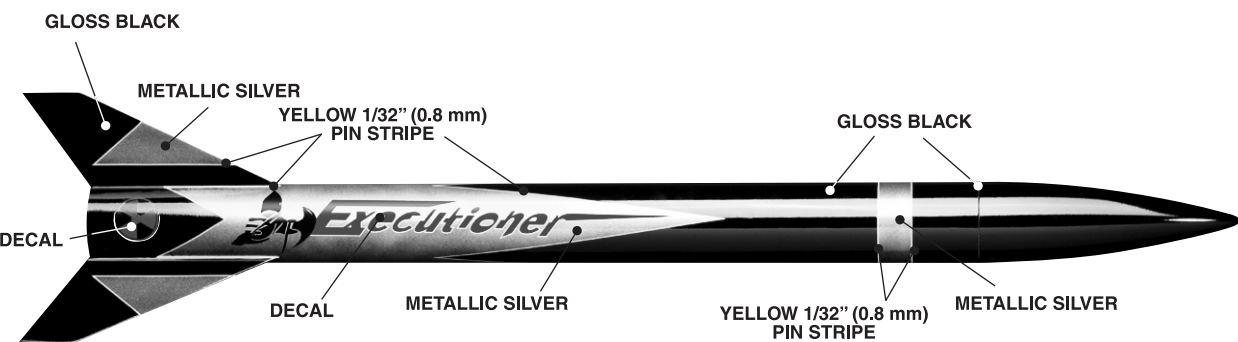


## FINISHING YOUR ROCKET

FIRST SPRAY ROCKET WITH WHITE PRIMER, LET DRY AND SAND. REPEAT UNTIL ROCKET IS SMOOTH.

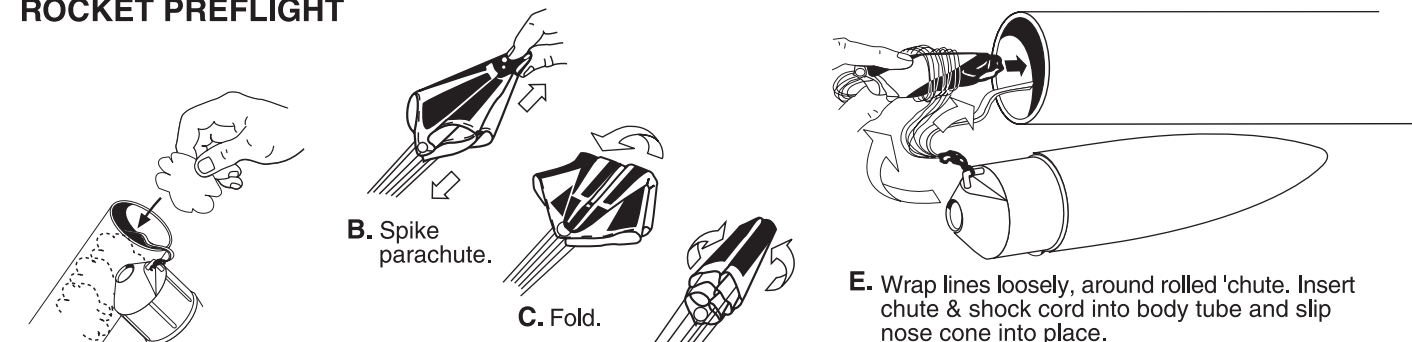
DECALS



\*CLEAR COAT ENTIRE ROCKET WHEN PAINT DRIES.



## ROCKET PREFLIGHT



A. Insert 6-8 loosely crumpled squares of recovery wadding.

B. Spike parachute.

C. Fold.

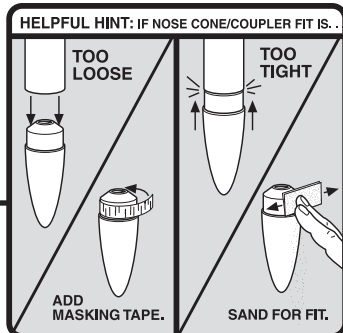
D. Roll.

E. Wrap lines loosely, around rolled chute. Insert chute & shock cord into body tube and slip nose cone into place.

**IMPORTANT:** Wadding must be in place and slide freely for rocket to work properly.

**NOTE:** Only Estes Wadding (302274) Recommended.

**IMPORTANT:** Parachute should slide easily into body. If fit is too tight, unfold and repack again.



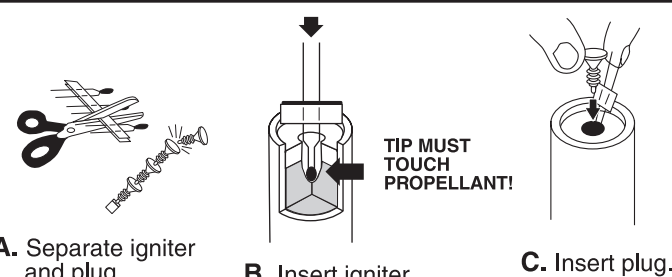
## ENGINE PREP

### WARNING: FLAMMABLE

To avoid serious injury, 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.

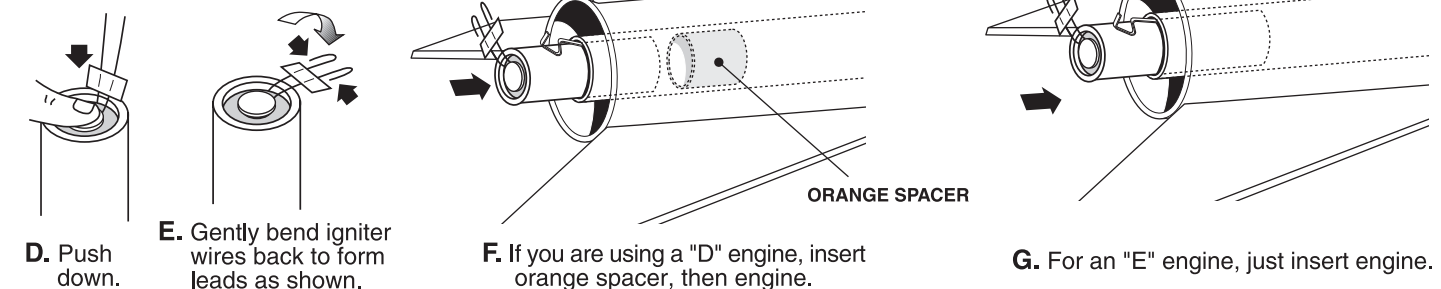


A. Separate igniter and plug.

B. Insert igniter.

C. Insert plug.

**TIP MUST TOUCH PROPELLANT!**



ORANGE SPACER

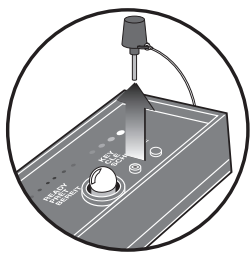
D. Push down.

E. Gently bend igniter wires back to form leads as shown.

F. If you are using a "D" engine, insert orange spacer, then engine.

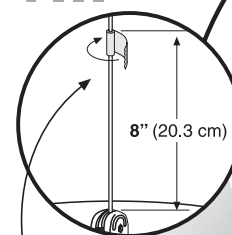
G. For an "E" engine, just insert engine.

## COUNTDOWN AND LAUNCH



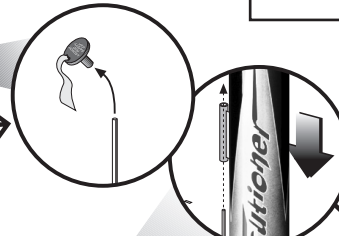
KEY ALWAYS OUT UNTIL FINAL COUNTDOWN!

1...

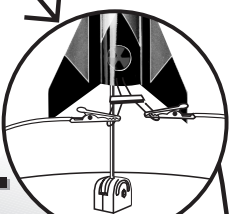


MASKING TAPE

2...



3...



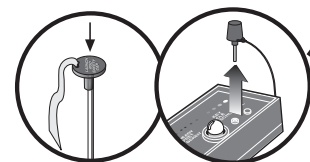
4...



5...

4... 3... 2... 1...

PORTA-PAD® E-LAUNCH PAD

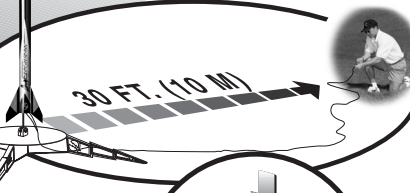


LAUNCH BUTTON

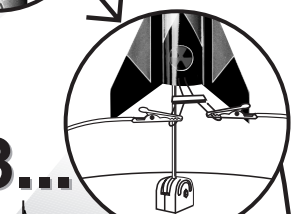
HOLD KEY DOWN AND PRESS LAUNCH BUTTON UNTIL LIFT-OFF!

INSERT KEY, PUSH DOWN FIRMLY AND HOLD  
E-ENGINE LAUNCH CONTROLLER

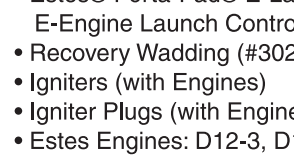
30 FT. (10 M)



3...



2...



## ESTES LAUNCH SUPPLIES

(Sold Separately)

- Estes® Porta-Pad® E-Launch Pad (#2238) and E-Engine Launch Controller (#2230)
- Recovery Wadding (#302274)
- Igniters (with Engines)
- Igniter Plugs (with Engines)
- Estes Engines: D12-3, D12-5, E9-4, E9-6

## PRECAUTIONS

NAR Safety Code



NO DRY GRASS OR WEEDS

## FLYING YOUR ROCKET

Choose a large field (1000 ft. [305 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!** Disconnect the igniter clips and remove 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 Launch.



# Executioner™

#1951

www.estesrockets.com

Estes Industries  
1295 H Street  
Penrose, CO 81240  
PRINTED IN CHINA

FLYING MODEL ROCKET KIT INSTRUCTIONS

KEEP FOR FUTURE REFERENCE

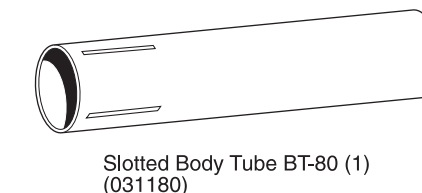


## ASSEMBLY TIP

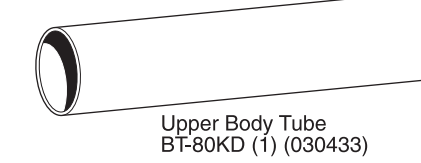
Read all instructions before beginning work on your model. Make sure you have all parts and supplies. **TEST-FIT ALL PARTS TOGETHER BEFORE APPLYING ANY GLUE.** If any parts don't fit properly, sand as required for precision assembly.

## PARTS

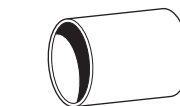
Locate the parts shown below and lay them out on the table in front of you. DO NOT USE THIS DRAWING TO ASSEMBLE YOUR ROCKET.



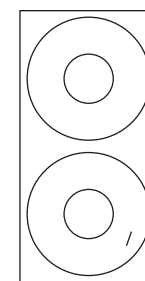
Slotted Body Tube BT-80 (1) (031180)



Upper Body Tube BT-80KD (1) (030433)



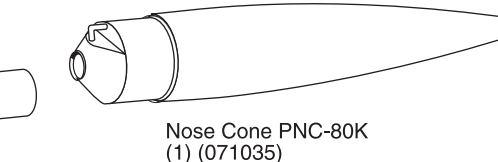
Joiner Tube JT-80L (1) (030278)



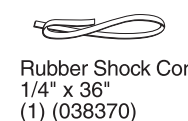
Tube Adapter 69 (RA5080) (1) (030052)



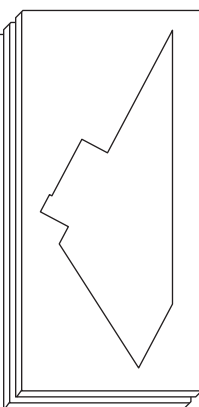
Body Tube BT-50L (1) (030366)



Nose Cone PNC-80K (1) (071035)



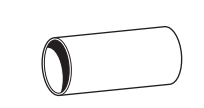
Rubber Shock Cord 1/4" x 36" (1) (038370)



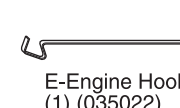
Laser Cut Fins (3) (032910)



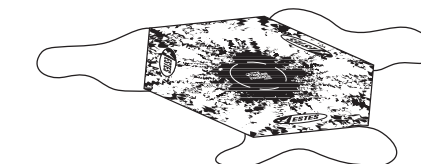
Decal Sheet (1) (037041)



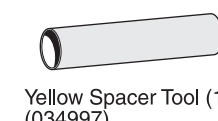
Body Tube 52AG (1) (030450)



E-Engine Hook (1) (035022)



Assembled Parachute 24" (61 cm) (1) (035803)



Yellow Spacer Tool (1) (034997)



Orange E to D Spacer (1) (035005)



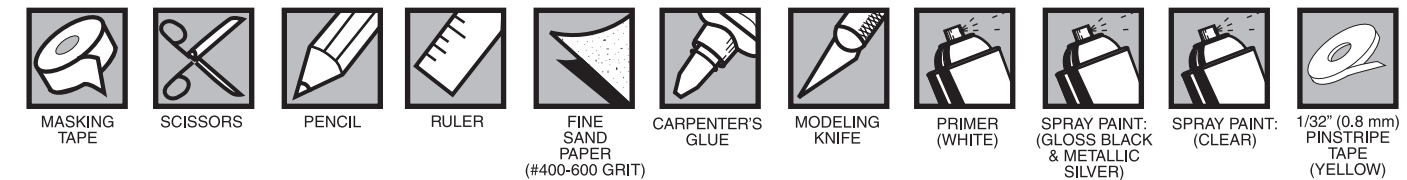
Green Engine Block (AR-2050) (1) (030164-2)



Launch Lug 1/4" x 1" (2) (038181)

## SUPPLIES

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



MASKING TAPE

SCISSORS

PENCIL

RULER

FINE SAND PAPER (#400-600 GRIT)

CARPENTER'S GLUE

MODELING KNIFE

PRIMER (WHITE)

SPRAY PAINT: (GLOSS BLACK & METALLIC SILVER)

SPRAY PAINT: (CLEAR)

1/32" (0.8 mm) PINSTRIPE TAPE (YELLOW)

**1.**

**A.**

**B. SPREAD GLUE INSIDE UPPER BODY TUBE. INSERT JOINER TUBE UP TO 1 1/2" (38 mm) MARK.**

**2.**

**A.**

**B. SMEAR GLUE 3/4" (83 mm) INSIDE BODY TUBE BT-50L.**

**C. INSERT GREEN ENGINE BLOCK AND YELLOW SPACER TOOL TO 1/2" (13 mm) MARK.**

**D. REMOVE SPACER TOOL IMMEDIATELY.**

**3.**

**A. CUT 1/8" (3 mm) SLIT 3/4" (83 mm) FROM REAR.**

**B. POSITION HOOK.**

**C. TAPE ENGINE HOOK DOWN, MARK TUBE.**

**D. TEST FIT BT-52AG OVER TUBE. REMOVE SOME PAPER FROM INSIDE BT-52AG IF TOO TIGHT. SPREAD GLUE AROUND TUBE BETWEEN TWO MARKS.**

**E. SLIDE BODY TUBE 52AG OVER TUBE TO THE 1" (25 mm) MARK. REMOVE TAPE.**

**4.**

**A. CUT TUBE ADAPTERS FROM CARD. ONE HAS A SLIT. MOVE BLADE BACK AND FORTH TO WIDEN SLIT.**

**B. TIE DOUBLE KNOT IN SHOCK CORD.**

**C. PASS SHOCK CORD THROUGH SLIT.**

**D. GLUE KNOT.**

**E. MARK ENGINE MOUNT TUBE.**

**F. APPLY GLUE BANDS AROUND MARKS.**

**G. SLIDE TUBE ADAPTERS ONTO ENGINE MOUNT TUBE UNTIL THEY SIT EVENLY AT GLUE BANDS. LET DRY.**

**5.**

**A. INSERT ENGINE MOUNT TUBE HALF WAY INTO SLOTTED BODY TUBE.**

**B. APPLY GLUE BAND 1/4" (6 mm) INSIDE SLOTTED BODY TUBE.**

**C. INSERT ENGINE MOUNT TUBE UNTIL TUBE ENDS ARE EVEN.**

**D. APPLY GLUE FILLETS TO BOTH TUBE ADAPTERS.**

**6.**

**A. DRAW LAUNCH LUG (LL) LINE BETWEEN SLOTS ABOVE HOOK ENTIRE LENGTH OF SLOTTED TUBE.**

**B. THREAD SHOCK CORD THROUGH UPPER BODY TUBE AND APPLY GLUE AROUND JOINER. INSERT INTO SLOTTED BODY TUBE.**

**7.**

**A. SAND LASER CUT FIN SHEETS.**

**B. REMOVE FINN FROM EACH SHEET WITH KNIFE.**

**C. SAND EDGES.**

**8.**

**A. TEST FIT FINN INTO EACH SLOT. SAND FIN SURFACE IF NEEDED FOR PROPER FIT. APPLY THIN LAYER OF GLUE TO FIN, WAIT ONE MINUTE. APPLY SECOND LAYER AND INSERT INTO SLOT.**

**B. REPEAT FOR OTHER FINN.**

**C. ALLOW GLUE TO DRY.**

**NOTE: FINN MUST BE ATTACHED CORRECTLY FOR A STABLE FLIGHT.**

**9.**

**CAUTION: DO NOT CUT EYE OF NOSE CONE OFF.**

**A. REMOVE EXCESS FLASH FROM NOSE CONE AND CLEAN THE EYE OF THE NOSE CONE.**

**B. FORM LOOP IN SHROUD LINES**

**C. PASS LOOP THROUGH EYELET**

**D. PASS 'CHUTE THROUGH LOOP.**

**E. PULL TIGHT**

**F. TIE SHOCK CORD TO NOSE CONE**

**10.**

**A. GLUE LAUNCH LUGS ONTO LAUNCH LUG (LL) LINE.**

**11.**

**A. APPLY GLUE FILLETS TO ALL LAUNCH LUG AND FIN/BODY TUBE JOINTS.**

**B. SMOOTH WITH FINGER TIP.**

**C. ALLOW GLUE TO DRY.**