QuadView® HD

BLACK BOX LES290A Serial Server
Configuration for use with RGB Spectrum QVHD
Quick Start Guide

Serial control of a *QuadView HD* (QVHD) requires the use of a low cost Serial Server. *BLACK BOX* offers the LES290A *Serial Device Server* to enable serial control of the *QuadView HD* over Ethernet. The connection may be over an IP network or by direct connection, via a Cat 5 Crossover Cable. The LES290A can be ordered on-line at *BLACK BOX*. Click on the model number for a link to the product. For information regarding cables and adapters, go to the end of this guide.

The LES290A Serial Server sends and receives RS232 serial communications with the *QVHD* over an Ethernet connection. The *QVHD* sees this communication as a Telnet session. The user sees this communication as a standard RS232 serial port. The Serial Server creates and maintains the Telnet session without any actions from the user beyond a one-time initial configuration.

Take these easy steps to set-up the Serial Server.

1. Gathering IP parameter information

To perform the initial configuration, you will need to know the IP parameters of the *QVHD*
> IP Address
> IP Gateway
> IP Subnet

The factory default values are:
> 192.168.1.200
> 255.255.255.0
> 192.168.1.1

If the Ethernet connection between the LES290A Serial Server and the *QVHD* incorporates a network, you will need to set the *QVHD* and Serial Server IP parameters to be compatible with the rest of the network. Check with your Network Administrator for these assignments.

Note: RGB recommends that the Device Server be given a "Fixed IP Address".

2. Configuring the Serial Server

Before making the final network or direct connection between the LES290A Serial Server and the *QVHD*, you will first need to use an Ethernet connection via a crossover cable to configure the Serial Server.

It is recommended that you use a stand-alone computer, unconnected to a network and use a crossover Ethernet cable between the LES290A Serial Server and the PC.

BLACK BOX provides, on CD, a graphical interface for configuration, *DeviceInstaller*, which runs under Windows 2000, XP or Vista.

Follow the instructions on the product CD to install and run *DeviceInstaller*.

1. Click **Start → Programs → Black Box → DeviceInstaller → DeviceInstaller.** If the PC has more than one network adapter, a message displays requesting the selection of a network adapter. Select an adapter and click **OK**.

2. Click the **Search** icon 🔍. The list of Black Box device servers displays in the left pane.

3. Click the LES290A folder. The list of available LES290A products displays.

4. Expand the list of LES290As by clicking the **+** symbol next to the LES290A icon.

5. Select the LES290A unit by clicking its hardware address. See Figure 1.

6. In the right pane, click the **Web Configuration** tab.

7. To view the LES290A's Web Manager in the current DeviceInstaller window, click the **Go** button. To open the Web Manager in a web browser, click the **External Browser** button, or open your web browser and enter the IP address of the LES290A.

Figure 1. DeviceInstaller
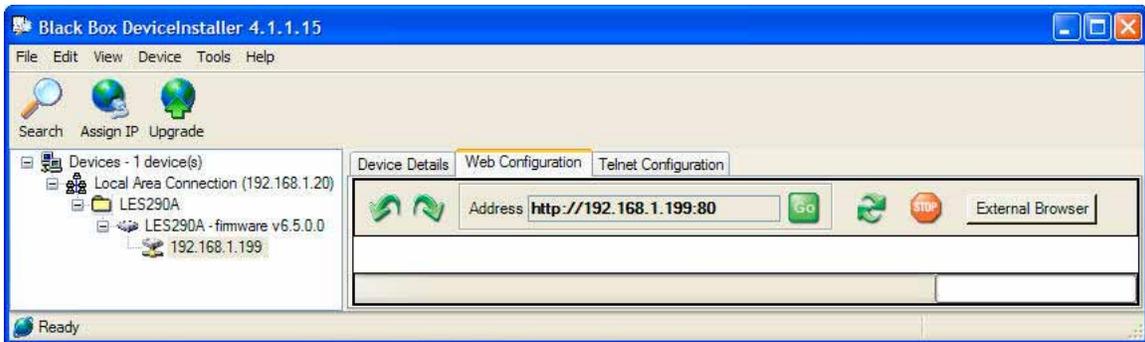
The LES290A prompts for a **User name** and **Password**.

Figure 2. User Name & Password

No User name or Password is required. Click **OK**.
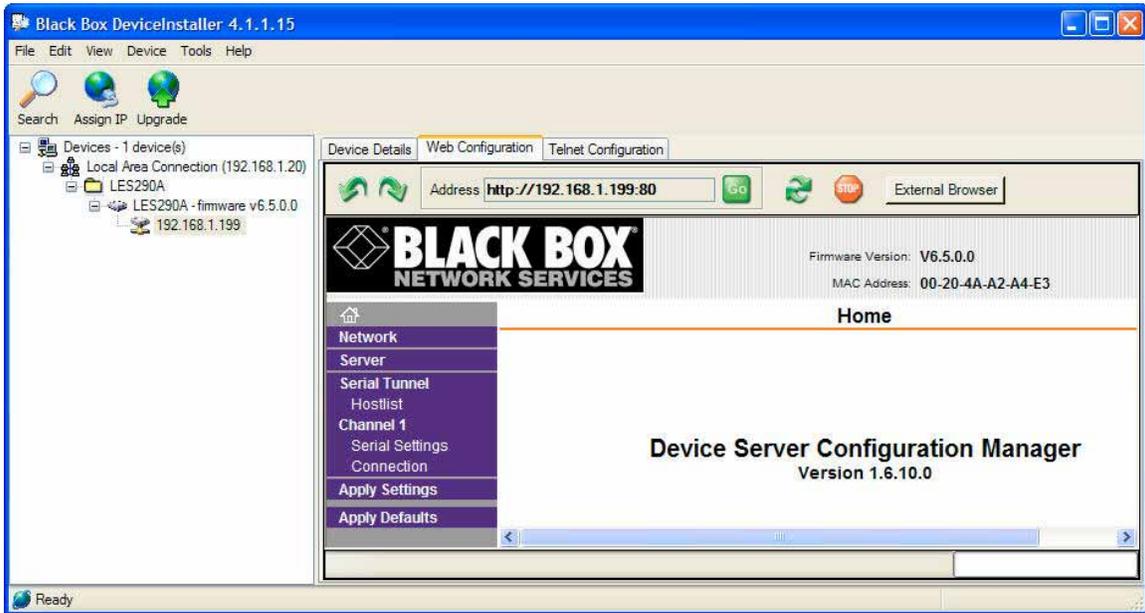
Figure 3. Home Page

Click **Network** from the main menu.

Figure 4. Network Settings
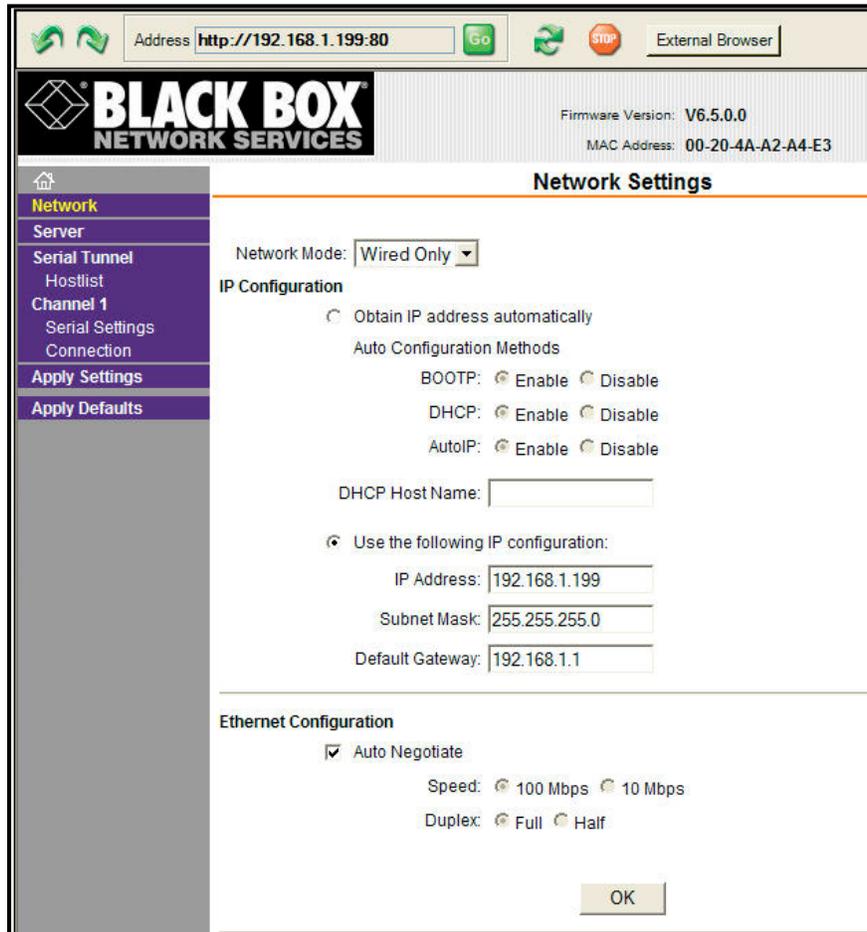
3. Static IP Address Configuration

You can manually assign an IP address to the unit and enter related network settings. Consult the LES290A User Guide for further details.

To assign an IP address manually:

1. On the main menu, click **Network**.
2. Select **Use the following IP configuration**.
3. Enter the following (as necessary):

IP Address	If DHCP is not used to assign IP addresses, enter it manually in decimal-dot notation. The IP address must be set to a unique value in the network.
Subnet Mask	A subnet mask defines the number of bits taken from the IP address that are assigned for the host part.
Default Gateway	The gateway address, or router, allows communication to other LAN segments. The gateway address should be the IP address of the router connected to the same LAN segment as the unit. The gateway address must be within the local network.

4. When you are finished, click the **OK** button.
5. On the main menu, click **Apply Settings**.

4. Setting up a Point-to-Point or Stand Alone Configuration

If your Serial to *QVHD* connection will be point to point, through a single Ethernet crossover cable, pick an IP address for the LES290A Serial Server that is the same as the *QVHD* IP address, except for the last number, i.e. 192.168.1.199.

192.168.1.200 is the factory default IP address for the *QVHD*.

You could choose:

IP Address	192.168.1.199
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.1

See Figure 4.

Server Settings & Host List Menus

Nothing needs to be changed from default on the Server and Hostlist pages. . Consult the LES290A User Guide for if you have special requirements.

5. Serial Settings

Channel 1 Serial Settings

On the Main Menu, click **Serial Settings**.

Figure 5. Serial Settings

Choose the settings to match your serial control source device.

Click the **OK** button when finished entering your Serial Settings.

Channel 1 Connection Settings
On the Main Menu, click **Connection**.

1. Set the **Active Connect** pull-down field to **Auto Start**

2. Set the **Remote Port** field to **8000**

3. Set the **Remote Host** field to the IP address of the *QVHD*, for example, to the factory default
    value **192.168.1.200**

Figure 6. TCP Connection Settings

Click the **OK** button when finished entering your Serial Settings.

6. Finishing Up

1. On the Main Menu, click **Connection**, then click the **Yes** button.

2. After the LES290A Serial Server has rebooted you are ready to use the Serial Server to connect to the *QVHD*.

The Serial Server will retain its configuration through power and connection cycles.

7. Connecting your serial control device to the Serial Server

Make the serial connection from the serial control device to the Serial Server.

    a. The LES290A Serial Server comes with a **DB25-M to DB9-M** cable adapter, making the LES290A Serial Server a DTE device, which will connect, directly to a DCE DB9-F serial control device.

    b. To connect the LES290A Serial Server to another DB9-M DTE device, such as a PC serial port, you will need to use a **DB26-F to DB9-F** null modem cable.
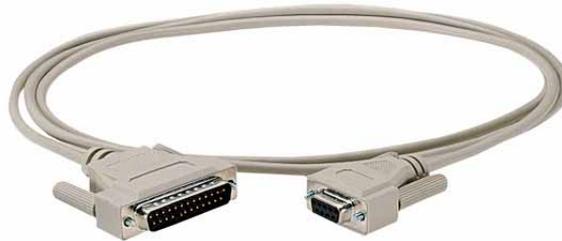
Serial cables and adapters are available from many sources including *BLACK BOX*.

8. Connecting the Serial Server to the *QVHD*

    a. If the connection from the LES290A Serial Server to the *QVHD* is **over a network**, connect both devices to convenient hub, router, or switch ports with straight-through Ethernet cables.

    b. If the connection is **point to point** connecting only the LES290A Serial Server and the *QVHD*, use a crossover Ethernet cable.

Notice: BLACK BOX is a registered trademark of Black Box Corporation.

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