

# Huawei Ethernet Switch Quick Setup Guide

# For West Penn Wire AV over IP Devices



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## 1. Introduction

This document covers the basic setup requirements for a Huawei Ethernet Switch when using in conjunction with WPW AV over IP products.

The setup examples and screen shots shown here are for the Huawei model S1720-10GW-PWR-2P, but these instructions should be similar and applicable to other Huawei Ethernet Switch models.

## 2. WPW Ethernet Switch Setup Requirements

All WPW AV over IP Transmitters and Receivers require IGMP support to be enabled on the Ethernet Switch, and a select number of models also require Jumbo Frames to be enabled. PoE is also expected on most WPW models operating on a 1G network, as the corresponding WPW AV over IP models do not ship with power supplies by default. However, power supplies can be purchased separately for cases where PoE is not supported by the Ethernet Switch. Also note that most WPW AV over IP models below work on a 1G Ethernet Switch. The below table specifies the IGMP and Jumbo Frames requirements per WPW AV over IP Transmitter/Receiver model.

AV over IP	Ethernet Switch	IGMP	
Model	BW Required	Required	
AV-IP-WP772-WH	1G	x	
AV-IP-RX776	1G	x	
AV-IP-C8-WH	1G	x	
AV-IP-AMPTX	1G	x	
AV-IP-AMPRX	1G	x	

### **Ethernet Switch Setup**

Access the Ethernet Switch web server

- Locate the Ethernet Switch default IP address
- Make sure your computer is on the same subnet as the Ethernet Switch (your network administration can assist you with this, if required)
- Enter the Ethernet Switch IP address into a browser

#### 2.1. Configuring Ethernet Switch IP Address and DHCP

- Navigate to [configuration → VLAN]
- Click the on VLAN ID

Easy Operation \$1720-10GW-PWR-2P	Monitoring	Configuration	Diagnosis	Maintenance		No license (onl	web supported) 📒	💄 admir	• <b>G• ?</b>	中文
Quick Config	Create Batch Cr	eate Delete	Refresh				VLAN ID	Ŧ		٩
<ul> <li>Basic Services</li> </ul>	VLAN ID +		VLAN Description *	IPv4 Address/Mask	k 🔺	Interface List				
Interface Settings	În		VLAN 0001	192.168.168.1/25	5.255.255.0	View Interface				
VLAN	10 - Total 1 recor	d(s)							< 1	
DHCP										
Static Route										
Advanced Services										
<ul> <li>Security Services</li> </ul>										

• Set the IPv4 address to 192.168.168.1

Modify VLAN					×
i Modifying \	/LAN configuration will cause s	service interruptio	n.		
• VLAN ID:		Description:	VLAN 0001		
Create VLAN	NF				
<ul> <li>IPv4 address:</li> </ul>	192 . 168 . 168 . 1	Mask:	24 (255.255.255.0)	Ŧ	
IPv6 address:		Prefix length:			0
Add Interface	۲				
	ОК	Cancel			

This will change the IP address of the switch and set it to within the default segment

address range of the WPW AV over IP devices.

- Reconnect to the Ethernet Switch using IP address 192.168.168.1, in order to continue below.
- Navigate to [Configuration → DHCP]
- Set the DHCP status to "ON".
- Click on the Vlan1 check-box

This will display a number of IP addresses.

• Set the status of IP addresses 192.168.168.1 and 192.168.168.50 to reserved.

Easy Operation	Monitoring Configuration		ntenance	No li	cense (only web supported) 📒	💄 admin 🗗 📍 中文		
Quick Config	Global Settings							
<ul> <li>Basic Services</li> </ul>	DHCP status: ON Address Pool List							
Interface Settings	Create Delete Refresh				Interface Name	۰ ب		
VLAN	Interface Na + Interface IP +	Mask +	DHCP Mode +	Server IP +	Primary DNS Server +	Secondary DNS Server +		
DHCP	Vianif1 192.168.168.1	255.255.255.0	Local allocation	-				
Static Route	6 v Total 1 record(s)							
Advanced Services	Vlanif1 Address Pool Information Sum of Addresses: 254 Allocated: 7							
<ul> <li>Security Services</li> </ul>	Bind IP Fix IP Unbind IP	Reserve IP Release IP	Reclaim IP Refresh		IP Address	<b>م</b> ب		
	IP Address +	MAC Address +	Status +		Expiration Time +			
	192.168.168.1		Reserved		-			
	192.168.168.2		Idle		-			
	192.168.168.3		Idle		-			
	192.168.168.4		Idle		-			
	192.168.168.5		Reserved		-			
	5 v Total 254 record(s)			<	1 2 3 4 5 51	> Go to 1		

### 2.2. Enabling IGMP

Follow the steps below to enable the IGMP feature on the Ethernet Switch. For further details on navigating through the Ethernet Switch web server menus, please refer to the Ethernet Switch manual.

- Navigate to the menu: [Configuration → Advanced Services → IGMP Snooping → IGMP Snooping Configuration]
- Click on the VLAN ID of the VLAN used with the WPW products.

• Set "IGMP version", "Fast Leave" and "Querier" to "ON". Press "OK".

Easy Operation S1720-10GW-PWR-2P	Monitoring	Configuration	입니 Diegnosis	Maintenance			No license (only web supported)	💄 admin 🗗 ? 中文
Quick Config	IGMP Snooping Con	figuration Gro	up Member Ports					
<ul> <li>Basic Services</li> </ul>	Refresh						VLAN ID	٩
<ul> <li>Advanced Services</li> </ul>	VLAN ID A	MP Snooping +	IGMP Version +	IGMP Version +	Fast Leave +	Querier +	Query Interval(s) +	
Voice VLAN	1 C	ON	V2 *				125	س×
MAC	10 - Total 1 reco	rd(s)						К
IP Services								
LBDT								
STP								
LLDP								
IGMP Snooping								

#### 2.3. Enabling Jumbo Frames

Normally Jumbo frames are enabled by default.

- Navigate to [configuration → basic services → interface settings → view configuration]
- Click on the Ethernet port icons.
- Make sure that the "Jumbo" value is set to 9216 on each port.

Easy Operation S1720-10GW-PWR-2P	Monitoring	Configuration	Diagnosis	Maintenance		No licen
Quick Config	Step 1: Select Task					
<ul> <li>Basic Services</li> </ul>	View Configuration	Connect to PC	Connect to IP	Phone Connec	t to Switch Enable/Disable Interf	ace Detect Link
Interface Settings	Step 2: Select Interfac	e				
VLAN	Slot 0					
DHCP	2 4 6	1				
Static Route		•				
<ul> <li>Advanced Services</li> </ul>		<b>.</b> -	10			
Voice VLAN		Name: GigabitEtherne Status: Up	t0/0/7			
MAC			Selected	Down	Up Shutdown	Electrical Interface
IP Services	Step 3: View					
LBDT	Interface:	GigabitEtherne	t0/0/2		Jumbo:	9216
STP	Interface Status:	Up			Combo:	-
512	Auto-Negotiation:	Enable			Flow Control:	Disable
LLDP	Duplex Mode:	Full-duplex			EEE:	Disable
	Interface Rate:	1000Mbit/s			Power Saving Mode:	Disable

## 3. Preparing for System Installation

The Ethernet Switch is now properly configured to support WPW AV over IP devices with respect to IGMP and Jumbo Frames.

Note that WPW AV over IP Transmitters and Receivers are set by default with DHCP enabled, and the West Penn AV-IP-NC811 ProDigital Network Controller has DHCP disabled by default and is set to a default Static IP address of 192.168.168.50. It is recommended that you operate your system with the Transmitters and Receivers with DHCP enable and the AV-IP-NC811 Network Controller with DHCP disabled.

If however you intend to disable the DHCP on the Transmitters and Receivers, then please take note that the default Static IP address for the Transmitters is 192.168.168.55, and for the Receivers is 192.168.168.56. If you are using more than one, you need to change these values so that each transmitter and receiver has a unique Static IP address.

Note that in order for the entire system to operate correctly, the Ethernet Switch, WPW Transmitters and Receivers, and the WPW ProDigital Network Controller must all be on the same subnet. Devices with DHCP enabled will adjust automatically to the correct subnet, while devices with DHCP disabled, may need to be set by the user to the correct subnet, if not already set correctly. Your network administrator can assist with this configuration if you are not familiar with how to accomplish this task.

# 4. Support

If you are having issues which require further assistance, please contact the respective device manufacturer for the device in question. For WPW device related questions, please contact WPW Customer Technical Support at 800-245-4964

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