

HEWLETT-PACKARD

Dual HP-IL Adapter

Summary

The HP 82402A Dual HP-IL Adapter allows two HP 82401A HP-IL modules to be plugged into the HP-71 simultaneously. When inserted into the HP-IL port of the HP-71, the Adapter significantly expands the range of manufacturing and portable data acquisition settings in which the HP-71 and HP-71 systems can be used.

The HP-71 treats each HP-IL module as a separate, and totally independent, interface. This allows the HP-71 to operate either as:

- A controller on both HP-IL loops
- A controller on one HP-IL loop and a device on the other
- Or, a device on both HP-IL loops

The Dual HP-IL Adapter is passive; all the firmware for controlling two HP-IL loops is already built into the HP 82401A HP-IL modules.

The addressing of devices on the loops is independent, as are all other interactions with the loops.

The capacity to have two HP-IL modules plugged into the HP-71 is especially valuable in two instances:

- Portable Data Acquisition. When the HP 3421A Data Acquisition/Control Unit is used with the HP-71, the use of two HP-IL interfaces conserves the battery life of the peripherals.

Because the battery-operated peripherals are on an independent HP-IL, they can remain powered down until they actually need to be accessed. The HP-71 and the HP 3421A can be actively collecting data on the other loop. Buffering the data in the HP-71 and accessing the peripherals only as needed extends the time in which battery-powered data acquisition can be done. Users

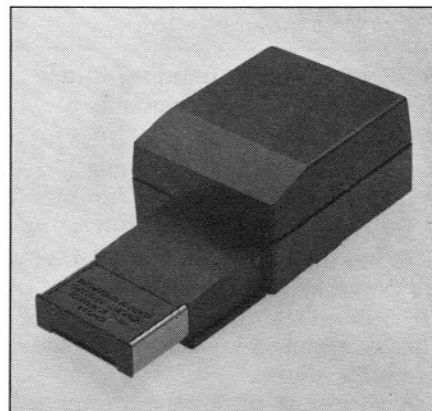
can take full advantage of the HP-71 and the HP 3421A and still have access to peripherals such as the ThinkJet Printer and HP 9114A Portable Disc Drive.

- Communications Link. In a manufacturing setting, the use of the HP-71 with two HP-ILs allows both control and communications functions to exist simultaneously, yet independently. The Dual HP-IL Adapter allows control of instruments and peripherals at the same time that data is sent to a supervisory computer. With one loop to control instruments and peripherals, and the other to link the HP-71 to a supervisory computer as a device, the HP-71 and Adapter can carry out some truly "big computer" functions.

Product Description

HP-71 Handheld Computer

- Compact size (7.5 x 3.8 x 1.0 in.). Takes only a few inches of work space.
- Battery powered. Retains memory if power fails. Portable.
- Built-in 64K-byte operating system. Allows for high-level programming as well as repetitive calculations.
- BASIC programming language. Enhanced BASIC runs nearly as fast as compiled BASIC and allows structured programming techniques.
- Optional FORTH/Assembly capability. Allows switching between FORTH, BASIC and Assembly without program or data loss.
- Four RAM/ROM ports. Lets user add memory or software modules.
- Over 128K bytes of user RAM available.* Enough memory to run large programs and store large amounts of data.



HP 82401A HP-IL Interface

- Battery powered. Portable. Works during power failures.
- Simple connector system. Provides easy, error-free connection.
- Auto addressing. Lets devices be connected in any order.
- Device identification. Allows programmatic identification and control of two similar devices.
- Automatic error checking. Assures that the message sent was received correctly.
- STANDBY mode. Conserves battery life.
- Common mode rejection. Eliminates unwanted voltage transients.
- Over 40 additional BASIC keywords. Increases programming versatility and flexibility.
- High level I/O structures. Allows easier programming with a wider variety of I/O options.

HP 82402A Dual HP-IL Adapter

- Slots for two HP 82401A HP-IL Interfaces. Increases versatility and utility of HP-71.
- Passive extender. No additional power required.

*Using Hand Held Products' 96K RAM module and four HP 82420A 4K Memory Modules.

Operation

Four products are required to use the HP-71 and the Adapter as a communications link:

- HP-71 Handheld Computer
- HP 82402A Dual HP-IL Adapter
- Two HP 82401A HP-IL Interfaces

To use the HP-71 and the Adapter for portable data acquisition, the HP 3421A Data Acquisition/Control Unit is required in addition to the products above.

A variety of optional equipment lets the user take maximum advantage of the flexibility of the HP-71 and HP-IL Adapter, for example:

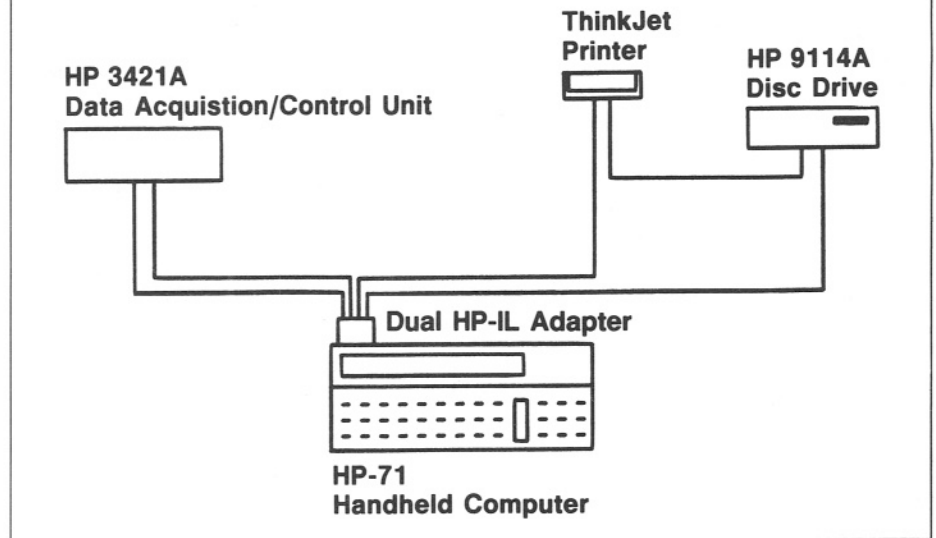
- Peripherals – printers, plotters, and mass storage devices
- Instruments – data acquisition units and digital multimeters

To connect the products, the HP 82402A Dual HP-IL Adapter is simply plugged into the HP-IL port of the HP-71, and the two HP 82401A Interfaces are plugged into the HP-IL Adapter. HP 82167A, B, or D HP-IL cables leading from the output port of one device to the input port of the next, until all devices form a closed loop, connect peripherals and instruments to the system.

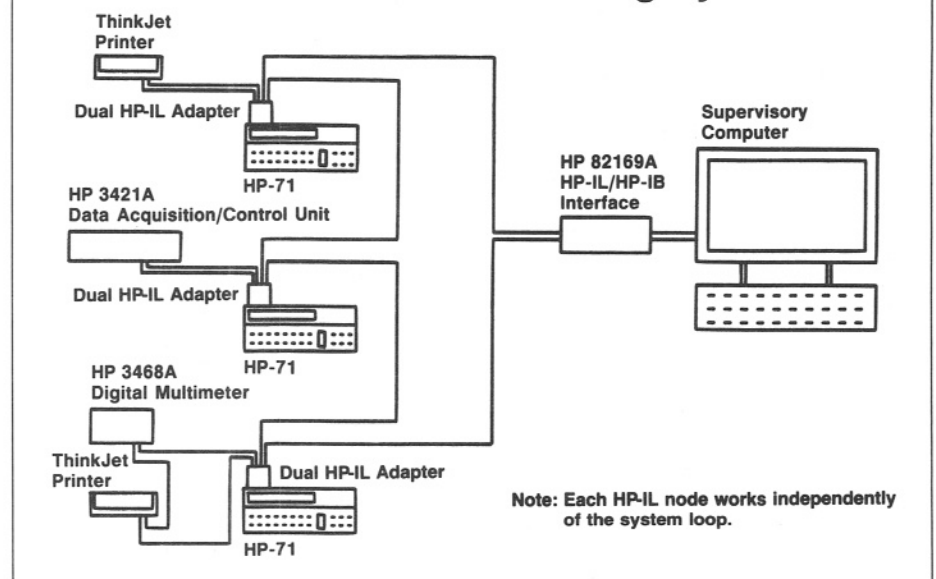
What's In The Box?

The HP 82402A Dual HP-IL Adapter comes with an owner's manual.

Typical Portable Data Acquisition System



Test and Process Monitoring System



Note: Each HP-IL node works independently of the system loop.

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