

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.

Visit our website - *Click HERE*

Introduction

This manual is applicable to Blastronix model 422PNCL8-PCI unit. Your unit was supplied with the 16C954 UARTs. The power-on defaults will cause it to look like standard 16C550 UARTs. The 16C550 is equipped with 16 byte transmit and receive FIFO's to help insure against loss of data and maximize hardware efficiency. The UARTs can be configured for 128 byte transmit and receive FIFO's.

Hardware Installation

The unit is very simple to install. Simply feed the cable through the back panel and connect them to the card. Feed the cable with the DB25 connector through first. Then the cable with the six DB9 female connectors. The red stripe on the cables should connect to the header on the side labeled RED STRIPE and PIN1. Install the unit into any available PCI slot.

Software / Driver Installation for NT

The installation software expects the hardware to be physically installed before the software installation can be completed successfully. To install the software, copy the files to your hard drive to a folder of your choice. Double click on the install icon. The installer will find the card and make the necessary PCI assignments and modifications to the registry.

Interrupts and Addresses

The installation and addresses are automatically assigned. This is not user controllable parameter. The user may influence the IRQ assignment by changing PCI slots or installing different cards in a different order. Machines with an AMI BIOS also give you the ability to influence the PCI selection to some extent. If you move a card to a different slot, you must run the un-installer and then run the installer again.

High Speed Option Header

At the right side of the unit is the jumper option for high speed applications. The factory default will have the 115K option selected. This sets the top speed for the card at 115.2 K baud. All standard com drivers support this setting. If you wish to use the higher speed setting simply move the jumper to the desired top speed. The other options are 230K baud 460K and 920K baud.

If you are not using a com driver that specifically supports these higher speeds then your actual speed will be a multiple of your selected speed. For example most com packages assume a top speed of 115.2K baud. 460K baud is four times this speed. If you set the jumper for 460K and use a standard com driver to select your baud rate then your actual baud rate will be four times as fast.

Terminating Resistors

The terminating resistors shunts should be installed for normal end to end transmission in 422 mode. The shunts should be removed if the port sits somewhere in between other ports as in a multi drop environment. The jumper for the terminating resistor is labeled TRM and is the last jumper on each header block.

422 Pin-Out

The pin-out for each port is controlled by the jumper labeled "422" on each port. The ports are identified as port 1 through port 8 on the card. With the 422 jumpers installed, the port will have the transmit signals on connector pins 3 & 8. The receive signals are on pins 2 & 7. With the "422" jumper removed for a port the transmit signals will be on pins 2 & 7, and receive signals will be on pins 3 & 8. This functionality is summarized in the table below. The 422 ports are on the DB9 female connectors. Port 1 is located on the ribbon cable which has 6 connectors on it. The port 1 connector is on the side with the red stripe on the second cable which has only 3 connectors. Port 8 is adjacent to port 7.

PIN #	422 Jumper Installed	422 Jumper Open
1	CHASSIS GND	CHASSIS GND
2	RX-	TX-
3	TX+	RX+
4	NC	NC
5	NC	NC
6	GND	GND
7	RX+	TX+
8	TX-	RX-
9	NC	NC

GPI Pinout

The GPI port has a DB25 male connector. The GPI outputs are pulled up with a 2.2K resistor to 5V. The negative side of the GPI ports (emitters) are all tied together. The factory default (Jumper block in the upper left hand corner) will have the common emitter arrangement connected to pin 22 of the DB25 connector. Ground can be supplied to the emitters on the board by putting a jumper across CE/GND on the jumper block.

The low power alarm signal is also found on this same header. They are the first 2 pins on the header at the left. One of the pins will be labeled "alarm" for the alarm signal, and the other pin is labeled "RET" for the return signal path for the alarm signal. The alarm signal will be on pin 24 of the DB25 and the "power supply fail" ground signal is on pin 25 of the DB25 connector.

GPI Pin-out (continued)

PIN	SIGNAL	
1	GND	
2	GPI OUT	1
3	GPI IN	1
4	GPI OUT	2
5	GND	
6	GPI IN	2
7	GPI OUT	3
8	GPI IN	3
9	GND	
10	GPI OUT	4
11	GPI IN	4
12	GPI OUT	5
13	GND	
14	GPI IN	5
15	GPI OUT	6
16	GPI IN	6
17	GND	
18	GPI OUT	7
19	GPI IN	7
20	GPI OUT	8
21	GPI IN	8
22	GPI OUT COMMON EMITTER	
23	nc	
24	POWER SUPPLY FAIL ALARM	
25	POWER SUPPLY FAIL GROUND	

BLASTRONIX

422PNCL8-PCI

USER MANUAL

VERSION 1.0

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