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LRV- LUNAR ROVING VEHICLE

1/32nd SCALE

The Lunar Roving Vehicle transported two astronauts on exploration traverses on the Moon during Apollo 15, 16 and 17 missions. The LRV carried tools, scientific equipment, communications gear and lunar samples.

The four-wheel, lightweight vehicle greatly extended the lunar area that could be explored by humans. The LRV could be operated by either astronaut. It was the first manned surface transportation system designed to operate on the Moon. It marked the beginning of a new technology and represented an experiment to overcome many new challenging problems for which there was no precedent in terrestrial vehicle design and operations. The LRV folded up into a very small package in order to fit within the tight, pie-shaped confines of Quad 1 of the lunar module which transported it to the Moon.

The LRV was built by the Boeing Co., Aerospace Group, at its Kent SpaceCenter near Seattle, Wa, under contract to the NASA-Marshall Space Flight Center. Boeing's major subcontractor was the Delco Electronics Division of the General Motors Corp. Three flight vehicles were built, plus seven test and training units, spare components and related equipment.

GENERAL DESCRIPTION

The LRV was 10' 2" long; had a 6' tread width; was 44.8" high and had a 7.5' wheel base. Each wheel was individually powered by a quarter-horsepower electric motor and the vehicle's top speed was about 8 mph on a relatively smooth surface. Two 36-volt batteries provided the vehicle's power, although either battery could power all vehicle systems if required. The front and rear wheels had a separate steering system, but if one steering system failed, it could have been disconnected and the vehicle would have operated with the other system.

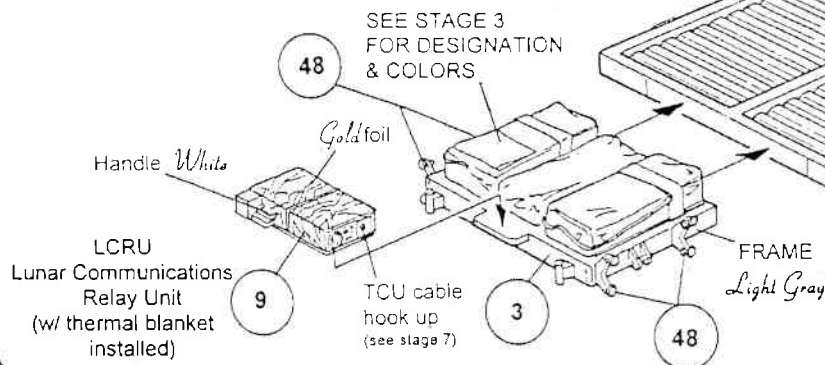
Weighing approximately 460 lbs (Earth weight) when deployed on the Moon, the LRV carried a total payload of about 1,080 lbs, more than twice its own weight. This cargo included astronauts and their portable life support (800lbs), 100 lbs of communications equipment, 120 lbs of scientific equipment and photographic gear in addition to 60lbs of lunar samples.

from Press Kit, Release No:71-119

1 MAIN CHASSIS ASSEMBLY I

1

NOTE
 PLACE PARTS ON A FLAT SURFACE TO
 ACHIEVE PROPER ALIGNMENT



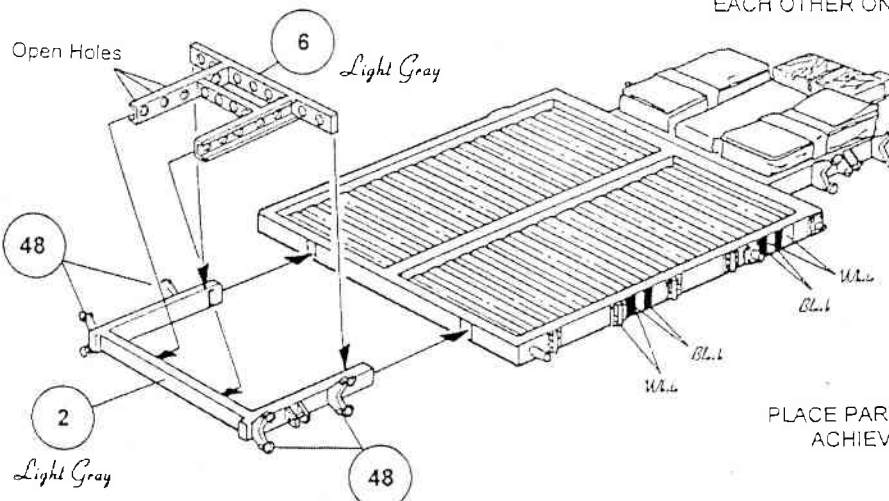
IMPORTANT
 GLUE PARTS 48 WITH ROD RECEPTACLES FACING
 EACH OTHER ON THE INSIDE (see also Step 6)

Aluminum
 1
 CENTER CHASSIS
 Light Gray frame

IMPORTANT
 STUDY THIS INSTRUCTION SHEET BEFORE
 YOU START BUILDING.
 FIRST REMOVE ALL PARTS FROM THEIR CARRIER
 BY SAWING, FILING AND FINALLY SANDING.
 BE CAREFUL, SOME PARTS ARE VERY FRAGILE.

2 MAIN CHASSIS ASSEMBLY II

2



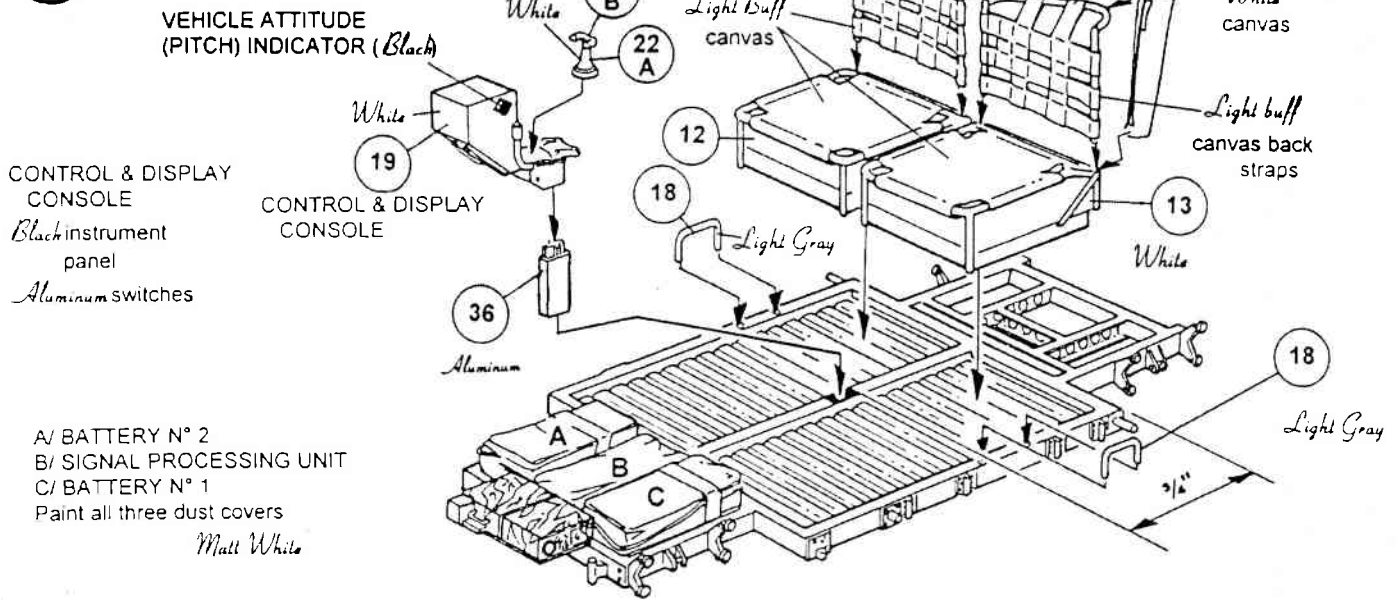
IMPORTANT
 GLUE PARTS 48 WITH ROD RECEPTACLES FACING
 EACH OTHER ON THE INSIDE (see also Step 6)

PAINTING
 White /Black
 stripes on side
 of chassis as indicated
CHASSIS FRAMES: Aluminum

NOTE
 PLACE PARTS ON A FLAT SURFACE TO
 ACHIEVE PROPER ALIGNMENT

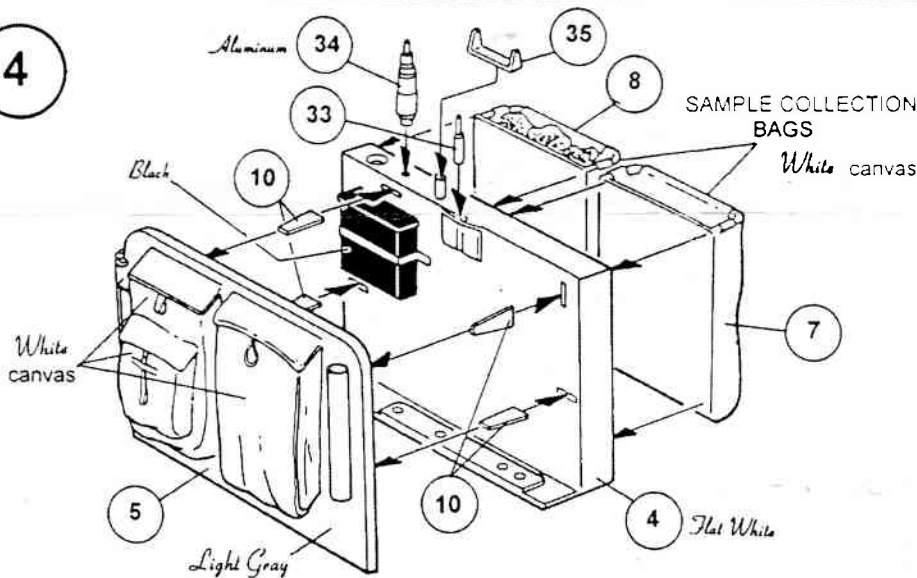
3

SEAT ASSEMBLY



4

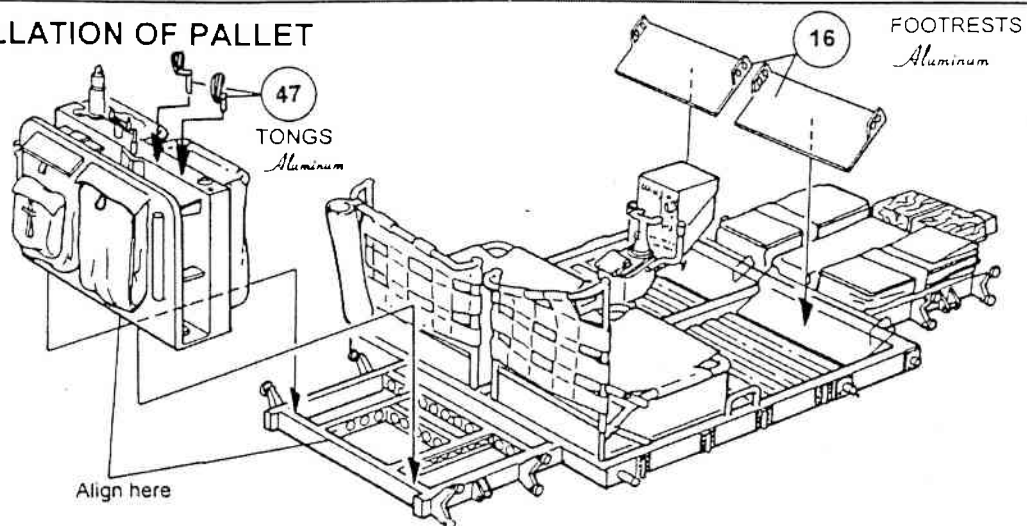
STORAGE PALLET ASSEMBLY



NOTE
PART 35 IS A RAKE
MAY BE REPLACED BY
PART 50 /SMALL SCOOP
(OPTIONAL)
PART 34 IS A PENETROMETER

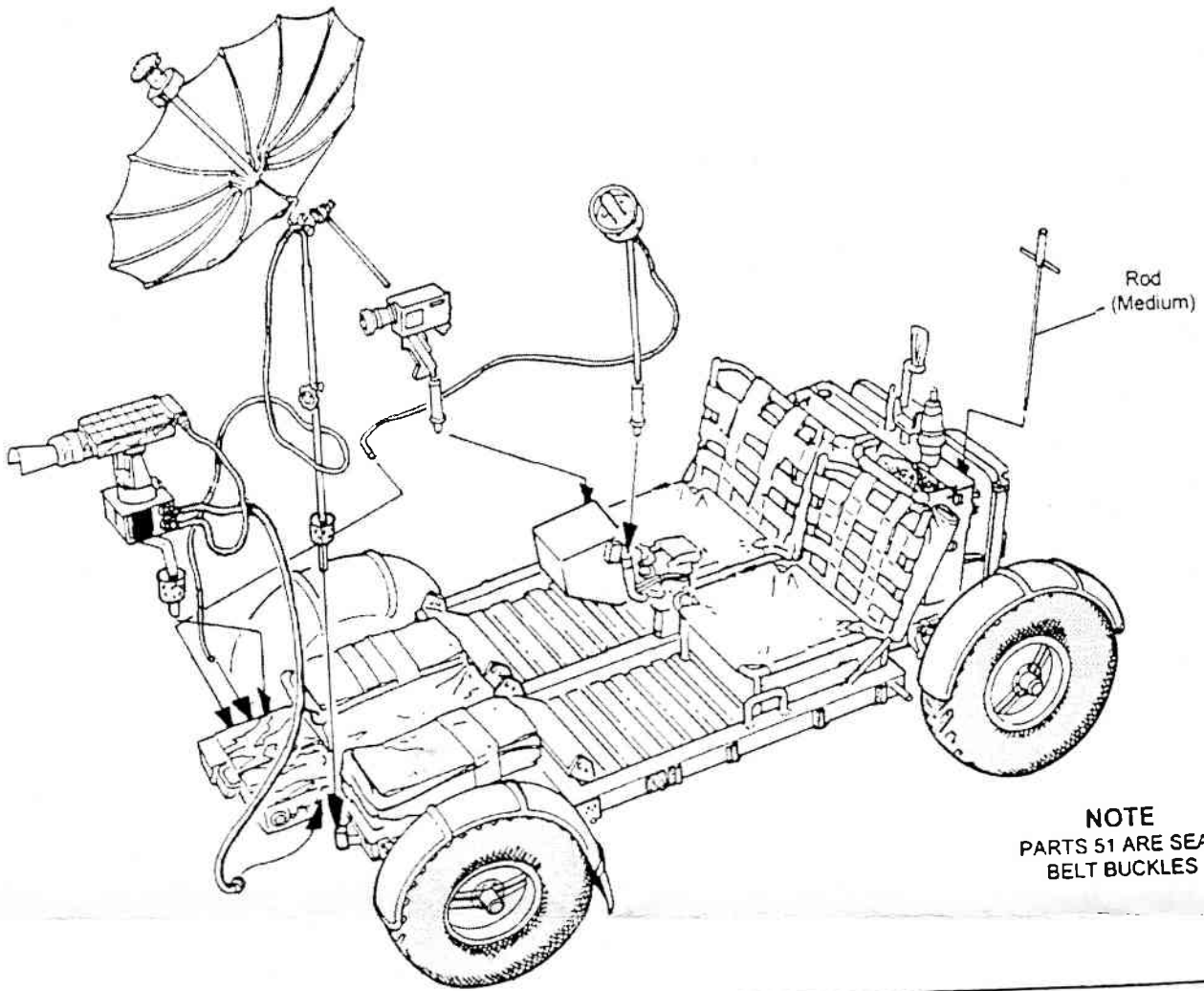
5

INSTALLATION OF PALLET



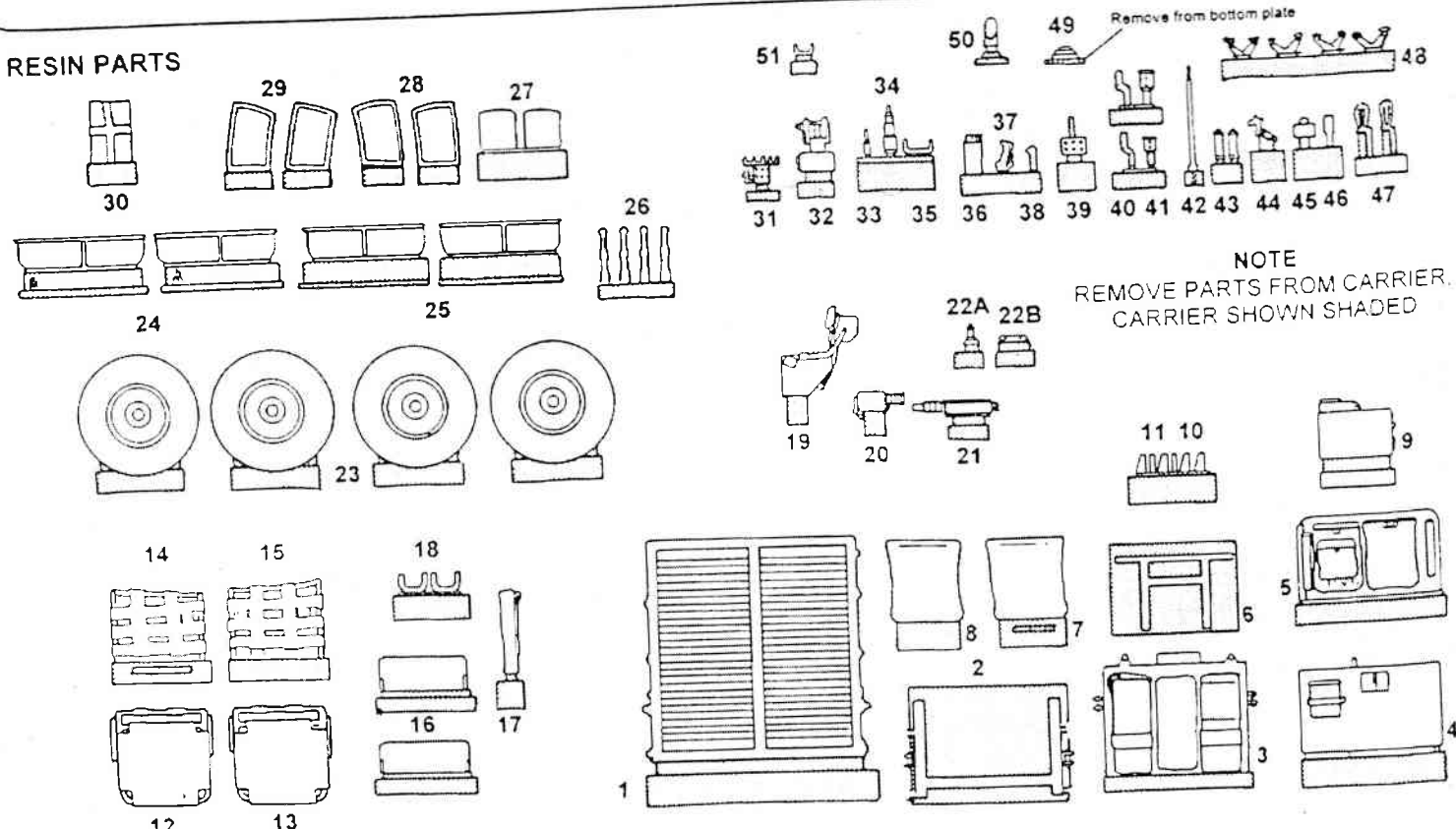
FINAL ASSEMBLY STAGE

8



NOTE
PARTS 51 ARE SEAT
BELT BUCKLES

RESIN PARTS



NOTE
REMOVE PARTS FROM CARRIER.
CARRIER SHOWN SHADED

Special thanks to Karl D. DODENHOFF, Glen JOHNSON, Anthony G. SANCHEZ, Damon TRAVIS, Jef VERSWIJVEL and Willy PEETERS for their assistance

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