

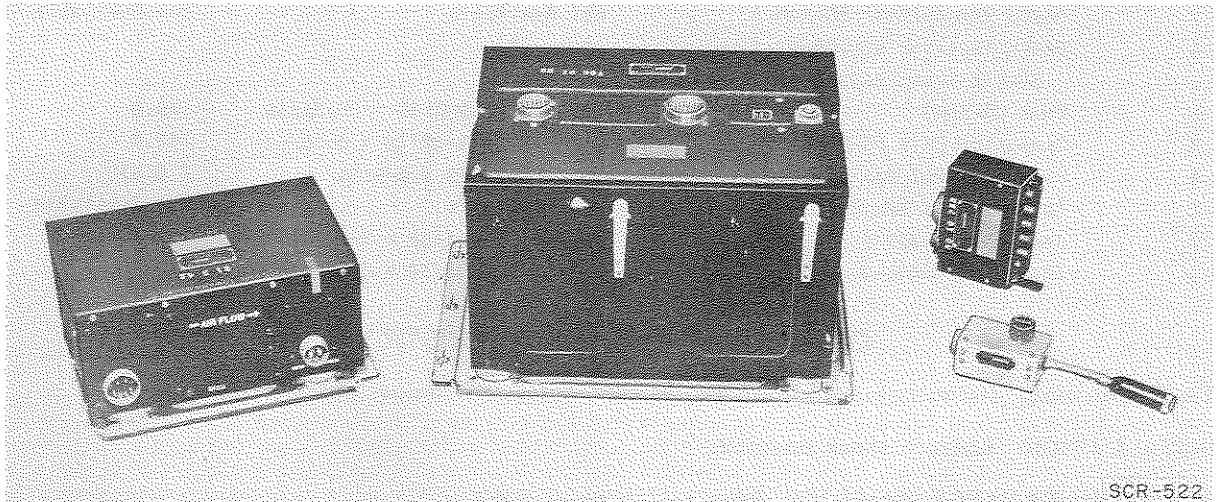
STATUS: Limited Standard  
 CLASSIFICATION OF EQUIPMENT: Unclassified  
 USING SERVICE: Air Force, Navy  
 DATE OF THIS SHEET: 7 Jun 52

**AN/ARC-TYPE**

SERVICE TYPE NUMBER:

SCR-522

RADIO SET



Radio Set SCR-522 is a two-way radiotelephone, v-h-f, airborne command set. Normally it is airborne for air-to-ground and air-to-air communication, but components of this equipment may be ground-operated for ground-to-air, or point-to-point communication. It is designed for remote operation only, using Radio Control Box BC-602-B.

This radio set consists of a radio transmitter, radio receiver (housed together in a case), a dynamotor unit antenna, remote control unit, jack boxes, and interconnecting cables.

The transmitter and receiver each use four separate crystals (total eight crystals) to provide four preset operating channels for each unit in the v-h-f band.

An antenna change-over relay is incorporated in the set which permits use of one Antenna Mast AN-104 for both transmitting and receiving.

The transmitter provides 9 w output on either voice or tone modulation; the receiver provides 10 mw output into a 300- or 4,000-ohm resistive load.

Radio Sets SCR-522-A, SCR-624-B, and SCR-542-A are identical in purpose and all similar units are mechanically interchangeable; the major differences are in the power supply requirements and method of installation.

Required power sources are: SCR-522-A; 336 w of 28-v, dc, SCR-624-B; 325 w of 100-130/200-260-v, ac, SCR-542-A; 322 w of 14-v dc.

<b>AN/ARC-TYPE</b>		INSTRUCTION LITERATURE: TO 16-40SCR-522-2
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### MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
1	Radio Transmitter BC-625-A	Not Available	Not Available
1	Radio Receiver BC-624-A	" "	" "
	BC-624-A and -625-A mounted in:		
1	Case CS-90-A	16-5/32 x 12-9/16 x 10-11/16	49.0
1	Dynamotor Unit PE-94-A	12-25/32 x 9-27/32 x 6-15/64	37.0
1	Radio Control Box BC-602-B	2-1/2 x 7-5/9 x 5-9/16	2.41
1	Antenna Mast AN-104-A	Not Available	Not Available
1	Jack Box BC-629-B	2-29/64 x 4-1/16 x 1-61/64	0.6
1	Jack Box BC-631-B	1-1/64 x 2-49/64 x 1-19/64	0.6

### OPERATIONAL CHARACTERISTICS

**TACTICAL USE:** Normally issued to fighter, bomber, cargo, and trainer aircraft.

**INSTALLATION:** Aircraft, shock mounted.

**APPROXIMATE RANGE (IN MILES):** (Nominal) Line of sight.

**CAN COMMUNICATE WITH:** AN/ARC-1, -3, -5, -18, -29, -36; AN/CRC-2; AN/FRC-7; AN/GRC-30; AN/MRC-16, -20, -22; AN/PRC-17, -20; AN/TRC-7; AN/TRQ-1; AN/URC-4; AN/URR-10, -12, -21; AN/URT-7, -10; AN/VRC-1; BC-639, -640; MAR; MBS; R-137/GR; RBK; RBQ; RC-103, -256, -257; RCK; RCO; SCR-522, -542, -573, -575, -607, -616, -624, -641, -643, -644; TDG; TDQ; TDT; ARC Type 12; Wilcox 99A.

### TECHNICAL CHARACTERISTICS

**FREQUENCY RANGE IN MEGACYCLES:** 100 - 156.

Receiver: 4 preset crystal-controlled channels.

Transmitter: 4 preset crystal-controlled channels.

**TYPE MODULATION:** Am.

**TYPE OF SIGNAL:** Voice or tone.

**POWER OUTPUT:** Transmitter: 9 w.

Receiver: 10 mw into 300 or 4,000 ohm resistive load.

**POWER REQUIREMENTS:** 336 w, 28 v, (12 amp) dc.

### PHYSICAL CHARACTERISTICS

Radio Set SCR-522 measures 30 x 15 x 21 inches, net weight 89.61 pounds, volume 3.8 cu ft.

Packed for either domestic or export shipment: total weight 118.26 pounds, total volume 4.07 cu ft.

Shipped in 2 packages both domestic and export.