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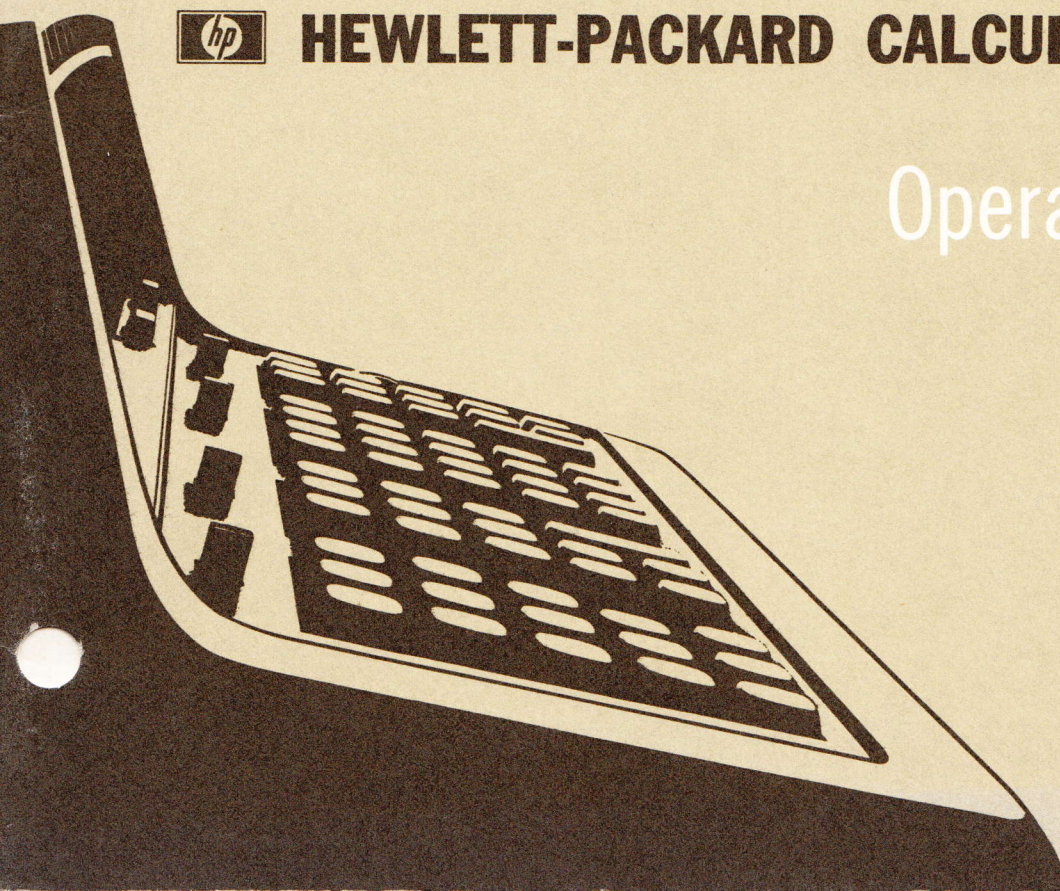
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3.5948  
1.9  
1.896  
1.37695  
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3.1415927  
1.8  
1.3313  
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99.9950  
9.9997  
3.16  
1.77827  
1.33351726  
255.828



# HEWLETT-PACKARD CALCULATOR PRINTER

Model 9120A

## Operating Manual



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3.89542  
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HEWLETT  PACKARD

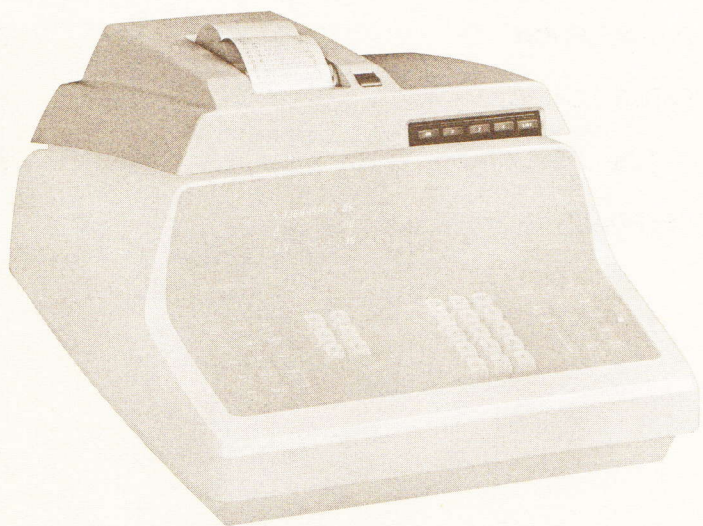
#### WARRANTY AND ASSISTANCE

The Hewlett-Packard 9120A Calculator Printer is warranted against defects in material and workmanship. This warranty applies for ninety (90) days from date of delivery. We will repair or replace components which prove to be defective during the warranty period. No other warranty is expressed or implied. We are not liable for consequential damages.

For any assistance contact your nearest Hewlett-Packard Sales and Service Office. Addresses are provided on the last pages of this manual.

# OPERATING INSTRUCTIONS

**HEWLETT-PACKARD 9120A  
SHOWN WITH 9100**



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KEYBOARD	

A member of the growing 9100 system's instrument family, the 9120A printer gives the 9100 series calculator printing power. The 9120A will print, singularly or in any combination, the contents of the calculator's X keyboard, Y accumulate, and Z temporary registers. The printer will also print the contents of the calculator's memory.

The Model 9120A requires either 115 or 230 volts AC  $\pm 10\%$ , 50 to 60 Hertz and approximately 45 watts of power. With the printer disconnected from the AC power source, slide the line voltage switch on the rear panel until the line is under the voltage to be used.

**CAUTION**

**THE 9100A CALCULATOR WILL OPERATE FROM A 400 HERTZ POWER SOURCE, THE 9120A PRINTER WILL NOT. DAMAGE COULD RESULT TO THE PRINTER IF 400 HERTZ POWER IS APPLIED.**

**CAUTION**

**DO NOT APPLY OPERATING POWER TO THE 9120A PRINTER UNLESS THE LINE VOLTAGE SWITCH ON THE REAR PANEL IS IN THE PROPER POSITION.**

Radio Frequency Interference (RFI) is generated by many electrical devices, included in this group is the 9120A. A paper length of less than one foot will minimize the amount of RFI generated by the printer; as the paper is conductive it acts as an antenna.

To protect operating personnel, the National Electrical Manufacturer's Association (NEMA) recommends that the printer keyboard and cabinet be grounded. The printer is equipped with a three-conductor power cable which, when plugged into an appropriate receptacle, grounds the cabinet of the printer. The center pin on the power cable three-pronged connector is the ground connection.

## GENERAL DESCRIPTION

## POWER REQUIREMENTS

## RADIO FREQUENCY INTERFERENCE

## GROUNDING REQUIREMENTS

### ACCESSORIES EQUIPMENT SUPPLIED

The accessory equipment supplied with each model 9120A is listed in Table 1.

**TABLE 1**

Accessories/Equipment Supplied

PART NO.	QUANTITY	DESCRIPTION
09120-90000	2	Operating Manual
8120 - 1378	1	Power Cord
9270 - 0802	1	3 roll package of Printer Paper
4040 - 0438	1	Dust Cover

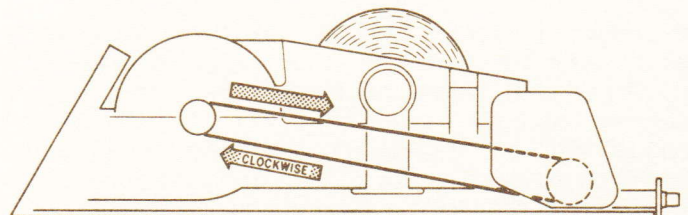
Printer Paper is available in 24 roll quantities, HP Part No. 9270-0815.

### COVER REMOVAL

If the top cover is removed the following caution should be observed:

#### CAUTION

IF THE PRINT FINGER ASSEMBLY IS MANUALLY ENGAGED, ALWAYS TURN THE DRIVE BELT IN CLOCKWISE DIRECTION. TURNING THE BELT IN THE COUNTERCLOCKWISE DIRECTION WITH THE PRINT FINGERS ENGAGED FOR PRINTING WILL DESTROY THE PRINT FINGERS.



## STEP 1

Locate the thumbscrews on the top of the Calculator. Press down on the thumbscrews and turn them counter-clockwise to their fully extended position.

### NOTE

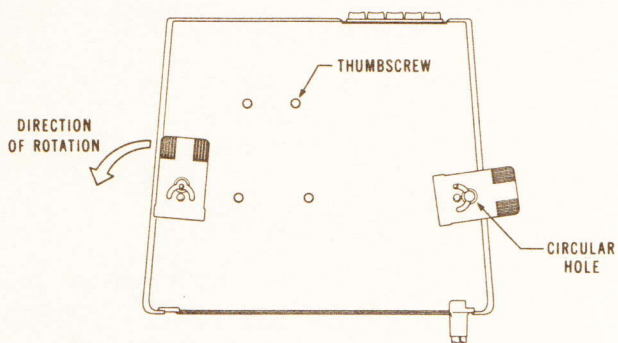
If the thumbscrews are too tight, use a large block pencil eraser to extend the thumbscrews.

## STEP 2

Remove the printer from its shipping container and stand it on its rear edge. Remove the four thumbscrews from the bottom of the printer.

### CAUTION

**THE THUMBSCREWS WILL DAMAGE THE CALCULATOR'S TOP IF THEY ARE NOT REMOVED. RETAIN THE THUMBSCREWS; THEY MUST BE REINSTALLED FOR SHIPMENT.**



Turn the plastic wings from their stored position to the fully extended position. Notice the two circular holes that have appeared near the pivot point of the wings; they will fit over the thumbscrews on the calculator.

## INSTALLATION

### STEP 3

Lift the printer by the wings and place the circular holes over the thumbscrews. Rotate the wings toward the front of the printer until a stop is felt.

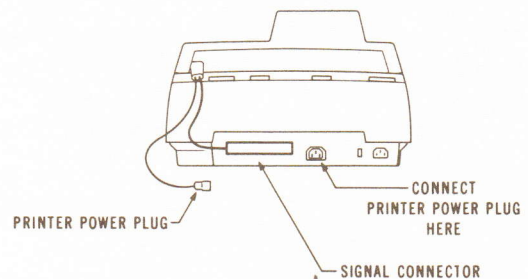


### NOTE

If the Model 9125A Calculator Plotter is used in conjunction with the printer, skip at this point to Step 5.

### STEP 4

Turn the calculator off. Connect the signal connector to the rear of the calculator. It is keyed to assist in installation.



If the rear of the calculator has a receptacle which will accept the printer's power plug, connect the two. If the rear of the calculator does not have the receptacle connect the supplied adapter between the printer's power plug and a wall receptacle.

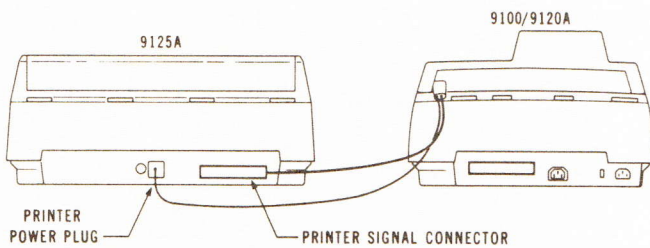


## STEP 5

### NOTE

This procedure assumes that the printer has been installed on the calculator.

Turn the calculator off. Install the printer signal connector in the rear of the plotter. Connect the printer's power plug into the rear of the plotter. If the connectors will not mate use the supplied power cable adapter to make the connection.

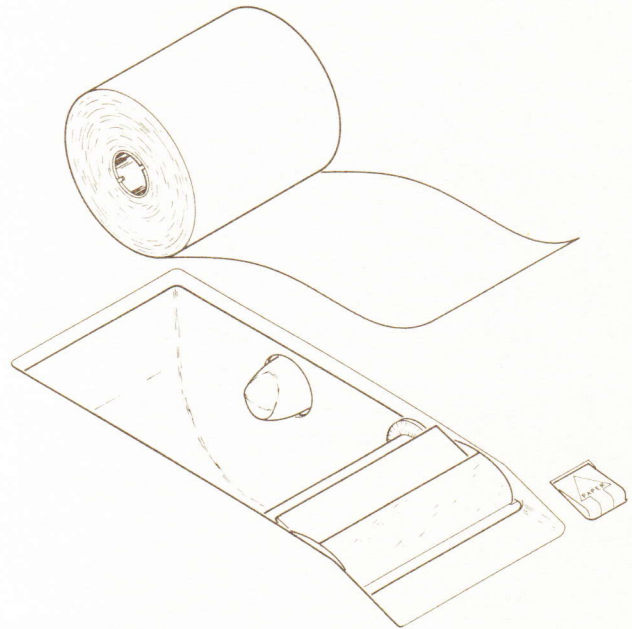


## PAPER LOADING

### STEP 1

Turn the calculator and printer ON.

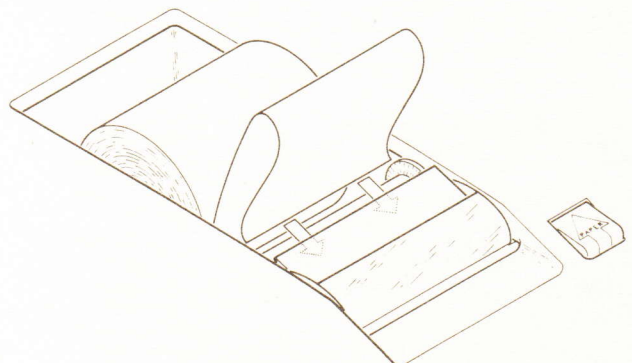
Unroll approximately twelve inches of paper from the roll. Grasp the roll and push the paper roll between the paper holders.



### STEP 2

Insert the paper over the roller and under the paper release. Push the paper in as far as possible. While still pushing on the paper, depress paper load key. When approximately two inches of paper has been taken up, stop pushing the paper.

Hold the paper load key depressed until approximately one inch of paper shows above the paper release.



The printer was carefully inspected both mechanically and electrically before shipment and should be free of marks or scratches and in perfect operating condition when received. The printer should be inspected when received for physical damage incurred in transit and an inventory made of the supplied accessories listed in Table 1 on page 4. During the inventory, note any damaged accessories.

The following procedure will confirm the printer is operating properly.

**NOTE**

































This procedure is performed after the printer is installed and the paper loaded (see page 8).

If the printer is damaged or an electrical deficiency is indicated, file a claim with the carrier or refer to the warranty information on the inside front cover.

SET:  **POWER ON**  **RUN**  
 **FLOATING**

PRESS:  **GO TO ( ) ( )**  **0**  **0** or  **END**

SET: **PROGRAM** 

PRESS:  **CLEAR**  **1**  **0**  **↑**  **9**  **÷**  
 **y->( )**  **a**  **↓**  **↑**  **-**  **↓**  
 **↑**  **↑**  **PRINT**  **PRINT**  **a**  **+**  
 **↓**  **↑**  **↑**  **PRINT**  **PRINT**  
 **ENTER EXP**  **1**  **IF x>y**  **1**  **2**  
 **GO TO ( ) ( )**  **0**  **0**  **END**

# INITIAL INSPECTION

### NOTE

The expressions DEPRESS or RELEASE refer to printer keys.

DEPRESS: **ON**

SET:  **RUN**

PRESS: **GO TO ( ) ( )** **0** **0** or **END**














DEPRESS: **x** **y** **z**

PRESS: **C O N T I N U E**









0.	0000000000	00
0.	0000000000	00
0.	0000000000	00
1.	1111111111	00
1.	1111111111	00
1.	1111111111	00
2.	2222222222	00
2.	2222222222	00
2.	2222222222	00
3.	3333333333	00
3.	3333333333	00
3.	3333333333	00
4.	4444444444	00
4.	4444444444	00
4.	4444444444	00
5.	5555555555	00
5.	5555555555	00
5.	5555555555	00
6.	6666666666	00
6.	6666666666	00
6.	6666666666	00
7.	7777777777	00
7.	7777777777	00
7.	7777777777	00
8.	8888888888	00
8.	8888888888	00
8.	8888888888	00
9.	9999999999	00
9.	9999999999	00
9.	9999999999	00

The program will continue until STOP is pressed.














PRESS: 


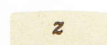
PRESS:        
       


PRESS: 

PRESS:        
       


PRESS: 

PRESS:        
       


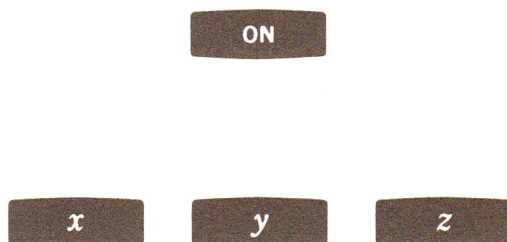
RELEASE:  and 



PRESS: **GO TO  
( ) ( )** **0** **0** or **END**

DEPRESS: **LIST**

0.0	-----	20
0.1	-----	01
0.2	-----	00
0.3	-----	27
0.4	-----	11
0.5	-----	35
0.6	-----	40
0.7	-----	13
0.8	-----	25
0.9	-----	27
0.a	-----	34
0.b	-----	25
0.c	-----	27
0.d	-----	27
1.0	-----	45
1.1	-----	45
1.2	-----	13
1.3	-----	33
1.4	-----	25
1.5	-----	27
1.6	-----	27
1.7	-----	45
1.8	-----	45
1.9	-----	26
1.a	-----	01
1.b	-----	53
1.c	-----	01
1.d	-----	02
2.0	-----	44
2.1	-----	00
2.2	-----	00
2.3	-----	46



**LIST**

With the exception of the LIST key all the keys of the printer's keyboard are the press-to-hold (ON), press-again-to-release (OFF) type. When pressed the first time the key will remain depressed, and the switch is ON; when pressed again the switch will return to its extended position and the switch is OFF.

Applies power to the printer provided the calculator's ON-OFF switch is on. Releasing this switch will remove power from the printer. When the calculator is turned OFF, power is automatically removed from the printer.

Selects the calculator register (s) to be printed. Any or all of these registers may be selected. To print the register(s), press the PRINT key on the calculator or enter a PRINT instruction in a program.

#### NOTE

Successive print instructions (programmed or manual) will result in the first instruction causing the registers selected to be printed, and the remaining print instructions causing the printer to space. If a duplication of register printing is desired, insert any calculator instruction (manual or programmed) between the print instructions.

Will cause the printing of the contents of the calculator's memory. The printing will begin at the program counter's location and will continue until an END statement is encountered in the program or until STOP on the keyboard of the calculator is pressed. In order to print the END statement at the end of a list operation one or more of the X, Y or Z pushbuttons must be depressed. If one or more are not depressed, listing will occur normally except that the END statement will not be listed at the end of the program.

#### NOTE

The LIST switch is deactivated during calculator program execution.

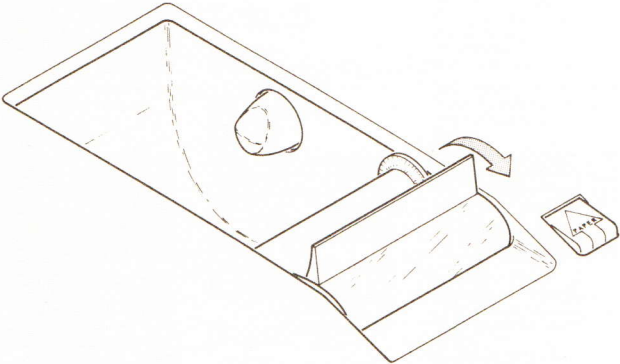


The Paper Load Key will cause the printer to space.



The Paper Release will remove tension on the printer paper so the paper may be removed from the print mechanism. To release the tension pull the Paper Release toward the front of the printer until a click is heard.

**PAPER RELEASE**



# MANUAL CHANGES

MODEL 9120 A  
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CALCULATOR PRINTER

Manual Printed: NOV. 1969

To adapt this manual to instruments with other serial prefixes check for errata below, and make changes shown in tables.

Instrument Serial Prefixes	Make Manual Changes
G-948- and above	

ERRATA: On Page 4, Table 1  
For instruments equipped with German "Schuko" Power Cable  
change the -hp- Part No. of power Cable to 8120-1349.

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