



LIGOWAVE QUICK INSTALL GUIDE

Please read this document before installation



POINT TO POINT CONFIGURATION

Useful link: https://www.ligowave.com/wiki/ligodlb-configuration-scenarios/

When configuring the Ligowave DLB5M-20 to function as a point to point network bridge, one unit must be configured as the **Access Point** and all other units are configured as **Stations**.

The **Access Point** is the master unit, this unit hosts the configuration and security of the wireless netork.



Access Point Settings

- 1. Connect the DLB5M-20 to the **POE** output of the supplied POE injector. (Only the supplied POE injector can be used with the DLB5M-20, do not connect the DLB5M-20 directly to the POE port of an NVR or Switch).
- 2. Connect the LAN output of the POE injector to the NVR POE port or network switch.
- 3. Connect laptop to NVR or Switch POE port.
- 4. Configure laptop network settings to same IP range as the DLB5M-20. By default all DLB5M-20 units are set to DHCP with a fallback IP address of **192.168.2.66**. If connecting the unit to a router or NVR POE port then the unit may be assigned a different IP address. In this instance note down the unit MAC address from the label on the unit or box and run **CMD** on the computer, run an **arp** -**a** command and the units MAC address and IP address should be listed.
- 5. Login to the DLB5M-20 via laptop web browser. Username: admin Password: admin01

6. Select I Agree and choose your country from the Operating Country dropdown box, Click Change to accept and save the user

0		(\cdot)	• •	< 😐	Uptime 31 min. 54 sec.		CPU load (25%)
goWave	B		Y C		eth0: Disconnecto	ed	🛜 1 stations
((ı:	NETWORK CONF	GURATION					
ភំ		Network mode:	Bridge	*	Management VLA	N ID: 2	
≓		IPv6:	×				
¢\$	Ethernet settings						
	Interface	Mod	•	Speed, Mbps	Duplex	Autonegotiatio	on
101	eth0	Auto		10/100	Full	Enabled	
	IPv4 configuration						
		IP method:	Static	×	DNS ser	ver 1:	
		IP address:	192.168.2.66		DNS ser	ver 2:	
		Subnet mask:	255.255.255.0		Seconda	ary IP: 🛛 🛛 🛪	
			192.168.2.1				

Select the settings cog at the top of the page, then select the network icon on the left side of the page.

Change the Access Point IP address in the IPv4 section, usually it is preferred to configure the IP range to the same as the camera network. For example 10.1.1.254

Save the setting.

LigoWave	i			Uptime 36 min, 24 sec. eth0: Disconnected	CPU load (27 %)				
(î:	WIRELESS CONFIGURAT	NOF							
ភះ	Enable r	adio: 🖌 📗		Operating country: GB					
₽	Operating	node: Access point (iPoll 2)	>						
	Radio settings								
¢¢	Tx power (d	Bm):		Channel: Auto / 40 MHz					
ţţ	ATPC: 11 ×								
	Advanced radio settings								
	Network SSID	Security	Management	Broadcast SSID	VLAN				
	LigoDLB	WPA/WPA2 Personal	Enabled	Yes	- 🧿				

Configure the unit for Access Point (iPoll 2) in the Operating Mode drop down box.

Set channel to Auto

Select the cog icon in the Wireless settings (AP) section

SSID:	LigoDLB	Broadcast SSID: 🗸 📗	
ecurity settings			
Security:	WPA/WPA2 Personal		
Passphrase:	*****		
WACL			
Advanced settings			

SSID This is the wireless network name.

- Broadcast SSID This setting controls whether the access point is discoverable by other wireless devices. It is usually recommended to turn off this setting after all the congifuration is completed.
- Security The security level of the wireless network, usually WPA/WPA2 Personal is adequate.
- Passphrase This is the password to connect to the wireless network, once a password is chosen it is important to keep a record of it.





Station Settings

- 1. Connect DLB5M-20 to **POE** output of the supplied POE injector. (Only the supplied POE injector can be used with the DLB5M-20, do not connect the DLB5M-20 directly to the POE port of an NVR or Switch).
- 2. Connect the LAN output of the POE injector to the network switch or directly to the laptop. If connect to a network switch also connect a laptop to the switch.
- 4. Configure laptop network settings to same IP range as the DLB5M-20. By default all DLB5M-20 units are set to DHCP with a fallback IP address of **192.168.2.66**. If connecting the unit to a router or NVR POE port then the unit may be assigned a different IP address. In this instance note down the unit MAC address from the label on the unit or box and run **CMD** on the computer, run an **arp -a** command and the units MAC address and IP address should be listed.
- 5. Login to the DLB5M-20 via laptop web browser. Username: admin Password: admin01
- 6. Select I Agree and choose your country from the Operating Country dropdown box, Click Change to accept and save the user agreement.

\mathbf{O}		i	× a	Uptime 40 min. 41 sec.	CPU load (31 %)
igoWave		Ċ		eth0: 100baseT/full	🤶 -48/-54 dBm
(lı-	NETWORK C	ONFIGURATION			
कै		Network mode:	Bridge •	Management VLAN ID:	2
÷		IPv6:	×		
¢\$	Ethernet settin	gs			
	Interface	Mode	Speed, Mbps	Duplex Autor	negotiation
101	eth0	Auto	10/100	Full Enabl	ed
	IPv4 configurat	tion			
		IP method:	Static •	DNS server 1:	
		IP address:	192.168.2.66	DNS server 2:	
		Subnet mask:	265.255.265.0	Secondary IP:	II ×
		Default gateway:	192.168.2.1		

Select the settings cog followed at the top of the page, then select the network icon on the left side of the page.

Change the **Station** IP address in the IPv4 section, usually it is preferred to configure the IP range to the same as the camera network. For example 10.1.1.253

Save the setting.

LigoWave	i		Uptime 42 min. 26 sec.	CPU load (39 %)
2	WIRELESS CONFIGURATIO	N		
-	Enable rad	io: 🗸	Operating country: GB	
₽	Operating me	ie: Station (WDS/iPoll 2/iPoll 3)		
	Radio settings			
¢\$	Tx power (dBr	n):	Channel width (MHz): 20/40	v
Ņļ	ATP	c: I ×	Non-standard channels:	
			Smart channel width	
	Advanced radio settings			
	Network SSID	Security	Management	VLAN
	LigoDLB	WPA/WPA2 Personal	Enabled	

Configure the unit for **Station (iPoll 2)** in the Operating Mode drop down box.

All other settings should be left default.

Select the cog icon in the Wireless Settings (Station) section

	SSID:	LigoDLB	۹	Lock AP by MAC address:	00:00:00:00:00:00	(
ecurity settings						
s	Security:	WPA/WPA2 Personal	¥			
Pass	sphrase:	*****				
Advanced settings						

Enter the connection details for the Access Point, the SSID can be entered manually or by performing a scan using the magnifying glass icon.

Select the wireless security level of the Access Point and enter the passphrase configured previously.

Click done.

CHECKING CONNECTIVITY

To check the connection status of the link, log into the **Access Point** and go to the **Status** | **Information page**. The information page will display wireless information of the link.

The status page of the Access Point (iPoll2) must indicate that one peer (Station iPoll2) is connected and information about the connection must be displayed as follows:

LigoWave	í	* * *	Uptime 45 min. 34 sec.	cted	CPU load (28 %	6)	
í	NFORMATION						o
k	Network mode:	0816154700000080	Operating country: Friendly device name: Device location: Latitude/Longitude:	LigoDLB 5-20 Device location			
P	Radio	Access point (in oil 2)	Latitude/Longitude:	070			
	Channel: Channel width (MHz): Tx power (dBm): Noise level (dBm):	16	Protocol: Radio mode: Antenna gain (dBi):	MIMO 2x2			
	Wireless (Access point (iPo	// 2))					
	Network SSID	Security	Broadcast \$\$ID	v	/LAN	Stations	
	LigoDLB	WPA/WPA2 Personal	Yes	-	-	1	
	Network						
	IP method: IP address: Subnet mask: Default gateway:	192.168.2.66 255.255.255.0	IPv6 method:	Disabled			

Detailed information about connected peers stays at Status | Wireless page.

O LigoWave	i ¢	×			Jptime 16 min. 29 sec. eth0. Disconnected	CPU load (34	-
i	WIRELESS NETWORKS						0
M	Enter keyword to filter results						Info Counters
	SSID: LigoDLB						
\sim	Total stations/limit: 1 / 128						
=	Station	IP address	Signal, dBm	Tx/Rx rate, M	lbps Tx/Rx CCQ, %	Protocol	≑Link uptime
	00:19:3B:07:EA:E3 LigoDLB 5-20	192.168.2.68	-50 / -49	270 / 270	100 / 100	IPoll 2	15 min. 13 sec.
	Kick selected						

The status of the **Station iPoll 2** must be displayed as connected and progress bars indicating the quality of the connection must be displayed.

C LigoWave					47 min. 26 sec.			CPU load (39 %) ╤ -49i-53 dBm	
í	INFORMATION								0
<u>Iv</u>	Product name: Device serial No.: Network mode.	08161547000002AD			Operating country: iendly device name: Device location.	LigoDLB 5-20			
:=	Wireless mode:	Station (WDS/iPoll 2/il	Poll 3)	Latitude/Longitude: 0/0					
	Channel: 149 (5745 MHz) Channel width (MHz): 40 Upper Tx power (dBm): 16 Noise level (dBm): -05			Protocol: 802.11a/n/iPoll 3 Radio mode: MIM/O 2x2 Antenna gain (dBi): 20					
	Wireless (Station (WDS/iP	oll 2/iPoll 3))							
	Network SSID Sec	curity	Peer MAC	Tx/Rx rate, Mbps	Tx/Rx CC	Q, %	Protocol	Link uptime	
	LigoDLB WP.	A2 Personal	00:19:3B:07:E6:89	270 / 270	100 / 100		iPoll 2	15 min. 47 sec.	
	Network								
		192.168.2.68 255.255.255.0			IPv6 method:	Disabled			

If the signal indicator on either unit is red, hover the mouse cursor over it, if the status is shown as **Too Strong** lower the TX Power of each unit to the same level until both units show **Excellent** or **Good**.

ACCOUNT SETTINGS

It is highly recommended that the administrative account for each unit is changed from the factory set password.

Select the cog icon followed, by the system icon on the left side of the web page. Click the **Edit** button within the User Accounts section.

C LigoWave	i	• * •		Uptime 49 min. 26 sec.	baseT/full		CPUload (39 %)	
(î:	SYSTEM CONFIGURATION							
ភំ	Device settings							
≓	Friendly name:	LigoDLB 5-20			Location:	Device locatio	'n	
¢°	Contact information:	Contact			Latitude:	0		
		AC	COUNT SETTINGS					
	System functions		U	sername: ad	min			
	Backup configuration:	Backup	Old p	assword:				
	Restore configuration:	Restore						
	⊖ User accounts		New p	assword:				_
	User: admin	Edit	Verify p	assword:				
	LED settings							
	Advanced settings						Change	Close

Input the current password in the **Old Password** box.

Enter the a new password in the New Password and Verify Password boxes

Click **Change** to save the setting.

Factory Reset

In the event that the DLB5M-20 password settings are lost, the unit must be reset to factory settings. To do this press and hold the reset button until the indicator leds on the side of the unit light up sequentially.

The factory reset button is located to the side of the RJ45 connection.





