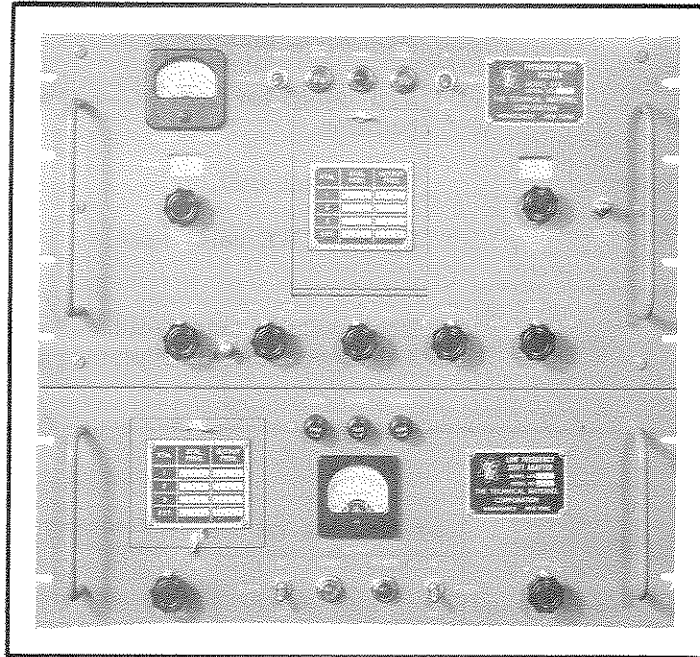


SALES SERVICE BULLETIN NUMBER 154

Frequency Shift Exciter System, Model XFL-2



The TMC Frequency Shift Exciter System, Model XFL-2 is a combined low frequency and high frequency shift system. The system combines the TMC Low Frequency Adapter, Model LFA with the TMC Frequency Shift Exciter, Model XFK to provide versatile operation over a wide range of frequencies-1 to 6.9 Mcs. and 50 to 500 kcs.

The higher range may be obtained directly from the Model XFK, while the lower range requires that a 2.2 Mcs. crystal be inserted in the Model XFK and the lower sideband (2Mcs.) be chosen in its output. This frequency shifted signal, whose center is at 2. Mcs., is then inserted into the Model LFA, where it is mixed with a locally generated signal from an oven-enclosed crystal oscillator operating in the range of 2.05 to 2.50 Mcs.

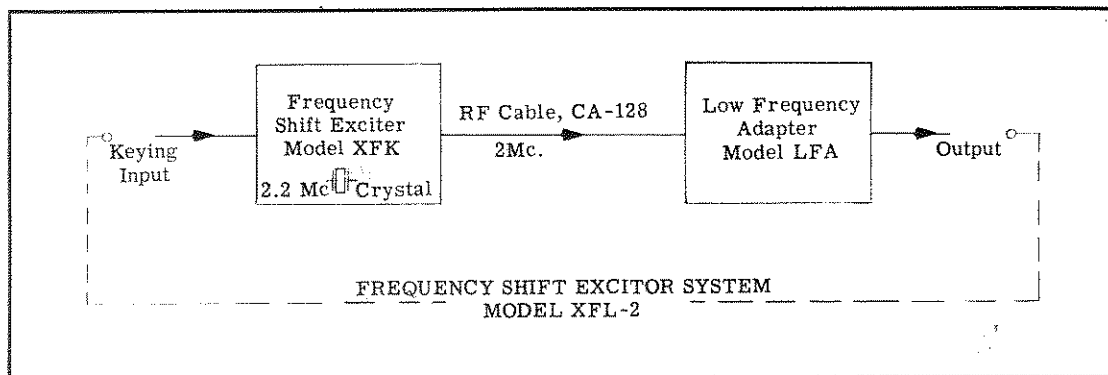
The Model XFL-2 system consists of the following equipment:

- One TMC Frequency Shift Excitor, Model XFK.
- One TMC Low Frequency Shift Adapter, Model LFA.
- One Crystal Unit, CR-27/U 2.2 Mcs. for use in the Model XFK.
- One set, Interconnecting Cable, TMC No. CA-128

The TMC Low Frequency Shift Adapter, Model LFA is a highly stable unit designed for use with any frequency-shift exciter with an output of 2 Mcs. to produce an extended operating range between 50 and 500 kcs. The Model LFA imposes no additional restrictions on the frequency stability or shift characteristics of any such exciter. The output of the Model LFA is characterized by excellent linearity and stability, a feature which insures less than 5% harmonic distortion throughout the entire frequency range under proper terminal load conditions.

TECHNICAL SPECIFICATIONS

FREQUENCY RANGE: 50 to 500 kc, 1 to 6.9 Mcs.
OUTPUT RANGE: Adjustable to 5 watts.
PRIMARY POWER: 110/220 volts, 50/60 cycles.
KEYING SPEED: 1000 wpm. maximum.
CRYSTAL SOCKETS: Provisions for both HC-6/U and FT-243 for each position.
CRYSTAL POSITIONS: Three each unit.
MOUNTING: Standard WE relay rack.
COMPONENTS AND CONSTRUCTIONS: Equipment is manufactured in accordance with JAN specifications wherever practicable.



Functional Block Diagram

For further information concerning the TMC Frequency Shift Exciter, Model XFK refer to Sales Service Bulletin Number 118.

CK-130

THE TECHNICAL MATERIEL CORPORATION

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