

18 September 1962

RADIO RECEIVING EQUIPMENT RBB, RBB-1, 2, 2a, 3, 4, 5, 6

Cog Service:

FSN:

Functional Class:

USA

USN

USAF

TYPE CLASS:

MANUFACTURER'S NAME/CODE NUMBER: RCA Victor Div., Radio Corp of America.



Radio Receiving Equipment RBB, RBB-1, 2, 2a 3, 4, 5, 6

FUNCTIONAL DESCRIPTION:

The RBB, RBB-1, 2, 2a and RBB-3; 4, 5, 6 are primarily designed for operation aboard all types of Naval vessels and shore stations, and are capable of operating in the frequency range of 0.5 to 4 megacycles. They are designed for voice, MCW, and CW reception and more than one receiver can be operated on a single antenna system with little frequency separation when the antenna is adjacent to a transmitter antenna. They also have provisions for connecting a panoramic adapter or a frequency shift converter unit.

They may be used with Radio Receiving Equipment RBC series to provide continuous coverage in the 0.5 to 27 megacycle range.

No field changes in effect at time of preparation (30 August 1960).

TECHNICAL CHARACTERISTICS:

FREQUENCY RANGE: 0.5 to 4 mc.

RBB, RBB-1, 2, 2a, 3, 4, 5, 6 RADIO RECEIVING EQUIPMENT

BAND DATA

BAND 1: 0.5 to 0.04 mc.

BAND 2: 0.84 to 1.41 mc.

BAND 3: 1.41 to 2.37 mc.

BAND 4: 2.37 to 4.00 mc.

TYPE OF RECEPTION: A1, A2, A3.

TYPE OF RECEIVER: Superheterodyne.

POWER OUTPUT: 15 mw.

INTERMEDIATE FREQUENCY: 400 kc.

OUTPUT IMPEDANCE: 600 ohms.

INPUT IMPEDANCE

TRANSMISSION LINE: 70 ohms.

ANTENNA: 300 ohms at lowest frequency of band 1, up to 1500 ohms at high frequency end of band 4.

POWER REQUIREMENTS

RBB, RBB-1, 2, 3, 4, 5, 6: 100 W (one receiver), 160 W (two receivers); 110 to 120 v, 55 to 60 cyc, single ph.

RBB-2A: 115 v 400 cyc, single ph.

RELATION TO OTHER EQUIPMENT:

RBB, RBB-1, 2, 2a, 3, 4, 5, 6 are electrically and mechanically interchangeable with the exception of mountings and RBB-2a which is modified to operate on 400 cycles instead of 55 to 65 cycles. RBB-4 and RBB-6 are for rack mounting. RBB-5 and RBB-6 includes NT-10335 Kit for coupling to CV-57/URR Frequency Shift Converter or RBU/RBV Panoramic Adapter Unit.

EQUIPMENT REQUIRED BUT NOT SUPPLIED:

(1) Antenna; (1) Headset.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
	RBB, RBB-1, 2, 3, 4			
1	Radio Receiver NT-46147		14-3/4 x 18-1/8 x 20-1/8	82
1	Rectifier Power Unit NT-20130		9-7/8 x 13-7/16 x 15	52
1	Set of Accessories			
1	Set of Equipment Spares			
	RBB-2a			
1	Radio Receiver NT-46147(mod)		14-3/4 x 18-1/8 x 20-1/8	82
1	Rectifier Power Unit NT-20130(Mod)		9-7/8 x 13-7/16 x 15	52
1	Set of Accessories			
1	Set of Equipment spares			

RADIO RECEIVING EQUIPMENT RBB, RBB-1, 2, 2a, 3, 4, 5, 6

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
	RBB-5			
1	Radio Receiver NT-46147-D		14-11/16 x 18-1/8 x 20-7/8	85
1	Rectifier Power Unit NT-20130-B		9-1/2 x 13-7/16 x 15	55
1	Set of Accessories			
1	Set of Equipment Spares			
	RBB-6			
1	Radio Receiver NT-46296-A		14-3/16 x 19 x 20-7/8	88
1	Rectifier Power Unit NT-20130-B		9-13/16 x 14 x 19	59
1	Set of Accessories			
1	Set of Equipment Spares			

REFERENCE DATA AND LITERATURE:

- NAVSHIPS 900,477: Technical Manual for Radio Receiving Equipments RBB/RBC, RBB-1/RBC-1 and RBB-2/RBC-2.
- NAVSHIPS 91101: Technical Manual for Radio Receiving Equipments RBB-3, RBB-4, RBC-3 and RBC-4.
- NAVSHIPS 91469: Technical Manual for Radio Receiving Equipments RB-5, RBB-6, RBC-5 and RBC-6.
- NAVSHIPS 91319: Technical Manual for Radio Receiving Equipments RBA-5a, RBB-2a and RBC-3a.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES RBB, RBB-1, 2, 2a, 3, 4: (7) 6SK7 (4) 6AB7 (3) 6H6 (1) 6K6GT (1) 5U4 (1) OC3/VR105

TUBES RBB-5, 6: (7) 6SK7 (5) 6AB7 (3) 6H6 (1) 6K6GT (1) 5U4 (1) OC3/VR105

CRYSTALS: None used.

SEMI-CONDUCTORS: None used.

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	11.4	162
1	11.4	150
1	8.2	111
1	10.1	150
1	8.2	111
1	10.1	150
1	13	185
1	7.2	122

RBB, RBB-1, 2, 2a, 3, 4, 5, 6 RADIO RECEIVING EQUIPMENT

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
1	2.3	124
1	12.7	175
1	10.4	134
1	2.3	125

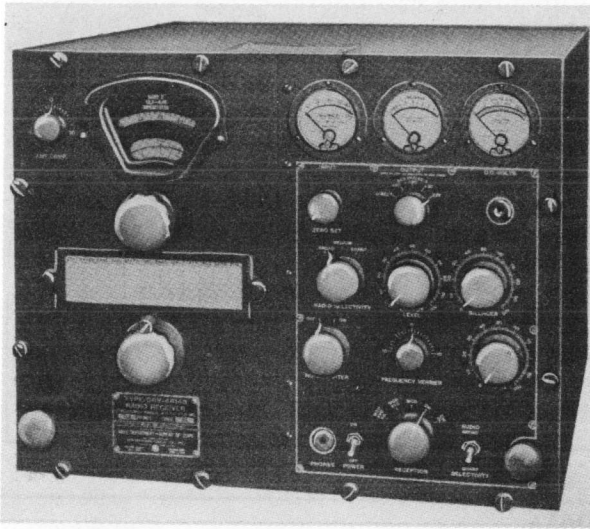
PROCUREMENT DATA

PROCURING SERVICE:
SPEC &/OR DWG:

DESIGN COG: USN, BuShips

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
RCA Victor Div., Radio Corp of America	Camden, N. J.	N0s-73056, 13 April 1940(RBB) N0s-91265, 2 September 1941(RBB-1) spares) NXss-17001, 17 June 1943(RBB-2) NXsr-39262, 3 November 1943(RBB-2) N0bsr-43335, 15 June 1949(RBB-2a) N0bsr-39340, 30 June 1947(RBB-4) N0bsr-52028, 25 September 1950 (RBB-5, RBB-6)	\$2700 (including equipment

RADIO RECEIVING EQUIPMENT

RBC,RBC-1,
2,3,3a,4,5,6

*Radio Receiving Equip
RBC,RBC-1,2,3,3A,4,5,6*

FUNCTIONAL DESCRIPTION

The RBC, RBC-1, 2, 3, 3a, 4, 5 and 6 are primarily designed for operation aboard all type of Naval vessels and shore stations, and are capable of operating in the frequency range of 4 to 27 megacycles. They are designed for voice, MCW, and CW reception and more than one receiver can be operated on a single antenna system with little frequency separation when the antenna is adjacent to a transmitter antenna. They also have provisions for connecting a panoramic adapter or a frequency shift converter unit.

They may be used with Radio Receiving Equipment RBB series to provide continuous coverage in the 0.5 to 27 megacycle range.

No field changes in effect at time of preparation (14 August 1956).

RELATION TO OTHER EQUIPMENT

RBC series are electrically and mechanically interchangeable with the exception of mountings and RBC-3a which is modified to operate on 400 cycles instead of 55 to 65 cycles. RBC-4 and RBC-6 are for rack mounting. RBC-5 and RBC-6 includes NT-10335 Kit for coupling to CV-57/URR frequency Shift Converter or RBU/RBV Panoramic Adapter Unit.

Equipment Required but not Supplied: (1) Antenna, (1) Headset.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: 4 to 27 mc.

BAND DATA

BAND 1: 4 to 6.45 mc.

BAND 2: 6.45 to 10.30 mc.

BAND 3: 10.30 to 16.50 mc.

BAND 4: 16.50 to 27 mc.

RECEPTION: A1, A2, A3.

TYPE RECEIVER: Superheterodyne.

POWER OUTPUT: 15 MW.

INTERMEDIATE FREQUENCY: 400 kc.

IMPEDANCE DATA

OUTPUT: 600 ohms.

INPUT

TRANSMISSION LINE: 70 ohms.

ANTENNA: 300 ohms

POWER REQUIREMENTS

RBC, RBC-1 thru 6: 110 to 120 v, 55 to 65 cps, single ph; 100 W, 96% pf for one receiver; 160 W, 97% pf for two receivers.

RBC-3a: 115 v, 400 cps, single ph.

MANUFACTURER'S OR CONTRACTOR'S DATA

RCA Victor Div, Radio Corp of America, Camden, N.J.

Contract NOs-73056, dated 12 April 1940 (RBC).

Contract NOs-91265, dated 2 September 1941 (RBC-1).

Contract NXss-17001, dated 17 June 1943 (RBC-2).

Contract NXsr-39262, dated 3 November 1943 (RBC-2).

Contract NObsr-39151, dated 28 April 1947 (RBC-3).

Contract NObsr-43335, dated 15 June 1949 (RBC-3a).

Contract NObsr-39340, dated 30 June 1947 (RBC-4).

Contract NObsr-52028, dated 25 September 1950 (RBC-5, RBC-6).

Approximate Cost \$2400 including equipment spares

**RBC,RBC-1,
2,3,3a,4,5,6**

RADIO RECEIVING EQUIPMENT

UNCLASSIFIED

December 1956

TUBE AND/OR CRYSTAL COMPLEMENT

RBC, RBC-1 thru 4	RBC-5,6
(7) 6SK7	(7) 6SK7
(4) 6AB7	(5) 6AB7
(1) 6K6GT	(1) 6K6GT
(1) 5U4	(1) 5U4
(1) OC3/VR105	(1) OC3/VR105
(3) 6H6	(3) 6H6
Total Tubes: (17)	Total Tubes: (18)

NAVSHIPS 91101: Technical Manual for Radio Receiving Equipment RBB-3, RBB-4, RBC-3 and RBC-4.

NAVSHIPS 91469: Technical Manual for Radio Receiving Equipments RBB-5, RBB-6, RBC-5 and RBC-6.

NAVSHIPS 91319: Technical Manual for Radio Receiving Equipments RBA-5a, RBB-2a and RBC-3a.

REFERENCE DATA AND LITERATURE

NAVSHIPS 900,477: Technical Manual for Radio Receiving Equipments RBB/RBC, RBB-1/RBC-1 and RBB-2/RBC-2.

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE
STOCK NO.

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	RBC,RBC-1,RBC-2(WOOD BOX) Radio Receiver NT-46148	11.4	23-3/4 X 26-3/4 X 31	155
1	Rectifier Power Unit NT-20130 including Spare Parts	11.4	23-3/4 X 26-3/4 X 31	150
1	RBC,RBC-1,2,3,4 (CORRUGATED CARTON) Radio Receiver NT-46148	8.2	21 X 24 X 28-1/4	111
1	Rectifier Power Unit NT-20130 including Spare Parts	10.1	21 X 26-3/4 X 31	150
1	RBC-3a(CORRUGATED CARTON) Radio Receiver NT-46148 (MOD)	8.2	21 X 24 X 28-1/4	111
1	Rectifier Power Unit NT-20130 (MOD) including Spare Parts	10.1	21 X 26-3/4 X 31	150
1	RBC-5 Radio Receiver NT-46148-D	13	23-3/4 X 29-1/2 X 32	185
1	Rectifier Power Unit NT-20130-B	7.2	21-1/2 X 23-1/2 X 25-1/2	122
1	Equipment Spare Parts RBB-6	2	8-1/2 X 16-3/4 X 23	73
1	Radio Receiver NT-46297-A	12.7	22-3/4 X 29-1/2 X 31-3/4	175
1	Rectifier Power Unit NT-20130-B including mounting Assembly NT-10348-A	10.4	22-1/2 X 27-1/2 X 29	134
1	Equipment Spare Parts	2	8-1/2 X 16-3/4 X 23	73

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	RBC Radio Receiver NT-46148	14-3/4 X 18-1/8 X 20-1/8	82
1	Rectifier Power Unit NT-20130	9-7/8 X 13-7/16 X 15	52

RADIO RECEIVING EQUIPMENT

RBC,RBC-1,
2,3,3a,4,5,6

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Set of Accessories		
1	Set of Equipment Spares RBC-1		
1	Radio Receiver NT-46148 or NT-46148-B	14-3/4 X 18-1/8 X 20-1/8	82
1	Rectifier Power Unit NT-20130	9-7/8 X 13-7/16 X 15	52
1	Set of Accessories		
1	Set of Equipment Spares RBC-2		
1	Radio Receiver NT-46148-B	14-3/4 X 18-1/8 X 20-1/8	82
1	Rectifier Power Unit NT-20130	9-7/8 X 13-7/16 X 15	52
1	Set of Accessories		
1	Set of Equipment Spares RBC-4		
1	Set of Equipment Spares RBC-3		
1	Radio Receiver NT-46148-C	14-3/4 X 18-1/8 X 20-1/8	82
1	Rectifier Power Unit NT-20130-B	9-1/2 X 13-7/16 X 15	48
1	Set of Accessories		
1	Set of Equipment Spares RBC-3a		
1	Radio Receiver NT-46148-C (MOD)	14-3/4 X 18-1/8 X 20-1/8	82
1	Rectifier Power Unit NT-20130-B(MOD)	9-1/2 X 13-7/16 X 15	48
1	Set of Accessories		
1	Set of Equipment Spares RBC-4		
1	Radio Receiver NT-46297	14-11/16 X 18-1/8 X 20-7/8	82
1	Rectifier Power Unit NT-20130-B	9-1/2 X 13-7/16 X 15	48
1	Set of Accessories		
1	Set of Equipment Spares RBC-5		
1	Radio Receiver NT-46148-D	14-11/16 X 18-1/8 X 20-7/8	82
1	Rectifier Power Unit NT-20130-B	9-1/2 X 13-7/16 X 15	48
1	Set of Accessories		
1	Set of equipment Spares RBC-6		
1	Radio Receiver NT-46297-A	14-3/16 X 19 X 20-7/8	82
1	Rectifier Power Unit NT-20130-B	9-1/2 X 13-7/16 X 15	48
1	Set of Accessories		
1	Set of equipment Spares		