



Figure 25. Radio Set AN/TRC-6(XC-2) illustrating a typical layout.

Status: Limited standard. Stock No.: 2S5002-6. Reference: TM 11-631, TM 11-632, and TM 11-633.

Radio Set AN/TRC-6(\*) represents Radio Sets AN/TRC-6(XC-2), AN/TRC-6(XC-3), and modifications thereof which include Radio Set AN/TRC-6.

Radio Set AN/TRC-6(\*) is a combined radio transmitter and radio receiver with facilities for providing eight two-way voice channels between two points over an unobstructed line of sight transmission path.

The radio sets are used in pairs and may be terminated in v-f (voice-frequency) wire lines, field switchboards, or telephone and telegraph carrier equipment. Since the distance between sets is limited by the curvature of the earth, two or more radio links may be connected back to back in a tandem arrangement to provide a longer radio circuit.

Radio Set AN/TRC-6(\*) makes use of what is commonly called "pulse transmission." Multiplex Unit MX-106/TRC-6(\*) translates the v-f signals of the eight channels into pulse-position-modulated time division signal for transmission over the radio link.

## TECHNICAL CHARACTERISTICS

**FREQUENCY RANGE:** 4,350 to 4,800 mc in 4 bands.  
**RINGING ON CHANNELS:** 20 eye into radio channel;  
 20 eye out of radio channel.  
**ANTENNA:** Parabolic reflector, waveguide feed.  
**TYPE MODULATION:** Pulse-position (multiplex).  
**FREQUENCY CONTROL:** Automatic frequency control  
 in the receiver.  
**NUMBER OF V-F CHANNELS:** 8.  
**NUMBER OF TELEGRAPH CHANNELS:** 1 d-c  
 grounded telegraph circuit may connect to any v-f chan-  
 nel. Any voice channel may be replaced by Telegraph  
 Carrier CF-1 or equivalent.  
**POWER SOURCE:** 115-v, 60-eye supply.  
**POWER OUTPUT:** Rectifier Power Unit PP-70/TRC-  
 6(\*): +300 v.  
**RANGE:** Single link, 25 to 50 mi line of sight. Average  
 system (4 radio links), 100 to 200 mi.  
**NUMBER OF TUBES:** 154.

## GENERAL APPLICATION

**USE:** Provides 8 two-way voice channels between two  
 points, line of sight radio transmission path.  
**TO COMMUNICATE WITH:** Radio Set AN/TRC-6(\*).  
**INSTALLATION:** Transported in vehicles. Installed and  
 operated on ground as fixed station.  
**TYPE OF SIGNAL:** Pulse transmission.

## PRINCIPAL COMPONENTS

<i>Name</i>	<i>Dimensions (in.)</i>	<i>Weight (lb)</i>
2 Radio Transmitters T-57/ TRC-6(*) .....	12½ x 18 x 17	45
1 Tower AB-19/TRC-6(*)	50 feet	530
3 Antennas AT-47/TRC-6 (*) (waveguide) .....	4½ x 2¾ x 21½	1.5
2 Receiver Converter CV- 210/TRC-6(*) .....	12½ x 13 x 12½	20
1 Power Control Box MX- 120/TRC-6(*) .....	16⅝ x 10¾ x 21½	153
1 Rectifier Power Unit PP- 56/TRC-6(*) .....	3½ x 7 x 19	7
2 Rectifier Power Unit PP- 69/TRC-6(*) .....	8½ x 9 x 19	52
4 Rectifier Power Unit PP- 70/TRC-6(*) .....	8½ x 9 x 19	53.5
2 Rectifier Power Unit PP- 71/TRC-6(*) .....	19 x 13½ x 20	112
2 I-F Amplifier AM-30/ TRC-6(*) .....	5⅝ x 4½ x 19	5.5
2 Video Amplifiers AM-31/ TRC-6(*) .....	15½ x 9 x 19	50
1 Video Repeater MX-107/ TRC-6(*) .....	14½ x 9 x 19	55
1 Binding Post and Circuit Breaker Panel J-54/TRC- 6(*) .....	5⅝ x 7 x 19	16

## WEIGHT

Total weight (lb) ..... *Domestic pack*  
 4,684