

# The HP-92 Investor.

**It Places Financial Alternatives  
At Your Fingertips...**

LIST  
240.00 n  
0.77 i  
25000.00 PV  
14595.42 FV  
-250.00 PMT

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# The HP-92 Investor Offers Solutions For The Professional In Finance.

The new Hewlett-Packard HP-92 is a personal-sized financial calculator that offers preprogrammed solutions for institutional investors, financial consultants, real estate analysts, loan officers, leasing salesmen, accountants, and other professionals examining investment alternatives.

The HP-92 Investor solves problems involving time and money. Compound interest. Balloons. Internal rate of return for 30 uneven cash flows. Net present value. Bonds and notes. Three kinds of depreciation.

## Prints Solutions Quickly and Quietly

The quiet printer on the HP-92 gives you answers quickly and quietly—with descriptive labels. Whether recording your keystrokes, printing amortization and depreciation schedules, or listing all the cash flows in an IRR problem, the HP-92 Investor gives you that

indispensable hard copy for instant analysis or later perusal.

## Operates With Ease

With all its financial power, the HP-92 Investor is remarkably easy to use. An important new design lets you state any problem in a simple, intuitive manner, so you don't have to remember handbook instructions. Whether your profession calls the problem a mortgage with a balloon payment or a lease with a buy back (or residual), it's the same thing to the HP-92—and you can easily solve it.

The HP-92 lets you examine investment alternatives quickly, easily, and accurately. You can key in the elements of a problem in any order—and if you want to change one of those elements, you can do it with a single keystroke. You don't have to key the entire problem in again, so you can rapidly look at a wide variety of investment mixes.

The adding-machine style keyboard is built for quick and easy data entry. You can see your answers in the large, easy-to-read display and you can also print them with the whisper-quiet printer. And all functions on the HP-92 Investor are built into the machine—**there's no programming to learn.**

## Yet Is Compact And Portable

The HP-92 Investor is so small that it takes up only a corner of your desk or fits in your briefcase ready to produce those investment answers you need—any time. You don't have to wrestle with mortgage and bond yield tables or wait for a computer terminal. And with all its powerful computational capability the HP-92 is completely portable. You can operate it from the rechargeable batteries inside its case or from an ordinary AC outlet—the HP-92 gives instant financial analyses whether you're at your desk, in a boardroom, even traveling across the country.

# See How Easily The HP-92 Gives You Financial Solutions:

## Solution of an Annuity With a Balloon.

You are weighing the purchase of a \$50,000 note which has a remaining term of three years, and from which you will receive monthly payments of \$1100 and a balloon payment of \$25,000 at the end of the 36th month. If you require a 14% return on this type of investment, should you purchase the note?

The HP-92 Investor provides a solution to this problem with very few keystrokes. Simply key in the present value, the term of the note, the payment amount, and the balloon amount.

The printed tape with mnemonics is shown:

Present value is shown as negative since it represents cash paid out.

Number of years is keyed in and converted to months.

Payment amount is entered. Balloon amount is entered as the future value.

The calculator has been set for an ordinary annuity since payments are made at the end of the month.

i is pressed to solve for yield, and the answer is shown as monthly yield.

Multiply by 12 for the annual rate.

Since this yield is below your desired return, you would probably not purchase the note at this price. What price would be acceptable to achieve a 14% yield?

Desired yield is keyed in and divided by 12.

Acceptable purchase price is computed and shown. Value is printed as negative as it is representing money paid out.

```
-50000.00  PV  
3.00 12X  
1100.00  PMT  
25000.00  FV  
END  i  
1.05  ***  
12.00  X  
12.60  ***
```

```
14.00  12÷  
END  PV  
-48650.95  ***
```

## Solution of an Internal Rate of Return.

You are considering an investment in an office building that costs \$165,000. What is your internal rate of return (that is, the yield on the investment) if the estimated net after-tax cash flows received during the next five years are as follows:

Year	Cash Flow	
1	-\$ 10,500	Additional expenditure.
2	\$ 20,350	
3	\$ 29,700	
4	\$ 38,470	
5	\$210,000	Property sold in 5th year.

Simply enter the cash flows in sequential registers along with the selling price in the final register. Indicate number of periods, press IRR.

The annual rate of return on your investment is given as 12.97%.

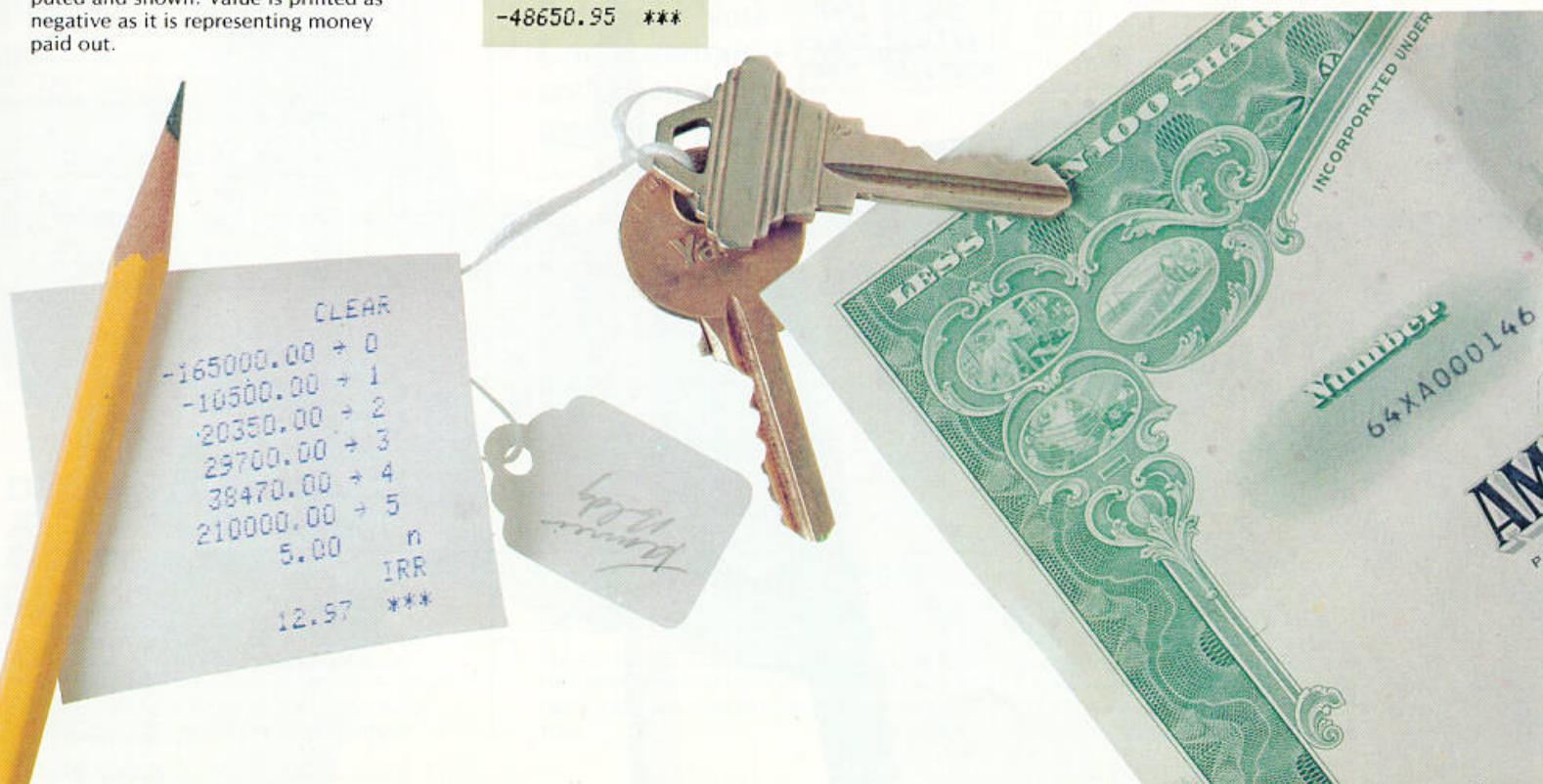
In this problem, we've shown you only five uneven cash flows; but remember that the HP-92 Investor can handle as many as 30 uneven cash flows when calculating internal rate of return or net present value.

## 15 Day Trial Offer

Try the HP-92 Investor to analyze your financial problems. Just return the enclosed order form and you will receive an HP-92 Investor with batteries, recharger, owner's handbook, and applications book—everything you need to begin sophisticated financial analysis.

If after 15 days you are not completely satisfied, merely return the calculator and its accessories for immediate refund in full.

To rush the order for your new HP-92 Investor, call us toll-free at 800-648-4711 (in Nevada, call 1-702-323-2704), extension 1000, and charge it to your credit card. Offer good in continental U.S.A., Alaska, and Hawaii.



# The Calculator With The Investment Answers You Need.

## Financial Functions That Solve Real-World Problems.

**n i PV FV PMT**

The HP-92 Investor solves complicated "real-world" problems involving compound interest, residuals and salvages, partial payments and balloons, wraparound mortgages, even internal rates of return based upon uneven cash flows.

All you need to do is key in any three or four of the values for **n** (number of compounding periods), **i** (interest rate), **PV** (present value), **FV** (future value) and **PMT** (payment)—in any order—followed by the appropriate financial key. Then press the key to solve for the unknown value.

If you know **n** or **i**, you can solve any problem which can be represented by an initial value, a series of payments, and a final value—or by any two of these. You need not remember formulas or handbook solutions. All the formulas you need are already preprogrammed into the HP-92 Investor. And a new design lets you state any problem in terms of cash flows—so your solutions are simple, flexible, and intuitive.

## Easy Comparison of Investment Alternatives.

If you want to change any of the parameters of a financial problem, you merely key in a new value and press the appropriate key; then press any other financial key to see the effect of the change—without restating the entire problem each time.

LIST	
120.00	<b>n</b>
0.81	<b>i</b>
250000.00	<b>PV</b>
-50000.00	<b>FV</b>
-3017.10	<b>PMT</b>
-3000.00	<b>PMT</b>
END	<b>FV</b>
-53447.66	<b>***</b>

And, because it can list the latest values for all financial elements at your command, the HP-92 Investor lets you print every investment alternative, whether for immediate comparison or later examination. So you can pick the right investment. Every time.

## Discounted Cash Flow Analysis for 30 Uneven Cash Flows.

**NPV IRR**

The HP-92 Investor calculates the net present value (NPV) and the internal rate of return (IRR) for up to 30 uneven cash flows. So you can evaluate whether to lease or buy equipment, balance the worth of an investment

with uneven cash flows against desired yield, compare investment alternatives based on their net present value—and more.

Once the cash flows have been entered into the HP-92, you can change one or any number of them without restating the complete problem—so looking at different investment alternatives is easy.

## Amortization Schedules by Simply Pressing This Key.

**AMORT**

The HP-92 Investor can print a complete amortization schedule, showing each period of a fully amortized loan with the amount paid to interest, amount to principal, and the remaining balance. Or it can print a partial schedule between any two periods. Labels identify each element of the schedule, and after the last period, the schedule shows the total amount paid to both interest and principal as well as the remaining balance on the loan.

10.00	<b>n</b>
8.75	<b>i</b>
250000.00	<b>PV</b>
0.00	<b>FV</b>
END	<b>PMT</b>
-38527.41	<b>***</b>
8.00	<b>P1</b>
9.00	<b>P2</b>
	<b>AMRT</b>
8.00	<b>P</b>
8571.54	<b>INT</b>
29955.87	<b>PRN</b>
68004.57	<b>BAL</b>

## Bond and Note Computations—Quickly and Accurately.

**PRICE YIELD CALL CPN**

The HP-92 Investor calculates price, yield, or accumulated interest on bills, notes, bonds, certificates, debentures, warrants, certificates of deposit, and other interest-bearing obligations—and the HP-92 meets the standards for accuracy demanded by the Securities Industry Association.

The HP-92 Investor can print all elements of a bond or note calculation, too, including: type of security (bond or note), position of day basis switch, coupon rate, issue and settlement dates, maturity date, price, and accumulated interest. The HP-92 is a complete calculator for securities analysis.

## Common Math Functions.

**LN e<sup>x</sup>**

The HP-92 Investor provides the most common mathematical functions—functions like logarithms, square root, and exponentials.

## Useful Percent Functions.

**%  $\Delta\%$**

The HP-92 gives you the most useful percent functions: percent, percent of sum, and percent of change.

## Versatile Depreciation Schedules.

**SL SOYD DB LIFE**

**BOOK FACT SAL**

Using the HP-92 Investor, you can easily compute depreciation using the straight line, sum-of-the-years'-digits, or declining balance method, and you can solve for the crossover. The HP-92 can print a complete depreciation schedule for the entire life of an asset, or it can calculate the depreciation allowance for a specific period.

DB	
1.00	<b>N</b>
1512.45	<b>DPN</b>
6049.78	<b>RDV</b>
2.00	<b>N</b>
1209.96	<b>DPN</b>
4839.82	<b>RDV</b>
3.00	<b>N</b>
967.96	<b>DPN</b>
3871.86	<b>RDV</b>

And once you've keyed in such elements as an asset's initial(book) value or its salvage value, you can examine each type of depreciation with a single keystroke—and compare all types of depreciation without reentering data.

## Needed Statistical Functions.

**X r**

The HP-92 Investor contains statistical functions for research and analysis. Both linear and non-linear trends can be closely examined, and mathematical models can be generated to make forecasts.

## A Built-In Calendar.

**DATE+DAYS**

7-11-1987

**SAT**

**ΔDAYS**

The calendar functions of the HP-92 Investor can determine a future or past date given the number of days from a known date. It also will print the day of the week for any date, and it calculates the exact number of days between dates.

## 30 Storage Registers For Data.

**STO RCL**

Besides the four-register operational stack used for mathematical operations, the HP-92 Investor has 30 addressable storage registers for data storage and recall—with storage register arithmetic on 10 registers.

# Here's A Small Sample Of The HP-92 Investor's Financial Power:

## Printed Amortization Schedule.

For tax purposes you wish to determine the interest paid on your 9.25%, \$47,000 mortgage between payments 25 and 36 inclusive. Your monthly payment is \$386.66.

9.25	12%
47000.00	PV
-386.66	PMT
25.00	P1
36.00	P2
AMRT	
25.00	P
357.36	INT
29.30	PRN
46330.96	BAL

⋮

34.00	P
355.26	INT
31.40	PRN
46056.88	BAL

35.00	P
355.02	INT
31.64	PRN
46025.24	BAL

36.00	F
354.78	INT
31.88	PRN
45993.36	BAL

366.90	ΣPRN
4273.02	ΣINT
45993.36	***

You can see how this amortization schedule is generated, and how the final items on the schedule show the amounts paid to both principal and interest during the desired time span, as well as the remaining balance.

## Solution of Bonds and Notes.

Calculate the price of a corporate bond with a settlement date of June 20, 1977, a maturity date of August 30, 1978, a coupon rate of 5.65% and a yield of 6.84%. (Calculated on 30 day month, 360 day year.) Enter the settlement date, maturity date, coupon rate, and yield. Press PRICE. The bond's accumulated interest and price are then printed.

6.201977	ST
8.301978	MT
5.65	CPN
6.84	YLD
BOND *360	PRC
1.74	AI
98.65	***

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10 11 12 13 14 15 16  
17 18 19 20 21 22 23  
24 25 26 27 28 29 30

# 29

# THE HP-92 INVESTOR FEATURES AND SPECIFICATIONS:

ALL MAN	—Controls printing of keyboard operations.
BEGIN NOTE	—Selects payments at beginning or end of month; or selects bonds or note calculations.
360	—Day basis switch for calendar, bond/note, and interest calculations.

## Compound Interest

[n]	—Stores or computes number of periods.
[12X]	—Converts number of periods from months to years.
[i]	—Stores or computes interest rate per compounding period.
[12÷]	—Converts interest from yearly to monthly rate.
[PV]	—Stores or computes present value (initial cash flow at the beginning of a financial problem).
[FV]	—Stores or computes future value (final cash flow at the end of a financial problem).
[PMT]	—Stores or computes payment amount.

## Discounted Cash Flow Analysis

[NPV]	—Computes net present value of future cash flows.
[IRR]	—Computes internal rate of return of series of up to 30 future cash flows.

## Bonds and Notes

[PRICE]	—Stores or computes price of bond or note.
[YIELD]	—Stores or computes yield (percentage) of a bond or note.
[IS, ST]	—Stores the issue and settlement dates of bond or note for calculations.
[MT]	—Stores the maturity date of a bond or note.
[CALL]	—Stores the call price or redemption value of a bond or note.
[CPN]	—Stores the coupon amount (percentage) for bond or note calculations.

## Depreciation

[STL]	—Calculates straight-line depreciation schedule.
[SOYD]	—Calculates sum-of-the-years digits depreciation schedule.
[DB]	—Calculates declining balance depreciation schedule.
[BOOK]	—Stores book value of an asset.
[LIFE]	—Stores depreciable life of an asset.
[SAL]	—Stores salvage value of an asset.
[N1]	—Stores the starting year for a depreciation schedule.
[N2]	—Stores the ending year for a depreciation schedule.

## Percentage

[%]	—Computes percent.
[△%]	—Computes percent of change between two numbers.
[%Σ]	—Computes percent one number is of a total.

## Calendar

2000 Year	—October 15, 1582 to November 25, 4046.
Calendar	—Computes a future or past date from a given date and a fixed number of days.
[Date + Days]	—Computes number of days between dates.
[Δ Days]	—Computes number of days between dates.
[g] [PRINT X]	—For a given date, prints its day of the week.

## Statistics

[Σ+]	—Automatically accumulates two variables for statistics problems: $\Sigma x$ , $\Sigma y$ , $\Sigma x^2$ , $\Sigma y^2$ , $\Sigma xy$ , and number of terms n.
[Σ-]	—Deletes statistical variables for changing or correction.
[x̄]	—Computes mean for x and y.
[s]	—Computes standard deviation for x, and y.
[L.R.]	—Linear regression of trend line.
[ŷ]	—Linear estimate.
[r]	—Correlation coefficient.

## Storage

[STO]	—Stores number in one of 30 storage registers. Performs storage register arithmetic upon 10 of the registers.
[RCL]	—Recalls number from one of 30 storage registers.

## Printing and Clearing

[AMORT]	—Prints amortization schedule.
LIST: [FINANCE]	—Prints all values for compound interest problems, bonds and notes.
[PRINT X]	—Prints contents of display.
LIST: [STACK]	—Prints contents of operational stack.
LIST: [REG] — [Σ]	—Together print contents of 30 addressable storage registers.
[CLX]	—Clears display.
[CL FIN]	—Clears financial functions for new problem.
[CL REG] [CLEΣ]	—Together clear 30 addressable storage registers.
[CLEAR]	—Clears entire calculator—display, operational stack, all storage registers, and financial functions.

## Number Entry and Manipulation

[ENTER↑]	—Separates numbers for arithmetic and other functions.
[CHS]	—Changes sign of displayed number or exponent.
[x↔y] [R↓] [R↑]	—Functions to manipulate numbers in operational stack.
[EEX]	—Enter exponent of 10.
[RND]	—Rounds actual number in display to number seen in display.
[LAST X]	—Recalls number displayed before last operation back to display.

## Mathematics

[y <sup>x</sup> ]	—Raises number to power.
[e <sup>x</sup> ]	—Natural antilogarithm.
[LN]	—Natural logarithm.
[√x]	—Square root.
[1/x]	—Reciprocal.
[+] [−] [x] [÷]	—Arithmetic functions.

## Physical Specifications

• Calculator width: 22.9 centimeters (9.0 in).
• Calculator length: 20.3 centimeters (8.0 in).
• Calculator height: 6.35 centimeters (2.5 in).
• Calculator weight: 1.13 kilograms (40 oz).
• Recharger/AC adapter weight: 170 grams (6 oz).
• Shipping weight: 2.7 kilograms (5 lb. 15 oz.)

## Temperature Specifications

- Operating temperature range: 0° to 45°C (32°F to 113°F); with paper, 5% to 95% relative humidity.
- Charging temperature range: 15° to 40°C (59° to 104°F).
- Storage temperature range: -40° to +55°C (-40° to +131°F).

## Power Specifications

- AC: Depending on recharger/AC adapter chosen, 115 or 230 V +10%, 50 to 60 Hz.
- Battery: 5.0 Vdc nickel-cadmium battery pack.
- Battery operating time: 3 to 7 hours.
- Battery recharging time: Calculator off, 7 to 10 hours; calculator on, 17 hours.

# THE HP-92 INVESTOR COMES COMPLETE WITH:

- Battery pack that under normal use provides 3 to 7 hours of continuous operation and fully charges in 7 to 10 hours.
- Recharger/AC adapter that lets you operate the calculator on ordinary house current while the battery pack is recharging.
- Attractive soft carrying case with handle.
- HP-92 Owner's Handbook—over 100 information-packed pages showing the operation of your HP-92 Investor.
- HP-92 Applications Book—with dozens of specialized applications for the Investor, in the areas of simple mortgages, consumer loans, depreciation, financial analysis, equity investment analysis. Canadian mortgages, statistics securities—and more!
- Two rolls of thermal paper for your HP-92.

## You can also get these optional accessories:

- Security cable and lock that let you secure your HP-92 to your work area.
- Reserve power pack that contains a spare battery pack and keeps it fully charged.
- Thermal paper (box of 6 rolls).

Details are available with the HP-92.

## Full One-Year Warranty\*

The HP-92 and its accessories are warranted against defects in materials and workmanship for one (1) year from the date of delivery. During the warranty period, Hewlett-Packard will repair or, at its option, replace at no charge, components that prove to be defective, provided the calculator or accessory is returned, shipping prepaid, to Hewlett-Packard's Repair Center.

This warranty does not apply if the calculator or accessory has been damaged by accident or misuse, or as a result of service or modification by other than an authorized Hewlett-Packard Repair Center. No other express warranty is given by Hewlett-Packard. **HEWLETT-PACKARD SHALL NOT BE LIABLE FOR CONSEQUENTIAL DAMAGES.**

\*A copy of the complete warranty is available upon request.

Hewlett-Packard reserves the right to make changes in materials, specifications, or accessories without notice.

Hewlett-Packard products are made by Hewlett-Packard facilities worldwide.

**HEWLETT**  **PACKARD**

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