A Computer Language You Can Understand

ALTAIR BASIC is an inexpensive, general-purpose computer language with the power for advanced data processing. It is easy to learn and to use.

ALTAIR BASIC is part of the overall MITS computer concept. That is, **computers must be made understandable and affordable.**

ALTAIR BASIC comes in three versions. The first of these is a 4K BASIC designed to run in an Altair with as little as 4,000 words of memory. This powerful BASIC language has **6 functions** (RND, SQR, SIN, ABS, INT, and SGN) in addition to **15 statements** (IF . . . THEN, GOSUB, RETURN, FOR, NEXT, READ, INPUT, END, DATA, LET, DIM, REM, RESTORE, PRINT, STOP and **4 commands** (LIST, RUN, CLEAR, SCRATCH).

The second ALTAIR BASIC option is the 8K BASIC designed to run in an Altair with as little as 8,000 words of memory. This BASIC language is the same as the 4K BASIC only with **8 addi-** tional functions (COS, LOG, EXP, TAN, ATN, INP, FRE, POS) and **4 additional statements** (ON. . . . GOTO, ON . . . GOSUB, OUT, DEF) and **1 additional command** (CONT). This BASIC has a multitude of advanced STRING functions and it can be used to control low speed devices—**features not normally found in many BASIC languages.**

The third ALTAIR BASIC is the EXTENDED BASIC version designed to run on an Altair with as little as 12,000 words of memory. It is the same as the 8K BASIC with the addition of PRINT USING, DISK I/O, and double precision (13 digit accuracy) add, substract, multiply and divide.

ALTAIR BASIC is only the beginning. MITS is currently engaged in an extensive software development program. Our Disk Operating System is scheduled for delivery in August. Other software now available includes an Assembler, System Monitor, and Text Editor.

ALTAIR USERS GROUP

The **Altair Users Group** is both a means of communication among Altair Users and a method of building a comprehensive library of Altair Programs. All Altair purchasers are entitled to a free, one year membership in this group.

Members of the Altair Users Group are encouraged to submit programs by entering Altair "Software Contests." Winners of these contests are awarded **prizes of up to $1,000** credit toward the purchase of an Altair Computer or Altair options.

Contest winners are announced in the Altair newspaper, **Computer Notes,** which is published monthly and mailed free to all members of the Altair Users Group. **Computer Notes** contains complete update information on Altair hardware and software developments, programming tips, general computer articles and other useful information.

Associate Memberships are available to non-Altair customers for only $30.00 a year. Membership fees are refunded to Associate Members who buy an Altair Computer within 8 months after they become a member.

COMPUTER TRADE-IN

If you have a Mark 8 or a Scelbi-8H computer and **you'd rather have an Altair 8800,** we will offer you $150.00 on a trade-in for an Altair plus 4K of memory.

For an Altair Computer kit, send in your used computer plus a check for $561.00 ($439.00 for an Altair plus $264.00 for memory plus $8.00 for postage and handling minus $150.00). For an assembled Altair with 4K of memory, send in your used computer plus a check for $817.00.

PRICES

Altair Computer kit with complete assembly instructions . . . $439.00
Assembled and tested Altair Computer $621.00
1,024 word memory board . . . . . $176.00 kit and $209.00 assembled
4,096 word memory board . . . . . $264.00 kit and $338.00 assembled
Full Parallel Interface board . . . . $92.00 kit and $114.00 assembled
Serial Interface board (RS232) . . $119.00 kit and $138.00 assembled
Serial Interface board (TTL or teletype) .
$124.00 kit and $146.00 assembled
4K BASIC Language (when purchased with Altair, 4,096 word
memory and Interface board) $60.00
8K BASIC Language (when purchased with Altair, 2 4,096 word
memory boards and Interface board) $75.00
EXTENDED BASIC (when purchased with Altair, 3 4,096 word
memory boards and Interface board) $150.00

NOTE: Altair Computers and software come with complete documentation and operating instructions. BASIC language is available on either paper tape or cassette tape (specify). Warranty: 90 days on parts for kits and 90 days on parts and labor for assembled units. Prices, specifications and delivery subject to change.

"Creative Electronics"

MITS/6328 Linn, N.E., Albuquerque, NM 87108 505/265-7553

ALTAIR TIME PAYMENT PLAN
(kits only)

The Altair time payment plan allows you to be the owner of an Altair Computer with 256 words of memory for **just $68.75 a month.** Each month (for 8 months) you send in your payment and we send you part of an Altair kit until you have the complete system. The advantages to this plan are: **NO interest** or financing charge, **GUARANTEED price** based on today's price, and free, immediate **membership to the Altair Users Group.**

Here's how our payment plan works:

	You Pay	You receive
Month One	$68.75	Assembly, Operators, and Theory of Operation manuals
Month Two	$68.75	Power Supply (includes board and all components)
Month Three	$68.75	Expander Card
Month Four	$68.75	Case with hardware
Month Five	$68.75	1K Static Memory Board with 256 words of memory
Month Six	$68.75	CPU Board with all components except processor chip
Month Seven	$68.75	Control Board with all components
Month Eight	$68.75	Processor chip
Total	$550.00	(Retail price: Altair $439.00, Memory $103.00, Postage and handling $8.00—total $550.00)

Our terms are cash with order, BankAmericard or Master Charge. If you send in an early payment we will make an early shipment. By the same token, a late payment will result in a late shipment. (After 60 days past due, the balance of the deal is cancelled. All payments must be made within 10 months)

Offer expires July 30, 1975.

INSIDE the Altair Computer

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2

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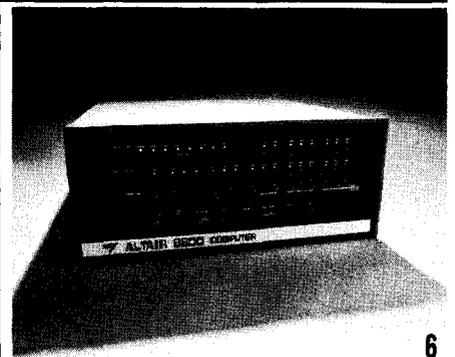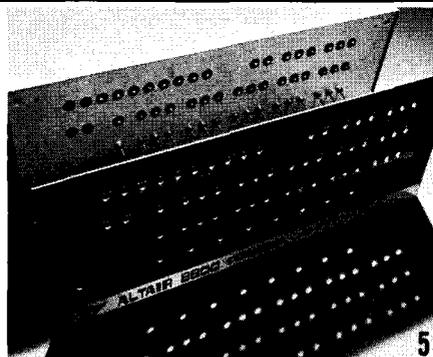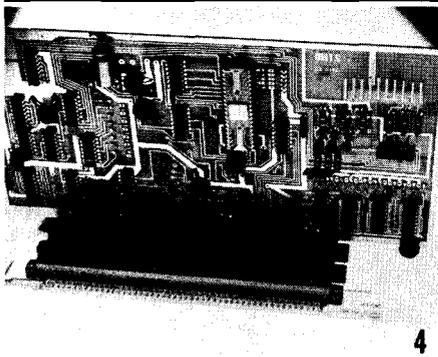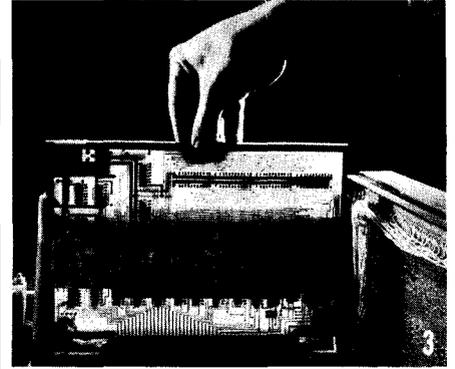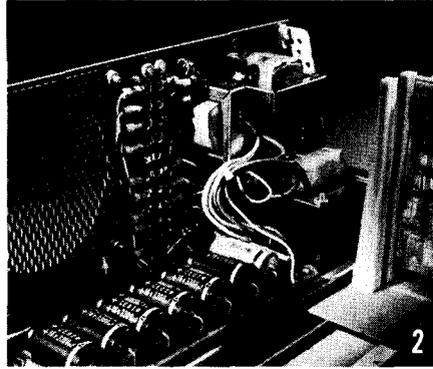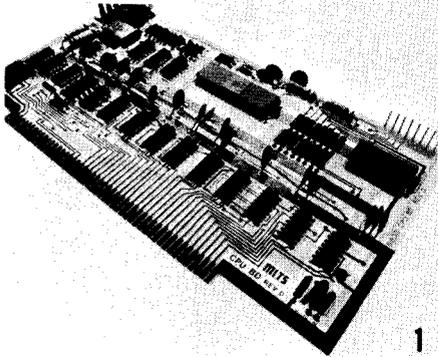
1. Central Processing Unit (CPU) Board. This double-sided board is the heart of the Altair. It was designed around the powerful Intel 8080 microprocessor—a complete central processing unit on a single LSI chip using n-channel silicon gate MOS technology. The CPU Board also contains the Altair System Clock—a standard TTL oscillator with a 2.000 MHz crystal as the feedback element.

2. Power Supply. The Altair Power Supply provides two +8, a +16 and a −16 volts. These voltages are unregulated until they reach the individual boards (CPU, Front Panel, Memory, I/O, etc.). Each board has all the necessary regulation for its own operation.

The Altair Power Supply allows you to expand your computer by adding up to 16 boards inside the main case. Provisions for the addition of a cooling fan are part of the Altair design.

3. Expandability and custom designing. The Altair has been designed to be easily expanded and easily adapted to thousands of applications. The basic Altair comes with one expander board capable of holding four vertical boards. Three additional expander boards can be added inside the main case.

4. Altair Options. Memory boards now available include a 256 word memory board (expandable to 1024 words), a complete 1024 word memory board, and a 4,096 word memory board. Interface boards include a parallel board and 3 serial boards (RS232, TTL and teletype). Interface boards allow you to connect the Altair Computer to computer terminals, teletypes, line printers, plotters, and other devices.

Other Altair Options include additional expander boards, computer terminals, audio-cassette interface board, line printers, ASCII keyboards, floppy disc system, alpha-numeric display and more.

5. All aluminum case and dress panel. The Altair Computer has been designed both for the hobbyist and for industrial use. It comes in an all aluminum case complete with sub-panel and dress panel.

6. It all adds up to one fantastic computer. The Altair is comparable to mini-computers costing 10-20 thousand dollars. It can be connected to 256 input/output devices and can directly address up to 65,000 words of memory. It has over 200 machine instructions and a cycle time of 2 microseconds.

You can order the Altair Computer by simply filling out the coupon in this ad or by calling us at 505/265-7553. Or you can ask for free technical consultation or for one of our free Altair System Catalogues.

PRICES:
Altair Computer kit with complete assembly instructions **$439.00**
Assembled and tested Altair Computer $621.00
1,024 word memory board ... $176.00 kit and $209.00 assembled.
4,096 word memory board ... $264.00 kit and $338.00 assembled.
Full Parallel Interface board .... $92.00 kit and $114.00 assembled.
Serial Interface board (RS232) ... $119.00 kit and $138.00 assembled.
Serial Interface board (TTL or teletype) ... $124.00 kit and $146.00 assembled
Expander Boards $43.00 kit and $57.00 assembled.

SPECIAL: Altair Computer plus 256 words of memory (save $45.00) ..... Only $497.00*

NOTE: Altair Computers come with complete documentation and operating instructions. Altair customers receive software and general computer information through free membership to the Altair User's Club. Software now available includes a resident assembler, system monitor, text editor and BASIC language.

*In quantities of one per customer only.

Offer expires June 30, 1975.

MITS INC.

"Creative Electronics"

Prices and specifications subject to change without notice. Warranty: 90 days on parts for kits and 90 days on parts and labor for assembled units.

MAIL THIS COUPON TODAY!

☐ Enclosed is check for $_____
☐ BankAmericard #_____
☐ or Master Charge #_____
☐ Credit Card Expiration Date _____
☐ Altair Computer   ☐ Kit   ☐ Assembled
☐ Options (list on separate sheet)
Include $8.00 for postage and handling.
☐ **PLEASE SEND FREE ALTAIR SYSTEM CATALOGUE**

NAME_____

ADDRESS _____

CITY_____STATE & ZIP_____
MITS/6328 Linn NE, Albuquerque, NM, 87108
505/265-7553

MITS

BUILDING YOUR OWN COMPUTER WON'T BE A PIECE OF CAKE.

(But, we'll make it a rewarding experience.)

Chances are you won't be able to assemble the *Altair 8800 Computer* in an hour or two. But, that's only because the *Altair* is a real, full-blown computer. It's not a demonstration kit.

The *Altair Computer* is fast, powerful, and flexible. Its basic instruction cycle time is 2 microseconds. It can directly address 256 input and 256 output devices **and** up to 65,000 words of memory.

Thanks to buss orientation and wide selection of interface cards the *Altair 8800* requires almost no design changes to connect with most external devices. Up to 15 additional cards can be added inside the main case.

The *Altair Computer* kit is about as difficult to assemble as a desktop calculator. If you can handle a soldering iron and follow simple instructions, you can build a computer.

You see, at *MITS*, we want your experience with our kits to be rewarding. That's why we take such pains to write an accurate, straight-forward assembly manual. One that you follow step-by-step. (We leave nothing to the imagination.)

Some electronic kit companies are experts at cutting the corners. They promise you the sky and deliver a box full of surplus parts and a few pages of faded instructions run off on their copying machine.

We're experts at **not** cutting the corners. Our *Altair Computer* has been designed for both the hobby and the industrial market. It has to be constructed of the finest, quality parts. And it is.

That's why we give you double-sided boards, gold-plated connectors, a 10 Amp power supply (enough to power 15 additional cards), toggle switches and an all aluminum case complete with sub-panel and detachable dress panel.

That's why we give you three manuals (Assembly, Operator's and Trouble-shooting) in a hard-cover, 3 ring binder plus an Assembly Hints manual.

Buy our computer and we'll automatically make you a member of the *Altair User's Group.* You'll have access to a whole range of custom software designed exclusively for the *Altair 8800.*

We're quite serious about making computer power available to you at a price you can afford.

BASIC ALTAIR AND OPTIONS

The basic *Altair 8800 Computer* includes the CPU, front panel control board, front panel lights and switches, power supply and expander board (with room for 3 extra cards) all enclosed in a handsome, aluminum case.

Options now available include 4K dynamic memory cards, 1K static memory cards, parallel I/O cards, three serial I/O cards (TTL, RS232, and TTY), octal to binary computer terminal, 32 character alpha-numeric display terminal, ASCII keyboard, audio tape interface, floppy disc system, and expander cards.

Software now available includes an assembler, text editor and system monitor.
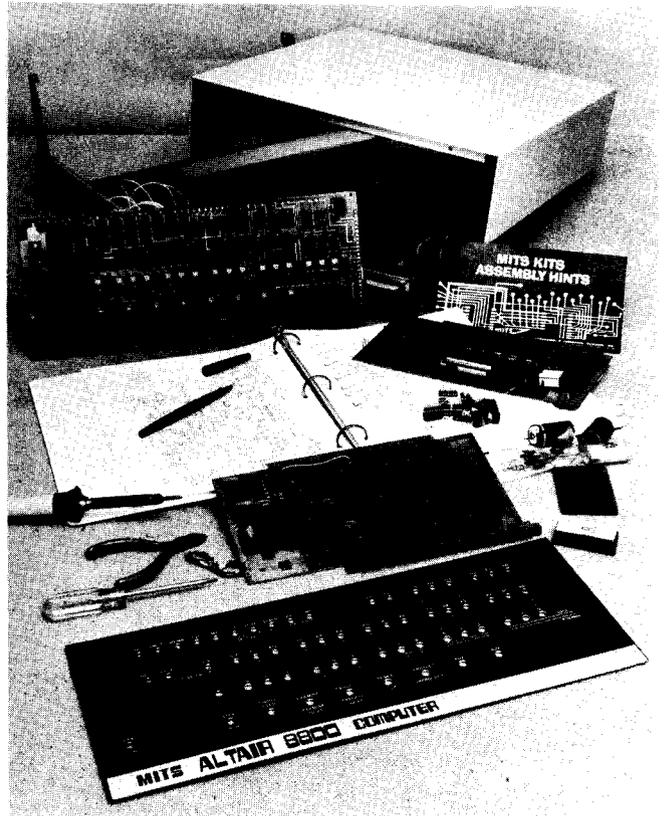
PRICE

Altair 8800 Computer: **$439.00 kit**
$621.00 assembled

SAVE $45.00!

For P.E. readers only! The Basic *Altair 8800 Computer* plus 256 words of static memory. $542.00 value. Now, only $497.00. Check the appropriate box in the coupon below. *

Warranty: 90 days on parts and labor for assembled units.
90 days on parts for kits.
prices and specifications subject to change without notice

MITS/6328 Linn N.E., Albuquerque, N.M., 87108, 505/265-7553

the OPTIONS

NAME & NUMBER	DESCRIPTION	APPLICATION	INTERFACE REQUIRE- MENT	SPACE REQUIRE- MENT
88-MCS Static Memory Card	This Static Memory Card comes with 256 words of memory and is expandable to 1024 words. Contains provisions for disabling the ready to compensate for the speed of the card. It also contains memory protect features. The static memory on this card has a maximum access time of 850 nanoseconds.	Systems that require small memory, such as control applications.	none	one slot
88-MM Memory Module	Plugs into the 88C-MCS Memory Card adding 256 words memory. Three modules can be added to each Static Memory Card for a total 1024 words of memory.	Expand static memory in a minimum processor configuration.	Space on a 88-MCS card.	
88-IMCS Full 1000 Word Static Memory Card	88-MCS Static Memory Card with full 1000 words of memory. See price list for discount price.			
88-4MCD 4K Dynamic Memory Card	This Dynamic Memory Card contains 4,096 words of memory. Maximum access time is 420 nanoseconds. An automatic refresh cycle is performed every 32 clock pulses at sync time. If the card is addressed at the same time that refresh occurs, the computer is given one or two wait states during refresh. Otherwise, the processor is unaware that refresh is occuring. Has write protect capability. Variable address circuitry allows user to provide a starting address in memory at any one of 16 locations—4K, 8K, 12K, 16K, etc.	Systems that require medium to large amounts of memory with fast access time.	none	one slot
88-DMAC Direct Memory Access Controller	This Direct Memory Access Controller will control 8 Dynamic Input/Output Cards. The controller generates a priority for each of the 8 cards and can generate either an interrupt or be sampled by the processor for job completion. Selects the channel to have access to the address buss and control buss when a DMA is to occur. Required in any system with DMA.	Systems that require rapid transfer of data into the CPU or out of the CPU. Allows for simplified software.	none	one slot
88-DMAE Direct Memory I/O Channel for External Devices	Full parallel Input/Output channel used for Direct Memory Access transfers between the processor and external devices. With one DMA I/O channel operating, data transfer rate is 300K bytes per second, while the processor continues to operate at approximately 80% speed.	Systems that require rapid transfer of data between the CPU memory and external devices. Also for slow speed, high quantity transfer.	88-DMAC	one slot
88-DMAI Direct Memory Access I/O Channel for Internal Transfers	Allows for high speed transfer of data blocks within the system's memory, without software intervention after set-up.	Data acquisition and logging systems.	88-DMAC	one slot
88-DISK Disk Drive	Consists of Pertex FD 400 floppy disk drive, power supply (110-125v AC, 60 Hz), cooling fan, disk buffer and address select electronics in Optima case similar to Altair Computer case. Capable of storing up to 300,000 words on a flexible disk. Disk included. Up to 16 disk drives can be controlled by one 88-DC Disk Controller.	Any application where mass memory is required.	88-DC	

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NAME & NUMBER	DESCRIPTION	APPLICATION	INTERFACE REQUIRE- MENT	SPACE REQUIRE- MENT
88-DC Disk Controller	The 88-DC Disk Controller consists of two circuit boards. It electronically sectors each track on the disk into eight groups of 512 words. (Each disk has 77 tracks). Capable of controlling up to 16 Disk Drives.	Any application where mass memory is required.	2 slots	
88-PROM PROM kit	Two bipolar 256 x 4 Shottky PROM's. Access time of 70 nanoseconds.	Control applications.	88-PPC PROM Programmer Card	
88-PIO Parallel Input/Output Card	Full parallel input/output card with necessary hand-shake flags for conventional parallel interface. Contains all required addressing circuitry to allow each card to be addressed anywhere from location 0 to location 255. Both input and output data has their own 8 bit latch for buffering. Includes necessary logic to allow an adjacent channel to be a control channel. Thus, adjacent channel can be used to set up flags and also clear flags and interrupts.	Any application where data is available in parallel or the external interface requires parallel data.	has standard TTL drives & accepts standard TTL signals	one slot
88-SIOA Serial Input/Output Card RS232	Full RS232 interface card with signal compatibility to conventional RS232 interface. Uses a UART and has divider logic to allow for presettable baud rates from 110 to 19,200. Uses adjacent channel for control if desired. If the card was selected to have an address of 1, adjacent I/O channel 0 would be the control card for setting up the required flags.	Interfacing any conventional RS232 type peripherals	Conventional RS232	one slot
88-SIOB Serial Input/Output Card TTL	Same as 88-SIOA except all signals are TTL levels (both in and out).	transmission of data with serial format	Standard TTL signals	one slot
88-SIOC Serial Input/Output Card TTY	Same as 88-SIOA except that it is for interfacing with conventional teletypes.	interfacing to teletypes	Standard TTY signals	one slot
88-VI Vectored Interrupt	Gives user 8 levels of hardware vectored interrupt. Automatically establishes restart addresses for interrupts.	Any type of interrupt structured system. Especially useful in real time applications.	All MITS standard I/O channels have provisions to interface to vectored interrupt.	one slot
88-RTC Real Time Clock	Provides interrupts to the processor at user selected rate of once every 100 microseconds, 1000 microseconds, 10 milliseconds or 100 milliseconds.	Any real time system or data logging system	Requires Vectored Interrupt	fits on Vectored Interrupt card.
88-ACC Altair Cyclops Camera	Digital, solid state TV camera. 1024 elements in a 32 x 32 array. Each detector is capable of 16 gray levels and automatic electronic stops are adjustable by the software. Up to 16 cameras can be controlled by one Cyclops Controller. Multiple controllers can be used.	Computer with eyes such as an intrusion system, production line control, automatic inspection stations.	88-CCC Cyclops Controller Card	Camera is 2" x 3" x 8"
88-CCC Altair Cyclops Controller Card	Will support up to 16 cameras simultaneously. Contains buffer memory and all 8 stop controls to communicate with the camera. Provides all interfacing for Altair Cyclops Camera.			one slot

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NAME & NUMBER	DESCRIPTION	APPLICATION	INTERFACE REQUIRE-MENT	SPACE REQUIRE-MENT
88-KB ASCII Keyboard	Keyboard and case. Contains all logic and debounce circuitry for 96 ASCII characters. Controller is contained in 88-32DU 32 Character Alpha-numeric Display.	Any application requiring alpha-numeric data.	88-32DU Alpha-numeric Display.	external cabinet
'88-14ND 14 Digit Numeric Display	14 Digit Numeric Display mounted in its own case. Includes controller card.	Any application requiring numeric readout.		one slot plus external case
88-VLCT Low Cost Terminal	Allows user to convert from octal format to binary and back to octal, decimal, or hexadecimal.	Machine Language programming	88-PIO Parallel I/O	
88-PPC PROM Programmer Card	Allows blocks of memory to be automatically programmed into Programmable Read Only Memories. The PROM's normally used in the Altair 8800 are bipolar Schottky PROM's with 70 nanosecond access time. Each PROM is organized as a 256 x 4 memory. Thus, two PROM's are required to achieve a 256 x 8 memory. Card includes external test socket for programming.	Particularly useful in control applications		one slot
88-32DU 32 Character Alpha-numeric Display	32 character alpha-numeric Burroughs Self-Scan display mounted in its own case. Includes controller with interface logic and power supply. Displays 64 ASCII characters and has 32 character memory.	Any application needing alpha-numeric display	none	1 slot plus external cabinet (may be mounted)
88-ACR Audio-Cassette Record Interface	Allows virtually unlimited memory storage for data or software. Operates by modulating audio frequencies in the record mode. Demodulates recorded data in playback mode.	Connects to any medium quality cassette tape recorder		
CT256 Computer Terminal	Basic memory of 256 characters with expandability to 1024 characters combines with a 32 character display to provide ease of operation. Special function keys for data retrieval and display format. ASCII coded keyboard and 110/300 baud rates. Auto-transmit and tape play/record features.	Computer terminal with Alpha-numeric display	88-SIOA Serial I/O	
88-PPCB Prototype Printed Circuit Board	Double-sided, plated through board for designing custom interfaces to the Altair 8800. Includes 5 volt regulator and associated filters.	Developing Custom Interfaces	Defined by user	one slot
88-EC Expander Board	Expander Board comes with space for four edge connector sockets to allow for the addition of four cards to the Altair 8800. The Altair comes with one Expander Board. Three additional boards can be added, making provisions for 16 cards. Expander Chassis needed for additional expansion.	Expand the 8800	Space in Altair 8800 chassis or Expander chassis	
88-EXC Extender Card	Double-sided circuit board with edge connector to allow all cards on the buss to be extended out of the card rack for easy maintenance.	Where extensive development or maintenance is anticipated		
Cases	A wide assortment of cases is available for adding external devices.			
88-EBC Expander Board Chassis	Power supply, Optima cabinet and four Expander Cards allows for an expansion of 16 cards to the Altair 8800. All necessary interface logic included.	Expanded system	One slot in basic Altair	8" rack space

4 ALTAIR SYSTEMS

*ALTAIR DOS/BASIC III
Altair 8800 Computer
4 4K Dynamic Memory Boards
Comter II Terminal
Serial Input/Output Card
and Connectors
Cooling Fan
Extra Mother Board
Disk Controller
2 Disk Drives
EXTENDED BASIC and
DOS Software

*ALTAIR BASIC I
Altair 8800 Computer
2 4K Dynamic Memory Boards
Comter II (32-character, self-scan
display Terminal with built-in
Audio Cassette Record Interface)
Serial Input/Output Card
and Connectors
Cooling Fan
BASIC Software

ALTAIR EXTENDED Engr/Acctg IV
Altair 8800 Computer
8 4K Dynamic Memory Boards
Teletype ASR-33
Line Printer (110 characters
per second—includes controller)
Serial Input/Output Card
and Connectors
Cooling Fan
3 Extra Mother Boards
Disk Controller
2 Disk Drives
EXTENDED BASIC and
DOS Software

*ALTAIR EXTENDED BASIC II
Altair 8800 Computer
3 4K Dynamic Memory Boards
Comter II Terminal
Serial Input/Output Card
and Connectors
Cooling Fan
Extra Mother Board
EXTENDED BASIC Software

*Teletype ASR-33 can be substituted for Comter II
terminal—See Price List

4K Altair BASIC Language

STATEMENTS		COMMANDS	FUNCTIONS
IF...THEN[1]	DATA	LIST	RND
GOSUB	LET[2]	RUN	SQR
RETURN	DIM	CLEAR[7]	SIN
FOR	REM	SCRATCH	ABS
NEXT	RESTORE		INT
READ	PRINT[3]		SGN
INPUT	STOP		
END			

NOTES: [1]IF...THEN can be followed by a statement. Example: IF A<5 THEN PRINT B
[2]LET is optional in variable assignments. Example: A=5 is identical to LET A=5
[3]TAB(X) within PRINT statement tabs to print column X.
[7]CLEAR deletes all variables.

F E A T U R E S

Multiple statements per line, separated by a colon ":" (72 characters per line)
Approximately 750 bytes available for program and variable storage before SIN
    or SIN, RND or SIN,RND, SQR are deleted.
"@" deletes a whole line and "←" (or underline) deletes last character typed.
Direct execution of any statements except INPUT.

Two character error code and line number printed when error occurs.
    Example: ? US ERROR IN 50 would indicate a reference to an undefined state-
              ment in a GOTO, etc., during execution of line 50.

All results are calculated to at least six decimal digits of precision.
    Exponents may range from 10^{-38} to 10^{37}.
Maximum line number of 65535.

8K Altair BASIC Language

STATEMENTS		COMMANDS	FUNCTIONS	
IF...THEN[1]	DIM	LIST	COS	POS
GOSUB	REM	RUN	LOG	RND
RETURN	RESTORE	CLEAR[7]	EXP	SQR
FOR	PRINT[3]	SCRATCH	TAN	SIN
NEXT	ON...GOTO	CONT[8]	ATN	ABS
READ	ON...GOSUB		INP[4]	INT
INPUT	OUT[5]		FRE[9]	SGN
END	DEF[6]			
DATA	STOP			
LET[2]				

NOTES:
[1] IF...THEN can be followed by a statement. Example: IF A<5 THEN PRINT B
[2] LET is optional in variable assignments. Example: A=5 is identical to LET A=5
[3] TAB(X) within PRINT statement tabs to print column X. SPC(X) prints X spaces.
[4] INP returns status of a hardware I/O channel.
[5] OUT sets status of a hardware I/O channel.
[6] DEF allows for single variable single statement user defined functions.
[7] CLEAR deletes all variables.
[8] CONT continues program execution after Control C or STOP.
[9] FRE returns number of free bytes for program or variable storage. With a
    string argument, FRE returns amount of free string space.

FEATURES

Multiple statements per line, separated by a colon ":" (72 characters per line)
Approximately 2K bytes available for program and variable storage before ATN or
    ATN, COS, SIN, TAN are deleted.
"@" deletes a whole line and "←" (or underline) deletes last character typed.
Multi-dimensioned (up to 255) arrays for both strings and numbers.
Direct execution of any statements except INPUT.
Two character error code and line number printed when error occurs.
    Example: ? US ERROR IN 50 would indicate a reference to an undefined state-
               ment in a GOTO, etc., during execution of line 50.
Control C -- interrupt program (prints BREAK IN LINE XX)
Control O -- toggles suppress output switch
All results are calculated to at least six decimal digits of precision. Exponents
    may range from 10^{-38} to 10^{37}.
Maximum line number of 65535.
AND, OR, NOT operators can be used in IF statements or formulas.
STRINGS
    Maximum length = 255 characters
    String concatenation (A$ + B$)
    String functions:
    LEN -- length of string.
    ASC -- returns the equivalent ASCII decimal number for the specified argument.
    CHR$ -- truncates the numeric formula to an integer, interprets the integer as
            a decimal number, and converts it to its equivalent ASCII character.
    RIGHT$ ⎫   Return substrings of specified string formulas; beginning at
    LEFT$ ⎬ -- leftmost character (LEFT$) or ending at rightmost (RIGHT$) or
    MID$ ⎭   beginning at specified position (MID$) of the string formula,
               and containing the number of characters specified by the
               numeric formula.
    STR$ -- number converted to a string.
    VAL -- string converted to a number.

Altair Extended BASIC Language

Extended BASIC has all the features of the 8K BASIC plus:

1. PRINT USING for formatted PRINT statements
2. DISK I/O   (to ALTAIR floppy disk)
3. Double precision (13 digit accuracy) add,
    subtract, multiply, divide.

A minimum of 12K is required to support Extended BASIC. The first
release of Extended BASIC is planned for July, 1975. The 4K and 8K
BASICs are available today. Many more features, such as integer
variables (16 bits) and ELSE clauses in IF statements, are scheduled
for future implementation.

MITS Operating System
(Package I)

   The operating system is designed to facilitate assembly
language program development on an ALTAIR 8800 with at least
8K bytes memory and a serial I/O board (for either teletype
or COMPTER I/O).

   The system monitor, which resides in the first 1K of
memory, enables the user to load and execute programs stored
on paper tape or other external device. The user can also
write device drivers coded to suit his own particular I/O
needs. Programs loaded and executed under monitor supervision
can be passed parameters to control their operation.

   The text editor provides facilities for editing a source
program (usually assembly language) read in from an external
device. The program is stored in an area of memory during the
editing process and is written back out to an external device
when editing is complete. The user can insert, delete or re-
place lines in the text buffer.

   The assembler reads a source program from an external
device and converts it into binary form in the ALTAIR's memory.
Input can be read from any device, including the teletype key-
board. A second pass of the source can be made to generate
an assembly listing. The assembler itself occupies approxi-
mately 3K of memory.

   For the development of small programs, the monitor,
assembler and text editor can be resident at the same time
eliminating the use of external I/O for the storage of the
source program on paper tape, etc.

   A debugging package, DDT-8800, will be available in June.

May 1, 1975

SOFTWARE PRICES

NOTE: The software prices listed on your price sheet are incomplete. This
        is the complete, updated software price list.

ALTAIR 4K BASIC............................

    Altair customers who have purchased an Altair 8800, 4K of
    memory, and one I/O board (Serial, Parallel, or audio-cassette)...ONLY $60.00

    If teletype or terminal (CT256 or COMTER II) is also ordered......N/C

    NOTE: You can order software when you order hardware or you can order
            it later. Special prices apply to all Altair customers.

ALTAIR 8K BASIC............................

    Altair customers who have ordered an Altair 8800, 8K of memory
    and one I/O board...ONLY $75.00

    If teletype or terminal (CT256 or COMTER II) is also ordered.....N/C

ALTAIR EXTENDED BASIC.........................

    Altair customers who have ordered an Altair 8800, 12K of memory
    and one I/O board...ONLY $150.00

    If teletype or terminal (CT256 or COMTER II) is also ordered.....N/C

ALTAIR PACKAGE ONE (assembler, text editor, system monitor).....

    Altair customers who have ordered an Altair 8800, 8K of memory
    and one I/O board...ONLY $30.00

ALTAIR DOS (Disk Operating System)............

    When purchased with 88-DCDD............................n/c

4K BASIC, 8K BASIC, EXTENDED BASIC AND PACKAGE ONE available on paper tape
(8 level) or audio cassette.   Specify when you order.

DOS available on paper tape, audio cassette, or disk.   Specify.

ALL SOFTWARE INCLUDES DOCUMENTATION.   BASIC LANGUAGE COURSE SOON TO BE
AVAILABLE (there will be a charge for this).

specifications, prices subject to change.   also delivery.