

Figure 7-1 — Navy Model BN Radio Equipment Schematic Diagram

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- NOTES
- 1 ALL RESISTORS ARE 1 WATT UNLESS OTHERWISE SPECIFIED
  - 2 AN ASTERISK (\*) PRECEDING SYMBOL INDICATES A SLUG TYPE (SOLID MOLDED-CARBON-COMPOSITION, INSULATED) RESISTOR - SPECIFIED FOR UNIFORM RADIO-FREQUENCY RESISTANCE
  - 3 ON RESISTORS, K DESIGNATES THOUSANDS, MEG. DESIGNATES MEGOHMS
  - 4 A STAR (\*) INDICATES ITEM NOT INCLUDED ON EARLY EQUIPMENTS.
  - 5 A DOUBLE STAR (\*\*) INDICATES ITEM DELETED FROM LATE EQUIPMENTS.
  - 6 TUBE SYMBOLS DETERMINE FIRST DIGITS OF ASSOCIATED ELEMENTS SYMBOLS.

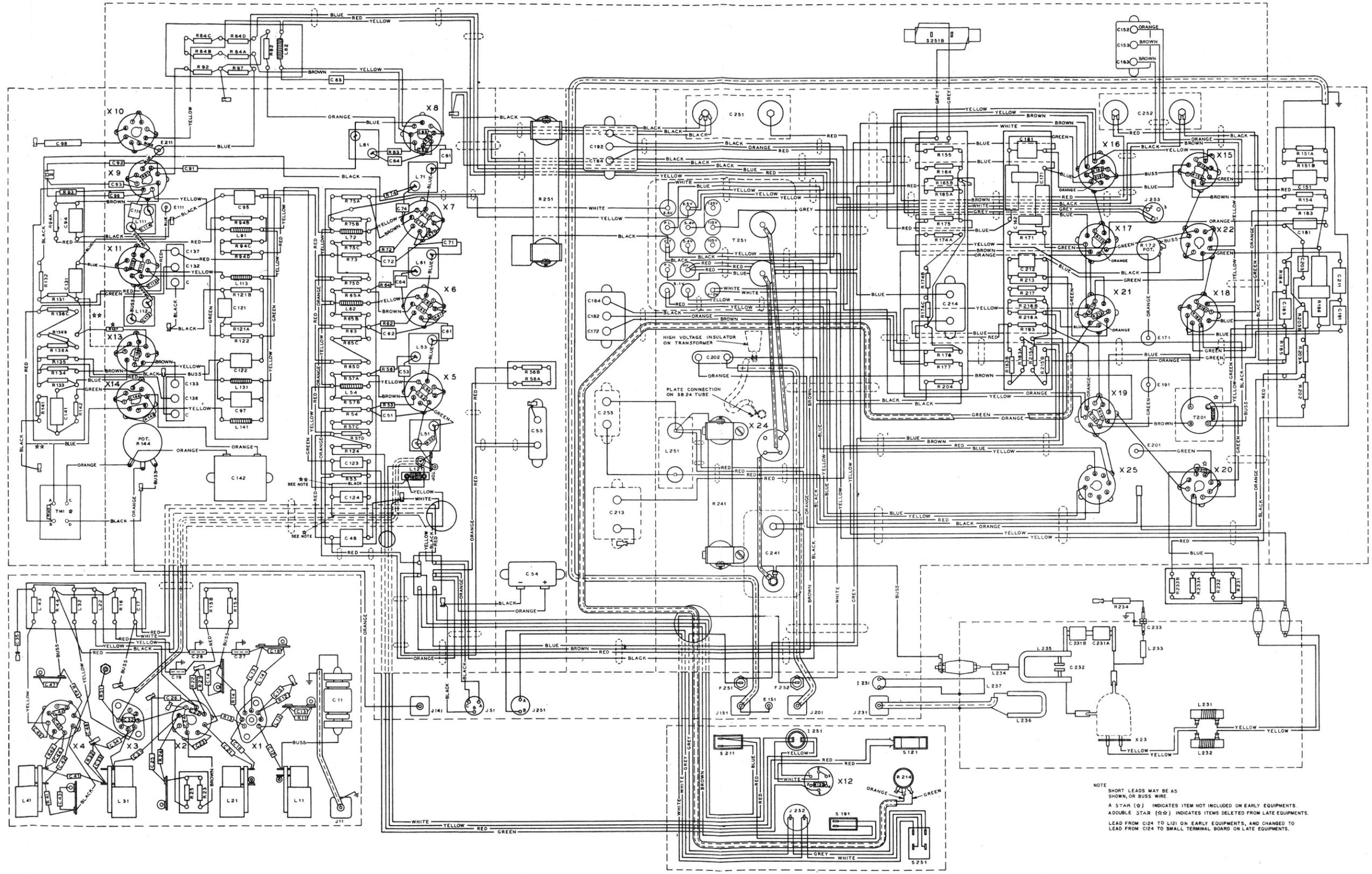


Figure 7-2 — Navy Model BN Radio Equipment Wiring Diagram

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CABLE NO.	TERMINATION ON BN EQUIPMENT	NAVY TYPE OF PLUG ON BN END & SYMBOL
W-301	SYNC IN	C**-49195 PLUG C**-49192 ADAPTER P-151 P-152
W-302	REMOTE CONTROL	AN-3108-16-10P & AN-3057-8 CLAMP P-51
W-303	115 V. A.C. IN	AN-3108-16-11S & AN-3057-8 CLAMP P-251
W-304	(NOT USED)	
W-305	RECEIVER	C**-49195 PLUG C**-49192 ADAPTER P-11 P-12
W-306	(NOT USED)	
W-307	VIDEO OUT	C**-49195 PLUG C**-49192 ADAPTER P-141 P-142
W-308	(NOT USED)	
W-309	TRANSMITTER	C**-49195 PLUG C**-49192 ADAPTER P-231 P-232
W-310	(DUPLEXER TO ANTENNA)	
W-311	PULSE OUT	C**-49195 PLUG C**-49192 ADAPTER P-201 P-202

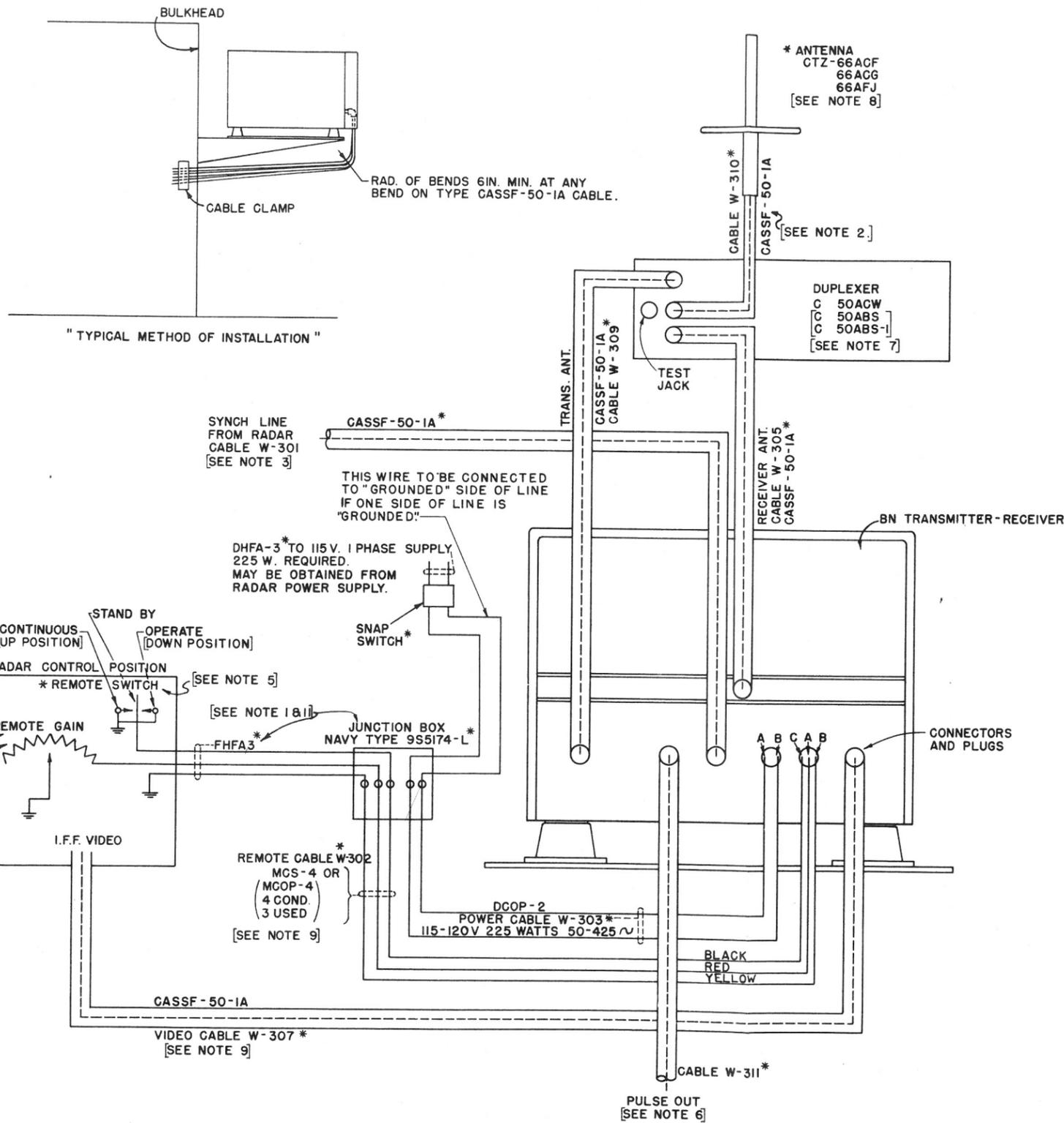


Figure 7-3 — Navy Model BN Radio Equipment Cabling Diagram

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NOTES

1. IN INSTALLATIONS IN WHICH RADAR CONTROL POSITION & MODEL BN EQUIPMENT ARE NOT SEPARATED BY WATERTIGHT BULKHEADS, JUNCTION BOX & FHFA3 CABLE MAY BE ELIMINATED.
2. ANTENNA CABLE W-310 SHOULD NOT EXCEED 100 FEET.
3. SYNC LINE CABLE SHOULD NOT EXCEED 40 FEET.
4. MOUNT GAIN CONTROL POT. SUPPLIED WITH MODEL BN EQUIPMENT IN RADAR RECEIVER INDICATOR.
5. USE SWITCH ALREADY PROVIDED IN RADAR RECEIVER INDICATOR FOR I.F.F. REMOTE CONTROL.
6. THIS CABLE RESERVED. NOT TO BE INSTALLED, PENDING FURTHER INSTRUCTIONS FROM BUSHIPS.
7. DUPLEXER TYPE C-50ACW WILL BE SUPPLIED AS PART OF MODEL BN EQUIPMENT. IF NOT AVAILABLE, DUPLEXER TYPE C-50ABS OR C-50ABS-1, ORIGINALLY DESIGNED FOR MODEL BL EQUIPMENT MAY BE USED.
8. ANY OF THESE TYPES OF ANTENNAS MAY BE USED.
9. CABLES NO. W-302-307 SHOULD BE MIN. LENGTH POSSIBLE. MAXIMUM OPERATING LENGTH 300 FEET.
10. CONNECTORS SHOWN ON PANEL OF MODEL BN FURNISHED BY MANUFACTURER.
11. A 3 TERMINAL PLUG IS USED WITH THE CABLE FOR REMOTE CONTROL AND GAIN CIRCUITS IN THE MODEL BN EQUIPMENT. USE 1 COND. AS COMMON, GROUNDED AT POTENTIOMETER ARM IN RADAR REC. IND. OTHER CONDUCTORS CONNECTED TO HI SIDE OF POTENTIOMETER AND SWITCH.
12. SUFFICIENT CABLE LENGTH SHOULD BE PROVIDED TO ALLOW WITHDRAWAL OF BN TRANSMITTER-RECEIVER CHASSIS APP. 10', OR TO THE "STOP" POSITION, FOR SERVICING.
13. MATERIAL MARKED WITH ASTERISK (\*) NOT SUPPLIED BY MANUFACTURER.
14. ALL MODEL BN EQUIPMENTS TO BE SUPPLIED WITH 60 CYCLE FAN MOTORS. IF USED WITH 400 CYCLE SUPPLY TO SO SERIES OR SF, REPLACE 60 CYCLE FAN MOTOR WITH 400 CYCLE MOTOR OF WHICH ONE WILL BE FOUND IN EVERY EQUIPMENT SPARE. BOTH FANS SAME SIZE AND MOUNTING DIMENSIONS.

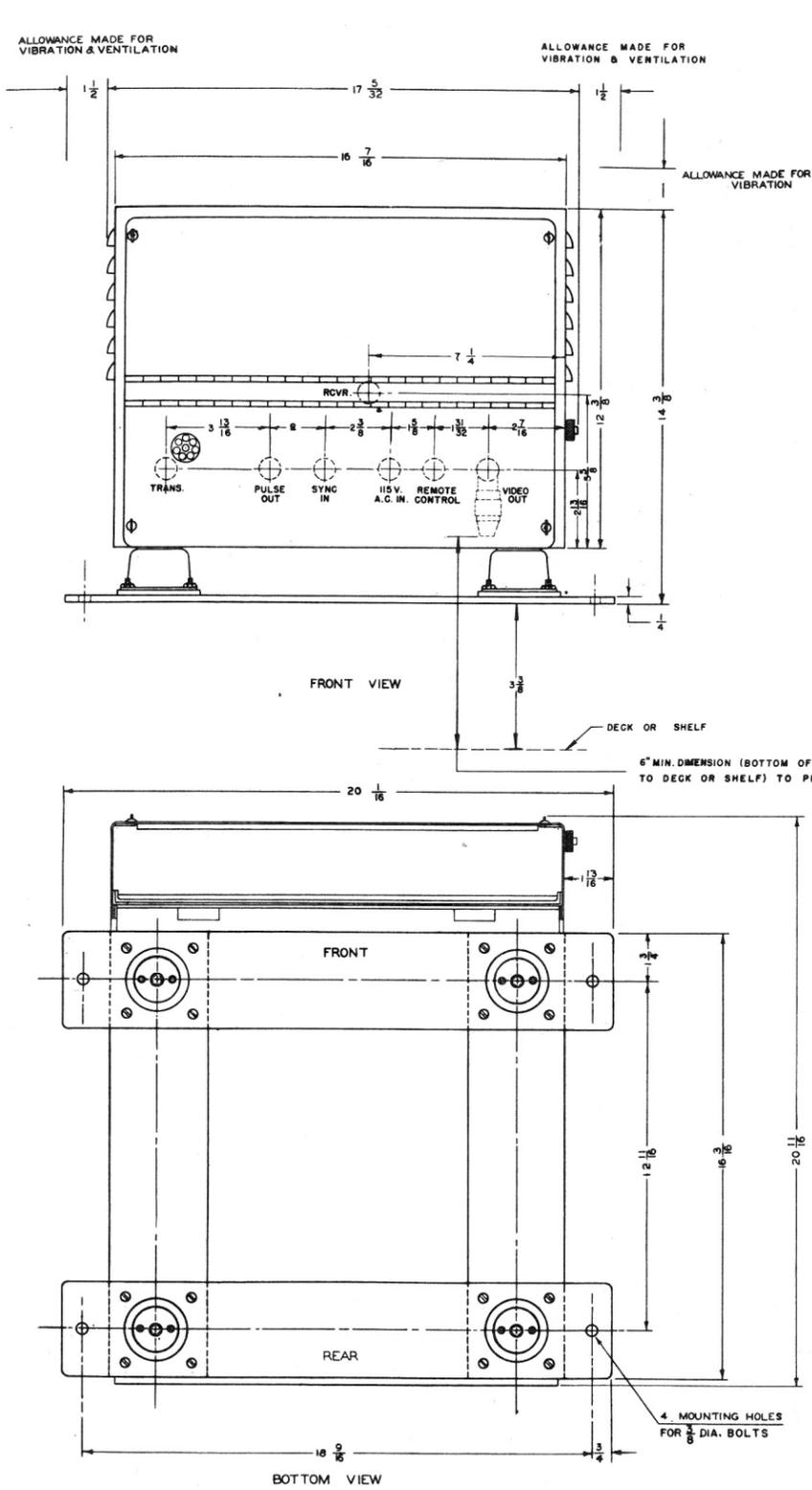
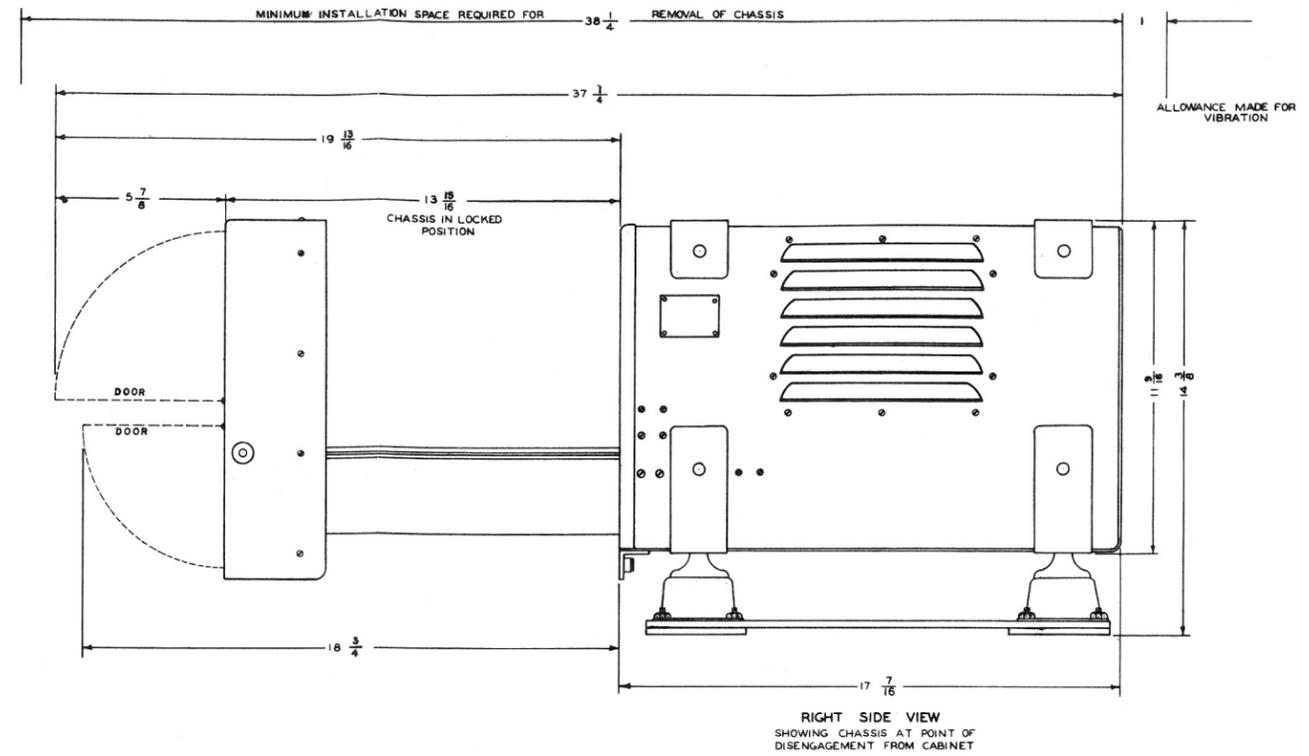


Figure 7-4 — Navy Model BN Radio Equipment Installation Diagram



BN SPACE REQUIREMENTS	
WIDTH	20 3/16
DEPTH	39 1/4
HEIGHT	18 3/4

WEIGHT 156 POUNDS  
WITH PLUGS, LESS CABLES.

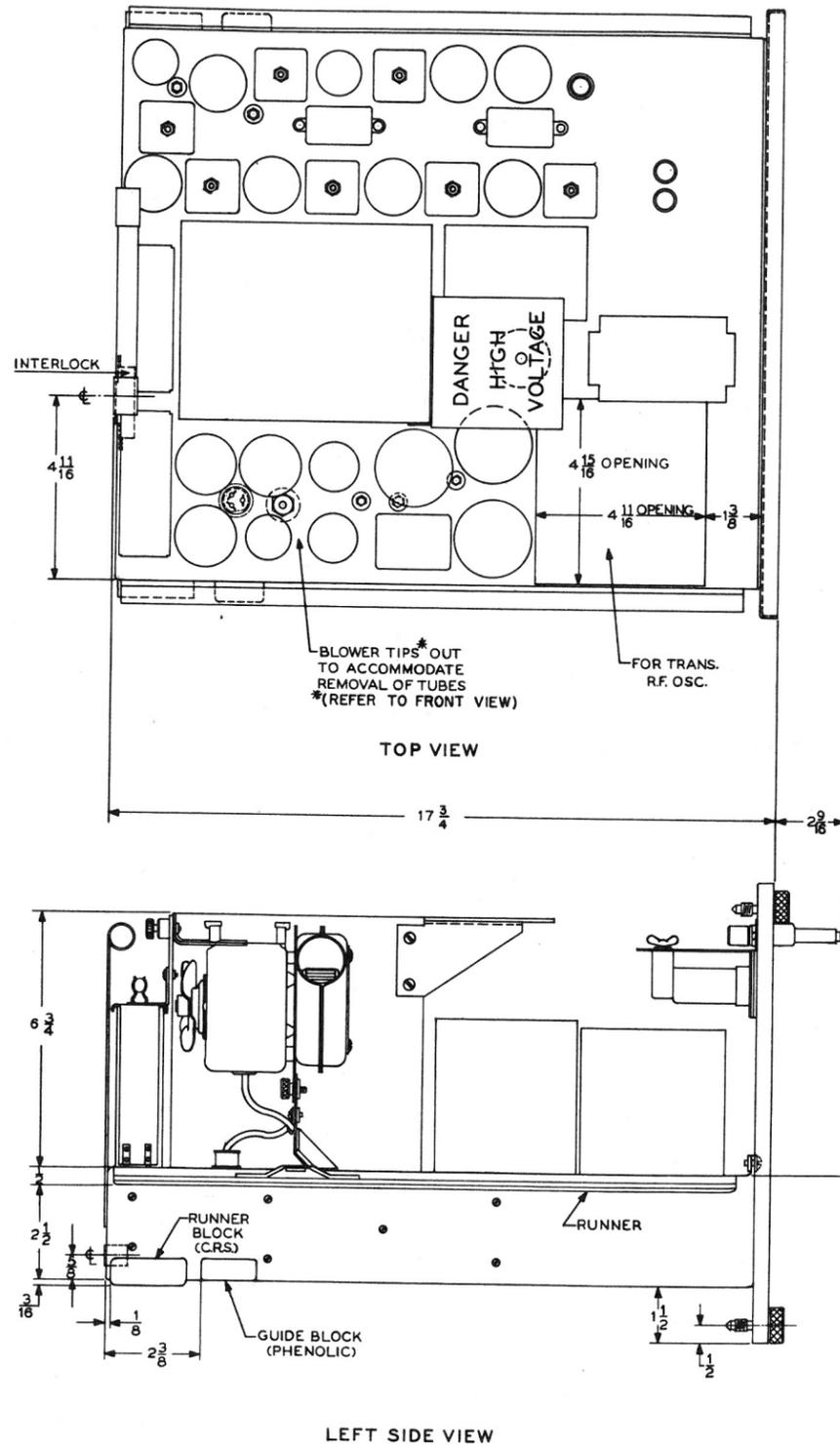
SPACE REQUIRED FOR CTZ-50-ACW DUPLEXER IF USED	
WIDTH	4 3/8
DEPTH	4 3/4
LENGTH	21

WEIGHT 18 POUNDS

ADDITIONAL REQUIREMENTS FOR DUPLEXER

- SPACE PROVISIONS MUST ALLOW FOR:
- 1-BENDING OF CABLES AT "TRANSMITTER", "RECEIVER", "ANTENNA" AND "TEST" JACKS.
  - 2-OPERATING PERSONNEL TO TURN ADJUSTING KNOBS AND READ DIALS.

Figure 7-4 — Navy Model BN Radio Equipment Installation Diagram



WEIGHT = 86 LB

NOTE:  
FOR CHASSIS AND FRONT PANEL ASSEMBLY  
SEE FARNSWORTH DWG. NO. 300271

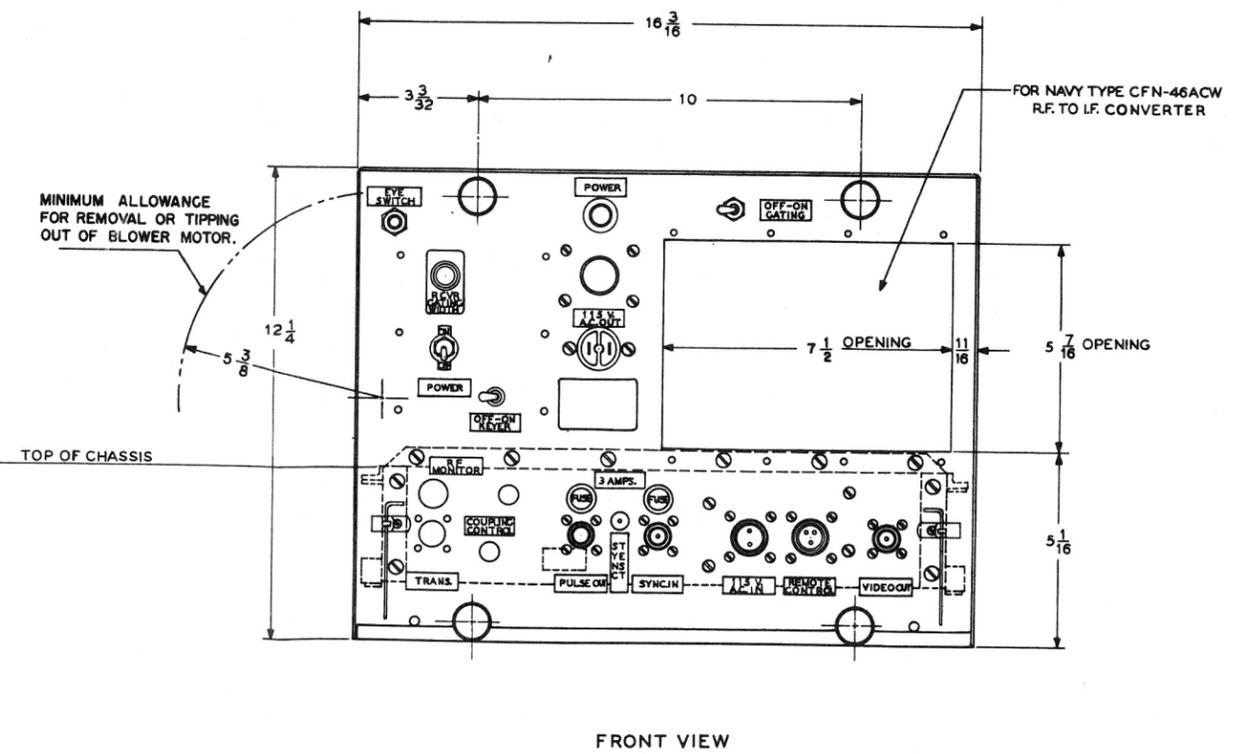
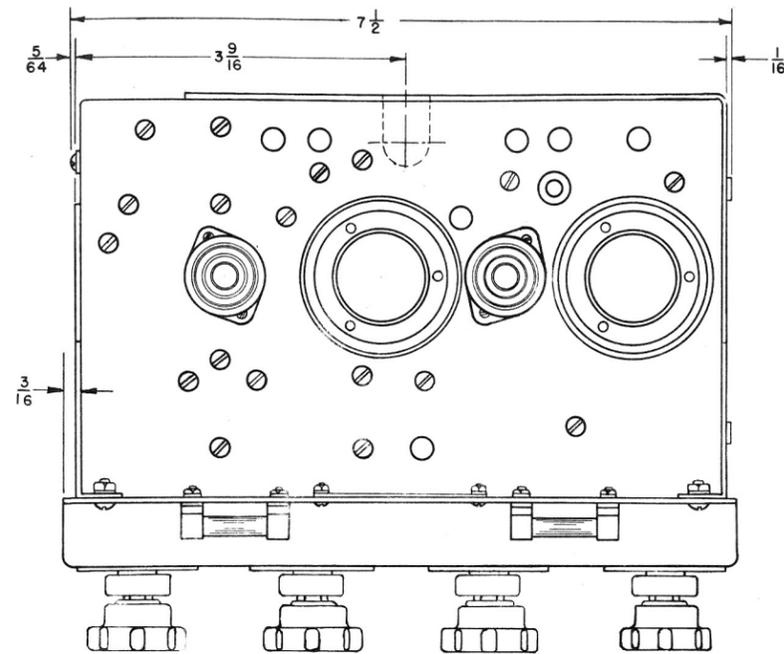


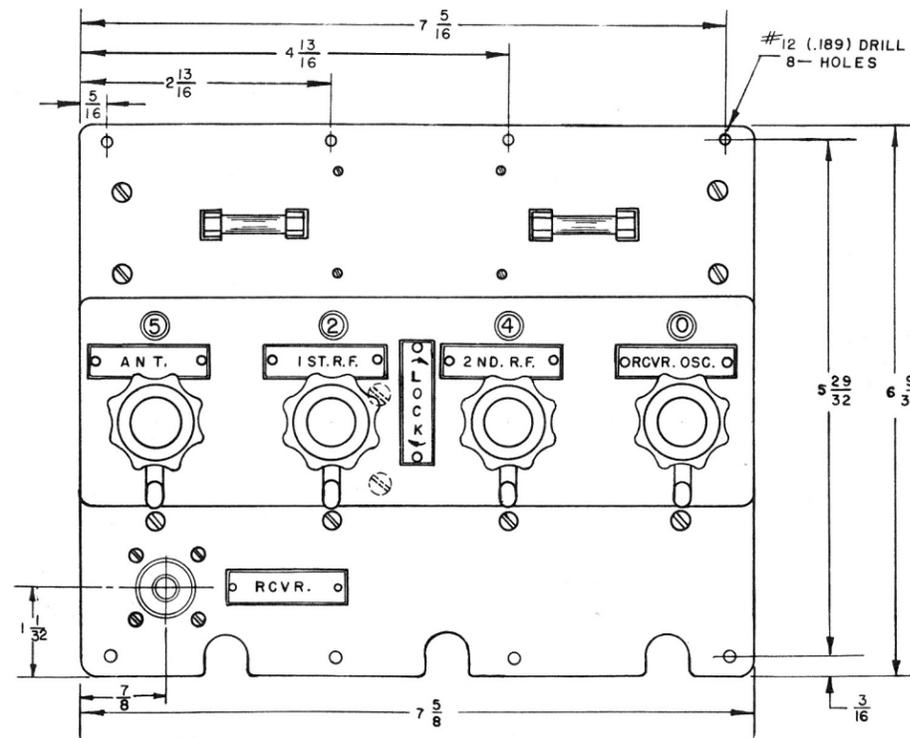
Figure 7-5—Modulator and I-F to Video Converter Navy Type CFN-43 ACB  
Dimensional Outline Drawing

Figure 7-5—Modulator and I-F to Video Converter Navy Type CFN-43 ACB  
Dimensional Outline Drawing



NOTE:  
FOR R. F. RECEIVER WIRING ASSEMBLY  
SEE FARNSWORTH DWG. NO. 300484.

WEIGHT = 7 LB.



DIMENSIONAL OUTLINE-NAVY TYPE CFN-46ACW RF TO IF CONVERTER

Figure 7-6—R-F to I-F Converter Navy Type CFN-46ACW Dimensional Outline Drawing

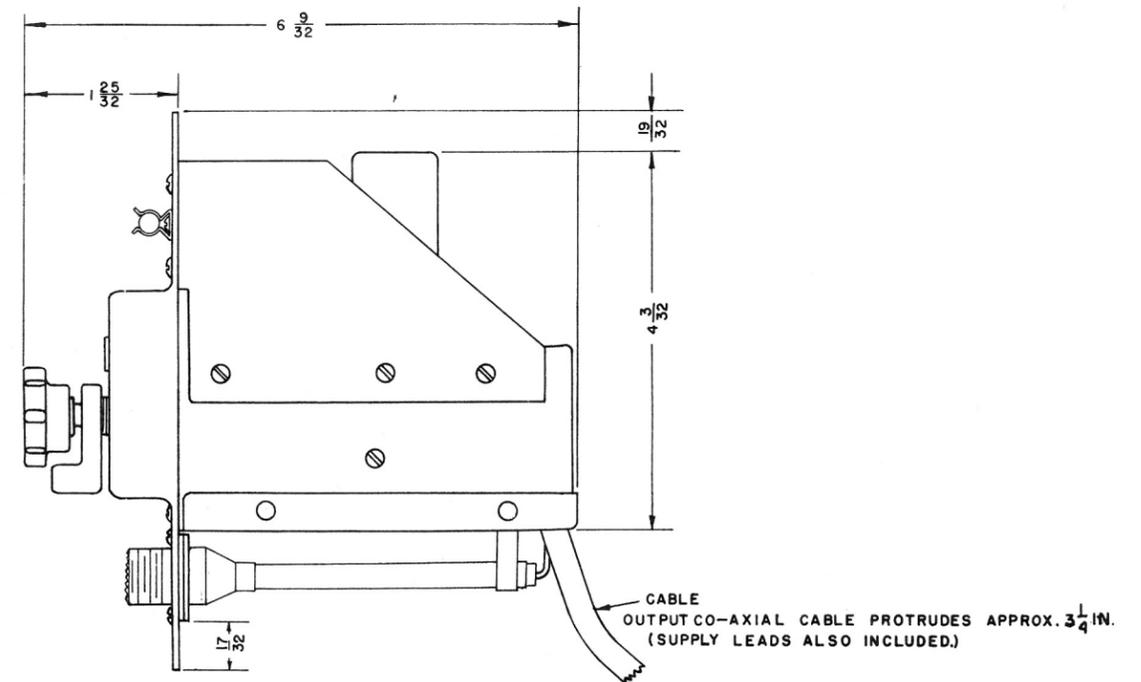


Figure 7-6—R-F to I-F Converter Navy Type CFN-46ACW Dimensional Outline Drawing

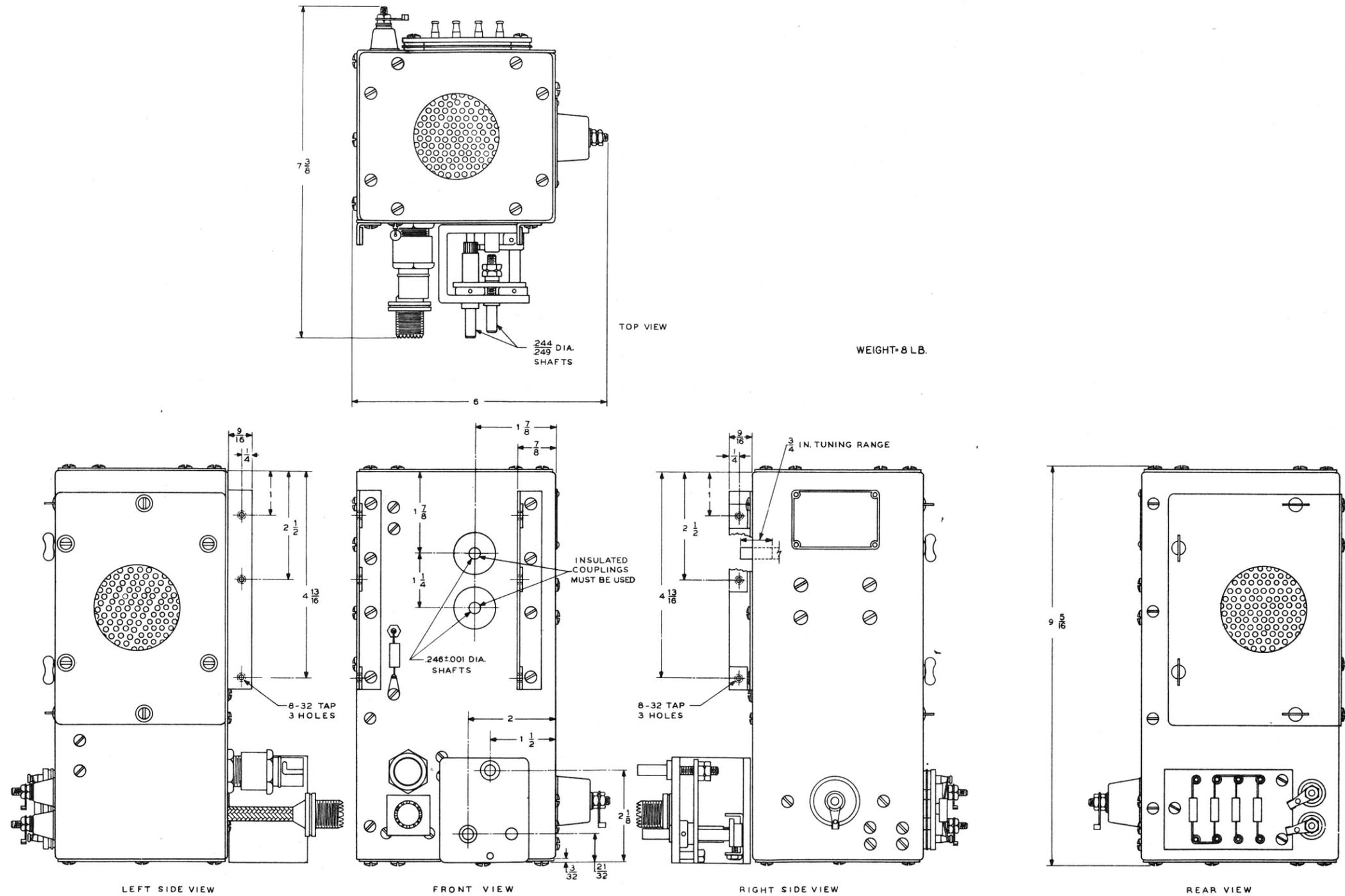


Figure 7-7—Transmitter R-F Oscillator Navy Type CFN-52ACQ Dimensional Outline Drawing

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