

EN

Parametric

QUICKSTART GUIDE

LoRaWAN™ Radar People Counter Outdoor

PCR2-EU868-OD

PCR2-US915-OD

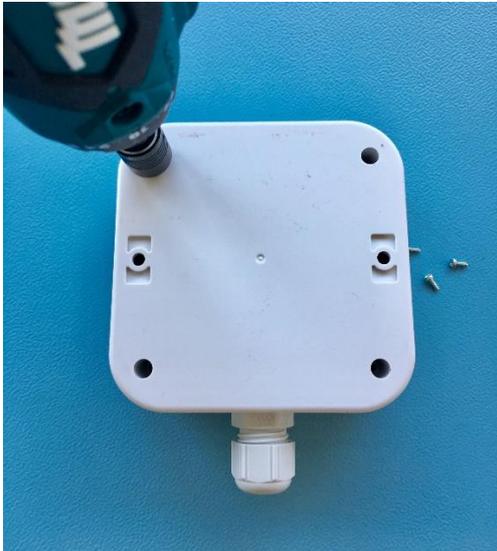
PCR2-AU915-OD



Please visit www.parametric.ch for the latest documentation.

Preparing the device

1 Opening the Enclosure



Remove the four screws from the casing to gain access to the device.

2 Connecting the Programming Cable

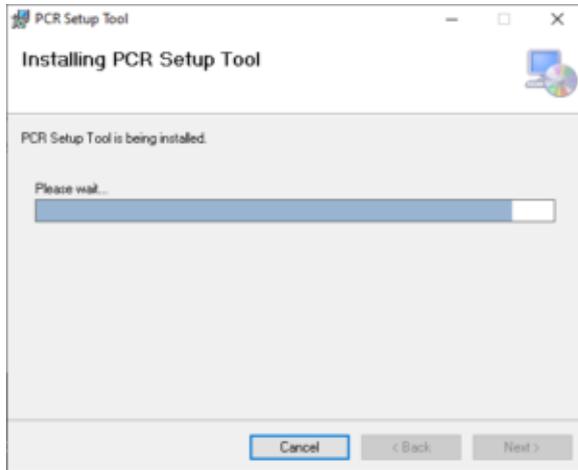


Connect the sensor to your Computer using a USB Cable.

3 Install PCR Setup Tool

Download the free PCR Setup Tool by opening the following URL:

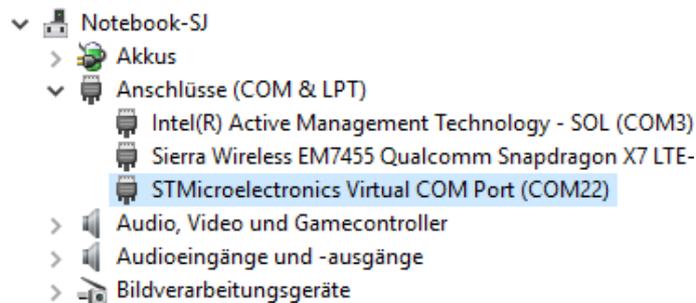
<https://www.parametric.ch/kb/pcr-setup-tool/>



Download [Setup.exe](#) and follow the instructions of the installer. Ignore all security warnings.

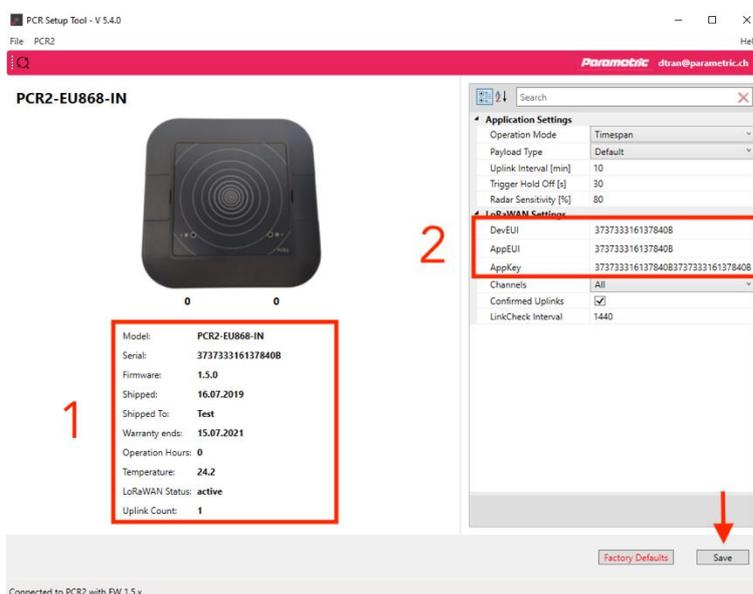
Note: This is a .Net Application. You may need to install additional software from Microsoft. <https://www.microsoft.com/net/download/dotnet-framework-runtime>

4 Check COM Port



After connecting the PCR2 to your PC, you should see a new device appearing in Windows Device Manager. Note the port number e.g. COM22.

5 Set LoRaWAN Keys



Start the PCR Configurator tool. After some seconds you will see the following device information (1):

- Model
- Serial
- Firmware
- Shipped To
- Warranty End
- Operation Hours
- Temperature
- LoRaWAN Status
- Uplink Count

Enter your LoRaWAN Keys (2) and press 'Save' to save it.

After a successful connection the sensor LED will stop blinking.

6 Set TX Interval

Application Settings	
Operation Mode	Timespan
Payload Type	Default
Uplink Interval [min]	10
Trigger Hold Off [s]	30
Radar Sensitivity [%]	80

Uplink Interval [min]

Set the sending interval in minutes (1...1440 minutes). During this time, all persons will be counted and sums are transferred. After transfer counters will be reset.

7 Overview of Application Settings

Application Settings	
Operation Mode	Timespan
Payload Type	Default
Uplink Interval [min]	10
Trigger Hold Off [s]	30
Radar Sensitivity [%]	80

Operation Mode

Timespan - count objects and send sum after interval.
NotZero - Same as Timespan but does not send if counters are 0 (zero)
Trigger - Send on every detection. Use Hold Off Time to prevent sending on every event

Payload Type

Choose between Parametric and Cayenne LPP compatible payload formats

Trigger Hold Off [s]

Time to re-arm trigger
0...600s (0 = no suppression)

Radar Sensitivity [%]

You can set the radar module from 10% (fairly sensitive) to 100% (very sensitive)

8 Overview of LoRaWAN Settings

LoRaWAN Settings	
DevEUI	3737333161378408
AppEUI	3737333161378408
AppKey	37373331613784083737333161378408
Channels	All
Confirmed Uplinks	<input checked="" type="checkbox"/>
LinkCheck Interval	1440

Channels

US915 and AU915 Types only. This let you choose between all and blocks of 8 channels

Confirmed Uplinks

Send uplinks with ACK requests

LinkCheck Interval

After this interval send LinkCheckReq with next uplink. Set to zero for disabling LinkCheck completely

Installation Instructions

1 Electrical Installation



Use DC-Power Supply 5...12V.

Cable diameter should not exceed 11mm.

Wires should be 22 – 18 AWG (0.2 – 0.75mm²).



Guide the cable through the cable gland.



Before closing the casing, make sure that the two components are aligned as depicted:

The power supply is located on the bottom.

The cable gland is pointing downwards.

Mounting



Ensure that the cable gland is fully tightened. Open the hatches on the front of the casing and drill two screws into the wall.

Payload

PCR2 Default Sensor Payload			
Object	Type	Range	Example
0a	Key 'LTR Counter'	-	-
<count>	Persons counted from left to right	0000...ffff	0010 = 16 persons from left to right since last uplink transmit
16	Key 'RTL Counter'	-	-
<count>	Persons counted from right to left	0000...ffff	0014 = 20 persons from right to left since last uplink transmit
01	Key 'Temperature'	-	-
<tmp>	Internal Temperature in 1/10 °C	0000...ffff	ff9a = -10.2 °C internal Temperature

Payload example

0a001016001301ff9a

```
{  
  "pulse1": 16,  
  "pulse2": 19,  
  "temperature": -10.2  
}
```

EU Declaration of Conformity



Parametric GmbH declares that the following equipment is compliant to the RoHS (2015/863/EU) and Radio Equipment Directive (2014/53/EU)

Model: PCR2

Product Description: LoRaWAN™ Radar People Counter bidirectional

Conformity is assured by compliance to the following Standards:

EN 60950-1: 2006+A11: 2009+A1:2010+A12:2011+A2:2013 (2014-01-02)

EN 55032:2012+AC:2013 (2017-03-05); CISPR32:2012 (2012-1-30) AS/NZS CISPR32:2013 (2013-6-20)^[1]_[SEP]

EN 61000-3-2: 2014 (2015-03-30)

EN 61000-3-3: 2013 (2014-3-18)^[1]_[SEP]

EN 55024:2010 (2011-09-01)^[1]_[SEP]

IEC 61000-4-2:2008 (2008-12-09)^[1]_[SEP]

IEC 61000-4-3:2006+A1:2007+A2:2010 (2010-04-27)

IEC 61000-4-4:2012 (2012-04-30)

IEC 61000-4-5:2014 (2014-05-15)

IEC 61000-4-6:2013 (2013-10-23)

IEC 61000-4-8:2009 (2013-10-23)

IEC 61000-4-11:2004 (2004-03-24)

EN 301 489-1 V2.2.1 (2017- 02)

EN 301 489-17 V2.2.1 (2017-02)

EN 300 328 V2.1.1 (2016-11)

Signature:

Andreas Koschak, CEO

Disclaimer

In the interest of continuous further development of our equipment, we have to make changes to the scope of delivery in form, technology and equipment reserved.

We also ask for your understanding that no claim can be derived from data and illustrations of this manual.

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