

SPACE: 1999 ^{22"}EAGLE Photoetch Set



PGX199

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INTRODUCTION

Thank you for purchasing ParaGrafix's photoetch set for the 22" (1/48 scale) Eagle from Space: 1999.

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 PhotoFold from ParaGrafix.

To attach the PETG window "glass" provided with this set, we suggest Microscale's Micro Krystal Klear or Testor Clear Parts Adhesive and Window Maker.

The passenger pod landing gear gets "pinned" together using 0.03" (0.75mm) brass or plastic rod. The cockpit clamps need 1/8" (3 mm) plastic rod. These supplies are not included.

Two different versions of the straps that attach the "cages" to the "spine" are included. Type 1 (etch parts 19) have simulated nut and bolt heads. Type 2 (etch parts 16) have through holes and are intended to be used with #0 (0.06", 1.5mm diameter) machine nuts and bolts. These nuts and bolts are not included. Small machine screws are available in a variety of styles at www.MicroFasteners.com and other locations.

* We prefer a #17 Xacto chisel blade.

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

Installation Parts Order

The installation steps are not in any particular order. You can complete them as you see fit to complement your kit construction order.

Key

Kit part (plastic):



Photoetched part:



Cockpit Windows

Frames

Fold jigs (etch parts 3 and 4) as shown and tape to the inside corners of the windows of both the upper and lower cockpit (part E1). (Tape rather than glue so that you can remove them once the window frames are in place.)

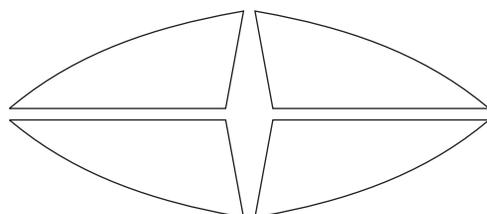
From the outside attach window frames 1 to the top half of the cockpit windows, using the jigs to help position the bottom corner.

TIP: Window frames 1 and 2 may fit slightly rough and ride proud along the top edge. You can file a bit off the lower, flat edge of the frames to help ensure a perfect fit. (When installed, you want to be able to see the curved edge of the window frame along the edge from the inside.)

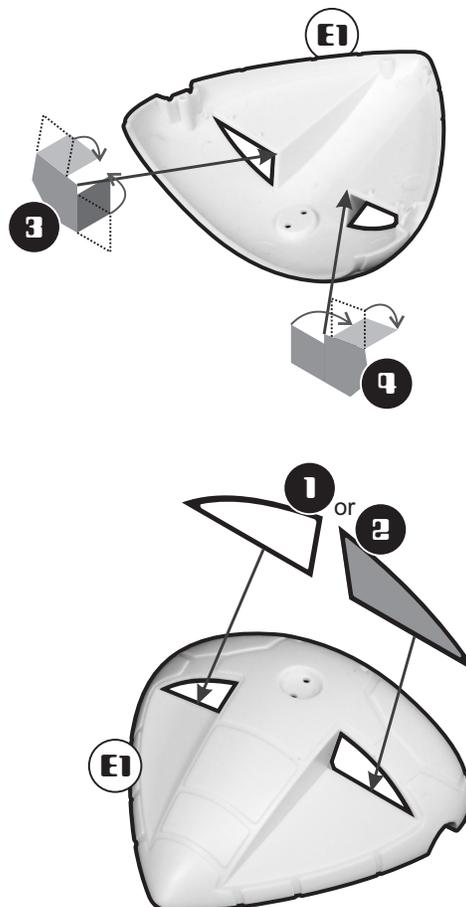
Repeat for the bottom windows – alternatively you can use etch part 2 if you would rather not have to insert "glass" and then paint from the back. If using parts 2, then you can permanently attach the jigs to add more strength to the joint.

Glass

Use the templates at the right to cut window glazing from the included PETG film. Insert the glass and secure in place using Micro Krystal Klear or Testors Clear Parts Adhesive and Window Maker.



Feel free to photocopy these templates.

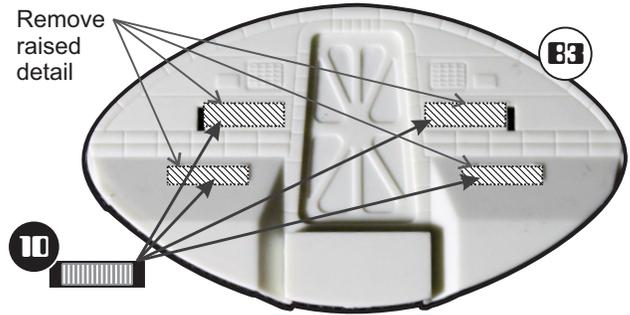


Air Vents

Remove the raised detail from the four air vents on the cockpit wall, B3, then replace with the photoetched vents, parts 10.

Optional - Open Door

A replacement door (etch part 12) is included for those builders who want to simulate a partially open door. Note that there is very little room behind the door to build the accessway.



Cockpit Clamps

Photoetched Brackets

Fold etch parts 24 and 25 and attach to kit part A2 in place of parts N7 and N8. Make sure that you properly align the etch parts so that the inner edges of the clamps are vertical.

Überdetailing / More Strength: for each bracket, drill a 1/16" hole through the kit plastic and secure the parts in place using a 1/16" diameter machine screw and nut.

Dragon's Domain

If you will be making your cockpit removable as seen in the episode "Dragon's Domain", do not glue the cockpit assembly to the hinges. Even if making custom hinges (per 2) below) it is best to use a strong rare-earth magnet as the main structural attachment.

1) Hinges - Reusing Kit Hinge Parts

Remove the brackets from kit parts N7 and N8, making sure that the parts fit within the etched brackets. Mount the hinges to kit part B9 normally, making sure that they are square to the cage.

Mount the cockpit assembly per the kit instructions paying particular attention to the brackets and hinges. A dollop of CA ("super") glue at the bracket holes can be used to simulate the hinge pins.

2) Hinges - Custom

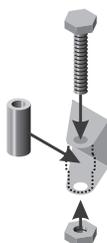
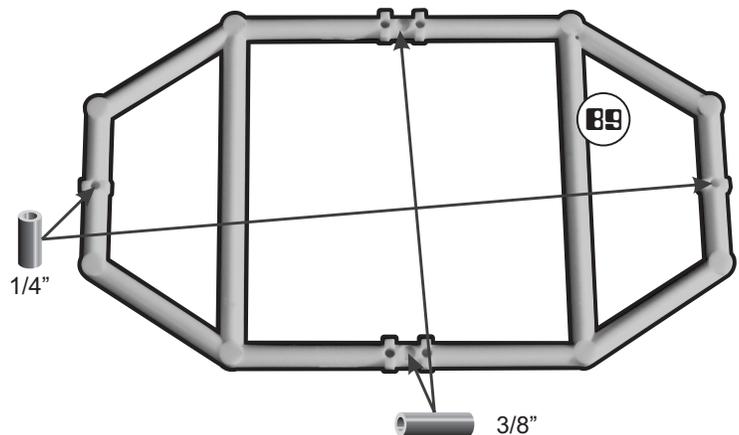
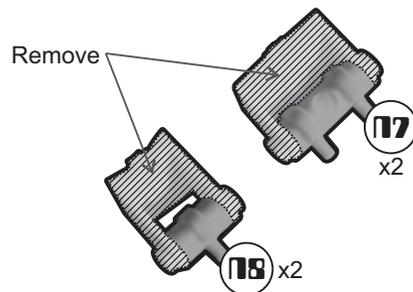
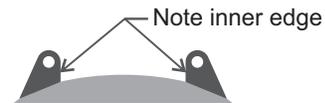
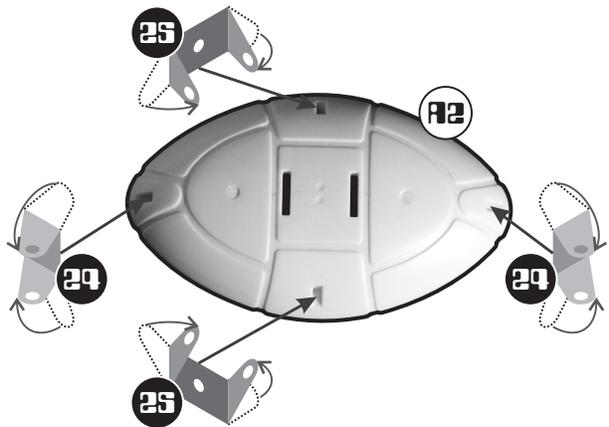
Cut two lengths each of 1/8" (3mm) styrene tube* to 1/4" (6mm) and 3/8" (9.5mm) and attach to the front cage, kit part B9. Add straps of 0.06" (1.5mm) styrene strip** around the existing kit straps.

Attach the cockpit assembly per the kit instructions, and slide a #0 (0.06") machine screw*** through each bracket / hinge and secure with a nut. If making the cockpit removable, do not use Loctite or other thread-locker.

* Plastruct number 9004 or equivalent

** Plastruct number 90713 or equivalent

*** Small machine screws are available in a variety of styles at www.MicroFasteners.com and other locations.



Access Gangway - Standard

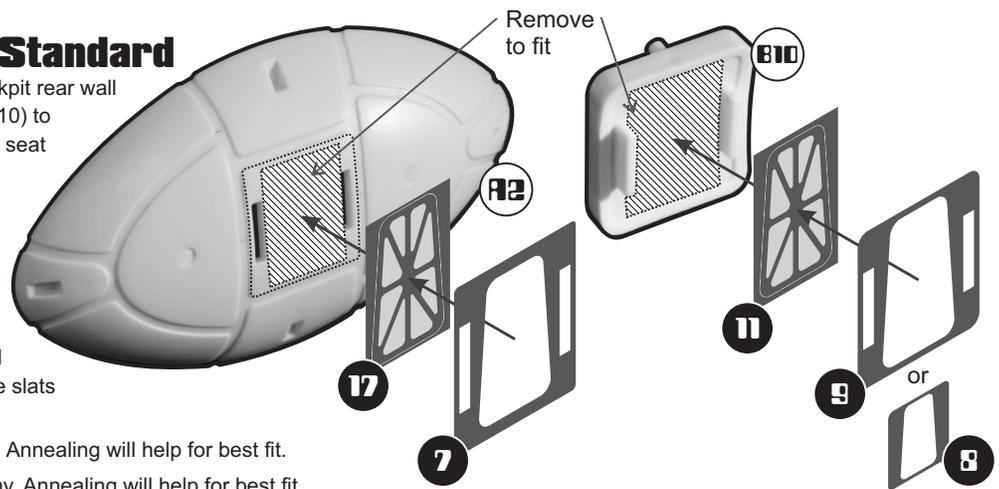
Remove a layer of material from the cockpit rear wall (kit part A2) and the access gangway (B10) to allow the doors (etch parts 11 and 17) to seat properly behind the door frames.

In addition, for the best fit, you might consider fully removing the raised area of kit part A2 where the door will fit.

NOTE: If making the cockpit removable, fill the holes in 17 (after attaching), remove the slats on B10, and use door frame 8 instead of 9, and fill the slats on 7.

Mount parts 7 and 17 to the cockpit wall. Annealing will help for best fit.

Attach parts 11 and 8 or 9 to the gangway. Annealing will help for best fit.

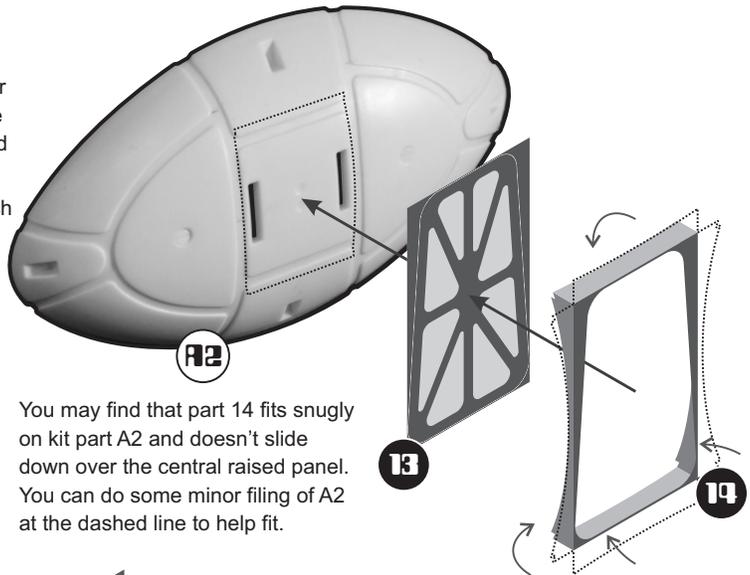


Access Gangway - Enlarged

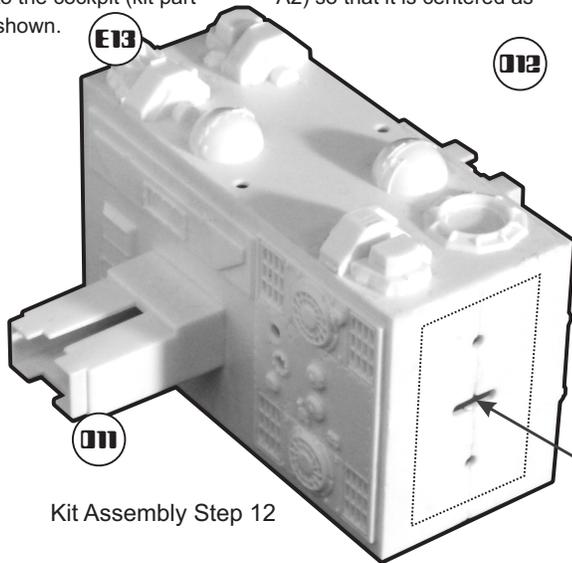
Cockpit End

NOTE: This gangway is not accurate. It is in scale with the door inside the cockpit, which is smaller than that doors between the cages and passenger pod, but much larger than the kit supplied (accurately sized to the filming miniature) gangway.

Fold etch part 14 and insert part 13 from the forward end. Attach to the cockpit (kit part A2) so that it is centered as shown.



You may find that part 14 fits snugly on kit part A2 and doesn't slide down over the central raised panel. You can do some minor filing of A2 at the dashed line to help fit.



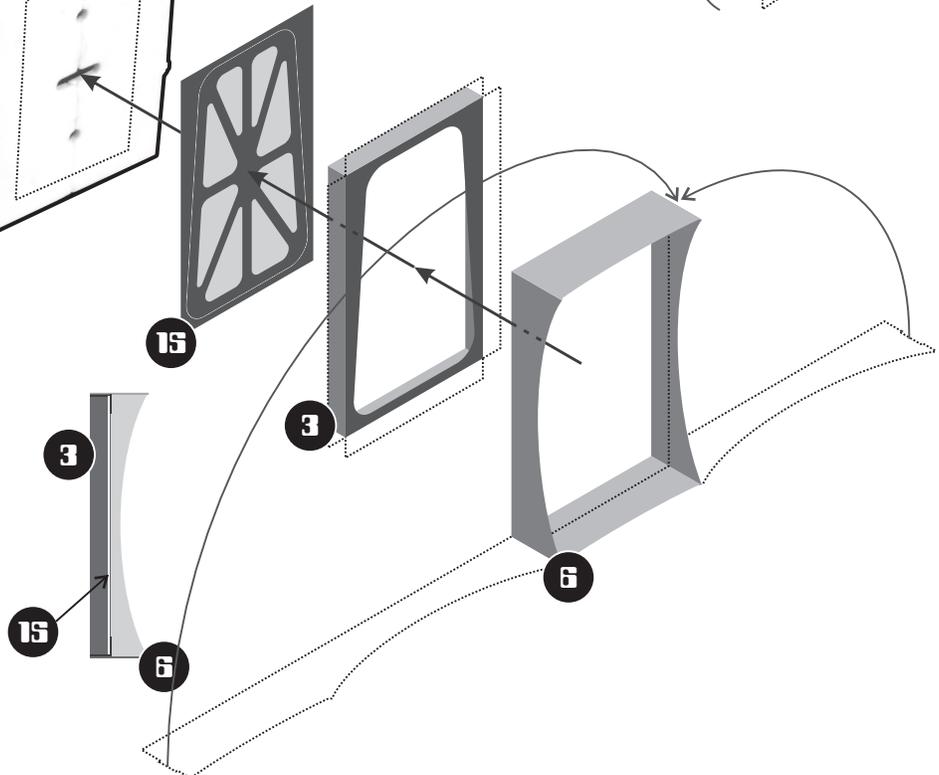
Kit Assembly Step 12

Cage End

Fold etch parts 3, 6, and 15, then assemble as shown – the back of part 15 is flush with the back of 6 and 15 sits within 3, flush to the front.

Mount this assembly to the front of cage section, centered.

TIP: Insert assembly into the cockpit end of gangway, then temporarily attach to the cockpit and gangways to the cage. Mark the location on the cage and then attach the gangway permanently. Note that there is considerable play between the parts, so fitting wouldn't be a problem.



Passenger Pod Landing Gear

Modify Kit Parts

Repeat four times

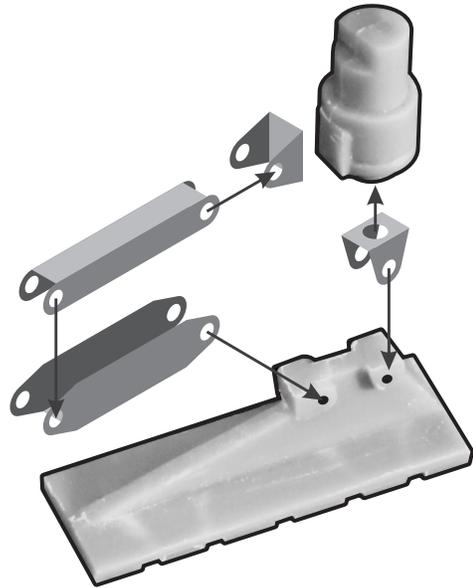
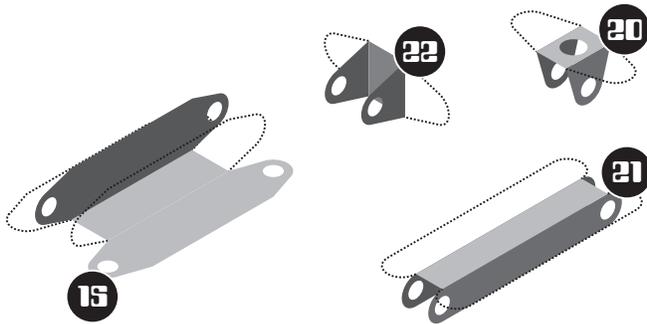
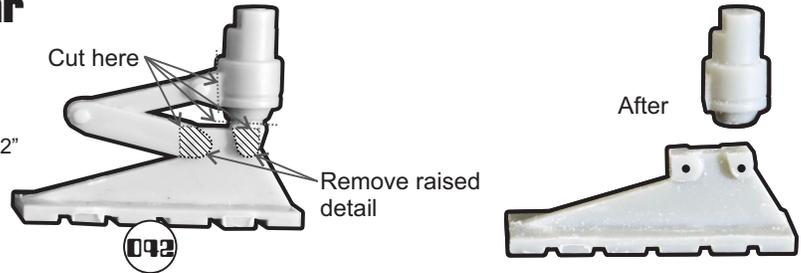
Cut kit parts D42 at the four locations shown.

Using the centers of the raised "pins" as a guide, drill 0.032" (0.8 mm) on the two pivot points remaining on the landing pad.

File off the remaining raised detail from the two sides of the pads. **TIP:** use some of the remaining raised detail to "shim" the pads so that the scissors fit tightly (but have sufficient clearance to move, if making the gear moveable).

Fold etch parts 15, 20, 21, and 22 as shown below.

Assemble gear per the diagram at the right. Pin the hinge points using 1/32" (0.8mm) rod or size 00 machine screw. If using plastic rod **carefully** mushroom the ends with a hot knife to secure them.



Spine Straps

NOTE: There are two types of straps: parts 16 are very accurate to the ones on the original studio model, but require more work (including adding screws and nuts), while parts 19 are easier to install, but more fragile.

IMPORTANT: Once installed, these straps will be subject to damage.

Type 19 Straps

Roll the straps over 1/8" (3 mm) diameter rod (or use part of the cage assembly) to form them. You want both legs of the "U" shape to be of equal height. (For extra-accuracy, form them to the same squared-off "U" shape that parts 19 have.)

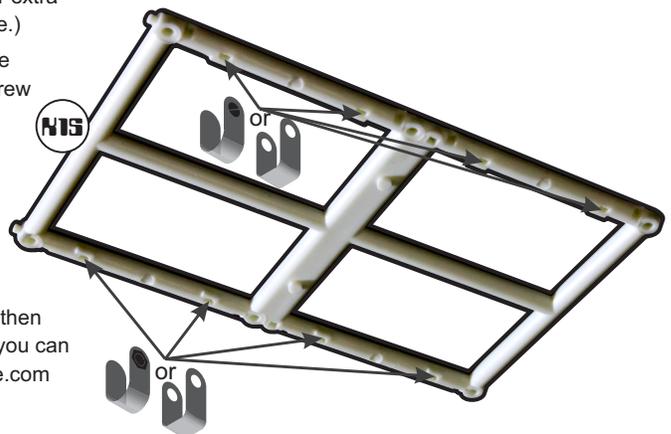
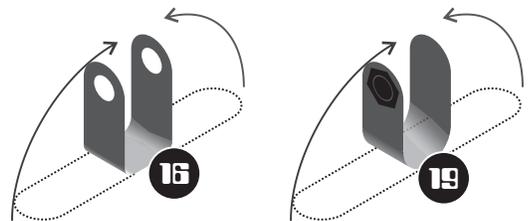
Remove raised are for attaching the kit straps from part K15, then glue the straps in place making sure that they are vertical. Note that the slotted screw shape goes on the outside while the nut goes on the inside.

Type 16 Straps

Fold the sides of the straps to form the "U" shape as shown at right. The fold lines are setup to help provide the proper squared-off shape.

Attach the straps to kit part K15. You may need to trim the connector points for the kit straps.

Use the straps to mark hole locations on the spine (kit steps 6 through 8) then carefully drill to accept a #0 (0.06", 1.5 mm) screw and nut. Alternatively, you can add just the heads and nuts, such as those available from www.grandtline.com



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Thank you to Peter Greenwood for his encouragement and reference help. Many thanks to Brian Johnson and the people he asked to provide reference photos of the original hero miniature as well as studio scale duplicates. This set would not be available were it not for their generosity.