123 Manual, LP-288ai V2.0 TURBO OFDM Compact Outdoor Radio with Throughput Booster, INSTALLATION IN POINT TO POINT, POINT TO MULTIPOINT MODE WITH FIRMWARE V2.0.3B2P1

LP288aiV23B2\_M123\_END01W



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Figure 1

Go to the properties of your network card, select **Internet Protocol (TCP/IP)**, and then select **Properties**, as shown in **Figure 1**.

General Advanced	
Connect using:	
Intel(R) PR0/1000 MT Mobile Co	nne Configure
This connection uses the following items	2
STInternet Protocol (TCP/IP)	2
Install	Properties
Description	
Transmission Control Protocol/Interne wide area network protocol that provi across diverse interconnected networ	et Protocol. The default des communication rks.
Show icon in notification area when	connected

2

1

Select **Use the following IP address** and type an IP address in the LP-288ai IP range by default. For this example we have selected the 192.168.1.201 address, The LP-288ai has the 192.168.1.20 address by default. In **Subnet mask** type 255.255.255, as shown in **Figure 2**. Once you have finished, select **OK** twice.



For this configuration you will need the MAC Addresses of the Access Points you are going to use for point to point connection. You will also use two different IP addresses in the range for their management.

In order to verify the MAC Addresses you shall access each LP-288ai and check it in **System Status** window. To do so:

**a.** Prepare the cable with the connector, as shown in **Figures 3a-1**, **3a-2**, and **3a-3**.





Figure 3a-1



Figure 3a-2

Figure 3a-3

**b.** Connect the cable as shown in **Figure 3b**.

Figure 3b

c. Connect the POE as shown in Figure 3c.



Figure 3c

**d.** Connect your PC or switch to the LP-288ai POE, as shown in **Figure 3d**.



• e. Connect to electric power, as shown in Figure 3e.



Figure 3e

Figure 3d

**f.** Open the web browser of your preference and type the default address **192.168**.**1.20**, as shown in **Figure 3f**.



**g.** The equipment will request a user and a password. The LP-288ai has two user levels, one with all the privileges, which is **super** by default with **super** as password, and another with fewer privileges with admin as user and admin as password. Type **super** in user and password and select **OK**, as shown in **Figure 3g**.

vord. The	Connect to 192.	168.1.20	? ×
es, which other with	2	15	
			_
snown in	The server 192.1 username and pa	.68, 1, 20 at Secure Realm requires assword.	a
	Warning: This sei password be sen without a secure	rver is requesting that your userna t in an insecure manner (basic auth connection).	me and ientication
	User name:	12 super	
<b>-</b>	Password:		
Figure 3g		Remember my password	Cancel

 h. In the initial window (System Status), take note of the MAC Address of the first equipment, as shown in Figure 3f. Repeat this procedure with the second LP-288ai (From step a to h).

ment, as	SLANPRO	Status ->System Status	Reboot
with the	Basic Site Survey Administration IP Configuration Operation Mode Remote Master List	Panel Uptime: Device Name: Admin user Name: IP Address: Subnet Mask: Gateway Address:	Day 0, 0:19:40 admin Static IP Mode 192.168.1.2 255.255.255.0 0.0.0.0
igure 3h	Statistics SHTP Setting Advanced Rodio Setting Security Setting MAC Addr Control Protocol Filter SMIE Conferentian	551D: Wireless Mode Radio Data Rate: Radio Frequency: Radio Channel Widh: Operation Mode Radio Power:	Wireless 11a best 5260 HHz (Channel 52) 20HHz Access Point 20 dBm
	Miscellaneous Qos Setting Vian Setting System Log	Security Hethod: System MAC Address:	None 00:27:11:01:aff5

• i. Reconnect the first equipment and proceed to access it. To do so, open the web browser of your preference and type the default address **192.168.1.20**, as shown in **Figure 3i**.

	ernet Explorer cannot disp	nternet	C In
*	🔍 🗢 🙋 http://192.168.1.2	0.	G
	Edit View Favorites Tools	Edit	File
	Edit View Favorites Tools	Edit	File

Figure 3i



Select **Basic/Operation Mode** and then **Access Point** in **Operation Mode**. Enter the network name in the **SSID** field and select the channel in **Radio Frequency** field, which will depend on the existing links and/or interferences (See **Appendix 1**), and check **Suppress SSID** to hide it. Additionally, we recommend you to adjust the distance in **Distance** option (See **Appendix 2**). Select **Update**, as shown in **Figure 7**.

Favorites	Attp://192.168.1.2/			
		Basic ->Operation Mode	Update	Reboot
	Basic	Operation Mode:	• Access Point Circless Client	-
	Site Survey	SSID:	LanPro LP-288ai	Suppress SSID:
	Administration	RF Bandwidth:	20MHz 💌	
	HTTP Server	Wireless Mode:	5GHz 54Mbps (802,11a)	*
	IP Configuration	Radio Frequency:	5260MHz (Channel 52)	-
	Remote AP List	DEC		
	Statistics	Urs.	s Enable s Disable	
	SNTP Setting	WDS:	C Enable C Disable	
	internation .	WDS Isolation:	C Enable   Disable	
	Advanced	See		
	Radio Setting	Advanced Settings:		
	Security Setting	Distance:	Within 1Km	
	MAC Addr Control	RTS Timeout	25 (0. 100 - (0	
	Protocol Filter	itto fillicout	(0 - 400 microseconds)	
SI	IMP Configuration		Notes: For directional antenna, please adjust	
	Miscellaneous		the antenna to gain better performance.	
	Qos Setting		Antenna Adjust	
	Vlan Setting		- Andre and a starger of	
	System Log			
	Pair Connection			

#### 8 The equipment will save changes, but they won't Favorites Attp://192.168.1.2/ be effective unless you reboot it. Select Reboot, Basic ->Operation Mode Update Reboot Reminder: Please reboot for changes to take effect as shown in Figure 8. Basic Site Survey Operation Mode: 🌾 Access Point 🖓 Wireless Client Administration SSID: LanPro LP-288ai Suppress SSID: 🔽 HTTP Server RF Bandwidth: 20MHz -IP Configuration Operation Mode Wireless Mode: 5GHz 54Mbps (802.11a) -**Remote AP List** Radio Frequency: 5260MHz (Channel 52) 💌 Statistics DFS: C Enable @ Disable SNTP Setting WDS: @ Enable C Disable Advanced WDS Isolation: C Enable C Disable Radio Setting Security Setting Advanced Settings: MAC Addr Control Figure 8 Protocol Filter Distance: Within 1Km -SNMP Configuration RTS Timeout: 25 (0 - 400 microseconds) Miscellaneous Notes: For directional antenna, please adjust the antenna to gain better performance. Qos Setting Vlan Setting System Log Antenna Adjust Pair Connection Status 9 A progress bar indicating the equipment is rebooting Favorites 6/2 http://192.168.1.2 will be displayed, as shown in Figure 9. SLANPRO Basic Site Survey Administration REBOOTING HTTP Server IP Configuration **Operation Mode** Figure 9 If the browser fails to auto-redirect, please use the left navigator Remote AP List Statistics

Figure 7

SNTP Setting Advanced Radio Setting Security Setting



Proceed to add the MAC Address of the Access Point B (the second LP-288ai) in **Basic/Remote AP List**. To do so, select **Remote AP List**, add the **MAC Address** of the AP B in MAC Address field and enter the priority for point to point links (we recommend priority 1). Select **Add/Update**, as shown in **Figure 10**.

Basic	MAC	emore master List			R
Basic	МАС				
Basic		Address: UU.2/: UUDU	d0 (00:	(00:00:00:00)	Add/Update
Basic			_	Can's	
		Priority:	(1 -	512)	
Site Survey					
Administration	Index	Master MAC Addres	5	Priority	
HTTP Server					
IP Configuration	Notes:				
Operation Mode	On Master an	d Wireless Bridge mode, the Re	note Master	List pertains to the M	AC addresses of other WDS
Remote AP List	Masters or oth	her wireless bridges. Only the fi	st 8 Masters	will be used and 00:	00:00:00:00:00 MAC addres
Statistics	ignored.				
SNTP Setting	On Slave or R Slave will asso	epeater mode, the Remote Mas ociate with. The priority value d	ter List repre termines the	sents the MAC addre order by which the f	esses of the Masters where t Slave will associate with the
Advanced	Masters. Ente honored. No e	ering 00:00:00:00:00:00 will let entry on this list will also make S	he Slave ass ave associat	ociate with any Mast with any Master.	er but the priority will still be
Radio Setting					
Security Setting					
MAC Addr Control					
Protocol Filter					
SNMP Configuration Miscellaneous					

11

Once you have saved the changes, you must select **Reboot** so they will be effective, as shown in **Figure 11**.

ou must	🙀 Favorites 🏾 🍎 http://192.168.1.2/					
shown in		Basic ->F	lemote Al	P List Reminder: Please r	eboot for changes to take	Rebor
	Basic Site Survey Administration	MAC	Address: Priority:	00:27:11:01:af.f5	(00:00:00:00:00) (1 - 512)	Add/Update
	IP Configuration	Index		AP MAC Address	Priority	
	Operation Mode	1		00:27:11:01:af:f5	1	Edit Delete
Figure 11	Statistics SNTP Setting Advanced Radio Setting Security Setting MAC Addr Controi Protocol Filter SMMP Configuration Miscellaneous Qos Setting	Notes: On AP and W wireless bridg On Wireless C Wireless Cler associate with priority will st	ireless Bridg les. Only the Client or Rep It will associa In the APs. Er Il be honored	e mode, the Remote AP first 8 APs will be used sater mode, the Remote te with. The priority val tering 00:00:00:00:00 1. No entry on this list w	List pertains to the MAC addres and 00:00:00:00:00 MAC ad the AP List represents the MAC as be determines the order by whi or will let the Virreless Client as ill also make Wireless Client as	sses of other WDS APs or othe Idress is ignored. Idresses of the APs where the ch the Wireless Client will sociate with any AP but the ociate with any AP.

12

A progress bar indicating that the equipment is rebooting will be displayed, as shown in **Figure 12**.

Figure 12

SLANPRO	
Basic Site Survey Administration HTTP Server IP Configuration Operation Mode Remote AP List Statistics SNTP. Setting Advanced Radio Setting	REBOOTING If the browser fails to auto-redirect, please use the left navigator
Security Setting	





Select **Advanced/Security Setting** and in **Security Mode** select the **WEP** encryption mode, as shown in **Figure 13**. It is important to mention that in PtP mode **this is the only security mode permitted**.



## 14

15

Select the authentication method, which is **Shared Key** for this example. Select the key entry method, in this case **Ascii Text**, enable Key **1**, type it in **Encryption Key**, and select its length in **Key Length** (128 bit) in this case. Select **Update** to save changes, as shown in **Figure 14**.

Fi	gı	Jr	е	1	4
	-				



Select **Reboot** so the changes will be effective, as shown in **Figure 15**.

ective, as	Favorites @http://192.168.1.2/		
		Advanced ->Security Setting Update	Reboot
Figure 15	Basic Site Survey Administration HTTP Server IP Configuration Operation Mode Remote AP List Statistics SNTP Setting	Reminder: Please reboot fo Security Mode: WEP Authentication Method: © Ope Key Entry Method: © Hex Default Shared Encryption Key	an <sup>©</sup> Shared Key cadecimal <sup>©</sup> Ascii Text
ligure 15	Radio Setting Security Setting	Кеу Ф 1. 0123456789012	128 bit (26 hex digits/13 ascii keys) 💌
	MAC Addr Control	C 2.	None
	Protocol Filter	C 3.	None
	SNMP Configuration Miscellaneous	C 4.	None
	Qos Setting Vian Setting		

	_	
-	_	
	~	~

A progress bar indicating that the equipment is rebooting will be displayed, as shown in **Figure 16**.

Figure	1	6
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LANPRO	
Basic Site Survey Administration HTTP Server IP Configuration Operation Mode Remote AP List	REBOOTING If the browser fails to auto-redirect, please use the left navigator:
SNTP Setting	
Radio Setting	
Security Setting	



Proceed to add the AP B MAC Address in Advanced/ MAC Addr Control to limit the connection to this equipment only the LP-288ai B. Select MAC Addr Control and check Enable, add the AP B MAC Address and select Add, as shown in Figure 17.

o this	SLANPRO	Advanced -> MAC Addr Control Update	Reboo
Addr	THE NATURAL ENDER IN BETWOPEND		
dress	Built		
	Basic	MAL Addr Control: (* Enable (* Disable	P.,
	Site Survey		
	Administration		
	ID Configuration		
	Operation Mode	MAC Address: 00.27.11.01:60:02	Add
	Remote AP List	U.27.11.01.00.02	100
	Statistics		
	SNTP Setting		
	Advanced		
ure 17	Radio Setting		
	Security Setting	The second second second second	
	MAC Addr Control	Allowed MAC Address List:	
	Protocol Filter		
	SNMP Configuration		
	Miscellaneous		
	Qos Setting		
	Vlan Setting		

18

Observe how the access of the MAC Address is allowed. Select **Update**, as shown in **Figure 18**.

		Advanced -> MAC Addr Control Update Reboot
	Basic	MAC Addr Control: ⓒ Enable Ĉ Disable
	Site Survey Administration HTTP Server IP Configuration Operation Mode Remote AP List Statistics SNTP Satting	MAC Address: 00:27:11:01:b0:02
Figure 18	Advanced Radio Setting Security Setting MAC Addr Control	Allowed MAC Address List: 00'-27:11:01:80:02 allowed Determined
	Protocol Filter SMMP Configuration Miscellaneous Qos Setting Vlan Setting	





#### Important Recommendation (Optional)

Proceed to change the passwords of the users **admin** and **super** of your equipment. To change **admin** password, select **Basic/Administration** and type the new password on the corresponding field, then select **Update**, as shown in **Figure 21**.

SLANPRO	Basic ->Administration Update	Reboot
Basic	Device Name:	
Site Survey	User Name: admin	
Administration	Password	
ID Configuration	Password.	
Operation Mode		
Remote AP List		
Statistics		
SNTP Setting		
Advanced		
Radio Setting		
Security Setting		
MAC Addr Control		
Protocol Filter		
<b>SNMP</b> Configuration		
Miscellaneous		
Qos Setting		
Vian Setting		



Figure 24
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Security Setting MAC Addr Control Protocol Filter **SNMP** Configuration Miscellaneous Qos Setting Vlan Setting System Log Status System Status Association Status MAC Learning Table Super user Super User Firmware Upgrad Firmware Version





# AP B

Connect the second LP-288ai and access it. To do so, open the web browser of your preference and type the default address **192.168.1.20**, as shown in **Figure 28**.

C In	ternet	Explo	orer canno	ot displ	ay the webpage - Windows Internet Explorer	
G	0.		http://192.1	.68.1.20		*
File	Edit	View	Favorites	Tools	Help	

Figure 29

Figure

## 29

Proceed to change the IP of AP B, which is 192.168.1.3 according to the diagram. Select **Basic/IP Configuration**, and in **IP Address** box enter 192.168.1.3. Select **Update**, as shown in **Figure 29**.

SLANPRO	Basic ->IP Configuration Update Re
	IP Mode: C Static IP C Dynamic IP (DHCP Client)
Basic Site Survey	DHCP Relay: @ Disable C Enable
Administration	
HTTP Server	
Operation Mode	IP Address:  192 .  168 .  1
Remote AP List	Subnet Mask: 255 . 255 . 255 . 0
Statistics	Default Gateway Address: 0 0 0 0
SNTP Setting	Domain Name Server IP Address: 0 0 0 0
Advanced	
Radio Setting	
Security Setting	
MAC Addr Control	
Protocol Filter	
SNMP Configuration	
Miscellaneous	
Vian Setting	

30

To make changes effective select **Reboot**, as shown in **Figure 30**.

	Basic ->IP Configuration Update Reminder: Please reboot for changes to take effect
Basic Site Survey Administration HTTP Server	IP Mode: IP Static IP C Dynamic IP (DHCP Client) DHCP Relay: IP Disable C Enable
IP Configuration Operation Mode Remote AP List Statistics SNTP Setting Advanced Radio Setting Securb Setting	IP Address:       192       . 168       . 1       . 3         Subnet Mask:       255       . 255       . 255       . 0         Default Gateway Address:       0       . 0       . 0       . 0         Domain Name Server IP Address:       0       . 0       . 0       . 0
MAC Addr Control Protocol Filter SNMP Configuration Miscellaneous Qos Setting	



A progress bar indicating that the equipment is rebooting will be displayed, as shown in **Figure 31**.

Figure	3	1
	-	1

es 🌈 http://192.168.1.20	
ELANPRO	
Basic	
Site Survey	
Administration	REBOOTING
HTTP Server	IS DOWN AND IN
IP Configuration	
Operation Mode	
Remote AP List	in the provaer rails to acto redirect, prease use the reft havigator.
Statistics	
SNTP Setting	
Adventered	
Auvanced	
Radio Setting	

32

Open the web browser of your preference and type the new address **192.168.1.3**, as shown in **Figure 32**.

Figure 33



#### 33

The equipment will request your user and password once again. Enter the value you changed and select **OK**, as shown in **Figure 33**.

Connect to 192.1	68.1.3 <b>? ×</b>
1	1402
The server 192.1 and password.	68.1.3 at Secure Realm requires a username
Warning: This ser password be sent without a secure	ver is requesting that your username and in an insecure manner (basic authentication connection).
User name:	🖸 super 💌
Password:	
	Remember my password
	and the second sec
	OK Cancel

Select **Basic/Operation Mode** and then **Access Point** in **Operation Mode**. Enter the network name in the **SSID** field of AP A, select the channel in **Radio Frequency** field, which value is the same as AP A, and check **Suppress SSID** to hide it. Additionally, we recommend you to adjust the distance in **Distance** option (See **Appendix 2**). Select **Update**, as shown in **Figure 34**.

Figure 34

Favorites 🏾 🌔 http://192.168.1.3/	
	Basic ->Operation Mode Update Reboot
Basic Site Survey	Operation Mode: 《 Access Point 》 Wireless Client SSID: LanPro LP-288ai Suppress SSID: IV
Administration	RF Bandwidth: 20MHz 💌
HTTP Server	Wireless Mode: 5GHz 54Mbps (802.11a)
Operation Mode	Radio Frequency: 5260MHz (Channel 52)
Remote AP List	DF5: C Enable C Disable
SNTP Setting	WDS: @ Enable C Disable
	WDS Isolation: C Enable C Disable
Advanced	
Security Setting	Advanced settings:
MAC Addr Control	Distance: Within TKm
Protocol Filter	RTS Timeout: 25 (0 - 400 microseconds)
SNMP Configuration	Notes: For directional antenna, please adjust
Miscellaneous	the antenna to gain better
Qos Setting	performance.
Vian Setting	Antenna Adjust
System Log	
Pair Connection	

#### 35

The equipment will save changes, but they won't become effective unless you reboot it. Select **Reboot**, as shown in **Figure 35**.



#### 36

A progress bar indicating that the equipment is rebooting will be displayed, as shown in **Figure 36**.

SLANPRO	
Basic Site Survey Administration HTTP Server IP Configuration Operation Mode Remote AP List Statistics SITP Setting	REBOOTING
Advanced Radio Setting	
Security Setting MAC Addr Control	



Proceed to add the MAC Address of the Access Point A in **MAC Address** field in **Basic/Remote AP List**. Enter the priority for point to point links (we recommend priority 1). Select **Add/Update**, as shown in **Figure 37**.

Figure 37

avorites Chttp://192.168.	1.3/			
	Basic ->Rer	note AP List		R
Basic	MAC A	ddress: 00:27;11:01;af;f5	(00:00:00:00:00)	Add/Update
Administration	Index	AP MAC Address	Priority	
HTTP Server				
Oneration Mode	Notes:			
Remote AP List	On AP and Wire	ess Bridge mode, the Remote AP List	pertains to the MAC addresses	of other WDS APs or
Statistics	wireless bridges.	. Only the first 8 APs will be used and	00:00:00:00:00:00:00 MAC addres	is is ignored.
SNTP Setting	On Wireless Clier	nt or Repeater mode, the Remote AP	List represents the MAC addres	ses of the APs where
and a strong	Wireless Client w	vill associate with. The priority value d	etermines the order by which th will let the Wireless Client associa	e Wireless Client will
Advanced	priority will still b	e honored. No entry on this list will als	o make Wireless Client associat	e with any AP.
Radio Setting				
Security Setting				
MAC Addr Control				
Protocol Filter				
SNMP Configuration				
Miscellaneous				
Qos Setting				
Vian Setting				

38

Select **Reboot** to apply the changes, as shown in **Figure 38**.

shown in 📲	Favorites <i>(</i> http://192.168.1.3)	1					
		Basic ->R	lemoté Al	List		Reb	
				Reminder: Please r	eboot for changes to take	effect	
	Basic	MAG	Address:	00:27:11:01:af.f5	(00:00:00:00:00:00)	Add/Update	
	Site Survey			le contra contra			
	Administration		Priority:	h	(1-512)		
	HTTP Server	-	_				
	IP Configuration	Index		AP MAC Address	Priority		
	Operation Mode	1	(	0:27:11:01:af:f5	1	Edit Delete	
	Remote AP List						
	Statistics	Notes:					
	SNTP Setting						
	Advanced	wireless bridg	es. Only the	first 8 APs will be used a	and 00:00:00:00:00:00 MAC a	ddress is ignored.	
igure 38	Radio Setting	On Wireless C	lient or Rep	eater mode, the Remote	AP List represents the MAC at	dresses of the APs where th	
-	Security Setting	Wireless Clien	t will associate the APs. Fr	te with. The priority vali stering 00:00:00:00:00:00:	ue determines the order by wh 00 will let the Wireless Client as	ch the Wireless Client will	
	MAC Addr Control	priority will sti	Il be honored	I. No entry on this list w	ill also make Wireless Client ass	ociate with any AP.	
	Protocol Filter						
	SNMP Configuration						
	This and the second						
	Miscellaneous						
	Qos Setting						
	Qos Setting Vian Setting						

39

A progress bar indicating that the equipment is rebooting will be displayed, as shown in **Figure 39**.

SLANPRO	
Basic	
Site Survey	
Administration	Contraction of the Contraction o
HTTP Server	REBOOTING
(P Configuration	
Operation Mode	
Remote AP List	If the browser fails to auto-redirect, please use the left navigator
Statistics	
SNTP Setting	
Advanced	
Radio Setting	
Security Setting	
MAC Addr Control	

Select Advanced/Security Setting and in Securit Mode select the WEP encryption mode, as show in Figure 40. It is important to mention that in P and PtmP mode this is the only security mod permitted.

Security	🙀 Favorites 🛛 🍎 http://192.168.1.3/	1		
as shown		Advanced -> Security Settin	1g Update	Reboot
nat in PtP	10 F F F F			
ity mode	Basic Site Survey Administration HTTP Server IP Configuration Operation Mode Remote AP List Statistics SNTP Setting	Security Mode:	Disabled Disabled WEP WPA_PSK WPA2 WPA2 WPA2	
Figure 40	Advanced Radio Setting Security Setting MAC Addr Control Protocol Filter SMMP Configuration Miscellaneous Qos Setting Vian Setting System Log			

# 41

Select the authentication method, which is Shared Key for this example (the same as AP A). Select the key entry method, in this case Ascii Text, enable Key 1 type it in Encryption Key, and select its length in Key Length (128 bit). Select Update to save changes, as shown in Figure 41.

snared	Favorites	1			
ct the key		Advand	ced ->Security Setting Update		Reboot
ole Key <b>1</b> ,					
ith in <b>Key</b>	Basic		Security Mode: WEP	-	
anges, as	Site Survey		Second date (1964		
C	HTTP Server		Authentication Method:	Open Shared Key	
	Operation Mode		and the second second		
	Remote AP List		Key Entry Method:	Hexadecimal (* Ascii Text	
	SNTP Setting	Default Shared Key	Encryption Key	Key Length	
	Advanced	• 1.	0123456789012	128 bit (26 hex digits/13 ascii l	(eys) 👱
	Radio Setting	C 2.		None	
	Security Setting	С з.	1	None	
Figure 41	Protocol Filter	C 4.		None	-
5	SNMP Configuration				
	Miscellaneous				
	Qos Setting				
	Vian Setting				



Once you have saved changes select Reboot to ma them effective, as shown in Figure 42.

<b>t</b> to make	🌟 Favorites 🛛 🍎 http://192.168.1.3/	-				
		Advand	ced ->Security Setting Upd	ate reboot for changes	to take effect	Reboot
	Basic Site Survey Administration HTTP Server		Security Mode: WEP			
	IP Configuration Operation Mode Remote AP List Statistics		Authentication Method: Key Entry Method:	ි Open ි Hexadecimal	<ul> <li>Shared Key</li> <li>Ascii Text</li> </ul>	
	Advanced	Default Shared Key	Encryption Key	Key Le	ngth	
Figure 42	Radio Setting	• 1.	0123456789012	128 t	oit (26 hex digits/13 as	cii keys) 🔻
Figure 42	MAC Addr Control	C 2.		None	9	•
	Protocol Filter	С з.	1	None	2	
	SNMP Configuration Miscellaneous	C 4.	Î.	None	•	
	Qos Setting Vlan Setting System Log					

2

A progress bar indicating that the equipment is rebooting will be displayed, as shown in **Figure 43**.

15 🧝	Favorites Ahttp://192.168.1.3/	
3.	SLANPRO	
	Basic	
	Site Survey Administration	and the second se
	HTTP Server	REBOOTING
	(P Configuration	
	Operation Mode	
42	Remote AP List	If the browser fails to auto-redirect, please use the left navigator
43	Statistics	
	SNTP Setting	
	Advanced	
	Radio Setting	
	Security Setting	
	MAC Addr Control	

#### 44

Proceed to add the Access Point A MAC Address in **MAC Addr Control** to limit the connection to this equipment only by the LP-288ai A. Select **Advanced/MAC Addr Control** and check **Enable**, add the AP A MAC Address and click on **Add**, as shown in **Figure 44**.

Figure 44

Favorites	<i>C</i> http://192.168.1.3		
		Advanced -> MAC Addr Control Update Reboot	
	Basic Site Survey	MAC Addr Control: C Disable	
	Administration HTTP Server IP Configuration Operation Mode Remote AP List	MAC Address: 00:27:11:01:aff5 Add	
	Statistics SNTP Setting Advanced		
	Radio Setting Security Setting MAC Addr Control	Allowed MAC Address List:	
SN	Protocol Filter MP Configuration Miscellaneous		
	Qos Setting Vian Setting System Log		
	Pair Connection		

# 45

Observe how the access of the MAC Address is allowed. Select **Update**, as shown in **Figure 45**.

s allowed.	🙀 Favorites 🏾 🍎 http://192.168.1.3/		
		Advanced -> MAC Addr Control Update	Reboot
	Basic Site Survey	MAC Addr Control: G Enable C Disable	
	Administration HTTP Server IP Configuration Operation Mode Remote AP List	MAC Address: 00.27;11:01:aff5 Add	
	Statistics SNTP Setting Advanced		
Figure 45	Radio Setting Security Setting MAC Addr Control Protocol Filter	Allowed MAC Address List: 00:27:11:01 AF.F5 allowed (Deater)	
	SNMP Configuration Miscellaneous Qos Setting Vian Setting		
	System Log Pair Connection		



To make changes effective select Reboot, as show	🙀 Favorites	Chttp://192.168.1.3/	1			
n Figure 49.	SLANPRO		Basic ->Administration Update Reminder: Please reboot for changes to take effect			
Figure 49		Basic Site Survey Administration HTTP Server IP Configuration Operation Mode Remote AP List Statistics SNTP Setting	Device Name: User Name: admin User Name: admin Password: •••••			
50 A progress bar indicating that the equipment is ebooting will be displayed, as shown in Figure 50.	🎽 Favorites	@http://192.168.1.3/				
Figure 50		Basic Site Survey Administration HTTP Server IP Configuration Operation Mode Remote AP List Statistics SNTP Setting	REBOOTING If the browser fails to auto-redirect, please use the left navigator			
		Advanced Radio Setting Security Setting MAC Addr Control				
51						
proceed to change the password of user super.	Services	<b>///192.168.1.3</b>				
Remember you have to be authenticated as user super to make this change. Select <b>Super User/</b>	THE NAT		Super User ->Super Use	Update		Reboot
Super User option and type the new password, then click on Lindate, as shown in Figure 51		Basic Site Survey	User Name: su Password:	iper		

er User/			
vord, then	Basic	User Name:	super
	Site Survey	Hannah	
	Administration	Password:	
	HTTP Server		
	IP Configuration		
	Operation Mode		
	Remote AP List		
	Statistics		
	SNTP Setting		
	Advanced		
	Radio Setting		
	Security Setting		
	MAC Addr Control		
	Protocol Filter		
	SNMP Configuration		
Figure 51	Miscellaneous		
	Qos Setting		
	Vlan Setting		
	System Log		
	Pair Connection		
	Status		
	System Status		
	Association Status		
	MAC Learning Table		
	Super user		
	Super User		
	Firmware Upgrade		



To check connectivity run the **Ping** command in a command window to the equipment IP you are connecting to (in this case 192.168.1.2). To do this, select **Start** o **Inicio**, then **Run** o **Ejecutar**, type the **cmd** command, and select **OK**, as shown in **Figures 55-1** and **55-2**. Remember that both APs must be on.

Paint	Printers and Faxes	Run			? )
Command Prompt	Help and Support <u>Search</u>	Type the name of a program, folder, document, Internet resource, and Windows will open it for			cument, or en it for you.
All Programs 🕨	<u>a</u> n	Open: ma	1		
	Opens a program, folder, docu		ОК	Cancel	Browse
Start 🛗 🌒 🏉 🎽	A REAL PROPERTY OF A REAL PROPER				

Type the **ping** command followed by the IP of the destination equipment (192.168.1.2 for this case), and press **Enter**. You will observe the answer of destination equipment, as shown in **Figures 56-1** and **56-2**.









• **Appendix 1:** Consider that the correct selection of the frequency channel is a vital factor for your wireless network performance. The LP-288ai equipment operates in ISM 5 GHz frequency band and it has more frequency channels which do NOT overlap each other (because of the spacing in frequency among channels). However, there is the possibility that where you are installing your wireless network other transmission sources in the 5 GHz band exist. As a consequence, the signal of your wireless network can be interfered by other devices if they operate in the same frequency channel in the 5 GHz band. To avoid this, you can make a network survey through the **Site Survey** option and detect which frequency channels are being used in the site. The idea is to select or configure your LP-288ai in the frequency channel that you see clear or unused. In the unlikely event that all the channels are busy, it is recommended to use the frequency channel which transmission power is the lowest in the site.

• **Appendix 2:** In **Operation Mode/Advanced Settings** page, there are several options for the **Distance** parameter. This one allows the user to select the approximate distance between the *AP* device and the *Slave* device (or between *AP* devices). In case you select the proper distance, the LP-288ai will handle the latency on a long distance path. This allows reducing the error rate and increasing the transmission speed.