



FG 502

OPERATING INSTRUCTIONS

INSTRUMENT DESCRIPTION

The FG 502 Function Generator is designed to operate in a TM 500 series power module. Low distortion sine, square, triangle, positive and negative pulse and ramp waveforms from 0.1 Hz to 11 MHz, are available at the front panel. A +2.5 V square wave trigger also is available at the front panel. Variable DC offset of ± 5 V is also provided.

A voltage-controlled frequency (VCF) input controls the output frequency from an external voltage source. The output frequency can be swept above or below the selected frequency, to a maximum of 1000:1, depending on the polarity and amplitude of the VCF input and the selected output frequency.

Also included is an external gate input that allows the generator to operate for the duration of an externally

applied gating signal. This mode provides either a single cycle output, or a train (burst) of preselected waveforms, depending on the gating signal width and the generator frequency setting.

The variety of swept and modulated signals available from the FG 502 make it especially useful for such applications as testing servo-system or amplifier response, distortion and stability. It is also useful for FM generation, frequency multiplication, or as a variable beat-frequency oscillator, repetition-rate, or tone-burst generator. The square wave trigger output can be used as a source for TTL logic, or to synchronize an external device such as an oscilloscope or counter.

PREPARATION FOR USE

Initial Operation

CAUTION

Turn the Power Module off before inserting the plug-in; otherwise, damage may occur to the plug-in circuitry.

The FG 502 is calibrated and ready for use when received. It is designed to operate in any compartment of the TM 500 series power module. Refer to the power module instruction manual for line voltage requirements and power module operation. See Fig. 1-1 for installation-removal procedure. Check that the FG 502 is fully inserted in the power module. Pull the PWR switch on the power module. Check that the green POWER light on the FG 502

is on. The Controls, Connectors and Adjustments foldout page in Section 3 gives a complete description of the front panel controls and connectors.

Functions Available At Rear Connector

Refer to the rear connector assignment illustration in the Service Section of this manual for pin assignments.

A slot between pins 23 and 24 on the rear connector identifies the FG 502 as a member of the signal source family. A barrier may be inserted in the corresponding position of the power module jack, to prevent other than signal source plug-ins from being used in that compartment. This protects the plug-in should specialized connections be made to that compartment. Consult the Building A System section of the power module manual for further information.