BLACK BODY TUBE ATTACHMENT NOTE: Used for rocket #: 57, 58, 62, 63, and 64.

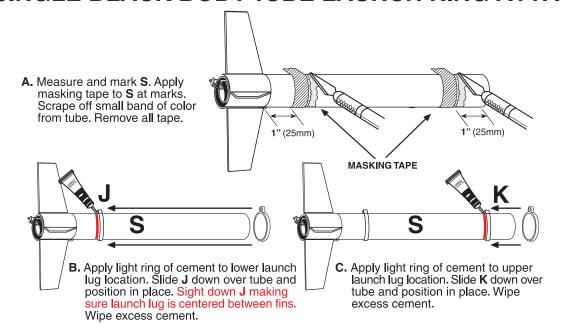
Parts: S, T, Y and SILVER FIN ASSEMBLY

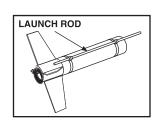


9A SILVER LAUNCH LUG ATTACHMENT NOTE: Used for rocket #: 55, 56, 59, 60 and 61.

Parts: J. K and SINGLE or DOUBLE BLACK BODY TUBE ASSEMBLED TO SILVER FIN ASSEMBLY

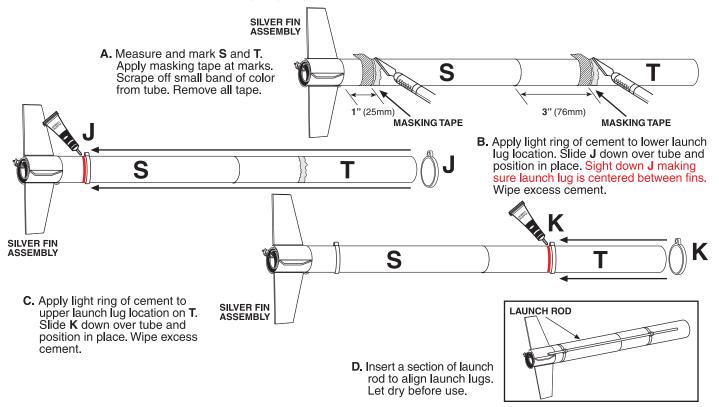
SINGLE BLACK BODY TUBE LAUNCH RING ATTACHMENT





D. Insert a section of launch rod to align launch lugs. Let dry

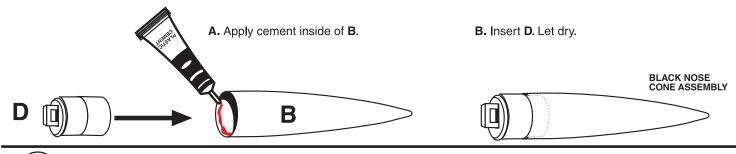
9B DOUBLE BLACK BODY TUBE LAUNCH RING ATTACHMENT NOTE: Used for rocket #: 57, 58, 62, 63 and 64.



BLACK NOSE CONE ASSEMBLY

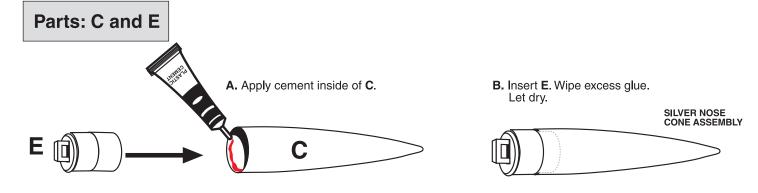
NOTE: Used on rocket #: 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 50, 51, 52, 53 and 54.

Parts: B and D



SILVER NOSE CONE ASSEMBLY

NOTE: Used on rocket #: 55, 56, 57 and 58.



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