Field Maintenance Terminal User Guide



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2. Overview

The Field Maintenance Terminal User Guide covers all the aspects on how to setup and use the Field Maintenance Terminal software.

3. Terminology

AMC - Automatic Meter Configuration

AMR - Automatic Meter Reading

Field Maintenance Terminal (FMT) - The FMT is a Windows based software package running on any Laptop for doing basic diagnostic tests and configuration of the meter. The FMT uses the PWC400 Data Collector, which is a RF dongle that remotely communicates with the meter. The FMT is also used for doing Automated Meter Reading (AMR) by merely driving past the meters from a vehicle.

Prepaid Number – A prepaid meter has 2 numbers. The mechanical meter number engraved or printed on the water meter, and the prepaid number starting with 31.... printed on the PWC Controller.

The Prepaid number is required for the purchasing of credit for the meter.

PWC100 – Prepaid Water Controller distributed by Elster Kent (Owned by Honeywell).

PWC200 – Prepaid Water Controller distributed by Sensus (Owned by Xylem).

PWC400 - RF dongle that plugs into a USB port of a laptop, used to remotely communicate with a PWC. **SGC** – Supply Group Code

4. Getting started

Download the software by visiting <u>www.telbit.co.za</u>, click on Downloads. Download this User Manual, by selecting FMT User Guide.pdf/ Log In credentials: Username: telbitguest, password: guest2021 Locate FMT Software package, and click on the download link. Locate the downloaded file "Field Maintenance Terminal Vx.x.x.exe" in your Downloads folder. Run as Admin, and follow all the steps.

Plug the PWC400 into the computer. The driver should already be installed.

In order to change meter configurations your need an authorization file. Contact Lloyd at <u>Lloyd@telbit.co.za</u>, and request this file, stating your unique SGC code as displayed on the PWC100,200 and PWC300 devices.

When starting FMT for the first time it will ask you for an Operator name and Password.

-	Operator Login		23
		Operator name	
	00	Admin	-
		Password	
		OK Cancel	

<u>The default is:</u> **Operator name: Admin Password: 1**

5. Settings

Let's start by going to settings:



5.1 App Settings

Then click on App Settings which opens the window below:

🖳 Setup		
Setup De	etails	
Com port	COM103	T
CSV Export	C:\FMT_Export	
AMR Type	PWC-100/200 O PWC-300	Development Mode
Units	Liters 🔹	
Application.In	fo 1.2.0.3	Save Close

Select the correct Com port for your PWC400 and the folder where you would like to export all your CSV files.

The AMR type should match your device you would like to use, for now we select PWC-100/200 and our units is set to Litres.

Click on Save and then close. It is better to close the FMT software and open it again if any changes was done.

5.2 Users

Click on Settings and then on Users, the following window will open:

🕑 Users	Current User: Admin		🕑 Users	Current User: Admin
User List User Details]		User List User Details	
Admin Sue			User Detail	s
			User Name Sue Password Sue	
		$\square \rangle$	User Group AMR User	•
			Created by Admin	
New User	Delete Edit		Reset	Cancel Save

As an example I've added a new user "Sue", this can be done by clicking on the new user button. You can create new users and give them different level access to the FMT software. To do this you have to assign a user to a specific group.

Have a look at the window of the example above; Sue has been given AMR user access.

Click on the arrow next to Users at the top to leave the Users window.

5.3 User Groups

Now let us go to User Groups by clicking Settings and then User Groups.

This will open the following window:

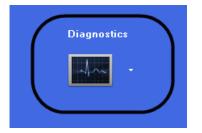
🕑 User	Groups	
User Group Detai	ls	
Group Name	Admin Add U	pdate Delete
User List		
Admin AMR User Technical Suppor	'nt	
Diagnostics		Historical
	Configuration	
✓ Meter		Setup
Testing	V	oonap
V	AMR Reading	
Settings	, , eading	CSV Viewers

In user groups the different access levels can be defined. In the example above Admin has access to all the functions of FMT.

To change the group access level click on the user list for the specific group that must be modified tick or un-tick the access boxes as required and then click on update.

6. Diagnostics

The following will describe all the different options under diagnostics, which is usually used when trying to find a problem with a specific meter.



6.1 General

Click on Diagnostics and then on General, the following window will open:

General	PWC400 🔶	
		Scan or enter Prepaid Number 31000314232
		Cancel Ok

Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232 and is in green. If the number you entered is in red something is wrong with the number. Check that you have the correct number and try again when it is green. Make sure the PWC100/200 is in Radio range of your PWC400.Click on the OK button and wait while the PWC400 connects to the meter and retrieves the general data. The window below shows an example of the data that is received.

🔆 General	PWC400 📀
Prepaid Number: 31000314232 Mode: Conventional Mode Profile Index: 1(1) Tariff Index: 1(1)	
Credit Mode Paid Credit 0.000 m² Paid Credit: 0.000 m³ FBW Credit: 0.000 m² FBW Utilitzed: 00/00 00:00	
Consumption Totalizer: 0.010 m ³ Today: 0.000 m ³ This month: 0.000 m ³ Last month: 0.000 m ³ 2 months ago: 0.000 m ³	
Valve: Open Battery: OK Leak: No Leak Size: 0 liter per hour Meter Date: 25/03/2020 Last Tamper: 00/00/2000 Error Code: No Meter Pulses	

Click on the arrow next to General to exit back to the main menu.

6.2 Credit Registers

Click on Diagnostic and then Credit Registers, the following window will open:

← Credit Registers	PWC400 📀	• Credit Registers	PWC400 📀
		Scan or enter Prepaid 31000314232	Number
		Cancel)k ff

Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and retrieves the Credit Register data. The window below shows an example of the data that is received.

Credit Registers	PWC400 🗿
Credit Register Paid: 0.000 m ³ FBW: 0.000 m ³ Special: 0.000 m ³ Lifeline: 0.000 m ³ Emergency: 0.000 m ³ Test: 0.000 m ³	
Month to date consumption Paid: 0.000 m ³ FBW: 0.000 m ³ Special: 0.000 m ³ Lifeline: 0.000 m ³ Emergency: 0.000 m ³ Test: 0.000 m ³	
Expiry date Special: O days Lifeline: O days	

Click on the arrow next to Credit Registers to exit back to the main menu.

6.3 Manufacturers Info

Click on Diagnostics and then Manufacturers Info, the following window will open:

🕑 Manufacture	PWC400 📀	🕑 Manufacture	PWC400 📀
		Scan or enter Prepaio <mark>31000314232</mark>	l Number
		Cancel	0k

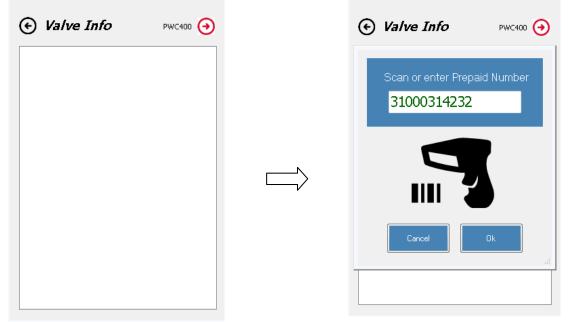
Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and retrieves the Manufacturers Info

🕤 Manufacture	PWC400 🗿	
Prepaid Number: 31000314232 RF ID: 0314232 Class: Domestic Product ID: FWC200 Water Factor: 0.5 Liter per pulse Units: Litres Date of Manufacture: 06/05/2019 Battery Voltage: 3.49V Battery Level: 0K Clock Date & Time: 25/03/2020 13:00 Firmware Version: 2.3.16 Days in Use: 329		

Click on the arrow next to Manufacture to exit back to the main menu.

6.4 Valve Info

Click on Diagnostics and then Valve Info, the following window will open:



Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and retrieves the Valve Info

🕑 Valve Info	PWC400 📀
Prepaiid Number: 31000314232 Valve: Connected Position: Open Status:Utility Lock is open Utility Lock: Automatic Consumer Lock: Open Valve Opens: 59	

Click on the arrow next to Valve Info to exit back to the main menu.

6.5 Decoder Key

Click on Diagnostics and then Decoder Key, the following window will open:

🕑 Decoder Key	PWC400 📀		Decoder Key	PWC400 📀
			Scan or enter Prepaie <mark>31000314232</mark>	d Number
		$\Box \rangle$		
			Cancel	Ok

Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and retrieves the Decoder Key information.

🕑 Decoder Key	PWC400 🔶
Prepaiid Number: 31000314232 Type-Unique Key(DUTK) Key Expiry - 0 Key Revision - 255 Tariff Index - 1 Reserved bit - 1	

Click on the arrow next to Decoder Key to exit back to the main menu.

6.6 Error Codes

Click on Diagnostics and then Error Codes, the following window will open:

• Error Codes	PWC400 🔶		Error Codes	PWC400 📀
			Scan or enter Prepai <mark>31000314232</mark>	d Number
		\Box		
			Cancel	0k

Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and retrieves the Error Code information.

Error Codes	PWC400 📀
Error Code: 3 No Pulses Received	

Click on the arrow next to Error Codes to exit back to the main menu.

6.7 View Profile

Click on Diagnostics and then View Profile, the following window will open:

📀 Profile	PWC400 🔶		• Profile	PWC400 📀
			Scan or enter Prepaid 31000314232	d Number
		$\square \rangle$		
			Cancel	Ok

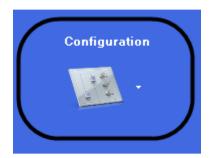
Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and retrieves the Profile information.

🕑 Profile	PWC400 📀
Profile Index(1) Rev(1)	
General Mode - Conventional Credit Low - 2.000 m³ Valve Close - 0.000 m³	
Free Basic Water Volume - 0.000 m ³ Cycle - Daily Open Hour - 12:00 AM Close Hour - 12:00 AM Expiry (dd mm yy) - Never Accumulation - No Accumulation Low Indication - 0.000 m ³	
Lifeline Volume - 0.000 m³ 0 - Days	
Emergency Credit Volume - 0.000 m³ Release - 0.000 m³ Renew - Jul	
Conservation Limit Volume - 0.000 m²	

Click on the arrow next to Profile to exit back to the main menu.

7. Configuration

The following will describe all the different options under Configuration, it is important to note that settings done incorrectly could lead loss of revenue.



7.1 Meter Profile

Click on Configuration and then Meter Profile, the following window will open:

🕑 Meter Profile	PWC400 📀		Meter Profile PWC4	00 🕑
Select new profile for meter				
Default	•		Scan or enter Prepaid Numb	er
Profile Index(1) Rev(11)	•		31000314232	
General Mode - Prepaid Credit Low - 2.000 m ³ Valve Close Level - 0.000 m ³ Free Basic Water Volume - 0.000 m ³ Cycle - Daily		\Box		
Deen Hour - 0:00 Close Hour - 0:00 Expity (mm dd yy) - Never Accumulation - No Accumulation Low Indication - 0.000 m ³	E			
Lifeline Volume - 0.000 m³ 0 - Days			Cancel Ok	
Emergency Credit Volume - 0.000 m³ Release - 0.000 m³	-			

Later on in this document we will discuss the setting of different profiles for meters. These profiles can be selected here and programmed to the meter.

When you are ready to program a new profile to the meter select it on the drop down list. Click on the red arrow next to PWC 400 and enter the meter number to be programmed, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and programs the Profile information. Confirmation of success will be shown in the window below:

📀 Meter Profile	PWC400 📀
Select new profile for meter	
Default	•
Default Profile set succesfully	

7.2 Clear Registers

Click on Configuration and then Clear Registers, the following window will open:

Register to Clear: All Credit Registers	Scan or enter Prepaid Number 31000314232
	Cancel Ok

Credit for a specific credit register or all credit registers can be cleared here by selecting the appropriate register on the drop down list.

When you are ready to clear the selected credit register on the meter, click on the red arrow next to PWC 400 and enter the meter number of the register to be cleared. The example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and programs the Profile information. Confirmation of success will be shown in the window below:

🕑 Clear Registers	PWC400 📀
Register to Clear:	
All Credit Registers	•
Register/s Successfully Reset	

7.3 Utility Lock

Click on Configuration and then Utility Lock, the following window will open:

🕑 Utility Lock	PWC400 📀	🕑 Utility Lock	PWC400 📀
Get Utility Lock Set Utility Lock Select Automatic	•	Scan or enter Prepar 31000314232	id Number

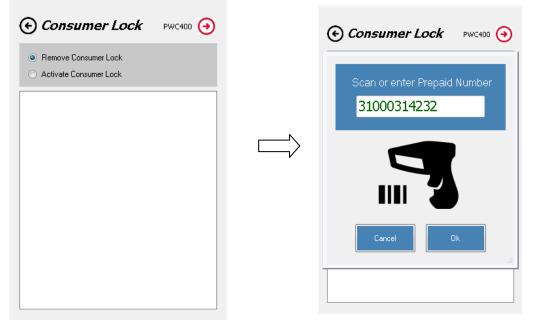
Utility lock can be read and the programmed if needed. Automatic mode means the valve will open and close according to the credit registers.

When you are ready to read the Utility Lock on the meter, select Get Utility Lock and click on the red arrow next to PWC 400, then enter the meter number of the meter to be read. The example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and reads the Utility Lock status. The Utility Lock status will be shown in the window below:

ΘL	Itility Lock	PWC400 🔶		
🔘 Get I	◯ Get Utility Lock			
Set l	Jtility Lock			
Select	Automatic	_		
	ck read successfully ck: Automatic			

7.4 Consumer Lock

Click on Configuration and then Consumer Lock, the following window will open:



There are only 2 options available either Remove Consumer Lock or Activate Consumer Lock. Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and Removes the Consumer Lock as in the example below:

🕑 Consumer Lock	PWC400 📀
 Remove Consumer Lock Activate Consumer Lock 	
Consumer Lock removed successfully	

7.5 Sync Clock

Click on Configuration and then Sync Clock, the following window will open:

Sync Clock PWC400 ↔	€ Sync Clock PWC400 €
3/26/2020 8:42:28 AM	Scan or enter Prepaid Number 31000314232
	Cancel Ok

Sync Clock is used to set the meter to the current date and time. Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and synchronizes the clock as in the example below:

🔆 Sync Clock	PWC400 📀
3/26/2020 8:48:	00 AM
Clock set succesfully	

7.6 Area Codes

Click on Configuration and then Area Codes, the following window will open:

• Area Code PWC400 (€	
Get Area Code		
🔘 Set Area Code		
Select GreenFields (2)	•	Scan or enter Prepaid Number
		31000314232
		Cancel Ok
		h.

Area codes can be used if you have different installations areas and you would like to group them together. How to set the different area codes will be discussed later in this document.

Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and gets the Area Code. In the example below the Area Code 2 corresponds to "Greenfields".

🔄 Area Code		PWC400 📀
Get /	Area Code	
🔘 Set A	Area Code	
Select	GreenFields (2)	-
Area Code Area Code	read successfully : 2	

7.7 Supply Group Code

Click on Configuration and then Supply Group Code, the following window will open:

Supply Group Pwc400 ↔	😔 Supply Group	PWC400 📀
Get Supple Group Code Set Supple Group Code Select	Scan or enter Prepaid 31000314232	
		h.

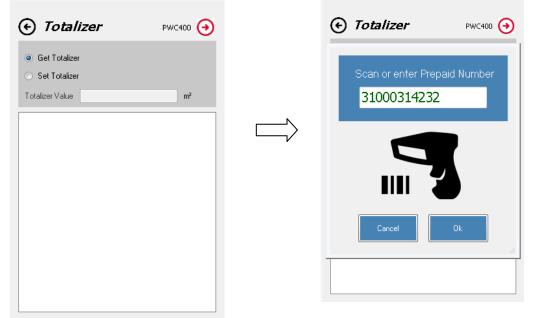
Supply group codes are pre-programmed in the factory for a specific supplier.

Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and gets the Supply Group Code. In the example below the Supply Group Code is 400132.

🕑 Supply Group	PWC400 📀
Get Supple Group Code Set Supple Group Code Select	Ţ
Supply Group Code read successfully Supply Group Code: 400132	

7.8 Totalizer

Click on Configuration and then Totalizer, the following window will open:



Get or Set Totalizer is a very handy tool to synchronize the mechanical meter reading with the pre-paid meter reading.

Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and gets the Totalizer reading. In the example below the Totalizer value of 2.136m³ is shown.

Note: When setting the Totalizer it is done in litres not m³.

🕑 Totalizer	PWC400 📀
Get Totalizer Set Totalizer Totalizer Totalizer Value 2.136	m²
Totalizer Read Successfully Totalizer: 2.136 m ³	

7.9 Alternative Reference

Click on Configuration and then Alternative Reference, the following window will open:

€ Alternative Reference PWC400 €	Alternative Reference PWC400
Get Alternative Reference Set Alternative Reference Alternative Reference	Scan or enter Prepaid Number 31000314232
	Cancel Ok

Alternative Reference can be used if there is some information you want to link to the meter, default it is set to the meter model name (PWC100/200).

Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and gets the Alternative Reference reading. In the example below the Alternative Reference is PWC200:

• Alternative Reference		PWC400 📀	
 Get Alternative Refe Set Alternative Refe 			
Alternative Reference	PWC200		
Alternative Reference Read Successfully Alternative Reference: PWC200			

8. Historical

The following will describe all the different options under Historical.



8.1 Token History

Click on Historical and then Token History, the following window will open:

• Token History PWC400)	€ Token History PWC400 €
		Scan or enter Prepaid Number 31000314232
Token		Cancel Ok
Туре		Credit Date
Credit Date		

Token History shows the last 10 tokens used by the specific meter. If you click on any token in the list it shows more detail for that token.

Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and gets the Token History.

🕒 Token His	tory pw	C400 📀
26/03/20 Credit: 0.005 m 06/05/19 Credit: 0.005 m		
Token 0000 0000 0000 0000 00	00	
	00	
0000 0000 0000 0000 00	00	
0000 0000 0000 0000 00 Type	00 Date	

8.2 Monthly Consumption

Click on Historical and then Monthly Consumption, the following window will open:

← Consumption Pwc400 →	← Consumption PWC400 →
Consumption Type Total Consumption Nr. of months: 12	Scan or enter Prepaid Number 31000314232
Month Consumption	Cancel Ok

Monthly Consumption is used to view up to 12 months of consumption. Different Consumption types are also available in the drop down list.

Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and gets the Consumption History for the selected number of months and the type of consumption. Below is an example:

🕒 Consumptio	ржс400 🔶
Consumption Type Total Consumption Nr. of months: 12	* *
Month	Consumption
March February January December November October September August July June May April	0.000 m ³ 0.000 m ³

8.3 Totalizer

Click on Historical and then Totalizer, the following window will open:

🕑 Totalizer Hist	t <i>ory</i> pwc400 🧿		€ Totalizer History PWC400 ⊖
Month	Totalizer	<	Scan or enter Prepaid Number 31000314232
			Cancel Ok

Totalizer History shows the totalizer data for the past 12 months.

Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and gets the Totalizer History. Below is an example:

Nonth	Totalizer
March	2.136 m ³
February	0.000 m ³
January	0.000 m ³
December	0.000 m ³
November	0.000 m ³
October	0.000 m ³
September	0.000 m ³
August	0.000 m ³
July	0.000 m ³
June	0.000 m ³
May	0.000 m ³
April	0.000 m ³

8.4 Credit Usage

Click on Historical and then Credit Usage, the following window will open:

🕑 Credit Usage	PWC400 📀		♦ Credit Usage PWC400 ♦
Month	Credit		Scan or enter Prepaid Number 31000314232
		,	
			Cancel Ok

Credit Usage shows the last 12 months of credit consumed.

Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and gets the Credit Usage history. Below is an example:

Ionth	Credit	
March February January December November October September August July June May April	0.000 m ³ 0.000 m ³	

8.5 Month end Credit

Click on Historical and then Monthend Credit, the following window will open:

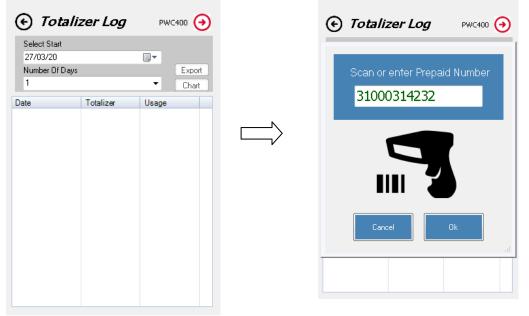
Month Credit Scan or enter	Credit PWC400 🕣
	r Prepaid Number 1232

Month end Credit shows the available credit at the end of each month for the last 12 months. Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and gets the Month end Credit history. Below is an example:

/lonth	Credit
March February January December November October September August	0.000 m ³ 0.000 m ³
July June May April	0.000 m ³ 0.000 m ³ 0.000 m ³

8.6 Totalizer Log

Click on Historical and then Totalizer Log, the following window will open:



Totalizer log gives a detail log of the totalizer every hour for a specific day for up to six days. By selecting a start date and the number of days required to get a detailed totalizer record.

Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and gets the Totalizer Log history. Below is an example:

Select Start		
27/03/20		
Number Of Day	/s	Export
1		 Chart
Date	Totalizer	Usage
27/03/20		
12:00AM	0.010 m ³	0.000 m ³
01:00AM	0.010 m ³	0.000 m ³
02:00AM	0.010 m ³	0.000 m ³
03:00AM	0.010 m ³	0.000 m ³
04:00AM	0.010 m ³	0.000 m ³
05:00AM	0.010 m ³	0.000 m ³
06:00AM	0.010 m ³	0.000 m ³
07:00AM	0.010 m ³	0.000 m ³
08:00AM	0.010 m ³	0.000 m ³
09:00AM	2.136 m ³	2.126 m ³
10:00AM	2.136 m ³	0.000 m ³
11:00AM	2.136 m ³	0.000 m ³
12:00PM	2.136 m ³	0.000 m ³
01:00PM	2.136 m ³	0.000 m ³

9. Meter Testing

The following will describe all the different options under Meter Testing.



9.1 Test Credit

Click on Meter Testing and then Test Credit, the following window will open:

← Test Credit PWC400 →		← Test Credit	PWC400 📀
Test Credit: 5		Scan or enter Prepai <mark>31000314232</mark>	d Number
	\Box		
		Cancel	Ok

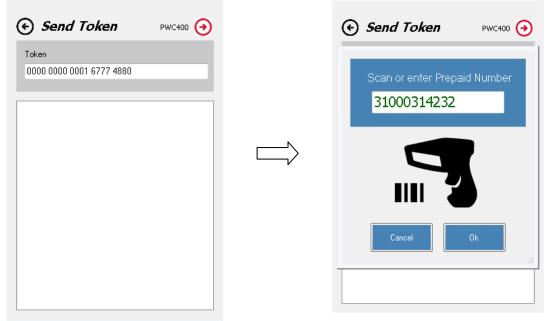
Test Credit can be loaded to any specified meter. Enter the amount of test credit to be loaded in the space provided.

Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and sends the Test Credit to the meter. Below is an example:

🕑 Test Credit	PWC400 📀
Test Credit: 5	
Test Volume Loaded succesfully	

9.2 Send Token

Click on Meter Testing and then Send Token, the following window will open:



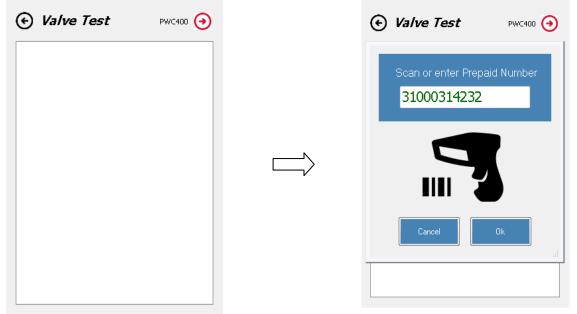
Send Token allows you to send a token to the specified meter.

Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and sends the Token to the meter. Below is an example of an LCD test Token that was send:

Send Token	PWC400 📀
Token 0000 0000 0001 6777 4880	
Token Accepted Show LCD Pattern	

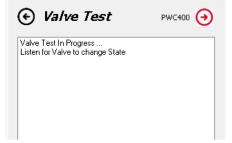
9.3 Valve Test

Click on Meter Testing and then Valve Test, the following window will open:



Valve Test allows you to test the valve function of the specific meter.

Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and sends the Valve Test command to the meter. Below is an example, you should be able to hear the valve open and close:



10. Setup

The following will describe all the different options under Setup.



10.1 AMR Field Selection PWC100/200

Click on Setup and then AMR Field Selection PWC100/200, the following window will open:

		Packet Leng	ath (Max 68) 54
Prepaid Number Totalizer Error Code Profile Index (Rev)	 Total Consumption 3 Months 6 Months 11 Months 	 Grant Consumption 3 Months 6 Months 11 Months 	 Area Code GPS Co-ordinates Credit Mode Leak Size FBW Utilized
 Tarif Index (Rev) Meter Status Additional Status Credit Status Consumer Lock Utility Lock Meter Mode 	 Paid Consumption 3 Months 6 Months 11 Months 	 Emergency Consumption 3 Months 6 Months 11 Months 	 Date of Manufacture Firmware Consumption to Date Credit to Date Alternative Reference
Totalizer at Start of month Credit at Start of month Current Month Consumption	 FBW Consumption 3 Months 6 Months 11 Months 	 Lifeline Consumption 3 Months 6 Months 11 Months 	 Paid Credit Available FBW Available Grant Available Lifeline Available Emergency Available Last Credit Loaded Supply Group Code
	Factory Settings	Close Save	Meter Date

Select all the fields of interest, but keep an eye on the Max Packet Length on the top right corner. These selections will later be used when the AMR is activated. When you are done selecting the relevant fields click on the save button and then the Close button to exit. The Factory Settings button can be used to set all selections to default.

10.2 Area Codes

Click on Setup and then Area Codes, the following window will open:

🕑 Area Codes		• Area Codes
Area List Area Details — Default (1) — GreenFields (2)		Area List Area Details Area Name Area Code
	\Box	Created by
Add Edit Delete		Cancel Save

Area codes are used to group meters together that are in the same street, complex or set of flats. The above settings are done by selecting the Area Details tab and entering the Details, after this is done click on the save button, go back to the Area List tab the newly created area with its corresponding number should appear. In the above example GreenFields was created.

10.3 Meter Profile

Click on Setup and then Meter Profile, the following window will open:

🕑 Meter	Profile		
Default Index(Example1 Inde			
·	., .,		
Delete	View	Edit	Add

Click on the Add button to add a new Meter Profile.

📀 Meter Profile					
Profile Name	Profile Name Example1				
Profile Index <u>Meter</u>	[3	Re	evision	1
Mode		Prepai	Ы		-
Credit Low		2			M3
Valve Close	;	0			M3
Free Basic	Wat	ter 🔳			
Volume	0.2	00			m³
Cycle	Dail	У			-
Open	04:	00AM	Clos	e Disabl	e 👻
Expiry (mm	/dd/	уу)	01/0	1/00	
Accumulatio	on	No Accu	umulatio	n	Ŧ
Low Indicat	ion:	0.050		r	13
LifeLine					
Volume		0.000	m³	0	days
Emergency	Cre	<u>edit</u> 🔳]		
Volume	0	.000			m³
Release	0	.000			m³
Renew Jul 👻					
Conservation Limit					
Volume	0	.000			m³
				9	jave

Insert a new profile name as in the above example and select all the options for this new meter profile, click on the save button when done.

This new profile can be selected when doing AMC .

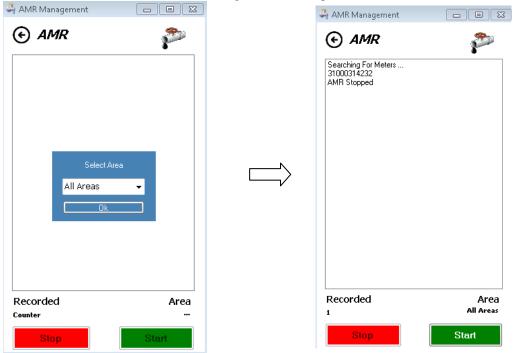
12. AMR

The following will describe all the different options under AMR. AMR stands for Automatic Meter Reading.



12.1 AMR

Click on AMR and then AMR, the following window will open:



If you are only interested in a specific Area this can be selected here. Click on the start button to begin AMR process. The different fields for AMR can be selected under Setup as discussed in the previous section. Press the Start button, in the example above only one meter was in range.

12.2 Manual AMR

Click on AMR and then Manual AMR, the following window will open:

Manual AMR PwC400 O	Manual AMR Meter Number Kean Meter Number Kean Meter Num Scan Meter Num 31000314232	PWC400
	Cancel	Ok "A

Manual AMR can be done for a specific meter.

Click on the red arrow next to PWC 400 and enter the meter number of interest, the example above shows meter number 31000314232. Make sure the PWC100/200 is in Radio range of your PWC400. Click on the OK button and wait while the PWC400 connects to the meter and gets the Manual AMR data.

12.3 Automated Meter Configuration (AMC)

AMC function allows for the meter configuration profiles to be changed on the fly when driving past the meters, similar to AMR

Every Meter is configured with a Profile Index and a Revision. Factory default is Index 1, Revision 1. When the profile needs to be changed, the changes are made, and saved as Revision 2.

For any changes to the Configuration Profile, you need to do that under Setup / Meter Profile.

Click on AMR and then AMC, the following window will open:

🕞 АМС 🛛 🔊 🔊			8-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
Profile list	_	Profile list	
	•	Example1	
Index Revision		Index • Revision	
		Profile Index(2)Rev(1)	
		Prepaid Meter Mode - Prepaid	
		Credit Low - 2000 Litres Valve Close Level - 0 Litres	
		Lifeline Volume - 0.000 Days0	
		Free Basic Water	=
		Volume - 200.0 Cycle - Daily	
		Open Hour - 4:00 Close Hour - 0:00	
		Expiry (mm dd yy) - Never Accumulation - No Accumulation	L
		Low Indication - 50.00 Litre	
		Emergency Credit	
		Volume - 0.000 Litres	
ecorded		Recorded	
unter		Counter	

Choose the Configuration Profile that you want to change from the list.

Select if you want to change the Index, or just update to a newer Revision of the same Index.

Index: Will change all meters that comes in range, to the new specified Index, regardless of on what Index The meter currently is.

Example: Change all meters to Profile Index 2, Revision 1.

Revision: Change all meters that is on the same Index as the Profile selected, but with an older (lower) or the same Revision For example Change all meters currently on Index 1, Revision 1 to Revision 2.

The CSV is created with the Meter Number of all meters that was updated.

13. CSV Viewer

The following will describe all the different options under CSV Viewer.



13.1 AMR Data

Click on CSV Viewer and then AMR Data, the following window will open:

🖳 AMR Viewer

AMC_30Mar2020_Anani(Lap AMR300_19Apr2018_Anani(AMR_194pr2018_Anani(Lap AMR_22Jul2019_Anani(Lapt AMR_24Jul2019_Anani(Lapt AMR_30Mar2020_Anani(Lap	op)(1).csv .aptop)(1).csv op)(1).csv yp)(1).csv yp)(1).csv	Image: Weight of the system <	Su 4 11 18 25 4
Search Meter	Clear Search		

Choose the appropriate file to view. All the AMR data that was recorded will be show in the window.

13.2 SGC List

Click on CSV Viewer and then SGC List, the following window will open:

999931> Default 400132> WATERWATCH 000000> Empty 000000> Empty 000000> Empty	

SGC List displays the currently used SGC codes.

14. Exit

This button is used to exit the FMT software.

