

SmartCard METER

OPERATION MANUAL

MODEL:

ACEU0160




ROLEC

Operation Manual - SCMM-02-V01-R1
March 2023

Amendments

Amendment Number	Details	Date
Ver 1 Rev 0	New Document.	Jun 2022
Ver 1 Rev 1	Minor Amendments to add clarity and correct spelling error.	Mar 2023
Ver 1 Rev 2	Addition of warnings and information about cloning cards.	Aug 2023

Product:	Smartcard Meter	
Applicable Models:	ACEU0160	
Document Type:	End User Manual	
Document Code:	SCNN-02-V01-R2	
Language:	UK English Original	
Date Published:	August 2023	
<p>Rolec Services Ltd are the publishers of this document and own the rights to use the text, images and all technical content contained within. Content supplied by third parties / partner organisations remains the property of that organisation and is used by agreement with the supplier.</p> <p>Rolec Services Ltd exercise care to ensure content is as accurate as possible at the time of publication. However, no guarantee of accuracy should be inferred.</p>		
<p>Rolec Service Ltd, Ralphs Lane, Boston, Lincolnshire PE20 1QU. United Kingdom. +44 (0) 1205 724754 enquiries@rolecserv.co.uk</p>		

Contents

Safety	3
Product Overview	3
Requirements	3
Connecting the Card Reader/Writer	4
Install Software	4
Run the Program as an Administrator	4
Configuration	5
Log In	6
Operation	6
Create a User Card	7
Edit a User Card	7
Add credit to a User-Card	8
Refund credit from a User-Card	9
Change the Tariff	9
Transaction History	10
Create a Clearing Card	11
Use the Smartcard meter	12
Add credit to the meter	12
View remaining credit on the meter	12
Low credit warning	12
Refund credit from the meter	13
Smartcard Meter Specifications	13
Warranty Information	13

Safety

This manual is specifically applicable to the Smartcard Meter product and is provided as a guide to its setup and use.



IMPORTANT: Installers and End Users must read and understand the content of this manual before installation/use.

NOTE: Damage to the equipment, connected systems or to property caused by improper installation/use are the responsibility of the installer/user.

- The information provided in this manual must ONLY be used with the model(s) listed on page 1 of this manual.
- The information provided in this manual must NOT be used with any other product.
- The content of this manual may be updated by the manufacturer as required.
- Do NOT use the equipment for anything other than its intended purpose.
- Do NOT modify the equipment unless specifically instructed to do so by the manufacturer.
- Do NOT attempt to repair the equipment unless specifically instructed to do so by the manufacturer.
- Damage to the product may render it unsafe. The product must be electrically isolated and NOT used until appropriate remedial action has been performed.

Product Overview

The Rolec Smartcard meter is designed for simple and cost-effective pre-payment electricity metering.

The package includes a PC Smartcard reader/writer and custom developed software to manage the Smartcards credit and refund facilities.

Cards can be 'locked' to the site computer, so you do not issue refunds for unused credit to cards with no code or a different code.



Requirements

- Windows PC with a USB port.
- Operating Systems: Windows XP, Vista / 7 / 8/10/11

Connecting the Card Reader/Writer

1. Connect the Card Reader to a USB port on your computer.
2. The Card Reader will beep on successful connection. Please note the first time the reader is connected to the computer it will take a short while to automatically configure itself.



Install Software

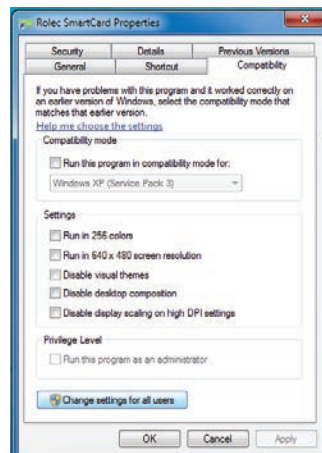
1. Run the file '**Rolec Smartcard Setup_v1.exe**' then follow the on-screen instructions.
2. At the end of the installation, untick the box that asks if you would like to '**Run Rolec Smartcard 1.2**' then click the **Finish** button.



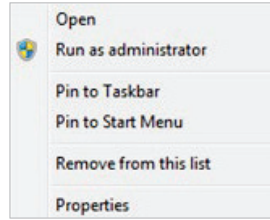
Run the Program as an Administrator

Users of Windows 7, 8, 10 and 11 must run the program as an **Administrator** to get the software performing as it should.

1. Locate the program on the PC and **right click** its icon.
2. Select the **Properties** option from the drop-down menu that is displayed.
3. In the box that opens, click on the **Compatibility** tab then click the button **Change settings for all users**.
4. Click on the **Apply** button then click on **OK**.
5. You can now close the window.



6. Locate the program again on the PC and **right click** its icon.
7. A menu should be displayed providing the option to Run as administrator.
8. Select the **Run as administrator** option.



9. Click as appropriate to accept any on-screen messages and the software should start.
10. If the software does not start automatically, go to the **Start Menu** and click on the software to continue start the configuration.

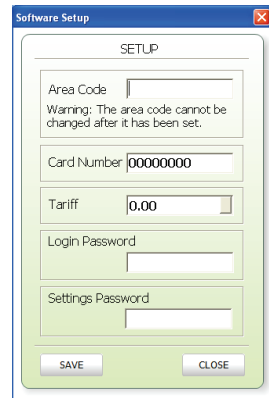
Configuration

1. When the software is run for the first time the software setup dialog box will be shown:
2. Enter the following information to configure the software:

- **Area Code:** This is a 4-digit number which is used to lock cards to the site computer. **Please note once this is set it cannot be changed.**

MAKE A NOTE OF YOUR AREA CODE BELOW FOR FUTURE REFERENCE:

--	--	--	--



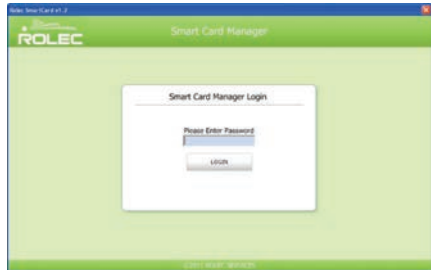
- **Card Number:** This is the starting number for the automatic sequential card numbering; normally this would be left at '00000000'.
- **Tariff:** Set this to the price to charge for each kWh unit.
 - **NOTE:** The tariff can be changed at a later time if required.
- **Login Password:** Create a password between 6 and 16 digits to set the Smartcard Manager login password.
- **Settings Password:** Create a password between 6 and 16 digits to set the settings password.

IMPORTANT: Keep a safe record of both passwords and the Area Code. These are your responsibility and cannot be recovered by Rolec.

3. When all required settings have been entered, click on the **SAVE** button and if no more changes are required, click on the **CLOSE** button. The software will now return to show the Password login screen.

Log In

1. Enter the login password that was created during the installation process, then click on the **LOGIN** button.
2. After logging in, click the **CONNECT TO CARD READER** button.
The card reader will beep when it has successfully connected.



Operation

IMPORTANT – READ THIS:

The majority of instructions within this manual explain operations using one card at a time. In reality, operators may have many cards to process.

It is **IMPORTANT** that you **ALWAYS** click the **READ CARD** button each time a card is put into the card reader, and before actioning any processes such as adding or refunding credit.

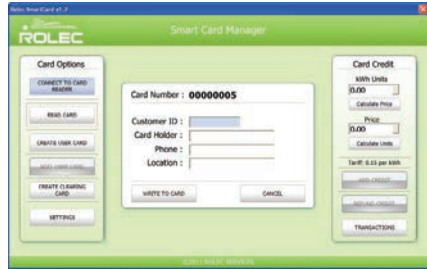
If the **READ CARD** button is not used, details (that are still shown on screen from the previous card) could be applied to the card currently in the reader. This may result in the previous card being cloned.

Depending on what was cloned, this could result in situations such as:

- A customer being unable to use the card with their meter because they have, effectively got someone else's card.
- A customer inadvertently adding or removing credit from someone else's meter. Again, because they have, effectively got someone else's card.
- Refunding of credit to a customer that was purchased by a different customer.
- Confusion within the Transaction records where the same Card ID shows different customer details.
- Confusion within the Transaction records where the same Card ID shows credits but no refunds, 1 credit but multiple refunds, etc.

Create a User Card

1. Insert a new card into the card reader with the chip facing up and click the **READ CARD** button.
2. If the card is valid and unused the software will display **New Card**.
3. Click on the **CREATE USER CARD** button and enter the required details.



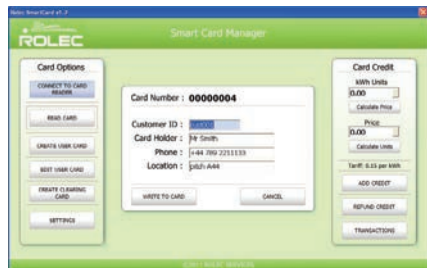
NOTE: The card number is created automatically based on a sequential numbering system. The Customer ID field is optional and would contain a reference or account code for the customer you could, for example, also store the customers vehicle registration number.

4. Enter the customer's name into the **Card Holder** field and their contact phone number into the **Phone** field. The **Location** field should contain a reference to the required pitch and/or smart meter.
5. When all required details have been entered click the **WRITE TO CARD** button to store the details on the Smartcard.
6. The card is now ready to add credit as required.

Edit a User Card

To assign a Smartcard to a new user or amend any details:

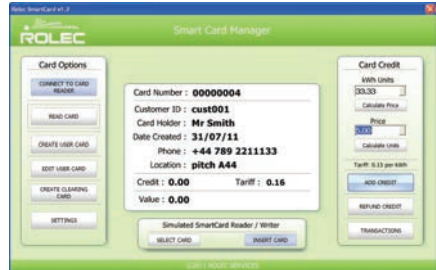
1. Insert the Smartcard into the card reader with the chip facing upwards.
2. Click on the **READ CARD** button.
3. Click on the **EDIT USER CARD** button on the left-hand side of the main screen.



4. Make the required changes and then click the **WRITE TO CARD** button to store the changes.

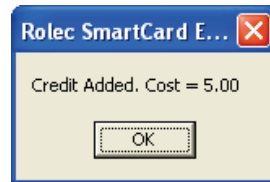
Add credit to a User-Card

1. Insert the Smartcard into the card reader with the chip facing upwards.
2. Click on the **READ CARD** button.
3. If the card is valid the card details will be displayed:



Credit can be added by entering the required amount of kWh units or by entering the price of the required credit.

4. To add by kWh units, enter the required amount into the **kWh Units** field on the Card Credit box then click the **Calculate Price** button or press the Enter key. The price is calculated automatically and displayed in the **Price** field.



5. To add by Price, enter the required amount into the **Price** field on the Card Credit box and click on the **Calculate Units** button or press the **Enter** key.

The amount of kWh units is calculated automatically and displayed in the kWh Units field.

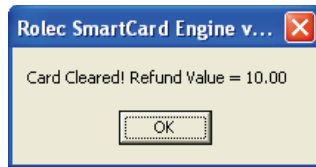
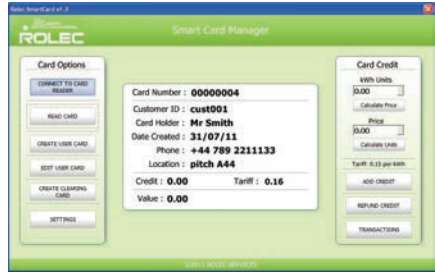
6. To write the credit to the card click on the **ADD CREDIT** button.

The card reader / writer will beep on completion and now is ready for use with a smart meter.

Refund credit from a User-Card

1. Insert the Smartcard into the card reader with the chip facing upwards.
2. Click on the **READ CARD** button.
3. To refund any remaining credit on the card click on the **REFUND CREDIT** button.
4. Confirm the refund if it is correct.

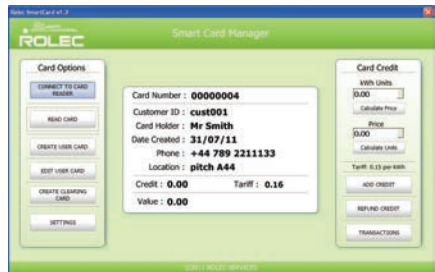
If **YES** is selected, the card credit value is reset to 0.00 and the amount to refund is displayed in a pop-up box.



Change the Tariff

The tariff can be changed at any time.

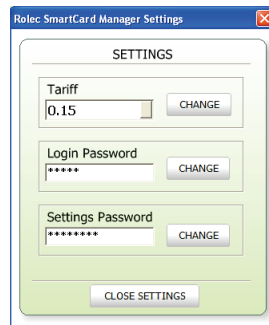
1. Click on the **SETTINGS** button on the bottom left of the main screen.
2. Enter the settings password to continue.



The tariff should be set to the required price per kWh unit.

3. Enter a new tariff in the settings screen then click '**CHANGE**' to save the new tariff.

NOTE: If the tariff is different to an existing card to which credit has already been applied, more credit cannot be added until the existing credit has been refunded.

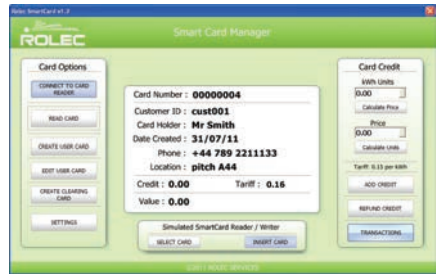


Transaction History

1. To view the transaction history, click on the **TRANSACTIONS** button on the right-hand side of the main screen.

The display will then show the selected day's totals and a transaction list showing the date and time of each transaction, card number, card holder, tariff, value, and transaction type (Credit or Refund).

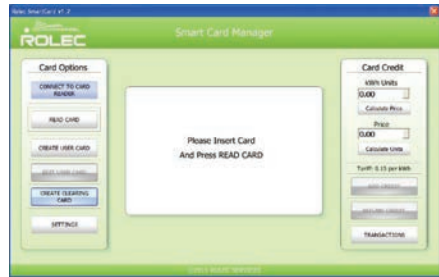
2. The selected date can be changed from the drop-down selection in the date box at the top of the screen.
3. The transactions and totals for each day can also be printed for reports and archiving.



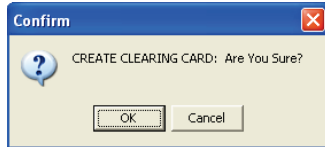
Create a Clearing Card

The software allows the creation of clearing cards which can be used to remove any remaining credit on a Smartcard Meter.

1. Insert the Smartcard into the card reader with the chip facing upwards.
2. Click on the **CREATE CLEARING CARD** button.



3. Accept the on-screen message if you are sure you want to create a clearing card.



NOTE: A clearing card, can be used with any meter that requires the remaining credit to be set to zero.

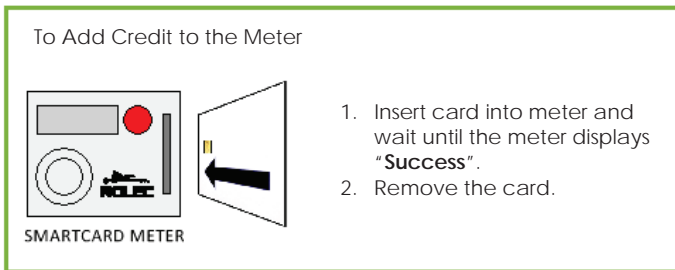
4. On successful clearing, the screen on the meter will display the word **CLEAR**.

Use the Smartcard meter

1. If required, a brief press of the red button on the front of the meter will activate a display backlight for low light conditions.
2. If the button is pressed and held, the meter may enter the refund credit mode (refer to the instructions on the next page).

Add credit to the meter

1. Insert a card that has credit applied to it into the slot on the meter.
Make sure the card is the correct way up (The chip on the Smartcard should be facing left).
Credit will NOT be added if any existing credit from a different Smartcard remains on the meter (The meter will display 'IN USE'). Either the remaining must be used, or a Clearing Card is required to set the credit on the meter to zero.
2. If the meter is able to accept the credit it will be automatically transferred from the card to the meter.
3. The meter will indicate when the credit has been transferred successfully.



View remaining credit on the meter

1. The Smartcard meter displays the remaining credit as kWh.
1. If there is no credit remaining the meter screen will display the words **NO CREDIT**.

Low credit warning

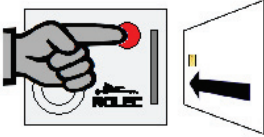
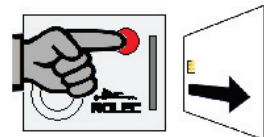
If the remaining credit is less than 3 kWh's the meter will alternate what is shown on the screen between the remaining **kWh's** and **TOP UP**, to remind the user to obtain more credit if required.

Refund credit from the meter

Any credit remaining on the meter can be transferred back to the Smartcard, allowing the card to be used another service/meter or to be returned it to the issuing office for a refund.

NOTE: Credit on the meter can only be transferred to the same Smartcard that issued the credit.

To Refund Credit from the Meter

1. Press and hold the red button then insert card.

2. When the meter displays "b_good" remove the card and release the red button. The credit has now been transferred back to the card.

Smartcard Meter Specifications

Compliance	IEC 65052-11
Working Voltage	230 V
Rated Current	63 Amp
Impulse Constant	1000 imp/kWh
Frequency	50 Hz
Accuracy Class	1
Display Mode	LCD 6+2
Working Temperature	-20 to +55 °C
Storage Temperature	-25 to +70 °C
Power Consumption	<1.2W
Average Humidity	<75%
Start Current	0.4 % IB
Protection Class	IP51
Dimensions (mm)	171.5 H x 106 W x 54.5 D

Warranty Information

The Smartcard meter and USB card reader/writer are covered by a 1 year warranty.

ROLEC

LEADING MANUFACTURER OF
HOOK-UP & ELECTRICAL DISTRIBUTION EQUIPMENT



Head office contact:
t: +44 (0) 1205 724754
f: +44 (0) 1205 724876
rolec@rolecserv.co.uk

 @RolecLeisure
www.rolecserv.com