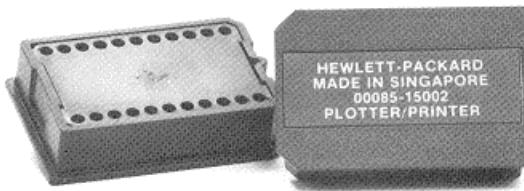
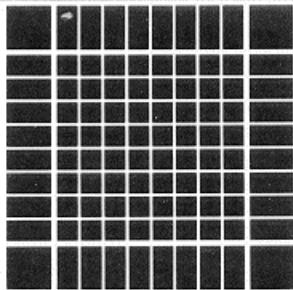




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# HP-85 Plotter/Printer ROM 00085-15002



The HP-85 Plotter/Printer ROM enables you to interface your HP-85 with Hewlett-Packard's high-resolution graphics plotters and full-width line printers. The ROM also includes several enhancements to the standard HP-85 CRT graphics.

## Features

- Fifty powerful BASIC statements and functions, offering a wide range of graphics capabilities.
- Complete labeling versatility. With the ROM, you have full control of character specifications and label positioning. And you can take full advantage of all image specifiers to format labels for your graph.
- Automatic axes-labeling makes labeling a snap. Using only one statement, a pair of labeled axes can be drawn according to your scale in the designated plotting area.
- Handy scaling statements enable you to set up a scale in millimeter units when correspondence with physically measurable objects is desirable, or set up equal unit scaling automatically within any plotting area when your x and y units need to be the same size.
- Two clipping statements for creating a variety of window effects and for highlighting specific areas of your plot.
- Incremental and relative plotting from the last plotted point. Additional plotting versatility is provided by a statement that sets the angle of axes rotation for both incremental and relative plotting.
- Eight solid or dashed line types to choose from to draw your plots on an external plotter.
- Point digitizing from external plotters.
- Enhanced CRT graphics. With the Plotter/Printer ROM installed, you can read the entire graphics display into a single string variable, store the display, and recall it whenever you choose.
- Friendly access to external printers. Once you've defined the printer and line-width (up to 140 characters per line), you can make immediate use of an external printer to make full-width printouts with the BASIC statements you already know.

## Statements and Functions

**AXES** — Draws a pair of axes with optional tic marks.

**BLINK** — Turns off the HP-85 CRT while BPLOT statements write information to the graphics display.

**BPLOT** — Byte plot. Allows plotting any series of dots on the graphics display by conversion to an alphanumeric string.

**BREAD** — Byte read. Reads the contents of the HP-85 graphics display into the specified string variable, enabling you to read and store the entire graphics display in one variable.

**CLIP** — Defines the plotting boundaries (soft-clips) in current units mode, enabling you to highlight or make windows around specified areas of your graph.

**CRT IS** — Defines the default display device, directing all output that defaults to the CRT to the specified device. An optional line length parameter can be used to select the line length formatting for the device.

**CSIZE** — Character size. Specifies the height, width-height aspect ratio, and slant of characters used in labels.

**CURSOR** — Stores the values of the current cursor coordinates in the specified variable names.

**DIGITIZE** — Enables point digitizing from an external plotter.

**DRAW** — Drops the pen and draws to the specified coordinate position.

**ERROM** — Returns the number of the ROM that issued an error message.

**ERRSC** — Returns the select code of the interface module that received an illegal operation.

**FXD** — Establishes the label format for automatic axes labeling with the LAXES and LGRID statements.

**FRAME** — Draws a box around the current plotting area.

**GCLEAR** — Clears the HP-85 graphics display.

**GRAPHICS** — Switches the CRT to graphics mode if it is not already there.

**GRID** — Draws a full scale grid with optional tic marks on the grid lines.

**IDRAW** — Lowers the pen and draws a line of specified incremental length from the current pen position.

**IMOVE** — Lifts the pen and moves the pen an incremental distance from the current pen position.

**IPLOT** — Provides incremental plotting with pen control from the last plotted point.

**LABEL** — Used like the PRINT statement to draw labels on an external plotter or the graphics display.

**LABEL USING** — Used like the PRINT USING statement to draw formatted labels on the plotting device. The image format string determines the exact form of the labels.

**LAXES** — Label axes. Draws and labels a pair of axes. Labels are placed outside the plotting area, within the graphic limits, at each major tic mark.

**LDIR** — Label direction. Specifies the angle at which subsequent labels will be drawn.

**LGRID** — Label grid. Draws and labels a grid. Labels are placed outside the plotting boundaries, within the graphic limits, on each grid line.

**LIMIT** — Defines the graphic limits beyond which the pen is not allowed to move. When the optional parameters are not included, two corner points of the plotting area can be digitized to define the graphic limits.

**LINETYPE** — Selects one of eight solid or dashed line types.

**LOCATE** — Specifies the plotting boundaries upon which **SCALE** or **SHOW** will map. Lines drawn or plotted in user units will not be allowed to cross the plotting boundaries specified by **LOCATE**. Useful for creating a window for your plot, saving space outside the window for labels.

**LORG** — Label origin. Determines where subsequent labels are drawn relative to the current pen location. Useful for positioning or centering labels.

**MOVE** — Lifts the pen and moves it to the specified coordinate position.

**MSCALE** — Scales the current plotting area in millimeters.

**NOBLINK** — Places the HP-85 in a mode such that **BPLOT** statements write their information to the CRT with the CRT remaining on.

**PDIR** — Plot direction. Sets the angle of rotation for relative and incremental plotting.

**PEN** — Specifies the number or color (1 through 4) of the pen to be used.

**PENUP** — Lifts the pen.

**PLOT** — Provides absolute data plotting and pen control.

**PLOTTER IS** — Specifies the target of all plotter statements and operations.

**PRINTER IS** — Defines the default printer, directing all output that initially defaults to the internal printer to the specified device. An optional line length parameter can be used to select the line width formatting for the device.

**RATIO** — Returns a value equal to the ratio of the physical dimensions of the graphic limits, i.e., the *x* dimension divided by the *y* dimension.

**RPLOT** — Relative plot. Enables relative plotting and pen control from the last pen position determined by a statement other than **RPLOT**. The direction may be rotated with the **PDIR** statement.

**SCALE** — Defines the user units that are mapped onto the plotting area or **LOCATE** rectangle.

**SETGU** — Sets graphic units as the current units mode.

**SET I/O** — Enables you to write information directly to the registers in an interface module.

**SETUU** — Sets user units as the current units mode.

**SHOW** — Defines an isotropic scale (one unit of *x* equals one unit of *y*) in user units within the plotting boundaries.

**TRANSLATE** — Provides an easy means of translating CRT-directed graphics programs into programs that use the Plotter/Printer ROM routines for plotting to an external device.

**UNCLIP** — Sets the plotting boundaries (which are set by **LOCATE** or **CLIP**) equal to the graphic limits.

**WHERE** — Assigns the coordinate values of the last plotted or moved-to point and the pen's up or down status to the specified variables.

**XAXIS** — Draws a horizontal axis at the specified *y*-intercept.

**YAXIS** — Draws a vertical axis at the specified *x*-intercept.

## Ordering Information

00085-15002 HP-85 Plotter/Printer ROM  
(Requires HP 82936A ROM Drawer)

## Warranty and Service

Hewlett-Packard offers a 90-day warranty on the HP-85 Plotter/Printer ROM. A copy of the complete warranty statement is available upon request.

Service for the HP-85 and its peripherals is available at service centers in the United States and many countries around the world. Contact your local dealer or sales representative for more information and service center locations.

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