

SKYLAB
EXPERIMENT BRIEFING

EREP ESE

Instructor
P. Taylor

SKYLAB CREW PREFLIGHT TRAINING

FOR TRAINING PURPOSES ONLY

MARTIN MARIETTA

DENVER DIVISION

EREP (ESE) EXPERIMENT SUPPORT EQUIPMENT

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OBJECTIVE DISTRIBUTE AND CONTROL POWER TO EREP SENSORS;
RECORD ON MAGNETIC TAPE EREP SCIENTIFIC AND HOUSEKEEPING
DATA, ASTRONAUT VOICE COMMENTS, AND AM TIMING; PROVIDE
ASTRONAUT MONITORING CAPABILITY FOR REAL-TIME DATA PARA-
METERS FROM EREP SENSORS; PROVIDE STOWAGE OF EREP SUPPORT
EQUIPMENT.

EXPERIMENT EQUIPMENT

EQUIPT RACK #1

EQUIPT RACK #2

ELECT CABLES

COOLANT LINES

TAPE CONTAINER

CONTROL & DISPLAY PNL

TAPE RECORDERS (2)

EMPTY REELS

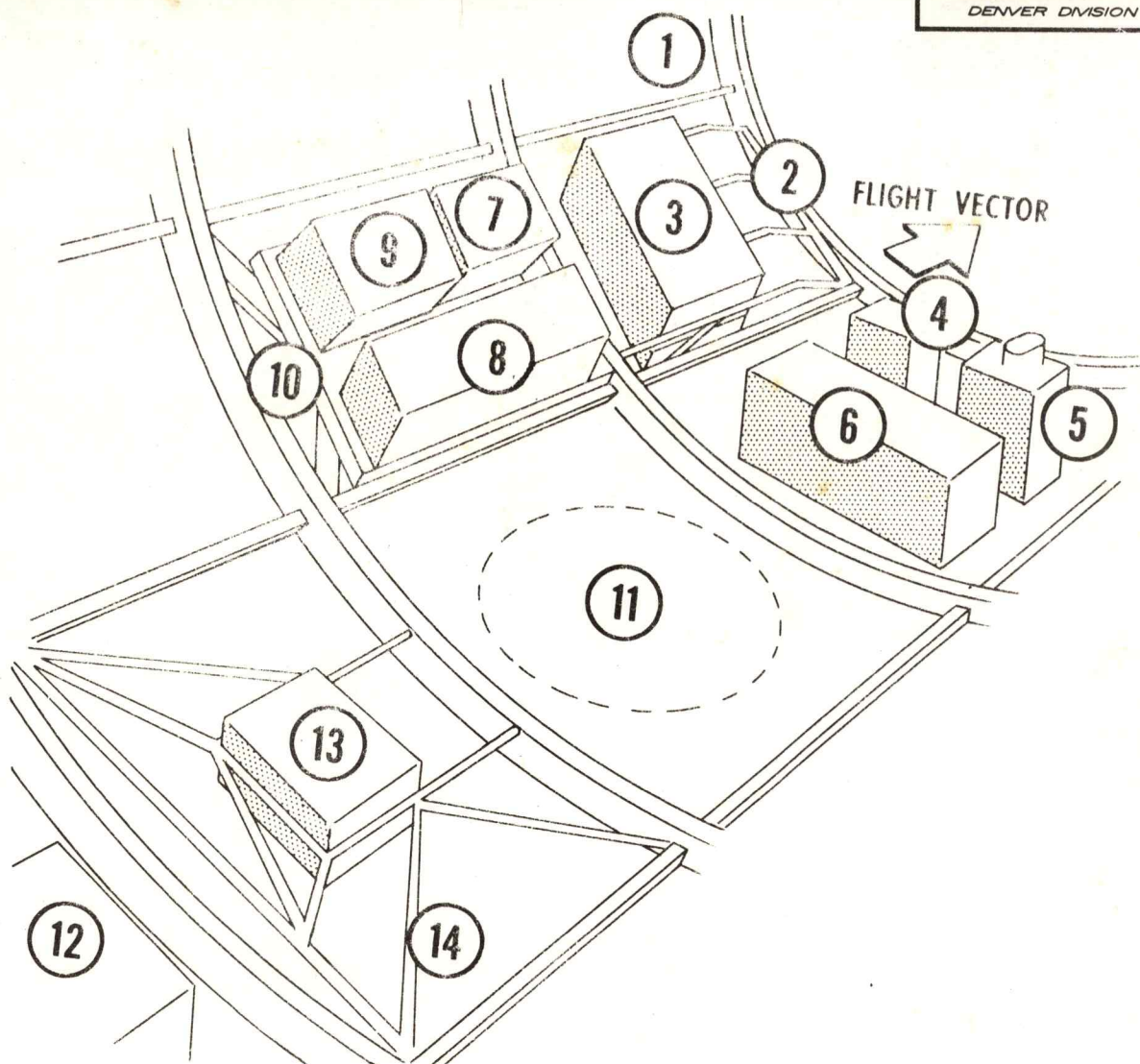
MAGNETIC TAPES (4)

EREP EXPERIMENT PACKAGE

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LEGEND:

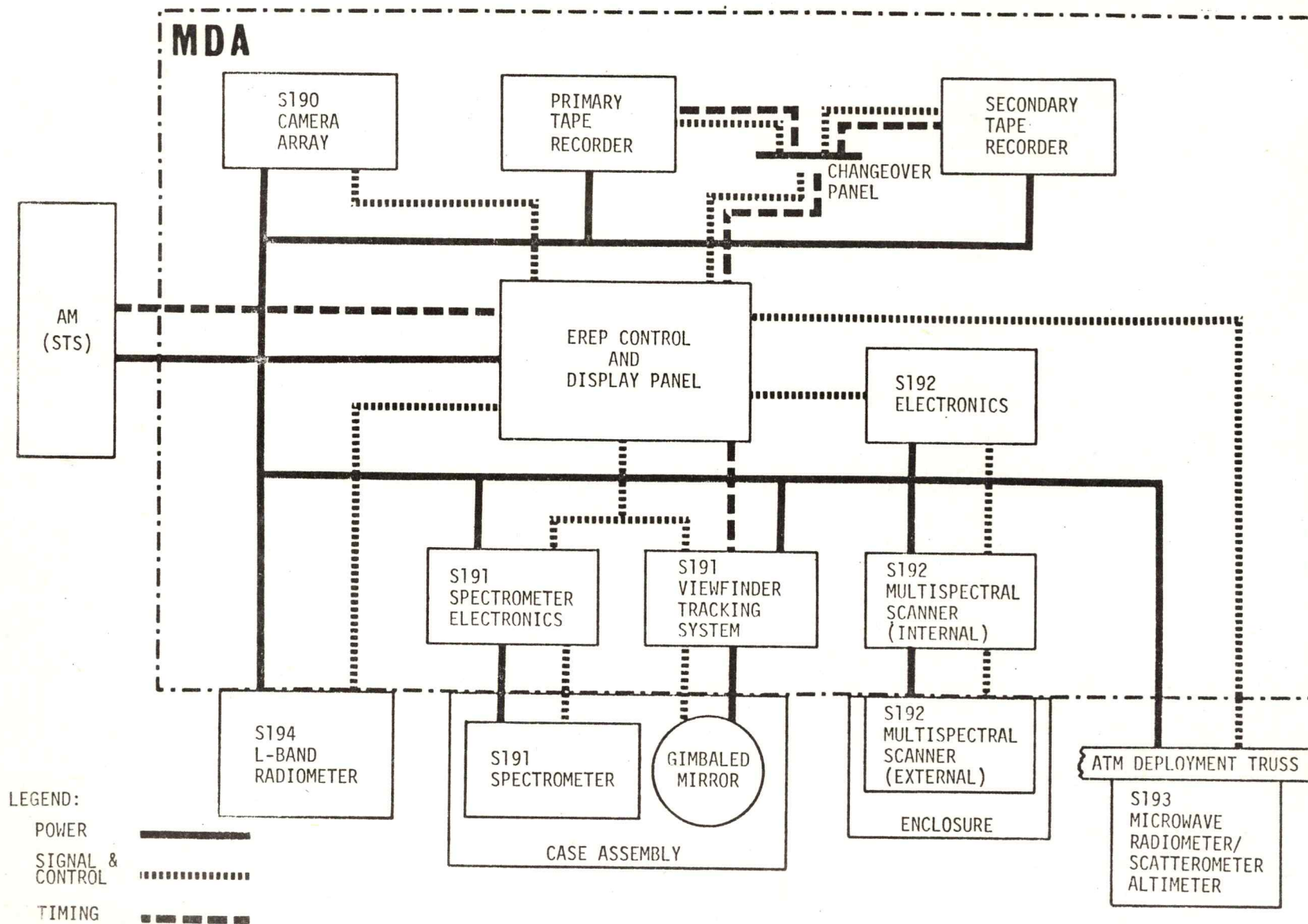
- | | |
|------------------------------|-------------------------------------|
| 1 FWD FRAME-BARREL-MDA | 8 SI90 STOWAGE, TAPE STOWAGE |
| 2 ESE RACK NO. 1 | 9 SI92 ELECTRONICS ASSEMBLY |
| 3 C&D PANEL | 10 ESE RACK NO. 2 |
| 4 IR SPECTROMETER ELEC | 11 DOCKING PORT |
| 5 VIEWFINDER/TRACKING SYSTEM | 12 MULTISPECTRAL SCANNER (INTERNAL) |
| 6 SI90 | 13 BACKUP TAPE RECORDER |
| 7 TAPE RECORDER | 14 BACKUP TAPE RECORDER SUPPORT |

EREP SYSTEM DIAGRAM

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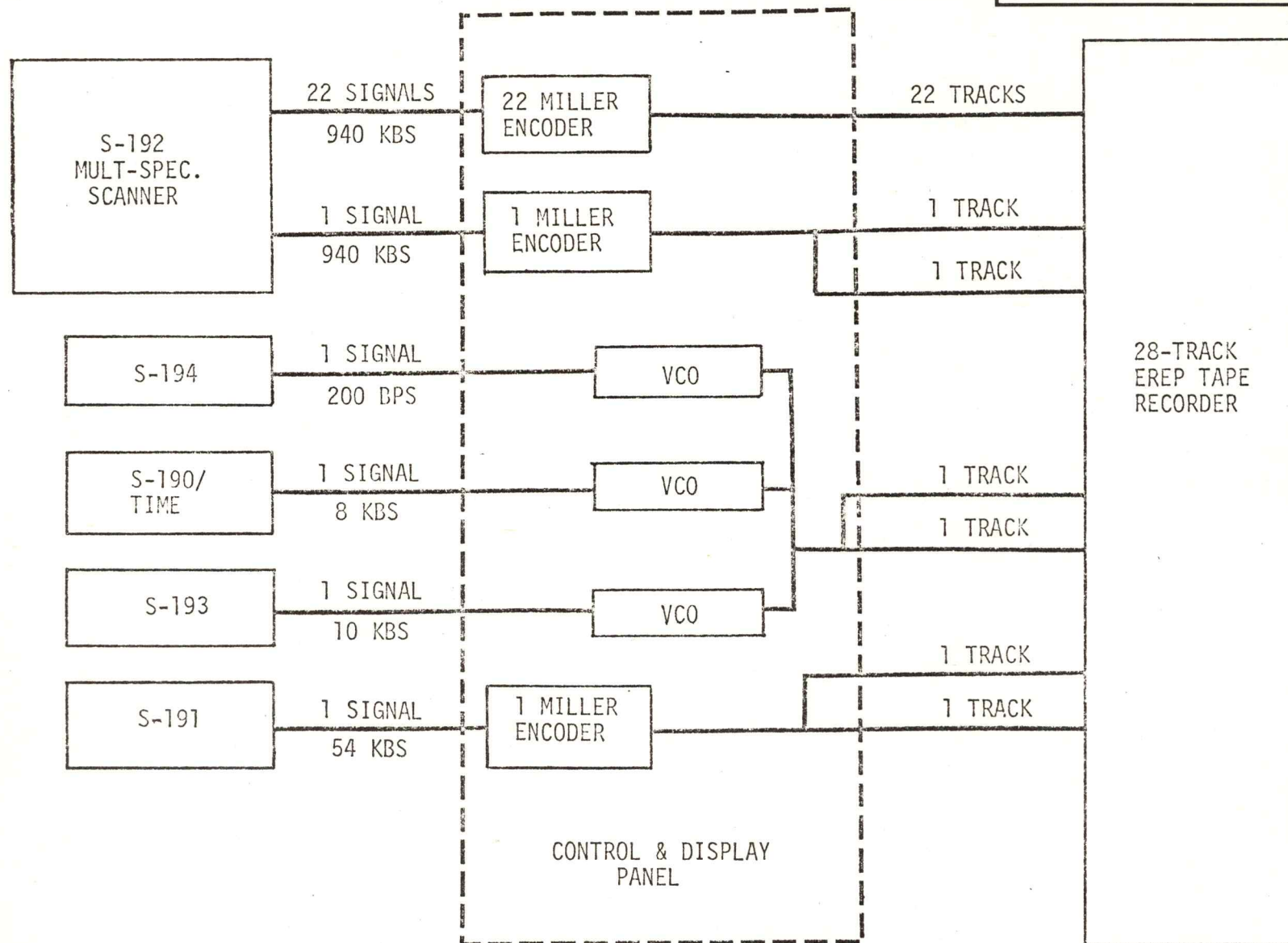


EREP TAPE RECORDER DATA FORMAT

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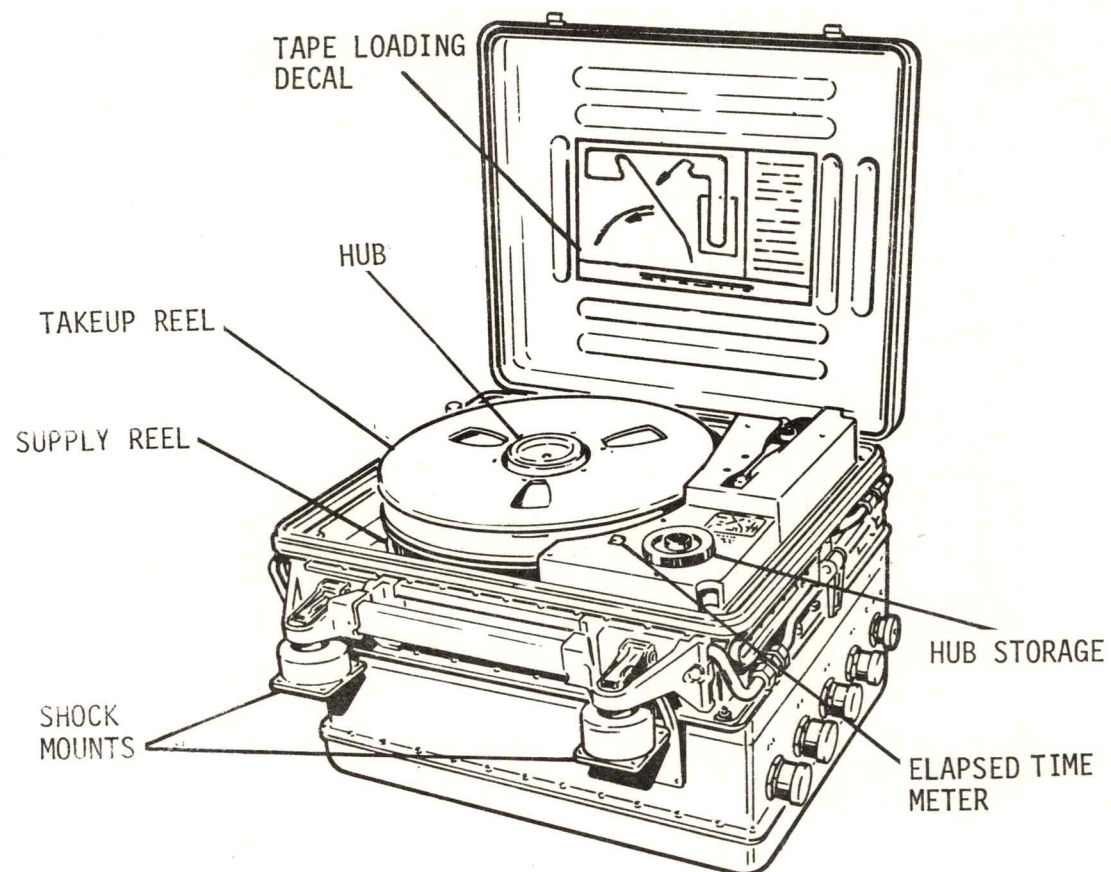


EREP TAPE RECORDER

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EREP Tape Recorder

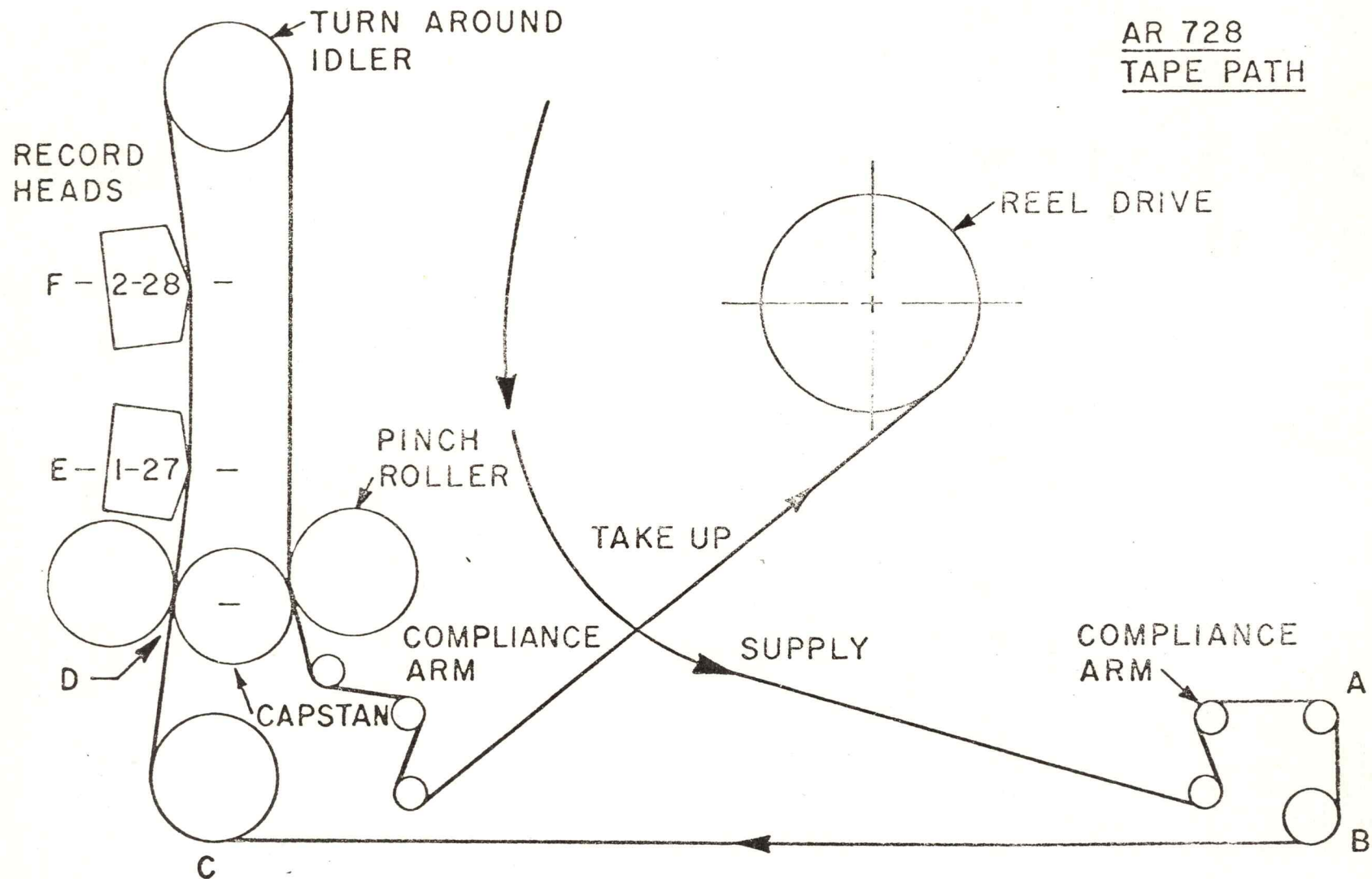
EREP TAPE RECORDER SYSTEM

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AR 728
TAPE PATH

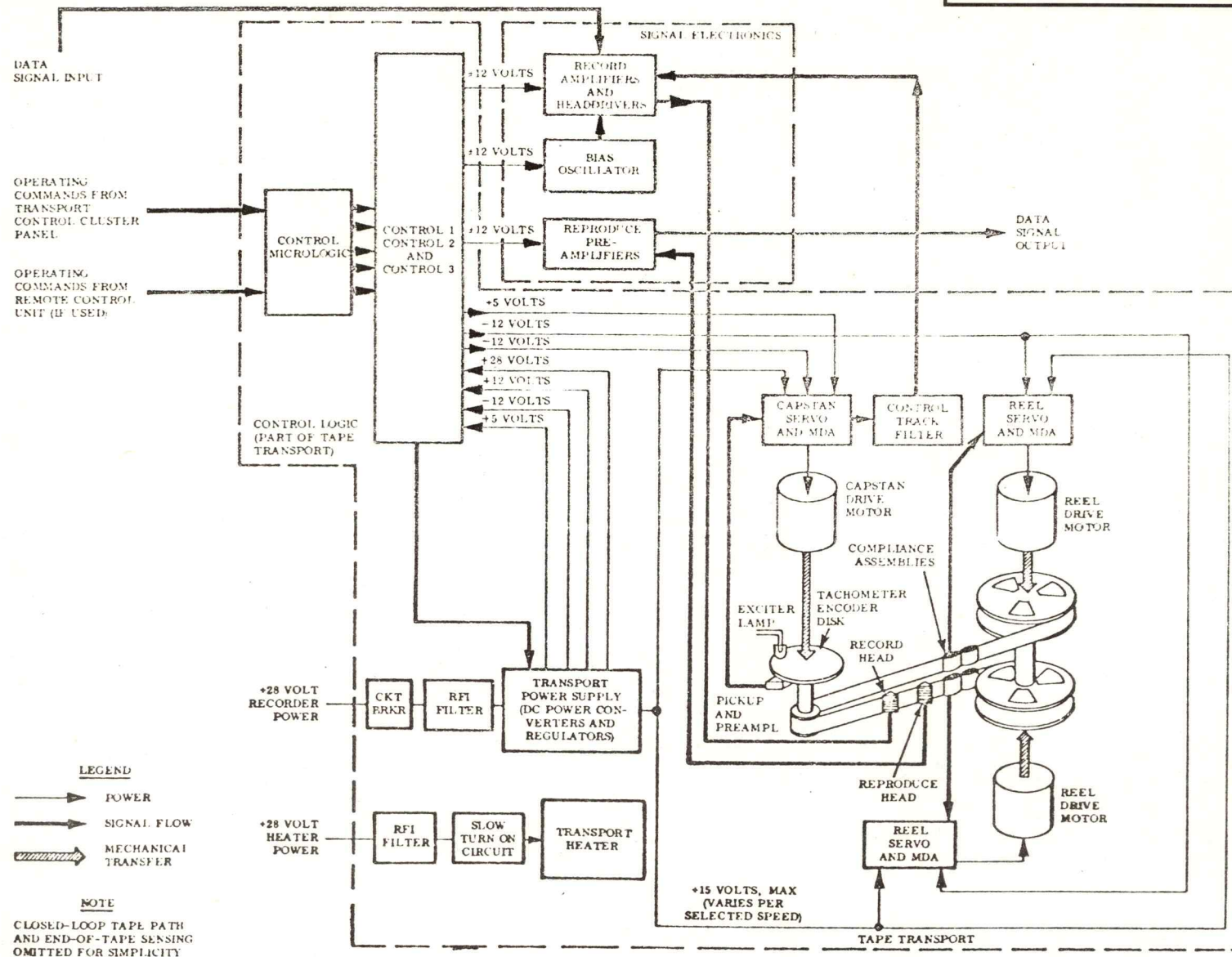


EREP TAPE RECORDER SYSTEM BLOCK

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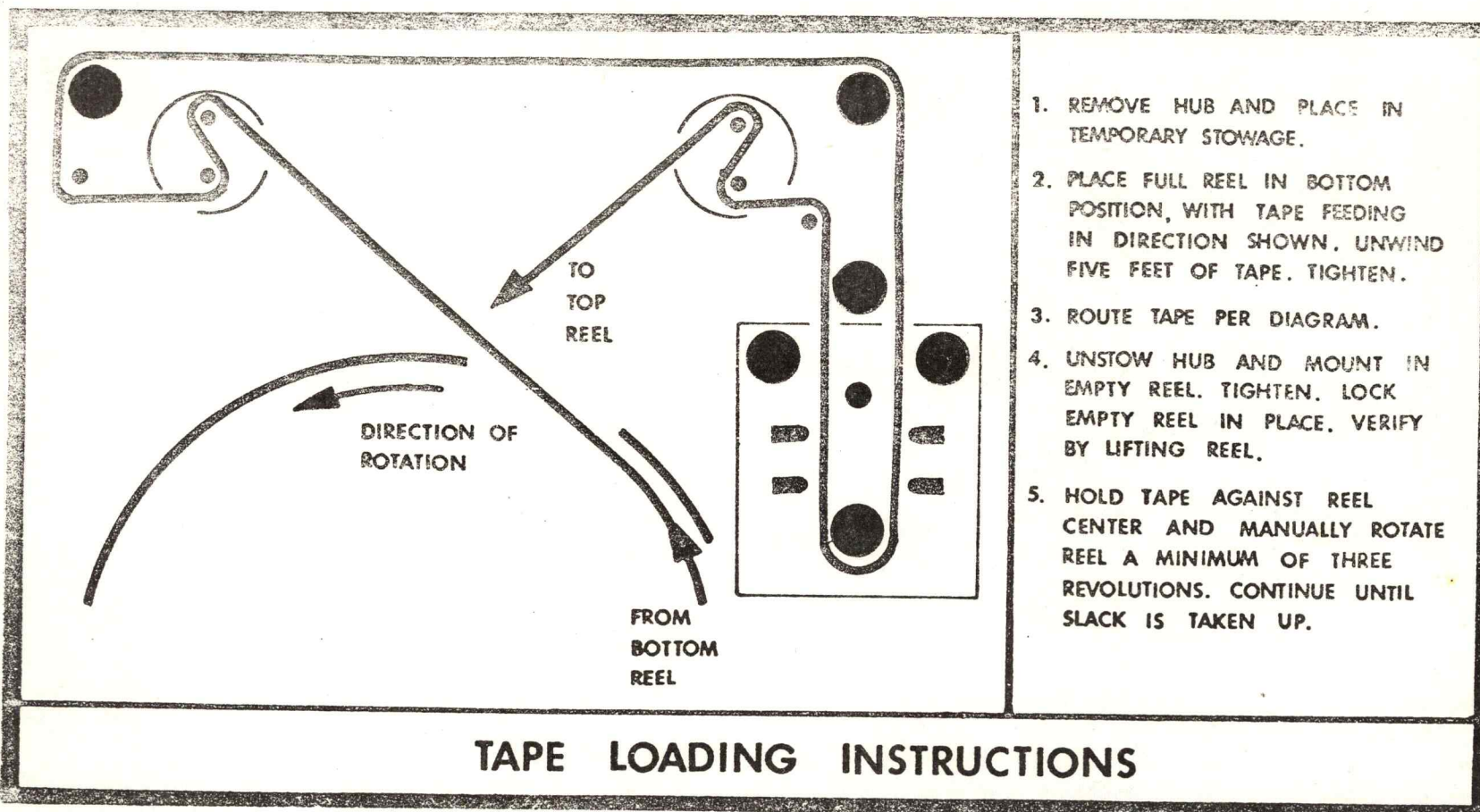


TAPE LOADING DIAGRAM

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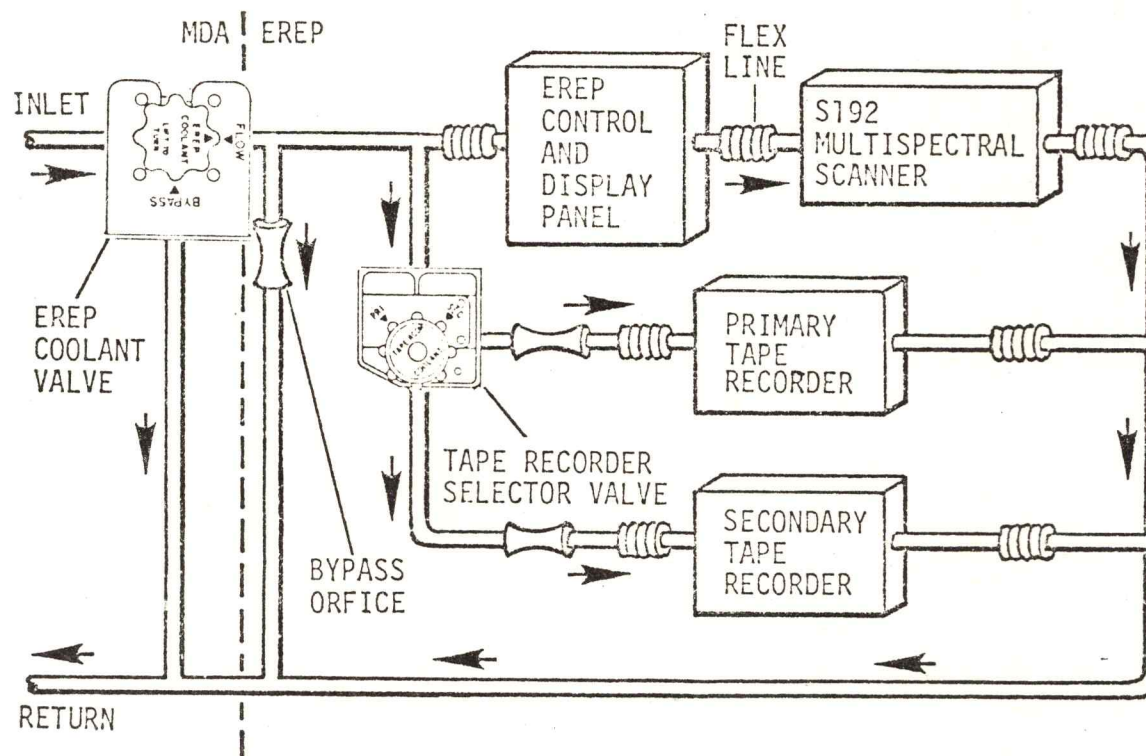


EREP COOLANT LOOP

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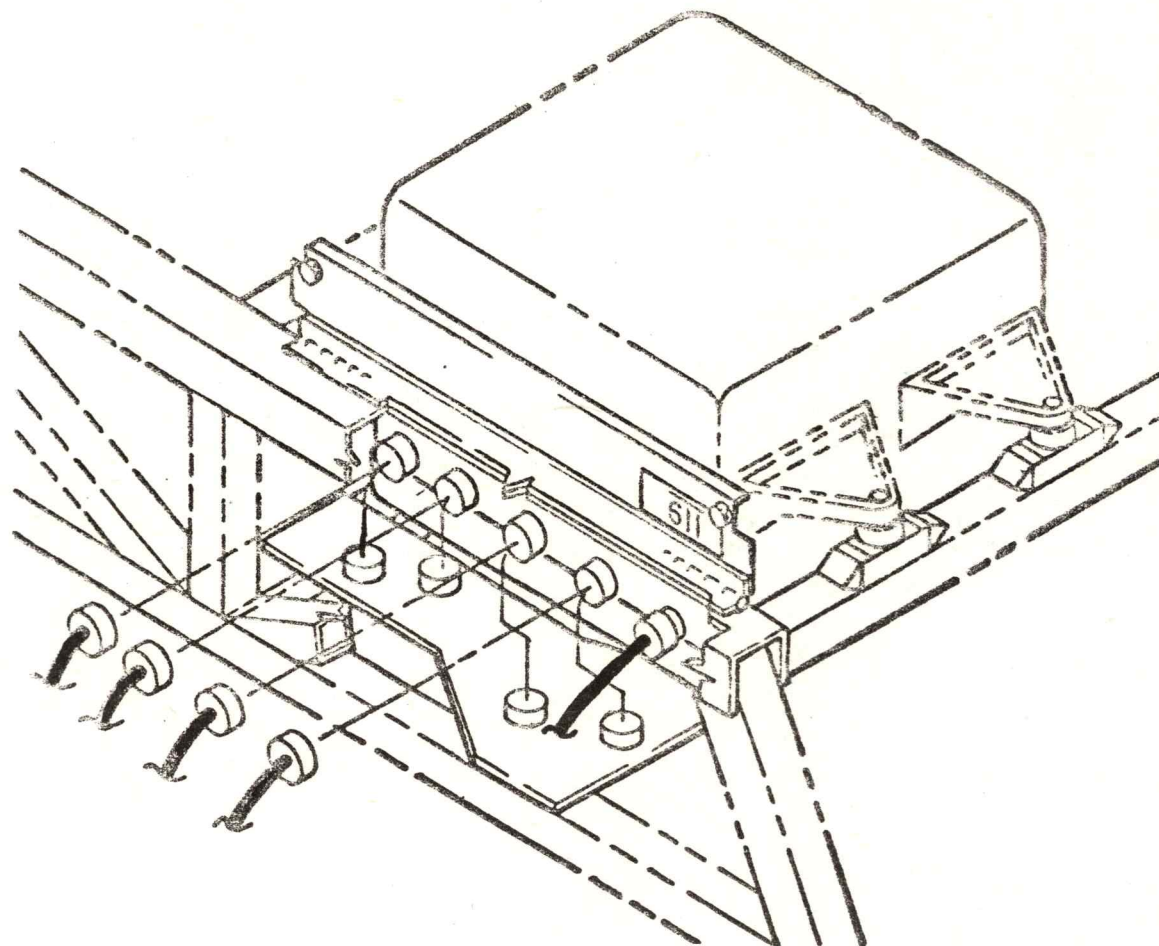
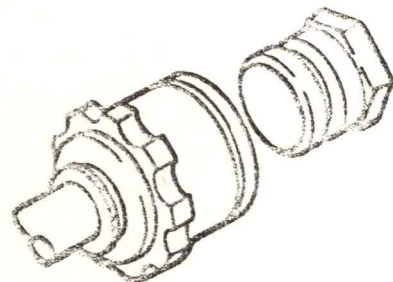


EREP TAPE RECORDER CHANGE-OVER DIAGRAM

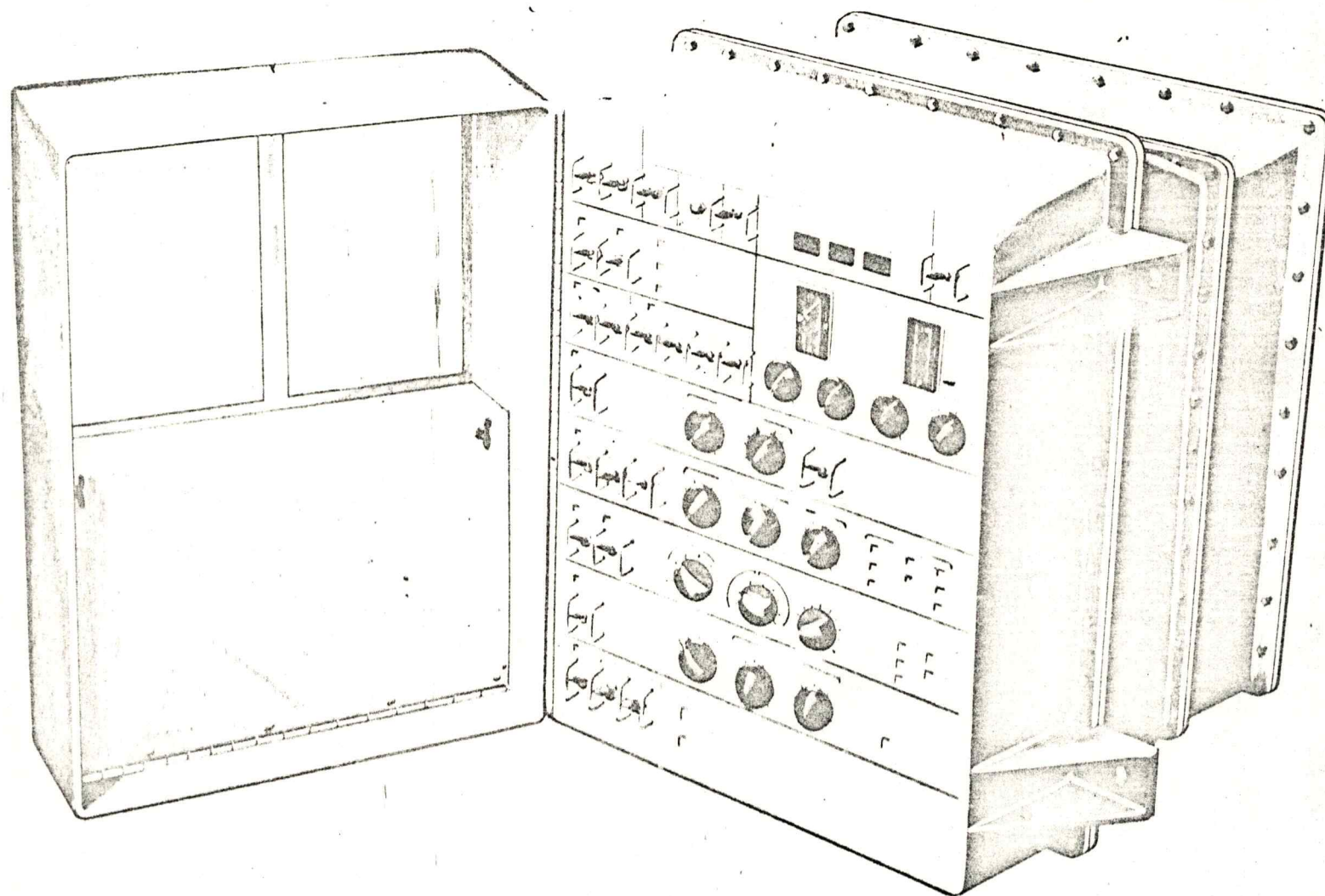
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EREP C & D PANEL

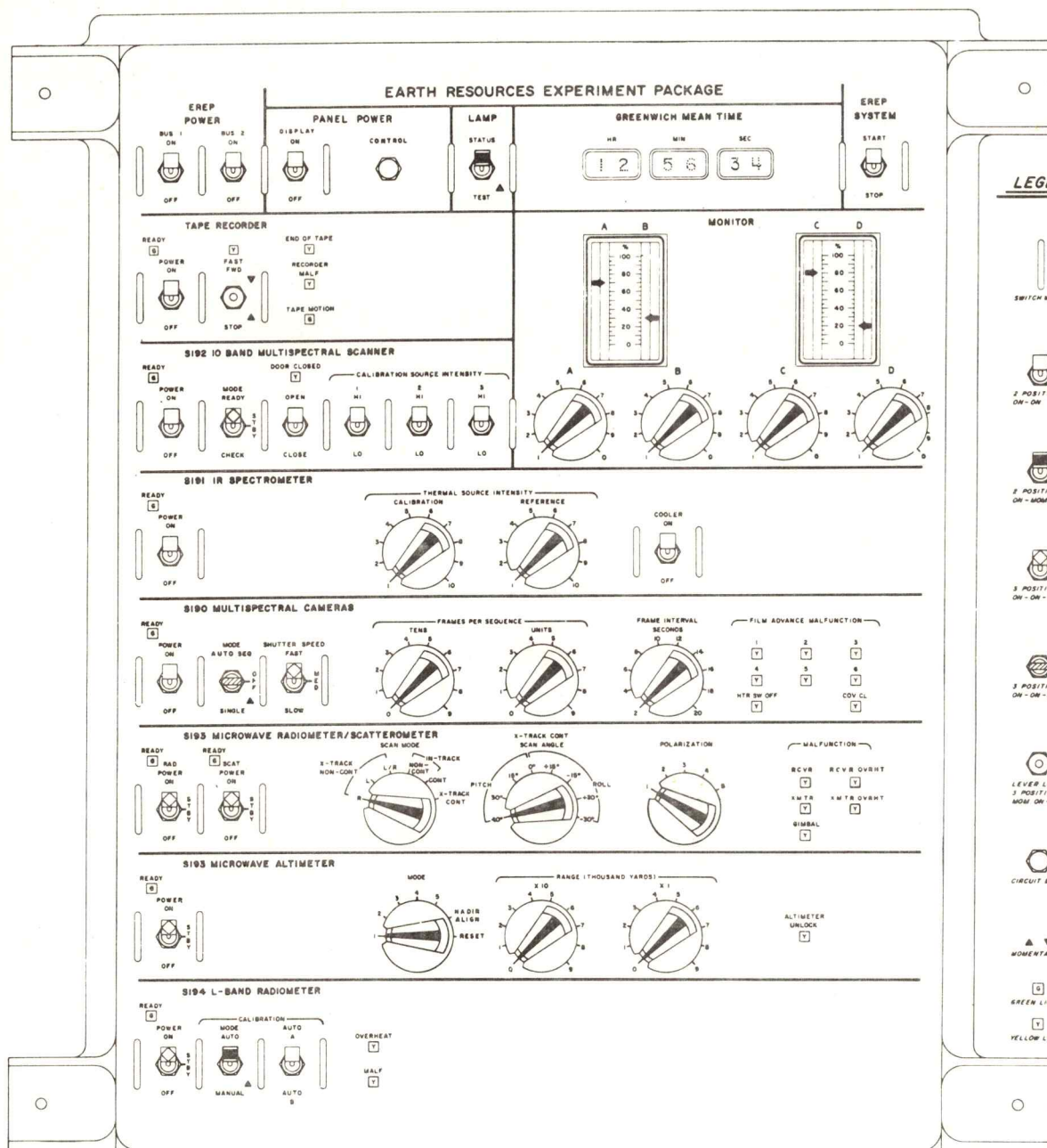


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EREP CONTROL AND DISPLAY PANEL



RELEASED 71 JAN 27

EREP MONITOR MEASUREMENT LIST

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MEASUREMENTS LIST														
SW POS	MONITOR A			MONITOR B			SW POS	MONITOR C			MONITOR D			SW POS
	EXP	FUNCTION	RANGE	EXP	FUNCTION	RANGE		EXP	FUNCTION	RANGE	EXP	FUNCTION	RANGE	
1	193	ROLL GIMBAL ANGLE EXPANDED	+4° to -4° (10% to 90%)	193	PITCH GIMBAL ANGLE EXPANDED	+4° to -4° (10% to 100%)	1	193	ALTIMETER, AGC VOLTAGE	3 to 5 v (60% to 100%)	---	NOT USED	---	1
2	192	DETECTOR 1	TBD	192	DETECTOR 2	TBD	2	192	DETECTOR 3	TBD	192	DETECTOR 4	TBD	2
3	192	DETECTOR 5	TBD	192	DETECTOR 6	TBD	3	192	DETECTOR 7	TBD	192	DETECTOR 8	TBD	3
4	192	DETECTOR 9	TBD	192	DETECTOR 10	TBD	4	192	DETECTOR 11	TBD	192	DETECTOR 12	TBD	4
5	192	DETECTOR 13	TBD	192	DETECTOR 14	TBD	5	192	CAL 1 TEMP	TBD	192	CAL 2 TEMP	TBD	5
6	192	CAL 3 CURRENT	TBD	192	CAL 4 TEMP	TBD	6	192	CAL 5 CURRENT	TBD	192	DETECTOR ARRAY TEMP	TBD	6
7	191	HEATED CAL SOURCE TEMP	TBD	191	THERMAL DE- TECTOR TEMP	TBD	7	191	AMBIENT CAL SOURCE TEMP	TBD	191	THERMAL REF TEMP	TBD	7
8	191	CAL LAMP CURRENT	TBD	191	DEWAR PRESSURE	TBD	8	T/R	TAPE REMAINING	0-100	---	NOT USED	---	8
9	193	SCATTEROMETER OUTPUT	0 to 5 v (0% to 100%)	193	TDA BIAS	1.87 to 2.8v (37% to 54%)	9	193	RADIOMETER OUTPUT	50°K to 355°K (10% to 100%)	193	ROLL GIMBAL ANGLE	+60° to -60° (0% to 100%)	9
0	---	NOT USED	---	193	PITCH GIMBAL ANGLE	60° to -60° (0% to 100%)	0	193	ROLL TORQUER CURRENT	+5A to -5A (0% to 100%)	193	PITCH TORQUER CURRENT	+5A to -5A (0% to 100%)	0

TAPE RECORDER FUNCTIONAL CONTROLS

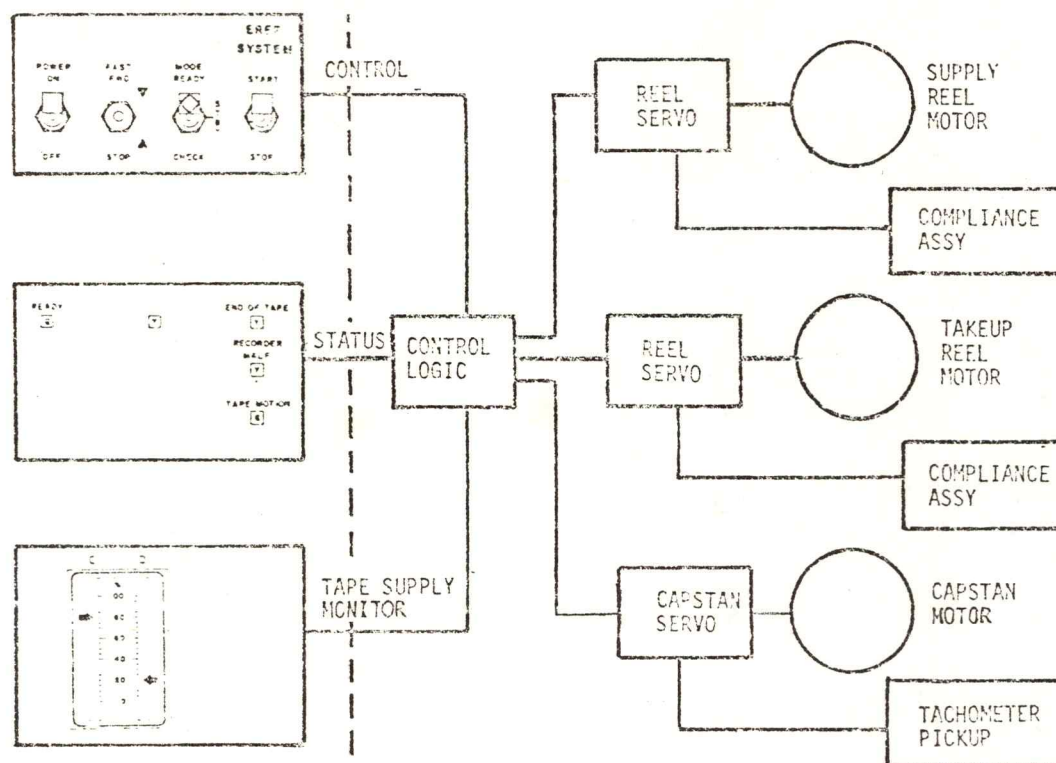
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C&D PANEL

TAPE RECORDER



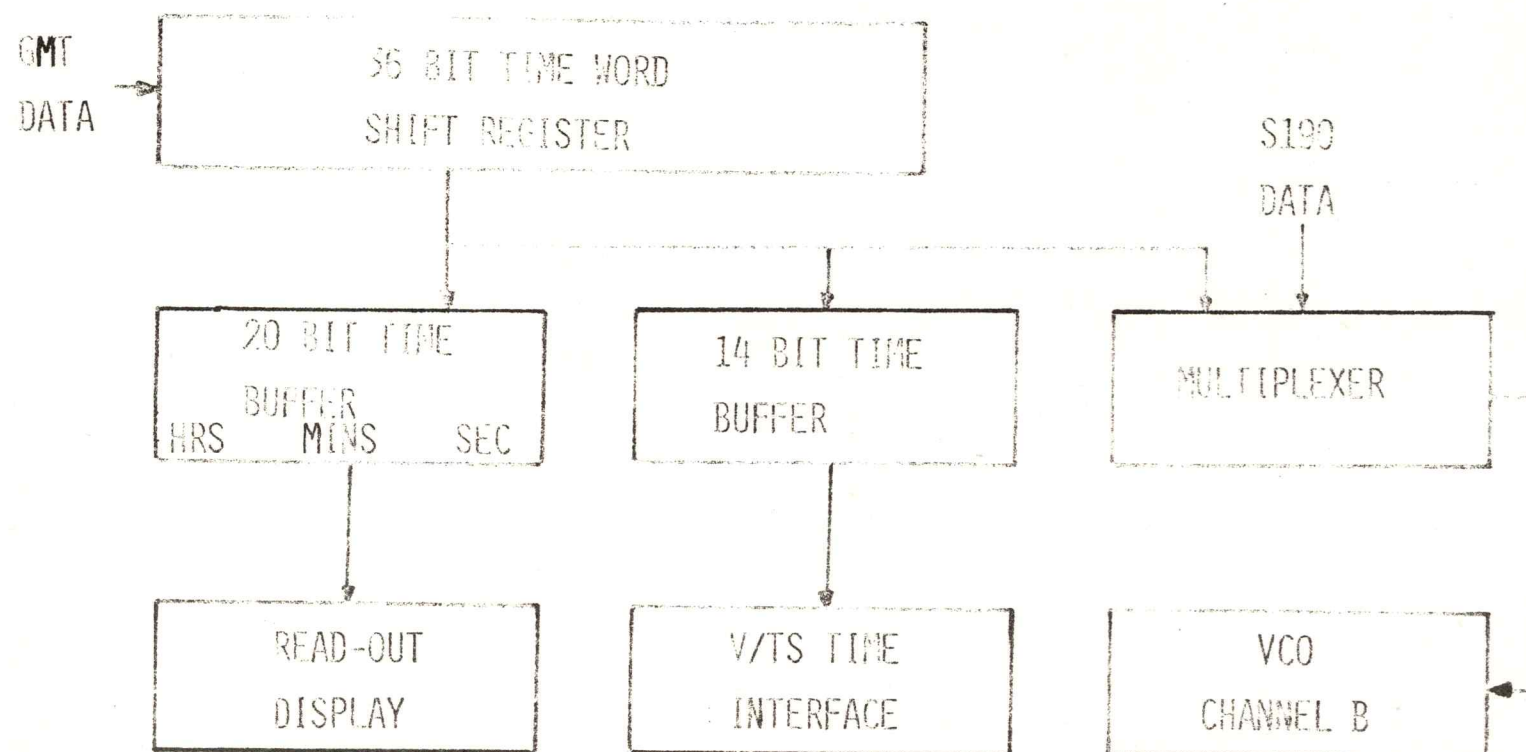
EREP Tape Recorder Functional Control

GMT BLOCK DIAGRAM

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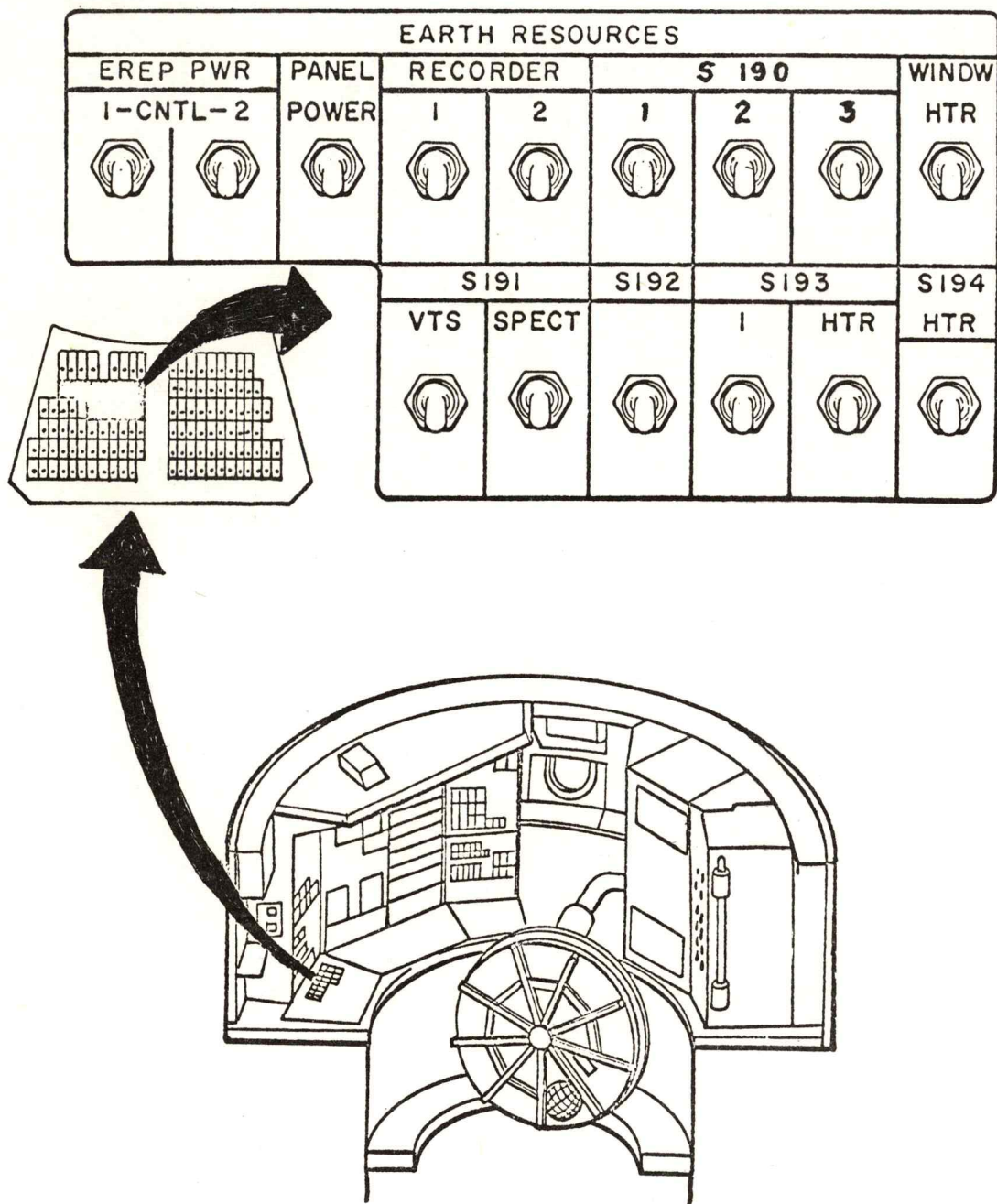


AM EREP CIRCUIT BREAKERS

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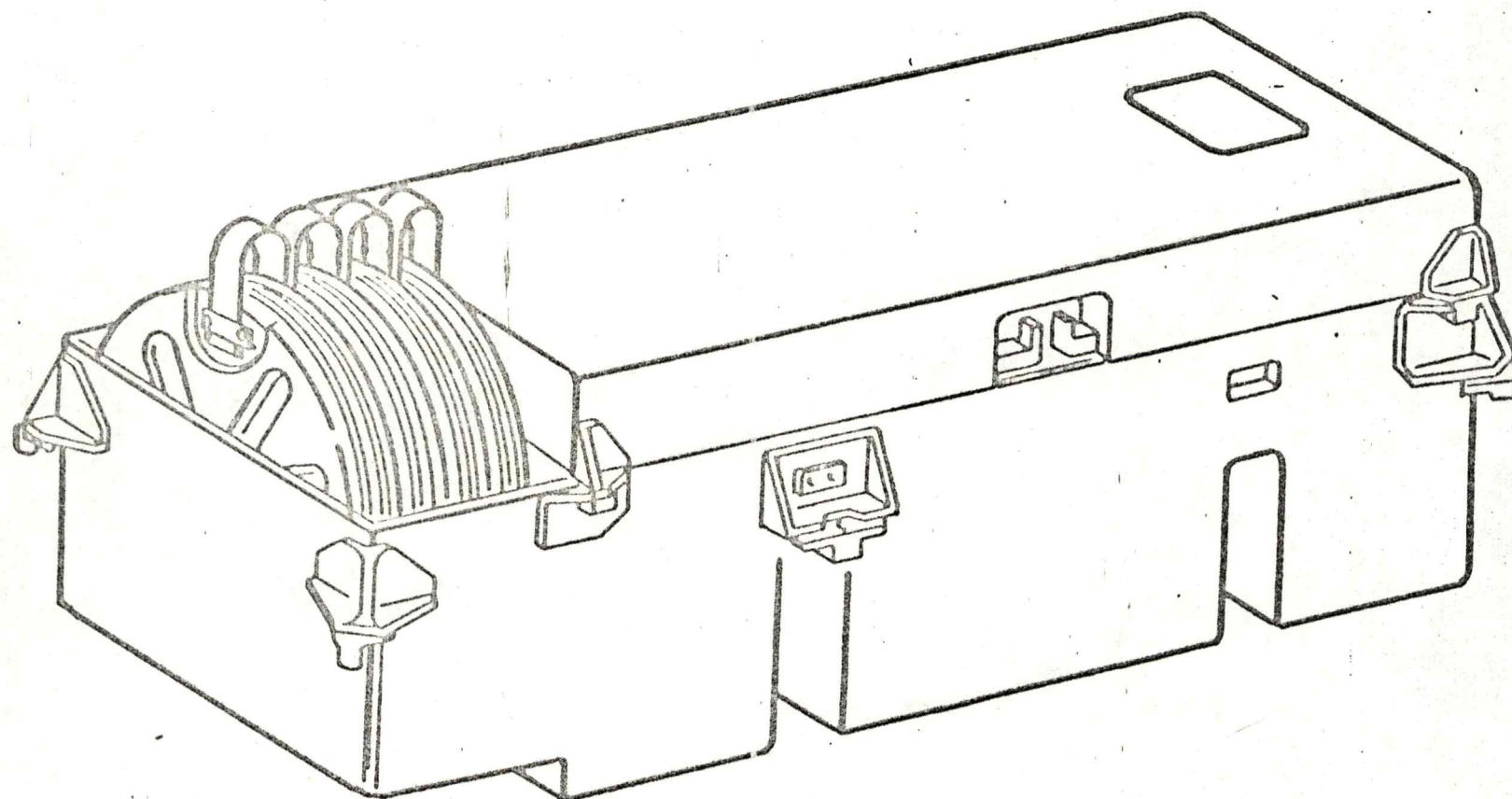
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S 190A STOWAGE CONTAINER

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EREP TAPE HANDLING CONTAINER

CONFIDENTIAL
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