

Part 5: System Control (continued)

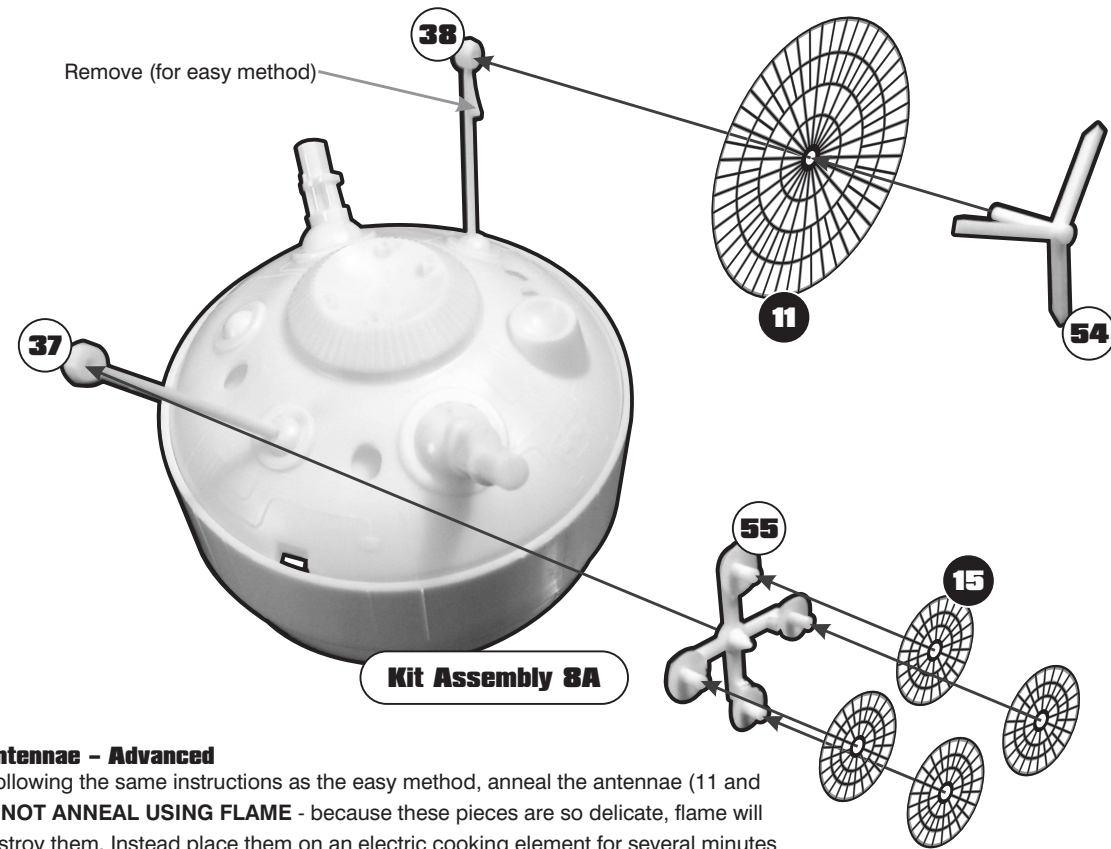
Dish Antennae - Easy

Large Antenna (etch 11)

Trim off the small tab on kit part 38 and cut the center pin of kit part 54 so that it is even with the spokes. Glue the center pin of kit part 54 into the round depression at the hole center of etch part 11 until the tripod of the kit part is in contact with the etch. Glue this assembly to kit part 38.

Small Antennae (etch 15)

Assemble the small antennae as shown in kit instructions part 8 B, except replace kit antennae (109) with etch antennae 15.



Dish Antennae - Advanced

Before following the same instructions as the easy method, anneal the antennae (11 and 15). **DO NOT ANNEAL USING FLAME** - because these pieces are so delicate, flame will likely destroy them. Instead place them on an electric cooking element for several minutes then remove them (carefully!) and allow them to cool.

Once cool, form the antennae of the kit pieces. Because of the round shape this will be time consuming. Using a dapping block and punch set will make short work of this forming.

Part 6: Miscellaneous Pieces

In addition to the direct kit replacement parts, this photoetch set also includes eight hatches (14 and 18) and 39 safety handles (2) that may be placed where ever you'd like. The hatches are available in left- and right-handed versions and have through-holes that can be lit if you desire.



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Pilgrim Observer

Photoetch Set

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INTRODUCTION

Thank you for purchasing ParaGrafix's photoetch set for the MPC Pilgrim Observer kit. This set adds more modern style details to the classic kit. For more information about working with photoetched parts, please see our video instructions here: <http://www.paragrafix.biz/video-instructions-1.asp>.

Materials

In addition to the photoetch, you will also need scissors or a knife* to remove individual pieces from the main fret, a file to remove material left from cutting, and super glue (aka CA or cyanoacrylate). Additionally, to fold some pieces, you will need a pair of razor blades** or a specialty tool such as an Etchmate 3C from Mission Models. Please note that one of the pieces (#1, the mount for the NERVA engine, aka Back Bone-Extension Rod) requires a bending tool and is intended for advanced modelers.

* We prefer a #17 Xacto chisel blade.

** Extreme care must be taken when using razor blades. Risk of serious injury.

Installation Parts Order

Although there are step numbers, they are for reference only. You can assemble your kit and add the photoetch in any order you'd like.

Key
Kit part (plastic): 1
Photoetched part: 1

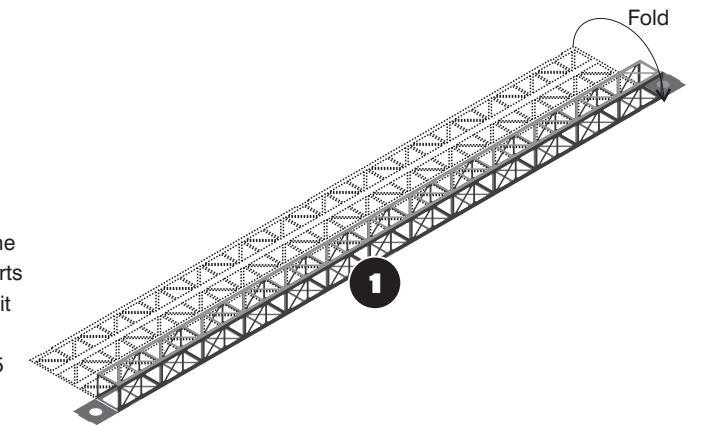
Part 1: Back Bone-Extension Rod

Fold the Back Bone-Extension Rod (aka truss)

Fold etch part 1 as shown at right. NEW! The truss can now be easily folded by hand with no tool required!

Notes:

- If you will be retaining the motion feature, add a small "brake" at one end of the truss that will stop the motion at the inner guide of kit parts 8 and 9. The brake can be made of a piece of sprue or other odd bit of plastic.
- For added strength, an approximately 7" (18 cm) length of 0.1" (2.5 mm) diameter rod (not included) can be run through the truss and extend out one end similar to the original kit part.



Modify Kit

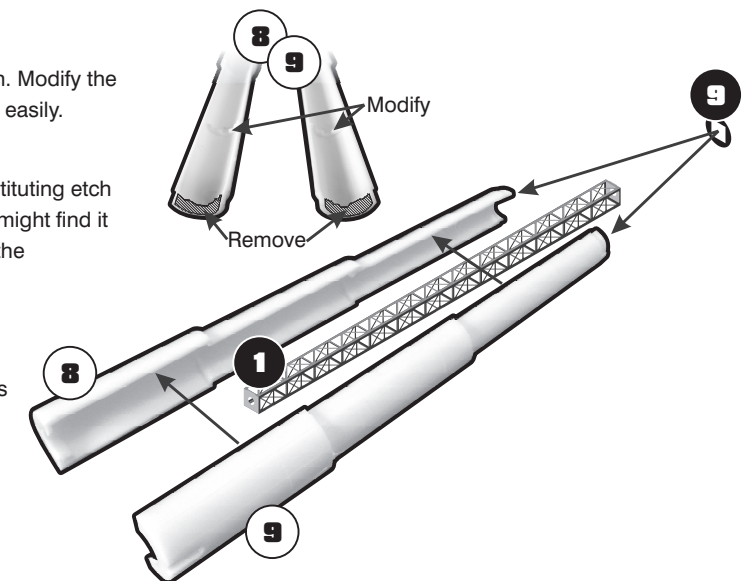
Remove the end guide portion of kit parts 8 and 9 as shown. Modify the inner guide so that back bone-extension rod slides through easily.

Assemble

Assemble the parts per the kit instructions (section 2), substituting etch part 1 for kit part 10, and adding etch part 9. Note that you might find it easier to assemble the kit parts with etch part 9, then slide the assembled truss in from the back end.

Make sure that you align etch part 9 with the inner guide of kit parts 8 & 9.

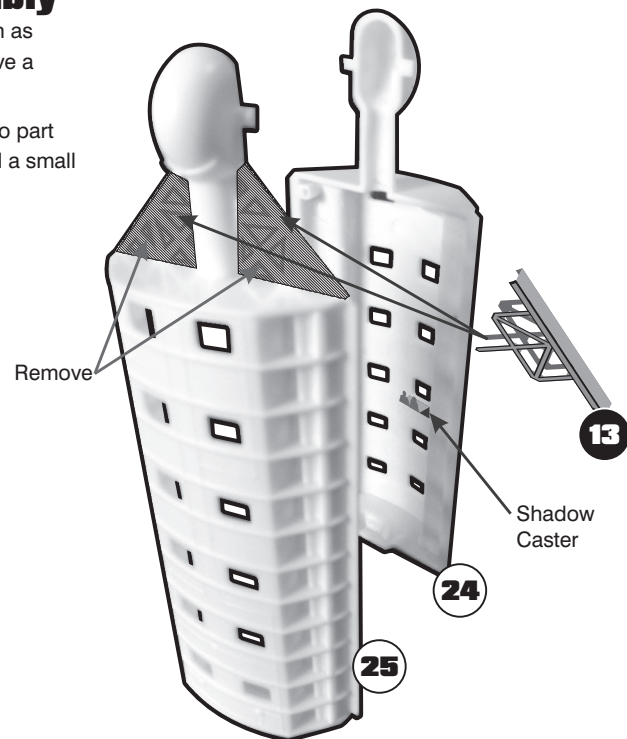
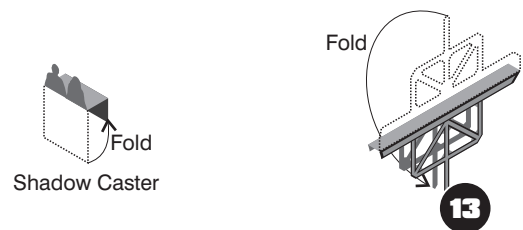
Finally, attach this assembly according to the kit instructions section 5, Energy Supply System Assembly.



Part 2: Gravitational System Assembly

Remove the kit girders from parts 24 & 25. Fold etch girders (13) and attach as replacements after 24 & 25 have been assembled. Note that the girders have a double wall and do not fold flat.

Note: For additional visual interest, you can mount the "shadow casters" (no part numbers) behind some of the windows. To help resist sagging you can add a small gusset of strip plastic at the folds.



Part 3: Command Module

Command Module

Assemble the Command Module per the kit instructions in section 7.

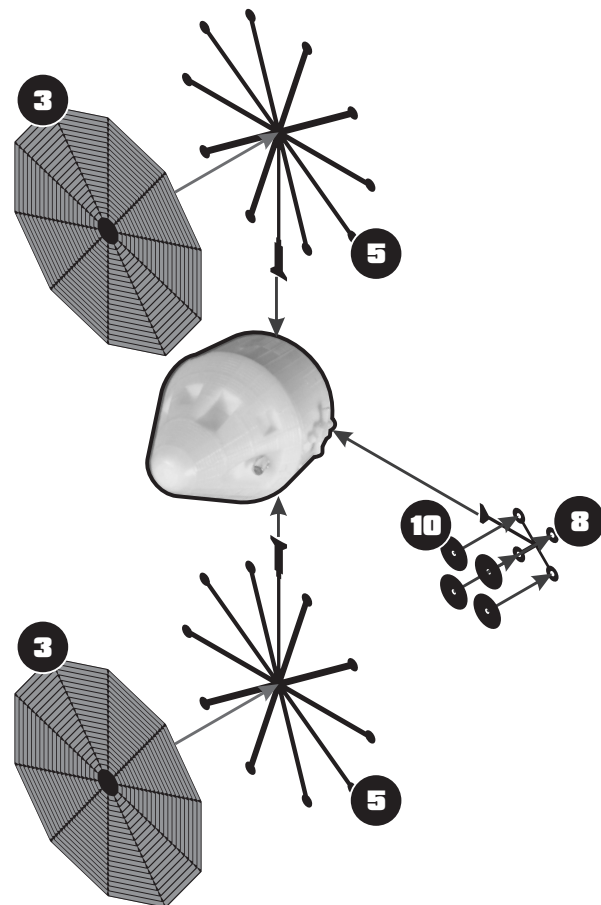
Antennae & Solar Collectors

Assemble both solar collectors (etch parts 3 & 5) and attach to the Command Module as shown.

Attach the dish antennae (8) to the antenna mount (10) and connect to the Command Module. Holes in the antennae are for locating optional small rod or stretched sprue (not included).

You will want to add some strip styrene or another method to strengthen the joint between the Command Module and the photoetched additions.

Note that the exact locations of these pieces are not set in stone.



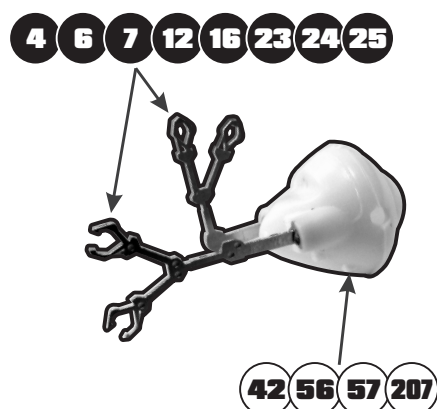
Part 4: EVA Taxi

EVA Taxi

Assemble the Command Module per the kit instructions in section 9, leaving off the manipulator arms (parts 110 & 111).

Manipulator Arms

Manipulator arms are provided in two different scales and two different poses. Attach whichever size and pose appeals most to you (6 and 23 shown). If using the stowed position (15, 23, 24, and 25) you can shorten the portion that connects to the EVA taxi.



Part 5: System Control

System Control Assembly

Assemble the System control according to kit instructions section 8 A EXCEPT do not attach chrome part 105. Since the etch part that replaces it is very fragile, it is suggested that you glue parts 36 that would hold it in place with the existing hole pointing toward the inside of the kit.

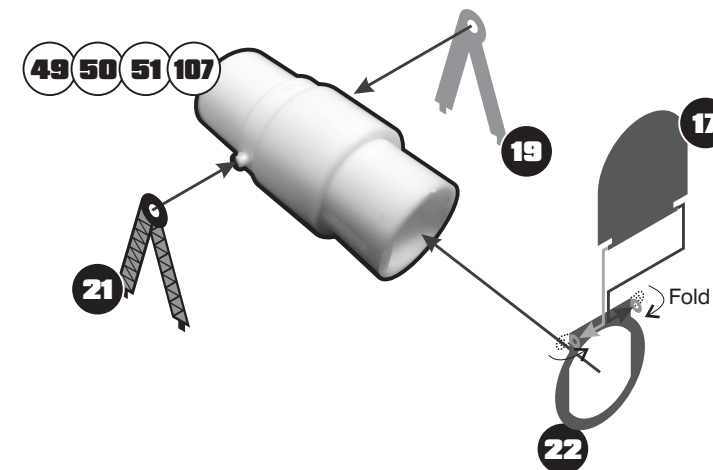
Telescope

Assemble the telescope (49, 50, 51, and 107) per kit instructions section 8B EXCEPT leave off the struts 52 and 53. Make sure that the keys on part 50 are aligned with the pins on part 49.

Replace the mounts with etch parts 19 and 20. You may have to open the holes in 19 and 20 with a round file, or thin down the pins on kit part 49. Due to the fragility of the photoetch, it is suggested that after you find a position that you like for the telescope you should glue it in that position rather than leave it moveable.

Assemble the telescope lens cover by folding the two wings on part 22 so that they capture the pins on part 17. This creates a working hinge so that you can open or close the telescope at will. Attach this assembly to the opening of the telescope.

Attach this assembly to the kit as shown in instructions section 8B.



Solar Panel

Slightly crease the solar panel (26) in alternating directions so that it resembles an accordion. Insert this into the mount (20) so that the slots on each piece intertwine before gluing them together.

Drill a 0.032" (0.8mm) hole in the kit parts 36 where it attaches and glue the solar panel assembly in place.

