

STATUS: Standard

CLASSIFICATION OF EQUIPMENT: Unclassified

USING SERVICE: Air Force, Navy

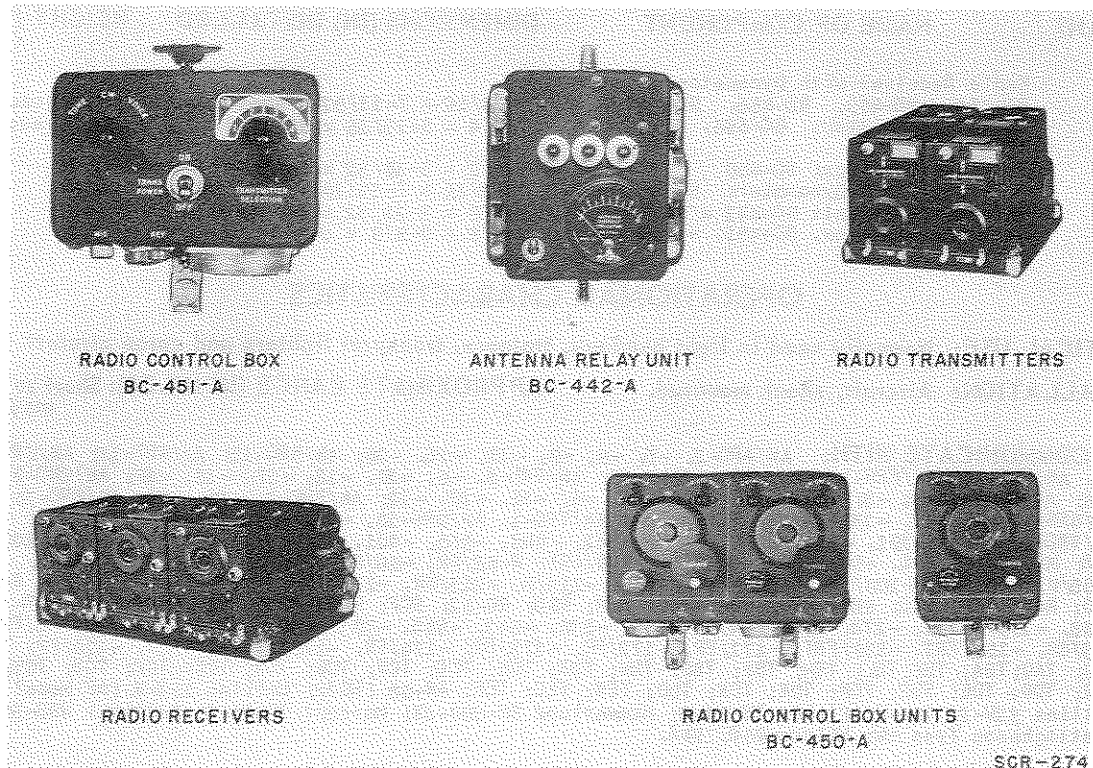
DATE OF THIS SHEET: 7 Jun 52

AN/ARC-TYPE

SERVICE TYPE NUMBER:

SCR-274

RADIO SET



Radio Set SCR-274 is an airborne air-to-air and air-to-ground, two-way h-f radio communication equipment. All transmitters and receivers have continuous tuning. Each transmitter is provided with a crystal for calibration of the oscillator on one frequency. The transmitters cover the range 3.0 to 9.1 mc; receivers cover 0.19 to 1.5 mc and 3.0 to 9.1 mc. All transmitters and receivers operate on voice, tone, or cw.

This radio set consists of a maximum of four transmitters, four receivers with dynamotors, and four modulators with dynamotors. Minimum installation requirements are: one transmitter, one receiver (dynamotor included), one modulator (dynamotor included for modulator and transmitter) plus necessary cables, and related items.

Transmitters and receivers may be locally tuned or flexible tuning cables are available for remote operation up to six or eight feet away.

Transmitters and receivers are designed to operate into a fore-and-aft, inverted L, or normal T-type antenna. A variable loading coil is provided in each transmitter to feed antennas of various lengths.

AN/ARC-TYPE		INSTRUCTION LITERATURE: TO 16-40BC-224-2
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MAJOR COMPONENTS

QUANT	NAME OF COMPONENT	DIMENSIONS (IN) INSTALLED	WEIGHT (LBS)
4	Radio Receiver with Dynamotor: BC-454, BC-453, BC-455, BC-946	6-11/16 x 7-11/32 x 13-1/8	11.2 (each)
4	Radio Transmitter: BC-696, BC-457, BC-459, BC-459	7-1/4 x 9-13/16 x 15-1/32	30.5 (each)
1	Radio Control Box: BC-450	9-1/2 x 5-15/32 x 2-15/16	2.7
1	Modulator Unit/Dynamotor: BC-456	10-3/16 x 7-11/16 x 8-7/8	18.0
1	Antenna Relay Unit BC-442 w/MTG	5-5/8 x 4-21/32 x 6-9/16	2.2
1	Radio Control Box, BC-451, w/MTG FT-228	4-1/8 x 4-3/8 x 2-3/4	0.9

OPERATIONAL CHARACTERISTICS

TACTICAL USE: Normally used in light bombers, trainers, transport fighters and cargo aircraft.

INSTALLATION: Aircraft, shock mounted.

APPROXIMATE RANGE (IN MILES): Short to medium.

CAN COMMUNICATE WITH: AN/ARC-2, -5, -8, -9, -21, -25, -26; AN/ARR-15; AN/ART-13; AN/CRT-3, -5, AN/FRC-10; AN/FRR-3, -4, -12, -28, -32; AN/FRT-5, -6, -10, -15, -17, -18, -29; AN/GRC-9, -13, -26; AN/GRR-2, -3, -5; AN/GRT-2; AN/MRC-2, -6, -16, -20, -22; AN/PRC-7, -19, -20; AN/SRC-3; AN/SRR-3, -8, -12, -13; AN/SRT-1, -3, -4; AN/TRQ-1, AN/URR-10, -22, -23; AN/URT-2, -3, -4; AN/VRC-1, -4; BC-191, -312, -329, -339, -342, -348, -365, -401, -447, -610, -779, -794, -1004; MBS; MQ; OA-59/FRC, -59/FRC, -60A/FRT, -60B/FRT; R-62/PR, -80/PR, -96/SR, -129/U, -203/SR, -205/U, -206/PR, -208/FR, -209/FR, -210/U, -211/U, -213/SR, -274/FRR, -320/FRC, -388/URR; RAL; RAO; RAS; RBB; RBC; RBG; RBH; RBM; RBO; RBP; RBS; RC-52; RCF; RCG; RCH; RDE; RDM; REA; SCR-177, -188, -193, -214, -274, -399, -409, -506, -536, -543, -595, -593, -694, -704; T-4/FRC, -5/FRC, -83/SR, -158/FRT, -159/FRT, -171/FR, -172/FR, -173/FR, -174/FR, -175/FR, -177/FR, -180/FR; TAB; TAJ; TAQ; TBA; TBK; TBL; TBM; TBN; TBO; TBW; TBX; TCB; TCC; TCE; TCG; TCH; TCK; TCS; TCY; TCZ; TDD; TDE; TDF; TDH; TDK; TDM; TDO; TEB; TEC; TEF; AR-98 (RCA); Collins 18S-4 (AF Model); Collins 32V-2, 75A-2; Fisher TS 25-3; Hammarlund SP-600-JX; Marconi TH-41-B; National HRO-50; Westinghouse Type MW; Wilcox 96D, 99A.

TECHNICAL CHARACTERISTICS

FREQUENCY RANGE IN MEGACYCLES:	Transmitting	Receiving
	BC-696: 3 - 4	BC-454: 3 - 6
	BC-457: 4 - 5.3	BC-455: 6 - 9.1
	BC-458: 5.3 - 7.0	BC-453: 0.19 - 0.55
	BC-459: 7.0 - 9.1	BC-946: 0.52 - 1.5

TYPE MODULATION: Am.

TYPE OF SIGNAL: Voice, tone, cw.

POWER OUTPUT: Per Transmitter: 40 w (maximum)

Per Receiver: 10 mw (Nominal) into 4,000 ohm resistive load.

POWER REQUIREMENTS: Standby: (Per transmitter) 35 w, 24 - 28 v, (1.25 amp) dc;
Transmitting: (Per transmitter) 126 w, 24 - 28 v, (4.5 amp) dc;
Receiving: (Per receiver) 44.8 w, 24 - 28 v, (1.6 amp) dc.

PHYSICAL CHARACTERISTICS

Radio Set SCR-274 measures 10-3/16 x 15-1/32 x 56-1/4 inches, net weight 110.4 pounds, volume 3.4 cu ft. Packed for either domestic or export shipment: total weight 135.7 pounds, total volume 4.6 cu ft. Shipped in 3 packages both domestic and export.