CHAPTER 2

Hardware Installation

Initial inspection

You should find the following items inside the shipping package (in addition to this manual):

- PCL-841 Dual-port CAN Interface Card
- C Driver and DataMonitor Utility Diskette

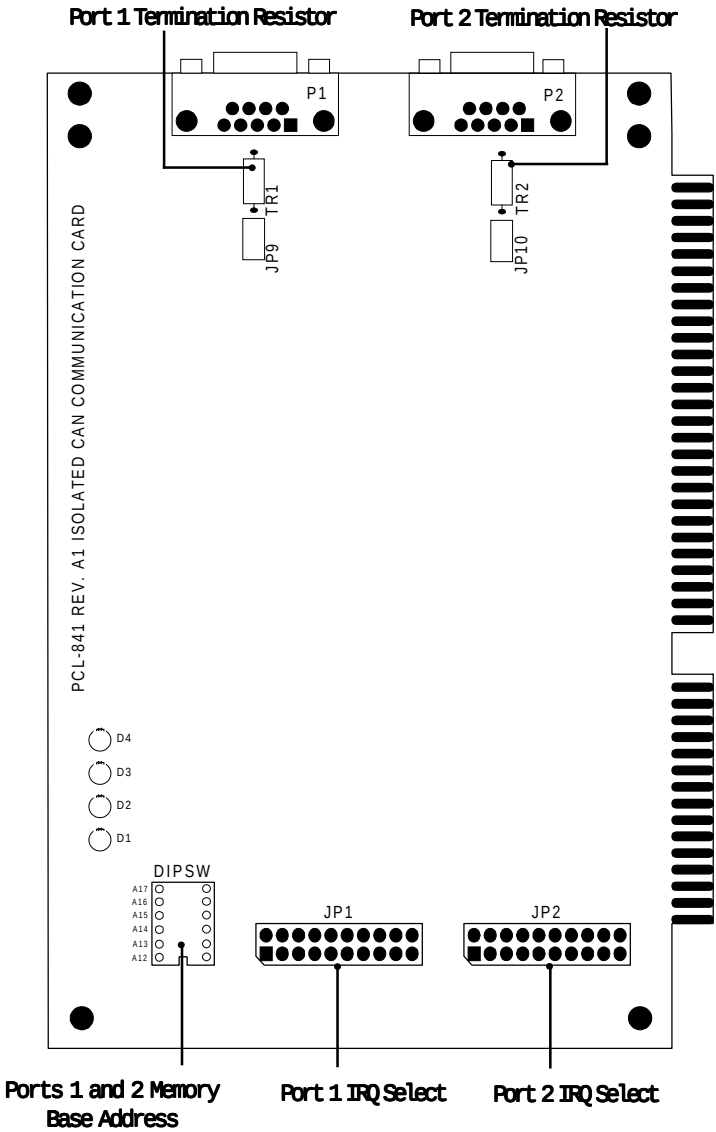
We have carefully inspected the PCL-841 mechanically and electrically before shipping. It should be free of marks and scratches and in perfect working order upon receipt.

As you unpack the PCL-841, check it for signs of shipping damage (damaged box, scratches, dents, etc.). If it is damaged or it fails to meet specifications, notify our service department or your local representative immediately. Also notify the carrier. Retain the shipping carton and packing material for inspection by the carrier. After inspection we will make arrangements to repair or replace the unit.

When you handle the PCL-841, remove it from its protective packaging by grasping the rear metal panel. Keep the anti-vibration packing. Whenever you remove the card from the PC, store it in this package for protection.

Warning! *Modern electronic devices are very sensitive to damage from static electricity. Ground yourself before you touch the card. We recommend that you use a grounded wrist strap and place the card on a static dissipative mat whenever you work with it. At the very least, touch the back of the grounded chassis of the system unit (metal) before you handle the board. Avoid contact with materials that hold a static charge, such as styrofoam. Do not touch the exposed circuit connectors.*

Jumper and switch locations



Card configuration

The PCL-841 has two ports, each with one jumper. The jumpers set the IRQ for the ports, which can be configured separately. A DIP switch sets the memory base address for each port. The following chart shows the function of the jumper and the switch (see the previous page for jumper and switch locations).

Switch and jumper functions	
CAN controllers	
JP1	Port 1
JP2	Port 2
Memory base address	
SW1	Port 1, Port 2

Default settings

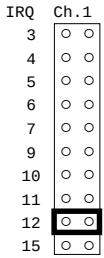
Port 1 is set for COM1 (IRQ=12, Memory address=DA00:0000).
Port 2 is set for COM2 (IRQ=15, Memory address=DA00:0200).

If you need to change these settings, see the following sections. Otherwise, you can simply install the card. Note that you will need to disable your CPU card's on-board COM ports, if any, or set them to alternate addresses/IRQs.

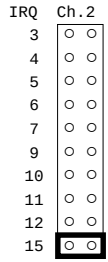
Interrupt (IRQ) setup (JP1 and JP2)

Jumpers JP1 and JP2 set the interrupts for Port 1 and Port 2, respectively. You can choose any IRQ from 3 to 15, except 8, 13 and 14. When you choose IRQs, make sure they are not used for other cards in the system. The following figures show the card's default settings.

JP1: Port 1 IRQ Default



JP2: Port 2 IRQ Default



Memory base address (SW1)

The memory base address for the PCL-841, which requires 4 KB of address space, is made up of the memory segment and its associated offset. The address for the memory segment is set through SW1, a six-position DIP switch. You can choose any base address from C800 to EF00. The following table shows the DIP switch settings and the corresponding base addresses.

Memory address configuration (SW1)

Address/DIP switch	A12	A13	A14	A15	A16	A17
C800H	on	on	on	off	on	on
C900H	off	on	on	off	on	on
CA00H	on	off	on	off	on	on
CB00H	off	off	on	off	on	on
CC00H	on	on	off	off	on	on
CD00H	off	on	off	off	on	on
CE00H	on	off	off	off	on	on
CF00H	off	off	off	off	on	on

Memory address configuration (SW1) cont'd						
Address/DIP switch	**A12**	**A13**	**A14**	**A15**	**A16**	**A17**
D000H	on	on	on	on	off	on
D100H	off	on	on	on	off	on
D200H	on	off	on	on	off	on
D300H	off	off	on	on	off	on
D400H	on	on	off	on	off	on
D500H	off	on	off	on	off	on
D600H	on	off	off	on	off	on
D700H	off	off	off	on	off	on
D800H	on	on	on	off	off	on
D900H	off	on	on	off	off	on
DA00H	on	off	on	off	off	on
DB00H	off	off	on	off	off	on
DC00H	on	on	off	off	off	on
DD00H	off	on	off	off	off	on
DE00H	on	off	off	off	off	on
DF00H	off	off	off	off	off	on
E000H	on	on	on	on	on	off
E100H	off	on	on	on	on	off
E200H	on	off	on	on	on	off
E300H	off	off	on	on	on	off
E400H	on	on	off	on	on	off
E500H	off	on	off	on	on	off
E600H	on	off	off	on	on	off
E700H	off	off	off	on	on	off
E800H	on	on	on	off	on	off
E900H	off	on	on	off	on	off
EA00H	on	off	on	off	on	off
EB00H	off	off	on	off	on	off
EC00H	on	on	off	off	on	off
ED00H	off	on	off	off	on	off
EE00H	on	off	off	off	on	off
EF00H	off	off	off	off	on	off

Memory area

Once the memory segment for the base address is selected, the offset will be automatically assigned for Port 1, Port 2, and hardware reset. The following table shows the base addresses of the CAN controllers.

Base address (hex)	CAN controller
base:0000h - base:00FFh	Basic- Port 1
base:0100h - base:01FFh	HW reset Basic - Port 1
base:0200h - base:02FFh	Basic- Port 2
base:0300h - base:03FFh	HW reset Basic - Port 2
base:0400h - base:0FFFh	Not used