

## D-Link DIR-628: Elan Default Settings

### Overview:

There are three routers that may have come with your Network Assembly. This document covers the new DIR-628 router. This router will have a sticker on the unit that indicates the model number. Visually it is a black router as opposed to the earlier grey and teal DI-624, or black and silver WBR-2310.

### Required Tools:

1. Powered up and connected D-Link DIR-628.
2. Computer hooked into network served by DIR-628.

**Router Login:** Elan ships all D-Link routers with D-Link default login credentials. The IP is **192.168.0.1** and username is **admin**. There is no password needed to access the settings.

### WAN Settings

The WAN (Wide Area Network) settings are used to connect to the Internet. You may need to click "Manual Configure" to reach this screen. Default routers settings below:

DIR-628	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
INTERNET	<b>WAN</b>				<b>Helpful Hints...</b> When configuring the router to access the Internet, be sure to choose the correct <b>Internet Connection Type</b> from the drop down menu. If you are unsure of which option to choose, contact your <b>Internet Service Provider (ISP)</b> .  If you are having trouble accessing the Internet through the router, double check any settings you have entered on this page and verify them with your ISP if needed.  <a href="#">More...</a>
WIRELESS SETTINGS	Use this section to configure your Internet Connection type. There are several connection types to choose from: Static IP, DHCP, PPPoE, PPTP, and L2TP. If you are unsure of your connection method, please contact your Internet Service Provider.  <b>Note :</b> If using the PPPoE option, you will need to remove or disable any PPPoE client software on your computers.  <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/>				
NETWORK SETTINGS	<b>INTERNET CONNECTION TYPE</b> Choose the mode to be used by the router to connect to the Internet.  My Internet Connection is : <input type="text" value="Dynamic IP (DHCP)"/>				
USB SETTINGS	<b>ADVANCED DNS SERVICE</b> Advanced DNS is a free security option that provides Anti-Phishing to protect your Internet connection from fraud and navigation improvements such as auto-correction of common URL typos.  Enable Advanced DNS Service : <input type="checkbox"/>				
<b>DYNAMIC IP (DHCP) INTERNET CONNECTION TYPE :</b> Use this Internet connection type if your Internet Service Provider (ISP) didn't provide you with IP Address information and/or a username and password.  Host Name : <input type="text" value="DIR-628"/> Use Unicastng : <input checked="" type="checkbox"/> (compatibility for some DHCP Servers) Primary DNS Server : <input type="text" value="0.0.0.0"/> Secondary DNS Server : <input type="text" value="0.0.0.0"/> MTU : <input type="text" value="1500"/> (bytes) MTU default = 1500 MAC Address : <input type="text" value="00:18:e7:d0:c0:5f"/> <input type="button" value="Clone Your PC's MAC Address"/>					

The default settings (Dynamic IP) will work for most **cable modem** installations. Note you may need to "Clone MAC Address" from your computer for the cable modem to allow the D-Link to see the internet.

If you are going to use a **DSL modem** or other type of Internet connection then you may need to change to PPPoE or to a static IP – See typical configuration below: consult your Internet Service Provider (ISP) for details.

**INTERNET CONNECTION TYPE**

Choose the mode to be used by the router to connect to the Internet.

My Internet Connection is :

**ADVANCED DNS SERVICE**

Advanced DNS is a free security option that provides Anti-Phishing to protect your Internet connection from fraud and navigation improvements such as auto-correction of common URL typos.

Enable Advanced DNS Service :

**PPPOE INTERNET CONNECTION TYPE :**

Enter the information provided by your Internet Service Provider (ISP).

Address Mode :  Dynamic IP  Static IP

IP Address :

Username :

Password :

Verify Password :

Service Name :  (optional)

Reconnect Mode :  Always on  On demand  Manual

Maximum Idle Time :  (minutes, 0=infinite)

Primary DNS Server :  (optional)

Secondary DNS Server :  (optional)

MTU :  (bytes) MTU default = 1492

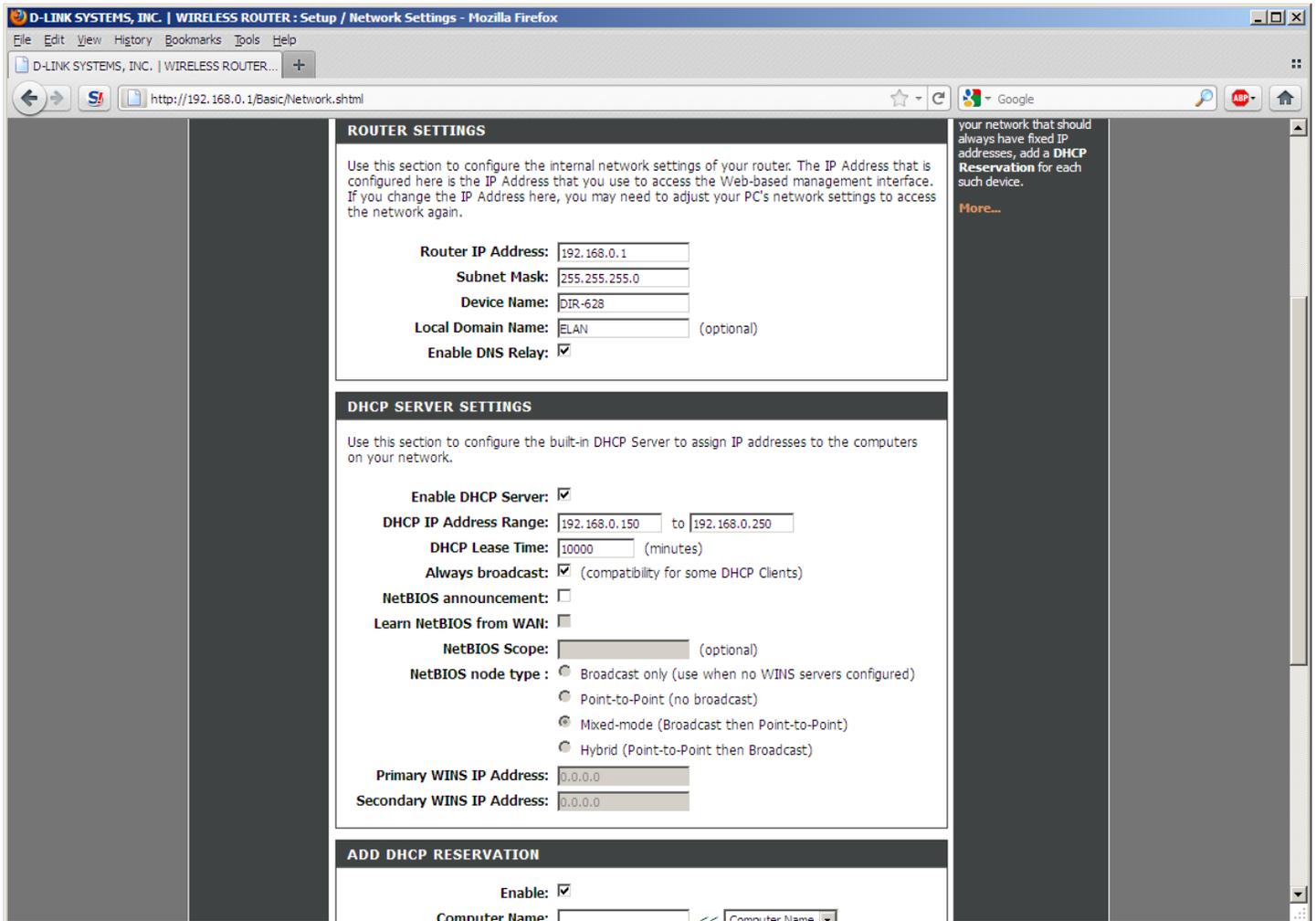
MAC Address :

**WIRELESS**

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## LAN Settings

The LAN (Local Area Network) settings specify the routers address and subnet mask on the home network, as shown below:



The screenshot shows the 'ROUTER SETTINGS' section of a D-Link wireless router's web interface. The browser address bar shows 'http://192.168.0.1/Basic/Network.shtml'. The settings are as follows:

Setting	Value
Router IP Address	192.168.0.1
Subnet Mask	255.255.255.0
Device Name	DIR-628
Local Domain Name	ELAN (optional)
Enable DNS Relay	<input checked="" type="checkbox"/>

The 'DHCP SERVER SETTINGS' section is also visible, with the following configurations:

Setting	Value
Enable DHCP Server	<input checked="" type="checkbox"/>
DHCP IP Address Range	192.168.0.150 to 192.168.0.250
DHCP Lease Time	10000 (minutes)
Always broadcast	<input checked="" type="checkbox"/> (compatibility for some DHCP Clients)
NetBIOS announcement	<input type="checkbox"/>
Learn NetBIOS from WAN	<input type="checkbox"/>
NetBIOS Scope	(optional)
NetBIOS node type	Broadcast only (use when no WINS servers configured)
Primary WINS IP Address	0.0.0.0
Secondary WINS IP Address	0.0.0.0

The 'ADD DHCP RESERVATION' section is partially visible at the bottom, showing an 'Enable' checkbox checked and a 'Computer Name' field.

### Router Settings

Typically, the router will be configured to a LAN IP of 192.168.0.1, with a Subnet Mask of 255.255.255.0, and DNS Relay enabled. Always broadcast is enabled for maximum compatibility.

### DHCP Settings

The router includes a DHCP (Dynamic Host Configuration Protocol) server. By default, the DHCP server is enabled, with the addresses range set to 192.168.0.150-192.168.0.250.

## Wireless Settings

The image below shows the default wireless settings for the router. You may need to click "Manual Wireless Network Setup" to see these options.

The screenshot displays the 'WIRELESS NETWORK SETTINGS' page in a Firefox browser window. The page is divided into three main sections: 'WIRELESS NETWORK SETTINGS', 'WIRELESS SECURITY MODE', and 'WPA'. The 'WIRELESS NETWORK SETTINGS' section includes options for 'Enable Wireless' (checked, Always), 'Wireless Network Name' (ELAN), '802.11 Band' (2.4GHz), '802.11 Mode' (Mixed 802.11n, 802.11g and 802.11b), 'Enable Auto Channel Scan' (unchecked), 'Wireless Channel' (2.417 GHz - CH 2), 'Transmission Rate' (Best (automatic)), 'Channel Width' (20 MHz), and 'Visibility Status' (Visible). The 'WIRELESS SECURITY MODE' section explains security features and shows 'Security Mode' set to 'WPA-Personal'. The 'WPA' section provides details on WPA and WPA2 modes and shows 'WPA Mode' set to 'Auto (WPA or WPA2)', 'Cipher Type' set to 'TKIP and AES', and 'Group Key Update Interval' set to 3600 seconds. The 'PRE-SHARED KEY' section prompts for an 8- to 63-character alphanumeric pass-phrase, with the field currently containing 11 dots.

### Wireless Encryption Settings

**IMPORTANT:** As shown above, the wireless encryption is enabled in WPA/WPA2 auto mode.

We suggest you make the following changes to the default router settings during installation to turn on encryption for the wireless network:

- Set the **SSID** to a name that corresponds to the house
- Set the channel to (Auto) if you have not tested to find the best channel for your install
- Set the SSID to be **Visible**
- Set the **Security Mode** to WPA-Personal
- Set **WPA** to Auto (WPA or WPA2)
- Set **Cipher** to TKIP and AES
- Set **Pre-Shared Key** as desired (default: 5555555555)

Save your settings. You will need the SSID (is CASE SENSITIVE) and Key when you configure a tablet, or other WiFi device to connect to the wireless network.

## Port Forwarding

There are two ports on the wireless router that are forwarded to the **g! Controller** in standard **g!** installations. Note that the D-Link contains two locations where port forwarding may be setup: Virtual Server (for single ports) and Port Forwarding (for a range of ports). Elan configures each port under the Virtual Server location by default. Either should be effective, but ensure you only configure port forwards in one location!

**IMPORTANT NOTE:** If there are other routers or firewalls in the network there may be additional steps required to properly setup the remote access. Contact the network administrator for details.

**Port 443 or 2198: g! Remote Access:** this port enables a remote user to access the Viewer/Configurator interface over the Internet using g!Connect. Make sure you set the correct external port in Configurator on the System tab. Note that legacy controllers used 443, and HC Controllers use 2198 by default. In default router settings Elan will forward both ports to the controller.

**Port 5001 or 2199: g! Service:** this port enables service connections, so that support personnel from Elan or from the dealer's office can access the **g! Controller** remotely to troubleshoot issues. Note that HomeBrick controllers used 5001, and MultiBrick/HC Controllers use 2199 by default. In default router settings Elan will forward both ports to the controller.

The following image shows the default port settings on the wireless router.

Name	IP Address	Port	Traffic Type	Schedule
<input checked="" type="checkbox"/> HomeLogic Old	192.168.0.2	443	Both	Always
<input checked="" type="checkbox"/> TermServ Old	192.168.0.2	5001	Both	Always
<input checked="" type="checkbox"/> OneHome Remote	192.168.0.2	2198	Both	Always
<input checked="" type="checkbox"/> OneHome Service	192.168.0.2	2199	Both	Always
<input type="checkbox"/>	0.0.0.0	0	TCP	Always
<input type="checkbox"/>	0.0.0.0	0	TCP	Always
<input type="checkbox"/>	0.0.0.0	0	TCP	Always
<input type="checkbox"/>	0.0.0.0	0	TCP	Always

## Other Settings

There are a few other settings configured in the D-Link as shown below:

### QOS Engine- Disabled

(QOS shapes network traffic to prioritize certain types of packets. Typically this should only be enabled if it is required for performance of a specific application or device, such as VoIP software)

The screenshot shows the D-Link DIR-628 web interface in a Firefox browser. The browser address bar shows "D-LINK SYSTEMS, INC. | WIRELESS ROUTER...". The page title is "Product Page: DIR-628" and the hardware/firmware versions are "Hardware Version: A2" and "Firmware Version: 1.25NA". The D-Link logo is prominently displayed at the top. Below the logo is a navigation menu with tabs for "DIR-628", "SETUP", "ADVANCED", "TOOLS", "STATUS", and "SUPPORT". The "ADVANCED" tab is selected, and the "QOS ENGINE" sub-tab is active. The main content area is divided into three sections: "QOS ENGINE", "WAN TRAFFIC SHAPING", and "QOS ENGINE SETUP".

**QOS ENGINE**

Use this section to configure D-Link's QoS Engine. The QoS Engine improves your online gaming experience by ensuring that your game traffic is prioritized over other network traffic, such as FTP or Web. For best performance, use the Automatic Classification option to automatically set the priority for your applications.

Save Settings    Don't Save Settings

**WAN TRAFFIC SHAPING**

Enable Traffic Shaping:

Automatic Uplink Speed:

Measured Uplink Speed: Not Estimated

Manual Uplink Speed: 128 kbps << Select Transmission Rate

Connection Type: Auto-detect

Detected xDSL or Other Frame Relay Network: No

**QOS ENGINE SETUP**

Enable QoS Engine:

Automatic Classification:

Dynamic Fragmentation:

**10 -- QOS ENGINE RULES**

Name	Priority	Protocol
	1 (1..255)	6 << TCP

Local IP Range: 0.0.0.0 to 255.255.255.255

Local Port Range: 0 to 65535

Remote IP Range: 0.0.0.0 to 255.255.255.255

Remote Port Range: 0 to 65535

Name	Priority	Protocol
	1 (1..255)	6 << TCP

## Firewall Settings-SPI Disabled

(SPI can provide some additional protection, but has also been known to cause corrupt downloads.)

The screenshot shows the Firewall Settings page of a D-Link wireless router. The browser window title is "D-LINK SYSTEMS, INC. | WIRELESS ROUTER...". The page has a left sidebar with navigation links: PORT FORWARDING, APPLICATION RULES, QOS ENGINE, NETWORK FILTER, ACCESS CONTROL, WEBSITE FILTER, INBOUND FILTER, FIREWALL SETTINGS (selected), ROUTING, ADVANCED WIRELESS, WI-FI PROTECTED SETUP, and ADVANCED NETWORK.

The main content area is titled "FIREWALL SETTINGS" and contains the following sections:

- Enable SPI:**  (disabled)
- NAT ENDPOINT FILTERING:**
  - UDP Endpoint Filtering:**  Address Restricted,  Endpoint Independent,  Port And Address Restricted
  - TCP Endpoint Filtering:**  Port And Address Restricted,  Address Restricted,  Endpoint Independent
- ANTI-SPOOF CHECKING:**  (disabled)
- DMZ HOST:**

The DMZ (Demilitarized Zone) option lets you set a single computer on your network outside of the router. If you have a computer that cannot run Internet applications successfully from behind the router, then you can place the computer into the DMZ for unrestricted Internet access.

**Note:** Putting 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.

**Enable DMZ:**  (disabled)

**DMZ IP Address:** 0,0,0,0 << Computer Name
- APPLICATION LEVEL GATEWAY (ALG) CONFIGURATION:**
  - PPTP:**
  - IPSec (VPN):**
  - RTSP:**
  - SIP:**

On the right side of the page, there is a note: "Enable the DMZ option only as a last resort. If you are having trouble using an application from a computer behind the router, first try opening ports associated with the application in the Virtual Server or Port Forwarding sections. More..."

**Advanced Wireless- Disable WMM Enable, Short GI**  
(These settings may be customized as needed for the specifics of your wireless install)

Product Page: DIR-628 Hardware Version: A2 Firmware Version: 1.25NA

# D-Link

DIR-628 // SETUP ADVANCED TOOLS STATUS SUPPORT

**ADVANCED WIRELESS**

If you are not familiar with these Advanced Wireless settings, please read the help section before attempting to modify these settings.

Save Settings Don't Save Settings

**ADVANCED WIRELESS SETTINGS**

Transmit Power : High

Beacon Period : 100 (20..1000)

RTS Threshold : 2346 (0..2347)

Fragmentation Threshold : 2346 (256..2346)

DTIM Interval : 1 (1..255)

WLAN Partition :

WMM Enable :

Short GI :

**WIRELESS**

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## WI-FI PROTECTED SETUP (WPS) – Disabled.

(WPS may be enabled if desired in your install; this is used for configuration of some network devices)

Product Page: DIR-628 Hardware Version: A2 Firmware Version: 1.25NA

# D-Link

DIR-628 // SETUP ADVANCED TOOLS STATUS SUPPORT

VIRTUAL SERVER  
PORT FORWARDING  
APPLICATION RULES  
QOS ENGINE  
NETWORK FILTER  
ACCESS CONTROL  
WEBSITE FILTER  
INBOUND FILTER  
FIREWALL SETTINGS  
ROUTING  
ADVANCED WIRELESS  
WI-FI PROTECTED SETUP  
ADVANCED NETWORK

### WI-FI PROTECTED SETUP

Wi-Fi Protected Setup is used to easily add devices to a network using a PIN or button press. Devices must support Wi-Fi Protected Setup in order to be configured by this method.

Save Settings Don't Save Settings

### WI-FI PROTECTED SETUP

Enable:   
Lock Wireless Security Settings:

Reset to Unconfigured

### PIN SETTINGS

Current PIN: 31295147

Reset PIN to Default Generate New PIN

### ADD WIRELESS STATION

Add Wireless Device with WPS

Helpful Hints...  
Enable if other wireless devices you wish to include in the local network support Wi-Fi Protected Setup.  
Only "Admin" account can change security settings.  
Lock Wireless Security Settings after all wireless network devices have been configured.  
Click Add Wireless Device Wizard to use Wi-Fi Protected Setup to add wireless devices to the wireless network.  
More...

WIRELESS

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## Advanced Network- Enable MultiCast Streams, Disable UPNP

(UPnP may be enabled if in use, but is disabled by default as it can be used by rogue applications to create port forwards in the router. MultiCast Streams should be enabled for proper function of the g! software)

The screenshot shows the D-Link DIR-628 Advanced Network configuration page. The browser window title is "D-LINK SYSTEMS, INC. | WIRELESS ROUTER...". The page header includes "Product Page: DIR-628" and "Hardware Version: A2 Firmware Version: 1.25NA". The D-Link logo is prominently displayed at the top. The navigation menu includes "DIR-628", "SETUP", "ADVANCED", "TOOLS", "STATUS", and "SUPPORT". The "ADVANCED NETWORK" section is active, showing a warning message and "Save Settings" / "Don't Save Settings" buttons. Below this are sections for "UPNP" (with "Enable UPnP" unchecked), "WAN PING" (with "Enable WAN Ping Respond" checked, "WAN Ping Inbound Filter" set to "Allow All", and "Details" set to "Allow All"), "WAN PORT SPEED" (with "WAN Port Speed" set to "Auto 10/100Mbps"), and "MULTICAST STREAMS" (with "Enable Multicast Streams" checked). A "WIRELESS" section is visible at the bottom. A "Helpful Hints..." sidebar on the right provides additional information about UPnP, WAN Ping, and Multicast Streams. The footer contains the copyright notice "Copyright © 2004-2008 D-Link Systems, Inc."