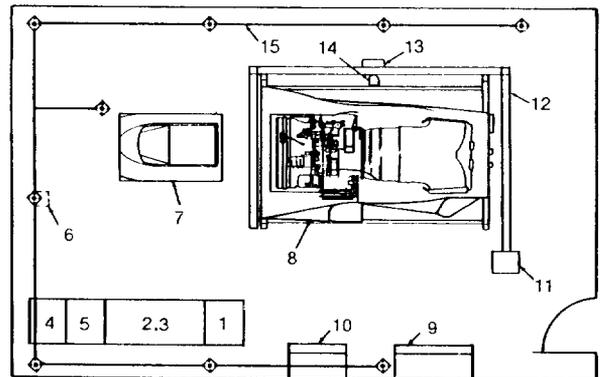


PLAN VIEW



- | | |
|------------------------------------|-----------------------------|
| 1 COMPUTATION SYSTEM (101) | 9 SYSTEM MODULE BOARD (111) |
| 2 INSTRUCTION STATION (102) | 10 GSE MODULE BOARD (112) |
| 3 TRICK (103) | 11 POWER LIFT PANEL |
| 4 POWER DISTRIBUTION CABINET (104) | 12 POWER LIFT ASSEMBLY |
| 5 I/O CABINET (105) | 13 GEAR BOX |
| 6 ALARM/ANNUNCIATOR PANEL (108) | 14 DRIVE MOTOR |
| 7 COCKPIT (109) | 15 WIRE WAY ASSEMBLY |
| 8 ENGINE/NOZZLE (110) | |

858-662

AV-8B AIRCRAFT POWER PLANT SYSTEM MAINTENANCE TRAINER, DEVICE 11H93

TRAINING CATEGORY:

MAINTENANCE TRAINING (Misc)

ORIGINATING AGENCY:

DCNO/AIR

SECURITY CLASSIFICATION:

Device 11H93 is unclassified.

PURPOSE:

To integrate various hardware/human interface inputs and observations into a trainer system which facilitates the instructor directed organizational "O" level maintenance training of Aircraft Mechanic (MOS 6015) with minimal support activity.

INTENDED USE:

To provide training in power plant maintenance, troubleshooting, and unscheduled corrective maintenance which involve identifying instructor inserted malfunction/failure and removal/replacement of components.

FUNCTIONAL DESCRIPTION:

The trainer simulates aircraft systems that are part of the power plant system. The simulated systems are modeled in a static condition (aircraft on ground, standard atmosphere, temperature, zero acceleration). The trainer is divided into five (5) major functional systems: power distribution, computation, I/O interface, instructor display/control, and student station systems. The power distribution system distributes and monitors the ac and dc power. The computation system consists of the computer/peripherals and trainer software simulation modules. The I/O system provides all analog and digital input/output signal requirements between the computation system and the trainer hardware. The instructor display/control system includes the alphanumeric display terminal, instructor control panel, tetherless remote instructor command keypad (TRICK), and the alarm/annunciator panel. The student station includes a full mockup of the cockpit, an engine nozzle which is connected to the cockpit by force/

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electric transmission cables, and two (2) module boards. The system module board contains a partial depiction of the nose gear wheelwell, a two-dimensional view of the aircraft, a representation of the ground power connection, and the aural cue system. The GSE module board contains an external power panel and emergency stop switch. The instructor display/control system interfaces the instructor and the student station, providing overall trainer control capabilities. The instructor station is used to initially load the trainer program, enter initial conditions, freeze the training scenario, and perform computation system diagnostics. The trainer is also equipped with a DORT program to determine operational capabilities of the trainer. The I/O system is tested via a closed loop BITE test with a displayed fault indication to a card when a malfunction is detected.

PHYSICAL INFORMATION:

Item	Size (in.) W x L x H
1. Computation System Unit 101 CPU 101A2 Floppy Disc Drive 101A3 Mini-Disc Drive 101A5	35 x 26 x 71
2. Instruction Station Unit 102 Instructor Alphanumeric Display Terminal 102A1 Instructor Control Panel 102A2	32 x 45 x 26 16 x 21 x 13 8 x 11 x 9
3. TRICK Unit 103	3 x 7-1/2 x 1-1/2
4. Power Distribution Cabinet Unit 104	32 x 28 x 78
5. I/O Cabinet Unit 105	32 x 24 x 78
6. Alarm/Annunciator Panel Unit 108	4 x 10 x 12
7. Cockpit Unit 109	39 x 93 x 64
8. Engine/Nozzle Unit 110	114 x 156 x 72
9. Systems Module Board Unit 111	39-1/2 x 30 x 75
10. GSE Module Board Unit 112	31 x 41 x 75

OPERATIONAL EQUIPMENT:

The operational equipment used in the trainer has been modified to facilitate trainer simulation and/or stimulation requirements.

EQUIPMENT REQUIRED (NOT SUPPLIED):

Refer to NTSC P-6065 Maintenance Instructions Manual (U).

POWER REQUIREMENTS: (VOLTAGE)

120/208 VAC.	3-Phase, 60 Hz. 20 amperes/phase
28 VDC	5 amperes
Total VA:	7,200

INSTALLATION REQUIREMENTS:

Floor Area:	19'3" x 12'7"
Equipment Access:	21' door
Personnel Access:	3' door
Ceiling Height:	Minimum 14'

PUBLICATIONS FURNISHED:

NTSC P-6066, CCDS (U)
 NTSC P-6065, Maintenance Instructions Manual (U)
 NTSC P-6065-S1 through -S5, Vendor Equipment Maintenance Instructions Manuals (U)
 NTSC P-5189, Operator's Manual (U).

PERSONNEL:

Instructor: One (1) qualified maintenance instructor.

Students: Class of up to Ten (10).

Student Observers: One (1)

CONTRACT IDENTIFICATION:

Manufactured by Reflectone Inc. (50237), Tampa, FL 33614 under NAVTRASYSCEN Contract No. N61339-84-C-0003.

LOCAL STOCK NUMBER:

6910-LL-C00-6569