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NXIPBRIDGE

Alertex IP Bridge



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Please call us if you have any issues setting up the IP Bridge

0208 368 7887

Monday - Thursday: 9am - 5pm

Friday: 8am - 4pm

FAQ

How long do logged-in web sessions last?

The sessions last 8 hours and will automatically sign out after one hour of inactivity. If the 'View Alarms' page is being actively monitored, the session will remain open for 8 hours and then sign out automatically.

How do you change the default web password?

The password can be changed from the 'Settings' page in the web portal.

How do you change the default Bluetooth pin?

The pin can be changed in the Bluetooth terminal using the passkey=<current pin>;<new pin> command, or in the 'Settings' page in the web portal.

What happens if you forget the password or Bluetooth pin?

The only way to recover the IP Bridge is to burn it with the new firmware.

How do you change the site and subnet?

Either use commands in the BLE terminal or change them from the 'Settings' page on the web portal.

How do you test the Alertex system from the IP Bridge?

Go to the 'Remote Testing' page in the web portal.

Set the unit ID to 'test all units', the test type to 'light and sound', and test duration to 20 seconds. All units on the same site code will flash and make sound for 20 seconds.

If any unit is missing calls, it can be pinged using the 'Remote Testing' page.

Set the unit ID to the unit number of the unit, set the test type to 'sounder only' or 'light and sound', and set the test duration. If the unit is fine, it will initiate the test.

5. To set NXVS menu parameters, select and individual unit number, or change the settings for all units on the same site at once
6. Select the conditions for the selected sound file to play
7. Assign the playback parameter a value
8. Click 'set parameter' to save the parameter settings

VoiceAnnunciator Menu parameters

Set VoiceAnnunciator playback parameters for the ALERTEX units, in the active site and subnet

Unit ID (or choose to set on all units)

Parameter

Parameter value

Set Parameter

Important Information

1. The IP bridge needs access to an active Internet connection to obtain an IP address. If you are connected to a Local Area Network (LAN) without Internet access, the IP address will show as 'no ip yet' in the Bluetooth terminal app on your phone.
2. The IP bridge will automatically be assigned an IP address by your router using the Dynamic Host Configuration Protocol (DHCP), which means that the IP address can change if the IP bridge is restarted. This can make it look like the IP bridge is not working as you will not be able to connect to it using the previous IP address. To combat this, set a static IP address on your router, or keep a phone with the Bluetooth terminal app loaded so that you can check the IP address should the router or IP bridge be restarted.

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System Overview

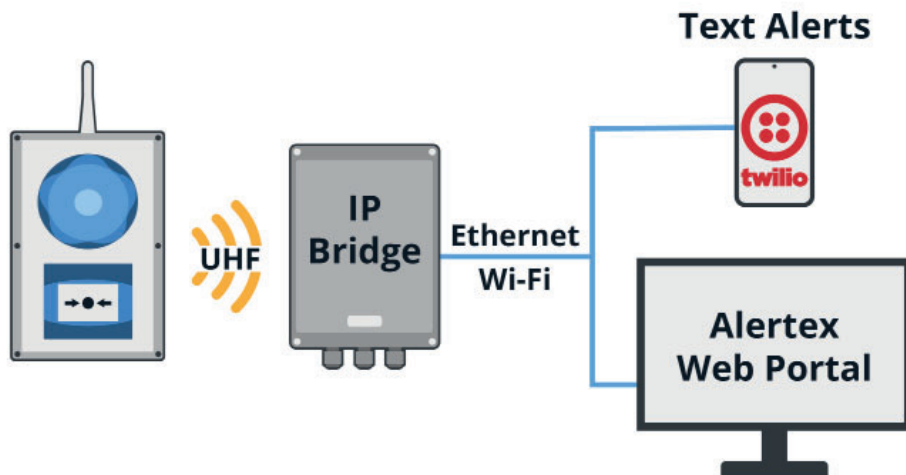
The Alertex IP Bridge connects products that use the UHF network, such as the Alertex Wireless Critical Alert system, to a local network with access to the internet, allowing the system to be monitored from one computer. The Alertex IP bridge integrates with Twilio, allowing users to receive text notifications to their mobile phone when an activation is registered.

The IP bridge can be powered by 5 volts DC (PSU part code = 5V.PS) or via Power over Ethernet (PoE). The bridge can be configured quickly over Bluetooth using a mobile smartphone, allowing users to obtain the IP address, set up the site and subnet, and connect the bridge to the local Wi-Fi network.

The end user can see which units have been activated and reset the system via the browser portal. The bridge will also report battery status and will alert the user to any units which have not called in according to their schedule.

The IP bridge has a wireless range of up to 1km line of sight, which can be extended using an AE434 aerial to assist when dealing with difficult sites. Up to 64 various Alertex units can be programmed to transmit events to one IP bridge, and software updates can be administered remotely. The IP bridge is IP66 weather rated and is suitable for outdoor use.

Alertex IP Bridge Integrations



ALERTEX TEXT alert recipients

The mobile phone recipients below will get TEXT alert notifications

Mobile phone number	Alarms	Missed call-ins	SOS	Low Battery
No phone numbers found				

Notes:

1. Create a Twilio account and assign yourself a phone number (created in Twilio)
2. All messages going forward will be sent from that number
3. This is a third party app so we have no access to their security etc.
4. Phone number should be added with the country code including +44

Playback Controls

1. The Playback Controls page is only for use with NXVS voice annunciators
2. To initiate a playback test, select an individual unit number, or all units
3. Choose the file index to play and click 'start playback'
4. Click 'stop playback' to end the test

VoiceAnnunciator Playback test

Play/Stop pre-loaded sound files on any ALERTEX unit, in the active site and subnet

Unit ID (or choose to play/stop on all units)

Index of Record to Play

START Playback

STOP Playback

Notes:

1. SMTP server should be duplicated in the way Google suggests it
2. Cannot support anonymous SMTP servers as port 25 should not be used as it's blocked by Microsoft
3. If using gmail account you must create an app password from 2fa (google built in password manager)
4. Missed call-ins and battery notifications should only be sent to people looking after the system

Text Alerts

1. You must have a Twilio account in order to receive text alerts via the Alertex web portal
2. Enter your Twilio account details and press 'save' when done

Set up TEXT relay
You can set up a TEXT relay using your Twilio account details

Twilio Account SID

Auth Token

Twilio phone number
+001122334455

Save

3. Under 'add mobile number', enter mobile phone number' to receive notifications
4. Select which events to be notified of
5. Click 'add' to save the mobile number
6. Saved mobile numbers and the notifications they are set to receive will be listed under 'text alert recipients'

Add mobile number

Add mobile phone TEXT alert recipients for ALERTEX notifications

Mobile number

+001122334455

Alarm notifications

Missed call-in notifications

SOS notifications

Low Battery notifications

Add

Powering the IP Bridge

5 volts DC

The IP bridge is typically powered via 5 volts DC. The power cable is inserted into the terminal in the bottom-left corner of the base circuit board; polarity is marked on the circuit board. Once powered, LED D13 will light up red.

Plug an Ethernet cable into the Ethernet connector to connect the bridge to the internet. When the bridge successfully connects to the internet, LED D2 will light up green and LED D1 will begin flashing red. Please note that you need an active internet connection in order to access the web portal via the Alertex IP bridge.

PoE

When powering the IP bridge via Power over Ethernet, ensure that you are connecting the bridge to the same network as your computer, otherwise you may end up receiving an incompatible IP address from the bridge.

Plug the PoE cable into the Ethernet connector; upon start-up, LED D13 will light up red to indicate power has been established. LED D2 will light up green and LED D1 will begin flashing red to indicate that a successful internet connection has been established. Please note that you need an active internet connection in order to access the web portal via the Alertex IP bridge.

Configuration via Bluetooth

You need to use a Bluetooth terminal app on your mobile smartphone in order to setup the IP bridge. In the Bluetooth terminal, you can obtain the IP address, set up the site number and subnet codes. You can also connect the IP masthead to WiFi, removing the need for the Ethernet cable.

Available Commands in BLE Terminal

site=<UHF Site ID>

This is used to configure the side code that the IP bridge will use from 1 to 32. The site code should be the same on the units and the bridge.

Example: site=1

subnet=<UHF Subnet ID>

This specifies the subnet on which the IP bridge will operate and should be the same on both the bridge and units. The number might range from 1 to 8, however, 1 is the desired value.

Example: subnet=1

passkey=<current pin>;<new pin>

This is done to set the IP bridge's BLE password. The pin can only be 6 digit ranging from 000000 to 999999. Values are separated by a semicolon.

Example and default passkey=123456

wifi= <wifi SSID>; <Password>

This command can be used to input the WIFI credentials in the IP Bridge. The name of the Wi-Fi is the SSID. Values are separated by a semicolon.

Example wifi=Luminite;Test123123

version

Shows the current Bridge firmware version

help

Shows bridge information and general commands.

Email Alerts

1. Enter your SMTP server details and press 'save' when done

Set up email alerts

You can set up an SMTP relay server for email alerts

SMTP relay server address	port
<input type="text" value="SMTP server address or IP"/>	<input type="text" value="port"/>
Username	Connection Security
<input type="text" value="Username"/>	<input type="text" value="None"/>
Password	
<input type="text" value="password"/>	
<input type="button" value="Save"/>	

2. Under 'add emails', enter an email address to receive notifications
3. Select which events to be notified of
4. Click 'add' to save the email address
5. Saved email addresses and the notifications they are set to receive will be listed under 'email alert recipients'

Add Emails

Add Email alert recipients for ALERTEX notifications

Email address
<input type="text" value="Email address"/>
<input checked="" type="checkbox"/> Alarm notifications
<input checked="" type="checkbox"/> Missed call-in notifications
<input type="checkbox"/> SOS notifications
<input type="checkbox"/> Low Battery notifications
<input type="button" value="Add"/>

ALERTEX Email alert recipients

The Email recipients below will get Email alert notifications

Email Address	Alarms	Missed call-ins	SOS	Low Battery
No emails found				

Remote Testing

1. To replicate an 'ALARM' event across the entire site, press 'start' to activate every unit on the site
2. To end the test, press 'stop'

Luminite IP Bridge

ALERTEX Monitoring Interface

Home

ALERTEX ALERT event test

Emulates pressing of ALARM button on an ALERTEX unit, in the active site and subnet

START

STOP

Individual ALERTEX unit test

Activate the Light or Sounder on an ALERTEX unit for a period of time, in the active site and subnet

Unit ID (or choose all units) Test Type Test period in seconds

Unit Light & Sounder Seconds

START Test

3. To conduct a specific test, select which unit should be tested. You can test an individual unit number, or select all units
4. Choose which test to perform
5. Set the test duration from 1-20 seconds
6. Click 'start test' to initiate the test

Notes:

1. Start & Stop - wait 3 minutes between - sets all units off with sounder
2. For weekly or monthly tests, set all units and duration 20 seconds max for optimal battery life
3. Can test individual units ie unit that missed call in

Networking

The IP bridge network interface supports IPv4 and is designed to work within a private network. By default, the IP bridge relies on DHCP to automatically acquire its IP and all the other network parameters. However, it is possible to manually assign an IP to the bridge if DHCP is not available or a static IP is required. Under IPv4 standard, a device IP address must be chosen from a subnet reserved for private networks. An assigned IP address on the IP bridge therefore should be within a subnet, chosen only from the following IPv4 address blocks:

IP BLOCK TYPE	IP ADDRESS BLOCK (CIDR)	STARTING IP ADDRESS	ENDING IP ADDRESS
Private Network IP's	10.0.0.0/8	10.0.0.0	10.255.255.255
	172.16.0.0/12	172.16.0.0	172.31.255.255
	192.168.0.0/16	192.168.0.0	192.168.255.255
Link-Local Addresses	169.254.0.0/16	169.254.0.0	169.254.255.255

The only exception to this rule is the assigned DNS IP address. You may assign an alternative or public DNS IP address, but such an IP address should NOT be within any of the IP address blocks as given below. These IP address blocks are reserved for special purposes and should not be used for any general network communication.

IP BLOCK TYPE	IP ADDRESS BLOCK (CIDR)	STARTING IP ADDRESS	ENDING IP ADDRESS
Reserved	0.0.0.0/8	0.0.0.0	0.255.255.255
Loopback	127.0.0.0/8	127.0.0.0	127.255.255.255
Reserved	240.0.0.0/4	240.0.0.0	255.255.255.255
Reserved	255.255.255.255/32	255.255.255.255	255.255.255.255
Multicast	224.0.0.0/4	244.0.0.0	239.255.255.255

To manually set the network interface, the following parameters must be defined:

- The unit assigned local IP address.
- The local network subnet, defined by its netmask.
- The local network Gateway IP address (i.e., the router/switch IP address)
- The local or public Domain Name Server (DNS) IP address

[NOTICE]

Changing the network interface parameters could render the bridge inoperational if the network is restricted or there are IP address conflicts. Please contact the network administrator to ensure that the assigned network parameters are all valid for the local network. To define a local subnet and set a fixed/static IP on the bridge, you can use the following command:

ip=<IP in CIDR format>

To set a Static IP and Subnet mask for the bridge in CIDR format. The first IP is calculated 'automatically' and set as the Gateway and DNS IP address. The IP address must belong to a Private Network IP block (refer to Networking table). Example: ip=192.168.0.14/24

The unit is assigned a fixed/static local IP address of 192.168.0.14. The local network netmask is 255.255.255.0, so the IP addresses start from 192.168.0.0 and end at 192.168.0.255

Both Gateway and DNS IP addresses are 'automatically' set to 192.168.0.0 which is the first IP. If you need to specify the Gateway IP address manually, use the below command instead:

ip=<IP in CIDR format>;<Gateway IP address>

To set a Static IP and Subnet mask for the bridge in CIDR format. The IP address must belong to a Private Network IP block (refer to Networking table). However, the Gateway and DNS IP addresses are 'manually' specified and set to <Gateway IP address> instead (values are separated by a semicolon). Example: ip=192.168.0.14/24;192.168.0.10

Notes:

1. All units are sent out with default settings as Site 1 unless specified
2. Call in period should be set to 100 minutes if 60 is set on the board
3. If not monitoring units, set call period to max for optimal battery life - after 52, time goes up in 5 minutes increments
4. For wireless call-point and keyfob set no call in period as they don't call in

View Alarms

1. Enabling test mode will set the call-in period of all units on the same site to 3 minutes
2. Events will be displayed under 'Alarms' with their name, unit number, site number, and subnet number, as well as the event type and event time

Alarms

Alarms will be generated for devices on current site and subnet

Test mode

Test mode temporarily sets all the device Call-in times to 3 minutes.

Missing unit events will be automatically removed after a unit Call-in event.

Unit Name	Unit ID	Site	Subnet	Event	Event Time
No events found					

3. Monitored units will display their configured settings, battery level, signal strength, and last seen time

Units Being Monitored

ALERTEX units below are being monitored, if they are on current UHF site and subnet

Unit Name	Unit ID	Site	Subnet	Call-in period	Battery	Signal	Last seen
45	45	7	1	3 minutes	100%	-79dB	0h:1m:34s ago

Manage Units

All ALERTEX Units

Unit Name	Unit ID	Site number	Subnet number	Call frequency		
15	15	11	1	Every 3 Minutes	Edit	Remove

1. Configured units are visible under 'all Alertex units' and display their configured settings
2. Clicking 'remove' will remove a unit from the list
3. You can edit the unit name and call-in period (for Sounder/ Beacon or Annunciator units ONLY) by clicking 'edit'
4. You can configure new Alertex units under 'add Alertex units'
5. Sent the unit number from 1-64, ensuring that it does not clash with any other configured units
6. Type the unit name
7. Set the site and subnet number to be the same as the IP bridge
8. Set the call-in period in minutes
9. Click 'add device' to add the Alertex unit to the web portal
10. It will be displayed under 'all Alertex units'

You may update the name of a given device.
You can ONLY change the call period for Sounder/Beacon/Annunciator units.

Edit Unit

Unit Name

Call Period

Call Period value of 3 = 3 minutes

Add ALERTEX Units

To monitor an ALERTEX unit, you must add it to the list of units.
Only the units on the active site and subnet will be monitored.

Unit ID

Unit Name

Site number

Subnet number

Call-in Time (Mins)

The unit was assigned a fixed/static local IP address of 192.168.0.14
The local network netmask is 255.255.255.0, so the IP addresses start from 192.168.0.0 and end at 192.168.0.255

Both Gateway and DNS IP addresses are 'manually' set to 192.168.0.10 instead.

You may change the DNS IP address manually to a different IP address, e.g a public DNS IP address:

dns-ip=<A private or public DNS IP address>

Here the DNS IP is set to a private local DNS IP address on the current subnet, as assigned before.

Example: dns-ip=192.168.0.80

ip=dhcp

The manual settings will be erased and the network interface will reset with DHCP enabled.

Default Passwords

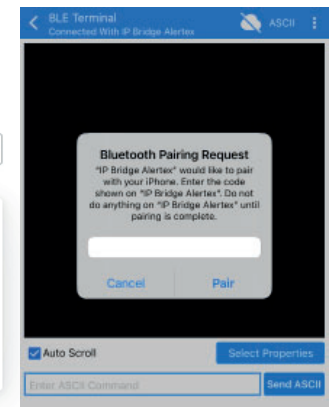
Default web portal password: password1234

Default BLE terminal password: 123456

Luminite IP Bridge

ALERTEX Monitoring Interface

Please enter the system password



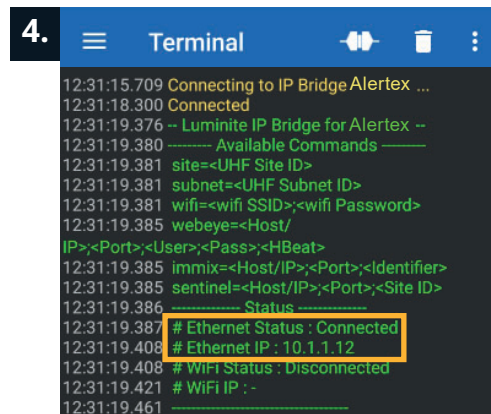
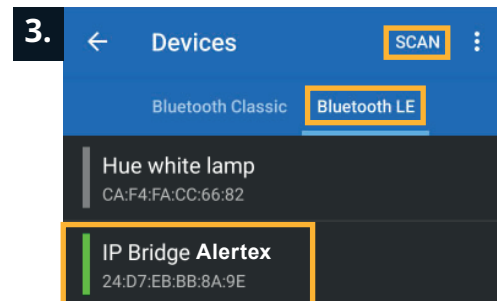
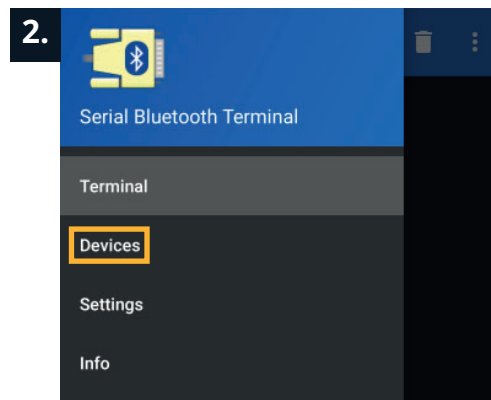
Android

You must use a Bluetooth terminal app on your Android device to configure the IP bridge over Bluetooth. For Android, we are using Serial Bluetooth Terminal which is available on the Play Store:

https://play.google.com/store/apps/details?id=de.kai_morich.serial_bluetooth_terminal&gl=GB

Connecting to the IP Bridge

1. Open the app and click the 3 horizontal lines in the top left corner to open the menu and select Devices
2. Switch to the Bluetooth LE window and press SCAN
3. 'IP Bridge Alertex' should show in the list of devices – select it to open the Terminal
4. Once the IP bridge has connected, the Ethernet IP address will be visible in the terminal window



6. Set the site number from 1-32, ensuring that it matches the site number configured previously in the Bluetooth terminal app
7. Set the subnet number from 1-8, ensuring that it matches the subnet number configured previously in the Bluetooth terminal app
8. Set the unit number from 1-64
9. Set the UHF frequency (best practice is to leave it as standard)
10. Click 'save settings' to save any changes
11. Click 'factory reset' to revert to default settings
12. Click 'home' in the top right of the page to return to the main menu

UHF Network Settings

Changes to the UHF network settings below will reset the event monitoring

UHF Site Number	UHF Subnet Number
<input type="text" value="7"/>	<input type="text" value="1"/>
Default Test Unit	UHF Frequency
<input type="text" value="64"/>	<input type="text" value="434.525 MHz (Standard)"/>
<input type="button" value="Save Settings"/>	

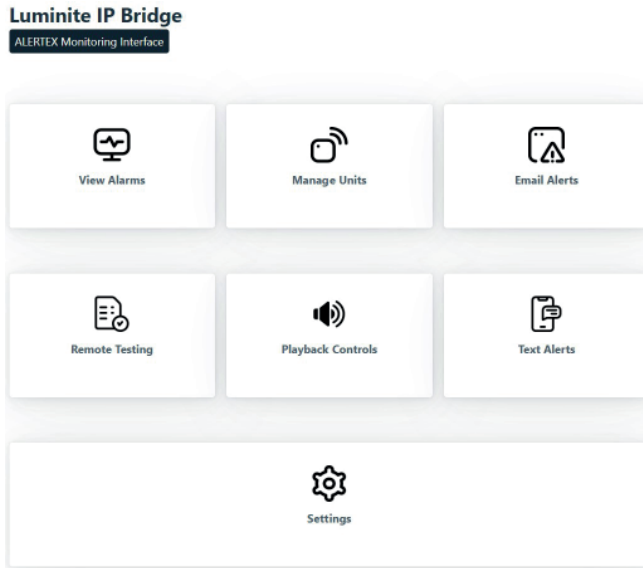
Factory Reset the Bridge Settings

Revert all the settings back to factory defaults. The device will reboot after a factory reset.



The Alertex Web Portal

Open your web browser and type the IP address of the IP bridge into the URL bar, followed by :8081 (e.g. 10.1.1.28:8081) and press enter, which will navigate to the main menu



Settings

- Under General Settings, type the IP bridge name
- Set the 'heartbeat' frequency from 1-60 minutes
- Set how many missed calls will trigger a 'missed call' event from 1-10
- Choose how long to keep event history from 24-96 hours
- Choose the battery threshold for receiving a 'low battery' event from below 60% to below 20%

General Settings

Bridge name/identifier

A unique name to identify this bridge when getting a notification

Periodic Heartbeat Setting

External heartbeat notification, sent per minute

Alertex Missed Call Event Setting

The number of 'calls' to miss before triggering a MISSING event

Event History Setting

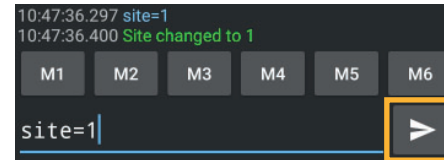
Clear events after a fixed period of time has passed

Low Battery Threshold

Create a low battery notification when battery is below a certain percentage

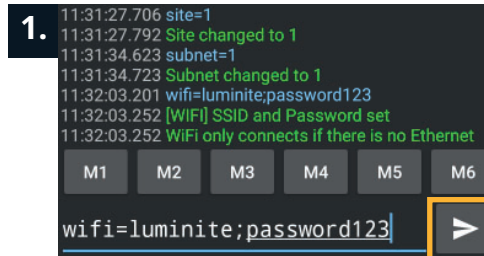
Entering Commands (example)

- To set the site code (1-32), type site=(1-32) and press the 'send' arrow
- To set the subnet code to 1, type subnet=1 and press the 'send' arrow

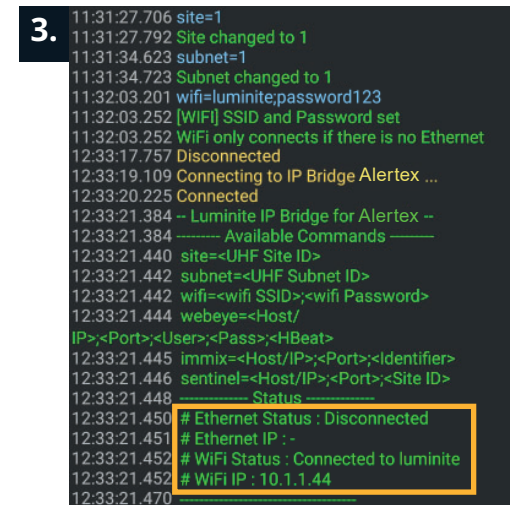


Connecting to the IP Bridge over WiFi

- To connect the IP bridge to the WiFi network, type wifi=(enter the wifi name);(enter the wifi password) and press the 'send' arrow
- Unplug the Ethernet cable from the IP bridge and disconnect it in the terminal window by clicking the 'connect / disconnect' button in the top right of the window



- Reconnect to the IP bridge by clicking the 'connect / disconnect' button. Notice that Ethernet IP address is now blank, and the WiFi IP address is populated
- Please note that the Ethernet IP address and the WiFi IP address will be different values

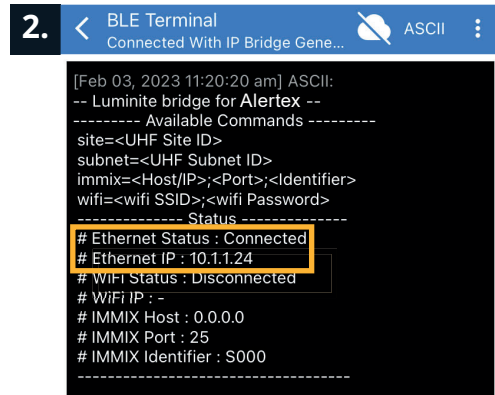
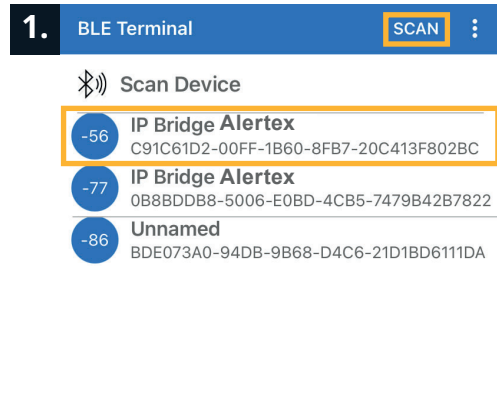


You must use a Bluetooth terminal app on your iOS device to configure the IP bridge over Bluetooth. For iOS, we are using BLE Terminal HM-10 which is available on the App Store:

<https://apps.apple.com/us/app/ble-terminal-hm-10/id1398703795>

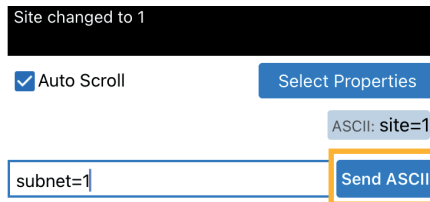
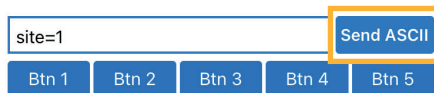
Connecting to the IP Bridge

1. Open the app and select 'IP Bridge Alertex' to open the terminal window. If it does not show in the list of Bluetooth devices, tap 'scan' in the top right corner
2. Once the IP bridge has connected, the Ethernet IP address will be visible in the terminal window



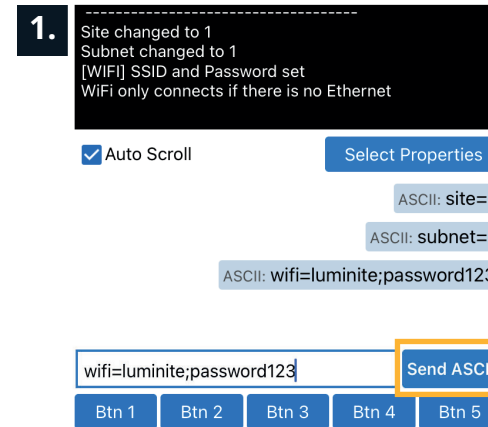
Entering Commands (example)

1. To set the site code (1-32), type site=(1-32) and press the 'Send ASCII' button
2. To set the subnet code to 1, type subnet=1 and press the 'Send ASCII' button



Connecting to the IP Bridge over WiFi

1. To connect the IP bridge to the WiFi network, type wifi=(enter the wifi name);(enter the wifi password) and press the 'Send ASCII' button
2. Unplug the Ethernet cable from the IP bridge and disconnect it in the terminal window by clicking the 'connect / disconnect' button in the top right of the window



3. Reconnect to the IP bridge by clicking the 'connect / disconnect' button. Notice that Ethernet IP address is now blank, and the WiFi IP address is populated
4. Please note that the Ethernet IP address and the WiFi IP address will be different

