



**COMPUTER, DIGITAL LOGIC, RCA MODEL 701-DCL TRAINER, DEVICE 6F16**

**TRAINING CATEGORY:**

BASIC SCIENCE (Computer)

**ORIGINATING AGENCY:**

DCNO/AIR

**SECURITY CLASSIFICATION:**

Device 6F16 is unclassified.

**INTENDED USE:**

Aid in study of digital Logic Fundamentals and semi-conductor principles.

**FUNCTIONAL DESCRIPTION:**

Device 6F16, RCA Model 701-DCL is a solid state trainer that emphasizes the study of fundamental transistor principles and Digital computer logic. Sixteen (16) templates and a comprehensive experiment Guide direct students thru a logical sequence of experiments that are designed to prepare the student for the study of solid state digital computers. Digital logic, Boolean Algebra and binary numbers are among the subjects investigated.

The following individual templates are included in the trainer:

- (1) P-N Junctions
- (2) Transistor Characteristics
- (3) Common Emitter Amplifier
- (4) Common Base Amplifier
- (5) Common Collector Amplifier
- (6) Bias Stabilization
- (7) Resistance Coupled Amplifier
- (8) Transistor Oscillator
- (9) Regulated Power Supply
- (10) Principles of Diode Logic Gates
- (11) Diode Logic Gates with Inverter-NAND, NOR
- (12) Principles of Transistor Logic Gates
- (13) Free-Running Multivibrator
- (14) One-Shot Multivibrator and Schmitt Trigger
- (15) Flip-Flop (Counter, Control, Shift Register)
- (16) Half Adder

Additional Templates and circuits may be devised by the student.

## DIRECTORY OF NAVAL TRAINING DEVICES

## PHYSICAL INFORMATION:

**Size:** 9" x 12" x 15"

**Weight:** Approximately 10 lbs.

## EQUIPMENT REQUIRED (NOT SUPPLIED):

1. One (1) Vacuum Tube Voltmeter
2. One (1) Multi-Range V-0-M
3. One (1) Multi-Range Oscilloscope

## POWER REQUIREMENTS:

Power is supplied by an AC/DC supply (batteries may be used).

Power Required is 110 Volt, 220 Volt, 50 Hz./60 Hz. operations.

Power for experiments is 8 Volt, DC, center-tapped, and 6.3 Volt, 60 Hz. AC.

Power requirements are supplied by the 701-DCL power supply.

## INSTALLATION AREA:

Classroom

## PERSONNEL:

**Instructors:** One (1)

**Trainees:** Twelve (12)

## CONTRACT IDENTIFICATION:

Manufactured by RCA Service Company,  
Electronic Trainer Department, ET-3132  
Camden, NJ under NAVTRASYSCEN Contract No.  
N61339-71-C-0008.

## LOCAL STOCK NUMBER:

6910-LL-C00-7205