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You can read the recommendations in the user guide, the technical guide or the installation guide for D-LINK DIR-605L. You'll find the answers to all your questions on the D-LINK DIR-605L in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

USER MANUAL
DIR-600
VERSION 4.10

D-Link

WIRELESS

Manual abstract:

@@@@@@69 D-Link DIR-600 User Manual iii Section 1 - Product Overview Product Overview Package Contents â□¢ D-Link DIR-600 Wireless Router â□¢ Power Adapter â□¢ Ethernet Cable Note: Using a power supply with a different voltage rating than the one included with the DIR-600 will cause damage and void the warranty for this product. The product must be used with the power adapter included with the device. Note: Always attach the power cord plug to the power supply, before inserting the power cord and connected power supply to the wall outlet. System Requirements â□¢ Ethernet-based Cable or DSL Modem â□¢ Computers with Windows®, Macintosh®, or Linux-based operating systems with an installed Ethernet adapter â□¢ Internet Explorer 6 or Firefox 2. 0 or above (for configuration) Note: Using a power supply with a different voltage rating than the one included with the DIR-600 will cause damage and void the warranty for this product. 0 or higher Windows® Users: Make sure you have the latest version of Java installed. 11g standard, so it can connect with existing 802. □ â□¢ Secure Multiple/Concurrent Sessions - The DIR-600 can pass through VPN sessions. It supports multiple and concurrent IPSec and PPTP sessions, so users behind the DIR-600 can securely access corporate networks. Â□¢ Easy Setup Wizard - Through its easy-to-use Web-based user interface, the DIR-600 lets you control what information is accessible to those on the wireless network, whether from the Internet or from your companyâ□□s server.

Configure your router to your specific settings within minutes. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. environmental conditions will adversely affect wireless signal range. D-Link DIR-600 User Manual 3 Section 1 - Product Overview Hardware Overview Connections Power Receptor Receptor for the supplied power adapter. Internet Port The auto MDI/MDIX Internet port is the connection for the Ethernet cable to the cable or DSL modem.

lAN Ports (1-4) Connect Ethernet devices such as computers , switches , and hubs. Reset Pressing the Reset button restores the router to its original factory default settings. D-Link DIR-600 User Manual 4 Section 1 - Product Overview Hardware Overview LEDs WLAN LED A solid light indicates that the wireless segment is ready. This LED blinks during wireless data transmission. Internet LED A solid light indicates connection on the Internet port.

This LED blinks during data transmission. local Network LEDs A solid light indicates a connection to an Ethernet-enabled computer on ports 1-4. This LED blinks during data transmission. Power LED A solid light indicates a proper connection to the power supply. D-Link DIR-600 User Manual 5 Section 2 - Installation Installation This section will walk you through the installation process. Placement of the router is very important. Do not place the router in an enclosed area such as a closet, cabinet, or in the attic or garage. Before you Begin â□¢ Please configure the router with the computer that was last connected directly to your modem. Â□¢ You can only use the Ethernet port on your modem. If you were using the USB connection before using the router, then you must turn off your modem, disconnect the USB cable and connect an Ethernet cable to the Internet port on the router, and then turn the modem back on.

In some cases, you may need to call your ISP to change connection types (USB to Ethernet). Â□¢ If you have DSL and are connecting via PPPoE, make sure you disable or uninstall any PPPoE software such as WinPoet, Broadjump, or Enternet 300 from your computer or you will not be able to connect to the Internet. D-Link DIR-600 User Manual 6 Section 2 - Installation Wireless Installation Considerations The D-Link wireless router lets you access your network using a wireless connection from virtually anywhere within the operating range of your wireless network. Keep in mind, however, that the number, thickness and location of walls, ceilings, or other objects that the wireless signals must pass through, may limit the range. Typical ranges vary depending on the types of materials and background RF (radio frequency) noise in your home or business. The key to maximizing wireless range is to follow these basic guidelines: 1. Keep the number of walls and ceilings between the D-Link router and other network devices to a minimum - each wall or ceiling can reduce your adapterâ□□s range from 3-90 feet (1-30 meters.) Position your devices so that the number of walls or ceilings is minimized. 2. Be aware of the direct line between network devices.

5 meters), at a 45-degree angle appears to be almost 3 feet (1 meter) thick. At a 2-degree angle it looks over 42 feet (14 meters) thick! Position devices so that the signal will travel straight through a wall or ceiling (instead of at an angle) for better reception. 3. Building Materials make a difference. a solid metal door or aluminum studs may have a negative effect on range.

Try to position access points, wireless routers, and computers so that the signal passes through drywall or open doorways. Materials and objects such as glass, steel, metal, walls with insulation, water (fish tanks), mirrors, file cabinets, brick, and concrete will degrade your wireless signal. 4. Keep your product away (at least 3-6 feet or 1-2 meters) from electrical devices or appliances that generate RF noise. 5.

If you are using 2. 4GHz cordless phones or X-10 (wireless products such as ceiling fans, lights, and home security systems), your wireless connection may degrade dramatically or drop completely. Make sure your 2. 4GHz phone base is as far away from your wireless devices as possible. The base transmits a signal even if the phone in not in use. D-Link DIR-600 User Manual 7 Section 2 - Installation Connect to Cable/DSL/Satellite Modem If you are connecting the router to a cable/DSL/satellite modem, please follow the steps below: 1. place the router in an open and central location. Do not plug the power adapter into the router. 2. Turn the power off on your modem.

If there is no on/off switch, then unplug the modemâ□□s power adapter. Shut down your computer. 3. Unplug the Ethernet cable (that connects your computer to your modem) from your computer and place it into the Internet port on the router. 4. Plug an Ethernet cable into one of the four LAN ports on the router. Plug the other end into the Ethernet port on your computer. 5. Turn on or plug in your modem. Wait for the modem to boot (about 30 seconds). 6. Plug the power adapter to the router and connect to an outlet or power strip. Wait about 30 seconds for the router to boot. 7. Turn on your computer. 8. Verify the link lights on the router. The power light, Internet light, and the LAN light (the port that your computer is plugged into) should be lit.

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If not, make sure your computer, modem, and router are powered on and verify the cable connections are correct. D-Link DIR-600 User Manual 8 Section 2 - Installation Connect to Another Router If you are connecting the D-Link router to another router to use as a wireless access point and/or switch, you will have to do the following before connecting the router to your network: â¢ Disable UPnPâ¢ â¢ Disable DHCP â¢ Change the LAN IP address to an available address on your network.

The LAN ports on the router cannot accept a DHCP address from your other router. To connect to another router, please follow the steps below: 1. Plug the power into the router. Connect one of your computers to the router (LAN port) using an Ethernet cable. Make sure your IP address on the computer is 192. Please see the Networking Basics section for more information. If you need to change the settings, write down your existing settings before making any changes. In most cases, your computer should be set to receive an IP address automatically in which case you will not have to do anything to your computer. When the login window appears, set the user name to Admin and leave the password box empty. Under Router Settings, enter an available IP address and the subnet mask of your network.

click Save Settings to save your settings. Use this new IP address to access the configuration utility of the router in the future. Close the browser and change your computerâs IP settings back to the original values as in Step 1. d-Link DIR-600 User Manual 9 Section 2 - Installation 6. Disconnect the Ethernet cable from the router and reconnect your computer to your network. 7. Connect an Ethernet cable in one of the LAN ports of the router and connect it to your other router. Do not plug anything into the Internet port of the D-Link router. 8. You may now use the other 3 LAN ports to connect other Ethernet devices and computers.

To configure your wireless network, open a web browser and enter the IP address you assigned to the router. Refer to the Configuration and Wireless Security sections for more information on setting up your wireless network. D-Link DIR-600 User Manual 10 Section 3 - Configuration Configuration This section will show you how to configure your new D-Link wireless router using the web-based configuration utility. Web-based Configuration Utility To access the Easy Setup Wizard or configuration utility, open a web-browser such as Internet Explorer and enter the IP address of the router (192. D-Link DIR-600 User Manual 11 Section 3 - Configuration Easy Setup Wizard Once logged into the web interface of the router, Easy Setup Wizard will appear and perform WAN auto detection for the type of Internet connection.

D-Link DIR-600 User Manual 12 Section 3 - Configuration According to the detection result, the wizard will indicate the type of Internet connection that youâre currently use. You can configure your wireless network. click Configure button in Wireless Settings. Select the type of Wireless security you use (Disable Wireless Security or AUTO-WPA/WPA2) and enter the network name (SSID, Service Set Identifier) and security password. The network name(SSID) is the name of your wireless network.

Create a name using up to 32 characters. if the type is Dynamic IP(DHCP) , click Save to continue. If the type is PPPoE, enter your PPPoE username and password. click Next to continue. If the type is Static IP, please enter the IP address, subnet mask, gateway, and DNS server addresses that your ISP assigned to you. click Connect to continue. Note: Make sure to remove your PPPoE software from your computer. The software is no longer needed and will not work through a router. D-Link DIR-600 User Manual 13 Section 3 - Configuration In the final stage of Easy setup wizard, the summary will show your current configuration. click Save to complete the setting.

When the internet connectivity is established, the webpage will be redirected to D-Link Website. D-Link DIR-600 User Manual 14 Section 3 - Configuration Manual Configuration Dynamic (Cable) If you opt to set up your Internet connection manually, you will be redirected to a WAN page that allows you to select your Internet type and enter the correct configuration parameters. Select your Internet connection type using the âMy Internet Connection isâ drop-down menu. Click the Save Settings button when you have configured the connection. Access Point Use this mode to disable NAT on the router and turn it into Mode: an Access Point Internet Select your Internet connection type using the âInternet Connection connection typeâ drop-down menu. type: D-Link DIR-600 User Manual 15 Section 3 - Configuration Dynamic IP Address (DHCP) My Internet Select Dynamic IP (DHCP) to obtain IP Address information Connection: automatically from your ISP. Select this option if your ISP does not give you any IP numbers to use. This option is commonly used for Cable modem services. Host Name: The Host Name is opule to enable the wireless function. Wireless Network Service Set Identifier (SSID) is the name of your Name: wireless network.

Create a name using up to 32 characters. 11b - Select if you are using both 802. 11n Only - Select only if all of your wireless clients are 802. 11g - Select if you are using a mix of 802. 11n , 11g , and 11b wireless clients.

Enable Auto The Auto Channel Scan setting can be selected to Channel Scan: allow the DIR-600 to choose the channel with the least amount of interference. Wireless Channel: Indicates the channel setting for the DIR-600. by default the channel is set to 6. The Channel can be changed to fit the channel setting for an existing wireless network or to customize the wireless network. If you enable Auto Channel Scan, this option will be greyed out.

Rate: Enable Hidden Enabling Hidden Mode is another way to secure your network. With this option enabled, no wireless clients will Wireless: be able to see your wireless network when they perform a scan to see whatâs available. In order for your wireless devices to connect to your router, you will need to manually enter the Wireless Network Name on each device. wireless Security: Refer to Section 4- Wireless security for more information regarding wireless security. D-Link DIR-600 User Manual 21 Section 3 - Configuration Network Settings This section will allow you to change the local network settings of the router and to configure the DHCP settings. IP Address: Enter the IP address of the router. The default IP address is 192. If you change the IP address, once you click Save Settings, you will need to enter the new IP address in your browser to get back into the configuration utility. Enable DNS Relay: Uncheck the box to transfer the DNS server information from your ISP to your computers. If checked, your computers will use the router for a DNS server.

The DHCP Server will automatically assign an IP address to the computers on the LAN/private network.

Be sure to set your computers to be DHCP clients by setting their TCP/IP settings to â Obtain an IP Address Automatically. Â When you turn your computers on, they will automatically load the proper TCP/IP settings provided by the DIR-600. The DHCP Server will automatically allocate an unused IP address from the IP address pool to the requesting computer. You must specify the starting and ending address of the IP address pool. Enable DHCP Check this box to enable the DHCP server on your Server: router. uncheck to disable this function. DHCP IP Address Enter the starting and ending IP addresses for the Range: DHCP serverâs IP assignment. Note: If you statically (manually) assign IP addresses to your computers or devices, make sure the IP addresses are outside of this range or you may have an IP conflict. Lease Time: The length of time for the IP address lease.

Enter the Lease time in minutes. D-Link DIR-600 User Manual 23 Section 3 - Configuration DHCP Reservation If you want a computer or device to always have the same IP address assigned, you can create a DHCP reservation. The router will assign the IP address only to that computer or device. Note: This IP address must be within the DHCP IP Address Range. Computer Name: Enter the computer name or select from the drop-down menu and click <<.

IP Address: Enter the IP address you want to assign to the computer or device. This IP Address must be within the DHCP IP Address Range. MAC Address: Enter the MAC address of the computer or device. save: Click Save to save your entry. You must click Save Settings at the top to activate your reservations. Number of In this section, you can see what LAN devices are currently leasing Dynamic DHCP IP addresses. Clients: Reserve: The Reserve option converts this dynamic IP allocation into a DHCP Reservation and adds the corresponding entry to the DHCP Reservations List. D-Link DIR-600 User Manual 24 Section 3 - Configuration Virtual Server The DIR-600 can be configured as a virtual server so that remote users accessing Web or FTP services via the public IP address can be automatically redirected to local servers in the LAN (Local Area Network). The DIR-600 firewall feature filters out unrecognized packets to protect your LAN network so all computers networked with the DIR-600 are invisible to the outside world. If you wish, you can make some of the LAN computers accessible from the Internet by enabling Virtual Server. Depending on the requested service, the DIR-600 redirects the external service request to the appropriate server within the LAN network. The DIR-600 is also capable of port-redirection meaning incoming traffic to a particular port may be redirected to a different port on the server computer. Each virtual service that is created will be listed at the bottom of the screen in the Virtual Servers List. Pre-defined virtual services are already listed in the table. You may use them by enabling them and assigning the server IP to use that particular virtual service.

D-Link DIR-600 User Manual 25 Section 3 - Configuration This will allow you to open a single port. If you would like to open a range of ports, refer to the next page. Name: Enter a name for the rule or select an application from the drop-down menu. select an application and click << to populate the fields. IP Address: Enter the IP address of the computer on your local network that you want to allow the incoming service to. If your computer is receiving an IP address automatically from the router (DHCP), you computer will be listed in the â Computer Nameâ drop-down menu. select your computer and click <<. Private Port/ Enter the port that you want to open next to Private Public Port: Port and Public Port. The private and public ports are usually the same. The public port is the port seen from the Internet side, and the private port is the port being used by the application on the computer within your local network.

protocol Type: Select TCP , UDP , or Both from the drop-down menu. D-Link DIR-600 User Manual 26 Section 3 - Configuration Port Forwarding This will allow you to open a single port or a range of ports. Name: Enter a name for the rule or select an application from the drop-down menu. select an application and click << to populate the fields. IP Address: Enter the IP address of the computer on your local network that you want to allow the incoming service to. If your computer is receiving an IP address automatically from the router (DHCP), you computer will be listed in the â Computer Nameâ drop-down menu. select your computer and click <<. TCP/UDP: Enter the TCP and/or UDP port or ports that you want to open. You can enter a single port or a range of ports. The Traffic Control improves your online gaming experience by ensuring that your game traffic is prioritized over other network traffic, such as FTP or Web.

Enable Traffic Select this function to control the access bandwidth Control: of computer in LAN. Auto Bandwidth All the computers in LAN will be distributed the Equal: bandwidth equally. Key in bandwidth Key in the value to setup the Uplink bandwidth Uplink manually: manually. Key in bandwidth Key in the value to setup the Download bandwidth Downlink manually. Manually: Taffic Control When the option Auto Bandwidth Equal is unchecked, Rules: you can control the access bandwidth of the specific IP address. D-Link DIR-600 User Manual 28 Section 3 - Configuration Network Filters Use MAC (Media Access Control) Filters to allow or deny LAN (Local Area Network) computers by their MAC addresses from accessing the Network. You can either manually add a MAC address or select the MAC address from the list of clients that are currently connected to the Broadband Router. Configure MAC Select Turn MAC Filtering Off, allow MAC addresses listed Filtering: below, or deny MAC addresses listed below from the drop-down menu. MAC Address: Enter the MAC address you would like to filter. To find the MAC address on a computer, please refer to the Networking Basics section in this manual.

DHCP Client: Select a DHCP client from the drop-down menu and click << to copy that MAC Address. D-Link DIR-600 User Manual 29 Section 3 - Configuration Website Filters Website Filters are used to allow you to set up a list of allowed Web sites that can be used by multiple users through the network. To use this feature select to Allow or Deny, enter the domain or website and click Add, and then click Save Settings. You must also select Apply Web Filter under the Access Control section (page 40). configure Website Select Deny or Allow computers access to only these sites. Filter Below: Clear the list Click to delete all entries in the list. Below: Website URL/ Enter the keywords or URLs that you want to allow or deny. Domain: D-Link DIR-600 User Manual 30 Section 3 - Configuration Firewall Settings A firewall protects your network from the outside world. The D-Link DIR-600 offers a firewall type functionality.

the SPI feature helps prevent cyber attacks.

Sometimes you may want a computer exposed to the outside world for certain types of applications. If you choose to expose a computer, you can enable DMZ. dMZ is short for Demilitarized Zone. This option will expose the chosen computer completely to the outside world. Enable SPI: SPI (Stateful Packet Inspection, also known as dynamic packet filtering) helps to prevent cyber attacks by tracking more state per session.

It validates that the traffic passing through the session conforms to the protocol. Enable DMZ Host: If an application has trouble working from behind the router, you can expose one computer to the Internet and run the application on that computer. Note: Placing a computer in the DMZ may expose that computer to a variety of security risks. Use of this option is only recommended as a last resort. IP Address: Specify the IP address of the computer on the LAN that you want to have unrestricted Internet communication.

If this computer obtains its IP address automatically using DHCP, be sure to make a static reservation on the Setup > Network Settings page so that the IP address of the DMZ machine does not change. D-Link DIR-600 User Manual 31 Section 3 - Configuration Advanced Wireless Settings Transmit Power: Set the transmit power of the antennas. RTS Threshold: This value should remain at its default setting of 2346. If inconsistent data flow is a problem, only a minor modification should be made. Fragmentation The fragmentation threshold, which is specified in bytes, Threshold: determines whether packets will be fragmented. Packets exceeding the 2346 byte setting will be fragmented before transmission. A DTIM is a countdown informing clients of the next window for listening to broadcast and multicast messages. Short GI: Check this box to reduce the guard interval time therefore increasing the data capacity. However, itâs less reliable and may create higher data loss. Enable WAN Ping Unchecking the box will not allow the DIR-600 to respond Response: to pings.

Blocking the Ping may provide some extra security from hackers. Check the box to allow the Internet port to be âpingedâ. WAN Port Speed: You may set the port speed of the Internet port to 10Mbps, 100Mbps, or auto. Some older cable or DSL modems may require you to set the port speed to 10Mbps. UPnP Internet Ping Block Internet Port Speed Multicast Streams D-Link DIR-600 User Manual 33 Section 3 - Configuration Administrator Settings This page will allow you to change the Administrator and User passwords. you can also enable Remote Management. There are two accounts that can access the management interface through the web browser. The accounts are admin and user. admin has read/write access while user has read-only access. User can only view the settings but cannot make any changes.

Only the admin account has the ability to change both admin and user account passwords. Admin Password: Enter a new password for the Administrator Login Name. The administrator can make changes to the settings. Remote Remote management allows the DIR-600 to be Management: configured from the Internet by a web browser. a username and password is still required to access the Web-Management interface.

In general, only a member of your network can browse the built-in web pages to perform Administrator tasks. This feature enables you to perform Administrator tasks from the remote (Internet) host. Remote Admin The port number used to access the DIR-600. X is the Internet IP address of the DIR-600 and 8080 is the port used for the Web Management interface. D-Link DIR-600 User Manual 34 Section 3 - Configuration Time Settings The Time Configuration option allows you to configure, update, and maintain the correct time on the internal system clock.

From this section you can set the time zone that you are in and set the Time Server. Daylight Saving can also be configured to automatically adjust the time when needed. Time Zone: Select the Time Zone from the drop-down menu. Daylight Saving: To select Daylight Saving time manually, select enabled or disabled, and enter a start date and an end date for daylight saving time. Sync your Press this button to set the deviceâs time the same to Computerâs Time local PC. Check this box to use a NTP server. This will only connect to a server on the Internet, not a local server. NTP Server Used: Enter the NTP server or select one from the dropdown menu, then the DIR-600 will sync the same time to D-Link Internet time server. Manual: To manually input the time, enter the values in these fields for the Year, Month, Day, Hour, Minute, and Second and then click Save Settings. D-Link DIR-600 User Manual 35 Section 3 - Configuration E-mail Settings The Email feature can be used to send the system log files, router alert messages, and firmware update notification to your e-mail address.

From Email This e-mail address will appear as the sender when Address: you receive a log file or firmware upgrade notification via e-mail. To Email Address: Enter the e-mail address where you want the e-mail sent. SMTP Server Enter the SMTP server address for sending Address: e-mail. If your SMTP server requires authentication, select this option. @@First, click the Save button. @@@@@Then, click the Load button to transfer those settings to the router. @@@@@ reboot Device: Click to reboot the router. @@Pack: Remove other languages installed for the system web pages. @@@@@@@@ firmware Displays the current firmware version and date. @@ click Upload to complete the firmware upgrade. @@@@@Server Address: Choose your DDNS provider from the drop down menu. @@User Account: Enter the Username for your DDNS account. Password: Enter the Password for your DDNS account. @@@Enter the IP Address that you wish to Ping, and click Ping. @@@ it will display the LAN , WAN (Internet) , and Wireless information.

If your Internet connection is set up for a Dynamic IP address then a Release button and a Renew button will be displayed. Use Release to disconnect from your ISP and use Renew to connect to your ISP. If your Internet connection is set up for PPPoE, a Connect button and a Disconnect button will be displayed. Use Disconnect to drop the PPPoE connection and use Connect to establish the PPPoE connection. See the following for more information.

General: Displays the routerâs time and firmware version. Internet: Displays the MAC address and the public IP settings for the router. LAN: Displays the MAC address and the private (local) IP settings for the router. Wireless LAN: Displays the wireless MAC address and your wireless settings such as SSID and Channel. d-Link DIR-600 User Manual 41 Section 3 - Configuration Log The router automatically logs (records) events of possible interest in itâs internal memory. If there isnât enough internal memory for all events, logs of older events are deleted but logs of the latest events are retained. The Logs option allows you to view the router logs.

You can define what types of events you want to view and the level of the events to view. This router also has external Syslog Server support so you can send the log files to a computer on your network that is running a Syslog utility. What to View: You can select the types of messages that you want to display from the log.

firewall & Security , System , and Router Status messages can be selected. View Levels: There are three levels of message importance: Informational, Warning, and Critical. Select the levels that you want displayed in the log. clear: Clears all of the log contents. Link to Log The user can click the button to âˊ Link To Email Settings: Settingsâˊ and send the logs to the designated E-mail account. D-Link DIR-600 User Manual 42 Section 3 - Configuration Stats The screen below displays the Traffic Statistics. Here you can view the amount of packets that pass through the DIR-600 on both the Internet and the LAN ports. The traffic counter will reset if the device is rebooted. IP Address: The IP address and, where appropriate, port number of the local application. TCP Session: This shows the number of TCP packets being sent from the source IP address.

UDP Session: This shows the number of UDP packets being sent from the source IP address. d-Link DIR-600 User Manual 44 Section 3 - Configuration Wireless The wireless client table displays a list of current connected wireless clients. This table also displays the connection time and MAC address of the connected wireless clients. D-Link DIR-600 User Manual 45 Section 3 - Configuration Support D-Link DIR-600 User Manual 46 Section 4 - Security Wireless Security This section will show you the different levels of security you can use to protect your data from intruders. The DIR-600 offers the following types of security: âˊ¢ WPA2 (Wi-Fi Protected Access 2) âˊ¢ WPA (Wi-Fi Protected Access) âˊ¢ WPA2-PSK(Pre-Shared Key) âˊ¢ WPA-PSK (Pre-Shared Key) What is WPA? WPA, or Wi-Fi Protected Access, is a Wi-Fi standard that was designed to improve the security features of WEP (Wired Equivalent Privacy). The 2 major improvements over WEP: âˊ¢ Improved data encryption through the Temporal Key Integrity Protocol (TKIP). TKIP scrambles the keys using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys havenâˊt been tampered with. âˊ¢ User authentication, which is generally missing in WEP, through the extensible authentication protocol (EAP). WEP regulates access to a wireless network based on a computerâˊs hardware-specific MAC address, which is relatively simple to be sniffed out and stolen. EAP is built on a more secure public-key encryption system to ensure that only authorized network users can access the network.
WPA-PSK/WPA2-PSK uses a passphrase or key to authenticate your wireless connection. The key is an alpha-numeric password between 8 and 63 characters long. The password can include symbols (! *&_) and spaces. This key must be the exact same key entered on your wireless router or access point. D-Link DIR-600 User Manual 47 Section 4 - Security Wireless Connection Setup Wizard To run the security wizard, browse to the Setup page and then click the Wireless Connection Setup Wizard button. d-Link DIR-600 User Manual 48 Section 4 - Security Enter the SSID (Service Set Identifier). The SSID is the name of your wireless network. Create a name using up to 32 characters. the SSID is case-sensitive. If you would like the router to automatically assign a network key to your network, you can click the button- âˊautomatically assign a network keyâˊ.

click Next to continue. Or if you would like to create the key by your own, please click the button- âˊ Manual assign a Network keyâˊ and click Next to continue. D-Link DIR-600 User Manual 50 Section 4 - Security Configure WPA-Personal (PSK) It is recommended to enable encryption on your wireless router before your wireless network adapters. please establish wireless connectivity before enabling encryption. Your wireless signal may degrade when enabling encryption due to the added overhead. 1. Log into the web-based configuration by opening a web browser and entering the IP address of the router (192. Click on Setup and then click Wireless Settings on the left side and then click Manual Wireless Network Setup. If you have wireless clients that use both types, use AUTO(TKIP/AES). 4.

Next to Pre-Shared Key, enter a key (passphrase). The key is entered as a pass-phrase in ASCII format at both ends of the wireless connection. The pass-phrase must be between 8-63 characters. If you are configuring the router with a wireless adapter, you will lose connectivity until you enable WPA-PSK on your adapter and enter the same passphrase as you did on the router. D-Link DIR-600 User Manual 51 Section 5 - Connecting to a Wireless Network Connect to a Wireless Network Using Windows 7 It is recommended to enable wireless security (WPA/WPA2) on your wireless router or access point before configuring your wireless adapter.
If you are joining an existing network, you will need to know the security key or passphrase being used. 1. Click on the wireless icon in your system tray (lower-right corner). wireless Icon 2. The utility will display any available wireless networks in your area.
d-Link DIR-600 User Manual 52 Section 5 - Connecting to a Wireless Network 3. Highlight the wireless network (SSID) you would like to connect to and click the Connect button. If you get a good signal but cannot access the Internet, check your TCP/IP settings for your wireless adapter. Refer to the Networking Basics section in this manual for more information. 4. The following window appears while your computer tries to connect to the router. d-Link DIR-600 User Manual 53 Section 5 - Connecting to a Wireless Network 5. Enter the same security key or passphrase that is on your router and click Connect. You can also connect by pushing the WPS button on the router. It may take 20-30 seconds to connect to the wireless network.

If the connection fails, please verify that the security settings are correct. The key or passphrase must be exactly the same as on the wireless router. D-Link DIR-600 User Manual 54 Section 5 - Connecting to a Wireless Network Using Windows® XP Windows® XP users may use the built-in wireless utility (Zero Configuration Utility). The following instructions are for Service Pack 2 users. If you are using another companyâˊs utility or Windows® 2000, please refer to the user manual of your wireless adapter for help with connecting to a wireless network. Most utilities will have a âˊsite surveyâˊ option similar to the Windows® XP utility as seen below. If you receive the Wireless Networks Detected bubble, click on the center of the bubble to access the utility. Or Right-click on the wireless computer icon in your system tray (lower-right corner next to the time).

select View Available Wireless Networks. The utility will display any available wireless networks in your area.

Click on a network (displayed using the SSID) and click the Connect button. If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the Networking Basics section in this manual for more information. D-Link DIR-600 User Manual 55 Section 5 - Connecting to a Wireless Network Configure WPA-PSK It is recommended to enable WEP on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the WEP key being used.

1. Open the Windows® XP Wireless Utility by right-clicking on the wireless computer icon in your system tray (lower-right corner of screen). Highlight the wireless network (SSID) you would like to connect to and click Connect. d-Link DIR-600 User Manual 56 Section 5 - Connecting to a Wireless Network 3. The Wireless Network Connection box will appear.

enter the WPA-PSK passphrase and click Connect. It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the WPA-PSK settings are correct. The WPA-PSK passphrase must be exactly the same as on the wireless router. D-Link DIR-600 User Manual 57 Section 6 - Troubleshooting Troubleshooting This chapter provides solutions to problems that can occur during the installation and operation of the DIR-600. Read the following descriptions if you are having problems. (The examples below are illustrated in Windows® XP. If you have a different operating system, the screen shots on your computer will look similar to the following examples.) 1. Why can't I access the web-based configuration utility? When entering the IP address of the D-Link router (192.

1 for example), you are not connecting to a website on the Internet or have to be connected to the Internet. The device has the utility built-in to a ROM chip in the device itself. Your computer must be on the same IP subnet to connect to the web-based utility. 0 or higher • Netscape 8 or higher • Mozilla 1. 5 or higher • Verify physical connectivity by checking for solid link lights on the device. If you do not get a solid link light, try using a different cable or connect to a different port on the device if possible. If the computer is turned off, the link light may not be on. • Disable any Internet security software running on the computer. Software firewalls such as Zone Alarm, Black Ice, Sygate, Norton Personal Firewall, and Windows® XP firewall may block access to the configuration pages. Check the help files included with your firewall software for more information on disabling or configuring it.

From the Security tab, click the button to restore the settings to their defaults. • Click the Connection tab and set the dial-up option to Never Dial a Connection. click the LAN Settings button. Make sure nothing is checked. click OK.

• Go to the Advanced tab and click the button to restore these settings to their defaults. Open your web browser and enter the IP address of your D-Link router in the address bar. This should open the login page for your the web management. • If you still cannot access the configuration, unplug the power to the router for 10 seconds and plug back in. Wait about 30 seconds and try accessing the configuration.

If you have multiple computers, try connecting using a different computer. 2. What can I do if I forgot my password? If you forgot your password, you must reset your router. Unfortunately this process will change all your settings back to the factory defaults. To reset the router, locate the reset button (hole) on the rear panel of the unit. With the router powered on, use a paperclip to hold the button down for 10 seconds. Release the button and the router will go through its reboot process. Wait about 30 seconds to access the router. The default IP address is 192. When logging in, the username is admin and leave the password box empty.

d-Link DIR-600 User Manual 59 Section 6 - Troubleshooting 3. Why can't I connect to certain sites or send and receive e-mails when connecting through my router? If you are having a problem sending or receiving e-mail, or connecting to secure sites such as eBay, banking sites, and Hotmail, we suggest lowering the MTU in increments of ten (Ex. To find the proper MTU Size, you'll have to do a special ping of the destination you're trying to go to. A destination could be another computer, or a URL. • Click on Start and then click Run. • Windows® 95, 98, and Me users type in command (Windows® NT, 2000, and XP users type in cmd) and press Enter (or click OK). • Once the window opens, you'll need to do a special ping. use the following syntax: ping [url] [-f] [-l] [MTU value] Example: ping yahoo. Com -f -l 1472 D-Link DIR-600 User Manual 60 Section 6 - Troubleshooting You should start at 1472 and work your way down by 10 each time. Once you get a reply, go up by 2 until you get a fragmented packet.

Take that value and add 28 to the value to account for the various TCP/IP headers. For example, lets say that 1452 was the proper value, the actual MTU size would be 1480, which is the optimum for the network we're working with (1452+28=1480). Once you find your MTU, you can now configure your router with the proper MTU size. To change the MTU rate on your router follow the steps below: • Open your browser, enter the IP address of your router (192. Click OK to enter the web configuration page for the device.

• Click on Setup and then click Manual Configure. • To change the MTU enter the number in the MTU field and click Save Settings to save your settings. • Test your e-mail. If changing the MTU does not resolve the problem, continue changing the MTU in increments of ten. D-Link DIR-600 User Manual 61 Appendix A - Wireless Basics Wireless Basics D-Link wireless products are based on industry standards to provide easy-to-use and compatible high-speed wireless connectivity within your home, business or public access wireless networks.

Strictly adhering to the IEEE standard, the D-Link wireless family of products will allow you to securely access the data you want, when and where you want it. You will be able to enjoy the freedom that wireless networking delivers. A wireless local area network (WLAN) is a cellular computer network that transmits and receives data with radio signals instead of wires. Wireless LANs are used increasingly in both home and office environments, and public areas such as airports, coffee shops and universities. Innovative ways to utilize WLAN technology are helping people to work and communicate more efficiently. Increased mobility and the absence of cabling and other fixed infrastructure have proven to be beneficial for many users.

Wireless users can use the same applications they use on a wired network. Wireless adapter cards used on laptop and desktop systems support the same protocols as Ethernet adapter cards. Under many circumstances, it may be desirable for mobile network devices to link to a conventional Ethernet LAN in order to use servers, printers or an Internet connection supplied through the wired LAN. A Wireless Router is a device used to provide this link.

d-Link DIR-600 User Manual 62 Appendix A - Wireless Basics What is Wireless? Wireless or Wi-Fi technology is another way of connecting your computer to the network without using wires. Wi-Fi uses radio frequency to connect wirelessly, so you have the freedom to connect computers anywhere in your home or office network. why D-Link Wireless? D-Link is the worldwide leader and award winning designer, developer, and manufacturer of networking products. D-Link delivers the performance you need at a price you can afford. D-Link has all the products you need to build your network. how does wireless work? Wireless works similar to how cordless phone work, through radio signals to transmit data from one point A to point B. But wireless technology has restrictions as to how you can access the network. You must be within the wireless network range area to be able to connect your computer. There are two different types of wireless networks Wireless Local Area Network (WLAN), and Wireless Personal Area Network (WPAN). Wireless Local Area Network (WLAN) In a wireless local area network, a device called an Access Point (AP) connects computers to the network.

The access point has a small antenna attached to it, which allows it to transmit data back and forth over radio signals. With an indoor access point as seen in the picture, the signal can travel up to 300 feet. With an outdoor access point the signal can reach out up to 30 miles to serve places like manufacturing plants, industrial locations, college and high school campuses, airports, golf courses, and many other outdoor venues. D-Link DIR-600 User Manual 63 Appendix A - Wireless Basics Wireless Personal Area Network (WPAN) Bluetooth is the industry standard wireless technology used for WPAN. bluetooth devices in WPAN operate in a range up to 30 feet away.

Compared to WLAN the speed and wireless operation range are both less than WLAN, but in return it doesn't use nearly as much power which makes it ideal for personal devices, such as mobile phones, PDAs, headphones, laptops, speakers, and other devices that operate on batteries. who uses wireless? Wireless technology as become so popular in recent years that almost everyone is using it, whether it's for home, office, business, D-Link has a wireless solution for it. Home • Gives everyone at home broadband access • Surf the web, check e-mail, instant message, and etc • Gets rid of the cables around the house • Simple and easy to use Small Office and Home Office • Stay on top of everything at home as you would at office • Remotely access your office network from home • Share Internet connection and printer with multiple computers • No need to dedicate office space D-Link DIR-600 User Manual 64 Appendix A - Wireless Basics Where is wireless used? Wireless technology is expanding everywhere not just at home or office. People like the freedom of mobility and it's becoming so popular that more and more public facilities now provide wireless access to attract people. The wireless connection in public places is usually called "hotspots".

Using a D-Link USB Adapter with your laptop, you can access the hotspot to connect to Internet from remote locations like: Airports, Hotels, Coffee Shops, Libraries, Restaurants, and Convention Centers. Wireless network is easy to setup, but if you're installing it for the first time it could be quite a task not knowing where to start. That's why we've put together a few setup steps and tips to help you through the process of setting up a wireless network. Tips Here are a few things to keep in mind, when you install a wireless network. Centralize your router or Access Point Make sure you place the router/access point in a centralized location within your network for the best performance. Try to place the router/access point as high as possible in the room, so the signal gets dispersed throughout your home. If you have a two-story home, you may need a repeater to boost the signal to extend the range. Eliminate Interference Place home appliances such as cordless telephones, microwaves, and televisions as far away as possible from the router/access point. This would significantly reduce any interference that the appliances might cause since they operate on same frequency. D-Link DIR-600 User Manual 65 Appendix A - Wireless Basics Security Don't let you next-door neighbors or intruders connect to your wireless network.

Secure your wireless network by turning on the WPA or WEP security feature on the router. Refer to product manual for detail information on how to set it up. Wireless Modes There are basically two modes of networking: • Infrastructure – All wireless clients will connect to an access point or wireless router. • Ad-Hoc – Directly connecting to another computer, for peer-to-peer communication, using wireless network adapters on each computer, such as two or more DWM-140 wireless network USB adapters. an Infrastructure network contains an Access Point or wireless router. All the wireless devices, or clients, will connect to the wireless router or access point. An Ad-Hoc network contains only clients, such as laptops with wireless cardbus adapters. All the adapters must be in Ad-Hoc mode to communicate. D-Link DIR-600 User Manual 66 Appendix B - Networking Basics Networking Basics Check your IP address After you install your adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i. To verify your IP address, please follow the steps below.

click on Start > Run. In the run box type cmd and click OK. (Windows Vista® users type in the Start Search box.) At the prompt, type ipconfig and press Enter. @@@@@@@@Step 2 Right-click on the Local Area Connection which represents your network adapter and select Properties.

step 3 Highlight Internet Protocol (TCP/IP) and click Properties. Step 4 Click Use the following IP address and enter an IP address that is on the same subnet as your network or the LAN IP address on your router. Example: If the router´s LAN IP address is 192. 1, make your IP address 192. X where X is a number between 2 and 99.

Make sure that the number you choose is not in use on the network. Set Default Gateway the same as the LAN IP address of your router (192. Set Primary DNS the same as the LAN IP address of your router (192.

The Secondary DNS is not needed or you may enter a DNS server from your ISP. Step 5 Click OK twice to save your settings. Network conditions and environmental factors, including volume of network traffic, M building materials and construction, and network overhead, lower actual data throughput rate. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures. FCC Statement: 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 of the following measures: â□¢ Reorient or relocate the receiving antenna. â□¢ Increase the separation between the equipment and receiver. â□¢ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. â□¢ Consult the dealer or an experienced radio/TV technician for help. For detailed warranty information applicable to products purchased outside the United States, please contact the corresponding local D-Link office. FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the userâ□□s authority to operate this equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. IMPORTANT NOTE: FCC Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. .