




Yepzon™ Asset – User manual

Registering first time as Yepzon Asset user

1. Open the Yepzon™ Pro web portal at <https://pro.yepzon.com>
2. **Register** yourself as a user
3. **Log in** with credentials registered in step 2
- [4. Select Service Plan according to your needs -COMING SOON-]
 - EU
 - Global
 - Premium
5. **Add** your first device[s] with **Product Key[s]** 
6. Ready! **Switch ON** your Asset. First connection may take from 10 minutes up to a few hours. To maximize the battery level, you may plug the device into a Micro-USB charger. This may also speed up the first connection.

Please note: Powering OFF is done by means of web user interface, not by power switch

Adding more devices into your account

1. **Log in** to the Yepzon™ Pro web portal at <https://pro.yepzon.com>
2. **Add** your device[s] with **Product Key[s]**

Device features

Yepzon™ Asset [hereinafter *Device*] is an industrial-purpose, stand-alone positioning device with 7000mAh rechargeable battery, built-in SIM, GSM connectivity, GPS module, temperature sensor, accelerometer for collision detection and optional humidity sensor.

Connection intervals

Device connects to the network and reports the data **only at pre-set intervals**. Default interval is **1 hour**. To force the Device to report the current location, plug the Device into the charger. The Device performs a reboot and communicates its current location. Note: *Yepzon™ Asset does not require the user to explicitly request and accurate location like the Yepzon™ One and Yepzon™ Freedom locators*. The device always reports the most accurate position available.

If the network connection fails, there is a battery saving mechanism; the next connection attempt takes place after a delay which is **2 x default connection interval**. This will save battery over long periods of network outage, such as on a marine trip.



The data acquisition continues seamlessly also during these offline periods and data is provided in the next connection.

Data acquisition

Device includes GPS module for precise positioning [see more in next chapter], temperature and humidity sensors and accelerometer for collision detection. Location information, environmental information and collision detection status are reported in every connection, as well as battery level.

Temperature is acquired continuously. In each connection two temperature values are reported: minimum and maximum temperatures since previous report.

Humidity data is also acquired continuously. In each connection two humidity values are reported: minimum and maximum humidity values since previous connection.

Collision information is also acquired continuously. The 3-axis accelerometer is set up to detect collisions and mishandling of the Device and the object where the Device is attached. There is threshold of about ~1,8g which is based on free pendulum movement i.e. minor acceleration events are not reported. In other words, if the movement is gradual without any sudden incidences, it might be that the reported acceleration values are zero; this is normal. Collision detection considers not only the peak value, but also the duration of the acceleration. The total impact of the acceleration is considered and a motion event with greater impact overrides the motion event with smaller impact within the same connection interval. The motion event with the highest impact since previous report is reported.

Battery level in % is reported from a moment just before the report. Battery percentage is an indicative value only and there may be some variation in subsequent readings; this is normal.

Location

Device attempts to acquire the precise, GPS satellite-based position just before each connection. To obtain a GPS position, a clear 360 degrees view to the horizon is recommended, which is seldom the case. Thus, the GPS position is not always available, especially when the Device is indoors.

Every now and then it happens, that GPS signal is reflected from buildings and other objects. This may result in GPS position which is shifted up to tens of meters. In extreme cases the actual location of the device may be outside the reported accuracy.

In case there is no GPS position available, a GSM tower-based location is reported. The accuracy of a GSM-tower based location is from a few hundred meters to kilometers.



Fact sheet -Yepzon Asset

Dimensions	weight 220g, width 115mm, thickness 31mm, length 75mm
Battery	7000 mAh Li-ion, rechargeable
Battery life	~1-12 months depending on settings and usage
Cellular comm:ion	Quad Band GSM/GPRS
Positioning methods	GPS, GSM Cell ID triangulation, single GSM cell
Satellite reception	16 Channels GPS/Glonass module with A-GPS support
SIM	M2M SMD SIM (MFF2 size standard), not changeable by user
User interface	In-house Web UI / 3rd party Web UI / custom API integration
Accelerometer	±16g in 3 axis
Temp. sensor	accuracy and range: ±1.5°C from -25°C to +85°C, ±2.0°C from -40°C to +125°C]
Humidity sensor	Relative Humidity Accuracy ±2% [typical]
Other	Power switch for initial power-up micro USB charging port 1-color led indicator mounting holes
Chassis	IP41 chassis [IP67 optional; please ask]