PowerBook Duo: Connecting External Monitors (5/95)

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TOPIC ---

To connect an external monitor to your PowerBook 200 Series computer, it must be
connected to a docking station that supports external video.

NOTE:
The PowerBook 200 Series includes the Duo 210, 230, 250, 270c, 280, and 280c
PowerBook computers.

Apple produces three docking stations for the PowerBook 200 Series:

• The Macintosh Duo Dock

• The Macintosh Duo Dock II+. The Duo Dock II+ replaces the Duo Dock II. The Duo
Dock II+ has the same video output capabilities as the Duo Dock II.

• The Macintosh Duo MiniDock

Each of these stations supports external video.

DISCUSSION ---

Macintosh Duo Dock

The Macintosh Duo Dock has 512K VRAM standard and an external DB-15 video-out
port. It supports these displays and bit densities:

Display	Bit Density	# of Colors/Shades of Gray
Apple 12-in. Monochrome	8 bit	256 shades of gray
Apple 12-in. RGB	8 bit	256 colors/shades of gray
AppleColor Hi-Res RGB	8 bit	256 colors/shades of gray
Apple Color	8 bit	256 colors/shades of gray
Apple Portrait	8 bit	256 shades of gray
Apple 16-in. RGB	8 bit	256 colors/shades of gray
VGA (640 by 480)	8 bit	256 colors/shades of gray
SVGA (800 by 600)	8 bit	256 colors/shades of gray

You can add an additional 512K VRAM SIMM to the Duo Dock. This is the same 512K
VRAM SIMM that is used in the Macintosh LC and LC II.

With 1MB of VRAM installed, the Duo Dock supports these displays and bit
densities:

Monitor	Bit Density	# of Colors/Shades of Gray
Apple 12-in. Monochrome	16 bit	256 shades of gray
Apple 12-in. RGB	16 bit	32,000 colors or 256 shades of gray
AppleColor Hi-Res RGB	16 bit	32,000 colors or 256 shades of gray
Apple Color	16 bit	32,000 colors or 256 shades of gray
Apple Portrait	16 bit	32,000 colors or 256 shades of gray
Apple 16-in. RGB	16 bit	32,000 colors or 256 shades of gray
VGA (640 by 480)	16 bit	32,000 colors or 256 shades of gray
SVGA (800 by 600)	16 bit	32,000 colors or 256 shades of gray

NOTE:
It is only possible to display 256 shades of gray, even if the bit density is
greater than eight.

Macintosh Duo Dock II+ and Duo Dock II (Discontinued)

The Duo Dock II+ comes with 1 megabyte of VRAM standard and is not expandable.
The Duo Dock II+ supports the multiple resolutions of the Multiple Scan displays
without needing an adaptor. The Duo Dock II+ supports these displays and bit
densities:

Monitor	Bit Density	# of Colors/Shades of Gray
Apple 12-in. Monochrome	16 bit	256 shades of gray
Apple 12-in. RGB	16 bit	32,000 colors or 256 shades of gray
AppleColor Hi-Res RGB	16 bit	32,000 colors or 256 shades of gray
Apple Color	16 bit	32,000 colors or 256 shades of gray
Apple Portrait	16 bit	32,000 colors or 256 shades of gray
Apple 16-in. RGB	16 bit	32,000 colors or 256 shades of gray
VGA (640 by 480)	16 bit	32,000 colors or 256 shades of gray
SVGA (800 by 600)	16 bit	32,000 colors or 256 shades of gray
Apple 17-in. Multiple Scan:		
640 x 480	16 bit	32,000 colors or 256 shades of gray
832 x 624	16 bit	32,000 colors or 256 shades of gray
1024 x 768	8 bit	256 colors/shades of gray
Apple 20-in. Multiple Scan:		
640 x 480	16 bit	32,000 colors or 256 shades of gray
832 x 624	16 bit	32,000 colors or 256 shades of gray
1024 x 768	8 bit	256 colors/shades of gray
1152 x 870	8 bit	256 colors/shades of gray

NOTE:
The Duo Dock requires a video display adapter to change resolutions on Mulitple
Scan monitors unless System 7.5 is installed.

Macintosh Duo MiniDock

The Macintosh Duo MiniDock comes with 512K VRAM standard. Its VRAM cannot be
upgraded.

The Macintosh Duo MiniDock can be configured so the external monitor and the Duo
screen display the same image. In this case, the external monitor is limited to
a video display of 640 by 400 pixels, the same as the LCD.

The Macintosh Duo MiniDock supports these displays and bit densities:

Monitor	Bit Density	# of Colors/Shades of Gray
Apple 12-in. Monochrome	8 bit	256 shades of gray
Apple 12-in. RGB	8 bit	256 colors/shades of gray
AppleColor Hi-Res RGB	8 bit	256 colors/shades of gray
Apple Color	8 bit	256 colors/shades of gray
Apple Portrait	8 bit	256 shades of gray
Apple 16-in. RGB	8 bit	256 colors/shades of gray
VGA (640 by 480)	8 bit	256 colors/shades of gray
SVGA (800 by 600)	8 bit	256 colors/shades of gray

NOTE:
A DB-15 to VGA or SVGA adapter cable is needed to connect a VGA or SVGA monitor
to either Apple docking station.

No displays are supported by the Apple docking stations other than the ones
listed above.

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