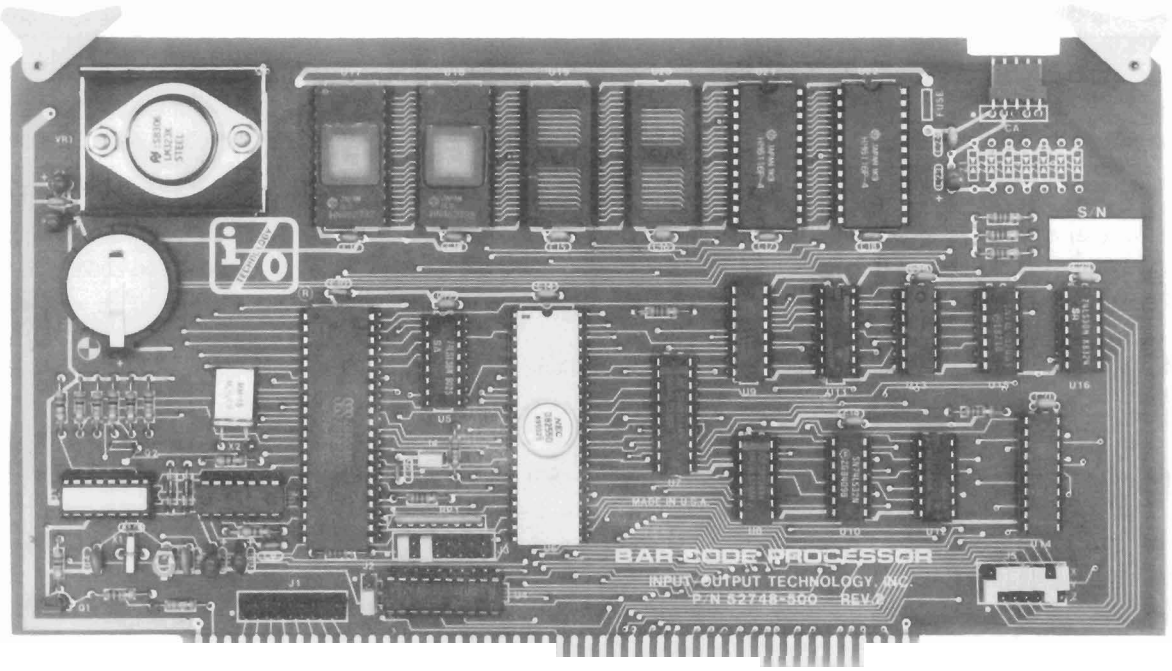
# INPUT/OUTPUT TECHNOLOGY, INC.

## S-100 PRODUCT SPECIFICATIONS




# BAR CODE PROCESSOR BOARD

## BARTENDER™

The **BARTENDER** is a microprocessor-based S-100/IEEE-696 compatible circuit board that can read and decode most current bar codes using a hand-held digital wand. It easily interfaces with languages of any level through 2 I/O ports on the S-100 bus. The **BARTENDER** also provides the necessary information for a graphics driver to print every code that it reads.

The **BARTENDER** can be instructed to read any particular code by sending a one byte instruction. Through a 'Multicode' feature, the **BARTENDER** will identify and read any code scanned. Multicode can also be programmed to read any subset of the available codes and reject others. The **BARTENDER** is presently capable of processing 8 different bar codes. Other codes will be supported as they become available and will be offered as an option.

ORDERING INFORMATION:

| | | |
|---|---|---|
| P/N 527-500-101 | A and T* | without Wand |
| 500-201 | A and T* | with Wand |
| 500-WAND | | Wand Only |
| 500-MAN | | Manual Only |

*Assembled and Tested Version Includes User Manual



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## SPECIFICATIONS (Continued)

Check digits, where applicable, are computed by the **BARTENDER** firmware, freeing the host computer or programmer from this task.

The **BARTENDER** also includes a real-time clock/calendar, with battery backup power to keep the clock running when the sytem is off. Estimated minimum battery life is 1 year. The clock/calendar may be used as a date, day and time indicator, and elapsed time counter.

Documentation is extensive, including sections on bar code uses, principles of bar code reading and printing, discussion on each individual code, how to use the wand, ideas for bar code applicatons, samples of each printed code, and sample programs in Z80 assembly, BASIC, Pascal, C, FORTRAN, and dBASE II languages.

The **BARTENDER** may be used with other TTL compatible digital wands with or without a switch. Interfacing information is included.

### HARDWARE SPECIFICATIONS:

- On-board Z80 Processor with Firmware PROM
- Uses only two consecutive I/O Port Addresses
- Address Decode circuitry allows for the selection of 2 out-of 256 possible address locations using 8-bit addressing and for 2 out of 65,536 possible address locations using 16-bit addressing.
- Full Handshaking with Host Computer
- Board Self Test at Power-On
- Real Time Clock/Calendar with battery backup
- All I.C.'s fully socketed for easy maintenance and replacement

### SOFTWARE/FIRMWARE SPECIFICATIONS:

- Reads bidirectionally and supplies a print string for the following codes:
  - UPC version A
  - UPC version E
  - 3 of 9 alphanumeric (optional checksum)
  - CODABAR
  - 2 of 5 (optional checksum)
  - 2 of 5 interleaved (optional checksum)
  - PWM/MSI (optional modulo-10 or modulo-11 checksum)
  - BYTEWRITER (for text, programs or other bulk data)
- Maximum characters that can be read or printed in one label: 42 for most codes (includes start, stop and checksum characters in some codes). Maximum data characters for Bytewriter code is 62.
- 24 hour clock may be set and read on request.
- Elapsed time counter may be started and read without affecting clock time. Elapsed time starts at 00:00:00 at power on.

### SOFTWARE COMMANDS TO BOARD:

- Read specified code, with or without checksum
- Compute print string for specified code and given data
- Read 'multicode'
- Install custom code list for 'multicode'
- Set minimum wand speed and response time
- Self-test of on-board PROM and RAM
- Return firmware version number
- Set time and date
- Read time and date
- Start elapsed time counter
- Read elapsed time

### DATA RETURNED FROM BOARD:

- Read: status code and data scanned (ASCII)
- Multicode: status code, bar code number and data scanned (ASCII)
- Print: status code and print data (graphic)
- Self-test: pass or fail
- Firmware version: number
- Time in year, month, day, day of week, hour, minute, second (ASCII)
- Elapsed time in hour, minutes, seconds, up to 23:59:59 (ASCII)

Interconnect Cable and Wand are Optional

Interconnect Cable:

**P/N 52748-200-141** - 5-Position Socket Transition Connector with 18 inch Cable terminated with 9-pin Socket 'D' Connector (HP-3000 Series Wand Compatible)

Wand:

**P/N 52748-500-Wand** - For electrical specifications please consult factory.

**SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.**