# INDEX

1. INTRODUCTION ....................................................................................................................... 3
2. PRODUCTS ............................................................................................................................... 3
3. GATEWAY ............................................................................................................................... 3
   3.1 GATEWAY OVERVIEW ................................................................................................. 3
   3.2 CONTENT OF THE GATEWAY BOX .............................................................................. 3
   3.3 PREPARING THE INSTALLATION ............................................................................... 4
   3.4 INSTALLATION ................................................................................................................ 4
   3.5 POWER SETUP & CONNECTION TO THE INTERNET ....................................................... 4
4. DEVICE ................................................................................................................................... 5
   4.1 CONTENT OF THE DEVICE BOX .................................................................................. 5
   4.2 DEVICE OVERVIEW ....................................................................................................... 5
   4.3 INSTALLING BATTERIES AND ANTENNA ................................................................. 6
   4.4 DEVICE INSTALLATION ............................................................................................... 6
   4.5 DEFAULT DEVICE CONFIGURATION ............................................................................ 6
   4.6 BATTERY LIFE CALCULATOR ....................................................................................... 6
5. THINGPARK WIRELESS PORTAL ....................................................................................... 7
   5.1 MAIN PORTAL DESCRIPTION ..................................................................................... 7
   5.2 APPLICATION DESCRIPTION ....................................................................................... 8
      5.2.1 Network Manager: ............................................................................................... 8
      5.2.2 Device Manager: ................................................................................................. 8
      5.2.3 Wireless Logger: .................................................................................................. 8
6. LOGIN TO WMW-LIGHT ....................................................................................................... 8
7. RECOVERY INFORMATION .................................................................................................. 8
   7.1 DEVICE .......................................................................................................................... 8
   7.2 GATEWAY ....................................................................................................................... 9
8. FAQ AND SUPPORT ............................................................................................................ 10
1. INTRODUCTION

Thank you for purchasing this “Click & Go Air quality solution package”.

The aim of this package is to monitor the air environment to detect pollution and preserve health.

This package does not require any configuration. The hardware is fully configured and activated on the ThingPark Wireless network. Therefore, you only need to install the hardware on your premises, connect the gateway to the internet and start monitoring your assets. Easy!

All software and tools are available with your ThingPark Store credentials. We use the Single Sign On to provide the best experience.

2. PRODUCTS

This package contains:
- 1 Elsys ERS CO2 sensor and accessories
- 1 Multitech Industrial indoor Gateway and accessories

3. GATEWAY

3.1 GATEWAY OVERVIEW

The Conduit is a programmable gateway that uses an open Linux development environment to enable machine to machine connectivity using LoRaWan interface. The Conduit is complied with specifications defined by the LoRa Alliance. This gateway has 1 LoRa and 4G antenna port (SimCard not provided by Actility) and is powered through standard AC power supply. Its LoRa interface operates in ISM bands and supports end-devices with class A & C, Listen Before Talk, Spreading Factor, Adaptive Data Rate (ADR).

3.2 CONTENT OF THE GATEWAY BOX

This package contains the following products:

<table>
<thead>
<tr>
<th>Developer Board</th>
<th>1- MTCDT-Conduit Developer Board</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Supply</td>
<td>1- 100-240V 9V-17A Power Supply with removable blades</td>
</tr>
<tr>
<td></td>
<td>1- NAM blade/plug</td>
</tr>
<tr>
<td></td>
<td>1- EURO blade/plug</td>
</tr>
<tr>
<td></td>
<td>1- UK blade/plug</td>
</tr>
<tr>
<td>Cables</td>
<td>1- Micro USB Cable</td>
</tr>
<tr>
<td></td>
<td>1- Ethernet Cable RJ45 6-ft.</td>
</tr>
<tr>
<td>Antennas</td>
<td>Varies with Conduit model</td>
</tr>
<tr>
<td>Customer Notices</td>
<td>Quick Start</td>
</tr>
<tr>
<td></td>
<td>Registration Card</td>
</tr>
</tbody>
</table>

Content of the Multitech Box
3.3 PREPARING THE INSTALLATION

The following picture shows the different connectors:

<table>
<thead>
<tr>
<th>Label</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CELL, AUX</td>
<td>Cellular antenna inputs. CELL - Primary AUX - Rx Diversity/MIMO</td>
</tr>
<tr>
<td>AP1, AP2</td>
<td>Slots for MultiTech accessory cards.</td>
</tr>
<tr>
<td>USB DEVICE</td>
<td>User-defined, high-speed 480 Mbps, standard USB 2.0 Micro B connector.</td>
</tr>
<tr>
<td>E-NET</td>
<td>RJ-45 receptable for standard Ethernet 10/100 Base-T. Caution: Ethernet ports and command ports are not designed to be connected to a public telecommunication network. Caution: Les ports Ethernet et de commande ne sont pas conçus pour être raccordés à un réseau de télécommunications public.</td>
</tr>
<tr>
<td>USB HOST</td>
<td>High-speed, standard USB 2.0 Type A connector. 500mA maximum current draw.</td>
</tr>
<tr>
<td>Power</td>
<td>9-32 Vdc power receptacle for provided power cord.</td>
</tr>
</tbody>
</table>

Connections Multitech Conduit Gateway

3.4 INSTALLATION

The gateway can be mounted on a desk or on a wall. although no screws are provided.

3.5 POWER SETUP & CONNECTION TO THE INTERNET

The Installation of the gateway is very simple and can be done in few steps:

- Select the plug compatible for your region
- Connect the power cable to the conduit and plug
- Connect the Ethernet cable to your IP router and to the gateway.

That’s it!
The gateway in this package is fully provisioned and activated in your ThingPark account. **No technical settings are required.**

**Note:** default configuration is:
- IP Backhaul: **Ethernet Only**
- Gateway needs a DHCP server with dynamic address capability
- Ports 21, 22 and 2404 need to be open on your firewall

### 4. DEVICE

#### 4.1 CONTENT OF THE DEVICE BOX

The Device Box contains 2 Elsys ELT-1 devices. The boxes include antennas and batteries.

#### 4.2 DEVICE OVERVIEW

ERS and ERS-lite are LoRaWAN™ room sensors for measuring indoor environment. ERS is enclosed in a room sensor box and it is designed to be wall mounted. Inside the ERS you will find five internal sensors: temperature sensor, humidity sensor, light sensor, CO2 sensor and a motion sensor (PIR). ERS is powered by two 3.6V AA lithium battery (one for ERS-lite). The Battery life is estimated to be up to 10 years but depends on sample interval, transmit interval, data rate and environmental factors.

![Elsys ERS Dimensions](image-url)
4.3 INSTALLING BATTERIES AND ANTENNA

To install the batteries, you need to remove the 4 screws.

Once the batteries are plugged, the device will automatically start a Join Request to the network.

Please make sure to be close enough to make a successful Join Request.

4.4 DEVICE INSTALLATION

The Elsys ERS is equipped with 2 holes and can be mounted on any location.

4.5 DEFAULT DEVICE CONFIGURATION

The device comes fully configured and activated. Therefore, you do not need to send any Device Key information to your ThingPark Wireless account. It is configured in Over The Air Activation mode (OTAA).

The device is aiming to send a message every 10mn.

4.6 BATTERY LIFE CALCULATOR

Elsys is providing a very nice calculator to estimate the battery life time of the device. https://www.elsys.se/en/ers/

Based on the default configuration the estimated battery life is expected for 18 years for a device working at SF7.

Battery Life Estimation using SF7
5. THINGPARK WIRELESS PORTAL

Your ThingPark Wireless application is accessible through the following URL:

https://iot.thingpark.com/portal/web/

Once you log in, you will be able to see all the applications that you have subscribed to via your package(s).

![Actility ThingPark Wireless Control Center](image)

**Actility ThingPark Wireless Control Center**

Every package comes with the basic default tools provided by Actility.

- Device Manager
- Wireless Logger
- Network Manager

Each purchased package comes with a different application, which will be provided either by Actility or by Wmw-Hub.

### 5.1 MAIN PORTAL DESCRIPTION

When you click on the wheels you see the following information:

![Actility ThingPark Wireless Control Center Options](image)

**Actility ThingPark Wireless Control Center Options**
5.2 APPLICATION DESCRIPTION

5.2.1 Network Manager:
The ThingPark Network Manager is a standard ThingPark application which enables ThingPark Wireless subscribers to self-provisioning and manages the base stations (LRRs). The Network Manager also enables the provisioning of a Base Station positioning location, without a GPS receiver. The location provisioning is done into the LRR via the LRC.

5.2.2 Device Manager:
The ThingPark Wireless Device Manager is a standard ThingPark application which enables ThingPark Wireless subscribers to provision and manage their devices.

It is easy to use and provides a complete end-to-end device management solution. Main features: geographical system information where subscriber’s devices are located, detailed statistics and reports on device activity, the ability to add new devices, management of Connectivity Plan subscriptions and management of up to application server routing profile.

5.2.3 Wireless Logger:
ThingPark Wireless OSS intelligent logger enables ThingPark Wireless subscribers to view and analyze end devices RF traffic, visualize base stations with best link to each sensor, monitor SNR levels, LRR and LRC connections and more. It enables the decoding of payload data and other application layer messages and frames for some partner devices.

6. LOGIN TO WMW-LIGHT

Using your ThingPark Store credentials you can access to WmW-Light on the following URL: https://clickgo.wmw-hub.com/en/thingpark/login

Once you log please follow the steps to configure the application.

7. RECOVERY INFORMATION

In case there is an issue with your device or gateway, the following instructions will help you to re-provision devices and gateways.

7.1 DEVICE

The following snapshot helps you to provision in case it is deleted from the Device Manager:
The AppEUI and AppKey are available on your Delivery notice form. For Europe EU868 package the device profile should be LoRaWAN 1.0 - class A - ETSI - Rx2_SF9.

For Asia AS923 package the device profile should be LoRaWAN 1.0.2 - class A - Rx2_SF10 – as923.

For the United States of America US915 package the device profile should be LoRaWAN 1.0-class A-Rx2_SF9-us915-au915.

7.2 GATEWAY

The following screenshot helps you provision the gateway in case it is deleted from the Network Manager.
The LRR ID can be found on the delivery note under the **ID tab**.

### 8. FAQ AND SUPPORT

Please refer to the following link for any further information:

**Frequently asked questions:**
Please find our FAQ page here: [https://iot.thingpark.com/clickandgo/content/category/7-faq](https://iot.thingpark.com/clickandgo/content/category/7-faq)

We hope the FAQ is accurate enough, so you will find answers to yours questions. If not please send us a mail to [customer-support@thingpark.com](mailto:customer-support@thingpark.com) we will be happy to answer it.

Make sure to fill in the required information:

- Name
- Surname
- Organization
- Account name
- Login
- Your questions

You can find the account name and login on the welcome mail you have received.