

LORATECH Outdoor Gateway ALU Start Guide Manual

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IMPORTANT!

Do not the power-on the gateway without the antenna connected! The LoRa radio may be damaged!



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1 First run

Connect the antenna to the device with coaxial cable (impedance 50Ω , connector N-female). Link the data cable (cat5e FTP recommended) with the included PoE adapter injector.

2 Setting up an IP address

- After powering up, the gateway is going to try to obtain an IPaddress by using a DHCP discovery procedure.
- If the network does not support DHCP, the gateway will use a fallback address of 192.168.1.77.
- The gateway can be configured using the web interface. Enter the gateway address in the web browser and log in with the default combination (loratech / loratech).
- Alternatively, an SSH client can be used. Connect in with the SSH client (e.g. PUTTY) with default login (loratech / loratech). However, you can not make any changes to the settings through this connection.
- Status page appears after login. It displays gateway information summary.

Figure	1:	\mathbf{Status}	page

			HE		
Status page Network setup	Status page				
I LoRaWAN setup	etatae page				
✤ System	< System Information	Network	LoRaWAN		
? Helpdesk (# Logout	System Time: 13:25:05:14.12:2018 Uptime: 14 minutes Load Average: 0, 0, 0 Temperature: 29, 1*C Humidhy: 29, 3 % Firmware Version: 37c65ca Helpdesk SSH tunel: motrowning	LAN IP address: 192.168 MAC Address: 88.27/EL.7 3G/LTE IP address: 169.22 MAC Address: 00.12	EUI: B807CC0PPPET1001A Servers app.loratech.cz: 1700 / 1700		
	<pre>PFWD Log (last 100 rows) Dec 14 12:23:02: INF0: [down] for server app.loratech.cz PULL_ACK received in 37 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for server app.loratech.cz received in 48 ms Dec 14 12:23:02: INF0: [up] FUSH_ACK for serve</pre>				

• IP address can be set up in *Network setup* menu.

Figure 2: Network setup

LORATECH			HELP
n Status page			
A Network setup	Network setup		
al LoRaWAN setup			
🖌 System 🧹	Network LAN		
? Helpdesk		Obtain an IP address automatically (use DHCP). Use the following IP address	
De Logout	IP Address:	192.168.1.77	
	Subnet Mask:	255.255.255.0	
	Gateway:	192.168.1.1	
	DNS Server 1:	888.8	
	DNS Server 2:	884.4	
	Network 4G		
	APN:	Internet	
	Username:	blank	
	Password:	blank	
		Save	

• To save the settings press the Save button. After doing so we are going to be prompted to confirm *Apply changes* in the top right corner of the window.

3 Setting up LoRa servers

To get EUI and setting up your name, email, GPS coordinates and servers, use the $LoRa\,W\!AN\,\,setup\,$ menu.

LORATECH						HELP
Status page						
Network setup	LoRaWAN set	tup				
al LoRaWAN setup						
♪ System	EUI:	8827 E E 1A				
? Helpdesk	Name:					
6 Logout	E-mail:					
	GPS					
	Latitude:	0				
	Latitude:	0				
	Altitude:	0				
	Servers					
	In Server 1:	app.loratech.cz	Port up:	1700	Port down:	1700
	Server 2:		Port up:	1700	Port down:	1700
	Server 3:		Port up:	1700	Port down:	1700
	Server 4:		Port up:	1700	Port down:	1700

Figure 3: LoRaWAN setup

4 Changing the password

It is recommended to change your password as soon as possible! The password can be changed in the *System* menu and the *Change password* submenu.

Figure 4: Change password

			HELF
Status page			
Network setup	Change passv	vord	
.al LoRaWAN setup			
🖌 System 🗸 🗸	Username:	loratech	
Change password	Password:		
Administration ports	Confirm Password:		
Date and Time			
Monitoring		Apply	
Backup and Restore			
Factory defaults			
Reboot GW			
? Helpdesk			
(Logout			

5 Monitoring

To setting up monitoring your gateway use the *Monitoring* submenu in the *System* menu. Enter the URL by following the pattern:

http://194.182.86.56:8080/api/v1/AcessToken/telemetry

The Acess Token can be gotten in the ThingsBoard, visualization environment, where we will set up a new device in DEVICES Then, tap to enter the device settings and press the COPY ACCESS TOKEN button to save the mentioned code to the clipboard, the code needs be inserted into the edited URL.

Figure 5: Monitoring

RATECH			
Status page			
Network setup	Monitoring		
LoRaWAN setup			
System ~		Enable LORATECH	
Change password		Enable	
Administration ports	URL:	http://194.182.86.56:8080/api/v1//	
Date and Time	POST body:	{ "time": "2019-01-15T13:19:27+01:00",	
Monitoring		"temperature": 38.07, "humidity": 16.54,	
Backup and Restore		"uptime": 521280, "version": "4263194",	
Factory defaults		"cpu_load_1": 0.0,	
Reboot GW		"cpu_load_5": 0.0, "cpu_load_15": 0.0, "euri": "3"	
Helpdesk		}	
Logout			10

6 Date and Time

To setting up date and time in your gateway and setting up NTP server use the *Date and Time* submenu in the *System* menu.

Figure 6:	Date	and	Time
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LORATECH		HELP
Status page		
Network setup	Date and 1	lime .
I LoRaWAN setup	NTP Enable:	NTP Enable NTP Disable
🖌 System 💙	HTT LINDIC.	
Change password	NTP Server:	217.31.202.100
Administration ports	NTP synchronized:	yes
Date and Time	Time zone:	Europe/Prague (+01:00)
Monitoring		
Backup and Restore	Date:	January • 15 • 2019
Factory defaults	Time: (hh:mm:ss)	13 : 46 : 25
Reboot GW		Apply
? Helpdesk		
🕞 Logout		

7 Setting up 4G connection (optional)

The configuration for GSM / LTE can be set at the bottom of the $\it Network$ $\it setup$ menu window.

LORATECH Outdoor Gateway ALU

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