

**TG ELECTRONICS**



[www.tgelectronics.no](http://www.tgelectronics.no)

Vidhaugen 114  
7550 Hommelvik  
Tele: 73979017-91795392  
e-post: [post@tgelectronics.no](mailto:post@tgelectronics.no)

## OPERATION AND MAINTENANCE SINGLE PHASE PREPAID SMART METER WITH IC CARD AND SOFTWARE



ROLLINS MARINE AND CARAVAN SERVICES  
TRETTON MANOR BARNES, LOWGATE, TYDD ST MARY,  
WISBECH, CAMBRIDGESHIRE, PE13 5PD  
ENGLAND

Tel. +44 (0) 1945 871412  
Email: [sales@rmcs.co.uk](mailto:sales@rmcs.co.uk)  
Web: [www.rmcs.co.uk](http://www.rmcs.co.uk)



## CONTENTS

I.	Technical Parameters	Page 2
II.	Function and Application	Page 2
III.	Dimensions	Page 5
IV.	Wiring Diagram	Page 5
V.	Single Phase Prepaid Meter: Customer User Manual	Page 6
VI.	Top Up Options	Page 7
VII.	Software User Instructions	Page 9
VIII.	Site Manager – User Manual – Single Master Control	Page 10
IX.	Site Manager – User Manual – Dual Master Control	Page 11
X.	FAQ	Page 12



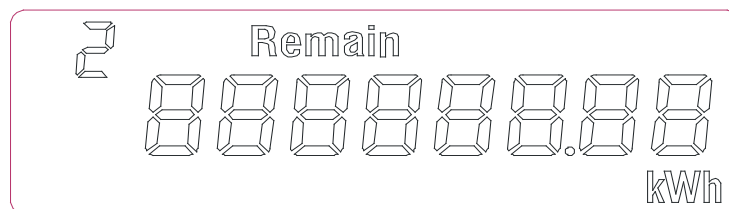
## I. Technical Parameters:

Working Voltage:	230V
Rated Current:	5(63)A
Impulse Constant:	1000imp/kWh
Frequency:	50Hz
Accuracy Class:	1.0
Display Mode:	LCD 6+2
Working Temperature:	-20—55°C
Storage Temperature:	-25—70°C
Power Consumption:	≤1.2W & 1.2VA
Average Humidity:	≤75%
Start Current:	0.4 %IB

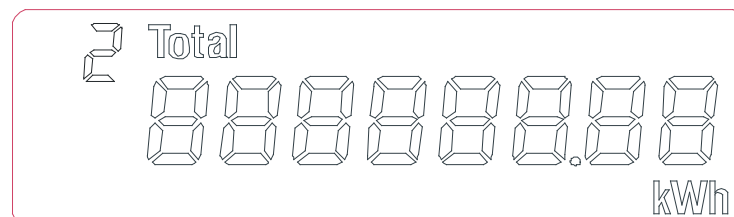
## II. Function and Application:

1. This is a prepaid meter, which can work when you charge the meter through IC card.
2. When the remaining energy is 0, the relay will disconnect in order to remind the user to charge the IC card. After that, the relay will close.
3. If there is no credit in the recharging card, the LCD screen will display No Credit when you insert the card.
4. Memory the user: When the remaining energy in the meter is 0, any recharging card can recharge the energy into this meter, then the meter will record the information about this card. If the remaining energy in the meter is not 0, other cards can't be used to recharge energy and refund money except this card. If this meter has remaining energy, but other recharging cards are used to recharge energy, the LCD screen will In Use in order to remind the user that there is a user using this meter now.
5. LCD will display remaining energy, total energy, latest purchasing energy and so on, and indicate the forward and reverse current. LCD functions are below:

### (1) Remain energy



### (2) Total energy



(3) Latest purchasing energy

3 Latest  
8888888.  
kWh

(4) There is no credit in the IC Card/ the remaining energy in the meter is 0

no credit

(5) Illegal user

in use

(6) Alarm when the remain energy is not enough

low up

(7) Purchasing energy successfully

SUCCESS

(8) Insert clearing card

CLEAR



(9)The purchased energy exceeds the hoarding threshold

Error 1

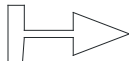
(10)Encryption card failure

Error 2

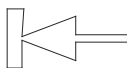
(11)Fail to purchase energy

Error 3

(12)Current running in forward



(13)Current running in reverse



(14)Communicate with meter by PC or infrared equipment



(15) The relay trips



(16) insert the card, meter confirm the data is correct.



(17) insert the card, meter confirm the data is wrong.

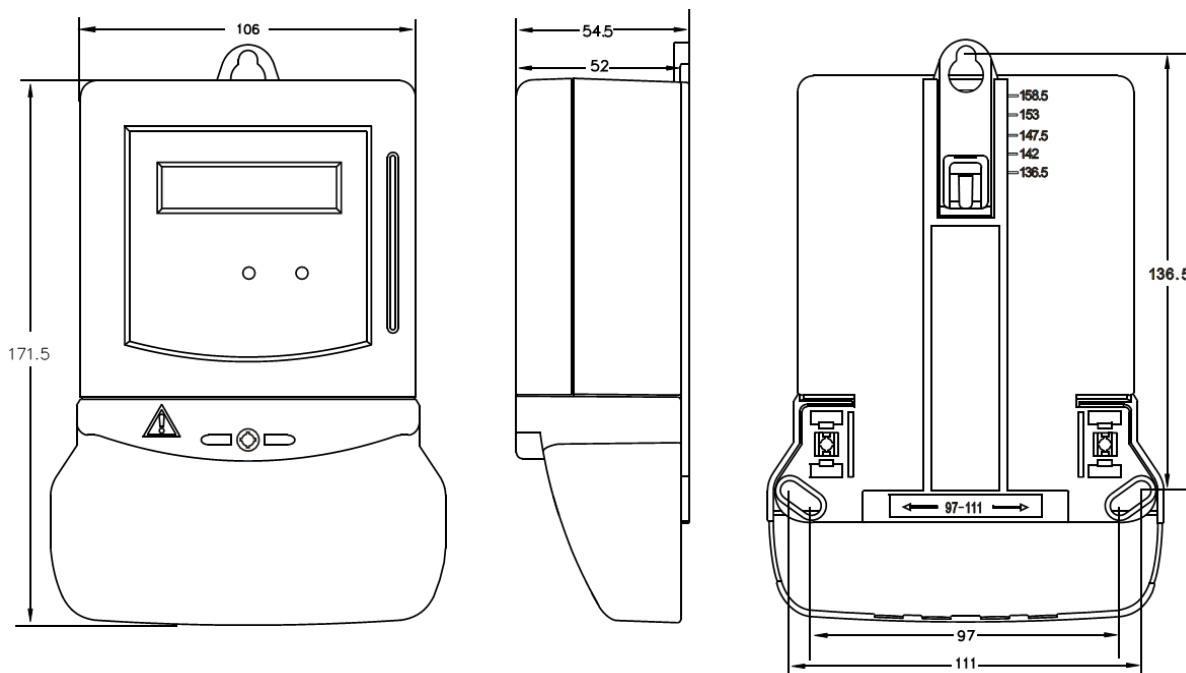


12. Button: The user can check the data through the button; If the meter is not in the button status, it will display the remaining energy all the time.

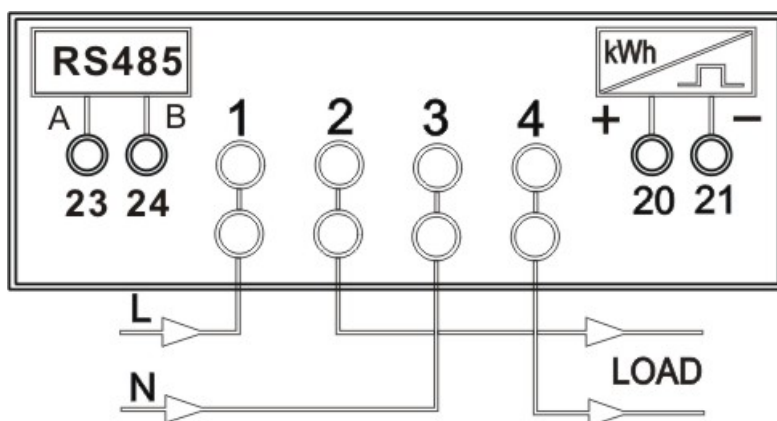
When you press the button and don't move your finger, the meter will enter into page mode automatically. Through page, you can check: a. Remaining energy; b. total consumed energy; c. latest purchasing energy.

13. Communication: Please check the Communication Protocol

### III. Dimensions:



### IV. Wiring Diagram:







# Single Phase Prepaid Smart Meter: Customer User Manual

## Introduction





The Single Phase Prepayment Smart Meters are programmed with the unit price of electric and credit that is added to the User Card. Credit can be refunded from the meter using a Refund Card.

## Main Features of Meter

-  Easy to follow screen instructions
-  User Button to view: Remaining Energy, Total Consumed Energy and Latest Purchasing Energy.
-  Auto Disconnect when credit reads 0
-  Refundable credit

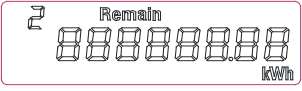
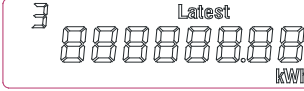


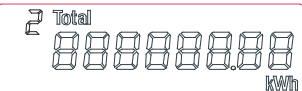
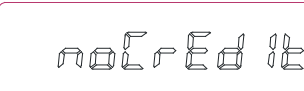
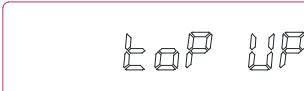

## User Step by Step Guide

Purchase a User Card, with the credit of your choice from reception.

-  Insert User Card into meter and remove card when you hear a click, signaling the credit has energized the meter.
-  Your credit will now be displayed on the meter's screen and is now ready for use.
-  Connect hook up plug to socket for use of credit.
-  You can view the Remaining Credit, Total Consumed Energy and Latest Purchasing Energy by pressing the red button to view each screen.



- Note:**
- 1) Once credit has run out electric supply will stop and User card should be topped up.
  - 2) Remaining credit left on meter can be refunding by inserting the Refund Card and returning to reception for your refund.
  - 3) LCD Functions/ Screen Instructions:

			
Remaining energy	Latest purchased energy	Meter is in Use	Meter is successfully credited
			
Total energy	No credit in the meter	Remaining energy is not enough	Credit is Cleared



## Top Up Options

### Option 1: Multi User Cards – For Limited PC Access.

This option is best suited for static caravan home owners, and long term marina and caravan park tenants. It's also a good option if the master computer is inaccessible. This option allows the tenant to top up their meter, without having to wait till all the remaining credit has gone and the meter has disconnected power.

Please follow these steps:

1. Create the required number of user cards (1 for each desired monetary value) and a refund card. *You will have to create 1 user and 1 refund card, and then create supplement user cards.*

E.g. Meter 001:      User Card 001 - £5.00  
                                 User Card 001 - £10.00  
                                 User Card 001 - £15.00  
                                 Refund Card 001

2. New customer requires £10.00 worth of electricity 'User Card 001 - £10.00' is issued and customer inserts this into their meter.
3. Existing customer has £3.00 worth of electricity remaining and requires another £15.00, you issue the 'User Card 001 - £15.00' and customer inserts this into their meter, this should now read £18.00.

Notes: 1). Ask for user cards back each time.  
2). When the customer is leaving all user cards must be returned before issuing them with a refund card.  
3). When each monetary user card is spent, it should be return to the office and topped up to its desired monetary value.

### Option 2: Single User Cards - Limited PC Access

This option is best suited for static caravan home owners, and long term marina and caravan park tenants. It's also a good option if the master computer is inaccessible.

Please follow these steps:

1. Create multiple users (User & Refund Cards), with various monetary values (e.g. £5, £10, e.tc.).
2. New customer requires £10.00 worth of electricity, User Card with £10.00 is issued and customer inserts this into their meter.
3. Existing customer has £1.00 worth of electricity remaining requires another £10.00, you issue a new user card with £10.00 on it and instruct the customer to wait till the remaining credit on the meter has been used before inserting the new user card.

Notes: 1). When the customer is leaving their user cards must be returned before issuing them with a refund card.





## Option 2: Single User Cards – Unlimited PC Access

This option is best suited for touring caravan owners, and short term marina and caravan park tenants.

Please follow these steps:

4. Create a user card and a refund card.

E.g. Meter 001:      User Card 001

Refund Card 001

5. New customer requires £10.00 worth of electricity 'User Card 001' is issued and customer inserts this into their meter.
6. Existing customer has £1.50 worth of electricity remaining and requires another £10.00, you collect the user card from the customer and top it up to £10.00 and the customer inserts this into their meter, this should now read £11.50.

Notes: 1). When the customer is leaving their user card must be returned before issuing them with a refund card.

### Notes:

- You can't avoid clearing an existing user's remaining credit by using a 'Set Number Card' to top up, unless you use the refund card first.



## Software User Instructions



# Instruction for using the software for the single phase prepaid meter

## 1. Install and unload the software

Click IC Card Setup.exe twice, and figure 1-1 will show up. The default destination folder is disk C. If you want to install it to another disk, click Browse, choose the disk then click Install. After installing, figure1-2 will show up.

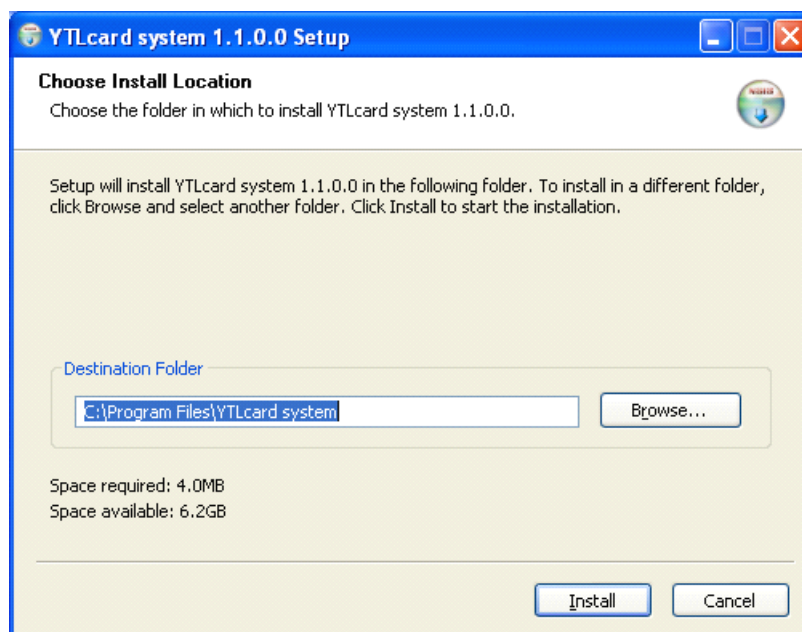


Figure1-1

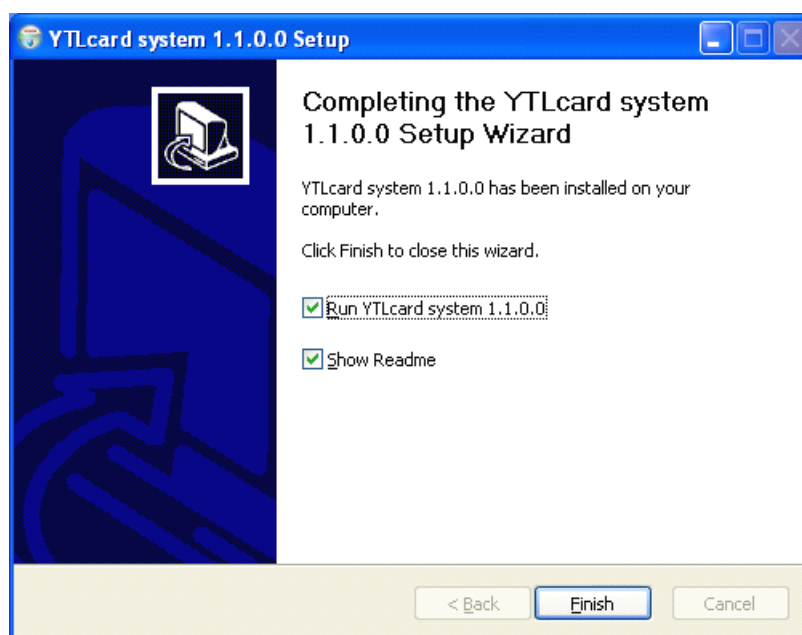


Figure1-2

Unload the software. Open the control panel, double-click change or



remove programs and go to figure 1-3. Choose ICCard management system, click the delete button on the right side, figure 1-4 will show, then click yes to unload the software. During this process, figure 1-5 will show and ask if retain the database. If choose No all the data will be deleted. When figure 1-6 shows, click OK, then unload successfully.

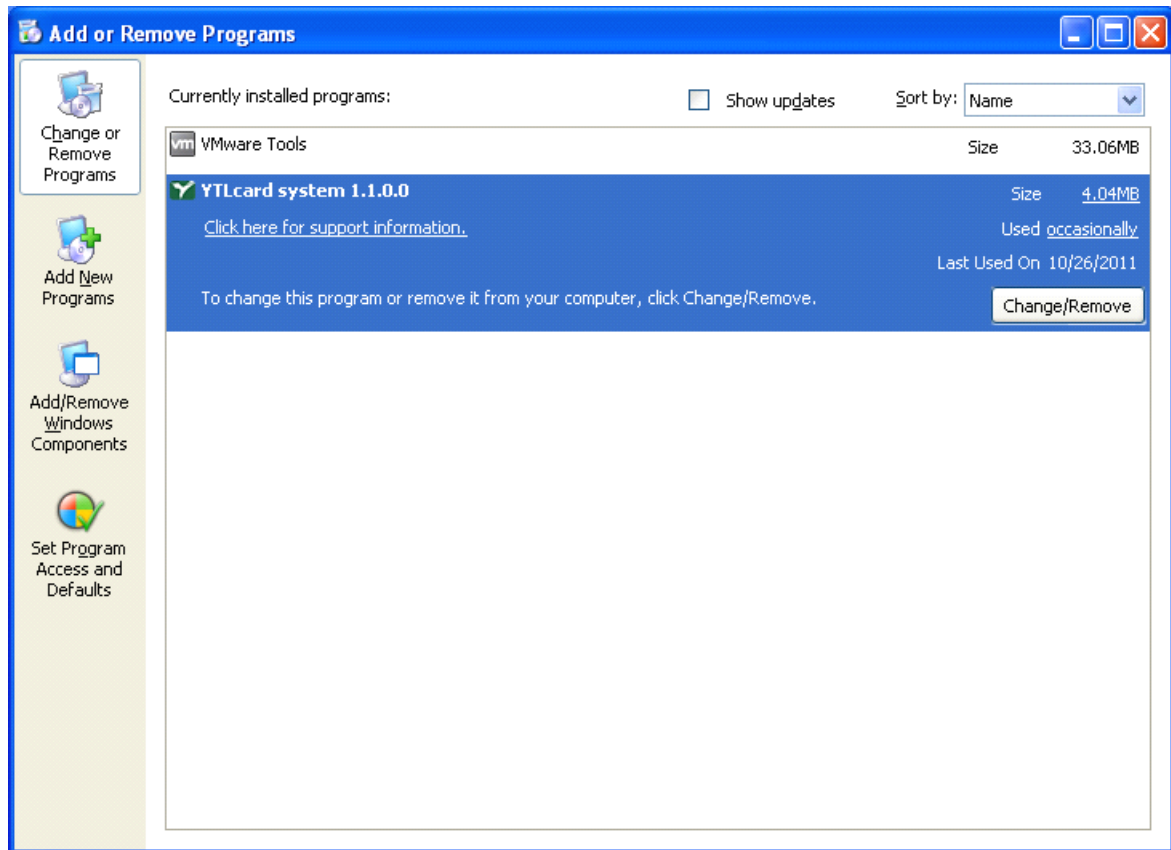


Figure1-3

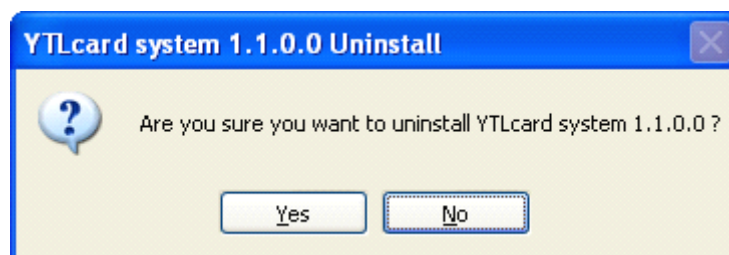


Figure1-4

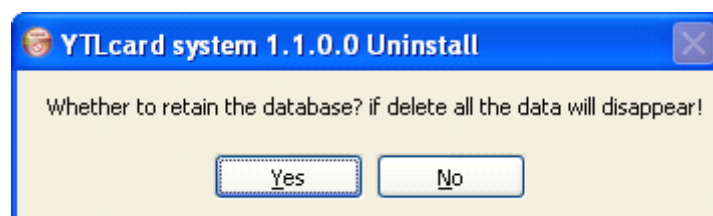


Figure1-5



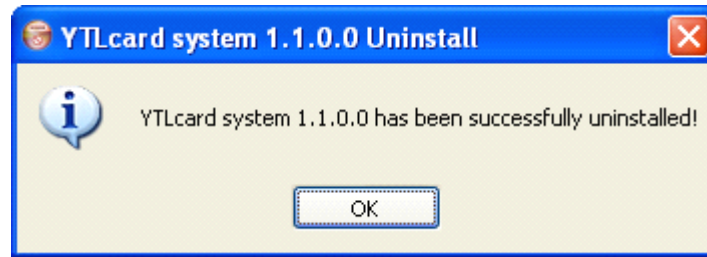



Figure1-6

## 2. Run the software

Double-click  to get into the software(Figure2-1).

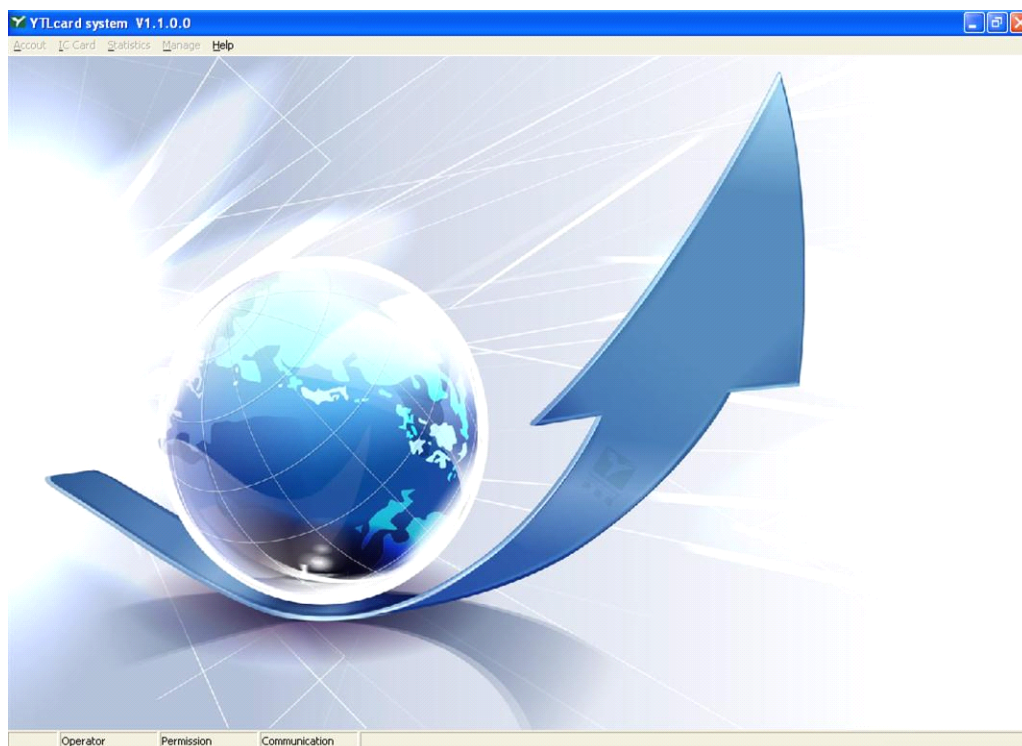


Figure2-1

## 3. Login the software

Click Login under Help(Figure3-1), then go to(Figure3-2). Type in correct operator and password, then figure 3-3 will show. In the menu will show you the operator name, authorities and the COM port(Figure3-4). If login as Administrator, you could operate all the items(Figure3-5A). If login as Seller, you could not operate the items under Manage(Figure3-5B)

**Note 1:** The default account and password are both "admin". In order to make sure the safety, please change the account and password. The process is as follow: login under "admin", type in operator name and password(Figure3-2), choose New Password, type in the new password 2 times, then click confirm.



Note 2: When login the software the first time, please set the content in figure 7-1、7-2、7-3 and 7-4

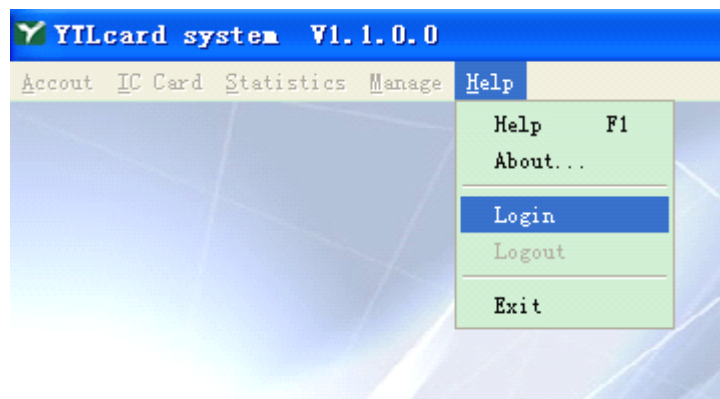


Figure3-1

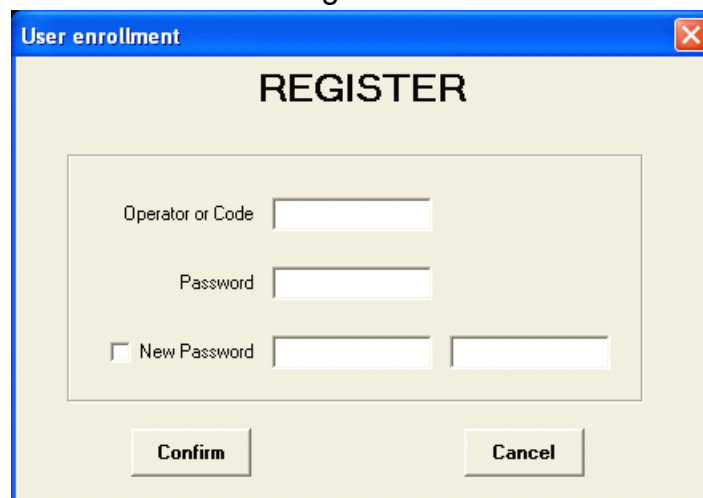


Figure3-2

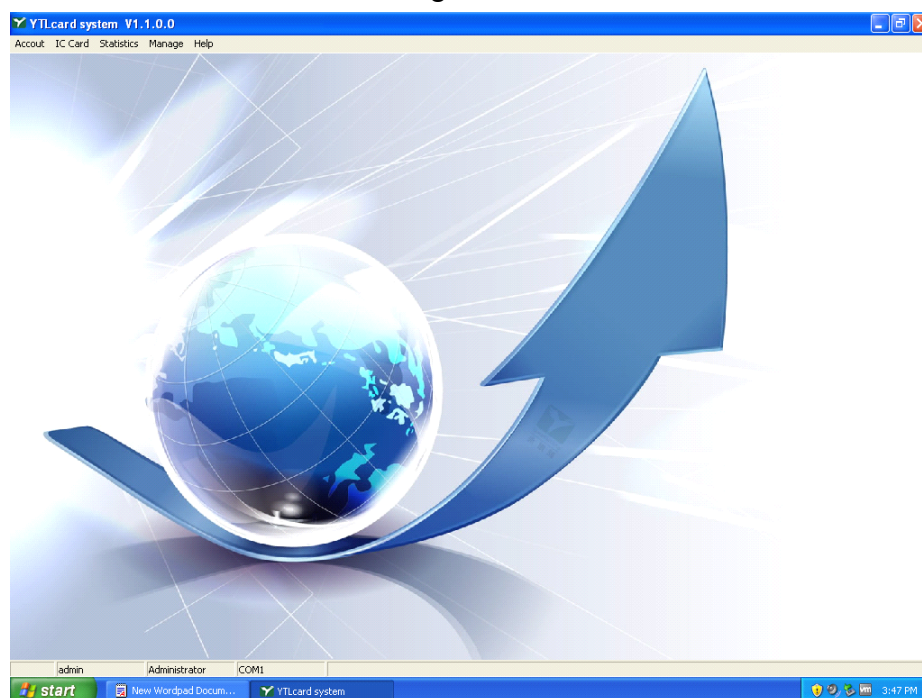


Figure3-3





Figure3-4

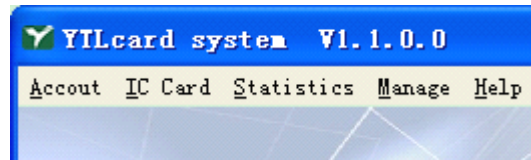


Figure3-5A

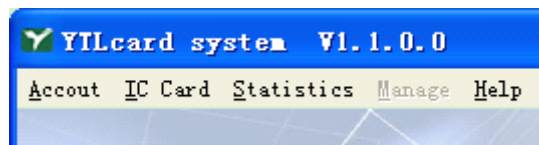



Figure3-5B

#### 4. Manage the customers

##### 4-1. Create new customers

Under Account, click Establish account(Figure4-1), then go to (Figure4-2), type in the information for the customers. Click Composition to go to the window for setting the unit price of kWh, then click Confirm then back to figure 4-2, click Add. After creating the customer, click Print to preview the invoice and click  to print out the invoice(Figure4-4).

Note 1. When the reader beep twice and the window(Figure4-5), the customer IC card is created

2. Figure4-6 shows the type of the IC card (Figure4-6), which means the customers' information is saved. The card you input to the reader is not a new card. You need to use a new card to make a card in Figure4-6

3. Figure4-7 means card reader connect failure

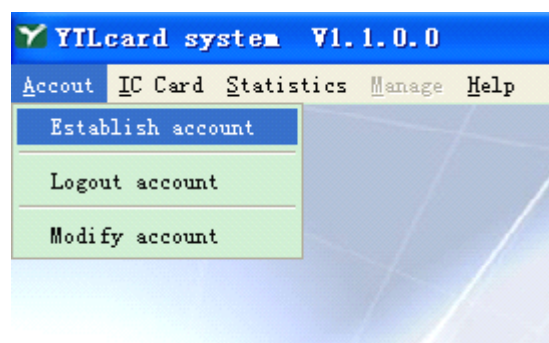


Figure4-1





Establish an account

REGISTER TO ESTABLISH AN ACCOUNT

Card Number	User Name	User ID	User Phone	Address	Type
000000000011	11111111111111111111	1111111111111111	1111111111111111	11111111111111111111111111111111	4
000000000010	test6	1234567890	9876543210	1234567890	2
000000000008	test4	0987654321	0987654321	11111	3
000000000007	test3	1234567890	1234567890	1234567890	5
000000000006	test2	0987654321	0987654321	abcdefg	2
000000000005	test	1234567890	1234567890	1234567890	2

Card number

000000000012

User name

User id

User phone

Composition

\$

Type

Card Price

10.02

\$

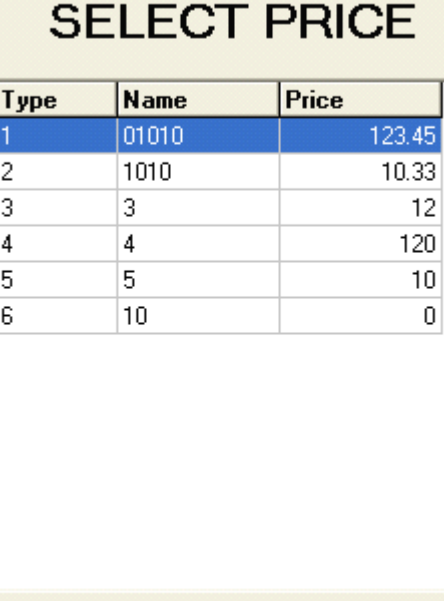
Address

Print

Add

Back

Figure4-2



Type	Name	Price
1	01010	123.45
2	1010	10.33
3	3	12
4	4	120
5	5	10
6	10	0

Figure4-3





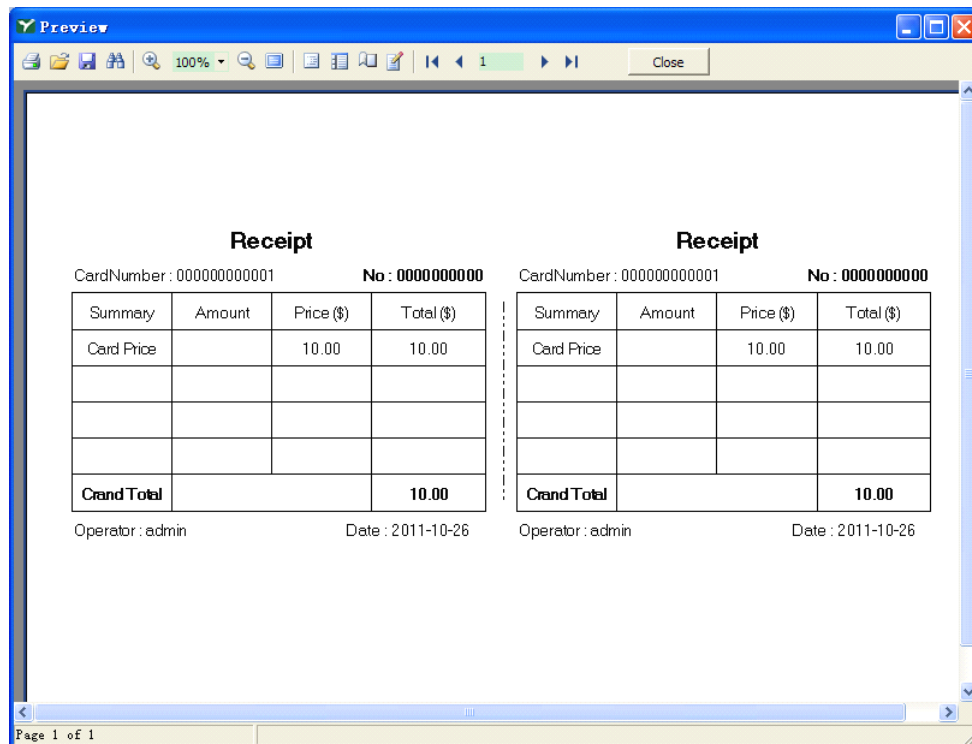


Figure4-4



Figure4-5

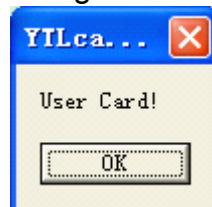


Figure4-6



Figure4-7

#### 4-2.Logout account

Click logout account under Account, then go to figure4-9. Input the IC card that needs to be logout to the reader, then click read to read the information on the IC card. Click Logout, figure4-10 will show up, then click OK. When figure4-11 show up, the account is logout successfully.

**Note: if there is kWh inside the IC card, the card could not be logged out. You need to refund the kWh inside the IC card first.**



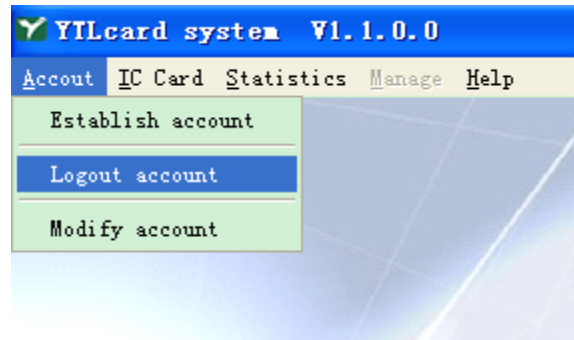


Figure4-8

Card information			
Card Number		User Name	
User ID		User phone	
Price	\$	Type	
Card Price	\$		
Address			
Create date		Operator	
Balance	0.00	kWh	

Buttons: Print, Logout, Read, Back

Figure4-9

**Confirm**

? You sure you want to delete the account (y/n?)

Buttons: OK, Cancel

Figure4-10

**YTLcard system**

Logout account successful!

Button: OK

Figure4-11

#### 4-3. Modify account

Click Modify account under Account(Figure4-12), then figure4-13 will show up. The IC card needs to be input to the reader first, then click Read to read the information on the IC card. Modify the related information, then click Write.



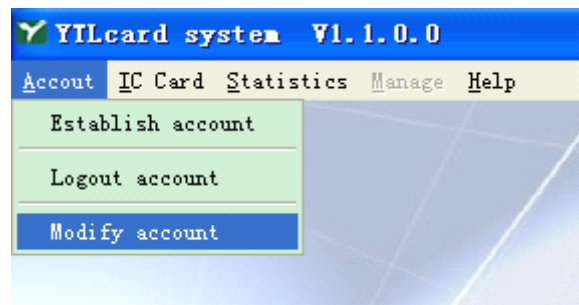


Figure4-12

**Modify account**

## MODIFY ACCOUNT

Card information

Card Number	User Name
User ID	User phone
Price <b>0.00</b> \$	Type
Card Price <b>0.00</b> \$	
Address	
Create date	Operator
Balance <b>0.00</b> kWh	

Modify information

User Name <input style="width: 90%;" type="text"/>	User ID <input style="width: 90%;" type="text"/>
User Phone <input style="width: 90%;" type="text"/>	
Composition <b>0.00</b> \$	Type
Address <input style="width: 95%;" type="text"/>	

Figure4-13



## 5. IC Card management

### 5-1. Buy electricity

Click Buy electricity under IC Card(Figure5-1), then go to figure5-2. Before buy the electricity, input the IC card to the reader. Click Read to read the information in the IC card, then input the amount to the Money column. The software will count how much it could buy according to the unit price. If need to add the additional fee, input the name and amount to Surcharge name and Surcharge respectively. The software will count the total amount automatically. Input the money that the customer pays to the Cash column. The software will show the change automatically, then click Write. When figure5-3 shows up, the IC card is charged successfully.

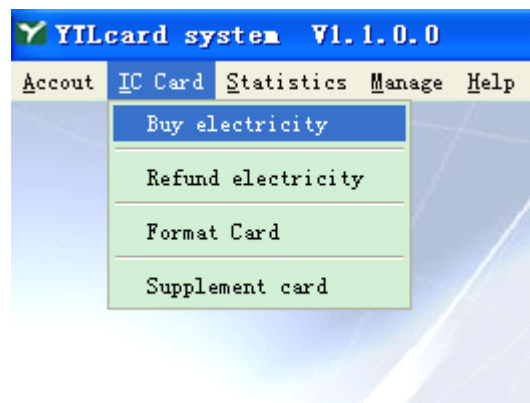


Figure5-1



Card information			
Card number	000000000002	User name	1
User id	1	User phone	1
Create date	2011-10-26	Operator	admin
Type	1	Price	1 \$
Address	1		
Balance	0.00	kWh	

Buy electricity	
Money	0.00
Amount	0.00 kWh

Surcharge	
Surcharge name	
Surcharge	0.00

Cash	
0.00	\$
Change	0.00

Buttons: Print, Write, Read, Back

Figure5-2



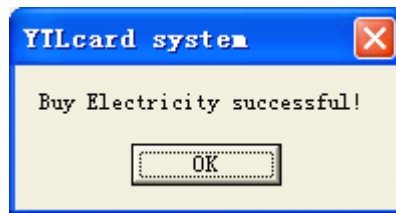


Figure5-3

## 5-2. Refund electricity

Click Refund electricity under IC Card(Figure5-4), then go to figure5-5. Before refund the electricity, input the IC card to the reader then click Read to read the information on the card. Then click Write, figure5-6 will show up, which means refund electricity successfully.

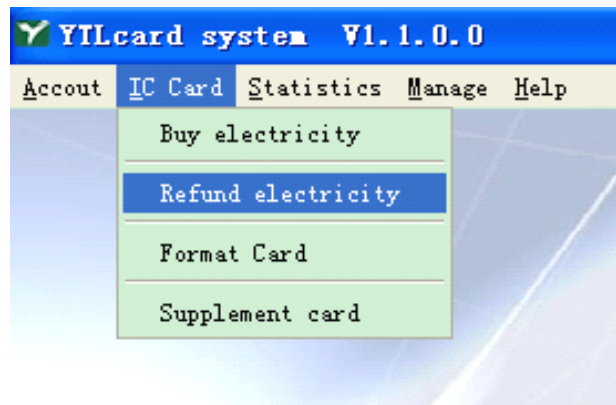


Figure5-4

 A screenshot of the 'Refund electricity' dialog box. The title bar says 'Refund electricity'. The main title is 'REFUND ELECTRICITY AND WRITE CARD'. Below this is a 'Card information' section with a table of fields. At the bottom, there is a 'Refund' amount of '0.00' and four buttons: 'Print', 'Write', 'Read' (highlighted), and 'Back'.
 

Card information		
Card number	User name	
User id	User phone	
Create date	Operator	
Type	Price	0.00 \$
Address		
Balance	0.00	kWh

Refund 0.00

Figure5-5



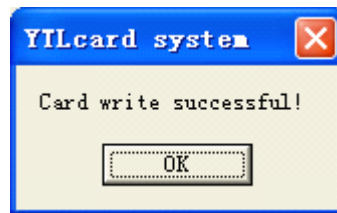


Figure5-6

### 5-3.Format card

Click Format Card(Figure5-7) under IC Card, then go to figure5-8. Click Format, when figure5-9 shows, click OK to format the card. When figure5-10 shows, it means format the card successfully.

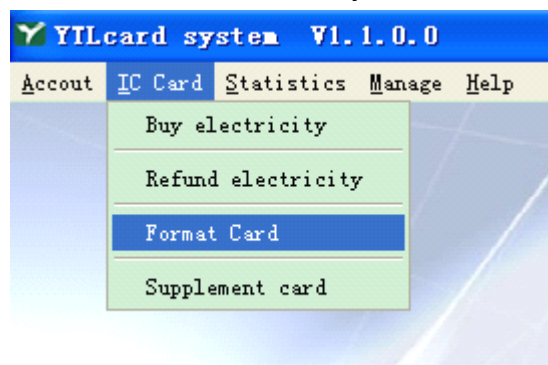


Figure5-7

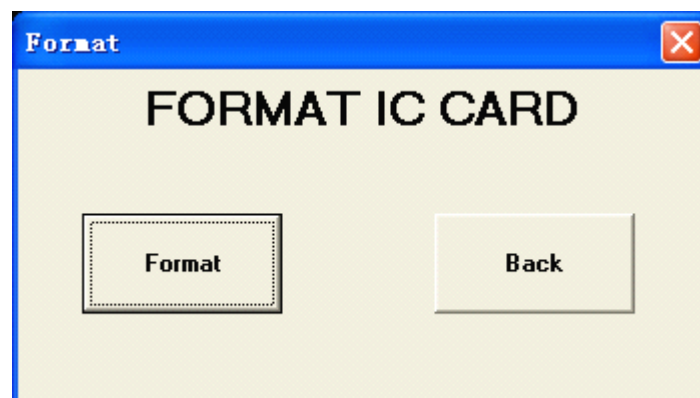


Figure5-8

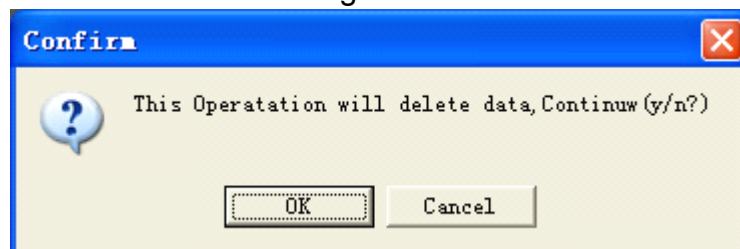


Figure5-9

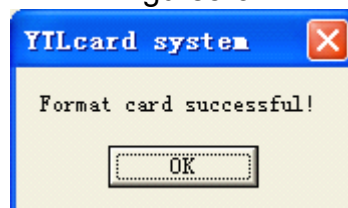


Figure5-10



#### 5-4. Supplement card

Click Supplement card(Figure5-11) under IC Card, then go to figure5-12. Before supplement card, input the IC card to the reader, choose the information that needs to supplement. Click Write, when figure5-13 shows, it means supplement card successfully.

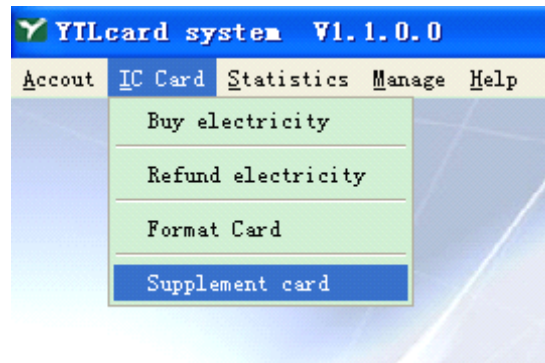
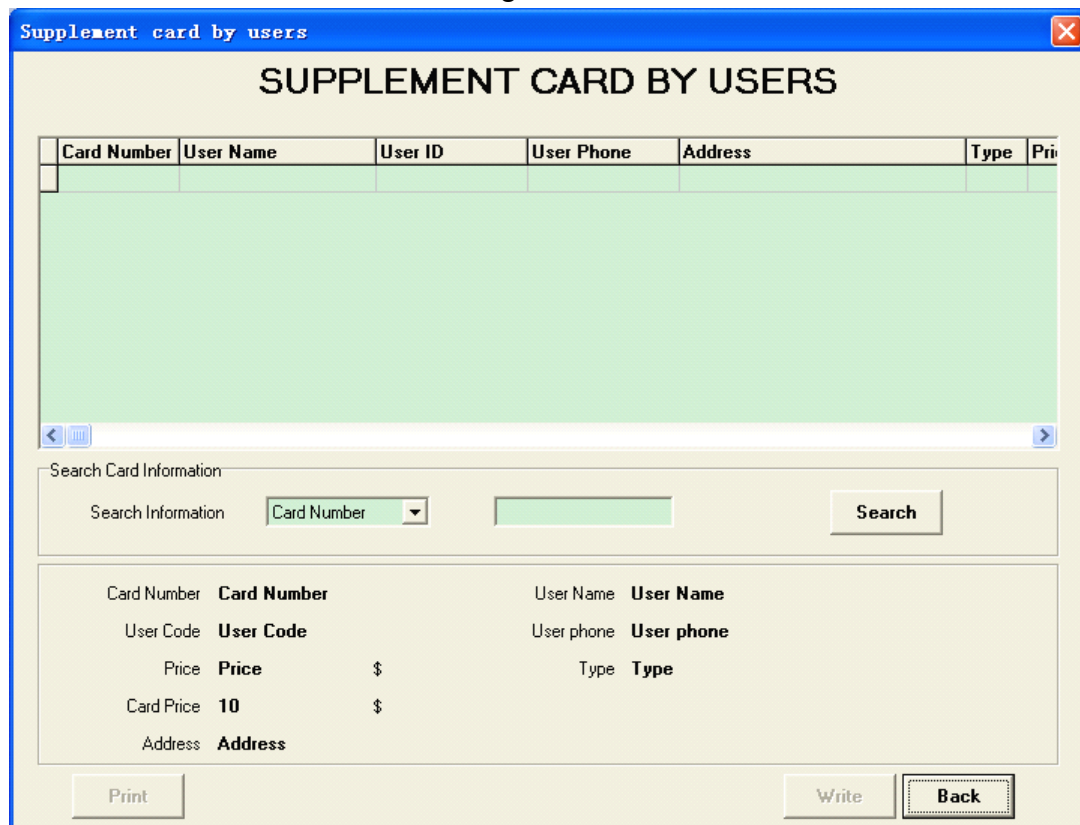


Figure5-11



Card Number	User Name	User ID	User Phone	Address	Type	Pri

Search Card Information

Search Information: Card Number  Search

Card Number **Card Number** User Name **User Name**  
User Code **User Code** User phone **User phone**  
Price **Price** \$ Type **Type**  
Card Price **10** \$  
Address **Address**

Print Write Back

Figure5-12

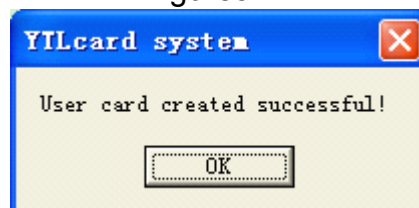



Figure5-13

#### 6. Statistics

##### 6-1. Daily report



Click Daily report(figure6-1) under Statistics, then go to figure6-2. There are four tag, including sale, refund, supplement and logout. Choose any one of them, then choose a date in Appoint Date. The recorded information for this date will show. If need to print out, click Print to preview the information, then click  at the left corner to print out the information.

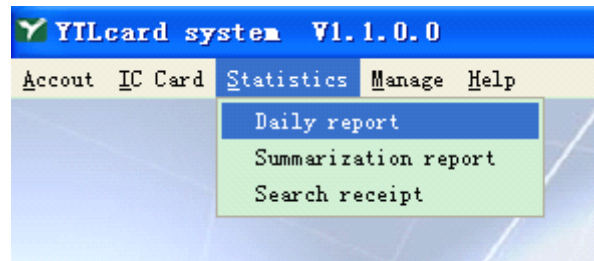


Figure6-1

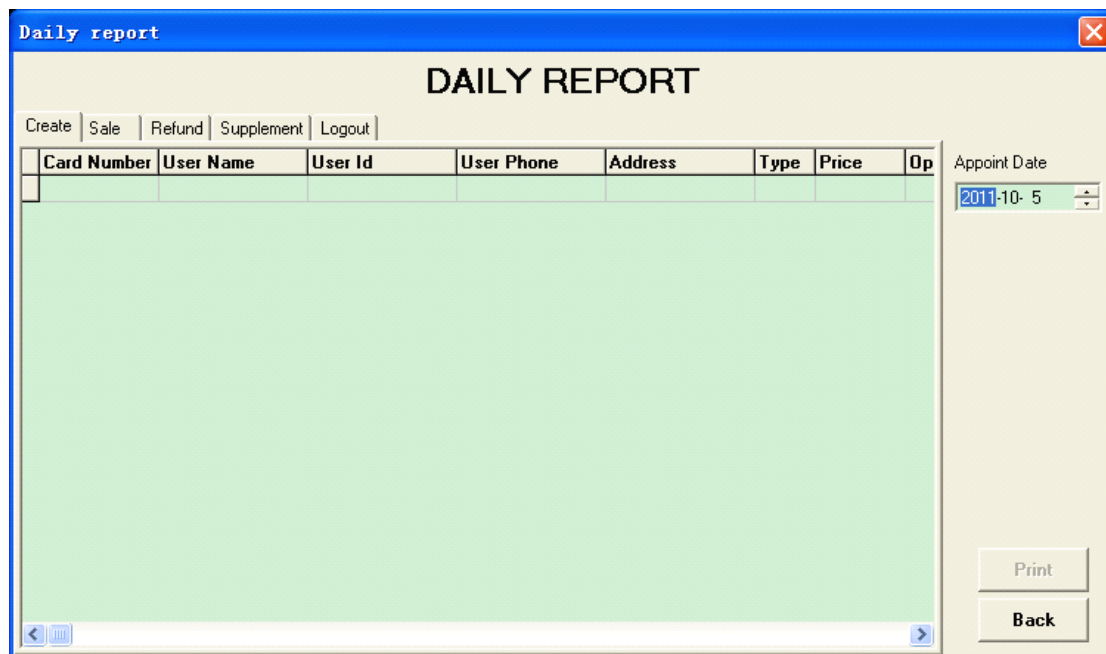



Figure6-2

#### 6-2. Summarize repot

Click summarization repot(figure6-3) under Statistics, then go to figure6-4. The operation is almost the same as for Daily report. Before searching, please input the relative condition to the right columns, then click Search. If need to print out the information, click Print to preview the information, then click  at the left corner to print out the information.





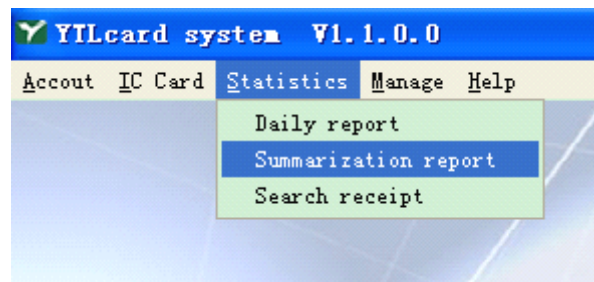



Figure6-3

Card Number	User Name	User Id	User Phone	Address	Type	Price	Op

Figure6-4

### 6-3. Search receipt

Click search receipt (figure6-5) to go to figure6-6, then input the receipt No. Click search to find the information. If need to print out, click Print to preview the information, then click  at the left corner to print out the information.

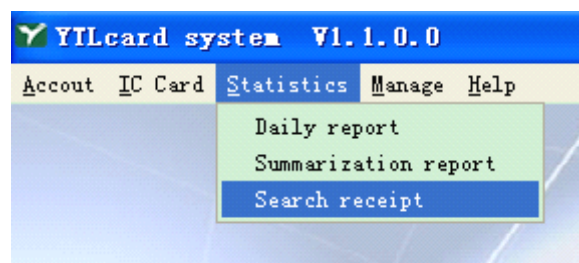


Figure6-5



**Search Receipt**

**SEARCH RECEIPT**

Receipt NO

Card Number	NO	Summary	Amount	Price(\$)	Total(\$)
Grand Total					
Operator			Date		

Figure6-6

## 7. System management

The system management could only be operated under administrator account.

### 7-1. Set the unit price for the electricity

Click set unit price of using type (figure7-1) under Manage to go to figure7-2.

1) Set the unit price: input the relative information at the bottom column in figure7-2, then click Add. When there is new information in the above table, it means add the unit price successfully.

2) Modify the unit price: choose a column in the table, then click Modify. Input relative information in the bottom column, click Confirm. Figure7-3 will show to confirm the modification. Click yes to confirm and this column will be modified.

3) Delete unit price: choose the column that need to delete, then click Delete, figure7-4 will show to confirm the delete command.. Click Yes to confirm.

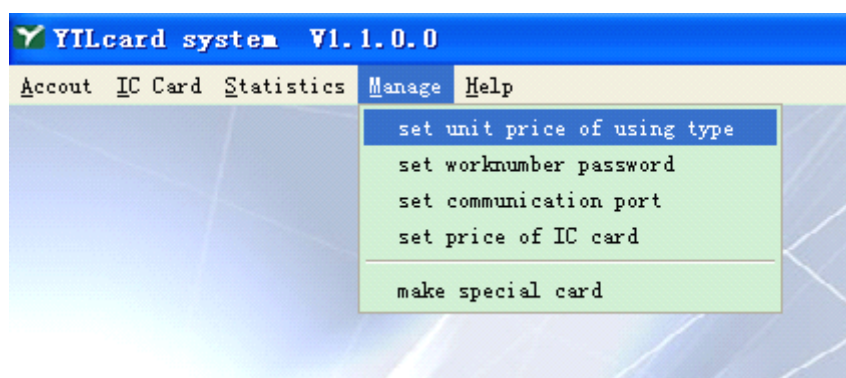


Figure7-1



**Electrovalency maintenance**

## TYPE OF ELECTROVALENCY MAINTENANCE

	Electrovalency Type	Electrovalency Name	Electrovalency Price
▶	1	01010	123.45
	2	1010	10.33
	3	3	12
	4	4	120
	5	5	10
	6	10	0

Input electrovalency type   
 Input electrovalency name   
 Input electrovalency price  \$

Add  
 Delete  
 Modify  
 Cancel  
 Confirm  
 Back

Figure7-2

**Modify price**

Modify this price (y/n)?

Figure7-3

**Delete price**

Delete this price (y/n)?

Figure7-4

### 7-2 Set account

Click set work number password(figure7-5)to go to figure7-6

- 1) Add operator: input relative information, choose the "seller or administrator" in select permission. When the added operator is in the above table, the new operator is added successfully.
- 2) Modify operator: Choose the operator that needs to modify, click Modify. Input the information to the relative column, when figure7-7 shows, click Yes to confirm. When the modified operator is in the above table, the operator is modified successfully.
- 3) Delete operator: Choose the operator that need to delete, then click Delete. When figure7-4 shows, click Yes to confirm. When the deleted operator is not in the above table, the operator is deleted successfully.

**Note:** There are 4 Administrator that could created at most. And the name of the administrator could not be changed after created.



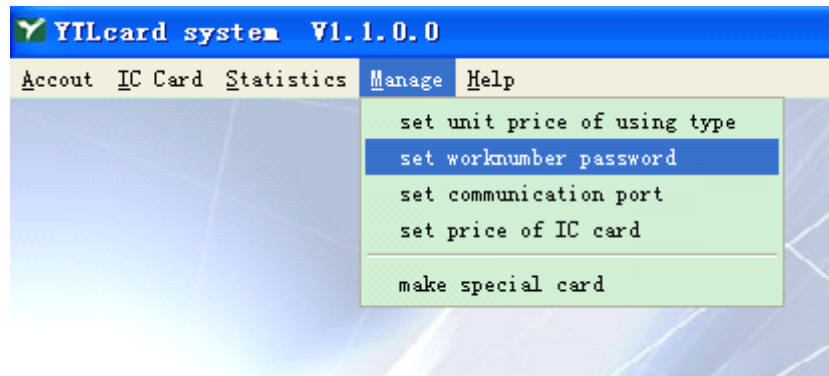


Figure7-5

Operator Name	Operator Code	Operator Permission
admin	adm	Administrator
002	002	Administrator
101	101	Seller
003	003	Administrator
111	111	Seller

Input operator name:

Input work number:

Select permission:

Input current password:

Input new password:

Buttons: Add, Delete, Modify, Cancel, Confirm, Back

Figure7-6

Delete operator

Delete this operator (y/n)?

Buttons: Yes, No

Figure7-7

Modify operator

Modify this operator (y/n)?

Buttons: Yes, No

Figure7-8

### 7-3. Set communication port

Click set communication port under Manage, then go to figure7-10. The default COM port is COM1. Choose the correct COM port from Choice Port(the system will choose the correct COM port automatically). Click test to check it the chosen port is the correct one. It takes about 1 minute. When connect correctly, the reader will beep. If not, figure7-11 will show up.



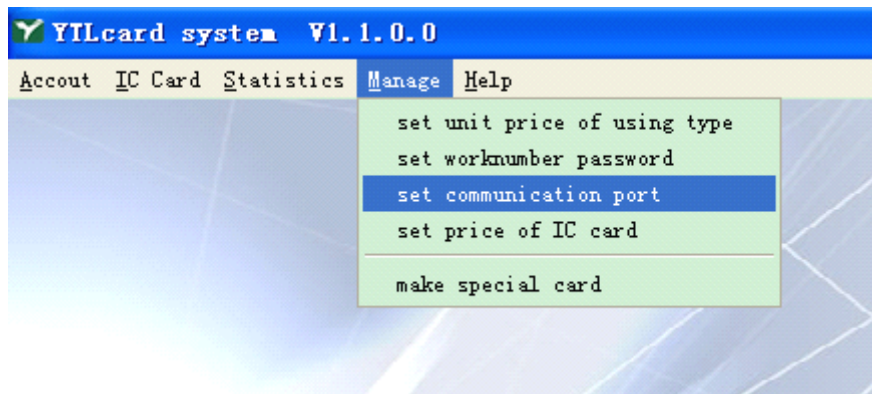


Figure7-9

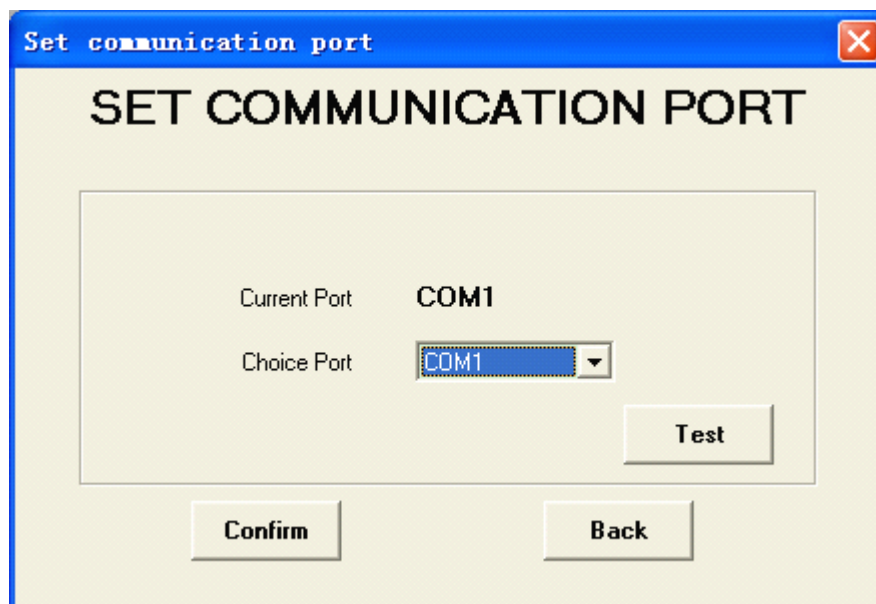


Figure7-10



Figure7-11

#### 7-4. Set price of IC card

Click set price of IC card (figure7-12) to go to figure7-13. The default price is 0, Input the card price then click confirm. Then figure7-13 will close automatically.



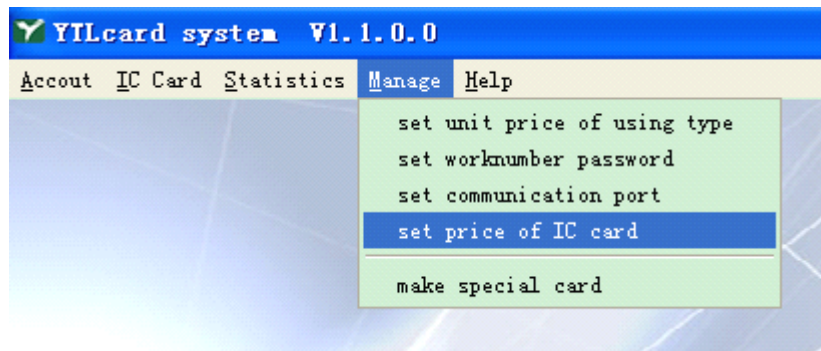


Figure7-12



Figure7-13

#### 7-5. Make special card

Click make special card (figure7-14) under Manage to go to figure7-15

- 1) Clear Card: Choose clear card, then input a new IC card to the reader. Click write card, when figure7-16, click OK to confirm. When figure7-17 shows, it means make clear card successfully.
- 2) Set Number Card: input the electricity, then input a new card to the reader. Click write card to go to figure7-18. Click Ok, when figure7-19 shows, it means make clear card successfully.

**Note:** Clear card and Set number card is made only for testing.

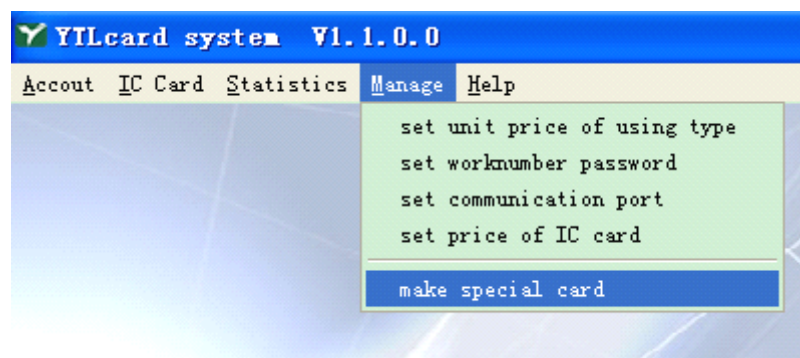


Figure7-14



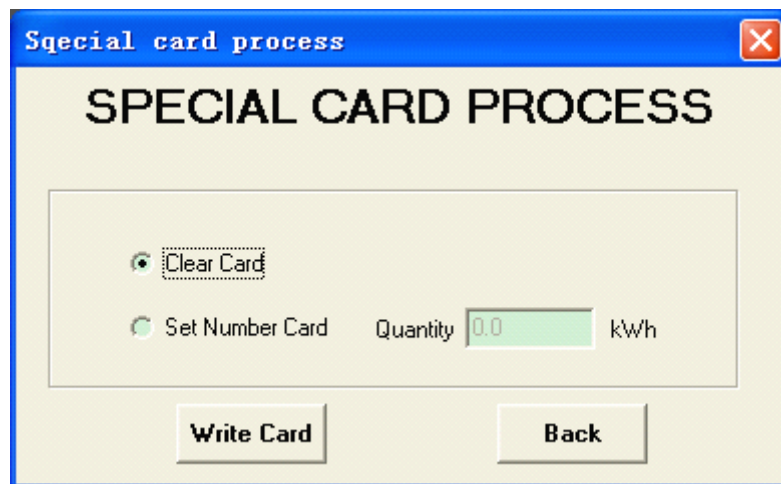


Figure7-15

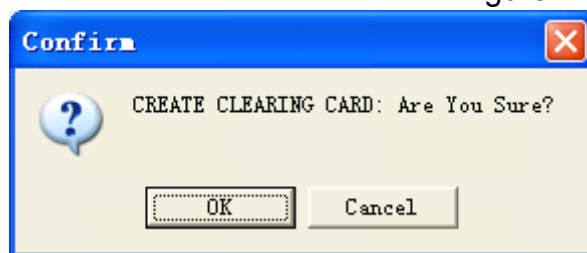


Figure7-16

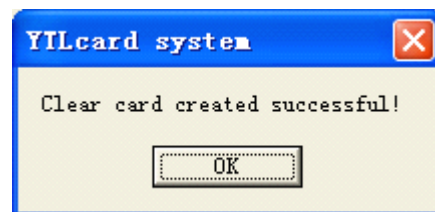


Figure7-17

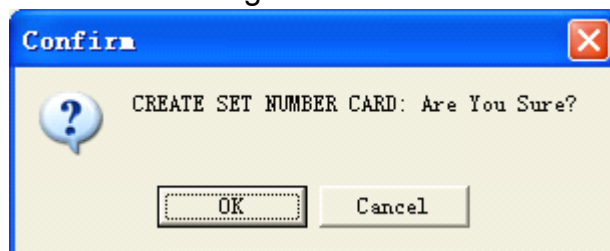


Figure7-18

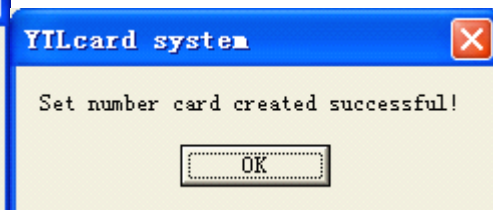


Figure7-19



## **Site Manager – User Manual – Single Master Control**





## log Out Customer

- 1) Go to 'Account', then Click onto 'Logout account' (Here you Remove the Customer's details).
- 2) Insert User Card and Click 'Read', then Click 'Logout', it will ask if your sure, Click 'Yes'. Remove User Card and insert Refund Card and repeat above. It should come up with **Logout Successful**.
- 3) Client has now been removed from the data base and cards can be re-issued.



## Important Notes

All monetary values are listed in Pounds (GBP, £).

**Electrical Load will automatically disconnect when credit reads 0.**

To create a 'Clear Card' go to 'Manage', Click 'Make special card', then Click Clear Card, Insert a formatted card and Click 'Write Card'. Using for clearing down meters that have remaining credit left.

We suggest you place a refundable deposit on the User Card to ensure the customer returns it. This can be done during the 'Buy electricity' / 'Write User Card' operation. IC Card price must be set in IC Card Setup under 'Manage'.



ROLLINS MARINE AND CARAVAN SERVICES

TRETTON MANOR BARN, LOWGATE,  
TYDD ST MARY, WISBECH, CAMBRIDGESHIRE,  
PE13 5PD, ENGLAND

**Tel. +44 (0) 1945 871412**

**Email: sales@rmcs.co.uk**

**Web: www.rmcs.co.uk**



## SITE MANAGER SMART CARD METER USER MANUAL Single Master Control

This user manual will assist you in installing and maintaining the software required for the Smart Metering System.

It will detail how to set up the software, add new customers, add credit and refund credit. Please follow the instructions over leaf for information.



## Setting Up Software

Software can only be installed on XP Windows or later versions.

- 1) Once computer has started up insert USB Memory stick into a USB Port.
- 2) Open 'My Computer'.
- 3) Open USB Drive with Software on.
- 4) Click 'YTLcard2.1.0.6 - New' to start Set Up.
- 5) Assign software to folder you want it to go on your computer, then Click 'Install'. (11.9MB is required).
- 6) When 'Silicon Laboratories' comes up insert USB connection from 'Card Reader into the USB Port and follow on screen instructions.
- 7) Click 'Finish'. Program will automatically start. Close 'Read Me.pdf' and continue.

**YOU HAVE NOW INSTALLED THE SOFTWARE.**

## log in...

- 1) Go to 'Help', 'Login', (Default is 'admin' for Operator and 'admin' for Password). To change Click on 'New Password'.
- 2) Enter details then press 'Confirm'.

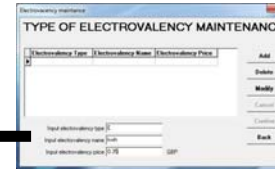


## Setting Up Unit Price

- 1) Go into 'Manage', 'Set unit price of using type', then Enter electricity unit price and click 'Add'.

1. A
2. Kwh
3. Price


Click 'Back'



## Adding New Customer's

- 1) Go to 'Account', then Click onto 'Establish an account' (Here you Enter the Customer's details).
- 2) Enter 'User name', 'User id', User phone', 'Composition' (Unit charge) and 'Address'.
- 3) Insert card before you Press 'Add'.
- 4) When instructed take out 'User Card' and **insert another card to create 'Refund Card'.**

**YOU HAVE NOW CREATED A NEW USER. Remove Card and Click 'Back'**



## Adding Credit

- 1) Go to 'IC Card', then Click on 'Buy Electricity' (Here you can Top - Up).
- 2) Insert User Card, then Click 'Read'.
- 3) Under 'Buy electricity' enter required credit amount.



- 4) Enter 'Cash' received from Customer, then Click on 'Write'.

**YOU HAVE NOW CHARGED THE USER CARD. PASS CARD TO USER & INSTRUCT USER TO INSERT IT INTO THEIR METER.**

**RETAIN REFUND CARD IN OFFICE (MAKE SURE YOU MARK WITH USER ID)**



## Refunding Customer

- 1) Customer return's User Card.
- 2) Issue Refund Card to customer, instructing them to insert it into the meter and return to the office.
- 3) Insert Refund Card into Card Reader go to IC Card and Click onto 'Refund Electricity'.
- 4) Click on 'Read' and card details will be displayed on the screen along with refund amount.
- 5) Click 'Write' and credit will be removed. You can now credit the customer the remaining balance plus the deposit from the User Card. Plus if they request a receipt, you can Click on Print.

**Remove Card and Click 'Back'**



## **Site Manager – User Manual – Dual Master Control**



- 1) Go to 'Account', then Click onto 'Logout account' (Here you Remove the Customer's details).
- 2) Insert User Card and Click 'Read', then Click 'Logout', it will ask if your sure, Click 'Yes'. Remove User Card and insert Refund Card and repeat above. It should come up with **Logout Successful**.
- 3) Client has now been removed from the data base and cards can be re-issued.



All monetary values are listed in Pounds (GBP, £).

**Electrical Load will automatically disconnect when credit reads 0.**

To create a 'Clear Card' go to 'Manage', Click 'Make special card', then Click Clear Card, Insert a formatted card and Click 'Write Card'. Using for clearing down meters that have remaining credit left.

We suggest you place a refundable deposit on the User Card to ensure the customer returns it. This can be placed during the 'Buy electricity' / 'Write User Card' stage. IC Card price must be set in IC Card Setup under 'Manage'.

If cards are lost or you need them to log out someone from the data base you can create a supplement card: Go into 'IC Card' then into Supplement Card'. From here you can search the user from 'Number, Name, ID or Phone', then click on the one you need, insert a new card and click either User Card or Refund Card and it will be created.



## ROLLINS MARINE AND CARAVAN SERVICES

TRETTON MANOR BARNs, LOWGATE,  
TYDD ST MARY, WISBECH, CAMBRIDGESHIRE,  
PE13 5PD, ENGLAND

**Tel. +44 (0) 1945 871412**  
**Email: [sales@rmcs.co.uk](mailto:sales@rmcs.co.uk)**

**Website: [www.rmcs.co.uk](http://www.rmcs.co.uk)**



# SITE MANAGER SMART CARD METER USER MANUAL Dual Master Control

This user manual will assist you in installing and maintaining the software required for the Smart Metering System.

It will detail how to set up the software, using 2 Card Readers in separate locations, add new customers, add credit and refund credit.



## 1.1 Setting Up Software

Software can only be installed on XP Windows or later versions.

- 1) Once computer has started up insert USB Memory stick into a USB Port.
- 2) Open 'My Computer'.
- 3) Open USB Drive with Software on.
- 4) Click 'YTLcard2.1.0.6 - New' to start Set Up.
- 5) Assign software to folder you want it to go on your computer, then Click 'Install'. (11.9MB is required).
- 6) When 'Silicon Laboratories' comes up insert USB connection from 'Card Reader' into the USB Port and follow on screen instructions.
- 7) Click 'Finish'. Program will automatically start. Close 'Read Me.pdf' and continue.

**YOU HAVE NOW INSTALLED THE SOFTWARE.**

## 1.2 Dual System Set Up

For using 2 PC's in separate locations

- 1) Install software using instructions from point 1.1.
- 2) Keep both data bases the same for Card Numbers and User ID Details. **If Card numbers are not matching log in and out Cards following point 2.3 and 2.6 until Card Numbers are matching.**
- 3) If data bases are kept identical Electricity can be purchased or refunded at either location.
- 4) If one data base misses log out the other PC can create a Supplement Card to log out the client with.
- 5) Daily Report Sheets can be used to keep data base up to date from 1 PC to the other.
- 6) Both PC's must be used in the (Admin mode) for the dual system to work.



## 2.1 Log in

- 1) Go to 'Help', 'Login', (Default is 'admin' for Operator and 'admin' for Password). To change Click on 'New Password'.
- 2) Enter details then press 'Confirm'.

## 2.2 Setting Up Unit Price

- 1) Go into 'Manage', 'Set unit price of using type', then Enter electricity unit price and click 'Add'.

1. A
2. Kwh
3. Price

Click 'Back'

## 2.3 Adding New Customer's

- 1) Go to 'Account', then Click onto 'Establish an account' (Here you Enter the Customer's details).
- 2) Enter 'User name', 'User id', 'User phone', 'Composition' (Unit charge) and 'Address'.
- 3) Insert card before you Press 'Add'.
- 4) When instructed take out 'User Card' and insert another card to create 'Refund Card'.

**YOU HAVE NOW CREATED A NEW USER. Remove Card and Click 'Back'**



## 2.4 Adding Credit

- 1) Go to 'IC Card', then Click on 'Buy Electricity' (Here you can Top - Up).
- 2) Insert User Card, then Click 'Read'.
- 3) Under 'Buy electricity' enter required credit amount.
- 4) Enter 'Cash' received from Customer, then Click on 'Write'.

**YOU HAVE NOW CHARGED THE USER CARD. PASS CARD TO USER & INSTRUCT USER TO INSERT IT INTO THEIR METER. RETAIN REFUND CARD IN OFFICE (MAKE SURE YOU MARK WITH USER ID)**

## 2.5 Refunding Customer

- 1) Customer return's User Card.
- 2) Issue Refund Card to customer, instructing them to insert it into the meter and return to the office.
- 3) Insert Refund Card into Card Reader go to IC Card and Click onto 'Refund Electricity'.
- 4) Click on 'Read' and card details will be displayed on the screen along with refund amount.
- 5) Click 'Write' and credit will be removed. You can now credit the customer the remaining balance plus the deposit from the User Card. Plus if they request a receipt, you can Click on Print.

**Remove Card and Click 'Back'**



## FAQ





# Smart Card Metering

## FAQ

### 1.1 Missing User/ refund Card?

*For lost cards and logging out customers.*

- 1) Go into 'IC Card', then click onto 'Supplement Card'.
  - 2) Select your preferred method of finding the user; Card Number, User Name, User ID or User Phone.
  - 3) Type in this information and click 'search'.
- A list of 1 or more users shall appear in the table above.*
- 4) Select the User you require.
  - 5) 'Insert a new card into the Card Reader.
  - 6) Click on either User Card or Refund Card button, depending on which one is required.
  - 7) User Card/ Refund Card will now be created.

Card Number	User Name	User ID	User Phone	Address	Type	Price
-------------	-----------	---------	------------	---------	------	-------

Search Card Information:

Search Information: User Name  Search

Card Number: **Card Number** User Name: **User Name**  
User Code: **User Code** User phone: **User phone**  
Price: **Price** GBP Type: **Type**  
Card Price: **0** GBP  
Address: **Address**

Print User Card Refund Card Back

### 1.2 Multiple Use User Card

*For testing meters.*

- 1) Go into 'Manage', then click onto 'Make Special Card'.
- 2) Select 'Set Number Card' —————→
- 3) Type in quantity of electricity and number of uses required. —————→
- 4) Insert a new card into the Card Reader.
- 5) Click 'Write Card'. —————→
- 6) *Set Number Card Has been Created*

Special card process

**SPECIAL CARD PROCESS**

☐ Clear Card ☒ Set Number Card

Quantity:  kWh  
Use:  time

Quantity: Use:

Write Card Read Set Number Card Back



# Smart Card Metering FAQ

## 1.3 Changing unit rate for existing customers?

*For changes in electricity unit rate per kWh. Not to be used when setting up new customers.*

- 1) Go into 'Manage', then into 'Set unit price of using type', click onto the type you want to change, then click 'modify' and add new rate e.g. 0.16, then click onto 'Confirm', then click back.
- 2) Insert existing customers 'User Card' into Card Reader.
- 3) Go into 'Account', then into 'Modify account', then click 'Read'.
- 4) Click 'Composition', then click onto the changed type, then click 'Confirm'.
- 5) Click 'Write'

- 6) Now you can follow the top up instructions.

Electrovalency maintenance

Electrovalency Type	Electrovalency Name	Electrovalency Price
k	kwh	0.16

Buttons: Add, Delete, Modify, Cancel, Confirm, Back

Input fields:  
Input electrovalency type:   
Input electrovalency name:   
Input electrovalency price: 0.00 GBP

Modify account

### MODIFY ACCOUNT

Card information

Card Number	000000000013	User Name	001
User ID	001	User phone	118
Price	0.16 GBP	Type	k
Card Price	0 GBP		
Address	HERE		
Create date	21/11/2013	Operator	admin
Balance	31.56 kWh		

Modify information

User Name	<input type="text" value="001"/>	User ID	<input type="text" value="001"/>
User Phone	<input type="text" value="118"/>		
Composition	0.16 GBP	Type	k
Address	<input type="text" value="HERE"/>		

Buttons: Write, Read, Back

