Software Upgrade

mark
Levinson ™

FCC Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and the receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

Caution!

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Canada
This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la Classe B est conforme à la norme NMB-003 du Canada.

Software Upgrade Instructions

These instructions are for use in upgrading the system software of the Nº502, or in reloading the existing version of the system software.

Getting Started

The Nº502 system software is upgraded from a computer using the Nº502 internal Web pages, in a similar manner to how the configuration of the Nº502 is downloaded and saved to a computer.

To upgrade the system software, the Nº502 MUST be connected to a computer, either sharing the same network via a router or via direct connection. The Ethernet port on the rear panel of the Nº502 is used for network connection.

This document has two sections:

Network Setup - describes how to connect the Nº502 to a network using a router or directly to a computer. If the Nº502 has already been setup for use with a network or computer, this procedure may be skipped.

Performing the Upgrade - provides the instructions for actually performing the system software upgrade of the Nº502.

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If you have difficulty with the software upgrade, some troubleshooting suggestions are included at the end of the document.

Retrieve the File

Go to www.marklevinson.com and download the Nº502 system software upgrade file. Save it to the local hard drive of your computer, in a place you'll be able to locate it.

Network Setup

The Nº502 Media Console supports a network connection through the Ethernet port, connecting to either a network through use of a router or directly to a computer. The Nº502 can be:

Connected to a router with DHCP active – We highly recommend using this option. Since the DHCP (Dynamic Host Configuration Protocol) automatically assigns the IP (Internet Protocol) addresses, setup is much simpler.

Connected to a router with DHCP not active – This method requires more advanced networking knowledge to set up because it uses fixed static IP addressing.

Connected directly to a computer with no router – We recommend only using this option when a router is not available. This method requires more advanced networking knowledge to set up because it uses fixed static IP addressing and a special network crossover cable.

This section provides general instructions for all three methods.

Material Requirements

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The following materials are required to connect the Nº502 to the network with a router:

- Nº502 Media Console
- Two twisted-pair network cables
- PC-compatible computer with 10/100BaseT network card
- 10/100BaseT router

Note

The Nº502 does not support wireless connection. However, a cable attached from the Nº502 to a wireless adapter can be used to interface with a wireless network.

The following materials are required to connect the Nº502 to a computer without the use of a router:

- Nº502 Media Console
- Network crossover cable
- PC-compatible computer with 10/100BaseT network card

Computer Requirements

The PC-compatible computer used to connect to the Nº502 must have the following software installed:

- Windows® 2000 or Windows XP®

- Web browser (Microsoft® Internet Explorer® 6.0 or higher preferred)

Note

If DHCP is not active, then the computer must be set up with a static IP address. Refer to the "Setting Up the Computer" procedure found later in this section for instructions.

Connecting the Cables

The Nº502 can be connected to the computer in two ways – through a router or directly to the computer. *Before connecting the cables, ensure that both the computer and the Nº502 are powered down.*

To Connect Using a Router
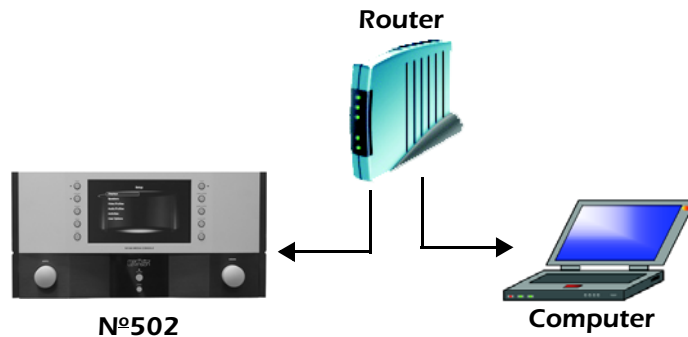
1. Connect a network cable from the router to the Ethernet port on the rear panel of the Nº502.

2. Connect a second network cable from the router to the Ethernet port of the computer.

To Connect Without a Router

Use a **network crossover cable** to connect the Nº502 directly to the computer. Different from a standard network cable, the crossover cable is designed to connect network access ports directly together without a hub, router, or switch.
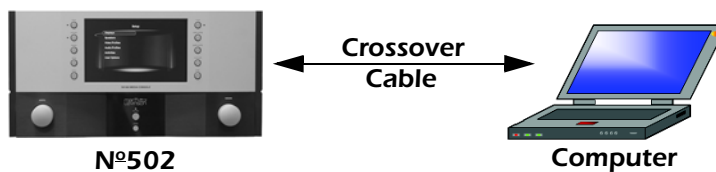
1. Connect the crossover cable from the Ethernet port on the rear panel of the Nº502 to the Ethernet port of the computer.

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Internal Web Page   The Nº502 has an internal Web page that provides an interface for any computer connected via the Ethernet port. Only accessible from the computer, the internal Web page of the Nº502 has three tabs:

- **Home** – provides basic status information, such as software version and network settings, for the Nº502.

- **Manage System Configurations** – allows you to download or upload the configuration of the Nº502. The configuration and calibration settings can be downloaded to a computer. Previously saved configurations can be uploaded in the same manner. Refer to the "Managing the System Configurations" section for further instructions.

  This page also has a Restore Defaults button, which resets the parameters to their factory default values. This button functions in the same manner as the Setup ▶ User Options ▶ Restore Options menu.

Note   This command is identical to the Setups ▶ User Options ▶ Restore Options menu option. **This is NOT a recoverable action.** If the factory defaults are restored, the existing configuration in the Nº502 is lost.

- **Error Logs** – track system-related error messages for the Nº502. This page is a diagnostics tool for Mark Levinson Customer Service use.

The Nº502 MUST be connected to a computer via the Ethernet port before you can access the internal Web page.

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Network Setup Parameters   To access the Network Setup menu, press the Setup button on the front panel or remote control of the Nº502 and then select the User Options ▶ Control Options menu. The Network Setup parameters include:

- **Host Name** – indicates the network name given to the Nº502 Media Console. The factory default name is NO502. Selecting this parameter opens the Name Selector menu. Refer to the "Name Selector" description found in the Nº502 Owner's Manual for instructions on using the Name Selector to edit the host name.

- **DHCP** – turns the DHCP capability On or Off. The factory default value is On. When activated, DHCP assigns a unique IP address to the Nº502. *We recommend that you leave the DHCP parameter set to On.*

- **Auto IP Address** – displays the dynamic IP address assigned by DHCP. If DHCP is Off, then no address is displayed. This is information-only and has no selectable options.

- **Renew IP** – refreshes the dynamic IP address. This is useful if the network connection has stalled because selecting this option triggers DHCP to assign a new IP address.

- **Static IP Address** – provides a fixed IP address. This IP address is NOT automatically selected; it must be entered. If the DHCP parameter is set to On, then this IP address is only used if DHCP is not found in the router. IP address 192.168.50.2 is the factory default value. Use the ◀ , ▶ , ▲ , and ▼ buttons to modify the address.

- **Subnet Mask** – identifies the subnet mask for the Nº502. This IP address is automatically assigned by DHCP. If DHCP is off, then the address must be entered manually and it must agree with the subnet mask address of the router. IP address 255.255.255.0 is the factory default value.

To Change the Static IP Address or Subnet Mask

Selecting the Static IP Address or the Subnet Mask parameter opens a menu screen that identifies the current address and provides editing controls. Four red cursor marks, similar to the highlighter used in the Name Selector, surround one section of the address.

```
      IP Address
         ∧
   ⟨ 192.168.50.2 ⟩
         ∨

  Cancel      Enter
```

Use the ◀ , ▶ , ▲ , and ▼ buttons to modify the current IP address:

- Press the ▲ and ▼ buttons to change the number.

- Press the ◀ and ▶ buttons to move the cursor marks to the next section of the address.

- Use the ◀ and ▶ buttons to highlight the Enter tab, then press the Enter button to save changes.

- From the Enter tab, press the ◀ button to highlight the Cancel tab. When the Cancel tab is highlighted, pressing the Enter button exits the menu without saving any changes.

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Connecting With DHCP (Recommended)

Use this procedure if you are using a router with DHCP active to connect to the Nº502. Otherwise, skip to the next procedure.

1. Connect the Nº502 to the router, as described in the earlier "Connecting the Cables" procedure. Make sure that everything is powered off before making cable connections.

2. Turn on the PC and router. Verify that the router has DHCP active.

3. Press the Power button on the Nº502.

4. On the computer, open the Internet Explorer Web browser.

5. On the address (URL) line, type "NO502" and press Enter.

   If Internet Explorer is unable to find the Nº502, then you must find the IP address that was assigned to the Nº502 by the router. If required, refer to your router's owner's manual for further details. Repeat this step using the IP address for the Nº502 that was assigned by the router.

6. The Home tab of the Nº502 internal Web page is now displayed. The tab is in red text to indicate that it's the current page. This page contains general status information about the Nº502. There are two more tabs - Manage System Configurations and Error Logs - providing additional information, as described in the earlier "Internal Web Page" description.

The network connection is now complete.

Setting Up the Computer If DHCP is not used, then the computer must be set up too. Use this procedure to set up the computer, then continue to the next procedure to connect to the Nº502. For the computer to find the Nº502, the TCP/IP (Internet Protocol) and LAN (Local Area Network) settings of the computer must be set up. The parameter setups vary slightly depending upon the operating system of the computer. Refer to the procedure below that matches the operating system on your computer.

Note Due to your preference settings in the Windows operating system, the names and order of the dialog boxes may vary slightly from these instructions.

Network Setup for Windows XP

1. From the Start menu, select Control Panel.

2. Double-click on the Network Connections option.

3. Double-click on the Local Area Connection option.

4. Click the Properties button to open the Local Area Connection Properties menu. If the computer is not currently connected to an active network, Step 3 has already opened the Local Area Connection Properties menu.

5. Click on the Internet Protocol (TCP/IP) line item so that it is highlighted.

6. Click the Properties button.

7. Select the "Use the following IP address" option. The IP address, Subnet mask, and Default gateway boxes are no longer grayed out and can now be modified.

8. Enter the following values:

   • IP address: 192.168.50.x – where x stands for a number other than 2, 0, or 255

   • Subnet mask: 255.255.255.0

   • Do not enter a value in the Default gateway parameter

   The defaults for the Nº502 are 192.168.50.2 for the static IP address and 255.255.255.0 for the subnet mask. The computer must have a unique address and be on the same subnet as the Nº502.

9. Click "OK" to save and exit the menu.

10. Open the Internet Explorer Web browser.

11. From the menu bar, select the Tools ▸ Internet Options menu.

12. Select the Connections tab.

13. Click the LAN Settings button.

14. Verify that "Use a proxy server for your LAN" is NOT checked.

15. Click "OK" to save and exit the menu.

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Network Setup for Windows 2000

1. From the Start menu, select Settings ▸ Control Panel.

2. Double-click on the Network and Dial-Up Connections option.

3. Double-click on the Local Area Connection option.

4. Click the Properties button to open the Local Area Connection Properties menu. If the computer is not currently connected to an active network, Step 3 has already opened the Local Area Connection Properties menu.

5. Click on Internet Protocol (TCP/IP) line item so that it is highlighted.

6. Click the Properties button.

7. Select the "Use the following IP address" option. The IP address, Subnet mask, and Default gateway boxes are no longer grayed out and can now be modified.

8. Enter the following values:

    • IP address: 192.168.50.x – where x stands for a number other than 2, 0, or 255

    • Subnet mask: 255.255.255.0

    • Do not enter a value in the Default gateway parameter

    The defaults for the Nº502 are 192.168.50.2 for the static IP address and 255.255.255.0 for the subnet mask. The computer must have a unique address and be on the same subnet as the Nº502.

9. Click "OK" to save and exit the menu.

10. Open the Internet Explorer Web browser.

11. From the menu bar, select the Tools ▸ Internet Options menu.

12. Select the Connections tab.

13. Click the LAN Settings button.

14. Verify that "Use a proxy server for your LAN" is NOT checked.

15. Click "OK" to save and exit the menu.

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Connecting With Static IP Addressing

Use this procedure if you plan to connect with static IP addresses (DHCP is turned off). Otherwise, skip to the next procedure to connect directly to a computer. For the computer to find the Nº502, the TCP/IP and LAN settings of the computer must be set up. Refer to the previous "Setting up the Computer" procedure for instructions.

1. Connect the Nº502 to the router, as described in the earlier "Connecting the Cables" procedure. Make sure that everything is powered off before making cable connections.

2. Turn on the PC and the router. Verify that the router has DHCP turned off, if required.

3. Set up the router to the IP address 192.168.50.x – where x stands for a number other than 2, 0, 255, or the number used for the computer IP address. The router must be on the same subnet as the Nº502 and the computer, but also must have its own unique address.

The Nº502 defaults are 192.168.50.2 for the static IP address and 255.255.255.0 for the subnet mask. Refer to the router's owner's manual for instructions on how to modify the IP address.

4. Press the Power button on the Nº502.

5. Press the Standby button on the front panel to take the Nº502 out of Standby mode.

6. Press the Setup button on the front panel or remote control.

7. Select User Options and press the Enter button to open the User Options menu.

8. Select Control Options and press the Enter button.

9. Select Network Setup and press the Enter button to open the Network Setup menu.

10. Set the DHCP parameter to Off.

11. Modify the Static IP Address, if desired. The default address is 192.168.50.2 for the Nº502.

12. Modify the Subnet Mask address, if desired. This address must be the same as the subnet mask addresses for the router and the computer. The default address is 255.255.255.0 for the Nº502.

13. On the computer, open the Internet Explorer Web browser.

14. On the address (URL) line, type in the static IP address of the Nº502 and press Enter. There may be a short delay before the Nº502 Web page loads.

15. The Home tab of the Nº502 internal Web page is now displayed. The tab is in red text to indicate that it's the current page. This page contains general status information about the Nº502. There are two more tabs - Manage System Configurations and Error Logs - providing additional information, as described in the earlier "Internal Web Page" description.

The network connection is now complete.

Direct Connection   Use this procedure to connect directly to a computer if you are not using a router. For the computer to find the Nº502, the TCP/IP and LAN settings of the computer must be set up. Refer to the earlier "Setting up the Computer" procedure for instructions.

1. Connect the Nº502 to the computer, as described in the earlier "Connecting the Cables" procedure. Make sure that both the Nº502 and the computer are powered off before connecting.

2. Press the Power button on the Nº502.

3. Press the Standby button on the front panel to take the Nº502 out of Standby mode.

4. Press the Setup button on the front panel or remote control.

5. Select User Options and press the Enter button to open the User Options menu.

6. Select Control Options and press the Enter button.

7. Select Network Setup and press the Enter button to open the Network Setup menu.

8. Set the DHCP parameter to Off.

9. Modify the Static IP Address, if desired. The default address is 192.168.50.2 for the №502.

10. Modify the Subnet Mask address, if desired. This address must be the same as the subnet mask for the computer. The default address is 255.255.255.0 for the №502.

11. On the computer, open the Internet Explorer Web browser.

12. On the address (URL) line, type in the static IP address of the №502 and press Enter. There may be a short delay before the №502 Web page loads.

13. The Home tab of the №502 internal Web page is now displayed. The tab is in red text to indicate that it's the current page. This page contains general status information about the №502. There are two more tabs - Manage System Configurations and Error Logs - providing additional information, as described in the earlier "Internal Web Page" description.

The network connection is now complete.

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Performing the Upgrade

Now that the computer can access the Nº502 internal Web page, it's time to load the new software.

While the software upgrade will not affect the Nº502 configuration settings, we still recommend that you download the configuration of the Nº502 before performing the upgrade, so that you'll have a backup of the configuration data and settings. In addition, we suggest downloading the Nº502 configuration to a computer whenever you make changes to the setup so that you'll always have a current backup available.

1. If you have NOT downloaded the Nº502 configuration, then proceed to the next step.

   If you have already downloaded the current Nº502 configuration, then skip to Step 9 to perform the software upgrade.

Downloading the Nº502 Configuration

2. On the internal Web page, click the Manage System Configurations tab.

   When the page opens, the Manage System Configurations tab changes to red text to indicate that it is the current page.

3. Click the Save Configuration button to save the current configuration to the hard drive of the computer.

4. On the computer keyboard, press the Control button and then the F5 button to ensure that the current Nº502 configuration is loaded. The computer may have an old version stored on the hard drive in the cache or temporary Internet Files folder.

5. On the internal Web page, right-click on Download to save the configuration. This action displays the Windows "Save Target As…" dialog box.

6. Navigate to the desired location and change the file name, if desired. Be sure to leave the file name extension intact.

7. Click the Save button. The dialog box closes when the configuration has been saved.

8. Verify that the file now exists on the hard drive of the computer.

Upgrading the Nº502 System Software

9. Turn off the Nº502.

10. While the Nº502 is powered down, press and hold the front panel Audio Profile and Enter buttons simultaneously.

11. Turn on the Nº502 while continuing to hold down the Audio Profile and Enter buttons.

12. Release the buttons when the front panel display prints the message "Waiting for Update...". The Nº502 is now ready to receive the software upgrade.

13. On the Web browser, click the Home tab on the Nº502 internal Web page. Observe that an Upgrade System Software tab is now available.

14. Click on the Upgrade System Software tab.

    When the page opens, the Upgrade System Software tab changes to red text to indicate that it is the current page.

15. The page displays an Update Software field with associated Browse button. Use the Browse button to find and select the location of the previously downloaded Nº502 upgrade file.

16. Click the Upload button to begin downloading the software upgrade file to the Nº502. This may take a couple of minutes.

    When the file has transferred successfully to the Nº502, a new Web page is displayed. The page contains a message indicating the successful upload of the file and requesting confirmation to continue the software upgrade process.

17. Click the Continue button to upgrade the system software.

    Click the Cancel button to exit without performing the software upgrade. Power cycle the Nº502 to return it to normal operation.

18. Do not disturb the Nº502 until both the front panel display and the Web page display the message: "Update finished. Please restart your ML502" and the front panel Mute and Zone LEDs alternately blink. The upgrade process takes about ten minutes to complete.

    Both the front panel display and the Web page provide a number of status messages during the upgrade process. However the upgrade is NOT complete until you are prompted to restart the Nº502.

Note   If the Nº502 is interupted during the upgrade procedure, the configuration settings and data may be irretrievably lost.

19. Power cycle the Nº502 to complete the process.

The system software upgrade of the Nº502 is now complete.

If you had problems reaching this point, the next page provides some troubleshooting suggestions.

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Troubleshooting   If the software upgrade is not working successfully, you may be having difficulty with either the ethernet link or the network setup. The following troubleshooting information is included to assist you. If the problem persists, then check www.marklevinson.com for additional knowledgebase information or contact an authorized Mark Levinson dealer.

1. Verify that the proxy server in the computer's network setup is disabled. An active proxy server can interfere with the software upgrade procedure.

2. If the web browser cannot find the Host Name of the №502, verify the following:

    •   Ensure that the local DNS server is properly configured. We recommend configuring the local DNS Server to "DNS Forwarding" mode. To configure the DNS Server, refer to the setup manual of the server.

    •   When using a subdomain, enter the complete address into the browser, *http://ML502.yourhome.network.com* - where ML502 is the default Host Name for the №502 and yourhome is a subdomain in the local network.

    •   Enter the IP Address of the №502 into the browser, for example, *"http://192.168.50.2"*. To find the correct address, refer to Auto IP Address in the Setup:User Options-Control Options-Network Setup menu.

3. Verify that the №502 and computer are connected properly. Connecting the №502 and computer together without a router requires a special type of network cable. Refer to the "Network Setup" section for more details.

4. Verify that the network cables are properly connected between the router, switch, or hub and the №502. If connecting to a computer, verify that the computer network cable is in the correct port.

5. Verify the age of the router, switch, or hub. If the router, switch, or hub is more than ten years old, there may be a communication issue with the №502. Power cycle the №502 and use a newer router, switch, or hub between the network and the №502.