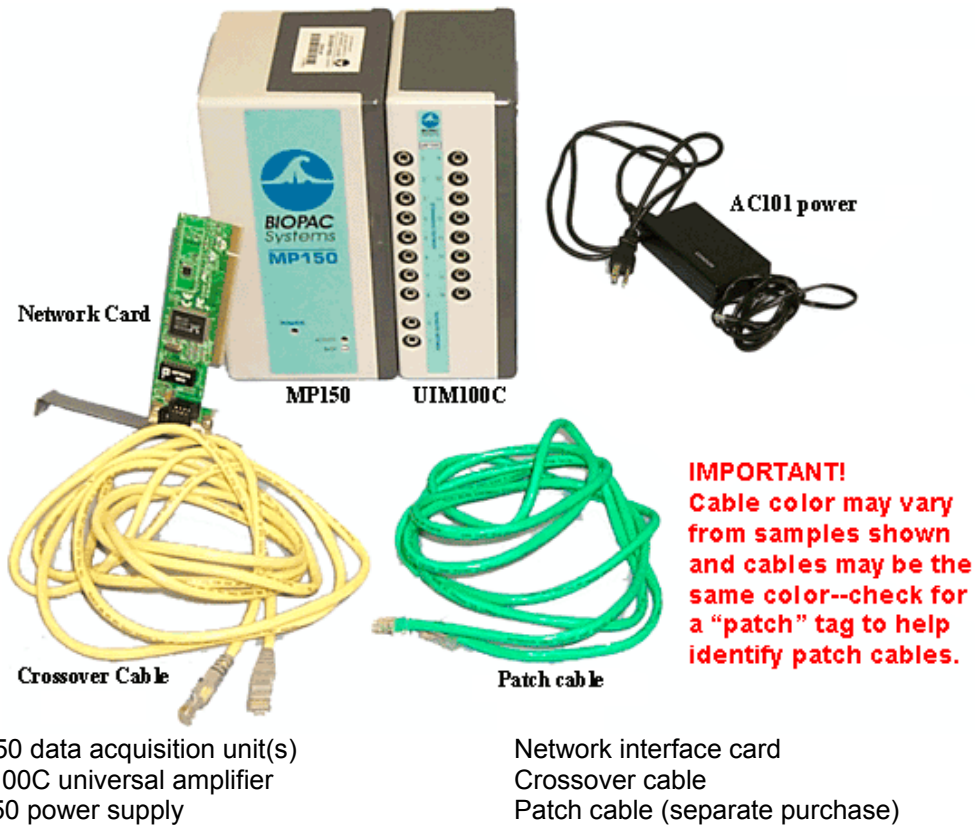


Application Note 209: AcqKnowledge for Windows: Upgrade for 1+MP150s and Non-Domain Network Access or 1+MP150s and Non-Domain, DHCP Server or Multiple Computers, no DHCP Server

BIOPAC Software

- AcqKnowledge 3.7.3 or better for Windows OS (version compatibility varies each release)

BIOPAC Hardware



Objective:

This Application Note will explain how to update the MP unit firmware, install the AcqKnowledge software and make all necessary connections to acquire data when using one or more MP150s and maintaining non-domain network access or when using multiple computers and no network setup.

• **Installation Options**

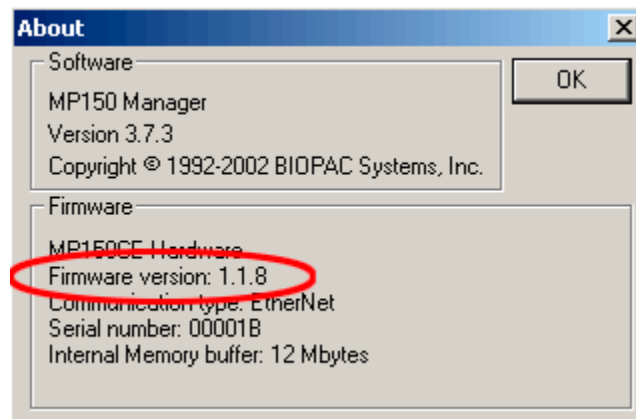
For alternate setups, see the appropriate Application Note in the Support section at www.biopac.com:

[#AH-207](#) 1+ MP150s and no network access

[#AH-208](#) 1+ MP150 and domain network access or
Direct Communication Setup (domain/non-domain)

Firmware Update:

You must upgrade your MP150 firmware before installing AcqKnowledge v3.7.3 or better.



Firmware version for UDP must be 1.1.8 or better

IMPORTANT!

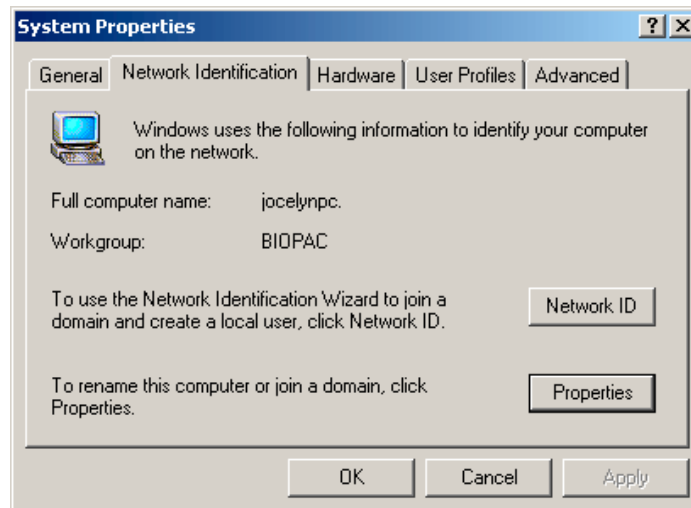
DO NOT erase the installed version of AcqKnowledge (v3.7.2 or below) before installing AcqKnowledge v3.7.3 or better and **KEEP** the CD for the older AcqKnowledge.

1. Launch AcqKnowledge (v3.7.2 or below) and select the MP150 communication option, and then select the appropriate MP150 by serial number.
2. Insert the new AcqKnowledge v3.7.3 or better CD into computer and cancel out of the installer if it autostarts.
3. Locate and copy the "MPTools.exe" Firmware Update Utility from the AcqKnowledge v3.7.3 or better CD.
4. Go to the existing AcqKnowledge folder (v3.7.2 or below) and paste the Firmware Update Utility...OVERWRITING the older firmware update utility.
5. Launch "MPTools.exe" by double-clicking on the icon.
6. Select "Show info" from the MPTools menu to verify connection to the correct MP150 unit (by serial number).
7. Complete the firmware update by selecting the "lightning bolt" toolbar button in the MPTool menu bar.
8. Launch the existing AcqKnowledge (v3.7.2 or below) to verify that the application could "find" and communicate with the MP150 unit.
9. Click on MP150 menu>About MP150 and confirm that the firmware version is **1.1.8** or better.
10. Repeat as necessary for additional MP150 units.

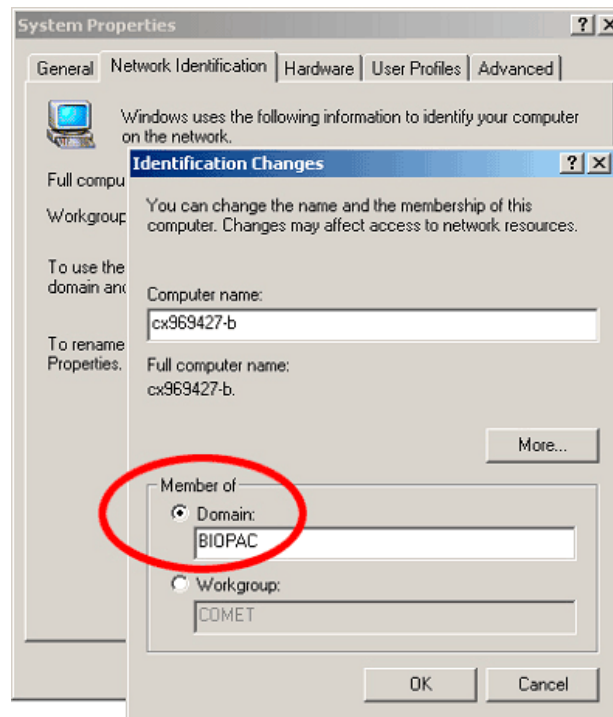
Confirm Non-Domain Network Status:

1. Click on the button to open the **Control Panel** settings.
2. Select **System**.
XP Users: Select **Computer Name**.
3. In the **System Properties** dialog, click the Network Identification tab.
XP Users: Select "Computer Name."
4. Click "Properties" see if your computer is a member of any Domain.
XP Users: Select "Computer Name" and then "Changes."

- If you are NOT a domain member, there will be info about how to join a domain.



- If you are a member of a domain, the domain name will be listed. Domain members need to use Application Note [#AH-208](#).



Determine DHCP Status:

To determine the DHCP Server status:

1. Click on **98, 98 SE, 2000, Me:** and select Settings and then select the networking option:
Network and Dial-up Connections > Local Area Connection
XP:
Network Connections > Local Area Connection

If there is more than one Local Area Connection, pick the one you plan to use for MP Communication.

2. IP address tab: If it is generated with
 - "Obtain an IP address automatically" then you are **DHCP**
DHCP → [Install AcqKnowledge](#) Software
 - "Specify an IP address" is selected, you are **Not DHCP**
Not DHCP → [Confirm Network Card Settings](#) before installation

Confirm Network Card Settings:

1. Click on [Network Connections](#) and select Settings and then select the networking option:
 - 98, 98 SE, 2000, Me:**
Network and Dial-up Connections > Local Area Connection
 - XP:**
Network Connections > Local Area Connection

If there is more than one Local Area Connection, pick the one you plan to use for MP Communication.

2. Confirm or establish the following properties:

98, 98 SE, Me (Millennium)

[Click here for 2000 and XP](#)

- a. On the Configuration tab, select the TCP/IP line for the network card you will use for MP150 communication and then click on Properties.
- b. IP address tab: Obtain an IP address automatically.
 - If "Specify an IP address" is selected, see the [IP Note](#).
- c. WINS Configuration tab: Use DHCP for WINS Resolution.
- d. Gateway tab:
 - New Gateway: . . . (blank)
 - Installed Gateway: Select and Remove any installed gateways.
- e. DNS Configuration tab: Disable DNS.

2000 and XP

[Click here for 98, 98 SE, Me](#)

- a. On the General tab, click on Properties.
- b. Select Internet Protocol (TCP/IP) and click on Properties.
- c. Select "Obtain an IP address automatically" *and* "Obtain DNS server address automatically."
 - If "Use the following IP address" is selected, see the [IP Note](#).
- d. Click on Advanced...and check that the IP Address reads "DHCP Enabled."

IP Note

If the IP address for your network card(s) is specified, the computer will not recognize the MP150 connection to the network and will be unable to establish communication. To establish MP150 communication, try ONE of the following:

- A. **Recommended for DHCP Servers or one computer setups:**
Select "Obtain an IP address automatically" for each networked computer.
- B. Specify a unique IP address for each networked computer:
IP Address: 169.254.xxx.xxx (always start with 169.254, enter xxx as any number from 1-254)
Subnet Mask: 255.255.0.0 (always enter this exact series)
- C. Install another network card for MP150 communication.
See Application Note #AH-208 for details

[BACK](#)

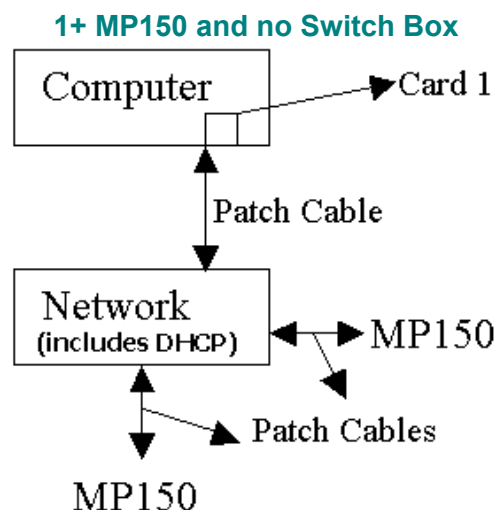
Software Installation:

1. Insert the BIOPAC CD.
2. Accept the License Agreement.
3. Complete the Install Wizard as prompted, selecting MP150 and UDP when prompted.

Hardware Connections:

1. Snap the MP150 to the side of the UIM100C.
2. Connect each AC150 power supply from an outlet (Mains power) to the MP150.
3. Use **patch cables** to connect each MP150 to the computer or switch box as required:

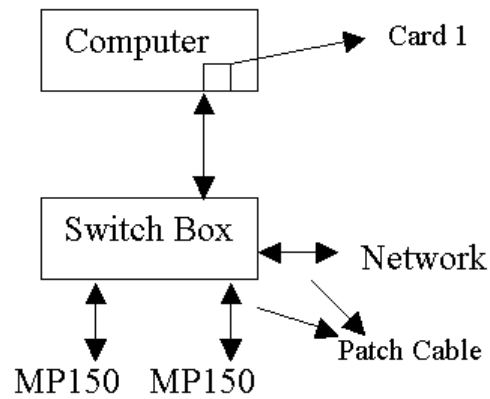
No Switch Box: Connect the **patch cable** from the MP150 (Ethernet port) to an available connection port on your existing network. Leave the existing network connections as is.



Switch Box: Connect one **patch cable** from the available network interface card on your computer to a switch box and use additional patch cables to connect the MP150 units to the switch box. Leave the existing network connection as is.

IMPORTANT! Never use a patch cable to connect the computer directly to the MP unit.

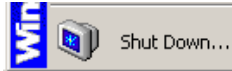
Multiple MP150s with a Switch Box



For additional network setup options, [click here](#).

Confirm Setup

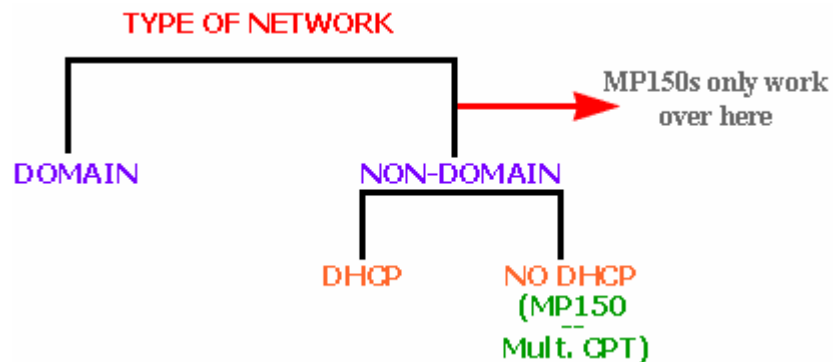
- Restart your computer to activate the new driver(s) and the installed software.
 - Click on Start > Shutdown.
- Launch AcqKnowledge.
 - Click on Start > Programs and drag to select AcqKnowledge 3.7.3 or better.



- Select "Restart" and click "OK."



APPENDIX: Network Setup Options for UDP

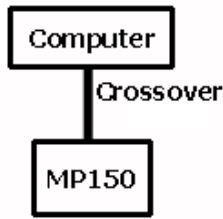


Note: If an MP150 must be used on a computer attached to a DOMAIN network, the BIOPAC ETHCARD1 must be installed to communicate directly with the MP150.

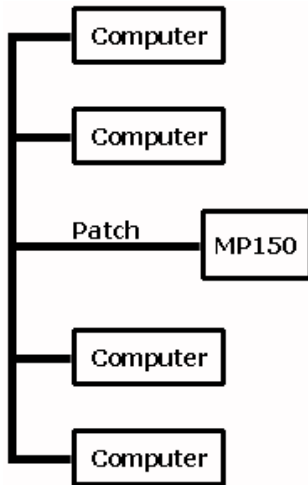
Network Setup Options

- [No DHCP network, one computer, one MP150 \(non-domain\)](#)
- [No DHCP network, multiple computers, one or more MP150s \(non-domain\)](#)
- [DHCP network, multiple computers, one MP150 \(non-domain\)](#)
- [DHCP network, multiple computers, multiple MP150s \(non-domain\)](#)
- [Domain network, multiple computers, one MP150 \(domain from Card 1, non-domain from Card2\)](#)
- [Direct Communication \(High Performance\) or DHCP network \(domain or non-domain\) and one MP150](#)

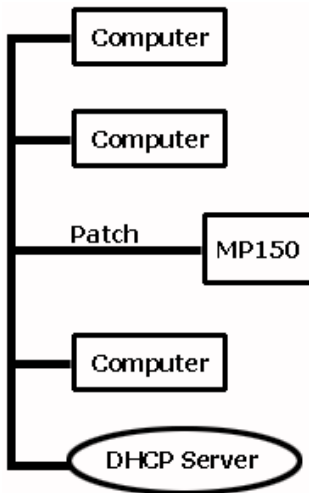
1. No DHCP network, one computer, one MP150 (non-domain)



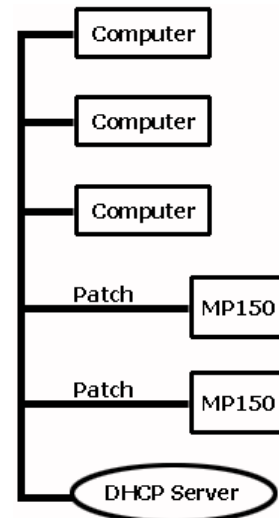
2. No DHCP network, multiple computers, one or more MP150s (non-domain)



3. DHCP network, multiple computers, one MP150 (non-domain)

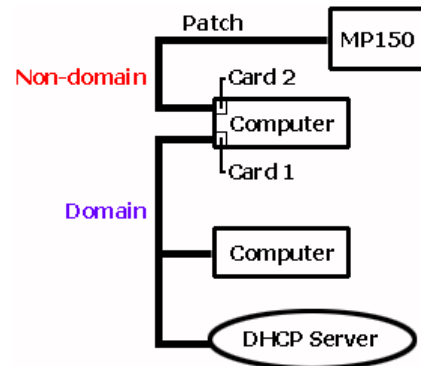


4. DHCP network, multiple computers, multiple MP150s (non-domain)



5. Domain network, multiple computers, one MP150 (domain from Card 1, non-domain from Card 2)

Note: BIOPAC ETHCARD1 is installed ("Card 2") for MP150 communication.



6. Direct Communication (High Performance) or DHCP network (domain or non-domain) and one MP150

Note: BIOPAC ETHCARD1 is installed ("Card 2") for MP150 communication.

