
Pinnacle Instruments

November 15, 1993

Dr. Walter Chudobiak
AVTECH ELECTROSYSTEMS LTD.
55 Grenfell Cres.
Ottawa (Nepean), Ontario
Canada K2G 0G3

Dear Walter,

At long last, here is the Pulser Controller!!

As we discussed, the instrument displays the initial screen indefinitely until the OUTPUT button is pressed. This should make taking a picture of it easier.

Once you get beyond the first screen, three screens rotate until some button is pressed. Your options are:

UP BUTTON:	Set up this selected pulser
DOWN BUTTON:	Scroll through library of available AVTECH pulsers (not implemented)
REMOTE:	Enable GPIB operation (not implemented)
OUTPUT:	Energizes AVTECH pulser
Enter:	Re-set all parameters (PW, Amplitude, etc) to default values

When you choose UP button, you can scroll through various screens by pressing the UP or DOWN buttons. Parameters are changed by turning the dial

Trigger / Delay Mode	:	:
:	:	:
Pulse Amplitude	:	:
:	:	:
Pulse Width	:	:
:	:	:
PRI	:	PRF
Pulse Output	:	Analog Output
PC-1 trigger source	:	AVTECH is trigger
:	:	:
:	:	Delay
:	:	:
:	:	:

"Set-up Complete, Press Enter to Return" (to initial screens)

Note: OUTPUT or REMOTE can be pressed anytime throughout the set-up.

All four analog signals and the trigger signal can be adjusted inside the unit. The PC-1 can be disassembled by removing 6 screws that hold the rear panel and the 3 top screws on the front panel. Gently slide the top and side panels to the rear.

The controller consists of three main circuit boards, the front for the keypad, the upper board is the microprocessor board, and the lower board is the analog amplifiers. The zero adjust and the gain of each amplifier are adjusted by the pots on the lower board. See the attached sheet for the description of each pot. The DELAY and AMPLITUDE have a 80 mV offset due to the rather large voltage offset of the 6321 op amps. This will be corrected in the production version.

The engineers at NATIONAL are reviewing the information we sent them. We can communicate to and from the PC-1 through the GPIB, however, the National chip occasionally gets stuck in a state that prevents two-way conversation. We will continue this when we get the unit back.

If you have any questions please call me. I will be at the OPTCON show in northern California and will be out until next Tuesday, November 23. Leave a message with my secretary and I'll get back to you ASAP.

Best Regards,

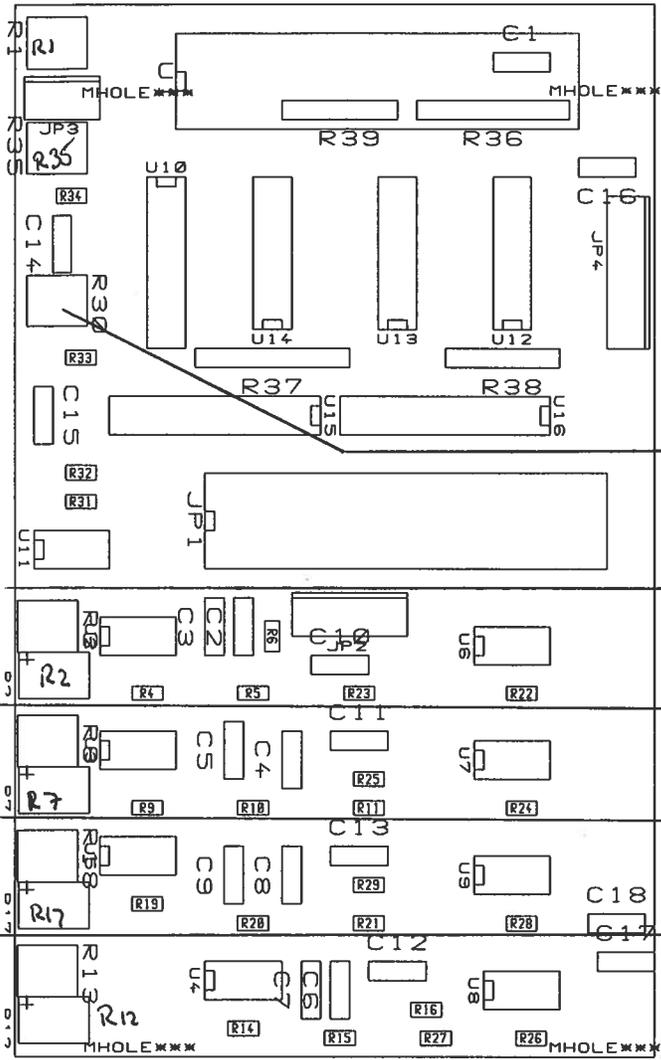
PINNACLE INSTRUMENTS, INC.

A handwritten signature in cursive script, appearing to read "Allen".

Allen Danner

ADD:lr

FRONT PANEL LOWER BOARD



R30 controls the pulse width of the trigger signal

Pulse Width

Amplitude

PRF

DELAY

↓ Rear Panel

The multi-turn resistors (blue with small screw) control the zero offset.

The single-turn resistors (white with open frame) control the amplifier gain