

MARTIAN PATROL

WARNING!

(MODEL ROCKET)

A flying model rocket is a scientifically designed educational model . . . NOT A TOY! If misused it can be dangerous. It is capable of attaining speeds up to 300 mph. It should be used only as instructed, and treated with care and respect.

build these kits only as shown. Do not attempt to alter the design in any way. Each kit was designed to give maximum stability, and any alteration or variation of the rocket design could make it unsafe.

(MODEL ROCKET ENGINES)

Solid propellant Rocket Reaction Engines are specifically designed for the sole purpose of propelling model rocket vehicles. They are scientifically designed, produced on automatic machinery, and subjected to statistical quality control tests. It is very important, however, that caution be exercised in their use. All instructions must be read thoroughly first and followed completely. Model rocket engines are designed for one purpose only. They are not toys—and their misuse must be absolutely avoided. Model rocketry has proven itself to be as safe as any other hobby, when common sense codes are used.

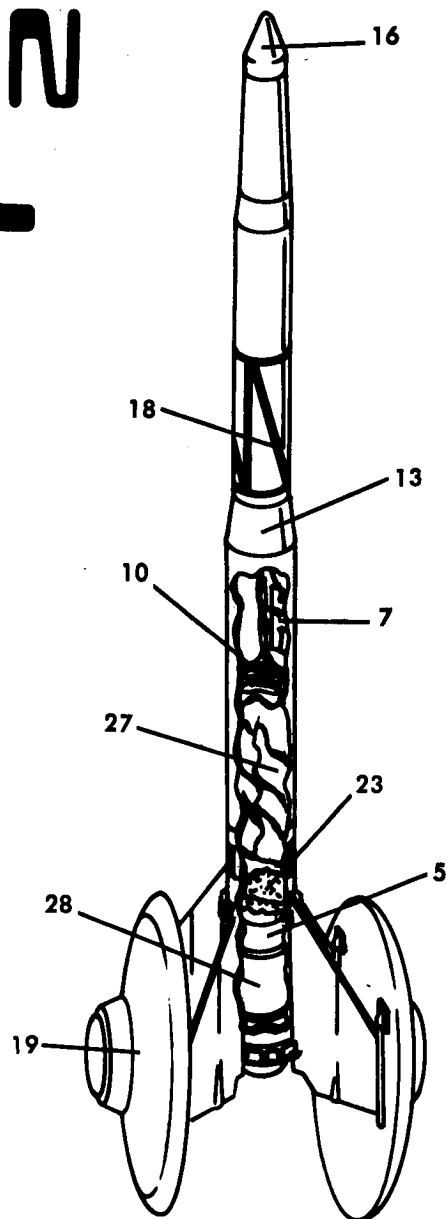
This model rocket has been designed and developed to give you a straight high flight if the instructions are followed carefully. The exciting and educational sport of model rocketry has grown into a full scale national activity, and will continue to grow every time you fly your rocket safely. Formation of a rocket club in your area will provide you with hours of enjoyment even when you're not flying rockets. Look for our new models appearing on your dealer's shelves soon.

Before you begin building, look over the instructions carefully. Following the procedure given, test fit the parts without gluing. This way you will be more familiar with the location of parts when it becomes time to use glue. The parts list will acquaint you with the pieces in the kit.

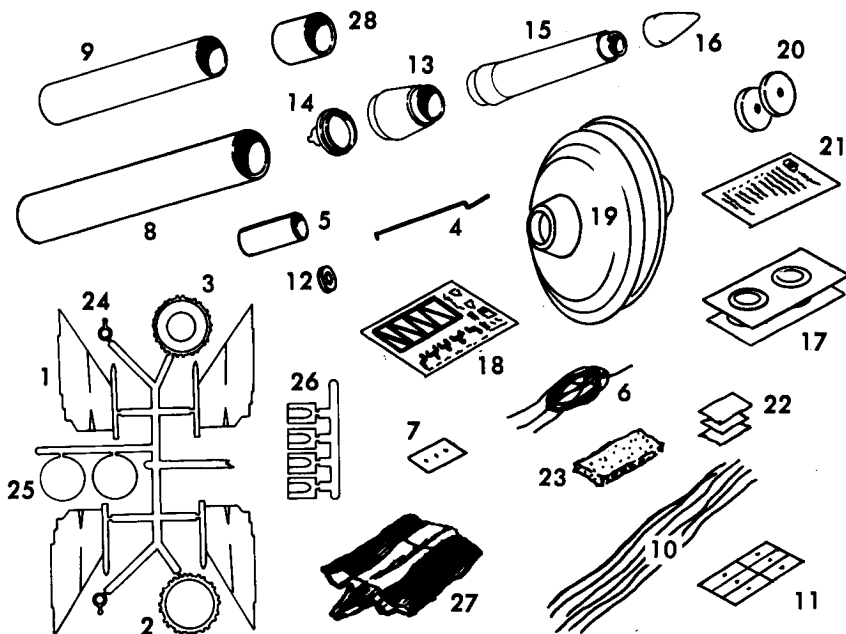
RECOMMENDED TOOLS FOR MODEL ROCKET BUILDING

Modeling knife
Scissors
Extra strong white glue
Styrene cement

Ball point pen or pencil
Fine grit sandpaper
Paint in desired colors
Wood sealer

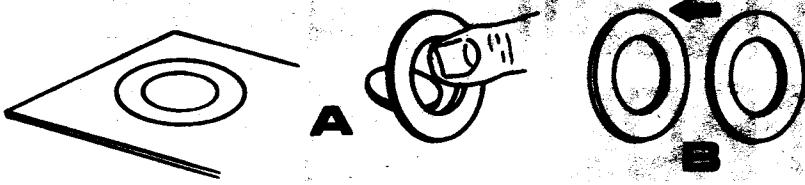


Recommended engines B6-4 & C6-4

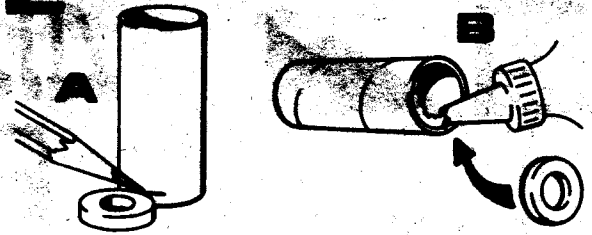


PARTS LIST

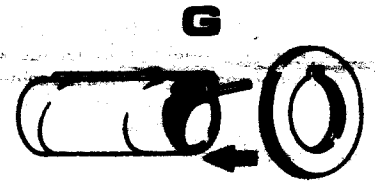
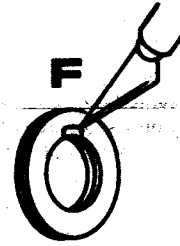
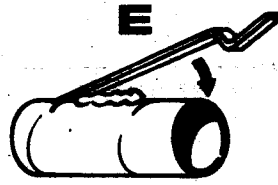
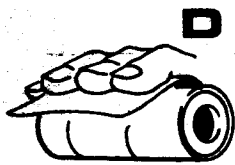
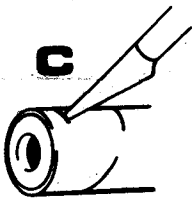
- | | |
|-----------------------|---------------------|
| 1. FINS | 15. NOSECONE |
| 2. UPPER FIN RING | 16. NOSE CONE CAP |
| 3. LOWER FIN RING | 17. CENTERING RINGS |
| 4. ENGINE CLIP | 18. DECAL |
| 5. ENGINE COMPARTMENT | 19. SAUCERS |
| 6. SHOCK CORD | 20. TRIM HEIGHTS |
| 7. SHOCK MOUNT | 21. COUNT DOWN CARD |
| 8. 30mm BODY TUBE | 22. ADDRESS LABELS |
| 9. 25mm BODY TUBE | 23. WADDING |
| 10. SHROUDS | 24. LAUNCH LUGS |
| 11. SHROUD TABS | 25. SAUCER CAPS |
| 12. ENGINE BLOCK | 26. SAUCER MOUNTS |
| 13. COUPLER | 27. PARACHUTE |
| 14. COUPLER PLUG | 28. SPACER TUBE |

1

Punch out the four centering rings from the two white cards and punch out centers (A). Glue (white) two of the rings together (B). Join the remaining two rings together and let dry.

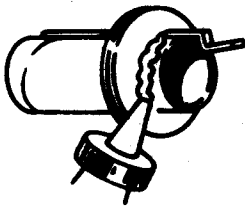
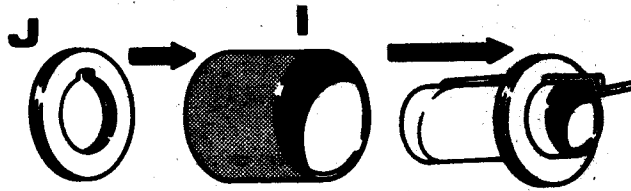
2

Place the engine block against the engine compartment (brown paper tube) and mark with a pencil (A). Apply glue around the inside edge of the engine compartment and insert engine block so the ends are flush (B) and allow to dry.



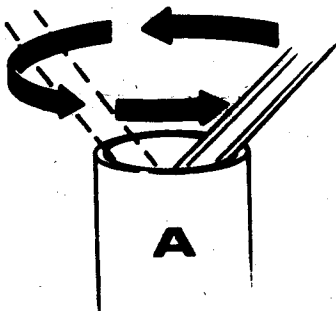
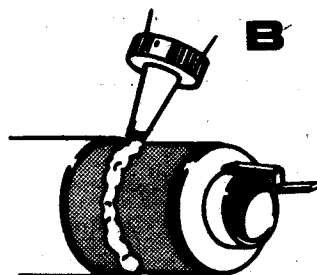
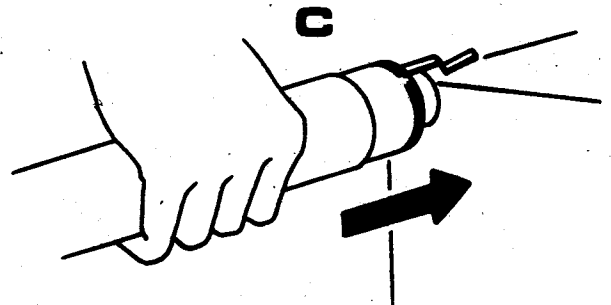
Cut a slit $\frac{1}{4}$ " along pencil line (C). Sand the outside of the engine compartment (D). Slide one centering ring unit onto engine compartment for test-fit. Ring should fit smoothly but not bind. Remove ring. Apply glue half way down tube, starting from slit, and insert engine clip (E). Press

down firmly and allow to dry. Cut a notch in both centering ring units to allow rings to slide over engine clip (F). Slide centering ring onto engine compartment $\frac{1}{4}$ " from the end opposite the engine block (G).

**H**

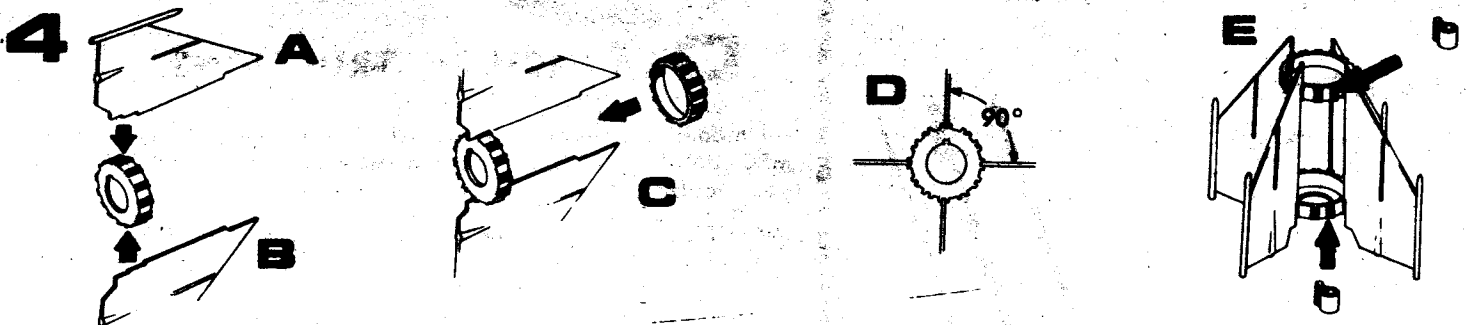
Lay a heavy bead of glue around both sides of the centering ring where it joins the engine compartment (H). Glue the black spacer tube to centering ring (I). Glue remaining centering ring to spacer tube and engine compartment (J), and al-

low to dry thoroughly. Sand the black spacer tube and round the edges of the spacer rings until the entire unit slides smoothly into 30mm body tube.

3**A****B****C**

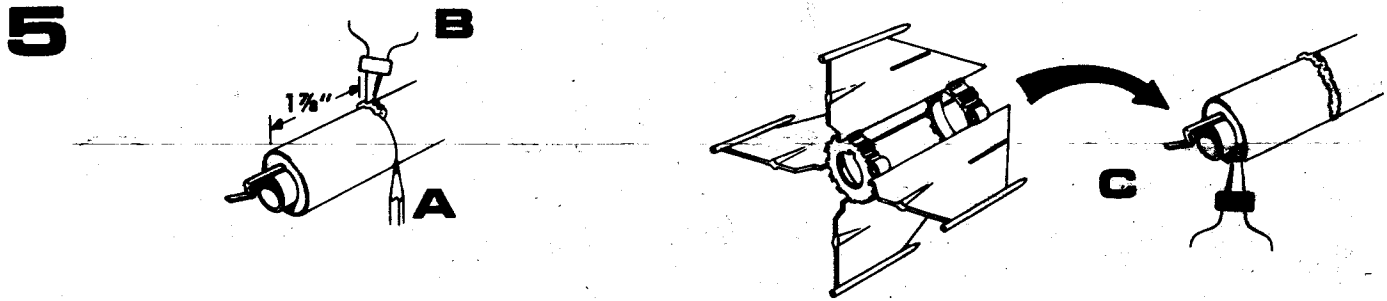
With a pencil, roll inside edge of 30mm body tube (A). Insert engine mount unit into 30mm body tube, about halfway, and apply a bead of glue around the black spacer tube (B). With constant

pressure, against the edge of a table, push the engine mount into the body tube until the back centering ring is flush with the end of the body tube (C).



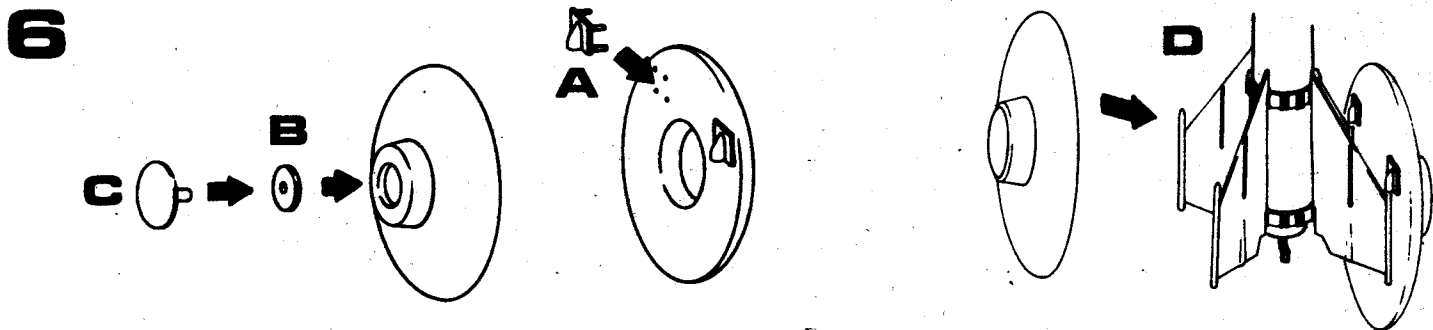
4 Cement (styrene) one fin into lower fin ring (A). Cement a second fin to the same ring directly opposite the first one (B). Cement the upper fin ring to the opposite end of the fins (C). Cement

the two remaining fins to the fin rings so all fins are 90° to each other (D). Cement a launch lug to each fin ring being sure they line up with each other (E).



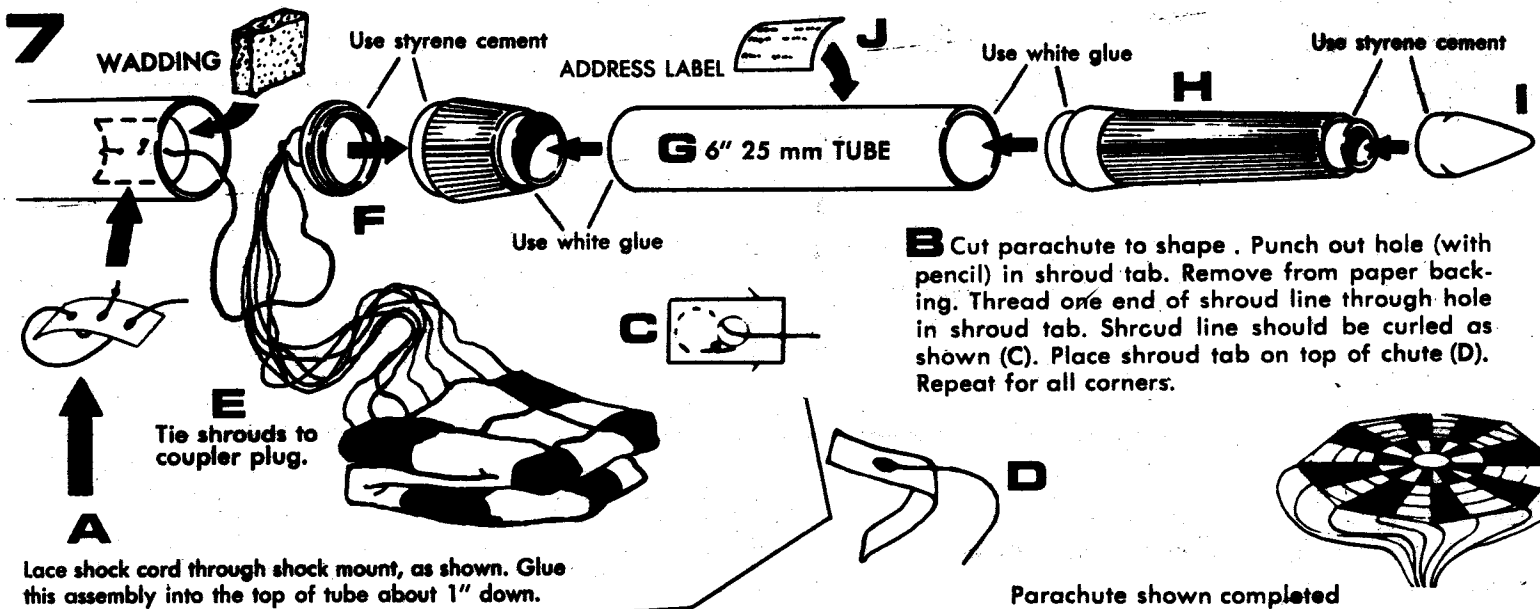
5 Make a mark around the 30mm body tube 1 7/8" from the end (A) and place a bead of glue around the mark (B). Apply glue to the bottom of the engine mount and slide the completed fin unit

onto body tube as far as it will go being sure the notch in the bottom fin ring lines up with the engine clip (C) and allow to dry.



6 Glue (white) saucer mounts to saucers as shown (A). Glue the lead trim weight to recess (B) and saucer caps to hole in trim weight (C). Before

launching, place (DO NOT GLUE) saucers to pegs on fins (D).

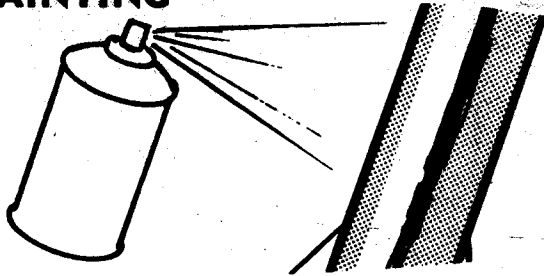


7 Lace shock cord through shock mount, as shown. Glue this assembly into the top of tube about 1" down.

B Cut parachute to shape. Punch out hole (with pencil) in shroud tab. Remove from paper backing. Thread one end of shroud line through hole in shroud tab. Shroud line should be curled as shown (C). Place shroud tab on top of chute (D). Repeat for all corners.

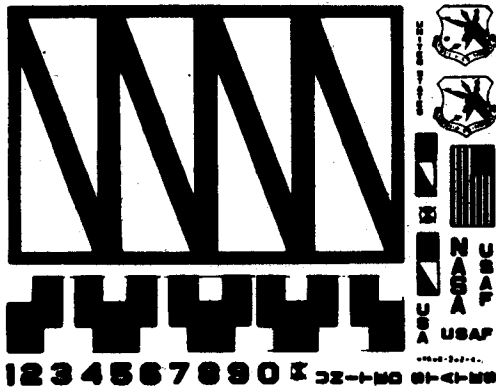
Parachute shown completed

A PAINTING



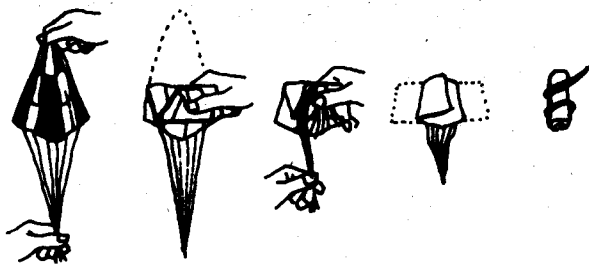
For best flight performance, and appearance, your rocket should have a smooth, hard finish. When painting, apply several light coats avoiding runs.

B DECALS



To apply decals, cut them apart individually, cut close to design, then dip in water for a few minutes. Next slide decal off the paper backing as you apply it to your rocket, using the box cover as a guide in positioning. Before the decals dry, smooth out any bubbles with a damp cloth.

C PARACHUTE



Pack flameproof wadding into the top of the body tube, pushing it down toward the engine. Fold the parachute carefully, as shown and pack on top of the wadding. Use a small amount of talcum powder to keep the chute from sticking together. Pack the shroud lines and shock cord on top of the chute. Join the two sections of rocket together.

D LAUNCH INSTRUCTIONS

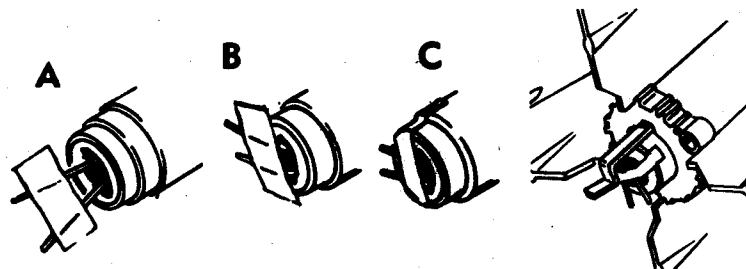
All model rockets must be launched electrically, using the MPC LUNAR-LECTRIC or similar launching system. Check with your hobby dealer.

IMPORTANT: All model rockets must be launched from a launch rod at least 36 inches long.



E SELECTING A LAUNCH SITE

Choose a level area as your launch site. Clear the area under the launch pad of dry grass, and other flammable materials. Your launch site should be clear of trees, high buildings, power lines, and roads and freeways. An area 500' by 500' minimum is recommended for safe flight and recovery.



Before approaching launch pad, remove safety key from launch control handle, and disconnect leads from power source. Approach launch pad with model, engine and Ignitor. Peel paper backing from taped Ignitor and insert into nozzle of engine as far as it will go (A). Bend Ignitor over against engine (B). Press tape down onto engine to hold in place (C). Insert engine into engine compartment (with nozzle outward) until engine is locked in place with engine clip.

Lower rocket onto the launch rod by sliding the launch lug over rod. Attach one micro clip to each of the Ignitor leads extending from the engine. Retreat to launch control and give an audible warning to persons in the area that a countdown is about to begin. Connect leads to power source, insert safety key in the LUNAR-LECTRIC launch control, or whatever launch control you're using. Begin countdown procedure from countdown card, included in every MPC model rocket kit.

For a good flight, each and every time, use an MPC LUNAR LECTRIC LAUNCH PAD, and LAUNCH CONTROL to fly your model rocket.

In the event that engines are not available in your area, take advantage of our three engine package by sending \$1.25 to MODEL PRODUCTS CORP., 126 Groesbeck, Mt. Clemens, Michigan 48043.

If you are a minor your order must be accompanied with a note from parent or guardian.



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MARTIAN PATROL FLYING MODEL ROCKET KIT

ASTROLINE SERIES
NEW! MOLDED
PLASTIC PARTS
WITH FIBER-TUBE ROCKET BODY

SEE HOW EASY IT IS TO BUILD A MODEL ROCKET

FLYING ROCKET AND TWO UFO'S

Lift off! Rocket and two UFO's soar high and separate at apogee. The parachute returns the rocket safely while the UFO's hover in the sky, gliding and descending to a safe landing.

Engine & launcher
NOT included in kit
USE ONLY THE FOLLOWING
MPC ROCKET ENGINES WITH
THE MARTIAN PATROL
BB-4 CD-4 C-3

