

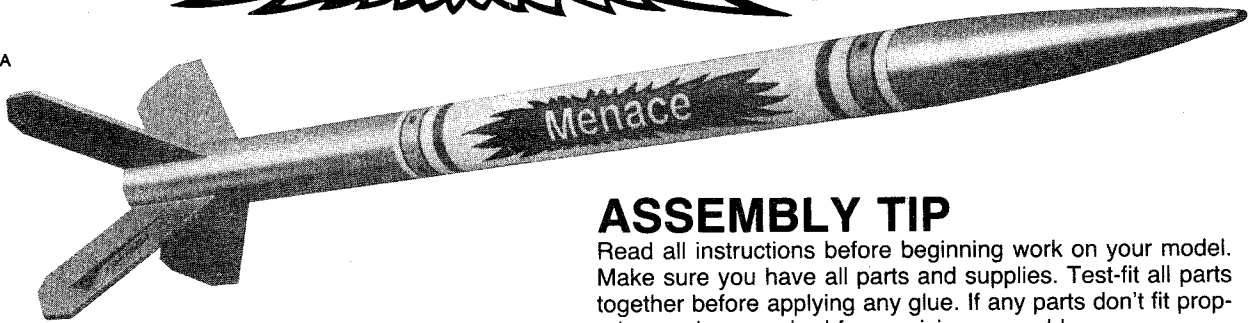




ESTES INDUSTRIES  
1295 H STREET,  
PENROSE, CO 81240 USA



FLYING MODEL  
ROCKET KIT #2041

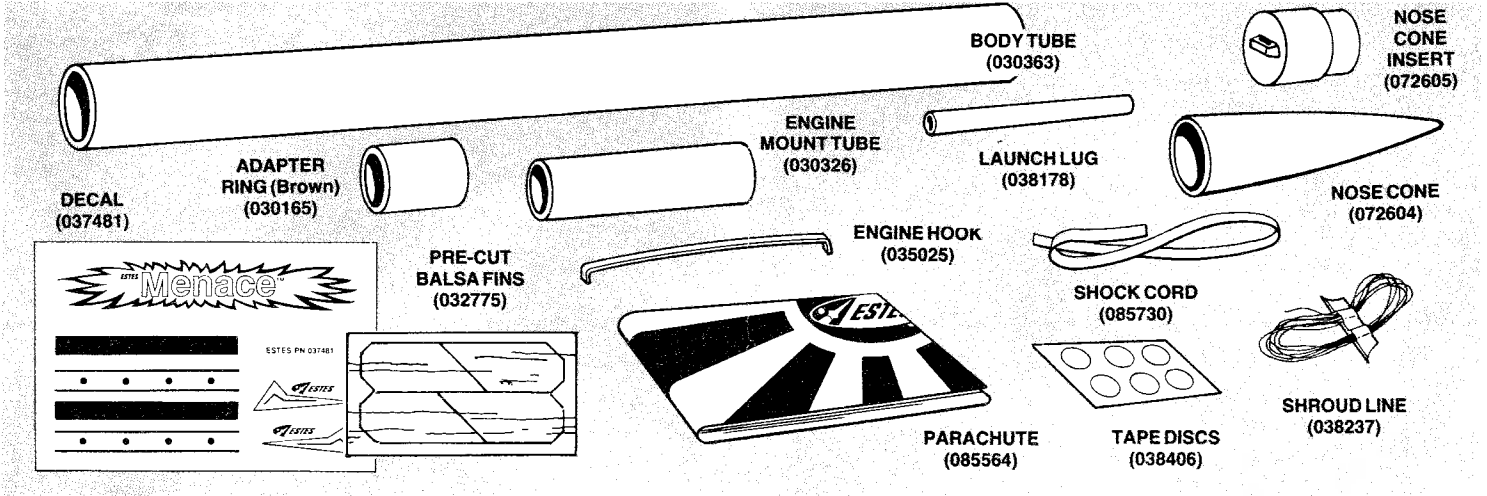


## PARTS AND SUPPLIES

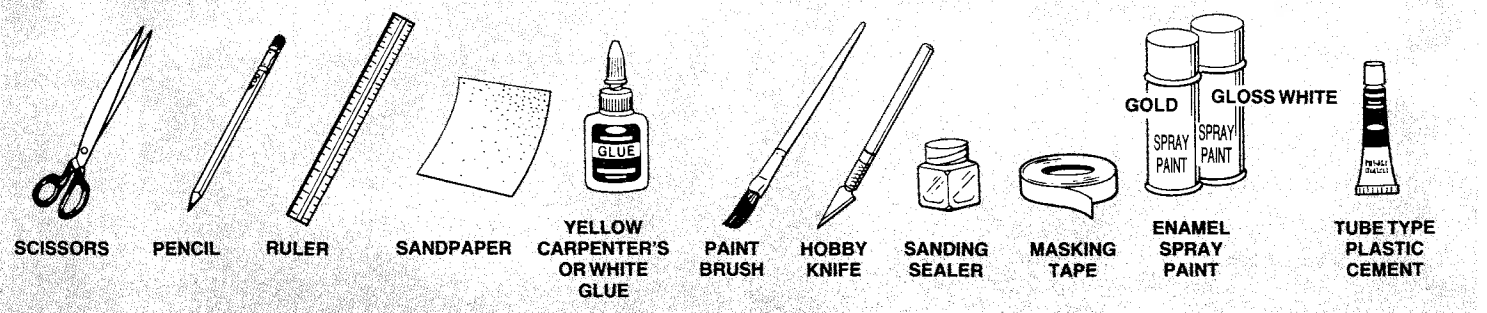
Locate the parts shown below and lay them out on the table in front of you.

## 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.



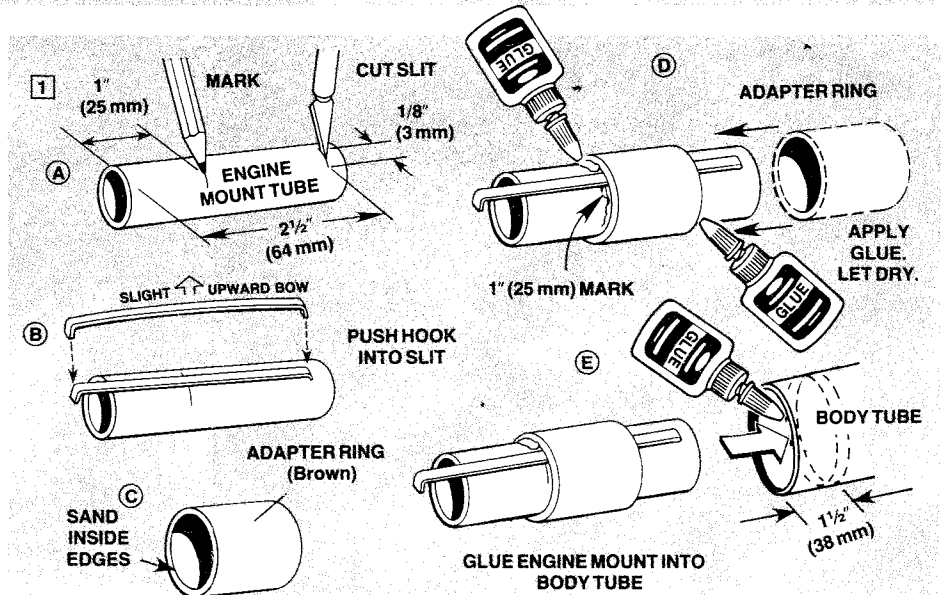
In addition to the parts included in this kit, you will also need:

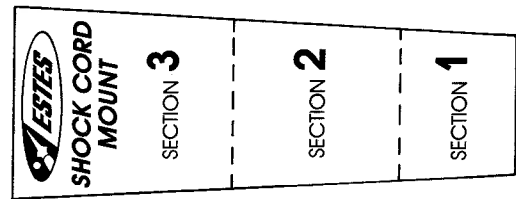
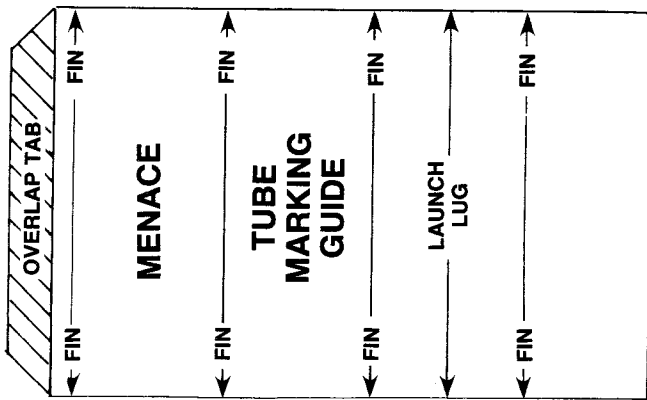


## ROCKET ASSEMBLY

1.

- Mark engine mount tube 1" (25 mm) and 2 1/2" (64 mm) from one end and then cut 1/8" (3 mm) long slit at 2 1/2" (64 mm) mark.
- Insert one end of engine hook into slit.
- Sand inside edges of adapter ring.
- Slide adapter ring onto tube as shown to the 1" (25 mm) mark and then glue both ends of ring to tube. Allow glue to dry.
- 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.



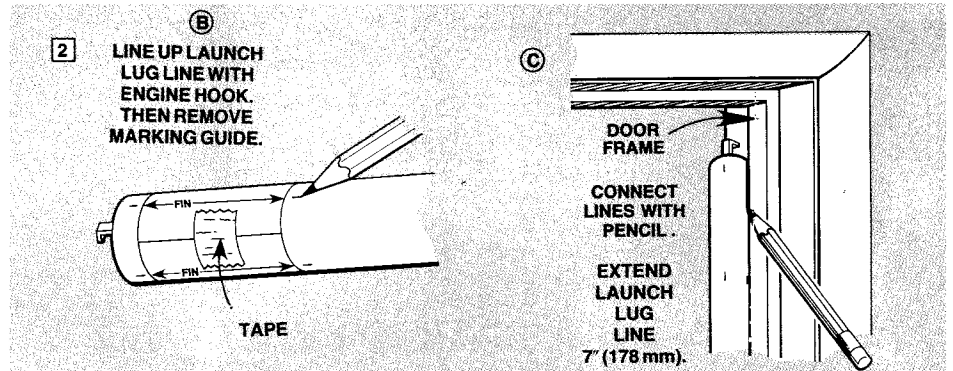


CUT OUT FOR STEP #6

← CUT OUT FOR STEP #2

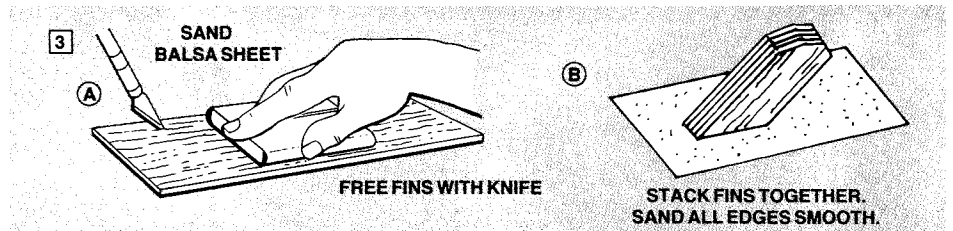
## 2.

- Cut out tube marking guide from top of page 2.
- Wrap guide around the tube. Mark tube at arrows. Remove guide.
- Draw straight lines connecting each pair of marks. Extend launch lug line 7" (178 mm) from rear of tube.



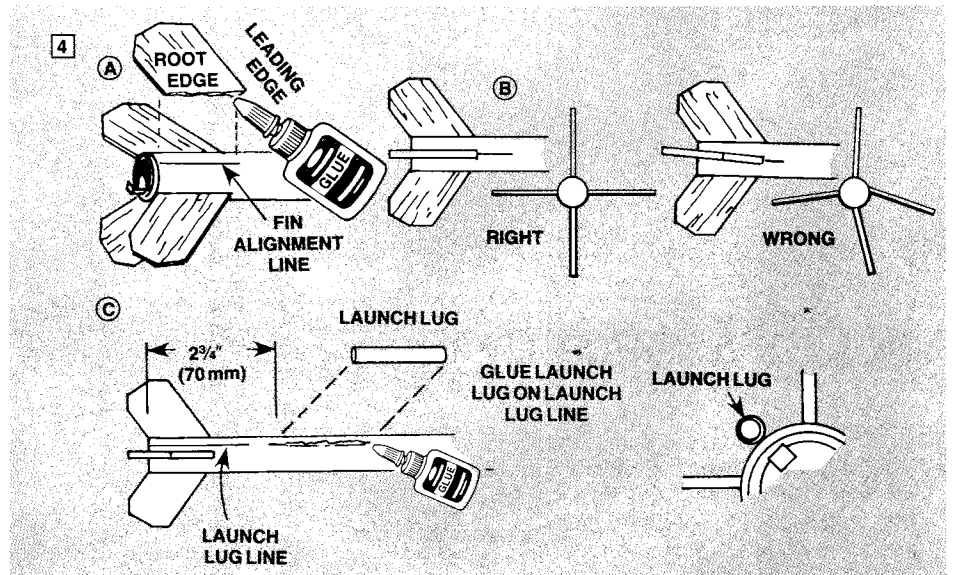
## 3.

- Fine sand balsa die-cut sheets. Carefully remove fins by freeing edges with sharp knife.
- Stack fins together. Sand all edges smooth.



## 4.

- Apply a small amount of glue to root edge of a fin. Glue fin on alignment line. Repeat for other fins. Let each fin dry several minutes before applying the next fin.
- 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 body tube.

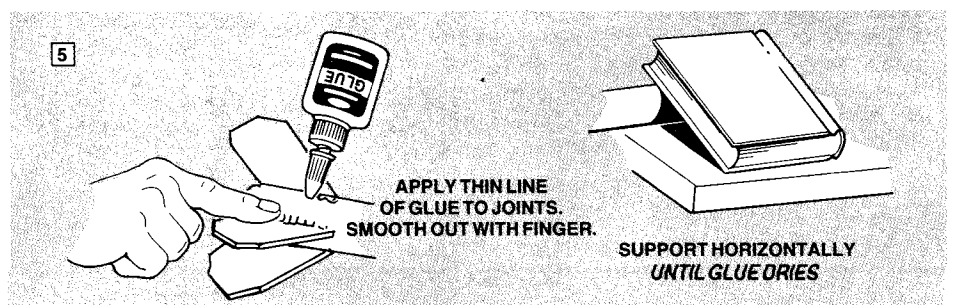


**FINS MUST BE ATTACHED CORRECTLY FOR STABLE FLIGHT!**

- Glue launch lug on launch lug line 2 3/4" (70 mm) from end of body tube as shown. Launch lug must be straight on body tube.

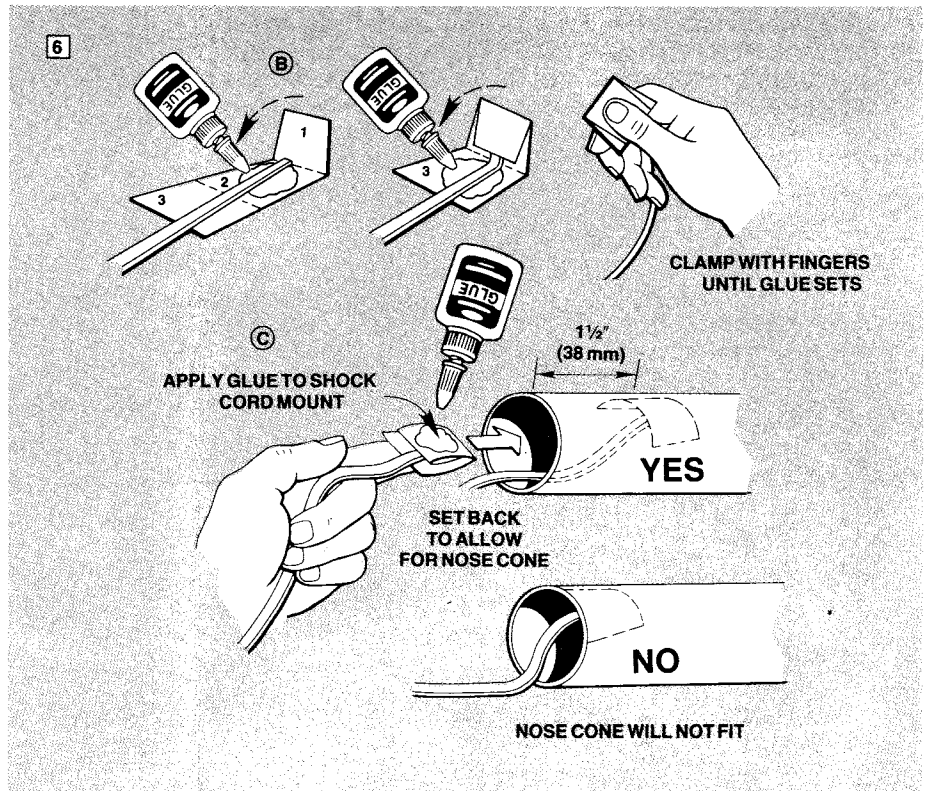
## 5.

Apply a bead of glue as reinforcement to each side of each fin/body tube joint and to each side of the launch lug. Smooth them out with your finger. Support the rocket horizontally until glue dries.



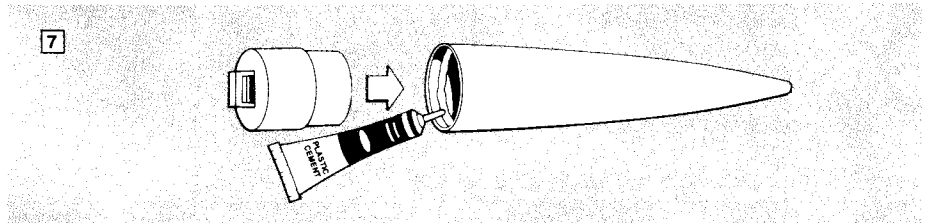
## 6.

- Cut shock cord mount from top of page 2.
- Crease on dotted lines by folding. Spread glue on section 2 and lay end of shock cord into glue at a slight diagonal as shown. Fold section 1 forward. Apply glue to section 3. Fold forward again. Clamp firmly with your fingers until glue sets.
- Apply glue to the shock cord mount. With the shock cord mount positioned on the end of your finger or a pencil, gently position the mount into the front of body tube far enough from the front edge of the tube to allow the nose cone to fit into place ( $1\frac{1}{2}$ " - 38 mm). Press shock cord mount into position. Smear a film of glue over the mount and surrounding area in the body tube to insure a good bond and a smooth surface.



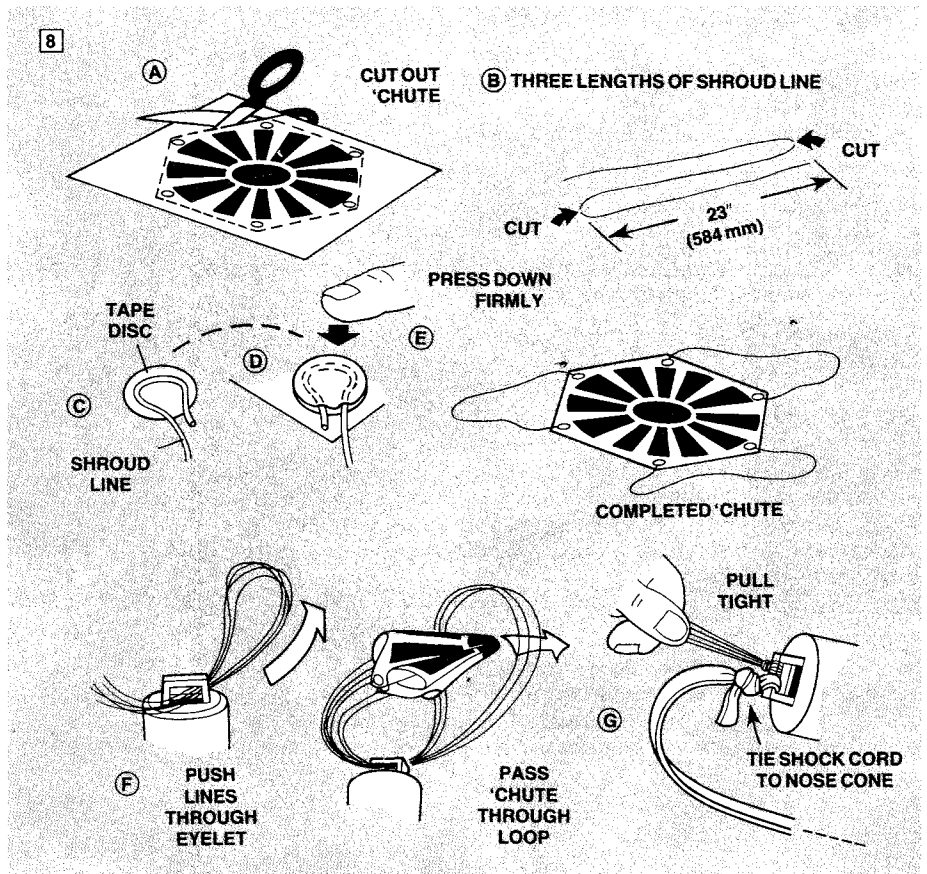
## 7.

- Apply plastic cement to inside edge of nose cone, and then install nose cone insert as shown.



## 8.

- Cut out parachute on edge lines.
- Cut three 23" (584 mm) lengths of shroud line.
- Form small loops with shroud line ends and press onto sticky sides of tape discs.
- Attach tape discs with the line ends to top of parachute as shown.
- Firmly press tape discs into place until both tape discs and parachute material are molded around shroud line loops.
- Pass shroud line loops through eyelet on nose cone. Pass parachute through loop ends and pull lines against the nose cone.
- Tie free end of shock cord to nose cone eyelet using a double knot.





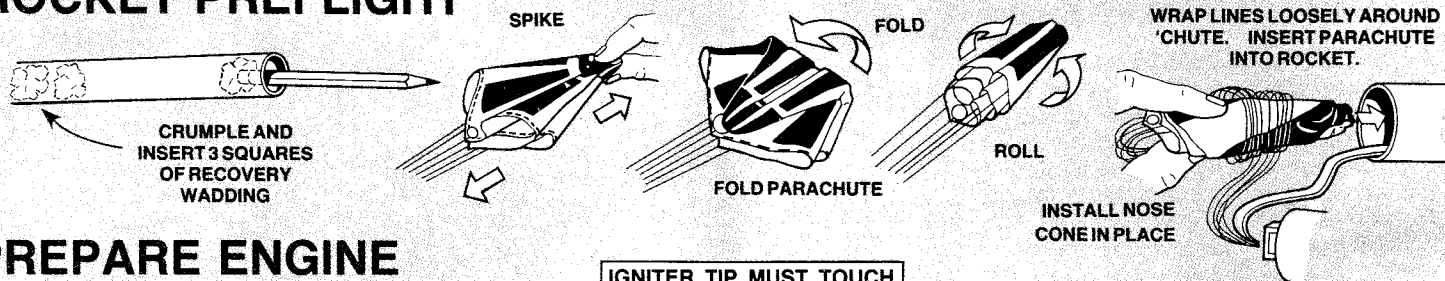
# FINISHING YOUR ROCKET

Allow all glue to dry completely. Apply sanding sealer to wood parts with a small brush. Let dry. Lightly sand all sealed surfaces. Repeat sealing and sanding until balsa grain is filled and smooth. Allow sanding sealer to completely dry. Paint entire rocket gloss white first. Follow directions on spray cans for best results. Let white paint dry completely. Refer to panel for painting scheme. Use masking tape

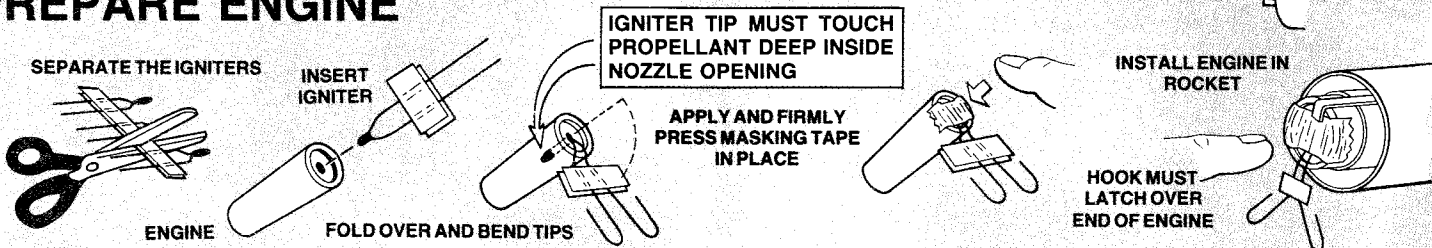
and sheet plastic to mask rear 5 3/4" (146 mm) for gold. Paint the rear end and nose cone gold. Let paint dry completely. Remove masking materials.

To apply decals, cut each out, dip in lukewarm water for 20 seconds, and hold until it uncurls. Refer to 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.

## ROCKET PREFLIGHT



## PREPARE ENGINE



## 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: A8-3, B4-4 (First Flight), B6-4, B8-5, C5-3, or C6-5.

To become familiar with your rocket's flight pattern, use an A8-3 engine for your first flight.

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 (76 meters) 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.

Don't leave parachute packed more than a minute or so before launch during cold weather [colder than 40° Fahrenheit (4° Celsius)].

Parachute may be dusted with talcum powder to avoid sticking.

## 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.

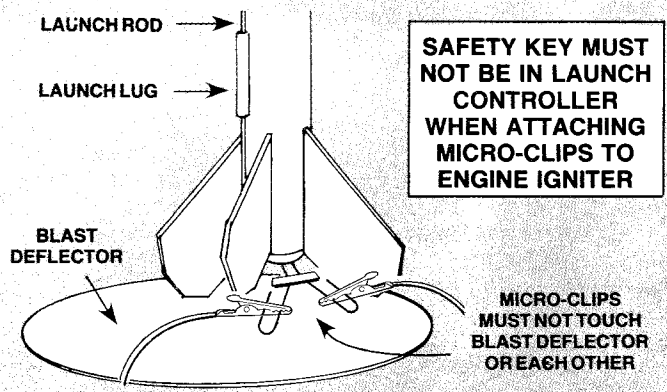
When an ignition failure occurs, remove the safety key from the launch control system and wait one minute before approaching the rocket. Remove the expended igniter from the engine and install a new one. Be certain the coated tip is in direct contact with the engine propellant, then tape the igniter 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



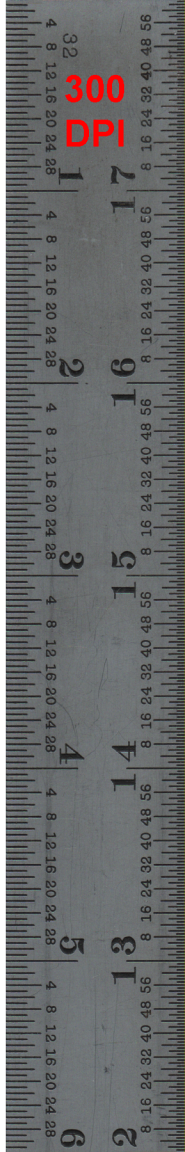
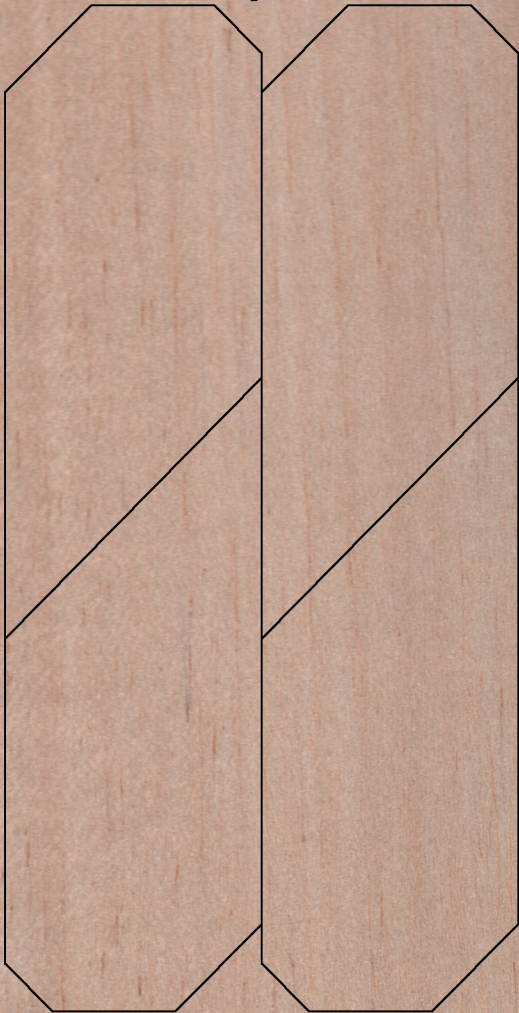
- BE CERTAIN SAFETY KEY IS NOT IN LAUNCH CONTROLLER.
- Remove safety cap and slide launch lug over launch rod to place rocket on launch pad. Make sure the rocket slides freely on the launch rod.
- Attach micro-clips to the igniter wires. Arrange the clips so they do not touch each other or the metal blast deflector. Attach clips as close to protective tape on igniter as possible.
- Move back from your rocket as far as launch wire will permit (at least 15 feet - 5 meters).
- 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

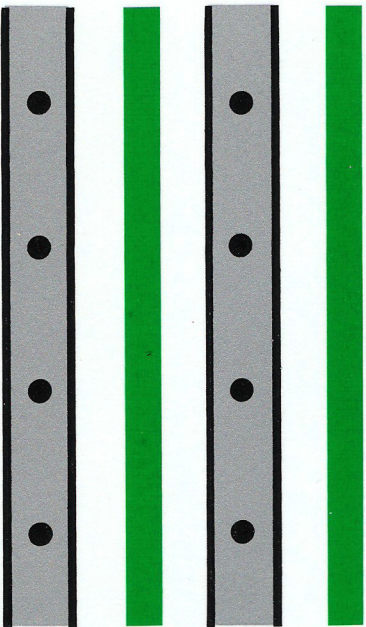
REMOVE SAFETY KEY FROM LAUNCH CONTROLLER. REPLACE SAFETY KEY AND SAFETY CAP ON LAUNCH ROD.

3/32"





ESTES PN 037481



| PARTS LIST KIT NO. 2041 - Menace |                   |               |        |              |                |                |                     |                        |
|----------------------------------|-------------------|---------------|--------|--------------|----------------|----------------|---------------------|------------------------|
| Quantity                         | Description       | Type          | Number | Details1     | Details2       | Details3       | Details4            | Comment                |
| 1                                | PAPER BODY TUBE   | BT-50(13.625) | 30363  | 13.625" long | 0.950" ID      | 0.976" OD      | 0.013" wall         | Glassine               |
| 1                                | NOSE CONE INSERT  | PIN-50YR      | 72605  | .65" long    | .5" shoulder   | 0.65" exposed  | 0.5" insert in cone | Injection Molded White |
| 1                                | PLASTIC NOSE CONE | PNC-50YR      | 72604  | 4.1" long    | .974" dia.     |                | BT-50 - Ogive       | Pairs with PIN-50YR    |
| 1                                | LAUNCH LUG        | LL-2B         | 38178  | 5/32" ID     | 1/8" rod       | 2-3/8" long    |                     | Mylar                  |
| 1                                | PAPER BODY TUBE   | BT-20J        | 30326  | 2.75" long   | 0.710" ID      | 0.736" OD      | 0.013" wall         | Glassine               |
| 1                                | CENTERING RING    | AR-2050L      | 30165  | 1" long      | .737" ID       | .949" OD       | 0.106" wall         | Brown                  |
| 1                                | ENGINE HOLDER     | EH-2          | 35025  | 2.8" long    | .100" wide     | .025" thick    |                     | Reg. & D               |
| 1                                | Die-Cut Balsa     | *BF-2041      | 32775  | 3" wide      | 6" long        | 3/32" thick    | 4 fins              | Scan                   |
| 1                                | Shock Cord        | SC-1          | 85730  | 18" long     | 1/8" wide      |                |                     | Rubber                 |
| 1                                | Parachute         | PK-12A        | 85564  | 12" hexagon  | 1.25 mil thick | LDPE plastic   | Org/Wht             | Damon Logo             |
| 1                                | Shroud Line       | SLT-72        | 38237  | 72"          | .020" diameter | Twisted cotton | 3 x 24" shrouds     |                        |
| 6                                | Tape Disc         | TD-3F         | 38406  | 1/2" dia.    | Paper          | Self-Stick     | WO/Center Hole      | Set of 6               |
| 1                                | Decal             | KD-2041       | 37481  | 4" wide      | 6" long        | Blk,Grn,Slvr   | Waterskide          | Scan                   |
| *                                | BALSA FIN STOCK   | BFS-30        | N/A    | 3" wide      | 6" long        | 3/32" thick    | 0.09375             |                        |



**Flies Over and Over**

**To 1208 feet (368 meters)**

**SKILL  
LEVEL**

**1**

**FOR THE BEGINNING MODELER**

**menace**<sup>TM</sup>

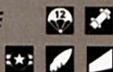


**Length:** 19 in. (48.3 cm)

**Dia.:** .976 in. (24.8 mm) **Weight:** 1.35 oz. (38.3 g)

**Recommended Engines:** A8-3, B4-4 (First Flight),  
B6-4, B8-5, C5-3, or C6-5

**SLEEK SPORT FLIER  
WITH GOLD PAINT SCHEME**



**#2041**



0 47776 02041 2