A DAMON COMPANY
ESTES INDUSTRIES
1295 H Street
Penrose, CO 81240 USA

#0876

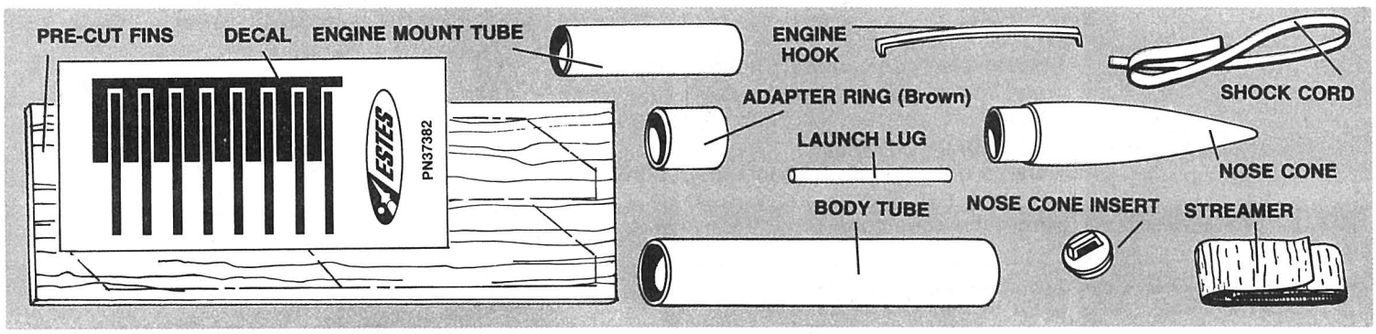
MICRON™ FLYING MODEL ROCKET

ASSEMBLY TIP

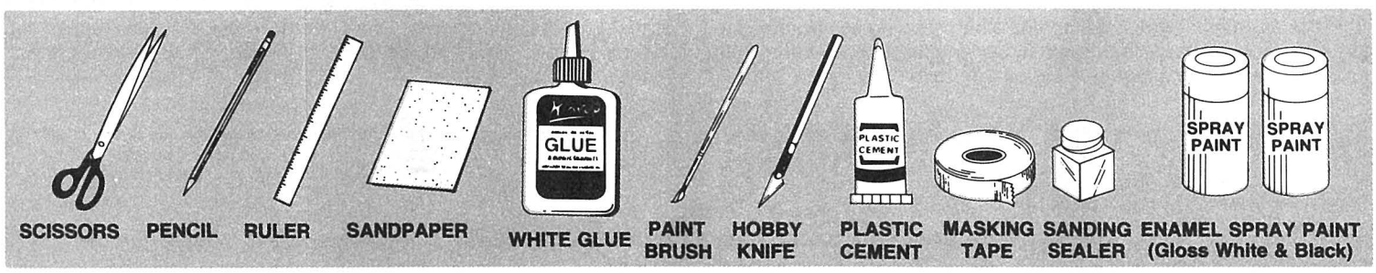
Read all instructions before beginning work on your model. Make sure you have all parts and supplies. Test-fit all parts together before applying any glue. If any parts don't fit properly, sand as required for precision assembly.

PARTS AND SUPPLIES

Locate the parts shown below and lay them out on the table in front of you.



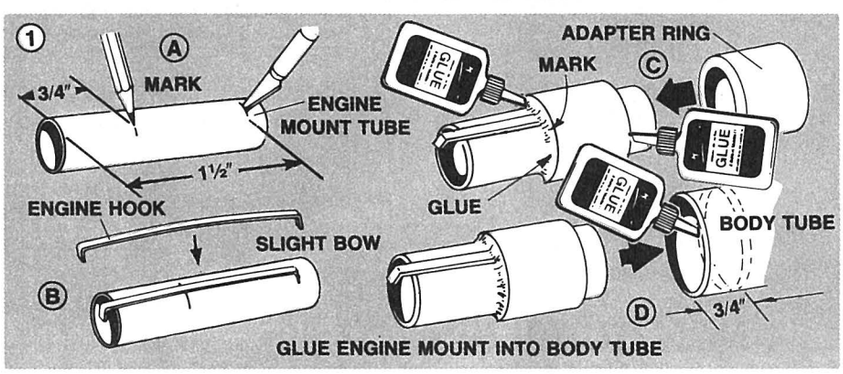
In addition to the parts included in the kit you will also need:



ROCKET ASSEMBLY

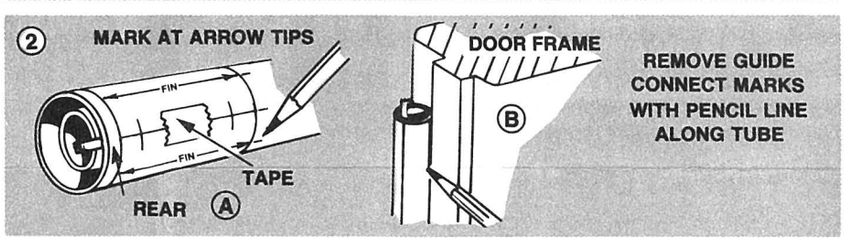
1.

A. Mark engine mount tube 3/4 inch and 1½inches from one end and then cut 1/8 inch long slit at 1½ inch mark.
B. Insert one end of engine hook into slit.
C. Slide adapter ring onto tube as shown to the 3/4 inch mark and then glue both ends of ring to tube.
D. Apply a line of glue around inside of one end of body tube as shown. Push engine mount into tube until tube ends are even.



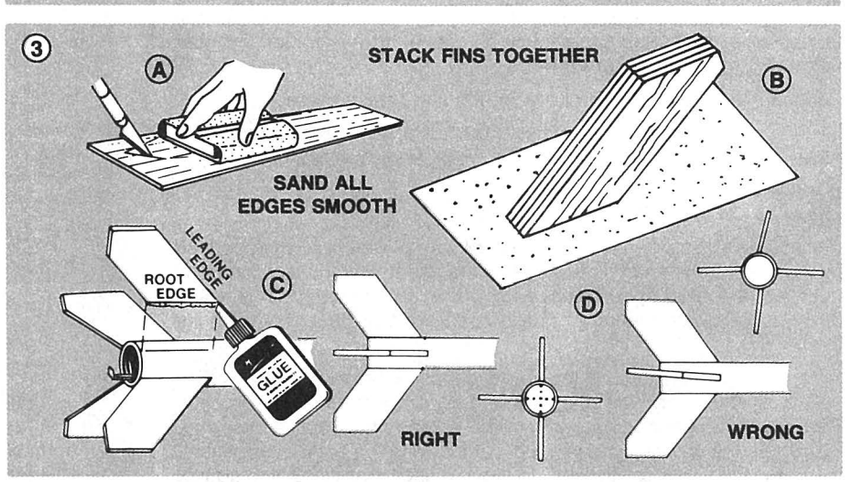
2.

A. Cut out tube marking guide from back of this sheet. Do NOT cut out shock cord mount. Wrap guide around the tube and tape. Mark tube at arrows. Remove guide and save.
B. Draw straight lines connecting each pair of marks the length of the tube.



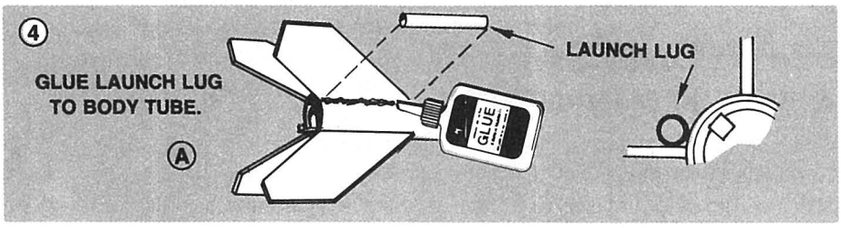
3.

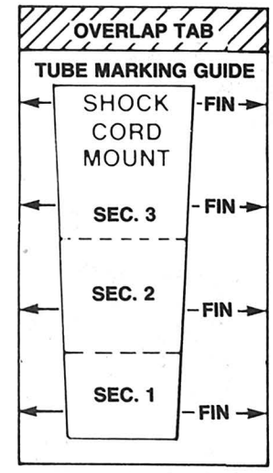
A. Fine sand balsa die-cut sheet. Carefully remove fins by freeing edges with sharp knife.
B. Stack fins together. Sand all edges smooth.
C. Apply a small amount of glue to root edge of a fin. Glue fin on alignment lines. Repeat for other fins. Let each fin dry several minutes before applying the next fin.
D. Looking at the rocket from the rear, the fins should be in the positions shown with the trailing edge of each fin even with the end of the tube.



4.

A. Glue launch lug to fin-body tube joint as shown.





CUT OUT TUBE MARKING GUIDE FOR STEP 2 THEN CUT OUT SHOCK CORD MOUNT FOR STEP 5

5.

A. Cut shock cord mount from tube marking guide.

B. Crease on dotted lines by folding. Spread glue on section 1 and lay end of shock cord into glue. Fold over and apply glue to back of first section and exposed part of section 2. Lay shock cord as shown and fold mount over again.

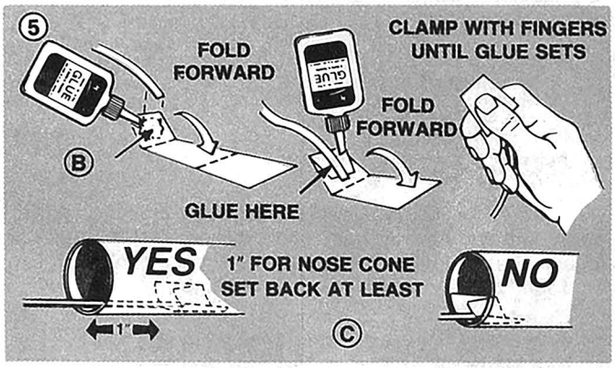
C. Apply glue to inside front of body tube to cover an area no less than 1 inch to 2 inches from end. The glued area should be same size as shock cord mount. Press mount firmly into glue as shown. Hold until glue sets.

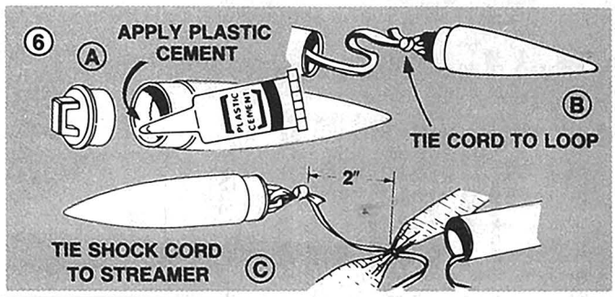
6.

A. Assemble nose cone and nose cone insert with plastic cement.

B. When dry, tie free end of shock cord to nose loop with double knot.

C. Use a double knot to tie the shock cord around the plastic streamer about 2" from the nose cone.

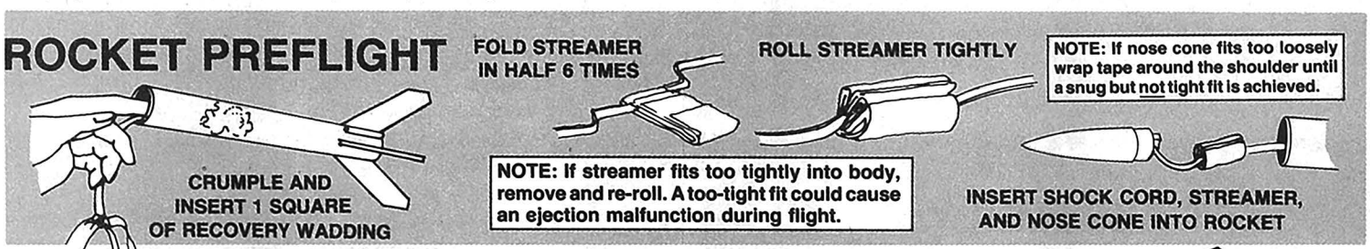


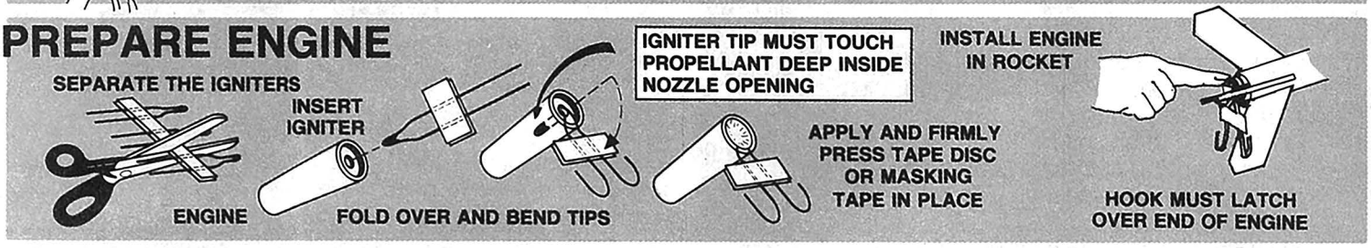


FINISHING YOUR ROCKET

Apply sanding sealer to wood parts with small brush. When sealer is dry, lightly sand all sealed surfaces. Repeat sealing and sanding until balsa grain is filled and smooth. When sanding sealer and glue are completely dry, paint model with spray enamel. Follow instructions on spray can for best results. Let paint dry overnight.

To apply decals, cut each out, dip in lukewarm water for 20 seconds, and hold until it uncurls. Refer to photograph on front page and/or on front of panel for decal placement. Slip decal off backing sheet and onto model. Blot away excess water. For best results, let decals dry overnight and apply a coat of clear spray paint to protect decals.





LAUNCH SUPPLIES

To launch your rocket you will need the following items:
—Estes Electrical Launch System and Launch Pad
—Estes Recovery Wadding No. 2274
—Recommended Estes Engines: 1/2A3-2T, A3-4T, or A10-3T.
Use 1/2 A3-2T for first flight to become familiar with your rocket's flight pattern. *Use only Estes products to launch this rocket.*

FLYING YOUR ROCKET

Choose a large field away from power lines, tall trees, and low flying aircraft. Try to find a field at least 250 feet square. The larger the launch area, the better your chance of recovering your rocket. Football fields and playgrounds are great.

Launch area must be free of dry weeds and brown grass.

Launch only during calm weather with little or no wind and good visibility.

MISFIRES

Failure of the model rocket engine to ignite is nearly always caused by incorrect igniter installation. An Estes igniter will function properly even if the coated tip is chipped. However, if the coated tip is not in direct contact with the engine propellant, it will only heat and not ignite the engine.

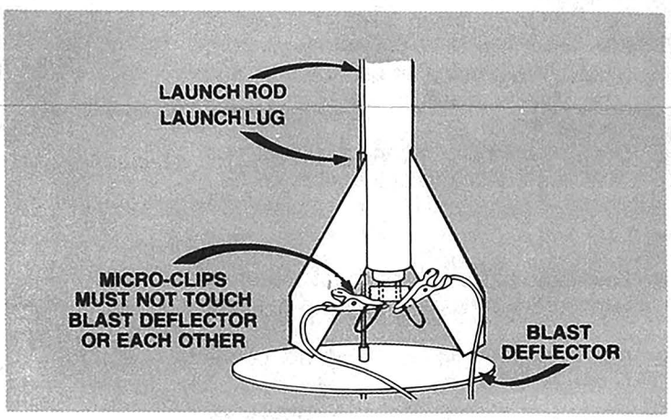
When an ignition failure occurs, remove the safety key from the launch control system and wait one minute before approaching the rocket. Remove the expended igniter from the engine and install a new one. Be certain the coated tip is in direct contact with the engine propellant, then tape the igniter leads firmly to base of engine as illustrated above. Repeat the countdown and launch procedure.

FOR YOUR SAFETY AND ENJOYMENT

Always follow the NAR-HIA* MODEL ROCKETRY SAFETY CODE while participating in any model rocketry activities.

*National Association of Rocketry-The Hobby Industry of America

COUNTDOWN AND LAUNCH



⑩ REMOVE SAFETY KEY to disarm the launch controller.

⑨ Remove safety cap and slide launch lugs over launch rod to place rocket on launch pad. Make sure the rocket slides freely on the launch rod.

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

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

⑥ INSERT SAFETY KEY to arm the launch controller.

Give audible Countdown 5...4...3...2...1

LAUNCH!!! **PUSH AND HOLD LAUNCH BUTTON UNTIL ENGINE IGNITES**

Remove safety key—Replace cap on rod.

PN 082484

1/16”

300 DPI

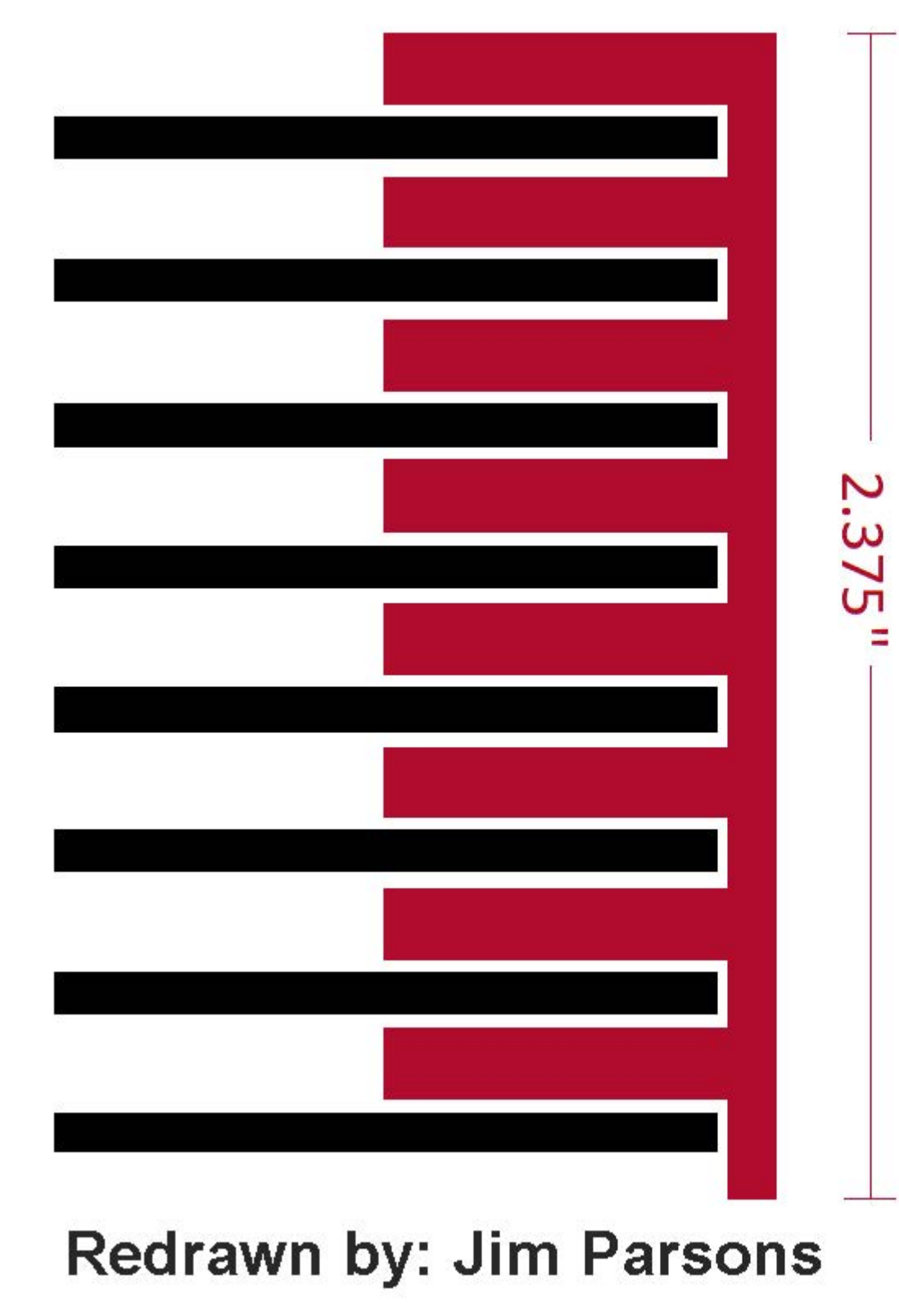
ESTES

PN37382

300 DPI

Redrawn by: JimZ

PN37382


2.375"
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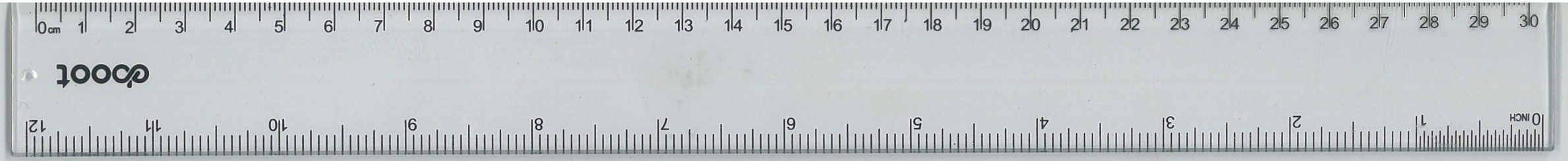
DPI
Redrawn by: Jim Parsons



ESTES. A DAMON COMPANY

GET YOUR FULL-COLOR ESTES CATALOG!

YOUR BEST QUICK-INFORMATION SOURCE IS YOUR ESTES CATALOG.

Estes Industries is located in Penrose, Colorado--Model Rocket Capitol of the World!

YOU can select the **best!** Choose from over 50 great model rocket kits shown in full-color! **The complete line** of reliable Estes engines, starter sets, and other model rocketry supplies are included. Your Estes catalog has 60+ pages in full-color! Tech Tips™, Safety Code, a list of excellent publications, and much other helpful model rocketry information are included to help you become the best!

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☐ **Yes,** Send me my personal copy of the current Estes Flying Model Rocket Catalog. Enclosed is my $1 (check or money order). Rush me the current Estes catalog of sport fliers, scale models, high-performance rockets, multi-stagers, and more!

Name _____

Address _____

City _____ **State** ____ **Zip** _____

Mail this completed coupon today to: Estes Industries, Priority Catalog Request, 1295 H Street, Penrose, CO 81240

☐ Please send my teacher a free Estes model rocketry catalog and a teacher's guide on using model rocketry.

Teacher's Name _____

SCHOOL Address _____

City _____ **State** _____ **Zip** _____

My Name _____

My Address _____

City _____ **State** _____ **Zip** _____

Mail coupon to: Estes Industries, Teacher Information Request, Education Department, Penrose, CO 81240

ESTES. A DAMON COMPANY

FULL ONE YEAR WARRANTY

ESTES. A DAMON COMPANY

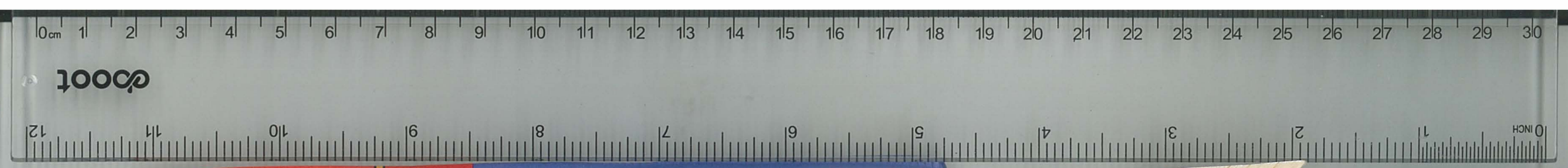
Your Estes product is warranted against defects in materials or workmanship for one year from the date of the original purchase. Any Estes product, except computer software, which, because of a manufacturing mistake, malfunctions or proves to be defective within the one-year warranty period will be repaired or replaced, at Estes' option and at no charge to you, provided it is returned to Estes with proof of purchase.

This warranty does not cover incidental or consequential damage to persons or property caused by the use, abuse, misuse, failure to comply with operating instructions or improper storage of the warranted product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

For repair or replacement under this warranty, please return the defective part of your Estes product with proof of purchase to: Estes Industries, Customer Service Department, Penrose, Colorado 81240.

PARTS LIST KIT N0. 0876 - Micron								
Quantity	Description	Type	Number	Details1	Details2	Details3	Details4	Comment
1	PAPER BODY TUBE	BT-20DJ	30332	4" long	0.710" ID	0.736" OD	0.013" wall	Glassine
1	PAPER BODY TUBE	BT-5(1.75)	30290	1.75" long	0.515" ID	0.541" OD	0.013" wall	Glassine
1	CENTERING RINGS	AR-520	30162(1)	0.69" OD	0.542" ID	0.75" long	BT-5 in BT-20	Brown
1	Plastic Streamer	N/A	?	1.25" wide	12" long	Flo. Orange		Plastic
1	BALSA FIN STOCK	BFS-20(2x6)	?	2" wide	6" long	1/16" thick	0.0625mm	Scan
1	LAUNCH LUG	LL-2A	38175	5/32" ID	1/8" rod	1.25" long		Mylar
1	Shock Cord	SC-1A	85732	1/8" wide	9" long			Rubber
1	ENGINE HOLDER	EH-3	3143	1.8" long	0.125" wide	0.025" thick		Mini
1	PLASTIC NOSE CONE	PNC-20A	72602	2.81" long	0.736" dia.	0.5" shoulder	White	Injection Molded
1	NOSE CONE INSERT	PIN-20	72603	0.16" total length	0.67" dia.	0.1" shoulder	0.06" lip	Injection Molded
1	Decal	KD-0876	37382	2" wide	4" long	Blk/Red	Waterslide	Scan



National Association of Rocketry

The National Association of Rocketry is the official non-profit organization which promotes model rocketry in the United States.

NAR MEMBERS RECEIVE ALL THIS:

- **American Spacemodeling**—12 monthly issues crammed with the latest in rocketry
- **Coupon Sheet**—Receive free products and samples from many aeromodeling manufacturers
- **The NAR Pink Book**—Official rule book for over two dozen rocketry contests!
- **NAR Sporting License**—ID card identifying you as an official NAR member with your own registered number
- **NAR Decals**—Official decals.

Don't miss out on the fun!

JOIN TODAY

ALL NAR MEMBERS ARE ENTITLED TO:

- **$1,000,000 Liability Insurance**—Reassure others as you lift-off with complete peace of mind in one of the World's safest hobbies.
- **Join NAR Clubs**—Explore a universe of fun with other rocketeers in NAR clubs all over the country.
- **Attend NARAMS**—Spend an unforgettable week at the most exciting rocketry event; the NAR Annual Meet where rocketeers from all over meet and compete.
- **Set National and World Records**—Prove that you're the best and receive official recognition.
- **Member Services**—Exclusive free and low cost items, such as handy manuals, booklets, plans, patches, special offers, and more!

Membership Application

NATIONAL ASSOCIATION OF ROCKETRY
2140 Colburn Dr., Shakopee, MN 55379

This flier is provided courtesy of Estes Industries. Application with membership fee and all information requests should be sent directly to the NAR, Dept. E88.

DATE OF BIRTH: Mo.____ Day____ Yr.____

AMOUNT ENCLOSED____

NAME____ DATE____

ADDRESS____

CITY____ STATE____ ZIP____

☐ NEW
☐ RENEWAL (number____ Section No.____)

MEMBERSHIP CATEGORY—Check One Only!
☐ JUNIOR MEMBERSHIP (Under 16 as of January 1) . . . $12.00
☐ LEADER MEMBERSHIP (Under 21 as of January 1) . . $15.00
☐ SENIOR MEMBERSHIP (21 or over as of January 1) . . $19.00
—RENEWING MEMBERS DEDUCT $1.00 FROM MEMBERSHIP PRICE

I pledge to conduct all my model rocket activities in compliance with the NAR/HIA Safety Code. I will never fly model rockets at the same time or in the same vicinity as other types of rockets.

Signature____

☐ **Please send more information.**

OPTIONAL MEMBERSHIP SERVICES—In addition to above fees.
☐ $1,000,000 liability protection while flying model rockets . $11.00
☐ FAI Stamp for team programs and international records. . $10.00

All memberships apply for 12 months from acceptance of application. Prices subject to change without notice.

900127A

NAR/HIA Model Rocketry Safety Code

1. **Construction**—My model rockets will be made of lightweight materials such as paper, wood, rubber, and plastic, without any metal as structural parts.
2. **Engines**—I will use only pre-loaded factory-made NAR Certified model rocket engines in the manner recommended by the manufacturer. I will not alter or dismantle model rocket engines or their ingredients in any way or attempt to reload these engines.
3. **Recovery**—I will always use a recovery system in my rockets that will return them safely to the ground so that they may be flown again. I will use only flame-resistant recovery wadding in my rockets.
4. **Weight Limits**—My model rocket will weigh no more than 1500 grams (53 oz.) at lift-off, and the engines will contain a total of no more than 125 grams (4.4 oz.) of propellant. My model rockets will weigh no more than the engine manufacturer's recommended maximum lift-off weight for the engines used or will use the engines recommended by the manufacturer for my rocket.
5. **Stability**—I will check the stability of my model rockets before their first flight, except when launching models of already proven stability.
6. **Payloads**—My model rockets will never carry live animals or payloads that are intended to be flammable or explosive.
7. **Launch Area**—I will launch my model rockets outdoors in a cleared area, free of tall trees, power lines, and buildings. I will ensure that people in the vicinity are aware of the pending rocket launch and are in a position to see the rocket's lift-off before I begin my audible 5-second countdown.
8. **Launcher**—I will launch my model rockets from a rod or other device which provides rigid guidance until the rocket has reached a speed adequate to ensure a safe flight path. To prevent accidental eye injury, I will always place the launcher so that the end of the rod is above eye level or will cap the end of the launch rod when approaching it. I will cap or disassemble my launch rod when not in use and will never store it in an upright position. The launch device will have a jet deflector to prevent the engine exhaust from hitting the ground directly. I will always clear the area around my launch device of brown grass, dry weeds, and other easy-to-burn materials.
9. **Ignition System**—The system I use to launch my model rockets will be remotely controlled and electrically operated and will contain a launching switch that will return to "off" when released. The system will contain a removable safety interlock in series with this firing switch. When launching, all persons will remain at least 15 feet away from any model rocket when igniting engines totalling 30 N-sec of total impulse or less and at least 30 feet when igniting engines totalling more than 30 N-sec total impulse. I will use only electrical igniters which will ignite my rocket engine within one second of actuation of the launching switch.
10. **Launch Safety**—I will not let anyone approach a model rocket on a launcher until I have made sure that the safety interlock has been removed or the battery has been disconnected from the launcher. In the event of a misfire, I will wait one minute before allowing anyone to approach the launcher.
11. **Flying Conditions**—I will launch my model rocket only when the wind is less than 20 miles per hour, and under conditions where the model will not fly into clouds, fly near aircraft in flight, or be hazardous to people or property.
12. **Pre-Launch Test**—When conducting research activities with unproven designs or methods I will, when possible, determine their reliability through pre-launch tests. I will conduct launchings of unproven designs in complete isolation from persons not participating in the actual launching.
13. **Launch Angle**—I will not launch rockets so their flight path will carry them against targets. My launch device will be pointed within 30 degrees of vertical. I will never use model rocket engines to propel any device horizontally.
14. **Recovery Hazards**—If a model rocket becomes entangled in a power line or other dangerous place, I will not attempt to retrieve it.

As a member of the Estes Model Rocketry Program, I promise to faithfully follow all rules of safe conduct as established in the above code.

Signature ____

This Model Rocketry Safety Code is Approved by the National Association of Rocketry and the Hobby Industry of America.

84709A

MICRON™

FLYING MODEL ROCKET

ESTES
A DAMON COMPANY

SKILL LEVEL 1

For the Beginning Modeler.

- SUPER PERFORMER
  - Streamer
- Engine Hook
  - Balsa Fins

Length: 8.25 in. (21 cm)
Dia.: .736 in. (18.7 mm)
Weight: .50 oz. (14.2 g)

Recommended Engines:
1/2A3-2T (First Flight),
A3-4T, or A10-3T

This is a model kit requiring assembly. Glue and finishing supplies, launch system and engines for flight are not included.

THE HOBBY INDUSTRY OF AMERICA PROMOTES ACHIEVEMENT

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#0876