



EstesRockets.com

65th Anniversary RED SAPPHIRE

9979



MODEL ROCKET INSTRUCTIONS

KEEP FOR FUTURE REFERENCE

IMPORTANT: Please record date found on decal and keep for future reference. _____

READ ALL INSTRUCTIONS. Make sure you have all parts and supplies. Test fit all parts before applying glue. Refer to your glue manufacturer's dry times during build.

SUPPLIES



SCISSORS



PENCIL



RULER



FINE SANDPAPER



YELLOW GLUE



HOBBY KNIFE



MASKING TAPE



PRIMER (WHITE)



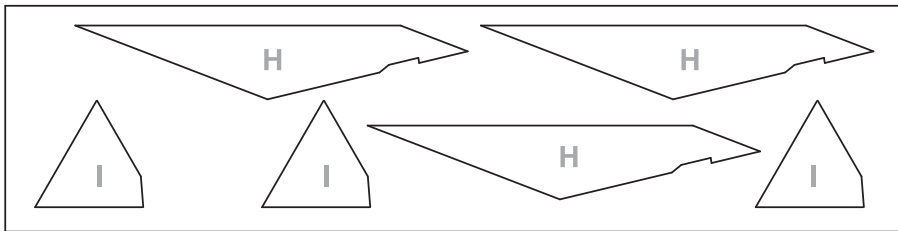
PAINT (WHITE)



PAINT (RED)



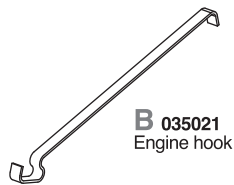
PAINT (BLACK)



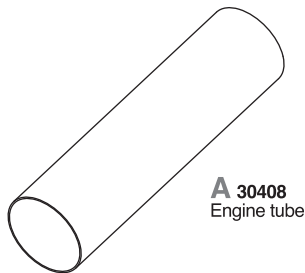
095001-9986
Laser cut balsa sheet



M 038364
Shock cord



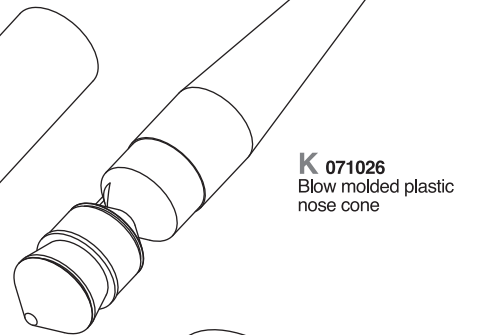
B 035021
Engine hook



A 30408
Engine tube



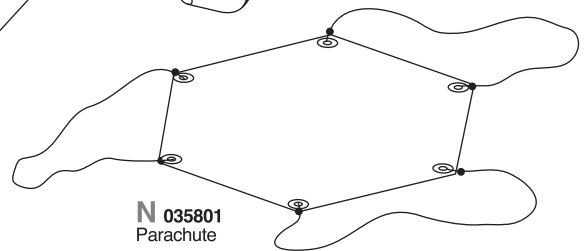
C 030162-2
Engine block



K 071026
Blow molded plastic
nose cone



D 030168
Retainer ring 20
(Mylar)



N 035801
Parachute

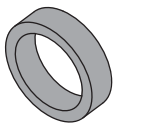


E 080425
Green split
adapter ring



G 031375
Body tube
12.75" (32.4 cm)

062180
Waterslide decal

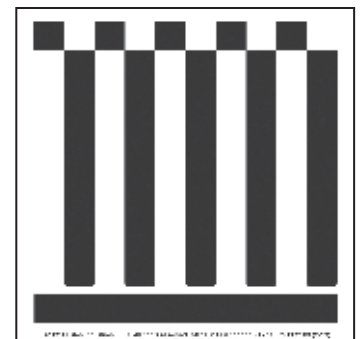


F 030164-2
Adapter ring 2050
bright green

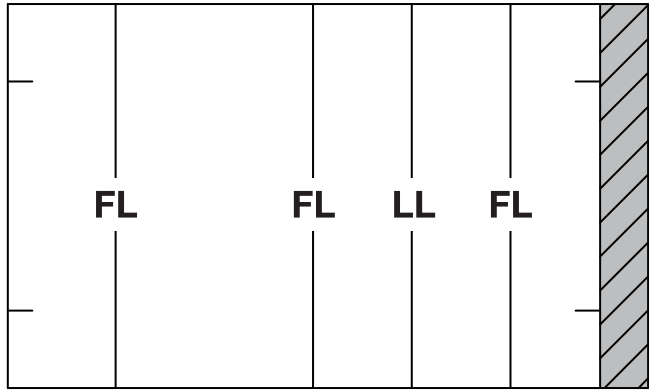


J 38175
Launch lug

062179
2x2 Self-stick decal

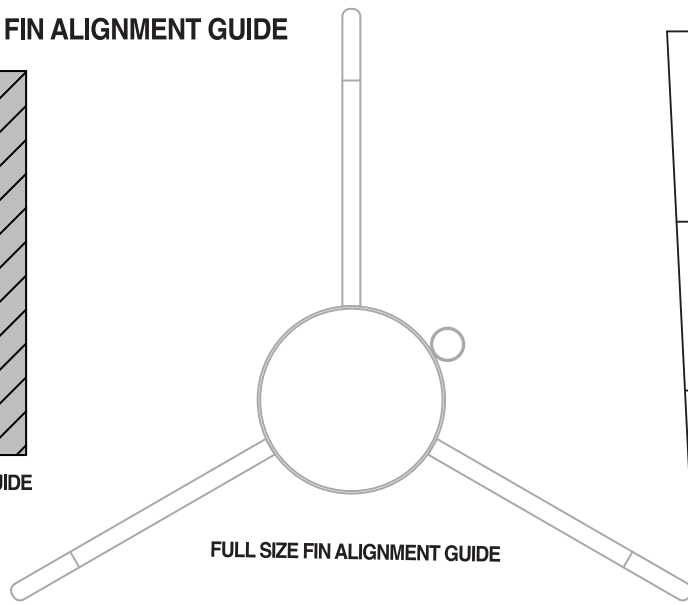


TUBE MARKING GUIDE | SHOCK CORD MOUNT | FIN ALIGNMENT GUIDE

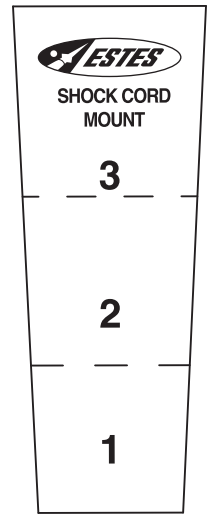


TUBE MARKING GUIDE

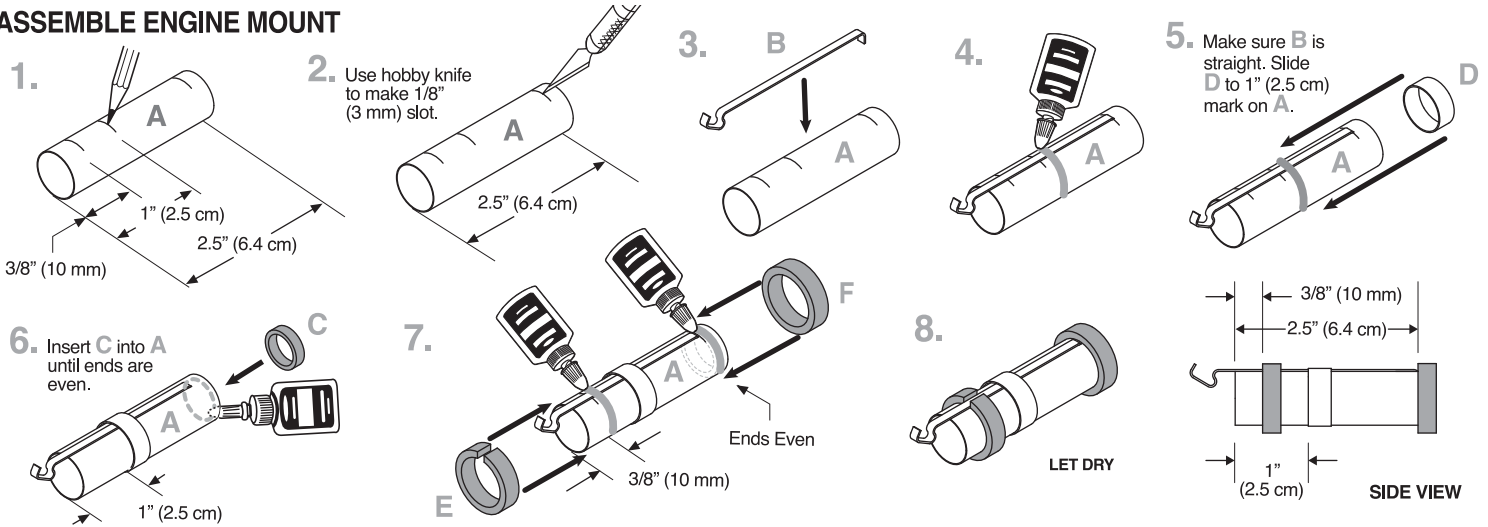
NOTE
These pieces will be cut out during assembly.
Make a copy if you want to keep the instructions.



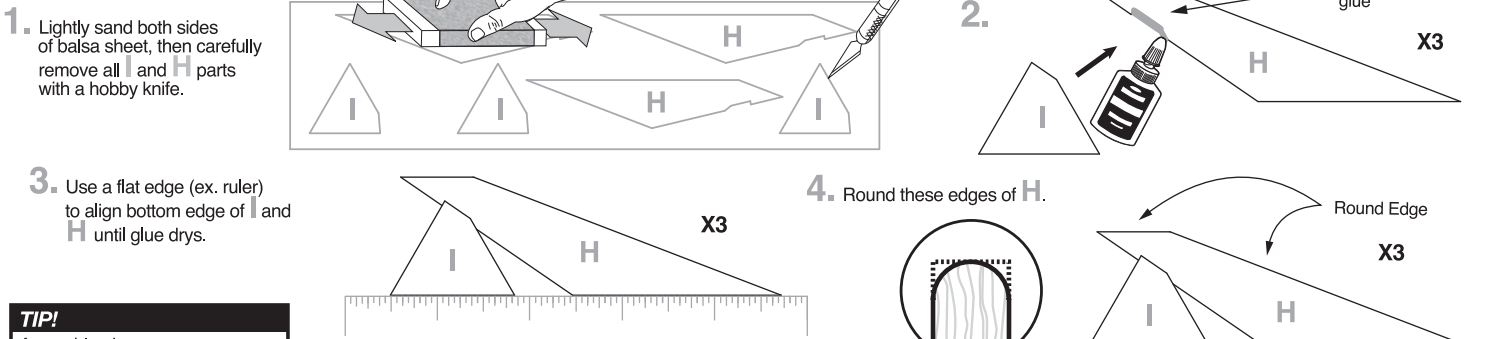
FULL SIZE FIN ALIGNMENT GUIDE



ASSEMBLE ENGINE MOUNT

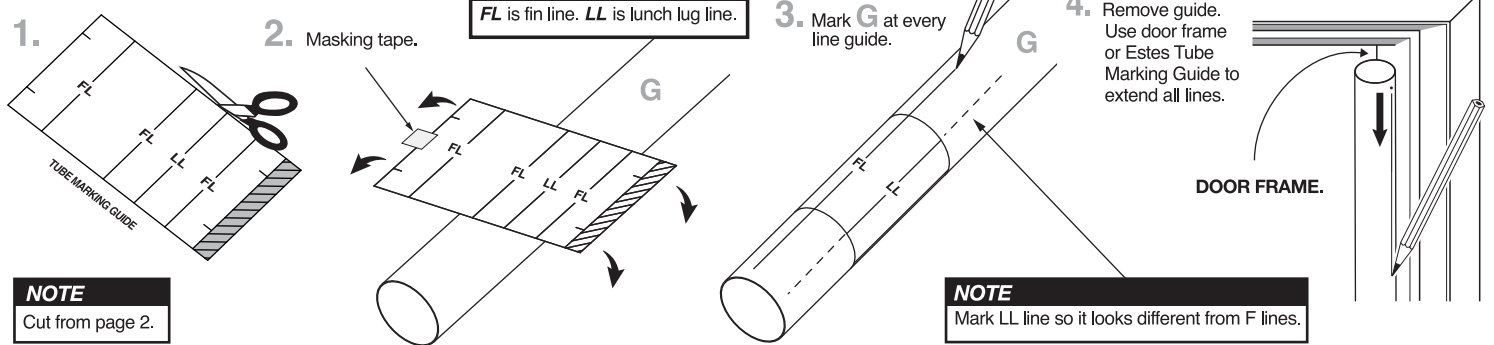


PREPARE FINs



TIP!
Assemble pieces on wax paper.

MARK BODY TUBE

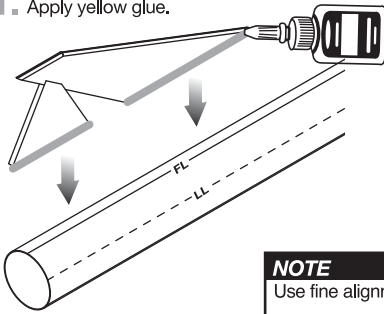


NOTE
Cut from page 2.

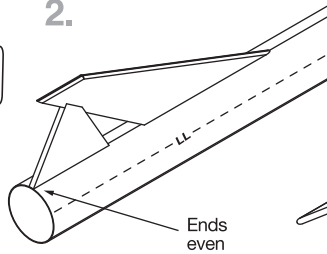
NOTE
Mark LL line so it looks different from F lines.

ATTACH FINS & LAUNCH LUG

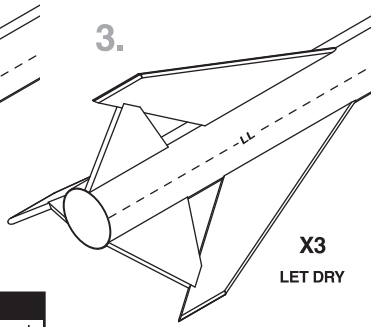
1. Apply yellow glue.



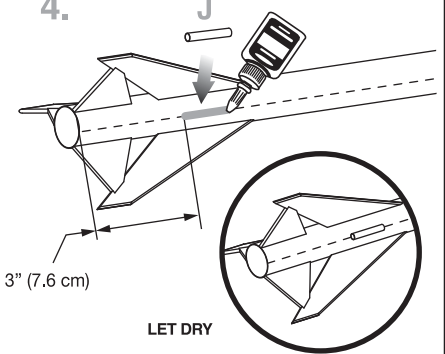
2.



3.



4.

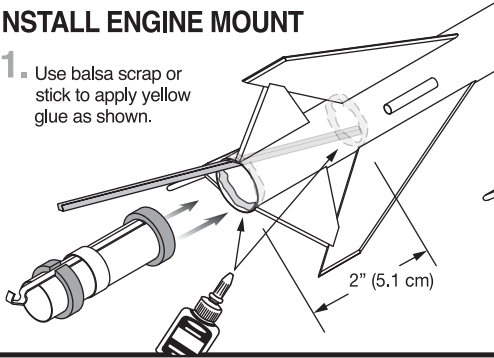


NOTE

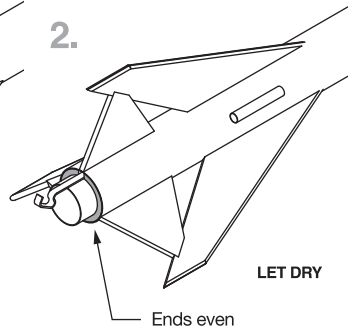
Use fine alignment guide on page 2 to check alignment.

INSTALL ENGINE MOUNT

1. Use balsa scrap or stick to apply yellow glue as shown.

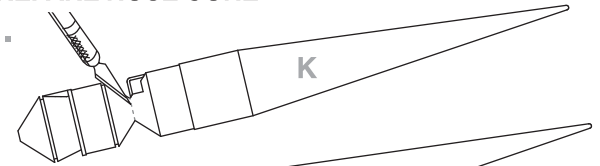


2.



PREPARE NOSE CONE

1.

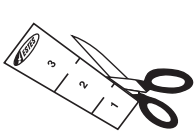


2.



INSTALL SHOCK CORD

1.



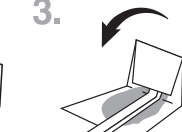
NOTE

Cut from page 2.

2.



3.



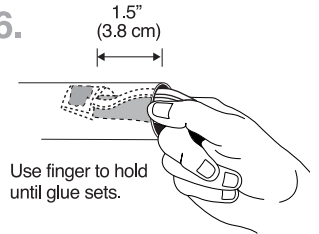
4. Hold until set.



5. Apply glue to shock cord mount.

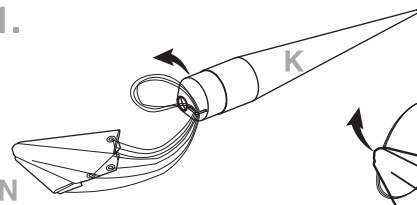


6.

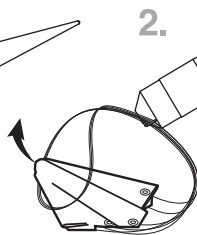


PREPARE THE RECOVERY SYSTEM

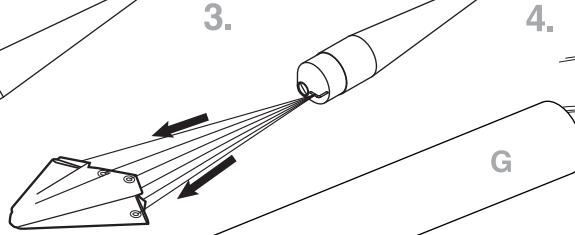
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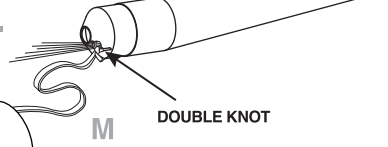
2.



3.



4.



ROCKET FINISHING

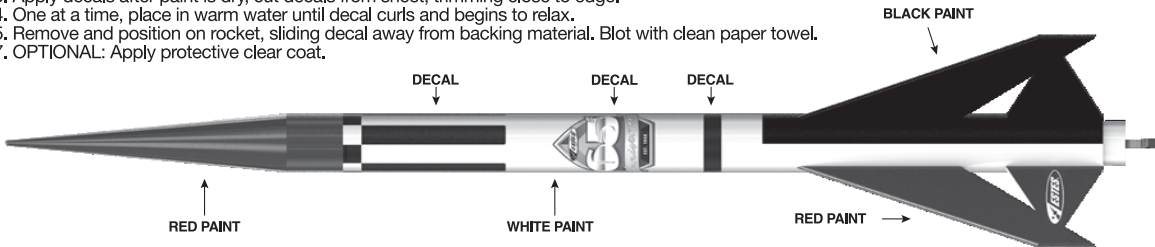
1. Spray rocket with white or gray primer, let dry. Lightly sand as needed. Paint rocket white and let dry completely.
2. Use masking or painters tape to mask body tube. Paint fins and nose cone, let dry completely.
3. Apply decals after paint is dry, cut decals from sheet, trimming close to edge.
4. One at a time, place in warm water until decal curls and begins to relax.
5. Remove and position on rocket, sliding decal away from backing material. Blot with clean paper towel.
7. OPTIONAL: Apply protective clear coat.

NOTE

Please refer to packaging for suggested paint scheme and/or decal placement.

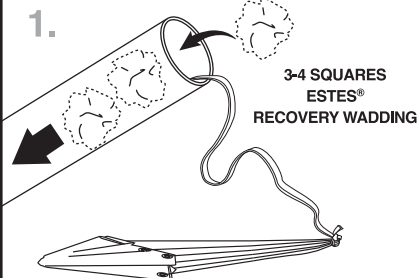
NOTE

Anniversary decal is self-stick. It does not need to be trimmed or soaked in water.

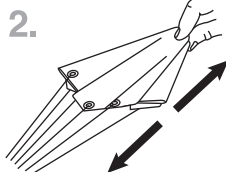


PREPARE FLIGHT RECOVERY

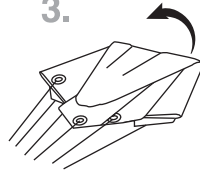
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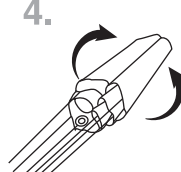
2.



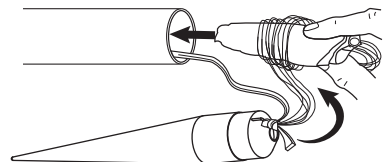
3.



4.



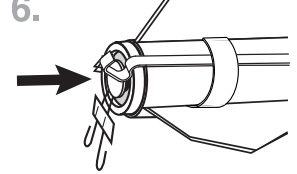
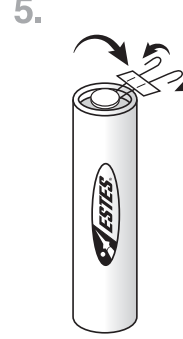
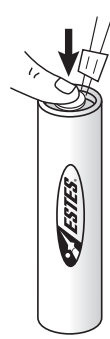
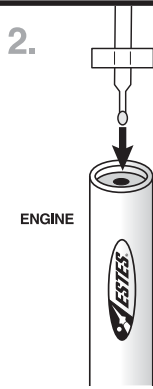
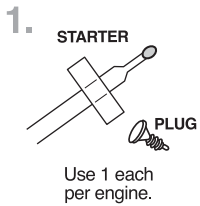
5. Wrap shroud lines loosely and insert parachute into body tube.



NOTE

Recovery wadding and parachute must slide easily into body tube. If too tight, redo.

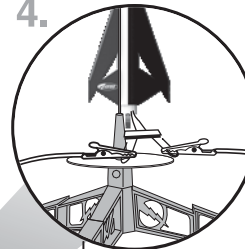
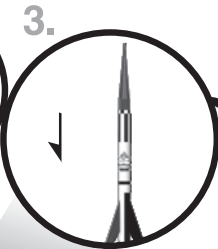
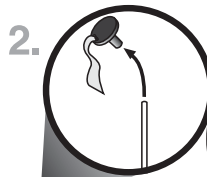
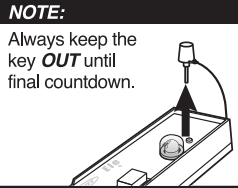
PREPARE ENGINE



⚠ 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 starter before storing your engine.

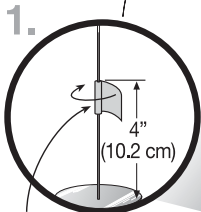
COUNTDOWN & LAUNCH



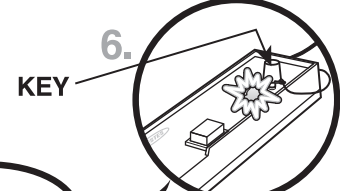
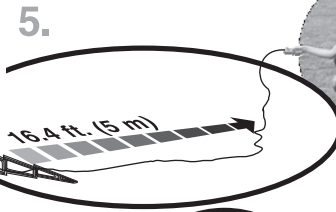
ESTES® LAUNCH SUPPLIES NEEDED (Sold Separately)

- Porta-Pad® II Launch Pad
- Electron Beam® Launch Controller
- Recovery Wadding
- Starters (with engines)
- Plugs (with engines)
- Estes® Engines: 1/2A6-2, A8-3, B4-4, B6-6, C6-5, C6-7

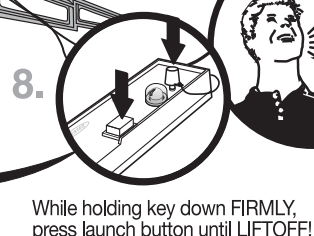
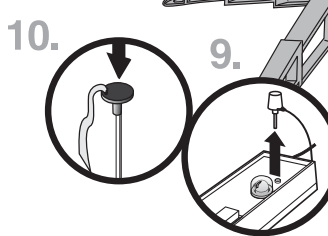
Fully extend your launch controller wire before launching.



MASKING TAPE



Insert key, push down hard. Bulb will light.



While holding key down **FIRMLY**, press launch button until **LIFTOFF!**

NOTE:

Estimated weight: 1.3 oz. (36.9 g)

PRECAUTIONS



NAR SAFETY CODE



NO DRY GRASS OR WEEDS

PRE-LAUNCH CHECK For safety, never launch a damaged rocket. Check the rocket's body, nose cone and fins. Also, check the engine mount, recovery system and launch lug(s). Repair any damage before launching the rocket.

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 open park areas 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 micro-clips and remove the engine. Take the plug and starter out of the engine. A burned starter means the starter tip was not touching engine propellant. Install a new starter; be sure the tip is touching propellant inside the engine. Push the plug in place. Repeat steps under Countdown and Launch.

