

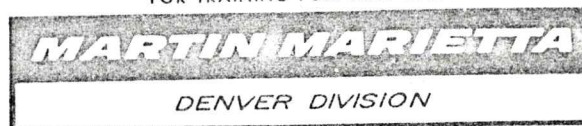
SKYLAB
EXPERIMENT BRIEFING

TO13 CREW VEHICLE DISTURBANCES

Instructor
M.Tanner

SKYLAB CREW PREFLIGHT TRAINING

FOR TRAINING PURPOSES ONLY



TO13 EXPERIMENT OBJECTIVES....

FOR TRAINING PURPOSES ONLY

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DENVER DIVISION

OBJECTIVES....

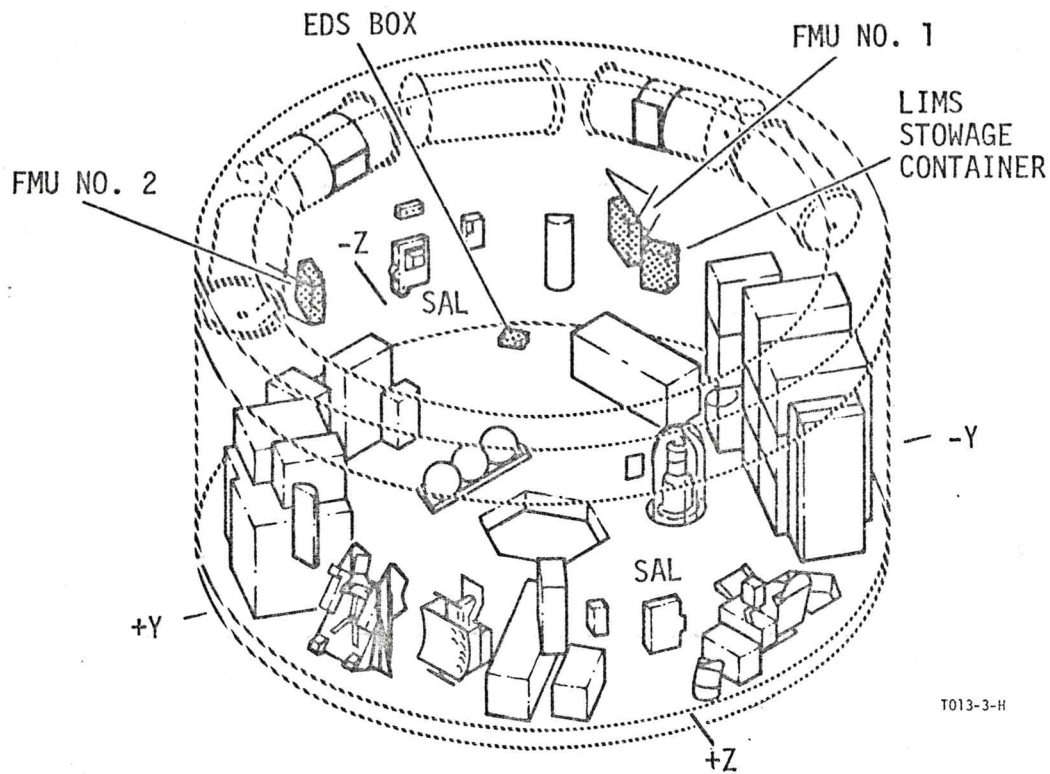
- 1... to measure and record in Zero-G, during typical crew activity in a space vehicle, data on astronaut limb motion; astronaut position, i.e., center of mass and body attitude; astronaut-induced forces and moments on the spacecraft; and simultaneous vehicle attitude perturbations in roll, pitch and yaw (displacement and angular rate);
- 2... to verify an existing analytical technique (mathematical model and computer program) developed to predict the effects of crew motion on spacecraft attitude in order to apply this technique to the design of future space vehicle high-precision control systems, guidance systems, and any system requiring very low angular acceleration inputs to reflect and obviate any deleterious effects of crew activity;
- 3... to verify ground-based simulation program data such as crew-motion-induced vehicle angular rates;

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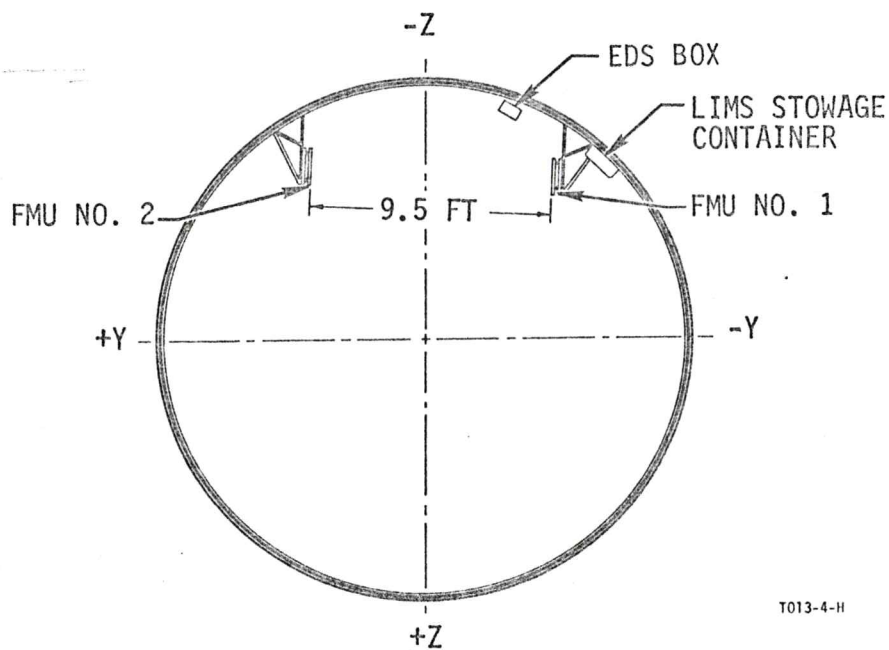
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EXPERIMENT T013 HARDWARE LOCATION

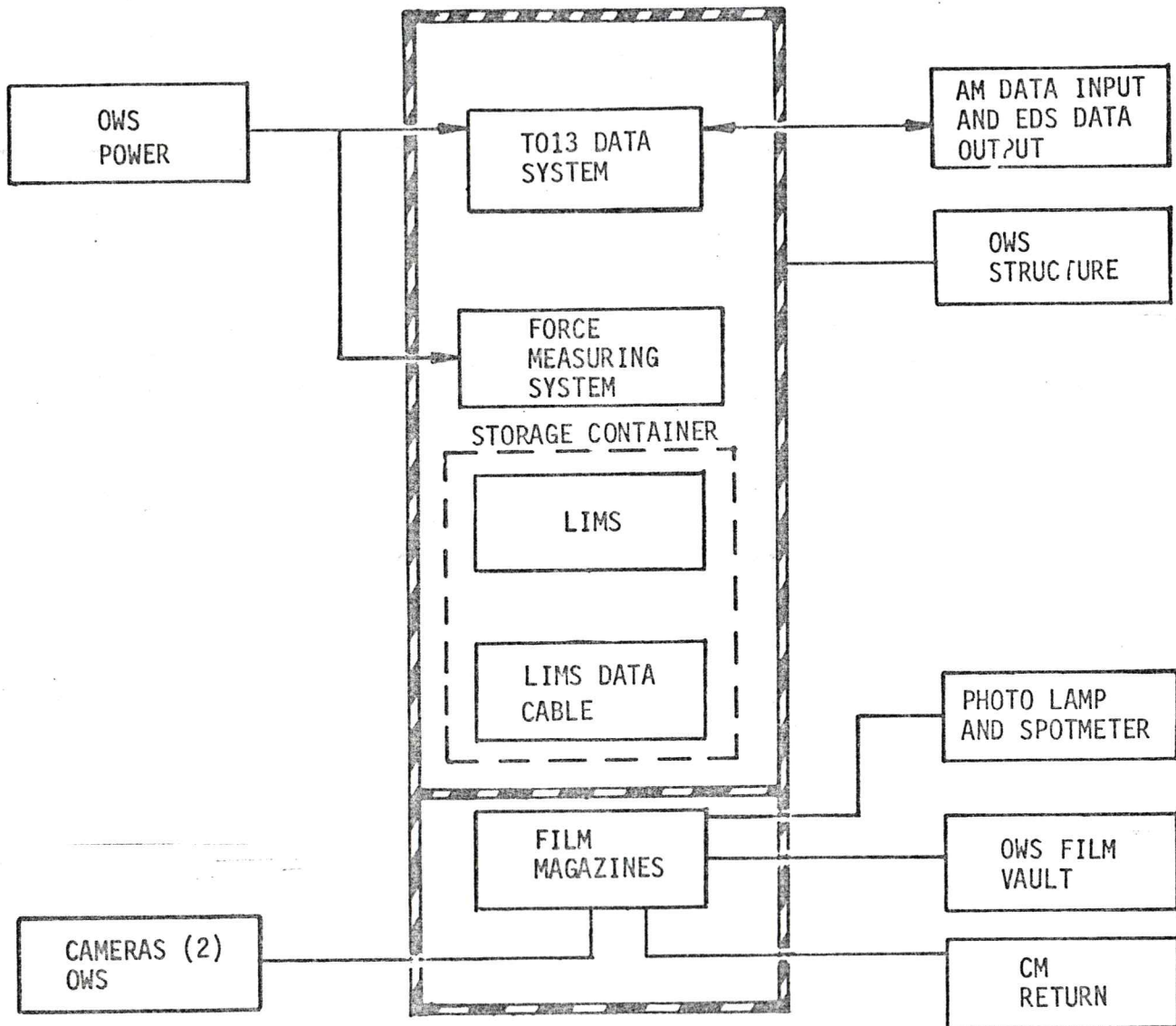


T013-3-H



T013-4-H

T013 INTERFACE SCHEMATIC

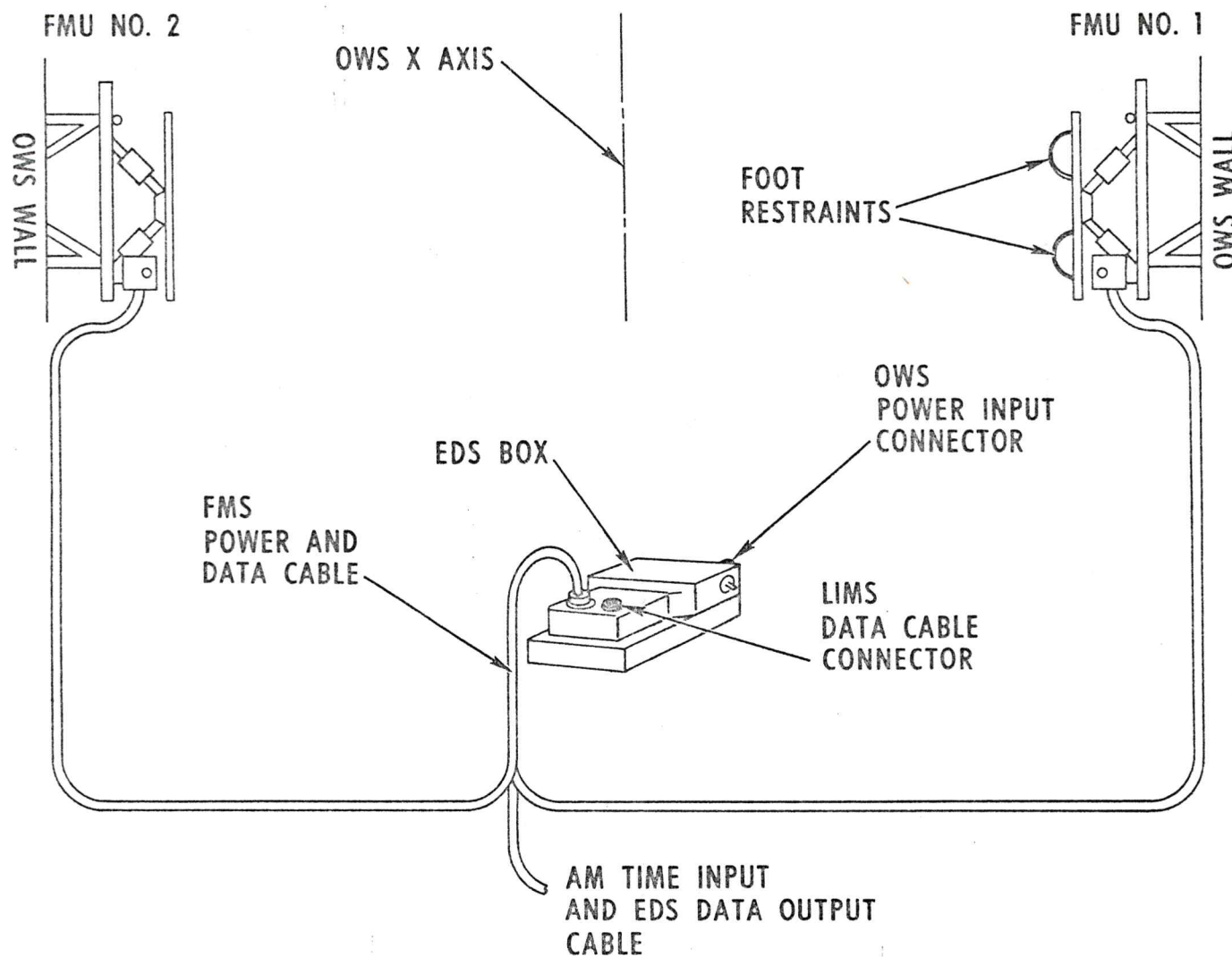


T013 OPERATIONAL CONFIGURATION....

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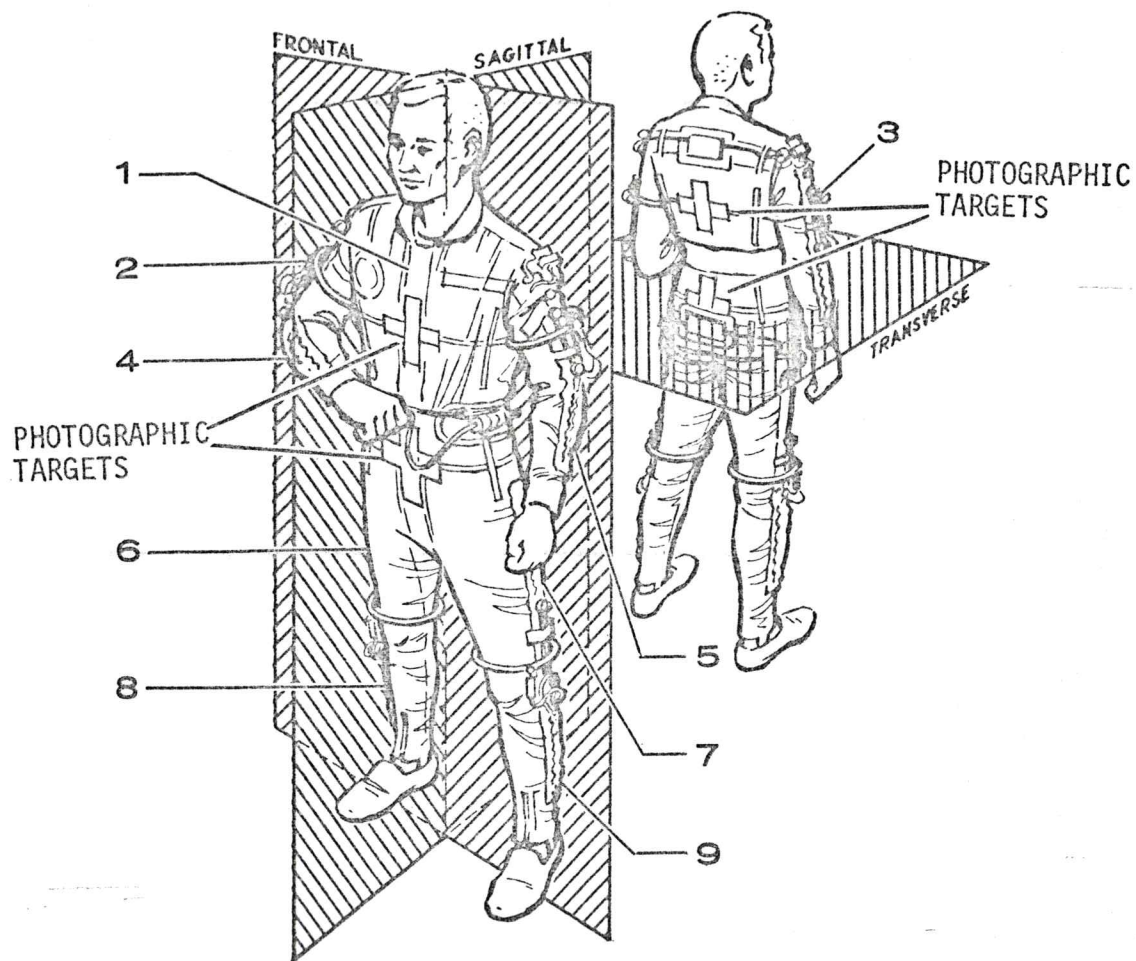
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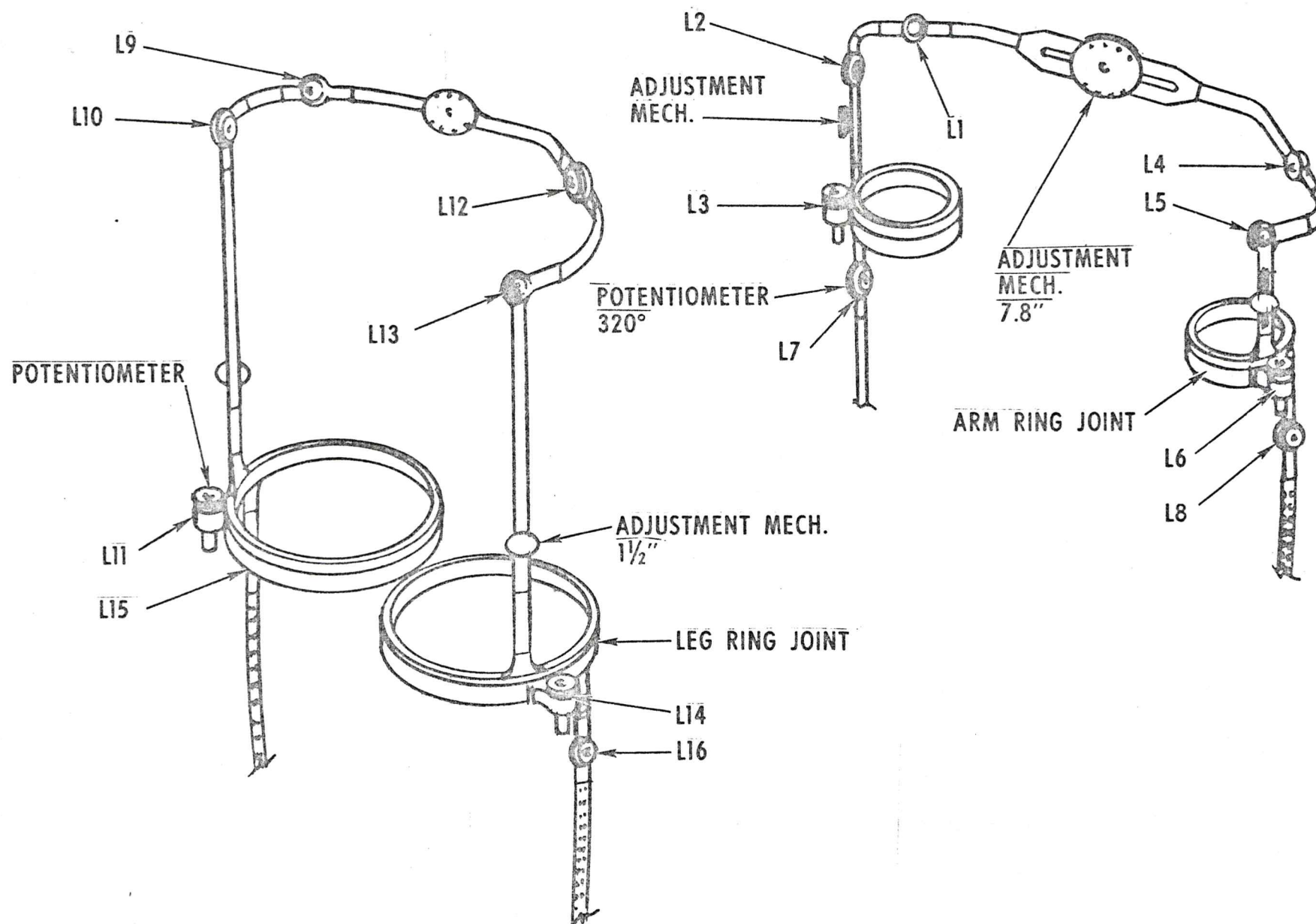


T013 EXOSKELETAL STRUCTURE....

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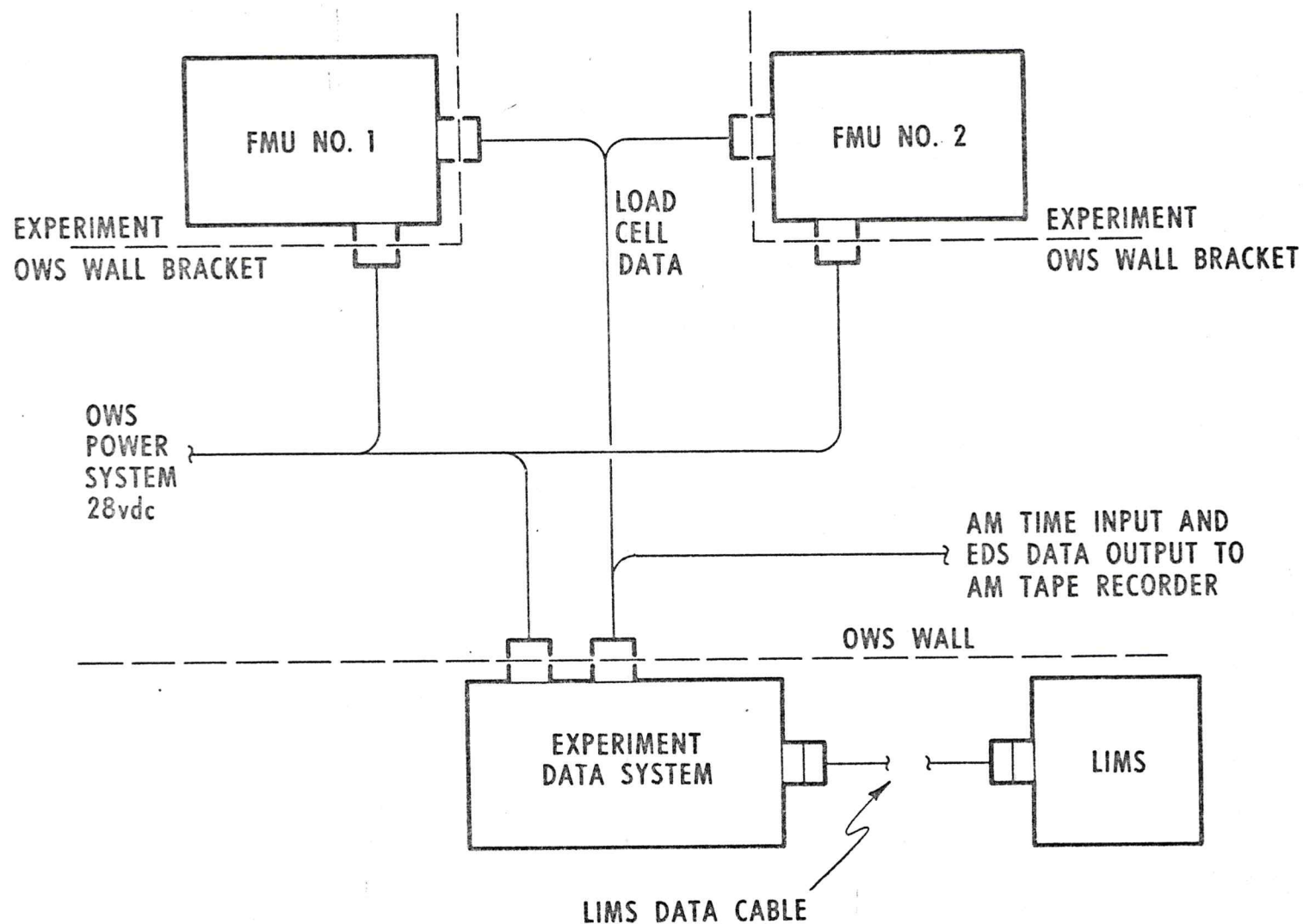


T013 EXPERIMENT BLOCK DIAGRAM....

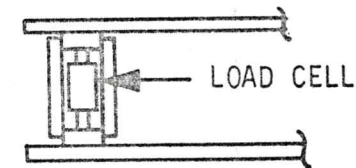
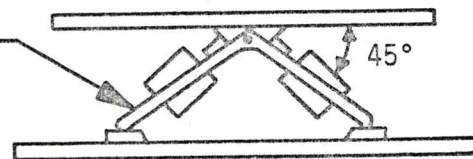
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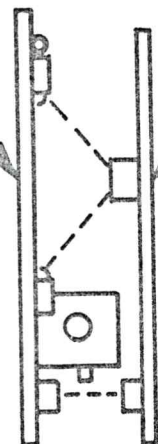
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CAGING MECHANISM

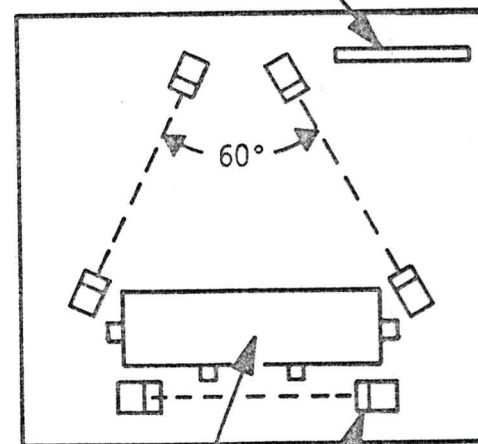


BASE PLATE



SENSING PLATE

CALIBRATION HANDLE



SIGNAL CONDITIONER
ASSEMBLY

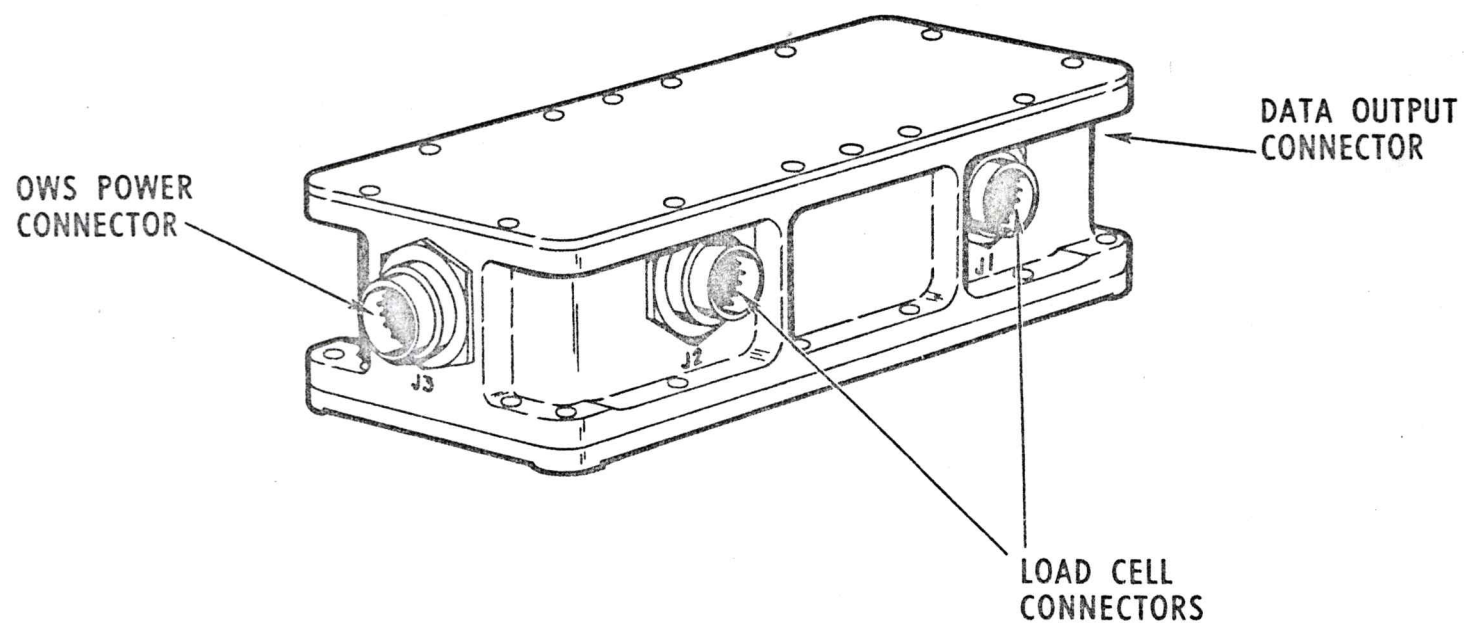
LOAD
CELL
ARRAY

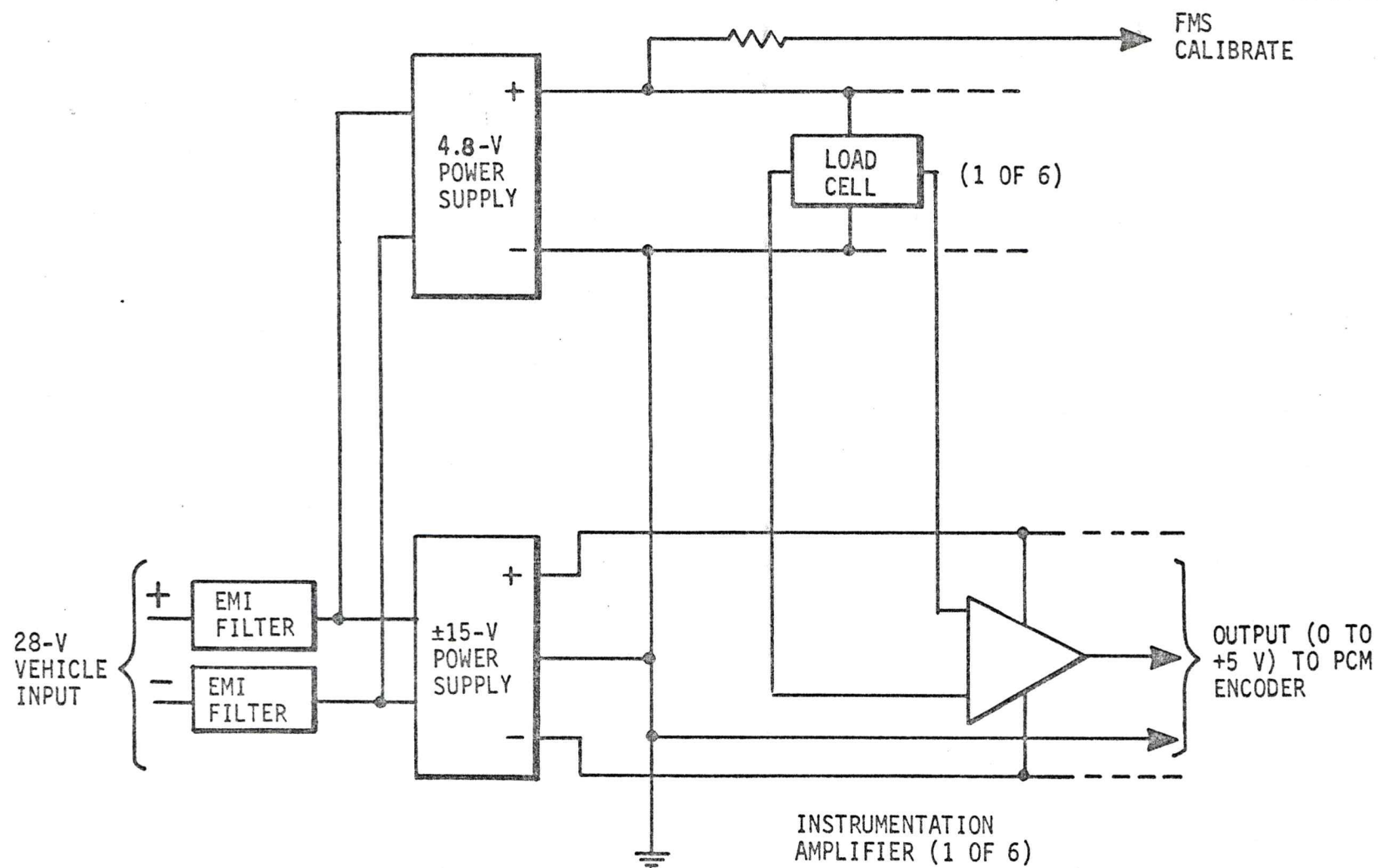
T013 FMU SIGNAL CONDITIONER....

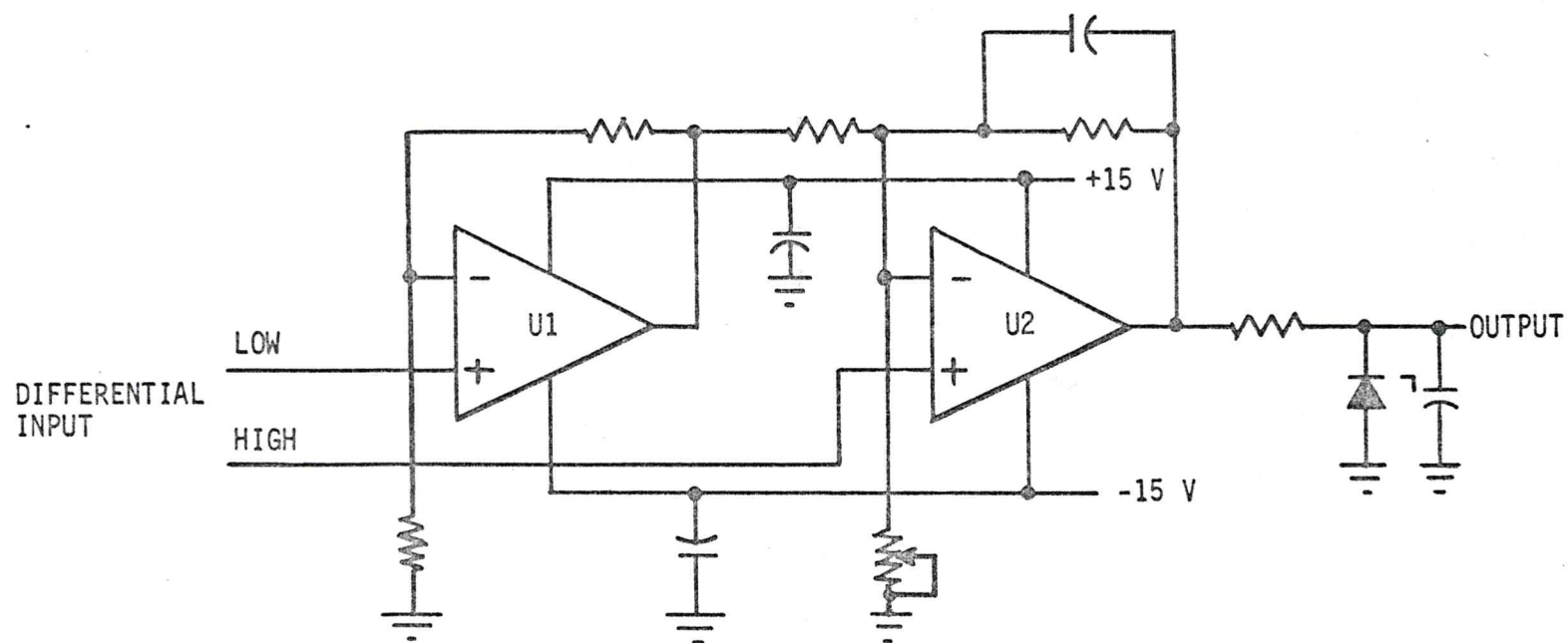
FOR TRAINING PURPOSES ONLY

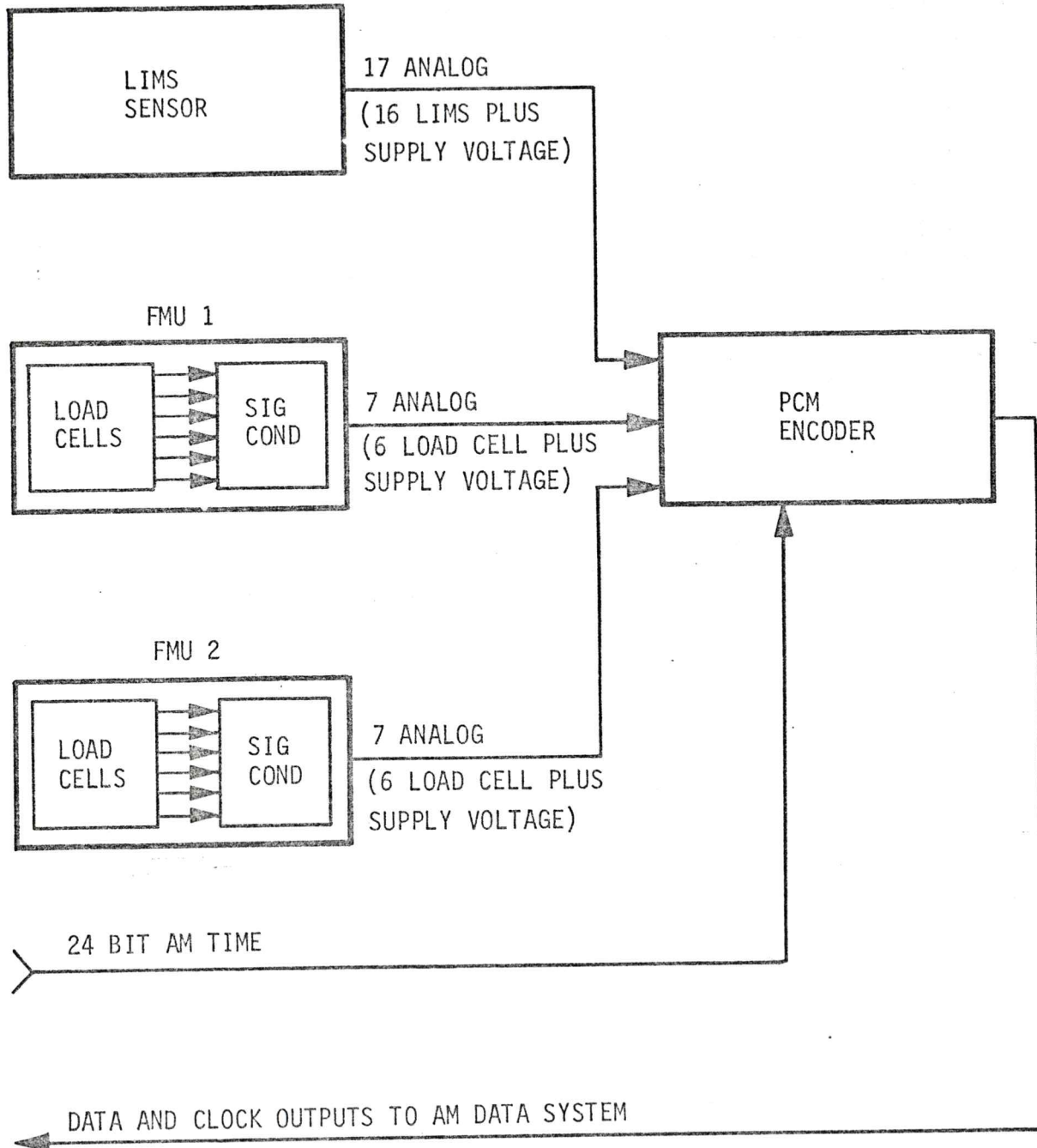
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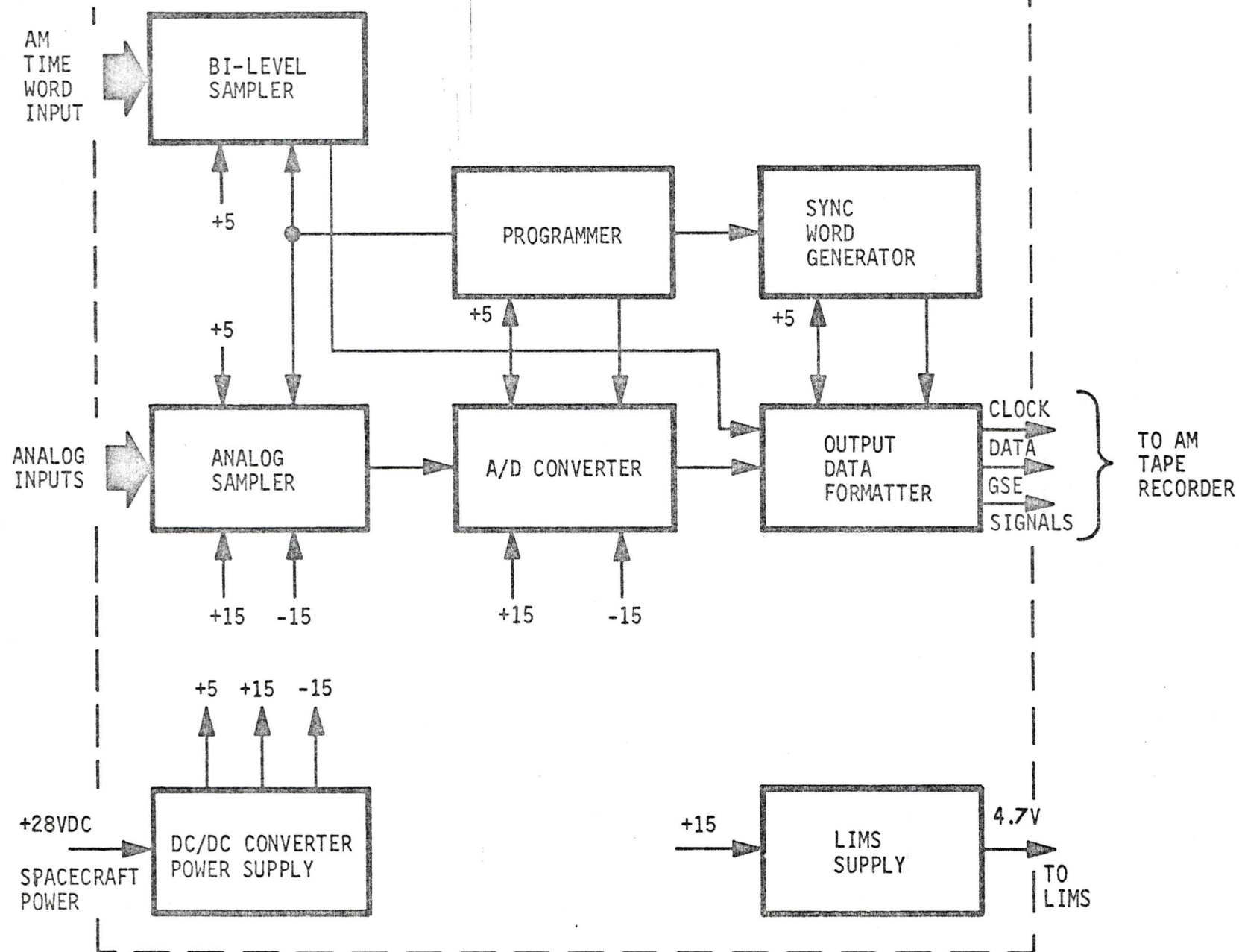


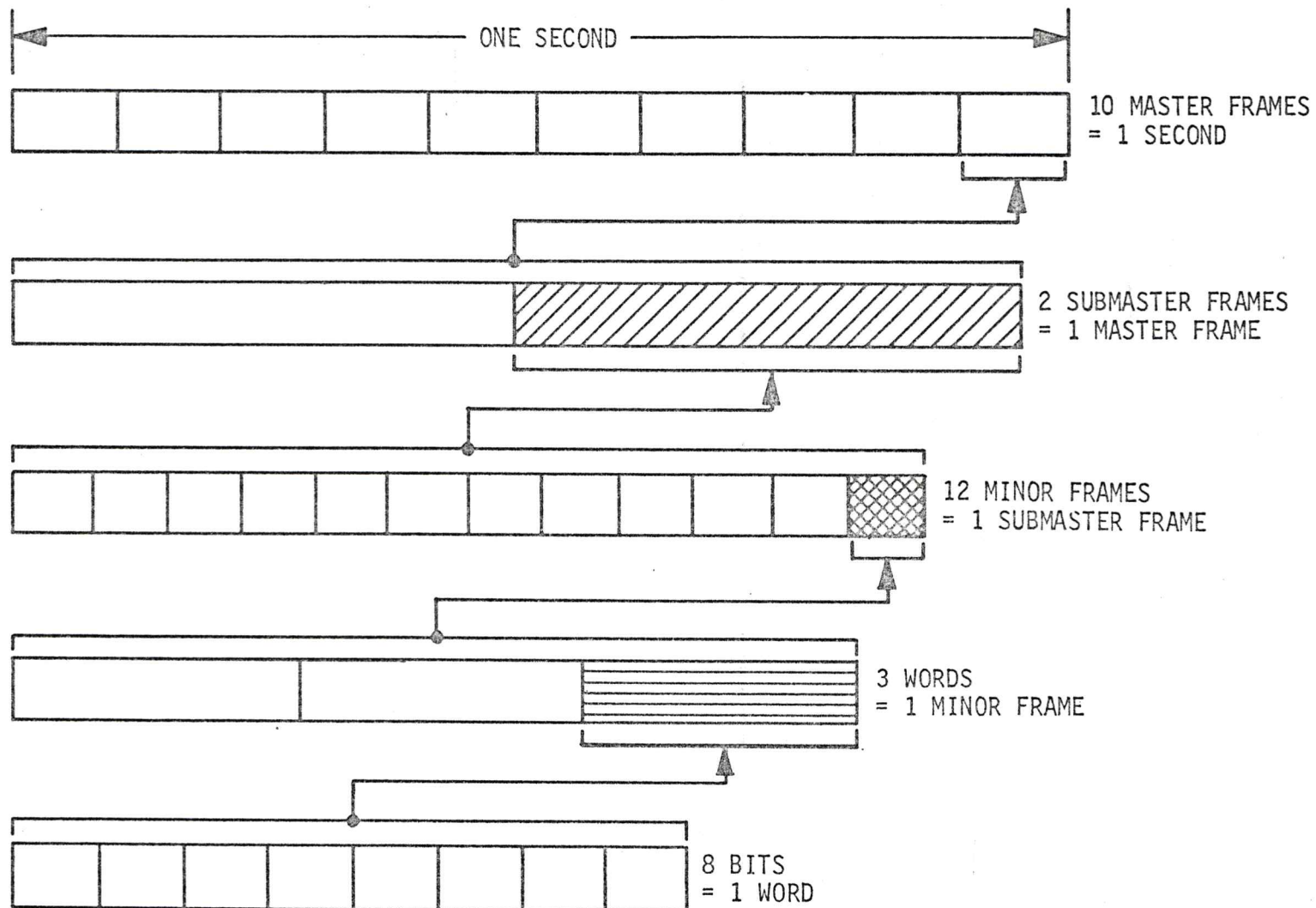




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T013 EXPERIMENT DATA

	Word 1	Word 2	Word 3
1	SYNC	SYNC	SYNC
2	F1	F2	L1
3	L2	L3	L4
4	F3	F4	L5
5	L6	L7	L8
6	F5	F6	L9
7	L10	L11	L12
8	F7	F8	L13
9	SPARE	SPARE	SPARE
10	F9	F10	L14
11	LIMS CAL.	FMU1 CAL.	L15
12	F11	F12	L16
1	TIME	TIME	TIME
2	F1	F2	L1
3	L2	L3	L4
4	F3	F4	L5
5	L6	L7	L8
6	F5	F6	L9
7	L10	L11	L12
8	F7	F8	L13
9	SPARE	SPARE	SPARE
10	F9	F10	L14
11	FMU2 CAL.	SPARE	L15
12	F11	F12	L16

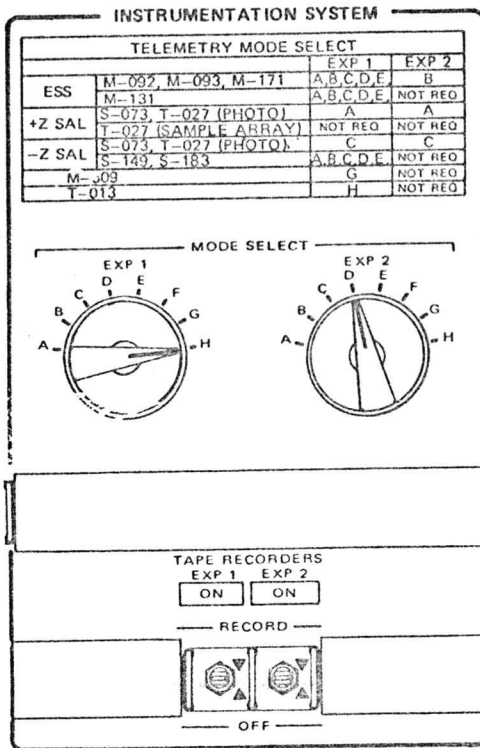
NOTE:

1. SYNC Code - 01101100 11110101 00000000

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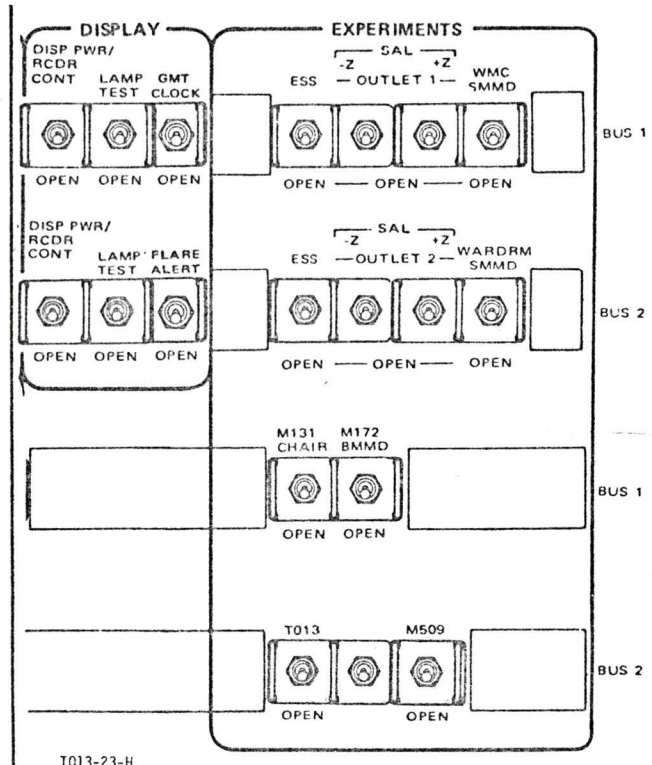
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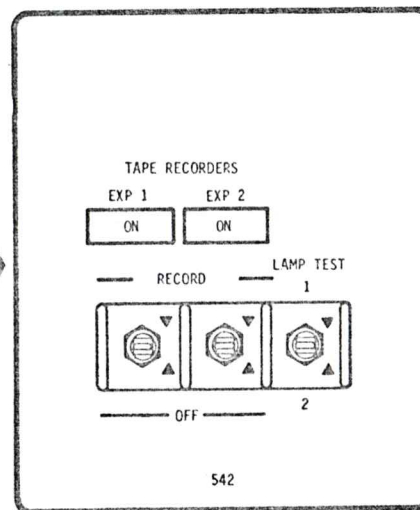
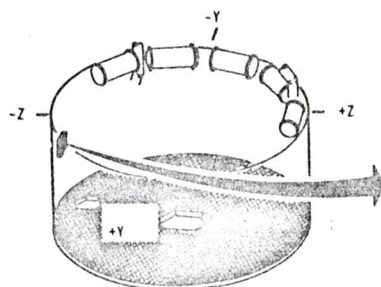
T013-22-H

Panel No. 617



T013-23-H

Panel No. 613



542

T013-24-H

OWS Forward Compartment Instrumentation Panel