

SECTION II – INSTALLATION

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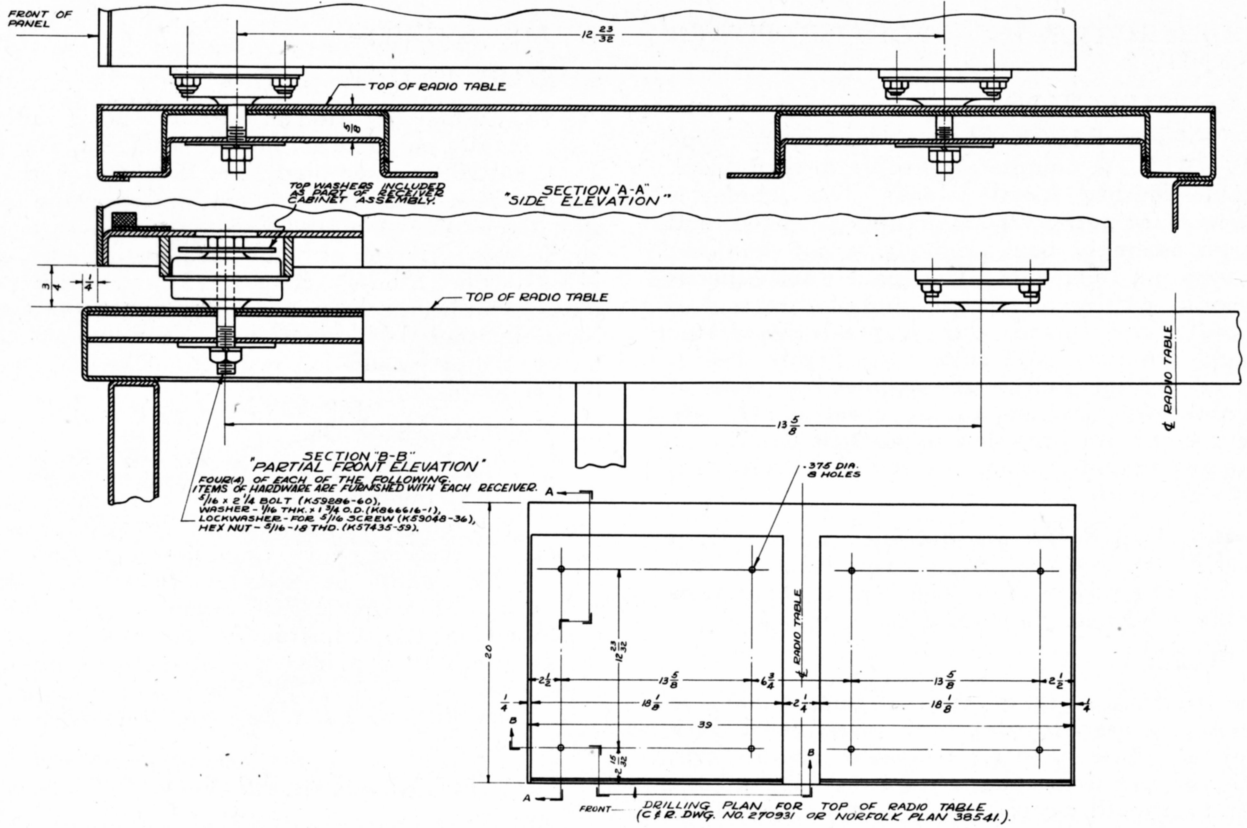


Figure 2-1 — Models RBB/RBC Radio Receivers, Mounting Diagram (PX-273649)

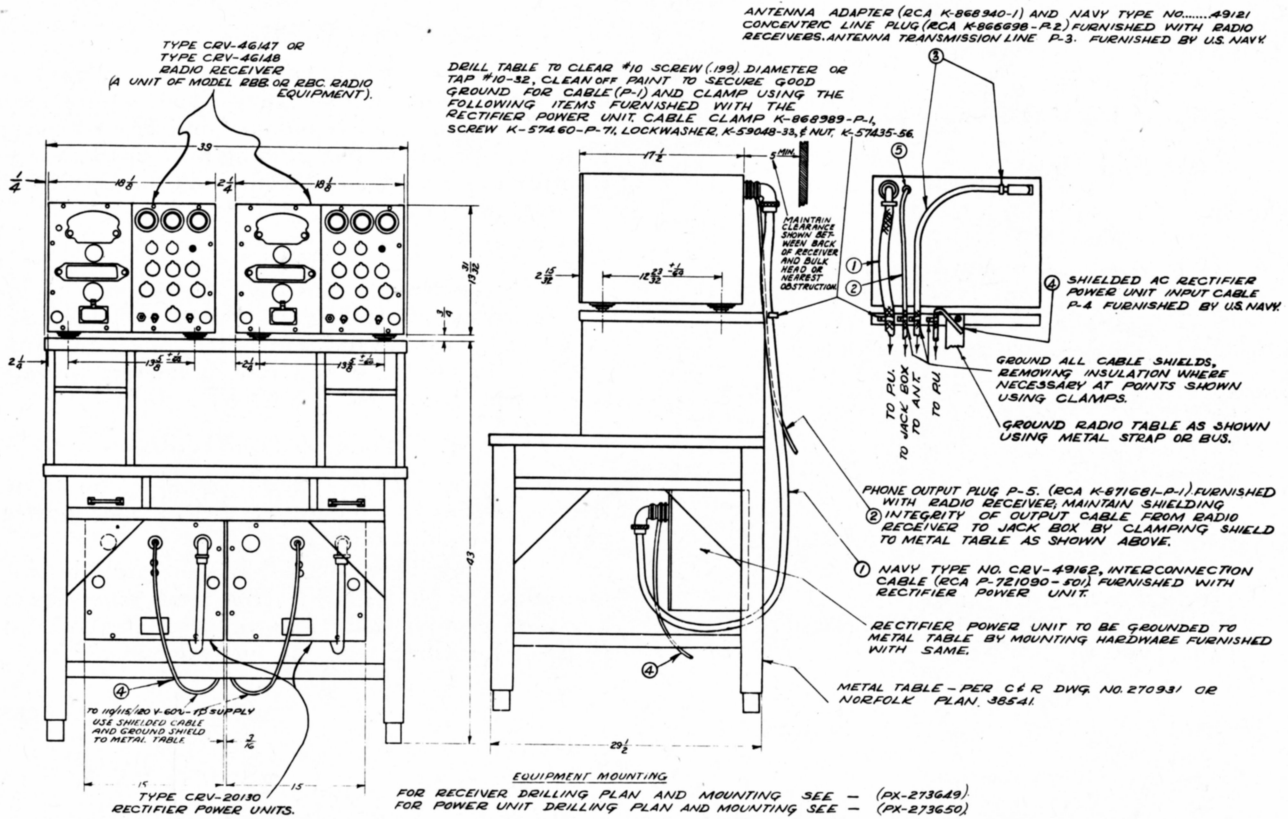


Figure 2-2 — Models RBB/RBC Radio Receivers and Rectifier Power Unit, Installation Diagram (PX-273687)

SECTION II INSTALLATION

1. RADIO RECEIVER.

a. GENERAL.—

(1) The receiver units of the Models RBB and RBC Radio Receiving Equipments are to be mounted on top of an operating table using the rubber shock absorber mountings (A105, A106 or A205, A206) supplied with the receiver unit cabinet. The location of the receiver units on the operating table may be varied to suit particular installation requirements. Frequent reference should be made to the installation drawings, Figures 2-1 and 2-2.

(2) Remove the receiver chassis from its cabinet. This is accomplished by disengaging the thumbscrews located around the edge of the panel. These thumbscrews are of the captive type and remain in the front panel when the chassis is withdrawn.

(3) Take hold of the round pull-knobs provided on the front panel and carefully withdraw the chassis. Note that the chassis strikes a pair of stops when partially withdrawn. These stops are released by pressing on the stop arms, through holes on each side of the chassis. In case the equipment has been previously installed, it is necessary to remove the cables from the receptacles at the rear of the unit before withdrawing the chassis.

CAUTION

Set the chassis on a flat surface free from obstructions which might damage shielding or components.

b. DRILLING.—

(1) Drill the top of the operating table according to the layout dimensions shown in Figures 2-1 and 2-2.

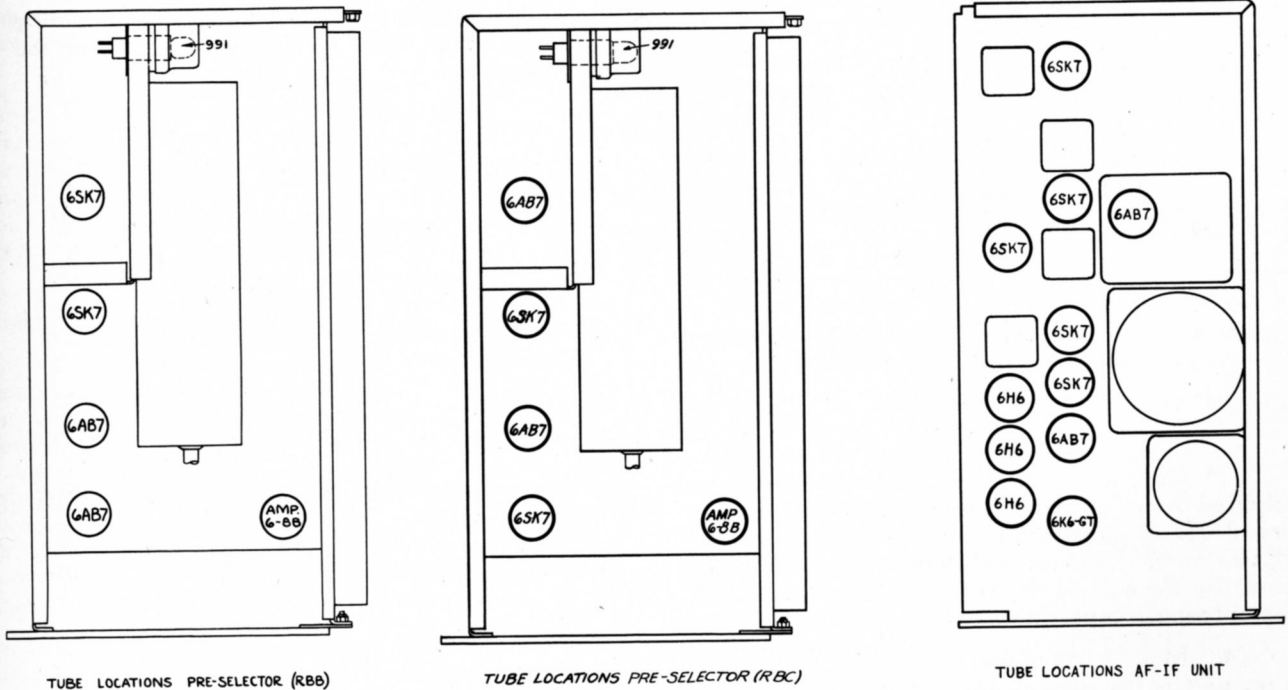
IMPORTANT

Provide a clearance of at least five inches from the rear of the receiver units to the bulkhead or nearest obstruction, to permit removal of cables and provide movement clearances in cases of severe shock.

c. MOUNTING.—

(1) Mount the cabinet in place using the bolts provided. As shown in Figure 2-1, the bolts are inserted through the shock mounts, using one large washer on top of the shock mount and another on the underside of the table.

(2) Insert the proper tubes in their respective sockets (see Figure 2-3). Be sure to press down firmly on these tubes. Tube locations are also indicated by chassis markings adjacent to the tube sockets. All tubes are accessible from the



**Figure 2-3 — Models RBB/RBC Radio Receivers, Tube Locations
(MX-244728, MX-244729, MX-244727)**

top of the receiver unit chassis. Note that the first r-f tube (V101 or V201) and protective tube (V105 or V205) are located in shielded compartments at the rear of the unit.

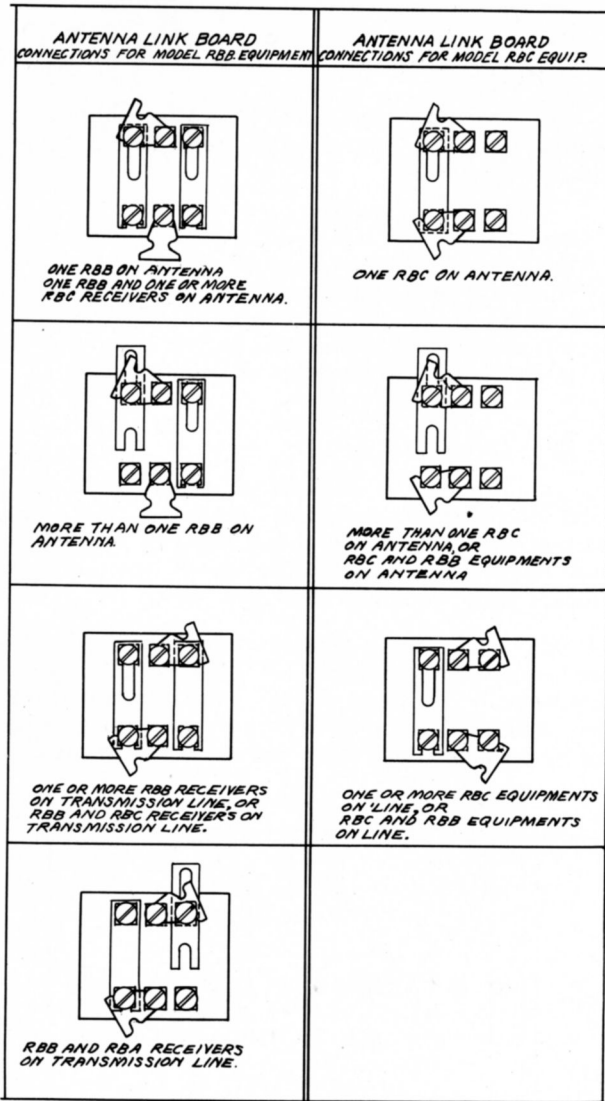


Figure 2-4—Models RBB/RBC Radio Receivers Antenna Link Board Connections (MX-244726)

(3) Connect the antenna link connectors as required for the particular installation (see Figure 2-4). The antenna link connection board (E105 or E209) is located beneath a small shield cover on the side of the receiver unit chassis near the antenna receptacle (J101 or J201).

(4) Make certain that the proper band-pass filter unit is installed in the receiver i-f/a-f unit:
 MODEL RBB.Band-pass filter CRV-53090
 MODEL RBC.Band-pass filter CRV-53091

(5) Place the receiver unit chassis into its cabinet. To insure proper shielding for the equipment it is necessary that the panel thumbscrews be turned up tight.

2. RECTIFIER POWER UNIT.

a. GENERAL.—

(1) The rectifier power unit is designed for mounting underneath an operating table without shock mounts. (Refer to Figure 2-6.) The unit may also be mounted on the surface of an operating table through holes in the mounting channels attached to the bottom of the case. These channels extend 1/2-inch below the edges of the case in order to provide ventilation for the unit.

(2) Remove the chassis from its cabinet by loosening the panel thumbscrews and withdrawing the chassis. When partially withdrawn, the chassis will strike stops which are released by pressing on the spring catches accessible through holes on each side of the chassis frame. If the equipment has been previously set up, the cables should be removed from the panel receptacles before the chassis is removed.

b. DRILLING.—

(1) Drill the operating table according to the lay-out shown on Figure 2-6. Section "AA" on this drawing shows drilling dimensions for the top of the rectifier power unit cabinet. The holes in the top of the cabinet must be located within the area of the reinforcing strips as shown in the top view.

c. MOUNTING.—

(1) After drilling the indicated mounting holes, the cabinet may be bolted in place with the bolts furnished.

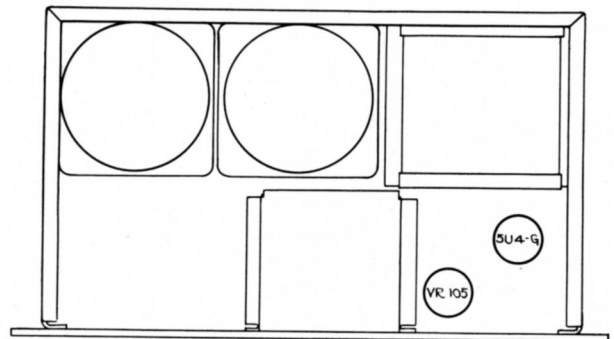


Figure 2-5—Rectifier Power Unit, Tube Locations (MX-244730)

(2) Insert the tubes in their proper sockets (see Figure 2-5). Make certain that the tubes are pressed down firmly. Tube locations are desig-

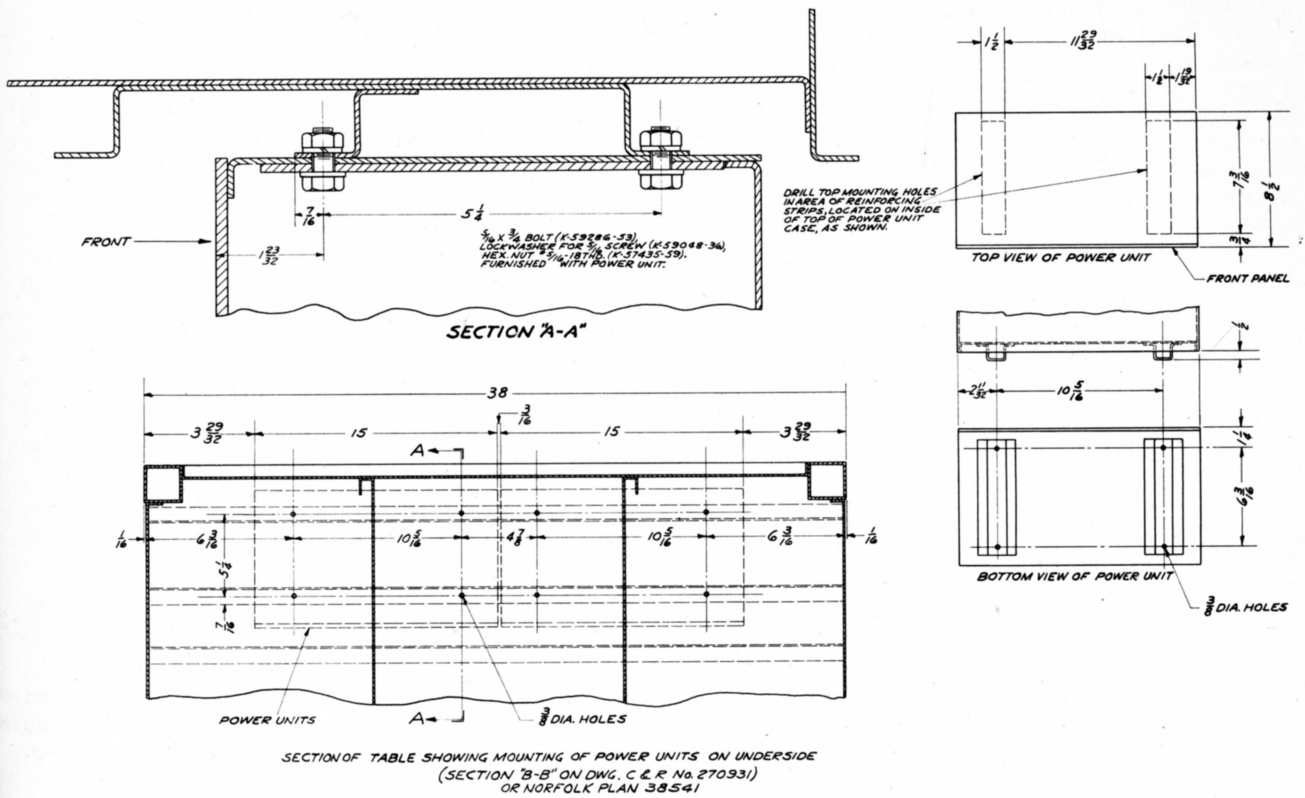


Figure 2-6 — Rectifier Power Unit, Mounting Diagram (PX-273650)

nated by chassis markings adjacent to the tube sockets.

(3) The supply voltage should be measured and the link connection for the power transformer taps set for 110-, 115-, or 120-volts, whichever corresponds most closely with the supply voltages. This link connection is located on a small terminal board mounted on top of the rectifier power unit chassis.

(4) Place the chassis in the cabinet and tighten the panel thumbscrews.

(5) Ground operating table by means of a metal strap or bus (see Figure 2-2). This grounding strap should be approximately 1/32-inch thick and 2 inches wide.

3. CONNECTIONS.

a. Interconnect the radio receiver and rectifier power unit by means of interconnection cable, Navy Type CRV-49162.

b. Clamp the cable in place as indicated on Figure 2-2. Be sure to clean off the paint on the table so as to secure a good ground for the interconnecting cable. This operation is indicated as (1) on Figure 2-2.

c. Interconnect the phone output plug (see Tables 1-6 and 1-7) to the jack box, by means of an interconnecting cable. The jack box and cable are not supplied by contractor. See Operation (2) on Figure 2-2.

d. Remove paint from the operating table as indicated on Figure 2-2. Remove the insulation of the interconnecting cable at the point of clamping.

NOTE

When Armored Cable TTHFA-1 (two conductors), Bureau of Ships Specification 15C-1 (INT) is used see 3h. below.

e. Connect the antenna transmission line to the receiver by means of the concentric line plug. The transmission line is not supplied by RCA.

NOTE

If a single wire feed-type antenna is used the antenna adapter Navy Type -49152 (see Tables 1-6 and 1-7) should be inserted into J101 or J201 and the lead-in of the antenna must be terminated at the binding post of the antenna adapter.

f. A 3-pin a-c power plug is mounted on the rectifier power unit but the a-c power cable is not

furnished. This cable should be Navy Type MCOS-2. The wires should connect to plug terminals No. 1 and No. 2 and shield must be connected to terminal "G." The shielded wires must run to a grounded junction box (not supplied by RCA) located near the equipment table. Do not insert the a-c power plug into its receptacle until the installation is complete. This may be used as a means of disconnecting the power when working on the equipment.

g. Plug the interconnection cable for the receiver unit into one of the two receptacles pro-

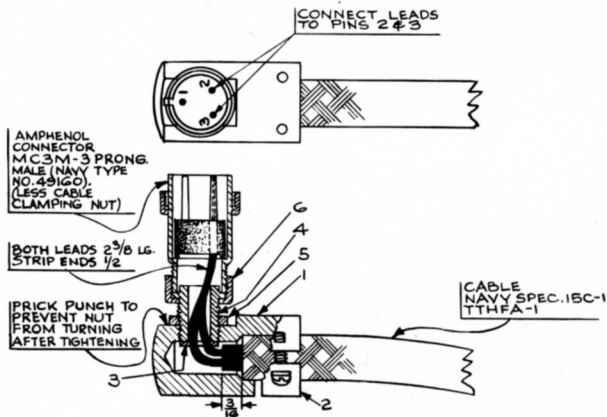


Figure 2-7 — Connector Assembly (K-885363)

vided to mate with the plugs on that cable. The unused receptacles should be covered with the cap provided, unless, in an emergency, two receivers are operated from a single power unit.

CAUTION

Remove the a-c power supply cable plug from its socket in the power unit before replacing either the unit tubes or fuses.

h. When a phone output cable Navy Type TTHFA-1 is used a Navy Type -49509 adaptor is required with the Navy Type -49160 output phone plug (see Tables 1-6 and 1-7 and paragraph 7-a (1)).

(1) Remove the cable clamping ring furnished with the output plug, Navy Type -49160 (J302).

(2) Strip the ends of the two conductors $\frac{1}{2}$ -inch as shown in Figure 2-7.

(3) Insert the cable into the connector body (1 of Figure 2-7) and pull the two conductors through the tapped hole in the body.

(4) Clamp the cable in place with the clamp (2 of Figure 2-7). Two machine screws and lockwashers are furnished for this purpose.

(5) Insert the insulating washer (3 of Figure 2-7) over the two conductors and into the bottom of the tapped hole in the connector body.

(6) Assemble bushing, locknut, coupling nut (4, 5 and 6 of Figure 2-7) and plug Navy Type -49160. Insert the conductor leads into pins No. 2 and No. 3 as shown in Figure 2-7.

(7) Before tightening the locknut (5 of Figure 2-7) note positions of the key and connections. Be sure that the positions agree with Figure 2-7. Tighten the locknut (5 of Figure 2-7).

(8) Prick-punch the connector body adjacent to the locknut to prevent it from turning.

(9) Solder leads to pins No. 2 and No. 3.