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<b>Axioma Metering</b>				
Prepared by: M. Anusevicius			Release 1.1	Page 1/10

AXIOMA METERING UAB

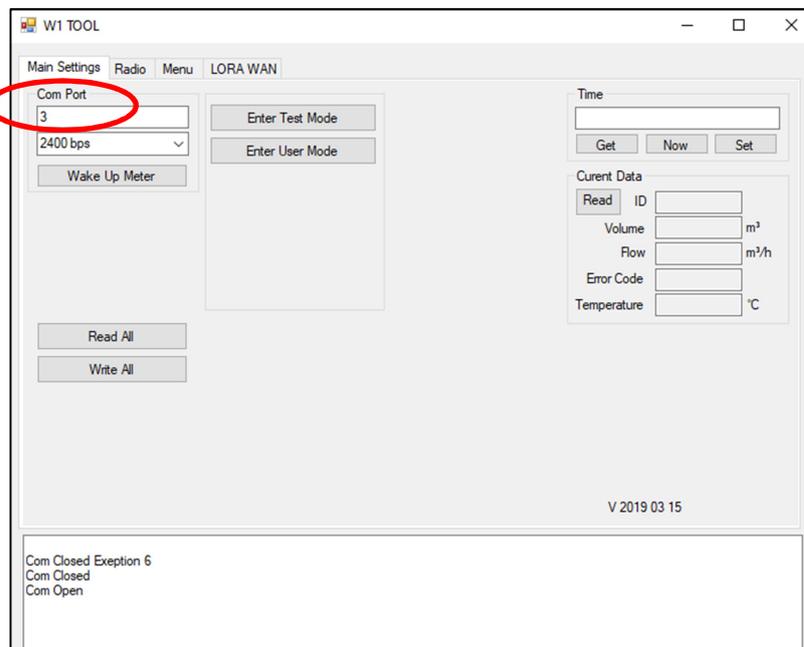
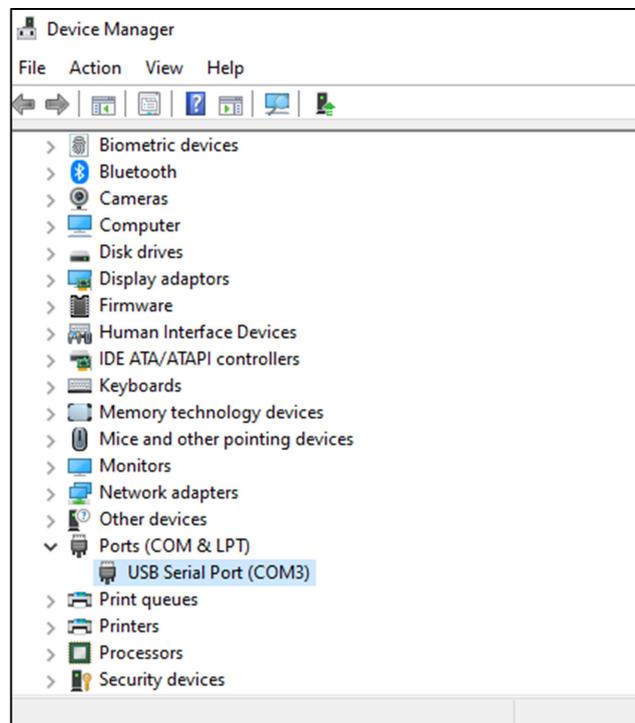
# ULTRASONIC WATER METER QALCOSONIC W1

**Instructions for successful LoRa connection**

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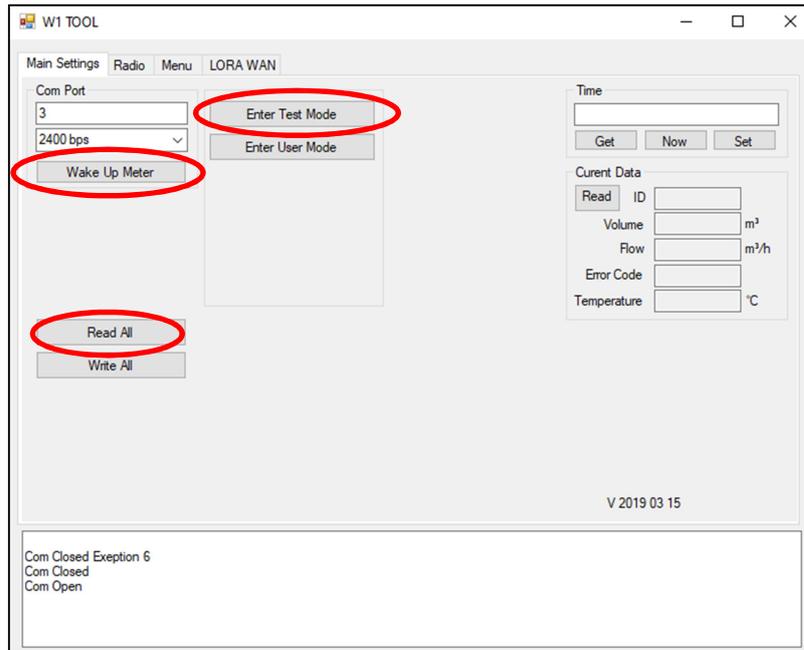
## 1. Check if radio signal is active

1. Place and hold the optical head on the meter, and connect it to the USB port.
2. Start the W1 Tool and enter the number of the virtual the serial port in the Com Port window (might be different depending on PC configuration) - which can be seen under device manager section called "Ports". You will see COMxx, use only the number (second photo).

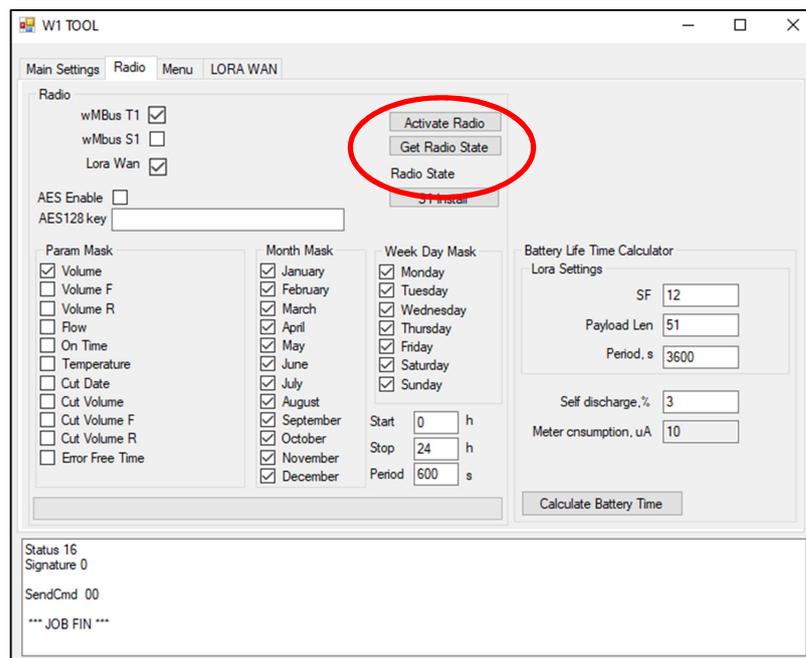


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- Press “Wake Up Meter“ button, then “Enter Test Mode“ button and “Read All“. Yellow zone on “Enter Test Mode” and “Enter User Mode” section should apply.

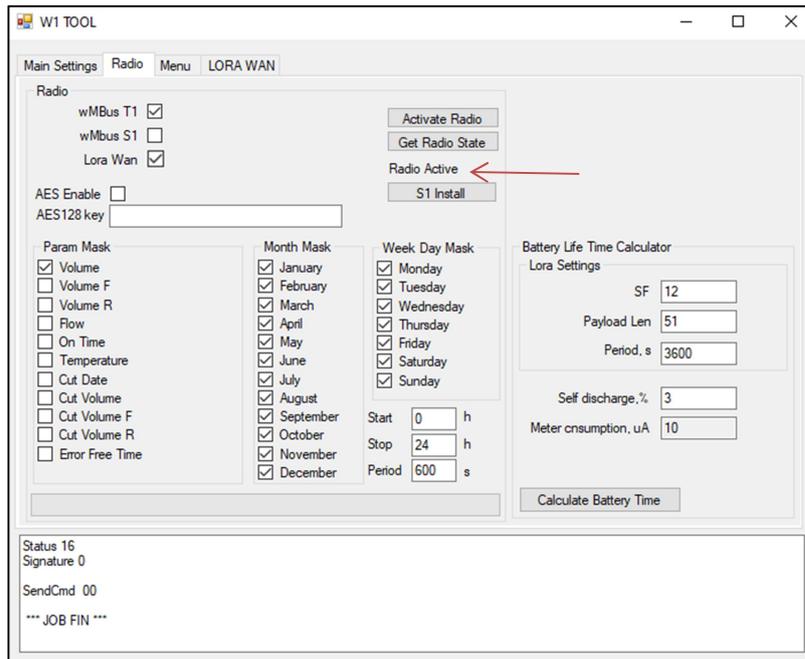


- Go to “Radio“ Tab and press “Get Radio State” button to see if radio is activated or not. If not, you can activate it by pressing “Activate Radio” button.



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- To check if radio is activated now, press “Get Radio State” button one more time to show the status. You should see Radio Active if everything is correct.

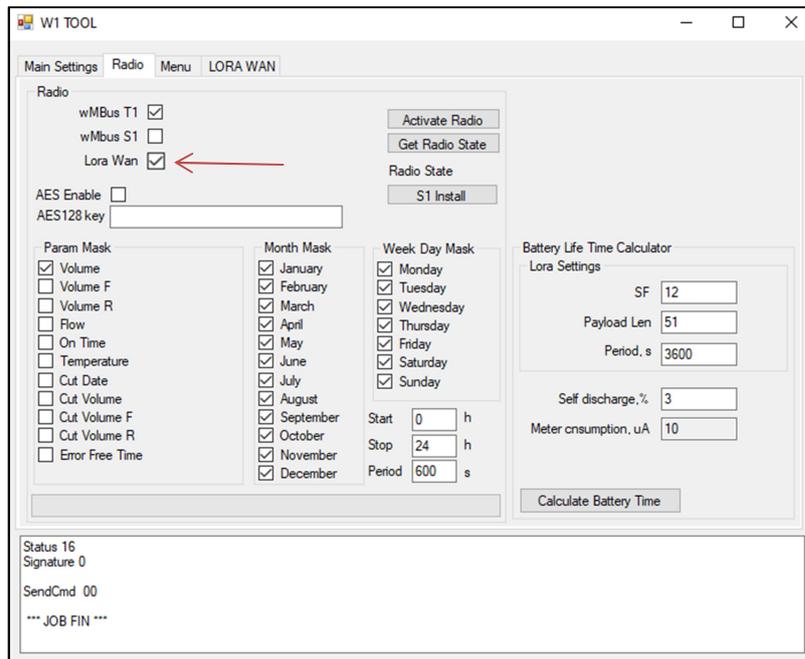


- If radio was active and this is not the case, please see further options.

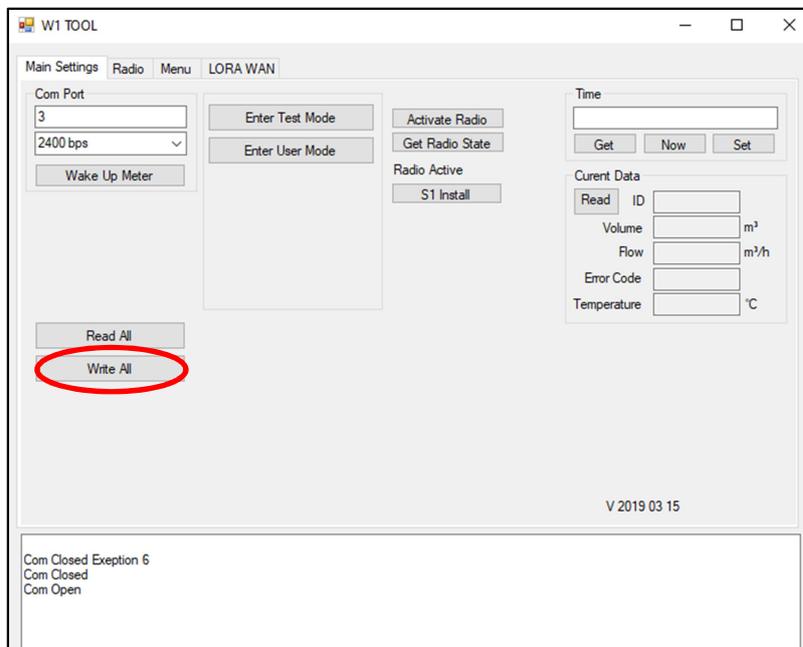
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## 2. Check if Lora communication is active

7. If you start here, follow 1 – 3 steps from chapter 1, then go to “Radio“ Tab. Check if Lora Wan box is active (marked). If not, check the box to activate Lora communication on the meter.

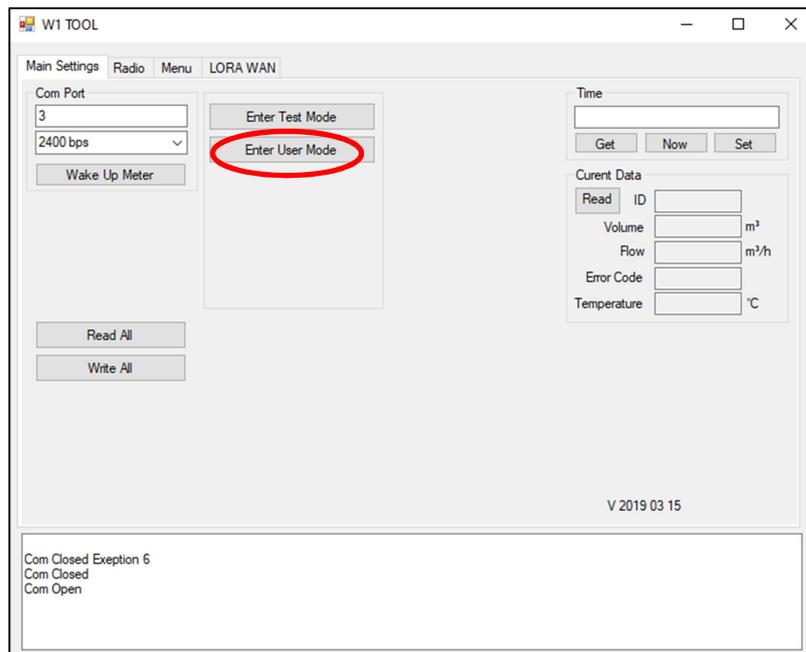


8. If Lora was not activated and you checked it for activation, go to „Main Settings“ Tab. Write new configuration data to the meter by pressing “Write All” button.



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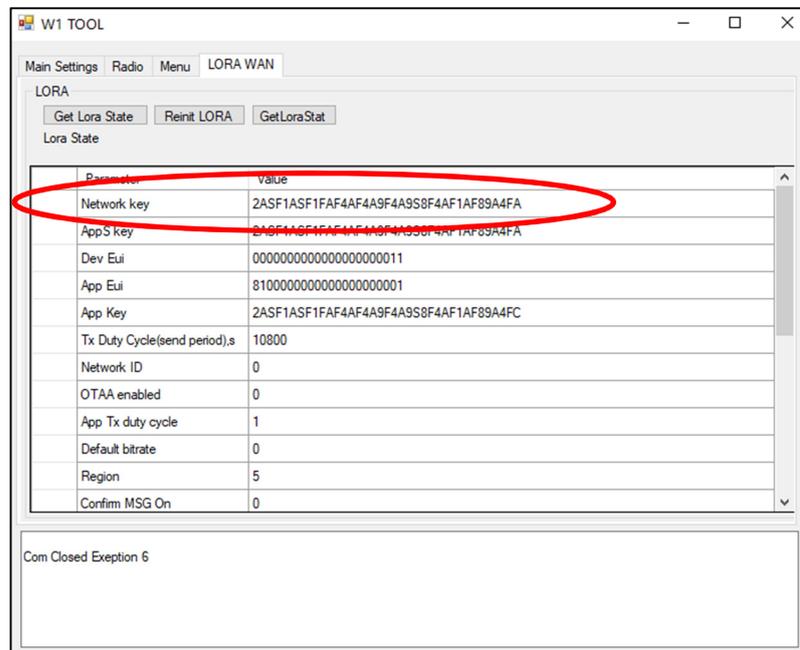
- Next, it is recommended to follow chapter 5 and reinitialize Lora. Then the meter should start using Lora Wan communication and connect to the network. If it fails to respond during the process, please use “Wake Up Meter” button again. Before exit, remember to place meter back in User mode.



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### 3. Check Lora Network keys

10. If you start here, follow 1 – 3 steps from chapter 1. If radio signal is active, the next step should be to check if Lora keys are the same on the meter and server. To find meter's key, go to "LORA WAN" Tab and look for Network key section. Check if you see the same key in your server.



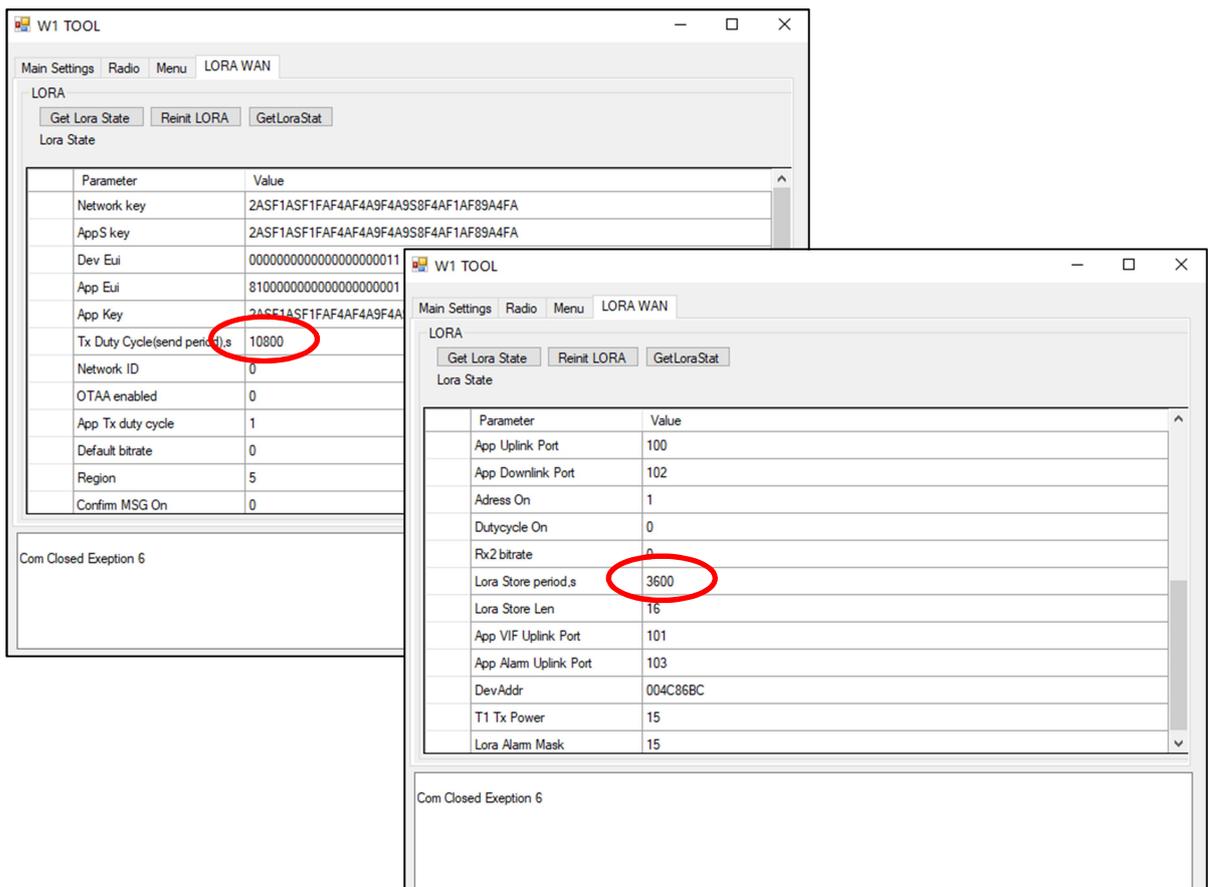
11. If keys are different, you should reinitialize Lora communication. Follow chapter 5 for further instructions.

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#### 4. Check Lora settings

12. To make sure you get your telegrams, check if send period and store period are set to the ones you need. If you start here, follow 1 – 3 steps from chapter 1 and make sure Lora Wan is activated in “Radio” Tab.

13. To check settings, go to “LORA WAN” Tab and search for Tx Duty Cycle (send period) and Lora Store period areas. If these are not the ones you need, change them by writing time period in seconds.

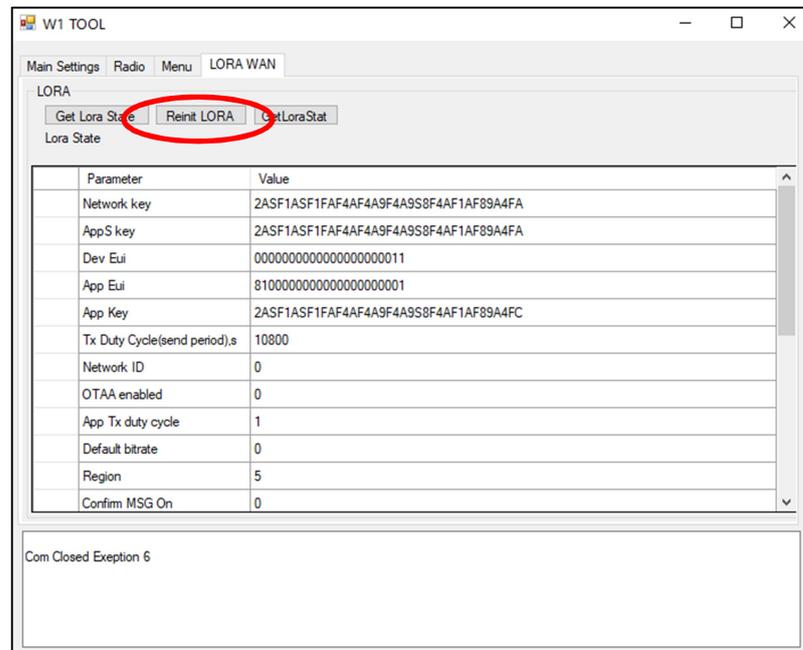


14. Go to „Main Settings“ Tab. Write new configuration data to the meter by pressing “Write All” button. Also you could follow chapter 5 instructions after pressing “Write All” button.

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## 5. Reinit Lora

15. After changing all settings, or just having no connection with the server, press “Reinit LORA” in “LORA WAN” Tab (make sure meter is in Test mode and 1 – 3 steps from chapter 1 is made). This will reinitialize the connection and reset meter’s communication with the network.

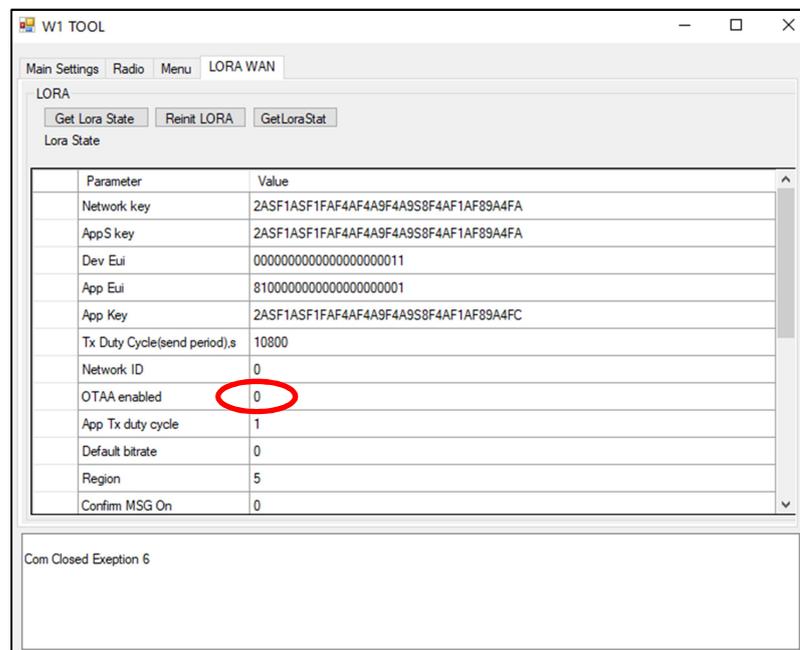


16. The meter should start using new configuration settings and reset connection with the network. If it fails to respond during the process, please use “Wake Up Meter” button again.
17. Before exit, remember to place meter back in User mode on “Main Settings” Tab .

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## 6. ABP to OTAA or vice versa

18. If you start here, follow 1 – 3 steps from chapter 1. To change from ABP to OTAA or vice versa, go to “LORA WAN“ Tab. Find “OTAA enabled“ and enter 1 if you want to enable OTAA, or enter 0 if you want to disable OTAA and use ABP authentication.



19. Go to „Main Settings“ Tab. Write new configuration data to the meter by pressing “Write All” button. Also you could follow chapter 5 instructions after pressing “Write All” button.