

CUTAWAY FRANK MUNGER

COMMAND MODULE

CSM-107 'COLUMBIA' KEY

- 1 Docking probe
- 2 Capture latches
- 3 Capture latch release (LM side)
- 4 Probe shock-attenuator assembly
- 5 Telescoping cylinder (nitrogen pressure retraction)
- 6 Fixing strut
- 7 Docking latches
- 8 Forward heat-shield ejectors (operate at 25,000ft)
- 9 Drogue parachute mortar, fires at 23,000ft, 16.5ft conical ribbon parachute slows capsule from 300 m.p.h. to 175 m.p.h.
- 10 Pilot parachute mortar (3 locations) fires at 10,000ft
- 11 Main landing parachute stowage (3 locations) uprighting bags stowed under 83.5ft ring-sail parachute slows capsule to 22 m.p.h. on splash down
- 12 Main parachute riser
- 13 Sea-recovery cable
- 14 Dye-marker and swimmer umbilical
- 15 Launch-escape tower electrical receptacle
- 16 Pressure shell, bonded aluminium honeycomb 0.25in to 1.5in thick
- 17 Brazed stainless-steel honeycomb 0.5in to 2.5in thick
- 18 Aft heat shield, phenolic-filled epoxy ablative material, weight 3,000lb
- 19 Launch-escape tower frangible nuts
- 20 Flashing recovery beacon (deployed)
- 21 Outward-opening hatch 29in x 34in 12-latch, quick release, nitrogen pressure counter-balance system
- 22 Side windows, 13in x 13in
- 23 Rendezvous windows, 8in x 13in (inner pane tempered silica 0.25in thick, outer amorphous-fused silica 0.7in thick, reflective and infra-red and ultra violet filters)
- 24 CM rotation control
- 25 CM translation (thrust) control
- 26 Alternative (navigation) positions for control units
- 27 Negative pitch motor (all motors 93lb thrust)
- 28 Positive pitch motor
- 29 Negative roll motor
- 30 Positive roll motor
- 31 Negative yaw motor
- 32 Helium tank No 2 system (titanium)
- 33 Fuel tank No 1 system (titanium)
- 34 Fuel tank No 2 system
- 35 Servicing hatch
- 36 Auxiliary test panel
- 37 Optics stowage
- 38 Lighting control
- 39 Telescope



- 40 Sextant
- 41 Computer display and keyboard
- 42 Guidance and navigation control panel
- 43 Computer
- 44 Tape recorder
- 45 Food stowage
- 46 Medical kit
- 47 CO₂ absorber stowage
- 48 Radiation-survey meter
- 49 Communication equipment
- 50 Flight-data file
- 51 Circuit breakers
- 52 Waste stowage
- 53 Waste-management panel
- 54 Battery circuit breakers
- 55 Power circuit breakers
- 56 Uprighting system panel
- 57 Docking sight (stowed)
- 58 Oxygen control
- 59 Cabin-pressure control
- 60 CO₂ filters (lithium hydroxide and activated carbon)
- 61 Oxygen to umbilical supply control
- 62 Suit compressors (two)
- 63 Oxygen surge tank
- 64 Cabin pressure-control valve
- 65 Steam vent
- 66 Potable water tank
- 67 Glycol evaporator
- 68 Couch-support beam

- 69 Side stabiliser beam
- 70 Shock-absorber strut
- 71 Glassfibre cloth
- 72 Foot-pan
- 73 Foot-pan and seat folded down
- 74 Foot-pan and seat folded up
- 75 Adjustable head rest
- 76 Adjustable control support
- 77 Restraint straps
- 78 Personal kit and special kit stowage
- 79 Tool stowage
- 80 Sleep-restraint stowage
- 81 Pressure-suit stowage
- 82 Fire extinguisher, 8lb aqueous foam
- 83 Internal viewing mirror
- 84 Main display console
- 85 Control warning
- 86 Flight control
- 87 Audio control
- 88 SCS (stabilisation control system) power
- 89 RCS (reaction control system) monitor
- 90 Environmental control (see also 95)
- 91 Cryogenics
- 92 Service propulsion
- 93 Communications
- 94 Electrics
- 95 Environmental control
- 96 Gyro units
- 97 Accelerometer electronics
- 98 VHF scimitar antenna
- 99 VHF recovery beacon (deployed)
- 100 Camera stowage

FLIGHT
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