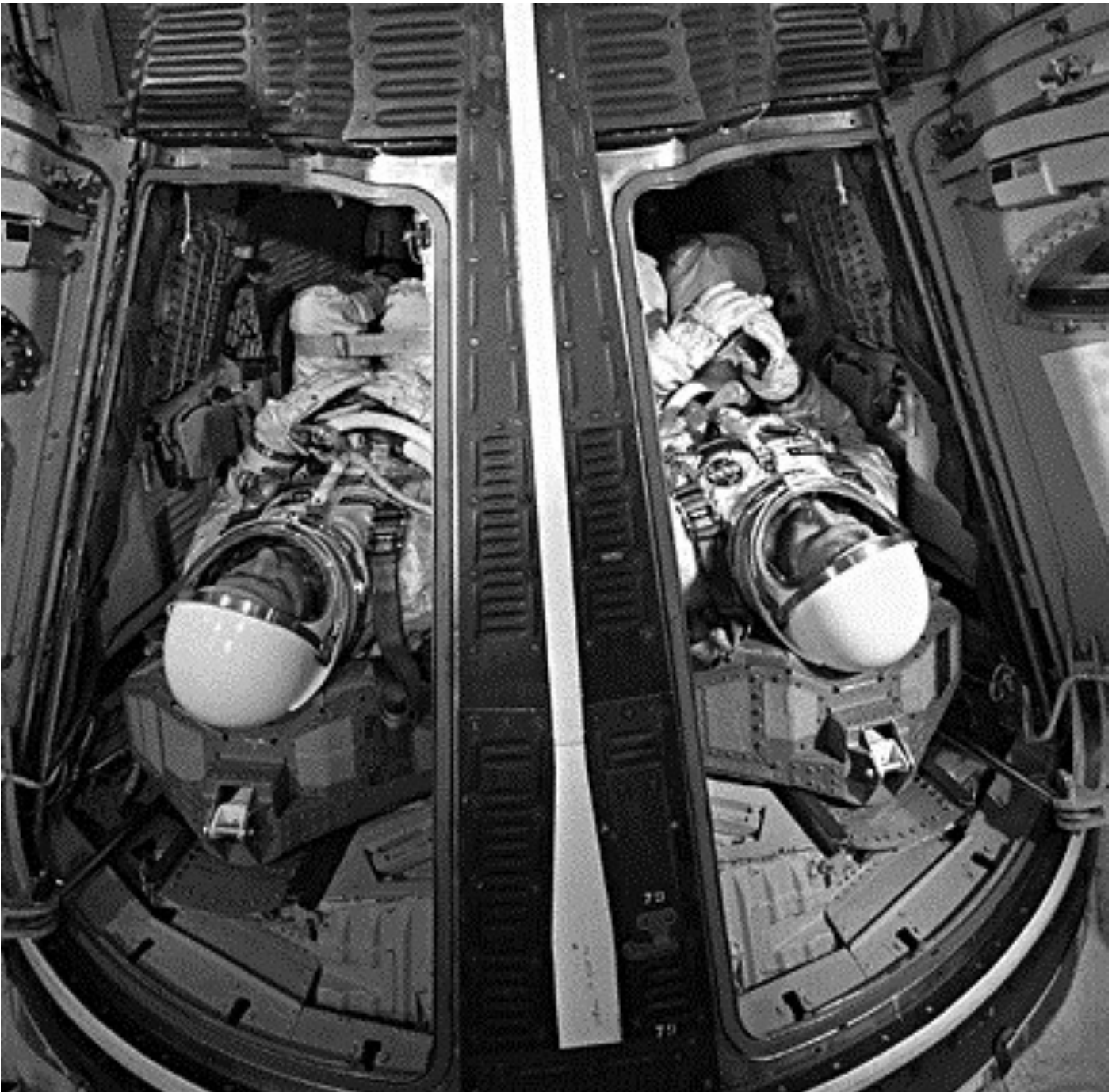


LVM Studios

GEMINI INTERIOR DETAIL KIT

for the REVELL Gemini Space Capsule 1/24 (00028/1835)



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Parts:

- 1 PE fret GEMI24-A-1A
- 1 PE fret GEMI24-B-2A
- 1 bag with resin parts
- 1 bag with 1 clear plate, plastic parts and 0.3 mm wire
- 1 CD-rom with assembly manual and reference photos

Tools:

- CA glue
- Plastic model cement
- PVA glue
- Hobby knife
- Side-cutting pliers
- Ruler and/or vernier caliper
- PE pliers or PE bend tool
- File and/or sandpaper
- Masking tape
- Tooth picks to apply CA glue
- Drill bit 0.3 mm
- Drill bit 0.5 mm
- Drill bit 0.8 mm

Assembly Guide: - - - -

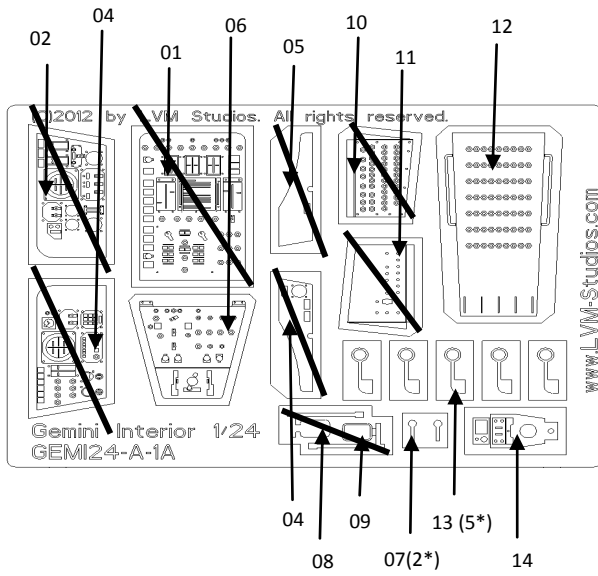
Bend line:

Part description: PEXYY, PE= photo etch, X = fret, YY = part number

All dimensions in this manual are in millimeters

Parts identification:

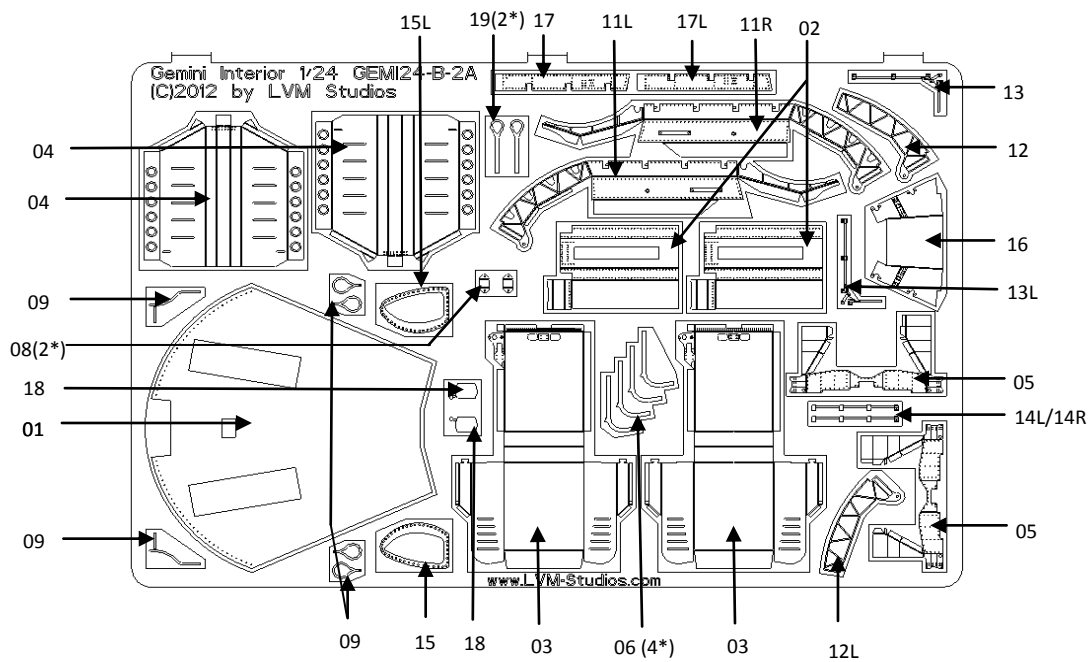
Fret A:



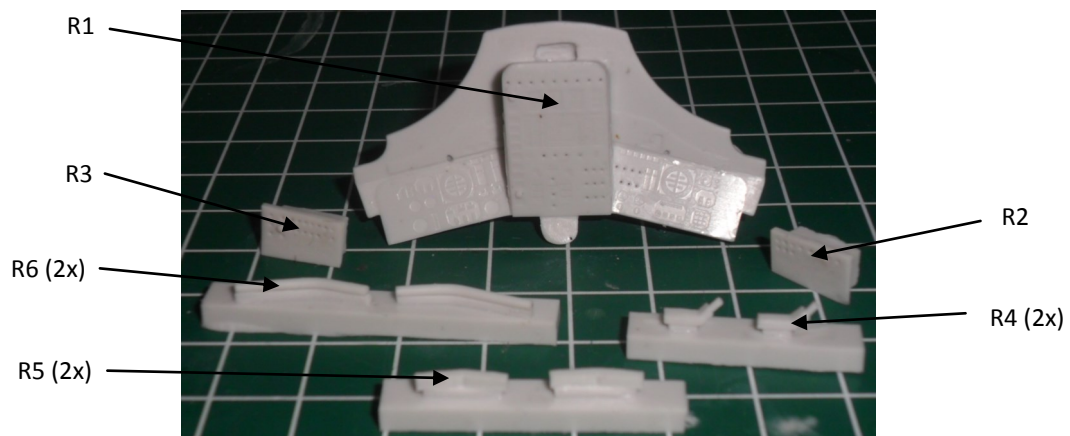
REMARK:

In the 2014 version of this kit PE parts 01, 02, 03, 04, 05, 08, 09, 10 and 11 are used in resin part R1, R2 and R3. The mentioned PE parts are not used anymore!

Fret B:



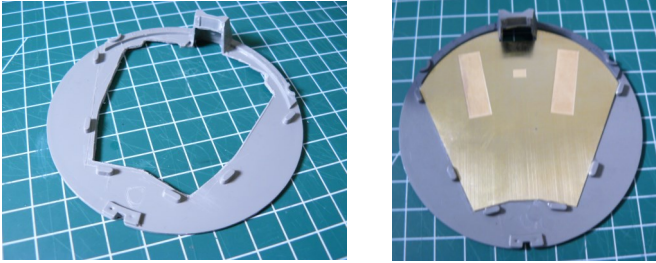
Resin:



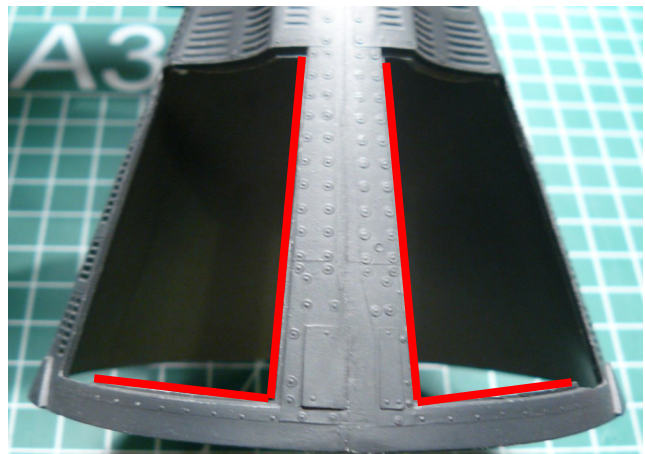
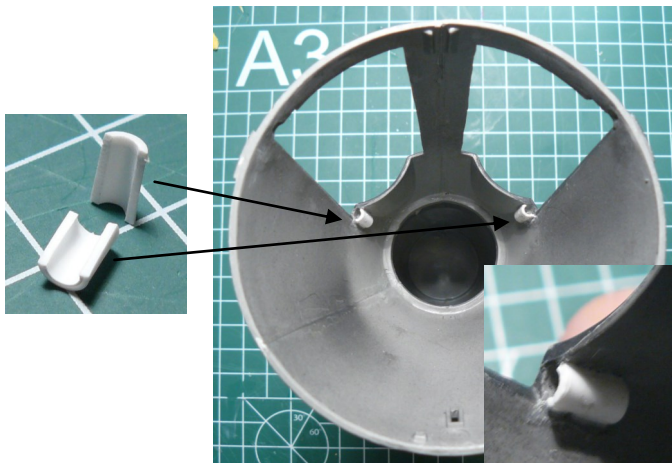
Assembly instructions

1. Capsule rework

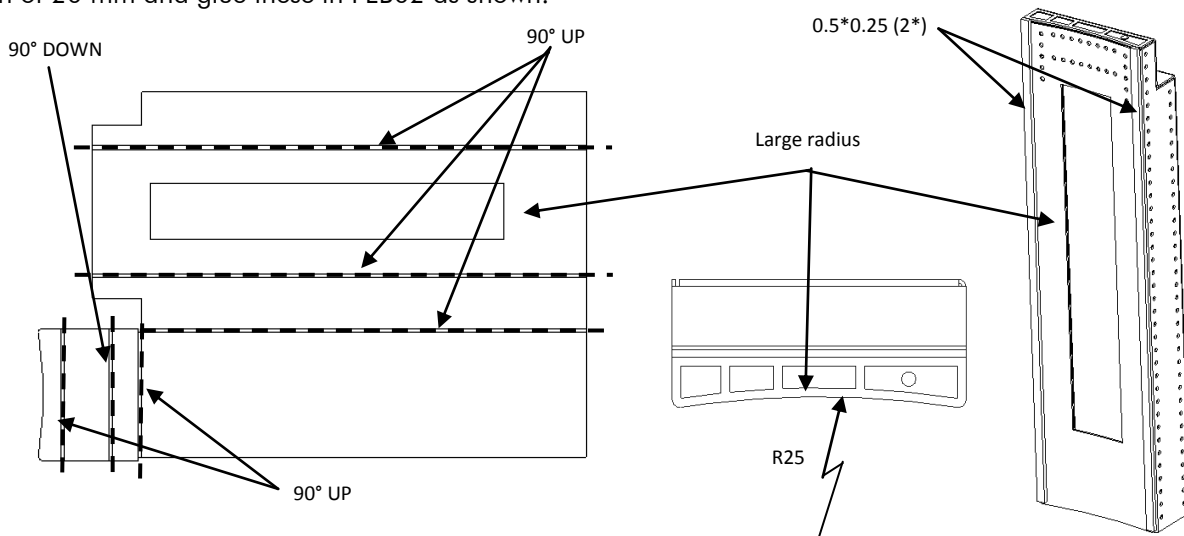
Remove the original ejection seats of kit part 6 as shown and install PEB01.



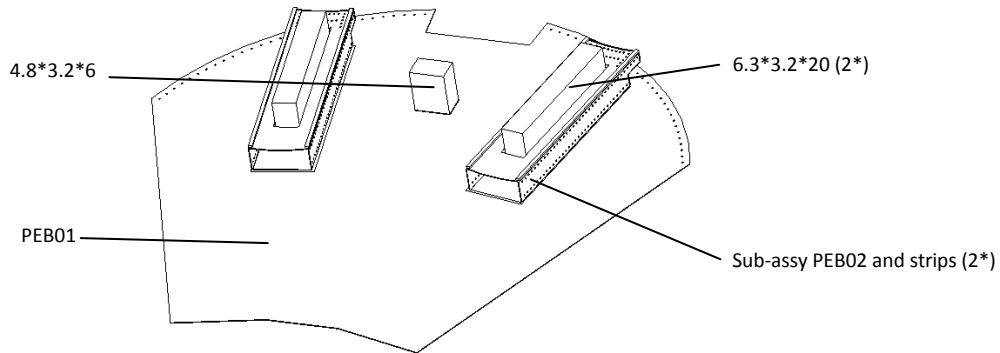
Glue kit parts 12, 13 & 14 together, once dried please use pipe $\text{Ø}4$ with a length of 5 mm and cut it in half over the length. Glue the halve pipes as shown with plastic cement. Make sure the halve pipes are proper aligned, you can verify this to install the 2 hatches (kit parts 19 & 20) and see if the open and close without any problems. Remove on both openings for the hatches 0.5 mm from the side and back recessed edges (indicated in red at the photo).



Bend PEB02 (2*). For bending the large radius use a round object like a straight pipe or pen. Glue PEB02 (2*) on PEB01 as indicated. Cut 4* strip 0.25*0.5, length 30 mm and glue these at the locations indicated. Cut 2 strip 6.3*3.2 at the length of 20 mm and glue these in PEB02 as shown.

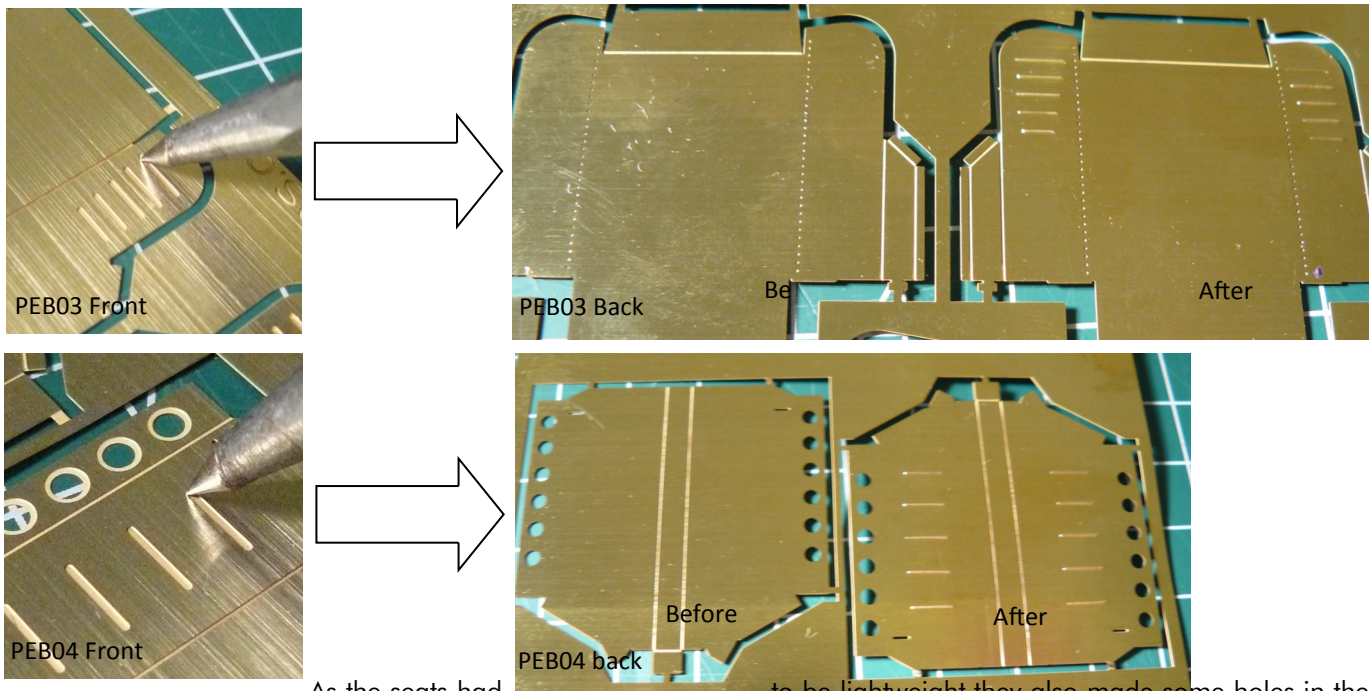


Cut a piece of 4.8*3.2 strip, length 6mm and glue at PEB01.

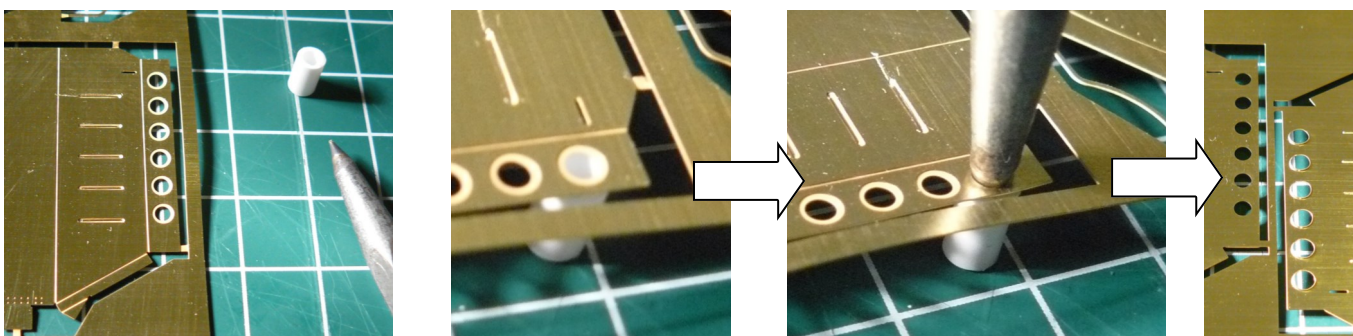


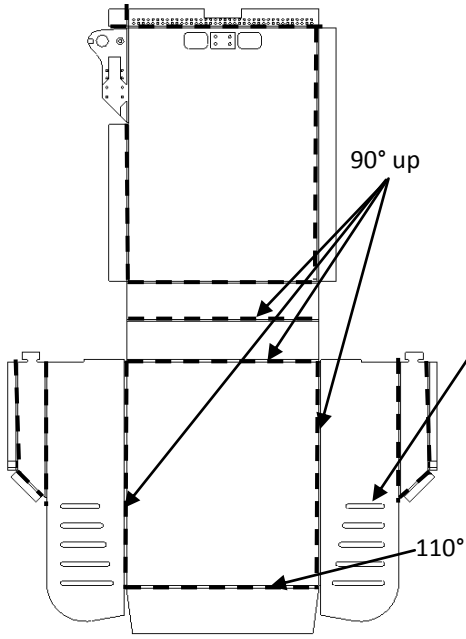
2. Ejection seats

Before removing PEB03 (2*) and PEB04 (2*) from the fret form some ribbing. Use a ball point pen to form the ribbing on the side with the half etched lines and use your cutting mat which will given way to the metal as it is formed.

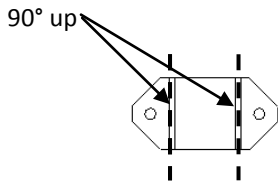


As the seats had to be lightweight they also made some holes in the construction like in PEB04. These holes were than reinforced with a flange. Use plastic pipe Ø4 (5 mm long) and a ball point pen to form these flanges at the holes with a half etched ring around them in part PEB04. Do not use to much force, just gentle!!!

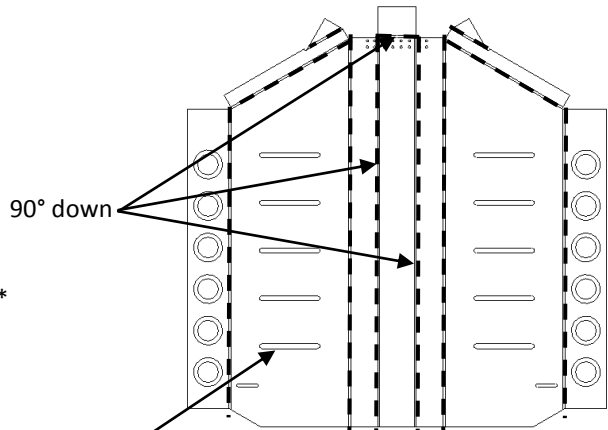




PEB03 (2*) All bends 90° down unless otherwise stated



PEB08 (2*)

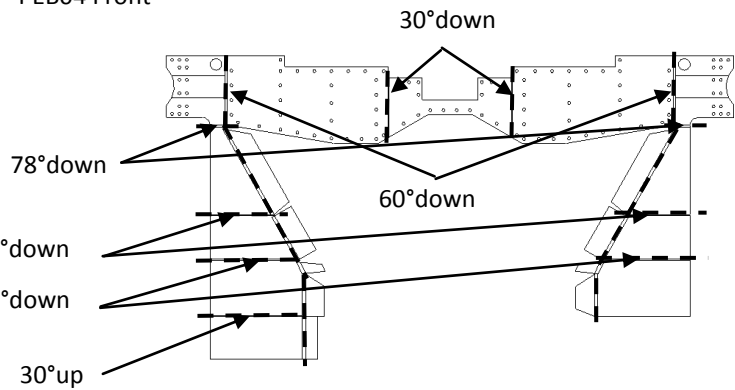


Form 10*

Form 10*

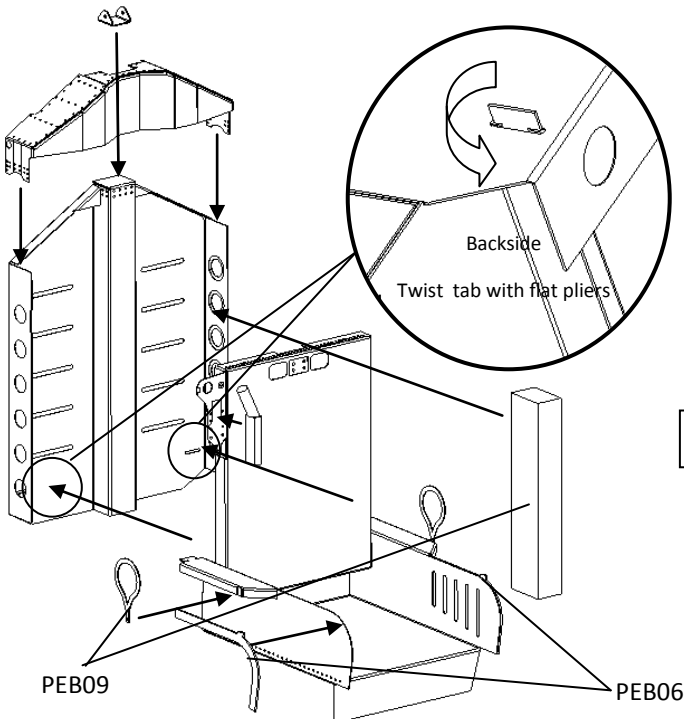
PEB04 (2*) All bends 90° up unless otherwise stated

PEB04 Front



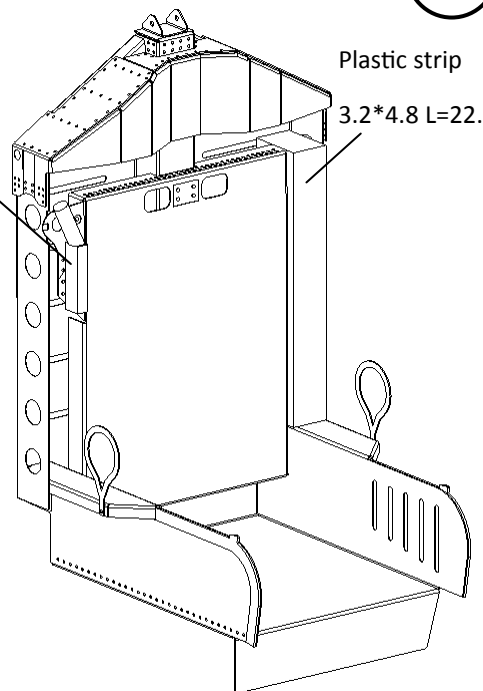
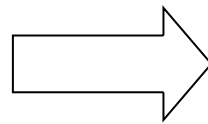
PEB05 (2*) All bends 90° down unless otherwise stated

2X

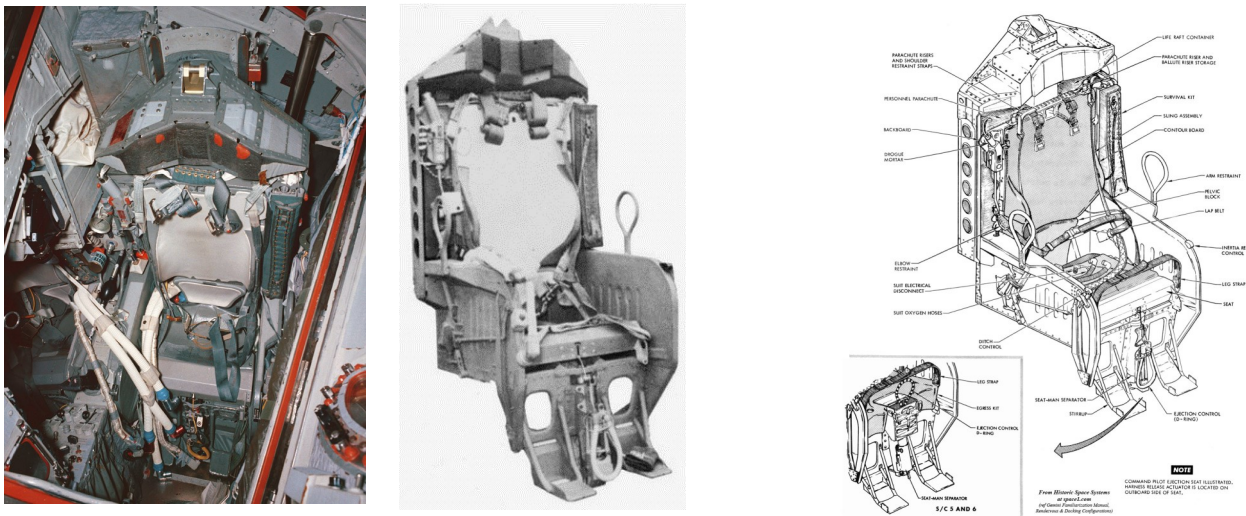


R4

Plastic strip
3.2*4.8 L=22.5



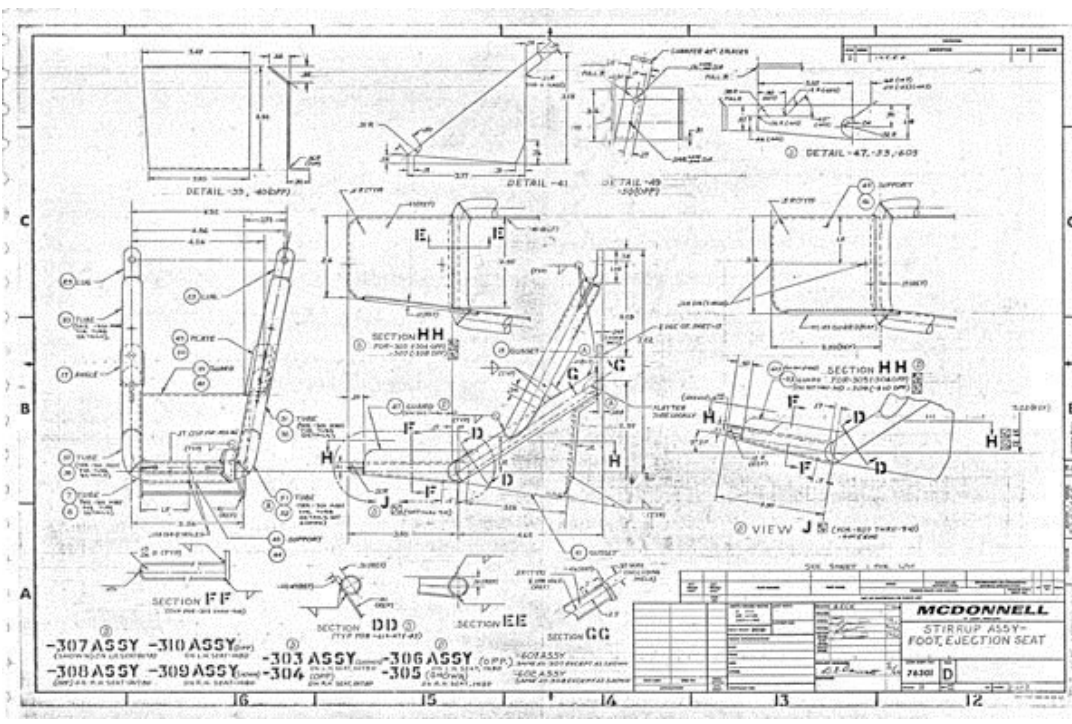
On photos of the original ejection seats you will find patches on velcro on top of the headrest. Also you will find that the head rest had some padding for the comfort of the astronauts. These items you can represent by applying masking tape on those places and when finishing give it the correct color. Below you will find some pictures of the original seats.



The ejection seats in this detail kit were designed to go with the 2 astronaut figures which came with the original kit. If you want to leave out the figures or want to build an EVA diorama than you may want to add some extra detail to the ejection seats.

Cushions: For the comfort of the astronauts the seat had cushioning. On the photos above you will see on which locations, you can use Milliput to form the cushions.

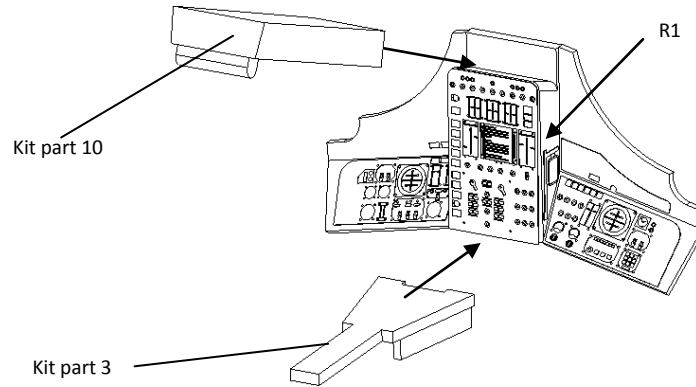
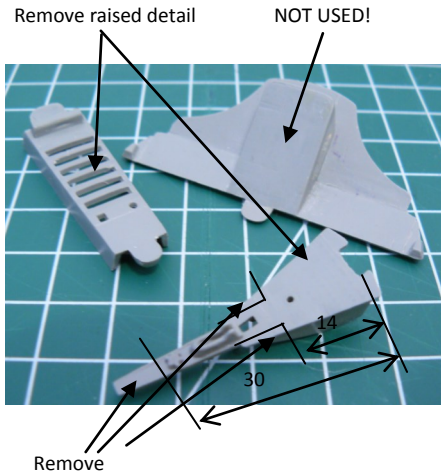
Foot rests: The original seat also had foot rests as seen on the photos above. With styrene strip like Evergreen you can scratch build the foot rests. An original engineering drawing of the foot rest is shown below.



3. Instrument and breaker/switch panels

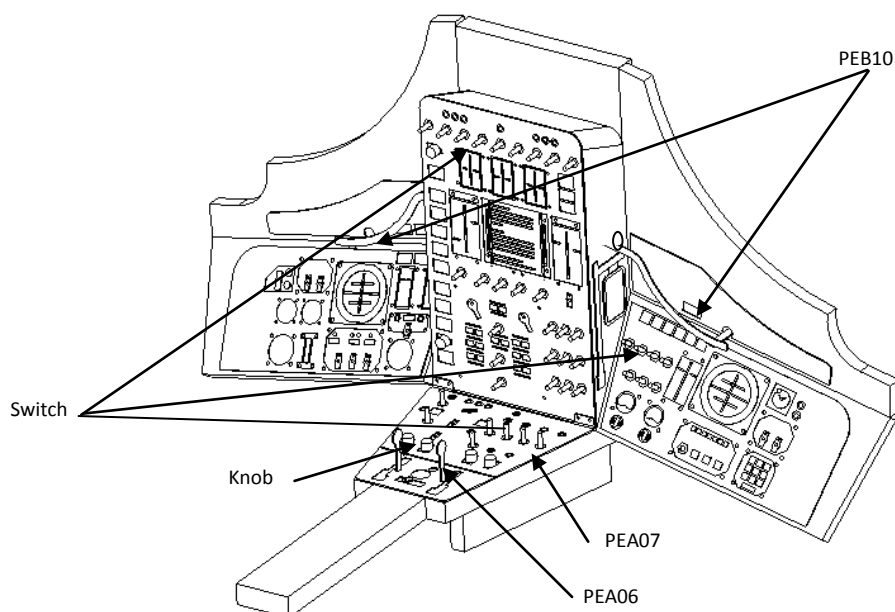
Instrument panel:

Rework kit part 11, remove both sides of the instrument panel. Remove also all raised detail on the console in the middle of kit part 11 and remove raised details from kit parts 3 and 10. Remove also the indicated areas from kit part 3. Cut with the separately supplied template the left and right instrument panel out of the supplied 1.5mm polystyrene plate. Follow instructions that come with the template. Glue the new left and right instrument panels to the reworked kit part 11 and reinforce with 2* 30 mm plastic strip 2*2 mm on the backside. Place kit part 7. Kit part 8 and 9 are not used.



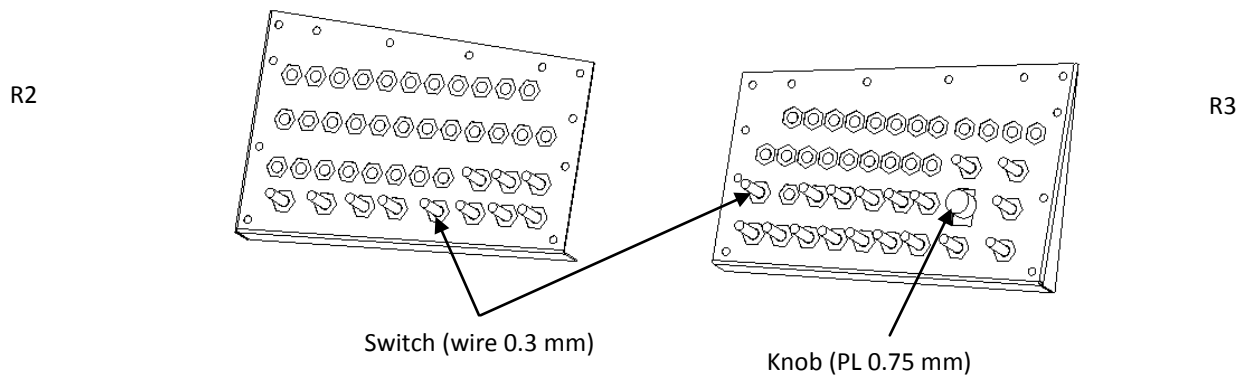
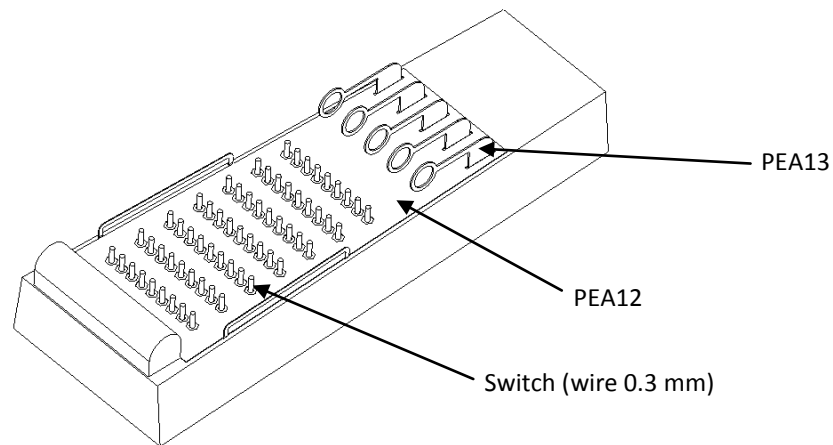
Add details according to the instructions below:

- For switches please use 0.3 wire, pre-drill with drill bit 0.3mm. Resin part already pre-drilled. Cut off at about 1 mm.
- For knobs use 0.75mm plastic rod, pre-drill with drill bit 0.8mm. Cut off at about 1 mm.
- For PEB10, use drill bit 0.5mm to drill the holes and glue in position.
- PEA07, glue in position. Pre-drill if needed before PEA06 is placed.



Breaker/switch panel left/right:

For ease of mounting the switches in the breaker panels glue a scrap piece of plastic to the back.

**Overhead panel:****Note:**

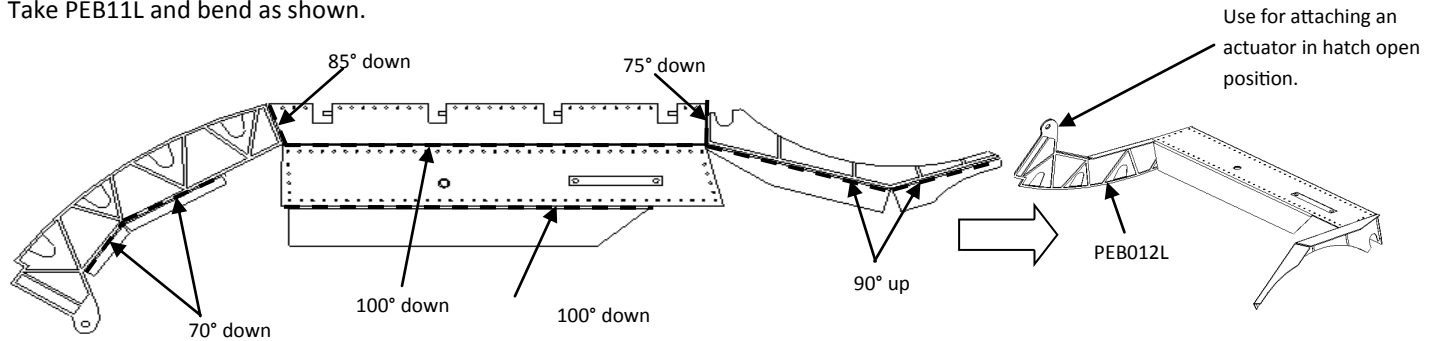
It is easier to pre-drill all holes, than paint and detail the instrument panels and finally place the switches, etc.. The resin parts are already pre-drilled!

4. Hatches:

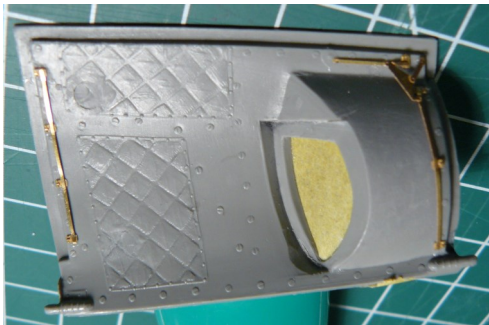
Inner structure:

For the hatches you need kit parts 5A (right) and 5B (left). The instructions below will describe the work for the left hatch, repeat the same for the right hatch but in mirror.

Take PEB11L and bend as shown.

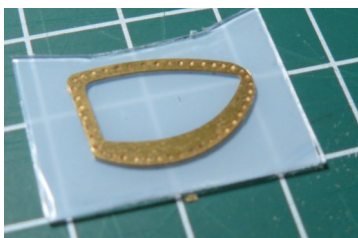


Glue PEB13L and PEB14L in position as shown in the photo below. Then glue PE11L. Make sure the latches on the backside of the hatch match up with the holes in PE11L.

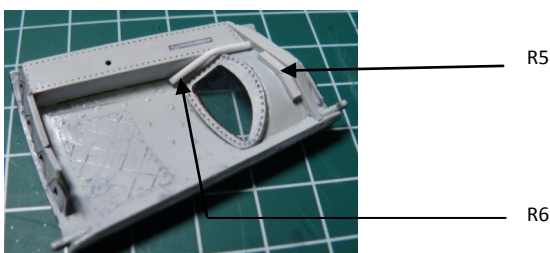


Windows:

PEB15L and PEB15R are the window frames. Use the PE parts as template to cut the windows out of the supplied clear plastic plate. Glue the frames to the windows and glue the sub-assembly in the hatch. For clear parts use PVA glue!

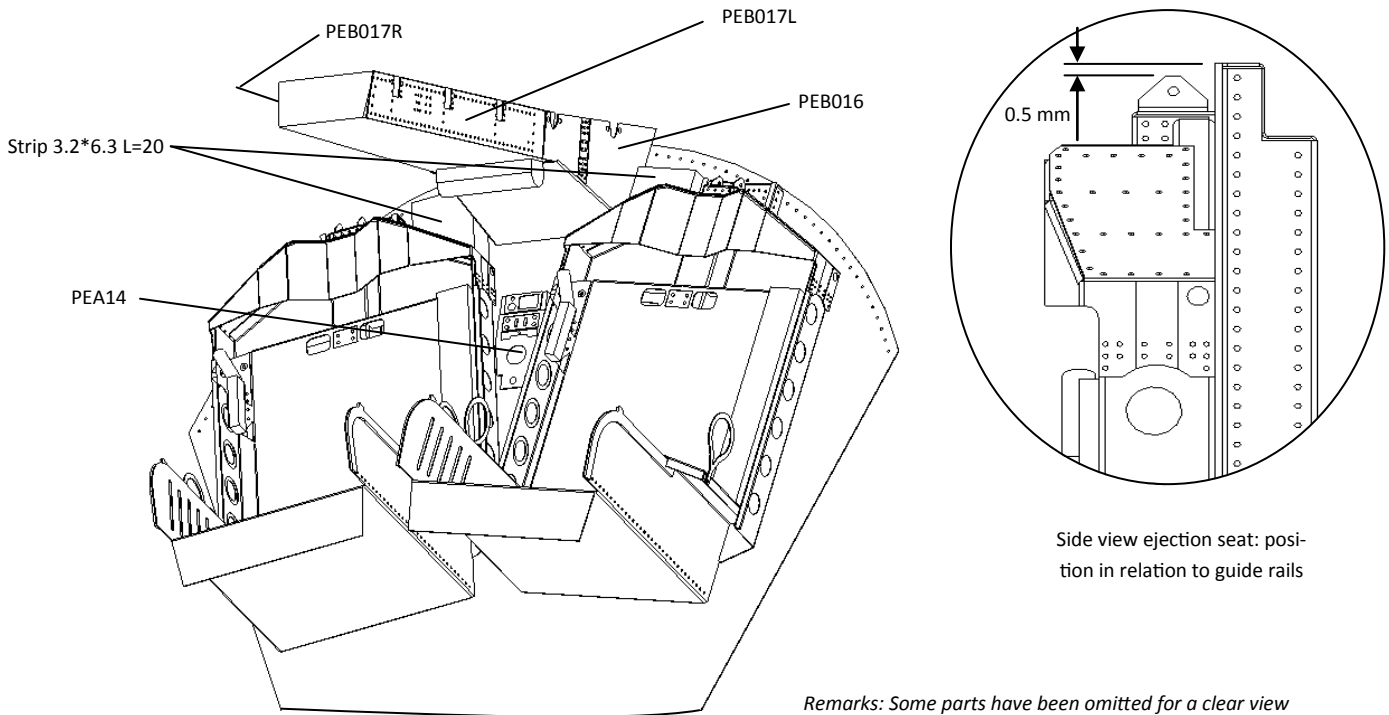


Apply the following plastic parts to the hatch for extra detail.



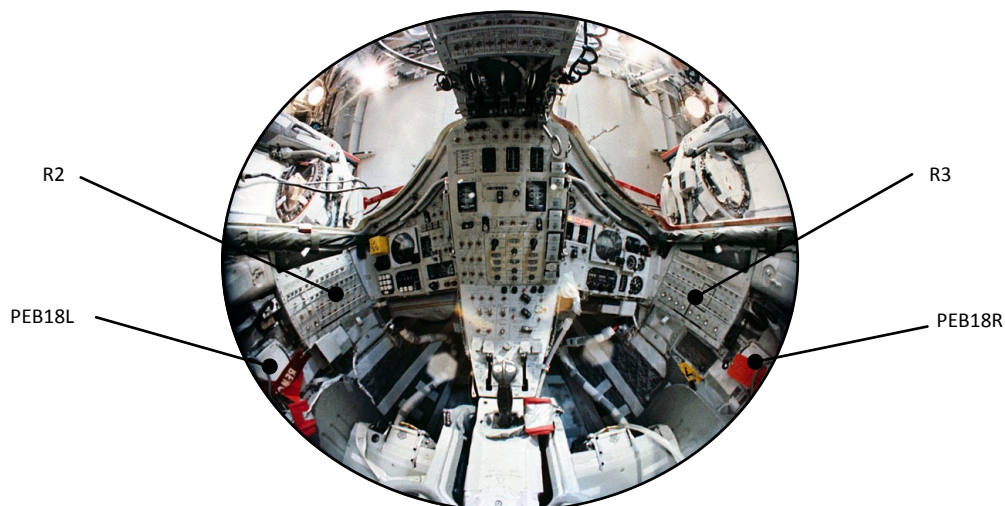
5. Finishing the interior:

Place the subassembly of the instrument panel made in step 3. Glue PEB16 and PE17L and PEB17R to cover the overhead console. Glue PEA14 as shown on the 3.2*4.8 strip assembled in step 1. Use 2 strip 3.2*6.3 L=20 as the left and right storage containers Glue kit part 7. Place the ejection seats, see detail for position. Cut the feet of the astronauts as there is too little room in the capsule and place them in their seats.



Add details to kit part 4. Please note to take care when placing kit part 4, the cabin crew will be very crowded and you need to take care that the ejection seats do not get damaged.

See photo for location of the breaker/switch panels left/right and the position of PEB18L and PEB18R. Each mission in the Gemini project had different pouches and storage options due to the different experiments each time. You can use milliput to create the features to super detail your model according to a certain mission. Also the capsule was padded with a cloth blanket with a square pattern, you can use milliput or even embossed paper to replicate this feature. More reference photos are supplied on the CD-rom with this kit.

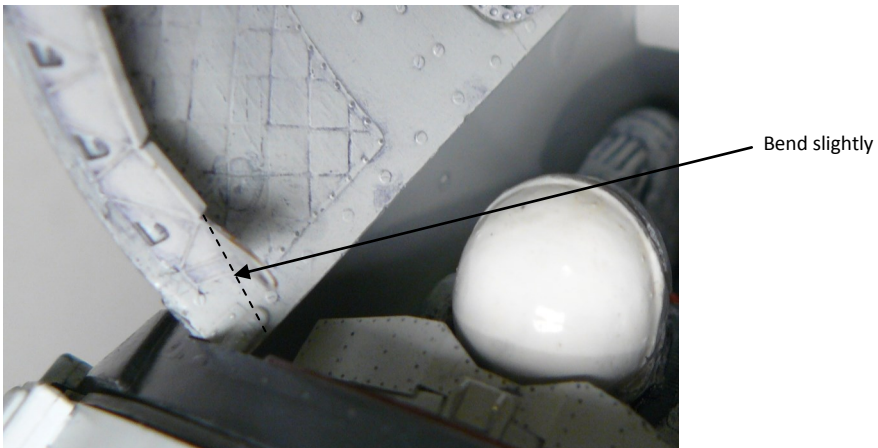


Finally assemble the complete re-entry module. This can be tricky, below you will find some notes about this.

Notes on final assembly of the re-entry module:

Dry fit everything and check if everything matches up. It is known that the original kit has a pouring fitting.

Check if the hatches open and close. If the hatches are blocked somehow you can bend the actuator arm until the blockage is resolved.



Painting:

We recommend to use an airbrush for painting. All instrument panels, stowage containers, ejection seats are a pale grey . Switches are silver. Instruments black face plates with white details. For small parts/details use a tooth pick to paint them. With a dark wash you can enhance details of the parts. For clear parts we suggest to coat them with Future Polish (P+) before glueing. Please check the reference photos supplied on the CD-rom for color details.

Recommended upgrades:

- Gemini detail kit 1/24 - Realspace models - Very nice detail kit for the exterior of the Gemini capsule.
- Gemini decal kit 1/24 - Space Model System - Very detailed decals sets for the Gemini Capsule

References:

- SIM #2: Gemini by Michael J. Mackowski
- Space Modellers Group at Yahoo.com - <http://groups.yahoo.com/group/space-modelers/>
- The Gemini Chronicles - <http://gemini.eklapper.com/>
- Project Gemini—Spacecraft Films

Support:

If you need help or have questions for this kit you can always e-mail us at enquiries@LVM-Studios.com.

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