

**AERIAL TUNING OUTFITS ETF(1) AND ETF(2)**

**ETF(1)  
ETF(2)**

**SUMMARY OF DATA**

**PURPOSE**

Outfit ETF provides a means of matching various aerial impedances to a 50 ohm transmitter output with a frequency range from 1.5 to 24 MHz.

ETF(1) is for use on ships fitted with Transmitter Type 640  
ETF(2) is for use on ships fitted with ICS(3)

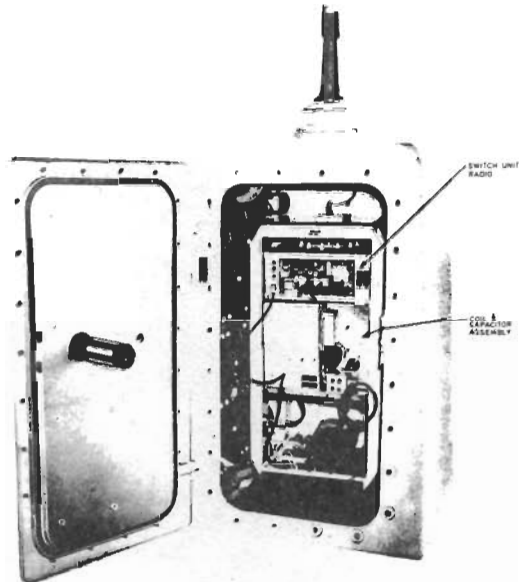
**BRIEF DESCRIPTION**

The Tuner RF consists of a wide-band transformer in series with a tunable L or Pi network (the configuration being changed automatically for different ranges). The network has three motor driven tuning elements remotely controlled from its associated transmitter or a special control box. The tunable elements are inductance, fine input capacitance and range.

**FREQUENCY**

Frequency coverage 1.5 to 24 MHz in eleven ranges:

- 1 1.5 to 1.8 MHz
- 2 1.7 to 2.1 MHz
- 3 2.0 to 3.0 MHz
- 4 3.0 to 4.0 MHz
- 5 4.0 to 6.0 MHz
- 6 6.0 to 8.0 MHz
- 7 8.0 to 10.0 MHz )
- 8 10.0 to 13.0 MHz) strapped in some installations
- 9 13.0 to 16.0 MHz)
- 10 16.0 to 20.0 MHz)
- 11 20.0 to 24.0 MHz) strapped in some installations



**MAJOR UNITS**

5820-99-531-1506	Cabinet Electrical Equipment )	ETF(1) and (2)
5820-99-531-1505	Frame Electrical Equipment )	
5820-99-580-8111	Aerial Switching Unit )	ETF(1)
5820-99-580-8106	Coil and Capacitor Unit )	
5820-99-527-9543	Switch Unit Radio Frequency)	ETF(2)
5820-99-527-9544	Coil and Capacitor Assembly )	

**ELECTRICAL CHARACTERISTICS**

RF Input Power:

- 1.5 to 2 MHz, 360 W mean fst  
500 W mean cw  
700 W peak two-tone
- 2.0 to 3.0 MHz, 400 W mean fst  
600 W mean cw  
800 W peak two-tone
- 3.0 to 4.0 MHz, 750 W mean fst  
1 kW mean cw  
1 kW peak two-tone
- Above 4.0 MHz, 1 kW all services

Input impedance: 50 ohm

Output impedance: 2 to 800 ohm resistive  
-700 to +300 ohm reactive

Matching: better than 0.85 VSWR

BR 333(1)  
Original

**RESTRICTED**

**POWER REQUIREMENTS**

110/230 V, 50-60 Hz for heaters which operate below 25°C and for the blower fan.  
110/230 V, 50-60 Hz transmitter supply for the circulating fan.

**HANDBOOK**

BR 790

**ESTABLISHMENT LIST**

E-S1778

**INSTALLATION SPECIFICATION**

B1216