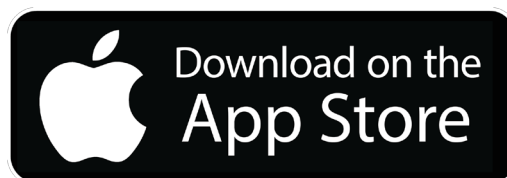# uAvionix

FYXNav

Quick Start Guide

The uAvionix FYXNav provides a high integrity position source. FYXNav can be programmed with a static ICAO and call sign using the Ping App.

1. Install

2. Connect

3. Join

4. Configure ping2020/ping1090

5. Configure ping200S

6. Commit

Install the uAvionix Ping App from either the Apple App Store or Google Play. Search for **uAvionix Ping installer** or use the QR codes below.

Download on the **App Store**

GET IT ON **Google Play**

Connect the **ping programmer** to **FYXnav** using the provided **JST ZHR-5 cable**.

Connect **ping programmer** to a power source using a **Micro-USB cable**.

Join your mobile device to the wireless network named **Ping-XXXX,** where XXXX is a random string i.e. Ping-6AFB.

The WPA passphrase is **uavionix**.

ping2020/ping1090 proceed to **step 3**.

ping200S proceed to **step 4.**

Ping2020/Ping1090 launch the **uAvionix Ping** application and complete the fields as required for your device/aircraft.

Selected Device Type: Choose the device FYXNav will be connected to.

Control: This setting controls device transmit functions. The selections available will depend on the device type selected.

Transceiver selections include:

TX enabled: Transmit ADS-B message at one second intervals, receive is also enabled.

Receive: Receive only, transmit disabled.

Standby: ADS-B in/out disabled.

ICAO: Enter your ICAO Number in Hexadecimal format. If your identifier is in octal (eight digits) format you must convert it prior to entry.

Call Sign: Enter the tail number of the aircraft. (A-Z 0-9)

Emitter: This should be set to your aircraft type. UAV is the selection for unmanned vehicles.

V$_{S0}$: Enter airspeed in knots that the aircraft typically flies at after takeoff. Default value (1)

Aircraft Length: Select the length value in meters that matches your aircraft.

Aircraft Width: Select the width value in meters that matches your aircraft.

GPS Antenna Offsets: Choose the lateral and longitudinal offset in meters from GPS to the nose of your aircraft.

ping

CONNECTED TO DEVICE

Configuration | Monitor

Selected Device Type:
ping2020

Control:
UAT TX enabled

ICAO Number (hex):
e.g. 012ABC

Call Sign:
e.g. N12345

Emitter Category:
UAV

V$_{S0}$ (knots):
1

Aircraft Length (meters):
L ≤ 15

Aircraft Width (meters):
W ≤ 23

GPS Antenna Offset, Lateral from roll axis (meters):
0

Antenna Offset, Longitudinal aft from aircraft nose (met
0

Update

Ping200s launch the **uAvionix Ping** application and complete the fields as required for your device/aircraft.

Selected Device Type: Choose **ping200s.**

Control: Select transmit a transmit type.

> **Standby:** Transponder will not respond to interrogation.
>
> **Mode A:** Replies to interrogation with 4 digit squawk code.
>
> **Mode C:** Replies to interrogation with altitude information.
>
> **Mode S:** Provides multiple information formats to a selective interrogation.
>
> **1090ES:** ADS-B transmit enabled.
>
> Combinations of the reply types are also available.

ICAO: Enter your ICAO Number in Hexadecimal format. If your identifier is in octal (eight digits) format you must convert it prior to entry.

Call Sign: Enter the tail number of the aircraft. (A-Z 0-9)

Emitter: This should be set to your aircraft type. UAV is the selection for unmanned vehicles.

VFR Code: Enter the default VFR code for your country. The United States code is 1200.

Maximum aircraft speed: Select your aircraft maximum speed.

ADS-B In Capability: Select aircraft ADS-B receive capability.

Aircraft Length: Select the length value in meters that matches your aircraft.

ping
CONNECTED TO DEVICE

Configuration | Monitor

Selected Device Type:
ping200S ▼

Control:
Mode C/S + 1090ES ▼

ICAO Number (hex):
A00000

Call Sign:
AVI001

Emitter Category:
UAV ▼

VFR Code:
1200

Maximum aircraft speed (TCAS):
S ≤ 75 knots ▼

ADS-B In Capability:
None ▼

Aircraft Length (meters):
L ≤ 15 ▼

Update

After completing all data fields tap the **Update** button.

You should receive the **Device Configured** message, tap **OK.**
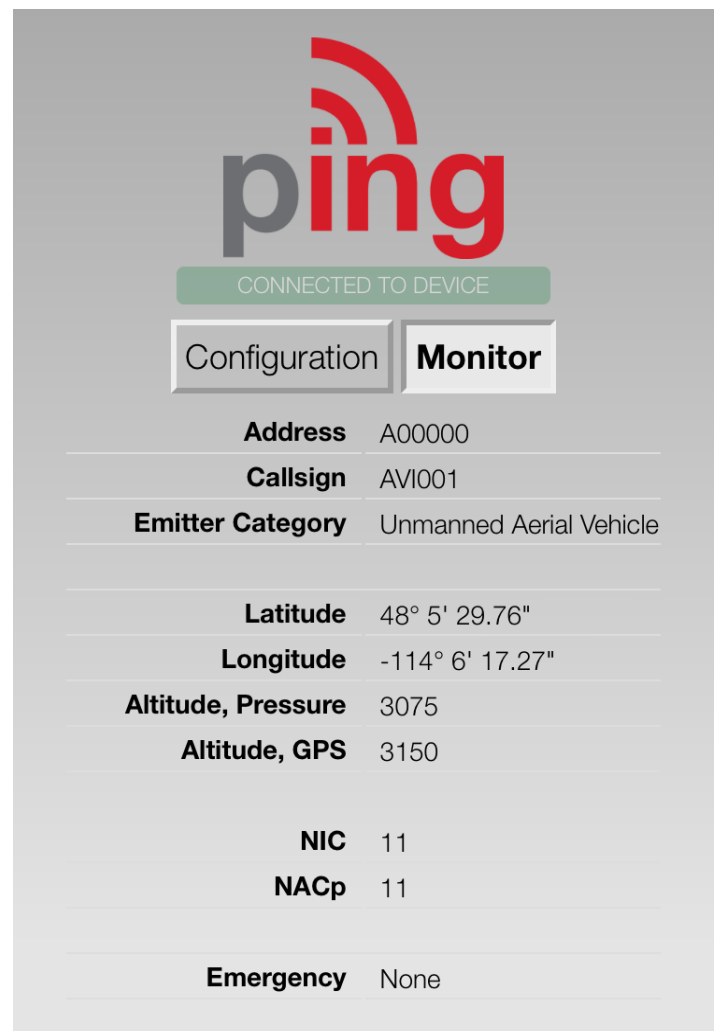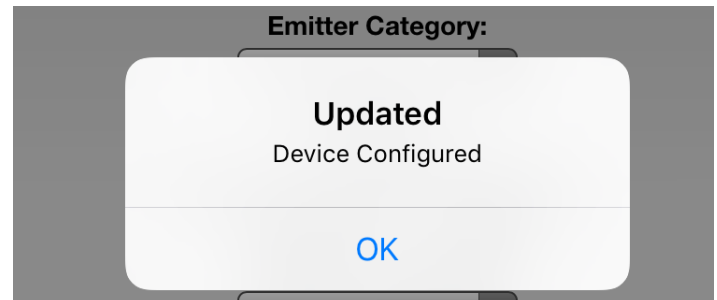
Tap **Monitor.**

Verify all fields are correct for your aircraft.

The monitor fields will only populate when FYXNav has a GPS fix. A GPS fix is indicated by a flashing red LED.

A fix is not necessary for programming but is required to monitor the current configuration.

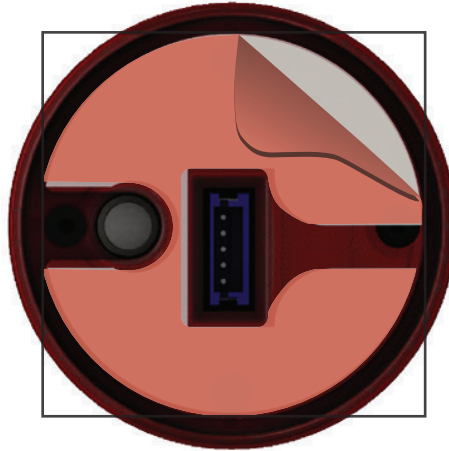**Disconnect** power from **ping programmer**.

Disconnect FYXnav from **ping programmer**.

Emitter Category:

Updated
Device Configured

OK

ping

CONNECTED TO DEVICE

Configuration | **Monitor**

Address	A00000
Callsign	AVI001
Emitter Category	Unmanned Aerial Vehicle
Latitude	48° 5' 29.76"
Longitude	-114° 6' 17.27"
Altitude, Pressure	3075
Altitude, GPS	3150
NIC	11
NACp	11
Emergency	None

Mount FYXNav using the provided **double-sided adhesive.**

Remove both top and bottom backing from provided double sided tape. Adhere double sided tape to the underside of FYXnav in the correct orientation so 5-pin connector is not blocked by the adhesive.

Connect one end of provided **JST ZHR-5 cable** to **FYXnav**. Route cable through channel in adhesive. **Mount FYXnav** to a clean, smooth surface. The Ping logo on the top of the FYXnav should have an unobstructed view of the sky.

www.uavionix.com