

# PRC-8, 9 & 10

## CHAPTER 1 INTRODUCTION

### Section I. GENERAL

#### 1. Scope of Manual

a. This manual contains instructions for installation, operation, and organizational maintenance of Radio Sets AN/PRC-8, -8A, -9, -9A, -10, and -10A. It also includes directions for operation of these radio sets with various auxiliary equipments.

b. Official nomenclature followed by (\*) is used to indicate all models of the equipment item covered in this manual. Thus, Handset H-33(\*)/PT (par. 5) represents Handsets H-33/PT, H-33A/PT, H-33B/PT, H-33C/PT, and H-33D/PT.

#### 2. Forms and Records

The following forms will be used for reporting unsatisfactory conditions of Army materiel and equipment.

a. DD Form 6, Report of Damaged or Improper Shipment, will be filled out and forwarded as prescribed in SR 745-45-5 (Army) Navy Shipping Guide Article 1850-4 (Navy) and AFR 71-4 (Air Force).

b. DA Form 468, Unsatisfactory Equipment Report, will be filled out and forwarded to the Office of the Chief Signal Officer as prescribed in SR 700-45-5.

c. DD Form 535, Unsatisfactory Report, will be filled out and forwarded as prescribed in SR 700-45-5 and AF TO 00-35D-54.

d. DA Form 11-238, Operator First Echelon Maintenance Check List for Signal Corps Equipment (Radio Communication, Direction Finding, Carrier, Radar), will be prepared in accordance with instructions on the back of the form (fig. 25).

e. Use other forms and records as authorized.

### Section II. DESCRIPTION AND DATA

#### 3. Purpose and Use

Radio Sets AN/PRC-8, -8A, -9, -9A, -10, and -10A are portable, frequency-modulated (fm) radio sets that are used for reception and transmission. The radio sets are used with a battery for man-pack operation and with a power supply for vehicular operation. Provision also is made for homing operation (par. 28), remote control operation (par. 27), and relay operation (par. 26).

#### 4. Equipment Characteristics

##### a. Operating.

##### Frequency range, continuous tuning:

Radio Sets AN/PRC-8 and -8A.....20 to 27.9 mc.  
Radio Sets AN/PRC-9 and -9A.....27 to 38.9 mc.  
Radio Sets AN/PRC-10 and -10A...38 to 54.9 mc.

##### Power source:

Man-pack.....Battery BA-279/U (not supplied with radio set).

Vehicular.....Amplifier-Power Supply AM-598/U (not supplied with radio set).

Calibration.....Built-in calibrator provides calibrated tuning throughout operating range.

Distance range.....About 3 miles.

Weight (man-pack).....26 pounds (including components and battery).

##### b. Technical.

Number of tubes.....16 in unlettered models.  
14 in A models.

Type of signal.....Voice, frequency-modulated.

##### Types of antennas:

Long antenna.....Antenna AT-271/PRC (or AT-271A/PRC); 10 feet long, multisection whip type.

Short antenna --- Antenna AT-272/PRC (or AT-272A/PRC) ; 3 feet long, semirigid steel tape.

Microphone input impedance. 150 ohms.

Audio output impedance. 600 ohms.

### 5. Nomenclature Assignments

A list of common names of components that are part of the radio set or used with it is given below :

Nomenclature	Common name
Radio Sets AN/PRC-8, -8A, -9, -9A, -10, and -10A.	Radio set
Radio Receiver-Transmitters RT-174/PRC-8, RT-174A/PRC-8, RT-175/PRC-9, RT-175A/PRC-9, RT-176/PRC-10, and RT-176A/PRC-10.	Receiver-transmitter
Case CY-744/PRC or CY-744A/PRC.	Battery case
Battery BA-279/U	Battery
Amplifier-Power Supply AM-598/U.	Vehicular power supply (or power supply).
Antenna AT-271/PRC or AT-271A/PRC.	Long antenna
Antenna AT-272/PRC or AT-272A/PRC.	Short antenna

Nomenclature	Common name
Handset H-33(*)/PT	Handset
Control Group AN/GRA-6	Control group
Homing Antennas AT-339/PRC, AT-340/PRC, and Antenna AT-249/GRD.	Homing antennas
Antenna Equipment RC-292	Auxiliary antenna

### 6. Packaging Data

a. When packed for shipment, two Radio Sets AN/PRC-8, -8A, -9, -9A, -10, or -10A are placed in a moisture-vaporproof container and packed in a good, commercial grade, corrugated fiberboard box for domestic use, or in a wooden-cleated plywood or nailed box for oversea use.

b. The size, weight, and volume of a package containing two radio sets for domestic and oversea shipment are as follows: length, 10 inches; width, 18 $\frac{3}{4}$  inches; depth, 12 $\frac{1}{2}$  inches; volume, 1.3 cubic feet; and weight, 55 pounds.

### 7. Table of Components

The list of components of the radio set is presented in the following chart, together with the running spares. The components and spares are shown in figures 2 and 3, respectively.

Component	Required No.			Height (in.)	Depth (in.)	Length (in.)	Dia. (in.)	Volume (cu. ft. packed)	U weight (lb)
	AN/PRC-8 or -8A	AN/PRC-9 or -9A	AN/PRC-10 or -10A						
Radio Receiver-Transmitter RT-174/PRC-8 or RT-174A/PRC-8.	1	---	---	9.5	3	10.5	---	.17	9
Radio Receiver-Transmitter RT-175/PRC-9 or RT-175A/PRC-9.	---	1	---	9.5	3	10.5	---	.17	9
Radio Receiver-Transmitter RT-176/PRC-10 or RT-176A/PRC-10.	---	---	1	9.5	3	10.5	---	.17	9
Case CY-744/PRC or CY-744A/PRC	1	1	1	9.5	3	9.5	---	.16	1.5
Battery BA-279/U (required but not supplied as part of radio set).	1	1	1	8.5	2.37	8.5	---	.10	8
Antenna AT-271/PRC or AT-271A/PRC	1	1	1	---	---	113	.75	.10	.33
Antenna AT-272/PRC or AT-272A/PRC	1	1	1	---	---	36.5	.75	.03	.5
Antenna Spring Section AB-129/PR	1	1	1	.625	.625	8	---	.002	2
Belt Suspenders M-1945	1	1	1	3	3	36	---	.19	.5
Bag CW-216/PR or CW-216A/PR	1	1	1	3	5.25	18	---	.16	.5
Carrying Harness ST-120/PR or ST-120A/PR	1	1	1	2	9	14	---	.15	.75
Handset H-33(*)/PT	1	1	1	3.5	3.5	8	---	.06	.875
Set of running spares	1	1	1	5	5	5	---	.07	2