

Apollo Service Module

Apollo 7 to Apollo 17
ASTP and Skylab

Cutaway model

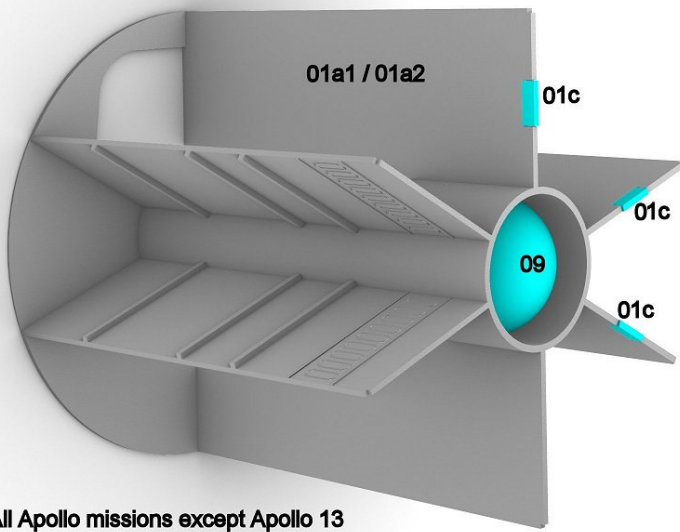
For further information on building this model check

[http://spacemodels.nuxit.net/1-32%20complete%20CSM/index.html#The cutaway version](http://spacemodels.nuxit.net/1-32%20complete%20CSM/index.html#The%20cutaway%20version)

<http://spacemodels.nuxit.net/1-32%20CM/index.htm>

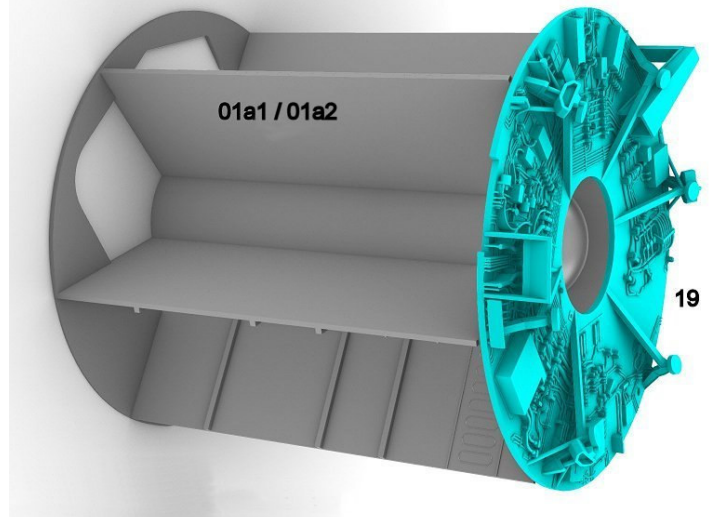
Decals available here

https://www.cultvmanshop.com/Apollo-CSM-132-scale-decals-from-Space-Model-Systems_p_884.html

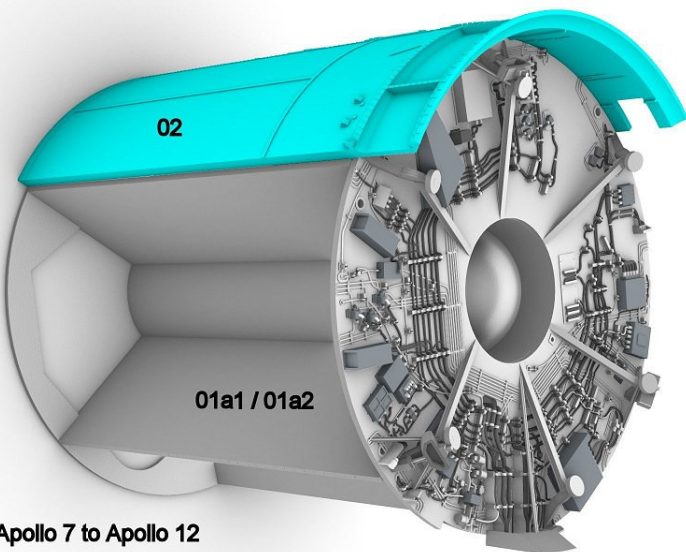


All Apollo missions except Apollo 13

Helium tank. A special stand has been designed for this model, if you want to use it you need part 01a2, in the other case it is part 01a1.

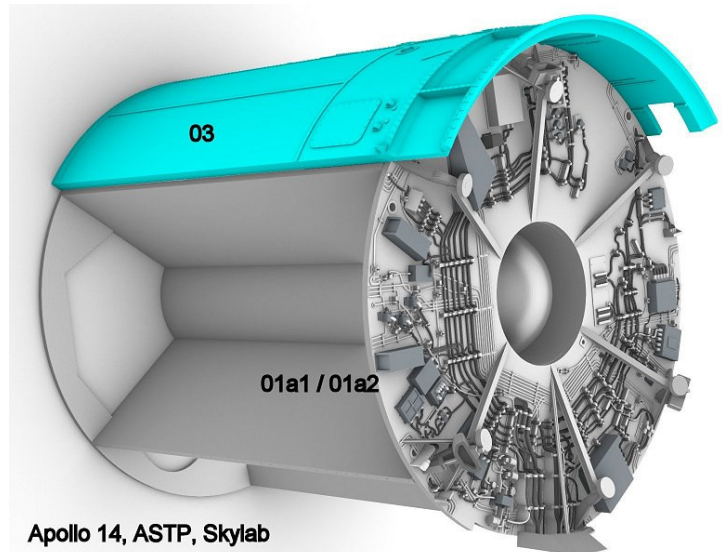


SM - CM interface. A special stand has been designed for this model, if you want to use it you need part 01a2, in the other case it is part 01a1.



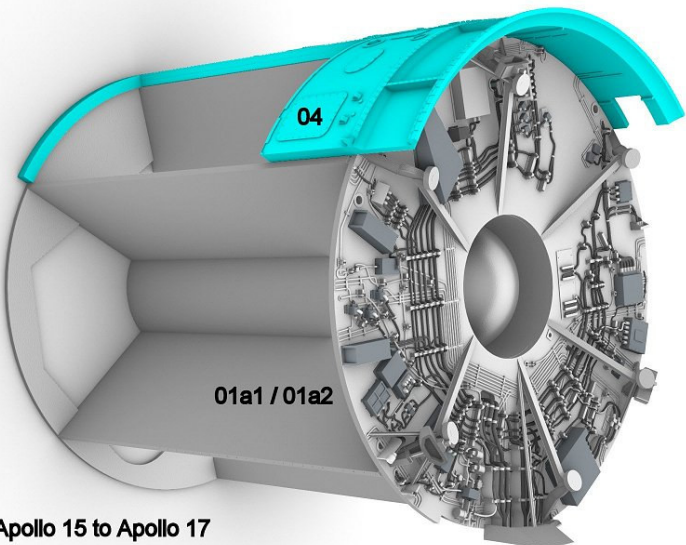
Apollo 7 to Apollo 12

Part 01a1 or 01a2 are for all missions except Apollo 13, Part 02 is for missions from Apollo 7 to Apollo 13. A special stand has been designed for this model, if you want to use it you need part 01a2, in the other case it is part 01a1.



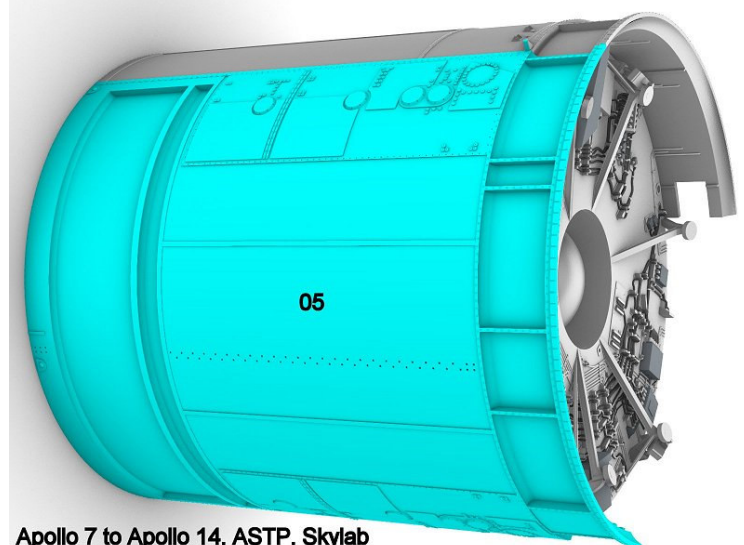
Apollo 14, ASTP, Skylab

Part 01a1 or 01a2 are for all missions except Apollo 13, Part 03 is for Apollo 14, ASTP and Skylab. A special stand has been designed for this model, if you want to use it you need part 01a2, in the other case it is part 01a1.



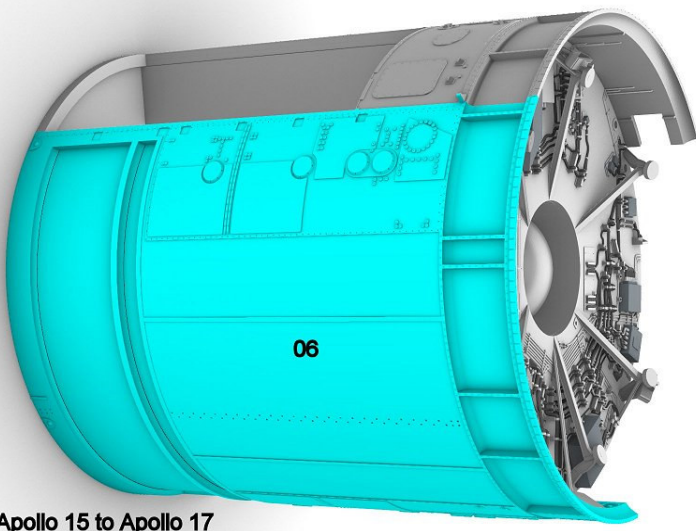
Apollo 15 to Apollo 17

Part 01a1 or 01a2 are for all missions except Apollo 13, Part 04 is for Apollo 15 to Apollo 17. A special stand has been designed for this model, if you want to use it you need part 01a2, in the other case it is part 01a1.



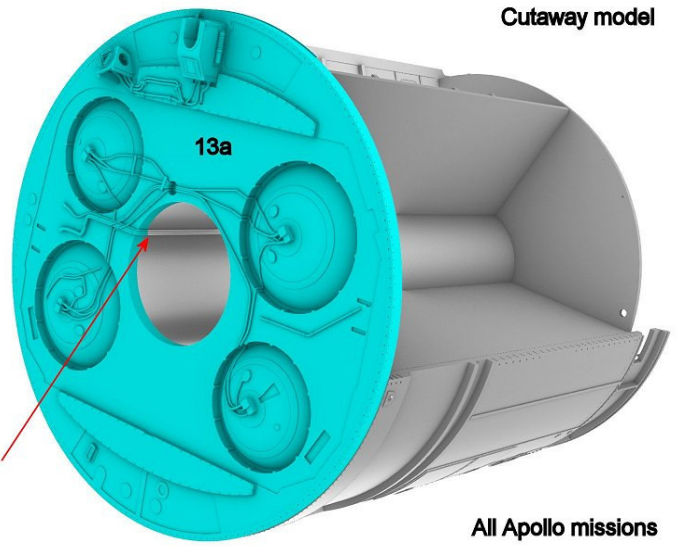
Apollo 7 to Apollo 14, ASTP, Skylab

Part 05 is for Apollo 7 to Apollo 14, ATSP and Skylab missions.



Apollo 15 to Apollo 17

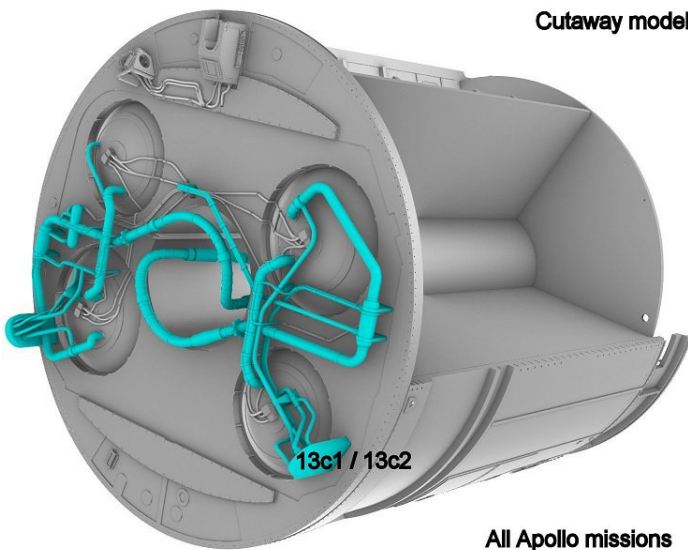
Part 06 is for Apollo 15 to Apollo 17.



All Apollo missions

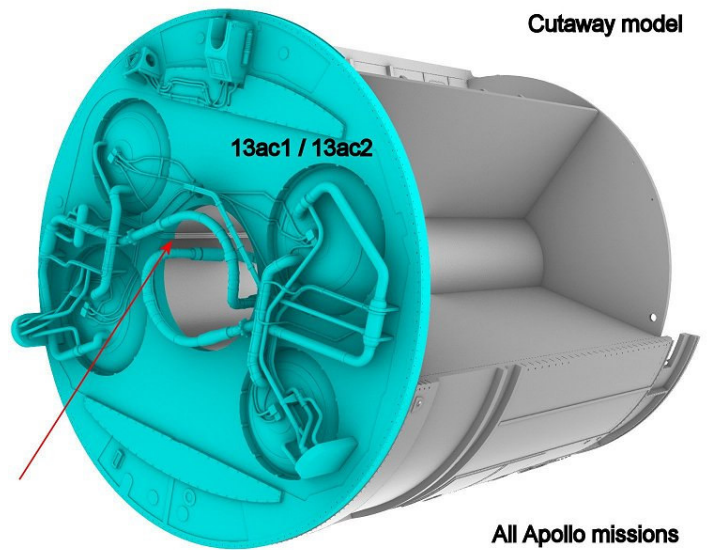
Make sure the plumbings on part 13a match those of the central part of the service module central core (see red arrow).

Cutaway model



All Apollo missions

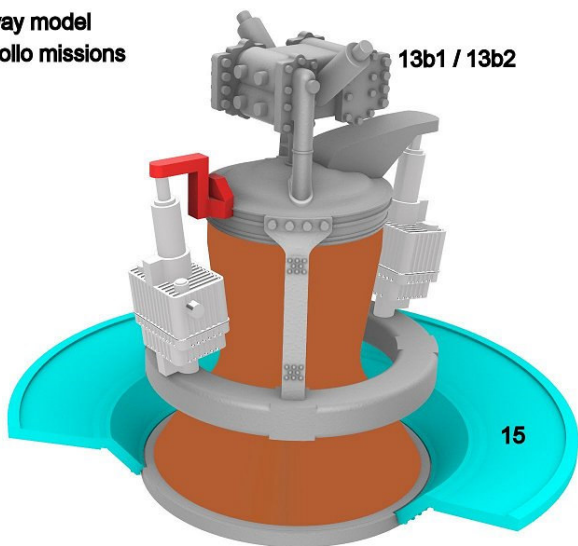
Cutaway model



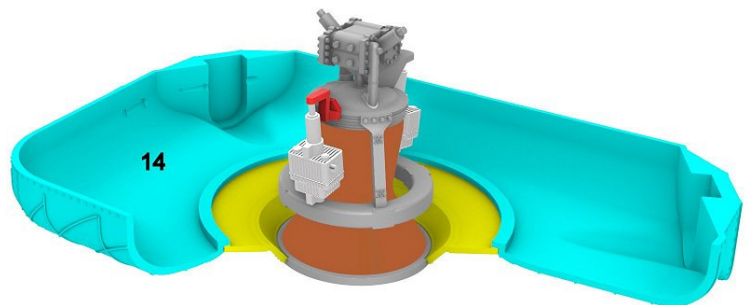
All Apollo missions

Parts 13a1 or 13a2 and 13c1 or 13c2 can be replaced by part 13ac1 or 13ac2 if you are confident with your printer. Again make sure the plumbings match those of the service module central core. A special stand has been designed for this model, if you want to use it you need parts 13a2 and 13c2 or 13ac2, in the other case it is parts 13a1 and 13c1 or 13ac1.

Cutaway model
All Apollo missions

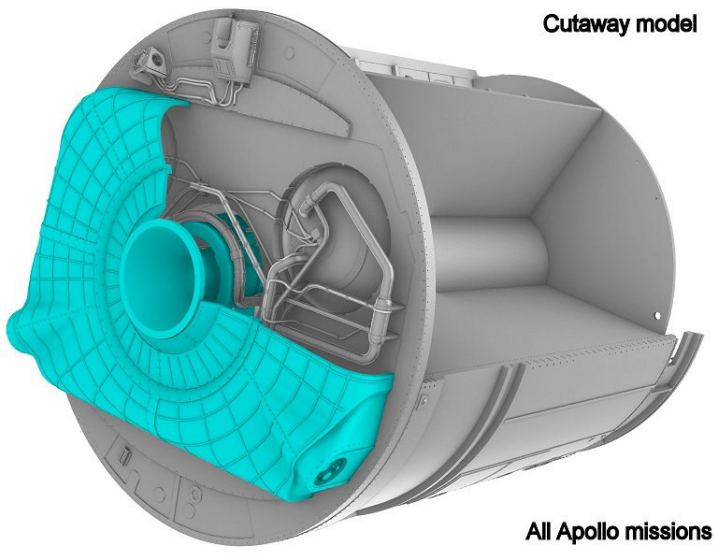


Cutaway model

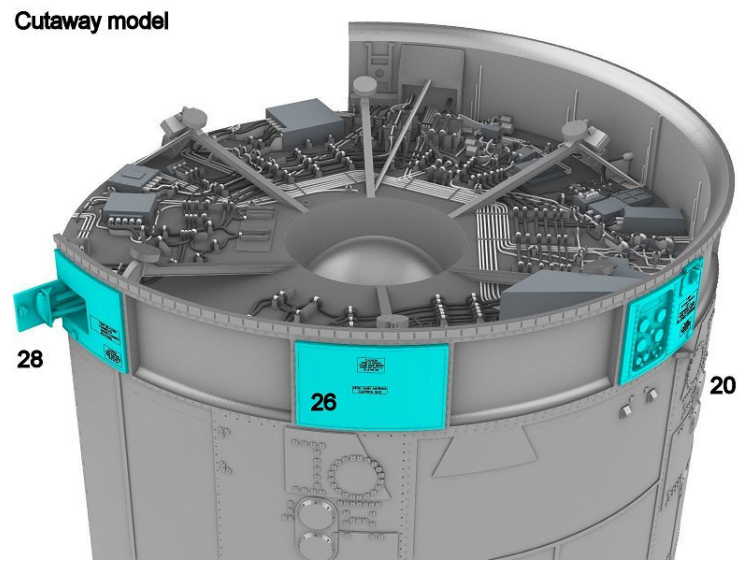


All Apollo missions

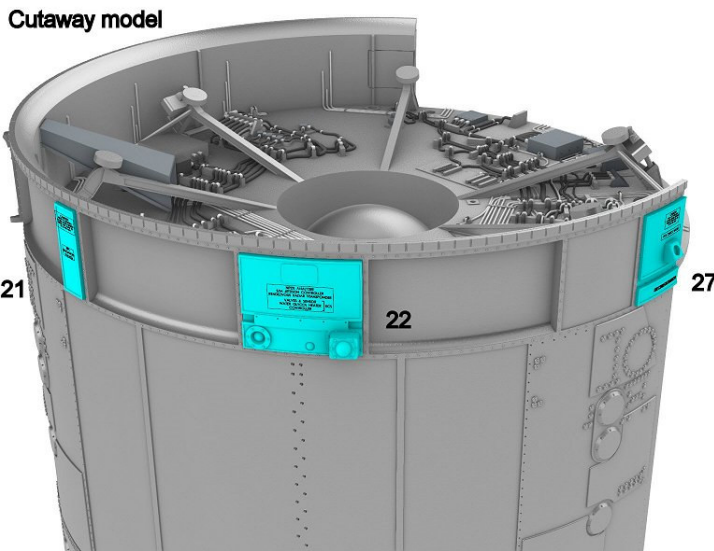
Engine assembly. A special stand has been designed for this model, if you want to use it you need part 13b2, in the other case it is part 13b1.



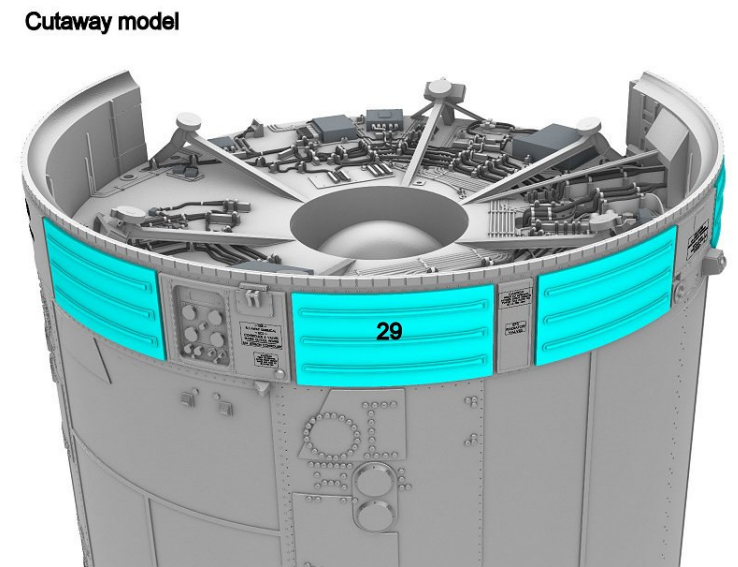
Engine assembly.



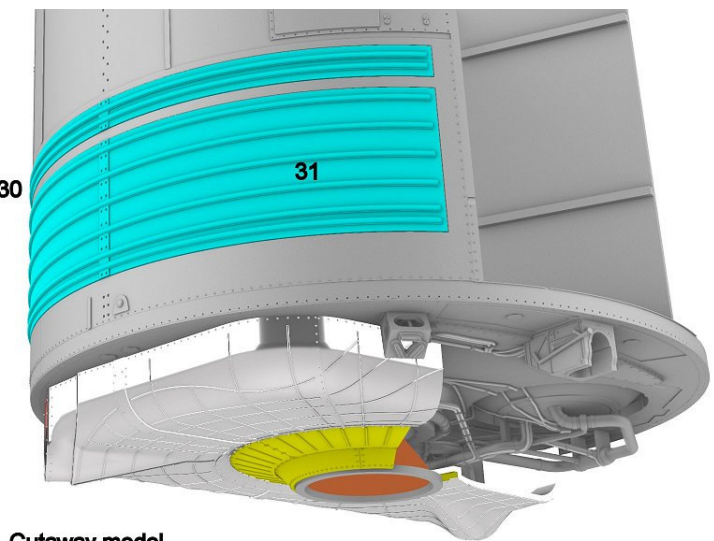
The various control boxes are glued on the upper part of the Service Module.



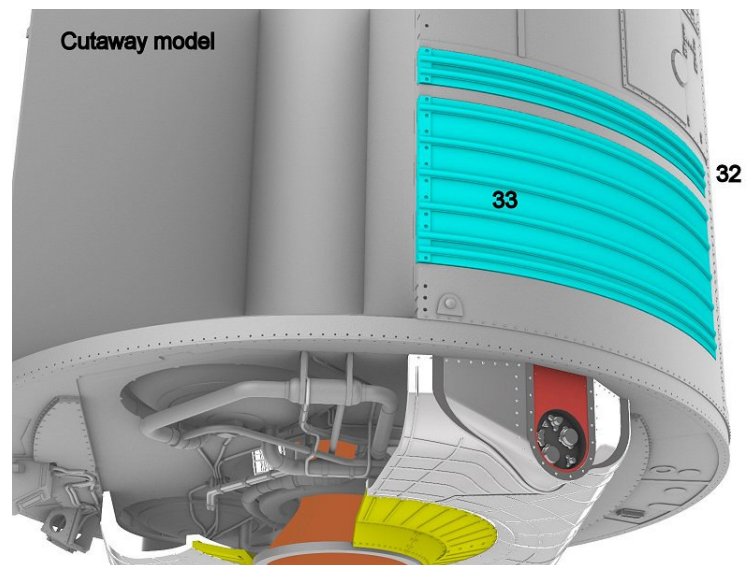
The various control boxes are glued on the upper part of the Service Module.

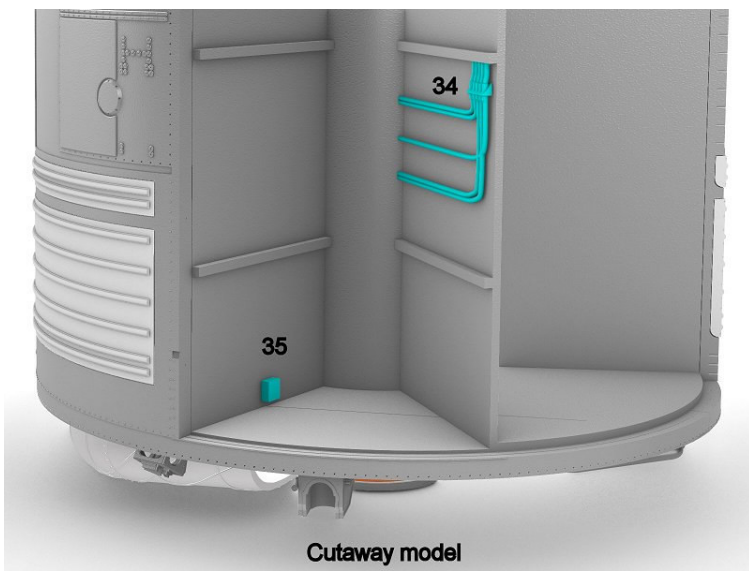


The EPS radiators are painted separately in flat white (Tamiya TS-27) and then assembled to the SM.



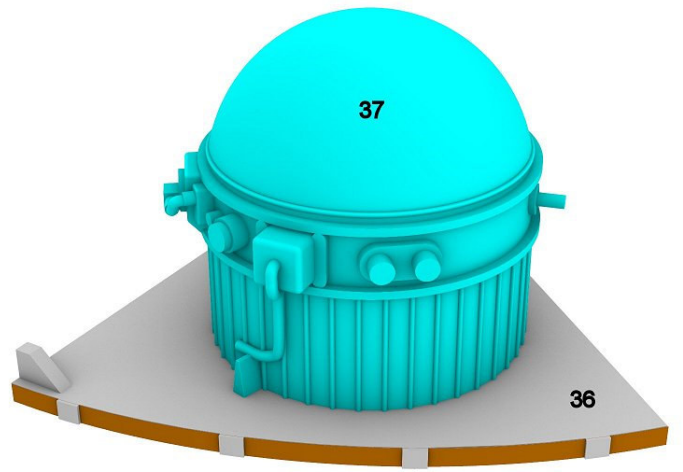
The lower radiators are painted separately in flat white (Tamiya TS-27) and then assembled to the SM.



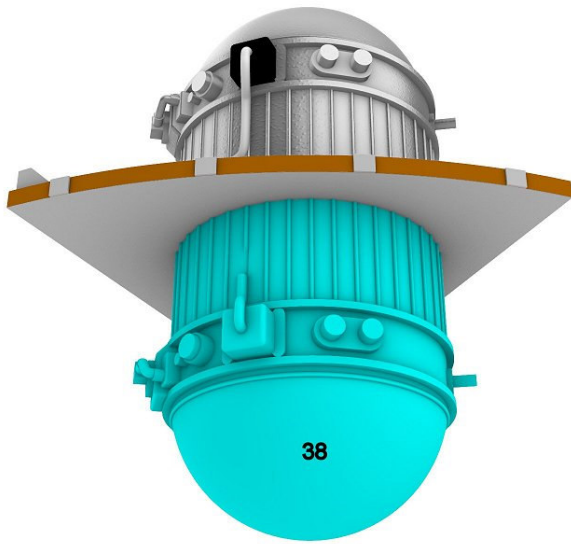


Cutaway model

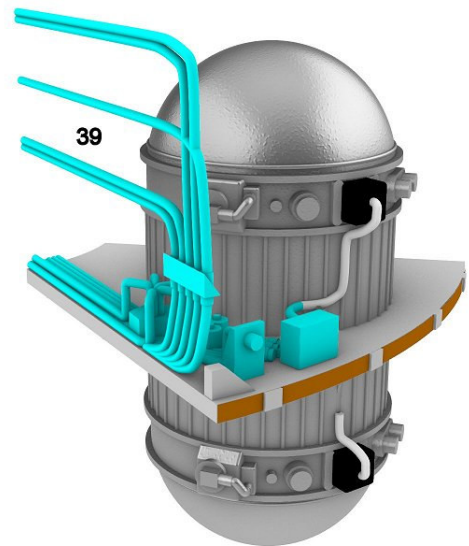
Cables and electronic box are installed on the upper part of the H2 tanks compartment.



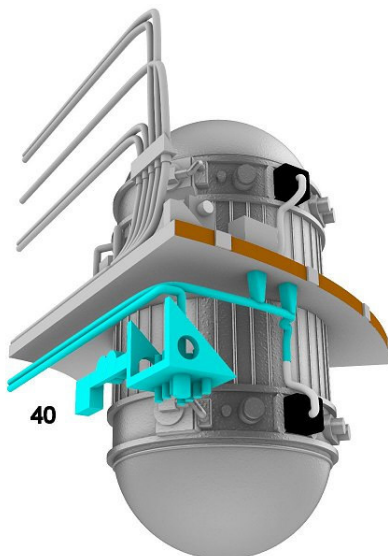
The upper H2 tank is fixed on the platform.



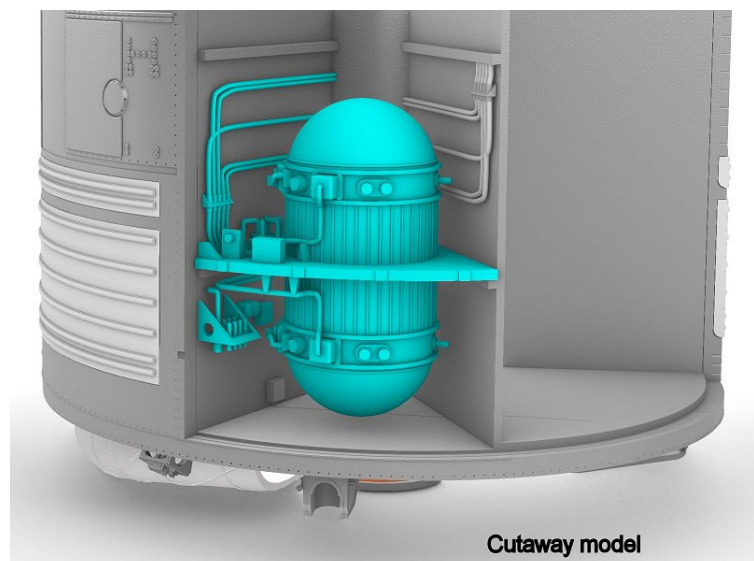
The lower H2 tank is fixed on the platform.



The valve module is fixed on the platform.

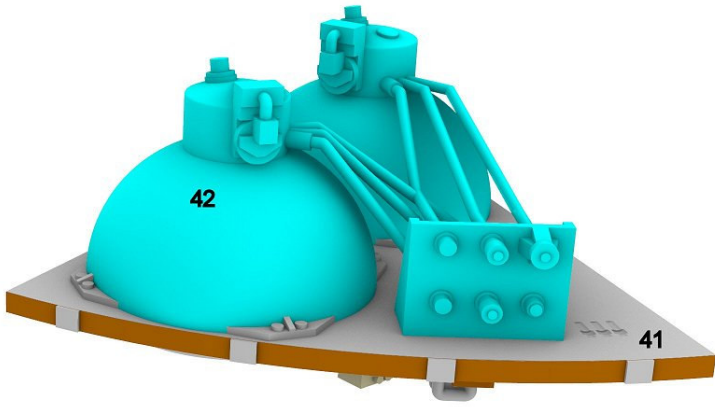


Cables to be installed on the lower part of the H2 tanks compartment are attached to the platform.

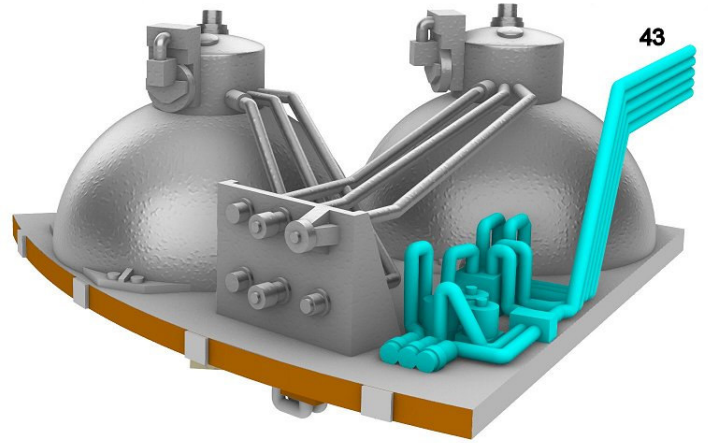


Cutaway model

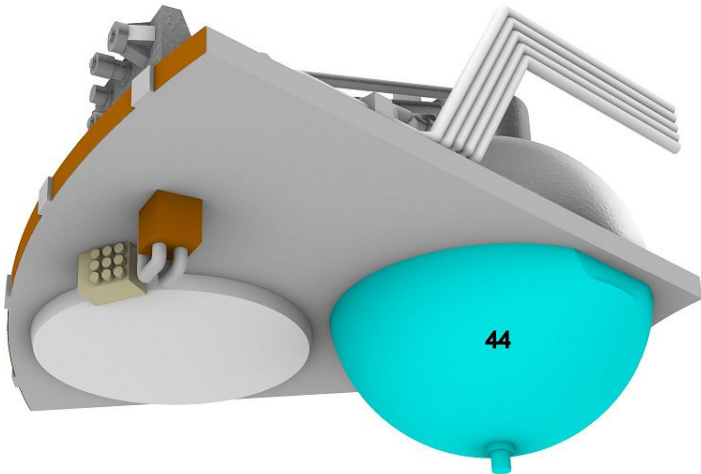
The H2 tanks are now attached inside the service module.



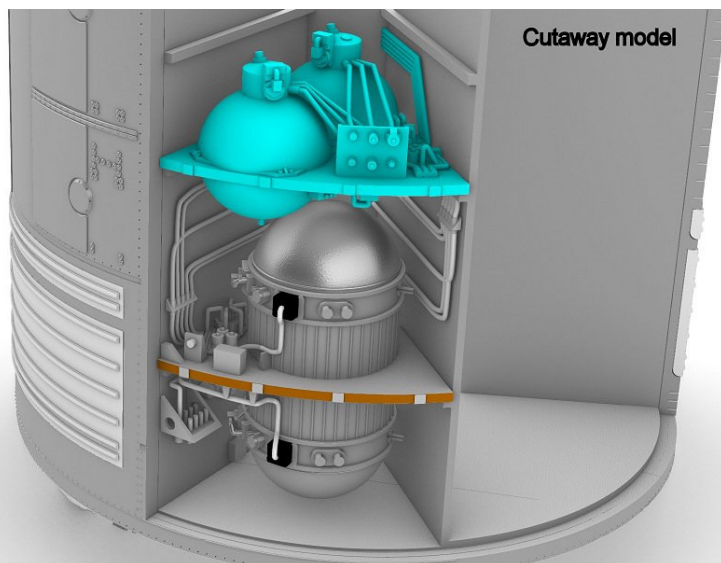
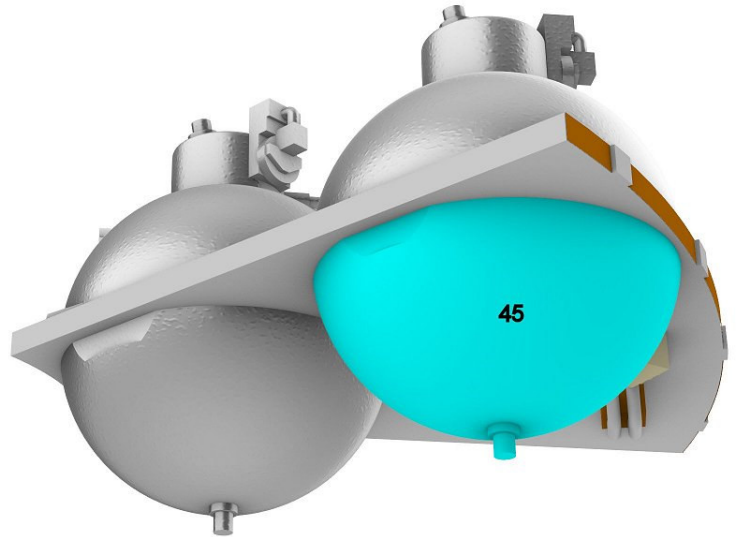
The upper parts of the O2 tanks are fixed onto the platform.



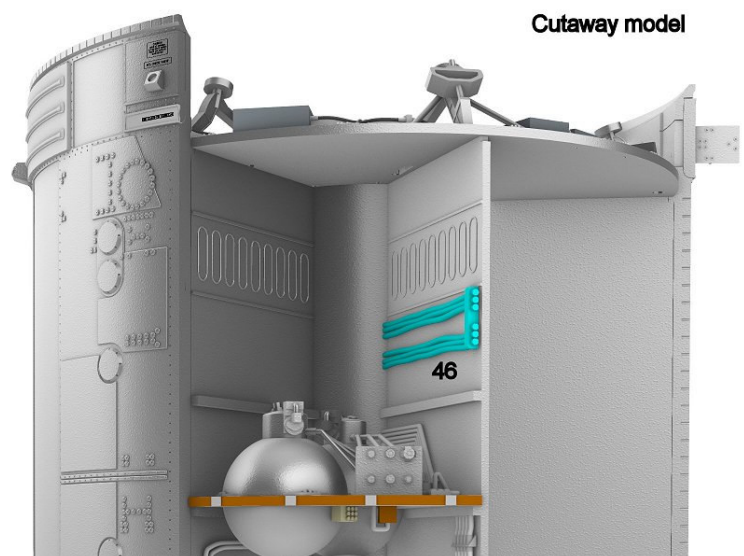
The valve module is then fixed on the platform.



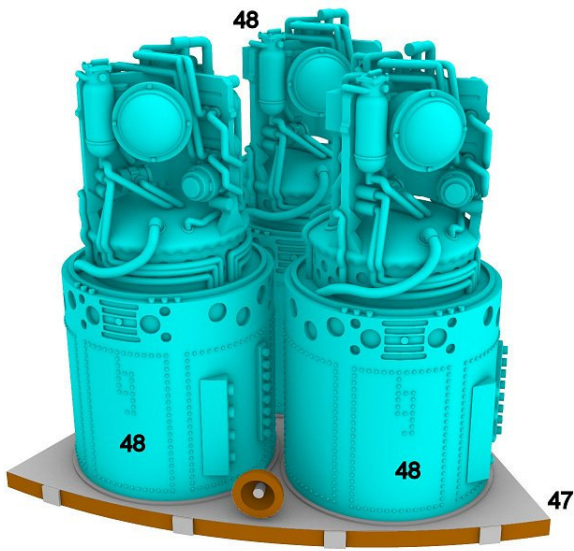
The lower parts of the O2 tanks are attached to the platform.



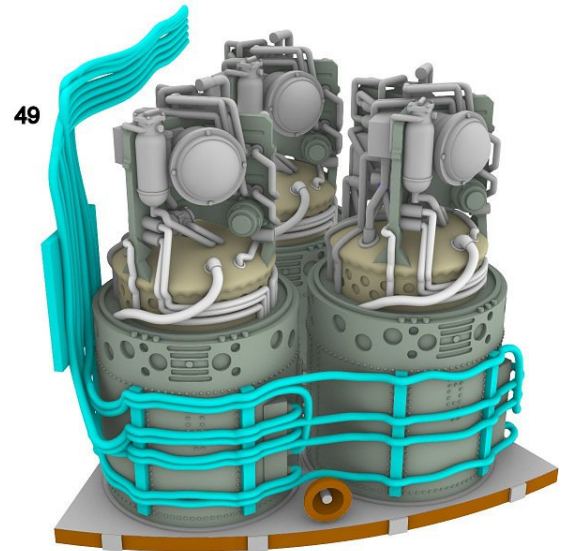
The O2 tanks are now attached inside the service module.



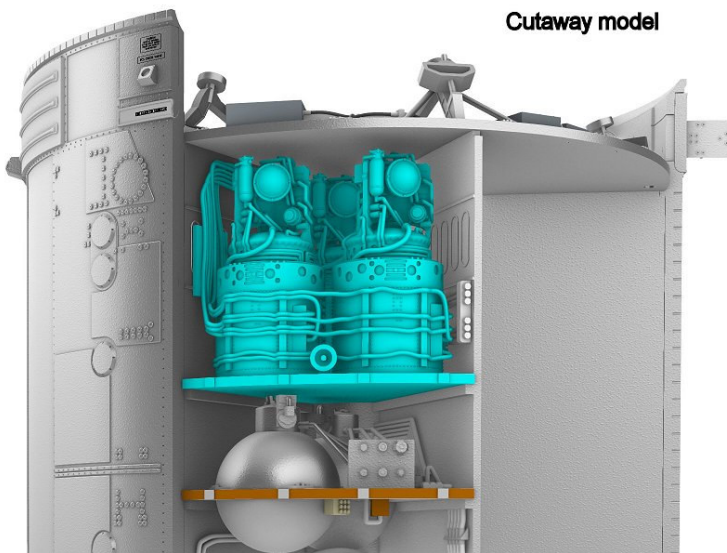
Cables for the fuel cells compartment are installed on the wall.



After painting, the three fuel cells are glued onto the platform. Note that the bottom of the platform is covered with aluminized mylar.



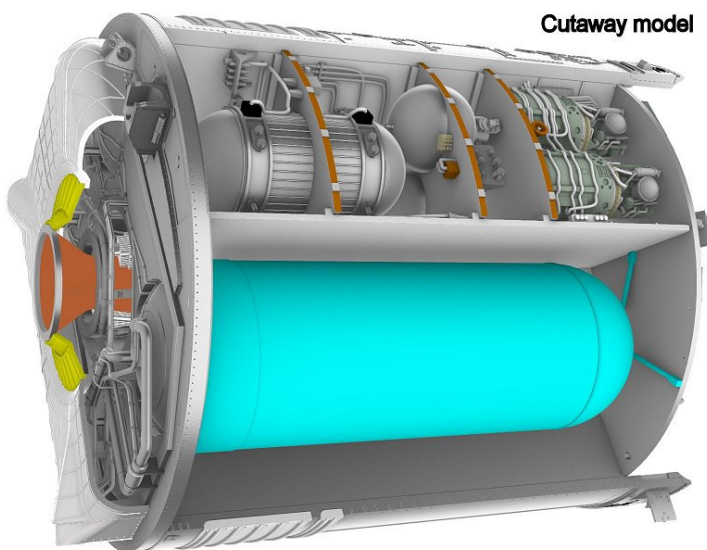
Cables are then glued around the fuel cells after painting.



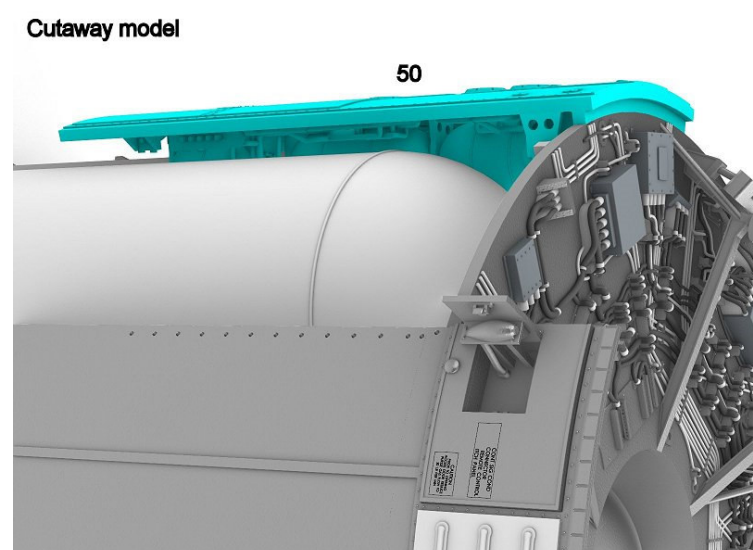
The fuel cells are now attached inside the service module.



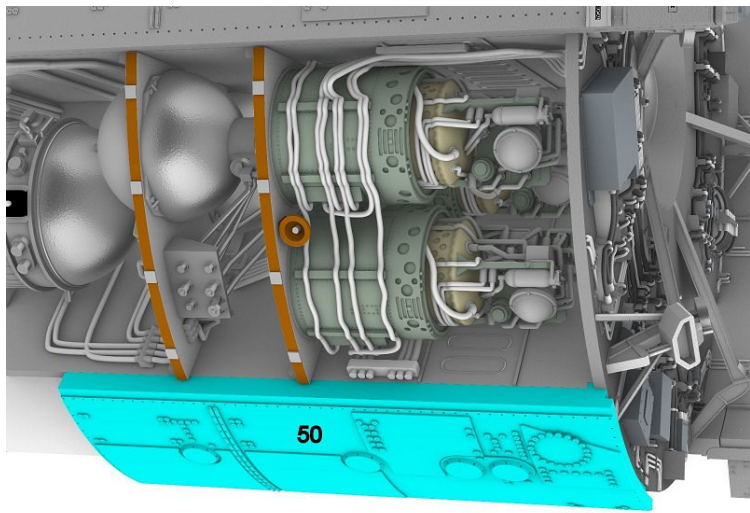
The fuel tank support is attached to the fuel tank.



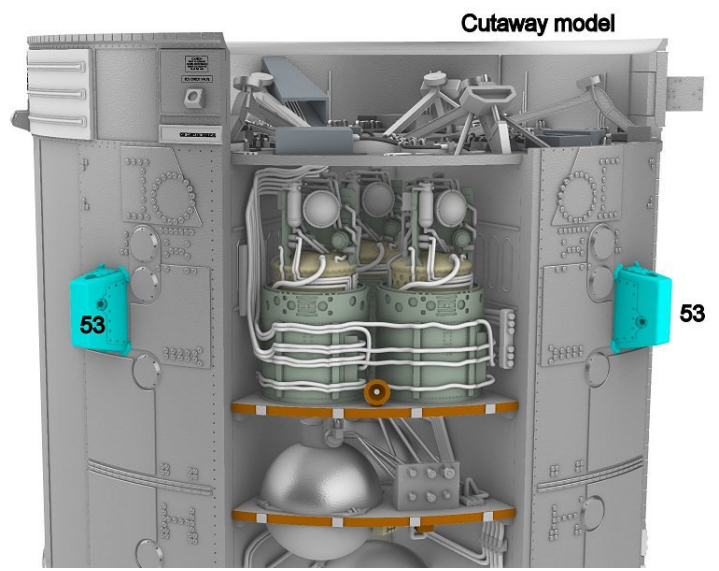
The fuel tank is now attached inside Sector V of the service module.



The RCS Fuel tanks assembly and the RCS door is fixed on Sector V of the service module. If you want don't glue it so it can be removed.



Cutaway model

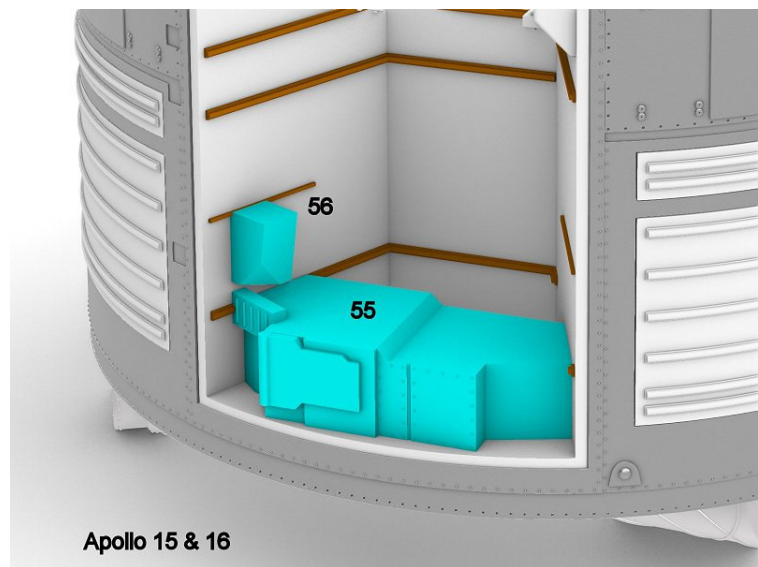


Cutaway model

For a closed capsule, hatch interface (part 45a), side windows (parts 46 & 47), rendezvous windows (parts 48 & 49) and floodlights (parts 50 & 51) need to be installed on the main shell (part 44a if your printer is large enough or Part 44a1 if you have a smaller printer).

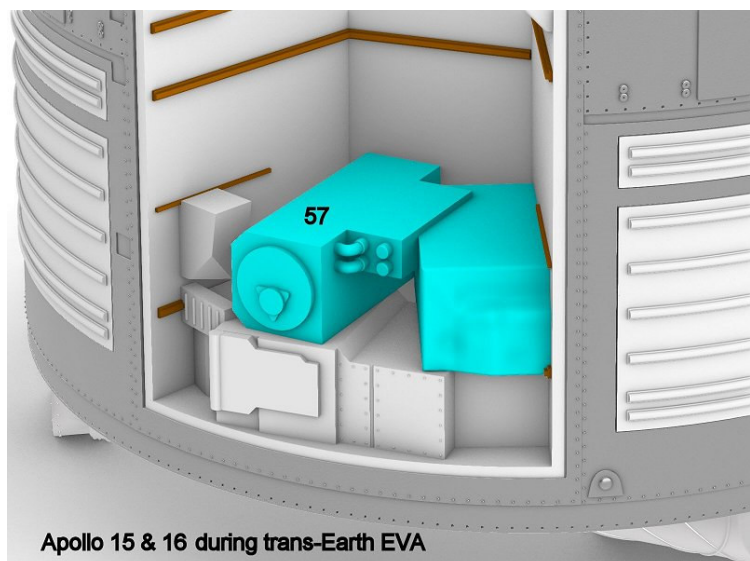


Support structure for the SIM bay

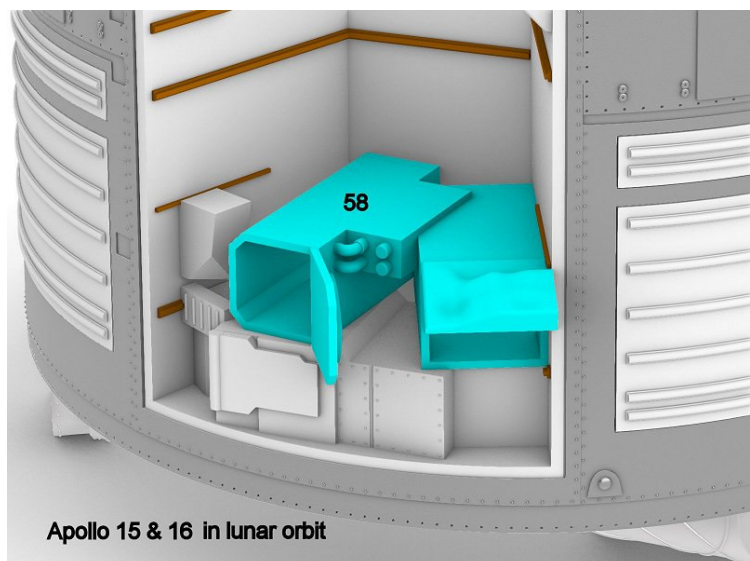


Apollo 15 & 16

X-Ray spectrometer only for Apollo 15 and 16.

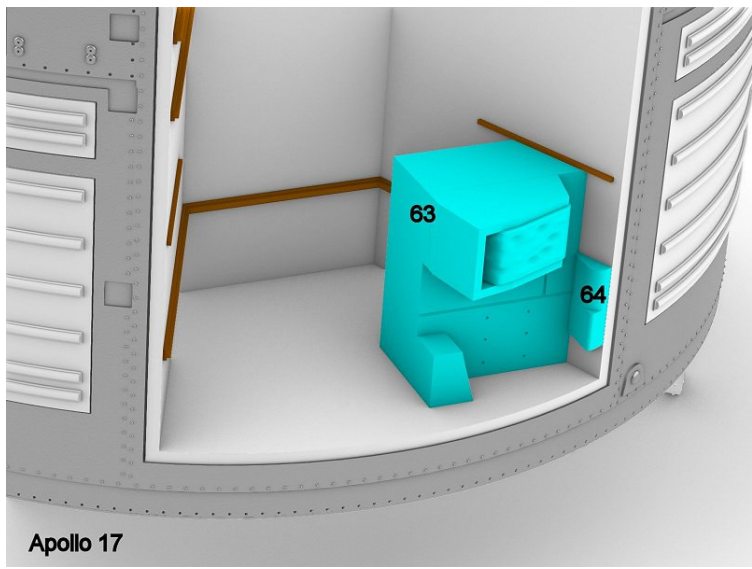


Apollo 15 & 16 during trans-Earth EVA



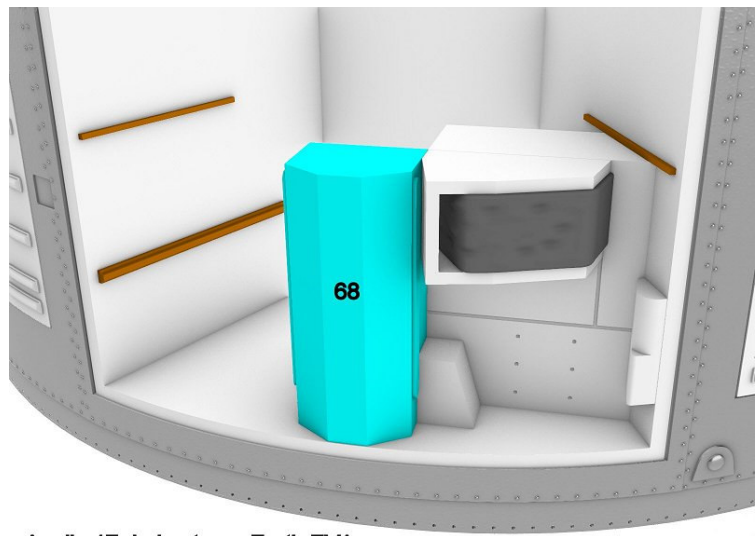
Apollo 15 & 16 in lunar orbit

Only present on Apollo 15 and 16, these are the containers for the undeployed spectrometers (during trans-Earth EVA or lunar orbit).



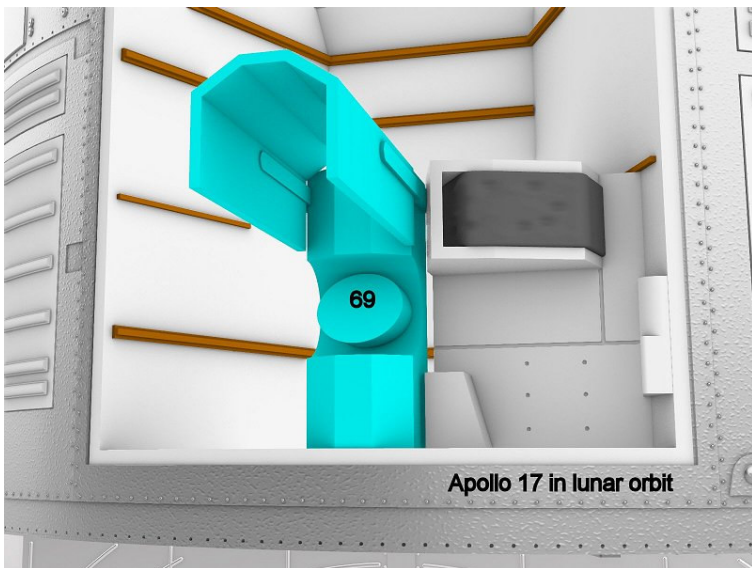
Apollo 17

Only present on Apollo 17, this is the sounder optical recorder.



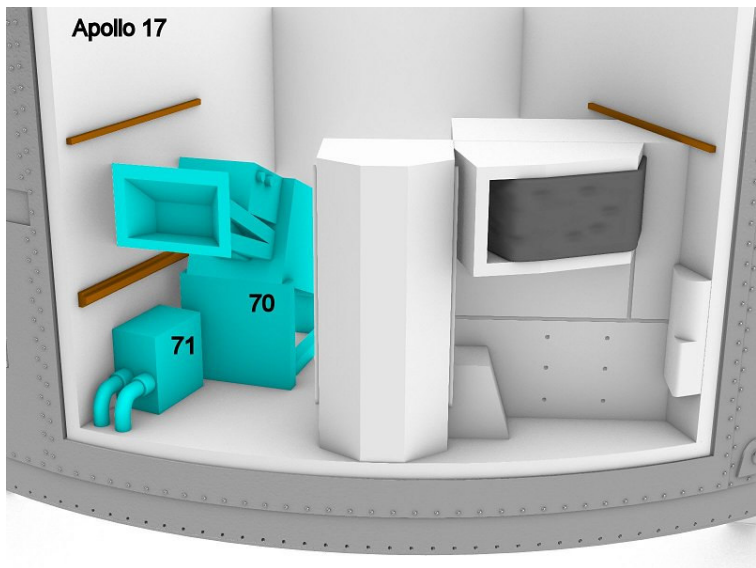
Apollo 17 during trans-Earth EVA

Only present on Apollo 17. This is the IR scanning radiometer represented retracted during the trans-Earth EVA.



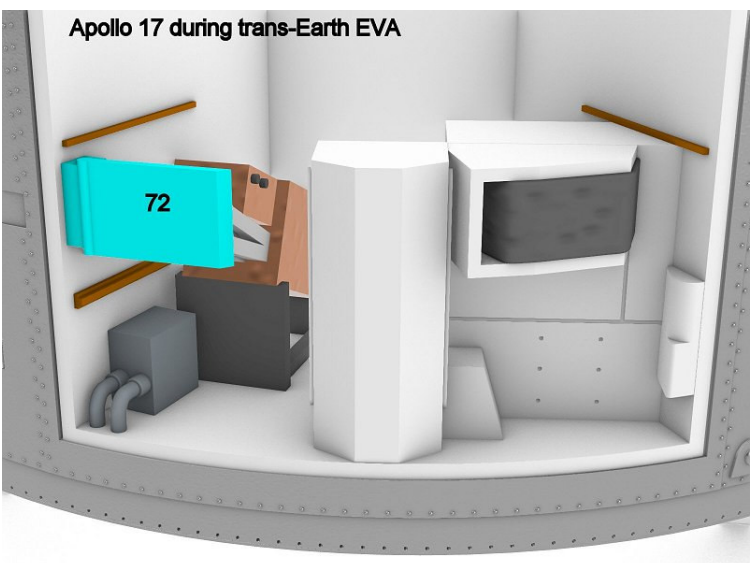
Apollo 17 in lunar orbit

Only present on Apollo 17. This is the IR scanning radiometer represented deployed during lunar orbit.



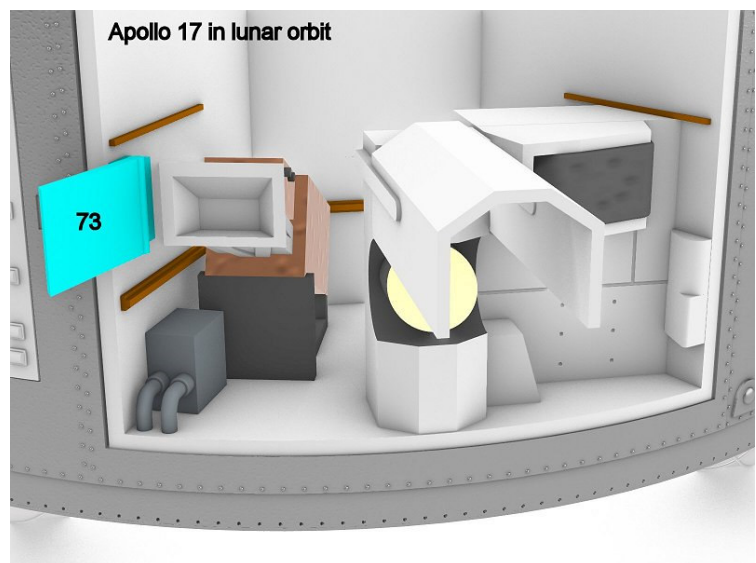
Apollo 17

Only present on Apollo 17. These are parts for the UV spectrometer.

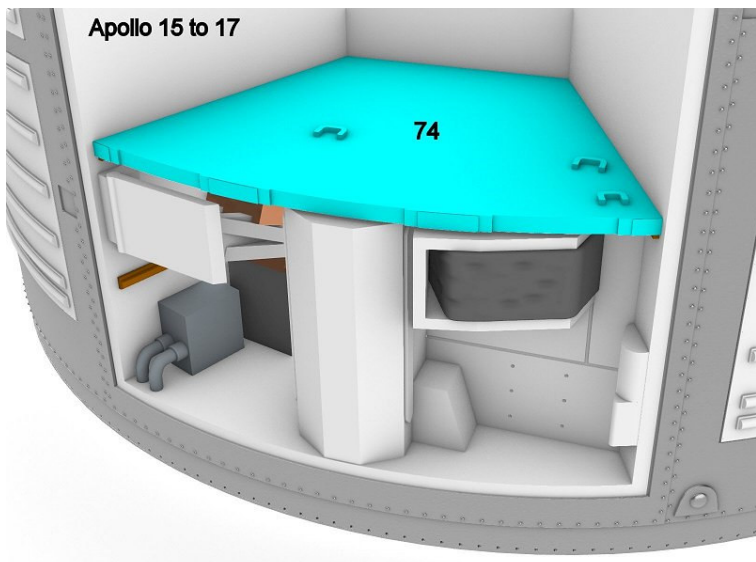


Apollo 17 during trans-Earth EVA

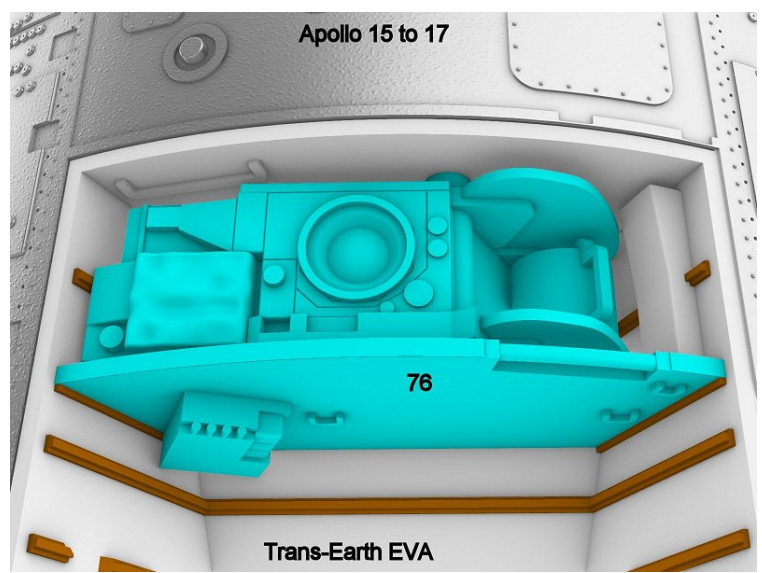
Only present on Apollo 17, this is the UV spectrometer cover that is either closed during the trans-Earth EVA or open during lunar orbit.



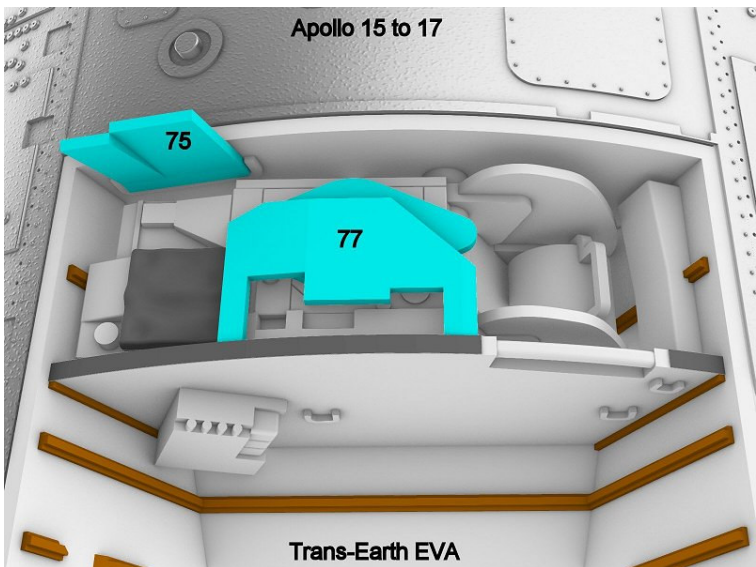
Apollo 17 in lunar orbit



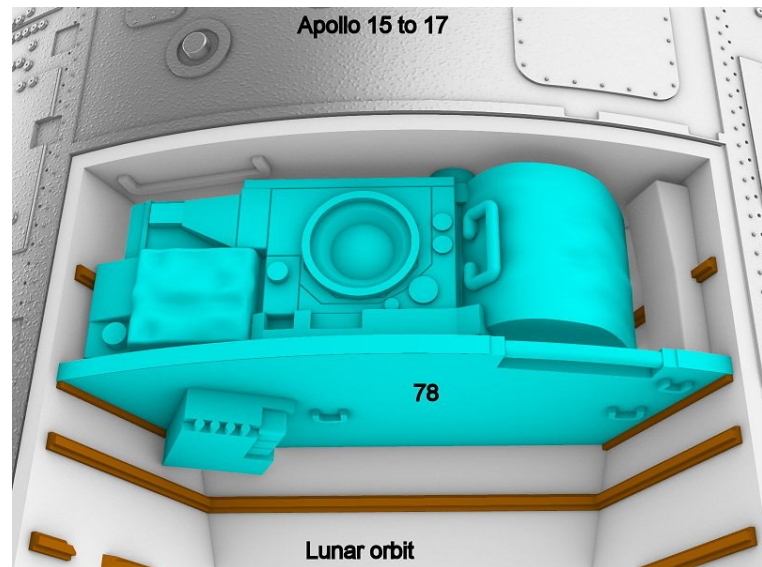
Base for the PanCam.



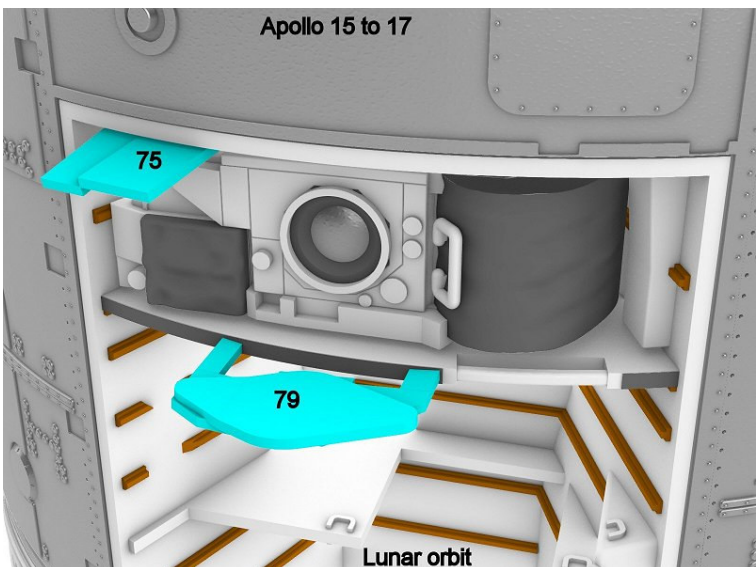
Mapping camera that is represented with the film cassette container open during the trans-Earth EVA.



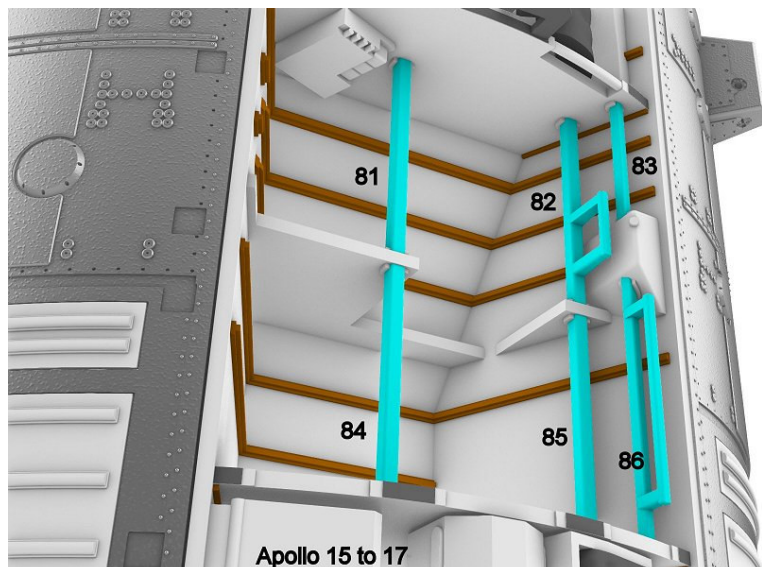
Mapping camera that is represented covered with the film cassette container open during the trans-Earth EVA.



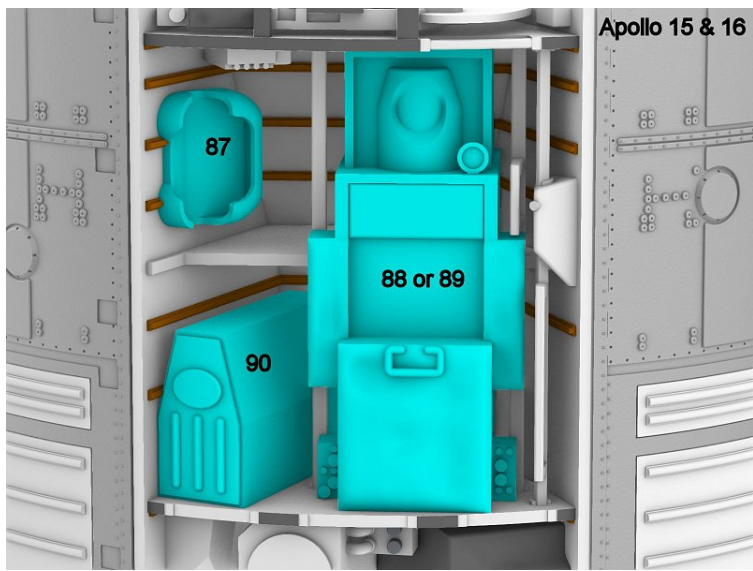
Mapping camera in lunar orbit.



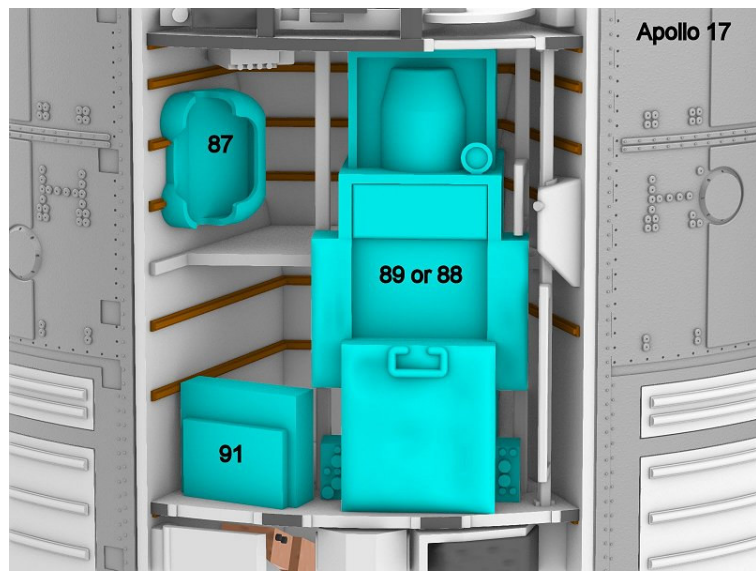
Mapping camera that is represented open in lunar orbit.



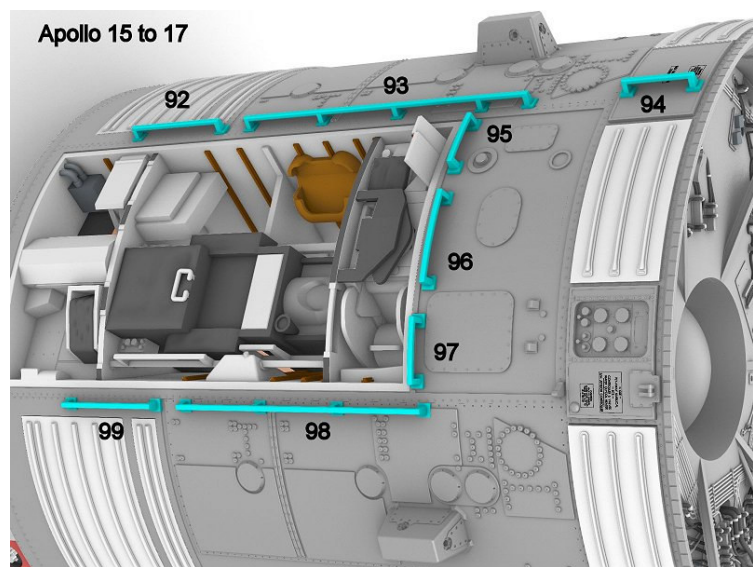
Handles.



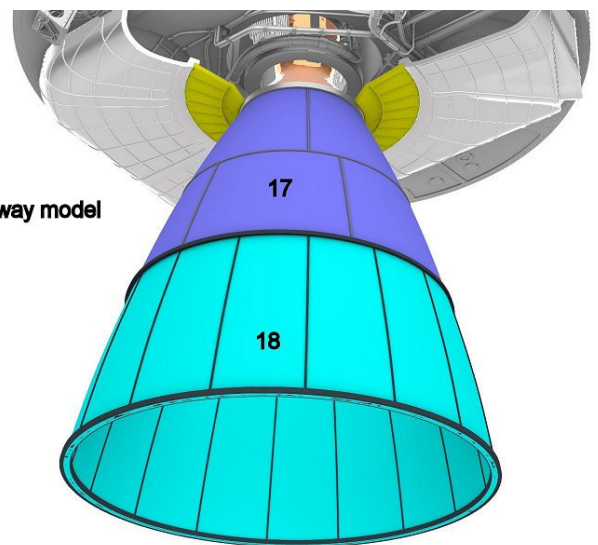
Apollo 15 & 16 configuration with the sub-satellite canister (90), you can choose between the Pancam open (88 here) or closed (89).



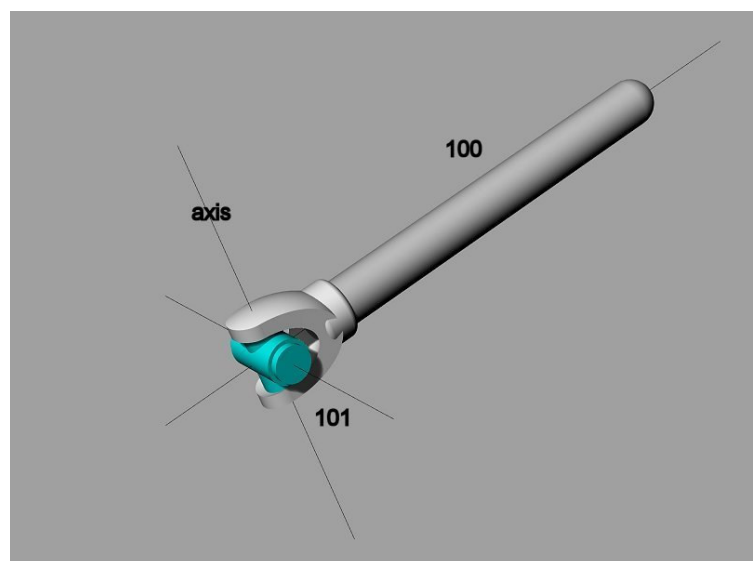
Apollo 17 configuration with the lunar sounder (91), you can choose between the Pancam open (88) or closed (89) here).



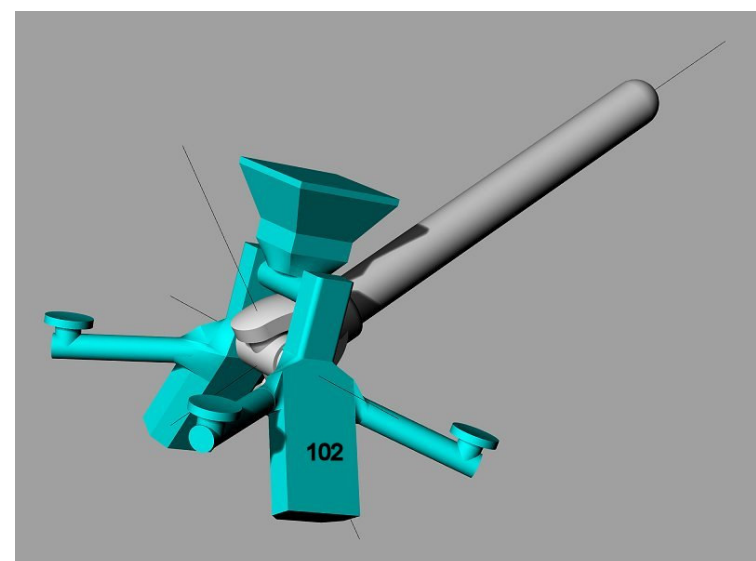
EVA handles.



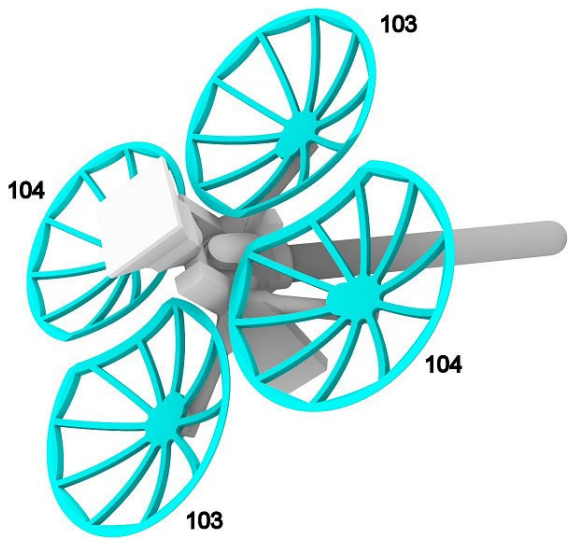
The lower and upper parts of the SPS engine are assembled and installed on the aft heat shield.



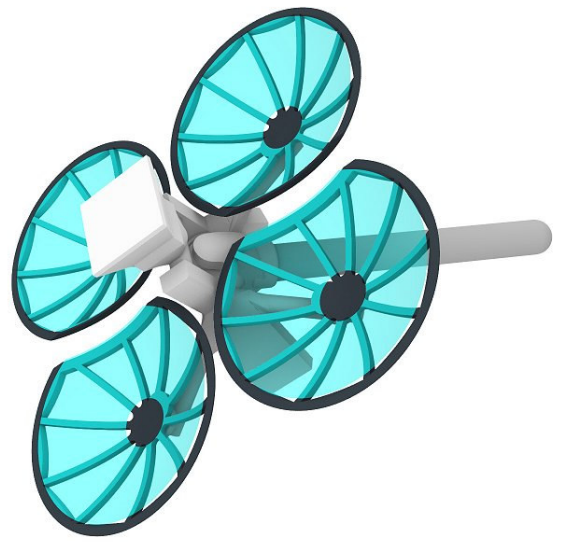
The High Gain Antenna (HGA) is composed of three parts aligned on three different axis allowing the assembly to be moved in every direction but more importantly in the direction of Earth. It is then important when assembling these parts to know in which direction you want the antenna to point. Part 101 can be moved around the "axis".



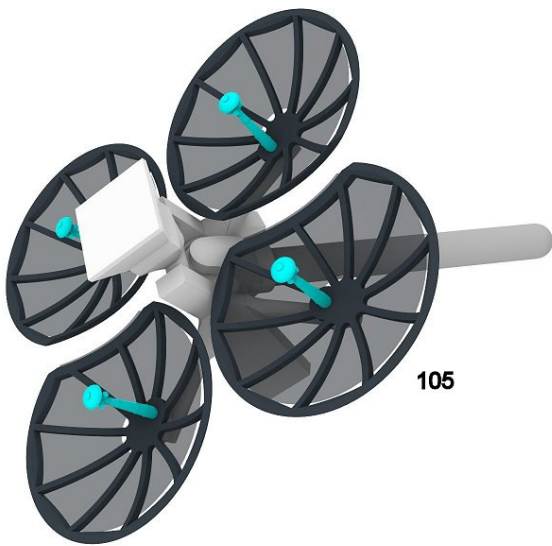
Part 102 is assembled in the position you wish to depict on your model.



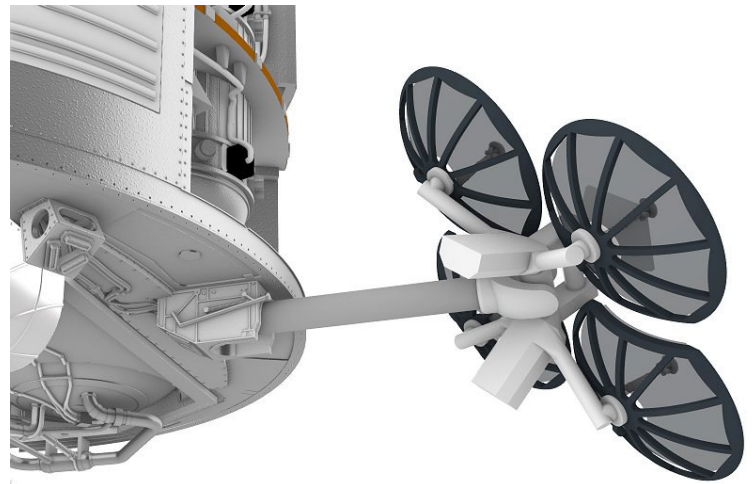
Dishes installed on the antenna support.



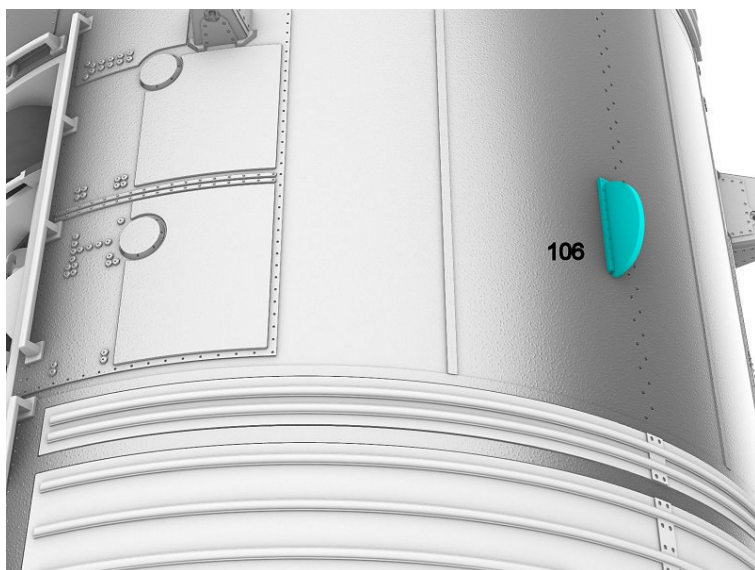
A piece of stocking or tulle can be used to fill the gap on the dishes.



The 4 feedhorns are fixed on the dishes using epoxy glue.



The HGA assembly is then fixed onto the aft part of the service module.



One of the scimitar antennas is installed on the side of the service module.



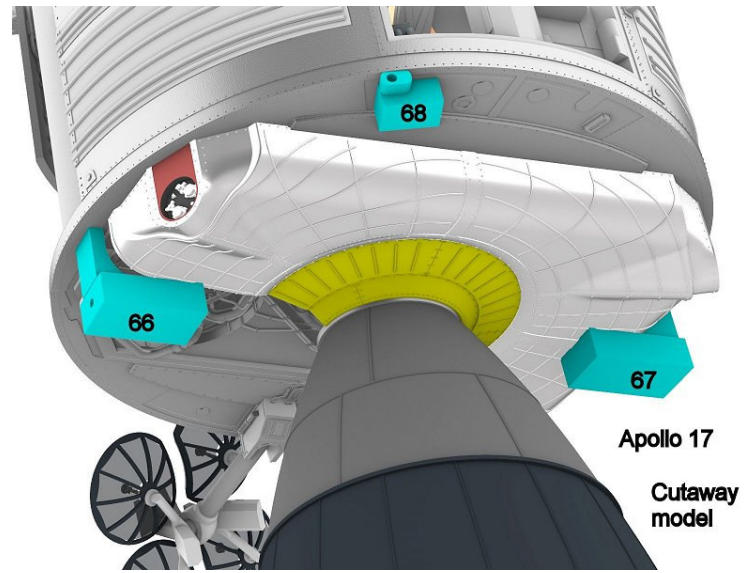
Cutaway model

The scimitar antenna support is installed on the other side of the service module.



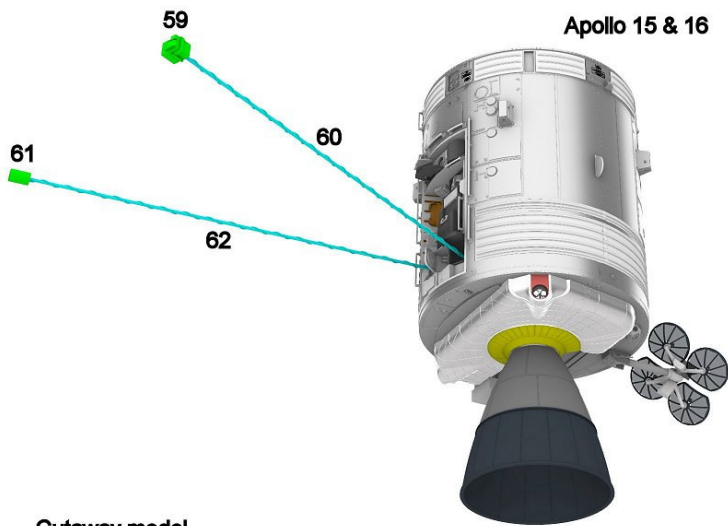
Cutaway model

The scimitar antenna is installed on the other side of the service module.



Apollo 17
Cutaway model

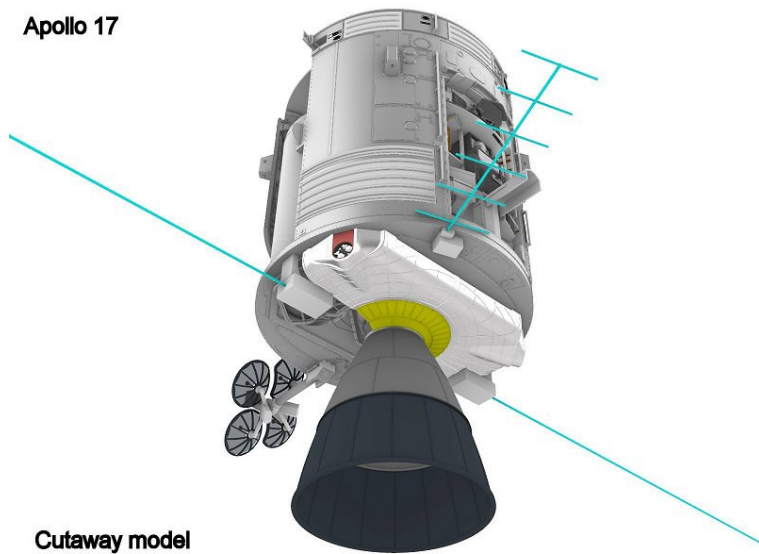
Only for Apollo 17, support for the sounder optical recorder antennas are installed.



Apollo 15 & 16

Cutaway model

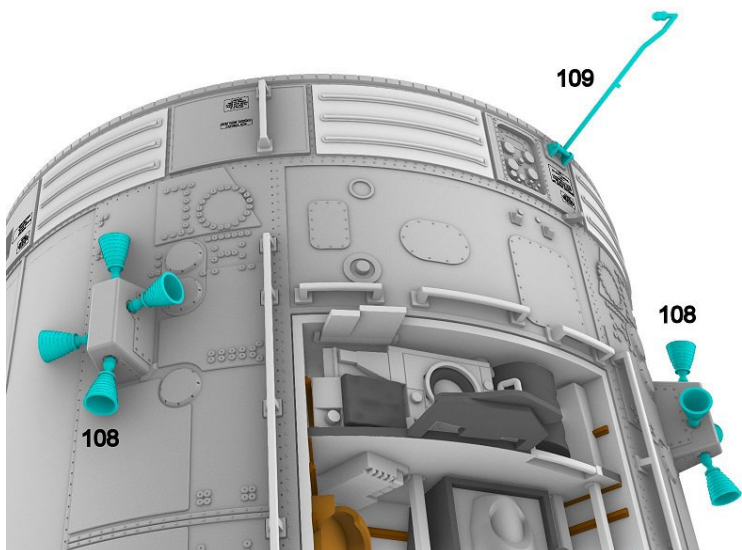
This particular configuration is for Apollo 15 & 16 during lunar orbit.



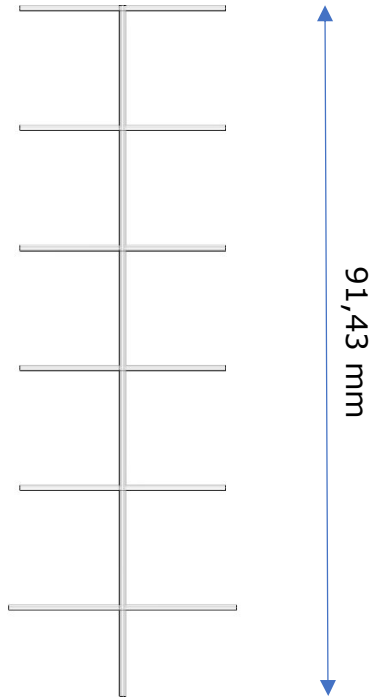
Apollo 17

Cutaway model

This particular configuration is for Apollo 17 during lunar orbit. The long antennas are made out 1 mm styrene rod : diameter 1 mm with a length of 339 mm. The Yagi antenna is made out of a 1 mm styrene rod and 6 0.75 mm styrene rods, the pattern is at the end of this instruction booklet.



The thrusters (108) are installed on the Reaction Control Systems on the side of the service module.
The EVA floodlight (109) is installed on the side close to the Saturn V umbilical.



Pattern for the Apollo 17 Yaggi antenna.