Diamante® WiFi Wireless Communication
User Guide

Linksys® E1200
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WiFi wireless realtime communication is a factory installed optional accessory for your Diamante version 1.12 or higher. Using the Diamante WiFi, installed at the time of purchase or retrofitted, and a wireless access point, the Diamante can communicate with Case CATalyst V8.05 or higher for realtime writing through a wireless connection. The ability to export Case CATalyst dictionaries to the Diamante and the option to send TrueStroke Data via WiFi are available features when using Diamante version 1.13 or higher and Case CATalyst version 12.50 or higher.

The wireless access point (AP) connection can be secured using encryption and passphrase protection. During setup, you can create an optional passphrase that allows access to the wireless AP. The encrypted data can only be transmitted between the Diamante and computers using the designated passphrase.

The range for the wireless connection is approximately 300 feet, depending on wall construction. If you move the Diamante out of range, the wireless connection remains active. Steno strokes written out of range are fed to Case CATalyst when you move the Diamante back into range.

Stenograph strongly suggests you setup and test all realtime hardware including wireless communication prior to using it in a realtime situation.
Chapter 2, *WiFi Router Configuration*, provides detailed instruction to configure the Linksys® E1200 router, create a network name and set an optional passphrase for a secured wireless connection. It is important to follow only the steps outlined in these instructions to configure the WiFi (wireless) connection between your computer and the Diamante using the Linksys E1200 router. Manufacturer instructions packaged with the router do not apply to the Case CATalyst and Diamante WiFi connection.

To change the network name, security mode or security passphrase after successfully completing router configuration, it is necessary to reset the router and repeat the router configuration instructions using the new network name, security mode or security passphrase.

Internet access is accessible by connecting a cable between your Internet modem and the Internet port on the Linksys E1200 router. This cable connection is in addition to the network cable connection made between your computer and the Linksys E1200 router. See the router user guide or the Linksys website for additional information.

1. Disable the built-in WiFi, wireless capability, on your computer. A switch or access to your computer vendor's application may be required. If Windows® does not manage the wireless networking on your computer, a message displays. For additional information, refer to the user guide for your computer or contact the computer manufacturer.

2. Plug the Linksys router power cord into a wall outlet or power strip and then plug the other end of the power cord into the router. The router is on when the I/O indicator on the back displays a steady green.

3. Locate the network cable, packaged with the Linksys wireless router. Plug one end of the network cable into Ethernet 1 (blue) port of the router and plug the other end of the network cable into your network port or NIC card on your computer.

4. Open your Internet browser. In a few seconds, a message displays indicating that Internet browser cannot display the web page. Depending on the browser being used, the appearance of the page may be different.
5. In the **Address** line of your Internet browser, type the following: **192.168.1.1** and click **Go**, or press **Enter**.

6. In a few seconds, the “Welcome to Linksys E1200” screen displays.

7. Click **Continue with an open and unsecured network (not recommended)**. The “Network not secure” screen displays.

8. Check the box, **I understand that my network is currently open and not secure. I would like to manually configure my router’s security settings.**
9. Click **Continue**. The “Windows Security” dialog box may display if you wait for an extended period of time before entering information.

10. Leave the **User name** field blank. In the **Password** field, type **admin** and press **Enter (OK)**. A warning message similar to the following displays. The message text may vary.
11. Click **OK**. The “Setup” screen displays.

12. Click **Wireless** in the menu bar at the top of the screen.

13. The “Wireless, WiFi Protected Setup” screen displays.

15. In the **Network Name (SSID)** field, type a name for your wireless network. Spaces are not allowed. You may want to use your name, initials or a combination. If you are using this router to output to CaseViewNet via a network, this is the name your clients use to establish a wireless connection with your network. Using a unique name makes your network easy to identify by your clients.

16. Click **Save Settings** at the bottom of the screen. A confirmation message displays. Click **OK**. The “Settings are successful.” screen displays.


Setting a Security Mode

Setting a security mode for your wireless network is optional. A security mode provides a secure wireless network using passphrase protection. Other computers can only access your network by using the designated passphrase. Others may see your network in their list of available wireless networks but are unable to log onto the network without the passphrase. When a security mode is not selected, your wireless network is accessible to anyone within the connection radius.

19. Do one of the following:

- **Bypass setting a security mode**: Ensure **Disabled** is selected in the drop down box.
- **Set a security mode**: In the **Security Mode** field, click the down arrow and select a security mode from the list. Stenograph recommends, **WPA2 Personal**.
Fields for the security mode display on the screen.

In the Passphrase field, type a unique word or phrase for access to your wireless network. The passphrase must contain a minimum of eight characters and is both case and space sensitive.

To establish the secure wireless connection, you must type the selected passphrase on your computer and on the Diamante using the exact same spacing and case for each letter as it is entered in the Passphrase field. If you are using this router to output to CaseViewNet via a network, your clients must also type the passphrase on their computers in order to connect to your wireless network. Use finger spelling to enter the passphrase on your Diamante.

If you select a security mode other than WPA2 Personal and are using file sharing with the router, Stenograph strongly recommends you create a strong passphrase consisting of letters, numbers and at least one punctuation character.

20. Click Save Settings at the bottom of the screen. The “Settings are successful” screen displays.

21. Click Continue. When the “Wireless Security” screen redisplay, close the window.

22. Disconnect the network cable from your computer and the router. Your computer may display a message for the Local Area Connection indicating a network cable is unplugged. No action is necessary.

23. Turn On the built-in wireless capability on your computer.

24. Test the router to ensure wireless connection. See Connect to Your WiFi Network on page 15 for details on establishing a WiFi connection.
Connect to Your WiFi Network

Chapter 3, Connect to Your WiFi Network, provides detailed steps on connecting your computer to your wireless network once you complete the WiFi router and Diamante setup or if you reset your network name and passphrase. Follow the steps outlined for your computer’s particular operating system: Windows 7, Windows Vista or Windows XP.

Windows 7

1. Click the Wireless icon in the SysTray in the bottom right corner of your computer screen.

2. In the “Connections are Available” dialog box, click your network name and click Connect.

   The field, Connect automatically is checked by default. When checked, Windows 7 always connects to your network when it is the last one used or no other network is available.

3. The “Connect to a Network” dialog box displays.

   In the Security key field, type the passphrase you entered during router configuration and click OK. Windows 7 connects to your network and remembers the network name and passphrase.
4. The “Set Network Location” dialog box displays the first time you connect to a network.

Windows 7 requires that you choose a network location to set the appropriate firewall settings. Click on your selection. For more information about choosing a location, click Help me choose.

5. A “Set Network Location” screen displays indicating your selection. Click Close.
Windows Vista

1. Right click the Wireless icon in the SysTray in the bottom right corner of your computer screen.

2. From the Wireless icon menu, click **Connect to a network**.

3. The “Connect to a network” screen displays. Click your wireless network name and click **Connect**.

The “User Account Control” dialog box may display, prompting you for permission. Click **Continue**.
4. The network security passphrase screen displays.

5. In the **Security key or passphrase** field, type the passphrase you entered during router configuration and click **Connect**.

6. A successfully connected screen displays.

The following fields are checked by default:

- **Save this network** - When checked, Windows remembers the network name and passphrase. The next time it is necessary to manually connect to your network, you only need to highlight the network name and click **Connect** in the “Connect to a network” dialog box.

- **Start this connection automatically** - Windows automatically connects to the network, if this is the last network used or no other network is available.

7. Click **Close**.
8. Windows Vista displays the “Set Network Location” dialog box the first time you connect to a network.

Windows Vista requires that you choose a network location to set the appropriate firewall settings. Click on your selection. For more information about choosing a location, click Help me choose.

9. The “Successfully set network settings” screen displays.

10. Click Close.
1. Right click the Wireless icon in the SysTray in the bottom right corner of your computer screen.

2. From the Wireless icon menu, click View Available Wireless Networks.

3. When the “Wireless Network Connection” screen displays, click your wireless network name and click Connect.
4. The security network key screen displays. In the **Network key** and **Confirm Network key** fields, type the passphrase entered during router configuration and click **Connect**. Windows XP remembers your entries. The next time it is necessary to reconnect to your network, you will only need to click Connect.

5. Windows XP displays a connection status screen while establishing connection to the selected network.

6. Once connection is made, a successful connection message displays and in a few moments closes the status screen.

7. Close the “Wireless Network Connection” dialog box.
Chapter 4, *Using WiFi Communication*, provides detailed instructions on how to setup, establish and manage WiFi wireless connection on your Diamante with software version 1.12 or higher. To establish a WiFi connection, you must first setup your router and establish an initial network connection. See *WiFi Router Configuration* on page 7 for more information on router setup, establishing a network name and setting a security passphrase.

**Diamante WiFi Setup**

1. Plug in your configured router. Verify the router is On before proceeding. The router is on when the I/O indicator light on the back displays a steady green.

2. Turn your Diamante On.

3. Verify your Diamante has V1.12 or higher. From the Opening menu, press More, Status. The “Status” screen displays. The screen may vary slightly depending on your Diamante version.

4. To return to the opening menu, press OK, More.

5. Open the WiFi menu on your Diamante, press Setup, Wireless, WiFi. The “WiFi Information” screen displays.
6. Press **Search**. The “WiFi Searching” message displays briefly. As the Diamante searches for networks within range, the WiFi icon on the title bar stair steps each bar. It may take a few moments for the list of available networks to display.

The WiFi Search Completed message displays when the search finishes. The “Available Wireless Networks” screen displays a list of wireless networks in range of the Diamante.

7. Use the **Up/Down** buttons to highlight your network. The network name is the same name you typed in the **Network Name (SSID)** field during the router configuration.

8. Press **Connect**. The security screen displays with your network name in the **Network name (SSID)** field and a default name in the **Machine Name** field.
9. In the Machine Name field, use the Diamante finger spell alphabet or a defined steno outline to write a name for your Diamante. You may want to use your name to easily identify your Diamante. The name you type here displays in Case CATalyst when establishing a realtime connection. Use the asterisk key to backspace.

10. Press the Up/Down buttons to move the cursor to the Pass Phrase field. The passphrase is the security code entered during router configuration and provides a secure connection to your network.

11. Using the Diamante finger spell alphabet, write exactly the same passphrase you typed into the Passphrase field during the router configuration. Pay close attention to lower and upper case characters and spaces that you may have used. Use the asterisk key to backspace. You may want to make a dictionary entry for the Pass Phrase for easier insertion.

Entering the Diamante name and passphrase is only required once. When you turn your Diamante On, the Diamante automatically makes connection with the same wireless network, provided it is available and within range. You can edit the Diamante machine name and make corrections to the passphrase code after setup. See Manage WiFi on page 30.

To change the wireless network name or passphrase, it is necessary to reset the router and repeat the router configuration instructions using the new network name and passphrase. See WiFi Router Configuration on page 7. After completing the router configuration, complete the steps to setup the Diamante WiFi as outlined in this section.
12. Press **Accept**. The “WiFi Information” screen displays.

The WiFi icon on the title bar stair steps each bar as the Diamante connects to your WiFi wireless network. Once connected the bars display in blue. The more blue bars, the stronger the signal.

13. To return to the Opening menu, press **Quit, Quit, More, Quit**.

You can quickly verify connection status from the “Status” screen. From the Opening Menu, press **More, Status**. The screen may vary slightly depending on your Diamante version.

14. Test the wireless communication and all realtime hardware prior to using it in a realtime situation.
**Using Diamante WiFi with Case CATalyst**

1. On your Case CATalyst V8.05 or higher computer, connect to the wireless network you are using with your Diamante. This is the network identified during the router configuration.

   Windows automatically connects to your network if it was the last network connected to on this computer or if it is the only available network in range. If your computer does not connect automatically, access the wireless icon in the SysTray to select your network and click **Connect**. For details on connecting to your network for the first time, See *Connect to Your WiFi Network* on page 15.

2. Start Case CATalyst.

3. Set the Realtime options to communicate using WiFi wireless. Press **Alt + u, t** *(Function/Translate & Edit)*. The “Translate” dialog box displays.

4. Press **Alt + p** *(Options)*. The “Translate Options” dialog box displays.

5. Select the **Realtime** tab.

6. In the **Realtime Writer** field, select **Diamante - WiFi**. If you are using Case CATalyst version 11 or earlier, select **Mira(A3) WiFi**.

7. Press **Alt + a** *(Apply)* and then select **OK**. The “Translate” dialog box redisplays.

8. Type or select a File name. Setup or select any other options normally used for your realtime writing.

9. Press **Enter** *(OK)*. If you select an existing filename, Case CATalyst prompts you to Append or Overwrite. The “WiFi Selection” dialog box displays.

10. Select the name of your Diamante and click **OK**. If your Diamante does not display, click **Refresh**.

11. Write a stroke on your Diamante. The “Realtime from Diamante WiFi” dialog box displays if you do not write a steno stroke on your Diamante before clicking OK. The Diamante Status LCD displays the WiFi icon once an active realtime connection is made with Case CATalyst.

   The range for the wireless connection is approximately 300 feet, depending on wall construction. If you move the Diamante out of range, the wireless connection remains active, however, the Diamante WiFi icon on the Status LCD does not display. When you move the Diamante back into range, the WiFi icon redisplays and steno strokes written out of range are fed to Case CATalyst.
WiFi Information Screen

The Diamante “WiFi Information” screen provides details about the currently selected WiFi profile, access to manage established profiles, the ability to search for available networks within range and the option to turn the WiFi connection Off without disconnecting from the router.

To access the “WiFi Information” screen, press Setup, Wireless, WiFi.

WiFi Information

• Machine Name - The assigned Diamante name entered on the security screen.

• WiFi Network Access Point - This is the name you assigned to your network during router configuration.

• Connection Status - Connecting, Connected and Out of range.

• IP - The network IP address.

WiFi Information Options

• Search - Locate available networks within range. The “Available Wireless Networks” screen displays. See Search for Available Networks on page 29.

• Manage - Work with established network profiles. The “Preferred Networks (Profiles)” screen displays. See Manage WiFi on page 30.

• Options - Set WiFi options. The WiFi options display. See Set WiFi Options on page 30.
Search for Available Networks

All available wireless networks within range of your Diamante display on the “Available Wireless Networks” screen.

To search for available networks:

2. The “WiFi Searching” message displays briefly and the WiFi icon on the title bar stair steps each bar as the Diamante searches for networks within range.
3. The WiFi Search Completed message displays when the search finishes. Available networks displays on the screen.

The “Available Wireless Networks” screen displays the following information:

- Network name (SSID) - Wireless networks within range.
- Status - The current connection status:
  * Connected - the Diamante has an active connection to the wireless network
  * Profile - the Diamante had a previously established connection with the wireless network that is not currently connected.
  * Blank - there has been no previous connection or current connection to the network.
- Signal - The wireless signal strength for the network. The more blue bars, the stronger the signal.
Manage WiFi

The Diamante WiFi Manage feature allows you manage established network profiles. You can connect to another established network, remove an established network that is no longer in use or change the Diamante machine name.

To change the wireless network name or passphrase, it is necessary to reset the router and repeat the router configuration instructions using the new network name and passphrase. See WiFi Router Configuration on page 7. After completing the router configuration, complete the steps to setup the Diamante WiFi. See Diamante WiFi Setup on page 23.

To manage your WiFi connection:

1. From the Opening menu, press Setup, Wireless, WiFi, Manage. The “Preferred Networks (Profiles)” screen displays.
2. Use the Up/Down buttons to move the cursor to the wireless network you want to change.
3. Select one of the following:
   - Connect - Connect to another established wireless network. Use the Up/Down buttons to move the cursor to the desired network and press Connect.
   - Edit - Change the Diamante name or passphrase for the selected network. Use the Up/Down buttons to move the cursor to the desired field. Use the Diamante finger spell alphabet or a defined steno outline to write your entries. Use the asterisk key to backspace.
   - Delete - Remove the wireless profile from the Diamante. When you remove the wireless profile from the list, it no longer displays in the “Available Wireless Networks” screen, unless you use the Search feature.
   - Back - Return to the “WiFi Information” screen.

Set WiFi Options

There are two Diamante WiFi options that allow you to manage the WiFi On/Off status and the ability to send TrueStroke data.

WiFi On

The WiFi On option allows you to turn the Diamante WiFi On or Off. You may want to turn the WiFi off when you are taking a short job or a reliable network is unavailable and want to preserve battery life. The router remains on and active. The default is Yes.

To turn the Diamante WiFi Off/On:

1. From the Opening menu, press Setup, Wireless, WiFi. The “WiFi Information” screen displays.
2. Press the Options button to display the WiFi Options screen.
3. With the pointer on the WiFi On option, press the Change button to switch the option to No and press OK. The WiFi powers off and the WiFi Information screen displays. The router remains on and active.

4. To turn the Diamante WiFi On, open WiFi Options again, and change the WiFi On option to Yes.

**Send TrueStroke Data via WiFi**

TrueStroke technology is a sophisticated algorithm that tracks the direction and velocity of keystrokes. The Send TrueStroke Data via WiFi option allows you to send this detailed data via WiFi to Case CATalyst while writing real-time. To view TrueStroke information in Case CATalyst, display the vertical notes for the real-time job and double click the steno outline for the TrueStroke data you want to view. You must have Diamante version 1.13 and Case CATalyst 12.5 to use this option. The default for this option is Yes.

The Diamante, by default writes the TrueStroke data to the Data SD card along with the steno note file. When you read the steno note file into Case CATalyst 10.07 or higher, the TrueStroke data is automatically copied to the job subfile. See the Case CATalyst Help more information about TrueStroke data.

The free, downloadable TrueView® utility allows Case CATalyst V10.06 or earlier and other CAT software users to view the Diamante TrueStroke data. TrueView allows for real-time data communications via a USB cable, USB cable read from the Data SD card or an existing steno x-ray2 file on the computer's hard disk. See the Diamante User Guide for more information about TrueView.

To change the options:

1. From the Opening menu, press Setup, Wireless, WiFi. The “WiFi Information” screen displays.
2. Press the Options button to display the WiFi Options screen.
3. Use the Up/Down buttons to move the pointer to the Send TrueStroke Data via WiFi option.
4. Press the Change button to switch the option to No and press OK. The WiFi Information screen displays.
5. To turn Send TrueStroke Data via WiFi On, change the option to Yes.
Chapter 4, *Troubleshooting*, suggests possible solutions to some common situations encountered when using a WiFi connection with the Diamante. Most users can remedy the following situations themselves. For additional troubleshooting information, check the Stenograph Help Desk at [www.stenograph.com](http://www.stenograph.com). If a problem persists, call Stenograph Technical Support at **800-323-4247** or **630-532-5100**.

### WiFi Connection Issues

**Network Name Does Not Display on the Diamante**

The network name you assigned in the *Network Name (SSID)* field during setup does not display on the Diamante “WiFi Information” or on the “Available Wireless Networks” screen. Do the following:

1. From the Opening Menu, press **Setup, Wireless, WiFi, Search** on the Diamante. If the name does not display in a few seconds, continue with Step 2.
2. Press **Quit** to display the “WiFi Information” screen. Press the **On/Off** button to turn the Diamante WiFi off and then turn it back on.
3. Unplug the router and plug it back into the outlet or power strip.

**Diamante Shows it is Connecting but Never Connects.**

- The passphrase may be incorrect or missing. Re-enter the passphrase:

  1. From the Opening Menu, press **Set Up, Wireless, WiFi, Manage**. The “Preferred Networks (Profiles)” screen displays.
  2. Use the **Up/Down** buttons to select the network name to which you are attempting to connect.
  3. Press **Edit**. The security screen displays.
  4. Re-enter the passphrase for the network and press **Accept**. The “Preferred Networks (Profiles)” screen displays.
  5. Select the network name and press **Connect**.

- It may be necessary to re-establish connection to your network:

  1. Delete the network profile from the Diamante. Press **Setup/Wireless/WiFi/Manage/Delete**. When prompted to continue select **Yes**.
  2. Reconnect your computer to your network. See *Connect to Your WiFi Network* on page 15.
  3. Re-enter your passphrase on the Diamante. Complete the steps above for re-entering the passphrase.
**Change Network Name and Passphrase**

To reset or change the network name or passphrase:

1. While the router is plugged in, use a paper clip to hold the red reset button on the bottom of the router for approximately 10-15 seconds.

2. Unplug the router and plug it back into the outlet or power strip. The router resets.

3. Repeat the router configuration steps. See *WiFi Router Configuration* on page 7 to assign a new network name and passphrase.

**Router is Not Available**

If you do not see the wireless network you established with the router, you may need to reset the router. Do the following:

1. While the router is plugged in, use a paper clip to hold the red reset button on the bottom of the router for approximately 10-15 seconds.

2. Unplug the router and plug it back into the outlet or power strip. The router resets.

3. Repeat the router configuration steps in the *WiFi Router Configuration* on page 7.
Diamante Technical Support

If you encounter a problem you cannot solve, a Diamante Support Specialist is available to assist you at:

1-800-323-4247 or 1-630-532-5100, touch 2, then 2
8:00 a.m. to 6:00 p.m. (CT) Monday through Friday,

Excluding Stenograph Holidays

To assist the Specialist, have the Diamante with you, know your customer number, and be prepared to describe your question or problem in detail. Additional Help topics are available at www.stenograph.com. Click Support, Help Desk.

To order supplies and accessories visit www.stenograph.com.