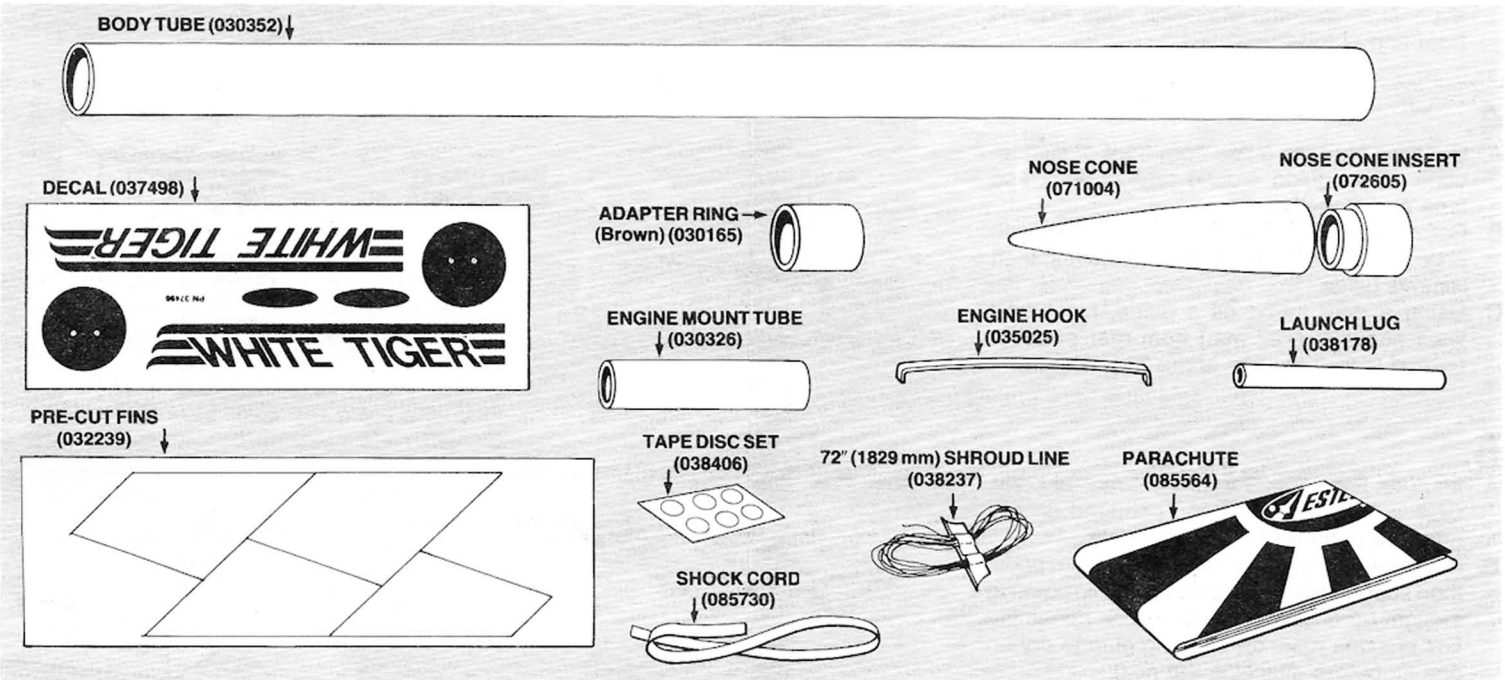


ASSEMBLY TIP

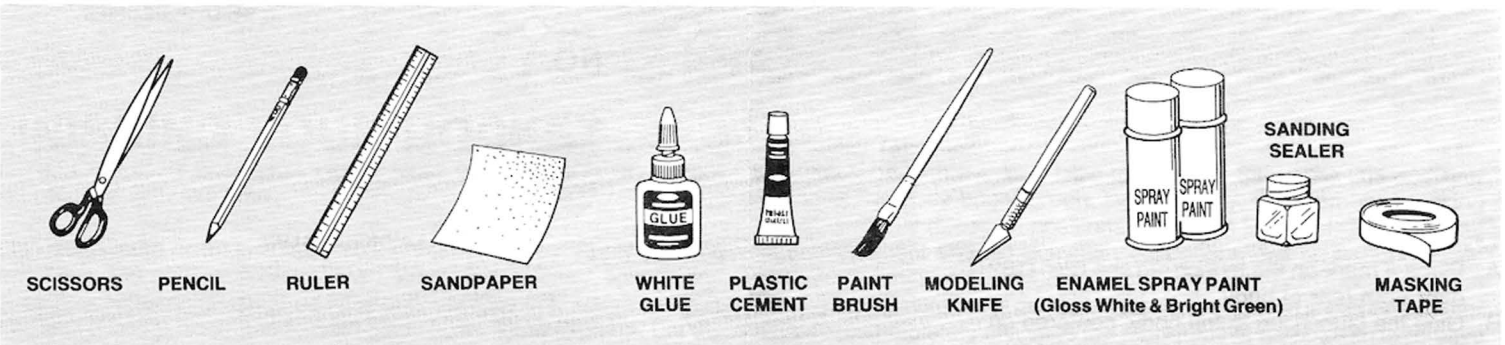
Read all instructions before beginning work on your model. Make sure you have all parts and supplies. Test-fit all parts together before applying any glue. If any parts don't fit properly, sand as required for precision assembly.

PARTS AND SUPPLIES

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



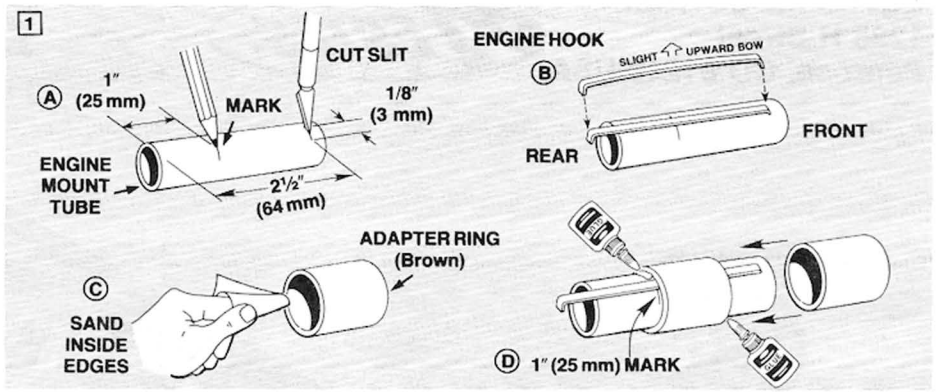
In addition to the parts included in the kit, you will also need:



ROCKET ASSEMBLY

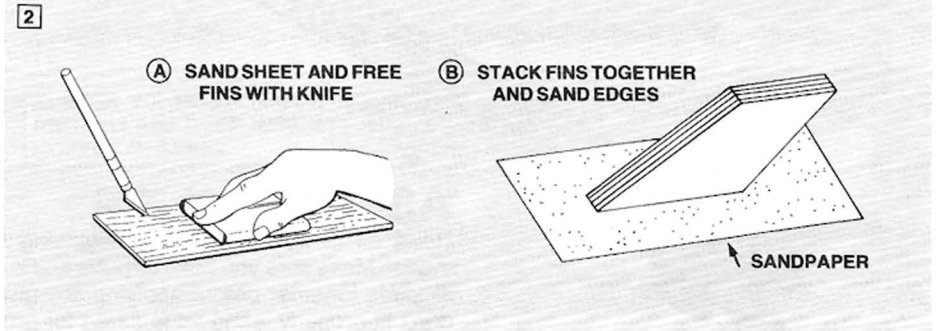
1.

- Mark engine mount tube 1" (25 mm) and 2½" (64 mm) from one end. Cut a 1/8" (3 mm) wide slit at the 2½" (64 mm) mark.
- Gently bend engine hook so it has a very slight upward bow. Insert one end of engine hook in slit.
- Sand inside edges of adapter ring so it will slide over tube.
- Slide adapter ring over front of tube and push down until rear of ring is at 1" (25 mm) mark. Apply glue to both ends of ring/tube joint.



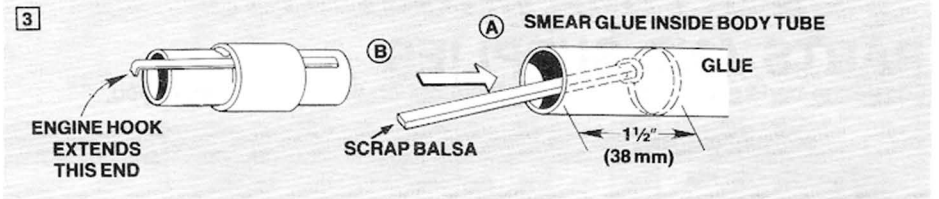
2.

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



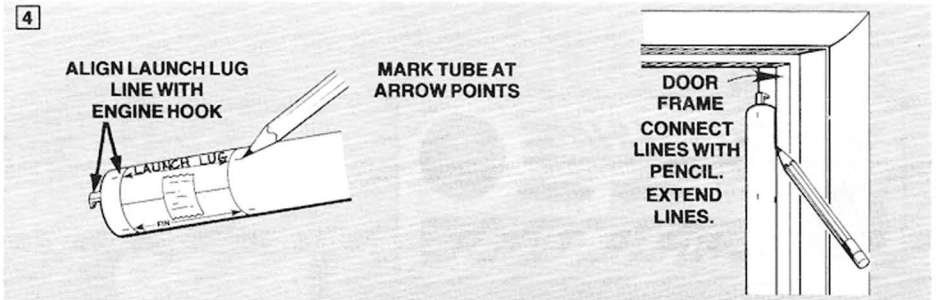
3.

- Using a piece of scrap balsa, smear glue inside body tube 1½" (38 mm) from one end.
- Push engine mount in until tube ends are even. Note that end of engine hook extends from end of tube.



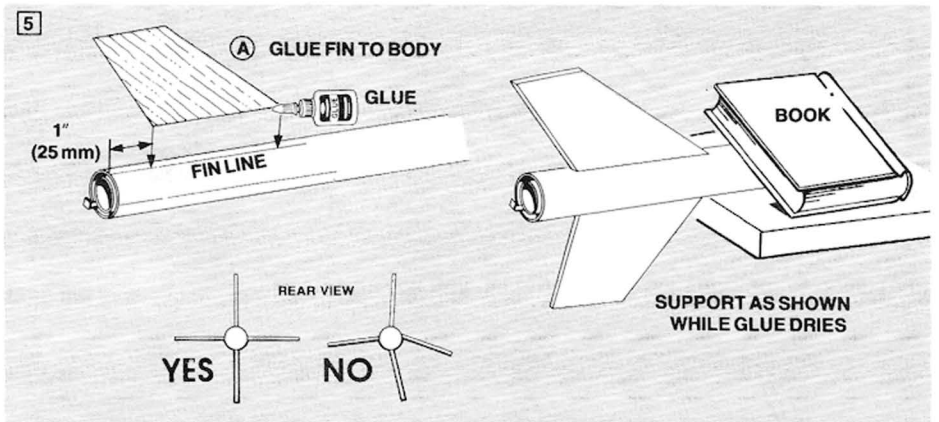
4.

- Cut tube marking guide from front of instructions. Wrap guide around rear of body and tape ends together.
- Rotate guide so launch lug line is aligned with engine hook. Mark tube at arrow points, then remove guide.
- Using a door frame as a guide, extend fin lines about 5" (127 mm) from rear of body. Extend launch lug line about 7" (178 mm).



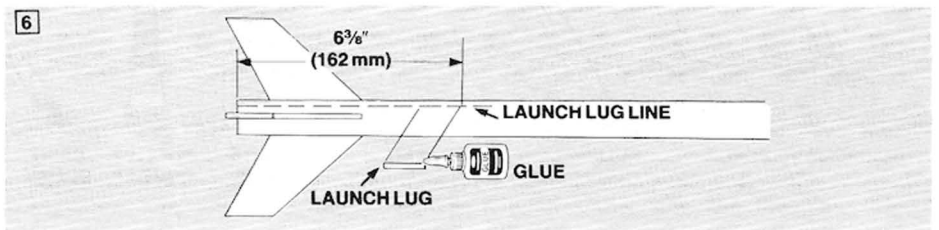
5.

- Mark fin lines 1" (25 mm) from rear of body. Glue a fin to body with fin centered on line and rear of fin on 1" (25 mm) mark.
- Make sure fin extends straight out from body, then support body horizontally with fin pointing straight up until glue dries. Attach remaining fins in same manner, allowing glue to dry on one fin before attaching the next.



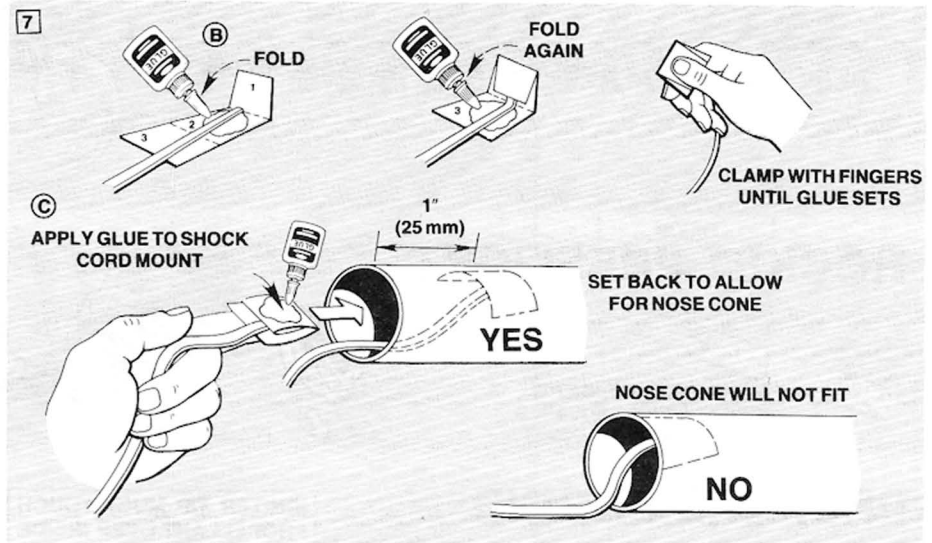
6.

- Place a mark on the launch lug line 6⅜" (162 mm) from rear of body.
- Glue the launch lug to the body, centered on the line, with front edge of lug on the mark.



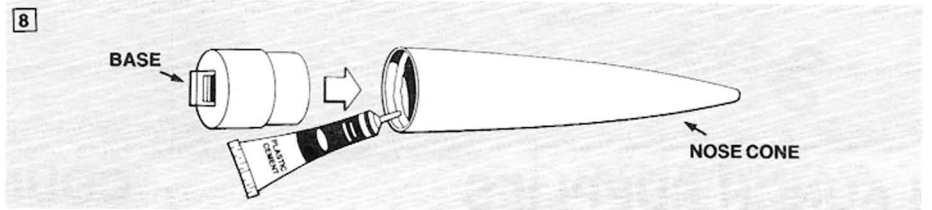
7.

- Cut the shock cord mount from the middle of tube marking guide.
- Crease along dotted lines and then unfold. Spread glue on section 2 and lay end of shock cord into glue. Fold section 1 forward and press into glue. Apply glue to section 3 and fold forward again. Clamp firmly with your fingers until glue sets.
- NOTE:** The shock cord mount must be glued into body with front of mount at least 1" (25 mm) inside end of tube. Otherwise, the nose cone cannot fit properly into place. Apply glue to mount, position on your finger and press into place in the body. Apply a film of glue over the mount and surrounding area of body tube.



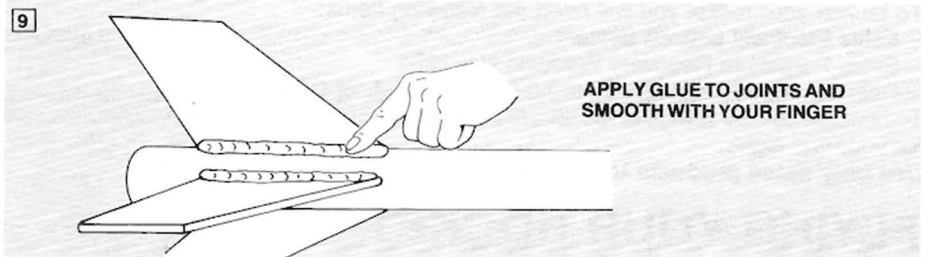
8.

Scrape away any silver material from inside the end of the nose cone. Apply plastic cement around inside end of cone and socket base into cone.



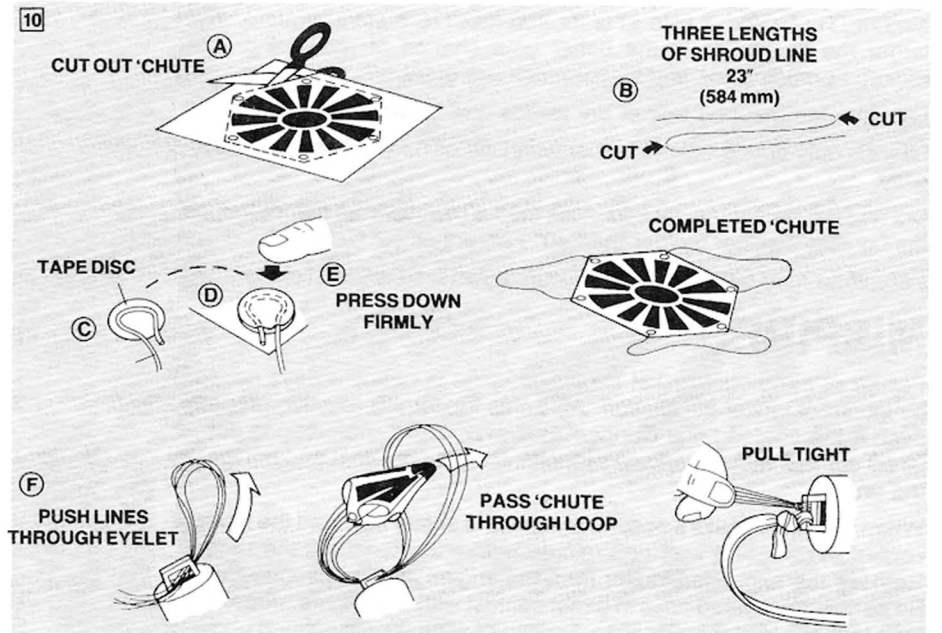
9.

- Apply a bead of glue to a fin/body joint. Pull your finger along the joint to smooth the glue into an even fillet and to remove any excess glue.
- Repeat filleting process to both sides of each fin/body joint and the launch lug/body joint.



10.

- 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 side of tape discs.
- Attach tape discs with 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. Lay assembly aside. It will be attached to body after painting.



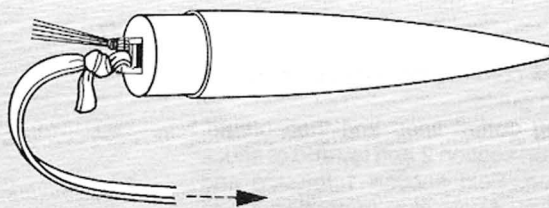
FINISHING YOUR ROCKET

NOTE: Glue fillets applied in step 9 must be thoroughly dry before you proceed with this step.

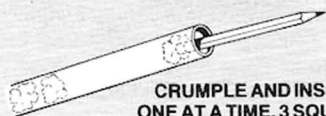
Push shock cord down into body so it is out of the way. Apply sanding sealer to wood parts with small brush. When sealer is dry, lightly sand all sealed surfaces. Repeat sealing and sanding until balsa grain is filled and smooth. Paint model with gloss white spray enamel. Let the paint dry overnight, then mask the forward 13½" (343 mm) portion of

the body tube with masking tape and paper. Spray the fins and rear portion of the body bright green. Let paint dry, then remove masking materials. Apply decals in positions shown on kit panel. To apply, cut decal from sheet and dip in water until decal slides on backing paper (15 to 30 seconds). Slide decal from backing paper onto model. Position decal where desired and gently blot away water with a soft cloth. After decals are completely dry, wipe the model with a damp cloth to remove any water spots.

TIE FREE END OF SHOCK CORD TO NOSE CONE.
TIE A TRIPLE KNOT.



ROCKET PREFLIGHT



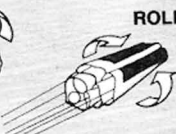
CRUMPLE AND INSERT,
ONE AT A TIME, 3 SQUARES
OF RECOVERY WADDING



SPIKE

FOLD

FOLD PARACHUTE



ROLL

SOCKET NOSE CONE IN PLACE



WRAP LINES LOOSELY
AROUND CHUTE. INSERT
PARACHUTE IN ROCKET

PREPARE ENGINE

SEPARATE THE IGNITERS

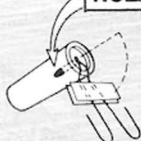


ENGINE



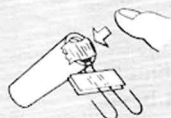
INSERT
IGNITER

IGNITER TIP MUST TOUCH
PROPELLANT DEEP INSIDE
NOZZLE OPENING



FOLD
OVER
BEND
LEADS

PRESS MASKING TAPE
FIRMLY OVER END
OF ENGINE



INSTALL ENGINE
IN ROCKET



HOOK MUST LATCH
OVER END OF ENGINE

LAUNCH SUPPLIES

To launch your rocket you will need the following items:

- Estes Electrical Launch System
- Estes Parachute Recovery Wadding No. 2274
- Recommended Estes Engines: A8-3, B4-4, B6-4, 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.

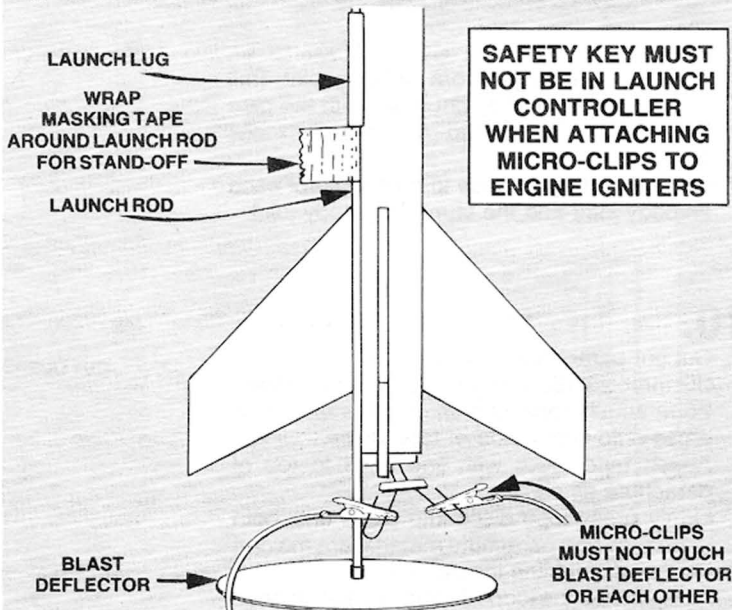
FOR YOUR SAFETY AND ENJOYMENT

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

*National Association of Rocketry

Page 4

COUNTDOWN AND LAUNCH



SAFETY KEY MUST
NOT BE IN LAUNCH
CONTROLLER
WHEN ATTACHING
MICRO-CLIPS TO
ENGINE IGNITERS

- 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

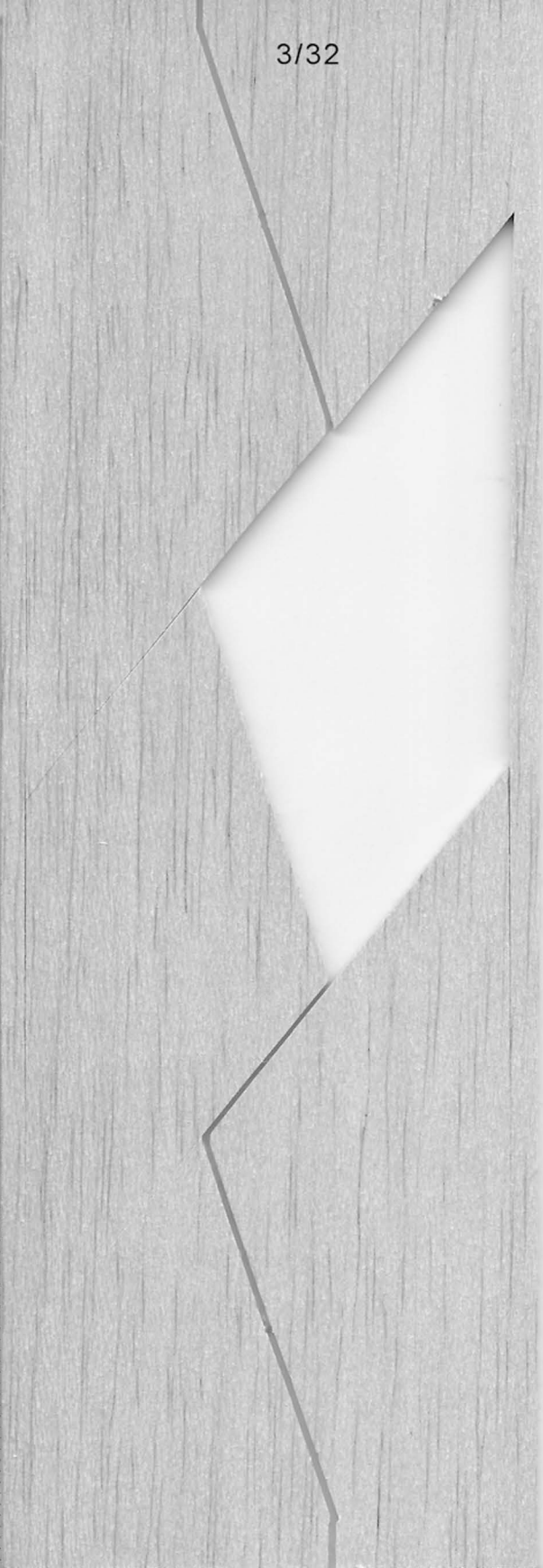
LAUNCH!! PUSH AND HOLD LAUNCH
BUTTON UNTIL ENGINE IGNITES

REMOVE SAFETY KEY FROM LAUNCH CONTROLLER. RE-
PLACE SAFETY KEY AND SAFETY CAP ON LAUNCH ROD.

84319

3/32

Shatter Resistant



Water Resistant



WHITE TIGER™



PN 37498



WHITE TIGER™



11 01 0 8 4 0 2 4 3 5

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5 3 4 2 0 2 8 0 10 11 13 14 12 10 12 18 10 50 51 55 53 54 52 50 52 58 5

8

7

6

5

4

ANALYSIS REPORT

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12

16

17

18

19

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21

22

Body Tube is BT50 - 18 inches.

Nose cone pnc50YR painted chrome.

Parachute is 12 inch red and black.

Fins are $\frac{3}{32}$ thick.

File Over and Over
To **1,000** (see 1,000 marks)

FILE
OVER

1



Large file folder and file folder divider
FILE FOLDER
Removable Paper and file folder
with 1000 file folders (see 1,000)

Large file folder and
file folder divider
with 1000

100
100

1000

