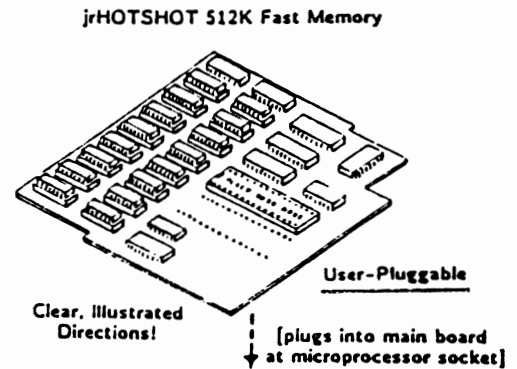# The jrHOTSHOT Multi-function Upgrade Plug-ins for your PCjr

Easy to Install ...new from ES Quality Products

512K or 256K jrHOTSHOT Fast Memory Plug-ins

Adds fast, contiguous memory at addresses 129K and above.
Fast Memory increases the PCjr performance to the level of a PC/XT as proven by the speed measurement program sent along on a diskette. If you have a 128K PCjr, the 512K plug-in gives you contiguous memory from 0-640K, or with the 256K upgrade you'll have contiguous memory from 0-384K. No additional power supply is needed.

Simple "device driver" software supplied with the upgrade should be copied once onto your DOS diskette so the Fast Memory is instantly recognized by DOS whenever you turn on your PCjr. The driver works elegantly and transparently. This software also gives your PCjr an 80-column screen immediately. It's easy, especially since everything is fully explained by illustrated directions.
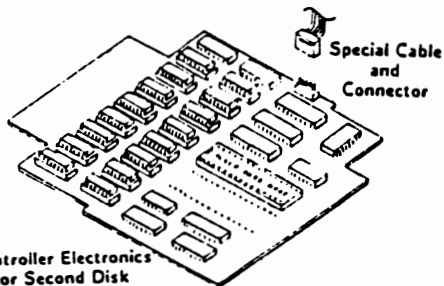
jrHOTSHOT 512K Fast Memory

Clear, Illustrated Directions!

User-Pluggable

[plugs into main board at microprocessor socket]

512K jrHOTSHOT Fast Memory: _____   256K jrHOTSHOT Fast Memory: _____

P.S. A ramdisk program works great with the Fast Memory to give you a super-fast "ramdisk" (sometimes called a virtual disk) as drive C:, much like a hard disk would be drive C:.

jrHOTSHOT RAMdisk program: **N/C** _____

Diskette Controller Plug-in and Cable for second (external) floppy disk

jrHOTSHOT with Second Disk Ctrlr/Cable Option

Special Cable and Connector

Controller Electronics for Second Disk

You can have this useful Controller plug-in alone or as an option to any jrHOTSHOT Fast Memory. Either way, this makes it easy to add a second floppy drive to your PCjr. No additional power supply is needed for this plug-in. We can suggest several economical sources, such as **Paul Rau Consulting (209) 745-9284** that have the external floppy drive housed in a case with power supply for the drive.

As option to Fast Memory: just $49   Alone: just $79

Real-Time Clock/Calendar Plug-in with Lithium Battery Backup

As an option to any Fast Memory or by itself, this is a super clock/calendar with lithium battery. We used the best clock chip possible... it stays accurate even through leap years! Lithium battery has large Ampere-Hour rating for long, long life when the computer is off.   Clip holds battery to allow replacement.   With software provided, setting the time is simple, and your PCjr will automatically read the time and date whenever switched on. This is so convenient to have, and the time/date stamps on your files will always be accurate and reliable. You'll know which file is the latest version, etc. No additional power supply is needed for this clock/calendar.

jrHOTSHOT with Clock/Calendar Option

Lithium Battery [in clip]

Clock Chip
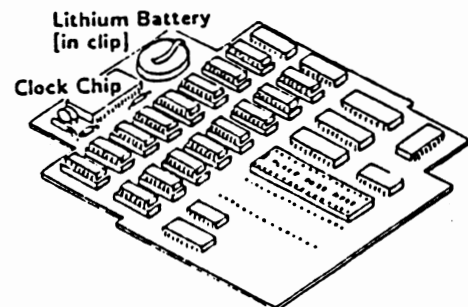
As option to Fast Memory: just $39   Alone: just $59

COMPATIBLES BY PAUL RAU CONSULTING

BASE SYSTEM DESCRIPTIONS

XT Type (8088 processor)

All systems come with an AT type case and 150 watt power supply. The case has an LED for power, turbo, and hard drive. It also has a keylock and reset button. All models run at 4.77 Mhz and at the turbo speed. Installed is 256k expandable to 640k and one 360k diskette drive and comes with a 101 key enhanced keyboard. The motherboard also has a socket for an 8087 math coprocessor chip.

```
10 Mhz, ......$ 549
12 Mhz, ......$ 599
```

AT Type (80286 processor)

All systems come with an AT type case and 200 watt power supply. The case has an LED for power, turbo, and hard drive. It also has a keylock and reset button. All models run at 6 Mhz and at the turbo speed. Installed is 512k expandable to 1 MB and one 1.2 meg diskette drive and comes with a 101 key enhanced keyboard. The motherboard also has a socket for a math coprocessor chip.

```
10 Mhz, ......$ 949
12 Mhz, ......$1049
16 Mhz, ......$1349
```

386 Type (80386 processor)

386 systems are the same as the AT type except that they have the 80386 processor and the motherboard is expandable to 8 MB.

```
16 Mhz .......$2149
```

OPTIONS

```
Memory 640k (XT type only) ...................................$ 150
Memory 640k (AT type only) ...................................$ 100
Memory 1 MB DYNAMIC RAM, ZERO WAIT STATE (AT type only) .....$ 350
Memory 1 MB STATIC RAM, ZERO WAIT STATE (AT type only) ......$ 550
20 meg hard drive ...........................................$ 319
30 meg hard drive ...........................................$ 369
40 meg hard drive ...........................................$ 449
Monochrome (amber) monitor and card .........................$ 169
CGA (color) monitor and card ................................$ 399
EGA (enhanced color) monitor and card .......................$ 599
360k 5.25" diskette drive ...................................$  99
1.2 MB 5.25" diskette drive .................................$ 129
720k 3.5" diskette drive ....................................$ 149
Multifunction card (clock,serial, parallel, and game port) ..$ 129
MS-DOS 3.3  & GWBasic .......................................$  99
CGA Monitor card ............................................$  99
```

Call for info on other options like modems, mice, tape backups, printers, memory chips, math coprocessor chips, motherboards, laptop computers, local area network, and others.

DUE TO FLUCTUATING MEMORY CHIP PRICES AND OTHER UNCERTAINTIES IN THE COMPUTER MARKET, PRICES ARE SUBJECT TO CHANGE. PLEASE CALL FOR CURRENT PRICES.

HARD DRIVES

20 MEG HARD DRIVE SYSTEM ....$579 $ 9
   20 meg hard drive system by Paul Rau Consulting. The hard drive is
housed in a metal external case that measures 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 are two
slots in the front, one for the first 20 meg a second slot with a
removable tray for a second 20 meg if you should need it. On the front
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 hard drive package comes with
hard drive utilities including a menu system and a backup program.
(Option: A smaller hard drive case (5.5" high x 7" wide x 15" long) is
also available.)
(Option: Hardbios jr cartridge to allow boot from hard drive.. $79)

40 MEG HARD DRIVE SYSTEM ....$839 $ 9
   As above with two 20 meg hard drives.

20 MEG HARD DRIVE SYSTEM WITH 5.25" FLOPPY DRIVE ....$779 $ 9
   Same as 20 meg hard drive system with 5.25" floppy drive in second
slot. Jr Hotshot controller included.

20 MEG HARD DRIVE SYSTEM WITH 3.50" FLOPPY DRIVE ....$829 $ 9
   Same as 20 meg hard drive system with 3.50" floppy drive in second
slot. Jr Hotshot controller included.

Separate Hard Drive Components

SCSI Host adapter (internal modem card), cable, software..$115 $ 3
SASI Controller card with ST-506 interface ....$125 $ 3
External hard drive cabinet with power supply ....$165 $ 9
Seagate ST-225 20 meg bare hard drive ....$249 $ 3

MODEMS

EX-1200   1200 baud external modem......................$ 99 $ 6
EX-2400   2400 baud external modem......................$209 $ 6

All modems are 100% Hayes compatible and will run Procomm, Qmodem,
PC-Talk, etc. They all have auto-dial, and auto-answer and will run
a bulletin board. The EX-1200 and 2400 also have a speaker.
The EX-1200 and 2400 come with free Compuserve access time and have
a 2 year warranty. Both external modems need a JR-232 adapter cable
to run on a PCjr. Cable listed below.

CABLES

PC-JRMON   USE YOUR PC WITH THE PCJR MONITOR ....$ 39 $ 4
JR-PCMON   USE A PC STYLE MONITOR WITH A PCJR ....$ 19 $ 4
PC-CEN   STANDARD 6 FT CENTRONICS PRINTER CABLE ....$ 15 $ 4
PC-232   STANDARD 9 FT SERIAL MODEM CABLE ....$ 15 $ 4
JR-232   JR SERIAL ADAPTER - PCJR TO RS232 (8 FT)......$ 19 $ 4
JR-KB   PCJR KEYBOARD CABLE - 6 FT ....$ 15 $ 4
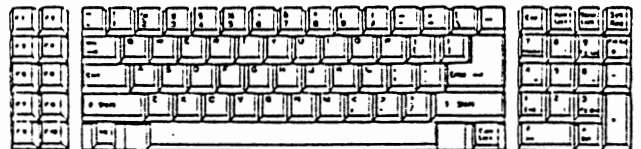
KEYBOARDS

JR DATADESK PC 8700 KEYBOARD ....$130 $ 6
AT style keyboard with extra large,
ENTER and SHIFT keys, and Caps Lock
Num Lock, and Scroll Lock indicator
lights. Separate function keys located
on the left, and numeric keypad on the
right of the keyboard.
Comes with PCjr adapter cable.
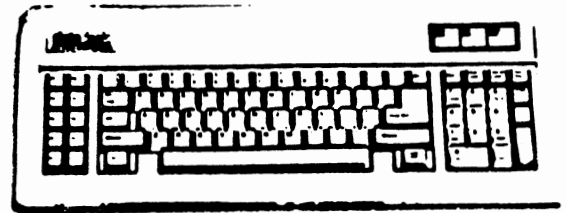
JR DATADESK TURBO 101 KEYBOARD ....$159 $ 6
New enhanced AT style keyboard with
extra large ENTER, SHIFT & CONTROL keys.
Separate cursor control and numeric keypad.
Twelve function keys across the top.
Comes with PCjr adapter cable.
(Option: Borland's Turbo Lightning
software $20 extra)
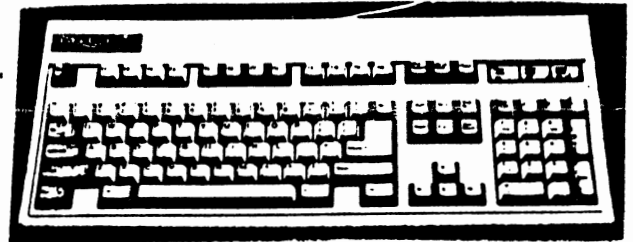
RACORE M9102 KEYBOARD ....$129 $ 6
AT style keyboard with large-sized SHIFT
and ENTER keys. Seperate function keys on
located on left, and numeric keypad on
the right of the keyboard.
Comes with PCjr adapter cable.

Miscellaneous

Racore M3200	Keyboard adapter cable	$ 49	$ 3
V-20	V-20 Chip (Speeds up JR)	$ 18	$ 3
KBB	Keyboard Buffer Cartridge for JR............	$ 29	$ 3
CLK-ROM	Clock calendar chip for motherboard	$ 39	$ 3
CLK-CART	Same as above except a cartridge...........	$ 59	$ 3
NEX-JR	8MHz Nickel Express Jr turbo board	$ 79	$ 3
Q-5	Quicksilver fastboot cartridge 5 MHz.......	$ 30	$ 3
Q-8	Quicksilver fastboot cartridge 8 MHz.......	$ 35	$ 3
IBM WPT	Wall Plug Transformers......................	$ 25	$ 3

------------------------ SEPTEMBER SPECIALS ------------------------

20 MEG HARD DRIVE SYSTEM (IN SMALL CASE)..............$559 $9

RACORE M9102 KEYBOARD WITH ADAPTER CABLE FOR JR.......$119 $6

Paul Rau Consulting   VOICE   (209) 745-9284   9 AM TO 4 PM PST
P.O. BOX 682
260 N. Lincoln Way   DATA   (209) 745-9284   5 PM TO 8 AM PST
Galt, CA 95632

***************** NEW PRODUCTS FOR YOUR JR ******************

-------------- SIAMESE SLOTS --------------

The SIAMESE SLOTS cartridge adapter is a unique solution to the growing
problem of only having two cartridge slots in your PCjr. The cartridge
adapter plugs into either slot and allows TWO cartridges to be plugged into
the adapter: TWO cartridges in one slot! By inserting one adapter in each
slot, the PCjr is now capable of using FOUR cartridges simultaneously.

This is the perfect product if you wanted a QuickSilver cartridge but could
not give up a slot. The QuickSilver cartridge is compatible with ALL other
cartridges, so you know it will work and now you have the space!

The SIAMESE SLOTS cartridge is available now from Paul Rau Consulting for
$25.00 plus $3.00 shipping and handling.

++++++++++++++++++++++++++++ LOGITECH MOUSE +++++++++++++++++++++++++++++++++++

We've added a mouse to our product line. The mouse we carry is the two button
Logitech Serial Mouse. Logipaint Paint show software is included in the
package. The Logitech Mouse and Logpaint Paint show sells for $89.00 plus
$3.00 shipping and handling. Jr Serial adapter cable is required.

==================== NICKEL EXPRESS JR   up to 8 MHZ ! =========================

The Nickel Express JR turbo boards are ready. The cost is $79.00 plus
$3.00 shipping.
There are some compatibility issues to deal with regarding the Nickel
Express JR. First, the IBM sidecars that we tested worked well on the fast
speed which is 8 MHz. The JR Hotshot is now compatible. It works on
the medium speed setting, which is 7.37 MHz.
The turbo board works fine with Racore DMA in the medium speed setting,
which is 7.37 MHz. We have tested the Nickel Express JR with a few Tecmar
boards with success about half of the time. The ones that did work had
to be set on the slow jumper, which is 6.66 MHz.
The 128k PCjr works on the slow setting but is not much of an increase
because software is needed to rearrange the video buffer which
of course does not work with 128k.
We have tested a few Impulse, Micro Products sidecars. They do work
on the medium speed setting but because of the software used with these
boards the speed is somewhere under 7.37 MHz.
All software that we have tested works fine including a few word processors,
data base, and spread sheet programs. I cannot test every piece of software
available, but if there is a problem with a particular one, you can always
toggle the turbo mode off to run it.
Included in the package is a program which allows you to load the software to
drive the turbo board. It is of the TSR type, which means Terminate and
Stay Resident. This means you type the name of the program (TURBOJR) and
it loads and is resident for you to toggle back and forth by pressing
left shift and alt. Press the same key combination again and it toggles
the software again.
To install the Nickel Express JR, you will need to desolder the 8284
clock chip and solder a socket in its place. Only a skilled technician
should perform this task. If you feel uncomfortable with this step,
you can send your computer to Paul Rau Consulting and we will do the
soldering, install it, test it, and return it to you for $30.00.

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*************** NEW PRODUCTS FOR YOUR JR ******************

--------- HARD DRIVES --------
```

   The hard drives by Paul Rau Consulting are now available in three
different cases. The first type case is the original one that is so popular.
It is the one with four swithches in the front that run four outlets in the
back. It measures 19" wide by 3.5" high by 15" deep. It is surge protected
and has room for a second hard drive, should you decide to add one later.
The 20 meg price is $579 plus $9 shipping and handling.

The second type case is a smaller one measuring 5.5" high by 7" wide by
15" deep. It is also capable of housing a second hard drive, should you
decide to add one later. The 20 meg price is $559 plus shipping and handling.

The third type case is of the kind that sits on top of the PCjr, very much
like the Racore type. It is designed to look like part of the PCjr. It
measures 14" wide by 3" high by 11.5" deep. It is $599 plus s & h.

```
============== SELF BOOT CARTRIDGE NOW AVAILABLE FOR HARD DRIVES ===========
```

        A new cartridge has been developed to allow a PCjr hard drive
        to boot directly from the hard drive. This new cartridge is
        called Hardbios Jr and works with all hard drives systems
        sold by Paul Rau Consulting. It will also work with any Rim
        Electronics host adapter.

        This concept was developed to allow the hard drive device
        driver to be loaded to allow a faster boot time. There are
        other advantages that can be realized. First, the hard drive
        operates slightly faster. Also, booting from the hard drive
        saves wear and tear on the diskette drives.

        The cartridge is available now from Paul Rau Consulting for
        $79.00 plus $3.00 shipping and handling.

```
======================== 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 76MHz PCjr without this
cartridge. The PCjr uses the beeper to indicate whether the boot was
successful or not. The QuickSilver Cartridge only eliminates the annoying
beep that warns you of no errors! Any beeps that signal a real error
condition are faithfully reproduced. 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. You can purchase the QuickSilver Cartridge for only
$30.00. A QuickSilver cartridge with very fast components (for an 8MHz PCjr)
is available for $35.00.

                        Paul Rau Consulting
                        P.O. BOX 682
                        260 N. Lincoln Way
                        Galt, CA 95632

```
                    *** PRICES ***
                  ------------------------
                    MEMORY for PCjr
       jr HOTSHOT                             price    shipping

HS-512         512K MEMORY                    $249       $3
HS-256         256K MEMORY                    $169       $3
HS-512CLK      512K WITH CLOCK-CALENDAR       $268       $3
HS-256CLK      256K WITH CLOCK-CALENDAR       $208       $3
HS-512DIS      512K WITH DISK CONTROLLER & CABLE  $278   $3
HS-256DIS      256K WITH DISK CONTROLLER & CABLE  $208   $3
HS-512CLKDIS   512K / CLOCK-CAL / CONTROLLER & CABLE  $309  $3
HS-256CLKDIS   256K / CLOCK-CAL / CONTROLLER & CABLE  $249  $3
ES PPP         PARALLEL PRINTER ATTACHMENT    $ 85       $3


(The jr Hotshot memory board  fits into the 8088 microprocessor socket
and provides fast memory. Ramdisk software included at no additional
cost.  See back page for more detailed information)
THE PRICE ON MEMORY CHIPS IS SO UNSTABLE AT THIS TIME THAT OUR MEMORY
BOARD PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.  IF THERE IS A PRICE
CHANGE WHEN WE RECIEVE YOUR ORDER WE WILL CALL AND CONFIRM THE PRICE
BEFORE SHIPPING.


      SIDECAR MEMORY

M-230          SIDECAR MEMORY WITH OK             $145    $6
M-231          SIDECAR MEMORY WITH 256K           $210    $6
M-232          SIDECAR MEMORY WITH 512K           $299    $6
M-250          SIDECAR MEMORY WITH OK, CLOCK-CALENDAR  $170  $6
M-251          SIDECAR MEMORY WITH 256K,CLOCK-CALENDAR $225  $6
M-252          SIDECAR MEMORY WITH 512K,CLOCK-CALENDAR $314  $6
M-241          PARALLEL PRINTER PORT             $ 85    $6
(The sidecar memory attaches on the right side of the computer.  It can
be added in addition to the printer port. Ramdisk software included)


To order fill in form and mail to us or call between 9 AM and 4 PM PST.
(209) 745-9284  9 AM to 4 PM PST        BBS (209) 745-9284 5 PM - 8 AM
--------------------------------------------------------------------------
  SOLD TO: _____    Please Check One
  ADDRESS: _____    ___ Check enclosed
  CITY   : _____STATE___ZIP_____   ___ Money Order
  PHONE  : _____    ___ Visa or Mastercard

  QTY              DESCRIPTION              UNIT PRICE    EXTENDED
 _____ _____  _____  _____
 _____ _____  _____  _____
 _____ _____  _____  _____
 _____ _____  _____  _____
 _____ _____  _____  _____
 _____ _____  _____  _____


MAIL TO:                              SUBTOTAL  _____
PAUL RAU CONSULTING       6% TAX (CALIF RESIDENTS) _____
P.O. BOX 682                   4% CREDIT CARD FEE  _____
GALT, CA  95632-0682          SHIPPING & HANDLING  _____
                                    COD CHARGES    _____
Credit card customers (Visa & Mastercard only)  TOTAL  _____
Name as printed on card _____
Credit Card # _____
Expiration Date _____


All prices listed are cash prices, please add 4% for credit card use.
For COD orders add an additional $5.00.  Prices subject to change.
```

DISK DRIVES

RACORE DRIVE 2 PLUS WITH DMA PLUS 512K MEMORY $500 $12
   5.25" 360k drive with direct memory access, clock-calendar, printer
port, ram disk software and a PC/PCJR switch which increases
compatibility with the PC software. Comes in a cabinet that is 2" high
and sits directly on top of the PCjr. Includes 512k memory.

RACORE DRIVE 2 PLUS SYSTEM WITH DMA $339 $9
(Same as above but without 512k memory)

RACORE DRIVE 2 PLUS (WITHOUT DMA) PLUS 512K MEMORY... $457 $12
   5.25" 360k drive with clock-calendar, printer port, ram disk software
and a PC/PCJR switch which increases compatibility with the PC software.
Comes in a cabinet that is 2" high and sits directly on top of the PCjr.
Includes 512k memory.

RACORE DRIVE 2 PLUS WITHOUT DMA $292 $9
   (Same as above but without 512k memory)

Racore M2101   256k memory for Racore Drive 2 Plus $139 $ 3
Racore M2103   512k memory for Racore Drive 2 Plus $175 $ 3

JR HOTSHOT TYPE EXTERNAL 2ND DRIVE WITH 512K MEMORY ..$478 $ 9
   5.25" 360k external drive in metal case measuring 3.5" wide x 6" high x
13" deep. It has its own power supply and uses the jrHotshot controller.
JrHotshot 512k memory included.
(Add $20 for custom case that fits on top of PCjr)

JR HOTSHOT TYPE EXTERNAL 2ND DRIVE....................$239 $ 9
   (Same as above but without 512k memory)

2ND DRIVE ....$179 $ 9
   5.25" 360k external drive in metal case measuring 3.5" wide x 6" high x
13" deep. It has its own power supply. Does not come with controller.

REPLACEMENT DRIVE ....$ 99 $ 6
   5.25" 360k direct drive.

3.50" EXTERNAL DRIVE ....$239 $ 9
   3.50" 720K external drive in metal case measuring 3.5" wide x 6" high x
13" deep. It has its own power. No controller. Comes with a device
driver to allow you to use DOS 2.1. This is very handy as it does not
force you to upgrade to DOS 3.2.

JR HOTSHOT TYPE EXTERNAL 3.50" DRIVE ....$299 $ 9
   3.50" 720k external drive in metal case measuring 3.5" wide x 6" high x
13" deep. It has its own power supply and uses the jrHotshot controller.
Comes with a device driver to allow you to use DOS 2.1. This is very
handy as it does not force you to upgrade to DOS 3.2.
(Add $20 for custom case that fits on top of PCjr)

REPLACEMENT DRIVE ....$149 $ 6
   3.50" 720k replacement drive.

DISKS ....$ 25 $ 3
   3.50" Dual sided 720k diskettes - 10 pack