PLEASE NOTE: THIS FILE IS NOT PUBLICLY APPENDABLE. If you have information that you feel should be added to it, or discover any errors, please send me a note, and I will update the file. The intent here is not to provide a forum for discussion of the relative merits of different vendors' products, but to provide a single repository for information on PCjr hardware products that are available in the marketplace in order to reduce the number of queries for names of manufacturers of this or that product in the forums.

SOME OF THE VENDORS LISTED MAY PROVIDE ADDITIONAL DISCOUNTS FOR IBM EMPLOYEES, OR MAY HONOR CHECKS WITHOUT A WAITING PERIOD. CHECK WITH THE INDIVIDUAL VENDOR TO SEE IF THIS IS TRUE.

>> The information contained herein may be distributed to the general public, but please remove the preceding notice before doing so. <<

Charlie Dose' (NCTOOLS AT OWGVM1 662-2942)

PCJR HARDWARE GUIDE UPDATED: 06/13/88

Compiled by Charlie Dose' CompuServe 75116,1164

This is a list of hardware products for the IBM PCjr available from third party manufacturers and vendors. The information is all in the public domain, and may be distributed freely. The information contained herein has been compiled from magazine ads, telephone calls to vendors, messages on CompuServe and various Bulletin Board Systems, and from other PCjr owners.

Products not specific to the PCjr, such as external modems, RS-232 switch boxes, printers and the like are not included in this list. Mail order prices for these products can be found in any of the popular PC magazines (PC, PC World, PC Resource, Computer Shopper).

PLEASE NOTE: INCLUSION OF A PRODUCT IN THIS LIST DOES NOT IN ANY WAY CONSTITUTE AN ENDORSEMENT OF THE PRODUCT BY THE IBM CORPORATION, by COMPUSERVE, INC., or by me. To the best of my knowledge, unless noted in the text, all the firms listed herein are still doing business, and marketing the products listed. Prices shown in the list were the prices in effect at the time the information was added to the list, and may not be current. Check with the vendor for latest information on prices and product availability.

| Recent changes in this file are indicated by a vertical bar (|) in the left margin.

05/13/88 Increase in price for Creative Firmware diskette controller. Pruned several listings, deleted most memory prices (see below). 06/13/88 Triton Products now Authorized Direct Marketing Center for Racore. NOTE: SOLID ROCK ELECTRONICS IS APPARENTLY IN THE MIDST OF MOVING. I HAVE NOT MODIFIED THEIR LISTING, PENDING MORE INFO **** THE LISTING NOW CONTAINS FORM FEED CHARACTERS FOR EASIER PRINTING ****

*** IMPORTANT *** THE PRICE OF 256K DYNAMIC RAM CHIPS USED IN MEMORY EXPANSION UNITS IS CHANGING ON A DAY-TO-DAY BASIS. THE ONLY MEMORY PRICES t

I KNOW TO BE ACCURATE AS OF APRIL 6, 1988 ARE THOSE FROM ATTIC TECHNOLOGY, TECMAR AND RACORE. I HAVE DELETED PRICE INFORMATION ON ALL OTHER MEMORY EXPANSIONS FROM OTHER VENDORS. CALL THE VENDOR FOR CURRENT PRICES.

IBM PARTS DEPOT (Official IBM source of replacement parts)

Parts Identification Line: (303) 924-4015 Parts Order Line: (303) 924-4100

This is IBM's replacement parts depot, located in Boulder, CO. Most PCjr parts, including system boards and power supplies, are available through this depot. Some items are available on an exchange basis. Call the Parts identification line first to get part number. -----PCjr Magazines-----

	jr Newsletter	*	jr Report
	P. O. Box 163	*	c/o the PCjr Club
	Southbury, CT 06488	*	1121 Tower Road
	Subscription \$18.00/year	*	Schaumburg, IL 60193
I		*	Subscription \$19.97/year

Attic Technology P. O. Box 354 Verona, PA 15147 (Prices as of 4/4/88)

This firm will upgrade your Tecmar jrCaptain, Microsoft Booster, or IBM 128K Memory Expansion to 512K for \$225.00, including return shipping. All work guaranteed for 90 days. NEW PRODUCT: Attic Technology will upgrade IBM 128K memory expansion units to provide 512K of EMS Memory for use with Lotus 1-2-3, Symphony, RAM-disks and print spoolers. The price for this modification is \$325

B. G. Micro
P. O. Box 280298
Dallas, TX 75228
214-271-5546

(Price as of 4/88)

Thermal printer for PCjr \$29.95 4 for 105.00 plus shipping/handling add \$3.00 for connector for use with PC This is the Compact printer manufactured by Canon for the PCjr. It connects to the jr. via the serial ("S") connector on the rear of the PCjr System Unit. It requires special paper, available from IBM DIRECT, some Radio Shack outlets, most computer dealers. With the optional connector, it can be used with a regular PC having a serial port.

COMPUTER RESET (updated 04/02/88) P. O. Box 461782 Garland, TX 75046 NO CREDIT CARDS \$5 Min. shipping. 214-276-8072 Adapter cable for color monitor \$15.00 Adapter cable for serial devices \$15.00 IBM Cartridge Basic \$75.00 IBM PCjr keyboard cord \$15.00 IBM Printer attachment \$79.00 IBM Power expansion attachment \$55.00 Replacement power transformer \$19.00 2nd diskette drive system \$239.00 (uses modem slot) 2nd diskette drive system \$234.00 (jr hotshot controller) Keytronics Numeric Keypad \$39.00 20 Mb. hard disk system \$699.00 \$34.00 ROM Cartridge clock \$39.00 PCjr Technical Reference Manual

This is only a partial list...Write or call for complete list.

CREATIVE FIRMWARE, INC. (Price Increased May, 1988) P.O. Box 850064 Richardson, Texas 75085 (800) 622-4070 (II1. residents, (800) 942-7317) (ORDERS ONLY LINE)

DRIVE IIA CONTROLLER

A PCjr second disk drive controller which plugs into the internal modem slot inside the PCjr. Allows you to add a second diskette drive to the PCjr. (NOTE: the drive needs its own housing and power supply). Texas residents add 6.125% sales tax. \$3 for COD orders. Order line accepts VISA, MASTERCARD & AMERICAN EXPRESS.

Drive IIA Controller

\$59.00 plus \$4.00 shipping.

November, 1987

Cryptographic Software 33 Harbour Sq. #2620 Toronto, ONT. M5J 2G2 Canada

Cryptographic Software, the people who brought us the jrSYNCHRO cartridge (which allows keyboard input during disk I/O, along with other patches) has come out with a new cartridge, jrVIDEO. The new cartridge apparently speeds up BIOS and DOS screen writes.

United States residents are requested to order these products from dealers in the USA, such as Legacy Technology, PC Enterprises, and Paul Rau Consulting. Folks in Canada, contact Cryptographic Software.

DATADESK INTERNATIONAL Prices as of 3/24/87 7601 Haskell Ave. Van Nuys, CA 91406 Phone: (800)-826-5398 outside California (800)-542-9602 CALIFORNIA ONLY (818)-780-1673 Technical Support

DataDesk markets an AT-style keyboard with adapter cable for the PCjr. It has been received enthusiastically by people who have purchased it. A promotional offer includes Borland's Superkey (\$69.95 retail value) with the keyboard at an extra charge.

Prices:

AT-style keyboard for PCjr, with Superkey \$134.95 + \$10 shipping AT-style keyboard for PCjr without Superkey \$124.95 + \$10 shipping

Turbo-101 Enhanced Keyboard. This is Datadesk's version of the new IBM Enhanced Keyboard. Packaged with Borland's Turbo Lightning.

Price: \$169 plus \$10 shipping for PCjr version. Subtract \$10 if you don't want Turbo Ligtning.

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Dolphin Computers 309 Judah St., Suite 214 San Francisco, CA 94122 (415) 566-4400 Updated 04/06/88

Dolphin carries a supply of IBM accessories for the PCjr, including serial adapter, printer adapter, keyboard cord, etc. They also carry third party products. A few examples:

512K Memory Sidecarcall for latest priceSecond disk drive\$247.00Mouse for PCjr\$88.00Replacement diskette drive\$99.99

ES Quality Products Info corrected 14 Dec 87 767B Redwood Place Reno, NV 89502 (702) 786-4059

**** jrHotShot Board ****

ES (Ed Strauss) is producing an addon card for the PCjr which plugs into the 8088 socket (for those of us lucky enough to have socketed 8088's). It comes in several flavors: clock/calendar, 256K or 512K memory, 2nd Disk controller, in any combination of the three.

256K RAM added memory ------ \$149
 512K RAM added memory ------ \$189
 Real time clock (alone) ----- \$59
 2nd Disk controller (alone) ---- \$79
 Clock plus controller ----- \$99
 Clock & memory 1 or 2 ----- add \$35 to memory price
 Controller & memory 1 or 2 -- add \$49 to memory price

All are plus \$2.50 shipping, \$1.80 COD charges. He accepts personal checks, but no credit cards.

Power consumption of the 512K memory board is reported to be 0.8 watts. It is populated with 256K dynamic RAMs rated at 150 ns. or better. Heat generated by the expanded memory is negligible. Adequate reserve power will be available from your power supply for either an internal modem or a printer adapter, but not both. If both are installed, you should have a power expansion sidecar ahead of the printer adapter.

Honey Computers (Prices as of 4/87---listing condensed 5/88) 3145 Gearv Bvd. Suite #150 San Francisco, CA 94118 (415) 584-2456 New Phone number 10/87 Accepts Visa and Mastercard SECOND DISK DRIVE External diskette drive in case with power supply. Comes with controller in a sidecar, connecting cable and software. Price \$219.99 Controller, cable & software only \$49.99 HARD DISK DRIVES call for price 10 and 20 MB drives for the jr. Includes a custom cabinet, power supply cabling and software. Can be disassembled and used in an XT or Clone. PCJR memory expansion sidecars -- call for price and description. **KEYBOARDS** Keytronics 5151jr XT type keyboard with caps, scroll, and num-lock lights, separate cursor keypad and function. \$109.99 Cherry infrared keyboard. Full size. \$99.99 SYNECTICS SOFTWARE & SYSTEMS line of products Rom-clock, keylights cartridge, Development system, etc. (search for 'SYNECTICS' in this file for product details) ASSORTED OTHER PCJR ITEMS PCID cartridge \$24.99, Keyboard adapter: IBM keyboard to jr \$39.99, Wordstar for jr \$59.99, Mouse Systems Infrared Mouse w/pop ups \$89.99, RGB adapter cable: jr to normal RGB \$25.99, Serial adapter cable \$25.99, Carry case \$35.99, 64K memory display card \$74.99, joystick \$25.99, Tech ref \$35.00, hardware ref \$35.00 Visa and Mastercard accepted Shipping add \$5.00 C.O.D. add \$2.50 Cal Res. add 6.5% tax IB COMPUTERS info updated 04/06/88 1519 SW Marlow Portland, OR 97225 PHONE: (503)-297-8425 IB Computers manufactures and markets a line of diskette drive

cabinets with or without power supply. They recently have added a 3.5" external drive to their product line (3.5" DSDD drive in cabinet with power supply). Add 3% for credit cards. Shipping extra.

Single half-height case, without power supply	\$19.95
WITH POWER SUPPLY	\$54.95
Dual half-height case, without power supply	\$21.95
WITH POWER SUPPLY	\$59.95
3.5" dual or single case without power supply	\$26.95
WITH POWER SUPPLY	\$69.95
5 1/4" hard disk full height case w/pwr. supp.	\$149.95
	WITH POWER SUPPLY Dual half-height case, without power supply WITH POWER SUPPLY 3.5" dual or single case without power supply WITH POWER SUPPLY

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INTEGRITY TECHNOLOGY (UPDATED 10/04/87) 105 Serra Way, Suite 230 P. O. Box 360604 Milpitas, CA 95035-0604 Phone: 408-262-8640 MCI Mail: 2098377

Integrity offers ROM cartridge kits for the PCjr. The kit includes a two-piece ABS plastic enclosure, a printed circuit board that accepts EPROMS or ROM's from 8K thru 256K in size and a die-cut foam piece used as a filler to hold everything in place. The circuit board will accept two 28 pin IC's. It will accept 27256, 27128 or 2764 EPROM's, and by installation of a jumper on the board, will also accept 2732, 2716 or 2708 EPROM's.

For programming the EPROM's, they recommend the DATA I/O model 201 EPROM programmer with RS-232 interface. They provide EPROM/ROM programming, assembly and testing services for high volume production.

ROM CARTRIDGE KITS FOR PCJR. PRICE \$5.75EA., QUANTITY 4+ (minimum order is 4 pieces) 4.95 ea., quantity 100+ Technical Reference manual with instructions, ROM programming conventions, addressing info., etc. \$1.50--FREE W/100 ORDER

NEW ITEM: PCjr CLOCK CARTRIDGE. Plugs into either cartridge slot. Includes diskette with programs to GET, SET and SHOW the date and time. Insert GETTIME command in AUTOEXEC.BAT file and time and date will be set automatically at power-up or boot. User replaceable lithium battery mated at 10 year life. Price \$34.50

Add \$3.00 shipping/handling for first 2 lb., \$2.00 for COD orders.

J&M SYSTEMS, LTD. (INFORMATION DATED FEB, 1987) 15100-A Central S.E. Albuquerque, New Mexico 87123 (505) 292-4182

PC2C ADD-ON DRIVE SYSTEM: The PC2C controller replaces the IBM controller board and will support up to three floppy drives. Software included configures your DOS to recognize the second drive. Available options:

PC2C Controller Board & Software \$149.00 PC2C Controller, Software, cable, & one external drive \$295.00 PC2C with two external drives 449.00 PC2C with one external drive in dual case \$325.00 PCjr Electronics Kit 350.00 Includes: Konan DJ200 Hard Disk Controller, Software Drivers, cables & installation instructions. Prerequisites: PC2C Controller /OR/ IBM Controller-modified Hard Drive w/ST506-compatible interface, power supply & case.

Half-height floppy case (for single drive), with power supply... \$ 65 Full-size floppy case (for two half-height drives), w/pwr sup... \$109 HARD DRIVE ADD-ON SYSTEM

These PCjr hard drive systems come complete with case, power supply, cables, MS-DOS drivers, host adaptor and instructions for use. The drives can be attached to the PC2C disk controller (see above) or, with some modifications, to the original IBM PCjr disk controller board (CAUTION: This will void any warranties!).

10	Megabyte	(Mb)	system	\$750.00
20	Mb Syster	n		995.00

J&M accepts VISA, Mastercard or prepayment. All orders shipped by UPS ground with Blue Label at extra cost.

KEYTRONIC Prices updated 12/16/87 P.O. Box 14687 Spokane, Washington 99214 (800) 262-6006 (7am-3pm Pacific time)

KEYTRONIC PCjr REPLACEMENT KEYBOARDS

Keytronics makes the following replacement keyboards for the PCjr. (Prices are suggested retail, many mail order houses offer lower prices.): KB5149jr---Numeric Key Pad \$ 99.95(no longer in production) KB5150jr---IBM PC type 139.00 KB5151jr---Enhanced keyboard 199.00

All Keytronic keyboards for the PCjr include the cable to connect to PCjr. Nothing additional is needed.

LEGACY TECHNOLOGIES, LTD. (Prices as of 1/88) 4804 Superior Street Lincoln, Nebraska 68504 (402) 466-8108 (in Nebraska) (800) 228-7257 (outside Nebraska) Electronic Bulletin Board (BBS): (402)-466-8114 (24 hours) 300-1200-2400 baud service

Legacy has a series of products which center around their basic product, the LEGACY I. Following is a description of Legacy expansion products.

LEGACY I: This is the base Legacy expansion unit. It contains the 4-slot L-bus expansion system, 70 watt power supply and cabinet, which sits on top of the PCjr system unit. Also included are all the cables needed to connect to the PCjr, software for advanced features, and installation manual. Space for up to 4 Legacy L-bus expansion cards (see below) and either a floppy or hard disk drive. #L-1 Price \$140.00

LEGACY II: Everything that the LEGACY I has plus a DSDD disk drive and floppy controller. Price \$349.00

LEGACY III: A LEGACY I with a 20 Mb hard disk and interface cards. Allows addition of two more hard drives. price \$1095.00

L-Bus EXPANSION CARDS: L-Bus expansion cards fit the Legacy series slots to further expand and customize your system to fit your needs.

EXP series are memory expansion cards providing either 128K or 256K of additional RAM on each card. By installing two 256K cards, memory can be increased by 512K, for a total of 640K. Compatible with IBM, Tecmar, MicroSoft and Quadram Sidecars.

#EXP-128 128K card 119.00 #EXP-256 256K card 159.00

CPS is a L-bus card with a clock/calendar and a parallel printer port. Comes with print spooler software. #CPS \$ 99.00

Hard Disk Interface is a two card system: one fits into any of the Legacy series slots, while the other is attached to the hard disk drive. Drives can be 10, 20 or 30 Mb., and the system can control up to three hard drives. Self-booting can be performed from the hard drive. #HDC \$595.00

Legacy also sells the following PCjr accessories:

Legacy 2 Floppy Drive Controller (Replaces IBM controller, allowing another DSDD drive to be attached) #FDC \$99.00 jrSynchro Cartridge #JRS 25.00 (This is the jrSynchro cartridge produced by Cryptographic Software. It provides a larger keyboard input buffer, reducing 'beeps' and dropped characters when you type fast. In addition, it patches the NMI bugs found in DOS 2.1 NOTE: this product may not be

compatible with expanded keyboards and DOS versions after 2.1

SERIAL INTERFACE CARD #SERINT

Fits in the internal modem slot, giving a true RS-232 interface with 4800 baud capability and true ring indicate. It is addressed as COM1: and frees up the PCjr's serial port for other serial devices, such as a mouse. Output connector is standard D-25.

75.00

8087 Math coprocessor board (works only with socketed 8088.Plugs into 8088 socket, then you plug 8088 into the board.Allows you to install an 8087 (not included) to speed upfloating point math operations in programs that look for an 8087(such as Lotus 1-2-3)#8087 DB8087 math coprocessor#8087 chip

PCjr Monitor Adapter:Adapts PCjr Monitor for use withCGA (Color Graphics Adapter) on standard PC.#A-11 \$55.00IBM PCjr Hardware Maintenance & Service Manual,with test jumper plugs for running diagnostics#HSM \$30.00IBM PCjr Technical Reference Manual#TRM \$30.00Both manuals (HSM and TRM)#TRHSM \$50.00

Legacy also has scarce items such as serial cables, cassette adapter cables, joysticks, Power supplies, diskette drive replacement belts, carrying cases, and more. Call for info. They also market a line of PC clones and will take your PCjr in on trade as partial payment. Once again, call for info. Mendelson Electronics Co. Updated 02/04/88 340 E. First St. Dayton OH 45402 (513) 461-3525 Visa, MasterCard accepted PCjr Speech attachment #220-200 \$30.00 + 3.50 shipping PCjr carrying case #220-505 \$10.00 + 5.50 shipping TEAC FD55B diskette drive \$85.00 + 3.50 shipping

Micro Marketing (Added 2/4/88) P.O. Box 754 Lilburn, GA 30226-0754 800-652-9289 (404-441-1081 in GA)

Call or mail in for a catalog. This firm handles Racore products, ES Quality Products' jrHotShot line, and other PCjr-specific lines.

MICRO PRODUCTS CORPORATION	(Info updated 1/05/88)
Suite C	(Memory prices deleted 5/88)
6912 SOUTH 185 WEST	
MIDVALE, UTAH 80847	NO CREDIT CARD ORDERS
(801) 562-5008	

Micro Products manufactures the former Impulse (later Alpha) line of memory expansion sidecars. They offer three basic expansion boards. A brief description of each is listed below.

** Models 100, 130, and 140 are memory expandable from 0 to 512K. Each includes a Parallel Printer Port and a Clock/Calendar. Each will allow the IBM PCjr, with its own 128K of memory, to be expanded to 640K of RAM memory. All include RAM disk software.

Model 100	OK, parallel port, clock/calendar	\$230
Model 130	256K, parallel port, clock/calendar	\$call
Model 140	512K, parallel port, clock/calendar	\$call

** Models 101, 131, and 151 are memory expansion boards only. Model 101 OK \$call Model 131 256K \$call Model 151 512K \$call

Model 160 clock/calendar, parallel port (no memory) \$125

** None of the boards listed above require an external power supply.

Orders phoned in are subject to UPS Shipping charges of approximately \$1.75 per board and a \$3.00 C.O.D. service charge. If payment is received with the order, Micro Products will cover the shipping costs. Orders are normally filled within 5 working days of receipt.

All Micro Products expansion modules are covered by a 2 year limited warranty.

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MSC (Formerly Micro-Service Company) (Updated 3/14/88) 4764 Elison Ave. Baltimore, Md. 21206 (301)-325-6417 (301)-833-8976 9:00 A.M. to 9:00 P.M. Mon-Sat (May get answering machine--leave message.) Memory Upgrades of Tecmar jrCaptain, Microsoft Booster and IBM to 512K ES Quality Products jrHotShot Memory expansion units HARDBIOSjr Cartridge to allow the RIM type hard drive system to boot directly from the C: drive - \$79.00 Add-On Disk Drives - Includes controller modification, case, cable, drive, and power supply. (you send them your diskette controller). 5 1/4" 360K - \$239.00 3 1/2" 720K (requires DOS 3.2 or later) - \$269.00 Repair Services - MSC offers repair service on all IBM PC/XT/AT/jr and compatible systems and peripherals. (EXAMPLES) PCjr w/ 1 drive and 128K - \$85.00 + parts Memory sidecars - \$65.00 + parts RGB Monitors (CGA) - \$95.00 + parts Printers (Dot Matrix) - \$75.00 + parts

Oowl Software 1435 Burnley Sq. N. Columbus, OH 43229 (614) 436-0219 (9/20/87)

Call or write for free catalog. Oowl is another mail order dealer with an extensive line of PCjr products in its catalog. Examples: Complete 2nd diskette drive additions, starting at \$189.95 ES Quality Products jrHotshot products PCjr joysticks \$16.95, 2 for \$32.00 + \$4.00 shipping Paul Rau Consulting 260 Lincoln Way N. Galt, CA 95632 (Updated 01/07/88) | Selected prices updated 4/88

(209) 745-9284 Message hours (voice) 9:00 AM to 4:00 PM PST (209) 745-9284 Jr Blue BBS 2400 5:00 PM to 8:00 AM week nights, and all weekend. The best time to reach him is after 5:00 pm at (209) 745-2696. Add \$5.00 for COD orders. No personal checks accepted on COD orders. Now accepting Mastercard and Visa, please add 4% to the total sale. Shipping extra for foreign orders. Please allow 2 weeks for shipping.

Following is a partial list of products available from Paul Rau:

*** ES QUALITY PRODUCTS jrHotShot Memory products

*** SIDECAR Memory from Micro Products ******

*** DISK DRIVES ***

5-EXT	5.25" 360k ext. drive (drive, case, pwr sup)	\$179	\$9
5-EXT SYS	5.25" 360k ext. system (dr, case, pwr sup, cont)	\$239	\$9
5-CUSTOM	Same as 5-EXT SYS except in a custom case	\$259	\$9
5-DRIVE	5.25" 360k replacement drive - direct drive	\$ 99	\$9
3-EXT	3.50" 720k ext. drive (dr,case,pwr sup)	\$239	\$9
3-EXT SYS	3.50" 720k ext, system (dr, case, pwr sup, cont)	\$299	\$9
3-CUSTOM	Same as 3-EXT SYS except in a custom case	\$319	\$9
HS-DIS	jr Hotshot floppy disk controller & cable	\$ 79	\$9
3-DISKS	3.5" Dual sided 720K diskettes- 10 pack	\$ 25	\$3

The external drive system is housed in a metal case 3.5" wide x 6" high x 13"deep. It has its own power supply and uses the jrHotshot controller. See the jrHotshot memory section if you would like to add memory to the board. The custom cabinet is the same except that the case is a Racore or Legacy type that is 2"high and sits on top of the PCjr. The 3.5" drives come with a device driver to allow you to use DOS 2.1.

****** Hard drives ******

Cartridge to allow boot from hard drive

I

R0-20	20meg system by Paul Rau Consulting	\$579	\$9
R0-40	40meg (2-20megs)system by Paul Rau Consulting	\$929	\$9
R0-25	20meg + 5.25" floppy drv.(controller not inc)	\$799	\$9
R0-23	20meg + 3.50" floppy drv.(controller not inc)	\$829	\$9
RM-20	20meg system with a 1200 baud modem	\$859	\$9
RM-40	40meg system with a 1200 baud modem	\$1129	\$9
SCSI Host a	dapter (internal modem card), cable, software	\$115	\$3
SASI Contro	ller card with ST-506 interface	\$125	\$3
External ha	rd drive cabinet with power supply	\$165	\$9
Seagate ST-	225 20 meg bare hard drive	\$299	\$3

\$ 79

\$3

The hard drive is housed in a metal external case. It is 19" wide x 15" deep x 3.5" high. The entire unit is surge protected and has a fan and a 65 watt power supply, more than enough to drive two hard drives. There is one main power switch and four auxiliary switches that run four outlets in back. The drive is guaranteed for one year by Seagate and the rest of the components are guaranteed for 90 days. The hard drive interfaces at the internal modem slot. The interface card is available with a modem---add \$200 for 1200 baud and \$349 for 2400 baud. A modem upgrade is also available at a later date. The hard drive packages come with hard drive utilities including a menu system and a backup program.

***** RACORE Expansion Units *****

M-1500	Racore Drive 2 Plus drive chassis	\$292	\$9
M-1501	Racore Drive 2 Plus drive chassis with DMA	\$325	\$9
M2101	256k memory for Racore Drive 2 Plus	\$ 99	\$3
M2103	512k memory for Racore Drive 2 Plus	\$125	\$3
M1521	20mb Hard Drive Chassis	\$950	\$9
M9100	PC style Keyboard w/adapter cable	\$ 90	\$6
M9101	5151 style Keyboard w/adapter cable	\$129	\$6
M9102	AT style Keyboard w/adapter cable	\$109	\$6
M3200	Keyboard adapter cable	\$29	\$3
M3400	PC I.D. Cartridge	\$18	\$3

****** Modems, CABLES, Keyboards and Miscellaneous Items ******

Modems	are 10	0% Hay	res compat	tible	and	carry	a 90) day	guara	antee		
IN-2400			INTERNAL								details	
IN-1200	1200	baud	INTERNAL	Modem	for	PCjr				\$249	\$6	

Cable to use PC with the PCjr Monitor	\$39	\$4
Cable for using PC style monitor with PCjr	\$19	\$4
STANDARD 6 FT CENTRONICS PRINTER CABLE	\$15	\$4
STANDARD 9 FT SERIAL MODEM CABLE	\$15	\$4
JR SERIAL ADAPTER - PCJR TO RS232	\$19	\$4
8 FT PCJR TO HAYES MODEM cable	\$19	\$4
PC 8700 Keyboard w/Superkey	\$130	\$6
	\$175	\$6
Turbo 101 Keyboard	\$160	\$6
Clock calendar chip for motherboard	\$39	\$3
	\$59	\$3
	\$19	\$3
8MHz Nickel Express Jr turbo board	\$79	\$3
	Cable for using PC style monitor with PCjr STANDARD 6 FT CENTRONICS PRINTER CABLE STANDARD 9 FT SERIAL MODEM CABLE JR SERIAL ADAPTER - PCJR TO RS232 8 FT PCJR TO HAYES MODEM cable PC 8700 Keyboard w/Superkey Turbo 101 K/B w/TurboLightning Turbo 101 Keyboard Clock calendar chip for motherboard Same as above except a cartridge Chip to improve PCjr monitor readability	Cable for using PC style monitor with PCjr\$19STANDARD 6 FT CENTRONICS PRINTER CABLE\$15STANDARD 9 FT SERIAL MODEM CABLE\$15JR SERIAL ADAPTER - PCJR TO RS232\$198 FT PCJR TO HAYES MODEM cable\$19PC 8700 Keyboard w/Superkey\$130Turbo 101 K/B w/TurboLightning\$175Turbo 101 Keyboard\$160Clock calendar chip for motherboard\$39Same as above except a cartridge\$59Chip to improve PCjr monitor readability\$19

The Nickel Express speedup board requires removal of soldered-in clock chip from PCjr motherboard, soldering a socket in its place, then insertion of the speedup board, plus replacement of clock chip. Allows switching of clock rate from original 4.77 Mhz to as high as 8 Mhz. SOLDERING EXPERIENCE REQUIRED! If you can't tackle the job, Paul Rau will do the installation for \$30. IMPORTANT: SPEEDUP BOARDS MAY NOT WORK WITH SOME AFTERMARKET MEMORY EXPANSIONS. CHECK WITH PAUL RAU BEFORE ORDERING THE NICKEL EXPRESS. Problems have been observed in trying to use the Nickel Express with Tecmar jrCaptain and the ES jrHotshot.

Synectics Software Quicksilver cartridge \$30

\$3

PC Enterprises (7/28/87)P. O. Box 292 Belmar, NJ 07719 (201)-280-0025 (922-7257) Order line, call this # for a catalog. (800)-922-PCJR Visa, Mastercard accepted--2 week hold on personal checks. Following is just a sample of items available from their catalog. 512K memory expansion with clock/calendar and parallel port \$295 jrROM clock--clock/calendar, installs under ROM chip \$39.95 be sure ROM is socketed before ordering -- to locate, remove diskette drive and locate 28 pin IC behind first cartridge slot. Correct IC will be marked with IBM # 1504036. jrVIDEO cartridge--replaces BIOS video routines...speeds up screen updates. (by Cryptographic software) #1802 \$29.95 PC ID cartridge---allows some non-jr. programs to run \$15.95 IBM power expansion units for jr \$65 AT-style keyboard (wireless) \$99 18 inch Serial adapter cables \$15.50 6 foot \$19.95 12 foot \$27 Enclosure for second diskette drive, sits on top of jr \$75 Above enclosure, with power supply \$109 JRDRIVE II second diskette drive for the PCjr, with above enclosure, power supply and controller \$245 New: Hard disk for PCjr (20 Mb), in above enclosure, with controller, software, etc. Uses internal modem slot. \$695.00 Peanut Gallery (Updated 1/88) P. O. Box 1587 Troy, Michigan 48099-1587 (800)-835-2246 voice (except Kansas) (800)-362-2421 voice (Kansas only) (313)-585-3893 Data: 300/1200/2400 baud Sample items from the Peanut Gallery Winter Catalog 1987-1988. Legacy serial card, uses modem slot, provides DB-25 connector w/9600 bps transmission 83 5.25" top-mount 360K floppy drive 269 3.5" top-mount 720K floppy drive 299 3.5" external 720K floppy drive (3rd drive) 299 external hard drive w/SPC controller 649 20M external hard drive w/SPC controller 839 40M 159 Datadesk Turbo 101-key keyboard w/PCjr connector Microsoft mouse w/PC-Paintbrush (requires serial adapter cable) 149 11 w/Easy CAD (requires serial adapter cable) 169 Cables 35 PCjr Monitor --> IBM PC 22 PCjr Serial Adapter cable 22 Keyboard cable

PC monitor --> PCjr

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RACORE COMPUTER PRODUCTS, INC. 170 Knowles Ave. Los Gatos, California 95030 (Prices as of 5/15/88) Subject to change without notice

| (408) 374-8290 (Main office)
 (800) 521-6366 (California only)
 (800) 325-1833 (Information, orders) except California
 (801) 363-8720 (BBS number, 300/1200 baud service)

Triton Products Company is now the direct marketing center for Racore products.

Triton Products Company 1159 Triton Drive Foster City, CA 94404 (800) 227-6900

Racore has an entire line of products dedicated to the PCjr and was one of the first to offer PCjr expansions.

DRIVE TWO PLUS: A second floppy disk drive--comes in an expansion chassis with a power supply and one memory expansion slot. It sits on top of the PCjr and a special drive cable takes the place of the original IBM cable to allow access to the second drive. DOS recognizes the added drive as the B: drive. A version of this product is available with factoryinstalled DMA (Direct Memory Access), which allows diskette access and keyboard operations to run concurrently. A clock/calendar and parallel printer port come standard. The unit has a PC/PCjr mode toggle switch which allows some IBM software to operate that normally will not run on a PCjr.

HARD DISK DRIVE TWO PLUS: This is a Fixed Disk version of the Drive Two Plus, with DMA and either a 10 Mb or 20 Mb drive.

LANpac JR: An IBM compatible local area network (LAN) allowing up to 250 stations with up to 1,000 feet between stations. Connects to PC, XT, AT or LANpac. Requires DOS 3.1 and Racore's DMA option.

256K/512K MEMORY PLUS: Using 256K chips, this is a memory board which uses the internal slot in the Racore drive units. A special upgrade for owners of Racore 384K cards is available. You MUST have proof of purchase in order to upgrade the 384K card.

KEYBOARD ADAPTOR CABLE: Allows use of an IBM (or fully compatible) keyboard on a Pcjr. It connects to the LP connector on the PCjr in addition to the K connector. Because of this, it cannot be used in conjunction with other devices which use the LP connector, such as the Mouse Systems Serial Mouse. Also, these connections are made with a single molded connector, which cannot be used with the plastic "plug protectors" installed on the PCjr case.

PC ID CARTRIDGE: A plug-in cartridge that tricks software into thinking the PCjr is a real PC. This is not a keyboard buffer, nor does it speed up your jr. Works ONLY with Racore or Quadram units.

CAUTION: Racore's DMA option will not allow the use of the side bus expansion port on the PCjr to operate correctly with certain other products. Microsoft Boosters, Tecmar jrCaptains, IBM memory sidecars and SPC's hard disks will be rendered useless by this option. RIM drives, which use the Internal Modem slot are also affected. No word on the Creative Firmware or J&M Systems addons. You can, however, use the IBM printer adapter. RACORE IBM PCjr ENHANCEMENT PRODUCTS Prices current as of 9/87

	Model	Description	Price	Notes
1	1500	Drive II Plus	\$299.00	
1	1501	Drive II Plus w/DMA	359.00	
	1504	10MB Drive II Plus (3rd drive model)	795.00	1
	1507	20MB Drive II Plus (3rd drive model)	895.00	1
	1511	10MB Drive II Plus w/DMA (2nd drive)	795.00	
	1521	20MB Drive II Plus w/DMA (2nd drive)	895.00	
1	2101	256KB Memory Board	149.00	
T	2103	512KB Memory Board	189.00	
	1502	Model 1500 to 1501 DMA Upgrade	85.00	
	1503	Model 1200 to 1501 DMA Upgrade	185.00	
	1506	Model 1400 to 1511 DMA Upgrade	185.00	3
	3200	Keyboard Cable Adapter	29.00	
	3400	PC I.D. Cartridge	12.00	
	9100	PC Keyboard Package	99.00	4
	9101	5151 Keyboard Package	139.00	4
	9102	AT Keyboard Package	119.00	4
	?	LANpac jr	295.00	1a

NOTES:

1. These require one of the following combinations:

- a) 1501 Drive II Plus w/DMA;
- b) 1500 Drive II Plus and 1502 DMA Upgrade;

c) 1200 Drive II (??) and 1503 DMA Upgrade; or

- d) 1400 Drive II (??) and 1506 DMA Upgrade.
- 2. This requires the 2101 256KB Memory Board.
- 3. The model 1400 is a 10 Mb hard drive unit.

4. These all include the 3200 Keyboard Cable Adapter.

Radio Shack various locations

ITEM #25-1033 SmartWatch A clock/calendar board that plugs into one of the ROM sockets on the PCjr motherboard. (You must have socketed ROM for this....the chips in question are located on the motherboard behind the left cartridge slot). \$39.95

(Updated 10/14/87)

RIM ELECTRONICS 3155 Thomas Grade Road Morgan Hill, California 95037

INFORMATION ONLY ENTRY: RIM IS NO LONGER ENGAGED IN RETAIL SALES. PRESENT OWNERS OF RIM PRODUCTS CAN CONTACT THEM AT THE ABOVE ADDRESS. Some products previously marketed by RIM are now sold through JDR in San Jose. The jr Drive Hard Disk expansion marketed by PC Enterprises uses the RIM controller, as does the unit offered by Paul Rau.

Updated 01/07/88

Solid Rock Electronics 1311-B Knight St. Arlington, TX 76015 (817) 467-7878

An authorized IBM repair center, Solid Rock offers a variety of products for PCjr. They claim to have the lowest prices in the U. S. on upgrades and replacement parts for PCjr. They perform upgrades on Microsoft Booster, IBM and Tecmar memory sidecars to 512K of memory. They handle ES Quality Products' jrHotshot expansions, Racore products, replacement diskette drives, etc. Call or write for catalog.

Second diskette drive system (direct drive unit)\$219.00Replacement diskette drive for PCjr.\$89.0020 Mb. Hard drive system (uses internal modem slot)\$599.00

Synectics Software & Systems P.O. Box 53501 San Jose, CA 95153-0501 (408)-281-7780 (updated 2/27/88)

Charge cards NOT accepted

PCjr Product list

ROM-CLOCK The ROM-CLOCK keeps track of the date and time while your PCjr is turned off. The ROM-CLOCK fits under one of the socketed ROM IC's on the mother board. The included software allows you to read and set the date and time. By adding just one line to your AUTOEXEC.BAT file, the date and time will be updated automatically.

* keeps track of the year, month, day, hour, minute, second and hundredths of a second.

- * handles leap years automatically
- * internal battery has a ten-year life (not replaceable)
- * complete software compatibility: uses only ROM address space
- * hardware requirements: a socketted ROM (if unavailable, see SLOT-CLOCK)

SLOT-CLOCK The SLOT-CLOCK keeps track of the date and time while your PCjr is turned off. The SLOT-CLOCK fits in a free cartridge slot in your PCjr. The included software allows you to read and set the date and time. By adding just one line to your AUTOEXEC.BAT file, the date and time will be updated automatically.

- * keeps track of the year, month, day, hour, minute, second, and hundredths of a second
- * handles leap years automatically
- * internal battery has a ten-year life (not replaceable)
- * complete software compatibility: uses address space (E0000h-E7FFFh) that may conflict with some cartridge software
 - works with cartridge BASIC and all of our cartridge products
- * hardware requirements: one free cartridge slot

KEYLIGHTS CARTRIDGE The KEYLIGHTS CARTRIDGE adds status indicator lights for three important modes: caps lock, num lock, and scroll lock. * plugs into either cartridge slot

- * three LED status lights mounted in the cartridge
- * hardware compatibility: requires one free cartridge slot

* software compatibility: no interference with any other cartridge

PROGRAM CARTRIDGE DEVELOPMENT SYSTEM

The PCDS allows you to write and debug programs designed for the three types of cartridges defined:

- Initial Program Loadable (IPL) given control when the PCjr is first turned on. Most games are of this type. Programs should be written in Assembly Language. (Assembler not provided)
- DOS Command Cartridge (DOS) adds DOS commands to the PCjr's vocabulary. The IBM Cartridge BASIC is an example that adds two DOS commands: BASIC and BASICA. Programs should be written in Assembly Language. (Assembler not included)
- 3. BASIC Programs (BASIC) given control when IBM cartridge BASIC is activated by powering up without a disk, or typing BASIC or BASICA at the DOS prompt. Programs are written and debugged in BASIC. Requires IBM cartridge BASIC. (not provided)
- * 8K, 32K, or 64K of RAM at segment D000H
- * external select switch (great for debug)
- * programming aids and example programs
- * hardware requirements: one free cartridge slot and access to the side I/O channel
- * software requirements: uses address space that may conflict with some cartridge software

PROGRAM CARTRIDGES: These cartridges allow permanent storage of your PROGRAM CARTRIDGE DEVELOPMENT SYSTEM programs.

Cartridges are made from your program diskette.

* 8K, 32K, or 64K of EPROM at segment D000H

* debug programs using the PROGRAM CARTRIDGE DEVELOPMENT SYSTEM

* EPROM programmed from your diskette

ROM-CLOCK \$	39.95
SLOT-CLOCK	59.95
KEYLIGHTS CARTRIDGE	18.95
PROGRAM CARTRIDGE DEVELOPMENT SYSTEM (8K)	54.95
PROGRAM CARTRIDGE DEVELOPMENT SYSTEM (32K)	84.95
PROGRAM CARTRIDGE DEVELOPMENT SYSTEM (64K) 1	24.95
PROGRAM CARTRIDGES (8K)	29.95
PROGRAM CARTRIDGES (32K)	34.95
PROGRAM CARTRIDGES (64K)	49.95

Quantity Purchase Discounts available.

DUAL FONTS -- now marketed by Paul Rau Consulting and PC Enterprises. THIS PRODUCT IS NO LONGER AVAILABLE FROM SYNECTICS !!!!

The DUAL FONTS package gives you a choice of two HARDWARE fonts: one that is similar to the original IBM font, and a new font that is much easier to read under most conditions. The new font uses thinner lines allow more readable characters. This makes reading 80 column text and numbers on a PCjr Color Display a pleasure - not a strain. Since there are some color combinations of text and background that make the characters hard to read, you can simply toggle between the two fonts and determine which one you like the best.

* two hardware fonts for improved readability

- * easy 'hot-key' toggling between fonts
- * does not interfere with any PCjr hardware
- * no soldering required
- * software compatibility: does not use any dedicated address space
- * hardware requirements: replaces the character generator ROM (must be socketted for easy installation)

The HotROD CARTRIDGE is a fast access 64K Read Only Disk. Once installed, it acts like a read-only hard disk.

To determine which files you want to put on your HotROD cartridge, you first install the HotROD ram disk on your PCjr with the provided software. The ram disk allows you to test out your programs, and see how they will fit in the HotROD cartridge. When you have the HotROD ram disk set up the way you want the cartridge to look, just save the ram disk in a special file (with the provided program). Mail this file to Synectics, and we will mail you a HotROD cartridge with your programs permanently installed.

* 64K fast access Read Only Disk (62K free for programs)

* red access indicator LED (works like the one on your disk drive)

- * set up and test in RAM before you order the HotROD cartridge
- * software compatibility: uses address space that may conflict with some cartridge software. The LOW memory version (D0000-DFFFF) works with Cartridge BASIC, and the HIGH memory version (E0000-EFFFF) works with PCDS cartridge

* hardware requirements: requires one free cartridge slot

QUICKSILVER CARTRIDGE

The QuickSilver cartridge is designed to make your PCjr power up quickly and silently and run more PC programs than it ever could before!

The PCjr is notorious for the amount of time it takes to go through the memory check and the annoying beep that follows. The QuickSilver cartridge replaces the PCjr's memory test with a new test that is fast and efficient. This new test is over 16 times faster: the equivalent of a 76 MHz PCjr without this cartridge. The PCjr uses the beeper to signal both successful boot and boot failure. The QuickSilver cartridge changes all this, so that beeps only occur on a real error.

Whenever the QuickSilver cartridge is installed, the PCjr's keyboard BIOS is modified to make it work like a PC (senior). This allows your PCjr to run some programs that previously only worked on a PC.

This cartridge works in either slot, works with all other cartridges, does not use any program memory, and does not need any supporting software programs.

\$29.95 for the 'normal' cartridge
\$34.95 for the fast components cartridge (guaranteed to work at 8MHz)

California residents add 7% sales tax. Postage and handling for all orders add \$2.00 (COD orders add \$3.50) Charge cards not accepted. Allow two weeks for personal check clearance. Orders accompanied by a cashier's check or money order are processed immediately. 9747 Businesspark Avenue 20 Mb. drive price updated 6/88 San Diego, California 92131 (619) 693-8611 (800) 345-0824

DISKITjr HARD DRIVES

Using the side bus of the PCjr and interface card of their own design, SPC has produced one of the most flexible systems for adding a hard disk to your PCjr. The company provides over the phone support to install and format their disks. They have gone to great lengths to fix any problems, be it hardware or software. The DISKITjr comes complete with controller sidecar, chassis with power supply, and drive. A boot prom is expected to be available shortly. SPC often has special sales on their products, so it is best to check with them on price.

Following are highligts from recent SPC brochure: IBM/PC Compatibility--If you ever decide to upgrade to any PC/XT compatible just call SPC and arrange for a swap to an XT-compatible booting controller. Your Diskit will NEVER BECOME OBSOLETE, and there's NO CHARGE.

Upgrade flexibility--installation software is menu-driven, so you can easily install a higher capacity Winchester in the future.

REMEDY OPTION--For a system with ever-expanding storage requirements, the REMEDY drive allows the user to remove the entire 20mb. file and replace it with another. It offers the same capability as the popular Bernoulli Box, but at a fraction of the cost.

Compatibility: The Diskitjr will work in conjunction with almost all other vendor's add-on products. The Diskitjr side-car simply plugs into the jr's 60 pin expansion bus on the side and connects to the drive with a cable pair. It works with Tecmar, Quadram, Impulse, Racore (non-DMA), Microsoft, etc.

PRICES: Terms are COD cashier's check or prepayment by mail (5% discount with order). Add \$15 for UPS 2 day delivery, or \$25.00 for next day air. Prepaid orders or orders with deposits receive first priority.

65 mil	lisecond	access drives
Diskitjr 20L	\$595	20 megabyte\$545 as of 6/88
Diskitjr 30L	\$795	30 megabyte
35 millisecond		access drives
Diskitjr 20H	\$745	20 megabyte
Diskitjr 30H	\$945	30 megabyte
Diskitjr 40H	\$995	40 megabyte

Remedy removable drive option add \$195.00

SPC has a one year warranty on all items. SPC reserves the right to repair or replace equipment under warranty. A one year warranty extension period is available and will be quoted at time of order.

| SPC also carries the ES Quality Products jrHotShot product line, which | is compatible with SPC products. TECMAR INC. (updated 04/02/88) 6225 Cochran Road Solon, Ohio 44139 (jrCaptain price updated as of 3/31/88) (216) 349-0600 (216) 349-1009 jrCaptain order line (800) 624-8560 ext. 403 jrCaptain toll-free order line

| Tecmar has resumed manufacturing the jrCaptain memory sidecar. | They are selling it direct for a price of \$275, plus shipping as of | March 31. Due to the volatility of the price of 256K memory chips, | this price is subject to change on almost a day-to-day basis.

The jrCaptain board provides 512K additional RAM for PCjr, along with power supply, clock/calendar, parallel printer port, and the "Treasure Chest" of software, giving you RAMdisk, video RAM setup, access of the clock and several utility programs, including print spooler, Rolodex(tm), and more.

True Data Products Updated 04/06/87 115 South Main P. O. Box 347 Uxbridge, MA 01569 (VISA, MasterCard add 3%) (800)-635-0300, (617)-278-6555

This firm offers a second diskette drive at a price of \$199.95 including case with power supply, adapter, cable and software. New--3.5 inch (720K) diskette drive, power supply, case, adapter, cable and software. Adapter, software and cable alone (no drive or case) \$89.95 They are also a source of cases for addon drives... Dual half-height case with power supply \$54.95 Filler panel for half-height drives 3.00 Hard drive cases \$119.95