SECTION I
GENERAL DESCRIPTION

1-1. INTRODUCTION

This manual has been prepared for use by systems engineers and by personnel responsible for the installation, operation and maintenance of the Series 9012 Plug-In Programmer (PIP).

1-2. GENERAL DESCRIPTION

The Elgar Series 9012 Plug-In Programmer is a solid state, self contained instrument intended for use in Automatic Test Equipment (ATE) systems. In response to coded commands via the IEEE-488 Bus, a controller may take control of this device and in turn the outputs from the associated Power Source(s).

1-3. PHYSICAL DESCRIPTION

The Series 9012 is configured to fit the standard oscillator cavity of all Elgar Power Sources. Note: It should not be used with the Elgar "C" Series Power sources due to servo problems.

TABLE 1-1. PERFORMANCE SPECIFICATIONS

STANDARD	
Input Power:	117VAC, +42VDC and -42VDC from associated power source.
Output Signal:	0 to 2.5VAC into an 800 ohm load (per phase).
Operating Temperature:	0°C to 50°C.
Programming:	IEEE-488-1978.
Distortion:	Less than 1% within power source range.
FREQUENCY PROGRAMMING	
Frequency Range: (Range Programmable)	45 Hz to 99.99 Hz, in 0.01 Hz steps 45 Hz to 999.9 Hz, in 0.1 Hz steps 45 Hz to 4095 Hz, in 1 Hz steps.
Frequency Accuracy:	±0.001% of programmed value, 0°C to 50°C.
AMPLITUDE PROGRAMMING	
Voltage Ranges: (Range Programmable)	0 to 135 volts in 0.1 volt steps. 0 to 270 volts in 0.1 volt steps.
Amplitude Accuracy:	±0.2% of full scale from 5% of full scale to full scale.
Load Regulation:	±0.015% from no load to full load.
Line Regulation:	±0.015% for a 10% line change within line range.
Amplitude Temco:	±0.025% °C average 0°C to 50°C.
PHASE ANGLE	
Phase Angle Accuracy:	±1° from 45 Hz to 2 kHz. Add 1° per kHz above 2 kHz.
Separation:	120° and 240° for three phase. 90° for two phase. 60° for open delta.

TABLE 1-2

TEST BOARD, SPECIFICATIONS

ALL SPECIFICATIONS ARE FROM 5% F.S. TO F.S. AND FROM 45 Hz to 5 KHz.
ALL TC'S ARE PER DEGREE C AVERAGE FROM ZERO TO 50 DEGREES C.

ALL VOLTAGE AND CURRENT READINGS ARE TRUE RMS.

1.	VOLTS	F.S. = 300V RESOLUTION = 0.1 VOLT ACCURACY = 0.1% F.S. ± 0.1% RDG TC = 0.01% F.S. ± 0.01% RDG PER DEGREE C
2.	CURRENT	F.S. = 5A, 10A, 20A, 40A. RESOLUTION = 0.01 AMP ACCURACY = 1% F.S. ± 1% RDG CREST FACTOR = 3.5 TO 1 MIN TC = 0.02% F.S. ± 0.02% RDG PER DEGREE C
3.	POWER	F.S. = 500W, 1KW, 2KW, 4KW RESOLUTION = 1 WATT ACCURACY = 1% F.S. ± 1% RDG TC = 0.01% F.S. ± 0.02% RDG PER DEGREE C
4.	FREQUENCY	F.S. = 5 KHz RESOLUTION = 2 Hz ACCURACY = 0.12% F.S. ± 0.008% RDG TC = 0.012% F.S. ± 0.008% RDG PER DEGREE C