ParamApp®

Android application for commissioning, configuration and diagnostics

User manual

Table of contents

1. Document publishing index

Document version	Application version	Date	Modification
01	1.4.1163	20/05/2022	First version.
02	1.5.1182	20/06/2022	Corrections, addition of drop-down panels.
03	1.5.1184	23/06/2022	Removal of the chapter "Radio key emission" Addition of functions for the aquastream®.
04	1.5.1184	29/06/2022	Document correction.
05	1.6.1185	13/07/2022	Addition of a "Communication Log" function.
06	1.6.1217	08/06/2023	Addition a new product.
07	1.6.1229	19/09/2023	Addition a new functionality for the aquastream®. Android update.

2. Contact of the organization

INTEGRA Metering SAS
12 Rue Font Grasse
Blagnac 31700
France

Phone: +33 5 61 11 23 56
info@integra-metering.com
www.integra-metering.com

3. Safety rules and precautions

3. 1. Information on the user manual relating to legal notice

This guide is intended for trained specialized personnel. For this reason, no basic working steps are included.

DANGER
Danger
This safety warning indicates a high risk which will result in serious personal injury or death.
• Measures to avoid incidents.

WARNING
Warning
This safety warning indicates medium risk that could result in serious injury.
• Measures to avoid incidents.

CAUTION
Caution
This safety warning indicates a low risk which could result in minor injury or mechanical damage.
• Measures to avoid incidents.

NOTICE
Notice
Indicates an action or measure which, if performed incorrectly, may have an indirect effect on the operation of the device.
• Measures to avoid malfunctions.

COMMENT
Comment
Comment, provides information and recommendations for efficient and trouble-free operation.
• Measures to avoid malfunctions.

REFERENCE
Reference
Refers to additional sources.

3. 2. Safety instructions and preventive measures

The manufacturer takes over no responsibility if the following safety instructions and precautionary measures are disregarded:

• Changes to the device, which are implemented without prior written approval of the manufacturer, lead to the immediate termination of product liability and warranty.

• Installation, operation, maintenance, repair and decommissioning of this device must only be performed by specialists authorized by the manufacturer, operator or owner of the device. The specialist needs to read and understand the entire installation and operation manual and is obliged to follow these instructions.

• Control the supply voltage and information given on the type plate, before the device is installed.

• Check all connections, settings and technical specifications of any available peripheral devices.

• Open the housing or parts of the housing, which contain electrical or electronic components, only if the electric energy is turned off.

• Touch no electronic components (ESD sensitivity).

• Expose the system concerning the mechanical load (pressure, temperature, IP protection etc) maximally to the specified classification.

- For works concerning mechanical components of the system, the pressure in the pipe system has to be released or the temperature of the medium needs to be brought to values harmless for humans.
- No information stated here or anywhere else releases planners, engineers, fitters and operators from their personal careful and comprehensive evaluation of the respective system configuration in terms of functionality and operational safety.
- The local working and safety standards and statutes need to be met.

3. 3.   ParamApp® security rules

The ParamApp® software is designed and intended exclusively for use as a tool for configuration, diagnosis and commissioning of INTEGRA Metering SAS communicating products.

Inappropriate or improper use may result in the operational safety of the device no longer being guaranteed. The manufacturer waives any liability for resulting damages of persons and materials.
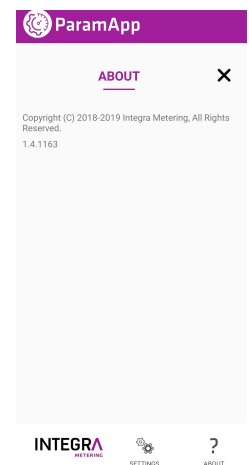
4. Product description

4. 1. Presentation

ParamApp® is the new generation of software application designed for commissioning, diagnostics and configuration of INTEGRA Metering SAS communicating products.

4. 2. Technical data

OS compatibility	Runs on Android Requires Android 7.0 or later Available with Google Play®
Communication interface	NFC, Bluetooth
Supported products	RUBIN® SONIC Smart TOPAS® SONIC TOPAS® Vanne (TCV CLX) CALEC® ST III Standard & Smart aquastream® aquaradio® DryX® Hydropass®
Main features	Initial setup, Alarms reset, Parameters adjustments, Switching on / off radio modules, Changing M-Bus parameters, Modification of settings (pulse weight, serial numbers), Reading out the events for detailed inspections on site, Accessing of Data logger information for deeper analysis, Setup of alarms detection (threshold parameters, durations…), Data export for further operations.

4. 3. About (Version and Copyright)

In this tab of the application you have access to the current version that you have on your smartphone.

ParamApp

ABOUT ✕

Copyright (C) 2018-2019 Integra Metering, All Rights Reserved.
1.4.1163

INTEGRA METERING   SETTINGS   ? ABOUT

5. Installation

ParamApp® software must be properly installed on your Android smartphone. It is available under Google Play® and can be downloaded there directly and freely.

REFERENCE

Reference

ParamApp® configuration software can be downloaded directly by clicking on the following link:

GET IT ON
Google Play

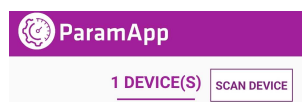https://play.google.com/integrametering.paramapp

6. Using ParamApp®

6. 1. Scanning a device

• To connect to your counter, you must have your smartphone and the ParamApp® application.

• Click the "SCAN DEVICE" button to start an NFC scan.

ParamApp

1 DEVICE(S) SCAN DEVICE

Scanning...

Please put the phone on the device

Recherche the meters / modules   The search begins
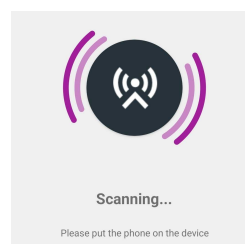
• Position your smartphone on the meter at the location of the NFC antenna.

NOTICE

Notice

If you want to scan a CALEC® ST III Standard & Smart, you must activate your Bluetooth throughout your use.

• Do not touch the phone during handling.
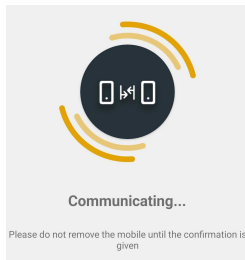
In communication
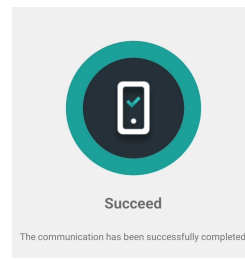
The device is connected
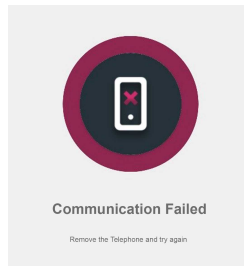
Connection Failure

In the case of the message "Communication failure", you must remove the smartphone then put it back to restart the scan.

6. 2.   Readout (information)

The data available depends on the meters / modules, they are organized by group as shown in the examples below. Click on the pane to access the information.
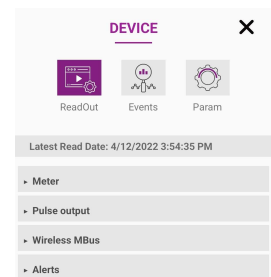
6. 2. 1. Description of drop-down panes

Meter:
In this section contains all the identity, metrological and pressure data for your meter / module.

▼ Meter	
NFC Tag Id	484685AE67480
Device Name	Topas LW8
Comm UID	99999999
Net Volume (m3)	0.772
Forward Volume (m3)	0.796
Reverse Volume (m3)	0.024
Flow (l/h)	0.000
YId	52FAD
Device Time	1/29/2002 12:49
Firmware Version	0.74
Customer text field	
Fabrication Date	1/1/0001 01:00
Meter SN	
Mode	User
Remaining Battery (days)	5451
Pressure (bar)	0

Alarms / Alerts:
In this section, you will find the alarms of your meter / module.

▼ Alerts	
Air bubbles [i]	No Alarm
Overload [i]	No Alarm
Leakage [i]	No Alarm
Frost	No Alarm
Heat	No Alarm
Over temperature	No Alarm
No consumption	Alarm in progress
Low Battery [i]	No Alarm
Reverse Flow [i]	No Alarm
Burst [i]	No Alarm

Pulse output:
In this section you will find the weight and size of the meter / module pulse output.

▼ Pulse output	
Pulse Length (ms)	50
Pulse weight (l)	100

M-Bus:
In this section, you will find information relating to M-Bus communication: address, transmission speed...

▼ MBus	
Primary Address	253
Secondary Address	0
Baudrate	2400
Comm UID	10138376

Wireless M-Bus:
In this section you will find information related to wireless M-Bus communication: UID, transmission interval.

▼ Wireless MBus	
Comm UID	10138376
Transmission interval (s)	16

LoRa:
In this section, you will find information related to communication LoRaWAN: Dev EUI, reference time, sending time...

▼ LoRa	
Dev EUI	70B3D5B6F80061BC
Join EUI	70B3D5B6FF000000
Reference hour	00:00
Send hour	12:00

aquastream® / aquaradio®:
In this section, you'll find all the data related to the life of your meter / module, operating time, battery life, firmware version ...etc.

▼ aquastream	
NFC Tag Id	4AE78D2767280
aquastream SN	99999999
Device Name	Aquastream Lora
Operation Time (days)	115.21:39:50
Device Time	4/29/2022 09:43
Battery life time (years)	15.68
Firmware Version	2.02
Hardware Version	1
Fabrication Date	1/1/0001 01:00
Installation Date	1/1/0001 01:00

SigFox :
In this section you will find information about the transmission time.

▼ Sigfox	
Comm UID	10138376
Transmission time I	00:00
Transmission time I	00:00
Transmission time II	00:00
Transmission time II	00:00

Energy:
In this section you will find information related to energy metering: consumption, volume, pulse weight.

▼ COUNTER		
Energy 1	208196.000	KWh
Volume 1	2370.600	m3
Volume 2	0.000	m3
Pulse weight	1.000	L
Installation side	COLD	

Instant:
In this section you will find real-time information: temperature, performance, flow, specific heat factor, density...

▼ INSTANT		
Temperature Hot side	130.000	°C
Temperature Cold side	53.900	°C
Temperature difference (delta T)	76.080	K
Performance 1	0.000	KW
Flow 1	0.000	m3/h
Specific Heat factor	1.154	
Density	0.987	KG/L
Flow 2	0.000	m3/h

INTEGRA METERING

Time:
 In this section you will find time information: date, time,
winter / summer time, hour in alarm, hour in error...

▾ TIME	
Date	10/27/2021
Time	00:53
Day	WEDNESDY
Winter/Summer activation	OFF
Winter/Summer Time	WINTER
Operating hours	345 h
Hours in alarm	0 h
Hours in error	0 h

Input:
In this section, you'll find information about the input: input type, function, weight, pulse speed, th/tc alarm lower limit...

▾ INPUTS	
Function	VOLUME
Pulse weight	1.000 L
Installation side	COLD
Status	OFF
Upper limit th/tc alarm	200.000 °C
Lower limit th/tc alarm	0.000 °C
Input number	1

Output:
In this section you will find information about the output: the status, the assigned function, output number...

▾ OUTPUTS	
Function	OFF
Ouput number	1

I out:
In this section you will find information about the output: the status, the assigned function, output number...

▾ I Out	
Function	OFF
Input number	3

Config:
In this section you will find information regarding the configuration of your device: safety use level, type of sensor temperature, period for max logger values, safety key...

▾ CONFIG	
Safety user level	USER
Type of temperature sensor	PT100
Creeping quantity suppression	0.500 K
Remanence factor for performance	8.000 SEC
Damping factor for performance / flow	50.000 %
Damping factor for temperature value	0.000 %
Reset counter, alarm, logger and all other values	CANCEL
Limit value for display dT-shortfall	-15.000 K
Automatic sensor adjustment	CANCEL
Period for max logger values	60-MIN
Safety key	0

System:
In this section you will find information about the system of your device: serial number, manufacturing date, hardware version...

▾ SYSTEM	
Serial number	99999999
Calculator function	ST-STD
Manufacturing date	1/1/2000
Firmware version of the Main Board	3.01.05
Firmware version of Calculator	3.01.05
Hardware version	30.30.00.16
Checksum of Firmware	0

Radio interface:
In this section, you'll find information on the radio interface, radio type, transmission interval and AES key.

▾ Radio Interface	
Reference hour	Disabled
Send hour	03:00
Send period	0
Dev EUI	70B3D5B6FF000000
Radio Type	LoRaWAN
Lora ADR	Off
Lora Acknowledge	Off

Vanne:
In this section you will find information about the state oh the valve.

▾ Valve	
Meter Valve	Closed

Pressure:
In this section, you'll find information on the pressure inside the pipe.

▾ Pressure	
Pressure (bar)	0.98

6. 2. 2. Information available per product

Drop-down panes for the RUBIN® SONIC Smart					
	RUBIN® SONIC Smart OC	RUBIN® SONIC Smart SigFox	RUBIN® SONIC Smart M-Bus	RUBIN® SONIC Smart W8	RUBIN® SONIC Smart LW	RUBIN® SONIC Smart LW8
Meter	X	X	X	X	X	X
Alerts / Alarms	X	X	X	X	X	X
Pulse Output	X	X	X	X	X	X
M-Bus			X	X		X
Wireless M-Bus				X		X
LoRa					X	X
SigFox		X				

Drop-down panes for the TOPAS® SONIC					
	TOPAS® SONIC OC	TOPAS® SONIC M-Bus	TOPAS® SONIC W4	TOPAS® SONIC W8	TOPAS® SONIC LW	TOPAS® SONIC LW8
Meter	X	X	X	X	X	X
Alerts / Alarms	X	X	X	X	X	X
Pulse Output	X	X	X	X		X
M-Bus		X				
Wireless M-Bus			X	X		X
LoRa					X	X

Drop-down panes for the aquastream®				
	aquastream® M-Bus	aquastream® M-Bus / Pulse	aquastream® Radio W8	aquastream® Radio L8
Meter	X	X	X	X
Alerts / Alarms	X	X	X	X
aquastream	X	X	X	X
Pulse Output		X		
M-Bus	X	X		
Wireless M-Bus			X	
LoRa				X

Drop-down panes per product				
TOPAS® Vanne (TCV CLX)	hydropass®	aquaradio®	DryX®	CALEC® ST III Standard & Smart
Meter	Meter	Meter	About	Counter
Valve	Alerts / Alarms	Alerts / Alarms	Statistics	Instant
Pressure	Pulse Output	Input	-	Time
-	M-Bus	Radio interface	-	Inputs
-	Wireless M-Bus	aquaradio	-	Output
-	LoRa	-	-	I Out
-	SigFox	-	-	M-Bus
-	-	-	-	wM-Bus
-	-	-	-	Config
-	-	-	-	System

6. 3. Events

6. 3. 1. Events menu

Events are stored in the meter / module and can be read by this menu. This function reads all the events stored in the meter / module, such as alarms, malfunctions...

To access the events of your meter / module:

• Click on the "Events" menu.

• Update the events by clicking on the refresh button.

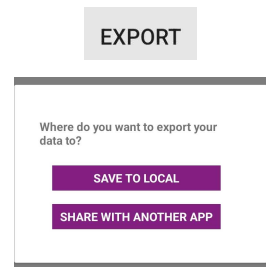• Follow the scan procedure displayed on your screen.

COMMENT
Comment
The reading time may take some time, the longer the period you select, the longer the reading time will be.

6. 3. 2. Export

You can export events in CSV format:

• Click on the button "EXPORT".

• Choose to save locally or share with another app.
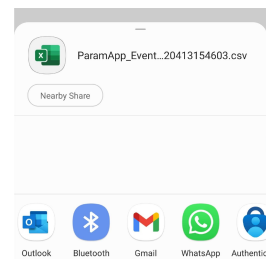
Local export

To export all data locally, you must allow the application to access multimedia resources.

Files are stored in CSV format in your phone, example: "Galaxy A5 (2017)\Phone\Documents.
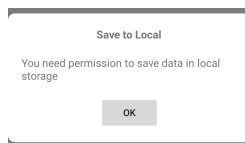
External export

It is possible to share data using Android functions via different media: link copy, email, OneDrive...

6. 3. 3. Events available per product

| Events menu		
	Available	Not available
RUBIN® SONIC Smart	X	
TOPAS® SONIC	X	
TOPAS® Vanne (TCV CLX)		X
CALEC® ST III Standard & Smart		X
DryX®		X
Hydropass®	X	
aquaradio®	X	
aquastream®	X	

6. 4. Param

6. 4. 1. Change values

The data available depends on the meters / modules and may be configurable.

- To configure your meters / modules, click on the "Param" button.
- Click on the different panes present to have access to the modifiable values.
- Once the new data has been entered, click on the upload button to send them to the meter / module.
- Follow the information to save new data in the meter / module.
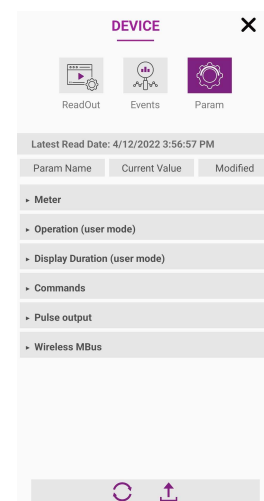
6. 4. 2. Description of drop-down panes

Meter:
In this section, you can enter details about your meter / module and export them to this one.

▼ Meter		
Meter SN	123456	_____
Customer text field		_____
Diameter (!)	Unspecified	_____
Index Unit	m3	_____

Alerts:
In this section you can activate different alarms: reset tamper, reverse flow, max flow, overload, burst. Then export to your meter / module.

▼ Alerts		
Reset Tamper	No	_____
Reset Reverse flow	No	_____
Reset Maxflow	No	_____
Reset Overload	No	_____
Reset Burst	No	_____

Operation:
In this section you can choose the index and flow decimal, then export it to your meter / module.

▼ Operation (user mode)		
Index Decimal	2	_____
Flow Decimal	2	_____

Display Duration:
In this section, you have access to configurations: net or forward volume, volume, actual flow, test mode duration. Then export it to your meter / module.

▼ Display Duration (user mode)		
Volume To Display	Net Volume	_____
Volume (s)	10	_____
Reverse Volume (s)	2	_____
Actual Flow (s)	2	_____
Test Mode Duration (h)	8	_____

Commands:
In this section, you have access to commands: set time, reboot and the different meter / module modes. Then export it to your meter / module.

▼ Commands		
Set Time	No	_____
Reboot	No	_____
Set Mode	Unchanged	_____

Inputs:
In this section, you can choose the type of input (M-Bus, Pulse, ...), the mode, the specificity ...etc. You can then export it to your meter/module.

▼ Inputs		
Input Type	Mbus	_____
MBus Period (s)	2300	_____
Baudrate	9600	_____

Pulse Output:
In this section, you can choose the size and weight of the pulse. Then export it to your counter / module.

▼ Pulse output		
Pulse Length (ms)	50	_____
Pulse weight (l)	100	_____

M-Bus:
In this section, you can configure the primary and secondary address and choose the baud rate. Then export it to your meter / module.

▼ MBus		
Primary Address	253	_____
Secondary Address	0	_____
Baudrate	2400	_____

Radio Interface :
In this section, depending on your meter/module, you can modify the emission conditions of your meter / module. You can then export them to your meter / module.

▼ Radio Interface		
Reference hour	Disabled	_____
Send hour	03:00	_____
Send period	0	_____
Radio Type	LoRaWAN	_____
Lora ADR	Off	_____
Lora Acknowledge	Off	_____
Lora Join	No	_____
Lora Message	No	_____

Wireless M-Bus:
In this section, depending on your counter / module, you can enter a radio transmission key, choose the radio control and the transmission interval. Then export them to your meter / module.

▼ Wireless MBus		
Radio Control	Nothing	_____
Transmission interval (s)	16	_____

LoRa:
In this section, depending on your meter / module you can configure: the key EUI LoRa join , reference hour, LoRa message. Then export to your meter / module.

▼ LoRa		
Join EUI	70B3D5B6FF000000	_____
Reference hour	00:00	_____
Lora Join	No	_____
Lora Message	No	_____

SigFox:
In this section, you can manage your transmission times. Then export them to your meter / module.

▼ Sigfox		
Transmission time I activated	Off	_____
Transmission time I	00:00	_____
Transmission time I activated	Off	_____
Transmission time I	00:00	_____
Transmission time I activated	Off	_____
Transmission time II	00:00	_____
Transmission time I activated	Off	_____
Transmission time II	00:00	_____

Valve:
In this section, you can configure the state of the Valve. Then export to your meter / module.

▼ Valve		
Meter Valve	Closed	_____

6. 4. 3. Modification available per product

Drop-down panes for the RUBIN® SONIC Smart						
	RUBIN® SONIC Smart OC	RUBIN® SONIC Smart SigFox	RUBIN® SONIC Smart M-Bus	RUBIN® SONIC Smart W8	RUBIN® SONIC Smart LW	RUBIN® SONIC Smart LW8
Meter	X	X	X	X	X	X
Operation	X	X	X	X	X	X
Display duration	X	X	X	X	X	X
Commands	X	X	X	X	X	X
Pulse Output	X	X	X	X	X	X
M-Bus				X		X
Wireless M-Bus					X	X
LoRa					X	X

Drop-down panes for the TOPAS® SONIC						
	TOPAS® SONIC OC	TOPAS® SONIC M-Bus	TOPAS® SONIC W4	TOPAS® SONIC W8	TOPAS® SONIC LW	TOPAS® SONIC LW8
Meter	X	X	X	X	X	X
Operation	X	X	X	X	X	X
Display duration	X	X	X	X	X	X
Commands	X	X	X	X	X	X
Pulse Output	X	X	X	X	X	X
M-Bus		X				X
Wireless M-Bus			X	X		X
LoRa					X	X

Drop-down panes for the aquastream®				
	aquastream® M-Bus	aquastream® M-Bus / Pulse	aquastream® Radio W8	aquastream® Radio L8
Meter	X	X	X	X
Alerts	X	X	X	X
Commands	X	X	X	X
aquastream	X	X	X	X
Pulse Output		X		
M-Bus	X	X		
Wireless M-Bus			X	
LoRa				X

Drop-down panes per product			
TOPAS® Vanne (TCV CLX)	hydropass®	aquaradio®	CALEC® ST III Standard & Smart
Meter	Meter	Meter	Inputs
Operation	Operation	Alerts	Outputs
Valve	Display duration	Inputs	I Out
-	Commands	Radio interface	M-Bus
-	Pulse Output	-	Config
-	SigFox	-	-
-	M-Bus	-	-

The Param menu is not available for the DryX®.

6. 5.   Historical (Data Logger)

6. 5. 1. Historical menu

This function allows you to view all the historical values stored in the meter / module, the periodicity can be chosen between hourly, daily, monthly, yearly.

To access your meter / module history:

- Click on the "Events" menu.
- Update the events by clicking on the refresh button.

- Follow the scan procedure displayed on your screen.
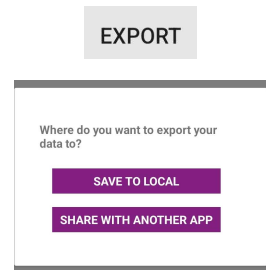- Click on a drop-down pane to see the historical .
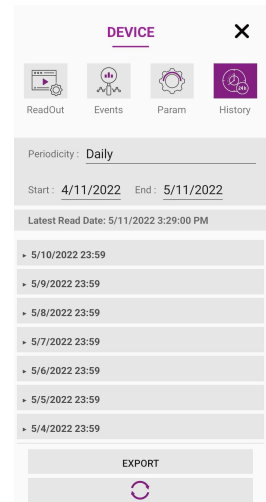
COMMENT
Comment
The reading time may take some time, the longer the period you select, the longer the reading time will be.

6. 5. 2. Export

You can export events in CSV format:

- Click on the button "EXPORT".
- Choose to save locally or share with another app.

Local export

To export all data locally, you must allow the application to access multimedia resources.

Files are stored in CSV format in your phone, example: "Galaxy A5 (2017)\Phone\Documents.
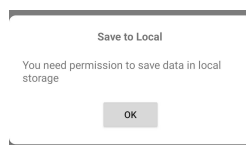
External export

It is possible to share data using Android functions via different media: link copy, email, OneDrive...
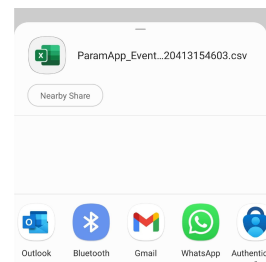
6. 5. 3. Historical available per product

Historical menu		
	Available	Not available
RUBIN® SONIC Smart	X	
TOPAS® SONIC	O	O
TOPAS® Vanne (TCV CLX)		X
CALEC® ST III Standard & Smart		X
DryX®		X
Hydropass®	X	
aquaradio®	X	
aquastream®	X	

O = Available depending on meter / module communication mode.

7.   Setting

7. 1.   Activation key for license

7. 1. 1. Activate your license

To activate your "User" license, you must enter your activation key.

- To do this, go to the "Settings" menu.
- Click on the "Activation Key" pane then on "Enter the Activation Key".
- Enter your name and activation code, then click the "QR Scanner" button.
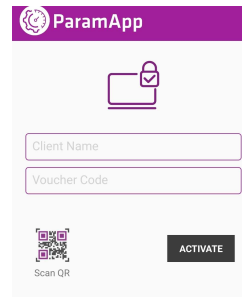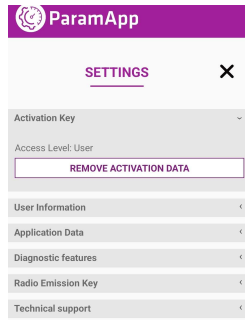
7. 1. 2. User license description

The User license allows you to have access to all the features of the application, so you can perform diagnostics, modifications and access the event history of your meter / module.

To obtain a "User" license, contact the sales department. An activation key will then be provided to you, it is unique and can only be used once on a particular smartphone.

7. 1. 3. Anonymous license description

The Anonymous license limits you in the features: the information and the modifications are not all available.

To obtain a "User" license, contact the sales department. An activation key will then be provided to you, it is unique and can only be used once on a particular smartphone.

7. 2.   User information

In this pane you can have access to the name of the user and the expiration date of your license.
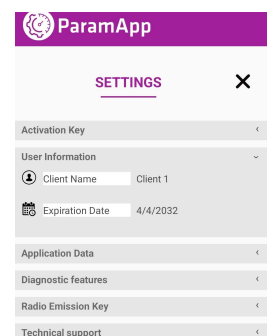
7. 3. Application data

In this pane you can export all the information of all your counters or delete them.
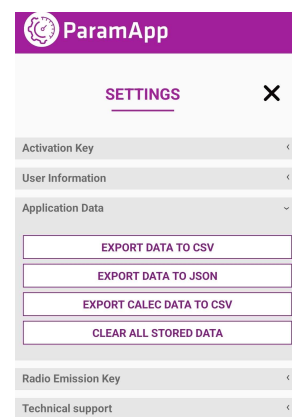
7. 3. 1. Export

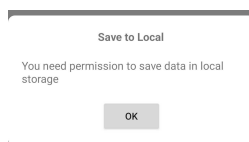Choose an export format (if it's a CALEC click on "Export CALEC data to CSV").

Choose to save locally or share with another app.
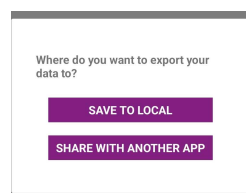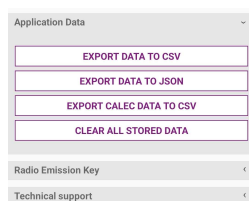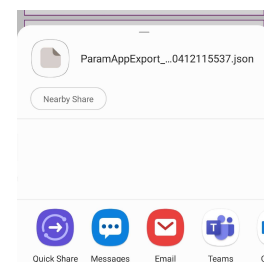
Local export

To export all data locally, you must allow the application to access multimedia resources.

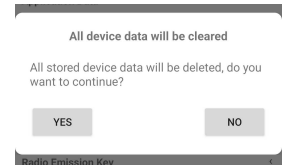Files are stored in CSV format in your phone, example: "Galaxy A5 (2017)\Phone\Documents.

External export

It is possible to share data using Android functions via different media: link copy, email, OneDrive...

7. 3. 2. Clear all stored data

To delete all data from your meters / modules, click on the button "Delete all stored data".

7. 4. Technical support

In case of problem you can contact technical support and "Export all devices" via email or other.
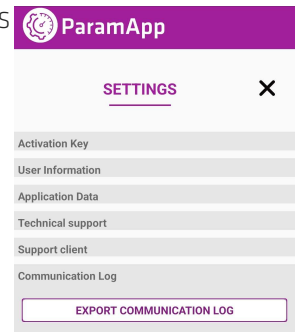
To do this:

• Open the "Technical support" section.

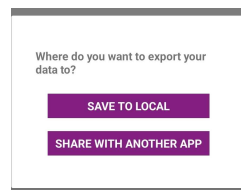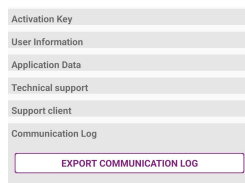• Click on "Export all devices".
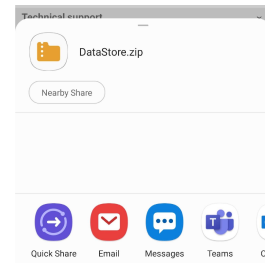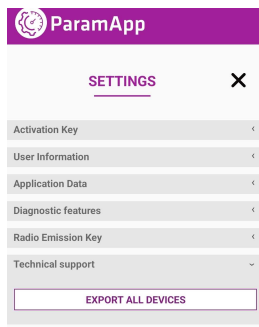
7. 5. Communication Log

7. 5. 1. Description of the communication log

In this pane, you can export all the logs of all your meters and send them to an INTEGRA Metering SAS technician.
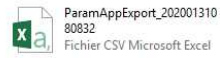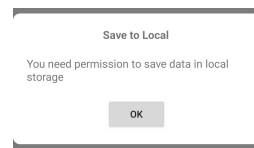

7. 5. 2. Export

Choose to save locally or share with another app.

Local export

To export all data locally, you must allow the application to access multimedia resources.

Files are stored in CSV format in your phone, example: "Galaxy A5 (2017)\Phone\Documents.

External export

It is possible to share data using Android functions via different media: link copy, email, OneDrive...