ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Ametek / Elgar PIP9012A-1T-311* at our website: ***Click HERE***

9012A-1T-311

Manual Addendum

ELGAR ELECTRONICS CORPORATION
9250 Brown Deer Road
San Diego, CA 92121-2294
1-800-733-5427
Tel: (858) 450-0085
Fax: (858) 458-0267
Email: sales@elgar.com
www.elgar.com

©2000 by Elgar Electronics Corporation
This document contains information proprietary to Elgar Electronics Corporation. The information contained herein is not to be duplicated or transferred in any manner without prior written permission from Elgar Electronics Corporation.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

MODEL NUMBER: PIP 9012A-1T-311 **ADDENDUM**

DESCRIPTION OF FEATURES: This is a modified standard Model PIP 9012A-1T. It has the following special features or options:

- 45Hz to 9999Hz Extended Output Frequency Range (keypad or remote)
- Initializes in the 0-135VAC output voltage range (RNG0) at 1000Hz output frequency at power-on or reset.
- Test Option Frequency Readback Performance Specification extended to 45Hz to 9999Hz frequency range.

The Model PIP 9012A-1T-311 is a modified PIP 9012A-1T. It has been modified at the factory for an extended frequency range of 45-9999Hz. It has a standard 500W/1000W Test Board Option with an extended frequency readback range for measurement up to 9999Hz to operate with the extended frequency range capabilities of the programming range. The Test Bd is calibrated similarly to the standard product. The procedure is included in this addendum.

The PIP 9012A-1T-311 will initialize in the 0-135VAC output voltage range (RNG0) at an output frequency of 1000Hz on the 0045Hz to 9999Hzfrequency range (RNGF2) at power-on or GPIB/Remote Device Clear (DCL).

All other functions remain standard and unchanged. There is a specific performance specification for this product included in this addendum. Also please refer to the standard sections of this manual for additional electrical specifications and operating and programming instructions.

5809909 TEST BOARD ASSEMBLY - MANUAL PARTS LIST CHANGES:

CKT DESIG	ADD	DELETE	DESCRIPTION OF PART
R23	819-502-64	819-103-32	5K Freq Adjust Pot (Test Bd)
R25	813-511-1F	813-105-1F	5.11K 1% Scale Res (Test Bd)

Date: November 17, 2000

This is an insert into the standard Model 9012A Operation Manual.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

MODEL NUMBER: PIP 9012A-1T-311 **ADDENDUM**

TEST BOARD ASSEMBLY CALIBRATION: The following Test Bd Calibration Section only affects the portion for calibrating the Frequency Readback section. The other sections of the calibration procedure in the Service Manual are to be used.

1. PROGRAM THE PIP TO 00.00VAC & 60HZ.
2. PROGRAM THE PIP 0 # 4.
3. ADJUST R43 FOR 0060. ON PIP THE DISPLAY.
4. PROGRAM THE PIP TO 9000HZ.
5. PROGRAM THE PIP 0 # 4.
6. ADJUST R23 FOR 9000. ON THE PIP DISPLAY.
7. REPEAT STEPS 1 THROUGH 6 AS REQUIRED TO COMPENSATE FOR THE INTERACTIONS OF ADJUSTMENTS.

PERFORMANCE SPECIFICATIONS FOR THE PIP 9012A-1T-311

GENERAL

Input Power:	117VAC, +42VDC and -42VDC from the associated power source.
Output Signal:	0-2.5VAC into an 800 ohm load.
Operating Temperature:	0°C to 50°C.
Programming:	Front panel keyboard/display (local) and GPIB IEEE 488-1978 (remote) via ABLE language.
Distortion:	<1% THD within AC Source range.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

MODEL NUMBER: PIP 9012A-1T-311 **ADDENDUM**

PERFORMANCE SPECIFICATIONS FOR THE PIP 9012A-1T-311 (Continued)

FREQUENCY

Range:	45.00Hz to 99.99Hz in 0.01Hz steps; 045.0Hz to 999.9Hz in 0.1Hz steps; 0045Hz to 9999Hz in 1Hz steps.
Accuracy:	0.001% of programmed value.
Temperature Coefficient:	0.003% per °C average.
Settling Time:	1/2 cycle or less, at new frequency.

AMPLITUDE

Range:	0-135VAC in 0.1VAC steps; 0-270VAC in 0.1VAC steps.
Accuracy:	+/- 0.2% of full scale from 5% of full scale to full scale for output frequencies of 45Hz to 5000Hz. +/- 0.5% of full scale from 5% of full scale to full scale for output frequencies of 5000Hz to 9999Hz.
Temperature Coefficient:	0.025% per °C average.
Line Regulation:	+/-0.015% for a 10% line change within the line operating range.
Load Regulation:	+/-0.015% full wave average at point of sense, no load to full load for frequencies of 45-5000Hz. +/-0.030% full wave average at point of sense, no load to full load for frequencies of 5K-9999Hz.
Settling Time:	<50mS when programming from >5% of full scale.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

MODEL NUMBER: PIP 9012A-1T-311 **ADDENDUM**

PERFORMANCE SPECIFICATIONS FOR THE PIP 9012A-1T-311 (Continued)

CURRENT LIMIT

Range:	5% to 100%
Resolution:	0.01 Ampere
Accuracy:	+/-1% of full scale
Crest Factor:	3.5:1 minimum
Accuracy:	+/-1% of full scale +/-1% of reading for frequencies of 45Hz to 5000Hz. +/-2% of full scale +/-2% of reading for frequencies of 5000Hz to 9999Hz.

MEASUREMENT SYSTEM - VOLTAGE

Range:	0 to 300VAC
Resolution:	0.1 VAC RMS
Accuracy:	+/-0.1% of full scale +/-0.1% of reading for frequencies of 45Hz to 5000Hz. +/-0.2% of full scale +/-0.2% of reading for frequencies of 5000Hz to 9999Hz.
Temperature Coefficient:	+/-0.01% of full scale +/-0.01% of reading per °C average.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

MODEL NUMBER: PIP 9012A-1T-311 **ADDENDUM**

PERFORMANCE SPECIFICATIONS FOR THE PIP 9012A-1T-311 (Continued)

MEASUREMENT SYSTEM - CURRENT

Range:	10.00AAC
Resolution:	0.01 Ampere
Accuracy:	+/-1% of full scale +/-1% of reading for frequencies of 45Hz to 5000Hz. +/-2% of full scale +/-2% of reading for frequencies of 5000Hz to 9999Hz.
Crest Factor:	3.5:1 minimum
Temperature Coefficient:	+/-0.02% of full scale +/-0.02% of reading per °C average.

MEASUREMENT SYSTEM - POWER

Range:	1000W
Resolution:	1 Watt
Accuracy:	+/-1% of full scale +/-1% of reading for frequencies of 45Hz to 5000Hz. +/-2% of full scale +/-2% of reading for frequencies of 5000Hz to 9999Hz.
Temperature Coefficient:	+/-0.01% of full scale +/-0.02% of reading per °C average.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

MODEL NUMBER: PIP 9012A-1T-311 **ADDENDUM**

PERFORMANCE SPECIFICATIONS FOR THE PIP 9012A-1T-311 (Continued)

MEASUREMENT SYSTEM - FREQUENCY

Range:	45 to 9999Hz
Resolution:	4 Hz
Accuracy:	+/-0.24% of full scale +/-0.015% of reading
Temperature Coefficient:	+/-0.02% of full scale +/-0.015% of reading per °C average.

POWER-ON DEFAULT INITIALIZATION SETTINGS

Frequency Range:	0045-9999 Hz (1.0 Hz resolution on RNGF2)
Frequency:	1000 Hz
Voltage Range:	0-135 VAC (RNG0)
Voltage:	0.0 VAC
Current Limit:	00.00 AAC (No Current Limit)
Disconnect Relays:	Open (Optional - if AC Source equipped)
GPIB:	Local (Keyboard) Control

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP