



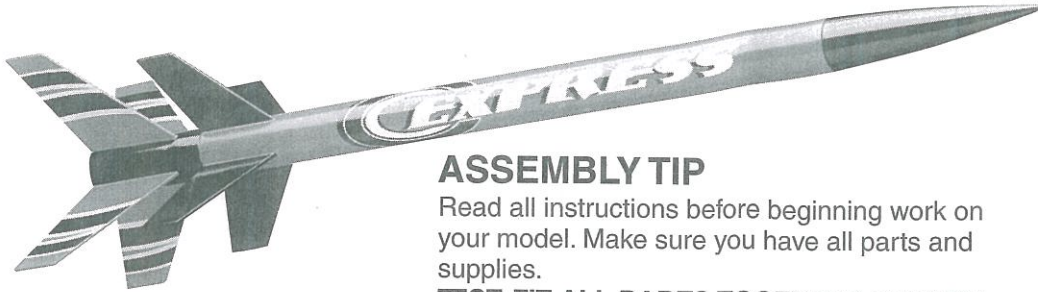
www.estesrockets.com

Estes® Industries  
1295 H Street  
Penrose, CO 81240  
Printed in China



KEEP FOR FUTURE REFERENCE

EST 1302



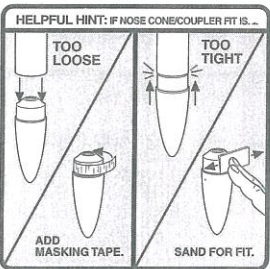
### ASSEMBLY TIP

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

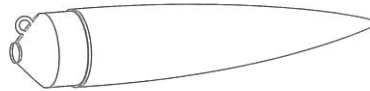
Locate the parts shown below and lay them out on the table in front of you. **DO NOT USE THIS DRAWING TO ASSEMBLE YOUR ROCKET.**



Main Body Tube BT-55 (1)  
(30382)



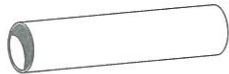
Booster Engine Mount Tube (1)  
(30362)



Nose Cone PNC 55AC (1)  
(71070)



Green Centering Rings  
AR-5055 (4)  
(30166-2)



Main Engine Mount Tube (1)  
(30368)



Yellow Spacer Tool (1)  
(35004)



Launch Lug (1)  
(38166)



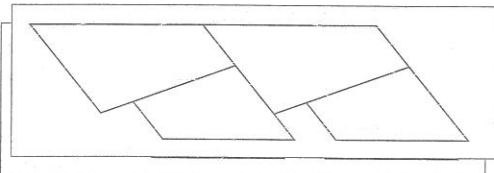
Booster Body Tube BT-55 (1)  
(30387)



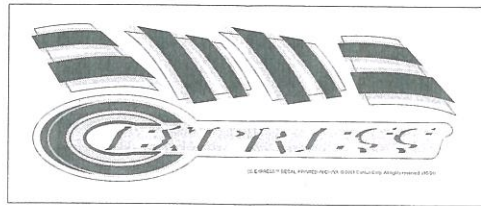
Green Engine Blocks  
AR-2050 (2)  
(30164-2)



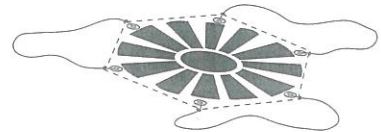
Shock Cord (1)  
1/4" x 36"  
(38382)



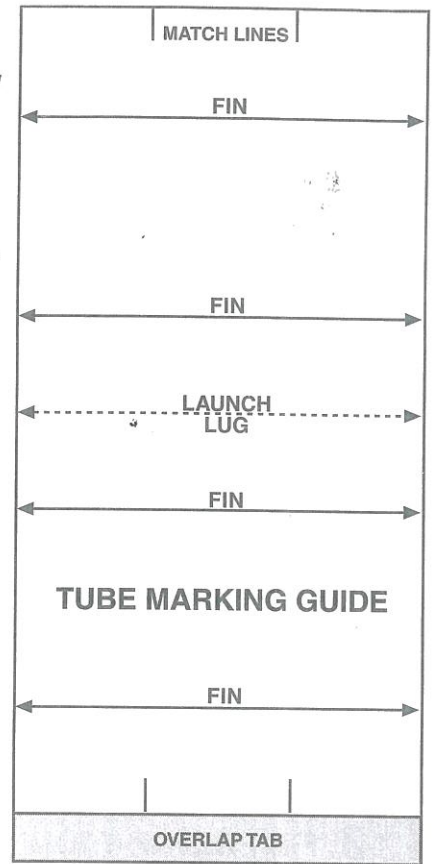
Balsa Sheet (2)  
(32395)



Decal Sheet (1)  
(37715)



Assembled Parachute  
12" (30 cm) (1)  
(35801)



### SHOCK CORD MOUNT

SECTION 3

SECTION 2

SECTION 1

### SUPPLIES

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



SCISSORS



PENCIL



RULER



FINE SAND PAPER  
(#400-600 GRIT)



CARPENTER'S GLUE



MODELING KNIFE



MASKING TAPE



CELLOPHANE TAPE



PRIMER (WHITE)

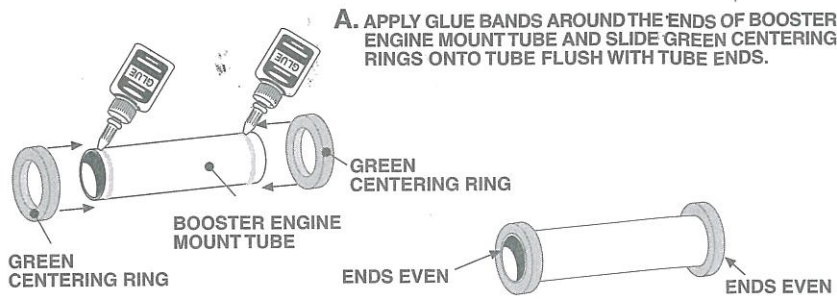


SPRAY PAINT: (RED & BLACK)

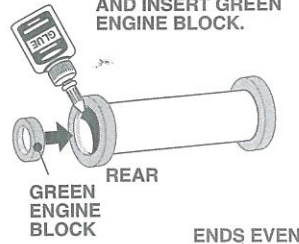


SPRAY CLEAR COAT (OPTIONAL)

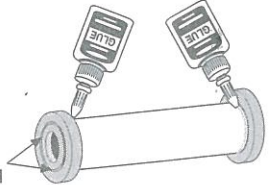
# 1. BOOSTER ENGINE MOUNT ASSEMBLY



**B. APPLY GLUE INSIDE REAR OF ENGINE MOUNT TUBE AND INSERT GREEN ENGINE BLOCK.**



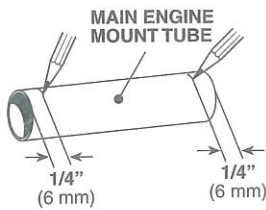
**C. APPLY GLUE FILLETS.**



**D. LET DRY.**

# 2. MAIN ENGINE MOUNT ASSEMBLY

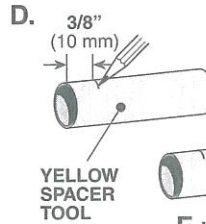
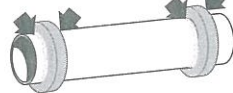
**A. MARK TUBE.**



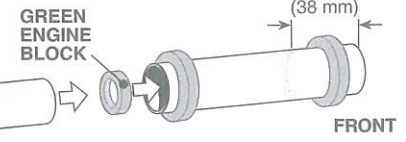
**B. APPLY GLUE BAND TO 1/4" (6 mm) MARKS AND SLIDE GREEN CENTERING RINGS ONTO TUBE UP TO 1/4" (6 mm) MARKS.**



**C. APPLY GLUE FILLETS.**



**E. APPLY GLUE 1 1/2" (38 mm) INSIDE FRONT OF TUBE.**



**F. INSERT GREEN ENGINE BLOCK WITH YELLOW SPACER TOOL UP TO 3/8" (10 mm) MARK.**

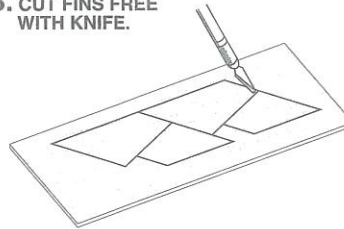
**G. REMOVE TOOL IMMEDIATELY. LET DRY.**

# 3. FIN PREPARATION

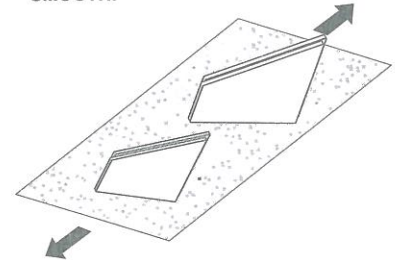
**A. FINE SAND Balsa SHEETS.**



**B. CUT FINs FREE WITH KNIFE.**

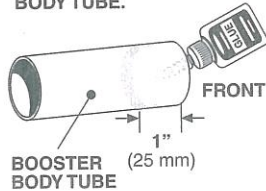


**C. STACK LIKE FINs TOGETHER AND SAND EDGES SMOOTH.**



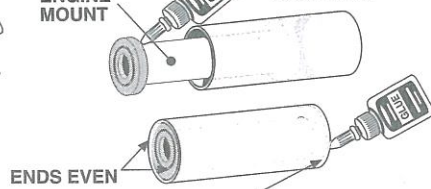
# 4. INSERTING ENGINE MOUNTS

**A. APPLY GLUE 1" (25 mm) INSIDE FRONT OF BOOSTER BODY TUBE.**



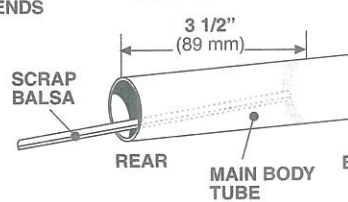
BOOSTER ENGINE MOUNT

**B. INSERT BOOSTER ENGINE MOUNT INTO REAR OF BOOSTER BODY UNTIL TUBE ENDS ARE EVEN.**

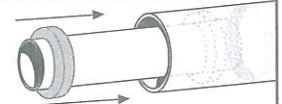


**C. APPLY GLUE FILLET.**

**D. APPLY GLUE 3 1/2" (89 mm) INSIDE REAR OF MAIN BODY TUBE.**



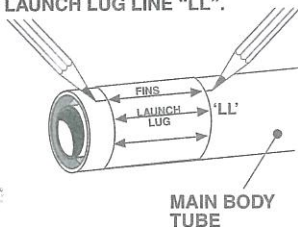
**E. INSERT MAIN ENGINE MOUNT INTO MAIN BODY TUBE UNTIL TUBE ENDS ARE EVEN.**



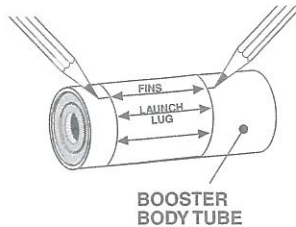
**F. APPLY GLUE FILLET.**

# 5. MARKING FIN LOCATIONS

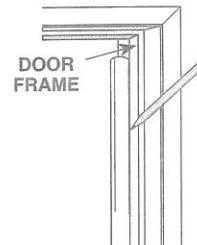
**A. CUT OUT TUBE MARKING GUIDE FROM FRONT PAGE. TAPE AROUND MAIN BODY TUBE AND MARK AT ARROWS. MARK LAUNCH LUG LINE "LL".**



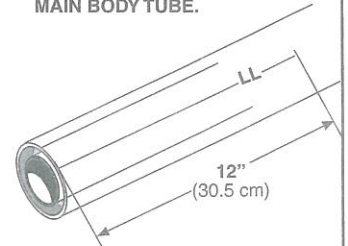
**B. REPEAT THE PROCESS FROM STEP A FOR BOOSTER BODY TUBE. IT IS NOT NECESSARY TO MARK LAUNCH LUG LINE.**



**C. CONNECT FIN LINES ON BOTH TUBES.**

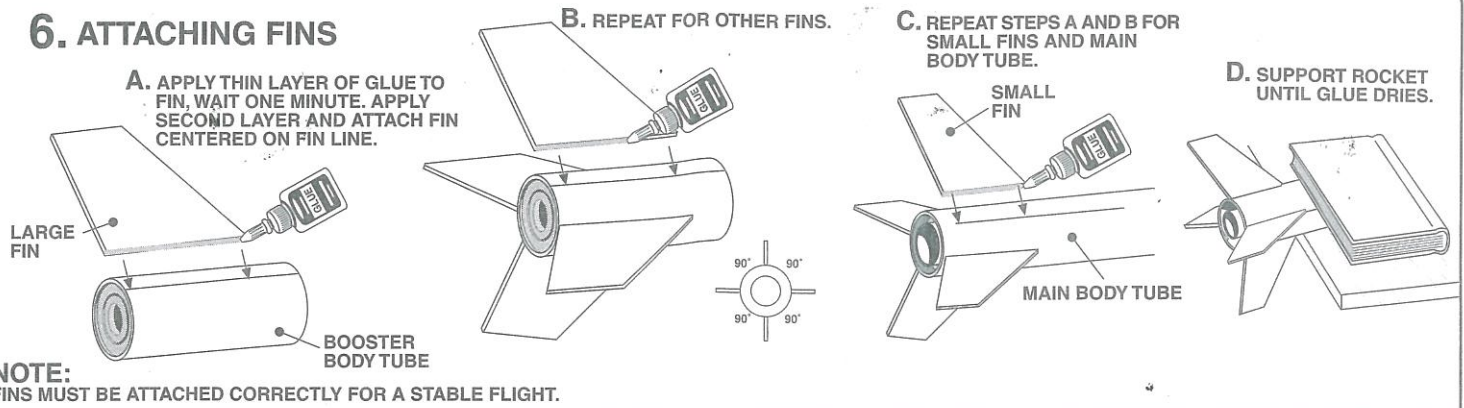


**D. EXTEND LAUNCH LUG LINE 12" (30.5 cm) FROM REAR OF MAIN BODY TUBE.**

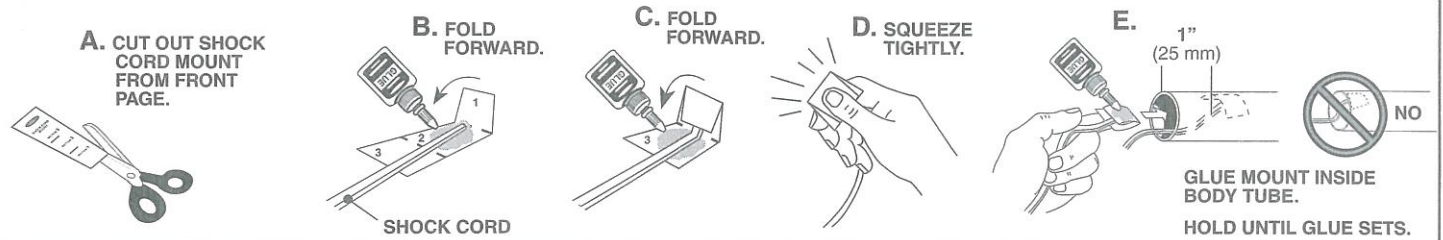




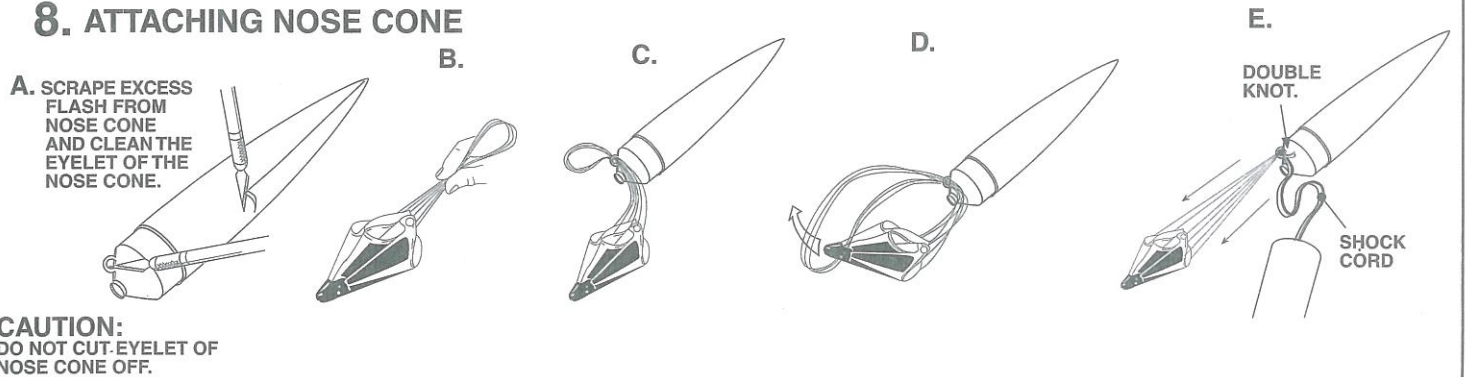
## 6. ATTACHING FINS



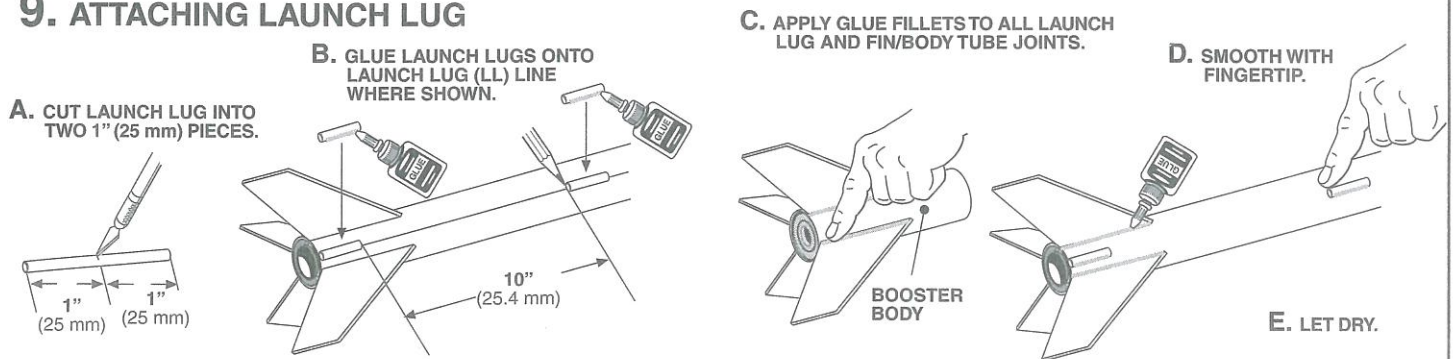
## 7. ATTACHING SHOCK CORD



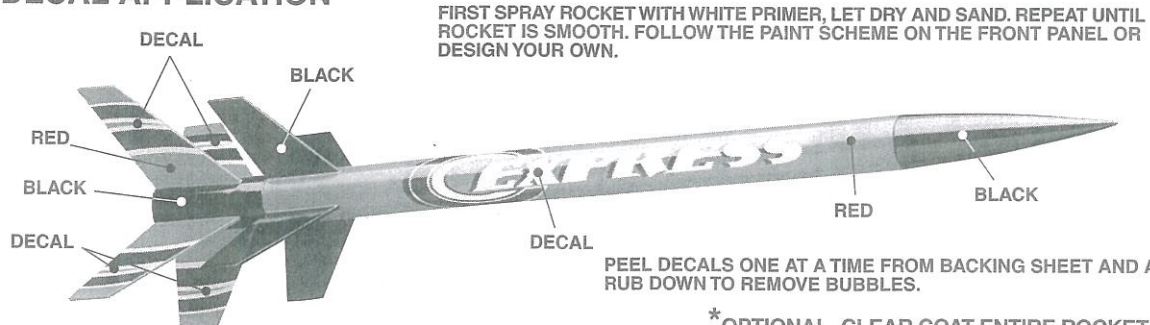
## 8. ATTACHING NOSE CONE



## 9. ATTACHING LAUNCH LUG



## 10. DECAL APPLICATION

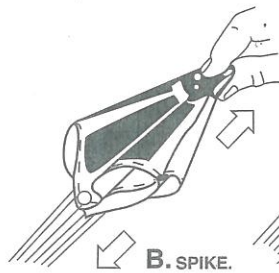
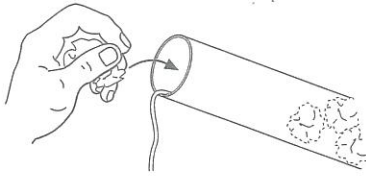


PEEL DECALS ONE AT A TIME FROM BACKING SHEET AND APPLY WHERE SHOWN. RUB DOWN TO REMOVE BUBBLES.

\*OPTIONAL- CLEAR COAT ENTIRE ROCKET WHEN COMPLETE.

## ROCKET PREFLIGHT

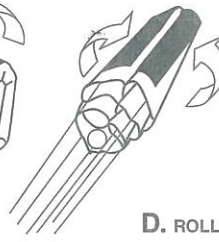
**A. INSERT 3 OR 4 LOOSELY CRUMPLED SQUARES OF RECOVERY WADDING.**



**B. SPIKE.**

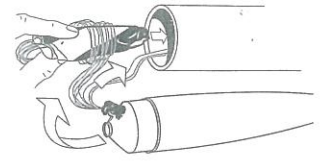


**C. FOLD.**



**D. ROLL.**

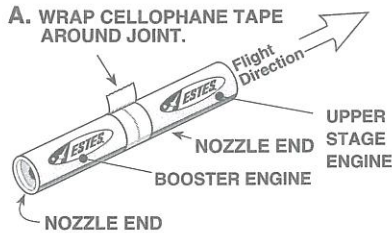
**E. WRAP LINES LOOSELY, INSERT CHUTE, SHOCK CORD AND NOSE CONE.**



## ENGINE PREP FOR 2 STAGE FLIGHT

**WARNING: FLAMMABLE**  
Before proceeding read instructions & NAR Safety Code included with engines.

**PREPARE YOUR ENGINE ONLY WHEN YOU ARE OUTSIDE AT THE LAUNCH SITE PREPARING TO LAUNCH!**  
If you do not use your prepared engine, remove the igniter before storing your engine.



**A. WRAP CELLOPHANE TAPE AROUND JOINT.**

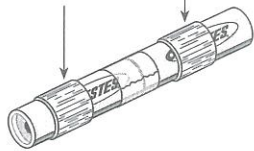
UPPER STAGE ENGINE

NOZZLE END

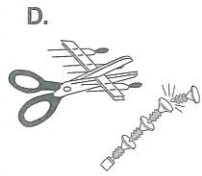
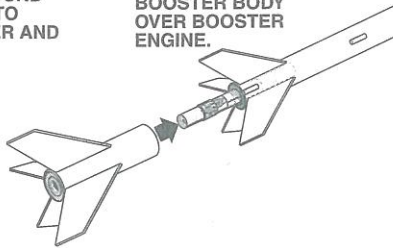
BOOSTER ENGINE

NOZZLE END

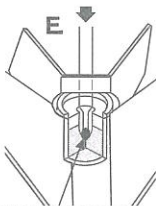
**B. WRAP MASKING TAPE AROUND MIDDLE OF EACH ENGINE TO ENSURE TIGHT FIT IN UPPER AND BOOSTER STAGES.**



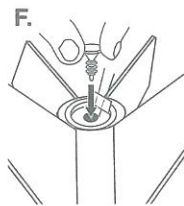
**C. INSERT ENGINE INTO UPPER BODY, THEN SLIDE BOOSTER BODY OVER BOOSTER ENGINE.**



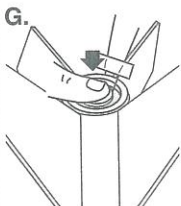
**D.**



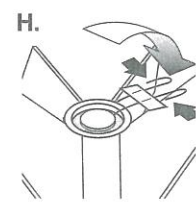
TIP MUST TOUCH PROPELLANT.



**F.**



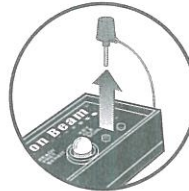
**G.**



**H.**

**I. FOR A SINGLE STAGE LAUNCH, WRAP MASKING TAPE AROUND MIDDLE OF ENGINE TO ENSURE TIGHT FIT. FOLLOW STEPS D THROUGH H. DO NOT USE BOOSTER PART OF ROCKET.**

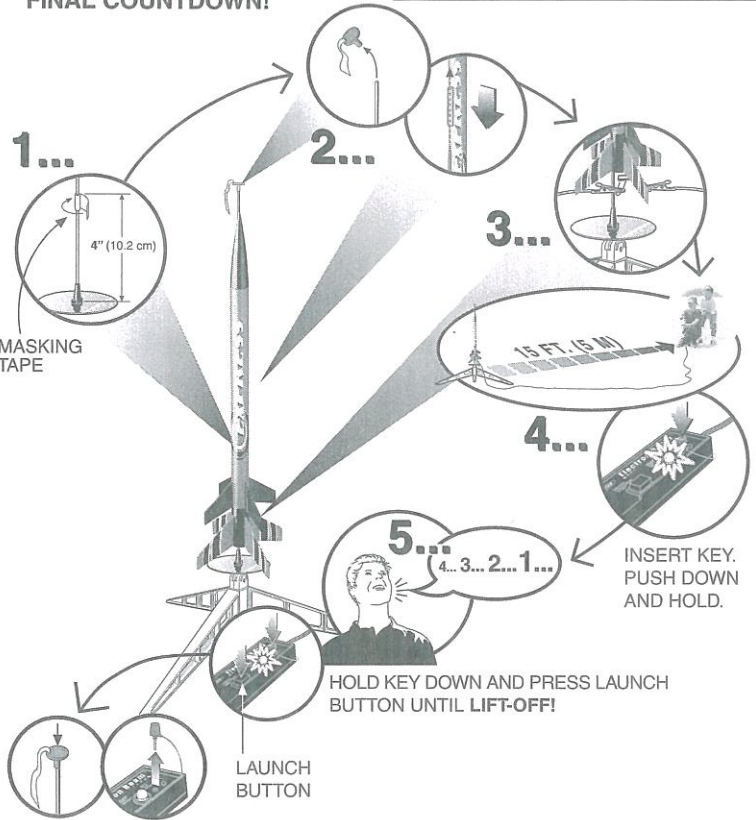
## COUNTDOWN AND LAUNCH



**KEY ALWAYS OUT UNTIL FINAL COUNTDOWN!**

## LAUNCH SUPPLIES

- (Sold Separately)
- Estes® Porta Pad® II Launch Pad (Requires 3/16" (5 mm) Maxi™ Rod - Sold Separately)
  - Electron Beam® Launch Controller
  - Recovery Wadding
  - Igniters (with Engines)
  - Igniter Plugs (with Engines)
  - Estes® Engines:
    - Single Stage: C11-5, D12-5
    - Two Stage - Booster: C11-0, D12-0
    - 2nd Stage: C11-5, C11-7, D12-7



## PRECAUTIONS

NAR Safety Code



NO DRY GRASS OR WEEDS

## 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

**TAKE THE KEY OUT OF THE CONTROLLER. WAIT ONE MINUTE BEFORE GOING NEAR THE ROCKET!** 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.