Power Macintosh 7200/90: Ethernet Issue (11/96)

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TOPIC ---

This article describes the Power Macintosh 7200 Ethernet Jitter Service Notice -
December 1995.

DISCUSSION ---

Overview

Under certain network conditions, independent of the protocol being used, the
Power Macintosh 7200/90 computer's built-in Ethernet port may fail to
successfully send large packets over Ethernet.

Depending on the application or operation being performed, a user might
experience one of the symptoms summarized below:

1) When using TCP as the transport protocol, the Power Macintosh 7200/90
   may lock-up or timeout under certain conditions (for example,
   transferring a file to a UNIX host, or sending or composing messages
   from a Notes client to a Lotus Notes server).

2) Transferring or printing large files across certain repeaters may
   appear to cause the Power Macintosh 7200/90 to hang or may exhibit
   poor performance.

IMPORTANT: Not all Power Macintosh 7200/90 customers will experience this
problem nor are other Power Macintosh models affected.

As of November 1995, Apple inventory of both service parts and newly
manufactured computers are not affected by this issue.

Identification

If the Power Macintosh 7200/90 unit has a serial number of xx545xxxxxx or
higher, then the computer should have the revised logic board installed.

If the Power Macintosh 7200/90 has a serial number of xx544xxxxxx then the
computer MOST LIKELY has the revised logic board, but you should perform a
visual inspection of the logic board using the Logic Board Identification

instructions below.

If the Power Macintosh 7200/90 has a serial number of xx543xxxxxx or below then
you will need to do a visual inspection of the logic board using the Logic Board
Identification instructions below.

Troubleshooting

If you believe that you are experiencing difficulties related to this Ethernet
jitter issue, we recommend that you try the following troubleshooting steps:

STEP ONE: VERIFICATION

   • Verify that you are using a Power Macintosh 7200/90.

   • Verify that the unit is attached to an Ethernet network.

STEP TWO: ISOLATE USING A NON-POWER MACINTOSH 7200/90 COMPUTER

   Does the problem occur on systems other than the Power Macintosh
   7200/90 (preferably Power Macintosh 7200/75 to 9500 computers that
   use Apple's new Open Transport networking protocol)?

   - If YES, then the problem may be related to the software or network
     that the unit is attached to. Perform basic software and network
     troubleshooting to narrow down the problem.

   - If NO, then the problem may be related to Ethernet clock jitter.
     Refer to Logic Board Identification below to determine whether or
     not the logic board has been reworked. If the logic board has already
     been reworked then you may have a network problem. If the board has
     not been reworked then replace the main logic board in at least one
     of the systems to verify whether a reworked board resolves the
     problem.

Logic Board Identification

To identify whether a Power Macintosh 7200/90 logic board has been reworked is
to look at location G1 on the main logic board. G1 is located next to the
internal 50-pin SCSI connector and the CURIO ASIC.

• If there is a 20MHz oscillator present at location G1 on the main logic
  board then the logic board has been reworked.

• If no 20MHz oscillator is present (four blank solder pads) then the
  board has not been reworked.

IMPORTANT:
If you contact (800) SOS-APPL for assistance with this issue, inform the
engineer to reference Tech Info Library article, 0018825.

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04 Nov 1996 - Added note for contacting tech support.

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