



# Tech Info Library

## LaserWriter 16/600 PS: TCP/IP Configuration Guide (4/96)

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Security: Everyone

LaserWriter 16/600 PS: TCP/IP Configuration Guide (4/96)

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TOPIC -----

This article describes configuring TCP/IP communications to a LaserWriter Pro 16/600 PS.

DISCUSSION -----

To Find the IP Address and Other TCP/IP Configuration Information

The IP Address

To find the IP address use one of the choices below:

- Print a test page.
- Apple Printer Utility1.
- TELNET to printer and display the current configuration information.

Subnet and Default Gateway Displayed

To find the subnet and default gateway use one of the choices below:

- Use the Apple Printer Utility to display the Configuration Page.
- Use TELENET (option x) and connect to the printer to display the Configuration Page.

RARP and BOOTP

On startup, if the IP address is set to 0.0.0.0 (or has never been set), the LaserWriter 16/600 PS will issue BOOTP and RARP requests roughly every 5 seconds. If your printer has ROM version 1.0, these requests seem to be

continuous, while ROM version 2.0.x these requests seem to stop after 64 seconds, or 12 broadcasts.

Verifying the IP Address when using RARP or BOOTP

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The Apple Printer Utility will correctly display the current IP address. Network management software may also display the current IP address.

Since the "permanent" address is still 0.0.0.0, printing a test page by restarting the printer will not display the served IP address. The test page will still report, "IP address: 0.0.0.0".

Configuration Switch and RARP or BOOTP

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Does the configuration switch on the printer affect RARP and BOOTP? No, RARP or BOOTP work if the switch is set in up or down position.

How do I Manually Assign the IP Address

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If the "permanent" address at 0.0.0.0 can I use gleaning?

If the IP address has been set permanently, how do I change it?

You can use one of the following:

TELNET and use option x  
apple printer utility

NOTE: RARP, BOOTP and IP gleaning do not work here.

Turning IP Off

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There is no way to completely turn off all IP functions on the printer. However, customers who ask, "How do I turn IP off," are actually asking for two different configurations.

1) Disable network configuration protocols (RARP, BOOTP, DHCP)

To prevent the printer from requesting network configurations from network servers with RARP, BOOTP, or DHCP, you should manually assign an address to the printer.

2) Keep IP hosts from printing to the printer

If you want to hide your printer from the TCP/IP network, and not let other hosts print to the printer, assign an IP address to the printer that is not in use. This will cut off all printing from outside the subnet. Local LPR clients will still be able to use the printer.

Support Issues

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#### Acquires Wrong Address

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Because the printer is using a BOOTP or RARP server, the printer is in glean mode when the address is 0.0.0.0, some users may see this issue. Subnets with heavy ARP traffic or malfunctioning systems may accidentally configure the printer. The printer may accept the wrong configuration method. For example, the network administrator wanted the printer configured with RARP, but a BOOTP server responded more quickly. A user's printer unintentionally "steals" a number from a BOOTP server.

#### BOOTP Client Using Another Client's BOOT Address

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This is a known problem. The BOOT client on the LaserWriter 16/600 PS may configure itself to the IP address assigned to another client. This issue is being investigated.

#### BOOTREQUEST Packet Is Interpreted as DHCPDISCOVER by a DHCP Server

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This may be an issue with the BOOTREQUEST sent by the printer. The most likely cause is the DHCP server does not properly conform to RFC 1534. If you do a network trace, check for DHCP option 53 (message type). If the printer's BOOTREQUEST uses option 53, then the printer is out of specification.

#### Article Change History:

29 Apr 1996 - Minor typographical corrections.

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