USER GUIDE

OCEAView

LoRaWAN®-enabled wireless siren

DICKSON

Environmental Monitoring + Compliance Experts

Notices and safety

Disclaimer and limitation of liability

Dickson assumes no liability for any loss or claims by third parties which may arise through the use of this product. Users must not use the product in any manner not specifically indicated by Dickson.

Dickson shall not be held liable for improper use of this product.

This document is non-contractual and subject to change without notice.

Safety instructions

The latest safety instructions document is available for download from the Dickson website. Flash this QR code to access the document:

https://www.oceasoft.com/files/library/oceaview/Dickson_Safety.pdf

Certifications and compliance

Caution: Any changes or modifications made to this product not expressly approved in writing by Dickson could void the user's authority to operate the equipment.

FCC statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation: FCC Part 15 §107 - §109 - §207 - §247 (Ed 2008).

FCC RF Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

IC statement

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

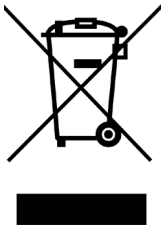
CE - Conformity with European regulations

This device is compliant with the essential requirements and other relevant requirements of the following directives.

- 2014/53/EU Radio Equipment Directive (RED)
- 2014/30/EU EMC Directive
- 2014/35/EU Low Voltage Directive
- 2011/65/EU Restriction of Hazardous Substances Directive

WEEE compliance

This device complies with the essential requirements and other relevant provisions of the Waste Electrical and Electronic Equipment Directive 2002/96/EC (WEEE Directive).



Environmental protection

Please respect local regulations concerning disposal of packaging, unused wireless devices, and their accessories, and promote their recycling.

RoHS compliance

This device is compliant with the restriction of the use of certain hazardous substances in electrical and electronic equipment Directive 2002/95/EC (RoHS Directive). Do not dispose of this product with household trash. Dickson recycles this product under certain conditions. Please contact us for more information.

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1 Introduction

Congratulations and thank you for choosing the Dickson LoRaWAN-enabled wireless siren.

This guide describes how to prepare your siren up for use with the OCEAView wireless monitoring system.

The Dickson wireless siren is the perfect addition to your lab or storage facility's monitoring solution.

As part of your OCEAView monitoring system, this LoRaWAN™ enabled device alerts you in case of alarms, such as sensor readings that exceed programmed limits as well as other types of technical alarms.

Just place the wireless siren in a convenient location and use the OCEAView web application to create an alert strategy that includes the device. The siren can be used in addition to other alert mechanisms, such as e-mail, voice notification, and text message sent to your phone.

The OCEAView system activates the siren wirelessly if one of your data loggers, network devices, or even the siren itself, encounters an alarm.

The siren even has a backup battery that maintains the LoRaWAN™ wireless connection in order to be able to notify the system in case of a power outage.

With its flashing red light and (adjustable) siren sound, you'll never miss an alarm!

Detailed configuration instructions and software settings are provided in the OCEAView Web Application User Guide available in the **Help** section of the web application.

1.1 Package contents

- Dickson LoRaWAN enabled wireless siren and antenna
- AC power adapter with 1.5 meter (about 5 ft.) cable and 4 international plug sizes; 12V DC – 1.0A. The AC power adapter is provided separately.
- Mounting kit with magnet and 2-sided Velcro® tape

1.2 Key features

Applications	Audiovisual notification in case alarms are detected by your OCEAView system
Compatibility	For use with OCEAView LoRaWAN™-based monitoring solutions
Connectivity	LoRaWAN™ long-range wireless technology (range up to 16 km/10 miles line-of-sight(1)) • Bluetooth® Low Energy for wireless firmware upgrade
Push-button	Wireless communication test/setup • Snooze
Power supply	110/240 V input auto-switching power adapter provided separately • 1.5 m (about 5 feet) cable • 12 V DC 1.0A output • Auto-switch to backup battery (with alert in case of power outage) • Optional car cigarette lighter adapter for in-vehicle use
Battery	3.6 V backup battery • Non-rechargeable, non-replaceable • Maintains LoRaWAN™ connectivity to notify system in case of power outage
Sound	Adjustable siren volume from 60 dBA to 100 dBA (± 10%) • Volume control
LED	Green/red status indicator
Operating conditions	0°C to +50°C (32°F to 122°F) • 0 to 90% RH (non-condensing)
Storage conditions	-10°C to +60°C (14°F to 140°F)
Mounting & installation	Mounting kit for use with provided Velcro® or magnet • Maximum mounting height < 2 meters
Casing	For indoor use only • ABS and polycarbonate plastic
Dimensions	160 x 80 x 83 mm (6.3 x 3.2 x 3.3 in.)
Weight	400 g (14.1 oz.) including battery
Certifications	CE, FCC, IC

1.3 What is a Dickson wireless siren?

Dickson wireless sirens are used to raise alerts if alarm conditions are detected in your OCEAView wireless monitoring system. Alarms can be configured in the OCEAView web application for any or all of your end-point modules and/groups.

For example, you can configure a data logger to trigger an alarm if the temperature exceeds or drops below a specified limit. The alarm limits and values depend on the type of data logger you are using. The siren is triggered when an alarm is detected by the web platform.

Figure 1 – Dickson wireless siren

1.3.1 Architecture overview

Dickson sirens connect wirelessly to your LoRaWAN receiver, just as the other wireless modules in your network:

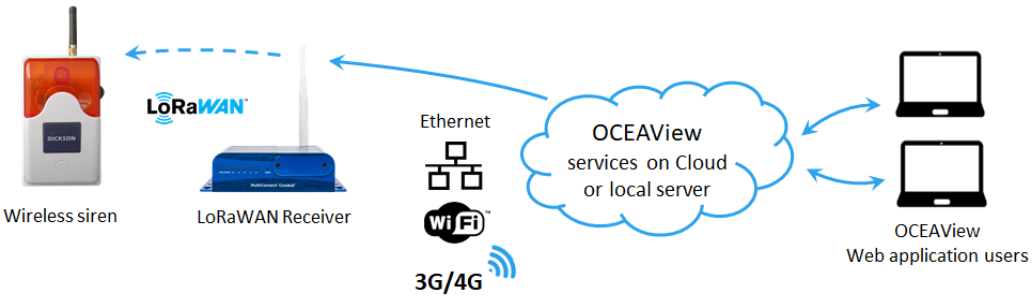

Figure 2 – Wireless siren as part of your OCEAView monitoring solution

The OCEAView web monitoring platform triggers the siren wirelessly when it detects an alarm condition on a data logger or infrastructure device.

If your OCEAView solution is installed as an on-premises solution on a server managed by your own IT department, then the wireless device must be configured with the proper customer key provided when you purchased your license. Please contact Dickson technical support for assistance with this configuration procedure.

1.4 Requirements and recommendations

For the purposes of this installation guide we assume that:

- Your access to the OCEAView web platform and application is configured and you have appropriate access rights to configure devices in the system.
- LoRaWAN wireless coverage is available at the location where you will be using the siren.

1.4.1 General requirements and recommendations

- For safety reasons, the siren should be mounted less than 2 meters (about 6.5 feet) from the floor.
- The AC adapter used for your wireless siren should be plugged into an uninterruptible power supply (UPS). Use appropriate AC power supply in compliance with regulatory requirements and safety practices.
- Weekly manual system testing should be performed as defined in your Standard Operating Procedure (SOP).
- Dickson recommends Installation and Operational Qualifications (IQ/OQ) be performed before initial use.

1.5 Where to find more information

The use and operation of your Dickson LoRaWAN-enabled wireless siren is described in the OCEAView web application user guide. You may click on **Help ➔ User guide** to open it directly from the web application interface.

2 Using the wireless siren

This section assumes that your access to the OCEAView web platform and application is configured and you have appropriate access rights to configure devices in the system. You will need Administrator rights to access certain configuration options.

2.1 Placement for best wireless performance

For optimal operation, follow these recommendations when physically placing your device:

- Do not place the siren within 40 cm (16 in.) of another module or wireless device.
- Make sure the wireless module is not placed on an electrical conduit or cable tray (such as for computer network cables).
- For best results, place the module so that it faces the general direction of the receiver antenna if possible.
- Keep about 20 cm (8 in.) of clear space around the module. For example, a module that is “stuck” between two refrigerators may not communicate effectively.
- Place your siren where people will not bump into it or unplug it (no more than 2 meters (6.5 ft.) from the floor).
- To ensure that the AC adapter does not get unplugged accidently, use a power socket that is also elevated from the floor and/or shield the cord in a protective conduit that is fixed to the wall (or within the wall).

The siren is a critical device in your wireless monitoring system. Therefore, we recommend that you keep it plugged it into an Uninterruptible Power Supply or safety plug.

2.2 Testing wireless connectivity

The LoRaWAN connection between the wireless siren and the OCEAView web server can be tested thanks to the Test button.

After a long press for more than 3 seconds on the Test button, the left-hand LED (farthest from the AC adapter plug) should blink and then turn green if the LoRaWAN connection succeeds. If not, the LoRaWAN connection between the wireless siren and the OCEAView web server failed.

The connection indicator LED remains green if the most recent communication was successful; red if the last communication failed; and blinking (red/green) during communication.

2.3 Mounting kit

For safety reasons, the siren should be mounted less than 2 meters (about 6.5 feet) from the floor.

1. For strong adhesion, wipe and dry the back of the siren and the mounting surface on which you intend to place the unit.
2. **Velcro:** Attach one side of the Velcro tape to the back of the siren and the other on the wall where you intend to place the unit.

   Magnet: Remove the adhesive backing and attach the magnet to the siren.
3. Place the siren on mounting surface.

2.4 AC adapter

1. Plug the AC adapter into the siren as shown below. The plug should slide firmly into the socket on the siren.

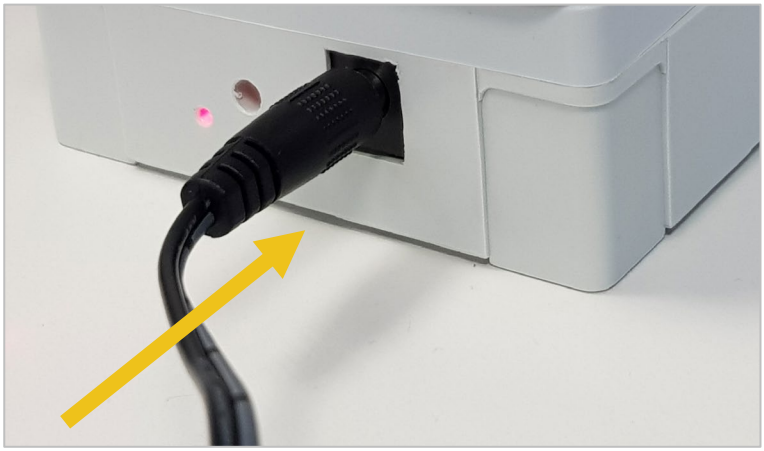

Figure 3 – Plugging in your Dickson wireless siren

Do not open the wireless siren casing. There are no user-serviceable parts inside. Opening the casing voids the manufacturer warranty.

2. Plug the AC adapter into an uninterruptable power supply or wall outlet. When the power is connected, the LED closest to the plug turns green. If the LED is red, then the siren, with its backup battery only, will not have enough power to turn on.

2.5 Adjusting siren volume

The siren volume is adjustable from 60 dBA to 100 dBA (± 10%). Adjust the volume to meet your needs by turning the screw-knob inside the cavity on the bottom of the unit, as shown here :

Figure 4 – Set siren volume using a Phillips head screwdriver

2.6 Snoozing an alarm

When the siren sound is activated, you may turn it off temporarily by pressing the pushbutton on the side of the device. Do a short press on the button to snooze the current alarm for 12 hours, or until a new alarm occurs.

Figure 5 – Short-press the test/snooze button to snooze the alarm sound

3 Siren maintenance

3.1 Non-replaceable battery

The Dickson LoRaWAN siren runs on AC power (via the 12 V adapter provided separately). The battery is only used to maintain the wireless connection for one minute in order to send alerts in case of an outage on mains power. If power is not restored, the device goes into standby mode and stops functioning until power comes back on. The battery is installed in the unit prior to delivery. The battery is non replaceable.

Do not open the wireless siren casing. There are no user-serviceable parts inside. Opening the casing voids the manufacturer warranty.

3.2 Cleaning instructions

You may occasionally need to clean your siren modules, depending on conditions at your site. Here are some recommendations and guidelines for cleaning your siren:

1. Always unplug the device from its AC power source when cleaning with any type of liquid.
2. Clean the module using a soft cloth lightly moistened with water, a detergent or isopropanol alcohol.
3. Do not use any aggressive cleaning agents or scratching cleansers that might damage your datalogger.
4. Do not submerse the siren in any liquid, as the casing is not waterproof.

4 FAQ

Is there a way to restore factory settings to my device?

You can perform a factory reset by pressing the black button ten times in a row. This will erase any settings that may have been loaded onto the device for your configuration.

How do I configure my device to use an on-premises OCEAView solution?

By default, your LoRaWAN-enabled alert device will attempt to connect to the OCEAView (public) Cloud platform via your LoRaWAN receiver.

If your OCEAView solution is installed as an on-premises solution on a server managed by your own IT department, then the wireless device must be configured with the proper customer key provided when you purchased your license. Please contact Dickson technical support for assistance with this configuration procedure.

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