



estesrockets.com

# 1:200 Scale SATURN V™

2160



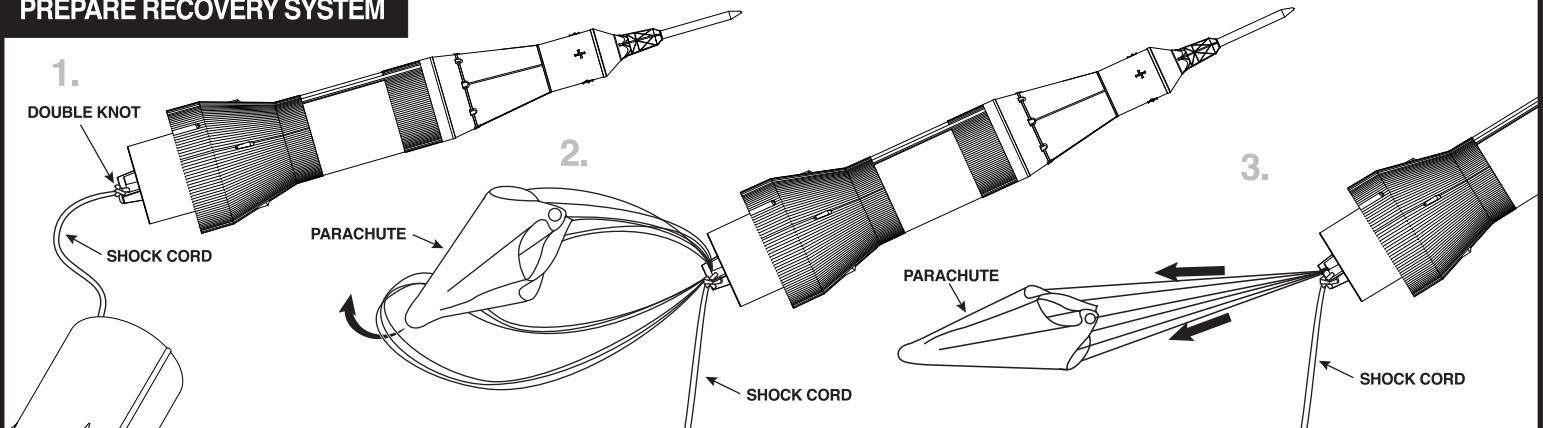
## READY TO FLY MODEL ROCKET INSTRUCTIONS

KEEP FOR FUTURE REFERENCE

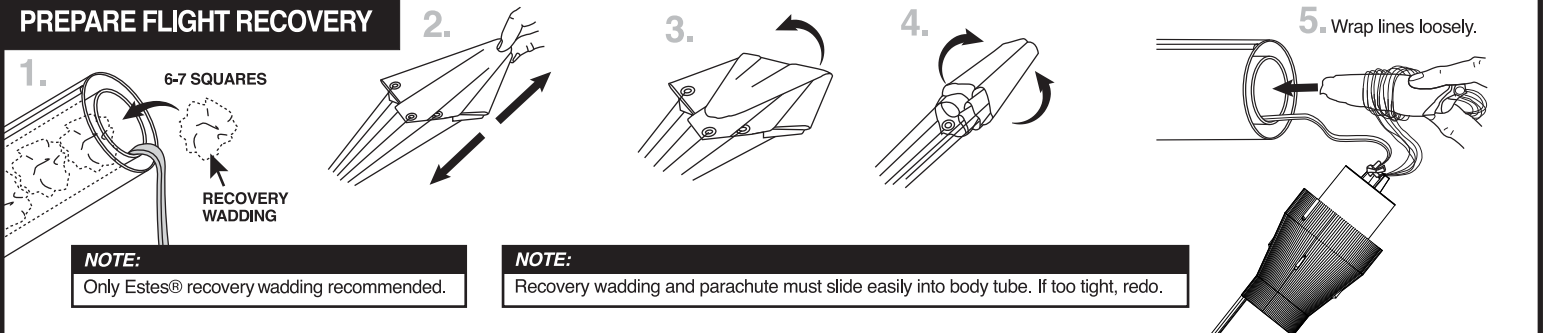
**IMPORTANT:** Please record date found on box near barcode, and keep for future reference. \_\_\_\_\_

*Read all instructions carefully.*

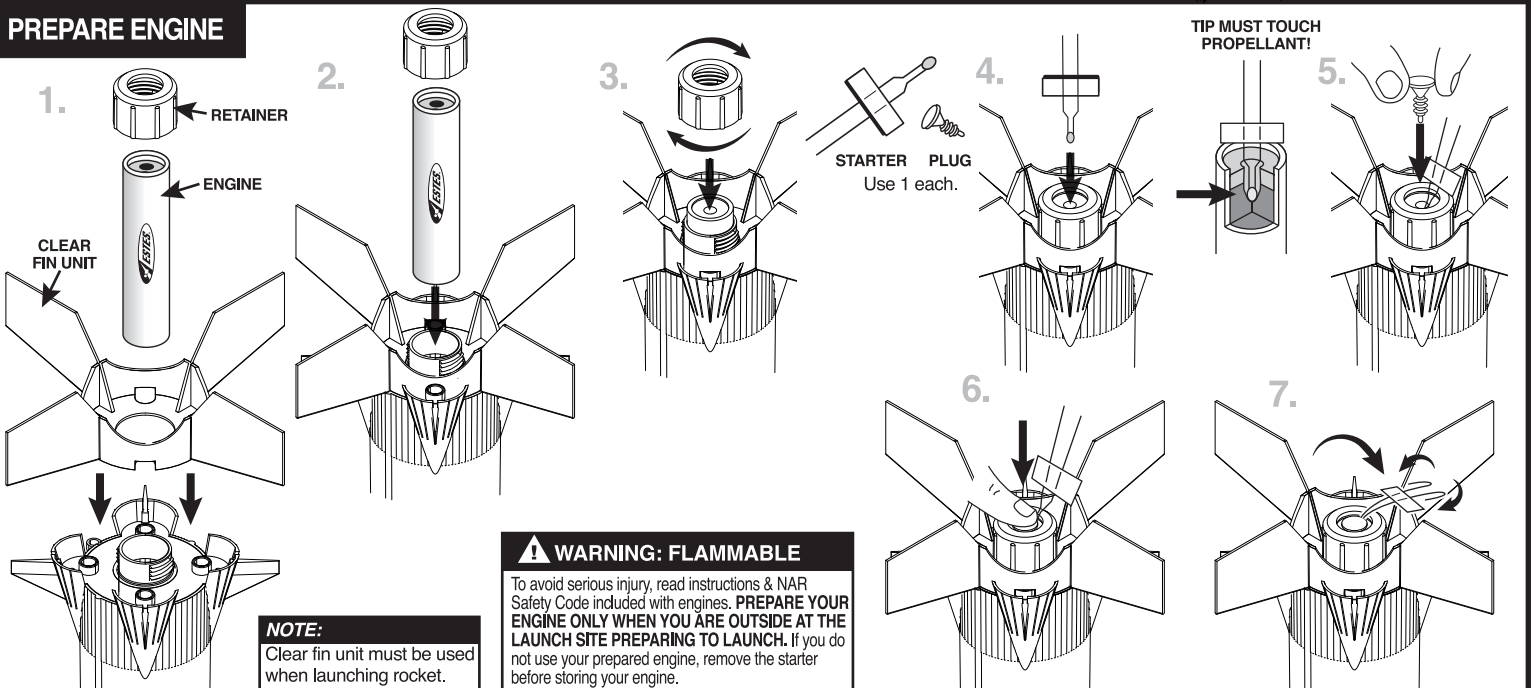
### PREPARE RECOVERY SYSTEM



### PREPARE FLIGHT RECOVERY



### PREPARE ENGINE



## COUNTDOWN AND LAUNCH

### NOTE:

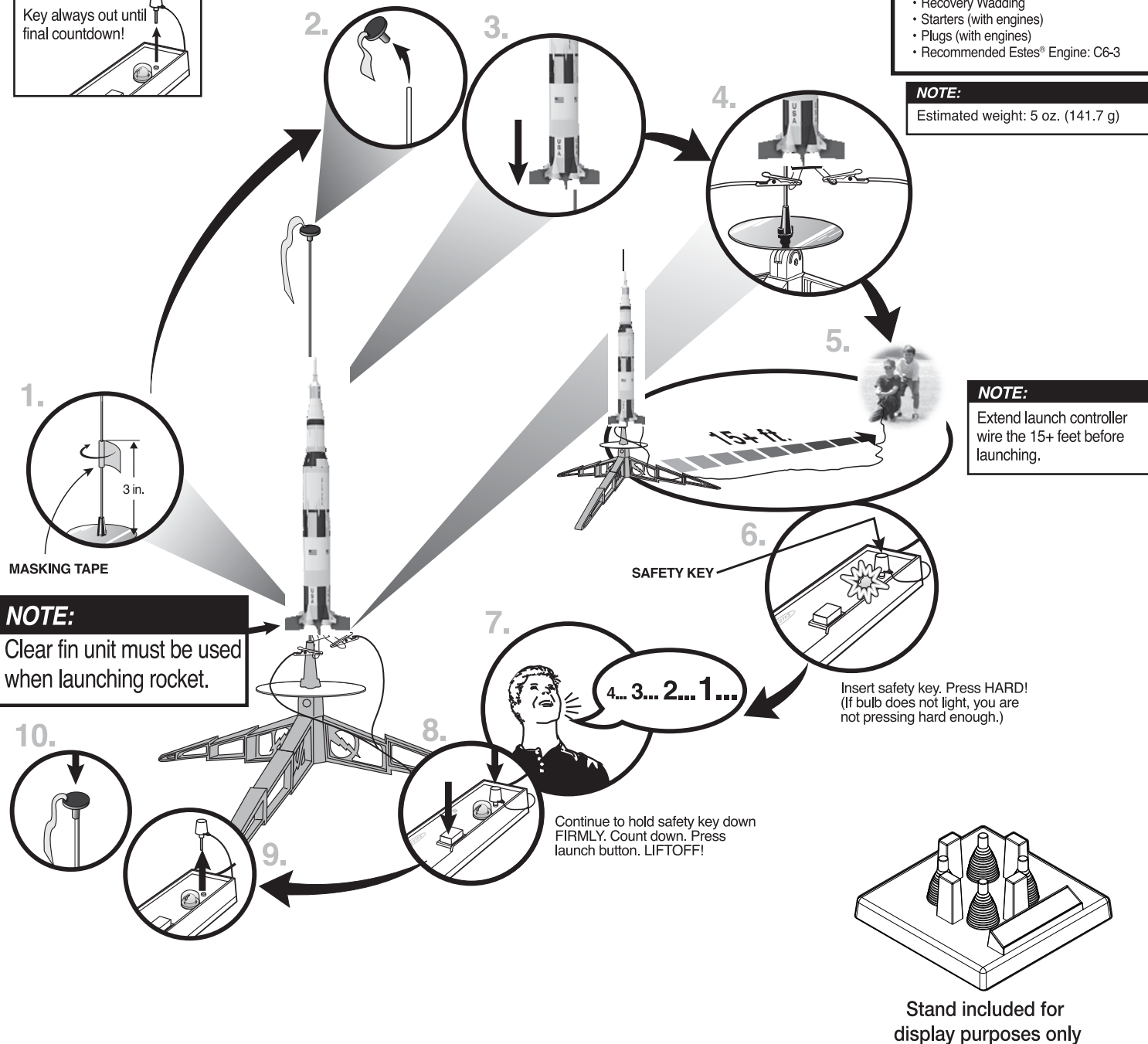
Key always out until final countdown!

### ESTES LAUNCH SUPPLIES NEEDED (Sold Separately)

- Launch Pad
- Launch Controller
- Recovery Wadding
- Starters (with engines)
- Plugs (with engines)
- Recommended Estes® Engine: C6-3

### NOTE:

Estimated weight: 5 oz. (141.7 g)



### NOTE:

Clear fin unit must be used when launching rocket.

## 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.

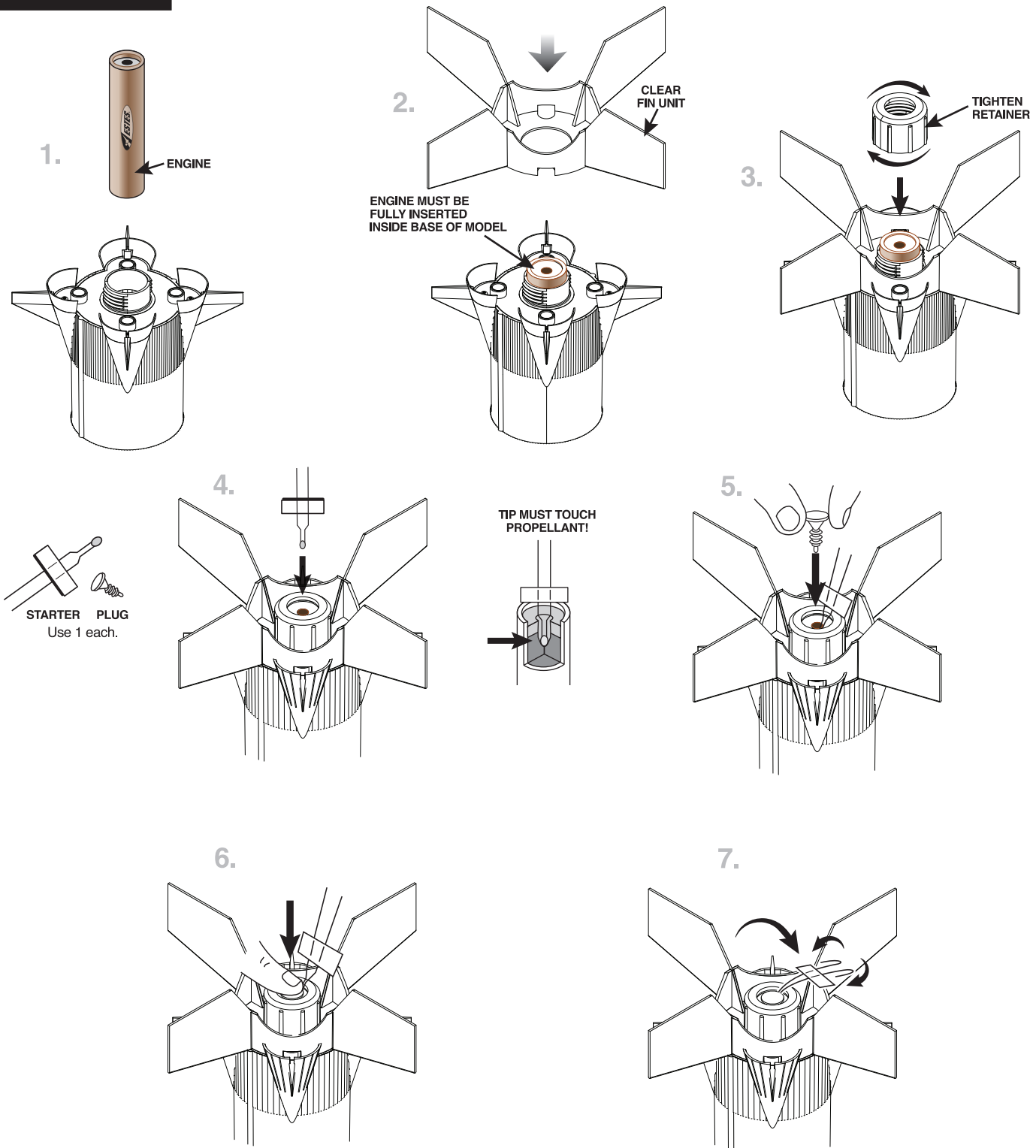
**FLYING YOUR ROCKET** Choose a large field (500 ft. [152 m] square) free of dry weeds and brown grass. The larger the launch area, the better your chance of recovering your rocket. Football fields and playgrounds are great. Launch only with little or no wind and good visibility. Always follow the National Association of Rocketry (NAR) SAFETY CODE.

**MISFIRES** TAKE THE KEY OUT OF THE CONTROLLER. WAIT ONE MINUTE BEFORE GOING NEAR THE ROCKET! Disconnect the micro-clips from the starter. Remove the engine from the rocket. Remove the plug and starter from the engine. If the starter is burned, it was not inserted correctly; it must touch the propellant inside the engine. Insert a new starter all the way inside the engine without bending it. Then insert the plug to hold the starter firmly in place. Repeat the steps under COUNTDOWN AND LAUNCH.



Supplement to instructions supplied. Read and follow both.

## PREPARE ENGINE



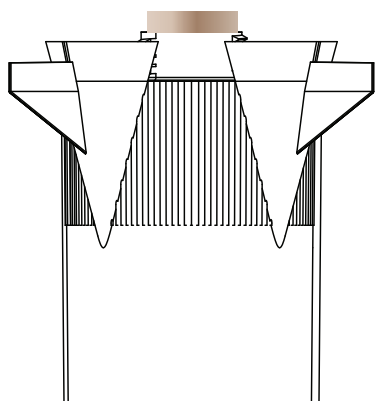
### NOTE:

Clear fin unit must be used when launching rocket.

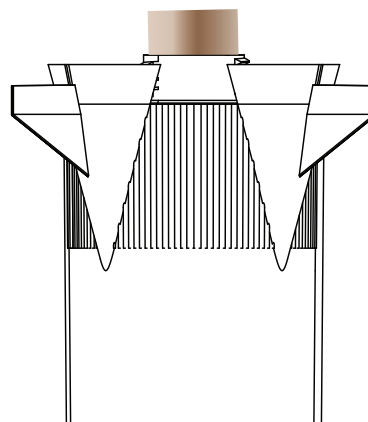
### ⚠ WARNING: FLAMMABLE

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.

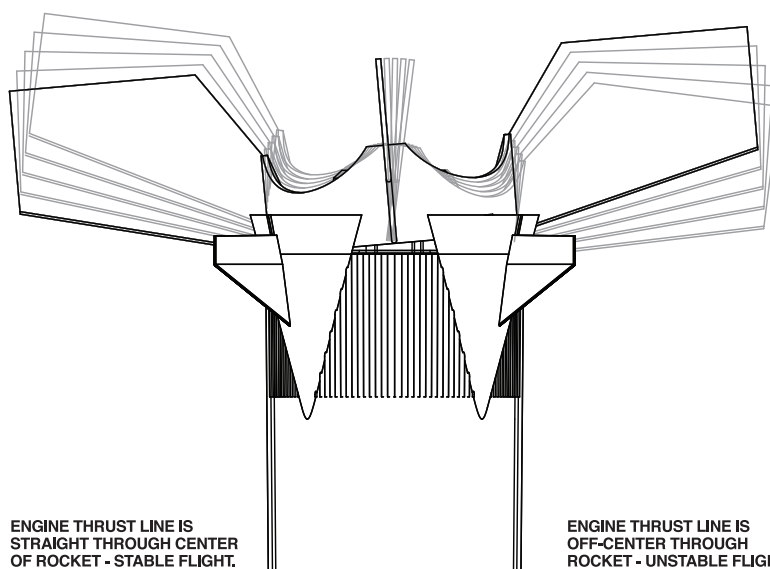
FULLY INSERTED ENGINE



NOT FULLY INSERTED ENGINE

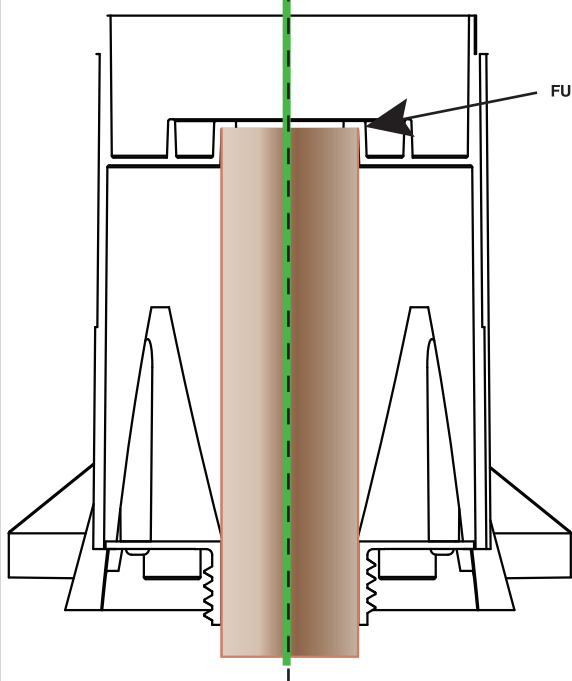


CLEAR FIN UNIT WILL WOBBLE  
IF ENGINE IS NOT FULLY INSERTED.

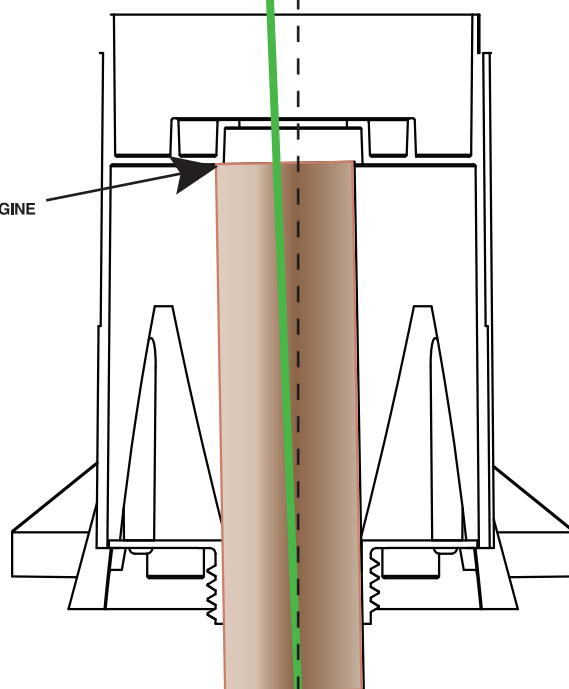


ENGINE THRUST LINE IS  
STRAIGHT THROUGH CENTER  
OF ROCKET - STABLE FLIGHT.

ENGINE THRUST LINE IS  
OFF-CENTER THROUGH  
ROCKET - UNSTABLE FLIGHT.



FULLY INSERTED ENGINE



NOT FULLY INSERTED ENGINE



EstesRockets.com

# 1:200 Scale NASA SLS

2206



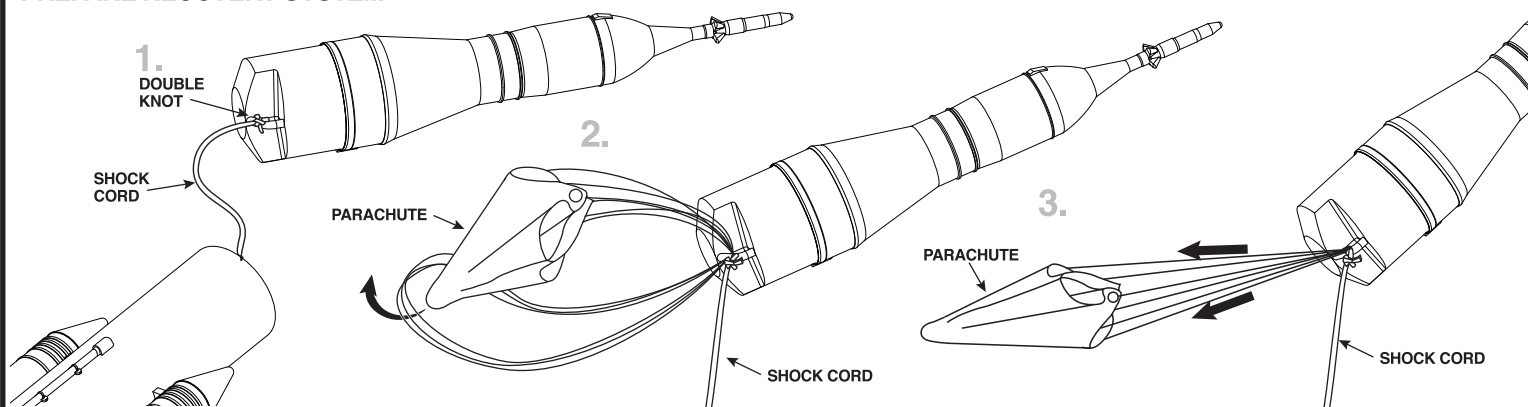
## READY TO FLY MODEL ROCKET INSTRUCTIONS

KEEP FOR FUTURE REFERENCE

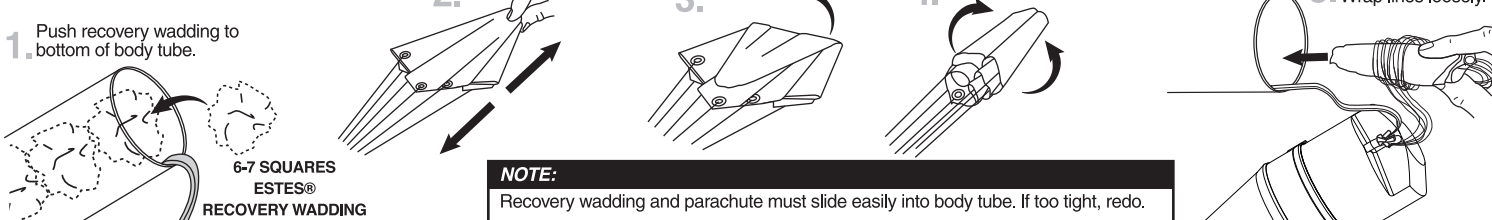
**IMPORTANT:** Please record date found on box near barcode, and keep for future reference. \_\_\_\_\_

*Read all instructions carefully.*

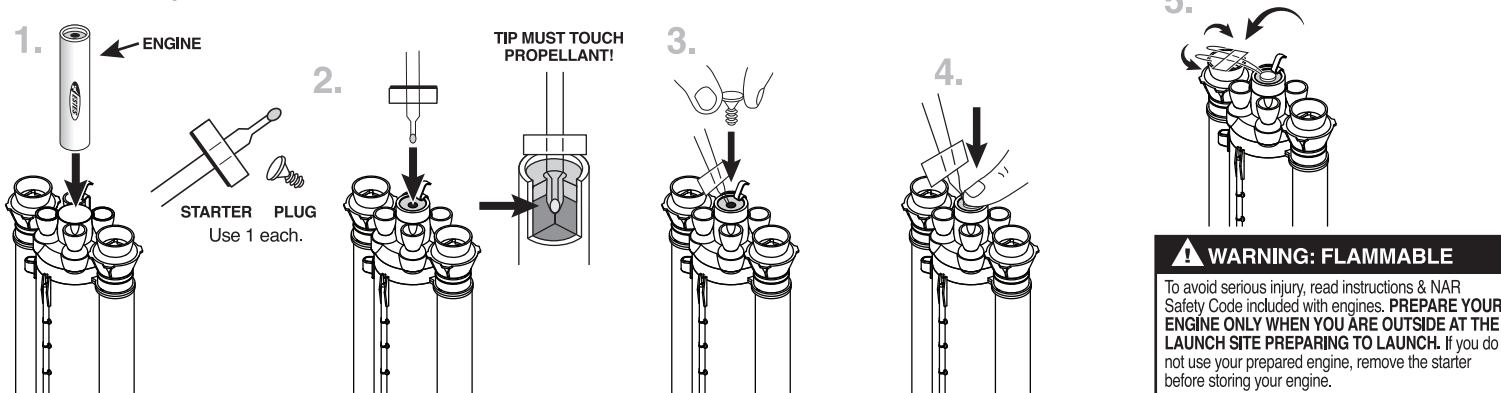
### PREPARE RECOVERY SYSTEM



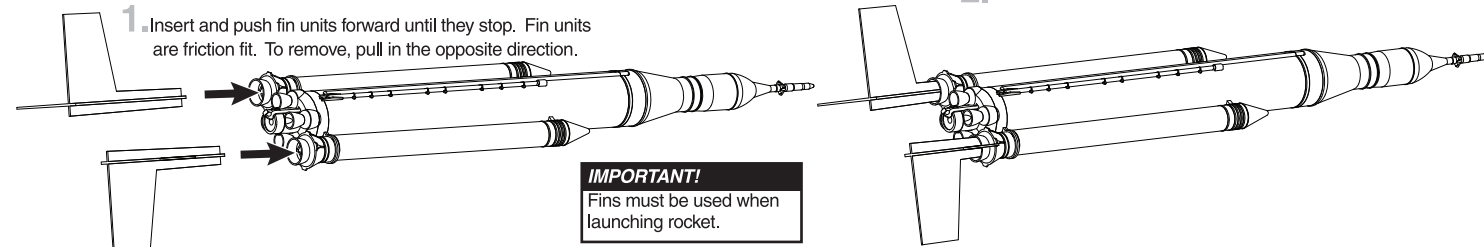
### PREPARE FLIGHT RECOVERY



### PREPARE ENGINE



### PREPARE FOR FLIGHT





## COUNTDOWN AND LAUNCH

### NOTE:

Key always out until final countdown!

2.

3.

4.

1.

4 in.  
(10.2 cm)

MASKING TAPE

### IMPORTANT!

Fins must be used when launching rocket.

### NOTE:

Fully extend launch controller wires before launching.

5.

16.4 ft. (5 m)

6.

KEY

7.

10.

9.

8.

Continue to hold safety key down FIRMLY. Count down. Press launch button. LIFTOFF!

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

Insert safety key. Press HARD!  
(If bulb does not light, you are not pressing hard enough.)

### NOTE:

Estimated weight: 4.2 oz. (119.1 g)

### ESTES LAUNCH SUPPLIES NEEDED (Sold Separately)

- Launch Pad
- Launch Controller
- Recovery Wadding
- Starters (with engines)
- Plugs (with engines)
- Estes® Engines: C5-3, C6-3

## 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 playgrounds are great. Launch only with little or no wind and good visibility. Always follow the National Association of Rocketry (NAR) SAFETY CODE.

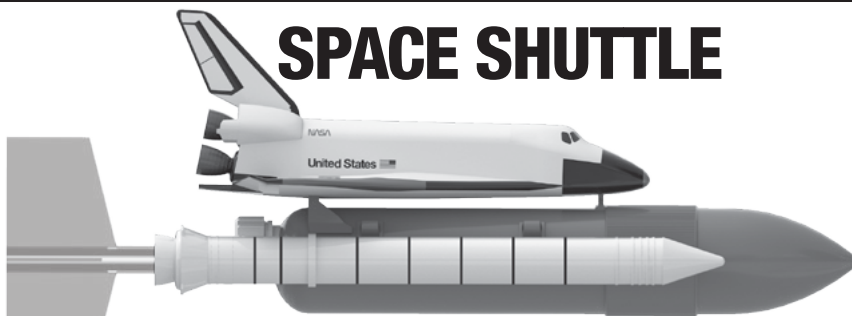
**MISFIRES** TAKE THE KEY OUT OF THE CONTROLLER. WAIT ONE MINUTE BEFORE GOING NEAR THE ROCKET! Disconnect the micro-clips from the starter. Remove the engine from the rocket. Remove the plug and starter from the engine. If the starter is burned, it was not inserted correctly; it must touch the propellant inside the engine. Insert a new starter all the way inside the engine without bending it. Then insert the plug to hold the starter firmly in place. Repeat the steps under COUNTDOWN AND LAUNCH.





9991

**AGES**  
**10+**



### 1:200 Scale

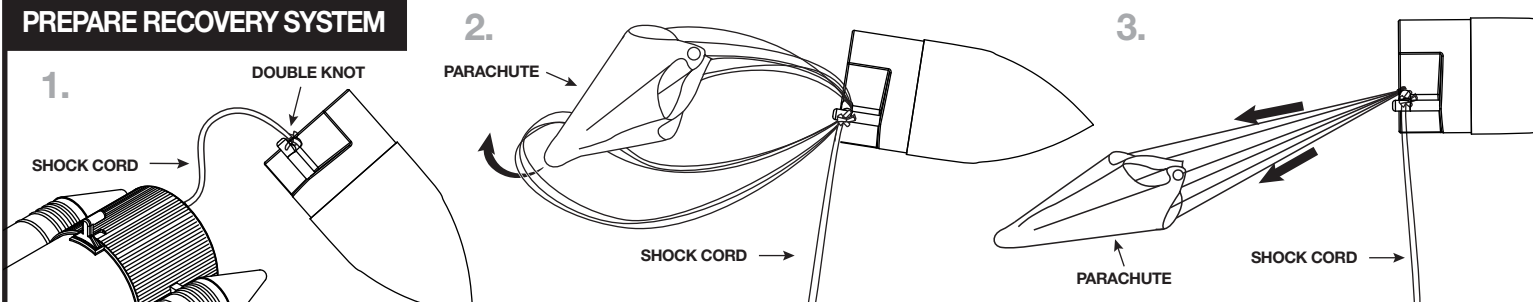
## READY TO FLY MODEL ROCKET INSTRUCTIONS

**KEEP FOR FUTURE REFERENCE**

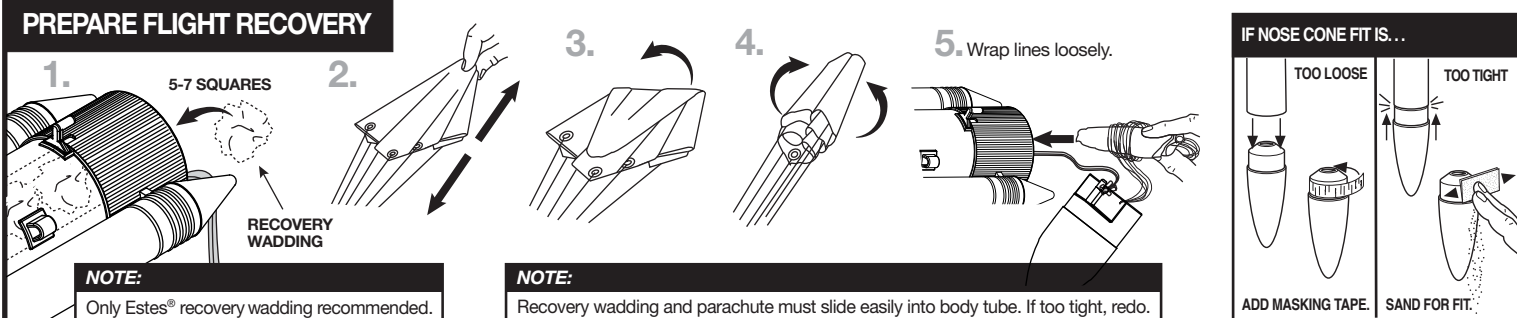
**IMPORTANT:** Please record date found on box near barcode, and keep for future reference. \_\_\_\_\_

**Read all instructions carefully.**

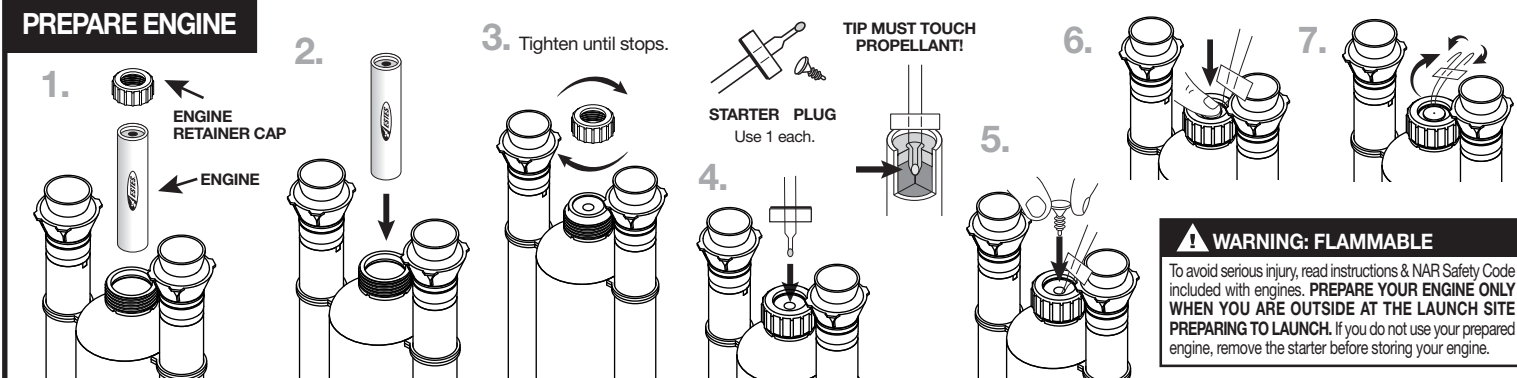
## PREPARE RECOVERY SYSTEM



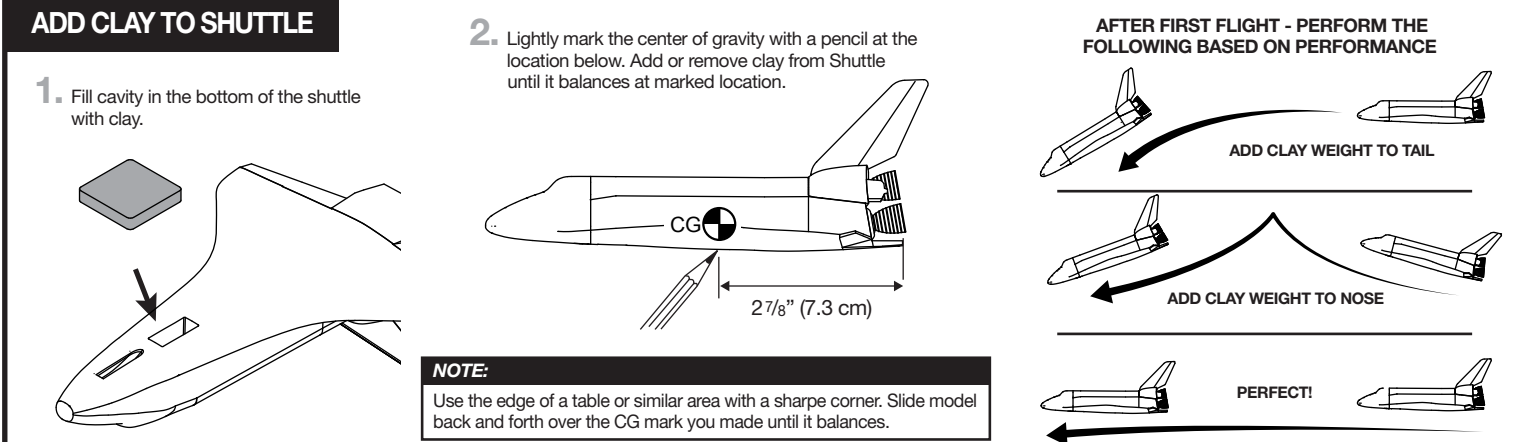
## PREPARE FLIGHT RECOVERY



## PREPARE ENGINE



## ADD CLAY TO SHUTTLE



## PREPARE FOR FLIGHT

1. Insert and push fin units forward until they stop. Fin units are friction fit. To remove, pull in opposite direction.

2.

### NOTE:

Fins should have a snug fit when placed inside the boosters. If not, add clear tape to one or more sides of the upper fin units that enters the boosters until a snug fit is obtained.

3.

- Place opening in Shuttle nose onto peg.

READY FOR LAUNCH

### IMPORTANT:

Fins must be used when launching rocket.

## COUNTDOWN AND LAUNCH

### NOTE:

Key always out until final countdown!

2.

3.

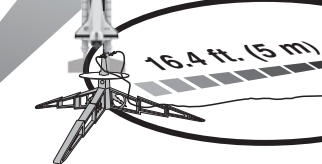
4.

5.

- Fully extend your launch controller wire before launching.

6.

- Insert key, push down hard. Bulb will light.



SAFETY KEY

7.

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

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

1.

MASKING TAPE

### NOTE:

Clear fin unit must be used when launching rocket.

10.

9.

8.

## PREPARE DISPLAY STAND

1.

- Place support through the hole in the base.

2.

- Screw the retainer ring in place.

3.

### ESTES LAUNCH SUPPLIES NEEDED (Sold Separately)

- Launch Pad
- Launch Controller
- Recovery Wadding
- Starters (with engines)
- Plugs (with engines)
- Recommended Estes® Engine: C5-3 (first flight), C6-3

### NOTE:

Estimated weight: 3.6 oz. (103 g) w/ clear fin

## 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 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 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.

