

## Advantech Device Specific Help

### Advantech PCL-726/727/728 D/A Cards, V 2.0

The Advantech DLL driver supports the operation of ADVANTECH data acquisition cards and signal conditioning boards. The following table lists the cards and functions supported:

**TABLE 1: Advantech DLL Driver Software Support**

Hardware Type	DLL Driver	A/D	D/A	DIO	TEMP	COUNTER
<u>ALARM</u>						
PCL-726 NO	adPCL726.drv	NO	YES	YES	NO	NO
PCL-727 NO	adPCL726.drv	NO	YES	YES	NO	NO
PCL-728 NO	adPCL726.drv	NO	YES	NO	NO	NO

A/D=ANALOG INPUT, D/A=ANALOG OUTPUT, DIO=DIGITAL I/O,  
TEMP=TEMPERATURE MEASUREMENT

All cards listed can be used in an IBM PC or compatible. A series of wiring terminal boards and signal conditioning boards, listed below, are also available for making your applications easier to implement:

- \* PCLD-774 Analog Expansion Board
- \* PCLD-786 AC/DC Power SSR and Relay Driver Board.
- \* PCLD-7216 SSR I/O Module Carrier Board
- \* PCLD-7224 SSR I/O Module Carrier Board
- \* PCLD-785 Relay Output Board.
- \* PCLD-885 Power Relay Output Board
- \* PCLD-782 Isolated D/I Board.
- \* PCLD-7115 Wiring Terminal Board
- \* PCLD-780 Wiring Terminal Board.
- \* PCLD-880 Industrial Wiring Terminal Board.

### D/A CARD FUNCTIONAL DESCRIPTION

#### PCL-726

6 independent analog outputs  
16 digital inputs  
16 digital outputs  
External/Internal Reference Support

#### PCL-727

12 independent analog outputs  
16 digital inputs  
16 digital outputs  
Internal Reference Support

#### PCL-728

2 independent and isolated analog outputs  
External/Internal Reference Support

## **HARDWARE CONFIGURATION**

Before an acquisition board can work properly with the DLL driver software, it must be configured correctly. You must determine the hardware options (range(s), I/O address, etc.) which suit your particular requirements. On all ADVANTECH boards, configuration is a matter of setting jumpers and switches. Read the manual that comes with your ADVANTECH board in conjunction with this help to determine how to configure the hardware. All ADVANTECH boards are shipped with factory default settings. If the default configuration is appropriate for your system, no additional set-up is required.

### **Configuring the PCL-726, PCL-727, or PCL-728**

The following options must be configured on the cards before they can be used with the Advantech DLL driver:

- \* Base Address
- \* D/A Reference Voltage and Range
- \* Special wiring considerations if 0-20mA or 4-20mA ranges are selected (see hardware manual)

After the hardware jumpers are set, you must configure this driver to agree with those settings.

If external reference is selected, the reference value and whether the desired range is bipolar or unipolar must be provided during runtime via the corresponding variables in the Analog Output parameter structure, or through the application program, if supported.

If 0-20mA or 4-20mA ranges are selected, the values provided for analog output during runtime should be in terms of milliamperes; ie. for 10 mA, just send a 10 from the application.



