

**LP-349 123 Manual in PTP and MTP Mode.**

LP349\_M123\_ENF01W



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The following Instruction Manual will guide you on how to configure the LP-349 in PTP and MTP Mode.

## 1

We recommend you to first draw a detailed diagram of your equipment configuration. We have developed a typical diagram shown in figure 1 where three (3) equipment will be configured in a Multi-Point configuration and that will serve as a guide for you to setup yours. We remind you that each one of the equipment has a unique MAC address which you will need in the setup.

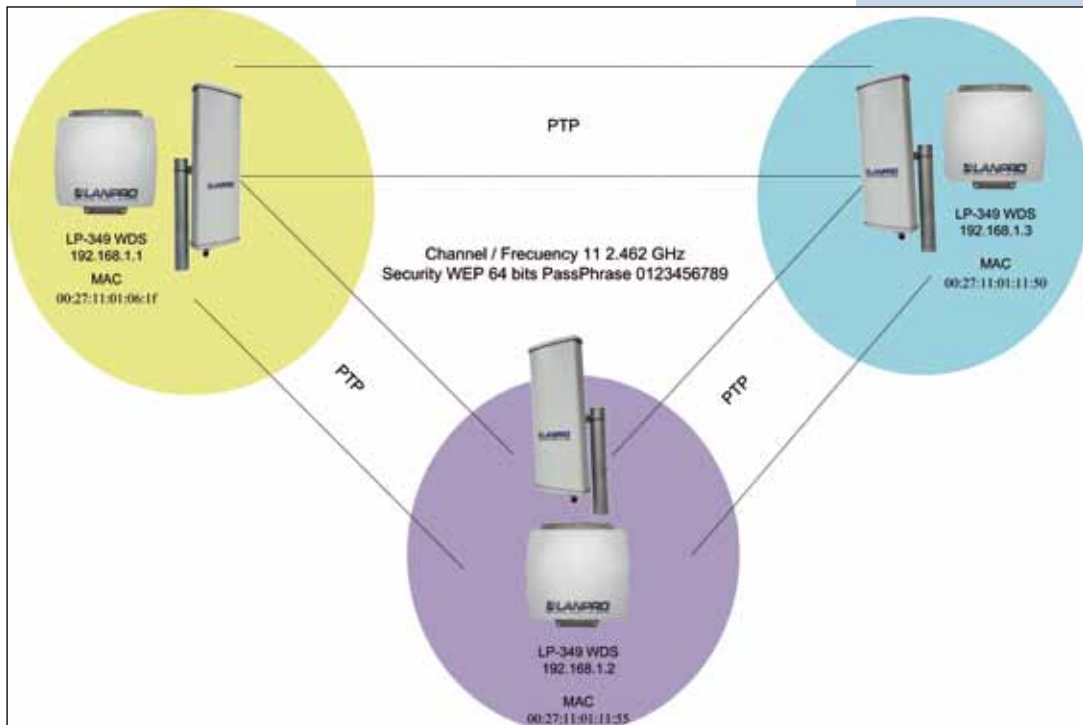


Figure 1

## 2

Once the Setup 123 Manual has been executed, proceed to configure it by first connecting the UTP cable that comes from the LP-349 to the **To Odu** port of the PoE Injector furnished with the radio as shown in figure 2.



Figure 2

3

Connect an UTP cable from the **To Ethernet** port of the PoE injector to the Switch or PC as shown in figure 3.



Figure 3

4

Connect electric power to the PoE injector as shown in figure 4.



Figure 4

5

Please go to your network card properties window and select: **Internet Protocol**, then select: **Properties**, as shown in figure 5.

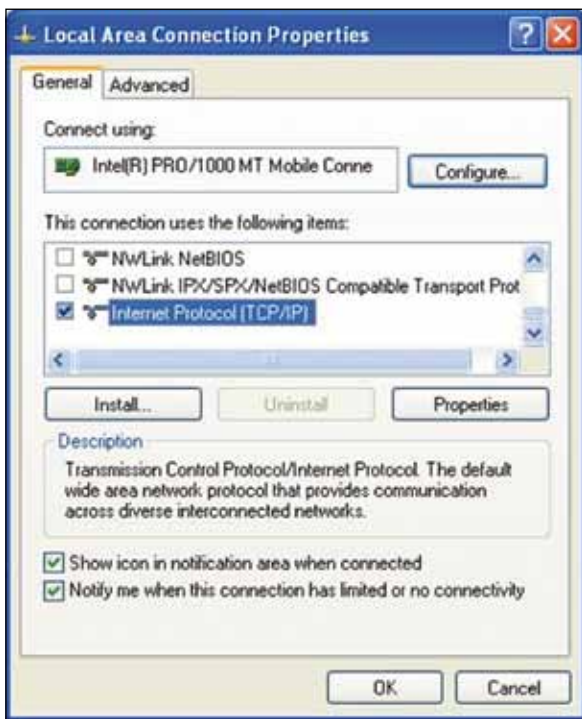


Figure 5

6

In the window shown in figure 6, select: **Use the following IP address** and input an IP address in the range of IP set by default of the LP-349. In this example, we have selected address: 192.168.1.201, the LP-349 has a default address of 192.168.1.1, input 255,255,255,0 in: **Subnet Mask**, in: **Default gateway** input the destination router address, in: **Preferred DNS Server** you must input the **DNS** address of your service provider or the IP address of your destination router, the one that provides the Internet Service, this is will route any corresponding queries to the router of the destination network.

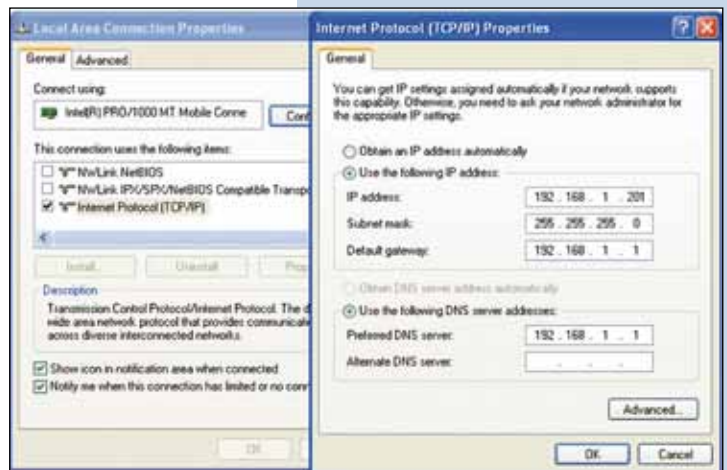


Figure 6

7

Please open your preferred browser and input the default address: 192.168.1.1, please see figure 7.

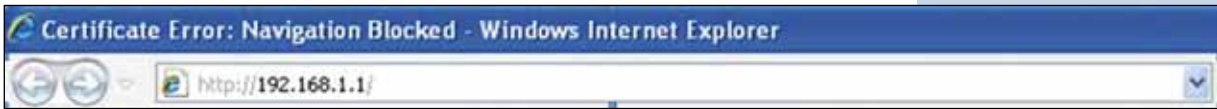


Figure 7

8

In the certificate validation window shown in figure 7, please accept by selecting: **Continue to this website (not recommended)**.

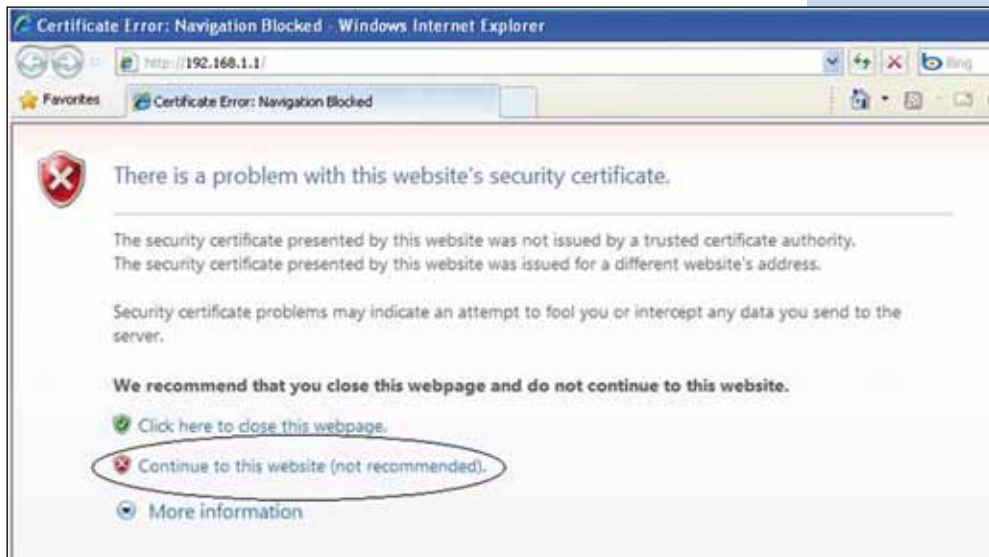


Figure 8

9

In the window shown in figure 9, input the word **admin** in: **Name** and the word: **password** in: **Password** and then select: **Login now**.

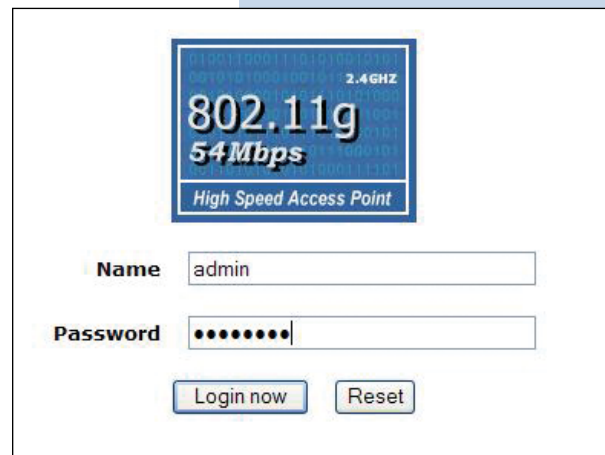


Figure 9

10

In the window shown in figure 10, in the menu: **Wireless Setup**, proceed to select: **Basic Settings**, in: **Operation Mode**, select: **Wireless Bridge** and select: **Apply**, remember to verify the operating frequency of all of the equipment set.



Figure 10

11

In the window shown in figure 11, in the menu: **Wireless setup**, proceed to select: **WDS Settings**, input in: **Remote Mac Address** the MAC addresses of the destination equipment shown in figure 1. It is important to input the MAC addresses in a correct way because any error will impede the communication between them. Once finished, select: **Apply**.



Figure 11

12

In the window shown in figure 12, you can establish the security of the WDS connections. To do this, in the menu: **Wireless Setup**, select: **VAP/VLAN Settings**, select: **wds\_profile** and then select: **Edit**.

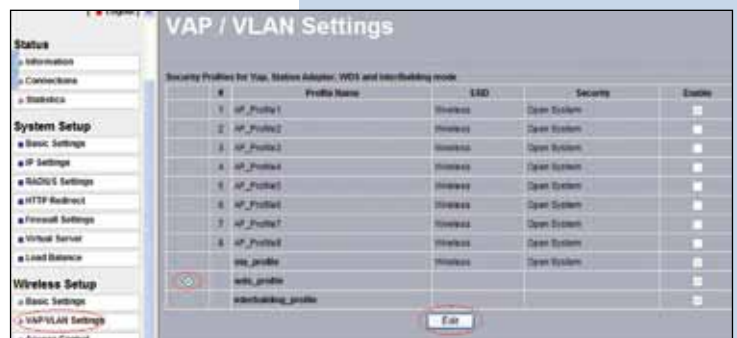


Figure 12

## 13

In this example, the keys that will be used will be generated and the encryption mode will be established. In order to do this, in the window shown in figure 13, in: **Data Encryption**, select: **WEP 64 Bits**, and input a passphrase and select: **Generate Keys**. The keys will then be generated in the LP-349. Once done, we proceed to select Key number 1 and enable them by selecting: **Enable** and then: **Apply**.

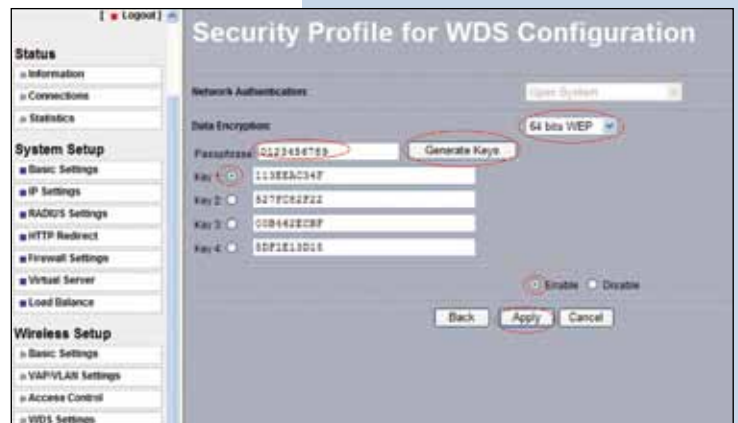


Figure 13

## 14

In this case, a message shown in figure 14 will be prompted indicating that the keys apply to all the security profiles, then select: **Ok**.

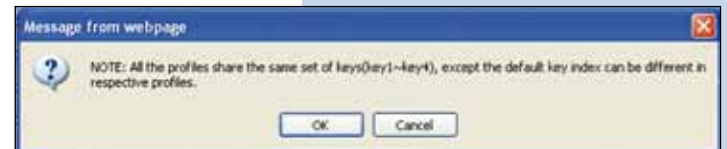


Figure 14

## 15

As shown in figure 1, we will proceed to connect the second LP-349 by repeating steps 7 to 14 of this manual, and taking in account the MAC addresses shown in figure 1. Remember to input the MAC addresses of all the equipment that will be communicated, additionally, you will have to change the IP Address as per the figure 1 diagram. In order to do this, please refer to figure 15, in the menu: **System Setup**, select: **IP Settings**, change the IP and select: **Apply**. The equipment will reboot and in order to access it again you will have to use this new IP. Please do this before establishing the communication between them.



Figure 15

## 16

We will now proceed to connect the **third** (3) LP-349 by repeating steps 7 to 14 of this manual, and taking in mind the **MAC Addresses** shown in figure 1. Remember to input the **MAC addresses** of the equipment you wish to communicate to. Additionally, you must change the IP address as per the diagram of figure 1. In order to do this, in the same window shown in figure 15, in the menu: **System Setup**, select: **IP Settings**, change the IP of the third one and select: **Apply**, the equipment will reboot and in order to be able to access it you will have to use this new IP, do this before establishing communication between them.

## 17

Wait for 30 seconds and verify the connectivity of the equipment, you can do this by:

- a Sending a PIN to any of the destination equipment involved, please see figure 17a.

```

C:\>ping 192.168.1.1 -t

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time=2ms TTL=255
Reply from 192.168.1.1: bytes=32 time=1ms TTL=255
Reply from 192.168.1.1: bytes=32 time=2ms TTL=255
Reply from 192.168.1.1: bytes=32 time=2ms TTL=255
Reply from 192.168.1.1: bytes=32 time=2ms TTL=255
Reply from 192.168.1.1: bytes=32 time=1ms TTL=255
Reply from 192.168.1.1: bytes=32 time=1ms TTL=255
Reply from 192.168.1.1: bytes=32 time=1ms TTL=255
Reply from 192.168.1.1: bytes=32 time=2ms TTL=255
Reply from 192.168.1.1: bytes=32 time=1ms TTL=255
Reply from 192.168.1.1: bytes=32 time=2ms TTL=255

```

Figure 17 a

- b Enter in the LP-349 and in the window shown in figure 17b, verify the option: **Connections** that the LP-349 are connected.

Bridge ID	MAC Address	IP Address	RSI (dBm)	Status
1	00:27:11:01:11:55	192.168.1.1	-18	ACTIVE
2	00:27:11:01:11:50	192.168.1.3	-18	ACTIVE

Figure 17 b

- c In the window shown in figure 17c, input in: **Link Test** and verify the status of the connection.

Remote MAC	Elapsed Time	To Pin Max	To Pin Min	Local Signal Level	Remote Signal Level
00:27:11:01:11:50	0	0	0	0dBm / 100%	0dBm / 100%
00:27:11:01:11:55	0	0	0	0dBm / 100%	0dBm / 100%

Figure 17 c

## 18

If there any of the equipment doesn't connect, verify the following:

- a The **MAC Addresses** are correct.
- b The encryption Keys are correct.
- c That all the equipment are on the same channel or frequency.

## 19

In the window shown in figure 19, proceed to change the administration password of the equipment. Even though it is not mandatory, we highly recommend that you change the administration password of your equipment, we must remind you to store it in a safe place to which you can have access in the event that you forget it. If you lose it, you must reset the equipment to factory values and lose any setup you have made. Please use for this the 123 manual on how to reset to factory values, document: **LP349\_M123\_ENC01W**.

In order to change the password, please select option: Change Password, located in the menu: Management as shown in the figure 19.

Figure 19



## 20

In the window shown in figure 20, input in: **Current Password** the old password, in: **New Password**, the new password you want to use, in the field: **Repeat New Password**, do as indicated and the select: **Apply**.

Figure 20

