



Hardware Notice

HP 98547A High-Resolution Color Bit-Mapped Video Board

Congratulations

You have just received the HP 98547A High-Resolution Color Video Board for use with your Series 300 computer, which is now being shipped in place of the HP 98545A Video Board. This board is an enhanced version of the 98545A, providing six planes of display memory instead of four. These two additional planes can be used for alpha overlay, cursor support, or off-screen menu storage. They also provide the ability to have up to 64 unique, non-dithered colors in use simultaneously—instead of the 16 available with the 98545A board.

Hardware Compatibility

If another board already occupies any addresses in the range 200 000 through 3FF FFF (hexadecimal), then you will need to remove the board and change its address location. For instance, if you currently have an EPROM Memory board set to an address within this range, then you must change its address. A good choice is to use an address in the range of 100 000 through 1FF FFF.

In addition, you cannot use an HP 98700 Display Controller in a Model 320 computer while using the HP 98547A board with the BASIC and Pascal systems; however, you can use both simultaneously with the HP-UX system.

Software Compatibility

This display board is fully supported by all HP languages that support the HP 98545A board. Here are the implications for HP Series 200/300 programming languages.



HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

BASIC 4.0

All features of this board are supported by BASIC, since 4-plane and 8-plane video boards are already fully supported. Using pens 0 through 15 will produce the same results as with the 98545A board.

The only potentially anomalous behavior that may occur is as follows: if you used pens 16 through 63 with the 98545A board, then you will get different colors with the 98547A board. The reason for this is as follows:

- With the 98545A, BASIC pen numbers 16 through 63 are mapped into pen numbers in the range 1 through 15:
$$\text{effective_pen_number} = (\text{specified_pen_number} - 1) \text{ MOD } 7 + 1 \text{ [default mode]}$$
$$\text{effective_pen_number} = (\text{specified_pen_number} - 1) \text{ MOD } 15 + 1 \text{ [color map mode]}$$
- With the 98547A, pen numbers 15 through 63 select unique colors.

If this is a problem, replace the color map entries for pens 16 through 63 with entries for pens 1 through 7 (or 15) to produce the above behavior. Normally, the developer of your application will do this for you.

Pascal 3.1

All features of this board are supported by Pascal 3.1, since 4-plane and 8-plane video boards are already fully supported. Using pens 0 through 15 will produce the same results as with the 98545A board.

The only potentially anomalous behavior that may occur is as follows: if you used pens 16 through 63 with the 98545A board, then you will get different colors using the same pens with the 98547A board. The reason for this is as follows:

- With the 98545A, color table entries 16 through 31 are dithered colors.
- With the 98547A, these color table entries are set to a default color of white.

If this is a problem, replace the color map entries for pens 16 through 31 with entries for pens 64 through 79 (these are the entries for dithered colors when using the 98547A board). Normally, the developer of your application will do this for you.

HP-UX and Starbase Graphics

When using the HP-UX system, you will need to meet the following requirements:

- You must use HP-UX version 5.1 or later.
- If your graphics application uses Starbase version 5.0 Library, then you must ensure that the programs are relinked to the Starbase 5.1 Library. Normally, the developer of your application will do this for you.

Assembly Language Applications

Due to advances in RAM technology, the 98547A board provides 2 Megabytes of memory, rather than the 1 Megabyte provided by previous Series 300 video boards. The frame buffer of the board occupies hexadecimal memory addresses 200 000 through 3FF FFF. (Older boards occupied only addresses 200 000 through 2FF FFF). For additional information regarding display architecture, see the *System Designer's Guide*.

Thanks Again

Thank you for purchasing this Hewlett-Packard product. As always, we will continue to offer you, our customers, the reliability and performance you expect.

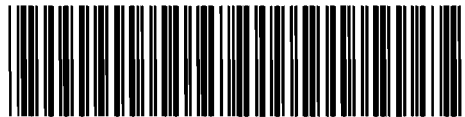
For Further Information

If you have any questions about these differences, please contact your HP sales representative.

Hewlett-Packard Company • 3404 East Harmony Road • Fort Collins, Colorado 80525

HP Part Number
98547-90601

Microfiche No. 98547-99601
Printed in U.S.A. 4/86



98547-90601